LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 29

2021

Bate Stamp Numbers
01059144 – 01061103

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2021

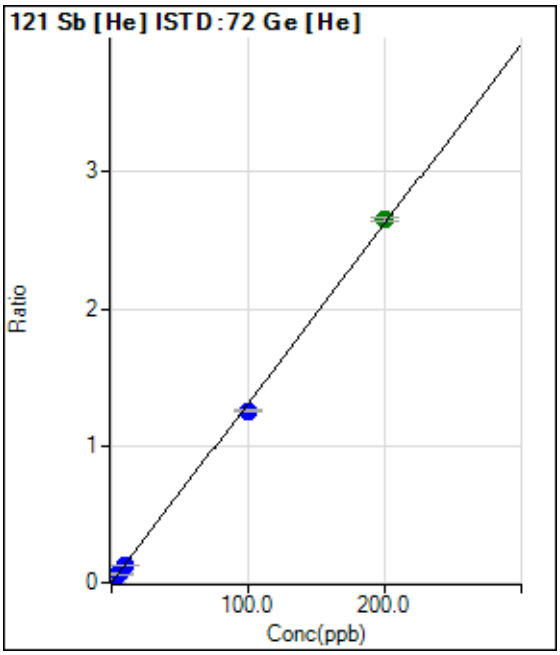
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX

VOLUME 29

2021

A. Title: (Cont.) Report – Appendix F Level IV Labs to Quarterly Evaluation Report, 2nd Quarter (April–June) 2021, Groundwater Treatment Plant, Longhorn Army Ammunition Plant, Karnack, Texas, September 2021
Author(s): Bhate Environmental Associates, Inc.
Recipient: U.S. Army Corps of Engineers
Date: September 21, 2021
Bate Stamp: 01059144 – 01061103

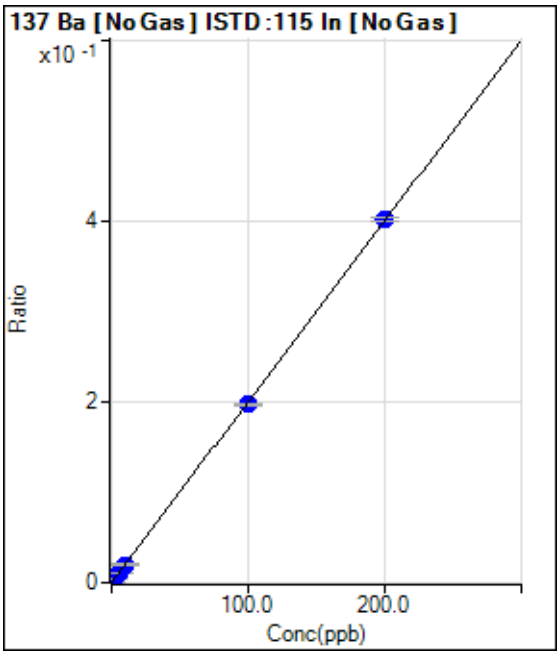
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.69	0.0013	P	9.5
2	☐	2.000	1.843	12332.62	0.0255	P	2.7
3	☐	5.000	4.766	30549.23	0.0637	P	2.6
4	☐	10.000	9.839	62066.47	0.1302	P	1.0
5	☐	100.000	95.590	578590.36	1.2530	P	1.4
6	☐	200.000	202.221	1187992.59	2.6492	A	1.1

y = 0.0131 * x + 0.0013
R = 0.9997
DL = 0.0289
BEC = 0.1013

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.67	0.0001	P	30.5
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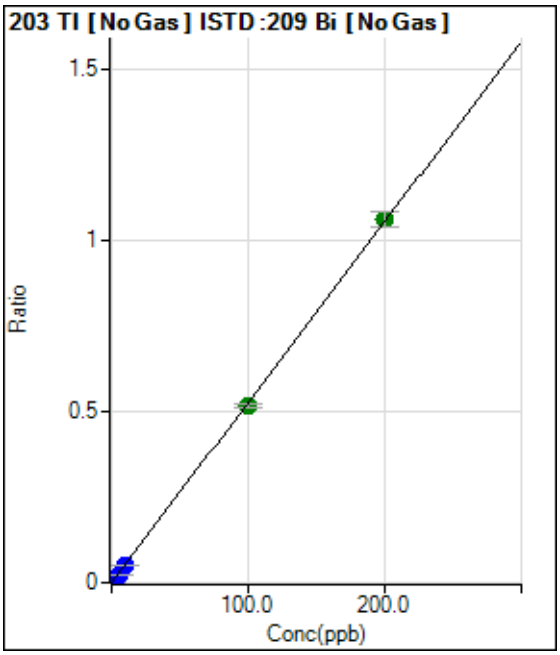
3	☐	5.000	5.025	23768.66	0.0101	P	2.6
4	☐	10.000	10.004	47527.19	0.0201	P	3.3
5	☐	100.000	98.608	449515.50	0.1975	P	1.4
6	☐	200.000	200.694	886182.07	0.4019	P	1.1

y = 0.0020 * x + 7.9707E-005
R = 1.0000
DL = 0.03642
BEC = 0.03981

Weight: <None>
Min Conc: <None>

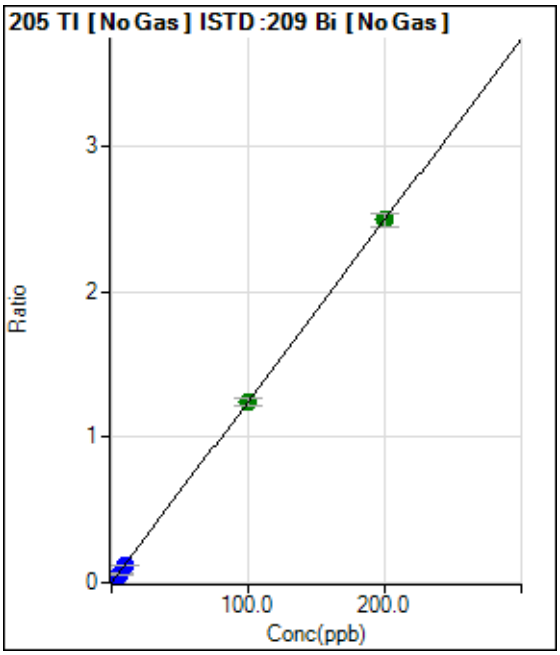
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	246.68	0.0001	P	4.9
2	☐	2.000	1.767	29962.99	0.0094	P	3.8
3	☐	5.000	4.574	75376.78	0.0241	P	3.0
4	☐	10.000	9.500	157719.96	0.0501	P	2.4
5	☐	100.000	97.863	1567436.23	0.5150	A	2.9
6	☐	200.000	201.107	3106562.03	1.0583	A	4.1

y = 0.0053 * x + 7.8257E-005
R = 0.9999
DL = 0.002168
BEC = 0.01487

Weight: <None>
Min Conc: <None>



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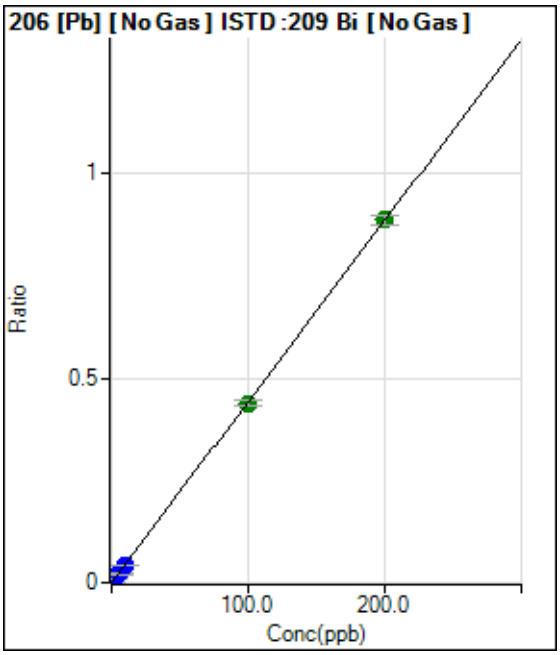
1	☐	0.000	0.000	703.37	0.0002	P	5.8
2	☐	2.000	1.798	72231.68	0.0226	P	4.2
3	☐	5.000	4.750	185304.24	0.0594	P	3.5
4	☐	10.000	9.647	379088.94	0.1203	P	2.0
5	☐	100.000	99.760	3779170.67	1.2423	A	3.9
6	☐	200.000	200.146	7316564.68	2.4922	A	3.7

y = 0.0125 * x + 2.2317E-004
R = 1.0000
DL = 0.003102
BEC = 0.01792

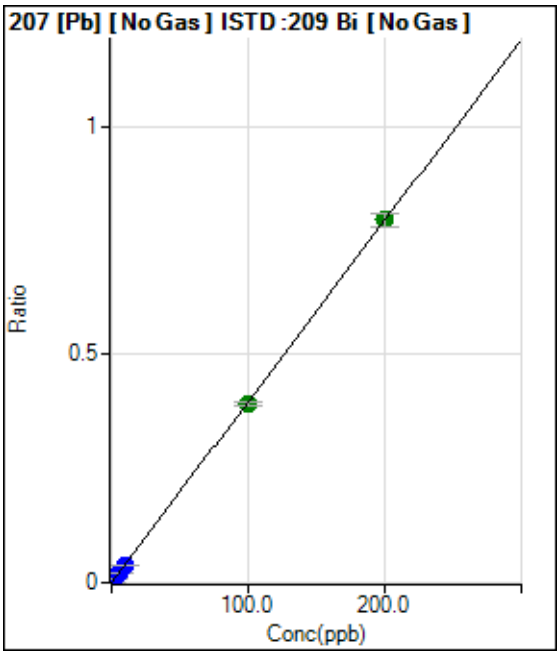
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	35.6
2	☐	2.000	1.915	27226.80	0.0085	P	4.6
3	☐	5.000	4.849	67120.07	0.0215	P	3.9
4	☐	10.000	9.809	136878.00	0.0434	P	1.5
5	☐	100.000	99.170	1335094.88	0.4388	A	2.8
6	☐	200.000	200.429	2603963.50	0.8868	A	2.4

y = 0.0044 * x + 5.1958E-005
R = 1.0000
DL = 0.01253
BEC = 0.01174

Weight: <None>
Min Conc: <None>

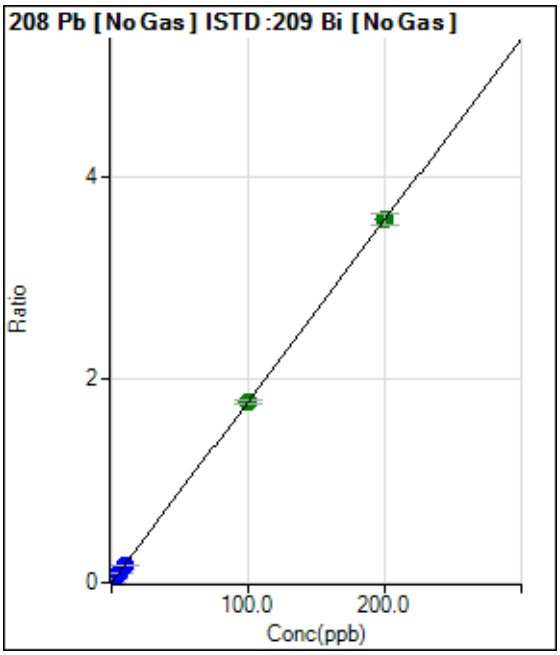


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0001	P	30.0
2	☐	2.000	1.945	24801.65	0.0078	P	3.8
3	☐	5.000	4.935	61233.68	0.0196	P	1.3
4	☐	10.000	9.827	122881.13	0.0390	P	1.1
5	☐	100.000	98.973	1193744.72	0.3923	A	2.6
6	☐	200.000	200.524	2333480.28	0.7948	A	3.5

y = 0.0040 * x + 5.2871E-005
R = 1.0000
DL = 0.01201
BEC = 0.01334

Weight: <None>
Min Conc: <None>

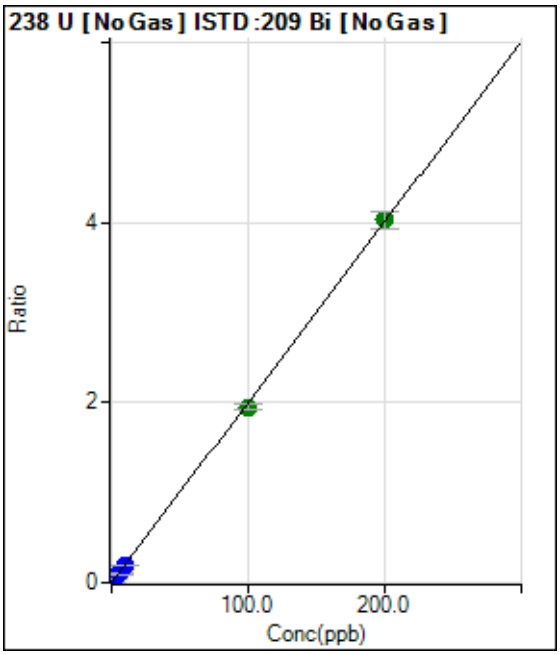
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.68	0.0002	P	26.2
2	☐	2.000	1.957	112217.07	0.0351	P	3.2
3	☐	5.000	4.885	272557.90	0.0873	P	3.1
4	☐	10.000	9.854	554277.41	0.1759	P	1.9
5	☐	100.000	99.757	5414270.91	1.7793	A	2.2
6	☐	200.000	200.132	10479531.41	3.5693	A	3.3

y = 0.0178 * x + 2.0490E-004
R = 1.0000
DL = 0.009035
BEC = 0.01149

Weight: <None>
Min Conc: <None>



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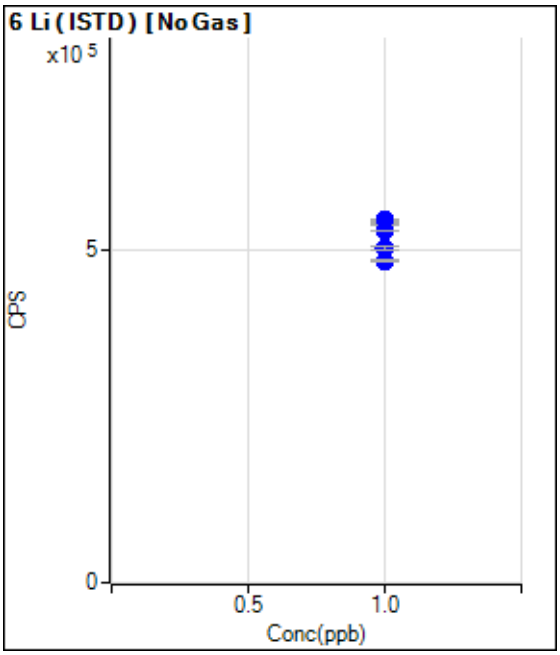
1	☐	0.000	0.000	156.67	0.0000	P	25.3
2	☐	2.000	1.871	119781.72	0.0375	P	5.1
3	☐	5.000	4.799	299897.12	0.0961	P	3.1
4	☐	10.000	9.704	611934.97	0.1942	P	2.2
5	☐	100.000	97.538	5938867.20	1.9519	A	3.0
6	☐	200.000	201.252	11821676.49	4.0273	A	4.5

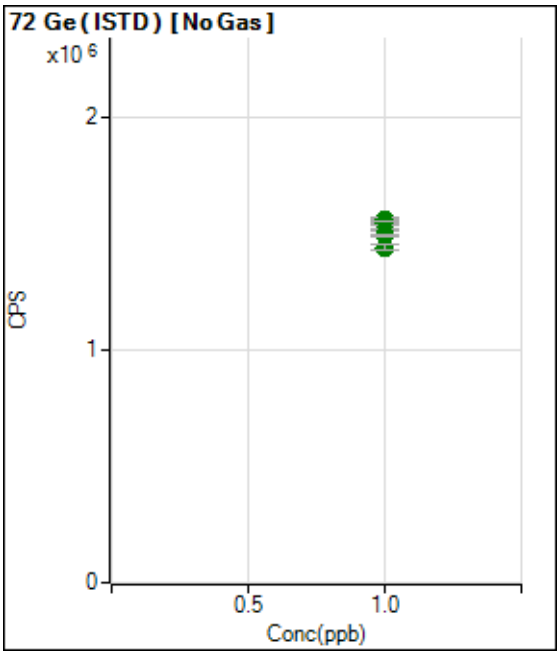
y = 0.0200 * x + 4.9609E-005
R = 0.9999
DL = 0.001885
BEC = 0.002479

Weight: <None>
Min Conc: <None>

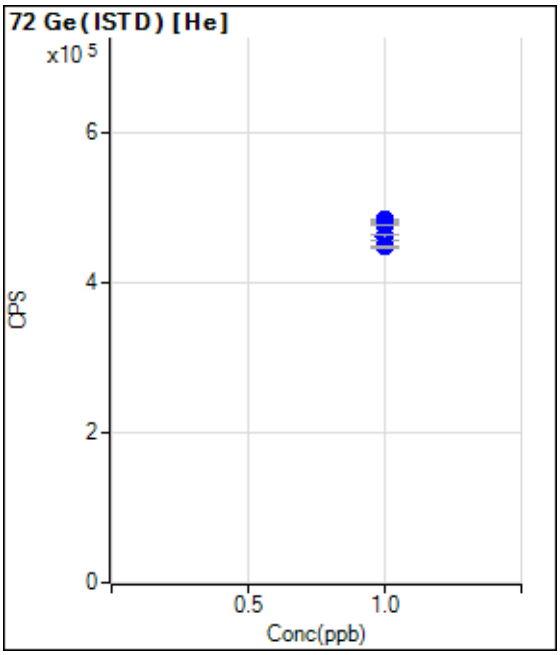
Calibration for 230_ICV.d



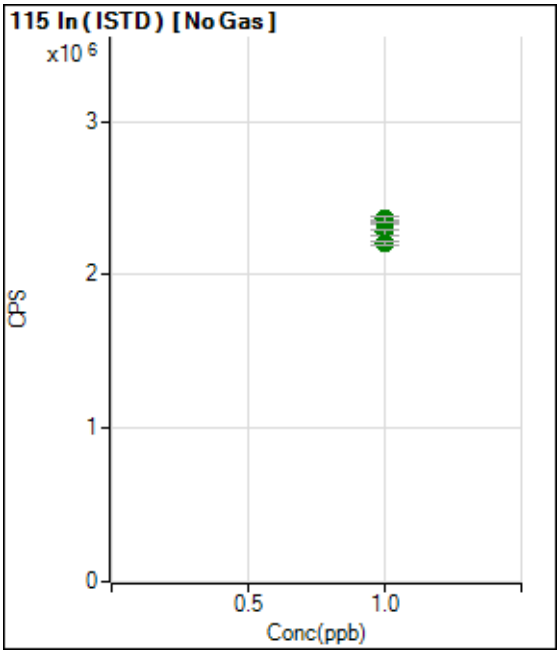
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		545261.03		P	0.2
2	☐	1.000		541689.66		P	0.6
3	☐	1.000		537055.87		P	0.2
4	☐	1.000		528820.60		P	0.4
5	☐	1.000		503934.74		P	1.3
6	☐	1.000		484057.37		P	0.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1554275.24		A	1.2
2	☐	1.000		1562257.53		A	1.1
3	☐	1.000		1550646.43		A	1.0
4	☐	1.000		1518864.56		A	0.5
5	☐	1.000		1495107.01		A	0.5
6	☐	1.000		1443928.42		A	1.9

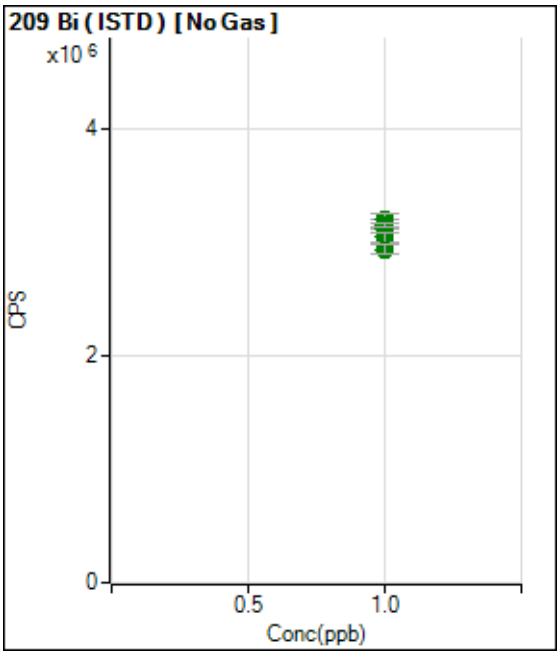


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		479992.04		P	0.2
2	☐	1.000		484370.18		P	0.6
3	☐	1.000		479348.57		P	0.8
4	☐	1.000		476877.69		P	0.1
5	☐	1.000		461855.38		P	1.8
6	☐	1.000		448464.19		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2346070.18		A	1.3
2	☐	1.000		2350522.98		A	0.9
3	☐	1.000		2344300.03		A	0.4
4	☐	1.000		2364390.72		A	1.6
5	☐	1.000		2276244.03		A	1.3
6	☐	1.000		2205185.25		A	0.9

Calibration for 230_ICV.d



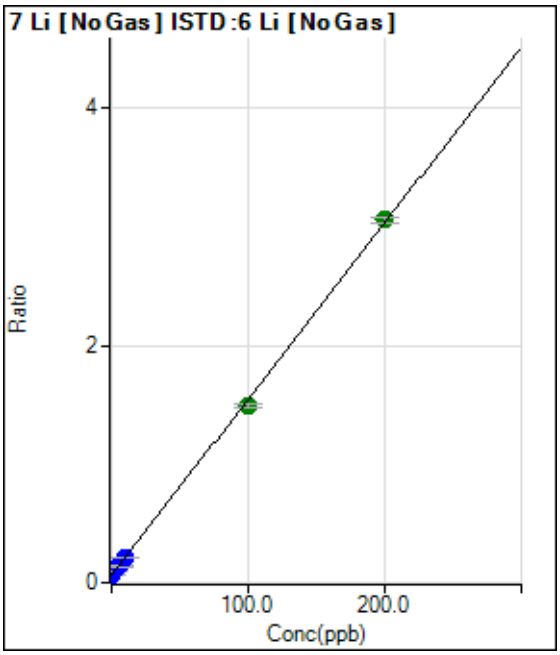
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3154822.76		A	2.7
2	☐	1.000		3198583.39		A	3.8
3	☐	1.000		3123156.83		A	2.7
4	☐	1.000		3150943.29		A	1.4
5	☐	1.000		3044296.31		A	2.9
6	☐	1.000		2937921.00		A	3.0

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052521A.b\
Analysis File: 052521A.batch.bin
DA Date-Time: 5/25/2021 11:03:55 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	009CALB.d	CAL BLK	5/25/2021 11:05:52 AM
2	010CALS.d	2/10/200	5/25/2021 11:07:51 AM
3	011CALS.d	5/25/500	5/25/2021 11:09:50 AM
4	012CALS.d	10/50/100	5/25/2021 11:11:49 AM
5	013CALS.d	100/500/10K	5/25/2021 11:13:48 AM
6	014CALS.d	200/1000/20K	5/25/2021 11:15:42 AM

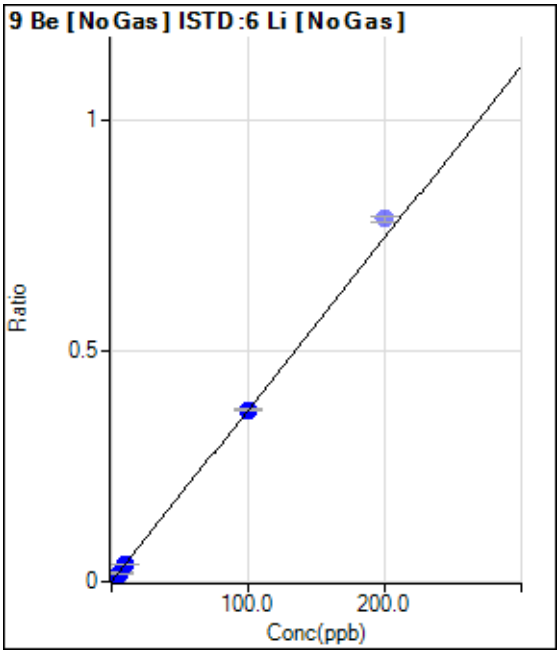
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44291.08	0.0638	P	1.6
2	☐	2.000	1.877	63329.58	0.0917	P	3.3
3	☐	5.000	4.997	93776.07	0.1380	P	1.4
4	☐	10.000	9.941	144302.61	0.2114	P	1.3
5	☐	100.000	96.260	1006665.27	1.4927	A	3.1
6	☐	200.000	201.874	1909060.34	3.0604	A	1.6

y = 0.0148 * x + 0.0638
R = 0.9998
DL = 0.2071
BEC = 4.298

Weight: <None>
Min Conc: <None>



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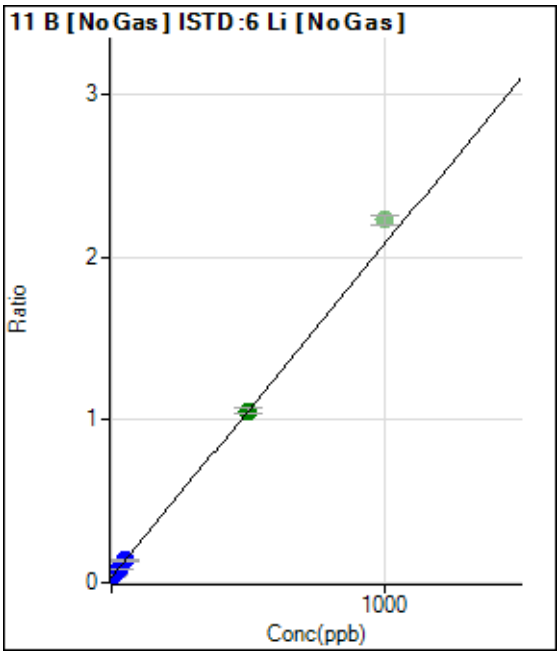
1	☐	0.000	0.000	86.67	0.0001	P	42.3
2	☐	2.000	1.983	5187.66	0.0075	P	0.9
3	☐	5.000	4.996	12720.83	0.0187	P	0.8
4	☐	10.000	10.094	25728.57	0.0377	P	0.9
5	☐	100.000	99.991	250958.69	0.3722	P	1.4
6	☑	200.000		490111.28	0.7857	P	1.6

y = 0.0037 * x + 1.2532E-004
R = 1.0000
DL = 0.04272
BEC = 0.03368

Weight: <None>
Min Conc: <None>

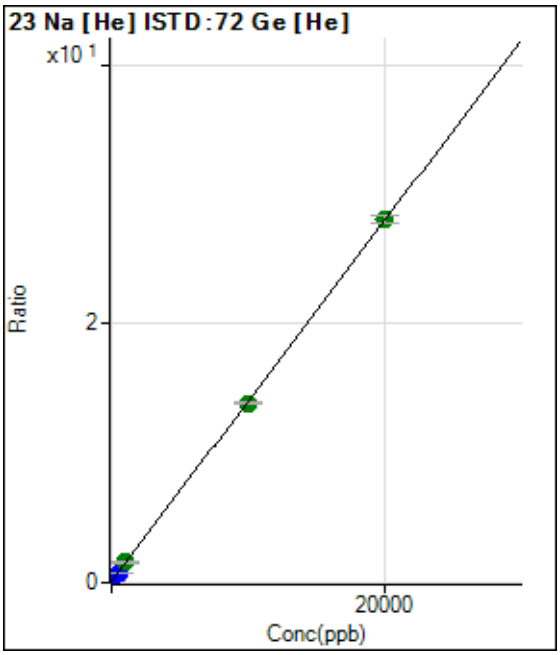
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23130.78	0.0333	P	1.7
2	☐	10.000	9.277	36145.03	0.0523	P	2.5
3	☐	25.000	23.825	55780.12	0.0821	P	1.2
4	☐	50.000	50.423	93198.26	0.1365	P	1.4
5	☐	500.000	500.031	712433.64	1.0566	A	3.1
6	☑	1000.000		1391075.24	2.2302	A	2.6

y = 0.0020 * x + 0.0333
R = 1.0000
DL = 0.8546
BEC = 16.28

Weight: <None>
Min Conc: <None>

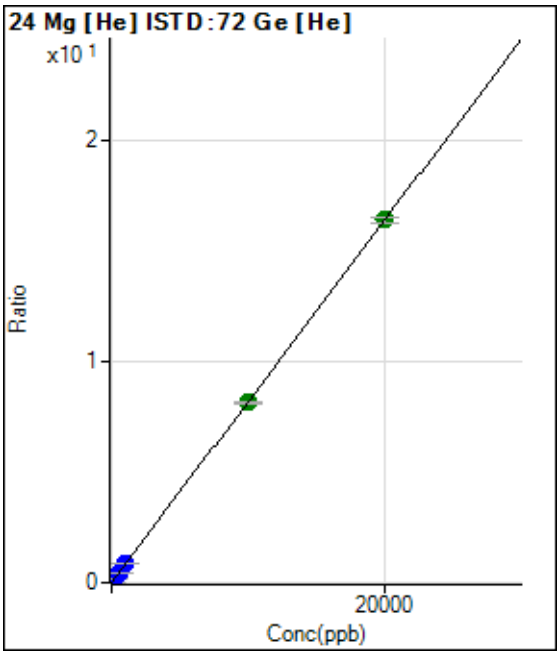


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62040.99	0.0975	P	1.6
2	☐	200.000	204.477	242587.48	0.3823	P	0.7
3	☐	500.000	508.801	515386.31	0.8063	P	0.6
4	☐	1000.000	1052.180	993896.11	1.5632	A	1.1
5	☐	10000.00	9893.148	8710529.66	13.8789	A	0.4
6	☐	20000.00	20050.55	16867263.50	28.0285	A	2.0

y = 0.0014 * x + 0.0975
R = 1.0000
DL = 3.455
BEC = 69.98

Weight: <None>
Min Conc: <None>

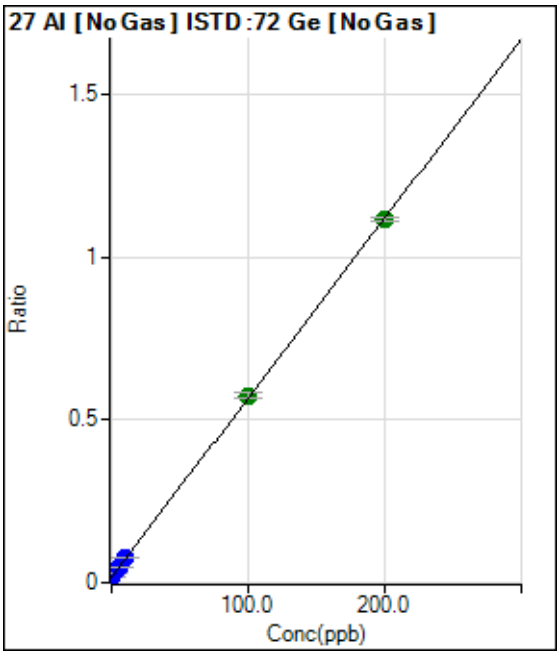
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	873.38	0.0014	P	11.8
2	☐	200.000	208.629	109084.05	0.1719	P	2.0
3	☐	500.000	521.945	273655.72	0.4281	P	0.6
4	☐	1000.000	1056.064	549833.56	0.8648	P	0.1
5	☐	10000.00	9928.817	5095516.90	8.1189	A	0.4
6	☐	20000.00	20032.15	9856633.81	16.3792	A	1.9

y = 8.1758E-004 * x + 0.0014
R = 1.0000
DL = 0.5944
BEC = 1.678

Weight: <None>
Min Conc: <None>

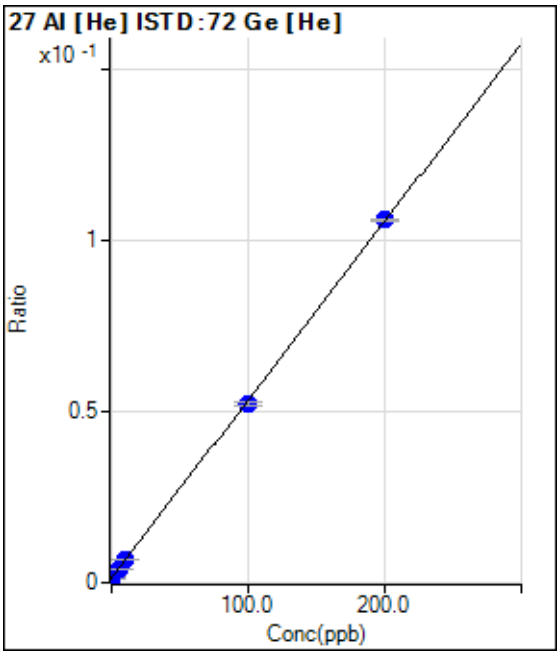


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32328.63	0.0165	P	1.9
2	☐	2.000	2.741	62386.46	0.0316	P	2.5
3	☐	5.000	5.455	91989.30	0.0466	P	2.0
4	☐	10.000	11.062	152771.30	0.0775	P	2.2
5	☐	100.000	101.345	1123335.79	0.5752	A	2.8
6	☐	200.000	199.255	2126773.20	1.1151	A	0.9

y = 0.0055 * x + 0.0165
R = 1.0000
DL = 0.1705
BEC = 2.989

Weight: <None>
Min Conc: <None>

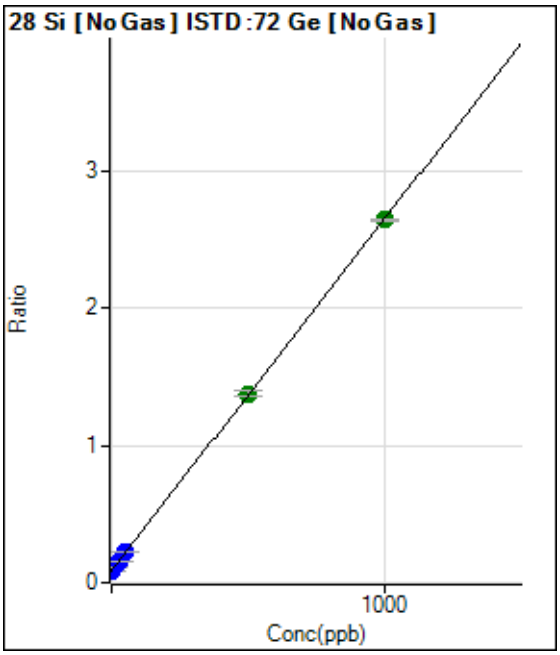
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	860.05	0.0014	P	19.5
2	☐	2.000	2.549	1700.15	0.0027	P	10.2
3	☐	5.000	4.983	2523.61	0.0039	P	5.3
4	☐	10.000	10.359	4290.72	0.0067	P	2.4
5	☐	100.000	97.885	32849.02	0.0523	P	2.6
6	☐	200.000	201.034	63836.20	0.1061	P	0.7

y = 5.2093E-004 * x + 0.0014
R = 0.9999
DL = 1.517
BEC = 2.596

Weight: <None>
Min Conc: <None>

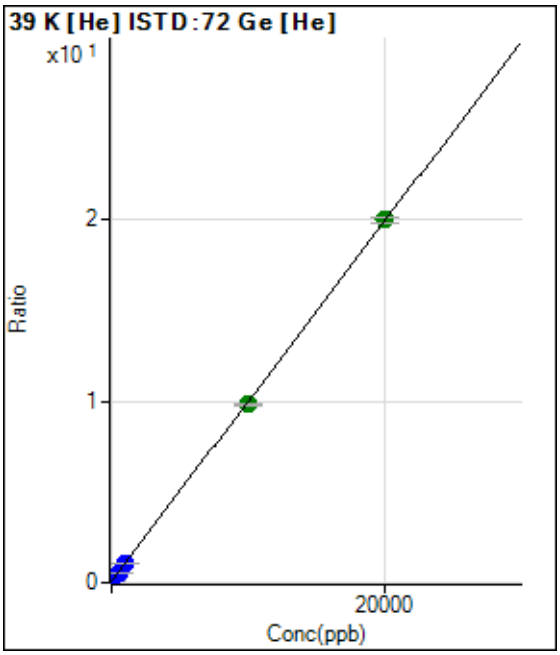


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	170555.75	0.0869	P	0.8
2	☐	10.000	10.665	225703.21	0.1143	P	1.5
3	☐	25.000	25.557	301324.68	0.1525	P	1.3
4	☐	50.000	53.040	439668.99	0.2230	P	1.7
5	☐	500.000	504.503	2696359.54	1.3807	A	3.2
6	☐	1000.000	997.576	5044549.20	2.6451	A	0.8

y = 0.0026 * x + 0.0869
R = 1.0000
DL = 0.8117
BEC = 33.9

Weight: <None>
Min Conc: <None>

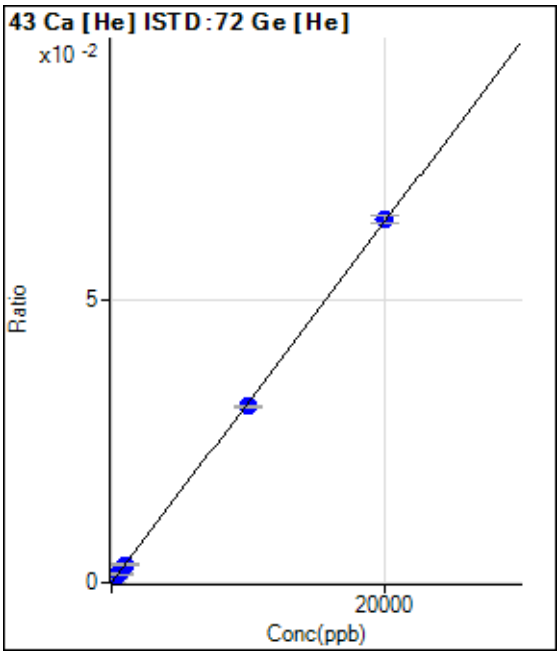
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50967.67	0.0801	P	2.0
2	☐	200.000	198.746	175736.16	0.2770	P	1.3
3	☐	500.000	496.607	365706.35	0.5721	P	0.7
4	☐	1000.000	1017.875	692110.69	1.0885	P	0.6
5	☐	10000.00	9816.151	6153698.66	9.8053	A	1.7
6	☐	20000.00	20091.12	12026507.74	19.9851	A	1.7

y = 9.9074E-004 * x + 0.0801
R = 0.9999
DL = 4.946
BEC = 80.84

Weight: <None>
Min Conc: <None>

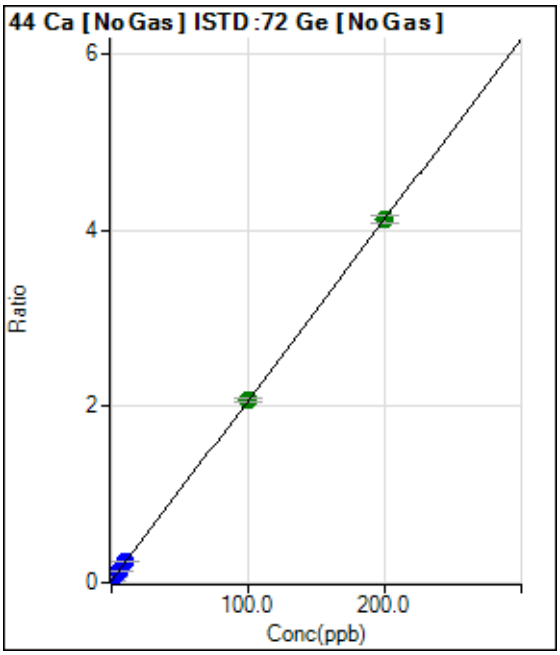


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.8
2	☐	200.000	218.468	456.68	0.0007	P	11.2
3	☐	500.000	494.390	1023.39	0.0016	P	9.7
4	☐	1000.000	959.408	1963.52	0.0031	P	11.5
5	☐	10000.00	9759.614	19590.81	0.0312	P	1.5
6	☐	20000.00	20122.17	38717.93	0.0643	P	2.1

y = 3.1963E-006 * x + 2.0980E-005
R = 0.9999
DL = 8.634
BEC = 6.564

Weight: <None>
Min Conc: <None>

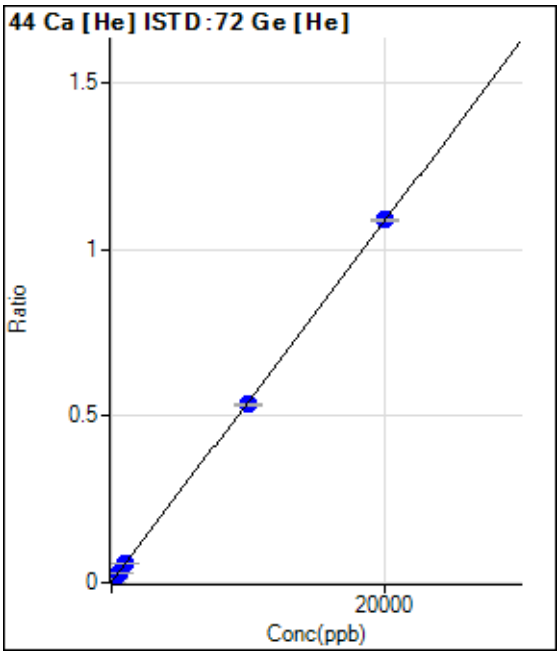
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41880.90	0.0213	P	2.8
2	☐	2.000	2.045	124973.18	0.0633	P	2.0
3	☐	5.000	5.055	246985.32	0.1250	P	1.5
4	☐	10.000	10.362	461073.80	0.2338	P	1.1
5	☐	100.000	100.147	4051912.02	2.0747	A	2.3
6	☐	200.000	199.906	7856256.34	4.1201	A	2.2

y = 0.0205 * x + 0.0213
R = 1.0000
DL = 0.08744
BEC = 1.041

Weight: <None>
Min Conc: <None>

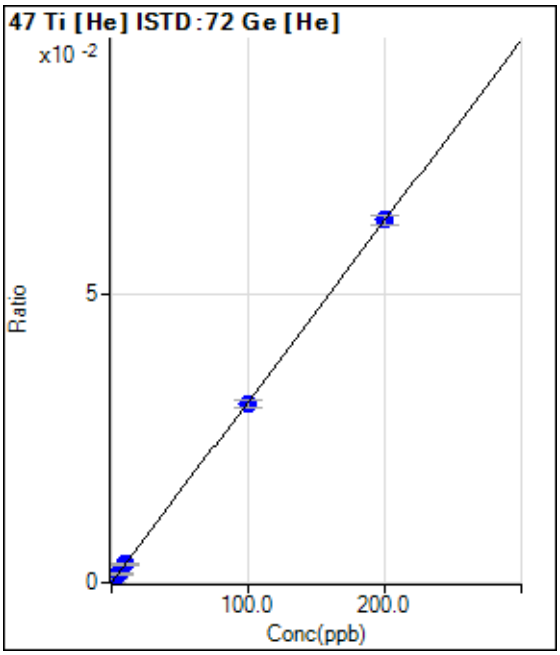


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	606.69	0.0010	P	11.5
2	☐	200.000	196.789	7365.42	0.0116	P	3.8
3	☐	500.000	487.975	17498.01	0.0274	P	1.3
4	☐	1000.000	1020.737	35743.30	0.0562	P	0.4
5	☐	10000.00	9854.247	335439.34	0.5345	P	0.7
6	☐	20000.00	20072.17	654544.76	1.0877	P	0.9

y = 5.4140E-005 * x + 9.5366E-004
R = 1.0000
DL = 6.079
BEC = 17.61

Weight: <None>
Min Conc: <None>

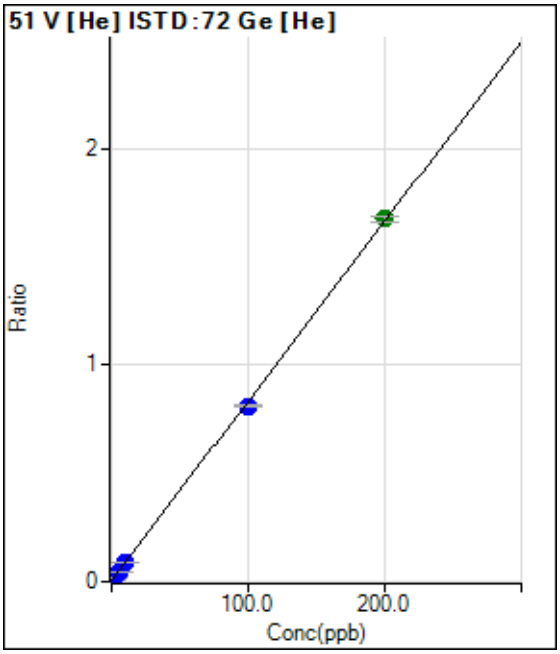
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	173.2
2	☐	2.000	2.167	440.01	0.0007	P	5.7
3	☐	5.000	4.918	993.39	0.0016	P	10.1
4	☐	10.000	10.174	2033.52	0.0032	P	8.6
5	☐	100.000	98.860	19414.01	0.0309	P	3.3
6	☐	200.000	200.561	37755.58	0.0627	P	2.6

y = 3.1271E-004 * x + 1.5801E-005
R = 1.0000
DL = 0.2626
BEC = 0.05053

Weight: <None>
Min Conc: <None>

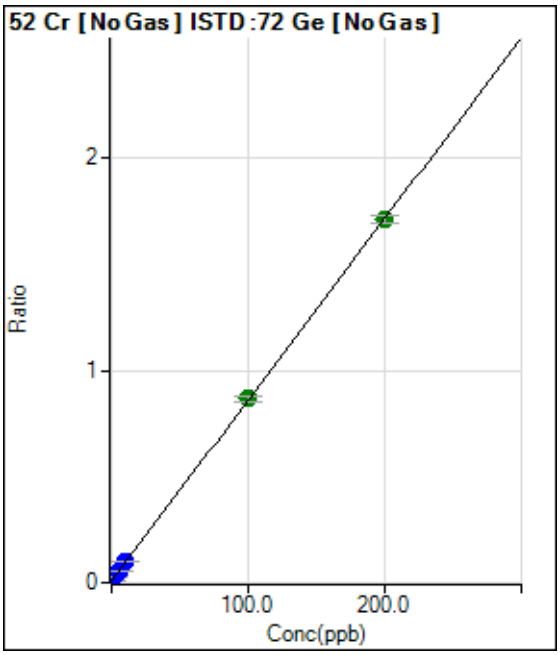


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3140.38	0.0049	P	2.6
2	☐	2.000	1.977	13530.05	0.0213	P	0.5
3	☐	5.000	4.956	29421.51	0.0460	P	1.1
4	☐	10.000	9.948	55578.70	0.0874	P	0.2
5	☐	100.000	97.008	507873.40	0.8092	P	1.1
6	☐	200.000	201.500	1008334.41	1.6756	A	1.5

y = 0.0083 * x + 0.0049
R = 0.9998
DL = 0.04646
BEC = 0.5951

Weight: <None>
Min Conc: <None>

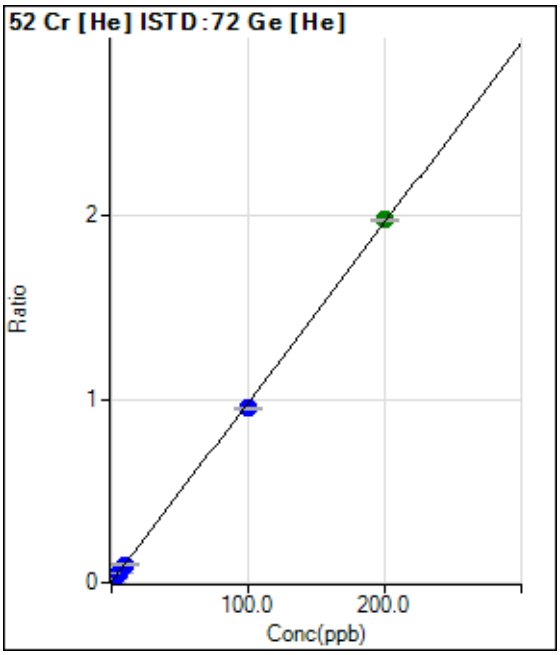
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15058.54	0.0077	P	1.9
2	☐	2.000	2.030	49389.31	0.0250	P	1.9
3	☐	5.000	5.083	100943.32	0.0511	P	2.0
4	☐	10.000	10.417	190511.55	0.0966	P	2.1
5	☐	100.000	100.966	1698444.25	0.8697	A	3.1
6	☐	200.000	199.494	3263207.97	1.7110	A	2.1

y = 0.0085 * x + 0.0077
R = 1.0000
DL = 0.05139
BEC = 0.899

Weight: <None>
Min Conc: <None>

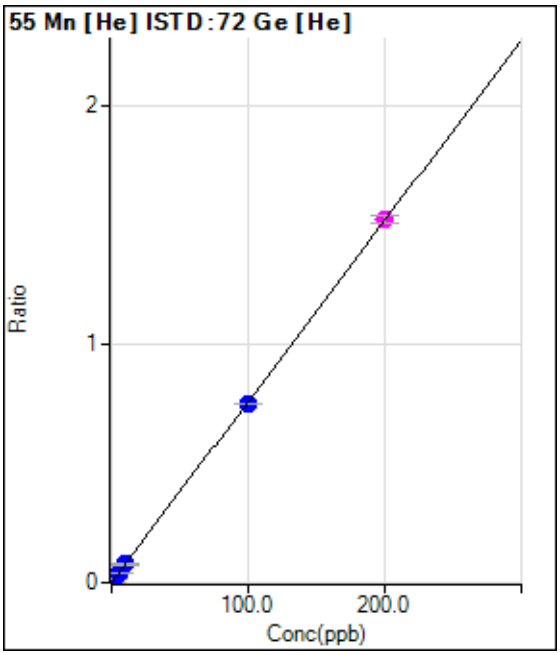


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1413.43	0.0022	P	5.9
2	☐	2.000	1.934	13416.76	0.0211	P	2.0
3	☐	5.000	4.945	32361.92	0.0506	P	3.2
4	☐	10.000	9.895	62994.85	0.0991	P	1.9
5	☐	100.000	96.735	595681.45	0.9491	P	0.5
6	☐	200.000	201.640	1189155.32	1.9760	A	0.8

y = 0.0098 * x + 0.0022
R = 0.9998
DL = 0.03985
BEC = 0.2269

Weight: <None>
Min Conc: <None>

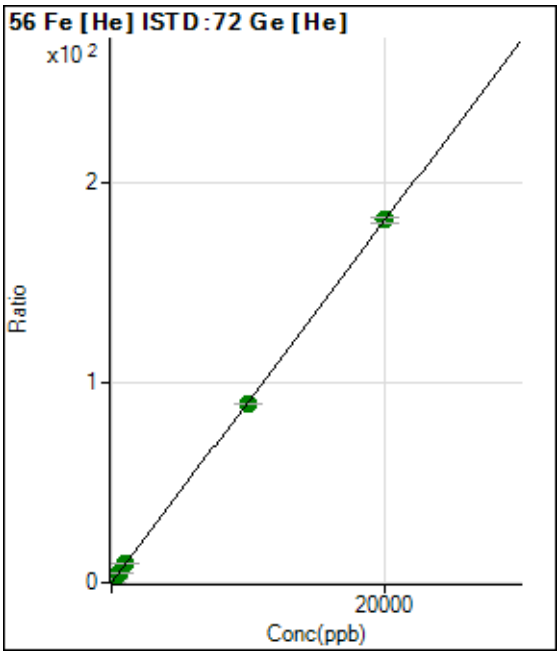
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	570.02	0.0009	P	3.0
2	☐	2.000	1.996	10163.95	0.0160	P	1.5
3	☐	5.000	4.907	24338.66	0.0381	P	1.3
4	☐	10.000	10.016	48820.82	0.0768	P	1.1
5	☐	100.000	98.752	470156.41	0.7491	P	0.8
6	☐	200.000	200.626	915336.84	1.5210	M	2.1

y = 0.0076 * x + 8.9567E-004
R = 1.0000
DL = 0.01057
BEC = 0.1182

Weight: <None>
Min Conc: <None>

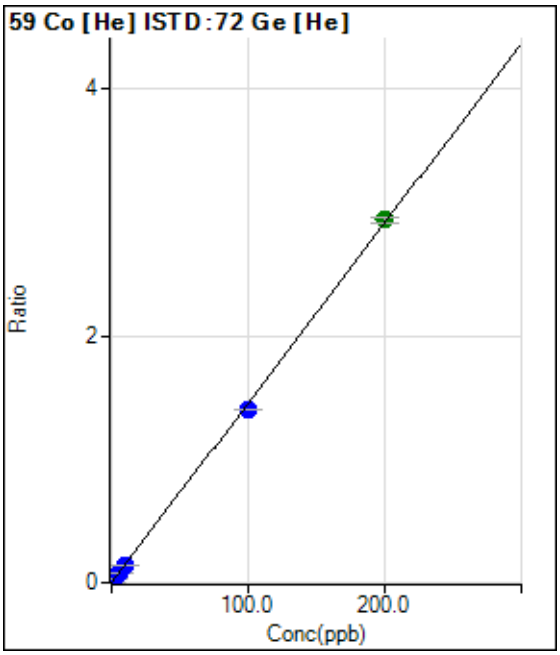


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8766.30	0.0138	P	4.0
2	☐	200.000	206.029	1192979.49	1.8802	A	1.5
3	☐	500.000	510.119	2962927.56	4.6351	A	0.6
4	☐	1000.000	1026.690	5922433.04	9.3148	A	0.4
5	☐	10000.00	9871.248	56132967.50	89.4399	A	0.6
6	☐	20000.00	20062.72	109386898.3	181.767	A	1.4

y = 0.0091 * x + 0.0138
R = 1.0000
DL = 0.1809
BEC = 1.52

Weight: <None>
Min Conc: <None>

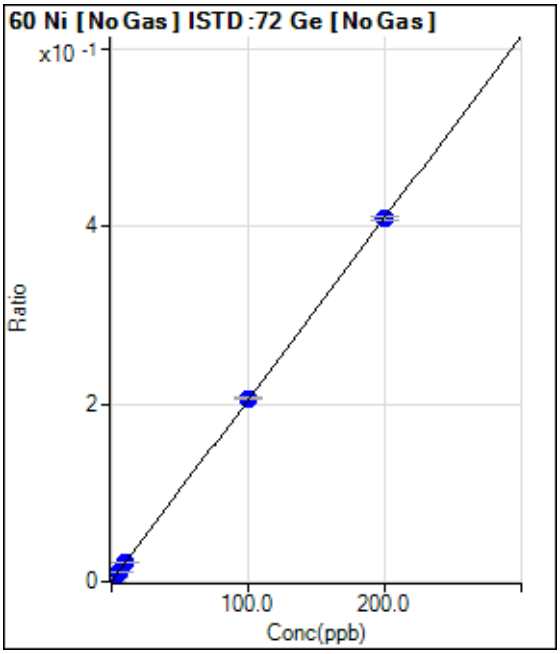
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0003	P	13.4
2	☐	2.000	1.979	18459.41	0.0291	P	2.2
3	☐	5.000	4.880	45579.70	0.0713	P	1.5
4	☐	10.000	9.948	92244.02	0.1451	P	0.5
5	☐	100.000	96.200	878988.55	1.4006	P	0.7
6	☐	200.000	201.906	1768810.96	2.9392	A	1.5

y = 0.0146 * x + 2.7769E-004
R = 0.9997
DL = 0.007687
BEC = 0.01908

Weight: <None>
Min Conc: <None>

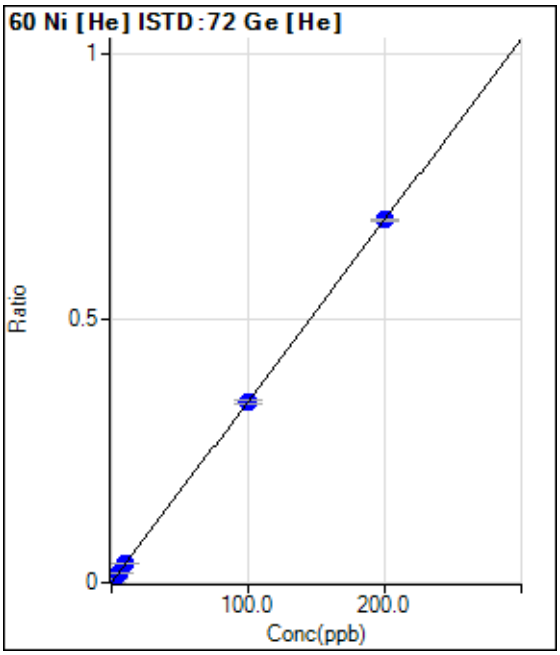


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	610.03	0.0003	P	15.9
2	☐	2.000	2.055	8913.05	0.0045	P	2.5
3	☐	5.000	5.159	21460.56	0.0109	P	0.7
4	☐	10.000	10.704	43757.39	0.0222	P	3.2
5	☐	100.000	100.871	403362.18	0.2065	P	1.9
6	☐	200.000	199.525	778466.11	0.4082	P	1.2

y = 0.0020 * x + 3.1108E-004
R = 1.0000
DL = 0.0727
BEC = 0.1522

Weight: <None>
Min Conc: <None>

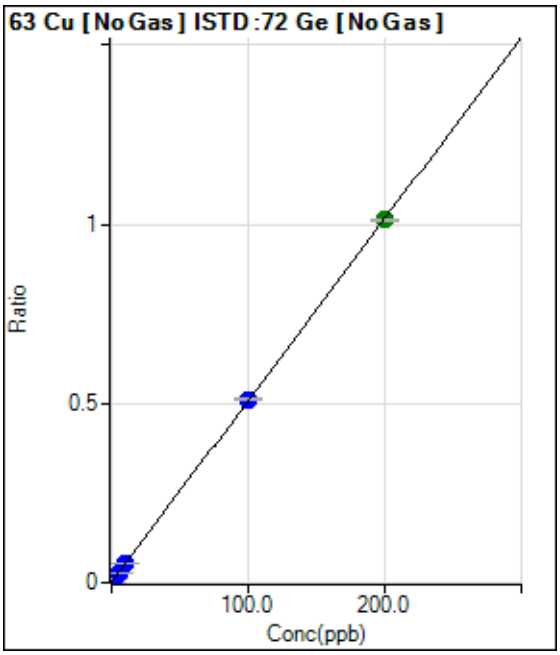
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0004	P	22.6
2	☐	2.000	2.004	4634.20	0.0073	P	8.4
3	☐	5.000	5.051	11351.60	0.0178	P	4.9
4	☐	10.000	10.558	23303.59	0.0367	P	0.6
5	☐	100.000	99.681	214917.73	0.3424	P	1.5
6	☐	200.000	200.130	413497.48	0.6871	P	0.5

y = 0.0034 * x + 4.2448E-004
R = 1.0000
DL = 0.08388
BEC = 0.1237

Weight: <None>
Min Conc: <None>

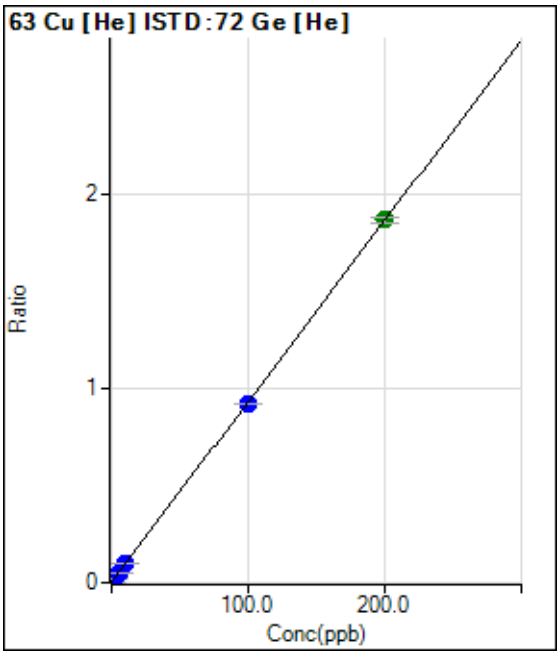


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2603.64	0.0013	P	1.6
2	☐	2.000	2.127	23907.94	0.0121	P	2.5
3	☐	5.000	5.272	55422.78	0.0280	P	0.7
4	☐	10.000	10.719	109719.30	0.0556	P	2.2
5	☐	100.000	100.822	1000436.24	0.5122	P	1.6
6	☐	200.000	199.545	1931004.35	1.0125	A	0.3

y = 0.0051 * x + 0.0013
R = 1.0000
DL = 0.01228
BEC = 0.2619

Weight: <None>
Min Conc: <None>

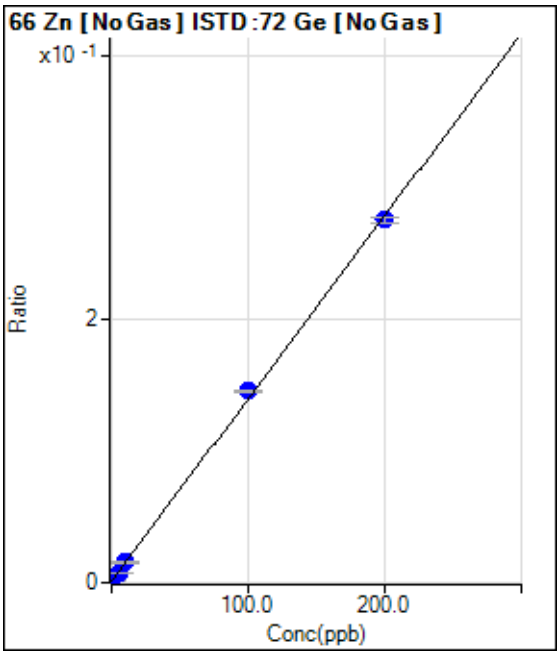
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1450.10	0.0023	P	4.0
2	☐	2.000	2.049	13553.64	0.0214	P	3.2
3	☐	5.000	5.047	31506.80	0.0493	P	1.2
4	☐	10.000	10.258	62195.43	0.0978	P	1.5
5	☐	100.000	98.823	579074.98	0.9227	P	0.8
6	☐	200.000	200.574	1125543.68	1.8703	A	1.6

y = 0.0093 * x + 0.0023
R = 1.0000
DL = 0.0292
BEC = 0.2447

Weight: <None>
Min Conc: <None>

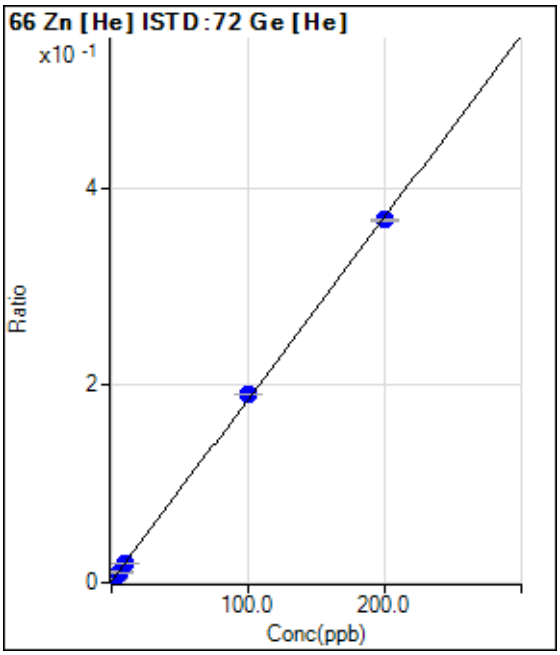


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2130.21	0.0011	P	6.4
2	☐	2.000	1.921	7408.80	0.0038	P	3.9
3	☐	5.000	4.818	15358.89	0.0078	P	1.1
4	☐	10.000	10.322	30377.73	0.0154	P	4.5
5	☐	100.000	104.106	284284.96	0.1455	P	0.6
6	☐	200.000	197.936	525758.30	0.2757	P	1.6

y = 0.0014 * x + 0.0011
R = 0.9997
DL = 0.1505
BEC = 0.7826

Weight: <None>
Min Conc: <None>

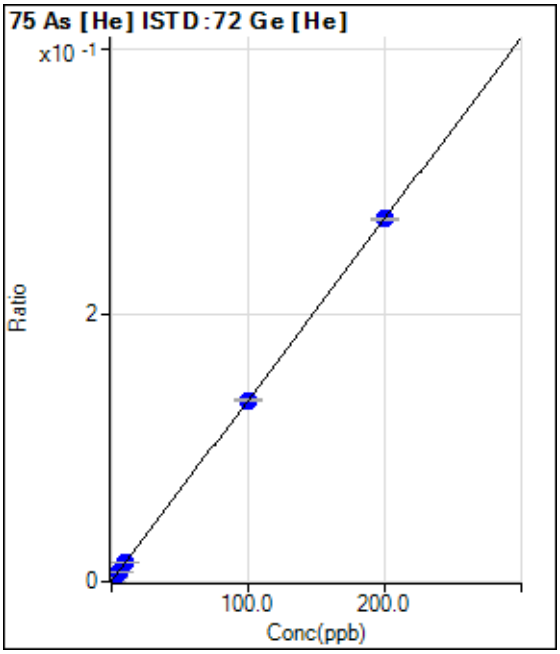
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	906.71	0.0014	P	8.6
2	☐	2.000	1.789	2997.03	0.0047	P	4.6
3	☐	5.000	5.026	6831.85	0.0107	P	6.1
4	☐	10.000	10.132	12779.52	0.0201	P	1.2
5	☐	100.000	102.826	119846.06	0.1910	P	0.6
6	☐	200.000	198.582	221131.58	0.3675	P	0.5

y = 0.0018 * x + 0.0014
R = 0.9999
DL = 0.2002
BEC = 0.7729

Weight: <None>
Min Conc: <None>

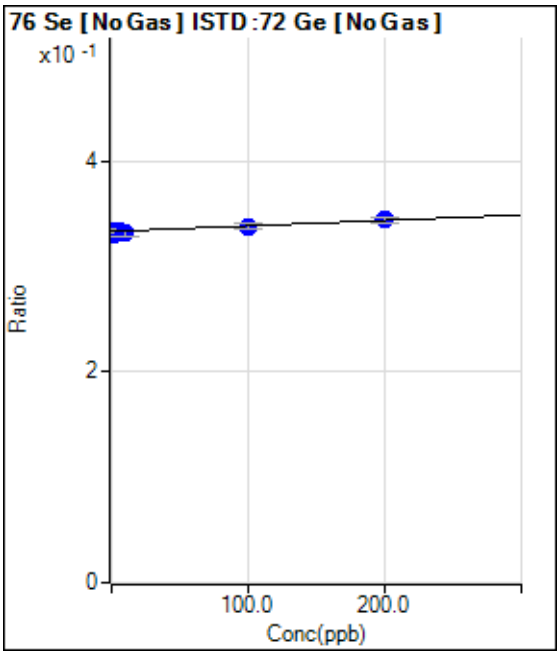


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	201.11	0.0003	P	17.3
2	☐	2.000	2.023	1944.59	0.0031	P	5.4
3	☐	5.000	4.940	4492.99	0.0070	P	0.4
4	☐	10.000	10.239	9047.52	0.0142	P	2.0
5	☐	100.000	99.955	85447.26	0.1362	P	1.4
6	☐	200.000	200.012	163762.24	0.2721	P	0.9

y = 0.0014 * x + 3.1583E-004
R = 1.0000
DL = 0.1205
BEC = 0.2324

Weight: <None>
Min Conc: <None>

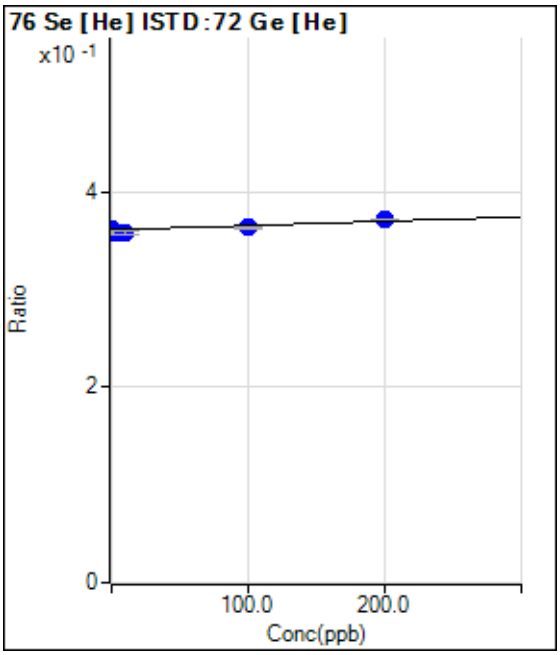
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	654261.11	0.3335	P	1.0
2	☐	2.000	-65.334	651885.72	0.3301	P	1.3
3	☐	5.000	-0.340	659082.26	0.3335	P	1.3
4	☐	10.000	-38.958	653645.73	0.3315	P	1.9
5	☐	100.000	91.192	660767.93	0.3383	P	1.3
6	☐	200.000	207.659	656754.91	0.3444	P	1.3

y = 5.2321E-005 * x + 0.3335
R = 0.9668
DL = 184.8
BEC = 6375

Weight: <None>
Min Conc: <None>

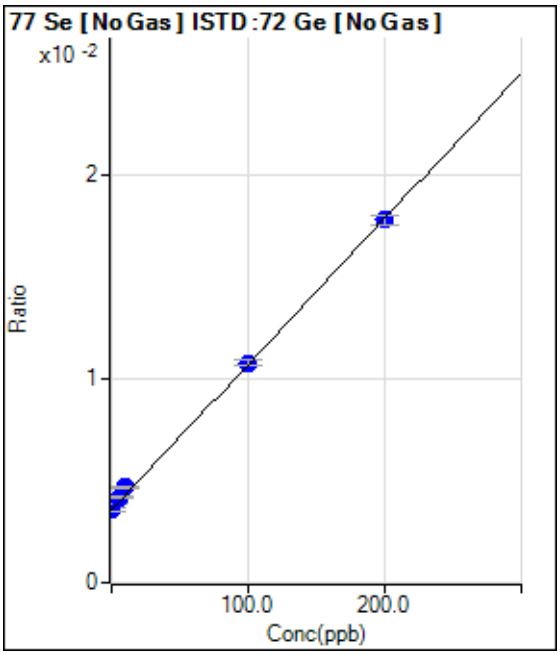


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	229763.94	0.3610	P	0.4
2	☐	2.000	-74.422	226968.18	0.3577	P	0.9
3	☐	5.000	-86.085	228345.07	0.3572	P	0.5
4	☐	10.000	-65.463	227705.04	0.3581	P	0.9
5	☐	100.000	55.772	228132.55	0.3635	P	0.6
6	☐	200.000	228.929	223373.90	0.3712	P	0.8

y = 4.4302E-005 * x + 0.3610
R = 0.9580
DL = 94.83
BEC = 8149

Weight: <None>
Min Conc: <None>

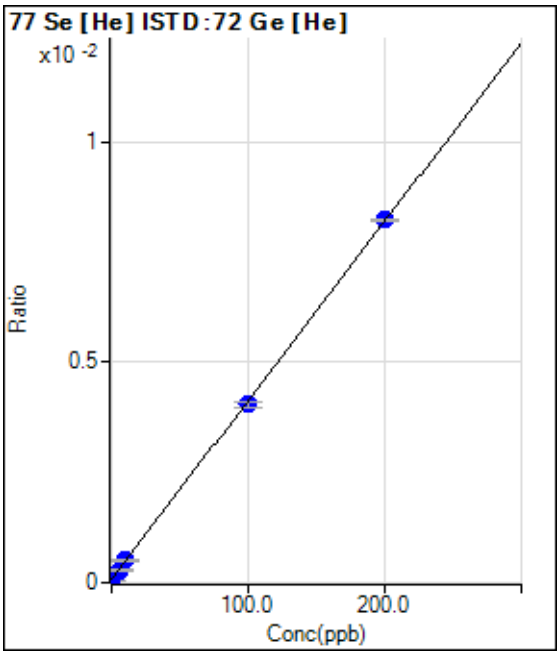
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6985.29	0.0036	P	6.5
2	☐	2.000	5.537	7812.40	0.0040	P	4.0
3	☐	5.000	8.172	8189.31	0.0041	P	2.3
4	☐	10.000	15.667	9226.66	0.0047	P	1.8
5	☐	100.000	101.159	21050.08	0.0108	P	2.9
6	☐	200.000	199.022	33866.23	0.0178	P	2.8

y = 7.1351E-005 * x + 0.0036
R = 0.9997
DL = 9.74
BEC = 49.91

Weight: <None>
Min Conc: <None>

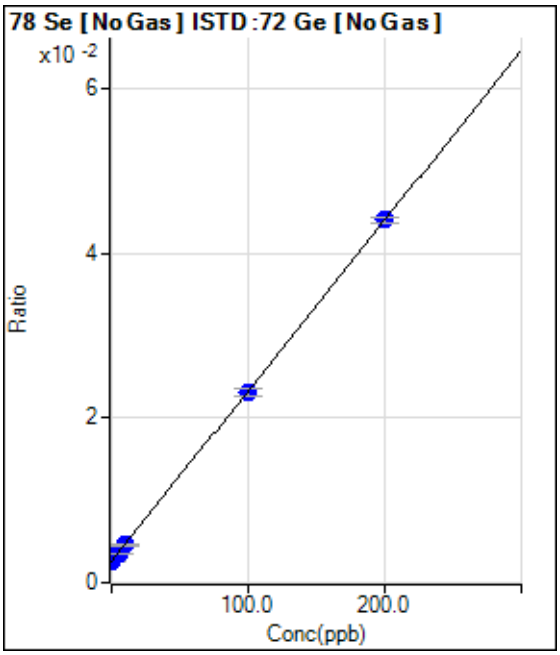


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0001	P	87.7
2	☐	2.000	2.717	120.00	0.0002	P	21.2
3	☐	5.000	5.004	180.01	0.0003	P	29.3
4	☐	10.000	10.602	323.34	0.0005	P	13.8
5	☐	100.000	97.952	2540.29	0.0040	P	3.3
6	☐	200.000	200.986	4947.66	0.0082	P	0.7

y = 4.0513E-005 * x + 7.8777E-005
R = 0.9999
DL = 5.114
BEC = 1.944

Weight: <None>
Min Conc: <None>

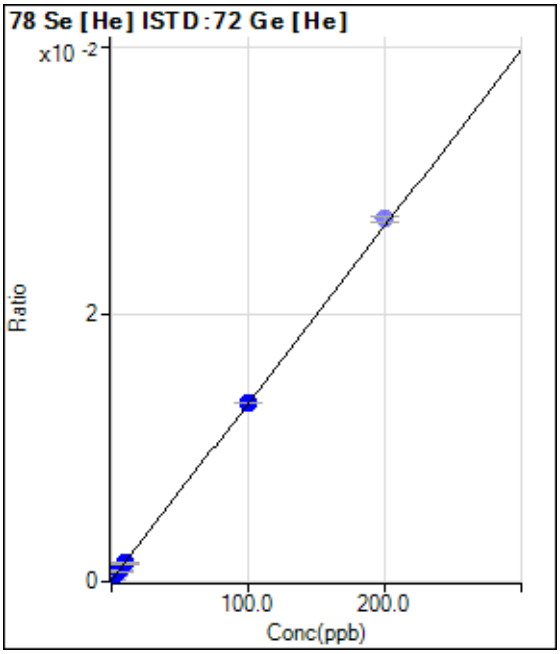
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5147.76	0.0026	P	5.0
2	☐	2.000	3.188	6485.03	0.0033	P	3.8
3	☐	5.000	4.432	6998.61	0.0035	P	2.6
4	☐	10.000	9.630	9099.93	0.0046	P	5.4
5	☐	100.000	99.315	45219.50	0.0232	P	4.6
6	☐	200.000	200.363	84017.97	0.0441	P	1.8

y = 2.0679E-004 * x + 0.0026
R = 1.0000
DL = 1.898
BEC = 12.69

Weight: <None>
Min Conc: <None>

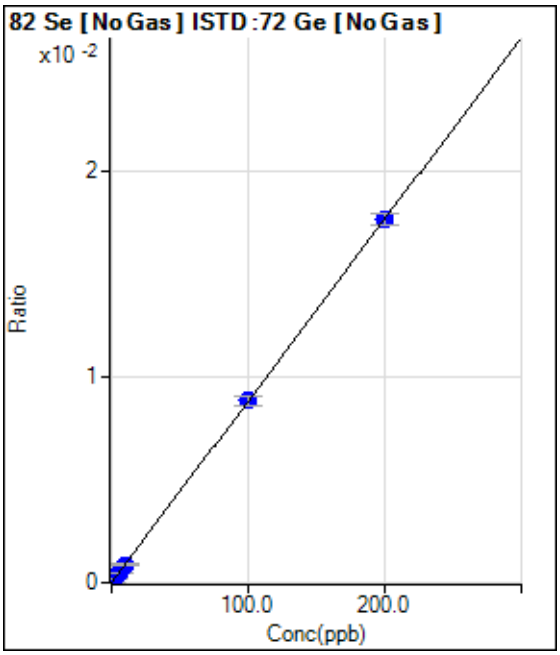


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78.67	0.0001	P	14.7
2	☐	2.000	1.910	238.67	0.0004	P	5.2
3	☐	5.000	5.147	514.01	0.0008	P	6.0
4	☐	10.000	9.512	878.03	0.0014	P	4.9
5	☐	100.000	100.043	8378.62	0.0133	P	0.5
6	☑	200.000		16330.55	0.0271	P	1.4

y = 1.3220E-004 * x + 1.2364E-004
R = 1.0000
DL = 0.4125
BEC = 0.9352

Weight: <None>
Min Conc: <None>

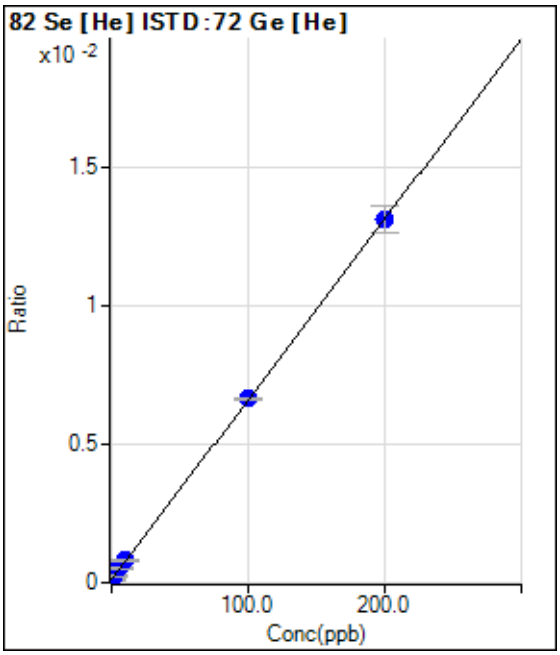
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-73.09	0.0000	P	-76.0
2	☐	2.000	1.972	270.29	0.0001	P	31.8
3	☐	5.000	5.428	873.70	0.0004	P	14.7
4	☐	10.000	9.988	1663.79	0.0008	P	7.1
5	☐	100.000	100.155	17181.92	0.0088	P	5.6
6	☐	200.000	199.912	33566.39	0.0176	P	3.4

y = 8.8250E-005 * x - 3.7279E-005
R = 1.0000
DL = 0.9636
BEC = -0.4224

Weight: <None>
Min Conc: <None>

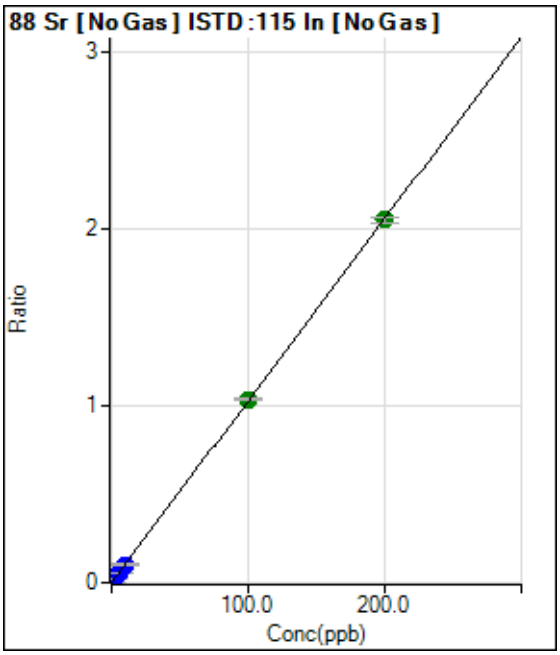


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	17.2
2	☐	2.000	1.859	143.33	0.0002	P	16.7
3	☐	5.000	6.563	340.01	0.0005	P	14.5
4	☐	10.000	11.037	523.35	0.0008	P	8.3
5	☐	100.000	100.355	4164.05	0.0066	P	1.8
6	☐	200.000	199.733	7882.47	0.0131	P	7.5

y = 6.5067E-005 * x + 1.0474E-004
R = 1.0000
DL = 0.8317
BEC = 1.61

Weight: <None>
Min Conc: <None>

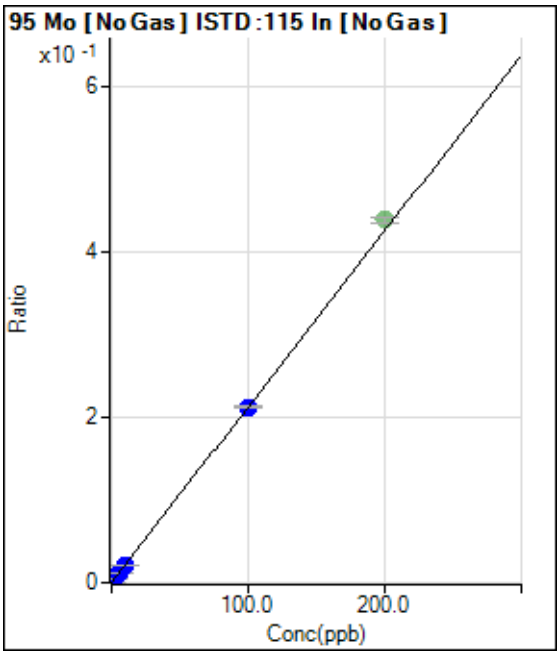
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1593.46	0.0006	P	7.9
2	☐	2.000	2.030	59836.81	0.0214	P	1.4
3	☐	5.000	5.011	145894.64	0.0520	P	2.9
4	☐	10.000	9.989	293031.80	0.1030	P	1.2
5	☐	100.000	100.912	2856372.36	1.0358	A	0.8
6	☐	200.000	199.544	5503376.58	2.0476	A	1.5

y = 0.0103 * x + 5.6337E-004
R = 1.0000
DL = 0.01303
BEC = 0.05492

Weight: <None>
Min Conc: <None>

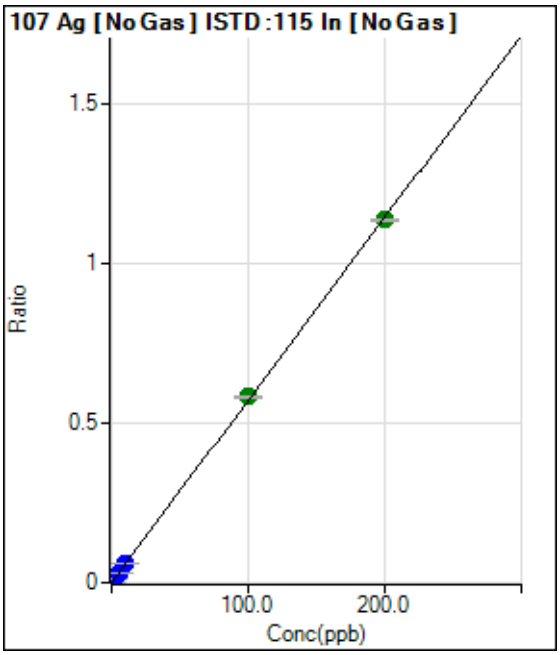


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	10.0
2	☐	2.000	2.032	12239.24	0.0044	P	3.5
3	☐	5.000	4.997	30007.48	0.0107	P	3.9
4	☐	10.000	10.035	60882.20	0.0214	P	2.1
5	☐	100.000	99.996	587084.12	0.2129	P	0.6
6	☑	200.000		1180735.79	0.4393	A	1.3

y = 0.0021 * x + 5.0643E-005
R = 1.0000
DL = 0.007172
BEC = 0.02379

Weight: <None>
Min Conc: <None>

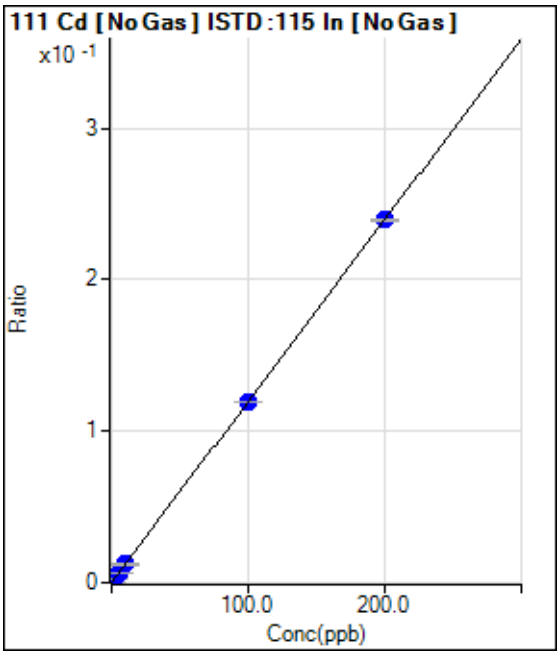
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	780.04	0.0003	P	19.5
2	☐	2.000	2.043	33422.57	0.0119	P	1.8
3	☐	5.000	5.172	83710.30	0.0298	P	3.0
4	☐	10.000	10.440	170383.86	0.0599	P	1.8
5	☐	100.000	102.150	1610065.97	0.5839	A	0.9
6	☐	200.000	198.898	3054773.29	1.1366	A	0.7

y = 0.0057 * x + 2.7553E-004
R = 0.9999
DL = 0.02827
BEC = 0.04823

Weight: <None>
Min Conc: <None>

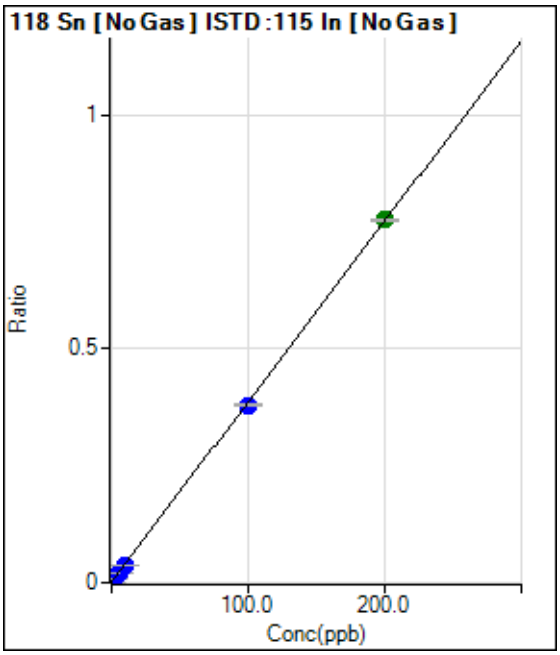


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.4
2	☐	2.000	2.017	6761.84	0.0024	P	12.4
3	☐	5.000	4.929	16580.73	0.0059	P	1.6
4	☐	10.000	10.073	34294.89	0.0121	P	1.3
5	☐	100.000	99.759	329190.18	0.1194	P	0.9
6	☐	200.000	200.118	643589.30	0.2395	P	0.3

y = 0.0012 * x + 5.8837E-006
R = 1.0000
DL = 0.01348
BEC = 0.004917

Weight: <None>
Min Conc: <None>

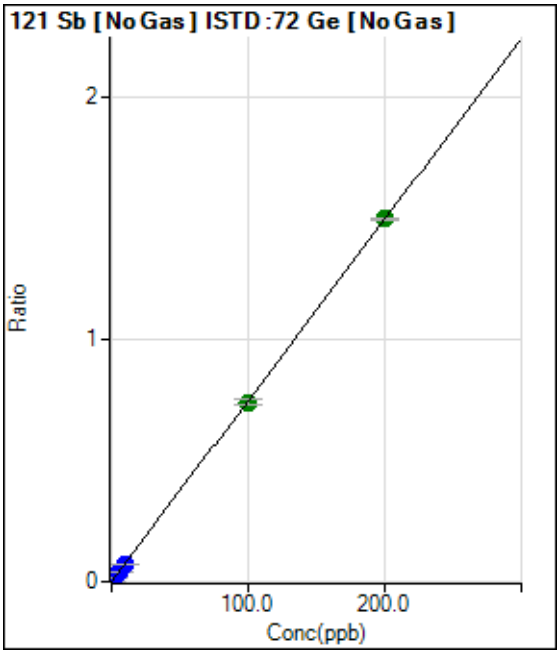
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2063.54	0.0007	P	11.6
2	☐	2.000	1.874	22255.79	0.0080	P	4.6
3	☐	5.000	4.873	54821.38	0.0195	P	4.6
4	☐	10.000	9.781	109362.51	0.0385	P	1.4
5	☐	100.000	98.267	1047336.91	0.3798	P	1.2
6	☐	200.000	200.882	2084652.05	0.7756	A	0.8

y = 0.0039 * x + 7.2915E-004
R = 0.9999
DL = 0.06559
BEC = 0.189

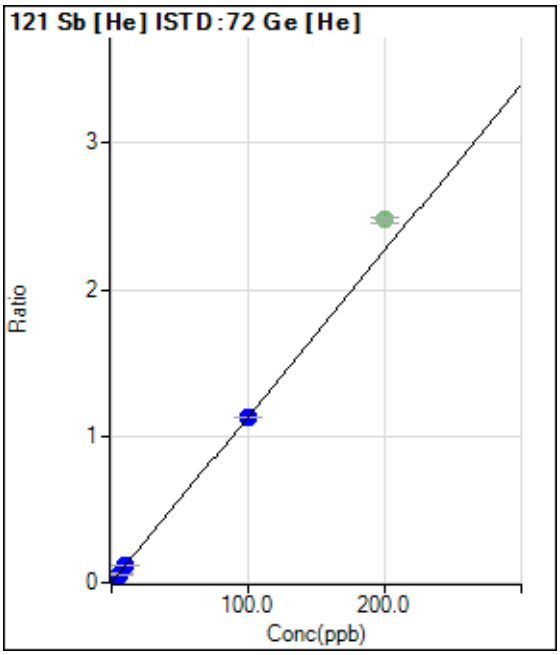
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	953.39	0.0005	P	6.8
2	☐	2.000	1.939	29597.01	0.0150	P	2.0
3	☐	5.000	4.843	72553.46	0.0367	P	1.5
4	☐	10.000	9.948	147718.24	0.0749	P	0.9
5	☐	100.000	99.193	1450017.06	0.7425	A	2.5
6	☐	200.000	200.411	2860377.67	1.4996	A	0.4

y = 0.0075 * x + 4.8609E-004
R = 1.0000
DL = 0.01323
BEC = 0.06498

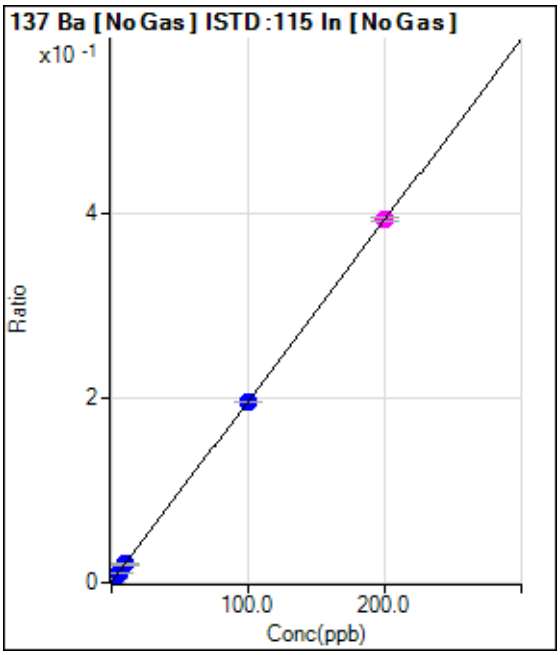
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	513.35	0.0008	P	14.7
2	☐	2.000	2.096	15576.15	0.0245	P	2.0
3	☐	5.000	5.125	37627.56	0.0589	P	0.9
4	☐	10.000	10.392	75352.27	0.1185	P	1.3
5	☐	100.000	99.953	711078.84	1.1330	P	0.4
6	☑	200.000		1490019.25	2.4760	A	1.5

y = 0.0113 * x + 8.0676E-004
R = 1.0000
DL = 0.03148
BEC = 0.07122

Weight: <None>
Min Conc: <None>

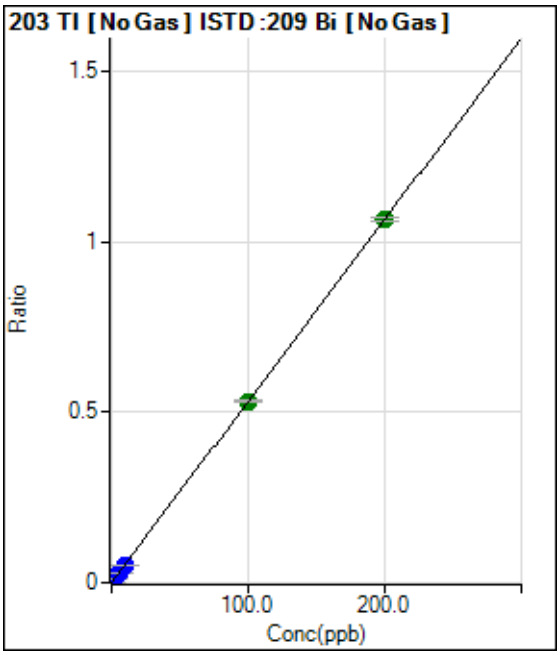


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1500.11	0.0005	P	10.3
2	☐	2.000	1.971	12272.66	0.0044	P	1.9
3	☐	5.000	5.034	29146.33	0.0104	P	1.4
4	☐	10.000	9.841	56265.26	0.0198	P	1.6
5	☐	100.000	99.569	538750.12	0.1954	P	0.8
6	☐	200.000	200.223	1054469.54	0.3923	M	1.2

y = 0.0020 * x + 5.3017E-004
R = 1.0000
DL = 0.08332
BEC = 0.2709

Weight: <None>
Min Conc: <None>

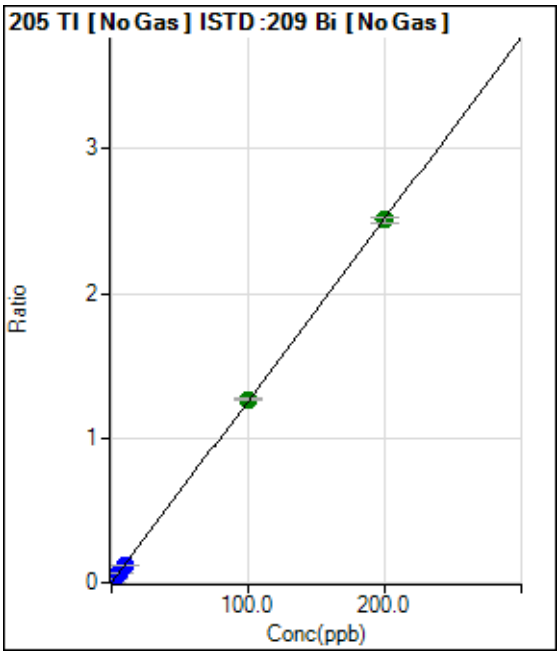
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	573.35	0.0002	P	1.2
2	☐	2.000	1.928	36042.41	0.0104	P	4.2
3	☐	5.000	4.783	88895.15	0.0256	P	0.8
4	☐	10.000	9.705	180280.92	0.0518	P	1.9
5	☐	100.000	100.074	1814859.82	0.5324	A	1.2
6	☐	200.000	199.984	3514815.47	1.0638	A	1.0

y = 0.0053 * x + 1.6691E-004
R = 1.0000
DL = 0.001131
BEC = 0.03138

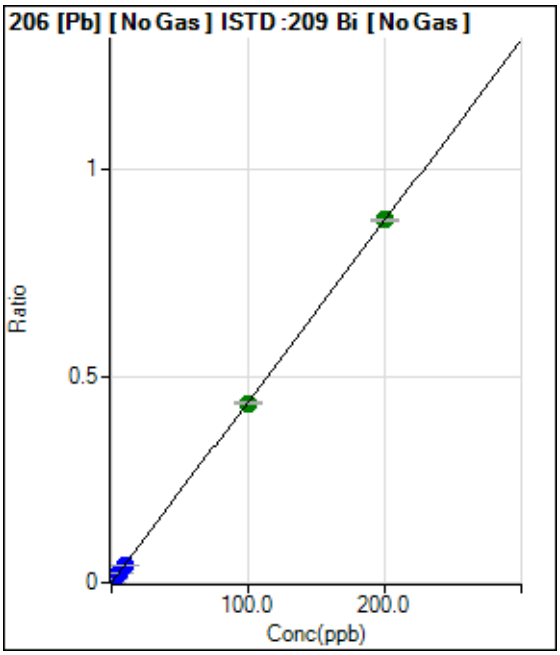
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1440.12	0.0004	P	7.8
2	☐	2.000	1.950	86152.71	0.0249	P	3.4
3	☐	5.000	4.892	214812.33	0.0619	P	1.2
4	☐	10.000	9.941	436329.63	0.1253	P	0.4
5	☐	100.000	100.861	4320443.17	1.2675	A	0.9
6	☐	200.000	199.576	8284880.29	2.5077	A	1.4

y = 0.0126 * x + 4.1895E-004
R = 1.0000
DL = 0.007758
BEC = 0.03335

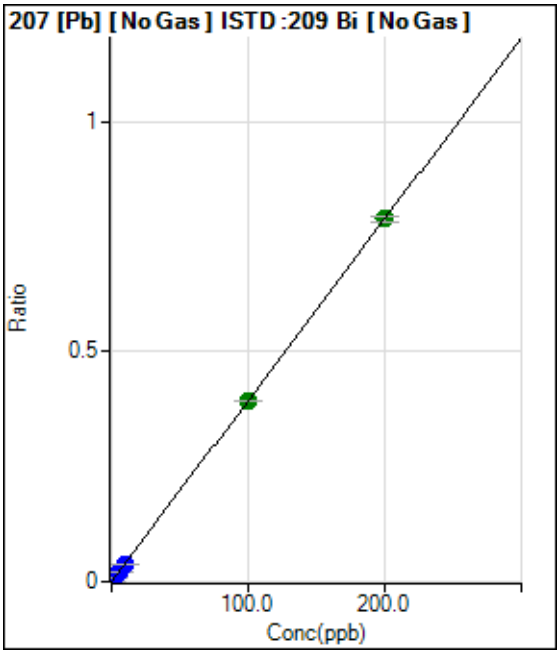
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	380.02	0.0001	P	22.2
2	☐	2.000	1.947	29882.77	0.0086	P	2.4
3	☐	5.000	4.889	74736.61	0.0215	P	1.3
4	☐	10.000	9.780	149576.16	0.0430	P	0.7
5	☐	100.000	99.043	1479344.10	0.4340	A	1.2
6	☐	200.000	200.493	2902115.90	0.8784	A	0.8

y = 0.0044 * x + 1.1081E-004
R = 1.0000
DL = 0.01682
BEC = 0.02529

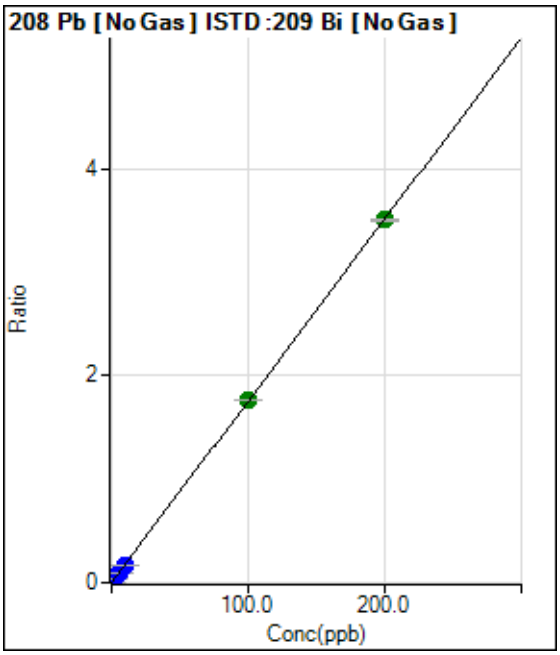
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	316.68	0.0001	P	25.0
2	☐	2.000	1.937	26728.92	0.0077	P	2.6
3	☐	5.000	4.828	66373.35	0.0191	P	1.6
4	☐	10.000	9.832	135241.70	0.0388	P	2.1
5	☐	100.000	99.580	1338202.95	0.3926	A	0.6
6	☐	200.000	200.223	2607748.97	0.7893	A	1.7

y = 0.0039 * x + 9.2100E-005
R = 1.0000
DL = 0.01756
BEC = 0.02337

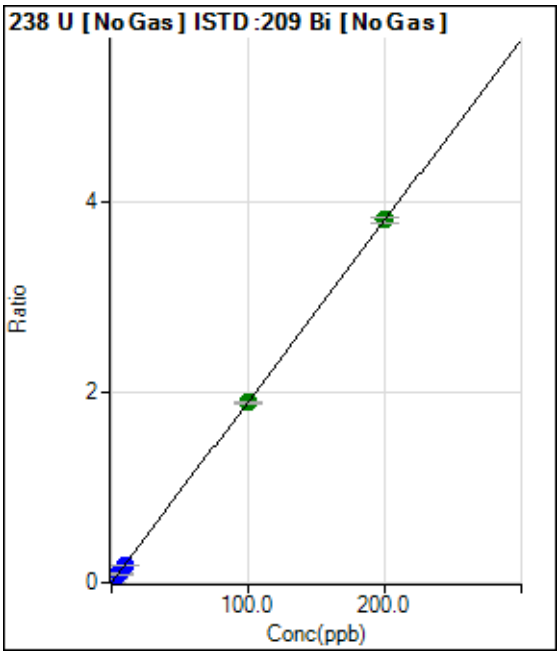
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1406.73	0.0004	P	7.0
2	☐	2.000	1.968	120786.68	0.0349	P	2.6
3	☐	5.000	4.886	298965.26	0.0861	P	1.3
4	☐	10.000	9.931	607931.12	0.1746	P	1.5
5	☐	100.000	100.488	6009869.60	1.7631	A	0.8
6	☐	200.000	199.762	11578402.28	3.5046	A	0.6

y = 0.0175 * x + 4.0957E-004
R = 1.0000
DL = 0.004924
BEC = 0.02335

Weight: <None>
Min Conc: <None>

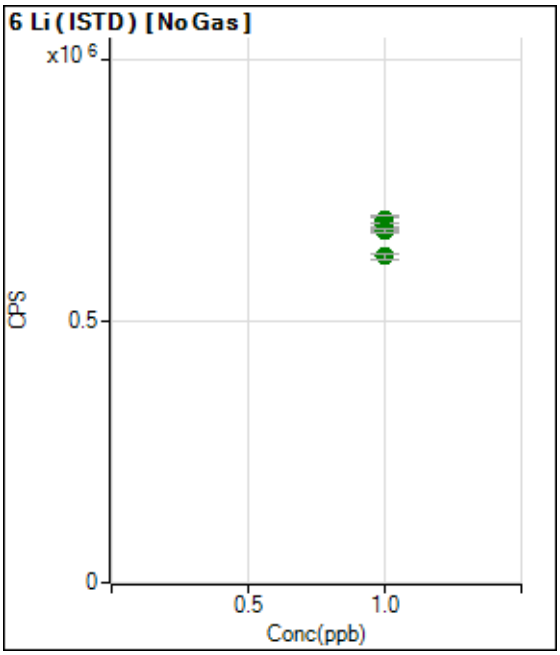


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	416.68	0.0001	P	4.9
2	☐	2.000	1.933	127468.83	0.0369	P	3.0
3	☐	5.000	4.793	316692.85	0.0912	P	1.1
4	☐	10.000	9.767	646780.03	0.1858	P	1.2
5	☐	100.000	99.313	6434194.49	1.8877	A	1.6
6	☐	200.000	200.361	12580839.39	3.8083	A	1.7

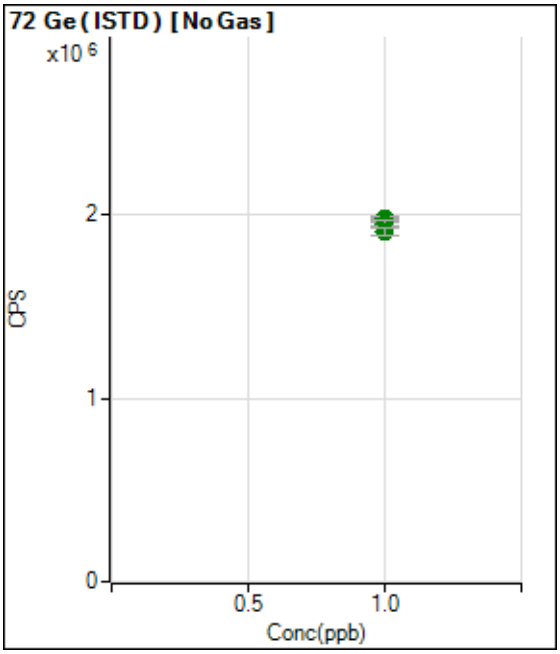
y = 0.0190 * x + 1.2130E-004
R = 1.0000
DL = 0.000938
BEC = 0.006382

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

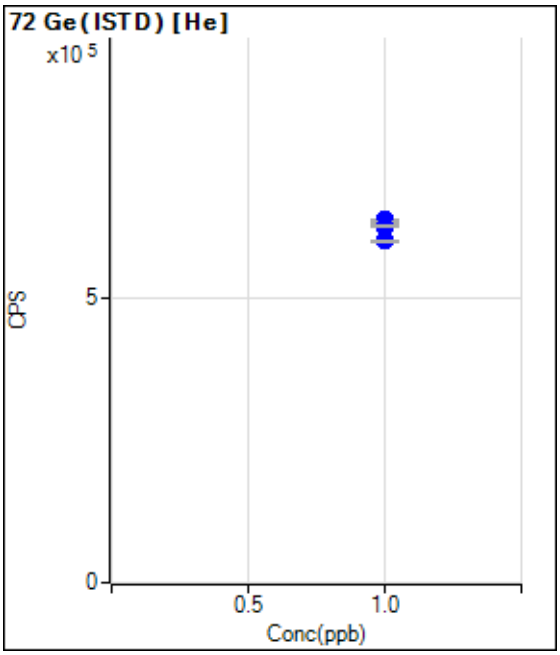


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		694311.91		A	1.5
2	☐	1.000		691392.67		A	3.1
3	☐	1.000		679728.70		A	2.1
4	☐	1.000		682805.84		A	1.1
5	☐	1.000		674401.75		A	1.1
6	☐	1.000		623879.74		A	1.3

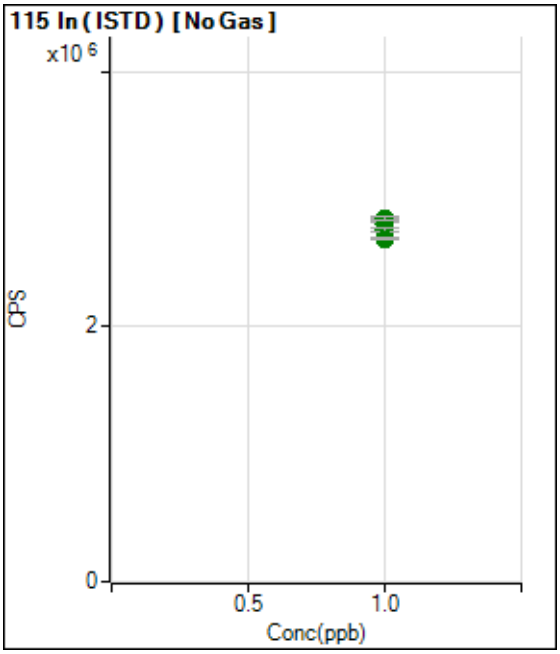


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1961679.29		A	0.4
2	☐	1.000		1974930.08		A	1.0
3	☐	1.000		1976456.79		A	1.6
4	☐	1.000		1972248.62		A	1.5
5	☐	1.000		1953595.70		A	2.1
6	☐	1.000		1907305.96		A	1.8

Calibration for 021_ICV.d

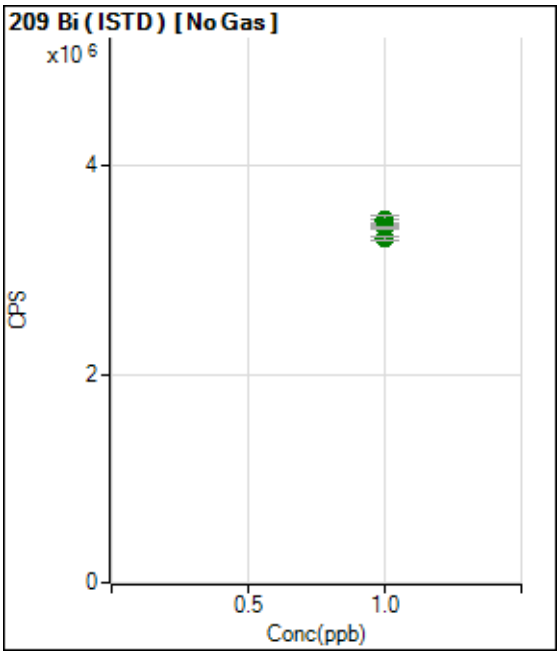


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		636422.09		P	0.5
2	☐	1.000		634493.82		P	1.1
3	☐	1.000		639235.41		P	0.2
4	☐	1.000		635804.97		P	0.5
5	☐	1.000		627614.15		P	0.5
6	☐	1.000		601801.51		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2829147.64		A	0.6
2	☐	1.000		2798278.59		A	1.7
3	☐	1.000		2808677.56		A	2.8
4	☐	1.000		2843938.26		A	1.2
5	☐	1.000		2757742.76		A	0.8
6	☐	1.000		2687619.93		A	0.5

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3435360.57		A	1.2
2	☐	1.000		3459669.64		A	1.8
3	☐	1.000		3471731.82		A	1.1
4	☐	1.000		3482337.87		A	2.1
5	☐	1.000		3408595.68		A	0.4
6	☐	1.000		3303850.26		A	0.8

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	009CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:05:52-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	44291	0.00
Be	9	1	No Gas	87	47.23
V	51	2	He	3140	0.09
Cr	52	2	He	1413	0.43
Fe	56	2	He	8766	0.05
Se	78	2	He	79	18.38
As	75	2	He	201	8.81
Ca	44	2	He	607	1.81
Na	23	2	He	62041	0.00
Mg	24	2	He	873	1.40
K	39	2	He	50968	0.00
Mn	55	2	He	570	0.53
Co	59	2	He	177	7.40
Ni	60	2	He	270	8.23
Cu	63	2	He	1450	0.25
Zn	66	2	He	907	0.98
Al	27	2	He	860	2.21
B	11	1	No Gas	23131	0.00
Al	27	1	No Gas	32329	0.01
Si	28	1	No Gas	170556	0.00
Ag	107	1	No Gas	780	2.56
Cd	111	1	No Gas	17	549.91
Sr	88	1	No Gas	1593	0.47
Mo	95	1	No Gas	143	7.44
Sn	118	1	No Gas	2064	0.58
Sb	121	1	No Gas	953	0.67
Ba	137	1	No Gas	1500	0.70
Tl	205	1	No Gas	1440	0.62
Tl	203	1	No Gas	573	0.18
Pb	208	1	No Gas	1407	0.48
U	238	1	No Gas	417	1.20
Ca	43	2	He	13	324.76
Sb	121	2	He	513	2.85
Ti	47	2	He	10	1732.05
Cu	63	1	No Gas	2604	0.07

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	694312	1.45
Ge	72	2	He	636422	0.51
Ge	72	1	No Gas	1961679	0.37
In	115	1	No Gas	2829148	0.61

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	3435361	1.18

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:07:51-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	5188	0.06
V	51	2	He	13530	0.01
Cr	52	2	He	13417	0.01
Fe	56	2	He	1192979	0.00
Se	78	2	He	239	2.34
As	75	2	He	1945	0.27
Ca	44	2	He	7365	0.06
Na	23	2	He	242587	0.00
Mg	24	2	He	109084	0.00
K	39	2	He	175736	0.00
Mn	55	2	He	10164	0.02
Co	59	2	He	18459	0.02
Ni	60	2	He	4634	0.20
Cu	63	2	He	13554	0.02
Zn	66	2	He	2997	0.19
Al	27	2	He	1700	0.59
B	11	1	No Gas	36145	0.00
Al	27	1	No Gas	62386	0.00
Si	28	1	No Gas	225703	0.00
Ag	107	1	No Gas	33423	0.00
Cd	111	1	No Gas	6762	0.16
Sr	88	1	No Gas	59837	0.00
Mo	95	1	No Gas	12239	0.02
Sn	118	1	No Gas	22256	0.02
Sb	121	1	No Gas	29597	0.00
Ba	137	1	No Gas	12273	0.01
Tl	205	1	No Gas	86153	0.00
Tl	203	1	No Gas	36042	0.01
Pb	208	1	No Gas	120787	0.00
U	238	1	No Gas	127469	0.00
Ca	43	2	He	457	2.64
Sb	121	2	He	15576	0.02
Cu	63	1	No Gas	23908	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	691393	3.08	694312	99.58	70	120	
Ge	72	2	He	634494	1.07	636422	99.70	70	120	
Ge	72	1	No Gas	1974930	0.98	1961679	100.68	70	120	

Calibration Standard Report

In	115	1	No Gas	2798279	1.68	2829148	98.91	70	120	
Bi	209	1	No Gas	3459670	1.76	3435361	100.71	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:09:50-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	12721	0.02
V	51	2	He	29422	0.00
Cr	52	2	He	32362	0.01
Fe	56	2	He	2962928	0.00
Se	78	2	He	514	1.18
As	75	2	He	4493	0.01
Ca	44	2	He	17498	0.01
Na	23	2	He	515386	0.00
Mg	24	2	He	273656	0.00
K	39	2	He	365706	0.00
Mn	55	2	He	24339	0.00
Co	59	2	He	45580	0.00
Ni	60	2	He	11352	0.05
Cu	63	2	He	31507	0.00
Zn	66	2	He	6832	0.09
Al	27	2	He	2524	0.20
B	11	1	No Gas	55780	0.00
Al	27	1	No Gas	91989	0.00
Si	28	1	No Gas	301325	0.00
Ag	107	1	No Gas	83710	0.00
Cd	111	1	No Gas	16581	0.02
Sr	88	1	No Gas	145895	0.00
Mo	95	1	No Gas	30007	0.01
Sn	118	1	No Gas	54821	0.01
Sb	121	1	No Gas	72553	0.00
Ba	137	1	No Gas	29146	0.00
Tl	205	1	No Gas	214812	0.00
Tl	203	1	No Gas	88895	0.00
Pb	208	1	No Gas	298965	0.00
U	238	1	No Gas	316693	0.00
Ca	43	2	He	1023	0.93
Sb	121	2	He	37628	0.00
Cu	63	1	No Gas	55423	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	679729	2.14	694312	97.90	70	120	
Ge	72	2	He	639235	0.24	636422	100.44	70	120	
Ge	72	1	No Gas	1976457	1.64	1961679	100.75	70	120	

Calibration Standard Report

In	115	1	No Gas	2808678	2.76	2829148	99.28	70	120	
Bi	209	1	No Gas	3471732	1.10	3435361	101.06	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:11:49-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	25729	0.00
V	51	2	He	55579	0.00
Cr	52	2	He	62995	0.00
Fe	56	2	He	5922433	0.00
Se	78	2	He	878	0.50
As	75	2	He	9048	0.02
Ca	44	2	He	35743	0.00
Na	23	2	He	993896	0.00
Mg	24	2	He	549834	0.00
K	39	2	He	692111	0.00
Mn	55	2	He	48821	0.00
Co	59	2	He	92244	0.00
Ni	60	2	He	23304	0.00
Cu	63	2	He	62195	0.00
Zn	66	2	He	12780	0.01
Al	27	2	He	4291	0.05
B	11	1	No Gas	93198	0.00
Al	27	1	No Gas	152771	0.00
Si	28	1	No Gas	439669	0.00
Ag	107	1	No Gas	170384	0.00
Cd	111	1	No Gas	34295	0.01
Sr	88	1	No Gas	293032	0.00
Mo	95	1	No Gas	60882	0.00
Sn	118	1	No Gas	109363	0.00
Sb	121	1	No Gas	147718	0.00
Ba	137	1	No Gas	56265	0.00
Tl	205	1	No Gas	436330	0.00
Tl	203	1	No Gas	180281	0.00
Pb	208	1	No Gas	607931	0.00
U	238	1	No Gas	646780	0.00
Ca	43	2	He	1964	0.60
Sb	121	2	He	75352	0.00
Cu	63	1	No Gas	109719	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	682806	1.07	694312	98.34	70	120	
Ge	72	2	He	635805	0.55	636422	99.90	70	120	
Ge	72	1	No Gas	1972249	1.46	1961679	100.54	70	120	

Calibration Standard Report

In	115	1	No Gas	2843938	1.24	2829148	100.52	70	120	
Bi	209	1	No Gas	3482338	2.10	3435361	101.37	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:13:48-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	250959	0.00
V	51	2	He	507873	0.00
Cr	52	2	He	595681	0.00
Fe	56	2	He	56132967	0.00
Se	78	2	He	8379	0.01
As	75	2	He	85447	0.00
Ca	44	2	He	335439	0.00
Na	23	2	He	8710530	0.00
Mg	24	2	He	5095517	0.00
K	39	2	He	6153699	0.00
Mn	55	2	He	470156	0.00
Co	59	2	He	878989	0.00
Ni	60	2	He	214918	0.00
Cu	63	2	He	579075	0.00
Zn	66	2	He	119846	0.00
Al	27	2	He	32849	0.01
B	11	1	No Gas	712434	0.00
Al	27	1	No Gas	1123336	0.00
Si	28	1	No Gas	2696360	0.00
Ag	107	1	No Gas	1610066	0.00
Cd	111	1	No Gas	329190	0.00
Sr	88	1	No Gas	2856372	0.00
Mo	95	1	No Gas	587084	0.00
Sn	118	1	No Gas	1047337	0.00
Sb	121	1	No Gas	1450017	0.00
Ba	137	1	No Gas	538750	0.00
Tl	205	1	No Gas	4320443	0.00
Tl	203	1	No Gas	1814860	0.00
Pb	208	1	No Gas	6009870	0.00
U	238	1	No Gas	6434194	0.00
Ca	43	2	He	19591	0.01
Sb	121	2	He	711079	0.00
Cu	63	1	No Gas	1000436	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	674402	1.14	694312	97.13	70	120	
Ge	72	2	He	627614	0.46	636422	98.62	70	120	
Ge	72	1	No Gas	1953596	2.09	1961679	99.59	70	120	

Calibration Standard Report

In	115	1	No Gas	2757743	0.85	2829148	97.48	70	120	
Bi	209	1	No Gas	3408596	0.40	3435361	99.22	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	014CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:15:42-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	490111	0.00
V	51	2	He	1008334	0.00
Cr	52	2	He	1189155	0.00
Fe	56	2	He	109386898	0.00
Se	78	2	He	16331	0.01
As	75	2	He	163762	0.00
Ca	44	2	He	654545	0.00
Na	23	2	He	16867263	0.00
Mg	24	2	He	9856634	0.00
K	39	2	He	12026508	0.00
Mn	55	2	He	915337	0.00
Co	59	2	He	1768811	0.00
Ni	60	2	He	413497	0.00
Cu	63	2	He	1125544	0.00
Zn	66	2	He	221132	0.00
Al	27	2	He	63836	0.00
B	11	1	No Gas	1391075	0.00
Al	27	1	No Gas	2126773	0.00
Si	28	1	No Gas	5044549	0.00
Ag	107	1	No Gas	3054773	0.00
Cd	111	1	No Gas	643589	0.00
Sr	88	1	No Gas	5503377	0.00
Mo	95	1	No Gas	1180736	0.00
Sn	118	1	No Gas	2084652	0.00
Sb	121	1	No Gas	2860378	0.00
Ba	137	1	No Gas	1054470	0.00
Tl	205	1	No Gas	8284880	0.00
Tl	203	1	No Gas	3514815	0.00
Pb	208	1	No Gas	11578402	0.00
U	238	1	No Gas	12580839	0.00
Ca	43	2	He	38718	0.01
Sb	121	2	He	1490019	0.00
Cu	63	1	No Gas	1931004	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	623880	1.32	694312	89.86	70	120	
Ge	72	2	He	601802	0.42	636422	94.56	70	120	
Ge	72	1	No Gas	1907306	1.79	1961679	97.23	70	120	

Calibration Standard Report

In	115	1	No Gas	2687620	0.50	2829148	95.00	70	120	
Bi	209	1	No Gas	3303850	0.77	3435361	96.17	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	016_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:19:30-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	105.320	4.270	1039684	2.06	100	105.3	90	110	
Be	9	1	No Gas	98.158	3.759	243809	1.54	100	98.2	90	110	
V	51	2	He	94.937	0.942	501168	0.23	100	94.9	90	110	
Cr	52	2	He	93.899	0.080	583015	0.86	100	93.9	90	110	
Fe	56	2	He	9926.992	0.165	56914819	0.90	10000	99.3	90	110	
Se	78	2	He	95.256	1.591	8184	0.91	100	95.3	90	110	
As	75	2	He	94.263	0.623	81256	0.29	100	94.3	90	110	
Ca	44	2	He	9839.881	0.481	337706	1.10	10000	98.4	90	110	
Na	23	2	He	9924.446	1.496	8809738	1.65	10000	99.2	90	110	
Mg	24	2	He	9991.088	0.432	5169796	1.29	10000	99.9	90	110	
K	39	2	He	9785.200	1.179	6184829	0.80	10000	97.9	90	110	
Mn	55	2	He	94.798	0.050	455076	0.91	100	94.8	90	110	
Co	59	2	He	93.651	0.572	862737	0.72	100	93.7	90	110	
Ni	60	2	He	99.016	1.060	215244	1.04	100	99.0	90	110	
Cu	63	2	He	95.601	0.331	564847	0.66	100	95.6	90	110	
Zn	66	2	He	96.531	0.413	113492	1.23	100	96.5	90	110	
Al	27	2	He	93.032	1.840	31523	2.19	100	93.0	90	110	
B	11	1	No Gas	10.378	9.486	35662	2.68	500	2.1	90	110	ICV Main CR1 Failed
Al	27	1	No Gas	98.365	2.188	1085290	1.98	100	98.4	90	110	
Si	28	1	No Gas	51.654	8.102	426191	5.34	500	10.3	90	110	ICV Main CR1 Failed
Ag	107	1	No Gas	100.782	1.982	1582385	0.57	100	100.8	90	110	
Cd	111	1	No Gas	99.227	1.599	326185	0.48	100	99.2	90	110	
Sr	88	1	No Gas	100.221	1.435	2826020	1.07	100	100.2	90	110	
Mo	95	1	No Gas	94.757	0.871	568317	0.60	100	94.8	90	110	
Sn	118	1	No Gas	96.358	1.107	1023155	0.38	100	96.4	90	110	
Sb	121	1	No Gas	101.414	1.193	1474332	1.11	100	101.4	90	110	
Ba	137	1	No Gas	99.132	1.810	534360	1.35	100	99.1	90	110	
Tl	205	1	No Gas	101.002	2.747	4323093	1.23	100	101.0	90	110	
Tl	203	1	No Gas	101.155	0.726	1833299	0.97	100	101.2	90	110	
Pb	208	1	No Gas	99.347	1.599	5937765	1.30	100	99.3	90	110	
U	238	1	No Gas	93.613	0.814	6062205	2.14	100	93.6	90	110	
Ca	43	2	He	9950.697	2.610	20142	3.45	10000	99.5	90	110	
Sb	121	2	He	94.046	1.214	724345	0.41	100	94.0	90	110	
Ti	47	2	He	93.405	3.351	18489	2.54	100	93.4	90	110	
Cu	63	1	No Gas	99.244	0.947	979326	1.40	100	99.2	90	110	
Se	82	1	No Gas	94.814	3.336	16180	3.78	100	94.8	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	639328	2.23	694312	92.08	70	120	
Ge	72	2	He	632774	0.88	636422	99.43	70	120	
Ge	72	1	No Gas	1942224	0.46	1961679	99.01	70	120	
In	115	1	No Gas	2747485	1.45	2829148	97.11	70	120	
Bi	209	1	No Gas	3406781	1.57	3435361	99.17	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	017_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:21:25-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.121	75.5	44813	1.9	0.5	
Be	9	1	No Gas	0.024	20.3	150	8.8	0.5	
V	51	2	He	0.040	117.3	3338	7.7	2.5	
Cr	52	2	He	-0.004	-241.7	1383	4.4	2.5	
Fe	56	2	He	0.848	15.2	13607	5.2	100	
Se	78	2	He	-0.107	-93.8	69	13.0	1	
As	75	2	He	-0.009	-259.4	192	11.5	2.5	
Ca	44	2	He	5.777	56.9	803	14.4	100	
Na	23	2	He	0.446	432.6	62215	2.8	100	
Mg	24	2	He	0.386	5.4	1070	1.6	100	
K	39	2	He	1.115	90.4	51489	1.1	100	
Mn	55	2	He	0.001	1271.1	573	11.9	2.5	
Co	59	2	He	-0.002	-161.5	157	20.5	2.5	
Ni	60	2	He	-0.007	-448.7	253	26.9	2.5	
Cu	63	2	He	-0.020	-73.3	1330	6.9	1	
Zn	66	2	He	-0.111	-44.1	773	7.8	2.5	
Al	27	2	He	0.554	43.3	1040	6.9	5	
B	11	1	No Gas	3.507	10.2	27956	2.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	0.659	3.7	39807	1.1	5	
Si	28	1	No Gas	0.956	23.5	176935	1.1	10	
Ag	107	1	No Gas	0.006	62.9	883	6.4	2.5	
Cd	111	1	No Gas	0.003	60.0	27	21.7	1	
Sr	88	1	No Gas	0.013	36.4	1994	8.2	2.5	
Mo	95	1	No Gas	0.185	45.1	1287	38.7	2.5	
Sn	118	1	No Gas	0.160	26.0	3824	11.0	5	
Sb	121	1	No Gas	0.200	4.2	3921	3.3	2.5	
Ba	137	1	No Gas	-0.026	-37.2	1363	3.4	2.5	
Tl	205	1	No Gas	0.091	41.1	5418	30.8	1	
Tl	203	1	No Gas	0.085	43.9	2154	32.9	1	
Pb	208	1	No Gas	0.020	18.7	2677	9.8	2.5	
U	238	1	No Gas	0.019	51.9	1687	39.7	2.5	
Ca	43	2	He	4.967	153.2	23	65.5	100	
Sb	121	2	He	0.186	5.6	1944	4.8	2.5	
Ti	47	2	He	0.000	-345.2	10	0.0	2.5	
Se	82	1	No Gas	0.061	568.7	-63	-96.7	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	683222	0.31	694312	98.40	70	120	
Ge	72	2	He	634158	0.69	636422	99.64	70	120	
Ge	72	1	No Gas	1979265	0.47	1961679	100.90	70	120	
In	115	1	No Gas	2841739	1.27	2829148	100.45	70	120	
Bi	209	1	No Gas	3479219	2.10	3435361	101.28	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	018LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:23:24-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	1.915	1.915	2.59	63743	0.00	2	
Be	9	1	No Gas	1.880	1.880	2.99	5136	0.04	2	
V	51	2	He	1.934	1.934	2.54	13325	0.01	2	
Cr	52	2	He	2.027	2.027	2.87	14017	0.01	2	
Fe	56	2	He	206.959	206.959	2.37	1200045	0.02	200	
Se	78	2	He	1.711	1.711	12.32	225	0.76	2	
As	75	2	He	2.012	2.012	4.23	1938	0.10	2	
Ca	44	2	He	197.939	197.939	5.63	7415	2.67	200	
Na	23	2	He	204.236	204.236	1.65	242726	0.08	200	
Mg	24	2	He	211.274	211.274	1.33	110629	0.19	200	
K	39	2	He	201.503	201.503	1.58	177745	0.11	200	
Mn	55	2	He	1.962	1.962	4.21	10014	0.02	2	
Co	59	2	He	1.965	1.965	1.97	18346	0.01	2	
Ni	60	2	He	2.007	2.007	3.32	4648	0.04	2	
Cu	63	2	He	1.963	1.963	1.03	13063	0.02	2	
Zn	66	2	He	1.811	1.811	2.36	3027	0.06	2	
Al	27	2	He	2.129	2.129	28.61	1563	0.14	2	
B	11	1	No Gas	10.477	10.477	1.89	38715	0.03	10	
Al	27	1	No Gas	2.658	2.658	6.06	61531	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	10.207	10.207	7.48	223553	0.00	10	
Ag	107	1	No Gas	2.070	2.070	1.47	34225	0.01	2	
Cd	111	1	No Gas	2.051	2.051	5.32	6955	0.03	2	
Sr	88	1	No Gas	2.002	2.002	1.07	59663	0.00	2	
Mo	95	1	No Gas	1.927	1.927	4.97	12032	0.02	2	
Sn	118	1	No Gas	1.943	1.943	1.23	23254	0.01	2	
Sb	121	1	No Gas	2.110	2.110	1.85	32153	0.01	2	
Ba	137	1	No Gas	2.011	2.011	3.65	12620	0.02	2	
Tl	205	1	No Gas	1.931	1.931	0.33	87099	0.00	2	
Tl	203	1	No Gas	1.915	1.915	2.57	36547	0.01	2	
Pb	208	1	No Gas	1.945	1.945	1.54	121881	0.00	2	
U	238	1	No Gas	1.929	1.929	2.96	129803	0.00	2	
Ca	43	2	He	208.279	208.279	13.03	437	47.70	200	
Sb	121	2	He	2.021	2.021	0.46	16137	0.01	2	
Ti	47	2	He	2.064	2.064	7.08	420	0.49	200	
Cu	63	1	No Gas	2.139	2.139	3.49	24045	0.01	2	
Se	82	1	No Gas	2.188	2.188	24.42	307	0.71	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	691146	1.09	694312	99.54	70	120	
Ge	72	2	He	635466	0.88	636422	99.85	70	120	
Ge	72	1	No Gas	1976515	0.92	1961679	100.76	70	120	
In	115	1	No Gas	2827256	0.96	2829148	99.93	70	120	
Bi	209	1	No Gas	3530087	0.82	3435361	102.76	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	019LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:25:23-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	4.919	4.919	4.00	92852	0.01	5	
Be	9	1	No Gas	4.782	4.782	3.64	12696	0.04	5	
V	51	2	He	4.921	4.921	0.67	29045	0.02	5	
Cr	52	2	He	4.862	4.862	1.11	31637	0.02	5	
Fe	56	2	He	511.806	511.806	0.99	2953521	0.02	500	
Se	78	2	He	4.974	4.974	9.18	503	0.99	5	
As	75	2	He	5.070	5.070	3.89	4577	0.11	5	
Ca	44	2	He	491.323	491.323	1.86	17501	2.81	500	
Na	23	2	He	514.043	514.043	0.67	516703	0.10	500	
Mg	24	2	He	524.925	524.925	0.16	273445	0.19	500	
K	39	2	He	494.677	494.677	1.63	362107	0.14	500	
Mn	55	2	He	5.014	5.014	1.16	24699	0.02	5	
Co	59	2	He	4.952	4.952	1.73	45951	0.01	5	
Ni	60	2	He	5.162	5.162	0.63	11518	0.04	5	
Cu	63	2	He	5.184	5.184	1.16	32108	0.02	5	
Zn	66	2	He	4.900	4.900	10.34	6638	0.07	5	
Al	27	2	He	4.903	4.903	11.36	2480	0.20	5	
B	11	1	No Gas	23.285	23.285	5.87	56833	0.04	25	
Al	27	1	No Gas	5.426	5.426	5.70	91869	0.01	5	
Si	28	1	No Gas	25.860	25.860	5.36	303547	0.01	25	
Ag	107	1	No Gas	5.105	5.105	1.44	83704	0.01	5	
Cd	111	1	No Gas	4.977	4.977	1.74	16948	0.03	5	
Sr	88	1	No Gas	4.923	4.923	1.32	145184	0.00	5	
Mo	95	1	No Gas	4.889	4.889	0.86	30479	0.02	5	
Sn	118	1	No Gas	4.932	4.932	1.71	56160	0.01	5	
Sb	121	1	No Gas	4.991	4.991	3.41	74903	0.01	5	
Ba	137	1	No Gas	4.910	4.910	4.80	28816	0.02	5	
Tl	205	1	No Gas	4.814	4.814	0.79	215603	0.00	5	
Tl	203	1	No Gas	4.689	4.689	2.07	88902	0.01	5	
Pb	208	1	No Gas	4.857	4.857	0.61	303114	0.00	5	
U	238	1	No Gas	4.798	4.798	1.25	323342	0.00	5	
Ca	43	2	He	476.190	476.190	0.98	980	48.59	500	
Sb	121	2	He	4.875	4.875	1.80	38172	0.01	5	
Ti	47	2	He	4.266	4.266	11.92	857	0.50	5	
Cu	63	1	No Gas	5.203	5.203	1.60	54864	0.01	5	
Se	82	1	No Gas	5.077	5.077	20.23	817	0.62	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	678862	2.48	694312	97.77	70	120	
Ge	72	2	He	635132	1.04	636422	99.80	70	120	
Ge	72	1	No Gas	1981409	2.61	1961679	101.01	70	120	

Sample Report

In	115	1	No Gas	2843036	0.71	2829148	100.49	70	120	
Bi	209	1	No Gas	3540856	0.79	3435361	103.07	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	022ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:44:56-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.626	11.2	47498	1.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	-0.010	-12.7	57	5.1	0	ICSA Main CR1 Failed
V	51	2	He	0.230	12.0	3965	4.1	0	ICSA Main CR1 Failed
Cr	52	2	He	1.913	3.5	12142	3.5	0	ICSA Main CR1 Failed
Fe	56	2	He	95728.116	1.0	502569113	0.2	0	
Se	78	2	He	0.310	33.7	95	7.4	0	ICSA Main CR1 Failed
As	75	2	He	0.137	7.0	291	3.5	0	ICSA Main CR1 Failed
Ca	44	2	He	98254.779	2.1	3083151	1.6	0	
Na	23	2	He	97189.834	1.4	78514379	0.9	0	
Mg	24	2	He	97999.019	1.9	46429174	1.1	0	
K	39	2	He	96726.624	1.2	55581318	0.8	0	
Mn	55	2	He	0.438	8.1	2440	5.3	0	ICSA Main CR1 Failed
Co	59	2	He	0.088	19.2	907	16.6	0	ICSA Main CR1 Failed
Ni	60	2	He	0.164	9.7	573	6.6	0	ICSA Main CR1 Failed
Cu	63	2	He	0.236	6.2	2594	1.9	0	ICSA Main CR1 Failed
Zn	66	2	He	0.937	17.9	1827	10.1	0	ICSA Main CR1 Failed
Al	27	2	He	89602.708	0.6	27051339	0.9	0	
B	11	1	No Gas	9.528	16.5	34332	6.5	0	
Al	27	1	No Gas	92622.744	2.2	916564946	1.0	0	
Si	28	1	No Gas	26.897	4.5	279844	0.9	0	
Ag	107	1	No Gas	0.252	5.8	4301	5.0	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.902	3.4	5721	3.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.098	1.0	29653	1.0	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1957.964	0.5	10449828	0.7	0	
Sn	118	1	No Gas	0.265	25.2	4394	14.8	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.823	21.3	11939	20.9	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.290	11.6	2750	6.0	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.129	49.0	6172	40.0	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.127	43.5	2537	35.7	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.096	11.6	6321	8.8	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.022	60.3	1657	48.1	0	ICSA Main CR1 Failed
Ca	43	2	He	94303.824	1.6	174680	0.5	0	
Sb	121	2	He	0.677	2.7	4911	1.5	0	ICSA Main CR1 Failed
Ti	47	2	He	1933.621	1.8	350402	1.0	0	
Se	82	1	No Gas	-0.403	-142.2	-130	-68.8	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	649891	0.47	694312	93.60	70	120	
Ge	72	2	He	579547	1.10	636422	91.06	70	120	
Ge	72	1	No Gas	1795104	1.20	1961679	91.51	70	120	
In	115	1	No Gas	2507392	0.12	2829148	88.63	70	120	
Bi	209	1	No Gas	3013717	1.16	3435361	87.73	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	023ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:46:58-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	97.812	2.323	922856	1.71	100	97.8	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	99.357	1.741	225158	1.09	100	99.4	80	120	
V	51	2	He	96.512	1.029	457308	0.70	100	96.5	80	120	
Cr	52	2	He	95.659	0.872	533119	0.21	100	95.7	80	120	
Fe	56	2	He	106122.631	1.485	546062979	0.94	100	106122.6	80	120	
Se	78	2	He	104.960	2.314	7952	2.54	100	105.0	80	120	
As	75	2	He	99.737	1.288	77166	1.07	100	99.7	80	120	
Ca	44	2	He	108013.847	1.007	3322105	0.31	100	108013.8	80	120	
Na	23	2	He	107702.479	1.107	85272945	0.59	100	107702.5	80	120	
Mg	24	2	He	109159.600	1.725	50691868	1.40	100	109159.6	80	120	
K	39	2	He	106769.351	1.009	60129404	0.93	100	106769.4	80	120	
Mn	55	2	He	96.508	0.884	415853	0.61	100	96.5	80	120	
Co	59	2	He	93.142	1.068	770233	0.95	100	93.1	80	120	
Ni	60	2	He	96.071	1.708	187469	1.12	100	96.1	80	120	
Cu	63	2	He	93.595	0.650	496424	0.11	100	93.6	80	120	
Zn	66	2	He	98.959	0.976	104412	0.26	100	99.0	80	120	
Al	27	2	He	89690.854	1.275	26538676	0.75	100	89690.9	80	120	
B	11	1	No Gas	508.218	1.704	653511	0.50	100	508.2	80	120	
Al	27	1	No Gas	92728.947	3.094	905990387	0.65	100	92728.9	80	120	
Si	28	1	No Gas	523.008	2.180	2531132	0.45	100	523.0	80	120	
Ag	107	1	No Gas	96.951	2.400	1371829	2.33	100	97.0	80	120	
Cd	111	1	No Gas	98.862	1.054	292862	1.19	100	98.9	80	120	
Sr	88	1	No Gas	102.656	1.921	2608432	2.10	100	102.7	80	120	
Mo	95	1	No Gas	2097.402	0.880	11051524	0.43	100	2097.4	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	98.572	0.633	943120	0.48	100	98.6	80	120	
Sb	121	1	No Gas	100.062	1.028	1327708	1.54	100	100.1	80	120	
Ba	137	1	No Gas	100.701	0.036	489129	0.45	100	100.7	80	120	
Tl	205	1	No Gas	97.681	0.809	3720997	0.86	100	97.7	80	120	
Tl	203	1	No Gas	97.122	1.332	1566207	1.03	100	97.1	80	120	
Pb	208	1	No Gas	99.736	1.107	5304217	0.92	100	99.7	80	120	
U	238	1	No Gas	103.106	1.068	5940405	1.25	100	103.1	80	120	
Ca	43	2	He	105193.380	0.923	190990	0.69	100	105193.4	80	120	
Sb	121	2	He	101.852	1.145	655746	0.50	100	101.9	80	120	
Ti	47	2	He	2069.570	0.694	367610	0.39	100	2069.6	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	95.035	2.243	855825	0.28	100	95.0	80	120	
Se	82	1	No Gas	100.151	3.103	15596	0.67	100	100.2	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	608995	2.14	694312	87.71	70	120	
Ge	72	2	He	568019	0.72	636422	89.25	70	120	
Ge	72	1	No Gas	1772938	2.43	1961679	90.38	70	120	
In	115	1	No Gas	2475554	0.48	2829148	87.50	70	120	
Bi	209	1	No Gas	3031126	0.40	3435361	88.23	70	120	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	223CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:21:34-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	38265	0.00
Be	9	1	No Gas	17	452.99
V	51	2	He	2475	0.21
Cr	52	2	He	923	0.34
Fe	56	2	He	7662	0.04
Se	78	2	He	56	19.13
As	75	2	He	142	10.97
Ca	44	2	He	353	1.22
Na	23	2	He	63180	0.00
Mg	24	2	He	523	2.95
K	39	2	He	40192	0.00
Mn	55	2	He	267	1.62
Co	59	2	He	30	293.97
Ni	60	2	He	113	39.19
Cu	63	2	He	1183	0.95
Zn	66	2	He	707	1.10
Al	27	2	He	603	3.03
B	11	1	No Gas	10411	0.03
Al	27	1	No Gas	24155	0.01
Si	28	1	No Gas	152374	0.00
Ag	107	1	No Gas	480	4.27
Sr	88	1	No Gas	1457	0.41
Mo	95	1	No Gas	103	37.85
Sn	118	1	No Gas	1383	0.58
Sb	121	1	No Gas	1457	0.88
Ba	137	1	No Gas	187	15.81
Tl	205	1	No Gas	703	0.47
Tl	203	1	No Gas	247	0.95
Pb	208	1	No Gas	647	4.12
U	238	1	No Gas	157	16.47
Ca	43	2	He	23	280.57
Sb	121	2	He	637	1.49
Ti	47	2	He	3	5196.15
Cu	63	1	No Gas	2377	0.15

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	545261	0.20

Calibration Blank Report

Ge	72	2	He	479992	0.24
Ge	72	1	No Gas	1554275	1.25
In	115	1	No Gas	2346070	1.26
Bi	209	1	No Gas	3154823	2.70

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	224CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:23:34-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	3764	0.07
V	51	2	He	10046	0.04
Cr	52	2	He	10451	0.04
Fe	56	2	He	889289	0.00
Se	78	2	He	174	2.38
As	75	2	He	1433	0.24
Ca	44	2	He	5278	0.07
Na	23	2	He	200980	0.00
Mg	24	2	He	83442	0.00
K	39	2	He	130653	0.00
Mn	55	2	He	7692	0.04
Co	59	2	He	12930	0.01
Ni	60	2	He	3694	0.10
Cu	63	2	He	10317	0.01
Zn	66	2	He	2140	0.22
Al	27	2	He	1203	0.66
B	11	1	No Gas	20500	0.01
Al	27	1	No Gas	47404	0.00
Si	28	1	No Gas	185544	0.00
Ag	107	1	No Gas	27115	0.01
Cd	111	1	No Gas	5398	0.01
Sr	88	1	No Gas	48441	0.00
Mo	95	1	No Gas	10014	0.00
Sn	118	1	No Gas	19956	0.04
Sb	121	1	No Gas	26343	0.00
Ba	137	1	No Gas	9974	0.01
Tl	205	1	No Gas	72232	0.00
Tl	203	1	No Gas	29963	0.01
Pb	208	1	No Gas	112217	0.00
U	238	1	No Gas	119782	0.00
Ca	43	2	He	313	6.47
Sb	121	2	He	12333	0.02
Cu	63	1	No Gas	18720	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	541690	0.57	545261	99.35	70	120	
Ge	72	2	He	484370	0.62	479992	100.91	70	120	
Ge	72	1	No Gas	1562258	1.07	1554275	100.51	70	120	

Calibration Standard Report

In	115	1	No Gas	2350523	0.86	2346070	100.19	70	120	
Bi	209	1	No Gas	3198583	3.76	3154823	101.39	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	225CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:25:34-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	9060	0.03
V	51	2	He	21447	0.01
Cr	52	2	He	23864	0.01
Fe	56	2	He	2277292	0.00
Se	78	2	He	388	0.61
As	75	2	He	3495	0.19
Ca	44	2	He	13173	0.03
Na	23	2	He	405420	0.00
Mg	24	2	He	207087	0.00
K	39	2	He	266922	0.00
Mn	55	2	He	18139	0.01
Co	59	2	He	33752	0.01
Ni	60	2	He	8483	0.01
Cu	63	2	He	23821	0.01
Zn	66	2	He	5151	0.14
Al	27	2	He	1957	0.39
B	11	1	No Gas	35540	0.01
Al	27	1	No Gas	71269	0.00
Si	28	1	No Gas	238764	0.00
Ag	107	1	No Gas	66936	0.00
Cd	111	1	No Gas	13998	0.01
Sr	88	1	No Gas	118023	0.00
Mo	95	1	No Gas	24182	0.01
Sn	118	1	No Gas	46442	0.00
Sb	121	1	No Gas	63346	0.00
Ba	137	1	No Gas	23769	0.01
Tl	205	1	No Gas	185304	0.00
Tl	203	1	No Gas	75377	0.00
Pb	208	1	No Gas	272558	0.00
U	238	1	No Gas	299897	0.00
Ca	43	2	He	717	0.63
Sb	121	2	He	30549	0.01
Cu	63	1	No Gas	42580	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	537056	0.21	545261	98.50	70	120	
Ge	72	2	He	479349	0.82	479992	99.87	70	120	
Ge	72	1	No Gas	1550646	1.03	1554275	99.77	70	120	

Calibration Standard Report

In	115	1	No Gas	2344300	0.40	2346070	99.92	70	120	
Bi	209	1	No Gas	3123157	2.66	3154823	99.00	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	226CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:27:34-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	18302	0.00
V	51	2	He	40716	0.00
Cr	52	2	He	47101	0.01
Fe	56	2	He	4419104	0.00
Se	78	2	He	685	2.19
As	75	2	He	6633	0.03
Ca	44	2	He	24489	0.01
Na	23	2	He	727339	0.00
Mg	24	2	He	411790	0.00
K	39	2	He	490296	0.00
Mn	55	2	He	35667	0.00
Co	59	2	He	67262	0.00
Ni	60	2	He	17541	0.00
Cu	63	2	He	47276	0.00
Zn	66	2	He	9293	0.04
Al	27	2	He	3054	0.33
B	11	1	No Gas	62406	0.00
Al	27	1	No Gas	116538	0.00
Si	28	1	No Gas	332137	0.00
Ag	107	1	No Gas	136505	0.00
Cd	111	1	No Gas	28581	0.00
Sr	88	1	No Gas	237821	0.00
Mo	95	1	No Gas	48662	0.00
Sn	118	1	No Gas	94038	0.00
Sb	121	1	No Gas	128336	0.00
Ba	137	1	No Gas	47527	0.00
Tl	205	1	No Gas	379089	0.00
Tl	203	1	No Gas	157720	0.00
Pb	208	1	No Gas	554277	0.00
U	238	1	No Gas	611935	0.00
Ca	43	2	He	1527	0.40
Sb	121	2	He	62066	0.00
Cu	63	1	No Gas	82422	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	528821	0.39	545261	96.98	70	120	
Ge	72	2	He	476878	0.15	479992	99.35	70	120	
Ge	72	1	No Gas	1518865	0.54	1554275	97.72	70	120	

Calibration Standard Report

In	115	1	No Gas	2364391	1.61	2346070	100.78	70	120	
Bi	209	1	No Gas	3150943	1.40	3154823	99.88	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	227CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:29:34-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	172344	0.00
V	51	2	He	364370	0.00
Cr	52	2	He	431986	0.00
Fe	56	2	He	40943495	0.00
Se	78	2	He	5857	0.02
As	75	2	He	60498	0.00
Ca	44	2	He	234109	0.00
Na	23	2	He	6367672	0.00
Mg	24	2	He	3758485	0.00
K	39	2	He	4225942	0.00
Mn	55	2	He	336959	0.00
Co	59	2	He	639668	0.00
Ni	60	2	He	157209	0.00
Cu	63	2	He	427517	0.00
Zn	66	2	He	89823	0.00
Al	27	2	He	23206	0.01
B	11	1	No Gas	505609	0.00
Al	27	1	No Gas	812743	0.00
Si	28	1	No Gas	1936838	0.00
Ag	107	1	No Gas	1264694	0.00
Cd	111	1	No Gas	267385	0.00
Sr	88	1	No Gas	2268197	0.00
Mo	95	1	No Gas	459302	0.00
Sn	118	1	No Gas	871012	0.00
Sb	121	1	No Gas	1243278	0.00
Ba	137	1	No Gas	449516	0.00
Tl	205	1	No Gas	3779171	0.00
Tl	203	1	No Gas	1567436	0.00
Pb	208	1	No Gas	5414271	0.00
U	238	1	No Gas	5938867	0.00
Ca	43	2	He	13710	0.01
Sb	121	2	He	578590	0.00
Cu	63	1	No Gas	732067	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	503935	1.26	545261	92.42	70	120	
Ge	72	2	He	461855	1.75	479992	96.22	70	120	
Ge	72	1	No Gas	1495107	0.53	1554275	96.19	70	120	

Calibration Standard Report

In	115	1	No Gas	2276244	1.26	2346070	97.02	70	120	
Bi	209	1	No Gas	3044296	2.90	3154823	96.50	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	228CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:31:29-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	335192	0.00
V	51	2	He	714219	0.00
Cr	52	2	He	838662	0.00
Fe	56	2	He	79643242	0.00
Se	78	2	He	11398	0.00
As	75	2	He	118306	0.00
Ca	44	2	He	461756	0.00
Na	23	2	He	12220850	0.00
Mg	24	2	He	7185955	0.00
K	39	2	He	8168428	0.00
Mn	55	2	He	654943	0.00
Co	59	2	He	1300599	0.00
Ni	60	2	He	300563	0.00
Cu	63	2	He	823859	0.00
Zn	66	2	He	165975	0.00
Al	27	2	He	43341	0.00
B	11	1	No Gas	1000811	0.00
Al	27	1	No Gas	1554045	0.00
Si	28	1	No Gas	3593754	0.00
Ag	107	1	No Gas	2474754	0.00
Cd	111	1	No Gas	520304	0.00
Sr	88	1	No Gas	4370723	0.00
Mo	95	1	No Gas	905796	0.00
Sn	118	1	No Gas	1736196	0.00
Sb	121	1	No Gas	2406667	0.00
Ba	137	1	No Gas	886182	0.00
Tl	205	1	No Gas	7316565	0.00
Tl	203	1	No Gas	3106562	0.00
Pb	208	1	No Gas	10479531	0.00
U	238	1	No Gas	11821676	0.00
Ca	43	2	He	26953	0.00
Sb	121	2	He	1187993	0.00
Cu	63	1	No Gas	1417742	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	484057	0.30	545261	88.78	70	120	
Ge	72	2	He	448464	0.76	479992	93.43	70	120	
Ge	72	1	No Gas	1443928	1.94	1554275	92.90	70	120	

Calibration Standard Report

In	115	1	No Gas	2205185	0.87	2346070	93.99	70	120	
Bi	209	1	No Gas	2937921	2.97	3154823	93.12	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	230_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:35:23-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	98.260	1.682	728226	0.97	100	98.3	90	110	
Be	9	1	No Gas	98.913	0.468	174192	1.10	100	98.9	90	110	
V	51	2	He	97.242	0.854	366134	0.27	100	97.2	90	110	
Cr	52	2	He	98.040	1.090	433485	0.50	100	98.0	90	110	
Fe	56	2	He	9821.073	0.582	41189731	0.13	10000	98.2	90	110	
Se	78	2	He	97.513	2.130	5875	1.80	100	97.5	90	110	
As	75	2	He	97.007	0.212	60428	0.39	100	97.0	90	110	
Ca	44	2	He	9735.335	0.532	236180	1.07	10000	97.4	90	110	
Na	23	2	He	9900.897	0.831	6413742	0.32	10000	99.0	90	110	
Mg	24	2	He	10137.737	0.691	3849809	0.24	10000	101.4	90	110	
K	39	2	He	9960.520	1.364	4305380	0.79	10000	99.6	90	110	
Mn	55	2	He	98.132	1.250	338561	0.65	100	98.1	90	110	
Co	59	2	He	94.863	0.437	643976	0.52	100	94.9	90	110	
Ni	60	2	He	99.516	0.435	158108	0.74	100	99.5	90	110	
Cu	63	2	He	98.055	0.650	426661	0.39	100	98.1	90	110	
Zn	66	2	He	96.724	2.176	85699	1.62	100	96.7	90	110	
Al	27	2	He	100.062	1.170	23266	1.74	100	100.1	90	110	
B	11	1	No Gas	331.325	0.864	353049	0.96	500	66.3	90	110	ICV Main CR1 Failed
Al	27	1	No Gas	116.775	18.974	953225	18.14	100	116.8	90	110	ICV Main CR1 Failed
Si	28	1	No Gas	353.022	5.086	1415624	4.15	500	70.6	90	110	ICV Main CR1 Failed
Ag	107	1	No Gas	99.148	2.808	1285584	1.34	100	99.1	90	110	
Cd	111	1	No Gas	99.559	1.907	271706	0.71	100	99.6	90	110	
Sr	88	1	No Gas	100.812	1.895	2316112	1.16	100	100.8	90	110	
Mo	95	1	No Gas	97.303	1.313	461100	0.66	100	97.3	90	110	
Sn	118	1	No Gas	95.891	1.242	869658	0.66	100	95.9	90	110	
Sb	121	1	No Gas	99.413	1.424	1244810	1.48	100	99.4	90	110	
Ba	137	1	No Gas	98.592	0.942	457169	0.75	100	98.6	90	110	
Tl	205	1	No Gas	101.323	3.634	3910899	2.45	100	101.3	90	110	
Tl	203	1	No Gas	98.458	3.011	1606012	1.57	100	98.5	90	110	
Pb	208	1	No Gas	99.547	1.796	5503932	0.38	100	99.5	90	110	
U	238	1	No Gas	95.433	2.097	5920203	1.29	100	95.4	90	110	
Ca	43	2	He	10099.631	1.428	14314	1.86	10000	101.0	90	110	
Sb	121	2	He	94.980	1.149	588079	0.56	100	95.0	90	110	
Ti	47	2	He	99.332	1.496	13537	1.62	100	99.3	90	110	
Cu	63	1	No Gas	99.283	0.739	733075	0.39	100	99.3	90	110	
Se	82	1	No Gas	100.086	1.314	13105	1.73	100	100.1	90	110	

QC ISTD Table

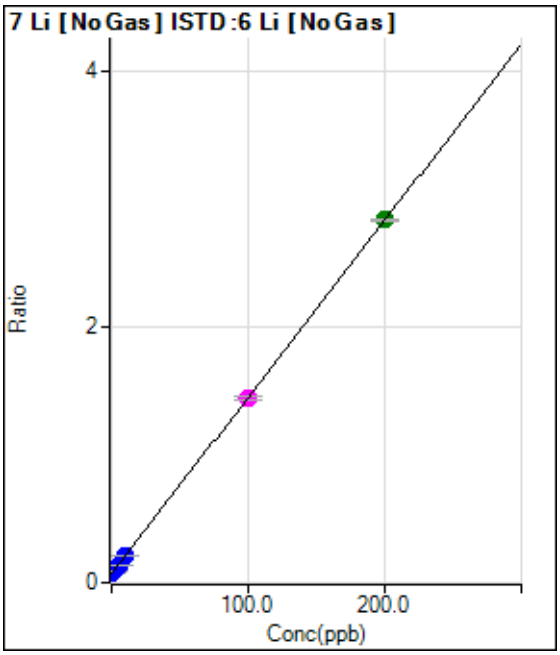
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	509854	0.64	545261	93.51	70	120	
Ge	72	2	He	472382	0.60	479992	98.41	70	120	
Ge	72	1	No Gas	1502250	0.42	1554275	96.65	70	120	
In	115	1	No Gas	2315364	1.57	2346070	98.69	70	120	
Bi	209	1	No Gas	3100728	2.16	3154823	98.29	70	120	

Calibration for 230_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052521A.b\
Analysis File: 052521A.batch.bin
DA Date-Time: 5/25/2021 11:03:56 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	223CALB.d	CAL BLK	5/25/2021 9:21:34 PM
2	224CALS.d	2/10/200	5/25/2021 9:23:34 PM
3	225CALS.d	5/25/500	5/25/2021 9:25:34 PM
4	226CALS.d	10/50/100	5/25/2021 9:27:34 PM
5	227CALS.d	100/500/10K	5/25/2021 9:29:34 PM
6	228CALS.d	200/1000/20K	5/25/2021 9:31:29 PM

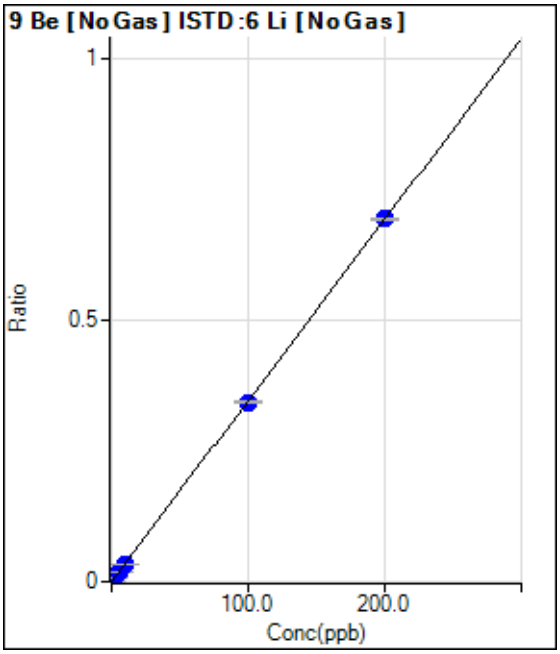
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38265.12	0.0702	P	1.5
2	☐	2.000	1.902	52261.51	0.0965	P	2.1
3	☐	5.000	4.902	74080.03	0.1379	P	0.2
4	☐	10.000	9.916	109593.71	0.2072	P	0.4
5	☐	100.000	99.111	725642.46	1.4402	M	2.1
6	☐	200.000	200.452	1375184.61	2.8410	A	0.5

y = 0.0138 * x + 0.0702
R = 1.0000
DL = 0.2236
BEC = 5.077

Weight: <None>
Min Conc: <None>

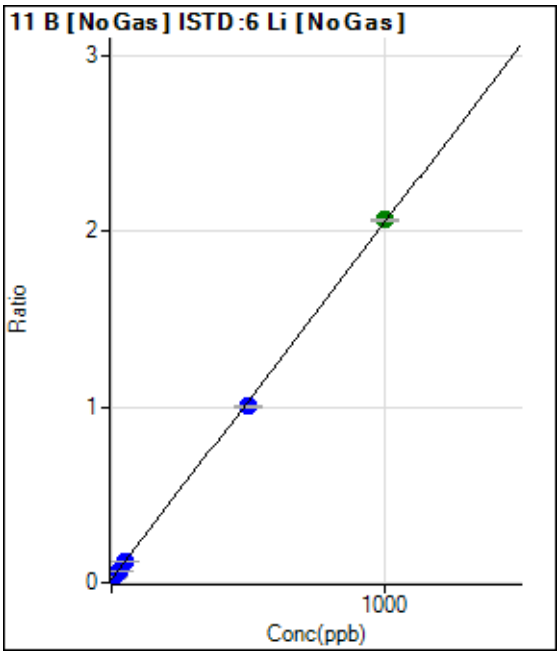


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	75.7
2	☐	2.000	2.003	3763.87	0.0069	P	1.9
3	☐	5.000	4.876	9059.64	0.0169	P	2.3
4	☐	10.000	10.012	18301.98	0.0346	P	0.7
5	☐	100.000	99.025	172344.24	0.3420	P	1.3
6	☐	200.000	200.490	335191.99	0.6925	P	0.5

y = 0.0035 * x + 3.0591E-005
R = 1.0000
DL = 0.02011
BEC = 0.008858

Weight: <None>
Min Conc: <None>

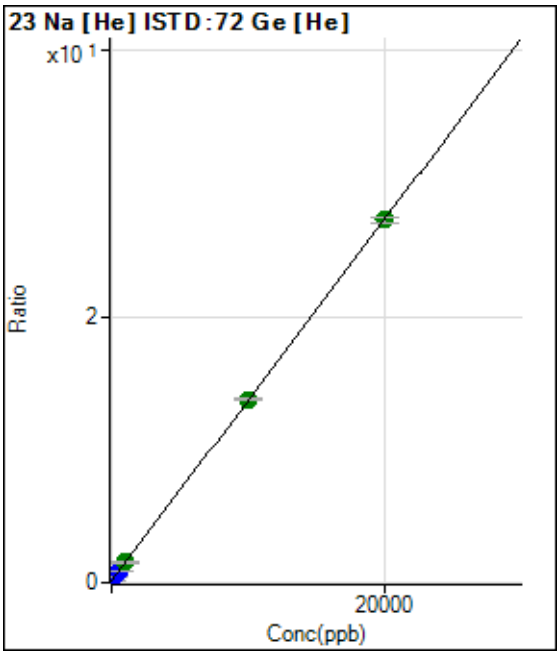
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10410.59	0.0191	P	2.6
2	☐	10.000	9.228	20500.03	0.0378	P	1.9
3	☐	25.000	23.168	35539.96	0.0662	P	3.1
4	☐	50.000	48.672	62406.11	0.1180	P	1.6
5	☐	500.000	484.355	505608.91	1.0035	P	1.8
6	☐	1000.000	1007.943	1000811.08	2.0676	A	0.8

y = 0.0020 * x + 0.0191
R = 0.9998
DL = 0.7372
BEC = 9.394

Weight: <None>
Min Conc: <None>

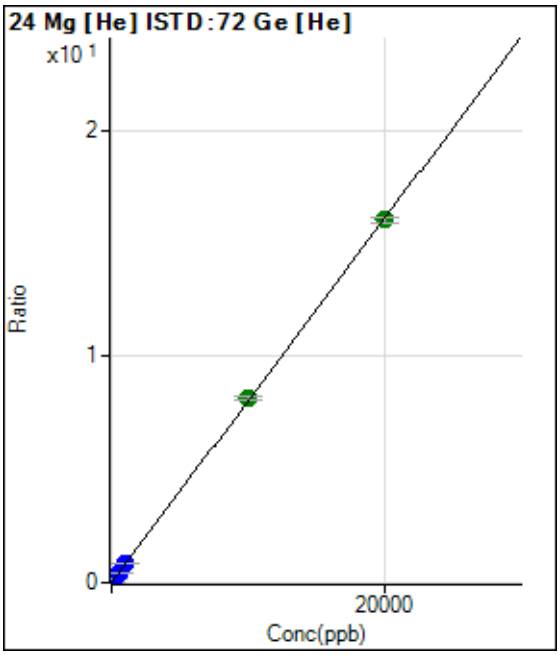


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63179.61	0.1316	P	1.5
2	☐	200.000	208.618	200980.14	0.4150	P	1.1
3	☐	500.000	525.885	405420.47	0.8458	P	1.2
4	☐	1000.000	1026.132	727338.63	1.5252	A	1.8
5	☐	10000.00	10055.98	6367671.99	13.7885	A	0.9
6	☐	20000.00	19969.96	12220850.24	27.2525	A	1.5

y = 0.0014 * x + 0.1316
R = 1.0000
DL = 4.476
BEC = 96.92

Weight: <None>
Min Conc: <None>

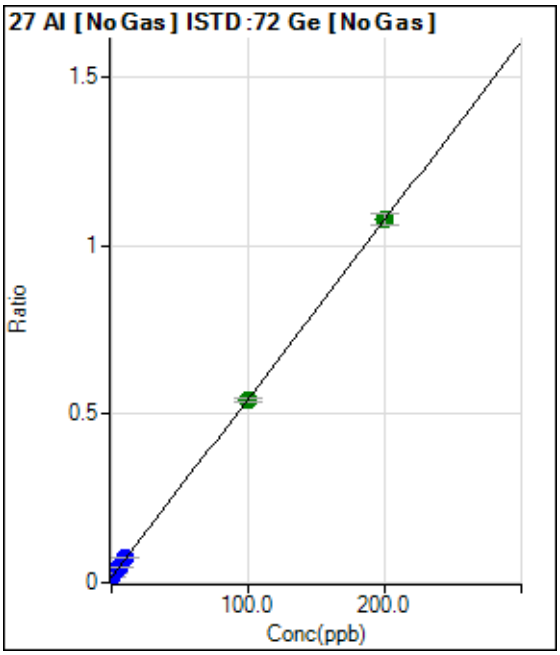
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	523.35	0.0011	P	15.5
2	☐	200.000	212.968	83442.34	0.1723	P	1.3
3	☐	500.000	536.127	207087.10	0.4320	P	0.9
4	☐	1000.000	1072.901	411790.44	0.8635	P	0.7
5	☐	10000.00	10124.08	3758485.05	8.1390	A	1.6
6	☐	20000.00	19933.28	7185954.68	16.0238	A	1.3

y = 8.0382E-004 * x + 0.0011
R = 1.0000
DL = 0.6295
BEC = 1.357

Weight: <None>
Min Conc: <None>

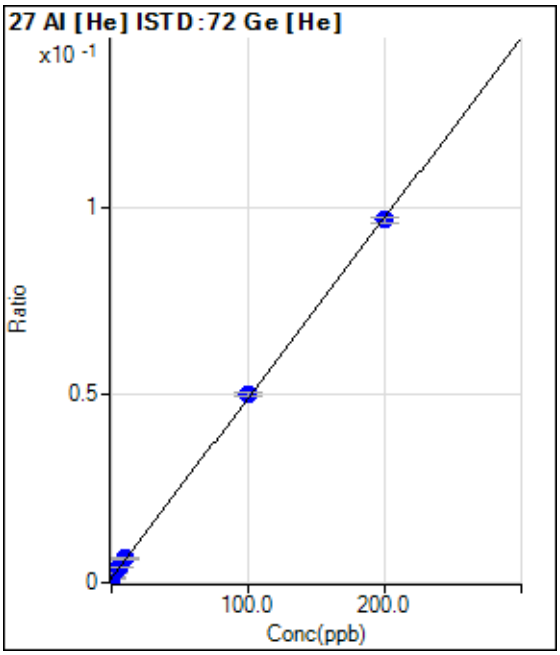


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24154.72	0.0155	P	3.7
2	☐	2.000	2.792	47404.42	0.0303	P	2.7
3	☐	5.000	5.736	71268.68	0.0460	P	0.3
4	☐	10.000	11.538	116537.52	0.0767	P	0.7
5	☐	100.000	99.578	812743.14	0.5436	A	1.8
6	☐	200.000	200.108	1554045.19	1.0767	A	3.4

y = 0.0053 * x + 0.0155
R = 1.0000
DL = 0.321
BEC = 2.931

Weight: <None>
Min Conc: <None>

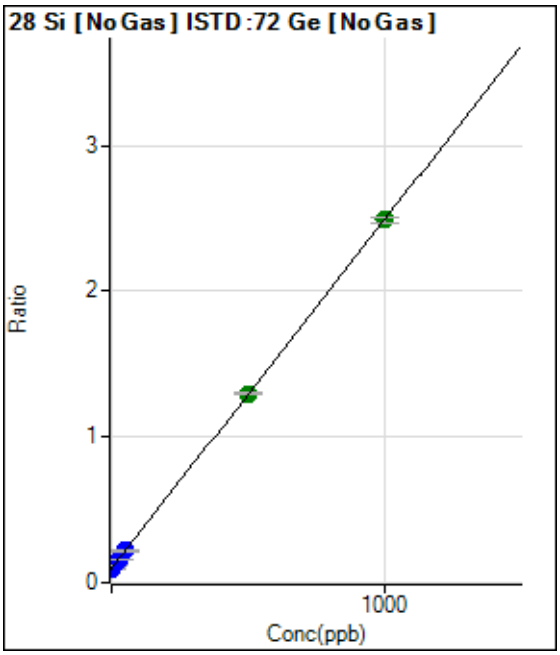
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0013	P	18.2
2	☐	2.000	2.561	1203.41	0.0025	P	8.5
3	☐	5.000	5.888	1956.85	0.0041	P	6.9
4	☐	10.000	10.730	3053.73	0.0064	P	10.0
5	☐	100.000	102.129	23206.29	0.0502	P	1.8
6	☐	200.000	198.871	43341.18	0.0966	P	1.9

y = 4.7965E-004 * x + 0.0013
R = 0.9999
DL = 1.43
BEC = 2.621

Weight: <None>
Min Conc: <None>

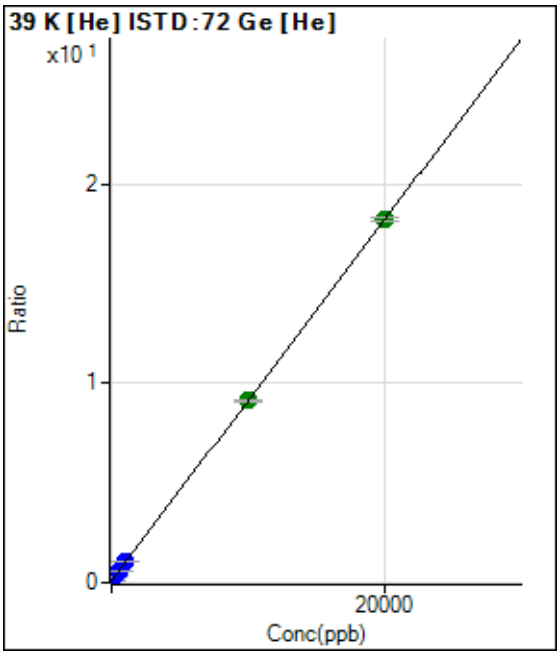


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152374.06	0.0981	P	2.3
2	☐	10.000	8.664	185544.40	0.1188	P	1.2
3	☐	25.000	23.379	238763.87	0.1540	P	0.3
4	☐	50.000	50.434	332136.86	0.2187	P	1.6
5	☐	500.000	500.620	1936838.46	1.2955	A	0.9
6	☐	1000.000	999.722	3593753.59	2.4893	A	1.9

y = 0.0024 * x + 0.0981
R = 1.0000
DL = 2.822
BEC = 40.99

Weight: <None>
Min Conc: <None>

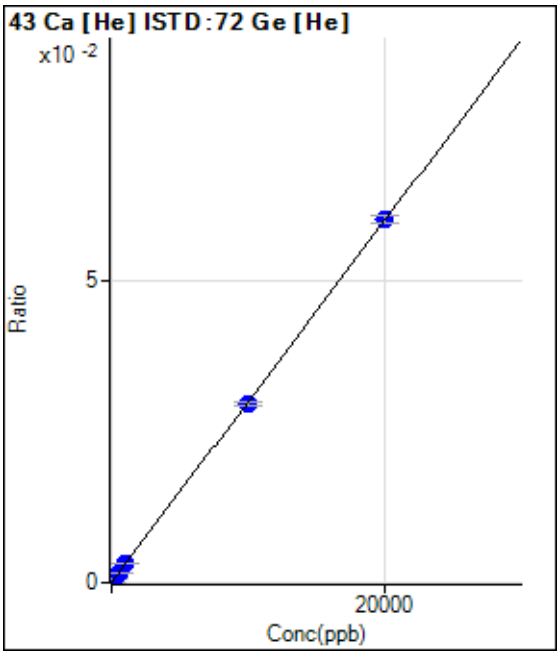
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40192.21	0.0837	P	1.4
2	☐	200.000	205.163	130653.34	0.2698	P	1.2
3	☐	500.000	521.805	266922.43	0.5568	P	0.3
4	☐	1000.000	1041.613	490296.37	1.0281	P	0.1
5	☐	10000.00	10000.57	4225941.71	9.1510	A	1.0
6	☐	20000.00	19997.03	8168428.00	18.2145	A	0.9

y = 9.0667E-004 * x + 0.0837
R = 1.0000
DL = 3.979
BEC = 92.36

Weight: <None>
Min Conc: <None>

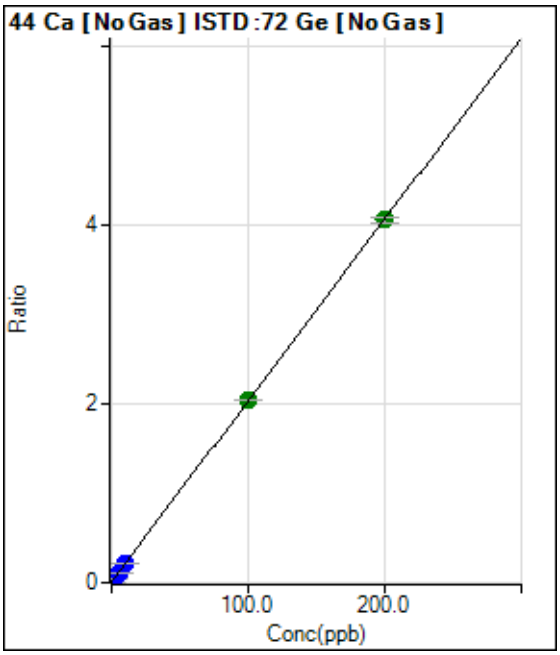


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	65.3
2	☐	200.000	199.619	313.34	0.0006	P	19.9
3	☐	500.000	482.880	716.70	0.0015	P	4.1
4	☐	1000.000	1052.582	1526.78	0.0032	P	6.0
5	☐	10000.00	9895.228	13710.39	0.0297	P	1.8
6	☐	20000.00	20050.18	26953.33	0.0601	P	2.0

y = 2.9954E-006 * x + 4.8588E-005
R = 1.0000
DL = 31.77
BEC = 16.22

Weight: <None>
Min Conc: <None>

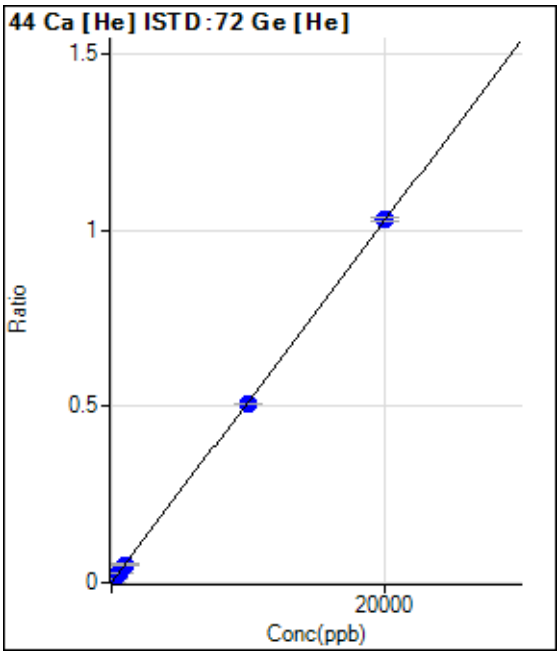
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13480.13	0.0087	P	5.4
2	☐	2.000	2.013	77343.03	0.0495	P	2.4
3	☐	5.000	5.042	172089.58	0.1110	P	0.8
4	☐	10.000	10.260	329394.79	0.2169	P	1.2
5	☐	100.000	100.384	3058445.16	2.0457	A	1.0
6	☐	200.000	199.794	5865444.91	4.0629	A	1.7

y = 0.0203 * x + 0.0087
R = 1.0000
DL = 0.06959
BEC = 0.4276

Weight: <None>
Min Conc: <None>

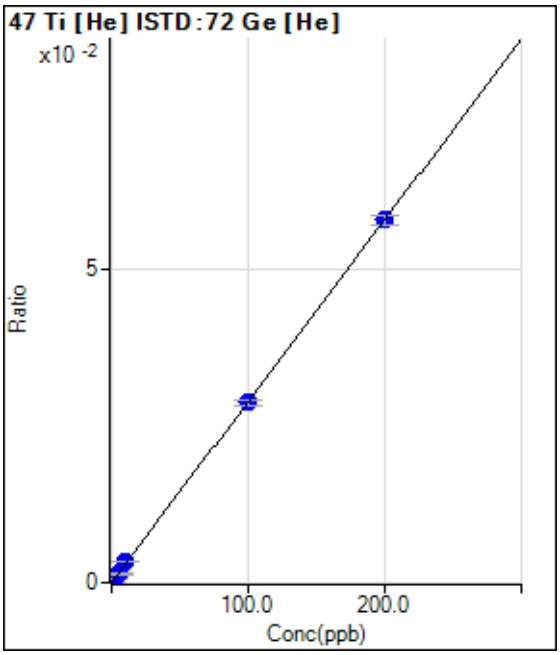


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	353.34	0.0007	P	4.2
2	☐	200.000	198.133	5277.78	0.0109	P	3.7
3	☐	500.000	521.659	13173.15	0.0275	P	4.7
4	☐	1000.000	987.025	24488.78	0.0514	P	2.4
5	☐	10000.00	9871.203	234109.09	0.5069	P	0.8
6	☐	20000.00	20064.52	461756.07	1.0297	P	1.2

y = 5.1280E-005 * x + 7.3612E-004
R = 1.0000
DL = 1.813
BEC = 14.35

Weight: <None>
Min Conc: <None>

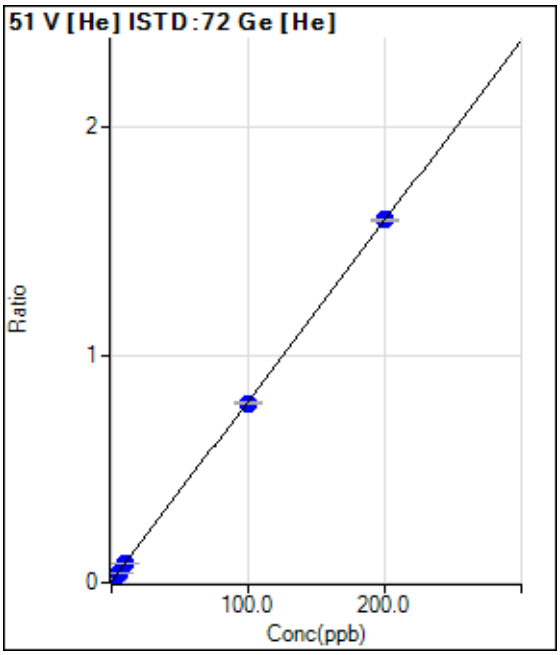
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.026	286.68	0.0006	P	25.1
3	☐	5.000	4.772	663.36	0.0014	P	14.7
4	☐	10.000	11.246	1550.11	0.0033	P	2.2
5	☐	100.000	99.496	13256.59	0.0287	P	2.9
6	☐	200.000	200.195	25894.73	0.0577	P	2.5

y = 2.8842E-004 * x + 6.9306E-006
R = 1.0000
DL = 0.1249
BEC = 0.02403

Weight: <None>
Min Conc: <None>

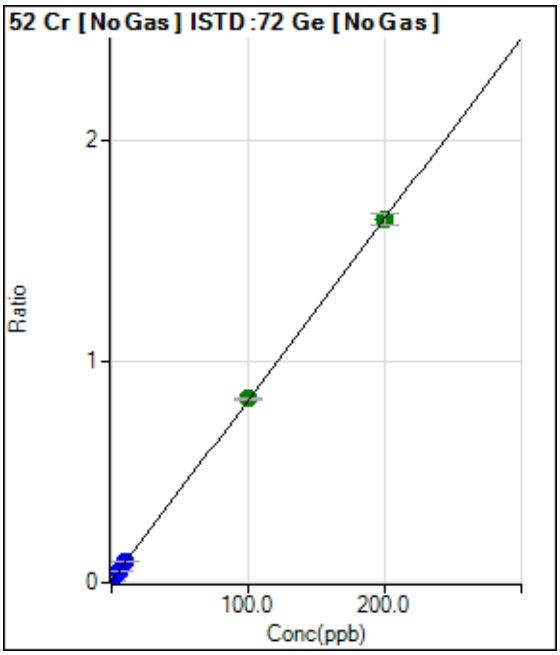


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2474.68	0.0052	P	5.5
2	☐	2.000	1.968	10045.95	0.0207	P	3.3
3	☐	5.000	4.999	21446.83	0.0447	P	1.1
4	☐	10.000	10.132	40715.80	0.0854	P	1.3
5	☐	100.000	99.004	364369.90	0.7891	P	1.5
6	☐	200.000	200.492	714218.89	1.5926	P	0.5

y = 0.0079 * x + 0.0052
R = 1.0000
DL = 0.1067
BEC = 0.6512

Weight: <None>
Min Conc: <None>

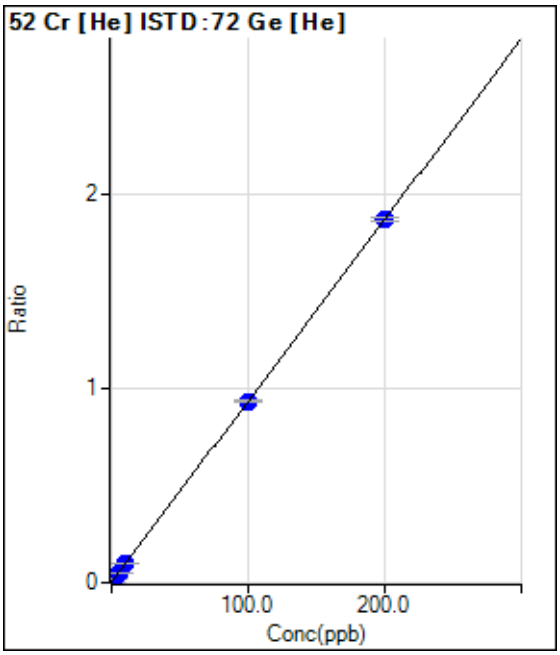
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11491.67	0.0074	P	1.4
2	☐	2.000	2.037	37601.99	0.0241	P	2.7
3	☐	5.000	5.137	76680.72	0.0495	P	1.0
4	☐	10.000	10.503	141831.78	0.0934	P	0.9
5	☐	100.000	100.775	1244570.09	0.8324	A	0.7
6	☐	200.000	199.583	2369183.77	1.6414	A	3.1

y = 0.0082 * x + 0.0074
R = 1.0000
DL = 0.03703
BEC = 0.9031

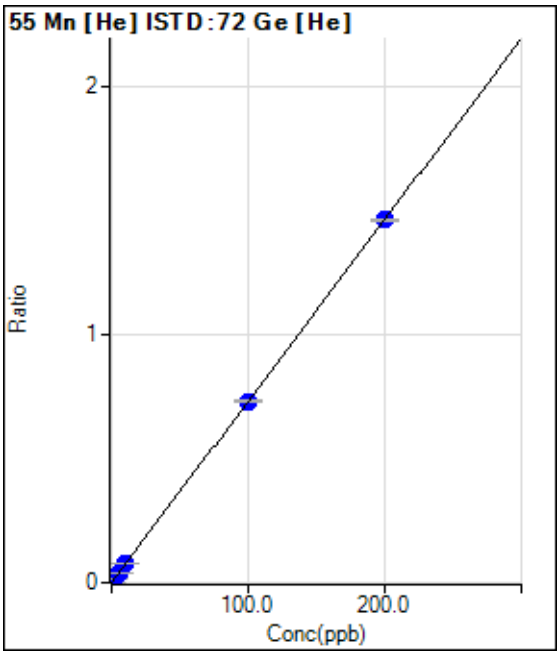
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	923.38	0.0019	P	3.2
2	☐	2.000	2.104	10450.81	0.0216	P	4.1
3	☐	5.000	5.124	23864.49	0.0498	P	1.4
4	☐	10.000	10.368	47101.13	0.0988	P	2.5
5	☐	100.000	99.936	431986.39	0.9354	P	0.8
6	☐	200.000	200.009	838661.55	1.8702	P	1.1

y = 0.0093 * x + 0.0019
R = 1.0000
DL = 0.01967
BEC = 0.206

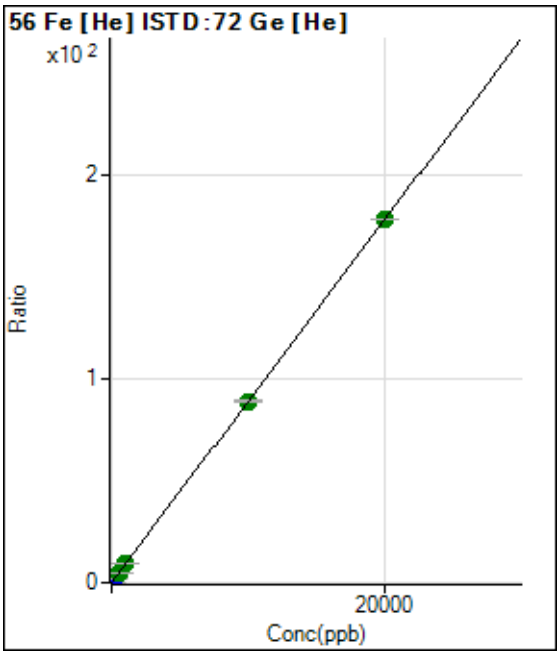
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0006	P	4.6
2	☐	2.000	2.100	7692.30	0.0159	P	3.5
3	☐	5.000	5.109	18138.90	0.0378	P	2.2
4	☐	10.000	10.172	35667.07	0.0748	P	1.4
5	☐	100.000	99.905	336958.67	0.7297	P	1.4
6	☐	200.000	200.035	654942.91	1.4605	P	0.7

y = 0.0073 * x + 5.5562E-004
R = 1.0000
DL = 0.01042
BEC = 0.07613

Weight: <None>
Min Conc: <None>

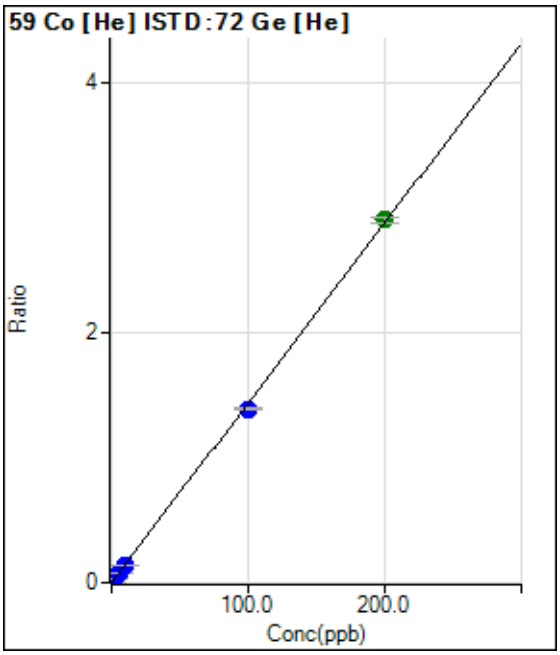


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7662.30	0.0160	P	3.5
2	☐	200.000	205.024	889288.89	1.8360	P	0.6
3	☐	500.000	533.418	2277292.26	4.7511	A	1.3
4	☐	1000.000	1042.105	4419104.31	9.2668	A	0.5
5	☐	10000.00	9986.306	40943495.22	88.6646	A	1.5
6	☐	20000.00	20003.85	79643242.15	177.590	A	0.1

y = 0.0089 * x + 0.0160
R = 1.0000
DL = 0.1868
BEC = 1.798

Weight: <None>
Min Conc: <None>

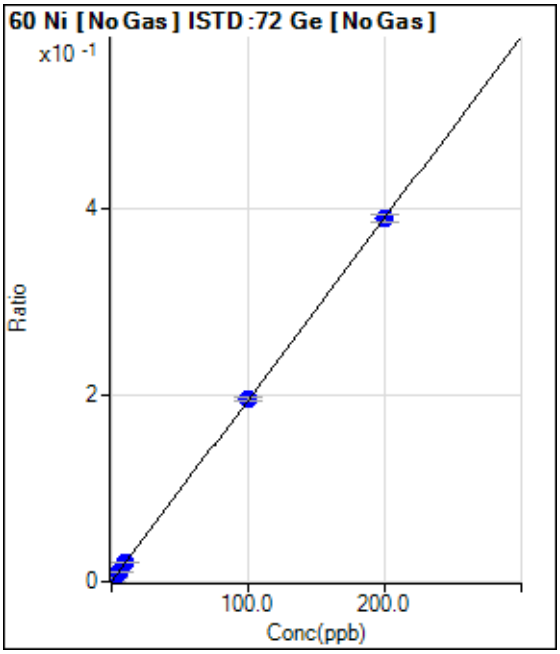
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0001	P	88.2
2	☐	2.000	1.853	12929.67	0.0267	P	1.6
3	☐	5.000	4.895	33752.19	0.0704	P	1.5
4	☐	10.000	9.811	67262.11	0.1410	P	1.2
5	☐	100.000	96.386	639667.97	1.3851	P	1.0
6	☐	200.000	201.820	1300599.30	2.9003	A	1.3

y = 0.0144 * x + 6.2467E-005
R = 0.9998
DL = 0.0115
BEC = 0.004347

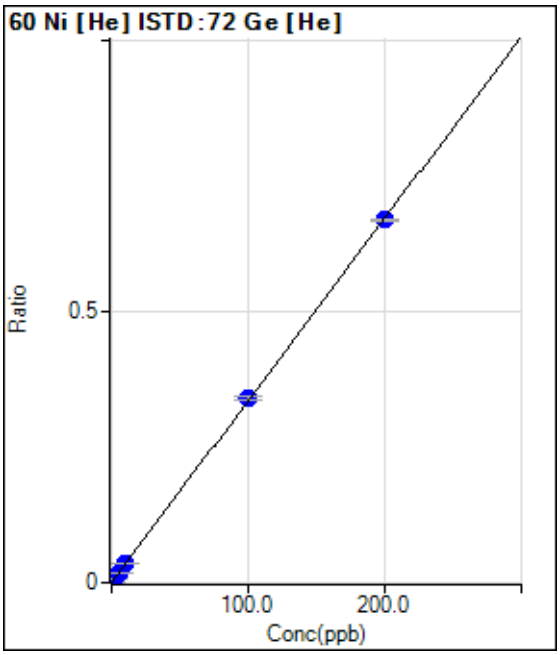
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	323.35	0.0002	P	34.3
2	☐	2.000	2.165	6895.20	0.0044	P	2.8
3	☐	5.000	4.989	15355.57	0.0099	P	3.4
4	☐	10.000	10.511	31329.58	0.0206	P	3.7
5	☐	100.000	100.648	292645.27	0.1957	P	1.5
6	☐	200.000	199.649	560213.91	0.3881	P	2.1

y = 0.0019 * x + 2.0855E-004
R = 1.0000
DL = 0.1104
BEC = 0.1073

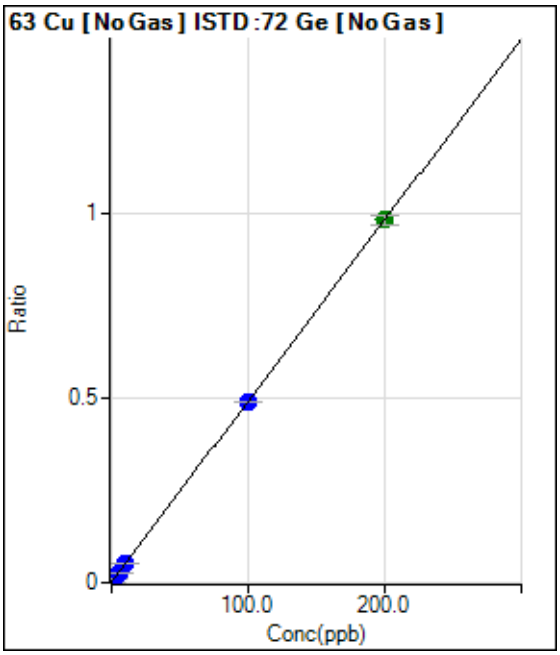
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	44.6
2	☐	2.000	2.199	3693.92	0.0076	P	3.5
3	☐	5.000	5.195	8482.81	0.0177	P	0.4
4	☐	10.000	10.874	17541.47	0.0368	P	1.0
5	☐	100.000	101.221	157208.88	0.3404	P	1.8
6	☐	200.000	199.339	300562.93	0.6702	P	0.6

y = 0.0034 * x + 2.3621E-004
R = 1.0000
DL = 0.09396
BEC = 0.07028

Weight: <None>
Min Conc: <None>

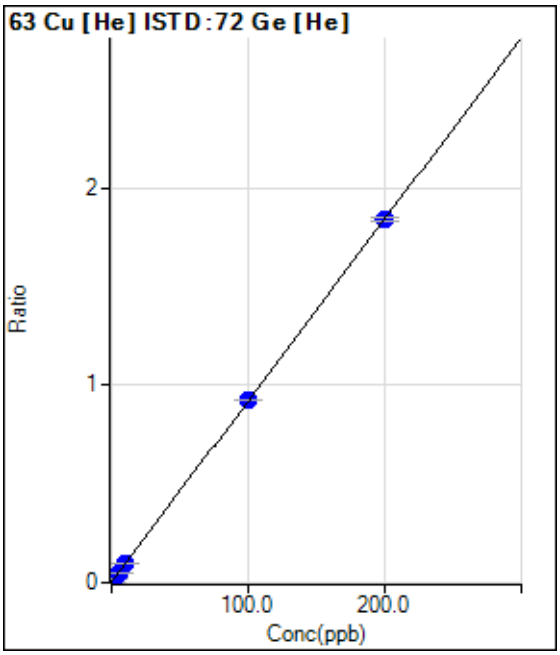


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2376.92	0.0015	P	2.5
2	☐	2.000	2.133	18719.88	0.0120	P	0.9
3	☐	5.000	5.292	42580.32	0.0275	P	1.1
4	☐	10.000	10.763	82422.07	0.0543	P	0.7
5	☐	100.000	99.620	732066.89	0.4896	P	0.3
6	☐	200.000	200.143	1417742.01	0.9822	A	2.6

y = 0.0049 * x + 0.0015
R = 1.0000
DL = 0.02294
BEC = 0.312

Weight: <None>
Min Conc: <None>

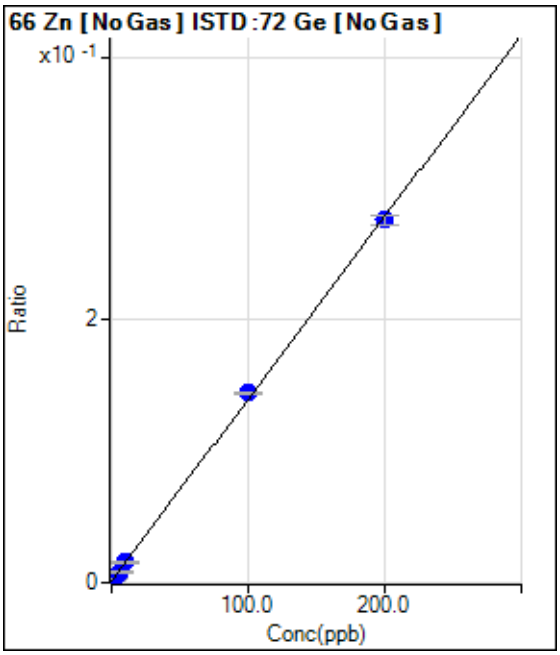
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1183.41	0.0025	P	11.1
2	☐	2.000	2.050	10317.45	0.0213	P	1.0
3	☐	5.000	5.141	23821.08	0.0497	P	1.4
4	☐	10.000	10.523	47275.67	0.0991	P	0.7
5	☐	100.000	100.497	427517.00	0.9257	P	0.3
6	☐	200.000	199.721	823858.71	1.8372	P	1.2

y = 0.0092 * x + 0.0025
R = 1.0000
DL = 0.08955
BEC = 0.2684

Weight: <None>
Min Conc: <None>

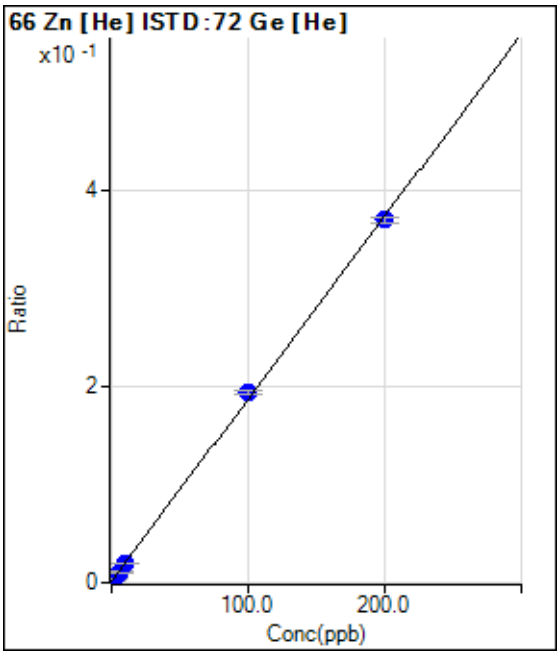


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1796.82	0.0012	P	6.8
2	☐	2.000	1.673	5427.86	0.0035	P	2.1
3	☐	5.000	4.903	12329.10	0.0080	P	3.2
4	☐	10.000	10.381	23604.25	0.0155	P	3.5
5	☐	100.000	103.182	215515.97	0.1441	P	0.6
6	☐	200.000	198.395	398533.62	0.2761	P	2.4

y = 0.0014 * x + 0.0012
R = 0.9998
DL = 0.1693
BEC = 0.8347

Weight: <None>
Min Conc: <None>

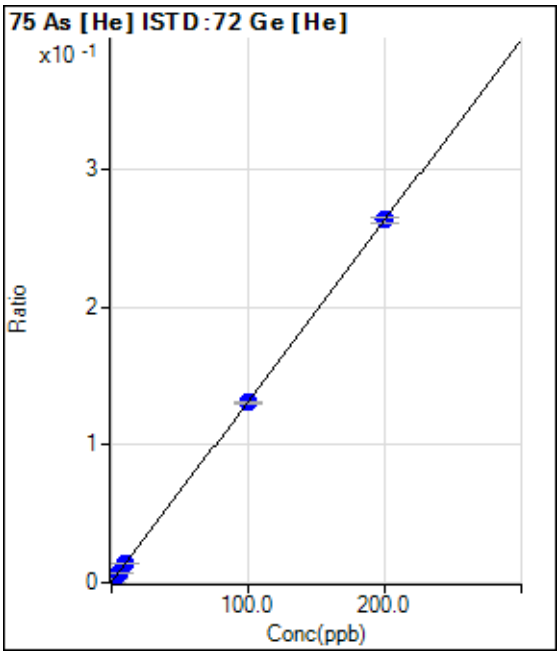
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0015	P	8.0
2	☐	2.000	1.584	2140.21	0.0044	P	4.9
3	☐	5.000	4.983	5151.06	0.0107	P	6.6
4	☐	10.000	9.682	9293.38	0.0195	P	3.3
5	☐	100.000	103.756	89823.32	0.1945	P	1.6
6	☐	200.000	198.142	165974.97	0.3701	P	1.9

y = 0.0019 * x + 0.0015
R = 0.9997
DL = 0.1905
BEC = 0.7914

Weight: <None>
Min Conc: <None>

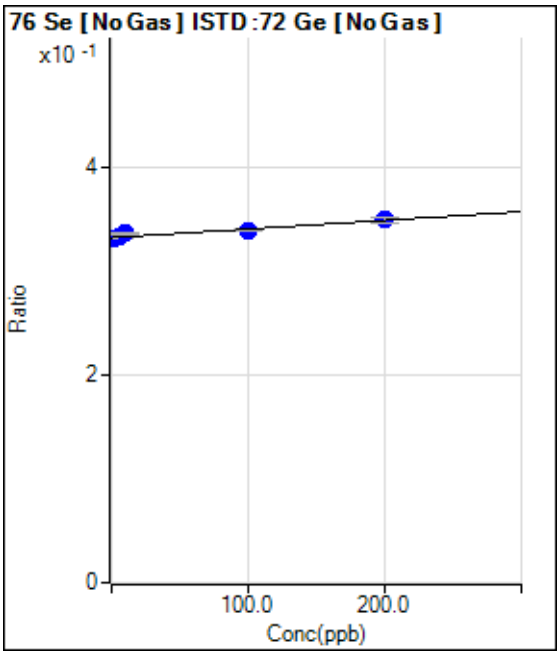


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	142.23	0.0003	P	15.8
2	☐	2.000	2.024	1433.42	0.0030	P	4.0
3	☐	5.000	5.315	3494.92	0.0073	P	5.8
4	☐	10.000	10.347	6632.77	0.0139	P	2.0
5	☐	100.000	99.348	60498.14	0.1310	P	1.0
6	☐	200.000	200.301	118305.62	0.2638	P	1.4

y = 0.0013 * x + 2.9637E-004
R = 1.0000
DL = 0.1066
BEC = 0.2253

Weight: <None>
Min Conc: <None>

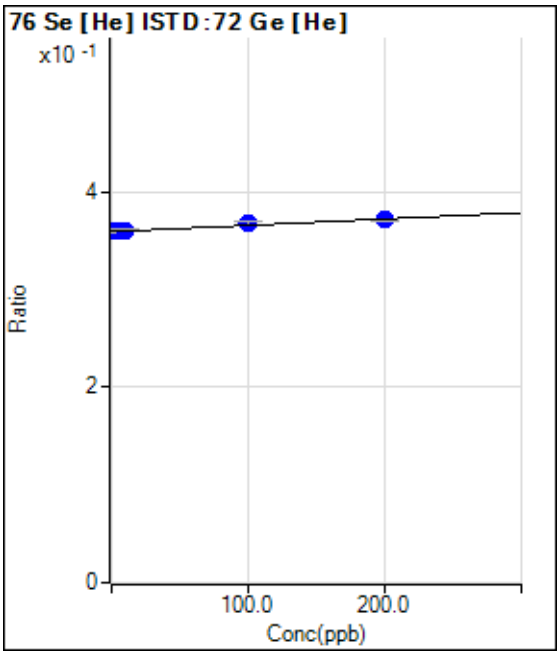
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	517004.00	0.3327	P	2.2
2	☐	2.000	-20.893	517022.06	0.3309	P	0.5
3	☐	5.000	15.559	517901.13	0.3340	P	1.2
4	☐	10.000	47.693	511375.71	0.3367	P	0.7
5	☐	100.000	87.362	508330.55	0.3400	P	0.5
6	☐	200.000	204.399	504967.18	0.3498	P	1.6

y = 8.3649E-005 * x + 0.3327
R = 0.9674
DL = 261
BEC = 3977

Weight: <None>
Min Conc: <None>

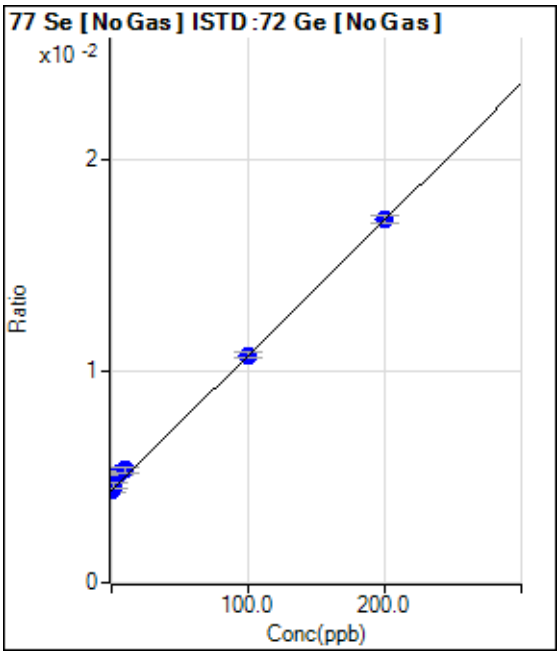


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172215.85	0.3588	P	1.2
2	☐	2.000	12.901	174185.80	0.3596	P	1.9
3	☐	5.000	9.120	172268.69	0.3594	P	1.1
4	☐	10.000	25.492	171897.69	0.3605	P	0.4
5	☐	100.000	129.919	169636.59	0.3673	P	0.9
6	☐	200.000	184.054	166308.95	0.3709	P	0.9

y = 6.5540E-005 * x + 0.3588
R = 0.9826
DL = 200.7
BEC = 5474

Weight: <None>
Min Conc: <None>

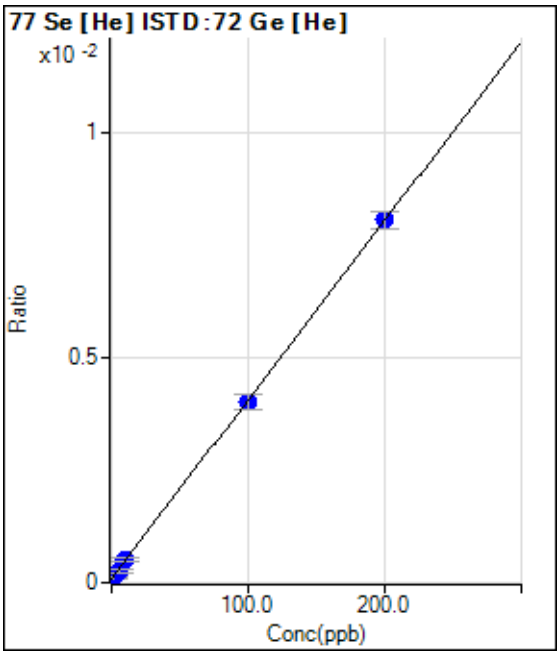
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6748.52	0.0043	P	3.9
2	☐	2.000	3.766	7158.72	0.0046	P	6.8
3	☐	5.000	12.846	8012.52	0.0052	P	4.0
4	☐	10.000	15.390	8099.26	0.0053	P	5.3
5	☐	100.000	99.752	16089.90	0.0108	P	2.4
6	☐	200.000	199.641	24816.50	0.0172	P	2.0

y = 6.4348E-005 * x + 0.0043
R = 0.9993
DL = 7.969
BEC = 67.48

Weight: <None>
Min Conc: <None>

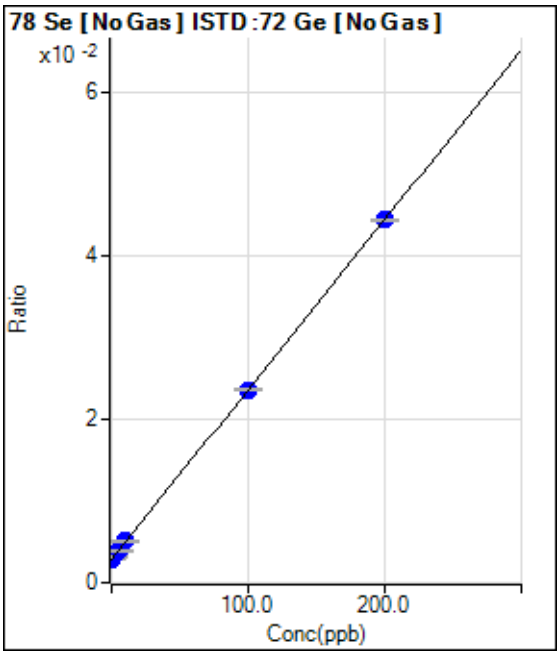


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	47.9
2	☐	2.000	0.502	53.33	0.0001	P	29.0
3	☐	5.000	4.556	130.00	0.0003	P	27.9
4	☐	10.000	10.396	240.01	0.0005	P	12.5
5	☐	100.000	98.922	1856.83	0.0040	P	7.8
6	☐	200.000	200.546	3613.89	0.0081	P	5.1

y = 3.9733E-005 * x + 9.0222E-005
R = 1.0000
DL = 3.265
BEC = 2.271

Weight: <None>
Min Conc: <None>

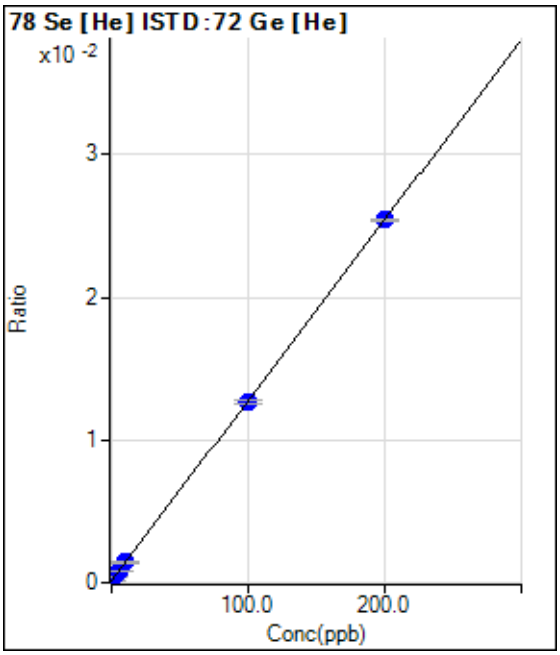
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4430.82	0.0029	P	3.0
2	☐	2.000	1.945	5084.39	0.0033	P	5.3
3	☐	5.000	5.372	6148.17	0.0040	P	6.5
4	☐	10.000	10.892	7765.72	0.0051	P	4.2
5	☐	100.000	100.013	35303.23	0.0236	P	0.6
6	☐	200.000	199.940	64042.05	0.0444	P	0.8

y = 2.0759E-004 * x + 0.0029
R = 1.0000
DL = 1.244
BEC = 13.74

Weight: <None>
Min Conc: <None>

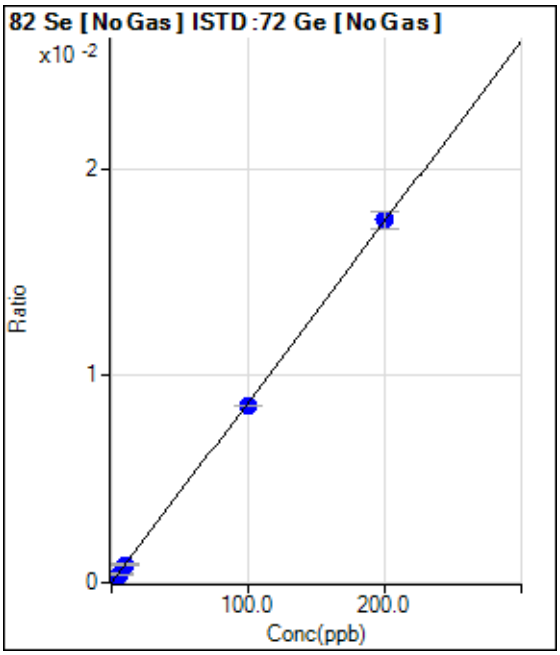


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.00	0.0001	P	10.5
2	☐	2.000	1.920	174.00	0.0004	P	4.7
3	☐	5.000	5.483	388.01	0.0008	P	1.6
4	☐	10.000	10.441	684.69	0.0014	P	15.0
5	☐	100.000	99.458	5856.62	0.0127	P	1.6
6	☐	200.000	200.238	11397.50	0.0254	P	0.9

y = 1.2634E-004 * x + 1.1665E-004
R = 1.0000
DL = 0.2905
BEC = 0.9233

Weight: <None>
Min Conc: <None>

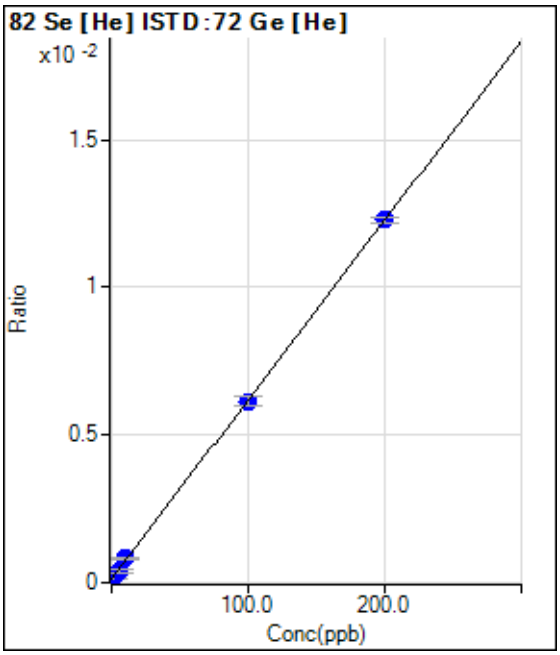
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-5.56	0.0000	P	-707.0
2	☐	2.000	2.259	301.58	0.0002	P	22.8
3	☐	5.000	4.680	627.31	0.0004	P	25.5
4	☐	10.000	10.048	1324.44	0.0009	P	14.4
5	☐	100.000	98.004	12770.63	0.0085	P	1.0
6	☐	200.000	201.001	25288.51	0.0175	P	5.0

y = 8.7192E-005 * x - 3.7187E-006
R = 0.9999
DL = 0.9047
BEC = -0.04265

Weight: <None>
Min Conc: <None>

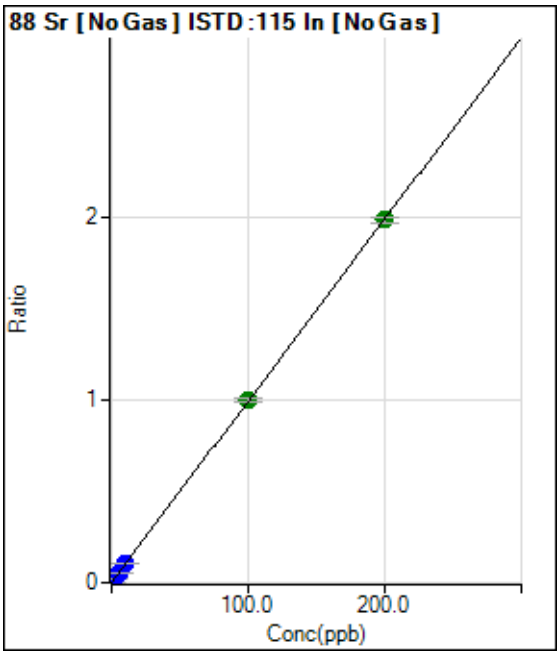


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0001	P	28.8
2	☐	2.000	1.007	90.00	0.0002	P	62.0
3	☐	5.000	4.236	183.34	0.0004	P	29.3
4	☐	10.000	11.649	396.68	0.0008	P	10.2
5	☐	100.000	99.229	2840.36	0.0061	P	6.1
6	☐	200.000	200.332	5507.91	0.0123	P	1.9

y = 6.0679E-005 * x + 1.2499E-004
R = 0.9999
DL = 1.78
BEC = 2.06

Weight: <None>
Min Conc: <None>

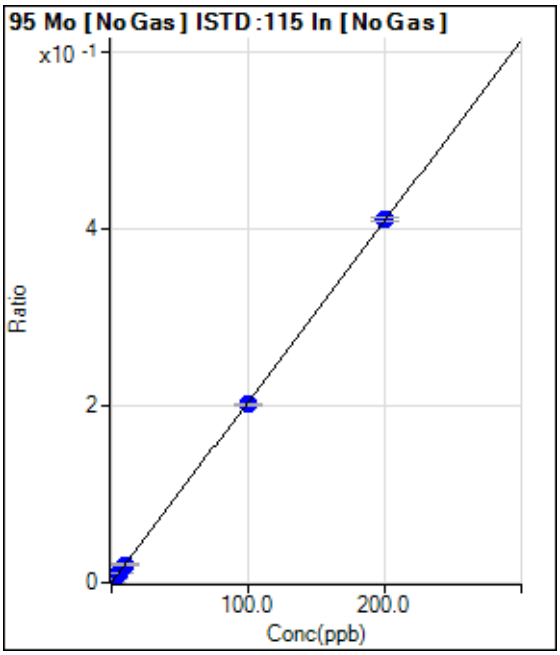
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1456.78	0.0006	P	6.6
2	☐	2.000	2.015	48441.32	0.0206	P	1.1
3	☐	5.000	5.014	118023.07	0.0503	P	1.8
4	☐	10.000	10.080	237820.52	0.1006	P	1.3
5	☐	100.000	100.424	2268196.95	0.9966	A	1.9
6	☐	200.000	199.784	4370722.96	1.9821	A	1.3

y = 0.0099 * x + 6.2115E-004
R = 1.0000
DL = 0.01245
BEC = 0.06263

Weight: <None>
Min Conc: <None>

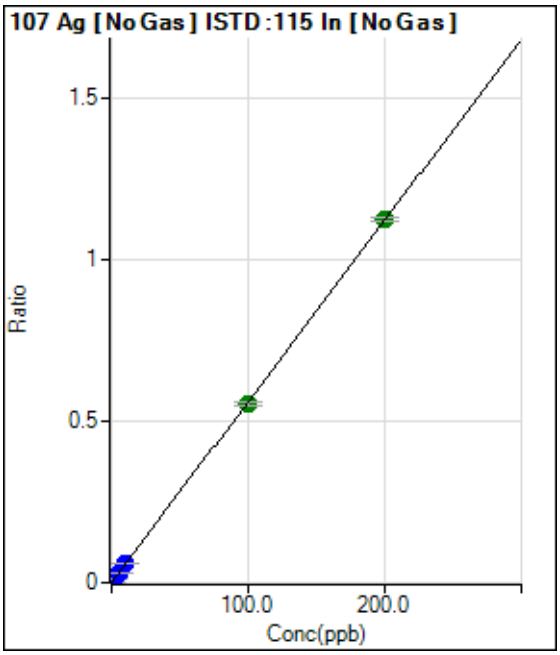


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0000	P	38.9
2	☐	2.000	2.060	10013.93	0.0043	P	0.7
3	☐	5.000	5.019	24182.29	0.0103	P	1.5
4	☐	10.000	10.036	48662.35	0.0206	P	1.0
5	☐	100.000	98.589	459302.10	0.2018	P	1.4
6	☐	200.000	200.703	905795.90	0.4108	P	1.2

y = 0.0020 * x + 4.3988E-005
R = 1.0000
DL = 0.0251
BEC = 0.02149

Weight: <None>
Min Conc: <None>

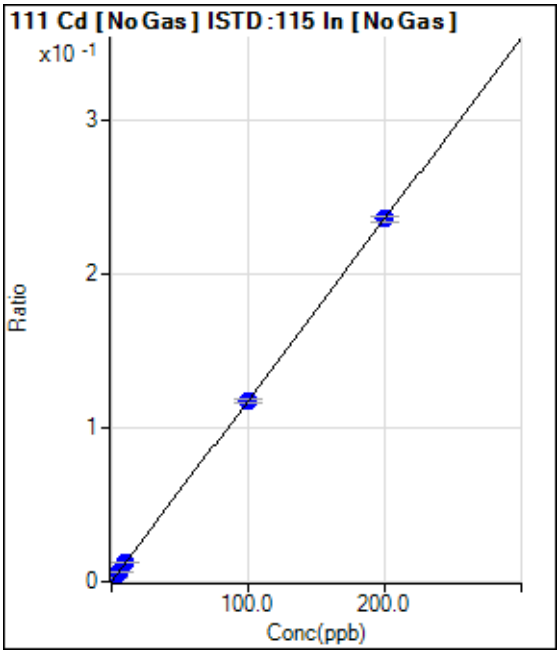
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	480.02	0.0002	P	21.3
2	☐	2.000	2.024	27114.76	0.0115	P	2.6
3	☐	5.000	5.062	66935.95	0.0286	P	0.6
4	☐	10.000	10.276	136505.24	0.0577	P	1.8
5	☐	100.000	99.201	1264694.10	0.5557	A	2.2
6	☐	200.000	200.384	2474754.18	1.1223	A	0.9

y = 0.0056 * x + 2.0482E-004
R = 1.0000
DL = 0.02342
BEC = 0.03658

Weight: <None>
Min Conc: <None>

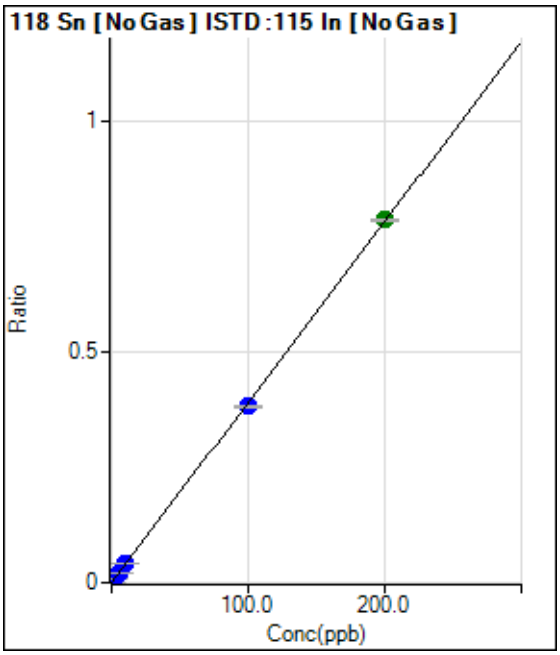


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	2.000	1.948	5397.86	0.0023	P	0.3
3	☐	5.000	5.065	13997.62	0.0060	P	0.8
4	☐	10.000	10.255	28581.09	0.0121	P	1.0
5	☐	100.000	99.657	267385.27	0.1175	P	2.0
6	☐	200.000	200.158	520303.60	0.2360	P	1.8

y = 0.0012 * x + 0.0000E+000
R = 1.0000
DL = 0
BEC = 0

Weight: <None>
Min Conc: <None>

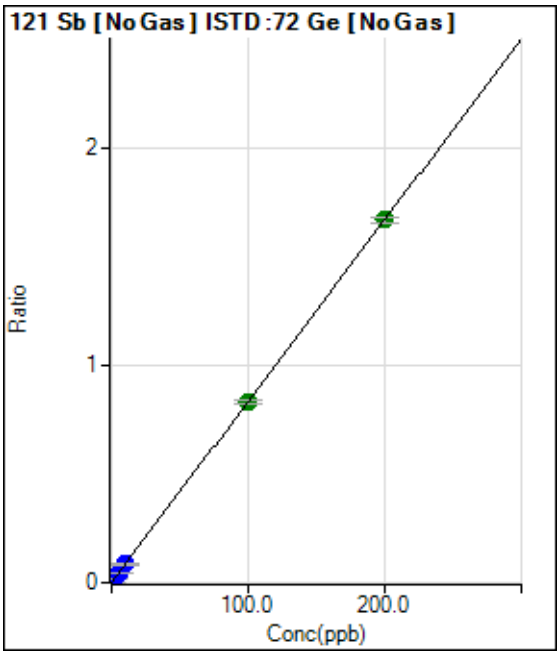
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1383.44	0.0006	P	9.0
2	☐	2.000	2.019	19955.55	0.0085	P	7.5
3	☐	5.000	4.914	46442.27	0.0198	P	1.7
4	☐	10.000	10.018	94037.94	0.0398	P	0.6
5	☐	100.000	97.695	871011.71	0.3827	P	1.7
6	☐	200.000	201.153	1736196.48	0.7874	A	0.8

y = 0.0039 * x + 5.9006E-004
R = 0.9999
DL = 0.04082
BEC = 0.1509

Weight: <None>
Min Conc: <None>

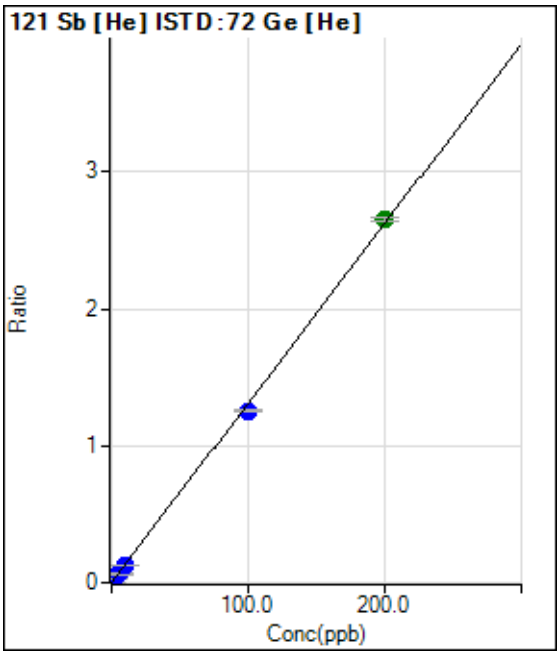


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1456.77	0.0009	P	14.1
2	☐	2.000	1.913	26343.37	0.0169	P	0.4
3	☐	5.000	4.794	63345.93	0.0409	P	0.7
4	☐	10.000	10.036	128336.38	0.0845	P	1.8
5	☐	100.000	99.771	1243277.82	0.8316	A	2.4
6	☐	200.000	200.119	2406666.79	1.6671	A	1.6

y = 0.0083 * x + 9.3831E-004
R = 1.0000
DL = 0.0477
BEC = 0.1127

Weight: <None>
Min Conc: <None>

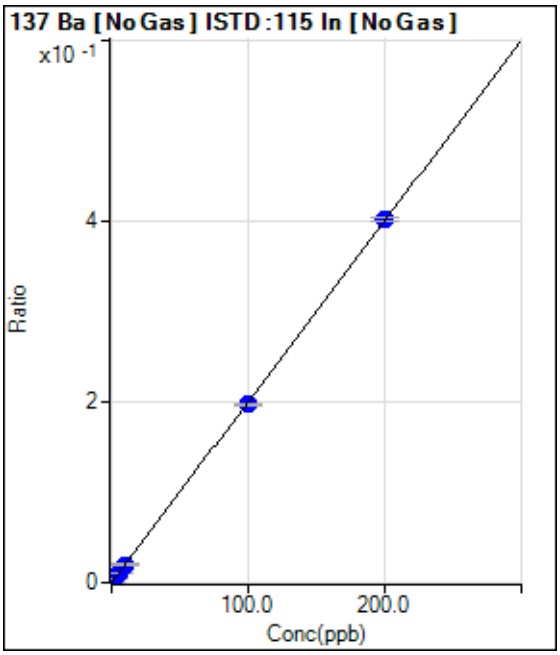
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.69	0.0013	P	9.5
2	☐	2.000	1.843	12332.62	0.0255	P	2.7
3	☐	5.000	4.766	30549.23	0.0637	P	2.6
4	☐	10.000	9.839	62066.47	0.1302	P	1.0
5	☐	100.000	95.590	578590.36	1.2530	P	1.4
6	☐	200.000	202.221	1187992.59	2.6492	A	1.1

y = 0.0131 * x + 0.0013
R = 0.9997
DL = 0.0289
BEC = 0.1013

Weight: <None>
Min Conc: <None>

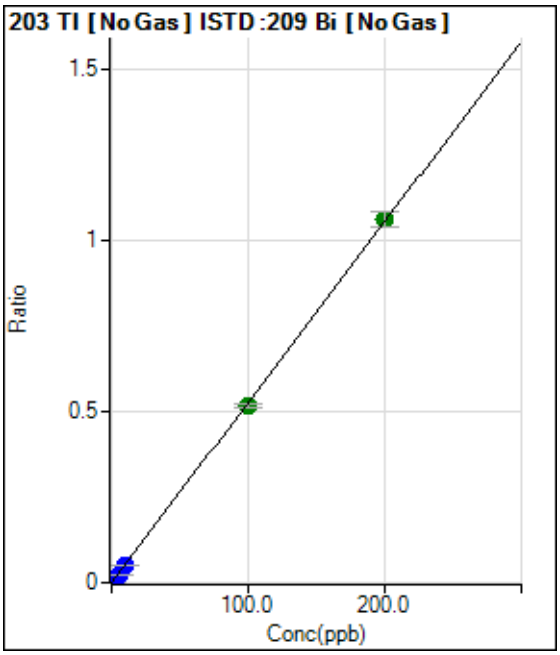


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.67	0.0001	P	30.5
2	☐	2.000	2.080	9974.01	0.0042	P	2.1
3	☐	5.000	5.025	23768.66	0.0101	P	2.6
4	☐	10.000	10.004	47527.19	0.0201	P	3.3
5	☐	100.000	98.608	449515.50	0.1975	P	1.4
6	☐	200.000	200.694	886182.07	0.4019	P	1.1

y = 0.0020 * x + 7.9707E-005
R = 1.0000
DL = 0.03642
BEC = 0.03981

Weight: <None>
Min Conc: <None>

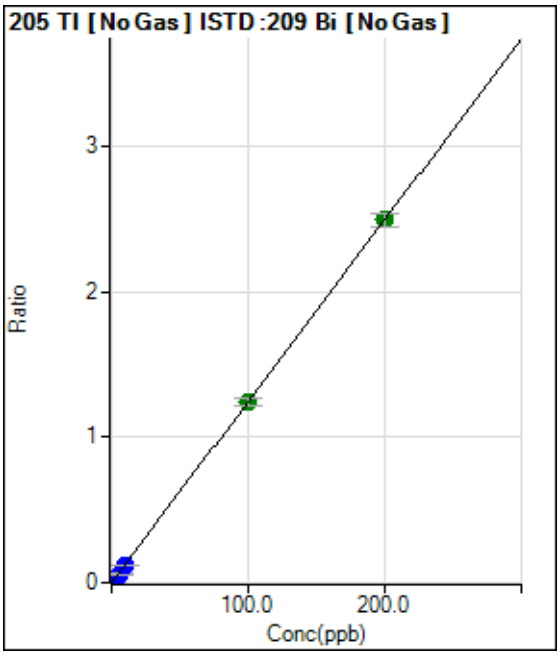
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	246.68	0.0001	P	4.9
2	☐	2.000	1.767	29962.99	0.0094	P	3.8
3	☐	5.000	4.574	75376.78	0.0241	P	3.0
4	☐	10.000	9.500	157719.96	0.0501	P	2.4
5	☐	100.000	97.863	1567436.23	0.5150	A	2.9
6	☐	200.000	201.107	3106562.03	1.0583	A	4.1

y = 0.0053 * x + 7.8257E-005
R = 0.9999
DL = 0.002168
BEC = 0.01487

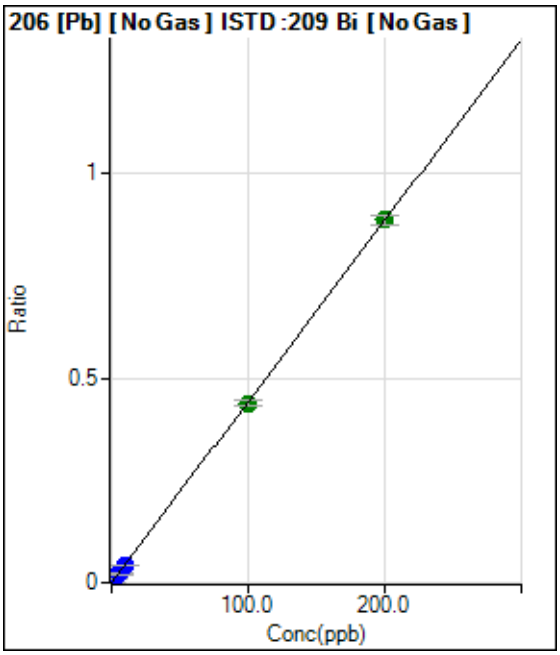
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	5.8
2	☐	2.000	1.798	72231.68	0.0226	P	4.2
3	☐	5.000	4.750	185304.24	0.0594	P	3.5
4	☐	10.000	9.647	379088.94	0.1203	P	2.0
5	☐	100.000	99.760	3779170.67	1.2423	A	3.9
6	☐	200.000	200.146	7316564.68	2.4922	A	3.7

y = 0.0125 * x + 2.2317E-004
R = 1.0000
DL = 0.003102
BEC = 0.01792

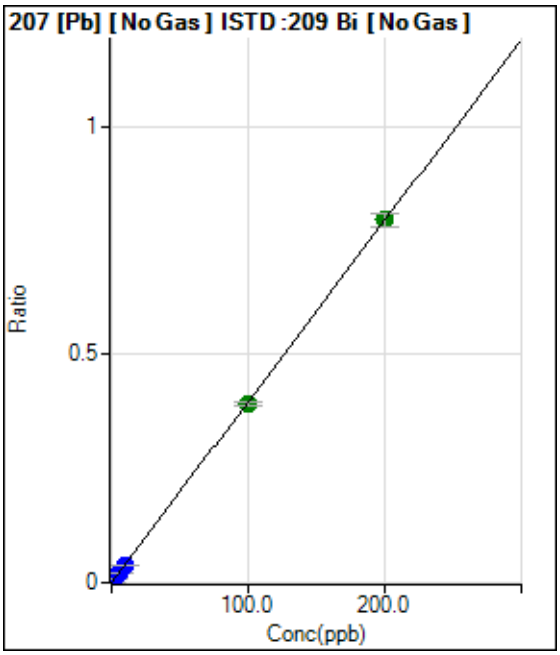
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	35.6
2	☐	2.000	1.915	27226.80	0.0085	P	4.6
3	☐	5.000	4.849	67120.07	0.0215	P	3.9
4	☐	10.000	9.809	136878.00	0.0434	P	1.5
5	☐	100.000	99.170	1335094.88	0.4388	A	2.8
6	☐	200.000	200.429	2603963.50	0.8868	A	2.4

y = 0.0044 * x + 5.1958E-005
R = 1.0000
DL = 0.01253
BEC = 0.01174

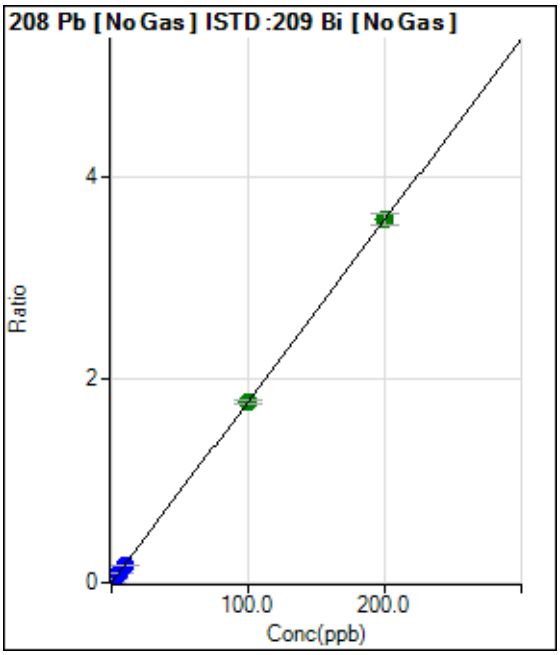
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0001	P	30.0
2	☐	2.000	1.945	24801.65	0.0078	P	3.8
3	☐	5.000	4.935	61233.68	0.0196	P	1.3
4	☐	10.000	9.827	122881.13	0.0390	P	1.1
5	☐	100.000	98.973	1193744.72	0.3923	A	2.6
6	☐	200.000	200.524	2333480.28	0.7948	A	3.5

y = 0.0040 * x + 5.2871E-005
R = 1.0000
DL = 0.01201
BEC = 0.01334

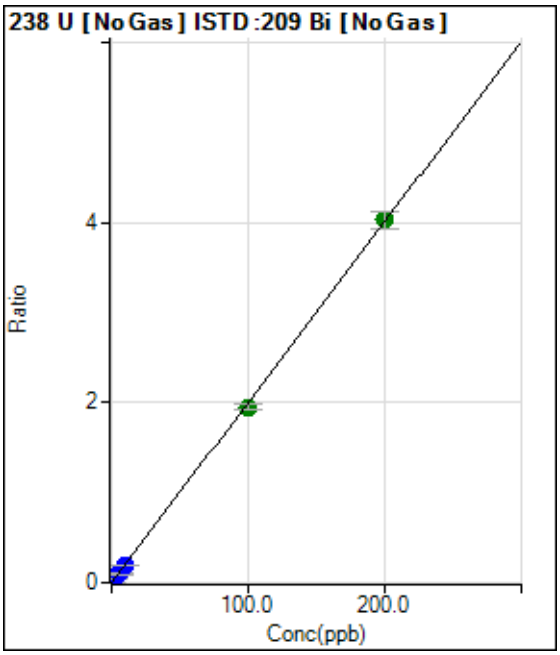
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.68	0.0002	P	26.2
2	☐	2.000	1.957	112217.07	0.0351	P	3.2
3	☐	5.000	4.885	272557.90	0.0873	P	3.1
4	☐	10.000	9.854	554277.41	0.1759	P	1.9
5	☐	100.000	99.757	5414270.91	1.7793	A	2.2
6	☐	200.000	200.132	10479531.41	3.5693	A	3.3

y = 0.0178 * x + 2.0490E-004
R = 1.0000
DL = 0.009035
BEC = 0.01149

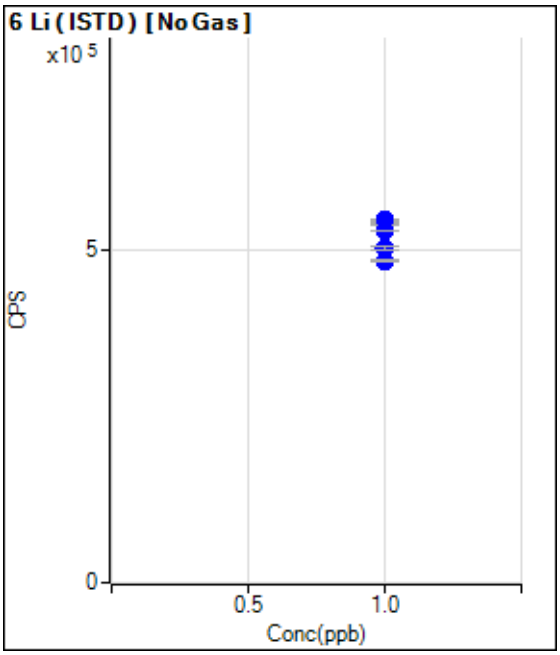
Weight: <None>
Min Conc: <None>



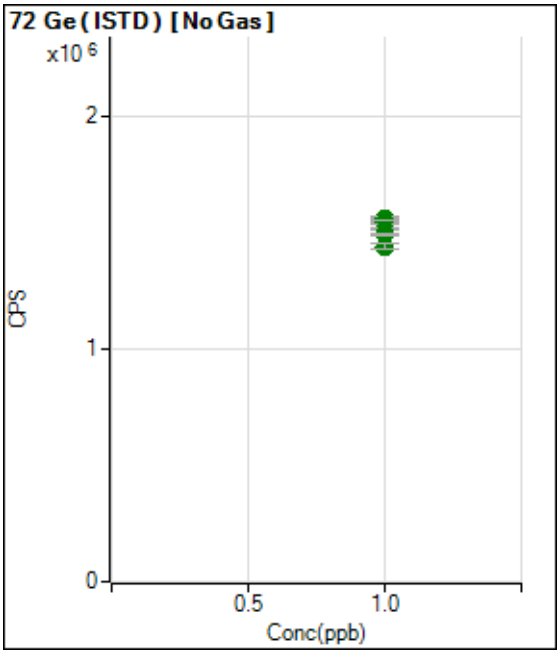
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0000	P	25.3
2	☐	2.000	1.871	119781.72	0.0375	P	5.1
3	☐	5.000	4.799	299897.12	0.0961	P	3.1
4	☐	10.000	9.704	611934.97	0.1942	P	2.2
5	☐	100.000	97.538	5938867.20	1.9519	A	3.0
6	☐	200.000	201.252	11821676.49	4.0273	A	4.5

y = 0.0200 * x + 4.9609E-005
R = 0.9999
DL = 0.001885
BEC = 0.002479

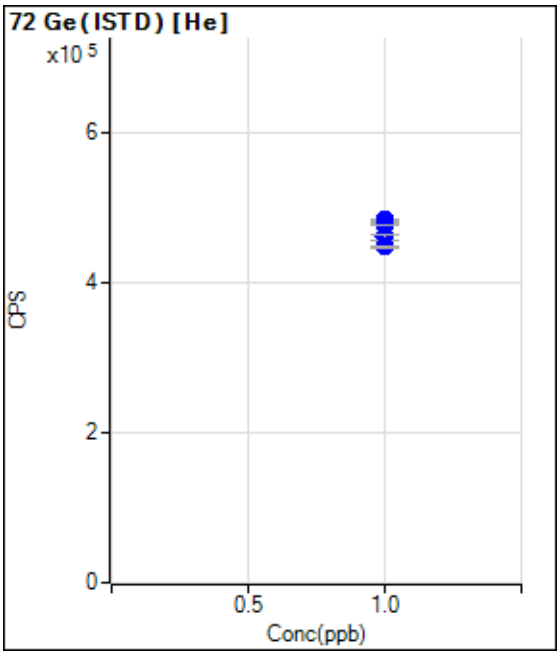
Weight: <None>
Min Conc: <None>



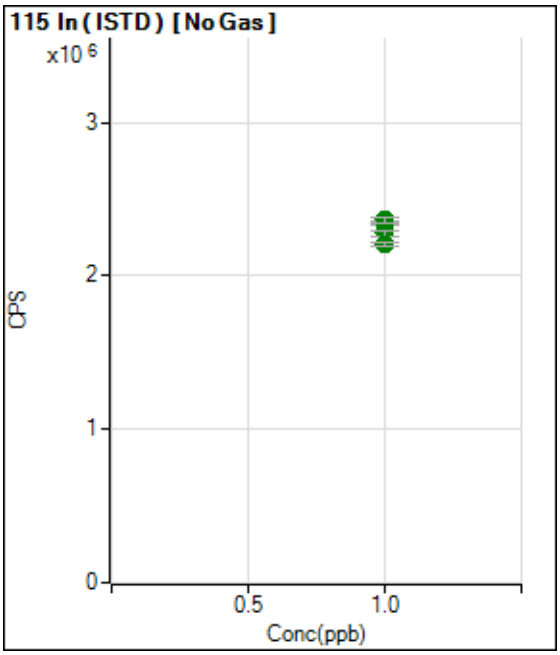
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		545261.03		P	0.2
2	☐	1.000		541689.66		P	0.6
3	☐	1.000		537055.87		P	0.2
4	☐	1.000		528820.60		P	0.4
5	☐	1.000		503934.74		P	1.3
6	☐	1.000		484057.37		P	0.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1554275.24		A	1.2
2	☐	1.000		1562257.53		A	1.1
3	☐	1.000		1550646.43		A	1.0
4	☐	1.000		1518864.56		A	0.5
5	☐	1.000		1495107.01		A	0.5
6	☐	1.000		1443928.42		A	1.9

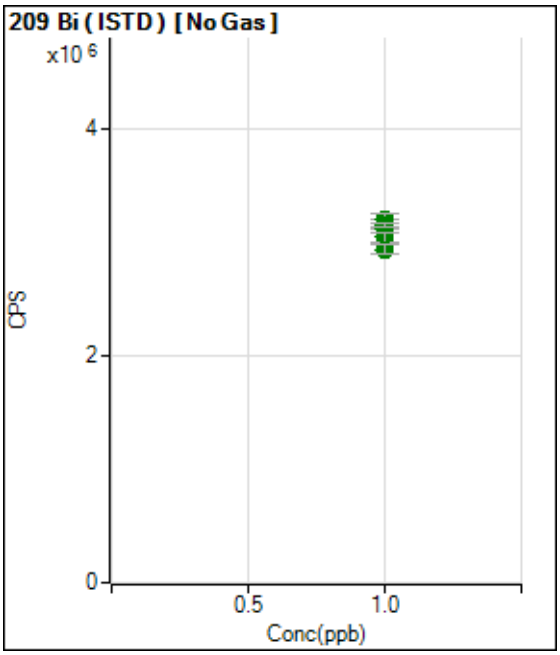


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		479992.04		P	0.2
2	☐	1.000		484370.18		P	0.6
3	☐	1.000		479348.57		P	0.8
4	☐	1.000		476877.69		P	0.1
5	☐	1.000		461855.38		P	1.8
6	☐	1.000		448464.19		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2346070.18		A	1.3
2	☐	1.000		2350522.98		A	0.9
3	☐	1.000		2344300.03		A	0.4
4	☐	1.000		2364390.72		A	1.6
5	☐	1.000		2276244.03		A	1.3
6	☐	1.000		2205185.25		A	0.9

Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3154822.76		A	2.7
2	☐	1.000		3198583.39		A	3.8
3	☐	1.000		3123156.83		A	2.7
4	☐	1.000		3150943.29		A	1.4
5	☐	1.000		3044296.31		A	2.9
6	☐	1.000		2937921.00		A	3.0

Sample Report

Sample Table

Sample Name	LLICCV5
Data File Name	231LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:37:17-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	5.119	5.119	2.07	75161	0.01	5	
Be	9	1	No Gas	4.947	4.947	3.11	9128	0.05	5	
V	51	2	He	4.863	4.863	2.64	20947	0.02	5	
Cr	52	2	He	5.007	5.007	2.60	23364	0.02	5	
Fe	56	2	He	520.993	520.993	1.42	2226554	0.02	500	
Se	78	2	He	5.445	5.445	0.96	386	1.41	5	
As	75	2	He	4.865	4.865	5.99	3214	0.15	5	
Ca	44	2	He	493.663	493.663	1.81	12499	3.95	500	
Na	23	2	He	506.898	506.898	0.26	393434	0.13	500	
Mg	24	2	He	523.009	523.009	1.53	202223	0.26	500	
K	39	2	He	508.116	508.116	0.15	261205	0.19	500	
Mn	55	2	He	4.950	4.950	2.19	17598	0.03	5	
Co	59	2	He	4.955	4.955	1.14	34193	0.01	5	
Ni	60	2	He	5.288	5.288	2.28	8640	0.06	5	
Cu	63	2	He	5.184	5.184	3.01	24028	0.02	5	
Zn	66	2	He	4.736	4.736	2.47	4934	0.10	5	
Al	27	2	He	5.027	5.027	7.67	1760	0.29	5	
B	11	1	No Gas	36.369	36.369	1.18	49602	0.07	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	6.390	6.390	23.64	76877	0.01	5	
Si	28	1	No Gas	22.106	22.106	1.08	234679	0.01	25	
Ag	107	1	No Gas	5.092	5.092	1.83	68765	0.01	5	
Cd	111	1	No Gas	5.081	5.081	5.76	14338	0.04	5	
Sr	88	1	No Gas	5.046	5.046	0.88	121330	0.00	5	
Mo	95	1	No Gas	5.130	5.130	2.44	25241	0.02	5	
Sn	118	1	No Gas	5.168	5.168	2.67	49822	0.01	5	
Sb	121	1	No Gas	5.132	5.132	2.71	67885	0.01	5	
Ba	137	1	No Gas	4.983	4.983	4.04	24076	0.02	5	
Tl	205	1	No Gas	5.812	5.812	5.41	231909	0.00	5	
Tl	203	1	No Gas	5.684	5.684	5.95	95814	0.01	5	
Pb	208	1	No Gas	4.890	4.890	1.35	279073	0.00	5	
U	238	1	No Gas	4.827	4.827	1.50	308565	0.00	5	
Ca	43	2	He	540.292	540.292	13.08	800	67.53	500	
Sb	121	2	He	5.054	5.054	2.85	32387	0.02	5	
Ti	47	2	He	5.203	5.203	4.89	723	0.72	5	
Cu	63	1	No Gas	5.222	5.222	1.55	42162	0.01	5	
Se	82	1	No Gas	4.223	4.223	5.75	567	0.75	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	533315	0.17	545261	97.81	70	120	
Ge	72	2	He	479774	0.39	479992	99.95	70	120	
Ge	72	1	No Gas	1554877	0.63	1554275	100.04	70	120	
In	115	1	No Gas	2394902	1.44	2346070	102.08	70	120	
Bi	209	1	No Gas	3193248	1.42	3154823	101.22	70	120	

Sample Report

Sample Table

Sample Name	LLICCV2
Data File Name	232LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:39:17-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	1.966	1.966	2.67	52159	0.00	2	
Be	9	1	No Gas	1.932	1.932	2.22	3592	0.05	2	
V	51	2	He	1.896	1.896	0.23	9872	0.02	2	
Cr	52	2	He	1.986	1.986	2.16	10024	0.02	2	
Fe	56	2	He	203.307	203.307	0.58	891303	0.02	200	
Se	78	2	He	2.062	2.062	10.31	185	1.12	2	
As	75	2	He	1.814	1.814	3.33	1313	0.14	2	
Ca	44	2	He	211.303	211.303	2.24	5665	3.73	200	
Na	23	2	He	190.756	190.756	1.55	191253	0.10	200	
Mg	24	2	He	208.306	208.306	1.09	82500	0.25	200	
K	39	2	He	198.401	198.401	0.29	129052	0.15	200	
Mn	55	2	He	2.019	2.019	3.37	7486	0.03	2	
Co	59	2	He	1.969	1.969	1.71	13881	0.01	2	
Ni	60	2	He	2.112	2.112	2.49	3591	0.06	2	
Cu	63	2	He	2.088	2.088	4.06	10594	0.02	2	
Zn	66	2	He	1.760	1.760	3.98	2324	0.08	2	
Al	27	2	He	2.959	2.959	15.12	1310	0.23	2	NewName Main CR1 Failed
B	11	1	No Gas	16.495	16.495	2.64	28190	0.06	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.708	2.708	4.35	46813	0.01	2	NewName Main CR1 Failed
Si	28	1	No Gas	7.206	7.206	41.80	180417	0.00	10	
Ag	107	1	No Gas	2.024	2.024	0.97	27616	0.01	2	
Cd	111	1	No Gas	2.054	2.054	2.13	5795	0.04	2	
Sr	88	1	No Gas	1.991	1.991	1.88	48739	0.00	2	
Mo	95	1	No Gas	1.944	1.944	0.61	9627	0.02	2	
Sn	118	1	No Gas	2.078	2.078	2.00	20863	0.01	2	
Sb	121	1	No Gas	2.045	2.045	1.21	28117	0.01	2	
Ba	137	1	No Gas	2.115	2.115	1.77	10324	0.02	2	
Tl	205	1	No Gas	1.975	1.975	0.49	80838	0.00	2	
Tl	203	1	No Gas	1.929	1.929	0.17	33315	0.01	2	
Pb	208	1	No Gas	1.929	1.929	2.62	112711	0.00	2	
U	238	1	No Gas	1.878	1.878	0.72	122599	0.00	2	
Ca	43	2	He	181.393	181.393	25.78	290	62.55	200	
Sb	121	2	He	1.988	1.988	4.16	13390	0.01	2	
Ti	47	2	He	2.101	2.101	2.86	300	0.70	200	
Cu	63	1	No Gas	2.083	2.083	5.18	18366	0.01	2	
Se	82	1	No Gas	1.753	1.753	43.87	234	0.75	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	535797	0.47	545261	98.26	70	120	
Ge	72	2	He	489539	0.54	479992	101.99	70	120	
Ge	72	1	No Gas	1565443	0.98	1554275	100.72	70	120	
In	115	1	No Gas	2393236	0.49	2346070	102.01	70	120	
Bi	209	1	No Gas	3257710	1.32	3154823	103.26	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	233_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:41:18-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	-0.097	-40.4	37142	1.1	0.5	
Be	9	1	No Gas	0.024	17.3	62	12.4	0.5	
V	51	2	He	-0.121	-12.1	2047	2.8	2.5	
Cr	52	2	He	0.001	2250.1	940	5.9	2.5	
Fe	56	2	He	-0.211	-4.7	6869	0.7	100	
Se	78	2	He	-0.273	-32.4	40	13.2	1	
As	75	2	He	-0.033	-144.2	123	24.8	2.5	
Ca	44	2	He	3.659	105.8	450	21.2	100	
Na	23	2	He	-5.507	-400.0	60550	24.6	100	
Mg	24	2	He	-0.097	-103.4	493	8.4	100	
K	39	2	He	-3.287	-71.5	39360	3.0	100	
Mn	55	2	He	-0.002	-569.7	263	15.8	2.5	
Co	59	2	He	-0.001	-150.9	27	21.7	2.5	
Ni	60	2	He	0.025	112.2	157	30.2	2.5	
Cu	63	2	He	-0.050	-44.1	977	10.4	1	
Zn	66	2	He	-0.207	-51.4	530	18.0	2.5	
Al	27	2	He	0.147	176.3	647	8.9	5	
B	11	1	No Gas	4.591	6.0	15335	1.7	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.374	-8.2	21307	1.2	5	
Si	28	1	No Gas	-4.873	-11.8	135751	1.7	10	
Ag	107	1	No Gas	0.013	64.9	673	18.8	2.5	
Cd	111	1	No Gas	0.002	86.6	7	86.6	1	
Sr	88	1	No Gas	-0.012	-23.7	1213	4.5	2.5	
Mo	95	1	No Gas	0.004	173.8	127	29.9	2.5	
Sn	118	1	No Gas	0.018	60.9	1583	6.6	5	
Sb	121	1	No Gas	0.001	533.4	1493	6.8	2.5	
Ba	137	1	No Gas	0.005	134.8	213	13.5	2.5	
Tl	205	1	No Gas	0.037	33.1	2220	23.4	1	
Tl	203	1	No Gas	0.042	38.6	970	29.4	1	
Pb	208	1	No Gas	0.006	16.9	1017	6.9	2.5	
U	238	1	No Gas	0.001	40.7	200	8.7	2.5	
Ca	43	2	He	-7.101	-111.2	13	86.6	100	
Sb	121	2	He	0.027	2.8	817	0.7	2.5	
Ti	47	2	He	0.023	352.9	7	173.2	2.5	
Se	82	1	No Gas	-0.977	-15.5	-140	-15.0	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	539566	0.29	545261	98.96	70	120	
Ge	72	2	He	487366	0.44	479992	101.54	70	120	
Ge	72	1	No Gas	1571201	0.28	1554275	101.09	70	120	
In	115	1	No Gas	2397929	1.49	2346070	102.21	70	120	
Bi	209	1	No Gas	3225316	1.05	3154823	102.23	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	278_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:35:57-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	96.957	0.255	707293	0.36	100	97.0	90	110	
Be	9	1	No Gas	93.751	0.943	162389	1.00	100	93.8	90	110	
V	51	2	He	98.103	0.617	331617	0.79	100	98.1	90	110	
Cr	52	2	He	98.687	0.734	391759	0.53	100	98.7	90	110	
Fe	56	2	He	9960.614	0.368	37506428	0.56	10000	99.6	90	110	
Se	78	2	He	98.026	2.311	5302	1.88	100	98.0	90	110	
As	75	2	He	96.551	0.326	53997	0.12	100	96.6	90	110	
Ca	44	2	He	10009.748	0.353	218005	0.07	10000	100.1	90	110	
Na	23	2	He	10508.491	1.730	6108114	1.29	10000	105.1	90	110	
Mg	24	2	He	10298.072	0.417	3511076	0.07	10000	103.0	90	110	
K	39	2	He	10327.509	1.064	4006593	0.71	10000	103.3	90	110	
Mn	55	2	He	99.167	1.006	307187	1.40	100	99.2	90	110	
Co	59	2	He	94.550	0.975	576249	0.80	100	94.5	90	110	
Ni	60	2	He	98.511	0.595	140519	0.98	100	98.5	90	110	
Cu	63	2	He	98.396	0.935	384393	0.87	100	98.4	90	110	
Zn	66	2	He	99.933	1.481	79479	1.41	100	99.9	90	110	
Al	27	2	He	102.371	1.582	21357	1.29	100	102.4	90	110	
B	11	1	No Gas	436.897	1.734	454844	1.54	500	87.4	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	106.571	1.153	789606	0.66	100	106.6	90	110	
Si	28	1	No Gas	526.440	2.753	1845577	2.45	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	94.871	2.297	1127121	1.29	100	94.9	90	110	
Cd	111	1	No Gas	94.565	1.244	236465	0.99	100	94.6	90	110	
Sr	88	1	No Gas	98.466	2.135	2072606	1.48	100	98.5	90	110	
Mo	95	1	No Gas	95.206	1.668	413341	0.98	100	95.2	90	110	
Sn	118	1	No Gas	93.202	1.822	774415	0.91	100	93.2	90	110	
Sb	121	1	No Gas	93.324	1.466	1057822	1.09	100	93.3	90	110	
Ba	137	1	No Gas	95.287	1.674	404784	0.63	100	95.3	90	110	
Tl	205	1	No Gas	97.434	3.691	3292396	1.88	100	97.4	90	110	
Tl	203	1	No Gas	96.850	4.599	1382702	2.15	100	96.9	90	110	
Pb	208	1	No Gas	95.305	4.177	4611794	1.70	100	95.3	90	110	
U	238	1	No Gas	95.585	2.434	5191602	1.74	100	95.6	90	110	
Ca	43	2	He	9914.202	1.869	12616	2.27	10000	99.1	90	110	
Sb	121	2	He	92.778	0.523	515769	0.39	100	92.8	90	110	
Ti	47	2	He	103.407	2.961	12653	3.32	100	103.4	90	110	
Cu	63	1	No Gas	100.043	0.888	668642	0.66	100	100.0	90	110	
Se	82	1	No Gas	95.385	3.344	11302	2.32	100	95.4	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	501486	0.34	545261	91.97	70	120	
Ge	72	2	He	424106	0.43	479992	88.36	70	120	
Ge	72	1	No Gas	1359914	1.46	1554275	87.50	70	120	
In	115	1	No Gas	2121188	1.08	2346070	90.41	70	120	
Bi	209	1	No Gas	2715002	2.60	3154823	86.06	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	279_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:37:54-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.739	9.4	41910	1.3	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.039	40.3	87	32.8	0.5	
V	51	2	He	-0.027	-144.0	2165	7.0	2.5	
Cr	52	2	He	-0.013	-29.7	790	1.3	2.5	
Fe	56	2	He	0.712	9.7	9757	1.9	100	
Se	78	2	He	0.317	77.9	69	20.5	2	
As	75	2	He	0.039	28.5	152	4.6	2.5	
Ca	44	2	He	3.173	68.0	393	11.5	100	
Na	23	2	He	247.667	1.2	204929	0.4	100	CCB Main CR1 Failed
Mg	24	2	He	1.722	7.7	1083	3.7	100	
K	39	2	He	15.829	16.1	42951	2.0	100	
Mn	55	2	He	0.024	23.8	320	6.2	2.5	
Co	59	2	He	-0.001	-236.7	20	86.6	2.5	
Ni	60	2	He	0.097	34.4	247	20.4	2.5	
Cu	63	2	He	0.054	59.7	1297	9.5	2	
Zn	66	2	He	0.285	47.1	877	11.7	2.5	
Al	27	2	He	0.318	148.0	617	15.3	5	
B	11	1	No Gas	12.853	14.8	23570	8.4	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.098	90.0	22232	1.7	5	
Si	28	1	No Gas	3.219	100.2	146357	6.8	10	
Ag	107	1	No Gas	-0.007	-66.9	353	16.6	2.5	
Cd	111	1	No Gas	0.011	77.8	27	78.1	1	
Sr	88	1	No Gas	0.023	28.8	1820	7.7	2.5	
Mo	95	1	No Gas	0.246	44.7	1173	41.5	2.5	
Sn	118	1	No Gas	0.446	15.1	5011	11.8	5	
Sb	121	1	No Gas	0.252	17.2	4207	11.8	2.5	
Ba	137	1	No Gas	0.011	160.7	217	33.4	2.5	
Tl	205	1	No Gas	1.225	38.3	43178	41.7	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.192	38.9	17731	42.4	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.020	12.6	1570	11.5	2.5	
U	238	1	No Gas	0.020	35.3	1277	34.9	2.5	
Ca	43	2	He	-8.628	-88.1	10	100.0	100	
Sb	121	2	He	0.171	24.9	1563	15.2	2.5	
Ti	47	2	He	0.055	144.0	10	100.0	2.5	
Cu	63	1	No Gas	0.075	30.5	2624	7.1	2.5	
Se	82	1	No Gas	0.852	26.0	98	27.1	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	521325	0.14	545261	95.61	70	120	
Ge	72	2	He	437917	0.84	479992	91.23	70	120	
Ge	72	1	No Gas	1384319	1.21	1554275	89.07	70	120	
In	115	1	No Gas	2144700	0.62	2346070	91.42	70	120	
Bi	209	1	No Gas	2764090	3.89	3154823	87.61	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	280ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:39:54-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	1.445	1.5	43621	0.3	0	
Be	9	1	No Gas	0.013	26.6	37	15.7	0	ICSA Main CR1 Failed
V	51	2	He	0.163	15.0	2580	3.4	0	ICSA Main CR1 Failed
Cr	52	2	He	1.954	5.7	8069	4.8	0	ICSA Main CR1 Failed
Fe	56	2	He	97995.966	0.5	347944955	0.3	0	
Se	78	2	He	0.383	48.9	66	13.9	0	ICSA Main CR1 Failed
As	75	2	He	0.144	31.5	194	12.0	0	ICSA Main CR1 Failed
Ca	44	2	He	100383.585	1.4	2059320	1.8	0	
Na	23	2	He	102235.811	0.9	55585544	0.5	0	
Mg	24	2	He	100857.183	0.8	32426189	0.6	0	
K	39	2	He	102150.463	0.3	37078073	0.6	0	
Mn	55	2	He	0.392	10.7	1367	9.0	0	ICSA Main CR1 Failed
Co	59	2	He	0.083	22.9	500	22.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.346	15.6	560	12.5	0	ICSA Main CR1 Failed
Cu	63	2	He	0.267	5.4	1967	3.1	0	ICSA Main CR1 Failed
Zn	66	2	He	1.055	14.2	1373	7.8	0	ICSA Main CR1 Failed
Al	27	2	He	96325.280	0.4	18479886	0.1	0	
B	11	1	No Gas	6.253	0.9	15387	0.4	0	
Al	27	1	No Gas	98080.837	0.7	679031803	1.3	0	
Si	28	1	No Gas	26.039	5.6	209283	0.9	0	
Ag	107	1	No Gas	0.267	0.8	3330	1.0	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.511	4.2	3491	4.5	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.128	1.4	23130	1.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1940.304	0.8	7779063	0.7	0	
Sn	118	1	No Gas	0.119	7.9	2067	3.9	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.102	19.0	2334	7.3	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.385	7.6	1667	6.4	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.014	43.0	1003	20.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.019	34.2	450	21.2	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.086	3.7	4370	3.7	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.004	29.4	310	17.1	0	ICSA Main CR1 Failed
Ca	43	2	He	98120.366	0.6	117575	0.3	0	
Sb	121	2	He	0.097	10.0	1037	5.3	0	ICSA Main CR1 Failed
Ti	47	2	He	2040.488	1.0	235399	1.2	0	
Se	82	1	No Gas	-0.563	-90.6	-70	-84.1	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	483846	0.11	545261	88.74	70	120	
Ge	72	2	He	399974	0.44	479992	83.33	70	120	
Ge	72	1	No Gas	1305593	1.88	1554275	84.00	70	120	
In	115	1	No Gas	1959072	0.61	2346070	83.50	70	120	
Bi	209	1	No Gas	2520108	2.17	3154823	79.88	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	281ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:41:56-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	95.526	0.780	651323	0.47	100	95.5	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	91.932	0.631	148724	0.12	100	91.9	80	120	
V	51	2	He	99.980	0.840	315434	0.46	100	100.0	80	120	
Cr	52	2	He	99.669	0.814	369327	0.45	100	99.7	80	120	
Fe	56	2	He	108725.572	0.712	382101554	0.53	100	108725.6	80	120	
Se	78	2	He	99.519	2.074	5024	1.45	100	99.5	80	120	
As	75	2	He	100.685	0.567	52560	0.84	100	100.7	80	120	
Ca	44	2	He	111269.940	1.633	2259106	0.97	100	111269.9	80	120	
Na	23	2	He	112989.859	1.650	60798056	1.01	100	112989.9	80	120	
Mg	24	2	He	110844.785	0.578	35273626	0.15	100	110844.8	80	120	
K	39	2	He	111492.972	1.026	40051788	0.49	100	111493.0	80	120	
Mn	55	2	He	98.433	1.168	284610	0.47	100	98.4	80	120	
Co	59	2	He	94.854	1.175	539680	1.68	100	94.9	80	120	
Ni	60	2	He	97.253	1.099	129498	1.40	100	97.3	80	120	
Cu	63	2	He	96.062	0.230	350335	0.49	100	96.1	80	120	
Zn	66	2	He	98.004	0.527	72775	1.23	100	98.0	80	120	
Al	27	2	He	96171.989	1.711	18261684	1.35	100	96172.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	457.779	1.328	444685	0.78	100	457.8	80	120	
Al	27	1	No Gas	96343.022	1.436	667863883	0.41	100	96343.0	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	565.310	10.108	1896354	9.89	100	565.3	80	120	
Ag	107	1	No Gas	92.372	0.299	1017110	1.00	100	92.4	80	120	
Cd	111	1	No Gas	96.744	0.505	224179	0.82	100	96.7	80	120	
Sr	88	1	No Gas	103.313	0.888	2015182	0.34	100	103.3	80	120	
Mo	95	1	No Gas	2050.516	1.500	8248051	1.27	100	2050.5	80	120	
Sn	118	1	No Gas	97.433	0.739	750251	1.57	100	97.4	80	120	
Sb	121	1	No Gas	94.483	0.438	1029612	1.00	100	94.5	80	120	
Ba	137	1	No Gas	99.695	1.279	392461	0.84	100	99.7	80	120	
Tl	205	1	No Gas	96.714	3.030	2998008	1.90	100	96.7	80	120	
Tl	203	1	No Gas	95.212	1.754	1247382	0.67	100	95.2	80	120	
Pb	208	1	No Gas	99.012	1.899	4396278	0.82	100	99.0	80	120	
U	238	1	No Gas	102.817	2.374	5122022	1.40	100	102.8	80	120	
Ca	43	2	He	107617.421	1.250	127634	0.67	100	107617.4	80	120	
Sb	121	2	He	95.272	1.003	494378	0.49	100	95.3	80	120	
Ti	47	2	He	2140.903	1.608	244445	0.91	100	2140.9	80	120	
Cu	63	1	No Gas	94.929	1.361	610023	0.83	100	94.9	80	120	
Se	82	1	No Gas	100.132	0.274	11409	1.12	100	100.1	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	468384	0.68	545261	85.90	70	120	
Ge	72	2	He	395898	0.71	479992	82.48	70	120	
Ge	72	1	No Gas	1307311	1.10	1554275	84.11	70	120	
In	115	1	No Gas	1965598	0.92	2346070	83.78	70	120	
Bi	209	1	No Gas	2489814	1.16	3154823	78.92	70	120	

Sample Report

Sample Table

Sample Name	MBLK-166115
Data File Name	283SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:46:00-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	0.928	0.928	2.15	44034	0.00	2000	
Be	9	1	No Gas	0.018	0.018	64.36	50	0.04	2000	
V	51	2	He	-0.050	-0.050	-14.44	2117	0.00	2000	
Cr	52	2	He	-0.002	-0.002	-1948.64	847	0.00	2000	
Fe	56	2	He	1.967	1.967	13.65	14859	0.01	200000	
Se	78	2	He	0.050	0.050	156.65	55	0.09	2000	
As	75	2	He	-0.030	-0.030	-41.52	114	-0.03	2000	
Ca	44	2	He	7.584	7.584	45.99	500	1.52	200000	
Na	23	2	He	143.894	143.894	2.83	145397	0.10	200000	
Mg	24	2	He	4.055	4.055	7.36	1934	0.21	200000	
K	39	2	He	15.225	15.225	13.23	43362	0.04	200000	
Mn	55	2	He	0.022	0.022	65.71	320	0.01	2000	
Co	59	2	He	0.000	0.000	-1132.21	27	0.00	2000	
Ni	60	2	He	0.102	0.102	58.53	257	0.04	2000	
Cu	63	2	He	0.047	0.047	44.82	1290	0.00	2000	
Zn	66	2	He	0.212	0.212	21.46	830	0.03	2000	
Al	27	2	He	3.688	3.688	47.80	1344	0.27	2000	
B	11	1	No Gas	1.156	1.156	13.95	11375	0.01	2000	
Al	27	1	No Gas	2.295	2.295	5.78	39863	0.01	2000	
Si	28	1	No Gas	11.731	11.731	145.75	180999	0.01	2000	
Ag	107	1	No Gas	-0.010	-0.010	-53.31	337	0.00	2000	
Cd	111	1	No Gas	0.000	0.000	#DIV/0!	0	#DIV/0!	2000	
Sr	88	1	No Gas	-0.015	-0.015	-18.92	1057	0.00	2000	
Mo	95	1	No Gas	0.349	0.349	3.36	1713	0.02	2000	
Sn	118	1	No Gas	-0.004	-0.004	-394.01	1297	0.00	2000	
Sb	121	1	No Gas	-0.020	-0.020	-39.59	1117	0.00	2000	
Ba	137	1	No Gas	-0.015	-0.015	-81.93	113	-0.01	2000	
Tl	205	1	No Gas	0.027	0.027	12.62	1727	0.00	2000	
Tl	203	1	No Gas	0.028	0.028	49.70	700	0.00	2000	
Pb	208	1	No Gas	0.006	0.006	27.11	937	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-107.35	107	0.00	2000	
Ca	43	2	He	8.800	8.800	48.21	33	26.40	200000	
Sb	121	2	He	0.004	0.004	426.17	613	0.00	2000	
Ti	47	2	He	0.365	0.365	63.59	50	0.73	2000	
Cu	63	1	No Gas	0.050	0.050	52.45	2554	0.00	2000	
Zn	66	1	No Gas	0.248	0.248	9.81	2157	0.01	2000	
Se	82	1	No Gas	-0.415	-0.415	-200.60	-56	0.74	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	530491	0.27	545261	97.29	70	120	
Ge	72	2	He	444599	0.80	479992	92.63	70	120	
Ge	72	1	No Gas	1438523	2.13	1554275	92.55	70	120	
In	115	1	No Gas	2257308	1.93	2346070	96.22	70	120	

Sample Report

Bi	209	1	No Gas	3084985	3.11	3154823	97.79	70	120	

Sample Report

Sample Table

Sample Name	LCS-166115
Data File Name	284SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:48:06-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	0.896	0.896	9.40	43484	0.00	2000	
Be	9	1	No Gas	45.068	45.068	0.33	81992	0.05	2000	
V	51	2	He	49.462	49.462	0.84	177653	0.03	2000	
Cr	52	2	He	48.856	48.856	1.00	205170	0.02	2000	
Fe	56	2	He	4971.148	4971.148	1.41	19763303	0.03	200000	
Se	78	2	He	49.641	49.641	3.13	2860	1.74	2000	
As	75	2	He	47.047	47.047	0.82	27844	0.17	2000	
Ca	44	2	He	4906.318	4906.318	0.66	112974	4.34	200000	
Na	23	2	He	5274.506	5274.506	1.70	3266014	0.16	200000	
Mg	24	2	He	5195.464	5195.464	0.56	1870246	0.28	200000	
K	39	2	He	5257.158	5257.158	0.44	2171536	0.24	200000	
Mn	55	2	He	49.183	49.183	0.88	160953	0.03	2000	
Co	59	2	He	47.630	47.630	1.69	306449	0.02	2000	
Ni	60	2	He	50.956	50.956	1.02	76779	0.07	2000	
Cu	63	2	He	49.952	49.952	1.03	206550	0.02	2000	
Zn	66	2	He	50.177	50.177	2.11	42453	0.12	2000	
Al	27	2	He	52.045	52.045	2.16	11739	0.44	2000	
B	11	1	No Gas	0.653	0.653	15.04	10754	0.01	2000	
Al	27	1	No Gas	52.399	52.399	0.75	422024	0.01	2000	
Si	28	1	No Gas	11.649	11.649	133.90	181036	0.01	2000	
Ag	107	1	No Gas	48.343	48.343	1.19	604989	0.01	2000	
Cd	111	1	No Gas	49.027	49.027	1.68	129072	0.04	2000	
Sr	88	1	No Gas	0.036	0.036	12.64	2194	0.00	2000	
Mo	95	1	No Gas	47.391	47.391	1.37	216679	0.02	2000	
Sn	118	1	No Gas	-0.018	-0.018	-141.12	1160	0.00	2000	
Sb	121	1	No Gas	47.754	47.754	0.65	573216	0.01	2000	
Ba	137	1	No Gas	48.714	48.714	1.00	217983	0.02	2000	
Tl	205	1	No Gas	46.122	46.122	4.64	1734494	0.00	2000	
Tl	203	1	No Gas	43.795	43.795	4.40	696045	0.01	2000	
Pb	208	1	No Gas	45.713	45.713	3.95	2462438	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-23.99	63	0.00	2000	
Ca	43	2	He	4778.989	4778.989	4.46	6432	74.30	200000	
Sb	121	2	He	47.624	47.624	1.54	279766	0.02	2000	
Ti	47	2	He	49.370	49.370	2.48	6378	0.77	2000	
Cu	63	1	No Gas	50.513	50.513	0.87	358190	0.01	2000	
Zn	66	1	No Gas	50.498	50.498	1.82	102317	0.05	2000	
Se	82	1	No Gas	47.344	47.344	0.60	5932	0.80	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	526666	0.20	545261	96.59	70	120	
Ge	72	2	He	447715	0.65	479992	93.28	70	120	
Ge	72	1	No Gas	1438340	0.21	1554275	92.54	70	120	
In	115	1	No Gas	2233230	0.44	2346070	95.19	70	120	

Sample Report

Bi	209	1	No Gas	3022430	3.41	3154823	95.80	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08SD
Data File Name	286SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:52:13-05:00
Sample Type	Sample
Dilution	5
Comment	TW B166115
ISTD Ref FileName	223CALB.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	5.746	28.732	0.90	76984	0.01	2000	
Be	9	1	No Gas	0.020	0.101	48.66	52	0.04	2000	
V	51	2	He	0.129	0.646	27.88	2738	0.00	2000	
Cr	52	2	He	0.030	0.150	65.08	977	0.00	2000	
Fe	56	2	He	434.698	2173.488	1.12	1717286	0.03	200000	
Se	78	2	He	0.257	1.286	170.86	66	0.39	2000	
As	75	2	He	0.569	2.847	11.24	463	0.12	2000	
Ca	44	2	He	23125.220	115626.101	1.08	525899	4.40	200000	
Na	23	2	He	6440.439	32202.195	1.12	3934804	0.16	200000	
Mg	24	2	He	3134.840	15674.201	2.48	1117219	0.28	200000	
K	39	2	He	595.546	2977.730	2.00	276415	0.22	200000	
Mn	55	2	He	80.924	404.619	0.98	262006	0.03	2000	
Co	59	2	He	0.028	0.141	14.76	207	0.01	2000	
Ni	60	2	He	0.344	1.719	4.31	617	0.06	2000	
Cu	63	2	He	0.035	0.177	47.54	1237	0.00	2000	
Zn	66	2	He	0.598	2.991	38.62	1147	0.05	2000	
Al	27	2	He	3.429	17.143	25.89	1287	0.27	2000	
B	11	1	No Gas	46.416	232.080	1.65	58365	0.08	2000	
Al	27	1	No Gas	3.262	16.310	0.85	46402	0.01	2000	
Si	28	1	No Gas	2147.744	10738.721	0.59	7396702	0.03	2000	>LDR
Ag	107	1	No Gas	-0.011	-0.057	-27.31	313	0.00	2000	
Cd	111	1	No Gas	0.005	0.025	42.13	13	0.04	2000	
Sr	88	1	No Gas	117.743	588.717	2.49	2590049	0.00	2000	
Mo	95	1	No Gas	0.611	3.053	4.26	2867	0.02	2000	
Sn	118	1	No Gas	0.314	1.572	8.34	4034	0.01	2000	
Sb	121	1	No Gas	0.009	0.043	232.99	1427	0.00	2000	
Ba	137	1	No Gas	36.306	181.530	1.27	161305	0.02	2000	
Tl	205	1	No Gas	0.018	0.092	45.41	1317	0.00	2000	
Tl	203	1	No Gas	0.019	0.097	63.22	527	0.00	2000	
Pb	208	1	No Gas	0.013	0.065	11.49	1260	0.00	2000	
U	238	1	No Gas	0.382	1.910	2.48	22291	0.00	2000	
Ca	43	2	He	22973.103	114865.516	2.44	30517	75.28	200000	
Sb	121	2	He	0.030	0.148	42.58	760	0.00	2000	
Ti	47	2	He	0.054	0.272	144.04	10	0.54	2000	
Cu	63	1	No Gas	0.039	0.197	18.86	2434	0.00	2000	
Zn	66	1	No Gas	0.444	2.220	15.50	2504	0.02	2000	
Se	82	1	No Gas	-0.658	-3.288	-69.12	-86	0.76	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	514572	0.20	545261	94.37	70	120	
Ge	72	2	He	443211	0.68	479992	92.34	70	120	
Ge	72	1	No Gas	1412899	0.80	1554275	90.90	70	120	
In	115	1	No Gas	2216914	1.09	2346070	94.49	70	120	

Sample Report

Bi	209	1	No Gas	2898559	2.31	3154823	91.88	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08MS
Data File Name	287SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:54:17-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	25.566	25.566	0.56	214596	0.01	2000	
Be	9	1	No Gas	46.265	46.265	0.27	80970	0.06	2000	
V	51	2	He	49.699	49.699	0.83	172233	0.03	2000	
Cr	52	2	He	48.793	48.793	0.24	197738	0.02	2000	
Fe	56	2	He	6914.438	6914.438	0.29	26524742	0.03	200000	
Se	78	2	He	48.268	48.268	2.06	2685	1.80	2000	
As	75	2	He	50.512	50.512	0.40	28839	0.18	2000	
Ca	44	2	He	120662.008	120662.008	0.96	2673564	4.51	200000	
Na	23	2	He	36746.121	36746.121	0.71	21616649	0.17	200000	
Mg	24	2	He	20399.615	20399.615	0.96	7084746	0.29	200000	
K	39	2	He	8114.653	8114.653	0.81	3214709	0.25	200000	
Mn	55	2	He	460.734	460.734	1.04	1452985	0.03	2000	
Co	59	2	He	46.267	46.267	1.26	287261	0.02	2000	
Ni	60	2	He	49.115	49.115	1.03	71420	0.07	2000	
Cu	63	2	He	47.497	47.497	0.13	189570	0.03	2000	
Zn	66	2	He	48.235	48.235	0.86	39408	0.12	2000	
Al	27	2	He	60.103	60.103	5.53	12996	0.46	2000	
B	11	1	No Gas	202.131	202.131	0.72	217799	0.09	2000	
Al	27	1	No Gas	60.194	60.194	0.66	470115	0.01	2000	
Si	28	1	No Gas	10730.336	10730.336	1.96	36175607	0.03	2000	>LDR
Ag	107	1	No Gas	46.276	46.276	0.51	563892	0.01	2000	
Cd	111	1	No Gas	46.547	46.547	1.51	119309	0.04	2000	
Sr	88	1	No Gas	578.455	578.455	2.04	12475191	0.00	2000	
Mo	95	1	No Gas	49.991	49.991	1.65	222531	0.02	2000	
Sn	118	1	No Gas	-0.043	-0.043	-2.86	917	0.00	2000	
Sb	121	1	No Gas	47.405	47.405	1.95	555500	0.01	2000	
Ba	137	1	No Gas	227.556	227.556	1.76	990710	0.02	2000	
Tl	205	1	No Gas	47.180	47.180	5.22	1651939	0.00	2000	
Tl	203	1	No Gas	44.679	44.679	5.22	661072	0.01	2000	
Pb	208	1	No Gas	47.047	47.047	4.01	2359913	0.00	2000	
U	238	1	No Gas	1.996	1.996	4.92	112446	0.00	2000	
Ca	43	2	He	120110.628	120110.628	1.94	155453	77.27	200000	
Sb	121	2	He	47.392	47.392	1.49	268663	0.02	2000	
Ti	47	2	He	49.639	49.639	2.05	6188	0.80	2000	
Cu	63	1	No Gas	48.069	48.069	3.03	332808	0.01	2000	
Zn	66	1	No Gas	48.591	48.591	2.07	96173	0.05	2000	
Se	82	1	No Gas	46.400	46.400	7.53	5672	0.82	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	506645	0.20	545261	92.92	70	120	
Ge	72	2	He	432031	0.40	479992	90.01	70	120	
Ge	72	1	No Gas	1404488	2.08	1554275	90.36	70	120	
In	115	1	No Gas	2174436	0.98	2346070	92.68	70	120	
Bi	209	1	No Gas	2815308	4.37	3154823	89.24	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08MSD
Data File Name	288SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:56:19-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	24.257	24.257	0.61	205161	0.01	2000	
Be	9	1	No Gas	44.034	44.034	0.38	76966	0.06	2000	
V	51	2	He	48.049	48.049	0.55	164489	0.03	2000	
Cr	52	2	He	46.774	46.774	1.40	187190	0.02	2000	
Fe	56	2	He	6709.400	6709.400	0.59	25413490	0.03	200000	
Se	78	2	He	46.037	46.037	1.83	2531	1.82	2000	
As	75	2	He	48.371	48.371	2.35	27271	0.18	2000	
Ca	44	2	He	116158.823	116158.823	0.54	2541378	4.57	200000	
Na	23	2	He	35042.356	35042.356	0.85	20356963	0.17	200000	
Mg	24	2	He	19501.019	19501.019	0.86	6687551	0.29	200000	
K	39	2	He	7847.900	7847.900	0.24	3071094	0.26	200000	
Mn	55	2	He	444.134	444.134	0.31	1382953	0.03	2000	
Co	59	2	He	44.480	44.480	0.98	272687	0.02	2000	
Ni	60	2	He	48.179	48.179	1.17	69175	0.07	2000	
Cu	63	2	He	45.644	45.644	0.45	179921	0.03	2000	
Zn	66	2	He	46.033	46.033	0.58	37165	0.12	2000	
Al	27	2	He	53.079	53.079	4.14	11398	0.47	2000	
B	11	1	No Gas	195.403	195.403	0.76	210595	0.09	2000	
Al	27	1	No Gas	57.885	57.885	5.37	444858	0.01	2000	
Si	28	1	No Gas	10284.939	10284.939	1.03	34075531	0.03	2000	>LDR
Ag	107	1	No Gas	44.967	44.967	1.72	540485	0.01	2000	
Cd	111	1	No Gas	45.714	45.714	2.65	115576	0.04	2000	
Sr	88	1	No Gas	549.061	549.061	1.98	11680533	0.00	2000	
Mo	95	1	No Gas	48.222	48.222	1.27	211764	0.02	2000	
Sn	118	1	No Gas	-0.056	-0.056	-21.03	797	-0.01	2000	
Sb	121	1	No Gas	45.827	45.827	0.28	527715	0.01	2000	
Ba	137	1	No Gas	220.189	220.189	1.91	945649	0.02	2000	
Tl	205	1	No Gas	46.512	46.512	2.73	1638929	0.00	2000	
Tl	203	1	No Gas	43.783	43.783	3.39	651863	0.01	2000	
Pb	208	1	No Gas	44.493	44.493	2.15	2245646	0.00	2000	
U	238	1	No Gas	1.894	1.894	3.14	107324	0.00	2000	
Ca	43	2	He	114484.696	114484.696	0.36	146310	78.25	200000	
Sb	121	2	He	46.020	46.020	1.53	257603	0.02	2000	
Ti	47	2	He	48.747	48.747	5.99	6001	0.81	2000	
Cu	63	1	No Gas	45.767	45.767	1.16	311490	0.01	2000	
Zn	66	1	No Gas	47.395	47.395	1.30	92208	0.05	2000	
Se	82	1	No Gas	48.803	48.803	0.67	5866	0.83	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	505982	0.37	545261	92.80	70	120	
Ge	72	2	He	426589	0.72	479992	88.87	70	120	
Ge	72	1	No Gas	1379697	0.77	1554275	88.77	70	120	
In	115	1	No Gas	2145194	1.72	2346070	91.44	70	120	
Bi	209	1	No Gas	2830656	3.23	3154823	89.72	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08PDS
Data File Name	289SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:58:22-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	25.726	25.726	1.10	209746	0.01	2000	
Be	9	1	No Gas	98.773	98.773	0.09	168066	0.06	2000	
V	51	2	He	106.174	106.174	0.94	354013	0.03	2000	
Cr	52	2	He	104.288	104.288	1.41	408510	0.03	2000	
Fe	56	2	He	12419.924	12419.924	1.09	46150931	0.03	200000	
Se	78	2	He	104.921	104.921	2.86	5597	1.87	2000	
As	75	2	He	103.345	103.345	0.85	57031	0.18	2000	
Ca	44	2	He	128934.800	128934.800	2.14	2767449	4.66	200000	
Na	23	2	He	42558.746	42558.746	0.82	24246295	0.18	200000	
Mg	24	2	He	26090.103	26090.103	1.08	8777866	0.30	200000	
K	39	2	He	13726.490	13726.490	2.30	5243480	0.26	200000	
Mn	55	2	He	514.937	514.937	0.57	1573193	0.03	2000	
Co	59	2	He	98.206	98.206	1.32	590671	0.02	2000	
Ni	60	2	He	103.831	103.831	1.76	146147	0.07	2000	
Cu	63	2	He	101.372	101.372	1.44	390779	0.03	2000	
Zn	66	2	He	103.337	103.337	1.52	81085	0.13	2000	
Al	27	2	He	112.647	112.647	1.02	23143	0.49	2000	
B	11	1	No Gas	209.650	209.650	1.25	219293	0.10	2000	
Al	27	1	No Gas	120.593	120.593	2.01	884931	0.01	2000	
Si	28	1	No Gas	10924.975	10924.975	2.19	35428604	0.03	2000	>LDR
Ag	107	1	No Gas	91.621	91.621	0.28	1073107	0.01	2000	
Cd	111	1	No Gas	101.069	101.069	0.39	249121	0.04	2000	
Sr	88	1	No Gas	587.378	587.378	0.64	12181317	0.00	2000	
Mo	95	1	No Gas	106.019	106.019	0.70	453727	0.02	2000	
Sn	118	1	No Gas	-0.035	-0.035	-71.84	947	0.00	2000	
Sb	121	1	No Gas	102.292	102.292	0.81	1151713	0.01	2000	
Ba	137	1	No Gas	287.282	287.282	2.24	1202622	0.02	2000	
Tl	205	1	No Gas	105.593	105.593	5.72	3645486	0.00	2000	
Tl	203	1	No Gas	105.659	105.659	5.50	1541664	0.01	2000	
Pb	208	1	No Gas	101.323	101.323	5.74	5010169	0.00	2000	
U	238	1	No Gas	1.997	1.997	6.66	110879	0.00	2000	
Ca	43	2	He	126622.061	126622.061	3.25	158754	79.76	200000	
Sb	121	2	He	100.318	100.318	1.44	550305	0.02	2000	
Ti	47	2	He	108.289	108.289	3.09	13073	0.83	2000	
Cu	63	1	No Gas	102.507	102.507	0.96	680524	0.02	2000	
Zn	66	1	No Gas	105.784	105.784	0.26	199590	0.05	2000	
Se	82	1	No Gas	103.847	103.847	0.37	12227	0.85	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	492630	0.88	545261	90.35	70	120	
Ge	72	2	He	418568	1.10	479992	87.20	70	120	
Ge	72	1	No Gas	1350873	0.86	1554275	86.91	70	120	
In	115	1	No Gas	2090832	0.76	2346070	89.12	70	120	
Bi	209	1	No Gas	2777764	5.10	3154823	88.05	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	290_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:00:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	95.605	0.400	651623	0.46	100	95.6	90	110	
Be	9	1	No Gas	92.635	0.679	149810	0.54	100	92.6	90	110	
V	51	2	He	98.451	0.936	319622	0.04	100	98.5	90	110	
Cr	52	2	He	97.436	0.768	371515	0.33	100	97.4	90	110	
Fe	56	2	He	9904.975	1.000	35822703	0.94	10000	99.0	90	110	
Se	78	2	He	98.960	1.208	5140	0.29	100	99.0	90	110	
As	75	2	He	96.867	0.160	52034	0.82	100	96.9	90	110	
Ca	44	2	He	10029.460	1.126	209799	0.88	10000	100.3	90	110	
Na	23	2	He	10226.972	1.561	5710857	0.62	10000	102.3	90	110	
Mg	24	2	He	10055.906	1.935	3292896	1.52	10000	100.6	90	110	
K	39	2	He	10143.002	1.363	3780092	1.00	10000	101.4	90	110	
Mn	55	2	He	98.889	1.006	294201	0.17	100	98.9	90	110	
Co	59	2	He	94.444	0.743	552856	0.28	100	94.4	90	110	
Ni	60	2	He	98.968	0.301	135589	0.64	100	99.0	90	110	
Cu	63	2	He	97.679	0.784	366522	0.90	100	97.7	90	110	
Zn	66	2	He	100.160	0.467	76512	0.72	100	100.2	90	110	
Al	27	2	He	101.536	1.774	20349	0.83	100	101.5	90	110	
B	11	1	No Gas	446.270	1.677	433587	1.44	500	89.3	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	103.904	1.881	736775	0.57	100	103.9	90	110	
Si	28	1	No Gas	517.653	2.871	1737565	1.11	5000	10.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	94.117	1.046	1074069	1.04	100	94.1	90	110	
Cd	111	1	No Gas	96.414	0.745	231555	0.56	100	96.4	90	110	
Sr	88	1	No Gas	98.054	1.652	1982391	1.32	100	98.1	90	110	
Mo	95	1	No Gas	96.777	0.539	403564	0.22	100	96.8	90	110	
Sn	118	1	No Gas	95.215	0.175	759892	0.45	100	95.2	90	110	
Sb	121	1	No Gas	98.144	2.313	1063798	0.58	100	98.1	90	110	
Ba	137	1	No Gas	97.258	0.541	396840	0.03	100	97.3	90	110	
Tl	205	1	No Gas	98.480	4.163	3295125	1.62	100	98.5	90	110	
Tl	203	1	No Gas	97.639	2.906	1381027	1.75	100	97.6	90	110	
Pb	208	1	No Gas	97.031	3.747	4650117	0.64	100	97.0	90	110	
U	238	1	No Gas	97.523	4.271	5243290	1.23	100	97.5	90	110	
Ca	43	2	He	9594.689	3.077	11725	2.22	10000	95.9	90	110	
Sb	121	2	He	95.239	0.793	508504	0.16	100	95.2	90	110	
Ti	47	2	He	103.248	3.251	12132	2.90	100	103.2	90	110	
Cu	63	1	No Gas	99.722	2.202	637383	0.48	100	99.7	90	110	
Se	82	1	No Gas	92.255	3.528	10462	5.11	100	92.3	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	468217	0.31	545261	85.87	70	120	
Ge	72	2	He	407355	0.94	479992	84.87	70	120	
Ge	72	1	No Gas	1300728	1.74	1554275	83.69	70	120	
In	115	1	No Gas	2037228	0.57	2346070	86.84	70	120	
Bi	209	1	No Gas	2689078	3.17	3154823	85.24	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	291_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:02:14-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.751	6.2	39821	1.1	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.063	21.6	123	18.7	0.5	
V	51	2	He	-0.118	-14.5	1807	3.7	2.5	
Cr	52	2	He	-0.013	-210.5	773	14.4	2.5	
Fe	56	2	He	1.359	8.5	11992	2.5	100	
Se	78	2	He	0.274	71.8	65	15.3	2	
As	75	2	He	-0.042	-96.6	103	22.3	2.5	
Ca	44	2	He	3.839	113.6	400	25.0	100	
Na	23	2	He	132.955	5.7	133584	2.3	100	CCB Main CR1 Failed
Mg	24	2	He	1.818	25.1	1093	15.4	100	
K	39	2	He	12.528	15.0	40694	0.7	100	
Mn	55	2	He	0.016	45.1	287	8.8	2.5	
Co	59	2	He	0.005	58.5	60	33.3	2.5	
Ni	60	2	He	0.066	57.1	197	28.0	2.5	
Cu	63	2	He	-0.018	-88.0	983	5.8	2	
Zn	66	2	He	0.133	120.5	737	17.9	2.5	
Al	27	2	He	0.188	159.9	577	11.0	5	
B	11	1	No Gas	14.865	12.2	24366	7.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.107	27.5	21891	2.2	5	
Si	28	1	No Gas	0.781	24.1	135758	0.9	10	
Ag	107	1	No Gas	-0.009	-17.4	340	5.9	2.5	
Cd	111	1	No Gas	0.009	99.5	23	99.0	1	
Sr	88	1	No Gas	0.021	69.0	1797	16.6	2.5	
Mo	95	1	No Gas	0.330	30.2	1563	28.7	2.5	
Sn	118	1	No Gas	0.457	17.0	5164	12.8	5	
Sb	121	1	No Gas	0.478	18.4	6679	13.6	2.5	
Ba	137	1	No Gas	0.004	274.4	190	24.1	2.5	
Tl	205	1	No Gas	1.213	42.3	43939	43.5	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.209	45.0	18463	46.2	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.024	25.0	1830	19.1	2.5	
U	238	1	No Gas	0.023	48.8	1463	45.9	2.5	
Ca	43	2	He	17.559	178.3	43	93.3	100	
Sb	121	2	He	0.389	8.7	2750	7.4	2.5	
Ti	47	2	He	0.138	58.6	20	50.0	2.5	
Cu	63	1	No Gas	-0.032	-76.4	1867	9.0	2.5	
Se	82	1	No Gas	0.135	488.0	11	691.4	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	494279	0.25	545261	90.65	70	120	
Ge	72	2	He	427987	1.16	479992	89.17	70	120	
Ge	72	1	No Gas	1358671	1.28	1554275	87.42	70	120	
In	115	1	No Gas	2171992	0.60	2346070	92.58	70	120	
Bi	209	1	No Gas	2849743	2.65	3154823	90.33	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	300_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:20:39-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	96.669	0.689	660193	0.29	100	96.7	90	110	
Be	9	1	No Gas	94.043	0.828	152477	0.14	100	94.0	90	110	
V	51	2	He	97.799	0.570	320673	0.78	100	97.8	90	110	
Cr	52	2	He	98.001	0.853	377370	1.14	100	98.0	90	110	
Fe	56	2	He	9892.598	0.514	36131871	0.52	10000	98.9	90	110	
Se	78	2	He	97.079	1.240	5094	1.33	100	97.1	90	110	
As	75	2	He	96.756	0.366	52488	0.71	100	96.8	90	110	
Ca	44	2	He	9853.264	0.377	208159	0.15	10000	98.5	90	110	
Na	23	2	He	10224.289	0.947	5766127	0.64	10000	102.2	90	110	
Mg	24	2	He	10152.409	1.432	3357430	1.10	10000	101.5	90	110	
K	39	2	He	10143.771	1.401	3817797	1.19	10000	101.4	90	110	
Mn	55	2	He	97.589	0.896	293222	1.12	100	97.6	90	110	
Co	59	2	He	94.172	0.384	556723	0.58	100	94.2	90	110	
Ni	60	2	He	98.597	0.963	136414	0.66	100	98.6	90	110	
Cu	63	2	He	97.838	1.172	370747	1.30	100	97.8	90	110	
Zn	66	2	He	98.610	1.276	76083	1.52	100	98.6	90	110	
Al	27	2	He	100.460	3.125	20338	2.89	100	100.5	90	110	
B	11	1	No Gas	450.688	1.270	438909	0.55	500	90.1	90	110	
Al	27	1	No Gas	106.571	1.477	764352	0.52	100	106.6	90	110	
Si	28	1	No Gas	523.946	0.472	1778869	1.23	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	95.231	1.743	1113619	0.71	100	95.2	90	110	
Cd	111	1	No Gas	94.597	0.084	232831	0.99	100	94.6	90	110	
Sr	88	1	No Gas	99.673	1.490	2065002	0.84	100	99.7	90	110	
Mo	95	1	No Gas	96.571	0.739	412686	0.77	100	96.6	90	110	
Sn	118	1	No Gas	94.230	0.985	770652	0.14	100	94.2	90	110	
Sb	121	1	No Gas	97.738	1.271	1072385	0.52	100	97.7	90	110	
Ba	137	1	No Gas	97.119	1.098	406090	0.66	100	97.1	90	110	
Tl	205	1	No Gas	97.571	1.550	3340192	0.92	100	97.6	90	110	
Tl	203	1	No Gas	95.313	1.359	1378935	1.24	100	95.3	90	110	
Pb	208	1	No Gas	96.679	1.072	4740388	0.69	100	96.7	90	110	
U	238	1	No Gas	97.482	1.696	5362988	1.75	100	97.5	90	110	
Ca	43	2	He	9915.563	3.976	12239	4.18	10000	99.2	90	110	
Sb	121	2	He	93.876	0.338	506202	0.59	100	93.9	90	110	
Ti	47	2	He	103.128	3.498	12239	3.54	100	103.1	90	110	
Cu	63	1	No Gas	101.177	0.843	654587	0.49	100	101.2	90	110	
Se	82	1	No Gas	96.567	1.743	11079	1.85	100	96.6	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	469435	0.94	545261	86.09	70	120	
Ge	72	2	He	411373	0.35	479992	85.70	70	120	
Ge	72	1	No Gas	1316405	0.93	1554275	84.70	70	120	
In	115	1	No Gas	2087768	1.03	2346070	88.99	70	120	
Bi	209	1	No Gas	2749198	0.75	3154823	87.14	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	301_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:22:35-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.493	15.5	37807	1.2	0.5	
Be	9	1	No Gas	0.029	30.0	65	23.1	0.5	
V	51	2	He	0.004	83.7	2210	1.0	2.5	
Cr	52	2	He	-0.013	-124.2	767	7.6	2.5	
Fe	56	2	He	1.062	25.8	10818	9.3	100	
Se	78	2	He	0.302	42.1	66	10.9	2	
As	75	2	He	-0.037	-28.6	106	6.6	2.5	
Ca	44	2	He	3.932	77.0	400	17.5	100	
Na	23	2	He	119.178	2.5	125049	0.9	100	CCB Main CR1 Failed
Mg	24	2	He	1.991	11.0	1147	7.3	100	
K	39	2	He	6.954	12.4	38367	1.0	100	
Mn	55	2	He	0.024	132.3	310	31.1	2.5	
Co	59	2	He	0.003	174.4	47	75.3	2.5	
Ni	60	2	He	0.042	79.5	160	28.6	2.5	
Cu	63	2	He	-0.013	-19.8	1000	1.0	2	
Zn	66	2	He	0.058	154.2	673	9.7	2.5	
Al	27	2	He	2.715	106.5	1088	53.3	5	
B	11	1	No Gas	17.005	16.5	26343	10.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	1.951	165.6	35085	65.0	5	
Si	28	1	No Gas	3.259	114.8	143990	7.0	10	
Ag	107	1	No Gas	-0.012	-18.0	300	5.8	2.5	
Cd	111	1	No Gas	0.004	101.6	10	100.0	1	
Sr	88	1	No Gas	0.003	143.6	1397	4.8	2.5	
Mo	95	1	No Gas	0.218	50.7	1050	47.5	2.5	
Sn	118	1	No Gas	0.388	11.5	4511	8.5	5	
Sb	121	1	No Gas	0.267	19.9	4297	12.6	2.5	
Ba	137	1	No Gas	0.008	97.3	203	14.2	2.5	
Tl	205	1	No Gas	1.214	42.3	43270	45.3	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.190	42.0	17882	45.1	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.020	29.0	1573	22.0	2.5	
U	238	1	No Gas	0.024	49.1	1497	48.4	2.5	
Ca	43	2	He	-10.998	-41.1	7	86.6	100	
Sb	121	2	He	0.189	17.6	1617	11.2	2.5	
Ti	47	2	He	0.166	57.2	23	49.5	2.5	
Cu	63	1	No Gas	-0.017	-50.7	1970	1.5	2.5	
Se	82	1	No Gas	-0.407	-130.1	-53	-118.5	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	491036	0.29	545261	90.06	70	120	
Ge	72	2	He	426115	0.95	479992	88.78	70	120	
Ge	72	1	No Gas	1361551	1.57	1554275	87.60	70	120	
In	115	1	No Gas	2140218	2.44	2346070	91.23	70	120	
Bi	209	1	No Gas	2793514	3.69	3154823	88.55	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	311_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:43:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	90.947	0.516	566438	0.34	100	90.9	90	110	
Be	9	1	No Gas	84.541	0.904	124616	0.96	100	84.5	90	110	CCV Main CR1-2 Failed
V	51	2	He	93.457	0.441	264209	0.90	100	93.5	90	110	
Cr	52	2	He	93.337	0.280	309823	1.00	100	93.3	90	110	
Fe	56	2	He	9341.162	1.026	29406830	0.69	10000	93.4	90	110	
Se	78	2	He	88.764	2.244	4017	0.96	100	88.8	90	110	CCV Main CR1-2 Failed
As	75	2	He	88.986	1.554	41616	1.59	100	89.0	90	110	CCV Main CR1-2 Failed
Ca	44	2	He	9338.641	1.339	170060	1.21	10000	93.4	90	110	
Na	23	2	He	10000.605	0.774	4862427	1.02	10000	100.0	90	110	
Mg	24	2	He	9747.981	0.987	2778611	0.52	10000	97.5	90	110	
K	39	2	He	9613.986	0.627	3120409	0.66	10000	96.1	90	110	
Mn	55	2	He	93.816	1.109	242965	0.82	100	93.8	90	110	
Co	59	2	He	90.364	0.863	460444	0.55	100	90.4	90	110	
Ni	60	2	He	94.127	1.785	112253	1.67	100	94.1	90	110	
Cu	63	2	He	93.773	0.705	306316	0.77	100	93.8	90	110	
Zn	66	2	He	93.721	2.453	62363	3.43	100	93.7	90	110	
Al	27	2	He	96.638	3.268	16877	1.95	100	96.6	90	110	
B	11	1	No Gas	390.059	1.582	346445	1.40	500	78.0	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	98.396	2.975	634189	0.22	100	98.4	90	110	
Si	28	1	No Gas	473.258	2.763	1451870	0.80	5000	9.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	92.432	0.607	925685	0.74	100	92.4	90	110	
Cd	111	1	No Gas	91.817	0.789	193516	0.90	100	91.8	90	110	
Sr	88	1	No Gas	96.233	1.485	1707551	2.13	100	96.2	90	110	
Mo	95	1	No Gas	94.169	1.774	344585	1.14	100	94.2	90	110	
Sn	118	1	No Gas	92.853	0.858	650319	0.78	100	92.9	90	110	
Sb	121	1	No Gas	90.923	3.649	894424	0.67	100	90.9	90	110	
Ba	137	1	No Gas	96.360	1.665	345015	0.92	100	96.4	90	110	
Tl	205	1	No Gas	92.792	4.702	2869387	0.47	100	92.8	90	110	
Tl	203	1	No Gas	88.269	7.054	1152599	2.36	100	88.3	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	91.059	5.309	4032116	0.53	100	91.1	90	110	
U	238	1	No Gas	92.591	4.353	4601597	1.05	100	92.6	90	110	
Ca	43	2	He	9106.045	4.018	9687	3.22	10000	91.1	90	110	
Sb	121	2	He	90.621	1.157	421180	0.30	100	90.6	90	110	
Ti	47	2	He	92.117	4.565	9420	3.43	100	92.1	90	110	
Cu	63	1	No Gas	92.634	3.552	537436	0.78	100	92.6	90	110	
Se	82	1	No Gas	88.202	3.756	9074	3.66	100	88.2	90	110	CCV Main CR1-2 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	426757	0.19	545261	78.27	70	120	
Ge	72	2	He	354592	1.28	479992	73.87	70	120	
Ge	72	1	No Gas	1180914	2.96	1554275	75.98	70	120	
In	115	1	No Gas	1787786	0.75	2346070	76.20	70	120	
Bi	209	1	No Gas	2486923	4.89	3154823	78.83	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	312_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:45:15-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.461	13.1	33984	1.3	0.5	
Be	9	1	No Gas	0.019	42.6	43	29.0	0.5	
V	51	2	He	0.028	95.4	1969	2.9	2.5	
Cr	52	2	He	-0.049	-9.4	537	2.2	2.5	
Fe	56	2	He	0.498	30.9	7466	7.6	100	
Se	78	2	He	0.374	93.3	60	26.7	2	
As	75	2	He	0.001	4792.1	109	13.8	2.5	
Ca	44	2	He	1.633	147.8	300	14.5	100	
Na	23	2	He	192.055	1.2	143680	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	2.021	21.0	993	12.0	100	
K	39	2	He	6.725	12.2	32890	1.2	100	
Mn	55	2	He	0.017	141.2	250	26.2	2.5	
Co	59	2	He	0.003	148.7	37	56.8	2.5	
Ni	60	2	He	0.068	55.7	170	27.0	2.5	
Cu	63	2	He	-0.073	-46.0	657	16.4	2	
Zn	66	2	He	0.138	26.3	633	5.1	2.5	
Al	27	2	He	0.002	20455.0	460	11.3	5	
B	11	1	No Gas	18.569	11.6	25233	7.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.097	-173.9	17838	4.7	5	
Si	28	1	No Gas	-0.297	-411.8	115537	0.6	10	
Ag	107	1	No Gas	-0.019	-15.9	187	16.4	2.5	
Cd	111	1	No Gas	0.007	69.2	17	69.3	1	
Sr	88	1	No Gas	-0.002	-546.7	1137	19.0	2.5	
Mo	95	1	No Gas	0.213	47.9	907	44.2	2.5	
Sn	118	1	No Gas	0.389	15.1	3994	11.6	5	
Sb	121	1	No Gas	0.225	20.0	3334	11.2	2.5	
Ba	137	1	No Gas	-0.006	-191.7	127	37.3	2.5	
Tl	205	1	No Gas	1.141	41.0	36849	42.6	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.110	40.8	15124	42.4	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.013	47.5	1133	28.0	2.5	
U	238	1	No Gas	0.021	58.3	1177	54.1	2.5	
Ca	43	2	He	5.138	208.3	23	49.5	100	
Sb	121	2	He	0.162	10.6	1263	7.7	2.5	
Ti	47	2	He	-0.024	0.0	0	#DIV/0!	2.5	
Cu	63	1	No Gas	-0.097	-2.4	1253	2.0	2.5	
Se	82	1	No Gas	-0.383	-254.2	-43	-236.1	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	443951	0.49	545261	81.42	70	120	
Ge	72	2	He	366124	1.17	479992	76.28	70	120	
Ge	72	1	No Gas	1187505	2.54	1554275	76.40	70	120	
In	115	1	No Gas	1889208	0.79	2346070	80.53	70	120	
Bi	209	1	No Gas	2539761	2.22	3154823	80.50	70	120	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	314LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:49:15-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	2.194	2.194	4.51	45451	0.00	2	
Be	9	1	No Gas	1.731	1.731	3.71	2717	0.06	2	
V	51	2	He	1.932	1.932	4.54	7713	0.03	2	
Cr	52	2	He	1.917	1.917	4.19	7479	0.03	2	
Fe	56	2	He	191.807	191.807	1.97	648192	0.03	200	
Se	78	2	He	2.072	2.072	13.08	143	1.45	2	
As	75	2	He	1.760	1.760	11.76	984	0.18	2	
Ca	44	2	He	194.213	194.213	5.69	4034	4.81	200	
Na	23	2	He	384.035	384.035	1.09	246362	0.16	200	NewName Main CR1 Failed
Mg	24	2	He	205.310	205.310	0.95	62657	0.33	200	
K	39	2	He	199.588	199.588	2.66	99832	0.20	200	
Mn	55	2	He	1.842	1.842	4.10	5281	0.03	2	
Co	59	2	He	1.774	1.774	0.42	9637	0.02	2	
Ni	60	2	He	2.037	2.037	9.92	2670	0.08	2	
Cu	63	2	He	1.878	1.878	6.09	7436	0.03	2	
Zn	66	2	He	1.731	1.731	3.17	1770	0.10	2	
Al	27	2	He	2.748	2.748	42.46	970	0.28	2	NewName Main CR1 Failed
B	11	1	No Gas	13.639	13.639	1.04	21169	0.06	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.663	2.663	4.18	36191	0.01	2	NewName Main CR1 Failed
Si	28	1	No Gas	9.768	9.768	29.33	148112	0.01	10	
Ag	107	1	No Gas	1.838	1.838	3.60	20126	0.01	2	
Cd	111	1	No Gas	1.848	1.848	2.67	4177	0.04	2	
Sr	88	1	No Gas	1.868	1.868	2.24	36714	0.01	2	
Mo	95	1	No Gas	1.914	1.914	4.78	7592	0.03	2	
Sn	118	1	No Gas	1.849	1.849	4.41	14995	0.01	2	
Sb	121	1	No Gas	1.876	1.876	1.91	20196	0.01	2	
Ba	137	1	No Gas	1.888	1.888	5.98	7399	0.03	2	
Tl	205	1	No Gas	1.713	1.713	7.40	56089	0.00	2	
Tl	203	1	No Gas	1.690	1.690	6.61	23356	0.01	2	
Pb	208	1	No Gas	1.805	1.805	3.67	84398	0.00	2	
U	238	1	No Gas	1.784	1.784	6.22	93079	0.00	2	
Ca	43	2	He	240.693	240.693	17.78	290	82.99	200	
Sb	121	2	He	1.857	1.857	3.84	9670	0.02	2	
Ti	47	2	He	2.241	2.241	26.59	247	0.91	200	
Cu	63	1	No Gas	1.864	1.864	2.17	13010	0.01	2	
Se	82	1	No Gas	2.276	2.276	40.74	238	0.96	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	452215	0.74	545261	82.94	70	120	
Ge	72	2	He	377189	0.82	479992	78.58	70	120	
Ge	72	1	No Gas	1219922	0.51	1554275	78.49	70	120	
In	115	1	No Gas	1917592	0.86	2346070	81.74	70	120	
Bi	209	1	No Gas	2608718	4.64	3154823	82.69	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	315LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:51:15-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	4.853	4.853	1.29	61975	0.01	5	
Be	9	1	No Gas	4.308	4.308	3.24	6732	0.06	5	
V	51	2	He	4.786	4.786	0.36	15983	0.03	5	
Cr	52	2	He	4.647	4.647	0.92	16831	0.03	5	
Fe	56	2	He	499.399	499.399	1.06	1651850	0.03	500	
Se	78	2	He	4.890	4.890	5.28	273	1.79	5	
As	75	2	He	4.554	4.554	1.32	2335	0.20	5	
Ca	44	2	He	476.916	476.916	1.86	9353	5.10	500	
Na	23	2	He	687.206	687.206	0.77	395366	0.17	500	NewName2 Main CR1 Failed
Mg	24	2	He	511.727	511.727	0.24	153123	0.33	500	
K	39	2	He	494.218	494.218	0.41	197455	0.25	500	
Mn	55	2	He	4.753	4.753	4.34	13087	0.04	5	
Co	59	2	He	4.695	4.695	2.06	25073	0.02	5	
Ni	60	2	He	4.953	4.953	3.18	6268	0.08	5	
Cu	63	2	He	4.756	4.756	4.01	17134	0.03	5	
Zn	66	2	He	4.256	4.256	6.89	3487	0.12	5	
Al	27	2	He	9.531	9.531	59.90	2166	0.44	5	NewName2 Main CR1 Failed
B	11	1	No Gas	24.046	24.046	2.62	30685	0.08	25	
Al	27	1	No Gas	5.349	5.349	1.85	53068	0.01	5	
Si	28	1	No Gas	33.931	33.931	22.00	216692	0.02	25	NewName2 Main CR1 Failed
Ag	107	1	No Gas	4.647	4.647	0.89	50456	0.01	5	
Cd	111	1	No Gas	4.531	4.531	7.50	10281	0.04	5	
Sr	88	1	No Gas	4.621	4.621	1.83	89350	0.01	5	
Mo	95	1	No Gas	4.681	4.681	1.00	18513	0.03	5	
Sn	118	1	No Gas	4.519	4.519	3.46	35134	0.01	5	
Sb	121	1	No Gas	4.585	4.585	2.02	47272	0.01	5	
Ba	137	1	No Gas	4.646	4.646	1.33	18046	0.03	5	
Tl	205	1	No Gas	4.360	4.360	3.16	141549	0.00	5	
Tl	203	1	No Gas	4.246	4.246	3.48	58206	0.01	5	
Pb	208	1	No Gas	4.500	4.500	2.99	208934	0.00	5	
U	238	1	No Gas	4.428	4.428	3.01	230232	0.00	5	
Ca	43	2	He	523.254	523.254	4.16	600	87.21	500	
Sb	121	2	He	4.649	4.649	4.53	23094	0.02	5	
Ti	47	2	He	4.520	4.520	14.78	487	0.93	5	
Cu	63	1	No Gas	4.762	4.762	2.97	30050	0.02	5	
Se	82	1	No Gas	3.971	3.971	12.76	414	0.96	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	451529	0.50	545261	82.81	70	120	
Ge	72	2	He	371272	0.40	479992	77.35	70	120	
Ge	72	1	No Gas	1208741	1.49	1554275	77.77	70	120	
In	115	1	No Gas	1923778	0.87	2346070	82.00	70	120	
Bi	209	1	No Gas	2597957	2.57	3154823	82.35	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	316ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:53:15-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.968	7.2	34148	0.7	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.009	120.5	25	60.0	0	ICSA Main CR1 Failed
V	51	2	He	0.110	8.9	2015	1.1	0	ICSA Main CR1 Failed
Cr	52	2	He	1.929	1.1	6665	1.6	0	ICSA Main CR1 Failed
Fe	56	2	He	92995.198	0.4	275920209	0.8	0	
Se	78	2	He	0.199	103.2	47	17.6	0	ICSA Main CR1 Failed
As	75	2	He	0.070	138.5	130	33.5	0	ICSA Main CR1 Failed
Ca	44	2	He	93725.717	2.1	1606528	1.5	0	
Na	23	2	He	97574.762	0.4	44334136	0.5	0	
Mg	24	2	He	96673.661	1.7	25971870	1.5	0	
K	39	2	He	95158.819	2.0	28863345	1.7	0	
Mn	55	2	He	0.320	12.1	967	9.0	0	ICSA Main CR1 Failed
Co	59	2	He	0.055	1.5	283	2.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.125	36.3	220	24.1	0	ICSA Main CR1 Failed
Cu	63	2	He	0.078	70.0	1063	15.3	0	ICSA Main CR1 Failed
Zn	66	2	He	0.575	48.3	850	20.6	0	ICSA Main CR1 Failed
Al	27	2	He	91279.353	1.9	14632709	1.4	0	
B	11	1	No Gas	7.463	7.7	14004	3.8	0	
Al	27	1	No Gas	92931.560	2.3	549816765	1.6	0	
Si	28	1	No Gas	21.261	9.1	166122	2.5	0	
Ag	107	1	No Gas	0.230	10.2	2584	7.9	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.255	3.6	2560	2.6	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.038	1.0	18894	1.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1821.379	1.0	6453379	0.6	0	
Sn	118	1	No Gas	0.071	17.8	1503	6.7	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.036	40.2	1383	10.2	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.359	9.4	1383	9.4	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.101	43.5	3451	40.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.102	39.5	1430	38.2	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.073	2.8	3454	2.5	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.002	33.0	223	17.0	0	ICSA Main CR1 Failed
Ca	43	2	He	91993.446	1.1	92113	0.7	0	
Sb	121	2	He	0.048	33.9	653	10.2	0	ICSA Main CR1 Failed
Ti	47	2	He	1926.196	0.8	185682	0.4	0	
Se	82	1	No Gas	-0.565	-184.8	-59	-172.0	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	408720	0.41	545261	74.96	70	120	
Ge	72	2	He	334234	0.78	479992	69.63	70	120	ISTD Failed
Ge	72	1	No Gas	1115750	0.71	1554275	71.79	70	120	
In	115	1	No Gas	1731396	1.06	2346070	73.80	70	120	
Bi	209	1	No Gas	2306355	3.87	3154823	73.11	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	317ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:55:17-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

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	94.161	0.496	533211	0.72	100	94.2	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	87.230	0.377	117118	0.74	100	87.2	80	120	
V	51	2	He	94.531	0.094	248758	0.60	100	94.5	80	120	
Cr	52	2	He	95.050	0.117	293693	0.68	100	95.0	80	120	
Fe	56	2	He	102218.763	0.780	299518202	1.05	100	102218.8	80	120	
Se	78	2	He	89.965	2.848	3791	3.14	100	90.0	80	120	
As	75	2	He	91.437	0.645	39805	0.71	100	91.4	80	120	
Ca	44	2	He	104336.110	0.852	1766264	0.80	100	104336.1	80	120	
Na	23	2	He	108137.440	0.157	48518564	0.63	100	108137.4	80	120	
Mg	24	2	He	107278.575	1.673	28461842	1.05	100	107278.6	80	120	
K	39	2	He	105049.057	1.505	31466396	1.76	100	105049.1	80	120	
Mn	55	2	He	92.976	0.558	224162	0.89	100	93.0	80	120	
Co	59	2	He	90.137	1.542	427570	1.79	100	90.1	80	120	
Ni	60	2	He	91.980	2.082	102110	1.61	100	92.0	80	120	
Cu	63	2	He	90.839	0.647	276254	0.59	100	90.8	80	120	
Zn	66	2	He	91.425	0.671	56635	1.25	100	91.4	80	120	
Al	27	2	He	91728.004	0.453	14522945	0.93	100	91728.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	430.884	0.571	347819	0.91	100	430.9	80	120	
Al	27	1	No Gas	93894.576	1.180	536239552	0.71	100	93894.6	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	486.668	3.374	1359099	2.50	100	486.7	80	120	
Ag	107	1	No Gas	86.811	1.658	825611	1.56	100	86.8	80	120	
Cd	111	1	No Gas	89.769	1.727	179666	1.67	100	89.8	80	120	
Sr	88	1	No Gas	98.573	2.092	1660848	2.20	100	98.6	80	120	
Mo	95	1	No Gas	1916.469	2.567	6658193	2.24	100	1916.5	80	120	
Sn	118	1	No Gas	93.551	0.817	622207	1.00	100	93.6	80	120	
Sb	121	1	No Gas	94.644	1.244	849627	1.09	100	94.6	80	120	
Ba	137	1	No Gas	97.428	0.996	331293	1.26	100	97.4	80	120	
Tl	205	1	No Gas	90.041	2.352	2552310	1.40	100	90.0	80	120	
Tl	203	1	No Gas	85.873	2.811	1028572	1.31	100	85.9	80	120	
Pb	208	1	No Gas	92.319	2.085	3747943	0.62	100	92.3	80	120	
U	238	1	No Gas	98.263	3.812	4475144	2.43	100	98.3	80	120	
Ca	43	2	He	102118.120	1.093	100985	1.48	100	102118.1	80	120	
Sb	121	2	He	92.656	1.248	400881	0.92	100	92.7	80	120	
Ti	47	2	He	2037.810	1.006	194001	0.86	100	2037.8	80	120	
Cu	63	1	No Gas	90.892	1.604	481233	0.60	100	90.9	80	120	
Se	82	1	No Gas	93.906	4.776	8811	3.38	100	93.9	80	120	

QC ISTD Table

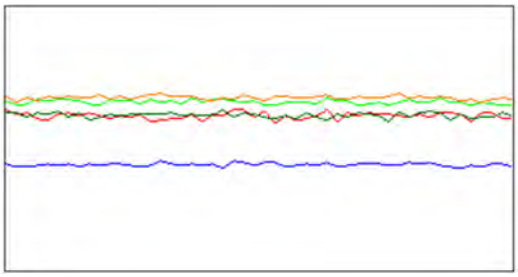
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	388712	0.56	545261	71.29	70	120	
Ge	72	2	He	330079	0.69	479992	68.77	70	120	ISTD Failed
Ge	72	1	No Gas	1077068	1.78	1554275	69.30	70	120	ISTD Failed
In	115	1	No Gas	1697724	0.61	2346070	72.36	70	120	
Bi	209	1	No Gas	2276649	1.53	3154823	72.16	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq. Date-Time	5/25/2021 10:17:50 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	2936	29358.55		
24	20000	12790	127896.03		
59	50000	20174	201737.79		
115	50000	32784	327844.66		
208	50000	29461	294607.37		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.238	5.000	
24	1.314	5.000	
59	1.511	5.000	
115	1.142	5.000	
208	1.685	5.000	

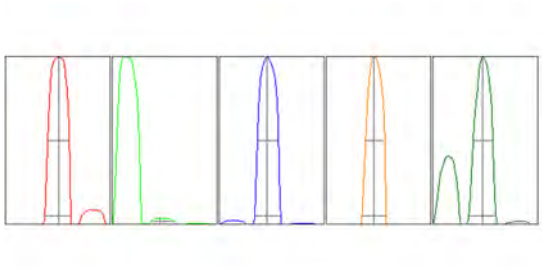
Mass	Background	Background (Required)	Background (Flag)
9	0.200		
24	0.500		
59	0.000		
115	0.000		
208	0.700		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.964 %
Doubly Charged	70 / 140 0.856 %

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	2945.42	9.05	8.90 - 9.10	
24	12787.01	23.90	23.90 - 24.10	
59	20556.70	58.90	58.90 - 59.10	
115	33661.46	114.90	114.90 - 115.10	
208	29700.41	207.95	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.741		
24	0.65	0.743		
59	0.60	0.739		
115	0.54	0.685		
208	0.57	0.776		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 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	135	Axis Gain	1.0003	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

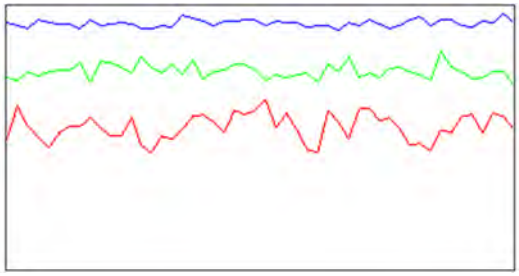
EM

Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 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	108	1081.24		
24	1000	753	7529.02		
59	10000	9357	93566.13		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

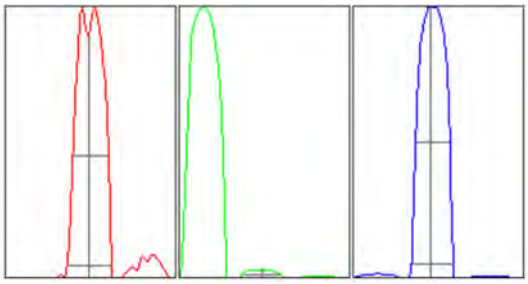
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.344	5.000	Fail
24	3.617	5.000	
59	1.467	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.100		
24	0.100		
59	0.000		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.568 %
Doubly Charged	70 / 140 0.761 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	97.26	9.00	8.90 - 9.10	
24	746.23	24.00	23.90 - 24.10	
59	9401.69	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.780		
24	0.65	0.743		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	0.2 V
Extract 2	-195.0 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	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0003	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm		

EM

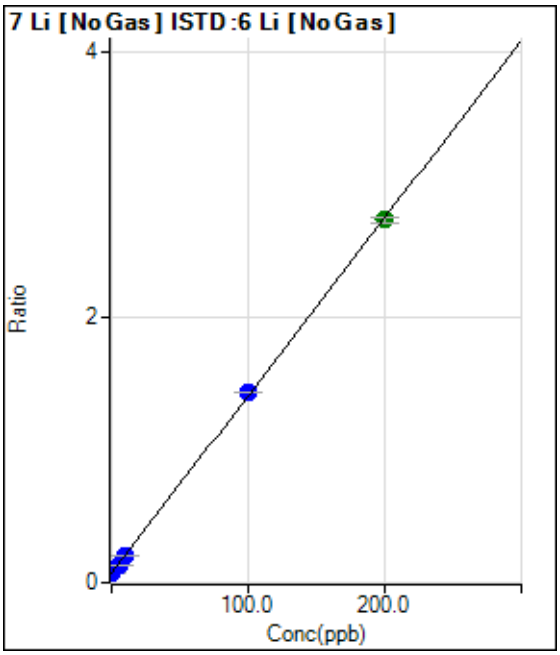
Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 V

Calibration for 270_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052621A.b\
Analysis File: 052621A.batch.bin
DA Date-Time: 5/26/2021 10:47:17 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	263CALB.d	CAL BLK	5/26/2021 10:32:40 PM
2	264CALS.d	2/10/200	5/26/2021 10:34:41 PM
3	265CALS.d	5/25/500	5/26/2021 10:36:42 PM
4	266CALS.d	10/50/100	5/26/2021 10:38:41 PM
5	267CALS.d	100/500/10K	5/26/2021 10:40:41 PM
6	268CALS.d	200/1000/20K	5/26/2021 10:42:37 PM

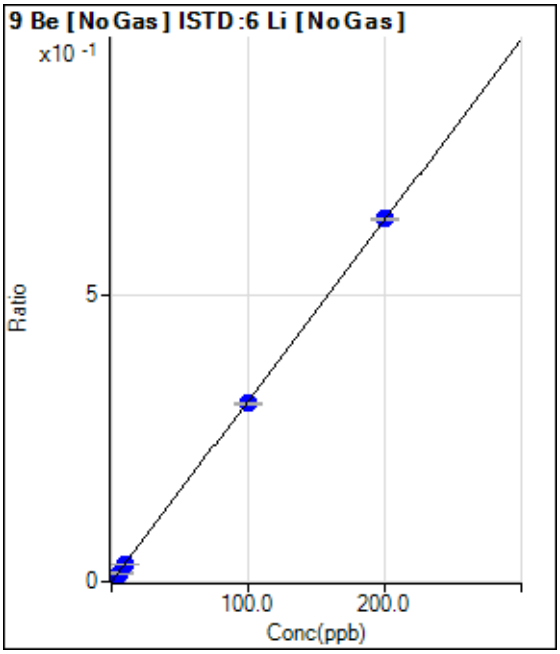
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32821.53	0.0723	P	0.7
2	☐	2.000	2.041	45220.58	0.0996	P	1.6
3	☐	5.000	4.680	61041.43	0.1349	P	1.8
4	☐	10.000	9.800	91477.93	0.2034	P	1.0
5	☐	100.000	101.995	613957.00	1.4363	P	0.3
6	☐	200.000	199.020	1112136.68	2.7337	A	1.5

y = 0.0134 * x + 0.0723
R = 0.9999
DL = 0.1155
BEC = 5.41

Weight: <None>
Min Conc: <None>

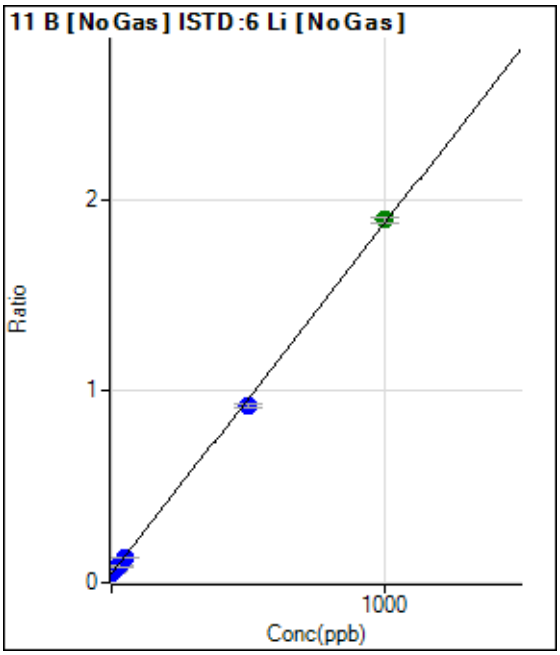


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0001	P	12.4
2	☐	2.000	1.897	2760.29	0.0061	P	5.3
3	☐	5.000	4.748	6818.37	0.0151	P	2.5
4	☐	10.000	9.694	13790.19	0.0307	P	0.2
5	☐	100.000	98.595	132896.05	0.3109	P	0.8
6	☐	200.000	200.725	257453.65	0.6328	P	0.8

y = 0.0032 * x + 1.0287E-004
R = 1.0000
DL = 0.01218
BEC = 0.03264

Weight: <None>
Min Conc: <None>

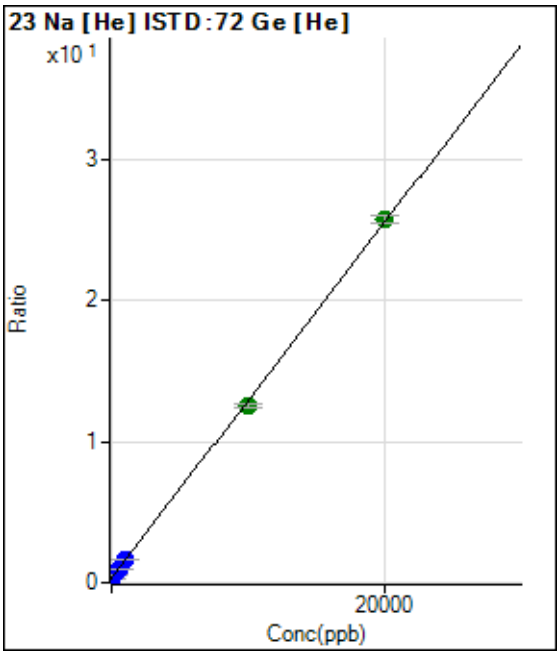
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21262.78	0.0469	P	0.6
2	☐	10.000	7.365	27376.69	0.0603	P	1.4
3	☐	25.000	21.098	38633.01	0.0854	P	2.1
4	☐	50.000	44.731	57816.62	0.1286	P	0.5
5	☐	500.000	479.419	394231.00	0.9223	P	1.6
6	☐	1000.000	1010.678	769846.71	1.8924	A	1.9

y = 0.0018 * x + 0.0469
R = 0.9997
DL = 0.4576
BEC = 25.67

Weight: <None>
Min Conc: <None>

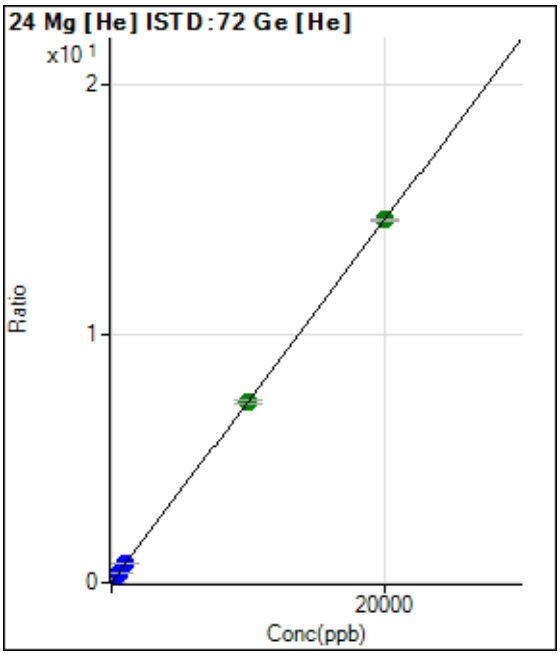


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138696.75	0.3261	P	1.2
2	☐	200.000	207.671	250337.23	0.5881	P	1.5
3	☐	500.000	513.156	415398.44	0.9736	P	0.9
4	☐	1000.000	1042.084	695639.29	1.6410	P	0.6
5	☐	10000.00	9697.929	5250370.55	12.5631	A	1.7
6	☐	20000.00	20148.52	10046447.77	25.7499	A	2.2

y = 0.0013 * x + 0.3261
R = 0.9998
DL = 8.972
BEC = 258.4

Weight: <None>
Min Conc: <None>

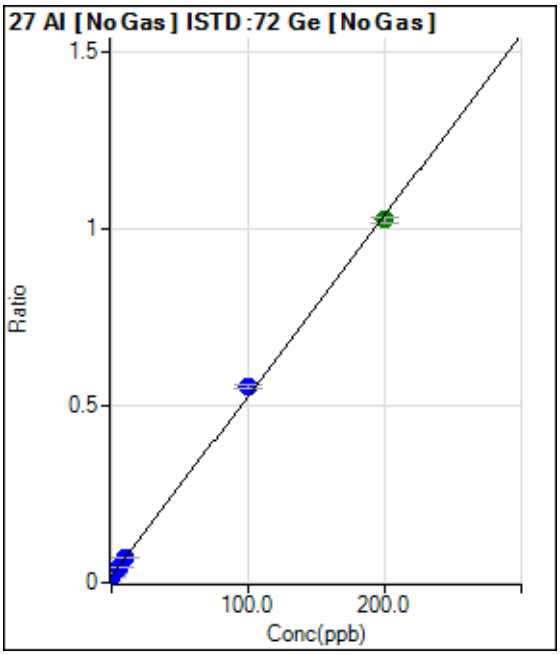
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4470.81	0.0105	P	6.0
2	☐	200.000	212.319	70310.27	0.1652	P	2.4
3	☐	500.000	519.270	165890.75	0.3888	P	1.2
4	☐	1000.000	1068.680	334495.76	0.7891	P	0.8
5	☐	10000.00	9963.168	3037773.71	7.2689	A	1.9
6	☐	20000.00	20014.37	5693636.79	14.5914	A	0.6

y = 7.2852E-004 * x + 0.0105
R = 1.0000
DL = 2.584
BEC = 14.43

Weight: <None>
Min Conc: <None>

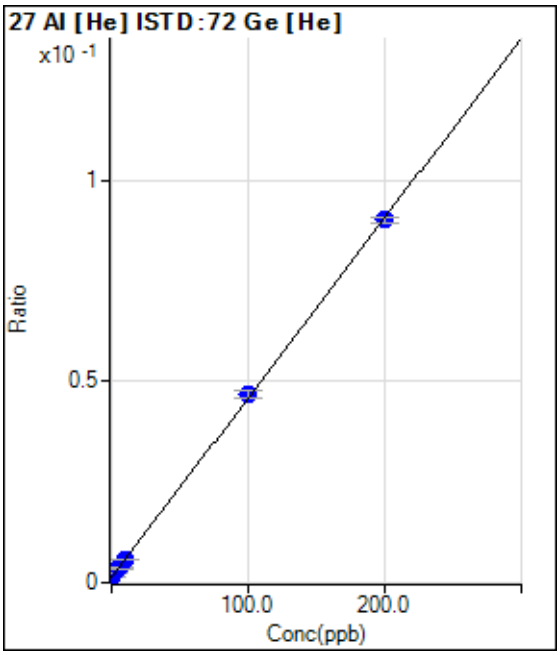


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25798.12	0.0181	P	25.6
2	☐	2.000	2.228	41565.59	0.0295	P	1.8
3	☐	5.000	4.862	61278.10	0.0429	P	2.3
4	☐	10.000	10.303	100250.97	0.0707	P	3.3
5	☐	100.000	105.021	782712.38	0.5539	P	1.2
6	☐	200.000	197.475	1380345.34	1.0256	A	1.4

y = 0.0051 * x + 0.0181
R = 0.9996
DL = 2.724
BEC = 3.553

Weight: <None>
Min Conc: <None>

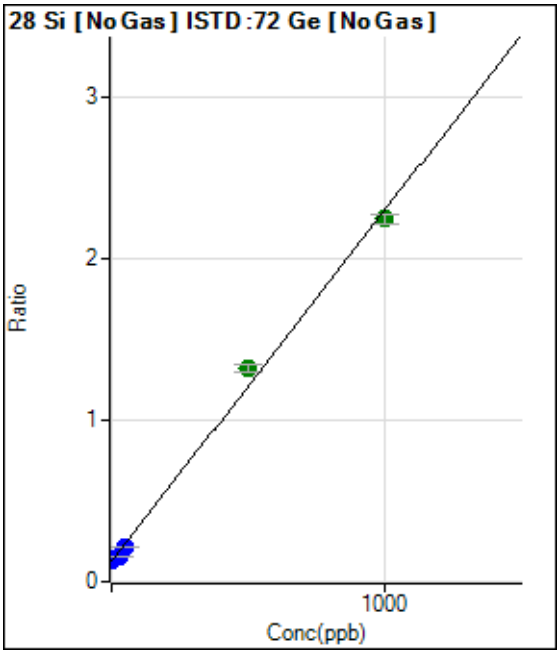
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0013	P	8.2
2	☐	2.000	2.441	996.72	0.0023	P	10.5
3	☐	5.000	5.301	1543.45	0.0036	P	5.8
4	☐	10.000	10.181	2456.93	0.0058	P	2.1
5	☐	100.000	101.781	19493.92	0.0467	P	4.3
6	☐	200.000	199.089	35144.79	0.0901	P	1.7

y = 4.4606E-004 * x + 0.0013
R = 0.9999
DL = 0.6926
BEC = 2.812

Weight: <None>
Min Conc: <None>

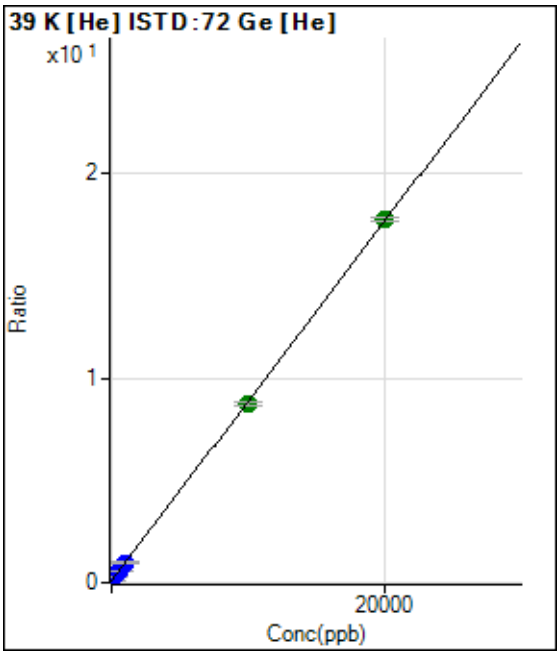


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177824.91	0.1250	P	10.6
2	☐	10.000	10.350	207536.98	0.1475	P	19.5
3	☐	25.000	12.106	215949.90	0.1513	P	2.7
4	☐	50.000	40.021	300576.77	0.2119	P	1.3
5	☐	500.000	549.542	1862556.01	1.3184	A	3.2
6	☐	1000.000	976.047	3020182.25	2.2446	A	2.7

y = 0.0022 * x + 0.1250
R = 0.9980
DL = 18.34
BEC = 57.56

Weight: <None>
Min Conc: <None>

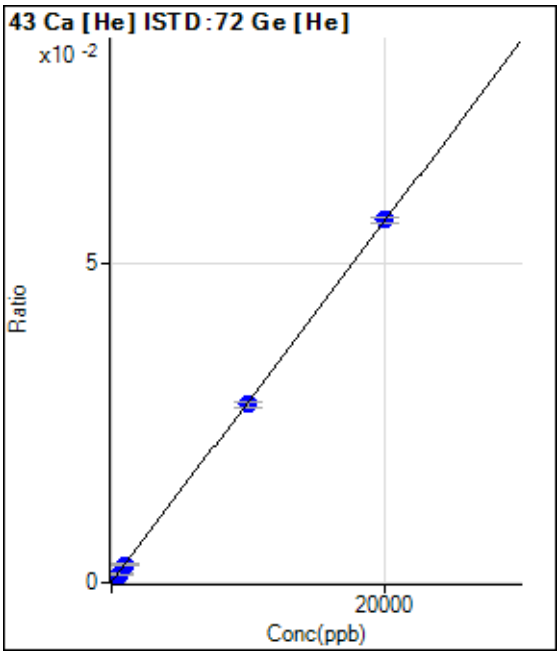
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36856.20	0.0866	P	3.7
2	☐	200.000	200.480	111886.95	0.2628	P	0.9
3	☐	500.000	496.185	223065.65	0.5227	P	0.7
4	☐	1000.000	1015.660	415117.55	0.9793	P	1.7
5	☐	10000.00	9828.689	3646615.57	8.7249	A	2.5
6	☐	20000.00	20084.96	6922152.61	17.7389	A	1.1

y = 8.7888E-004 * x + 0.0866
R = 0.9999
DL = 10.95
BEC = 98.59

Weight: <None>
Min Conc: <None>

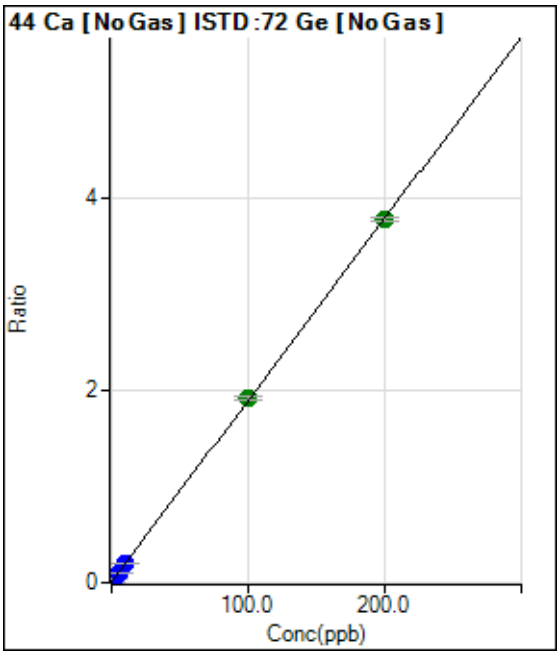


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0001	P	64.6
2	☐	200.000	177.418	236.67	0.0006	P	28.5
3	☐	500.000	457.983	576.69	0.0014	P	13.8
4	☐	1000.000	989.634	1210.08	0.0029	P	6.8
5	☐	10000.00	9858.786	11675.11	0.0279	P	3.1
6	☐	20000.00	20072.40	22171.46	0.0568	P	1.9

y = 2.8283E-006 * x + 5.4694E-005
R = 1.0000
DL = 37.45
BEC = 19.34

Weight: <None>
Min Conc: <None>

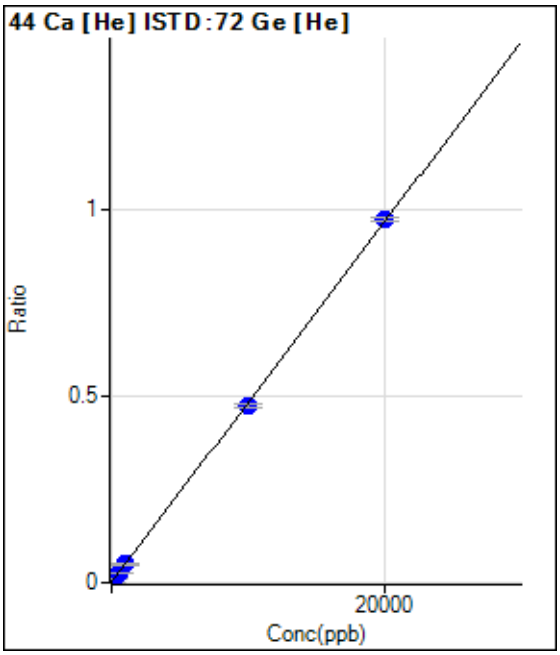
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9867.05	0.0069	P	5.2
2	☐	2.000	2.099	65596.40	0.0465	P	2.5
3	☐	5.000	5.087	146920.92	0.1029	P	2.7
4	☐	10.000	10.538	291947.32	0.2058	P	0.8
5	☐	100.000	101.310	2711403.09	1.9189	A	1.5
6	☐	200.000	199.315	5071323.68	3.7686	A	1.1

y = 0.0189 * x + 0.0069
R = 1.0000
DL = 0.05754
BEC = 0.3675

Weight: <None>
Min Conc: <None>

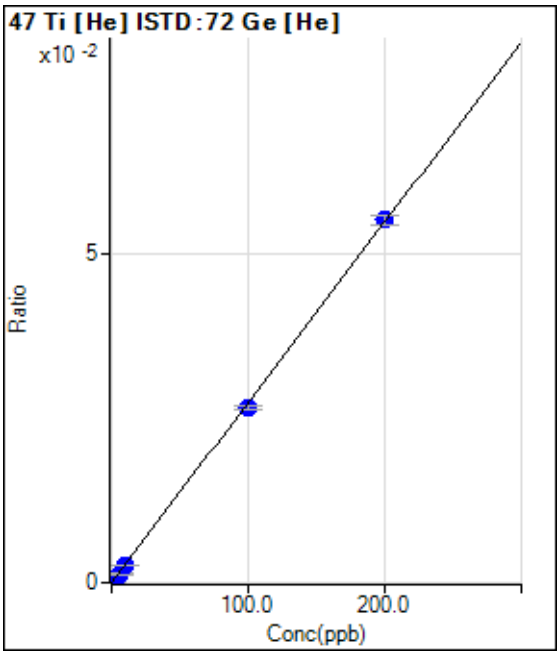


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	390.01	0.0009	P	18.2
2	☐	200.000	204.011	4580.85	0.0108	P	1.7
3	☐	500.000	507.009	10834.48	0.0254	P	3.0
4	☐	1000.000	1003.359	20916.17	0.0493	P	3.0
5	☐	10000.00	9772.602	197474.06	0.4725	P	2.5
6	☐	20000.00	20113.31	379104.86	0.9716	P	1.0

y = 4.8260E-005 * x + 9.1639E-004
R = 0.9999
DL = 10.34
BEC = 18.99

Weight: <None>
Min Conc: <None>

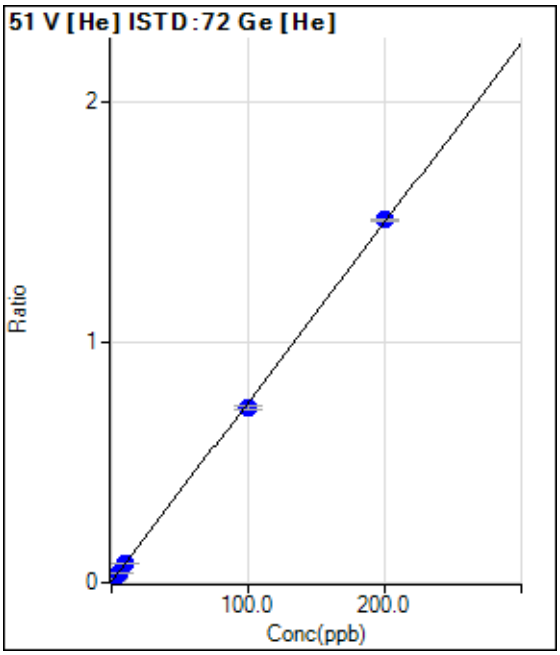
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.261	266.68	0.0006	P	20.4
3	☐	5.000	4.683	550.02	0.0013	P	13.1
4	☐	10.000	9.582	1113.40	0.0026	P	7.6
5	☐	100.000	97.330	11117.98	0.0266	P	2.7
6	☐	200.000	201.361	21473.75	0.0550	P	2.8

y = 2.7328E-004 * x + 7.8259E-006
R = 0.9999
DL = 0.1488
BEC = 0.02864

Weight: <None>
Min Conc: <None>

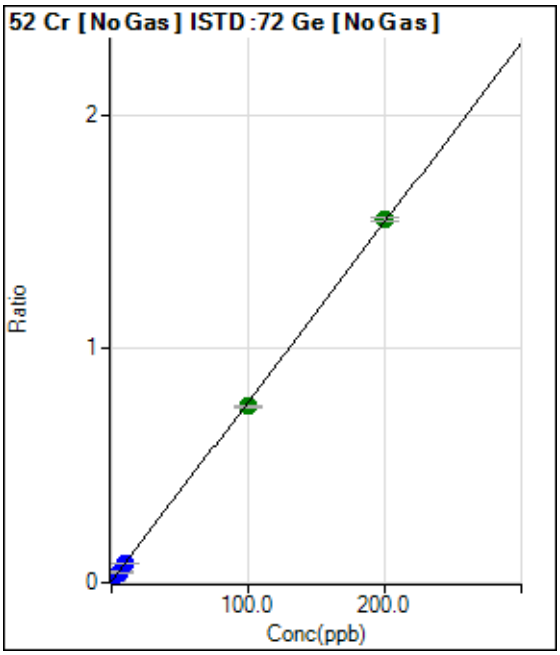


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1781.24	0.0042	P	6.1
2	☐	2.000	2.045	8278.09	0.0194	P	1.1
3	☐	5.000	4.905	17399.96	0.0408	P	2.3
4	☐	10.000	10.134	33824.93	0.0798	P	2.3
5	☐	100.000	96.940	303996.00	0.7274	P	1.9
6	☐	200.000	201.525	588292.48	1.5077	P	0.8

y = 0.0075 * x + 0.0042
R = 0.9998
DL = 0.1029
BEC = 0.5615

Weight: <None>
Min Conc: <None>

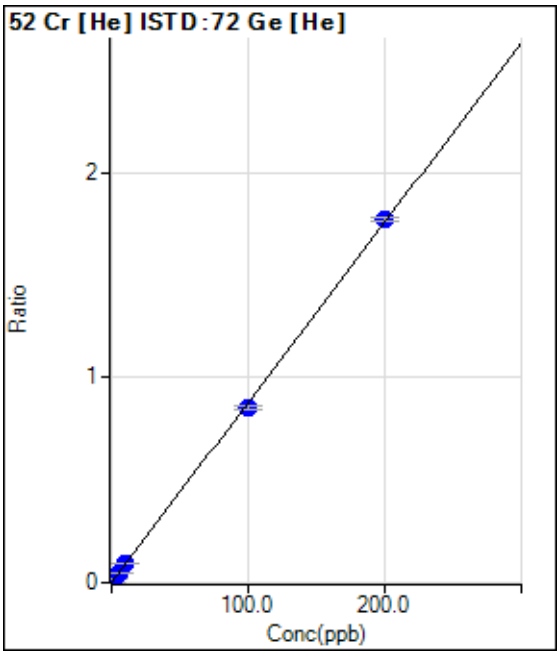
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8039.15	0.0057	P	3.0
2	☐	2.000	2.060	30240.46	0.0215	P	1.7
3	☐	5.000	5.097	63842.22	0.0448	P	5.4
4	☐	10.000	10.256	119608.54	0.0843	P	1.4
5	☐	100.000	97.281	1062375.45	0.7519	A	2.0
6	☐	200.000	201.343	2086181.07	1.5502	A	1.0

y = 0.0077 * x + 0.0057
R = 0.9999
DL = 0.06549
BEC = 0.7366

Weight: <None>
Min Conc: <None>

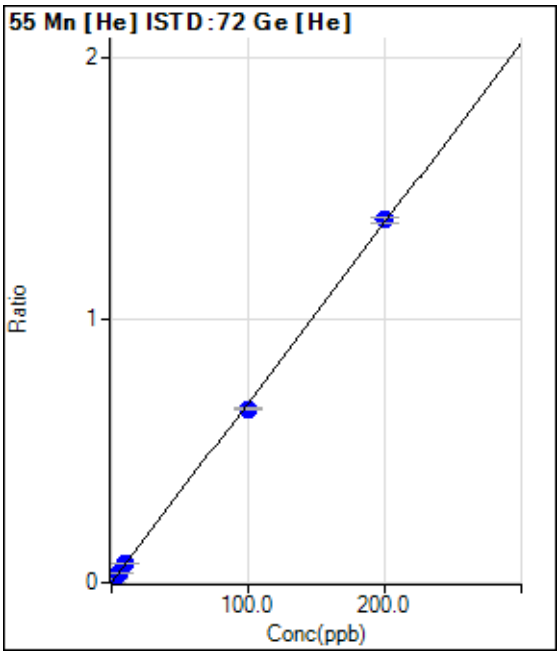


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	676.70	0.0016	P	11.2
2	☐	2.000	2.007	8172.58	0.0192	P	3.2
3	☐	5.000	5.132	19894.71	0.0466	P	1.0
4	☐	10.000	10.353	39189.58	0.0924	P	0.4
5	☐	100.000	96.899	356034.02	0.8519	P	1.8
6	☐	200.000	201.529	690673.66	1.7701	P	1.2

y = 0.0088 * x + 0.0016
R = 0.9998
DL = 0.06108
BEC = 0.1814

Weight: <None>
Min Conc: <None>

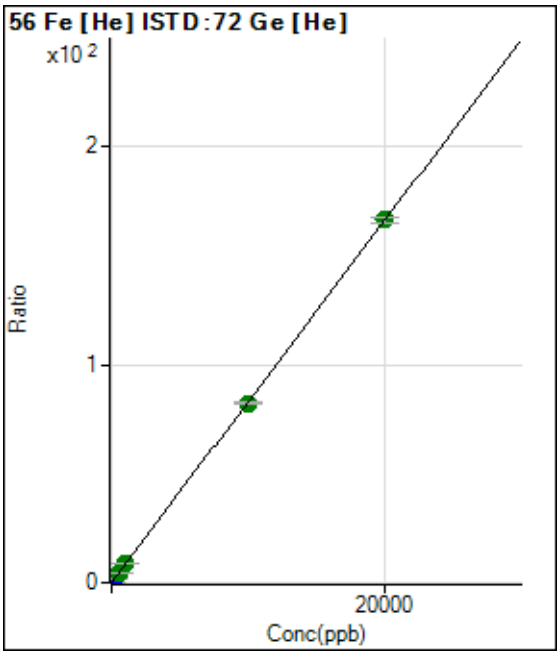
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0004	P	11.7
2	☐	2.000	2.029	6081.46	0.0143	P	6.7
3	☐	5.000	4.964	14674.84	0.0344	P	1.6
4	☐	10.000	10.435	30464.15	0.0719	P	1.1
5	☐	100.000	96.605	276678.69	0.6621	P	1.9
6	☐	200.000	201.676	539101.54	1.3817	P	1.6

y = 0.0068 * x + 3.9157E-004
R = 0.9998
DL = 0.02006
BEC = 0.05717

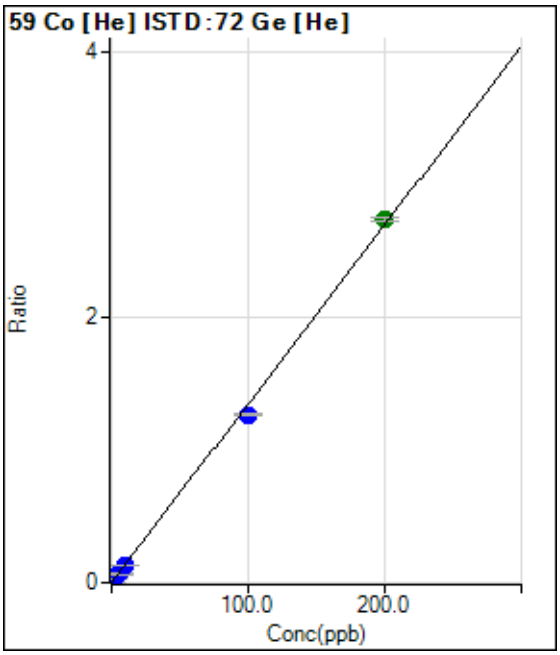
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7912.50	0.0186	P	6.5
2	☐	200.000	202.886	725339.31	1.7039	P	0.1
3	☐	500.000	514.319	1830636.53	4.2908	A	2.6
4	☐	1000.000	1038.085	3663036.72	8.6415	A	2.1
5	☐	10000.00	9902.317	34386726.15	82.2724	A	0.8
6	☐	20000.00	20046.55	64977150.70	166.535	A	1.7

y = 0.0083 * x + 0.0186
R = 1.0000
DL = 0.4392
BEC = 2.24

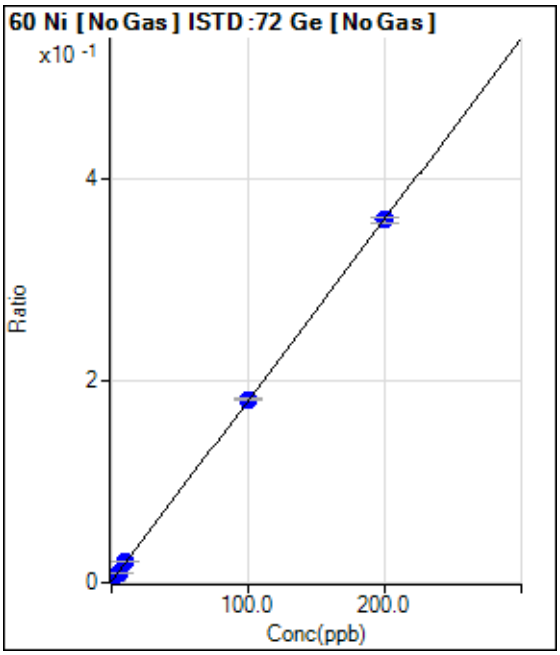
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	1.2
2	☐	2.000	1.941	11158.05	0.0262	P	3.0
3	☐	5.000	4.859	27989.05	0.0656	P	1.7
4	☐	10.000	10.107	57819.42	0.1364	P	2.0
5	☐	100.000	94.070	530569.57	1.2694	P	0.6
6	☐	200.000	202.964	1068706.34	2.7388	A	1.1

y = 0.0135 * x + 2.3509E-005
R = 0.9994
DL = 6.057E-05
BEC = 0.001742

Weight: <None>
Min Conc: <None>

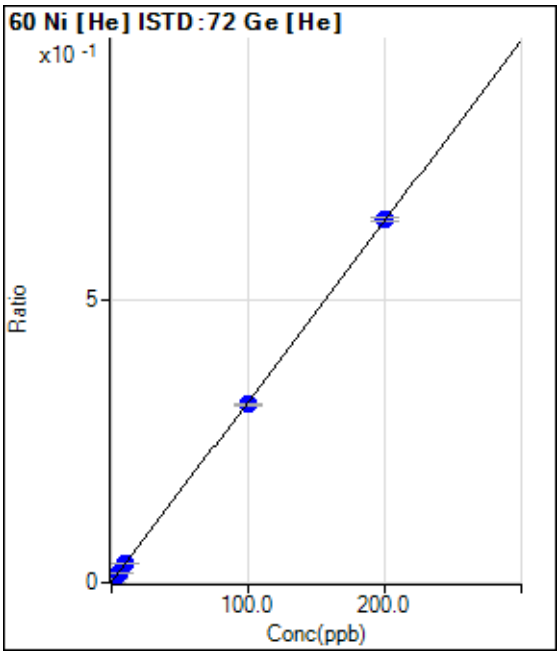


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1463.44	0.0010	P	14.0
2	☐	2.000	2.242	7125.32	0.0051	P	0.8
3	☐	5.000	5.110	14571.29	0.0102	P	1.9
4	☐	10.000	10.853	29101.34	0.0205	P	1.5
5	☐	100.000	100.385	256167.39	0.1813	P	1.2
6	☐	200.000	199.760	484096.51	0.3597	P	1.3

y = 0.0018 * x + 0.0010
R = 1.0000
DL = 0.2408
BEC = 0.5729

Weight: <None>
Min Conc: <None>

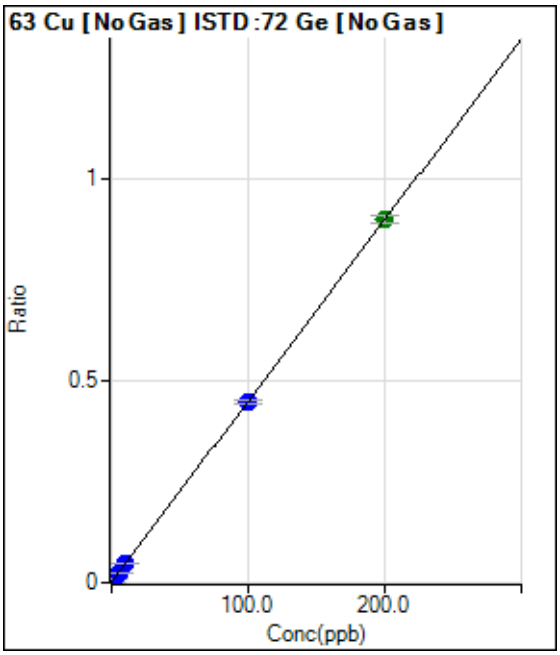
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0014	P	8.6
2	☐	2.000	2.219	3607.21	0.0085	P	5.4
3	☐	5.000	4.794	7111.96	0.0167	P	2.5
4	☐	10.000	10.375	14591.35	0.0344	P	2.6
5	☐	100.000	98.652	131758.97	0.3152	P	1.0
6	☐	200.000	200.658	249608.81	0.6397	P	1.1

y = 0.0032 * x + 0.0014
R = 1.0000
DL = 0.1151
BEC = 0.4461

Weight: <None>
Min Conc: <None>

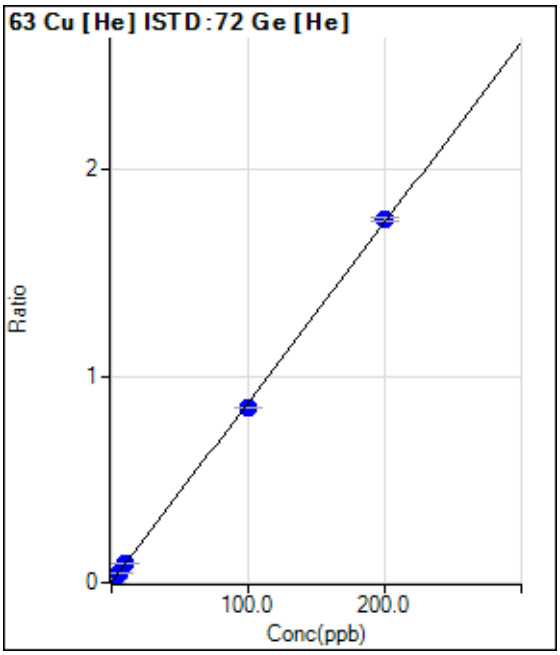


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1793.49	0.0013	P	4.1
2	☐	2.000	2.203	15705.98	0.0111	P	6.6
3	☐	5.000	5.166	34891.78	0.0244	P	1.3
4	☐	10.000	10.742	70150.43	0.0495	P	1.0
5	☐	100.000	99.607	633291.81	0.4482	P	1.3
6	☐	200.000	200.153	1210192.46	0.8993	A	2.1

y = 0.0045 * x + 0.0013
R = 1.0000
DL = 0.0344
BEC = 0.281

Weight: <None>
Min Conc: <None>

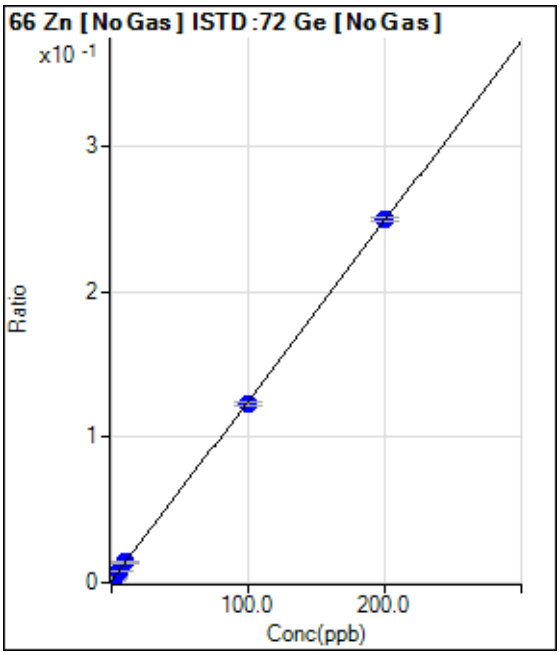
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	756.71	0.0018	P	8.3
2	☐	2.000	1.944	7962.45	0.0187	P	4.5
3	☐	5.000	5.121	19781.32	0.0464	P	1.0
4	☐	10.000	10.467	39383.88	0.0929	P	1.0
5	☐	100.000	97.037	353834.49	0.8466	P	0.9
6	☐	200.000	201.456	685035.43	1.7556	P	1.1

y = 0.0087 * x + 0.0018
R = 0.9998
DL = 0.05055
BEC = 0.2042

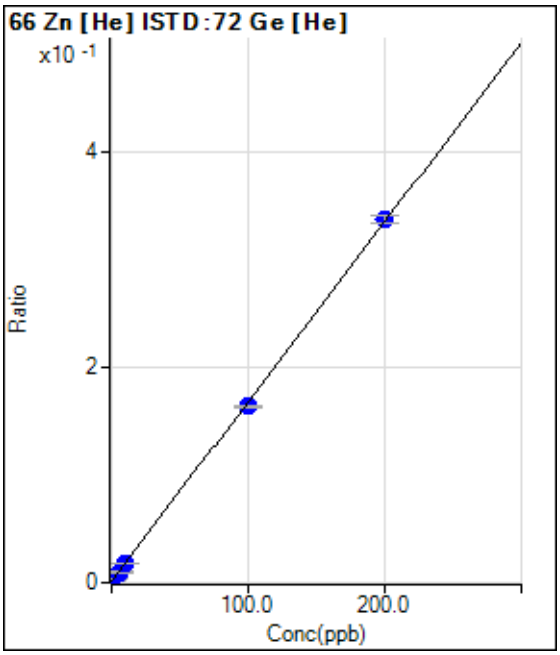
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1680.14	0.0012	P	8.0
2	☐	2.000	1.680	4600.86	0.0033	P	7.3
3	☐	5.000	5.045	10604.31	0.0074	P	2.7
4	☐	10.000	10.281	19734.61	0.0139	P	3.8
5	☐	100.000	98.685	174368.30	0.1234	P	1.8
6	☐	200.000	200.646	336017.16	0.2497	P	1.1

y = 0.0012 * x + 0.0012
R = 1.0000
DL = 0.2299
BEC = 0.9533

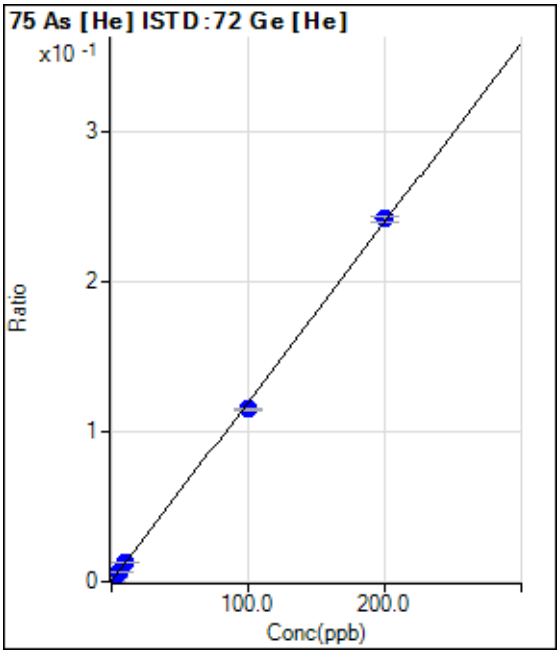
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0014	P	8.6
2	☐	2.000	1.875	1936.85	0.0045	P	8.1
3	☐	5.000	4.888	4090.69	0.0096	P	6.9
4	☐	10.000	9.972	7658.97	0.0181	P	4.0
5	☐	100.000	97.442	68603.06	0.1641	P	1.3
6	☐	200.000	201.284	131704.01	0.3376	P	1.9

y = 0.0017 * x + 0.0014
R = 0.9999
DL = 0.2198
BEC = 0.8489

Weight: <None>
Min Conc: <None>

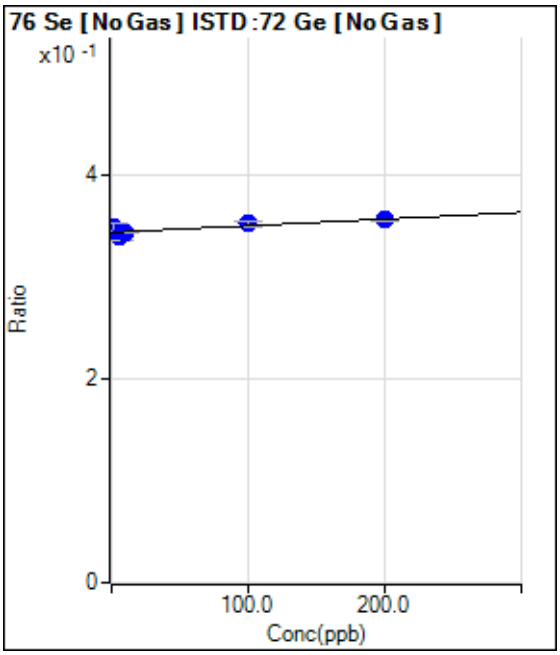


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	121.11	0.0003	P	13.4
2	☐	2.000	1.939	1110.05	0.0026	P	9.8
3	☐	5.000	4.970	2660.28	0.0062	P	3.7
4	☐	10.000	10.426	5413.34	0.0128	P	2.6
5	☐	100.000	95.957	48135.37	0.1152	P	1.6
6	☐	200.000	202.002	94481.10	0.2421	P	1.3

y = 0.0012 * x + 2.8480E-004
R = 0.9997
DL = 0.09591
BEC = 0.2379

Weight: <None>
Min Conc: <None>

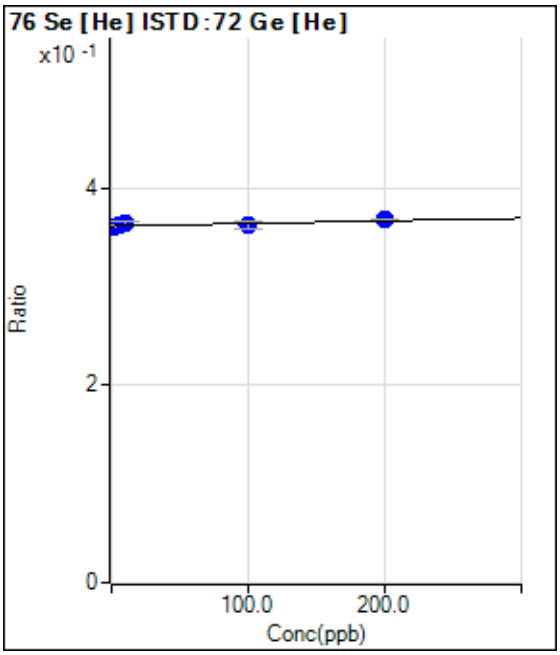
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	488105.85	0.3431	P	0.9
2	☐	2.000	85.399	491416.80	0.3487	P	1.8
3	☐	5.000	-63.288	483741.32	0.3389	P	2.6
4	☐	10.000	-10.795	485641.20	0.3424	P	0.3
5	☐	100.000	130.598	496826.57	0.3516	P	1.8
6	☐	200.000	186.614	478148.04	0.3553	P	0.2

y = 6.5440E-005 * x + 0.3431
R = 0.8427
DL = 134.9
BEC = 5243

Weight: <None>
Min Conc: <None>

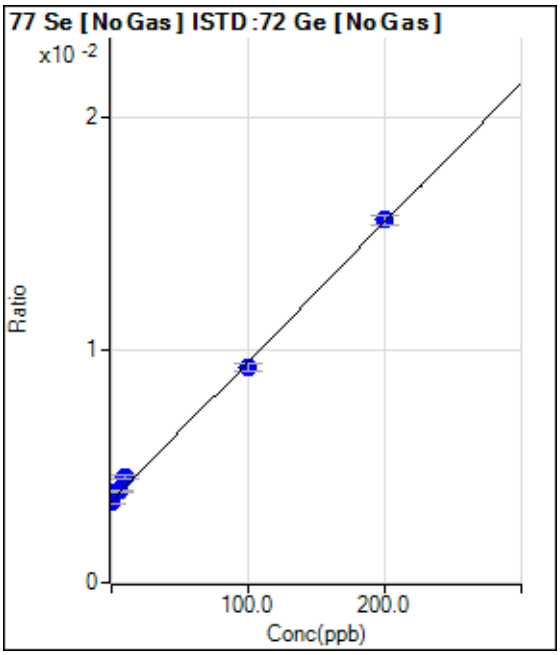


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153650.85	0.3612	P	0.4
2	☐	2.000	-23.832	153485.76	0.3606	P	0.5
3	☐	5.000	62.920	154833.47	0.3629	P	1.3
4	☐	10.000	85.415	154079.74	0.3635	P	1.0
5	☐	100.000	22.584	151196.85	0.3618	P	2.3
6	☐	200.000	233.747	143369.39	0.3674	P	0.2

y = 2.6576E-005 * x + 0.3612
R = 0.7939
DL = 145
BEC = 1.359E+04

Weight: <None>
Min Conc: <None>

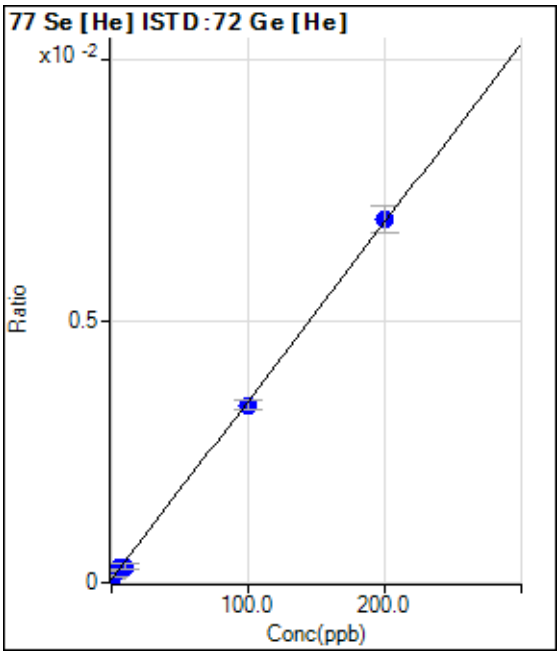
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4981.01	0.0035	P	6.6
2	☐	2.000	6.822	5514.56	0.0039	P	4.7
3	☐	5.000	7.136	5611.27	0.0039	P	2.7
4	☐	10.000	17.512	6454.99	0.0046	P	2.5
5	☐	100.000	95.979	13079.89	0.0093	P	4.0
6	☐	200.000	201.533	20976.63	0.0156	P	2.6

y = 5.9965E-005 * x + 0.0035
R = 0.9990
DL = 11.52
BEC = 58.39

Weight: <None>
Min Conc: <None>

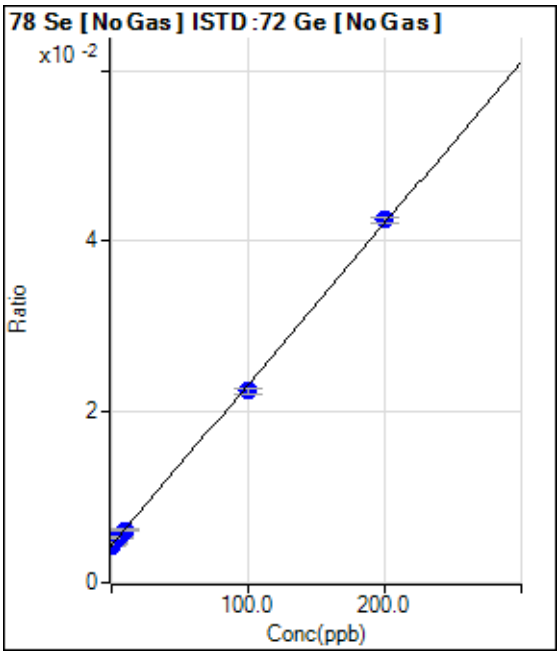


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26.67	0.0001	P	20.8
2	☐	2.000	2.295	60.00	0.0001	P	29.1
3	☐	5.000	6.872	126.67	0.0003	P	41.2
4	☐	10.000	7.138	130.00	0.0003	P	35.2
5	☐	100.000	97.358	1416.77	0.0034	P	5.5
6	☐	200.000	201.414	2710.33	0.0069	P	7.5

y = 3.4168E-005 * x + 6.2595E-005
R = 0.9997
DL = 1.141
BEC = 1.832

Weight: <None>
Min Conc: <None>

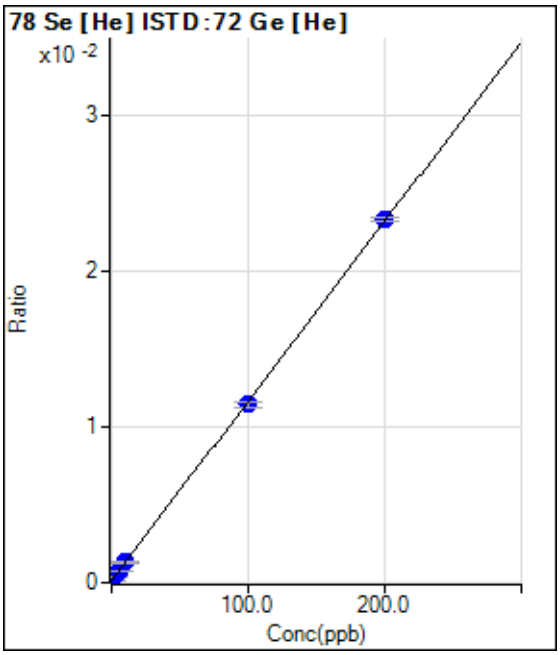
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6214.88	0.0044	P	1.0
2	☐	2.000	1.339	6511.69	0.0046	P	3.1
3	☐	5.000	5.007	7578.94	0.0053	P	6.1
4	☐	10.000	9.641	8773.00	0.0062	P	4.6
5	☐	100.000	95.923	31740.96	0.0225	P	2.7
6	☐	200.000	202.063	57174.35	0.0425	P	1.7

y = 1.8864E-004 * x + 0.0044
R = 0.9997
DL = 0.7255
BEC = 23.16

Weight: <None>
Min Conc: <None>

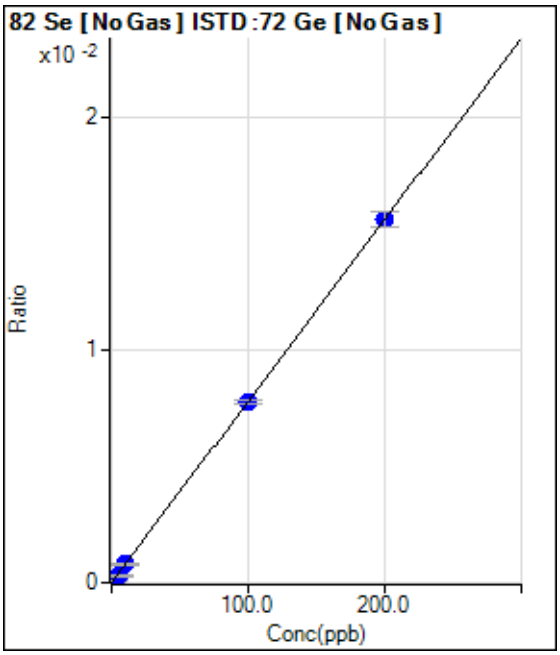


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57.33	0.0001	P	5.9
2	☐	2.000	2.315	170.67	0.0004	P	11.6
3	☐	5.000	5.009	303.33	0.0007	P	3.8
4	☐	10.000	10.175	553.35	0.0013	P	9.2
5	☐	100.000	98.054	4770.86	0.0114	P	3.2
6	☐	200.000	200.961	9074.40	0.0233	P	1.2

y = 1.1506E-004 * x + 1.3481E-004
R = 0.9999
DL = 0.2085
BEC = 1.172

Weight: <None>
Min Conc: <None>

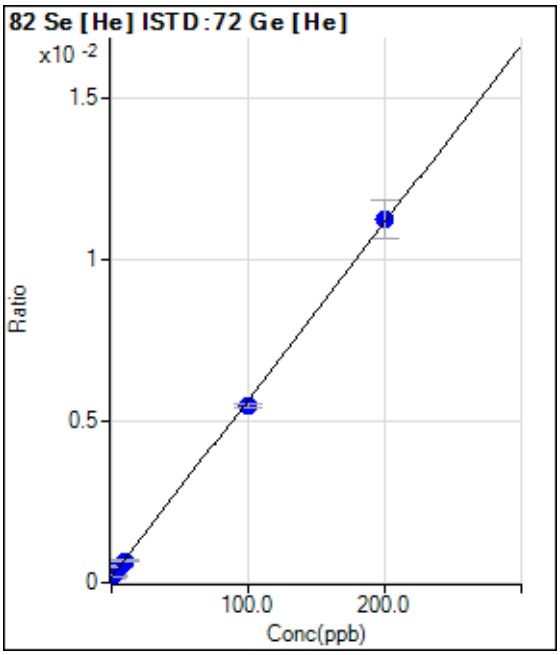
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.48	0.0000	P	1266.2
2	☐	2.000	1.672	187.34	0.0001	P	38.0
3	☐	5.000	3.802	427.03	0.0003	P	11.5
4	☐	10.000	10.040	1113.82	0.0008	P	4.1
5	☐	100.000	100.037	11022.26	0.0078	P	1.9
6	☐	200.000	200.012	20974.13	0.0156	P	4.3

y = 7.7923E-005 * x + 3.0884E-006
R = 1.0000
DL = 1.506
BEC = 0.03963

Weight: <None>
Min Conc: <None>

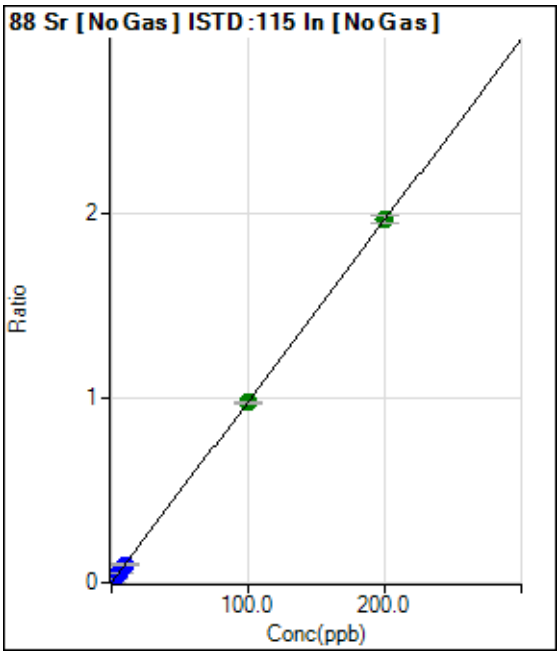


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0002	P	75.0
2	☐	2.000	0.713	90.00	0.0002	P	19.5
3	☐	5.000	5.986	213.34	0.0005	P	8.5
4	☐	10.000	9.194	286.68	0.0007	P	4.7
5	☐	100.000	97.029	2293.57	0.0055	P	2.0
6	☐	200.000	201.514	4374.15	0.0112	P	10.6

y = 5.4786E-005 * x + 1.7241E-004
R = 0.9998
DL = 7.079
BEC = 3.147

Weight: <None>
Min Conc: <None>

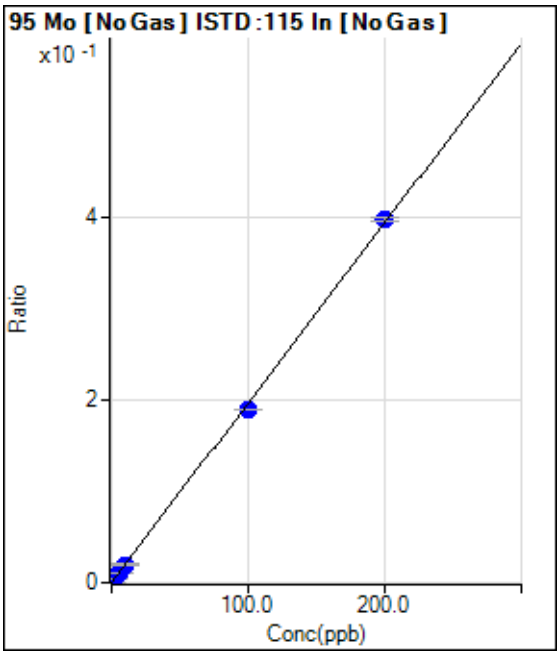
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1996.85	0.0009	P	1.7
2	☐	2.000	1.960	43688.24	0.0202	P	3.2
3	☐	5.000	4.891	104468.75	0.0490	P	1.3
4	☐	10.000	9.904	210747.70	0.0982	P	1.9
5	☐	100.000	99.537	2041548.10	0.9788	A	1.1
6	☐	200.000	200.240	3928540.98	1.9681	A	2.0

y = 0.0098 * x + 9.3107E-004
R = 1.0000
DL = 0.004843
BEC = 0.09478

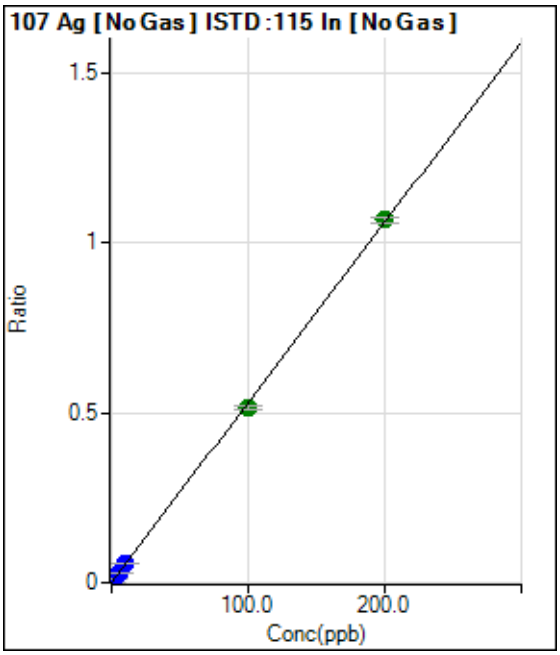
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.38	0.0001	P	20.1
2	☐	2.000	1.947	8589.61	0.0040	P	3.5
3	☐	5.000	4.818	20526.12	0.0096	P	2.2
4	☐	10.000	10.076	42879.22	0.0200	P	1.5
5	☐	100.000	96.363	396308.56	0.1900	P	0.7
6	☐	200.000	201.820	793925.12	0.3978	P	1.2

y = 0.0020 * x + 1.3189E-004
R = 0.9998
DL = 0.04034
BEC = 0.06693

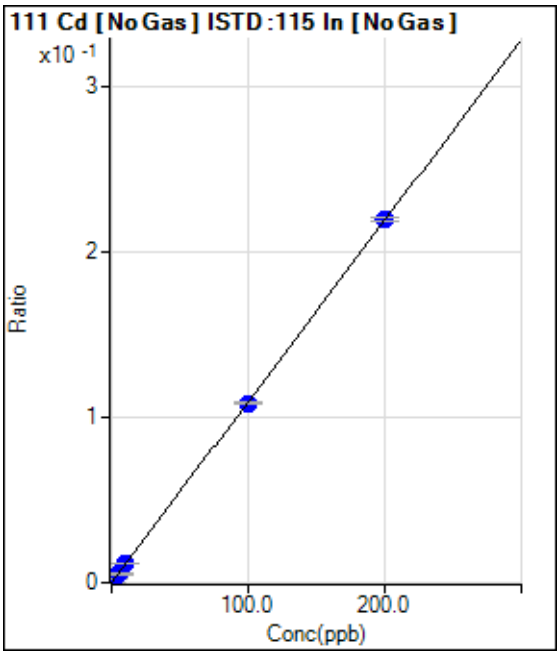
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546.69	0.0003	P	21.8
2	☐	2.000	2.014	23681.49	0.0109	P	1.9
3	☐	5.000	5.030	57448.43	0.0269	P	2.5
4	☐	10.000	10.159	116176.81	0.0541	P	0.0
5	☐	100.000	97.163	1075538.60	0.5157	A	1.2
6	☐	200.000	201.410	2132788.25	1.0686	A	1.9

y = 0.0053 * x + 2.5459E-004
R = 0.9999
DL = 0.03134
BEC = 0.04799

Weight: <None>
Min Conc: <None>

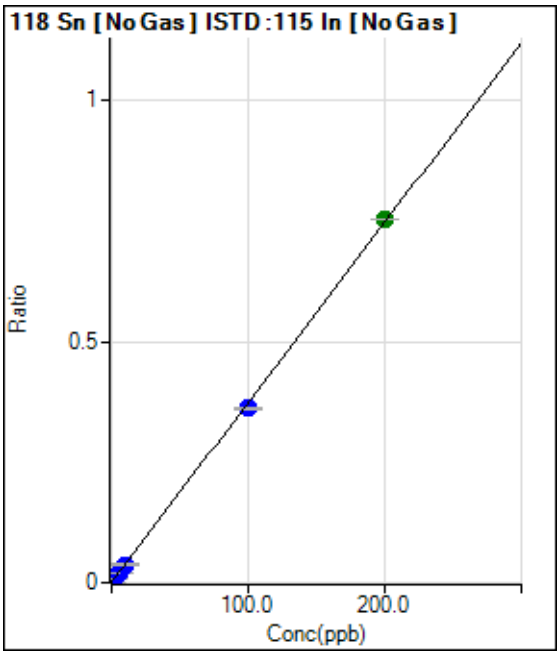


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.015	4777.60	0.0022	P	4.9
3	☐	5.000	4.823	11258.36	0.0053	P	2.8
4	☐	10.000	10.367	24346.16	0.0113	P	0.8
5	☐	100.000	99.007	225979.90	0.1083	P	0.8
6	☐	200.000	200.482	437865.36	0.2194	P	0.9

y = 0.0011 * x + 1.5830E-006
R = 1.0000
DL = 0.007517
BEC = 0.001447

Weight: <None>
Min Conc: <None>

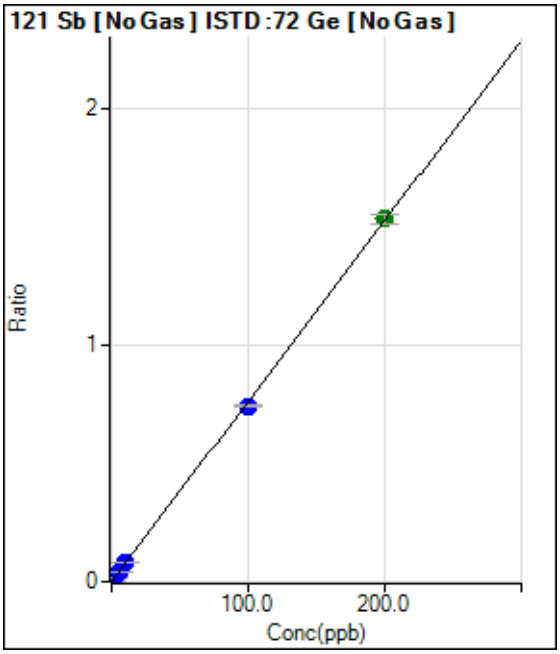
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1610.13	0.0008	P	3.9
2	☐	2.000	1.979	17595.41	0.0081	P	1.4
3	☐	5.000	4.879	40375.70	0.0189	P	3.4
4	☐	10.000	9.935	81059.22	0.0378	P	0.7
5	☐	100.000	96.780	753927.80	0.3615	P	0.8
6	☐	200.000	201.617	1501411.85	0.7522	A	0.1

y = 0.0037 * x + 7.5099E-004
R = 0.9998
DL = 0.02368
BEC = 0.2015

Weight: <None>
Min Conc: <None>

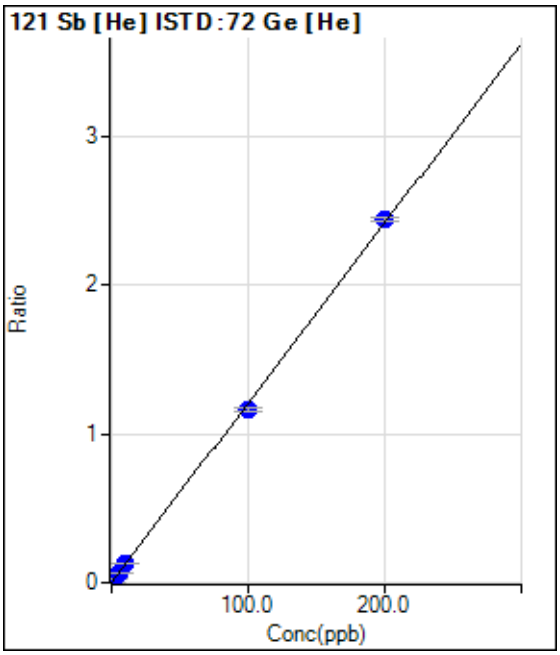


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1546.79	0.0011	P	9.2
2	☐	2.000	2.072	23745.11	0.0168	P	1.1
3	☐	5.000	4.964	55414.03	0.0388	P	3.7
4	☐	10.000	10.261	112214.03	0.0791	P	2.0
5	☐	100.000	97.518	1049185.06	0.7426	P	2.1
6	☐	200.000	201.228	2060353.77	1.5312	A	2.6

y = 0.0076 * x + 0.0011
R = 0.9999
DL = 0.03946
BEC = 0.143

Weight: <None>
Min Conc: <None>

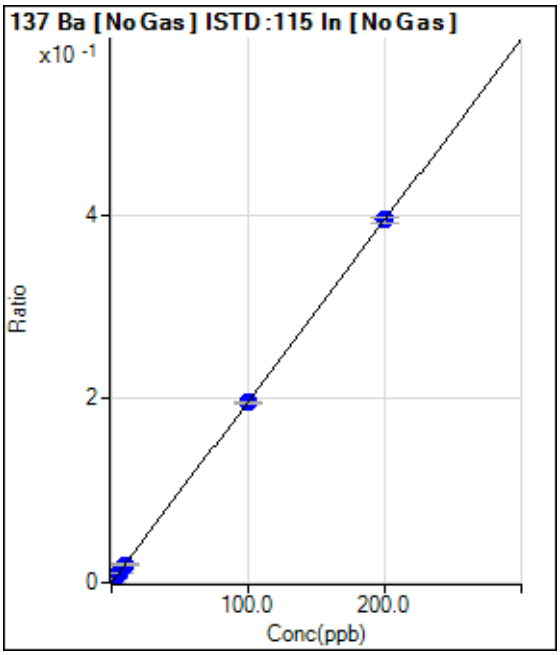
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	756.70	0.0018	P	9.7
2	☐	2.000	2.002	11024.79	0.0259	P	3.2
3	☐	5.000	4.892	25909.17	0.0607	P	0.7
4	☐	10.000	10.089	52287.56	0.1233	P	1.0
5	☐	100.000	96.010	484209.84	1.1587	P	2.4
6	☐	200.000	201.993	950391.10	2.4357	P	1.1

y = 0.0120 * x + 0.0018
R = 0.9997
DL = 0.04302
BEC = 0.1475

Weight: <None>
Min Conc: <None>

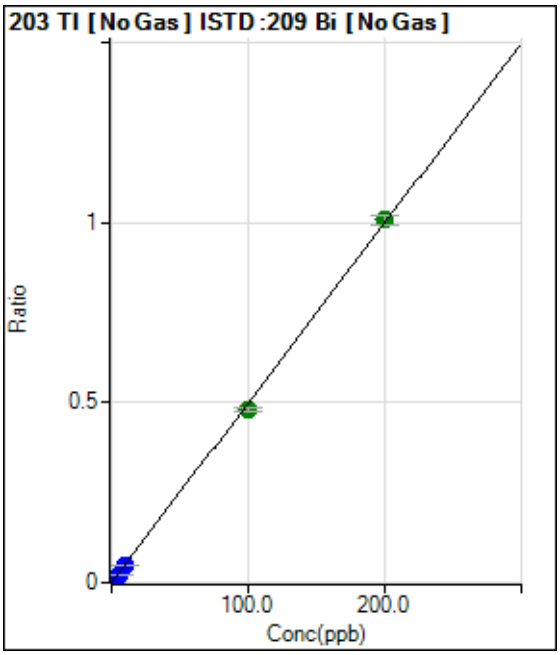


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0001	P	44.1
2	☐	2.000	1.884	8259.42	0.0038	P	2.9
3	☐	5.000	4.908	20823.62	0.0098	P	4.7
4	☐	10.000	9.933	42172.02	0.0197	P	2.7
5	☐	100.000	99.600	409092.47	0.1961	P	1.0
6	☐	200.000	200.207	786630.17	0.3941	P	1.3

y = 0.0020 * x + 1.0839E-004
R = 1.0000
DL = 0.07293
BEC = 0.05507

Weight: <None>
Min Conc: <None>

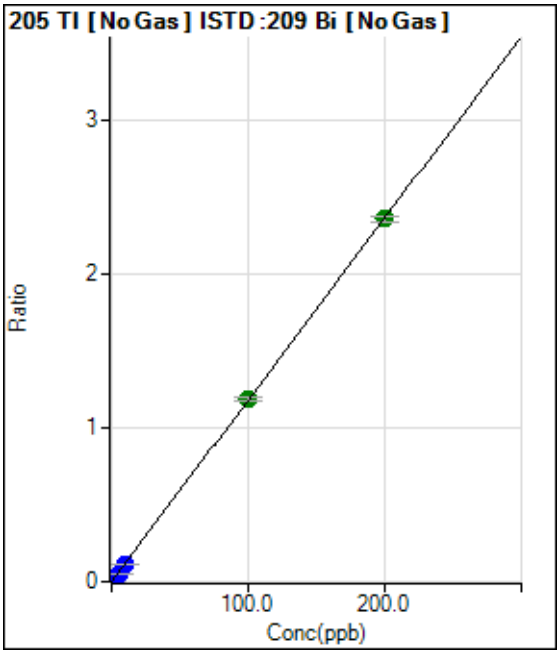
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.01	0.0001	P	15.9
2	☐	2.000	1.878	27062.93	0.0095	P	2.8
3	☐	5.000	4.592	65705.82	0.0230	P	2.6
4	☐	10.000	9.761	137349.34	0.0488	P	1.2
5	☐	100.000	96.453	1352944.35	0.4817	A	2.0
6	☐	200.000	201.797	2660158.92	1.0076	A	2.5

y = 0.0050 * x + 1.0488E-004
R = 0.9998
DL = 0.01
BEC = 0.02101

Weight: <None>
Min Conc: <None>

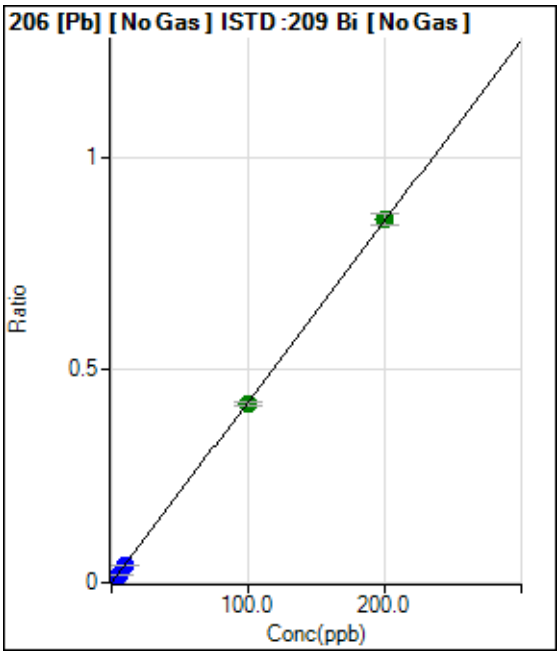


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	773.38	0.0003	P	5.0
2	☐	2.000	1.873	64000.63	0.0224	P	0.2
3	☐	5.000	4.681	158709.88	0.0556	P	2.2
4	☐	10.000	9.896	329876.95	0.1173	P	1.1
5	☐	100.000	100.633	3343489.64	1.1903	A	2.3
6	☐	200.000	199.698	6235789.28	2.3618	A	1.5

y = 0.0118 * x + 2.7018E-004
R = 1.0000
DL = 0.003432
BEC = 0.02285

Weight: <None>
Min Conc: <None>

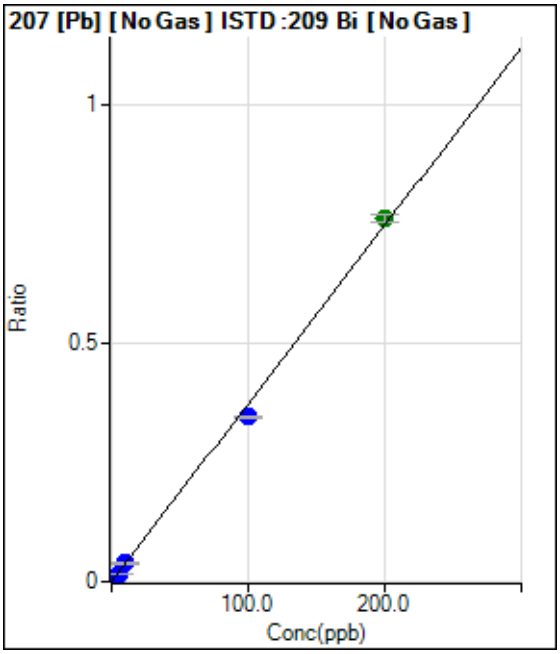
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	29.2
2	☐	2.000	1.924	23556.02	0.0083	P	2.3
3	☐	5.000	4.712	57375.20	0.0201	P	0.5
4	☐	10.000	9.900	118566.34	0.0422	P	1.3
5	☐	100.000	98.657	1178257.02	0.4195	A	2.3
6	☐	200.000	200.685	2252347.73	0.8532	A	3.2

y = 0.0043 * x + 7.4678E-005
R = 1.0000
DL = 0.01537
BEC = 0.01757

Weight: <None>
Min Conc: <None>

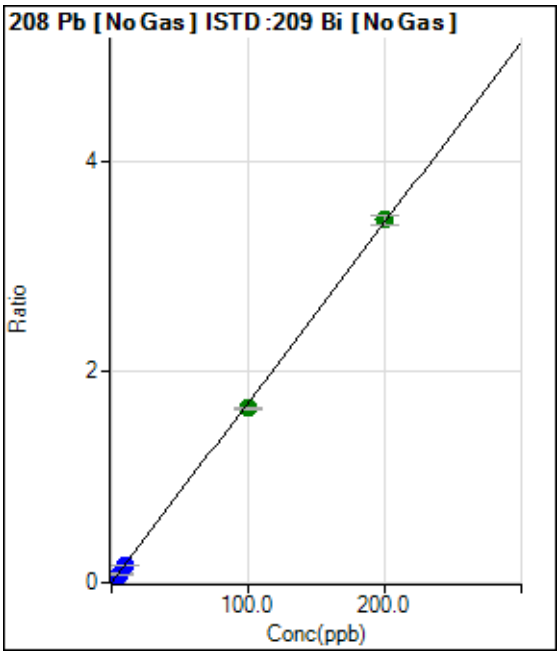


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	16.1
2	☐	2.000	1.955	21084.80	0.0074	P	1.3
3	☐	5.000	4.801	51456.28	0.0180	P	0.9
4	☐	10.000	10.290	108442.52	0.0386	P	1.5
5	☐	100.000	92.430	971289.13	0.3458	P	1.7
6	☐	200.000	203.776	2012337.42	0.7622	A	2.1

y = 0.0037 * x + 7.4612E-005
R = 0.9990
DL = 0.009612
BEC = 0.01995

Weight: <None>
Min Conc: <None>

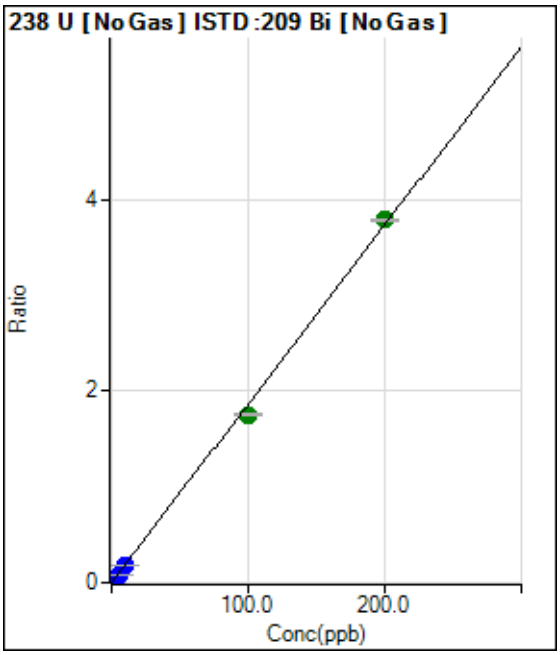
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	856.70	0.0003	P	13.0
2	☐	2.000	1.942	95618.69	0.0335	P	0.5
3	☐	5.000	4.777	233898.14	0.0820	P	0.8
4	☐	10.000	9.994	481397.13	0.1712	P	0.6
5	☐	100.000	96.976	4658460.22	1.6583	A	1.2
6	☐	200.000	201.519	9096306.95	3.4456	A	2.6

y = 0.0171 * x + 2.9950E-004
R = 0.9998
DL = 0.006833
BEC = 0.01752

Weight: <None>
Min Conc: <None>

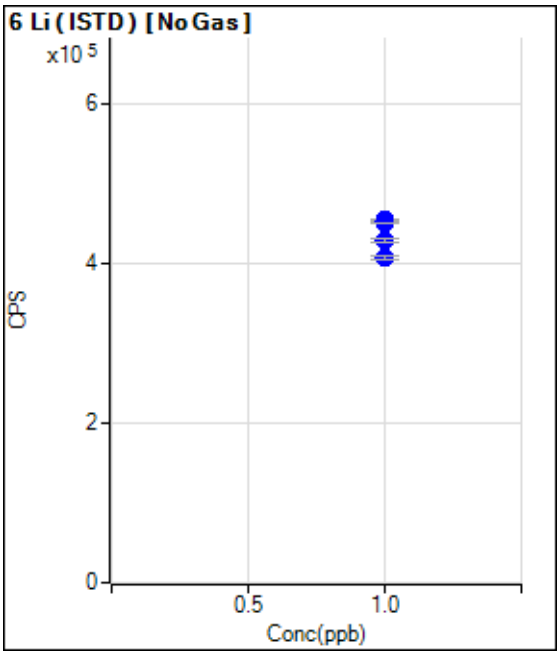


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0001	P	19.8
2	☐	2.000	1.930	103081.44	0.0361	P	2.1
3	☐	5.000	4.796	255735.82	0.0896	P	0.2
4	☐	10.000	10.002	525526.29	0.1868	P	0.8
5	☐	100.000	93.879	4924804.30	1.7531	A	1.4
6	☐	200.000	203.066	10012314.23	3.7919	A	0.8

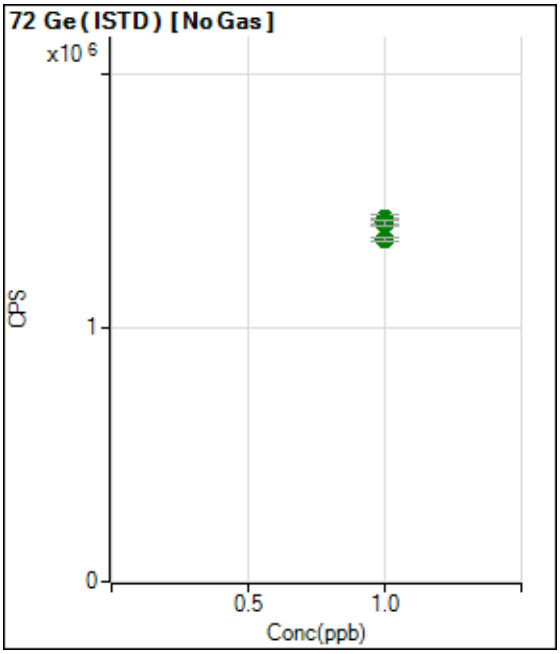
y = 0.0187 * x + 7.2236E-005
R = 0.9993
DL = 0.002296
BEC = 0.003868

Weight: <None>
Min Conc: <None>

Calibration for 270_ICV.d

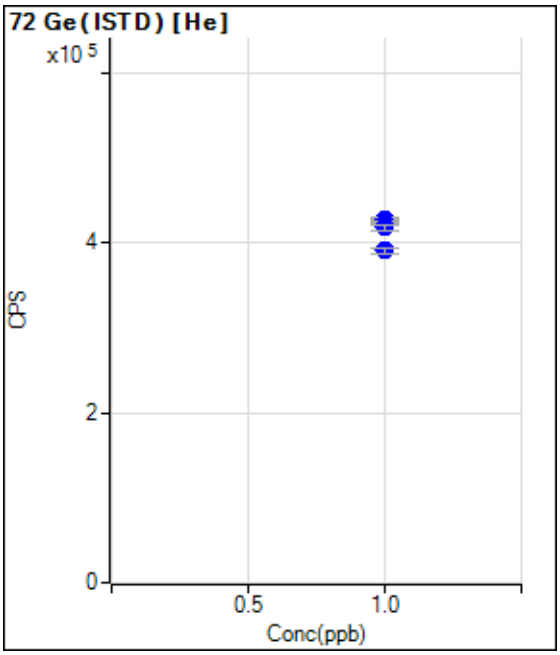


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		453655.83		P	0.1
2	☐	1.000		453875.67		P	0.4
3	☐	1.000		452463.15		P	1.1
4	☐	1.000		449761.92		P	0.3
5	☐	1.000		427478.96		P	1.0
6	☐	1.000		406859.68		P	1.0

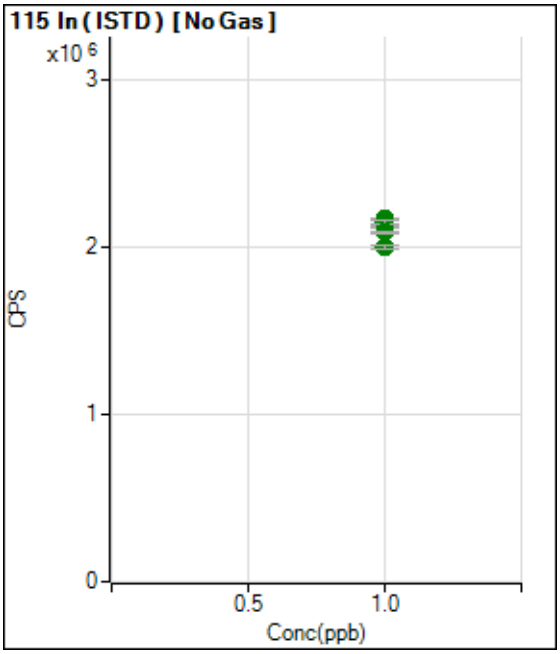


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1422728.78		A	0.2
2	☐	1.000		1409666.54		A	1.6
3	☐	1.000		1427874.72		A	2.6
4	☐	1.000		1418499.92		A	1.3
5	☐	1.000		1413164.51		A	1.5
6	☐	1.000		1345792.38		A	1.0

Calibration for 270_ICV.d

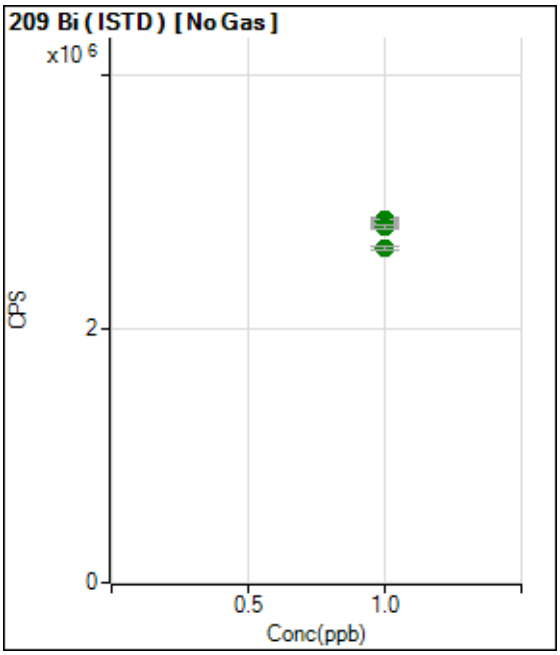


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		425408.46		P	1.2
2	☐	1.000		425693.65		P	1.0
3	☐	1.000		426706.66		P	1.3
4	☐	1.000		423929.32		P	0.8
5	☐	1.000		417999.23		P	1.7
6	☐	1.000		390226.10		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2144825.39		A	1.6
2	☐	1.000		2164768.06		A	0.6
3	☐	1.000		2133103.15		A	2.0
4	☐	1.000		2145678.00		A	0.7
5	☐	1.000		2085831.18		A	0.5
6	☐	1.000		1996013.85		A	1.2

Calibration for 270_ICV.d



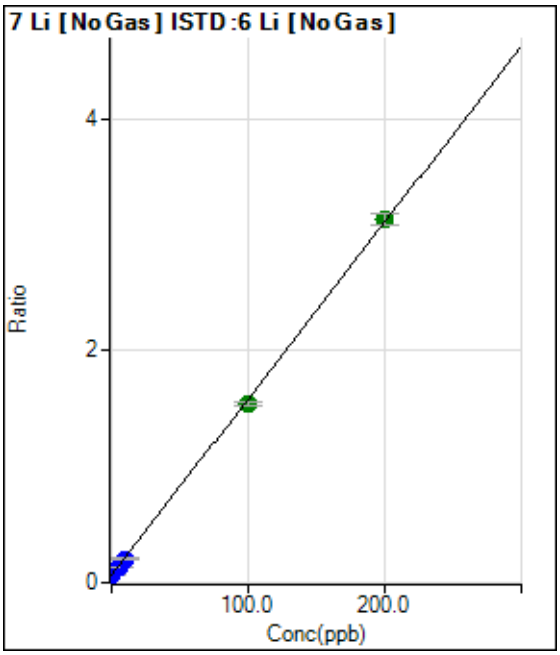
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2862155.27		A	1.0
2	☐	1.000		2854290.79		A	1.2
3	☐	1.000		2853585.69		A	1.1
4	☐	1.000		2812625.27		A	0.9
5	☐	1.000		2809501.21		A	1.4
6	☐	1.000		2640636.94		A	1.5

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052621A.b\
Analysis File: 052621A.batch.bin
DA Date-Time: 5/26/2021 12:18:38 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	009CALB.d	CAL BLK	5/26/2021 10:45:39 AM
2	010CALS.d	2/10/200	5/26/2021 10:47:38 AM
3	011CALS.d	5/25/500	5/26/2021 10:49:38 AM
4	012CALS.d	10/50/100	5/26/2021 10:51:37 AM
5	013CALS.d	100/500/10K	5/26/2021 10:53:37 AM
6	014CALS.d	200/1000/20K	5/26/2021 10:55:31 AM

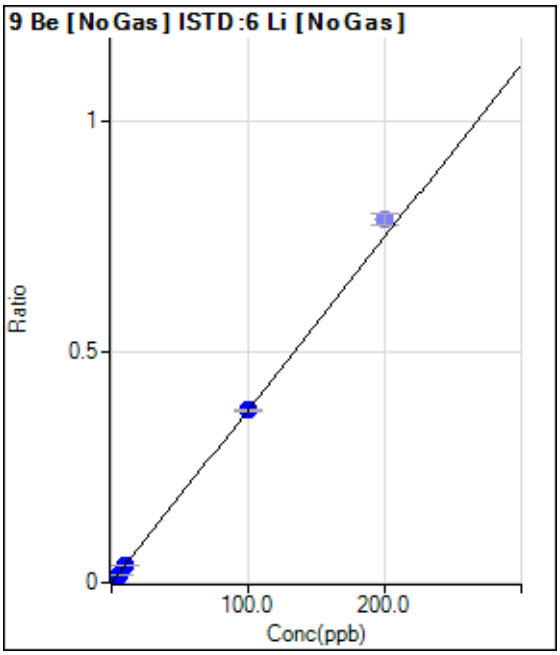
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39971.45	0.0646	P	0.3
2	☐	2.000	1.836	56554.60	0.0926	P	0.7
3	☐	5.000	4.558	81730.11	0.1340	P	2.0
4	☐	10.000	9.355	125307.91	0.2070	P	0.5
5	☐	100.000	97.168	894567.85	1.5434	A	1.1
6	☐	200.000	201.461	1676203.10	3.1305	A	3.3

y = 0.0152 * x + 0.0646
R = 0.9999
DL = 0.03946
BEC = 4.248

Weight: <None>
Min Conc: <None>

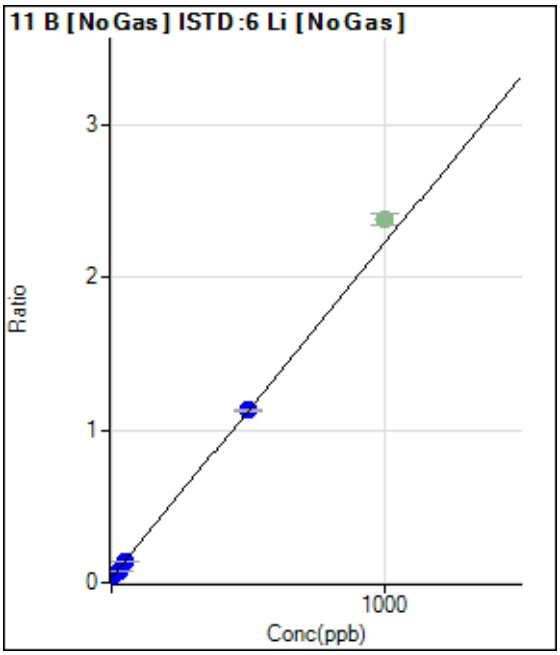


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0002	P	18.2
2	☐	2.000	1.854	4329.04	0.0071	P	3.6
3	☐	5.000	4.737	10890.96	0.0179	P	0.5
4	☐	10.000	9.797	22249.32	0.0368	P	0.4
5	☐	100.000	100.036	216683.35	0.3738	P	1.0
6	☑	200.000		420248.87	0.7849	P	3.0

y = 0.0037 * x + 1.6176E-004
R = 1.0000
DL = 0.02366
BEC = 0.0433

Weight: <None>
Min Conc: <None>

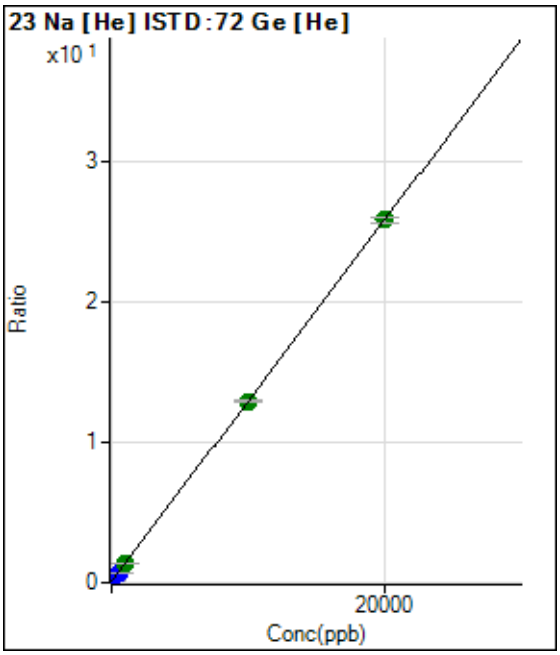
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20046.01	0.0324	P	2.6
2	☐	10.000	8.124	30663.47	0.0502	P	0.7
3	☐	25.000	21.578	48580.29	0.0797	P	0.6
4	☐	50.000	46.448	81169.38	0.1341	P	0.8
5	☐	500.000	500.564	653912.62	1.1282	P	1.1
6	☑	1000.000		1271809.96	2.3753	A	3.1

y = 0.0022 * x + 0.0324
R = 1.0000
DL = 1.176
BEC = 14.81

Weight: <None>
Min Conc: <None>

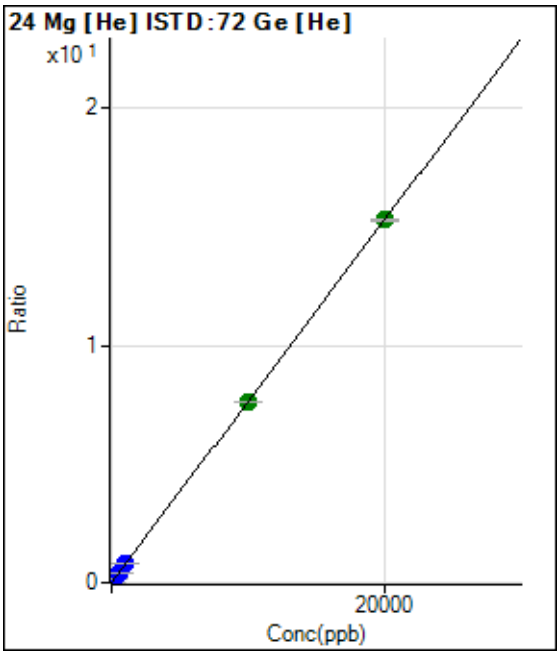


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47323.69	0.0762	P	1.2
2	☐	200.000	212.716	215351.21	0.3503	P	1.2
3	☐	500.000	521.869	459821.10	0.7486	P	0.4
4	☐	1000.000	1041.143	873823.71	1.4177	A	2.6
5	☐	10000.00	9982.591	7922372.59	12.9385	A	0.8
6	☐	20000.00	20005.97	15019250.19	25.8533	A	1.4

y = 0.0013 * x + 0.0762
R = 1.0000
DL = 2.063
BEC = 59.16

Weight: <None>
Min Conc: <None>

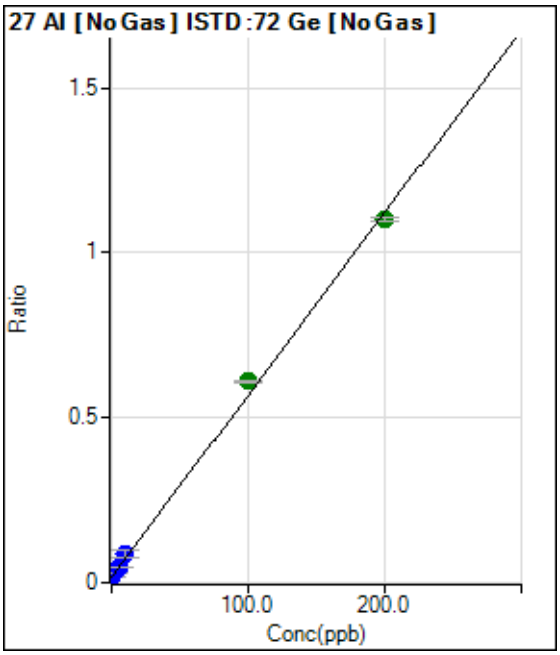
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1623.46	0.0026	P	4.8
2	☐	200.000	210.273	100282.50	0.1631	P	2.4
3	☐	500.000	528.605	249471.79	0.4062	P	0.6
4	☐	1000.000	1051.340	496321.54	0.8052	P	0.5
5	☐	10000.00	9976.544	4665169.41	7.6189	A	0.7
6	☐	20000.00	20008.34	8875539.45	15.2773	A	0.8

y = 7.6342E-004 * x + 0.0026
R = 1.0000
DL = 0.4921
BEC = 3.426

Weight: <None>
Min Conc: <None>

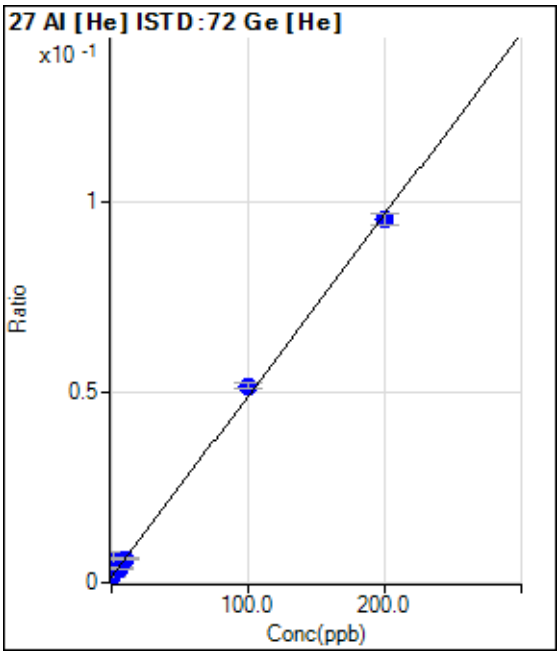


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32478.91	0.0163	P	1.1
2	☐	2.000	2.555	60307.50	0.0304	P	0.9
3	☐	5.000	5.118	88426.87	0.0445	P	1.4
4	☐	10.000	12.946	174310.06	0.0877	P	29.3
5	☐	100.000	107.361	1191661.47	0.6089	A	1.3
6	☐	200.000	196.163	2039440.65	1.0992	A	1.1

y = 0.0055 * x + 0.0163
R = 0.9990
DL = 0.0961
BEC = 2.945

Weight: <None>
Min Conc: <None>

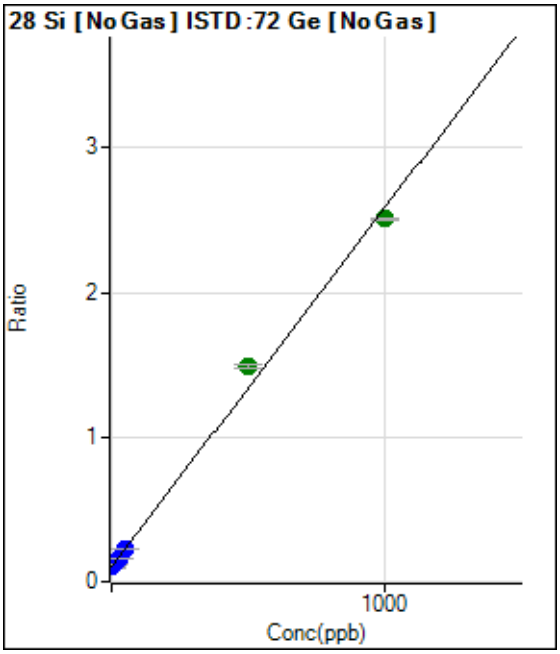
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	890.05	0.0014	P	14.8
2	☐	2.000	8.316	3318.94	0.0054	P	92.7
3	☐	5.000	4.865	2303.57	0.0038	P	5.4
4	☐	10.000	10.064	3837.27	0.0062	P	3.9
5	☐	100.000	105.647	31676.47	0.0517	P	3.2
6	☐	200.000	197.114	55360.33	0.0953	P	3.1

y = 4.7618E-004 * x + 0.0014
R = 0.9991
DL = 1.341
BEC = 3.012

Weight: <None>
Min Conc: <None>

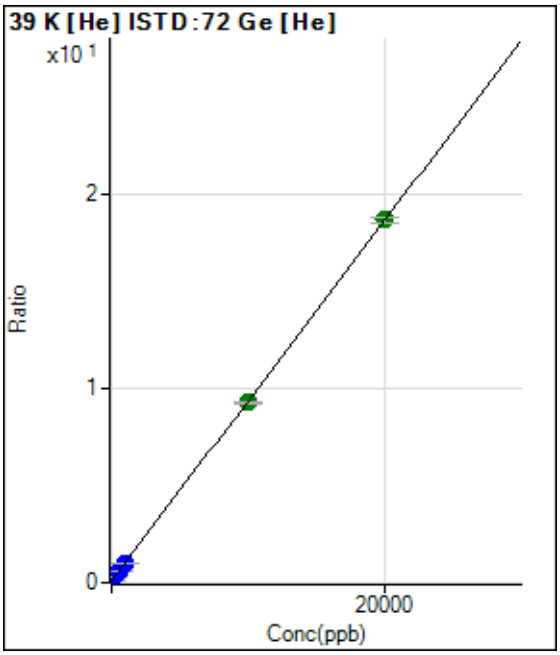


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	201412.14	0.1008	P	3.1
2	☐	10.000	9.091	245049.46	0.1234	P	1.5
3	☐	25.000	23.673	317010.48	0.1596	P	1.2
4	☐	50.000	49.755	444747.21	0.2243	P	1.7
5	☐	500.000	559.160	2911760.27	1.4882	A	2.2
6	☐	1000.000	970.475	4654986.80	2.5087	A	0.4

y = 0.0025 * x + 0.1008
R = 0.9975
DL = 3.75
BEC = 40.64

Weight: <None>
Min Conc: <None>

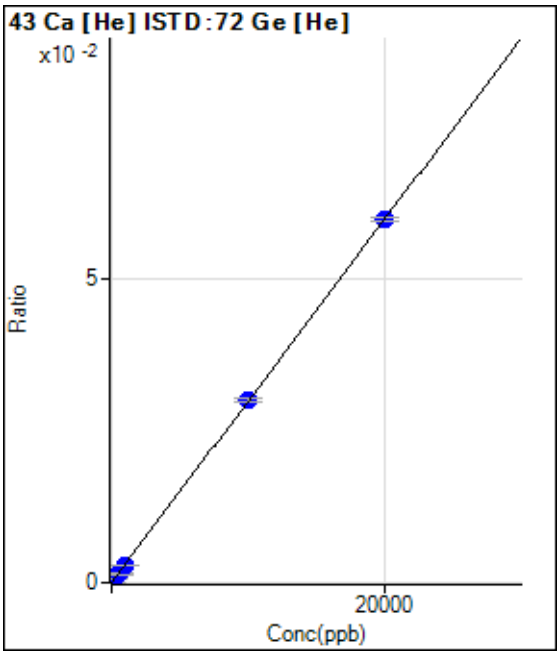
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53681.21	0.0865	P	1.5
2	☐	200.000	204.063	169388.37	0.2756	P	2.3
3	☐	500.000	505.389	340754.50	0.5548	P	0.5
4	☐	1000.000	1015.586	633347.36	1.0276	P	0.6
5	☐	10000.00	9927.982	5686324.08	9.2861	A	1.2
6	☐	20000.00	20035.05	10835326.92	18.6517	A	1.8

y = 9.2664E-004 * x + 0.0865
R = 1.0000
DL = 4.26
BEC = 93.32

Weight: <None>
Min Conc: <None>

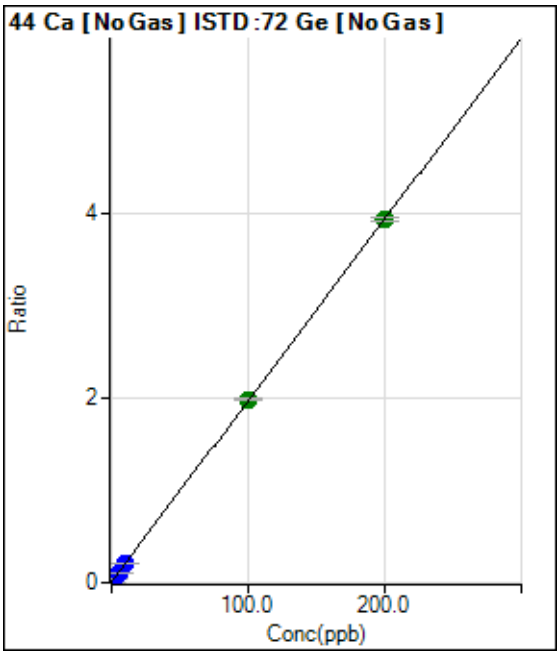


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.5
2	☐	200.000	209.939	403.35	0.0007	P	31.7
3	☐	500.000	476.997	893.37	0.0015	P	4.1
4	☐	1000.000	954.372	1776.82	0.0029	P	8.5
5	☐	10000.00	10040.82	18419.24	0.0301	P	2.5
6	☐	20000.00	19982.34	34760.79	0.0598	P	0.9

y = 2.9930E-006 * x + 2.6806E-005
R = 1.0000
DL = 24.58
BEC = 8.956

Weight: <None>
Min Conc: <None>

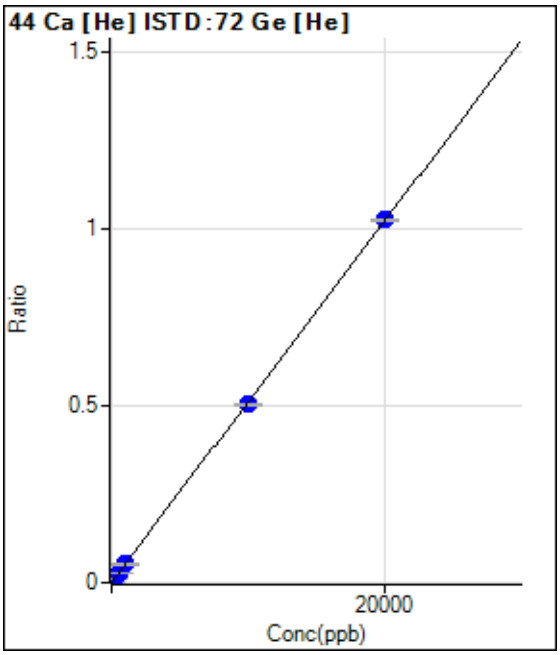
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17234.35	0.0086	P	5.7
2	☐	2.000	2.035	96473.57	0.0486	P	2.6
3	☐	5.000	5.105	216281.77	0.1089	P	1.7
4	☐	10.000	10.381	421339.26	0.2125	P	0.3
5	☐	100.000	100.496	3878103.17	1.9818	A	1.1
6	☐	200.000	199.730	7292355.52	3.9303	A	1.1

y = 0.0196 * x + 0.0086
R = 1.0000
DL = 0.07493
BEC = 0.4396

Weight: <None>
Min Conc: <None>

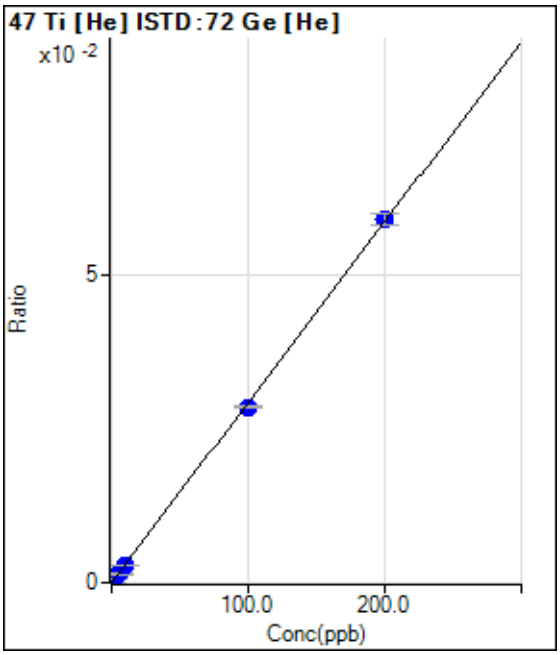


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	433.35	0.0007	P	11.9
2	☐	200.000	199.694	6701.78	0.0109	P	4.7
3	☐	500.000	498.683	16083.02	0.0262	P	1.9
4	☐	1000.000	1000.749	31954.09	0.0518	P	0.6
5	☐	10000.00	9851.060	308689.21	0.5041	P	1.3
6	☐	20000.00	20074.46	596426.12	1.0266	P	0.7

y = 5.1106E-005 * x + 6.9808E-004
R = 1.0000
DL = 4.882
BEC = 13.66

Weight: <None>
Min Conc: <None>

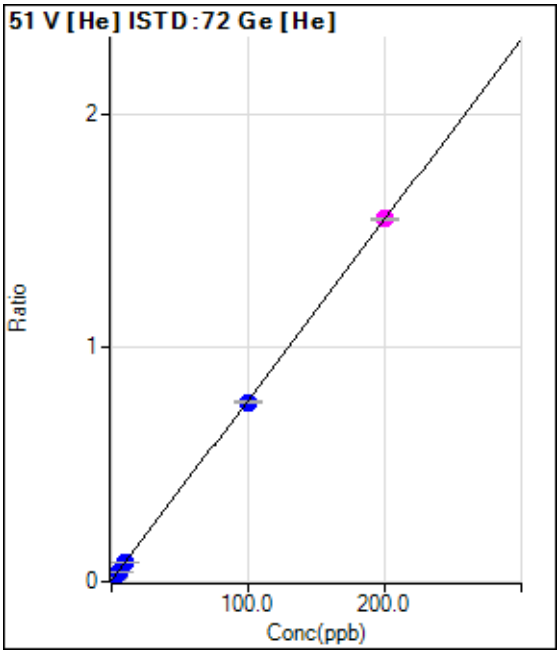
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.2
2	☐	2.000	2.164	396.68	0.0006	P	31.8
3	☐	5.000	4.998	906.72	0.0015	P	12.4
4	☐	10.000	9.519	1726.81	0.0028	P	4.8
5	☐	100.000	97.378	17491.37	0.0286	P	1.4
6	☐	200.000	201.333	34299.84	0.0590	P	3.2

y = 2.9322E-004 * x + 1.0694E-005
R = 0.9999
DL = 0.1895
BEC = 0.03647

Weight: <None>
Min Conc: <None>

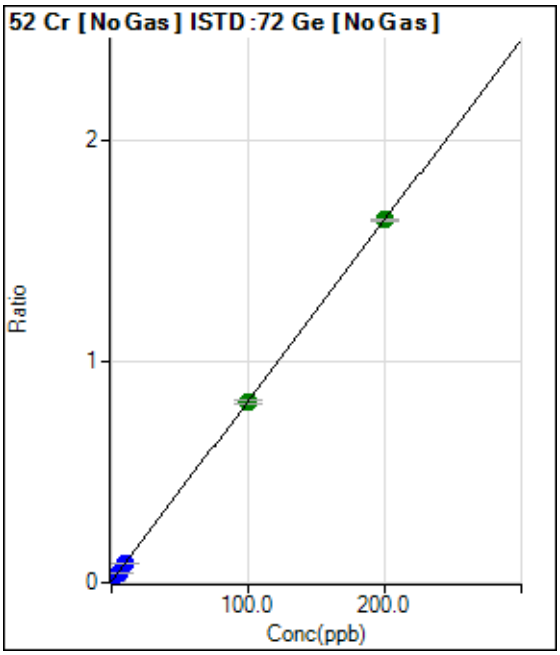


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2815.86	0.0045	P	1.8
2	☐	2.000	1.974	12146.54	0.0198	P	1.8
3	☐	5.000	5.047	26683.79	0.0434	P	1.9
4	☐	10.000	10.065	50627.50	0.0821	P	0.4
5	☐	100.000	98.952	469922.00	0.7675	P	0.9
6	☐	200.000	200.520	900818.33	1.5505	M	0.5

y = 0.0077 * x + 0.0045
R = 1.0000
DL = 0.03126
BEC = 0.5883

Weight: <None>
Min Conc: <None>

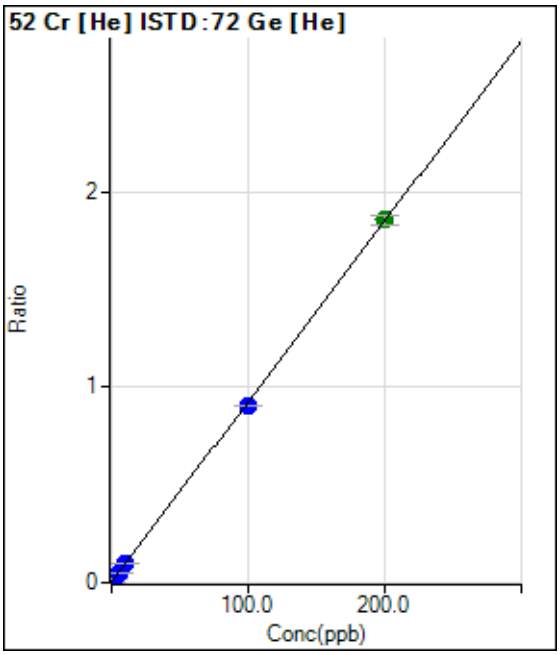
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12065.51	0.0060	P	3.6
2	☐	2.000	2.020	44793.45	0.0226	P	2.1
3	☐	5.000	4.946	92339.91	0.0465	P	2.0
4	☐	10.000	10.209	177526.30	0.0895	P	1.2
5	☐	100.000	99.689	1606787.43	0.8212	A	2.3
6	☐	200.000	200.146	3048058.08	1.6427	A	0.8

y = 0.0082 * x + 0.0060
R = 1.0000
DL = 0.08063
BEC = 0.7385

Weight: <None>
Min Conc: <None>

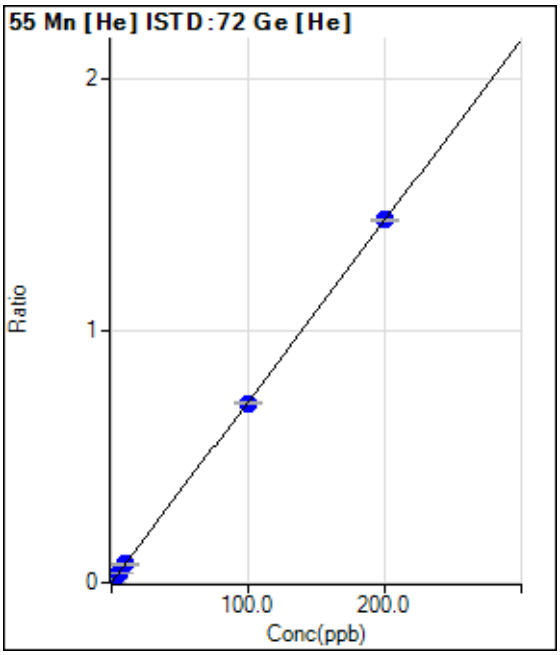


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1253.41	0.0020	P	8.3
2	☐	2.000	2.016	12672.77	0.0206	P	2.2
3	☐	5.000	4.933	29184.74	0.0475	P	3.0
4	☐	10.000	10.098	58648.81	0.0952	P	1.2
5	☐	100.000	98.037	554906.48	0.9062	P	0.7
6	☐	200.000	200.978	1077944.28	1.8556	A	2.8

y = 0.0092 * x + 0.0020
R = 0.9999
DL = 0.05458
BEC = 0.2189

Weight: <None>
Min Conc: <None>

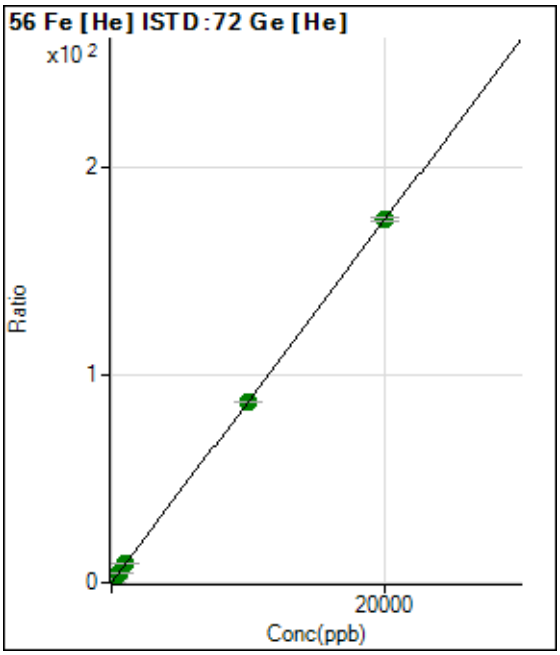
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	260.01	0.0004	P	8.0
2	☐	2.000	2.039	9266.63	0.0151	P	6.3
3	☐	5.000	4.956	22141.56	0.0360	P	2.2
4	☐	10.000	10.108	45047.87	0.0731	P	1.9
5	☐	100.000	99.208	436961.87	0.7136	P	0.2
6	☐	200.000	200.391	837169.02	1.4410	P	0.5

y = 0.0072 * x + 4.1890E-004
R = 1.0000
DL = 0.01401
BEC = 0.05827

Weight: <None>
Min Conc: <None>

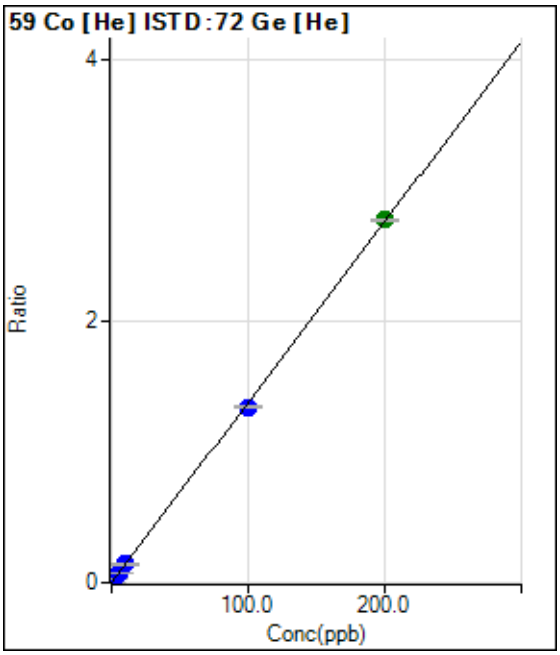


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8302.67	0.0134	P	3.7
2	☐	200.000	208.605	1127052.17	1.8333	A	1.0
3	☐	500.000	517.607	2781918.92	4.5292	A	2.0
4	☐	1000.000	1031.855	5556819.29	9.0157	A	1.5
5	☐	10000.00	9962.527	53230432.54	86.9307	A	0.9
6	☐	20000.00	20016.61	101459748.4	174.646	A	1.2

y = 0.0087 * x + 0.0134
R = 1.0000
DL = 0.171
BEC = 1.533

Weight: <None>
Min Conc: <None>

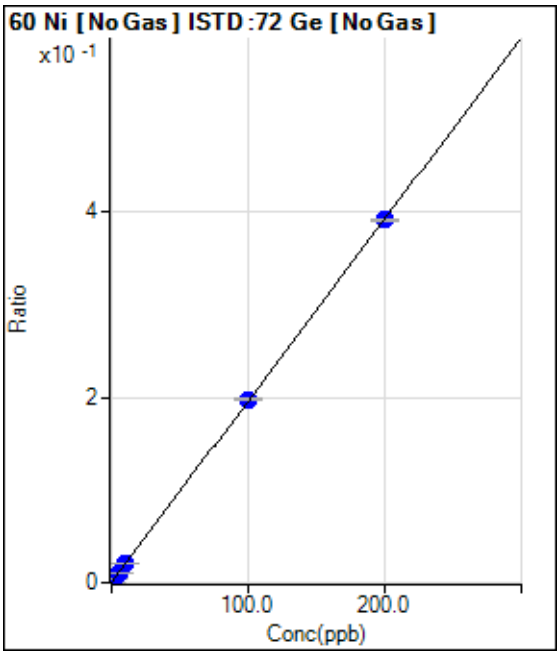
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	66.0
2	☐	2.000	1.969	16717.11	0.0272	P	1.8
3	☐	5.000	4.973	42105.38	0.0686	P	0.3
4	☐	10.000	10.133	86040.31	0.1396	P	1.7
5	☐	100.000	97.497	821949.44	1.3424	P	0.6
6	☐	200.000	201.246	1609722.89	2.7707	A	0.9

y = 0.0138 * x + 8.6015E-005
R = 0.9999
DL = 0.01237
BEC = 0.006248

Weight: <None>
Min Conc: <None>

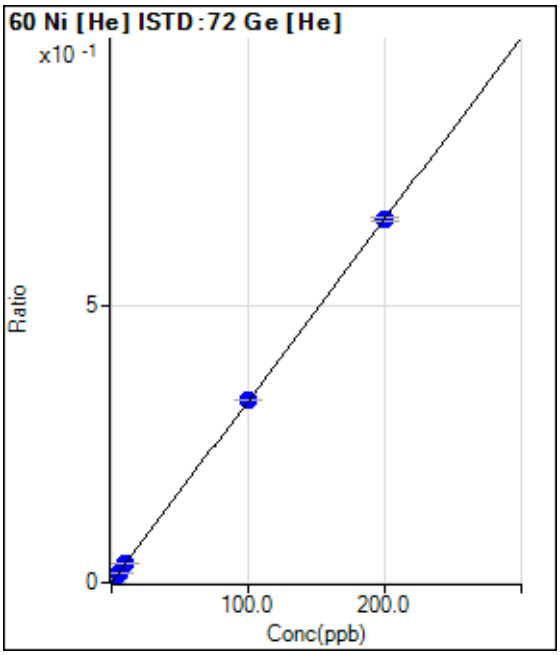


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0003	P	13.3
2	☐	2.000	2.085	8752.95	0.0044	P	2.0
3	☐	5.000	5.082	20422.32	0.0103	P	1.4
4	☐	10.000	10.251	40476.97	0.0204	P	0.9
5	☐	100.000	100.560	386257.07	0.1974	P	1.2
6	☐	200.000	199.705	726770.74	0.3917	P	0.8

y = 0.0020 * x + 3.2033E-004
R = 1.0000
DL = 0.06498
BEC = 0.1635

Weight: <None>
Min Conc: <None>

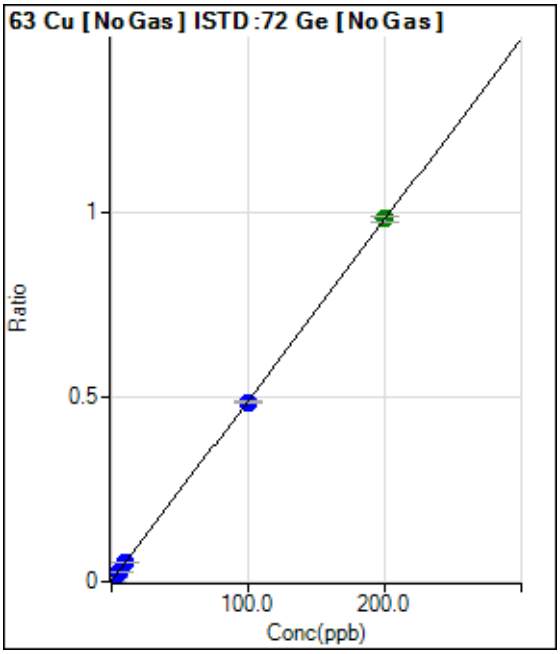
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	256.67	0.0004	P	21.1
2	☐	2.000	2.175	4640.90	0.0076	P	3.3
3	☐	5.000	5.169	10674.38	0.0174	P	1.0
4	☐	10.000	10.527	21550.65	0.0350	P	2.8
5	☐	100.000	100.504	202223.30	0.3303	P	0.9
6	☐	200.000	199.716	381058.65	0.6559	P	0.9

y = 0.0033 * x + 4.1327E-004
R = 1.0000
DL = 0.07984
BEC = 0.1259

Weight: <None>
Min Conc: <None>

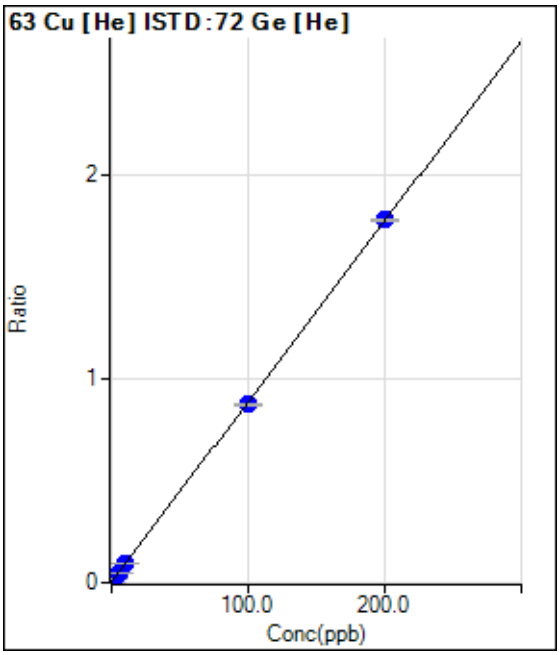


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2830.34	0.0014	P	9.0
2	☐	2.000	2.066	22876.27	0.0115	P	0.6
3	☐	5.000	5.158	52906.45	0.0266	P	3.1
4	☐	10.000	10.310	102779.38	0.0518	P	1.6
5	☐	100.000	99.001	949961.86	0.4855	P	1.6
6	☐	200.000	200.479	1821543.83	0.9817	A	1.6

y = 0.0049 * x + 0.0014
R = 1.0000
DL = 0.07833
BEC = 0.2898

Weight: <None>
Min Conc: <None>

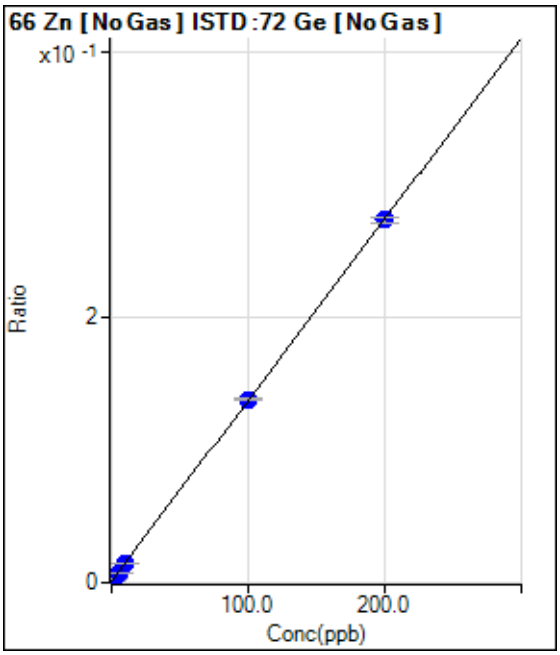
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1356.76	0.0022	P	11.5
2	☐	2.000	2.093	12756.18	0.0207	P	1.8
3	☐	5.000	5.148	29388.76	0.0478	P	1.7
4	☐	10.000	10.462	58549.42	0.0950	P	0.8
5	☐	100.000	98.445	536043.40	0.8755	P	1.0
6	☐	200.000	200.750	1035845.84	1.7830	P	0.8

y = 0.0089 * x + 0.0022
R = 1.0000
DL = 0.08499
BEC = 0.2464

Weight: <None>
Min Conc: <None>

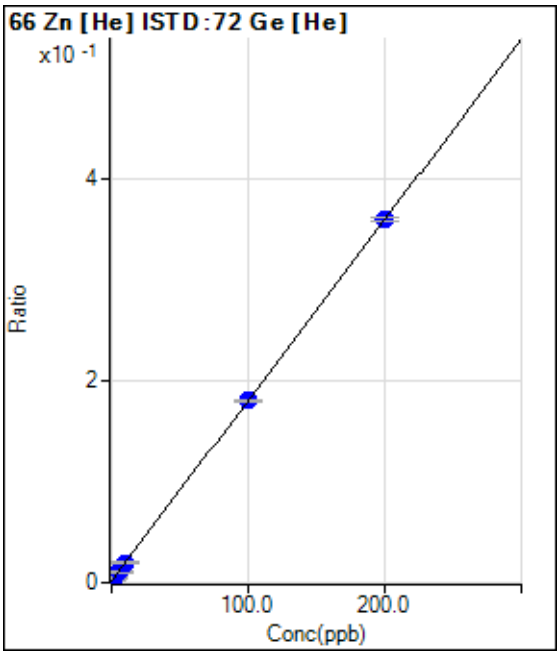


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2240.23	0.0011	P	6.5
2	☐	2.000	1.776	7035.26	0.0035	P	4.2
3	☐	5.000	4.747	15081.98	0.0076	P	3.2
4	☐	10.000	10.133	29616.11	0.0149	P	1.7
5	☐	100.000	100.632	270570.79	0.1383	P	1.4
6	☐	200.000	199.686	507040.12	0.2733	P	1.6

y = 0.0014 * x + 0.0011
R = 1.0000
DL = 0.1612
BEC = 0.8226

Weight: <None>
Min Conc: <None>

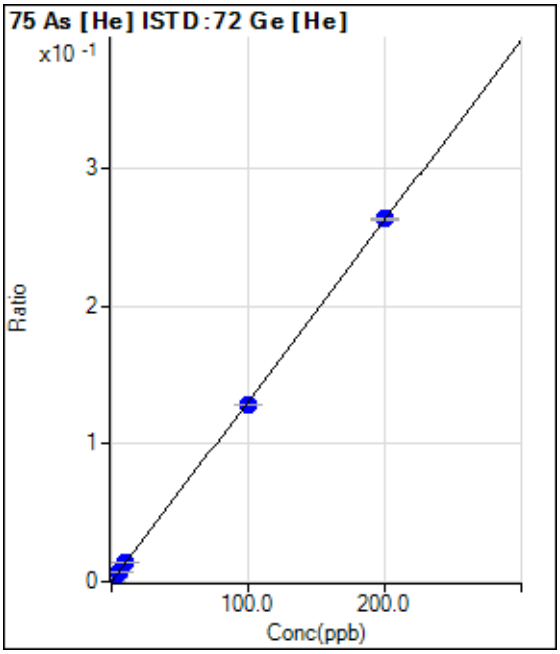
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	976.72	0.0016	P	9.7
2	☐	2.000	1.750	2893.69	0.0047	P	4.2
3	☐	5.000	4.991	6458.30	0.0105	P	6.2
4	☐	10.000	10.199	12229.03	0.0198	P	6.1
5	☐	100.000	99.938	110587.84	0.1806	P	1.3
6	☐	200.000	200.024	209084.25	0.3599	P	0.9

y = 0.0018 * x + 0.0016
R = 1.0000
DL = 0.2559
BEC = 0.8782

Weight: <None>
Min Conc: <None>

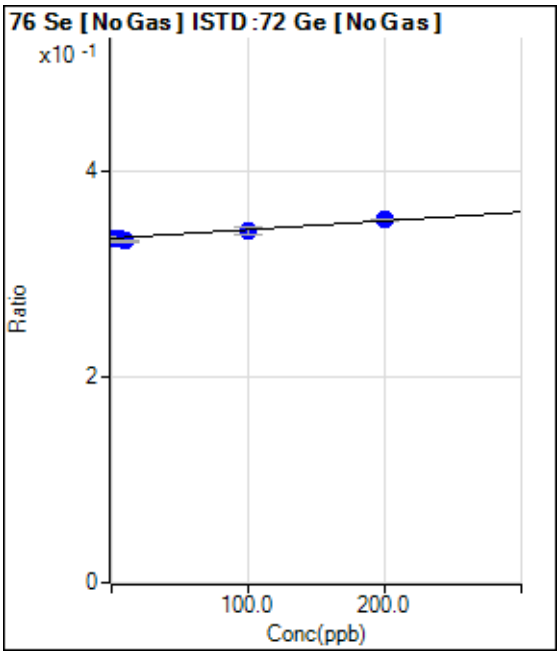


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0002	P	0.4
2	☐	2.000	2.046	1755.68	0.0029	P	6.0
3	☐	5.000	5.172	4270.70	0.0070	P	2.3
4	☐	10.000	10.423	8530.51	0.0138	P	2.8
5	☐	100.000	97.942	78740.28	0.1286	P	0.8
6	☐	200.000	201.003	153216.28	0.2637	P	0.2

y = 0.0013 * x + 1.7183E-004
R = 0.9999
DL = 0.001424
BEC = 0.131

Weight: <None>
Min Conc: <None>

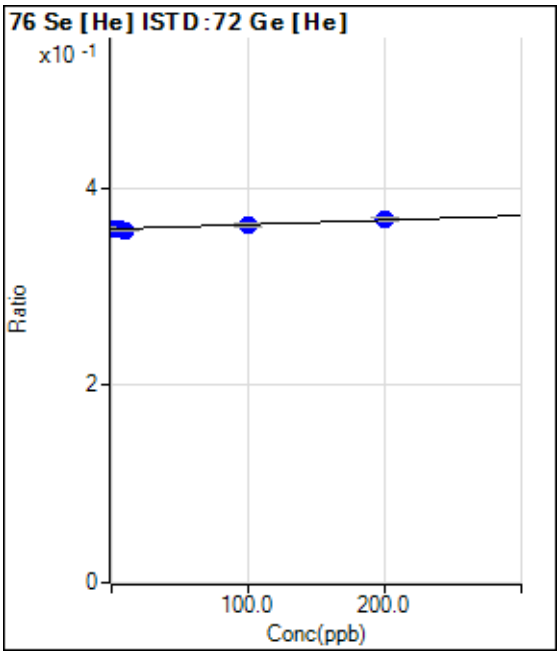
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	667789.94	0.3343	P	0.6
2	☐	2.000	-12.293	661931.68	0.3333	P	0.9
3	☐	5.000	-10.271	662449.26	0.3334	P	1.1
4	☐	10.000	-32.803	657486.02	0.3315	P	0.5
5	☐	100.000	85.144	668349.26	0.3416	P	1.7
6	☐	200.000	210.093	653539.54	0.3522	P	0.3

y = 8.5161E-005 * x + 0.3343
R = 0.9871
DL = 65.82
BEC = 3926

Weight: <None>
Min Conc: <None>

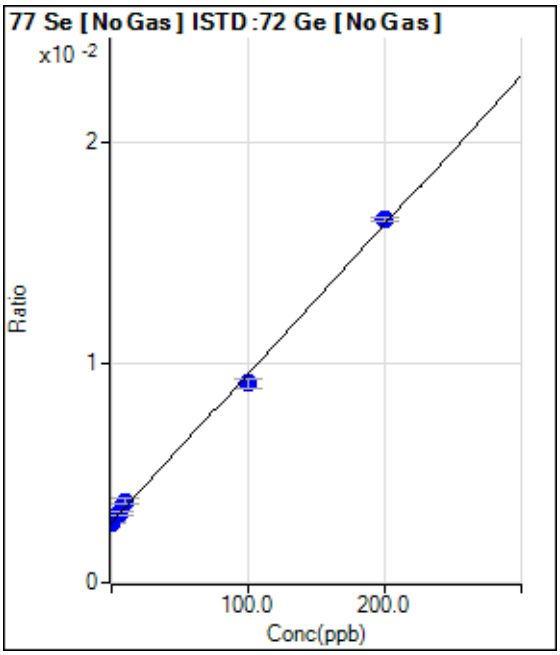


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	222550.23	0.3585	P	0.9
2	☐	2.000	-17.413	219897.22	0.3577	P	1.2
3	☐	5.000	16.619	220652.09	0.3592	P	0.8
4	☐	10.000	-33.864	220026.70	0.3570	P	0.4
5	☐	100.000	98.225	222222.06	0.3629	P	1.2
6	☐	200.000	202.984	213593.93	0.3677	P	1.0

y = 4.5116E-005 * x + 0.3585
R = 0.9775
DL = 210
BEC = 7946

Weight: <None>
Min Conc: <None>

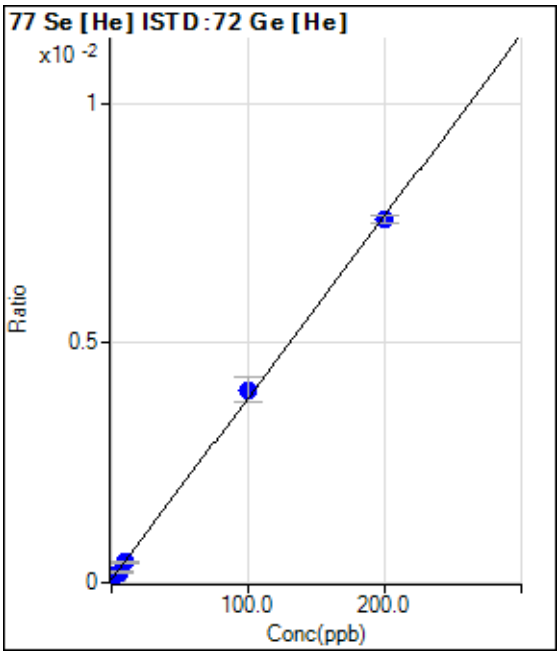
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5461.20	0.0027	P	2.1
2	☐	2.000	3.738	5931.43	0.0030	P	2.4
3	☐	5.000	6.394	6291.61	0.0032	P	5.5
4	☐	10.000	14.128	7315.44	0.0037	P	6.6
5	☐	100.000	93.263	17698.60	0.0090	P	5.3
6	☐	200.000	203.110	30588.34	0.0165	P	0.9

y = 6.7701E-005 * x + 0.0027
R = 0.9989
DL = 2.501
BEC = 40.38

Weight: <None>
Min Conc: <None>

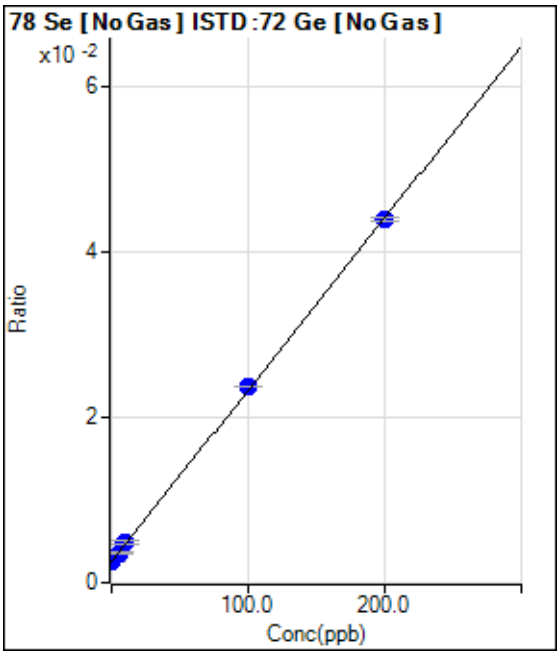


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0001	P	50.2
2	☐	2.000	2.594	100.00	0.0002	P	36.3
3	☐	5.000	3.879	130.00	0.0002	P	19.9
4	☐	10.000	9.571	263.34	0.0004	P	5.9
5	☐	100.000	104.377	2460.27	0.0040	P	12.6
6	☐	200.000	197.855	4394.12	0.0076	P	2.0

y = 3.7903E-005 * x + 6.4504E-005
R = 0.9996
DL = 2.565
BEC = 1.702

Weight: <None>
Min Conc: <None>

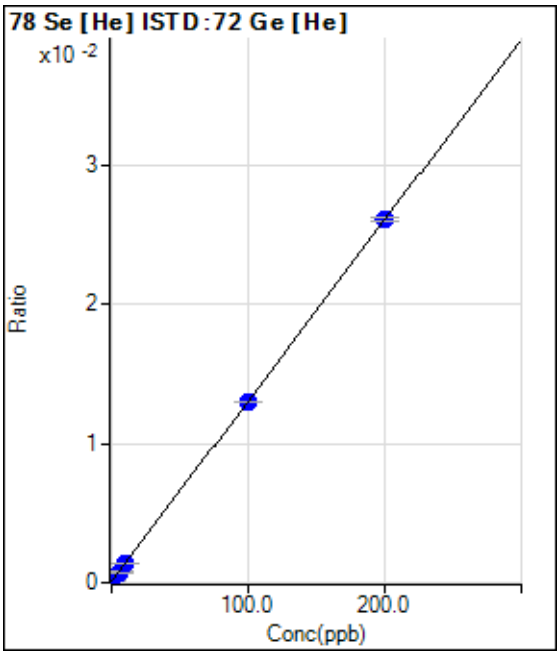
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5057.72	0.0025	P	2.1
2	☐	2.000	2.349	5998.12	0.0030	P	5.1
3	☐	5.000	5.065	7125.36	0.0036	P	4.5
4	☐	10.000	11.109	9596.92	0.0048	P	7.2
5	☐	100.000	101.800	46353.17	0.0237	P	0.5
6	☐	200.000	199.039	81438.51	0.0439	P	1.0

y = 2.0779E-004 * x + 0.0025
R = 0.9999
DL = 0.7498
BEC = 12.19

Weight: <None>
Min Conc: <None>

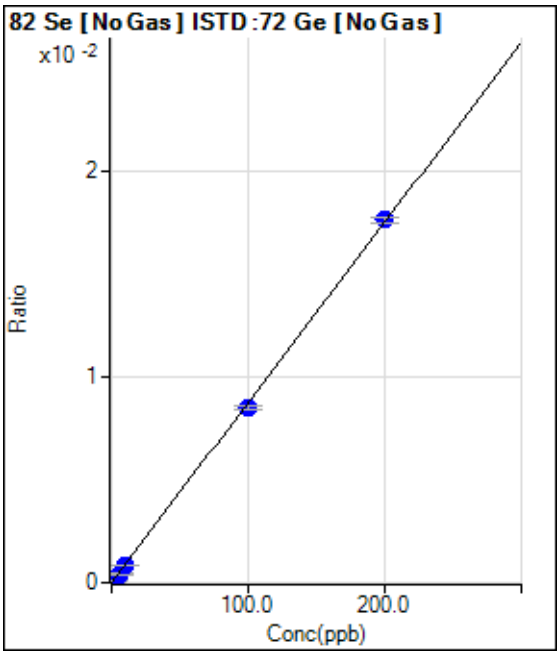


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.33	0.0001	P	7.6
2	☐	2.000	2.195	243.33	0.0004	P	8.9
3	☐	5.000	4.894	458.01	0.0007	P	10.9
4	☐	10.000	9.937	862.03	0.0014	P	1.3
5	☐	100.000	99.444	7953.69	0.0130	P	0.7
6	☐	200.000	200.282	15133.18	0.0260	P	1.2

y = 1.2950E-004 * x + 1.1170E-004
R = 1.0000
DL = 0.1958
BEC = 0.8626

Weight: <None>
Min Conc: <None>

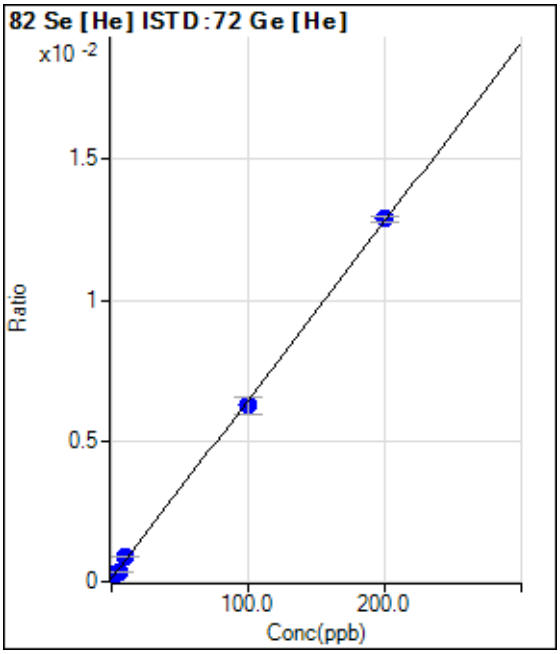
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.81	0.0000	P	212.7
2	☐	2.000	1.541	297.17	0.0001	P	21.7
3	☐	5.000	4.177	753.88	0.0004	P	23.2
4	☐	10.000	9.571	1687.74	0.0009	P	6.8
5	☐	100.000	97.173	16644.91	0.0085	P	1.9
6	☐	200.000	201.460	32681.24	0.0176	P	1.5

y = 8.7354E-005 * x + 1.5209E-005
R = 0.9999
DL = 1.111
BEC = 0.1741

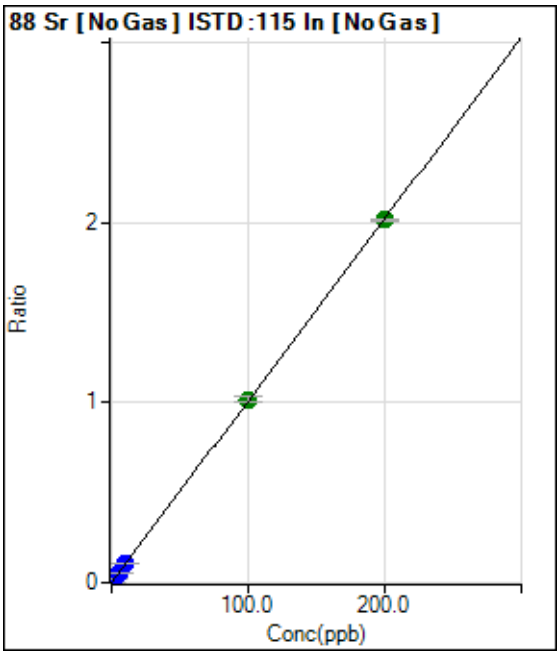
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	9.0
2	☐	2.000	2.231	153.34	0.0002	P	41.8
3	☐	5.000	3.954	220.01	0.0004	P	4.2
4	☐	10.000	12.120	540.02	0.0009	P	3.2
5	☐	100.000	96.924	3830.63	0.0063	P	10.4
6	☐	200.000	201.456	7485.57	0.0129	P	1.4

y = 6.3425E-005 * x + 1.0741E-004
R = 0.9997
DL = 0.4573
BEC = 1.694

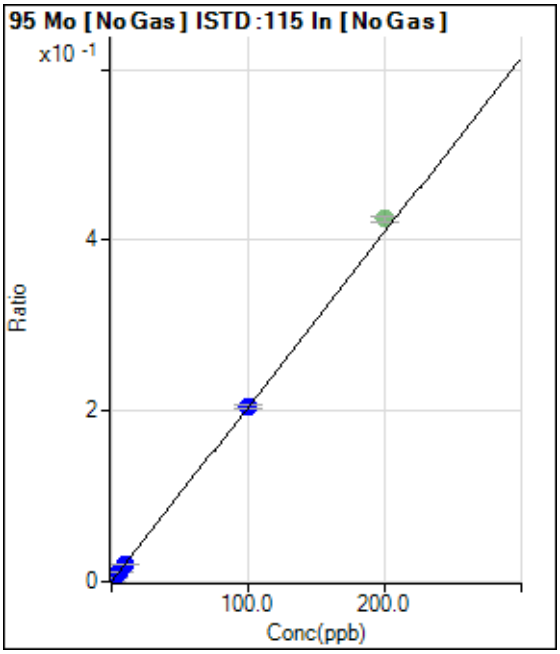
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1840.16	0.0006	P	9.3
2	☐	2.000	1.992	60041.13	0.0207	P	2.4
3	☐	5.000	4.966	146131.14	0.0508	P	0.8
4	☐	10.000	10.089	294873.60	0.1025	P	1.1
5	☐	100.000	100.801	2872842.14	1.0184	A	3.0
6	☐	200.000	199.596	5443622.00	2.0159	A	0.7

y = 0.0101 * x + 6.3237E-004
R = 1.0000
DL = 0.01755
BEC = 0.06263

Weight: <None>
Min Conc: <None>

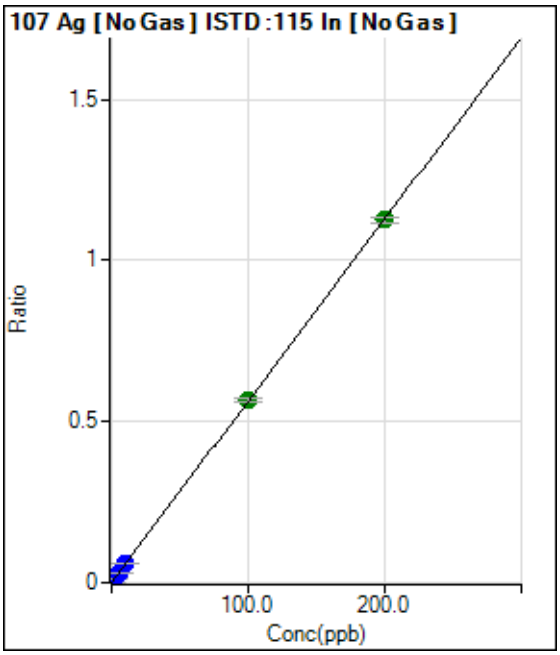


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0001	P	10.9
2	☐	2.000	1.987	11945.52	0.0041	P	3.7
3	☐	5.000	5.116	30308.13	0.0105	P	1.0
4	☐	10.000	10.213	60309.93	0.0210	P	1.7
5	☐	100.000	99.973	577350.08	0.2047	P	2.4
6	☑	200.000		1147992.12	0.4251	A	1.7

y = 0.0020 * x + 6.0639E-005
R = 1.0000
DL = 0.009676
BEC = 0.02963

Weight: <None>
Min Conc: <None>

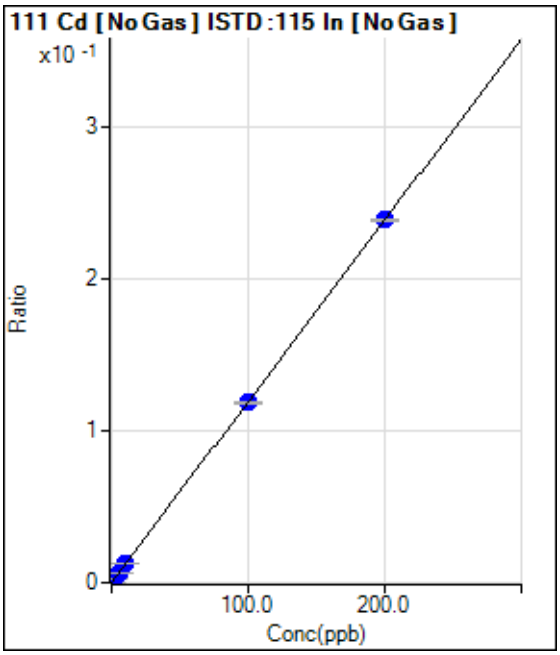
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.07	0.0004	P	5.8
2	☐	2.000	2.016	33994.10	0.0117	P	2.3
3	☐	5.000	5.119	84153.19	0.0292	P	1.2
4	☐	10.000	10.437	170385.60	0.0592	P	0.3
5	☐	100.000	100.549	1600248.73	0.5672	A	1.9
6	☐	200.000	199.700	3041106.51	1.1262	A	1.2

y = 0.0056 * x + 3.8467E-004
R = 1.0000
DL = 0.01183
BEC = 0.06824

Weight: <None>
Min Conc: <None>

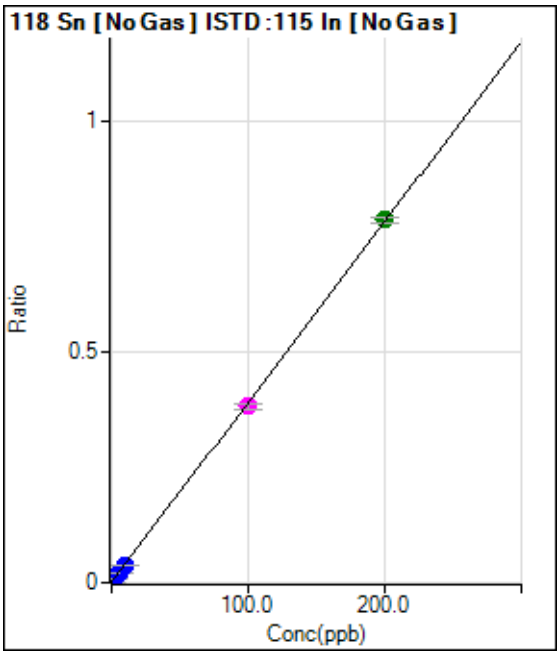


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	86.6
2	☐	2.000	2.025	7008.64	0.0024	P	4.3
3	☐	5.000	4.976	17111.35	0.0059	P	0.1
4	☐	10.000	10.188	35010.02	0.0122	P	1.3
5	☐	100.000	99.317	334562.30	0.1186	P	2.0
6	☐	200.000	200.332	645914.35	0.2392	P	0.5

y = 0.0012 * x + 4.5596E-006
R = 1.0000
DL = 0.009922
BEC = 0.003819

Weight: <None>
Min Conc: <None>

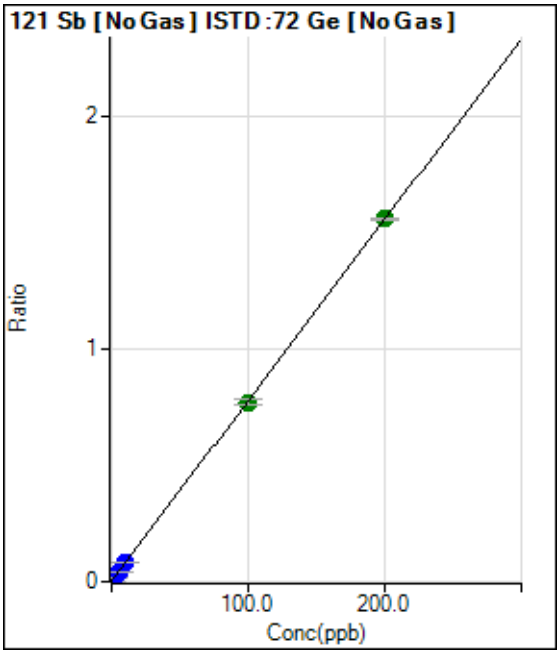
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2737.01	0.0009	P	1.0
2	☐	2.000	1.910	24319.36	0.0084	P	3.4
3	☐	5.000	4.875	57535.93	0.0200	P	0.7
4	☐	10.000	9.838	113318.44	0.0394	P	0.9
5	☐	100.000	97.570	1078255.53	0.3823	M	3.8
6	☐	200.000	201.227	2126174.19	0.7874	A	1.3

y = 0.0039 * x + 9.4005E-004
R = 0.9999
DL = 0.007111
BEC = 0.2405

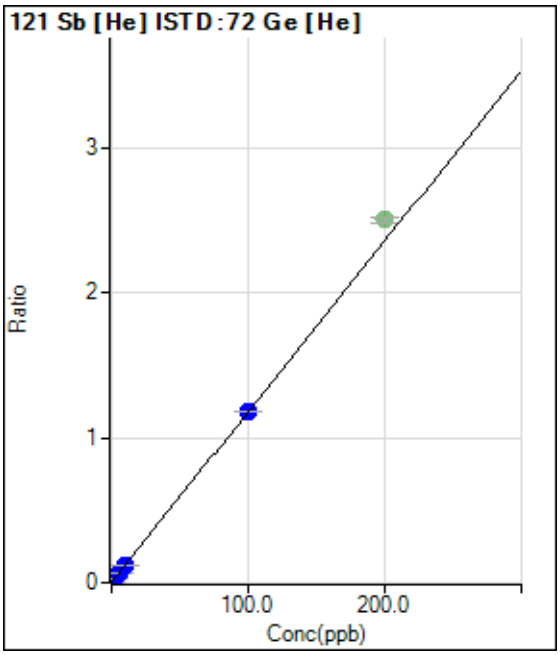
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5491.24	0.0027	P	4.3
2	☐	2.000	1.964	35792.49	0.0180	P	0.5
3	☐	5.000	4.831	80080.18	0.0403	P	1.3
4	☐	10.000	9.832	157068.11	0.0792	P	0.9
5	☐	100.000	99.032	1512163.88	0.7728	A	2.5
6	☐	200.000	200.497	2897934.13	1.5618	A	0.3

y = 0.0078 * x + 0.0027
R = 1.0000
DL = 0.04564
BEC = 0.3535

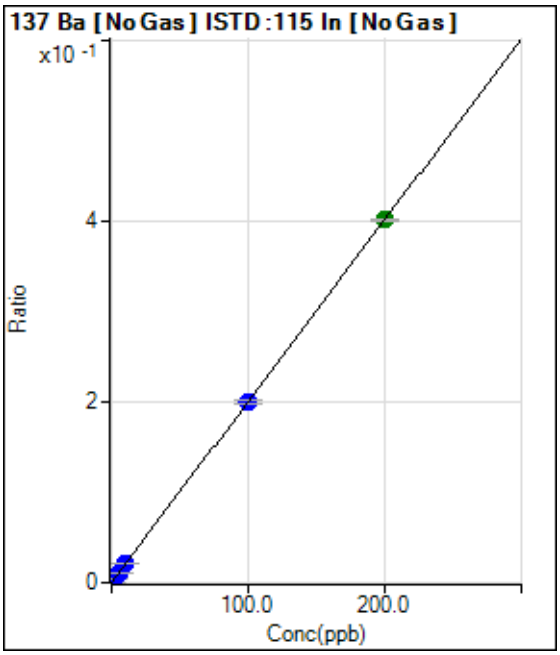
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2386.93	0.0038	P	6.4
2	☐	2.000	2.061	17261.57	0.0281	P	0.6
3	☐	5.000	5.024	38647.42	0.0629	P	0.6
4	☐	10.000	10.220	76438.79	0.1240	P	0.9
5	☐	100.000	99.976	722175.07	1.1794	P	0.7
6	☑	200.000		1453945.08	2.5028	A	1.9

y = 0.0118 * x + 0.0038
R = 1.0000
DL = 0.0627
BEC = 0.327

Weight: <None>
Min Conc: <None>

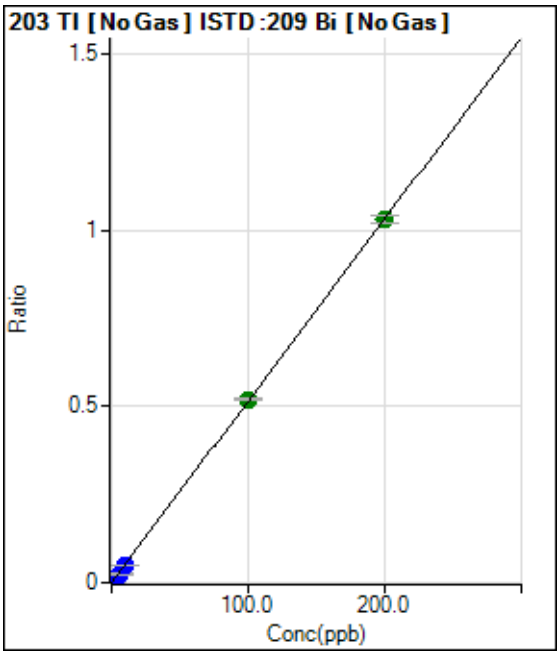


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.01	0.0001	P	28.5
2	☐	2.000	1.994	11808.90	0.0041	P	1.8
3	☐	5.000	5.039	29293.33	0.0102	P	1.2
4	☐	10.000	10.143	58699.23	0.0204	P	0.6
5	☐	100.000	99.733	563831.40	0.1999	P	1.9
6	☐	200.000	200.125	1082698.89	0.4009	A	0.9

y = 0.0020 * x + 8.5975E-005
R = 1.0000
DL = 0.03672
BEC = 0.04292

Weight: <None>
Min Conc: <None>

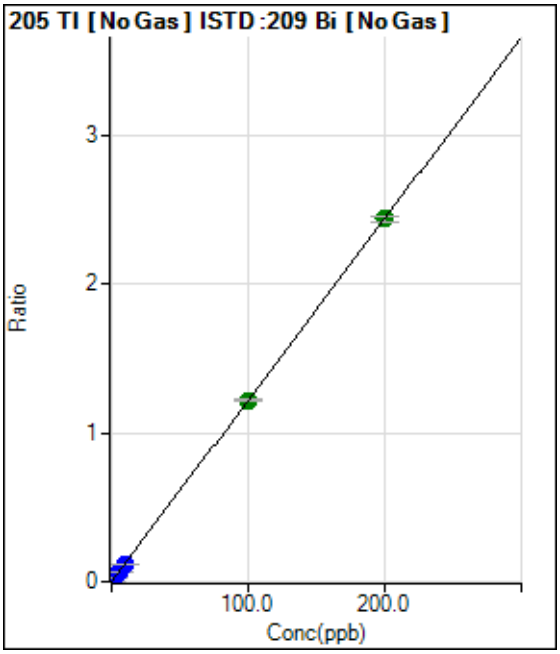
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	980.06	0.0003	P	7.5
2	☐	2.000	1.852	36884.88	0.0098	P	3.3
3	☐	5.000	4.694	91275.08	0.0245	P	0.8
4	☐	10.000	9.666	184185.50	0.0502	P	1.6
5	☐	100.000	100.755	1882221.90	0.5204	A	1.4
6	☐	200.000	199.648	3573001.20	1.0310	A	2.1

y = 0.0052 * x + 2.5808E-004
R = 1.0000
DL = 0.01129
BEC = 0.04999

Weight: <None>
Min Conc: <None>

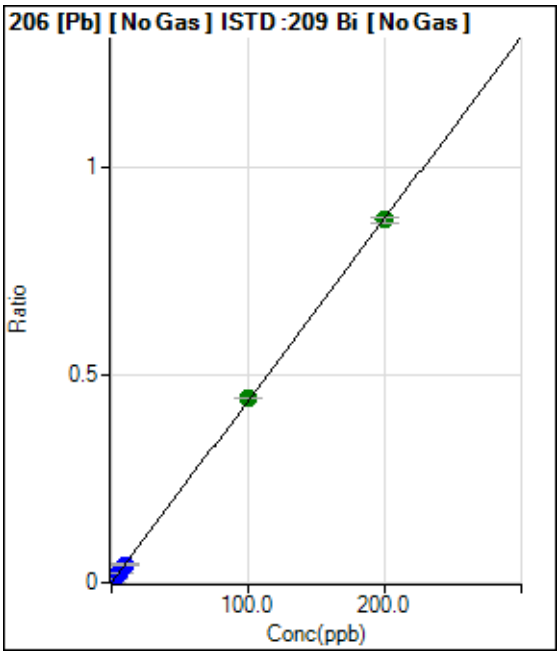


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2450.28	0.0006	P	6.3
2	☐	2.000	1.867	88035.98	0.0234	P	3.5
3	☐	5.000	4.747	218254.80	0.0586	P	1.0
4	☐	10.000	9.935	447526.11	0.1219	P	1.4
5	☐	100.000	99.965	4414188.37	1.2205	A	1.1
6	☐	200.000	200.028	8461856.96	2.4415	A	1.9

y = 0.0122 * x + 6.4562E-004
R = 1.0000
DL = 0.009974
BEC = 0.05291

Weight: <None>
Min Conc: <None>

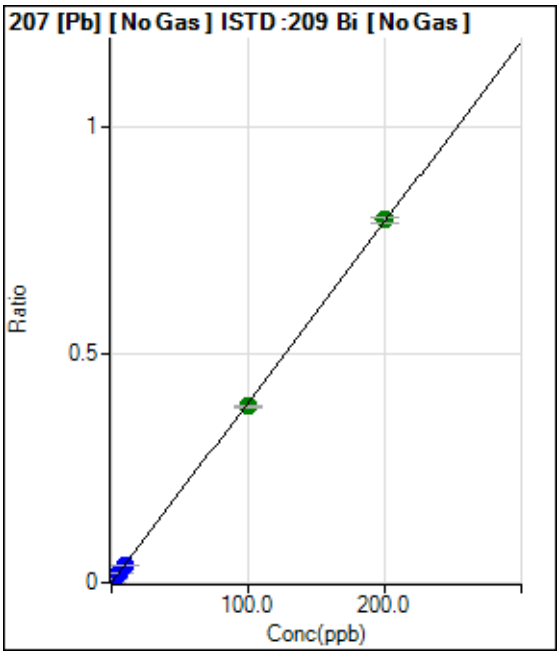
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	720.03	0.0002	P	18.4
2	☐	2.000	1.899	32014.81	0.0085	P	5.0
3	☐	5.000	4.765	78620.24	0.0211	P	0.3
4	☐	10.000	9.966	161228.52	0.0439	P	3.3
5	☐	100.000	101.250	1607504.51	0.4444	A	0.5
6	☐	200.000	199.384	3032794.64	0.8750	A	1.6

y = 0.0044 * x + 1.8965E-004
R = 1.0000
DL = 0.02381
BEC = 0.04322

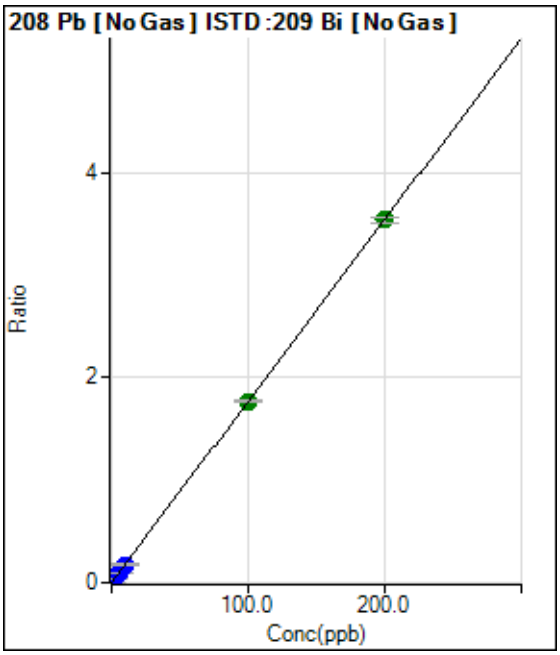
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	673.36	0.0002	P	10.9
2	☐	2.000	1.909	28987.46	0.0077	P	4.2
3	☐	5.000	4.802	71346.97	0.0191	P	0.6
4	☐	10.000	9.942	144836.69	0.0394	P	1.8
5	☐	100.000	97.690	1396156.18	0.3860	A	1.4
6	☐	200.000	201.164	2754304.86	0.7947	A	1.8

y = 0.0039 * x + 1.7753E-004
R = 0.9999
DL = 0.01467
BEC = 0.04495

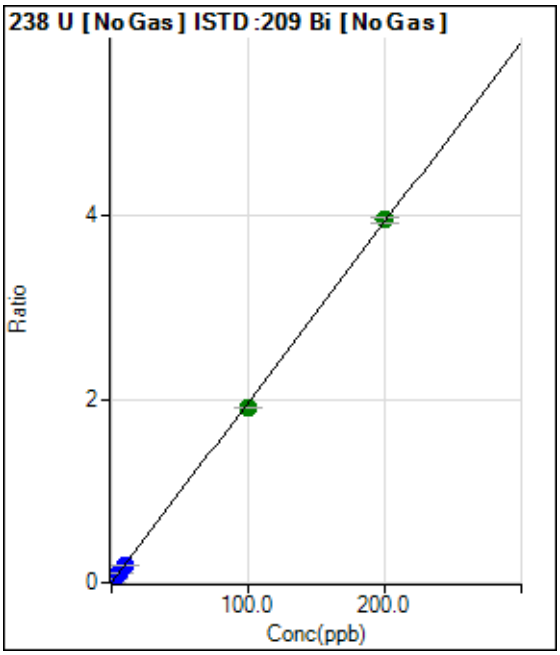
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3036.87	0.0008	P	5.8
2	☐	2.000	1.927	131112.39	0.0349	P	2.8
3	☐	5.000	4.840	322188.54	0.0865	P	1.0
4	☐	10.000	10.009	653286.40	0.1779	P	2.0
5	☐	100.000	100.001	6403659.28	1.7705	A	0.9
6	☐	200.000	200.004	12270618.78	3.5403	A	1.3

y = 0.0177 * x + 8.0000E-004
R = 1.0000
DL = 0.007802
BEC = 0.04521

Weight: <None>
Min Conc: <None>

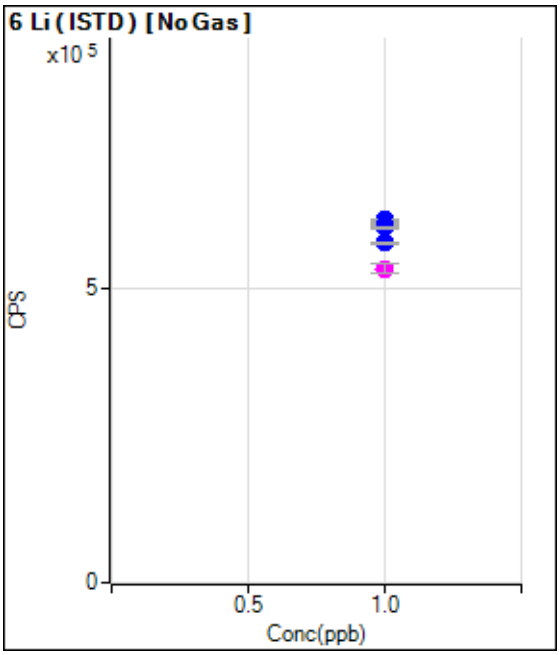


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	333.35	0.0001	P	12.3
2	☐	2.000	1.912	141419.80	0.0376	P	2.3
3	☐	5.000	4.825	353568.09	0.0949	P	0.7
4	☐	10.000	9.937	717055.80	0.1953	P	1.6
5	☐	100.000	97.321	6914949.69	1.9118	A	0.6
6	☐	200.000	201.348	13709118.96	3.9553	A	1.3

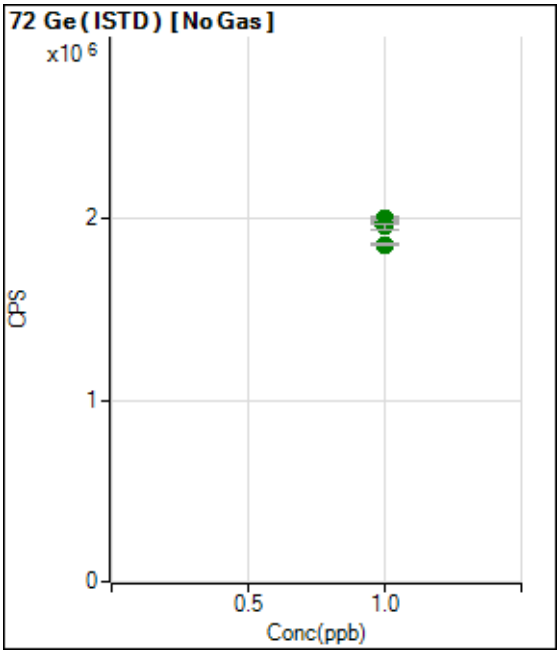
y = 0.0196 * x + 8.7809E-005
R = 0.9999
DL = 0.001653
BEC = 0.00447

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

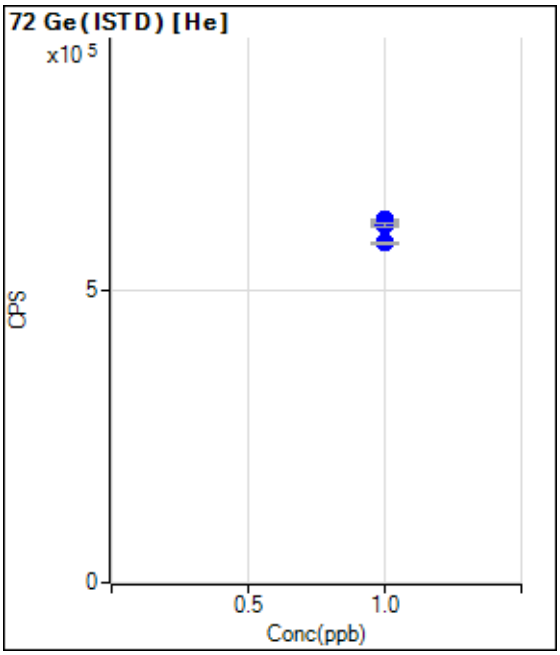


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		618317.02		P	0.4
2	☐	1.000		610790.10		P	0.4
3	☐	1.000		609912.77		P	0.4
4	☐	1.000		605328.69		P	0.3
5	☐	1.000		579642.52		P	0.6
6	☐	1.000		535728.40		M	2.8

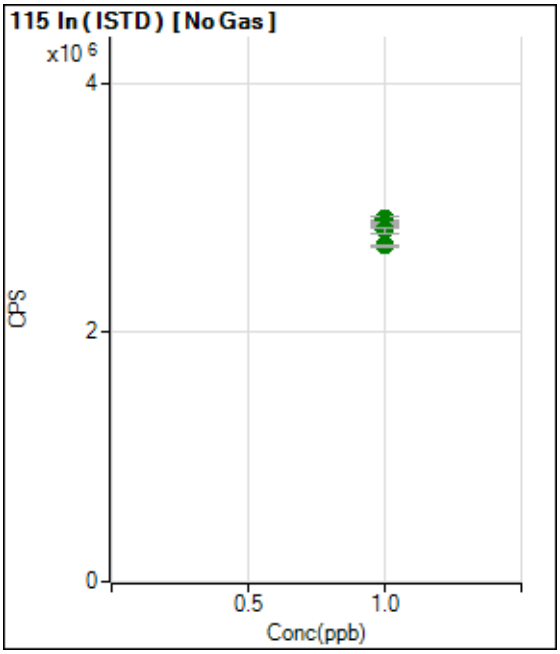


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1997510.18		A	1.0
2	☐	1.000		1986231.12		A	0.9
3	☐	1.000		1986856.12		A	1.5
4	☐	1.000		1983242.89		A	0.9
5	☐	1.000		1957032.47		A	1.6
6	☐	1.000		1855530.49		A	0.7

Calibration for 021_ICV.d

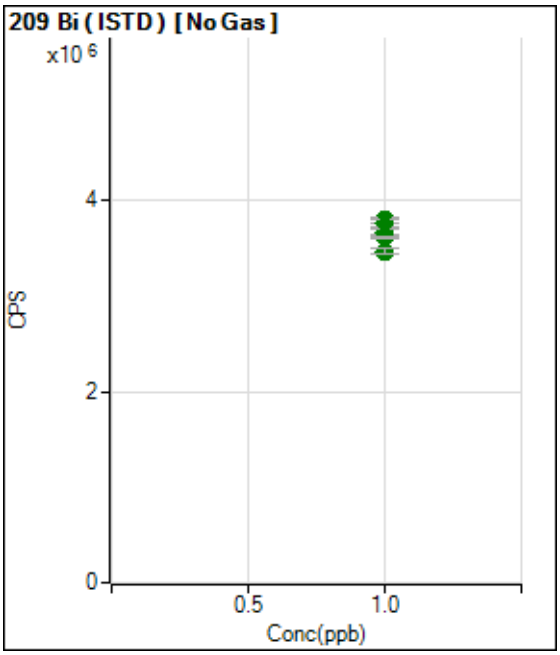


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		620800.38		P	0.4
2	☐	1.000		614767.26		P	0.7
3	☐	1.000		614209.99		P	0.4
4	☐	1.000		616377.02		P	0.5
5	☐	1.000		612321.80		P	0.9
6	☐	1.000		580972.89		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2911757.37		A	1.0
2	☐	1.000		2894970.42		A	2.6
3	☐	1.000		2877989.45		A	0.7
4	☐	1.000		2877053.40		A	0.6
5	☐	1.000		2821825.53		A	1.6
6	☐	1.000		2700385.92		A	0.6

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3796869.42		A	1.4
2	☐	1.000		3758414.84		A	2.0
3	☐	1.000		3726761.51		A	0.3
4	☐	1.000		3672632.13		A	1.8
5	☐	1.000		3616929.74		A	0.5
6	☐	1.000		3466495.57		A	1.7

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	009CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:45:39-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	39971	0.00
Be	9	1	No Gas	100	18.03
V	51	2	He	2816	0.07
Cr	52	2	He	1253	0.64
Fe	56	2	He	8303	0.05
Se	78	2	He	69	10.47
As	75	2	He	107	0.00
Ca	44	2	He	433	2.73
Na	23	2	He	47324	0.00
Mg	24	2	He	1623	0.28
K	39	2	He	53681	0.00
Mn	55	2	He	260	2.96
Co	59	2	He	53	123.46
Ni	60	2	He	257	8.36
Cu	63	2	He	1357	0.83
Zn	66	2	He	977	1.00
Al	27	2	He	890	1.64
B	11	1	No Gas	20046	0.01
Al	27	1	No Gas	32479	0.01
Si	28	1	No Gas	201412	0.00
Ag	107	1	No Gas	1120	0.52
Cd	111	1	No Gas	13	649.52
Sr	88	1	No Gas	1840	0.45
Mo	95	1	No Gas	177	6.67
Sn	118	1	No Gas	2737	0.01
Sb	121	1	No Gas	5491	0.09
Ba	137	1	No Gas	250	11.20
Tl	205	1	No Gas	2450	0.22
Tl	203	1	No Gas	980	0.81
Pb	208	1	No Gas	3037	0.18
U	238	1	No Gas	333	3.64
Ca	43	2	He	17	549.91
Sb	121	2	He	2387	0.27
Ti	47	2	He	7	2598.08
Cu	63	1	No Gas	2830	0.32

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	618317	0.41
Ge	72	2	He	620800	0.36
Ge	72	1	No Gas	1997510	1.03
In	115	1	No Gas	2911757	1.01

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	3796869	1.42

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:47:38-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	4329	0.09
V	51	2	He	12147	0.01
Cr	52	2	He	12673	0.01
Fe	56	2	He	1127052	0.00
Se	78	2	He	243	3.42
As	75	2	He	1756	0.38
Ca	44	2	He	6702	0.06
Na	23	2	He	215351	0.00
Mg	24	2	He	100282	0.00
K	39	2	He	169388	0.00
Mn	55	2	He	9267	0.06
Co	59	2	He	16717	0.01
Ni	60	2	He	4641	0.05
Cu	63	2	He	12756	0.02
Zn	66	2	He	2894	0.12
Al	27	2	He	3319	2.80
B	11	1	No Gas	30663	0.00
Al	27	1	No Gas	60308	0.00
Si	28	1	No Gas	245049	0.00
Ag	107	1	No Gas	33994	0.00
Cd	111	1	No Gas	7009	0.03
Sr	88	1	No Gas	60041	0.00
Mo	95	1	No Gas	11946	0.03
Sn	118	1	No Gas	24319	0.01
Sb	121	1	No Gas	35792	0.00
Ba	137	1	No Gas	11809	0.01
Tl	205	1	No Gas	88036	0.00
Tl	203	1	No Gas	36885	0.00
Pb	208	1	No Gas	131112	0.00
U	238	1	No Gas	141420	0.00
Ca	43	2	He	403	8.02
Sb	121	2	He	17262	0.01
Cu	63	1	No Gas	22876	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	610790	0.44	618317	98.78	70	120	
Ge	72	2	He	614767	0.72	620800	99.03	70	120	
Ge	72	1	No Gas	1986231	0.87	1997510	99.44	70	120	

Calibration Standard Report

In	115	1	No Gas	2894970	2.60	2911757	99.42	70	120	
Bi	209	1	No Gas	3758415	2.01	3796869	98.99	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:49:38-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	10891	0.01
V	51	2	He	26684	0.01
Cr	52	2	He	29185	0.01
Fe	56	2	He	2781919	0.00
Se	78	2	He	458	2.48
As	75	2	He	4271	0.05
Ca	44	2	He	16083	0.01
Na	23	2	He	459821	0.00
Mg	24	2	He	249472	0.00
K	39	2	He	340755	0.00
Mn	55	2	He	22142	0.01
Co	59	2	He	42105	0.00
Ni	60	2	He	10674	0.01
Cu	63	2	He	29389	0.00
Zn	66	2	He	6458	0.10
Al	27	2	He	2304	0.24
B	11	1	No Gas	48580	0.00
Al	27	1	No Gas	88427	0.00
Si	28	1	No Gas	317010	0.00
Ag	107	1	No Gas	84153	0.00
Cd	111	1	No Gas	17111	0.00
Sr	88	1	No Gas	146131	0.00
Mo	95	1	No Gas	30308	0.00
Sn	118	1	No Gas	57536	0.00
Sb	121	1	No Gas	80080	0.00
Ba	137	1	No Gas	29293	0.00
Tl	205	1	No Gas	218255	0.00
Tl	203	1	No Gas	91275	0.00
Pb	208	1	No Gas	322189	0.00
U	238	1	No Gas	353568	0.00
Ca	43	2	He	893	0.47
Sb	121	2	He	38647	0.00
Cu	63	1	No Gas	52906	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	609913	0.37	618317	98.64	70	120	
Ge	72	2	He	614210	0.42	620800	98.94	70	120	
Ge	72	1	No Gas	1986856	1.48	1997510	99.47	70	120	

Calibration Standard Report

In	115	1	No Gas	2877989	0.69	2911757	98.84	70	120	
Bi	209	1	No Gas	3726762	0.32	3796869	98.15	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:51:37-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	22249	0.00
V	51	2	He	50627	0.00
Cr	52	2	He	58649	0.00
Fe	56	2	He	5556819	0.00
Se	78	2	He	862	0.10
As	75	2	He	8531	0.04
Ca	44	2	He	31954	0.00
Na	23	2	He	873824	0.00
Mg	24	2	He	496322	0.00
K	39	2	He	633347	0.00
Mn	55	2	He	45048	0.00
Co	59	2	He	86040	0.00
Ni	60	2	He	21551	0.01
Cu	63	2	He	58549	0.00
Zn	66	2	He	12229	0.05
Al	27	2	He	3837	0.09
B	11	1	No Gas	81169	0.00
Al	27	1	No Gas	174310	0.02
Si	28	1	No Gas	444747	0.00
Ag	107	1	No Gas	170386	0.00
Cd	111	1	No Gas	35010	0.00
Sr	88	1	No Gas	294874	0.00
Mo	95	1	No Gas	60310	0.00
Sn	118	1	No Gas	113318	0.00
Sb	121	1	No Gas	157068	0.00
Ba	137	1	No Gas	58699	0.00
Tl	205	1	No Gas	447526	0.00
Tl	203	1	No Gas	184186	0.00
Pb	208	1	No Gas	653286	0.00
U	238	1	No Gas	717056	0.00
Ca	43	2	He	1777	0.46
Sb	121	2	He	76439	0.00
Cu	63	1	No Gas	102779	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	605329	0.29	618317	97.90	70	120	
Ge	72	2	He	616377	0.50	620800	99.29	70	120	
Ge	72	1	No Gas	1983243	0.95	1997510	99.29	70	120	

Calibration Standard Report

In	115	1	No Gas	2877053	0.63	2911757	98.81	70	120	
Bi	209	1	No Gas	3672632	1.82	3796869	96.73	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:53:37-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	216683	0.00
V	51	2	He	469922	0.00
Cr	52	2	He	554906	0.00
Fe	56	2	He	53230433	0.00
Se	78	2	He	7954	0.01
As	75	2	He	78740	0.00
Ca	44	2	He	308689	0.00
Na	23	2	He	7922373	0.00
Mg	24	2	He	4665169	0.00
K	39	2	He	5686324	0.00
Mn	55	2	He	436962	0.00
Co	59	2	He	821949	0.00
Ni	60	2	He	202223	0.00
Cu	63	2	He	536043	0.00
Zn	66	2	He	110588	0.00
Al	27	2	He	31676	0.01
B	11	1	No Gas	653913	0.00
Al	27	1	No Gas	1191661	0.00
Si	28	1	No Gas	2911760	0.00
Ag	107	1	No Gas	1600249	0.00
Cd	111	1	No Gas	334562	0.00
Sr	88	1	No Gas	2872842	0.00
Mo	95	1	No Gas	577350	0.00
Sn	118	1	No Gas	1078256	0.00
Sb	121	1	No Gas	1512164	0.00
Ba	137	1	No Gas	563831	0.00
Tl	205	1	No Gas	4414188	0.00
Tl	203	1	No Gas	1882222	0.00
Pb	208	1	No Gas	6403659	0.00
U	238	1	No Gas	6914950	0.00
Ca	43	2	He	18419	0.02
Sb	121	2	He	722175	0.00
Cu	63	1	No Gas	949962	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	579643	0.56	618317	93.75	70	120	
Ge	72	2	He	612322	0.86	620800	98.63	70	120	
Ge	72	1	No Gas	1957032	1.63	1997510	97.97	70	120	

Calibration Standard Report

In	115	1	No Gas	2821826	1.60	2911757	96.91	70	120	
Bi	209	1	No Gas	3616930	0.46	3796869	95.26	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	014CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:55:31-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	420249	0.00
V	51	2	He	900818	0.00
Cr	52	2	He	1077944	0.00
Fe	56	2	He	101459748	0.00
Se	78	2	He	15133	0.01
As	75	2	He	153216	0.00
Ca	44	2	He	596426	0.00
Na	23	2	He	15019250	0.00
Mg	24	2	He	8875539	0.00
K	39	2	He	10835327	0.00
Mn	55	2	He	837169	0.00
Co	59	2	He	1609723	0.00
Ni	60	2	He	381059	0.00
Cu	63	2	He	1035846	0.00
Zn	66	2	He	209084	0.00
Al	27	2	He	55360	0.01
B	11	1	No Gas	1271810	0.00
Al	27	1	No Gas	2039441	0.00
Si	28	1	No Gas	4654987	0.00
Ag	107	1	No Gas	3041107	0.00
Cd	111	1	No Gas	645914	0.00
Sr	88	1	No Gas	5443622	0.00
Mo	95	1	No Gas	1147992	0.00
Sn	118	1	No Gas	2126174	0.00
Sb	121	1	No Gas	2897934	0.00
Ba	137	1	No Gas	1082699	0.00
Tl	205	1	No Gas	8461857	0.00
Tl	203	1	No Gas	3573001	0.00
Pb	208	1	No Gas	12270619	0.00
U	238	1	No Gas	13709119	0.00
Ca	43	2	He	34761	0.00
Sb	121	2	He	1453945	0.00
Cu	63	1	No Gas	1821544	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	535728	2.78	618317	86.64	70	120	
Ge	72	2	He	580973	0.66	620800	93.58	70	120	
Ge	72	1	No Gas	1855530	0.67	1997510	92.89	70	120	

Calibration Standard Report

In	115	1	No Gas	2700386	0.58	2911757	92.74	70	120	
Bi	209	1	No Gas	3466496	1.71	3796869	91.30	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	016_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:59:22-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	93.490	2.845	871625	2.88	100	93.5	90	110	
Be	9	1	No Gas	94.325	0.990	214857	0.34	100	94.3	90	110	
V	51	2	He	97.094	0.510	457991	0.33	100	97.1	90	110	
Cr	52	2	He	96.803	0.504	544158	0.46	100	96.8	90	110	
Fe	56	2	He	9850.536	0.933	52269163	0.57	10000	98.5	90	110	
Se	78	2	He	96.618	0.256	7677	0.65	100	96.6	90	110	
As	75	2	He	97.984	1.125	78230	0.54	100	98.0	90	110	
Ca	44	2	He	9762.688	0.584	303833	0.10	10000	97.6	90	110	
Na	23	2	He	9895.975	1.208	7800152	0.95	10000	99.0	90	110	
Mg	24	2	He	9906.327	1.372	4600684	1.57	10000	99.1	90	110	
K	39	2	He	9784.635	1.127	5566140	0.62	10000	97.8	90	110	
Mn	55	2	He	98.081	0.909	429025	0.41	100	98.1	90	110	
Co	59	2	He	96.079	0.979	804443	0.74	100	96.1	90	110	
Ni	60	2	He	99.027	1.764	197887	1.25	100	99.0	90	110	
Cu	63	2	He	98.193	0.320	531031	0.30	100	98.2	90	110	
Zn	66	2	He	98.826	0.373	108618	0.70	100	98.8	90	110	
Al	27	2	He	97.120	2.752	28994	2.39	100	97.1	90	110	
B	11	1	No Gas	316.271	0.958	447432	0.35	500	63.3	90	110	ICV Main CR1 Failed
Al	27	1	No Gas	98.352	1.125	1090549	0.93	100	98.4	90	110	
Si	28	1	No Gas	330.918	1.830	1797865	1.72	500	66.2	90	110	ICV Main CR1 Failed
Ag	107	1	No Gas	99.203	0.305	1583599	0.97	100	99.2	90	110	
Cd	111	1	No Gas	97.740	1.209	330217	0.53	100	97.7	90	110	
Sr	88	1	No Gas	98.938	2.416	2828294	1.82	100	98.9	90	110	
Mo	95	1	No Gas	95.791	0.849	571947	0.36	100	95.8	90	110	
Sn	118	1	No Gas	94.205	0.907	1044468	0.57	100	94.2	90	110	
Sb	121	1	No Gas	96.422	0.326	1467565	0.25	100	96.4	90	110	
Ba	137	1	No Gas	96.479	0.830	547056	0.30	100	96.5	90	110	
Tl	205	1	No Gas	98.008	1.239	4317943	1.00	100	98.0	90	110	
Tl	203	1	No Gas	98.112	2.402	1828870	2.77	100	98.1	90	110	
Pb	208	1	No Gas	98.113	0.914	6268387	0.28	100	98.1	90	110	
U	238	1	No Gas	96.120	1.625	6814646	2.35	100	96.1	90	110	
Ca	43	2	He	9691.590	2.105	17655	1.65	10000	96.9	90	110	
Sb	121	2	He	94.391	0.403	711015	0.68	100	94.4	90	110	
Ti	47	2	He	98.976	4.185	17658	4.71	100	99.0	90	110	
Cu	63	1	No Gas	97.801	0.529	935363	0.36	100	97.8	90	110	
Se	82	1	No Gas	93.259	1.636	15917	1.60	100	93.3	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	586000	0.68	618317	94.77	70	120	
Ge	72	2	He	608128	0.62	620800	97.96	70	120	
Ge	72	1	No Gas	1950216	0.18	1997510	97.63	70	120	
In	115	1	No Gas	2829724	0.68	2911757	97.18	70	120	
Bi	209	1	No Gas	3608794	1.17	3796869	95.05	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	017_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:01:17-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	-0.059	-15.6	39734	0.6	0.5	
Be	9	1	No Gas	0.042	11.5	202	6.2	0.5	
V	51	2	He	-0.204	-5.4	1865	2.7	2.5	
Cr	52	2	He	-0.040	-57.4	1040	12.6	2.5	
Fe	56	2	He	0.989	23.8	13847	9.3	100	
Se	78	2	He	0.054	22.8	75	1.5	1	
As	75	2	He	-0.017	-61.4	94	8.9	2.5	
Ca	44	2	He	-1.120	-140.4	403	12.7	100	
Na	23	2	He	3.213	8.3	50579	0.2	100	
Mg	24	2	He	-1.185	-26.3	1077	14.1	100	
K	39	2	He	-2.616	-41.5	52891	1.3	100	
Mn	55	2	He	-0.015	-61.4	197	20.6	2.5	
Co	59	2	He	0.001	341.7	60	33.3	2.5	
Ni	60	2	He	-0.040	-48.7	177	22.9	2.5	
Cu	63	2	He	-0.059	-31.6	1043	9.7	1	
Zn	66	2	He	-0.488	-7.5	440	9.1	2.5	
Al	27	2	He	-0.753	-29.1	677	9.6	5	
B	11	1	No Gas	10.794	17.7	35752	7.2	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.557	-7.3	26312	1.1	5	
Si	28	1	No Gas	1.990	32.3	211135	2.5	10	
Ag	107	1	No Gas	-0.015	-19.4	873	4.0	2.5	
Cd	111	1	No Gas	0.006	161.3	33	96.4	1	
Sr	88	1	No Gas	-0.023	-13.5	1177	8.4	2.5	
Mo	95	1	No Gas	0.221	35.2	1527	29.7	2.5	
Sn	118	1	No Gas	0.126	52.0	4157	16.4	5	
Sb	121	1	No Gas	-0.064	-36.0	4498	7.7	2.5	
Ba	137	1	No Gas	-0.008	-184.3	203	43.0	2.5	
Tl	205	1	No Gas	1.066	55.0	50583	51.5	1	ICB Main CR1 Failed
Tl	203	1	No Gas	1.049	54.5	21018	51.1	1	ICB Main CR1 Failed
Pb	208	1	No Gas	0.004	194.6	3217	13.6	2.5	
U	238	1	No Gas	0.025	46.6	2164	38.7	2.5	
Ca	43	2	He	-1.871	-165.5	13	43.3	100	
Sb	121	2	He	-0.051	-28.4	2027	5.7	2.5	
Ti	47	2	He	0.072	150.4	20	100.0	2.5	
Se	82	1	No Gas	-0.460	-68.7	-50	-111.2	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	623342	0.54	618317	100.81	70	120	
Ge	72	2	He	629314	0.34	620800	101.37	70	120	
Ge	72	1	No Gas	1996055	1.24	1997510	99.93	70	120	
In	115	1	No Gas	2906143	1.46	2911757	99.81	70	120	
Bi	209	1	No Gas	3719309	1.36	3796869	97.96	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	018LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:03:17-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	1.786	1.786	0.68	57000	0.00	2	
Be	9	1	No Gas	1.870	1.870	1.29	4611	0.04	2	
V	51	2	He	2.060	2.060	1.71	12694	0.02	2	
Cr	52	2	He	1.984	1.984	2.87	12629	0.02	2	
Fe	56	2	He	212.894	212.894	1.04	1162782	0.02	200	
Se	78	2	He	2.134	2.134	16.05	241	0.88	2	
As	75	2	He	2.078	2.078	5.52	1800	0.12	2	
Ca	44	2	He	204.612	204.612	5.59	6935	2.95	200	
Na	23	2	He	212.549	212.549	0.71	217610	0.10	200	
Mg	24	2	He	209.496	209.496	0.76	101037	0.21	200	
K	39	2	He	200.774	200.774	0.65	169388	0.12	200	
Mn	55	2	He	2.077	2.077	2.56	9540	0.02	2	
Co	59	2	He	2.011	2.011	3.24	17261	0.01	2	
Ni	60	2	He	2.122	2.122	4.91	4584	0.05	2	
Cu	63	2	He	2.063	2.063	1.50	12733	0.02	2	
Zn	66	2	He	1.607	1.607	3.92	2767	0.06	2	
Al	27	2	He	3.218	3.218	8.87	1844	0.17	2	NewName Main CR1 Failed
B	11	1	No Gas	12.623	12.623	3.10	38239	0.03	10	
Al	27	1	No Gas	2.622	2.622	6.97	61817	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	12.026	12.026	34.94	262727	0.00	10	
Ag	107	1	No Gas	2.024	2.024	1.89	34746	0.01	2	
Cd	111	1	No Gas	2.064	2.064	5.32	7272	0.03	2	
Sr	88	1	No Gas	2.018	2.018	2.75	61896	0.00	2	
Mo	95	1	No Gas	2.034	2.034	5.01	12439	0.02	2	
Sn	118	1	No Gas	1.949	1.949	1.96	25205	0.01	2	
Sb	121	1	No Gas	1.887	1.887	3.10	35044	0.01	2	
Ba	137	1	No Gas	1.990	1.990	1.55	11999	0.02	2	
Tl	205	1	No Gas	1.908	1.908	0.57	88939	0.00	2	
Tl	203	1	No Gas	1.914	1.914	1.07	37697	0.01	2	
Pb	208	1	No Gas	1.954	1.954	0.67	131506	0.00	2	
U	238	1	No Gas	1.910	1.910	0.76	139818	0.00	2	
Ca	43	2	He	207.690	207.690	19.40	403	51.49	200	
Sb	121	2	He	1.969	1.969	2.17	16781	0.01	2	
Ti	47	2	He	1.775	1.775	20.61	330	0.54	200	
Cu	63	1	No Gas	2.049	2.049	1.54	23003	0.01	2	
Se	82	1	No Gas	0.982	0.982	62.00	203	0.48	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	620785	0.47	618317	100.40	70	120	
Ge	72	2	He	621586	0.68	620800	100.13	70	120	
Ge	72	1	No Gas	2011524	0.80	1997510	100.70	70	120	
In	115	1	No Gas	2946243	0.89	2911757	101.18	70	120	
Bi	209	1	No Gas	3717292	0.61	3796869	97.90	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	019LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:05:16-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	4.471	4.471	1.45	82072	0.01	5	
Be	9	1	No Gas	4.775	4.775	2.93	11133	0.04	5	
V	51	2	He	5.010	5.010	0.60	27076	0.02	5	
Cr	52	2	He	4.964	4.964	2.60	29980	0.02	5	
Fe	56	2	He	508.464	508.464	1.79	2790912	0.02	500	
Se	78	2	He	4.588	4.588	12.08	443	1.04	5	
As	75	2	He	5.030	5.030	1.62	4245	0.12	5	
Ca	44	2	He	487.842	487.842	0.75	16076	3.03	500	
Na	23	2	He	515.047	515.047	0.51	464071	0.11	500	
Mg	24	2	He	515.289	515.289	0.64	248386	0.21	500	
K	39	2	He	494.869	494.869	0.38	341870	0.14	500	
Mn	55	2	He	4.959	4.959	2.04	22626	0.02	5	
Co	59	2	He	4.901	4.901	2.51	42376	0.01	5	
Ni	60	2	He	5.169	5.169	0.96	10901	0.05	5	
Cu	63	2	He	5.129	5.129	0.85	29910	0.02	5	
Zn	66	2	He	4.860	4.860	3.05	6448	0.08	5	
Al	27	2	He	5.215	5.215	3.40	2457	0.21	5	
B	11	1	No Gas	24.523	24.523	3.53	53254	0.05	25	
Al	27	1	No Gas	5.181	5.181	2.03	90040	0.01	5	
Si	28	1	No Gas	23.974	23.974	1.42	321771	0.01	25	
Ag	107	1	No Gas	5.091	5.091	0.54	86018	0.01	5	
Cd	111	1	No Gas	4.958	4.958	1.44	17522	0.03	5	
Sr	88	1	No Gas	4.868	4.868	1.28	147236	0.00	5	
Mo	95	1	No Gas	5.084	5.084	3.22	30946	0.02	5	
Sn	118	1	No Gas	4.827	4.827	1.43	58577	0.01	5	
Sb	121	1	No Gas	4.764	4.764	1.46	79859	0.01	5	
Ba	137	1	No Gas	4.768	4.768	2.42	28498	0.02	5	
Tl	205	1	No Gas	4.801	4.801	1.05	220730	0.00	5	
Tl	203	1	No Gas	4.713	4.713	1.59	91631	0.01	5	
Pb	208	1	No Gas	4.854	4.854	0.28	323083	0.00	5	
U	238	1	No Gas	4.786	4.786	1.40	350650	0.00	5	
Ca	43	2	He	509.363	509.363	16.07	973	52.33	500	
Sb	121	2	He	5.052	5.052	0.80	39674	0.01	5	
Ti	47	2	He	4.876	4.876	8.75	903	0.54	5	
Cu	63	1	No Gas	5.118	5.118	2.60	53067	0.01	5	
Se	82	1	No Gas	4.392	4.392	11.23	801	0.55	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	618547	0.32	618317	100.04	70	120	
Ge	72	2	He	627244	0.32	620800	101.04	70	120	
Ge	72	1	No Gas	2007100	1.06	1997510	100.48	70	120	

Sample Report

In	115	1	No Gas	2957710	0.55	2911757	101.58	70	120	
Bi	209	1	No Gas	3726675	1.47	3796869	98.15	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	022ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:11:11-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.800	16.3	45077	1.9	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.012	125.8	122	27.4	0	ICSA Main CR1 Failed
V	51	2	He	0.370	7.0	4192	2.3	0	ICSA Main CR1 Failed
Cr	52	2	He	1.968	2.2	11442	2.4	0	ICSA Main CR1 Failed
Fe	56	2	He	97580.868	0.6	482973819	0.3	0	
Se	78	2	He	0.399	67.5	93	21.3	0	ICSA Main CR1 Failed
As	75	2	He	0.175	1.7	228	0.8	0	ICSA Main CR1 Failed
Ca	44	2	He	98856.879	1.1	2866550	1.1	0	
Na	23	2	He	98707.226	0.3	72195091	0.6	0	
Mg	24	2	He	98570.345	0.6	42691271	0.2	0	
K	39	2	He	99624.767	0.2	52421404	0.6	0	
Mn	55	2	He	0.415	9.2	1930	7.7	0	ICSA Main CR1 Failed
Co	59	2	He	0.091	13.8	757	12.5	0	ICSA Main CR1 Failed
Ni	60	2	He	0.143	23.7	500	12.5	0	ICSA Main CR1 Failed
Cu	63	2	He	0.120	5.4	1843	1.7	0	ICSA Main CR1 Failed
Zn	66	2	He	0.736	24.3	1640	11.1	0	ICSA Main CR1 Failed
Al	27	2	He	93552.762	0.7	25272680	0.3	0	
B	11	1	No Gas	9.578	24.8	31345	10.4	0	
Al	27	1	No Gas	89438.899	1.7	919859986	0.4	0	
Si	28	1	No Gas	29.056	4.9	322134	0.3	0	
Ag	107	1	No Gas	0.261	2.3	4864	1.7	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.848	4.0	5798	3.6	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.124	0.7	31424	0.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1996.469	0.4	10718030	0.5	0	
Sn	118	1	No Gas	0.247	32.0	4998	16.4	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.028	182.5	5521	13.1	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.373	8.0	2187	7.8	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	1.389	52.1	57428	50.4	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	1.345	52.2	23500	50.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.083	6.6	7424	4.8	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.029	55.0	2137	47.8	0	ICSA Main CR1 Failed
Ca	43	2	He	96953.338	0.6	164635	0.4	0	
Sb	121	2	He	0.025	36.5	2347	3.0	0	ICSA Main CR1 Failed
Ti	47	2	He	1994.902	0.8	331851	0.5	0	
Se	82	1	No Gas	-0.647	-49.2	-77	-66.7	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	586893	0.70	618317	94.92	70	120	
Ge	72	2	He	567313	0.42	620800	91.38	70	120	
Ge	72	1	No Gas	1863392	1.94	1997510	93.29	70	120	
In	115	1	No Gas	2623272	0.71	2911757	90.09	70	120	
Bi	209	1	No Gas	3259697	0.81	3796869	85.85	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	023ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:13:13-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	93.247	1.577	817871	1.94	100	93.2	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	98.481	1.385	202853	0.92	100	98.5	80	120	
V	51	2	He	99.958	1.011	433472	0.64	100	100.0	80	120	
Cr	52	2	He	99.571	1.231	514675	1.87	100	99.6	80	120	
Fe	56	2	He	108361.975	0.859	528639805	0.26	100	108362.0	80	120	
Se	78	2	He	102.800	0.186	7507	0.78	100	102.8	80	120	
As	75	2	He	102.729	1.181	75420	1.72	100	102.7	80	120	
Ca	44	2	He	108157.156	2.526	3090947	1.88	100	108157.2	80	120	
Na	23	2	He	109567.336	0.772	78982835	0.36	100	109567.3	80	120	
Mg	24	2	He	107944.746	0.896	46080574	0.43	100	107944.7	80	120	
K	39	2	He	108503.560	2.042	56264796	1.17	100	108503.6	80	120	
Mn	55	2	He	98.869	0.702	397668	0.21	100	98.9	80	120	
Co	59	2	He	96.776	0.509	745077	0.49	100	96.8	80	120	
Ni	60	2	He	97.337	0.932	178865	0.62	100	97.3	80	120	
Cu	63	2	He	96.441	0.764	479638	1.66	100	96.4	80	120	
Zn	66	2	He	99.586	1.419	100645	2.14	100	99.6	80	120	
Al	27	2	He	93642.490	2.527	24932804	2.04	100	93642.5	80	120	
B	11	1	No Gas	491.164	0.936	610494	0.45	100	491.2	80	120	
Al	27	1	No Gas	89218.553	1.545	900943107	1.22	100	89218.6	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	503.238	1.180	2468455	1.33	100	503.2	80	120	
Ag	107	1	No Gas	95.585	1.289	1403845	0.49	100	95.6	80	120	
Cd	111	1	No Gas	98.558	1.510	306369	0.68	100	98.6	80	120	
Sr	88	1	No Gas	102.552	1.850	2697308	1.05	100	102.6	80	120	
Mo	95	1	No Gas	2108.764	2.161	11234922	1.31	100	2108.8	80	120	
Sn	118	1	No Gas	97.489	1.088	994410	0.32	100	97.5	80	120	
Sb	121	1	No Gas	96.316	2.017	1374914	1.24	100	96.3	80	120	
Ba	137	1	No Gas	100.005	1.190	521721	0.43	100	100.0	80	120	
Tl	205	1	No Gas	98.560	2.292	3891392	1.25	100	98.6	80	120	
Tl	203	1	No Gas	96.123	2.330	1605593	0.99	100	96.1	80	120	
Pb	208	1	No Gas	100.117	1.999	5732344	0.65	100	100.1	80	120	
U	238	1	No Gas	103.032	1.400	6545955	0.49	100	103.0	80	120	
Ca	43	2	He	107461.945	0.635	179865	0.77	100	107461.9	80	120	
Sb	121	2	He	101.405	0.306	668891	0.77	100	101.4	80	120	
Ti	47	2	He	2108.634	2.019	345715	1.16	100	2108.6	80	120	
Cu	63	1	No Gas	94.543	0.670	848202	0.38	100	94.5	80	120	
Se	82	1	No Gas	100.622	2.223	16106	2.21	100	100.6	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	551215	0.52	618317	89.15	70	120	
Ge	72	2	He	559193	0.90	620800	90.08	70	120	
Ge	72	1	No Gas	1829281	0.79	1997510	91.58	70	120	
In	115	1	No Gas	2603650	0.89	2911757	89.42	70	120	
Bi	209	1	No Gas	3234509	1.39	3796869	85.19	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	025_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:20:25-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	95.221	1.756	843957	0.93	100	95.2	90	110	
Be	9	1	No Gas	96.711	1.020	201507	0.40	100	96.7	90	110	
V	51	2	He	96.466	0.429	454134	0.32	100	96.5	90	110	
Cr	52	2	He	96.014	0.910	538638	0.48	100	96.0	90	110	
Fe	56	2	He	9849.181	1.856	52154161	1.13	10000	98.5	90	110	
Se	78	2	He	95.686	2.757	7587	2.21	100	95.7	90	110	
As	75	2	He	95.339	0.499	75973	1.00	100	95.3	90	110	
Ca	44	2	He	9793.507	0.897	304174	0.15	10000	97.9	90	110	
Na	23	2	He	9730.074	1.502	7654490	0.81	10000	97.3	90	110	
Mg	24	2	He	9908.689	1.216	4592324	0.82	10000	99.1	90	110	
K	39	2	He	9831.446	1.278	5581447	1.27	10000	98.3	90	110	
Mn	55	2	He	95.529	0.586	417040	0.56	100	95.5	90	110	
Co	59	2	He	95.365	0.887	796858	0.40	100	95.4	90	110	
Ni	60	2	He	99.168	0.794	197779	0.64	100	99.2	90	110	
Cu	63	2	He	97.298	0.729	525136	0.02	100	97.3	90	110	
Zn	66	2	He	96.369	1.466	105723	0.81	100	96.4	90	110	
Al	27	2	He	93.915	1.293	28012	1.63	100	93.9	90	110	
B	11	1	No Gas	-0.568	-51.822	17381	1.38	500	-0.1	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	93.801	3.685	1036579	2.25	100	93.8	90	110	
Si	28	1	No Gas	49.928	18.015	436600	11.14	5000	1.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.177	0.369	1588252	1.37	100	99.2	90	110	
Cd	111	1	No Gas	97.314	0.880	329832	0.80	100	97.3	90	110	
Sr	88	1	No Gas	97.469	1.676	2795195	0.91	100	97.5	90	110	
Mo	95	1	No Gas	96.628	0.939	561505	0.85	100	96.6	90	110	
Sn	118	1	No Gas	94.191	1.338	1047584	0.30	100	94.2	90	110	
Sb	121	1	No Gas	98.210	0.592	1488035	1.73	100	98.2	90	110	
Ba	137	1	No Gas	97.332	1.639	553608	0.31	100	97.3	90	110	
Tl	205	1	No Gas	99.008	2.669	4419432	2.52	100	99.0	90	110	
Tl	203	1	No Gas	98.247	1.295	1855365	0.96	100	98.2	90	110	
Pb	208	1	No Gas	95.852	0.596	6204917	0.71	100	95.9	90	110	
U	238	1	No Gas	91.322	1.179	6559295	1.34	100	91.3	90	110	
Ca	43	2	He	9455.294	2.543	17191	2.45	10000	94.6	90	110	
Sb	121	2	He	98.974	0.568	708620	0.71	100	99.0	90	110	
Ti	47	2	He	97.652	1.100	17385	1.17	100	97.7	90	110	
Cu	63	1	No Gas	96.766	1.431	921260	0.56	100	96.8	90	110	
Se	82	1	No Gas	96.575	0.813	16408	0.95	100	96.6	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	557580	0.75	618317	90.18	70	120	
Ge	72	2	He	606909	0.74	620800	97.76	70	120	
Ge	72	1	No Gas	1941496	1.31	1997510	97.20	70	120	
In	115	1	No Gas	2838905	1.63	2911757	97.50	70	120	
Bi	209	1	No Gas	3656220	0.37	3796869	96.30	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	026_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:22:20-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	0.026	205.8	39022	1.6	0.5	
Be	9	1	No Gas	0.034	63.9	173	27.7	0.5	
V	51	2	He	-0.253	-3.8	1631	2.3	2.5	
Cr	52	2	He	-0.032	-103.6	1090	17.5	2.5	
Fe	56	2	He	2.830	4.3	24058	3.5	100	
Se	78	2	He	0.164	54.2	84	8.2	2	
As	75	2	He	-0.039	-12.0	77	4.4	2.5	
Ca	44	2	He	-2.503	-78.2	360	16.9	100	
Na	23	2	He	13.685	8.7	59323	2.3	100	
Mg	24	2	He	-0.413	-33.6	1453	4.5	100	
K	39	2	He	2.731	48.9	56245	1.7	100	
Mn	55	2	He	0.024	30.0	373	9.4	2.5	
Co	59	2	He	0.002	166.6	70	37.8	2.5	
Ni	60	2	He	0.091	3.9	450	2.2	2.5	
Cu	63	2	He	-0.078	-50.6	947	24.1	2	
Zn	66	2	He	-0.300	-55.4	653	28.2	2.5	
Al	27	2	He	-0.508	-92.8	753	18.6	5	
B	11	1	No Gas	-3.366	-7.5	15030	2.5	0.5	
Al	27	1	No Gas	-0.420	-11.2	28102	1.1	5	
Si	28	1	No Gas	2.210	41.6	214308	0.2	10	
Ag	107	1	No Gas	-0.045	-8.0	390	16.8	2.5	
Cd	111	1	No Gas	0.002	155.1	20	50.0	1	
Sr	88	1	No Gas	-0.025	-12.0	1133	6.6	2.5	
Mo	95	1	No Gas	0.373	27.1	2447	23.5	2.5	
Sn	118	1	No Gas	0.142	26.5	4458	8.4	5	
Sb	121	1	No Gas	-0.210	-4.4	2244	5.7	2.5	
Ba	137	1	No Gas	-0.009	-179.5	200	47.7	2.5	
Tl	205	1	No Gas	0.899	57.0	43307	55.6	1	
Tl	203	1	No Gas	0.866	59.7	17632	58.1	1	
Pb	208	1	No Gas	-0.004	-153.5	2710	16.6	2.5	
U	238	1	No Gas	0.021	45.1	1850	39.0	2.5	
Ca	43	2	He	1.574	666.2	20	100.0	100	
Sb	121	2	He	-0.191	-7.4	1013	10.6	2.5	
Ti	47	2	He	0.072	131.2	20	86.6	2.5	
Cu	63	1	No Gas	-0.093	-20.3	1947	11.4	2.5	
Se	82	1	No Gas	-0.545	-112.8	-67	-163.1	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	599982	0.40	618317	97.03	70	120	
Ge	72	2	He	631956	0.73	620800	101.80	70	120	
Ge	72	1	No Gas	2016475	2.33	1997510	100.95	70	120	
In	115	1	No Gas	2980630	1.49	2911757	102.37	70	120	
Bi	209	1	No Gas	3708256	1.72	3796869	97.67	70	120	

Sample Report

Sample Table

Sample Name	HS21050553-01
Data File Name	034SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:40:33-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	009CALB.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	12.205	12.205	0.62	145414	0.01	2000	
Be	9	1	No Gas	0.000	0.000	-3463.64	93	0.00	2000	
V	51	2	He	1.054	1.054	6.84	6926	0.02	2000	
Cr	52	2	He	9.303	9.303	0.34	48041	0.02	2000	
Fe	56	2	He	291.354	291.354	1.32	1398026	0.02	200000	
Se	78	2	He	0.483	0.483	47.11	95	0.51	2000	
As	75	2	He	0.859	0.859	3.96	710	0.12	2000	
Ca	44	2	He	5072.369	5072.369	1.26	142188	3.57	200000	
Na	23	2	He	429108.247	429108.247	0.70	302481462	0.14	200000	>LDR
Mg	24	2	He	6942.145	6942.145	1.42	2900987	0.24	200000	
K	39	2	He	1348.895	1348.895	0.96	731052	0.18	200000	
Mn	55	2	He	47.507	47.507	1.11	187036	0.03	2000	
Co	59	2	He	0.767	0.767	1.43	5828	0.01	2000	
Ni	60	2	He	3.893	3.893	2.33	7215	0.05	2000	
Cu	63	2	He	1.421	1.421	7.57	8089	0.02	2000	
Zn	66	2	He	34.896	34.896	0.09	35059	0.10	2000	
Al	27	2	He	41.981	41.981	8.20	11730	0.36	2000	
B	11	1	No Gas	44.827	44.827	2.31	75820	0.06	2000	
Al	27	1	No Gas	44.872	44.872	11.09	481271	0.01	2000	
Si	28	1	No Gas	10639.407	10639.407	1.42	48280219	0.02	2000	>LDR
Ag	107	1	No Gas	-0.045	-0.045	-12.02	340	-0.01	2000	
Cd	111	1	No Gas	0.042	0.042	37.44	140	0.03	2000	
Sr	88	1	No Gas	157.399	157.399	1.06	4093542	0.00	2000	
Mo	95	1	No Gas	4.301	4.301	3.15	22833	0.02	2000	
Sn	118	1	No Gas	-0.105	-0.105	-12.49	1360	-0.01	2000	
Sb	121	1	No Gas	0.163	0.163	5.07	7312	0.00	2000	
Ba	137	1	No Gas	103.592	103.592	1.41	534445	0.02	2000	
Tl	205	1	No Gas	-0.042	-0.042	-4.90	427	-0.01	2000	
Tl	203	1	No Gas	-0.037	-0.037	-5.95	213	-0.02	2000	
Pb	208	1	No Gas	0.125	0.125	4.34	9635	0.00	2000	
U	238	1	No Gas	0.764	0.764	0.60	48376	0.00	2000	
Ca	43	2	He	5285.758	5285.758	1.91	8670	60.97	200000	
Sb	121	2	He	0.208	0.208	24.67	3437	0.01	2000	
Ti	47	2	He	1.578	1.578	50.90	260	0.61	2000	
Cu	63	1	No Gas	2.218	2.218	2.27	22352	0.01	2000	
Zn	66	1	No Gas	35.172	35.172	2.64	89373	0.04	2000	
Se	82	1	No Gas	-0.344	-0.344	-76.10	-27	1.27	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	580778	0.34	618317	93.93	70	120	
Ge	72	2	He	547054	1.62	620800	88.12	70	120	
Ge	72	1	No Gas	1822318	2.38	1997510	91.23	70	120	
In	115	1	No Gas	2575172	2.17	2911757	88.44	70	120	
Bi	209	1	No Gas	3203203	1.42	3796869	84.36	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	037_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:46:34-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	97.550	0.767	831611	1.17	100	97.5	90	110	
Be	9	1	No Gas	94.990	0.957	190549	0.46	100	95.0	90	110	
V	51	2	He	97.959	0.938	411836	0.63	100	98.0	90	110	
Cr	52	2	He	97.369	0.389	487859	0.31	100	97.4	90	110	
Fe	56	2	He	10059.564	1.334	47577754	1.03	10000	100.6	90	110	
Se	78	2	He	94.980	0.513	6728	0.79	100	95.0	90	110	
As	75	2	He	96.504	1.118	68679	0.84	100	96.5	90	110	
Ca	44	2	He	9960.420	0.676	276297	0.53	10000	99.6	90	110	
Na	23	2	He	10244.191	1.609	7195857	1.55	10000	102.4	90	110	
Mg	24	2	He	10219.703	0.843	4230306	0.55	10000	102.2	90	110	
K	39	2	He	9970.003	1.556	5054425	1.24	10000	99.7	90	110	
Mn	55	2	He	97.797	0.659	381307	0.42	100	97.8	90	110	
Co	59	2	He	96.970	0.501	723681	0.24	100	97.0	90	110	
Ni	60	2	He	99.872	1.517	177892	1.31	100	99.9	90	110	
Cu	63	2	He	98.434	0.322	474489	0.44	100	98.4	90	110	
Zn	66	2	He	99.011	0.748	96994	0.82	100	99.0	90	110	
Al	27	2	He	94.120	1.740	25069	1.40	100	94.1	90	110	
B	11	1	No Gas	-0.354	-76.709	16987	2.30	500	-0.1	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	94.187	2.650	948177	1.10	100	94.2	90	110	
Si	28	1	No Gas	60.375	8.688	443155	4.49	5000	1.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.845	1.334	1438982	0.87	100	100.8	90	110	
Cd	111	1	No Gas	99.332	1.041	300024	1.18	100	99.3	90	110	
Sr	88	1	No Gas	100.838	0.660	2577079	0.21	100	100.8	90	110	
Mo	95	1	No Gas	99.217	0.263	513779	0.23	100	99.2	90	110	
Sn	118	1	No Gas	97.002	0.593	961371	0.56	100	97.0	90	110	
Sb	121	1	No Gas	99.616	1.358	1374762	0.14	100	99.6	90	110	
Ba	137	1	No Gas	101.835	0.284	516198	0.40	100	101.8	90	110	
Tl	205	1	No Gas	101.887	1.608	4145992	0.58	100	101.9	90	110	
Tl	203	1	No Gas	99.813	1.932	1718338	0.99	100	99.8	90	110	
Pb	208	1	No Gas	99.250	1.422	5856982	0.26	100	99.3	90	110	
U	238	1	No Gas	92.952	0.310	6086840	0.93	100	93.0	90	110	
Ca	43	2	He	9851.540	4.154	15996	4.00	10000	98.5	90	110	
Sb	121	2	He	101.819	0.491	651022	0.62	100	101.8	90	110	
Ti	47	2	He	97.926	4.545	15569	4.32	100	97.9	90	110	
Cu	63	1	No Gas	97.867	0.929	848840	0.76	100	97.9	90	110	
Se	82	1	No Gas	96.489	1.327	14936	2.38	100	96.5	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	536798	0.61	618317	86.82	70	120	
Ge	72	2	He	542042	0.30	620800	87.31	70	120	
Ge	72	1	No Gas	1768755	1.49	1997510	88.55	70	120	
In	115	1	No Gas	2529631	0.46	2911757	86.88	70	120	
Bi	209	1	No Gas	3333461	1.21	3796869	87.79	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	038_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:48:28-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.684	13.5	42308	1.5	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.015	55.8	123	14.2	0.5	
V	51	2	He	-0.136	-8.8	1945	2.6	2.5	
Cr	52	2	He	-0.019	-54.0	1030	5.1	2.5	
Fe	56	2	He	1.429	12.7	14408	5.9	100	
Se	78	2	He	0.162	132.3	74	21.1	2	
As	75	2	He	0.000	-8685.2	96	25.7	2.5	
Ca	44	2	He	0.256	1363.2	397	25.3	100	
Na	23	2	He	162.980	2.7	159601	1.7	100	CCB Main CR1 Failed
Mg	24	2	He	-1.100	-11.2	990	5.2	100	
K	39	2	He	3.192	39.9	49867	1.5	100	
Mn	55	2	He	0.018	54.8	307	13.2	2.5	
Co	59	2	He	0.002	299.6	60	60.1	2.5	
Ni	60	2	He	0.076	12.6	370	4.7	2.5	
Cu	63	2	He	0.006	218.2	1250	5.2	2	
Zn	66	2	He	-0.294	-5.6	583	2.6	2.5	
Al	27	2	He	-0.425	-66.9	687	10.9	5	
B	11	1	No Gas	-3.570	-4.3	13869	1.3	0.5	
Al	27	1	No Gas	-0.465	-9.9	24004	1.5	5	
Si	28	1	No Gas	6.316	13.8	204236	0.5	10	
Ag	107	1	No Gas	-0.050	-8.5	267	22.0	2.5	
Cd	111	1	No Gas	0.003	207.8	20	86.6	1	
Sr	88	1	No Gas	-0.018	-25.9	1167	10.2	2.5	
Mo	95	1	No Gas	0.229	49.4	1360	44.8	2.5	
Sn	118	1	No Gas	0.167	31.0	4091	13.6	5	
Sb	121	1	No Gas	-0.206	-6.1	2010	8.0	2.5	
Ba	137	1	No Gas	-0.006	-102.8	190	15.8	2.5	
Tl	205	1	No Gas	0.986	59.5	42173	56.9	1	
Tl	203	1	No Gas	0.910	62.6	16487	59.7	1	
Pb	208	1	No Gas	-0.008	-45.4	2197	9.9	2.5	
U	238	1	No Gas	0.025	51.9	1947	44.5	2.5	
Ca	43	2	He	-4.970	-138.9	7	173.2	100	
Sb	121	2	He	-0.203	-7.1	810	11.8	2.5	
Ti	47	2	He	-0.016	-221.0	3	173.2	2.5	
Cu	63	1	No Gas	-0.030	-49.2	2230	5.4	2.5	
Se	82	1	No Gas	-0.278	-116.0	-16	-307.1	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	563702	0.34	618317	91.17	70	120	
Ge	72	2	He	557620	0.26	620800	89.82	70	120	
Ge	72	1	No Gas	1753384	1.38	1997510	87.78	70	120	
In	115	1	No Gas	2565112	1.22	2911757	88.09	70	120	
Bi	209	1	No Gas	3321073	0.39	3796869	87.47	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	062_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T12:38:59-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.422	9.2	38735	0.8	0.5	
Be	9	1	No Gas	0.011	146.6	110	28.4	0.5	
V	51	2	He	-0.256	-5.8	1427	4.8	2.5	
Cr	52	2	He	-0.010	-110.4	1073	4.7	2.5	
Fe	56	2	He	1.120	22.2	12886	9.4	100	
Se	78	2	He	-0.029	-1123.7	60	38.4	2	
As	75	2	He	0.023	86.0	112	12.0	2.5	
Ca	44	2	He	0.172	1070.1	393	12.5	100	
Na	23	2	He	164.548	4.3	160494	3.0	100	CCB Main CR1 Failed
Mg	24	2	He	-0.674	-74.3	1170	18.6	100	
K	39	2	He	4.513	24.4	50476	1.1	100	
Mn	55	2	He	0.007	324.5	260	33.5	2.5	
Co	59	2	He	0.002	198.8	63	48.2	2.5	
Ni	60	2	He	0.073	58.7	363	22.1	2.5	
Cu	63	2	He	0.040	103.1	1413	14.9	2	
Zn	66	2	He	-0.350	-22.3	527	14.0	2.5	
Al	27	2	He	-0.142	-477.1	760	22.8	5	
B	11	1	No Gas	15.155	9.2	35764	5.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.539	-14.7	23543	1.9	5	
Si	28	1	No Gas	22.586	3.3	278082	1.8	10	CCB Main CR1 Failed
Ag	107	1	No Gas	-0.047	-8.2	317	20.3	2.5	
Cd	111	1	No Gas	0.002	254.1	20	100.0	1	
Sr	88	1	No Gas	-0.016	-53.3	1260	19.7	2.5	
Mo	95	1	No Gas	0.216	41.6	1347	37.6	2.5	
Sn	118	1	No Gas	0.122	34.1	3794	11.6	5	
Sb	121	1	No Gas	-0.257	-1.3	1330	4.7	2.5	
Ba	137	1	No Gas	-0.001	-1328.7	227	20.4	2.5	
Tl	205	1	No Gas	0.169	40.2	9377	32.4	1	
Tl	203	1	No Gas	0.166	39.1	3871	31.9	1	
Pb	208	1	No Gas	-0.019	-21.6	1627	16.7	2.5	
U	238	1	No Gas	0.027	42.2	2124	37.8	2.5	
Ca	43	2	He	7.095	214.3	27	94.4	100	
Sb	121	2	He	-0.234	-6.4	610	16.6	2.5	
Ti	47	2	He	0.065	53.2	17	34.6	2.5	
Cu	63	1	No Gas	0.054	16.2	2980	3.6	2.5	
Se	82	1	No Gas	-0.773	-20.9	-93	-28.2	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	545082	1.61	618317	88.16	70	120	
Ge	72	2	He	556822	0.70	620800	89.69	70	120	
Ge	72	1	No Gas	1772778	1.60	1997510	88.75	70	120	
In	115	1	No Gas	2675381	2.65	2911757	91.88	70	120	
Bi	209	1	No Gas	3455236	2.24	3796869	91.00	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	063_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T12:40:59-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	93.085	0.552	754034	0.77	100	93.1	90	110	
Be	9	1	No Gas	95.520	1.344	181705	0.19	100	95.5	90	110	
V	51	2	He	98.929	0.636	412061	0.27	100	98.9	90	110	
Cr	52	2	He	98.055	0.549	486759	0.45	100	98.1	90	110	
Fe	56	2	He	9882.399	0.806	46310214	0.82	10000	98.8	90	110	
Se	78	2	He	97.487	2.484	6840	2.26	100	97.5	90	110	
As	75	2	He	98.549	0.650	69489	0.89	100	98.5	90	110	
Ca	44	2	He	9762.216	1.673	268327	2.15	10000	97.6	90	110	
Na	23	2	He	9957.322	0.465	6931134	0.74	10000	99.6	90	110	
Mg	24	2	He	9866.572	0.738	4046596	0.78	10000	98.7	90	110	
K	39	2	He	9702.479	0.712	4874864	0.81	10000	97.0	90	110	
Mn	55	2	He	98.722	1.128	381356	0.80	100	98.7	90	110	
Co	59	2	He	97.311	0.389	719535	0.32	100	97.3	90	110	
Ni	60	2	He	99.708	1.481	175960	1.09	100	99.7	90	110	
Cu	63	2	He	99.600	0.630	475662	0.15	100	99.6	90	110	
Zn	66	2	He	99.887	0.468	96944	0.92	100	99.9	90	110	
Al	27	2	He	102.162	1.407	26896	1.61	100	102.2	90	110	
B	11	1	No Gas	499.847	1.681	573454	0.83	500	100.0	90	110	
Al	27	1	No Gas	103.887	0.836	1033297	1.48	100	103.9	90	110	
Si	28	1	No Gas	547.279	3.691	2555202	2.66	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.403	0.967	1442298	0.76	100	101.4	90	110	
Cd	111	1	No Gas	101.348	0.671	305114	0.25	100	101.3	90	110	
Sr	88	1	No Gas	100.768	1.724	2566808	0.96	100	100.8	90	110	
Mo	95	1	No Gas	100.943	0.793	521011	0.17	100	100.9	90	110	
Sn	118	1	No Gas	98.361	0.601	971666	0.87	100	98.4	90	110	
Sb	121	1	No Gas	101.345	1.786	1385367	1.06	100	101.3	90	110	
Ba	137	1	No Gas	101.987	0.787	515315	1.44	100	102.0	90	110	
Tl	205	1	No Gas	97.941	1.982	3910799	0.55	100	97.9	90	110	
Tl	203	1	No Gas	97.289	2.811	1643384	1.28	100	97.3	90	110	
Pb	208	1	No Gas	101.833	1.222	5897112	0.72	100	101.8	90	110	
U	238	1	No Gas	97.657	2.519	6274033	1.10	100	97.7	90	110	
Ca	43	2	He	9926.792	1.960	15970	1.54	10000	99.3	90	110	
Sb	121	2	He	103.727	0.587	657056	0.12	100	103.7	90	110	
Ti	47	2	He	95.437	1.352	15035	1.73	100	95.4	90	110	
Cu	63	1	No Gas	97.954	1.344	841559	0.49	100	98.0	90	110	
Se	82	1	No Gas	97.254	2.257	14909	1.70	100	97.3	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	509082	1.29	618317	82.33	70	120	
Ge	72	2	He	537048	0.48	620800	86.51	70	120	
Ge	72	1	No Gas	1752027	0.86	1997510	87.71	70	120	
In	115	1	No Gas	2521472	0.77	2911757	86.60	70	120	
Bi	209	1	No Gas	3271217	1.57	3796869	86.16	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	073_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T13:06:02-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	95.923	2.029	793876	1.31	100	95.9	90	110	
Be	9	1	No Gas	97.544	0.572	189849	0.66	100	97.5	90	110	
V	51	2	He	97.896	0.453	423813	0.19	100	97.9	90	110	
Cr	52	2	He	96.875	0.717	499819	0.64	100	96.9	90	110	
Fe	56	2	He	9820.694	0.298	47830543	0.55	10000	98.2	90	110	
Se	78	2	He	97.165	2.055	7086	2.33	100	97.2	90	110	
As	75	2	He	98.290	0.406	72030	0.59	100	98.3	90	110	
Ca	44	2	He	9719.379	0.700	277635	0.59	10000	97.2	90	110	
Na	23	2	He	9883.411	1.026	7150541	1.33	10000	98.8	90	110	
Mg	24	2	He	9796.393	1.448	4175727	1.37	10000	98.0	90	110	
K	39	2	He	9581.420	1.409	5003756	1.16	10000	95.8	90	110	
Mn	55	2	He	97.134	0.474	389990	0.71	100	97.1	90	110	
Co	59	2	He	96.964	0.540	745165	0.61	100	97.0	90	110	
Ni	60	2	He	100.635	1.024	184584	1.12	100	100.6	90	110	
Cu	63	2	He	99.064	0.506	491721	0.79	100	99.1	90	110	
Zn	66	2	He	99.881	0.384	100748	0.41	100	99.9	90	110	
Al	27	2	He	101.428	2.246	27758	2.18	100	101.4	90	110	
B	11	1	No Gas	481.574	2.063	565857	1.26	500	96.3	90	110	
Al	27	1	No Gas	104.555	1.660	1075128	1.14	100	104.6	90	110	
Si	28	1	No Gas	554.302	2.158	2674197	1.49	5000	11.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.157	0.049	1491037	0.42	100	99.2	90	110	
Cd	111	1	No Gas	99.484	0.441	316634	0.42	100	99.5	90	110	
Sr	88	1	No Gas	99.427	0.897	2677759	1.34	100	99.4	90	110	
Mo	95	1	No Gas	98.747	0.167	538841	0.60	100	98.7	90	110	
Sn	118	1	No Gas	97.133	0.542	1014415	0.43	100	97.1	90	110	
Sb	121	1	No Gas	102.234	0.581	1445258	0.58	100	102.2	90	110	
Ba	137	1	No Gas	99.225	1.002	529996	0.56	100	99.2	90	110	
Tl	205	1	No Gas	100.057	2.037	4150979	0.87	100	100.1	90	110	
Tl	203	1	No Gas	99.024	1.577	1738073	0.23	100	99.0	90	110	
Pb	208	1	No Gas	101.586	1.334	6111990	0.43	100	101.6	90	110	
U	238	1	No Gas	97.177	2.410	6486602	1.02	100	97.2	90	110	
Ca	43	2	He	9572.378	1.730	16006	1.80	10000	95.7	90	110	
Sb	121	2	He	101.457	0.972	667996	0.90	100	101.5	90	110	
Ti	47	2	He	98.194	4.633	16076	4.51	100	98.2	90	110	
Cu	63	1	No Gas	97.867	1.113	869523	0.48	100	97.9	90	110	
Se	82	1	No Gas	95.948	4.503	15209	3.69	100	95.9	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	520820	0.78	618317	84.23	70	120	
Ge	72	2	He	558158	0.32	620800	89.91	70	120	
Ge	72	1	No Gas	1811801	0.80	1997510	90.70	70	120	
In	115	1	No Gas	2665617	0.45	2911757	91.55	70	120	
Bi	209	1	No Gas	3398644	1.39	3796869	89.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	074_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T13:07:57-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	-0.103	-32.3	35140	0.4	0.5	
Be	9	1	No Gas	-0.014	-87.4	60	44.1	0.5	
V	51	2	He	-0.244	-5.4	1527	3.7	2.5	
Cr	52	2	He	-0.017	-86.2	1073	7.1	2.5	
Fe	56	2	He	1.163	20.5	13534	8.9	100	
Se	78	2	He	0.184	128.7	78	22.8	2	
As	75	2	He	0.025	114.1	118	18.2	2.5	
Ca	44	2	He	-1.190	-115.7	367	11.0	100	
Na	23	2	He	60.813	2.0	88949	1.0	100	
Mg	24	2	He	-0.815	-13.1	1147	4.0	100	
K	39	2	He	4.630	37.9	52222	1.7	100	
Mn	55	2	He	0.035	38.2	387	14.2	2.5	
Co	59	2	He	-0.001	-183.0	40	43.3	2.5	
Ni	60	2	He	0.093	33.5	413	14.2	2.5	
Cu	63	2	He	-0.024	-78.4	1137	8.2	2	
Zn	66	2	He	-0.251	-22.2	647	8.9	2.5	
Al	27	2	He	-0.639	-71.5	650	19.3	5	
B	11	1	No Gas	10.131	13.3	30415	5.6	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.486	-4.0	24709	1.2	5	
Si	28	1	No Gas	3.654	8.0	199974	0.4	10	
Ag	107	1	No Gas	-0.047	-10.1	323	23.2	2.5	
Cd	111	1	No Gas	0.004	82.5	27	43.3	1	
Sr	88	1	No Gas	-0.013	-27.1	1377	7.7	2.5	
Mo	95	1	No Gas	0.246	51.8	1530	45.5	2.5	
Sn	118	1	No Gas	0.161	34.3	4267	12.9	5	
Sb	121	1	No Gas	-0.166	-10.8	2654	10.6	2.5	
Ba	137	1	No Gas	-0.010	-48.8	180	14.7	2.5	
Tl	205	1	No Gas	1.721	49.3	75968	50.0	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.646	50.6	30719	51.3	1	CCB Main CR1 Failed
Pb	208	1	No Gas	-0.018	-31.0	1710	22.0	2.5	
U	238	1	No Gas	0.029	56.6	2294	51.3	2.5	
Ca	43	2	He	8.459	118.8	30	57.7	100	
Sb	121	2	He	-0.184	-9.6	967	12.5	2.5	
Ti	47	2	He	0.003	1130.3	7	86.6	2.5	
Cu	63	1	No Gas	-0.022	-3.4	2384	1.3	2.5	
Se	82	1	No Gas	-0.147	-131.7	4	731.2	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	557056	0.43	618317	90.09	70	120	
Ge	72	2	He	575395	0.17	620800	92.69	70	120	
Ge	72	1	No Gas	1819750	1.01	1997510	91.10	70	120	
In	115	1	No Gas	2719451	0.94	2911757	93.40	70	120	
Bi	209	1	No Gas	3481422	2.60	3796869	91.69	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	148_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T16:55:34-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	91.887	2.265	856274	1.91	100	91.9	90	110	
Be	9	1	No Gas	93.039	0.867	203508	0.62	100	93.0	90	110	
V	51	2	He	95.357	0.340	438254	0.19	100	95.4	90	110	
Cr	52	2	He	93.872	0.289	514117	0.29	100	93.9	90	110	
Fe	56	2	He	9689.653	0.723	50090461	0.27	10000	96.9	90	110	
Se	78	2	He	93.882	1.743	7269	1.29	100	93.9	90	110	
As	75	2	He	93.818	0.269	72981	0.52	100	93.8	90	110	
Ca	44	2	He	9688.120	1.374	293743	1.25	10000	96.9	90	110	
Na	23	2	He	10265.683	0.917	7881313	0.59	10000	102.7	90	110	
Mg	24	2	He	9807.078	1.227	4437003	0.85	10000	98.1	90	110	
K	39	2	He	9700.511	2.326	5376677	2.35	10000	97.0	90	110	
Mn	55	2	He	94.405	0.229	402323	0.46	100	94.4	90	110	
Co	59	2	He	93.268	0.370	760800	0.70	100	93.3	90	110	
Ni	60	2	He	96.380	1.133	187649	1.09	100	96.4	90	110	
Cu	63	2	He	95.025	0.479	500703	0.75	100	95.0	90	110	
Zn	66	2	He	93.221	0.410	99869	0.49	100	93.2	90	110	
Al	27	2	He	100.639	1.794	29241	1.86	100	100.6	90	110	
B	11	1	No Gas	455.473	0.286	602541	0.10	500	91.1	90	110	
Al	27	1	No Gas	100.644	2.685	1102064	1.60	100	100.6	90	110	
Si	28	1	No Gas	544.386	3.404	2797173	2.03	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	96.527	0.878	1521212	1.46	100	96.5	90	110	
Cd	111	1	No Gas	93.679	0.398	312460	0.32	100	93.7	90	110	
Sr	88	1	No Gas	96.456	0.878	2722278	0.60	100	96.5	90	110	
Mo	95	1	No Gas	93.039	0.094	532058	0.52	100	93.0	90	110	
Sn	118	1	No Gas	91.199	0.499	998299	0.52	100	91.2	90	110	
Sb	121	1	No Gas	94.983	0.972	1428901	1.28	100	95.0	90	110	
Ba	137	1	No Gas	95.008	0.294	531835	0.33	100	95.0	90	110	
Tl	205	1	No Gas	101.169	0.928	4225930	0.70	100	101.2	90	110	
Tl	203	1	No Gas	101.629	0.970	1795975	0.77	100	101.6	90	110	
Pb	208	1	No Gas	96.503	0.592	5845895	0.67	100	96.5	90	110	
U	238	1	No Gas	89.278	2.258	6000155	1.54	100	89.3	90	110	CCV Main CR1-2 Failed
Ca	43	2	He	9883.465	0.590	17541	0.99	10000	98.8	90	110	
Sb	121	2	He	96.650	0.537	675543	0.36	100	96.6	90	110	
Ti	47	2	He	94.769	1.982	16470	2.22	100	94.8	90	110	
Cu	63	1	No Gas	95.455	1.159	902345	1.12	100	95.5	90	110	
Se	82	1	No Gas	94.176	1.118	15887	1.99	100	94.2	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	585307	0.26	618317	94.66	70	120	
Ge	72	2	He	592449	0.45	620800	95.43	70	120	
Ge	72	1	No Gas	1927648	1.71	1997510	96.50	70	120	
In	115	1	No Gas	2793502	0.61	2911757	95.94	70	120	
Bi	209	1	No Gas	3421576	1.13	3796869	90.12	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	149_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T16:57:30-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.286	20.0	42016	1.6	0.5	
Be	9	1	No Gas	-0.010	-35.2	75	11.5	0.5	
V	51	2	He	-0.311	-1.9	1276	1.9	2.5	
Cr	52	2	He	-0.012	-102.0	1137	5.4	2.5	
Fe	56	2	He	1.032	18.1	13340	6.4	100	
Se	78	2	He	0.181	63.6	81	11.7	2	
As	75	2	He	0.003	927.7	104	17.6	2.5	
Ca	44	2	He	0.661	186.7	437	9.5	100	
Na	23	2	He	584.969	0.9	494915	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	-1.471	-9.9	890	8.1	100	
K	39	2	He	22.001	4.0	63724	1.3	100	
Mn	55	2	He	0.211	5.8	1153	3.6	2.5	
Co	59	2	He	-0.002	-82.6	33	45.8	2.5	
Ni	60	2	He	0.010	334.7	267	25.5	2.5	
Cu	63	2	He	-0.055	-44.3	1013	12.1	2	
Zn	66	2	He	-0.113	-40.0	817	4.9	2.5	
Al	27	2	He	-0.218	-55.0	793	5.2	5	
B	11	1	No Gas	3.121	34.8	23897	5.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.312	-23.9	27695	2.6	5	
Si	28	1	No Gas	4.687	6.4	214228	0.6	10	
Ag	107	1	No Gas	-0.051	-3.1	263	8.8	2.5	
Cd	111	1	No Gas	0.003	142.5	23	65.5	1	
Sr	88	1	No Gas	-0.018	-16.6	1267	6.0	2.5	
Mo	95	1	No Gas	0.162	47.5	1097	41.0	2.5	
Sn	118	1	No Gas	0.054	62.8	3204	12.3	5	
Sb	121	1	No Gas	-0.226	-1.8	1894	3.1	2.5	
Ba	137	1	No Gas	-0.014	-34.2	160	16.5	2.5	
Tl	205	1	No Gas	0.269	56.0	13619	47.8	1	
Tl	203	1	No Gas	0.269	59.6	5712	51.3	1	
Pb	208	1	No Gas	-0.021	-27.3	1487	24.7	2.5	
U	238	1	No Gas	0.020	58.3	1637	48.5	2.5	
Ca	43	2	He	9.720	33.3	33	17.3	100	
Sb	121	2	He	-0.212	-8.0	807	15.7	2.5	
Ti	47	2	He	0.021	273.6	10	100.0	2.5	
Cu	63	1	No Gas	0.552	1.3	7839	1.1	2.5	
Se	82	1	No Gas	-0.512	-87.0	-56	-131.9	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	608983	0.55	618317	98.49	70	120	
Ge	72	2	He	596345	0.99	620800	96.06	70	120	
Ge	72	1	No Gas	1904973	0.21	1997510	95.37	70	120	
In	115	1	No Gas	2784588	0.85	2911757	95.63	70	120	
Bi	209	1	No Gas	3457600	1.12	3796869	91.06	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	160_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:22:03-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	91.051	5.106	789913	4.06	100	91.1	90	110	
Be	9	1	No Gas	91.295	1.070	185869	0.59	100	91.3	90	110	
V	51	2	He	95.044	0.796	421109	0.54	100	95.0	90	110	
Cr	52	2	He	93.688	0.644	494651	0.11	100	93.7	90	110	
Fe	56	2	He	9732.879	0.362	48505363	0.53	10000	97.3	90	110	
Se	78	2	He	92.730	2.372	6922	1.78	100	92.7	90	110	
As	75	2	He	93.623	0.654	70210	0.72	100	93.6	90	110	
Ca	44	2	He	9537.706	0.480	278792	0.57	10000	95.4	90	110	
Na	23	2	He	9942.986	1.688	7360421	1.54	10000	99.4	90	110	
Mg	24	2	He	9588.399	1.307	4182002	0.58	10000	95.9	90	110	
K	39	2	He	9511.538	0.721	5083189	0.30	10000	95.1	90	110	
Mn	55	2	He	94.312	0.133	387474	0.66	100	94.3	90	110	
Co	59	2	He	93.827	0.951	737805	0.32	100	93.8	90	110	
Ni	60	2	He	97.338	0.586	182695	0.33	100	97.3	90	110	
Cu	63	2	He	95.351	0.320	484355	1.01	100	95.4	90	110	
Zn	66	2	He	93.244	0.903	96300	0.90	100	93.2	90	110	
Al	27	2	He	99.061	1.242	27761	1.78	100	99.1	90	110	
B	11	1	No Gas	471.228	0.791	579630	0.94	500	94.2	90	110	
Al	27	1	No Gas	97.759	1.465	1047947	2.41	100	97.8	90	110	
Si	28	1	No Gas	543.541	1.884	2731573	0.11	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	95.343	1.431	1468718	1.42	100	95.3	90	110	
Cd	111	1	No Gas	94.433	0.558	307896	0.71	100	94.4	90	110	
Sr	88	1	No Gas	95.336	0.351	2630232	0.23	100	95.3	90	110	
Mo	95	1	No Gas	93.561	0.342	523008	0.20	100	93.6	90	110	
Sn	118	1	No Gas	92.514	0.653	989883	0.57	100	92.5	90	110	
Sb	121	1	No Gas	96.346	1.096	1417213	0.92	100	96.3	90	110	
Ba	137	1	No Gas	95.972	0.518	525151	0.53	100	96.0	90	110	
Tl	205	1	No Gas	101.727	0.572	4296270	0.79	100	101.7	90	110	
Tl	203	1	No Gas	100.619	2.774	1797949	3.17	100	100.6	90	110	
Pb	208	1	No Gas	97.138	0.880	5949547	1.27	100	97.1	90	110	
U	238	1	No Gas	91.022	0.733	6185647	1.13	100	91.0	90	110	
Ca	43	2	He	9541.049	2.515	16323	1.85	10000	95.4	90	110	
Sb	121	2	He	98.366	0.441	662785	0.78	100	98.4	90	110	
Ti	47	2	He	92.402	2.034	15482	2.66	100	92.4	90	110	
Cu	63	1	No Gas	92.781	1.860	857634	0.35	100	92.8	90	110	
Se	82	1	No Gas	93.618	1.695	15446	3.26	100	93.6	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	544805	0.86	618317	88.11	70	120	
Ge	72	2	He	571148	0.73	620800	92.00	70	120	
Ge	72	1	No Gas	1884973	1.66	1997510	94.37	70	120	
In	115	1	No Gas	2730669	0.16	2911757	93.78	70	120	
Bi	209	1	No Gas	3459260	0.40	3796869	91.11	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	161_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:23:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.230	16.3	39497	1.0	0.5	
Be	9	1	No Gas	0.021	70.5	138	21.8	0.5	
V	51	2	He	-0.171	-18.4	1863	8.1	2.5	
Cr	52	2	He	-0.032	-85.7	1000	14.0	2.5	
Fe	56	2	He	0.986	11.3	12723	4.2	100	
Se	78	2	He	0.151	78.0	76	11.5	2	
As	75	2	He	0.021	15.0	116	1.7	2.5	
Ca	44	2	He	-0.822	-58.6	380	4.6	100	
Na	23	2	He	257.620	1.4	236359	0.5	100	CCB Main CR1 Failed
Mg	24	2	He	-1.185	-16.6	990	7.9	100	
K	39	2	He	13.129	16.4	57115	1.4	100	
Mn	55	2	He	0.083	6.2	590	3.4	2.5	
Co	59	2	He	-0.002	-176.7	37	63.0	2.5	
Ni	60	2	He	0.009	224.6	257	15.7	2.5	
Cu	63	2	He	0.017	119.8	1353	7.0	2	
Zn	66	2	He	-0.152	-13.8	753	2.0	2.5	
Al	27	2	He	-1.065	-11.8	537	6.5	5	
B	11	1	No Gas	9.402	9.5	30730	4.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.129	-4.7	18927	3.8	5	
Si	28	1	No Gas	3.813	3.2	208107	1.1	10	
Ag	107	1	No Gas	-0.052	-0.9	250	4.0	2.5	
Cd	111	1	No Gas	-0.001	-6.4	10	0.0	1	
Sr	88	1	No Gas	-0.019	-9.9	1223	3.1	2.5	
Mo	95	1	No Gas	0.171	36.8	1127	31.7	2.5	
Sn	118	1	No Gas	0.116	53.2	3831	17.3	5	
Sb	121	1	No Gas	-0.143	-7.3	3090	6.0	2.5	
Ba	137	1	No Gas	-0.001	-1148.5	230	37.1	2.5	
Tl	205	1	No Gas	0.300	57.3	15104	50.5	1	
Tl	203	1	No Gas	0.302	49.2	6379	43.9	1	
Pb	208	1	No Gas	-0.015	-17.1	1847	9.8	2.5	
U	238	1	No Gas	0.022	54.8	1794	47.3	2.5	
Ca	43	2	He	-1.269	-260.8	13	43.3	100	
Sb	121	2	He	-0.130	-5.9	1340	4.5	2.5	
Ti	47	2	He	0.003	1197.1	7	86.6	2.5	
Cu	63	1	No Gas	0.125	14.8	3824	3.7	2.5	
Se	82	1	No Gas	-0.192	-252.7	-2	-3382.8	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	579677	1.24	618317	93.75	70	120	
Ge	72	2	He	579107	0.86	620800	93.28	70	120	
Ge	72	1	No Gas	1886926	1.12	1997510	94.46	70	120	
In	115	1	No Gas	2749345	1.62	2911757	94.42	70	120	
Bi	209	1	No Gas	3492237	1.93	3796869	91.98	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	172_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:52:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	92.762	1.109	731934	0.50	100	92.8	90	110	
Be	9	1	No Gas	92.994	0.572	172304	0.19	100	93.0	90	110	
V	51	2	He	96.140	0.741	388106	0.55	100	96.1	90	110	
Cr	52	2	He	94.968	0.779	456870	0.83	100	95.0	90	110	
Fe	56	2	He	9825.536	0.364	44618099	0.68	10000	98.3	90	110	
Se	78	2	He	91.702	1.307	6238	0.98	100	91.7	90	110	
As	75	2	He	94.143	0.762	64328	0.51	100	94.1	90	110	
Ca	44	2	He	9617.386	0.665	256146	0.43	10000	96.2	90	110	
Na	23	2	He	9989.103	1.230	6737804	1.42	10000	99.9	90	110	
Mg	24	2	He	9651.087	1.079	3835570	0.79	10000	96.5	90	110	
K	39	2	He	9663.995	0.975	4705261	0.87	10000	96.6	90	110	
Mn	55	2	He	94.734	1.024	354627	0.72	100	94.7	90	110	
Co	59	2	He	94.468	0.498	676890	0.73	100	94.5	90	110	
Ni	60	2	He	97.556	0.649	166844	0.96	100	97.6	90	110	
Cu	63	2	He	95.905	0.755	443882	0.92	100	95.9	90	110	
Zn	66	2	He	95.924	0.627	90245	0.40	100	95.9	90	110	
Al	27	2	He	100.015	0.529	25530	0.20	100	100.0	90	110	
B	11	1	No Gas	476.264	0.789	532953	0.27	500	95.3	90	110	
Al	27	1	No Gas	98.678	2.150	958027	1.57	100	98.7	90	110	
Si	28	1	No Gas	546.241	2.499	2486609	1.86	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.841	0.932	1381716	0.58	100	97.8	90	110	
Cd	111	1	No Gas	97.271	0.581	290752	0.58	100	97.3	90	110	
Sr	88	1	No Gas	98.776	1.365	2498214	0.93	100	98.8	90	110	
Mo	95	1	No Gas	95.330	0.868	488535	0.45	100	95.3	90	110	
Sn	118	1	No Gas	94.794	0.547	929812	0.47	100	94.8	90	110	
Sb	121	1	No Gas	100.134	0.988	1334410	0.43	100	100.1	90	110	
Ba	137	1	No Gas	99.215	1.097	497699	0.71	100	99.2	90	110	
Tl	205	1	No Gas	104.022	1.605	4102657	0.66	100	104.0	90	110	
Tl	203	1	No Gas	102.833	2.179	1715876	1.60	100	102.8	90	110	
Pb	208	1	No Gas	98.606	1.551	5640055	0.77	100	98.6	90	110	
U	238	1	No Gas	93.023	1.589	5903605	0.78	100	93.0	90	110	
Ca	43	2	He	9588.795	5.326	14948	5.15	10000	95.9	90	110	
Sb	121	2	He	101.403	0.589	622494	0.52	100	101.4	90	110	
Ti	47	2	He	93.897	2.014	14334	2.22	100	93.9	90	110	
Cu	63	1	No Gas	94.630	1.311	792597	0.75	100	94.6	90	110	
Se	82	1	No Gas	95.868	4.557	14326	3.92	100	95.9	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	495804	0.64	618317	80.19	70	120	
Ge	72	2	He	520412	0.32	620800	83.83	70	120	
Ge	72	1	No Gas	1707838	0.62	1997510	85.50	70	120	
In	115	1	No Gas	2503432	0.44	2911757	85.98	70	120	
Bi	209	1	No Gas	3231266	2.12	3796869	85.10	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	173_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:54:12-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.215	64.2	36051	2.7	0.5	
Be	9	1	No Gas	0.017	65.3	120	18.2	0.5	
V	51	2	He	-0.150	-14.3	1798	5.1	2.5	
Cr	52	2	He	-0.021	-115.2	970	12.5	2.5	
Fe	56	2	He	1.220	15.2	12786	7.0	100	
Se	78	2	He	0.182	137.9	72	23.7	2	
As	75	2	He	0.057	58.0	131	17.9	2.5	
Ca	44	2	He	-0.679	-353.9	353	18.8	100	
Na	23	2	He	152.447	1.6	145155	0.8	100	CCB Main CR1 Failed
Mg	24	2	He	-0.923	-41.4	1017	14.9	100	
K	39	2	He	8.070	20.6	50018	1.9	100	
Mn	55	2	He	0.107	4.6	633	3.3	2.5	
Co	59	2	He	0.002	426.1	60	101.4	2.5	
Ni	60	2	He	0.048	46.5	303	12.5	2.5	
Cu	63	2	He	0.027	189.1	1293	19.2	2	
Zn	66	2	He	-0.172	-35.8	673	9.1	2.5	
Al	27	2	He	-1.473	-7.4	390	6.8	5	
B	11	1	No Gas	13.481	7.5	32880	3.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.127	-5.5	17311	5.1	5	
Si	28	1	No Gas	3.499	20.5	188778	0.2	10	
Ag	107	1	No Gas	-0.052	-11.9	233	37.4	2.5	
Cd	111	1	No Gas	0.000	1010.1	13	114.6	1	
Sr	88	1	No Gas	-0.021	-5.6	1073	4.2	2.5	
Mo	95	1	No Gas	0.209	38.1	1250	32.3	2.5	
Sn	118	1	No Gas	0.084	62.6	3247	15.0	5	
Sb	121	1	No Gas	-0.099	-31.8	3414	11.9	2.5	
Ba	137	1	No Gas	-0.003	-325.3	207	20.1	2.5	
Tl	205	1	No Gas	0.332	59.5	15645	51.4	1	
Tl	203	1	No Gas	0.337	53.1	6659	46.3	1	
Pb	208	1	No Gas	-0.014	-36.5	1813	17.1	2.5	
U	238	1	No Gas	0.018	56.7	1453	45.4	2.5	
Ca	43	2	He	-0.580	-631.4	13	43.3	100	
Sb	121	2	He	-0.096	-21.9	1443	9.5	2.5	
Ti	47	2	He	0.071	139.2	17	91.7	2.5	
Cu	63	1	No Gas	0.034	30.4	2727	4.9	2.5	
Se	82	1	No Gas	-0.435	-47.7	-39	-79.0	2	

QC ISTD Table

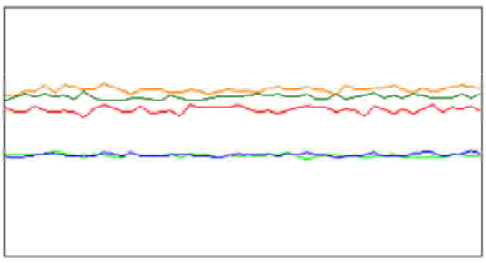
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	530890	0.39	618317	85.86	70	120	
Ge	72	2	He	532388	0.38	620800	85.76	70	120	
Ge	72	1	No Gas	1724150	1.71	1997510	86.31	70	120	
In	115	1	No Gas	2566924	1.50	2911757	88.16	70	120	
Bi	209	1	No Gas	3332778	0.51	3796869	87.78	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq. Date-Time	5/26/2021 9:29:21 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	2953	29531.91		
24	50000	20239	202394.97		
59	50000	20335	203346.73		
115	50000	33604	336036.78		
208	50000	32157	321568.01		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	1.973	5.000	
24	1.602	5.000	
59	1.685	5.000	
115	1.645	5.000	
208	1.576	5.000	

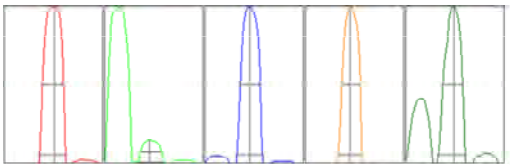
Mass	Background	Background (Required)	Background (Flag)
9	0.000		
24	0.300		
59	0.100		
115	0.200		
208	0.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.909 %
Doubly Charged	70 / 140 0.553 %

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	2957.46	9.05	8.90 - 9.10	
24	20182.44	23.90	23.90 - 24.10	
59	20723.30	58.90	58.90 - 59.10	
115	34650.35	114.90	114.90 - 115.10	
208	31963.30	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.785		
24	0.64	0.784		
59	0.60	0.776		
115	0.56	0.716		
208	0.61	0.813		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 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	134	Axis Gain	1.0007	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.07		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

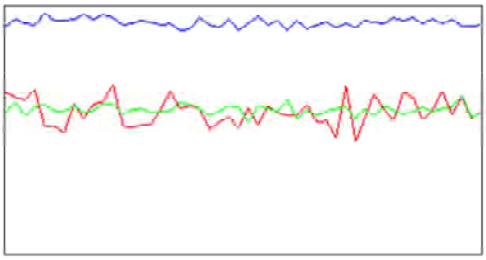
EM

Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 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	115	1147.25		
24	2000	1164	11638.22		
59	10000	9354	93543.00		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

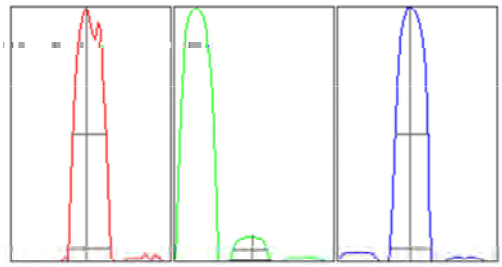
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.840	5.000	Fail
24	3.426	5.000	
59	1.737	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.300		
24	0.000		
59	0.000		

Oxide/Doubly Charged Ratio

Oxide 156 / 140 0.530 %
Doubly Charged 70 / 140 0.616 %

Resolution/Axis



Integration Time [sec] 0.1
Acquisition Time [sec] 22.24
Y Axis Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	109.51	8.95	8.90 - 9.10	
24	1136.25	24.00	23.90 - 24.10	
59	9462.66	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.785		
24	0.63	0.779		

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	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	0.2 V
Extract 2	-195.0 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	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0007	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.07		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 V

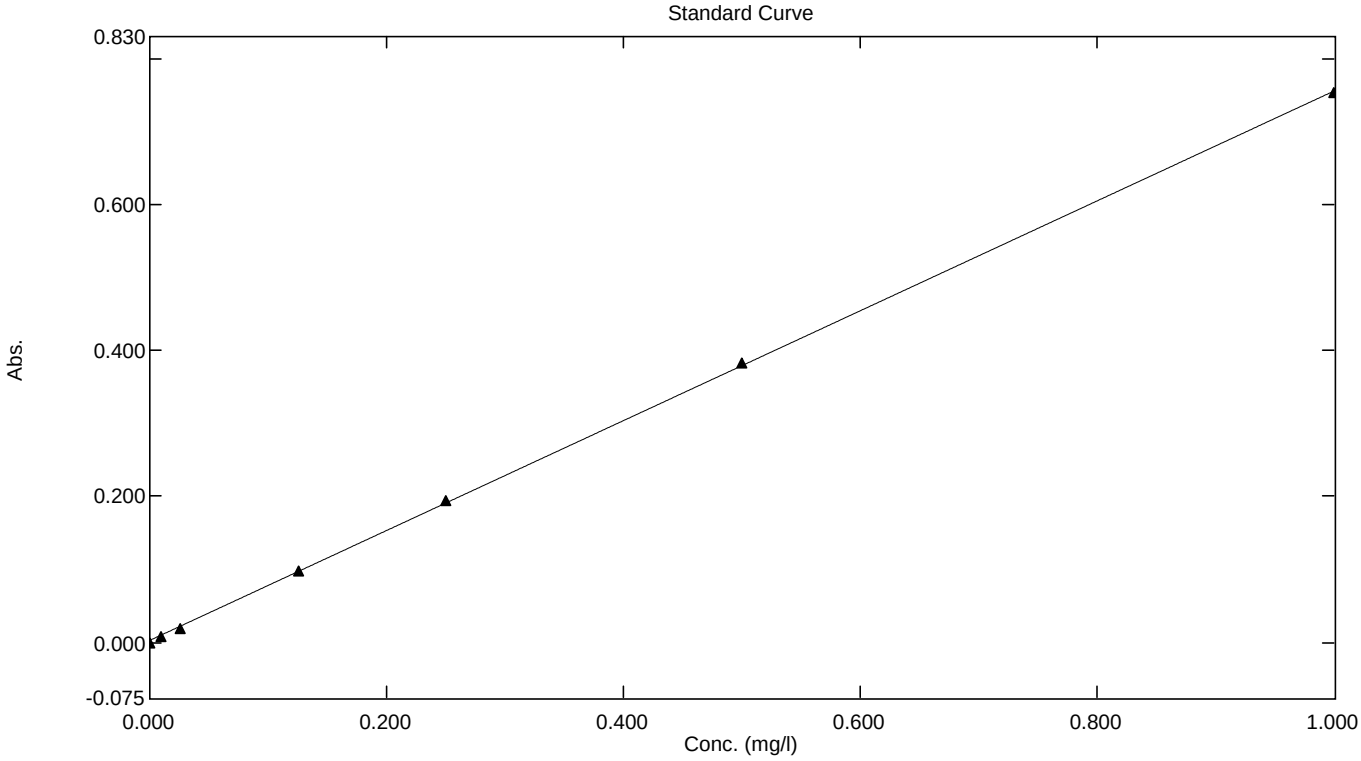
HS21050553 Wet Chem Raw Data (Cr6_W_7196_DOD)

ALS WO# HS21050553

Standard Table Report

06/09/2021 02:55:51 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\05122021CR6_S.pho.pho



Correlation Coefficient r2 = 0.99987

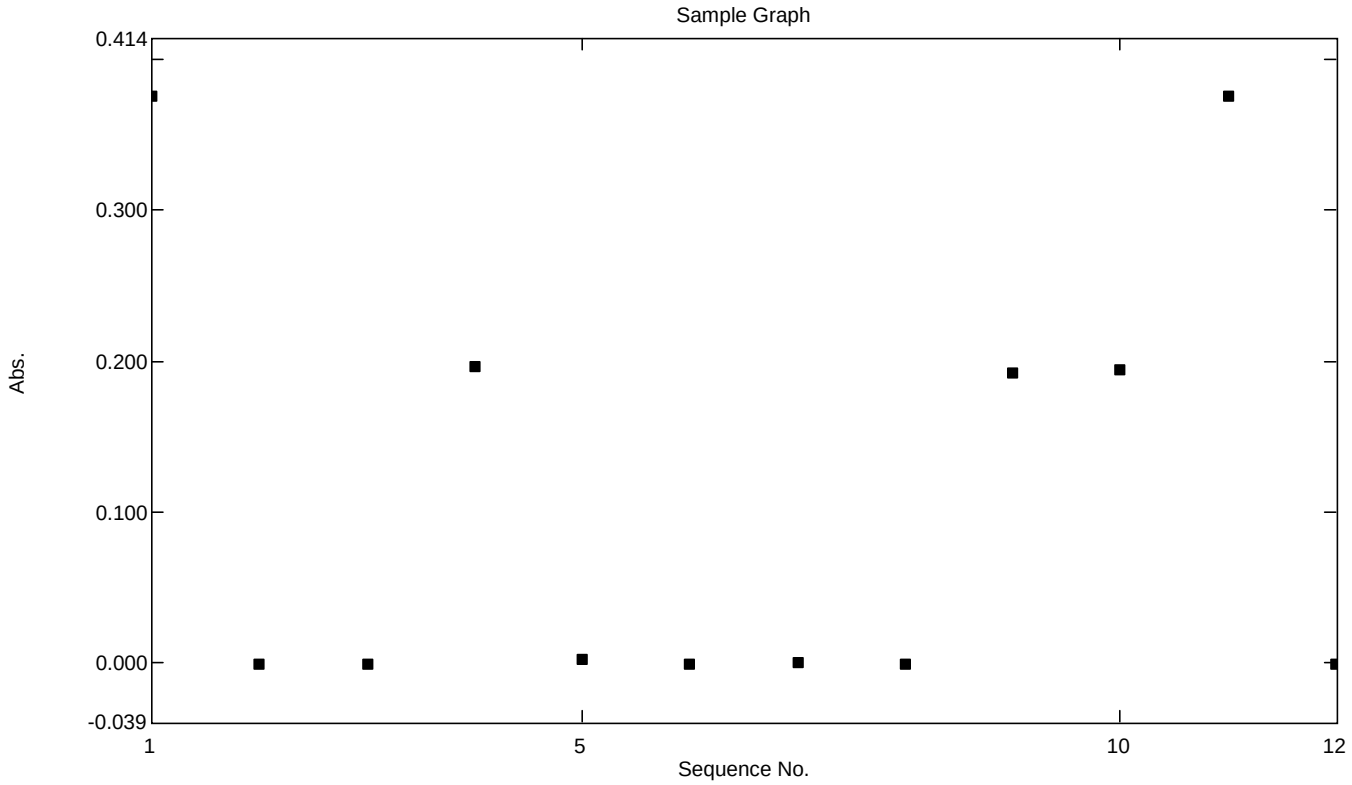
Standard Table

	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	0.000	1.000	
2	STD2	Standard		0.010	0.008	1.000	
3	STD3	Standard		0.025	0.020	1.000	
4	STD4	Standard		0.125	0.099	1.000	
5	STD5	Standard		0.250	0.195	1.000	
6	STD6	Standard		0.500	0.383	1.000	
7	STD7	Standard		1.000	0.752	1.000	
8							

Sample Table Report

06/09/2021 02:54:55 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\05122021CR6_S.pho.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		05/12/2021	01:37:39 PM	0.496	0.376	316133209 WC-14
2	CCB	Unknown		05/12/2021	01:37:49 PM	-0.005	-0.001	316130206 WC-13
3	MBLK	Unknown		05/12/2021	01:37:55 PM	-0.005	-0.000	316133009 WC-13
4	LCS	Unknown		05/12/2021	01:38:16 PM	0.257	0.196	316133208 WC-14
5	HS21050553.01	Unknown		05/12/2021	01:38:43 PM	-0.001	0.002	SAMP-BKG=TOT AL
6	HS21050553.01BKG	Unknown		05/12/2021	01:39:09 PM	-0.004	-0.000	0.000
7	HS21050554.01	Unknown		05/12/2021	01:39:34 PM	-0.003	0.001	0.000
8	HS21050554.01BKG	Unknown		05/12/2021	01:40:00 PM	-0.005	-0.001	
9	HS21050553.01MS	Unknown		05/12/2021	01:40:25 PM	0.252	0.192	
10	HS21050553.01MSD	Unknown		05/12/2021	01:40:47 PM	0.254	0.194	
11	CCV2	Unknown		05/12/2021	01:41:00 PM	0.495	0.375	
12	CCB2	Unknown		05/12/2021	01:41:10 PM	-0.005	-0.001	
13								

HS21050553 - Sub Perch IV (E2100555)

ALS WO# HS21050553

May 19, 2021 Service Request No:E2100555

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS21050553

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory May 12, 2021
For your reference, these analyses have been assigned our service request number **E2100555.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100555
Project:	HS21050553	**Date Received:**	05/12/21
Sample Matrix:	W		

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 05/12/21.

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:

EQ2100298: 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 LCS and DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100555
Project: HS21050553

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100555-001	LH18/24-SP650_051121_BIX	5/11/2021	1400

Service Request Summary

Folder #: **E2100555**
Client Name: ALS Environmental - US
Project Name: HS21050553
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050553
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100555-001	LH18/24-SP650_051121_BIX	Ground Water	05/11/21 1400	**IV**

Service Request Summary

Folder #: **E2100555**
Client Name: ALS Environmental - US
Project Name: HS21050553
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050553
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 5/26, IV due 6/3

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arizona Department of Health Services	AZ0793-2020	5/27/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022

Chain of Custody

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10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16112**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21050553
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21050553-02**	**LH18/24-SP650_0511321_BIX**	**Water**	**11 May 2021 14:00**
	Provide Level II and Level IV reports in separate pdf			26 May 2021

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: 5/12/21 16:00

Received By: _____ Date/Time: 5-12-21 1800

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/12/21 Initials: CG

Date/Time Logged in: 5/13/21 Initials: CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊘ Courier (ALS) ○ 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		5/12/21	1800	CG	2.8	☒
						☐
						☐
						☐

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:

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F: +1 713 266 1599
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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

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Preparation Information Benchsheet

Prep Run#: 379504 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/17/21 10:50

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100526-001	LH18/24-SP650_050421_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100553-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100554-001	LH18/24-SP140_051121	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100555-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
5	EQ2100298-01	MB		6850/ClO4 DOD			Liquid	10mL	
6	EQ2100298-02	LCS		6850/ClO4 DOD			Liquid	10mL	
7	EQ2100298-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 214035 Logbook Ref: Perchlorate Expires On: 05/23/2021

EQ2100298-02 1.00µL EQ2100298-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 214820 Logbook Ref: Perchlorate Internal Standard Expires On: 07/03/2021

E2100526-001 100.00µL E2100553-001 100.00µL E2100554-001 100.00µL E2100555-001 100.00µL EQ2100298-01 100.00µL EQ2100298-02 100.00µL
EQ2100298-03 100.00µL

Preparation Steps

Step: Preparation
Started: 5/17/21 10:50
Finished: 5/17/21 11:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/17/21

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100555
Project:	HS21050553	**Date Collected:**	5/11/21 1400
Sample Matrix:	Ground Water	**Date Received:**	5/12/21
Sample Name:	LH18/24-SP650_051121_BIX	**Units:**	µg/L
Lab Code:	E2100555-001	**Basis:**	As Received

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	**0.799**	J	2.00	1.00	0.500	20	5/17/21	5/19/21 10:42	379504	724049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100555
Project:	HS21050553	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100298-01	**Basis:**	As Received

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	5/17/21	5/18/21 16:56	379504	724053	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050553
Sample Matrix: Ground Water

Service Request: E2100555
Date Analyzed: 5/19/21

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: As Received

Extraction Lot: 379504

	Lab Control Sample EQ2100298-02			Duplicate Lab Control Sample EQ2100298-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.102	0.100	102	0.106	0.100	106	84 - 119	4	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:**	E2100555
Project:	HS21050553	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-02	**Basis:**	As Received

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	**0.102**		0.100	0.0500	0.0250	1	5/17/21	5/19/21 10:50	379504	724049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100555
Project:	HS21050553	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-03	**Basis:**	As Received

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	5/17/21	5/19/21 10:59	379504	724049	

Initial Calibration

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20210518

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/18/2021
Cal. Std. xp: 5/20/2021
ICAL ID: **EC2100031**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210518_011	Perchlorate6850b.lcm	1x	☒	3100808-05	5/18/2021 11:48
2	PERCHLORATE2		20210518_012	Perchlorate6850b.lcm	1x	☒	3100808-06	5/18/2021 11:57
3	PERCHLORATE3		20210518_013	Perchlorate6850b.lcm	1x	☒	3100808-07	5/18/2021 12:05
4	PERCHLORATE4		20210518_014	Perchlorate6850b.lcm	1x	☒	3100808-08	5/18/2021 12:14
5	PERCHLORATE5		20210518_015	Perchlorate6850b.lcm	1x	☒	3100808-09	5/18/2021 12:22
6	PERCHLORATE6		20210518_016	Perchlorate6850b.lcm	1x	☒	3100809-01	5/18/2021 12:30
7	PERCHLORATE7		20210518_010	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 10:48
8	PERCHLORATE8		20210518_017	Perchlorate6850b.lcm	1x	☒	3100809-03	5/18/2021 12:39
9	PERCHLORATE9		20210518_018	Perchlorate6850b.lcm	1x	☒	3100809-04	5/18/2021 12:47
10	PERCHLORATE10		20210518_019	Perchlorate6850b.lcm	1x	☒	3100809-05	5/18/2021 12:56
11	PERCHLORATEICV		20210518_020	Perchlorate6850b.lcm	1x	☒	3100809-06	5/18/2021 13:04
12	ICS		20210518_021	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:12
13	LODV		20210518_022	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:21
14	PERCHLORATE7		20210518_023	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:29
15	E2100493-001x10		20210518_024	Perchlorate6850b.lcm	10X	☒	DNU-INST failed	5/18/2021 13:38
16	PERCHLORATE7		20210518_025	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:46
17	EQ2100297-01		20210518_026	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:20
18	EQ2100297-02		20210518_027	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:29
19	EQ2100297-03		20210518_028	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:37
20	E2100496-002X10		20210518_029	Perchlorate6850b.lcm	10X	☒		5/18/2021 14:45
21	E2100493-001x20		20210518_030	Perchlorate6850b.lcm	20X	☒	DNU-INST failed	5/18/2021 14:54
22	PERCHLORATE7		20210518_031	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:02
23	E2100493-001x40		20210518_032	Perchlorate6850b.lcm	40X	☒		5/18/2021 15:36
24	PERCHLORATE7		20210518_033	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:44
25	EQ2100298-01		20210518_034	Perchlorate6850b.lcm	1x	☒		5/18/2021 16:56
26	EQ2100298-02		20210518_035	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:05
27	EQ2100298-03RR		20210518_036	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:13
28	E2100526-001X5DNU		20210518_037	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:21
29	E2100553-001X10DNU		20210518_038	Perchlorate6850b.lcm	10x	☒	DNU-INST failed	5/18/2021 17:30
30	E2100554-001X200		20210518_039	Perchlorate6850b.lcm	200x	☒		5/18/2021 17:38
31	E2100555-001X5DNU		20210518_040	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:47
32	PERCHLORATE7		20210518_041	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 17:55
33								

Initial Calibration - Detailed Report

Calibration ID: EC2100031 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100031-01	PERCHLORATE7	20210518_010	05/18/2021 10:48
02	EC2100031-02	PERCHLORATE1	20210518_011	05/18/2021 11:48
03	EC2100031-03	PERCHLORATE2	20210518_012	05/18/2021 11:57
11	EC2100031-11	PERCHLORATE3	20210518_013	05/18/2021 12:05
04	EC2100031-04	PERCHLORATE4	20210518_014	05/18/2021 12:14
05	EC2100031-05	PERCHLORATE5	20210518_015	05/18/2021 12:22
06	EC2100031-06	PERCHLORATE6	20210518_016	05/18/2021 12:30
07	EC2100031-07	PERCHLORATE8	20210518_017	05/18/2021 12:39
08	EC2100031-08	PERCHLORATE9	20210518_018	05/18/2021 12:47
09	EC2100031-09	PERCHLORATE10	20210518_019	05/18/2021 12:56

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 8.249** **Average RF = 0.1137**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.0000	0.1063	02	0.1000	0.1298	03	0.5000	0.1214	04	1.0000	0.1096
05	2.0000	0.1181	06	5.0000	0.1158	07	20.0000	0.1073	08	30.0000	0.1057
09	50.0000	0.1002	11	0.7000	0.1233						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.0000	9.34	-6.6	02	0.1000	0.114	14.1	03	0.5000	0.534	6.7
04	1.0000	0.963	-3.7	05	2.0000	2.08	3.9	06	5.0000	5.09	1.8
07	20.0000	18.9	-5.7	08	30.0000	27.9	-7.0	09	50.0000	44.1	-11.9
11	0.7000	0.759	8.4								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100031	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210518_020	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100031-10	T	Average RF	10	10.127	ng/mL	1.3	<= 15

Insight Report

Printed at 5/18/2021 3:37:42 PM

Method File: I:\LCMS01\DATA\20210518\20210518.lcm
Project File: I:\LCMS01\DATA\20210518\20210518.damlp

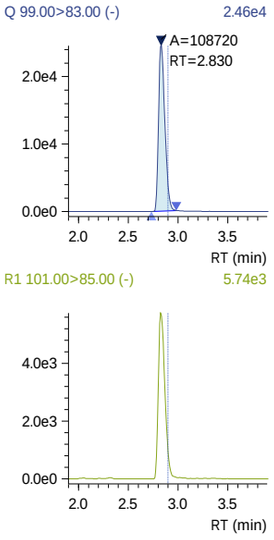
20210518_010

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 10:48:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_010.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.830	108720	102309	1	9.34321	ng/mL	10.0000	23.44
Sodium Perchlorate-18O4_IS	Auto	2.829	102309	102309	1	1.00000	ng/mL	1.0000	----

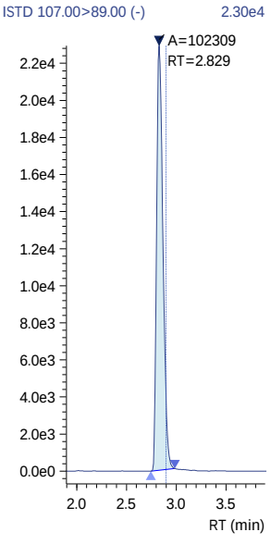
Perchlorate

Conc 9.34321
R#1 23.44 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

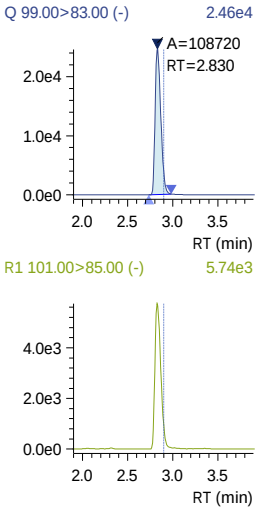
Method File: I:\LCMS01\DATA\20210518\20210517.lcm

20210518_010

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 10:48:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_010.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

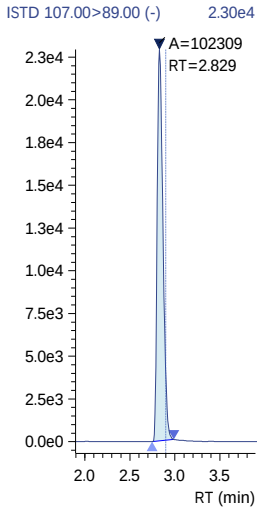
Perchlorate

Conc 10.06452
R#1 23.44 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:37:42 PM

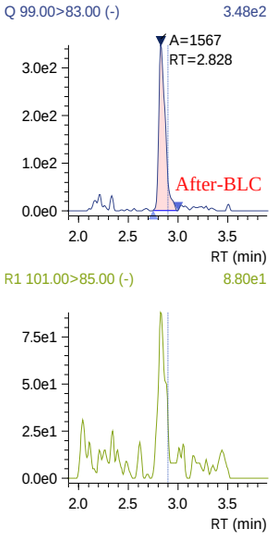
20210518_011

Sample ID: PERCHLORATE1
Date Acquired: 5/18/2021 11:48:54 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_011.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.828	1567	120716	1	0.11410	ng/mL	0.1000	23.68
Sodium Perchlorate-18O4_IS	Auto	2.831	120716	120716	1	1.00000	ng/mL	1.0000	----

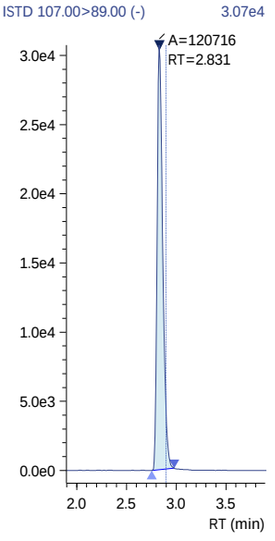
Perchlorate

Conc 0.11410
R#1 23.68 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Method File: I:\LCMS01\DATA\20210518\20210517.lcm

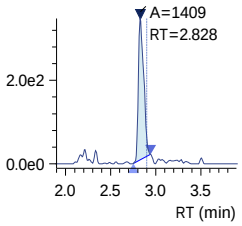
20210518_011

Sample ID: PERCHLORATE1
Date Acquired: 5/18/2021 11:48:54 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_011.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

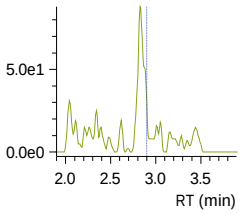
Perchlorate

Conc 0.11051
R#1 24.63 (0.00)

Q 99.00>83.00 (-) 3.48e2



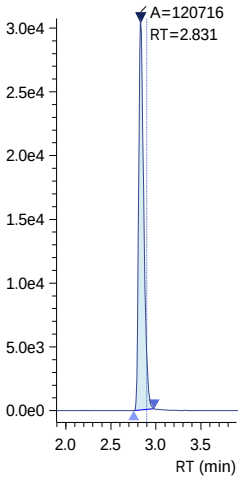
R1 101.00>85.00 (-) 8.80e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.07e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

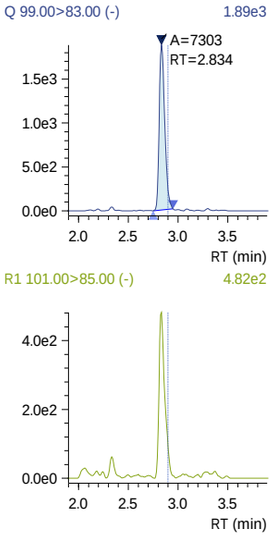
20210518_012

Sample ID: PERCHLORATE2
Date Acquired: 5/18/2021 11:57:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_012.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	7303	120339	1	0.53356	ng/mL	0.5000	25.44
Sodium Perchlorate-18O4_IS	Auto	2.832	120339	120339	1	1.00000	ng/mL	1.0000	----

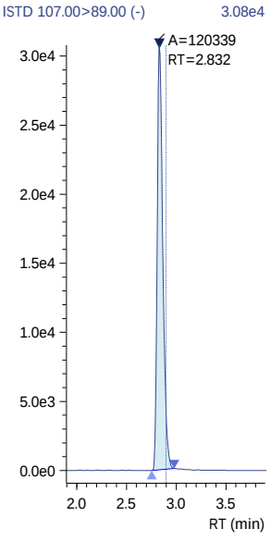
Perchlorate

Conc 0.53356
R#1 25.44 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

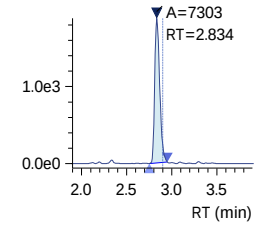
20210518_012

Sample ID: PERCHLORATE2
Date Acquired: 5/18/2021 11:57:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_012.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

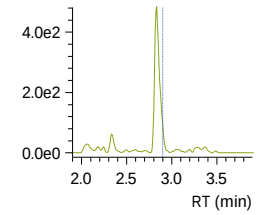
Perchlorate

Conc 0.57475
R#1 25.44 (0.00)

Q 99.00>83.00 (-) 1.89e3



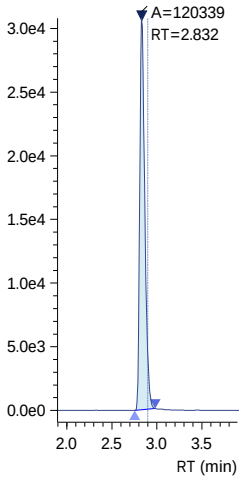
R1 101.00>85.00 (-) 4.82e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.08e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

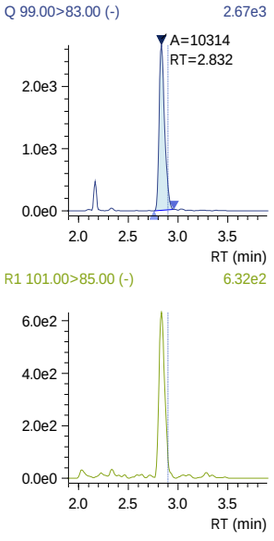
20210518_013

Sample ID: PERCHLORATE3
Date Acquired: 5/18/2021 12:05:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_013.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.832	10314	119516	1	0.75874	ng/mL	0.7000	23.66
Sodium Perchlorate-18O4_IS	Auto	2.831	119516	119516	1	1.00000	ng/mL	1.0000	----

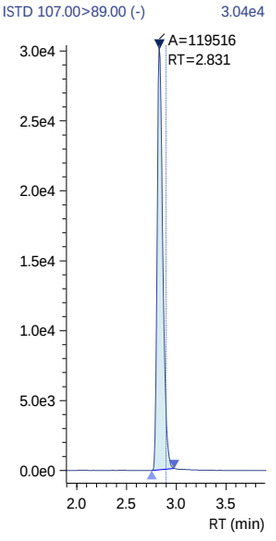
Perchlorate

Conc 0.75874
R#1 23.66 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

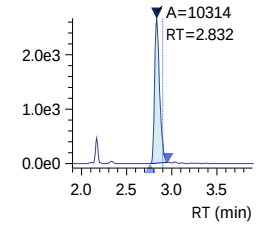
20210518_013

Sample ID: PERCHLORATE3
Date Acquired: 5/18/2021 12:05:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_013.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

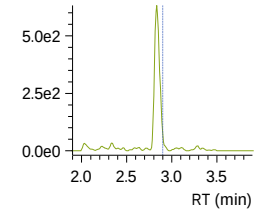
Perchlorate

Conc 0.81732
R#1 23.66 (0.00)

Q 99.00>83.00 (-) 2.67e3



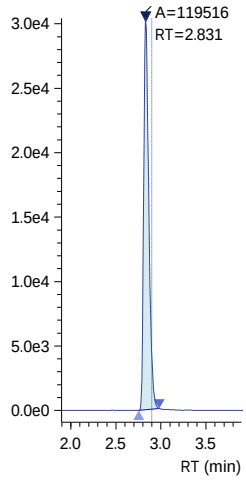
R1 101.00>85.00 (-) 6.32e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.04e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

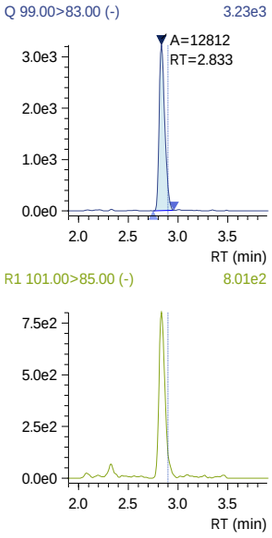
20210518_014

Sample ID: PERCHLORATE4
Date Acquired: 5/18/2021 12:14:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_014.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	12812	116935	1	0.96333	ng/mL	1.0000	24.92
Sodium Perchlorate-18O4_IS	Auto	2.832	116935	116935	1	1.00000	ng/mL	1.0000	----

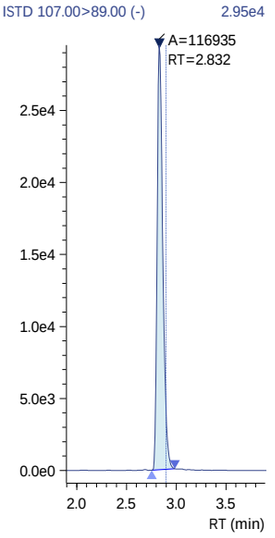
Perchlorate

Conc 0.96333
R#1 24.92 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

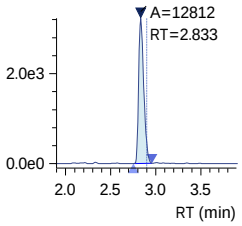
20210518_014

Sample ID: PERCHLORATE4
Date Acquired: 5/18/2021 12:14:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_014.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

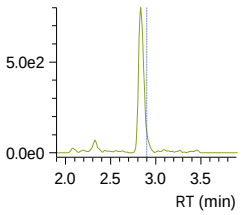
Perchlorate

Conc 1.03770
R#1 24.92 (0.00)

Q 99.00>83.00 (-) 3.23e3



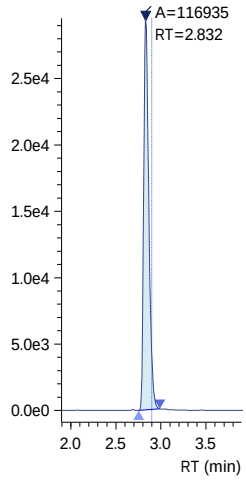
R1 101.00>85.00 (-) 8.01e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.95e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

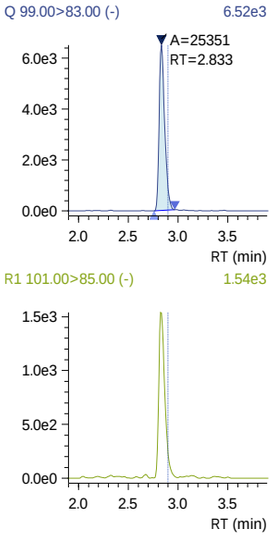
20210518_015

Sample ID: PERCHLORATE5
Date Acquired: 5/18/2021 12:22:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_015.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	25351	107307	1	2.07712	ng/mL	2.0000	24.74
Sodium Perchlorate-18O4_IS	Auto	2.832	107307	107307	1	1.00000	ng/mL	1.0000	----

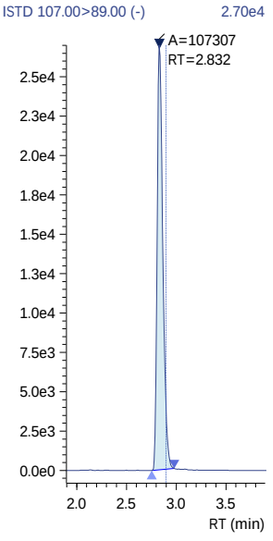
Perchlorate

Conc 2.07712
R#1 24.74 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

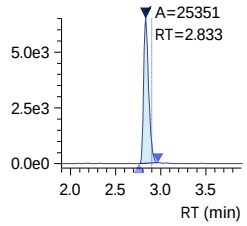
20210518_015

Sample ID: PERCHLORATE5
Date Acquired: 5/18/2021 12:22:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_015.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

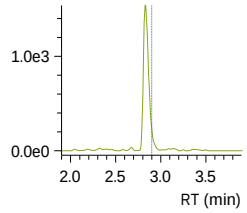
Perchlorate

Conc 2.23747
R#1 24.74 (0.00)

Q 99.00>83.00 (-) 6.52e3



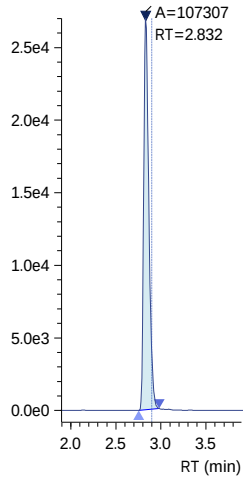
R1 101.00>85.00 (-) 1.54e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.70e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

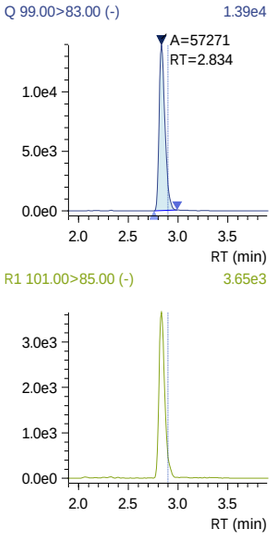
20210518_016

Sample ID: PERCHLORATE6
Date Acquired: 5/18/2021 12:30:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_016.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	57271	98954	1	5.08869	ng/mL	5.0000	26.19
Sodium Perchlorate-18O4_IS	Auto	2.832	98954	98954	1	1.00000	ng/mL	1.0000	----

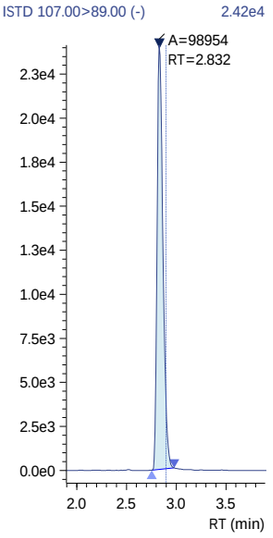
Perchlorate

Conc 5.08869
R#1 26.19 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

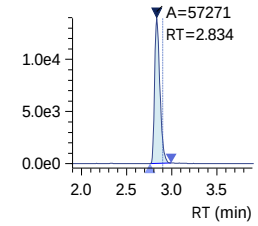
20210518_016

Sample ID: PERCHLORATE6
Date Acquired: 5/18/2021 12:30:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_016.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

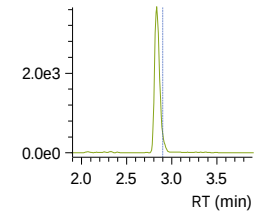
Perchlorate

Conc 5.48154
R#1 26.19 (0.00)

Q 99.00>83.00 (-) 1.39e4



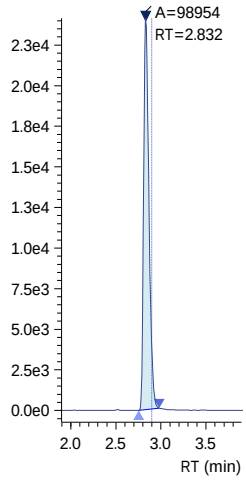
R1 101.00>85.00 (-) 3.65e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.42e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

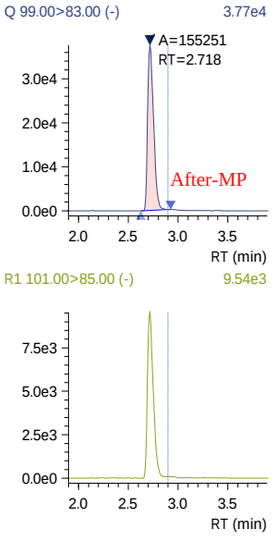
20210518_017

Sample ID: PERCHLORATE8
Date Acquired: 5/18/2021 12:39:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_017.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.718	155251	72375	1	18.86025	ng/mL	20.0000	25.33
Sodium Perchlorate-18O4_IS	M	2.715	72375	72375	1	1.00000	ng/mL	1.0000	----

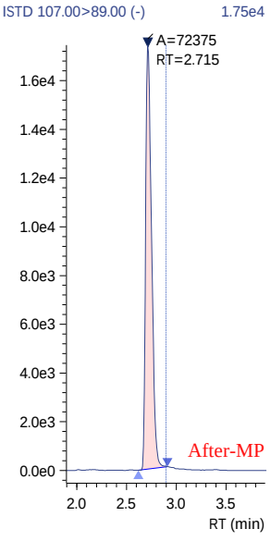
Perchlorate

Conc 18.86025
R#1 25.33 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

20210518_017

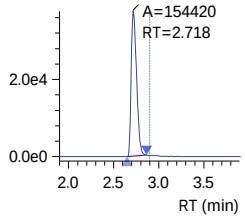
Sample ID: PERCHLORATE8
Date Acquired: 5/18/2021 12:39:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_017.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

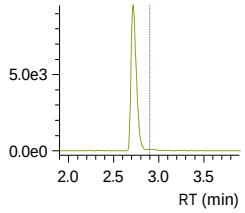
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 3.77e4



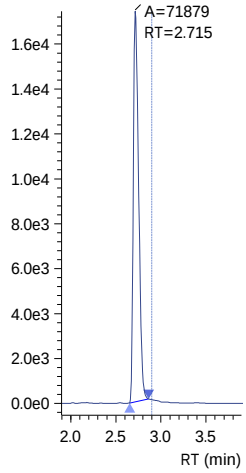
R1 101.00>85.00 (-) 9.54e3



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.75e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

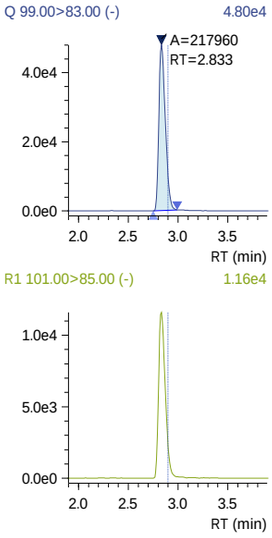
20210518_018

Sample ID: PERCHLORATE9
Date Acquired: 5/18/2021 12:47:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_018.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	217960	68713	1	27.88967	ng/mL	30.0000	24.77
Sodium Perchlorate-18O4_IS	Auto	2.832	68713	68713	1	1.00000	ng/mL	1.0000	----

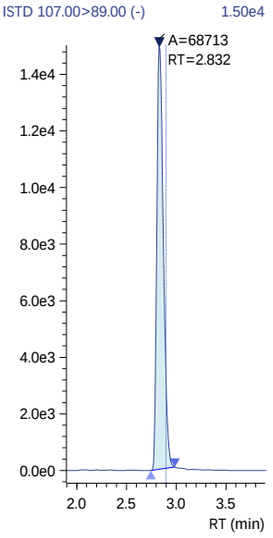
Perchlorate

Conc 27.88967
R#1 24.77 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

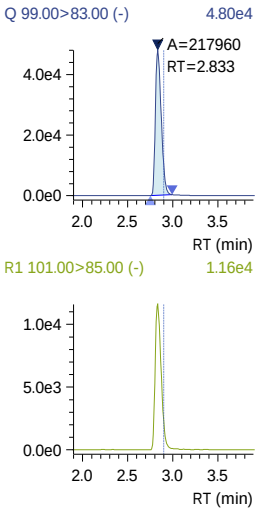
Printed at 5/18/2021 3:39:08 PM

20210518_018

Sample ID: PERCHLORATE9
Date Acquired: 5/18/2021 12:47:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_018.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

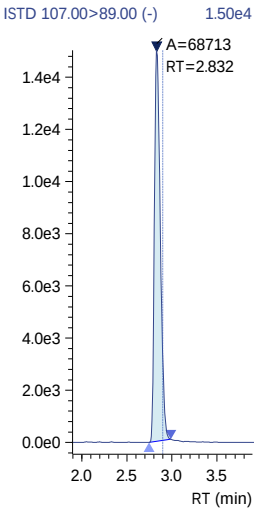
Perchlorate

Conc 30.04281
R#1 24.77 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:37:42 PM

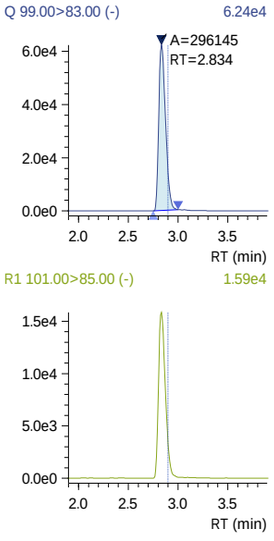
20210518_019

Sample ID: PERCHLORATE10
Date Acquired: 5/18/2021 12:56:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_019.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	296145	59084	1	44.06970	ng/mL	50.0000	25.42
Sodium Perchlorate-18O4_IS	Auto	2.833	59084	59084	1	1.00000	ng/mL	1.0000	----

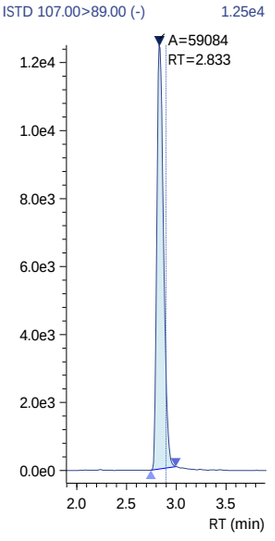
Perchlorate

Conc 44.06970
R#1 25.42 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

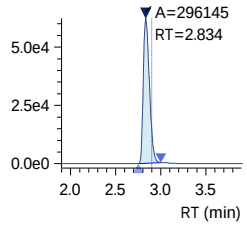
20210518_019

Sample ID: PERCHLORATE10
Date Acquired: 5/18/2021 12:56:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_019.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

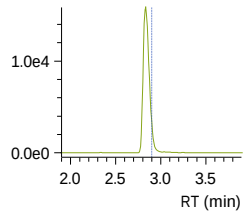
Perchlorate

Conc 47.47197
R#1 25.42 (0.00)

Q 99.00>83.00 (-) 6.24e4



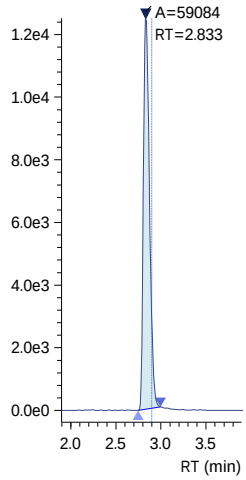
R1 101.00>85.00 (-) 1.59e4



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

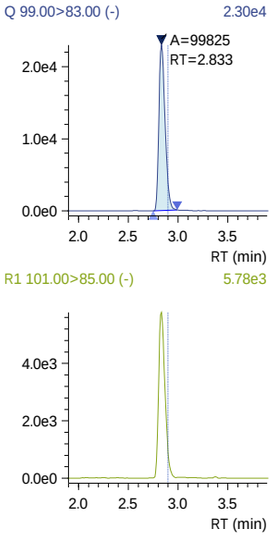
20210518_020

Sample ID: PERCHLORATEICV
Date Acquired: 5/18/2021 1:04:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_020.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	99825	86662	1	10.12781	ng/mL	10.0000	25.77
Sodium Perchlorate-18O4_IS	Auto	2.831	86662	86662	1	1.00000	ng/mL	1.0000	----

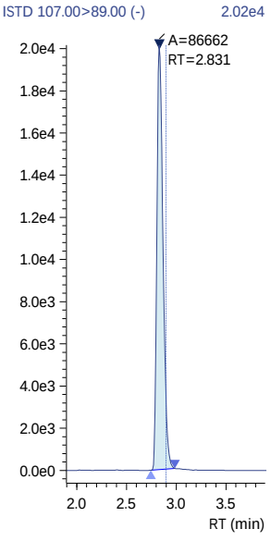
Perchlorate

Conc 10.12781
R#1 25.77 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



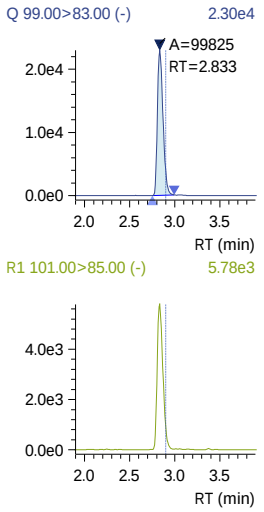
Insight Report

20210518_020

Sample ID: PERCHLORATEICV
Date Acquired: 5/18/2021 1:04:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_020.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

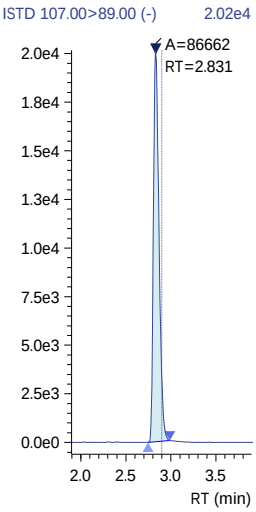
Perchlorate

Conc 10.90969
R#1 25.77 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



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

20210518

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/18/2021
Cal. Std. xp: 5/20/2021
ICAL ID: **EC2100031**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210518_011	Perchlorate6850b.lcm	1x	☒	3100808-05	5/18/2021 11:48
2	PERCHLORATE2		20210518_012	Perchlorate6850b.lcm	1x	☒	3100808-06	5/18/2021 11:57
3	PERCHLORATE3		20210518_013	Perchlorate6850b.lcm	1x	☒	3100808-07	5/18/2021 12:05
4	PERCHLORATE4		20210518_014	Perchlorate6850b.lcm	1x	☒	3100808-08	5/18/2021 12:14
5	PERCHLORATE5		20210518_015	Perchlorate6850b.lcm	1x	☒	3100808-09	5/18/2021 12:22
6	PERCHLORATE6		20210518_016	Perchlorate6850b.lcm	1x	☒	3100809-01	5/18/2021 12:30
7	PERCHLORATE7		20210518_010	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 10:48
8	PERCHLORATE8		20210518_017	Perchlorate6850b.lcm	1x	☒	3100809-03	5/18/2021 12:39
9	PERCHLORATE9		20210518_018	Perchlorate6850b.lcm	1x	☒	3100809-04	5/18/2021 12:47
10	PERCHLORATE10		20210518_019	Perchlorate6850b.lcm	1x	☒	3100809-05	5/18/2021 12:56
11	PERCHLORATEICV		20210518_020	Perchlorate6850b.lcm	1x	☒	3100809-06	5/18/2021 13:04
12	ICS		20210518_021	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:12
13	LODV		20210518_022	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:21
14	PERCHLORATE7		20210518_023	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:29
15	E2100493-001x10		20210518_024	Perchlorate6850b.lcm	10X	☒	DNU-INST failed	5/18/2021 13:38
16	PERCHLORATE7		20210518_025	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:46
17	EQ2100297-01		20210518_026	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:20
18	EQ2100297-02		20210518_027	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:29
19	EQ2100297-03		20210518_028	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:37
20	E2100496-002X10		20210518_029	Perchlorate6850b.lcm	10X	☒		5/18/2021 14:45
21	E2100493-001x20		20210518_030	Perchlorate6850b.lcm	20X	☒	DNU-INST failed	5/18/2021 14:54
22	PERCHLORATE7		20210518_031	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:02
23	E2100493-001x40		20210518_032	Perchlorate6850b.lcm	40X	☒		5/18/2021 15:36
24	PERCHLORATE7		20210518_033	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:44
25	EQ2100298-01		20210518_034	Perchlorate6850b.lcm	1x	☒		5/18/2021 16:56
26	EQ2100298-02		20210518_035	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:05
27	EQ2100298-03RR		20210518_036	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:13
28	E2100526-001X5DNU		20210518_037	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:21
29	E2100553-001X10DNU		20210518_038	Perchlorate6850b.lcm	10x	☒	DNU-INST failed	5/18/2021 17:30
30	E2100554-001X200		20210518_039	Perchlorate6850b.lcm	200x	☒		5/18/2021 17:38
31	E2100555-001X5DNU		20210518_040	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:47
32	PERCHLORATE7		20210518_041	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 17:55
33								

20210519

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/18/2021
Cal. Std. xp: 5/20/2021
ICAL ID: **EC2100031**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	null		20210519_001	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:03
2	null		20210519_001~1	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:06
3	null		20210519_002	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:11
4	IB		20210519_003	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:16
5	IB		20210519_004	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:18
6	ICS		20210519_005	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:26
7	LODV		20210519_007	Perchlorate6850b.lcm	1x	☒		5/19/2021 10:09
8	PERCHLORATE7		20210519_008	Perchlorate6850b.lcm	1x	☒	3100809-02	5/19/2021 10:17
9	E2100526-001X20		20210519_009	Perchlorate6850b.lcm	20X	☒		5/19/2021 10:25
10	E2100553-001X20		20210519_010	Perchlorate6850b.lcm	20X	☒		5/19/2021 10:34
11	E2100555-001X20		20210519_011	Perchlorate6850b.lcm	20X	☒		5/19/2021 10:42
12	EQ2100298-02		20210519_012	Perchlorate6850b.lcm	1x	☒		5/19/2021 10:50
13	EQ2100298-03		20210519_013	Perchlorate6850b.lcm	1x	☒		5/19/2021 10:59
14	PERCHLORATE7		20210519_014	Perchlorate6850b.lcm	1x	☒	3100809-02	5/19/2021 11:07
15								
16								
17								
18								
19								
20								
21								
22								
23								

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050553

Service Request: E2100555
Date Analyzed: 5/19/21

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\20210519\20210519_008

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.32	0.1137	0.1060	-6.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050553

Service Request: E2100555
Date Analyzed: 5/19/21

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\20210519\20210519_014

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.38	0.1137	0.1067	-6.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050553

Service Request: E2100555
Date Analyzed: 5/18/21

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\20210518\20210518_033

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724053
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.75	0.1137	0.1109	-2.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050553

Service Request: E2100555
Date Analyzed: 5/18/21

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\20210518\20210518_041

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724053
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.46	0.1137	0.1076	-5.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050553

Service Request: E2100555
Date Analyzed: 5/19/21 10:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210519\20210519_008
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100309-01
Analysis Lot: 724049
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100309-01	107,470	2.84
LH18/24-SP650_051121_BIX	E2100555-001	125,282	2.83
Lab Control Sample	EQ2100298-02	130,750	2.83
Duplicate Lab Control Sample	EQ2100298-03	126,073	2.83

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:**	E2100555
Project:	HS21050553	**Date Analyzed:**	5/19/21 11:07

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210519\20210519_014	**Lab Code:**	EQ2100309-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	724049
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100309-02	92,600	2.83

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:**	E2100555
Project:	HS21050553	**Date Analyzed:**	5/18/21 15:44

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210518\20210518_033	**Lab Code:**	EQ2100310-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	724053
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100310-01	86,285	2.83
Method Blank	EQ2100298-01	108,736	2.70

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:**	E2100555
Project:	HS21050553	**Date Analyzed:**	5/18/21 17:55

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210518\20210518_041	**Lab Code:**	EQ2100310-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	724053
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100310-02	80,095	2.83

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

Printed at 5/18/2021 3:37:42 PM

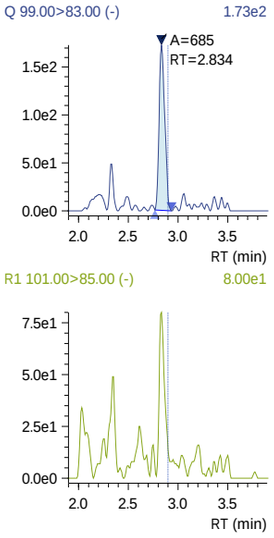
20210518_022

Sample ID: LODV
Date Acquired: 5/18/2021 1:21:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_022.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	685	127264	1	0.04731	ng/mL	----	42.94
Sodium Perchlorate-18O4_IS	Auto	2.829	127264	127264	1	1.00000	ng/mL	----	----

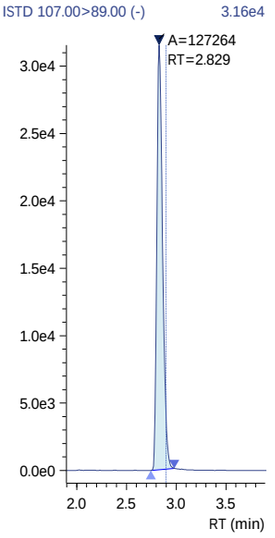
Perchlorate

Conc 0.04731
R#1 42.94 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

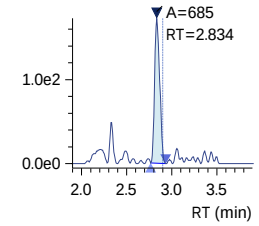
20210518_022

Sample ID: LODV
Date Acquired: 5/18/2021 1:21:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_022.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

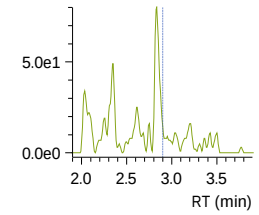
Perchlorate

Conc 0.05096
R#1 42.94 (0.00)

Q 99.00>83.00 (-) 1.73e2



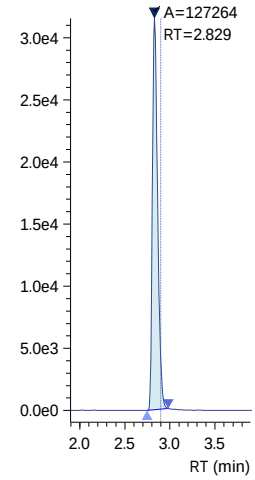
R1 101.00>85.00 (-) 8.00e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.16e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

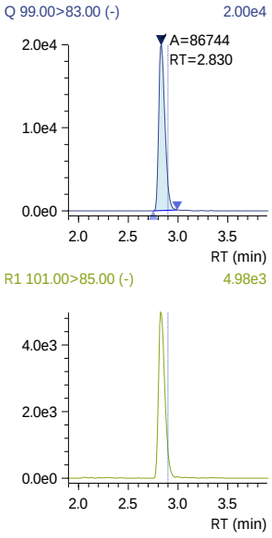
20210518_023

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 1:29:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_023.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.830	86744	83213	1	9.16544	ng/mL	10.0000	25.12
Sodium Perchlorate-18O4_IS	Auto	2.829	83213	83213	1	1.00000	ng/mL	1.0000	----

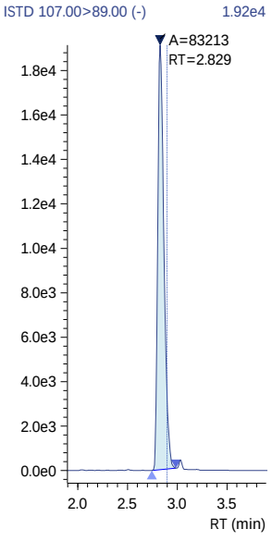
Perchlorate

Conc 9.16544
R#1 25.12 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



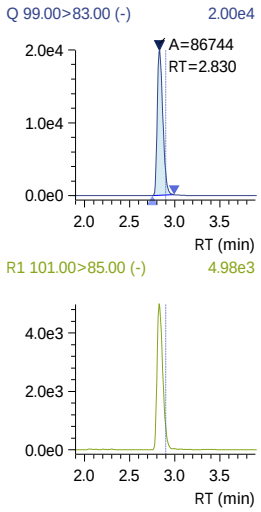
Insight Report

20210518_023

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 1:29:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_023.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

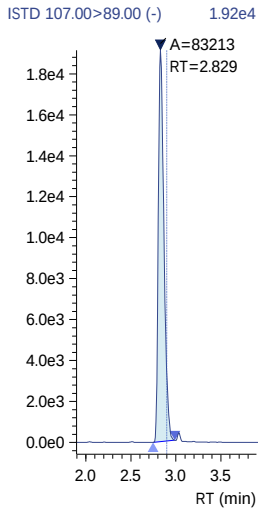
Perchlorate

Conc 9.87303
R#1 25.12 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:50:23 PM

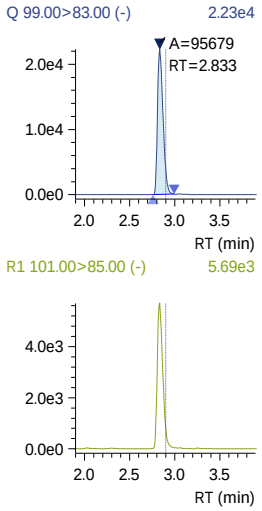
20210518_033

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 3:44:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_033.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	95679	86285	1	9.74950	ng/mL	10.0000	26.19
Sodium Perchlorate-18O4 _IS	Auto	2.832	86285	86285	1	1.00000	ng/mL	1.0000	----

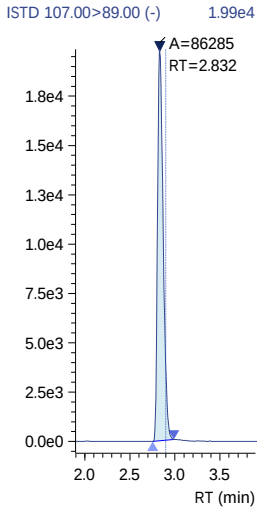
Perchlorate

Conc 9.74950
R#1 26.19 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:51:17 PM

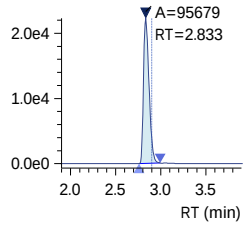
20210518_033

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 3:44:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_033.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

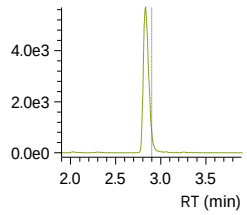
Perchlorate

Conc 10.38020
R#1 26.19 (0.00)

Q 99.00>83.00 (-) 2.23e4



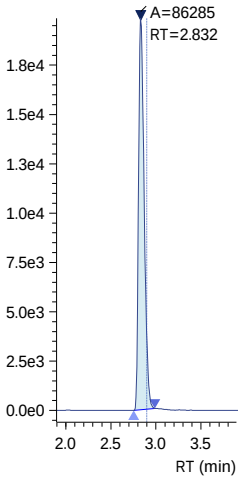
R1 101.00>85.00 (-) 5.69e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.99e4



Insight Report

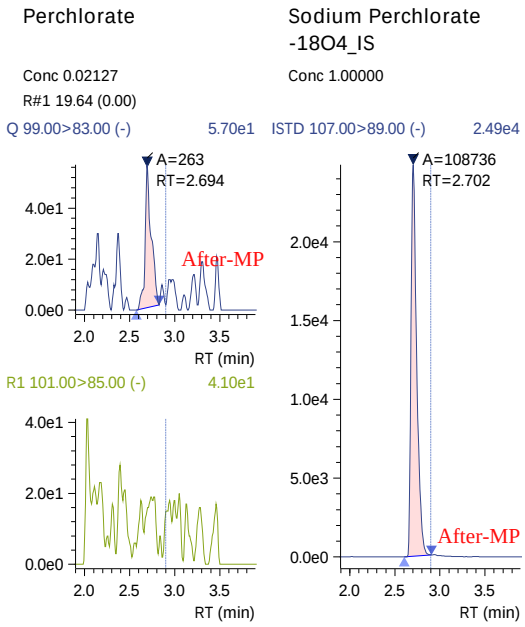
Printed at 5/19/2021 12:31:14 PM

Method File: I:\LCMS01\DATA\20210518\20210518.lcm
Project File: I:\LCMS01\DATA\20210518\20210518.damlp

20210518_034

Sample ID: EQ2100298-01
Date Acquired: 5/18/2021 4:56:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_034.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.694	263	108736	1	0.02127	ng/mL	----	19.64
Sodium Perchlorate-18O4_IS	M	2.702	1087 36	108736	1	1.00000	ng/mL	----	----



Insight Report

Method File: I:\LCMS01\DATA\20210518\20210517.lcm

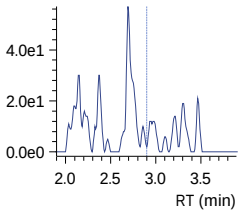
20210518_034

Sample ID: EQ2100298-01
Date Acquired: 5/18/2021 4:56:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_034.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

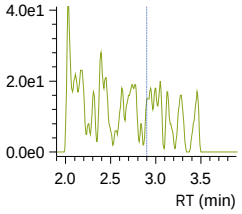
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 5.70e1



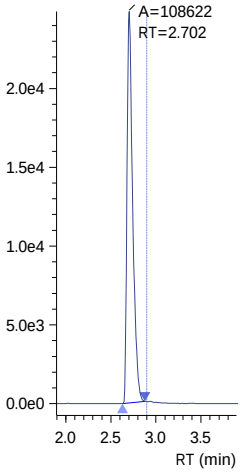
R1 101.00>85.00 (-) 4.10e1



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 2.49e4



Insight Report

Printed at 5/19/2021 12:31:14 PM

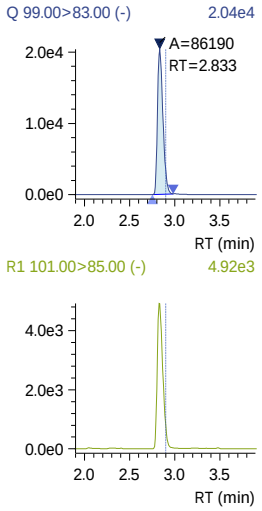
20210518_041

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 5:55:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_041.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	86190	80095	1	9.46131	ng/mL	10.0000	25.02
Sodium Perchlorate-18O4 _IS	Auto	2.831	80095	80095	1	1.00000	ng/mL	1.0000	----

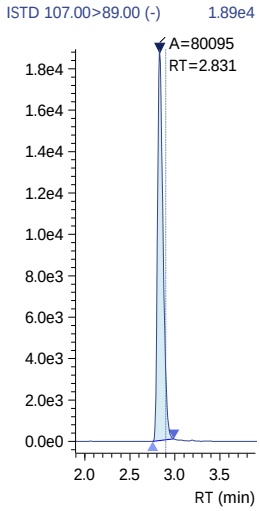
Perchlorate

Conc 9.46131
R#1 25.02 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 12:32:23 PM

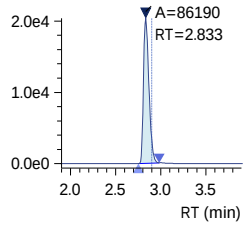
20210518_041

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 5:55:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_041.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

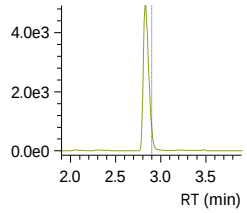
Perchlorate

Conc 10.07337
R#1 25.02 (0.00)

Q 99.00>83.00 (-) 2.04e4



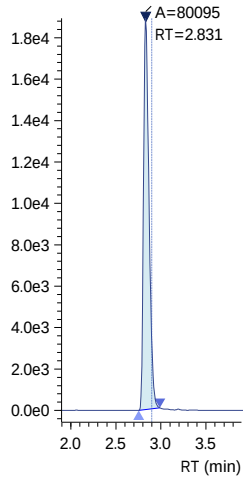
R1 101.00>85.00 (-) 4.92e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.89e4



Insight Report

Printed at 5/19/2021 11:21:19 AM

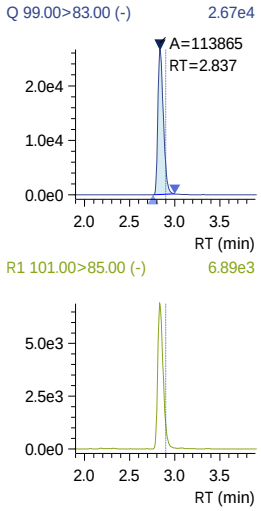
20210519_008

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 10:17:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.837	113865	107470	1	9.31544	ng/mL	10.0000	25.82
Sodium Perchlorate-18O4_IS	Auto	2.836	107470	107470	1	1.00000	ng/mL	1.0000	----

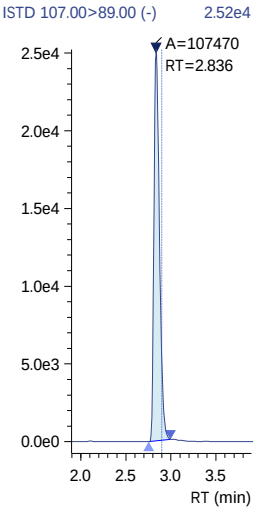
Perchlorate

Conc 9.31544
R#1 25.82 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 11:22:56 AM

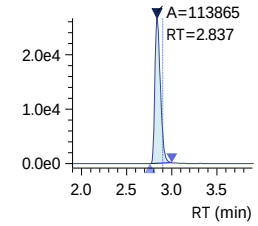
20210519_008

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 10:17:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

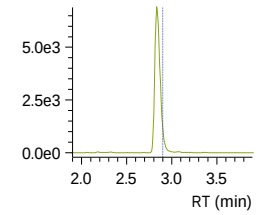
Perchlorate

Conc 9.31544
R#1 25.82 (0.00)

Q 99.00>83.00 (-) 2.67e4



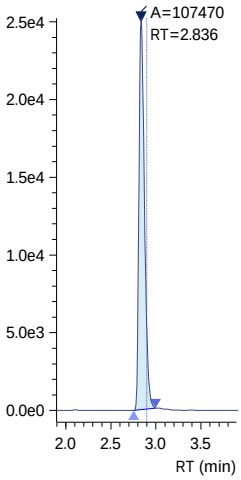
R1 101.00>85.00 (-) 6.89e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.52e4



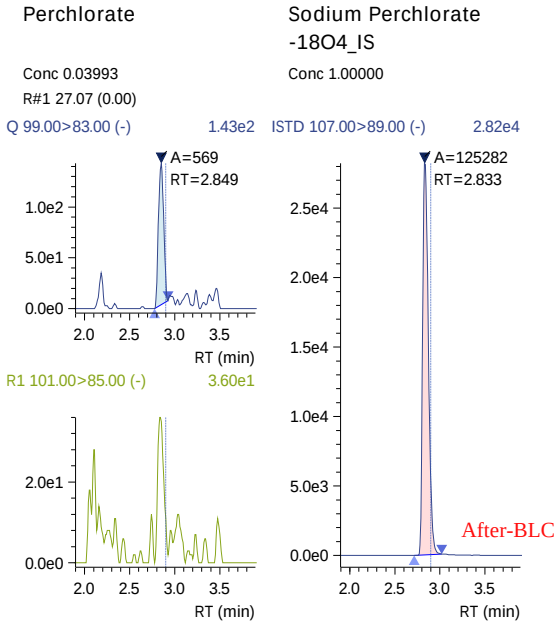
Insight Report

Printed at 5/19/2021 11:21:19 AM

20210519_011

Sample ID: E2100555-001X20
Date Acquired: 5/19/2021 10:42:31 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_011.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.849	569	125282	1	0.03993	ng/mL	----	27.07
Sodium Perchlorate-18O4 _IS	M	2.833	1252 82	125282	1	1.00000	ng/mL	----	----



Insight Report

Printed at 5/19/2021 11:22:56 AM

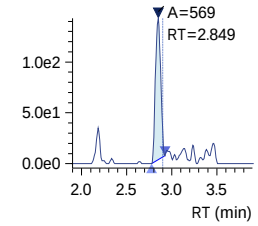
20210519_011

Sample ID: E2100555-001X20
Date Acquired: 5/19/2021 10:42:31 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_011.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 4

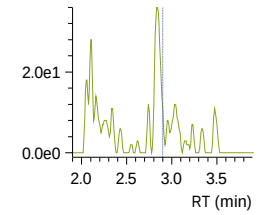
Perchlorate

Conc 0.04006
R#1 27.07 (0.00)

Q 99.00>83.00 (-) 1.43e2



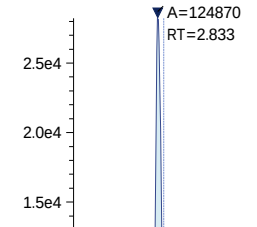
R1 101.00>85.00 (-) 3.60e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.82e4



Insight Report

Printed at 5/19/2021 11:21:19 AM

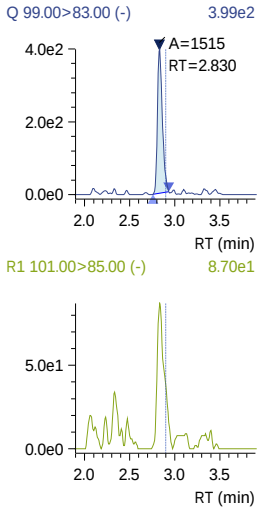
20210519_012

Sample ID: EQ2100298-02
Date Acquired: 5/19/2021 10:50:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_012.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.830	1515	130750	1	0.10184	ng/mL	----	19.43
Sodium Perchlorate-18O4 _IS	M	2.830	1307 50	130750	1	1.00000	ng/mL	----	----

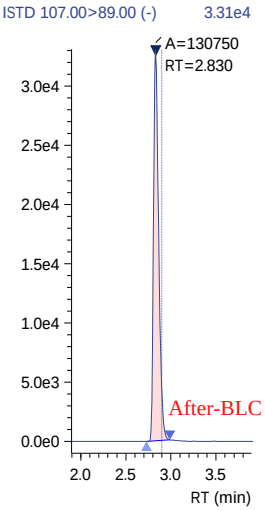
Perchlorate

Conc 0.10184
R#1 19.43 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 11:22:56 AM

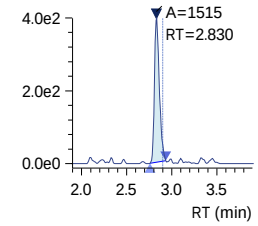
20210519_012

Sample ID: EQ2100298-02
Date Acquired: 5/19/2021 10:50:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_012.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

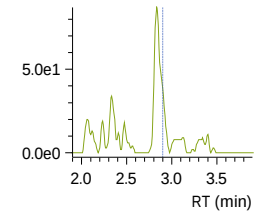
Perchlorate

Conc 0.10190
R#1 19.43 (0.00)

Q 99.00>83.00 (-) 3.99e2



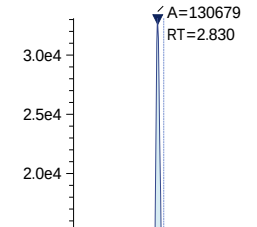
R1 101.00>85.00 (-) 8.70e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.31e4



Insight Report

Printed at 5/19/2021 11:21:19 AM

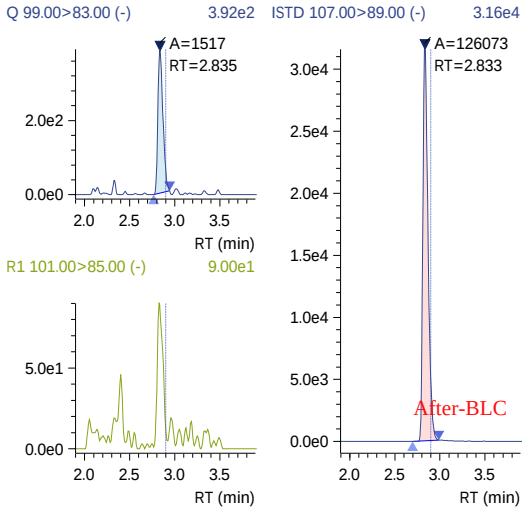
20210519_013

Sample ID: EQ2100298-03
Date Acquired: 5/19/2021 10:59:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_013.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.835	1517	126073	1	0.10576	ng/mL	----	21.62
Sodium Perchlorate-18O4 _IS	M	2.833	1260 73	126073	1	1.00000	ng/mL	----	----

Perchlorate

Conc 0.10576
R#1 21.62 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000

Insight Report

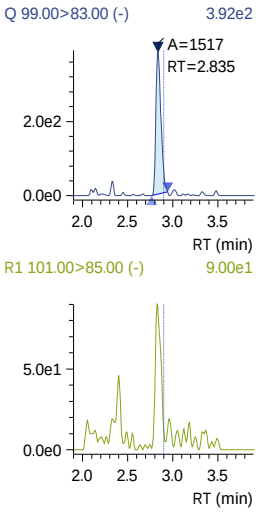
Printed at 5/19/2021 11:22:56 AM

20210519_013

Sample ID: EQ2100298-03
Date Acquired: 5/19/2021 10:59:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_013.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

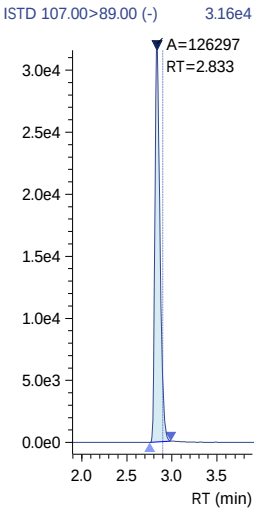
Perchlorate

Conc 0.10557
R#1 21.62 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 11:21:19 AM

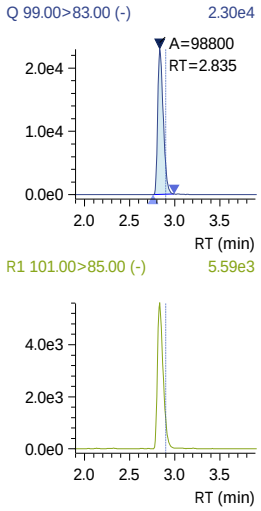
20210519_014

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 11:07:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_014.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.835	98800	92600	1	9.38100	ng/mL	10.0000	24.34
Sodium Perchlorate-18O4 _IS	M	2.833	92600	92600	1	1.00000	ng/mL	1.0000	----

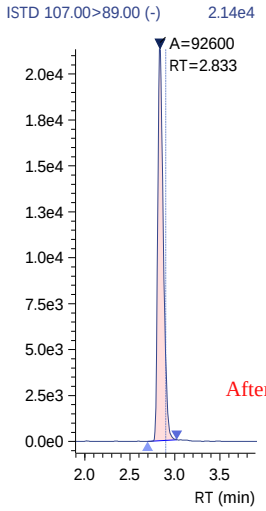
Perchlorate

Conc 9.38100
R#1 24.34 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



After-BLC

Insight Report

Printed at 5/19/2021 11:22:56 AM

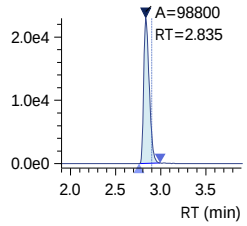
20210519_014

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 11:07:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_014.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

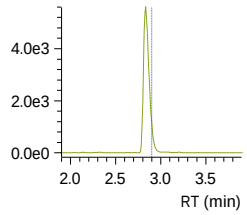
Perchlorate

Conc 9.40467
R#1 24.34 (0.00)

Q 99.00>83.00 (-) 2.30e4



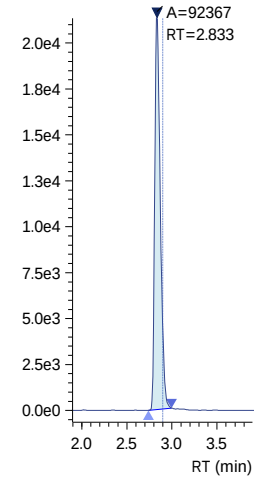
R1 101.00>85.00 (-) 5.59e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.14e4



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

WorkOrder: HS21050554

Longhorn GW Treatment Plant Monthly Influent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

28-May-2021

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

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HS21050554 Wet Chem Raw Data (Cr6_W_7196_DOD)

HS21050554 - Sub Perch IV (E2100554)

- CoverLetter
- Certificate of Analysis
- Chain of Custody
- Preparation Sheets
- Analytical Results
- Accuracy and Precision
- Initial Calibration
- Chromatogram

HS21050554 Longhorn GW Treatment Plant Monthly Influent Samples Final

ALS WO# HS21050554

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

May 26, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21050554**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Influent Samples**

Dear Marcia Olive,

ALS Environmental received 1 sample(s) on May 12, 2021 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
Ragen Giga
Project Manager

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS21050554

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21050554-01	LH18/24-SP140_051121	Water		11-May-2021 14:00	12-May-2021 09:55	☐

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS21050554

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS High Res Lab Houston, TX. Final report attached.

Metals by Method SW6020A

Batch ID: 166115

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7196

Batch ID: R383795

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder:HS21050554
Sample ID: LH18/24-SP140_051121
Lab ID:HS21050554-01
Collection Date: 11-May-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 22-May-2021		Analyst: JHD
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	26-May-2021 11:42
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	26-May-2021 11:42
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**						Analyst: KVL
Chromium, Hexavalent	0.0100	U	0.00600	0.0100	0.0100	mg/L	1	12-May-2021 13:39
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	19-May-2021 16:18

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: HS21050554

Batch ID: 166115 **Start Date:** 22 May 2021 09:00 **End Date:** 22 May 2021 13:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21050554-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 166115 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS21050554-01	LH18/24-SP140_051121	11 May 2021 14:00		22 May 2021 13:00	26 May 2021 11:42	1
Batch ID: R383795 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS21050554-01	LH18/24-SP140_051121	11 May 2021 14:00			12 May 2021 13:39	1
Batch ID: R383960 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21050554-01	LH18/24-SP140_051121	11 May 2021 14:00			19 May 2021 16:18	1

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

QC BATCH REPORT

Batch ID: 166115 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-166115** Units: **mg/L** Analysis Date: **25-May-2021 23:46**
Client ID: Run ID: **ICPMS06_384352** SeqNo: **6109900** PrepDate: **22-May-2021** 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-166115** Units: **mg/L** Analysis Date: **25-May-2021 23:48**
Client ID: Run ID: **ICPMS06_384352** SeqNo: **6109901** PrepDate: **22-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.04964	0.00500	0.05	0	99.3	80 - 120				
Silver	0.04834	0.00500	0.05	0	96.7	85 - 116				

MS Sample ID: **HS21050672-08MS** Units: **mg/L** Analysis Date: **25-May-2021 23:54**
Client ID: Run ID: **ICPMS06_384352** SeqNo: **6109904** PrepDate: **22-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.04827	0.00500	0.05	0.000118	96.3	80 - 120				
Silver	0.04628	0.00500	0.05	-0.000009	92.6	85 - 116				

MSD Sample ID: **HS21050672-08MSD** Units: **mg/L** Analysis Date: **25-May-2021 23:56**
Client ID: Run ID: **ICPMS06_384352** SeqNo: **6109905** PrepDate: **22-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.04604	0.00500	0.05	0.000118	91.8	80 - 120	0.04827	4.73	20	
Silver	0.04497	0.00500	0.05	-0.000009	90.0	85 - 116	0.04628	2.87	20	

PDS Sample ID: **HS21050672-08PDS** Units: **mg/L** Analysis Date: **25-May-2021 23:58**
Client ID: Run ID: **ICPMS06_384352** SeqNo: **6109906** PrepDate: **22-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.1049	0.00500	0.1	0.000118	105	80 - 120				
Silver	0.09162	0.00500	0.1	-0.000009	91.6	80 - 120				

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

QC BATCH REPORT

Batch ID: 166115 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS21050672-08SD** Units: **mg/L** Analysis Date: **25-May-2021 23:52**
Client ID: Run ID: **ICPMS06_384352** SeqNo: **6109903** PrepDate: **22-May-2021** 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					0.000118	0	10	U
Silver	0.00250	0.0250					-0.000009	0	10	U

The following samples were analyzed in this batch: HS21050554-01

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

QC BATCH REPORT

Batch ID: R383795 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R383795** Units: **mg/L** Analysis Date: **12-May-2021 13:30**
Client ID: Run ID: **UV-2450_383795** SeqNo: **6096161** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.0100	0.0100								U

LCS Sample ID: **LCS-R383795** Units: **mg/L** Analysis Date: **12-May-2021 13:30**
Client ID: Run ID: **UV-2450_383795** SeqNo: **6096160** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.257	0.0100	0.25	0	103	90 - 111				

MS Sample ID: **HS21050553-01MS** Units: **mg/L** Analysis Date: **12-May-2021 13:40**
Client ID: Run ID: **UV-2450_383795** SeqNo: **6096163** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.252	0.0100	0.25	0	101	90 - 111				

MSD Sample ID: **HS21050553-01MSD** Units: **mg/L** Analysis Date: **12-May-2021 13:40**
Client ID: Run ID: **UV-2450_383795** SeqNo: **6096162** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.254	0.0100	0.25	0	102	90 - 111	0.252	0.791	20	

The following samples were analyzed in this batch: HS21050554-01

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: **HS21050554**

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	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022

ALS Houston, US Date: 26-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS21050554

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21050554-01	LH18/24-SP140_051121	Login	5/12/2021 11:37:00 AM	PJM	MET076
HS21050554-01	LH18/24-SP140_051121	Login	5/12/2021 11:37:00 AM	PJM	Sub
HS21050554-01	LH18/24-SP140_051121	Login	5/12/2021 11:37:00 AM	PJM	WET257

ALS Houston, US Date: 26-May-21

Sample Receipt Checklist

Work Order ID: HS21050554 **Date/Time Received:** 12-May-2021 09:55

Client Name: Bhate Environmental **Received by:** Pablo Marinez

Completed By:	/S/ Pablo Marinez	12-May-2021 11:37	**Reviewed by:**	/S/ Ragen Giga	12-May-2021 14:54
	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:CLIENT	
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):	0.5°C UC/C				IR 31	
Cooler(s)/Kit(s):	46969					
Date/Time sample(s) sent to storage:	5/12/21 11:45					
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: RJ Modashia

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

HS21050554

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Monthly Influent Sam

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_051121	Water	05/11/21 / 14:00		1	X			HNO3	
LH18/24-SP140_051121	Water	05/11/21 / 14:00		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	05/11/21	14:30	Patti Mann	5/12/21	9:55						

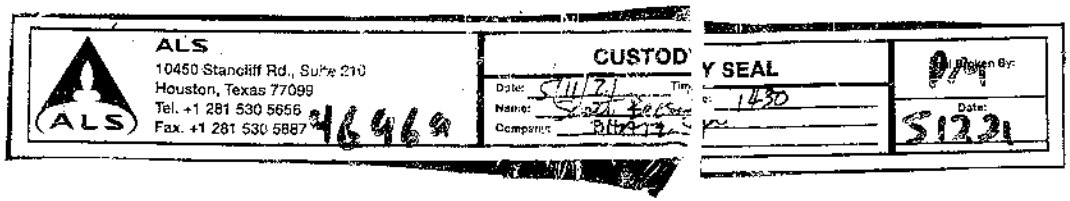
For Lab Use Only

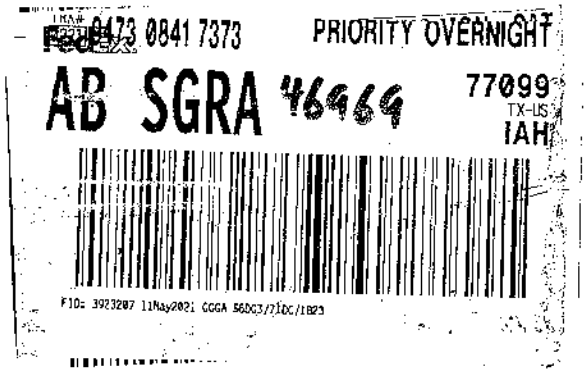
Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

46469 0.5C
IR31 CF2

(Word) S:\l-ces\Forms\Chain of Custody - BiWeekly


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
46469
CUSTOD
Y SEAL
Date:
Name:
Company:
1430
Date:
5122


FedEx
0473 0841 7373
PRIORITY OVERNIGHT
AB SGRA
46469
77099
TX-US
IAH
F10= 3923287 11May2021 CCGA 560C3/710C/1B23

May 19, 2021 Service Request No:E2100554

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS21050554

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory May 12, 2021
For your reference, these analyses have been assigned our service request number **E2100554.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100554
Project:	HS21050554	**Date Received:**	05/12/21
Sample Matrix:	W		

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 05/12/21.

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:

EQ2100298: 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 LCS and DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100554
Project: HS21050554

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100554-001	LH18/24-SP140_051121	5/11/2021	1400

Service Request Summary

Folder #: **E2100554**
Client Name: ALS Environmental - US
Project Name: HS21050554
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050554
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100554-001	LH18/24-SP140_051121	Ground Water	05/11/21 1400	**IV**

Service Request Summary

Folder #: **E2100554**
Client Name: ALS Environmental - US
Project Name: HS21050554
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050554
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 5/26, IV due 6/3

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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

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State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arizona Department of Health Services	AZ0793-2020	5/27/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022

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:** **16113**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21050554
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21050554-01**	**LH18/24-SP140_051121**	**Water**	**11 May 2021 14:00**
	Provide Level II and Level IV reports in separate pdf			26 May 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: Pablo Ruiz Date/Time: 5-12-21 18:00

Received By: [illegible] Date/Time: 5-12-21 1800

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/12/21 Initials: CG

Date/Time Logged in: 5/13/21 Initials: CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊘ Courier (ALS) ○ 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		5/12/21	1800	CG	2.8	☒
						☐
						☐
						☐

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#: 379504 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/17/21 10:50

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100526-001	LH18/24-SP650_050421_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100553-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100554-001	LH18/24-SP140_051121	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100555-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
5	EQ2100298-01	MB		6850/ClO4 DOD			Liquid	10mL	
6	EQ2100298-02	LCS		6850/ClO4 DOD			Liquid	10mL	
7	EQ2100298-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 214035 Logbook Ref: Perchlorate Expires On: 05/23/2021

EQ2100298-02 1.00µL EQ2100298-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 214820 Logbook Ref: Perchlorate Internal Standard Expires On: 07/03/2021

E2100526-001 100.00µL E2100553-001 100.00µL E2100554-001 100.00µL E2100555-001 100.00µL EQ2100298-01 100.00µL EQ2100298-02 100.00µL
EQ2100298-03 100.00µL

Preparation Steps

Step: Preparation
Started: 5/17/21 10:50
Finished: 5/17/21 11:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/17/21

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:**	E2100554
Project:	HS21050554	**Date Collected:**	5/11/21 1400
Sample Matrix:	Ground Water	**Date Received:**	5/12/21
Sample Name:	LH18/24-SP140_051121	**Units:**	µg/L
Lab Code:	E2100554-001	**Basis:**	As Received

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	**9020**		20.0	10.0	5.00	200	5/17/21	5/18/21 17:38	379504	724053	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100554
Project:	HS21050554	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100298-01	**Basis:**	As Received

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	5/17/21	5/18/21 16:56	379504	724053	

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: HS21050554
Sample Matrix: Ground Water

Service Request: E2100554
Date Analyzed: 5/19/21

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: As Received

Extraction Lot: 379504

	Lab Control Sample EQ2100298-02			Duplicate Lab Control Sample EQ2100298-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.102	0.100	102	0.106	0.100	106	84 - 119	4	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:**	E2100554
Project:	HS21050554	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-02	**Basis:**	As Received

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	**0.102**		0.100	0.0500	0.0250	1	5/17/21	5/19/21 10:50	379504	724049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100554
Project:	HS21050554	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-03	**Basis:**	As Received

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	5/17/21	5/19/21 10:59	379504	724049	

HS21050554 - ME - ICP_W_DOD

ALS WO# HS21050554

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Instrument:ICPMS06

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

FORM 12 - PREPARATION LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554
Start Date: 22-May-2021 09:00 End Date: 22-May-2021 13:00

Batch ID: 166115
Prep Code: 3010A
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS21050554-01	LH18/24-SP140_051121	Water		10	10	1
HS21050672-08MS				10	10	1
HS21050672-08MSD				10	10	1
HS21050672-08PDS				10	10	1
HS21050672-08SD				10	10	1
LCS-166115				10	10	1
MBLK-166115				10	10	1

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554
Start Date: 25-May-2021 End Date: 26-May-2021

Run ID:ICPMS06_384352
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_384352_Tune	1	25-May-2021 00:00	ICPMS06_384352_Tune_1	
CAL BLK	1	25-May-2021 11:05	009CALB.d_6109865	AG SE
2/10/200	1	25-May-2021 11:07	010CALS.d_6109866	AG SE
5/25/500	1	25-May-2021 11:09	011CALS.d_6109867	AG SE
10/50/100	1	25-May-2021 11:11	012CALS.d_6109868	AG SE
100/500/10K	1	25-May-2021 11:13	013CALS.d_6109869	AG SE
200/1000/20K	1	25-May-2021 11:15	014CALS.d_6109870	AG SE
ICV	1	25-May-2021 11:19	016_ICV.d_6109872	AG SE
ICB	1	25-May-2021 11:21	017_ICB.d_6109873	AG SE
LLICV2	1	25-May-2021 11:23	018LCV2.d_6109874	AG SE
LLICV5	1	25-May-2021 11:25	019LCV5.d_6109875	AG SE
ICSA	1	25-May-2021 11:44	022ICSA.d_6109878	AG SE
ICSAB	1	25-May-2021 11:46	023ICSB.d_6109879	AG SE
CAL BLK	1	25-May-2021 21:21	223CALB.d_6109882	AG SE
2/10/200	1	25-May-2021 21:23	224CALS.d_6109883	AG SE
5/25/500	1	25-May-2021 21:25	225CALS.d_6109884	AG SE
10/50/100	1	25-May-2021 21:27	226CALS.d_6109885	AG SE
100/500/10K	1	25-May-2021 21:29	227CALS.d_6109886	AG SE
200/1000/20K	1	25-May-2021 21:31	228CALS.d_6109887	AG SE
ICV	1	25-May-2021 21:35	230_ICV.d_6109889	AG SE
LLICCV5	1	25-May-2021 21:37	231LCV5.d_6109890	AG SE
LLICCV2	1	25-May-2021 21:39	232LCV2.d_6109891	AG SE
ICB	1	25-May-2021 21:41	233_ICB.d_6109892	AG SE
CCV 1	1	25-May-2021 23:35	278_CCV.d_6109895	AG SE
CCB 1	1	25-May-2021 23:37	279_CCB.d_6109896	AG SE
ICSA	1	25-May-2021 23:39	280ICSA.d_6109897	AG SE
ICSAB	1	25-May-2021 23:41	281ICSB.d_6109898	AG SE
MBLK-166115	1	25-May-2021 23:46	283SMPL.d_6109900	AG SE
LCS-166115	1	25-May-2021 23:48	284SMPL.d_6109901	AG SE
ZZZZZZSD	5	25-May-2021 23:52	286SMPL.d_6109903	AG SE
ZZZZZZMS	1	25-May-2021 23:54	287SMPL.d_6109904	AG SE
ZZZZZZMSD	1	25-May-2021 23:56	288SMPL.d_6109905	AG SE
ZZZZZZPDS	1	25-May-2021 23:58	289SMPL.d_6109906	AG SE
CCV 2	1	26-May-2021 00:00	290_CCV.d_6109907	AG SE
CCB 2	1	26-May-2021 00:02	291_CCB.d_6109908	AG SE
CCV 3	1	26-May-2021 00:20	300_CCV.d_6109917	AG SE
CCB 3	1	26-May-2021 00:22	301_CCB.d_6109918	AG SE
CCV 4	1	26-May-2021 00:43	311_CCV.d_6109928	AG SE
CCB 4	1	26-May-2021 00:45	312_CCB.d_6109929	AG SE
LLCCV2	1	26-May-2021 00:49	314LCV2.d_6109931	AG SE
LLCCV5	1	26-May-2021 00:51	315LCV5.d_6109932	AG SE
ICSA	1	26-May-2021 00:53	316ICSA.d_6109933	AG SE
ICSAB	1	26-May-2021 00:55	317ICSB.d_6109934	AG SE

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554
Start Date: 26-May-2021 End Date: 26-May-2021

Run ID:ICPMS06_384403
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_384403_Tune	1	26-May-2021 00:00	ICPMS06_384403_Tune_1	
CAL BLK	1	26-May-2021 10:45	009CALB.d_6110820	AG SE
2/10/200	1	26-May-2021 10:47	010CALS.d_6110821	AG SE
5/25/500	1	26-May-2021 10:49	011CALS.d_6110822	AG SE
10/50/100	1	26-May-2021 10:51	012CALS.d_6110823	AG SE
100/500/10K	1	26-May-2021 10:53	013CALS.d_6110824	AG SE
200/1000/20K	1	26-May-2021 10:55	014CALS.d_6110825	AG SE
ICV	1	26-May-2021 10:59	016_ICV.d_6110827	AG SE
ICB	1	26-May-2021 11:01	017_ICB.d_6110828	AG SE
LLICV2	1	26-May-2021 11:03	018LCV2.d_6110829	AG SE
LLICV5	1	26-May-2021 11:05	019LCV5.d_6110830	AG SE
ICSA	1	26-May-2021 11:11	022ICSA.d_6110833	AG SE
ICSAB	1	26-May-2021 11:13	023ICSB.d_6110834	AG SE
CCV 1	1	26-May-2021 11:20	025_CCV.d_6110836	AG SE
CCB 1	1	26-May-2021 11:22	026_CCB.d_6110837	AG SE
LH18/24-SP140_051121	1	26-May-2021 11:42	035SMPL.d_6110845	AG SE
CCV 2	1	26-May-2021 11:46	037_CCV.d_6110847	AG SE
CCB 2	1	26-May-2021 11:48	038_CCB.d_6110848	AG SE
CCB 3	1	26-May-2021 12:38	062_CCB.d_6110853	AG SE
CCV 3	1	26-May-2021 12:40	063_CCV.d_6110854	AG SE
CCV 4	1	26-May-2021 13:06	073_CCV.d_6110850	AG SE
CCB 4	1	26-May-2021 13:07	074_CCB.d_6110851	AG SE
CCV 5	1	26-May-2021 16:55	148_CCV.d_6112009	AG SE
CCB 5	1	26-May-2021 16:57	149_CCB.d_6112010	AG SE
CCV 6	1	26-May-2021 17:22	160_CCV.d_6112021	AG SE
CCB 6	1	26-May-2021 17:23	161_CCB.d_6112022	AG SE
CCV 7	1	26-May-2021 17:52	172_CCV.d_6112031	AG SE
CCB 7	1	26-May-2021 17:54	173_CCB.d_6112032	AG SE

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Run ID: ICPMS06_384352
Instrument: ICPMS06
Method: SW6020A

ICV	Date: 25-May-2021 11:19		Seq: 6109872	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	96.901	97	90-110	
Silver	100	100.782	101	90-110	

ICV	Date: 25-May-2021 21:35		Seq: 6109889	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	97.513	98	90-110	
Silver	100	99.148	99	90-110	

CCV1	Date: 25-May-2021 23:35		Seq: 6109895	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	98.026	98	90-110	
Silver	100	94.871	95	90-110	

CCV2	Date: 26-May-2021 00:00		Seq: 6109907	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	98.96	99	90-110	
Silver	100	94.117	94	90-110	

CCV3	Date: 26-May-2021 00:20		Seq: 6109917	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	97.079	97	90-110	
Silver	100	95.231	95	90-110	

CCV4	Date: 26-May-2021 00:43		Seq: 6109928	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	88.764	89	90-110	S
Silver	100	92.432	92	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: ICPMS06_384403

Project: Longhorn GW Treatment Plant Monthly Influent Samples Instrument: ICPMS06

WorkOrder: HS21050554 Method: SW6020A

ICV	Date: 26-May-2021 10:59		Seq: 6110827	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	96.618	97	90-110	
Silver	100	99.203	99	90-110	
CCV1	Date: 26-May-2021 11:20		Seq: 6110836	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	95.686	96	90-110	
Silver	100	99.177	99	90-110	
CCV2	Date: 26-May-2021 11:46		Seq: 6110847	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	94.98	95	90-110	
Silver	100	100.845	101	90-110	
CCV3	Date: 26-May-2021 12:40		Seq: 6110854	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	97.487	98	90-110	
Silver	100	101.403	101	90-110	
CCV4	Date: 26-May-2021 13:06		Seq: 6110850	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	97.165	97	90-110	
Silver	100	99.157	99	90-110	
CCV5	Date: 26-May-2021 16:55		Seq: 6112009	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	93.882	94	90-110	
Silver	100	96.527	97	90-110	
CCV6	Date: 26-May-2021 17:22		Seq: 6112021	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	92.73	93	90-110	
Silver	100	95.343	95	90-110	
CCV7	Date: 26-May-2021 17:52		Seq: 6112031	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	91.702	92	90-110	
Silver	100	97.841	98	90-110	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Run ID: ICPMS06_384352
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 25-May-2021 11:21		Seq: 6109873	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

ICB	Date: 25-May-2021 21:41		Seq: 6109892	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB1	Date: 25-May-2021 23:37		Seq: 6109896	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

MBLK-166115	Date: 25-May-2021 23:46		Seq: 6109900	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB2	Date: 26-May-2021 00:02		Seq: 6109908	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

CCB3	Date: 26-May-2021 00:22		Seq: 6109918	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

CCB4	Date: 26-May-2021 00:45		Seq: 6109929	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Run ID: ICPMS06_384403
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 26-May-2021 11:01		Seq: 6110828	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
CCB1	Date: 26-May-2021 11:22		Seq: 6110837	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB2	Date: 26-May-2021 11:48		Seq: 6110848	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB3	Date: 26-May-2021 12:38		Seq: 6110853	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB4	Date: 26-May-2021 13:07		Seq: 6110851	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB5	Date: 26-May-2021 16:57		Seq: 6112010	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB6	Date: 26-May-2021 17:23		Seq: 6112022	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB7	Date: 26-May-2021 17:54		Seq: 6112032	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_384352

Project: Longhorn GW Treatment Plant Monthly Influent Samples Instrument:ICPMS06

WorkOrder: HS21050554 Method:SW6020A

ICSA	Date: 25-May-2021 11:44	Seq: 6109878	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		0.31	0	
Silver		0.252	0	
ICSAB	Date: 25-May-2021 11:46	Seq: 6109879	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	105	105	
Silver	100	96.95	97.0	
ICSA	Date: 25-May-2021 23:39	Seq: 6109897	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		0.383	0	
Silver		0.267	0	
ICSAB	Date: 25-May-2021 23:41	Seq: 6109898	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	99.52	99.5	
Silver	100	92.37	92.4	
ICSA	Date: 26-May-2021 00:53	Seq: 6109933	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		0.199	0	
Silver		0.23	0	
ICSAB	Date: 26-May-2021 00:55	Seq: 6109934	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	89.96	90.0	
Silver	100	86.81	86.8	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Run ID: ICPMS06_384403
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 26-May-2021 11:11	Seq: 6110833	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		0.399	0	
Silver		0.261	0	

ICSAB	Date: 26-May-2021 11:13	Seq: 6110834	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	102.8	103	
Silver	100	95.58	95.6	

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Date Analyzed: 25-May-2021 23:56
Date Extracted: 22-May-2021 13:00
Units: ug/L

Matrix Spike: HS21050672-08MS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Selenium	5.000	48.27	50.00	96.3	46.04	50.00	91.8	80-120	4.73	20
Silver	5.000	46.28	50.00	92.6	44.97	50.00	90.0	85-116	2.87	20

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Date Analyzed: 25-May-2021 23:58
Date Extracted: 22-May-2021 13:00
Units: ug/L

Lab Sample ID: HS21050672-08PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Selenium	0	104.9	100	105	80-120
Silver	0	91.62	100	92	80-120

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Date Analyzed: 25-May-2021 23:48
Date Extracted: 22-May-2021 13:00
Units: ug/L

Lab Sample ID: LCS-166115 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Selenium	50	49.64	99	80-120
Silver	50	48.34	97	85-116

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS21050554

Date Analyzed: 25-May-2021 23:52
Date Extracted: 22-May-2021 13:00
Units: ug/L

Lab Sample ID: HS21050672-08SD
Client Sample ID:

Analysis Method: SW6020A

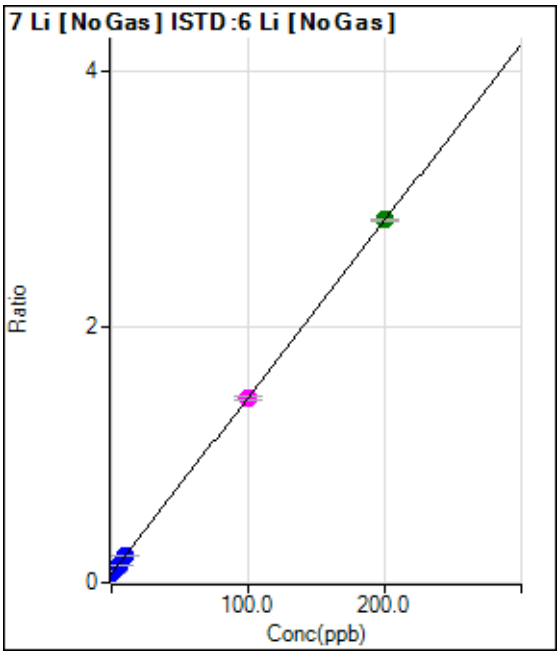
Analyte	Sample Result	C	SD Result	C	RPD	Q
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	

Calibration for 230_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052521A.b\
Analysis File: 052521A.batch.bin
DA Date-Time: 5/25/2021 11:03:56 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	223CALB.d	CAL BLK	5/25/2021 9:21:34 PM
2	224CALS.d	2/10/200	5/25/2021 9:23:34 PM
3	225CALS.d	5/25/500	5/25/2021 9:25:34 PM
4	226CALS.d	10/50/100	5/25/2021 9:27:34 PM
5	227CALS.d	100/500/10K	5/25/2021 9:29:34 PM
6	228CALS.d	200/1000/20K	5/25/2021 9:31:29 PM

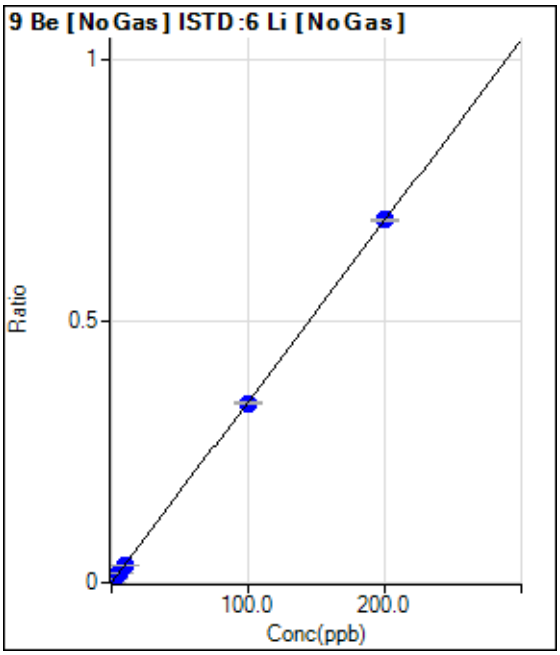
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38265.12	0.0702	P	1.5
2	☐	2.000	1.902	52261.51	0.0965	P	2.1
3	☐	5.000	4.902	74080.03	0.1379	P	0.2
4	☐	10.000	9.916	109593.71	0.2072	P	0.4
5	☐	100.000	99.111	725642.46	1.4402	M	2.1
6	☐	200.000	200.452	1375184.61	2.8410	A	0.5

y = 0.0138 * x + 0.0702
R = 1.0000
DL = 0.2236
BEC = 5.077

Weight: <None>
Min Conc: <None>

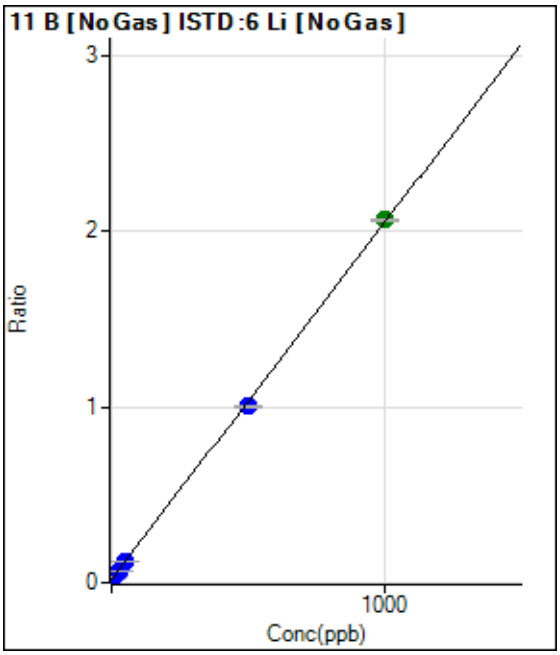


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	75.7
2	☐	2.000	2.003	3763.87	0.0069	P	1.9
3	☐	5.000	4.876	9059.64	0.0169	P	2.3
4	☐	10.000	10.012	18301.98	0.0346	P	0.7
5	☐	100.000	99.025	172344.24	0.3420	P	1.3
6	☐	200.000	200.490	335191.99	0.6925	P	0.5

y = 0.0035 * x + 3.0591E-005
R = 1.0000
DL = 0.02011
BEC = 0.008858

Weight: <None>
Min Conc: <None>

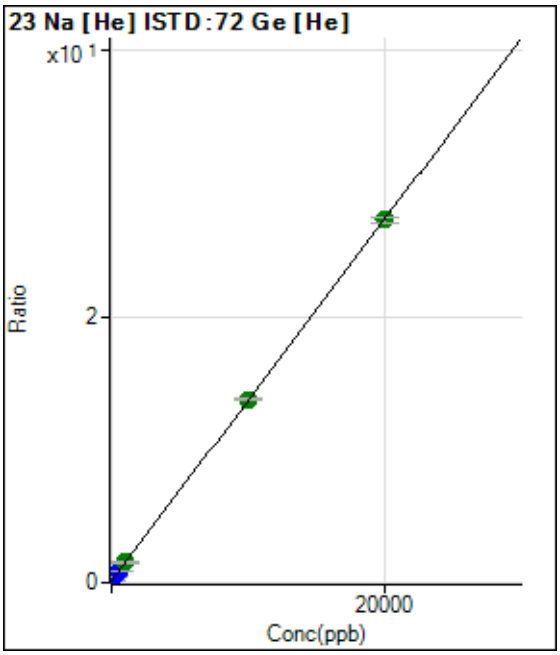
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10410.59	0.0191	P	2.6
2	☐	10.000	9.228	20500.03	0.0378	P	1.9
3	☐	25.000	23.168	35539.96	0.0662	P	3.1
4	☐	50.000	48.672	62406.11	0.1180	P	1.6
5	☐	500.000	484.355	505608.91	1.0035	P	1.8
6	☐	1000.000	1007.943	1000811.08	2.0676	A	0.8

y = 0.0020 * x + 0.0191
R = 0.9998
DL = 0.7372
BEC = 9.394

Weight: <None>
Min Conc: <None>

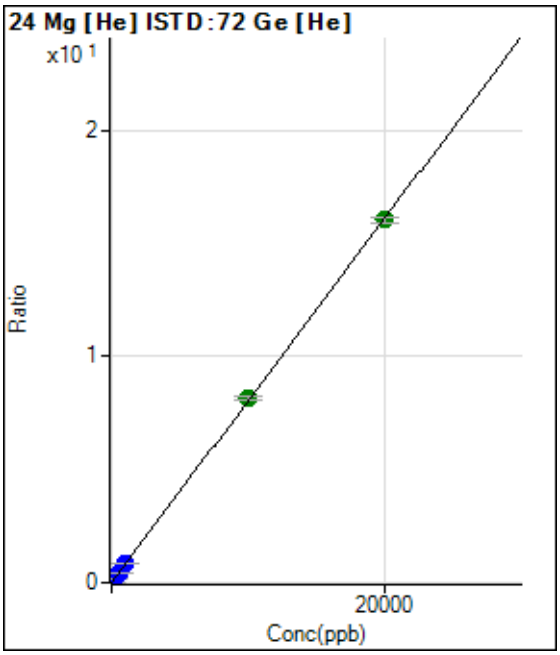


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63179.61	0.1316	P	1.5
2	☐	200.000	208.618	200980.14	0.4150	P	1.1
3	☐	500.000	525.885	405420.47	0.8458	P	1.2
4	☐	1000.000	1026.132	727338.63	1.5252	A	1.8
5	☐	10000.00	10055.98	6367671.99	13.7885	A	0.9
6	☐	20000.00	19969.96	12220850.24	27.2525	A	1.5

y = 0.0014 * x + 0.1316
R = 1.0000
DL = 4.476
BEC = 96.92

Weight: <None>
Min Conc: <None>

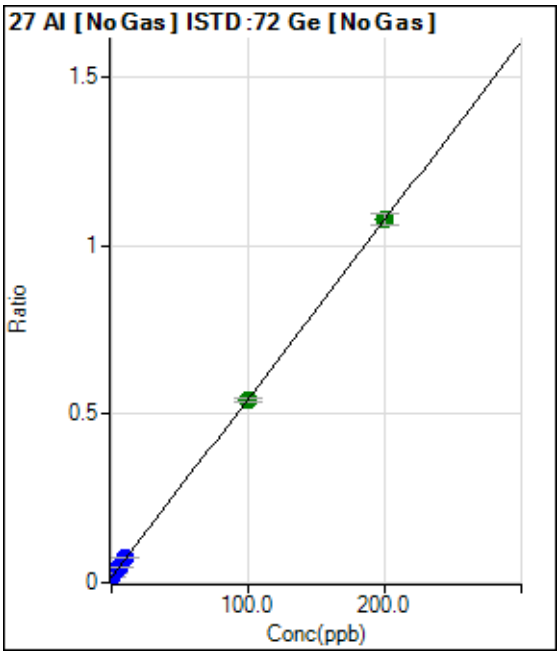
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	523.35	0.0011	P	15.5
2	☐	200.000	212.968	83442.34	0.1723	P	1.3
3	☐	500.000	536.127	207087.10	0.4320	P	0.9
4	☐	1000.000	1072.901	411790.44	0.8635	P	0.7
5	☐	10000.00	10124.08	3758485.05	8.1390	A	1.6
6	☐	20000.00	19933.28	7185954.68	16.0238	A	1.3

y = 8.0382E-004 * x + 0.0011
R = 1.0000
DL = 0.6295
BEC = 1.357

Weight: <None>
Min Conc: <None>

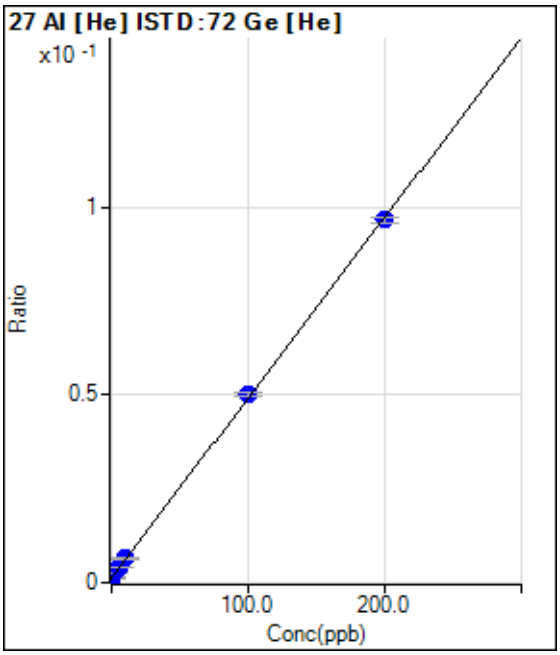


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24154.72	0.0155	P	3.7
2	☐	2.000	2.792	47404.42	0.0303	P	2.7
3	☐	5.000	5.736	71268.68	0.0460	P	0.3
4	☐	10.000	11.538	116537.52	0.0767	P	0.7
5	☐	100.000	99.578	812743.14	0.5436	A	1.8
6	☐	200.000	200.108	1554045.19	1.0767	A	3.4

y = 0.0053 * x + 0.0155
R = 1.0000
DL = 0.321
BEC = 2.931

Weight: <None>
Min Conc: <None>

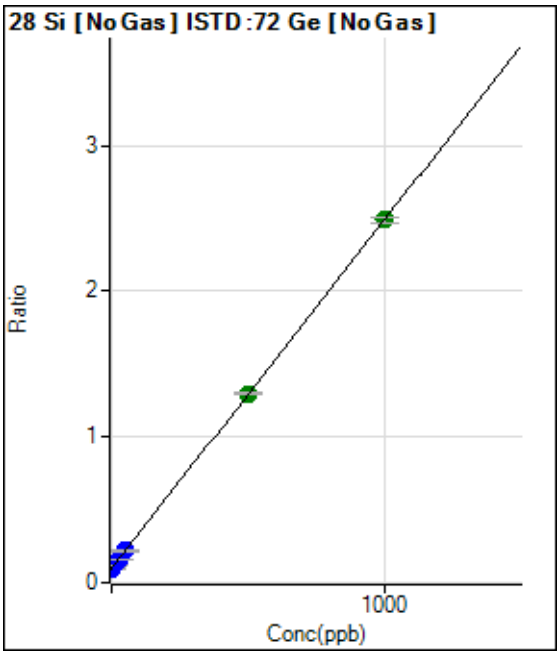
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0013	P	18.2
2	☐	2.000	2.561	1203.41	0.0025	P	8.5
3	☐	5.000	5.888	1956.85	0.0041	P	6.9
4	☐	10.000	10.730	3053.73	0.0064	P	10.0
5	☐	100.000	102.129	23206.29	0.0502	P	1.8
6	☐	200.000	198.871	43341.18	0.0966	P	1.9

y = 4.7965E-004 * x + 0.0013
R = 0.9999
DL = 1.43
BEC = 2.621

Weight: <None>
Min Conc: <None>

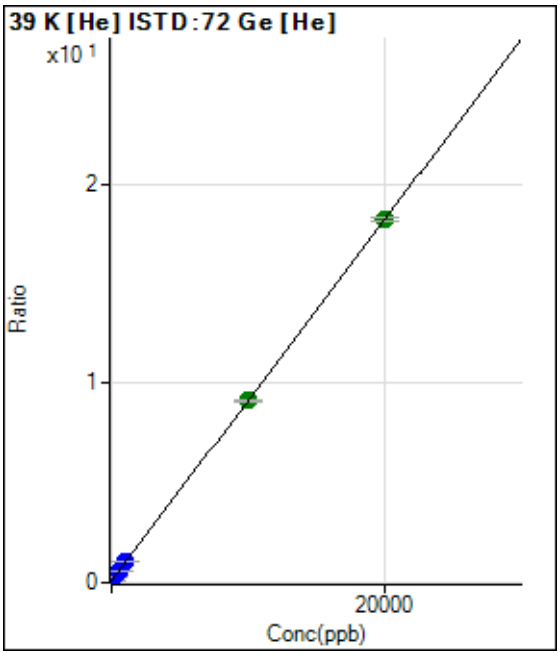


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152374.06	0.0981	P	2.3
2	☐	10.000	8.664	185544.40	0.1188	P	1.2
3	☐	25.000	23.379	238763.87	0.1540	P	0.3
4	☐	50.000	50.434	332136.86	0.2187	P	1.6
5	☐	500.000	500.620	1936838.46	1.2955	A	0.9
6	☐	1000.000	999.722	3593753.59	2.4893	A	1.9

y = 0.0024 * x + 0.0981
R = 1.0000
DL = 2.822
BEC = 40.99

Weight: <None>
Min Conc: <None>

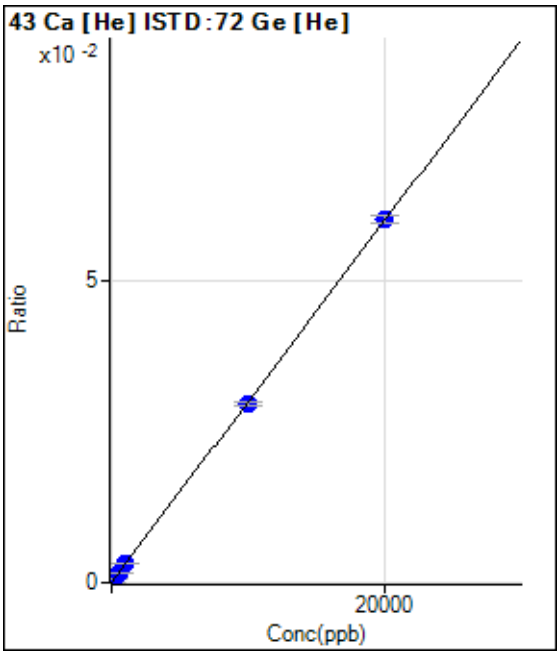
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40192.21	0.0837	P	1.4
2	☐	200.000	205.163	130653.34	0.2698	P	1.2
3	☐	500.000	521.805	266922.43	0.5568	P	0.3
4	☐	1000.000	1041.613	490296.37	1.0281	P	0.1
5	☐	10000.00	10000.57	4225941.71	9.1510	A	1.0
6	☐	20000.00	19997.03	8168428.00	18.2145	A	0.9

y = 9.0667E-004 * x + 0.0837
R = 1.0000
DL = 3.979
BEC = 92.36

Weight: <None>
Min Conc: <None>

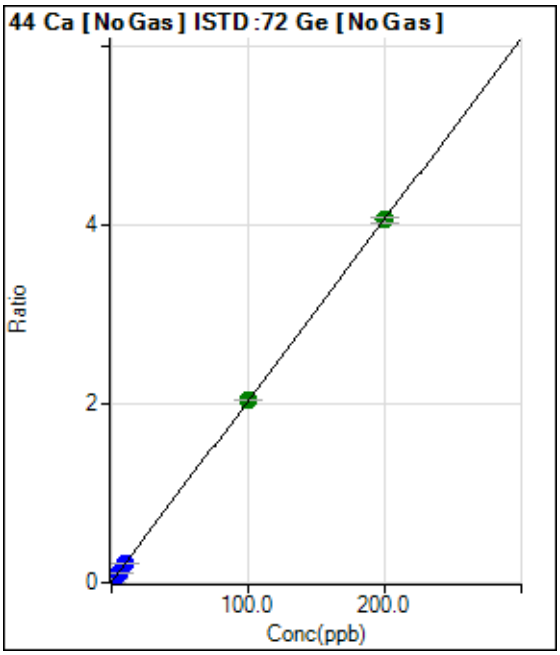


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	65.3
2	☐	200.000	199.619	313.34	0.0006	P	19.9
3	☐	500.000	482.880	716.70	0.0015	P	4.1
4	☐	1000.000	1052.582	1526.78	0.0032	P	6.0
5	☐	10000.00	9895.228	13710.39	0.0297	P	1.8
6	☐	20000.00	20050.18	26953.33	0.0601	P	2.0

y = 2.9954E-006 * x + 4.8588E-005
R = 1.0000
DL = 31.77
BEC = 16.22

Weight: <None>
Min Conc: <None>

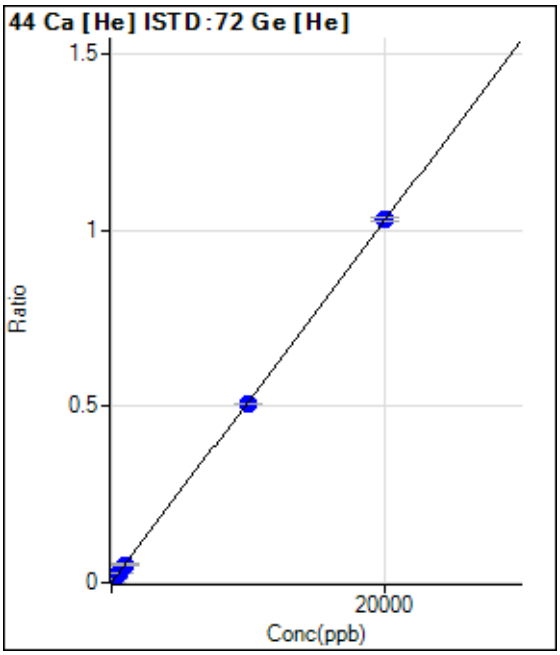
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13480.13	0.0087	P	5.4
2	☐	2.000	2.013	77343.03	0.0495	P	2.4
3	☐	5.000	5.042	172089.58	0.1110	P	0.8
4	☐	10.000	10.260	329394.79	0.2169	P	1.2
5	☐	100.000	100.384	3058445.16	2.0457	A	1.0
6	☐	200.000	199.794	5865444.91	4.0629	A	1.7

y = 0.0203 * x + 0.0087
R = 1.0000
DL = 0.06959
BEC = 0.4276

Weight: <None>
Min Conc: <None>

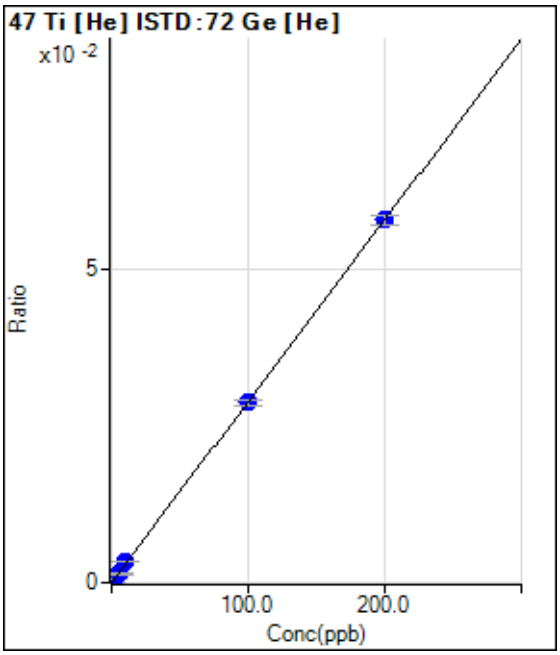


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	353.34	0.0007	P	4.2
2	☐	200.000	198.133	5277.78	0.0109	P	3.7
3	☐	500.000	521.659	13173.15	0.0275	P	4.7
4	☐	1000.000	987.025	24488.78	0.0514	P	2.4
5	☐	10000.00	9871.203	234109.09	0.5069	P	0.8
6	☐	20000.00	20064.52	461756.07	1.0297	P	1.2

y = 5.1280E-005 * x + 7.3612E-004
R = 1.0000
DL = 1.813
BEC = 14.35

Weight: <None>
Min Conc: <None>

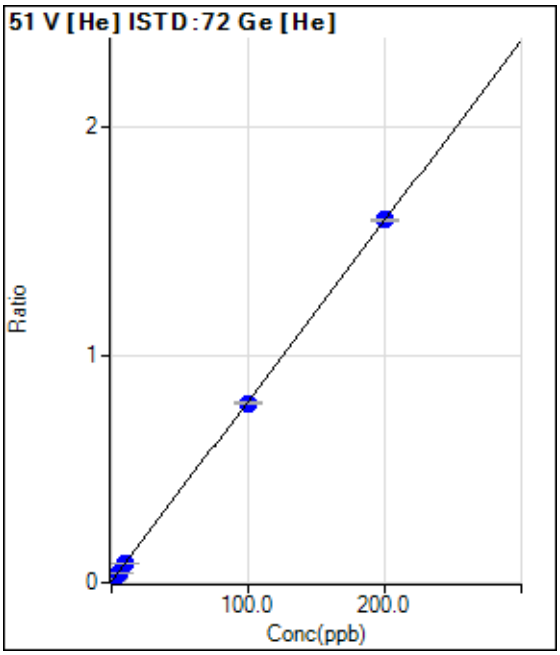
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.026	286.68	0.0006	P	25.1
3	☐	5.000	4.772	663.36	0.0014	P	14.7
4	☐	10.000	11.246	1550.11	0.0033	P	2.2
5	☐	100.000	99.496	13256.59	0.0287	P	2.9
6	☐	200.000	200.195	25894.73	0.0577	P	2.5

y = 2.8842E-004 * x + 6.9306E-006
R = 1.0000
DL = 0.1249
BEC = 0.02403

Weight: <None>
Min Conc: <None>

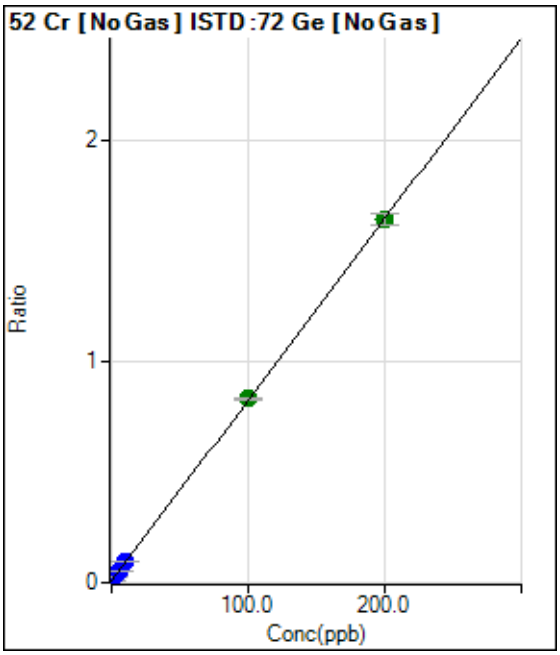


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2474.68	0.0052	P	5.5
2	☐	2.000	1.968	10045.95	0.0207	P	3.3
3	☐	5.000	4.999	21446.83	0.0447	P	1.1
4	☐	10.000	10.132	40715.80	0.0854	P	1.3
5	☐	100.000	99.004	364369.90	0.7891	P	1.5
6	☐	200.000	200.492	714218.89	1.5926	P	0.5

y = 0.0079 * x + 0.0052
R = 1.0000
DL = 0.1067
BEC = 0.6512

Weight: <None>
Min Conc: <None>

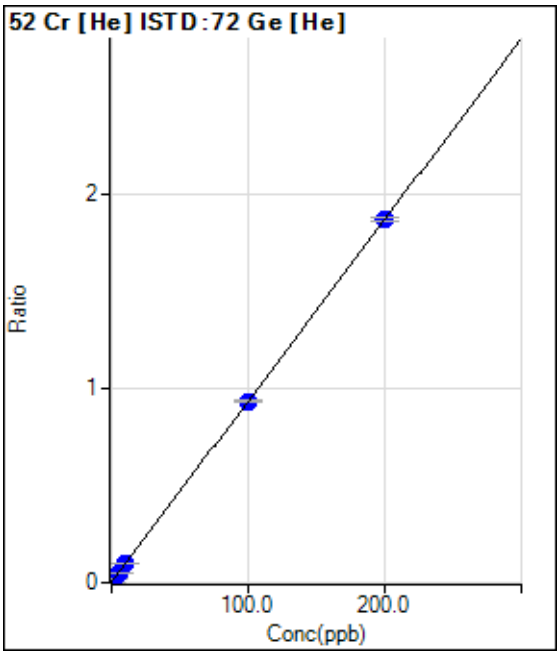
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11491.67	0.0074	P	1.4
2	☐	2.000	2.037	37601.99	0.0241	P	2.7
3	☐	5.000	5.137	76680.72	0.0495	P	1.0
4	☐	10.000	10.503	141831.78	0.0934	P	0.9
5	☐	100.000	100.775	1244570.09	0.8324	A	0.7
6	☐	200.000	199.583	2369183.77	1.6414	A	3.1

y = 0.0082 * x + 0.0074
R = 1.0000
DL = 0.03703
BEC = 0.9031

Weight: <None>
Min Conc: <None>

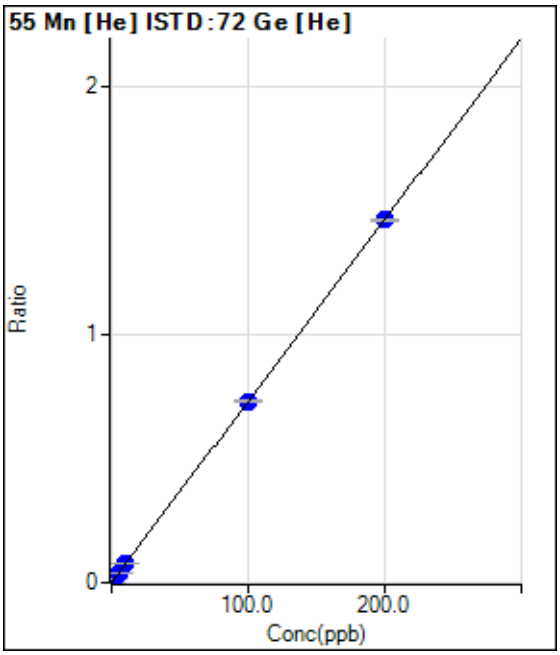


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	923.38	0.0019	P	3.2
2	☐	2.000	2.104	10450.81	0.0216	P	4.1
3	☐	5.000	5.124	23864.49	0.0498	P	1.4
4	☐	10.000	10.368	47101.13	0.0988	P	2.5
5	☐	100.000	99.936	431986.39	0.9354	P	0.8
6	☐	200.000	200.009	838661.55	1.8702	P	1.1

y = 0.0093 * x + 0.0019
R = 1.0000
DL = 0.01967
BEC = 0.206

Weight: <None>
Min Conc: <None>

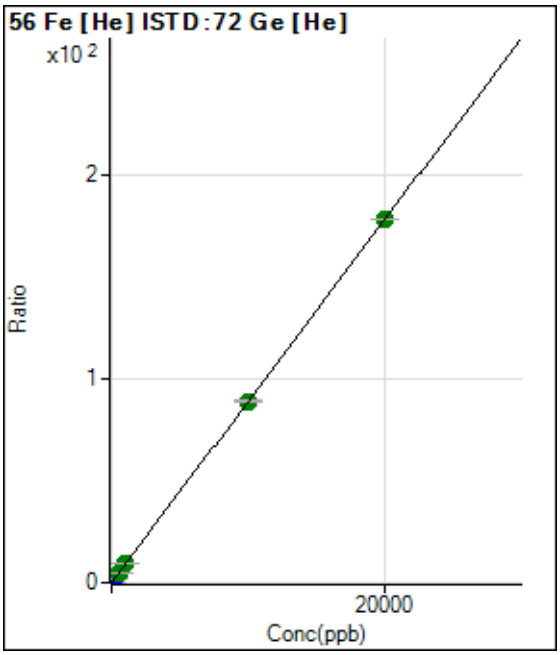
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0006	P	4.6
2	☐	2.000	2.100	7692.30	0.0159	P	3.5
3	☐	5.000	5.109	18138.90	0.0378	P	2.2
4	☐	10.000	10.172	35667.07	0.0748	P	1.4
5	☐	100.000	99.905	336958.67	0.7297	P	1.4
6	☐	200.000	200.035	654942.91	1.4605	P	0.7

y = 0.0073 * x + 5.5562E-004
R = 1.0000
DL = 0.01042
BEC = 0.07613

Weight: <None>
Min Conc: <None>

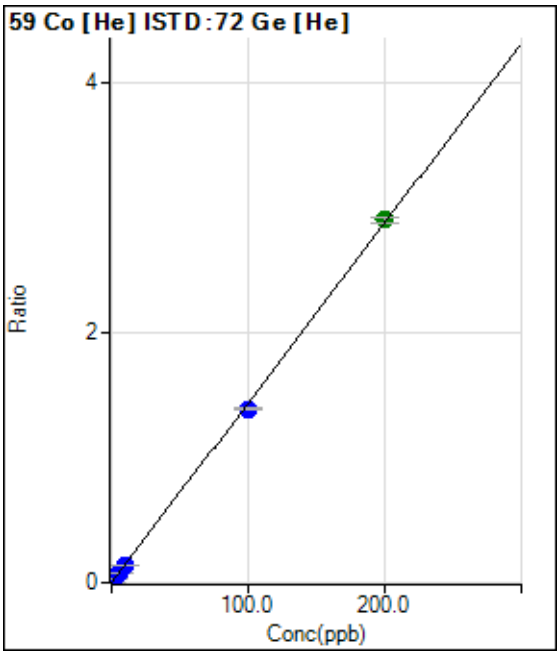


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7662.30	0.0160	P	3.5
2	☐	200.000	205.024	889288.89	1.8360	P	0.6
3	☐	500.000	533.418	2277292.26	4.7511	A	1.3
4	☐	1000.000	1042.105	4419104.31	9.2668	A	0.5
5	☐	10000.00	9986.306	40943495.22	88.6646	A	1.5
6	☐	20000.00	20003.85	79643242.15	177.590	A	0.1

y = 0.0089 * x + 0.0160
R = 1.0000
DL = 0.1868
BEC = 1.798

Weight: <None>
Min Conc: <None>

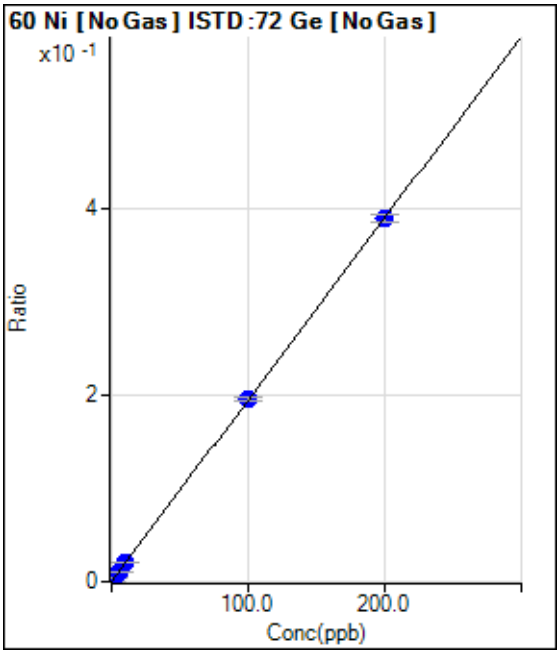
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0001	P	88.2
2	☐	2.000	1.853	12929.67	0.0267	P	1.6
3	☐	5.000	4.895	33752.19	0.0704	P	1.5
4	☐	10.000	9.811	67262.11	0.1410	P	1.2
5	☐	100.000	96.386	639667.97	1.3851	P	1.0
6	☐	200.000	201.820	1300599.30	2.9003	A	1.3

y = 0.0144 * x + 6.2467E-005
R = 0.9998
DL = 0.0115
BEC = 0.004347

Weight: <None>
Min Conc: <None>

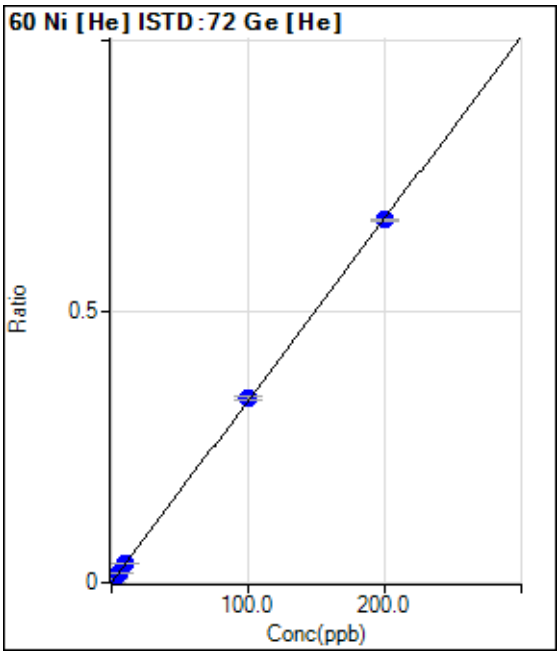


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	323.35	0.0002	P	34.3
2	☐	2.000	2.165	6895.20	0.0044	P	2.8
3	☐	5.000	4.989	15355.57	0.0099	P	3.4
4	☐	10.000	10.511	31329.58	0.0206	P	3.7
5	☐	100.000	100.648	292645.27	0.1957	P	1.5
6	☐	200.000	199.649	560213.91	0.3881	P	2.1

y = 0.0019 * x + 2.0855E-004
R = 1.0000
DL = 0.1104
BEC = 0.1073

Weight: <None>
Min Conc: <None>

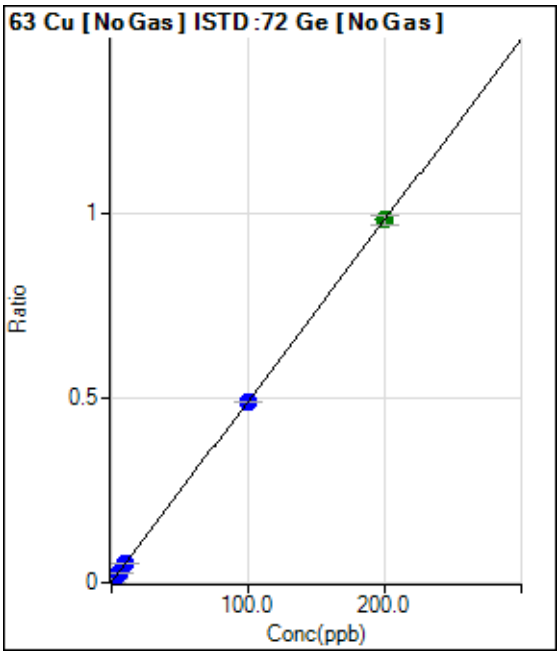
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	44.6
2	☐	2.000	2.199	3693.92	0.0076	P	3.5
3	☐	5.000	5.195	8482.81	0.0177	P	0.4
4	☐	10.000	10.874	17541.47	0.0368	P	1.0
5	☐	100.000	101.221	157208.88	0.3404	P	1.8
6	☐	200.000	199.339	300562.93	0.6702	P	0.6

y = 0.0034 * x + 2.3621E-004
R = 1.0000
DL = 0.09396
BEC = 0.07028

Weight: <None>
Min Conc: <None>

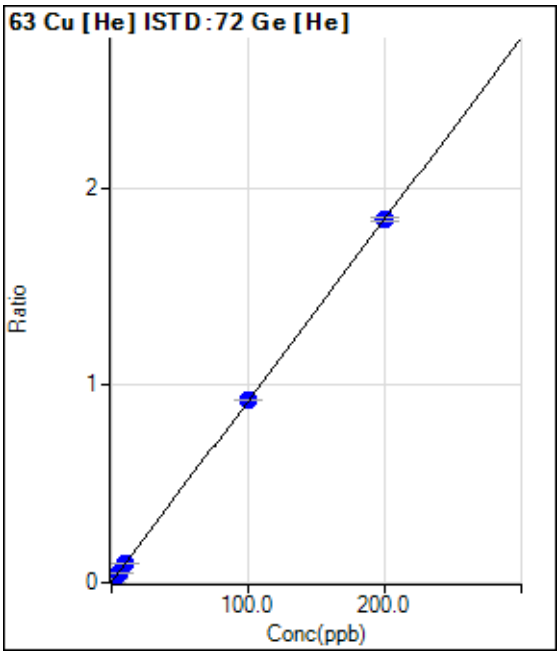


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2376.92	0.0015	P	2.5
2	☐	2.000	2.133	18719.88	0.0120	P	0.9
3	☐	5.000	5.292	42580.32	0.0275	P	1.1
4	☐	10.000	10.763	82422.07	0.0543	P	0.7
5	☐	100.000	99.620	732066.89	0.4896	P	0.3
6	☐	200.000	200.143	1417742.01	0.9822	A	2.6

y = 0.0049 * x + 0.0015
R = 1.0000
DL = 0.02294
BEC = 0.312

Weight: <None>
Min Conc: <None>

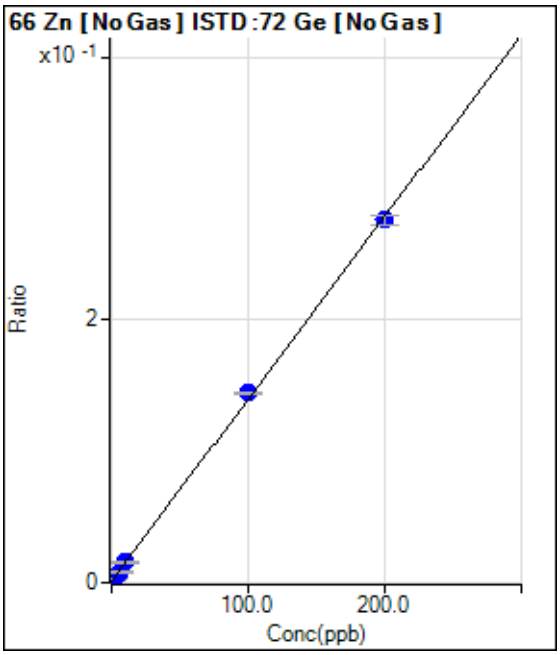
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1183.41	0.0025	P	11.1
2	☐	2.000	2.050	10317.45	0.0213	P	1.0
3	☐	5.000	5.141	23821.08	0.0497	P	1.4
4	☐	10.000	10.523	47275.67	0.0991	P	0.7
5	☐	100.000	100.497	427517.00	0.9257	P	0.3
6	☐	200.000	199.721	823858.71	1.8372	P	1.2

y = 0.0092 * x + 0.0025
R = 1.0000
DL = 0.08955
BEC = 0.2684

Weight: <None>
Min Conc: <None>

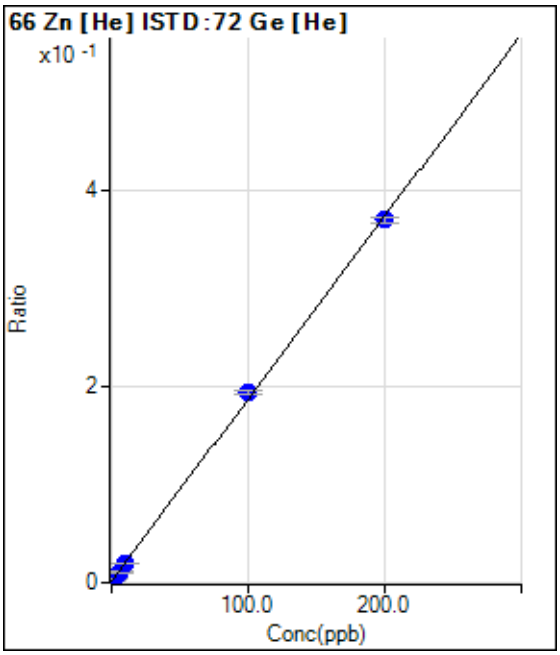


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1796.82	0.0012	P	6.8
2	☐	2.000	1.673	5427.86	0.0035	P	2.1
3	☐	5.000	4.903	12329.10	0.0080	P	3.2
4	☐	10.000	10.381	23604.25	0.0155	P	3.5
5	☐	100.000	103.182	215515.97	0.1441	P	0.6
6	☐	200.000	198.395	398533.62	0.2761	P	2.4

y = 0.0014 * x + 0.0012
R = 0.9998
DL = 0.1693
BEC = 0.8347

Weight: <None>
Min Conc: <None>

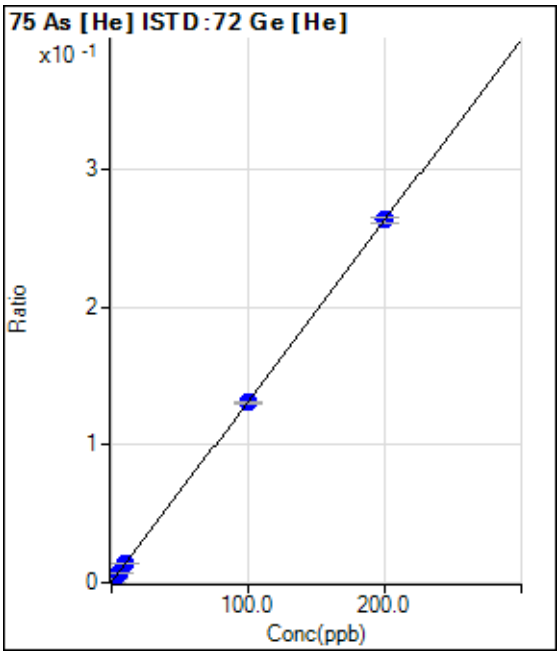
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0015	P	8.0
2	☐	2.000	1.584	2140.21	0.0044	P	4.9
3	☐	5.000	4.983	5151.06	0.0107	P	6.6
4	☐	10.000	9.682	9293.38	0.0195	P	3.3
5	☐	100.000	103.756	89823.32	0.1945	P	1.6
6	☐	200.000	198.142	165974.97	0.3701	P	1.9

y = 0.0019 * x + 0.0015
R = 0.9997
DL = 0.1905
BEC = 0.7914

Weight: <None>
Min Conc: <None>

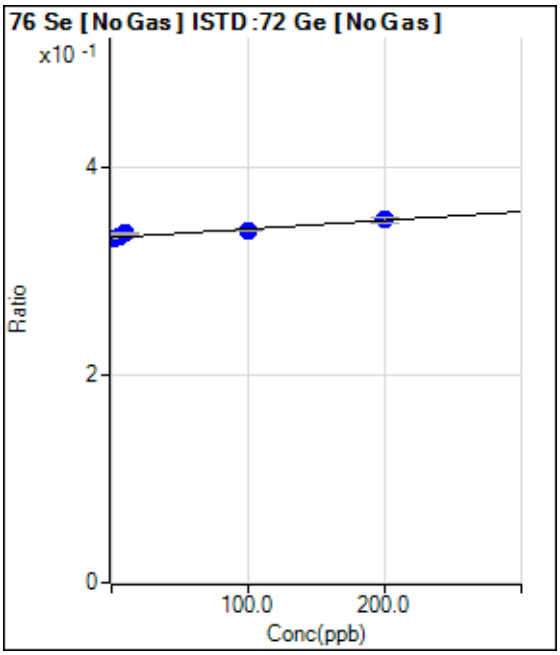


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	142.23	0.0003	P	15.8
2	☐	2.000	2.024	1433.42	0.0030	P	4.0
3	☐	5.000	5.315	3494.92	0.0073	P	5.8
4	☐	10.000	10.347	6632.77	0.0139	P	2.0
5	☐	100.000	99.348	60498.14	0.1310	P	1.0
6	☐	200.000	200.301	118305.62	0.2638	P	1.4

y = 0.0013 * x + 2.9637E-004
R = 1.0000
DL = 0.1066
BEC = 0.2253

Weight: <None>
Min Conc: <None>

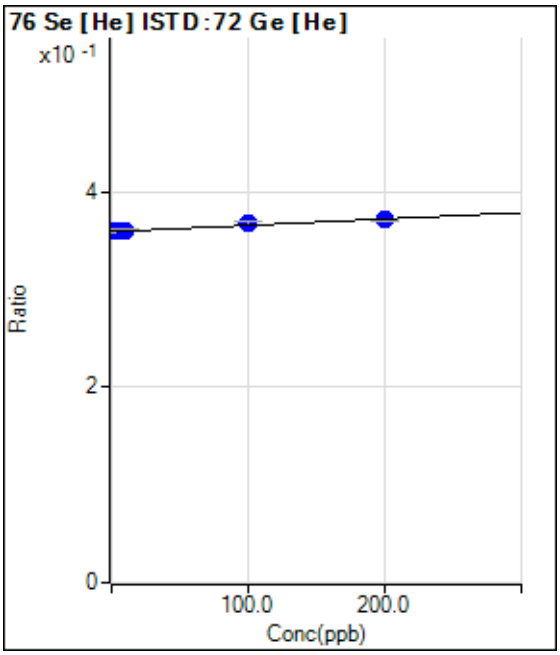
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	517004.00	0.3327	P	2.2
2	☐	2.000	-20.893	517022.06	0.3309	P	0.5
3	☐	5.000	15.559	517901.13	0.3340	P	1.2
4	☐	10.000	47.693	511375.71	0.3367	P	0.7
5	☐	100.000	87.362	508330.55	0.3400	P	0.5
6	☐	200.000	204.399	504967.18	0.3498	P	1.6

y = 8.3649E-005 * x + 0.3327
R = 0.9674
DL = 261
BEC = 3977

Weight: <None>
Min Conc: <None>

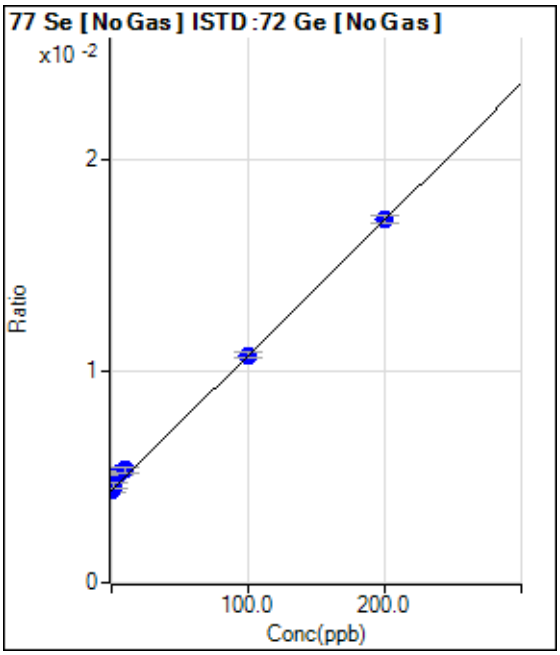


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172215.85	0.3588	P	1.2
2	☐	2.000	12.901	174185.80	0.3596	P	1.9
3	☐	5.000	9.120	172268.69	0.3594	P	1.1
4	☐	10.000	25.492	171897.69	0.3605	P	0.4
5	☐	100.000	129.919	169636.59	0.3673	P	0.9
6	☐	200.000	184.054	166308.95	0.3709	P	0.9

y = 6.5540E-005 * x + 0.3588
R = 0.9826
DL = 200.7
BEC = 5474

Weight: <None>
Min Conc: <None>

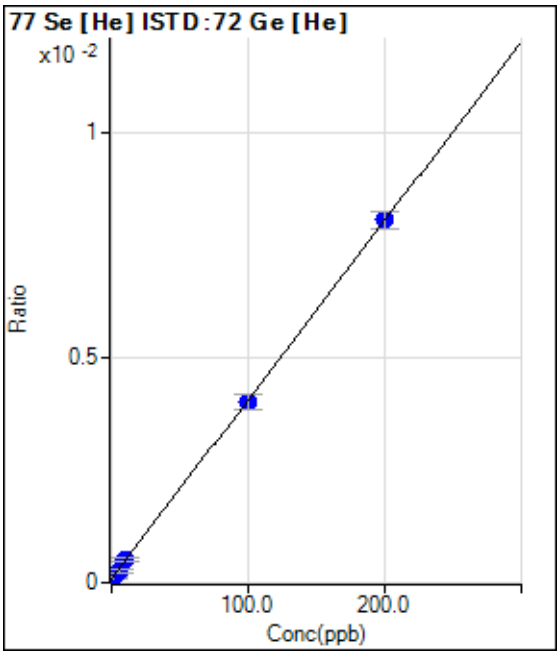
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6748.52	0.0043	P	3.9
2	☐	2.000	3.766	7158.72	0.0046	P	6.8
3	☐	5.000	12.846	8012.52	0.0052	P	4.0
4	☐	10.000	15.390	8099.26	0.0053	P	5.3
5	☐	100.000	99.752	16089.90	0.0108	P	2.4
6	☐	200.000	199.641	24816.50	0.0172	P	2.0

y = 6.4348E-005 * x + 0.0043
R = 0.9993
DL = 7.969
BEC = 67.48

Weight: <None>
Min Conc: <None>

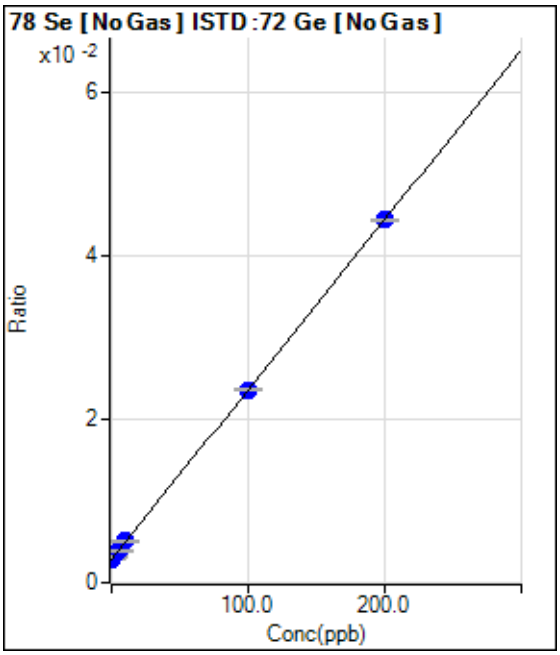


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	47.9
2	☐	2.000	0.502	53.33	0.0001	P	29.0
3	☐	5.000	4.556	130.00	0.0003	P	27.9
4	☐	10.000	10.396	240.01	0.0005	P	12.5
5	☐	100.000	98.922	1856.83	0.0040	P	7.8
6	☐	200.000	200.546	3613.89	0.0081	P	5.1

y = 3.9733E-005 * x + 9.0222E-005
R = 1.0000
DL = 3.265
BEC = 2.271

Weight: <None>
Min Conc: <None>

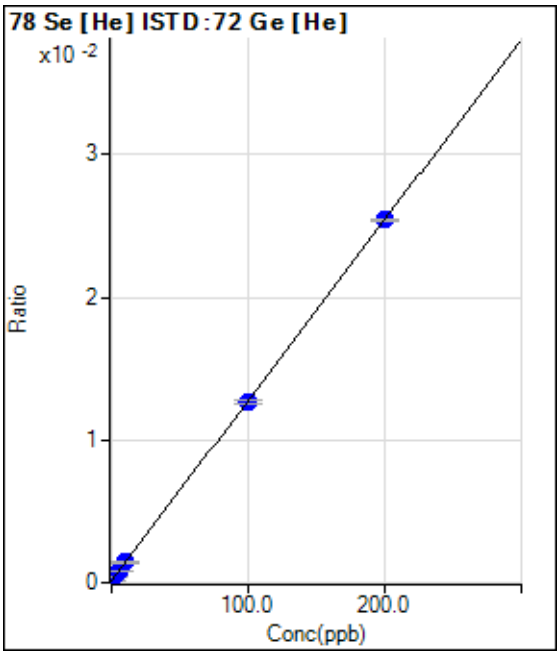
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4430.82	0.0029	P	3.0
2	☐	2.000	1.945	5084.39	0.0033	P	5.3
3	☐	5.000	5.372	6148.17	0.0040	P	6.5
4	☐	10.000	10.892	7765.72	0.0051	P	4.2
5	☐	100.000	100.013	35303.23	0.0236	P	0.6
6	☐	200.000	199.940	64042.05	0.0444	P	0.8

y = 2.0759E-004 * x + 0.0029
R = 1.0000
DL = 1.244
BEC = 13.74

Weight: <None>
Min Conc: <None>

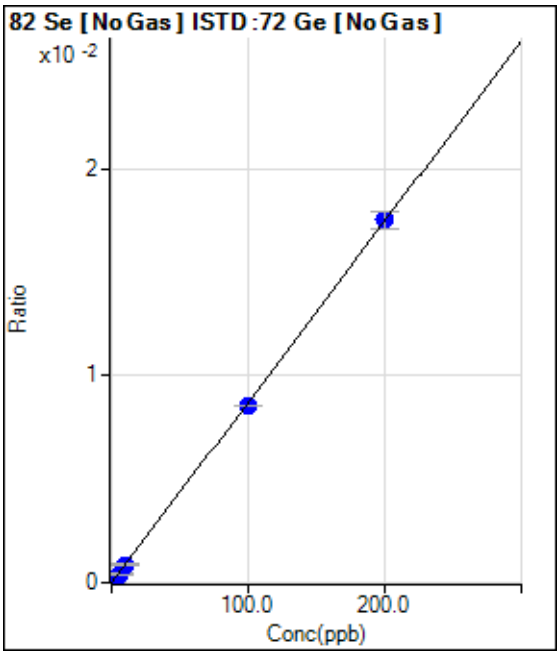


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.00	0.0001	P	10.5
2	☐	2.000	1.920	174.00	0.0004	P	4.7
3	☐	5.000	5.483	388.01	0.0008	P	1.6
4	☐	10.000	10.441	684.69	0.0014	P	15.0
5	☐	100.000	99.458	5856.62	0.0127	P	1.6
6	☐	200.000	200.238	11397.50	0.0254	P	0.9

y = 1.2634E-004 * x + 1.1665E-004
R = 1.0000
DL = 0.2905
BEC = 0.9233

Weight: <None>
Min Conc: <None>

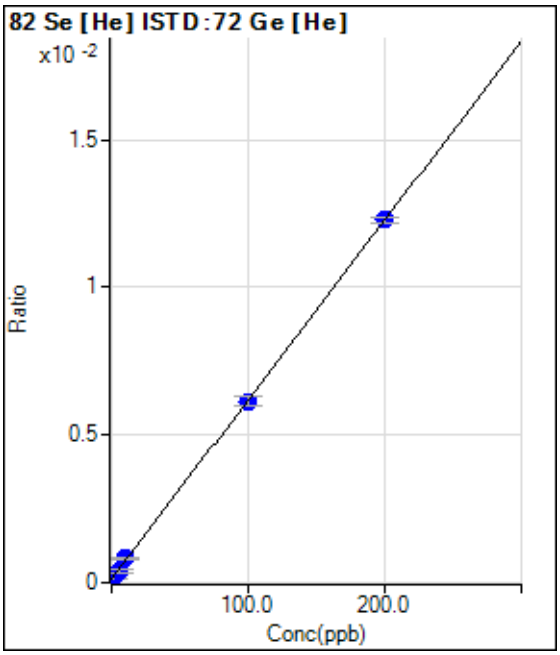
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-5.56	0.0000	P	-707.0
2	☐	2.000	2.259	301.58	0.0002	P	22.8
3	☐	5.000	4.680	627.31	0.0004	P	25.5
4	☐	10.000	10.048	1324.44	0.0009	P	14.4
5	☐	100.000	98.004	12770.63	0.0085	P	1.0
6	☐	200.000	201.001	25288.51	0.0175	P	5.0

y = 8.7192E-005 * x - 3.7187E-006
R = 0.9999
DL = 0.9047
BEC = -0.04265

Weight: <None>
Min Conc: <None>

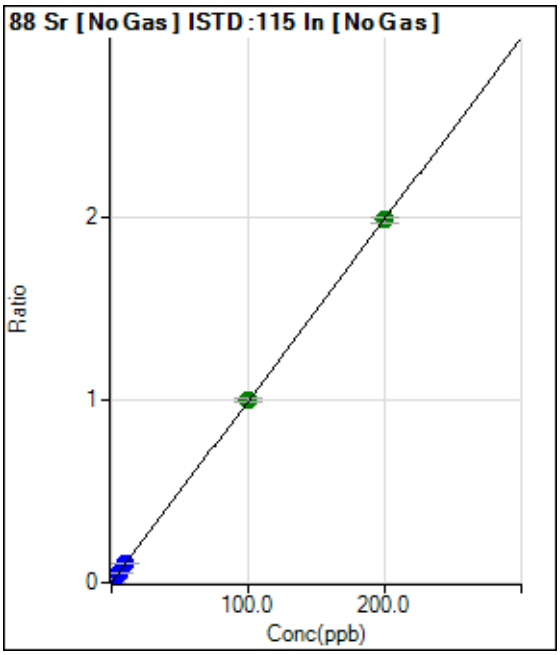


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0001	P	28.8
2	☐	2.000	1.007	90.00	0.0002	P	62.0
3	☐	5.000	4.236	183.34	0.0004	P	29.3
4	☐	10.000	11.649	396.68	0.0008	P	10.2
5	☐	100.000	99.229	2840.36	0.0061	P	6.1
6	☐	200.000	200.332	5507.91	0.0123	P	1.9

y = 6.0679E-005 * x + 1.2499E-004
R = 0.9999
DL = 1.78
BEC = 2.06

Weight: <None>
Min Conc: <None>

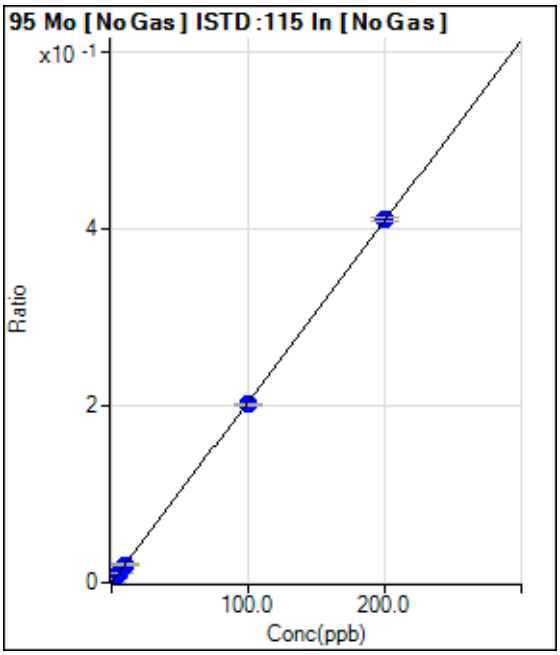
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1456.78	0.0006	P	6.6
2	☐	2.000	2.015	48441.32	0.0206	P	1.1
3	☐	5.000	5.014	118023.07	0.0503	P	1.8
4	☐	10.000	10.080	237820.52	0.1006	P	1.3
5	☐	100.000	100.424	2268196.95	0.9966	A	1.9
6	☐	200.000	199.784	4370722.96	1.9821	A	1.3

y = 0.0099 * x + 6.2115E-004
R = 1.0000
DL = 0.01245
BEC = 0.06263

Weight: <None>
Min Conc: <None>

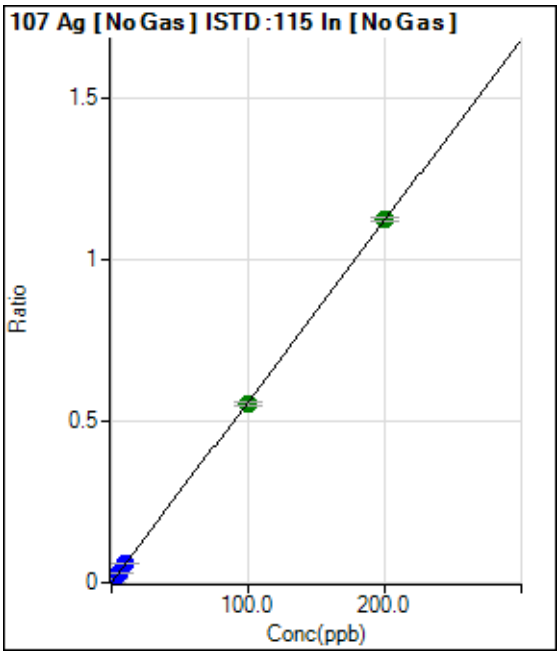


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0000	P	38.9
2	☐	2.000	2.060	10013.93	0.0043	P	0.7
3	☐	5.000	5.019	24182.29	0.0103	P	1.5
4	☐	10.000	10.036	48662.35	0.0206	P	1.0
5	☐	100.000	98.589	459302.10	0.2018	P	1.4
6	☐	200.000	200.703	905795.90	0.4108	P	1.2

y = 0.0020 * x + 4.3988E-005
R = 1.0000
DL = 0.0251
BEC = 0.02149

Weight: <None>
Min Conc: <None>

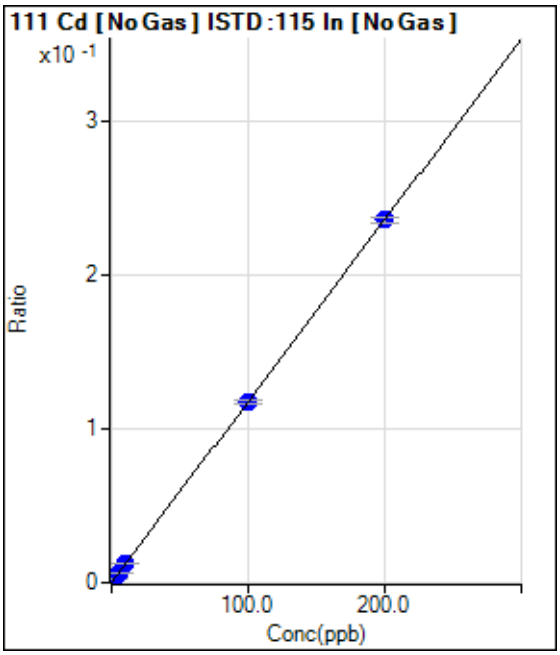
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	480.02	0.0002	P	21.3
2	☐	2.000	2.024	27114.76	0.0115	P	2.6
3	☐	5.000	5.062	66935.95	0.0286	P	0.6
4	☐	10.000	10.276	136505.24	0.0577	P	1.8
5	☐	100.000	99.201	1264694.10	0.5557	A	2.2
6	☐	200.000	200.384	2474754.18	1.1223	A	0.9

y = 0.0056 * x + 2.0482E-004
R = 1.0000
DL = 0.02342
BEC = 0.03658

Weight: <None>
Min Conc: <None>

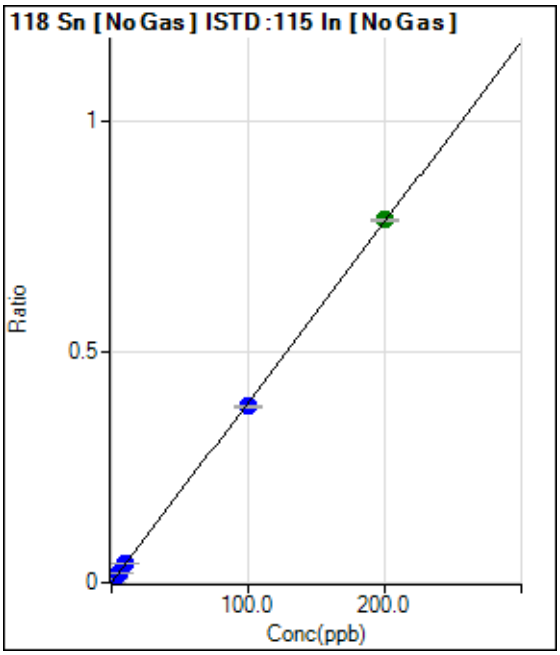


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	2.000	1.948	5397.86	0.0023	P	0.3
3	☐	5.000	5.065	13997.62	0.0060	P	0.8
4	☐	10.000	10.255	28581.09	0.0121	P	1.0
5	☐	100.000	99.657	267385.27	0.1175	P	2.0
6	☐	200.000	200.158	520303.60	0.2360	P	1.8

y = 0.0012 * x + 0.0000E+000
R = 1.0000
DL = 0
BEC = 0

Weight: <None>
Min Conc: <None>

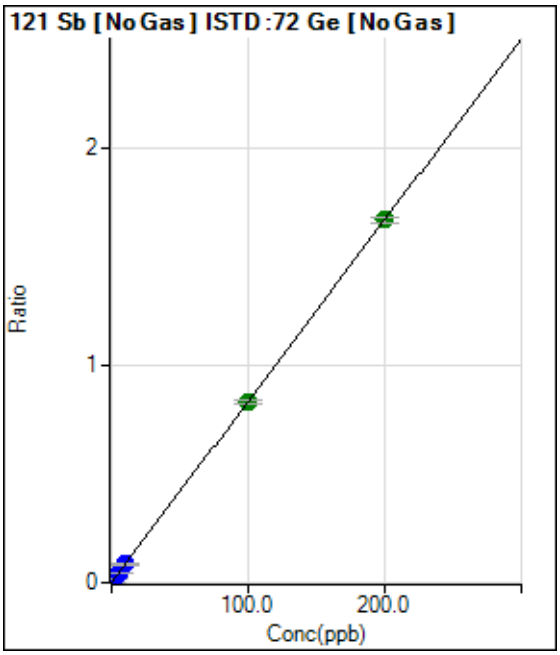
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1383.44	0.0006	P	9.0
2	☐	2.000	2.019	19955.55	0.0085	P	7.5
3	☐	5.000	4.914	46442.27	0.0198	P	1.7
4	☐	10.000	10.018	94037.94	0.0398	P	0.6
5	☐	100.000	97.695	871011.71	0.3827	P	1.7
6	☐	200.000	201.153	1736196.48	0.7874	A	0.8

y = 0.0039 * x + 5.9006E-004
R = 0.9999
DL = 0.04082
BEC = 0.1509

Weight: <None>
Min Conc: <None>

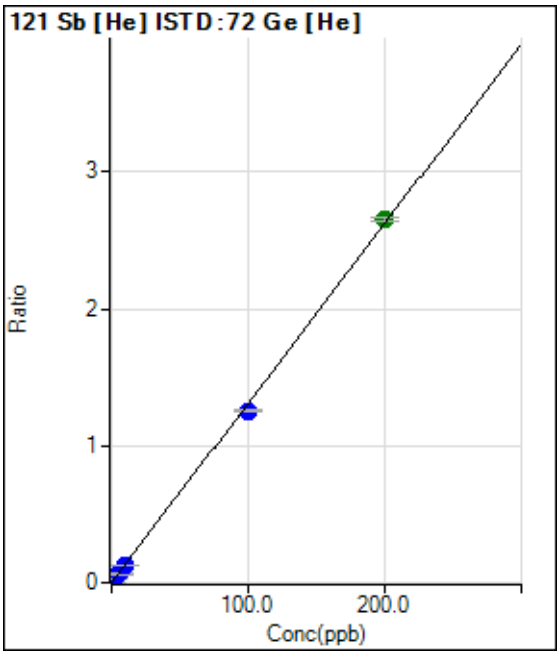


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1456.77	0.0009	P	14.1
2	☐	2.000	1.913	26343.37	0.0169	P	0.4
3	☐	5.000	4.794	63345.93	0.0409	P	0.7
4	☐	10.000	10.036	128336.38	0.0845	P	1.8
5	☐	100.000	99.771	1243277.82	0.8316	A	2.4
6	☐	200.000	200.119	2406666.79	1.6671	A	1.6

y = 0.0083 * x + 9.3831E-004
R = 1.0000
DL = 0.0477
BEC = 0.1127

Weight: <None>
Min Conc: <None>

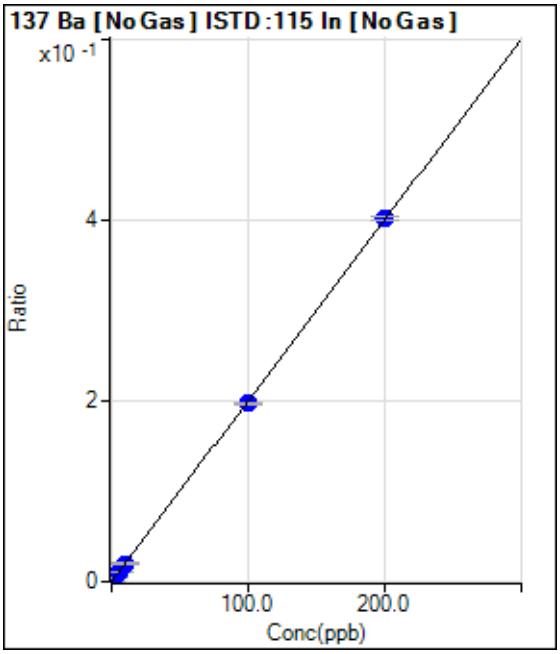
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.69	0.0013	P	9.5
2	☐	2.000	1.843	12332.62	0.0255	P	2.7
3	☐	5.000	4.766	30549.23	0.0637	P	2.6
4	☐	10.000	9.839	62066.47	0.1302	P	1.0
5	☐	100.000	95.590	578590.36	1.2530	P	1.4
6	☐	200.000	202.221	1187992.59	2.6492	A	1.1

y = 0.0131 * x + 0.0013
R = 0.9997
DL = 0.0289
BEC = 0.1013

Weight: <None>
Min Conc: <None>

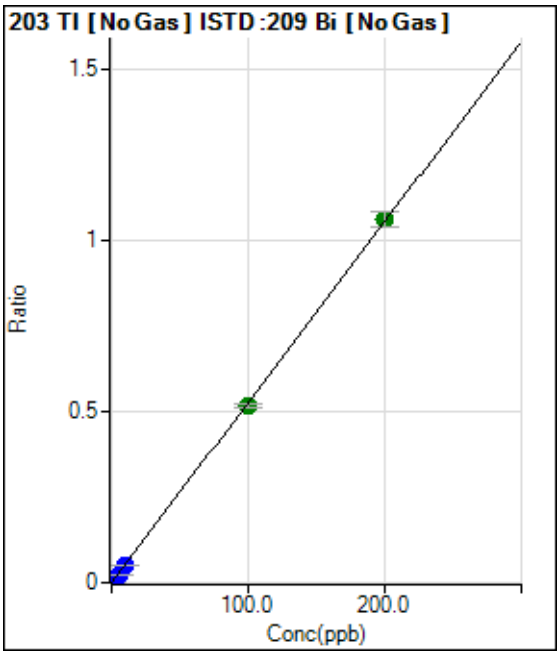


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.67	0.0001	P	30.5
2	☐	2.000	2.080	9974.01	0.0042	P	2.1
3	☐	5.000	5.025	23768.66	0.0101	P	2.6
4	☐	10.000	10.004	47527.19	0.0201	P	3.3
5	☐	100.000	98.608	449515.50	0.1975	P	1.4
6	☐	200.000	200.694	886182.07	0.4019	P	1.1

y = 0.0020 * x + 7.9707E-005
R = 1.0000
DL = 0.03642
BEC = 0.03981

Weight: <None>
Min Conc: <None>

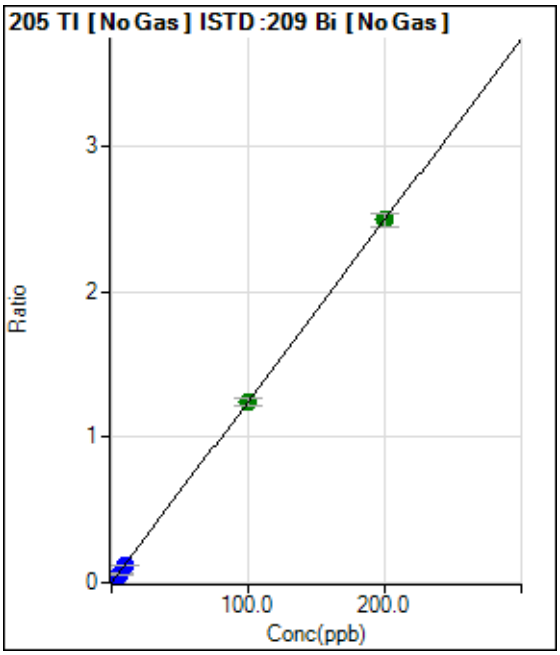
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	246.68	0.0001	P	4.9
2	☐	2.000	1.767	29962.99	0.0094	P	3.8
3	☐	5.000	4.574	75376.78	0.0241	P	3.0
4	☐	10.000	9.500	157719.96	0.0501	P	2.4
5	☐	100.000	97.863	1567436.23	0.5150	A	2.9
6	☐	200.000	201.107	3106562.03	1.0583	A	4.1

y = 0.0053 * x + 7.8257E-005
R = 0.9999
DL = 0.002168
BEC = 0.01487

Weight: <None>
Min Conc: <None>

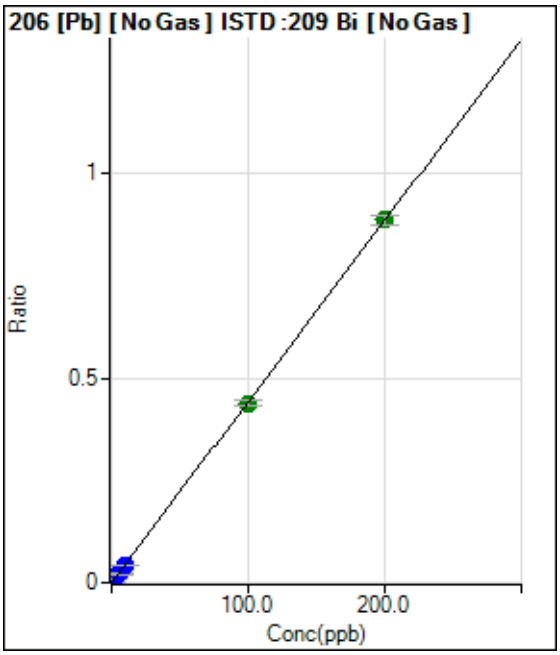


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	5.8
2	☐	2.000	1.798	72231.68	0.0226	P	4.2
3	☐	5.000	4.750	185304.24	0.0594	P	3.5
4	☐	10.000	9.647	379088.94	0.1203	P	2.0
5	☐	100.000	99.760	3779170.67	1.2423	A	3.9
6	☐	200.000	200.146	7316564.68	2.4922	A	3.7

y = 0.0125 * x + 2.2317E-004
R = 1.0000
DL = 0.003102
BEC = 0.01792

Weight: <None>
Min Conc: <None>

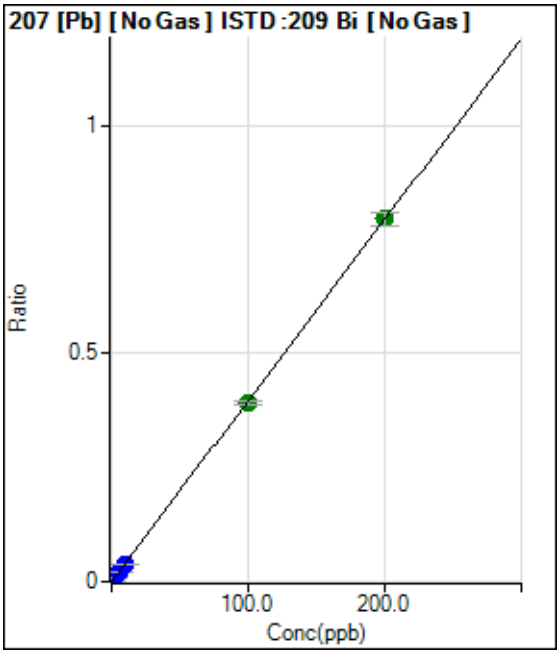
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	35.6
2	☐	2.000	1.915	27226.80	0.0085	P	4.6
3	☐	5.000	4.849	67120.07	0.0215	P	3.9
4	☐	10.000	9.809	136878.00	0.0434	P	1.5
5	☐	100.000	99.170	1335094.88	0.4388	A	2.8
6	☐	200.000	200.429	2603963.50	0.8868	A	2.4

y = 0.0044 * x + 5.1958E-005
R = 1.0000
DL = 0.01253
BEC = 0.01174

Weight: <None>
Min Conc: <None>

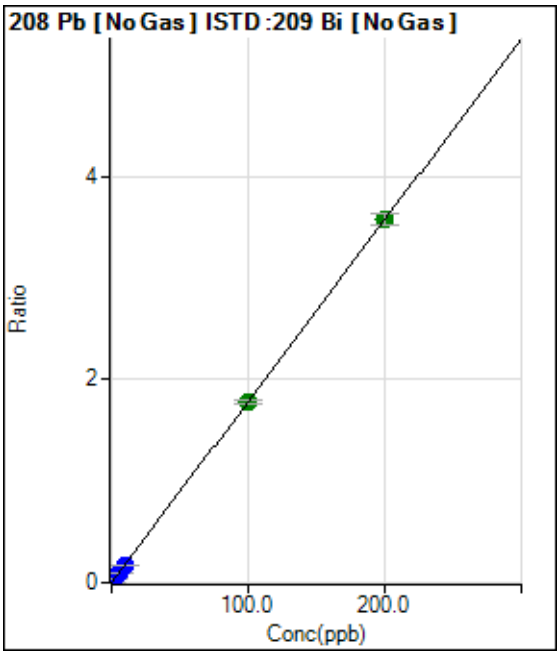


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0001	P	30.0
2	☐	2.000	1.945	24801.65	0.0078	P	3.8
3	☐	5.000	4.935	61233.68	0.0196	P	1.3
4	☐	10.000	9.827	122881.13	0.0390	P	1.1
5	☐	100.000	98.973	1193744.72	0.3923	A	2.6
6	☐	200.000	200.524	2333480.28	0.7948	A	3.5

y = 0.0040 * x + 5.2871E-005
R = 1.0000
DL = 0.01201
BEC = 0.01334

Weight: <None>
Min Conc: <None>

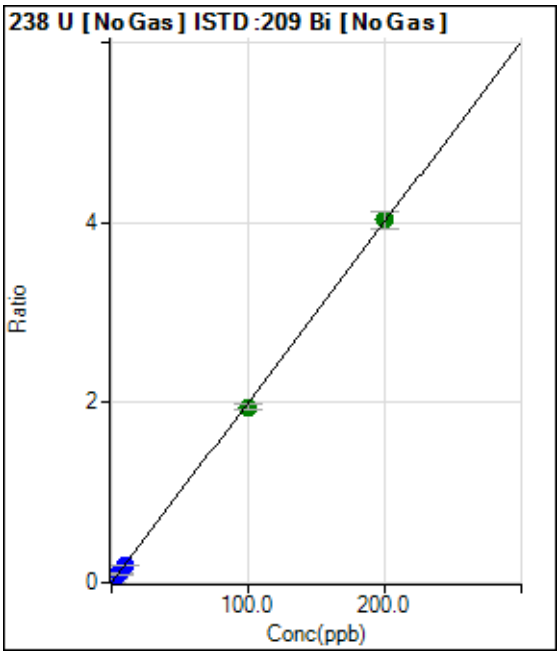
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.68	0.0002	P	26.2
2	☐	2.000	1.957	112217.07	0.0351	P	3.2
3	☐	5.000	4.885	272557.90	0.0873	P	3.1
4	☐	10.000	9.854	554277.41	0.1759	P	1.9
5	☐	100.000	99.757	5414270.91	1.7793	A	2.2
6	☐	200.000	200.132	10479531.41	3.5693	A	3.3

y = 0.0178 * x + 2.0490E-004
R = 1.0000
DL = 0.009035
BEC = 0.01149

Weight: <None>
Min Conc: <None>

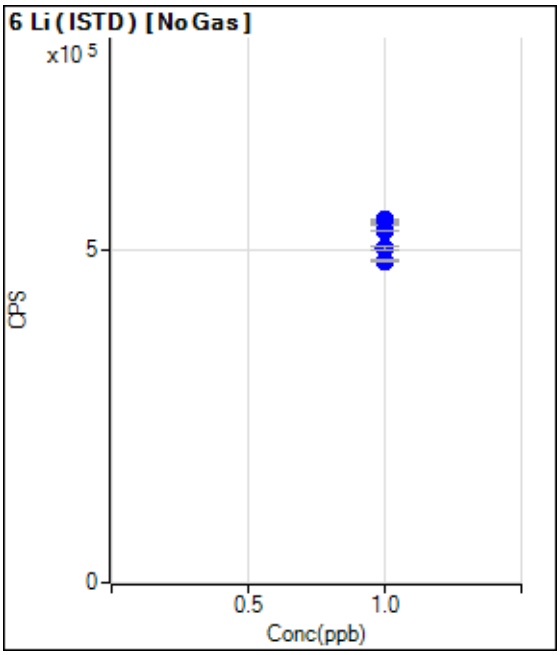


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0000	P	25.3
2	☐	2.000	1.871	119781.72	0.0375	P	5.1
3	☐	5.000	4.799	299897.12	0.0961	P	3.1
4	☐	10.000	9.704	611934.97	0.1942	P	2.2
5	☐	100.000	97.538	5938867.20	1.9519	A	3.0
6	☐	200.000	201.252	11821676.49	4.0273	A	4.5

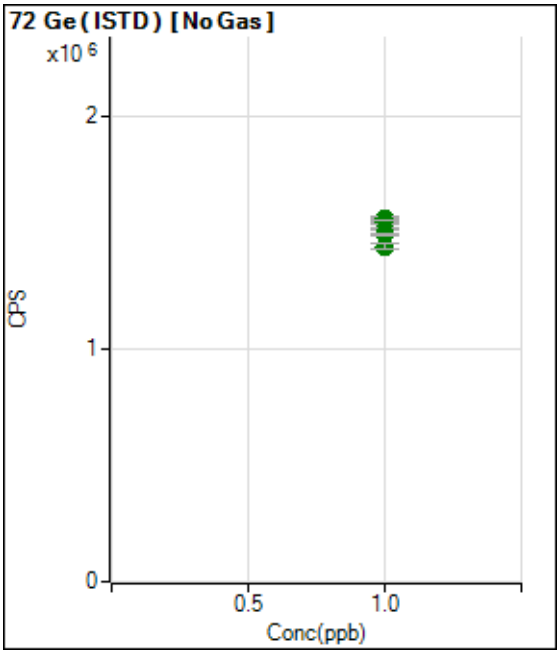
y = 0.0200 * x + 4.9609E-005
R = 0.9999
DL = 0.001885
BEC = 0.002479

Weight: <None>
Min Conc: <None>

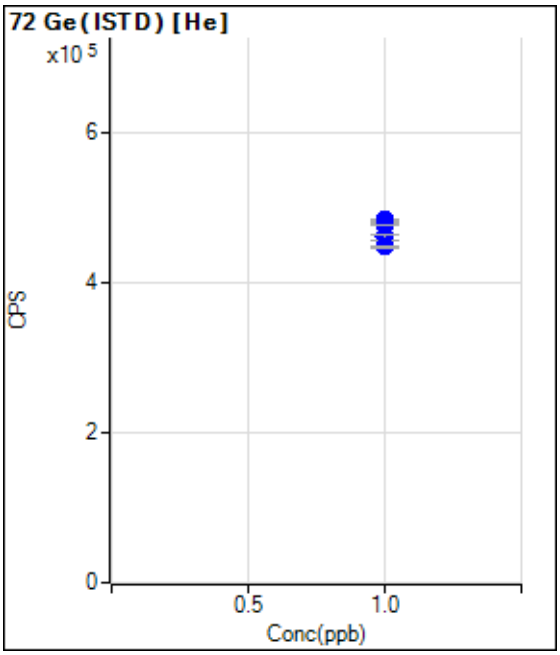
Calibration for 230_ICV.d



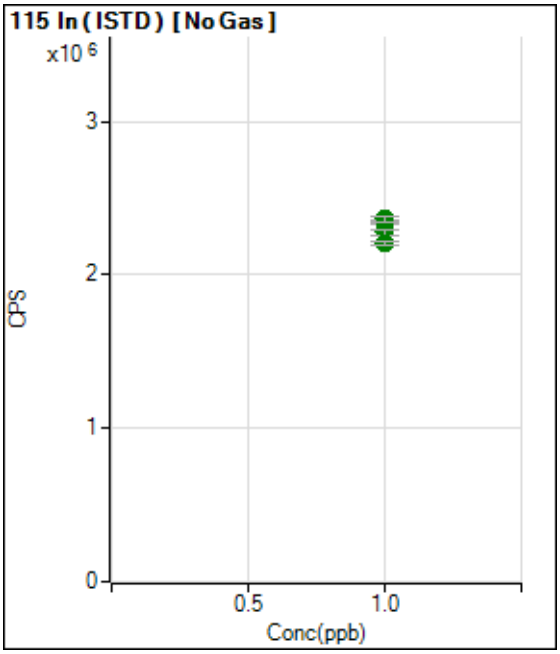
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		545261.03		P	0.2
2	☐	1.000		541689.66		P	0.6
3	☐	1.000		537055.87		P	0.2
4	☐	1.000		528820.60		P	0.4
5	☐	1.000		503934.74		P	1.3
6	☐	1.000		484057.37		P	0.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1554275.24		A	1.2
2	☐	1.000		1562257.53		A	1.1
3	☐	1.000		1550646.43		A	1.0
4	☐	1.000		1518864.56		A	0.5
5	☐	1.000		1495107.01		A	0.5
6	☐	1.000		1443928.42		A	1.9

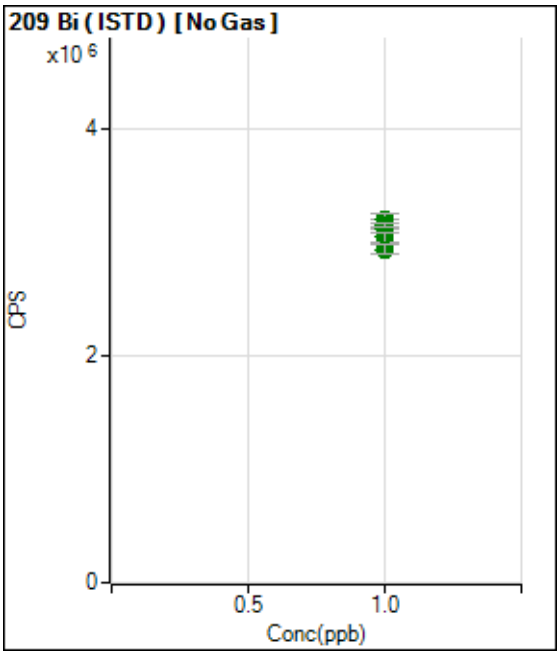


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		479992.04		P	0.2
2	☐	1.000		484370.18		P	0.6
3	☐	1.000		479348.57		P	0.8
4	☐	1.000		476877.69		P	0.1
5	☐	1.000		461855.38		P	1.8
6	☐	1.000		448464.19		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2346070.18		A	1.3
2	☐	1.000		2350522.98		A	0.9
3	☐	1.000		2344300.03		A	0.4
4	☐	1.000		2364390.72		A	1.6
5	☐	1.000		2276244.03		A	1.3
6	☐	1.000		2205185.25		A	0.9

Calibration for 230_ICV.d



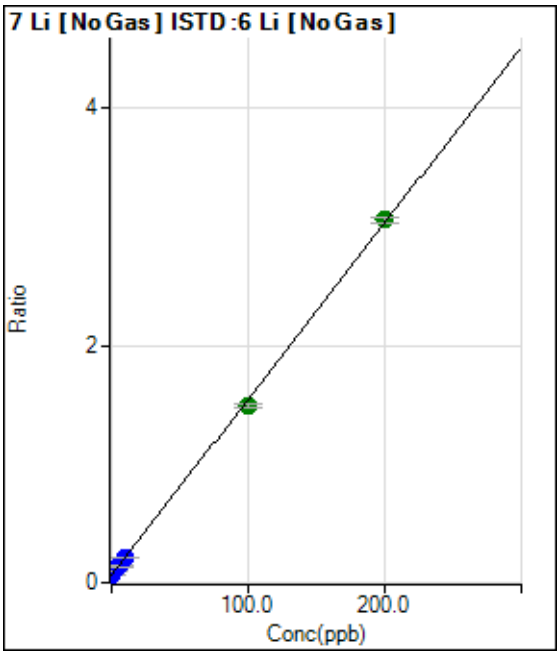
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3154822.76		A	2.7
2	☐	1.000		3198583.39		A	3.8
3	☐	1.000		3123156.83		A	2.7
4	☐	1.000		3150943.29		A	1.4
5	☐	1.000		3044296.31		A	2.9
6	☐	1.000		2937921.00		A	3.0

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052521A.b\
Analysis File: 052521A.batch.bin
DA Date-Time: 5/25/2021 11:03:55 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	009CALB.d	CAL BLK	5/25/2021 11:05:52 AM
2	010CALS.d	2/10/200	5/25/2021 11:07:51 AM
3	011CALS.d	5/25/500	5/25/2021 11:09:50 AM
4	012CALS.d	10/50/100	5/25/2021 11:11:49 AM
5	013CALS.d	100/500/10K	5/25/2021 11:13:48 AM
6	014CALS.d	200/1000/20K	5/25/2021 11:15:42 AM

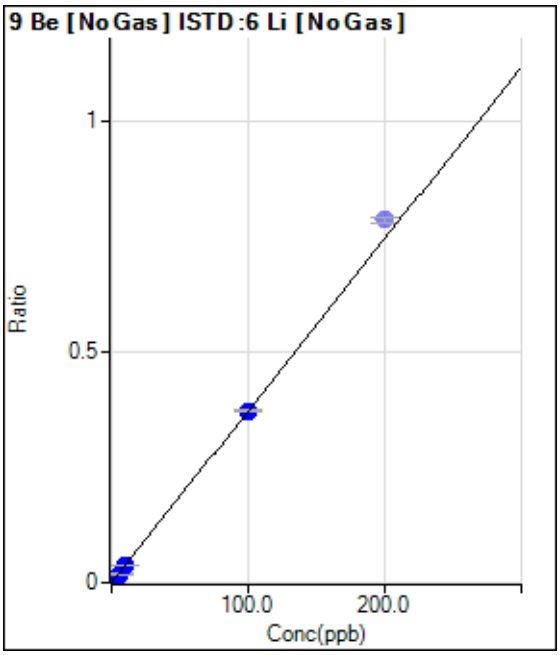
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44291.08	0.0638	P	1.6
2	☐	2.000	1.877	63329.58	0.0917	P	3.3
3	☐	5.000	4.997	93776.07	0.1380	P	1.4
4	☐	10.000	9.941	144302.61	0.2114	P	1.3
5	☐	100.000	96.260	1006665.27	1.4927	A	3.1
6	☐	200.000	201.874	1909060.34	3.0604	A	1.6

y = 0.0148 * x + 0.0638
R = 0.9998
DL = 0.2071
BEC = 4.298

Weight: <None>
Min Conc: <None>

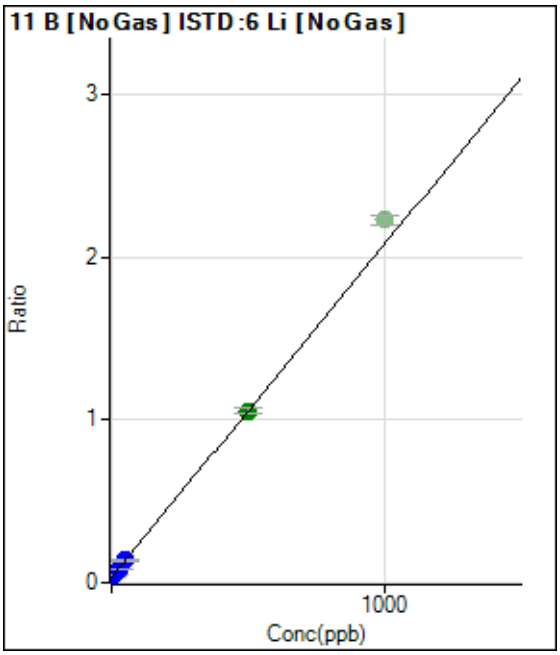


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	42.3
2	☐	2.000	1.983	5187.66	0.0075	P	0.9
3	☐	5.000	4.996	12720.83	0.0187	P	0.8
4	☐	10.000	10.094	25728.57	0.0377	P	0.9
5	☐	100.000	99.991	250958.69	0.3722	P	1.4
6	☑	200.000		490111.28	0.7857	P	1.6

y = 0.0037 * x + 1.2532E-004
R = 1.0000
DL = 0.04272
BEC = 0.03368

Weight: <None>
Min Conc: <None>

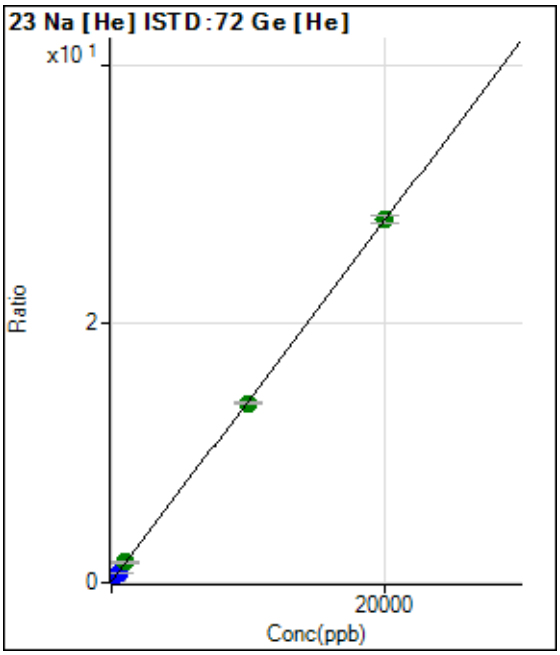
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23130.78	0.0333	P	1.7
2	☐	10.000	9.277	36145.03	0.0523	P	2.5
3	☐	25.000	23.825	55780.12	0.0821	P	1.2
4	☐	50.000	50.423	93198.26	0.1365	P	1.4
5	☐	500.000	500.031	712433.64	1.0566	A	3.1
6	☑	1000.000		1391075.24	2.2302	A	2.6

y = 0.0020 * x + 0.0333
R = 1.0000
DL = 0.8546
BEC = 16.28

Weight: <None>
Min Conc: <None>

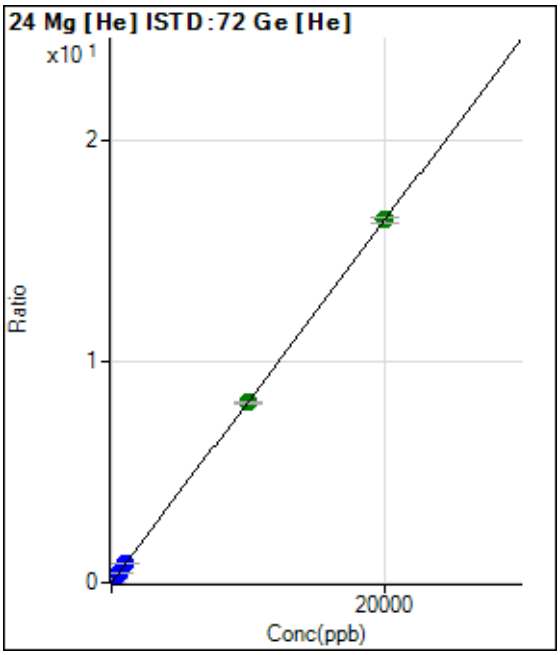


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62040.99	0.0975	P	1.6
2	☐	200.000	204.477	242587.48	0.3823	P	0.7
3	☐	500.000	508.801	515386.31	0.8063	P	0.6
4	☐	1000.000	1052.180	993896.11	1.5632	A	1.1
5	☐	10000.00	9893.148	8710529.66	13.8789	A	0.4
6	☐	20000.00	20050.55	16867263.50	28.0285	A	2.0

y = 0.0014 * x + 0.0975
R = 1.0000
DL = 3.455
BEC = 69.98

Weight: <None>
Min Conc: <None>

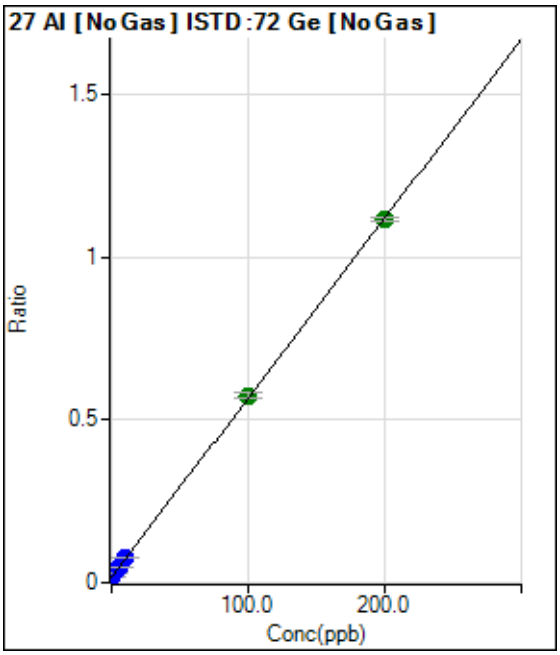
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	873.38	0.0014	P	11.8
2	☐	200.000	208.629	109084.05	0.1719	P	2.0
3	☐	500.000	521.945	273655.72	0.4281	P	0.6
4	☐	1000.000	1056.064	549833.56	0.8648	P	0.1
5	☐	10000.00	9928.817	5095516.90	8.1189	A	0.4
6	☐	20000.00	20032.15	9856633.81	16.3792	A	1.9

y = 8.1758E-004 * x + 0.0014
R = 1.0000
DL = 0.5944
BEC = 1.678

Weight: <None>
Min Conc: <None>

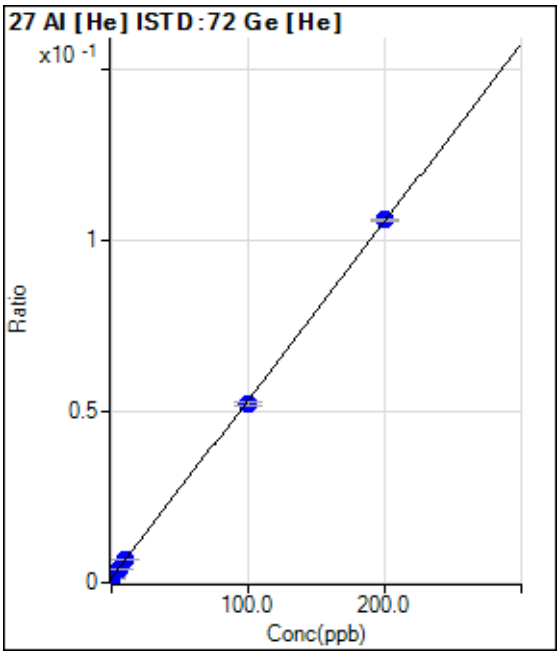


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32328.63	0.0165	P	1.9
2	☐	2.000	2.741	62386.46	0.0316	P	2.5
3	☐	5.000	5.455	91989.30	0.0466	P	2.0
4	☐	10.000	11.062	152771.30	0.0775	P	2.2
5	☐	100.000	101.345	1123335.79	0.5752	A	2.8
6	☐	200.000	199.255	2126773.20	1.1151	A	0.9

y = 0.0055 * x + 0.0165
R = 1.0000
DL = 0.1705
BEC = 2.989

Weight: <None>
Min Conc: <None>

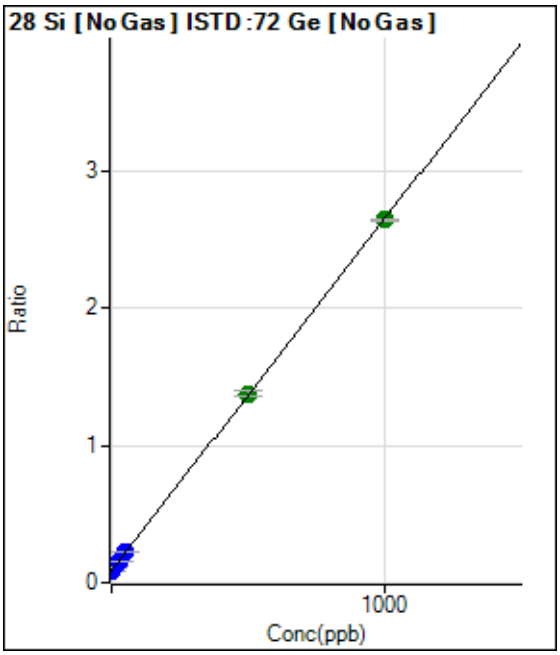
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	860.05	0.0014	P	19.5
2	☐	2.000	2.549	1700.15	0.0027	P	10.2
3	☐	5.000	4.983	2523.61	0.0039	P	5.3
4	☐	10.000	10.359	4290.72	0.0067	P	2.4
5	☐	100.000	97.885	32849.02	0.0523	P	2.6
6	☐	200.000	201.034	63836.20	0.1061	P	0.7

y = 5.2093E-004 * x + 0.0014
R = 0.9999
DL = 1.517
BEC = 2.596

Weight: <None>
Min Conc: <None>

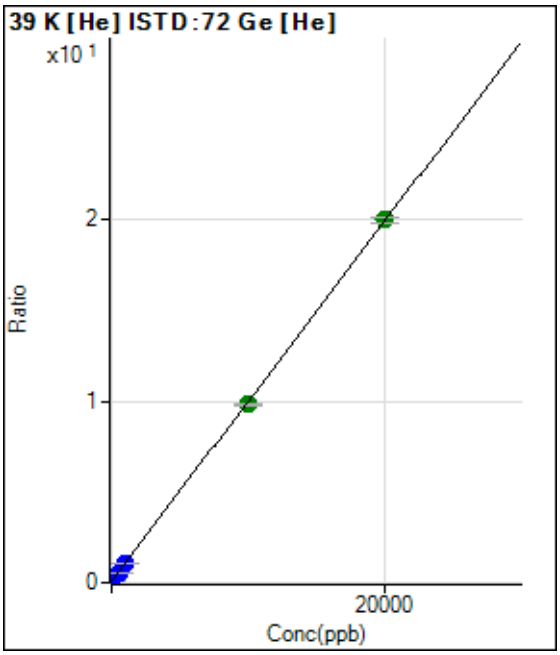


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	170555.75	0.0869	P	0.8
2	☐	10.000	10.665	225703.21	0.1143	P	1.5
3	☐	25.000	25.557	301324.68	0.1525	P	1.3
4	☐	50.000	53.040	439668.99	0.2230	P	1.7
5	☐	500.000	504.503	2696359.54	1.3807	A	3.2
6	☐	1000.000	997.576	5044549.20	2.6451	A	0.8

y = 0.0026 * x + 0.0869
R = 1.0000
DL = 0.8117
BEC = 33.9

Weight: <None>
Min Conc: <None>

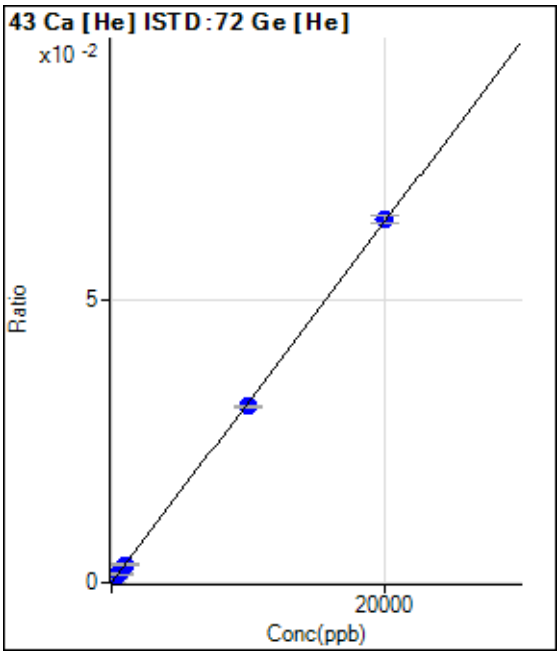
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50967.67	0.0801	P	2.0
2	☐	200.000	198.746	175736.16	0.2770	P	1.3
3	☐	500.000	496.607	365706.35	0.5721	P	0.7
4	☐	1000.000	1017.875	692110.69	1.0885	P	0.6
5	☐	10000.00	9816.151	6153698.66	9.8053	A	1.7
6	☐	20000.00	20091.12	12026507.74	19.9851	A	1.7

y = 9.9074E-004 * x + 0.0801
R = 0.9999
DL = 4.946
BEC = 80.84

Weight: <None>
Min Conc: <None>

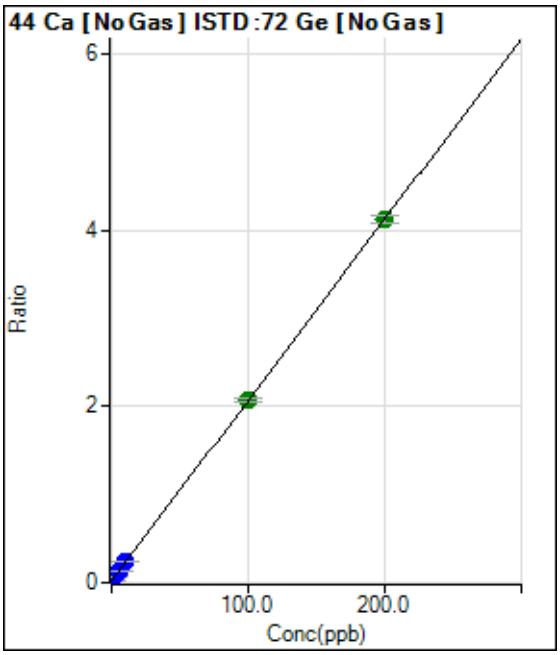


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.8
2	☐	200.000	218.468	456.68	0.0007	P	11.2
3	☐	500.000	494.390	1023.39	0.0016	P	9.7
4	☐	1000.000	959.408	1963.52	0.0031	P	11.5
5	☐	10000.00	9759.614	19590.81	0.0312	P	1.5
6	☐	20000.00	20122.17	38717.93	0.0643	P	2.1

y = 3.1963E-006 * x + 2.0980E-005
R = 0.9999
DL = 8.634
BEC = 6.564

Weight: <None>
Min Conc: <None>

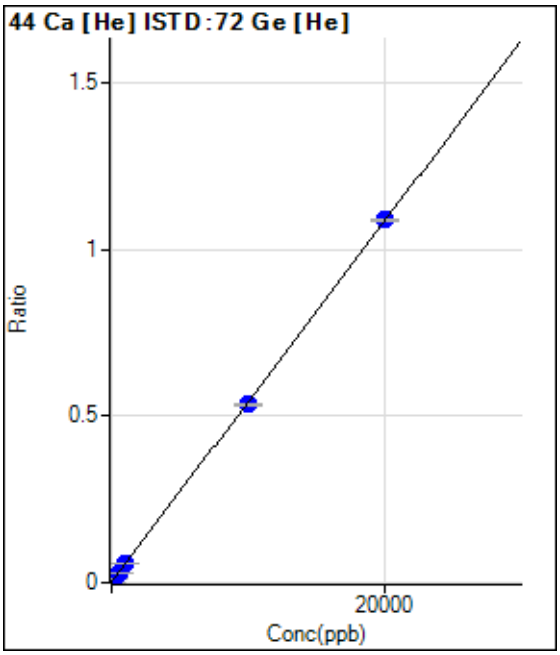
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41880.90	0.0213	P	2.8
2	☐	2.000	2.045	124973.18	0.0633	P	2.0
3	☐	5.000	5.055	246985.32	0.1250	P	1.5
4	☐	10.000	10.362	461073.80	0.2338	P	1.1
5	☐	100.000	100.147	4051912.02	2.0747	A	2.3
6	☐	200.000	199.906	7856256.34	4.1201	A	2.2

y = 0.0205 * x + 0.0213
R = 1.0000
DL = 0.08744
BEC = 1.041

Weight: <None>
Min Conc: <None>

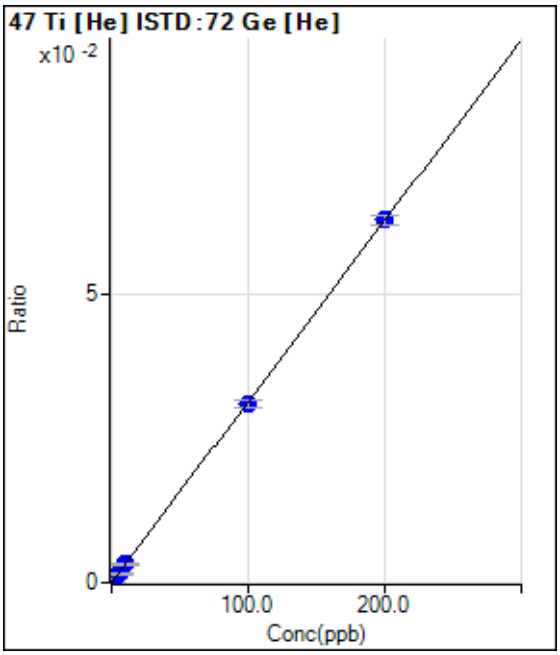


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	606.69	0.0010	P	11.5
2	☐	200.000	196.789	7365.42	0.0116	P	3.8
3	☐	500.000	487.975	17498.01	0.0274	P	1.3
4	☐	1000.000	1020.737	35743.30	0.0562	P	0.4
5	☐	10000.00	9854.247	335439.34	0.5345	P	0.7
6	☐	20000.00	20072.17	654544.76	1.0877	P	0.9

y = 5.4140E-005 * x + 9.5366E-004
R = 1.0000
DL = 6.079
BEC = 17.61

Weight: <None>
Min Conc: <None>

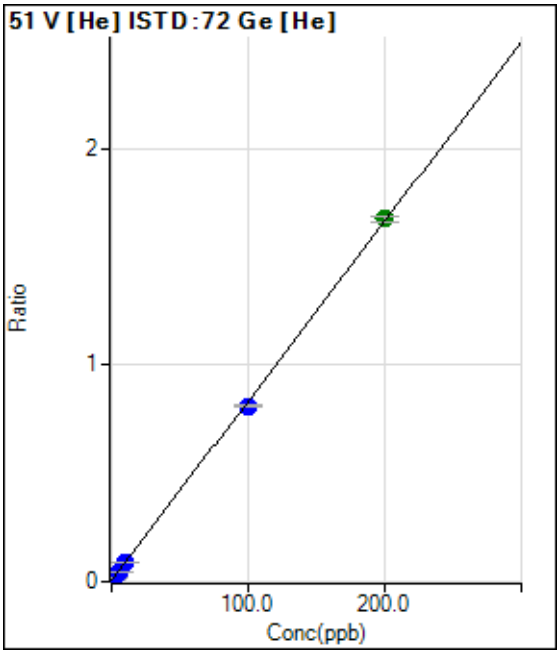
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	173.2
2	☐	2.000	2.167	440.01	0.0007	P	5.7
3	☐	5.000	4.918	993.39	0.0016	P	10.1
4	☐	10.000	10.174	2033.52	0.0032	P	8.6
5	☐	100.000	98.860	19414.01	0.0309	P	3.3
6	☐	200.000	200.561	37755.58	0.0627	P	2.6

y = 3.1271E-004 * x + 1.5801E-005
R = 1.0000
DL = 0.2626
BEC = 0.05053

Weight: <None>
Min Conc: <None>

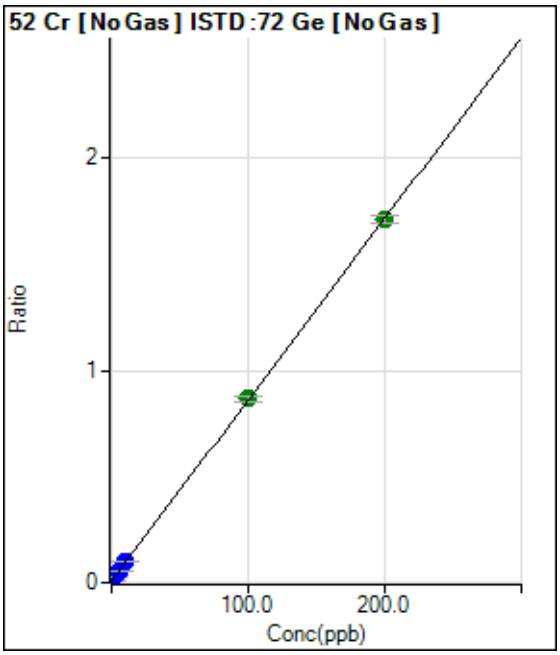


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3140.38	0.0049	P	2.6
2	☐	2.000	1.977	13530.05	0.0213	P	0.5
3	☐	5.000	4.956	29421.51	0.0460	P	1.1
4	☐	10.000	9.948	55578.70	0.0874	P	0.2
5	☐	100.000	97.008	507873.40	0.8092	P	1.1
6	☐	200.000	201.500	1008334.41	1.6756	A	1.5

y = 0.0083 * x + 0.0049
R = 0.9998
DL = 0.04646
BEC = 0.5951

Weight: <None>
Min Conc: <None>

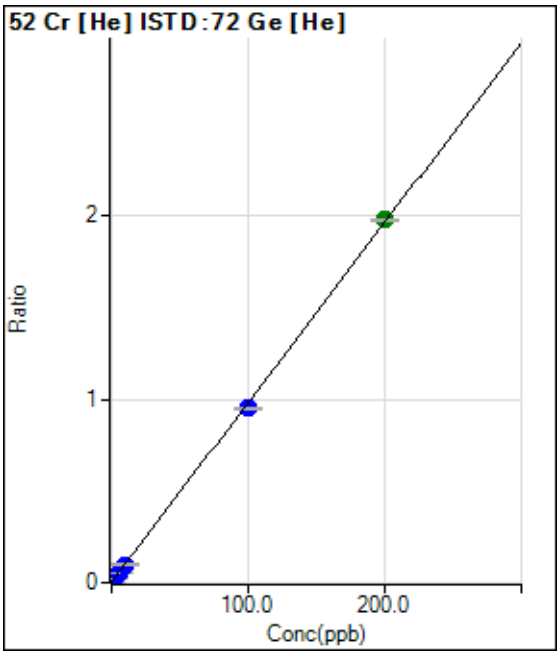
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15058.54	0.0077	P	1.9
2	☐	2.000	2.030	49389.31	0.0250	P	1.9
3	☐	5.000	5.083	100943.32	0.0511	P	2.0
4	☐	10.000	10.417	190511.55	0.0966	P	2.1
5	☐	100.000	100.966	1698444.25	0.8697	A	3.1
6	☐	200.000	199.494	3263207.97	1.7110	A	2.1

y = 0.0085 * x + 0.0077
R = 1.0000
DL = 0.05139
BEC = 0.899

Weight: <None>
Min Conc: <None>

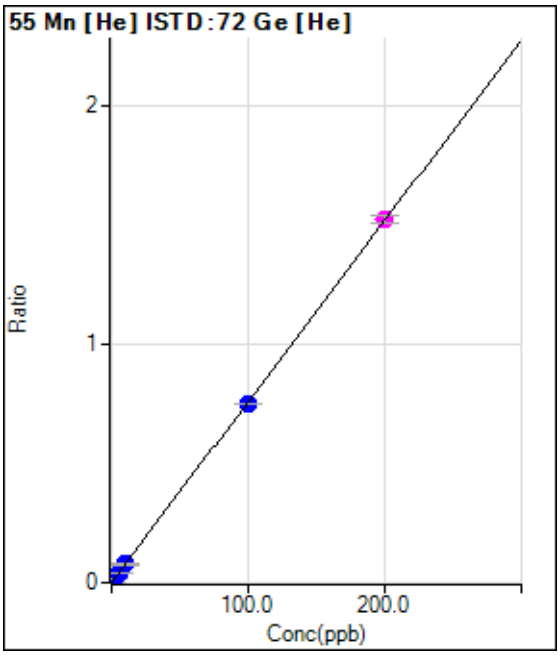


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1413.43	0.0022	P	5.9
2	☐	2.000	1.934	13416.76	0.0211	P	2.0
3	☐	5.000	4.945	32361.92	0.0506	P	3.2
4	☐	10.000	9.895	62994.85	0.0991	P	1.9
5	☐	100.000	96.735	595681.45	0.9491	P	0.5
6	☐	200.000	201.640	1189155.32	1.9760	A	0.8

y = 0.0098 * x + 0.0022
R = 0.9998
DL = 0.03985
BEC = 0.2269

Weight: <None>
Min Conc: <None>

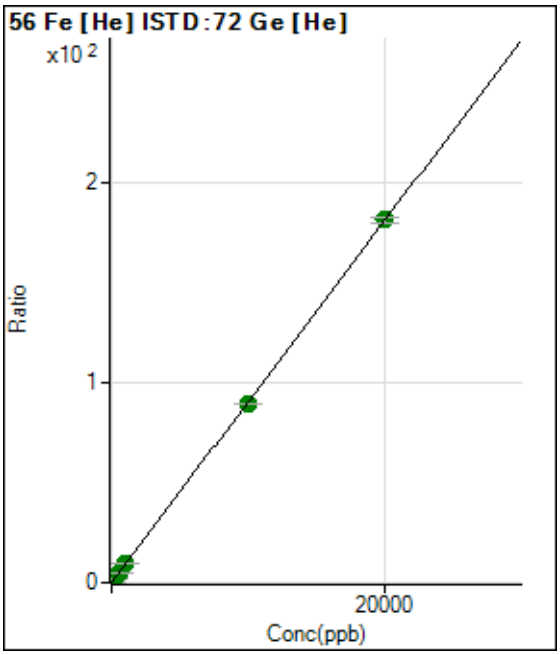
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	570.02	0.0009	P	3.0
2	☐	2.000	1.996	10163.95	0.0160	P	1.5
3	☐	5.000	4.907	24338.66	0.0381	P	1.3
4	☐	10.000	10.016	48820.82	0.0768	P	1.1
5	☐	100.000	98.752	470156.41	0.7491	P	0.8
6	☐	200.000	200.626	915336.84	1.5210	M	2.1

y = 0.0076 * x + 8.9567E-004
R = 1.0000
DL = 0.01057
BEC = 0.1182

Weight: <None>
Min Conc: <None>

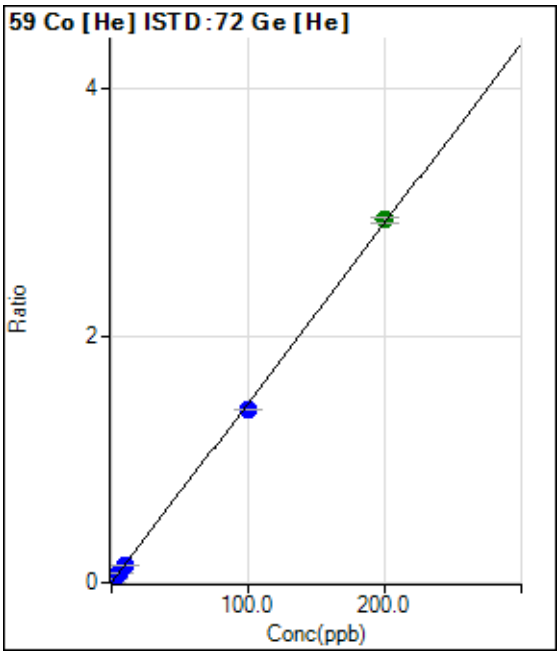


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8766.30	0.0138	P	4.0
2	☐	200.000	206.029	1192979.49	1.8802	A	1.5
3	☐	500.000	510.119	2962927.56	4.6351	A	0.6
4	☐	1000.000	1026.690	5922433.04	9.3148	A	0.4
5	☐	10000.00	9871.248	56132967.50	89.4399	A	0.6
6	☐	20000.00	20062.72	109386898.3	181.767	A	1.4

y = 0.0091 * x + 0.0138
R = 1.0000
DL = 0.1809
BEC = 1.52

Weight: <None>
Min Conc: <None>

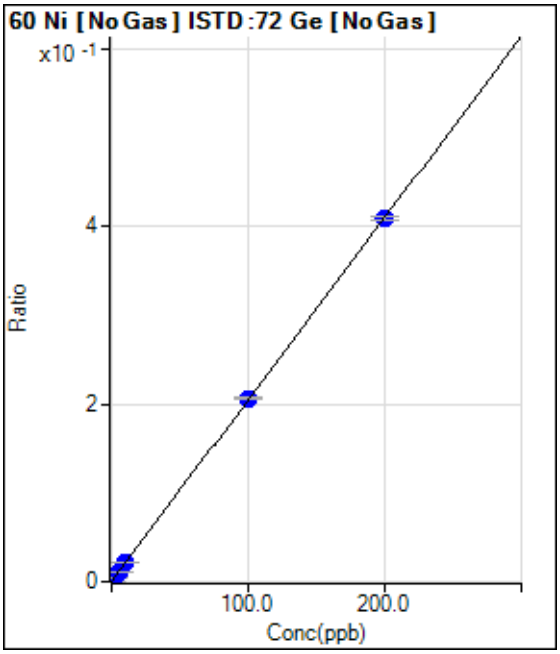
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0003	P	13.4
2	☐	2.000	1.979	18459.41	0.0291	P	2.2
3	☐	5.000	4.880	45579.70	0.0713	P	1.5
4	☐	10.000	9.948	92244.02	0.1451	P	0.5
5	☐	100.000	96.200	878988.55	1.4006	P	0.7
6	☐	200.000	201.906	1768810.96	2.9392	A	1.5

y = 0.0146 * x + 2.7769E-004
R = 0.9997
DL = 0.007687
BEC = 0.01908

Weight: <None>
Min Conc: <None>

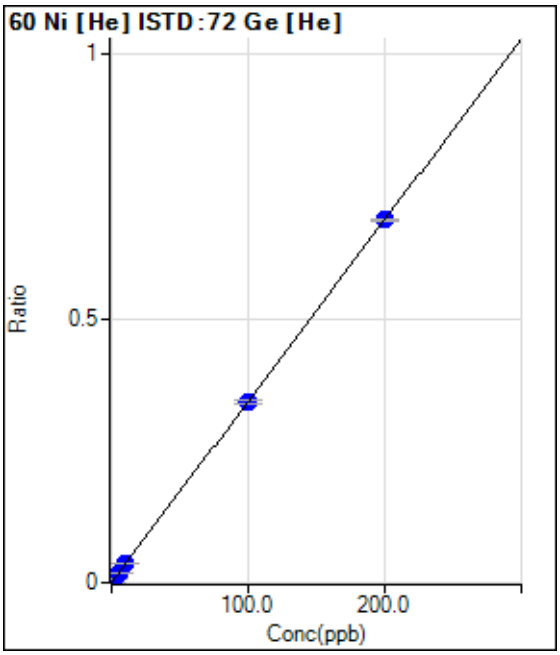


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	610.03	0.0003	P	15.9
2	☐	2.000	2.055	8913.05	0.0045	P	2.5
3	☐	5.000	5.159	21460.56	0.0109	P	0.7
4	☐	10.000	10.704	43757.39	0.0222	P	3.2
5	☐	100.000	100.871	403362.18	0.2065	P	1.9
6	☐	200.000	199.525	778466.11	0.4082	P	1.2

y = 0.0020 * x + 3.1108E-004
R = 1.0000
DL = 0.0727
BEC = 0.1522

Weight: <None>
Min Conc: <None>

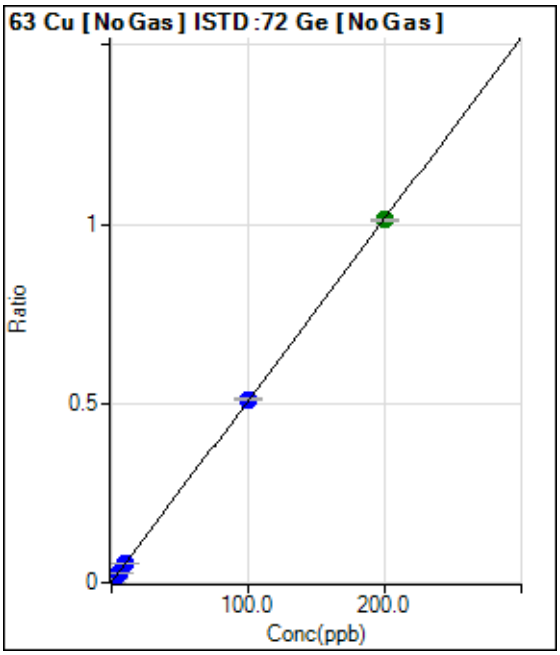
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0004	P	22.6
2	☐	2.000	2.004	4634.20	0.0073	P	8.4
3	☐	5.000	5.051	11351.60	0.0178	P	4.9
4	☐	10.000	10.558	23303.59	0.0367	P	0.6
5	☐	100.000	99.681	214917.73	0.3424	P	1.5
6	☐	200.000	200.130	413497.48	0.6871	P	0.5

y = 0.0034 * x + 4.2448E-004
R = 1.0000
DL = 0.08388
BEC = 0.1237

Weight: <None>
Min Conc: <None>

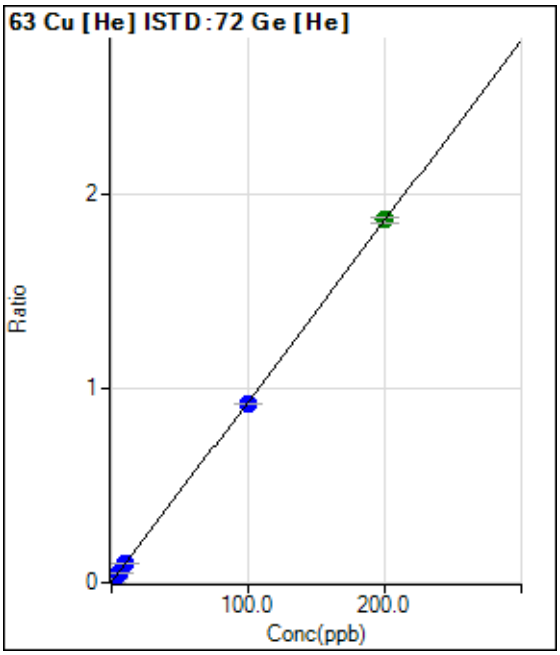


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2603.64	0.0013	P	1.6
2	☐	2.000	2.127	23907.94	0.0121	P	2.5
3	☐	5.000	5.272	55422.78	0.0280	P	0.7
4	☐	10.000	10.719	109719.30	0.0556	P	2.2
5	☐	100.000	100.822	1000436.24	0.5122	P	1.6
6	☐	200.000	199.545	1931004.35	1.0125	A	0.3

y = 0.0051 * x + 0.0013
R = 1.0000
DL = 0.01228
BEC = 0.2619

Weight: <None>
Min Conc: <None>

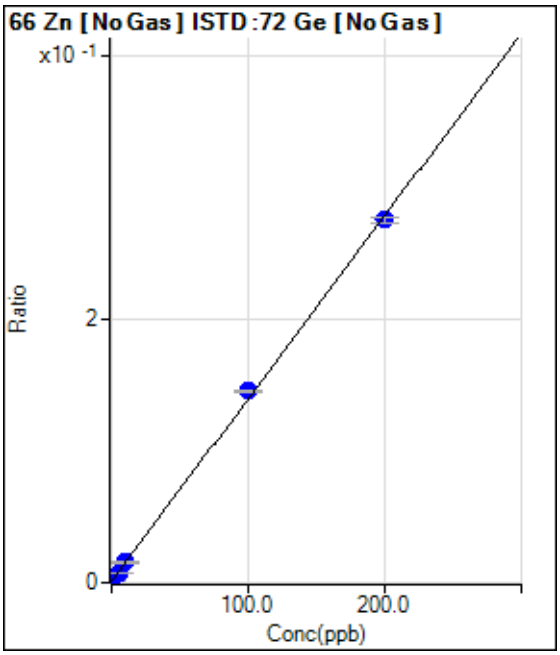
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1450.10	0.0023	P	4.0
2	☐	2.000	2.049	13553.64	0.0214	P	3.2
3	☐	5.000	5.047	31506.80	0.0493	P	1.2
4	☐	10.000	10.258	62195.43	0.0978	P	1.5
5	☐	100.000	98.823	579074.98	0.9227	P	0.8
6	☐	200.000	200.574	1125543.68	1.8703	A	1.6

y = 0.0093 * x + 0.0023
R = 1.0000
DL = 0.0292
BEC = 0.2447

Weight: <None>
Min Conc: <None>

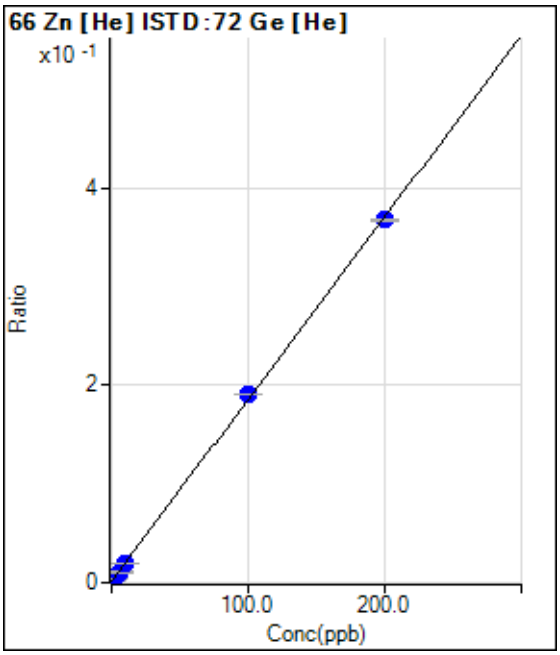


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2130.21	0.0011	P	6.4
2	☐	2.000	1.921	7408.80	0.0038	P	3.9
3	☐	5.000	4.818	15358.89	0.0078	P	1.1
4	☐	10.000	10.322	30377.73	0.0154	P	4.5
5	☐	100.000	104.106	284284.96	0.1455	P	0.6
6	☐	200.000	197.936	525758.30	0.2757	P	1.6

y = 0.0014 * x + 0.0011
R = 0.9997
DL = 0.1505
BEC = 0.7826

Weight: <None>
Min Conc: <None>

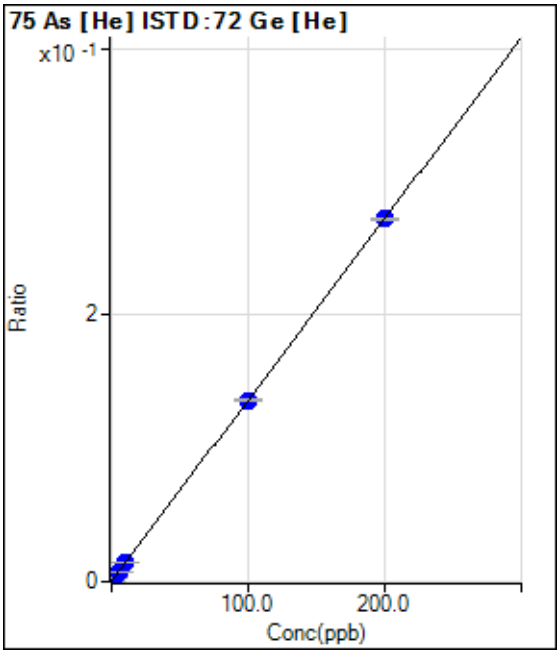
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	906.71	0.0014	P	8.6
2	☐	2.000	1.789	2997.03	0.0047	P	4.6
3	☐	5.000	5.026	6831.85	0.0107	P	6.1
4	☐	10.000	10.132	12779.52	0.0201	P	1.2
5	☐	100.000	102.826	119846.06	0.1910	P	0.6
6	☐	200.000	198.582	221131.58	0.3675	P	0.5

y = 0.0018 * x + 0.0014
R = 0.9999
DL = 0.2002
BEC = 0.7729

Weight: <None>
Min Conc: <None>

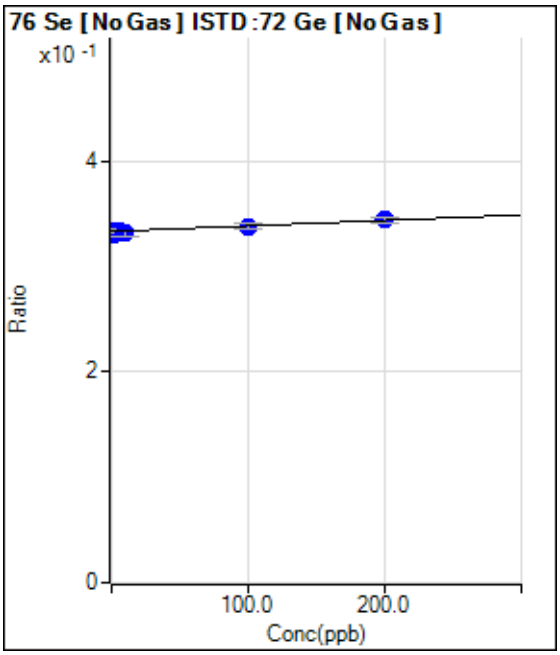


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	201.11	0.0003	P	17.3
2	☐	2.000	2.023	1944.59	0.0031	P	5.4
3	☐	5.000	4.940	4492.99	0.0070	P	0.4
4	☐	10.000	10.239	9047.52	0.0142	P	2.0
5	☐	100.000	99.955	85447.26	0.1362	P	1.4
6	☐	200.000	200.012	163762.24	0.2721	P	0.9

y = 0.0014 * x + 3.1583E-004
R = 1.0000
DL = 0.1205
BEC = 0.2324

Weight: <None>
Min Conc: <None>

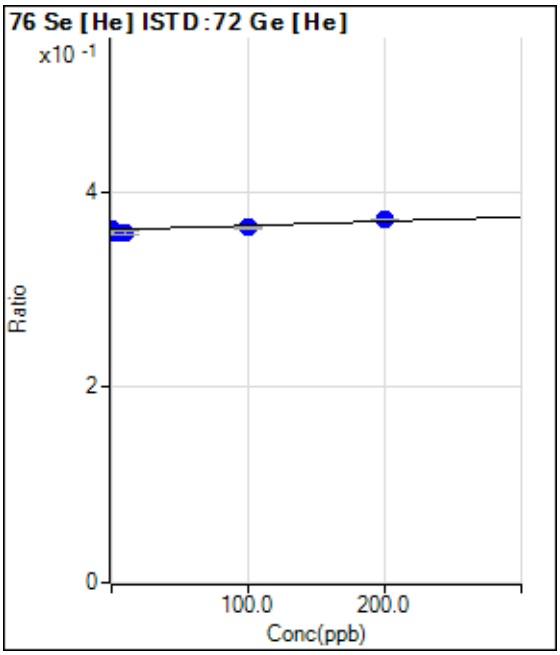
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	654261.11	0.3335	P	1.0
2	☐	2.000	-65.334	651885.72	0.3301	P	1.3
3	☐	5.000	-0.340	659082.26	0.3335	P	1.3
4	☐	10.000	-38.958	653645.73	0.3315	P	1.9
5	☐	100.000	91.192	660767.93	0.3383	P	1.3
6	☐	200.000	207.659	656754.91	0.3444	P	1.3

y = 5.2321E-005 * x + 0.3335
R = 0.9668
DL = 184.8
BEC = 6375

Weight: <None>
Min Conc: <None>

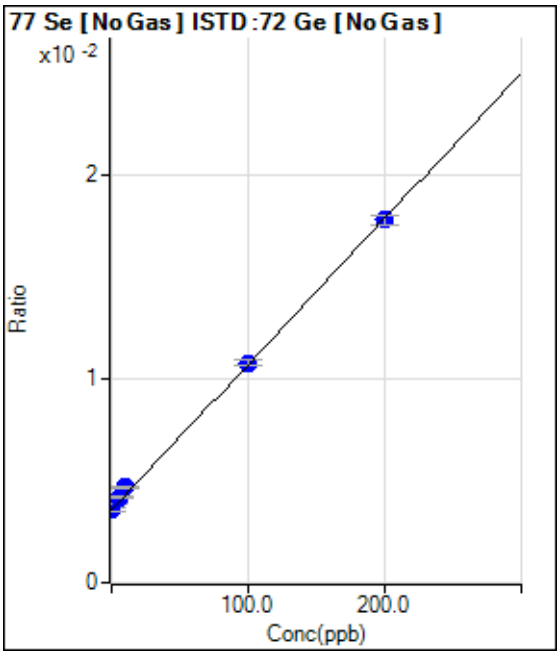


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	229763.94	0.3610	P	0.4
2	☐	2.000	-74.422	226968.18	0.3577	P	0.9
3	☐	5.000	-86.085	228345.07	0.3572	P	0.5
4	☐	10.000	-65.463	227705.04	0.3581	P	0.9
5	☐	100.000	55.772	228132.55	0.3635	P	0.6
6	☐	200.000	228.929	223373.90	0.3712	P	0.8

y = 4.4302E-005 * x + 0.3610
R = 0.9580
DL = 94.83
BEC = 8149

Weight: <None>
Min Conc: <None>

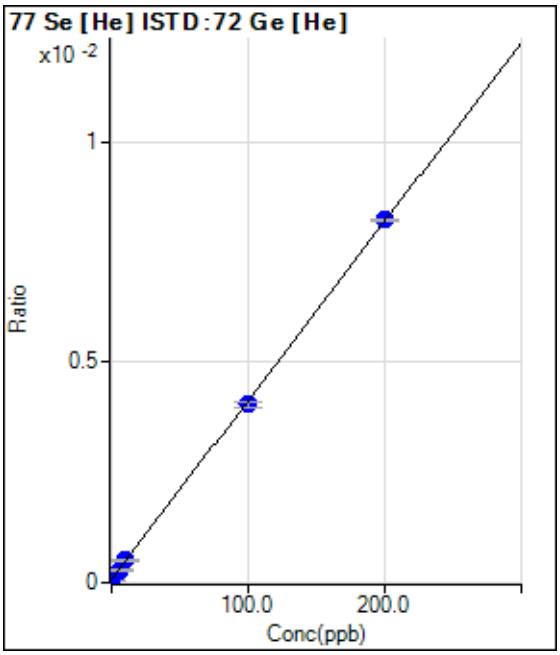
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6985.29	0.0036	P	6.5
2	☐	2.000	5.537	7812.40	0.0040	P	4.0
3	☐	5.000	8.172	8189.31	0.0041	P	2.3
4	☐	10.000	15.667	9226.66	0.0047	P	1.8
5	☐	100.000	101.159	21050.08	0.0108	P	2.9
6	☐	200.000	199.022	33866.23	0.0178	P	2.8

y = 7.1351E-005 * x + 0.0036
R = 0.9997
DL = 9.74
BEC = 49.91

Weight: <None>
Min Conc: <None>

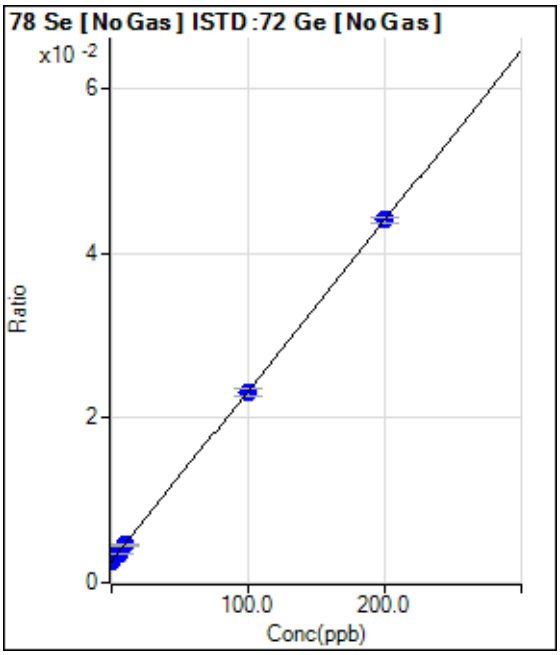


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0001	P	87.7
2	☐	2.000	2.717	120.00	0.0002	P	21.2
3	☐	5.000	5.004	180.01	0.0003	P	29.3
4	☐	10.000	10.602	323.34	0.0005	P	13.8
5	☐	100.000	97.952	2540.29	0.0040	P	3.3
6	☐	200.000	200.986	4947.66	0.0082	P	0.7

y = 4.0513E-005 * x + 7.8777E-005
R = 0.9999
DL = 5.114
BEC = 1.944

Weight: <None>
Min Conc: <None>

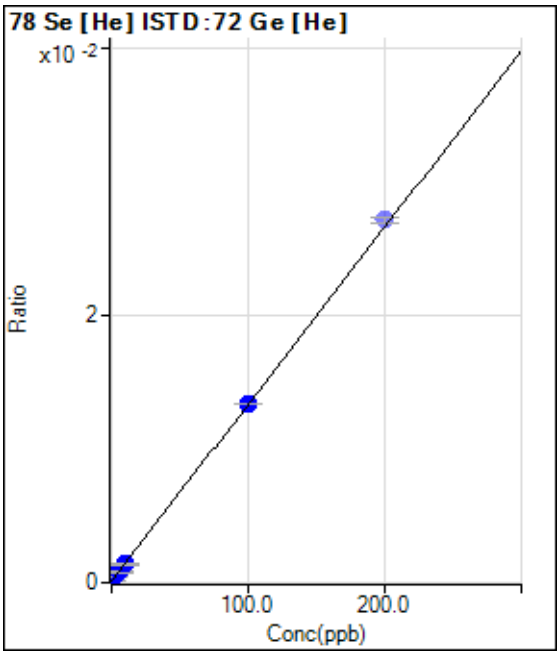
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5147.76	0.0026	P	5.0
2	☐	2.000	3.188	6485.03	0.0033	P	3.8
3	☐	5.000	4.432	6998.61	0.0035	P	2.6
4	☐	10.000	9.630	9099.93	0.0046	P	5.4
5	☐	100.000	99.315	45219.50	0.0232	P	4.6
6	☐	200.000	200.363	84017.97	0.0441	P	1.8

y = 2.0679E-004 * x + 0.0026
R = 1.0000
DL = 1.898
BEC = 12.69

Weight: <None>
Min Conc: <None>

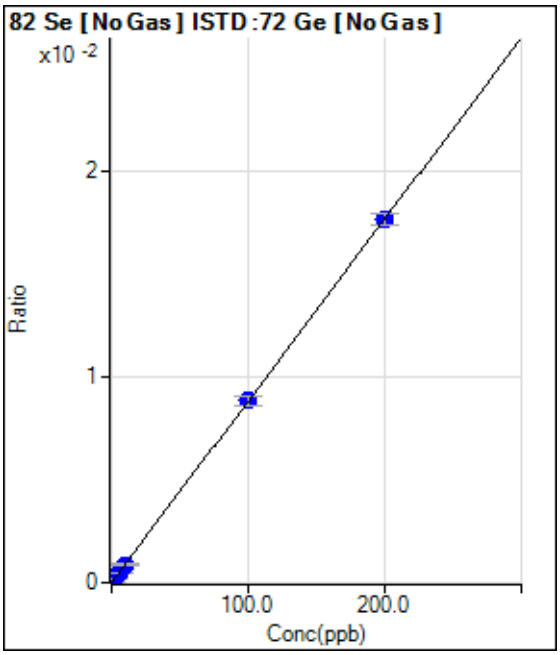


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78.67	0.0001	P	14.7
2	☐	2.000	1.910	238.67	0.0004	P	5.2
3	☐	5.000	5.147	514.01	0.0008	P	6.0
4	☐	10.000	9.512	878.03	0.0014	P	4.9
5	☐	100.000	100.043	8378.62	0.0133	P	0.5
6	☑	200.000		16330.55	0.0271	P	1.4

y = 1.3220E-004 * x + 1.2364E-004
R = 1.0000
DL = 0.4125
BEC = 0.9352

Weight: <None>
Min Conc: <None>

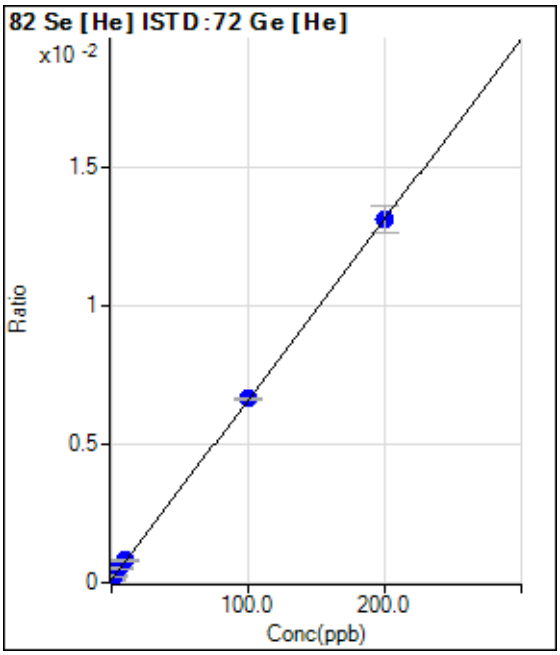
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-73.09	0.0000	P	-76.0
2	☐	2.000	1.972	270.29	0.0001	P	31.8
3	☐	5.000	5.428	873.70	0.0004	P	14.7
4	☐	10.000	9.988	1663.79	0.0008	P	7.1
5	☐	100.000	100.155	17181.92	0.0088	P	5.6
6	☐	200.000	199.912	33566.39	0.0176	P	3.4

y = 8.8250E-005 * x - 3.7279E-005
R = 1.0000
DL = 0.9636
BEC = -0.4224

Weight: <None>
Min Conc: <None>

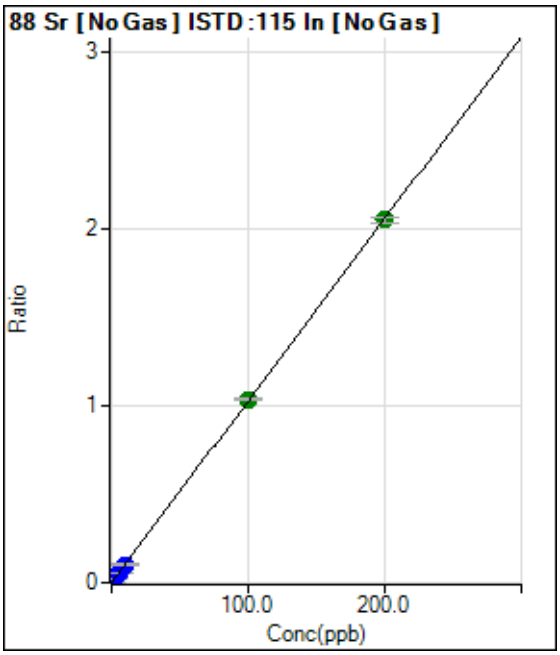


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	17.2
2	☐	2.000	1.859	143.33	0.0002	P	16.7
3	☐	5.000	6.563	340.01	0.0005	P	14.5
4	☐	10.000	11.037	523.35	0.0008	P	8.3
5	☐	100.000	100.355	4164.05	0.0066	P	1.8
6	☐	200.000	199.733	7882.47	0.0131	P	7.5

y = 6.5067E-005 * x + 1.0474E-004
R = 1.0000
DL = 0.8317
BEC = 1.61

Weight: <None>
Min Conc: <None>

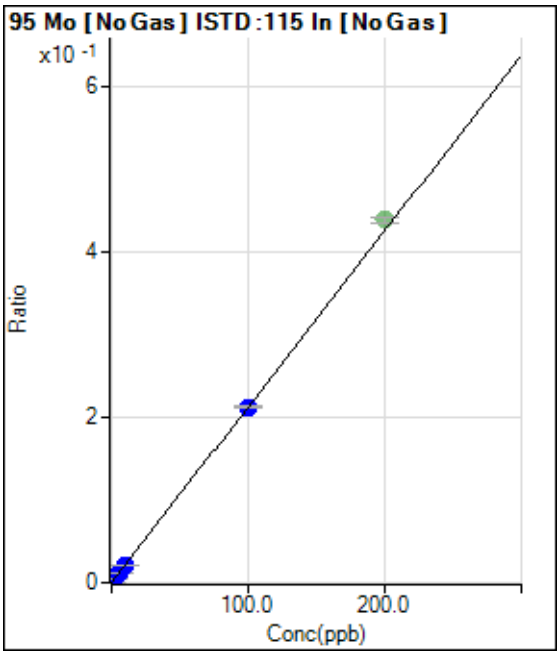
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1593.46	0.0006	P	7.9
2	☐	2.000	2.030	59836.81	0.0214	P	1.4
3	☐	5.000	5.011	145894.64	0.0520	P	2.9
4	☐	10.000	9.989	293031.80	0.1030	P	1.2
5	☐	100.000	100.912	2856372.36	1.0358	A	0.8
6	☐	200.000	199.544	5503376.58	2.0476	A	1.5

y = 0.0103 * x + 5.6337E-004
R = 1.0000
DL = 0.01303
BEC = 0.05492

Weight: <None>
Min Conc: <None>

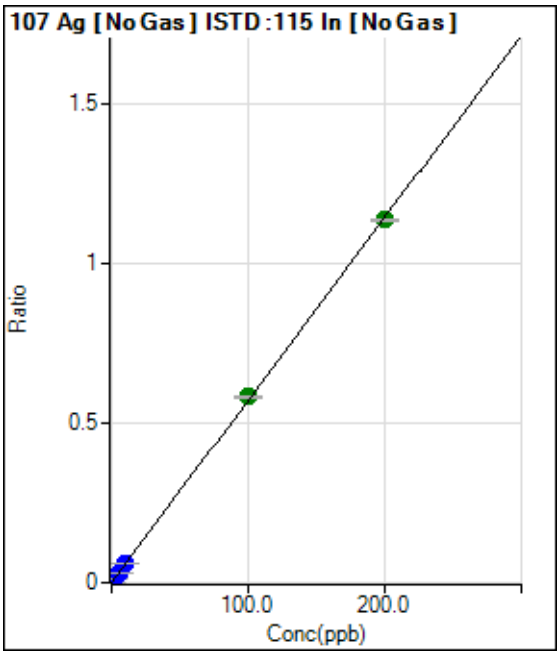


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	10.0
2	☐	2.000	2.032	12239.24	0.0044	P	3.5
3	☐	5.000	4.997	30007.48	0.0107	P	3.9
4	☐	10.000	10.035	60882.20	0.0214	P	2.1
5	☐	100.000	99.996	587084.12	0.2129	P	0.6
6	☑	200.000		1180735.79	0.4393	A	1.3

y = 0.0021 * x + 5.0643E-005
R = 1.0000
DL = 0.007172
BEC = 0.02379

Weight: <None>
Min Conc: <None>

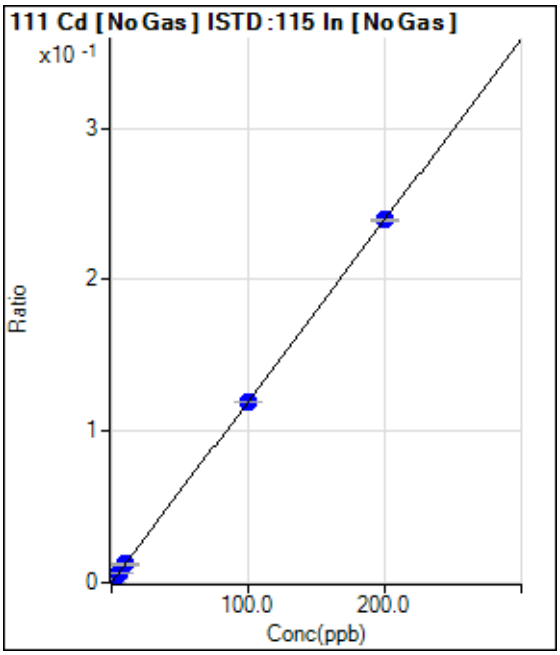
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	780.04	0.0003	P	19.5
2	☐	2.000	2.043	33422.57	0.0119	P	1.8
3	☐	5.000	5.172	83710.30	0.0298	P	3.0
4	☐	10.000	10.440	170383.86	0.0599	P	1.8
5	☐	100.000	102.150	1610065.97	0.5839	A	0.9
6	☐	200.000	198.898	3054773.29	1.1366	A	0.7

y = 0.0057 * x + 2.7553E-004
R = 0.9999
DL = 0.02827
BEC = 0.04823

Weight: <None>
Min Conc: <None>

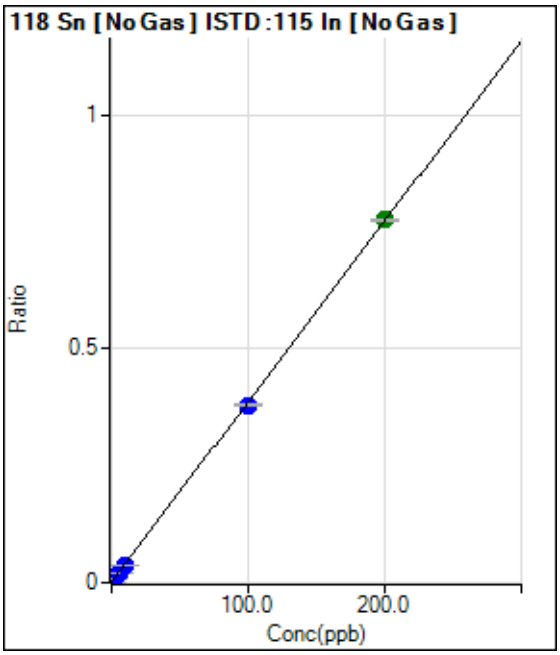


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.4
2	☐	2.000	2.017	6761.84	0.0024	P	12.4
3	☐	5.000	4.929	16580.73	0.0059	P	1.6
4	☐	10.000	10.073	34294.89	0.0121	P	1.3
5	☐	100.000	99.759	329190.18	0.1194	P	0.9
6	☐	200.000	200.118	643589.30	0.2395	P	0.3

y = 0.0012 * x + 5.8837E-006
R = 1.0000
DL = 0.01348
BEC = 0.004917

Weight: <None>
Min Conc: <None>

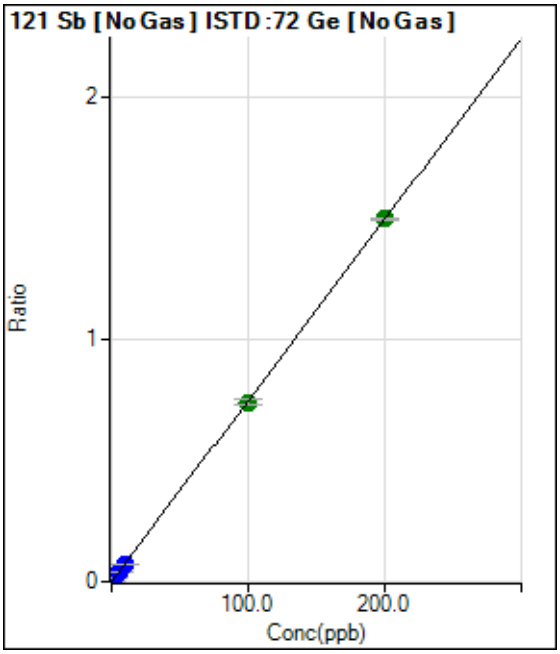
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2063.54	0.0007	P	11.6
2	☐	2.000	1.874	22255.79	0.0080	P	4.6
3	☐	5.000	4.873	54821.38	0.0195	P	4.6
4	☐	10.000	9.781	109362.51	0.0385	P	1.4
5	☐	100.000	98.267	1047336.91	0.3798	P	1.2
6	☐	200.000	200.882	2084652.05	0.7756	A	0.8

y = 0.0039 * x + 7.2915E-004
R = 0.9999
DL = 0.06559
BEC = 0.189

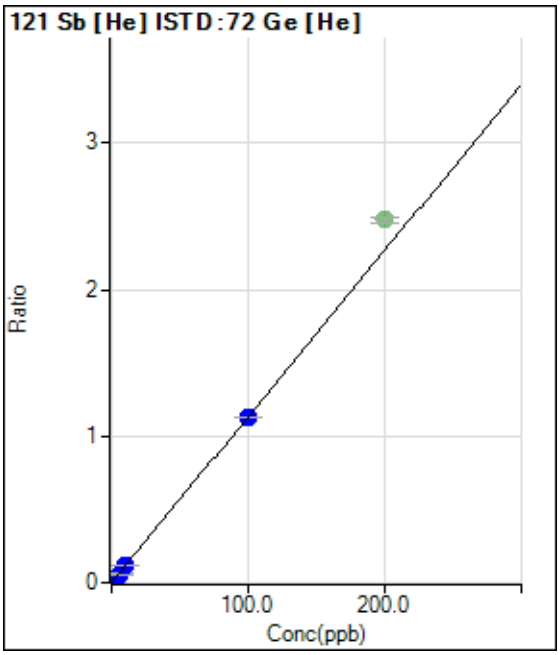
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	953.39	0.0005	P	6.8
2	☐	2.000	1.939	29597.01	0.0150	P	2.0
3	☐	5.000	4.843	72553.46	0.0367	P	1.5
4	☐	10.000	9.948	147718.24	0.0749	P	0.9
5	☐	100.000	99.193	1450017.06	0.7425	A	2.5
6	☐	200.000	200.411	2860377.67	1.4996	A	0.4

y = 0.0075 * x + 4.8609E-004
R = 1.0000
DL = 0.01323
BEC = 0.06498

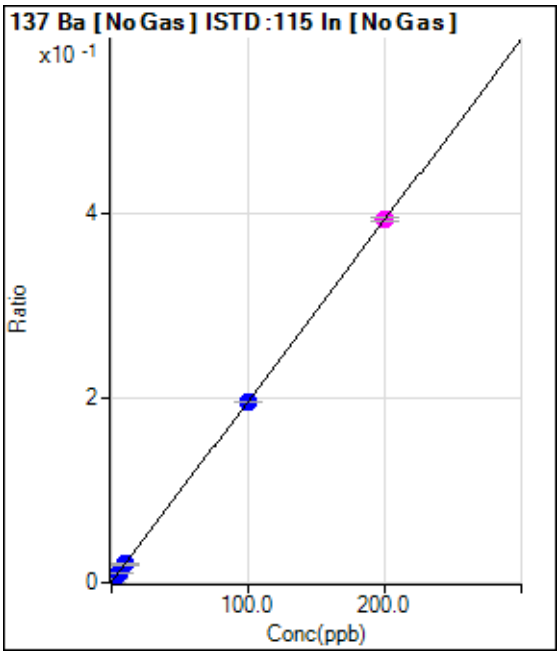
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	513.35	0.0008	P	14.7
2	☐	2.000	2.096	15576.15	0.0245	P	2.0
3	☐	5.000	5.125	37627.56	0.0589	P	0.9
4	☐	10.000	10.392	75352.27	0.1185	P	1.3
5	☐	100.000	99.953	711078.84	1.1330	P	0.4
6	☑	200.000		1490019.25	2.4760	A	1.5

y = 0.0113 * x + 8.0676E-004
R = 1.0000
DL = 0.03148
BEC = 0.07122

Weight: <None>
Min Conc: <None>

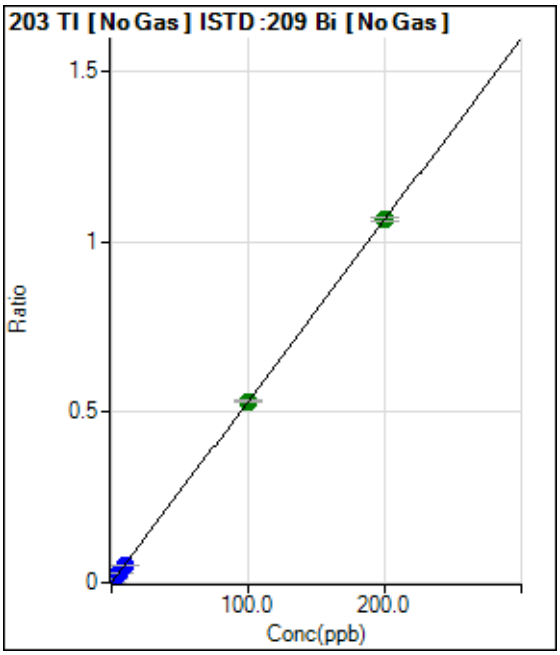


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1500.11	0.0005	P	10.3
2	☐	2.000	1.971	12272.66	0.0044	P	1.9
3	☐	5.000	5.034	29146.33	0.0104	P	1.4
4	☐	10.000	9.841	56265.26	0.0198	P	1.6
5	☐	100.000	99.569	538750.12	0.1954	P	0.8
6	☐	200.000	200.223	1054469.54	0.3923	M	1.2

y = 0.0020 * x + 5.3017E-004
R = 1.0000
DL = 0.08332
BEC = 0.2709

Weight: <None>
Min Conc: <None>

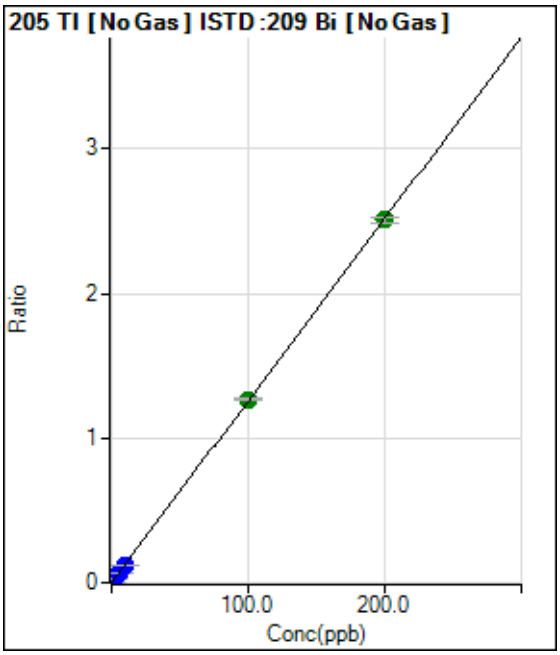
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	573.35	0.0002	P	1.2
2	☐	2.000	1.928	36042.41	0.0104	P	4.2
3	☐	5.000	4.783	88895.15	0.0256	P	0.8
4	☐	10.000	9.705	180280.92	0.0518	P	1.9
5	☐	100.000	100.074	1814859.82	0.5324	A	1.2
6	☐	200.000	199.984	3514815.47	1.0638	A	1.0

y = 0.0053 * x + 1.6691E-004
R = 1.0000
DL = 0.001131
BEC = 0.03138

Weight: <None>
Min Conc: <None>

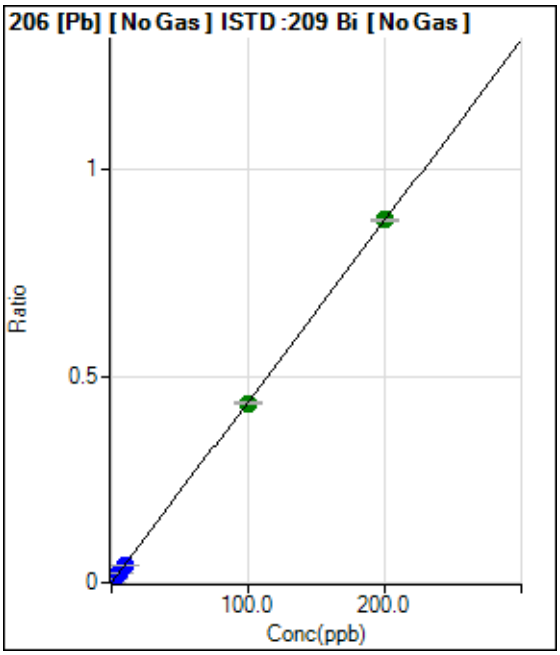


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1440.12	0.0004	P	7.8
2	☐	2.000	1.950	86152.71	0.0249	P	3.4
3	☐	5.000	4.892	214812.33	0.0619	P	1.2
4	☐	10.000	9.941	436329.63	0.1253	P	0.4
5	☐	100.000	100.861	4320443.17	1.2675	A	0.9
6	☐	200.000	199.576	8284880.29	2.5077	A	1.4

y = 0.0126 * x + 4.1895E-004
R = 1.0000
DL = 0.007758
BEC = 0.03335

Weight: <None>
Min Conc: <None>

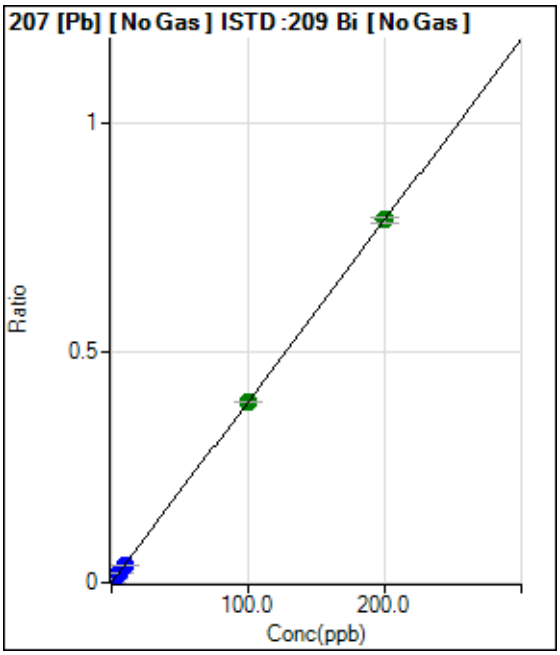
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	380.02	0.0001	P	22.2
2	☐	2.000	1.947	29882.77	0.0086	P	2.4
3	☐	5.000	4.889	74736.61	0.0215	P	1.3
4	☐	10.000	9.780	149576.16	0.0430	P	0.7
5	☐	100.000	99.043	1479344.10	0.4340	A	1.2
6	☐	200.000	200.493	2902115.90	0.8784	A	0.8

y = 0.0044 * x + 1.1081E-004
R = 1.0000
DL = 0.01682
BEC = 0.02529

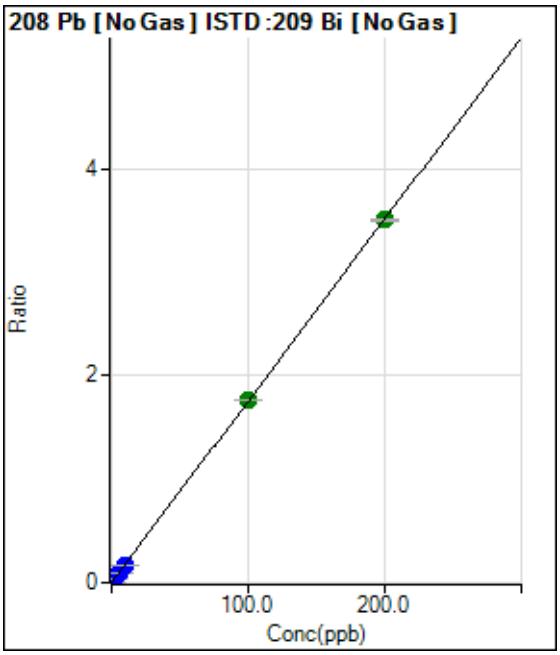
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	316.68	0.0001	P	25.0
2	☐	2.000	1.937	26728.92	0.0077	P	2.6
3	☐	5.000	4.828	66373.35	0.0191	P	1.6
4	☐	10.000	9.832	135241.70	0.0388	P	2.1
5	☐	100.000	99.580	1338202.95	0.3926	A	0.6
6	☐	200.000	200.223	2607748.97	0.7893	A	1.7

y = 0.0039 * x + 9.2100E-005
R = 1.0000
DL = 0.01756
BEC = 0.02337

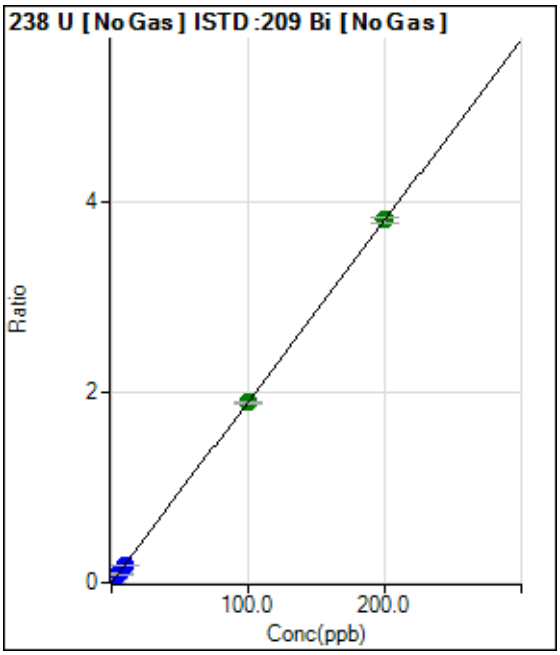
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1406.73	0.0004	P	7.0
2	☐	2.000	1.968	120786.68	0.0349	P	2.6
3	☐	5.000	4.886	298965.26	0.0861	P	1.3
4	☐	10.000	9.931	607931.12	0.1746	P	1.5
5	☐	100.000	100.488	6009869.60	1.7631	A	0.8
6	☐	200.000	199.762	11578402.28	3.5046	A	0.6

y = 0.0175 * x + 4.0957E-004
R = 1.0000
DL = 0.004924
BEC = 0.02335

Weight: <None>
Min Conc: <None>

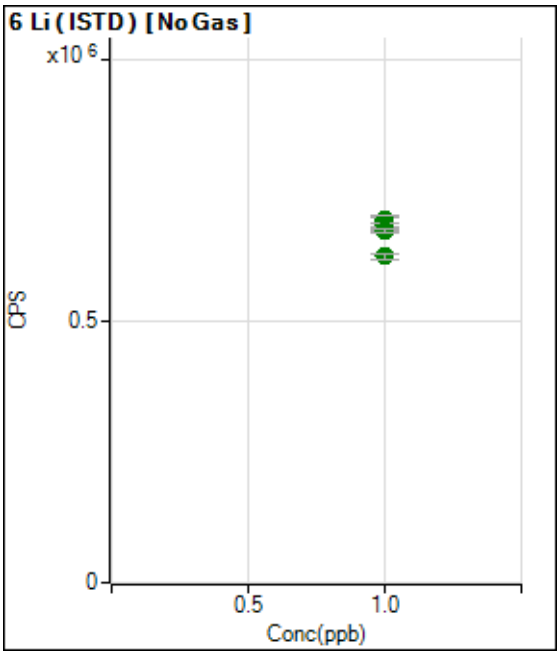


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	416.68	0.0001	P	4.9
2	☐	2.000	1.933	127468.83	0.0369	P	3.0
3	☐	5.000	4.793	316692.85	0.0912	P	1.1
4	☐	10.000	9.767	646780.03	0.1858	P	1.2
5	☐	100.000	99.313	6434194.49	1.8877	A	1.6
6	☐	200.000	200.361	12580839.39	3.8083	A	1.7

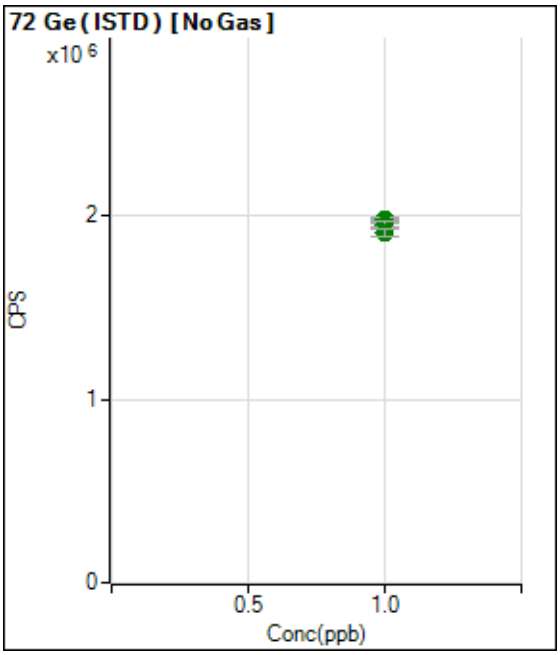
y = 0.0190 * x + 1.2130E-004
R = 1.0000
DL = 0.000938
BEC = 0.006382

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

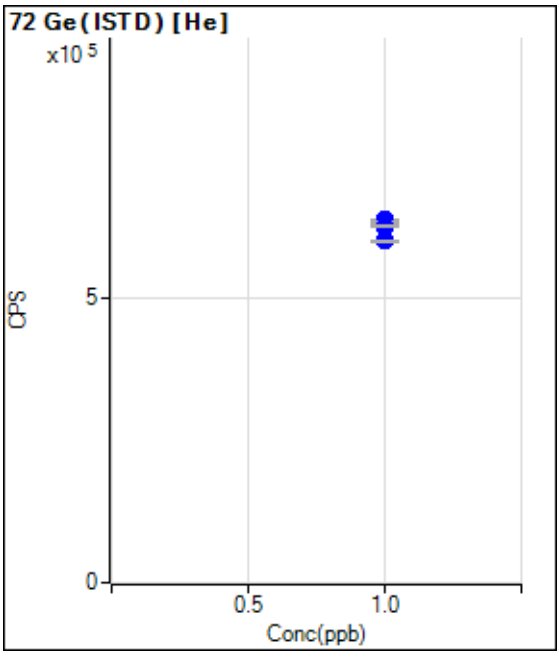


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		694311.91		A	1.5
2	☐	1.000		691392.67		A	3.1
3	☐	1.000		679728.70		A	2.1
4	☐	1.000		682805.84		A	1.1
5	☐	1.000		674401.75		A	1.1
6	☐	1.000		623879.74		A	1.3

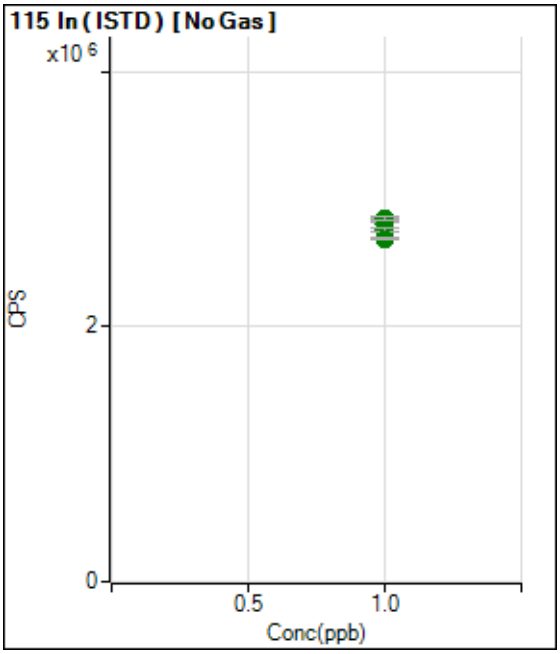


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1961679.29		A	0.4
2	☐	1.000		1974930.08		A	1.0
3	☐	1.000		1976456.79		A	1.6
4	☐	1.000		1972248.62		A	1.5
5	☐	1.000		1953595.70		A	2.1
6	☐	1.000		1907305.96		A	1.8

Calibration for 021_ICV.d

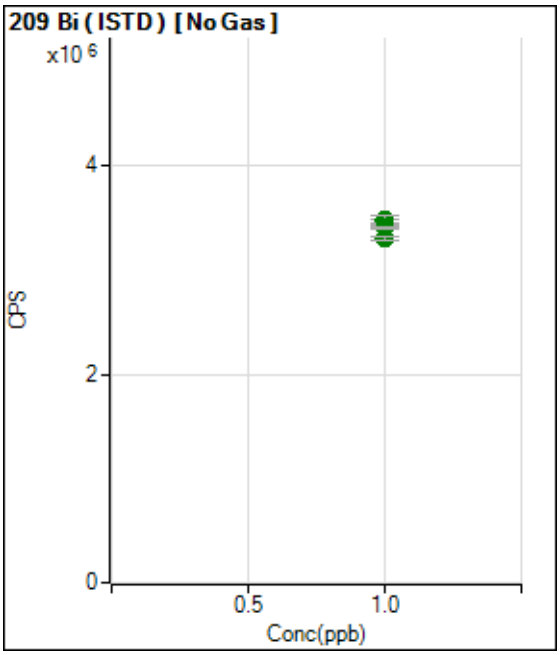


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		636422.09		P	0.5
2	☐	1.000		634493.82		P	1.1
3	☐	1.000		639235.41		P	0.2
4	☐	1.000		635804.97		P	0.5
5	☐	1.000		627614.15		P	0.5
6	☐	1.000		601801.51		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2829147.64		A	0.6
2	☐	1.000		2798278.59		A	1.7
3	☐	1.000		2808677.56		A	2.8
4	☐	1.000		2843938.26		A	1.2
5	☐	1.000		2757742.76		A	0.8
6	☐	1.000		2687619.93		A	0.5

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3435360.57		A	1.2
2	☐	1.000		3459669.64		A	1.8
3	☐	1.000		3471731.82		A	1.1
4	☐	1.000		3482337.87		A	2.1
5	☐	1.000		3408595.68		A	0.4
6	☐	1.000		3303850.26		A	0.8

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	009CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:05:52-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	44291	0.00
Be	9	1	No Gas	87	47.23
V	51	2	He	3140	0.09
Cr	52	2	He	1413	0.43
Fe	56	2	He	8766	0.05
Se	78	2	He	79	18.38
As	75	2	He	201	8.81
Ca	44	2	He	607	1.81
Na	23	2	He	62041	0.00
Mg	24	2	He	873	1.40
K	39	2	He	50968	0.00
Mn	55	2	He	570	0.53
Co	59	2	He	177	7.40
Ni	60	2	He	270	8.23
Cu	63	2	He	1450	0.25
Zn	66	2	He	907	0.98
Al	27	2	He	860	2.21
B	11	1	No Gas	23131	0.00
Al	27	1	No Gas	32329	0.01
Si	28	1	No Gas	170556	0.00
Ag	107	1	No Gas	780	2.56
Cd	111	1	No Gas	17	549.91
Sr	88	1	No Gas	1593	0.47
Mo	95	1	No Gas	143	7.44
Sn	118	1	No Gas	2064	0.58
Sb	121	1	No Gas	953	0.67
Ba	137	1	No Gas	1500	0.70
Tl	205	1	No Gas	1440	0.62
Tl	203	1	No Gas	573	0.18
Pb	208	1	No Gas	1407	0.48
U	238	1	No Gas	417	1.20
Ca	43	2	He	13	324.76
Sb	121	2	He	513	2.85
Ti	47	2	He	10	1732.05
Cu	63	1	No Gas	2604	0.07

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	694312	1.45
Ge	72	2	He	636422	0.51
Ge	72	1	No Gas	1961679	0.37
In	115	1	No Gas	2829148	0.61

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	3435361	1.18

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:07:51-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	5188	0.06
V	51	2	He	13530	0.01
Cr	52	2	He	13417	0.01
Fe	56	2	He	1192979	0.00
Se	78	2	He	239	2.34
As	75	2	He	1945	0.27
Ca	44	2	He	7365	0.06
Na	23	2	He	242587	0.00
Mg	24	2	He	109084	0.00
K	39	2	He	175736	0.00
Mn	55	2	He	10164	0.02
Co	59	2	He	18459	0.02
Ni	60	2	He	4634	0.20
Cu	63	2	He	13554	0.02
Zn	66	2	He	2997	0.19
Al	27	2	He	1700	0.59
B	11	1	No Gas	36145	0.00
Al	27	1	No Gas	62386	0.00
Si	28	1	No Gas	225703	0.00
Ag	107	1	No Gas	33423	0.00
Cd	111	1	No Gas	6762	0.16
Sr	88	1	No Gas	59837	0.00
Mo	95	1	No Gas	12239	0.02
Sn	118	1	No Gas	22256	0.02
Sb	121	1	No Gas	29597	0.00
Ba	137	1	No Gas	12273	0.01
Tl	205	1	No Gas	86153	0.00
Tl	203	1	No Gas	36042	0.01
Pb	208	1	No Gas	120787	0.00
U	238	1	No Gas	127469	0.00
Ca	43	2	He	457	2.64
Sb	121	2	He	15576	0.02
Cu	63	1	No Gas	23908	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	691393	3.08	694312	99.58	70	120	
Ge	72	2	He	634494	1.07	636422	99.70	70	120	
Ge	72	1	No Gas	1974930	0.98	1961679	100.68	70	120	

Calibration Standard Report

In	115	1	No Gas	2798279	1.68	2829148	98.91	70	120	
Bi	209	1	No Gas	3459670	1.76	3435361	100.71	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:09:50-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	12721	0.02
V	51	2	He	29422	0.00
Cr	52	2	He	32362	0.01
Fe	56	2	He	2962928	0.00
Se	78	2	He	514	1.18
As	75	2	He	4493	0.01
Ca	44	2	He	17498	0.01
Na	23	2	He	515386	0.00
Mg	24	2	He	273656	0.00
K	39	2	He	365706	0.00
Mn	55	2	He	24339	0.00
Co	59	2	He	45580	0.00
Ni	60	2	He	11352	0.05
Cu	63	2	He	31507	0.00
Zn	66	2	He	6832	0.09
Al	27	2	He	2524	0.20
B	11	1	No Gas	55780	0.00
Al	27	1	No Gas	91989	0.00
Si	28	1	No Gas	301325	0.00
Ag	107	1	No Gas	83710	0.00
Cd	111	1	No Gas	16581	0.02
Sr	88	1	No Gas	145895	0.00
Mo	95	1	No Gas	30007	0.01
Sn	118	1	No Gas	54821	0.01
Sb	121	1	No Gas	72553	0.00
Ba	137	1	No Gas	29146	0.00
Tl	205	1	No Gas	214812	0.00
Tl	203	1	No Gas	88895	0.00
Pb	208	1	No Gas	298965	0.00
U	238	1	No Gas	316693	0.00
Ca	43	2	He	1023	0.93
Sb	121	2	He	37628	0.00
Cu	63	1	No Gas	55423	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	679729	2.14	694312	97.90	70	120	
Ge	72	2	He	639235	0.24	636422	100.44	70	120	
Ge	72	1	No Gas	1976457	1.64	1961679	100.75	70	120	

Calibration Standard Report

In	115	1	No Gas	2808678	2.76	2829148	99.28	70	120	
Bi	209	1	No Gas	3471732	1.10	3435361	101.06	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:11:49-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	25729	0.00
V	51	2	He	55579	0.00
Cr	52	2	He	62995	0.00
Fe	56	2	He	5922433	0.00
Se	78	2	He	878	0.50
As	75	2	He	9048	0.02
Ca	44	2	He	35743	0.00
Na	23	2	He	993896	0.00
Mg	24	2	He	549834	0.00
K	39	2	He	692111	0.00
Mn	55	2	He	48821	0.00
Co	59	2	He	92244	0.00
Ni	60	2	He	23304	0.00
Cu	63	2	He	62195	0.00
Zn	66	2	He	12780	0.01
Al	27	2	He	4291	0.05
B	11	1	No Gas	93198	0.00
Al	27	1	No Gas	152771	0.00
Si	28	1	No Gas	439669	0.00
Ag	107	1	No Gas	170384	0.00
Cd	111	1	No Gas	34295	0.01
Sr	88	1	No Gas	293032	0.00
Mo	95	1	No Gas	60882	0.00
Sn	118	1	No Gas	109363	0.00
Sb	121	1	No Gas	147718	0.00
Ba	137	1	No Gas	56265	0.00
Tl	205	1	No Gas	436330	0.00
Tl	203	1	No Gas	180281	0.00
Pb	208	1	No Gas	607931	0.00
U	238	1	No Gas	646780	0.00
Ca	43	2	He	1964	0.60
Sb	121	2	He	75352	0.00
Cu	63	1	No Gas	109719	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	682806	1.07	694312	98.34	70	120	
Ge	72	2	He	635805	0.55	636422	99.90	70	120	
Ge	72	1	No Gas	1972249	1.46	1961679	100.54	70	120	

Calibration Standard Report

In	115	1	No Gas	2843938	1.24	2829148	100.52	70	120	
Bi	209	1	No Gas	3482338	2.10	3435361	101.37	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:13:48-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	250959	0.00
V	51	2	He	507873	0.00
Cr	52	2	He	595681	0.00
Fe	56	2	He	56132967	0.00
Se	78	2	He	8379	0.01
As	75	2	He	85447	0.00
Ca	44	2	He	335439	0.00
Na	23	2	He	8710530	0.00
Mg	24	2	He	5095517	0.00
K	39	2	He	6153699	0.00
Mn	55	2	He	470156	0.00
Co	59	2	He	878989	0.00
Ni	60	2	He	214918	0.00
Cu	63	2	He	579075	0.00
Zn	66	2	He	119846	0.00
Al	27	2	He	32849	0.01
B	11	1	No Gas	712434	0.00
Al	27	1	No Gas	1123336	0.00
Si	28	1	No Gas	2696360	0.00
Ag	107	1	No Gas	1610066	0.00
Cd	111	1	No Gas	329190	0.00
Sr	88	1	No Gas	2856372	0.00
Mo	95	1	No Gas	587084	0.00
Sn	118	1	No Gas	1047337	0.00
Sb	121	1	No Gas	1450017	0.00
Ba	137	1	No Gas	538750	0.00
Tl	205	1	No Gas	4320443	0.00
Tl	203	1	No Gas	1814860	0.00
Pb	208	1	No Gas	6009870	0.00
U	238	1	No Gas	6434194	0.00
Ca	43	2	He	19591	0.01
Sb	121	2	He	711079	0.00
Cu	63	1	No Gas	1000436	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	674402	1.14	694312	97.13	70	120	
Ge	72	2	He	627614	0.46	636422	98.62	70	120	
Ge	72	1	No Gas	1953596	2.09	1961679	99.59	70	120	

Calibration Standard Report

In	115	1	No Gas	2757743	0.85	2829148	97.48	70	120	
Bi	209	1	No Gas	3408596	0.40	3435361	99.22	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	014CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:15:42-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	490111	0.00
V	51	2	He	1008334	0.00
Cr	52	2	He	1189155	0.00
Fe	56	2	He	109386898	0.00
Se	78	2	He	16331	0.01
As	75	2	He	163762	0.00
Ca	44	2	He	654545	0.00
Na	23	2	He	16867263	0.00
Mg	24	2	He	9856634	0.00
K	39	2	He	12026508	0.00
Mn	55	2	He	915337	0.00
Co	59	2	He	1768811	0.00
Ni	60	2	He	413497	0.00
Cu	63	2	He	1125544	0.00
Zn	66	2	He	221132	0.00
Al	27	2	He	63836	0.00
B	11	1	No Gas	1391075	0.00
Al	27	1	No Gas	2126773	0.00
Si	28	1	No Gas	5044549	0.00
Ag	107	1	No Gas	3054773	0.00
Cd	111	1	No Gas	643589	0.00
Sr	88	1	No Gas	5503377	0.00
Mo	95	1	No Gas	1180736	0.00
Sn	118	1	No Gas	2084652	0.00
Sb	121	1	No Gas	2860378	0.00
Ba	137	1	No Gas	1054470	0.00
Tl	205	1	No Gas	8284880	0.00
Tl	203	1	No Gas	3514815	0.00
Pb	208	1	No Gas	11578402	0.00
U	238	1	No Gas	12580839	0.00
Ca	43	2	He	38718	0.01
Sb	121	2	He	1490019	0.00
Cu	63	1	No Gas	1931004	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	623880	1.32	694312	89.86	70	120	
Ge	72	2	He	601802	0.42	636422	94.56	70	120	
Ge	72	1	No Gas	1907306	1.79	1961679	97.23	70	120	

Calibration Standard Report

In	115	1	No Gas	2687620	0.50	2829148	95.00	70	120	
Bi	209	1	No Gas	3303850	0.77	3435361	96.17	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	016_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:19:30-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	105.320	4.270	1039684	2.06	100	105.3	90	110	
Be	9	1	No Gas	98.158	3.759	243809	1.54	100	98.2	90	110	
V	51	2	He	94.937	0.942	501168	0.23	100	94.9	90	110	
Cr	52	2	He	93.899	0.080	583015	0.86	100	93.9	90	110	
Fe	56	2	He	9926.992	0.165	56914819	0.90	10000	99.3	90	110	
Se	78	2	He	95.256	1.591	8184	0.91	100	95.3	90	110	
As	75	2	He	94.263	0.623	81256	0.29	100	94.3	90	110	
Ca	44	2	He	9839.881	0.481	337706	1.10	10000	98.4	90	110	
Na	23	2	He	9924.446	1.496	8809738	1.65	10000	99.2	90	110	
Mg	24	2	He	9991.088	0.432	5169796	1.29	10000	99.9	90	110	
K	39	2	He	9785.200	1.179	6184829	0.80	10000	97.9	90	110	
Mn	55	2	He	94.798	0.050	455076	0.91	100	94.8	90	110	
Co	59	2	He	93.651	0.572	862737	0.72	100	93.7	90	110	
Ni	60	2	He	99.016	1.060	215244	1.04	100	99.0	90	110	
Cu	63	2	He	95.601	0.331	564847	0.66	100	95.6	90	110	
Zn	66	2	He	96.531	0.413	113492	1.23	100	96.5	90	110	
Al	27	2	He	93.032	1.840	31523	2.19	100	93.0	90	110	
B	11	1	No Gas	10.378	9.486	35662	2.68	500	2.1	90	110	ICV Main CR1 Failed
Al	27	1	No Gas	98.365	2.188	1085290	1.98	100	98.4	90	110	
Si	28	1	No Gas	51.654	8.102	426191	5.34	500	10.3	90	110	ICV Main CR1 Failed
Ag	107	1	No Gas	100.782	1.982	1582385	0.57	100	100.8	90	110	
Cd	111	1	No Gas	99.227	1.599	326185	0.48	100	99.2	90	110	
Sr	88	1	No Gas	100.221	1.435	2826020	1.07	100	100.2	90	110	
Mo	95	1	No Gas	94.757	0.871	568317	0.60	100	94.8	90	110	
Sn	118	1	No Gas	96.358	1.107	1023155	0.38	100	96.4	90	110	
Sb	121	1	No Gas	101.414	1.193	1474332	1.11	100	101.4	90	110	
Ba	137	1	No Gas	99.132	1.810	534360	1.35	100	99.1	90	110	
Tl	205	1	No Gas	101.002	2.747	4323093	1.23	100	101.0	90	110	
Tl	203	1	No Gas	101.155	0.726	1833299	0.97	100	101.2	90	110	
Pb	208	1	No Gas	99.347	1.599	5937765	1.30	100	99.3	90	110	
U	238	1	No Gas	93.613	0.814	6062205	2.14	100	93.6	90	110	
Ca	43	2	He	9950.697	2.610	20142	3.45	10000	99.5	90	110	
Sb	121	2	He	94.046	1.214	724345	0.41	100	94.0	90	110	
Ti	47	2	He	93.405	3.351	18489	2.54	100	93.4	90	110	
Cu	63	1	No Gas	99.244	0.947	979326	1.40	100	99.2	90	110	
Se	82	1	No Gas	94.814	3.336	16180	3.78	100	94.8	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	639328	2.23	694312	92.08	70	120	
Ge	72	2	He	632774	0.88	636422	99.43	70	120	
Ge	72	1	No Gas	1942224	0.46	1961679	99.01	70	120	
In	115	1	No Gas	2747485	1.45	2829148	97.11	70	120	
Bi	209	1	No Gas	3406781	1.57	3435361	99.17	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	017_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:21:25-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.121	75.5	44813	1.9	0.5	
Be	9	1	No Gas	0.024	20.3	150	8.8	0.5	
V	51	2	He	0.040	117.3	3338	7.7	2.5	
Cr	52	2	He	-0.004	-241.7	1383	4.4	2.5	
Fe	56	2	He	0.848	15.2	13607	5.2	100	
Se	78	2	He	-0.107	-93.8	69	13.0	1	
As	75	2	He	-0.009	-259.4	192	11.5	2.5	
Ca	44	2	He	5.777	56.9	803	14.4	100	
Na	23	2	He	0.446	432.6	62215	2.8	100	
Mg	24	2	He	0.386	5.4	1070	1.6	100	
K	39	2	He	1.115	90.4	51489	1.1	100	
Mn	55	2	He	0.001	1271.1	573	11.9	2.5	
Co	59	2	He	-0.002	-161.5	157	20.5	2.5	
Ni	60	2	He	-0.007	-448.7	253	26.9	2.5	
Cu	63	2	He	-0.020	-73.3	1330	6.9	1	
Zn	66	2	He	-0.111	-44.1	773	7.8	2.5	
Al	27	2	He	0.554	43.3	1040	6.9	5	
B	11	1	No Gas	3.507	10.2	27956	2.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	0.659	3.7	39807	1.1	5	
Si	28	1	No Gas	0.956	23.5	176935	1.1	10	
Ag	107	1	No Gas	0.006	62.9	883	6.4	2.5	
Cd	111	1	No Gas	0.003	60.0	27	21.7	1	
Sr	88	1	No Gas	0.013	36.4	1994	8.2	2.5	
Mo	95	1	No Gas	0.185	45.1	1287	38.7	2.5	
Sn	118	1	No Gas	0.160	26.0	3824	11.0	5	
Sb	121	1	No Gas	0.200	4.2	3921	3.3	2.5	
Ba	137	1	No Gas	-0.026	-37.2	1363	3.4	2.5	
Tl	205	1	No Gas	0.091	41.1	5418	30.8	1	
Tl	203	1	No Gas	0.085	43.9	2154	32.9	1	
Pb	208	1	No Gas	0.020	18.7	2677	9.8	2.5	
U	238	1	No Gas	0.019	51.9	1687	39.7	2.5	
Ca	43	2	He	4.967	153.2	23	65.5	100	
Sb	121	2	He	0.186	5.6	1944	4.8	2.5	
Ti	47	2	He	0.000	-345.2	10	0.0	2.5	
Se	82	1	No Gas	0.061	568.7	-63	-96.7	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	683222	0.31	694312	98.40	70	120	
Ge	72	2	He	634158	0.69	636422	99.64	70	120	
Ge	72	1	No Gas	1979265	0.47	1961679	100.90	70	120	
In	115	1	No Gas	2841739	1.27	2829148	100.45	70	120	
Bi	209	1	No Gas	3479219	2.10	3435361	101.28	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	018LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:23:24-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	1.915	1.915	2.59	63743	0.00	2	
Be	9	1	No Gas	1.880	1.880	2.99	5136	0.04	2	
V	51	2	He	1.934	1.934	2.54	13325	0.01	2	
Cr	52	2	He	2.027	2.027	2.87	14017	0.01	2	
Fe	56	2	He	206.959	206.959	2.37	1200045	0.02	200	
Se	78	2	He	1.711	1.711	12.32	225	0.76	2	
As	75	2	He	2.012	2.012	4.23	1938	0.10	2	
Ca	44	2	He	197.939	197.939	5.63	7415	2.67	200	
Na	23	2	He	204.236	204.236	1.65	242726	0.08	200	
Mg	24	2	He	211.274	211.274	1.33	110629	0.19	200	
K	39	2	He	201.503	201.503	1.58	177745	0.11	200	
Mn	55	2	He	1.962	1.962	4.21	10014	0.02	2	
Co	59	2	He	1.965	1.965	1.97	18346	0.01	2	
Ni	60	2	He	2.007	2.007	3.32	4648	0.04	2	
Cu	63	2	He	1.963	1.963	1.03	13063	0.02	2	
Zn	66	2	He	1.811	1.811	2.36	3027	0.06	2	
Al	27	2	He	2.129	2.129	28.61	1563	0.14	2	
B	11	1	No Gas	10.477	10.477	1.89	38715	0.03	10	
Al	27	1	No Gas	2.658	2.658	6.06	61531	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	10.207	10.207	7.48	223553	0.00	10	
Ag	107	1	No Gas	2.070	2.070	1.47	34225	0.01	2	
Cd	111	1	No Gas	2.051	2.051	5.32	6955	0.03	2	
Sr	88	1	No Gas	2.002	2.002	1.07	59663	0.00	2	
Mo	95	1	No Gas	1.927	1.927	4.97	12032	0.02	2	
Sn	118	1	No Gas	1.943	1.943	1.23	23254	0.01	2	
Sb	121	1	No Gas	2.110	2.110	1.85	32153	0.01	2	
Ba	137	1	No Gas	2.011	2.011	3.65	12620	0.02	2	
Tl	205	1	No Gas	1.931	1.931	0.33	87099	0.00	2	
Tl	203	1	No Gas	1.915	1.915	2.57	36547	0.01	2	
Pb	208	1	No Gas	1.945	1.945	1.54	121881	0.00	2	
U	238	1	No Gas	1.929	1.929	2.96	129803	0.00	2	
Ca	43	2	He	208.279	208.279	13.03	437	47.70	200	
Sb	121	2	He	2.021	2.021	0.46	16137	0.01	2	
Ti	47	2	He	2.064	2.064	7.08	420	0.49	200	
Cu	63	1	No Gas	2.139	2.139	3.49	24045	0.01	2	
Se	82	1	No Gas	2.188	2.188	24.42	307	0.71	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	691146	1.09	694312	99.54	70	120	
Ge	72	2	He	635466	0.88	636422	99.85	70	120	
Ge	72	1	No Gas	1976515	0.92	1961679	100.76	70	120	
In	115	1	No Gas	2827256	0.96	2829148	99.93	70	120	
Bi	209	1	No Gas	3530087	0.82	3435361	102.76	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	019LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:25:23-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	4.919	4.919	4.00	92852	0.01	5	
Be	9	1	No Gas	4.782	4.782	3.64	12696	0.04	5	
V	51	2	He	4.921	4.921	0.67	29045	0.02	5	
Cr	52	2	He	4.862	4.862	1.11	31637	0.02	5	
Fe	56	2	He	511.806	511.806	0.99	2953521	0.02	500	
Se	78	2	He	4.974	4.974	9.18	503	0.99	5	
As	75	2	He	5.070	5.070	3.89	4577	0.11	5	
Ca	44	2	He	491.323	491.323	1.86	17501	2.81	500	
Na	23	2	He	514.043	514.043	0.67	516703	0.10	500	
Mg	24	2	He	524.925	524.925	0.16	273445	0.19	500	
K	39	2	He	494.677	494.677	1.63	362107	0.14	500	
Mn	55	2	He	5.014	5.014	1.16	24699	0.02	5	
Co	59	2	He	4.952	4.952	1.73	45951	0.01	5	
Ni	60	2	He	5.162	5.162	0.63	11518	0.04	5	
Cu	63	2	He	5.184	5.184	1.16	32108	0.02	5	
Zn	66	2	He	4.900	4.900	10.34	6638	0.07	5	
Al	27	2	He	4.903	4.903	11.36	2480	0.20	5	
B	11	1	No Gas	23.285	23.285	5.87	56833	0.04	25	
Al	27	1	No Gas	5.426	5.426	5.70	91869	0.01	5	
Si	28	1	No Gas	25.860	25.860	5.36	303547	0.01	25	
Ag	107	1	No Gas	5.105	5.105	1.44	83704	0.01	5	
Cd	111	1	No Gas	4.977	4.977	1.74	16948	0.03	5	
Sr	88	1	No Gas	4.923	4.923	1.32	145184	0.00	5	
Mo	95	1	No Gas	4.889	4.889	0.86	30479	0.02	5	
Sn	118	1	No Gas	4.932	4.932	1.71	56160	0.01	5	
Sb	121	1	No Gas	4.991	4.991	3.41	74903	0.01	5	
Ba	137	1	No Gas	4.910	4.910	4.80	28816	0.02	5	
Tl	205	1	No Gas	4.814	4.814	0.79	215603	0.00	5	
Tl	203	1	No Gas	4.689	4.689	2.07	88902	0.01	5	
Pb	208	1	No Gas	4.857	4.857	0.61	303114	0.00	5	
U	238	1	No Gas	4.798	4.798	1.25	323342	0.00	5	
Ca	43	2	He	476.190	476.190	0.98	980	48.59	500	
Sb	121	2	He	4.875	4.875	1.80	38172	0.01	5	
Ti	47	2	He	4.266	4.266	11.92	857	0.50	5	
Cu	63	1	No Gas	5.203	5.203	1.60	54864	0.01	5	
Se	82	1	No Gas	5.077	5.077	20.23	817	0.62	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	678862	2.48	694312	97.77	70	120	
Ge	72	2	He	635132	1.04	636422	99.80	70	120	
Ge	72	1	No Gas	1981409	2.61	1961679	101.01	70	120	

Sample Report

In	115	1	No Gas	2843036	0.71	2829148	100.49	70	120	
Bi	209	1	No Gas	3540856	0.79	3435361	103.07	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	022ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:44:56-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.626	11.2	47498	1.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	-0.010	-12.7	57	5.1	0	ICSA Main CR1 Failed
V	51	2	He	0.230	12.0	3965	4.1	0	ICSA Main CR1 Failed
Cr	52	2	He	1.913	3.5	12142	3.5	0	ICSA Main CR1 Failed
Fe	56	2	He	95728.116	1.0	502569113	0.2	0	
Se	78	2	He	0.310	33.7	95	7.4	0	ICSA Main CR1 Failed
As	75	2	He	0.137	7.0	291	3.5	0	ICSA Main CR1 Failed
Ca	44	2	He	98254.779	2.1	3083151	1.6	0	
Na	23	2	He	97189.834	1.4	78514379	0.9	0	
Mg	24	2	He	97999.019	1.9	46429174	1.1	0	
K	39	2	He	96726.624	1.2	55581318	0.8	0	
Mn	55	2	He	0.438	8.1	2440	5.3	0	ICSA Main CR1 Failed
Co	59	2	He	0.088	19.2	907	16.6	0	ICSA Main CR1 Failed
Ni	60	2	He	0.164	9.7	573	6.6	0	ICSA Main CR1 Failed
Cu	63	2	He	0.236	6.2	2594	1.9	0	ICSA Main CR1 Failed
Zn	66	2	He	0.937	17.9	1827	10.1	0	ICSA Main CR1 Failed
Al	27	2	He	89602.708	0.6	27051339	0.9	0	
B	11	1	No Gas	9.528	16.5	34332	6.5	0	
Al	27	1	No Gas	92622.744	2.2	916564946	1.0	0	
Si	28	1	No Gas	26.897	4.5	279844	0.9	0	
Ag	107	1	No Gas	0.252	5.8	4301	5.0	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.902	3.4	5721	3.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.098	1.0	29653	1.0	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1957.964	0.5	10449828	0.7	0	
Sn	118	1	No Gas	0.265	25.2	4394	14.8	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.823	21.3	11939	20.9	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.290	11.6	2750	6.0	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.129	49.0	6172	40.0	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.127	43.5	2537	35.7	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.096	11.6	6321	8.8	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.022	60.3	1657	48.1	0	ICSA Main CR1 Failed
Ca	43	2	He	94303.824	1.6	174680	0.5	0	
Sb	121	2	He	0.677	2.7	4911	1.5	0	ICSA Main CR1 Failed
Ti	47	2	He	1933.621	1.8	350402	1.0	0	
Se	82	1	No Gas	-0.403	-142.2	-130	-68.8	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	649891	0.47	694312	93.60	70	120	
Ge	72	2	He	579547	1.10	636422	91.06	70	120	
Ge	72	1	No Gas	1795104	1.20	1961679	91.51	70	120	
In	115	1	No Gas	2507392	0.12	2829148	88.63	70	120	
Bi	209	1	No Gas	3013717	1.16	3435361	87.73	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	023ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T11:46:58-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	97.812	2.323	922856	1.71	100	97.8	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	99.357	1.741	225158	1.09	100	99.4	80	120	
V	51	2	He	96.512	1.029	457308	0.70	100	96.5	80	120	
Cr	52	2	He	95.659	0.872	533119	0.21	100	95.7	80	120	
Fe	56	2	He	106122.631	1.485	546062979	0.94	100	106122.6	80	120	
Se	78	2	He	104.960	2.314	7952	2.54	100	105.0	80	120	
As	75	2	He	99.737	1.288	77166	1.07	100	99.7	80	120	
Ca	44	2	He	108013.847	1.007	3322105	0.31	100	108013.8	80	120	
Na	23	2	He	107702.479	1.107	85272945	0.59	100	107702.5	80	120	
Mg	24	2	He	109159.600	1.725	50691868	1.40	100	109159.6	80	120	
K	39	2	He	106769.351	1.009	60129404	0.93	100	106769.4	80	120	
Mn	55	2	He	96.508	0.884	415853	0.61	100	96.5	80	120	
Co	59	2	He	93.142	1.068	770233	0.95	100	93.1	80	120	
Ni	60	2	He	96.071	1.708	187469	1.12	100	96.1	80	120	
Cu	63	2	He	93.595	0.650	496424	0.11	100	93.6	80	120	
Zn	66	2	He	98.959	0.976	104412	0.26	100	99.0	80	120	
Al	27	2	He	89690.854	1.275	26538676	0.75	100	89690.9	80	120	
B	11	1	No Gas	508.218	1.704	653511	0.50	100	508.2	80	120	
Al	27	1	No Gas	92728.947	3.094	905990387	0.65	100	92728.9	80	120	
Si	28	1	No Gas	523.008	2.180	2531132	0.45	100	523.0	80	120	
Ag	107	1	No Gas	96.951	2.400	1371829	2.33	100	97.0	80	120	
Cd	111	1	No Gas	98.862	1.054	292862	1.19	100	98.9	80	120	
Sr	88	1	No Gas	102.656	1.921	2608432	2.10	100	102.7	80	120	
Mo	95	1	No Gas	2097.402	0.880	11051524	0.43	100	2097.4	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	98.572	0.633	943120	0.48	100	98.6	80	120	
Sb	121	1	No Gas	100.062	1.028	1327708	1.54	100	100.1	80	120	
Ba	137	1	No Gas	100.701	0.036	489129	0.45	100	100.7	80	120	
Tl	205	1	No Gas	97.681	0.809	3720997	0.86	100	97.7	80	120	
Tl	203	1	No Gas	97.122	1.332	1566207	1.03	100	97.1	80	120	
Pb	208	1	No Gas	99.736	1.107	5304217	0.92	100	99.7	80	120	
U	238	1	No Gas	103.106	1.068	5940405	1.25	100	103.1	80	120	
Ca	43	2	He	105193.380	0.923	190990	0.69	100	105193.4	80	120	
Sb	121	2	He	101.852	1.145	655746	0.50	100	101.9	80	120	
Ti	47	2	He	2069.570	0.694	367610	0.39	100	2069.6	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	95.035	2.243	855825	0.28	100	95.0	80	120	
Se	82	1	No Gas	100.151	3.103	15596	0.67	100	100.2	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	608995	2.14	694312	87.71	70	120	
Ge	72	2	He	568019	0.72	636422	89.25	70	120	
Ge	72	1	No Gas	1772938	2.43	1961679	90.38	70	120	
In	115	1	No Gas	2475554	0.48	2829148	87.50	70	120	
Bi	209	1	No Gas	3031126	0.40	3435361	88.23	70	120	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	223CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:21:34-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	38265	0.00
Be	9	1	No Gas	17	452.99
V	51	2	He	2475	0.21
Cr	52	2	He	923	0.34
Fe	56	2	He	7662	0.04
Se	78	2	He	56	19.13
As	75	2	He	142	10.97
Ca	44	2	He	353	1.22
Na	23	2	He	63180	0.00
Mg	24	2	He	523	2.95
K	39	2	He	40192	0.00
Mn	55	2	He	267	1.62
Co	59	2	He	30	293.97
Ni	60	2	He	113	39.19
Cu	63	2	He	1183	0.95
Zn	66	2	He	707	1.10
Al	27	2	He	603	3.03
B	11	1	No Gas	10411	0.03
Al	27	1	No Gas	24155	0.01
Si	28	1	No Gas	152374	0.00
Ag	107	1	No Gas	480	4.27
Sr	88	1	No Gas	1457	0.41
Mo	95	1	No Gas	103	37.85
Sn	118	1	No Gas	1383	0.58
Sb	121	1	No Gas	1457	0.88
Ba	137	1	No Gas	187	15.81
Tl	205	1	No Gas	703	0.47
Tl	203	1	No Gas	247	0.95
Pb	208	1	No Gas	647	4.12
U	238	1	No Gas	157	16.47
Ca	43	2	He	23	280.57
Sb	121	2	He	637	1.49
Ti	47	2	He	3	5196.15
Cu	63	1	No Gas	2377	0.15

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	545261	0.20

Calibration Blank Report

Ge	72	2	He	479992	0.24
Ge	72	1	No Gas	1554275	1.25
In	115	1	No Gas	2346070	1.26
Bi	209	1	No Gas	3154823	2.70

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	224CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:23:34-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	3764	0.07
V	51	2	He	10046	0.04
Cr	52	2	He	10451	0.04
Fe	56	2	He	889289	0.00
Se	78	2	He	174	2.38
As	75	2	He	1433	0.24
Ca	44	2	He	5278	0.07
Na	23	2	He	200980	0.00
Mg	24	2	He	83442	0.00
K	39	2	He	130653	0.00
Mn	55	2	He	7692	0.04
Co	59	2	He	12930	0.01
Ni	60	2	He	3694	0.10
Cu	63	2	He	10317	0.01
Zn	66	2	He	2140	0.22
Al	27	2	He	1203	0.66
B	11	1	No Gas	20500	0.01
Al	27	1	No Gas	47404	0.00
Si	28	1	No Gas	185544	0.00
Ag	107	1	No Gas	27115	0.01
Cd	111	1	No Gas	5398	0.01
Sr	88	1	No Gas	48441	0.00
Mo	95	1	No Gas	10014	0.00
Sn	118	1	No Gas	19956	0.04
Sb	121	1	No Gas	26343	0.00
Ba	137	1	No Gas	9974	0.01
Tl	205	1	No Gas	72232	0.00
Tl	203	1	No Gas	29963	0.01
Pb	208	1	No Gas	112217	0.00
U	238	1	No Gas	119782	0.00
Ca	43	2	He	313	6.47
Sb	121	2	He	12333	0.02
Cu	63	1	No Gas	18720	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	541690	0.57	545261	99.35	70	120	
Ge	72	2	He	484370	0.62	479992	100.91	70	120	
Ge	72	1	No Gas	1562258	1.07	1554275	100.51	70	120	

Calibration Standard Report

In	115	1	No Gas	2350523	0.86	2346070	100.19	70	120	
Bi	209	1	No Gas	3198583	3.76	3154823	101.39	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	225CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:25:34-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	9060	0.03
V	51	2	He	21447	0.01
Cr	52	2	He	23864	0.01
Fe	56	2	He	2277292	0.00
Se	78	2	He	388	0.61
As	75	2	He	3495	0.19
Ca	44	2	He	13173	0.03
Na	23	2	He	405420	0.00
Mg	24	2	He	207087	0.00
K	39	2	He	266922	0.00
Mn	55	2	He	18139	0.01
Co	59	2	He	33752	0.01
Ni	60	2	He	8483	0.01
Cu	63	2	He	23821	0.01
Zn	66	2	He	5151	0.14
Al	27	2	He	1957	0.39
B	11	1	No Gas	35540	0.01
Al	27	1	No Gas	71269	0.00
Si	28	1	No Gas	238764	0.00
Ag	107	1	No Gas	66936	0.00
Cd	111	1	No Gas	13998	0.01
Sr	88	1	No Gas	118023	0.00
Mo	95	1	No Gas	24182	0.01
Sn	118	1	No Gas	46442	0.00
Sb	121	1	No Gas	63346	0.00
Ba	137	1	No Gas	23769	0.01
Tl	205	1	No Gas	185304	0.00
Tl	203	1	No Gas	75377	0.00
Pb	208	1	No Gas	272558	0.00
U	238	1	No Gas	299897	0.00
Ca	43	2	He	717	0.63
Sb	121	2	He	30549	0.01
Cu	63	1	No Gas	42580	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	537056	0.21	545261	98.50	70	120	
Ge	72	2	He	479349	0.82	479992	99.87	70	120	
Ge	72	1	No Gas	1550646	1.03	1554275	99.77	70	120	

Calibration Standard Report

In	115	1	No Gas	2344300	0.40	2346070	99.92	70	120	
Bi	209	1	No Gas	3123157	2.66	3154823	99.00	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	226CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:27:34-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	18302	0.00
V	51	2	He	40716	0.00
Cr	52	2	He	47101	0.01
Fe	56	2	He	4419104	0.00
Se	78	2	He	685	2.19
As	75	2	He	6633	0.03
Ca	44	2	He	24489	0.01
Na	23	2	He	727339	0.00
Mg	24	2	He	411790	0.00
K	39	2	He	490296	0.00
Mn	55	2	He	35667	0.00
Co	59	2	He	67262	0.00
Ni	60	2	He	17541	0.00
Cu	63	2	He	47276	0.00
Zn	66	2	He	9293	0.04
Al	27	2	He	3054	0.33
B	11	1	No Gas	62406	0.00
Al	27	1	No Gas	116538	0.00
Si	28	1	No Gas	332137	0.00
Ag	107	1	No Gas	136505	0.00
Cd	111	1	No Gas	28581	0.00
Sr	88	1	No Gas	237821	0.00
Mo	95	1	No Gas	48662	0.00
Sn	118	1	No Gas	94038	0.00
Sb	121	1	No Gas	128336	0.00
Ba	137	1	No Gas	47527	0.00
Tl	205	1	No Gas	379089	0.00
Tl	203	1	No Gas	157720	0.00
Pb	208	1	No Gas	554277	0.00
U	238	1	No Gas	611935	0.00
Ca	43	2	He	1527	0.40
Sb	121	2	He	62066	0.00
Cu	63	1	No Gas	82422	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	528821	0.39	545261	96.98	70	120	
Ge	72	2	He	476878	0.15	479992	99.35	70	120	
Ge	72	1	No Gas	1518865	0.54	1554275	97.72	70	120	

Calibration Standard Report

In	115	1	No Gas	2364391	1.61	2346070	100.78	70	120	
Bi	209	1	No Gas	3150943	1.40	3154823	99.88	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	227CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:29:34-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	172344	0.00
V	51	2	He	364370	0.00
Cr	52	2	He	431986	0.00
Fe	56	2	He	40943495	0.00
Se	78	2	He	5857	0.02
As	75	2	He	60498	0.00
Ca	44	2	He	234109	0.00
Na	23	2	He	6367672	0.00
Mg	24	2	He	3758485	0.00
K	39	2	He	4225942	0.00
Mn	55	2	He	336959	0.00
Co	59	2	He	639668	0.00
Ni	60	2	He	157209	0.00
Cu	63	2	He	427517	0.00
Zn	66	2	He	89823	0.00
Al	27	2	He	23206	0.01
B	11	1	No Gas	505609	0.00
Al	27	1	No Gas	812743	0.00
Si	28	1	No Gas	1936838	0.00
Ag	107	1	No Gas	1264694	0.00
Cd	111	1	No Gas	267385	0.00
Sr	88	1	No Gas	2268197	0.00
Mo	95	1	No Gas	459302	0.00
Sn	118	1	No Gas	871012	0.00
Sb	121	1	No Gas	1243278	0.00
Ba	137	1	No Gas	449516	0.00
Tl	205	1	No Gas	3779171	0.00
Tl	203	1	No Gas	1567436	0.00
Pb	208	1	No Gas	5414271	0.00
U	238	1	No Gas	5938867	0.00
Ca	43	2	He	13710	0.01
Sb	121	2	He	578590	0.00
Cu	63	1	No Gas	732067	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	503935	1.26	545261	92.42	70	120	
Ge	72	2	He	461855	1.75	479992	96.22	70	120	
Ge	72	1	No Gas	1495107	0.53	1554275	96.19	70	120	

Calibration Standard Report

In	115	1	No Gas	2276244	1.26	2346070	97.02	70	120	
Bi	209	1	No Gas	3044296	2.90	3154823	96.50	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	228CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:31:29-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	335192	0.00
V	51	2	He	714219	0.00
Cr	52	2	He	838662	0.00
Fe	56	2	He	79643242	0.00
Se	78	2	He	11398	0.00
As	75	2	He	118306	0.00
Ca	44	2	He	461756	0.00
Na	23	2	He	12220850	0.00
Mg	24	2	He	7185955	0.00
K	39	2	He	8168428	0.00
Mn	55	2	He	654943	0.00
Co	59	2	He	1300599	0.00
Ni	60	2	He	300563	0.00
Cu	63	2	He	823859	0.00
Zn	66	2	He	165975	0.00
Al	27	2	He	43341	0.00
B	11	1	No Gas	1000811	0.00
Al	27	1	No Gas	1554045	0.00
Si	28	1	No Gas	3593754	0.00
Ag	107	1	No Gas	2474754	0.00
Cd	111	1	No Gas	520304	0.00
Sr	88	1	No Gas	4370723	0.00
Mo	95	1	No Gas	905796	0.00
Sn	118	1	No Gas	1736196	0.00
Sb	121	1	No Gas	2406667	0.00
Ba	137	1	No Gas	886182	0.00
Tl	205	1	No Gas	7316565	0.00
Tl	203	1	No Gas	3106562	0.00
Pb	208	1	No Gas	10479531	0.00
U	238	1	No Gas	11821676	0.00
Ca	43	2	He	26953	0.00
Sb	121	2	He	1187993	0.00
Cu	63	1	No Gas	1417742	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	484057	0.30	545261	88.78	70	120	
Ge	72	2	He	448464	0.76	479992	93.43	70	120	
Ge	72	1	No Gas	1443928	1.94	1554275	92.90	70	120	

Calibration Standard Report

In	115	1	No Gas	2205185	0.87	2346070	93.99	70	120	
Bi	209	1	No Gas	2937921	2.97	3154823	93.12	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	230_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:35:23-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	98.260	1.682	728226	0.97	100	98.3	90	110	
Be	9	1	No Gas	98.913	0.468	174192	1.10	100	98.9	90	110	
V	51	2	He	97.242	0.854	366134	0.27	100	97.2	90	110	
Cr	52	2	He	98.040	1.090	433485	0.50	100	98.0	90	110	
Fe	56	2	He	9821.073	0.582	41189731	0.13	10000	98.2	90	110	
Se	78	2	He	97.513	2.130	5875	1.80	100	97.5	90	110	
As	75	2	He	97.007	0.212	60428	0.39	100	97.0	90	110	
Ca	44	2	He	9735.335	0.532	236180	1.07	10000	97.4	90	110	
Na	23	2	He	9900.897	0.831	6413742	0.32	10000	99.0	90	110	
Mg	24	2	He	10137.737	0.691	3849809	0.24	10000	101.4	90	110	
K	39	2	He	9960.520	1.364	4305380	0.79	10000	99.6	90	110	
Mn	55	2	He	98.132	1.250	338561	0.65	100	98.1	90	110	
Co	59	2	He	94.863	0.437	643976	0.52	100	94.9	90	110	
Ni	60	2	He	99.516	0.435	158108	0.74	100	99.5	90	110	
Cu	63	2	He	98.055	0.650	426661	0.39	100	98.1	90	110	
Zn	66	2	He	96.724	2.176	85699	1.62	100	96.7	90	110	
Al	27	2	He	100.062	1.170	23266	1.74	100	100.1	90	110	
B	11	1	No Gas	331.325	0.864	353049	0.96	500	66.3	90	110	ICV Main CR1 Failed
Al	27	1	No Gas	116.775	18.974	953225	18.14	100	116.8	90	110	ICV Main CR1 Failed
Si	28	1	No Gas	353.022	5.086	1415624	4.15	500	70.6	90	110	ICV Main CR1 Failed
Ag	107	1	No Gas	99.148	2.808	1285584	1.34	100	99.1	90	110	
Cd	111	1	No Gas	99.559	1.907	271706	0.71	100	99.6	90	110	
Sr	88	1	No Gas	100.812	1.895	2316112	1.16	100	100.8	90	110	
Mo	95	1	No Gas	97.303	1.313	461100	0.66	100	97.3	90	110	
Sn	118	1	No Gas	95.891	1.242	869658	0.66	100	95.9	90	110	
Sb	121	1	No Gas	99.413	1.424	1244810	1.48	100	99.4	90	110	
Ba	137	1	No Gas	98.592	0.942	457169	0.75	100	98.6	90	110	
Tl	205	1	No Gas	101.323	3.634	3910899	2.45	100	101.3	90	110	
Tl	203	1	No Gas	98.458	3.011	1606012	1.57	100	98.5	90	110	
Pb	208	1	No Gas	99.547	1.796	5503932	0.38	100	99.5	90	110	
U	238	1	No Gas	95.433	2.097	5920203	1.29	100	95.4	90	110	
Ca	43	2	He	10099.631	1.428	14314	1.86	10000	101.0	90	110	
Sb	121	2	He	94.980	1.149	588079	0.56	100	95.0	90	110	
Ti	47	2	He	99.332	1.496	13537	1.62	100	99.3	90	110	
Cu	63	1	No Gas	99.283	0.739	733075	0.39	100	99.3	90	110	
Se	82	1	No Gas	100.086	1.314	13105	1.73	100	100.1	90	110	

QC ISTD Table

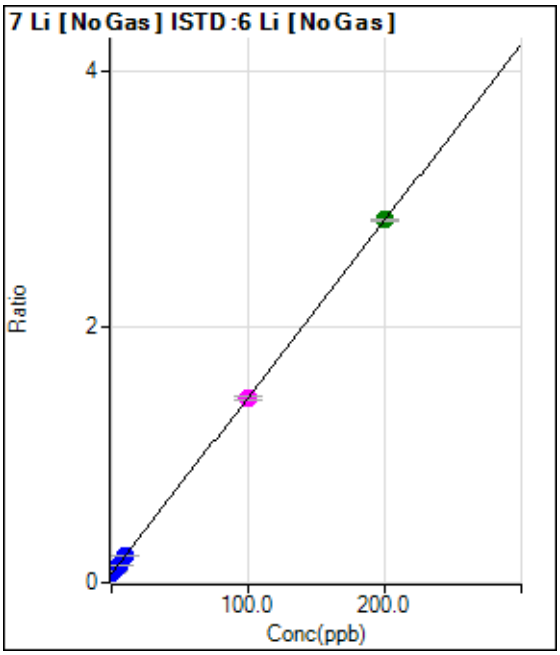
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	509854	0.64	545261	93.51	70	120	
Ge	72	2	He	472382	0.60	479992	98.41	70	120	
Ge	72	1	No Gas	1502250	0.42	1554275	96.65	70	120	
In	115	1	No Gas	2315364	1.57	2346070	98.69	70	120	
Bi	209	1	No Gas	3100728	2.16	3154823	98.29	70	120	

Calibration for 230_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052521A.b\
Analysis File: 052521A.batch.bin
DA Date-Time: 5/25/2021 11:03:56 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	223CALB.d	CAL BLK	5/25/2021 9:21:34 PM
2	224CALS.d	2/10/200	5/25/2021 9:23:34 PM
3	225CALS.d	5/25/500	5/25/2021 9:25:34 PM
4	226CALS.d	10/50/100	5/25/2021 9:27:34 PM
5	227CALS.d	100/500/10K	5/25/2021 9:29:34 PM
6	228CALS.d	200/1000/20K	5/25/2021 9:31:29 PM

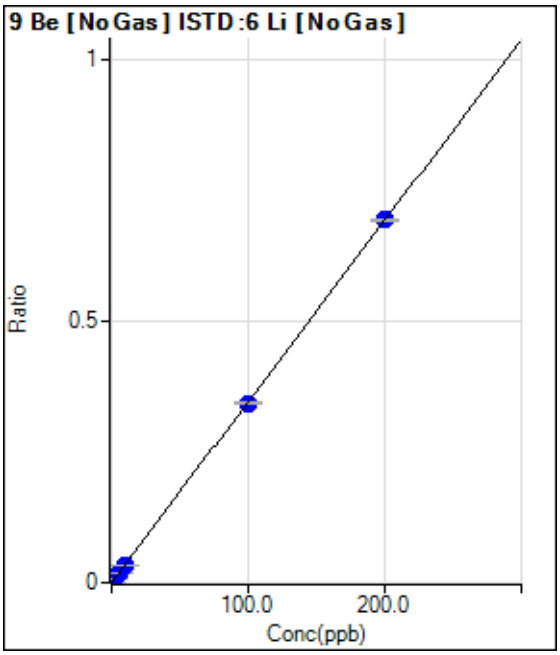
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38265.12	0.0702	P	1.5
2	☐	2.000	1.902	52261.51	0.0965	P	2.1
3	☐	5.000	4.902	74080.03	0.1379	P	0.2
4	☐	10.000	9.916	109593.71	0.2072	P	0.4
5	☐	100.000	99.111	725642.46	1.4402	M	2.1
6	☐	200.000	200.452	1375184.61	2.8410	A	0.5

y = 0.0138 * x + 0.0702
R = 1.0000
DL = 0.2236
BEC = 5.077

Weight: <None>
Min Conc: <None>

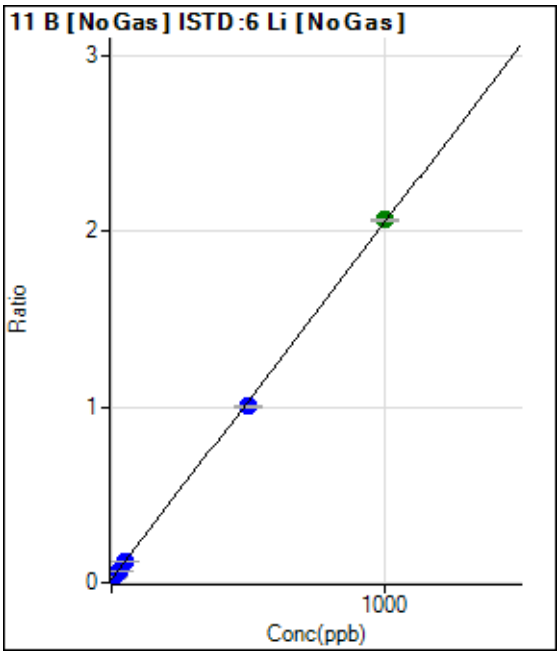


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	75.7
2	☐	2.000	2.003	3763.87	0.0069	P	1.9
3	☐	5.000	4.876	9059.64	0.0169	P	2.3
4	☐	10.000	10.012	18301.98	0.0346	P	0.7
5	☐	100.000	99.025	172344.24	0.3420	P	1.3
6	☐	200.000	200.490	335191.99	0.6925	P	0.5

y = 0.0035 * x + 3.0591E-005
R = 1.0000
DL = 0.02011
BEC = 0.008858

Weight: <None>
Min Conc: <None>

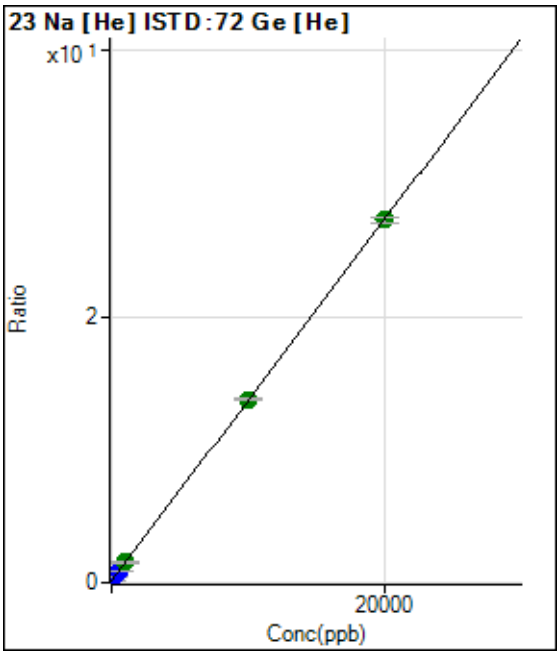
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10410.59	0.0191	P	2.6
2	☐	10.000	9.228	20500.03	0.0378	P	1.9
3	☐	25.000	23.168	35539.96	0.0662	P	3.1
4	☐	50.000	48.672	62406.11	0.1180	P	1.6
5	☐	500.000	484.355	505608.91	1.0035	P	1.8
6	☐	1000.000	1007.943	1000811.08	2.0676	A	0.8

y = 0.0020 * x + 0.0191
R = 0.9998
DL = 0.7372
BEC = 9.394

Weight: <None>
Min Conc: <None>

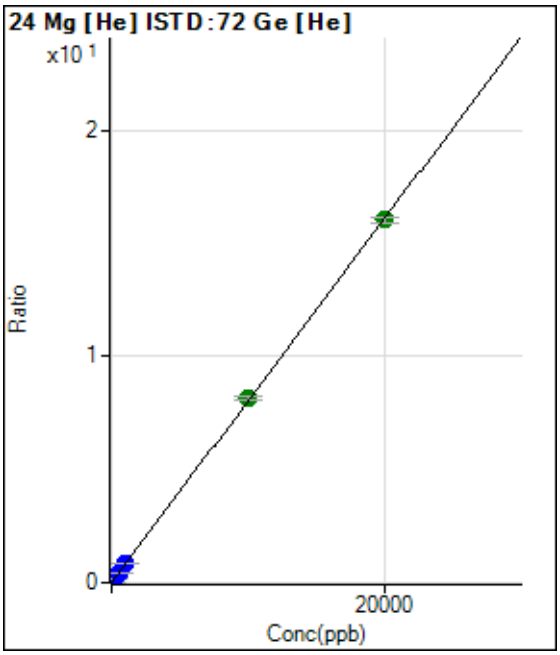


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63179.61	0.1316	P	1.5
2	☐	200.000	208.618	200980.14	0.4150	P	1.1
3	☐	500.000	525.885	405420.47	0.8458	P	1.2
4	☐	1000.000	1026.132	727338.63	1.5252	A	1.8
5	☐	10000.00	10055.98	6367671.99	13.7885	A	0.9
6	☐	20000.00	19969.96	12220850.24	27.2525	A	1.5

y = 0.0014 * x + 0.1316
R = 1.0000
DL = 4.476
BEC = 96.92

Weight: <None>
Min Conc: <None>

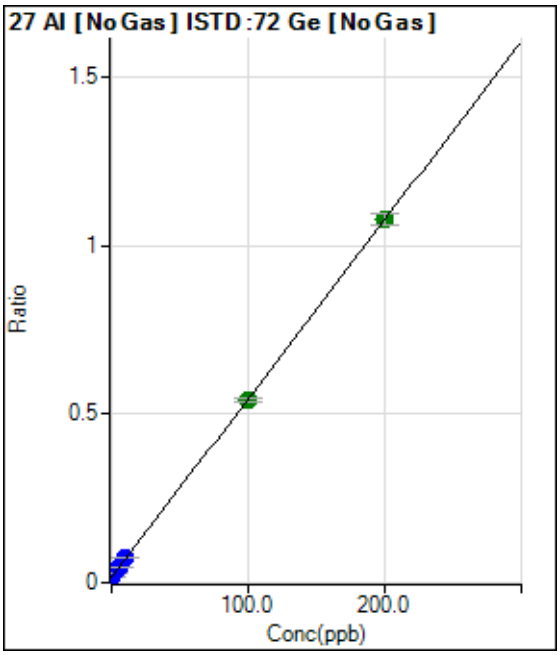
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	523.35	0.0011	P	15.5
2	☐	200.000	212.968	83442.34	0.1723	P	1.3
3	☐	500.000	536.127	207087.10	0.4320	P	0.9
4	☐	1000.000	1072.901	411790.44	0.8635	P	0.7
5	☐	10000.00	10124.08	3758485.05	8.1390	A	1.6
6	☐	20000.00	19933.28	7185954.68	16.0238	A	1.3

y = 8.0382E-004 * x + 0.0011
R = 1.0000
DL = 0.6295
BEC = 1.357

Weight: <None>
Min Conc: <None>

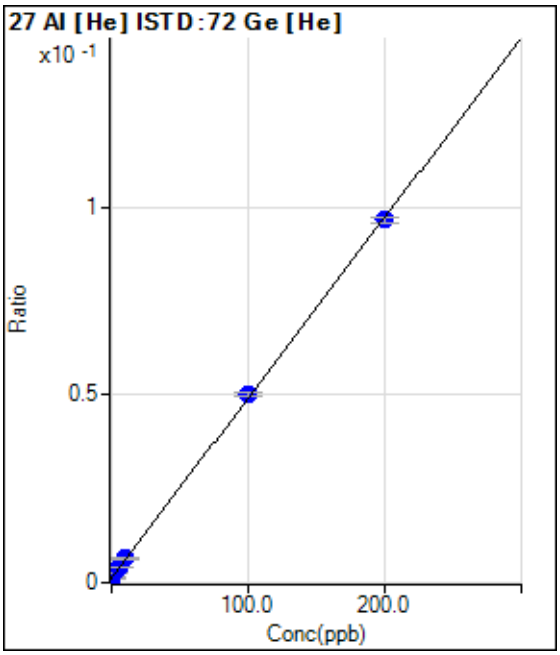


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24154.72	0.0155	P	3.7
2	☐	2.000	2.792	47404.42	0.0303	P	2.7
3	☐	5.000	5.736	71268.68	0.0460	P	0.3
4	☐	10.000	11.538	116537.52	0.0767	P	0.7
5	☐	100.000	99.578	812743.14	0.5436	A	1.8
6	☐	200.000	200.108	1554045.19	1.0767	A	3.4

y = 0.0053 * x + 0.0155
R = 1.0000
DL = 0.321
BEC = 2.931

Weight: <None>
Min Conc: <None>

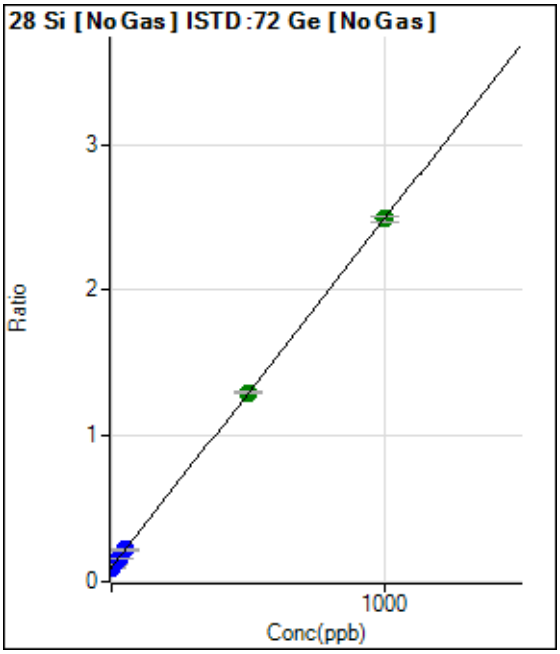
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0013	P	18.2
2	☐	2.000	2.561	1203.41	0.0025	P	8.5
3	☐	5.000	5.888	1956.85	0.0041	P	6.9
4	☐	10.000	10.730	3053.73	0.0064	P	10.0
5	☐	100.000	102.129	23206.29	0.0502	P	1.8
6	☐	200.000	198.871	43341.18	0.0966	P	1.9

y = 4.7965E-004 * x + 0.0013
R = 0.9999
DL = 1.43
BEC = 2.621

Weight: <None>
Min Conc: <None>

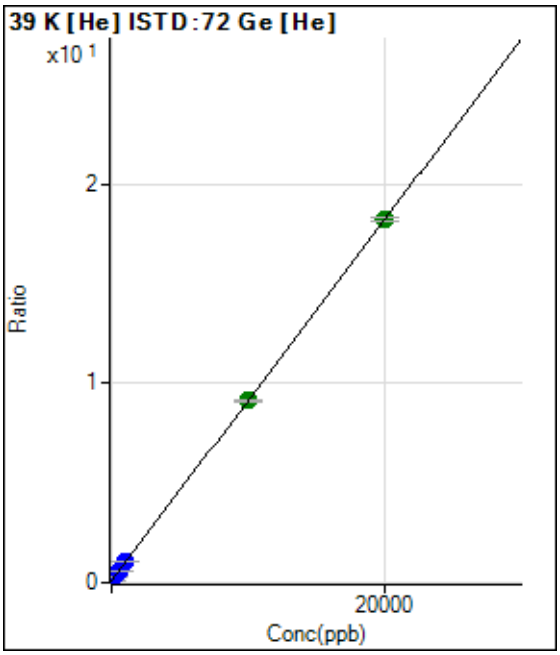


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152374.06	0.0981	P	2.3
2	☐	10.000	8.664	185544.40	0.1188	P	1.2
3	☐	25.000	23.379	238763.87	0.1540	P	0.3
4	☐	50.000	50.434	332136.86	0.2187	P	1.6
5	☐	500.000	500.620	1936838.46	1.2955	A	0.9
6	☐	1000.000	999.722	3593753.59	2.4893	A	1.9

y = 0.0024 * x + 0.0981
R = 1.0000
DL = 2.822
BEC = 40.99

Weight: <None>
Min Conc: <None>

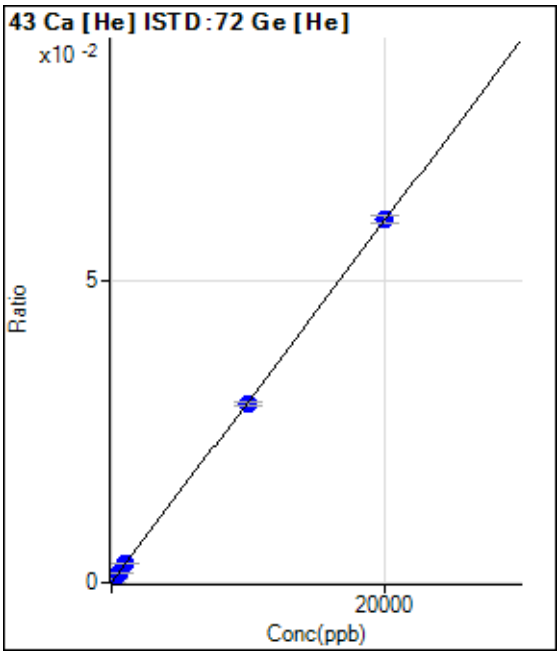
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40192.21	0.0837	P	1.4
2	☐	200.000	205.163	130653.34	0.2698	P	1.2
3	☐	500.000	521.805	266922.43	0.5568	P	0.3
4	☐	1000.000	1041.613	490296.37	1.0281	P	0.1
5	☐	10000.00	10000.57	4225941.71	9.1510	A	1.0
6	☐	20000.00	19997.03	8168428.00	18.2145	A	0.9

y = 9.0667E-004 * x + 0.0837
R = 1.0000
DL = 3.979
BEC = 92.36

Weight: <None>
Min Conc: <None>

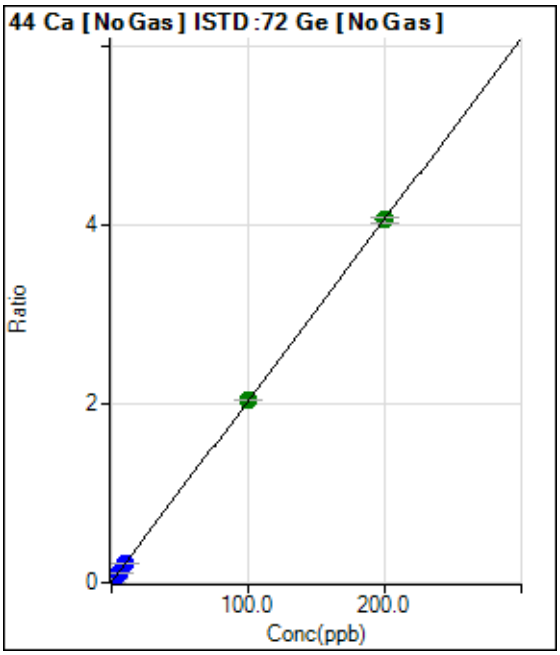


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	65.3
2	☐	200.000	199.619	313.34	0.0006	P	19.9
3	☐	500.000	482.880	716.70	0.0015	P	4.1
4	☐	1000.000	1052.582	1526.78	0.0032	P	6.0
5	☐	10000.00	9895.228	13710.39	0.0297	P	1.8
6	☐	20000.00	20050.18	26953.33	0.0601	P	2.0

y = 2.9954E-006 * x + 4.8588E-005
R = 1.0000
DL = 31.77
BEC = 16.22

Weight: <None>
Min Conc: <None>

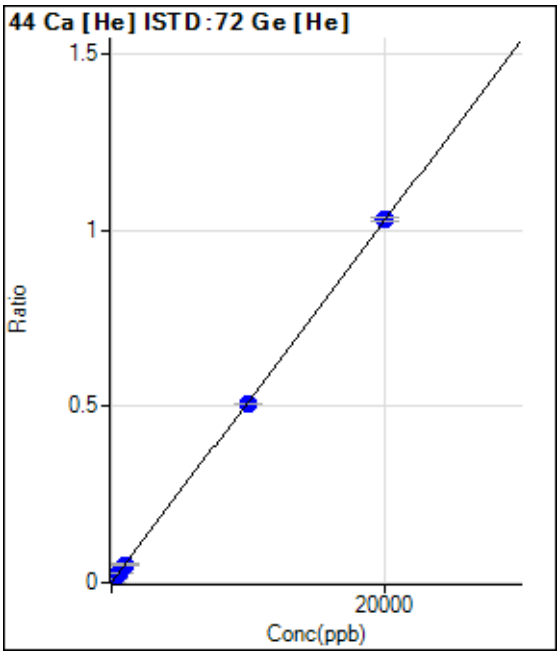
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13480.13	0.0087	P	5.4
2	☐	2.000	2.013	77343.03	0.0495	P	2.4
3	☐	5.000	5.042	172089.58	0.1110	P	0.8
4	☐	10.000	10.260	329394.79	0.2169	P	1.2
5	☐	100.000	100.384	3058445.16	2.0457	A	1.0
6	☐	200.000	199.794	5865444.91	4.0629	A	1.7

y = 0.0203 * x + 0.0087
R = 1.0000
DL = 0.06959
BEC = 0.4276

Weight: <None>
Min Conc: <None>

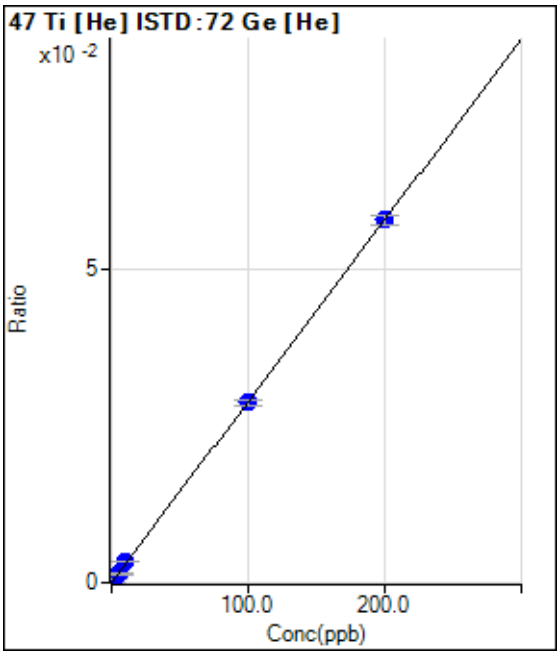


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	353.34	0.0007	P	4.2
2	☐	200.000	198.133	5277.78	0.0109	P	3.7
3	☐	500.000	521.659	13173.15	0.0275	P	4.7
4	☐	1000.000	987.025	24488.78	0.0514	P	2.4
5	☐	10000.00	9871.203	234109.09	0.5069	P	0.8
6	☐	20000.00	20064.52	461756.07	1.0297	P	1.2

y = 5.1280E-005 * x + 7.3612E-004
R = 1.0000
DL = 1.813
BEC = 14.35

Weight: <None>
Min Conc: <None>

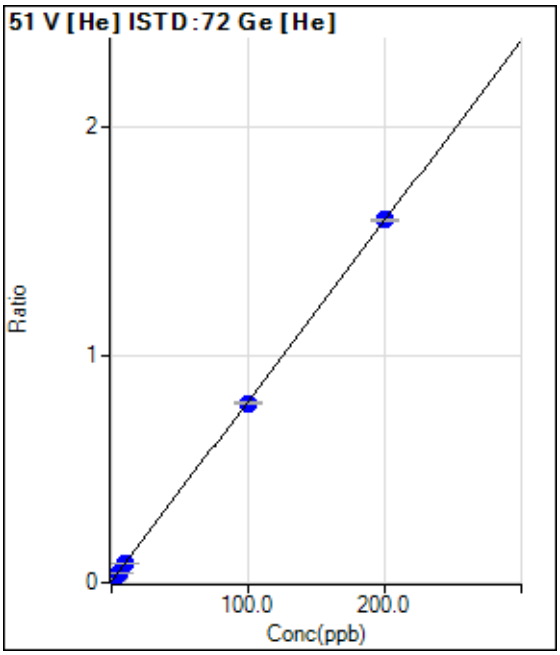
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.026	286.68	0.0006	P	25.1
3	☐	5.000	4.772	663.36	0.0014	P	14.7
4	☐	10.000	11.246	1550.11	0.0033	P	2.2
5	☐	100.000	99.496	13256.59	0.0287	P	2.9
6	☐	200.000	200.195	25894.73	0.0577	P	2.5

y = 2.8842E-004 * x + 6.9306E-006
R = 1.0000
DL = 0.1249
BEC = 0.02403

Weight: <None>
Min Conc: <None>

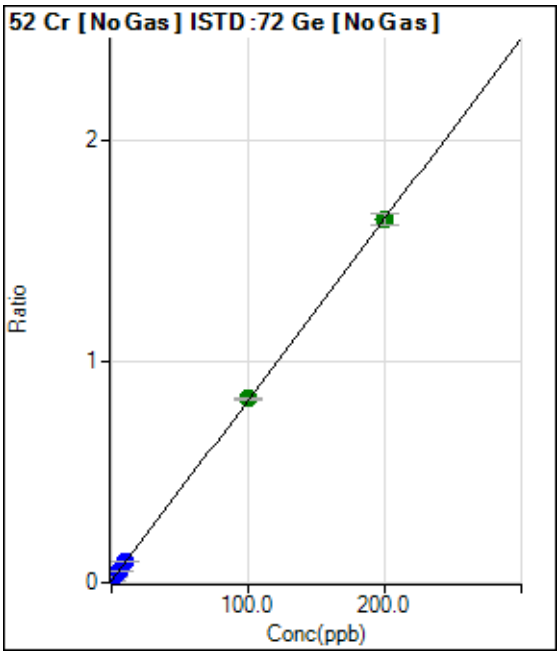


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2474.68	0.0052	P	5.5
2	☐	2.000	1.968	10045.95	0.0207	P	3.3
3	☐	5.000	4.999	21446.83	0.0447	P	1.1
4	☐	10.000	10.132	40715.80	0.0854	P	1.3
5	☐	100.000	99.004	364369.90	0.7891	P	1.5
6	☐	200.000	200.492	714218.89	1.5926	P	0.5

y = 0.0079 * x + 0.0052
R = 1.0000
DL = 0.1067
BEC = 0.6512

Weight: <None>
Min Conc: <None>

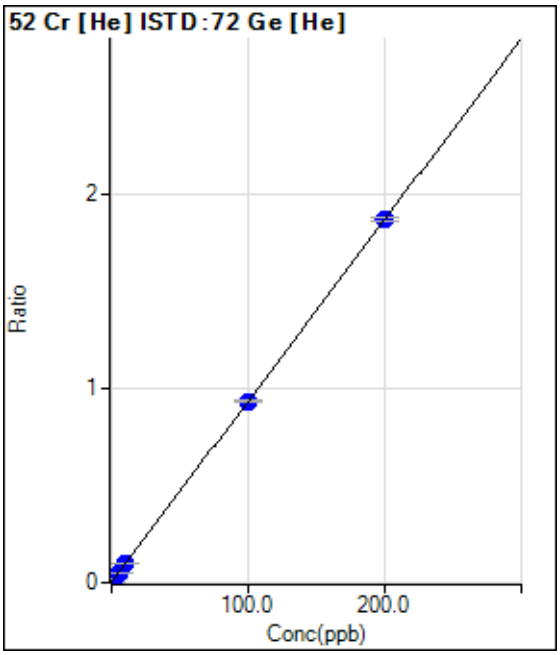
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11491.67	0.0074	P	1.4
2	☐	2.000	2.037	37601.99	0.0241	P	2.7
3	☐	5.000	5.137	76680.72	0.0495	P	1.0
4	☐	10.000	10.503	141831.78	0.0934	P	0.9
5	☐	100.000	100.775	1244570.09	0.8324	A	0.7
6	☐	200.000	199.583	2369183.77	1.6414	A	3.1

y = 0.0082 * x + 0.0074
R = 1.0000
DL = 0.03703
BEC = 0.9031

Weight: <None>
Min Conc: <None>

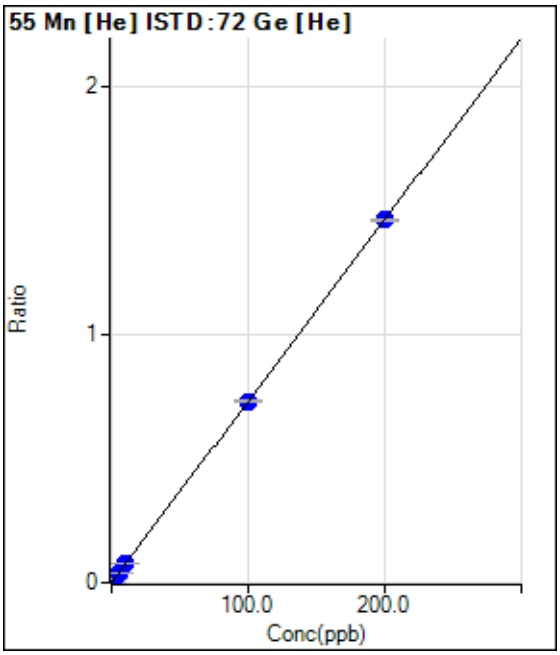


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	923.38	0.0019	P	3.2
2	☐	2.000	2.104	10450.81	0.0216	P	4.1
3	☐	5.000	5.124	23864.49	0.0498	P	1.4
4	☐	10.000	10.368	47101.13	0.0988	P	2.5
5	☐	100.000	99.936	431986.39	0.9354	P	0.8
6	☐	200.000	200.009	838661.55	1.8702	P	1.1

y = 0.0093 * x + 0.0019
R = 1.0000
DL = 0.01967
BEC = 0.206

Weight: <None>
Min Conc: <None>

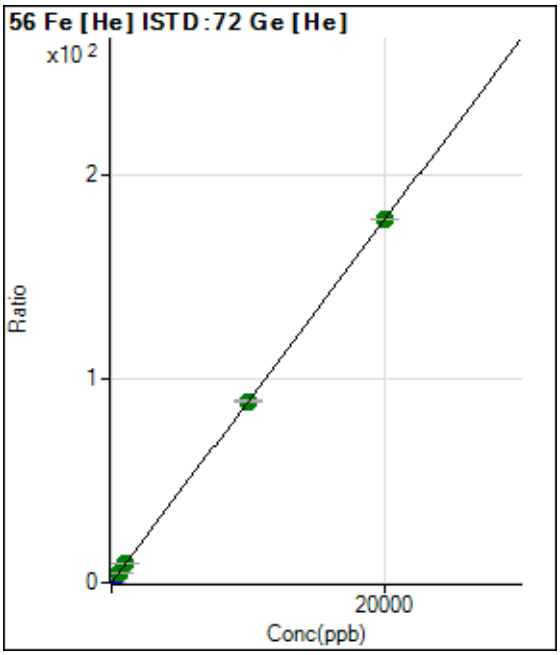
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0006	P	4.6
2	☐	2.000	2.100	7692.30	0.0159	P	3.5
3	☐	5.000	5.109	18138.90	0.0378	P	2.2
4	☐	10.000	10.172	35667.07	0.0748	P	1.4
5	☐	100.000	99.905	336958.67	0.7297	P	1.4
6	☐	200.000	200.035	654942.91	1.4605	P	0.7

y = 0.0073 * x + 5.5562E-004
R = 1.0000
DL = 0.01042
BEC = 0.07613

Weight: <None>
Min Conc: <None>

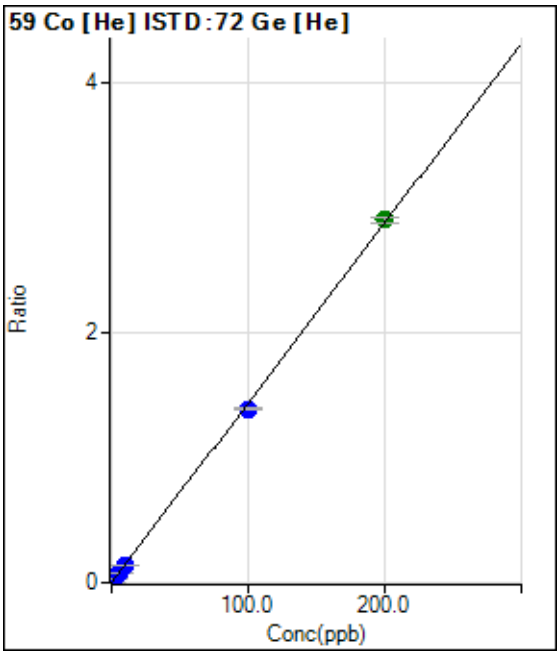


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7662.30	0.0160	P	3.5
2	☐	200.000	205.024	889288.89	1.8360	P	0.6
3	☐	500.000	533.418	2277292.26	4.7511	A	1.3
4	☐	1000.000	1042.105	4419104.31	9.2668	A	0.5
5	☐	10000.00	9986.306	40943495.22	88.6646	A	1.5
6	☐	20000.00	20003.85	79643242.15	177.590	A	0.1

y = 0.0089 * x + 0.0160
R = 1.0000
DL = 0.1868
BEC = 1.798

Weight: <None>
Min Conc: <None>

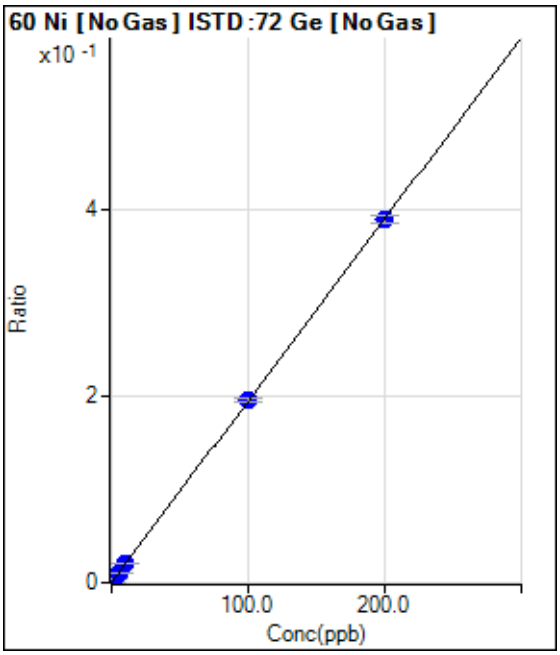
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0001	P	88.2
2	☐	2.000	1.853	12929.67	0.0267	P	1.6
3	☐	5.000	4.895	33752.19	0.0704	P	1.5
4	☐	10.000	9.811	67262.11	0.1410	P	1.2
5	☐	100.000	96.386	639667.97	1.3851	P	1.0
6	☐	200.000	201.820	1300599.30	2.9003	A	1.3

y = 0.0144 * x + 6.2467E-005
R = 0.9998
DL = 0.0115
BEC = 0.004347

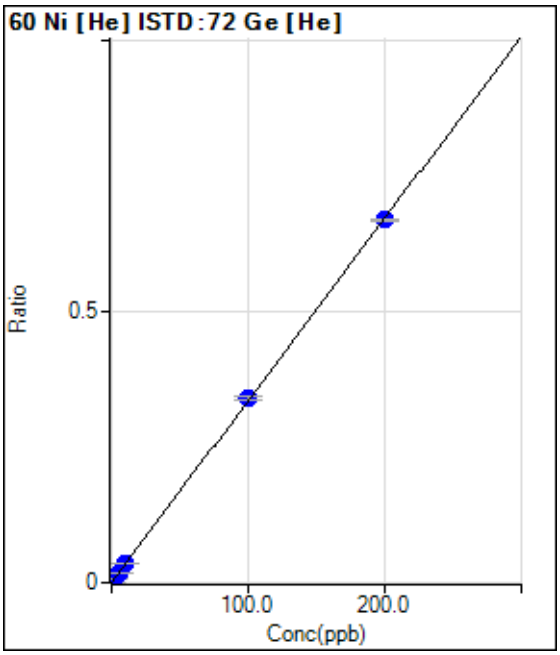
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	323.35	0.0002	P	34.3
2	☐	2.000	2.165	6895.20	0.0044	P	2.8
3	☐	5.000	4.989	15355.57	0.0099	P	3.4
4	☐	10.000	10.511	31329.58	0.0206	P	3.7
5	☐	100.000	100.648	292645.27	0.1957	P	1.5
6	☐	200.000	199.649	560213.91	0.3881	P	2.1

y = 0.0019 * x + 2.0855E-004
R = 1.0000
DL = 0.1104
BEC = 0.1073

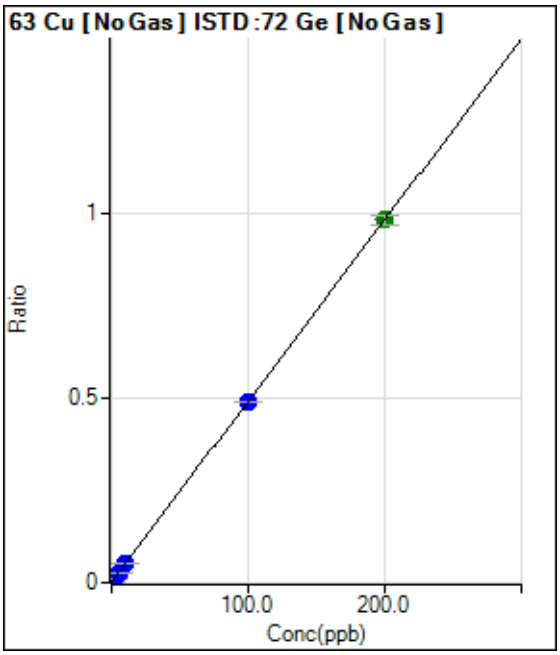
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	44.6
2	☐	2.000	2.199	3693.92	0.0076	P	3.5
3	☐	5.000	5.195	8482.81	0.0177	P	0.4
4	☐	10.000	10.874	17541.47	0.0368	P	1.0
5	☐	100.000	101.221	157208.88	0.3404	P	1.8
6	☐	200.000	199.339	300562.93	0.6702	P	0.6

y = 0.0034 * x + 2.3621E-004
R = 1.0000
DL = 0.09396
BEC = 0.07028

Weight: <None>
Min Conc: <None>

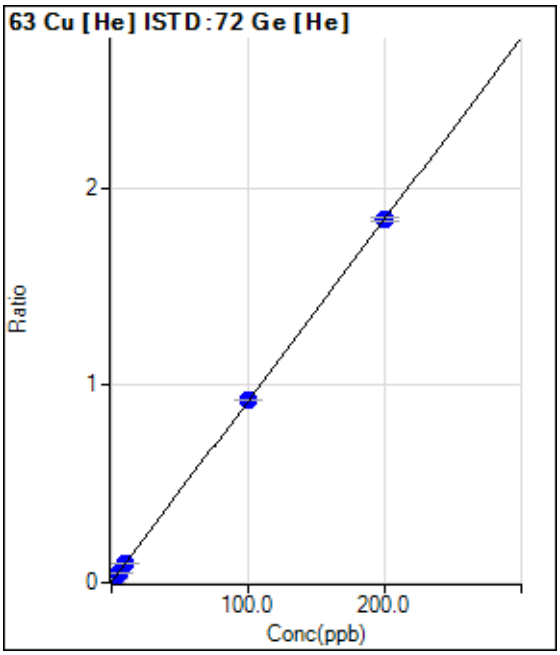


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2376.92	0.0015	P	2.5
2	☐	2.000	2.133	18719.88	0.0120	P	0.9
3	☐	5.000	5.292	42580.32	0.0275	P	1.1
4	☐	10.000	10.763	82422.07	0.0543	P	0.7
5	☐	100.000	99.620	732066.89	0.4896	P	0.3
6	☐	200.000	200.143	1417742.01	0.9822	A	2.6

y = 0.0049 * x + 0.0015
R = 1.0000
DL = 0.02294
BEC = 0.312

Weight: <None>
Min Conc: <None>

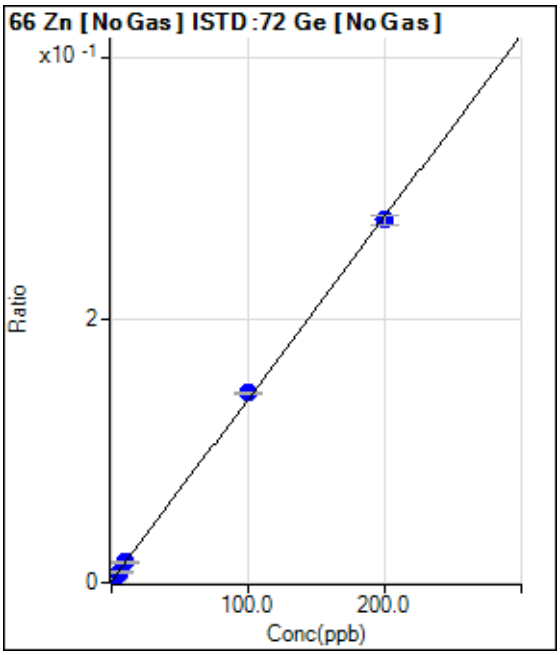
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1183.41	0.0025	P	11.1
2	☐	2.000	2.050	10317.45	0.0213	P	1.0
3	☐	5.000	5.141	23821.08	0.0497	P	1.4
4	☐	10.000	10.523	47275.67	0.0991	P	0.7
5	☐	100.000	100.497	427517.00	0.9257	P	0.3
6	☐	200.000	199.721	823858.71	1.8372	P	1.2

y = 0.0092 * x + 0.0025
R = 1.0000
DL = 0.08955
BEC = 0.2684

Weight: <None>
Min Conc: <None>

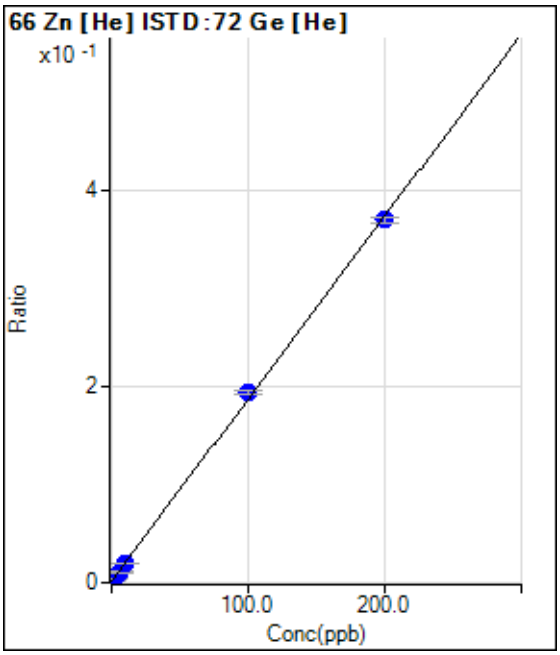


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1796.82	0.0012	P	6.8
2	☐	2.000	1.673	5427.86	0.0035	P	2.1
3	☐	5.000	4.903	12329.10	0.0080	P	3.2
4	☐	10.000	10.381	23604.25	0.0155	P	3.5
5	☐	100.000	103.182	215515.97	0.1441	P	0.6
6	☐	200.000	198.395	398533.62	0.2761	P	2.4

y = 0.0014 * x + 0.0012
R = 0.9998
DL = 0.1693
BEC = 0.8347

Weight: <None>
Min Conc: <None>

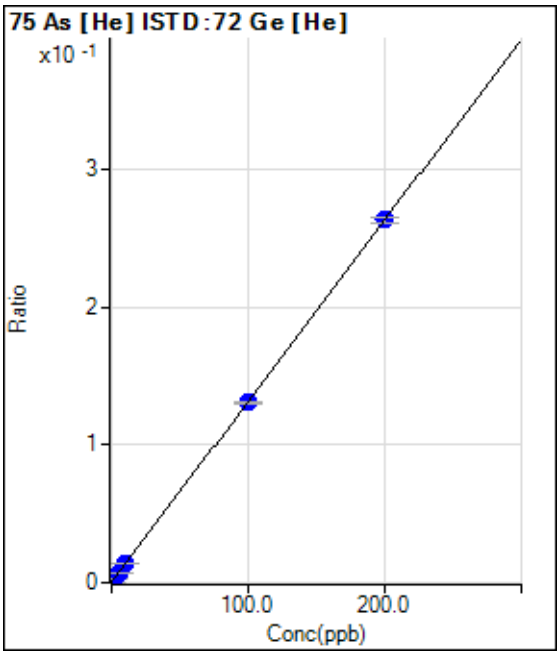
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0015	P	8.0
2	☐	2.000	1.584	2140.21	0.0044	P	4.9
3	☐	5.000	4.983	5151.06	0.0107	P	6.6
4	☐	10.000	9.682	9293.38	0.0195	P	3.3
5	☐	100.000	103.756	89823.32	0.1945	P	1.6
6	☐	200.000	198.142	165974.97	0.3701	P	1.9

y = 0.0019 * x + 0.0015
R = 0.9997
DL = 0.1905
BEC = 0.7914

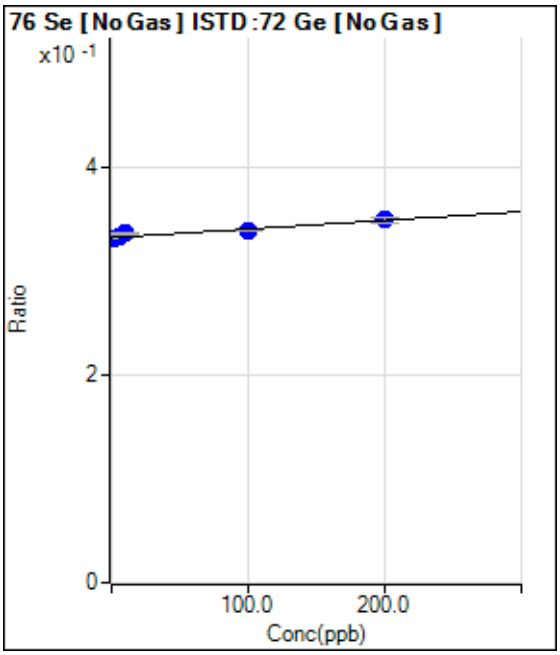
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	142.23	0.0003	P	15.8
2	☐	2.000	2.024	1433.42	0.0030	P	4.0
3	☐	5.000	5.315	3494.92	0.0073	P	5.8
4	☐	10.000	10.347	6632.77	0.0139	P	2.0
5	☐	100.000	99.348	60498.14	0.1310	P	1.0
6	☐	200.000	200.301	118305.62	0.2638	P	1.4

y = 0.0013 * x + 2.9637E-004
R = 1.0000
DL = 0.1066
BEC = 0.2253

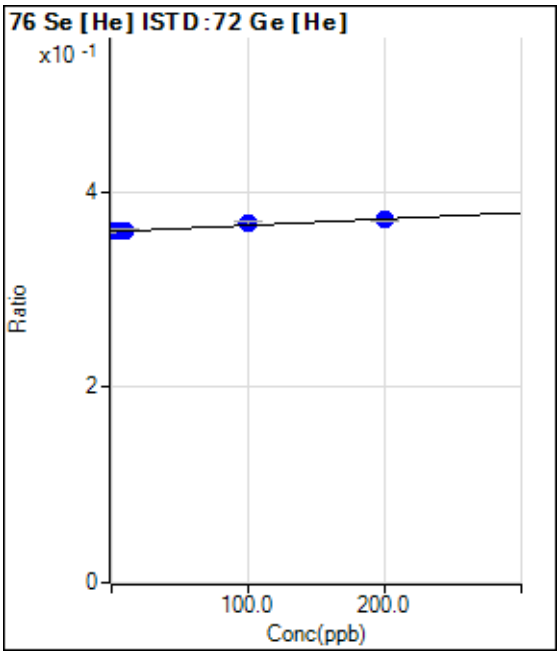
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	517004.00	0.3327	P	2.2
2	☐	2.000	-20.893	517022.06	0.3309	P	0.5
3	☐	5.000	15.559	517901.13	0.3340	P	1.2
4	☐	10.000	47.693	511375.71	0.3367	P	0.7
5	☐	100.000	87.362	508330.55	0.3400	P	0.5
6	☐	200.000	204.399	504967.18	0.3498	P	1.6

y = 8.3649E-005 * x + 0.3327
R = 0.9674
DL = 261
BEC = 3977

Weight: <None>
Min Conc: <None>

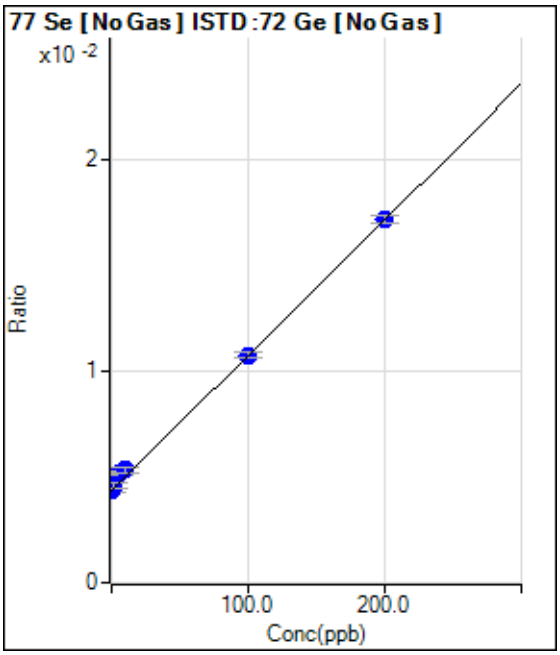


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172215.85	0.3588	P	1.2
2	☐	2.000	12.901	174185.80	0.3596	P	1.9
3	☐	5.000	9.120	172268.69	0.3594	P	1.1
4	☐	10.000	25.492	171897.69	0.3605	P	0.4
5	☐	100.000	129.919	169636.59	0.3673	P	0.9
6	☐	200.000	184.054	166308.95	0.3709	P	0.9

y = 6.5540E-005 * x + 0.3588
R = 0.9826
DL = 200.7
BEC = 5474

Weight: <None>
Min Conc: <None>

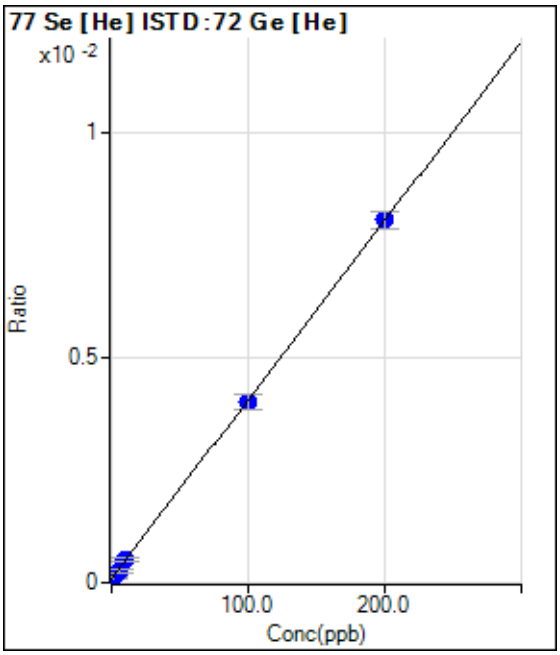
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6748.52	0.0043	P	3.9
2	☐	2.000	3.766	7158.72	0.0046	P	6.8
3	☐	5.000	12.846	8012.52	0.0052	P	4.0
4	☐	10.000	15.390	8099.26	0.0053	P	5.3
5	☐	100.000	99.752	16089.90	0.0108	P	2.4
6	☐	200.000	199.641	24816.50	0.0172	P	2.0

y = 6.4348E-005 * x + 0.0043
R = 0.9993
DL = 7.969
BEC = 67.48

Weight: <None>
Min Conc: <None>

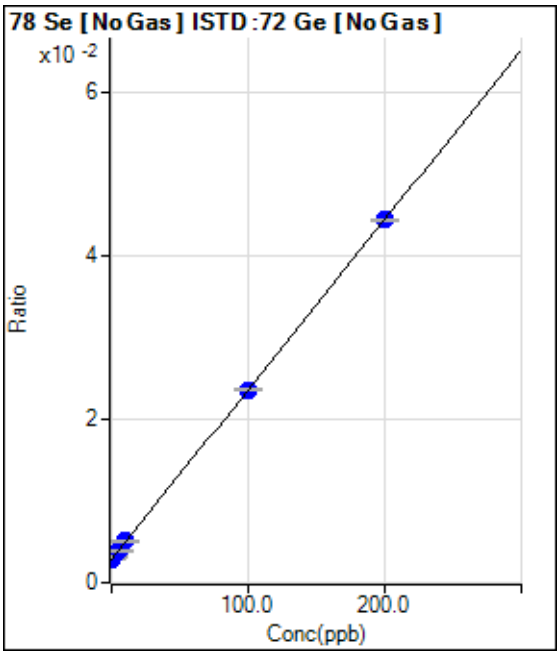


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	47.9
2	☐	2.000	0.502	53.33	0.0001	P	29.0
3	☐	5.000	4.556	130.00	0.0003	P	27.9
4	☐	10.000	10.396	240.01	0.0005	P	12.5
5	☐	100.000	98.922	1856.83	0.0040	P	7.8
6	☐	200.000	200.546	3613.89	0.0081	P	5.1

y = 3.9733E-005 * x + 9.0222E-005
R = 1.0000
DL = 3.265
BEC = 2.271

Weight: <None>
Min Conc: <None>

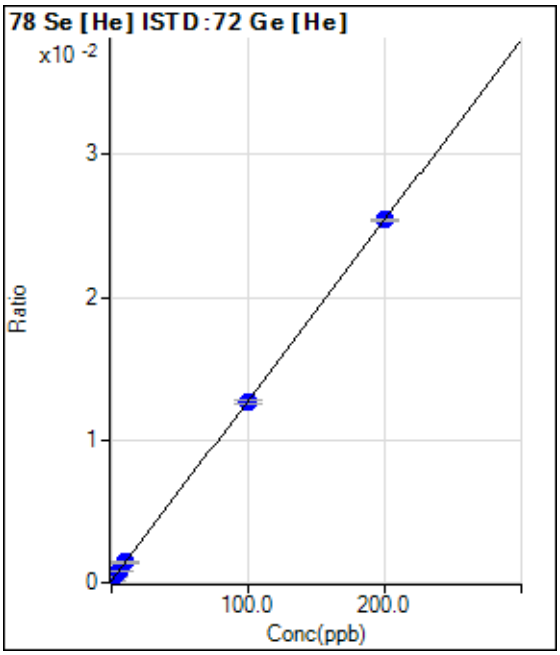
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4430.82	0.0029	P	3.0
2	☐	2.000	1.945	5084.39	0.0033	P	5.3
3	☐	5.000	5.372	6148.17	0.0040	P	6.5
4	☐	10.000	10.892	7765.72	0.0051	P	4.2
5	☐	100.000	100.013	35303.23	0.0236	P	0.6
6	☐	200.000	199.940	64042.05	0.0444	P	0.8

y = 2.0759E-004 * x + 0.0029
R = 1.0000
DL = 1.244
BEC = 13.74

Weight: <None>
Min Conc: <None>

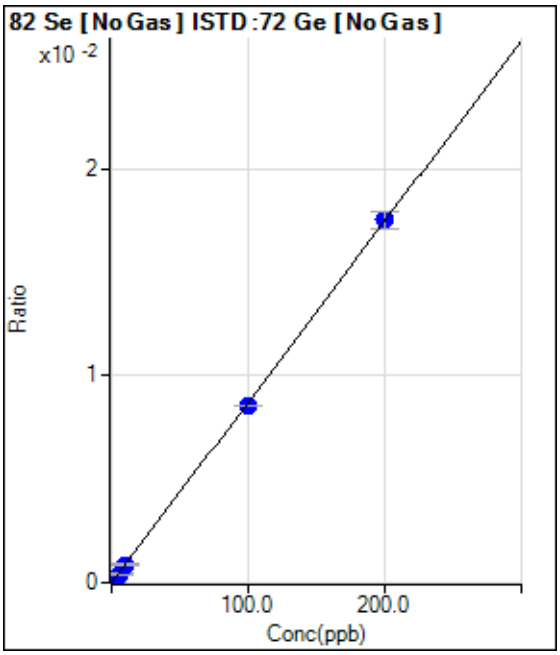


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.00	0.0001	P	10.5
2	☐	2.000	1.920	174.00	0.0004	P	4.7
3	☐	5.000	5.483	388.01	0.0008	P	1.6
4	☐	10.000	10.441	684.69	0.0014	P	15.0
5	☐	100.000	99.458	5856.62	0.0127	P	1.6
6	☐	200.000	200.238	11397.50	0.0254	P	0.9

y = 1.2634E-004 * x + 1.1665E-004
R = 1.0000
DL = 0.2905
BEC = 0.9233

Weight: <None>
Min Conc: <None>

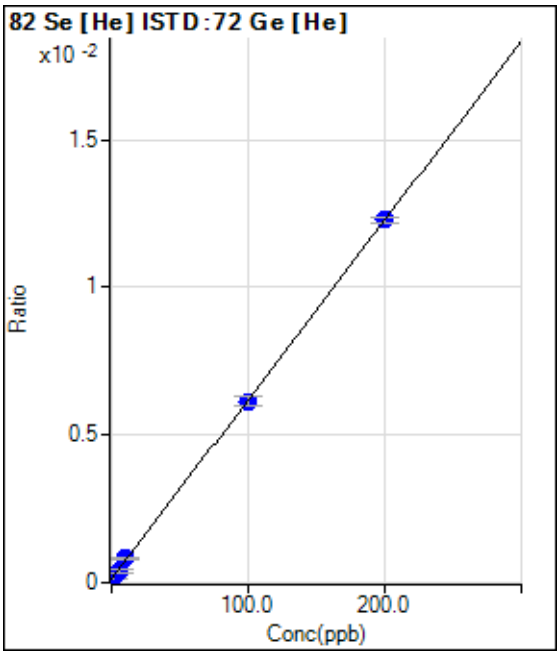
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-5.56	0.0000	P	-707.0
2	☐	2.000	2.259	301.58	0.0002	P	22.8
3	☐	5.000	4.680	627.31	0.0004	P	25.5
4	☐	10.000	10.048	1324.44	0.0009	P	14.4
5	☐	100.000	98.004	12770.63	0.0085	P	1.0
6	☐	200.000	201.001	25288.51	0.0175	P	5.0

y = 8.7192E-005 * x - 3.7187E-006
R = 0.9999
DL = 0.9047
BEC = -0.04265

Weight: <None>
Min Conc: <None>

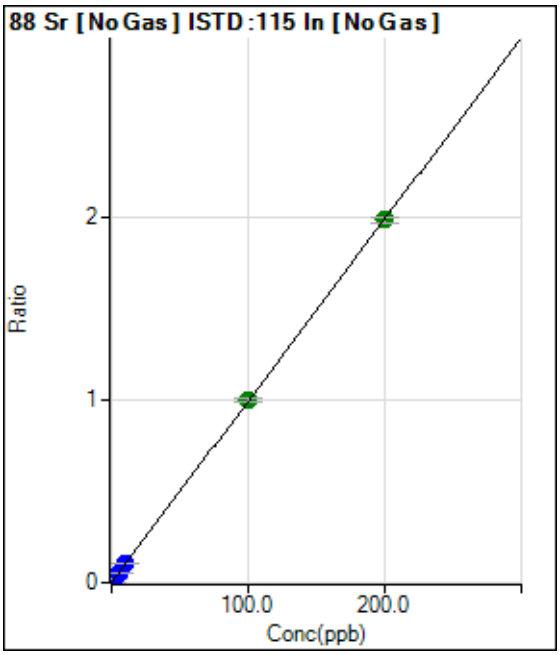


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0001	P	28.8
2	☐	2.000	1.007	90.00	0.0002	P	62.0
3	☐	5.000	4.236	183.34	0.0004	P	29.3
4	☐	10.000	11.649	396.68	0.0008	P	10.2
5	☐	100.000	99.229	2840.36	0.0061	P	6.1
6	☐	200.000	200.332	5507.91	0.0123	P	1.9

y = 6.0679E-005 * x + 1.2499E-004
R = 0.9999
DL = 1.78
BEC = 2.06

Weight: <None>
Min Conc: <None>

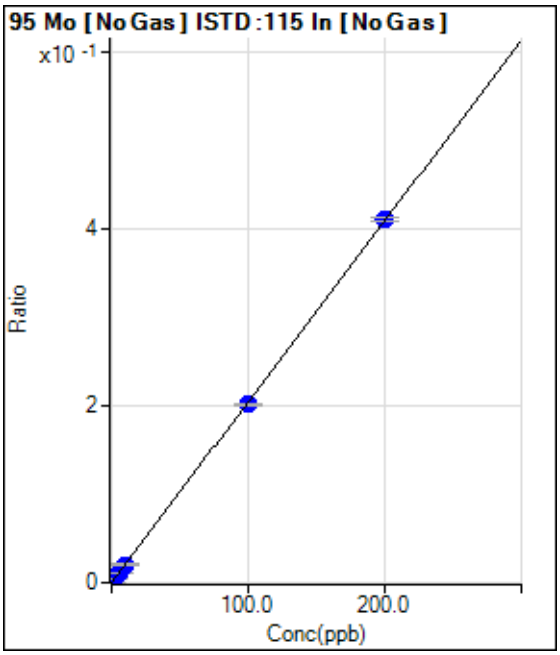
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1456.78	0.0006	P	6.6
2	☐	2.000	2.015	48441.32	0.0206	P	1.1
3	☐	5.000	5.014	118023.07	0.0503	P	1.8
4	☐	10.000	10.080	237820.52	0.1006	P	1.3
5	☐	100.000	100.424	2268196.95	0.9966	A	1.9
6	☐	200.000	199.784	4370722.96	1.9821	A	1.3

y = 0.0099 * x + 6.2115E-004
R = 1.0000
DL = 0.01245
BEC = 0.06263

Weight: <None>
Min Conc: <None>

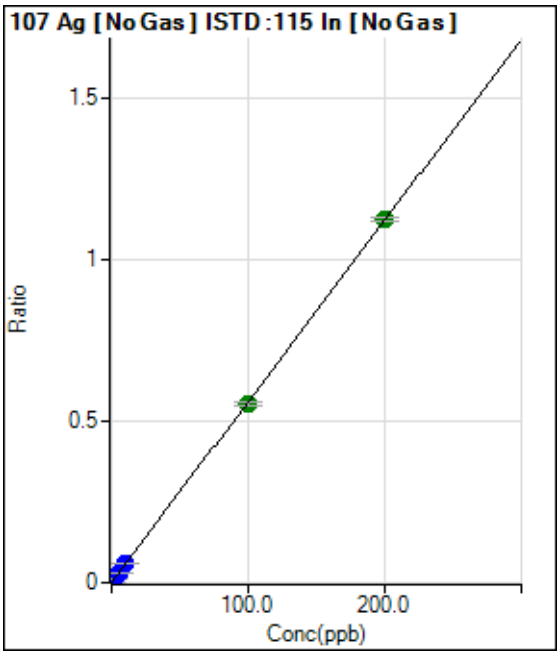


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0000	P	38.9
2	☐	2.000	2.060	10013.93	0.0043	P	0.7
3	☐	5.000	5.019	24182.29	0.0103	P	1.5
4	☐	10.000	10.036	48662.35	0.0206	P	1.0
5	☐	100.000	98.589	459302.10	0.2018	P	1.4
6	☐	200.000	200.703	905795.90	0.4108	P	1.2

y = 0.0020 * x + 4.3988E-005
R = 1.0000
DL = 0.0251
BEC = 0.02149

Weight: <None>
Min Conc: <None>

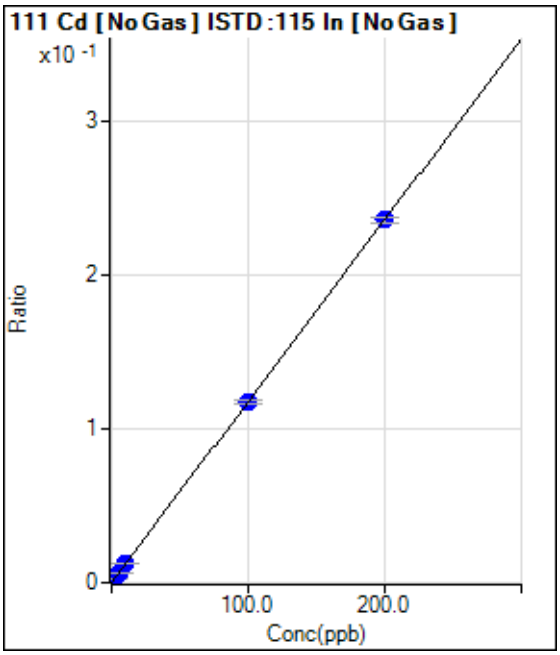
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	480.02	0.0002	P	21.3
2	☐	2.000	2.024	27114.76	0.0115	P	2.6
3	☐	5.000	5.062	66935.95	0.0286	P	0.6
4	☐	10.000	10.276	136505.24	0.0577	P	1.8
5	☐	100.000	99.201	1264694.10	0.5557	A	2.2
6	☐	200.000	200.384	2474754.18	1.1223	A	0.9

y = 0.0056 * x + 2.0482E-004
R = 1.0000
DL = 0.02342
BEC = 0.03658

Weight: <None>
Min Conc: <None>

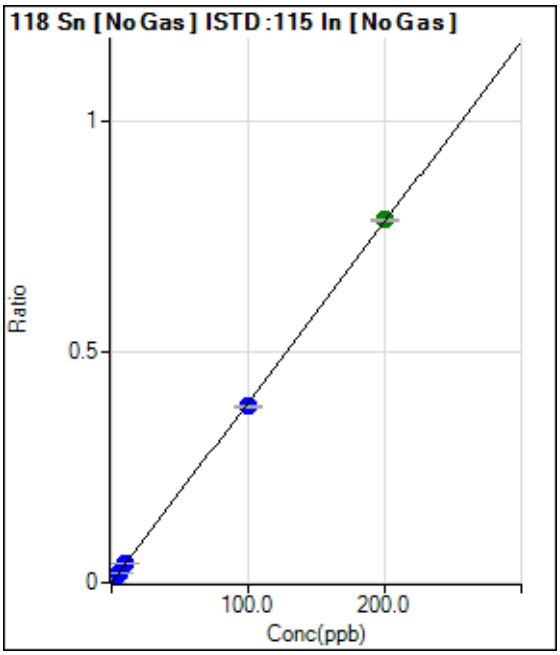


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	2.000	1.948	5397.86	0.0023	P	0.3
3	☐	5.000	5.065	13997.62	0.0060	P	0.8
4	☐	10.000	10.255	28581.09	0.0121	P	1.0
5	☐	100.000	99.657	267385.27	0.1175	P	2.0
6	☐	200.000	200.158	520303.60	0.2360	P	1.8

y = 0.0012 * x + 0.0000E+000
R = 1.0000
DL = 0
BEC = 0

Weight: <None>
Min Conc: <None>

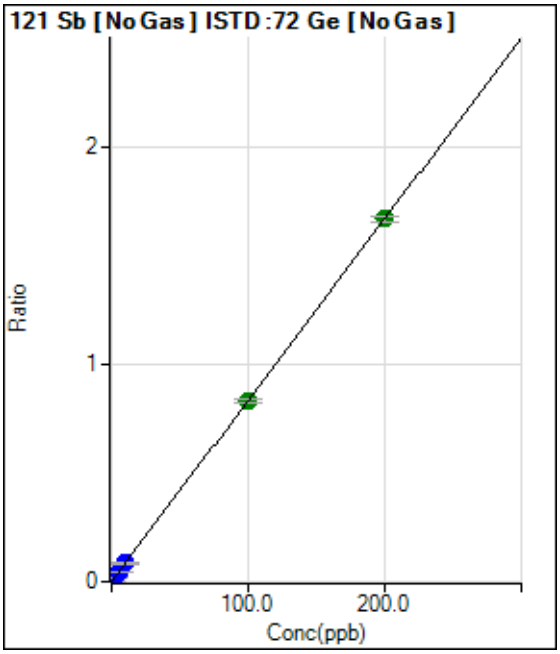
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1383.44	0.0006	P	9.0
2	☐	2.000	2.019	19955.55	0.0085	P	7.5
3	☐	5.000	4.914	46442.27	0.0198	P	1.7
4	☐	10.000	10.018	94037.94	0.0398	P	0.6
5	☐	100.000	97.695	871011.71	0.3827	P	1.7
6	☐	200.000	201.153	1736196.48	0.7874	A	0.8

y = 0.0039 * x + 5.9006E-004
R = 0.9999
DL = 0.04082
BEC = 0.1509

Weight: <None>
Min Conc: <None>

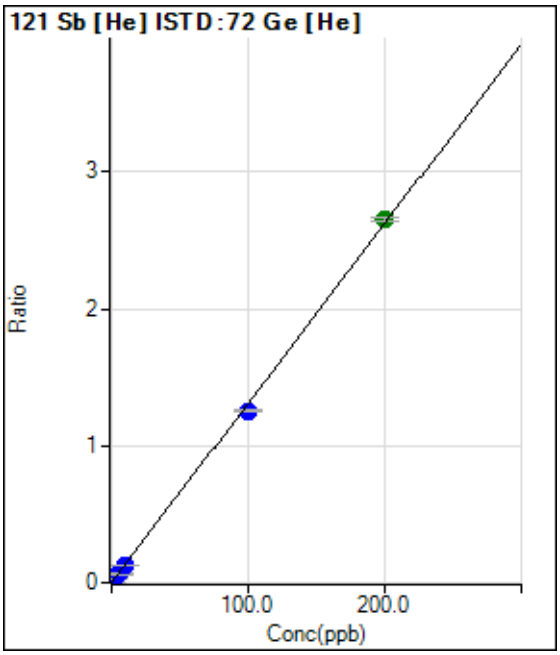


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1456.77	0.0009	P	14.1
2	☐	2.000	1.913	26343.37	0.0169	P	0.4
3	☐	5.000	4.794	63345.93	0.0409	P	0.7
4	☐	10.000	10.036	128336.38	0.0845	P	1.8
5	☐	100.000	99.771	1243277.82	0.8316	A	2.4
6	☐	200.000	200.119	2406666.79	1.6671	A	1.6

y = 0.0083 * x + 9.3831E-004
R = 1.0000
DL = 0.0477
BEC = 0.1127

Weight: <None>
Min Conc: <None>

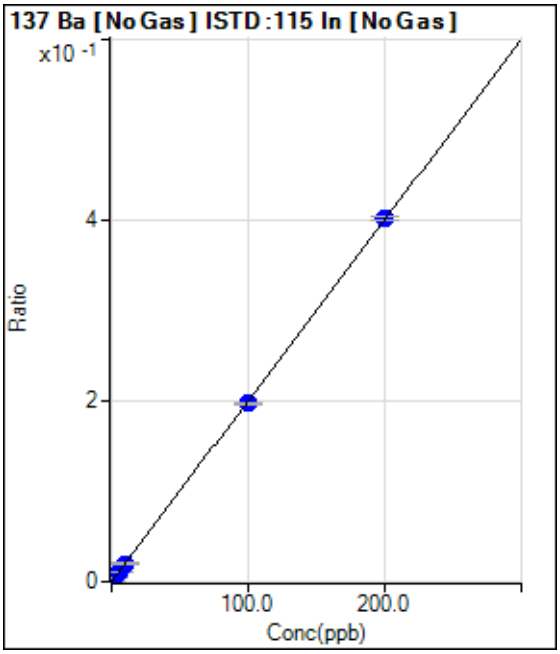
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.69	0.0013	P	9.5
2	☐	2.000	1.843	12332.62	0.0255	P	2.7
3	☐	5.000	4.766	30549.23	0.0637	P	2.6
4	☐	10.000	9.839	62066.47	0.1302	P	1.0
5	☐	100.000	95.590	578590.36	1.2530	P	1.4
6	☐	200.000	202.221	1187992.59	2.6492	A	1.1

y = 0.0131 * x + 0.0013
R = 0.9997
DL = 0.0289
BEC = 0.1013

Weight: <None>
Min Conc: <None>

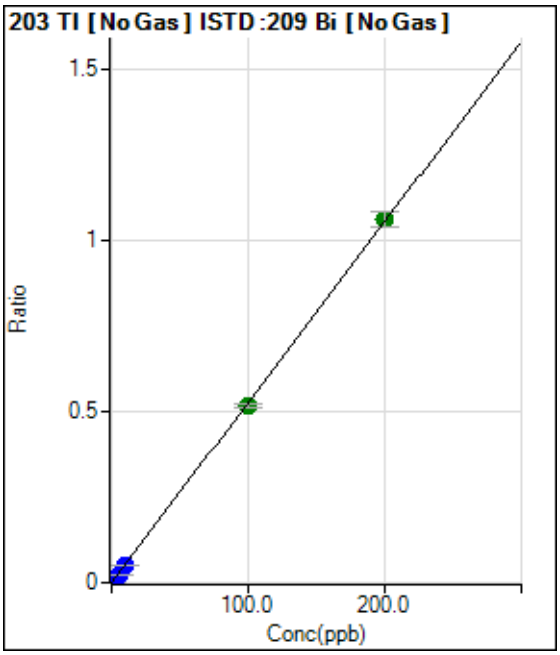


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.67	0.0001	P	30.5
2	☐	2.000	2.080	9974.01	0.0042	P	2.1
3	☐	5.000	5.025	23768.66	0.0101	P	2.6
4	☐	10.000	10.004	47527.19	0.0201	P	3.3
5	☐	100.000	98.608	449515.50	0.1975	P	1.4
6	☐	200.000	200.694	886182.07	0.4019	P	1.1

y = 0.0020 * x + 7.9707E-005
R = 1.0000
DL = 0.03642
BEC = 0.03981

Weight: <None>
Min Conc: <None>

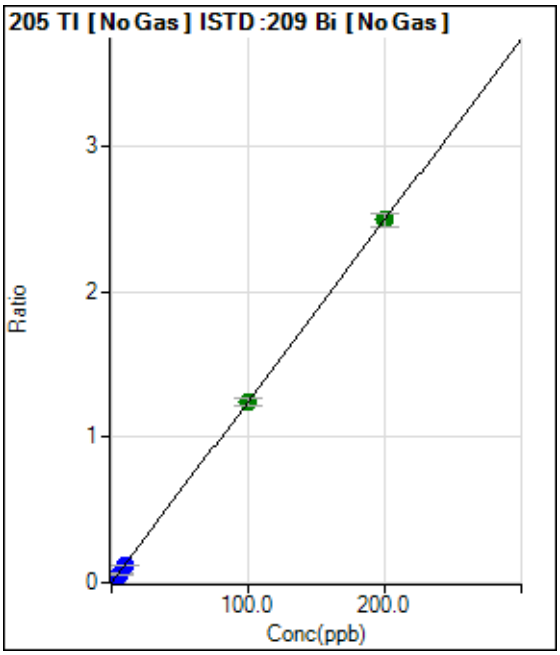
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	246.68	0.0001	P	4.9
2	☐	2.000	1.767	29962.99	0.0094	P	3.8
3	☐	5.000	4.574	75376.78	0.0241	P	3.0
4	☐	10.000	9.500	157719.96	0.0501	P	2.4
5	☐	100.000	97.863	1567436.23	0.5150	A	2.9
6	☐	200.000	201.107	3106562.03	1.0583	A	4.1

y = 0.0053 * x + 7.8257E-005
R = 0.9999
DL = 0.002168
BEC = 0.01487

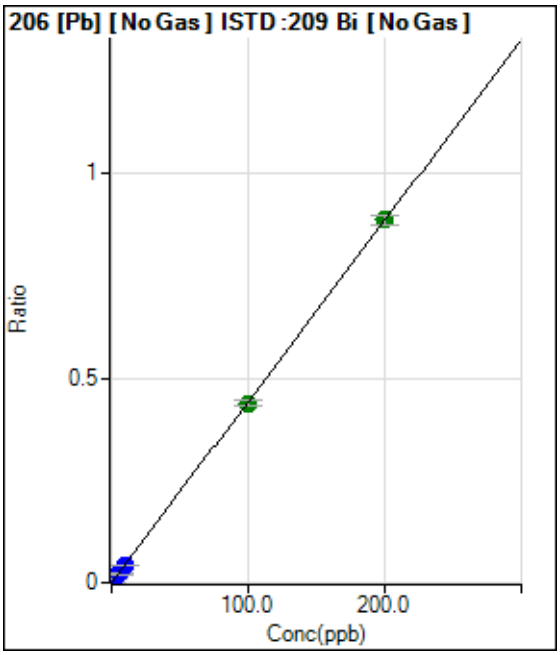
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	5.8
2	☐	2.000	1.798	72231.68	0.0226	P	4.2
3	☐	5.000	4.750	185304.24	0.0594	P	3.5
4	☐	10.000	9.647	379088.94	0.1203	P	2.0
5	☐	100.000	99.760	3779170.67	1.2423	A	3.9
6	☐	200.000	200.146	7316564.68	2.4922	A	3.7

y = 0.0125 * x + 2.2317E-004
R = 1.0000
DL = 0.003102
BEC = 0.01792

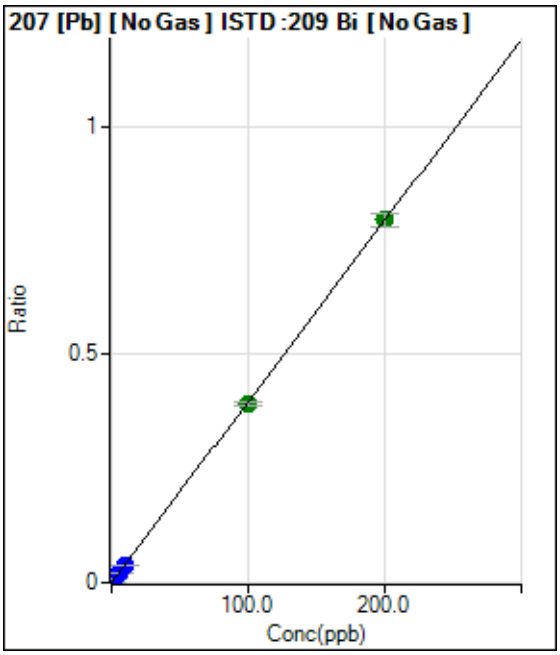
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	35.6
2	☐	2.000	1.915	27226.80	0.0085	P	4.6
3	☐	5.000	4.849	67120.07	0.0215	P	3.9
4	☐	10.000	9.809	136878.00	0.0434	P	1.5
5	☐	100.000	99.170	1335094.88	0.4388	A	2.8
6	☐	200.000	200.429	2603963.50	0.8868	A	2.4

y = 0.0044 * x + 5.1958E-005
R = 1.0000
DL = 0.01253
BEC = 0.01174

Weight: <None>
Min Conc: <None>

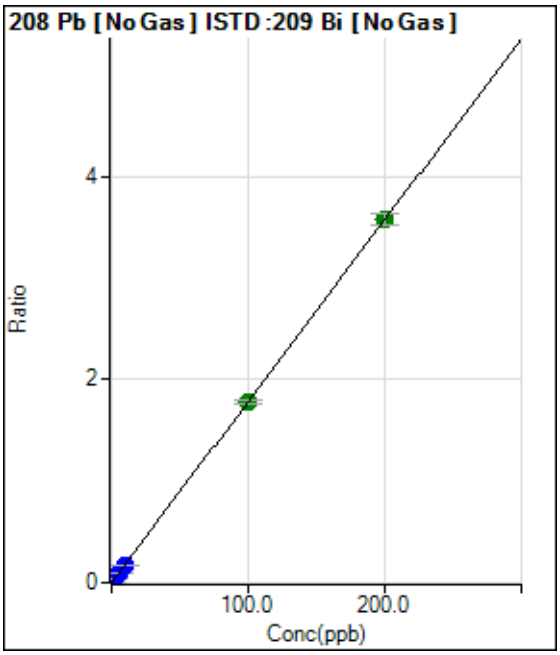


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0001	P	30.0
2	☐	2.000	1.945	24801.65	0.0078	P	3.8
3	☐	5.000	4.935	61233.68	0.0196	P	1.3
4	☐	10.000	9.827	122881.13	0.0390	P	1.1
5	☐	100.000	98.973	1193744.72	0.3923	A	2.6
6	☐	200.000	200.524	2333480.28	0.7948	A	3.5

y = 0.0040 * x + 5.2871E-005
R = 1.0000
DL = 0.01201
BEC = 0.01334

Weight: <None>
Min Conc: <None>

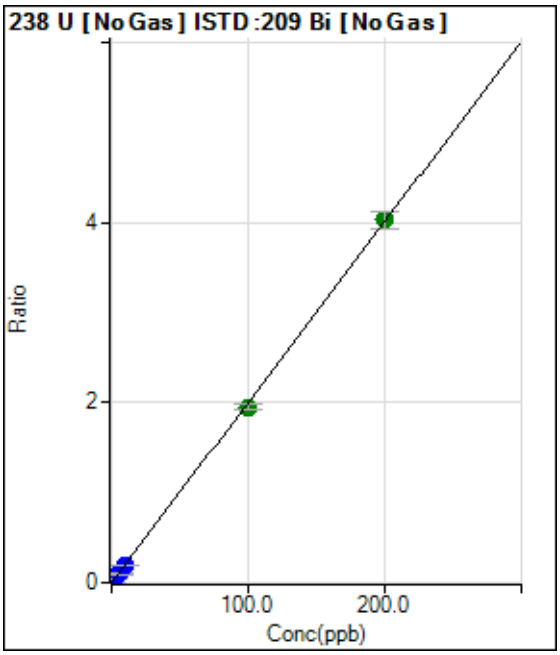
Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.68	0.0002	P	26.2
2	☐	2.000	1.957	112217.07	0.0351	P	3.2
3	☐	5.000	4.885	272557.90	0.0873	P	3.1
4	☐	10.000	9.854	554277.41	0.1759	P	1.9
5	☐	100.000	99.757	5414270.91	1.7793	A	2.2
6	☐	200.000	200.132	10479531.41	3.5693	A	3.3

y = 0.0178 * x + 2.0490E-004
R = 1.0000
DL = 0.009035
BEC = 0.01149

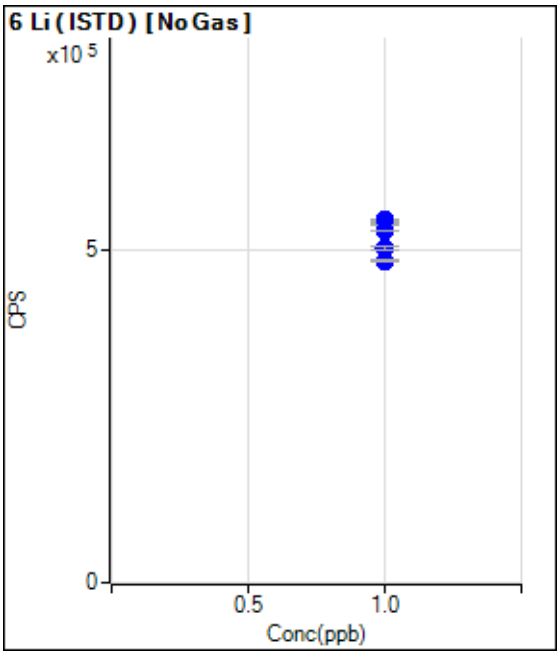
Weight: <None>
Min Conc: <None>



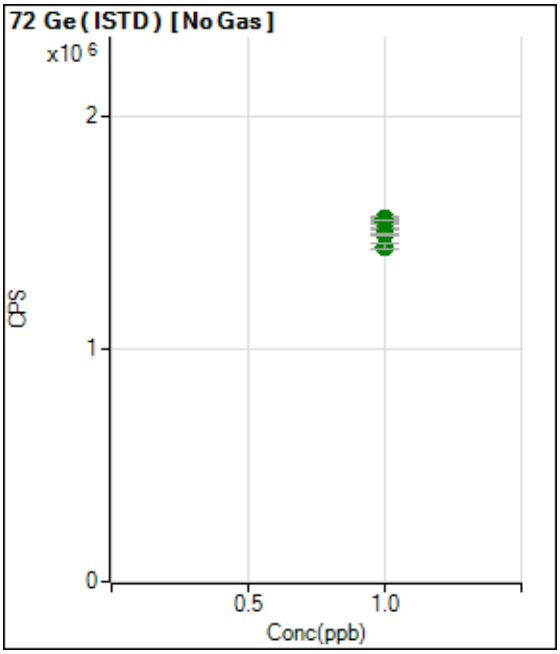
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0000	P	25.3
2	☐	2.000	1.871	119781.72	0.0375	P	5.1
3	☐	5.000	4.799	299897.12	0.0961	P	3.1
4	☐	10.000	9.704	611934.97	0.1942	P	2.2
5	☐	100.000	97.538	5938867.20	1.9519	A	3.0
6	☐	200.000	201.252	11821676.49	4.0273	A	4.5

y = 0.0200 * x + 4.9609E-005
R = 0.9999
DL = 0.001885
BEC = 0.002479

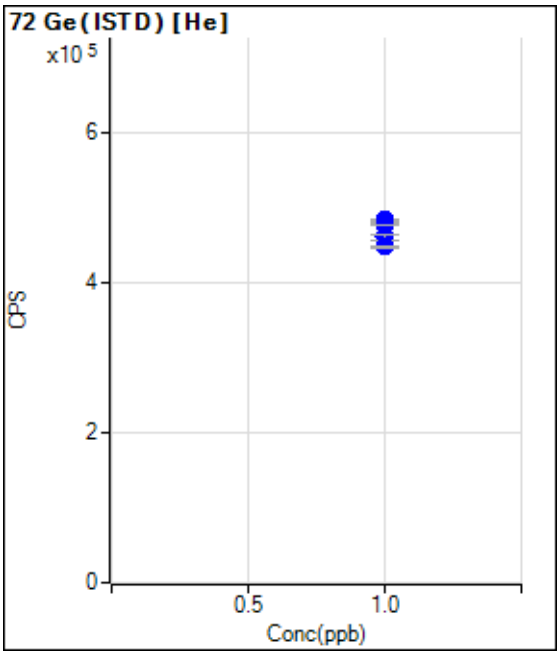
Weight: <None>
Min Conc: <None>



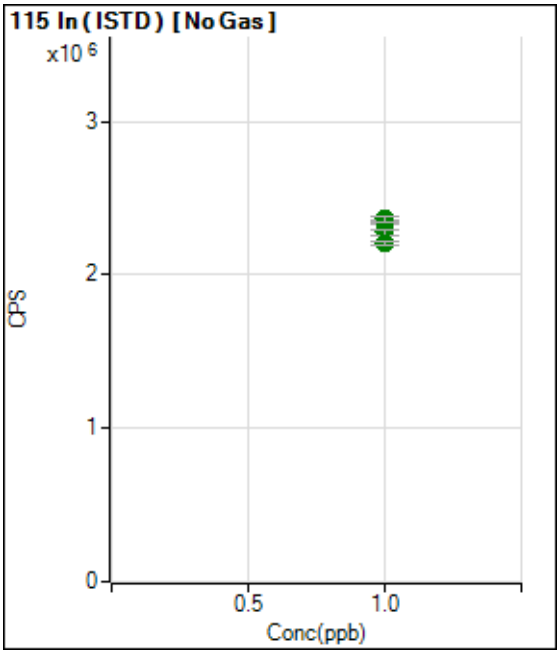
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		545261.03		P	0.2
2	☐	1.000		541689.66		P	0.6
3	☐	1.000		537055.87		P	0.2
4	☐	1.000		528820.60		P	0.4
5	☐	1.000		503934.74		P	1.3
6	☐	1.000		484057.37		P	0.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1554275.24		A	1.2
2	☐	1.000		1562257.53		A	1.1
3	☐	1.000		1550646.43		A	1.0
4	☐	1.000		1518864.56		A	0.5
5	☐	1.000		1495107.01		A	0.5
6	☐	1.000		1443928.42		A	1.9

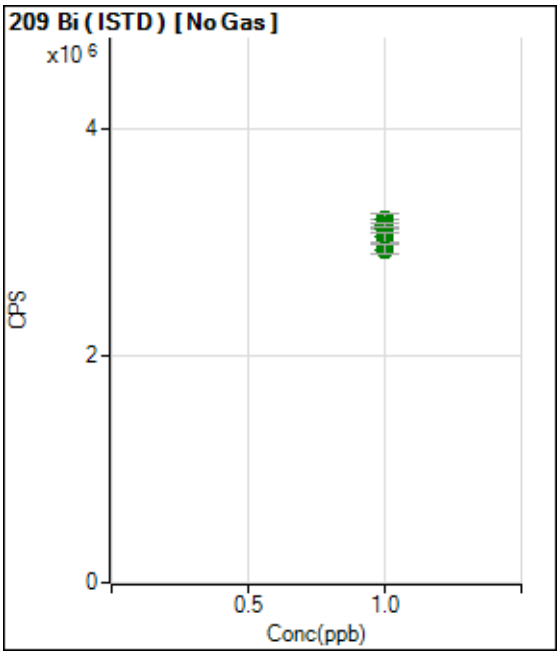


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		479992.04		P	0.2
2	☐	1.000		484370.18		P	0.6
3	☐	1.000		479348.57		P	0.8
4	☐	1.000		476877.69		P	0.1
5	☐	1.000		461855.38		P	1.8
6	☐	1.000		448464.19		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2346070.18		A	1.3
2	☐	1.000		2350522.98		A	0.9
3	☐	1.000		2344300.03		A	0.4
4	☐	1.000		2364390.72		A	1.6
5	☐	1.000		2276244.03		A	1.3
6	☐	1.000		2205185.25		A	0.9

Calibration for 230_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3154822.76		A	2.7
2	☐	1.000		3198583.39		A	3.8
3	☐	1.000		3123156.83		A	2.7
4	☐	1.000		3150943.29		A	1.4
5	☐	1.000		3044296.31		A	2.9
6	☐	1.000		2937921.00		A	3.0

Sample Report

Sample Table

Sample Name	LLICCV5
Data File Name	231LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:37:17-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	5.119	5.119	2.07	75161	0.01	5	
Be	9	1	No Gas	4.947	4.947	3.11	9128	0.05	5	
V	51	2	He	4.863	4.863	2.64	20947	0.02	5	
Cr	52	2	He	5.007	5.007	2.60	23364	0.02	5	
Fe	56	2	He	520.993	520.993	1.42	2226554	0.02	500	
Se	78	2	He	5.445	5.445	0.96	386	1.41	5	
As	75	2	He	4.865	4.865	5.99	3214	0.15	5	
Ca	44	2	He	493.663	493.663	1.81	12499	3.95	500	
Na	23	2	He	506.898	506.898	0.26	393434	0.13	500	
Mg	24	2	He	523.009	523.009	1.53	202223	0.26	500	
K	39	2	He	508.116	508.116	0.15	261205	0.19	500	
Mn	55	2	He	4.950	4.950	2.19	17598	0.03	5	
Co	59	2	He	4.955	4.955	1.14	34193	0.01	5	
Ni	60	2	He	5.288	5.288	2.28	8640	0.06	5	
Cu	63	2	He	5.184	5.184	3.01	24028	0.02	5	
Zn	66	2	He	4.736	4.736	2.47	4934	0.10	5	
Al	27	2	He	5.027	5.027	7.67	1760	0.29	5	
B	11	1	No Gas	36.369	36.369	1.18	49602	0.07	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	6.390	6.390	23.64	76877	0.01	5	
Si	28	1	No Gas	22.106	22.106	1.08	234679	0.01	25	
Ag	107	1	No Gas	5.092	5.092	1.83	68765	0.01	5	
Cd	111	1	No Gas	5.081	5.081	5.76	14338	0.04	5	
Sr	88	1	No Gas	5.046	5.046	0.88	121330	0.00	5	
Mo	95	1	No Gas	5.130	5.130	2.44	25241	0.02	5	
Sn	118	1	No Gas	5.168	5.168	2.67	49822	0.01	5	
Sb	121	1	No Gas	5.132	5.132	2.71	67885	0.01	5	
Ba	137	1	No Gas	4.983	4.983	4.04	24076	0.02	5	
Tl	205	1	No Gas	5.812	5.812	5.41	231909	0.00	5	
Tl	203	1	No Gas	5.684	5.684	5.95	95814	0.01	5	
Pb	208	1	No Gas	4.890	4.890	1.35	279073	0.00	5	
U	238	1	No Gas	4.827	4.827	1.50	308565	0.00	5	
Ca	43	2	He	540.292	540.292	13.08	800	67.53	500	
Sb	121	2	He	5.054	5.054	2.85	32387	0.02	5	
Ti	47	2	He	5.203	5.203	4.89	723	0.72	5	
Cu	63	1	No Gas	5.222	5.222	1.55	42162	0.01	5	
Se	82	1	No Gas	4.223	4.223	5.75	567	0.75	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	533315	0.17	545261	97.81	70	120	
Ge	72	2	He	479774	0.39	479992	99.95	70	120	
Ge	72	1	No Gas	1554877	0.63	1554275	100.04	70	120	
In	115	1	No Gas	2394902	1.44	2346070	102.08	70	120	
Bi	209	1	No Gas	3193248	1.42	3154823	101.22	70	120	

Sample Report

Sample Table

Sample Name	LLICCV2
Data File Name	232LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:39:17-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	1.966	1.966	2.67	52159	0.00	2	
Be	9	1	No Gas	1.932	1.932	2.22	3592	0.05	2	
V	51	2	He	1.896	1.896	0.23	9872	0.02	2	
Cr	52	2	He	1.986	1.986	2.16	10024	0.02	2	
Fe	56	2	He	203.307	203.307	0.58	891303	0.02	200	
Se	78	2	He	2.062	2.062	10.31	185	1.12	2	
As	75	2	He	1.814	1.814	3.33	1313	0.14	2	
Ca	44	2	He	211.303	211.303	2.24	5665	3.73	200	
Na	23	2	He	190.756	190.756	1.55	191253	0.10	200	
Mg	24	2	He	208.306	208.306	1.09	82500	0.25	200	
K	39	2	He	198.401	198.401	0.29	129052	0.15	200	
Mn	55	2	He	2.019	2.019	3.37	7486	0.03	2	
Co	59	2	He	1.969	1.969	1.71	13881	0.01	2	
Ni	60	2	He	2.112	2.112	2.49	3591	0.06	2	
Cu	63	2	He	2.088	2.088	4.06	10594	0.02	2	
Zn	66	2	He	1.760	1.760	3.98	2324	0.08	2	
Al	27	2	He	2.959	2.959	15.12	1310	0.23	2	NewName Main CR1 Failed
B	11	1	No Gas	16.495	16.495	2.64	28190	0.06	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.708	2.708	4.35	46813	0.01	2	NewName Main CR1 Failed
Si	28	1	No Gas	7.206	7.206	41.80	180417	0.00	10	
Ag	107	1	No Gas	2.024	2.024	0.97	27616	0.01	2	
Cd	111	1	No Gas	2.054	2.054	2.13	5795	0.04	2	
Sr	88	1	No Gas	1.991	1.991	1.88	48739	0.00	2	
Mo	95	1	No Gas	1.944	1.944	0.61	9627	0.02	2	
Sn	118	1	No Gas	2.078	2.078	2.00	20863	0.01	2	
Sb	121	1	No Gas	2.045	2.045	1.21	28117	0.01	2	
Ba	137	1	No Gas	2.115	2.115	1.77	10324	0.02	2	
Tl	205	1	No Gas	1.975	1.975	0.49	80838	0.00	2	
Tl	203	1	No Gas	1.929	1.929	0.17	33315	0.01	2	
Pb	208	1	No Gas	1.929	1.929	2.62	112711	0.00	2	
U	238	1	No Gas	1.878	1.878	0.72	122599	0.00	2	
Ca	43	2	He	181.393	181.393	25.78	290	62.55	200	
Sb	121	2	He	1.988	1.988	4.16	13390	0.01	2	
Ti	47	2	He	2.101	2.101	2.86	300	0.70	200	
Cu	63	1	No Gas	2.083	2.083	5.18	18366	0.01	2	
Se	82	1	No Gas	1.753	1.753	43.87	234	0.75	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	535797	0.47	545261	98.26	70	120	
Ge	72	2	He	489539	0.54	479992	101.99	70	120	
Ge	72	1	No Gas	1565443	0.98	1554275	100.72	70	120	
In	115	1	No Gas	2393236	0.49	2346070	102.01	70	120	
Bi	209	1	No Gas	3257710	1.32	3154823	103.26	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	233_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T21:41:18-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	-0.097	-40.4	37142	1.1	0.5	
Be	9	1	No Gas	0.024	17.3	62	12.4	0.5	
V	51	2	He	-0.121	-12.1	2047	2.8	2.5	
Cr	52	2	He	0.001	2250.1	940	5.9	2.5	
Fe	56	2	He	-0.211	-4.7	6869	0.7	100	
Se	78	2	He	-0.273	-32.4	40	13.2	1	
As	75	2	He	-0.033	-144.2	123	24.8	2.5	
Ca	44	2	He	3.659	105.8	450	21.2	100	
Na	23	2	He	-5.507	-400.0	60550	24.6	100	
Mg	24	2	He	-0.097	-103.4	493	8.4	100	
K	39	2	He	-3.287	-71.5	39360	3.0	100	
Mn	55	2	He	-0.002	-569.7	263	15.8	2.5	
Co	59	2	He	-0.001	-150.9	27	21.7	2.5	
Ni	60	2	He	0.025	112.2	157	30.2	2.5	
Cu	63	2	He	-0.050	-44.1	977	10.4	1	
Zn	66	2	He	-0.207	-51.4	530	18.0	2.5	
Al	27	2	He	0.147	176.3	647	8.9	5	
B	11	1	No Gas	4.591	6.0	15335	1.7	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.374	-8.2	21307	1.2	5	
Si	28	1	No Gas	-4.873	-11.8	135751	1.7	10	
Ag	107	1	No Gas	0.013	64.9	673	18.8	2.5	
Cd	111	1	No Gas	0.002	86.6	7	86.6	1	
Sr	88	1	No Gas	-0.012	-23.7	1213	4.5	2.5	
Mo	95	1	No Gas	0.004	173.8	127	29.9	2.5	
Sn	118	1	No Gas	0.018	60.9	1583	6.6	5	
Sb	121	1	No Gas	0.001	533.4	1493	6.8	2.5	
Ba	137	1	No Gas	0.005	134.8	213	13.5	2.5	
Tl	205	1	No Gas	0.037	33.1	2220	23.4	1	
Tl	203	1	No Gas	0.042	38.6	970	29.4	1	
Pb	208	1	No Gas	0.006	16.9	1017	6.9	2.5	
U	238	1	No Gas	0.001	40.7	200	8.7	2.5	
Ca	43	2	He	-7.101	-111.2	13	86.6	100	
Sb	121	2	He	0.027	2.8	817	0.7	2.5	
Ti	47	2	He	0.023	352.9	7	173.2	2.5	
Se	82	1	No Gas	-0.977	-15.5	-140	-15.0	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	539566	0.29	545261	98.96	70	120	
Ge	72	2	He	487366	0.44	479992	101.54	70	120	
Ge	72	1	No Gas	1571201	0.28	1554275	101.09	70	120	
In	115	1	No Gas	2397929	1.49	2346070	102.21	70	120	
Bi	209	1	No Gas	3225316	1.05	3154823	102.23	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	278_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:35:57-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	96.957	0.255	707293	0.36	100	97.0	90	110	
Be	9	1	No Gas	93.751	0.943	162389	1.00	100	93.8	90	110	
V	51	2	He	98.103	0.617	331617	0.79	100	98.1	90	110	
Cr	52	2	He	98.687	0.734	391759	0.53	100	98.7	90	110	
Fe	56	2	He	9960.614	0.368	37506428	0.56	10000	99.6	90	110	
Se	78	2	He	98.026	2.311	5302	1.88	100	98.0	90	110	
As	75	2	He	96.551	0.326	53997	0.12	100	96.6	90	110	
Ca	44	2	He	10009.748	0.353	218005	0.07	10000	100.1	90	110	
Na	23	2	He	10508.491	1.730	6108114	1.29	10000	105.1	90	110	
Mg	24	2	He	10298.072	0.417	3511076	0.07	10000	103.0	90	110	
K	39	2	He	10327.509	1.064	4006593	0.71	10000	103.3	90	110	
Mn	55	2	He	99.167	1.006	307187	1.40	100	99.2	90	110	
Co	59	2	He	94.550	0.975	576249	0.80	100	94.5	90	110	
Ni	60	2	He	98.511	0.595	140519	0.98	100	98.5	90	110	
Cu	63	2	He	98.396	0.935	384393	0.87	100	98.4	90	110	
Zn	66	2	He	99.933	1.481	79479	1.41	100	99.9	90	110	
Al	27	2	He	102.371	1.582	21357	1.29	100	102.4	90	110	
B	11	1	No Gas	436.897	1.734	454844	1.54	500	87.4	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	106.571	1.153	789606	0.66	100	106.6	90	110	
Si	28	1	No Gas	526.440	2.753	1845577	2.45	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	94.871	2.297	1127121	1.29	100	94.9	90	110	
Cd	111	1	No Gas	94.565	1.244	236465	0.99	100	94.6	90	110	
Sr	88	1	No Gas	98.466	2.135	2072606	1.48	100	98.5	90	110	
Mo	95	1	No Gas	95.206	1.668	413341	0.98	100	95.2	90	110	
Sn	118	1	No Gas	93.202	1.822	774415	0.91	100	93.2	90	110	
Sb	121	1	No Gas	93.324	1.466	1057822	1.09	100	93.3	90	110	
Ba	137	1	No Gas	95.287	1.674	404784	0.63	100	95.3	90	110	
Tl	205	1	No Gas	97.434	3.691	3292396	1.88	100	97.4	90	110	
Tl	203	1	No Gas	96.850	4.599	1382702	2.15	100	96.9	90	110	
Pb	208	1	No Gas	95.305	4.177	4611794	1.70	100	95.3	90	110	
U	238	1	No Gas	95.585	2.434	5191602	1.74	100	95.6	90	110	
Ca	43	2	He	9914.202	1.869	12616	2.27	10000	99.1	90	110	
Sb	121	2	He	92.778	0.523	515769	0.39	100	92.8	90	110	
Ti	47	2	He	103.407	2.961	12653	3.32	100	103.4	90	110	
Cu	63	1	No Gas	100.043	0.888	668642	0.66	100	100.0	90	110	
Se	82	1	No Gas	95.385	3.344	11302	2.32	100	95.4	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	501486	0.34	545261	91.97	70	120	
Ge	72	2	He	424106	0.43	479992	88.36	70	120	
Ge	72	1	No Gas	1359914	1.46	1554275	87.50	70	120	
In	115	1	No Gas	2121188	1.08	2346070	90.41	70	120	
Bi	209	1	No Gas	2715002	2.60	3154823	86.06	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	279_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:37:54-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.739	9.4	41910	1.3	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.039	40.3	87	32.8	0.5	
V	51	2	He	-0.027	-144.0	2165	7.0	2.5	
Cr	52	2	He	-0.013	-29.7	790	1.3	2.5	
Fe	56	2	He	0.712	9.7	9757	1.9	100	
Se	78	2	He	0.317	77.9	69	20.5	2	
As	75	2	He	0.039	28.5	152	4.6	2.5	
Ca	44	2	He	3.173	68.0	393	11.5	100	
Na	23	2	He	247.667	1.2	204929	0.4	100	CCB Main CR1 Failed
Mg	24	2	He	1.722	7.7	1083	3.7	100	
K	39	2	He	15.829	16.1	42951	2.0	100	
Mn	55	2	He	0.024	23.8	320	6.2	2.5	
Co	59	2	He	-0.001	-236.7	20	86.6	2.5	
Ni	60	2	He	0.097	34.4	247	20.4	2.5	
Cu	63	2	He	0.054	59.7	1297	9.5	2	
Zn	66	2	He	0.285	47.1	877	11.7	2.5	
Al	27	2	He	0.318	148.0	617	15.3	5	
B	11	1	No Gas	12.853	14.8	23570	8.4	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.098	90.0	22232	1.7	5	
Si	28	1	No Gas	3.219	100.2	146357	6.8	10	
Ag	107	1	No Gas	-0.007	-66.9	353	16.6	2.5	
Cd	111	1	No Gas	0.011	77.8	27	78.1	1	
Sr	88	1	No Gas	0.023	28.8	1820	7.7	2.5	
Mo	95	1	No Gas	0.246	44.7	1173	41.5	2.5	
Sn	118	1	No Gas	0.446	15.1	5011	11.8	5	
Sb	121	1	No Gas	0.252	17.2	4207	11.8	2.5	
Ba	137	1	No Gas	0.011	160.7	217	33.4	2.5	
Tl	205	1	No Gas	1.225	38.3	43178	41.7	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.192	38.9	17731	42.4	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.020	12.6	1570	11.5	2.5	
U	238	1	No Gas	0.020	35.3	1277	34.9	2.5	
Ca	43	2	He	-8.628	-88.1	10	100.0	100	
Sb	121	2	He	0.171	24.9	1563	15.2	2.5	
Ti	47	2	He	0.055	144.0	10	100.0	2.5	
Cu	63	1	No Gas	0.075	30.5	2624	7.1	2.5	
Se	82	1	No Gas	0.852	26.0	98	27.1	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	521325	0.14	545261	95.61	70	120	
Ge	72	2	He	437917	0.84	479992	91.23	70	120	
Ge	72	1	No Gas	1384319	1.21	1554275	89.07	70	120	
In	115	1	No Gas	2144700	0.62	2346070	91.42	70	120	
Bi	209	1	No Gas	2764090	3.89	3154823	87.61	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	280ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:39:54-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	1.445	1.5	43621	0.3	0	
Be	9	1	No Gas	0.013	26.6	37	15.7	0	ICSA Main CR1 Failed
V	51	2	He	0.163	15.0	2580	3.4	0	ICSA Main CR1 Failed
Cr	52	2	He	1.954	5.7	8069	4.8	0	ICSA Main CR1 Failed
Fe	56	2	He	97995.966	0.5	347944955	0.3	0	
Se	78	2	He	0.383	48.9	66	13.9	0	ICSA Main CR1 Failed
As	75	2	He	0.144	31.5	194	12.0	0	ICSA Main CR1 Failed
Ca	44	2	He	100383.585	1.4	2059320	1.8	0	
Na	23	2	He	102235.811	0.9	55585544	0.5	0	
Mg	24	2	He	100857.183	0.8	32426189	0.6	0	
K	39	2	He	102150.463	0.3	37078073	0.6	0	
Mn	55	2	He	0.392	10.7	1367	9.0	0	ICSA Main CR1 Failed
Co	59	2	He	0.083	22.9	500	22.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.346	15.6	560	12.5	0	ICSA Main CR1 Failed
Cu	63	2	He	0.267	5.4	1967	3.1	0	ICSA Main CR1 Failed
Zn	66	2	He	1.055	14.2	1373	7.8	0	ICSA Main CR1 Failed
Al	27	2	He	96325.280	0.4	18479886	0.1	0	
B	11	1	No Gas	6.253	0.9	15387	0.4	0	
Al	27	1	No Gas	98080.837	0.7	679031803	1.3	0	
Si	28	1	No Gas	26.039	5.6	209283	0.9	0	
Ag	107	1	No Gas	0.267	0.8	3330	1.0	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.511	4.2	3491	4.5	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.128	1.4	23130	1.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1940.304	0.8	7779063	0.7	0	
Sn	118	1	No Gas	0.119	7.9	2067	3.9	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.102	19.0	2334	7.3	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.385	7.6	1667	6.4	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.014	43.0	1003	20.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.019	34.2	450	21.2	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.086	3.7	4370	3.7	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.004	29.4	310	17.1	0	ICSA Main CR1 Failed
Ca	43	2	He	98120.366	0.6	117575	0.3	0	
Sb	121	2	He	0.097	10.0	1037	5.3	0	ICSA Main CR1 Failed
Ti	47	2	He	2040.488	1.0	235399	1.2	0	
Se	82	1	No Gas	-0.563	-90.6	-70	-84.1	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	483846	0.11	545261	88.74	70	120	
Ge	72	2	He	399974	0.44	479992	83.33	70	120	
Ge	72	1	No Gas	1305593	1.88	1554275	84.00	70	120	
In	115	1	No Gas	1959072	0.61	2346070	83.50	70	120	
Bi	209	1	No Gas	2520108	2.17	3154823	79.88	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	281ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:41:56-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	95.526	0.780	651323	0.47	100	95.5	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	91.932	0.631	148724	0.12	100	91.9	80	120	
V	51	2	He	99.980	0.840	315434	0.46	100	100.0	80	120	
Cr	52	2	He	99.669	0.814	369327	0.45	100	99.7	80	120	
Fe	56	2	He	108725.572	0.712	382101554	0.53	100	108725.6	80	120	
Se	78	2	He	99.519	2.074	5024	1.45	100	99.5	80	120	
As	75	2	He	100.685	0.567	52560	0.84	100	100.7	80	120	
Ca	44	2	He	111269.940	1.633	2259106	0.97	100	111269.9	80	120	
Na	23	2	He	112989.859	1.650	60798056	1.01	100	112989.9	80	120	
Mg	24	2	He	110844.785	0.578	35273626	0.15	100	110844.8	80	120	
K	39	2	He	111492.972	1.026	40051788	0.49	100	111493.0	80	120	
Mn	55	2	He	98.433	1.168	284610	0.47	100	98.4	80	120	
Co	59	2	He	94.854	1.175	539680	1.68	100	94.9	80	120	
Ni	60	2	He	97.253	1.099	129498	1.40	100	97.3	80	120	
Cu	63	2	He	96.062	0.230	350335	0.49	100	96.1	80	120	
Zn	66	2	He	98.004	0.527	72775	1.23	100	98.0	80	120	
Al	27	2	He	96171.989	1.711	18261684	1.35	100	96172.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	457.779	1.328	444685	0.78	100	457.8	80	120	
Al	27	1	No Gas	96343.022	1.436	667863883	0.41	100	96343.0	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	565.310	10.108	1896354	9.89	100	565.3	80	120	
Ag	107	1	No Gas	92.372	0.299	1017110	1.00	100	92.4	80	120	
Cd	111	1	No Gas	96.744	0.505	224179	0.82	100	96.7	80	120	
Sr	88	1	No Gas	103.313	0.888	2015182	0.34	100	103.3	80	120	
Mo	95	1	No Gas	2050.516	1.500	8248051	1.27	100	2050.5	80	120	
Sn	118	1	No Gas	97.433	0.739	750251	1.57	100	97.4	80	120	
Sb	121	1	No Gas	94.483	0.438	1029612	1.00	100	94.5	80	120	
Ba	137	1	No Gas	99.695	1.279	392461	0.84	100	99.7	80	120	
Tl	205	1	No Gas	96.714	3.030	2998008	1.90	100	96.7	80	120	
Tl	203	1	No Gas	95.212	1.754	1247382	0.67	100	95.2	80	120	
Pb	208	1	No Gas	99.012	1.899	4396278	0.82	100	99.0	80	120	
U	238	1	No Gas	102.817	2.374	5122022	1.40	100	102.8	80	120	
Ca	43	2	He	107617.421	1.250	127634	0.67	100	107617.4	80	120	
Sb	121	2	He	95.272	1.003	494378	0.49	100	95.3	80	120	
Ti	47	2	He	2140.903	1.608	244445	0.91	100	2140.9	80	120	
Cu	63	1	No Gas	94.929	1.361	610023	0.83	100	94.9	80	120	
Se	82	1	No Gas	100.132	0.274	11409	1.12	100	100.1	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	468384	0.68	545261	85.90	70	120	
Ge	72	2	He	395898	0.71	479992	82.48	70	120	
Ge	72	1	No Gas	1307311	1.10	1554275	84.11	70	120	
In	115	1	No Gas	1965598	0.92	2346070	83.78	70	120	
Bi	209	1	No Gas	2489814	1.16	3154823	78.92	70	120	

Sample Report

Sample Table

Sample Name	MBLK-166115
Data File Name	283SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:46:00-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	0.928	0.928	2.15	44034	0.00	2000	
Be	9	1	No Gas	0.018	0.018	64.36	50	0.04	2000	
V	51	2	He	-0.050	-0.050	-14.44	2117	0.00	2000	
Cr	52	2	He	-0.002	-0.002	-1948.64	847	0.00	2000	
Fe	56	2	He	1.967	1.967	13.65	14859	0.01	200000	
Se	78	2	He	0.050	0.050	156.65	55	0.09	2000	
As	75	2	He	-0.030	-0.030	-41.52	114	-0.03	2000	
Ca	44	2	He	7.584	7.584	45.99	500	1.52	200000	
Na	23	2	He	143.894	143.894	2.83	145397	0.10	200000	
Mg	24	2	He	4.055	4.055	7.36	1934	0.21	200000	
K	39	2	He	15.225	15.225	13.23	43362	0.04	200000	
Mn	55	2	He	0.022	0.022	65.71	320	0.01	2000	
Co	59	2	He	0.000	0.000	-1132.21	27	0.00	2000	
Ni	60	2	He	0.102	0.102	58.53	257	0.04	2000	
Cu	63	2	He	0.047	0.047	44.82	1290	0.00	2000	
Zn	66	2	He	0.212	0.212	21.46	830	0.03	2000	
Al	27	2	He	3.688	3.688	47.80	1344	0.27	2000	
B	11	1	No Gas	1.156	1.156	13.95	11375	0.01	2000	
Al	27	1	No Gas	2.295	2.295	5.78	39863	0.01	2000	
Si	28	1	No Gas	11.731	11.731	145.75	180999	0.01	2000	
Ag	107	1	No Gas	-0.010	-0.010	-53.31	337	0.00	2000	
Cd	111	1	No Gas	0.000	0.000	#DIV/0!	0	#DIV/0!	2000	
Sr	88	1	No Gas	-0.015	-0.015	-18.92	1057	0.00	2000	
Mo	95	1	No Gas	0.349	0.349	3.36	1713	0.02	2000	
Sn	118	1	No Gas	-0.004	-0.004	-394.01	1297	0.00	2000	
Sb	121	1	No Gas	-0.020	-0.020	-39.59	1117	0.00	2000	
Ba	137	1	No Gas	-0.015	-0.015	-81.93	113	-0.01	2000	
Tl	205	1	No Gas	0.027	0.027	12.62	1727	0.00	2000	
Tl	203	1	No Gas	0.028	0.028	49.70	700	0.00	2000	
Pb	208	1	No Gas	0.006	0.006	27.11	937	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-107.35	107	0.00	2000	
Ca	43	2	He	8.800	8.800	48.21	33	26.40	200000	
Sb	121	2	He	0.004	0.004	426.17	613	0.00	2000	
Ti	47	2	He	0.365	0.365	63.59	50	0.73	2000	
Cu	63	1	No Gas	0.050	0.050	52.45	2554	0.00	2000	
Zn	66	1	No Gas	0.248	0.248	9.81	2157	0.01	2000	
Se	82	1	No Gas	-0.415	-0.415	-200.60	-56	0.74	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	530491	0.27	545261	97.29	70	120	
Ge	72	2	He	444599	0.80	479992	92.63	70	120	
Ge	72	1	No Gas	1438523	2.13	1554275	92.55	70	120	
In	115	1	No Gas	2257308	1.93	2346070	96.22	70	120	

Sample Report

Bi	209	1	No Gas	3084985	3.11	3154823	97.79	70	120	

Sample Report

Sample Table

Sample Name	LCS-166115
Data File Name	284SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:48:06-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	0.896	0.896	9.40	43484	0.00	2000	
Be	9	1	No Gas	45.068	45.068	0.33	81992	0.05	2000	
V	51	2	He	49.462	49.462	0.84	177653	0.03	2000	
Cr	52	2	He	48.856	48.856	1.00	205170	0.02	2000	
Fe	56	2	He	4971.148	4971.148	1.41	19763303	0.03	200000	
Se	78	2	He	49.641	49.641	3.13	2860	1.74	2000	
As	75	2	He	47.047	47.047	0.82	27844	0.17	2000	
Ca	44	2	He	4906.318	4906.318	0.66	112974	4.34	200000	
Na	23	2	He	5274.506	5274.506	1.70	3266014	0.16	200000	
Mg	24	2	He	5195.464	5195.464	0.56	1870246	0.28	200000	
K	39	2	He	5257.158	5257.158	0.44	2171536	0.24	200000	
Mn	55	2	He	49.183	49.183	0.88	160953	0.03	2000	
Co	59	2	He	47.630	47.630	1.69	306449	0.02	2000	
Ni	60	2	He	50.956	50.956	1.02	76779	0.07	2000	
Cu	63	2	He	49.952	49.952	1.03	206550	0.02	2000	
Zn	66	2	He	50.177	50.177	2.11	42453	0.12	2000	
Al	27	2	He	52.045	52.045	2.16	11739	0.44	2000	
B	11	1	No Gas	0.653	0.653	15.04	10754	0.01	2000	
Al	27	1	No Gas	52.399	52.399	0.75	422024	0.01	2000	
Si	28	1	No Gas	11.649	11.649	133.90	181036	0.01	2000	
Ag	107	1	No Gas	48.343	48.343	1.19	604989	0.01	2000	
Cd	111	1	No Gas	49.027	49.027	1.68	129072	0.04	2000	
Sr	88	1	No Gas	0.036	0.036	12.64	2194	0.00	2000	
Mo	95	1	No Gas	47.391	47.391	1.37	216679	0.02	2000	
Sn	118	1	No Gas	-0.018	-0.018	-141.12	1160	0.00	2000	
Sb	121	1	No Gas	47.754	47.754	0.65	573216	0.01	2000	
Ba	137	1	No Gas	48.714	48.714	1.00	217983	0.02	2000	
Tl	205	1	No Gas	46.122	46.122	4.64	1734494	0.00	2000	
Tl	203	1	No Gas	43.795	43.795	4.40	696045	0.01	2000	
Pb	208	1	No Gas	45.713	45.713	3.95	2462438	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-23.99	63	0.00	2000	
Ca	43	2	He	4778.989	4778.989	4.46	6432	74.30	200000	
Sb	121	2	He	47.624	47.624	1.54	279766	0.02	2000	
Ti	47	2	He	49.370	49.370	2.48	6378	0.77	2000	
Cu	63	1	No Gas	50.513	50.513	0.87	358190	0.01	2000	
Zn	66	1	No Gas	50.498	50.498	1.82	102317	0.05	2000	
Se	82	1	No Gas	47.344	47.344	0.60	5932	0.80	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	526666	0.20	545261	96.59	70	120	
Ge	72	2	He	447715	0.65	479992	93.28	70	120	
Ge	72	1	No Gas	1438340	0.21	1554275	92.54	70	120	
In	115	1	No Gas	2233230	0.44	2346070	95.19	70	120	

Sample Report

Bi	209	1	No Gas	3022430	3.41	3154823	95.80	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08SD
Data File Name	286SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:52:13-05:00
Sample Type	Sample
Dilution	5
Comment	TW B166115
ISTD Ref FileName	223CALB.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	5.746	28.732	0.90	76984	0.01	2000	
Be	9	1	No Gas	0.020	0.101	48.66	52	0.04	2000	
V	51	2	He	0.129	0.646	27.88	2738	0.00	2000	
Cr	52	2	He	0.030	0.150	65.08	977	0.00	2000	
Fe	56	2	He	434.698	2173.488	1.12	1717286	0.03	200000	
Se	78	2	He	0.257	1.286	170.86	66	0.39	2000	
As	75	2	He	0.569	2.847	11.24	463	0.12	2000	
Ca	44	2	He	23125.220	115626.101	1.08	525899	4.40	200000	
Na	23	2	He	6440.439	32202.195	1.12	3934804	0.16	200000	
Mg	24	2	He	3134.840	15674.201	2.48	1117219	0.28	200000	
K	39	2	He	595.546	2977.730	2.00	276415	0.22	200000	
Mn	55	2	He	80.924	404.619	0.98	262006	0.03	2000	
Co	59	2	He	0.028	0.141	14.76	207	0.01	2000	
Ni	60	2	He	0.344	1.719	4.31	617	0.06	2000	
Cu	63	2	He	0.035	0.177	47.54	1237	0.00	2000	
Zn	66	2	He	0.598	2.991	38.62	1147	0.05	2000	
Al	27	2	He	3.429	17.143	25.89	1287	0.27	2000	
B	11	1	No Gas	46.416	232.080	1.65	58365	0.08	2000	
Al	27	1	No Gas	3.262	16.310	0.85	46402	0.01	2000	
Si	28	1	No Gas	2147.744	10738.721	0.59	7396702	0.03	2000	>LDR
Ag	107	1	No Gas	-0.011	-0.057	-27.31	313	0.00	2000	
Cd	111	1	No Gas	0.005	0.025	42.13	13	0.04	2000	
Sr	88	1	No Gas	117.743	588.717	2.49	2590049	0.00	2000	
Mo	95	1	No Gas	0.611	3.053	4.26	2867	0.02	2000	
Sn	118	1	No Gas	0.314	1.572	8.34	4034	0.01	2000	
Sb	121	1	No Gas	0.009	0.043	232.99	1427	0.00	2000	
Ba	137	1	No Gas	36.306	181.530	1.27	161305	0.02	2000	
Tl	205	1	No Gas	0.018	0.092	45.41	1317	0.00	2000	
Tl	203	1	No Gas	0.019	0.097	63.22	527	0.00	2000	
Pb	208	1	No Gas	0.013	0.065	11.49	1260	0.00	2000	
U	238	1	No Gas	0.382	1.910	2.48	22291	0.00	2000	
Ca	43	2	He	22973.103	114865.516	2.44	30517	75.28	200000	
Sb	121	2	He	0.030	0.148	42.58	760	0.00	2000	
Ti	47	2	He	0.054	0.272	144.04	10	0.54	2000	
Cu	63	1	No Gas	0.039	0.197	18.86	2434	0.00	2000	
Zn	66	1	No Gas	0.444	2.220	15.50	2504	0.02	2000	
Se	82	1	No Gas	-0.658	-3.288	-69.12	-86	0.76	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	514572	0.20	545261	94.37	70	120	
Ge	72	2	He	443211	0.68	479992	92.34	70	120	
Ge	72	1	No Gas	1412899	0.80	1554275	90.90	70	120	
In	115	1	No Gas	2216914	1.09	2346070	94.49	70	120	

Sample Report

Bi	209	1	No Gas	2898559	2.31	3154823	91.88	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08MS
Data File Name	287SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:54:17-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	25.566	25.566	0.56	214596	0.01	2000	
Be	9	1	No Gas	46.265	46.265	0.27	80970	0.06	2000	
V	51	2	He	49.699	49.699	0.83	172233	0.03	2000	
Cr	52	2	He	48.793	48.793	0.24	197738	0.02	2000	
Fe	56	2	He	6914.438	6914.438	0.29	26524742	0.03	200000	
Se	78	2	He	48.268	48.268	2.06	2685	1.80	2000	
As	75	2	He	50.512	50.512	0.40	28839	0.18	2000	
Ca	44	2	He	120662.008	120662.008	0.96	2673564	4.51	200000	
Na	23	2	He	36746.121	36746.121	0.71	21616649	0.17	200000	
Mg	24	2	He	20399.615	20399.615	0.96	7084746	0.29	200000	
K	39	2	He	8114.653	8114.653	0.81	3214709	0.25	200000	
Mn	55	2	He	460.734	460.734	1.04	1452985	0.03	2000	
Co	59	2	He	46.267	46.267	1.26	287261	0.02	2000	
Ni	60	2	He	49.115	49.115	1.03	71420	0.07	2000	
Cu	63	2	He	47.497	47.497	0.13	189570	0.03	2000	
Zn	66	2	He	48.235	48.235	0.86	39408	0.12	2000	
Al	27	2	He	60.103	60.103	5.53	12996	0.46	2000	
B	11	1	No Gas	202.131	202.131	0.72	217799	0.09	2000	
Al	27	1	No Gas	60.194	60.194	0.66	470115	0.01	2000	
Si	28	1	No Gas	10730.336	10730.336	1.96	36175607	0.03	2000	>LDR
Ag	107	1	No Gas	46.276	46.276	0.51	563892	0.01	2000	
Cd	111	1	No Gas	46.547	46.547	1.51	119309	0.04	2000	
Sr	88	1	No Gas	578.455	578.455	2.04	12475191	0.00	2000	
Mo	95	1	No Gas	49.991	49.991	1.65	222531	0.02	2000	
Sn	118	1	No Gas	-0.043	-0.043	-2.86	917	0.00	2000	
Sb	121	1	No Gas	47.405	47.405	1.95	555500	0.01	2000	
Ba	137	1	No Gas	227.556	227.556	1.76	990710	0.02	2000	
Tl	205	1	No Gas	47.180	47.180	5.22	1651939	0.00	2000	
Tl	203	1	No Gas	44.679	44.679	5.22	661072	0.01	2000	
Pb	208	1	No Gas	47.047	47.047	4.01	2359913	0.00	2000	
U	238	1	No Gas	1.996	1.996	4.92	112446	0.00	2000	
Ca	43	2	He	120110.628	120110.628	1.94	155453	77.27	200000	
Sb	121	2	He	47.392	47.392	1.49	268663	0.02	2000	
Ti	47	2	He	49.639	49.639	2.05	6188	0.80	2000	
Cu	63	1	No Gas	48.069	48.069	3.03	332808	0.01	2000	
Zn	66	1	No Gas	48.591	48.591	2.07	96173	0.05	2000	
Se	82	1	No Gas	46.400	46.400	7.53	5672	0.82	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	506645	0.20	545261	92.92	70	120	
Ge	72	2	He	432031	0.40	479992	90.01	70	120	
Ge	72	1	No Gas	1404488	2.08	1554275	90.36	70	120	
In	115	1	No Gas	2174436	0.98	2346070	92.68	70	120	
Bi	209	1	No Gas	2815308	4.37	3154823	89.24	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08MSD
Data File Name	288SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:56:19-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	24.257	24.257	0.61	205161	0.01	2000	
Be	9	1	No Gas	44.034	44.034	0.38	76966	0.06	2000	
V	51	2	He	48.049	48.049	0.55	164489	0.03	2000	
Cr	52	2	He	46.774	46.774	1.40	187190	0.02	2000	
Fe	56	2	He	6709.400	6709.400	0.59	25413490	0.03	200000	
Se	78	2	He	46.037	46.037	1.83	2531	1.82	2000	
As	75	2	He	48.371	48.371	2.35	27271	0.18	2000	
Ca	44	2	He	116158.823	116158.823	0.54	2541378	4.57	200000	
Na	23	2	He	35042.356	35042.356	0.85	20356963	0.17	200000	
Mg	24	2	He	19501.019	19501.019	0.86	6687551	0.29	200000	
K	39	2	He	7847.900	7847.900	0.24	3071094	0.26	200000	
Mn	55	2	He	444.134	444.134	0.31	1382953	0.03	2000	
Co	59	2	He	44.480	44.480	0.98	272687	0.02	2000	
Ni	60	2	He	48.179	48.179	1.17	69175	0.07	2000	
Cu	63	2	He	45.644	45.644	0.45	179921	0.03	2000	
Zn	66	2	He	46.033	46.033	0.58	37165	0.12	2000	
Al	27	2	He	53.079	53.079	4.14	11398	0.47	2000	
B	11	1	No Gas	195.403	195.403	0.76	210595	0.09	2000	
Al	27	1	No Gas	57.885	57.885	5.37	444858	0.01	2000	
Si	28	1	No Gas	10284.939	10284.939	1.03	34075531	0.03	2000	>LDR
Ag	107	1	No Gas	44.967	44.967	1.72	540485	0.01	2000	
Cd	111	1	No Gas	45.714	45.714	2.65	115576	0.04	2000	
Sr	88	1	No Gas	549.061	549.061	1.98	11680533	0.00	2000	
Mo	95	1	No Gas	48.222	48.222	1.27	211764	0.02	2000	
Sn	118	1	No Gas	-0.056	-0.056	-21.03	797	-0.01	2000	
Sb	121	1	No Gas	45.827	45.827	0.28	527715	0.01	2000	
Ba	137	1	No Gas	220.189	220.189	1.91	945649	0.02	2000	
Tl	205	1	No Gas	46.512	46.512	2.73	1638929	0.00	2000	
Tl	203	1	No Gas	43.783	43.783	3.39	651863	0.01	2000	
Pb	208	1	No Gas	44.493	44.493	2.15	2245646	0.00	2000	
U	238	1	No Gas	1.894	1.894	3.14	107324	0.00	2000	
Ca	43	2	He	114484.696	114484.696	0.36	146310	78.25	200000	
Sb	121	2	He	46.020	46.020	1.53	257603	0.02	2000	
Ti	47	2	He	48.747	48.747	5.99	6001	0.81	2000	
Cu	63	1	No Gas	45.767	45.767	1.16	311490	0.01	2000	
Zn	66	1	No Gas	47.395	47.395	1.30	92208	0.05	2000	
Se	82	1	No Gas	48.803	48.803	0.67	5866	0.83	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	505982	0.37	545261	92.80	70	120	
Ge	72	2	He	426589	0.72	479992	88.87	70	120	
Ge	72	1	No Gas	1379697	0.77	1554275	88.77	70	120	
In	115	1	No Gas	2145194	1.72	2346070	91.44	70	120	
Bi	209	1	No Gas	2830656	3.23	3154823	89.72	70	120	

Sample Report

Sample Table

Sample Name	HS21050672-08PDS
Data File Name	289SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-25T23:58:22-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	223CALB.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	25.726	25.726	1.10	209746	0.01	2000	
Be	9	1	No Gas	98.773	98.773	0.09	168066	0.06	2000	
V	51	2	He	106.174	106.174	0.94	354013	0.03	2000	
Cr	52	2	He	104.288	104.288	1.41	408510	0.03	2000	
Fe	56	2	He	12419.924	12419.924	1.09	46150931	0.03	200000	
Se	78	2	He	104.921	104.921	2.86	5597	1.87	2000	
As	75	2	He	103.345	103.345	0.85	57031	0.18	2000	
Ca	44	2	He	128934.800	128934.800	2.14	2767449	4.66	200000	
Na	23	2	He	42558.746	42558.746	0.82	24246295	0.18	200000	
Mg	24	2	He	26090.103	26090.103	1.08	8777866	0.30	200000	
K	39	2	He	13726.490	13726.490	2.30	5243480	0.26	200000	
Mn	55	2	He	514.937	514.937	0.57	1573193	0.03	2000	
Co	59	2	He	98.206	98.206	1.32	590671	0.02	2000	
Ni	60	2	He	103.831	103.831	1.76	146147	0.07	2000	
Cu	63	2	He	101.372	101.372	1.44	390779	0.03	2000	
Zn	66	2	He	103.337	103.337	1.52	81085	0.13	2000	
Al	27	2	He	112.647	112.647	1.02	23143	0.49	2000	
B	11	1	No Gas	209.650	209.650	1.25	219293	0.10	2000	
Al	27	1	No Gas	120.593	120.593	2.01	884931	0.01	2000	
Si	28	1	No Gas	10924.975	10924.975	2.19	35428604	0.03	2000	>LDR
Ag	107	1	No Gas	91.621	91.621	0.28	1073107	0.01	2000	
Cd	111	1	No Gas	101.069	101.069	0.39	249121	0.04	2000	
Sr	88	1	No Gas	587.378	587.378	0.64	12181317	0.00	2000	
Mo	95	1	No Gas	106.019	106.019	0.70	453727	0.02	2000	
Sn	118	1	No Gas	-0.035	-0.035	-71.84	947	0.00	2000	
Sb	121	1	No Gas	102.292	102.292	0.81	1151713	0.01	2000	
Ba	137	1	No Gas	287.282	287.282	2.24	1202622	0.02	2000	
Tl	205	1	No Gas	105.593	105.593	5.72	3645486	0.00	2000	
Tl	203	1	No Gas	105.659	105.659	5.50	1541664	0.01	2000	
Pb	208	1	No Gas	101.323	101.323	5.74	5010169	0.00	2000	
U	238	1	No Gas	1.997	1.997	6.66	110879	0.00	2000	
Ca	43	2	He	126622.061	126622.061	3.25	158754	79.76	200000	
Sb	121	2	He	100.318	100.318	1.44	550305	0.02	2000	
Ti	47	2	He	108.289	108.289	3.09	13073	0.83	2000	
Cu	63	1	No Gas	102.507	102.507	0.96	680524	0.02	2000	
Zn	66	1	No Gas	105.784	105.784	0.26	199590	0.05	2000	
Se	82	1	No Gas	103.847	103.847	0.37	12227	0.85	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	492630	0.88	545261	90.35	70	120	
Ge	72	2	He	418568	1.10	479992	87.20	70	120	
Ge	72	1	No Gas	1350873	0.86	1554275	86.91	70	120	
In	115	1	No Gas	2090832	0.76	2346070	89.12	70	120	
Bi	209	1	No Gas	2777764	5.10	3154823	88.05	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	290_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:00:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	95.605	0.400	651623	0.46	100	95.6	90	110	
Be	9	1	No Gas	92.635	0.679	149810	0.54	100	92.6	90	110	
V	51	2	He	98.451	0.936	319622	0.04	100	98.5	90	110	
Cr	52	2	He	97.436	0.768	371515	0.33	100	97.4	90	110	
Fe	56	2	He	9904.975	1.000	35822703	0.94	10000	99.0	90	110	
Se	78	2	He	98.960	1.208	5140	0.29	100	99.0	90	110	
As	75	2	He	96.867	0.160	52034	0.82	100	96.9	90	110	
Ca	44	2	He	10029.460	1.126	209799	0.88	10000	100.3	90	110	
Na	23	2	He	10226.972	1.561	5710857	0.62	10000	102.3	90	110	
Mg	24	2	He	10055.906	1.935	3292896	1.52	10000	100.6	90	110	
K	39	2	He	10143.002	1.363	3780092	1.00	10000	101.4	90	110	
Mn	55	2	He	98.889	1.006	294201	0.17	100	98.9	90	110	
Co	59	2	He	94.444	0.743	552856	0.28	100	94.4	90	110	
Ni	60	2	He	98.968	0.301	135589	0.64	100	99.0	90	110	
Cu	63	2	He	97.679	0.784	366522	0.90	100	97.7	90	110	
Zn	66	2	He	100.160	0.467	76512	0.72	100	100.2	90	110	
Al	27	2	He	101.536	1.774	20349	0.83	100	101.5	90	110	
B	11	1	No Gas	446.270	1.677	433587	1.44	500	89.3	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	103.904	1.881	736775	0.57	100	103.9	90	110	
Si	28	1	No Gas	517.653	2.871	1737565	1.11	5000	10.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	94.117	1.046	1074069	1.04	100	94.1	90	110	
Cd	111	1	No Gas	96.414	0.745	231555	0.56	100	96.4	90	110	
Sr	88	1	No Gas	98.054	1.652	1982391	1.32	100	98.1	90	110	
Mo	95	1	No Gas	96.777	0.539	403564	0.22	100	96.8	90	110	
Sn	118	1	No Gas	95.215	0.175	759892	0.45	100	95.2	90	110	
Sb	121	1	No Gas	98.144	2.313	1063798	0.58	100	98.1	90	110	
Ba	137	1	No Gas	97.258	0.541	396840	0.03	100	97.3	90	110	
Tl	205	1	No Gas	98.480	4.163	3295125	1.62	100	98.5	90	110	
Tl	203	1	No Gas	97.639	2.906	1381027	1.75	100	97.6	90	110	
Pb	208	1	No Gas	97.031	3.747	4650117	0.64	100	97.0	90	110	
U	238	1	No Gas	97.523	4.271	5243290	1.23	100	97.5	90	110	
Ca	43	2	He	9594.689	3.077	11725	2.22	10000	95.9	90	110	
Sb	121	2	He	95.239	0.793	508504	0.16	100	95.2	90	110	
Ti	47	2	He	103.248	3.251	12132	2.90	100	103.2	90	110	
Cu	63	1	No Gas	99.722	2.202	637383	0.48	100	99.7	90	110	
Se	82	1	No Gas	92.255	3.528	10462	5.11	100	92.3	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	468217	0.31	545261	85.87	70	120	
Ge	72	2	He	407355	0.94	479992	84.87	70	120	
Ge	72	1	No Gas	1300728	1.74	1554275	83.69	70	120	
In	115	1	No Gas	2037228	0.57	2346070	86.84	70	120	
Bi	209	1	No Gas	2689078	3.17	3154823	85.24	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	291_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:02:14-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.751	6.2	39821	1.1	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.063	21.6	123	18.7	0.5	
V	51	2	He	-0.118	-14.5	1807	3.7	2.5	
Cr	52	2	He	-0.013	-210.5	773	14.4	2.5	
Fe	56	2	He	1.359	8.5	11992	2.5	100	
Se	78	2	He	0.274	71.8	65	15.3	2	
As	75	2	He	-0.042	-96.6	103	22.3	2.5	
Ca	44	2	He	3.839	113.6	400	25.0	100	
Na	23	2	He	132.955	5.7	133584	2.3	100	CCB Main CR1 Failed
Mg	24	2	He	1.818	25.1	1093	15.4	100	
K	39	2	He	12.528	15.0	40694	0.7	100	
Mn	55	2	He	0.016	45.1	287	8.8	2.5	
Co	59	2	He	0.005	58.5	60	33.3	2.5	
Ni	60	2	He	0.066	57.1	197	28.0	2.5	
Cu	63	2	He	-0.018	-88.0	983	5.8	2	
Zn	66	2	He	0.133	120.5	737	17.9	2.5	
Al	27	2	He	0.188	159.9	577	11.0	5	
B	11	1	No Gas	14.865	12.2	24366	7.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.107	27.5	21891	2.2	5	
Si	28	1	No Gas	0.781	24.1	135758	0.9	10	
Ag	107	1	No Gas	-0.009	-17.4	340	5.9	2.5	
Cd	111	1	No Gas	0.009	99.5	23	99.0	1	
Sr	88	1	No Gas	0.021	69.0	1797	16.6	2.5	
Mo	95	1	No Gas	0.330	30.2	1563	28.7	2.5	
Sn	118	1	No Gas	0.457	17.0	5164	12.8	5	
Sb	121	1	No Gas	0.478	18.4	6679	13.6	2.5	
Ba	137	1	No Gas	0.004	274.4	190	24.1	2.5	
Tl	205	1	No Gas	1.213	42.3	43939	43.5	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.209	45.0	18463	46.2	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.024	25.0	1830	19.1	2.5	
U	238	1	No Gas	0.023	48.8	1463	45.9	2.5	
Ca	43	2	He	17.559	178.3	43	93.3	100	
Sb	121	2	He	0.389	8.7	2750	7.4	2.5	
Ti	47	2	He	0.138	58.6	20	50.0	2.5	
Cu	63	1	No Gas	-0.032	-76.4	1867	9.0	2.5	
Se	82	1	No Gas	0.135	488.0	11	691.4	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	494279	0.25	545261	90.65	70	120	
Ge	72	2	He	427987	1.16	479992	89.17	70	120	
Ge	72	1	No Gas	1358671	1.28	1554275	87.42	70	120	
In	115	1	No Gas	2171992	0.60	2346070	92.58	70	120	
Bi	209	1	No Gas	2849743	2.65	3154823	90.33	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	300_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:20:39-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	96.669	0.689	660193	0.29	100	96.7	90	110	
Be	9	1	No Gas	94.043	0.828	152477	0.14	100	94.0	90	110	
V	51	2	He	97.799	0.570	320673	0.78	100	97.8	90	110	
Cr	52	2	He	98.001	0.853	377370	1.14	100	98.0	90	110	
Fe	56	2	He	9892.598	0.514	36131871	0.52	10000	98.9	90	110	
Se	78	2	He	97.079	1.240	5094	1.33	100	97.1	90	110	
As	75	2	He	96.756	0.366	52488	0.71	100	96.8	90	110	
Ca	44	2	He	9853.264	0.377	208159	0.15	10000	98.5	90	110	
Na	23	2	He	10224.289	0.947	5766127	0.64	10000	102.2	90	110	
Mg	24	2	He	10152.409	1.432	3357430	1.10	10000	101.5	90	110	
K	39	2	He	10143.771	1.401	3817797	1.19	10000	101.4	90	110	
Mn	55	2	He	97.589	0.896	293222	1.12	100	97.6	90	110	
Co	59	2	He	94.172	0.384	556723	0.58	100	94.2	90	110	
Ni	60	2	He	98.597	0.963	136414	0.66	100	98.6	90	110	
Cu	63	2	He	97.838	1.172	370747	1.30	100	97.8	90	110	
Zn	66	2	He	98.610	1.276	76083	1.52	100	98.6	90	110	
Al	27	2	He	100.460	3.125	20338	2.89	100	100.5	90	110	
B	11	1	No Gas	450.688	1.270	438909	0.55	500	90.1	90	110	
Al	27	1	No Gas	106.571	1.477	764352	0.52	100	106.6	90	110	
Si	28	1	No Gas	523.946	0.472	1778869	1.23	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	95.231	1.743	1113619	0.71	100	95.2	90	110	
Cd	111	1	No Gas	94.597	0.084	232831	0.99	100	94.6	90	110	
Sr	88	1	No Gas	99.673	1.490	2065002	0.84	100	99.7	90	110	
Mo	95	1	No Gas	96.571	0.739	412686	0.77	100	96.6	90	110	
Sn	118	1	No Gas	94.230	0.985	770652	0.14	100	94.2	90	110	
Sb	121	1	No Gas	97.738	1.271	1072385	0.52	100	97.7	90	110	
Ba	137	1	No Gas	97.119	1.098	406090	0.66	100	97.1	90	110	
Tl	205	1	No Gas	97.571	1.550	3340192	0.92	100	97.6	90	110	
Tl	203	1	No Gas	95.313	1.359	1378935	1.24	100	95.3	90	110	
Pb	208	1	No Gas	96.679	1.072	4740388	0.69	100	96.7	90	110	
U	238	1	No Gas	97.482	1.696	5362988	1.75	100	97.5	90	110	
Ca	43	2	He	9915.563	3.976	12239	4.18	10000	99.2	90	110	
Sb	121	2	He	93.876	0.338	506202	0.59	100	93.9	90	110	
Ti	47	2	He	103.128	3.498	12239	3.54	100	103.1	90	110	
Cu	63	1	No Gas	101.177	0.843	654587	0.49	100	101.2	90	110	
Se	82	1	No Gas	96.567	1.743	11079	1.85	100	96.6	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	469435	0.94	545261	86.09	70	120	
Ge	72	2	He	411373	0.35	479992	85.70	70	120	
Ge	72	1	No Gas	1316405	0.93	1554275	84.70	70	120	
In	115	1	No Gas	2087768	1.03	2346070	88.99	70	120	
Bi	209	1	No Gas	2749198	0.75	3154823	87.14	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	301_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:22:35-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.493	15.5	37807	1.2	0.5	
Be	9	1	No Gas	0.029	30.0	65	23.1	0.5	
V	51	2	He	0.004	83.7	2210	1.0	2.5	
Cr	52	2	He	-0.013	-124.2	767	7.6	2.5	
Fe	56	2	He	1.062	25.8	10818	9.3	100	
Se	78	2	He	0.302	42.1	66	10.9	2	
As	75	2	He	-0.037	-28.6	106	6.6	2.5	
Ca	44	2	He	3.932	77.0	400	17.5	100	
Na	23	2	He	119.178	2.5	125049	0.9	100	CCB Main CR1 Failed
Mg	24	2	He	1.991	11.0	1147	7.3	100	
K	39	2	He	6.954	12.4	38367	1.0	100	
Mn	55	2	He	0.024	132.3	310	31.1	2.5	
Co	59	2	He	0.003	174.4	47	75.3	2.5	
Ni	60	2	He	0.042	79.5	160	28.6	2.5	
Cu	63	2	He	-0.013	-19.8	1000	1.0	2	
Zn	66	2	He	0.058	154.2	673	9.7	2.5	
Al	27	2	He	2.715	106.5	1088	53.3	5	
B	11	1	No Gas	17.005	16.5	26343	10.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	1.951	165.6	35085	65.0	5	
Si	28	1	No Gas	3.259	114.8	143990	7.0	10	
Ag	107	1	No Gas	-0.012	-18.0	300	5.8	2.5	
Cd	111	1	No Gas	0.004	101.6	10	100.0	1	
Sr	88	1	No Gas	0.003	143.6	1397	4.8	2.5	
Mo	95	1	No Gas	0.218	50.7	1050	47.5	2.5	
Sn	118	1	No Gas	0.388	11.5	4511	8.5	5	
Sb	121	1	No Gas	0.267	19.9	4297	12.6	2.5	
Ba	137	1	No Gas	0.008	97.3	203	14.2	2.5	
Tl	205	1	No Gas	1.214	42.3	43270	45.3	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.190	42.0	17882	45.1	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.020	29.0	1573	22.0	2.5	
U	238	1	No Gas	0.024	49.1	1497	48.4	2.5	
Ca	43	2	He	-10.998	-41.1	7	86.6	100	
Sb	121	2	He	0.189	17.6	1617	11.2	2.5	
Ti	47	2	He	0.166	57.2	23	49.5	2.5	
Cu	63	1	No Gas	-0.017	-50.7	1970	1.5	2.5	
Se	82	1	No Gas	-0.407	-130.1	-53	-118.5	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	491036	0.29	545261	90.06	70	120	
Ge	72	2	He	426115	0.95	479992	88.78	70	120	
Ge	72	1	No Gas	1361551	1.57	1554275	87.60	70	120	
In	115	1	No Gas	2140218	2.44	2346070	91.23	70	120	
Bi	209	1	No Gas	2793514	3.69	3154823	88.55	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	311_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:43:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	90.947	0.516	566438	0.34	100	90.9	90	110	
Be	9	1	No Gas	84.541	0.904	124616	0.96	100	84.5	90	110	CCV Main CR1-2 Failed
V	51	2	He	93.457	0.441	264209	0.90	100	93.5	90	110	
Cr	52	2	He	93.337	0.280	309823	1.00	100	93.3	90	110	
Fe	56	2	He	9341.162	1.026	29406830	0.69	10000	93.4	90	110	
Se	78	2	He	88.764	2.244	4017	0.96	100	88.8	90	110	CCV Main CR1-2 Failed
As	75	2	He	88.986	1.554	41616	1.59	100	89.0	90	110	CCV Main CR1-2 Failed
Ca	44	2	He	9338.641	1.339	170060	1.21	10000	93.4	90	110	
Na	23	2	He	10000.605	0.774	4862427	1.02	10000	100.0	90	110	
Mg	24	2	He	9747.981	0.987	2778611	0.52	10000	97.5	90	110	
K	39	2	He	9613.986	0.627	3120409	0.66	10000	96.1	90	110	
Mn	55	2	He	93.816	1.109	242965	0.82	100	93.8	90	110	
Co	59	2	He	90.364	0.863	460444	0.55	100	90.4	90	110	
Ni	60	2	He	94.127	1.785	112253	1.67	100	94.1	90	110	
Cu	63	2	He	93.773	0.705	306316	0.77	100	93.8	90	110	
Zn	66	2	He	93.721	2.453	62363	3.43	100	93.7	90	110	
Al	27	2	He	96.638	3.268	16877	1.95	100	96.6	90	110	
B	11	1	No Gas	390.059	1.582	346445	1.40	500	78.0	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	98.396	2.975	634189	0.22	100	98.4	90	110	
Si	28	1	No Gas	473.258	2.763	1451870	0.80	5000	9.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	92.432	0.607	925685	0.74	100	92.4	90	110	
Cd	111	1	No Gas	91.817	0.789	193516	0.90	100	91.8	90	110	
Sr	88	1	No Gas	96.233	1.485	1707551	2.13	100	96.2	90	110	
Mo	95	1	No Gas	94.169	1.774	344585	1.14	100	94.2	90	110	
Sn	118	1	No Gas	92.853	0.858	650319	0.78	100	92.9	90	110	
Sb	121	1	No Gas	90.923	3.649	894424	0.67	100	90.9	90	110	
Ba	137	1	No Gas	96.360	1.665	345015	0.92	100	96.4	90	110	
Tl	205	1	No Gas	92.792	4.702	2869387	0.47	100	92.8	90	110	
Tl	203	1	No Gas	88.269	7.054	1152599	2.36	100	88.3	90	110	CCV Main CR1-2 Failed
Pb	208	1	No Gas	91.059	5.309	4032116	0.53	100	91.1	90	110	
U	238	1	No Gas	92.591	4.353	4601597	1.05	100	92.6	90	110	
Ca	43	2	He	9106.045	4.018	9687	3.22	10000	91.1	90	110	
Sb	121	2	He	90.621	1.157	421180	0.30	100	90.6	90	110	
Ti	47	2	He	92.117	4.565	9420	3.43	100	92.1	90	110	
Cu	63	1	No Gas	92.634	3.552	537436	0.78	100	92.6	90	110	
Se	82	1	No Gas	88.202	3.756	9074	3.66	100	88.2	90	110	CCV Main CR1-2 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	426757	0.19	545261	78.27	70	120	
Ge	72	2	He	354592	1.28	479992	73.87	70	120	
Ge	72	1	No Gas	1180914	2.96	1554275	75.98	70	120	
In	115	1	No Gas	1787786	0.75	2346070	76.20	70	120	
Bi	209	1	No Gas	2486923	4.89	3154823	78.83	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	312_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:45:15-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.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	0.461	13.1	33984	1.3	0.5	
Be	9	1	No Gas	0.019	42.6	43	29.0	0.5	
V	51	2	He	0.028	95.4	1969	2.9	2.5	
Cr	52	2	He	-0.049	-9.4	537	2.2	2.5	
Fe	56	2	He	0.498	30.9	7466	7.6	100	
Se	78	2	He	0.374	93.3	60	26.7	2	
As	75	2	He	0.001	4792.1	109	13.8	2.5	
Ca	44	2	He	1.633	147.8	300	14.5	100	
Na	23	2	He	192.055	1.2	143680	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	2.021	21.0	993	12.0	100	
K	39	2	He	6.725	12.2	32890	1.2	100	
Mn	55	2	He	0.017	141.2	250	26.2	2.5	
Co	59	2	He	0.003	148.7	37	56.8	2.5	
Ni	60	2	He	0.068	55.7	170	27.0	2.5	
Cu	63	2	He	-0.073	-46.0	657	16.4	2	
Zn	66	2	He	0.138	26.3	633	5.1	2.5	
Al	27	2	He	0.002	20455.0	460	11.3	5	
B	11	1	No Gas	18.569	11.6	25233	7.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.097	-173.9	17838	4.7	5	
Si	28	1	No Gas	-0.297	-411.8	115537	0.6	10	
Ag	107	1	No Gas	-0.019	-15.9	187	16.4	2.5	
Cd	111	1	No Gas	0.007	69.2	17	69.3	1	
Sr	88	1	No Gas	-0.002	-546.7	1137	19.0	2.5	
Mo	95	1	No Gas	0.213	47.9	907	44.2	2.5	
Sn	118	1	No Gas	0.389	15.1	3994	11.6	5	
Sb	121	1	No Gas	0.225	20.0	3334	11.2	2.5	
Ba	137	1	No Gas	-0.006	-191.7	127	37.3	2.5	
Tl	205	1	No Gas	1.141	41.0	36849	42.6	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.110	40.8	15124	42.4	1	CCB Main CR1 Failed
Pb	208	1	No Gas	0.013	47.5	1133	28.0	2.5	
U	238	1	No Gas	0.021	58.3	1177	54.1	2.5	
Ca	43	2	He	5.138	208.3	23	49.5	100	
Sb	121	2	He	0.162	10.6	1263	7.7	2.5	
Ti	47	2	He	-0.024	0.0	0	#DIV/0!	2.5	
Cu	63	1	No Gas	-0.097	-2.4	1253	2.0	2.5	
Se	82	1	No Gas	-0.383	-254.2	-43	-236.1	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	443951	0.49	545261	81.42	70	120	
Ge	72	2	He	366124	1.17	479992	76.28	70	120	
Ge	72	1	No Gas	1187505	2.54	1554275	76.40	70	120	
In	115	1	No Gas	1889208	0.79	2346070	80.53	70	120	
Bi	209	1	No Gas	2539761	2.22	3154823	80.50	70	120	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	314LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:49:15-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	2.194	2.194	4.51	45451	0.00	2	
Be	9	1	No Gas	1.731	1.731	3.71	2717	0.06	2	
V	51	2	He	1.932	1.932	4.54	7713	0.03	2	
Cr	52	2	He	1.917	1.917	4.19	7479	0.03	2	
Fe	56	2	He	191.807	191.807	1.97	648192	0.03	200	
Se	78	2	He	2.072	2.072	13.08	143	1.45	2	
As	75	2	He	1.760	1.760	11.76	984	0.18	2	
Ca	44	2	He	194.213	194.213	5.69	4034	4.81	200	
Na	23	2	He	384.035	384.035	1.09	246362	0.16	200	NewName Main CR1 Failed
Mg	24	2	He	205.310	205.310	0.95	62657	0.33	200	
K	39	2	He	199.588	199.588	2.66	99832	0.20	200	
Mn	55	2	He	1.842	1.842	4.10	5281	0.03	2	
Co	59	2	He	1.774	1.774	0.42	9637	0.02	2	
Ni	60	2	He	2.037	2.037	9.92	2670	0.08	2	
Cu	63	2	He	1.878	1.878	6.09	7436	0.03	2	
Zn	66	2	He	1.731	1.731	3.17	1770	0.10	2	
Al	27	2	He	2.748	2.748	42.46	970	0.28	2	NewName Main CR1 Failed
B	11	1	No Gas	13.639	13.639	1.04	21169	0.06	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.663	2.663	4.18	36191	0.01	2	NewName Main CR1 Failed
Si	28	1	No Gas	9.768	9.768	29.33	148112	0.01	10	
Ag	107	1	No Gas	1.838	1.838	3.60	20126	0.01	2	
Cd	111	1	No Gas	1.848	1.848	2.67	4177	0.04	2	
Sr	88	1	No Gas	1.868	1.868	2.24	36714	0.01	2	
Mo	95	1	No Gas	1.914	1.914	4.78	7592	0.03	2	
Sn	118	1	No Gas	1.849	1.849	4.41	14995	0.01	2	
Sb	121	1	No Gas	1.876	1.876	1.91	20196	0.01	2	
Ba	137	1	No Gas	1.888	1.888	5.98	7399	0.03	2	
Tl	205	1	No Gas	1.713	1.713	7.40	56089	0.00	2	
Tl	203	1	No Gas	1.690	1.690	6.61	23356	0.01	2	
Pb	208	1	No Gas	1.805	1.805	3.67	84398	0.00	2	
U	238	1	No Gas	1.784	1.784	6.22	93079	0.00	2	
Ca	43	2	He	240.693	240.693	17.78	290	82.99	200	
Sb	121	2	He	1.857	1.857	3.84	9670	0.02	2	
Ti	47	2	He	2.241	2.241	26.59	247	0.91	200	
Cu	63	1	No Gas	1.864	1.864	2.17	13010	0.01	2	
Se	82	1	No Gas	2.276	2.276	40.74	238	0.96	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	452215	0.74	545261	82.94	70	120	
Ge	72	2	He	377189	0.82	479992	78.58	70	120	
Ge	72	1	No Gas	1219922	0.51	1554275	78.49	70	120	
In	115	1	No Gas	1917592	0.86	2346070	81.74	70	120	
Bi	209	1	No Gas	2608718	4.64	3154823	82.69	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	315LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:51:15-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	223CALB.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	4.853	4.853	1.29	61975	0.01	5	
Be	9	1	No Gas	4.308	4.308	3.24	6732	0.06	5	
V	51	2	He	4.786	4.786	0.36	15983	0.03	5	
Cr	52	2	He	4.647	4.647	0.92	16831	0.03	5	
Fe	56	2	He	499.399	499.399	1.06	1651850	0.03	500	
Se	78	2	He	4.890	4.890	5.28	273	1.79	5	
As	75	2	He	4.554	4.554	1.32	2335	0.20	5	
Ca	44	2	He	476.916	476.916	1.86	9353	5.10	500	
Na	23	2	He	687.206	687.206	0.77	395366	0.17	500	NewName2 Main CR1 Failed
Mg	24	2	He	511.727	511.727	0.24	153123	0.33	500	
K	39	2	He	494.218	494.218	0.41	197455	0.25	500	
Mn	55	2	He	4.753	4.753	4.34	13087	0.04	5	
Co	59	2	He	4.695	4.695	2.06	25073	0.02	5	
Ni	60	2	He	4.953	4.953	3.18	6268	0.08	5	
Cu	63	2	He	4.756	4.756	4.01	17134	0.03	5	
Zn	66	2	He	4.256	4.256	6.89	3487	0.12	5	
Al	27	2	He	9.531	9.531	59.90	2166	0.44	5	NewName2 Main CR1 Failed
B	11	1	No Gas	24.046	24.046	2.62	30685	0.08	25	
Al	27	1	No Gas	5.349	5.349	1.85	53068	0.01	5	
Si	28	1	No Gas	33.931	33.931	22.00	216692	0.02	25	NewName2 Main CR1 Failed
Ag	107	1	No Gas	4.647	4.647	0.89	50456	0.01	5	
Cd	111	1	No Gas	4.531	4.531	7.50	10281	0.04	5	
Sr	88	1	No Gas	4.621	4.621	1.83	89350	0.01	5	
Mo	95	1	No Gas	4.681	4.681	1.00	18513	0.03	5	
Sn	118	1	No Gas	4.519	4.519	3.46	35134	0.01	5	
Sb	121	1	No Gas	4.585	4.585	2.02	47272	0.01	5	
Ba	137	1	No Gas	4.646	4.646	1.33	18046	0.03	5	
Tl	205	1	No Gas	4.360	4.360	3.16	141549	0.00	5	
Tl	203	1	No Gas	4.246	4.246	3.48	58206	0.01	5	
Pb	208	1	No Gas	4.500	4.500	2.99	208934	0.00	5	
U	238	1	No Gas	4.428	4.428	3.01	230232	0.00	5	
Ca	43	2	He	523.254	523.254	4.16	600	87.21	500	
Sb	121	2	He	4.649	4.649	4.53	23094	0.02	5	
Ti	47	2	He	4.520	4.520	14.78	487	0.93	5	
Cu	63	1	No Gas	4.762	4.762	2.97	30050	0.02	5	
Se	82	1	No Gas	3.971	3.971	12.76	414	0.96	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	451529	0.50	545261	82.81	70	120	
Ge	72	2	He	371272	0.40	479992	77.35	70	120	
Ge	72	1	No Gas	1208741	1.49	1554275	77.77	70	120	
In	115	1	No Gas	1923778	0.87	2346070	82.00	70	120	
Bi	209	1	No Gas	2597957	2.57	3154823	82.35	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	316ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:53:15-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.968	7.2	34148	0.7	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.009	120.5	25	60.0	0	ICSA Main CR1 Failed
V	51	2	He	0.110	8.9	2015	1.1	0	ICSA Main CR1 Failed
Cr	52	2	He	1.929	1.1	6665	1.6	0	ICSA Main CR1 Failed
Fe	56	2	He	92995.198	0.4	275920209	0.8	0	
Se	78	2	He	0.199	103.2	47	17.6	0	ICSA Main CR1 Failed
As	75	2	He	0.070	138.5	130	33.5	0	ICSA Main CR1 Failed
Ca	44	2	He	93725.717	2.1	1606528	1.5	0	
Na	23	2	He	97574.762	0.4	44334136	0.5	0	
Mg	24	2	He	96673.661	1.7	25971870	1.5	0	
K	39	2	He	95158.819	2.0	28863345	1.7	0	
Mn	55	2	He	0.320	12.1	967	9.0	0	ICSA Main CR1 Failed
Co	59	2	He	0.055	1.5	283	2.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.125	36.3	220	24.1	0	ICSA Main CR1 Failed
Cu	63	2	He	0.078	70.0	1063	15.3	0	ICSA Main CR1 Failed
Zn	66	2	He	0.575	48.3	850	20.6	0	ICSA Main CR1 Failed
Al	27	2	He	91279.353	1.9	14632709	1.4	0	
B	11	1	No Gas	7.463	7.7	14004	3.8	0	
Al	27	1	No Gas	92931.560	2.3	549816765	1.6	0	
Si	28	1	No Gas	21.261	9.1	166122	2.5	0	
Ag	107	1	No Gas	0.230	10.2	2584	7.9	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.255	3.6	2560	2.6	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.038	1.0	18894	1.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1821.379	1.0	6453379	0.6	0	
Sn	118	1	No Gas	0.071	17.8	1503	6.7	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.036	40.2	1383	10.2	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.359	9.4	1383	9.4	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.101	43.5	3451	40.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.102	39.5	1430	38.2	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.073	2.8	3454	2.5	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.002	33.0	223	17.0	0	ICSA Main CR1 Failed
Ca	43	2	He	91993.446	1.1	92113	0.7	0	
Sb	121	2	He	0.048	33.9	653	10.2	0	ICSA Main CR1 Failed
Ti	47	2	He	1926.196	0.8	185682	0.4	0	
Se	82	1	No Gas	-0.565	-184.8	-59	-172.0	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	408720	0.41	545261	74.96	70	120	
Ge	72	2	He	334234	0.78	479992	69.63	70	120	ISTD Failed
Ge	72	1	No Gas	1115750	0.71	1554275	71.79	70	120	
In	115	1	No Gas	1731396	1.06	2346070	73.80	70	120	
Bi	209	1	No Gas	2306355	3.87	3154823	73.11	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	317ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq Date Time	2021-05-26T00:55:17-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	223CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

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	94.161	0.496	533211	0.72	100	94.2	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	87.230	0.377	117118	0.74	100	87.2	80	120	
V	51	2	He	94.531	0.094	248758	0.60	100	94.5	80	120	
Cr	52	2	He	95.050	0.117	293693	0.68	100	95.0	80	120	
Fe	56	2	He	102218.763	0.780	299518202	1.05	100	102218.8	80	120	
Se	78	2	He	89.965	2.848	3791	3.14	100	90.0	80	120	
As	75	2	He	91.437	0.645	39805	0.71	100	91.4	80	120	
Ca	44	2	He	104336.110	0.852	1766264	0.80	100	104336.1	80	120	
Na	23	2	He	108137.440	0.157	48518564	0.63	100	108137.4	80	120	
Mg	24	2	He	107278.575	1.673	28461842	1.05	100	107278.6	80	120	
K	39	2	He	105049.057	1.505	31466396	1.76	100	105049.1	80	120	
Mn	55	2	He	92.976	0.558	224162	0.89	100	93.0	80	120	
Co	59	2	He	90.137	1.542	427570	1.79	100	90.1	80	120	
Ni	60	2	He	91.980	2.082	102110	1.61	100	92.0	80	120	
Cu	63	2	He	90.839	0.647	276254	0.59	100	90.8	80	120	
Zn	66	2	He	91.425	0.671	56635	1.25	100	91.4	80	120	
Al	27	2	He	91728.004	0.453	14522945	0.93	100	91728.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	430.884	0.571	347819	0.91	100	430.9	80	120	
Al	27	1	No Gas	93894.576	1.180	536239552	0.71	100	93894.6	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	486.668	3.374	1359099	2.50	100	486.7	80	120	
Ag	107	1	No Gas	86.811	1.658	825611	1.56	100	86.8	80	120	
Cd	111	1	No Gas	89.769	1.727	179666	1.67	100	89.8	80	120	
Sr	88	1	No Gas	98.573	2.092	1660848	2.20	100	98.6	80	120	
Mo	95	1	No Gas	1916.469	2.567	6658193	2.24	100	1916.5	80	120	
Sn	118	1	No Gas	93.551	0.817	622207	1.00	100	93.6	80	120	
Sb	121	1	No Gas	94.644	1.244	849627	1.09	100	94.6	80	120	
Ba	137	1	No Gas	97.428	0.996	331293	1.26	100	97.4	80	120	
Tl	205	1	No Gas	90.041	2.352	2552310	1.40	100	90.0	80	120	
Tl	203	1	No Gas	85.873	2.811	1028572	1.31	100	85.9	80	120	
Pb	208	1	No Gas	92.319	2.085	3747943	0.62	100	92.3	80	120	
U	238	1	No Gas	98.263	3.812	4475144	2.43	100	98.3	80	120	
Ca	43	2	He	102118.120	1.093	100985	1.48	100	102118.1	80	120	
Sb	121	2	He	92.656	1.248	400881	0.92	100	92.7	80	120	
Ti	47	2	He	2037.810	1.006	194001	0.86	100	2037.8	80	120	
Cu	63	1	No Gas	90.892	1.604	481233	0.60	100	90.9	80	120	
Se	82	1	No Gas	93.906	4.776	8811	3.38	100	93.9	80	120	

QC ISTD Table

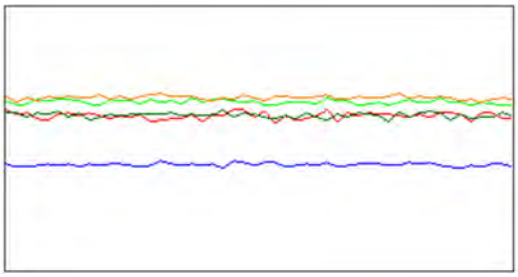
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	388712	0.56	545261	71.29	70	120	
Ge	72	2	He	330079	0.69	479992	68.77	70	120	ISTD Failed
Ge	72	1	No Gas	1077068	1.78	1554275	69.30	70	120	ISTD Failed
In	115	1	No Gas	1697724	0.61	2346070	72.36	70	120	
Bi	209	1	No Gas	2276649	1.53	3154823	72.16	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\052521A.b
Acq. Date-Time	5/25/2021 10:17:50 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	2936	29358.55		
24	20000	12790	127896.03		
59	50000	20174	201737.79		
115	50000	32784	327844.66		
208	50000	29461	294607.37		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.238	5.000	
24	1.314	5.000	
59	1.511	5.000	
115	1.142	5.000	
208	1.685	5.000	

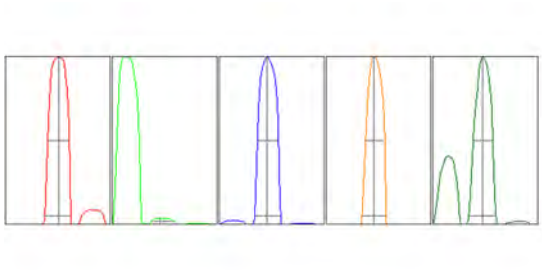
Mass	Background	Background (Required)	Background (Flag)
9	0.200		
24	0.500		
59	0.000		
115	0.000		
208	0.700		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.964 %
Doubly Charged	70 / 140 0.856 %

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	2945.42	9.05	8.90 - 9.10	
24	12787.01	23.90	23.90 - 24.10	
59	20556.70	58.90	58.90 - 59.10	
115	33661.46	114.90	114.90 - 115.10	
208	29700.41	207.95	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.741		
24	0.65	0.743		
59	0.60	0.739		
115	0.54	0.685		
208	0.57	0.776		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 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	135	Axis Gain	1.0003	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

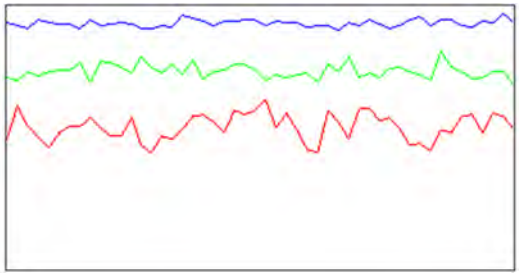
EM

Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 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	108	1081.24		
24	1000	753	7529.02		
59	10000	9357	93566.13		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

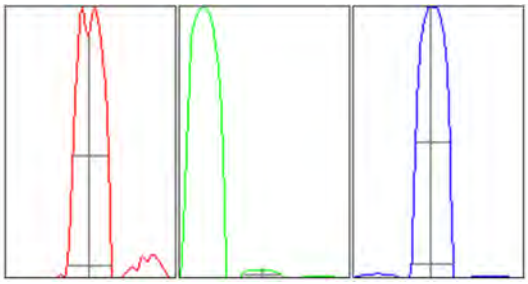
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.344	5.000	Fail
24	3.617	5.000	
59	1.467	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.100		
24	0.100		
59	0.000		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.568 %
Doubly Charged	70 / 140 0.761 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	97.26	9.00	8.90 - 9.10	
24	746.23	24.00	23.90 - 24.10	
59	9401.69	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.780		
24	0.65	0.743		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	0.2 V
Extract 2	-195.0 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	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0003	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm		

EM

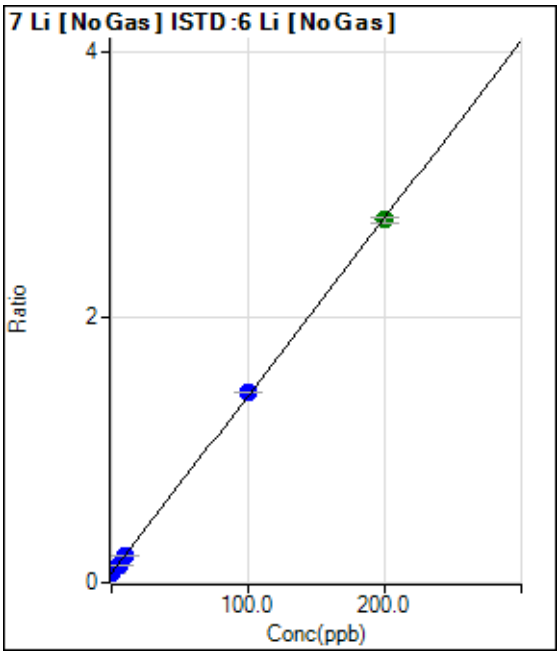
Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 V

Calibration for 270_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052621A.b\
Analysis File: 052621A.batch.bin
DA Date-Time: 5/26/2021 10:47:17 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	263CALB.d	CAL BLK	5/26/2021 10:32:40 PM
2	264CALS.d	2/10/200	5/26/2021 10:34:41 PM
3	265CALS.d	5/25/500	5/26/2021 10:36:42 PM
4	266CALS.d	10/50/100	5/26/2021 10:38:41 PM
5	267CALS.d	100/500/10K	5/26/2021 10:40:41 PM
6	268CALS.d	200/1000/20K	5/26/2021 10:42:37 PM

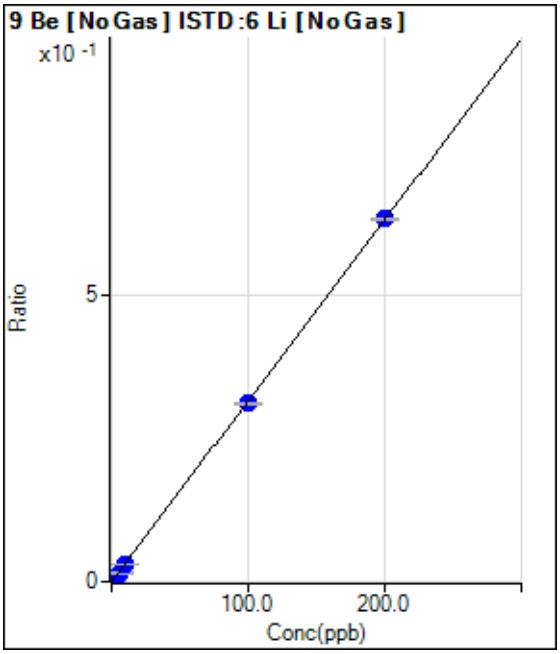
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32821.53	0.0723	P	0.7
2	☐	2.000	2.041	45220.58	0.0996	P	1.6
3	☐	5.000	4.680	61041.43	0.1349	P	1.8
4	☐	10.000	9.800	91477.93	0.2034	P	1.0
5	☐	100.000	101.995	613957.00	1.4363	P	0.3
6	☐	200.000	199.020	1112136.68	2.7337	A	1.5

y = 0.0134 * x + 0.0723
R = 0.9999
DL = 0.1155
BEC = 5.41

Weight: <None>
Min Conc: <None>

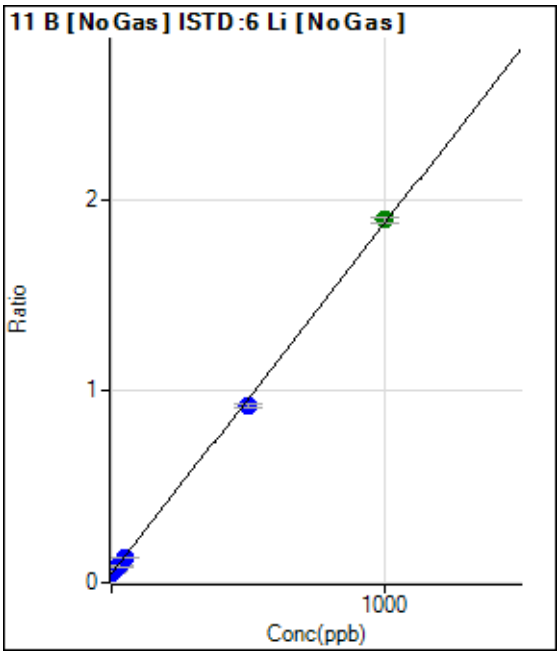


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0001	P	12.4
2	☐	2.000	1.897	2760.29	0.0061	P	5.3
3	☐	5.000	4.748	6818.37	0.0151	P	2.5
4	☐	10.000	9.694	13790.19	0.0307	P	0.2
5	☐	100.000	98.595	132896.05	0.3109	P	0.8
6	☐	200.000	200.725	257453.65	0.6328	P	0.8

y = 0.0032 * x + 1.0287E-004
R = 1.0000
DL = 0.01218
BEC = 0.03264

Weight: <None>
Min Conc: <None>

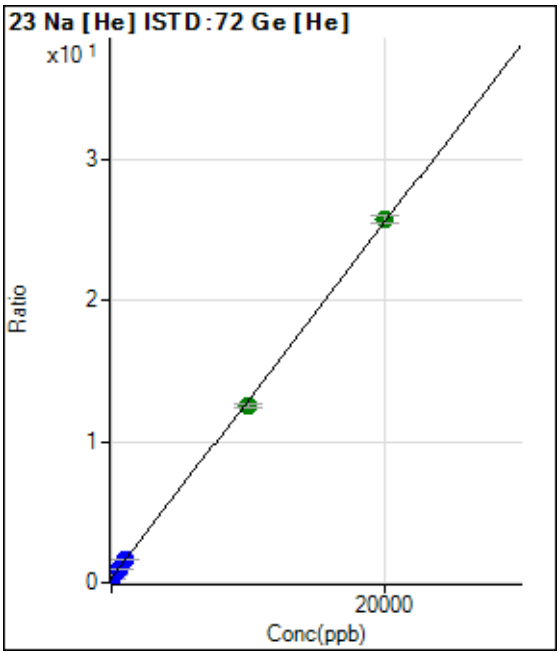
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21262.78	0.0469	P	0.6
2	☐	10.000	7.365	27376.69	0.0603	P	1.4
3	☐	25.000	21.098	38633.01	0.0854	P	2.1
4	☐	50.000	44.731	57816.62	0.1286	P	0.5
5	☐	500.000	479.419	394231.00	0.9223	P	1.6
6	☐	1000.000	1010.678	769846.71	1.8924	A	1.9

y = 0.0018 * x + 0.0469
R = 0.9997
DL = 0.4576
BEC = 25.67

Weight: <None>
Min Conc: <None>

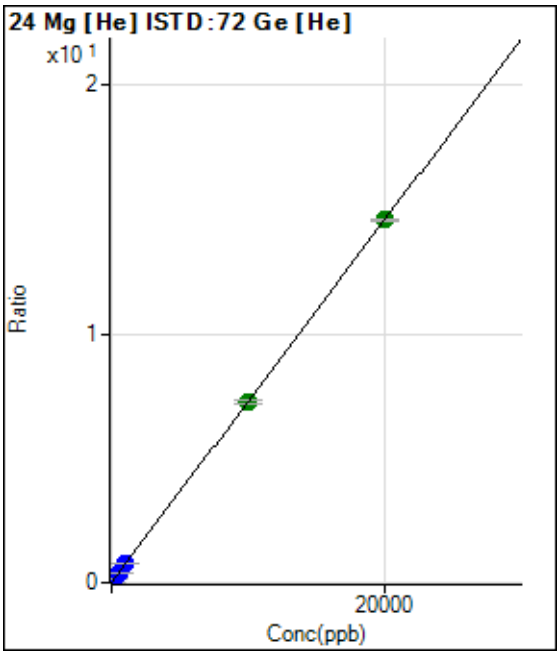


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138696.75	0.3261	P	1.2
2	☐	200.000	207.671	250337.23	0.5881	P	1.5
3	☐	500.000	513.156	415398.44	0.9736	P	0.9
4	☐	1000.000	1042.084	695639.29	1.6410	P	0.6
5	☐	10000.00	9697.929	5250370.55	12.5631	A	1.7
6	☐	20000.00	20148.52	10046447.77	25.7499	A	2.2

y = 0.0013 * x + 0.3261
R = 0.9998
DL = 8.972
BEC = 258.4

Weight: <None>
Min Conc: <None>

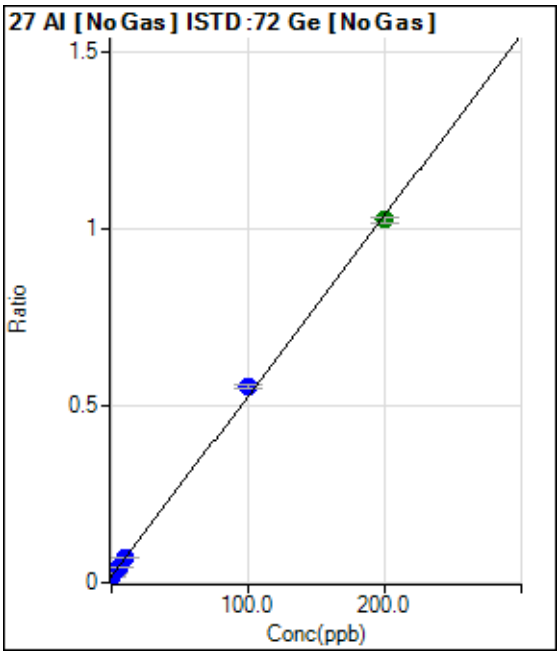
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4470.81	0.0105	P	6.0
2	☐	200.000	212.319	70310.27	0.1652	P	2.4
3	☐	500.000	519.270	165890.75	0.3888	P	1.2
4	☐	1000.000	1068.680	334495.76	0.7891	P	0.8
5	☐	10000.00	9963.168	3037773.71	7.2689	A	1.9
6	☐	20000.00	20014.37	5693636.79	14.5914	A	0.6

y = 7.2852E-004 * x + 0.0105
R = 1.0000
DL = 2.584
BEC = 14.43

Weight: <None>
Min Conc: <None>

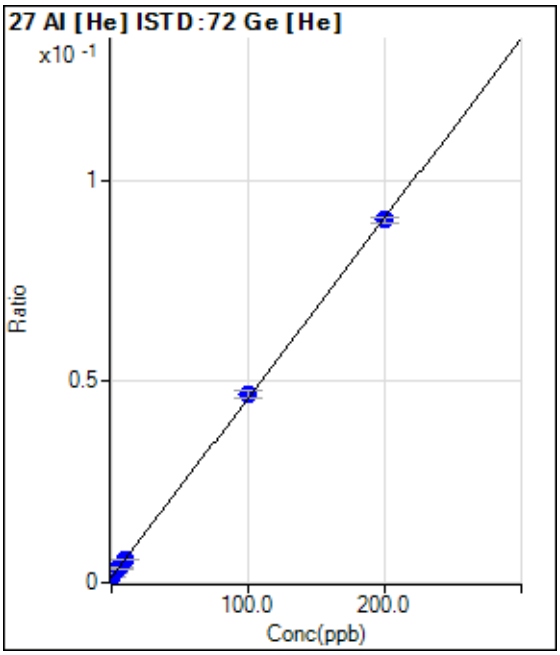


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25798.12	0.0181	P	25.6
2	☐	2.000	2.228	41565.59	0.0295	P	1.8
3	☐	5.000	4.862	61278.10	0.0429	P	2.3
4	☐	10.000	10.303	100250.97	0.0707	P	3.3
5	☐	100.000	105.021	782712.38	0.5539	P	1.2
6	☐	200.000	197.475	1380345.34	1.0256	A	1.4

y = 0.0051 * x + 0.0181
R = 0.9996
DL = 2.724
BEC = 3.553

Weight: <None>
Min Conc: <None>

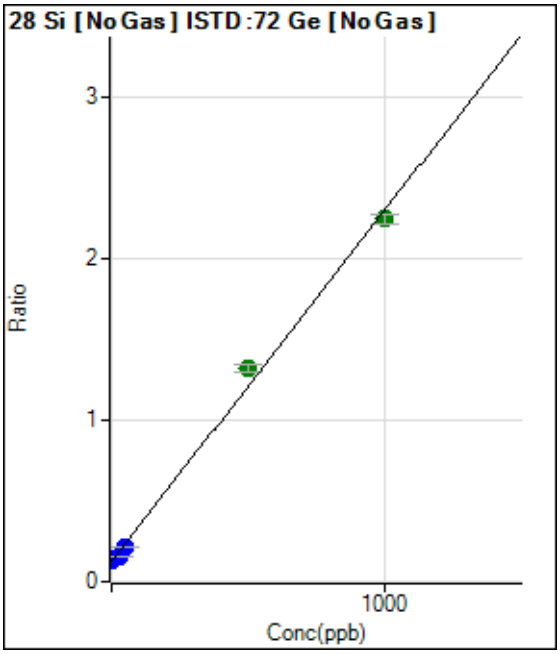
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0013	P	8.2
2	☐	2.000	2.441	996.72	0.0023	P	10.5
3	☐	5.000	5.301	1543.45	0.0036	P	5.8
4	☐	10.000	10.181	2456.93	0.0058	P	2.1
5	☐	100.000	101.781	19493.92	0.0467	P	4.3
6	☐	200.000	199.089	35144.79	0.0901	P	1.7

y = 4.4606E-004 * x + 0.0013
R = 0.9999
DL = 0.6926
BEC = 2.812

Weight: <None>
Min Conc: <None>

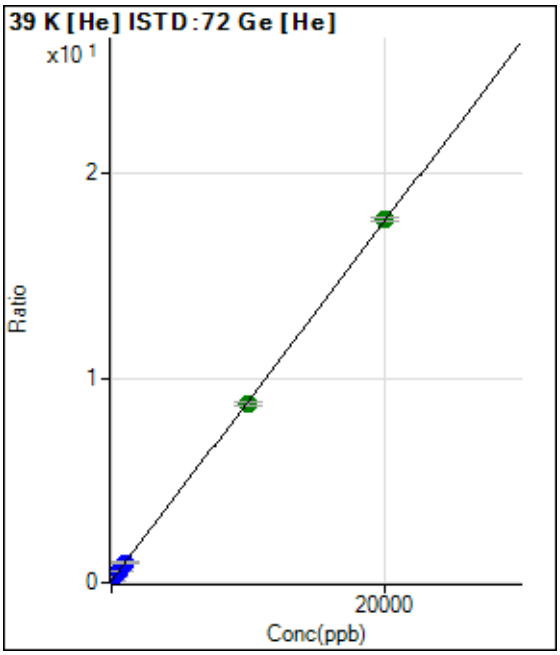


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177824.91	0.1250	P	10.6
2	☐	10.000	10.350	207536.98	0.1475	P	19.5
3	☐	25.000	12.106	215949.90	0.1513	P	2.7
4	☐	50.000	40.021	300576.77	0.2119	P	1.3
5	☐	500.000	549.542	1862556.01	1.3184	A	3.2
6	☐	1000.000	976.047	3020182.25	2.2446	A	2.7

y = 0.0022 * x + 0.1250
R = 0.9980
DL = 18.34
BEC = 57.56

Weight: <None>
Min Conc: <None>

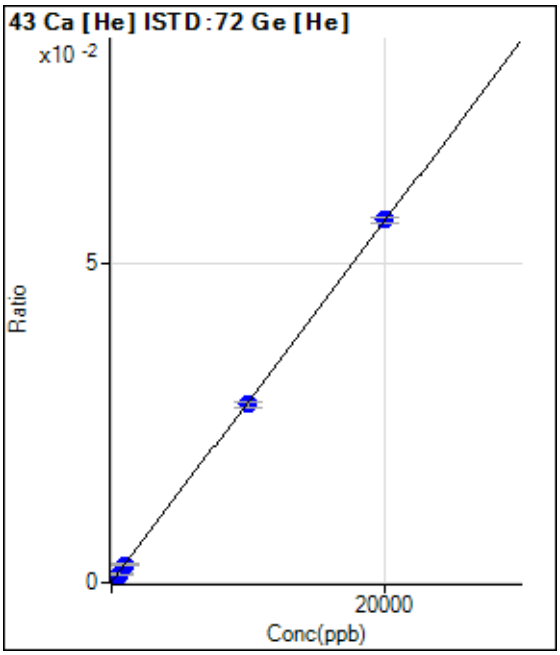
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36856.20	0.0866	P	3.7
2	☐	200.000	200.480	111886.95	0.2628	P	0.9
3	☐	500.000	496.185	223065.65	0.5227	P	0.7
4	☐	1000.000	1015.660	415117.55	0.9793	P	1.7
5	☐	10000.00	9828.689	3646615.57	8.7249	A	2.5
6	☐	20000.00	20084.96	6922152.61	17.7389	A	1.1

y = 8.7888E-004 * x + 0.0866
R = 0.9999
DL = 10.95
BEC = 98.59

Weight: <None>
Min Conc: <None>

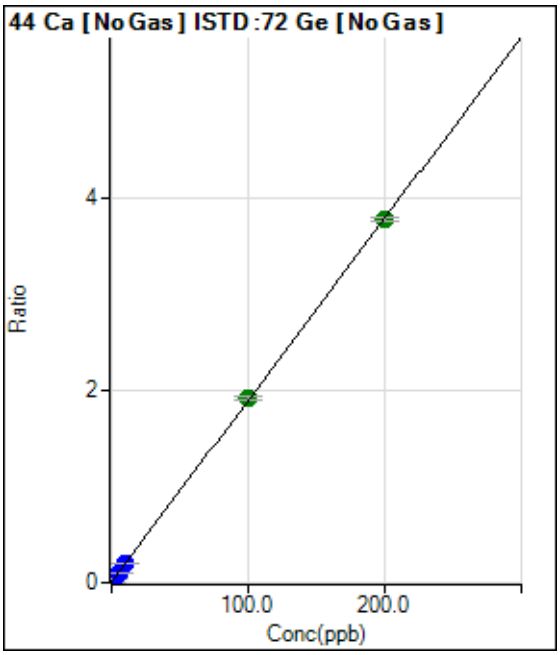


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0001	P	64.6
2	☐	200.000	177.418	236.67	0.0006	P	28.5
3	☐	500.000	457.983	576.69	0.0014	P	13.8
4	☐	1000.000	989.634	1210.08	0.0029	P	6.8
5	☐	10000.00	9858.786	11675.11	0.0279	P	3.1
6	☐	20000.00	20072.40	22171.46	0.0568	P	1.9

y = 2.8283E-006 * x + 5.4694E-005
R = 1.0000
DL = 37.45
BEC = 19.34

Weight: <None>
Min Conc: <None>

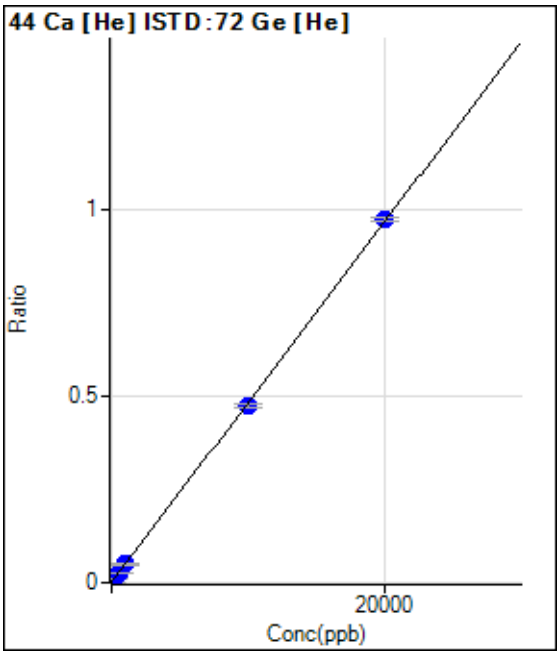
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9867.05	0.0069	P	5.2
2	☐	2.000	2.099	65596.40	0.0465	P	2.5
3	☐	5.000	5.087	146920.92	0.1029	P	2.7
4	☐	10.000	10.538	291947.32	0.2058	P	0.8
5	☐	100.000	101.310	2711403.09	1.9189	A	1.5
6	☐	200.000	199.315	5071323.68	3.7686	A	1.1

y = 0.0189 * x + 0.0069
R = 1.0000
DL = 0.05754
BEC = 0.3675

Weight: <None>
Min Conc: <None>

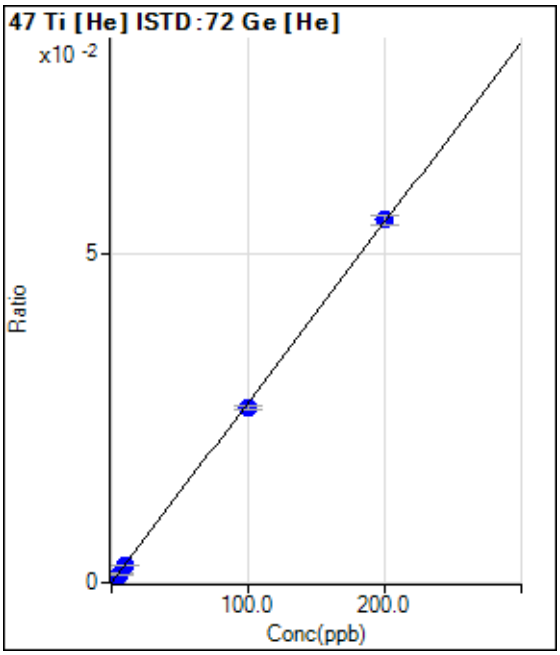


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	390.01	0.0009	P	18.2
2	☐	200.000	204.011	4580.85	0.0108	P	1.7
3	☐	500.000	507.009	10834.48	0.0254	P	3.0
4	☐	1000.000	1003.359	20916.17	0.0493	P	3.0
5	☐	10000.00	9772.602	197474.06	0.4725	P	2.5
6	☐	20000.00	20113.31	379104.86	0.9716	P	1.0

y = 4.8260E-005 * x + 9.1639E-004
R = 0.9999
DL = 10.34
BEC = 18.99

Weight: <None>
Min Conc: <None>

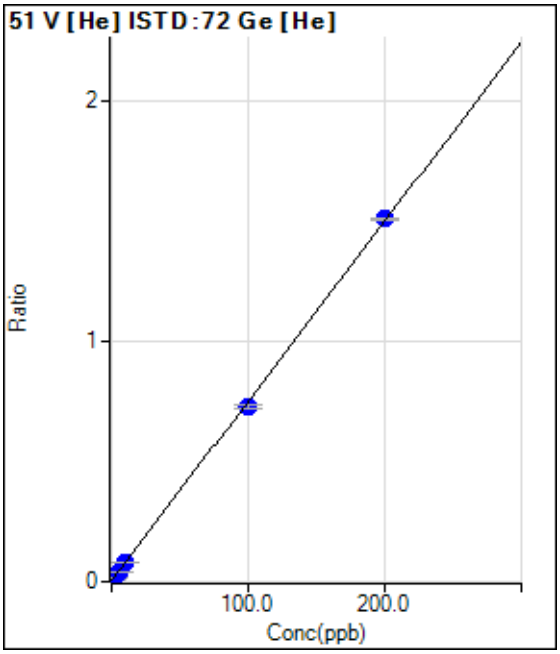
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.261	266.68	0.0006	P	20.4
3	☐	5.000	4.683	550.02	0.0013	P	13.1
4	☐	10.000	9.582	1113.40	0.0026	P	7.6
5	☐	100.000	97.330	11117.98	0.0266	P	2.7
6	☐	200.000	201.361	21473.75	0.0550	P	2.8

y = 2.7328E-004 * x + 7.8259E-006
R = 0.9999
DL = 0.1488
BEC = 0.02864

Weight: <None>
Min Conc: <None>

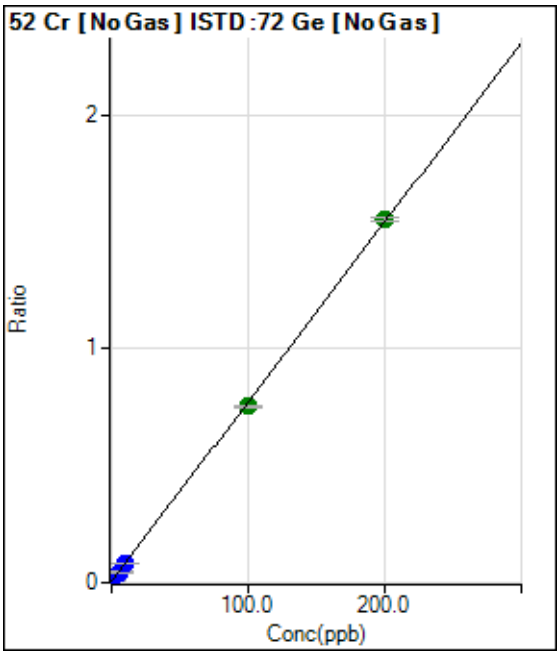


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1781.24	0.0042	P	6.1
2	☐	2.000	2.045	8278.09	0.0194	P	1.1
3	☐	5.000	4.905	17399.96	0.0408	P	2.3
4	☐	10.000	10.134	33824.93	0.0798	P	2.3
5	☐	100.000	96.940	303996.00	0.7274	P	1.9
6	☐	200.000	201.525	588292.48	1.5077	P	0.8

y = 0.0075 * x + 0.0042
R = 0.9998
DL = 0.1029
BEC = 0.5615

Weight: <None>
Min Conc: <None>

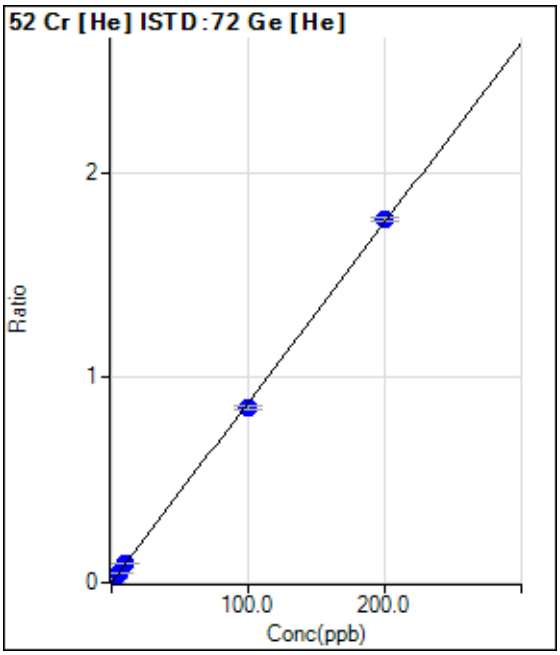
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8039.15	0.0057	P	3.0
2	☐	2.000	2.060	30240.46	0.0215	P	1.7
3	☐	5.000	5.097	63842.22	0.0448	P	5.4
4	☐	10.000	10.256	119608.54	0.0843	P	1.4
5	☐	100.000	97.281	1062375.45	0.7519	A	2.0
6	☐	200.000	201.343	2086181.07	1.5502	A	1.0

y = 0.0077 * x + 0.0057
R = 0.9999
DL = 0.06549
BEC = 0.7366

Weight: <None>
Min Conc: <None>

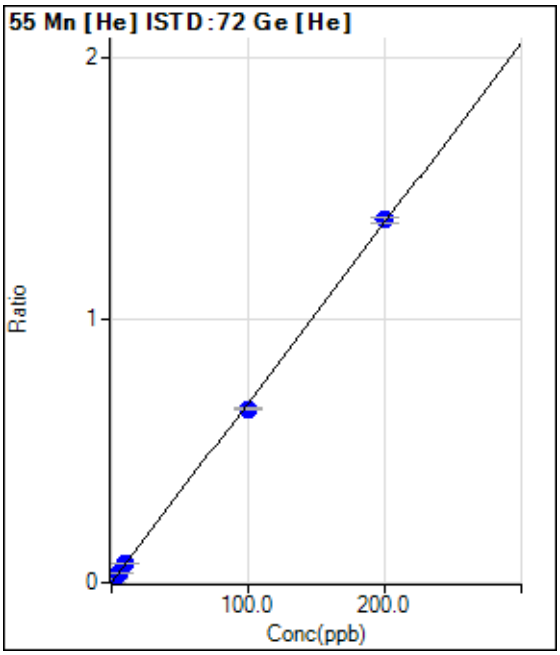


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	676.70	0.0016	P	11.2
2	☐	2.000	2.007	8172.58	0.0192	P	3.2
3	☐	5.000	5.132	19894.71	0.0466	P	1.0
4	☐	10.000	10.353	39189.58	0.0924	P	0.4
5	☐	100.000	96.899	356034.02	0.8519	P	1.8
6	☐	200.000	201.529	690673.66	1.7701	P	1.2

y = 0.0088 * x + 0.0016
R = 0.9998
DL = 0.06108
BEC = 0.1814

Weight: <None>
Min Conc: <None>

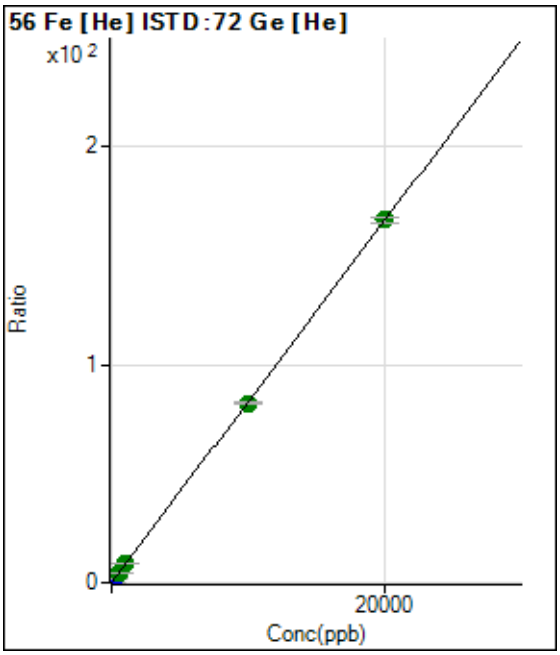
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0004	P	11.7
2	☐	2.000	2.029	6081.46	0.0143	P	6.7
3	☐	5.000	4.964	14674.84	0.0344	P	1.6
4	☐	10.000	10.435	30464.15	0.0719	P	1.1
5	☐	100.000	96.605	276678.69	0.6621	P	1.9
6	☐	200.000	201.676	539101.54	1.3817	P	1.6

y = 0.0068 * x + 3.9157E-004
R = 0.9998
DL = 0.02006
BEC = 0.05717

Weight: <None>
Min Conc: <None>

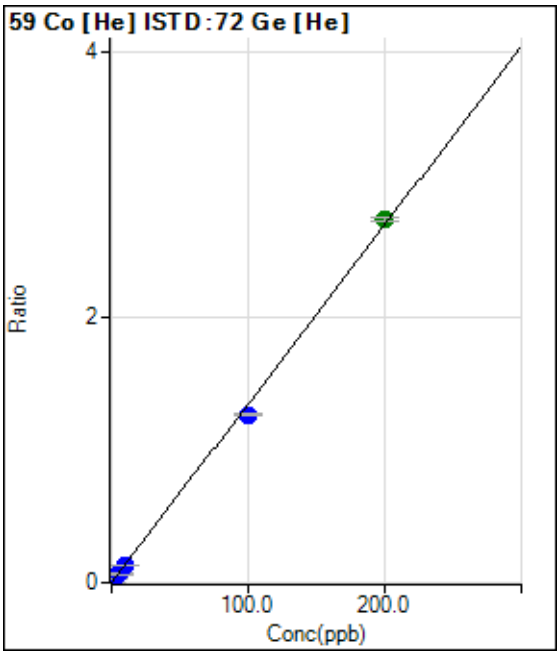


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7912.50	0.0186	P	6.5
2	☐	200.000	202.886	725339.31	1.7039	P	0.1
3	☐	500.000	514.319	1830636.53	4.2908	A	2.6
4	☐	1000.000	1038.085	3663036.72	8.6415	A	2.1
5	☐	10000.00	9902.317	34386726.15	82.2724	A	0.8
6	☐	20000.00	20046.55	64977150.70	166.535	A	1.7

y = 0.0083 * x + 0.0186
R = 1.0000
DL = 0.4392
BEC = 2.24

Weight: <None>
Min Conc: <None>

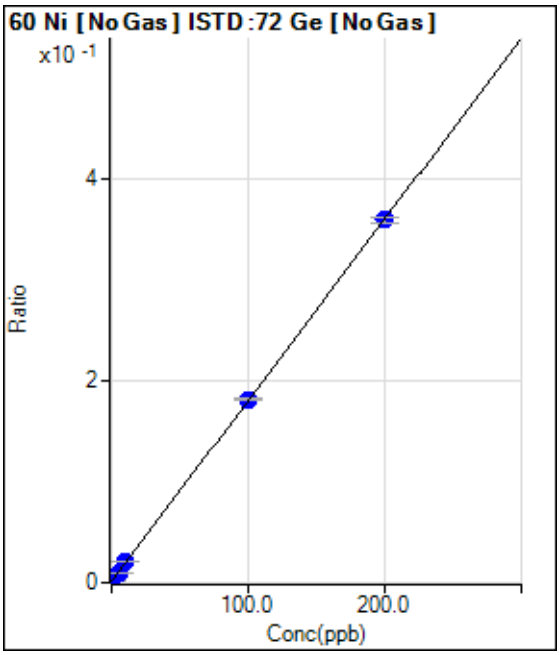
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	1.2
2	☐	2.000	1.941	11158.05	0.0262	P	3.0
3	☐	5.000	4.859	27989.05	0.0656	P	1.7
4	☐	10.000	10.107	57819.42	0.1364	P	2.0
5	☐	100.000	94.070	530569.57	1.2694	P	0.6
6	☐	200.000	202.964	1068706.34	2.7388	A	1.1

y = 0.0135 * x + 2.3509E-005
R = 0.9994
DL = 6.057E-05
BEC = 0.001742

Weight: <None>
Min Conc: <None>

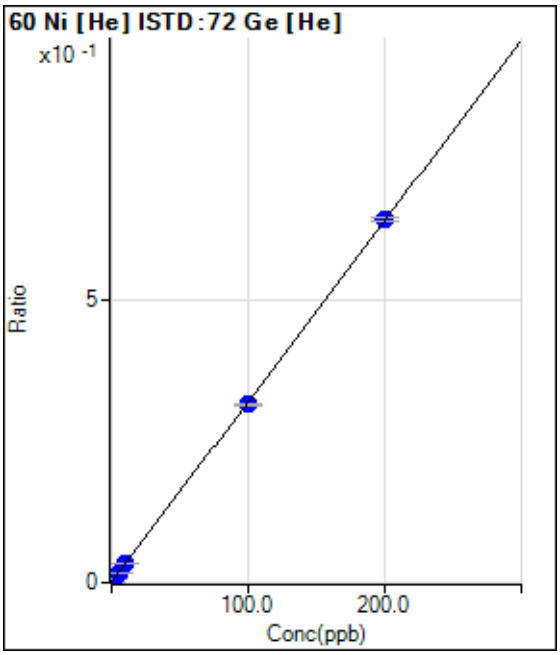


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1463.44	0.0010	P	14.0
2	☐	2.000	2.242	7125.32	0.0051	P	0.8
3	☐	5.000	5.110	14571.29	0.0102	P	1.9
4	☐	10.000	10.853	29101.34	0.0205	P	1.5
5	☐	100.000	100.385	256167.39	0.1813	P	1.2
6	☐	200.000	199.760	484096.51	0.3597	P	1.3

y = 0.0018 * x + 0.0010
R = 1.0000
DL = 0.2408
BEC = 0.5729

Weight: <None>
Min Conc: <None>

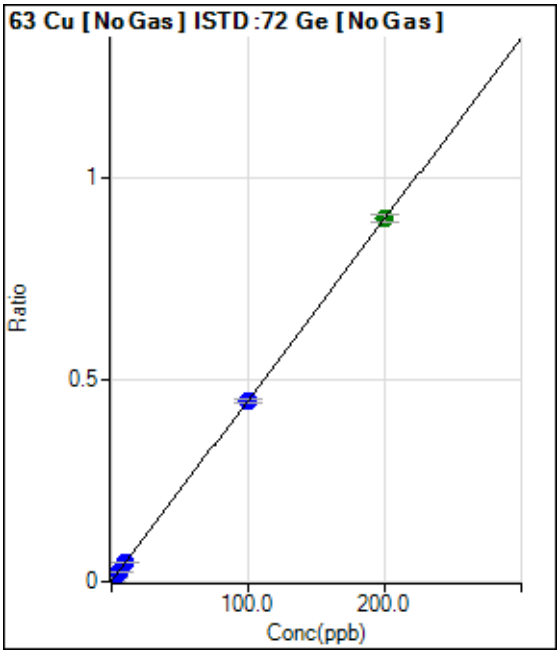
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0014	P	8.6
2	☐	2.000	2.219	3607.21	0.0085	P	5.4
3	☐	5.000	4.794	7111.96	0.0167	P	2.5
4	☐	10.000	10.375	14591.35	0.0344	P	2.6
5	☐	100.000	98.652	131758.97	0.3152	P	1.0
6	☐	200.000	200.658	249608.81	0.6397	P	1.1

y = 0.0032 * x + 0.0014
R = 1.0000
DL = 0.1151
BEC = 0.4461

Weight: <None>
Min Conc: <None>

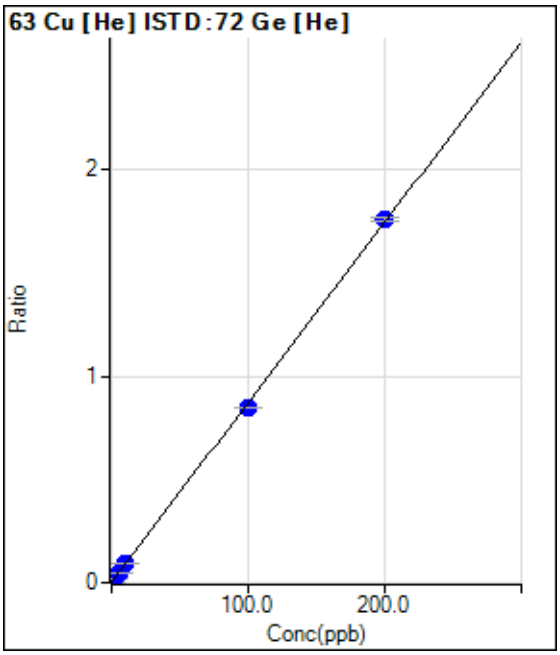


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1793.49	0.0013	P	4.1
2	☐	2.000	2.203	15705.98	0.0111	P	6.6
3	☐	5.000	5.166	34891.78	0.0244	P	1.3
4	☐	10.000	10.742	70150.43	0.0495	P	1.0
5	☐	100.000	99.607	633291.81	0.4482	P	1.3
6	☐	200.000	200.153	1210192.46	0.8993	A	2.1

y = 0.0045 * x + 0.0013
R = 1.0000
DL = 0.0344
BEC = 0.281

Weight: <None>
Min Conc: <None>

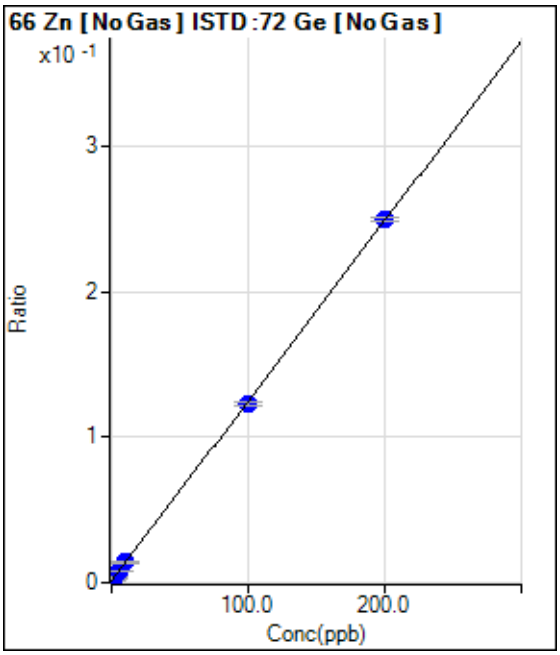
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	756.71	0.0018	P	8.3
2	☐	2.000	1.944	7962.45	0.0187	P	4.5
3	☐	5.000	5.121	19781.32	0.0464	P	1.0
4	☐	10.000	10.467	39383.88	0.0929	P	1.0
5	☐	100.000	97.037	353834.49	0.8466	P	0.9
6	☐	200.000	201.456	685035.43	1.7556	P	1.1

y = 0.0087 * x + 0.0018
R = 0.9998
DL = 0.05055
BEC = 0.2042

Weight: <None>
Min Conc: <None>

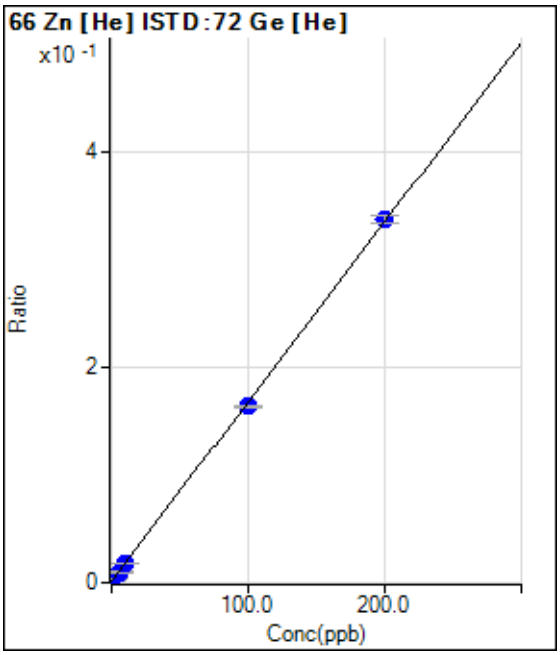


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1680.14	0.0012	P	8.0
2	☐	2.000	1.680	4600.86	0.0033	P	7.3
3	☐	5.000	5.045	10604.31	0.0074	P	2.7
4	☐	10.000	10.281	19734.61	0.0139	P	3.8
5	☐	100.000	98.685	174368.30	0.1234	P	1.8
6	☐	200.000	200.646	336017.16	0.2497	P	1.1

y = 0.0012 * x + 0.0012
R = 1.0000
DL = 0.2299
BEC = 0.9533

Weight: <None>
Min Conc: <None>

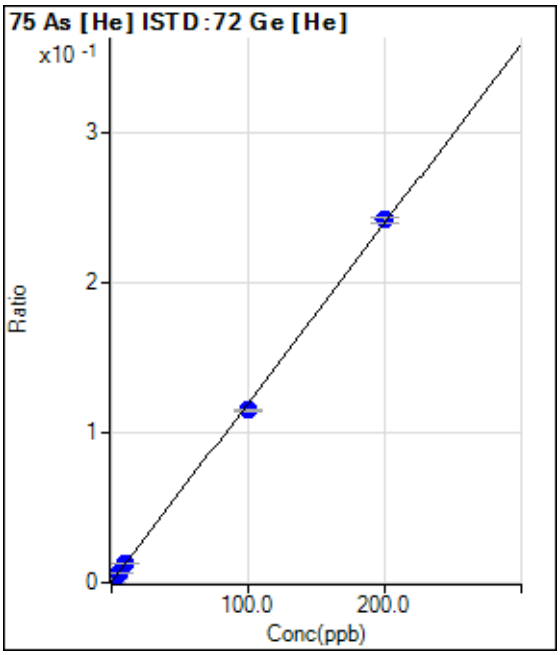
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	603.36	0.0014	P	8.6
2	☐	2.000	1.875	1936.85	0.0045	P	8.1
3	☐	5.000	4.888	4090.69	0.0096	P	6.9
4	☐	10.000	9.972	7658.97	0.0181	P	4.0
5	☐	100.000	97.442	68603.06	0.1641	P	1.3
6	☐	200.000	201.284	131704.01	0.3376	P	1.9

y = 0.0017 * x + 0.0014
R = 0.9999
DL = 0.2198
BEC = 0.8489

Weight: <None>
Min Conc: <None>

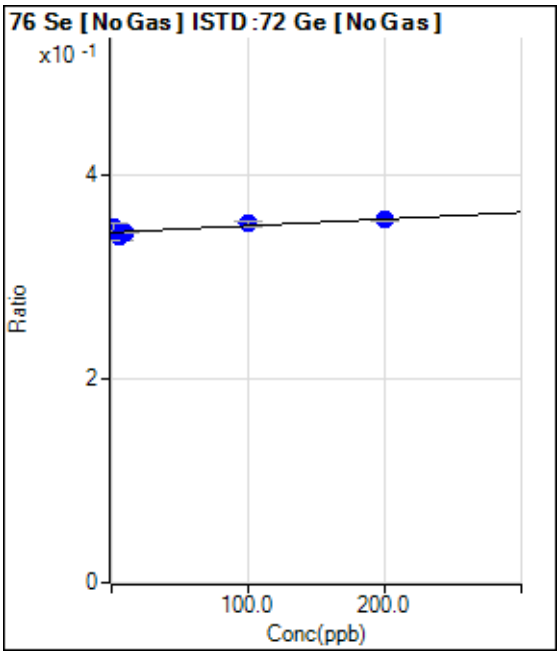


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	121.11	0.0003	P	13.4
2	☐	2.000	1.939	1110.05	0.0026	P	9.8
3	☐	5.000	4.970	2660.28	0.0062	P	3.7
4	☐	10.000	10.426	5413.34	0.0128	P	2.6
5	☐	100.000	95.957	48135.37	0.1152	P	1.6
6	☐	200.000	202.002	94481.10	0.2421	P	1.3

y = 0.0012 * x + 2.8480E-004
R = 0.9997
DL = 0.09591
BEC = 0.2379

Weight: <None>
Min Conc: <None>

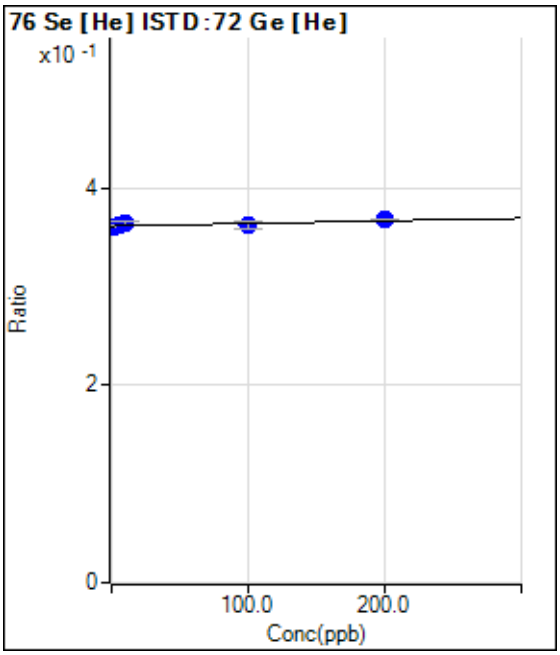
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	488105.85	0.3431	P	0.9
2	☐	2.000	85.399	491416.80	0.3487	P	1.8
3	☐	5.000	-63.288	483741.32	0.3389	P	2.6
4	☐	10.000	-10.795	485641.20	0.3424	P	0.3
5	☐	100.000	130.598	496826.57	0.3516	P	1.8
6	☐	200.000	186.614	478148.04	0.3553	P	0.2

y = 6.5440E-005 * x + 0.3431
R = 0.8427
DL = 134.9
BEC = 5243

Weight: <None>
Min Conc: <None>

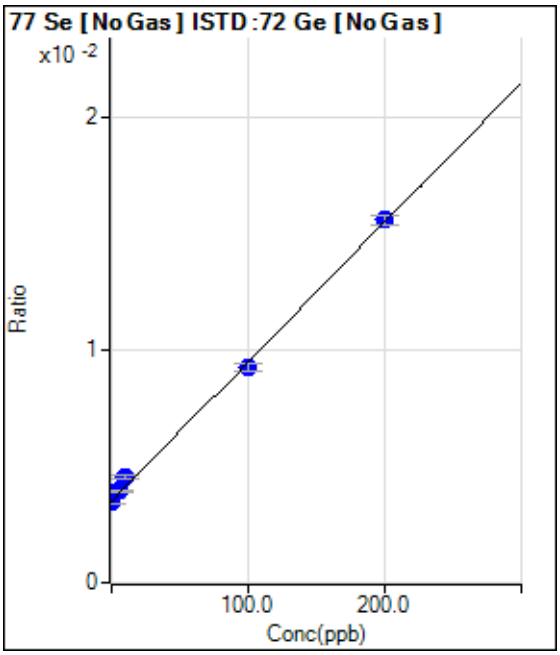


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153650.85	0.3612	P	0.4
2	☐	2.000	-23.832	153485.76	0.3606	P	0.5
3	☐	5.000	62.920	154833.47	0.3629	P	1.3
4	☐	10.000	85.415	154079.74	0.3635	P	1.0
5	☐	100.000	22.584	151196.85	0.3618	P	2.3
6	☐	200.000	233.747	143369.39	0.3674	P	0.2

y = 2.6576E-005 * x + 0.3612
R = 0.7939
DL = 145
BEC = 1.359E+04

Weight: <None>
Min Conc: <None>

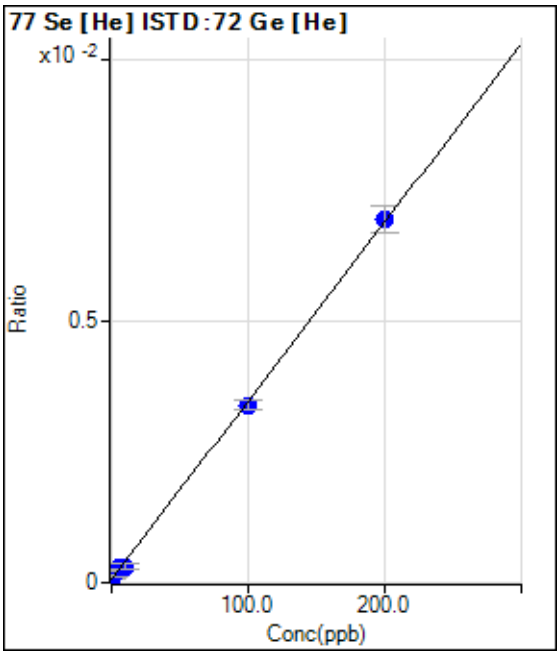
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4981.01	0.0035	P	6.6
2	☐	2.000	6.822	5514.56	0.0039	P	4.7
3	☐	5.000	7.136	5611.27	0.0039	P	2.7
4	☐	10.000	17.512	6454.99	0.0046	P	2.5
5	☐	100.000	95.979	13079.89	0.0093	P	4.0
6	☐	200.000	201.533	20976.63	0.0156	P	2.6

y = 5.9965E-005 * x + 0.0035
R = 0.9990
DL = 11.52
BEC = 58.39

Weight: <None>
Min Conc: <None>

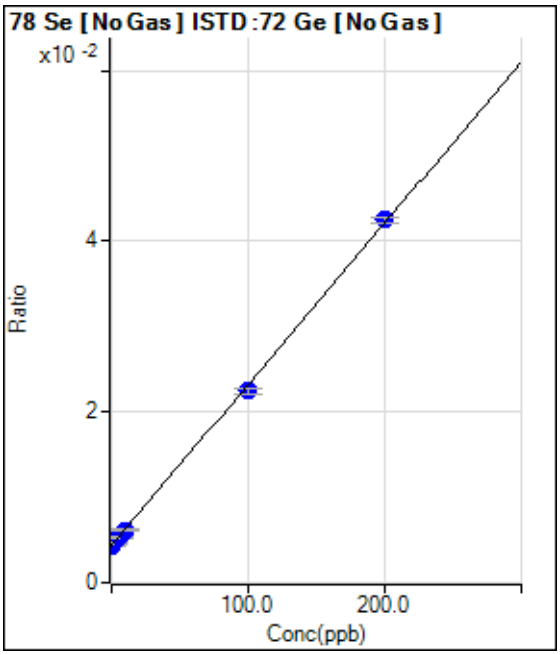


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26.67	0.0001	P	20.8
2	☐	2.000	2.295	60.00	0.0001	P	29.1
3	☐	5.000	6.872	126.67	0.0003	P	41.2
4	☐	10.000	7.138	130.00	0.0003	P	35.2
5	☐	100.000	97.358	1416.77	0.0034	P	5.5
6	☐	200.000	201.414	2710.33	0.0069	P	7.5

y = 3.4168E-005 * x + 6.2595E-005
R = 0.9997
DL = 1.141
BEC = 1.832

Weight: <None>
Min Conc: <None>

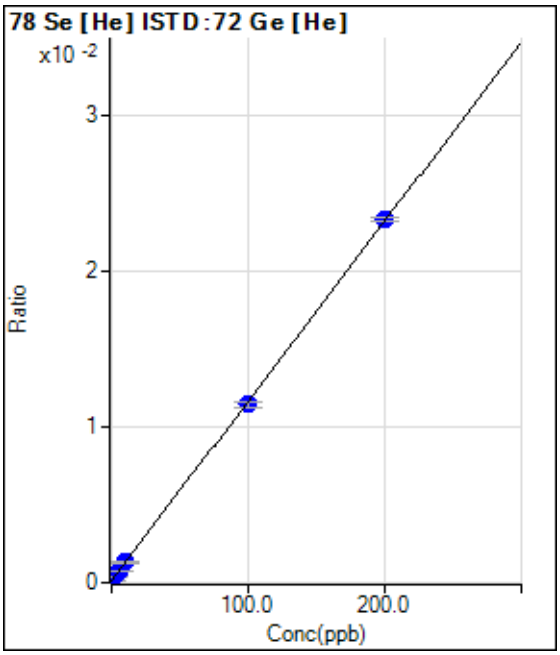
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6214.88	0.0044	P	1.0
2	☐	2.000	1.339	6511.69	0.0046	P	3.1
3	☐	5.000	5.007	7578.94	0.0053	P	6.1
4	☐	10.000	9.641	8773.00	0.0062	P	4.6
5	☐	100.000	95.923	31740.96	0.0225	P	2.7
6	☐	200.000	202.063	57174.35	0.0425	P	1.7

y = 1.8864E-004 * x + 0.0044
R = 0.9997
DL = 0.7255
BEC = 23.16

Weight: <None>
Min Conc: <None>

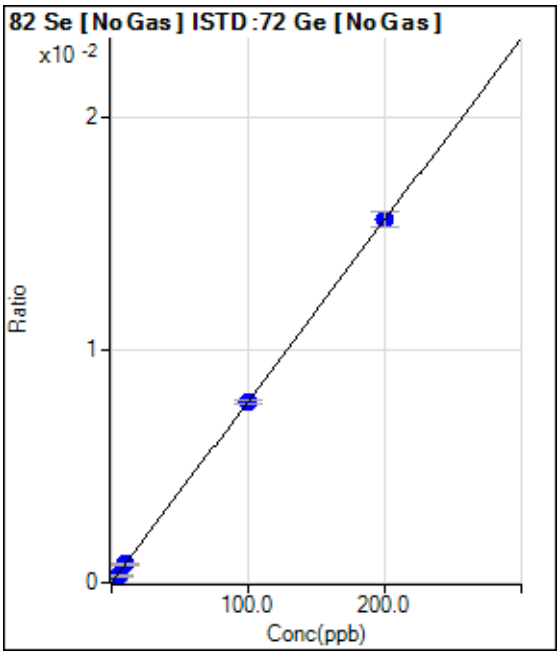


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57.33	0.0001	P	5.9
2	☐	2.000	2.315	170.67	0.0004	P	11.6
3	☐	5.000	5.009	303.33	0.0007	P	3.8
4	☐	10.000	10.175	553.35	0.0013	P	9.2
5	☐	100.000	98.054	4770.86	0.0114	P	3.2
6	☐	200.000	200.961	9074.40	0.0233	P	1.2

y = 1.1506E-004 * x + 1.3481E-004
R = 0.9999
DL = 0.2085
BEC = 1.172

Weight: <None>
Min Conc: <None>

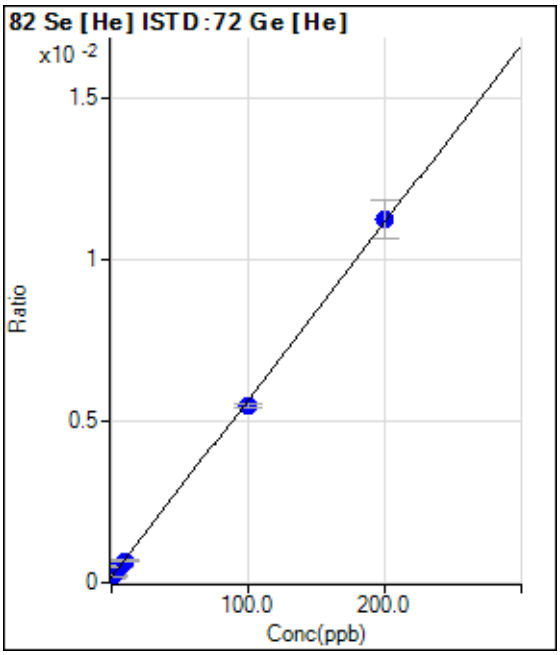
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.48	0.0000	P	1266.2
2	☐	2.000	1.672	187.34	0.0001	P	38.0
3	☐	5.000	3.802	427.03	0.0003	P	11.5
4	☐	10.000	10.040	1113.82	0.0008	P	4.1
5	☐	100.000	100.037	11022.26	0.0078	P	1.9
6	☐	200.000	200.012	20974.13	0.0156	P	4.3

y = 7.7923E-005 * x + 3.0884E-006
R = 1.0000
DL = 1.506
BEC = 0.03963

Weight: <None>
Min Conc: <None>

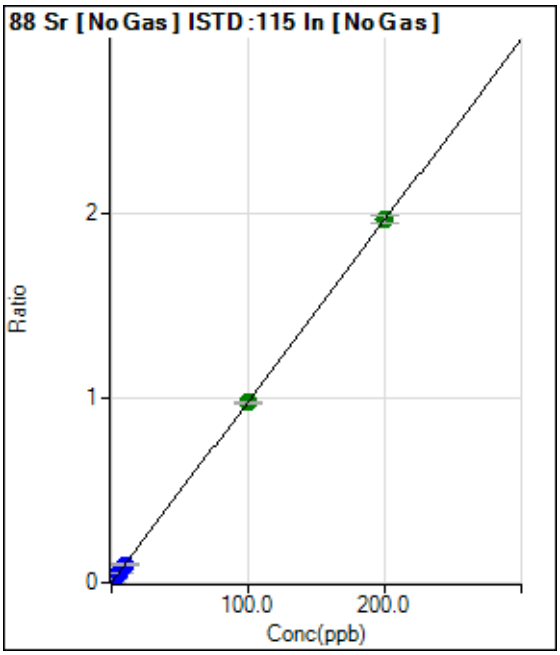


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0002	P	75.0
2	☐	2.000	0.713	90.00	0.0002	P	19.5
3	☐	5.000	5.986	213.34	0.0005	P	8.5
4	☐	10.000	9.194	286.68	0.0007	P	4.7
5	☐	100.000	97.029	2293.57	0.0055	P	2.0
6	☐	200.000	201.514	4374.15	0.0112	P	10.6

y = 5.4786E-005 * x + 1.7241E-004
R = 0.9998
DL = 7.079
BEC = 3.147

Weight: <None>
Min Conc: <None>

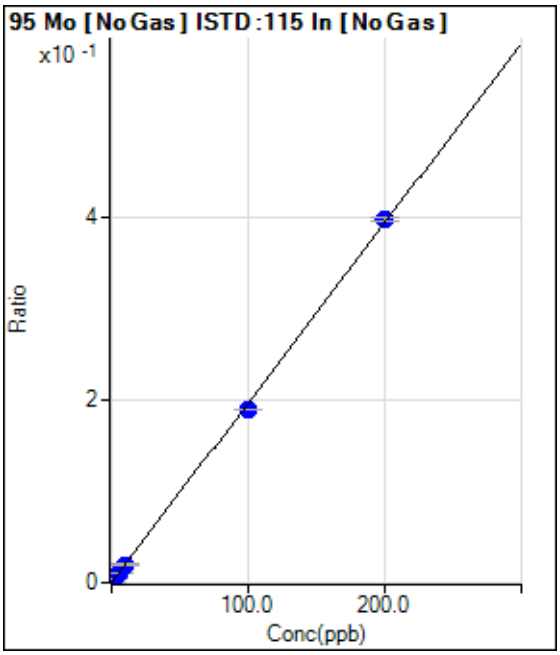
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1996.85	0.0009	P	1.7
2	☐	2.000	1.960	43688.24	0.0202	P	3.2
3	☐	5.000	4.891	104468.75	0.0490	P	1.3
4	☐	10.000	9.904	210747.70	0.0982	P	1.9
5	☐	100.000	99.537	2041548.10	0.9788	A	1.1
6	☐	200.000	200.240	3928540.98	1.9681	A	2.0

y = 0.0098 * x + 9.3107E-004
R = 1.0000
DL = 0.004843
BEC = 0.09478

Weight: <None>
Min Conc: <None>

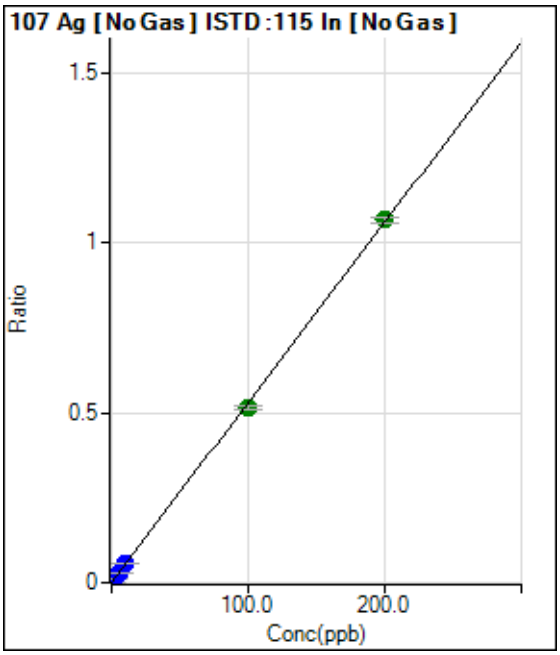


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.38	0.0001	P	20.1
2	☐	2.000	1.947	8589.61	0.0040	P	3.5
3	☐	5.000	4.818	20526.12	0.0096	P	2.2
4	☐	10.000	10.076	42879.22	0.0200	P	1.5
5	☐	100.000	96.363	396308.56	0.1900	P	0.7
6	☐	200.000	201.820	793925.12	0.3978	P	1.2

y = 0.0020 * x + 1.3189E-004
R = 0.9998
DL = 0.04034
BEC = 0.06693

Weight: <None>
Min Conc: <None>

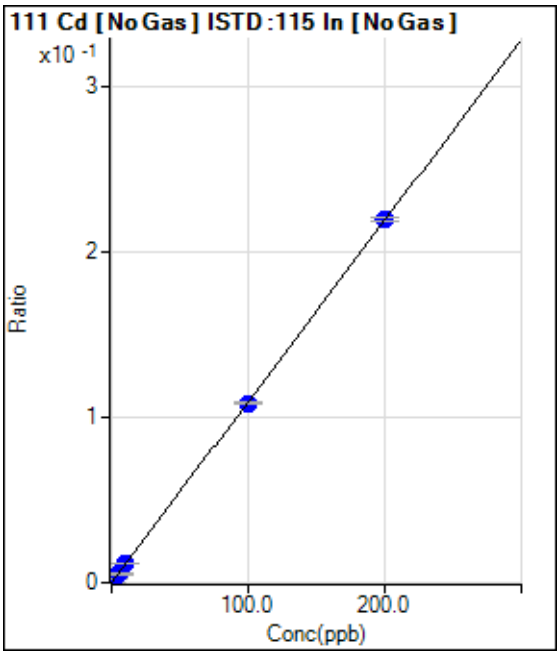
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546.69	0.0003	P	21.8
2	☐	2.000	2.014	23681.49	0.0109	P	1.9
3	☐	5.000	5.030	57448.43	0.0269	P	2.5
4	☐	10.000	10.159	116176.81	0.0541	P	0.0
5	☐	100.000	97.163	1075538.60	0.5157	A	1.2
6	☐	200.000	201.410	2132788.25	1.0686	A	1.9

y = 0.0053 * x + 2.5459E-004
R = 0.9999
DL = 0.03134
BEC = 0.04799

Weight: <None>
Min Conc: <None>

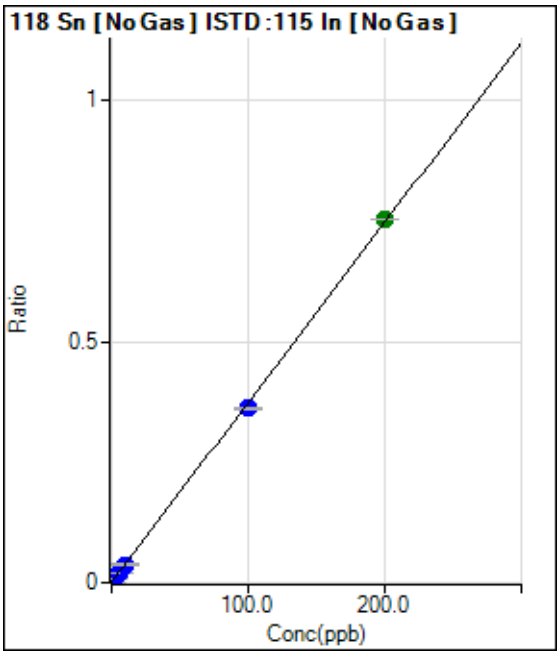


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.015	4777.60	0.0022	P	4.9
3	☐	5.000	4.823	11258.36	0.0053	P	2.8
4	☐	10.000	10.367	24346.16	0.0113	P	0.8
5	☐	100.000	99.007	225979.90	0.1083	P	0.8
6	☐	200.000	200.482	437865.36	0.2194	P	0.9

y = 0.0011 * x + 1.5830E-006
R = 1.0000
DL = 0.007517
BEC = 0.001447

Weight: <None>
Min Conc: <None>

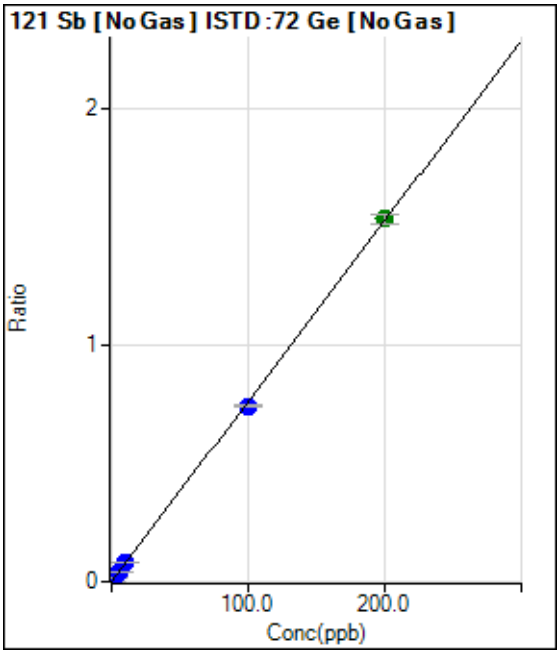
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1610.13	0.0008	P	3.9
2	☐	2.000	1.979	17595.41	0.0081	P	1.4
3	☐	5.000	4.879	40375.70	0.0189	P	3.4
4	☐	10.000	9.935	81059.22	0.0378	P	0.7
5	☐	100.000	96.780	753927.80	0.3615	P	0.8
6	☐	200.000	201.617	1501411.85	0.7522	A	0.1

y = 0.0037 * x + 7.5099E-004
R = 0.9998
DL = 0.02368
BEC = 0.2015

Weight: <None>
Min Conc: <None>

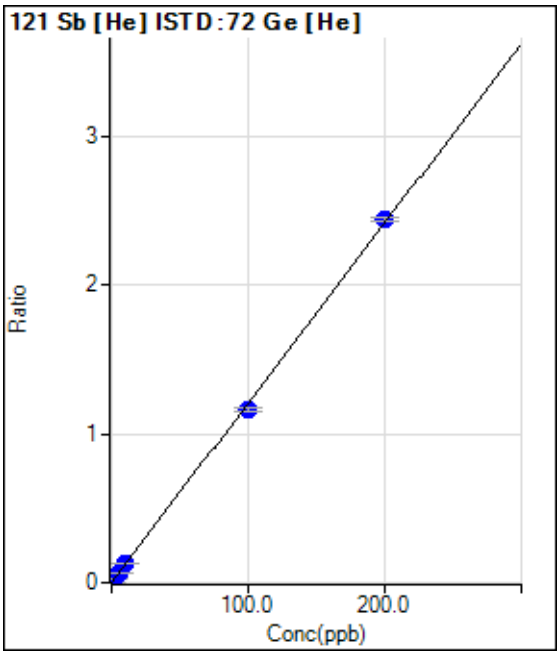


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1546.79	0.0011	P	9.2
2	☐	2.000	2.072	23745.11	0.0168	P	1.1
3	☐	5.000	4.964	55414.03	0.0388	P	3.7
4	☐	10.000	10.261	112214.03	0.0791	P	2.0
5	☐	100.000	97.518	1049185.06	0.7426	P	2.1
6	☐	200.000	201.228	2060353.77	1.5312	A	2.6

y = 0.0076 * x + 0.0011
R = 0.9999
DL = 0.03946
BEC = 0.143

Weight: <None>
Min Conc: <None>

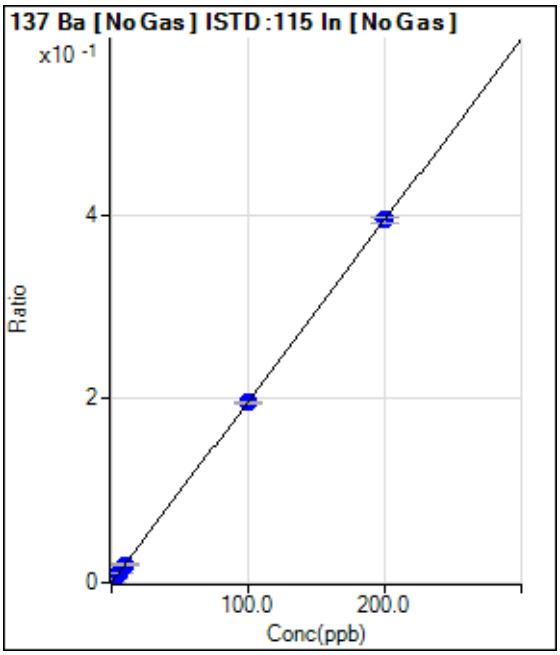
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	756.70	0.0018	P	9.7
2	☐	2.000	2.002	11024.79	0.0259	P	3.2
3	☐	5.000	4.892	25909.17	0.0607	P	0.7
4	☐	10.000	10.089	52287.56	0.1233	P	1.0
5	☐	100.000	96.010	484209.84	1.1587	P	2.4
6	☐	200.000	201.993	950391.10	2.4357	P	1.1

y = 0.0120 * x + 0.0018
R = 0.9997
DL = 0.04302
BEC = 0.1475

Weight: <None>
Min Conc: <None>

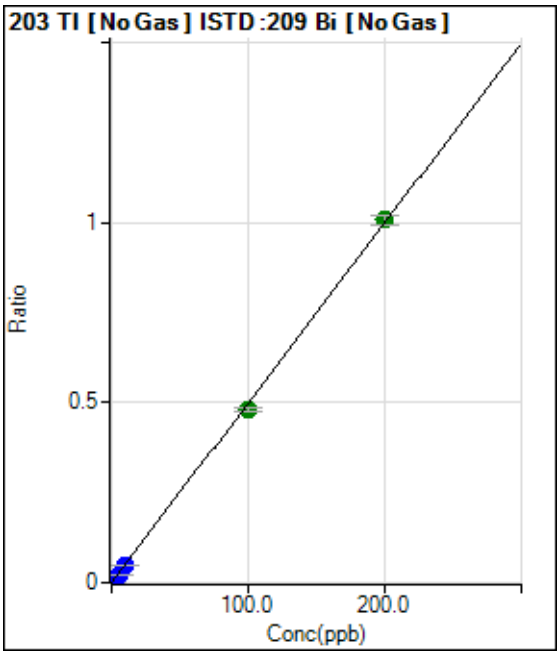


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0001	P	44.1
2	☐	2.000	1.884	8259.42	0.0038	P	2.9
3	☐	5.000	4.908	20823.62	0.0098	P	4.7
4	☐	10.000	9.933	42172.02	0.0197	P	2.7
5	☐	100.000	99.600	409092.47	0.1961	P	1.0
6	☐	200.000	200.207	786630.17	0.3941	P	1.3

y = 0.0020 * x + 1.0839E-004
R = 1.0000
DL = 0.07293
BEC = 0.05507

Weight: <None>
Min Conc: <None>

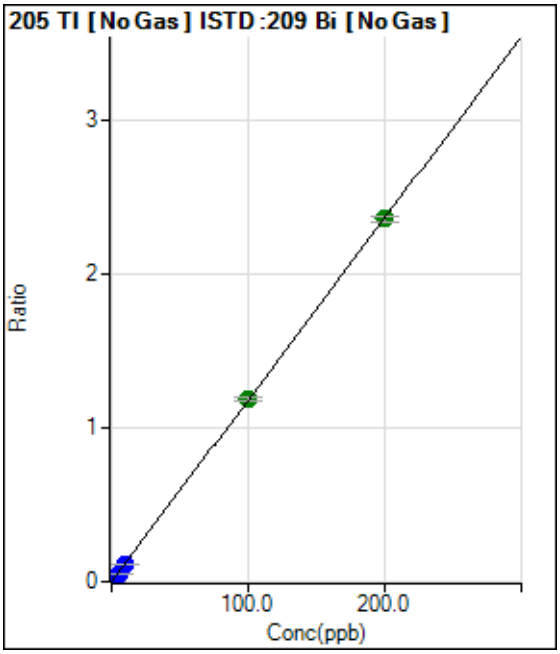
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.01	0.0001	P	15.9
2	☐	2.000	1.878	27062.93	0.0095	P	2.8
3	☐	5.000	4.592	65705.82	0.0230	P	2.6
4	☐	10.000	9.761	137349.34	0.0488	P	1.2
5	☐	100.000	96.453	1352944.35	0.4817	A	2.0
6	☐	200.000	201.797	2660158.92	1.0076	A	2.5

y = 0.0050 * x + 1.0488E-004
R = 0.9998
DL = 0.01
BEC = 0.02101

Weight: <None>
Min Conc: <None>

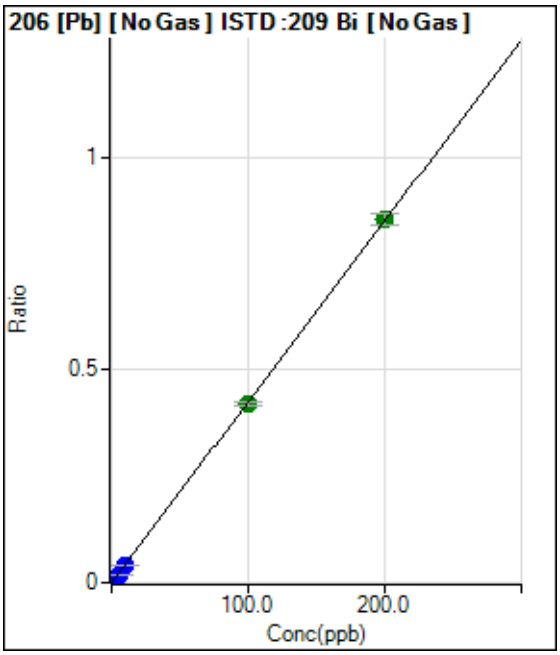


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	773.38	0.0003	P	5.0
2	☐	2.000	1.873	64000.63	0.0224	P	0.2
3	☐	5.000	4.681	158709.88	0.0556	P	2.2
4	☐	10.000	9.896	329876.95	0.1173	P	1.1
5	☐	100.000	100.633	3343489.64	1.1903	A	2.3
6	☐	200.000	199.698	6235789.28	2.3618	A	1.5

y = 0.0118 * x + 2.7018E-004
R = 1.0000
DL = 0.003432
BEC = 0.02285

Weight: <None>
Min Conc: <None>

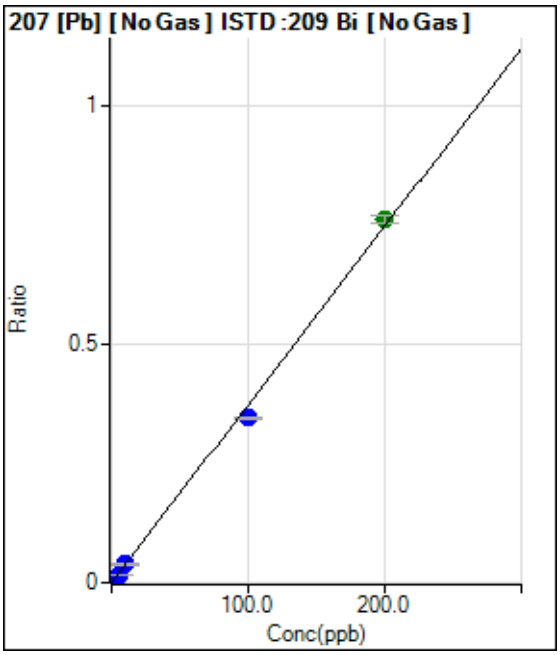
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	29.2
2	☐	2.000	1.924	23556.02	0.0083	P	2.3
3	☐	5.000	4.712	57375.20	0.0201	P	0.5
4	☐	10.000	9.900	118566.34	0.0422	P	1.3
5	☐	100.000	98.657	1178257.02	0.4195	A	2.3
6	☐	200.000	200.685	2252347.73	0.8532	A	3.2

y = 0.0043 * x + 7.4678E-005
R = 1.0000
DL = 0.01537
BEC = 0.01757

Weight: <None>
Min Conc: <None>

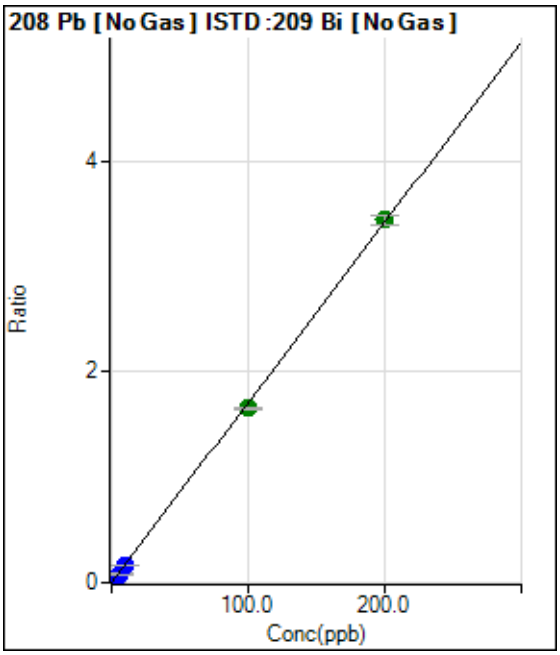


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	16.1
2	☐	2.000	1.955	21084.80	0.0074	P	1.3
3	☐	5.000	4.801	51456.28	0.0180	P	0.9
4	☐	10.000	10.290	108442.52	0.0386	P	1.5
5	☐	100.000	92.430	971289.13	0.3458	P	1.7
6	☐	200.000	203.776	2012337.42	0.7622	A	2.1

y = 0.0037 * x + 7.4612E-005
R = 0.9990
DL = 0.009612
BEC = 0.01995

Weight: <None>
Min Conc: <None>

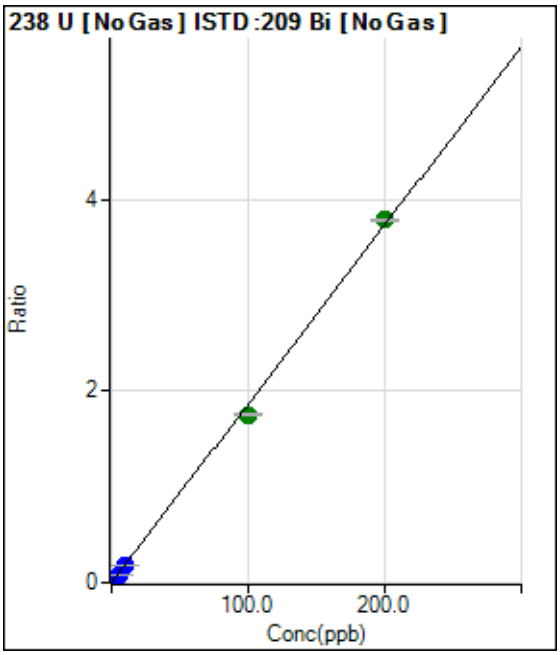
Calibration for 270_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	856.70	0.0003	P	13.0
2	☐	2.000	1.942	95618.69	0.0335	P	0.5
3	☐	5.000	4.777	233898.14	0.0820	P	0.8
4	☐	10.000	9.994	481397.13	0.1712	P	0.6
5	☐	100.000	96.976	4658460.22	1.6583	A	1.2
6	☐	200.000	201.519	9096306.95	3.4456	A	2.6

y = 0.0171 * x + 2.9950E-004
R = 0.9998
DL = 0.006833
BEC = 0.01752

Weight: <None>
Min Conc: <None>

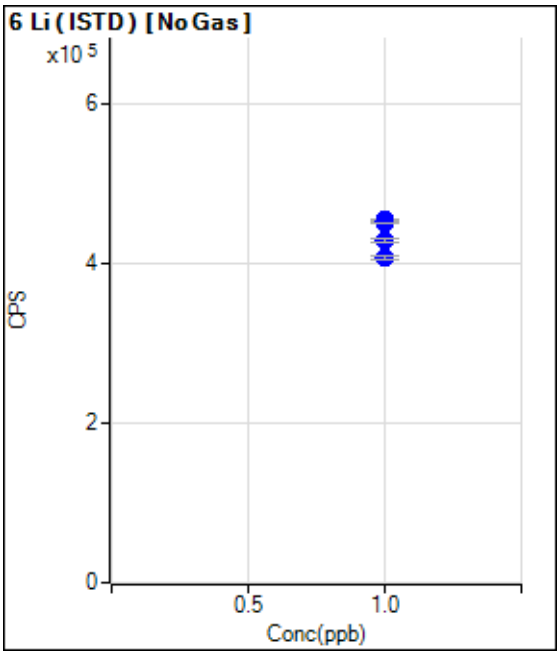


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0001	P	19.8
2	☐	2.000	1.930	103081.44	0.0361	P	2.1
3	☐	5.000	4.796	255735.82	0.0896	P	0.2
4	☐	10.000	10.002	525526.29	0.1868	P	0.8
5	☐	100.000	93.879	4924804.30	1.7531	A	1.4
6	☐	200.000	203.066	10012314.23	3.7919	A	0.8

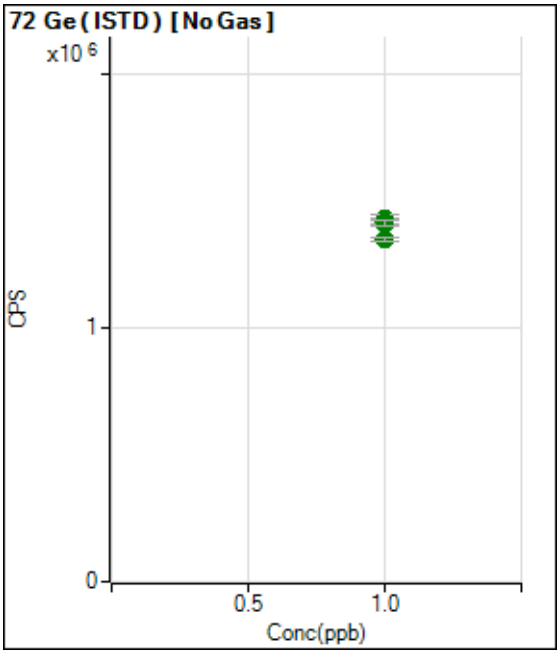
y = 0.0187 * x + 7.2236E-005
R = 0.9993
DL = 0.002296
BEC = 0.003868

Weight: <None>
Min Conc: <None>

Calibration for 270_ICV.d

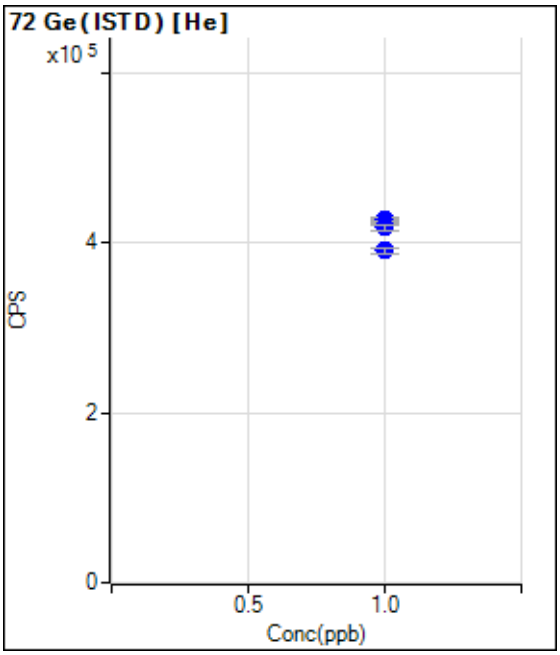


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		453655.83		P	0.1
2	☐	1.000		453875.67		P	0.4
3	☐	1.000		452463.15		P	1.1
4	☐	1.000		449761.92		P	0.3
5	☐	1.000		427478.96		P	1.0
6	☐	1.000		406859.68		P	1.0

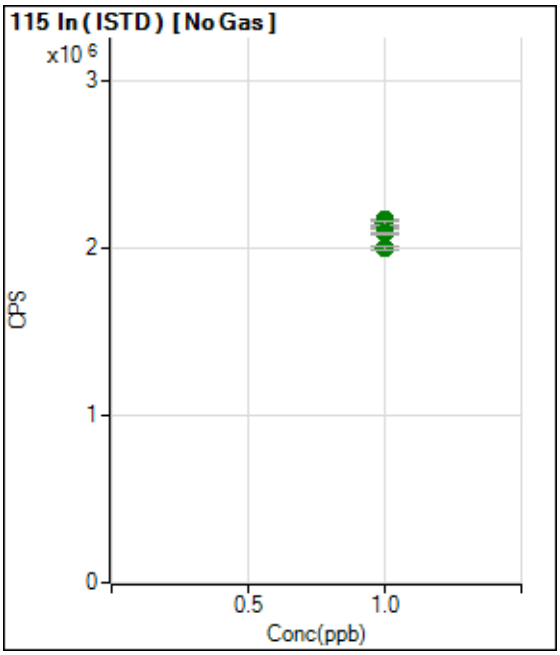


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1422728.78		A	0.2
2	☐	1.000		1409666.54		A	1.6
3	☐	1.000		1427874.72		A	2.6
4	☐	1.000		1418499.92		A	1.3
5	☐	1.000		1413164.51		A	1.5
6	☐	1.000		1345792.38		A	1.0

Calibration for 270_ICV.d

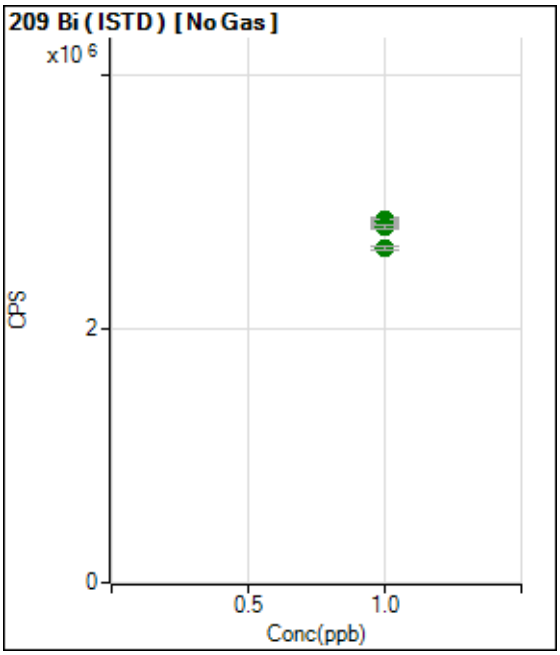


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		425408.46		P	1.2
2	☐	1.000		425693.65		P	1.0
3	☐	1.000		426706.66		P	1.3
4	☐	1.000		423929.32		P	0.8
5	☐	1.000		417999.23		P	1.7
6	☐	1.000		390226.10		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2144825.39		A	1.6
2	☐	1.000		2164768.06		A	0.6
3	☐	1.000		2133103.15		A	2.0
4	☐	1.000		2145678.00		A	0.7
5	☐	1.000		2085831.18		A	0.5
6	☐	1.000		1996013.85		A	1.2

Calibration for 270_ICV.d



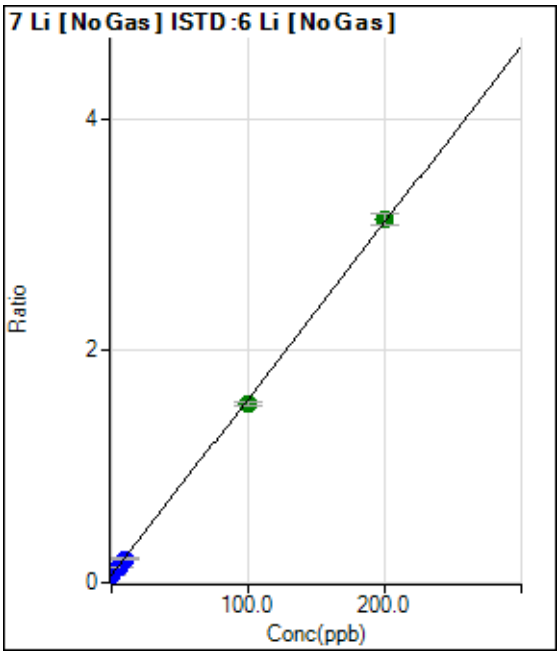
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2862155.27		A	1.0
2	☐	1.000		2854290.79		A	1.2
3	☐	1.000		2853585.69		A	1.1
4	☐	1.000		2812625.27		A	0.9
5	☐	1.000		2809501.21		A	1.4
6	☐	1.000		2640636.94		A	1.5

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\052621A.b\
Analysis File: 052621A.batch.bin
DA Date-Time: 5/26/2021 12:18:38 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	009CALB.d	CAL BLK	5/26/2021 10:45:39 AM
2	010CALS.d	2/10/200	5/26/2021 10:47:38 AM
3	011CALS.d	5/25/500	5/26/2021 10:49:38 AM
4	012CALS.d	10/50/100	5/26/2021 10:51:37 AM
5	013CALS.d	100/500/10K	5/26/2021 10:53:37 AM
6	014CALS.d	200/1000/20K	5/26/2021 10:55:31 AM

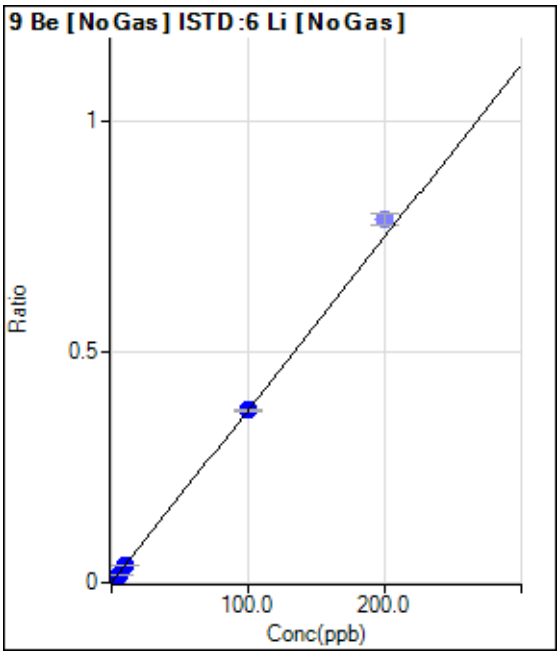
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39971.45	0.0646	P	0.3
2	☐	2.000	1.836	56554.60	0.0926	P	0.7
3	☐	5.000	4.558	81730.11	0.1340	P	2.0
4	☐	10.000	9.355	125307.91	0.2070	P	0.5
5	☐	100.000	97.168	894567.85	1.5434	A	1.1
6	☐	200.000	201.461	1676203.10	3.1305	A	3.3

y = 0.0152 * x + 0.0646
R = 0.9999
DL = 0.03946
BEC = 4.248

Weight: <None>
Min Conc: <None>

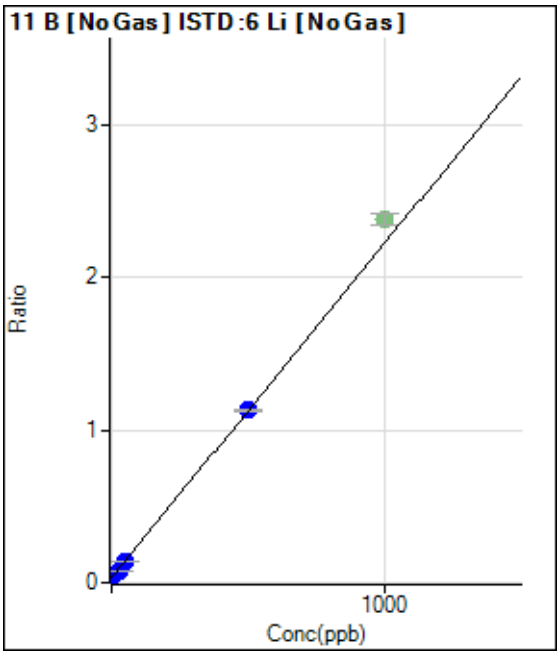


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0002	P	18.2
2	☐	2.000	1.854	4329.04	0.0071	P	3.6
3	☐	5.000	4.737	10890.96	0.0179	P	0.5
4	☐	10.000	9.797	22249.32	0.0368	P	0.4
5	☐	100.000	100.036	216683.35	0.3738	P	1.0
6	☑	200.000		420248.87	0.7849	P	3.0

y = 0.0037 * x + 1.6176E-004
R = 1.0000
DL = 0.02366
BEC = 0.0433

Weight: <None>
Min Conc: <None>

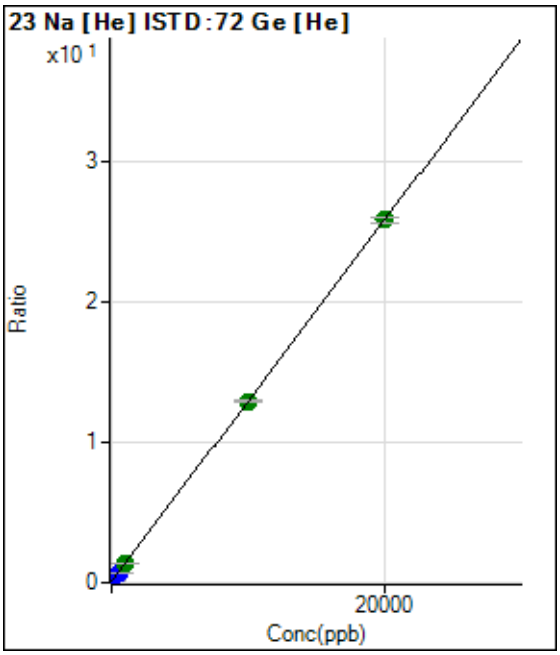
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20046.01	0.0324	P	2.6
2	☐	10.000	8.124	30663.47	0.0502	P	0.7
3	☐	25.000	21.578	48580.29	0.0797	P	0.6
4	☐	50.000	46.448	81169.38	0.1341	P	0.8
5	☐	500.000	500.564	653912.62	1.1282	P	1.1
6	☑	1000.000		1271809.96	2.3753	A	3.1

y = 0.0022 * x + 0.0324
R = 1.0000
DL = 1.176
BEC = 14.81

Weight: <None>
Min Conc: <None>

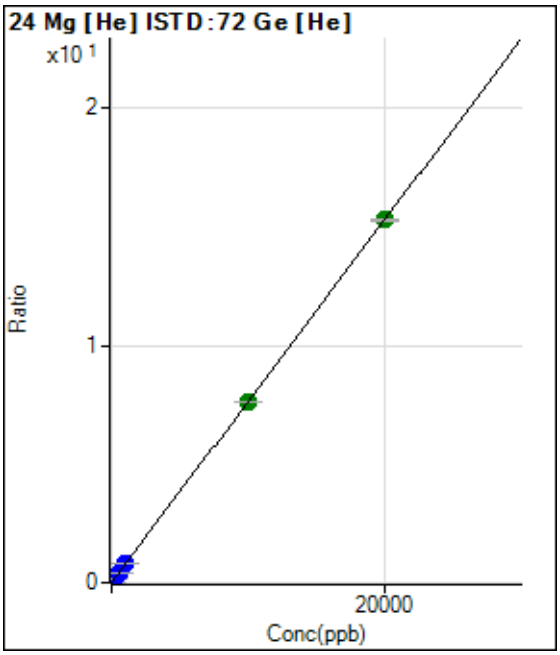


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47323.69	0.0762	P	1.2
2	☐	200.000	212.716	215351.21	0.3503	P	1.2
3	☐	500.000	521.869	459821.10	0.7486	P	0.4
4	☐	1000.000	1041.143	873823.71	1.4177	A	2.6
5	☐	10000.00	9982.591	7922372.59	12.9385	A	0.8
6	☐	20000.00	20005.97	15019250.19	25.8533	A	1.4

y = 0.0013 * x + 0.0762
R = 1.0000
DL = 2.063
BEC = 59.16

Weight: <None>
Min Conc: <None>

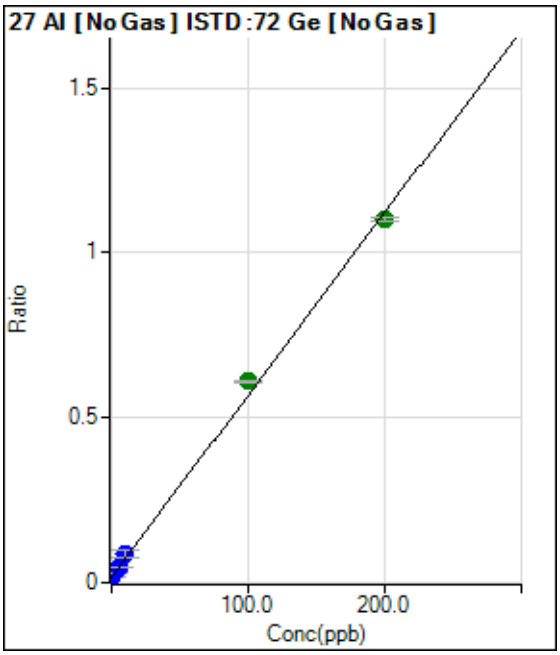
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1623.46	0.0026	P	4.8
2	☐	200.000	210.273	100282.50	0.1631	P	2.4
3	☐	500.000	528.605	249471.79	0.4062	P	0.6
4	☐	1000.000	1051.340	496321.54	0.8052	P	0.5
5	☐	10000.00	9976.544	4665169.41	7.6189	A	0.7
6	☐	20000.00	20008.34	8875539.45	15.2773	A	0.8

y = 7.6342E-004 * x + 0.0026
R = 1.0000
DL = 0.4921
BEC = 3.426

Weight: <None>
Min Conc: <None>

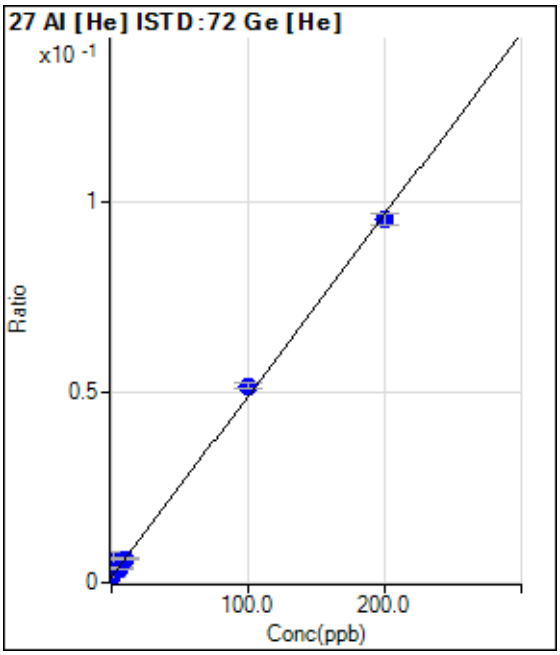


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32478.91	0.0163	P	1.1
2	☐	2.000	2.555	60307.50	0.0304	P	0.9
3	☐	5.000	5.118	88426.87	0.0445	P	1.4
4	☐	10.000	12.946	174310.06	0.0877	P	29.3
5	☐	100.000	107.361	1191661.47	0.6089	A	1.3
6	☐	200.000	196.163	2039440.65	1.0992	A	1.1

y = 0.0055 * x + 0.0163
R = 0.9990
DL = 0.0961
BEC = 2.945

Weight: <None>
Min Conc: <None>

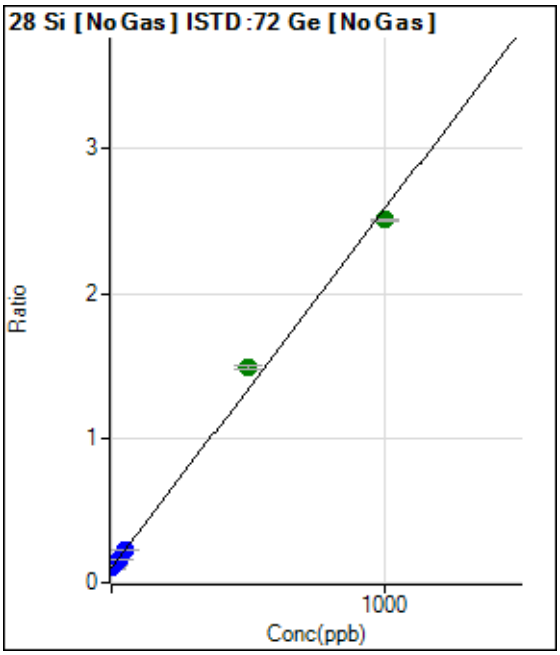
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	890.05	0.0014	P	14.8
2	☐	2.000	8.316	3318.94	0.0054	P	92.7
3	☐	5.000	4.865	2303.57	0.0038	P	5.4
4	☐	10.000	10.064	3837.27	0.0062	P	3.9
5	☐	100.000	105.647	31676.47	0.0517	P	3.2
6	☐	200.000	197.114	55360.33	0.0953	P	3.1

y = 4.7618E-004 * x + 0.0014
R = 0.9991
DL = 1.341
BEC = 3.012

Weight: <None>
Min Conc: <None>

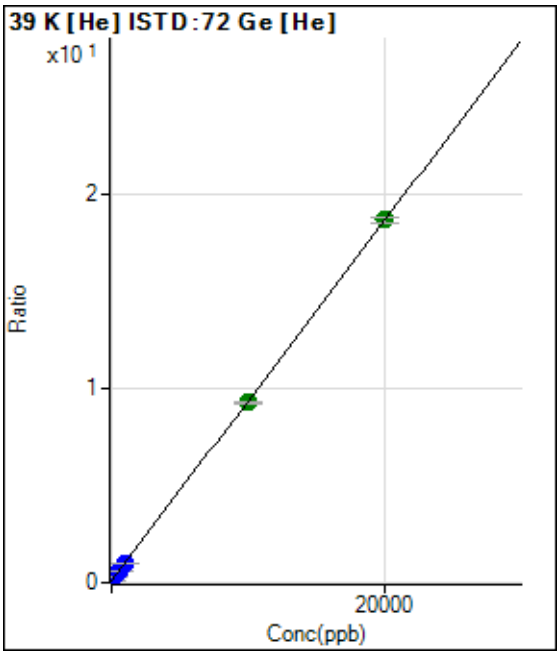


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	201412.14	0.1008	P	3.1
2	☐	10.000	9.091	245049.46	0.1234	P	1.5
3	☐	25.000	23.673	317010.48	0.1596	P	1.2
4	☐	50.000	49.755	444747.21	0.2243	P	1.7
5	☐	500.000	559.160	2911760.27	1.4882	A	2.2
6	☐	1000.000	970.475	4654986.80	2.5087	A	0.4

y = 0.0025 * x + 0.1008
R = 0.9975
DL = 3.75
BEC = 40.64

Weight: <None>
Min Conc: <None>

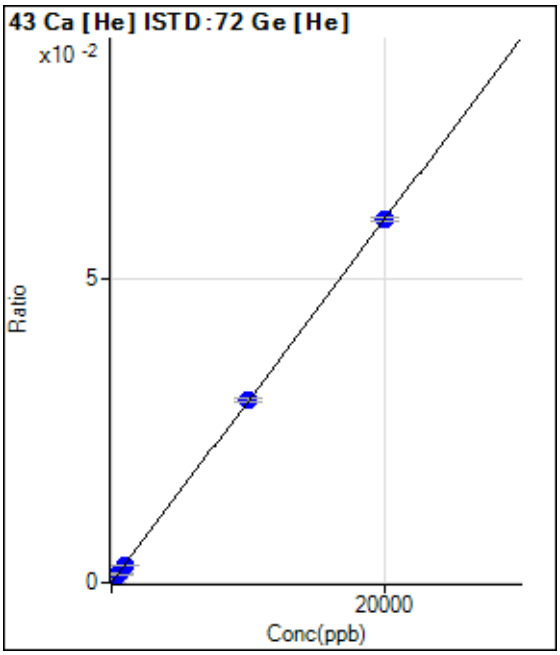
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53681.21	0.0865	P	1.5
2	☐	200.000	204.063	169388.37	0.2756	P	2.3
3	☐	500.000	505.389	340754.50	0.5548	P	0.5
4	☐	1000.000	1015.586	633347.36	1.0276	P	0.6
5	☐	10000.00	9927.982	5686324.08	9.2861	A	1.2
6	☐	20000.00	20035.05	10835326.92	18.6517	A	1.8

y = 9.2664E-004 * x + 0.0865
R = 1.0000
DL = 4.26
BEC = 93.32

Weight: <None>
Min Conc: <None>

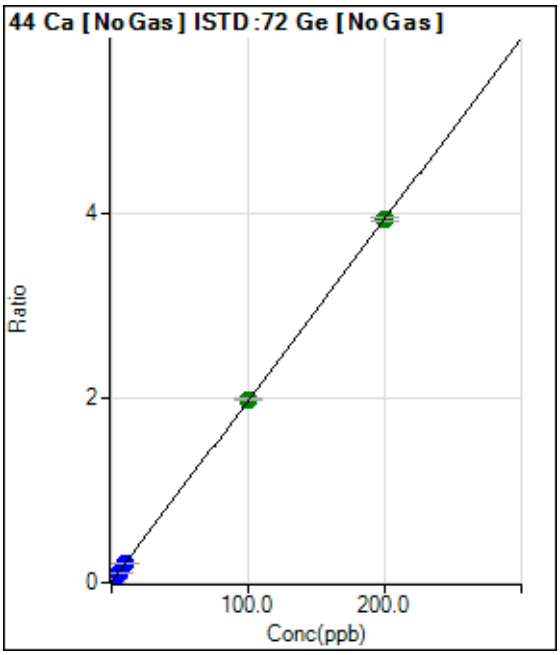


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.5
2	☐	200.000	209.939	403.35	0.0007	P	31.7
3	☐	500.000	476.997	893.37	0.0015	P	4.1
4	☐	1000.000	954.372	1776.82	0.0029	P	8.5
5	☐	10000.00	10040.82	18419.24	0.0301	P	2.5
6	☐	20000.00	19982.34	34760.79	0.0598	P	0.9

y = 2.9930E-006 * x + 2.6806E-005
R = 1.0000
DL = 24.58
BEC = 8.956

Weight: <None>
Min Conc: <None>

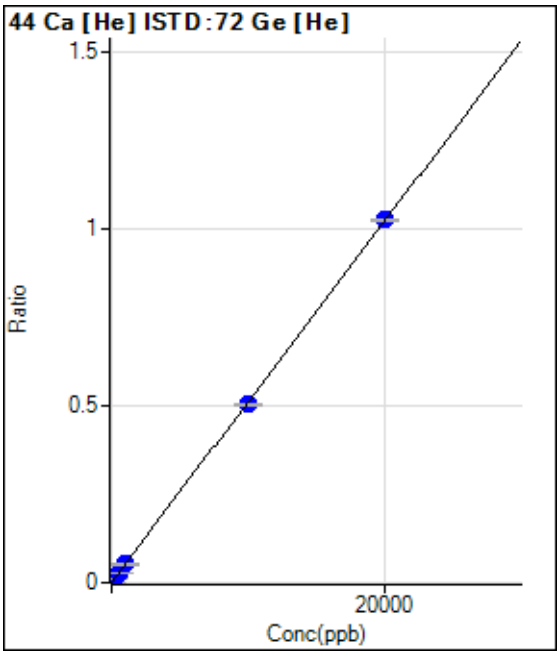
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17234.35	0.0086	P	5.7
2	☐	2.000	2.035	96473.57	0.0486	P	2.6
3	☐	5.000	5.105	216281.77	0.1089	P	1.7
4	☐	10.000	10.381	421339.26	0.2125	P	0.3
5	☐	100.000	100.496	3878103.17	1.9818	A	1.1
6	☐	200.000	199.730	7292355.52	3.9303	A	1.1

y = 0.0196 * x + 0.0086
R = 1.0000
DL = 0.07493
BEC = 0.4396

Weight: <None>
Min Conc: <None>

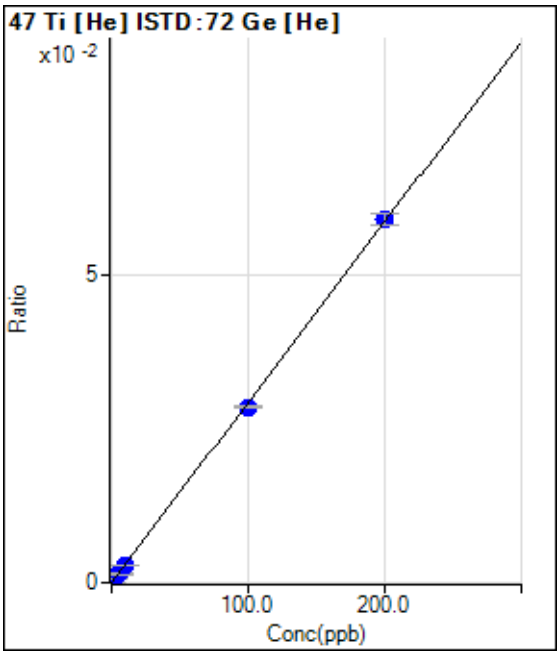


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	433.35	0.0007	P	11.9
2	☐	200.000	199.694	6701.78	0.0109	P	4.7
3	☐	500.000	498.683	16083.02	0.0262	P	1.9
4	☐	1000.000	1000.749	31954.09	0.0518	P	0.6
5	☐	10000.00	9851.060	308689.21	0.5041	P	1.3
6	☐	20000.00	20074.46	596426.12	1.0266	P	0.7

y = 5.1106E-005 * x + 6.9808E-004
R = 1.0000
DL = 4.882
BEC = 13.66

Weight: <None>
Min Conc: <None>

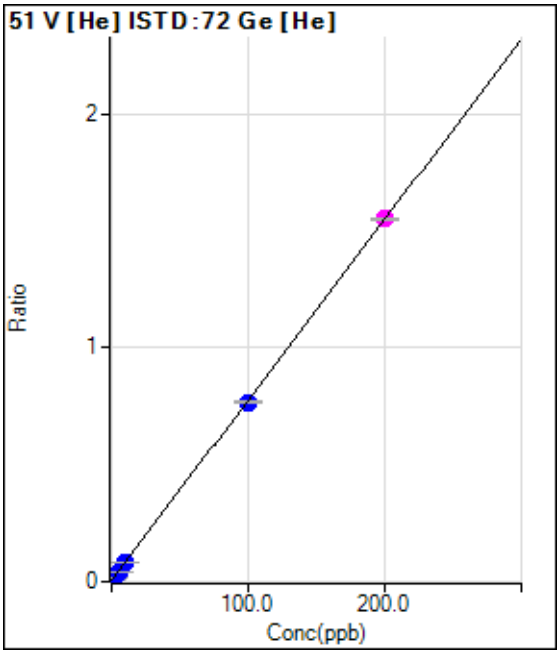
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.2
2	☐	2.000	2.164	396.68	0.0006	P	31.8
3	☐	5.000	4.998	906.72	0.0015	P	12.4
4	☐	10.000	9.519	1726.81	0.0028	P	4.8
5	☐	100.000	97.378	17491.37	0.0286	P	1.4
6	☐	200.000	201.333	34299.84	0.0590	P	3.2

y = 2.9322E-004 * x + 1.0694E-005
R = 0.9999
DL = 0.1895
BEC = 0.03647

Weight: <None>
Min Conc: <None>

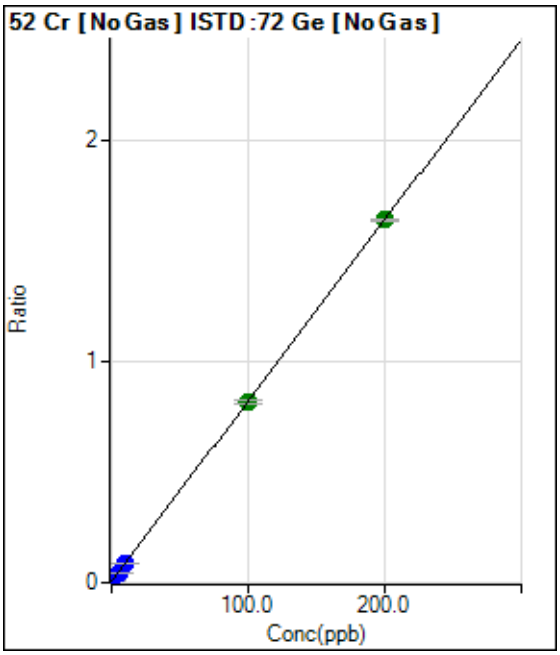


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2815.86	0.0045	P	1.8
2	☐	2.000	1.974	12146.54	0.0198	P	1.8
3	☐	5.000	5.047	26683.79	0.0434	P	1.9
4	☐	10.000	10.065	50627.50	0.0821	P	0.4
5	☐	100.000	98.952	469922.00	0.7675	P	0.9
6	☐	200.000	200.520	900818.33	1.5505	M	0.5

y = 0.0077 * x + 0.0045
R = 1.0000
DL = 0.03126
BEC = 0.5883

Weight: <None>
Min Conc: <None>

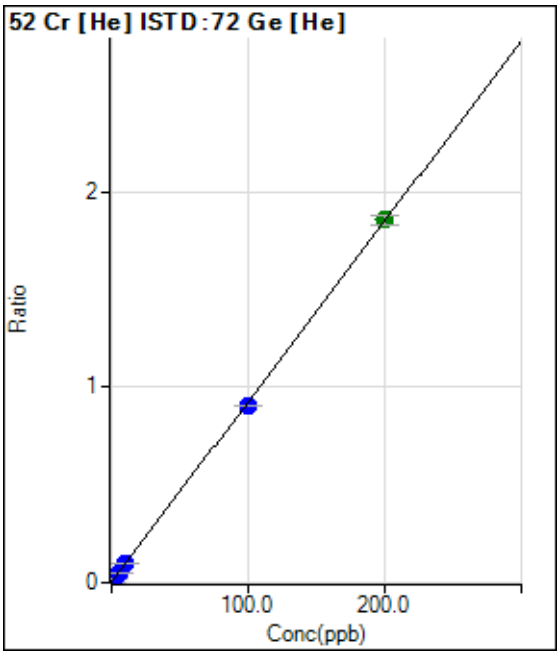
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12065.51	0.0060	P	3.6
2	☐	2.000	2.020	44793.45	0.0226	P	2.1
3	☐	5.000	4.946	92339.91	0.0465	P	2.0
4	☐	10.000	10.209	177526.30	0.0895	P	1.2
5	☐	100.000	99.689	1606787.43	0.8212	A	2.3
6	☐	200.000	200.146	3048058.08	1.6427	A	0.8

y = 0.0082 * x + 0.0060
R = 1.0000
DL = 0.08063
BEC = 0.7385

Weight: <None>
Min Conc: <None>

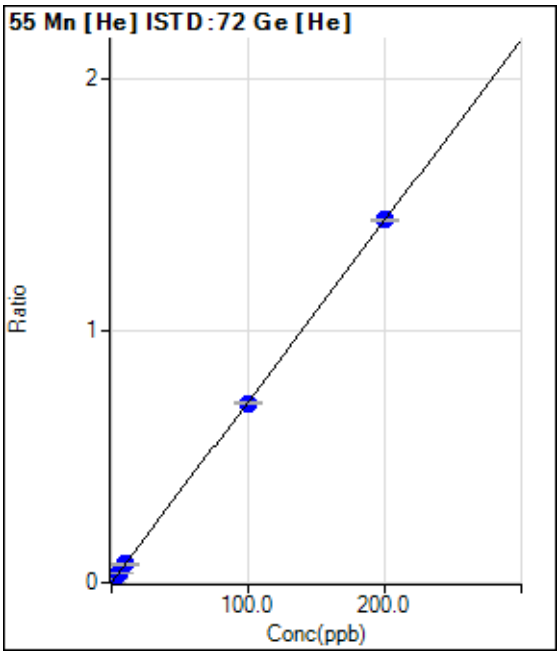


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1253.41	0.0020	P	8.3
2	☐	2.000	2.016	12672.77	0.0206	P	2.2
3	☐	5.000	4.933	29184.74	0.0475	P	3.0
4	☐	10.000	10.098	58648.81	0.0952	P	1.2
5	☐	100.000	98.037	554906.48	0.9062	P	0.7
6	☐	200.000	200.978	1077944.28	1.8556	A	2.8

y = 0.0092 * x + 0.0020
R = 0.9999
DL = 0.05458
BEC = 0.2189

Weight: <None>
Min Conc: <None>

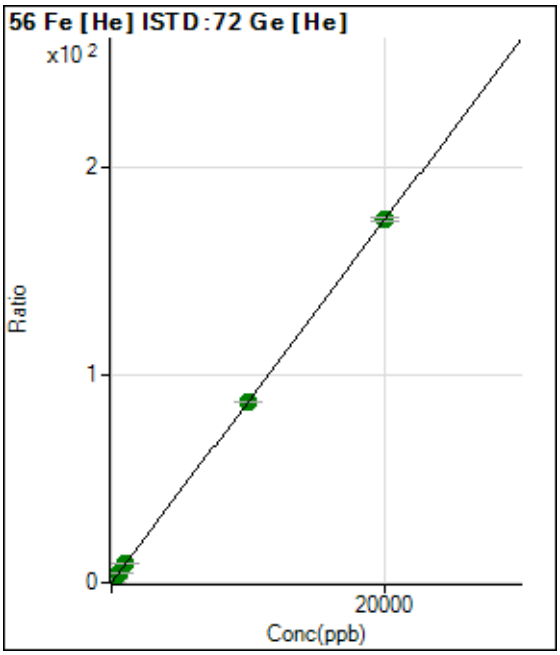
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	260.01	0.0004	P	8.0
2	☐	2.000	2.039	9266.63	0.0151	P	6.3
3	☐	5.000	4.956	22141.56	0.0360	P	2.2
4	☐	10.000	10.108	45047.87	0.0731	P	1.9
5	☐	100.000	99.208	436961.87	0.7136	P	0.2
6	☐	200.000	200.391	837169.02	1.4410	P	0.5

y = 0.0072 * x + 4.1890E-004
R = 1.0000
DL = 0.01401
BEC = 0.05827

Weight: <None>
Min Conc: <None>

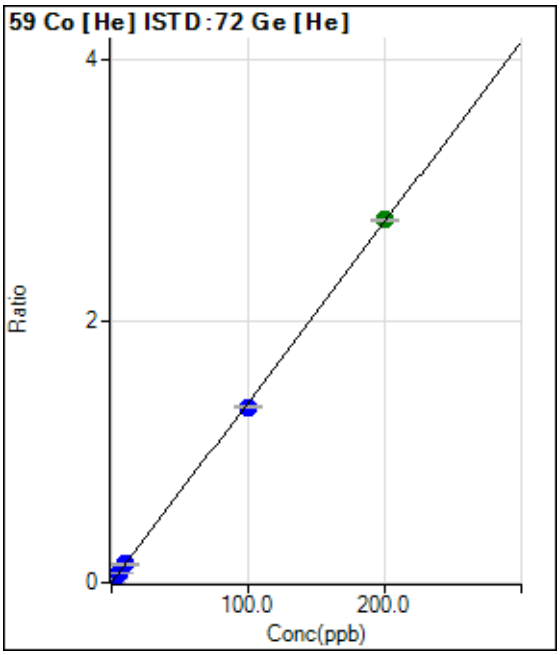


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8302.67	0.0134	P	3.7
2	☐	200.000	208.605	1127052.17	1.8333	A	1.0
3	☐	500.000	517.607	2781918.92	4.5292	A	2.0
4	☐	1000.000	1031.855	5556819.29	9.0157	A	1.5
5	☐	10000.00	9962.527	53230432.54	86.9307	A	0.9
6	☐	20000.00	20016.61	101459748.4	174.646	A	1.2

y = 0.0087 * x + 0.0134
R = 1.0000
DL = 0.171
BEC = 1.533

Weight: <None>
Min Conc: <None>

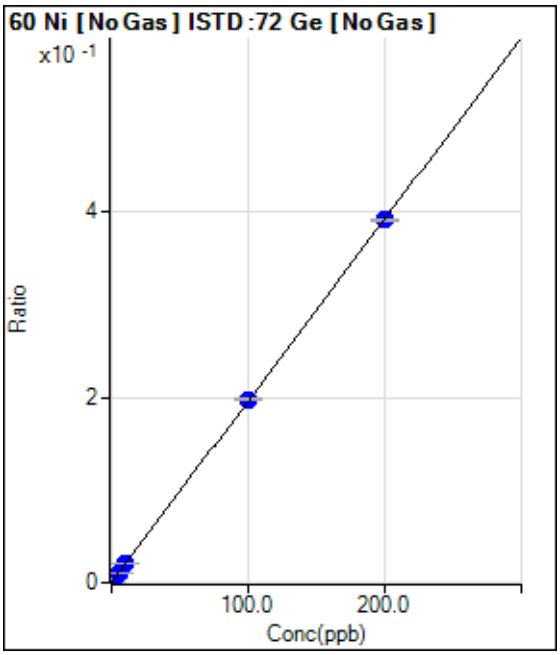
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	66.0
2	☐	2.000	1.969	16717.11	0.0272	P	1.8
3	☐	5.000	4.973	42105.38	0.0686	P	0.3
4	☐	10.000	10.133	86040.31	0.1396	P	1.7
5	☐	100.000	97.497	821949.44	1.3424	P	0.6
6	☐	200.000	201.246	1609722.89	2.7707	A	0.9

y = 0.0138 * x + 8.6015E-005
R = 0.9999
DL = 0.01237
BEC = 0.006248

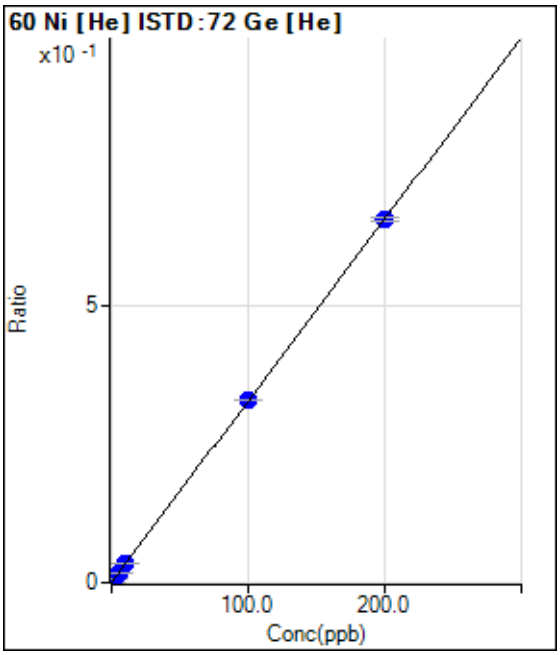
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0003	P	13.3
2	☐	2.000	2.085	8752.95	0.0044	P	2.0
3	☐	5.000	5.082	20422.32	0.0103	P	1.4
4	☐	10.000	10.251	40476.97	0.0204	P	0.9
5	☐	100.000	100.560	386257.07	0.1974	P	1.2
6	☐	200.000	199.705	726770.74	0.3917	P	0.8

y = 0.0020 * x + 3.2033E-004
R = 1.0000
DL = 0.06498
BEC = 0.1635

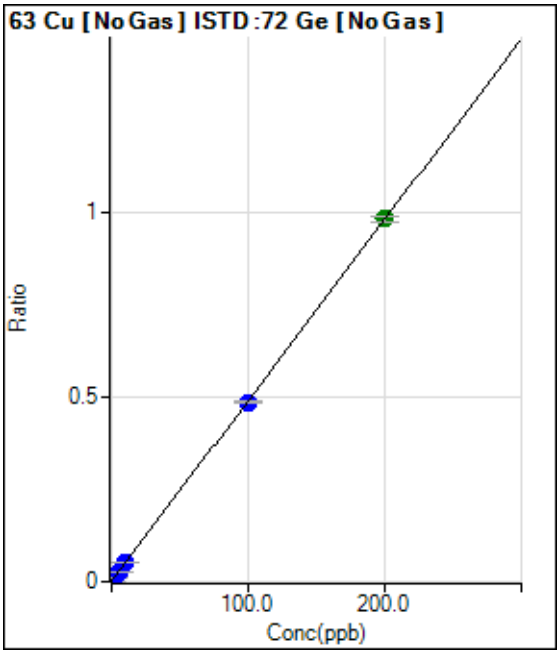
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	256.67	0.0004	P	21.1
2	☐	2.000	2.175	4640.90	0.0076	P	3.3
3	☐	5.000	5.169	10674.38	0.0174	P	1.0
4	☐	10.000	10.527	21550.65	0.0350	P	2.8
5	☐	100.000	100.504	202223.30	0.3303	P	0.9
6	☐	200.000	199.716	381058.65	0.6559	P	0.9

y = 0.0033 * x + 4.1327E-004
R = 1.0000
DL = 0.07984
BEC = 0.1259

Weight: <None>
Min Conc: <None>

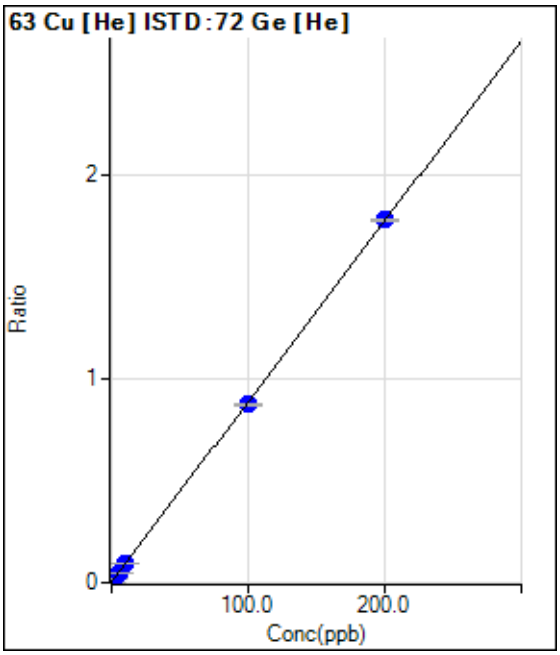


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2830.34	0.0014	P	9.0
2	☐	2.000	2.066	22876.27	0.0115	P	0.6
3	☐	5.000	5.158	52906.45	0.0266	P	3.1
4	☐	10.000	10.310	102779.38	0.0518	P	1.6
5	☐	100.000	99.001	949961.86	0.4855	P	1.6
6	☐	200.000	200.479	1821543.83	0.9817	A	1.6

y = 0.0049 * x + 0.0014
R = 1.0000
DL = 0.07833
BEC = 0.2898

Weight: <None>
Min Conc: <None>

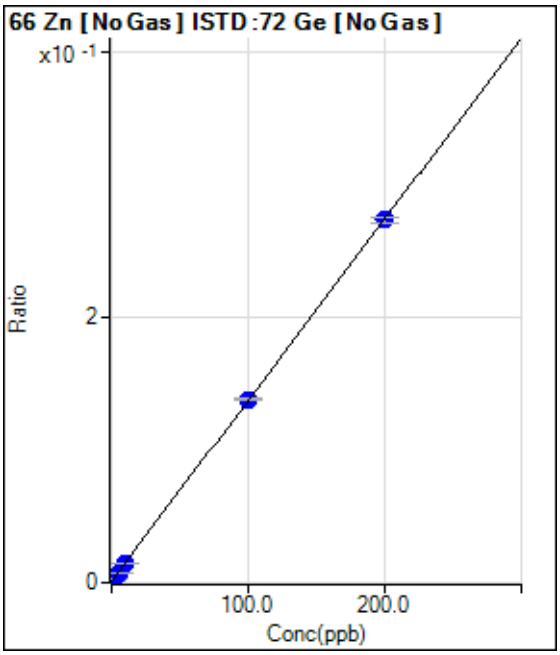
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1356.76	0.0022	P	11.5
2	☐	2.000	2.093	12756.18	0.0207	P	1.8
3	☐	5.000	5.148	29388.76	0.0478	P	1.7
4	☐	10.000	10.462	58549.42	0.0950	P	0.8
5	☐	100.000	98.445	536043.40	0.8755	P	1.0
6	☐	200.000	200.750	1035845.84	1.7830	P	0.8

y = 0.0089 * x + 0.0022
R = 1.0000
DL = 0.08499
BEC = 0.2464

Weight: <None>
Min Conc: <None>

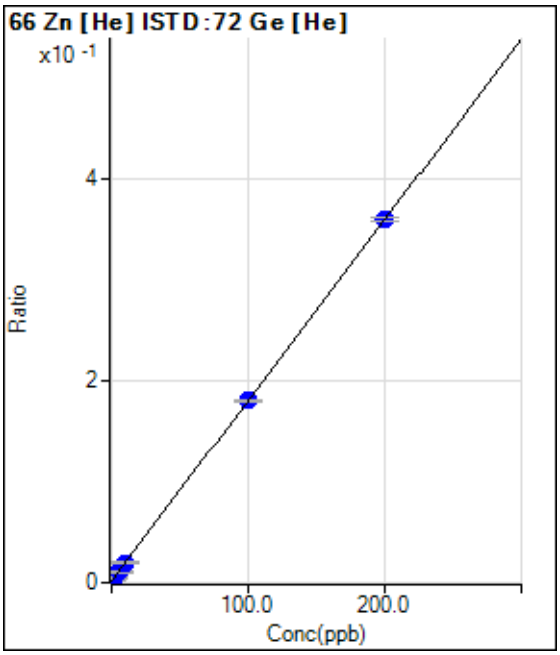


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2240.23	0.0011	P	6.5
2	☐	2.000	1.776	7035.26	0.0035	P	4.2
3	☐	5.000	4.747	15081.98	0.0076	P	3.2
4	☐	10.000	10.133	29616.11	0.0149	P	1.7
5	☐	100.000	100.632	270570.79	0.1383	P	1.4
6	☐	200.000	199.686	507040.12	0.2733	P	1.6

y = 0.0014 * x + 0.0011
R = 1.0000
DL = 0.1612
BEC = 0.8226

Weight: <None>
Min Conc: <None>

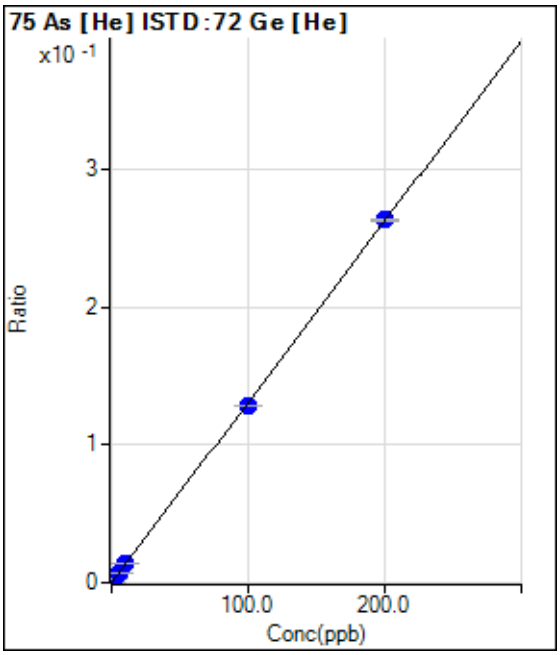
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	976.72	0.0016	P	9.7
2	☐	2.000	1.750	2893.69	0.0047	P	4.2
3	☐	5.000	4.991	6458.30	0.0105	P	6.2
4	☐	10.000	10.199	12229.03	0.0198	P	6.1
5	☐	100.000	99.938	110587.84	0.1806	P	1.3
6	☐	200.000	200.024	209084.25	0.3599	P	0.9

y = 0.0018 * x + 0.0016
R = 1.0000
DL = 0.2559
BEC = 0.8782

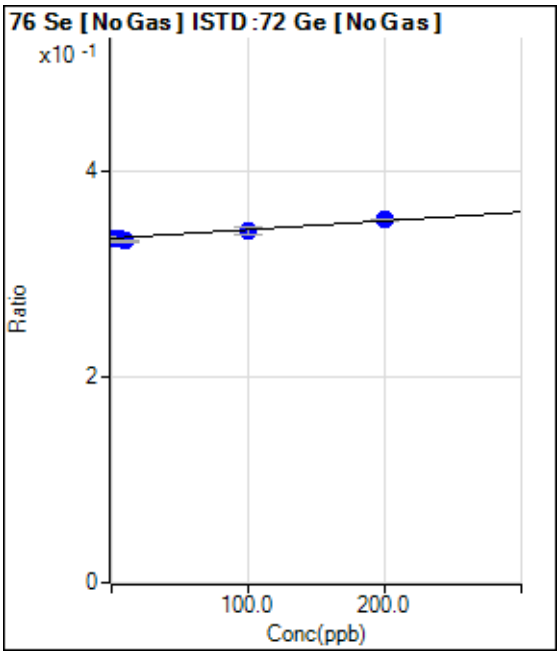
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0002	P	0.4
2	☐	2.000	2.046	1755.68	0.0029	P	6.0
3	☐	5.000	5.172	4270.70	0.0070	P	2.3
4	☐	10.000	10.423	8530.51	0.0138	P	2.8
5	☐	100.000	97.942	78740.28	0.1286	P	0.8
6	☐	200.000	201.003	153216.28	0.2637	P	0.2

y = 0.0013 * x + 1.7183E-004
R = 0.9999
DL = 0.001424
BEC = 0.131

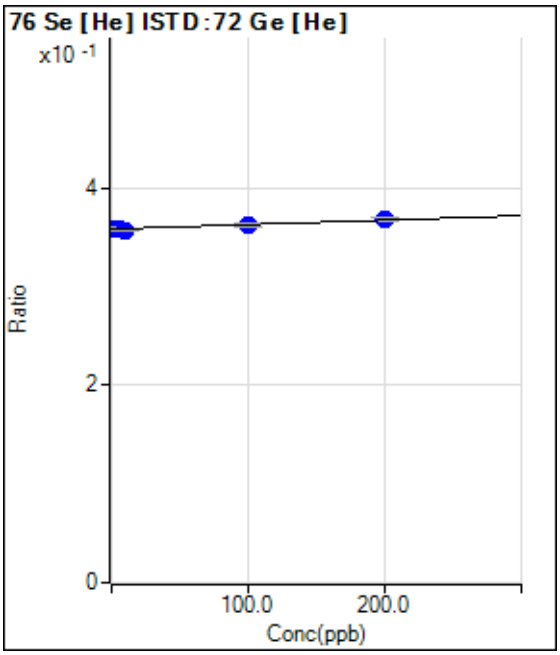
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	667789.94	0.3343	P	0.6
2	☐	2.000	-12.293	661931.68	0.3333	P	0.9
3	☐	5.000	-10.271	662449.26	0.3334	P	1.1
4	☐	10.000	-32.803	657486.02	0.3315	P	0.5
5	☐	100.000	85.144	668349.26	0.3416	P	1.7
6	☐	200.000	210.093	653539.54	0.3522	P	0.3

y = 8.5161E-005 * x + 0.3343
R = 0.9871
DL = 65.82
BEC = 3926

Weight: <None>
Min Conc: <None>

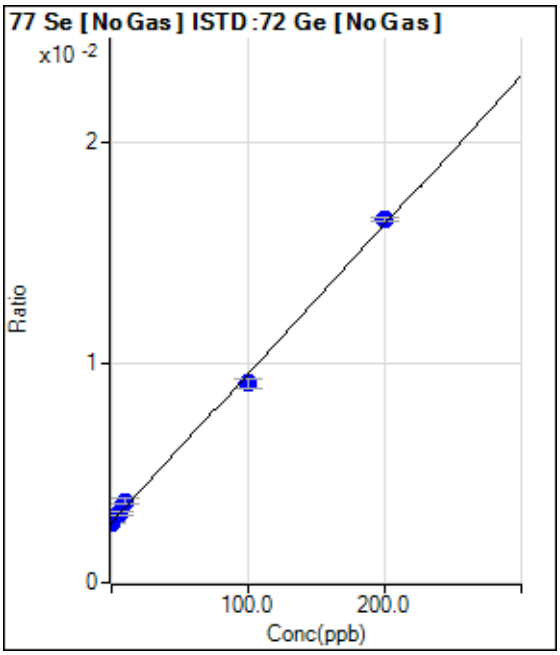


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	222550.23	0.3585	P	0.9
2	☐	2.000	-17.413	219897.22	0.3577	P	1.2
3	☐	5.000	16.619	220652.09	0.3592	P	0.8
4	☐	10.000	-33.864	220026.70	0.3570	P	0.4
5	☐	100.000	98.225	222222.06	0.3629	P	1.2
6	☐	200.000	202.984	213593.93	0.3677	P	1.0

y = 4.5116E-005 * x + 0.3585
R = 0.9775
DL = 210
BEC = 7946

Weight: <None>
Min Conc: <None>

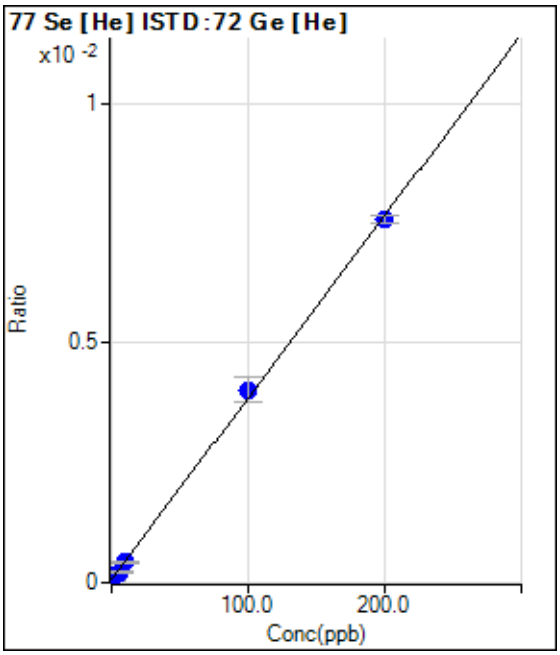
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5461.20	0.0027	P	2.1
2	☐	2.000	3.738	5931.43	0.0030	P	2.4
3	☐	5.000	6.394	6291.61	0.0032	P	5.5
4	☐	10.000	14.128	7315.44	0.0037	P	6.6
5	☐	100.000	93.263	17698.60	0.0090	P	5.3
6	☐	200.000	203.110	30588.34	0.0165	P	0.9

y = 6.7701E-005 * x + 0.0027
R = 0.9989
DL = 2.501
BEC = 40.38

Weight: <None>
Min Conc: <None>

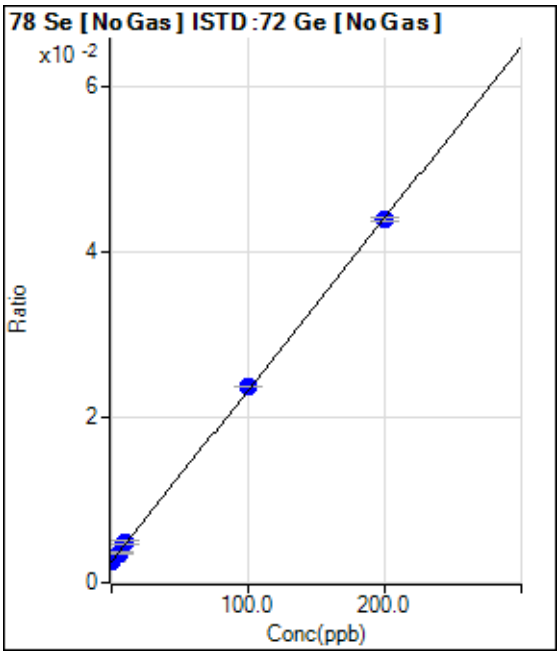


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0001	P	50.2
2	☐	2.000	2.594	100.00	0.0002	P	36.3
3	☐	5.000	3.879	130.00	0.0002	P	19.9
4	☐	10.000	9.571	263.34	0.0004	P	5.9
5	☐	100.000	104.377	2460.27	0.0040	P	12.6
6	☐	200.000	197.855	4394.12	0.0076	P	2.0

y = 3.7903E-005 * x + 6.4504E-005
R = 0.9996
DL = 2.565
BEC = 1.702

Weight: <None>
Min Conc: <None>

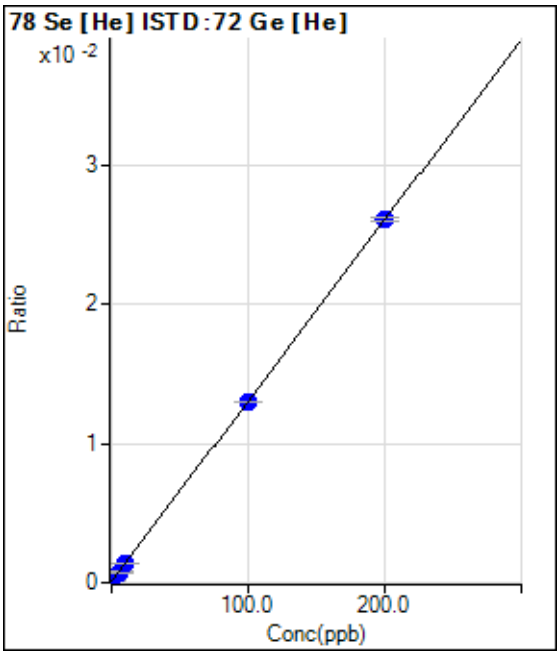
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5057.72	0.0025	P	2.1
2	☐	2.000	2.349	5998.12	0.0030	P	5.1
3	☐	5.000	5.065	7125.36	0.0036	P	4.5
4	☐	10.000	11.109	9596.92	0.0048	P	7.2
5	☐	100.000	101.800	46353.17	0.0237	P	0.5
6	☐	200.000	199.039	81438.51	0.0439	P	1.0

y = 2.0779E-004 * x + 0.0025
R = 0.9999
DL = 0.7498
BEC = 12.19

Weight: <None>
Min Conc: <None>

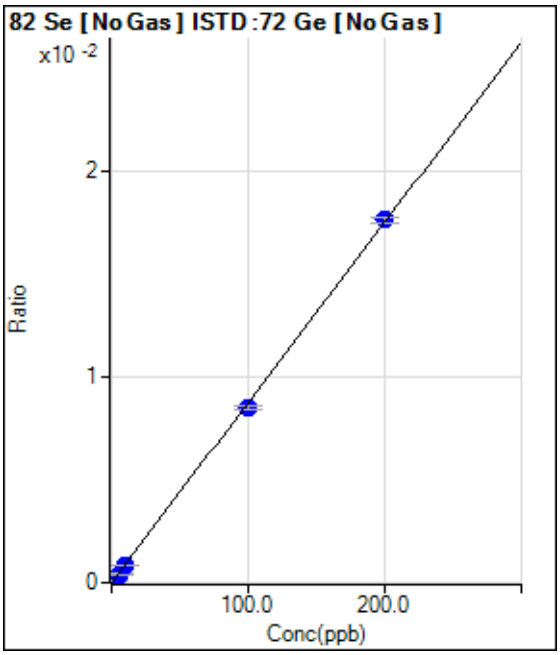


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.33	0.0001	P	7.6
2	☐	2.000	2.195	243.33	0.0004	P	8.9
3	☐	5.000	4.894	458.01	0.0007	P	10.9
4	☐	10.000	9.937	862.03	0.0014	P	1.3
5	☐	100.000	99.444	7953.69	0.0130	P	0.7
6	☐	200.000	200.282	15133.18	0.0260	P	1.2

y = 1.2950E-004 * x + 1.1170E-004
R = 1.0000
DL = 0.1958
BEC = 0.8626

Weight: <None>
Min Conc: <None>

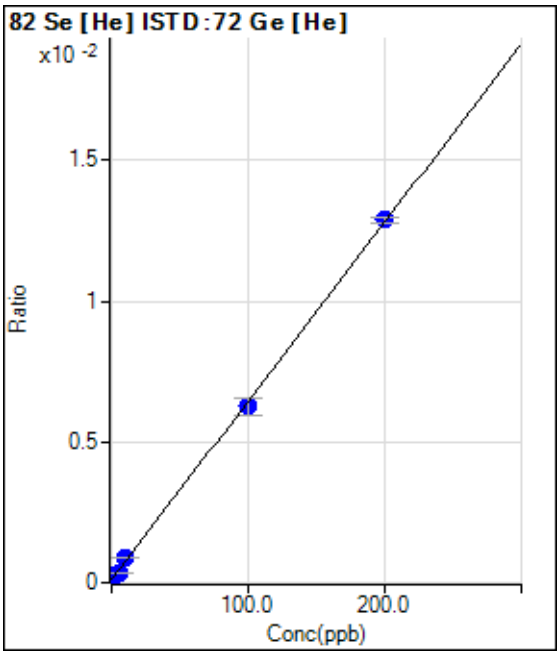
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.81	0.0000	P	212.7
2	☐	2.000	1.541	297.17	0.0001	P	21.7
3	☐	5.000	4.177	753.88	0.0004	P	23.2
4	☐	10.000	9.571	1687.74	0.0009	P	6.8
5	☐	100.000	97.173	16644.91	0.0085	P	1.9
6	☐	200.000	201.460	32681.24	0.0176	P	1.5

y = 8.7354E-005 * x + 1.5209E-005
R = 0.9999
DL = 1.111
BEC = 0.1741

Weight: <None>
Min Conc: <None>

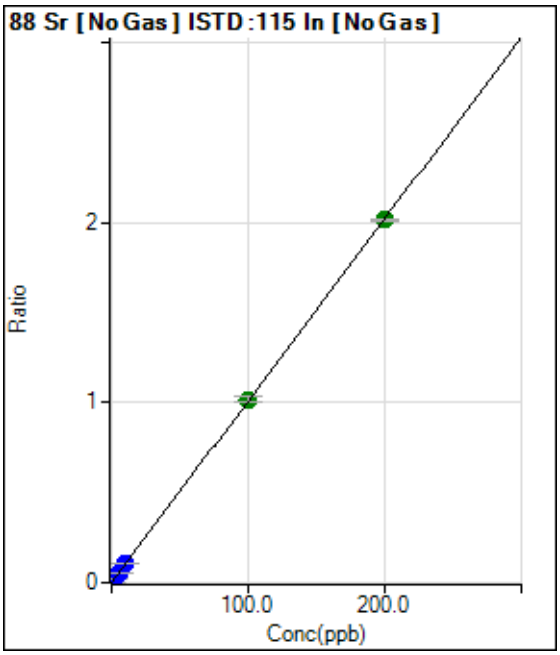


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	9.0
2	☐	2.000	2.231	153.34	0.0002	P	41.8
3	☐	5.000	3.954	220.01	0.0004	P	4.2
4	☐	10.000	12.120	540.02	0.0009	P	3.2
5	☐	100.000	96.924	3830.63	0.0063	P	10.4
6	☐	200.000	201.456	7485.57	0.0129	P	1.4

y = 6.3425E-005 * x + 1.0741E-004
R = 0.9997
DL = 0.4573
BEC = 1.694

Weight: <None>
Min Conc: <None>

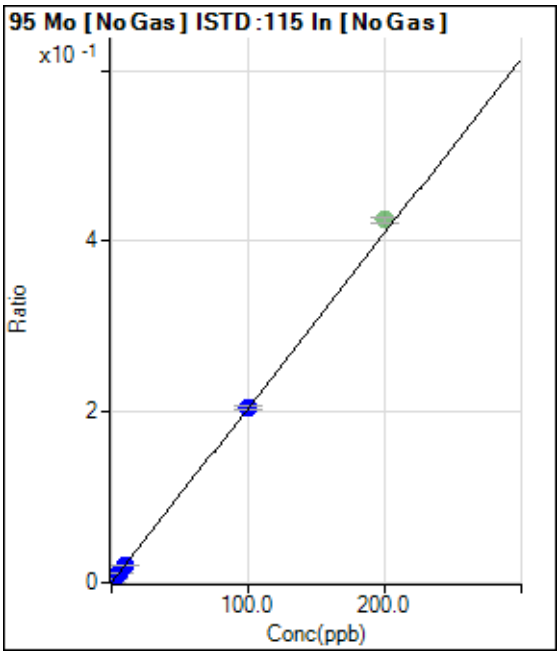
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1840.16	0.0006	P	9.3
2	☐	2.000	1.992	60041.13	0.0207	P	2.4
3	☐	5.000	4.966	146131.14	0.0508	P	0.8
4	☐	10.000	10.089	294873.60	0.1025	P	1.1
5	☐	100.000	100.801	2872842.14	1.0184	A	3.0
6	☐	200.000	199.596	5443622.00	2.0159	A	0.7

y = 0.0101 * x + 6.3237E-004
R = 1.0000
DL = 0.01755
BEC = 0.06263

Weight: <None>
Min Conc: <None>

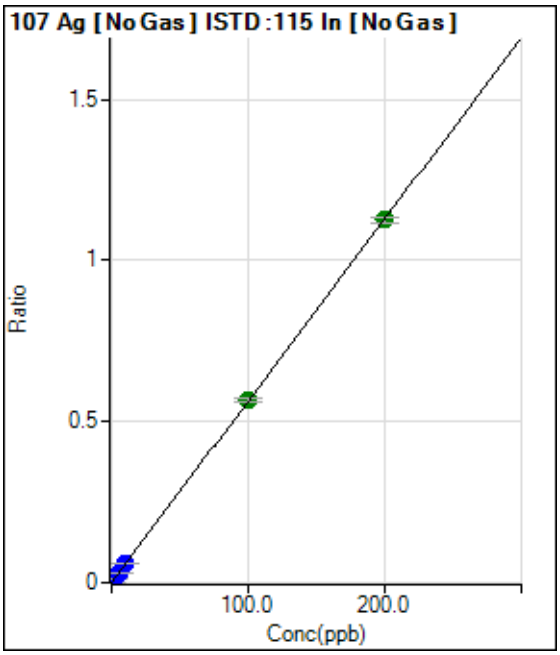


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0001	P	10.9
2	☐	2.000	1.987	11945.52	0.0041	P	3.7
3	☐	5.000	5.116	30308.13	0.0105	P	1.0
4	☐	10.000	10.213	60309.93	0.0210	P	1.7
5	☐	100.000	99.973	577350.08	0.2047	P	2.4
6	☑	200.000		1147992.12	0.4251	A	1.7

y = 0.0020 * x + 6.0639E-005
R = 1.0000
DL = 0.009676
BEC = 0.02963

Weight: <None>
Min Conc: <None>

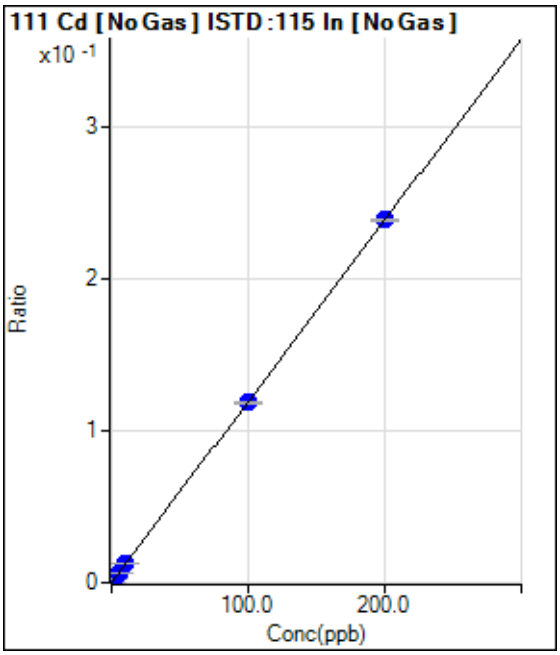
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.07	0.0004	P	5.8
2	☐	2.000	2.016	33994.10	0.0117	P	2.3
3	☐	5.000	5.119	84153.19	0.0292	P	1.2
4	☐	10.000	10.437	170385.60	0.0592	P	0.3
5	☐	100.000	100.549	1600248.73	0.5672	A	1.9
6	☐	200.000	199.700	3041106.51	1.1262	A	1.2

y = 0.0056 * x + 3.8467E-004
R = 1.0000
DL = 0.01183
BEC = 0.06824

Weight: <None>
Min Conc: <None>

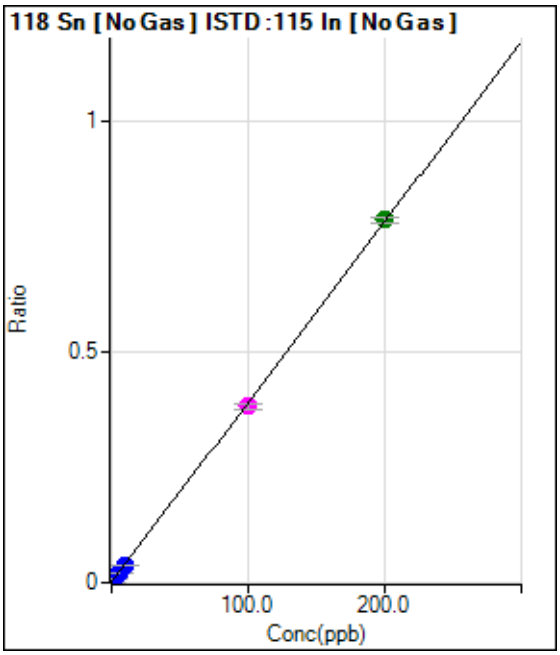


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	86.6
2	☐	2.000	2.025	7008.64	0.0024	P	4.3
3	☐	5.000	4.976	17111.35	0.0059	P	0.1
4	☐	10.000	10.188	35010.02	0.0122	P	1.3
5	☐	100.000	99.317	334562.30	0.1186	P	2.0
6	☐	200.000	200.332	645914.35	0.2392	P	0.5

y = 0.0012 * x + 4.5596E-006
R = 1.0000
DL = 0.009922
BEC = 0.003819

Weight: <None>
Min Conc: <None>

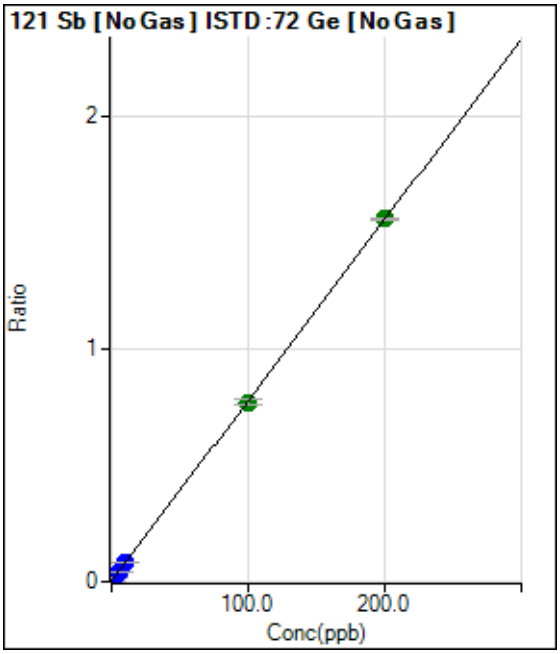
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2737.01	0.0009	P	1.0
2	☐	2.000	1.910	24319.36	0.0084	P	3.4
3	☐	5.000	4.875	57535.93	0.0200	P	0.7
4	☐	10.000	9.838	113318.44	0.0394	P	0.9
5	☐	100.000	97.570	1078255.53	0.3823	M	3.8
6	☐	200.000	201.227	2126174.19	0.7874	A	1.3

y = 0.0039 * x + 9.4005E-004
R = 0.9999
DL = 0.007111
BEC = 0.2405

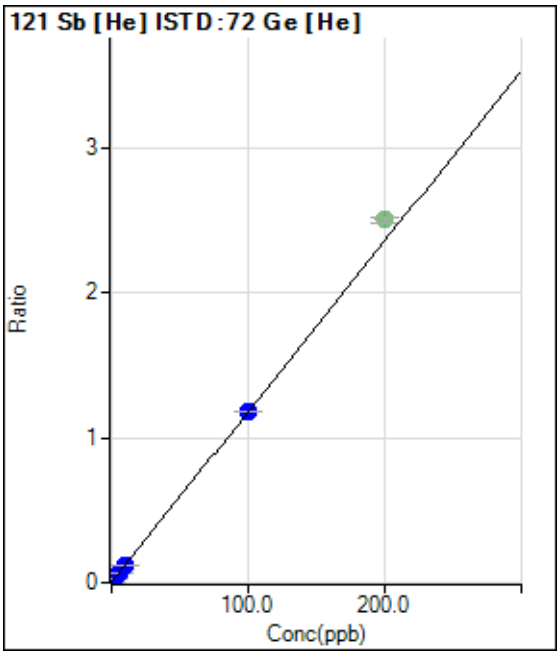
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5491.24	0.0027	P	4.3
2	☐	2.000	1.964	35792.49	0.0180	P	0.5
3	☐	5.000	4.831	80080.18	0.0403	P	1.3
4	☐	10.000	9.832	157068.11	0.0792	P	0.9
5	☐	100.000	99.032	1512163.88	0.7728	A	2.5
6	☐	200.000	200.497	2897934.13	1.5618	A	0.3

y = 0.0078 * x + 0.0027
R = 1.0000
DL = 0.04564
BEC = 0.3535

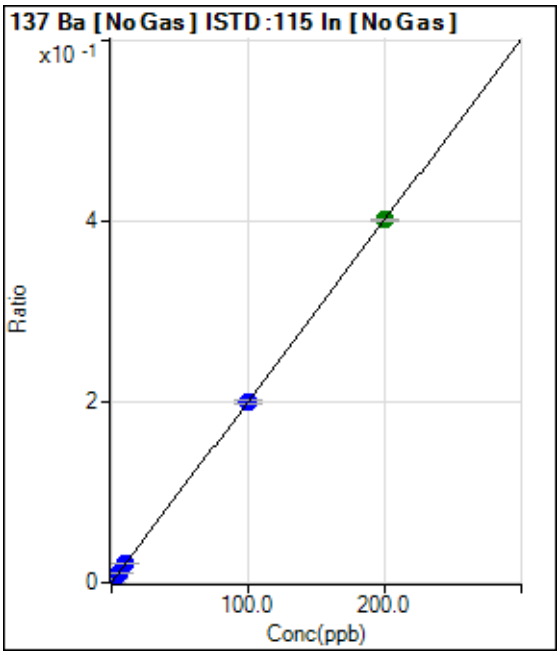
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2386.93	0.0038	P	6.4
2	☐	2.000	2.061	17261.57	0.0281	P	0.6
3	☐	5.000	5.024	38647.42	0.0629	P	0.6
4	☐	10.000	10.220	76438.79	0.1240	P	0.9
5	☐	100.000	99.976	722175.07	1.1794	P	0.7
6	☑	200.000		1453945.08	2.5028	A	1.9

y = 0.0118 * x + 0.0038
R = 1.0000
DL = 0.0627
BEC = 0.327

Weight: <None>
Min Conc: <None>

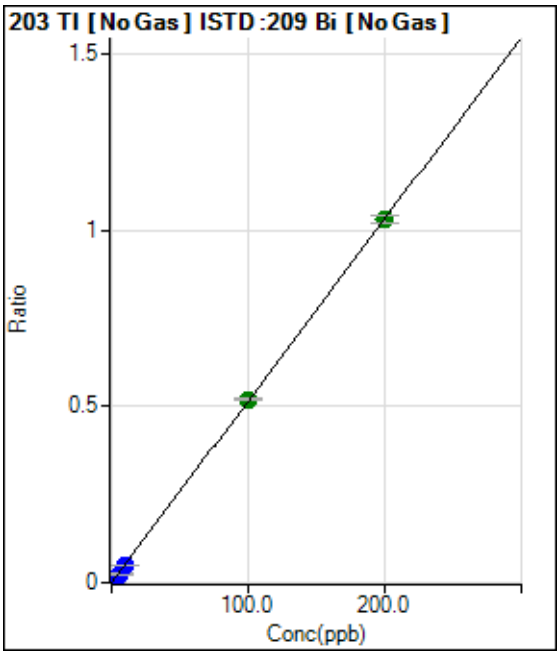


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.01	0.0001	P	28.5
2	☐	2.000	1.994	11808.90	0.0041	P	1.8
3	☐	5.000	5.039	29293.33	0.0102	P	1.2
4	☐	10.000	10.143	58699.23	0.0204	P	0.6
5	☐	100.000	99.733	563831.40	0.1999	P	1.9
6	☐	200.000	200.125	1082698.89	0.4009	A	0.9

y = 0.0020 * x + 8.5975E-005
R = 1.0000
DL = 0.03672
BEC = 0.04292

Weight: <None>
Min Conc: <None>

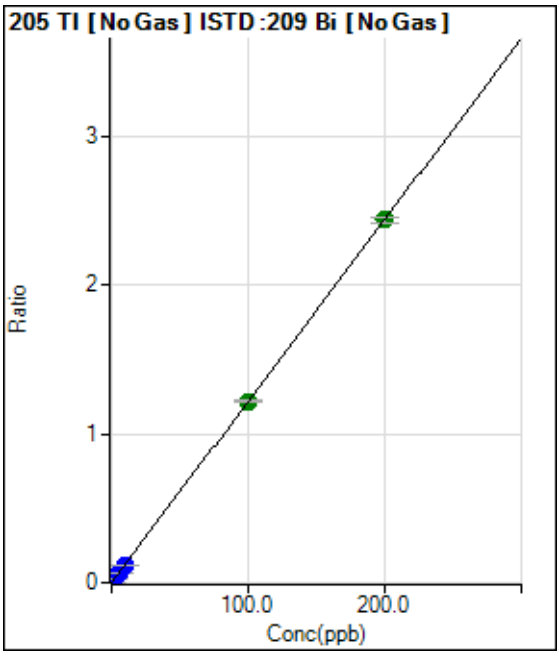
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	980.06	0.0003	P	7.5
2	☐	2.000	1.852	36884.88	0.0098	P	3.3
3	☐	5.000	4.694	91275.08	0.0245	P	0.8
4	☐	10.000	9.666	184185.50	0.0502	P	1.6
5	☐	100.000	100.755	1882221.90	0.5204	A	1.4
6	☐	200.000	199.648	3573001.20	1.0310	A	2.1

y = 0.0052 * x + 2.5808E-004
R = 1.0000
DL = 0.01129
BEC = 0.04999

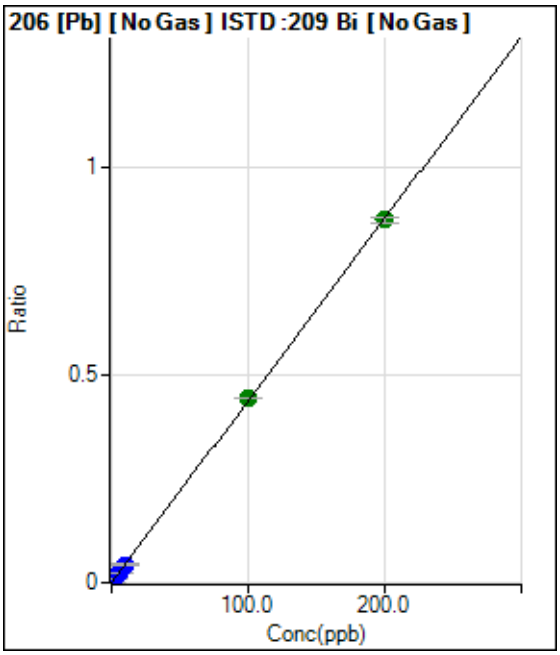
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2450.28	0.0006	P	6.3
2	☐	2.000	1.867	88035.98	0.0234	P	3.5
3	☐	5.000	4.747	218254.80	0.0586	P	1.0
4	☐	10.000	9.935	447526.11	0.1219	P	1.4
5	☐	100.000	99.965	4414188.37	1.2205	A	1.1
6	☐	200.000	200.028	8461856.96	2.4415	A	1.9

y = 0.0122 * x + 6.4562E-004
R = 1.0000
DL = 0.009974
BEC = 0.05291

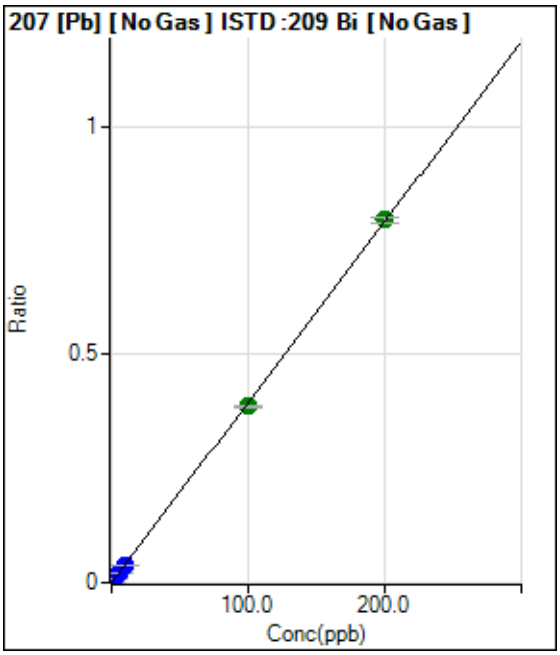
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	720.03	0.0002	P	18.4
2	☐	2.000	1.899	32014.81	0.0085	P	5.0
3	☐	5.000	4.765	78620.24	0.0211	P	0.3
4	☐	10.000	9.966	161228.52	0.0439	P	3.3
5	☐	100.000	101.250	1607504.51	0.4444	A	0.5
6	☐	200.000	199.384	3032794.64	0.8750	A	1.6

y = 0.0044 * x + 1.8965E-004
R = 1.0000
DL = 0.02381
BEC = 0.04322

Weight: <None>
Min Conc: <None>

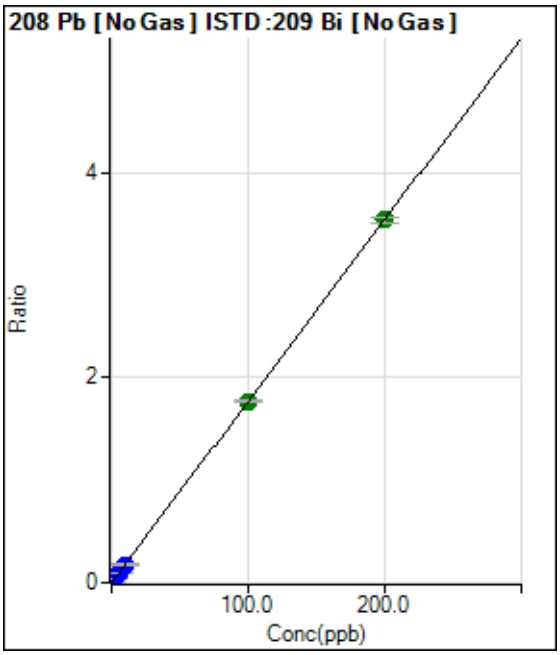


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	673.36	0.0002	P	10.9
2	☐	2.000	1.909	28987.46	0.0077	P	4.2
3	☐	5.000	4.802	71346.97	0.0191	P	0.6
4	☐	10.000	9.942	144836.69	0.0394	P	1.8
5	☐	100.000	97.690	1396156.18	0.3860	A	1.4
6	☐	200.000	201.164	2754304.86	0.7947	A	1.8

y = 0.0039 * x + 1.7753E-004
R = 0.9999
DL = 0.01467
BEC = 0.04495

Weight: <None>
Min Conc: <None>

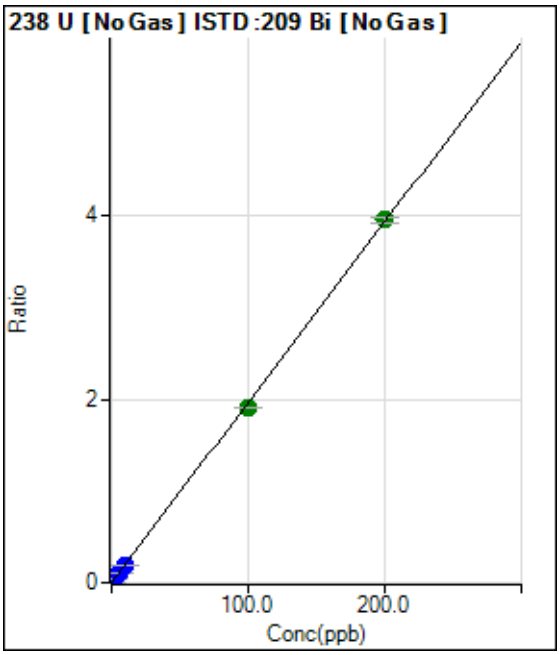
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3036.87	0.0008	P	5.8
2	☐	2.000	1.927	131112.39	0.0349	P	2.8
3	☐	5.000	4.840	322188.54	0.0865	P	1.0
4	☐	10.000	10.009	653286.40	0.1779	P	2.0
5	☐	100.000	100.001	6403659.28	1.7705	A	0.9
6	☐	200.000	200.004	12270618.78	3.5403	A	1.3

y = 0.0177 * x + 8.0000E-004
R = 1.0000
DL = 0.007802
BEC = 0.04521

Weight: <None>
Min Conc: <None>

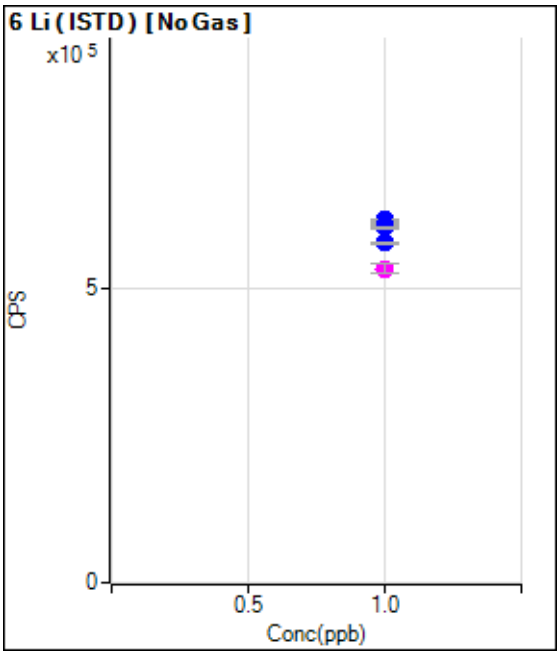


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	333.35	0.0001	P	12.3
2	☐	2.000	1.912	141419.80	0.0376	P	2.3
3	☐	5.000	4.825	353568.09	0.0949	P	0.7
4	☐	10.000	9.937	717055.80	0.1953	P	1.6
5	☐	100.000	97.321	6914949.69	1.9118	A	0.6
6	☐	200.000	201.348	13709118.96	3.9553	A	1.3

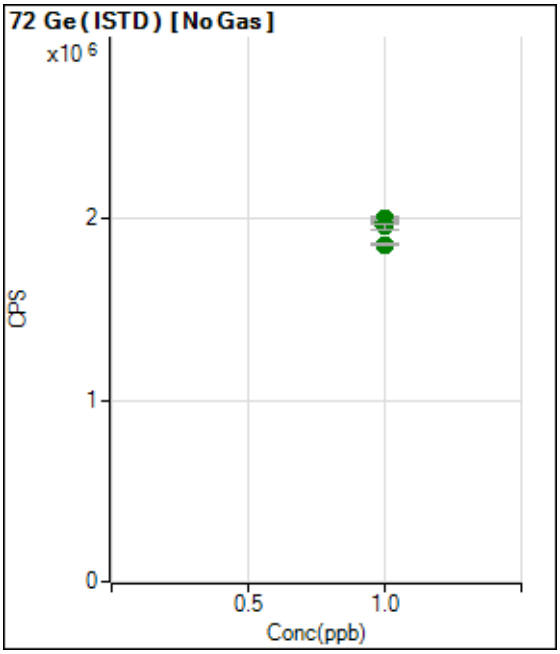
y = 0.0196 * x + 8.7809E-005
R = 0.9999
DL = 0.001653
BEC = 0.00447

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

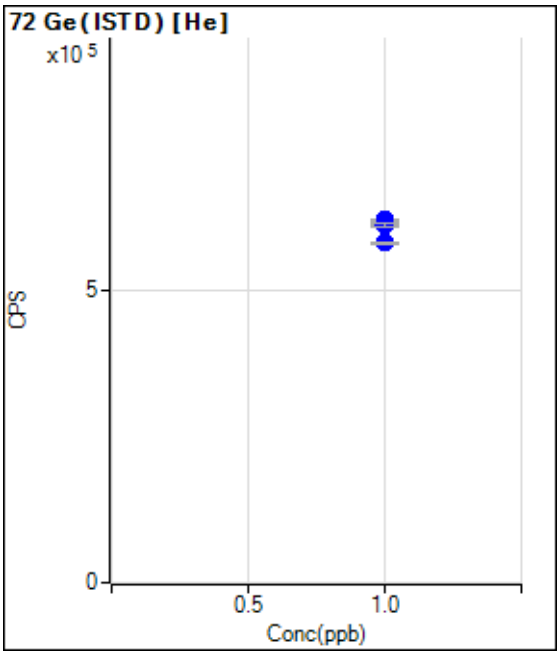


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		618317.02		P	0.4
2	☐	1.000		610790.10		P	0.4
3	☐	1.000		609912.77		P	0.4
4	☐	1.000		605328.69		P	0.3
5	☐	1.000		579642.52		P	0.6
6	☐	1.000		535728.40		M	2.8

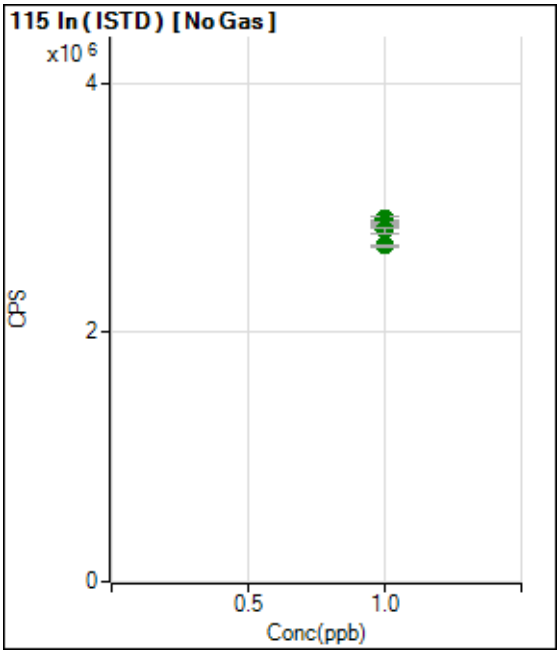


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1997510.18		A	1.0
2	☐	1.000		1986231.12		A	0.9
3	☐	1.000		1986856.12		A	1.5
4	☐	1.000		1983242.89		A	0.9
5	☐	1.000		1957032.47		A	1.6
6	☐	1.000		1855530.49		A	0.7

Calibration for 021_ICV.d

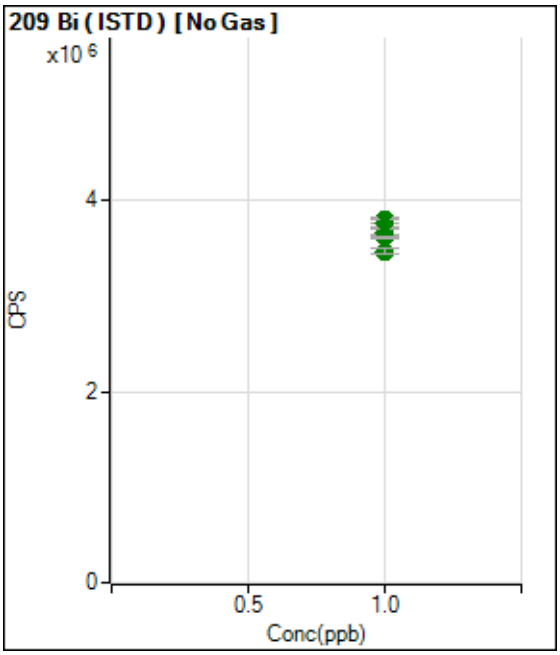


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		620800.38		P	0.4
2	☐	1.000		614767.26		P	0.7
3	☐	1.000		614209.99		P	0.4
4	☐	1.000		616377.02		P	0.5
5	☐	1.000		612321.80		P	0.9
6	☐	1.000		580972.89		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2911757.37		A	1.0
2	☐	1.000		2894970.42		A	2.6
3	☐	1.000		2877989.45		A	0.7
4	☐	1.000		2877053.40		A	0.6
5	☐	1.000		2821825.53		A	1.6
6	☐	1.000		2700385.92		A	0.6

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3796869.42		A	1.4
2	☐	1.000		3758414.84		A	2.0
3	☐	1.000		3726761.51		A	0.3
4	☐	1.000		3672632.13		A	1.8
5	☐	1.000		3616929.74		A	0.5
6	☐	1.000		3466495.57		A	1.7

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	009CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:45:39-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	39971	0.00
Be	9	1	No Gas	100	18.03
V	51	2	He	2816	0.07
Cr	52	2	He	1253	0.64
Fe	56	2	He	8303	0.05
Se	78	2	He	69	10.47
As	75	2	He	107	0.00
Ca	44	2	He	433	2.73
Na	23	2	He	47324	0.00
Mg	24	2	He	1623	0.28
K	39	2	He	53681	0.00
Mn	55	2	He	260	2.96
Co	59	2	He	53	123.46
Ni	60	2	He	257	8.36
Cu	63	2	He	1357	0.83
Zn	66	2	He	977	1.00
Al	27	2	He	890	1.64
B	11	1	No Gas	20046	0.01
Al	27	1	No Gas	32479	0.01
Si	28	1	No Gas	201412	0.00
Ag	107	1	No Gas	1120	0.52
Cd	111	1	No Gas	13	649.52
Sr	88	1	No Gas	1840	0.45
Mo	95	1	No Gas	177	6.67
Sn	118	1	No Gas	2737	0.01
Sb	121	1	No Gas	5491	0.09
Ba	137	1	No Gas	250	11.20
Tl	205	1	No Gas	2450	0.22
Tl	203	1	No Gas	980	0.81
Pb	208	1	No Gas	3037	0.18
U	238	1	No Gas	333	3.64
Ca	43	2	He	17	549.91
Sb	121	2	He	2387	0.27
Ti	47	2	He	7	2598.08
Cu	63	1	No Gas	2830	0.32

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	618317	0.41
Ge	72	2	He	620800	0.36
Ge	72	1	No Gas	1997510	1.03
In	115	1	No Gas	2911757	1.01

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	3796869	1.42

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:47:38-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	4329	0.09
V	51	2	He	12147	0.01
Cr	52	2	He	12673	0.01
Fe	56	2	He	1127052	0.00
Se	78	2	He	243	3.42
As	75	2	He	1756	0.38
Ca	44	2	He	6702	0.06
Na	23	2	He	215351	0.00
Mg	24	2	He	100282	0.00
K	39	2	He	169388	0.00
Mn	55	2	He	9267	0.06
Co	59	2	He	16717	0.01
Ni	60	2	He	4641	0.05
Cu	63	2	He	12756	0.02
Zn	66	2	He	2894	0.12
Al	27	2	He	3319	2.80
B	11	1	No Gas	30663	0.00
Al	27	1	No Gas	60308	0.00
Si	28	1	No Gas	245049	0.00
Ag	107	1	No Gas	33994	0.00
Cd	111	1	No Gas	7009	0.03
Sr	88	1	No Gas	60041	0.00
Mo	95	1	No Gas	11946	0.03
Sn	118	1	No Gas	24319	0.01
Sb	121	1	No Gas	35792	0.00
Ba	137	1	No Gas	11809	0.01
Tl	205	1	No Gas	88036	0.00
Tl	203	1	No Gas	36885	0.00
Pb	208	1	No Gas	131112	0.00
U	238	1	No Gas	141420	0.00
Ca	43	2	He	403	8.02
Sb	121	2	He	17262	0.01
Cu	63	1	No Gas	22876	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	610790	0.44	618317	98.78	70	120	
Ge	72	2	He	614767	0.72	620800	99.03	70	120	
Ge	72	1	No Gas	1986231	0.87	1997510	99.44	70	120	

Calibration Standard Report

In	115	1	No Gas	2894970	2.60	2911757	99.42	70	120	
Bi	209	1	No Gas	3758415	2.01	3796869	98.99	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:49:38-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	10891	0.01
V	51	2	He	26684	0.01
Cr	52	2	He	29185	0.01
Fe	56	2	He	2781919	0.00
Se	78	2	He	458	2.48
As	75	2	He	4271	0.05
Ca	44	2	He	16083	0.01
Na	23	2	He	459821	0.00
Mg	24	2	He	249472	0.00
K	39	2	He	340755	0.00
Mn	55	2	He	22142	0.01
Co	59	2	He	42105	0.00
Ni	60	2	He	10674	0.01
Cu	63	2	He	29389	0.00
Zn	66	2	He	6458	0.10
Al	27	2	He	2304	0.24
B	11	1	No Gas	48580	0.00
Al	27	1	No Gas	88427	0.00
Si	28	1	No Gas	317010	0.00
Ag	107	1	No Gas	84153	0.00
Cd	111	1	No Gas	17111	0.00
Sr	88	1	No Gas	146131	0.00
Mo	95	1	No Gas	30308	0.00
Sn	118	1	No Gas	57536	0.00
Sb	121	1	No Gas	80080	0.00
Ba	137	1	No Gas	29293	0.00
Tl	205	1	No Gas	218255	0.00
Tl	203	1	No Gas	91275	0.00
Pb	208	1	No Gas	322189	0.00
U	238	1	No Gas	353568	0.00
Ca	43	2	He	893	0.47
Sb	121	2	He	38647	0.00
Cu	63	1	No Gas	52906	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	609913	0.37	618317	98.64	70	120	
Ge	72	2	He	614210	0.42	620800	98.94	70	120	
Ge	72	1	No Gas	1986856	1.48	1997510	99.47	70	120	

Calibration Standard Report

In	115	1	No Gas	2877989	0.69	2911757	98.84	70	120	
Bi	209	1	No Gas	3726762	0.32	3796869	98.15	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:51:37-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	22249	0.00
V	51	2	He	50627	0.00
Cr	52	2	He	58649	0.00
Fe	56	2	He	5556819	0.00
Se	78	2	He	862	0.10
As	75	2	He	8531	0.04
Ca	44	2	He	31954	0.00
Na	23	2	He	873824	0.00
Mg	24	2	He	496322	0.00
K	39	2	He	633347	0.00
Mn	55	2	He	45048	0.00
Co	59	2	He	86040	0.00
Ni	60	2	He	21551	0.01
Cu	63	2	He	58549	0.00
Zn	66	2	He	12229	0.05
Al	27	2	He	3837	0.09
B	11	1	No Gas	81169	0.00
Al	27	1	No Gas	174310	0.02
Si	28	1	No Gas	444747	0.00
Ag	107	1	No Gas	170386	0.00
Cd	111	1	No Gas	35010	0.00
Sr	88	1	No Gas	294874	0.00
Mo	95	1	No Gas	60310	0.00
Sn	118	1	No Gas	113318	0.00
Sb	121	1	No Gas	157068	0.00
Ba	137	1	No Gas	58699	0.00
Tl	205	1	No Gas	447526	0.00
Tl	203	1	No Gas	184186	0.00
Pb	208	1	No Gas	653286	0.00
U	238	1	No Gas	717056	0.00
Ca	43	2	He	1777	0.46
Sb	121	2	He	76439	0.00
Cu	63	1	No Gas	102779	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	605329	0.29	618317	97.90	70	120	
Ge	72	2	He	616377	0.50	620800	99.29	70	120	
Ge	72	1	No Gas	1983243	0.95	1997510	99.29	70	120	

Calibration Standard Report

In	115	1	No Gas	2877053	0.63	2911757	98.81	70	120	
Bi	209	1	No Gas	3672632	1.82	3796869	96.73	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:53:37-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	216683	0.00
V	51	2	He	469922	0.00
Cr	52	2	He	554906	0.00
Fe	56	2	He	53230433	0.00
Se	78	2	He	7954	0.01
As	75	2	He	78740	0.00
Ca	44	2	He	308689	0.00
Na	23	2	He	7922373	0.00
Mg	24	2	He	4665169	0.00
K	39	2	He	5686324	0.00
Mn	55	2	He	436962	0.00
Co	59	2	He	821949	0.00
Ni	60	2	He	202223	0.00
Cu	63	2	He	536043	0.00
Zn	66	2	He	110588	0.00
Al	27	2	He	31676	0.01
B	11	1	No Gas	653913	0.00
Al	27	1	No Gas	1191661	0.00
Si	28	1	No Gas	2911760	0.00
Ag	107	1	No Gas	1600249	0.00
Cd	111	1	No Gas	334562	0.00
Sr	88	1	No Gas	2872842	0.00
Mo	95	1	No Gas	577350	0.00
Sn	118	1	No Gas	1078256	0.00
Sb	121	1	No Gas	1512164	0.00
Ba	137	1	No Gas	563831	0.00
Tl	205	1	No Gas	4414188	0.00
Tl	203	1	No Gas	1882222	0.00
Pb	208	1	No Gas	6403659	0.00
U	238	1	No Gas	6914950	0.00
Ca	43	2	He	18419	0.02
Sb	121	2	He	722175	0.00
Cu	63	1	No Gas	949962	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	579643	0.56	618317	93.75	70	120	
Ge	72	2	He	612322	0.86	620800	98.63	70	120	
Ge	72	1	No Gas	1957032	1.63	1997510	97.97	70	120	

Calibration Standard Report

In	115	1	No Gas	2821826	1.60	2911757	96.91	70	120	
Bi	209	1	No Gas	3616930	0.46	3796869	95.26	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	014CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:55:31-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	420249	0.00
V	51	2	He	900818	0.00
Cr	52	2	He	1077944	0.00
Fe	56	2	He	101459748	0.00
Se	78	2	He	15133	0.01
As	75	2	He	153216	0.00
Ca	44	2	He	596426	0.00
Na	23	2	He	15019250	0.00
Mg	24	2	He	8875539	0.00
K	39	2	He	10835327	0.00
Mn	55	2	He	837169	0.00
Co	59	2	He	1609723	0.00
Ni	60	2	He	381059	0.00
Cu	63	2	He	1035846	0.00
Zn	66	2	He	209084	0.00
Al	27	2	He	55360	0.01
B	11	1	No Gas	1271810	0.00
Al	27	1	No Gas	2039441	0.00
Si	28	1	No Gas	4654987	0.00
Ag	107	1	No Gas	3041107	0.00
Cd	111	1	No Gas	645914	0.00
Sr	88	1	No Gas	5443622	0.00
Mo	95	1	No Gas	1147992	0.00
Sn	118	1	No Gas	2126174	0.00
Sb	121	1	No Gas	2897934	0.00
Ba	137	1	No Gas	1082699	0.00
Tl	205	1	No Gas	8461857	0.00
Tl	203	1	No Gas	3573001	0.00
Pb	208	1	No Gas	12270619	0.00
U	238	1	No Gas	13709119	0.00
Ca	43	2	He	34761	0.00
Sb	121	2	He	1453945	0.00
Cu	63	1	No Gas	1821544	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	535728	2.78	618317	86.64	70	120	
Ge	72	2	He	580973	0.66	620800	93.58	70	120	
Ge	72	1	No Gas	1855530	0.67	1997510	92.89	70	120	

Calibration Standard Report

In	115	1	No Gas	2700386	0.58	2911757	92.74	70	120	
Bi	209	1	No Gas	3466496	1.71	3796869	91.30	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	016_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T10:59:22-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	93.490	2.845	871625	2.88	100	93.5	90	110	
Be	9	1	No Gas	94.325	0.990	214857	0.34	100	94.3	90	110	
V	51	2	He	97.094	0.510	457991	0.33	100	97.1	90	110	
Cr	52	2	He	96.803	0.504	544158	0.46	100	96.8	90	110	
Fe	56	2	He	9850.536	0.933	52269163	0.57	10000	98.5	90	110	
Se	78	2	He	96.618	0.256	7677	0.65	100	96.6	90	110	
As	75	2	He	97.984	1.125	78230	0.54	100	98.0	90	110	
Ca	44	2	He	9762.688	0.584	303833	0.10	10000	97.6	90	110	
Na	23	2	He	9895.975	1.208	7800152	0.95	10000	99.0	90	110	
Mg	24	2	He	9906.327	1.372	4600684	1.57	10000	99.1	90	110	
K	39	2	He	9784.635	1.127	5566140	0.62	10000	97.8	90	110	
Mn	55	2	He	98.081	0.909	429025	0.41	100	98.1	90	110	
Co	59	2	He	96.079	0.979	804443	0.74	100	96.1	90	110	
Ni	60	2	He	99.027	1.764	197887	1.25	100	99.0	90	110	
Cu	63	2	He	98.193	0.320	531031	0.30	100	98.2	90	110	
Zn	66	2	He	98.826	0.373	108618	0.70	100	98.8	90	110	
Al	27	2	He	97.120	2.752	28994	2.39	100	97.1	90	110	
B	11	1	No Gas	316.271	0.958	447432	0.35	500	63.3	90	110	ICV Main CR1 Failed
Al	27	1	No Gas	98.352	1.125	1090549	0.93	100	98.4	90	110	
Si	28	1	No Gas	330.918	1.830	1797865	1.72	500	66.2	90	110	ICV Main CR1 Failed
Ag	107	1	No Gas	99.203	0.305	1583599	0.97	100	99.2	90	110	
Cd	111	1	No Gas	97.740	1.209	330217	0.53	100	97.7	90	110	
Sr	88	1	No Gas	98.938	2.416	2828294	1.82	100	98.9	90	110	
Mo	95	1	No Gas	95.791	0.849	571947	0.36	100	95.8	90	110	
Sn	118	1	No Gas	94.205	0.907	1044468	0.57	100	94.2	90	110	
Sb	121	1	No Gas	96.422	0.326	1467565	0.25	100	96.4	90	110	
Ba	137	1	No Gas	96.479	0.830	547056	0.30	100	96.5	90	110	
Tl	205	1	No Gas	98.008	1.239	4317943	1.00	100	98.0	90	110	
Tl	203	1	No Gas	98.112	2.402	1828870	2.77	100	98.1	90	110	
Pb	208	1	No Gas	98.113	0.914	6268387	0.28	100	98.1	90	110	
U	238	1	No Gas	96.120	1.625	6814646	2.35	100	96.1	90	110	
Ca	43	2	He	9691.590	2.105	17655	1.65	10000	96.9	90	110	
Sb	121	2	He	94.391	0.403	711015	0.68	100	94.4	90	110	
Ti	47	2	He	98.976	4.185	17658	4.71	100	99.0	90	110	
Cu	63	1	No Gas	97.801	0.529	935363	0.36	100	97.8	90	110	
Se	82	1	No Gas	93.259	1.636	15917	1.60	100	93.3	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	586000	0.68	618317	94.77	70	120	
Ge	72	2	He	608128	0.62	620800	97.96	70	120	
Ge	72	1	No Gas	1950216	0.18	1997510	97.63	70	120	
In	115	1	No Gas	2829724	0.68	2911757	97.18	70	120	
Bi	209	1	No Gas	3608794	1.17	3796869	95.05	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	017_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:01:17-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	-0.059	-15.6	39734	0.6	0.5	
Be	9	1	No Gas	0.042	11.5	202	6.2	0.5	
V	51	2	He	-0.204	-5.4	1865	2.7	2.5	
Cr	52	2	He	-0.040	-57.4	1040	12.6	2.5	
Fe	56	2	He	0.989	23.8	13847	9.3	100	
Se	78	2	He	0.054	22.8	75	1.5	1	
As	75	2	He	-0.017	-61.4	94	8.9	2.5	
Ca	44	2	He	-1.120	-140.4	403	12.7	100	
Na	23	2	He	3.213	8.3	50579	0.2	100	
Mg	24	2	He	-1.185	-26.3	1077	14.1	100	
K	39	2	He	-2.616	-41.5	52891	1.3	100	
Mn	55	2	He	-0.015	-61.4	197	20.6	2.5	
Co	59	2	He	0.001	341.7	60	33.3	2.5	
Ni	60	2	He	-0.040	-48.7	177	22.9	2.5	
Cu	63	2	He	-0.059	-31.6	1043	9.7	1	
Zn	66	2	He	-0.488	-7.5	440	9.1	2.5	
Al	27	2	He	-0.753	-29.1	677	9.6	5	
B	11	1	No Gas	10.794	17.7	35752	7.2	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.557	-7.3	26312	1.1	5	
Si	28	1	No Gas	1.990	32.3	211135	2.5	10	
Ag	107	1	No Gas	-0.015	-19.4	873	4.0	2.5	
Cd	111	1	No Gas	0.006	161.3	33	96.4	1	
Sr	88	1	No Gas	-0.023	-13.5	1177	8.4	2.5	
Mo	95	1	No Gas	0.221	35.2	1527	29.7	2.5	
Sn	118	1	No Gas	0.126	52.0	4157	16.4	5	
Sb	121	1	No Gas	-0.064	-36.0	4498	7.7	2.5	
Ba	137	1	No Gas	-0.008	-184.3	203	43.0	2.5	
Tl	205	1	No Gas	1.066	55.0	50583	51.5	1	ICB Main CR1 Failed
Tl	203	1	No Gas	1.049	54.5	21018	51.1	1	ICB Main CR1 Failed
Pb	208	1	No Gas	0.004	194.6	3217	13.6	2.5	
U	238	1	No Gas	0.025	46.6	2164	38.7	2.5	
Ca	43	2	He	-1.871	-165.5	13	43.3	100	
Sb	121	2	He	-0.051	-28.4	2027	5.7	2.5	
Ti	47	2	He	0.072	150.4	20	100.0	2.5	
Se	82	1	No Gas	-0.460	-68.7	-50	-111.2	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	623342	0.54	618317	100.81	70	120	
Ge	72	2	He	629314	0.34	620800	101.37	70	120	
Ge	72	1	No Gas	1996055	1.24	1997510	99.93	70	120	
In	115	1	No Gas	2906143	1.46	2911757	99.81	70	120	
Bi	209	1	No Gas	3719309	1.36	3796869	97.96	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	018LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:03:17-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	1.786	1.786	0.68	57000	0.00	2	
Be	9	1	No Gas	1.870	1.870	1.29	4611	0.04	2	
V	51	2	He	2.060	2.060	1.71	12694	0.02	2	
Cr	52	2	He	1.984	1.984	2.87	12629	0.02	2	
Fe	56	2	He	212.894	212.894	1.04	1162782	0.02	200	
Se	78	2	He	2.134	2.134	16.05	241	0.88	2	
As	75	2	He	2.078	2.078	5.52	1800	0.12	2	
Ca	44	2	He	204.612	204.612	5.59	6935	2.95	200	
Na	23	2	He	212.549	212.549	0.71	217610	0.10	200	
Mg	24	2	He	209.496	209.496	0.76	101037	0.21	200	
K	39	2	He	200.774	200.774	0.65	169388	0.12	200	
Mn	55	2	He	2.077	2.077	2.56	9540	0.02	2	
Co	59	2	He	2.011	2.011	3.24	17261	0.01	2	
Ni	60	2	He	2.122	2.122	4.91	4584	0.05	2	
Cu	63	2	He	2.063	2.063	1.50	12733	0.02	2	
Zn	66	2	He	1.607	1.607	3.92	2767	0.06	2	
Al	27	2	He	3.218	3.218	8.87	1844	0.17	2	NewName Main CR1 Failed
B	11	1	No Gas	12.623	12.623	3.10	38239	0.03	10	
Al	27	1	No Gas	2.622	2.622	6.97	61817	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	12.026	12.026	34.94	262727	0.00	10	
Ag	107	1	No Gas	2.024	2.024	1.89	34746	0.01	2	
Cd	111	1	No Gas	2.064	2.064	5.32	7272	0.03	2	
Sr	88	1	No Gas	2.018	2.018	2.75	61896	0.00	2	
Mo	95	1	No Gas	2.034	2.034	5.01	12439	0.02	2	
Sn	118	1	No Gas	1.949	1.949	1.96	25205	0.01	2	
Sb	121	1	No Gas	1.887	1.887	3.10	35044	0.01	2	
Ba	137	1	No Gas	1.990	1.990	1.55	11999	0.02	2	
Tl	205	1	No Gas	1.908	1.908	0.57	88939	0.00	2	
Tl	203	1	No Gas	1.914	1.914	1.07	37697	0.01	2	
Pb	208	1	No Gas	1.954	1.954	0.67	131506	0.00	2	
U	238	1	No Gas	1.910	1.910	0.76	139818	0.00	2	
Ca	43	2	He	207.690	207.690	19.40	403	51.49	200	
Sb	121	2	He	1.969	1.969	2.17	16781	0.01	2	
Ti	47	2	He	1.775	1.775	20.61	330	0.54	200	
Cu	63	1	No Gas	2.049	2.049	1.54	23003	0.01	2	
Se	82	1	No Gas	0.982	0.982	62.00	203	0.48	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	620785	0.47	618317	100.40	70	120	
Ge	72	2	He	621586	0.68	620800	100.13	70	120	
Ge	72	1	No Gas	2011524	0.80	1997510	100.70	70	120	
In	115	1	No Gas	2946243	0.89	2911757	101.18	70	120	
Bi	209	1	No Gas	3717292	0.61	3796869	97.90	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	019LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:05:16-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	009CALB.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	4.471	4.471	1.45	82072	0.01	5	
Be	9	1	No Gas	4.775	4.775	2.93	11133	0.04	5	
V	51	2	He	5.010	5.010	0.60	27076	0.02	5	
Cr	52	2	He	4.964	4.964	2.60	29980	0.02	5	
Fe	56	2	He	508.464	508.464	1.79	2790912	0.02	500	
Se	78	2	He	4.588	4.588	12.08	443	1.04	5	
As	75	2	He	5.030	5.030	1.62	4245	0.12	5	
Ca	44	2	He	487.842	487.842	0.75	16076	3.03	500	
Na	23	2	He	515.047	515.047	0.51	464071	0.11	500	
Mg	24	2	He	515.289	515.289	0.64	248386	0.21	500	
K	39	2	He	494.869	494.869	0.38	341870	0.14	500	
Mn	55	2	He	4.959	4.959	2.04	22626	0.02	5	
Co	59	2	He	4.901	4.901	2.51	42376	0.01	5	
Ni	60	2	He	5.169	5.169	0.96	10901	0.05	5	
Cu	63	2	He	5.129	5.129	0.85	29910	0.02	5	
Zn	66	2	He	4.860	4.860	3.05	6448	0.08	5	
Al	27	2	He	5.215	5.215	3.40	2457	0.21	5	
B	11	1	No Gas	24.523	24.523	3.53	53254	0.05	25	
Al	27	1	No Gas	5.181	5.181	2.03	90040	0.01	5	
Si	28	1	No Gas	23.974	23.974	1.42	321771	0.01	25	
Ag	107	1	No Gas	5.091	5.091	0.54	86018	0.01	5	
Cd	111	1	No Gas	4.958	4.958	1.44	17522	0.03	5	
Sr	88	1	No Gas	4.868	4.868	1.28	147236	0.00	5	
Mo	95	1	No Gas	5.084	5.084	3.22	30946	0.02	5	
Sn	118	1	No Gas	4.827	4.827	1.43	58577	0.01	5	
Sb	121	1	No Gas	4.764	4.764	1.46	79859	0.01	5	
Ba	137	1	No Gas	4.768	4.768	2.42	28498	0.02	5	
Tl	205	1	No Gas	4.801	4.801	1.05	220730	0.00	5	
Tl	203	1	No Gas	4.713	4.713	1.59	91631	0.01	5	
Pb	208	1	No Gas	4.854	4.854	0.28	323083	0.00	5	
U	238	1	No Gas	4.786	4.786	1.40	350650	0.00	5	
Ca	43	2	He	509.363	509.363	16.07	973	52.33	500	
Sb	121	2	He	5.052	5.052	0.80	39674	0.01	5	
Ti	47	2	He	4.876	4.876	8.75	903	0.54	5	
Cu	63	1	No Gas	5.118	5.118	2.60	53067	0.01	5	
Se	82	1	No Gas	4.392	4.392	11.23	801	0.55	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	618547	0.32	618317	100.04	70	120	
Ge	72	2	He	627244	0.32	620800	101.04	70	120	
Ge	72	1	No Gas	2007100	1.06	1997510	100.48	70	120	

Sample Report

In	115	1	No Gas	2957710	0.55	2911757	101.58	70	120	
Bi	209	1	No Gas	3726675	1.47	3796869	98.15	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	022ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:11:11-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.800	16.3	45077	1.9	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.012	125.8	122	27.4	0	ICSA Main CR1 Failed
V	51	2	He	0.370	7.0	4192	2.3	0	ICSA Main CR1 Failed
Cr	52	2	He	1.968	2.2	11442	2.4	0	ICSA Main CR1 Failed
Fe	56	2	He	97580.868	0.6	482973819	0.3	0	
Se	78	2	He	0.399	67.5	93	21.3	0	ICSA Main CR1 Failed
As	75	2	He	0.175	1.7	228	0.8	0	ICSA Main CR1 Failed
Ca	44	2	He	98856.879	1.1	2866550	1.1	0	
Na	23	2	He	98707.226	0.3	72195091	0.6	0	
Mg	24	2	He	98570.345	0.6	42691271	0.2	0	
K	39	2	He	99624.767	0.2	52421404	0.6	0	
Mn	55	2	He	0.415	9.2	1930	7.7	0	ICSA Main CR1 Failed
Co	59	2	He	0.091	13.8	757	12.5	0	ICSA Main CR1 Failed
Ni	60	2	He	0.143	23.7	500	12.5	0	ICSA Main CR1 Failed
Cu	63	2	He	0.120	5.4	1843	1.7	0	ICSA Main CR1 Failed
Zn	66	2	He	0.736	24.3	1640	11.1	0	ICSA Main CR1 Failed
Al	27	2	He	93552.762	0.7	25272680	0.3	0	
B	11	1	No Gas	9.578	24.8	31345	10.4	0	
Al	27	1	No Gas	89438.899	1.7	919859986	0.4	0	
Si	28	1	No Gas	29.056	4.9	322134	0.3	0	
Ag	107	1	No Gas	0.261	2.3	4864	1.7	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.848	4.0	5798	3.6	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.124	0.7	31424	0.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1996.469	0.4	10718030	0.5	0	
Sn	118	1	No Gas	0.247	32.0	4998	16.4	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.028	182.5	5521	13.1	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.373	8.0	2187	7.8	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	1.389	52.1	57428	50.4	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	1.345	52.2	23500	50.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.083	6.6	7424	4.8	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.029	55.0	2137	47.8	0	ICSA Main CR1 Failed
Ca	43	2	He	96953.338	0.6	164635	0.4	0	
Sb	121	2	He	0.025	36.5	2347	3.0	0	ICSA Main CR1 Failed
Ti	47	2	He	1994.902	0.8	331851	0.5	0	
Se	82	1	No Gas	-0.647	-49.2	-77	-66.7	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	586893	0.70	618317	94.92	70	120	
Ge	72	2	He	567313	0.42	620800	91.38	70	120	
Ge	72	1	No Gas	1863392	1.94	1997510	93.29	70	120	
In	115	1	No Gas	2623272	0.71	2911757	90.09	70	120	
Bi	209	1	No Gas	3259697	0.81	3796869	85.85	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	023ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:13:13-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	93.247	1.577	817871	1.94	100	93.2	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	98.481	1.385	202853	0.92	100	98.5	80	120	
V	51	2	He	99.958	1.011	433472	0.64	100	100.0	80	120	
Cr	52	2	He	99.571	1.231	514675	1.87	100	99.6	80	120	
Fe	56	2	He	108361.975	0.859	528639805	0.26	100	108362.0	80	120	
Se	78	2	He	102.800	0.186	7507	0.78	100	102.8	80	120	
As	75	2	He	102.729	1.181	75420	1.72	100	102.7	80	120	
Ca	44	2	He	108157.156	2.526	3090947	1.88	100	108157.2	80	120	
Na	23	2	He	109567.336	0.772	78982835	0.36	100	109567.3	80	120	
Mg	24	2	He	107944.746	0.896	46080574	0.43	100	107944.7	80	120	
K	39	2	He	108503.560	2.042	56264796	1.17	100	108503.6	80	120	
Mn	55	2	He	98.869	0.702	397668	0.21	100	98.9	80	120	
Co	59	2	He	96.776	0.509	745077	0.49	100	96.8	80	120	
Ni	60	2	He	97.337	0.932	178865	0.62	100	97.3	80	120	
Cu	63	2	He	96.441	0.764	479638	1.66	100	96.4	80	120	
Zn	66	2	He	99.586	1.419	100645	2.14	100	99.6	80	120	
Al	27	2	He	93642.490	2.527	24932804	2.04	100	93642.5	80	120	
B	11	1	No Gas	491.164	0.936	610494	0.45	100	491.2	80	120	
Al	27	1	No Gas	89218.553	1.545	900943107	1.22	100	89218.6	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	503.238	1.180	2468455	1.33	100	503.2	80	120	
Ag	107	1	No Gas	95.585	1.289	1403845	0.49	100	95.6	80	120	
Cd	111	1	No Gas	98.558	1.510	306369	0.68	100	98.6	80	120	
Sr	88	1	No Gas	102.552	1.850	2697308	1.05	100	102.6	80	120	
Mo	95	1	No Gas	2108.764	2.161	11234922	1.31	100	2108.8	80	120	
Sn	118	1	No Gas	97.489	1.088	994410	0.32	100	97.5	80	120	
Sb	121	1	No Gas	96.316	2.017	1374914	1.24	100	96.3	80	120	
Ba	137	1	No Gas	100.005	1.190	521721	0.43	100	100.0	80	120	
Tl	205	1	No Gas	98.560	2.292	3891392	1.25	100	98.6	80	120	
Tl	203	1	No Gas	96.123	2.330	1605593	0.99	100	96.1	80	120	
Pb	208	1	No Gas	100.117	1.999	5732344	0.65	100	100.1	80	120	
U	238	1	No Gas	103.032	1.400	6545955	0.49	100	103.0	80	120	
Ca	43	2	He	107461.945	0.635	179865	0.77	100	107461.9	80	120	
Sb	121	2	He	101.405	0.306	668891	0.77	100	101.4	80	120	
Ti	47	2	He	2108.634	2.019	345715	1.16	100	2108.6	80	120	
Cu	63	1	No Gas	94.543	0.670	848202	0.38	100	94.5	80	120	
Se	82	1	No Gas	100.622	2.223	16106	2.21	100	100.6	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	551215	0.52	618317	89.15	70	120	
Ge	72	2	He	559193	0.90	620800	90.08	70	120	
Ge	72	1	No Gas	1829281	0.79	1997510	91.58	70	120	
In	115	1	No Gas	2603650	0.89	2911757	89.42	70	120	
Bi	209	1	No Gas	3234509	1.39	3796869	85.19	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	025_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:20:25-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	95.221	1.756	843957	0.93	100	95.2	90	110	
Be	9	1	No Gas	96.711	1.020	201507	0.40	100	96.7	90	110	
V	51	2	He	96.466	0.429	454134	0.32	100	96.5	90	110	
Cr	52	2	He	96.014	0.910	538638	0.48	100	96.0	90	110	
Fe	56	2	He	9849.181	1.856	52154161	1.13	10000	98.5	90	110	
Se	78	2	He	95.686	2.757	7587	2.21	100	95.7	90	110	
As	75	2	He	95.339	0.499	75973	1.00	100	95.3	90	110	
Ca	44	2	He	9793.507	0.897	304174	0.15	10000	97.9	90	110	
Na	23	2	He	9730.074	1.502	7654490	0.81	10000	97.3	90	110	
Mg	24	2	He	9908.689	1.216	4592324	0.82	10000	99.1	90	110	
K	39	2	He	9831.446	1.278	5581447	1.27	10000	98.3	90	110	
Mn	55	2	He	95.529	0.586	417040	0.56	100	95.5	90	110	
Co	59	2	He	95.365	0.887	796858	0.40	100	95.4	90	110	
Ni	60	2	He	99.168	0.794	197779	0.64	100	99.2	90	110	
Cu	63	2	He	97.298	0.729	525136	0.02	100	97.3	90	110	
Zn	66	2	He	96.369	1.466	105723	0.81	100	96.4	90	110	
Al	27	2	He	93.915	1.293	28012	1.63	100	93.9	90	110	
B	11	1	No Gas	-0.568	-51.822	17381	1.38	500	-0.1	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	93.801	3.685	1036579	2.25	100	93.8	90	110	
Si	28	1	No Gas	49.928	18.015	436600	11.14	5000	1.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.177	0.369	1588252	1.37	100	99.2	90	110	
Cd	111	1	No Gas	97.314	0.880	329832	0.80	100	97.3	90	110	
Sr	88	1	No Gas	97.469	1.676	2795195	0.91	100	97.5	90	110	
Mo	95	1	No Gas	96.628	0.939	561505	0.85	100	96.6	90	110	
Sn	118	1	No Gas	94.191	1.338	1047584	0.30	100	94.2	90	110	
Sb	121	1	No Gas	98.210	0.592	1488035	1.73	100	98.2	90	110	
Ba	137	1	No Gas	97.332	1.639	553608	0.31	100	97.3	90	110	
Tl	205	1	No Gas	99.008	2.669	4419432	2.52	100	99.0	90	110	
Tl	203	1	No Gas	98.247	1.295	1855365	0.96	100	98.2	90	110	
Pb	208	1	No Gas	95.852	0.596	6204917	0.71	100	95.9	90	110	
U	238	1	No Gas	91.322	1.179	6559295	1.34	100	91.3	90	110	
Ca	43	2	He	9455.294	2.543	17191	2.45	10000	94.6	90	110	
Sb	121	2	He	98.974	0.568	708620	0.71	100	99.0	90	110	
Ti	47	2	He	97.652	1.100	17385	1.17	100	97.7	90	110	
Cu	63	1	No Gas	96.766	1.431	921260	0.56	100	96.8	90	110	
Se	82	1	No Gas	96.575	0.813	16408	0.95	100	96.6	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	557580	0.75	618317	90.18	70	120	
Ge	72	2	He	606909	0.74	620800	97.76	70	120	
Ge	72	1	No Gas	1941496	1.31	1997510	97.20	70	120	
In	115	1	No Gas	2838905	1.63	2911757	97.50	70	120	
Bi	209	1	No Gas	3656220	0.37	3796869	96.30	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	026_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:22:20-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	0.026	205.8	39022	1.6	0.5	
Be	9	1	No Gas	0.034	63.9	173	27.7	0.5	
V	51	2	He	-0.253	-3.8	1631	2.3	2.5	
Cr	52	2	He	-0.032	-103.6	1090	17.5	2.5	
Fe	56	2	He	2.830	4.3	24058	3.5	100	
Se	78	2	He	0.164	54.2	84	8.2	2	
As	75	2	He	-0.039	-12.0	77	4.4	2.5	
Ca	44	2	He	-2.503	-78.2	360	16.9	100	
Na	23	2	He	13.685	8.7	59323	2.3	100	
Mg	24	2	He	-0.413	-33.6	1453	4.5	100	
K	39	2	He	2.731	48.9	56245	1.7	100	
Mn	55	2	He	0.024	30.0	373	9.4	2.5	
Co	59	2	He	0.002	166.6	70	37.8	2.5	
Ni	60	2	He	0.091	3.9	450	2.2	2.5	
Cu	63	2	He	-0.078	-50.6	947	24.1	2	
Zn	66	2	He	-0.300	-55.4	653	28.2	2.5	
Al	27	2	He	-0.508	-92.8	753	18.6	5	
B	11	1	No Gas	-3.366	-7.5	15030	2.5	0.5	
Al	27	1	No Gas	-0.420	-11.2	28102	1.1	5	
Si	28	1	No Gas	2.210	41.6	214308	0.2	10	
Ag	107	1	No Gas	-0.045	-8.0	390	16.8	2.5	
Cd	111	1	No Gas	0.002	155.1	20	50.0	1	
Sr	88	1	No Gas	-0.025	-12.0	1133	6.6	2.5	
Mo	95	1	No Gas	0.373	27.1	2447	23.5	2.5	
Sn	118	1	No Gas	0.142	26.5	4458	8.4	5	
Sb	121	1	No Gas	-0.210	-4.4	2244	5.7	2.5	
Ba	137	1	No Gas	-0.009	-179.5	200	47.7	2.5	
Tl	205	1	No Gas	0.899	57.0	43307	55.6	1	
Tl	203	1	No Gas	0.866	59.7	17632	58.1	1	
Pb	208	1	No Gas	-0.004	-153.5	2710	16.6	2.5	
U	238	1	No Gas	0.021	45.1	1850	39.0	2.5	
Ca	43	2	He	1.574	666.2	20	100.0	100	
Sb	121	2	He	-0.191	-7.4	1013	10.6	2.5	
Ti	47	2	He	0.072	131.2	20	86.6	2.5	
Cu	63	1	No Gas	-0.093	-20.3	1947	11.4	2.5	
Se	82	1	No Gas	-0.545	-112.8	-67	-163.1	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	599982	0.40	618317	97.03	70	120	
Ge	72	2	He	631956	0.73	620800	101.80	70	120	
Ge	72	1	No Gas	2016475	2.33	1997510	100.95	70	120	
In	115	1	No Gas	2980630	1.49	2911757	102.37	70	120	
Bi	209	1	No Gas	3708256	1.72	3796869	97.67	70	120	

Sample Report

Sample Table

Sample Name	HS21050554-01
Data File Name	035SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:42:34-05:00
Sample Type	Sample
Dilution	1
Comment	TW B166115
ISTD Ref FileName	009CALB.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	13.810	13.810	0.55	158052	0.01	2000	
Be	9	1	No Gas	0.103	0.103	24.22	313	0.03	2000	
V	51	2	He	1.586	1.586	2.09	9021	0.02	2000	
Cr	52	2	He	5.336	5.336	1.52	27568	0.02	2000	
Fe	56	2	He	1642.703	1642.703	1.41	7719934	0.02	200000	
Se	78	2	He	0.609	0.609	20.62	103	0.59	2000	
As	75	2	He	1.508	1.508	7.22	1156	0.13	2000	
Ca	44	2	He	31675.109	31675.109	2.52	871454	3.63	200000	
Na	23	2	He	169476.346	169476.346	1.74	117562268	0.14	200000	
Mg	24	2	He	19049.132	19049.132	0.71	7827644	0.24	200000	
K	39	2	He	1201.411	1201.411	2.48	645668	0.19	200000	
Mn	55	2	He	344.219	344.219	2.61	1331814	0.03	2000	
Co	59	2	He	4.918	4.918	2.88	36493	0.01	2000	
Ni	60	2	He	15.199	15.199	0.95	27067	0.06	2000	
Cu	63	2	He	6.294	6.294	4.42	31223	0.02	2000	
Zn	66	2	He	85.997	85.997	1.75	83748	0.10	2000	
Al	27	2	He	151.907	151.907	4.67	39689	0.38	2000	
B	11	1	No Gas	45.238	45.238	1.55	75602	0.06	2000	
Al	27	1	No Gas	152.083	152.083	21.77	1535531	0.01	2000	
Si	28	1	No Gas	16393.252	16393.252	0.91	73069237	0.02	2000	>LDR
Ag	107	1	No Gas	-0.043	-0.043	-8.62	360	-0.01	2000	
Cd	111	1	No Gas	0.260	0.260	7.69	800	0.03	2000	
Sr	88	1	No Gas	584.731	584.731	1.84	15021722	0.00	2000	
Mo	95	1	No Gas	1.408	1.408	7.49	7486	0.02	2000	
Sn	118	1	No Gas	-0.093	-0.093	-9.62	1467	-0.01	2000	
Sb	121	1	No Gas	0.137	0.137	2.56	6832	0.00	2000	
Ba	137	1	No Gas	517.104	517.104	1.04	2635481	0.02	2000	
Tl	205	1	No Gas	-0.033	-0.033	-7.46	793	0.00	2000	
Tl	203	1	No Gas	-0.034	-0.034	-5.37	267	-0.01	2000	
Pb	208	1	No Gas	0.356	0.356	1.03	22892	0.00	2000	
U	238	1	No Gas	1.979	1.979	0.30	125472	0.00	2000	
Ca	43	2	He	31673.702	31673.702	1.92	51035	62.06	200000	
Sb	121	2	He	0.240	0.240	7.32	3591	0.01	2000	
Ti	47	2	He	2.732	2.732	9.56	437	0.63	2000	
Cu	63	1	No Gas	6.391	6.391	1.27	58543	0.01	2000	
Zn	66	1	No Gas	84.876	84.876	1.01	209318	0.04	2000	
Se	82	1	No Gas	0.384	0.384	44.59	87	0.44	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	575150	0.33	618317	93.02	70	120	
Ge	72	2	He	538185	1.44	620800	86.69	70	120	
Ge	72	1	No Gas	1792165	1.11	1997510	89.72	70	120	
In	115	1	No Gas	2544528	1.39	2911757	87.39	70	120	
Bi	209	1	No Gas	3220483	1.72	3796869	84.82	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	037_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:46:34-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	97.550	0.767	831611	1.17	100	97.5	90	110	
Be	9	1	No Gas	94.990	0.957	190549	0.46	100	95.0	90	110	
V	51	2	He	97.959	0.938	411836	0.63	100	98.0	90	110	
Cr	52	2	He	97.369	0.389	487859	0.31	100	97.4	90	110	
Fe	56	2	He	10059.564	1.334	47577754	1.03	10000	100.6	90	110	
Se	78	2	He	94.980	0.513	6728	0.79	100	95.0	90	110	
As	75	2	He	96.504	1.118	68679	0.84	100	96.5	90	110	
Ca	44	2	He	9960.420	0.676	276297	0.53	10000	99.6	90	110	
Na	23	2	He	10244.191	1.609	7195857	1.55	10000	102.4	90	110	
Mg	24	2	He	10219.703	0.843	4230306	0.55	10000	102.2	90	110	
K	39	2	He	9970.003	1.556	5054425	1.24	10000	99.7	90	110	
Mn	55	2	He	97.797	0.659	381307	0.42	100	97.8	90	110	
Co	59	2	He	96.970	0.501	723681	0.24	100	97.0	90	110	
Ni	60	2	He	99.872	1.517	177892	1.31	100	99.9	90	110	
Cu	63	2	He	98.434	0.322	474489	0.44	100	98.4	90	110	
Zn	66	2	He	99.011	0.748	96994	0.82	100	99.0	90	110	
Al	27	2	He	94.120	1.740	25069	1.40	100	94.1	90	110	
B	11	1	No Gas	-0.354	-76.709	16987	2.30	500	-0.1	90	110	CCV Main CR1-2 Failed
Al	27	1	No Gas	94.187	2.650	948177	1.10	100	94.2	90	110	
Si	28	1	No Gas	60.375	8.688	443155	4.49	5000	1.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.845	1.334	1438982	0.87	100	100.8	90	110	
Cd	111	1	No Gas	99.332	1.041	300024	1.18	100	99.3	90	110	
Sr	88	1	No Gas	100.838	0.660	2577079	0.21	100	100.8	90	110	
Mo	95	1	No Gas	99.217	0.263	513779	0.23	100	99.2	90	110	
Sn	118	1	No Gas	97.002	0.593	961371	0.56	100	97.0	90	110	
Sb	121	1	No Gas	99.616	1.358	1374762	0.14	100	99.6	90	110	
Ba	137	1	No Gas	101.835	0.284	516198	0.40	100	101.8	90	110	
Tl	205	1	No Gas	101.887	1.608	4145992	0.58	100	101.9	90	110	
Tl	203	1	No Gas	99.813	1.932	1718338	0.99	100	99.8	90	110	
Pb	208	1	No Gas	99.250	1.422	5856982	0.26	100	99.3	90	110	
U	238	1	No Gas	92.952	0.310	6086840	0.93	100	93.0	90	110	
Ca	43	2	He	9851.540	4.154	15996	4.00	10000	98.5	90	110	
Sb	121	2	He	101.819	0.491	651022	0.62	100	101.8	90	110	
Ti	47	2	He	97.926	4.545	15569	4.32	100	97.9	90	110	
Cu	63	1	No Gas	97.867	0.929	848840	0.76	100	97.9	90	110	
Se	82	1	No Gas	96.489	1.327	14936	2.38	100	96.5	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	536798	0.61	618317	86.82	70	120	
Ge	72	2	He	542042	0.30	620800	87.31	70	120	
Ge	72	1	No Gas	1768755	1.49	1997510	88.55	70	120	
In	115	1	No Gas	2529631	0.46	2911757	86.88	70	120	
Bi	209	1	No Gas	3333461	1.21	3796869	87.79	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	038_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T11:48:28-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.684	13.5	42308	1.5	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.015	55.8	123	14.2	0.5	
V	51	2	He	-0.136	-8.8	1945	2.6	2.5	
Cr	52	2	He	-0.019	-54.0	1030	5.1	2.5	
Fe	56	2	He	1.429	12.7	14408	5.9	100	
Se	78	2	He	0.162	132.3	74	21.1	2	
As	75	2	He	0.000	-8685.2	96	25.7	2.5	
Ca	44	2	He	0.256	1363.2	397	25.3	100	
Na	23	2	He	162.980	2.7	159601	1.7	100	CCB Main CR1 Failed
Mg	24	2	He	-1.100	-11.2	990	5.2	100	
K	39	2	He	3.192	39.9	49867	1.5	100	
Mn	55	2	He	0.018	54.8	307	13.2	2.5	
Co	59	2	He	0.002	299.6	60	60.1	2.5	
Ni	60	2	He	0.076	12.6	370	4.7	2.5	
Cu	63	2	He	0.006	218.2	1250	5.2	2	
Zn	66	2	He	-0.294	-5.6	583	2.6	2.5	
Al	27	2	He	-0.425	-66.9	687	10.9	5	
B	11	1	No Gas	-3.570	-4.3	13869	1.3	0.5	
Al	27	1	No Gas	-0.465	-9.9	24004	1.5	5	
Si	28	1	No Gas	6.316	13.8	204236	0.5	10	
Ag	107	1	No Gas	-0.050	-8.5	267	22.0	2.5	
Cd	111	1	No Gas	0.003	207.8	20	86.6	1	
Sr	88	1	No Gas	-0.018	-25.9	1167	10.2	2.5	
Mo	95	1	No Gas	0.229	49.4	1360	44.8	2.5	
Sn	118	1	No Gas	0.167	31.0	4091	13.6	5	
Sb	121	1	No Gas	-0.206	-6.1	2010	8.0	2.5	
Ba	137	1	No Gas	-0.006	-102.8	190	15.8	2.5	
Tl	205	1	No Gas	0.986	59.5	42173	56.9	1	
Tl	203	1	No Gas	0.910	62.6	16487	59.7	1	
Pb	208	1	No Gas	-0.008	-45.4	2197	9.9	2.5	
U	238	1	No Gas	0.025	51.9	1947	44.5	2.5	
Ca	43	2	He	-4.970	-138.9	7	173.2	100	
Sb	121	2	He	-0.203	-7.1	810	11.8	2.5	
Ti	47	2	He	-0.016	-221.0	3	173.2	2.5	
Cu	63	1	No Gas	-0.030	-49.2	2230	5.4	2.5	
Se	82	1	No Gas	-0.278	-116.0	-16	-307.1	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	563702	0.34	618317	91.17	70	120	
Ge	72	2	He	557620	0.26	620800	89.82	70	120	
Ge	72	1	No Gas	1753384	1.38	1997510	87.78	70	120	
In	115	1	No Gas	2565112	1.22	2911757	88.09	70	120	
Bi	209	1	No Gas	3321073	0.39	3796869	87.47	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	062_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T12:38:59-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.422	9.2	38735	0.8	0.5	
Be	9	1	No Gas	0.011	146.6	110	28.4	0.5	
V	51	2	He	-0.256	-5.8	1427	4.8	2.5	
Cr	52	2	He	-0.010	-110.4	1073	4.7	2.5	
Fe	56	2	He	1.120	22.2	12886	9.4	100	
Se	78	2	He	-0.029	-1123.7	60	38.4	2	
As	75	2	He	0.023	86.0	112	12.0	2.5	
Ca	44	2	He	0.172	1070.1	393	12.5	100	
Na	23	2	He	164.548	4.3	160494	3.0	100	CCB Main CR1 Failed
Mg	24	2	He	-0.674	-74.3	1170	18.6	100	
K	39	2	He	4.513	24.4	50476	1.1	100	
Mn	55	2	He	0.007	324.5	260	33.5	2.5	
Co	59	2	He	0.002	198.8	63	48.2	2.5	
Ni	60	2	He	0.073	58.7	363	22.1	2.5	
Cu	63	2	He	0.040	103.1	1413	14.9	2	
Zn	66	2	He	-0.350	-22.3	527	14.0	2.5	
Al	27	2	He	-0.142	-477.1	760	22.8	5	
B	11	1	No Gas	15.155	9.2	35764	5.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.539	-14.7	23543	1.9	5	
Si	28	1	No Gas	22.586	3.3	278082	1.8	10	CCB Main CR1 Failed
Ag	107	1	No Gas	-0.047	-8.2	317	20.3	2.5	
Cd	111	1	No Gas	0.002	254.1	20	100.0	1	
Sr	88	1	No Gas	-0.016	-53.3	1260	19.7	2.5	
Mo	95	1	No Gas	0.216	41.6	1347	37.6	2.5	
Sn	118	1	No Gas	0.122	34.1	3794	11.6	5	
Sb	121	1	No Gas	-0.257	-1.3	1330	4.7	2.5	
Ba	137	1	No Gas	-0.001	-1328.7	227	20.4	2.5	
Tl	205	1	No Gas	0.169	40.2	9377	32.4	1	
Tl	203	1	No Gas	0.166	39.1	3871	31.9	1	
Pb	208	1	No Gas	-0.019	-21.6	1627	16.7	2.5	
U	238	1	No Gas	0.027	42.2	2124	37.8	2.5	
Ca	43	2	He	7.095	214.3	27	94.4	100	
Sb	121	2	He	-0.234	-6.4	610	16.6	2.5	
Ti	47	2	He	0.065	53.2	17	34.6	2.5	
Cu	63	1	No Gas	0.054	16.2	2980	3.6	2.5	
Se	82	1	No Gas	-0.773	-20.9	-93	-28.2	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	545082	1.61	618317	88.16	70	120	
Ge	72	2	He	556822	0.70	620800	89.69	70	120	
Ge	72	1	No Gas	1772778	1.60	1997510	88.75	70	120	
In	115	1	No Gas	2675381	2.65	2911757	91.88	70	120	
Bi	209	1	No Gas	3455236	2.24	3796869	91.00	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	063_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T12:40:59-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	93.085	0.552	754034	0.77	100	93.1	90	110	
Be	9	1	No Gas	95.520	1.344	181705	0.19	100	95.5	90	110	
V	51	2	He	98.929	0.636	412061	0.27	100	98.9	90	110	
Cr	52	2	He	98.055	0.549	486759	0.45	100	98.1	90	110	
Fe	56	2	He	9882.399	0.806	46310214	0.82	10000	98.8	90	110	
Se	78	2	He	97.487	2.484	6840	2.26	100	97.5	90	110	
As	75	2	He	98.549	0.650	69489	0.89	100	98.5	90	110	
Ca	44	2	He	9762.216	1.673	268327	2.15	10000	97.6	90	110	
Na	23	2	He	9957.322	0.465	6931134	0.74	10000	99.6	90	110	
Mg	24	2	He	9866.572	0.738	4046596	0.78	10000	98.7	90	110	
K	39	2	He	9702.479	0.712	4874864	0.81	10000	97.0	90	110	
Mn	55	2	He	98.722	1.128	381356	0.80	100	98.7	90	110	
Co	59	2	He	97.311	0.389	719535	0.32	100	97.3	90	110	
Ni	60	2	He	99.708	1.481	175960	1.09	100	99.7	90	110	
Cu	63	2	He	99.600	0.630	475662	0.15	100	99.6	90	110	
Zn	66	2	He	99.887	0.468	96944	0.92	100	99.9	90	110	
Al	27	2	He	102.162	1.407	26896	1.61	100	102.2	90	110	
B	11	1	No Gas	499.847	1.681	573454	0.83	500	100.0	90	110	
Al	27	1	No Gas	103.887	0.836	1033297	1.48	100	103.9	90	110	
Si	28	1	No Gas	547.279	3.691	2555202	2.66	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.403	0.967	1442298	0.76	100	101.4	90	110	
Cd	111	1	No Gas	101.348	0.671	305114	0.25	100	101.3	90	110	
Sr	88	1	No Gas	100.768	1.724	2566808	0.96	100	100.8	90	110	
Mo	95	1	No Gas	100.943	0.793	521011	0.17	100	100.9	90	110	
Sn	118	1	No Gas	98.361	0.601	971666	0.87	100	98.4	90	110	
Sb	121	1	No Gas	101.345	1.786	1385367	1.06	100	101.3	90	110	
Ba	137	1	No Gas	101.987	0.787	515315	1.44	100	102.0	90	110	
Tl	205	1	No Gas	97.941	1.982	3910799	0.55	100	97.9	90	110	
Tl	203	1	No Gas	97.289	2.811	1643384	1.28	100	97.3	90	110	
Pb	208	1	No Gas	101.833	1.222	5897112	0.72	100	101.8	90	110	
U	238	1	No Gas	97.657	2.519	6274033	1.10	100	97.7	90	110	
Ca	43	2	He	9926.792	1.960	15970	1.54	10000	99.3	90	110	
Sb	121	2	He	103.727	0.587	657056	0.12	100	103.7	90	110	
Ti	47	2	He	95.437	1.352	15035	1.73	100	95.4	90	110	
Cu	63	1	No Gas	97.954	1.344	841559	0.49	100	98.0	90	110	
Se	82	1	No Gas	97.254	2.257	14909	1.70	100	97.3	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	509082	1.29	618317	82.33	70	120	
Ge	72	2	He	537048	0.48	620800	86.51	70	120	
Ge	72	1	No Gas	1752027	0.86	1997510	87.71	70	120	
In	115	1	No Gas	2521472	0.77	2911757	86.60	70	120	
Bi	209	1	No Gas	3271217	1.57	3796869	86.16	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	073_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T13:06:02-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	95.923	2.029	793876	1.31	100	95.9	90	110	
Be	9	1	No Gas	97.544	0.572	189849	0.66	100	97.5	90	110	
V	51	2	He	97.896	0.453	423813	0.19	100	97.9	90	110	
Cr	52	2	He	96.875	0.717	499819	0.64	100	96.9	90	110	
Fe	56	2	He	9820.694	0.298	47830543	0.55	10000	98.2	90	110	
Se	78	2	He	97.165	2.055	7086	2.33	100	97.2	90	110	
As	75	2	He	98.290	0.406	72030	0.59	100	98.3	90	110	
Ca	44	2	He	9719.379	0.700	277635	0.59	10000	97.2	90	110	
Na	23	2	He	9883.411	1.026	7150541	1.33	10000	98.8	90	110	
Mg	24	2	He	9796.393	1.448	4175727	1.37	10000	98.0	90	110	
K	39	2	He	9581.420	1.409	5003756	1.16	10000	95.8	90	110	
Mn	55	2	He	97.134	0.474	389990	0.71	100	97.1	90	110	
Co	59	2	He	96.964	0.540	745165	0.61	100	97.0	90	110	
Ni	60	2	He	100.635	1.024	184584	1.12	100	100.6	90	110	
Cu	63	2	He	99.064	0.506	491721	0.79	100	99.1	90	110	
Zn	66	2	He	99.881	0.384	100748	0.41	100	99.9	90	110	
Al	27	2	He	101.428	2.246	27758	2.18	100	101.4	90	110	
B	11	1	No Gas	481.574	2.063	565857	1.26	500	96.3	90	110	
Al	27	1	No Gas	104.555	1.660	1075128	1.14	100	104.6	90	110	
Si	28	1	No Gas	554.302	2.158	2674197	1.49	5000	11.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.157	0.049	1491037	0.42	100	99.2	90	110	
Cd	111	1	No Gas	99.484	0.441	316634	0.42	100	99.5	90	110	
Sr	88	1	No Gas	99.427	0.897	2677759	1.34	100	99.4	90	110	
Mo	95	1	No Gas	98.747	0.167	538841	0.60	100	98.7	90	110	
Sn	118	1	No Gas	97.133	0.542	1014415	0.43	100	97.1	90	110	
Sb	121	1	No Gas	102.234	0.581	1445258	0.58	100	102.2	90	110	
Ba	137	1	No Gas	99.225	1.002	529996	0.56	100	99.2	90	110	
Tl	205	1	No Gas	100.057	2.037	4150979	0.87	100	100.1	90	110	
Tl	203	1	No Gas	99.024	1.577	1738073	0.23	100	99.0	90	110	
Pb	208	1	No Gas	101.586	1.334	6111990	0.43	100	101.6	90	110	
U	238	1	No Gas	97.177	2.410	6486602	1.02	100	97.2	90	110	
Ca	43	2	He	9572.378	1.730	16006	1.80	10000	95.7	90	110	
Sb	121	2	He	101.457	0.972	667996	0.90	100	101.5	90	110	
Ti	47	2	He	98.194	4.633	16076	4.51	100	98.2	90	110	
Cu	63	1	No Gas	97.867	1.113	869523	0.48	100	97.9	90	110	
Se	82	1	No Gas	95.948	4.503	15209	3.69	100	95.9	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	520820	0.78	618317	84.23	70	120	
Ge	72	2	He	558158	0.32	620800	89.91	70	120	
Ge	72	1	No Gas	1811801	0.80	1997510	90.70	70	120	
In	115	1	No Gas	2665617	0.45	2911757	91.55	70	120	
Bi	209	1	No Gas	3398644	1.39	3796869	89.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	074_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T13:07:57-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	-0.103	-32.3	35140	0.4	0.5	
Be	9	1	No Gas	-0.014	-87.4	60	44.1	0.5	
V	51	2	He	-0.244	-5.4	1527	3.7	2.5	
Cr	52	2	He	-0.017	-86.2	1073	7.1	2.5	
Fe	56	2	He	1.163	20.5	13534	8.9	100	
Se	78	2	He	0.184	128.7	78	22.8	2	
As	75	2	He	0.025	114.1	118	18.2	2.5	
Ca	44	2	He	-1.190	-115.7	367	11.0	100	
Na	23	2	He	60.813	2.0	88949	1.0	100	
Mg	24	2	He	-0.815	-13.1	1147	4.0	100	
K	39	2	He	4.630	37.9	52222	1.7	100	
Mn	55	2	He	0.035	38.2	387	14.2	2.5	
Co	59	2	He	-0.001	-183.0	40	43.3	2.5	
Ni	60	2	He	0.093	33.5	413	14.2	2.5	
Cu	63	2	He	-0.024	-78.4	1137	8.2	2	
Zn	66	2	He	-0.251	-22.2	647	8.9	2.5	
Al	27	2	He	-0.639	-71.5	650	19.3	5	
B	11	1	No Gas	10.131	13.3	30415	5.6	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.486	-4.0	24709	1.2	5	
Si	28	1	No Gas	3.654	8.0	199974	0.4	10	
Ag	107	1	No Gas	-0.047	-10.1	323	23.2	2.5	
Cd	111	1	No Gas	0.004	82.5	27	43.3	1	
Sr	88	1	No Gas	-0.013	-27.1	1377	7.7	2.5	
Mo	95	1	No Gas	0.246	51.8	1530	45.5	2.5	
Sn	118	1	No Gas	0.161	34.3	4267	12.9	5	
Sb	121	1	No Gas	-0.166	-10.8	2654	10.6	2.5	
Ba	137	1	No Gas	-0.010	-48.8	180	14.7	2.5	
Tl	205	1	No Gas	1.721	49.3	75968	50.0	1	CCB Main CR1 Failed
Tl	203	1	No Gas	1.646	50.6	30719	51.3	1	CCB Main CR1 Failed
Pb	208	1	No Gas	-0.018	-31.0	1710	22.0	2.5	
U	238	1	No Gas	0.029	56.6	2294	51.3	2.5	
Ca	43	2	He	8.459	118.8	30	57.7	100	
Sb	121	2	He	-0.184	-9.6	967	12.5	2.5	
Ti	47	2	He	0.003	1130.3	7	86.6	2.5	
Cu	63	1	No Gas	-0.022	-3.4	2384	1.3	2.5	
Se	82	1	No Gas	-0.147	-131.7	4	731.2	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	557056	0.43	618317	90.09	70	120	
Ge	72	2	He	575395	0.17	620800	92.69	70	120	
Ge	72	1	No Gas	1819750	1.01	1997510	91.10	70	120	
In	115	1	No Gas	2719451	0.94	2911757	93.40	70	120	
Bi	209	1	No Gas	3481422	2.60	3796869	91.69	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	148_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T16:55:34-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	91.887	2.265	856274	1.91	100	91.9	90	110	
Be	9	1	No Gas	93.039	0.867	203508	0.62	100	93.0	90	110	
V	51	2	He	95.357	0.340	438254	0.19	100	95.4	90	110	
Cr	52	2	He	93.872	0.289	514117	0.29	100	93.9	90	110	
Fe	56	2	He	9689.653	0.723	50090461	0.27	10000	96.9	90	110	
Se	78	2	He	93.882	1.743	7269	1.29	100	93.9	90	110	
As	75	2	He	93.818	0.269	72981	0.52	100	93.8	90	110	
Ca	44	2	He	9688.120	1.374	293743	1.25	10000	96.9	90	110	
Na	23	2	He	10265.683	0.917	7881313	0.59	10000	102.7	90	110	
Mg	24	2	He	9807.078	1.227	4437003	0.85	10000	98.1	90	110	
K	39	2	He	9700.511	2.326	5376677	2.35	10000	97.0	90	110	
Mn	55	2	He	94.405	0.229	402323	0.46	100	94.4	90	110	
Co	59	2	He	93.268	0.370	760800	0.70	100	93.3	90	110	
Ni	60	2	He	96.380	1.133	187649	1.09	100	96.4	90	110	
Cu	63	2	He	95.025	0.479	500703	0.75	100	95.0	90	110	
Zn	66	2	He	93.221	0.410	99869	0.49	100	93.2	90	110	
Al	27	2	He	100.639	1.794	29241	1.86	100	100.6	90	110	
B	11	1	No Gas	455.473	0.286	602541	0.10	500	91.1	90	110	
Al	27	1	No Gas	100.644	2.685	1102064	1.60	100	100.6	90	110	
Si	28	1	No Gas	544.386	3.404	2797173	2.03	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	96.527	0.878	1521212	1.46	100	96.5	90	110	
Cd	111	1	No Gas	93.679	0.398	312460	0.32	100	93.7	90	110	
Sr	88	1	No Gas	96.456	0.878	2722278	0.60	100	96.5	90	110	
Mo	95	1	No Gas	93.039	0.094	532058	0.52	100	93.0	90	110	
Sn	118	1	No Gas	91.199	0.499	998299	0.52	100	91.2	90	110	
Sb	121	1	No Gas	94.983	0.972	1428901	1.28	100	95.0	90	110	
Ba	137	1	No Gas	95.008	0.294	531835	0.33	100	95.0	90	110	
Tl	205	1	No Gas	101.169	0.928	4225930	0.70	100	101.2	90	110	
Tl	203	1	No Gas	101.629	0.970	1795975	0.77	100	101.6	90	110	
Pb	208	1	No Gas	96.503	0.592	5845895	0.67	100	96.5	90	110	
U	238	1	No Gas	89.278	2.258	6000155	1.54	100	89.3	90	110	CCV Main CR1-2 Failed
Ca	43	2	He	9883.465	0.590	17541	0.99	10000	98.8	90	110	
Sb	121	2	He	96.650	0.537	675543	0.36	100	96.6	90	110	
Ti	47	2	He	94.769	1.982	16470	2.22	100	94.8	90	110	
Cu	63	1	No Gas	95.455	1.159	902345	1.12	100	95.5	90	110	
Se	82	1	No Gas	94.176	1.118	15887	1.99	100	94.2	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	585307	0.26	618317	94.66	70	120	
Ge	72	2	He	592449	0.45	620800	95.43	70	120	
Ge	72	1	No Gas	1927648	1.71	1997510	96.50	70	120	
In	115	1	No Gas	2793502	0.61	2911757	95.94	70	120	
Bi	209	1	No Gas	3421576	1.13	3796869	90.12	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	149_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T16:57:30-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.286	20.0	42016	1.6	0.5	
Be	9	1	No Gas	-0.010	-35.2	75	11.5	0.5	
V	51	2	He	-0.311	-1.9	1276	1.9	2.5	
Cr	52	2	He	-0.012	-102.0	1137	5.4	2.5	
Fe	56	2	He	1.032	18.1	13340	6.4	100	
Se	78	2	He	0.181	63.6	81	11.7	2	
As	75	2	He	0.003	927.7	104	17.6	2.5	
Ca	44	2	He	0.661	186.7	437	9.5	100	
Na	23	2	He	584.969	0.9	494915	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	-1.471	-9.9	890	8.1	100	
K	39	2	He	22.001	4.0	63724	1.3	100	
Mn	55	2	He	0.211	5.8	1153	3.6	2.5	
Co	59	2	He	-0.002	-82.6	33	45.8	2.5	
Ni	60	2	He	0.010	334.7	267	25.5	2.5	
Cu	63	2	He	-0.055	-44.3	1013	12.1	2	
Zn	66	2	He	-0.113	-40.0	817	4.9	2.5	
Al	27	2	He	-0.218	-55.0	793	5.2	5	
B	11	1	No Gas	3.121	34.8	23897	5.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.312	-23.9	27695	2.6	5	
Si	28	1	No Gas	4.687	6.4	214228	0.6	10	
Ag	107	1	No Gas	-0.051	-3.1	263	8.8	2.5	
Cd	111	1	No Gas	0.003	142.5	23	65.5	1	
Sr	88	1	No Gas	-0.018	-16.6	1267	6.0	2.5	
Mo	95	1	No Gas	0.162	47.5	1097	41.0	2.5	
Sn	118	1	No Gas	0.054	62.8	3204	12.3	5	
Sb	121	1	No Gas	-0.226	-1.8	1894	3.1	2.5	
Ba	137	1	No Gas	-0.014	-34.2	160	16.5	2.5	
Tl	205	1	No Gas	0.269	56.0	13619	47.8	1	
Tl	203	1	No Gas	0.269	59.6	5712	51.3	1	
Pb	208	1	No Gas	-0.021	-27.3	1487	24.7	2.5	
U	238	1	No Gas	0.020	58.3	1637	48.5	2.5	
Ca	43	2	He	9.720	33.3	33	17.3	100	
Sb	121	2	He	-0.212	-8.0	807	15.7	2.5	
Ti	47	2	He	0.021	273.6	10	100.0	2.5	
Cu	63	1	No Gas	0.552	1.3	7839	1.1	2.5	
Se	82	1	No Gas	-0.512	-87.0	-56	-131.9	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	608983	0.55	618317	98.49	70	120	
Ge	72	2	He	596345	0.99	620800	96.06	70	120	
Ge	72	1	No Gas	1904973	0.21	1997510	95.37	70	120	
In	115	1	No Gas	2784588	0.85	2911757	95.63	70	120	
Bi	209	1	No Gas	3457600	1.12	3796869	91.06	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	160_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:22:03-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	91.051	5.106	789913	4.06	100	91.1	90	110	
Be	9	1	No Gas	91.295	1.070	185869	0.59	100	91.3	90	110	
V	51	2	He	95.044	0.796	421109	0.54	100	95.0	90	110	
Cr	52	2	He	93.688	0.644	494651	0.11	100	93.7	90	110	
Fe	56	2	He	9732.879	0.362	48505363	0.53	10000	97.3	90	110	
Se	78	2	He	92.730	2.372	6922	1.78	100	92.7	90	110	
As	75	2	He	93.623	0.654	70210	0.72	100	93.6	90	110	
Ca	44	2	He	9537.706	0.480	278792	0.57	10000	95.4	90	110	
Na	23	2	He	9942.986	1.688	7360421	1.54	10000	99.4	90	110	
Mg	24	2	He	9588.399	1.307	4182002	0.58	10000	95.9	90	110	
K	39	2	He	9511.538	0.721	5083189	0.30	10000	95.1	90	110	
Mn	55	2	He	94.312	0.133	387474	0.66	100	94.3	90	110	
Co	59	2	He	93.827	0.951	737805	0.32	100	93.8	90	110	
Ni	60	2	He	97.338	0.586	182695	0.33	100	97.3	90	110	
Cu	63	2	He	95.351	0.320	484355	1.01	100	95.4	90	110	
Zn	66	2	He	93.244	0.903	96300	0.90	100	93.2	90	110	
Al	27	2	He	99.061	1.242	27761	1.78	100	99.1	90	110	
B	11	1	No Gas	471.228	0.791	579630	0.94	500	94.2	90	110	
Al	27	1	No Gas	97.759	1.465	1047947	2.41	100	97.8	90	110	
Si	28	1	No Gas	543.541	1.884	2731573	0.11	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	95.343	1.431	1468718	1.42	100	95.3	90	110	
Cd	111	1	No Gas	94.433	0.558	307896	0.71	100	94.4	90	110	
Sr	88	1	No Gas	95.336	0.351	2630232	0.23	100	95.3	90	110	
Mo	95	1	No Gas	93.561	0.342	523008	0.20	100	93.6	90	110	
Sn	118	1	No Gas	92.514	0.653	989883	0.57	100	92.5	90	110	
Sb	121	1	No Gas	96.346	1.096	1417213	0.92	100	96.3	90	110	
Ba	137	1	No Gas	95.972	0.518	525151	0.53	100	96.0	90	110	
Tl	205	1	No Gas	101.727	0.572	4296270	0.79	100	101.7	90	110	
Tl	203	1	No Gas	100.619	2.774	1797949	3.17	100	100.6	90	110	
Pb	208	1	No Gas	97.138	0.880	5949547	1.27	100	97.1	90	110	
U	238	1	No Gas	91.022	0.733	6185647	1.13	100	91.0	90	110	
Ca	43	2	He	9541.049	2.515	16323	1.85	10000	95.4	90	110	
Sb	121	2	He	98.366	0.441	662785	0.78	100	98.4	90	110	
Ti	47	2	He	92.402	2.034	15482	2.66	100	92.4	90	110	
Cu	63	1	No Gas	92.781	1.860	857634	0.35	100	92.8	90	110	
Se	82	1	No Gas	93.618	1.695	15446	3.26	100	93.6	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	544805	0.86	618317	88.11	70	120	
Ge	72	2	He	571148	0.73	620800	92.00	70	120	
Ge	72	1	No Gas	1884973	1.66	1997510	94.37	70	120	
In	115	1	No Gas	2730669	0.16	2911757	93.78	70	120	
Bi	209	1	No Gas	3459260	0.40	3796869	91.11	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	161_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:23:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.230	16.3	39497	1.0	0.5	
Be	9	1	No Gas	0.021	70.5	138	21.8	0.5	
V	51	2	He	-0.171	-18.4	1863	8.1	2.5	
Cr	52	2	He	-0.032	-85.7	1000	14.0	2.5	
Fe	56	2	He	0.986	11.3	12723	4.2	100	
Se	78	2	He	0.151	78.0	76	11.5	2	
As	75	2	He	0.021	15.0	116	1.7	2.5	
Ca	44	2	He	-0.822	-58.6	380	4.6	100	
Na	23	2	He	257.620	1.4	236359	0.5	100	CCB Main CR1 Failed
Mg	24	2	He	-1.185	-16.6	990	7.9	100	
K	39	2	He	13.129	16.4	57115	1.4	100	
Mn	55	2	He	0.083	6.2	590	3.4	2.5	
Co	59	2	He	-0.002	-176.7	37	63.0	2.5	
Ni	60	2	He	0.009	224.6	257	15.7	2.5	
Cu	63	2	He	0.017	119.8	1353	7.0	2	
Zn	66	2	He	-0.152	-13.8	753	2.0	2.5	
Al	27	2	He	-1.065	-11.8	537	6.5	5	
B	11	1	No Gas	9.402	9.5	30730	4.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.129	-4.7	18927	3.8	5	
Si	28	1	No Gas	3.813	3.2	208107	1.1	10	
Ag	107	1	No Gas	-0.052	-0.9	250	4.0	2.5	
Cd	111	1	No Gas	-0.001	-6.4	10	0.0	1	
Sr	88	1	No Gas	-0.019	-9.9	1223	3.1	2.5	
Mo	95	1	No Gas	0.171	36.8	1127	31.7	2.5	
Sn	118	1	No Gas	0.116	53.2	3831	17.3	5	
Sb	121	1	No Gas	-0.143	-7.3	3090	6.0	2.5	
Ba	137	1	No Gas	-0.001	-1148.5	230	37.1	2.5	
Tl	205	1	No Gas	0.300	57.3	15104	50.5	1	
Tl	203	1	No Gas	0.302	49.2	6379	43.9	1	
Pb	208	1	No Gas	-0.015	-17.1	1847	9.8	2.5	
U	238	1	No Gas	0.022	54.8	1794	47.3	2.5	
Ca	43	2	He	-1.269	-260.8	13	43.3	100	
Sb	121	2	He	-0.130	-5.9	1340	4.5	2.5	
Ti	47	2	He	0.003	1197.1	7	86.6	2.5	
Cu	63	1	No Gas	0.125	14.8	3824	3.7	2.5	
Se	82	1	No Gas	-0.192	-252.7	-2	-3382.8	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	579677	1.24	618317	93.75	70	120	
Ge	72	2	He	579107	0.86	620800	93.28	70	120	
Ge	72	1	No Gas	1886926	1.12	1997510	94.46	70	120	
In	115	1	No Gas	2749345	1.62	2911757	94.42	70	120	
Bi	209	1	No Gas	3492237	1.93	3796869	91.98	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	172_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:52:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	92.762	1.109	731934	0.50	100	92.8	90	110	
Be	9	1	No Gas	92.994	0.572	172304	0.19	100	93.0	90	110	
V	51	2	He	96.140	0.741	388106	0.55	100	96.1	90	110	
Cr	52	2	He	94.968	0.779	456870	0.83	100	95.0	90	110	
Fe	56	2	He	9825.536	0.364	44618099	0.68	10000	98.3	90	110	
Se	78	2	He	91.702	1.307	6238	0.98	100	91.7	90	110	
As	75	2	He	94.143	0.762	64328	0.51	100	94.1	90	110	
Ca	44	2	He	9617.386	0.665	256146	0.43	10000	96.2	90	110	
Na	23	2	He	9989.103	1.230	6737804	1.42	10000	99.9	90	110	
Mg	24	2	He	9651.087	1.079	3835570	0.79	10000	96.5	90	110	
K	39	2	He	9663.995	0.975	4705261	0.87	10000	96.6	90	110	
Mn	55	2	He	94.734	1.024	354627	0.72	100	94.7	90	110	
Co	59	2	He	94.468	0.498	676890	0.73	100	94.5	90	110	
Ni	60	2	He	97.556	0.649	166844	0.96	100	97.6	90	110	
Cu	63	2	He	95.905	0.755	443882	0.92	100	95.9	90	110	
Zn	66	2	He	95.924	0.627	90245	0.40	100	95.9	90	110	
Al	27	2	He	100.015	0.529	25530	0.20	100	100.0	90	110	
B	11	1	No Gas	476.264	0.789	532953	0.27	500	95.3	90	110	
Al	27	1	No Gas	98.678	2.150	958027	1.57	100	98.7	90	110	
Si	28	1	No Gas	546.241	2.499	2486609	1.86	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.841	0.932	1381716	0.58	100	97.8	90	110	
Cd	111	1	No Gas	97.271	0.581	290752	0.58	100	97.3	90	110	
Sr	88	1	No Gas	98.776	1.365	2498214	0.93	100	98.8	90	110	
Mo	95	1	No Gas	95.330	0.868	488535	0.45	100	95.3	90	110	
Sn	118	1	No Gas	94.794	0.547	929812	0.47	100	94.8	90	110	
Sb	121	1	No Gas	100.134	0.988	1334410	0.43	100	100.1	90	110	
Ba	137	1	No Gas	99.215	1.097	497699	0.71	100	99.2	90	110	
Tl	205	1	No Gas	104.022	1.605	4102657	0.66	100	104.0	90	110	
Tl	203	1	No Gas	102.833	2.179	1715876	1.60	100	102.8	90	110	
Pb	208	1	No Gas	98.606	1.551	5640055	0.77	100	98.6	90	110	
U	238	1	No Gas	93.023	1.589	5903605	0.78	100	93.0	90	110	
Ca	43	2	He	9588.795	5.326	14948	5.15	10000	95.9	90	110	
Sb	121	2	He	101.403	0.589	622494	0.52	100	101.4	90	110	
Ti	47	2	He	93.897	2.014	14334	2.22	100	93.9	90	110	
Cu	63	1	No Gas	94.630	1.311	792597	0.75	100	94.6	90	110	
Se	82	1	No Gas	95.868	4.557	14326	3.92	100	95.9	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	495804	0.64	618317	80.19	70	120	
Ge	72	2	He	520412	0.32	620800	83.83	70	120	
Ge	72	1	No Gas	1707838	0.62	1997510	85.50	70	120	
In	115	1	No Gas	2503432	0.44	2911757	85.98	70	120	
Bi	209	1	No Gas	3231266	2.12	3796869	85.10	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	173_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq Date Time	2021-05-26T17:54:12-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.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	0.215	64.2	36051	2.7	0.5	
Be	9	1	No Gas	0.017	65.3	120	18.2	0.5	
V	51	2	He	-0.150	-14.3	1798	5.1	2.5	
Cr	52	2	He	-0.021	-115.2	970	12.5	2.5	
Fe	56	2	He	1.220	15.2	12786	7.0	100	
Se	78	2	He	0.182	137.9	72	23.7	2	
As	75	2	He	0.057	58.0	131	17.9	2.5	
Ca	44	2	He	-0.679	-353.9	353	18.8	100	
Na	23	2	He	152.447	1.6	145155	0.8	100	CCB Main CR1 Failed
Mg	24	2	He	-0.923	-41.4	1017	14.9	100	
K	39	2	He	8.070	20.6	50018	1.9	100	
Mn	55	2	He	0.107	4.6	633	3.3	2.5	
Co	59	2	He	0.002	426.1	60	101.4	2.5	
Ni	60	2	He	0.048	46.5	303	12.5	2.5	
Cu	63	2	He	0.027	189.1	1293	19.2	2	
Zn	66	2	He	-0.172	-35.8	673	9.1	2.5	
Al	27	2	He	-1.473	-7.4	390	6.8	5	
B	11	1	No Gas	13.481	7.5	32880	3.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.127	-5.5	17311	5.1	5	
Si	28	1	No Gas	3.499	20.5	188778	0.2	10	
Ag	107	1	No Gas	-0.052	-11.9	233	37.4	2.5	
Cd	111	1	No Gas	0.000	1010.1	13	114.6	1	
Sr	88	1	No Gas	-0.021	-5.6	1073	4.2	2.5	
Mo	95	1	No Gas	0.209	38.1	1250	32.3	2.5	
Sn	118	1	No Gas	0.084	62.6	3247	15.0	5	
Sb	121	1	No Gas	-0.099	-31.8	3414	11.9	2.5	
Ba	137	1	No Gas	-0.003	-325.3	207	20.1	2.5	
Tl	205	1	No Gas	0.332	59.5	15645	51.4	1	
Tl	203	1	No Gas	0.337	53.1	6659	46.3	1	
Pb	208	1	No Gas	-0.014	-36.5	1813	17.1	2.5	
U	238	1	No Gas	0.018	56.7	1453	45.4	2.5	
Ca	43	2	He	-0.580	-631.4	13	43.3	100	
Sb	121	2	He	-0.096	-21.9	1443	9.5	2.5	
Ti	47	2	He	0.071	139.2	17	91.7	2.5	
Cu	63	1	No Gas	0.034	30.4	2727	4.9	2.5	
Se	82	1	No Gas	-0.435	-47.7	-39	-79.0	2	

QC ISTD Table

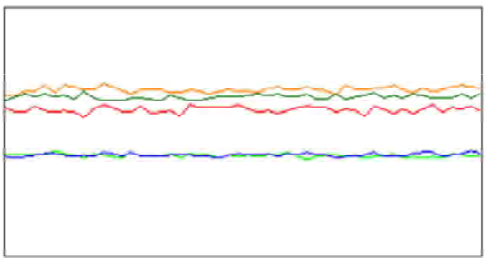
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	530890	0.39	618317	85.86	70	120	
Ge	72	2	He	532388	0.38	620800	85.76	70	120	
Ge	72	1	No Gas	1724150	1.71	1997510	86.31	70	120	
In	115	1	No Gas	2566924	1.50	2911757	88.16	70	120	
Bi	209	1	No Gas	3332778	0.51	3796869	87.78	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\052621A.b
Acq. Date-Time	5/26/2021 9:29:21 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	2953	29531.91		
24	50000	20239	202394.97		
59	50000	20335	203346.73		
115	50000	33604	336036.78		
208	50000	32157	321568.01		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	1.973	5.000	
24	1.602	5.000	
59	1.685	5.000	
115	1.645	5.000	
208	1.576	5.000	

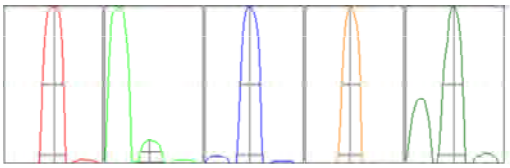
Mass	Background	Background (Required)	Background (Flag)
9	0.000		
24	0.300		
59	0.100		
115	0.200		
208	0.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.909 %
Doubly Charged	70 / 140 0.553 %

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	2957.46	9.05	8.90 - 9.10	
24	20182.44	23.90	23.90 - 24.10	
59	20723.30	58.90	58.90 - 59.10	
115	34650.35	114.90	114.90 - 115.10	
208	31963.30	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.785		
24	0.64	0.784		
59	0.60	0.776		
115	0.56	0.716		
208	0.61	0.813		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 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	134	Axis Gain	1.0007	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.07		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

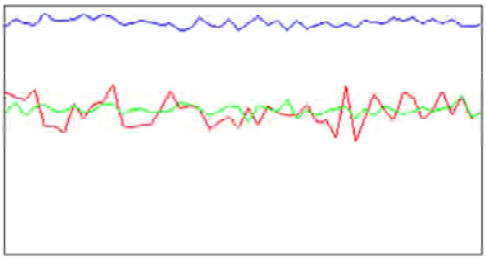
EM

Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 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	115	1147.25		
24	2000	1164	11638.22		
59	10000	9354	93543.00		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

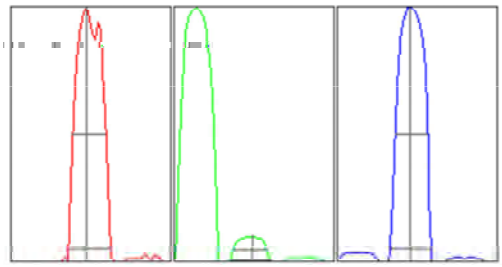
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.840	5.000	Fail
24	3.426	5.000	
59	1.737	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.300		
24	0.000		
59	0.000		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.530 %
Doubly Charged	70 / 140 0.616 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	109.51	8.95	8.90 - 9.10	
24	1136.25	24.00	23.90 - 24.10	
59	9462.66	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.785		
24	0.63	0.779		

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	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	0.2 V
Extract 2	-195.0 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	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0007	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.07		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.4 mV	Analog HV	2552 V	Pulse HV	1294 V

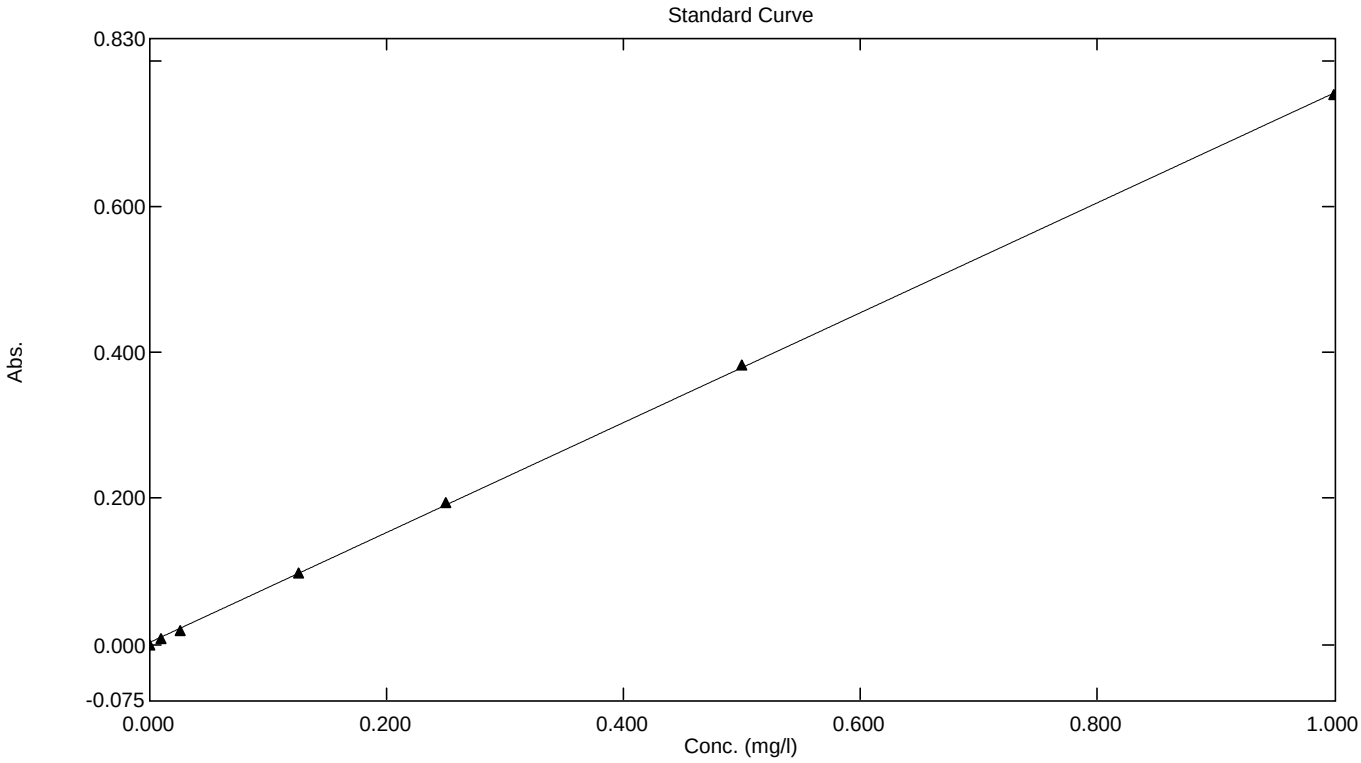
HS21050554 Wet Chem Raw Data (Cr6_W_7196_DOD)

ALS WO# HS21050554

Standard Table Report

05/28/2021 01:34:51 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\05122021CR6_W.pho



Correlation Coefficient r2 = 0.99987

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	0.008	1.000	
3	STD3	Standard		0.025	0.020	1.000	
4	STD4	Standard		0.125	0.099	1.000	
5	STD5	Standard		0.250	0.195	1.000	
6	STD6	Standard		0.500	0.383	1.000	
7	STD7	Standard		1.000	0.752	1.000	
8							

Sample Table Report

05/28/2021 01:35:31 PM

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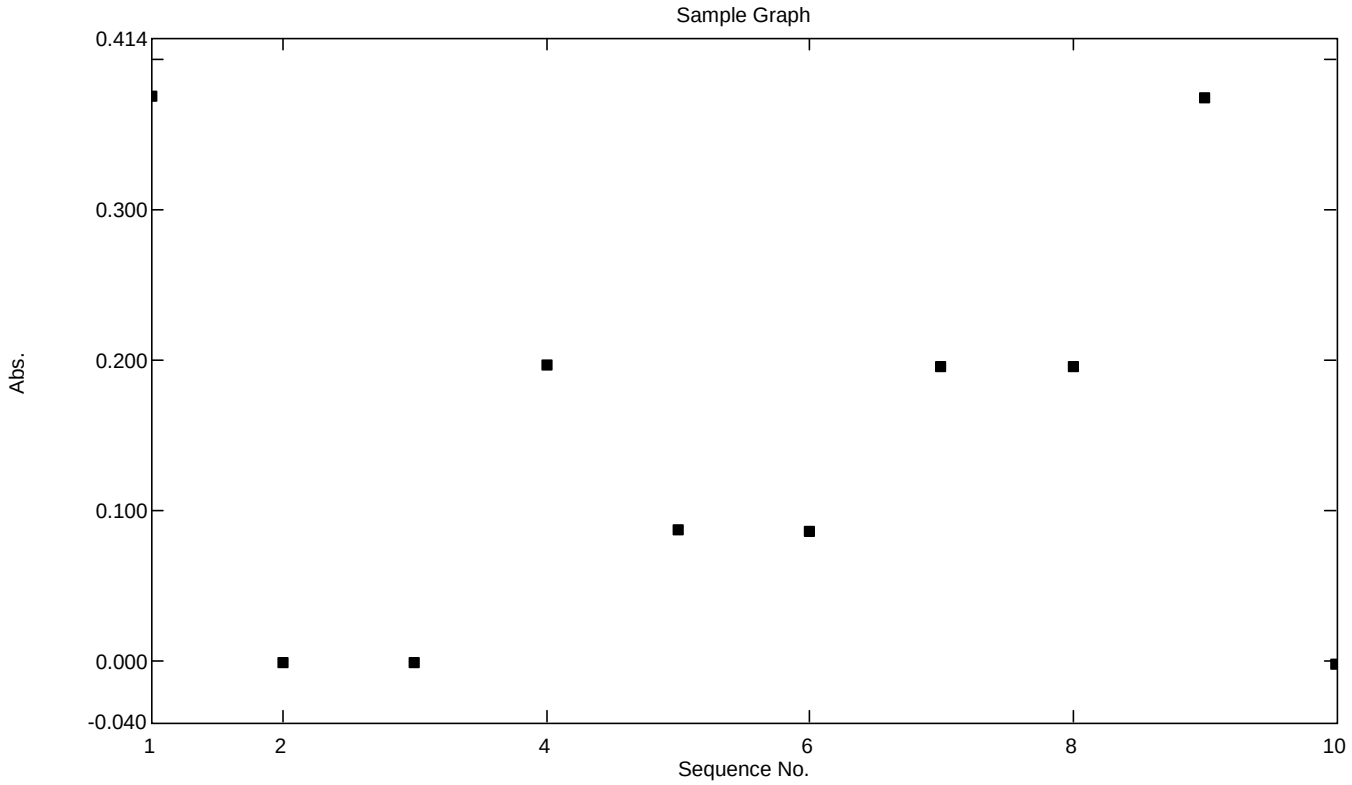

Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		05/12/2021	05:03:43 PM	0.496	0.376	
2	CCB	Unknown		05/12/2021	05:04:04 PM	-0.005	-0.001	
3	MBLK	Unknown		05/12/2021	05:04:08 PM	-0.005	-0.001	
4	LCS	Unknown		05/12/2021	05:04:40 PM	0.258	0.197	
5	HS21050573.01	Unknown		05/12/2021	05:05:11 PM	0.112	0.087	
6	HS21050573.01BKG	Unknown		05/12/2021	05:05:16 PM	0.111	0.086	
7	HS21050573.01MS	Unknown		05/12/2021	05:06:08 PM	0.257	0.196	
8	HS21050573.01MSD	Unknown		05/12/2021	05:06:13 PM	0.257	0.196	
9	CCV2	Unknown		05/12/2021	05:06:34 PM	0.494	0.375	
10	CCB2	Unknown		05/12/2021	05:06:47 PM	-0.007	-0.002	
11								

HS21050554 - Sub Perch IV (E2100554)

ALS WO# HS21050554

May 19, 2021 Service Request No:E2100554

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS21050554

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory May 12, 2021
For your reference, these analyses have been assigned our service request number **E2100554.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100554
Project:	HS21050554	**Date Received:**	05/12/21
Sample Matrix:	W		

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 05/12/21.

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:

EQ2100298: 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 LCS and DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100554
Project: HS21050554

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100554-001	LH18/24-SP140_051121	5/11/2021	1400

Service Request Summary

Folder #: **E2100554**
Client Name: ALS Environmental - US
Project Name: HS21050554
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050554
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100554-001	LH18/24-SP140_051121	Ground Water	05/11/21 1400	**IV**

Service Request Summary

Folder #: **E2100554**
Client Name: ALS Environmental - US
Project Name: HS21050554
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050554
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 5/26, IV due 6/3

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arizona Department of Health Services	AZ0793-2020	5/27/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022

Chain of Custody

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10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16113**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21050554
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21050554-01**	**LH18/24-SP140_051121**	**Water**	**11 May 2021 14:00**
	Provide Level II and Level IV reports in separate pdf			26 May 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: Pablo Hernandez Date/Time: 5/12/21 18:00

Received By: [illegible] Date/Time: 5-12-21 1800

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/12/21 Initials: CG

Date/Time Logged in: 5/13/21 Initials: CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊘ Courier (ALS) ○ 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		5/12/21	1800	CG	2.8	☒
						☐
						☐
						☐

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:

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F: +1 713 266 1599
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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

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Preparation Information Benchsheet

Prep Run#: 379504 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/17/21 10:50

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100526-001	LH18/24-SP650_050421_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100553-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100554-001	LH18/24-SP140_051121	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100555-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
5	EQ2100298-01	MB		6850/ClO4 DOD			Liquid	10mL	
6	EQ2100298-02	LCS		6850/ClO4 DOD			Liquid	10mL	
7	EQ2100298-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 214035 Logbook Ref: Perchlorate Expires On: 05/23/2021

EQ2100298-02 1.00µL EQ2100298-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 214820 Logbook Ref: Perchlorate Internal Standard Expires On: 07/03/2021

E2100526-001 100.00µL E2100553-001 100.00µL E2100554-001 100.00µL E2100555-001 100.00µL EQ2100298-01 100.00µL EQ2100298-02 100.00µL
EQ2100298-03 100.00µL

Preparation Steps

Step: Preparation
Started: 5/17/21 10:50
Finished: 5/17/21 11:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/17/21

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100554
Project:	HS21050554	**Date Collected:**	5/11/21 1400
Sample Matrix:	Ground Water	**Date Received:**	5/12/21
Sample Name:	LH18/24-SP140_051121	**Units:**	µg/L
Lab Code:	E2100554-001	**Basis:**	As Received

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	**9020**		20.0	10.0	5.00	200	5/17/21	5/18/21 17:38	379504	724053	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100554
Project:	HS21050554	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100298-01	**Basis:**	As Received

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	5/17/21	5/18/21 16:56	379504	724053	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050554
Sample Matrix: Ground Water

Service Request: E2100554
Date Analyzed: 5/19/21

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: As Received

Extraction Lot: 379504

	Lab Control Sample EQ2100298-02			Duplicate Lab Control Sample EQ2100298-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.102	0.100	102	0.106	0.100	106	84 - 119	4	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:**	E2100554
Project:	HS21050554	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-02	**Basis:**	As Received

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	**0.102**		0.100	0.0500	0.0250	1	5/17/21	5/19/21 10:50	379504	724049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100554
Project:	HS21050554	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-03	**Basis:**	As Received

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	5/17/21	5/19/21 10:59	379504	724049	

Initial Calibration

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20210518

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/18/2021
Cal. Std. xp: 5/20/2021
ICAL ID: **EC2100031**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210518_011	Perchlorate6850b.lcm	1x	☒	3100808-05	5/18/2021 11:48
2	PERCHLORATE2		20210518_012	Perchlorate6850b.lcm	1x	☒	3100808-06	5/18/2021 11:57
3	PERCHLORATE3		20210518_013	Perchlorate6850b.lcm	1x	☒	3100808-07	5/18/2021 12:05
4	PERCHLORATE4		20210518_014	Perchlorate6850b.lcm	1x	☒	3100808-08	5/18/2021 12:14
5	PERCHLORATE5		20210518_015	Perchlorate6850b.lcm	1x	☒	3100808-09	5/18/2021 12:22
6	PERCHLORATE6		20210518_016	Perchlorate6850b.lcm	1x	☒	3100809-01	5/18/2021 12:30
7	PERCHLORATE7		20210518_010	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 10:48
8	PERCHLORATE8		20210518_017	Perchlorate6850b.lcm	1x	☒	3100809-03	5/18/2021 12:39
9	PERCHLORATE9		20210518_018	Perchlorate6850b.lcm	1x	☒	3100809-04	5/18/2021 12:47
10	PERCHLORATE10		20210518_019	Perchlorate6850b.lcm	1x	☒	3100809-05	5/18/2021 12:56
11	PERCHLORATEICV		20210518_020	Perchlorate6850b.lcm	1x	☒	3100809-06	5/18/2021 13:04
12	ICS		20210518_021	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:12
13	LODV		20210518_022	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:21
14	PERCHLORATE7		20210518_023	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:29
15	E2100493-001x10		20210518_024	Perchlorate6850b.lcm	10X	☒	DNU-INST failed	5/18/2021 13:38
16	PERCHLORATE7		20210518_025	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:46
17	EQ2100297-01		20210518_026	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:20
18	EQ2100297-02		20210518_027	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:29
19	EQ2100297-03		20210518_028	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:37
20	E2100496-002X10		20210518_029	Perchlorate6850b.lcm	10X	☒		5/18/2021 14:45
21	E2100493-001x20		20210518_030	Perchlorate6850b.lcm	20X	☒	DNU-INST failed	5/18/2021 14:54
22	PERCHLORATE7		20210518_031	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:02
23	E2100493-001x40		20210518_032	Perchlorate6850b.lcm	40X	☒		5/18/2021 15:36
24	PERCHLORATE7		20210518_033	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:44
25	EQ2100298-01		20210518_034	Perchlorate6850b.lcm	1x	☒		5/18/2021 16:56
26	EQ2100298-02		20210518_035	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:05
27	EQ2100298-03RR		20210518_036	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:13
28	E2100526-001X5DNU		20210518_037	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:21
29	E2100553-001X10DNU		20210518_038	Perchlorate6850b.lcm	10x	☒	DNU-INST failed	5/18/2021 17:30
30	E2100554-001X200		20210518_039	Perchlorate6850b.lcm	200x	☒		5/18/2021 17:38
31	E2100555-001X5DNU		20210518_040	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:47
32	PERCHLORATE7		20210518_041	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 17:55
33								

Initial Calibration - Detailed Report

Calibration ID: EC2100031 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100031-01	PERCHLORATE7	20210518_010	05/18/2021 10:48
02	EC2100031-02	PERCHLORATE1	20210518_011	05/18/2021 11:48
03	EC2100031-03	PERCHLORATE2	20210518_012	05/18/2021 11:57
11	EC2100031-11	PERCHLORATE3	20210518_013	05/18/2021 12:05
04	EC2100031-04	PERCHLORATE4	20210518_014	05/18/2021 12:14
05	EC2100031-05	PERCHLORATE5	20210518_015	05/18/2021 12:22
06	EC2100031-06	PERCHLORATE6	20210518_016	05/18/2021 12:30
07	EC2100031-07	PERCHLORATE8	20210518_017	05/18/2021 12:39
08	EC2100031-08	PERCHLORATE9	20210518_018	05/18/2021 12:47
09	EC2100031-09	PERCHLORATE10	20210518_019	05/18/2021 12:56

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 8.249** **Average RF = 0.1137**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.0000	0.1063	02	0.1000	0.1298	03	0.5000	0.1214	04	1.0000	0.1096
05	2.0000	0.1181	06	5.0000	0.1158	07	20.0000	0.1073	08	30.0000	0.1057
09	50.0000	0.1002	11	0.7000	0.1233						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.0000	9.34	-6.6	02	0.1000	0.114	14.1	03	0.5000	0.534	6.7
04	1.0000	0.963	-3.7	05	2.0000	2.08	3.9	06	5.0000	5.09	1.8
07	20.0000	18.9	-5.7	08	30.0000	27.9	-7.0	09	50.0000	44.1	-11.9
11	0.7000	0.759	8.4								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100031	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210518_020	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100031-10	T	Average RF	10	10.127	ng/mL	1.3	<= 15

Insight Report

Printed at 5/18/2021 3:37:42 PM

Method File: I:\LCMS01\DATA\20210518\20210518.lcm
Project File: I:\LCMS01\DATA\20210518\20210518.damlp

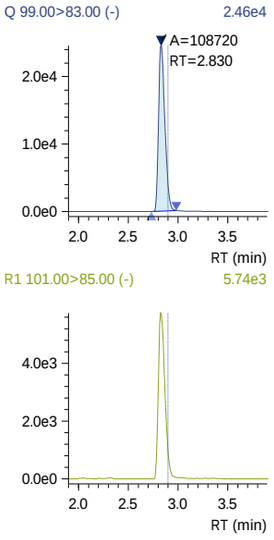
20210518_010

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 10:48:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_010.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.830	108720	102309	1	9.34321	ng/mL	10.0000	23.44
Sodium Perchlorate-18O4_IS	Auto	2.829	102309	102309	1	1.00000	ng/mL	1.0000	----

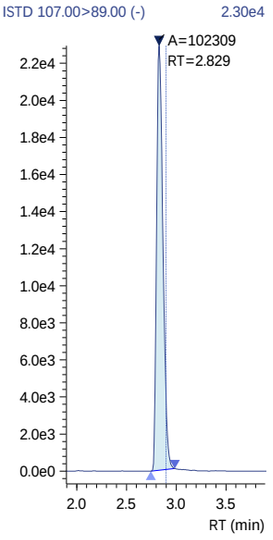
Perchlorate

Conc 9.34321
R#1 23.44 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

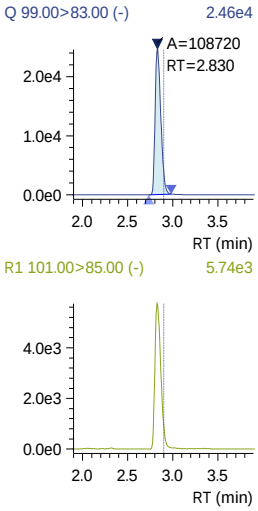
Method File: I:\LCMS01\DATA\20210518\20210517.lcm

20210518_010

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 10:48:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_010.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

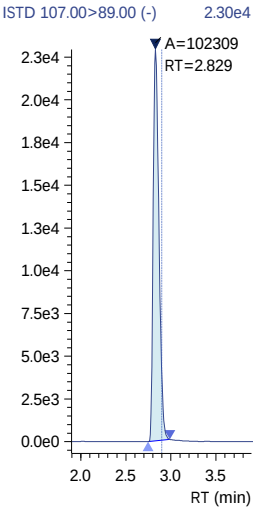
Perchlorate

Conc 10.06452
R#1 23.44 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:37:42 PM

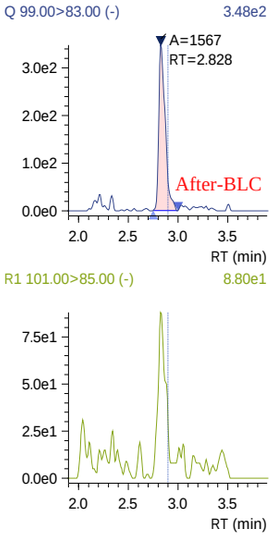
20210518_011

Sample ID: PERCHLORATE1
Date Acquired: 5/18/2021 11:48:54 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_011.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.828	1567	120716	1	0.11410	ng/mL	0.1000	23.68
Sodium Perchlorate-18O4_IS	Auto	2.831	120716	120716	1	1.00000	ng/mL	1.0000	----

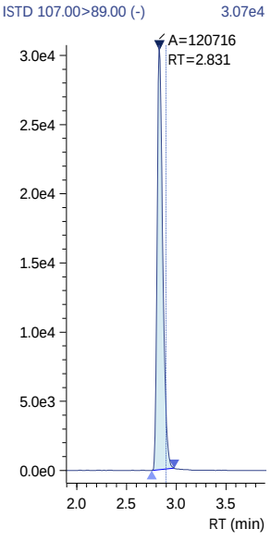
Perchlorate

Conc 0.11410
R#1 23.68 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Method File: I:\LCMS01\DATA\20210518\20210517.lcm

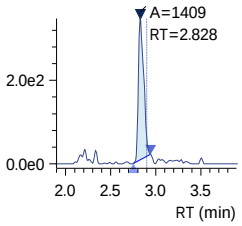
20210518_011

Sample ID: PERCHLORATE1
Date Acquired: 5/18/2021 11:48:54 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_011.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

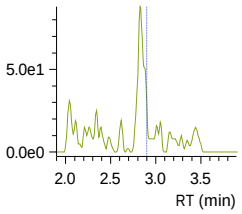
Perchlorate

Conc 0.11051
R#1 24.63 (0.00)

Q 99.00>83.00 (-) 3.48e2



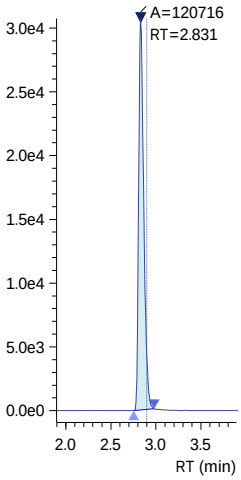
R1 101.00>85.00 (-) 8.80e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.07e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

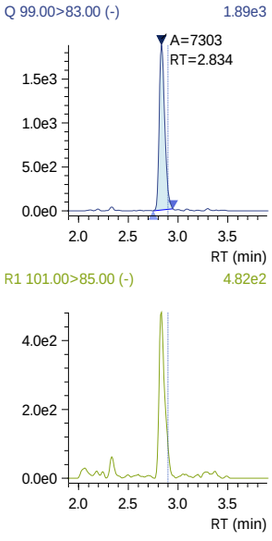
20210518_012

Sample ID: PERCHLORATE2
Date Acquired: 5/18/2021 11:57:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_012.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	7303	120339	1	0.53356	ng/mL	0.5000	25.44
Sodium Perchlorate-18O4_IS	Auto	2.832	120339	120339	1	1.00000	ng/mL	1.0000	----

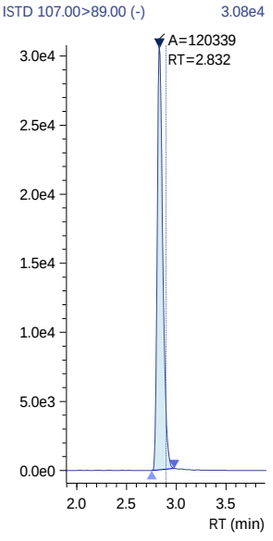
Perchlorate

Conc 0.53356
R#1 25.44 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

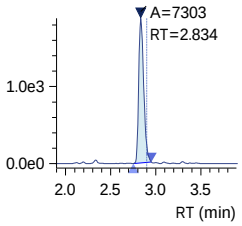
20210518_012

Sample ID: PERCHLORATE2
Date Acquired: 5/18/2021 11:57:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_012.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

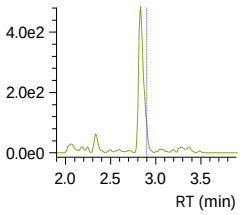
Perchlorate

Conc 0.57475
R#1 25.44 (0.00)

Q 99.00>83.00 (-) 1.89e3



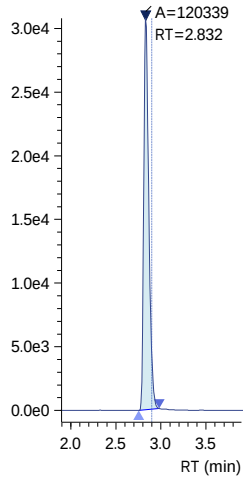
R1 101.00>85.00 (-) 4.82e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.08e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

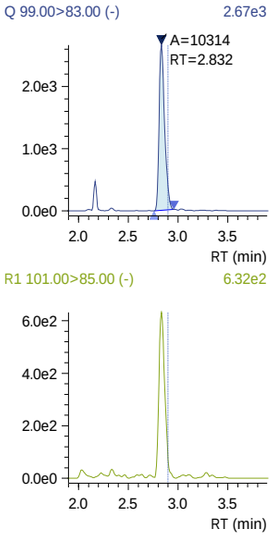
20210518_013

Sample ID: PERCHLORATE3
Date Acquired: 5/18/2021 12:05:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_013.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.832	10314	119516	1	0.75874	ng/mL	0.7000	23.66
Sodium Perchlorate-18O4_IS	Auto	2.831	119516	119516	1	1.00000	ng/mL	1.0000	----

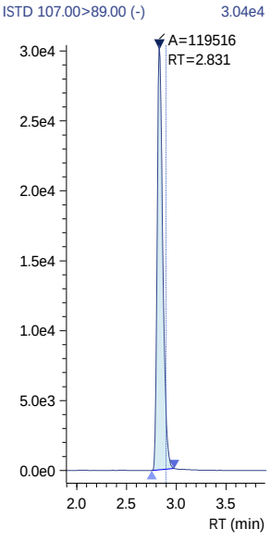
Perchlorate

Conc 0.75874
R#1 23.66 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

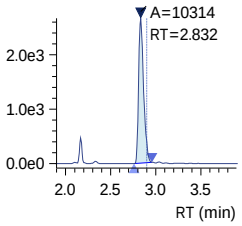
20210518_013

Sample ID: PERCHLORATE3
Date Acquired: 5/18/2021 12:05:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_013.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

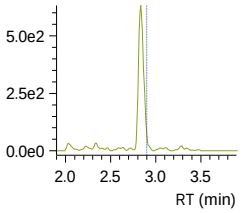
Perchlorate

Conc 0.81732
R#1 23.66 (0.00)

Q 99.00>83.00 (-) 2.67e3



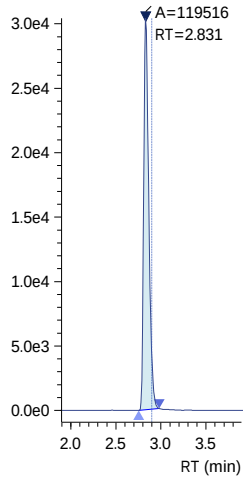
R1 101.00>85.00 (-) 6.32e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.04e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

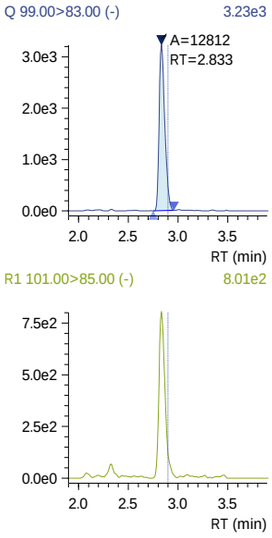
20210518_014

Sample ID: PERCHLORATE4
Date Acquired: 5/18/2021 12:14:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_014.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	12812	116935	1	0.96333	ng/mL	1.0000	24.92
Sodium Perchlorate-18O4_IS	Auto	2.832	116935	116935	1	1.00000	ng/mL	1.0000	----

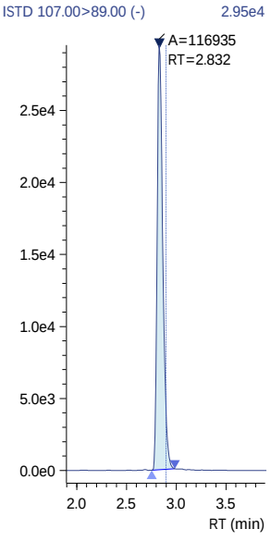
Perchlorate

Conc 0.96333
R#1 24.92 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

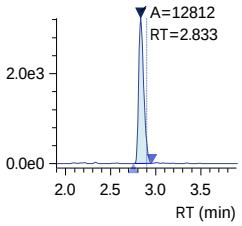
20210518_014

Sample ID: PERCHLORATE4
Date Acquired: 5/18/2021 12:14:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_014.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

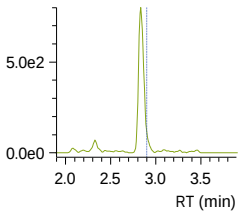
Perchlorate

Conc 1.03770
R#1 24.92 (0.00)

Q 99.00>83.00 (-) 3.23e3



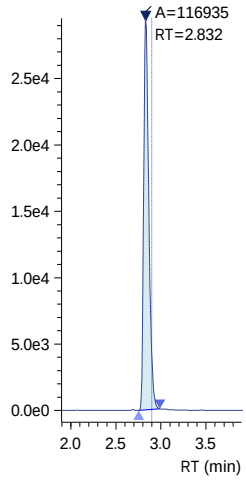
R1 101.00>85.00 (-) 8.01e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.95e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

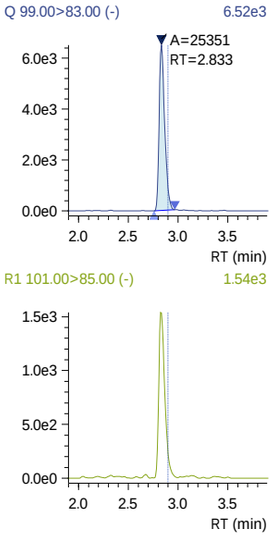
20210518_015

Sample ID: PERCHLORATE5
Date Acquired: 5/18/2021 12:22:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_015.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	25351	107307	1	2.07712	ng/mL	2.0000	24.74
Sodium Perchlorate-18O4_IS	Auto	2.832	107307	107307	1	1.00000	ng/mL	1.0000	----

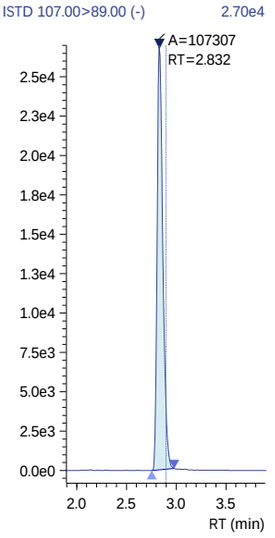
Perchlorate

Conc 2.07712
R#1 24.74 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

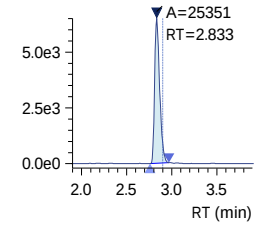
20210518_015

Sample ID: PERCHLORATE5
Date Acquired: 5/18/2021 12:22:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_015.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

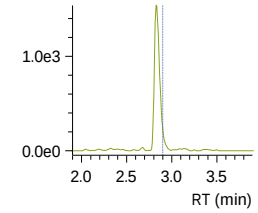
Perchlorate

Conc 2.23747
R#1 24.74 (0.00)

Q 99.00>83.00 (-) 6.52e3



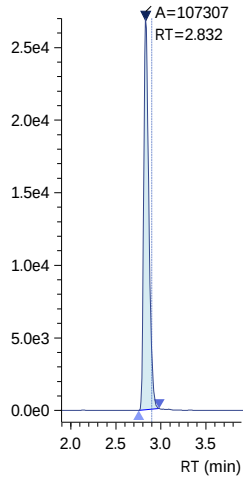
R1 101.00>85.00 (-) 1.54e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.70e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

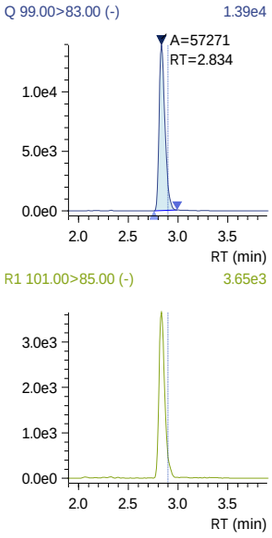
20210518_016

Sample ID: PERCHLORATE6
Date Acquired: 5/18/2021 12:30:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_016.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	57271	98954	1	5.08869	ng/mL	5.0000	26.19
Sodium Perchlorate-18O4_IS	Auto	2.832	98954	98954	1	1.00000	ng/mL	1.0000	----

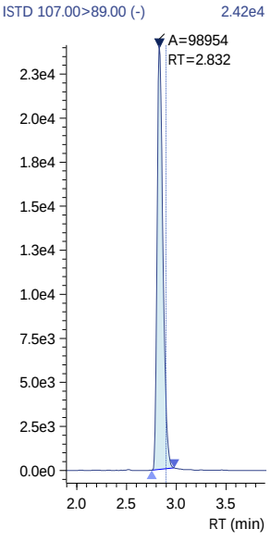
Perchlorate

Conc 5.08869
R#1 26.19 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

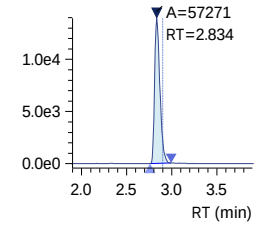
20210518_016

Sample ID: PERCHLORATE6
Date Acquired: 5/18/2021 12:30:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_016.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

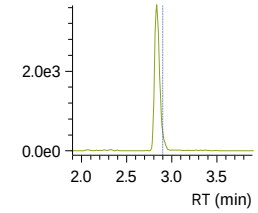
Perchlorate

Conc 5.48154
R#1 26.19 (0.00)

Q 99.00>83.00 (-) 1.39e4



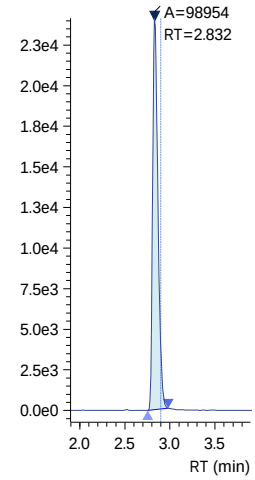
R1 101.00>85.00 (-) 3.65e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.42e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

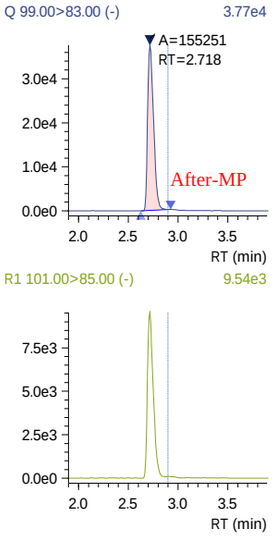
20210518_017

Sample ID: PERCHLORATE8
Date Acquired: 5/18/2021 12:39:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_017.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.718	155251	72375	1	18.86025	ng/mL	20.0000	25.33
Sodium Perchlorate-18O4_IS	M	2.715	72375	72375	1	1.00000	ng/mL	1.0000	----

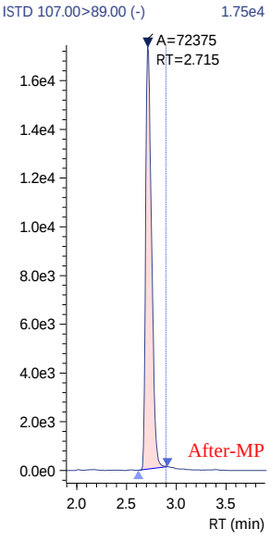
Perchlorate

Conc 18.86025
R#1 25.33 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

20210518_017

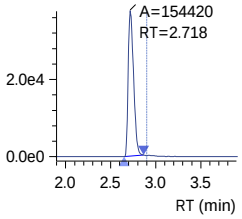
Sample ID: PERCHLORATE8
Date Acquired: 5/18/2021 12:39:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_017.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

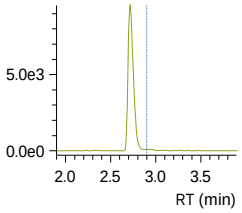
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 3.77e4



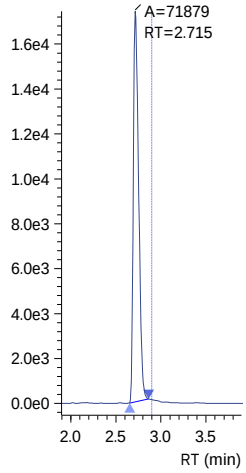
R1 101.00>85.00 (-) 9.54e3



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.75e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

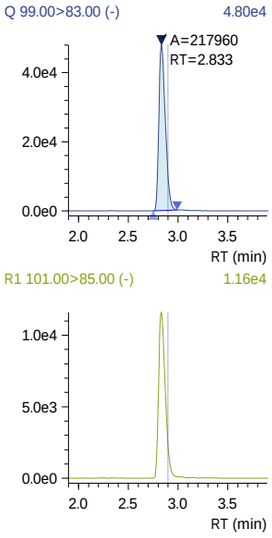
20210518_018

Sample ID: PERCHLORATE9
Date Acquired: 5/18/2021 12:47:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_018.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	217960	68713	1	27.88967	ng/mL	30.0000	24.77
Sodium Perchlorate-18O4_IS	Auto	2.832	68713	68713	1	1.00000	ng/mL	1.0000	----

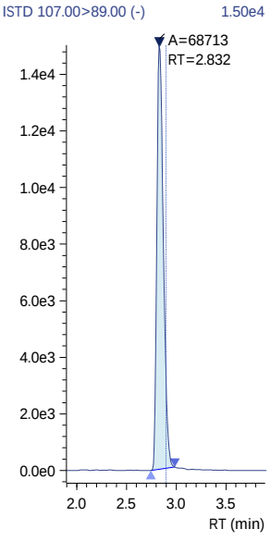
Perchlorate

Conc 27.88967
R#1 24.77 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

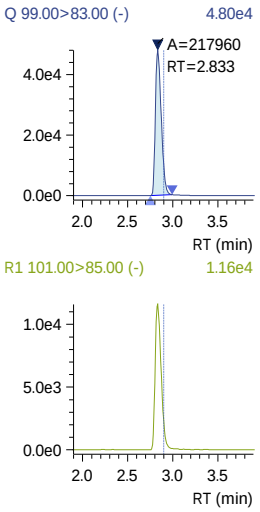
Printed at 5/18/2021 3:39:08 PM

20210518_018

Sample ID: PERCHLORATE9
Date Acquired: 5/18/2021 12:47:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_018.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

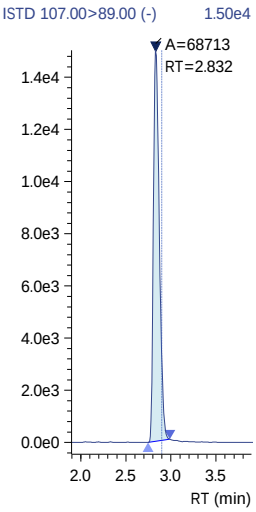
Perchlorate

Conc 30.04281
R#1 24.77 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:37:42 PM

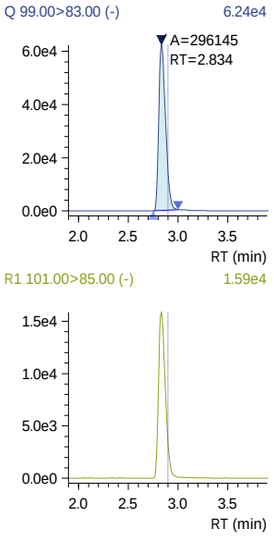
20210518_019

Sample ID: PERCHLORATE10
Date Acquired: 5/18/2021 12:56:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_019.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	296145	59084	1	44.06970	ng/mL	50.0000	25.42
Sodium Perchlorate-18O4_IS	Auto	2.833	59084	59084	1	1.00000	ng/mL	1.0000	----

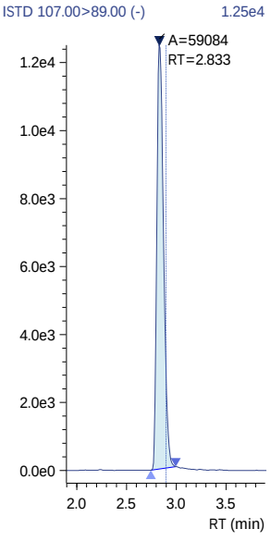
Perchlorate

Conc 44.06970
R#1 25.42 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

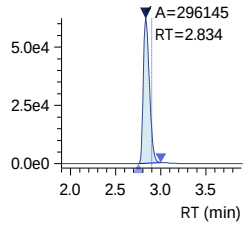
20210518_019

Sample ID: PERCHLORATE10
Date Acquired: 5/18/2021 12:56:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_019.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

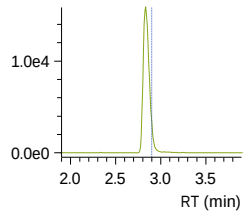
Perchlorate

Conc 47.47197
R#1 25.42 (0.00)

Q 99.00>83.00 (-) 6.24e4



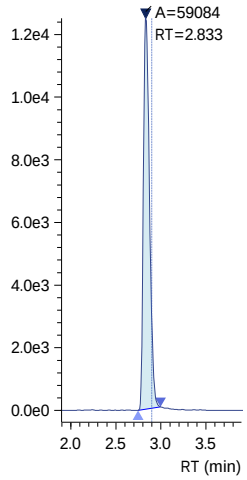
R1 101.00>85.00 (-) 1.59e4



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

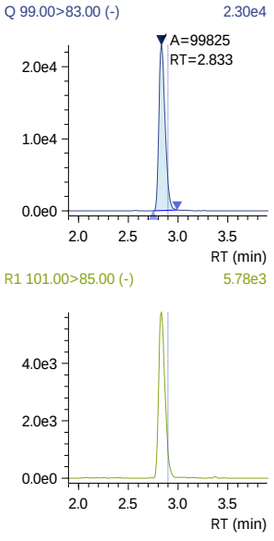
20210518_020

Sample ID: PERCHLORATEICV
Date Acquired: 5/18/2021 1:04:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_020.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	99825	86662	1	10.12781	ng/mL	10.0000	25.77
Sodium Perchlorate-18O4_IS	Auto	2.831	86662	86662	1	1.00000	ng/mL	1.0000	----

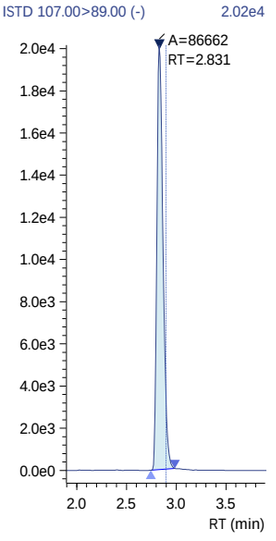
Perchlorate

Conc 10.12781
R#1 25.77 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:39:08 PM

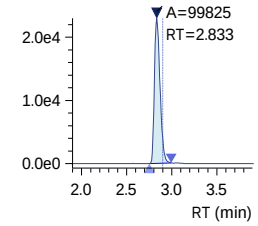
20210518_020

Sample ID: PERCHLORATEICV
Date Acquired: 5/18/2021 1:04:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_020.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

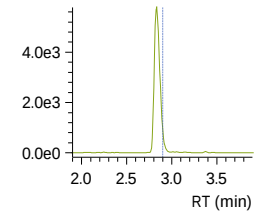
Perchlorate

Conc 10.90969
R#1 25.77 (0.00)

Q 99.00>83.00 (-) 2.30e4



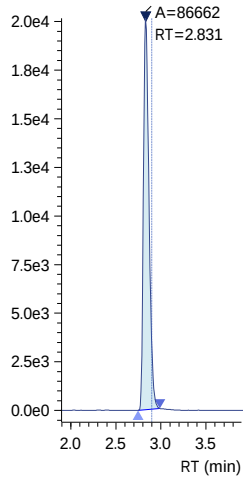
R1 101.00>85.00 (-) 5.78e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.02e4



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

20210518

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/18/2021
Cal. Std. xp: 5/20/2021
ICAL ID: **EC2100031**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210518_011	Perchlorate6850b.lcm	1x	☒	3100808-05	5/18/2021 11:48
2	PERCHLORATE2		20210518_012	Perchlorate6850b.lcm	1x	☒	3100808-06	5/18/2021 11:57
3	PERCHLORATE3		20210518_013	Perchlorate6850b.lcm	1x	☒	3100808-07	5/18/2021 12:05
4	PERCHLORATE4		20210518_014	Perchlorate6850b.lcm	1x	☒	3100808-08	5/18/2021 12:14
5	PERCHLORATE5		20210518_015	Perchlorate6850b.lcm	1x	☒	3100808-09	5/18/2021 12:22
6	PERCHLORATE6		20210518_016	Perchlorate6850b.lcm	1x	☒	3100809-01	5/18/2021 12:30
7	PERCHLORATE7		20210518_010	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 10:48
8	PERCHLORATE8		20210518_017	Perchlorate6850b.lcm	1x	☒	3100809-03	5/18/2021 12:39
9	PERCHLORATE9		20210518_018	Perchlorate6850b.lcm	1x	☒	3100809-04	5/18/2021 12:47
10	PERCHLORATE10		20210518_019	Perchlorate6850b.lcm	1x	☒	3100809-05	5/18/2021 12:56
11	PERCHLORATEICV		20210518_020	Perchlorate6850b.lcm	1x	☒	3100809-06	5/18/2021 13:04
12	ICS		20210518_021	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:12
13	LODV		20210518_022	Perchlorate6850b.lcm	1x	☒		5/18/2021 13:21
14	PERCHLORATE7		20210518_023	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:29
15	E2100493-001x10		20210518_024	Perchlorate6850b.lcm	10X	☒	DNU-INST failed	5/18/2021 13:38
16	PERCHLORATE7		20210518_025	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 13:46
17	EQ2100297-01		20210518_026	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:20
18	EQ2100297-02		20210518_027	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:29
19	EQ2100297-03		20210518_028	Perchlorate6850b.lcm	1x	☒		5/18/2021 14:37
20	E2100496-002X10		20210518_029	Perchlorate6850b.lcm	10X	☒		5/18/2021 14:45
21	E2100493-001x20		20210518_030	Perchlorate6850b.lcm	20X	☒	DNU-INST failed	5/18/2021 14:54
22	PERCHLORATE7		20210518_031	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:02
23	E2100493-001x40		20210518_032	Perchlorate6850b.lcm	40X	☒		5/18/2021 15:36
24	PERCHLORATE7		20210518_033	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 15:44
25	EQ2100298-01		20210518_034	Perchlorate6850b.lcm	1x	☒		5/18/2021 16:56
26	EQ2100298-02		20210518_035	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:05
27	EQ2100298-03RR		20210518_036	Perchlorate6850b.lcm	1x	☒		5/18/2021 17:13
28	E2100526-001X5DNU		20210518_037	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:21
29	E2100553-001X10DNU		20210518_038	Perchlorate6850b.lcm	10x	☒	DNU-INST failed	5/18/2021 17:30
30	E2100554-001X200		20210518_039	Perchlorate6850b.lcm	200x	☒		5/18/2021 17:38
31	E2100555-001X5DNU		20210518_040	Perchlorate6850b.lcm	5x	☒	DNU-INST failed	5/18/2021 17:47
32	PERCHLORATE7		20210518_041	Perchlorate6850b.lcm	1x	☒	3100809-02	5/18/2021 17:55
33								

20210519

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/18/2021
Cal. Std. xp: 5/20/2021
ICAL ID: **EC2100031**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	null		20210519_001	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:03
2	null		20210519_001~1	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:06
3	null		20210519_002	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:11
4	IB		20210519_003	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:16
5	IB		20210519_004	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:18
6	ICS		20210519_005	Perchlorate6850b.lcm	1x	☒		5/19/2021 9:26
7	LODV		20210519_007	Perchlorate6850b.lcm	1x	☒		5/19/2021 10:09
8	PERCHLORATE7		20210519_008	Perchlorate6850b.lcm	1x	☒	3100809-02	5/19/2021 10:17
9	E2100526-001X20		20210519_009	Perchlorate6850b.lcm	20X	☒		5/19/2021 10:25
10	E2100553-001X20		20210519_010	Perchlorate6850b.lcm	20X	☒		5/19/2021 10:34
11	E2100555-001X20		20210519_011	Perchlorate6850b.lcm	20X	☒		5/19/2021 10:42
12	EQ2100298-02		20210519_012	Perchlorate6850b.lcm	1x	☒		5/19/2021 10:50
13	EQ2100298-03		20210519_013	Perchlorate6850b.lcm	1x	☒		5/19/2021 10:59
14	PERCHLORATE7		20210519_014	Perchlorate6850b.lcm	1x	☒	3100809-02	5/19/2021 11:07
15								
16								
17								
18								
19								
20								
21								
22								
23								

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050554

Service Request: E2100554
Date Analyzed: 5/19/21

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\20210519\20210519_008

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.32	0.1137	0.1060	-6.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050554

Service Request: E2100554
Date Analyzed: 5/19/21

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\20210519\20210519_014

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724049
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.38	0.1137	0.1067	-6.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050554

Service Request: E2100554
Date Analyzed: 5/18/21

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\20210518\20210518_033

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724053
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.75	0.1137	0.1109	-2.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050554

Service Request: E2100554
Date Analyzed: 5/18/21

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\20210518\20210518_041

Calibration Date: 5/18/21
Calibration ID: EC2100031
Analysis Lot: 724053
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.46	0.1137	0.1076	-5.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050554

Service Request: E2100554
Date Analyzed: 5/19/21 10:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210519\20210519_008
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100309-01
Analysis Lot: 724049
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100309-01	107,470	2.84
Lab Control Sample	EQ2100298-02	130,750	2.83
Duplicate Lab Control Sample	EQ2100298-03	126,073	2.83

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:**	E2100554
Project:	HS21050554	**Date Analyzed:**	5/19/21 11:07

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210519\20210519_014	**Lab Code:**	EQ2100309-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	724049
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100309-02	92,600	2.83

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:**	E2100554
Project:	HS21050554	**Date Analyzed:**	5/18/21 15:44

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210518\20210518_033	**Lab Code:**	EQ2100310-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	724053
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100310-01	86,285	2.83
Method Blank	EQ2100298-01	108,736	2.70
LH18/24-SP140_051121	E2100554-001	53,857	2.83

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:**	E2100554
Project:	HS21050554	**Date Analyzed:**	5/18/21 17:55

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210518\20210518_041	**Lab Code:**	EQ2100310-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	724053
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	98,625	2.82
	Upper Limit ==>	147,938	4.82
	Lower Limit ==>	49,313	0.82
Associated Analyses			
Continuing Calibration Verification	EQ2100310-02	80,095	2.83

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

Printed at 5/18/2021 3:37:42 PM

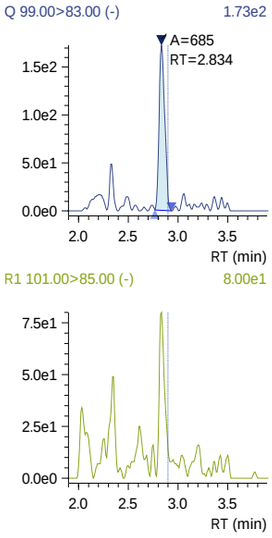
20210518_022

Sample ID: LODV
Date Acquired: 5/18/2021 1:21:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_022.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.834	685	127264	1	0.04731	ng/mL	----	42.94
Sodium Perchlorate-18O4_IS	Auto	2.829	127264	127264	1	1.00000	ng/mL	----	----

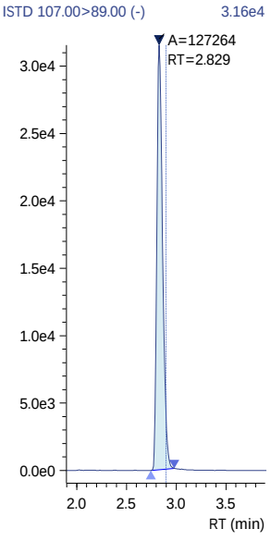
Perchlorate

Conc 0.04731
R#1 42.94 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

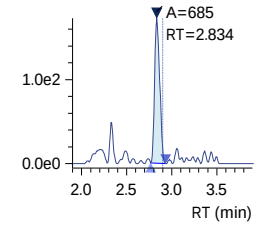
20210518_022

Sample ID: LODV
Date Acquired: 5/18/2021 1:21:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_022.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

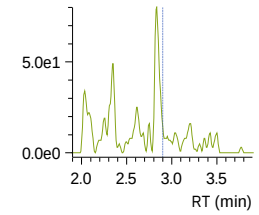
Perchlorate

Conc 0.05096
R#1 42.94 (0.00)

Q 99.00>83.00 (-) 1.73e2



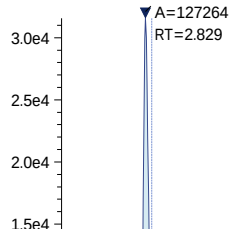
R1 101.00>85.00 (-) 8.00e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.16e4



Insight Report

Printed at 5/18/2021 3:37:42 PM

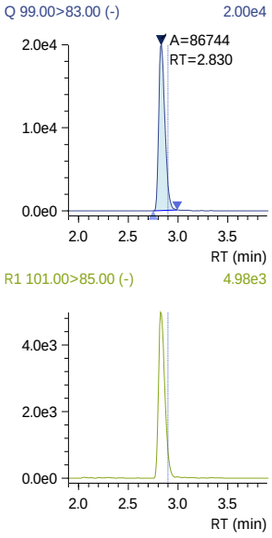
20210518_023

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 1:29:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_023.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.830	86744	83213	1	9.16544	ng/mL	10.0000	25.12
Sodium Perchlorate-18O4_IS	Auto	2.829	83213	83213	1	1.00000	ng/mL	1.0000	----

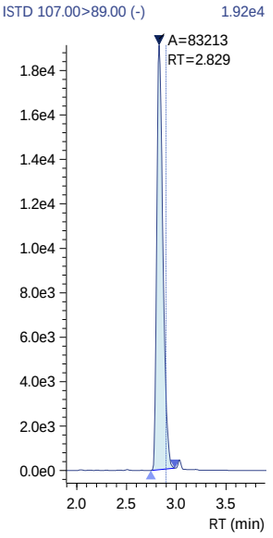
Perchlorate

Conc 9.16544
R#1 25.12 (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.00000



Insight Report

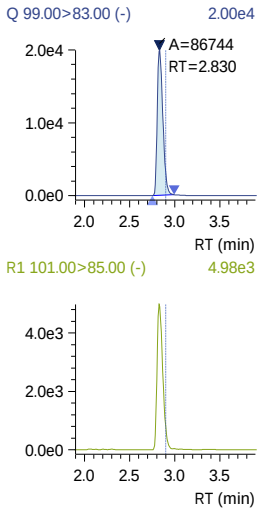
Printed at 5/18/2021 3:39:08 PM

20210518_023

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 1:29:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_023.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

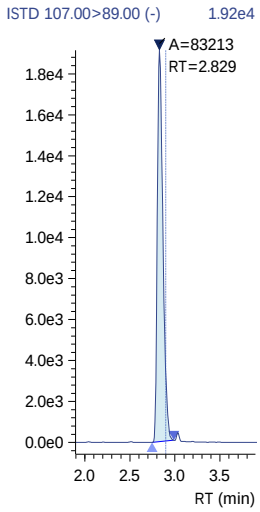
Perchlorate

Conc 9.87303
R#1 25.12 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/18/2021 3:50:23 PM

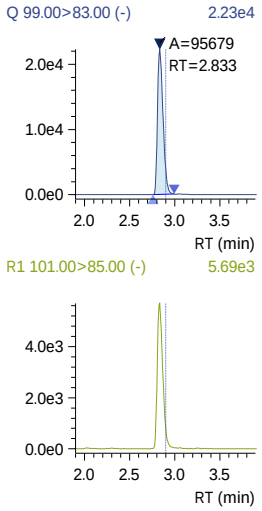
20210518_033

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 3:44:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_033.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	95679	86285	1	9.74950	ng/mL	10.0000	26.19
Sodium Perchlorate-18O4 _IS	Auto	2.832	86285	86285	1	1.00000	ng/mL	1.0000	----

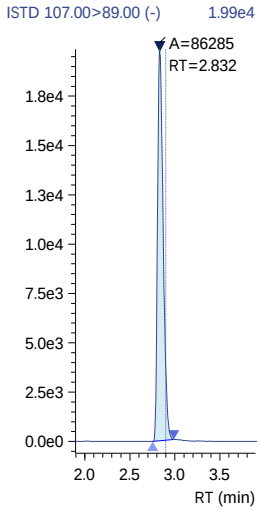
Perchlorate

Conc 9.74950
R#1 26.19 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

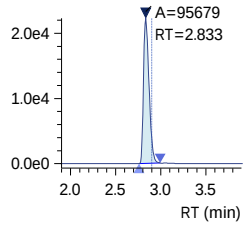
20210518_033

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 3:44:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_033.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

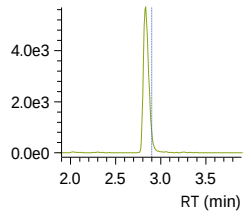
Perchlorate

Conc 10.38020
R#1 26.19 (0.00)

Q 99.00>83.00 (-) 2.23e4



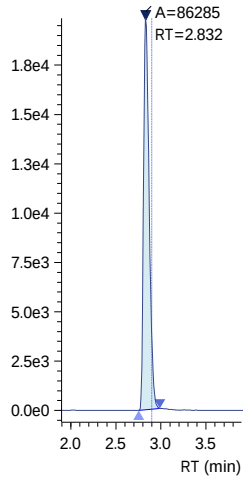
R1 101.00>85.00 (-) 5.69e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.99e4



Insight Report

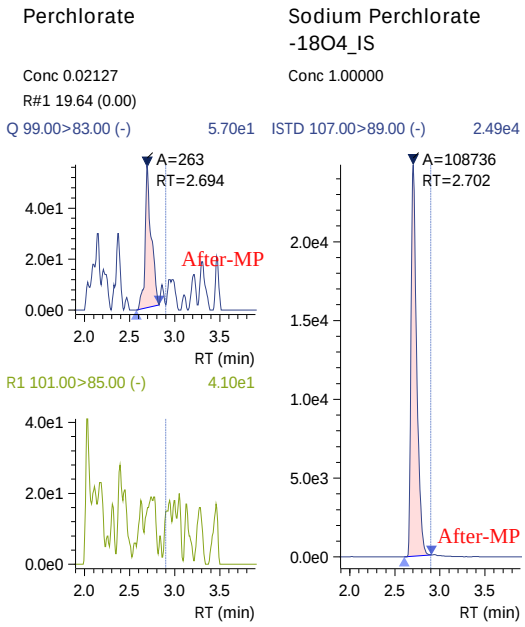
Printed at 5/19/2021 12:31:14 PM

Method File: I:\LCMS01\DATA\20210518\20210518.lcm
Project File: I:\LCMS01\DATA\20210518\20210518.damlp

20210518_034

Sample ID: EQ2100298-01
Date Acquired: 5/18/2021 4:56:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_034.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.694	263	108736	1	0.02127	ng/mL	----	19.64
Sodium Perchlorate-18O4 _IS	M	2.702	1087 36	108736	1	1.00000	ng/mL	----	----



Insight Report

Method File: I:\LCMS01\DATA\20210518\20210517.lcm

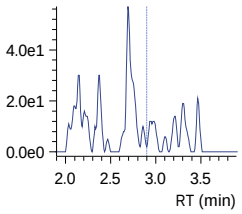
20210518_034

Sample ID: EQ2100298-01
Date Acquired: 5/18/2021 4:56:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_034.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

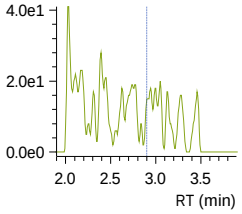
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 5.70e1



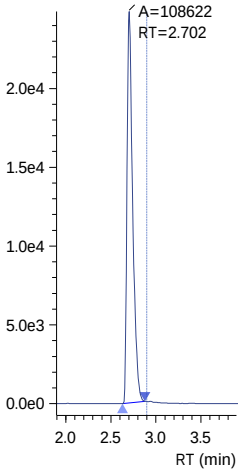
R1 101.00>85.00 (-) 4.10e1



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 2.49e4



Insight Report

Printed at 5/19/2021 12:31:14 PM

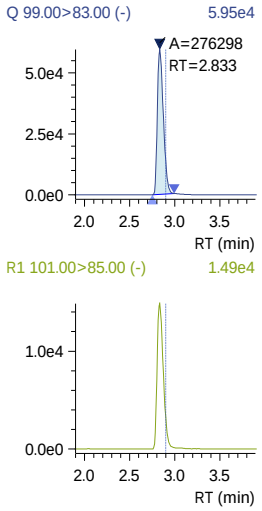
20210518_039

Sample ID: E2100554-001X200
Date Acquired: 5/18/2021 5:38:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_039.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	276298	53857	1	45.10629	ng/mL	----	25.54
Sodium Perchlorate-18O4_IS	Auto	2.831	53857	53857	1	1.00000	ng/mL	----	----

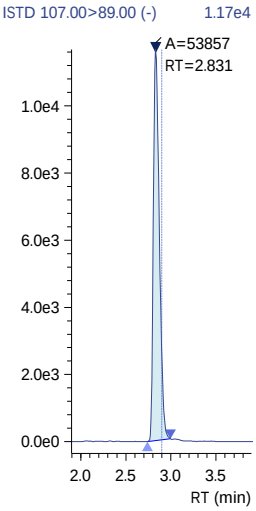
Perchlorate

Conc 45.10629
R#1 25.54 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 12:32:23 PM

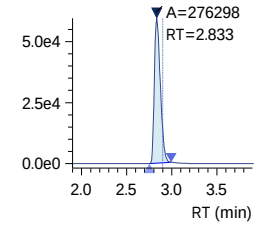
20210518_039

Sample ID: E2100554-001X200
Date Acquired: 5/18/2021 5:38:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_039.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 4

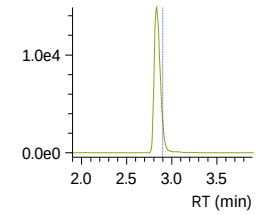
Perchlorate

Conc 48.02424
R#1 25.54 (0.00)

Q 99.00>83.00 (-) 5.95e4



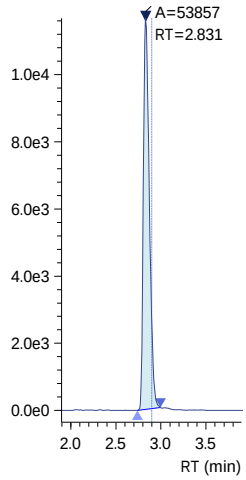
R1 101.00>85.00 (-) 1.49e4



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.17e4



Insight Report

Printed at 5/19/2021 12:31:14 PM

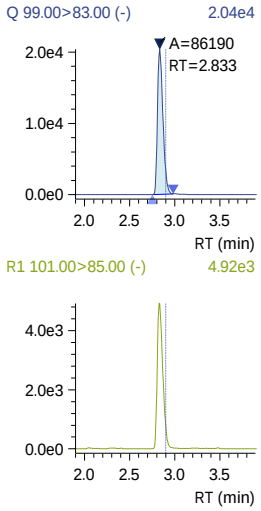
20210518_041

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 5:55:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\20210518_041.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	86190	80095	1	9.46131	ng/mL	10.0000	25.02
Sodium Perchlorate-18O4 _IS	Auto	2.831	80095	80095	1	1.00000	ng/mL	1.0000	----

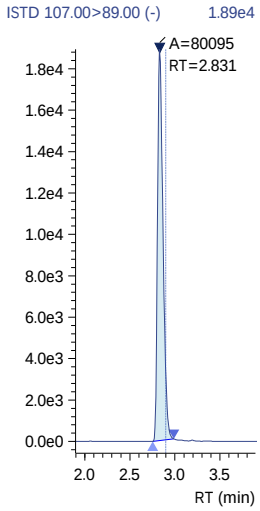
Perchlorate

Conc 9.46131
R#1 25.02 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 12:32:23 PM

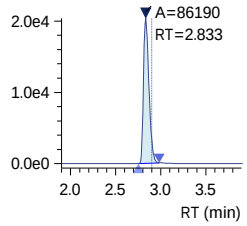
20210518_041

Sample ID: PERCHLORATE7
Date Acquired: 5/18/2021 5:55:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210518\Before\20210518_041.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

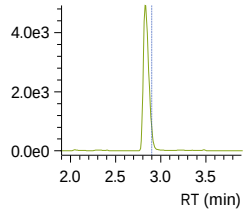
Perchlorate

Conc 10.07337
R#1 25.02 (0.00)

Q 99.00>83.00 (-) 2.04e4



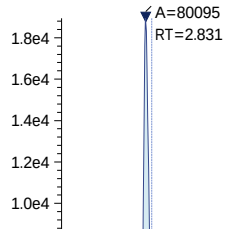
R1 101.00>85.00 (-) 4.92e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 1.89e4



Insight Report

Printed at 5/19/2021 11:21:19 AM

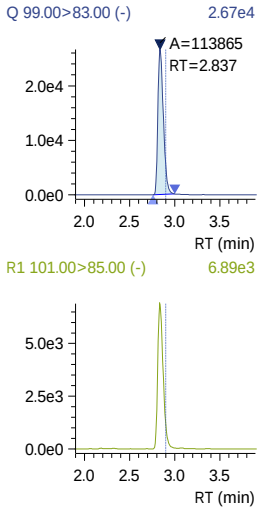
20210519_008

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 10:17:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.837	113865	107470	1	9.31544	ng/mL	10.0000	25.82
Sodium Perchlorate-18O4_IS	Auto	2.836	107470	107470	1	1.00000	ng/mL	1.0000	----

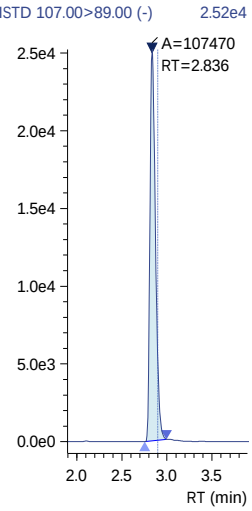
Perchlorate

Conc 9.31544
R#1 25.82 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 11:22:56 AM

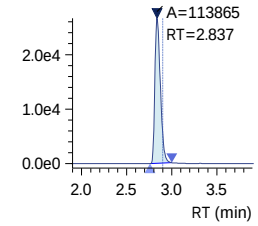
20210519_008

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 10:17:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

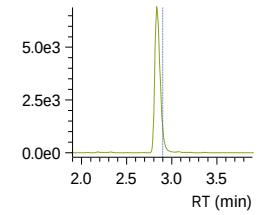
Perchlorate

Conc 9.31544
R#1 25.82 (0.00)

Q 99.00>83.00 (-) 2.67e4



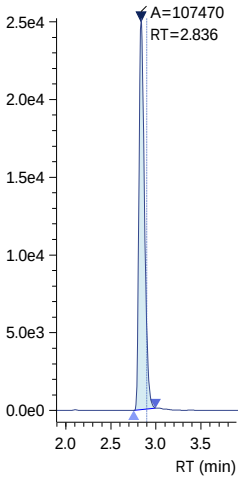
R1 101.00>85.00 (-) 6.89e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.52e4



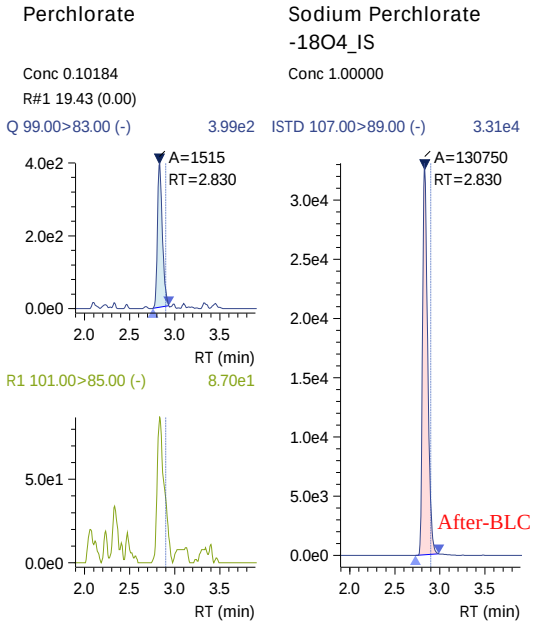
Insight Report

Printed at 5/19/2021 11:21:19 AM

20210519_012

Sample ID: EQ2100298-02
Date Acquired: 5/19/2021 10:50:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_012.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.830	1515	130750	1	0.10184	ng/mL	----	19.43
Sodium Perchlorate-18O4 _IS	M	2.830	1307 50	130750	1	1.00000	ng/mL	----	----



Insight Report

Printed at 5/19/2021 11:22:56 AM

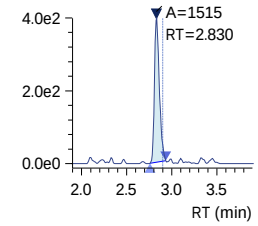
20210519_012

Sample ID: EQ2100298-02
Date Acquired: 5/19/2021 10:50:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_012.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

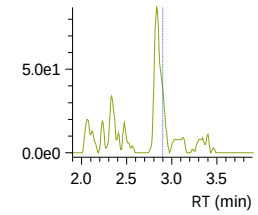
Perchlorate

Conc 0.10190
R#1 19.43 (0.00)

Q 99.00>83.00 (-) 3.99e2



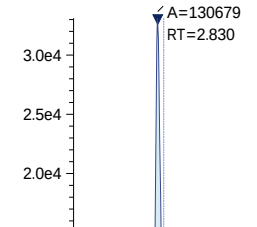
R1 101.00>85.00 (-) 8.70e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.31e4



Insight Report

Printed at 5/19/2021 11:21:19 AM

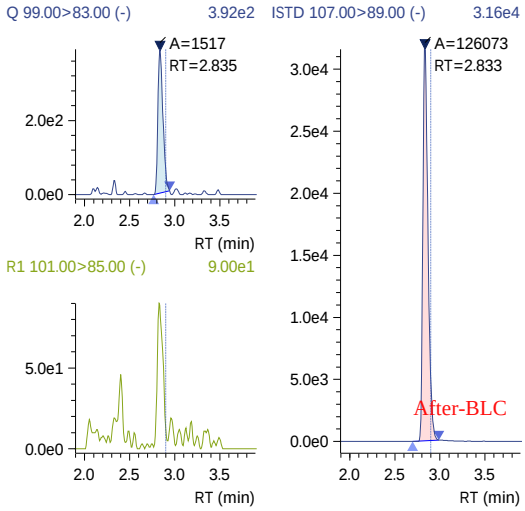
20210519_013

Sample ID: EQ2100298-03
Date Acquired: 5/19/2021 10:59:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_013.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.835	1517	126073	1	0.10576	ng/mL	----	21.62
Sodium Perchlorate-18O4 _IS	M	2.833	1260 73	126073	1	1.00000	ng/mL	----	----

Perchlorate

Conc 0.10576
R#1 21.62 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000

Insight Report

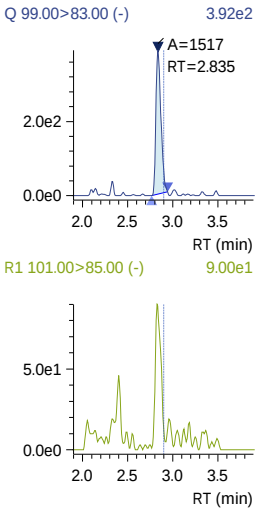
Printed at 5/19/2021 11:22:56 AM

20210519_013

Sample ID: EQ2100298-03
Date Acquired: 5/19/2021 10:59:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_013.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

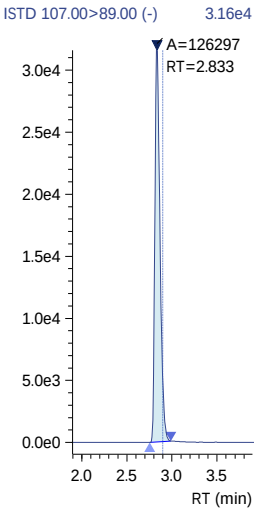
Perchlorate

Conc 0.10557
R#1 21.62 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 5/19/2021 11:21:19 AM

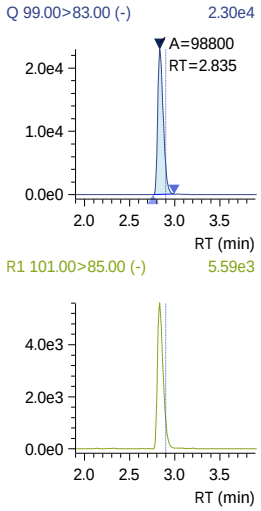
20210519_014

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 11:07:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\20210519_014.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.835	98800	92600	1	9.38100	ng/mL	10.0000	24.34
Sodium Perchlorate-18O4 _IS	M	2.833	92600	92600	1	1.00000	ng/mL	1.0000	----

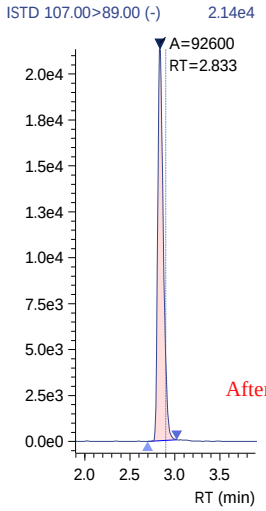
Perchlorate

Conc 9.38100
R#1 24.34 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



After-BLC

Insight Report

Printed at 5/19/2021 11:22:56 AM

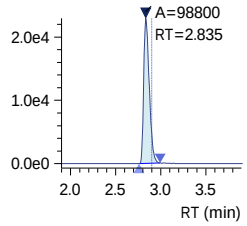
20210519_014

Sample ID: PERCHLORATE7
Date Acquired: 5/19/2021 11:07:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210519\Before\20210519_014.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

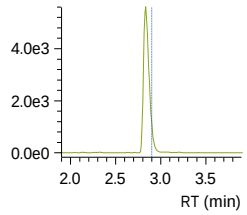
Perchlorate

Conc 9.40467
R#1 24.34 (0.00)

Q 99.00>83.00 (-) 2.30e4



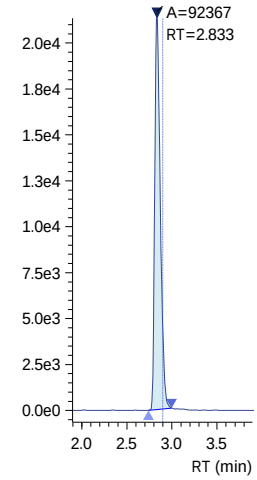
R1 101.00>85.00 (-) 5.59e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 2.14e4



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

WorkOrder: HS21050555

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

28-May-2021

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

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  - Certifications
  - Sample Tracking Record
  - SampleReceiptCheckList
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- HS21050555 Wet Chem Raw Data (NIT-AMM_W- E350.3 - ISE)
- HS21050555 Wet Chem Raw Data (P-ORTHO)
- HS21050555 Wet Chem Raw Data (TOC_W)

HS21050555 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS21050555

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

May 19, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21050555**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on May 12, 2021 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
Ragen Giga
Project Manager

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21050555

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21050555-01	LH18/24-SP650_051121	Water		11-May-2021 14:00	12-May-2021 09:55	☐
HS21050555-02	LH18/24-SP650_051121_BIX	Water		11-May-2021 14:00	12-May-2021 09:55	☐

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21050555

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

WetChemistry by Method E350.3

Batch ID: R383843

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E415.1

Batch ID: R383802

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E365.3

Batch ID: R383797

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_051121
Collection Date: 11-May-2021 14:00

ANALYTICAL REPORT
WorkOrder:HS21050555
Lab ID:HS21050555-01
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)	**22**	a	**0.10**	**0.20**	**0.20**	**mg/L**	1	17-May-2021 15:00
ORTHO PHOSPHATE (PO4) AS P BY E365.3		**Method:E365.3**						Analyst: KVL
Phosphorus, Total Orthophosphate (As P)	**4.58**	a	**0.100**	**0.250**	**0.250**	**mg/L**	10	12-May-2021 15:00
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: JAC
Organic Carbon, Total	**2.31**	a	**0.500**	**0.500**	**1.00**	**mg/L**	1	17-May-2021 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Longhorn GW Treatment Plant Weekly Samples WorkOrder:HS21050555

Sample ID: LH18/24-SP650_051121_BIX Lab ID:HS21050555-02

Collection Date: 11-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	19-May-2021 16:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050555

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R383797 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3				**Matrix:** Water	
HS21050555-01	LH18/24-SP650_051121	11 May 2021 14:00			12 May 2021 15:00	10
Batch ID: R383802 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS21050555-01	LH18/24-SP650_051121	11 May 2021 14:00			17 May 2021 15:53	1
Batch ID: R383843 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS21050555-01	LH18/24-SP650_051121	11 May 2021 14:00			17 May 2021 15:00	1
Batch ID: R383960 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21050555-02	LH18/24-SP650_051121_BIX	11 May 2021 14:00			19 May 2021 16:18	1

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050555

QC BATCH REPORT

Batch ID: R383797 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3

MBLK Sample ID: **MBLK-R383797** Units: **mg/L** Analysis Date: **12-May-2021 15:00**
Client ID: Run ID: **UV-2450_383797** SeqNo: **6096176** 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)	0.0250	0.0250								U

LCS Sample ID: **LCS-R383797** Units: **mg/L** Analysis Date: **12-May-2021 15:00**
Client ID: Run ID: **UV-2450_383797** SeqNo: **6096175** 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)	0.28	0.0250	0.25	0	112	85 - 115				

LCSD Sample ID: **LCSD-R383797** Units: **mg/L** Analysis Date: **12-May-2021 15:00**
Client ID: Run ID: **UV-2450_383797** SeqNo: **6096174** 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)	0.278	0.0250	0.25	0	111	85 - 115	0.28	0.717	20	

The following samples were analyzed in this batch: HS21050555-01

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050555

QC BATCH REPORT

Batch ID: R383802 (0) **Instrument: TOC_04** **Method: TOTAL ORGANIC CARBON BY E415.1**

MBLK Sample ID: **MBLK-05172021** Units: **mg/L** Analysis Date: **17-May-2021 15:04**
Client ID: Run ID: **TOC_04_383802** SeqNo: **6096266** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	0.500	1.00								U

LCS Sample ID: **LCS-05172021** Units: **mg/L** Analysis Date: **17-May-2021 15:15**
Client ID: Run ID: **TOC_04_383802** SeqNo: **6096267** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.909	1.00	10	0	99.1	85 - 115				

LCSD Sample ID: **LCSD-05172021** Units: **mg/L** Analysis Date: **17-May-2021 15:27**
Client ID: Run ID: **TOC_04_383802** SeqNo: **6096268** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.15	1.00	10	0	102	85 - 115	9.909	2.4	20	

MS Sample ID: **HS21050555-01MS** Units: **mg/L** Analysis Date: **17-May-2021 16:04**
Client ID: **LH18/24-SP650_051121** Run ID: **TOC_04_383802** SeqNo: **6096270** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	13.07	1.00	10	2.311	108	80 - 120				

The following samples were analyzed in this batch: HS21050555-01

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050555

QC BATCH REPORT

Batch ID: R383843 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R383843** Units: **mg/L** Analysis Date: **17-May-2021 15:00**
Client ID: Run ID: **WetChem_HS_383843** SeqNo: **6097172** 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)	0.20	0.20								U

LCS Sample ID: **LCS-R383843** Units: **mg/L** Analysis Date: **17-May-2021 15:00**
Client ID: Run ID: **WetChem_HS_383843** SeqNo: **6097171** 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)	11.3	0.20	10	0	113	80 - 120				

MS Sample ID: **HS21041643-01MS** Units: **mg/L** Analysis Date: **17-May-2021 15:00**
Client ID: Run ID: **WetChem_HS_383843** SeqNo: **6097176** 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)	10.2	0.20	10	0.04	102	80 - 120				

MSD Sample ID: **HS21041643-01MSD** Units: **mg/L** Analysis Date: **17-May-2021 15:00**
Client ID: Run ID: **WetChem_HS_383843** SeqNo: **6097175** 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)	10.26	0.20	10	0.04	102	80 - 120	10.2	0.577	20	

The following samples were analyzed in this batch: HS21050555-01

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS21050555**

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	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022

ALS Houston, US Date: 19-May-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21050555

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21050555-01	LH18/24-SP650_051121	Login	5/12/2021 11:40:49 AM	PJM	WET165
HS21050555-01	LH18/24-SP650_051121	Login	5/12/2021 11:40:49 AM	PJM	WET165
HS21050555-01	LH18/24-SP650_051121	Login	5/12/2021 11:40:49 AM	PJM	WET165
HS21050555-02	LH18/24-SP650_051121_BIX	Login	5/12/2021 11:40:49 AM	PJM	Sub

ALS Houston, US Date: 19-May-21

Sample Receipt Checklist

Work Order ID: HS21050555 **Date/Time Received:** **12-May-2021 09:55**

Client Name: Bhate Environmental **Received by:** **Pablo Marinez**

Completed By:	/S/ Pablo Marinez	12-May-2021 11:41	**Reviewed by:**	/S/ Ragen Giga	12-May-2021 15:02
	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:CLIENT	
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):	0.5°C UC/C	IR 31
Cooler(s)/Kit(s):	46969	
Date/Time sample(s) sent to storage:	5/12/21 11:45	

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: R.J Modashia

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

HS21050555

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_051121	Water	05/11/21 / 14:00		3	X	X									H2SO4	
LH18/24-SP650_051121	Water	05/11/21 / 14:00		1			X								NONE	
LH18/24–SP650_051121_BIX	Water	05/11/21 / 14:00		1				X							NONE	

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	05/11/21	14:30	Patti Marcin	5/12/21	9:55						

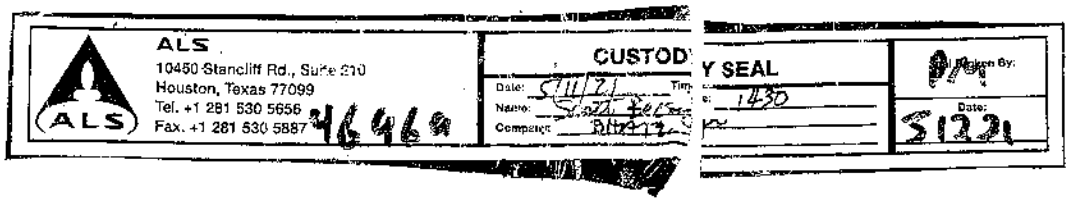
For Lab Use Only

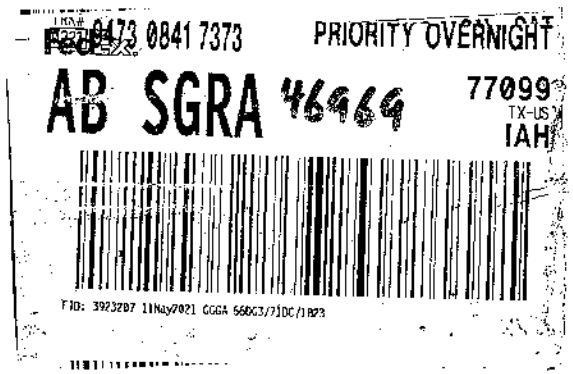
Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

96464 0.5C
IR31
LFU

(Word) S:\I-ces\Forms\Chain of Custody - BiWeekly


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
46469
CUSTOD
Y SEAL
Date:
Name:
Company:
1430
Date:
5122


FedEx
9473 0841 7373
PRIORITY OVERNIGHT
AB SGRA 46469
77099
TX-US
IAH

May 19, 2021 Service Request No:E2100553

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS21050555

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory May 12, 2021
For your reference, these analyses have been assigned our service request number **E2100553.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100553
Project:	HS21050555	**Date Received:**	05/12/21
Sample Matrix:	W		

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 05/12/21.

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:

EQ2100298: 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 LCS and DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100553
Project: HS21050555

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100553-001	LH18/24-SP650_051121_BIX	5/11/2021	1400

Service Request Summary

Folder #: **E2100553**
Client Name: ALS Environmental - US
Project Name: HS21050555
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050555
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100553-001	LH18/24-SP650_051121_BIX	Ground Water	05/11/21 1400	**IV**

Service Request Summary

Folder #: **E2100553**
Client Name: ALS Environmental - US
Project Name: HS21050555
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/12/21
Internal Due Date: 5/26/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050555
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 5/26, IV due 6/3

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arizona Department of Health Services	AZ0793-2020	5/27/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022

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:** **16114**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21050555
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21050555-02**	**LH18/24-SP650_051121_BIX**	**Water**	**11 May 2021 14:00**
	Provide Level II and Level IV reports in separate pdf			26 May 2021

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: 5-12-21 19:00

Received By: _____ Date/Time: 5-12-21 1600

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/12/21 Initials: CG

Date/Time Logged in: 5/13/21 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		5/12/21	1800	CG	2.8	☒
						☐
						☐
						☐

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#: 379504 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/17/21 10:50

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100526-001	LH18/24-SP650_050421_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100553-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100554-001	LH18/24-SP140_051121	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100555-001	LH18/24-SP650_051121_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
5	EQ2100298-01	MB		6850/ClO4 DOD			Liquid	10mL	
6	EQ2100298-02	LCS		6850/ClO4 DOD			Liquid	10mL	
7	EQ2100298-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 214035 Logbook Ref: Perchlorate Expires On: 05/23/2021

EQ2100298-02 1.00µL EQ2100298-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 214820 Logbook Ref: Perchlorate Internal Standard Expires On: 07/03/2021

E2100526-001 100.00µL E2100553-001 100.00µL E2100554-001 100.00µL E2100555-001 100.00µL EQ2100298-01 100.00µL EQ2100298-02 100.00µL
EQ2100298-03 100.00µL

Preparation Steps

Step: Preparation
Started: 5/17/21 10:50
Finished: 5/17/21 11:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/17/21

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:**	E2100553
Project:	HS21050555	**Date Collected:**	5/11/21 1400
Sample Matrix:	Ground Water	**Date Received:**	5/12/21
Sample Name:	LH18/24-SP650_051121_BIX	**Units:**	µg/L
Lab Code:	E2100553-001	**Basis:**	As Received

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	**0.771**	J	2.00	1.00	0.500	20	5/17/21	5/19/21 10:34	379504	724049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100553
Project:	HS21050555	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100298-01	**Basis:**	As Received

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	5/17/21	5/18/21 16:56	379504	724053	

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: HS21050555
Sample Matrix: Ground Water

Service Request: E2100553
Date Analyzed: 5/19/21

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: As Received

Extraction Lot: 379504

	Lab Control Sample EQ2100298-02			Duplicate Lab Control Sample EQ2100298-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.102	0.100	102	0.106	0.100	106	84 - 119	4	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:**	E2100553
Project:	HS21050555	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-02	**Basis:**	As Received

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	**0.102**		0.100	0.0500	0.0250	1	5/17/21	5/19/21 10:50	379504	724049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100553
Project:	HS21050555	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100298-03	**Basis:**	As Received

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	5/17/21	5/19/21 10:59	379504	724049	

HS21050555 Wet Chem Raw Data (NIT-AMM_W- E350.3 - ISE)

ALS WO# HS21050555

NIT- AMN-W- ISE 1350.3

Logbook **31705**

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Ion Selective Electrode Logbook

Analyst: MD					Date: 5/17/21 3:00PM		
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F							
Probe Calibration Date: 5/17/21		Cal Std ID: 316/337 (05-09)			Probe ID: X01-11806		
Std Level		mV	Conc., mg/L:		Sodium Thiosulfate ID:		
STD 1 (mg/L):	0.2	137.5	0.200		Std Level	mV	Conc., mg/L:
STD 2 (mg/L):	1	99.2	1.000		STD 4 (mg/L): 10	39.6	9992
STD 3 (mg/L):	5	57.6	4.998		STD 5 (mg/L): 50	-2.3	49936
LSC / MS Spike ID: 3700603523					ICAL Date & Slope: 99.1+/-59 mV		
ICV Cal STD ID: 316/33704							
DPD Reagent ID: 3100603420							

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		0.553			
CCB					0.012			
MBIK					0.013			
LCS					11.299			
1452104643-01					0.040		-ve	
1643-01 MS					10.200			
1643-01 MSD					10.259			
1452105032 3-01					0.510		-ve	
555-01					2.781		-ve	
177-01					~~0.134~~	24.65	-ve	MD 5/17/21
490-01					0.201		-ve	
CCV					10.010			
CCB					0.014			
								MD 5/17/21

Batch ID: 383768 / 383843 | Reported By: MD | Reviewed By: YP

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HS21050555 Wet Chem Raw Data (P-ORTHO)

ALS WO# HS21050555

Standard Table Report

05/28/2021 02:15:58 PM

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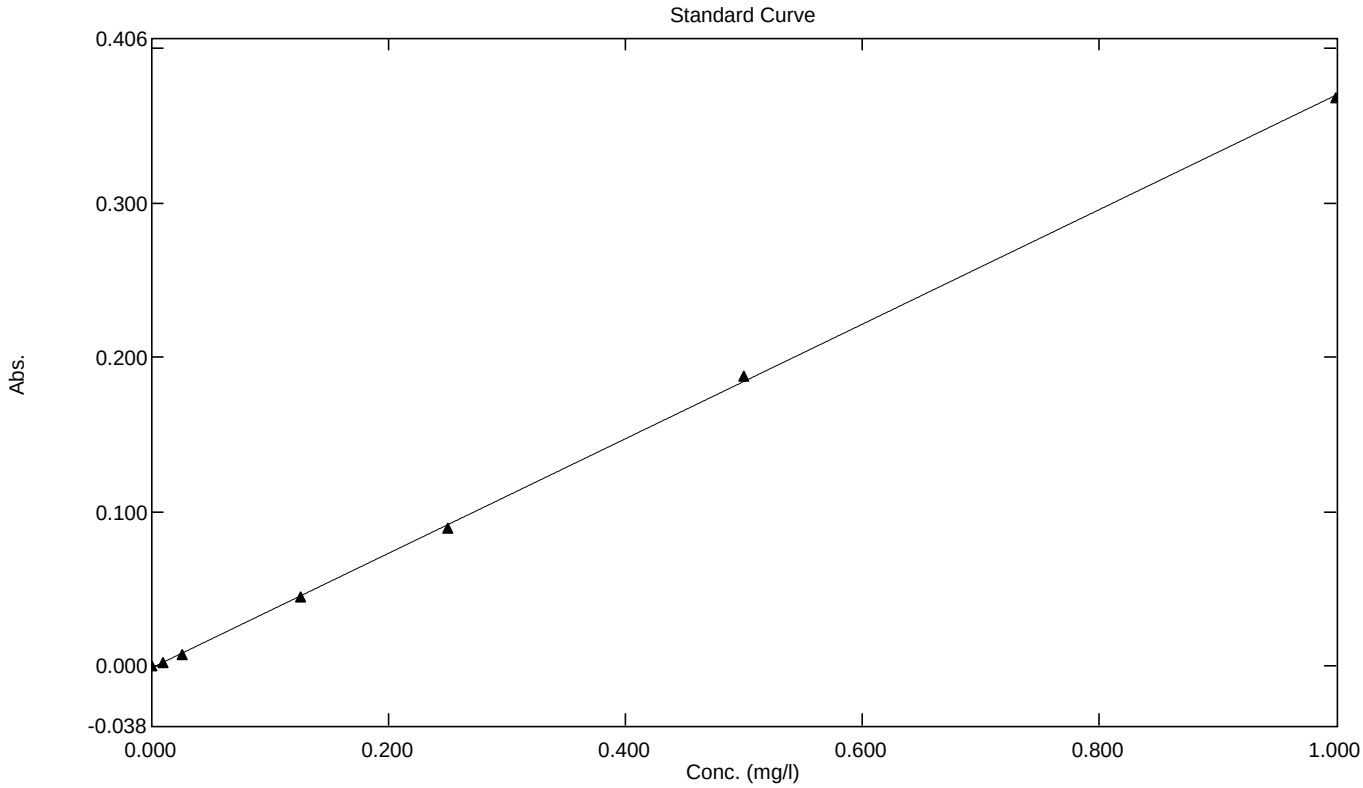

Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.002	1.000	
3	STD3	Standard		0.025	0.007	1.000	
4	STD4	Standard		0.125	0.044	1.000	
5	STD5	Standard		0.250	0.089	1.000	
6	STD6	Standard		0.500	0.188	1.000	
7	STD7	Standard		1.000	0.368	1.000	
8							

Sample Table Report

05/28/2021 02:16:20 PM

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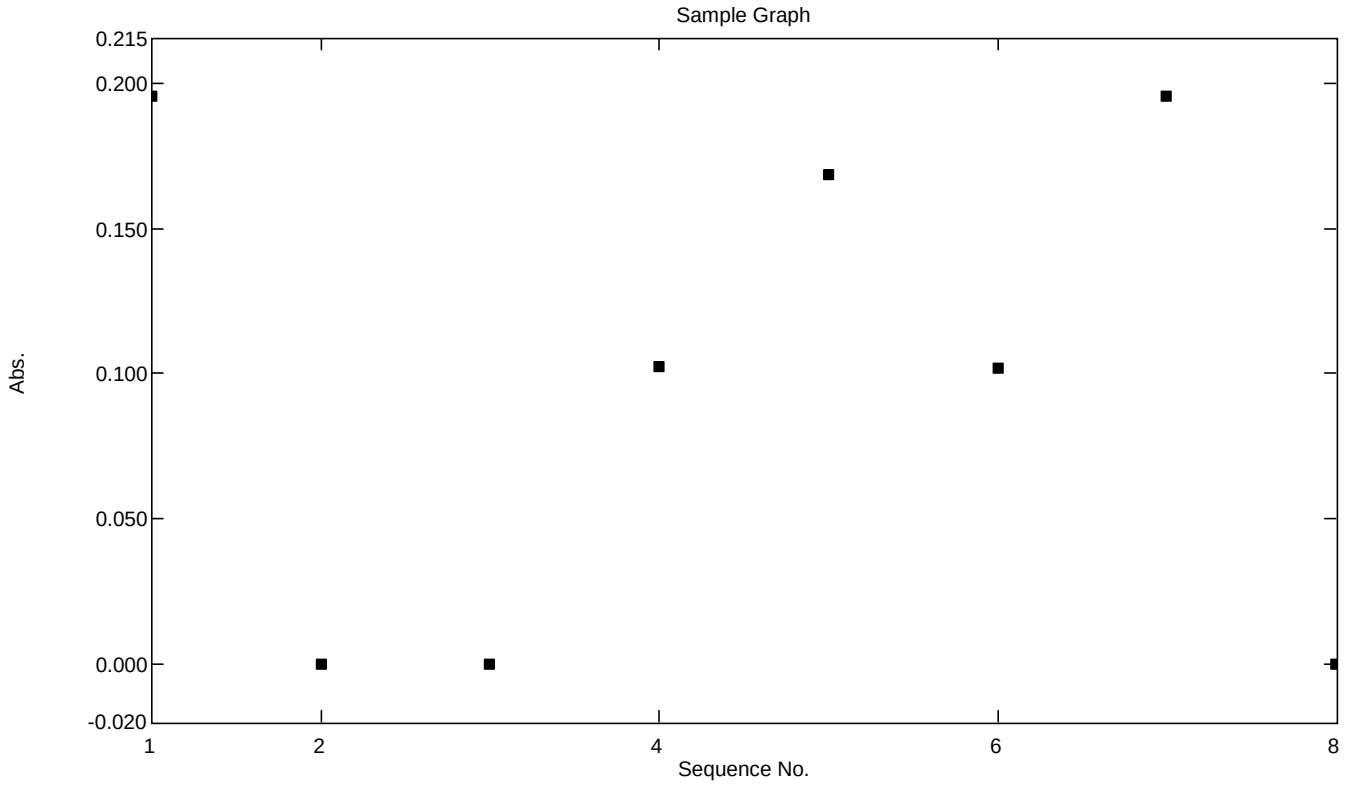


Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL650.0	Comments
1	CCV	Unknown		05/12/2021	03:04:17 PM	0.531	0.196	316133106 WC-14
2	CCB	Unknown		05/12/2021	03:04:26 PM	0.004	0.000	
3	MBLK	Unknown		05/12/2021	03:04:31 PM	0.003	0.000	
4	LCS	Unknown		05/12/2021	03:04:40 PM	0.280	0.103	316133107 WC-14
5	HS21050555.01	Unknown		05/12/2021	03:05:11 PM	0.458	0.169	DF-10X
6	LCSD	Unknown		05/12/2021	03:14:09 PM	0.278	0.102	
7	CCV2	Unknown		05/12/2021	03:14:21 PM	0.530	0.195	
8	CCB2	Unknown		05/12/2021	03:14:31 PM	0.003	-0.000	C-316133601 UV-11
9								

HS21050555 Wet Chem Raw Data (TOC_W)

ALS WO# HS21050555

	Type	Analysis	Sample Name	Sample ID	Origin	Result
1	Standard	NPOC	CAL	3150171(01-07)	02_25_2021_CAL.2021_02_	
2	Unknown	NPOC	ICV	315017108	02_25_2021_CAL.cal	NPOC:10.14mg/L
3	Unknown	NPOC	ICB		02_25_2021_CAL.cal	NPOC:-0.1140mg/L
4	Unknown	NPOC	CCV	315017106	02_25_2021_CAL.cal	NPOC:25.02mg/L
5	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:-0.07587mg/L
6	Unknown	NPOC	MBLK-02252021		02_25_2021_CAL.cal	NPOC:-0.1214mg/L
7	Unknown	NPOC	LCS-02252021		02_25_2021_CAL.cal	NPOC:10.15mg/L
8	Unknown	NPOC	LCSD02252021		02_25_2021_CAL.cal	NPOC:10.16mg/L
9	Unknown	NPOC	HS21020689-01		02_25_2021_CAL.cal	NPOC:22.48mg/L
10	Unknown	NPOC	HS21020689-02		02_25_2021_CAL.cal	NPOC:17.34mg/L
11	Unknown	NPOC	HS21020689-02MS		02_25_2021_CAL.cal	NPOC:28.25mg/L
12	Unknown	NPOC	HS21020689-03		02_25_2021_CAL.cal	NPOC:10.22mg/L
13	Unknown	NPOC	HS21020538-01		02_25_2021_CAL.cal	NPOC:20.36mg/L
14	Unknown	NPOC	HS21020538-02		02_25_2021_CAL.cal	NPOC:4.452mg/L
15	Unknown	NPOC	HS21020793-02DF10		02_25_2021_CAL.cal	NPOC:17.50mg/L
16	Unknown	NPOC	CCV		02_25_2021_CAL.cal	NPOC:25.46mg/L
17	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:0.08018mg/L

	Notes	Status	Date / Time	Vial
1		Completed	2/25/2021 1	1, 2, 3, 4, 5,
2		Completed	2/25/2021 1	8
3		Completed	2/25/2021 1	9
4		Completed	2/25/2021 1	10
5		Completed	2/25/2021 1	11
6		Completed	2/25/2021 1	12
7		Completed	2/25/2021 1	13
8		Completed	2/25/2021 1:	14
9		Completed	2/25/2021 1:	15
10		Completed	2/25/2021 1:	16
11		Completed	2/25/2021 1:	17
12		Completed	2/25/2021 2:	18
13		Completed	2/25/2021 2:	19
14		Completed	2/25/2021 2:	20
15		Completed	2/25/2021 2:	21
16		Completed	2/25/2021 3:	22
17		Completed	2/25/2021 3:	23

TOC-Control L Report

2021_02_25_001.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

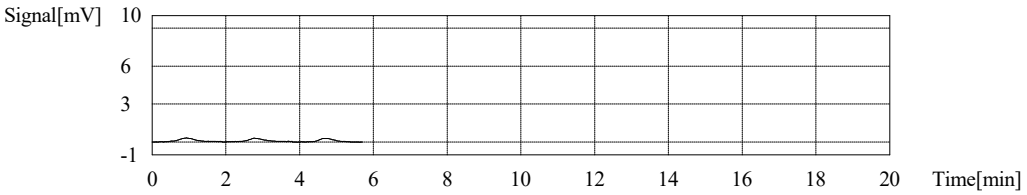
Sample Name:	CAL
Sample ID:	3150171(01-07)
Cal. Curve:	02_25_2021_CAL.2021_02_25_09_13_02.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7577	50uL	1.000	*******		2/25/2021 9:21:39 AM
2	0.6368	50uL	1.000	*******		2/25/2021 9:23:47 AM
3	0.6500	50uL	1.000	*******		2/25/2021 9:25:55 AM

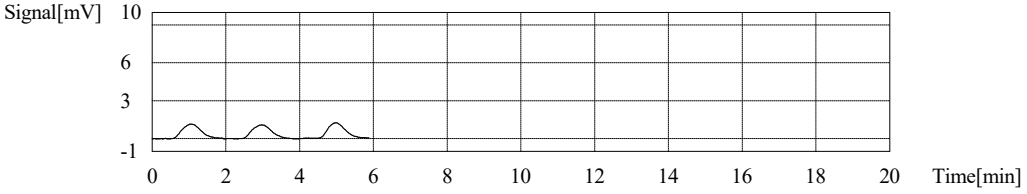
Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	0.6815



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.063	50uL	1.000	*******		2/25/2021 9:34:44 AM
2	3.946	50uL	1.000	*******		2/25/2021 9:37:02 AM
3	3.886	50uL	1.000	*******		2/25/2021 9:39:10 AM

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	3.965

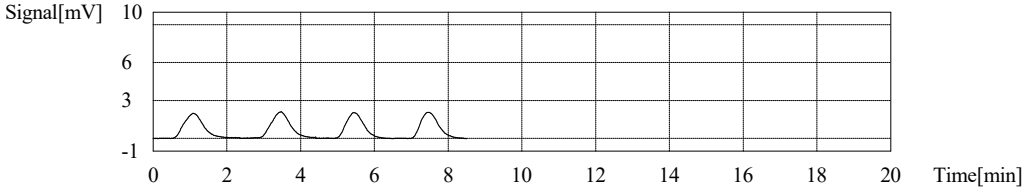


Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.014	50uL	1.000	*******		2/25/2021 9:48:25 AM
2	6.976	50uL	1.000	*******		2/25/2021 9:50:44 AM
3	6.738	50uL	1.000	*******	E	2/25/2021 9:53:02 AM
4	6.989	50uL	1.000	*******		2/25/2021 9:55:18 AM

TOC-Control L Report

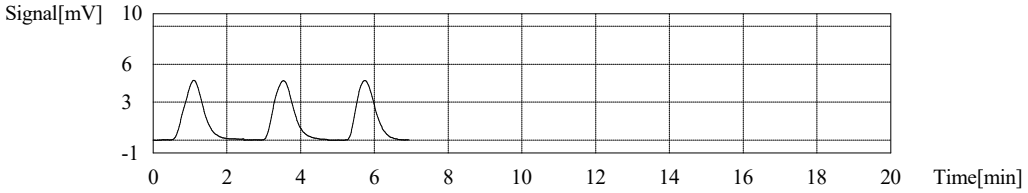
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 6.993



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.70	50uL	1.000	*******		2/25/2021 10:04:35 AM
2	16.99	50uL	1.000	*******		2/25/2021 10:07:06 AM
3	16.40	50uL	1.000	*******		2/25/2021 10:09:32 AM

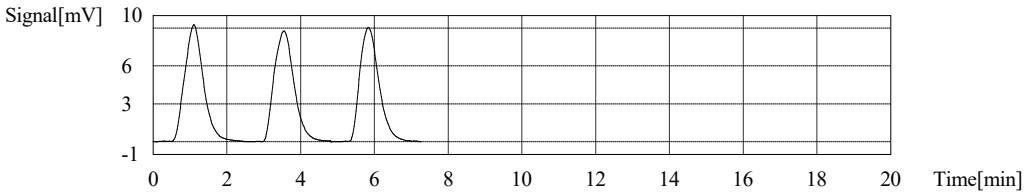
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 16.70



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	32.33	50uL	1.000	*******		2/25/2021 10:18:54 AM
2	32.41	50uL	1.000	*******		2/25/2021 10:21:29 AM
3	32.27	50uL	1.000	*******		2/25/2021 10:24:10 AM

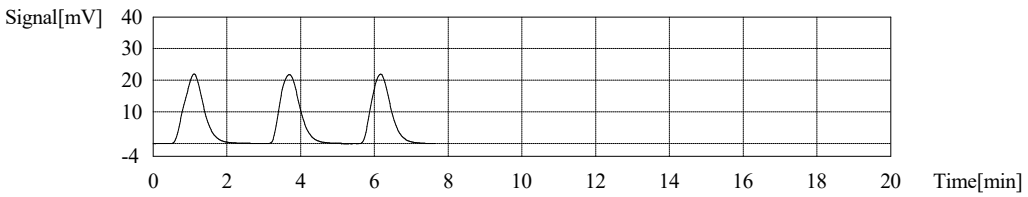
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 32.34



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.83	50uL	1.000	*******		2/25/2021 10:33:42 AM
2	80.51	50uL	1.000	*******		2/25/2021 10:36:25 AM
3	79.09	50uL	1.000	*******		2/25/2021 10:39:12 AM

Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 79.81



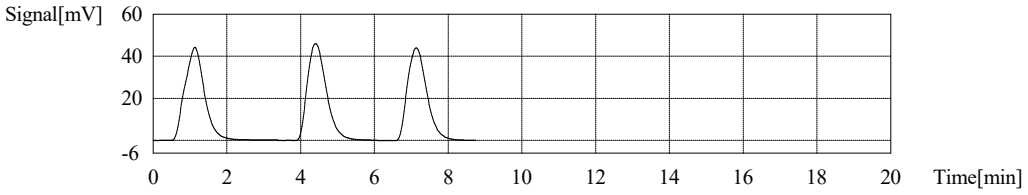
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	162.4	50uL	1.000	*******		2/25/2021 10:49:29 AM
2	163.8	50uL	1.000	*******		2/25/2021 10:52:26 AM
3	159.9	50uL	1.000	*******		2/25/2021 10:55:21 AM

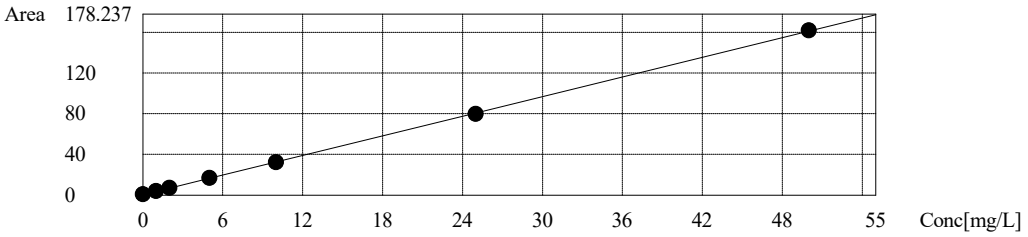
TOC-Control L Report

2021_02_25_001.tlx

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	162.0



Slope:	3.220
Intercept	0.4365
r^2	0.9999
r	1.0000
RSE(%)	N/A
Zero Shift	No



Sample

Sample Name:	ICV
Sample ID:	315017108
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

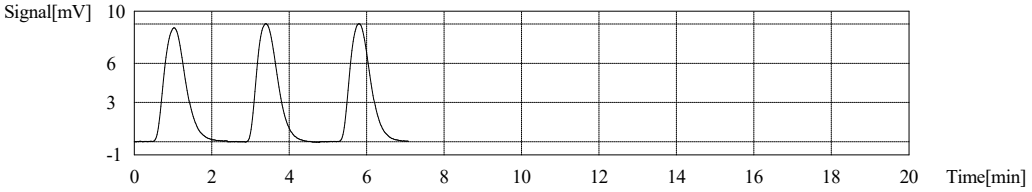
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.04	10.13mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:32:06 AM
2	33.24	10.19mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:34:44 AM
3	32.98	10.11mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:37:17 AM

Mean Area	33.09
Mean Conc.	10.14mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.1140mg/L

1. Det

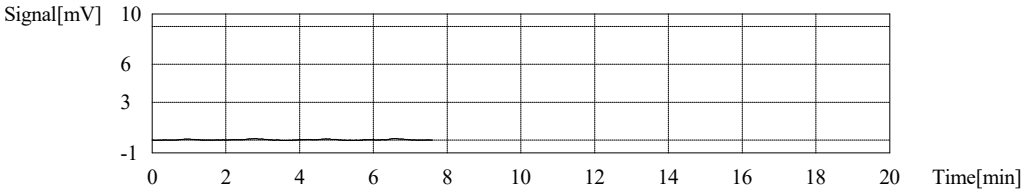
TOC-Control L Report

2021_02_25_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:46:05 AM
2	0.2080	-0.07096mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:48:13 AM
3	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:50:20 AM
4	0.2102	-0.07028mg/L	50uL	1.000	E	02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:52:27 AM

Mean Area 0.06933
Mean Conc. -0.1140mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status
1	Unknown	NPOC	CCV	316133801	05_10_2021	NPOC:25.49mg/		Completed
2	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1225mg		Completed
3	Unknown	NPOC	MBLK-05172021	TOC_DISS_5310B	05_10_2021	NPOC:0.1079mg		Completed
4	Unknown	NPOC	LCS-05172021	TOC_W	05_10_2021	NPOC:9.909mg/		Completed
5	Unknown	NPOC	LCSD-05172021	TOC_W 5310B	05_10_2021	NPOC:10.15mg/		Completed
6	Unknown	NPOC	HS21050232-10DF2		05_10_2021	NPOC:30.31mg/		Completed
7	Unknown	NPOC	HS21050555-01		05_10_2021	NPOC:2.311mg/		Completed
8	Unknown	NPOC	HS21050555-01MS		05_10_2021	NPOC:13.07mg/		Completed
9	Unknown	NPOC	HS21050569-01		05_10_2021	NPOC:7.910mg/		Completed
10	Unknown	NPOC	HS21050627-01		05_10_2021	NPOC:6.085mg/		Completed
11	Unknown	NPOC	HS21050627-02		05_10_2021	NPOC:9.377mg/		Completed
12	Unknown	NPOC	HS21050566-01		05_10_2021	NPOC:2.444mg/		Completed
13	Unknown	NPOC	CCV		05_10_2021	NPOC:25.60mg/		Completed
14	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1186mg		Completed
15	Unknown	NPOC	HS21050568-01		05_10_2021	NPOC:5.037mg/		Completed
16	Unknown	NPOC	HS21050568-02		05_10_2021	NPOC:3.979mg/		Completed
17	Unknown	NPOC	HS21050572-01		05_10_2021	NPOC:12.94mg/		Completed
18	Unknown	NPOC	HS21050223-05		05_10_2021	NPOC:5.788mg/		Completed
19	Unknown	NPOC	CCV		05_10_2021	NPOC:26.14mg/		Completed
20	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1673mg		Completed
21	Unknown	NPOC	MBLK2-05172021	TOC_W 5310B	05_10_2021	NPOC:0.1171mg		Completed
22	Unknown	NPOC	LCS2-05172021		05_10_2021	NPOC:9.888mg/		Completed
23	Unknown	NPOC	LCSD2-05172021		05_10_2021	NPOC:10.07mg/		Completed
24	Unknown	NPOC	HS21050223-06		05_10_2021	NPOC:0.4713mg		Completed
25	Unknown	NPOC	HS21050223-06MS		05_10_2021	NPOC:11.15mg/		Completed
26	Unknown	NPOC	HS21050232-02		05_10_2021	NPOC:0.3207mg		Completed
27	Unknown	NPOC	HS21050232-07		05_10_2021	NPOC:1.273mg/		Completed
28	Unknown	NPOC	HS21050232-08		05_10_2021	NPOC:0.5365mg		Completed
29	Unknown	NPOC	HS21050232-09		05_10_2021	NPOC:15.35mg/		Completed
30	Unknown	NPOC	HS21050232-10		05_10_2021	NPOC:72.49mg/		Completed
31	Unknown	NPOC	CCV		05_10_2021	NPOC:25.71mg/		Completed
32	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1356mg		Completed
33	Unknown	NPOC	HS21050270-01		05_10_2021	NPOC:0.1778mg		Completed
34	Unknown	NPOC	HS21050270-02		05_10_2021	NPOC:0.1693mg		Completed
35	Unknown	NPOC	HS21050270-03		05_10_2021	NPOC:0.2642mg		Completed
36	Unknown	NPOC	HS21050270-04		05_10_2021	NPOC:0.4510mg		Completed
37	Unknown	NPOC	CCV		05_10_2021	NPOC:25.57mg/		Completed
38	Unknown	NPOC	CCB		05_10_2021	NPOC:0.07886m		Completed
39	Unknown	NPOC	MBLK3-05172021	TOC_W 5310B	05_10_2021	NPOC:0.04208m		Completed
40	Unknown	NPOC	LCS3-05172021		05_10_2021	NPOC:9.808mg/		Completed
41	Unknown	NPOC	LCSD3-05172021		05_10_2021	NPOC:10.08mg/		Completed
42	Unknown	NPOC	HS21050270-05		05_10_2021	NPOC:0.1565mg		Completed
43	Unknown	NPOC	HS21050270-05MS		05_10_2021	NPOC:10.87mg/		Completed
44	Unknown	NPOC	HS21050270-06		05_10_2021	NPOC:0.2423mg		Completed
45	Unknown	NPOC	HS21050270-07		05_10_2021	NPOC:0.1517mg		Completed
46	Unknown	NPOC	HS21050781-01		05_10_2021	NPOC:3.016mg/		Completed
47	Unknown	NPOC	HS21050781-02		05_10_2021	NPOC:2.161mg/		Completed
48	Unknown	NPOC	HS21050781-03		05_10_2021	NPOC:5.287mg/		Completed
49	Unknown	NPOC	CCV		05_10_2021	NPOC:25.48mg/		Completed
50	Unknown	NPOC	CCB		05_10_2021	NPOC:0.07222m		Completed
51	Unknown	NPOC	HS21050781-04		05_10_2021	NPOC:1.480mg/		Completed
52	Unknown	NPOC	HS21050781-05		05_10_2021	NPOC:4.666mg/		Completed
53	Unknown	NPOC	HS21050781-06		05_10_2021	NPOC:8.504mg/		Completed

	Date / Time	Vial
1	5/17/2021 2:	1
2	5/17/2021 2:	2
3	5/17/2021 3:	3
4	5/17/2021 3:	4
5	5/17/2021 3:	5
6	5/17/2021 3:	6
7	5/17/2021 3:	7
8	5/17/2021 4:	8
9	5/17/2021 4:	9
10	5/17/2021 4:	10
11	5/17/2021 4:	11
12	5/17/2021 4:	12
13	5/17/2021 5:	1
14	5/17/2021 5:	2
15	5/17/2021 5:	13
16	5/17/2021 5:	14
17	5/17/2021 5:	15
18	5/17/2021 6:	16
19	5/17/2021 6:	1
20	5/17/2021 6:	2
21	5/17/2021 6:	3
22	5/17/2021 6:	4
23	5/17/2021 7:	5
24	5/17/2021 7:	17
25	5/17/2021 7:	18
26	5/17/2021 7:	19
27	5/17/2021 8:	20
28	5/17/2021 8:	21
29	5/17/2021 8:	22
30	5/17/2021 8:	23
31	5/17/2021 8:	24
32	5/17/2021 9:	25
33	5/17/2021 9:	26
34	5/17/2021 9:	27
35	5/17/2021 9:	28
36	5/17/2021 9:	29
37	5/17/2021 1	24
38	5/17/2021 1	25
39	5/17/2021 1	3
40	5/17/2021 1	4
41	5/17/2021 1	5
42	5/17/2021 1	30
43	5/17/2021 1	31
44	5/17/2021 1	32
45	5/17/2021 1	33
46	5/17/2021 1	34
47	5/18/2021 1	35
48	5/18/2021 1	36
49	5/18/2021 1	24
50	5/18/2021 1	25
51	5/18/2021 1	37
52	5/18/2021 1:	38
53	5/18/2021 1:	39

	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status
54	Unknown	NPOC	HS21050781-07		05_10_2021	NPOC:9.034mg/		Completed
55	Unknown	NPOC	CCV		05_10_2021	NPOC:25.69mg/		Completed
56	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1295mg		Completed

	Date / Time	Vial
54	5/18/2021 1:	40
55	5/18/2021 1:	24
56	5/18/2021 1:	25

TOC-Control L Report

Instr.Information

Instrument Options TOC/ASI/IC Unit/
Catalyst Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 316133801
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

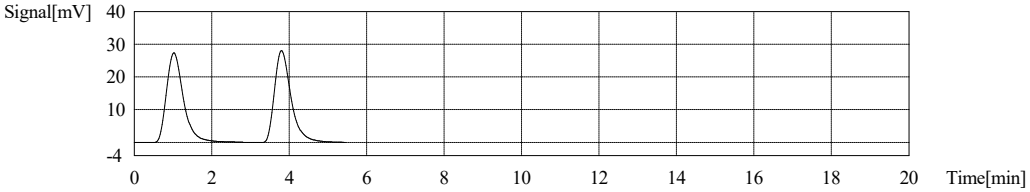
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.58	25.42mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 2:39:41 PM
2	85.03	25.56mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 2:42:35 PM

Mean Area 84.81
Mean Conc. 25.49mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1225mg/L

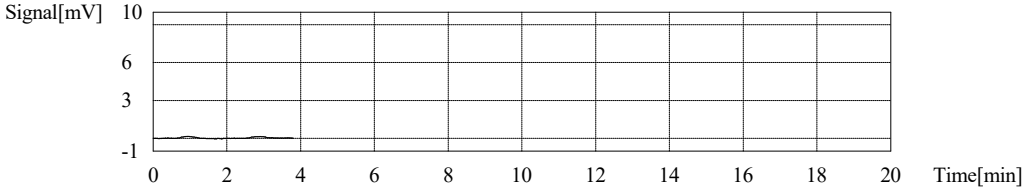
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3847	0.1156mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 2:50:42 PM
2	0.4306	0.1294mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 2:53:42 PM

TOC-Control L Report

Mean Area 0.4077
Mean Conc. 0.1225mg/L



Sample

Sample Name: MBLK-05172021
Sample ID: TOC_DISS_5310B
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

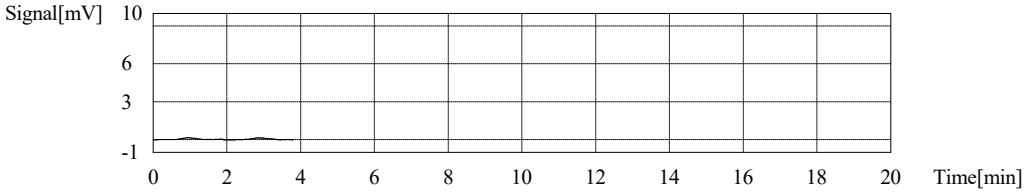
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1079mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3387	0.1018mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:01:40 PM
2	0.3790	0.1139mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:04:40 PM

Mean Area 0.3589
Mean Conc. 0.1079mg/L



Sample

Sample Name: LCS-05172021
Sample ID: TOC_W
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.909mg/L

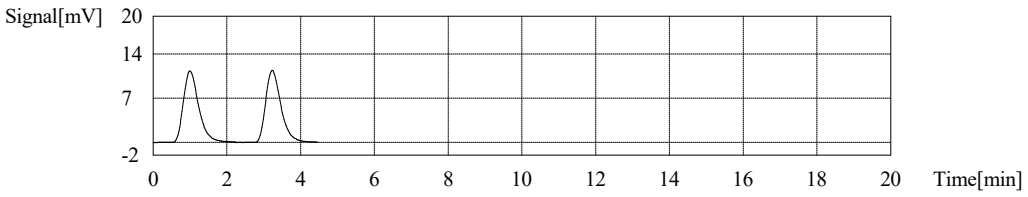
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.84	9.870mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:12:58 PM
2	33.10	9.948mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:15:58 PM

TOC-Control L Report

Mean Area 32.97
Mean Conc. 9.909mg/L



Sample

Sample Name: LCSD-05172021
Sample ID: TOC_W 5310B
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

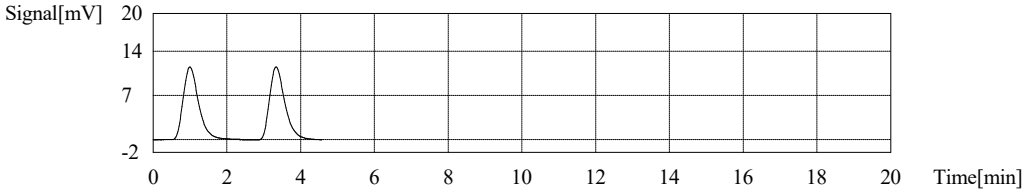
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.65	10.11mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:24:23 PM
2	33.88	10.18mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:27:16 PM

Mean Area 33.77
Mean Conc. 10.15mg/L



Sample

Sample Name: HS21050555-01
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.311mg/L

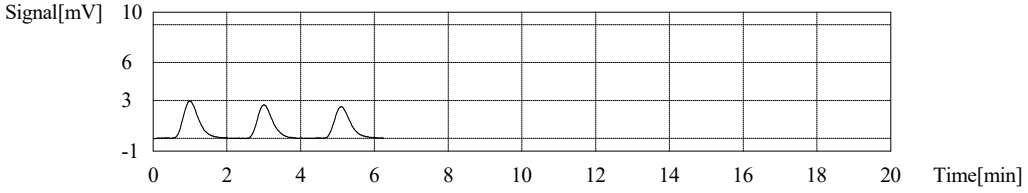
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.648	2.599mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:46:55 PM
2	7.855	2.361mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:50:00 PM
3	7.524	2.261mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 3:53:05 PM

TOC-Control L Report

Mean Area 7.690
Mean Conc. 2.311mg/L



Sample

Sample Name: HS21050555-01MS
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

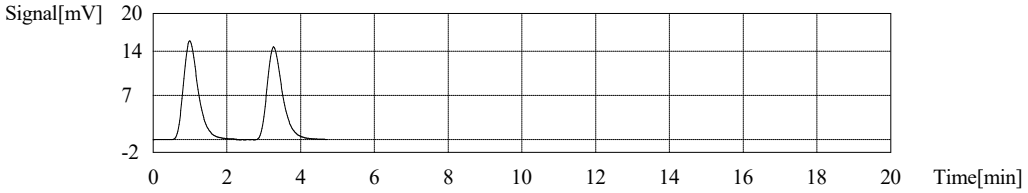
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.07mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.71	13.14mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 4:01:40 PM
2	43.29	13.01mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 4:04:50 PM

Mean Area 43.50
Mean Conc. 13.07mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.60mg/L

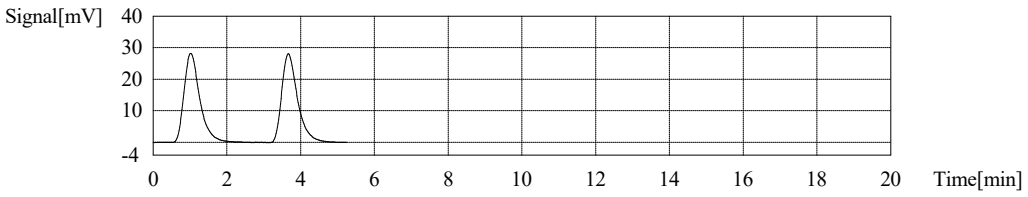
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.14	25.59mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 5:02:48 PM
2	85.19	25.60mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 5:05:45 PM

TOC-Control L Report

Mean Area 85.16
Mean Conc. 25.60mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

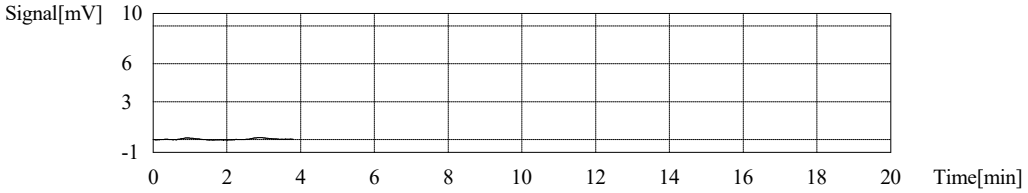
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1186mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3422	0.1028mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 5:13:55 PM
2	0.4471	0.1344mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/17/2021 5:16:55 PM

Mean Area 0.3947
Mean Conc. 0.1186mg/L



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

WorkOrder: HS21050897

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

14-Jun-2021

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

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HS21050897 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS21050897

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 07, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21050897**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on May 19, 2021 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
Ragen Giga
Project Manager

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21050897

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21050897-01	LH18/24-SP650_051821	Water		18-May-2021 14:00	19-May-2021 09:30	☐
HS21050897-02	LH18/24-SP650_051821_BIX	Water		18-May-2021 14:00	19-May-2021 09:30	☐

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21050897

Work Order Comments

• The analysis for Perchlorate was subcontracted our ALS Houston TX, High Resolution Lab. Final report attached.

WetChemistry by Method E350.3

Batch ID: R384299

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E365.3

Batch ID: R384015

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E415.1

Batch ID: R383982

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder:HS21050897
Sample ID: LH18/24-SP650_051821
Lab ID:HS21050897-01
Collection Date: 18-May-2021 14:00
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)	**16**	a	**0.10**	**0.20**	**0.20**	**mg/L**	1	25-May-2021 11:55
ORTHO PHOSPHATE (PO4) AS P BY E365.3		**Method:E365.3**						Analyst: KVL
Phosphorus, Total Orthophosphate (As P)	**6.01**	a	**0.100**	**0.250**	**0.250**	**mg/L**	10	19-May-2021 17:37
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: JAC
Organic Carbon, Total	**2.37**	a	**0.500**	**0.500**	**1.00**	**mg/L**	1	19-May-2021 16:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Weekly Samples WorkOrder:HS21050897
Sample ID: LH18/24-SP650_051821_BIX Lab ID:HS21050897-02
Collection Date: 18-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2021 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050897

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R383982 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS21050897-01	LH18/24-SP650_051821	18 May 2021 14:00			19 May 2021 16:54	1
Batch ID: R384015 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3				**Matrix:** Water	
HS21050897-01	LH18/24-SP650_051821	18 May 2021 14:00			19 May 2021 17:37	10
Batch ID: R384299 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS21050897-01	LH18/24-SP650_051821	18 May 2021 14:00			25 May 2021 11:55	1
Batch ID: R385099 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21050897-02	LH18/24-SP650_051821_BIX	18 May 2021 14:00			07 Jun 2021 17:34	1

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050897

QC BATCH REPORT

Batch ID: R383982 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON BY E415.1

MBLK Sample ID: **MBLK-05192021** Units: **mg/L** Analysis Date: **19-May-2021 16:20**
Client ID: Run ID: **TOC_04_383982** SeqNo: **6100891** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	0.500	1.00								U

LCS Sample ID: **LCS-05192021** Units: **mg/L** Analysis Date: **19-May-2021 16:31**
Client ID: Run ID: **TOC_04_383982** SeqNo: **6100892** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.823	1.00	10	0	98.2	85 - 115				

LCSD Sample ID: **LCSD-05192021** Units: **mg/L** Analysis Date: **19-May-2021 16:43**
Client ID: Run ID: **TOC_04_383982** SeqNo: **6100893** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.649	1.00	10	0	96.5	85 - 115	9.823	1.79	20	

MS Sample ID: **HS21050897-01MS** Units: **mg/L** Analysis Date: **19-May-2021 17:09**
Client ID: **LH18/24-SP650_051821** Run ID: **TOC_04_383982** SeqNo: **6100895** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	12.51	1.00	10	2.368	101	80 - 120				

The following samples were analyzed in this batch: HS21050897-01

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050897

QC BATCH REPORT

Batch ID: R384015 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3

MBLK Sample ID: **MBLK-R384015** Units: **mg/L** Analysis Date: **19-May-2021 17:30**
Client ID: Run ID: **UV-2450_384015** SeqNo: **6101486** 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)	0.0250	0.0250								U

LCS Sample ID: **LCS-R384015** Units: **mg/L** Analysis Date: **19-May-2021 17:30**
Client ID: Run ID: **UV-2450_384015** SeqNo: **6101485** 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)	0.278	0.0250	0.25	0	111	85 - 115				

MS Sample ID: **HS21050897-01MS** Units: **mg/L** Analysis Date: **19-May-2021 17:38**
Client ID: **LH18/24-SP650_051821** Run ID: **UV-2450_384015** SeqNo: **6101488** 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)	8.58	0.250	2.5	6.01	103	80 - 120				

MSD Sample ID: **HS21050897-01MSD** Units: **mg/L** Analysis Date: **19-May-2021 17:38**
Client ID: **LH18/24-SP650_051821** Run ID: **UV-2450_384015** SeqNo: **6101487** 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)	8.58	0.250	2.5	6.01	103	80 - 120	8.58	0	20	

The following samples were analyzed in this batch: HS21050897-01

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21050897

QC BATCH REPORT

Batch ID: R384299 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R384299** Units: **mg/L** Analysis Date: **25-May-2021 11:55**
Client ID: Run ID: **WetChem_HS_384299** SeqNo: **6108385** 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)	0.20	0.20								U

LCS Sample ID: **LCS-R384299** Units: **mg/L** Analysis Date: **25-May-2021 11:55**
Client ID: Run ID: **WetChem_HS_384299** SeqNo: **6108384** 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)	11.2	0.20	10	0	112	80 - 120				

MS Sample ID: **HS21050832-01MS** Units: **mg/L** Analysis Date: **25-May-2021 11:55**
Client ID: Run ID: **WetChem_HS_384299** SeqNo: **6108390** 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)	8.934	0.20	10	0.053	88.8	80 - 120				

MSD Sample ID: **HS21050832-01MSD** Units: **mg/L** Analysis Date: **25-May-2021 11:55**
Client ID: Run ID: **WetChem_HS_384299** SeqNo: **6108389** 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)	8.899	0.20	10	0.053	88.5	80 - 120	8.934	0.393	20	

The following samples were analyzed in this batch: HS21050897-01

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS21050897**

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	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21050897

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21050897-01	LH18/24-SP650_051821	Login	5/19/2021 12:11:44 PM	PJM	WET282
HS21050897-01	LH18/24-SP650_051821	Login	5/19/2021 12:11:44 PM	PJM	WET282
HS21050897-01	LH18/24-SP650_051821	Login	5/19/2021 12:11:44 PM	PJM	WET282
HS21050897-02	LH18/24-SP650_051821_BIX	Login	5/19/2021 12:11:44 PM	PJM	Sub

ALS Houston, US Date: 07-Jun-21

Sample Receipt Checklist

Work Order ID: HS21050897 **Date/Time Received:** 19-May-2021 09:30

Client Name: Bhate Environmental **Received by:** Jared R. Makan

Completed By:	/S/ Pablo Marinez	19-May-2021 12:12	**Reviewed by:**	/S/ Ragen Giga	19-May-2021 20:00
	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:CLIENT
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):	1.2°C UC/C	IR 31
Cooler(s)/Kit(s):	47242	
Date/Time sample(s) sent to storage:	5/19/21 12:30	

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: R.J Modashia

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

HS21050897

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_051821	Water	05/18/21 / 14:00		3	X	X			H2SO4	
LH18/24-SP650_051821	Water	05/18/21 / 14:00		1			X		NONE	
LH18/24–SP650_051821_BIX	Water	05/18/21 / 14:00		1				X	NONE	

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	05/18/21	14:30									

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
J. MACCAW	5/19/21	09:30							

Remarks:
Cooler 47242 1231 CFO
Temp 1.2°C

(Word) S:\Forms\Chain of Custody - Bi\Weekly

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

47242

CUSTODY SEAL

Date: 5/18/21 Time: 1430
Name: Scott Beesinger
Company: B.Hartz

Seal Broken By: SM
Date: 05/19/21

47242 MAY 19 2021

Must Deliver Next Business Day
Time and Tempature Sensitive!

47242

ORIGIN ID:SGRA (909) 930-6193
SCOTT BEESINGER
APTIM ENVIROMENTAL & INFRASTRUCTURE
1203-B EAST GRAND AVE
PMB 202
MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 19MAR21
ACTWGT: 1.00 LB MAN
CAD: 0221242/CAFE3403
DIMS: 26x14x1.1 IN

TO CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP-BO 77443-RJ

RMA:

FedEx Express

FedEx
TRK# 0221 9473 0841 7454

WED - 19 MAY AA
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

June 07, 2021 Service Request No:E2100577

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21050897

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory May 19, 2021
For your reference, these analyses have been assigned our service request number **E2100577.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100577
Project:	Perch	**Date Received:**	05/19/21
Sample Matrix:	w		

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 05/19/21.

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:

EQ2100327: 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 batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report. The LCS/DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100577
Project: HS21050897

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100577-001	LH18/24-SP650_051821_BIX	5/18/2021	1400

Service Request Summary

Folder #: **E2100577**
Client Name: ALS Environmental - US
Project Name: HS21050897
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/19/21
Internal Due Date: 6/3/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050897
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10C
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100577-001	LH18/24-SP650_051821_BIX	Water	05/18/21 1400	**IV**

Service Request Summary

Folder #: **E2100577**
Client Name: ALS Environmental - US
Project Name: HS21050897
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/19/21
Internal Due Date: 6/3/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050897
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10C
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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

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:** **16149**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21050897
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21050897-02**	**LH18/24-SP650_051821_BIX**	**Water**	**18 May 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			03 Jun 2021

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: 5.19.21 12:15

Received By: _____ Date/Time: 5/19/21 1215

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist CH

Client/Project ALS-H

Thermometer ID 1231

Date/Time Received: 5/19/21 Initials: PM Date/Time Logged in: 5/19/21 Initials CH

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		5/19/21	1215	CH	1.3	☑
						☐
						☐
						☐

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:

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS

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#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100577-001	LH18/24-SP650_051821_BIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2100590-001	LHSMW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100590-002	LHSMW01-210524-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100590-003	04WW04-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100590-004	04WW08-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100590-005	04WW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100590-006	04WW06-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100590-007	LHSMW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100590-008	04WW11-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100590-009	04WW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100590-010	04WW07-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100590-011	04WW07-210525-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100590-012	04WW09-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100590-013	04WW05-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100590-014	04WW10-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100591-001	LH18/24-SP140_052521	.01	6850/ClO4 DOD			Ground Water	10mL	
17	E2100592-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
18	E2100593-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
19	EQ2100327-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2100327-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2100327-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100327-04	04WW10-210525 MS	.01	6850/ClO4 DOD			Liquid	10mL	
23	EQ2100327-05	04WW10-210525 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100577-001	100.00µL	E2100590-001	100.00µL	E2100590-002	100.00µL	E2100590-003	100.00µL	E2100590-004	100.00µL	E2100590-005	100.00µL
E2100590-006	100.00µL	E2100590-007	100.00µL	E2100590-008	100.00µL	E2100590-009	100.00µL	E2100590-010	100.00µL	E2100590-011	100.00µL
E2100590-012	100.00µL	E2100590-013	100.00µL	E2100590-014	100.00µL	E2100591-001	100.00µL	E2100592-001	100.00µL	E2100593-001	100.00µL
EQ2100327-01	100.00µL	EQ2100327-02	100.00µL	EQ2100327-03	100.00µL	EQ2100327-04	100.00µL	EQ2100327-05	100.00µL		

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100327-02	1.00µL	EQ2100327-03	1.00µL	EQ2100327-04	1.00µL	EQ2100327-05	1.00µL

Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

Preparation Steps

Step: Preparation
Started: 5/27/21 13:04
Finished: 5/27/21 13:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/27/21

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:**	E2100577
Project:	HS21050897	**Date Collected:**	5/18/21 1400
Sample Matrix:	Water	**Date Received:**	5/19/21
Sample Name:	LH18/24-SP650_051821_BIX	**Units:**	µg/L
Lab Code:	E2100577-001	**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	**3.12**		0.100	0.0500	0.0250	1	5/27/21	6/2/21 12:12	380303	725907	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100577
Project:	HS21050897	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100327-01	**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	5/27/21	5/28/21 12:53	380303	725747	

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: HS21050897
Sample Matrix: Water

Service Request: E2100577
Date Analyzed: 5/28/21

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: 380303

	Lab Control Sample EQ2100327-02			Duplicate Lab Control Sample EQ2100327-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.0878	0.100	88	84 - 119	14	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:**	E2100577
Project:	HS21050897	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-02	**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	**0.101**		0.100	0.0500	0.0250	1	5/27/21	5/28/21 13:02	380303	725747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100577
Project:	HS21050897	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-03	**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	**0.0878**	J	0.100	0.0500	0.0250	1	5/27/21	5/28/21 15:59	380303	725747	

HS21050897 Wet Chem Raw Data (TOC_W)

ALS WO# HS21050897

	Type	Analysis	Sample Name	Sample ID	Origin	Result
1	Standard	NPOC	CAL	3150171(01-07)	02_25_2021_CAL.2021_02_	
2	Unknown	NPOC	ICV	315017108	02_25_2021_CAL.cal	NPOC:10.14mg/L
3	Unknown	NPOC	ICB		02_25_2021_CAL.cal	NPOC:-0.1140mg/L
4	Unknown	NPOC	CCV	315017106	02_25_2021_CAL.cal	NPOC:25.02mg/L
5	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:-0.07587mg/L
6	Unknown	NPOC	MBLK-02252021		02_25_2021_CAL.cal	NPOC:-0.1214mg/L
7	Unknown	NPOC	LCS-02252021		02_25_2021_CAL.cal	NPOC:10.15mg/L
8	Unknown	NPOC	LCSD02252021		02_25_2021_CAL.cal	NPOC:10.16mg/L
9	Unknown	NPOC	HS21020689-01		02_25_2021_CAL.cal	NPOC:22.48mg/L
10	Unknown	NPOC	HS21020689-02		02_25_2021_CAL.cal	NPOC:17.34mg/L
11	Unknown	NPOC	HS21020689-02MS		02_25_2021_CAL.cal	NPOC:28.25mg/L
12	Unknown	NPOC	HS21020689-03		02_25_2021_CAL.cal	NPOC:10.22mg/L
13	Unknown	NPOC	HS21020538-01		02_25_2021_CAL.cal	NPOC:20.36mg/L
14	Unknown	NPOC	HS21020538-02		02_25_2021_CAL.cal	NPOC:4.452mg/L
15	Unknown	NPOC	HS21020793-02DF10		02_25_2021_CAL.cal	NPOC:17.50mg/L
16	Unknown	NPOC	CCV		02_25_2021_CAL.cal	NPOC:25.46mg/L
17	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:0.08018mg/L

	Notes	Status	Date / Time	Vial
1		Completed	2/25/2021 1	1, 2, 3, 4, 5,
2		Completed	2/25/2021 1	8
3		Completed	2/25/2021 1	9
4		Completed	2/25/2021 1	10
5		Completed	2/25/2021 1	11
6		Completed	2/25/2021 1	12
7		Completed	2/25/2021 1	13
8		Completed	2/25/2021 1:	14
9		Completed	2/25/2021 1:	15
10		Completed	2/25/2021 1:	16
11		Completed	2/25/2021 1:	17
12		Completed	2/25/2021 2:	18
13		Completed	2/25/2021 2:	19
14		Completed	2/25/2021 2:	20
15		Completed	2/25/2021 2:	21
16		Completed	2/25/2021 3:	22
17		Completed	2/25/2021 3:	23

TOC-Control L Report

2021_02_25_001.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

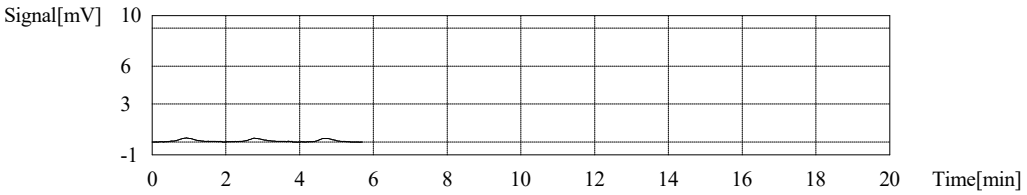
Sample Name:	CAL
Sample ID:	3150171(01-07)
Cal. Curve:	02_25_2021_CAL.2021_02_25_09_13_02.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7577	50uL	1.000	*******		2/25/2021 9:21:39 AM
2	0.6368	50uL	1.000	*******		2/25/2021 9:23:47 AM
3	0.6500	50uL	1.000	*******		2/25/2021 9:25:55 AM

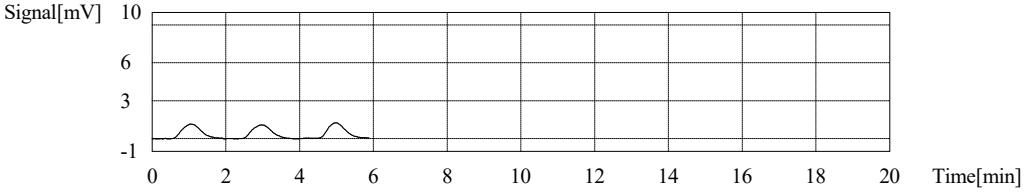
Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	0.6815



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.063	50uL	1.000	*******		2/25/2021 9:34:44 AM
2	3.946	50uL	1.000	*******		2/25/2021 9:37:02 AM
3	3.886	50uL	1.000	*******		2/25/2021 9:39:10 AM

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	3.965

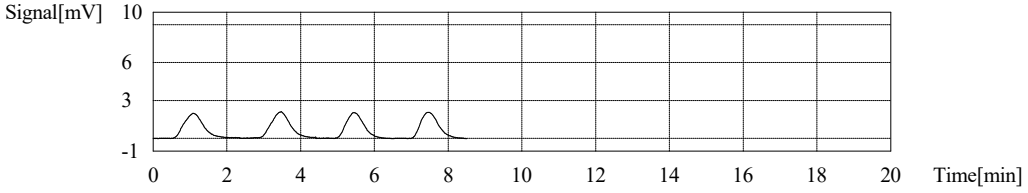


Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.014	50uL	1.000	*******		2/25/2021 9:48:25 AM
2	6.976	50uL	1.000	*******		2/25/2021 9:50:44 AM
3	6.738	50uL	1.000	*******	E	2/25/2021 9:53:02 AM
4	6.989	50uL	1.000	*******		2/25/2021 9:55:18 AM

TOC-Control L Report

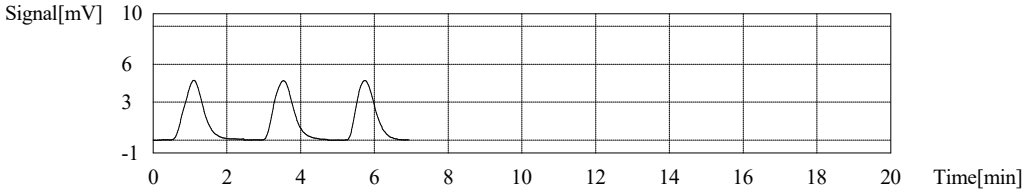
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 6.993



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.70	50uL	1.000	*******		2/25/2021 10:04:35 AM
2	16.99	50uL	1.000	*******		2/25/2021 10:07:06 AM
3	16.40	50uL	1.000	*******		2/25/2021 10:09:32 AM

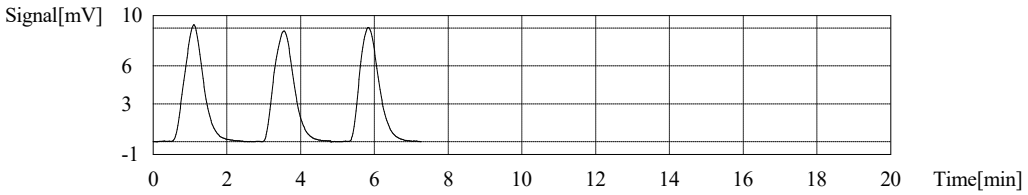
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 16.70



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	32.33	50uL	1.000	*******		2/25/2021 10:18:54 AM
2	32.41	50uL	1.000	*******		2/25/2021 10:21:29 AM
3	32.27	50uL	1.000	*******		2/25/2021 10:24:10 AM

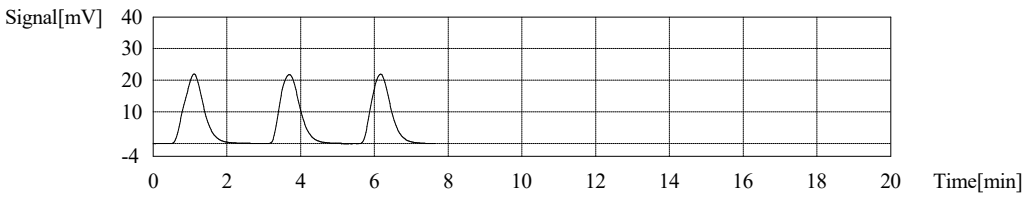
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 32.34



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.83	50uL	1.000	*******		2/25/2021 10:33:42 AM
2	80.51	50uL	1.000	*******		2/25/2021 10:36:25 AM
3	79.09	50uL	1.000	*******		2/25/2021 10:39:12 AM

Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 79.81



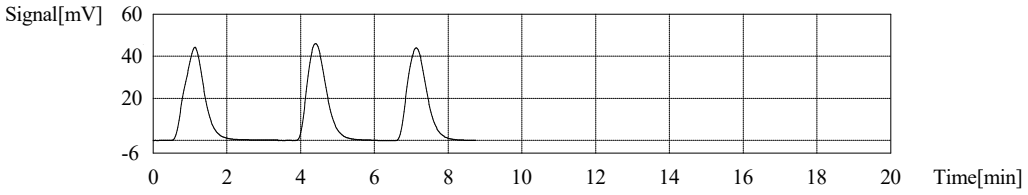
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	162.4	50uL	1.000	*******		2/25/2021 10:49:29 AM
2	163.8	50uL	1.000	*******		2/25/2021 10:52:26 AM
3	159.9	50uL	1.000	*******		2/25/2021 10:55:21 AM

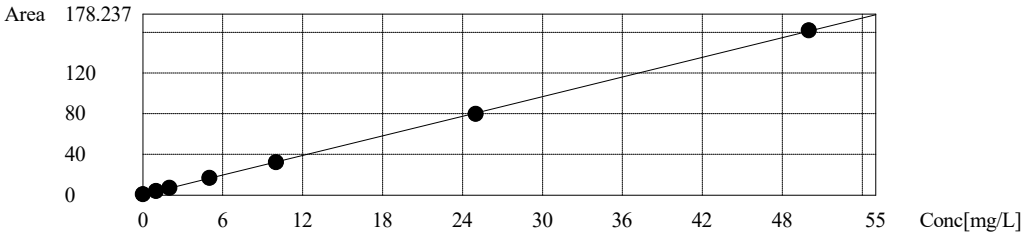
TOC-Control L Report

2021_02_25_001.tlx

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	162.0



Slope:	3.220
Intercept	0.4365
r^2	0.9999
r	1.0000
RSE(%)	N/A
Zero Shift	No



Sample

Sample Name:	ICV
Sample ID:	315017108
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

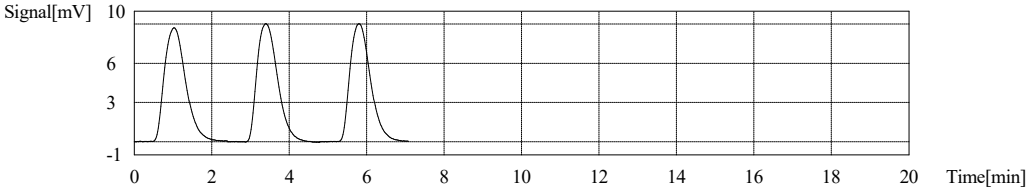
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.04	10.13mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:32:06 AM
2	33.24	10.19mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:34:44 AM
3	32.98	10.11mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:37:17 AM

Mean Area	33.09
Mean Conc.	10.14mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.1140mg/L

1. Det

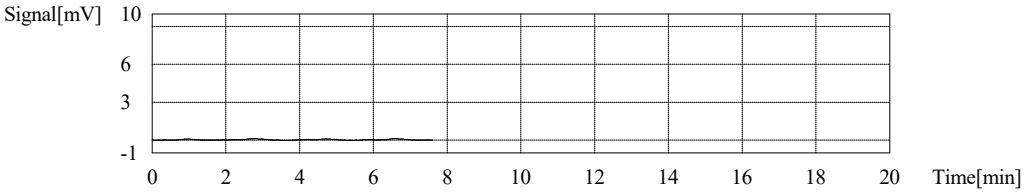
TOC-Control L Report

2021_02_25_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:46:05 AM
2	0.2080	-0.07096mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:48:13 AM
3	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:50:20 AM
4	0.2102	-0.07028mg/L	50uL	1.000	E	02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:52:27 AM

Mean Area 0.06933
Mean Conc. -0.1140mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status	Date / Time
1	Unknown	NPOC	CCV	3100603915	05_10_2021	NPOC:24.2		Completed	5/19/2021 3:
2	Unknown	NPOC	CCB	TOC_W	05_10_2021	NPOC:0.14		Completed	5/19/2021 4:
3	Unknown	NPOC	MBLK-05192021	TOC_W 531	05_10_2021	NPOC:0.09		Completed	5/19/2021 4:
4	Unknown	NPOC	LCS-05192021		05_10_2021	NPOC:9.82		Completed	5/19/2021 4:
5	Unknown	NPOC	LCSD-05192021		05_10_2021	NPOC:9.64		Completed	5/19/2021 4:
6	Unknown	NPOC	HS21050897-01		05_10_2021	NPOC:2.36		Completed	5/19/2021 4:
7	Unknown	NPOC	HS21050897-01MS		05_10_2021	NPOC:12.5		Completed	5/19/2021 5:
8	Unknown	NPOC	HS21050871-01		05_10_2021	NPOC:0.15		Completed	5/19/2021 5:
9	Unknown	NPOC	HS21050888-01		05_10_2021	NPOC:4.34		Completed	5/19/2021 5:
10	Unknown	NPOC	HS21050637-11		05_10_2021	NPOC:2.50		Completed	5/19/2021 5:
11	Unknown	NPOC	HS21050637-12		05_10_2021	NPOC:2.58		Completed	5/19/2021 6:
12	Unknown	NPOC	HS21050637-13		05_10_2021	NPOC:1.03		Completed	5/19/2021 6:
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14	Unknown	NPOC	CCB		05_10_2021	NPOC:0.12		Completed	5/19/2021 6:
15	Unknown	NPOC	HS21050637-14		05_10_2021	NPOC:0.88		Completed	5/19/2021 6:
16	Unknown	NPOC	HS21050637-15		05_10_2021	NPOC:0.99		Completed	5/19/2021 7:
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18	Unknown	NPOC	HS21050637-17		05_10_2021	NPOC:1.00		Completed	5/19/2021 7:
19	Unknown	NPOC	CCV	3100603915	05_10_2021	NPOC:24.1		Completed	5/19/2021 7:
20	Unknown	NPOC	CCB		05_10_2021	NPOC:0.08		Completed	5/19/2021 7:
21	Unknown	NPOC	MBLK-05192021	TOC_W 531	05_10_2021	NPOC:0.06		Completed	5/19/2021 8:
22	Unknown	NPOC	LCS-05192021		05_10_2021	NPOC:9.63		Completed	5/19/2021 8:
23	Unknown	NPOC	LCSD-05192021		05_10_2021	NPOC:9.64		Completed	5/19/2021 8:
24	Unknown	NPOC	HS21050637-18		05_10_2021	NPOC:1.00		Completed	5/19/2021 8:
25	Unknown	NPOC	HS21050637-18MS		05_10_2021	NPOC:11.0		Completed	5/19/2021 8:
26	Unknown	NPOC	HS21050637-19		05_10_2021	NPOC:2.44		Completed	5/19/2021 9:
27	Unknown	NPOC	HS21050637-20		05_10_2021	NPOC:2.51		Completed	5/19/2021 9:
28	Unknown	NPOC	HS21050637-21		05_10_2021	NPOC:2.55		Completed	5/19/2021 9:
29	Unknown	NPOC	HS21050637-22		05_10_2021	NPOC:0.36		Completed	5/19/2021 9:
30	Unknown	NPOC	HS21050637-23		05_10_2021	NPOC:0.26		Completed	5/19/2021 1
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32	Unknown	NPOC	CCB		05_10_2021	NPOC:0.15		Completed	5/19/2021 1
33	Unknown	NPOC	HS21050830-01		05_10_2021	NPOC:0.35		Completed	5/19/2021 1
34	Unknown	NPOC	HS21050851-01		05_10_2021	NPOC:2.42		Completed	5/19/2021 1
35	Unknown	NPOC	HS21050853-01		05_10_2021	NPOC:1.83		Completed	5/19/2021 1
36	Unknown	NPOC	HS21050854-01		05_10_2021	NPOC:7.78		Completed	5/19/2021 1
37	Unknown	NPOC	CCV	3100603915	05_10_2021	NPOC:26.1		Completed	5/19/2021 1
38	Unknown	NPOC	CCB		05_10_2021	NPOC:0.15		Completed	5/19/2021 1
39	Unknown	NPOC	MBLK-05192021	TOC_W 531	05_10_2021	NPOC:0.09		Completed	5/19/2021 1
40	Unknown	NPOC	LCS-05192021		05_10_2021	NPOC:10.2		Completed	5/20/2021 1
41	Unknown	NPOC	LCSD-05192021		05_10_2021	NPOC:10.0		Completed	5/20/2021 1
42	Unknown	NPOC	HS21050689-01		05_10_2021	NPOC:0.96		Completed	5/20/2021 1
43	Unknown	NPOC	HS21050697-01		05_10_2021	NPOC:0.85		Completed	5/20/2021 1
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45	Unknown	NPOC	HS21050697-03MS		05_10_2021	NPOC:12.3		Completed	5/20/2021 1:
46	Unknown	NPOC	HS21050782-01		05_10_2021	NPOC:17.3		Completed	5/20/2021 1:
47	Unknown	NPOC	HS21050850-01		05_10_2021	NPOC:8.04		Completed	5/20/2021 1:
48	Unknown	NPOC	HS21050850-02		05_10_2021	NPOC:7.94		Completed	5/20/2021 1:
49	Unknown	NPOC	CCV	3100603915	05_10_2021	NPOC:26.0		Completed	5/20/2021 2:
50	Unknown	NPOC	CCB		05_10_2021	NPOC:0.12		Completed	5/20/2021 2:

	Vial
1	1
2	2
3	3
4	4
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10	10
11	11
12	12
13	1
14	2
15	13
16	14
17	15
18	16
19	1
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35	28
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37	24
38	25
39	3
40	4
41	5
42	30
43	31
44	32
45	33
46	34
47	35
48	36
49	24
50	25

TOC-Control L Report

Instr.Information

Instrument Options TOC/ASI/IC Unit/
Catalyst Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 3100603915
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

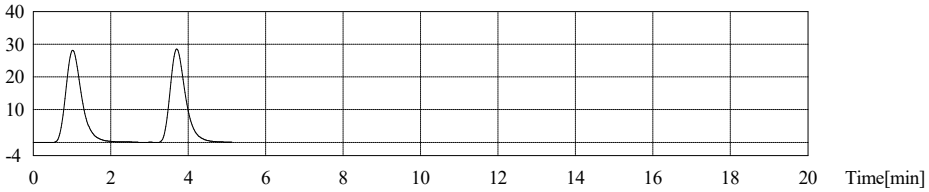
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.27	24.43mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 3:55:04 PM
2	80.09	24.07mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 3:57:48 PM

Mean Area 80.68
Mean Conc. 24.25mg/L



Sample

Sample Name: CCB
Sample ID: TOC_W
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1400mg/L

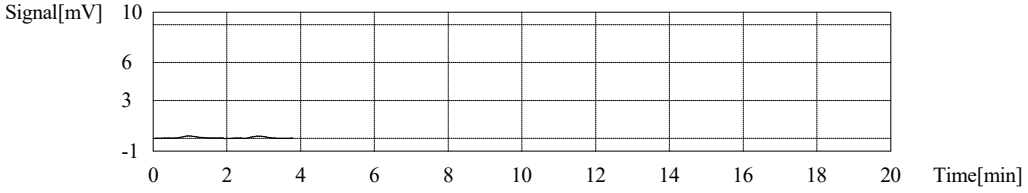
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4493	0.1350mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:06:16 PM
2	0.4825	0.1450mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:09:16 PM

TOC-Control L Report

Mean Area 0.4659
Mean Conc. 0.1400mg/L



Sample

Sample Name: MBLK-05192021
Sample ID: TOC_W 5310B
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

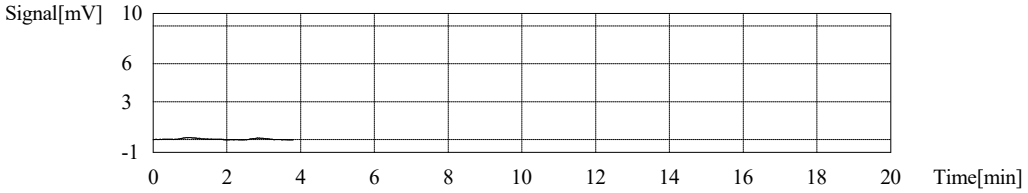
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09625mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3250	0.09768mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:17:14 PM
2	0.3155	0.09482mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:20:14 PM

Mean Area 0.3203
Mean Conc. 0.09625mg/L



Sample

Sample Name: LCS-05192021
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.823mg/L

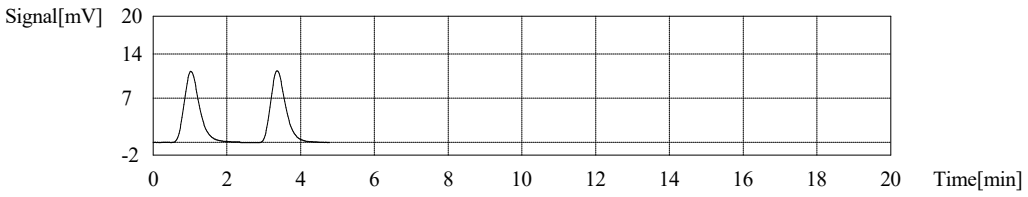
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.68	9.822mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:28:39 PM
2	32.69	9.825mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:31:44 PM

TOC-Control L Report

Mean Area 32.69
Mean Conc. 9.823mg/L



Sample

Sample Name: LCSD-05192021
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

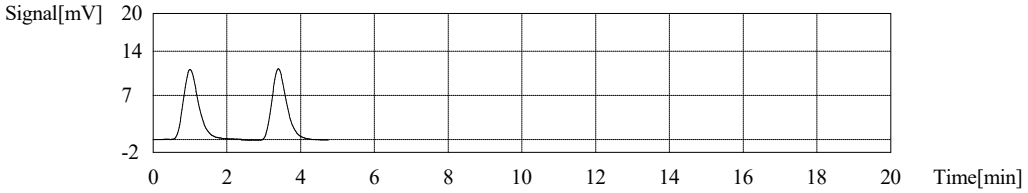
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.649mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.10	9.647mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:40:41 PM
2	32.11	9.650mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:43:40 PM

Mean Area 32.11
Mean Conc. 9.649mg/L



Sample

Sample Name: HS21050897-01
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.368mg/L

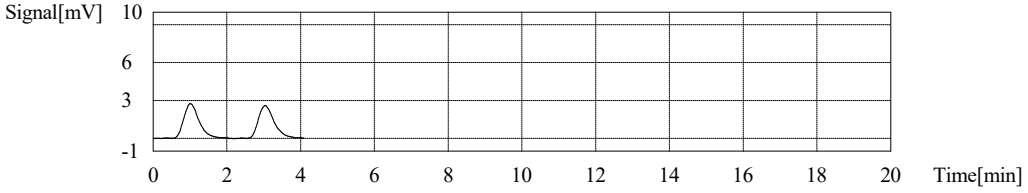
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.939	2.386mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:51:47 PM
2	7.822	2.351mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 4:54:46 PM

TOC-Control L Report

Mean Area 7.880
Mean Conc. 2.368mg/L



Sample

Sample Name: HS21050897-01MS
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

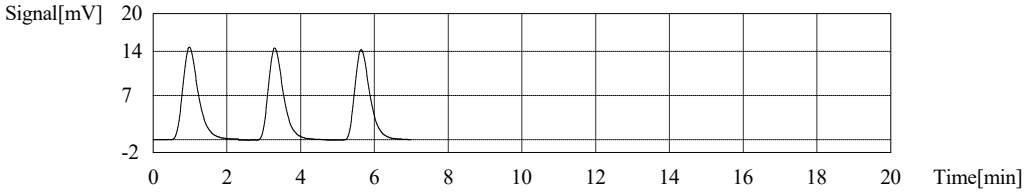
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.23	12.99mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 5:03:09 PM
2	42.01	12.63mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 5:06:11 PM
3	41.23	12.39mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 5:09:09 PM

Mean Area 41.62
Mean Conc. 12.51mg/L



Sample

Sample Name: CCV
Sample ID: 3100603915
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.71mg/L

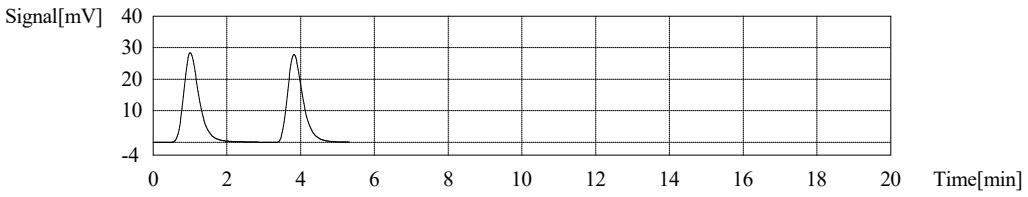
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.11	24.98mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 6:27:48 PM
2	81.32	24.44mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 6:30:33 PM

TOC-Control L Report

Mean Area 82.22
Mean Conc. 24.71mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

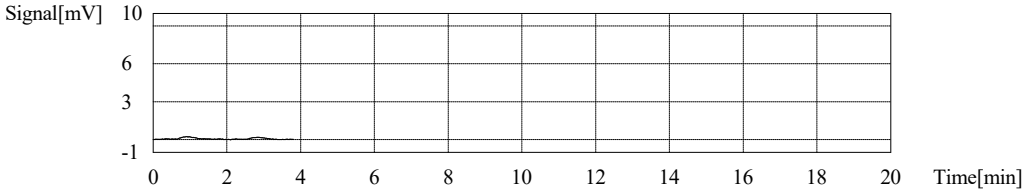
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1295mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4171	0.1254mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 6:38:50 PM
2	0.4448	0.1337mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/19/2021 6:41:50 PM

Mean Area 0.4310
Mean Conc. 0.1295mg/L



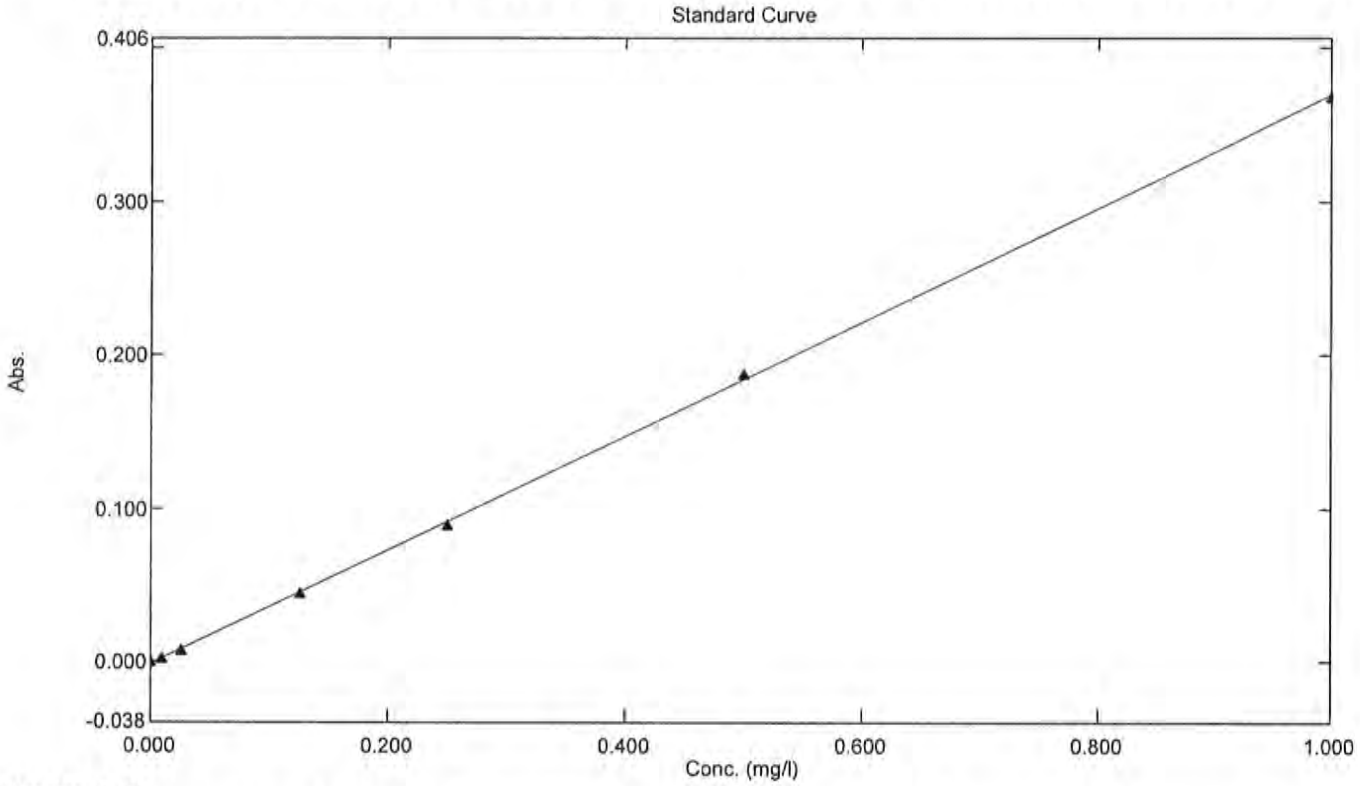
HS21050897 Wet Chem Raw Data (P-ORTHO)

ALS WO# HS21050897

Standard Table Report

06/11/2021 04:13:06 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\O_PO4_UNKNOWN\2021\05192021_P_ORTHO_W.p



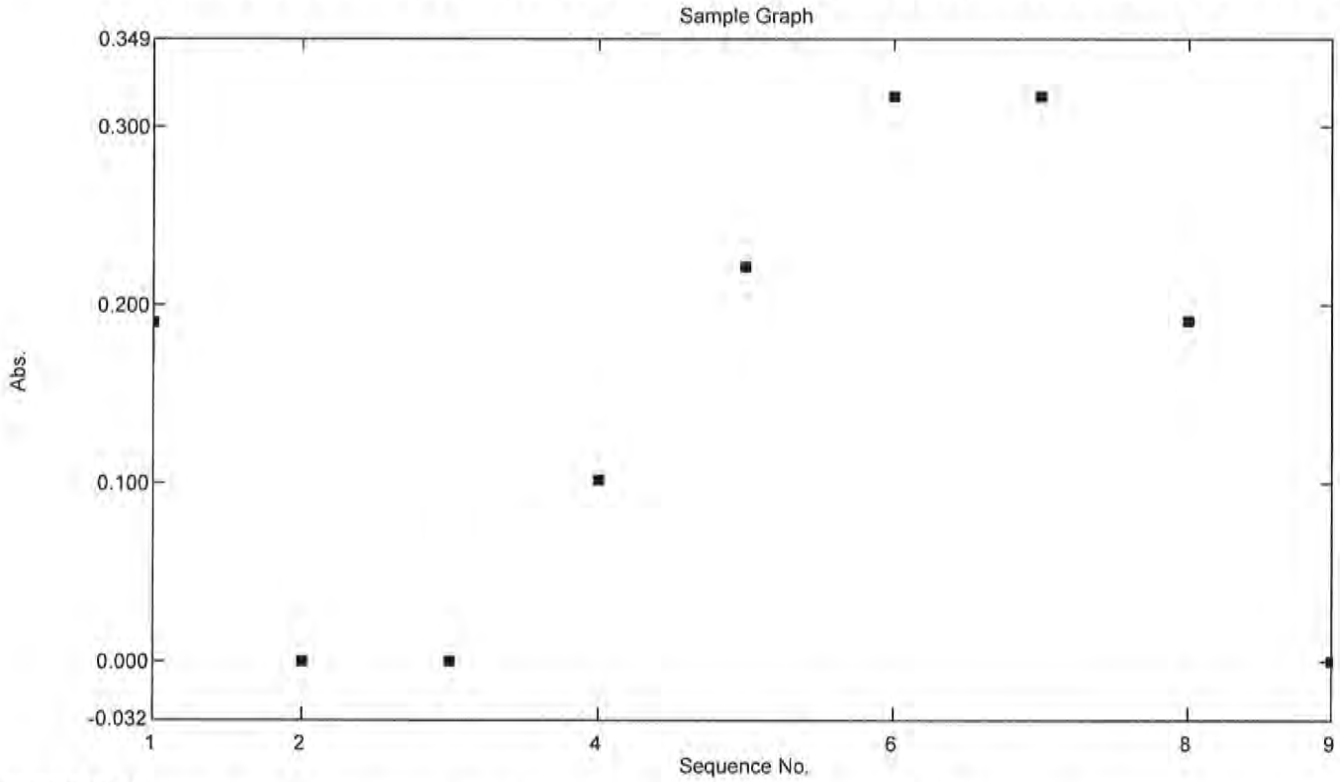
Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.002	1.000	
3	STD3	Standard		0.025	0.007	1.000	
4	STD4	Standard		0.125	0.044	1.000	
5	STD5	Standard		0.250	0.089	1.000	
6	STD6	Standard		0.500	0.188	1.000	
7	STD7	Standard		1.000	0.368	1.000	
8							

Sample Table Report

06/11/2021 04:13:15 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\O_PO4_UNKNOWN\2021\05192021_P_ORTHO_W.



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL650.	Comments
1	CCV	Unknown		05/19/2021	05:36:13 PM	0.516	0.190	316133106 WC-14
2	CCB	Unknown		05/19/2021	05:36:31 PM	0.003	-0.000	316133905 UV-11
3	MBLK	Unknown		05/19/2021	05:36:37 PM	0.003	-0.000	
4	LCS	Unknown		05/19/2021	05:36:56 PM	0.278	0.102	316133105 WC-14
5	HS21050897.01	Unknown		05/19/2021	05:37:46 PM	0.601	0.222	PF-10X
6	HS21050897.01MS	Unknown		05/19/2021	05:38:12 PM	0.858	0.317	PF-10X
7	HS21050897.01MS	Unknown		05/19/2021	05:38:21 PM	0.858	0.317	PF-10X
8	CCV2	Unknown		05/19/2021	05:38:42 PM	0.517	0.191	
9	CCB2	Unknown		05/19/2021	05:38:51 PM	0.002	-0.000	
10								

HS21050897 Wet Chem Raw Data (NIT-AMM_W- E350.3 - ISE)

ALS WO# HS21050897

NIT-AMN- W-ISE 1350.3

ALS Laboratory Group

Logbook **31705**

Ion Selective Electrode Logbook

Analyst: MD			Date: 5/25/21 11:55 AM
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F			
Probe Calibration Date: 5/25/21	Cal Std ID: 316134305 – 1346017		Probe ID: X01-11806
Std Level	mV	Conc., mg/L:	Sodium Thiosulfate ID:
STD 1 (mg/L): 0.2	129.0	0.200	Std Level / mV / Conc., mg/L:
STD 2 (mg/L): 1	91.3	0.998	STD 4 (mg/L): 10 / 34.6 / 9.994
STD 3 (mg/L): 5	52.0	4.998	STD 5 (mg/L): 50 / -6.8 / 49.975
LSC / MS Spike ID: 310060 3921			ICAL Date & Slope: 1000 / -59.3 mV
ICV Cal STD ID: 316134305			
DPD Reagent ID: 310060 3920			

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		10.980			
CCB					0.009			
MBLK					0.008			
LCS					11.201			
HS21050832-01					0.053		+ve	Rechecked
832-01MS					8.934			
832-01MSD					8.899			
897-01					16.183		-ve	
CCV					10.416			
CCB					0.007			
								MD 5/25/21

Batch ID: 384297 / 384299 | Reported By: MD | Reviewed By: JP

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HS21050897 - Sub Perch IV (E2100577)

ALS WO# HS21050897

June 07, 2021 Service Request No:E2100577

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21050897

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory May 19, 2021
For your reference, these analyses have been assigned our service request number **E2100577.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100577
Project:	Perch	**Date Received:**	05/19/21
Sample Matrix:	W		

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 05/19/21.

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:

EQ2100327: 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 batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report. The LCS/DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100577
Project: HS21050897

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100577-001	LH18/24-SP650_051821_BIX	5/18/2021	1400

Service Request Summary

Folder #: **E2100577**
Client Name: ALS Environmental - US
Project Name: HS21050897
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/19/21
Internal Due Date: 6/3/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050897
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10C
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100577-001	LH18/24-SP650_051821_BIX	Water	05/18/21 1400	**IV**

Service Request Summary

Folder #: **E2100577**
Client Name: ALS Environmental - US
Project Name: HS21050897
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/19/21
Internal Due Date: 6/3/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21050897
EDD: No EDD Specified

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10C
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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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

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State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

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:** **16149**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21050897
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21050897-02**	**LH18/24-SP650_051821_BIX**	**Water**	**18 May 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			03 Jun 2021

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: 5.19.21 12:15

Received By: _____ Date/Time: 5/19/21 1215

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist CH

Client/Project ALS-H

Thermometer ID 1231

Date/Time Received: 5/19/21 Initials: PM Date/Time Logged in: 5/19/21 Initials CH

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		5/19/21	1215	CH	1.3	☑
						☐
						☐
						☐

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:

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS

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#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100577-001	LH18/24-SP650_051821_BIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2100590-001	LHSMW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100590-002	LHSMW01-210524-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100590-003	04WW04-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100590-004	04WW08-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100590-005	04WW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100590-006	04WW06-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100590-007	LHSMW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100590-008	04WW11-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100590-009	04WW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100590-010	04WW07-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100590-011	04WW07-210525-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100590-012	04WW09-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100590-013	04WW05-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100590-014	04WW10-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100591-001	LH18/24-SP140_052521	.01	6850/ClO4 DOD			Ground Water	10mL	
17	E2100592-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
18	E2100593-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
19	EQ2100327-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2100327-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2100327-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100327-04	04WW10-210525 MS	.01	6850/ClO4 DOD			Liquid	10mL	
23	EQ2100327-05	04WW10-210525 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100577-001	100.00µL	E2100590-001	100.00µL	E2100590-002	100.00µL	E2100590-003	100.00µL	E2100590-004	100.00µL	E2100590-005	100.00µL
E2100590-006	100.00µL	E2100590-007	100.00µL	E2100590-008	100.00µL	E2100590-009	100.00µL	E2100590-010	100.00µL	E2100590-011	100.00µL
E2100590-012	100.00µL	E2100590-013	100.00µL	E2100590-014	100.00µL	E2100591-001	100.00µL	E2100592-001	100.00µL	E2100593-001	100.00µL
EQ2100327-01	100.00µL	EQ2100327-02	100.00µL	EQ2100327-03	100.00µL	EQ2100327-04	100.00µL	EQ2100327-05	100.00µL		

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100327-02	1.00µL	EQ2100327-03	1.00µL	EQ2100327-04	1.00µL	EQ2100327-05	1.00µL

Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

Preparation Steps

Step: Preparation
Started: 5/27/21 13:04
Finished: 5/27/21 13:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/27/21

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:**	E2100577
Project:	HS21050897	**Date Collected:**	5/18/21 1400
Sample Matrix:	Water	**Date Received:**	5/19/21
Sample Name:	LH18/24-SP650_051821_BIX	**Units:**	µg/L
Lab Code:	E2100577-001	**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	**3.12**		0.100	0.0500	0.0250	1	5/27/21	6/2/21 12:12	380303	725907	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100577
Project:	HS21050897	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100327-01	**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	5/27/21	5/28/21 12:53	380303	725747	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897
Sample Matrix: Water

Service Request: E2100577
Date Analyzed: 5/28/21

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: 380303

	Lab Control Sample EQ2100327-02			Duplicate Lab Control Sample EQ2100327-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.0878	0.100	88	84 - 119	14	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:**	E2100577
Project:	HS21050897	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-02	**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	**0.101**		0.100	0.0500	0.0250	1	5/27/21	5/28/21 13:02	380303	725747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100577
Project:	HS21050897	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-03	**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	**0.0878**	J	0.100	0.0500	0.0250	1	5/27/21	5/28/21 15:59	380303	725747	

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

20210528

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/28/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100033**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210528_008	Perchlorate6850c.lcm	1x	☒	3100810-05	5/28/2021 9:36
2	PERCHLORATE2		20210528_009	Perchlorate6850c.lcm	1x	☒	3100810-06	5/28/2021 9:44
3	PERCHLORATE3		20210528_010	Perchlorate6850c.lcm	1x	☒	3100810-07	5/28/2021 9:53
4	PERCHLORATE4		20210528_011	Perchlorate6850c.lcm	1x	☒	3100810-08	5/28/2021 10:21
5	PERCHLORATE5		20210528_012	Perchlorate6850c.lcm	1x	☒	3100810-09	5/28/2021 10:29
6	PERCHLORATE6		20210528_013	Perchlorate6850c.lcm	1x	☒	3100811-01	5/28/2021 10:38
7	PERCHLORATE7		20210528_014	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 10:46
8	PERCHLORATE8		20210528_015	Perchlorate6850c.lcm	1x	☒	3100811-03	5/28/2021 10:54
9	PERCHLORATE9		20210528_016	Perchlorate6850c.lcm	1x	☒	3100811-04	5/28/2021 11:03
10	PERCHLORATE10		20210528_017	Perchlorate6850c.lcm	1x	☒	3100811-05	5/28/2021 11:11
11	PERCHLORATEICV		20210528_018	Perchlorate6850c.lcm	1x	☒	3100811-06	5/28/2021 11:19
12	IB		20210528_019	Perchlorate6850c.lcm	1x	☒		5/28/2021 11:49
13	IB		20210528_020	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:20
14	ICS		20210528_021	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:28
15	LODV		20210528_022	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:37
16	PERCHLORATE7		20210528_023	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 12:45
17	EQ2100327-01		20210528_024	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:53
18	EQ2100327-02		20210528_025	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:02
19	EQ2100327-03DNU-RR		20210528_026	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:10
20	EQ2100327-04DNU-RR		20210528_027	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:19
21	EQ2100327-05		20210528_028	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:27
22	E2100577-001DNU		20210528_029	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:35
23	E2100590-001		20210528_030	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:44
24	E2100590-002DNU		20210528_031	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:52
25	E2100590-003		20210528_032	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:01
26	E2100590-004		20210528_033	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:09
27	PERCHLORATE7		20210528_034	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 14:17
28	E2100590-005		20210528_035	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:26
29	E2100590-006		20210528_036	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:34
30	E2100590-007		20210528_037	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:43
31	E2100590-008		20210528_038	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:51
32	E2100590-009		20210528_039	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:59
33	E2100590-010		20210528_040	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:08
34	E2100590-011		20210528_041	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:16
35	E2100590-012DNU		20210528_042	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 15:24
36	E2100590-013		20210528_043	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:33
37	E2100590-014		20210528_044	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:41
38	PERCHLORATE7		20210528_045	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 15:50
39	EQ2100327-03		20210528_046	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:59
40	EQ2100327-04		20210528_047	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:07
41	E2100590-012DNU		20210528_048	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 16:15
42	IB		20210528_049	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:24
43	E2100591-001DNU		20210528_050	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	5/28/2021 16:32
44	E2100592-001RR-Carryover		20210528_051	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:41
45	E2100593-001RR-Carryover		20210528_052	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:49
46	E2100378-003		20210528_053	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:57
47	PERCHLORATE7		20210528_054	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 17:06
48								

Initial Calibration - Detailed Report

Calibration ID: EC2100033 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100033-01	PERCHLORATE1	20210528_008	05/28/2021 09:36
02	EC2100033-02	PERCHLORATE2	20210528_009	05/28/2021 09:44
03	EC2100033-03	PERCHLORATE3	20210528_010	05/28/2021 09:53
04	EC2100033-04	PERCHLORATE4	20210528_011	05/28/2021 10:21
05	EC2100033-05	PERCHLORATE5	20210528_012	05/28/2021 10:29
06	EC2100033-06	PERCHLORATE6	20210528_013	05/28/2021 10:38
07	EC2100033-07	PERCHLORATE7	20210528_014	05/28/2021 10:46
08	EC2100033-08	PERCHLORATE8	20210528_015	05/28/2021 10:54
09	EC2100033-09	PERCHLORATE9	20210528_016	05/28/2021 11:03
10	EC2100033-10	PERCHLORATE10	20210528_017	05/28/2021 11:11

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 10.55** **Average RF = 0.1479**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1652	02	0.5000	0.147	03	0.7000	0.1544	04	1.0000	0.1801
05	2.0000	0.1539	06	5.0000	0.1393	07	10.0000	0.1379	08	20.0000	0.1333
09	30.0000	0.1372	10	50.0000	0.1312						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.112	11.7	02	0.5000	0.497	-0.7	03	0.7000	0.730	4.3
04	1.0000	1.22	21.7	05	2.0000	2.08	4.0	06	5.0000	4.71	-5.8
07	10.0000	9.32	-6.8	08	20.0000	18.0	-9.9	09	30.0000	27.8	-7.2
10	50.0000	44.4	-11.3								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100033	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210528_018	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100033-11	T	Average RF	10	9.609	ng/mL	-3.9	<= 15

Insight Report

Method File: I:\LCMS01\DATA\20210528\20210528.lcm

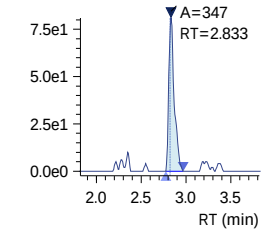
20210528_008

Sample ID: PERCHLORATE1
Date Acquired: 5/28/2021 9:36:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_008.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

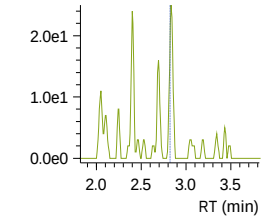
Perchlorate

Conc 0.11324
R#1 30.86 (0.00)

Q 99.00>83.00 (-) 8.10e1



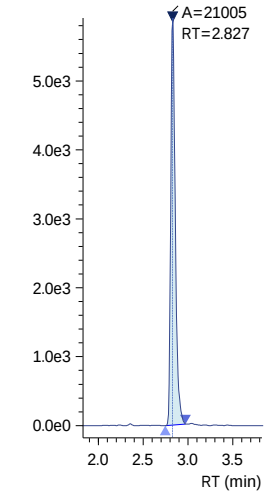
R1 101.00>85.00 (-) 2.50e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.91e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

Method File: I:\LCMS01\DATA\20210528\20210528.lcm
Project File: I:\LCMS01\DATA\20210528\20210528.damlp

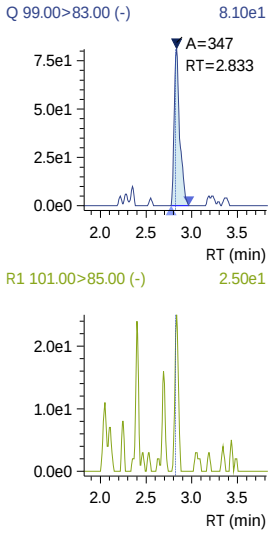
20210528_008

Sample ID: PERCHLORATE1
Date Acquired: 5/28/2021 9:36:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_008.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	347	21005	1	0.112	ng/mL	0.1000	30.86
Sodium Perchlorate-18O4_IS	Auto	2.827	21005	21005	1	1.00	ng/mL	1.0000	----

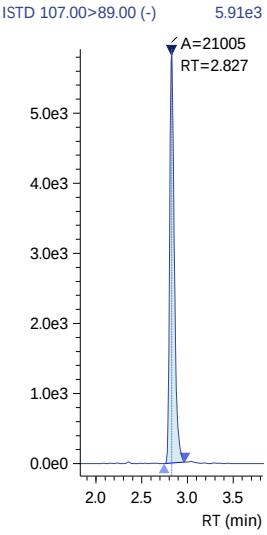
Perchlorate

Conc 0.112
R#1 30.86 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Insight Report

Printed at 6/2/2021 3:26:02 PM

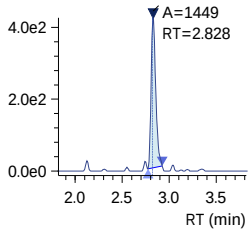
20210528_009

Sample ID: PERCHLORATE2
Date Acquired: 5/28/2021 9:44:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_009.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

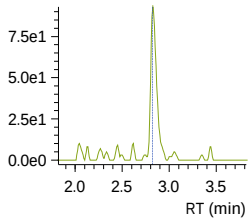
Perchlorate

Conc 0.47273
R#1 21.15 (0.00)

Q 99.00>83.00 (-) 4.27e2



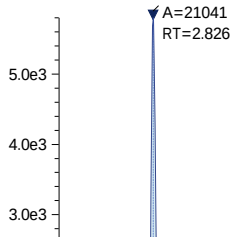
R1 101.00>85.00 (-) 9.30e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.80e3



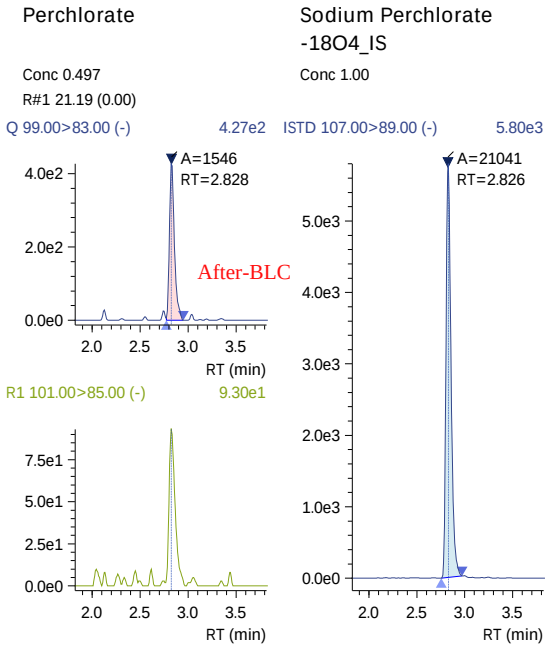
Insight Report

Printed at 6/3/2021 1:54:27 PM

20210528_009

Sample ID: PERCHLORATE2
Date Acquired: 5/28/2021 9:44:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_009.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.828	1546	21041	1	0.497	ng/mL	0.5000	21.19
Sodium Perchlorate-18O4_IS	Auto	2.826	21041	21041	1	1.00	ng/mL	1.0000	----



Before

Insight Report

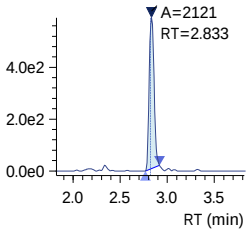
20210528_010

Sample ID: PERCHLORATE3
Date Acquired: 5/28/2021 9:53:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_010.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

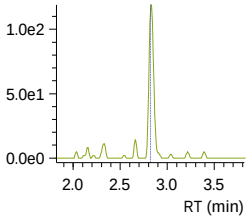
Perchlorate

Conc 0.70091
R#1 20.83 (0.00)

Q 99.00>83.00 (-) 5.91e2



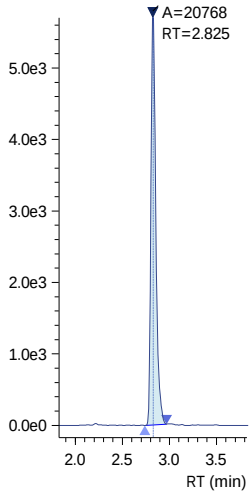
R1 101.00>85.00 (-) 1.19e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.70e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

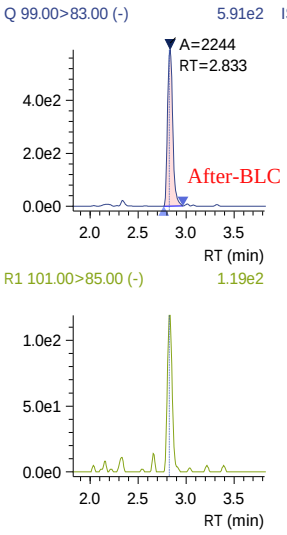
20210528_010

Sample ID: PERCHLORATE3
Date Acquired: 5/28/2021 9:53:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_010.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.833	2244	20768	1	0.730	ng/mL	0.7000	20.89
Sodium Perchlorate-18O4_IS	Auto	2.825	20768	20768	1	1.00	ng/mL	1.0000	----

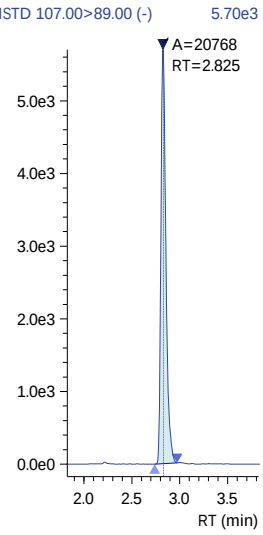
Perchlorate

Conc 0.730
R#1 20.89 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

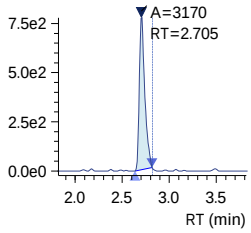
20210528_011

Sample ID: PERCHLORATE4
Date Acquired: 5/28/2021 10:21:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_011.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

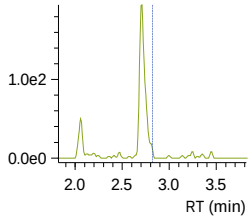
Perchlorate

Conc 1.20329
R#1 23.92 (0.00)

Q 99.00>83.00 (-) 7.79e2



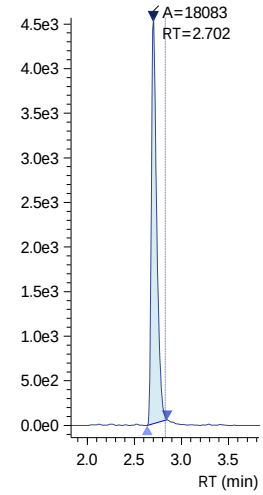
R1 101.00>85.00 (-) 1.95e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.57e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

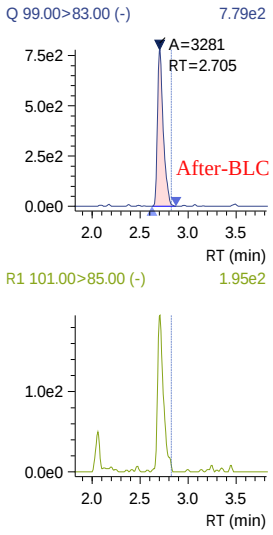
20210528_011

Sample ID: PERCHLORATE4
Date Acquired: 5/28/2021 10:21:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_011.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.705	3281	18219	1	1.22	ng/mL	1.0000	24.51
Sodium Perchlorate-18O4 _IS	M	2.702	18219	18219	1	1.00	ng/mL	1.0000	----

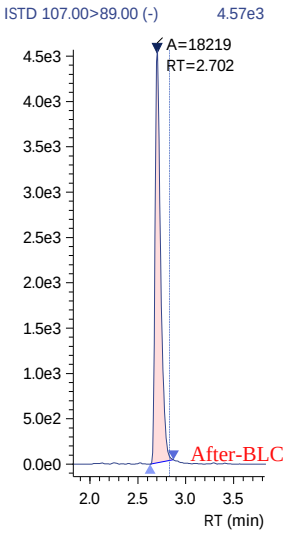
Perchlorate

Conc 1.22
R#1 24.51 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

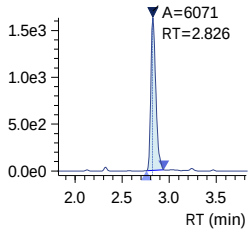
20210528_012

Sample ID: PERCHLORATE5
Date Acquired: 5/28/2021 10:29:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_012.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

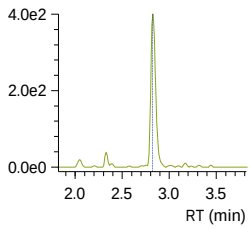
Perchlorate

Conc 2.11246
R#1 24.32 (0.00)

Q 99.00>83.00 (-) 1.64e3



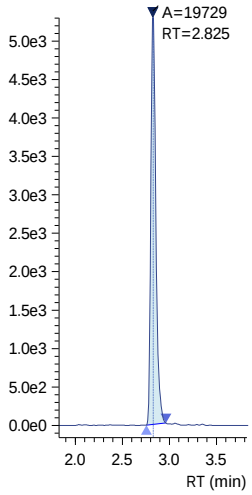
R1 101.00>85.00 (-) 4.01e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.30e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

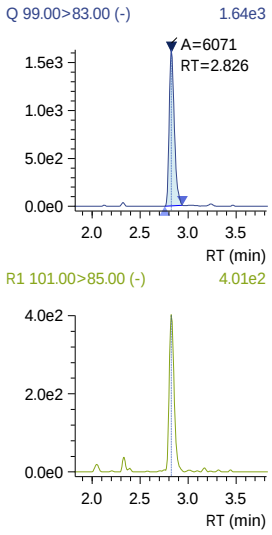
20210528_012

Sample ID: PERCHLORATE5
Date Acquired: 5/28/2021 10:29:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_012.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.826	6071	19729	1	2.08	ng/mL	2.0000	24.32
Sodium Perchlorate-18O4_IS	Auto	2.825	19729	19729	1	1.00	ng/mL	1.0000	----

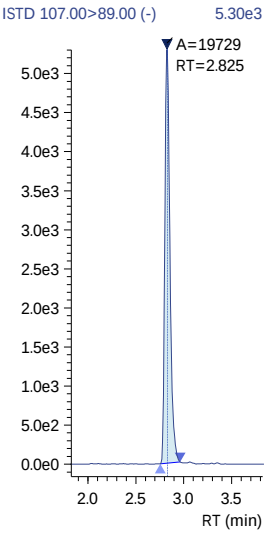
Perchlorate

Conc 2.08
R#1 24.32 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

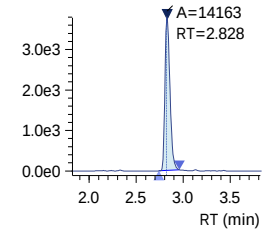
20210528_013

Sample ID: PERCHLORATE6
Date Acquired: 5/28/2021 10:38:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_013.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

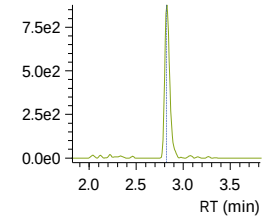
Perchlorate

Conc 4.78263
R#1 23.31 (0.00)

Q 99.00>83.00 (-) 3.78e3



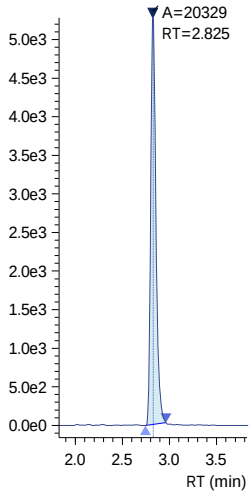
R1 101.00>85.00 (-) 8.78e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.28e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

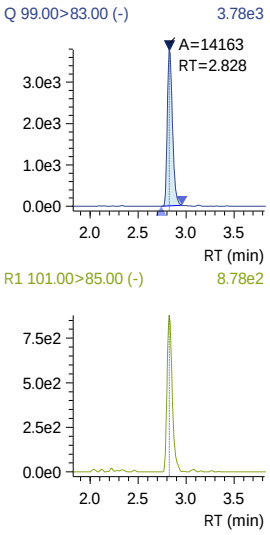
20210528_013

Sample ID: PERCHLORATE6
Date Acquired: 5/28/2021 10:38:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_013.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.828	14163	20329	1	4.71	ng/mL	5.0000	23.31
Sodium Perchlorate-18O4_IS	Auto	2.825	20329	20329	1	1.00	ng/mL	1.0000	----

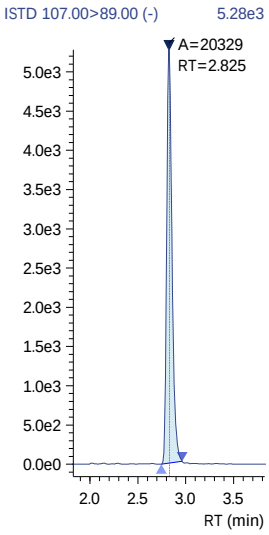
Perchlorate

Conc 4.71
R#1 23.31 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

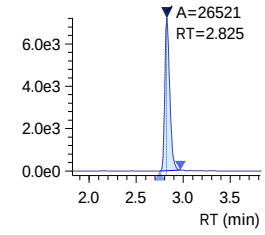
20210528_014

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 10:46:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_014.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

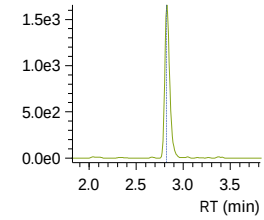
Perchlorate

Conc 9.46934
R#1 22.92 (0.00)

Q 99.00>83.00 (-) 7.24e3



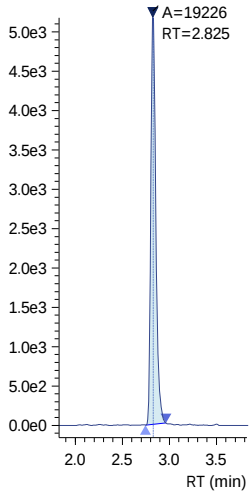
R1 101.00>85.00 (-) 1.66e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.18e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

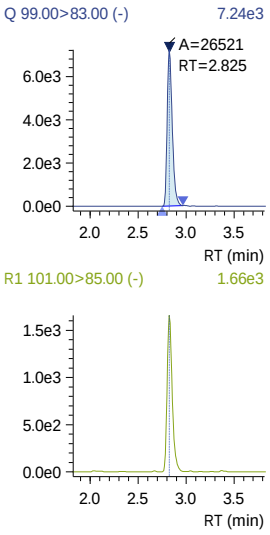
20210528_014

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 10:46:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_014.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.825	26521	19226	1	9.33	ng/mL	10.0000	22.92
Sodium Perchlorate-18O4 _IS	Auto	2.825	19226	19226	1	1.00	ng/mL	1.0000	----

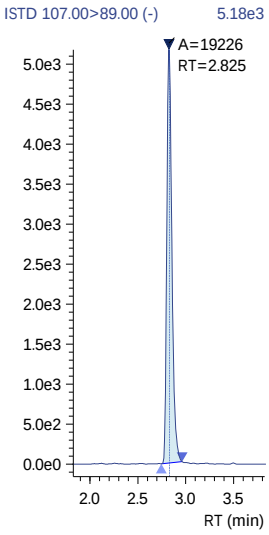
Perchlorate

Conc 9.33
R#1 22.92 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

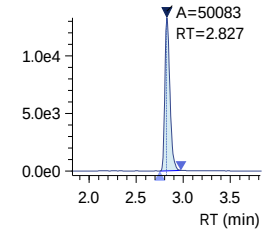
20210528_015

Sample ID: PERCHLORATE8
Date Acquired: 5/28/2021 10:54:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_015.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

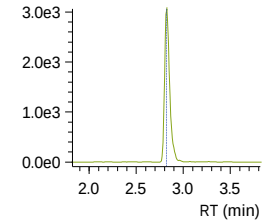
Perchlorate

Conc 18.29528
R#1 23.01 (0.00)

Q 99.00>83.00 (-) 1.33e4



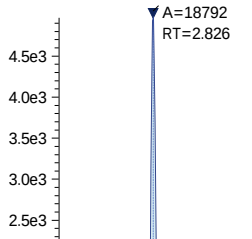
R1 101.00>85.00 (-) 3.06e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.97e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

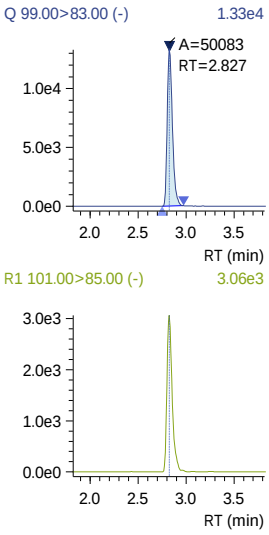
20210528_015

Sample ID: PERCHLORATE8
Date Acquired: 5/28/2021 10:54:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_015.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.827	50083	18792	1	18.0	ng/mL	20.0000	23.01
Sodium Perchlorate-18O4 _IS	Auto	2.826	18792	18792	1	1.00	ng/mL	1.0000	----

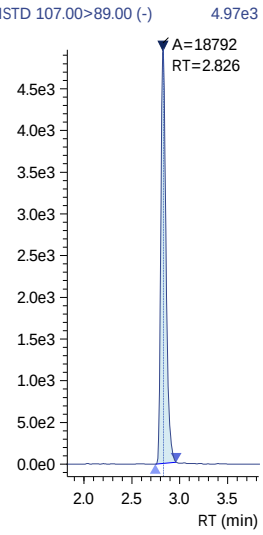
Perchlorate

Conc 18.0
R#1 23.01 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Insight Report

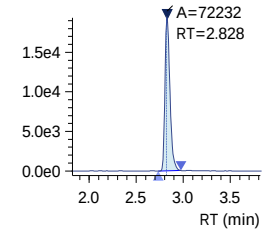
20210528_016

Sample ID: PERCHLORATE9
Date Acquired: 5/28/2021 11:03:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_016.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

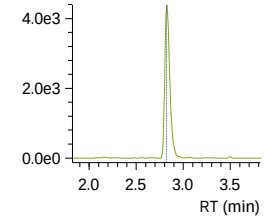
Perchlorate

Conc 28.26444
R#1 22.69 (0.00)

Q 99.00>83.00 (-) 1.94e4



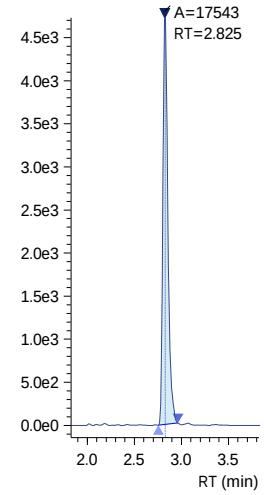
R1 101.00>85.00 (-) 4.39e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.73e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

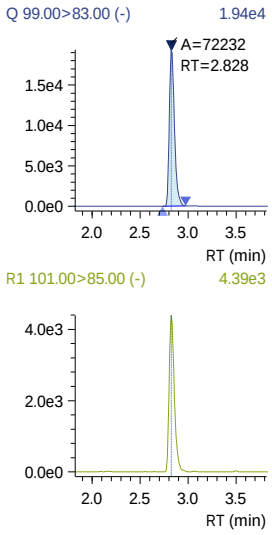
20210528_016

Sample ID: PERCHLORATE9
Date Acquired: 5/28/2021 11:03:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_016.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.828	72232	17543	1	27.8	ng/mL	30.0000	22.69
Sodium Perchlorate-18O4_IS	Auto	2.825	17543	17543	1	1.00	ng/mL	1.0000	----

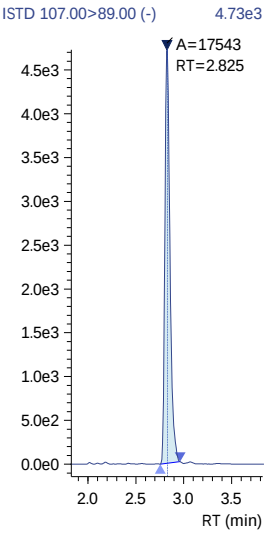
Perchlorate

Conc 27.8
R#1 22.69 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

Printed at 6/2/2021 3:26:02 PM

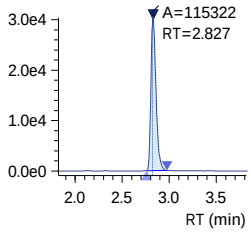
20210528_017

Sample ID: PERCHLORATE10
Date Acquired: 5/28/2021 11:11:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_017.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

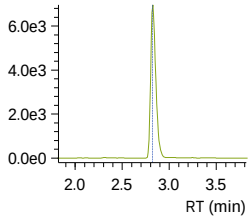
Perchlorate

Conc 45.04836
R#1 22.92 (0.00)

Q 99.00>83.00 (-) 3.04e4



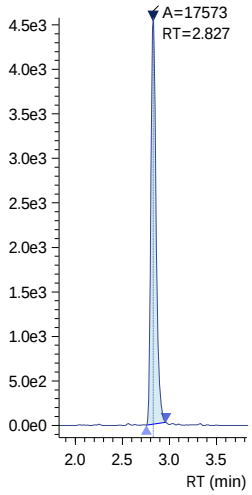
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.58e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

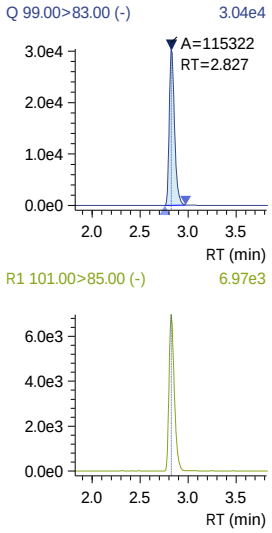
20210528_017

Sample ID: PERCHLORATE10
Date Acquired: 5/28/2021 11:11:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_017.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.827	115322	17573	1	44.4	ng/mL	50.0000	22.92
Sodium Perchlorate-18O4_IS	Auto	2.827	17573	17573	1	1.00	ng/mL	1.0000	----

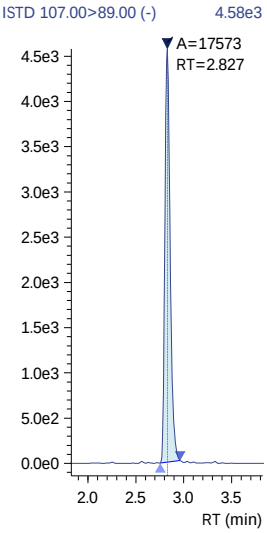
Perchlorate

Conc 44.4
R#1 22.92 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

Printed at 6/2/2021 3:26:02 PM

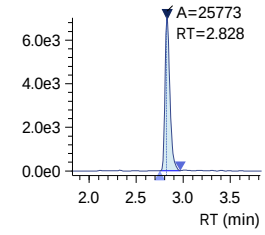
20210528_018

Sample ID: PERCHLORATEICV
Date Acquired: 5/28/2021 11:19:58 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_018.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

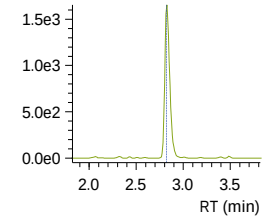
Perchlorate

Conc 9.75937
R#1 23.57 (0.00)

Q 99.00>83.00 (-) 7.03e3



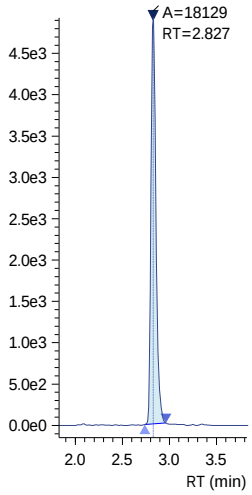
R1 101.00>85.00 (-) 1.66e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.93e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

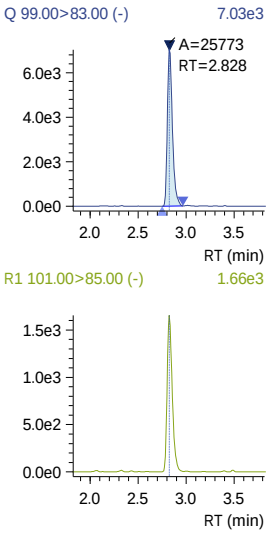
20210528_018

Sample ID: PERCHLORATEICV
Date Acquired: 5/28/2021 11:19:58 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_018.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.828	25773	18129	1	9.61	ng/mL	10.0000	23.57
Sodium Perchlorate-18O4 _IS	Auto	2.827	18129	18129	1	1.00	ng/mL	1.0000	----

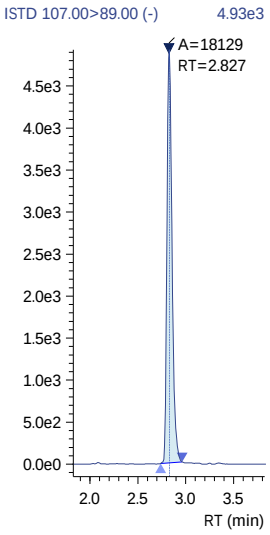
Perchlorate

Conc 9.61
R#1 23.57 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



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

20210528

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/28/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100033**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210528_008	Perchlorate6850c.lcm	1x	☒	3100810-05	5/28/2021 9:36
2	PERCHLORATE2		20210528_009	Perchlorate6850c.lcm	1x	☒	3100810-06	5/28/2021 9:44
3	PERCHLORATE3		20210528_010	Perchlorate6850c.lcm	1x	☒	3100810-07	5/28/2021 9:53
4	PERCHLORATE4		20210528_011	Perchlorate6850c.lcm	1x	☒	3100810-08	5/28/2021 10:21
5	PERCHLORATE5		20210528_012	Perchlorate6850c.lcm	1x	☒	3100810-09	5/28/2021 10:29
6	PERCHLORATE6		20210528_013	Perchlorate6850c.lcm	1x	☒	3100811-01	5/28/2021 10:38
7	PERCHLORATE7		20210528_014	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 10:46
8	PERCHLORATE8		20210528_015	Perchlorate6850c.lcm	1x	☒	3100811-03	5/28/2021 10:54
9	PERCHLORATE9		20210528_016	Perchlorate6850c.lcm	1x	☒	3100811-04	5/28/2021 11:03
10	PERCHLORATE10		20210528_017	Perchlorate6850c.lcm	1x	☒	3100811-05	5/28/2021 11:11
11	PERCHLORATEICV		20210528_018	Perchlorate6850c.lcm	1x	☒	3100811-06	5/28/2021 11:19
12	IB		20210528_019	Perchlorate6850c.lcm	1x	☒		5/28/2021 11:49
13	IB		20210528_020	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:20
14	ICS		20210528_021	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:28
15	LODV		20210528_022	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:37
16	PERCHLORATE7		20210528_023	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 12:45
17	EQ2100327-01		20210528_024	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:53
18	EQ2100327-02		20210528_025	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:02
19	EQ2100327-03DNU-RR		20210528_026	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:10
20	EQ2100327-04DNU-RR		20210528_027	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:19
21	EQ2100327-05		20210528_028	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:27
22	E2100577-001DNU		20210528_029	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:35
23	E2100590-001		20210528_030	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:44
24	E2100590-002DNU		20210528_031	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:52
25	E2100590-003		20210528_032	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:01
26	E2100590-004		20210528_033	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:09
27	PERCHLORATE7		20210528_034	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 14:17
28	E2100590-005		20210528_035	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:26
29	E2100590-006		20210528_036	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:34
30	E2100590-007		20210528_037	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:43
31	E2100590-008		20210528_038	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:51
32	E2100590-009		20210528_039	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:59
33	E2100590-010		20210528_040	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:08
34	E2100590-011		20210528_041	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:16
35	E2100590-012DNU		20210528_042	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 15:24
36	E2100590-013		20210528_043	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:33
37	E2100590-014		20210528_044	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:41
38	PERCHLORATE7		20210528_045	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 15:50
39	EQ2100327-03		20210528_046	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:59
40	EQ2100327-04		20210528_047	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:07
41	E2100590-012DNU		20210528_048	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 16:15
42	IB		20210528_049	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:24
43	E2100591-001DNU		20210528_050	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	5/28/2021 16:32
44	E2100592-001RR-Carryover		20210528_051	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:41
45	E2100593-001RR-Carryover		20210528_052	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:49
46	E2100378-003		20210528_053	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:57
47	PERCHLORATE7		20210528_054	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 17:06
48								

20210602

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/28/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100033**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	ICS		20210602_007	Perchlorate6850c.lcm	1x	☒		6/2/2021 10:32
2	PERCHLORATE7		20210602_009	Perchlorate6850c.lcm	1x	☒	3100811-02	6/2/2021 10:49
3	LODV		20210602_010	Perchlorate6850c.lcm	1x	☒		6/2/2021 11:46
4	E2100577-001		20210602_011	Perchlorate6850c.lcm	1x	☒		6/2/2021 12:12
5	E2100590-002		20210602_012	Perchlorate6850c.lcm	1x	☒		6/2/2021 12:20
6	E2100590-012DNU		20210602_013	Perchlorate6850c.lcm	1x	☒	Internal Standard Failed	6/2/2021 12:29
7	E2100378-003		20210602_014	Perchlorate6850c.lcm	1x	☒		6/2/2021 12:37
8	E2100592-001DNU-E		20210602_015	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	6/2/2021 12:46
9	E2100593-001DNU-E		20210602_016	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	6/2/2021 12:54
10	E2100591-001X200		20210602_017	Perchlorate6850c.lcm	200x	☒		6/2/2021 13:02
11	PERCHLORATE7		20210602_018	Perchlorate6850c.lcm	1x	☒	3100811-02	6/2/2021 13:11
12	E2100592-001X5		20210602_019	Perchlorate6850c.lcm	5x	☒		6/2/2021 13:28
13	E2100593-001X10		20210602_020	Perchlorate6850c.lcm	10x	☒		6/2/2021 14:33
14	E2100590-012X10		20210602_021	Perchlorate6850c.lcm	10x	☒		6/2/2021 14:41
15	PERCHLORATE7		20210602_022	Perchlorate6850c.lcm	1x	☒	3100811-02	6/2/2021 14:49
16								
17								
18								
19								
20								
21								

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 5/28/21

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\20210528\20210528_023

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.51	0.1479	0.1406	-4.9	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 5/28/21

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\20210528\20210528_034

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.71	0.1479	0.1436	-3.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 5/28/21

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\20210528\20210528_045

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.25	0.1479	0.1369	-7.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 5/28/21

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\20210528\20210528_054

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.45	0.1479	0.1398	-5.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 6/ 2/21

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\20210602\20210602_009

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725907
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1479	0.1353	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 6/ 2/21

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\20210602\20210602_018

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725907
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.16	0.1479	0.1354	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21050897

Service Request: E2100577
Date Analyzed: 6/ 2/21

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\20210602\20210602_022

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725907
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1479	0.1352	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100577
Project:	HS21050897	**Date Analyzed:**	5/28/21 12:45

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_023	**Lab Code:**	EQ2100331-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-01	17,843	2.82
Method Blank	EQ2100327-01	17,176	2.82
Lab Control Sample	EQ2100327-02	18,111	2.82

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:**	E2100577
Project:	HS21050897	**Date Analyzed:**	5/28/21 14:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_034	**Lab Code:**	EQ2100331-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-02	15,477	2.82

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:**	E2100577
Project:	HS21050897	**Date Analyzed:**	5/28/21 15:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_045	**Lab Code:**	EQ2100331-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-03	14,737	2.83
Duplicate Lab Control Sample	EQ2100327-03	14,821	2.70

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:**	E2100577
Project:	HS21050897	**Date Analyzed:**	5/28/21 17:06

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_054	**Lab Code:**	EQ2100331-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-04	15,489	2.83

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:**	E2100577
Project:	HS21050897	**Date Analyzed:**	6/2/21 10:49

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210602\20210602_009	**Lab Code:**	EQ2100335-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725907
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100335-01	17,848	2.80
LH18/24-SP650_051821_BIX	E2100577-001	17,076	2.68

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:**	E2100577
Project:	HS21050897	**Date Analyzed:**	6/2/21 13:11

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210602\20210602_018	**Lab Code:**	EQ2100335-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725907
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100335-02	15,806	2.80

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:**	E2100577
Project:	HS21050897	**Date Analyzed:**	6/2/21 14:49

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210602\20210602_022	**Lab Code:**	EQ2100335-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725907
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100335-03	15,791	2.80

Results flagged with an asterisk (*) indicate values outside control criteria.

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

WorkOrder: HS21050898

Longhorn GW Treatment Plant Bi Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

10-Jun-2021

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

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  - Trip Blank
  - Dates Report
  - QC
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HS21050898 Longhorn GW Treatment Plant Bi Weekly Samples Final

ALS WO# HS21050898

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 03, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21050898**

Laboratory Results for: **Longhorn GW Treatment Plant Bi Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on May 19, 2021 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: DAYNA.FISHER
Ragen Giga
Project Manager

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
Work Order: HS21050898

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21050898-01	LH18/24-SP650_051821	Water		18-May-2021 14:00	19-May-2021 09:30	☐
HS21050898-02	Trip Blank	Water	CG-121520-125	18-May-2021 14:00	19-May-2021 09:30	☐

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Bi Weekly Samples
Work Order: HS21050898

GCMS Volatiles by Method SW8260

Batch ID: R384157

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9056

Batch ID: R384890

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21050898
Sample ID: LH18/24-SP650_051821 Lab ID:HS21050898-01
Collection Date: 18-May-2021 14:00 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	21-May-2021 12:39
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 12:39
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 12:39
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 12:39
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 12:39
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 12:39
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	21-May-2021 12:39
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	21-May-2021 12:39
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	21-May-2021 12:39
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	21-May-2021 12:39
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	21-May-2021 12:39
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 12:39
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21050898
Sample ID: LH18/24-SP650_051821 Lab ID:HS21050898-01
Collection Date: 18-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
cis-1,2-Dichloroethene	**7.8**		**0.20**	**0.50**	**1.0**	**ug/L**	1	21-May-2021 12:39
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	21-May-2021 12:39
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	21-May-2021 12:39
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	21-May-2021 12:39
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	21-May-2021 12:39
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 12:39
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
Trichloroethene	**2.6**		**0.20**	**0.50**	**1.0**	**ug/L**	1	21-May-2021 12:39
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 12:39
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 12:39
Surr: 1,2-Dichloroethane-d4	*93.1*			**0**	*81-118*	*%REC*	*1*	*21-May-2021 12:39*
Surr: 4-Bromofluorobenzene	*90.0*			**0**	*85-114*	*%REC*	*1*	*21-May-2021 12:39*
Surr: Dibromofluoromethane	*90.6*			**0**	*80-119*	*%REC*	*1*	*21-May-2021 12:39*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*21-May-2021 12:39*
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Chloride	**429**		**4.00**	**10.0**	**10.0**	**mg/L**	20	03-Jun-2021 02:30
Sulfate	**28.4**		**0.200**	**0.500**	**0.500**	**mg/L**	1	03-Jun-2021 02:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21050898
Sample ID: Trip Blank Lab ID:HS21050898-02
Collection Date: 18-May-2021 14:00 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	21-May-2021 13:00
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 13:00
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 13:00
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 13:00
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 13:00
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 13:00
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	21-May-2021 13:00
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	21-May-2021 13:00
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	21-May-2021 13:00
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	21-May-2021 13:00
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	21-May-2021 13:00
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	21-May-2021 13:00
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder:HS21050898
Sample ID: Trip Blank
Lab ID:HS21050898-02
Collection Date: 18-May-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	21-May-2021 13:00
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	21-May-2021 13:00
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	21-May-2021 13:00
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	21-May-2021 13:00
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	21-May-2021 13:00
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	21-May-2021 13:00
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	21-May-2021 13:00
Surr: 1,2-Dichloroethane-d4	*92.2*			**0**	*81-118*	*%REC*	*1*	*21-May-2021 13:00*
Surr: 4-Bromofluorobenzene	*88.2*			**0**	*85-114*	*%REC*	*1*	*21-May-2021 13:00*
Surr: Dibromofluoromethane	*90.6*			**0**	*80-119*	*%REC*	*1*	*21-May-2021 13:00*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*21-May-2021 13:00*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R384157 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21050898-01	LH18/24-SP650_051821	18 May 2021 14:00			21 May 2021 12:39	1
HS21050898-02	Trip Blank	18 May 2021 14:00			21 May 2021 13:00	1
Batch ID: R384890 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21050898-01	LH18/24-SP650_051821	18 May 2021 14:00			03 Jun 2021 02:30	20
HS21050898-01	LH18/24-SP650_051821	18 May 2021 14:00			03 Jun 2021 02:23	1

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210521** Units: **ug/L** Analysis Date: **21-May-2021 12:18**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104959** 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	0.50	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	0.50	1.0								U
1,1-Dichloroethene	0.50	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	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	1.0	1.0								U
1,2-Dichloroethane	0.50	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	0.50	1.0								U
2-Butanone	1.0	2.0								U
2-Chlorotoluene	1.0	1.0								U
2-Hexanone	2.0	2.0								U
4-Chlorotoluene	1.0	1.0								U
4-Isopropyltoluene	1.0	1.0								U
4-Methyl-2-pentanone	2.0	2.0								U
Acetone	2.0	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	1.0	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	1.0	1.0								U
Bromomethane	1.0	1.0								U

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210521** Units: **ug/L** Analysis Date: **21-May-2021 12:18**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104959** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2.0	2.0								U
Carbon tetrachloride	1.0	1.0								U
Chlorobenzene	1.0	1.0								U
Chloroethane	1.0	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	1.0	1.0								U
Dibromomethane	0.50	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	2.0	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	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	1.0	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*46.42*	*1.0*	*50*	*0*	*92.8*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*45.45*	*1.0*	*50*	*0*	*90.9*	*85 - 114*				
Surr: Dibromofluoromethane	*45.52*	*1.0*	*50*	*0*	*91.0*	*80 - 119*				
Surr: Toluene-d8	*54.86*	*1.0*	*50*	*0*	*110*	*89 - 112*				

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210521** Units: **ug/L** Analysis Date: **21-May-2021 11:36**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104958** 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	19.82	1.0	20	0	99.1	78 - 124				
1,1,1-Trichloroethane	19.32	1.0	20	0	96.6	74 - 131				
1,1,2,2-Tetrachloroethane	19.55	1.0	20	0	97.7	71 - 121				
1,1,2-Trichloroethane	19.43	1.0	20	0	97.1	80 - 119				
1,1-Dichloroethane	18.87	1.0	20	0	94.4	77 - 125				
1,1-Dichloroethene	20.04	1.0	20	0	100	71 - 131				
1,1-Dichloropropene	19.3	1.0	20	0	96.5	78 - 125				
1,2,3-Trichlorobenzene	20.02	1.0	20	0	100	69 - 129				
1,2,3-Trichloropropane	19.19	1.0	20	0	95.9	73 - 122				
1,2,4-Trichlorobenzene	20.12	1.0	20	0	101	69 - 130				
1,2,4-Trimethylbenzene	17.9	1.0	20	0	89.5	76 - 124				
1,2-Dibromo-3-chloropropane	20.26	1.0	20	0	101	62 - 128				
1,2-Dibromoethane	19.66	1.0	20	0	98.3	77 - 121				
1,2-Dichlorobenzene	18.21	1.0	20	0	91.0	80 - 119				
1,2-Dichloroethane	20.32	1.0	20	0	102	73 - 128				
1,2-Dichloropropane	18.99	1.0	20	0	94.9	78 - 122				
1,3,5-Trimethylbenzene	17.9	1.0	20	0	89.5	75 - 124				
1,3-Dichlorobenzene	18.63	1.0	20	0	93.2	80 - 119				
1,3-Dichloropropane	19.72	1.0	20	0	98.6	80 - 119				
1,4-Dichlorobenzene	19.19	1.0	20	0	96.0	79 - 118				
2,2-Dichloropropane	19.55	1.0	20	0	97.8	60 - 139				
2-Butanone	38.32	2.0	40	0	95.8	56 - 143				
2-Chlorotoluene	18.06	1.0	20	0	90.3	79 - 122				
2-Hexanone	39.83	2.0	40	0	99.6	57 - 139				
4-Chlorotoluene	18.1	1.0	20	0	90.5	78 - 122				
4-Isopropyltoluene	17.44	1.0	20	0	87.2	77 - 127				
4-Methyl-2-pentanone	38.7	2.0	40	0	96.7	67 - 130				
Acetone	49.44	2.0	40	0	124	39 - 160				
Benzene	19.83	1.0	20	0	99.1	79 - 120				
Bromobenzene	19.46	1.0	20	0	97.3	80 - 120				
Bromochloromethane	19.63	1.0	20	0	98.1	78 - 123				
Bromodichloromethane	19.28	1.0	20	0	96.4	79 - 125				
Bromoform	19.62	1.0	20	0	98.1	66 - 130				
Bromomethane	24.38	1.0	20	0	122	53 - 141				

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210521** Units: **ug/L** Analysis Date: **21-May-2021 11:36**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104958** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	39.99	2.0	40	0	100.0	64 - 133				
Carbon tetrachloride	18	1.0	20	0	90.0	72 - 136				
Chlorobenzene	19.56	1.0	20	0	97.8	82 - 118				
Chloroethane	23.77	1.0	20	0	119	60 - 138				
Chloroform	18.24	1.0	20	0	91.2	79 - 124				
Chloromethane	20.21	1.0	20	0	101	50 - 139				
cis-1,2-Dichloroethene	18.93	1.0	20	0	94.6	78 - 123				
cis-1,3-Dichloropropene	19.44	1.0	20	0	97.2	75 - 124				
Dibromochloromethane	19.93	1.0	20	0	99.7	74 - 126				
Dibromomethane	19.36	1.0	20	0	96.8	79 - 123				
Dichlorodifluoromethane	19.88	1.0	20	0	99.4	32 - 152				
Ethylbenzene	19.68	1.0	20	0	98.4	79 - 121				
Hexachlorobutadiene	21.28	1.0	20	0	106	66 - 134				
Isopropylbenzene	18.54	1.0	20	0	92.7	72 - 131				
m,p-Xylene	38.51	2.0	40	0	96.3	80 - 121				
Methylene chloride	18.86	2.0	20	0	94.3	74 - 124				
Naphthalene	20.47	1.0	20	0	102	61 - 128				
n-Butylbenzene	18.05	1.0	20	0	90.2	75 - 128				
n-Propylbenzene	18.35	1.0	20	0	91.8	76 - 126				
o-Xylene	19.37	1.0	20	0	96.9	78 - 122				
sec-Butylbenzene	16.82	1.0	20	0	84.1	77 - 126				
Styrene	18.93	1.0	20	0	94.6	78 - 123				
tert-Butylbenzene	16.94	1.0	20	0	84.7	78 - 124				
Tetrachloroethene	19.51	1.0	20	0	97.5	74 - 129				
Toluene	20.32	1.0	20	0	102	80 - 121				
trans-1,2-Dichloroethene	19.07	1.0	20	0	95.4	75 - 124				
trans-1,3-Dichloropropene	20.79	1.0	20	0	104	73 - 127				
Trichloroethene	19.37	1.0	20	0	96.8	79 - 123				
Trichlorofluoromethane	19.88	1.0	20	0	99.4	65 - 141				
Vinyl chloride	19.85	1.0	20	0	99.3	58 - 137				
Surr: 1,2-Dichloroethane-d4	*49.49*	*1.0*	*50*	*0*	*99.0*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.65*	*1.0*	*50*	*0*	*97.3*	*85 - 114*				
Surr: Dibromofluoromethane	*48.13*	*1.0*	*50*	*0*	*96.3*	*80 - 119*				
Surr: Toluene-d8	*49.29*	*1.0*	*50*	*0*	*98.6*	*89 - 112*				

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21050972-03MS** Units: **ug/L** Analysis Date: **21-May-2021 14:04**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104964** 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	19.19	1.0	20	0	95.9	78 - 124				
1,1,1-Trichloroethane	18.78	1.0	20	0	93.9	74 - 131				
1,1,2,2-Tetrachloroethane	19.81	1.0	20	0	99.1	71 - 121				
1,1,2-Trichloroethane	18.44	1.0	20	0	92.2	80 - 119				
1,1-Dichloroethane	16.82	1.0	20	0	84.1	77 - 125				
1,1-Dichloroethene	19.9	1.0	20	0	99.5	71 - 131				
1,1-Dichloropropene	19.92	1.0	20	0	99.6	78 - 125				
1,2,3-Trichlorobenzene	20.34	1.0	20	0	102	69 - 129				
1,2,3-Trichloropropane	19.25	1.0	20	0	96.3	73 - 122				
1,2,4-Trichlorobenzene	19.96	1.0	20	0	99.8	69 - 130				
1,2,4-Trimethylbenzene	20.69	1.0	20	0	103	76 - 124				
1,2-Dibromo-3-chloropropane	21.3	1.0	20	0	106	62 - 128				
1,2-Dibromoethane	19.68	1.0	20	0	98.4	77 - 121				
1,2-Dichlorobenzene	19.24	1.0	20	0	96.2	80 - 119				
1,2-Dichloroethane	18.82	1.0	20	0	94.1	73 - 128				
1,2-Dichloropropane	17.89	1.0	20	0	89.4	78 - 122				
1,3,5-Trimethylbenzene	20.78	1.0	20	0	104	75 - 124				
1,3-Dichlorobenzene	20.18	1.0	20	0	101	80 - 119				
1,3-Dichloropropane	18.65	1.0	20	0	93.3	80 - 119				
1,4-Dichlorobenzene	20.43	1.0	20	0	102	79 - 118				
2,2-Dichloropropane	17.47	1.0	20	0	87.4	60 - 139				
2-Butanone	33.33	2.0	40	0	83.3	56 - 143				
2-Chlorotoluene	19.94	1.0	20	0	99.7	79 - 122				
2-Hexanone	36.36	2.0	40	0	90.9	57 - 139				
4-Chlorotoluene	19.94	1.0	20	0	99.7	78 - 122				
4-Isopropyltoluene	21.84	1.0	20	0	109	77 - 127				
4-Methyl-2-pentanone	36.61	2.0	40	0	91.5	67 - 130				
Acetone	39.21	2.0	40	0	98.0	39 - 160				
Benzene	18.61	1.0	20	0	93.1	79 - 120				
Bromobenzene	19.48	1.0	20	0	97.4	80 - 120				
Bromochloromethane	17.25	1.0	20	0	86.3	78 - 123				
Bromodichloromethane	17.8	1.0	20	0	89.0	79 - 125				
Bromoform	18.84	1.0	20	0	94.2	66 - 130				
Bromomethane	24.68	1.0	20	0	123	53 - 141				

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21050972-03MS** Units: **ug/L** Analysis Date: **21-May-2021 14:04**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104964** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	38.14	2.0	40	0	95.3	64 - 133				
Carbon tetrachloride	19.22	1.0	20	0	96.1	72 - 136				
Chlorobenzene	19.32	1.0	20	0	96.6	82 - 118				
Chloroethane	23.29	1.0	20	0	116	60 - 138				
Chloroform	17.46	1.0	20	0	87.3	79 - 124				
Chloromethane	18.03	1.0	20	0	90.1	50 - 139				
cis-1,2-Dichloroethene	17.38	1.0	20	0	86.9	78 - 123				
cis-1,3-Dichloropropene	17.83	1.0	20	0	89.2	75 - 124				
Dibromochloromethane	18.33	1.0	20	0	91.6	74 - 126				
Dibromomethane	17.69	1.0	20	0	88.5	79 - 123				
Dichlorodifluoromethane	18.04	1.0	20	0	90.2	32 - 152				
Ethylbenzene	21.18	1.0	20	0	106	79 - 121				
Hexachlorobutadiene	22.37	1.0	20	0	112	66 - 134				
Isopropylbenzene	21	1.0	20	0	105	72 - 131				
m,p-Xylene	40.95	2.0	40	0	102	80 - 121				
Methylene chloride	17.18	2.0	20	0	85.9	74 - 124				
Naphthalene	18.54	1.0	20	0	92.7	61 - 128				
n-Butylbenzene	21.78	1.0	20	0	109	75 - 128				
n-Propylbenzene	21.78	1.0	20	0	109	76 - 126				
o-Xylene	19.31	1.0	20	0	96.6	78 - 122				
sec-Butylbenzene	21.74	1.0	20	0	109	77 - 126				
Styrene	19.09	1.0	20	0	95.5	78 - 123				
tert-Butylbenzene	21.33	1.0	20	0	107	78 - 124				
Tetrachloroethene	22.34	1.0	20	0	112	74 - 129				
Toluene	20.49	1.0	20	0	102	80 - 121				
trans-1,2-Dichloroethene	17.83	1.0	20	0	89.1	75 - 124				
trans-1,3-Dichloropropene	18.98	1.0	20	0	94.9	73 - 127				
Trichloroethene	28.19	1.0	20	8.49	98.5	79 - 123				
Trichlorofluoromethane	20.57	1.0	20	0	103	65 - 141				
Vinyl chloride	18.08	1.0	20	0	90.4	58 - 137				
Surr: 1,2-Dichloroethane-d4	*44.79*	*1.0*	*50*	*0*	*89.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.42*	*1.0*	*50*	*0*	*96.8*	*85 - 114*				
Surr: Dibromofluoromethane	*45.24*	*1.0*	*50*	*0*	*90.5*	*80 - 119*				
Surr: Toluene-d8	*51.76*	*1.0*	*50*	*0*	*104*	*89 - 112*				

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21050972-03MSD** Units: **ug/L** Analysis Date: **21-May-2021 14:25**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104965** 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	19.16	1.0	20	0	95.8	78 - 124	19.19	0.156	20	
1,1,1-Trichloroethane	18.68	1.0	20	0	93.4	74 - 131	18.78	0.537	20	
1,1,2,2-Tetrachloroethane	20.31	1.0	20	0	102	71 - 121	19.81	2.46	20	
1,1,2-Trichloroethane	18.93	1.0	20	0	94.7	80 - 119	18.44	2.62	20	
1,1-Dichloroethane	16.82	1.0	20	0	84.1	77 - 125	16.82	0.0163	20	
1,1-Dichloroethene	19.56	1.0	20	0	97.8	71 - 131	19.9	1.71	20	
1,1-Dichloropropene	18.91	1.0	20	0	94.5	78 - 125	19.92	5.22	20	
1,2,3-Trichlorobenzene	23.45	1.0	20	0	117	69 - 129	20.34	14.2	20	
1,2,3-Trichloropropane	20.03	1.0	20	0	100	73 - 122	19.25	3.94	20	
1,2,4-Trichlorobenzene	22.45	1.0	20	0	112	69 - 130	19.96	11.8	20	
1,2,4-Trimethylbenzene	19.97	1.0	20	0	99.9	76 - 124	20.69	3.51	20	
1,2-Dibromo-3-chloropropane	21.91	1.0	20	0	110	62 - 128	21.3	2.86	20	
1,2-Dibromoethane	19.82	1.0	20	0	99.1	77 - 121	19.68	0.732	20	
1,2-Dichlorobenzene	19.17	1.0	20	0	95.8	80 - 119	19.24	0.398	20	
1,2-Dichloroethane	18.72	1.0	20	0	93.6	73 - 128	18.82	0.561	20	
1,2-Dichloropropane	18.16	1.0	20	0	90.8	78 - 122	17.89	1.5	20	
1,3,5-Trimethylbenzene	20.47	1.0	20	0	102	75 - 124	20.78	1.52	20	
1,3-Dichlorobenzene	19.22	1.0	20	0	96.1	80 - 119	20.18	4.84	20	
1,3-Dichloropropane	18.98	1.0	20	0	94.9	80 - 119	18.65	1.72	20	
1,4-Dichlorobenzene	20.32	1.0	20	0	102	79 - 118	20.43	0.525	20	
2,2-Dichloropropane	17.09	1.0	20	0	85.4	60 - 139	17.47	2.22	20	
2-Butanone	33	2.0	40	0	82.5	56 - 143	33.33	1	20	
2-Chlorotoluene	19.34	1.0	20	0	96.7	79 - 122	19.94	3.01	20	
2-Hexanone	38.01	2.0	40	0	95.0	57 - 139	36.36	4.43	20	
4-Chlorotoluene	19.9	1.0	20	0	99.5	78 - 122	19.94	0.197	20	
4-Isopropyltoluene	20.95	1.0	20	0	105	77 - 127	21.84	4.16	20	
4-Methyl-2-pentanone	38.52	2.0	40	0	96.3	67 - 130	36.61	5.08	20	
Acetone	36.26	2.0	40	0	90.6	39 - 160	39.21	7.83	20	
Benzene	18.89	1.0	20	0	94.4	79 - 120	18.61	1.48	20	
Bromobenzene	19.64	1.0	20	0	98.2	80 - 120	19.48	0.818	20	
Bromochloromethane	16.69	1.0	20	0	83.4	78 - 123	17.25	3.33	20	
Bromodichloromethane	17.75	1.0	20	0	88.7	79 - 125	17.8	0.263	20	
Bromoform	19.86	1.0	20	0	99.3	66 - 130	18.84	5.27	20	
Bromomethane	22.57	1.0	20	0	113	53 - 141	24.68	8.95	20	

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384157 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21050972-03MSD** Units: **ug/L** Analysis Date: **21-May-2021 14:25**
Client ID: Run ID: **VOA6_384157** SeqNo: **6104965** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	37.42	2.0	40	0	93.6	64 - 133	38.14	1.9	20	
Carbon tetrachloride	18.94	1.0	20	0	94.7	72 - 136	19.22	1.42	20	
Chlorobenzene	19.19	1.0	20	0	95.9	82 - 118	19.32	0.662	20	
Chloroethane	21.61	1.0	20	0	108	60 - 138	23.29	7.45	20	
Chloroform	16.71	1.0	20	0	83.5	79 - 124	17.46	4.44	20	
Chloromethane	17.85	1.0	20	0	89.3	50 - 139	18.03	0.977	20	
cis-1,2-Dichloroethene	17.19	1.0	20	0	85.9	78 - 123	17.38	1.11	20	
cis-1,3-Dichloropropene	18.04	1.0	20	0	90.2	75 - 124	17.83	1.17	20	
Dibromochloromethane	19.45	1.0	20	0	97.3	74 - 126	18.33	5.93	20	
Dibromomethane	18.67	1.0	20	0	93.4	79 - 123	17.69	5.39	20	
Dichlorodifluoromethane	17.4	1.0	20	0	87.0	32 - 152	18.04	3.63	20	
Ethylbenzene	20.27	1.0	20	0	101	79 - 121	21.18	4.39	20	
Hexachlorobutadiene	22.39	1.0	20	0	112	66 - 134	22.37	0.108	20	
Isopropylbenzene	20.83	1.0	20	0	104	72 - 131	21	0.808	20	
m,p-Xylene	40.53	2.0	40	0	101	80 - 121	40.95	1.04	20	
Methylene chloride	17.18	2.0	20	0	85.9	74 - 124	17.18	0.0154	20	
Naphthalene	22	1.0	20	0	110	61 - 128	18.54	17.1	20	
n-Butylbenzene	21.19	1.0	20	0	106	75 - 128	21.78	2.78	20	
n-Propylbenzene	21.44	1.0	20	0	107	76 - 126	21.78	1.61	20	
o-Xylene	19.32	1.0	20	0	96.6	78 - 122	19.31	0.028	20	
sec-Butylbenzene	21.45	1.0	20	0	107	77 - 126	21.74	1.36	20	
Styrene	18.64	1.0	20	0	93.2	78 - 123	19.09	2.38	20	
tert-Butylbenzene	20.69	1.0	20	0	103	78 - 124	21.33	3.08	20	
Tetrachloroethene	21.48	1.0	20	0	107	74 - 129	22.34	3.92	20	
Toluene	20.18	1.0	20	0	101	80 - 121	20.49	1.52	20	
trans-1,2-Dichloroethene	18.23	1.0	20	0	91.2	75 - 124	17.83	2.23	20	
trans-1,3-Dichloropropene	19.54	1.0	20	0	97.7	73 - 127	18.98	2.9	20	
Trichloroethene	28.31	1.0	20	8.49	99.1	79 - 123	28.19	0.42	20	
Trichlorofluoromethane	20.38	1.0	20	0	102	65 - 141	20.57	0.927	20	
Vinyl chloride	18.25	1.0	20	0	91.2	58 - 137	18.08	0.96	20	
Surr: 1,2-Dichloroethane-d4	*47.94*	*1.0*	*50*	*0*	*95.9*	*81 - 118*	*44.79*	*6.79*	*20*	
Surr: 4-Bromofluorobenzene	*49.55*	*1.0*	*50*	*0*	*99.1*	*85 - 114*	*48.42*	*2.3*	*20*	
Surr: Dibromofluoromethane	*45.99*	*1.0*	*50*	*0*	*92.0*	*80 - 119*	*45.24*	*1.64*	*20*	
Surr: Toluene-d8	*51.67*	*1.0*	*50*	*0*	*103*	*89 - 112*	*51.76*	*0.174*	*20*	

ALS Houston, US Date: 03-Jun-21

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder:	HS21050898

QC BATCH REPORT

Batch ID:	**R384157 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS21050898-01 HS21050898-02

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21050898

QC BATCH REPORT

Batch ID: R384890 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **02-Jun-2021 19:51**
Client ID: Run ID: **ICS-Integrion_384890** SeqNo: **6121141** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.500	0.500								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **02-Jun-2021 19:59**
Client ID: Run ID: **ICS-Integrion_384890** SeqNo: **6121142** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.67	0.500	20	0	98.4	80 - 120				
Sulfate	19.78	0.500	20	0	98.9	80 - 120				

MS Sample ID: **HS21050896-11MS** Units: **mg/L** Analysis Date: **02-Jun-2021 20:43**
Client ID: Run ID: **ICS-Integrion_384890** SeqNo: **6121144** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	32.98	0.500	10	22.72	103	80 - 120				
Sulfate	31.02	0.500	10	20.55	105	80 - 120				

MSD Sample ID: **HS21050896-11MSD** Units: **mg/L** Analysis Date: **02-Jun-2021 20:50**
Client ID: Run ID: **ICS-Integrion_384890** SeqNo: **6121145** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	32.57	0.500	10	22.72	98.5	80 - 120	32.98	1.26	20	
Sulfate	30.43	0.500	10	20.55	98.8	80 - 120	31.02	1.9	20	

The following samples were analyzed in this batch: HS21050898-01

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: **HS21050898**

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

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 03-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
Work Order: HS21050898

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21050898-01	LH18/24-SP650_051821	Login	5/19/2021 12:16:54 PM	PJM	WET179
HS21050898-01	LH18/24-SP650_051821	Login	5/19/2021 12:16:54 PM	PJM	VOA098
HS21050898-02	Trip Blank	Login	5/19/2021 12:16:54 PM	PJM	VOA098

ALS Houston, US Date: 03-Jun-21

Sample Receipt Checklist

Work Order ID: HS21050898 **Date/Time Received:** 19-May-2021 09:30

Client Name: Bhate Environmental **Received by:** Jared R. Makan

Completed By:	/S/ Pablo Marinez	19-May-2021 12:17	**Reviewed by:**	/S/ Ragen Giga	19-May-2021 20:03
	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:CLIENT
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):	1.2°C UC/C	IR 31
Cooler(s)/Kit(s):	47242	
Date/Time sample(s) sent to storage:	5/19/21 12:20	

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 ATTN: R.J. Modashia

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job:
GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O Number

HS21050898

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Bi Weekly Samples

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: VOC	Analyses: CHLORIDE, SULFATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_051821	Water	05/18/21 / 14:00		3	3		HCL	
LH18/24-SP650_051821	Water	05/18/21 / 14:00		1		1	NONE	
Trip Blank	Water	05/18/21		2	2		HCL	

Additional Remarks: **Standard TAT on other parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	05/18/21	14:30									

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
J. Nunnery	5/19/21	0930							

Remarks
Color 47242 11231 CFO
Temp 1.2°C

(Word) S:\1-ces\Forms\Chain of Custody - BiWeekly

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

47242

CUSTODY SEAL

Date: 5/19/21 Time: 1430
Name: Scott Beesinger
Company: Battle

Seal Broken By:
Date: 05/19/21

47242

Must Deliver Next Business Day
Time and Tempature Sensitive!

47242

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINGER
APTIM ENVIROMENTAL & INFRASTRUCTURE
1203-B EAST GRAND AVE
RM3 202
MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 19MAY21
ACTWGT: 1.00 LB MAN
CAD: 0221247/DAFE3409
DIMS: 26x14x1 IN

TO CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP-80 77443-RJ

RMA:

FedEx Express

FedEx
TRK# 0221 9473 0841 7454

WED - 19 MAY AA
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

FID: 3923207 19May2021 SGGA 560G3/710C/1023

HS21050898 8260_W_DOD Raw Data

ALS WO# HS21050898

MSVOA06 -Logbook

Batch: 44956 **Analyst:** Presenta Cabascango

Date: 05-18-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-18-2021 11:02 am	1.00	50 mL	50 mL	X051801.D	Liquid	Y	NA
2	VSDT000.25	ICAL1	05-18-2021 11:23 am	1.00	50 mL	50 mL	X051802.D	Liquid	Y	NA
3	VSDT000.5	ICAL2	05-18-2021 11:43 am	1.00	50 mL	50 mL	X051803.D	Liquid	Y	NA
4	VSDT001	ICAL3	05-18-2021 12:25 pm	1.00	50 mL	50 mL	X051804.D	Liquid	Y	NA
5	VSDT002	ICAL4	05-18-2021 12:46 pm	1.00	50 mL	50 mL	X051805.D	Liquid	Y	NA
6	VSDT005	ICAL5	05-18-2021 01:07 pm	1.00	50 mL	50 mL	X051806.D	Liquid	Y	NA
7	VSDT020	ICAL6	05-18-2021 01:28 pm	1.00	50 mL	50 mL	X051807.D	Liquid	Y	NA
8	VSDT050	ICAL7	05-18-2021 01:49 pm	1.00	50 mL	50 mL	X051808.D	Liquid	Y	NA
9	VSDT100	ICAL8	05-18-2021 02:10 pm	1.00	50 mL	50 mL	X051809.D	Liquid	Y	NA
10	VSDT150	ICAL9	05-18-2021 02:31 pm	1.00	50 mL	50 mL	X051810.D	Liquid	Y	NA
11	VSDT200	ICAL	05-18-2021 02:52 pm	1.00	50 mL	50 mL	X051811.D	Liquid	Y	NA
12	BLANK	SAMP	05-18-2021 03:13 pm	1.00	50 mL	50 mL	X051812.D	Liquid	Y	NA
13	BLANK	CCV	05-18-2021 03:43 pm	1.00	50 mL	50 mL	X051813.D	Liquid	Y	NA
14	CCV	CCV	05-18-2021 04:04 pm	1.00	50 mL	50 mL	X051814.D	Liquid	Y	NA
15	BLANK	SAMP	05-18-2021 04:25 pm	1.00	50 mL	50 mL	X051815.D	Liquid	Y	NA
16	VLCSW-210518	LCS	05-18-2021 04:46 pm	1.00	50 mL	50 mL	X051816.D	Liquid	Y	NA
17	BLANK	SAMP	05-18-2021 05:07 pm	1.00	50 mL	50 mL	X051817.D	Liquid	Y	NA
18	BLANK	SAMP	05-18-2021 05:28 pm	1.00	50 mL	50 mL	X051818.D	Liquid	Y	NA
19	VBLKW-210518	MBLK	05-18-2021 05:49 pm	1.00	50 mL	50 mL	X051819.D	Liquid	Y	NA
20	HS21040303-13	SAMP	05-18-2021 06:10 pm	1.00	50 mL	50 mL	X051820.D	Liquid	Y	NA
21	HS21040303-14	SAMP	05-18-2021 06:31 pm	1.00	50 mL	50 mL	X051821.D	Liquid	Y	NA
22	HS21040303-15	SAMP	05-18-2021 06:52 pm	1.00	50 mL	50 mL	X051822.D	Liquid	Y	NA
23	HS21040303-16	SAMP	05-18-2021 07:13 pm	1.00	50 mL	50 mL	X051823.D	Liquid	Y	NA
24	HS21050689-01	SAMP	05-18-2021 07:34 pm	1.00	50 mL	50 mL	X051824.D	Liquid	Y	NA
25	HS21050689-02	SAMP	05-18-2021 07:55 pm	1.00	50 mL	50 mL	X051825.D	Liquid	Y	NA
26	HS21050553-03	SAMP	05-18-2021 08:16 pm	1.00	50 mL	50 mL	X051826.D	Liquid	Y	NA
27	HS21050553-01	SAMP	05-18-2021 08:37 pm	1.00	50 mL	50 mL	X051827.D	Liquid	Y	NA
28	HS21050689-01MS	MS	05-18-2021 08:58 pm	1.00	50 mL	50 mL	X051828.D	Liquid	Y	NA
29	HS21050689-01MSD	MSD	05-18-2021 09:19 pm	1.00	50 mL	50 mL	X051829.D	Liquid	Y	NA
30	CCV-END	CCV	05-18-2021 09:40 pm	1.00	50 mL	50 mL	X051830.D	Liquid	Y	NA
31	BLANK	SAMP	05-18-2021 10:01 pm	1.00	50 mL	50 mL	X051831.D	Liquid	Y	NA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,3-Dichloropropene	50.00	50.19	100	80-120
trans-1,3-Dichloroprope	50.00	52.04	104	80-120
1,3-Dichlorobenzene	50.00	47.75	96	80-120
2,2-Dichloropropane	50.00	50.09	100	80-120
1,1-Dichloropropene	50.00	48.31	97	80-120
Dibromomethane	50.00	50.15	100	80-120
1,2-Dibromoethane	50.00	51.94	104	80-120
trans-1,2-Dichloroethen	50.00	50.14	100	80-120
1,1,1,2-Tetrachloroetha	50.00	48.20	96	80-120
1,1,1-Trichloroethane	50.00	50.61	101	80-120
1,1,2,2-Tetrachloroetha	50.00	51.75	104	80-120
1,1,2-Trichloroethane	50.00	50.03	100	80-120
1,1-Dichloroethane	50.00	47.25	94	80-120
1,1-Dichloroethene	50.00	47.25	94	80-120
Trichloroethene	50.00	48.16	96	80-120
1,2,3-Trichlorobenzene	50.00	59.14	118	80-120
Trichlorofluoromethane	50.00	48.01	96	80-120
1,2,4-Trichlorobenzene	50.00	53.39	107	80-120
1,2,4-Trimethylbenzene	50.00	46.88	94	80-120
Tetrachloroethene	50.00	50.18	100	80-120
1,2-Dichlorobenzene	50.00	46.87	94	80-120
1,2-Dichloroethane	50.00	48.88	98	80-120
1,2-Dichloropropane	50.00	47.74	95	80-120
1,3,5-Trimethylbenzene	50.00	47.22	94	80-120
1,3-Dichloropropane	50.00	50.41	101	80-120
1,4-Dichlorobenzene	50.00	47.95	96	80-120
Toluene	50.00	49.96	100	80-120
2-Butanone	100.00	103.30	103	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
2-Chlorotoluene	50.00	45.74	91	80-120
2-Hexanone	100.00	104.71	105	80-120
4-Chlorotoluene	50.00	47.02	94	80-120
tert-Butylbenzene	50.00	45.40	91	80-120
4-Methyl-2-Pentanone	100.00	102.15	102	80-120
Acetone	100.00	117.46	117	80-120
Benzene	50.00	50.17	100	80-120
Bromobenzene	50.00	47.17	94	80-120
Bromochloromethane	50.00	48.14	96	80-120
Bromodichloromethane	50.00	49.36	99	80-120
Bromoform	50.00	52.15	104	80-120
Bromomethane	50.00	56.94	114	80-120
Carbon Disulfide	100.00	107.07	107	80-120
Carbon Tetrachloride	50.00	48.29	96	80-120
Chlorobenzene	50.00	47.89	96	80-120
Chloroethane	50.00	47.02	94	80-120
Chloroform	50.00	47.74	95	80-120
Chloromethane	50.00	51.81	104	80-120
cis-1,2-Dichloroethene	50.00	48.97	98	80-120
Dibromochloromethane	50.00	52.44	105	80-120
Dichlorodifluoromethane	50.00	51.12	102	80-120
Ethylbenzene	50.00	48.94	98	80-120
Hexachlorobutadiene	50.00	48.34	97	80-120
Isopropylbenzene	50.00	48.03	96	80-120
m,p-Xylenes	100.00	98.78	99	80-120
Methylene Chloride	50.00	49.43	99	80-120
n-Butylbenzene	50.00	47.59	95	80-120
n-Propylbenzene	50.00	47.46	95	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Naphthalene	50.00	59.54	119	80-120
o-Xylene	50.00	48.60	97	80-120
sec-Butylbenzene	50.00	46.39	93	80-120
Styrene	50.00	46.53	93	80-120
Vinyl Chloride	50.00	47.95	96	80-120
1,2,3-Trichloropropane	50.00	53.16	106	80-120
p-Isopropyltoluene	50.00	46.79	94	80-120
1,2-Dibromo-3-Chloropro	50.00	56.34	113	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Lab File ID: X051801 BFB Injection Date: 05/18/21

Instrument ID: VOA6 BFB Injection Time: 1102

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 60.0% of mass 95	54.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	1.3 (1.6)1
174	Greater than 50.0% of mass 95	81.7
175	5.0 - 9.0% of mass 174	6.4 (7.8)1
176	95.0 - 101.0% of mass 174	78.5 (96.1)1
177	5.0 - 9.0% of mass 176	5.1 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSDT000.25	X051802	05/18/21	1123
02	VSTD000.5	VSDT000.5	X051803	05/18/21	1143
03	VSTD001	VSDT001	X051804	05/18/21	1225
04	VSTD002	VSDT002	X051805	05/18/21	1246
05	VSTD005	VSDT005	X051806	05/18/21	1307
06	VSTD020	VSDT020	X051807	05/18/21	1328
07	VSTD050	VSDT050	X051808	05/18/21	1349
08	VSTD100	VSDT100	X051809	05/18/21	1410
09	VSTD150	VSDT150	X051810	05/18/21	1431
10	VSTD200	VSDT200	X051811	05/18/21	1452
11	ICV	ICV	X051814	05/18/21	1604
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Instrument ID: VOA6 Calibration Date(s): 05/18/21 05/18/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1123 1452

LAB FILE ID: RF0.25: X051802 RF0.5: X051803 RF1: X051804
RF2: X051805 RF5: X051806 RF20: X051807

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
cis-1,3-Dichloropropene		0.487	0.572	0.482	0.536	0.562
trans-1,3-Dichloropropene		0.362	0.481	0.462	0.448	0.484
1,3-Dichlorobenzene		1.298	1.784	1.444	1.385	1.313
2,2-Dichloropropane		0.814	0.849	0.827	0.820	0.784
1,1-Dichloropropene		0.489	0.470	0.395	0.427	0.399
Dibromomethane		0.205	0.266	0.241	0.239	0.244
1,2-Dibromoethane		0.268	0.371	0.360	0.338	0.348
trans-1,2-Dichloroethene		0.501	0.440	0.499	0.456	0.444
1,1,1,2-Tetrachloroethane		0.339	0.370	0.394	0.369	0.343
1,1,1-Trichloroethane		0.814	0.829	0.797	0.851	0.831
1,1,2,2-Tetrachloroethane		1276	3942	6612	14932	63561
1,1,2-Trichloroethane		0.259	0.353	0.294	0.269	0.277
1,1-Dichloroethane		0.905	1.024	0.837	0.887	0.889
1,1-Dichloroethene		0.602	0.555	0.544	0.494	0.462
Trichloroethene		0.303	0.372	0.325	0.354	0.319
1,2,3-Trichlorobenzene		298	800	1755	3826	17129
Trichlorofluoromethane		1.002	1.059	1.083	1.013	0.935
1,2,4-Trichlorobenzene		425	1337	2176	7168	30700
1,2,4-Trimethylbenzene		2.442	3.010	2.493	2.447	2.264
Tetrachloroethene		0.267	0.257	0.293	0.265	0.257
1,2-Dichlorobenzene		1.324	1.811	1.406	1.370	1.301
1,2-Dichloroethane		0.502	0.549	0.494	0.503	0.500
1,2-Dichloropropane		0.369	0.354	0.317	0.336	0.337
1,3,5-Trimethylbenzene		2.332	2.757	2.552	2.314	2.225
1,3-Dichloropropane		0.491	0.653	0.571	0.580	0.567
1,4-Dichlorobenzene		2775	6628	10925	24844	112231
Toluene		1.254	1.468	1.434	1.426	1.362
2-Butanone		0.208	0.199	0.150	0.167	0.187
2-Chlorotoluene		2.577	2.759	2.223	2.151	1.969
2-Hexanone		1113	4644	6265	15257	64652
4-Chlorotoluene		2.534	3.056	2.582	2.471	2.392
tert-Butylbenzene		2.074	2.525	2.221	2.080	1.787
4-Methyl-2-Pentanone		1863	6100	9786	23491	96386
Acetone		2121	2806	4685	8158	27873
Benzene		1.285	1.241	1.192	1.243	1.191
Bromobenzene		0.727	1.032	0.792	0.881	0.809
Bromochloromethane		0.300	0.313	0.305	0.314	0.288
Bromodichloromethane		0.468	0.503	0.466	0.483	0.472
Bromoform		0.227	0.256	0.199	0.227	0.224
Bromomethane		1623	3018	5999	15785	51157
Carbon Disulfide		1.049	1.194	1.138	1.099	1.092
Carbon Tetrachloride		0.420	0.447	0.466	0.436	0.396
Chlorobenzene		0.995	1.061	0.996	0.934	0.914
Chloroethane		0.482	0.365	0.357	0.373	0.414

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date(s): 05/18/21 05/18/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1123 1452

LAB FILE ID: RF0.25: X051802 RF0.5: X051803 RF1: X051804
RF2: X051805 RF5: X051806 RF20: X051807

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Chloroform		1.117	1.077	0.992	1.081	1.060
Chloromethane		1464	3160	5348	14179	54108
cis-1,2-Dichloroethene		0.502	0.640	0.565	0.558	0.550
Dibromochloromethane		0.297	0.455	0.365	0.368	0.376
Dichlorodifluoromethane		1498	2403	5548	14123	57043
Ethylbenzene		0.480	0.478	0.501	0.476	0.437
Hexachlorobutadiene		285	1107	2099	4641	20104
Isopropylbenzene		1.418	1.528	1.397	1.412	1.315
m,p-Xylenes		0.569	0.620	0.605	0.597	0.581
Methylene Chloride		0.434	0.476	0.538	0.489	0.488
n-Butylbenzene		2.521	2.761	2.102	2.057	2.013
n-Propylbenzene		3.468	4.022	3.792	3.412	3.065
Naphthalene		406	1471	3094	8781	42386
o-Xylene		0.614	0.616	0.595	0.583	0.553
sec-Butylbenzene		2.812	3.226	3.184	2.734	2.527
Styrene		2465	6890	12689	31296	151430
Vinyl Chloride		0.706	0.637	0.668	0.630	0.574
1,2,3-Trichloropropane		851	3361	4744	9928	50993
p-Isopropyltoluene		2.384	2.876	2.412	2.335	2.132
1,2-Dibromo-3-Chloropropane		63	283	511	1184	4660
1,2-Dichloroethane-d4		1965	3259	6073	16438	67187
Dibromofluoromethane		1526	2671	5073	12495	55528
Toluene-d8		4554	7865	16788	42740	177650
4-Bromofluorobenzene		3536	2729	7059	15616	68387

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date(s): 05/18/21 05/18/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1123 1452

LAB FILE ID: RF50: X051808 RF100: X051809 RF150: X051810
RF200: X051811

COMPOUND	RF50	RF100	RF150	RF200
cis-1,3-Dichloropropene	0.551	0.592	0.579	0.572
trans-1,3-Dichloropropene	0.521	0.530	0.520	0.507
1,3-Dichlorobenzene	1.363	1.440	1.445	1.456
2,2-Dichloropropane	0.768	0.864	0.862	0.867
1,1-Dichloropropene	0.367	0.444	0.428	0.436
Dibromomethane	0.235	0.250	0.247	0.242
1,2-Dibromoethane	0.358	0.371	0.365	0.364
trans-1,2-Dichloroethene	0.449	0.491	0.520	0.530
1,1,1,2-Tetrachloroethane	0.357	0.371	0.368	0.368
1,1,1-Trichloroethane	0.809	0.898	0.909	0.916
1,1,2,2-Tetrachloroethane	192852	443127	690313	941646
1,1,2-Trichloroethane	0.284	0.298	0.290	0.290
1,1-Dichloroethane	0.901	0.943	0.964	0.982
1,1-Dichloroethene	0.419	0.457	0.472	0.495
Trichloroethene	0.310	0.337	0.326	0.332
1,2,3-Trichlorobenzene	53322	129422	217046	307927
Trichlorofluoromethane	0.805	0.902	0.910	0.940
1,2,4-Trichlorobenzene	93881	230076	378072	556188
1,2,4-Trimethylbenzene	2.367	2.620	2.619	2.624
Tetrachloroethene	0.256	0.297	0.297	0.310
1,2-Dichlorobenzene	1.264	1.348	1.378	1.410
1,2-Dichloroethane	0.493	0.481	0.458	0.443
1,2-Dichloropropane	0.324	0.336	0.328	0.324
1,3,5-Trimethylbenzene	2.338	2.608	2.633	2.704
1,3-Dichloropropane	0.567	0.572	0.569	0.548
1,4-Dichlorobenzene	328636	774191	1228277	1710708
Toluene	1.423	1.541	1.532	1.544
2-Butanone	0.183	0.194	0.189	0.185
2-Chlorotoluene	2.002	2.129	2.128	2.118
2-Hexanone	184352	424072	684773	929961
4-Chlorotoluene	2.422	2.634	2.635	2.660
tert-Butylbenzene	1.852	2.157	2.163	2.202
4-Methyl-2-Pentanone	268097	642103	1037606	1395319
Acetone	67628	161640	237075	336393
Benzene	1.208	1.285	1.250	1.237
Bromobenzene	0.778	0.824	0.832	0.827
Bromochloromethane	0.299	0.306	0.312	0.305
Bromodichloromethane	0.471	0.507	0.491	0.486
Bromoform	0.245	0.261	0.270	0.266
Bromomethane	137904	330862		
Carbon Disulfide	1.138	1.206	1.311	1.375
Carbon Tetrachloride	0.378	0.462	0.451	0.466
Chlorobenzene	0.935	0.993	0.978	1.018
Chloroethane	0.336	0.369	0.350	0.361

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date(s): 05/18/21 05/18/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1123 1452

LAB FILE ID: RF50: X051808 RF100: X051809 RF150: X051810
RF200: X051811

COMPOUND	RF50	RF100	RF150	RF200
Chloroform	1.018	1.075	1.069	1.070
Chloromethane	144469	323129	530291	760194
cis-1,2-Dichloroethene	0.555	0.596	0.612	0.608
Dibromochloromethane	0.398	0.419	0.416	0.421
Dichlorodifluoromethane	146727	385804	635388	916851
Ethylbenzene	0.466	0.513	0.501	0.507
Hexachlorobutadiene	54907	159233	251193	377761
Isopropylbenzene	1.391	1.613	1.599	1.652
m,p-Xylenes	0.611	0.676	0.672	0.689
Methylene Chloride	0.488	0.522	0.539	0.538
n-Butylbenzene	2.082	2.488	2.515	2.591
n-Propylbenzene	3.255	3.697	3.540	3.618
Naphthalene	135654	338098	555881	826266
o-Xylene	0.587	0.633	0.637	0.647
sec-Butylbenzene	2.562	3.072	3.064	3.195
Styrene	468440	1137742	1857964	2618657
Vinyl Chloride	0.520	0.554	0.560	0.583
1,2,3-Trichloropropane	161438	370826	570152	760241
p-Isopropyltoluene	2.228	2.603	2.576	2.673
1,2-Dibromo-3-Chloropropane	14297	35357	55728	81966
1,2-Dichloroethane-d4	177225	428979	631492	867782
Dibromofluoromethane	145001	355480	559479	756859
Toluene-d8	483036	1269181		
4-Bromofluorobenzene	197985	494712	751419	1039902

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date(s): 05/18/21 05/18/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1123 1452

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
cis-1,3-Dichloropropene	AVRG		0.54815013		7.198	15.000
trans-1,3-Dichloropropene	AVRG		0.47952641		10.867	15.000
1,3-Dichlorobenzene	AVRG		1.43648780		9.972	15.000
2,2-Dichloropropane	AVRG		0.82828869		4.331	15.000
1,1-Dichloropropene	AVRG		0.42830770		8.852	15.000
Dibromomethane	AVRG		0.24083691		6.728	15.000
1,2-Dibromoethane	AVRG		0.34906143		9.275	15.000
trans-1,2-Dichloroethene	AVRG		0.48104288		7.125	15.000
1,1,1,2-Tetrachloroethane	AVRG		0.36426927		4.529	15.000
1,1,1-Trichloroethane	AVRG		0.85043801		5.394	15.000
1,1,2,2-Tetrachloroethane	LINR	-1.06e-002	1.22020858		0.9996255	0.9900000
1,1,2-Trichloroethane	AVRG		0.29044361		9.129	15.000
1,1-Dichloroethane	AVRG		0.92592468		6.216	15.000
1,1-Dichloroethene	AVRG		0.50003055		11.379	15.000
Trichloroethene	AVRG		0.33109441		6.506	15.000
1,2,3-Trichlorobenzene	2ORDR	9.632e-003	4.28133993	-0.5154682	0.9995826	0.9900000
Trichlorofluoromethane	AVRG		0.96110314		9.038	15.000
1,2,4-Trichlorobenzene	LINR	4.933e-002	2.11604080		0.9976091	0.9900000
1,2,4-Trimethylbenzene	AVRG		2.54299659		8.430	15.000
Tetrachloroethene	AVRG		0.27783391		7.699	15.000
1,2-Dichlorobenzene	AVRG		1.40138714		11.491	15.000
1,2-Dichloroethane	AVRG		0.49160844		6.118	15.000
1,2-Dichloropropane	AVRG		0.33602311		4.888	15.000
1,3,5-Trimethylbenzene	AVRG		2.49588490		7.816	15.000
1,3-Dichloropropane	AVRG		0.56857427		7.291	15.000
1,4-Dichlorobenzene	LINR	5.061e-003	0.67731606		0.9998297	0.9900000
Toluene	AVRG		1.44259465		6.537	15.000
2-Butanone	AVRG		0.18456292		9.299	15.000
2-Chlorotoluene	AVRG		2.22844412		11.870	15.000
2-Hexanone	LINR	-5.43e-003	4.72960490		0.9996417	0.9900000
4-Chlorotoluene	AVRG		2.59844887		7.579	15.000
tert-Butylbenzene	AVRG		2.11785900		10.166	15.000
4-Methyl-2-Pentanone	LINR	1.757e-003	3.13747126		0.9992518	0.9900000
Acetone	LINR	-0.1031195	8.31977183		0.9992475	0.9900000
Benzene	AVRG		1.23700589		2.821	15.000
Bromobenzene	AVRG		0.83350948		10.277	15.000
Bromochloromethane	AVRG		0.30471850		2.737	15.000
Bromodichloromethane	AVRG		0.48310323		3.112	15.000
Bromoform	AVRG		0.24181056		9.935	15.000
Bromomethane	LINR	-9.54e-003	1.92097258		0.9993822	0.9900000
Carbon Disulfide	AVRG		1.17802683		9.054	15.000
Carbon Tetrachloride	AVRG		0.43581111		7.302	15.000
Chlorobenzene	AVRG		0.98043280		4.719	15.000
Chloroethane	AVRG		0.37848234		11.670	15.000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date(s): 05/18/21 05/18/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1123 1452

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Chloroform	AVRG		1.06227706		3.452	15.000
Chloromethane	LINR	4.72e-003	1.84566789		0.9991701	0.9900000
cis-1,2-Dichloroethene	AVRG		0.57624659		7.251	15.000
Dibromochloromethane	AVRG		0.39079995		11.706	15.000
Dichlorodifluoromethane	LINR	4.157e-002	1.52321051		0.9978249	0.9900000
Ethylbenzene	AVRG		0.48449831		4.945	15.000
Hexachlorobutadiene	LINR	6.372e-002	3.12063356		0.9952728	0.9900000
Isopropylbenzene	AVRG		1.48070600		8.062	15.000
m,p-Xylenes	AVRG		0.62439142		7.010	15.000
Methylene Chloride	AVRG		0.50138203		7.098	15.000
n-Butylbenzene	AVRG		2.34785648		12.003	15.000
n-Propylbenzene	AVRG		3.54120408		8.079	15.000
Naphthalene	LINR	6.205e-002	1.42523240		0.9969447	0.9900000
o-Xylene	AVRG		0.60729113		5.006	15.000
sec-Butylbenzene	AVRG		2.93063409		9.421	15.000
Styrene	LINR	3.526e-002	0.84676544		0.9993765	0.9900000
Vinyl Chloride	AVRG		0.60367291		9.968	15.000
1,2,3-Trichloropropane	LINR	-1.23e-002	1.49190380		0.9985771	0.9900000
p-Isopropyltoluene	AVRG		2.46870248		9.462	15.000
1,2-Dibromo-3-Chloropropane	LINR	3.21e-002	14.3600447		0.9984415	0.9900000
1,2-Dichloroethane-d4	LINR	-2.54e-002	1.57628033		0.9986859	0.9900000
Dibromofluoromethane	LINR	-4.56e-003	1.80361438		0.9994050	0.9900000
Toluene-d8	LINR	2.027e-002	0.79767420		0.9950610	0.9900000
4-Bromofluorobenzene	LINR	2.432e-003	2.11361156		0.9991459	0.9900000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051801.D

Date : 18-MAY-2021 11:02

Client ID: BFB

Instrument: voa6.i

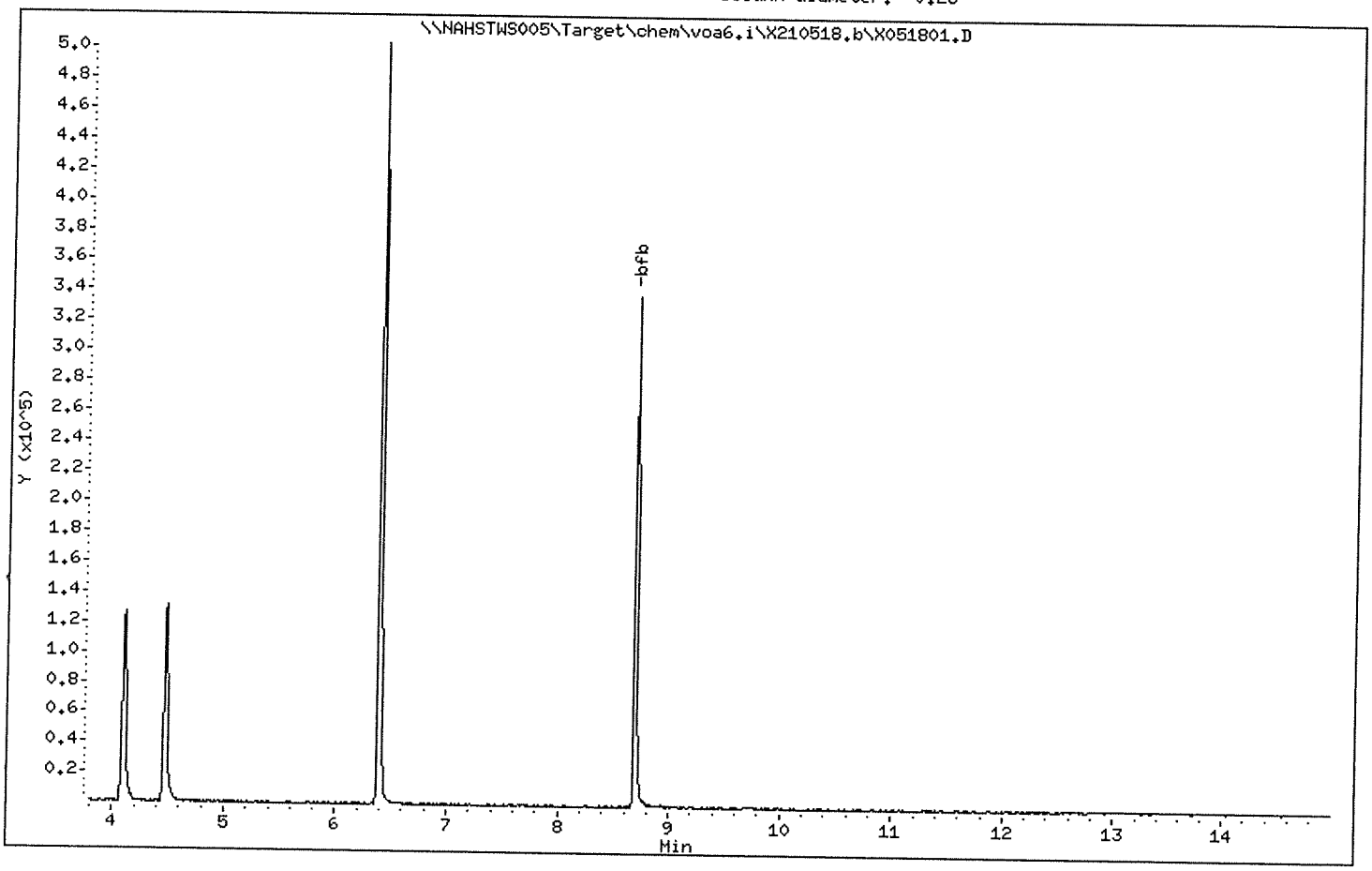
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051801.D

Date : 18-MAY-2021 11:02

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

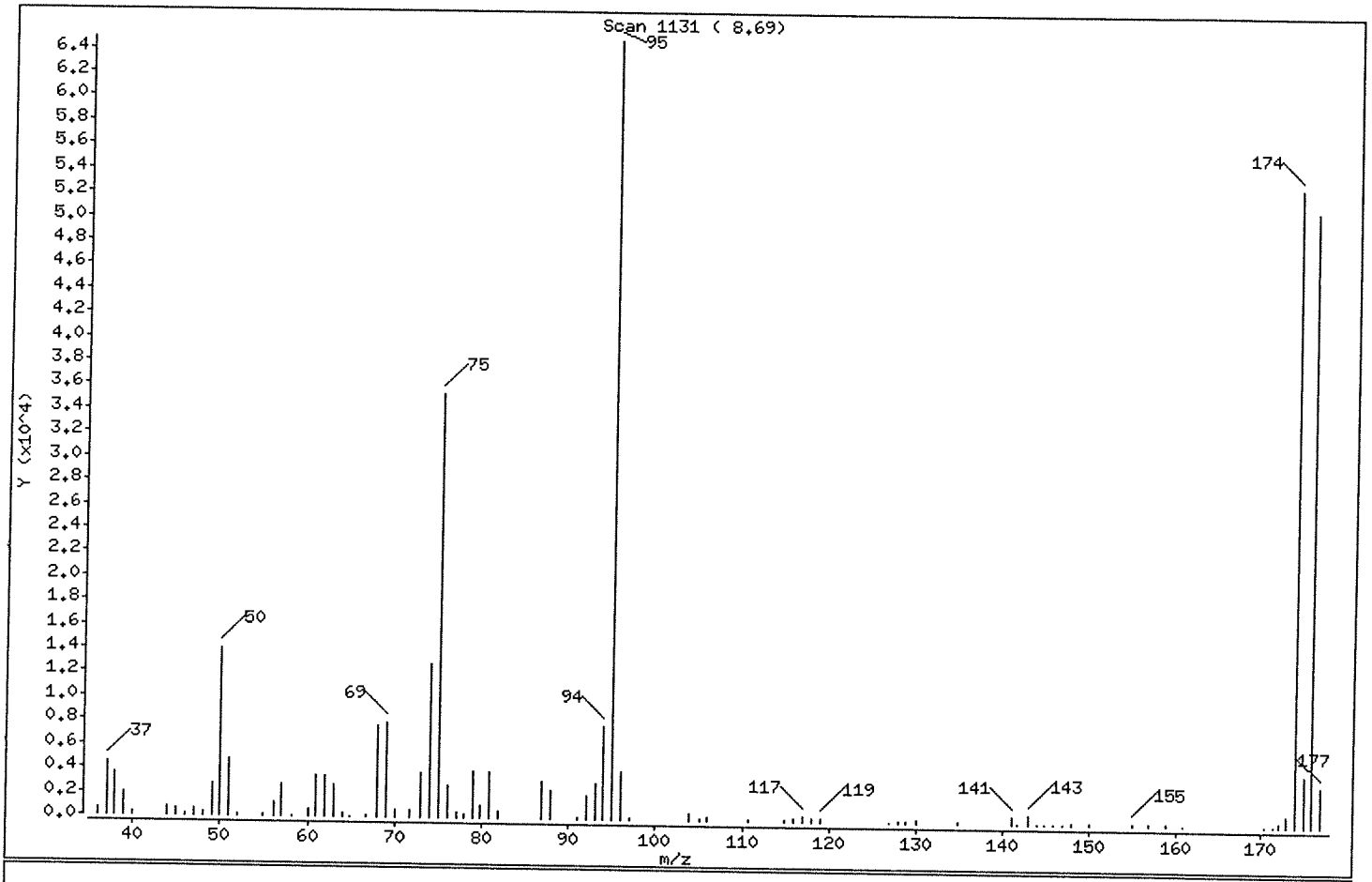
Volume Injected (uL): 2.0

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	21.57
75	30.00 - 60.00% of mass 95	54.58
96	5.00 - 9.00% of mass 95	6.22
173	Less than 2.00% of mass 174	1.30 (1.59)
174	Greater than 50.00% of mass 95	81.67
175	5.00 - 9.00% of mass 174	6.39 (7.82)
176	95.00 - 101.00% of mass 174	78.52 (96.15)
177	5.00 - 9.00% of mass 176	5.15 (6.56)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051801.D

Date : 18-MAY-2021 11:02

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: X051801.D
Spectrum: Scan 1131 (8.69)
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	659	63.00	2721	92.00	1901	141.70	64
37.00	4492	64.00	282	93.00	2997	142.80	715
38.00	3512	64.80	58	94.00	7815	143.90	60
39.00	1875	66.80	141	95.00	64840	144.80	50
40.00	367	68.00	7559	96.00	4033	145.80	52
44.00	753	69.00	7848	97.00	80	146.80	54
45.00	666	70.10	653	103.90	627	147.90	169
46.00	85	71.80	523	105.00	166	149.90	76
47.00	657	73.00	3762	105.90	293	154.90	186
48.00	369	74.00	12856	110.80	120	156.80	95
49.00	2757	75.00	35392	114.90	109	158.80	137
50.00	13984	76.00	2705	115.90	319	160.80	61
51.00	4819	77.00	459	116.90	497	170.50	59
52.00	122	77.90	266	118.00	279	171.40	59
54.90	202	78.90	3898	118.90	355	172.10	229
56.10	1223	79.90	1045	126.90	66	172.90	844
57.00	2742	80.90	3915	128.00	208	173.90	52952
58.20	65	81.90	608	128.70	126	174.90	4142
60.00	659	86.90	3136	129.90	279	175.90	50912
61.00	3477	87.90	2433	134.80	103	176.90	3338
62.00	3463	90.90	216	140.90	646		

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051802.D
Lab Smp Id: VSDT000.25 Client Smp ID: VSTD000.25
Inj Date : 18-MAY-2021 11:23
Operator : PC Inst ID: voa6.i
Smp Info : VSDT000.25;VSTD000.25;1;1;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 14:52 Cal File: X051811.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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	4.182	4.182	(1.000)	259430	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	431449	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	398320	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	184412	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	1710	0.25000	0.36(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	2365	0.25000	(Ta)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	6953	0.25000	1.70(a)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	5204	0.25000	1.50(a)
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	675	0.25000	0.23(a)
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1063	0.25000	0.24(a)
68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	589	0.25000	(aM)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	614	0.25000	0.26(a)
22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	1620	0.25000	0.33(aM)
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	700	0.25000	0.26(aM)
32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	1580	0.25000	0.42(a)
93 1,2,3-Trichlorobenzene	180	11.789	11.789	(1.220)	70	0.25000	0.56(aM)
71 1,2,3-Trichloropropane	75	8.874	8.874	(0.918)	551	0.25000	(aM)
90 1,2,4-Trichlorobenzene	180	11.374	11.374	(1.177)	245	0.25000	2.60(aM)
79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	2182	0.25000	0.23(a)
57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	893	0.25000	0.32(a)
88 1,2-Dichlorobenzene	146	10.006	10.006	(1.036)	1360	0.25000	0.26(a)
33 1,2-Dichloroethane	62	4.555	4.555	(0.916)	1269	0.25000	0.29(a)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051802.D Page 2
Report Date: 08-Jun-2021 11:42

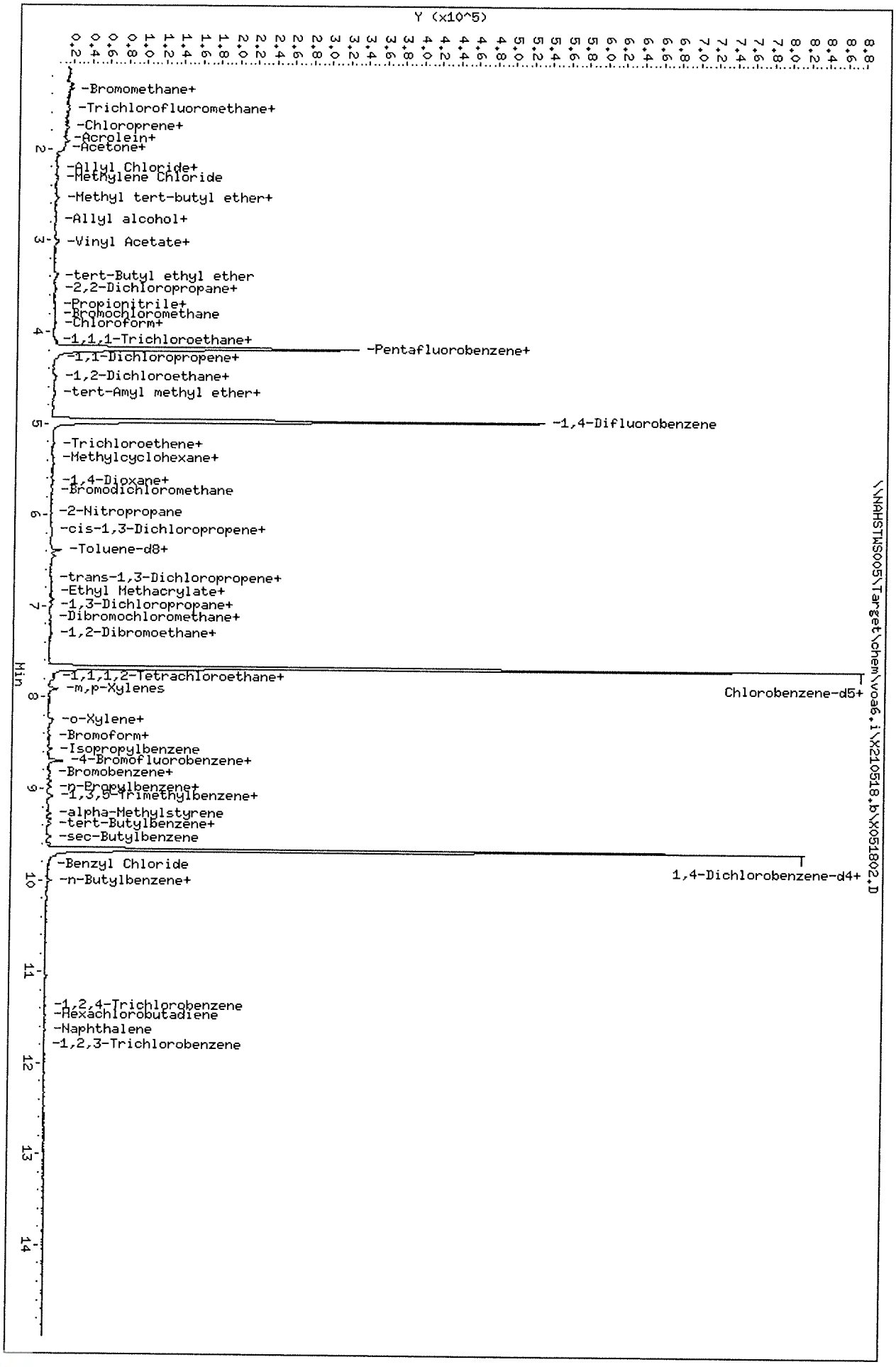
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
42 1,2-Dichloropropane	63	5.436	5.436	(1.094)	680	0.25000	0.23 (aM)
75 1,3,5-Trimethylbenzene	105	9.074	9.074	(0.939)	2277	0.25000	0.24 (a)
83 1,3-Dichlorobenzene	146	9.619	9.619	(0.996)	1349	0.25000	0.25 (a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	1203	0.25000	0.26 (a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1848	0.25000	0.59 (a)
26 2,2-Dichloropropane	77	3.523	3.523	(0.842)	1125	0.25000	0.26 (aM)
24 2-Butanone	43	3.630	3.630	(0.868)	349	0.50000	0.36 (aM)
76 2-Chlorotoluene	91	8.981	8.981	(0.930)	2422	0.25000	0.29 (a)
52 2-Hexanone	43	7.119	7.119	(0.928)	640	0.50000	0.10 (TaM)
77 4-Chlorotoluene	91	9.082	9.082	(0.940)	2995	0.25000	0.31 (a)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	2275	0.25000	0.24 (a)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	1633	0.50000	0.73 (aM)
10 Acetone	43	1.983	1.983	(0.474)	1986	0.50000	(a)
37 Benzene	78	4.519	4.519	(0.909)	3242	0.25000	0.30 (a)
74 Bromobenzene	156	8.817	8.817	(0.913)	788	0.25000	0.25 (a)
29 Bromochloromethane	128	3.802	3.802	(0.909)	596	0.25000	0.37 (aM)
39 Bromodichloromethane	83	5.729	5.729	(1.153)	1099	0.25000	0.26 (aM)
66 Bromoform	173	8.415	8.415	(1.097)	229	0.25000	0.11 (aM)
6 Bromomethane	94	1.345	1.345	(0.322)	1349	0.25000	0.02 (aM)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	3241	0.50000	0.53 (aM)
34 Carbon Tetrachloride	117	4.275	4.275	(0.860)	1043	0.25000	0.27 (aM)
59 Chlorobenzene	112	7.692	7.692	(1.003)	1804	0.25000	0.23 (a)
7 Chloroethane	64	1.396	1.396	(0.334)	951	0.25000	0.48 (aM)
28 Chloroform	83	3.917	3.917	(0.937)	1662	0.25000	0.30 (a)
3 Chloromethane	50	1.080	1.080	(0.258)	1250	0.25000	0.68 (aM)
27 cis-1,2-Dichloroethene	96	3.545	3.545	(0.848)	627	0.25000	0.20 (aM)
46 cis-1,3-Dichloropropene	75	6.166	6.166	(1.241)	1190	0.25000	0.25 (a)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	804	0.25000	0.25 (a)
44 Dibromomethane	93	5.550	5.550	(1.117)	644	0.25000	0.30 (aM)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	789	0.25000	2.31 (aM)
61 Ethylbenzene	106	7.799	7.799	(1.017)	684	0.25000	0.17 (a)
91 Hexachlorobutadiene	225	11.474	11.474	(1.188)	207	0.25000	3.36 (aM)
67 Isopropylbenzene	105	8.559	8.559	(1.116)	2610	0.25000	0.22 (a)
62 m,p-Xylenes	106	7.914	7.914	(1.032)	2264	0.50000	0.45 (a)
17 Methylene Chloride	84	2.312	2.312	(0.553)	955	0.25000	0.36 (a)
87 n-Butylbenzene	91	10.013	10.013	(1.036)	1224	0.25000	0.14 (a)
73 n-Propylbenzene	91	8.924	8.924	(0.924)	3266	0.25000	0.25 (a)
92 Naphthalene	128	11.639	11.639	(1.205)	140	0.25000	3.15 (aM)
63 o-Xylene	106	8.243	8.243	(1.075)	1402	0.25000	0.28 (a)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	2583	0.25000	0.23 (a)
64 Styrene	104	8.272	8.272	(1.078)	1817	0.25000	1.95 (a)
78 tert-Butylbenzene	119	9.339	9.339	(0.967)	1985	0.25000	0.25 (a)
56 Tetrachloroethene	164	6.918	6.918	(0.902)	368	0.25000	0.16 (aM)
50 Toluene	91	6.453	6.453	(0.841)	3453	0.25000	0.30 (a)
20 trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	513	0.25000	0.20 (aM)
51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	972	0.25000	0.23 (aM)
38 Trichloroethene	130	5.221	5.221	(1.050)	865	0.25000	0.30 (aM)
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	1217	0.25000	0.24 (a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1276	0.25000	0.40 (a)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

QC Flag Legend

M - Compound response manually integrated.



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Sample Info: VSDT000.25;VSTD000.25;1;1;;
Purge Volume: 5.0
Column phase: DB624

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

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051803.D
Lab Smp Id: VSDT000.5 Client Smp ID: VSTD000.5
Inj Date : 18-MAY-2021 11:43
Operator : PC Inst ID: voa6.i
Smp Info : VSDT000.5;VSTD000.5;1;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 11:23 Cal File: X051802.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

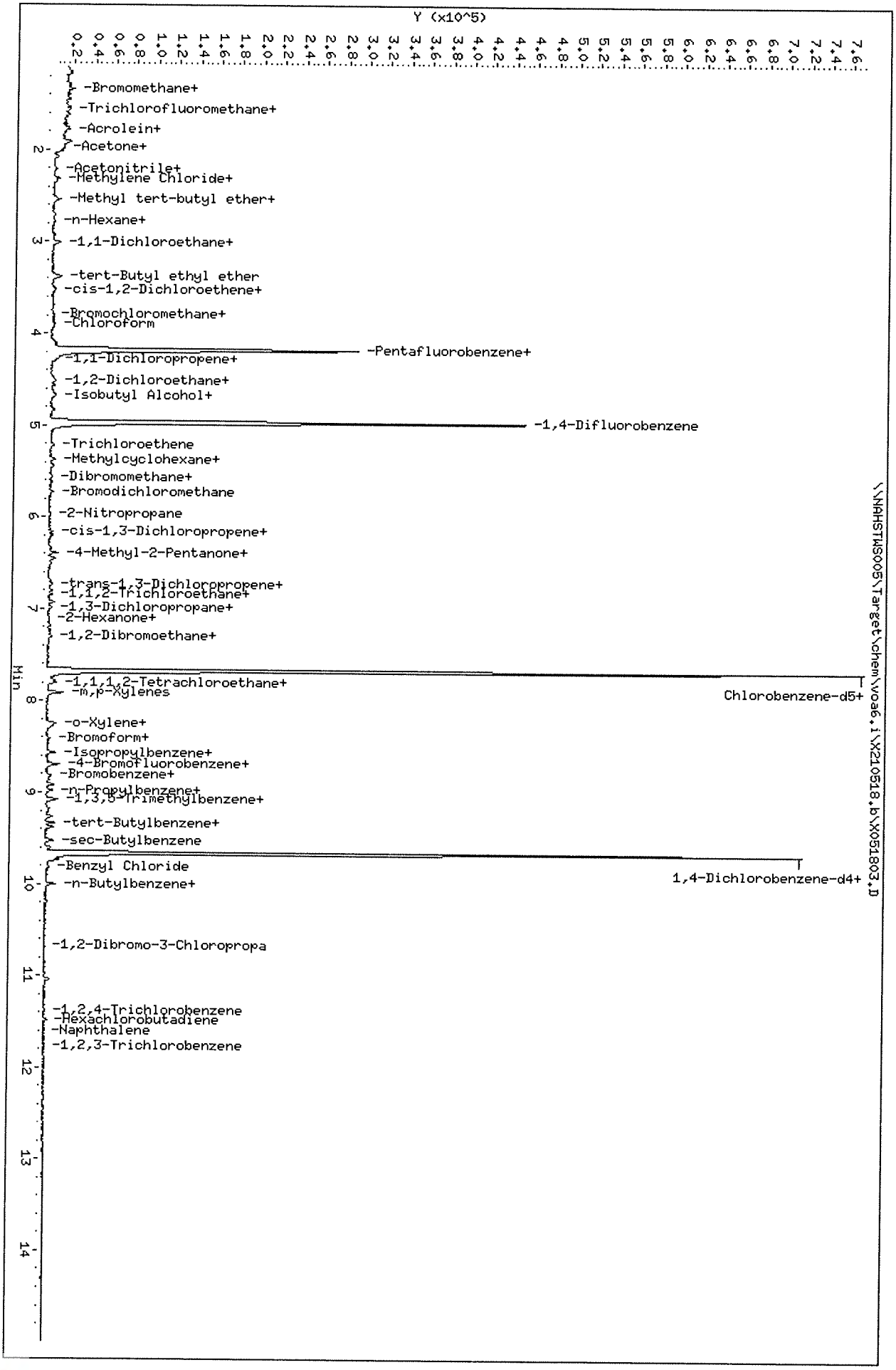
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	226673	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	364110	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	347141	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	155518	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	1526	0.50000	0.37 (aM)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	1965	0.50000	(Ta)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	4554	0.50000	1.53 (Ta)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	3536	0.50000	1.19 (a)
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	1176	0.50000	0.46 (a)
31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	1845	0.50000	0.47 (a)
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	1276	0.50000	(aM)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	899	0.50000	0.44 (a)
22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	2051	0.50000	0.48 (Ta)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	1364	0.50000	0.60 (aM)
32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	1781	0.50000	0.57 (a)
93 1,2,3-Trichlorobenzene	180	11.768	11.768	(1.218)	298	0.50000	0.89 (aM)
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	851	0.50000	(aMH)
90 1,2,4-Trichlorobenzene	180	11.381	11.381	(1.178)	425	0.50000	2.75 (aM)
79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	3798	0.50000	0.48 (a)
89 1,2-Dibromo-3-Chloropropane	155	10.672	10.672	(1.105)	63	0.50000	1.89 (aM)
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	929	0.50000	0.38 (a)
88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	2059	0.50000	0.47 (a)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051803.D Page 2
Report Date: 08-Jun-2021 11:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.569	4.569	(0.919)	1830	0.50000	0.51(a)
42 1,2-Dichloropropane	63	5.443	5.443	(1.095)	1344	0.50000	0.54(aM)
75 1,3,5-Trimethylbenzene	105	9.075	9.075	(0.939)	3626	0.50000	0.46(a)
83 1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	2018	0.50000	0.45(a)
54 1,3-Dichloropropane	76	6.990	6.990	(0.911)	1704	0.50000	0.43(aM)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2775	0.50000	0.85(a)
26 2,2-Dichloropropane	77	3.523	3.523	(0.842)	1844	0.50000	0.49(aM)
24 2-Butanone	43	3.609	3.609	(0.863)	942	1.00000	1.12(aM)
76 2-Chlorotoluene	91	8.981	8.981	(0.930)	4008	0.50000	0.57(a)
52 2-Hexanone	43	7.112	7.112	(0.927)	1113	1.00000	0.48(Ta)
77 4-Chlorotoluene	91	9.082	9.082	(0.940)	3941	0.50000	0.48(a)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	3707	0.50000	0.48(aM)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	1863	1.00000	0.92(a)
10 Acetone	43	1.976	1.976	(0.473)	2121	1.00000	(a)
37 Benzene	78	4.519	4.519	(0.909)	4678	0.50000	0.51(a)
74 Bromobenzene	156	8.810	8.810	(0.912)	1130	0.50000	0.43(a)
29 Bromochloromethane	128	3.788	3.788	(0.906)	680	0.50000	0.49(a)
39 Bromodichloromethane	83	5.729	5.729	(1.153)	1706	0.50000	0.48(aM)
66 Bromoform	173	8.408	8.408	(1.096)	788	0.50000	0.46(aM)
6 Bromomethane	94	1.338	1.338	(0.320)	1623	0.50000	0.21(a)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	4757	1.00000	0.89(aM)
34 Carbon Tetrachloride	117	4.268	4.268	(0.859)	1529	0.50000	0.48(aM)
59 Chlorobenzene	112	7.692	7.692	(1.003)	3453	0.50000	0.50(a)
7 Chloroethane	64	1.403	1.403	(0.336)	1092	0.50000	0.63(aM)
28 Chloroform	83	3.910	3.910	(0.935)	2533	0.50000	0.52(a)
3 Chloromethane	50	1.081	1.081	(0.258)	1464	0.50000	0.83(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	1137	0.50000	0.43(a)
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	1773	0.50000	0.44(a)
55 Dibromochloromethane	129	7.184	7.184	(0.937)	1032	0.50000	0.38(a)
44 Dibromomethane	93	5.565	5.565	(1.120)	745	0.50000	0.42(a)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	1498	0.50000	2.58(aM)
61 Ethylbenzene	106	7.807	7.807	(1.018)	1667	0.50000	0.49(a)
91 Hexachlorobutadiene	225	11.474	11.474	(1.188)	285	0.50000	3.47(aM)
67 Isopropylbenzene	105	8.566	8.566	(1.117)	4923	0.50000	0.47(a)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	3953	1.00000	0.91(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	985	0.50000	0.43(a)
87 n-Butylbenzene	91	10.006	10.006	(1.036)	3921	0.50000	0.53(a)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	5394	0.50000	0.48(a)
92 Naphthalene	128	11.610	11.610	(1.202)	406	0.50000	3.28(aM)
63 o-Xylene	106	8.244	8.244	(1.075)	2130	0.50000	0.50(a)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	4374	0.50000	0.47(a)
64 Styrene	104	8.272	8.272	(1.078)	2465	0.50000	2.06(a)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	3226	0.50000	0.48(a)
56 Tetrachloroethene	164	6.926	6.926	(0.903)	928	0.50000	0.48(a)
50 Toluene	91	6.446	6.446	(0.840)	4354	0.50000	0.43(a)
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	1135	0.50000	0.52(a)
51 trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	1319	0.50000	0.37(a)
38 Trichloroethene	130	5.207	5.207	(1.048)	1104	0.50000	0.45(a)
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	2271	0.50000	0.52(a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1600	0.50000	0.58(aM)

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.



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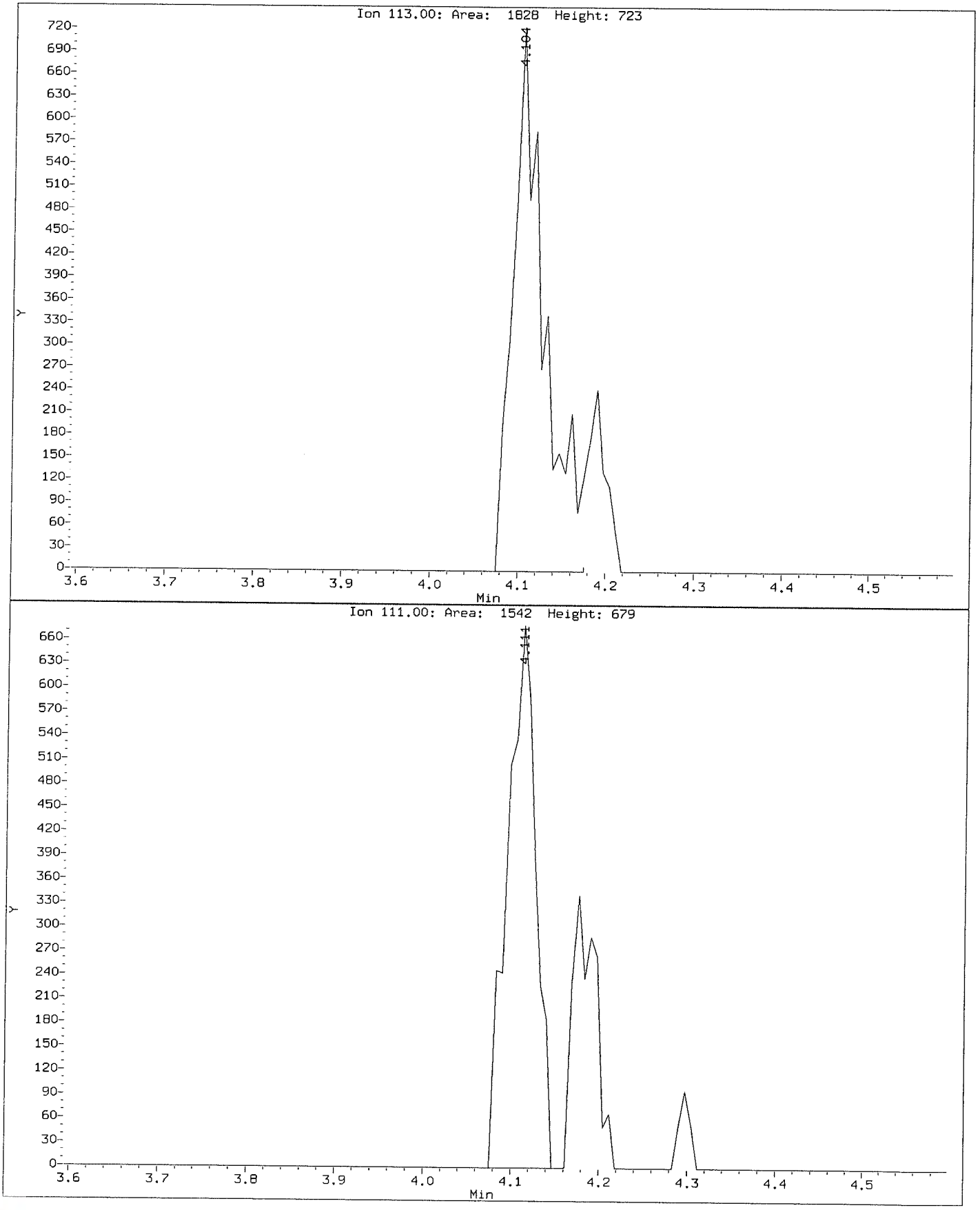
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dibromofluoromethane
CAS Number: 1868-53-7



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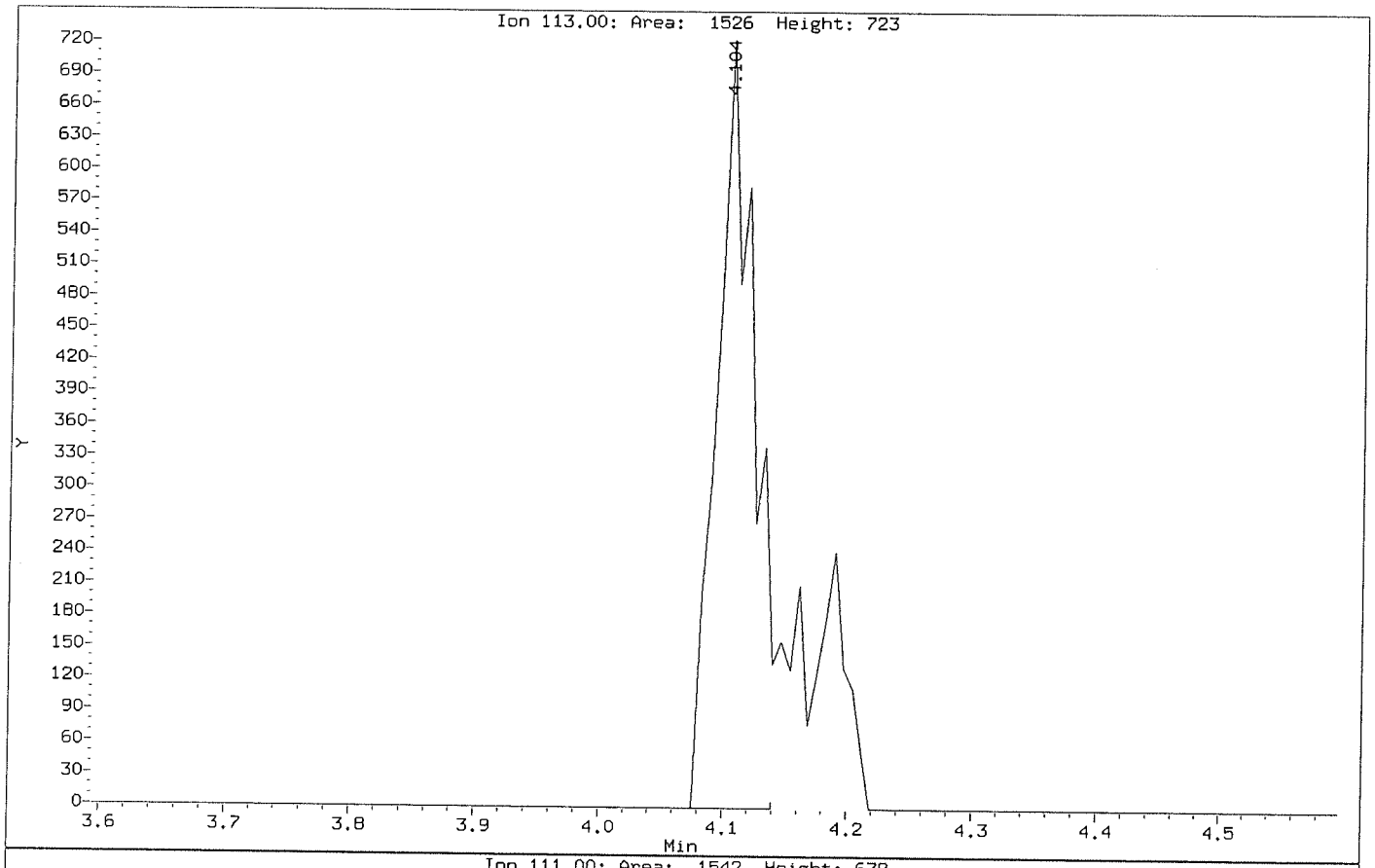
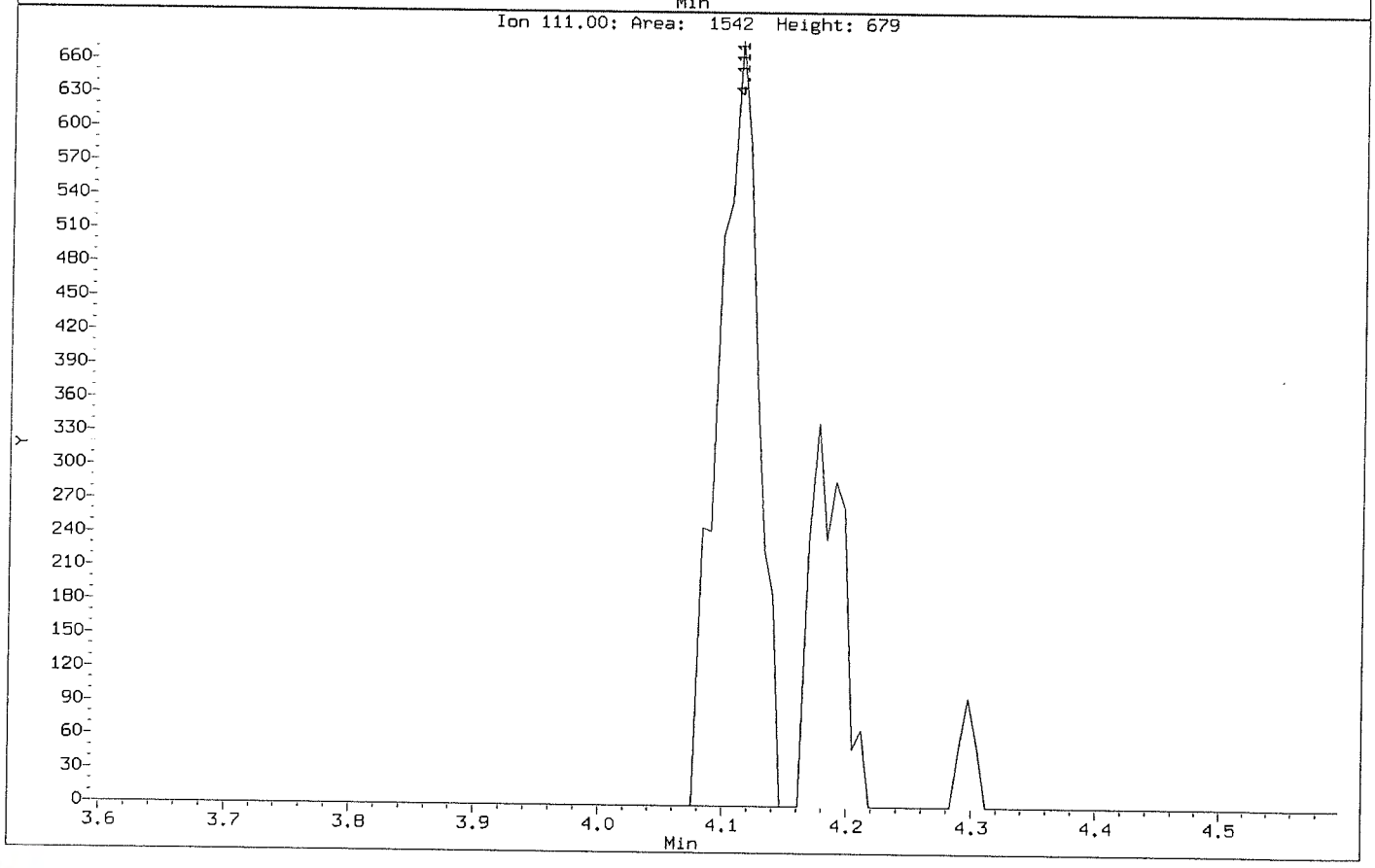
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dibromofluoromethane
CAS Number: 1868-53-7





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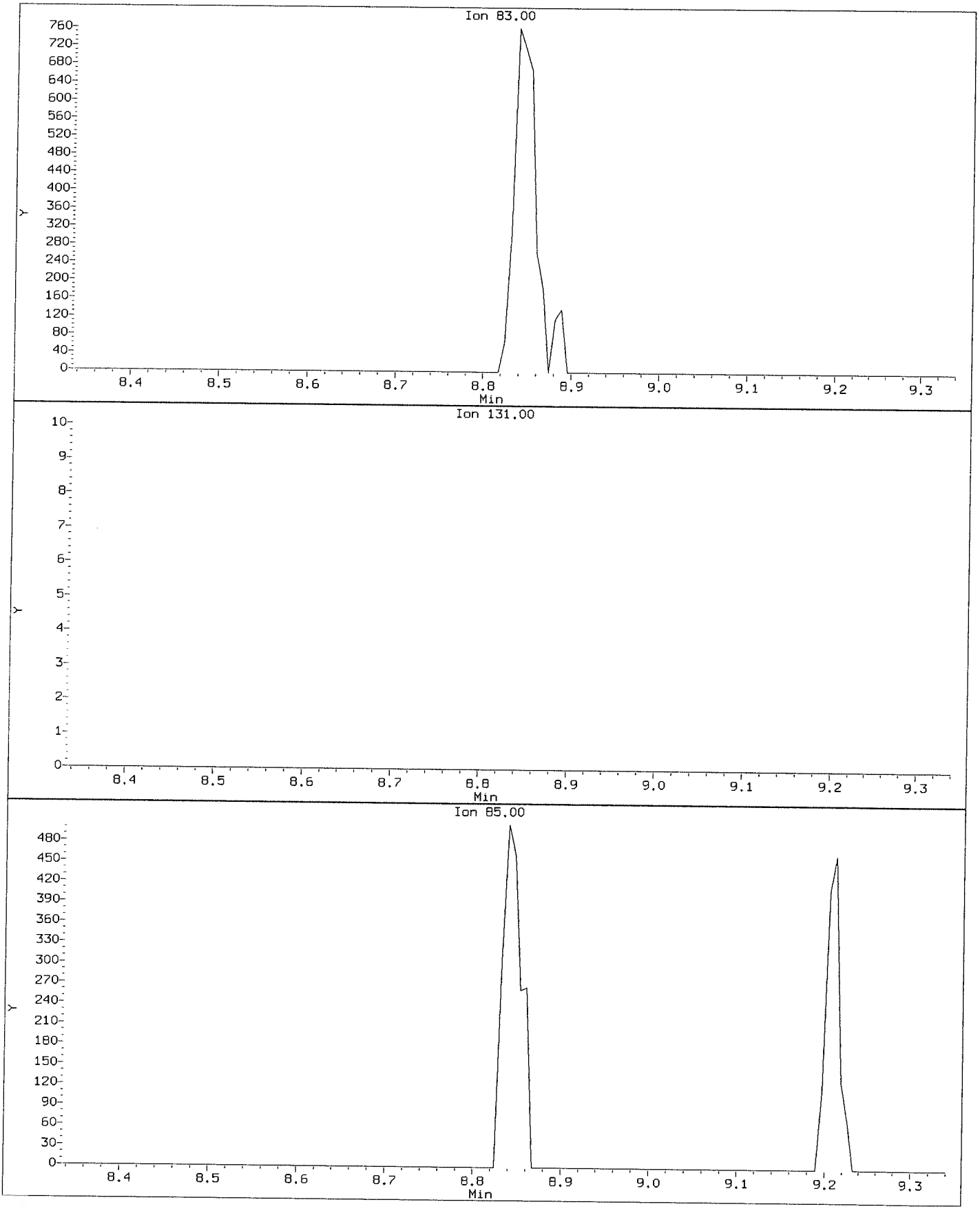
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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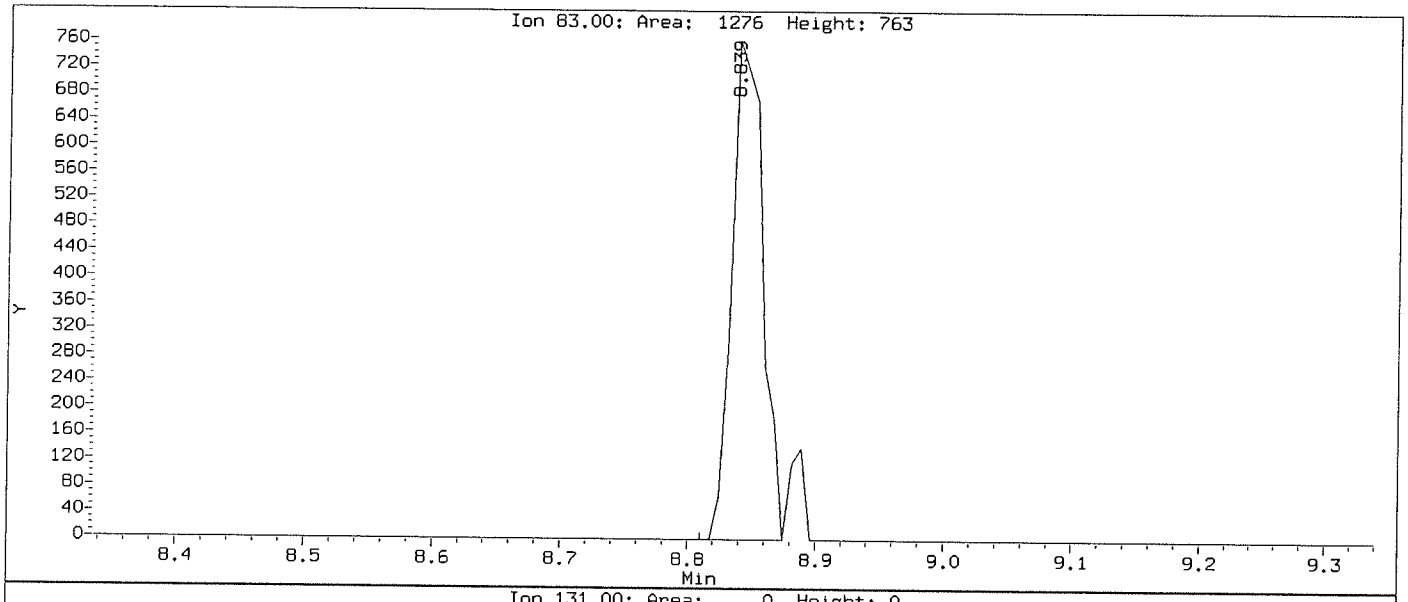
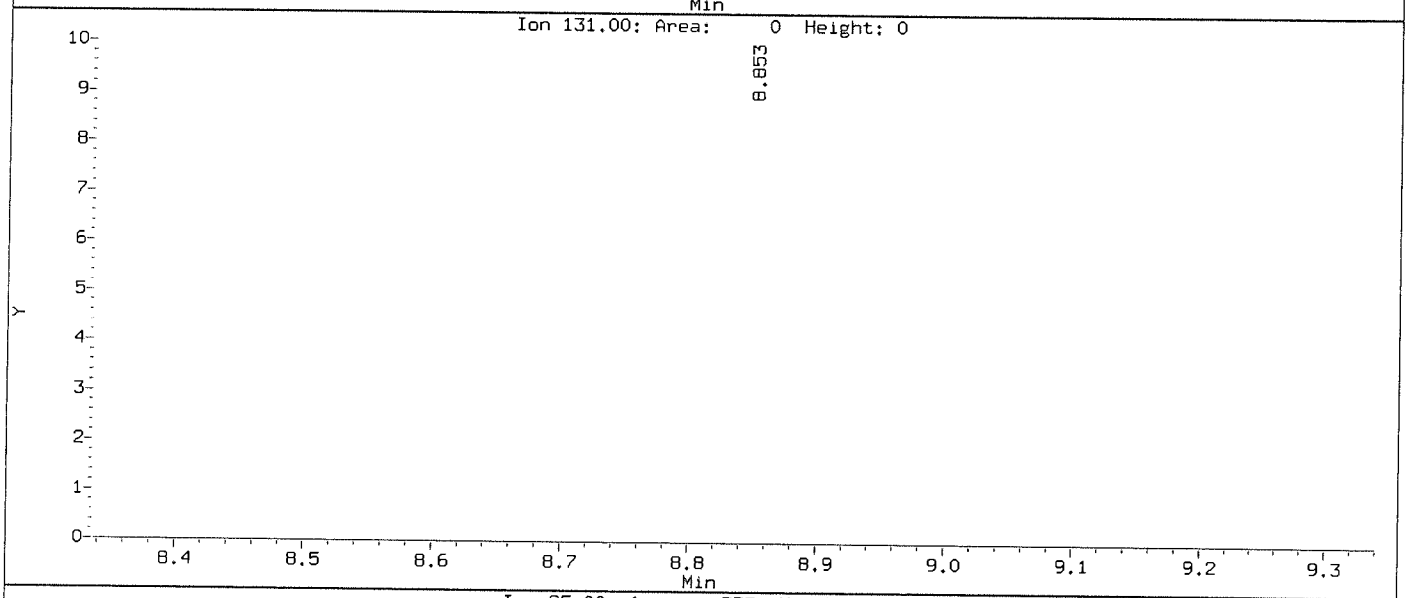
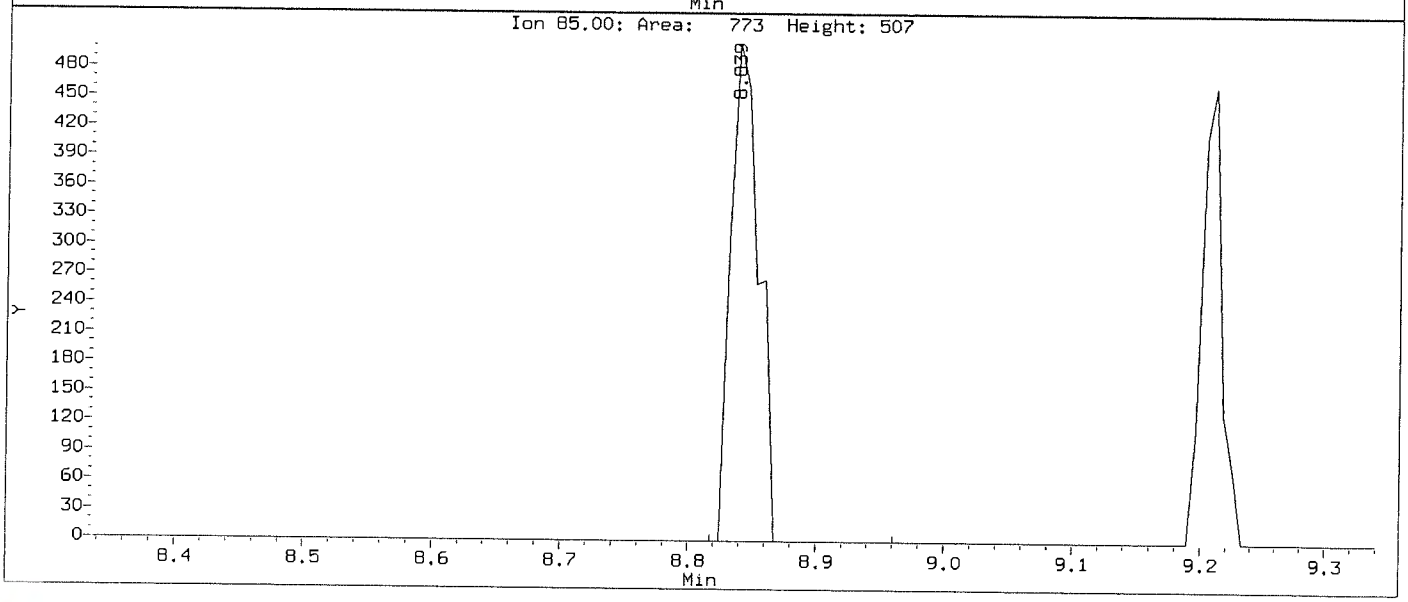
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5







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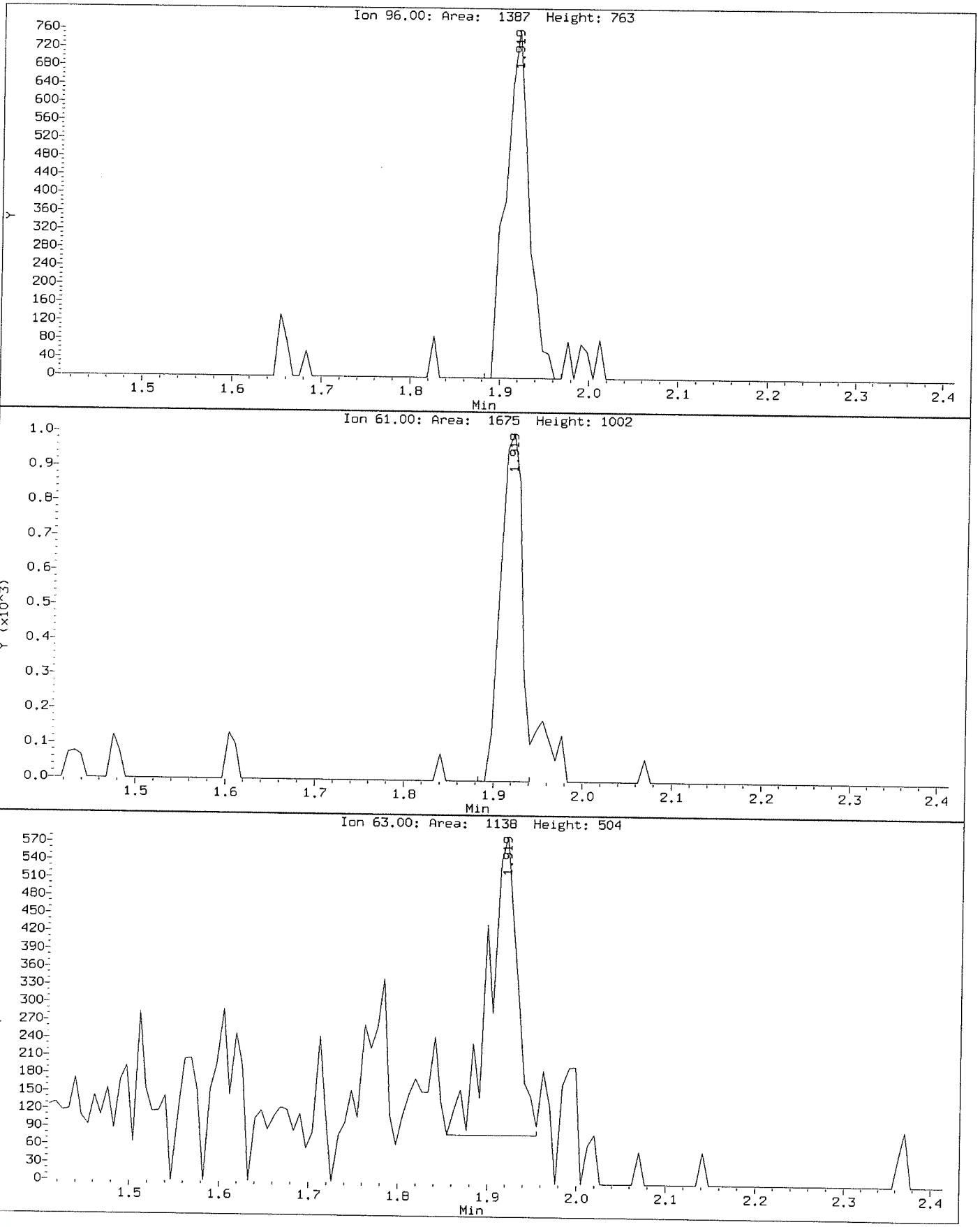
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



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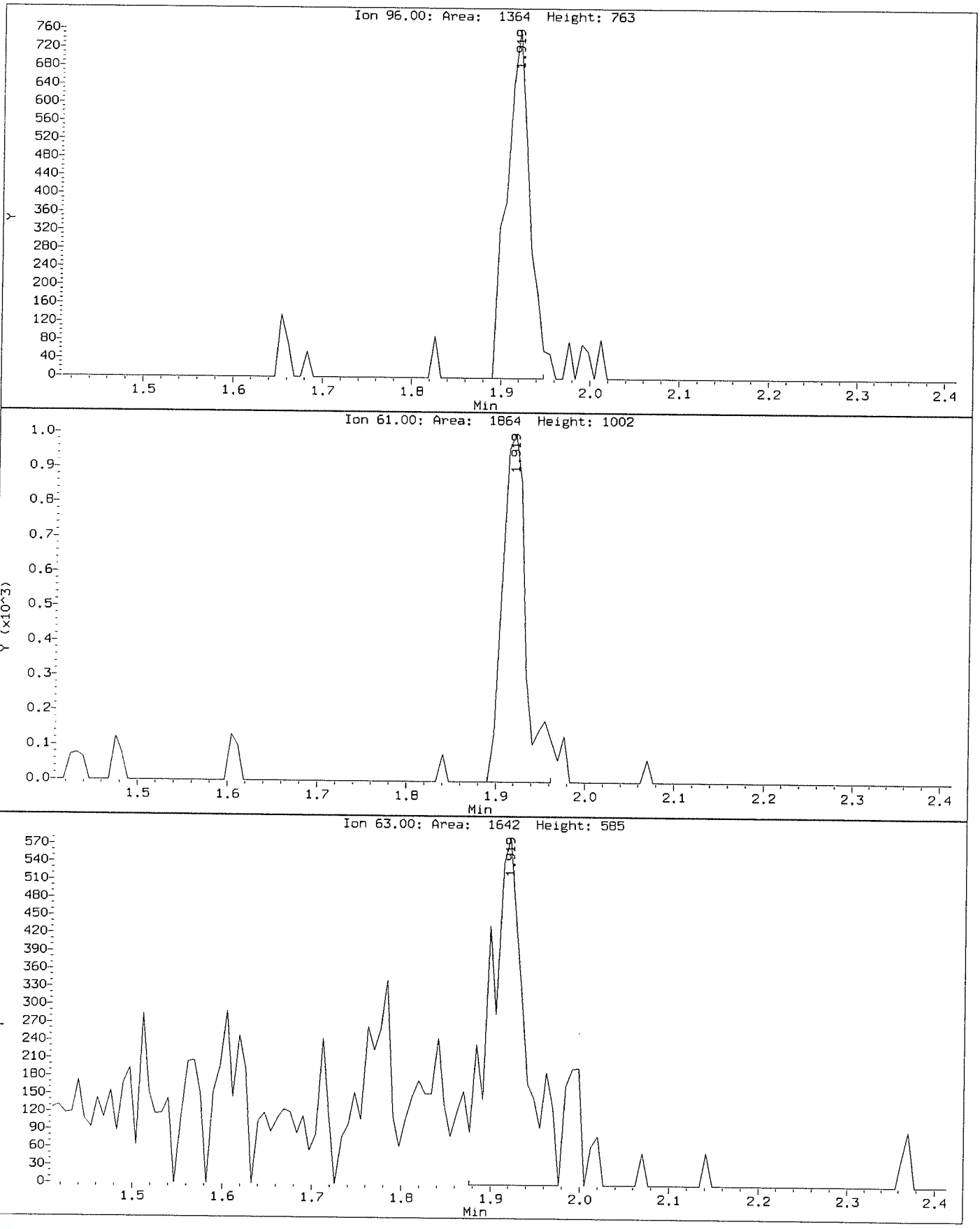
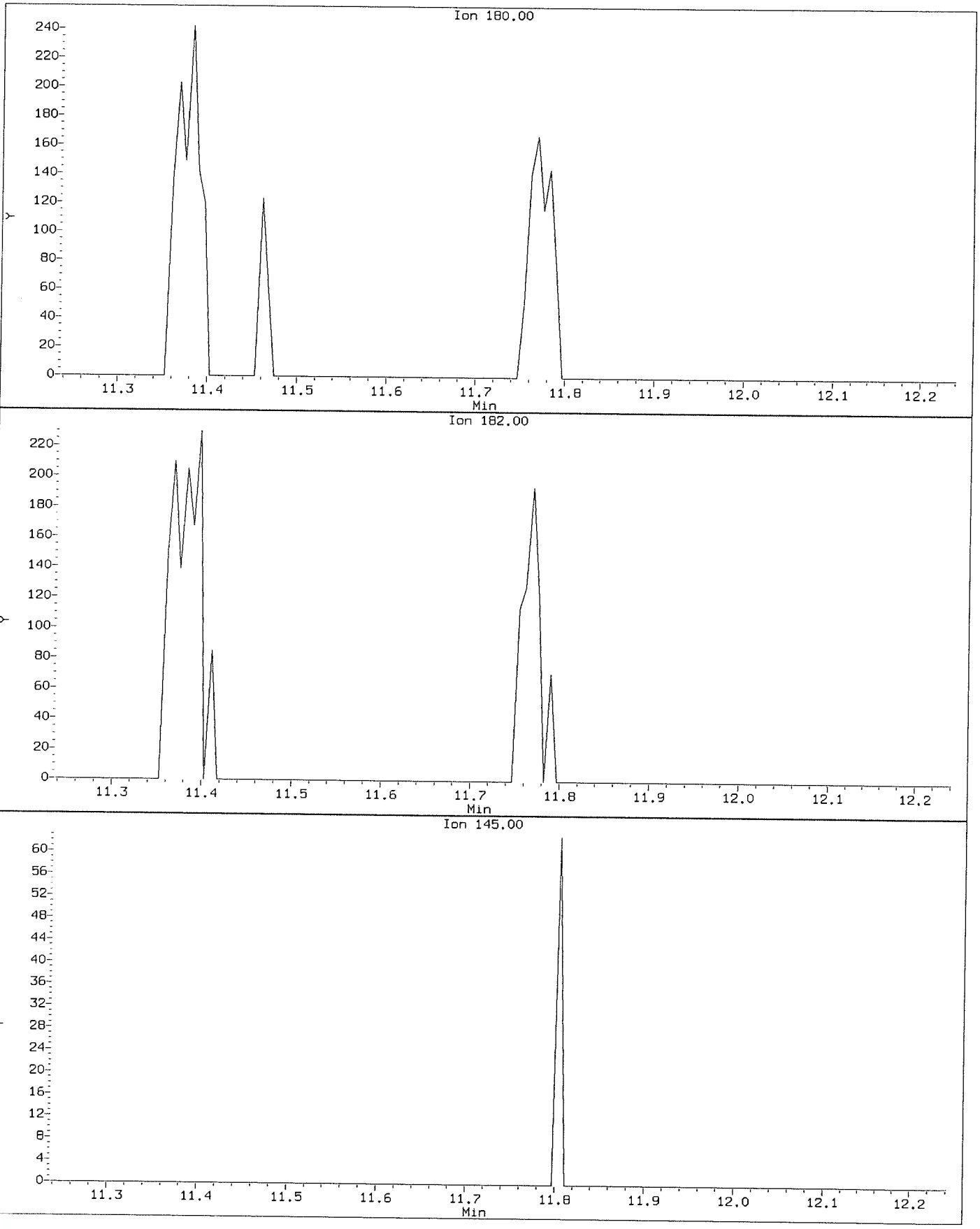
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6



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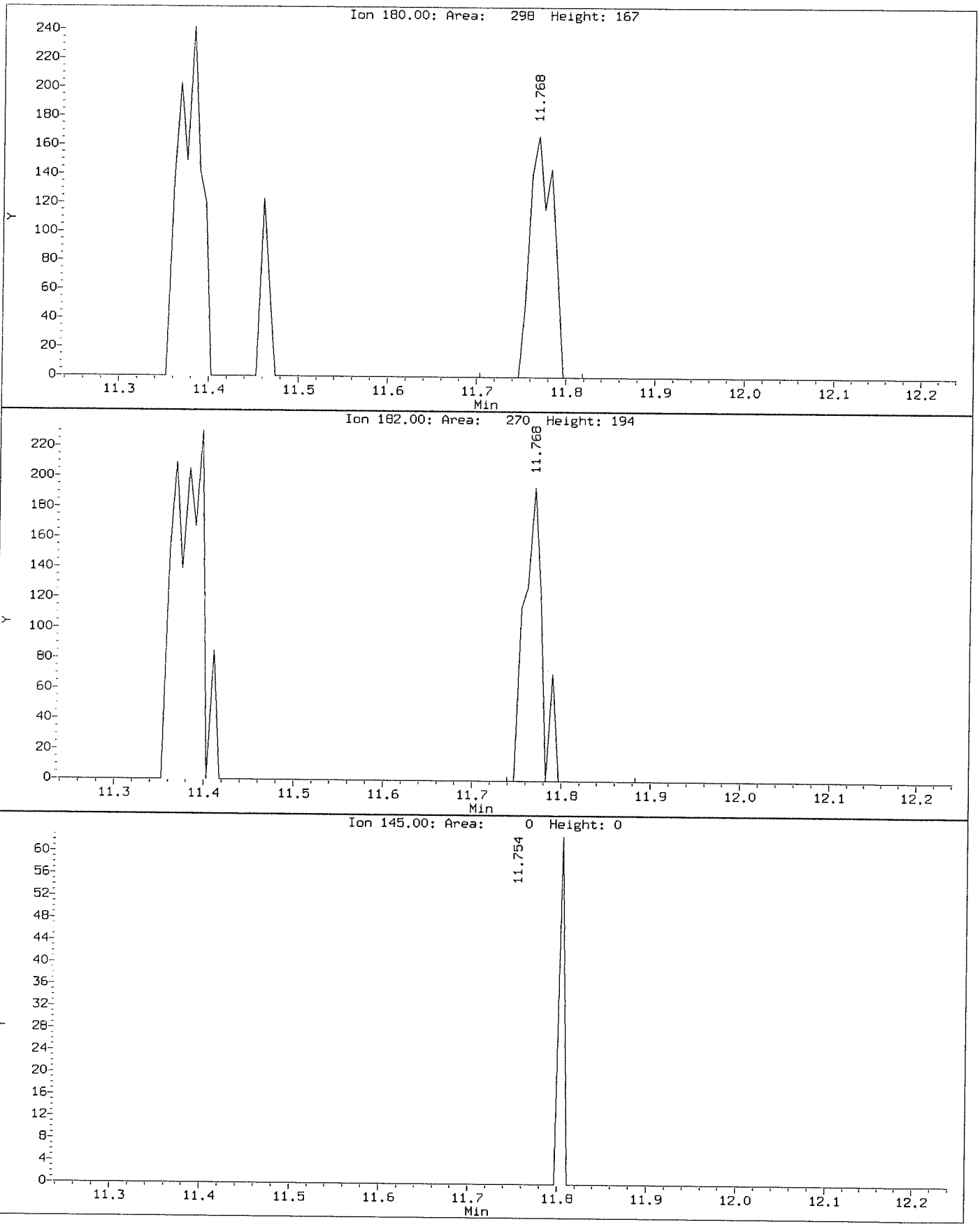
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6



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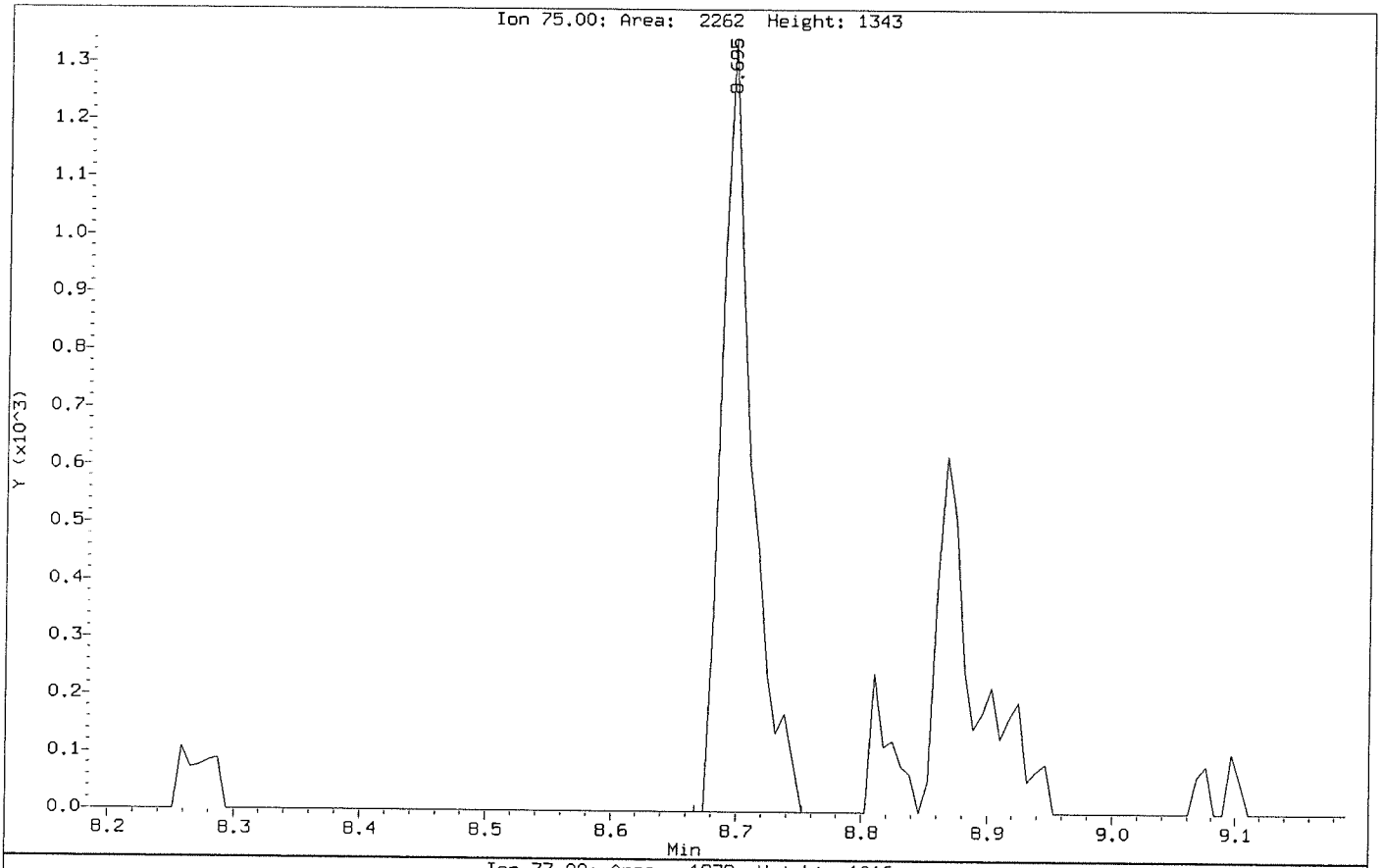
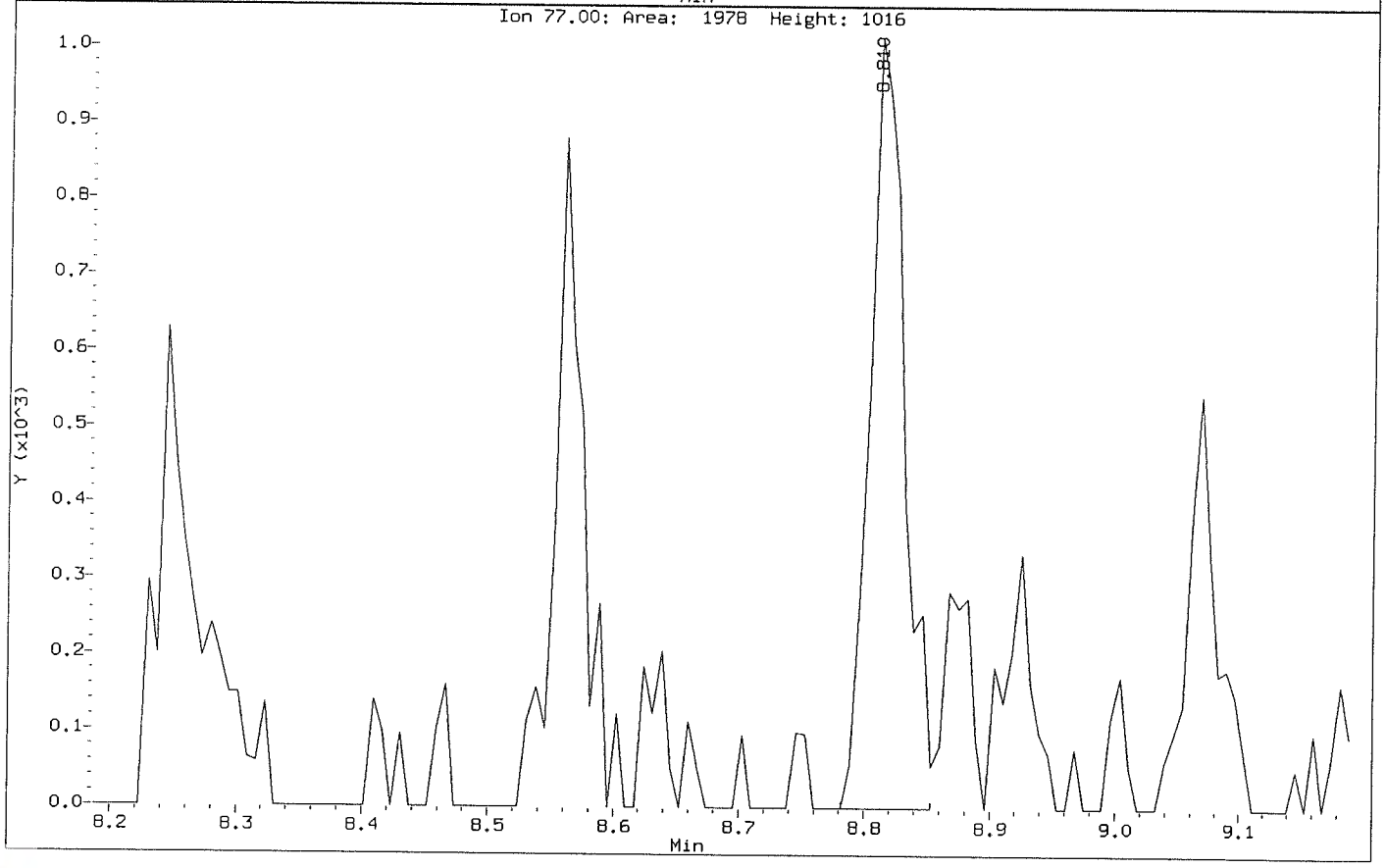
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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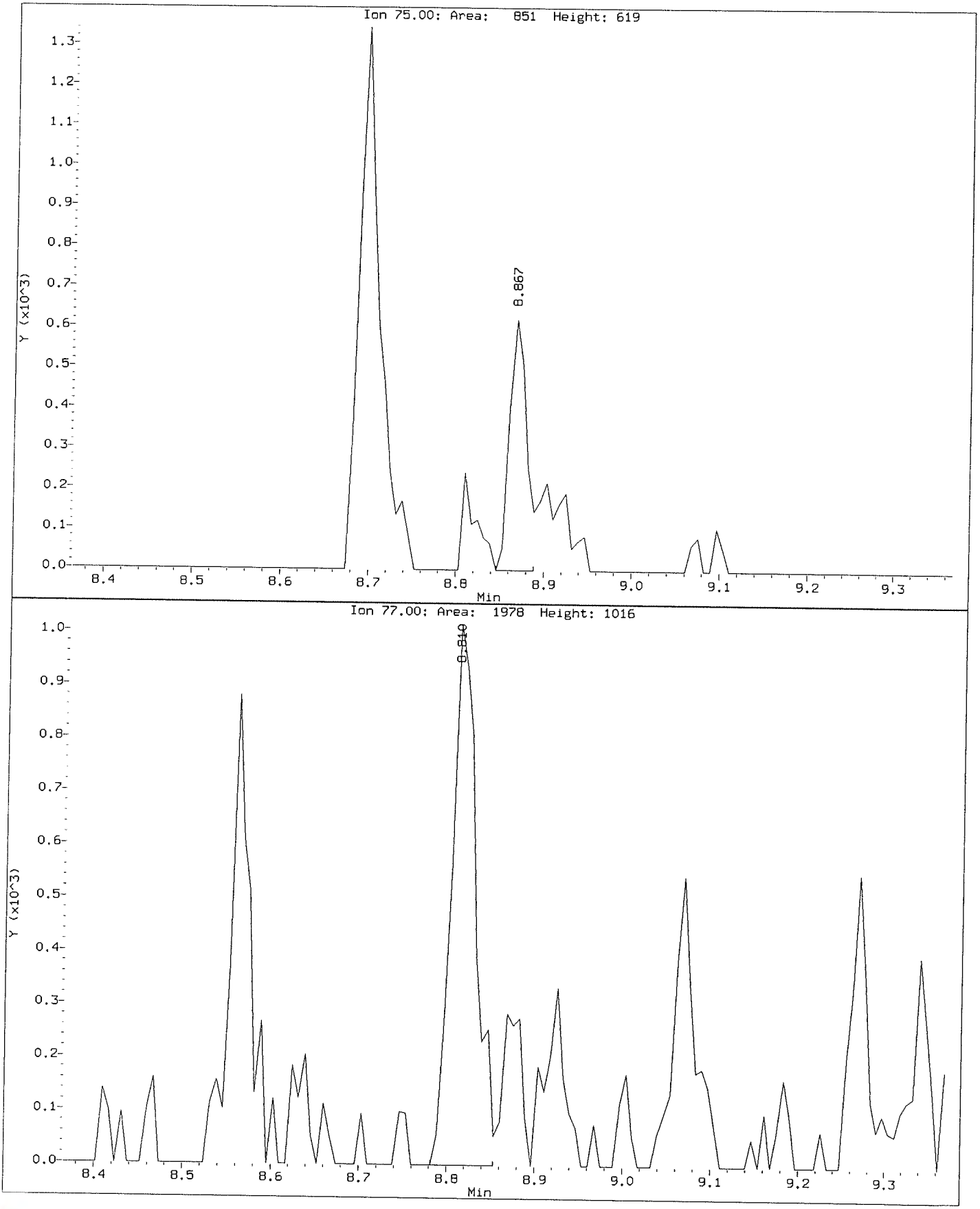
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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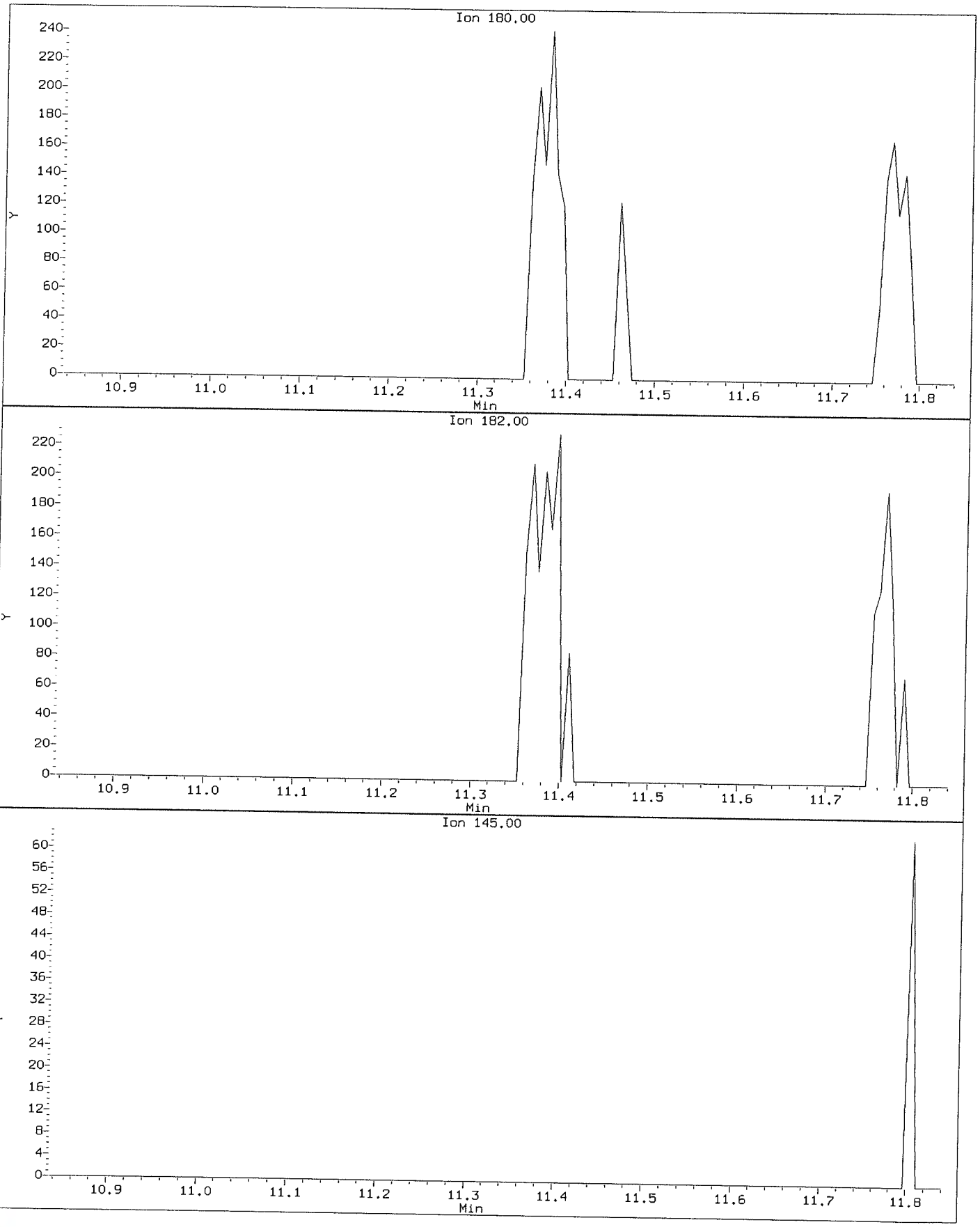
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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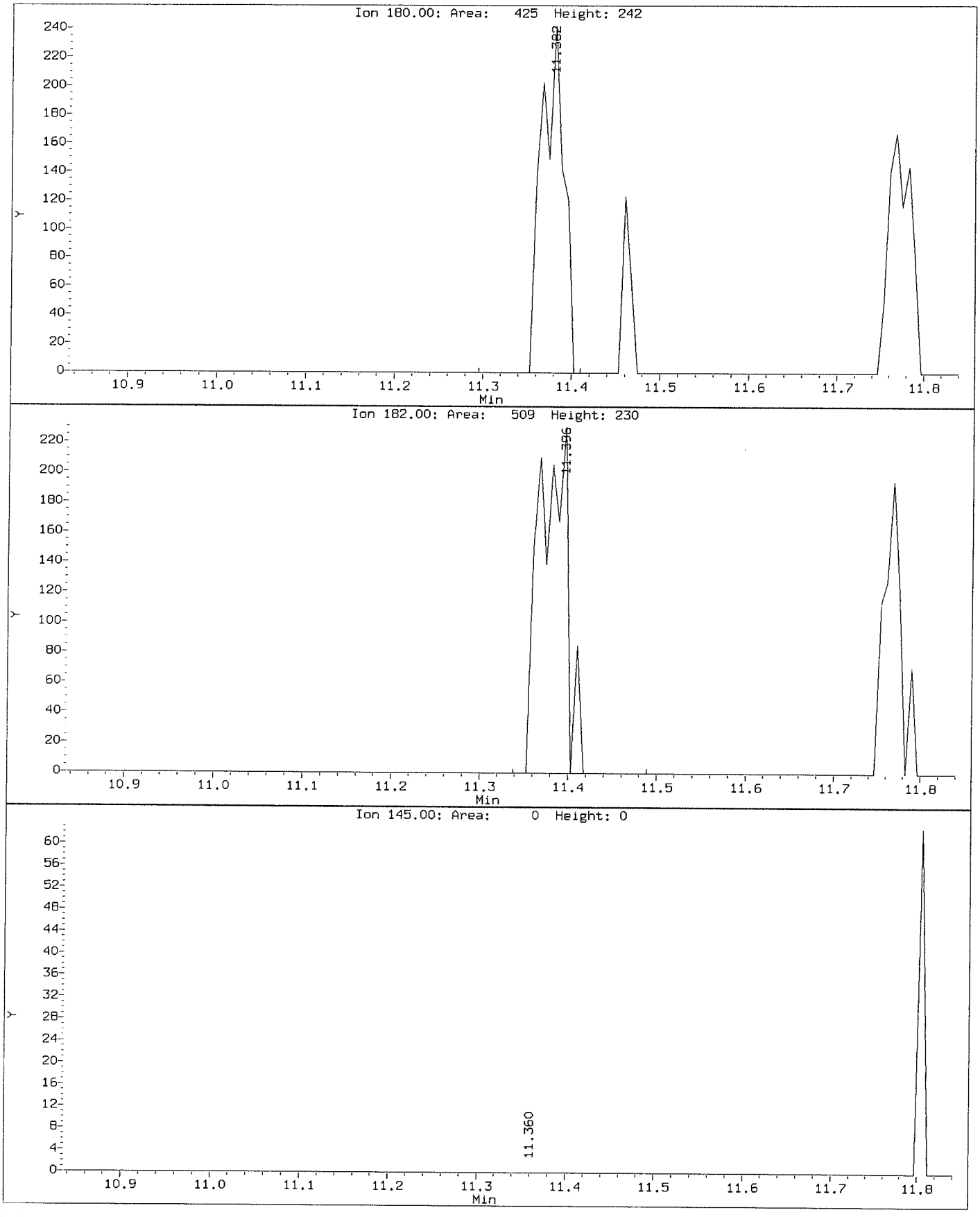
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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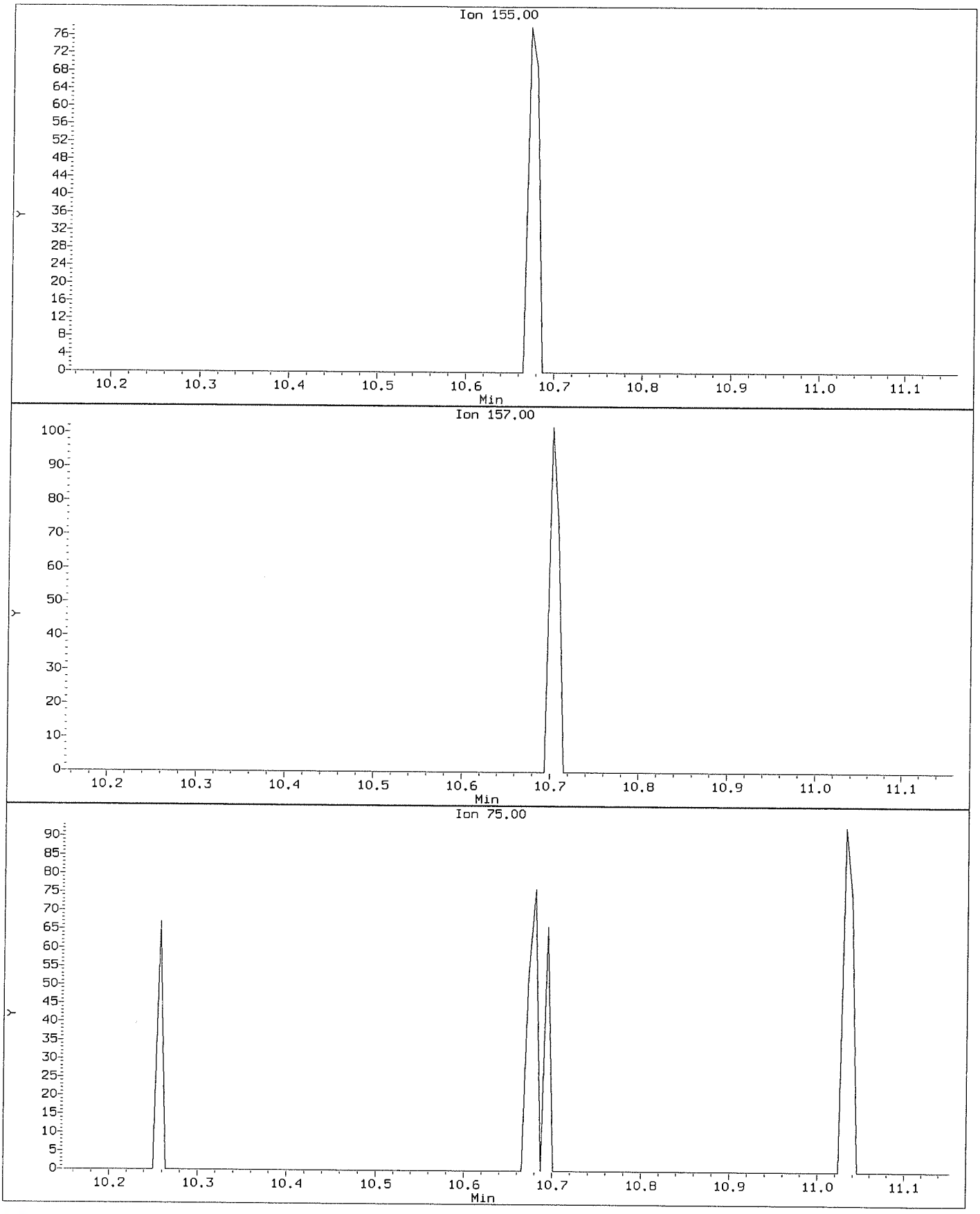
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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Injection Date: 18-MAY-2021 11:43
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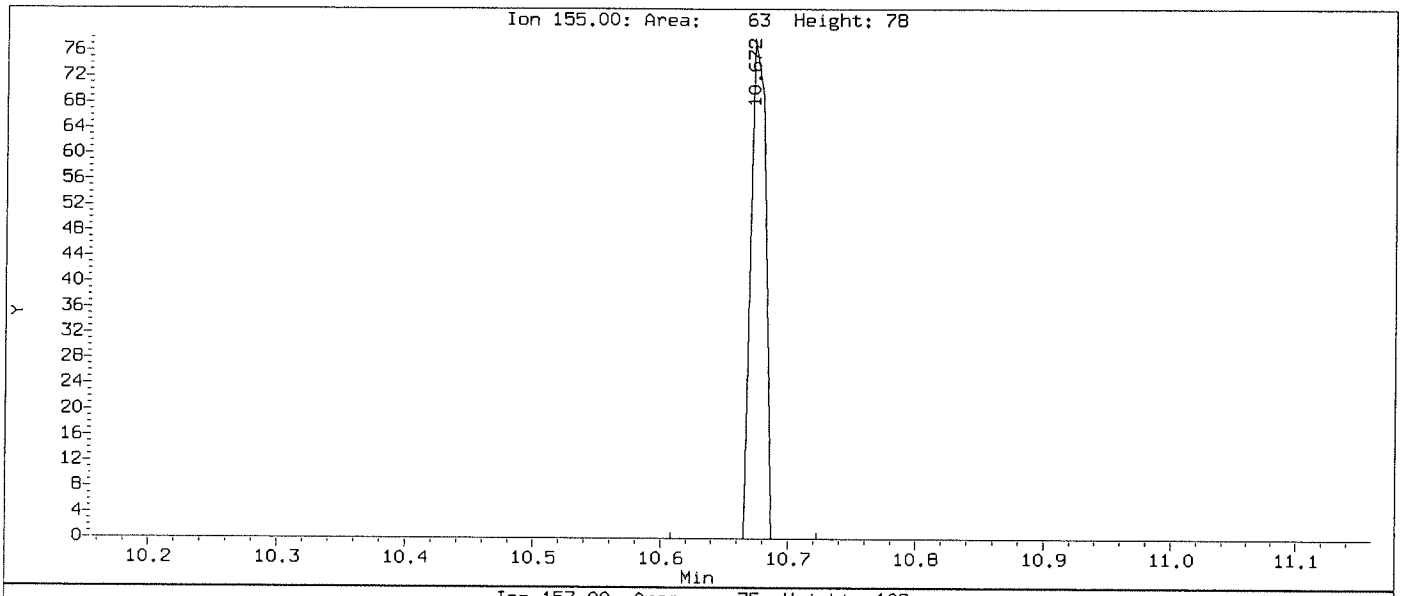
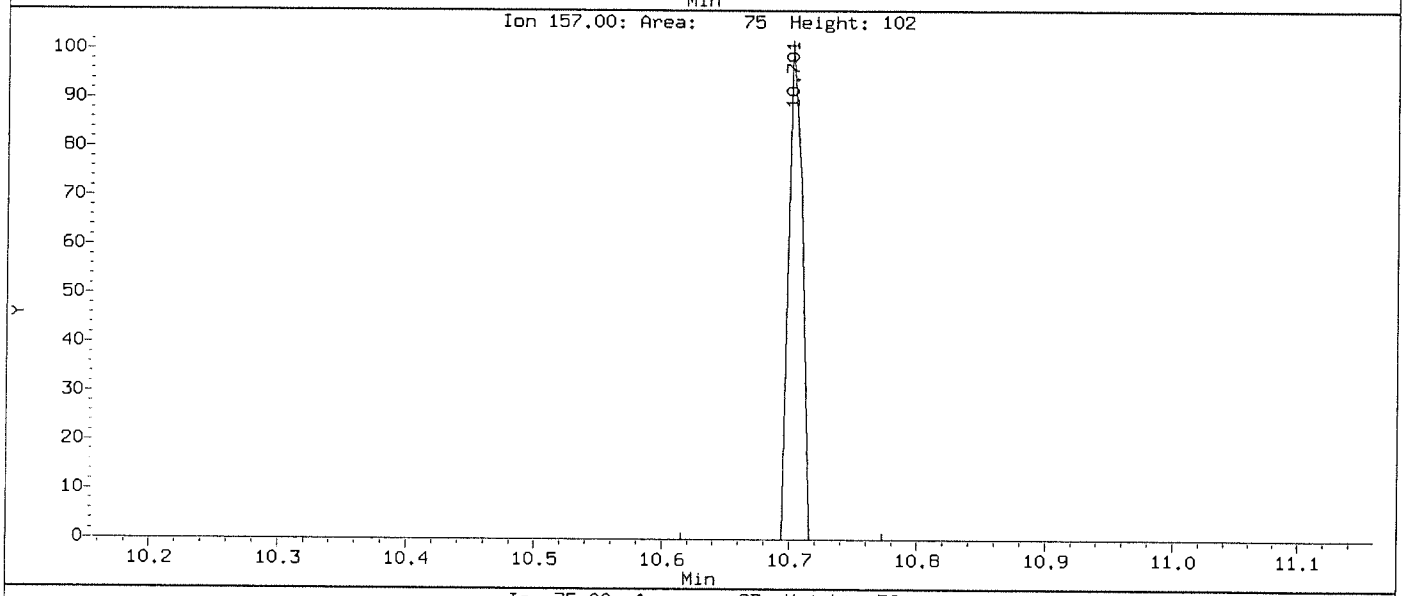
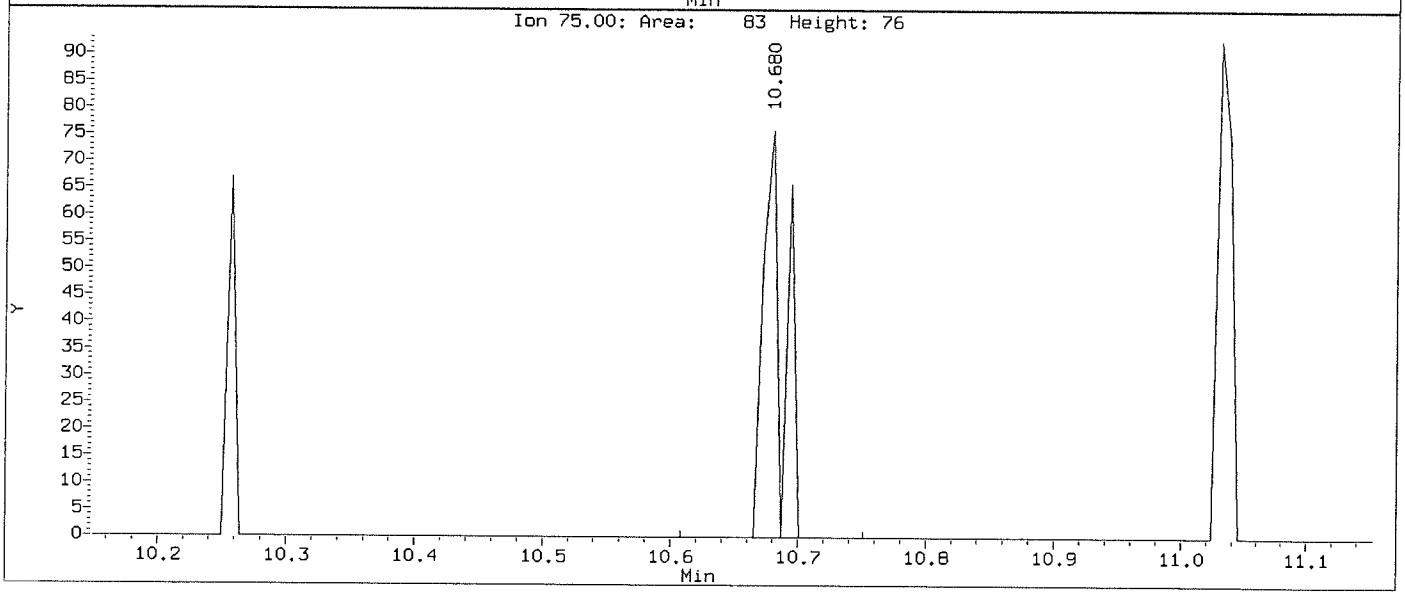
Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8







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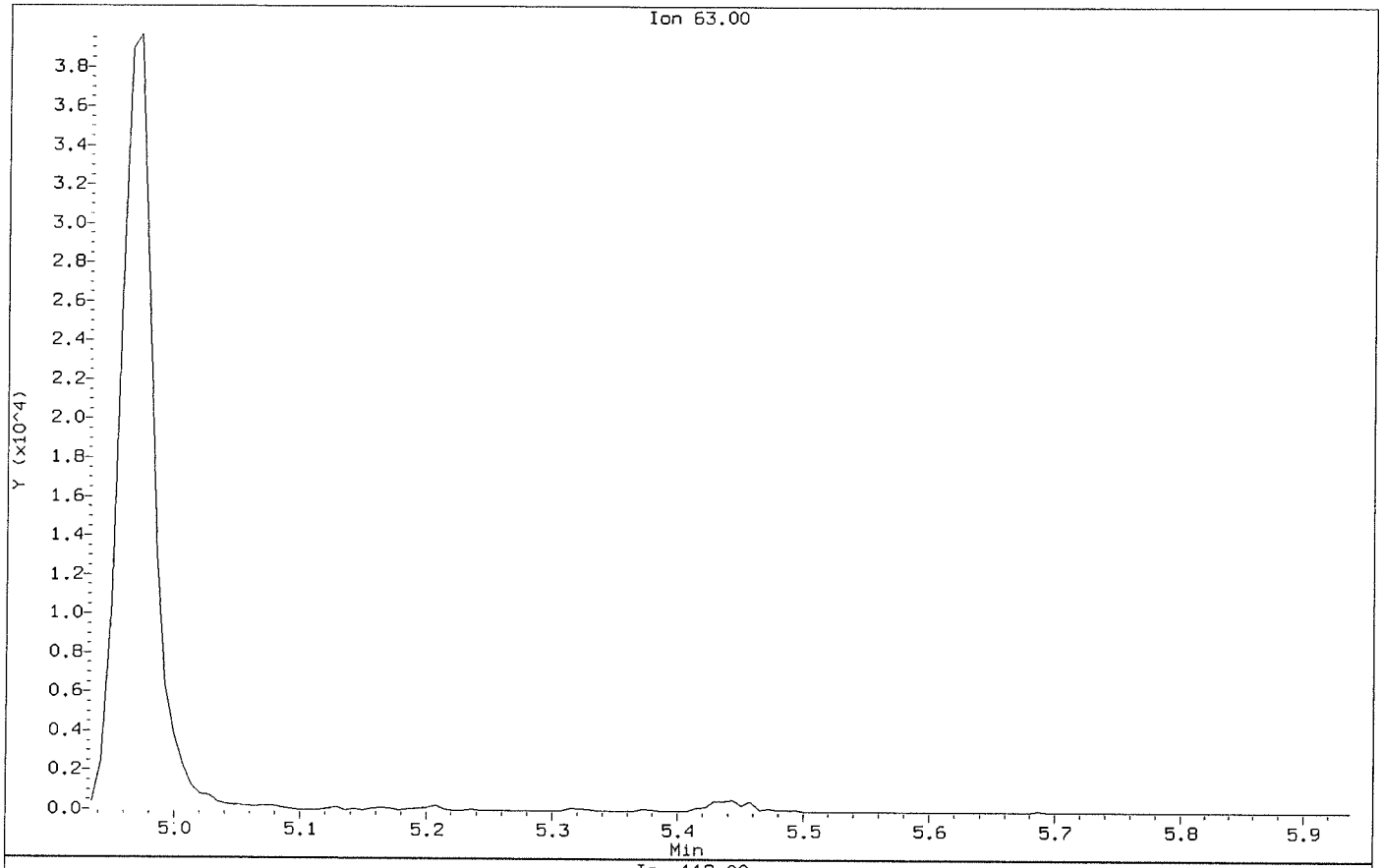
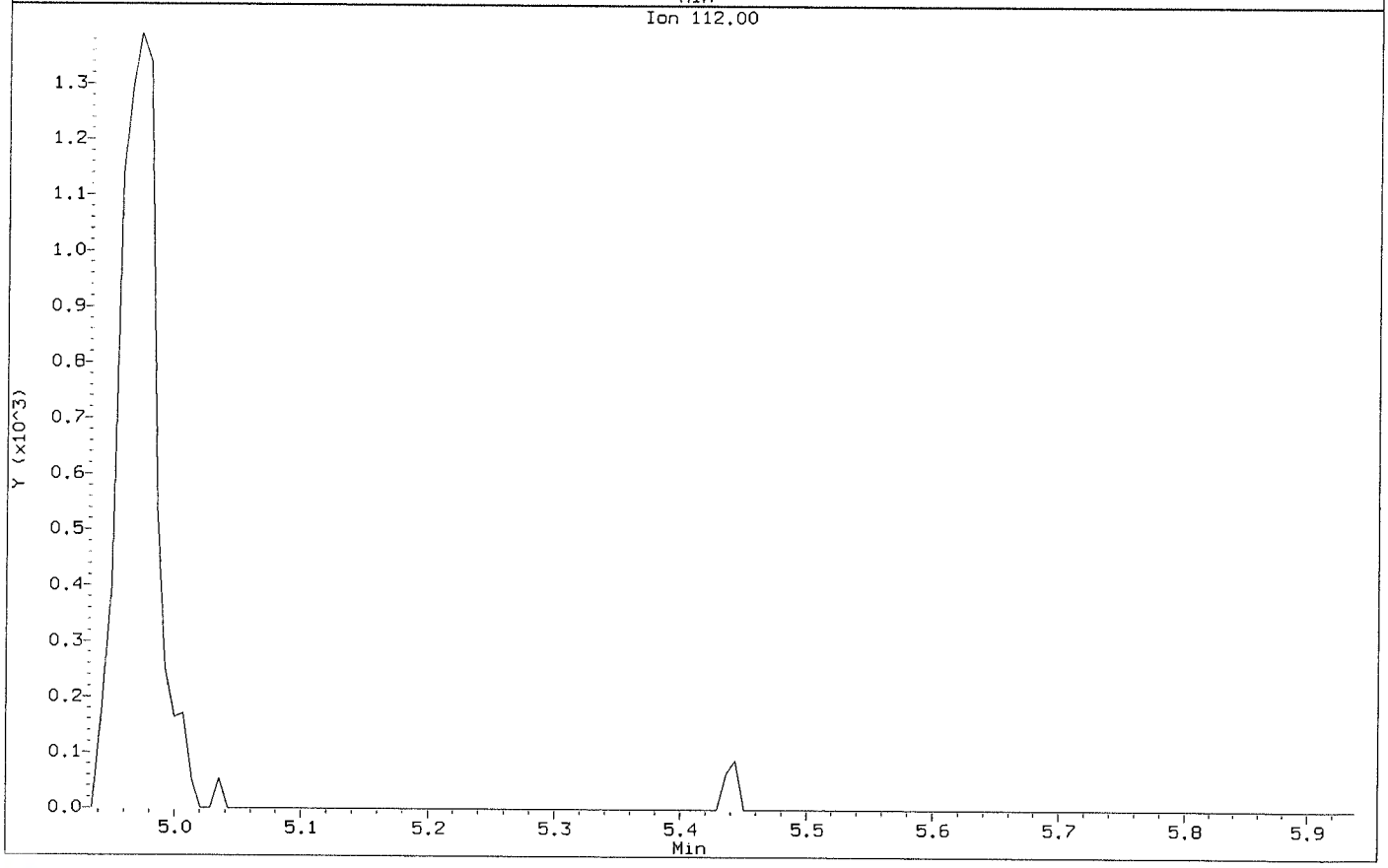
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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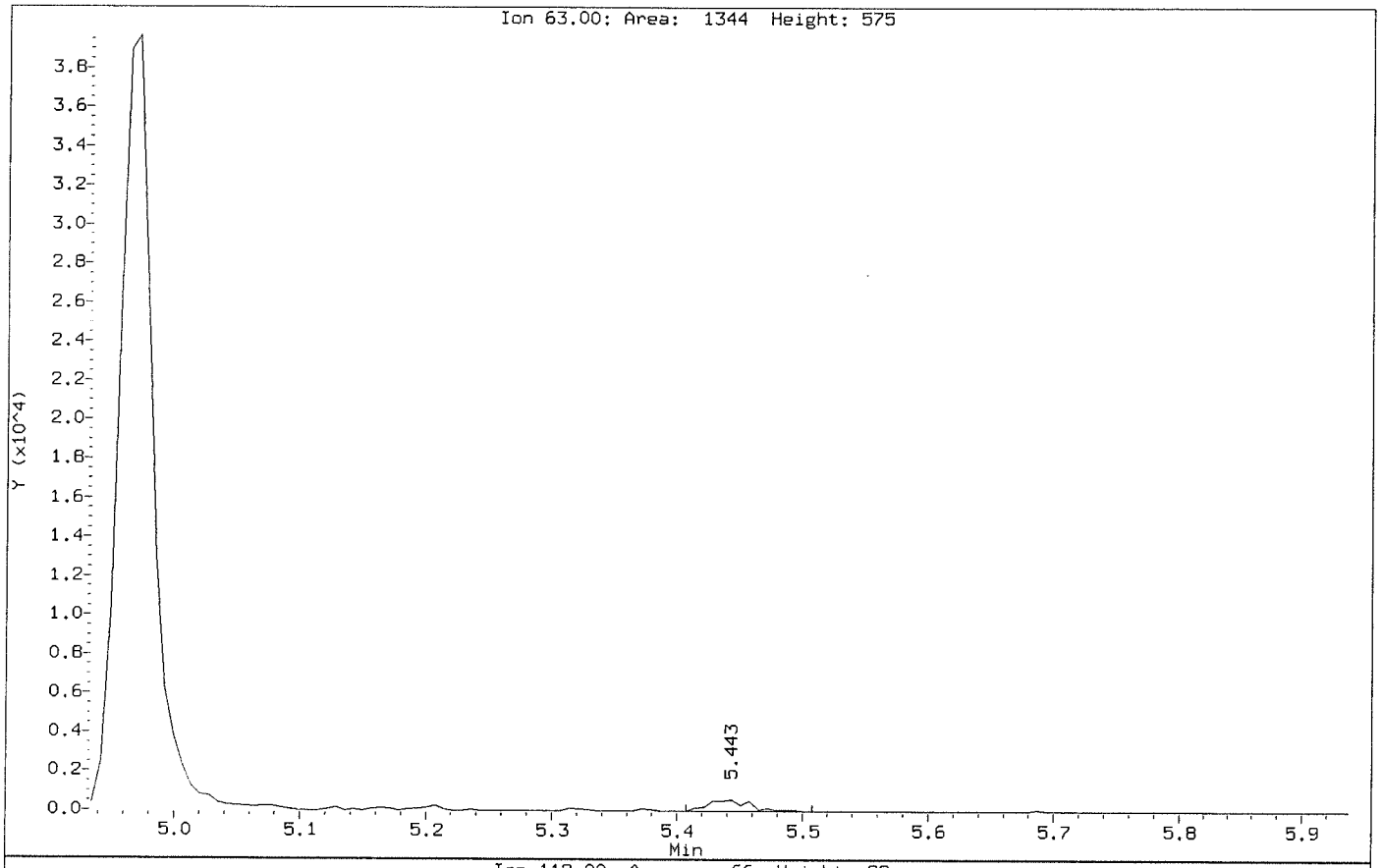
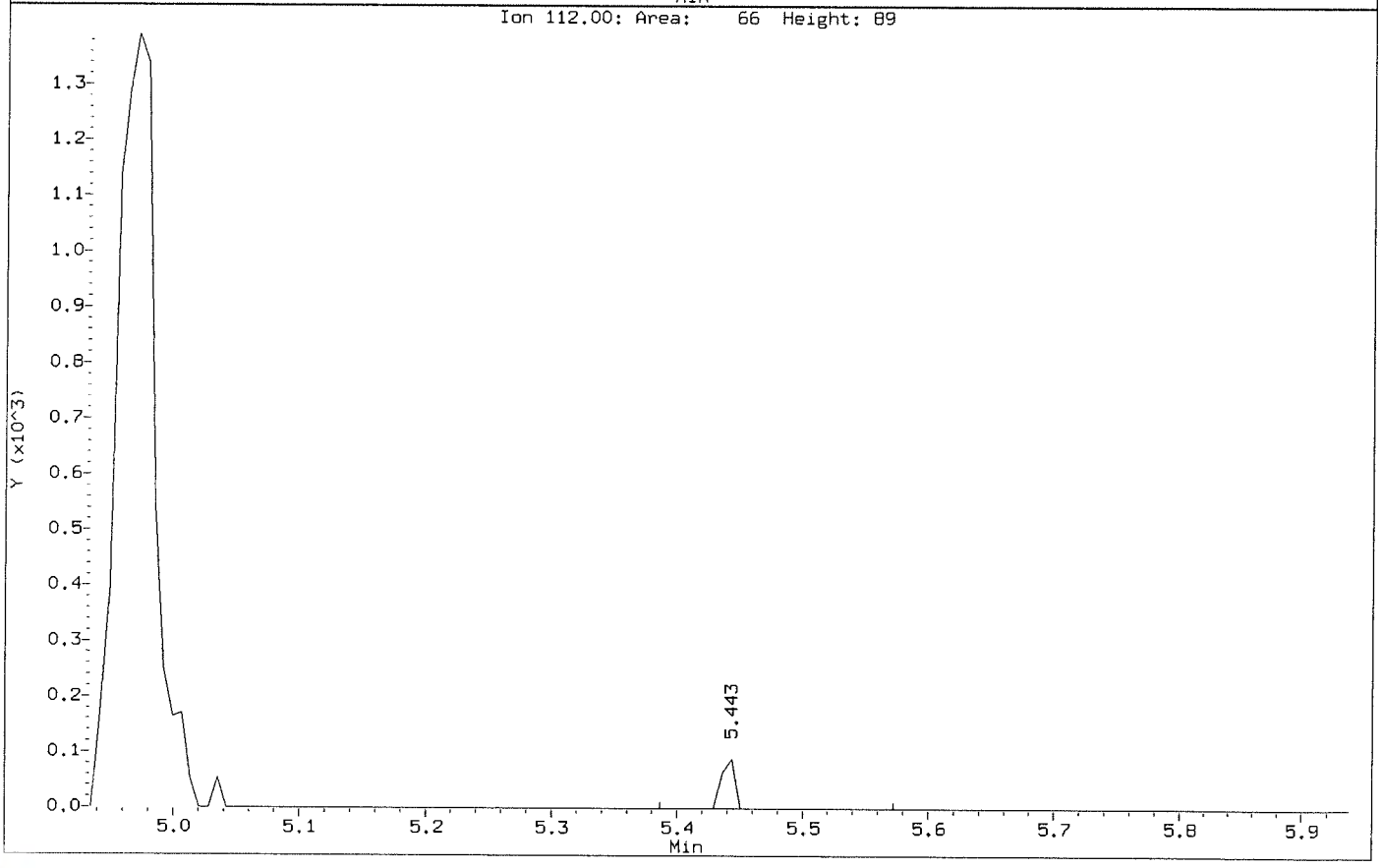
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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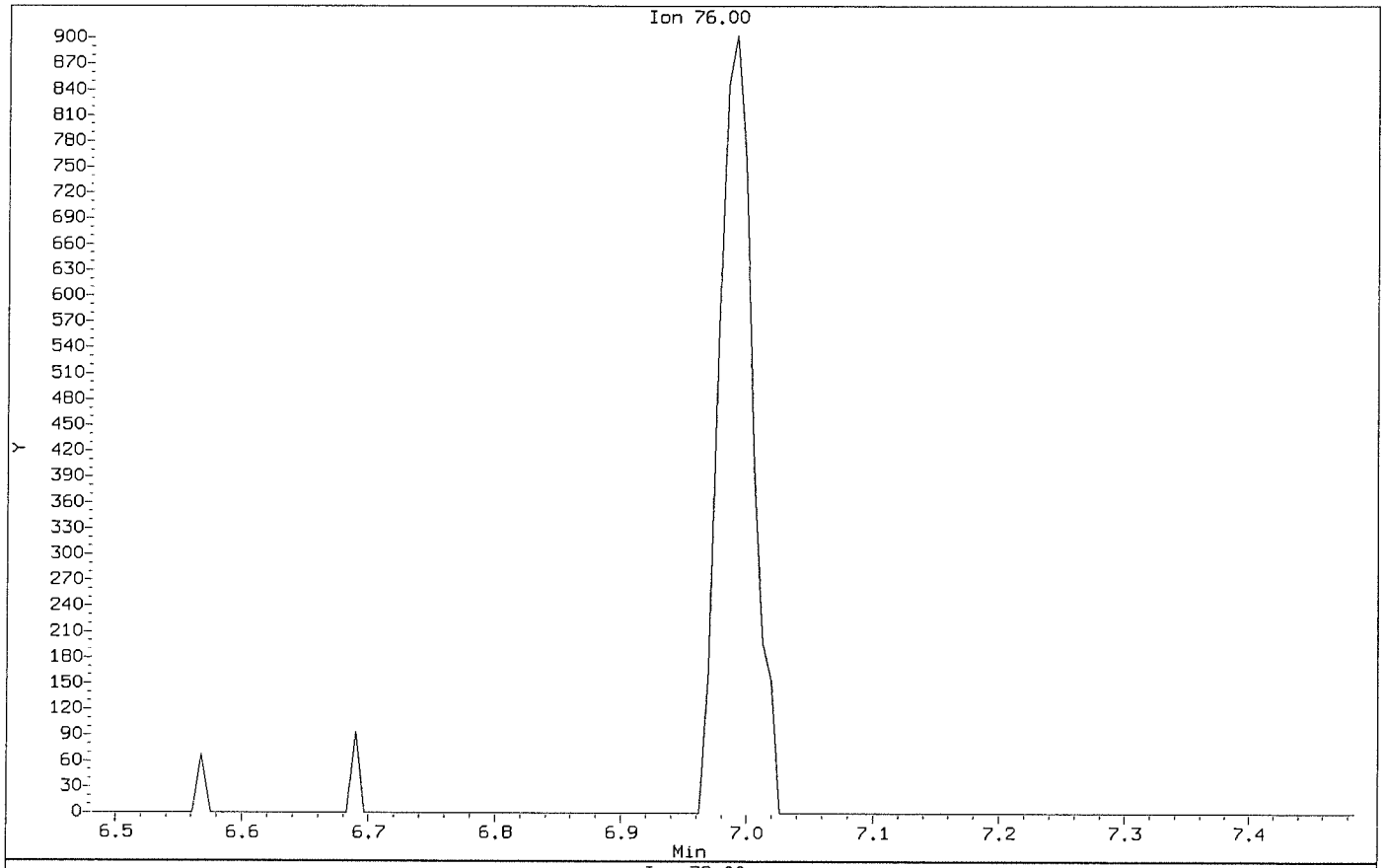
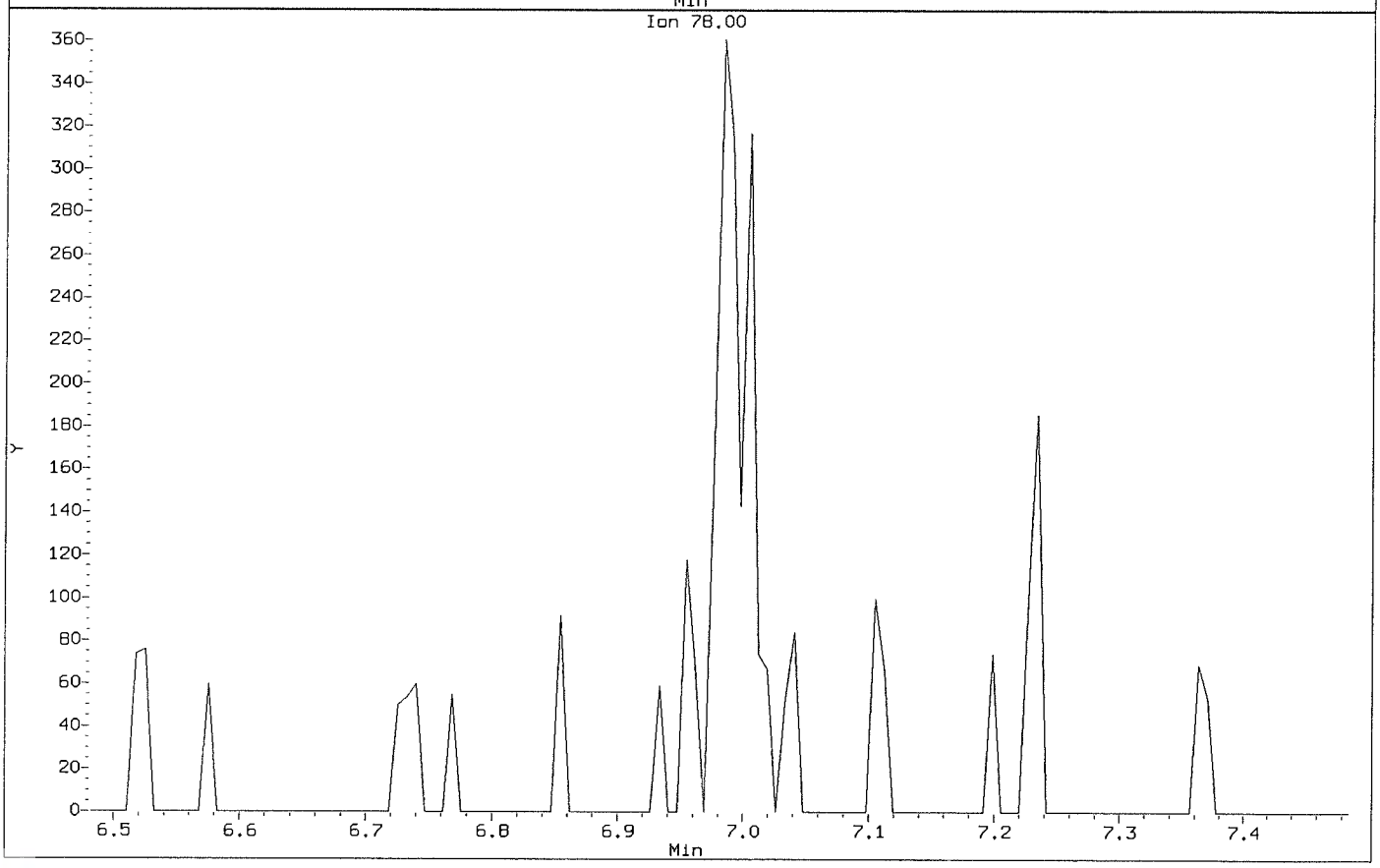
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

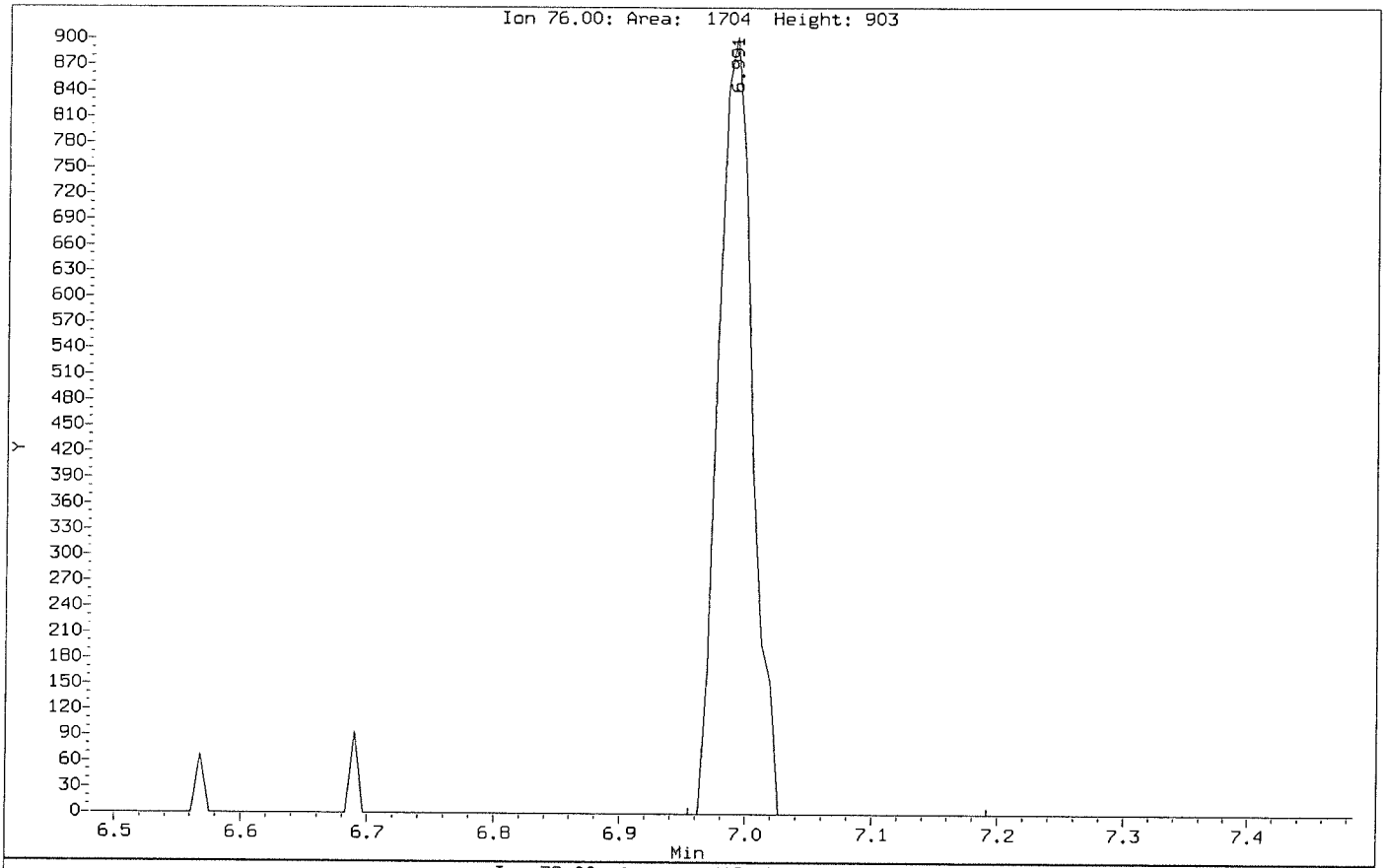
Compound: 1,3-Dichloropropane
CAS Number: 142-28-9

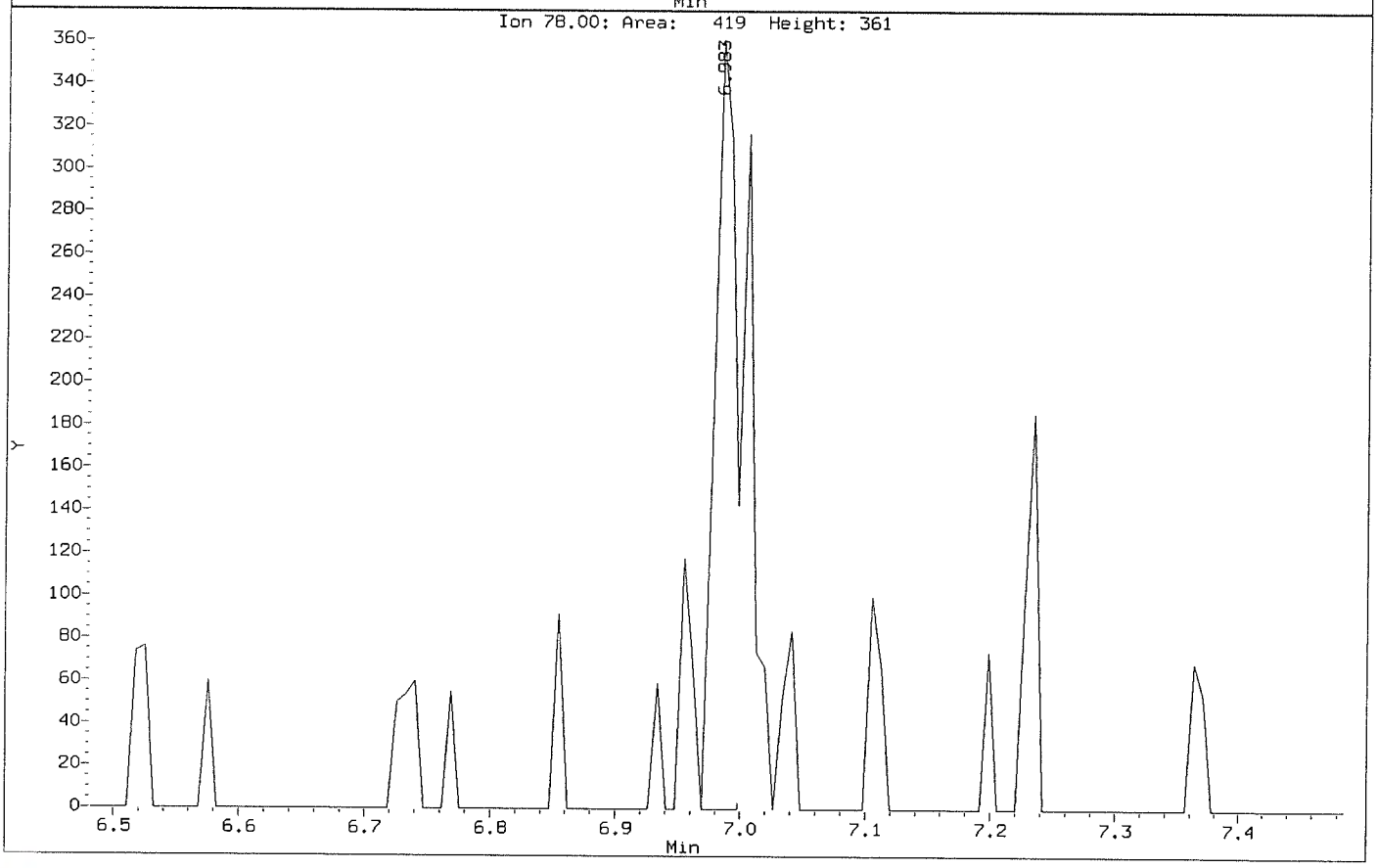




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,3-Dichloropropane
CAS Number: 142-28-9





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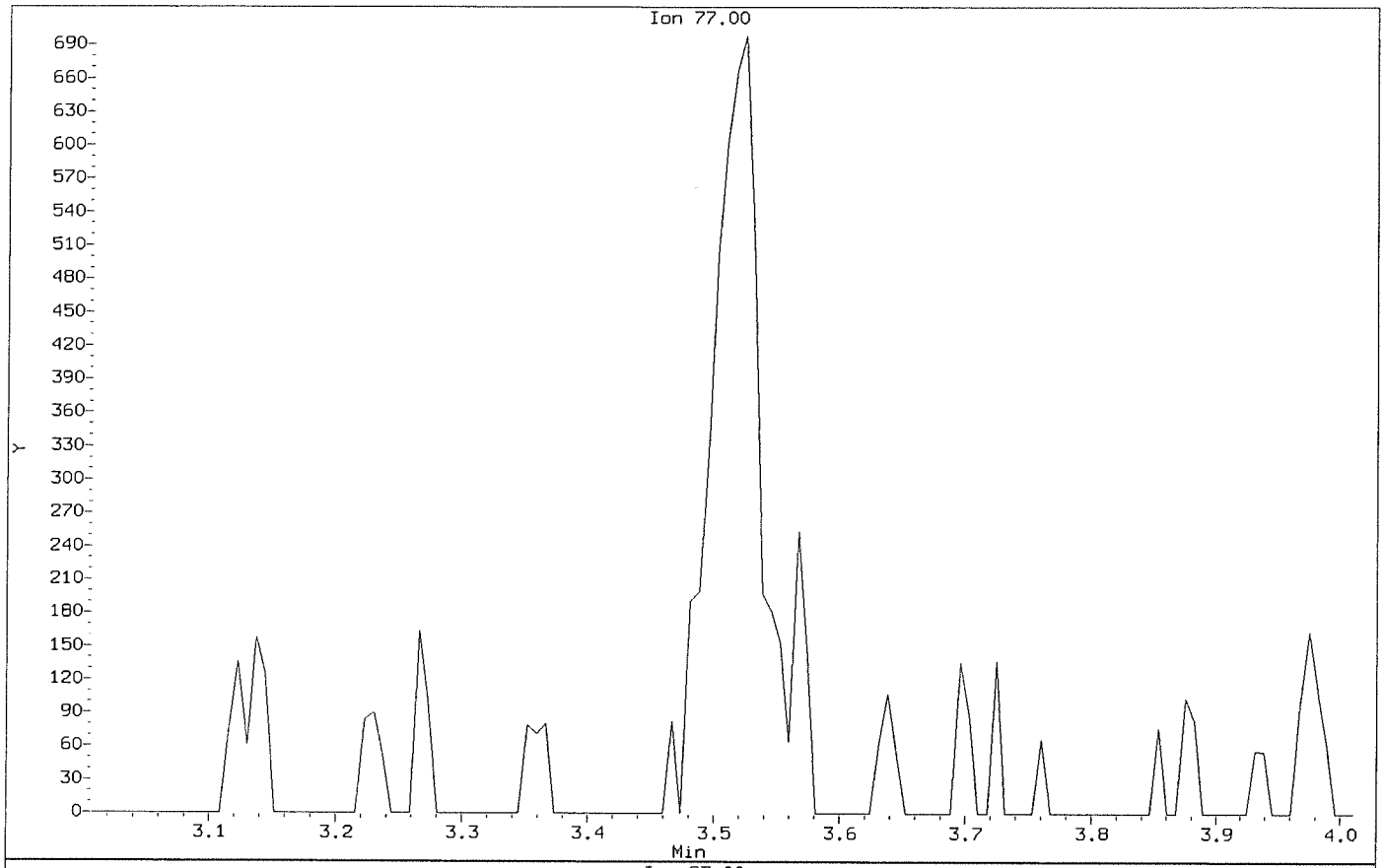
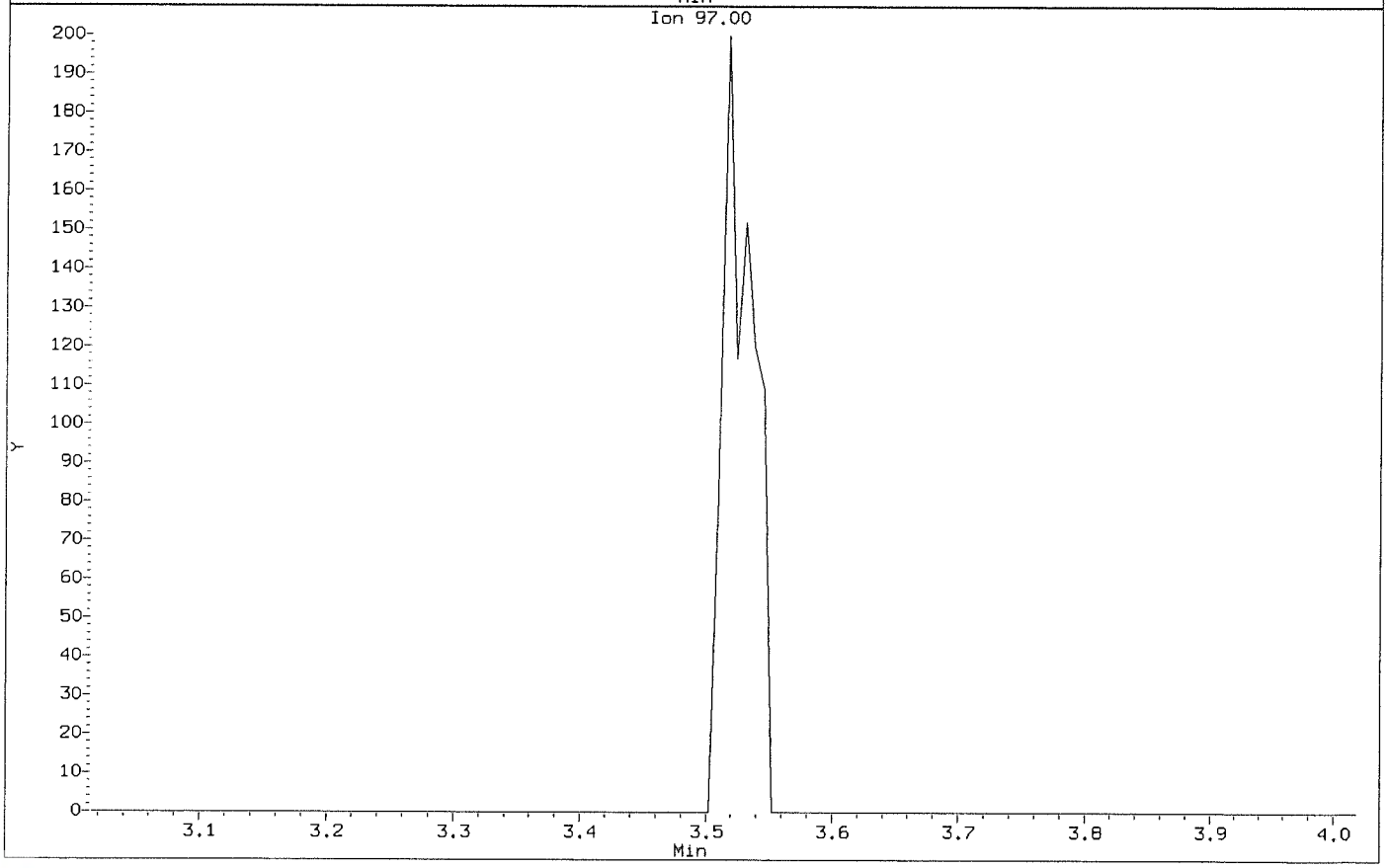
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2,2-Dichloropropane
CAS Number: 594-20-7





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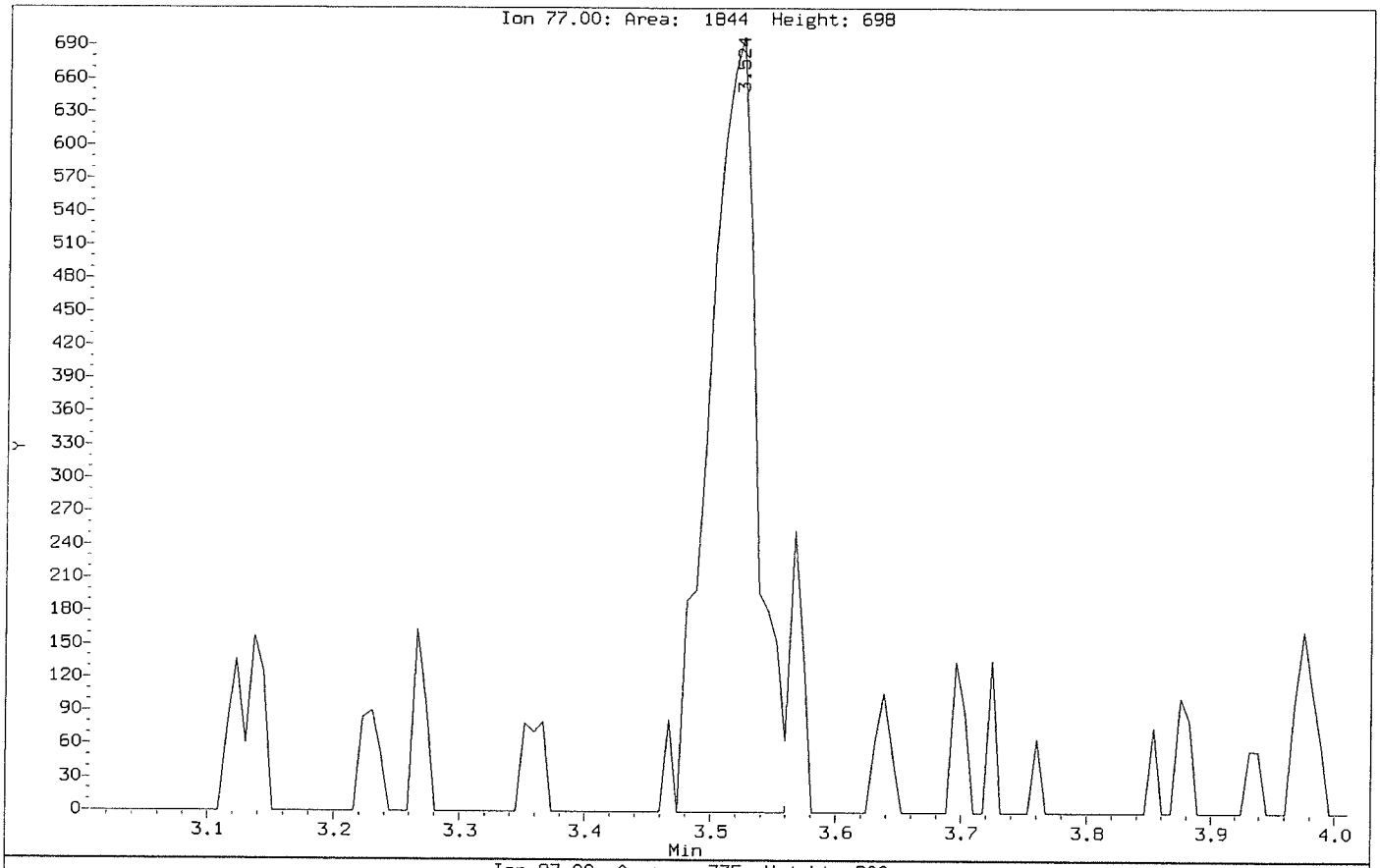
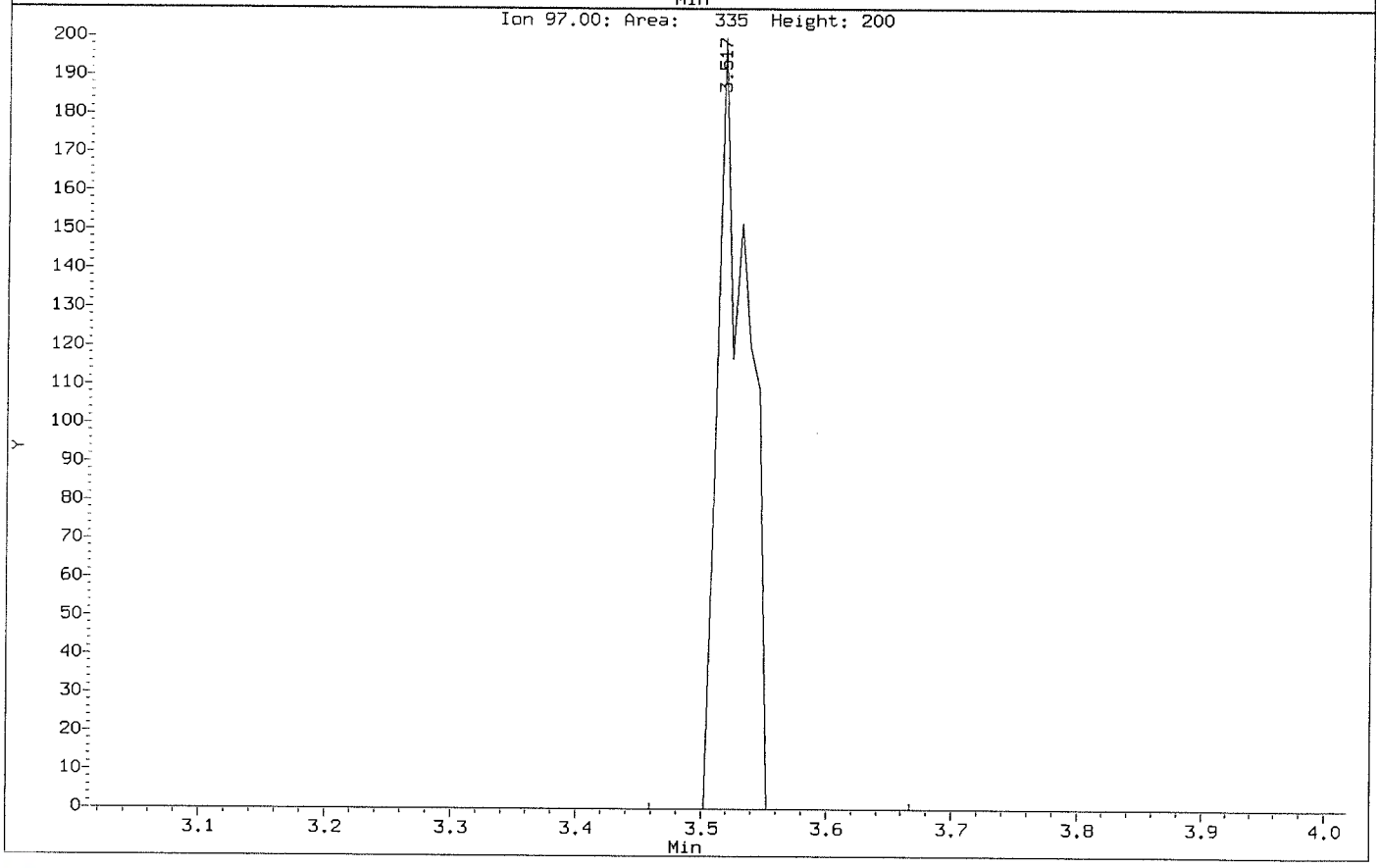
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2,2-Dichloropropane
CAS Number: 594-20-7





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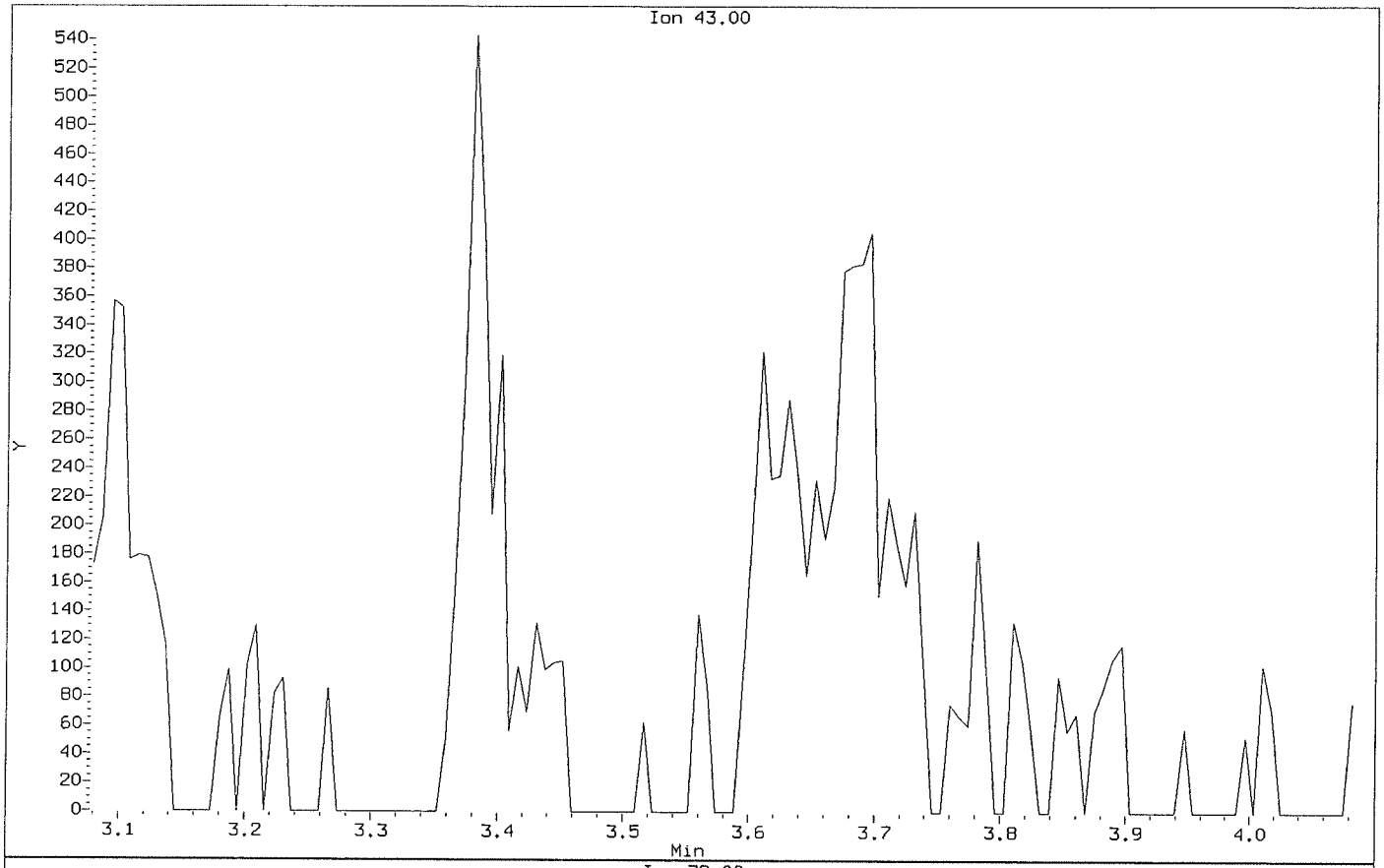
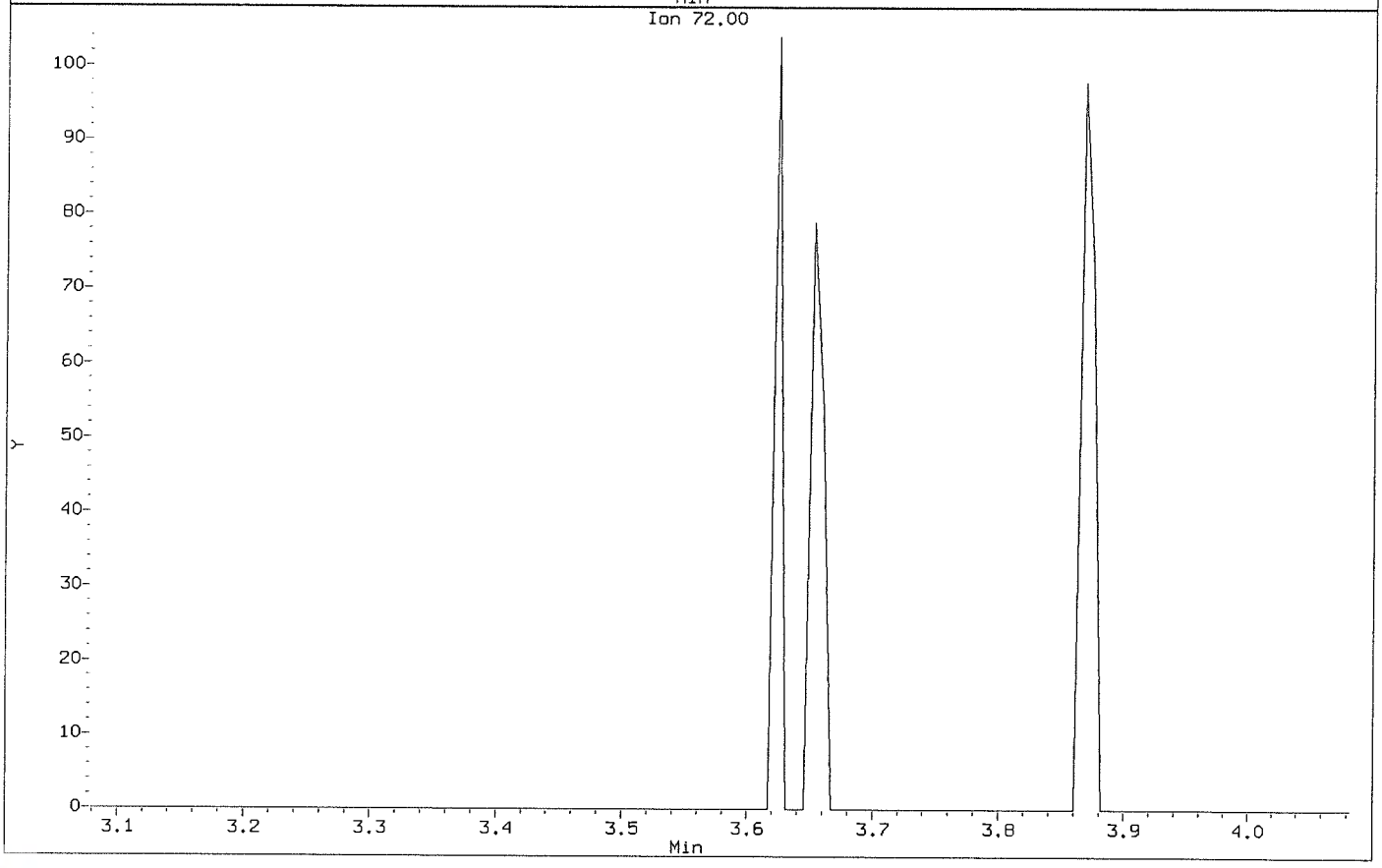
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Butanone
CAS Number: 78-93-3





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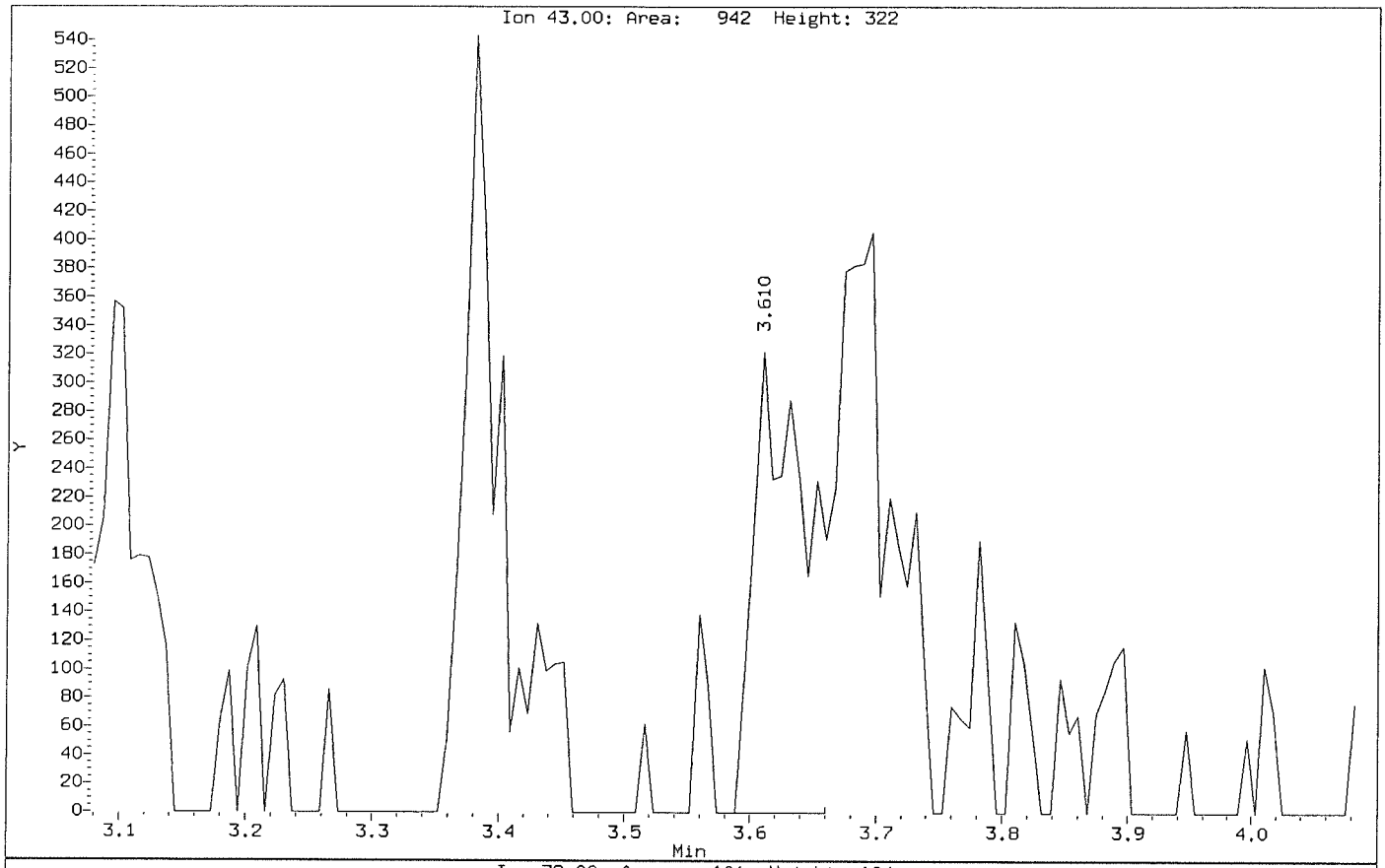
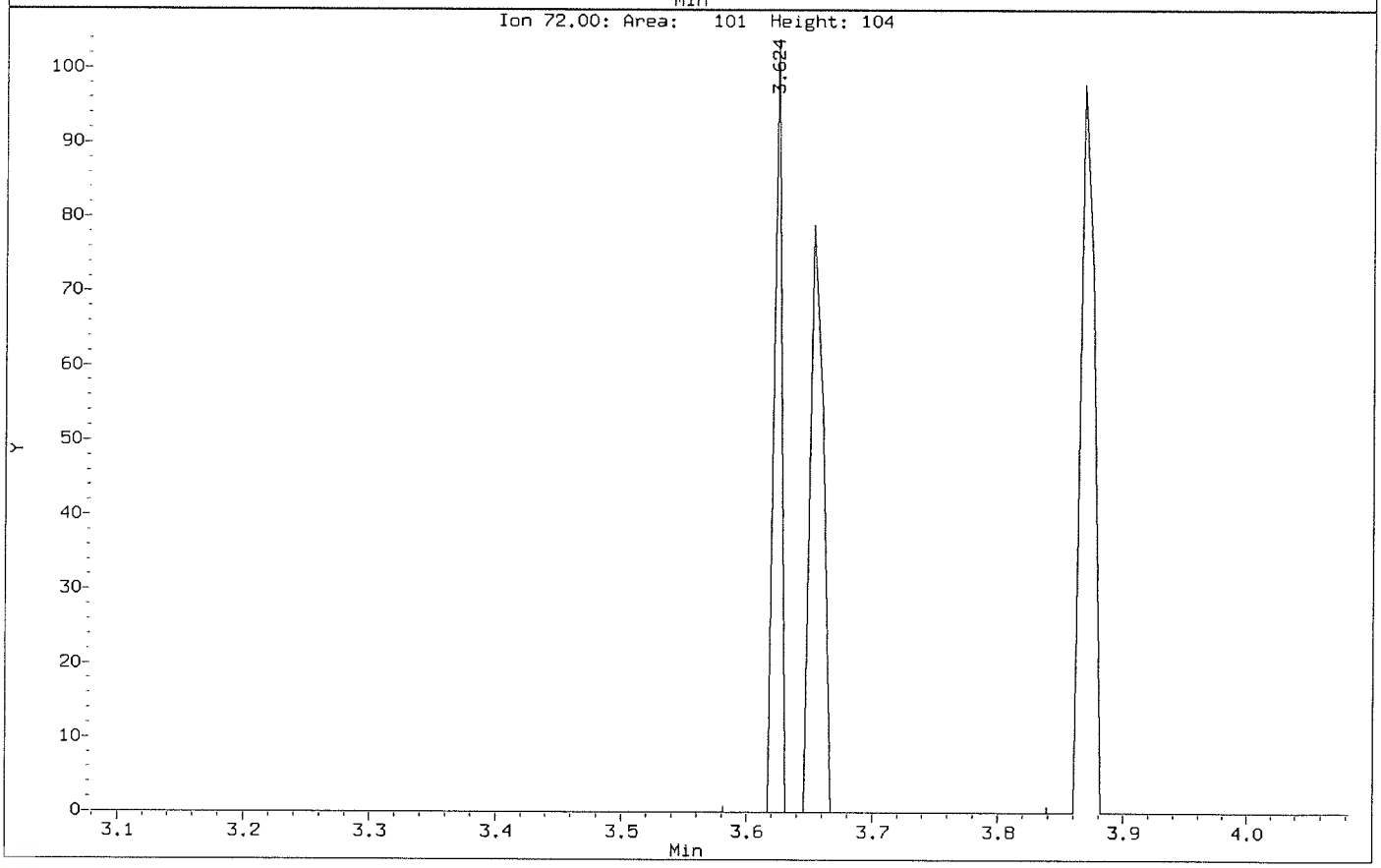
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

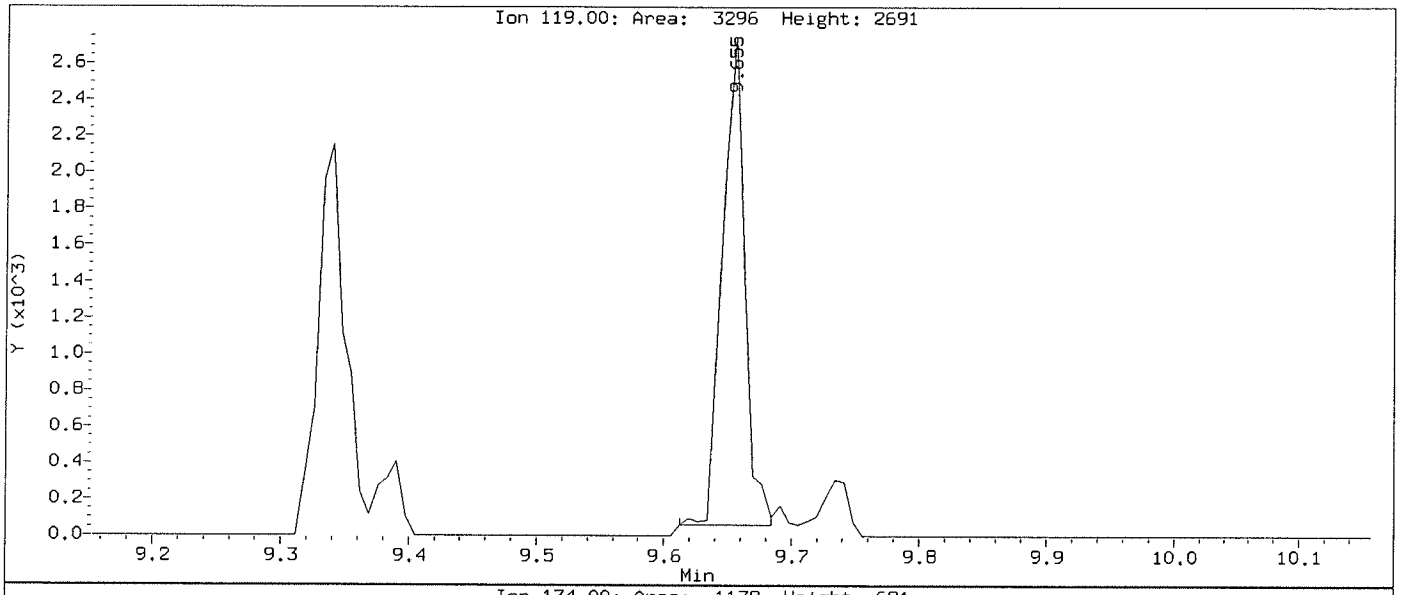
Compound: 2-Butanone
CAS Number: 78-93-3

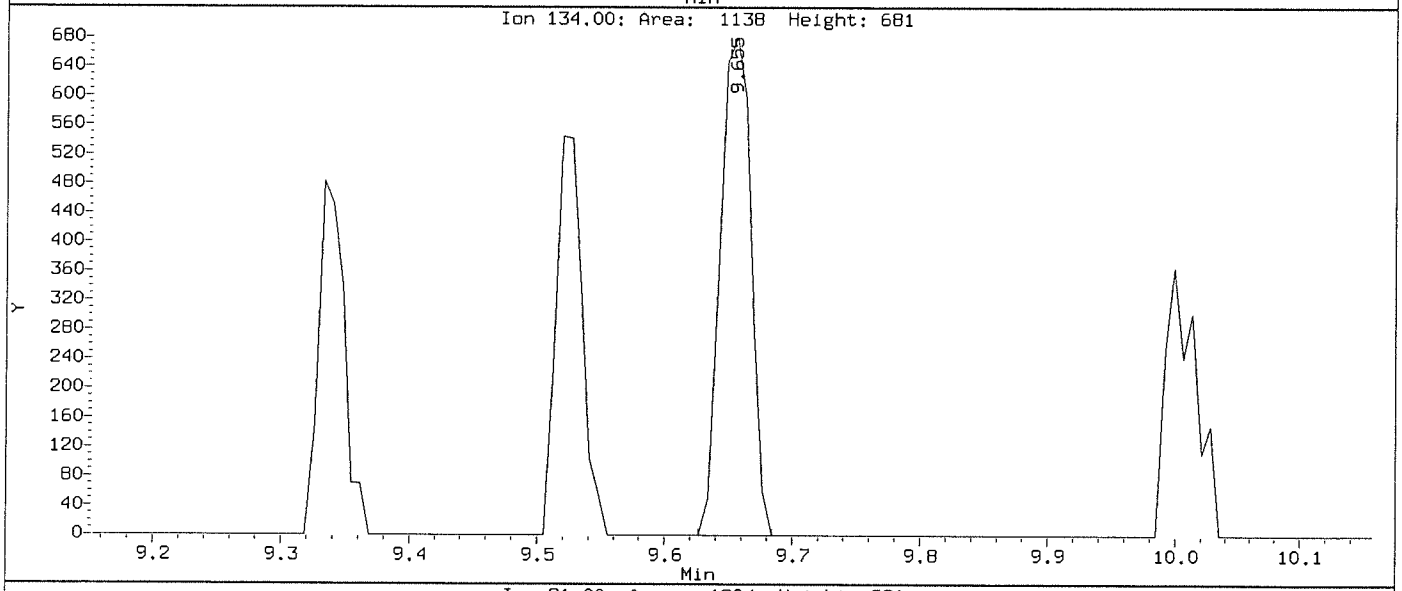


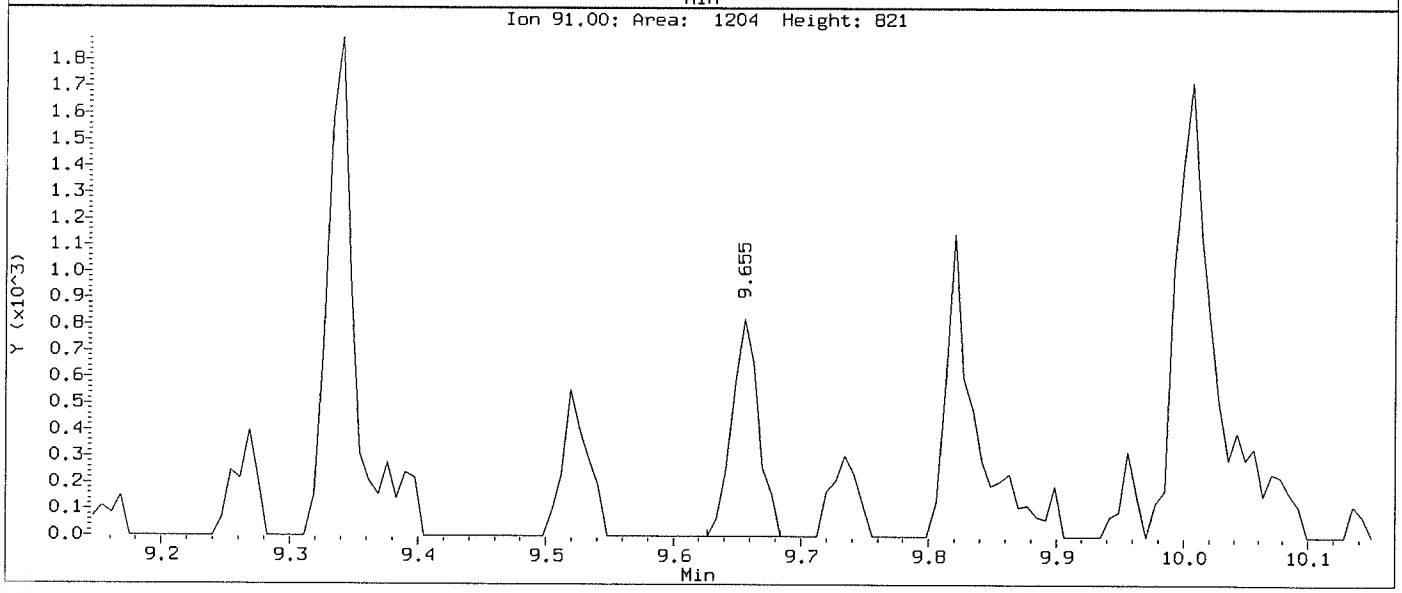


Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: p-Isopropyltoluene
CAS Number: 99-87-6







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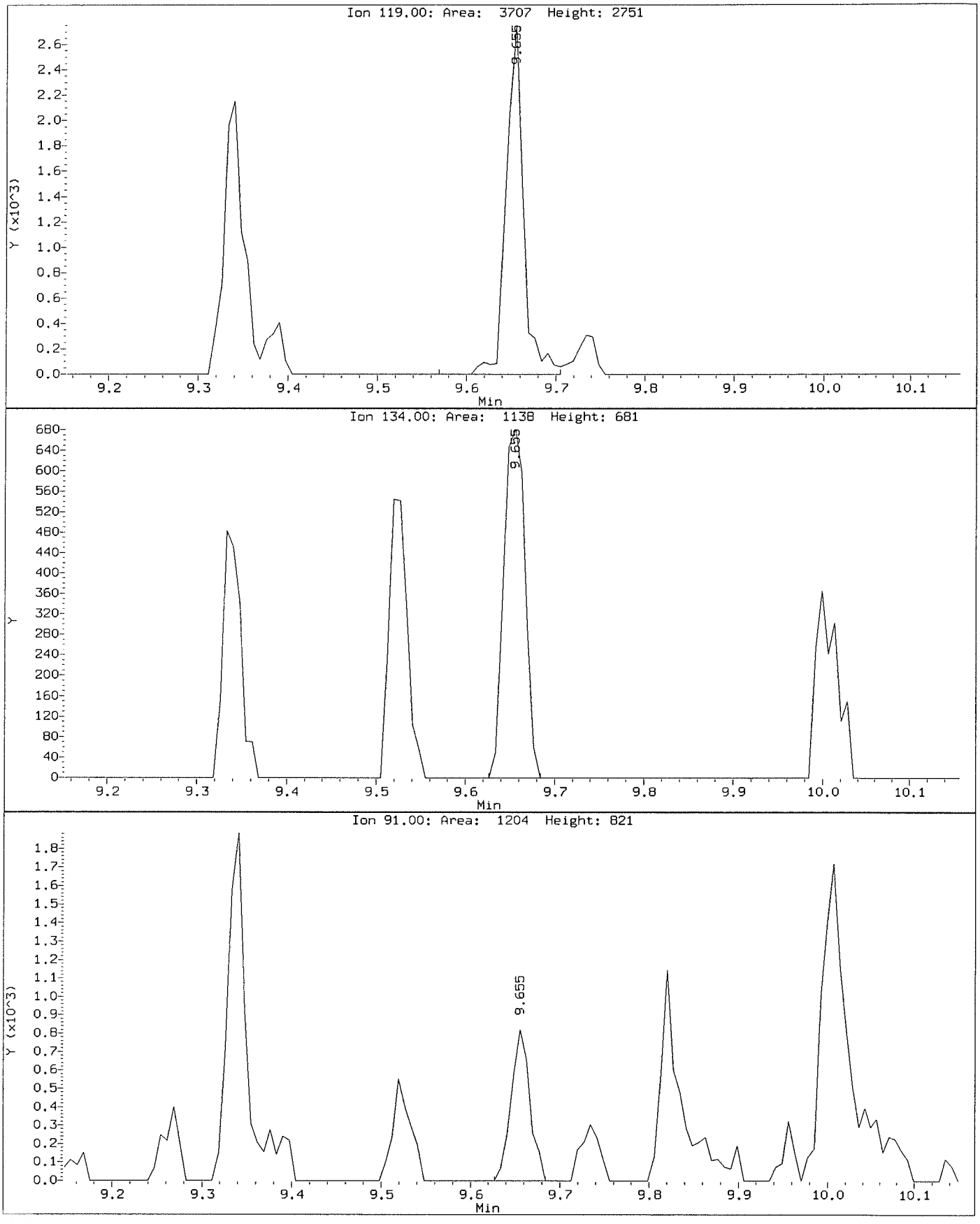
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: p-Isopropyltoluene
CAS Number: 99-87-6



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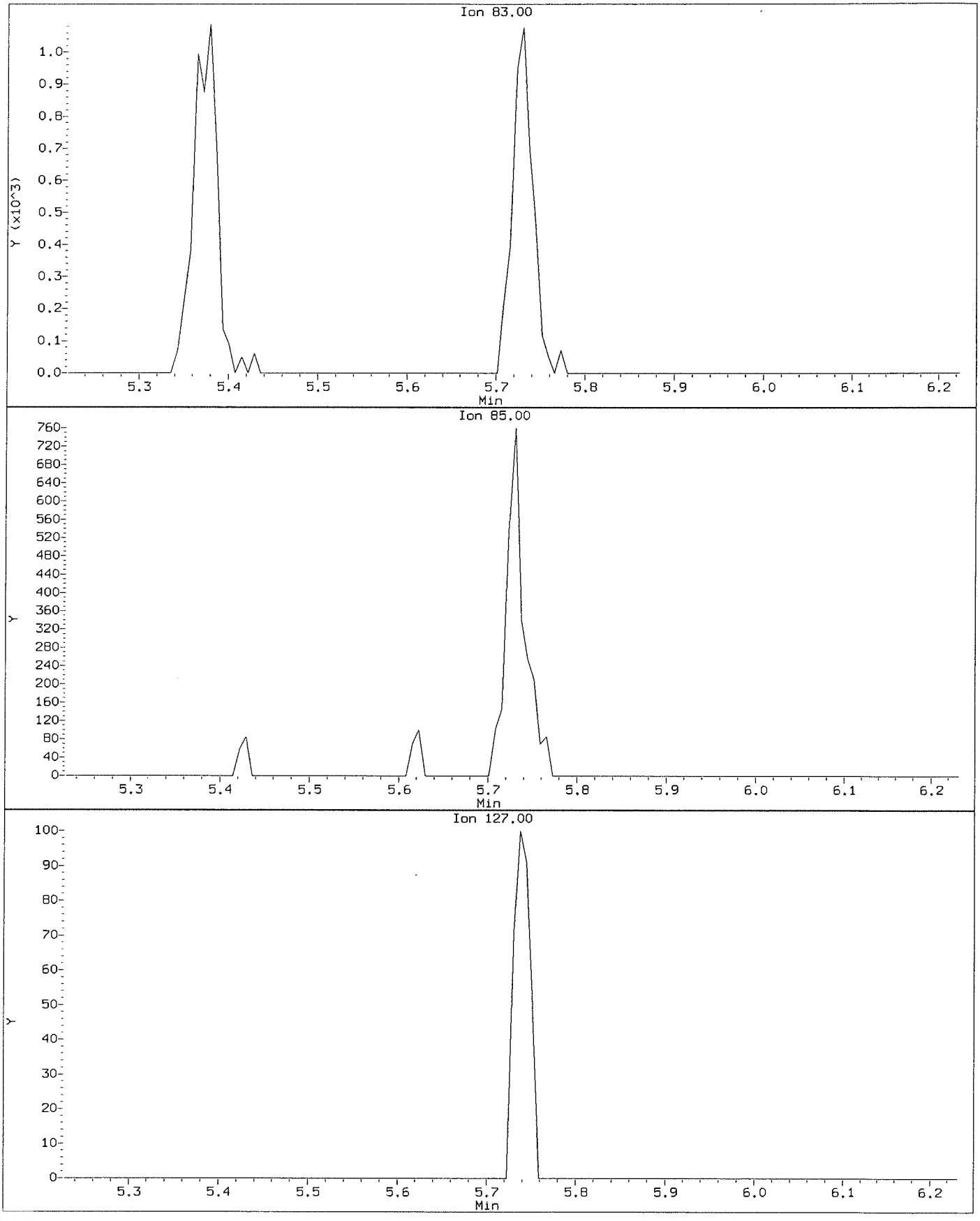
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



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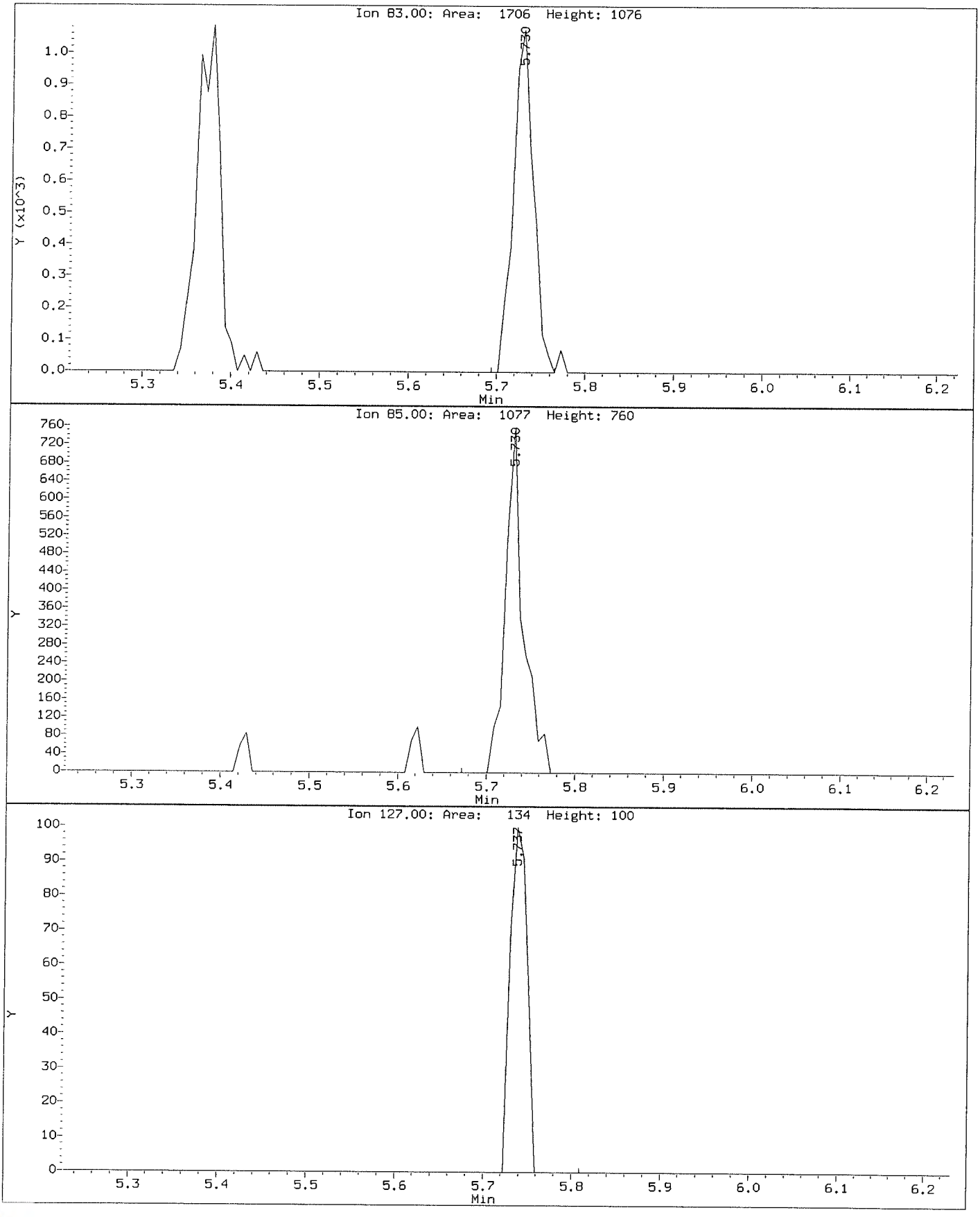
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



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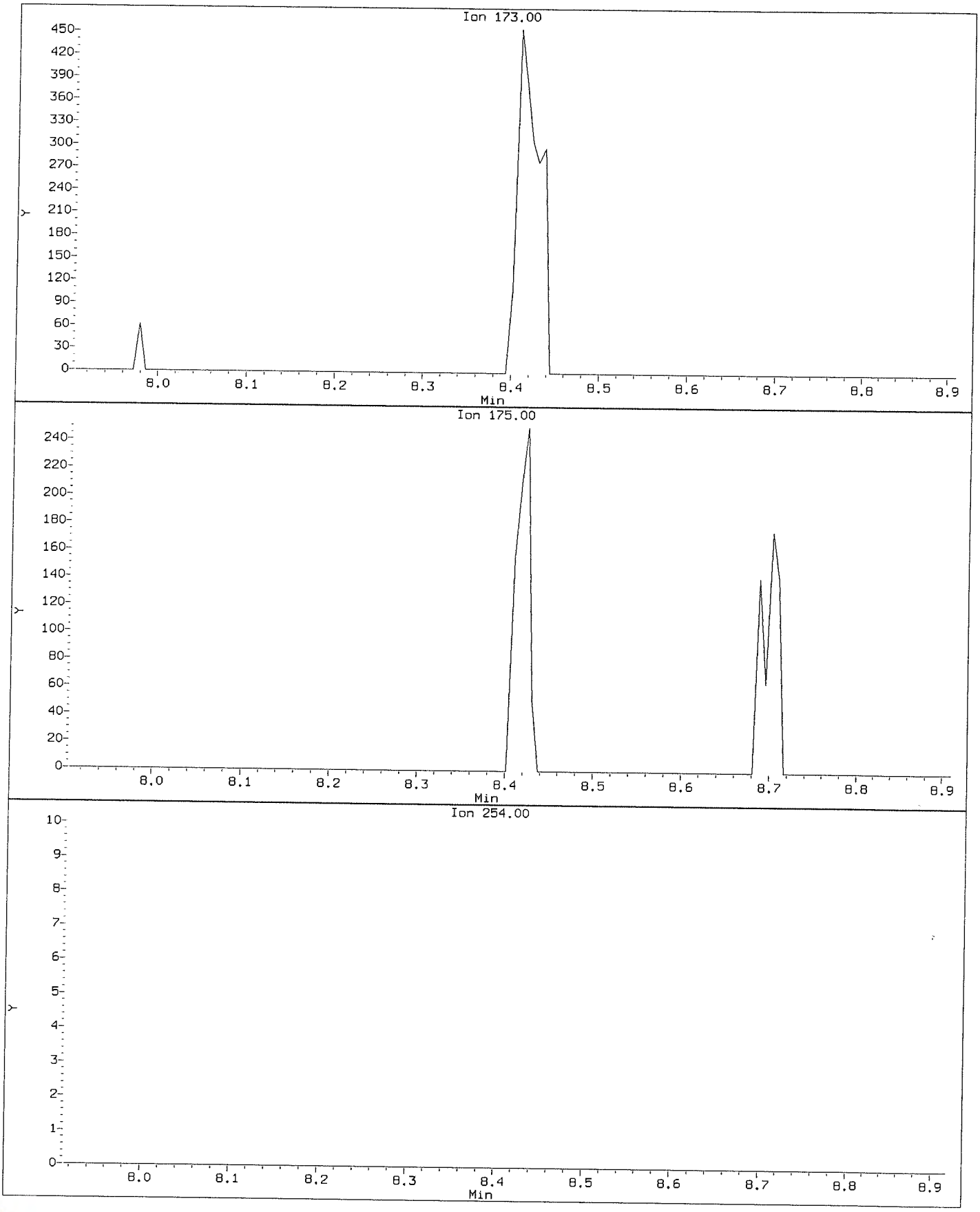
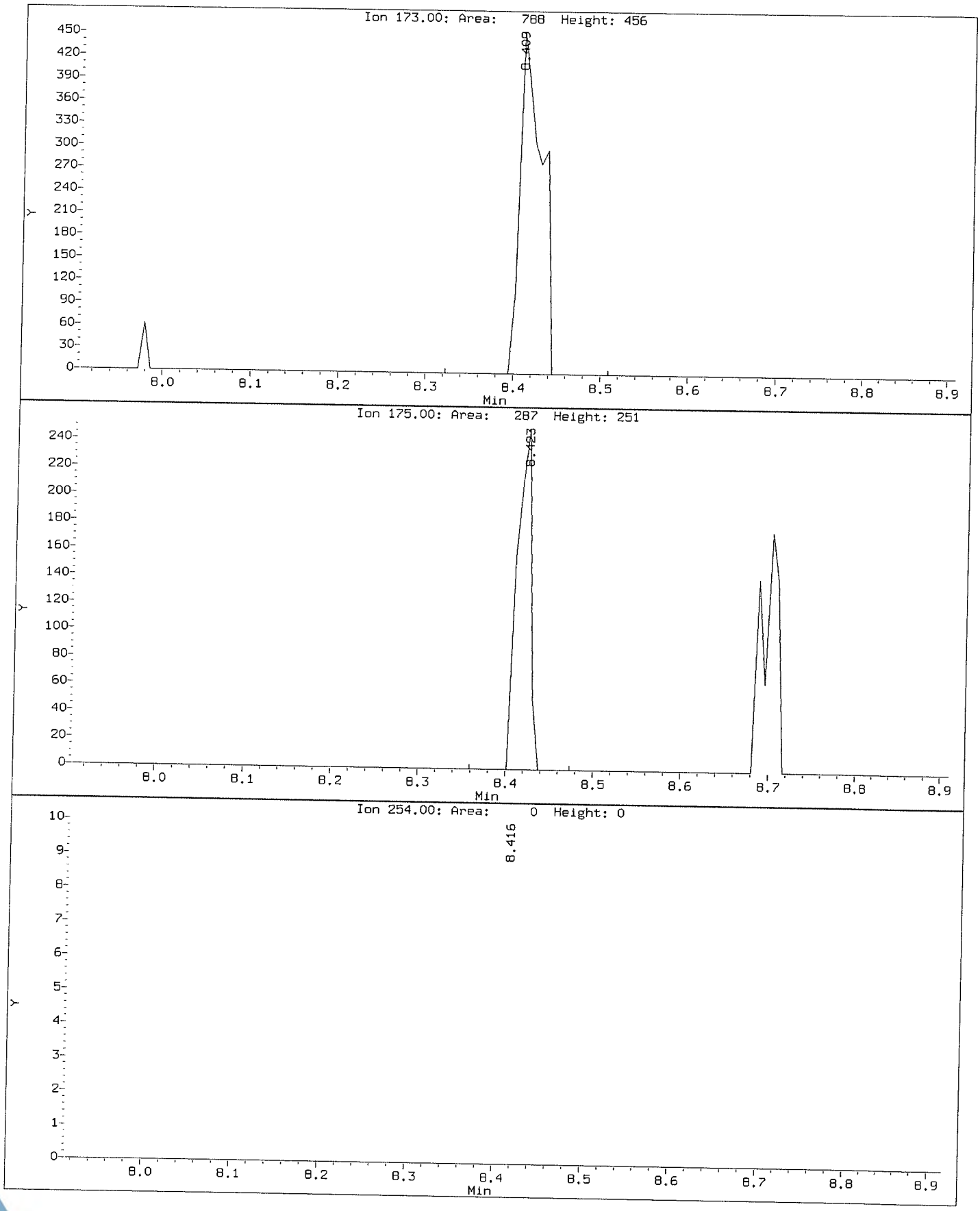
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromoform
CAS Number: 75-25-2



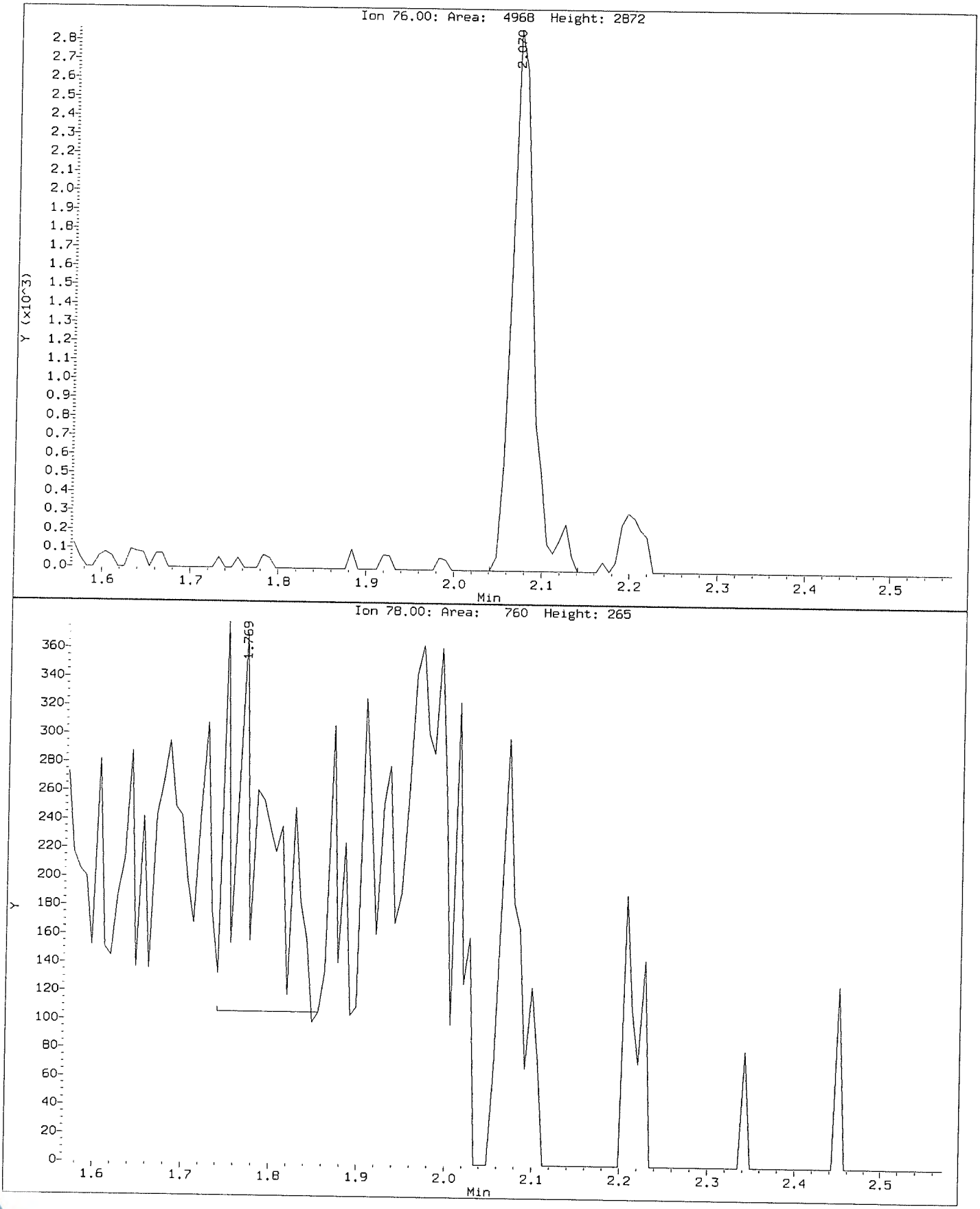
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromoform
CAS Number: 75-25-2



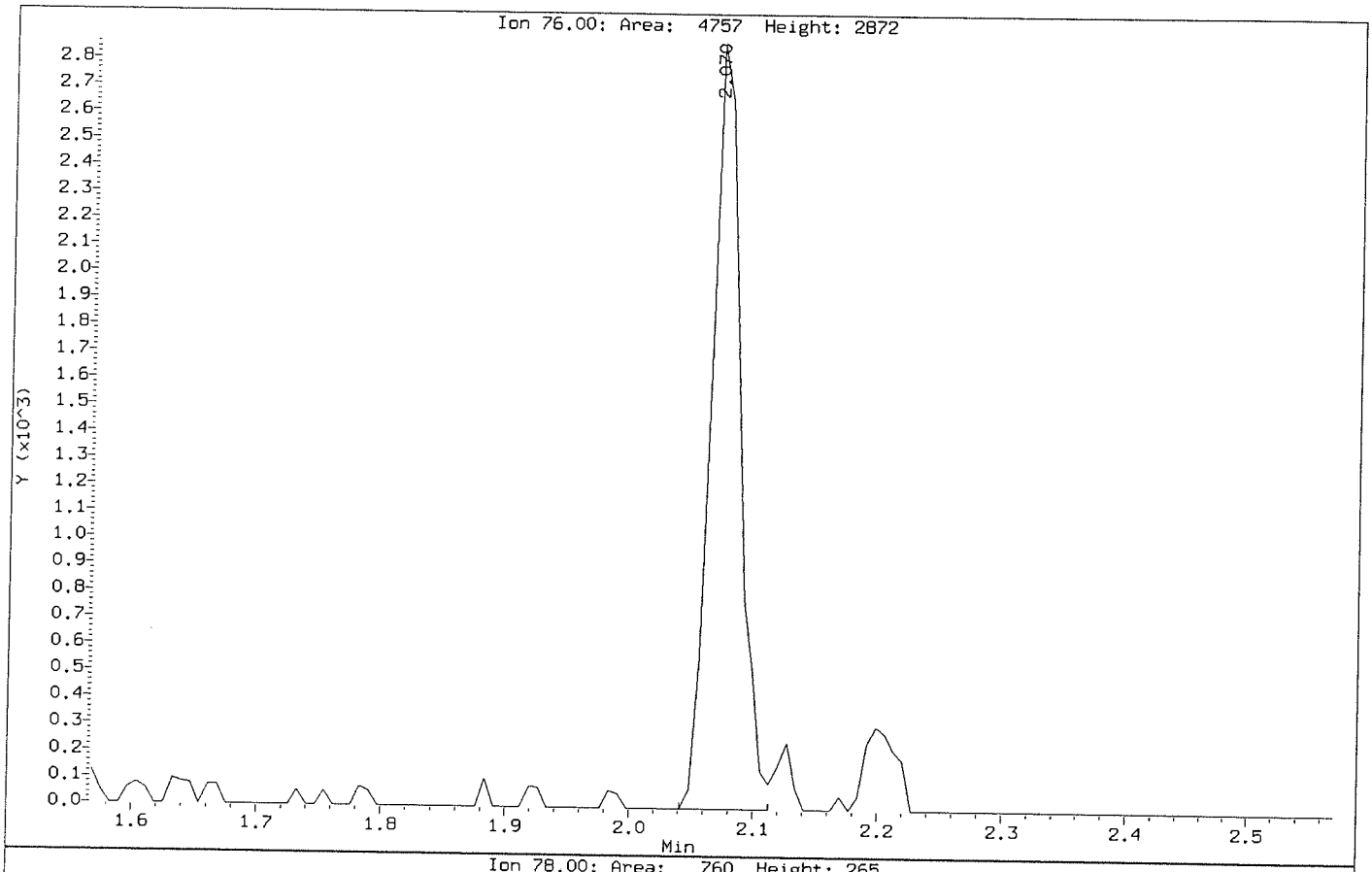
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

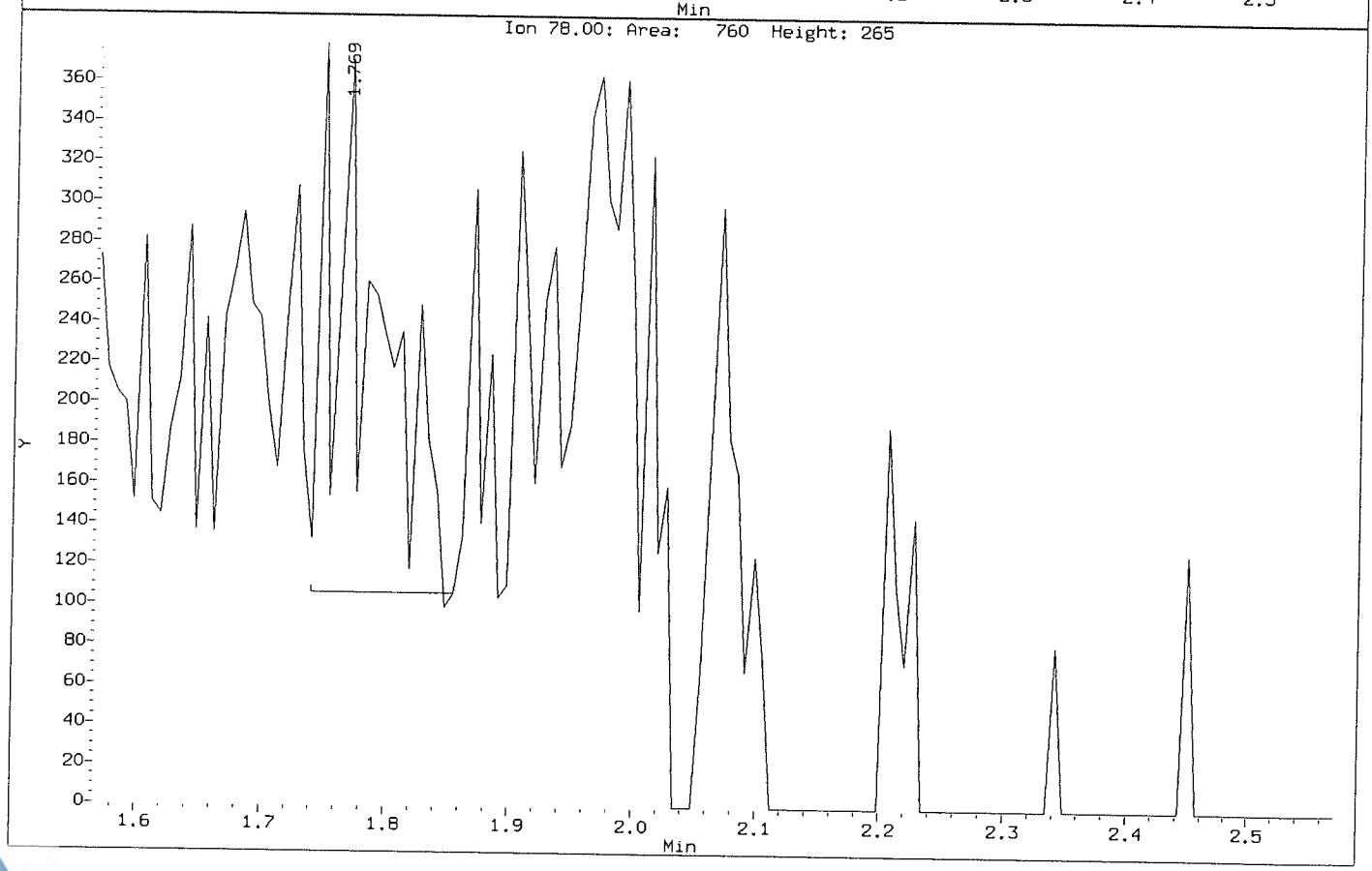
Compound: Carbon Disulfide
CAS Number: 75-15-0



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

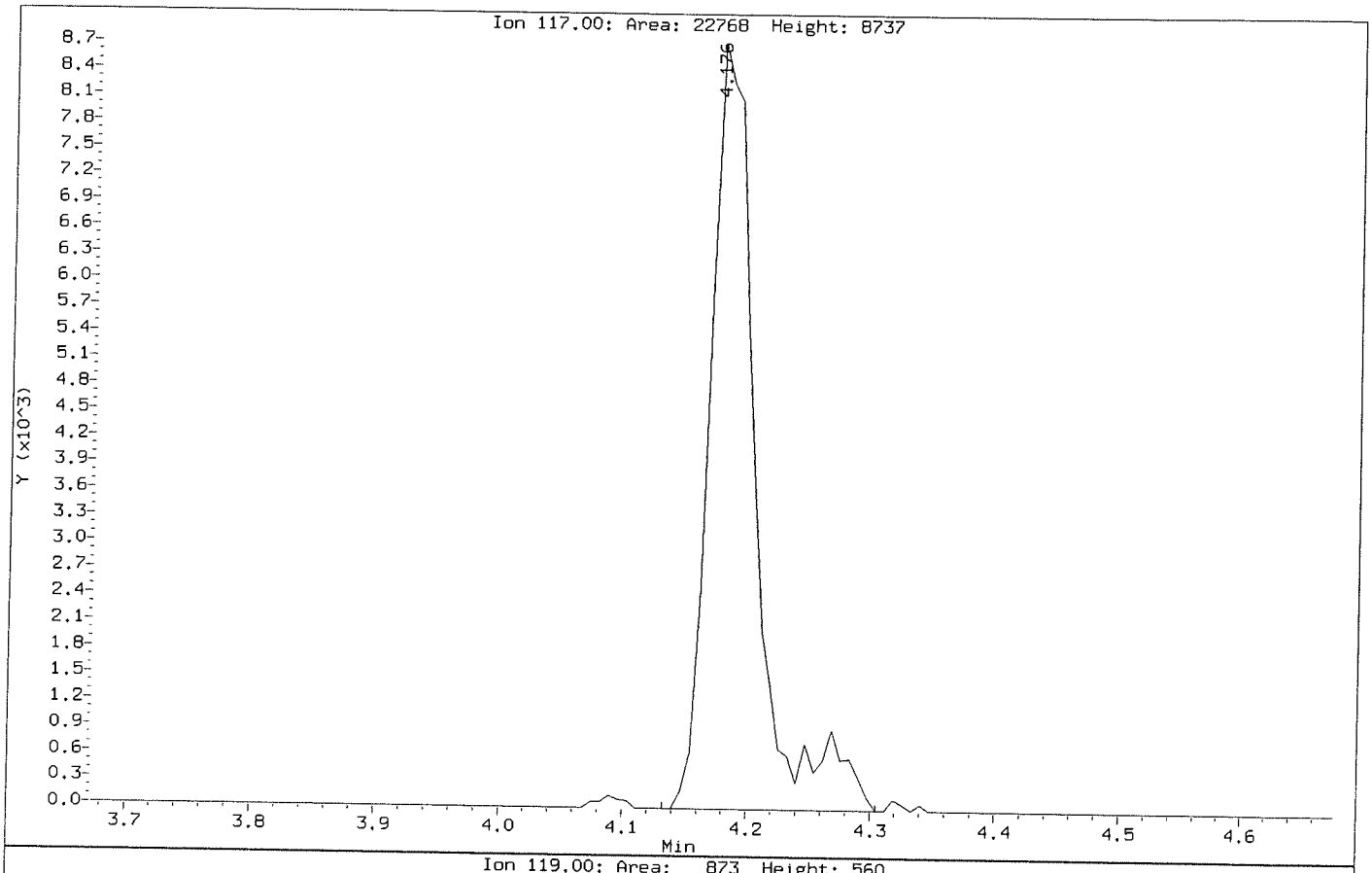
Compound: Carbon Disulfide
CAS Number: 75-15-0

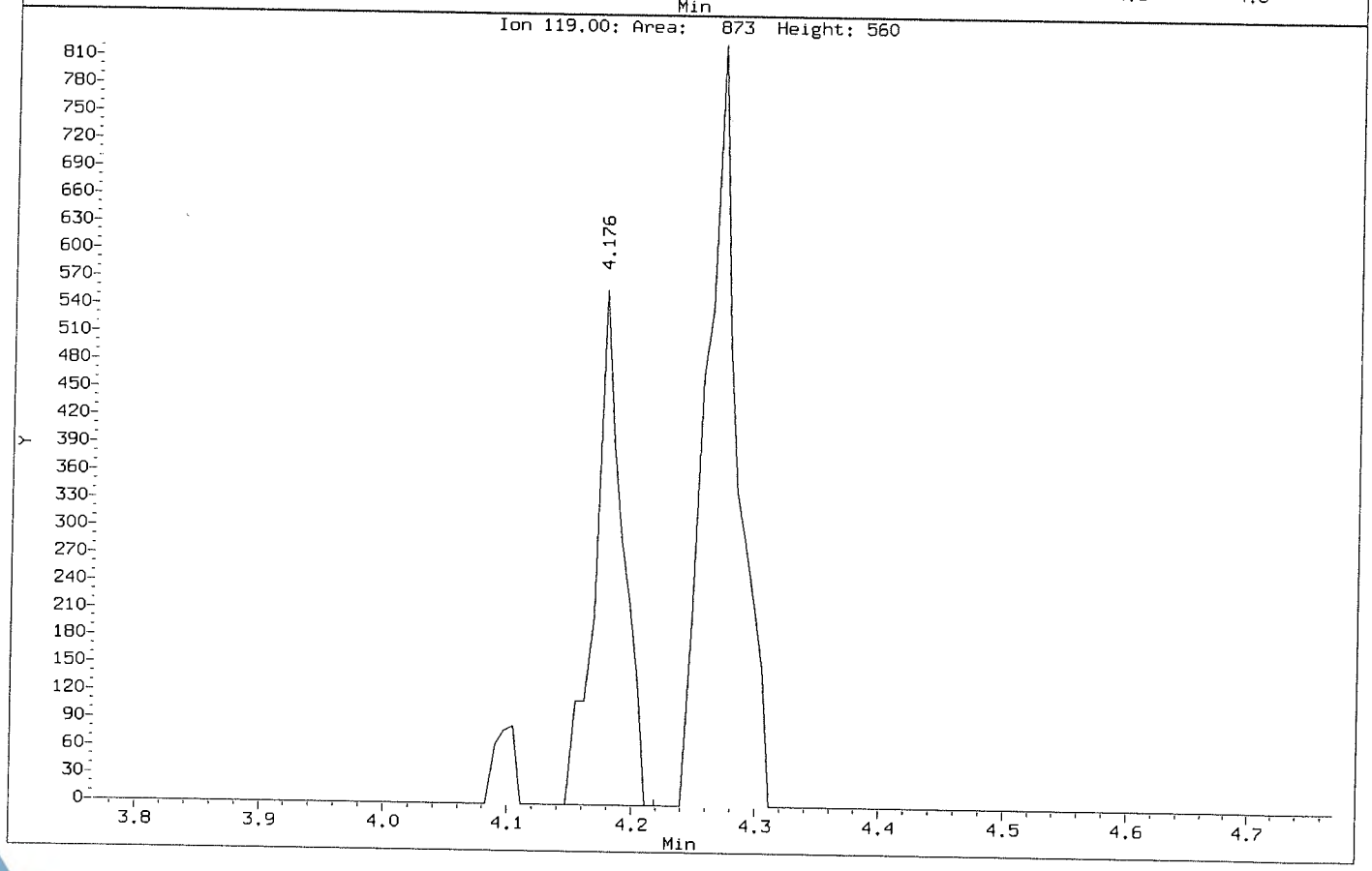




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

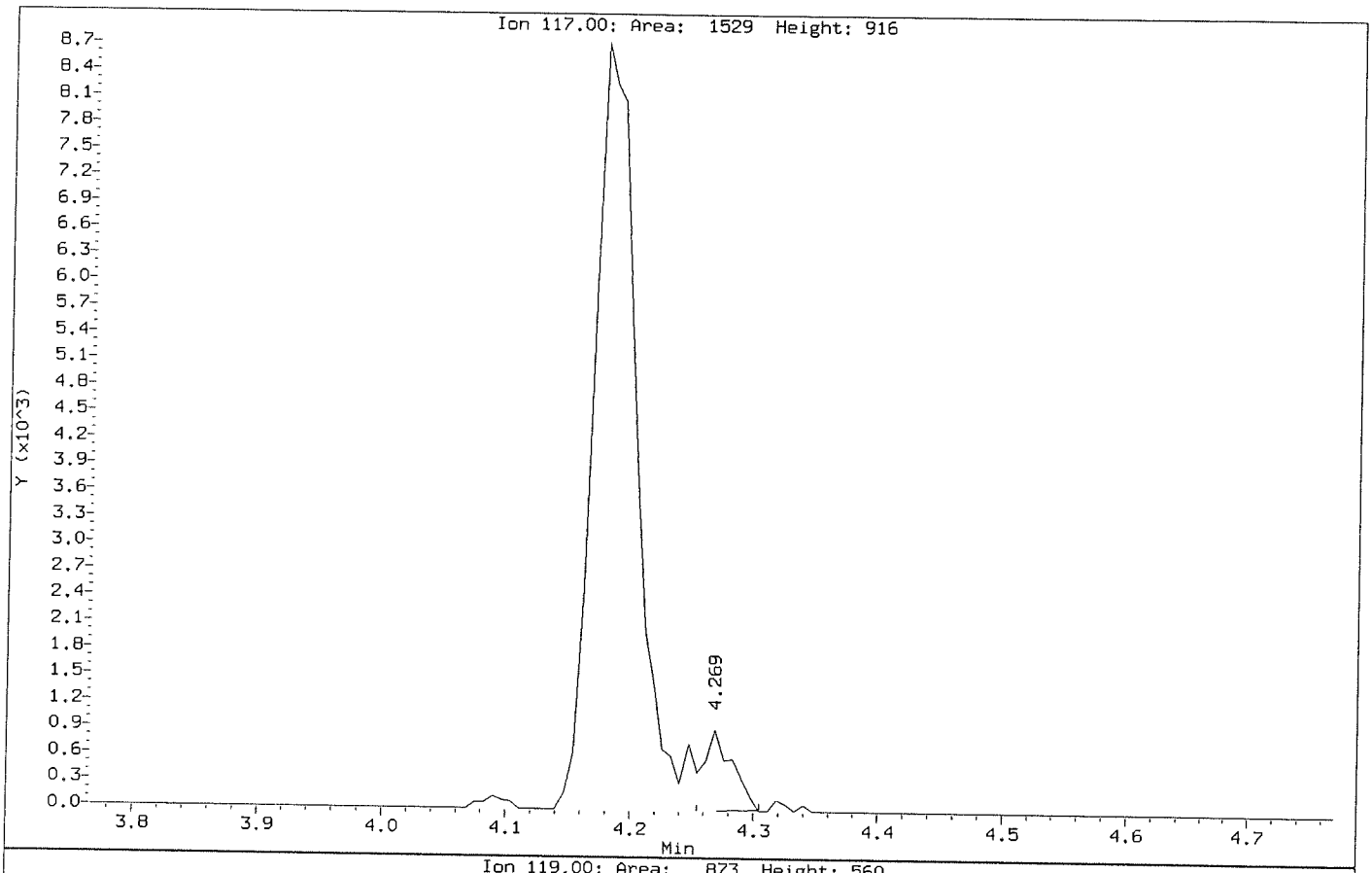
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

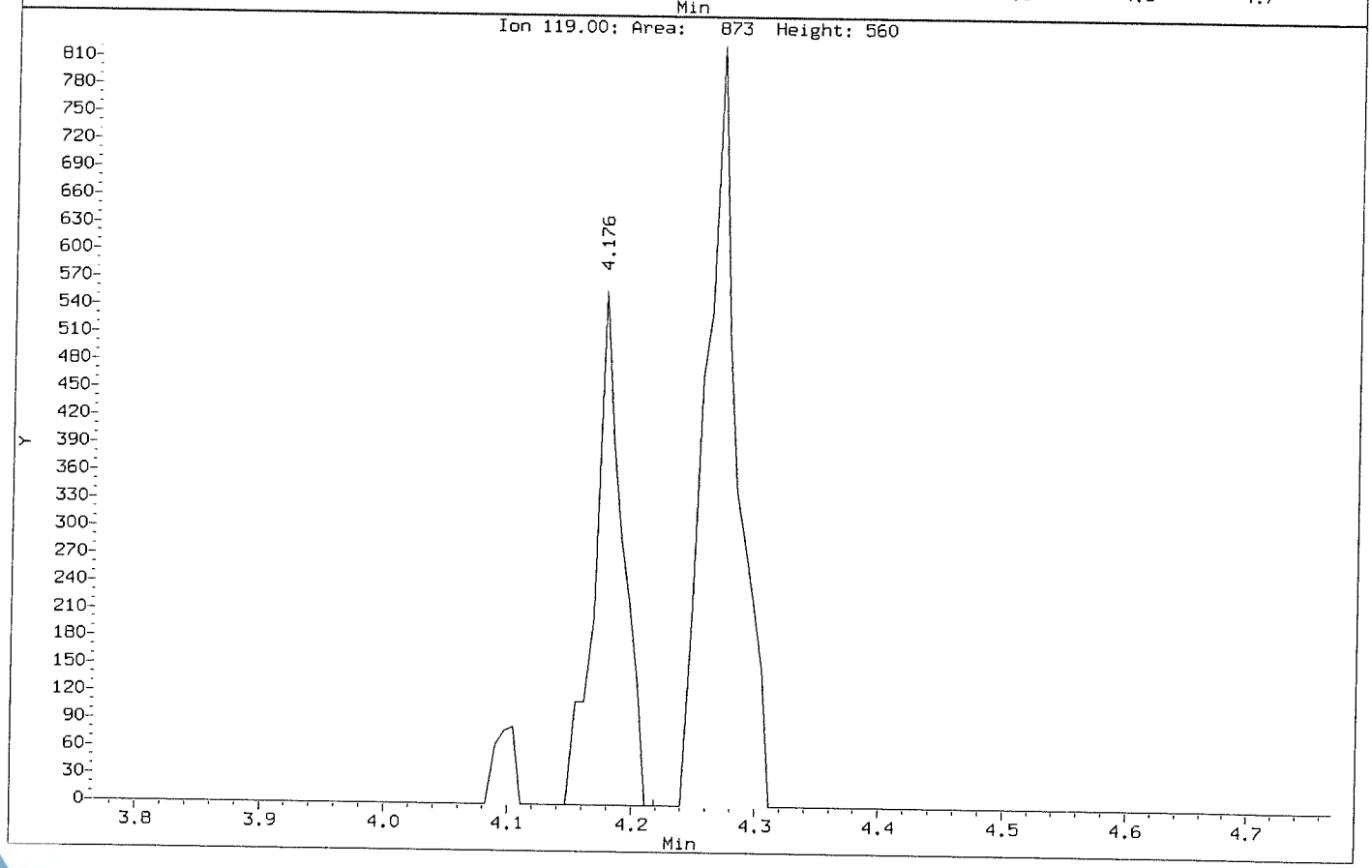




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051803.D
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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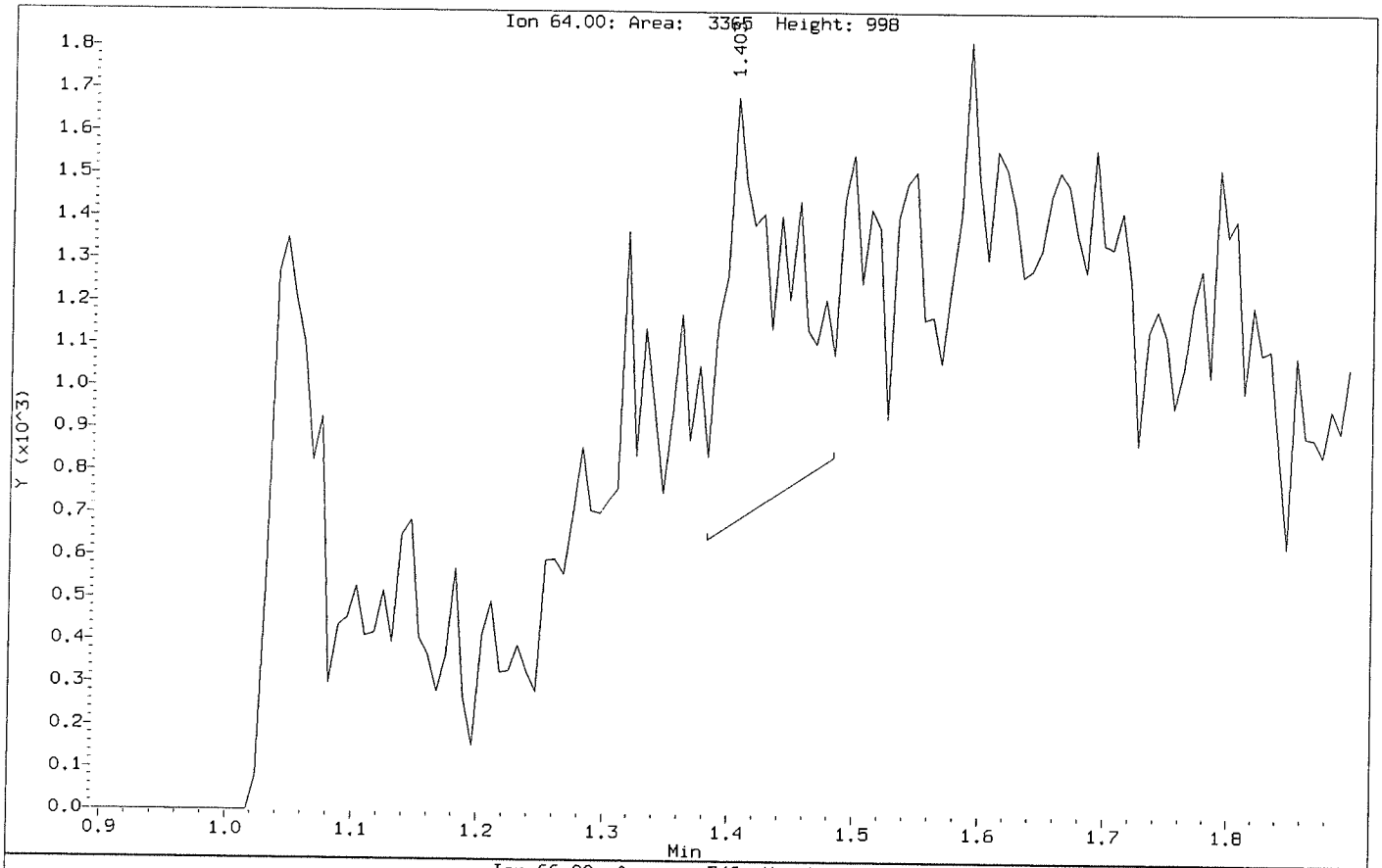
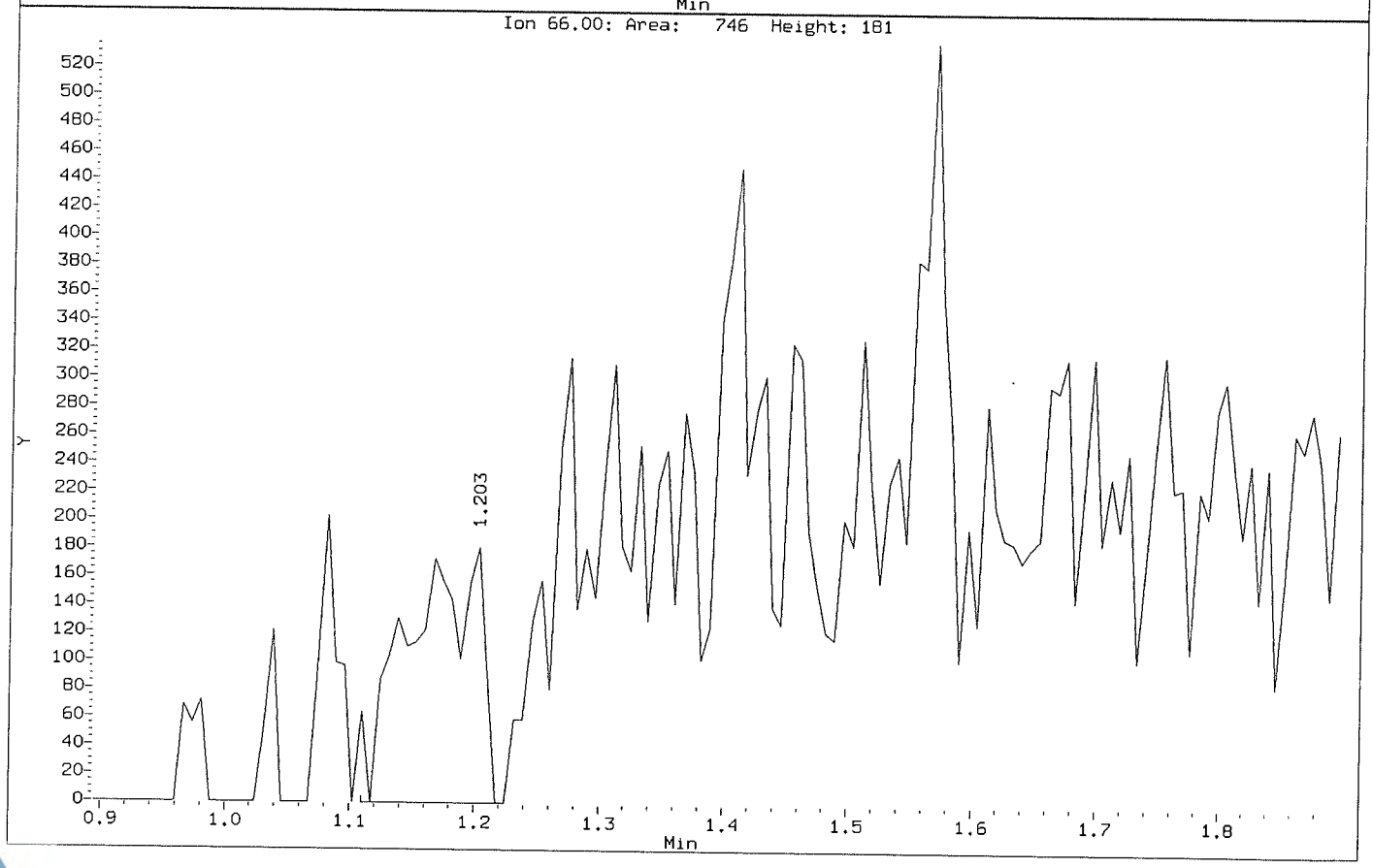
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloroethane
CAS Number: 75-00-3





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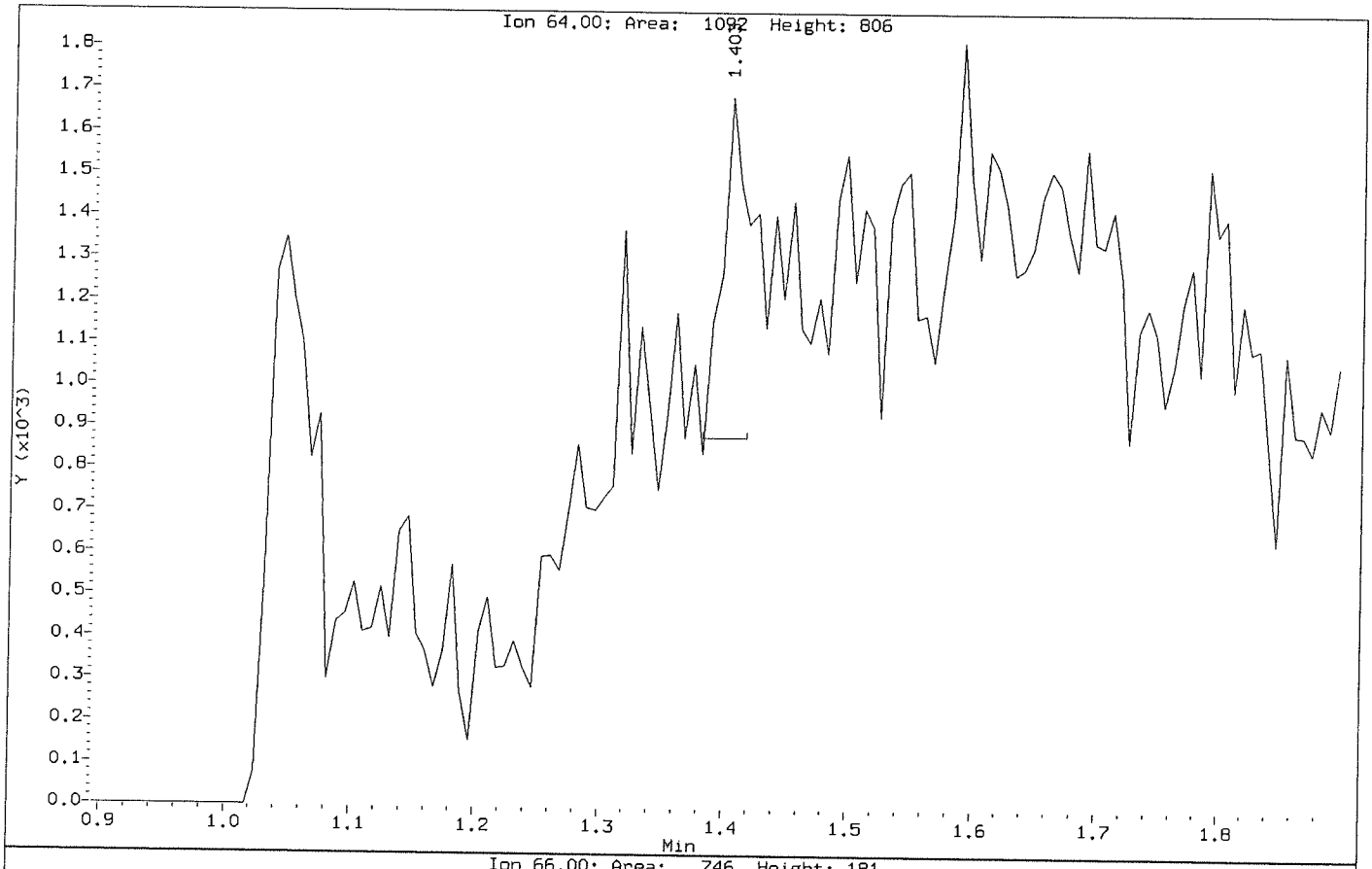
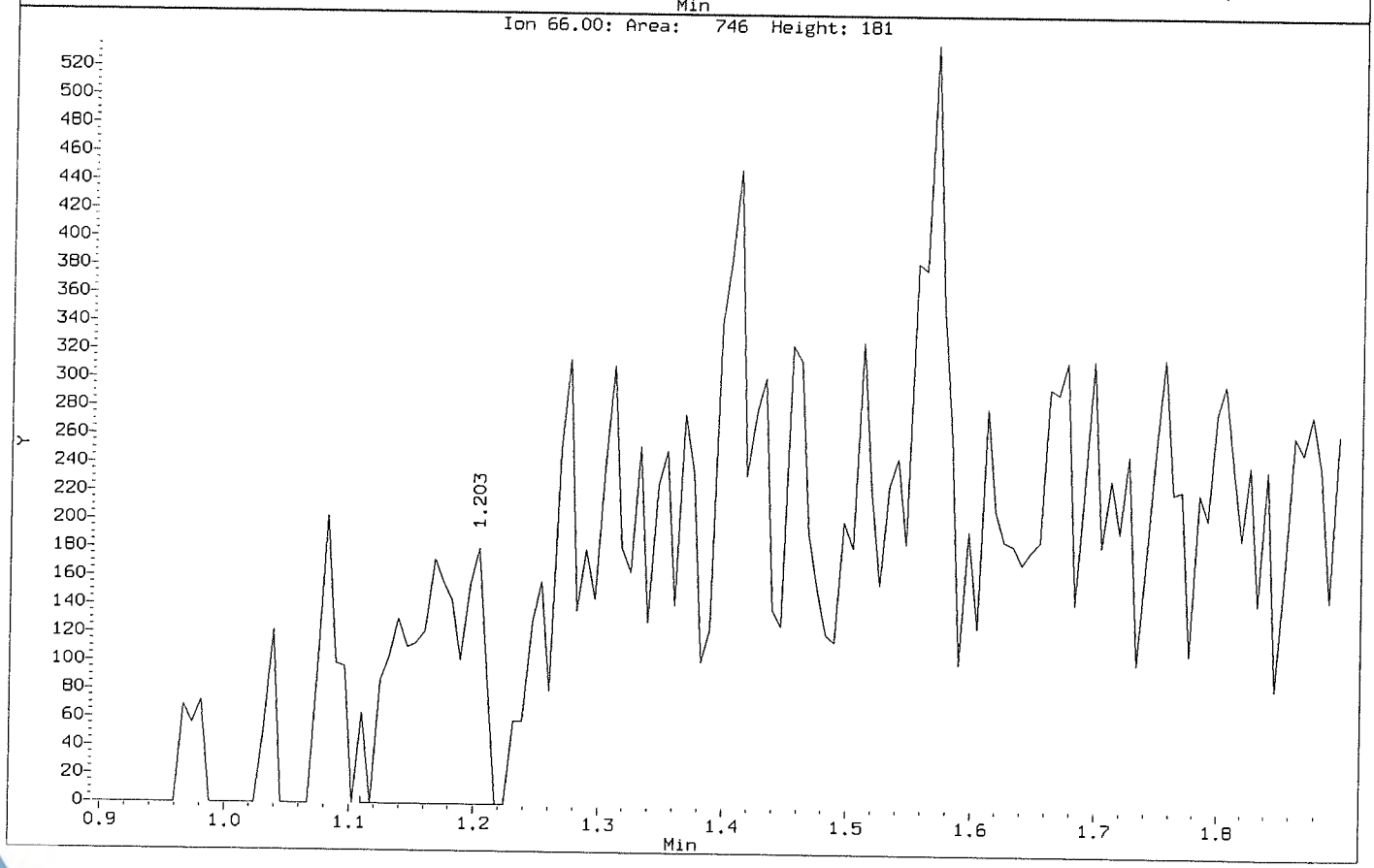
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloroethane
CAS Number: 75-00-3





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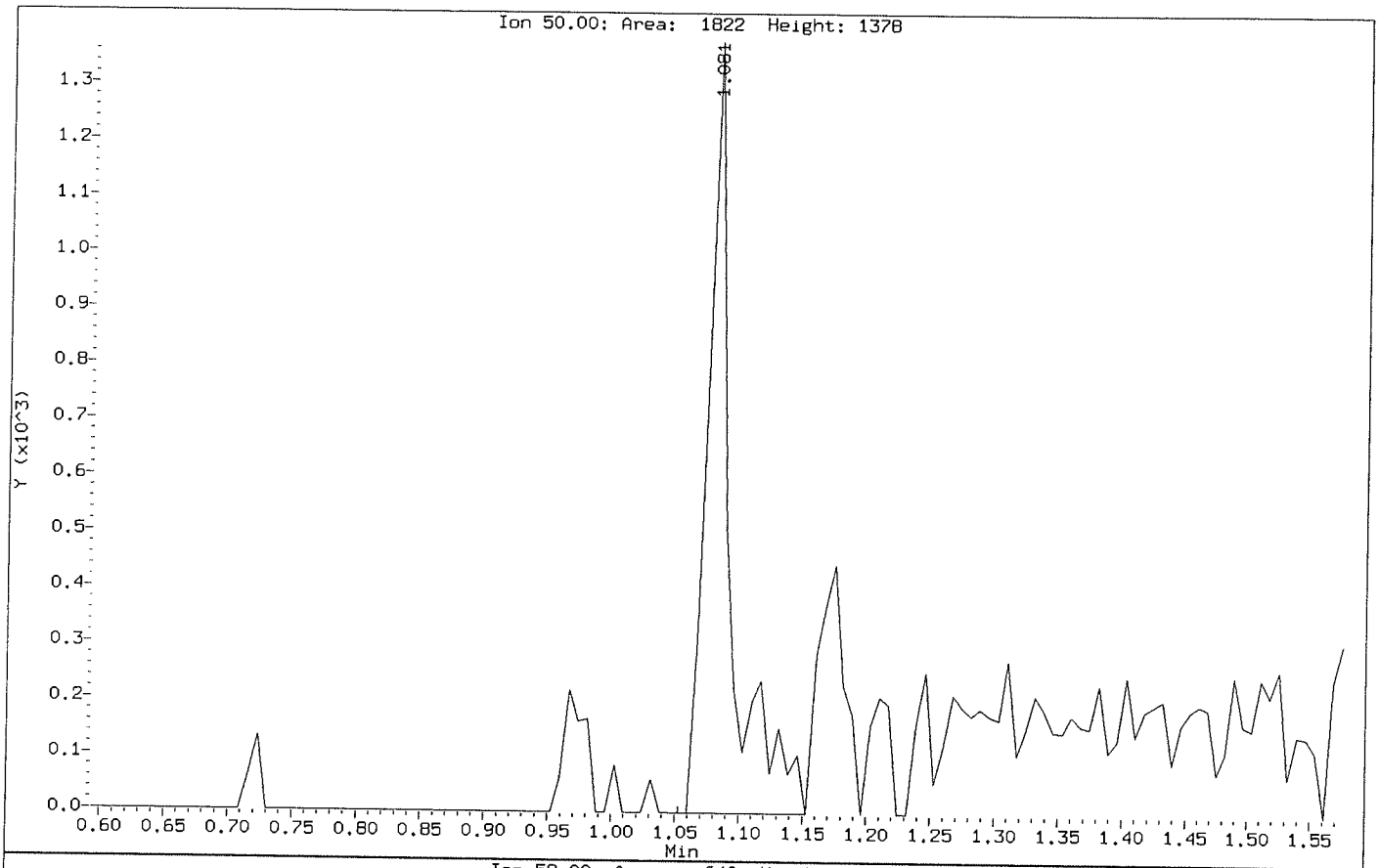
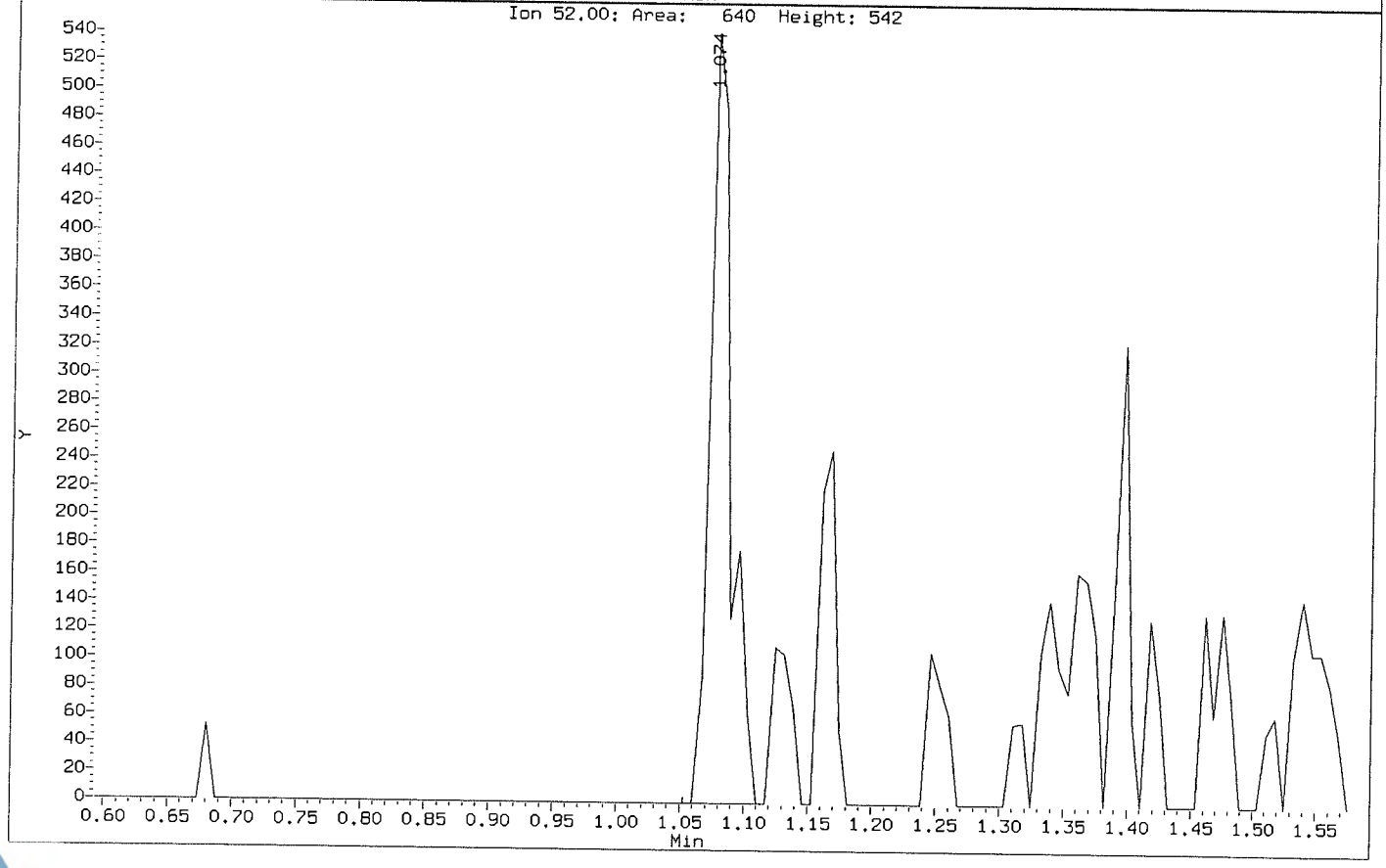
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloromethane
CAS Number: 74-87-3





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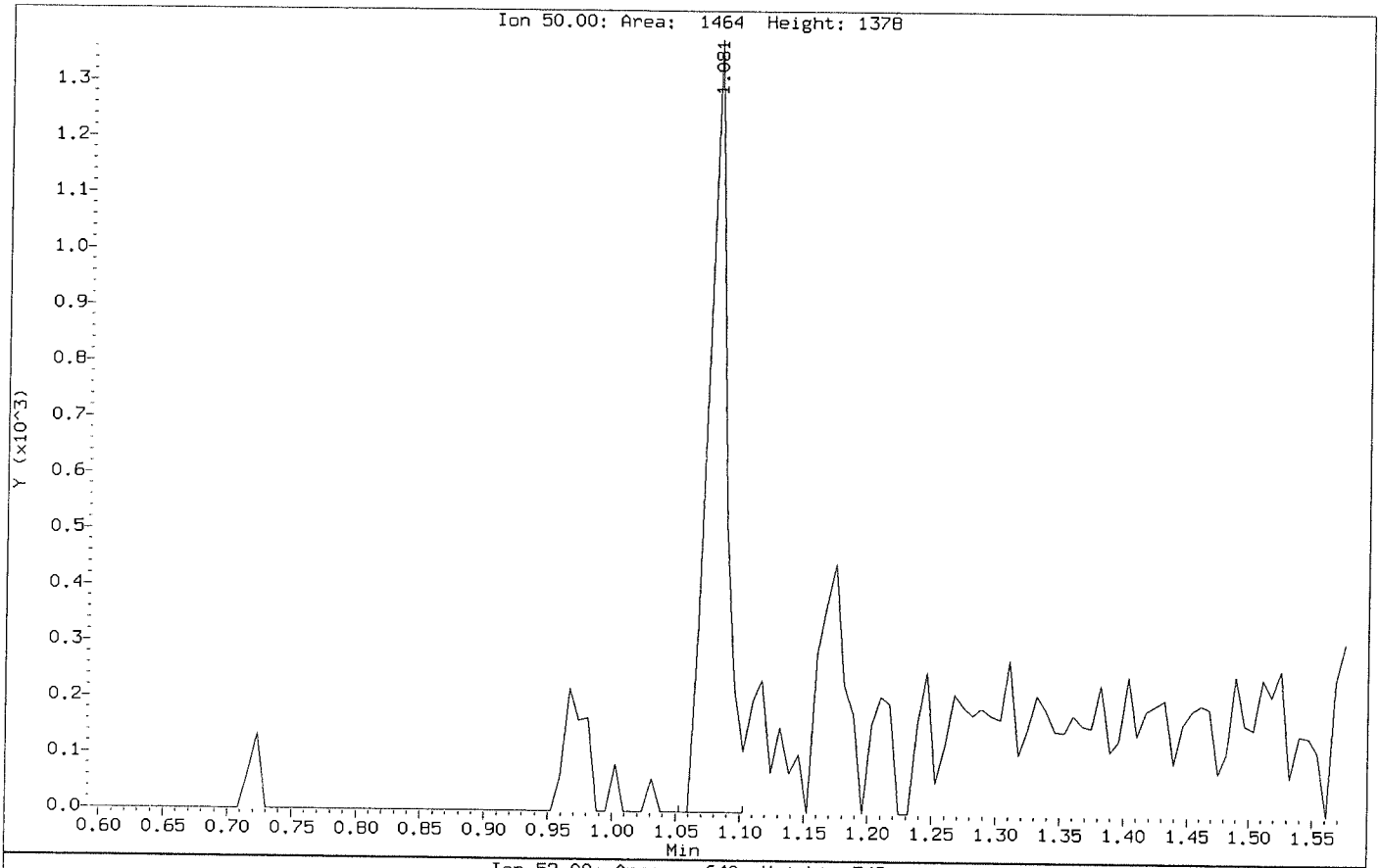
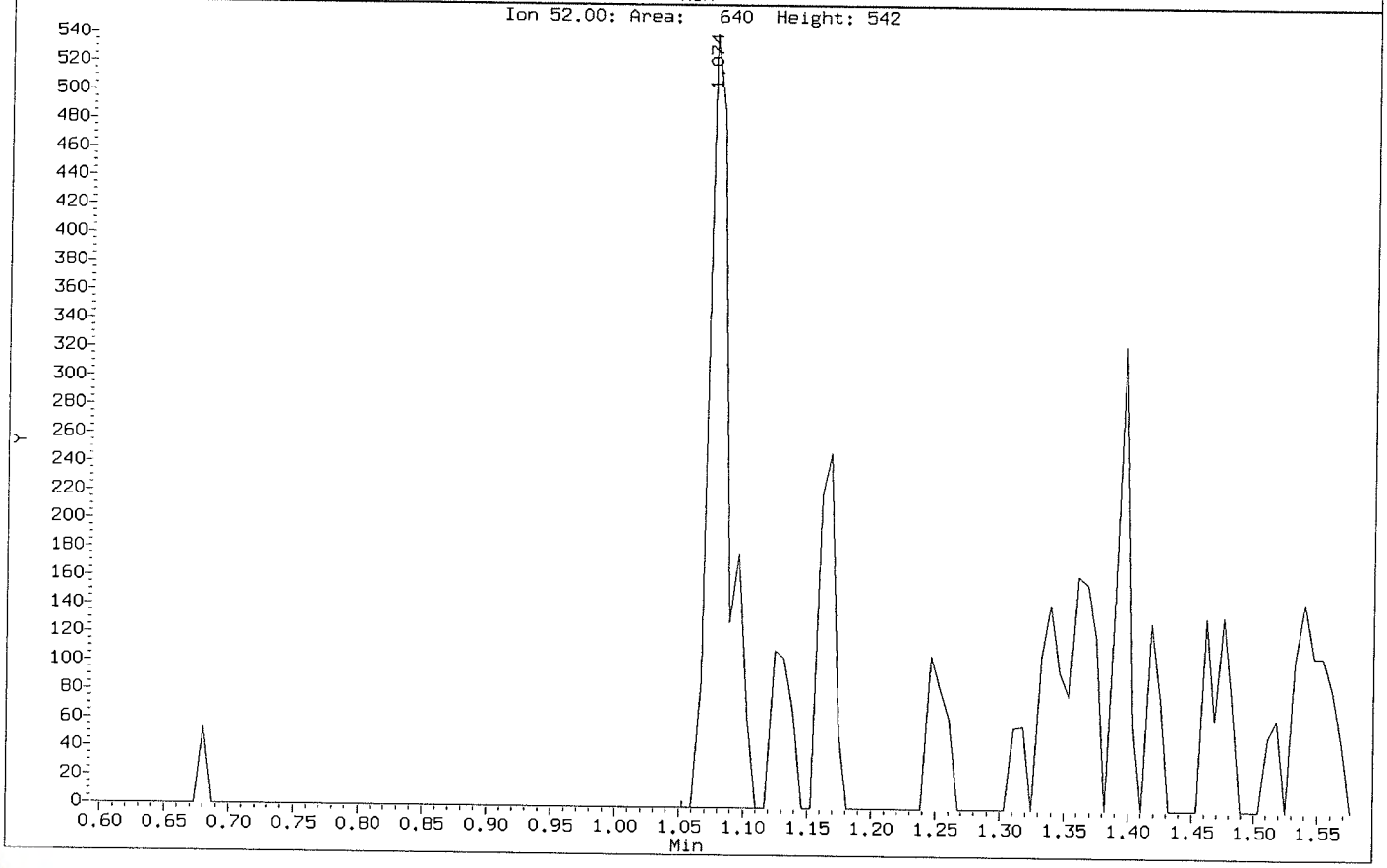
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloromethane
CAS Number: 74-87-3





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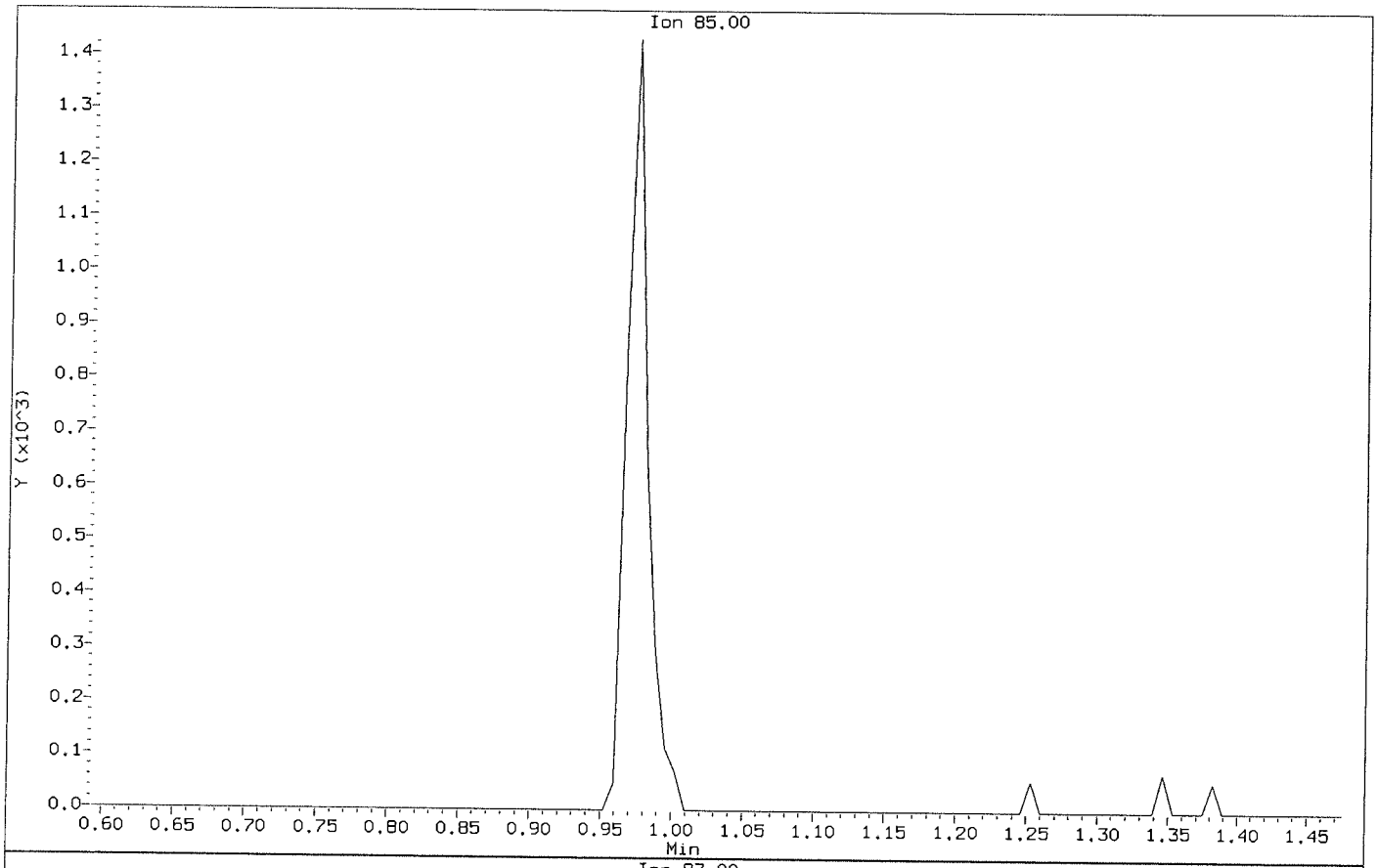
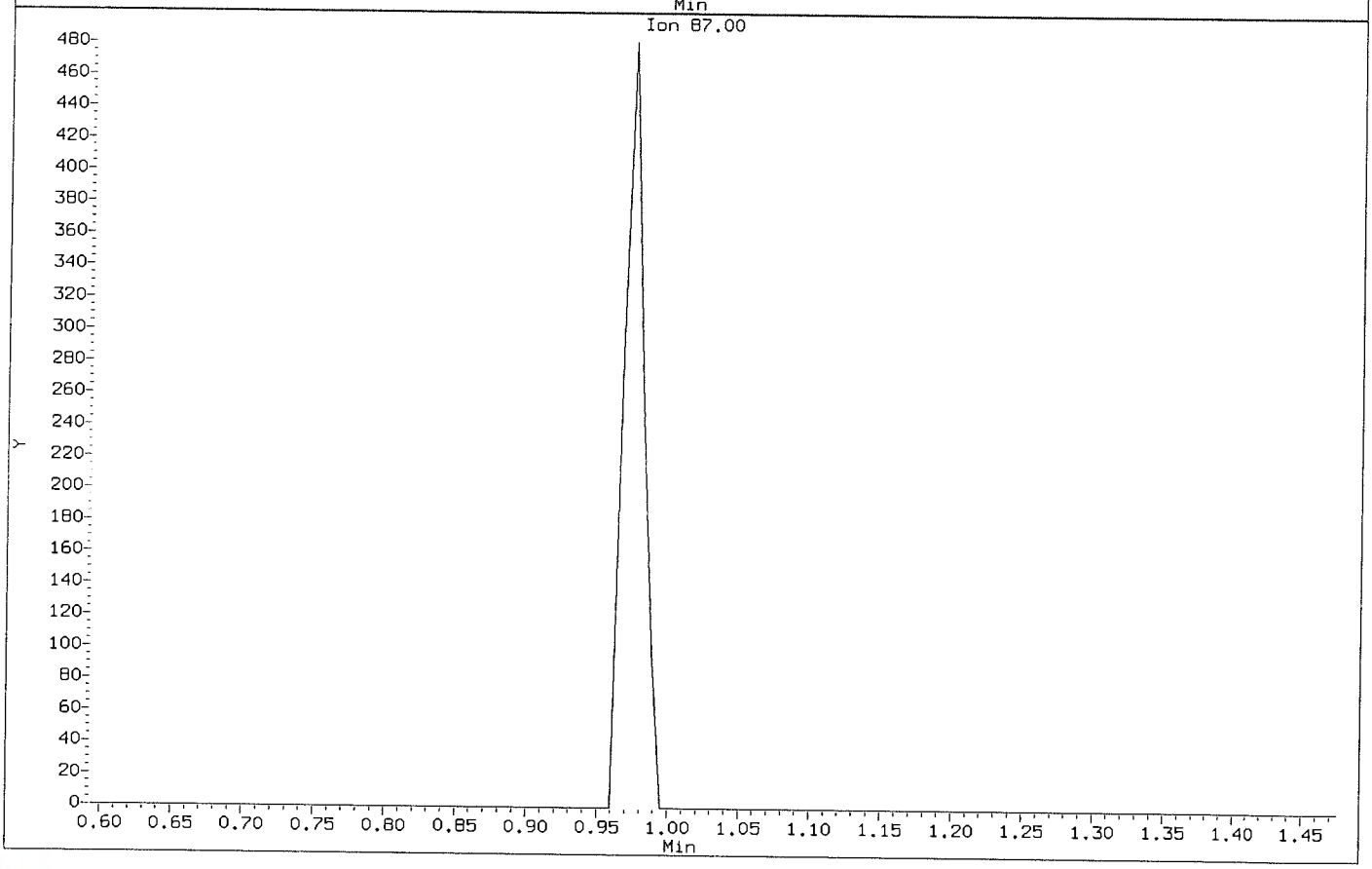
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





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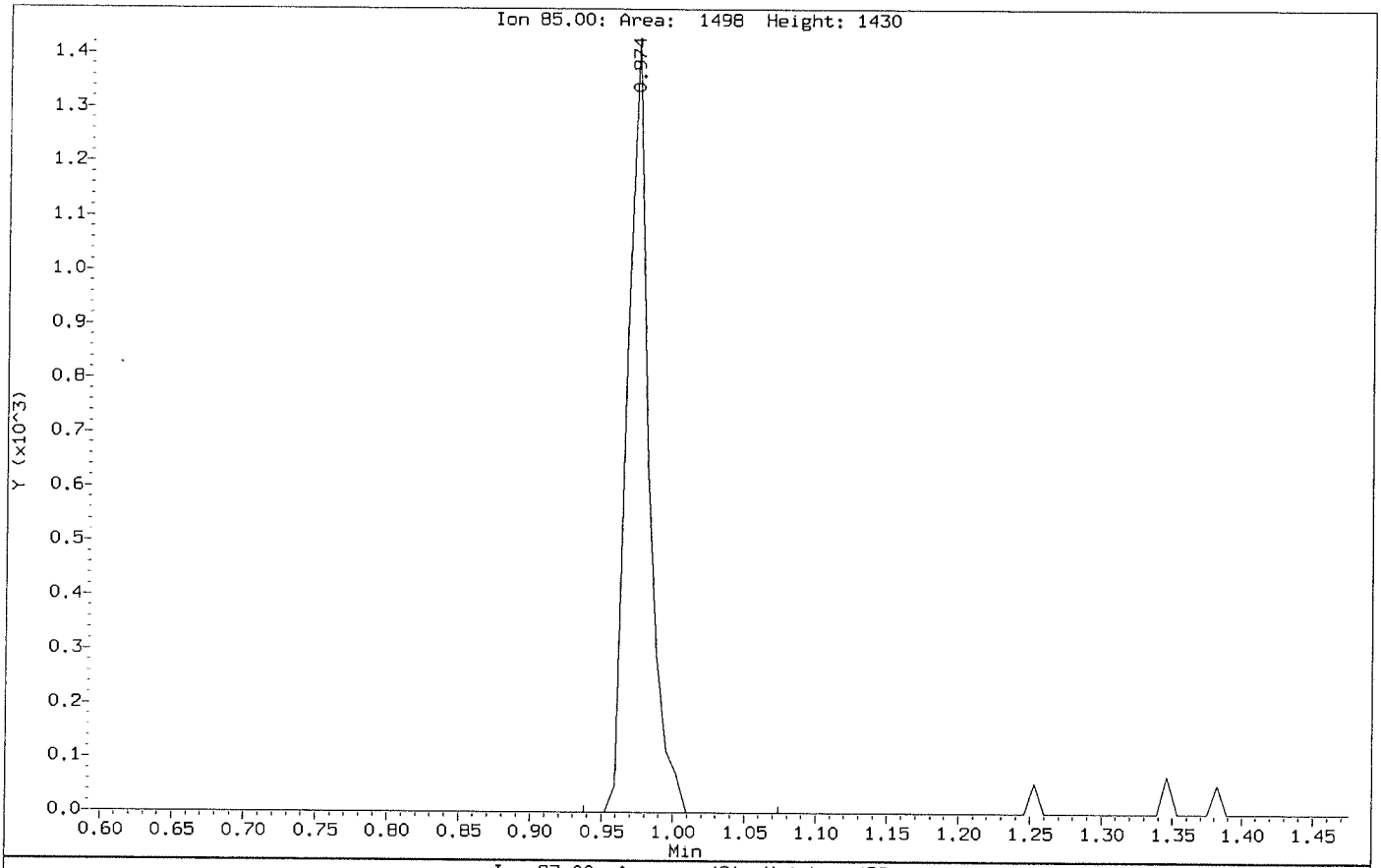
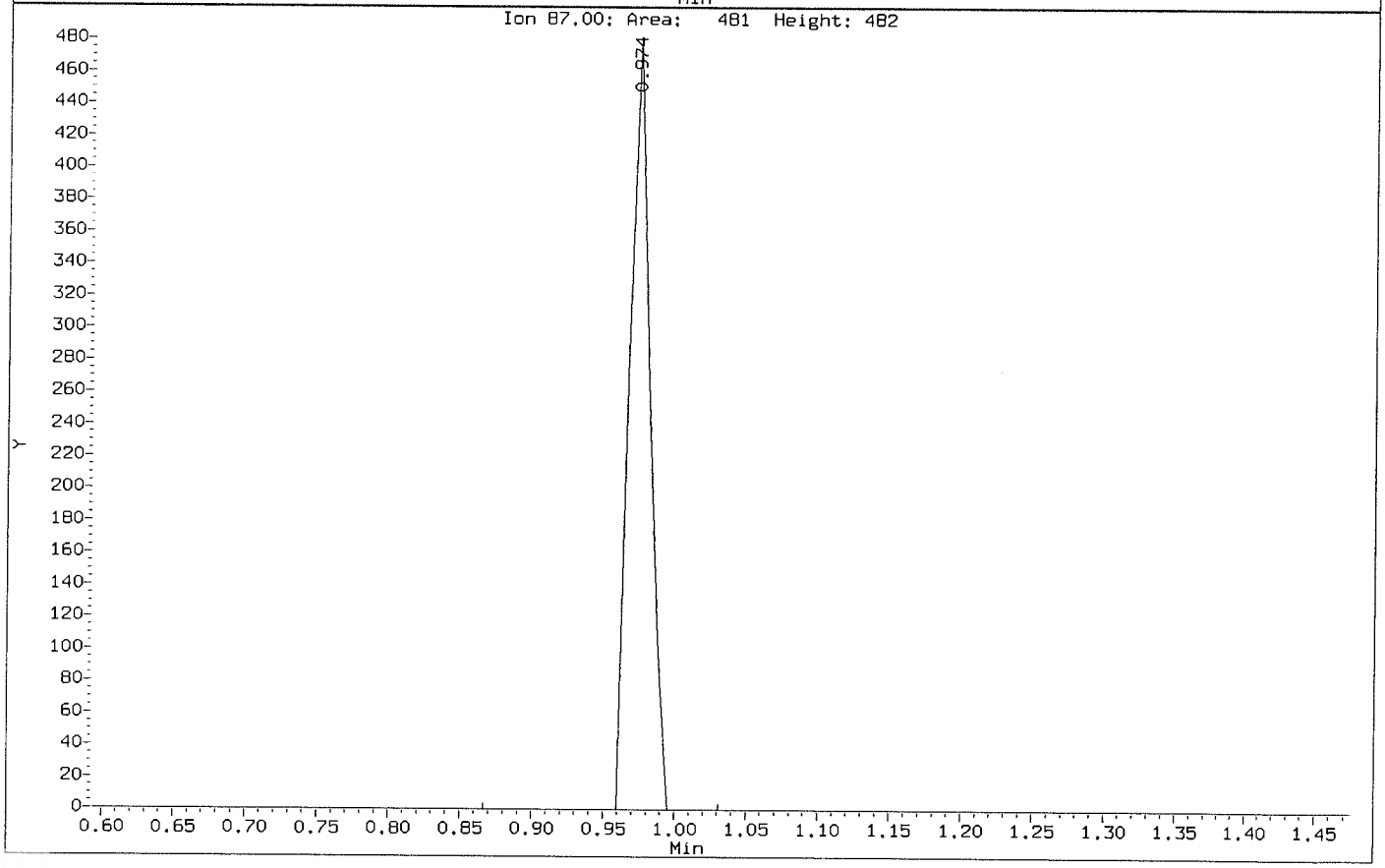
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





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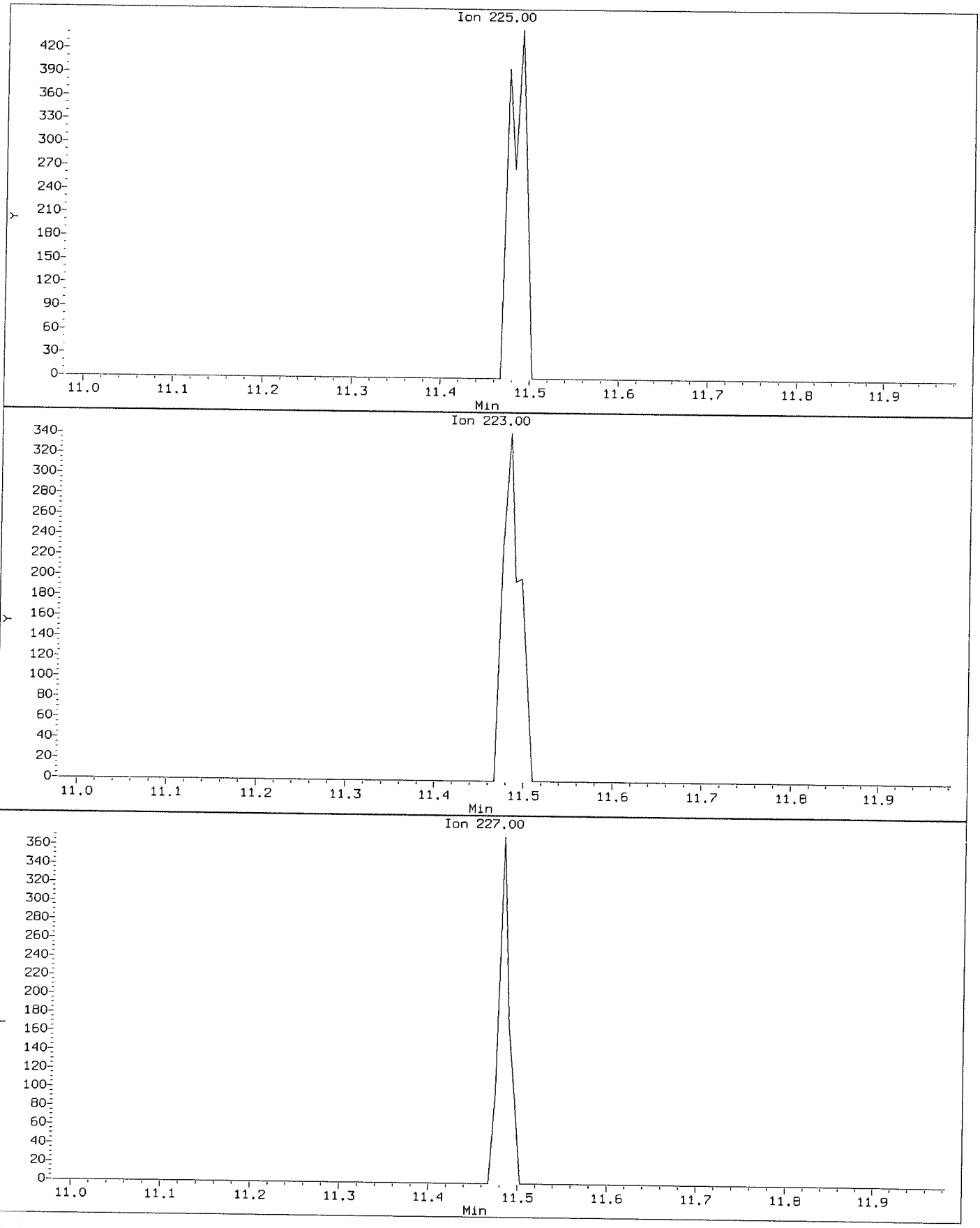
Injection Date: 18-MAY-2021 11:43
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



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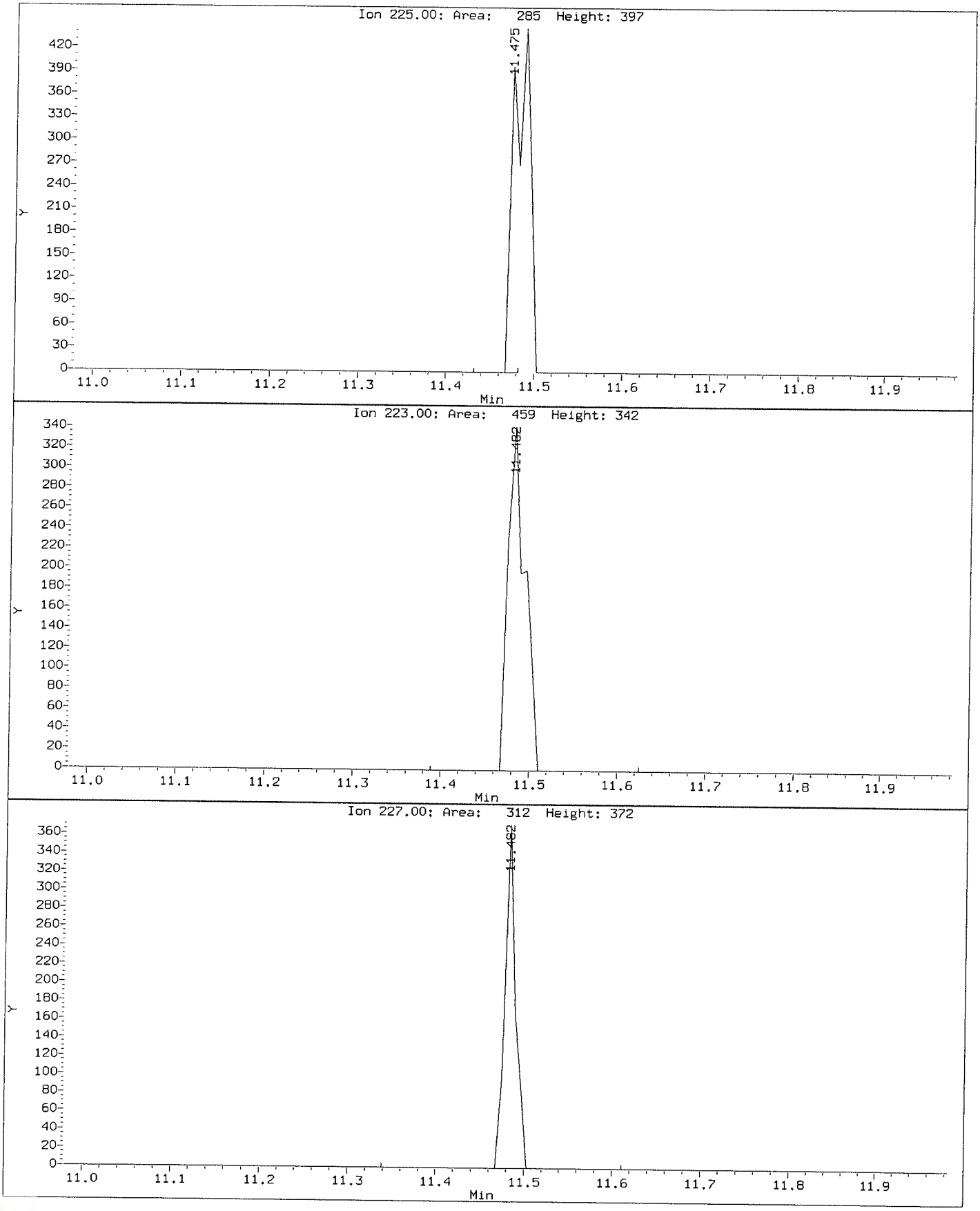
Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



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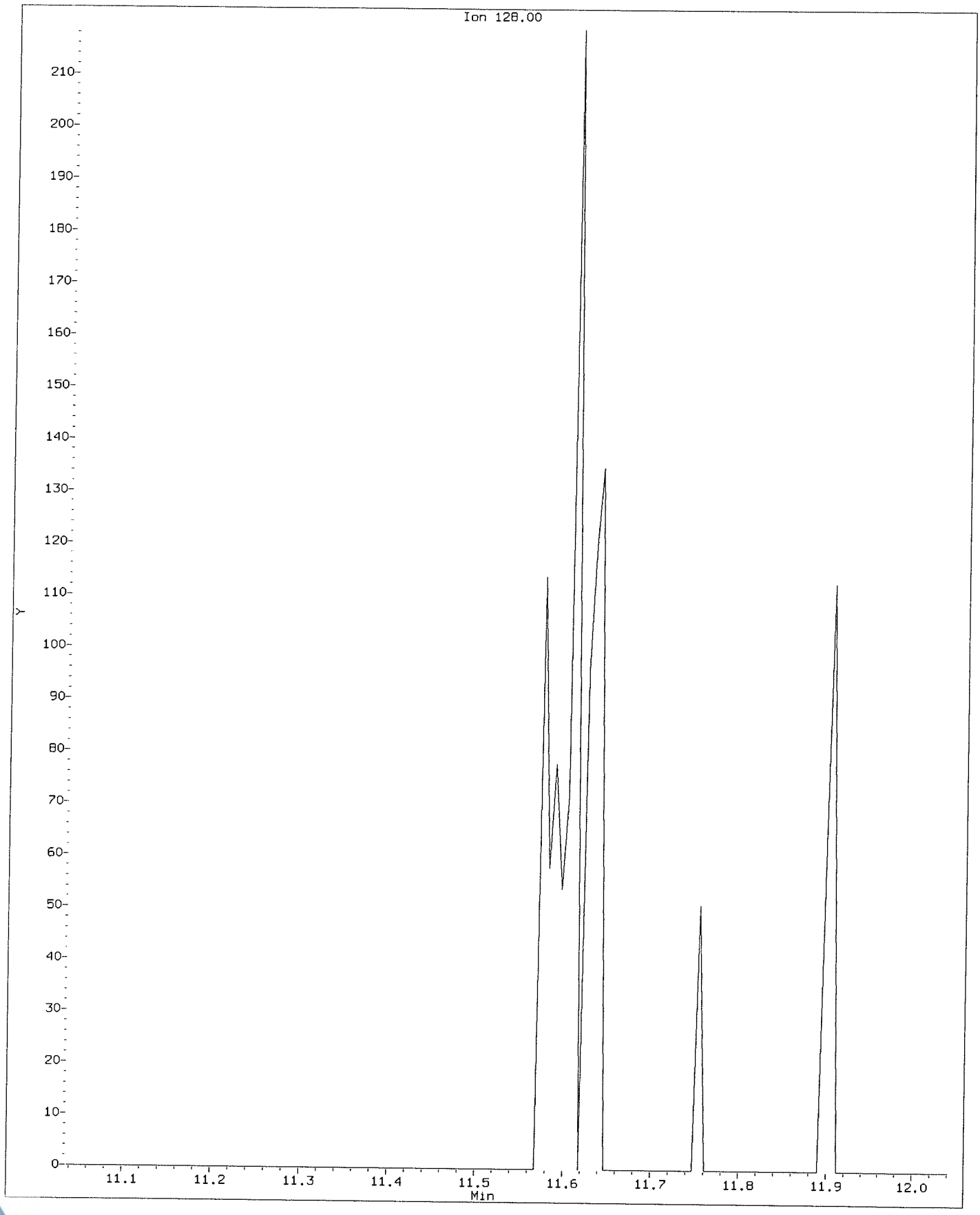
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Naphthalene
CAS Number: 91-20-3



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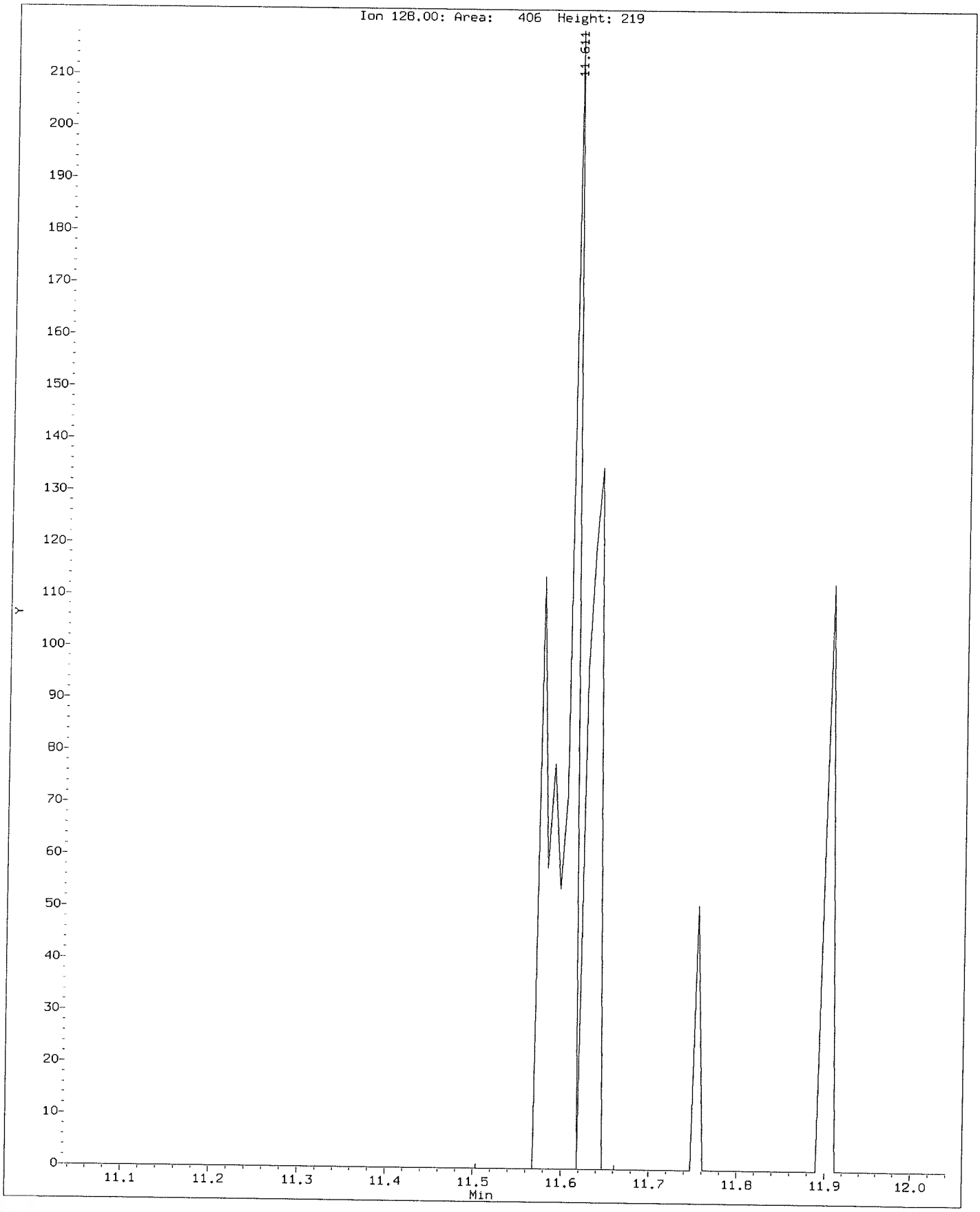
Client Sample ID: VSTD000.5

Compound: Naphthalene
CAS Number: 91-20-3



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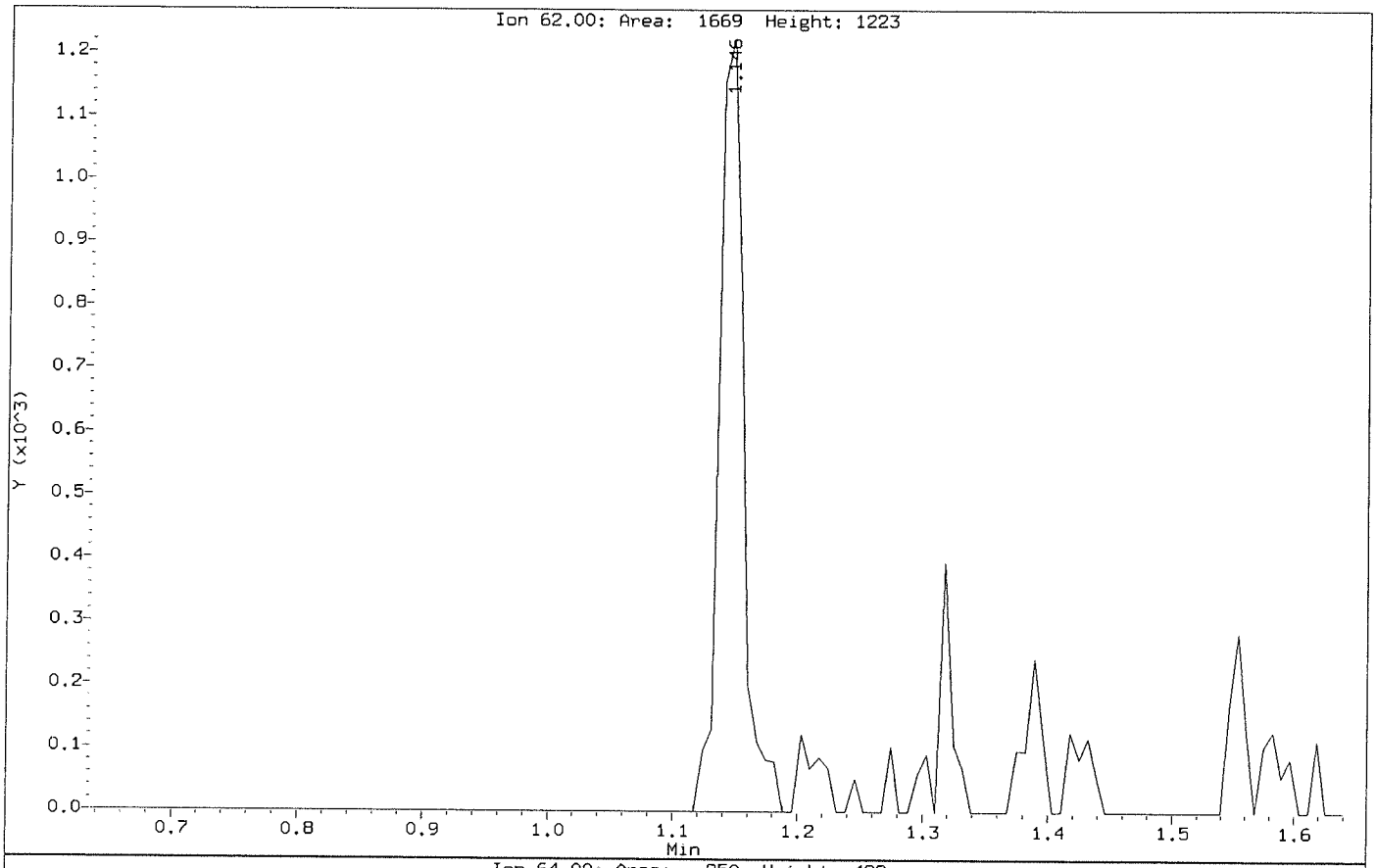
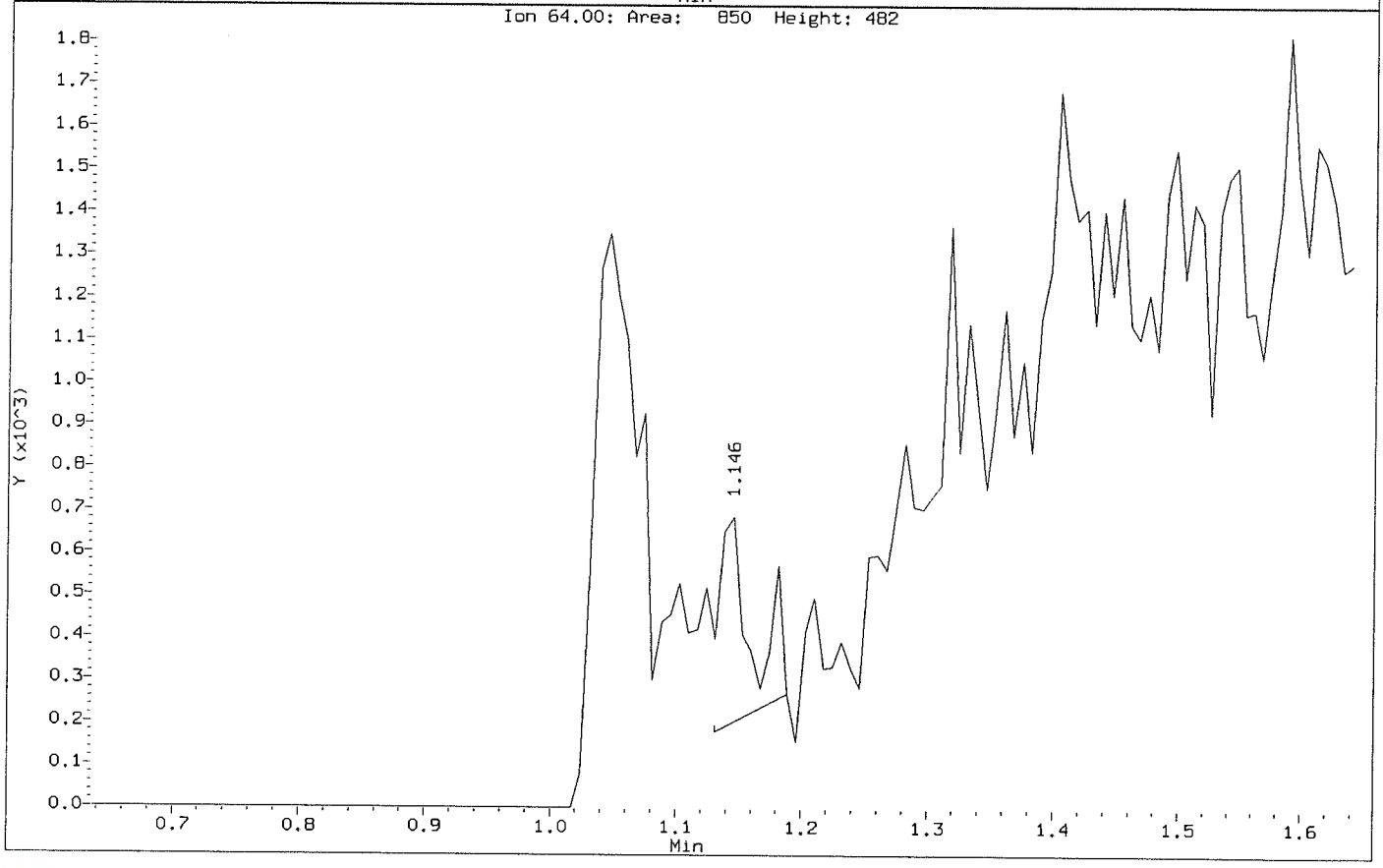
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





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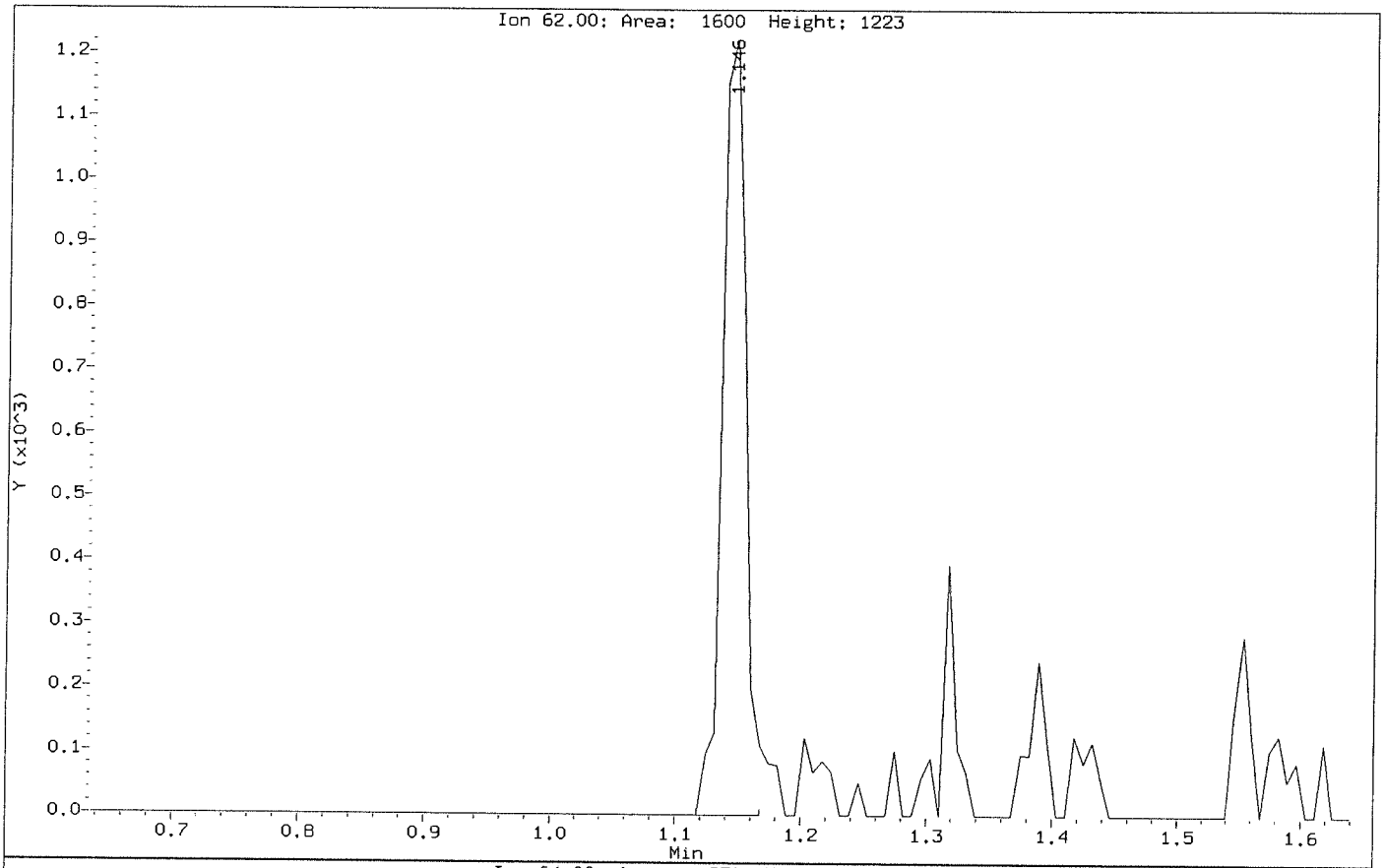
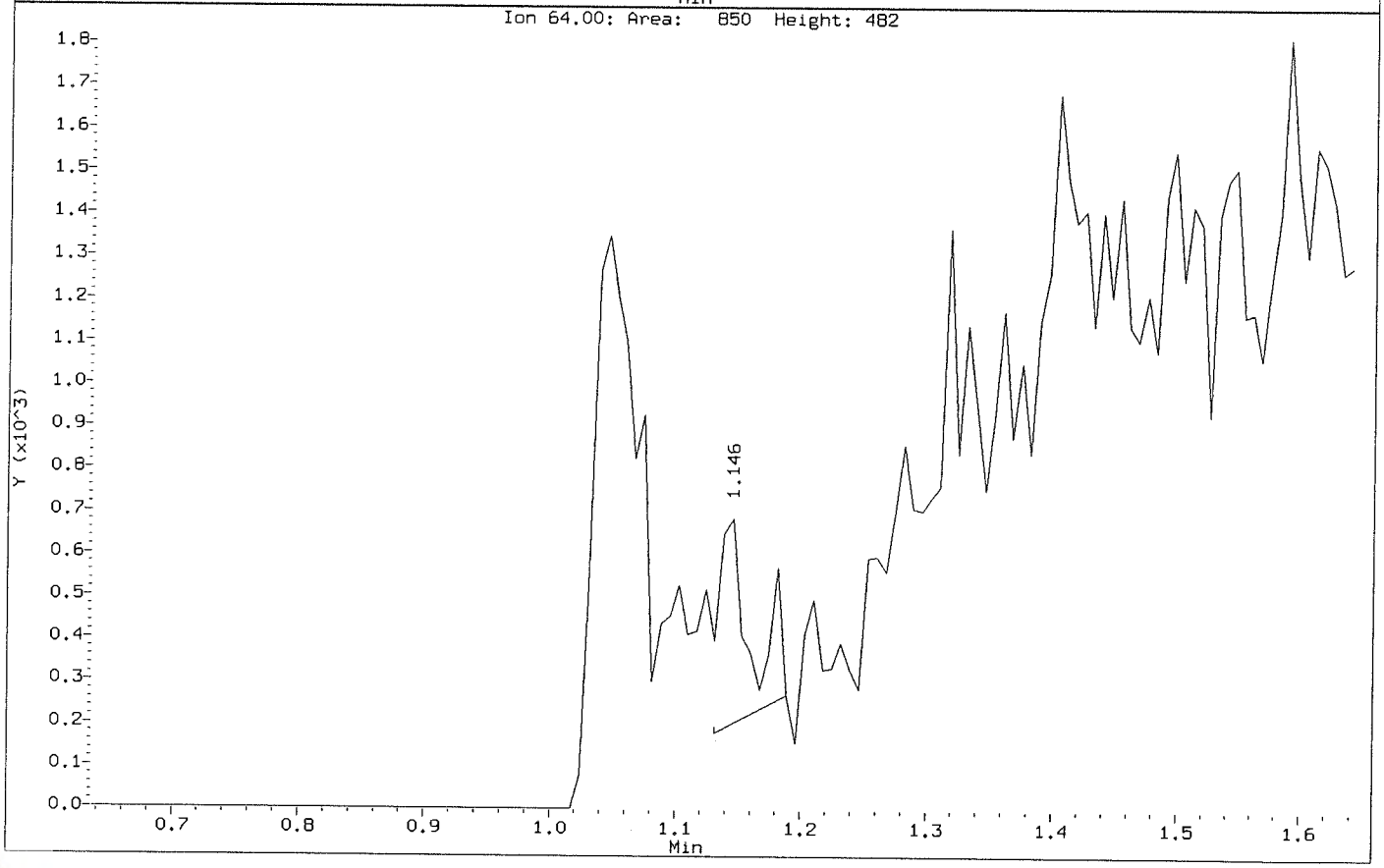
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D Page 1
Report Date: 08-Jun-2021 11:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D
Lab Smp Id: VSDT001 Client Smp ID: VSTD001
Inj Date : 18-MAY-2021 12:25
Operator : PC Inst ID: voa6.i
Smp Info : VSDT001;VSTD001;1;3;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 11:43 Cal File: X051803.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

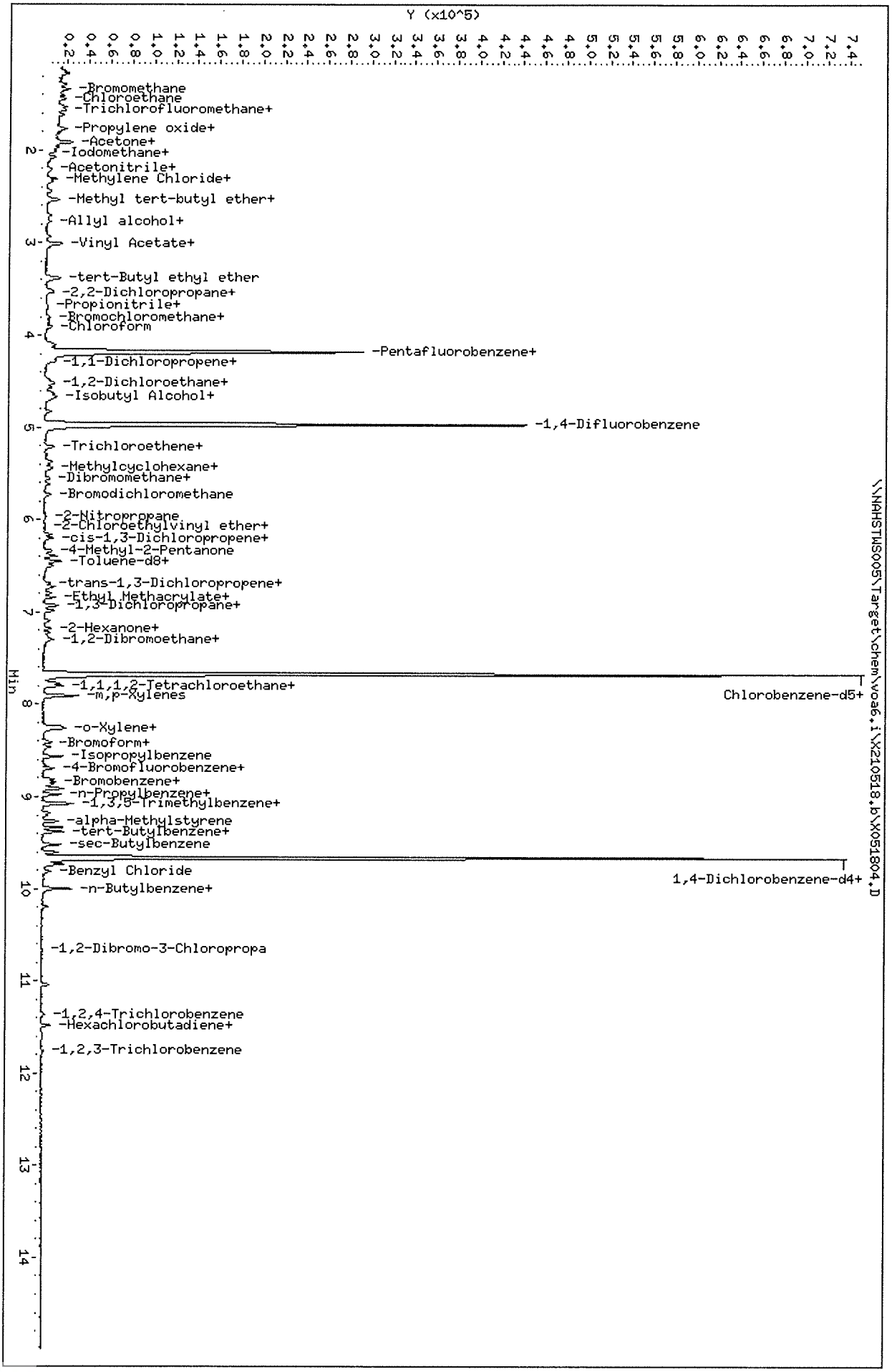
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	219851	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	365818	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	338329	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	153566	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2671	1.00000	0.86(a)
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	3259	1.00000	(Ta)
$ 48 Toluene-d8	98	6.396	6.396	(0.834)	7865	1.00000	1.94(a)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	2729	1.00000	0.97(a)
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	2501	1.00000	1.01(a)
31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	3645	1.00000	0.97(a)
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	3942	1.00000	1.03(aM)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	2388	1.00000	1.21(a)
22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	4505	1.00000	1.10(a)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	2439	1.00000	1.10(a)
32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	3437	1.00000	1.09(a)
93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	800	1.00000	1.59(aM)
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	3361	1.00000	1.01(aMH)
90 1,2,4-Trichlorobenzene	180	11.360	11.360	(1.176)	1337	1.00000	3.38(aM)
79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	9246	1.00000	1.18(a)
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	283	1.00000	2.92(aM)
57 1,2-Dibromoethane	107	7.270	7.270	(0.948)	2509	1.00000	1.06(a)
88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	5563	1.00000	1.29(a)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D Page 2
Report Date: 08-Jun-2021 11:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	4020	1.00000	1.11(a)
42 1,2-Dichloropropane	63	5.443	5.443	(1.095)	2590	1.00000	1.05(aM)
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	8467	1.00000	1.10(a)
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	5480	1.00000	1.24(a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	4419	1.00000	1.14(a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	6628	1.00000	1.71(a)
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	3735	1.00000	1.02(a)
24 2-Butanone	43	3.609	3.609	(0.863)	1748	2.00000	2.15(aM)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	8473	1.00000	1.23(aM)
52 2-Hexanone	43	7.098	7.098	(0.925)	4644	2.00000	2.97(a)
77 4-Chlorotoluene	91	9.075	9.075	(0.939)	9387	1.00000	1.17(a)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	8833	1.00000	1.16(a)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	6100	2.00000	2.91(a)
10 Acetone	43	1.976	1.976	(0.473)	2806	2.00000	0.15(a)
37 Benzene	78	4.519	4.519	(0.909)	9079	1.00000	1.00(a)
74 Bromobenzene	156	8.810	8.810	(0.912)	3170	1.00000	1.23(a)
29 Bromochloromethane	128	3.803	3.803	(0.909)	1376	1.00000	1.02(a)
39 Bromodichloromethane	83	5.729	5.729	(1.153)	3683	1.00000	1.04(aM)
66 Bromoform	173	8.416	8.416	(1.097)	1736	1.00000	1.06(Ta)
6 Bromomethane	94	1.339	1.339	(0.320)	3018	1.00000	0.84(aM)
19 Carbon Disulfide	76	2.076	2.076	(0.497)	10496	2.00000	2.02(a)
34 Carbon Tetrachloride	117	4.268	4.268	(0.859)	3274	1.00000	1.02(aH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	7182	1.00000	1.08(a)
7 Chloroethane	64	1.403	1.403	(0.336)	1604	1.00000	0.96(aM)
28 Chloroform	83	3.917	3.917	(0.937)	4735	1.00000	1.01(a)
3 Chloromethane	50	1.073	1.073	(0.257)	3160	1.00000	1.56(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	2814	1.00000	1.11(a)
46 cis-1,3-Dichloropropene	75	6.166	6.166	(1.241)	4187	1.00000	1.04(a)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	3082	1.00000	1.16(a)
44 Dibromomethane	93	5.558	5.558	(1.118)	1945	1.00000	1.10(a)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	2403	1.00000	2.91(a)
61 Ethylbenzene	106	7.800	7.800	(1.017)	3237	1.00000	0.98(a)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	1107	1.00000	4.31(aM)
67 Isopropylbenzene	105	8.559	8.559	(1.116)	10338	1.00000	1.03(a)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	8386	2.00000	1.98(a)
17 Methylene Chloride	84	2.306	2.306	(0.551)	2091	1.00000	0.94(a)
87 n-Butylbenzene	91	9.999	9.999	(1.035)	8481	1.00000	1.17(a)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	12352	1.00000	1.13(a)
92 Naphthalene	128	11.567	11.567	(1.197)	1471	1.00000	3.78(aM)
63 o-Xylene	106	8.244	8.244	(1.075)	4167	1.00000	1.01(a)
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	9907	1.00000	1.10(a)
64 Styrene	104	8.265	8.265	(1.078)	6890	1.00000	2.62(a)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	7755	1.00000	1.19(a)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	1738	1.00000	0.92(a)
50 Toluene	91	6.446	6.446	(0.840)	9931	1.00000	1.01(a)
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	1937	1.00000	0.91(a)
51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	3517	1.00000	1.00(a)
38 Trichloroethene	130	5.207	5.207	(1.048)	2724	1.00000	1.12(a)
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	4657	1.00000	1.10(a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	2800	1.00000	1.05(aM)

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.



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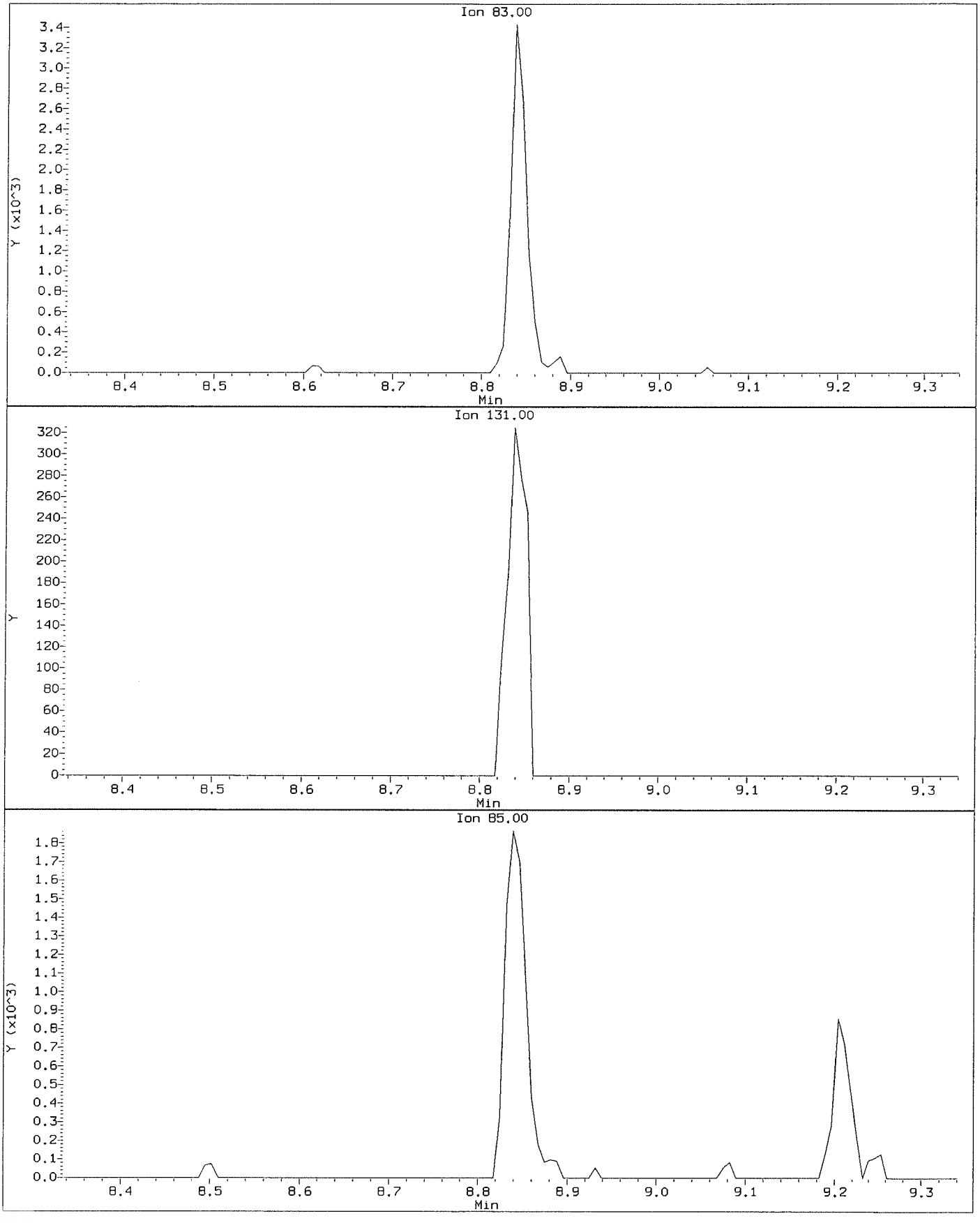
Date : 18-MAY-2021 12:25
Client ID: VSTD001
Sample Info: VSDT001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

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

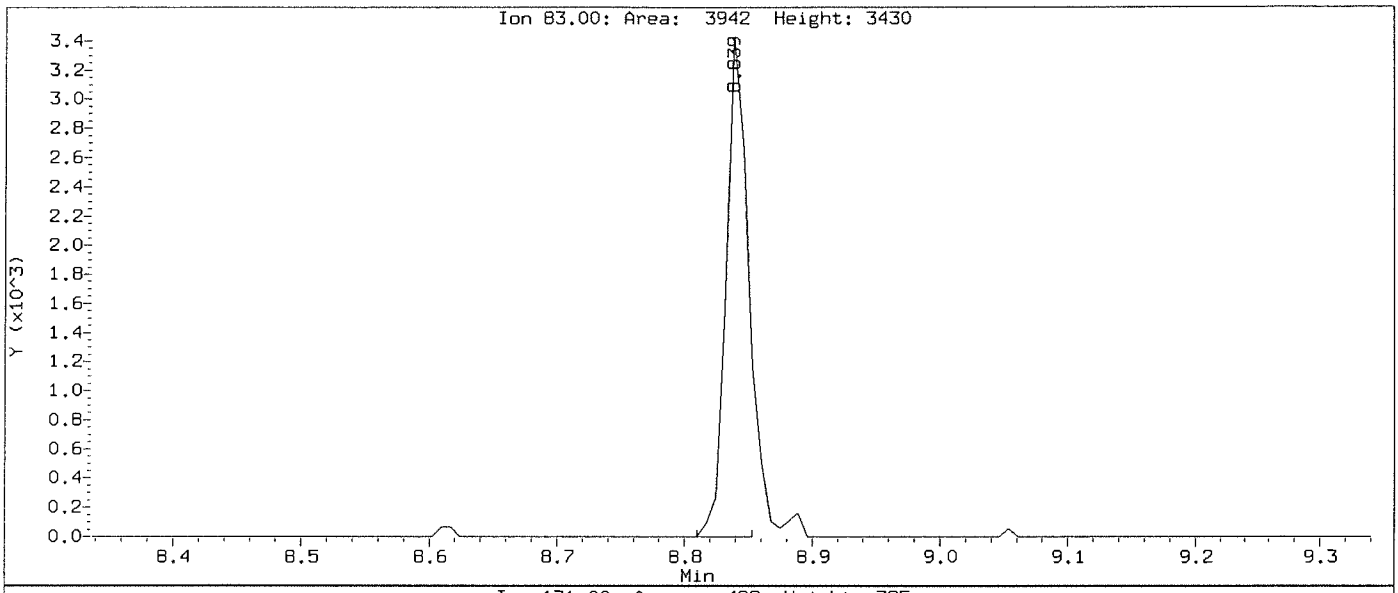
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

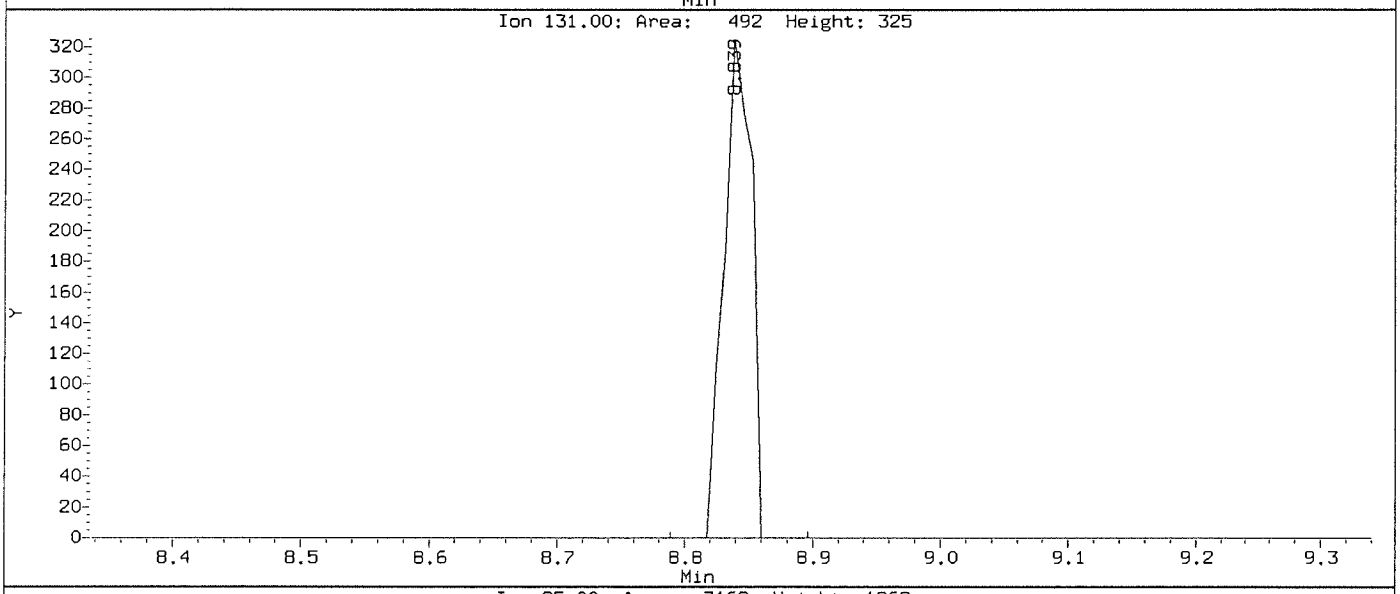
Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5

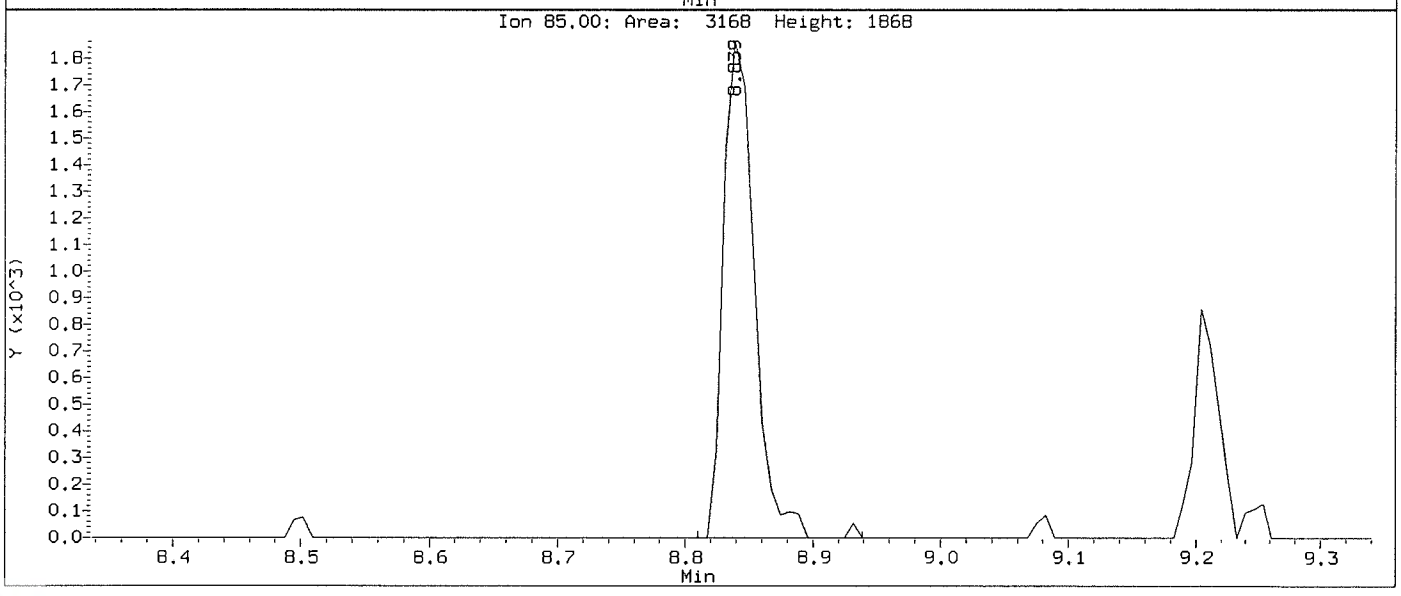


Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5







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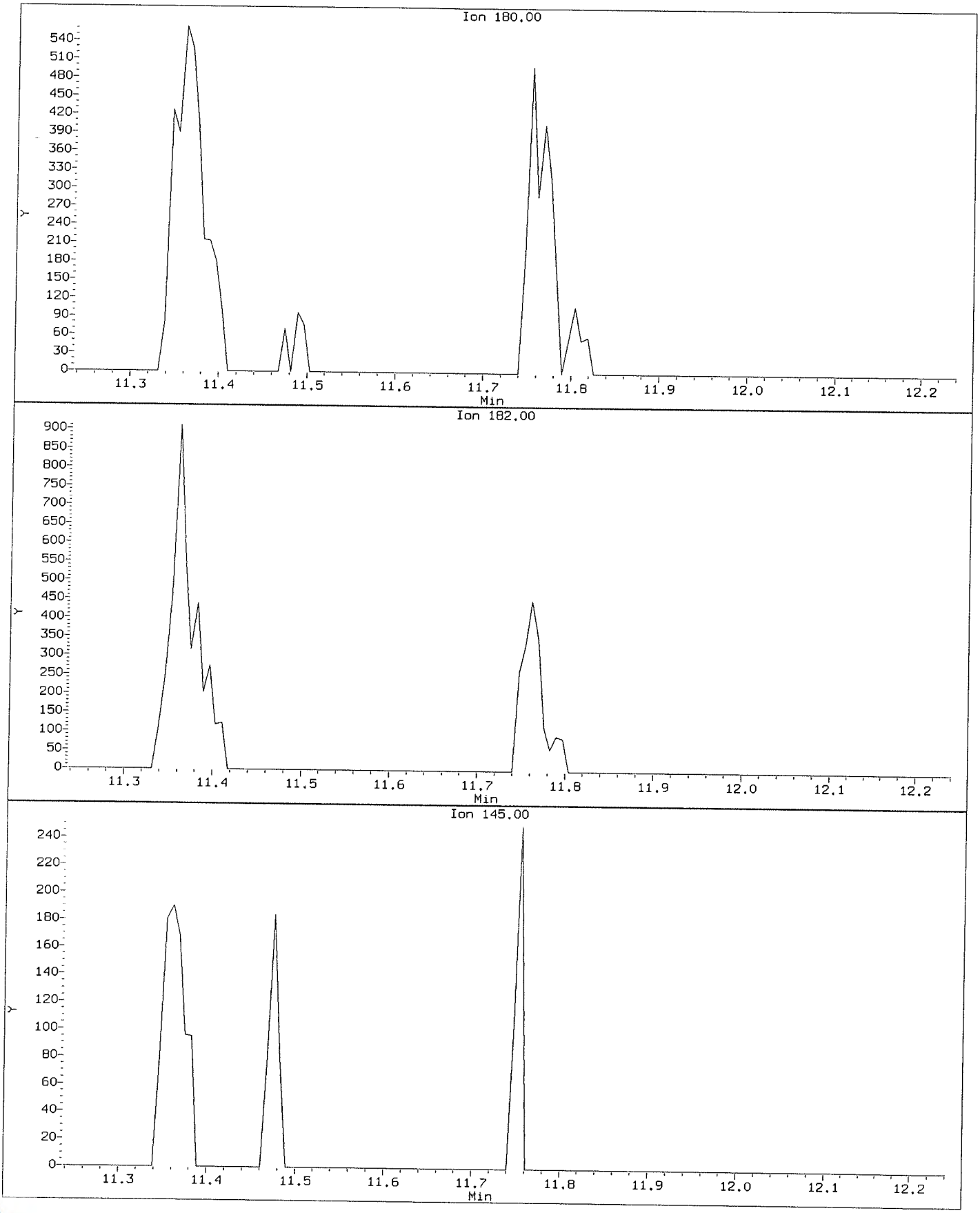
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6



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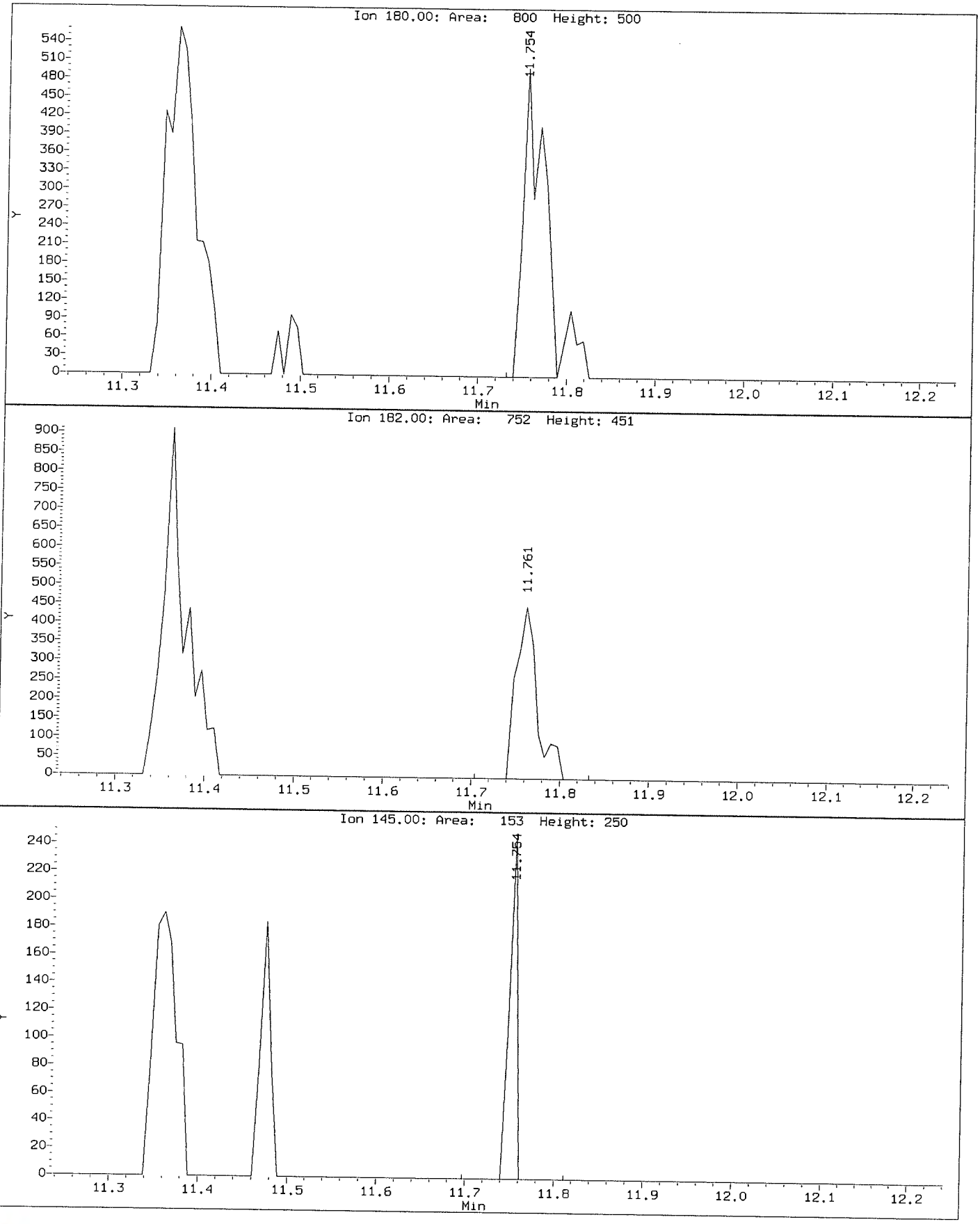
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6



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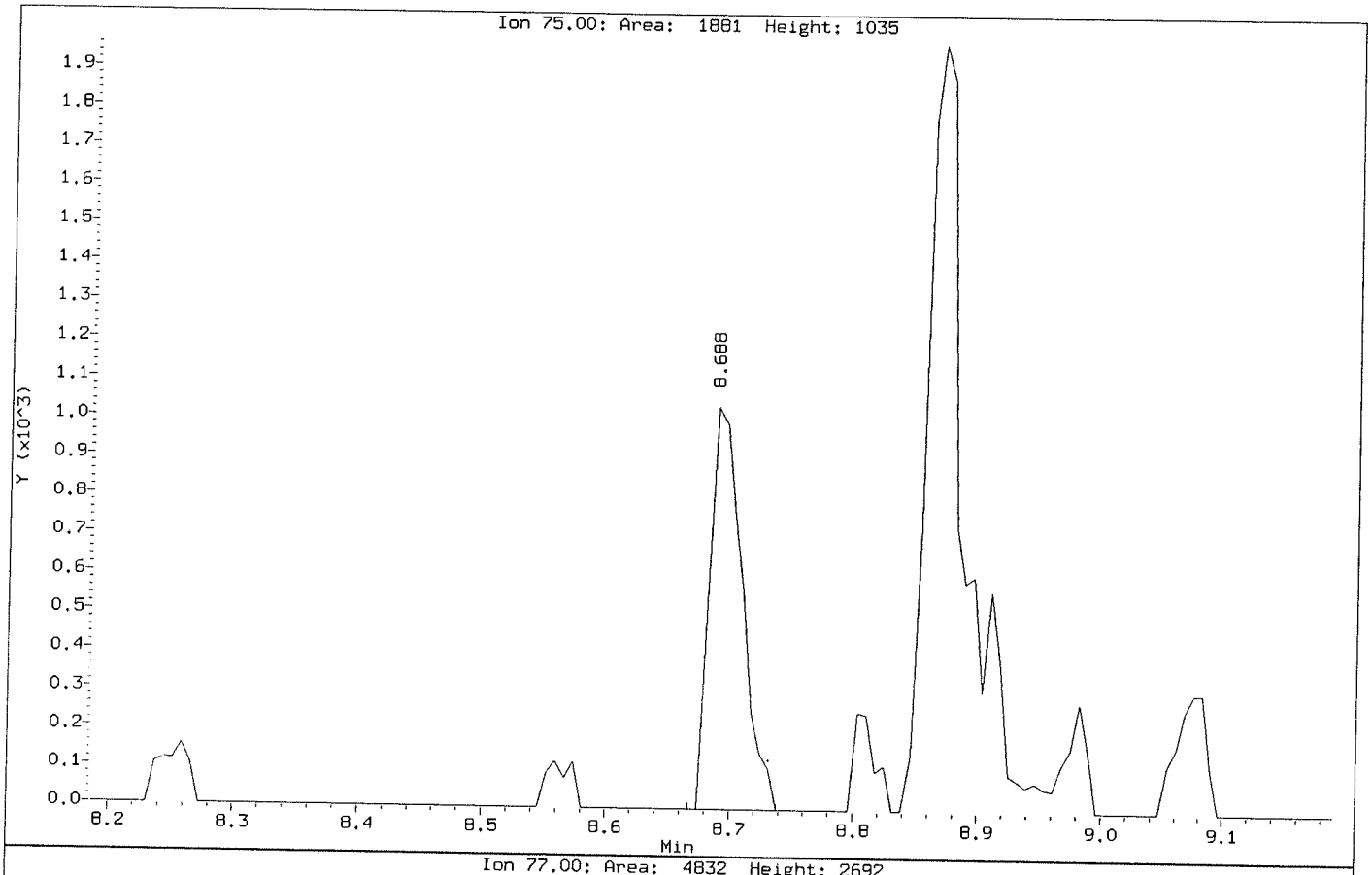
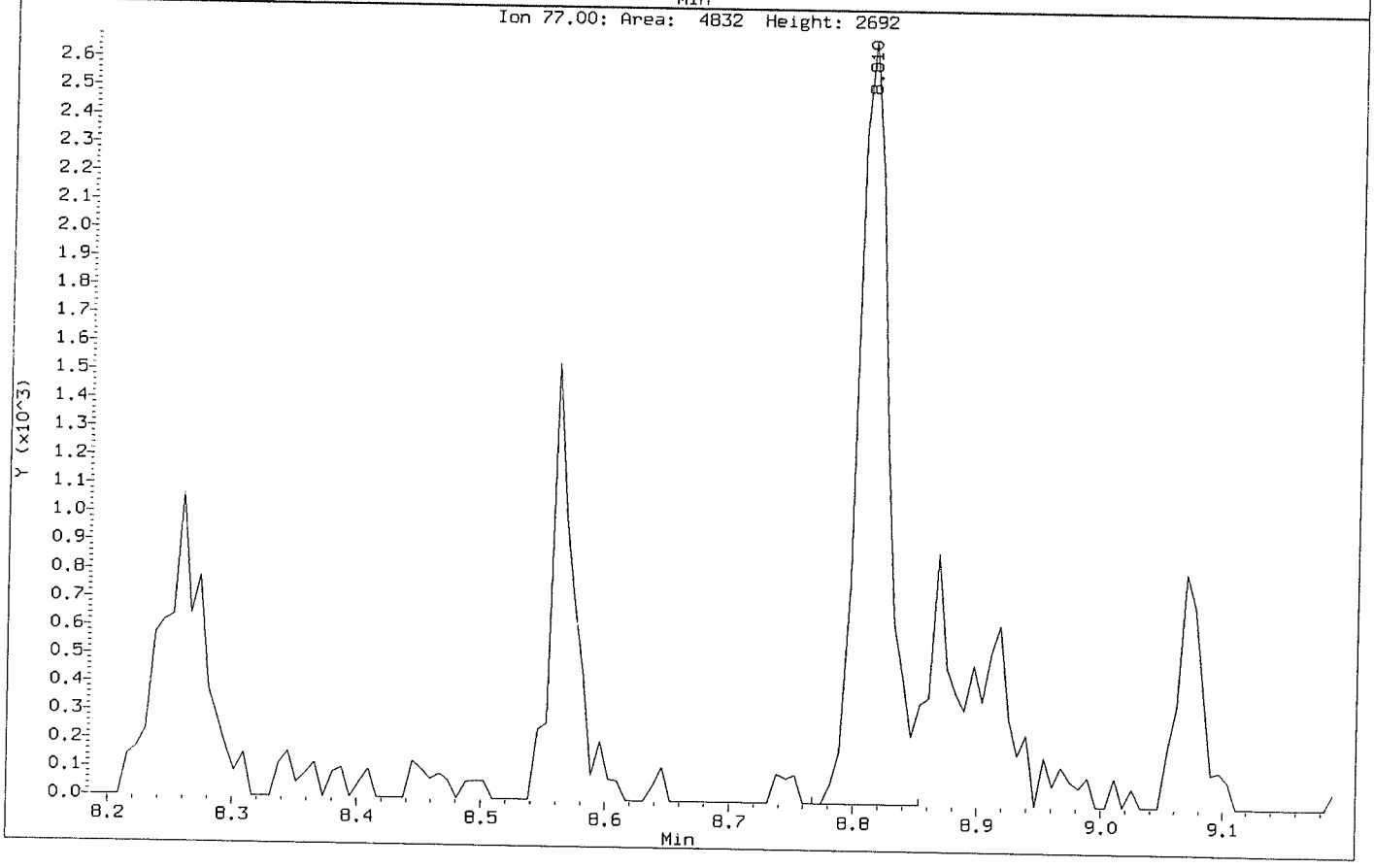
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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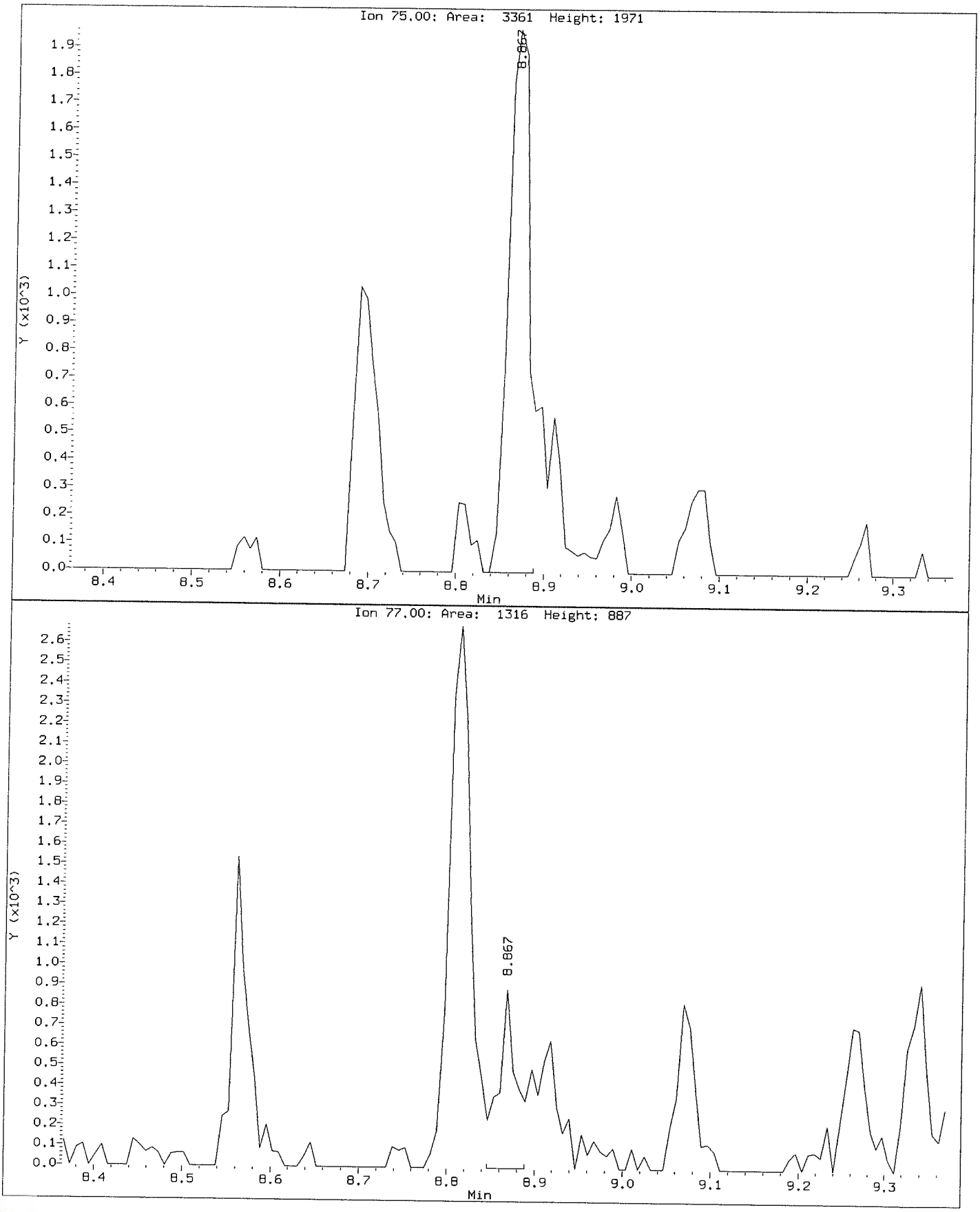
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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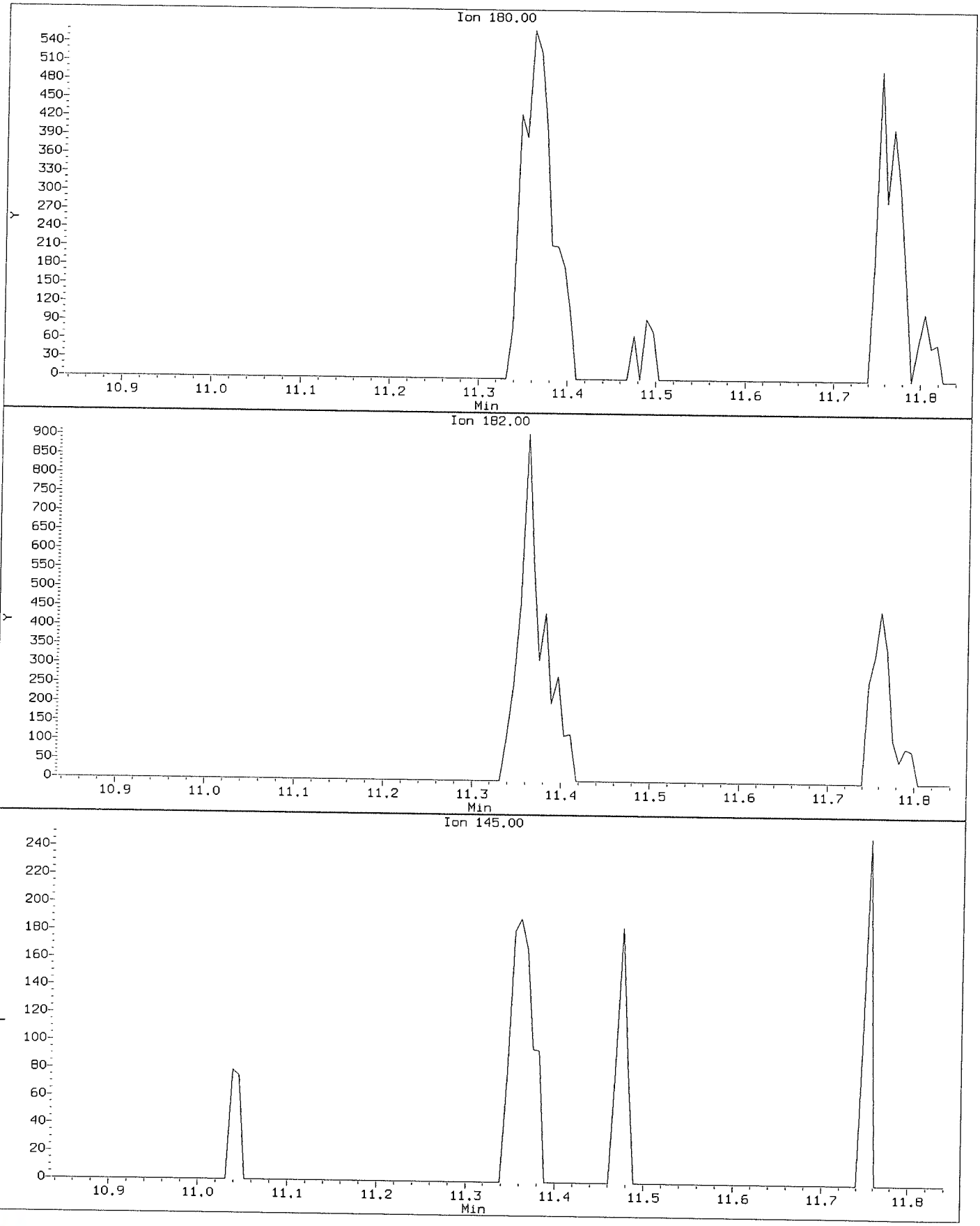
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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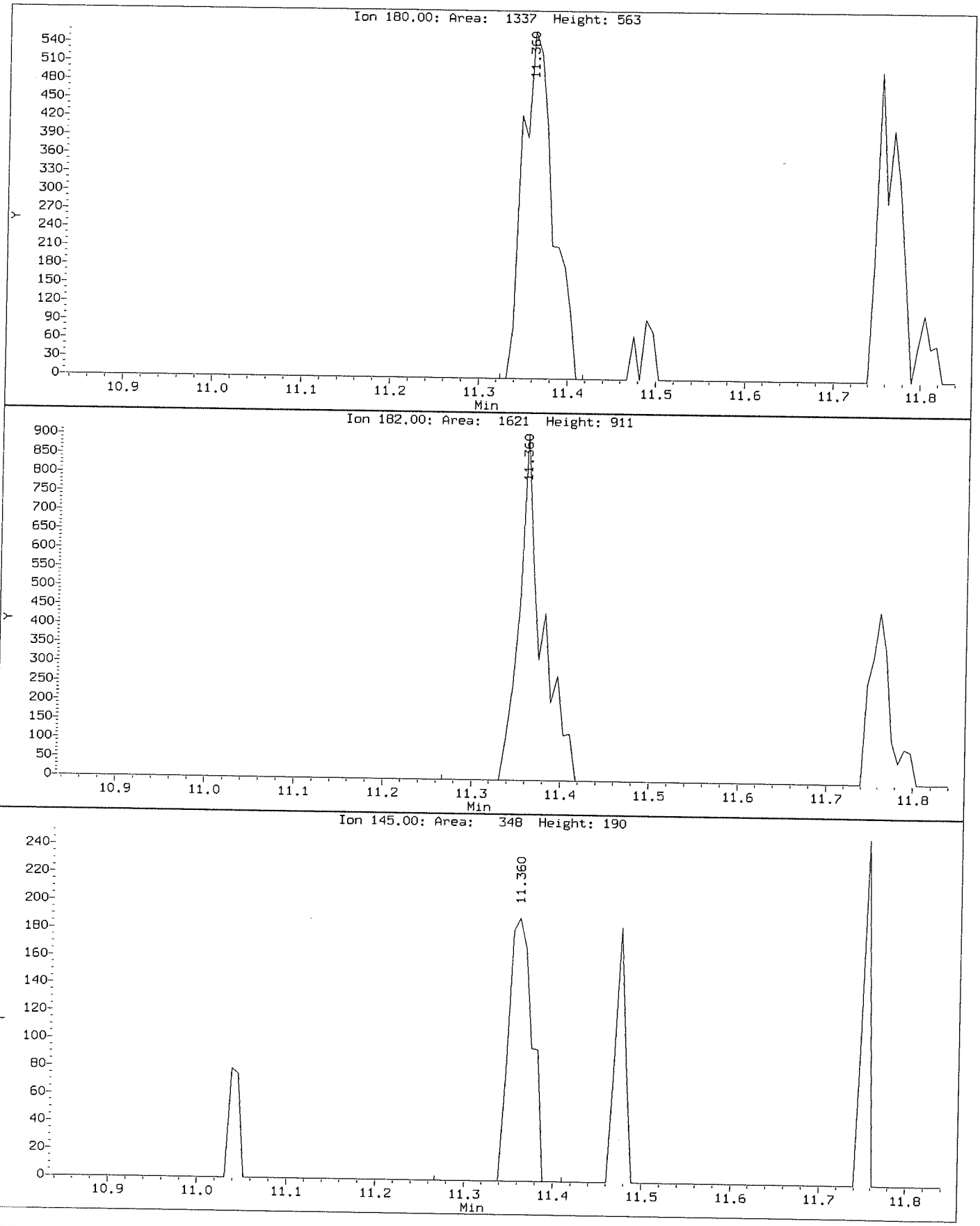
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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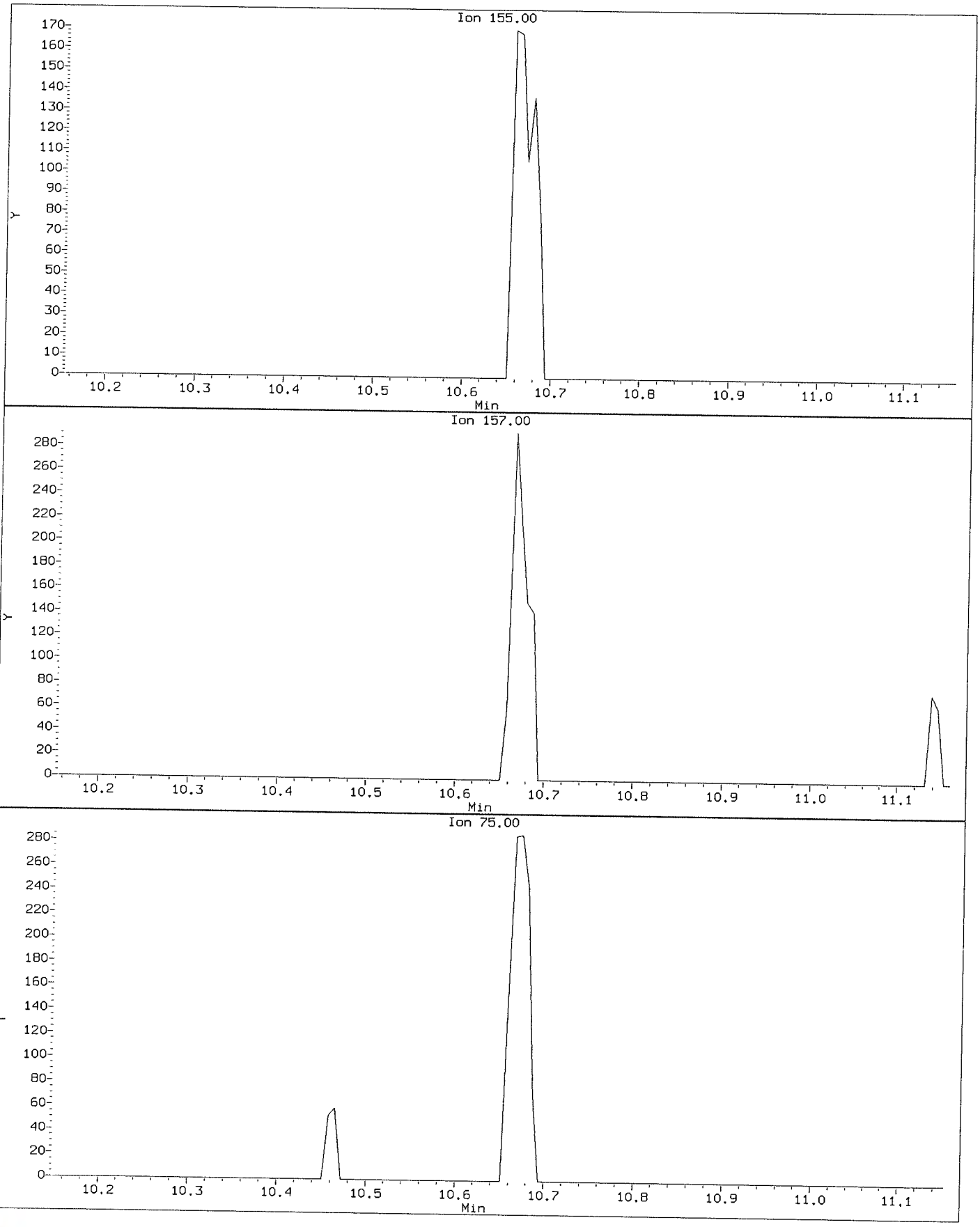
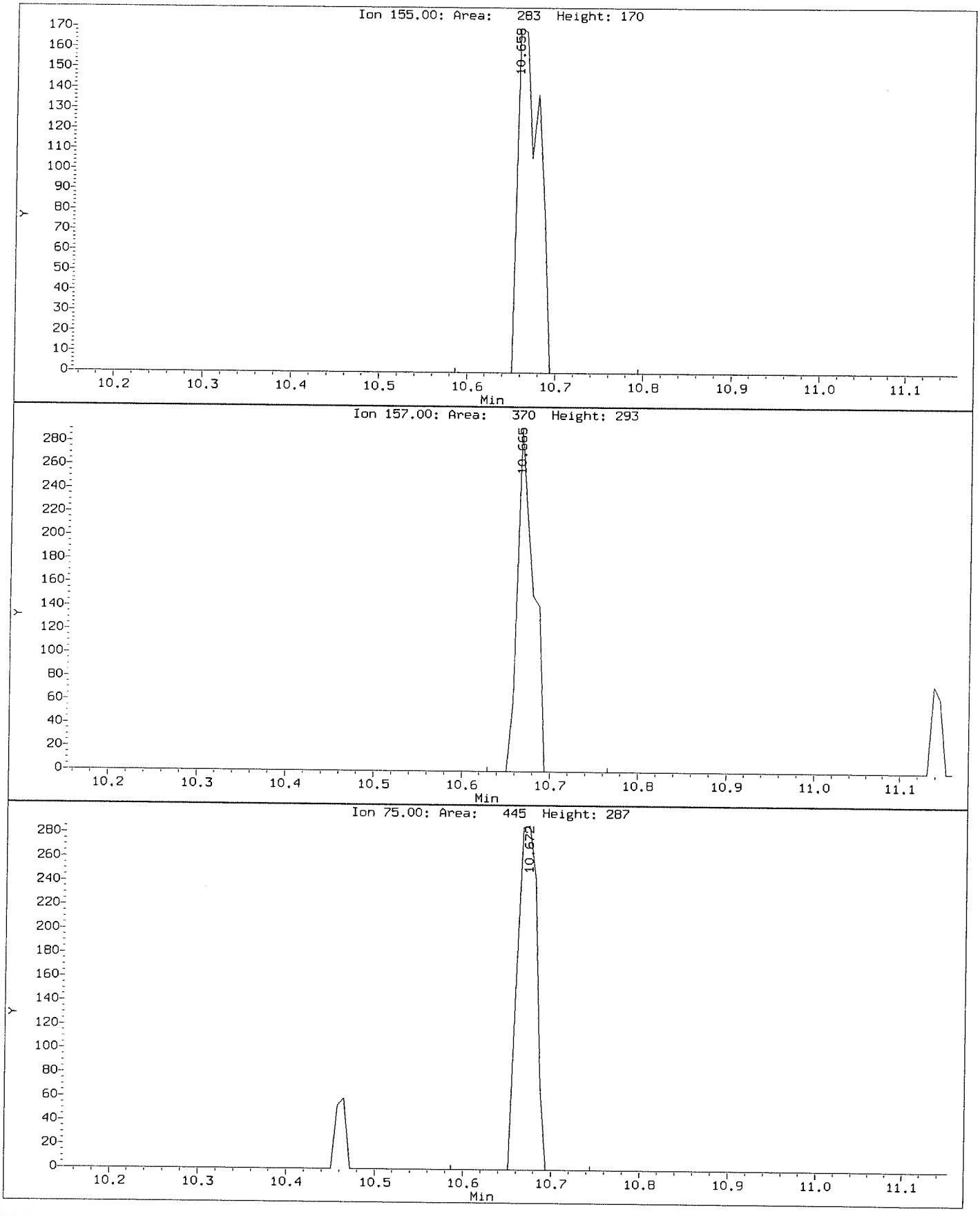
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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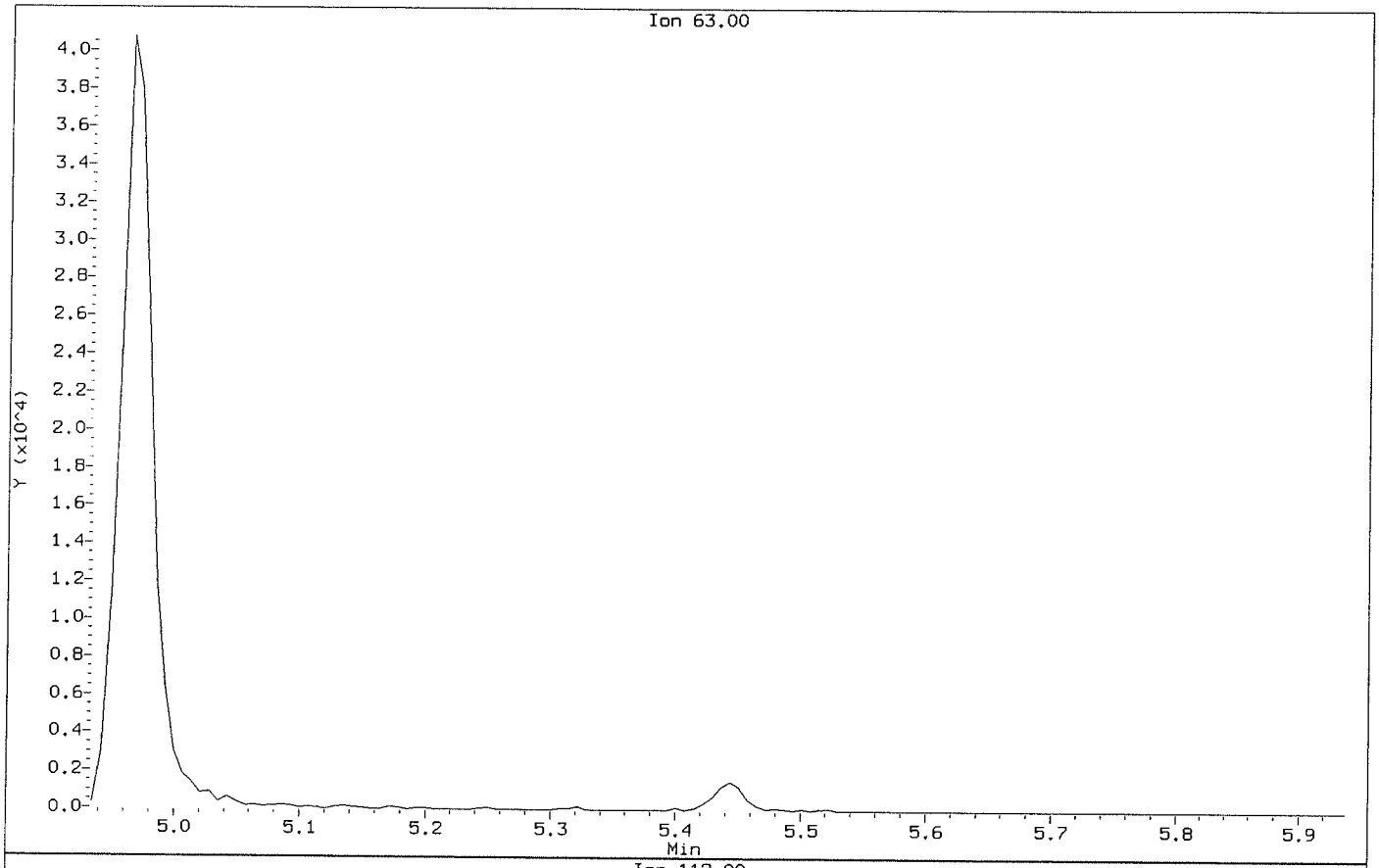
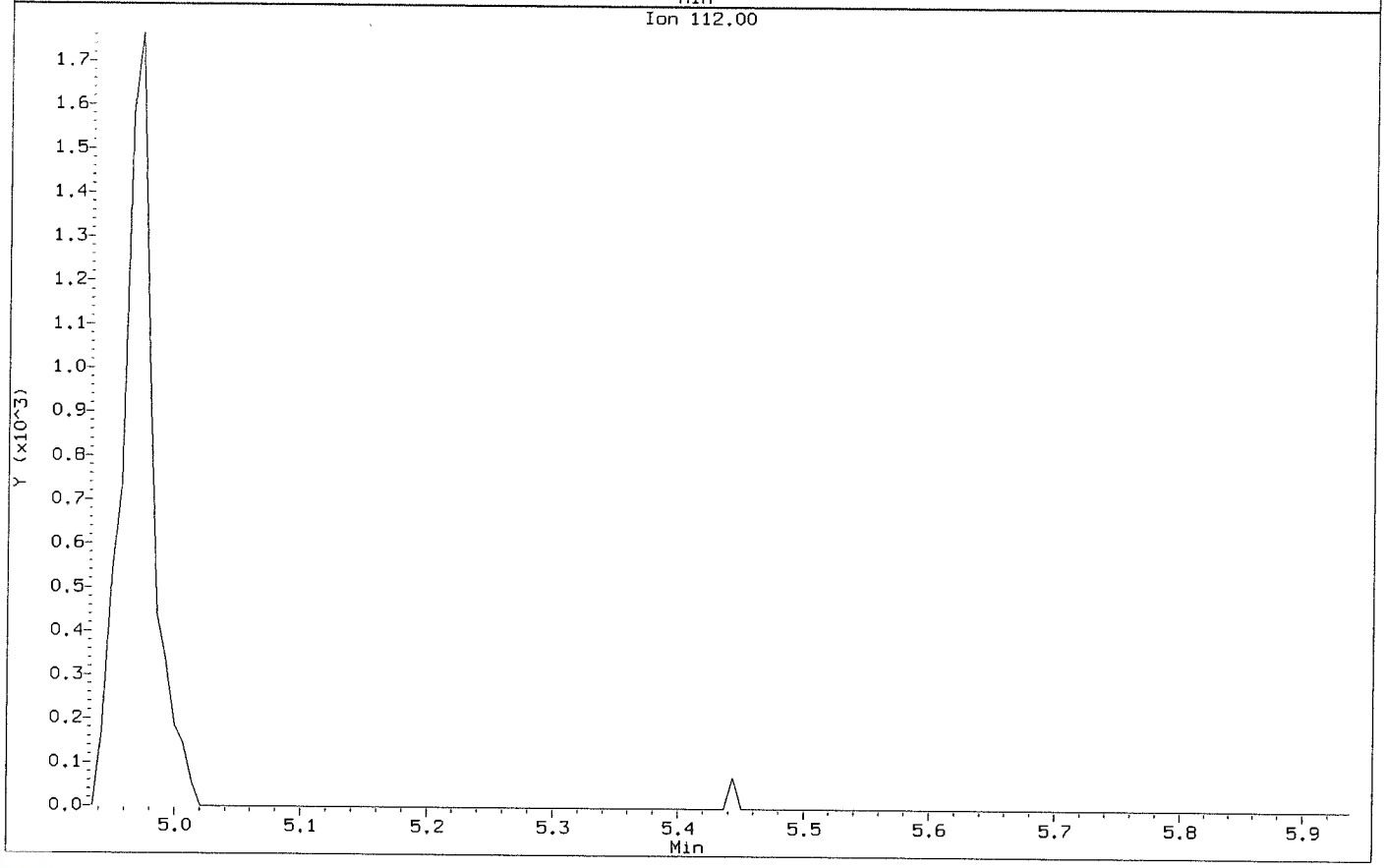
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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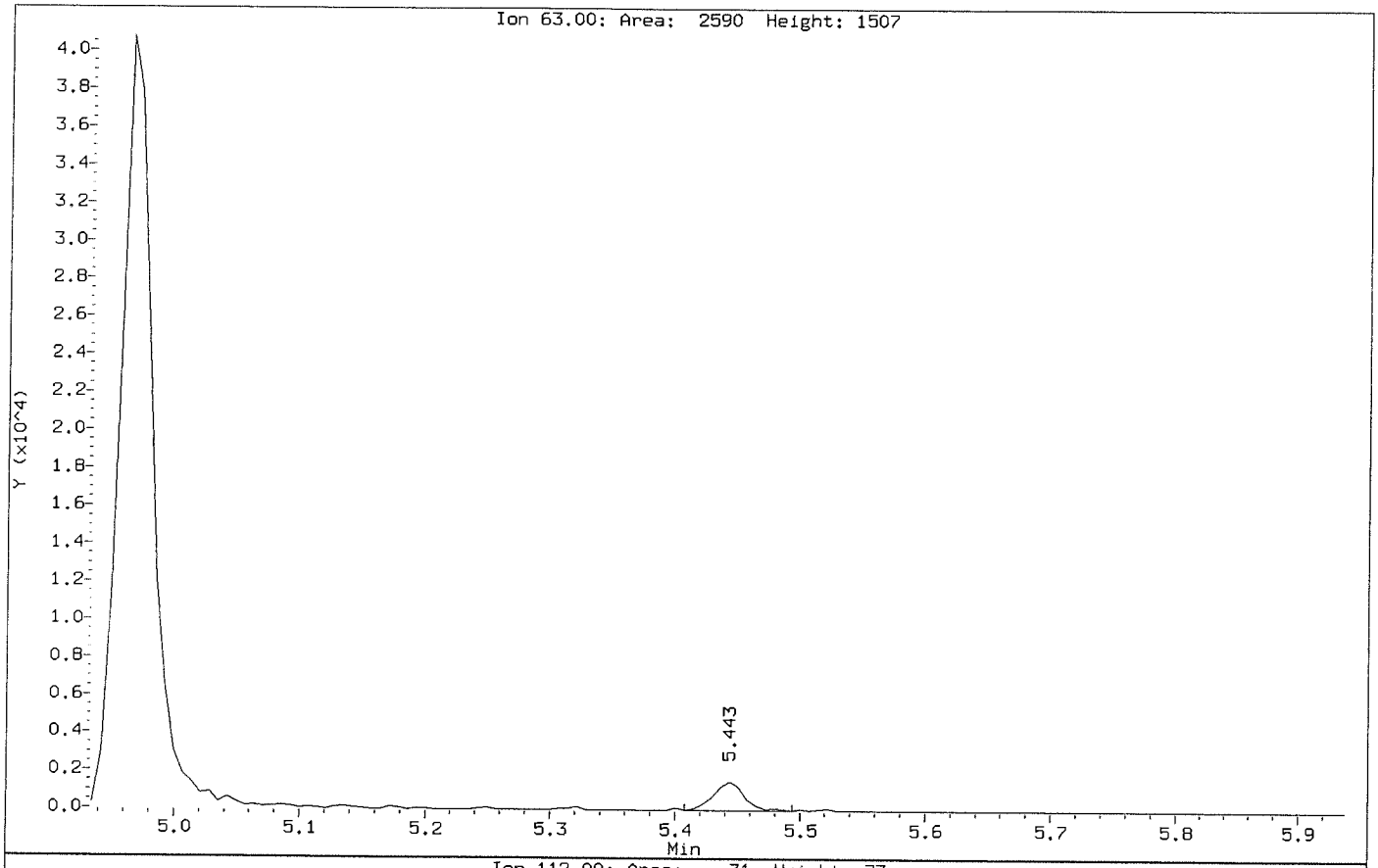
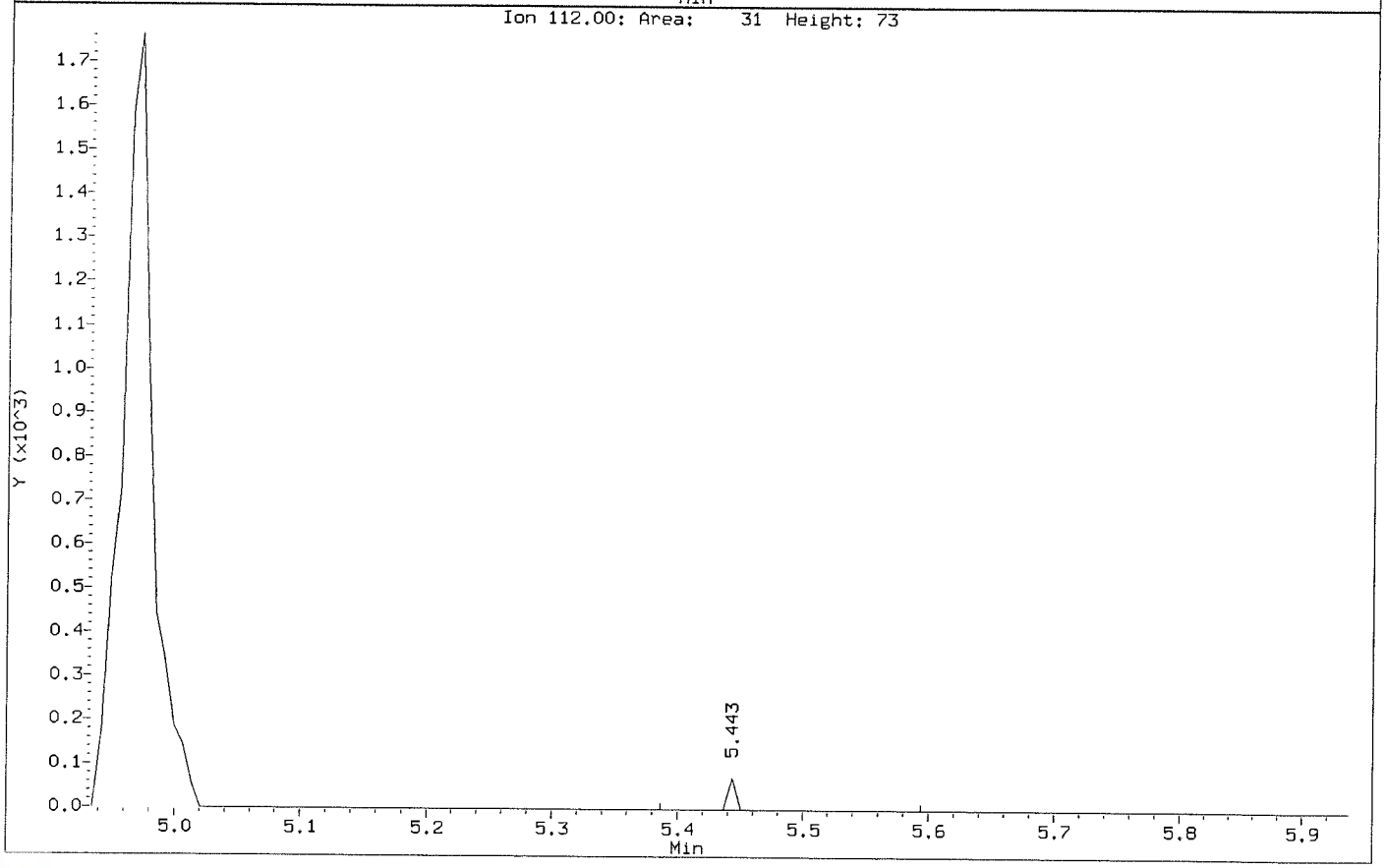
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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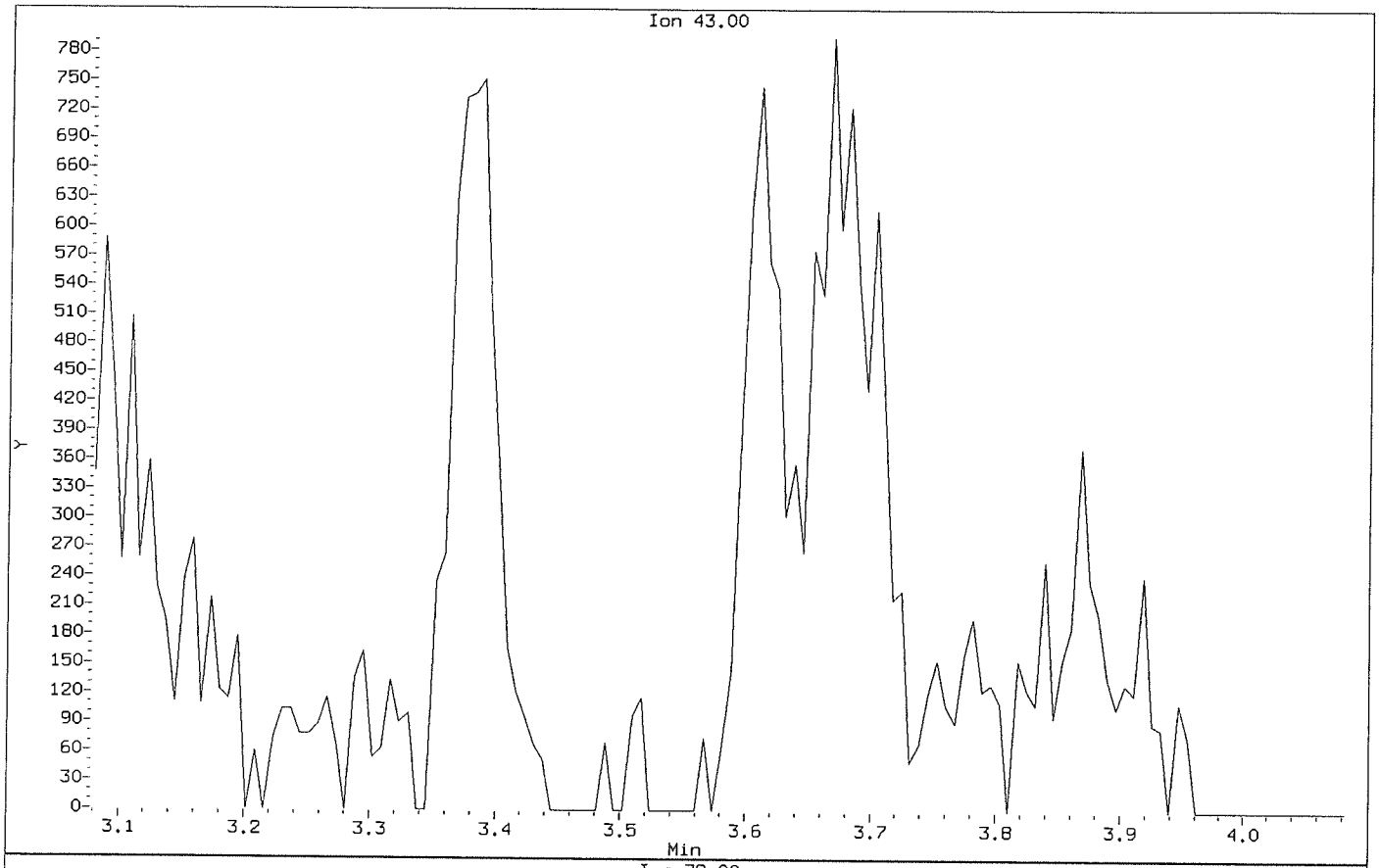
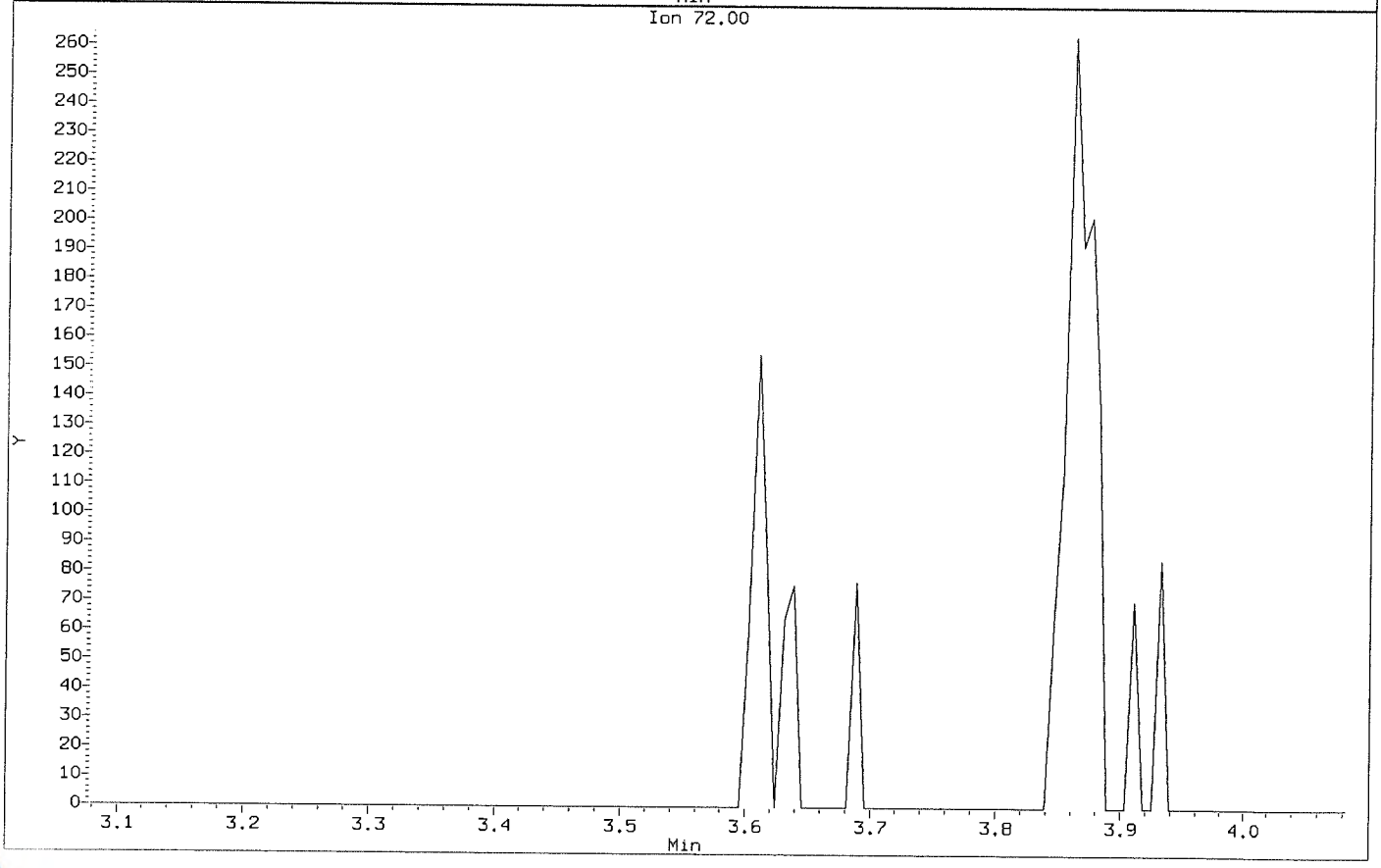
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 2-Butanone
CAS Number: 78-93-3





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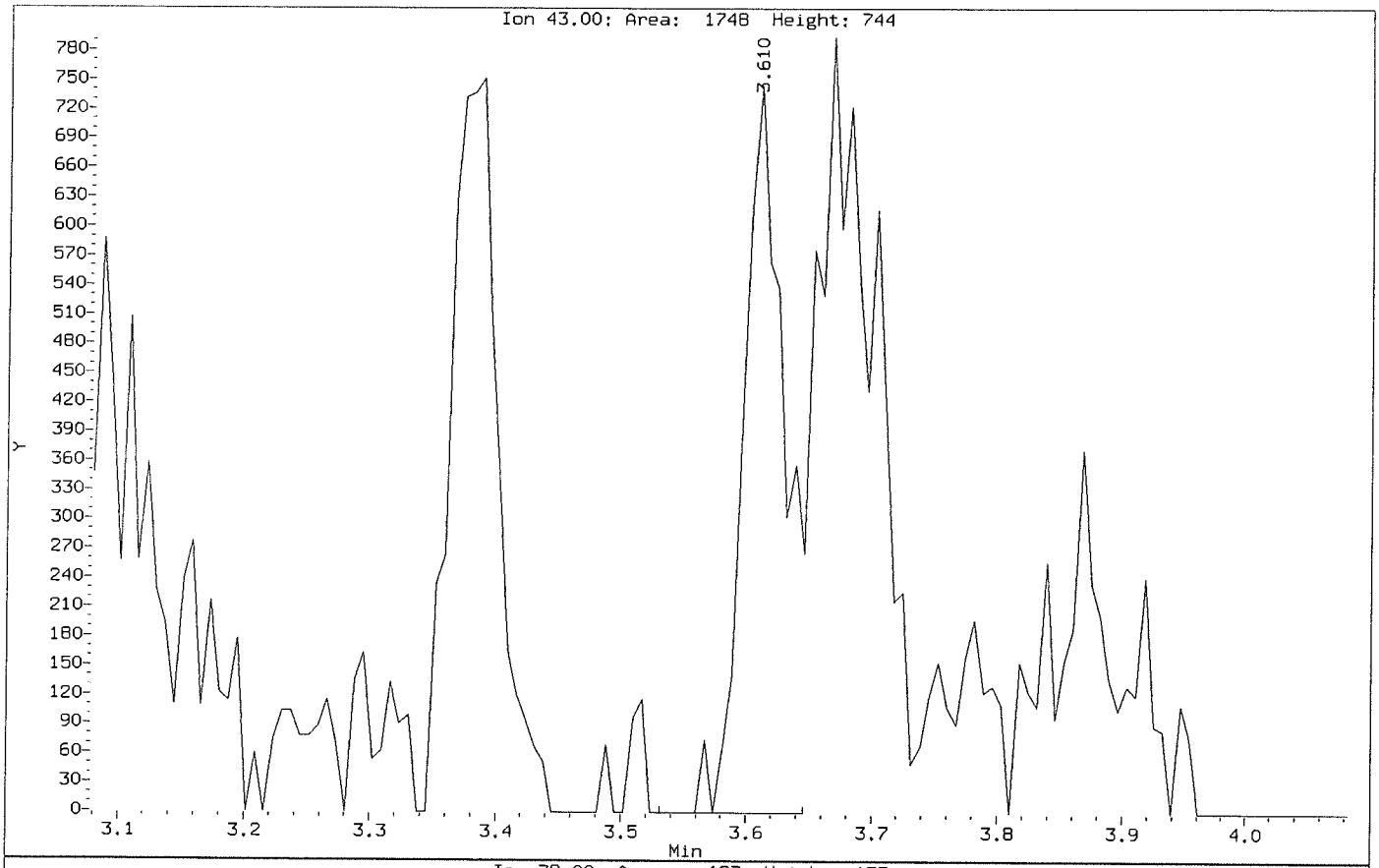
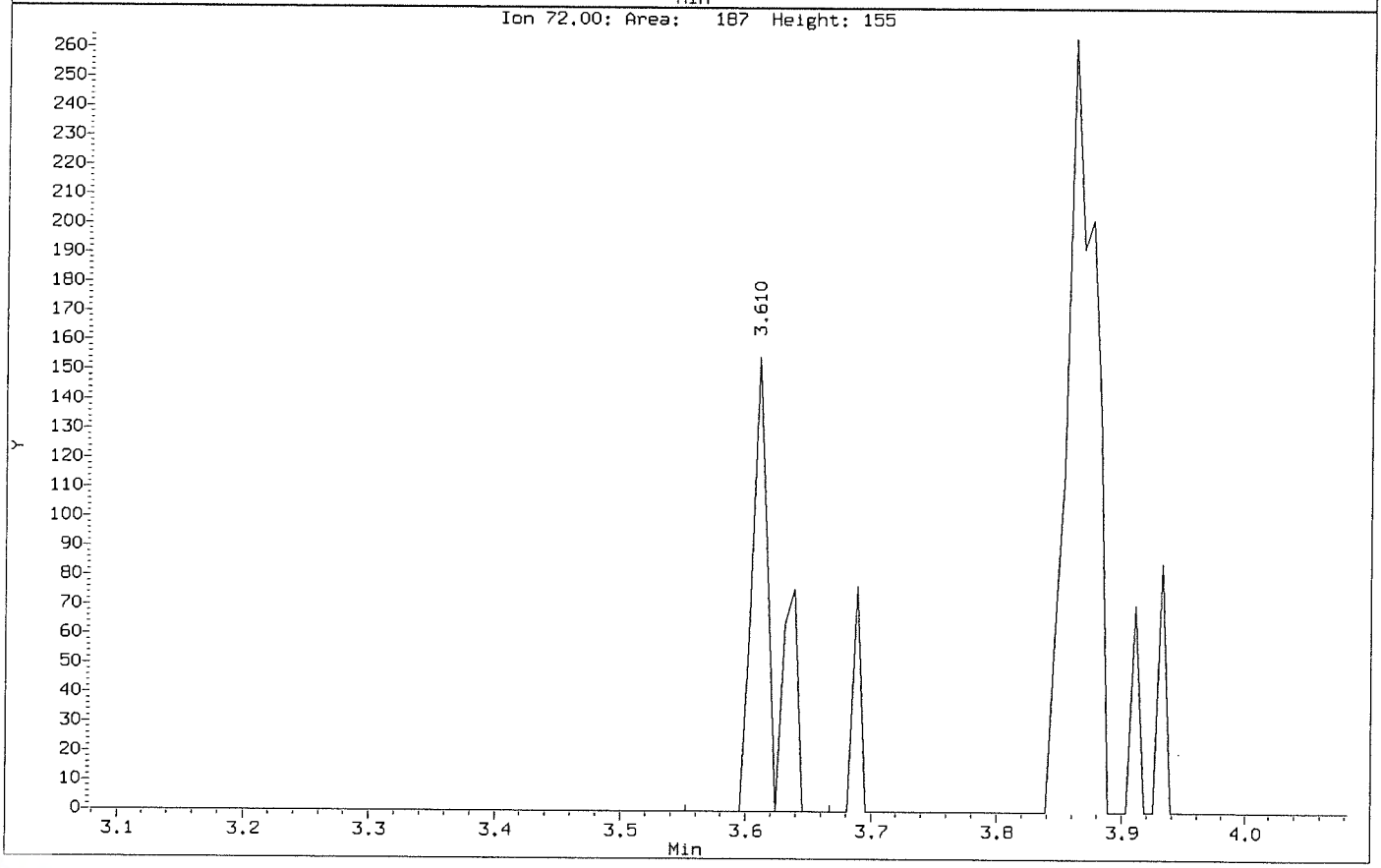
Client Sample ID: VSTD001

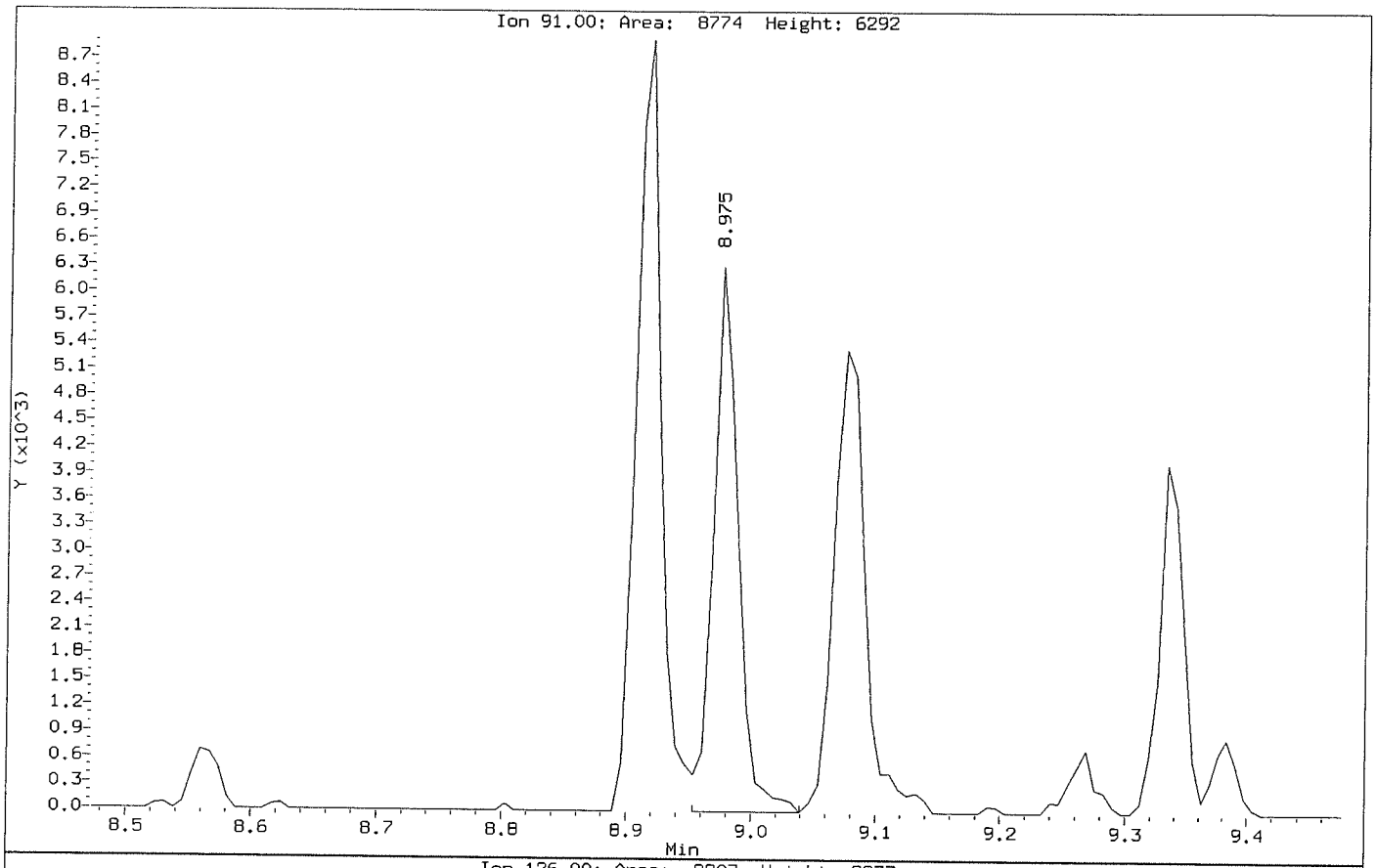
Compound: 2-Butanone
CAS Number: 78-93-3

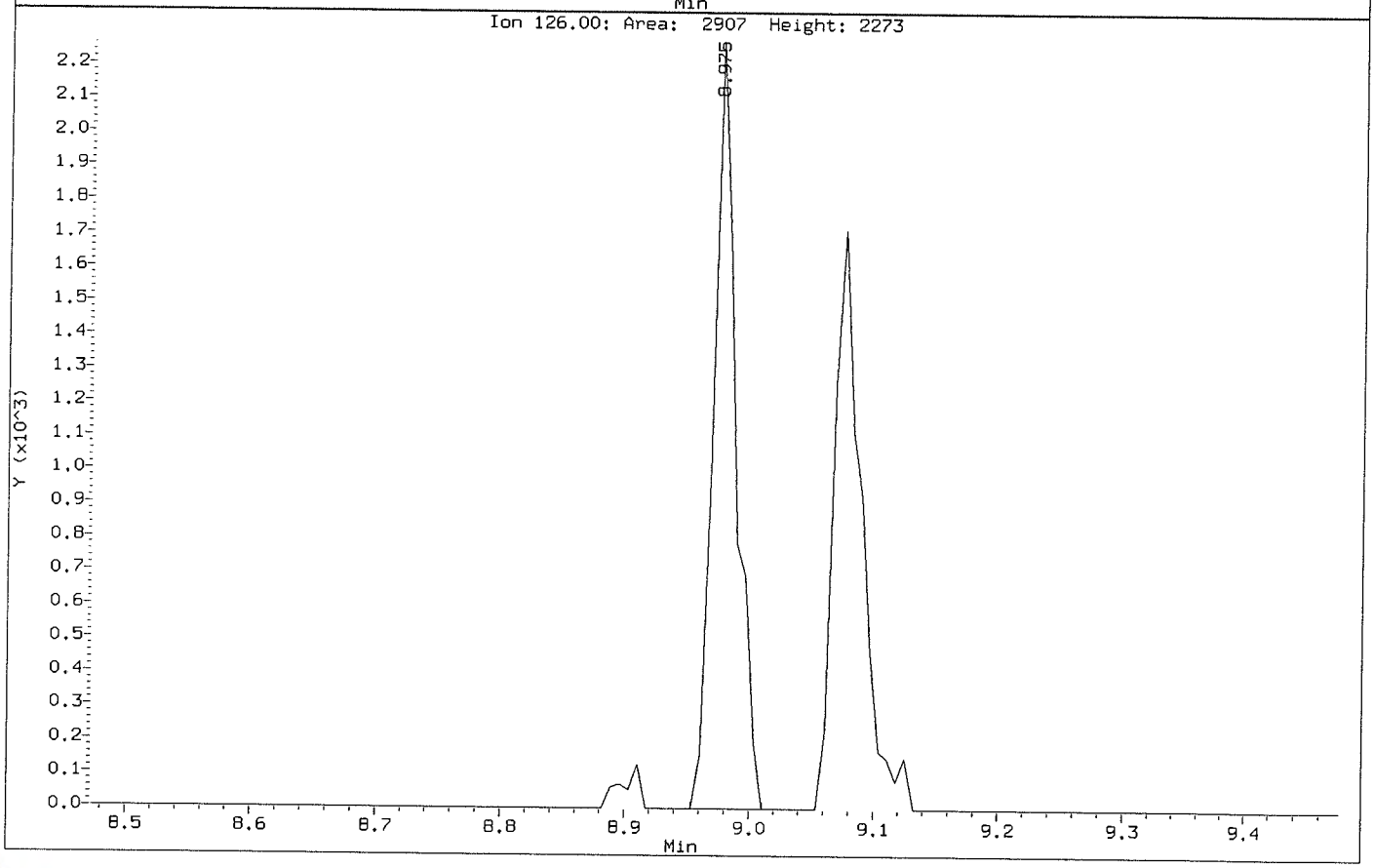




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 2-Chlorotoluene
CAS Number: 95-49-8





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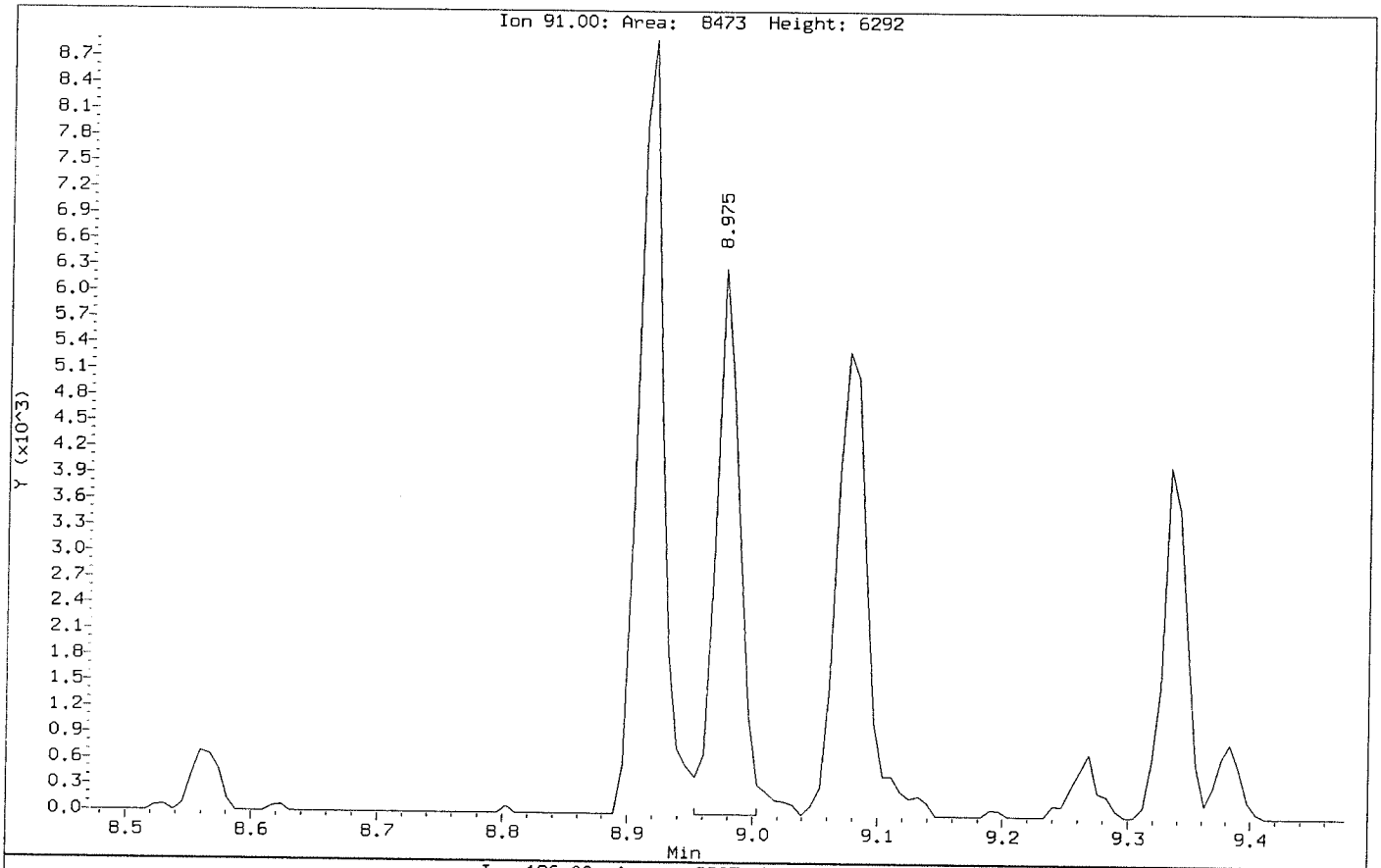
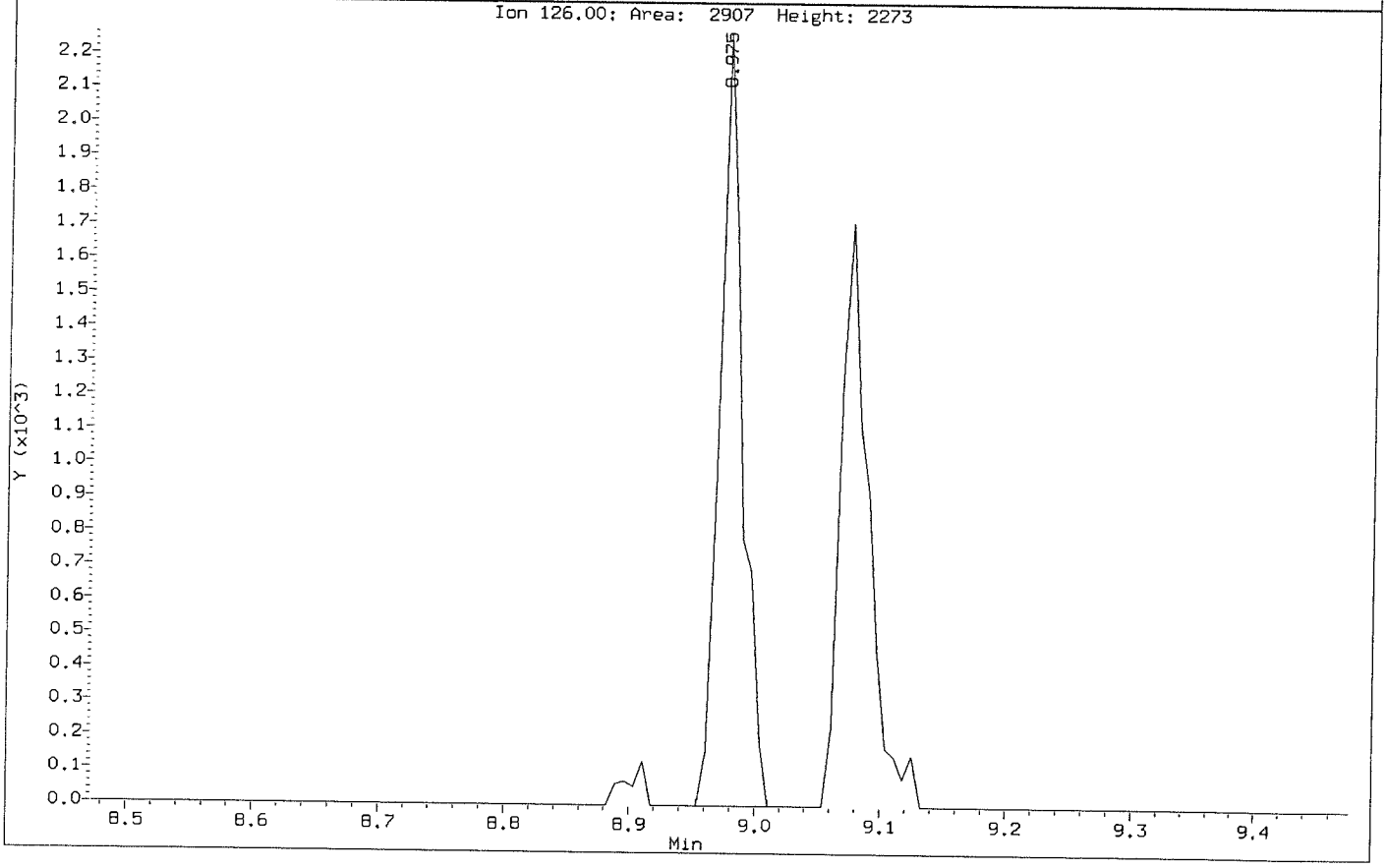
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

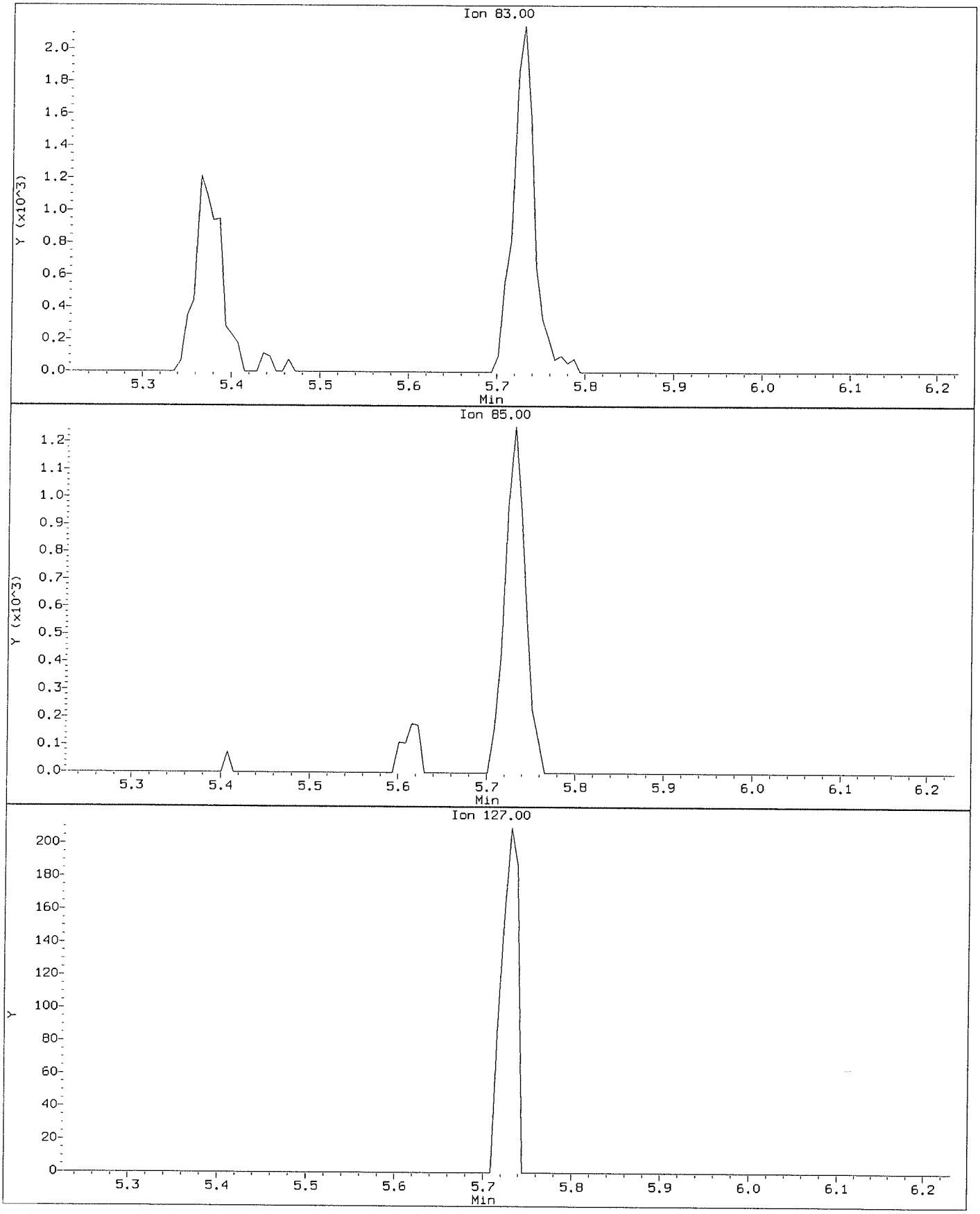
Compound: 2-Chlorotoluene
CAS Number: 95-49-8





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromodichloromethane
CAS Number: 75-27-4



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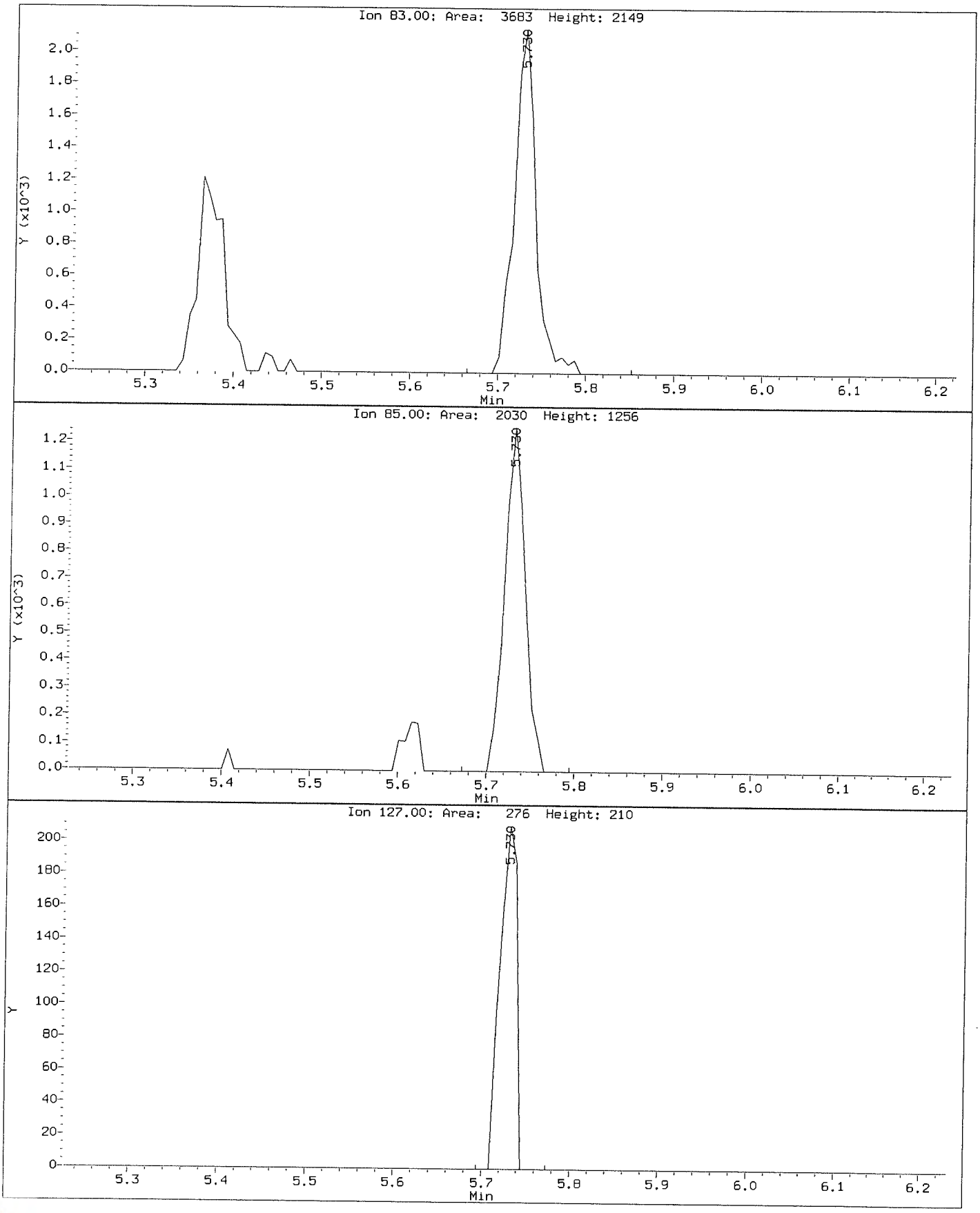
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromodichloromethane
CAS Number: 75-27-4



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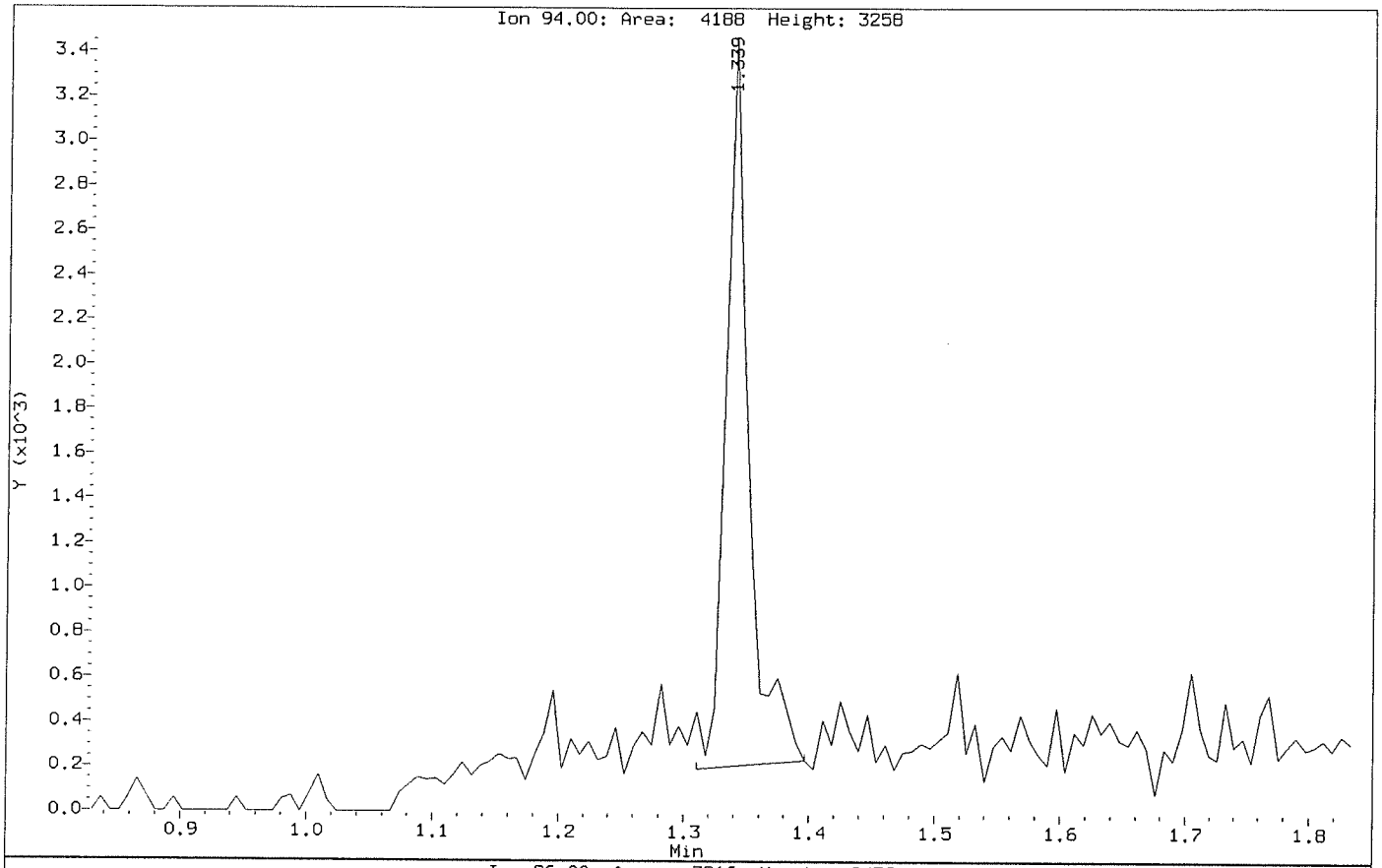
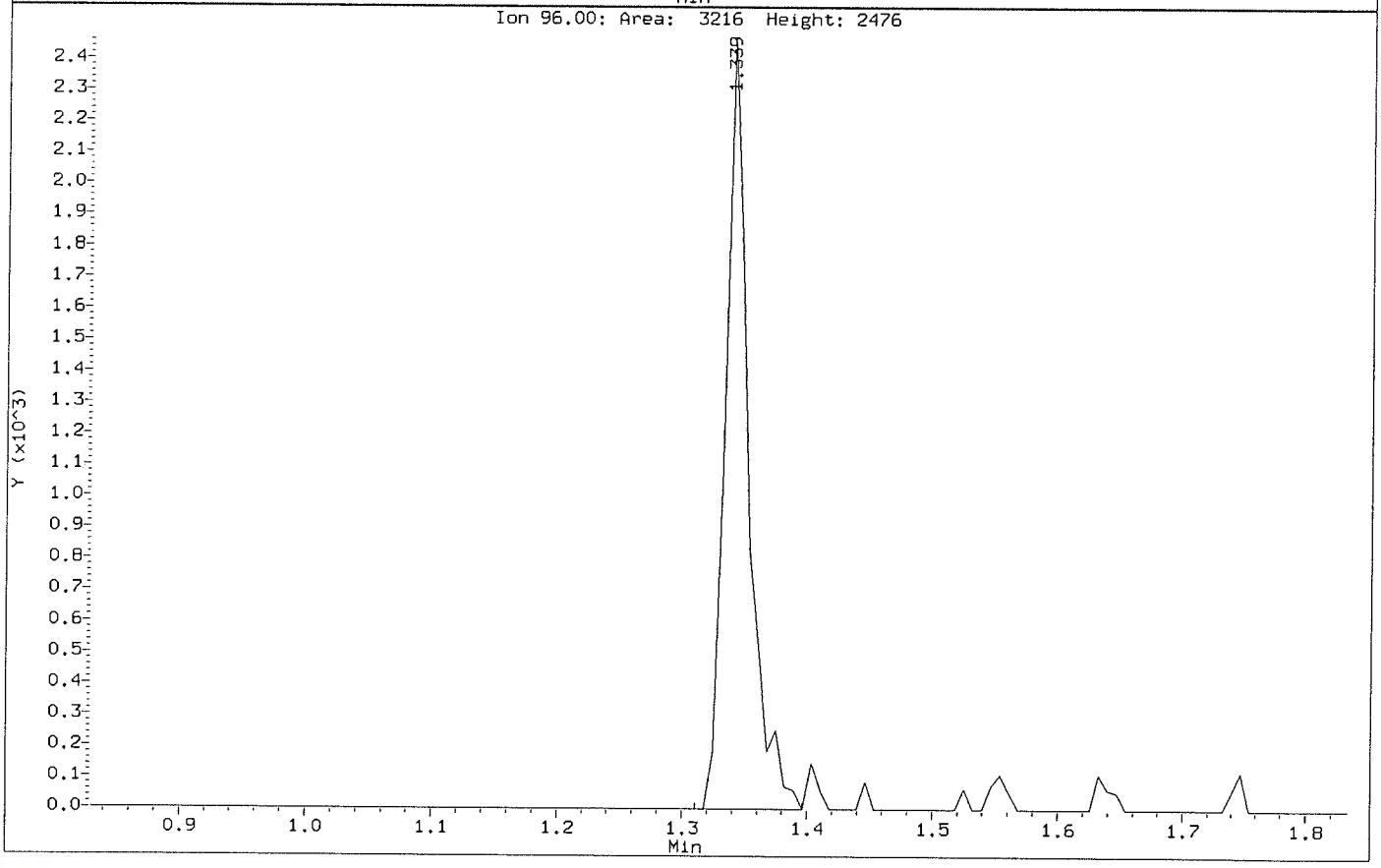
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromomethane
CAS Number: 74-83-9





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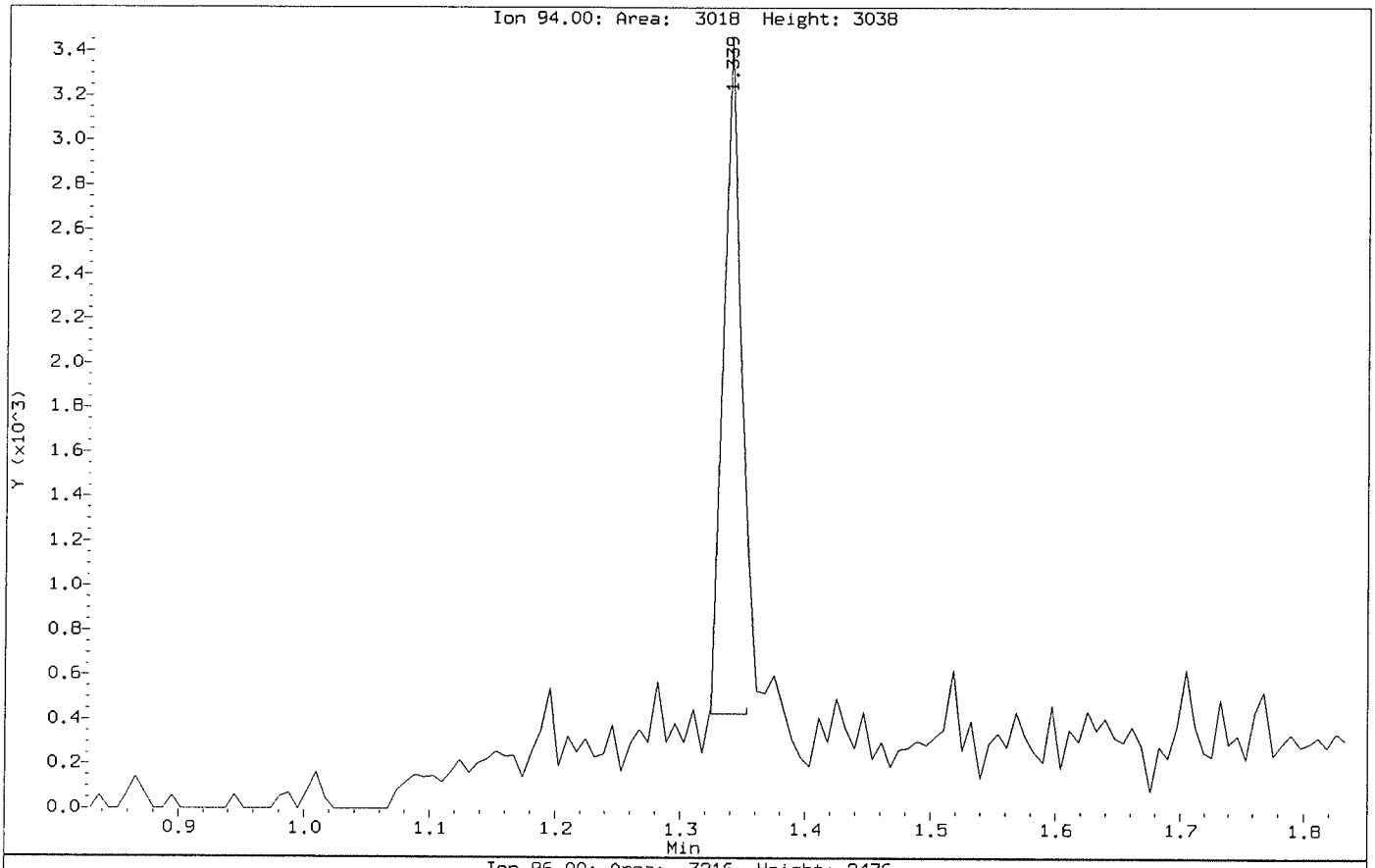
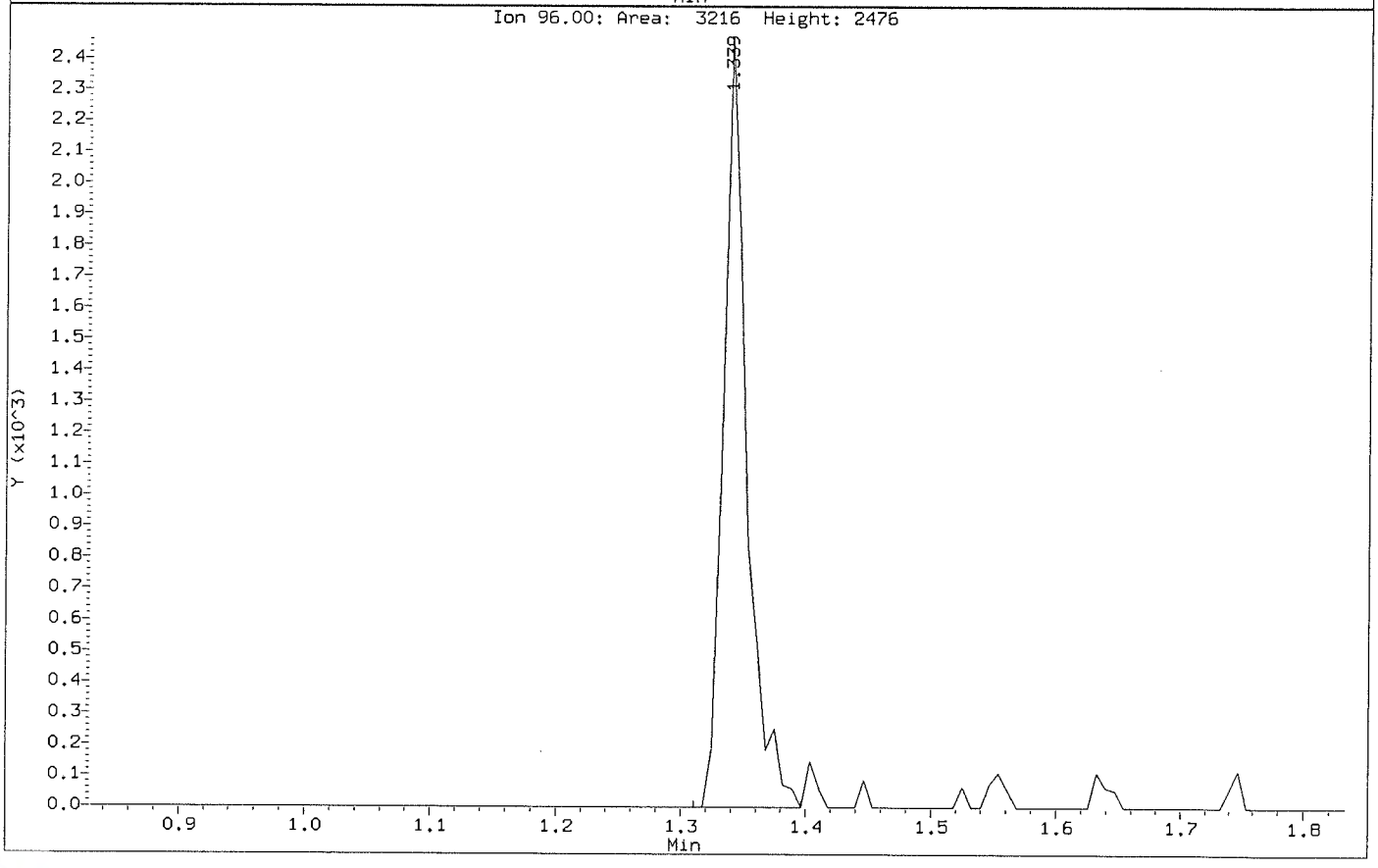
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromomethane
CAS Number: 74-83-9





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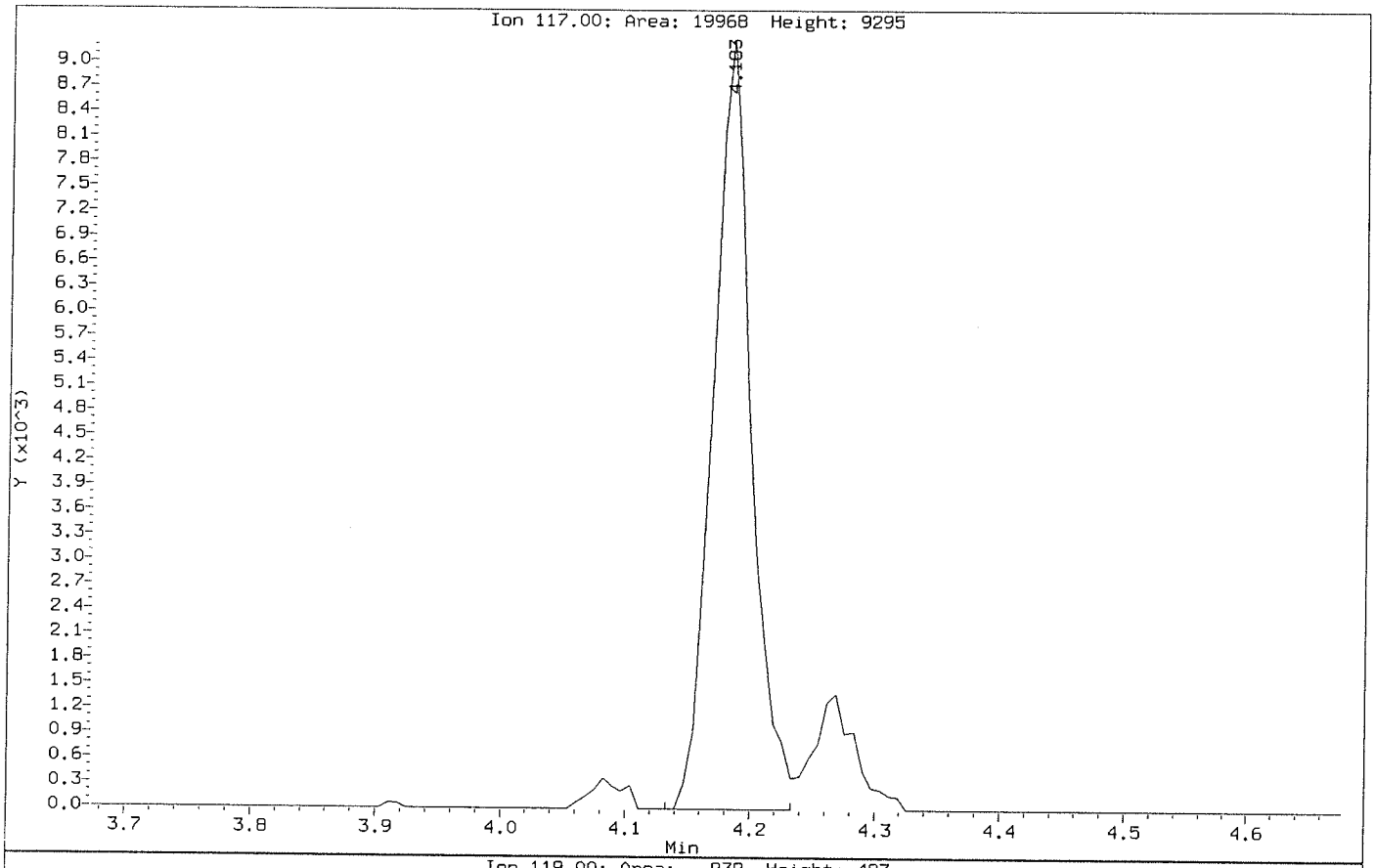
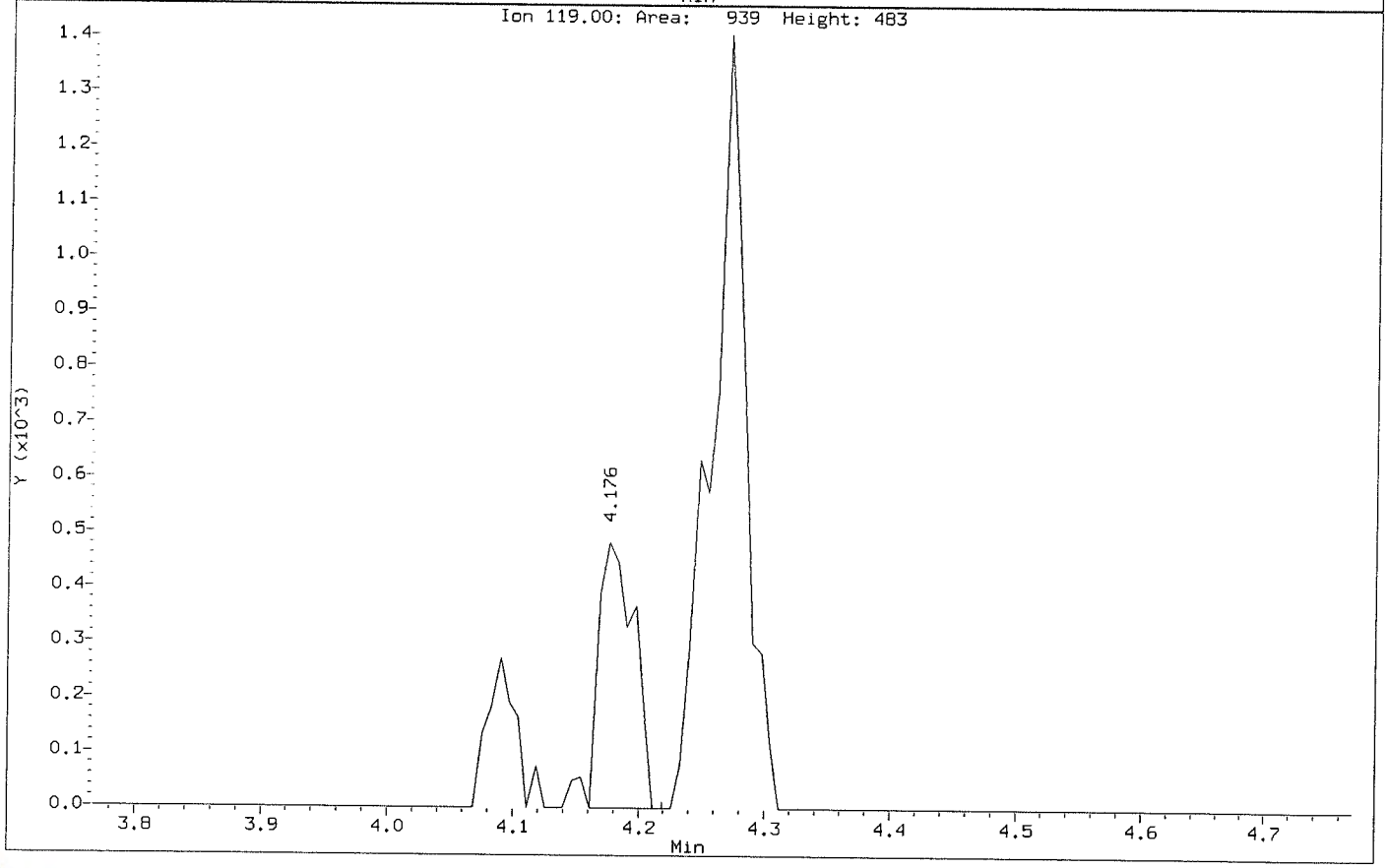
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

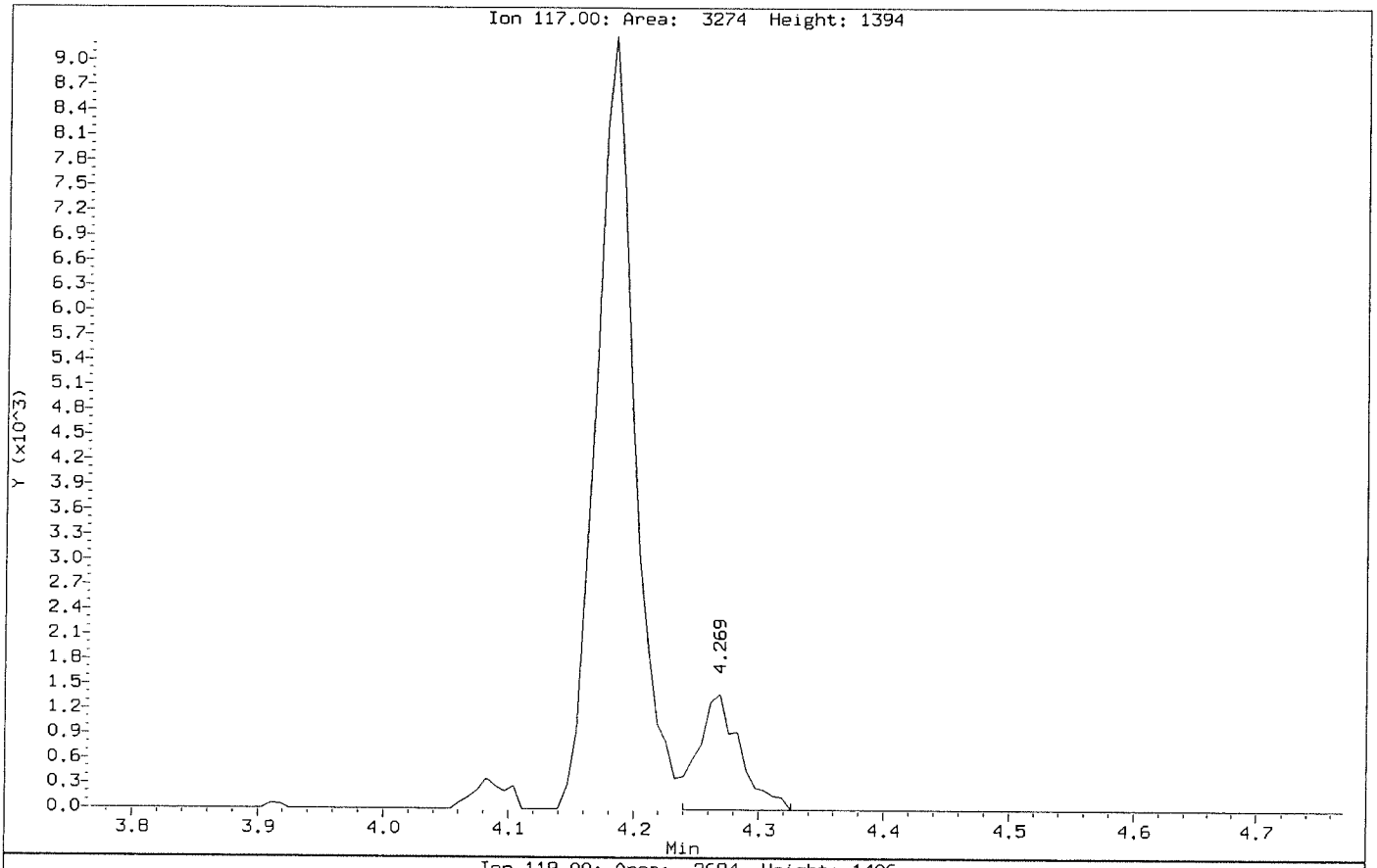
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

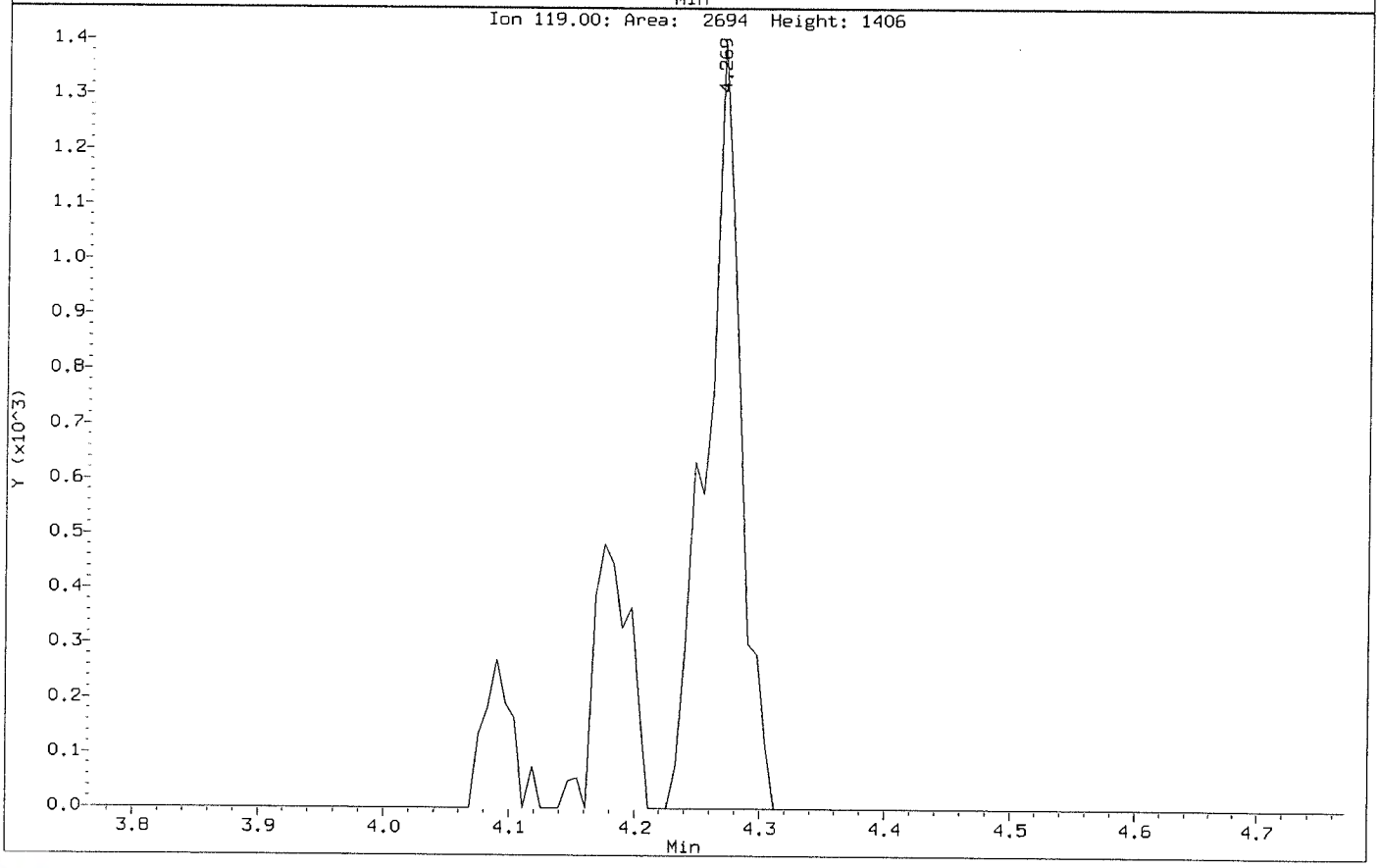




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

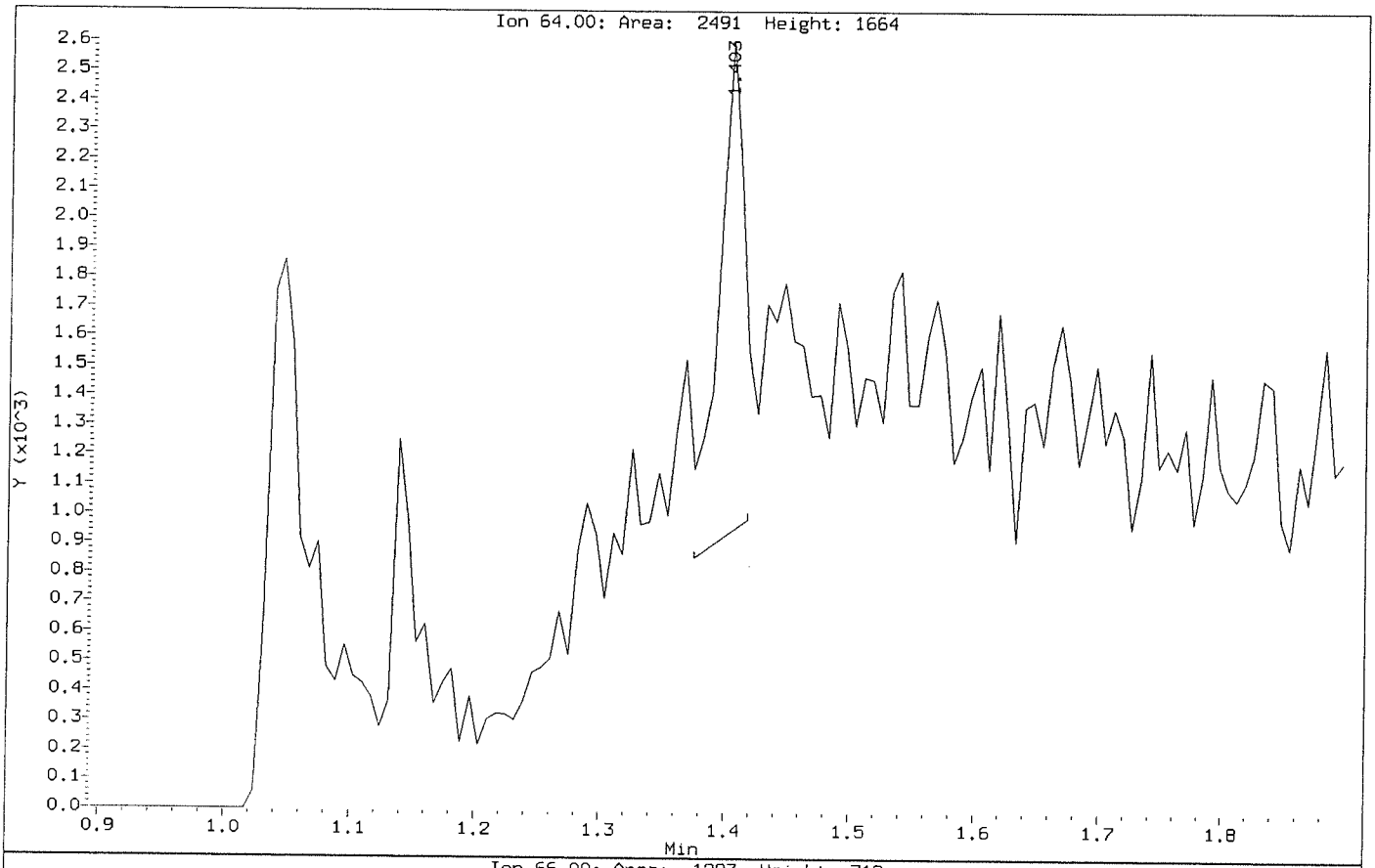
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

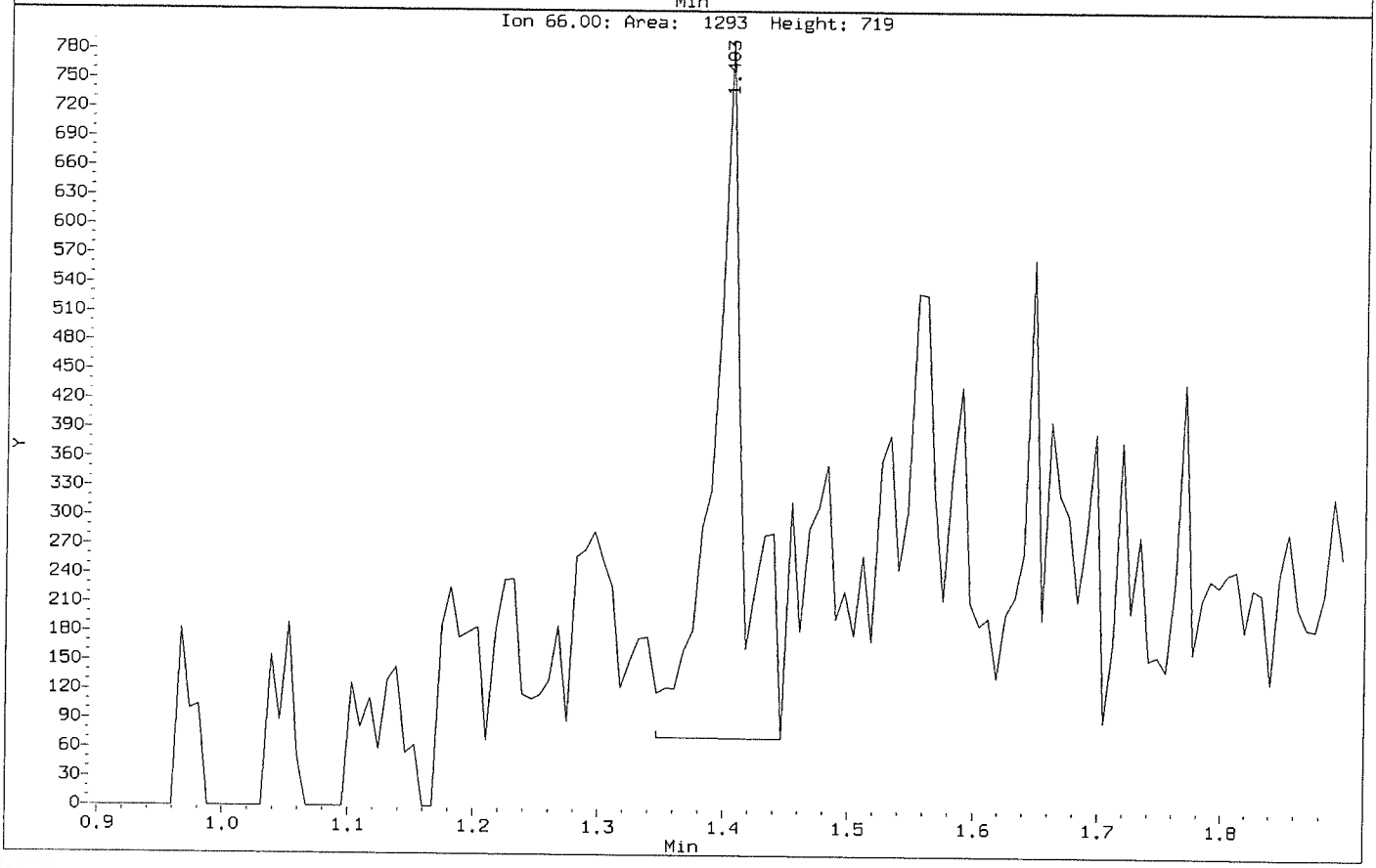




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

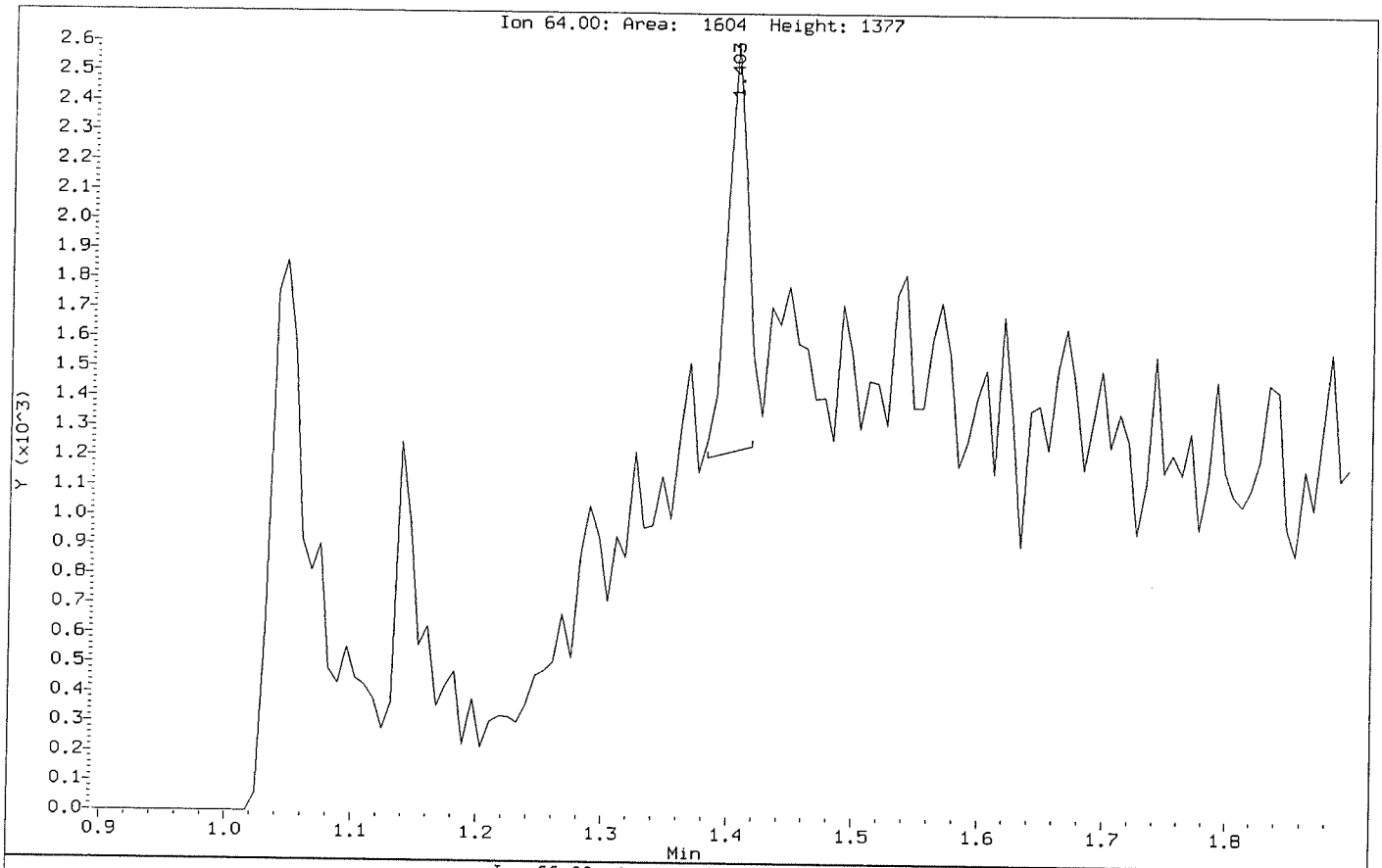
Compound: Chloroethane
CAS Number: 75-00-3

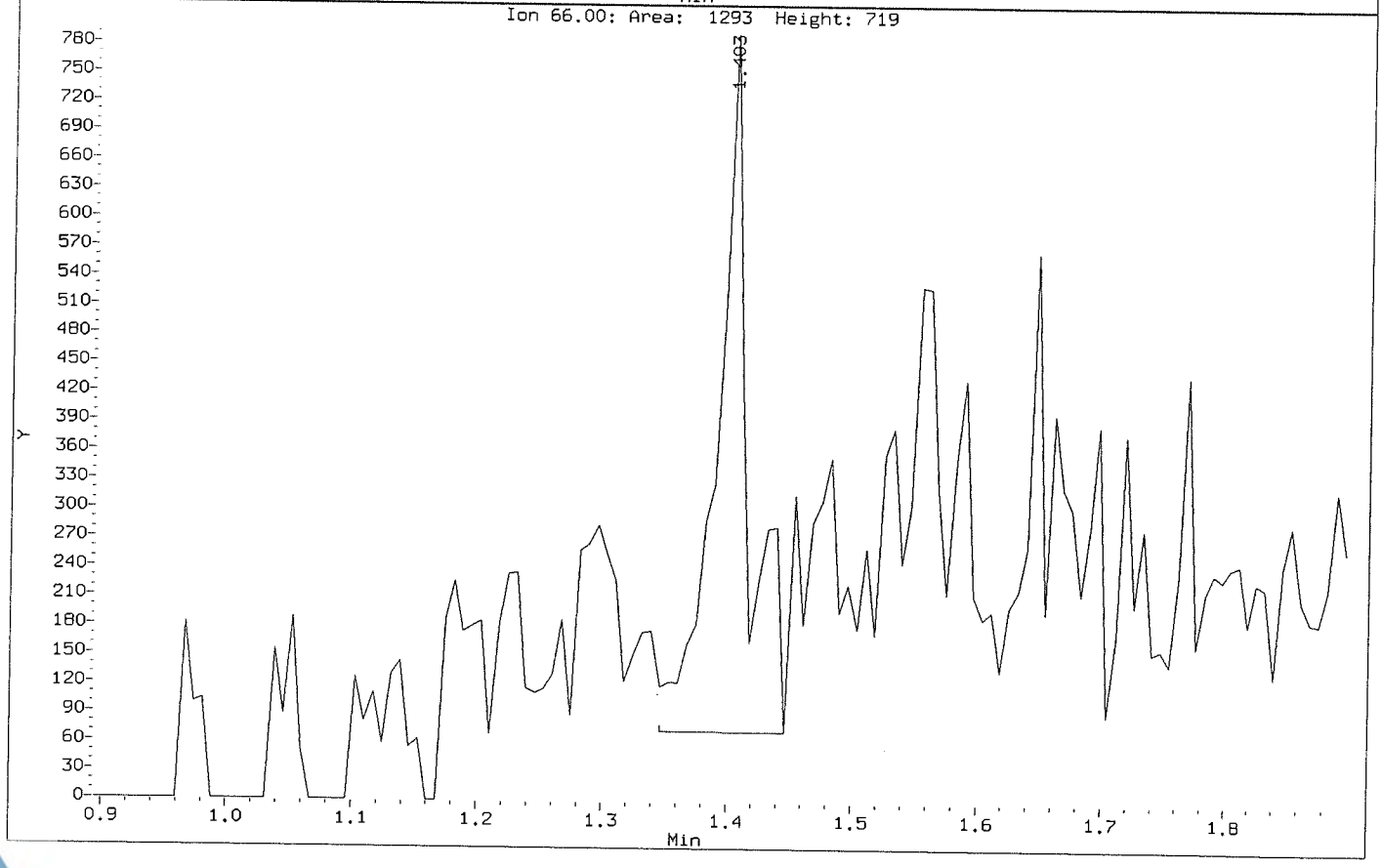




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

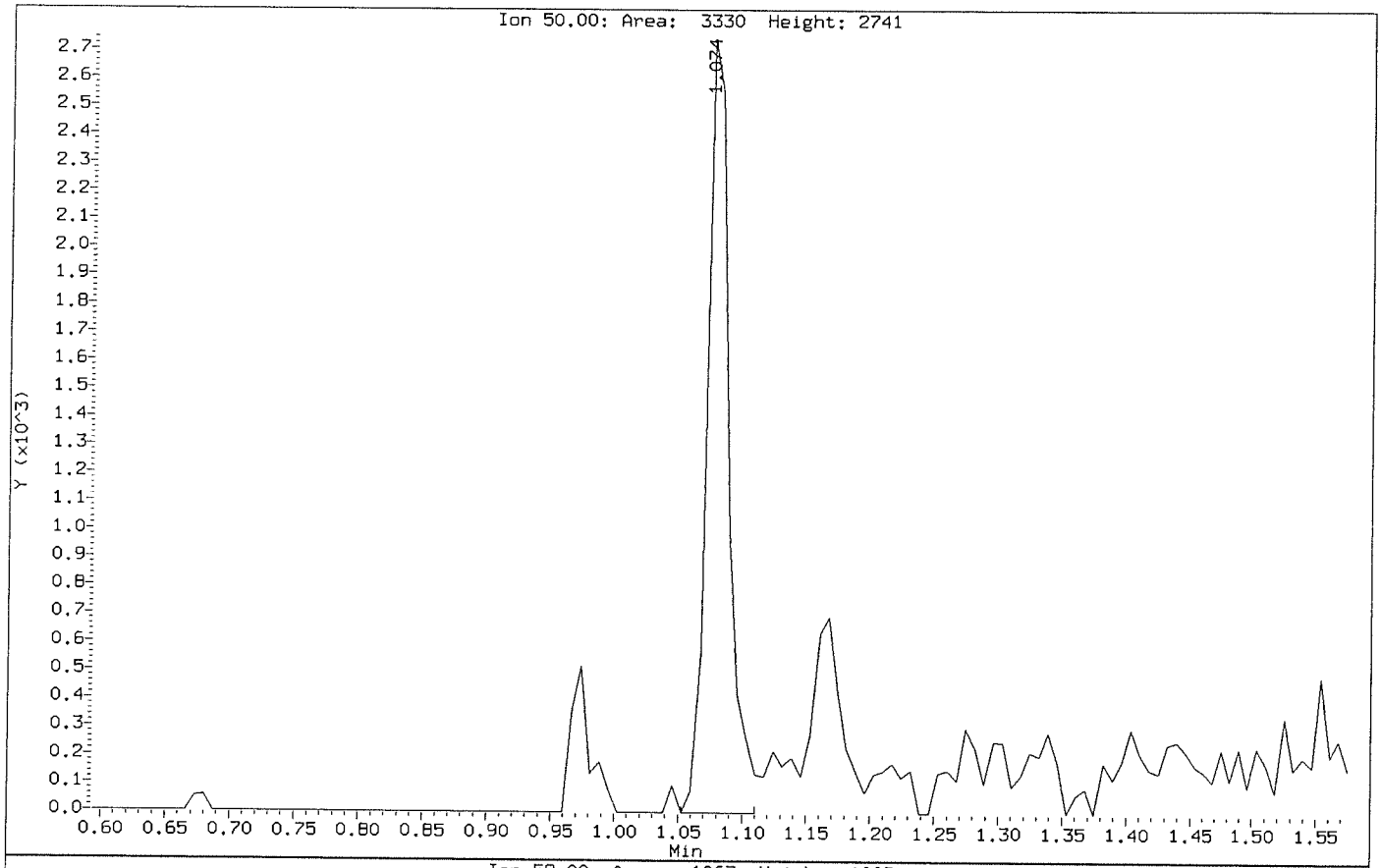
Compound: Chloroethane
CAS Number: 75-00-3

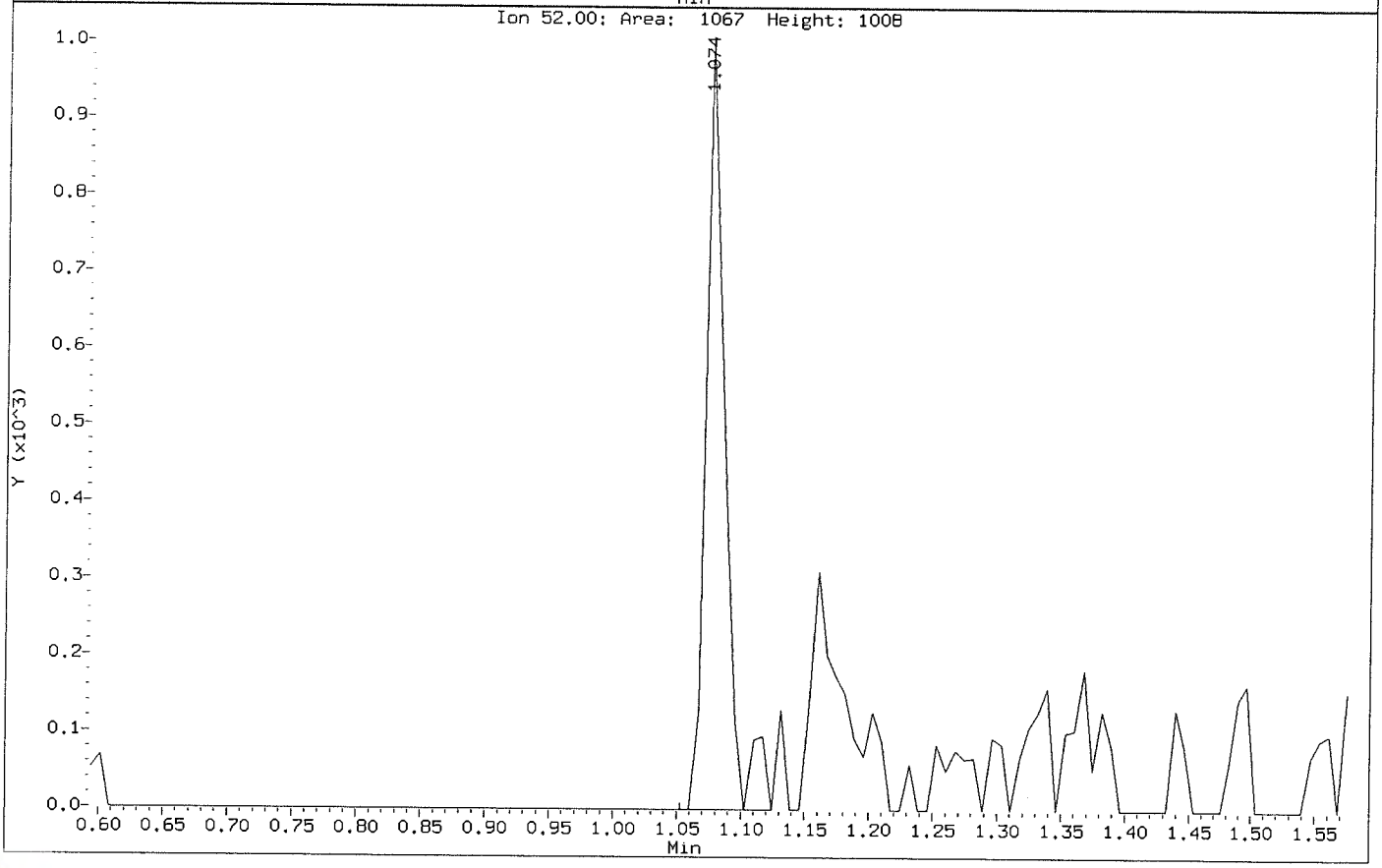




Data File: \\NAHSTW5005\Target\chem\voa6.i\X210518.b\Before\X051804.D
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3





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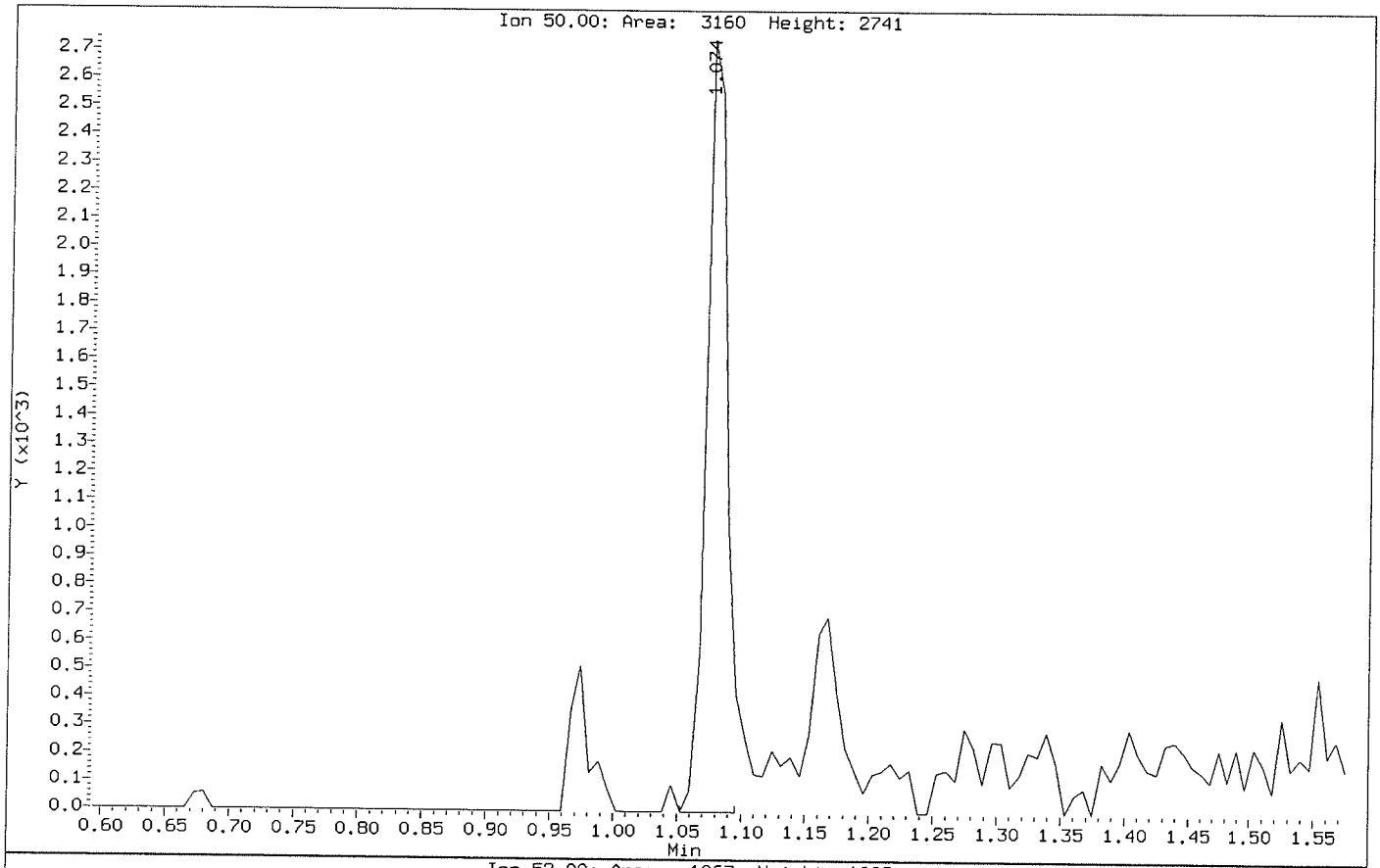
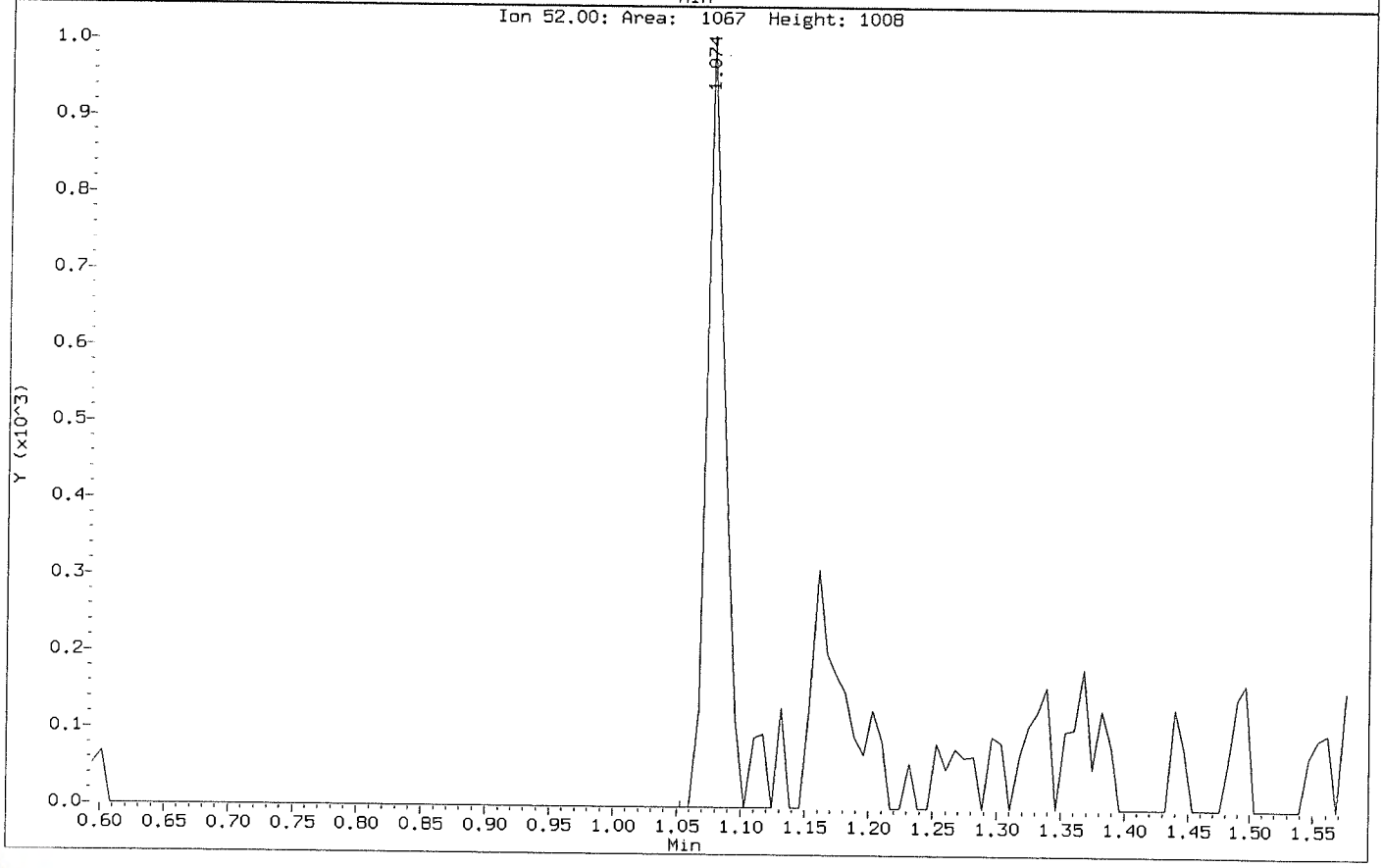
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3





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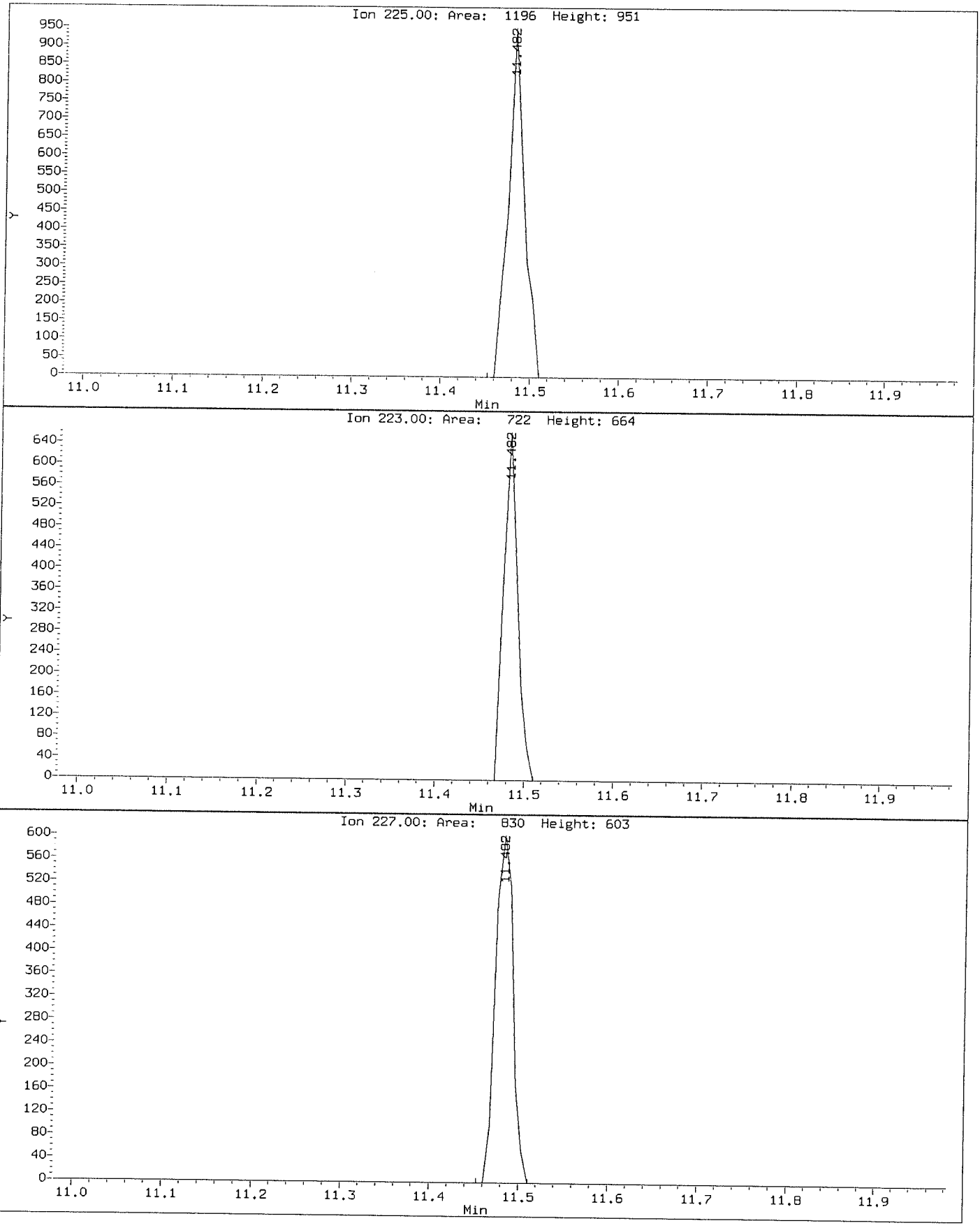
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



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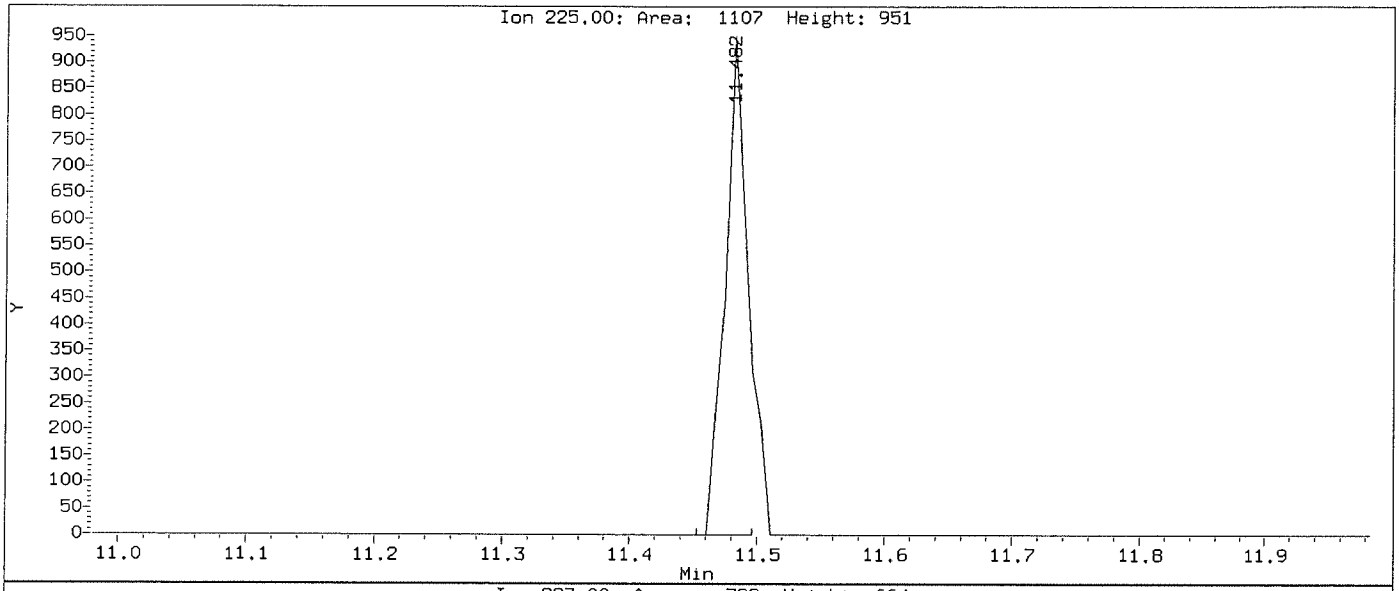
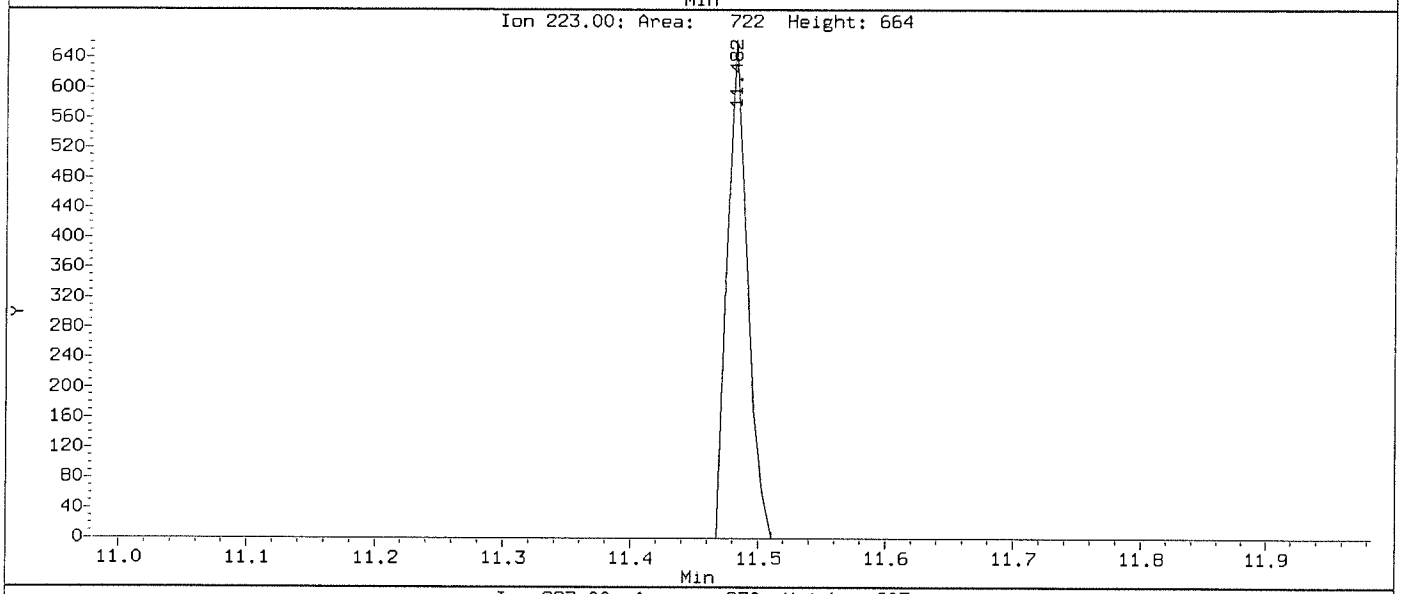
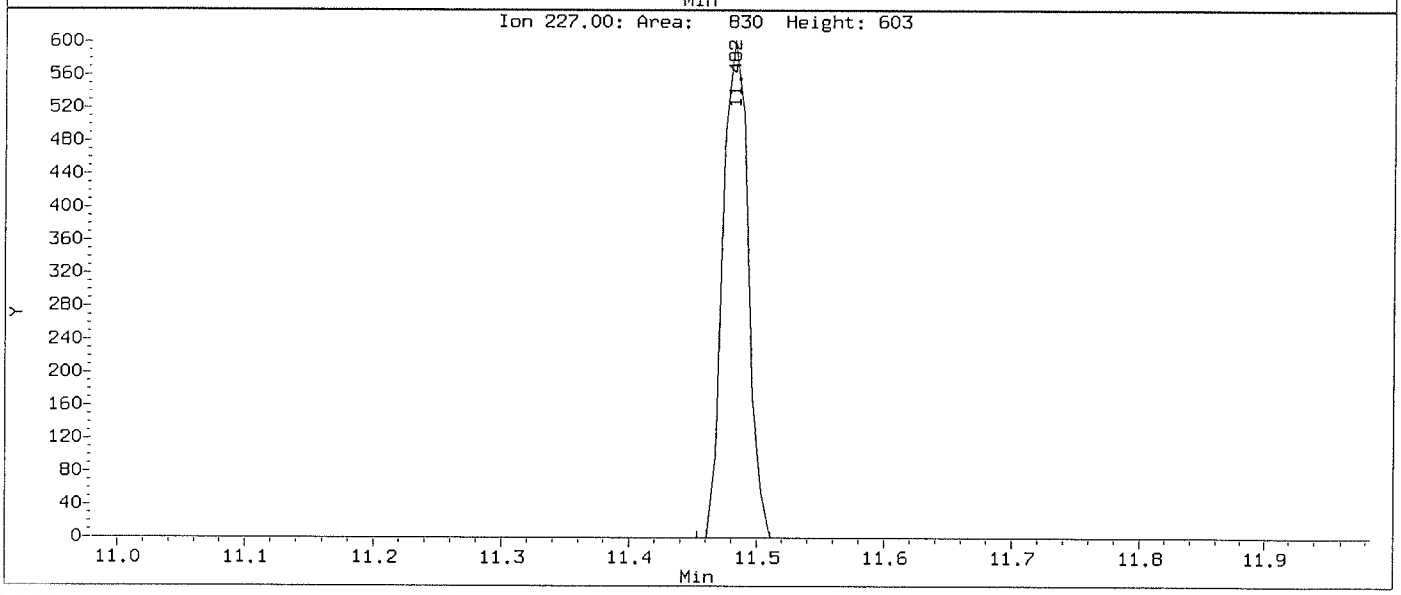
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







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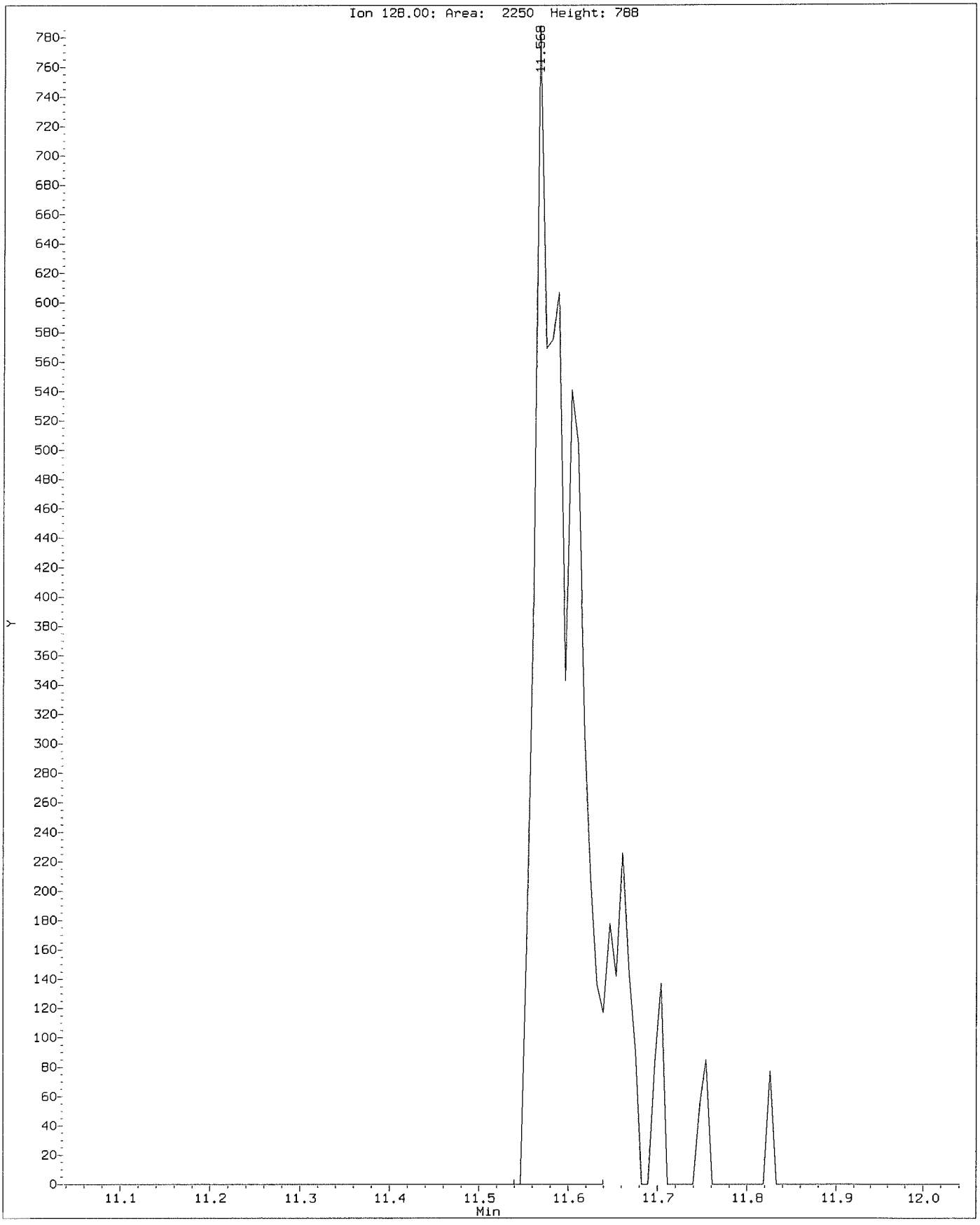
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Naphthalene
CAS Number: 91-20-3



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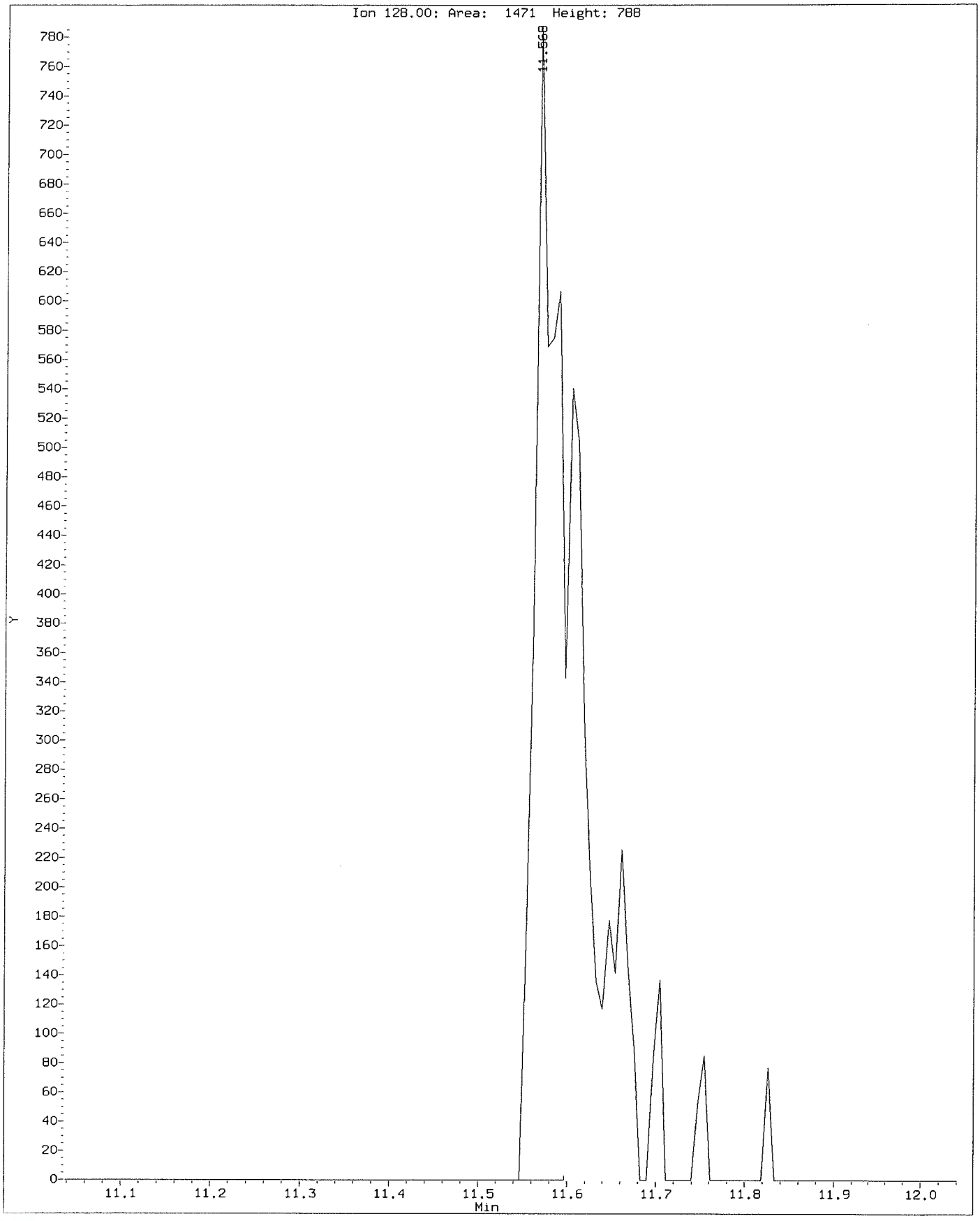
Client Sample ID: VSTD001

Compound: Naphthalene
CAS Number: 91-20-3



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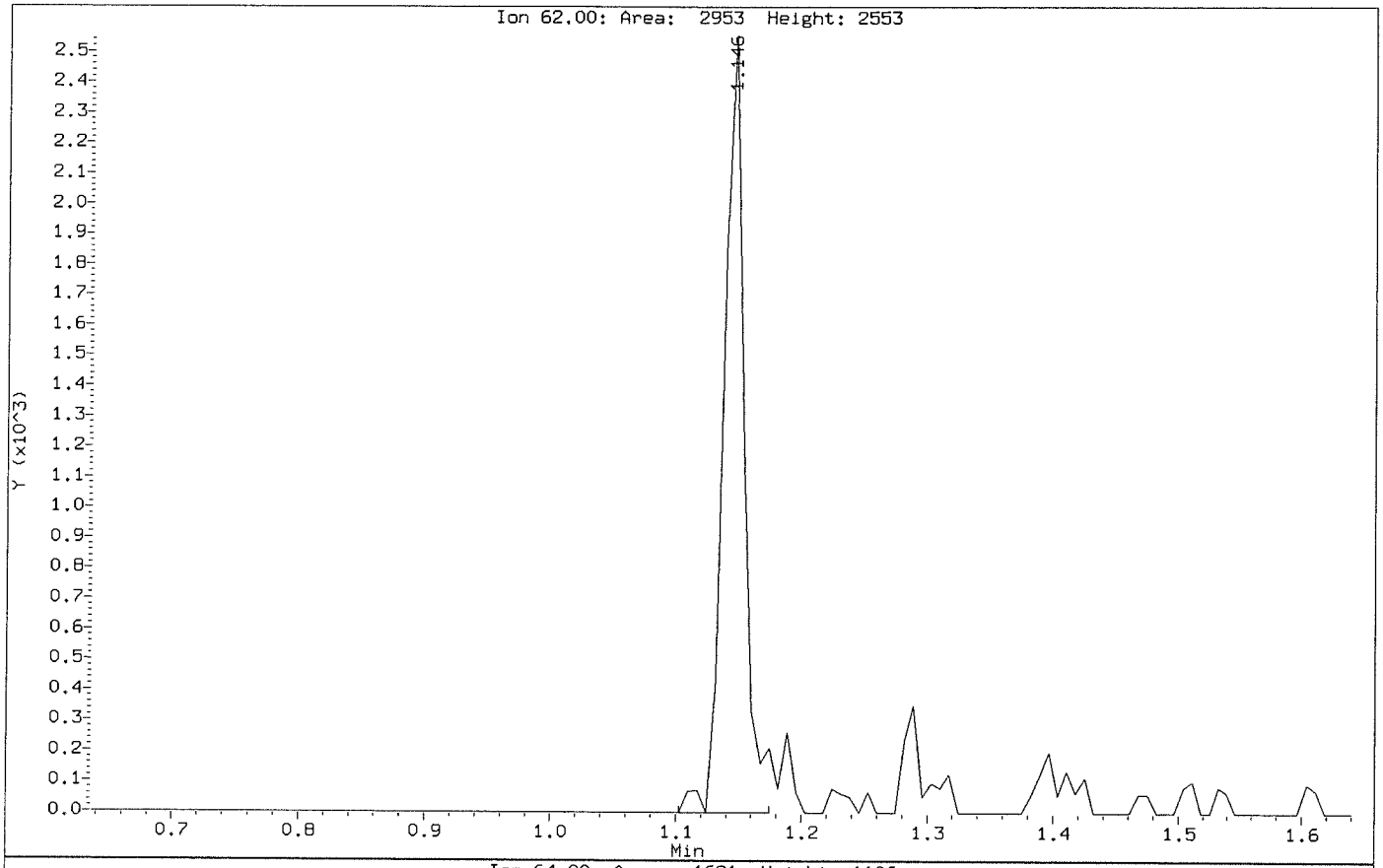
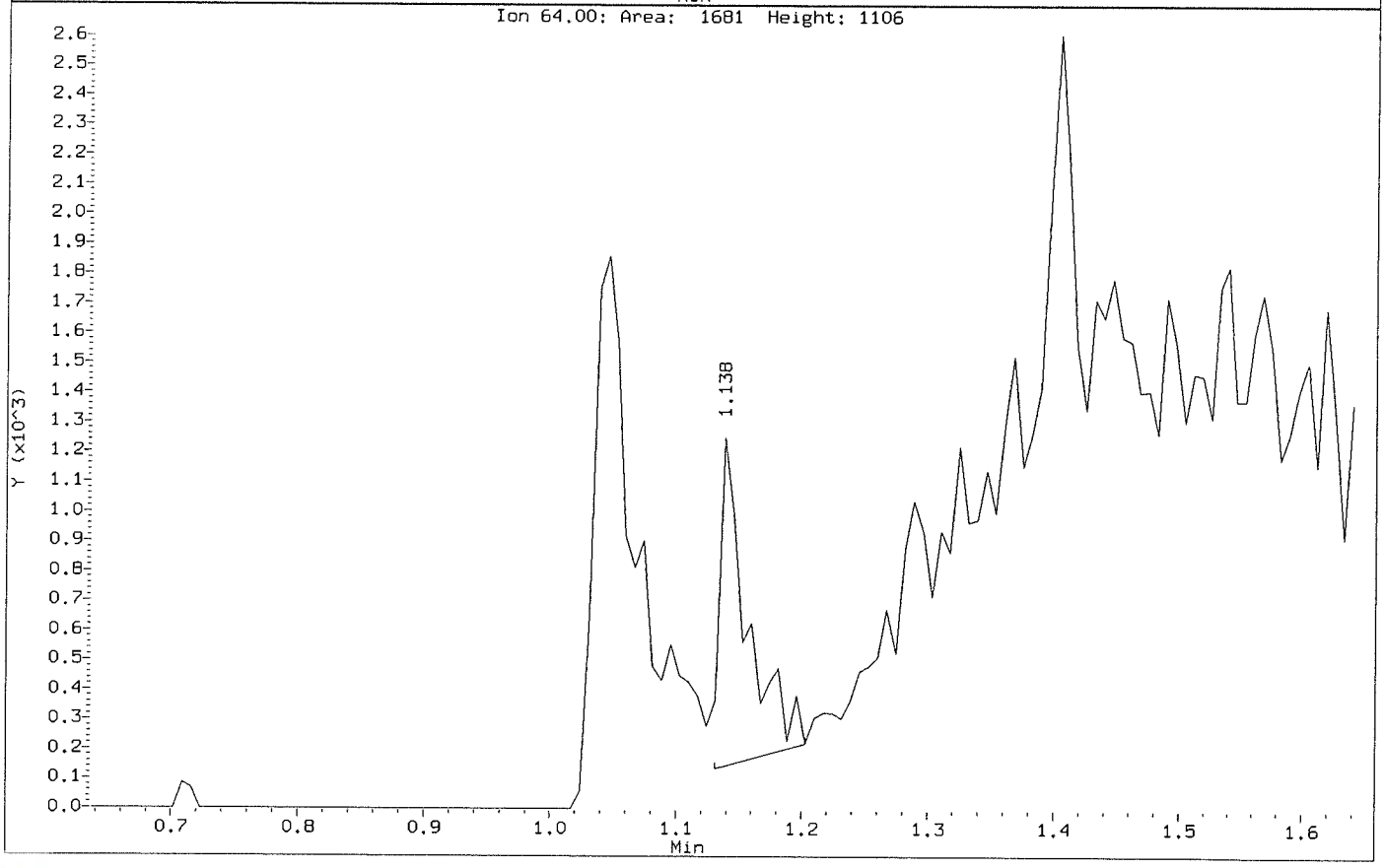
Injection Date: 18-MAY-2021 12:25
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4





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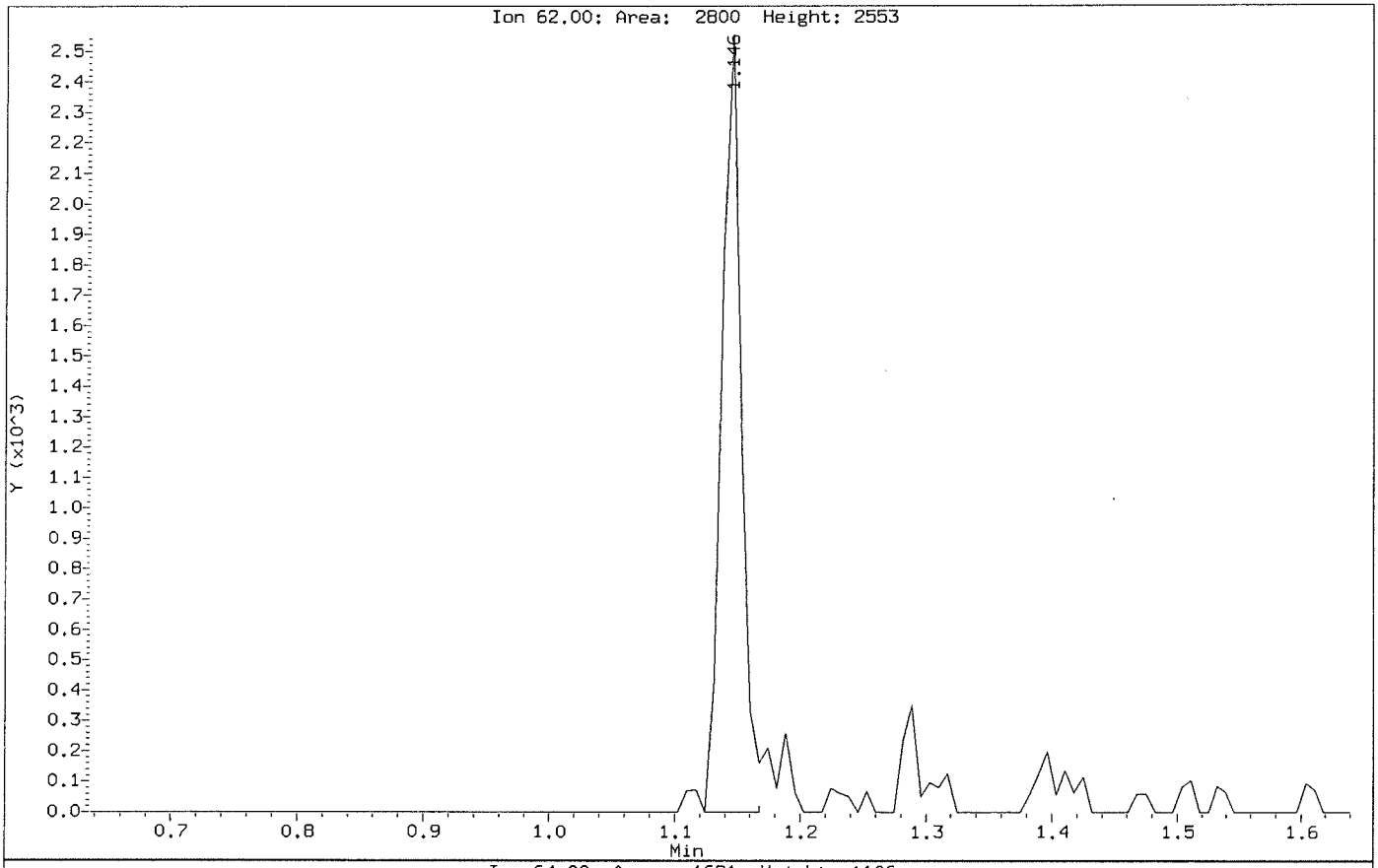
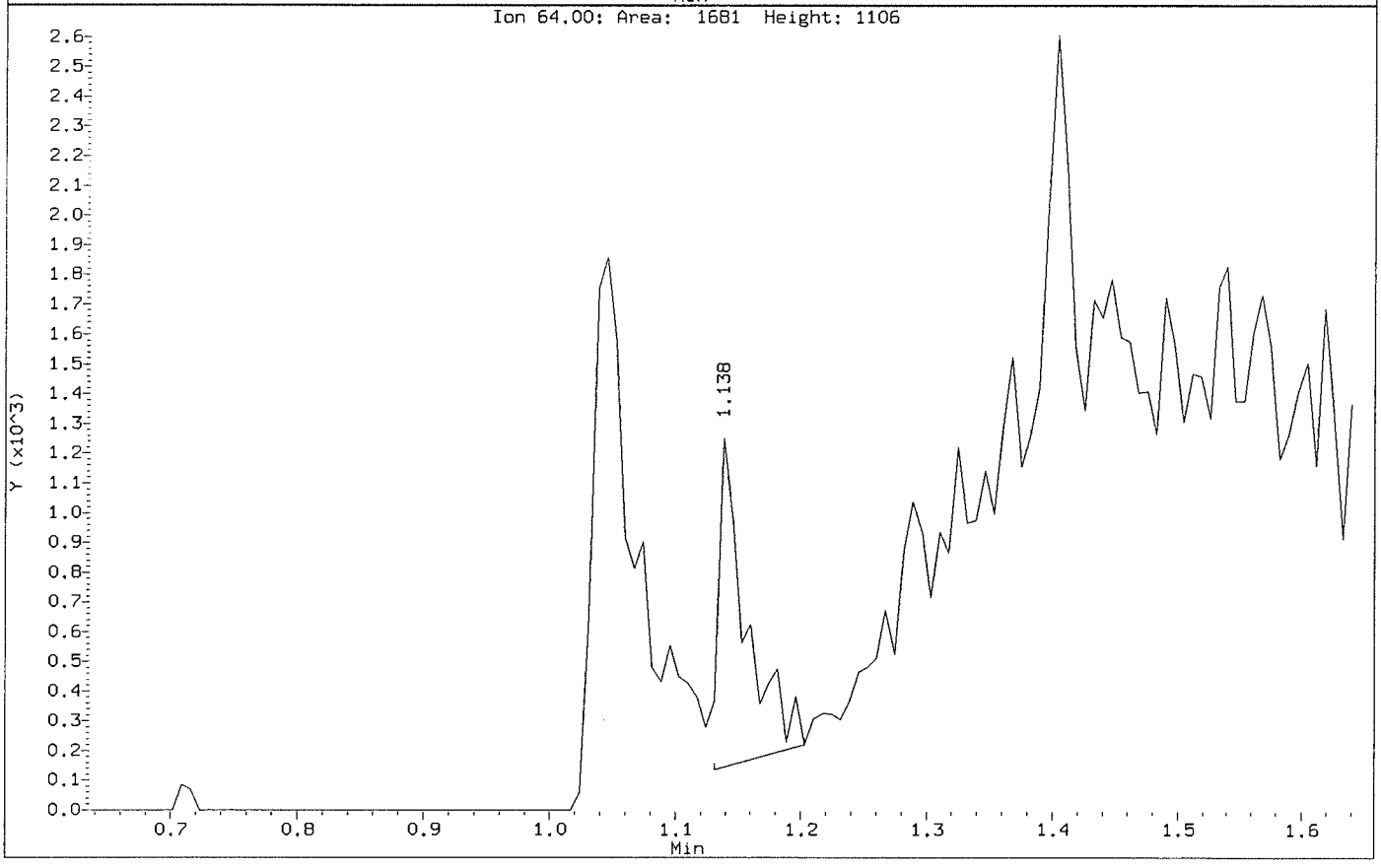
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051805.D
Lab Smp Id: VSDT002 Client Smp ID: VSTD002
Inj Date : 18-MAY-2021 12:46
Operator : PC Inst ID: voa6.i
Smp Info : VSDT002;VSTD002;1;4;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 12:25 Cal File: X051804.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

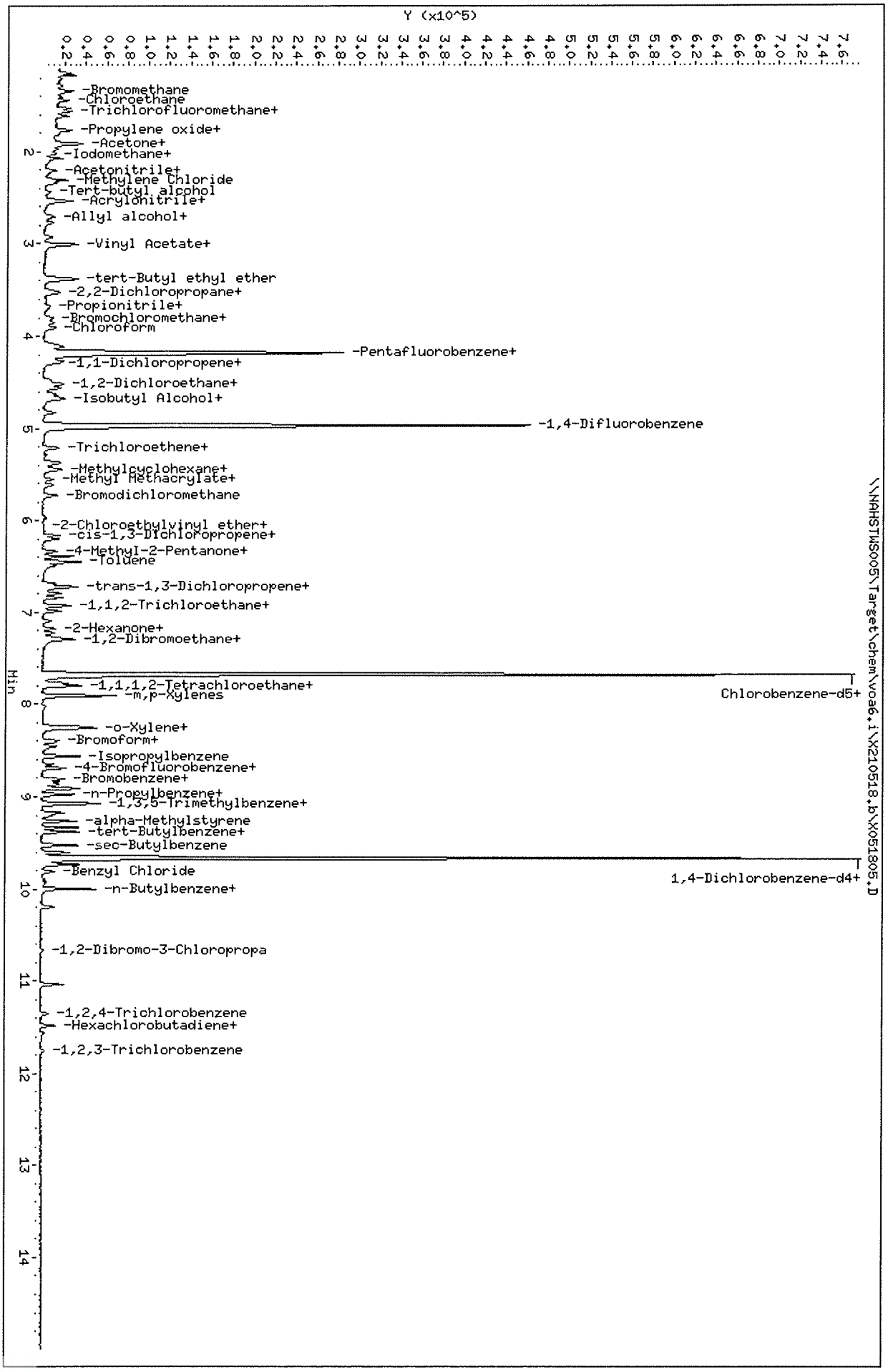
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	223222	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	372877	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	342499	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	158694	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	5073	2.00000	1.82(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	6073	2.00000	0.87(a)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	16788	2.00000	2.96(a)
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	7059	2.00000	2.29(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	5404	2.00000	2.16(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	7117	2.00000	1.87(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	6612	2.00000	2.01(aM)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	4027	2.00000	2.02(a)
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	7473	2.00000	1.80(a)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	4857	2.00000	2.17(a)
	32 1,1-Dichloropropene	75	4.289	4.289	(0.863)	5889	2.00000	1.84(a)
	93 1,2,3-Trichlorobenzene	180	11.753	11.753	(1.216)	1755	2.00000	2.84(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	4744	2.00000	1.61(aMH)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	2176	2.00000	3.91(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	15828	2.00000	1.96(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.665	10.665	(1.104)	511	2.00000	3.91(aM)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	4934	2.00000	2.06(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	8926	2.00000	2.00(a)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051805.D Page 2
Report Date: 08-Jun-2021 11:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	7371	2.00000	2.01(a)
42 1,2-Dichloropropane	63	5.436	5.436	(1.094)	4723	2.00000	1.88(aM)
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	16203	2.00000	2.04(a)
83 1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	9167	2.00000	2.01(a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	7822	2.00000	2.00(a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	10925	2.00000	2.58(a)
26 2,2-Dichloropropane	77	3.516	3.516	(0.841)	7384	2.00000	1.99(a)
24 2-Butanone	43	3.609	3.609	(0.863)	2680	4.00000	3.25(aM)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	14113	2.00000	1.99(a)
52 2-Hexanone	43	7.090	7.090	(0.924)	6265	4.00000	4.05(a)
77 4-Chlorotoluene	91	9.074	9.074	(0.939)	16392	2.00000	1.98(a)
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	15308	2.00000	1.95(a)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	9786	4.00000	4.57(a)
10 Acetone	43	1.976	1.976	(0.473)	4685	4.00000	3.57(a)
37 Benzene	78	4.519	4.519	(0.909)	17777	2.00000	1.92(a)
74 Bromobenzene	156	8.809	8.809	(0.912)	5025	2.00000	1.89(a)
29 Bromochloromethane	128	3.802	3.802	(0.909)	2725	2.00000	2.00(a)
39 Bromodichloromethane	83	5.729	5.729	(1.153)	6957	2.00000	1.93(aM)
66 Bromoform	173	8.415	8.415	(1.097)	2721	2.00000	1.64(Ta)
6 Bromomethane	94	1.338	1.338	(0.320)	5999	2.00000	2.10(aM)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	20321	4.00000	3.86(a)
34 Carbon Tetrachloride	117	4.254	4.254	(0.856)	6956	2.00000	2.14(aH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	13639	2.00000	2.03(a)
7 Chloroethane	64	1.403	1.403	(0.336)	3185	2.00000	1.88(aM)
28 Chloroform	83	3.917	3.917	(0.937)	8858	2.00000	1.86(a)
3 Chloromethane	50	1.080	1.080	(0.258)	5348	2.00000	2.44(a)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	5045	2.00000	1.96(a)
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	7191	2.00000	1.75(a)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	5007	2.00000	1.87(a)
44 Dibromomethane	93	5.557	5.557	(1.118)	3596	2.00000	2.00(a)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	5548	2.00000	3.97(a)
61 Ethylbenzene	106	7.799	7.799	(1.017)	6867	2.00000	2.06(a)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	2099	2.00000	5.24(M)
67 Isopropylbenzene	105	8.566	8.566	(1.117)	19138	2.00000	1.88(a)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	16590	4.00000	3.87(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	4803	2.00000	2.14(a)
87 n-Butylbenzene	91	9.998	9.998	(1.035)	13346	2.00000	1.79(a)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	24073	2.00000	2.14(a)
92 Naphthalene	128	11.553	11.553	(1.196)	3094	2.00000	4.49(aM)
63 o-Xylene	106	8.243	8.243	(1.075)	8148	2.00000	1.95(a)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	20210	2.00000	2.17(a)
64 Styrene	104	8.265	8.265	(1.078)	12689	2.00000	3.33(a)
78 tert-Butylbenzene	119	9.339	9.339	(0.967)	14096	2.00000	2.09(a)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	4009	2.00000	2.10(a)
50 Toluene	91	6.446	6.446	(0.840)	19645	2.00000	1.98(a)
20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	4458	2.00000	2.07(a)
51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	6893	2.00000	1.92(a)
38 Trichloroethene	130	5.206	5.206	(1.048)	4850	2.00000	1.96(a)
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	9673	2.00000	2.25(a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	5963	2.00000	2.21(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.



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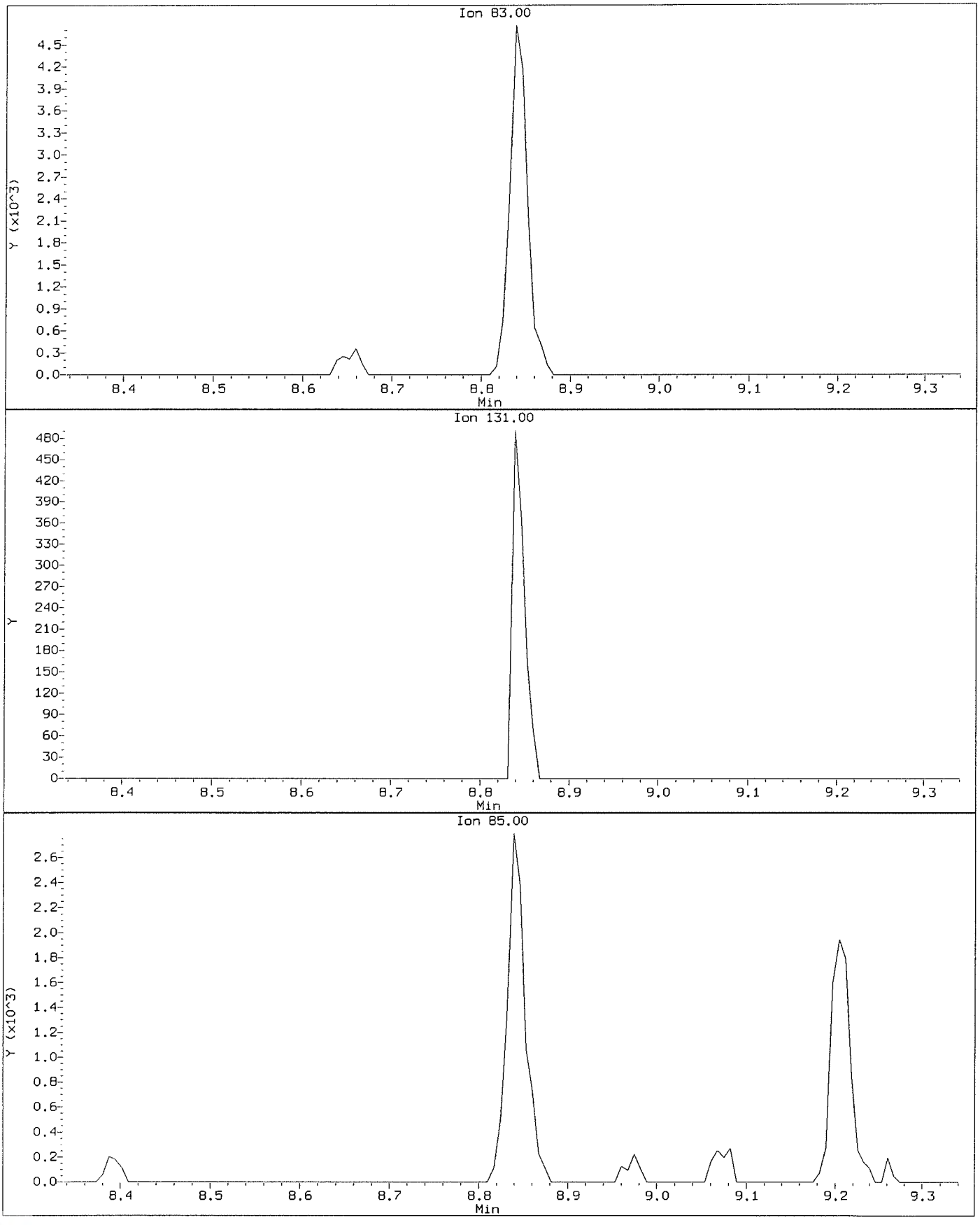
Client ID: VSTD002
Sample Info: WSDT002;VSTD002;1;4;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051805.D
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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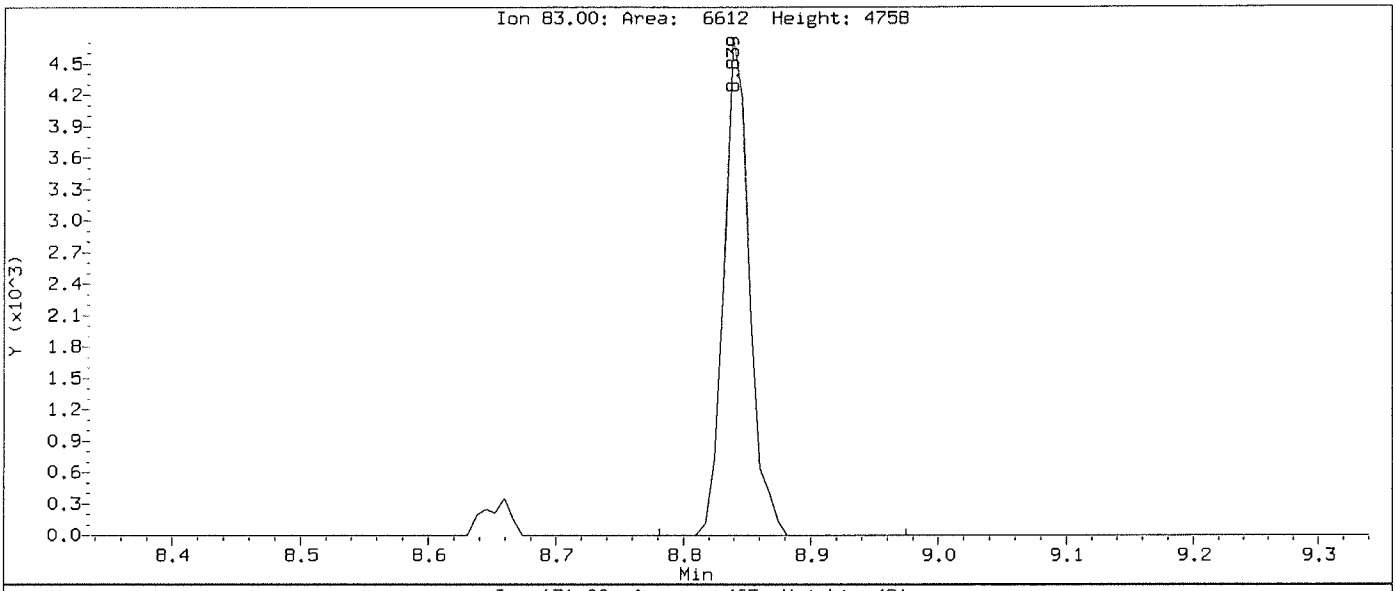
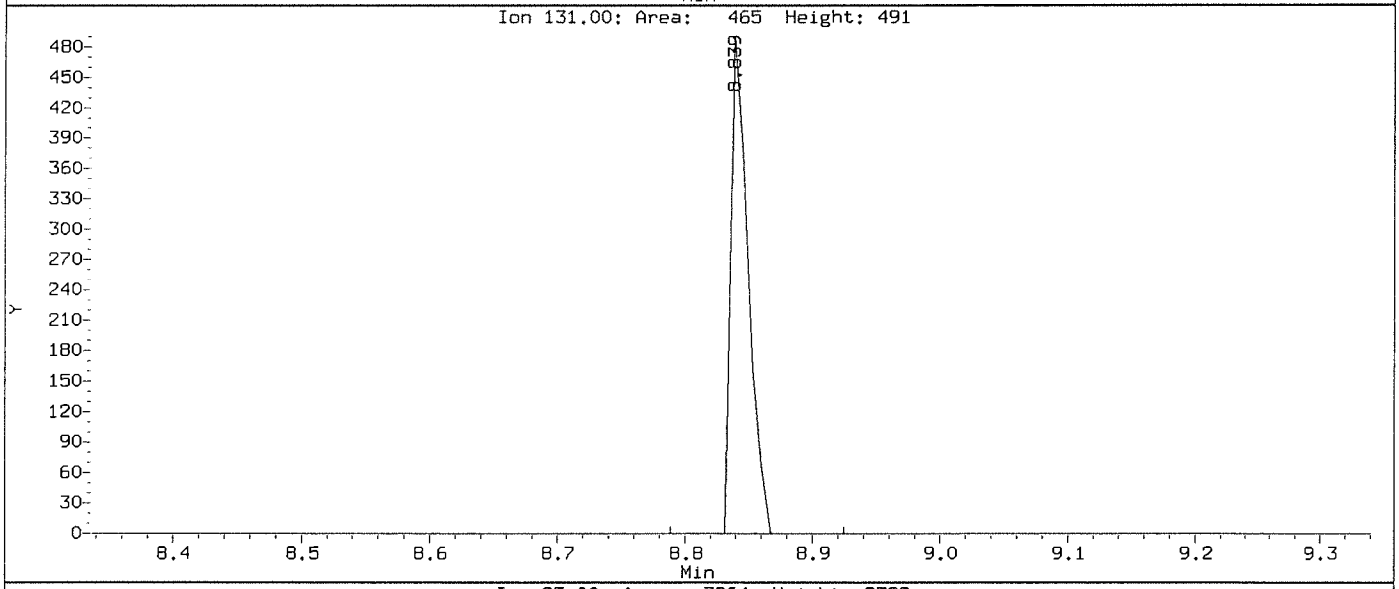
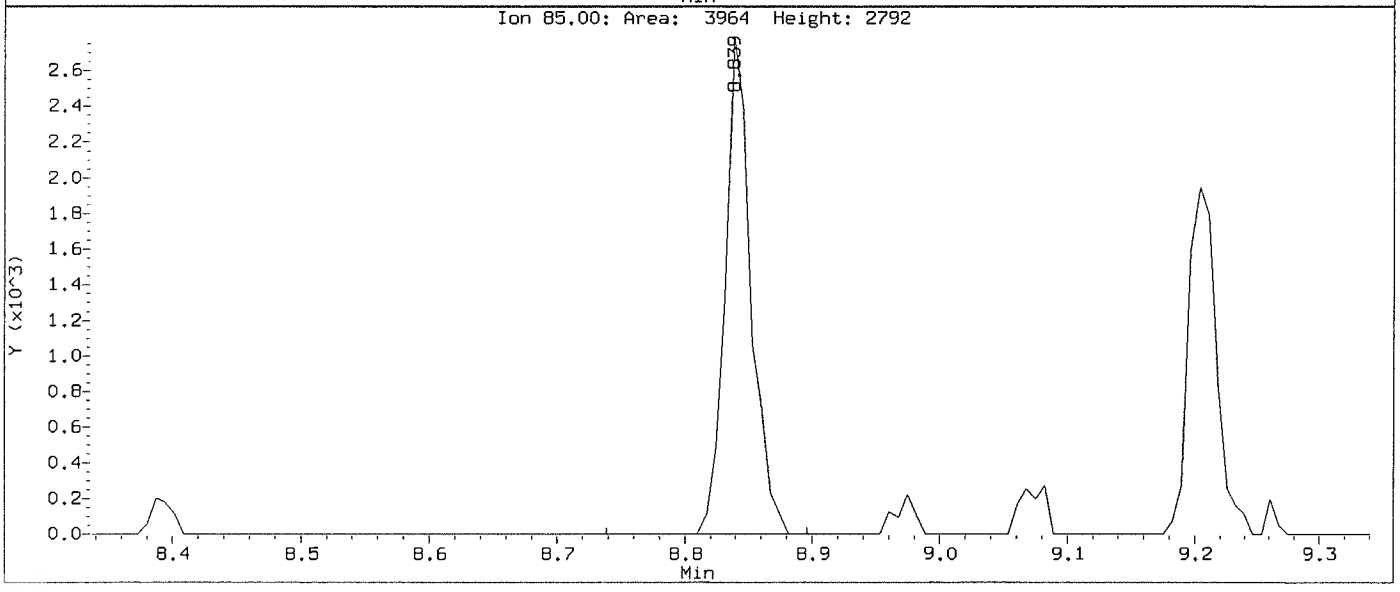
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5

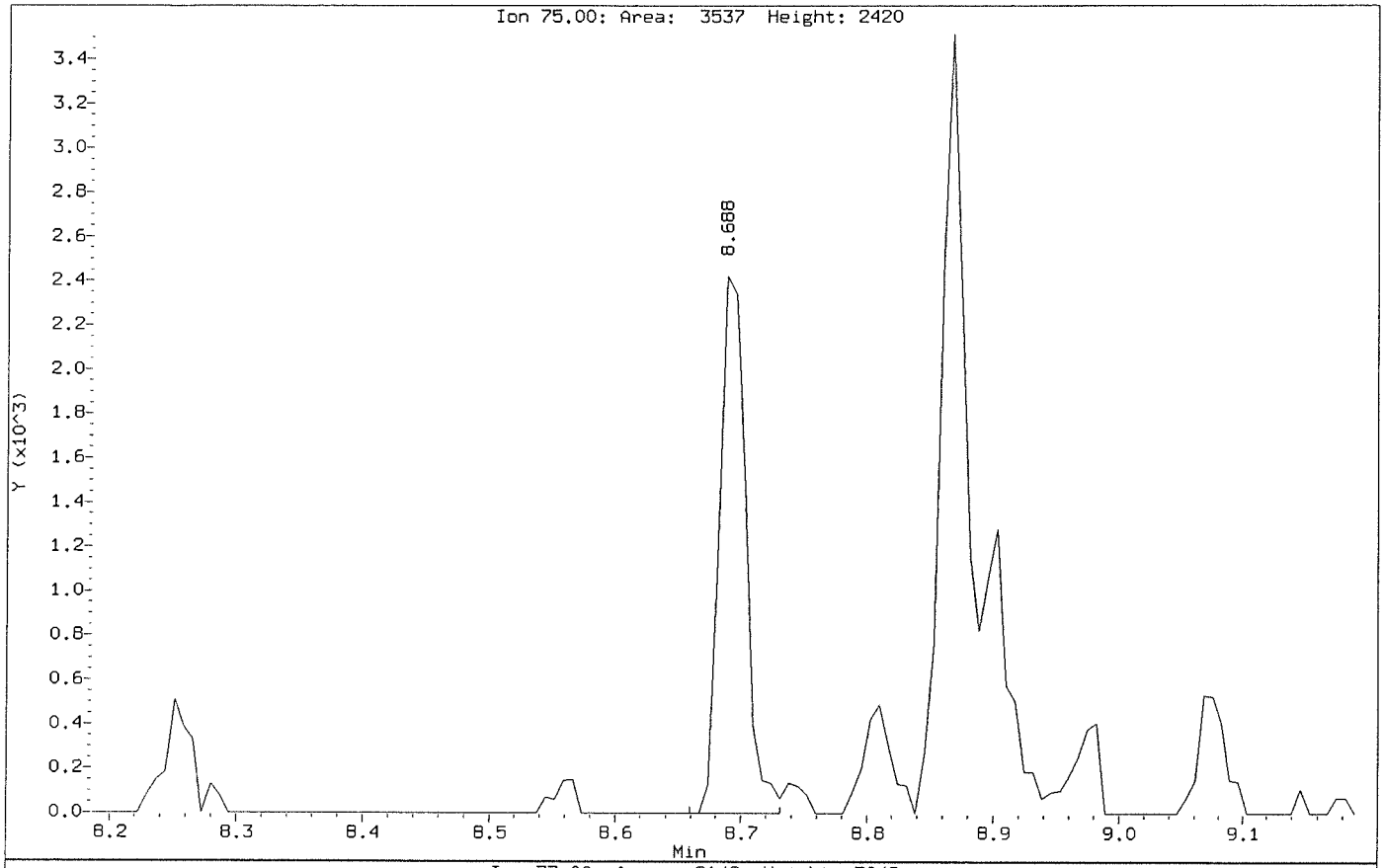


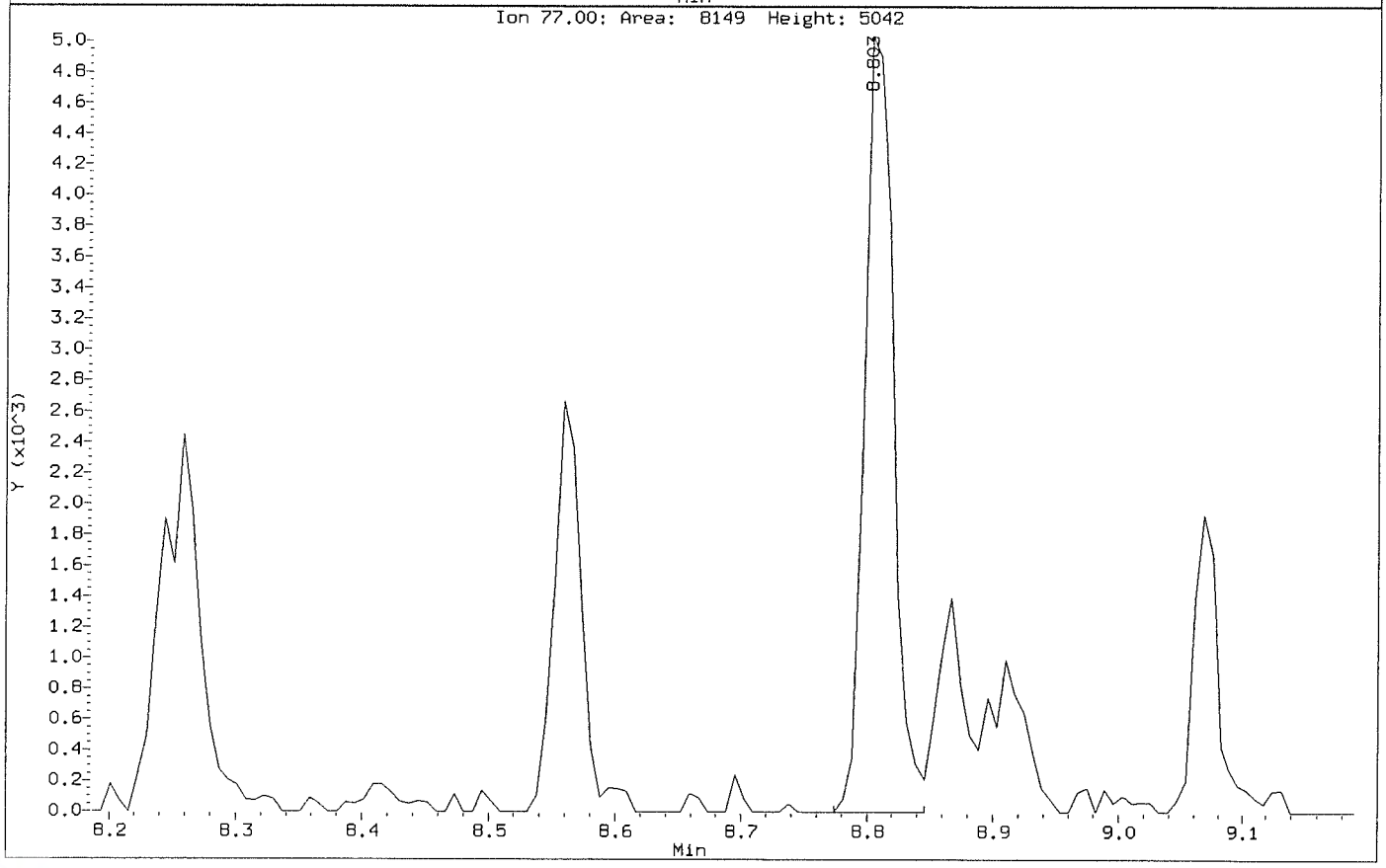




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051805.D
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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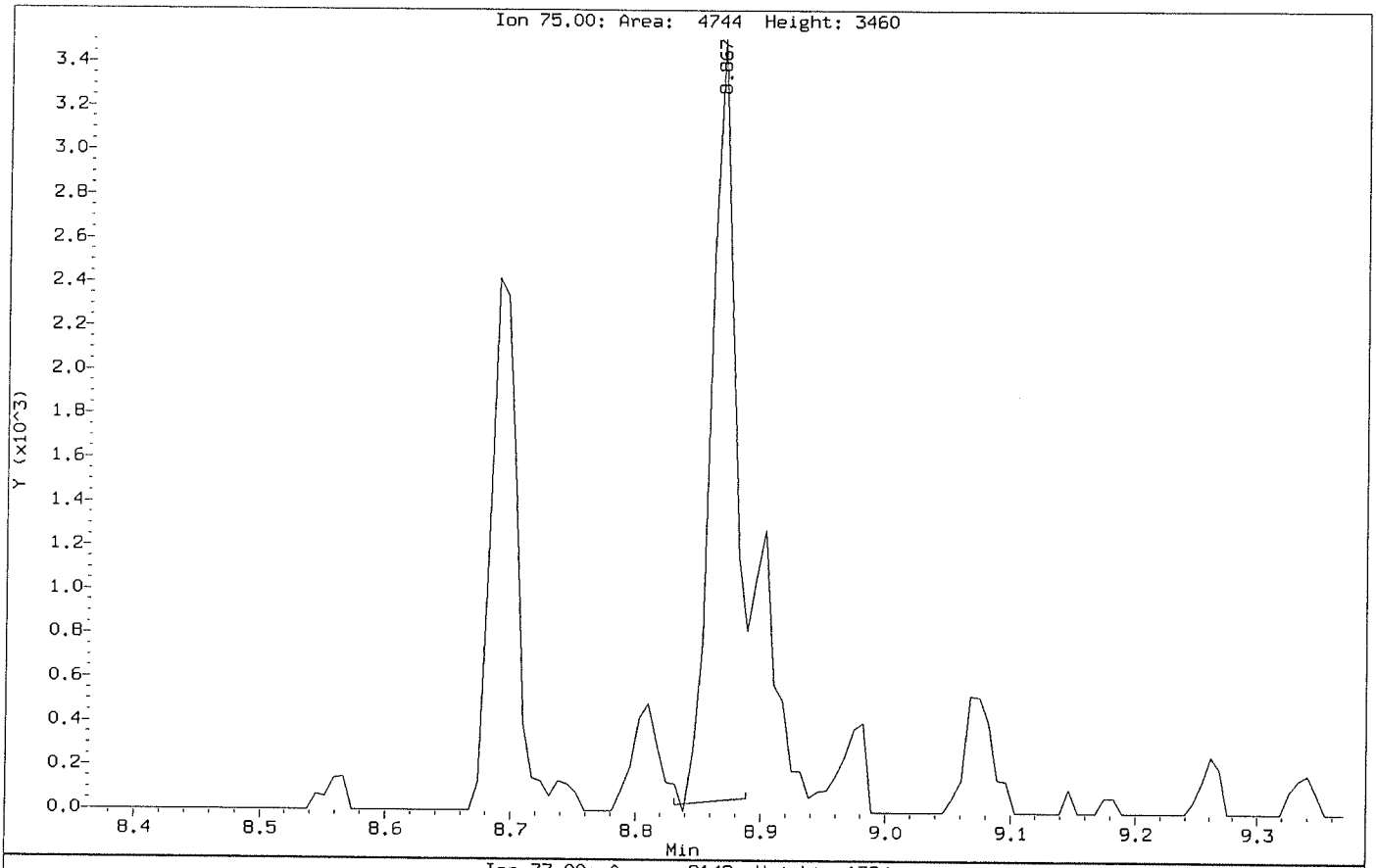
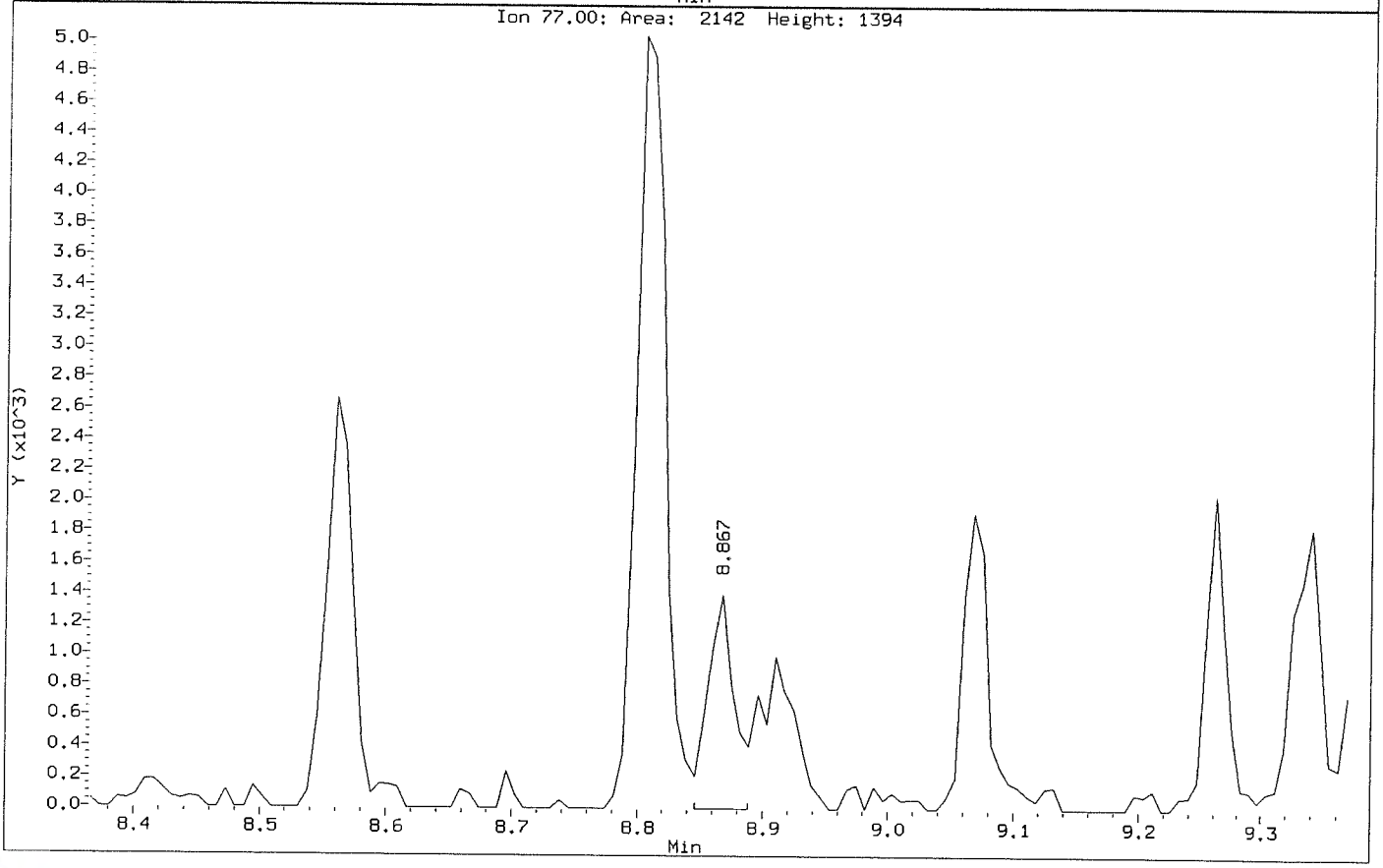
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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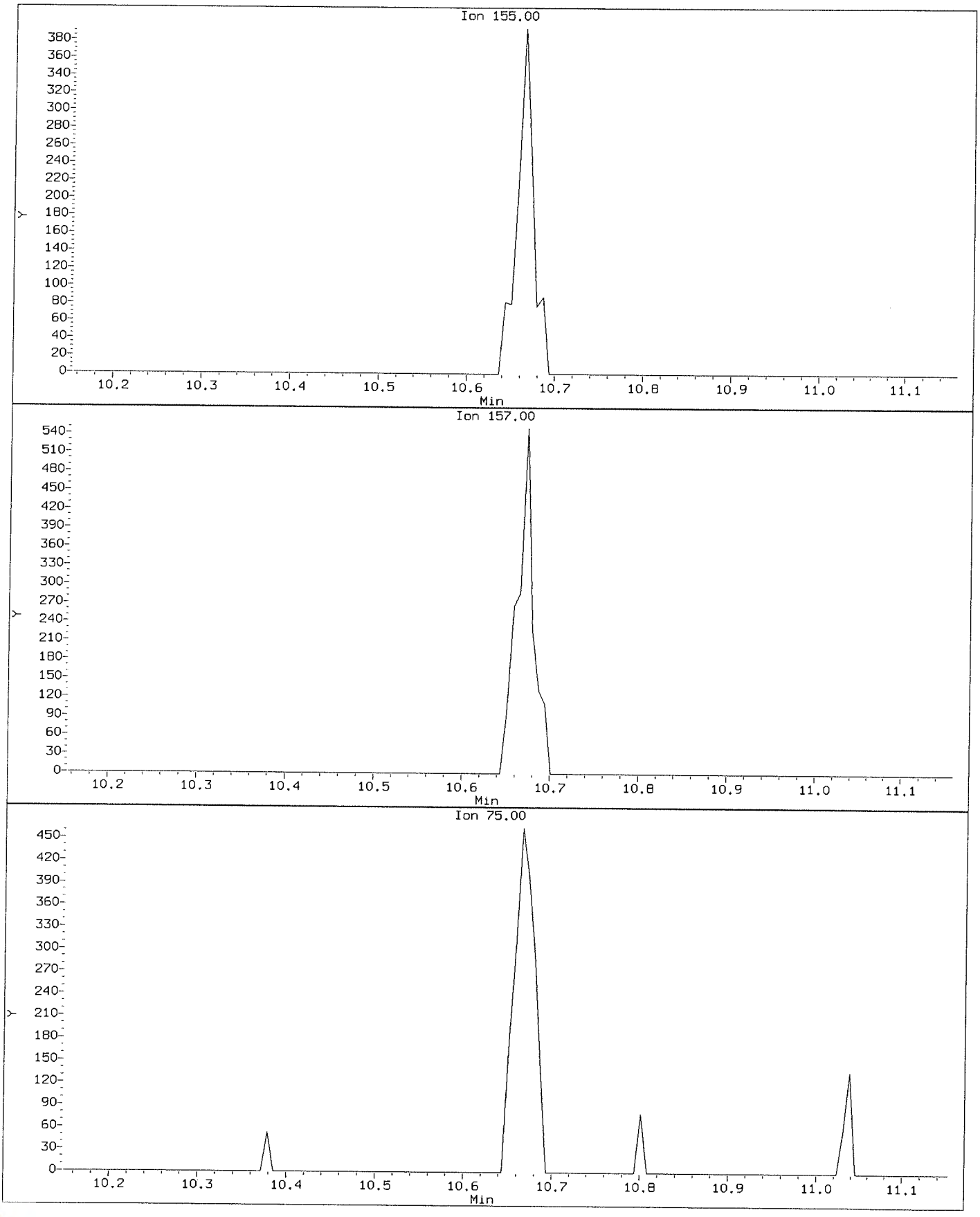
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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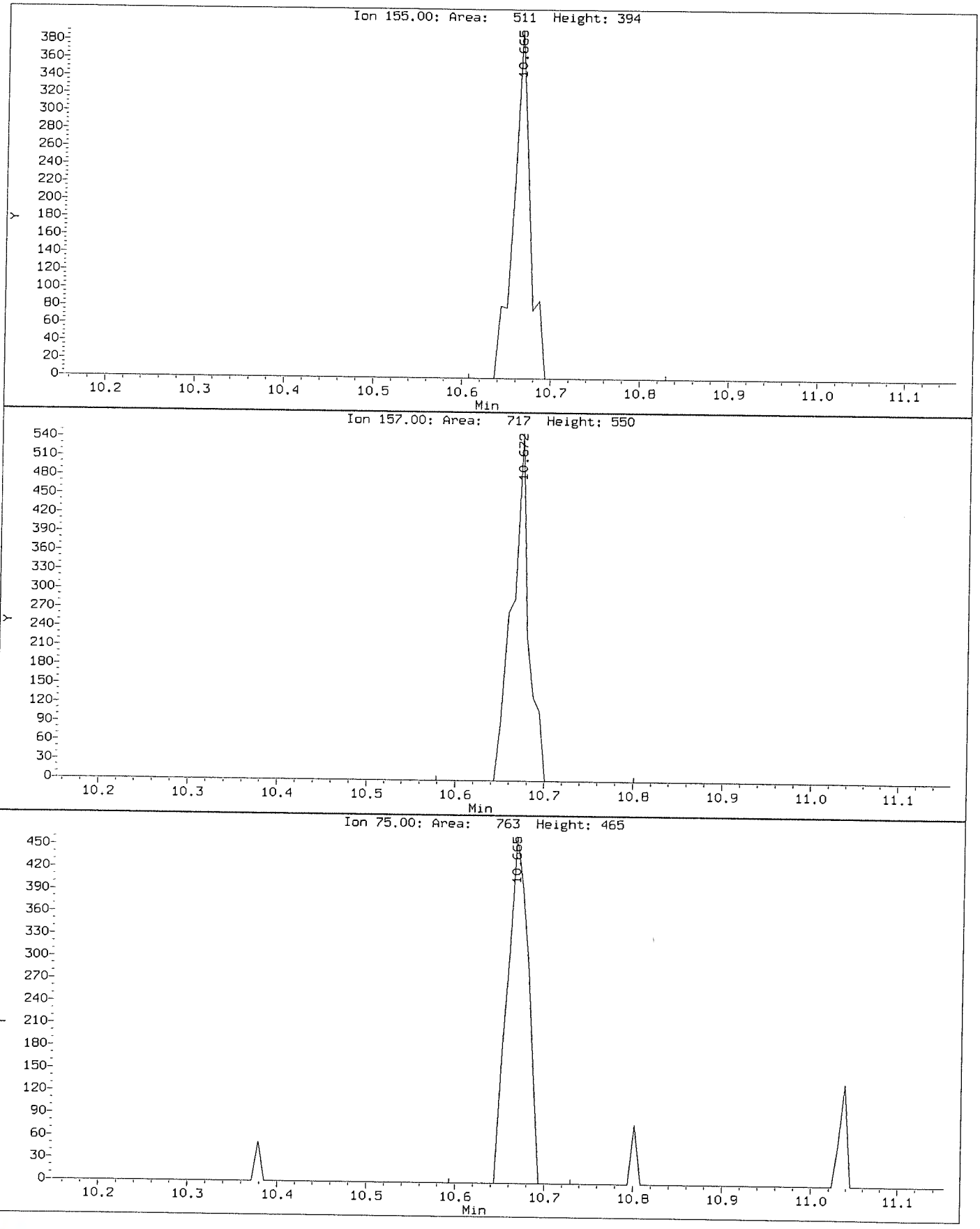
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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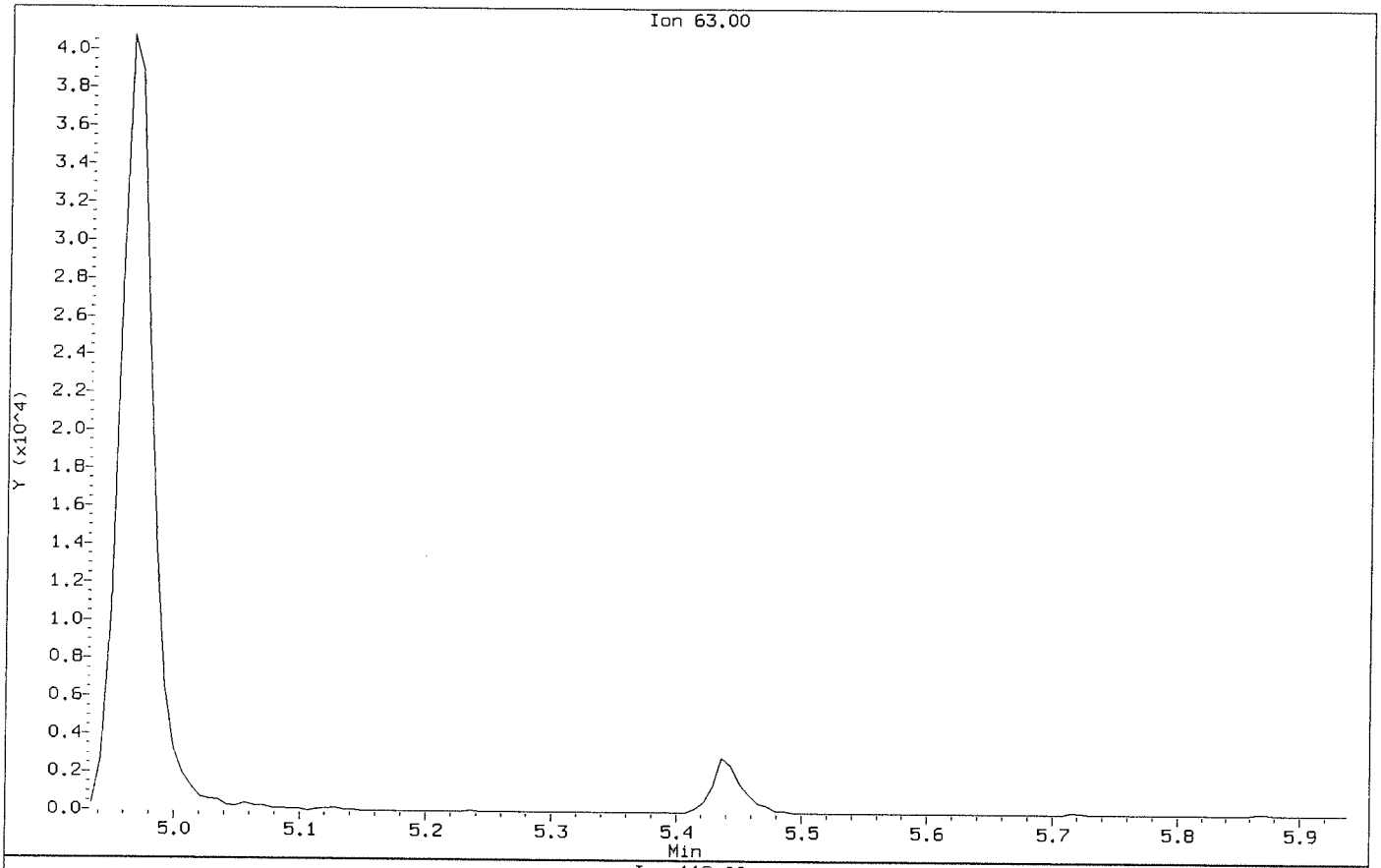
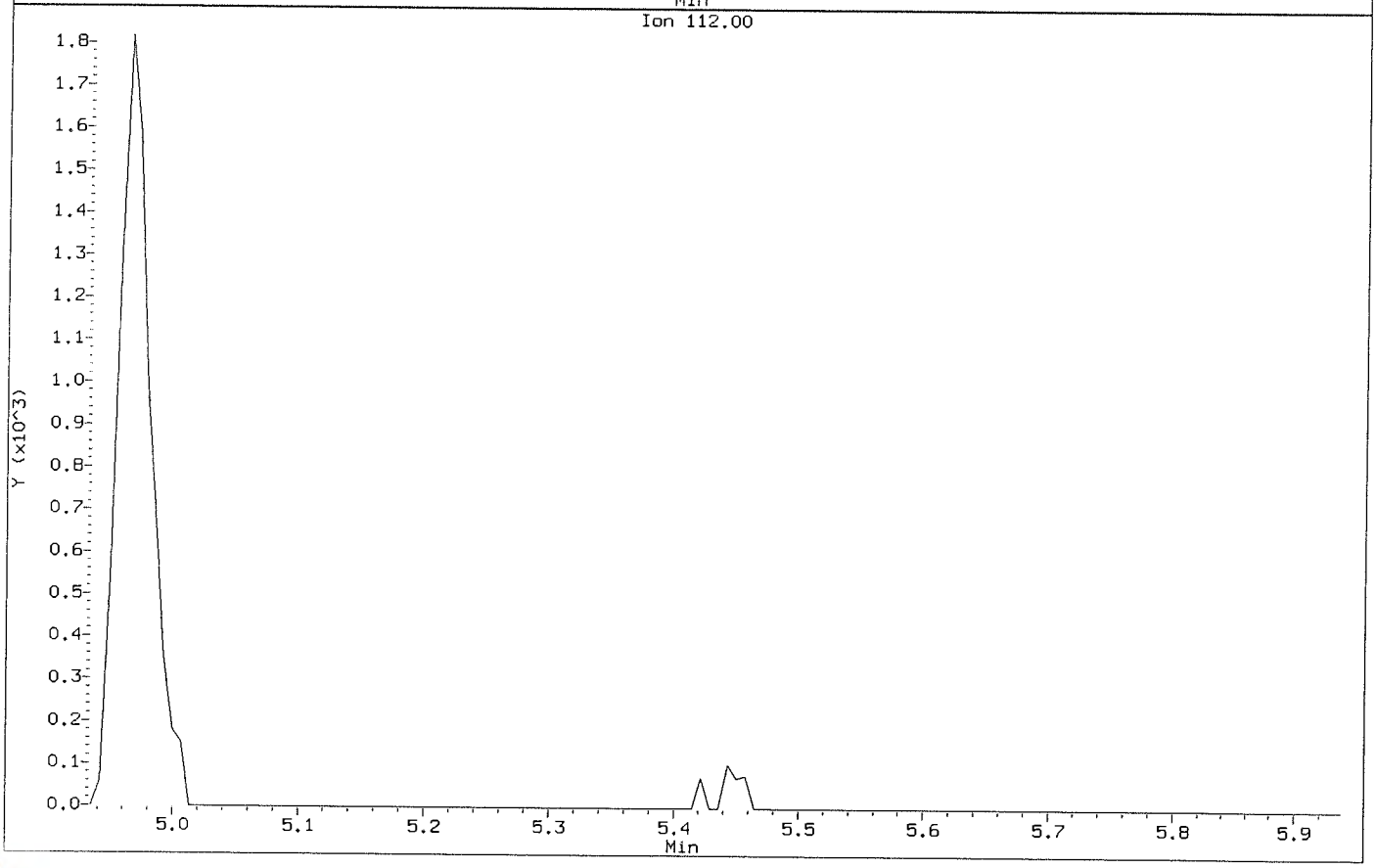
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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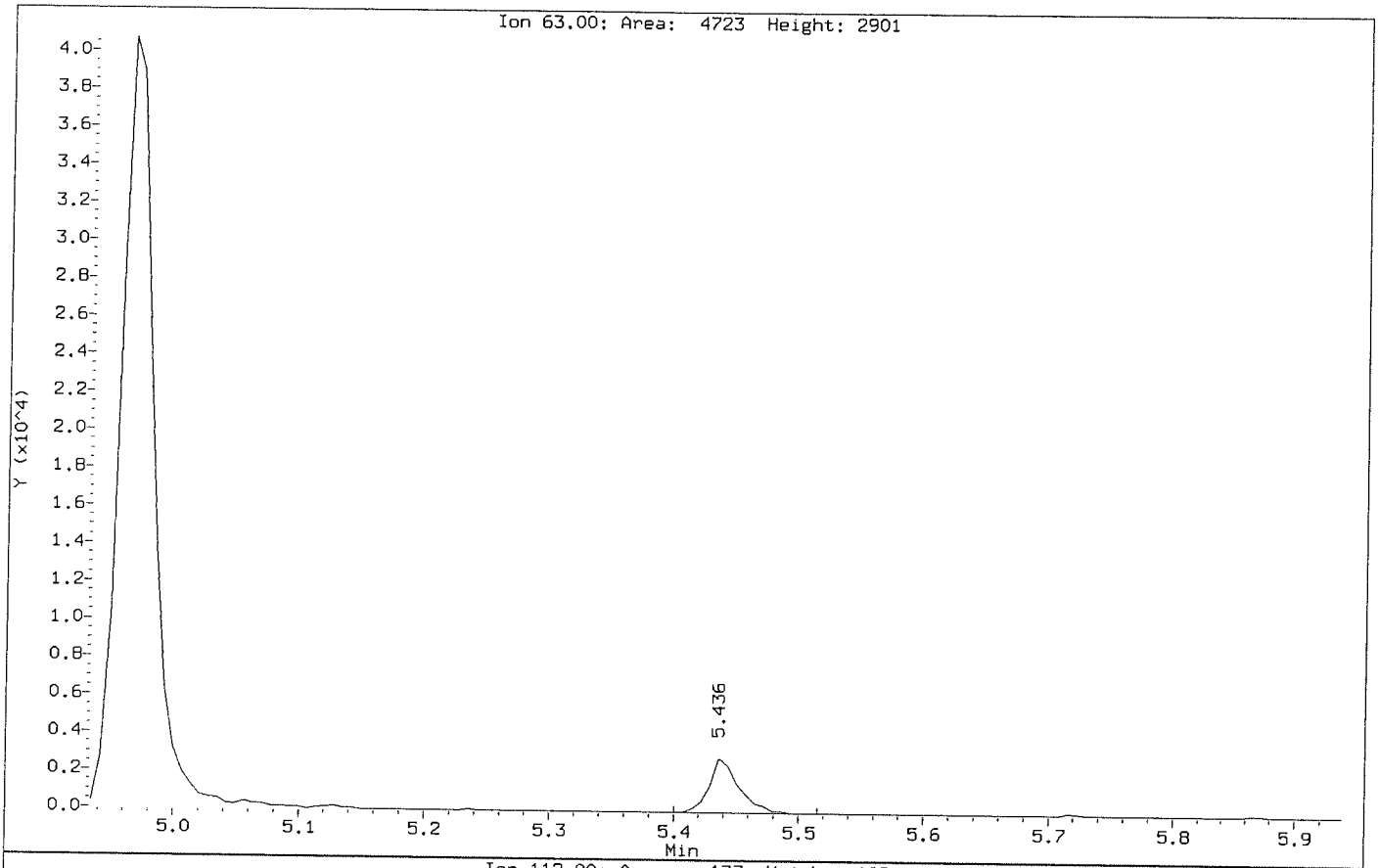
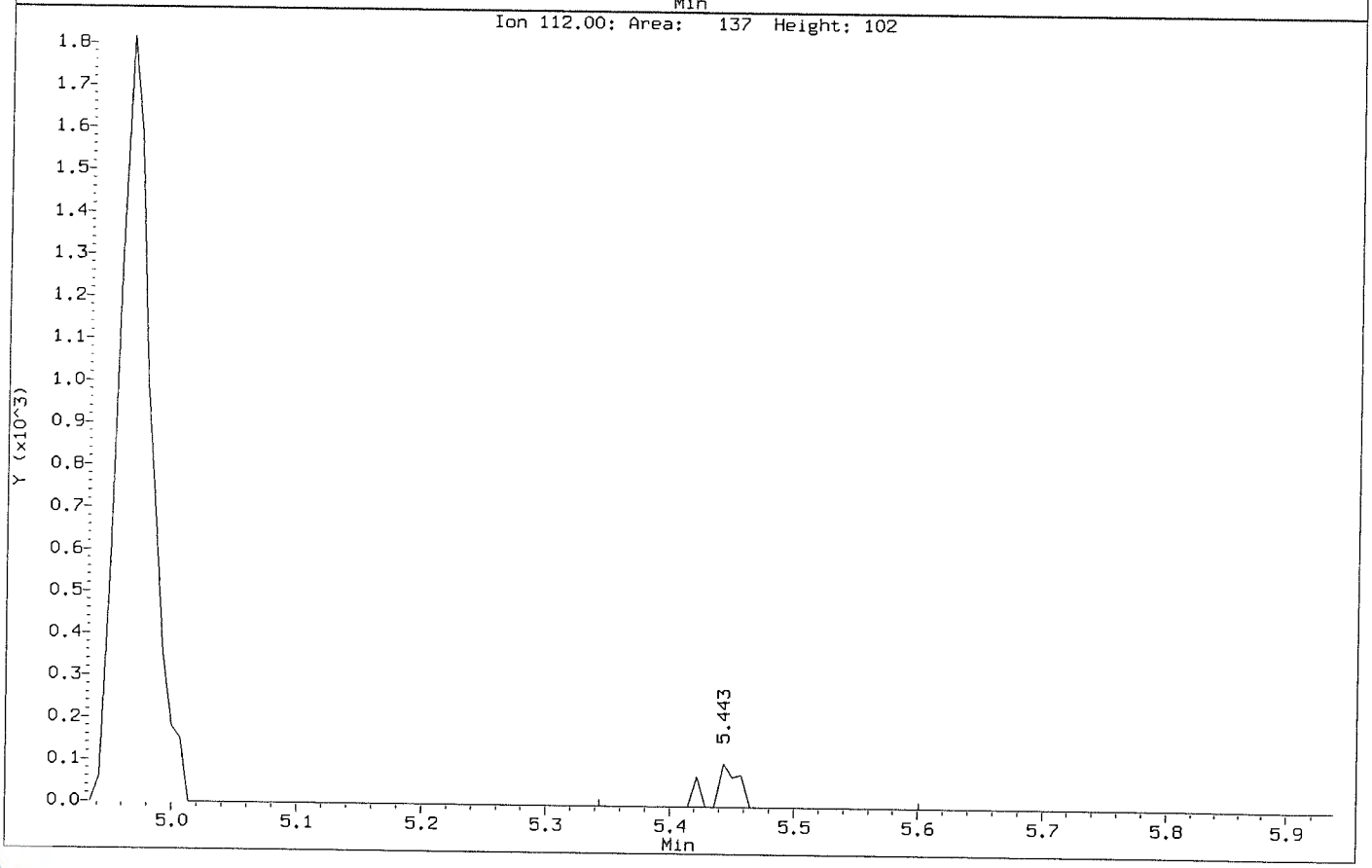
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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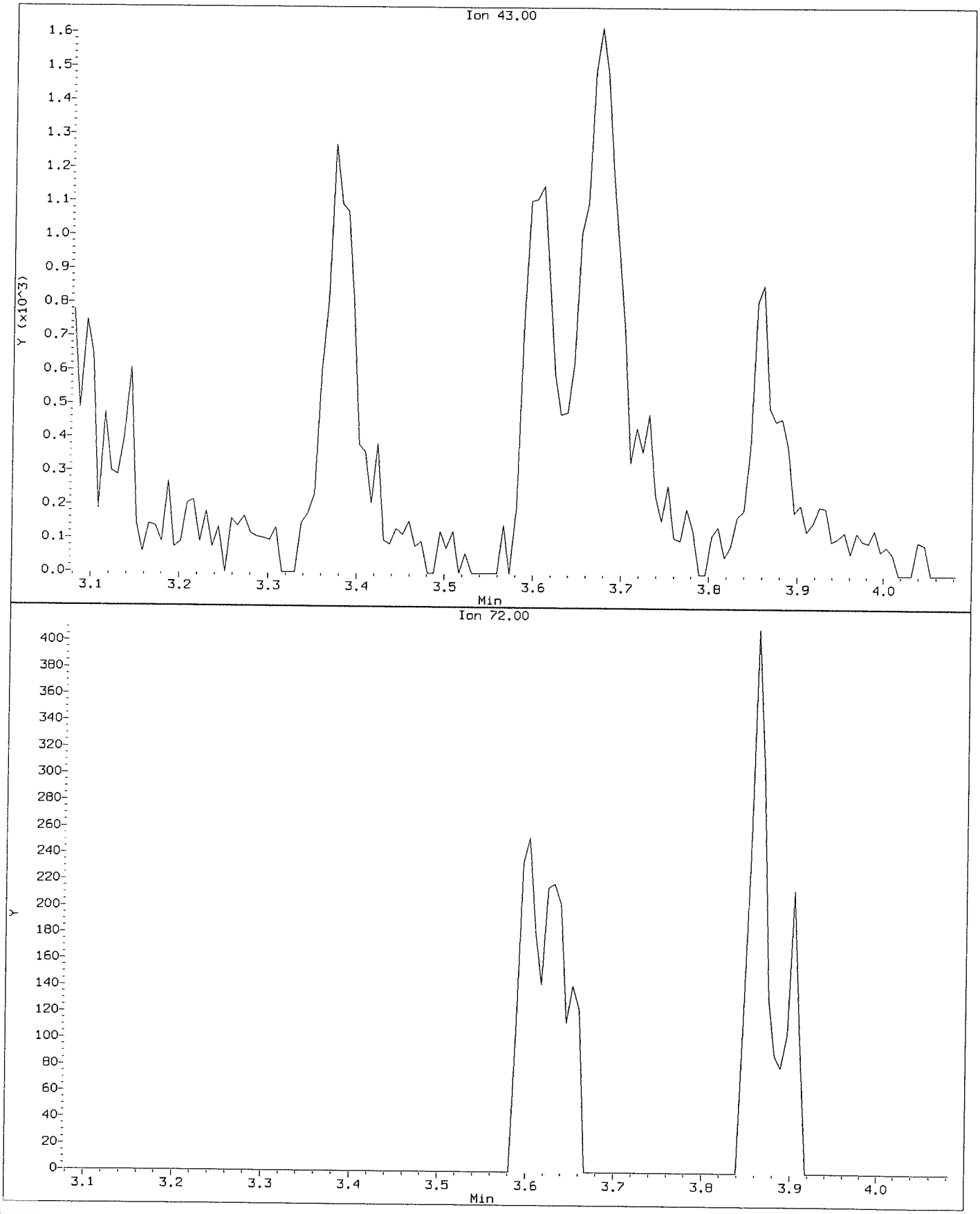
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 2-Butanone
CAS Number: 78-93-3



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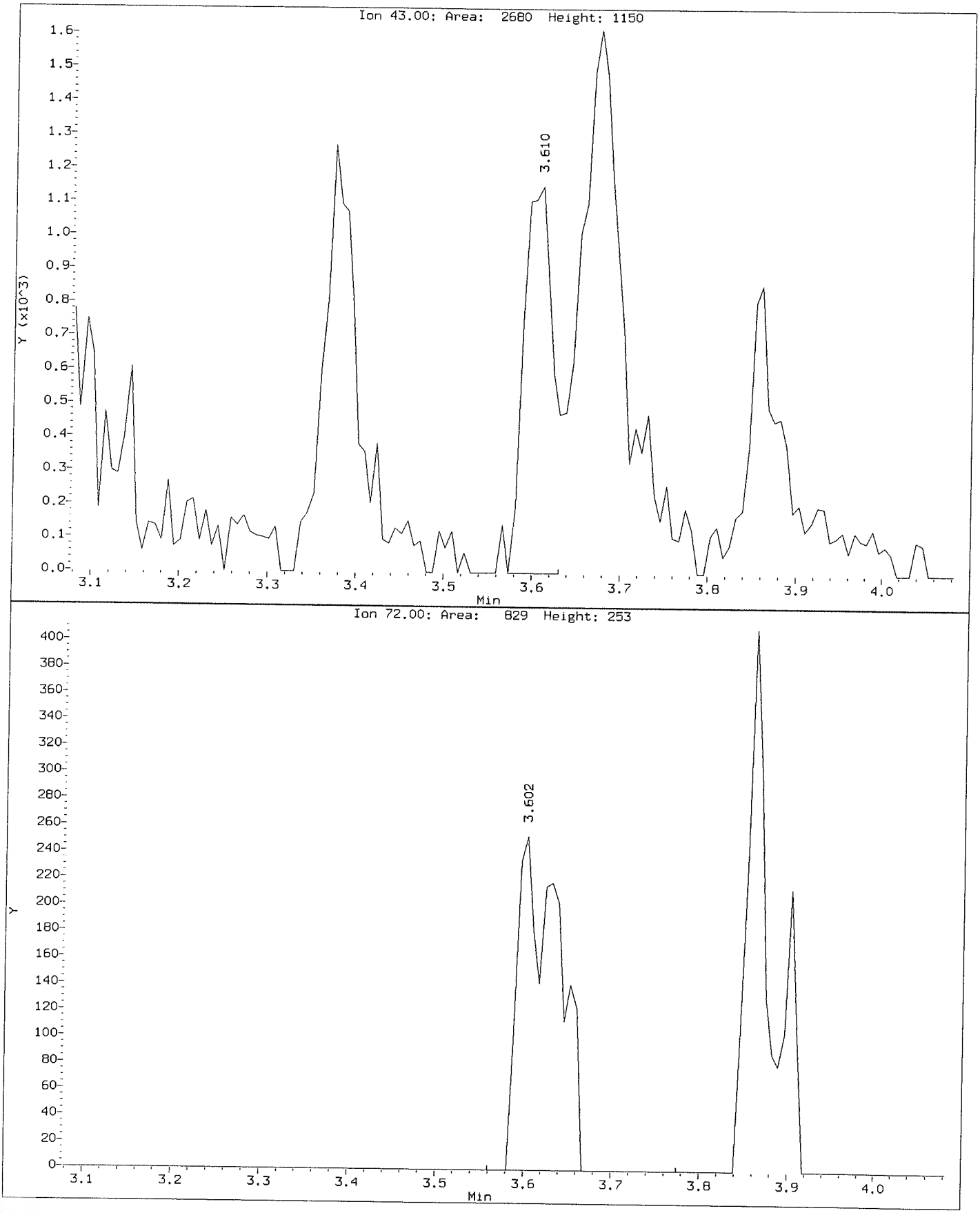
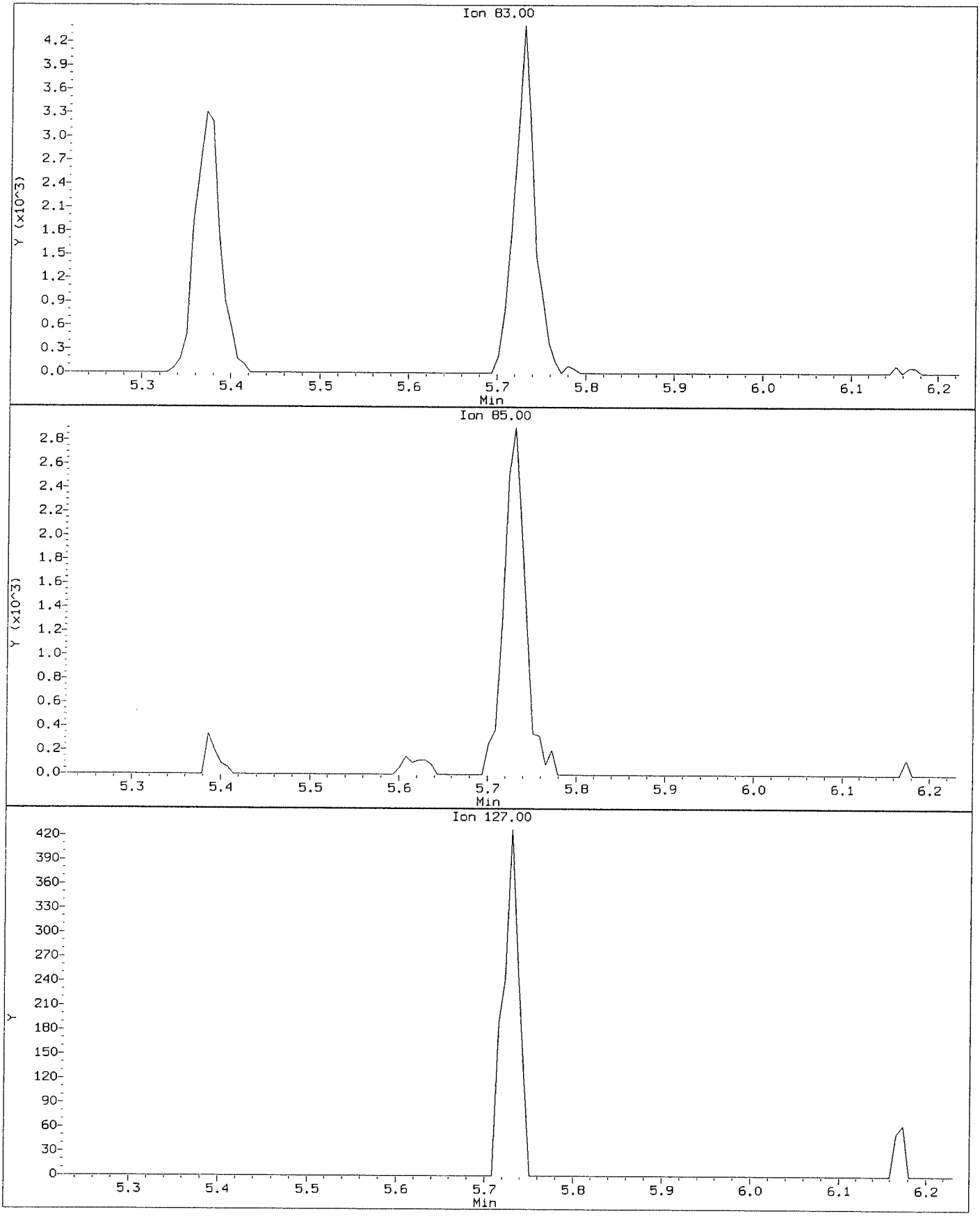
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 2-Butanone
CAS Number: 78-93-3



Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Bromodichloromethane
CAS Number: 75-27-4



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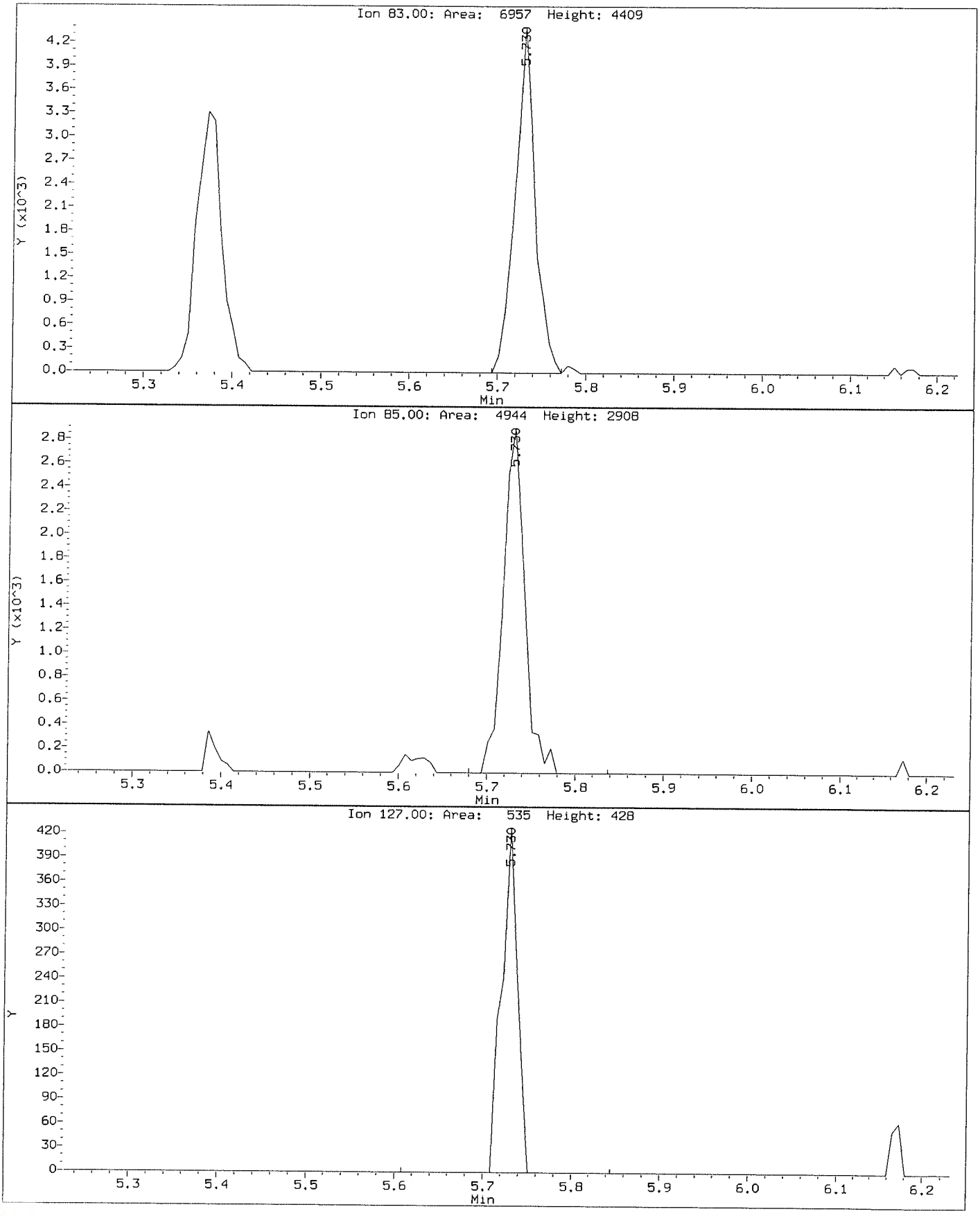
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Bromodichloromethane
CAS Number: 75-27-4



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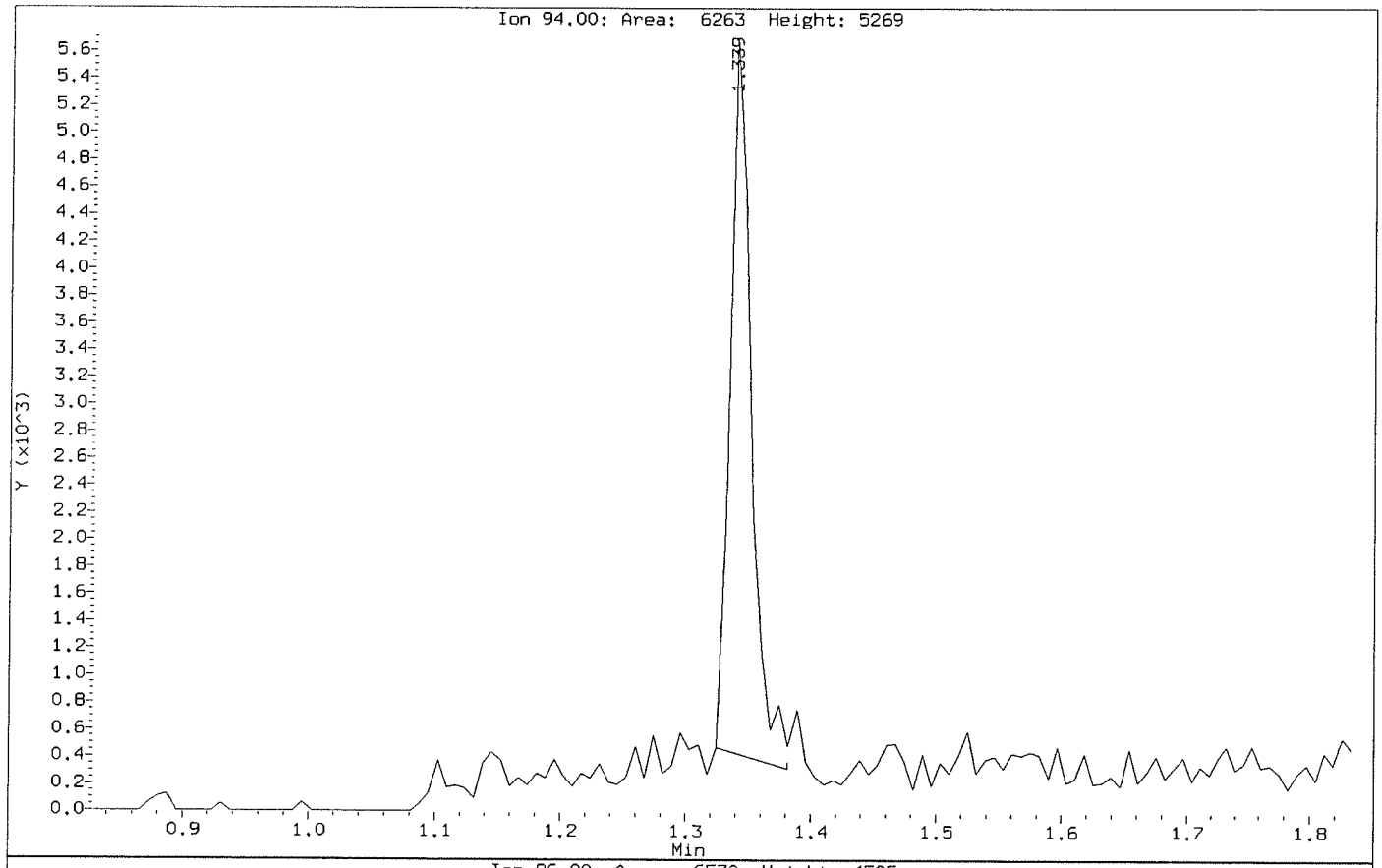
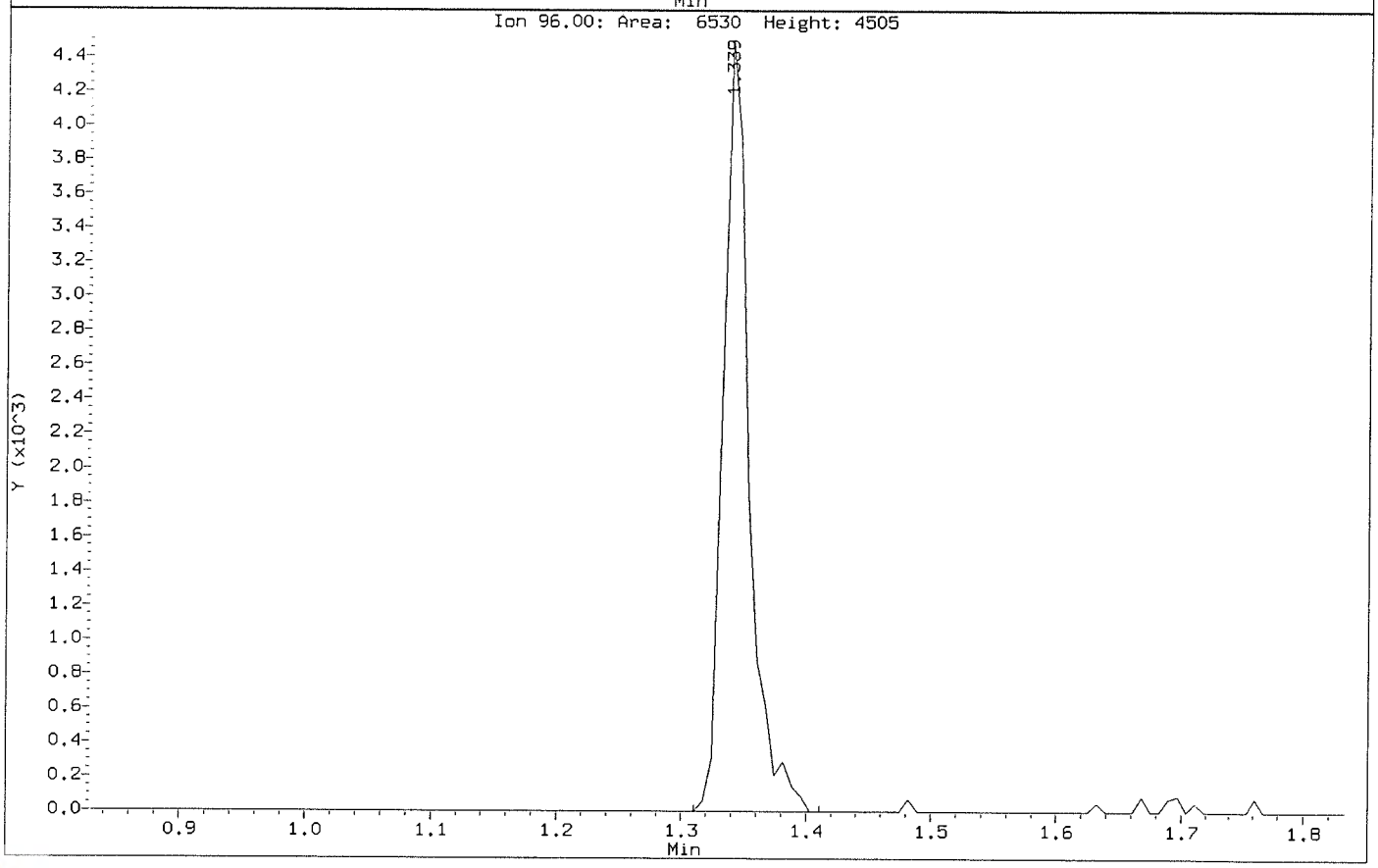
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Bromomethane
CAS Number: 74-83-9





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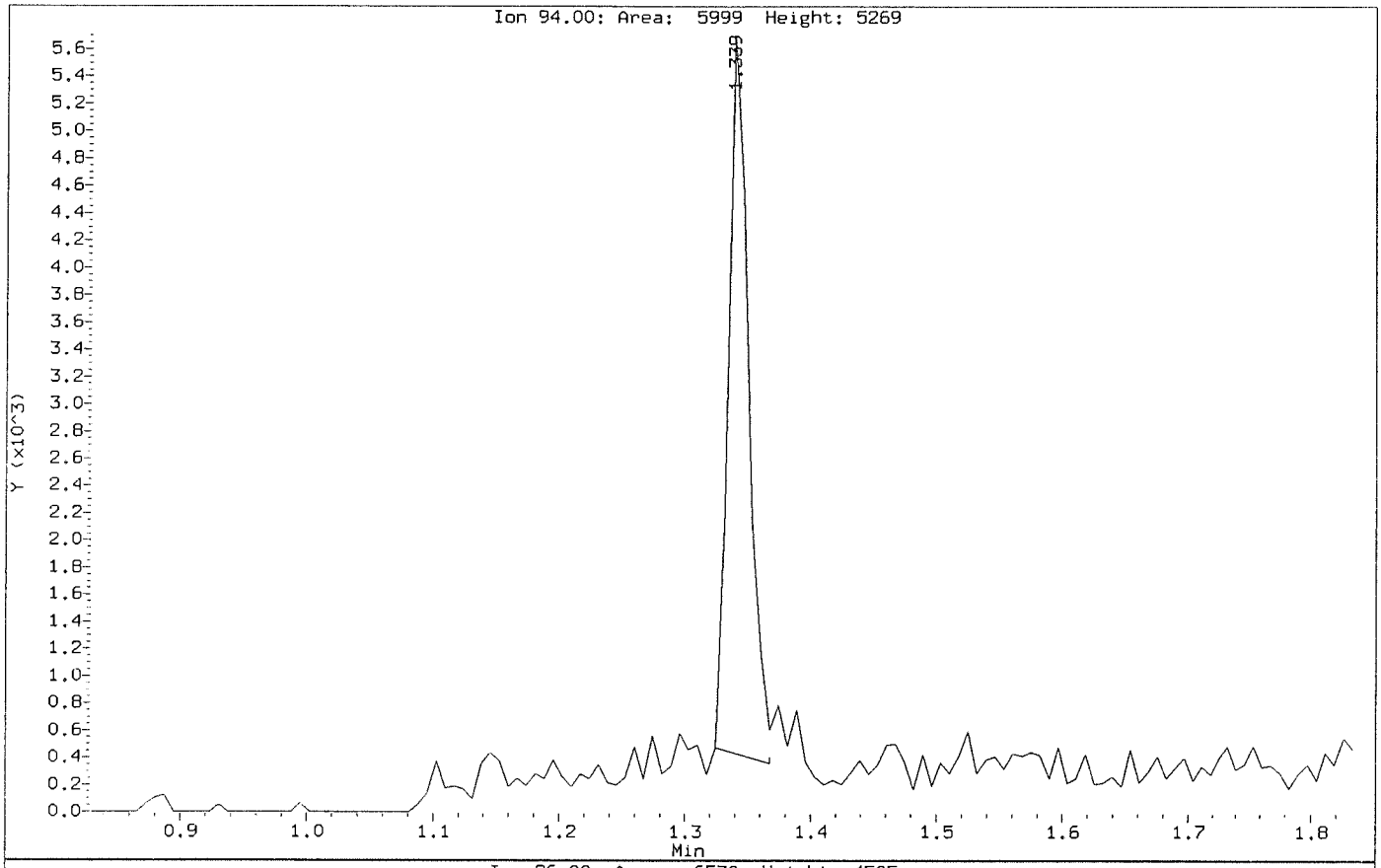
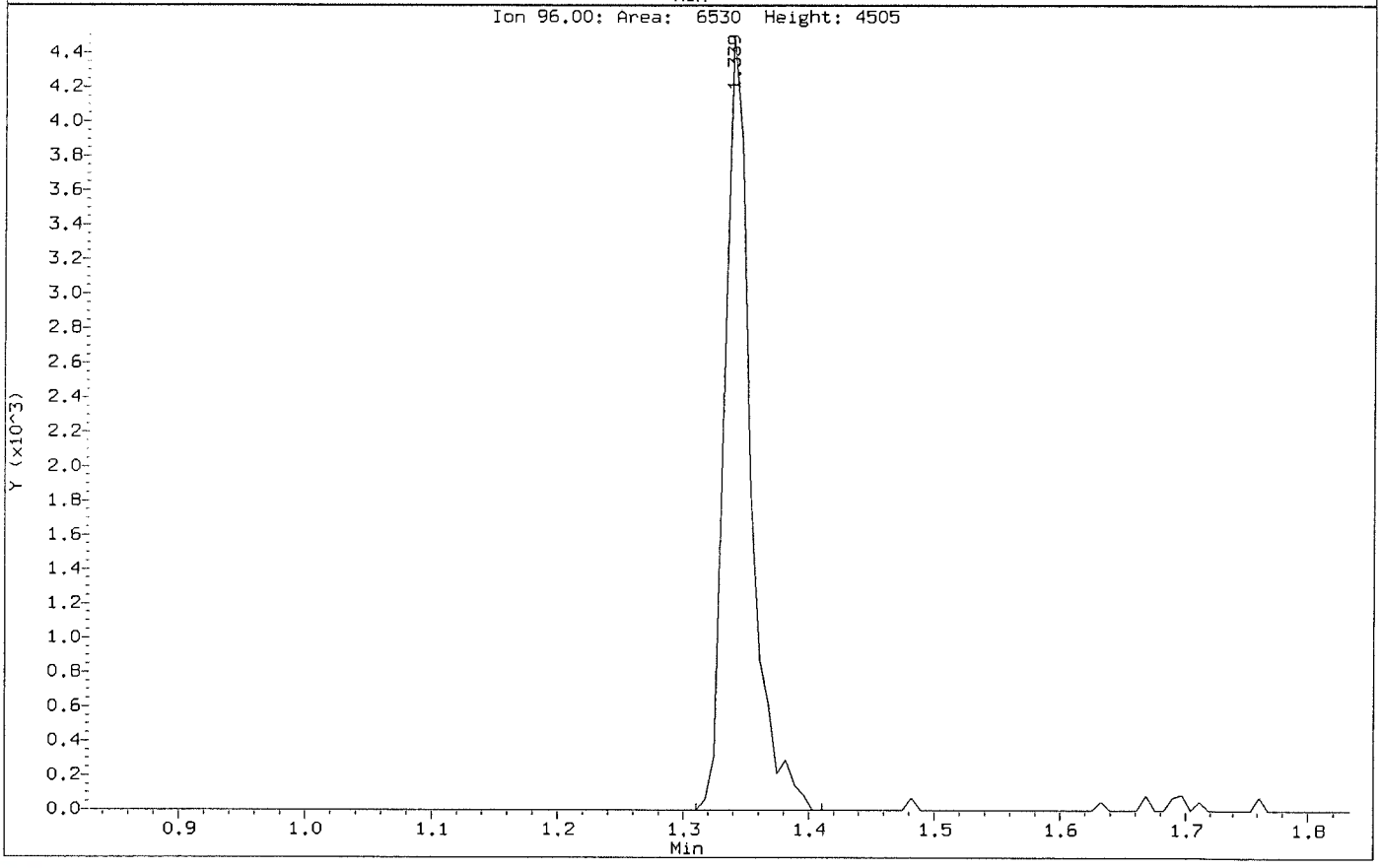
Client Sample ID: VSTD002

Compound: Bromomethane
CAS Number: 74-83-9





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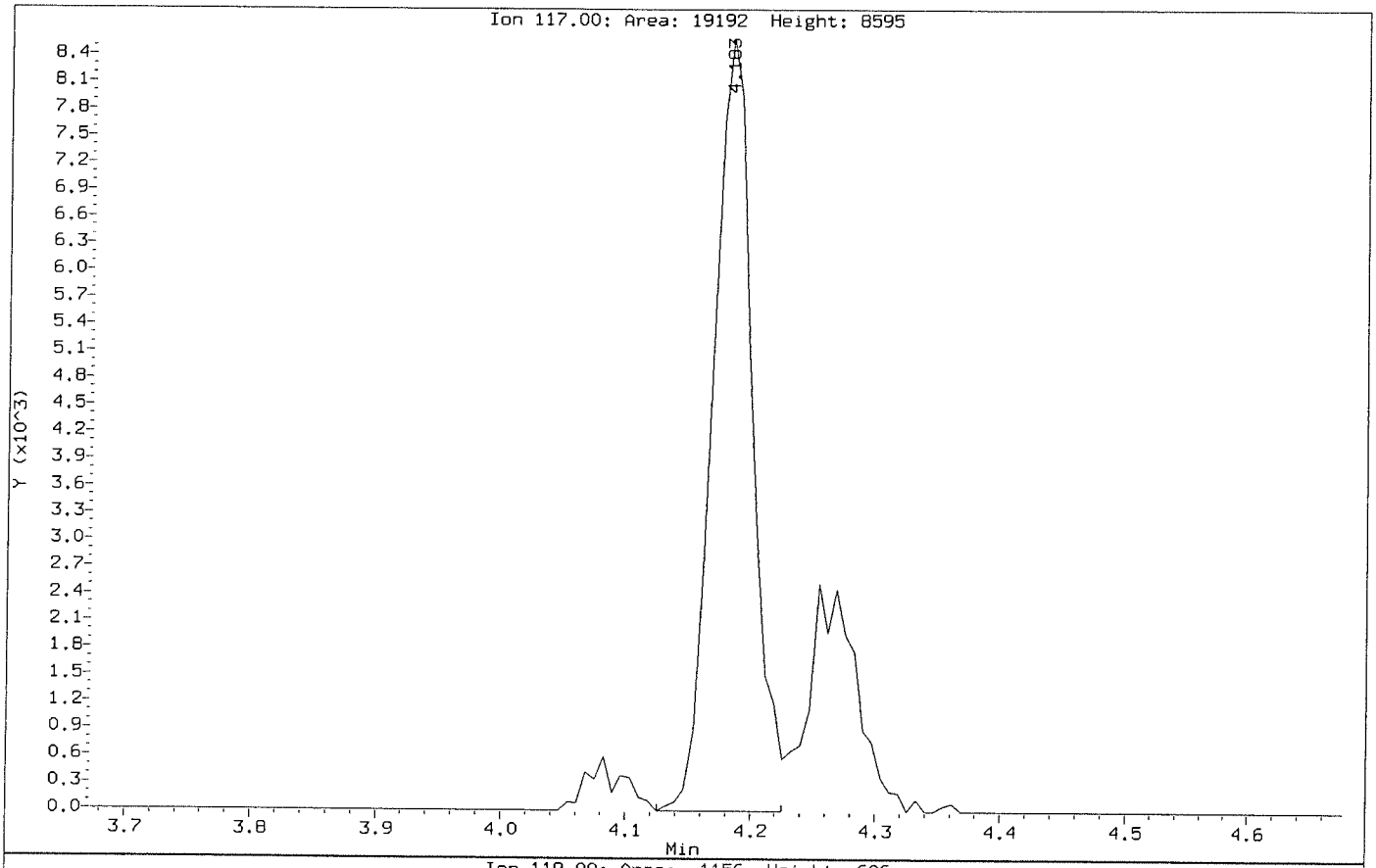
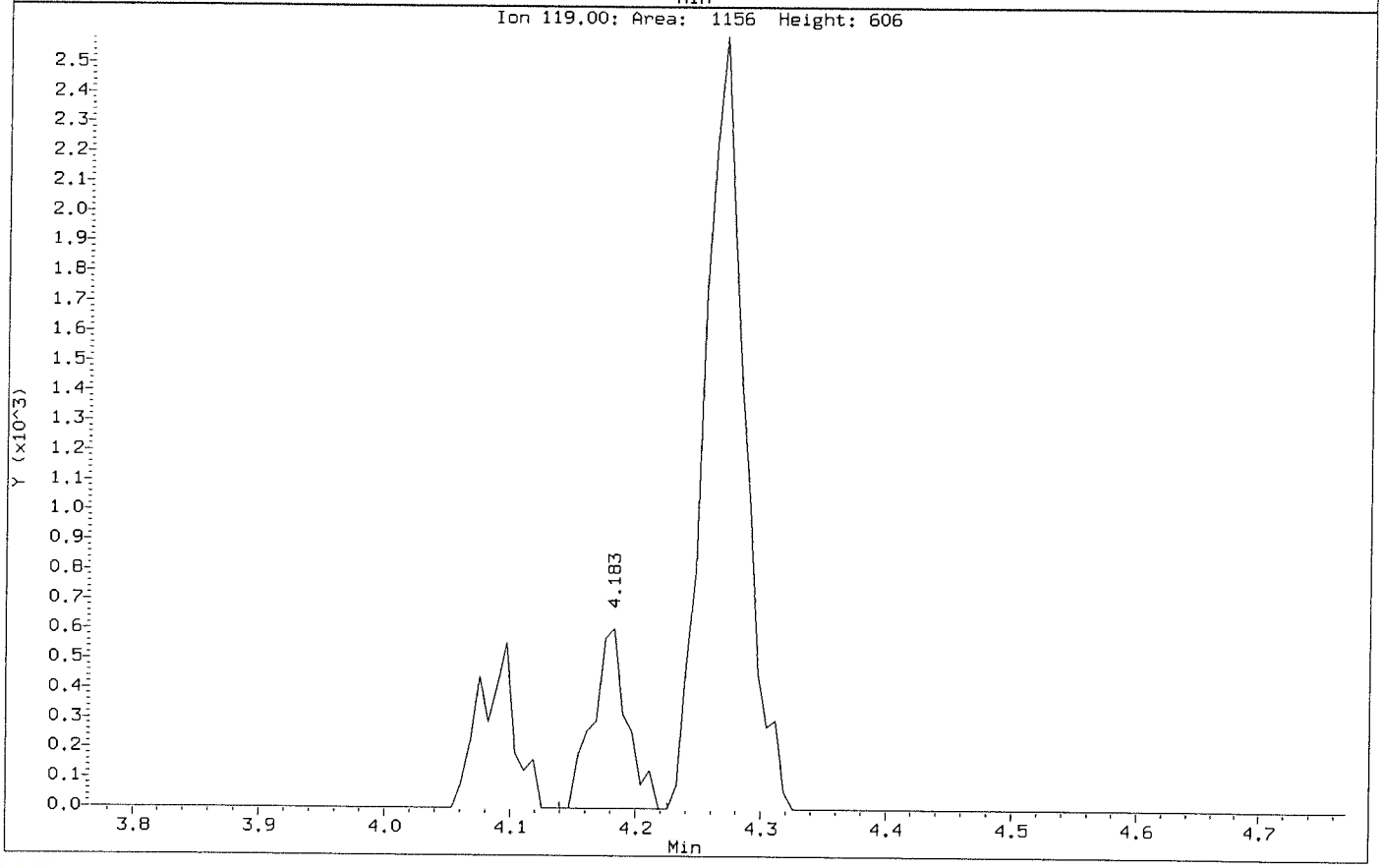
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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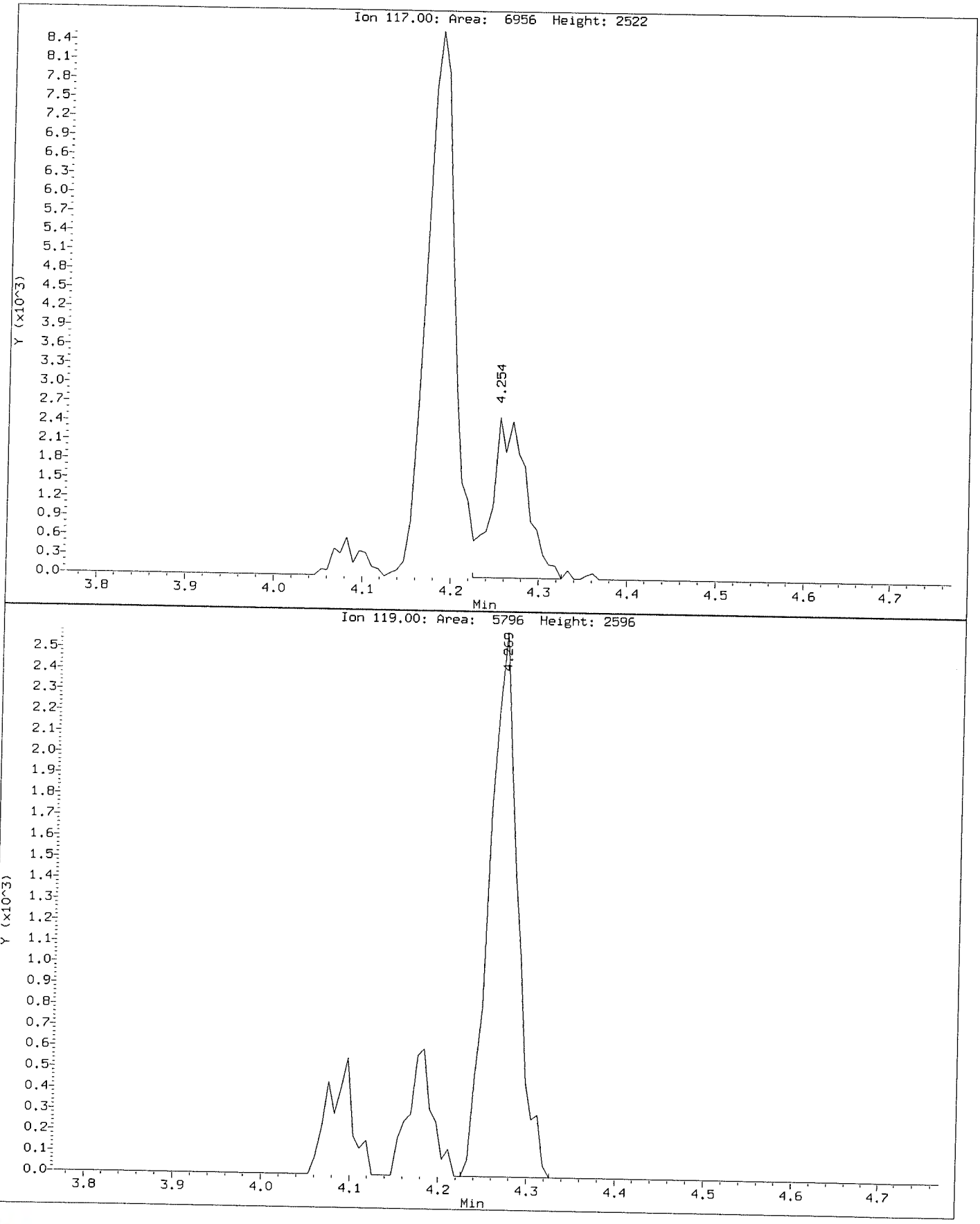
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Carbon Tetrachloride
CAS Number: 56-23-5



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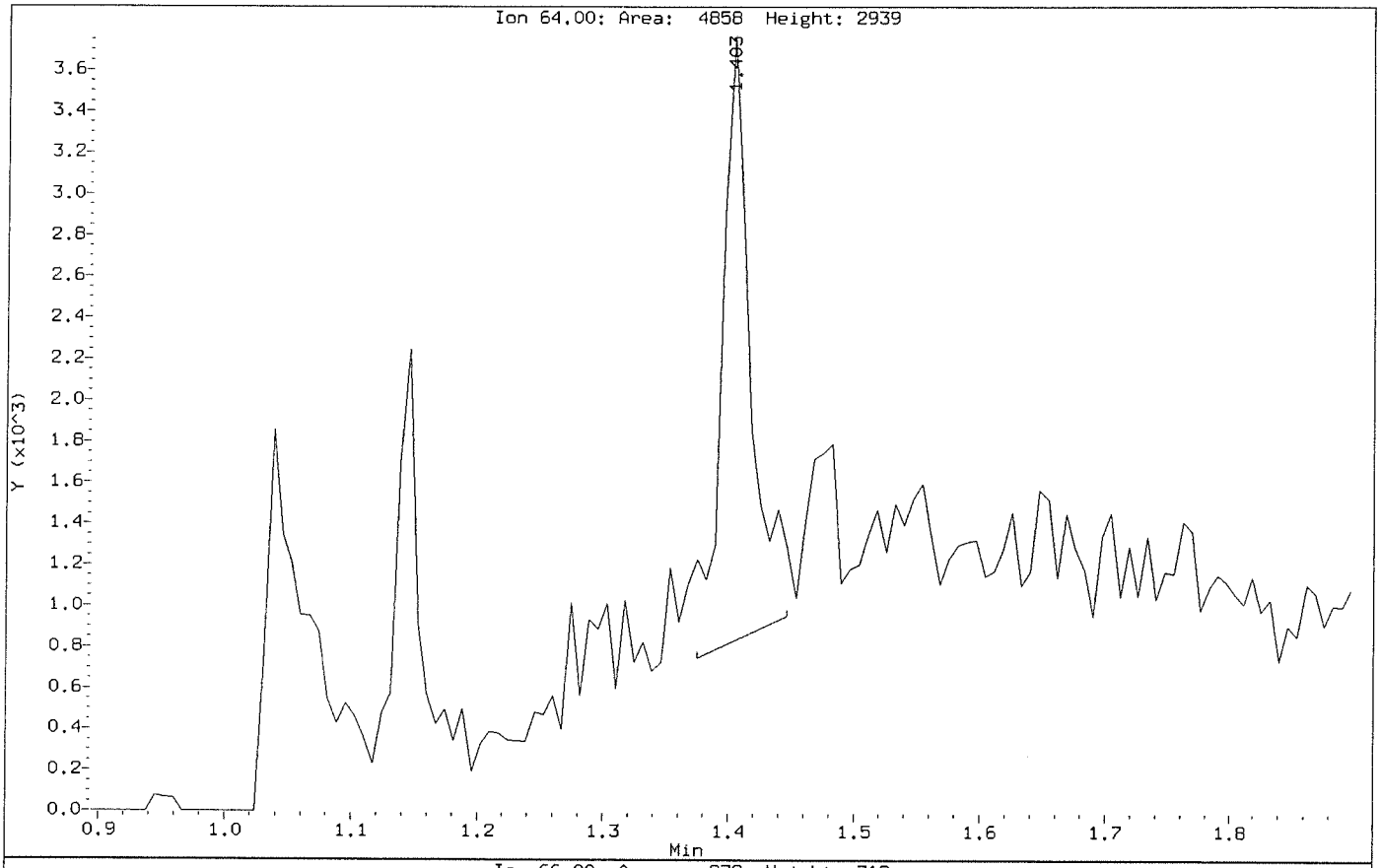
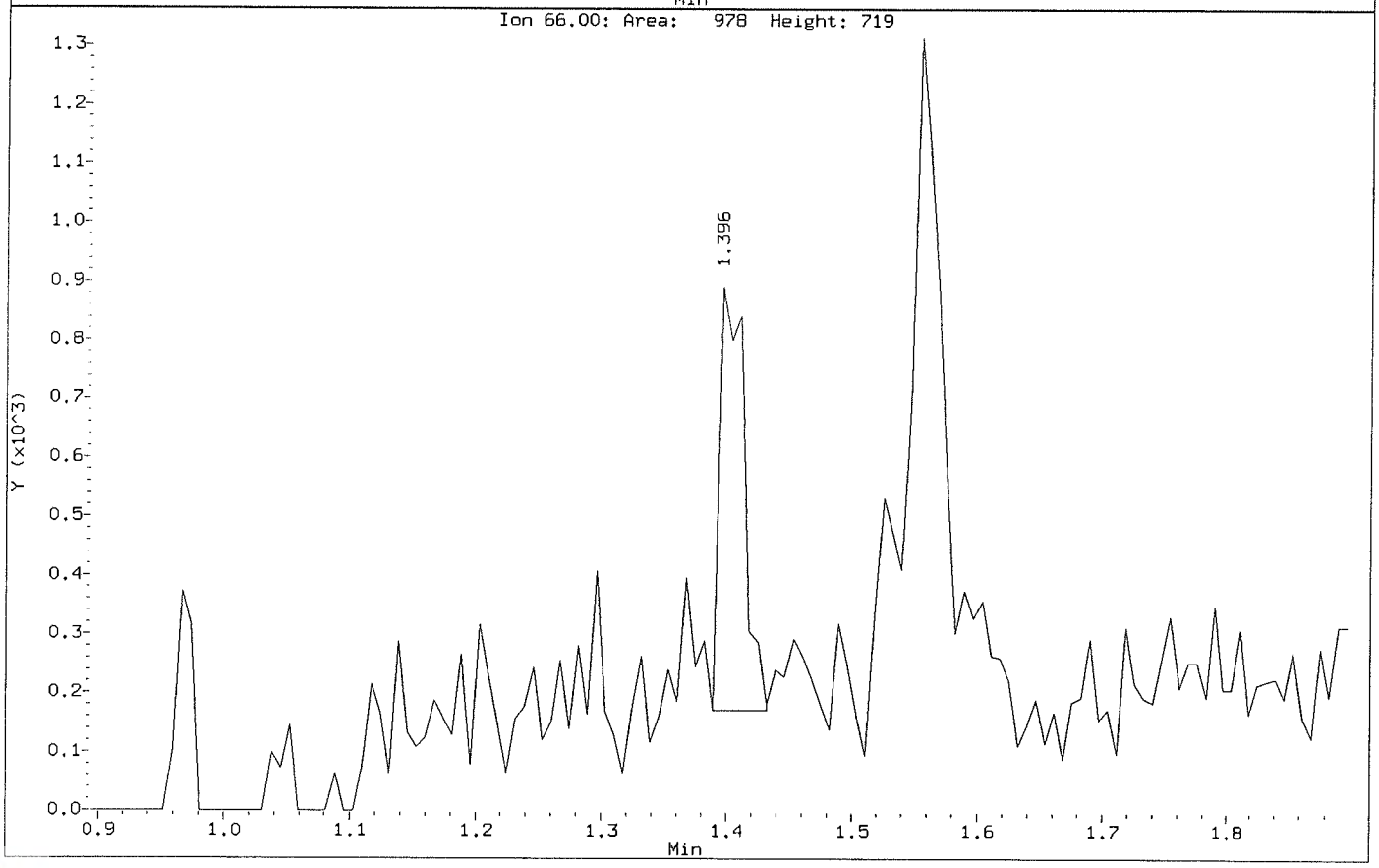
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Chloroethane
CAS Number: 75-00-3





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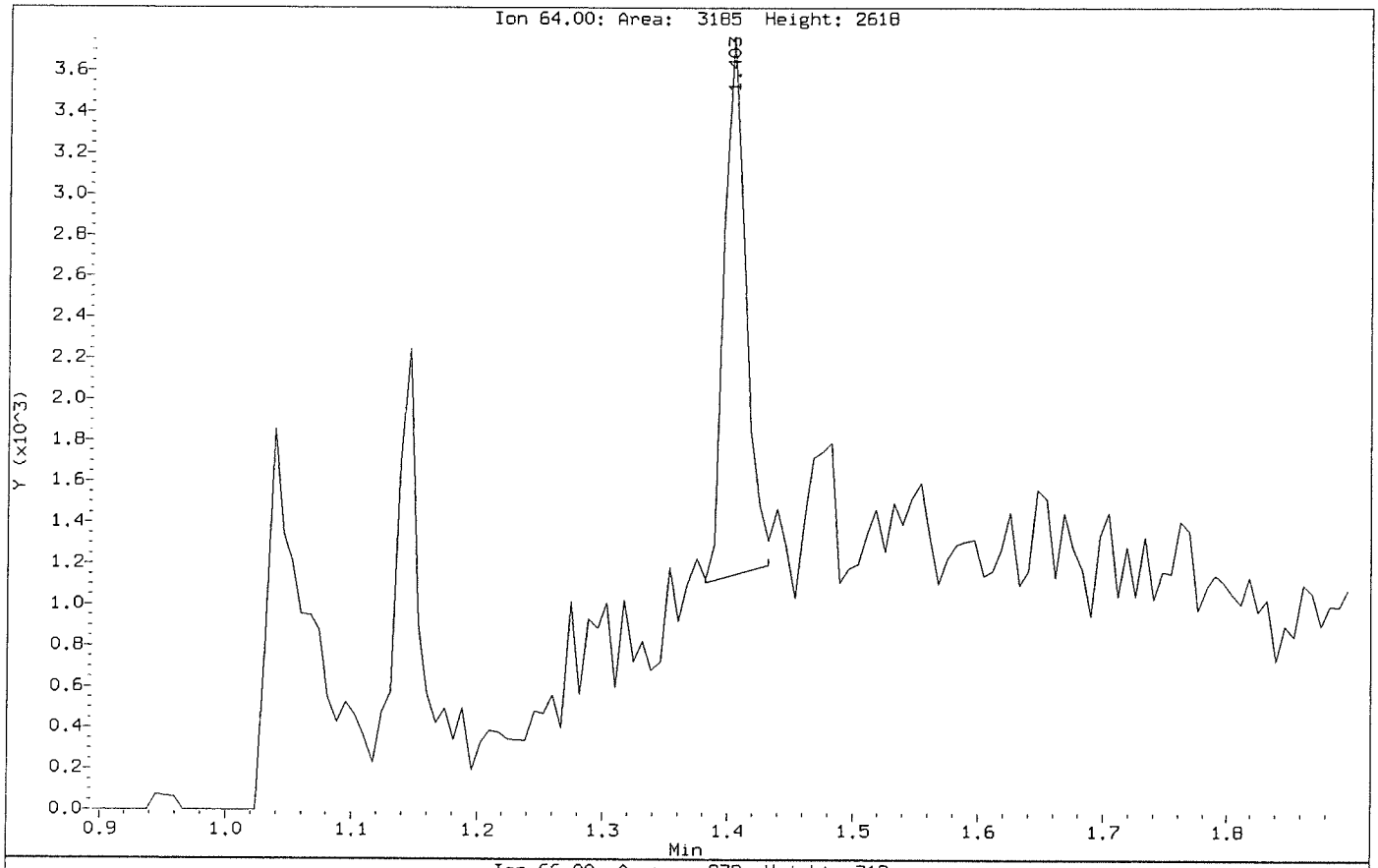
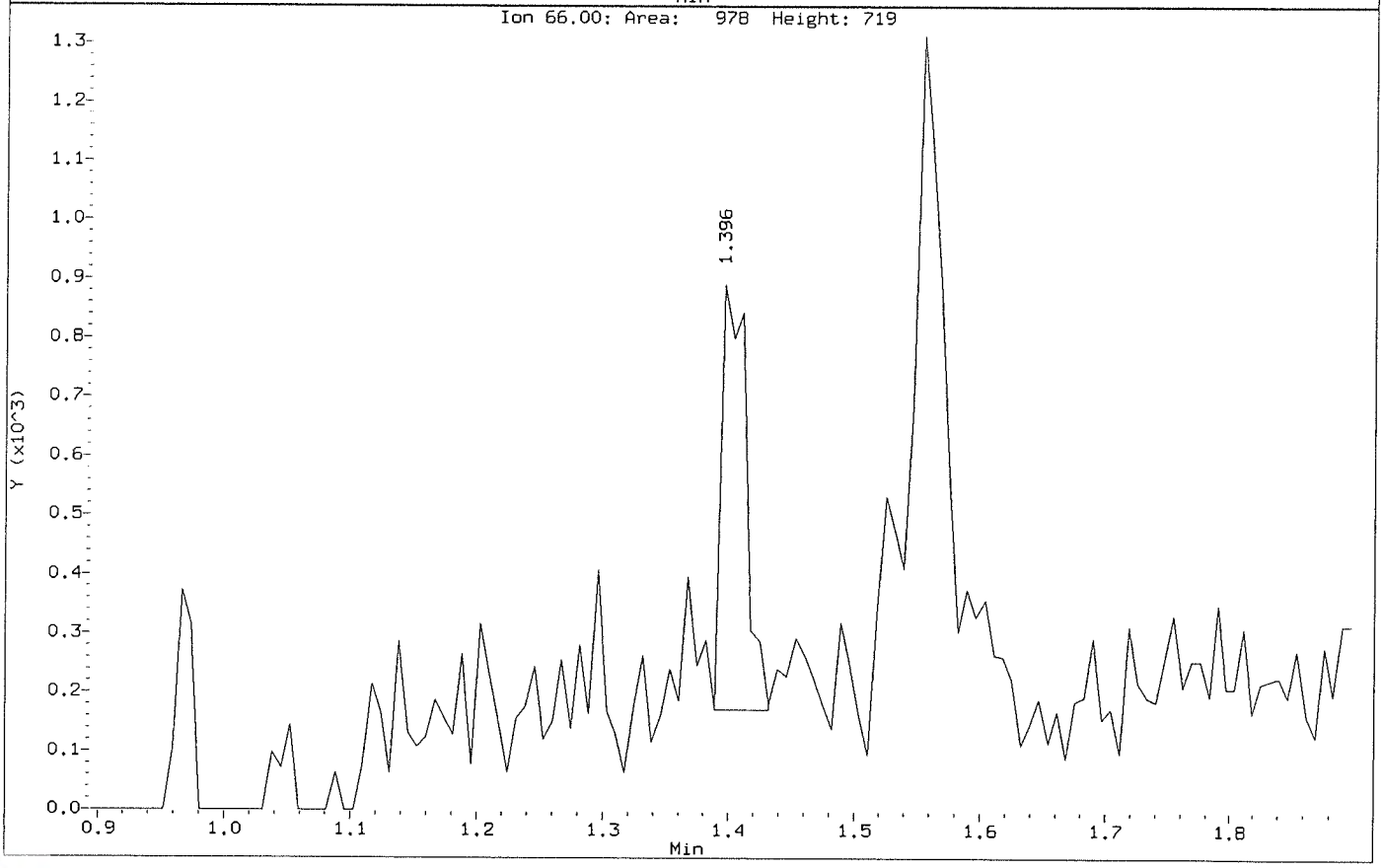
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Chloroethane
CAS Number: 75-00-3





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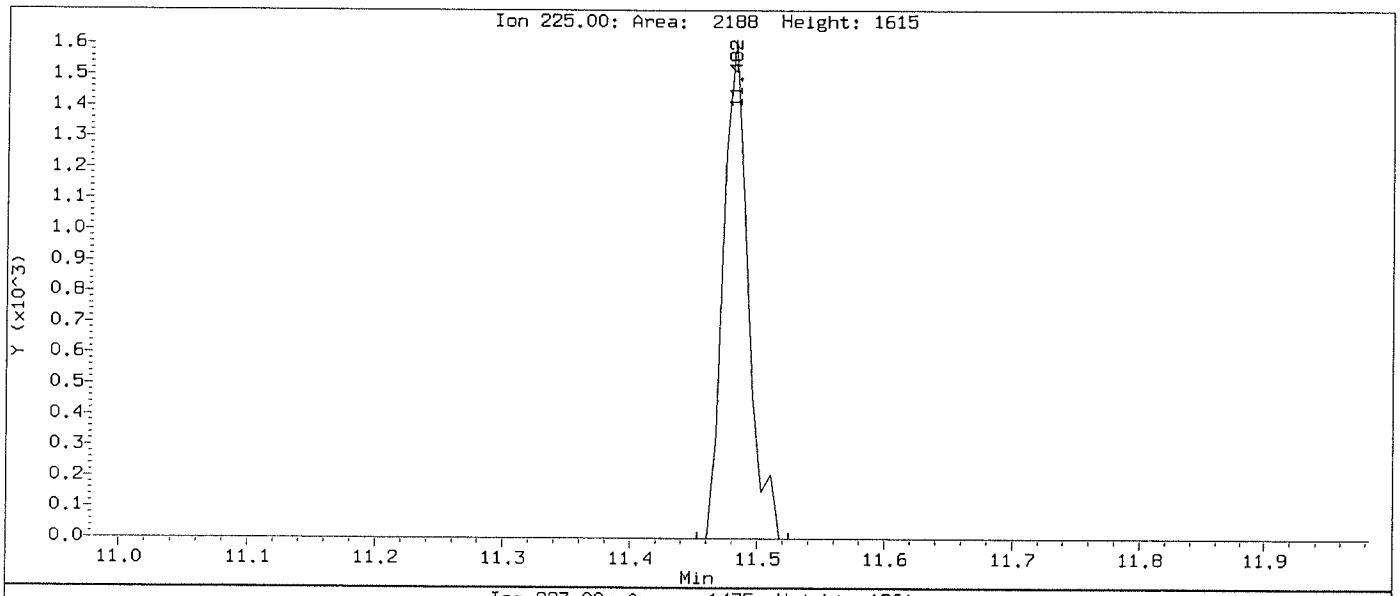
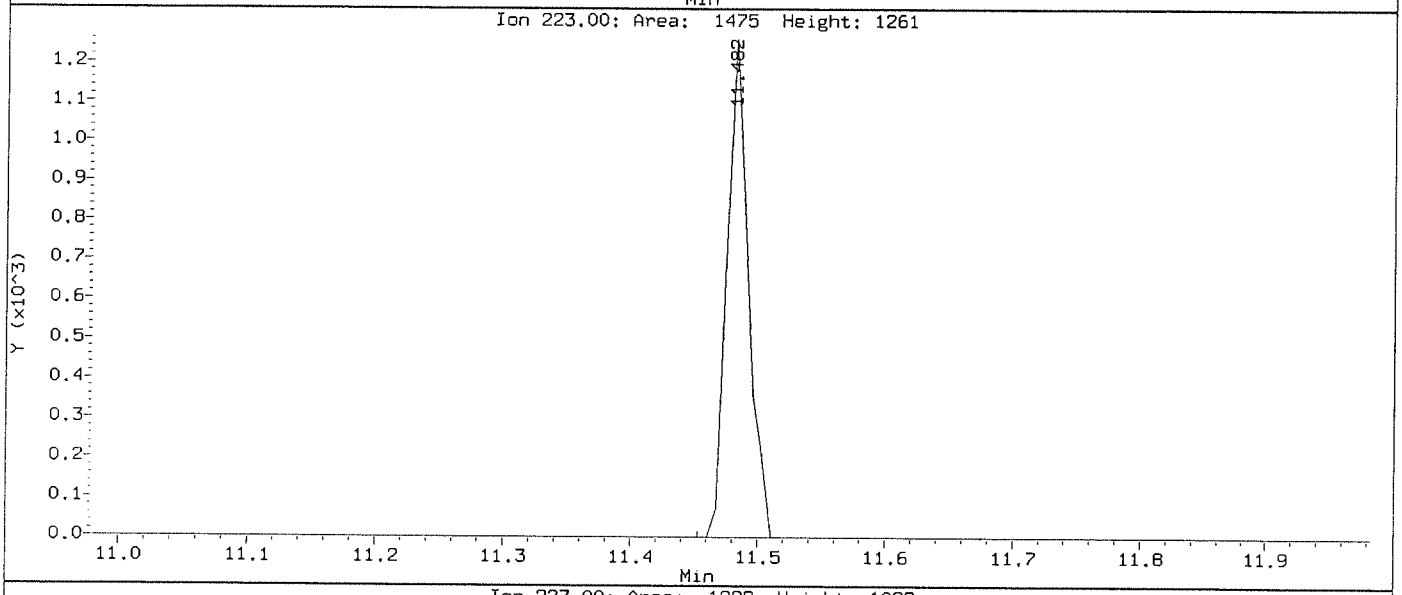
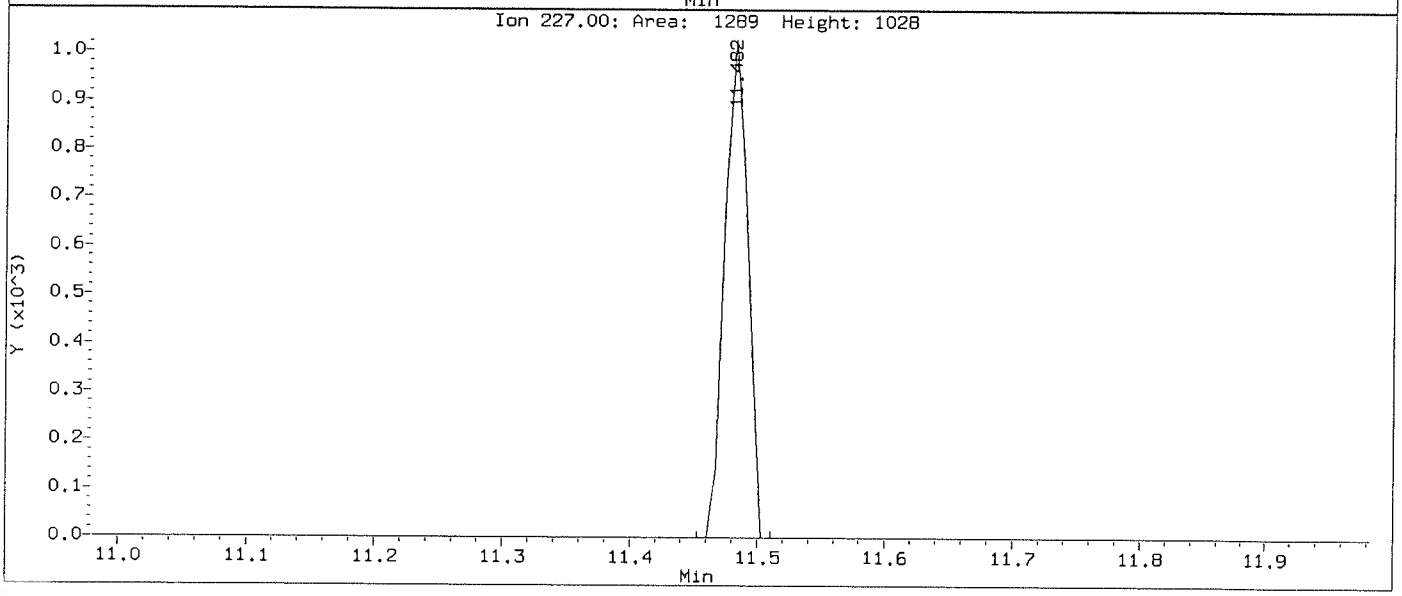
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Hexachlorobutadiene
CAS Number: 87-68-3







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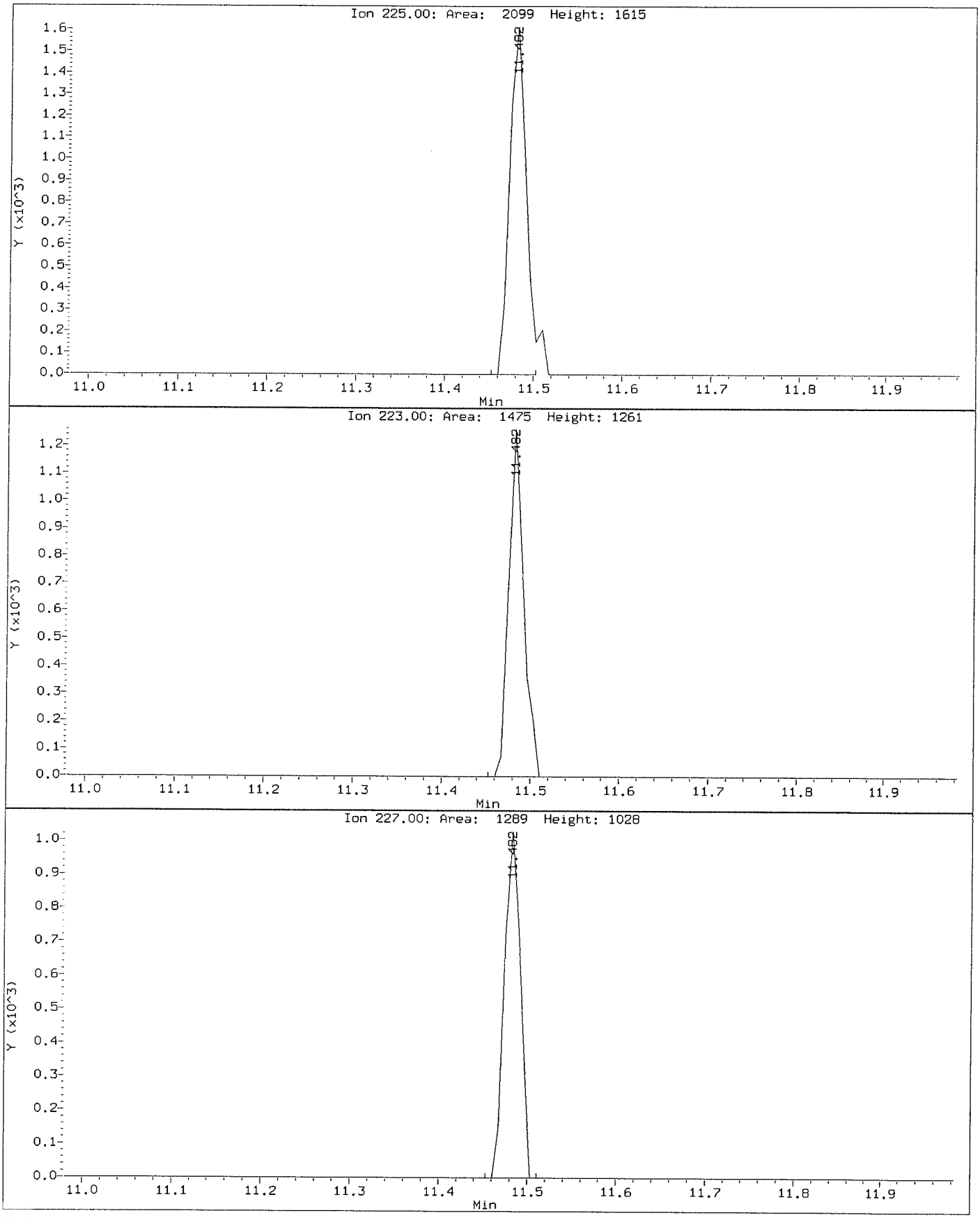
Client Sample ID: VSTD002

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



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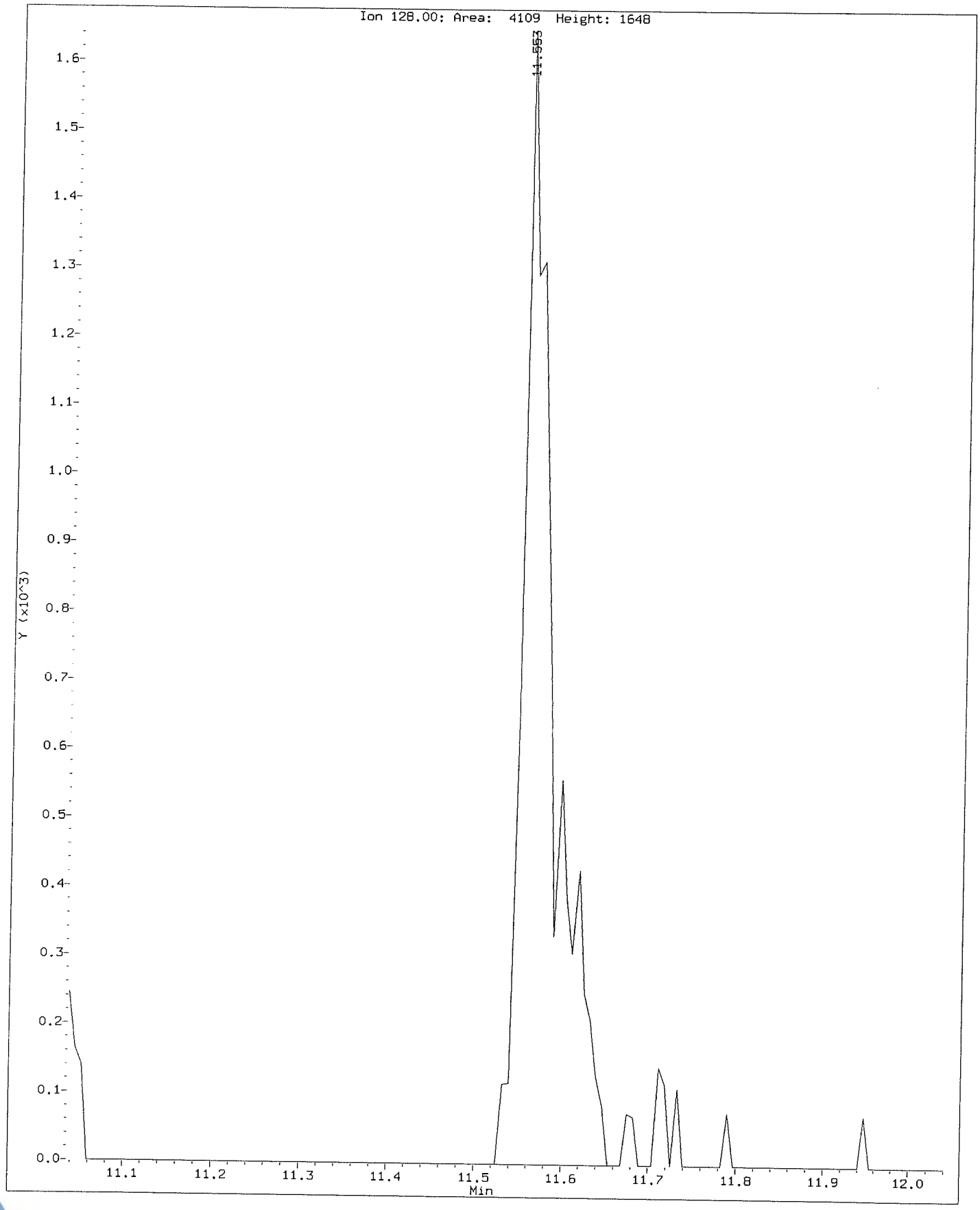
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Naphthalene
CAS Number: 91-20-3



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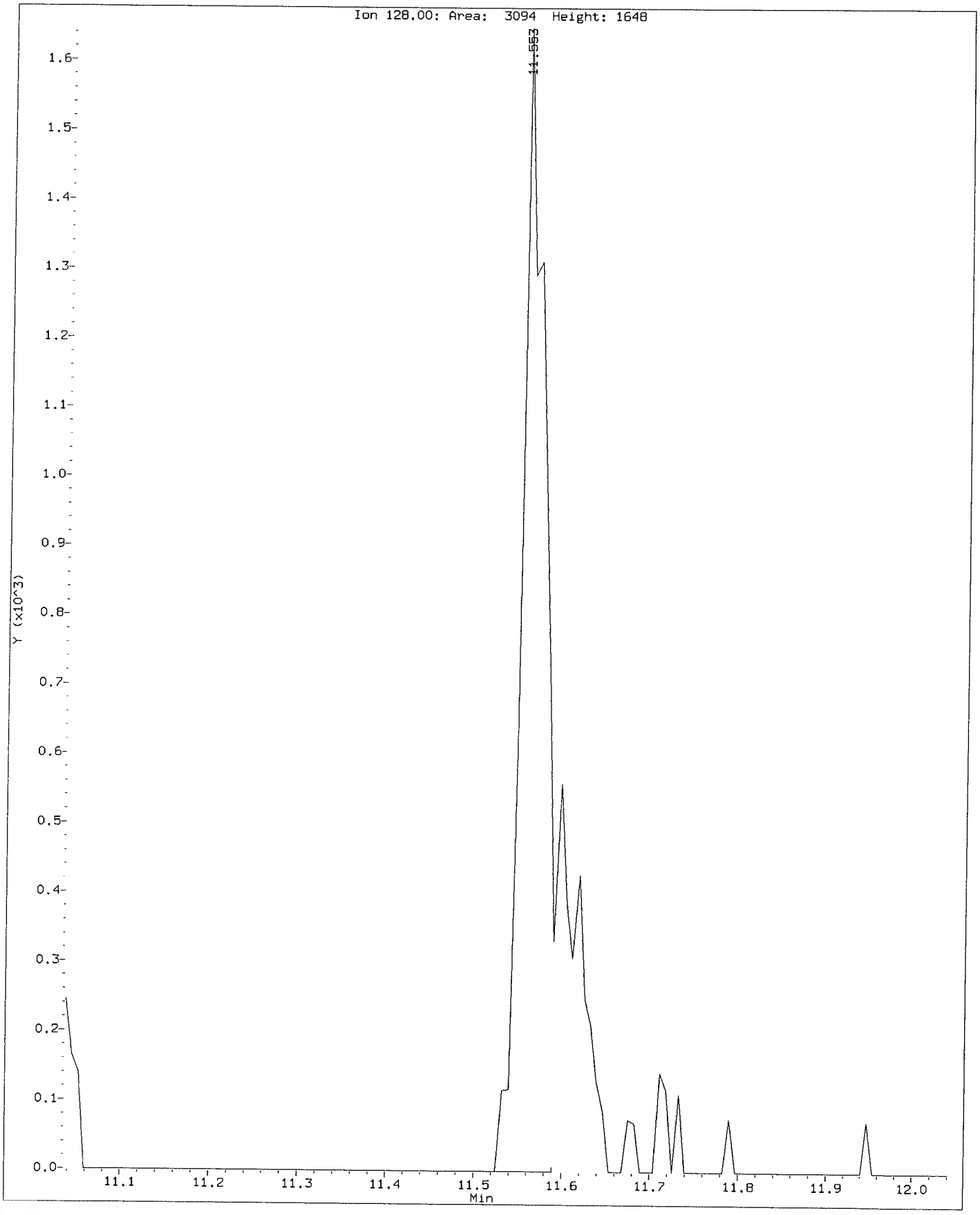
Injection Date: 18-MAY-2021 12:46
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Naphthalene
CAS Number: 91-20-3



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051806.D
Lab Smp Id: VSDT005 Client Smp ID: VSTD005
Inj Date : 18-MAY-2021 13:07
Operator : PC Inst ID: voa6.i
Smp Info : VSDT005;VSTD005;1;5;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 12:46 Cal File: X051805.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

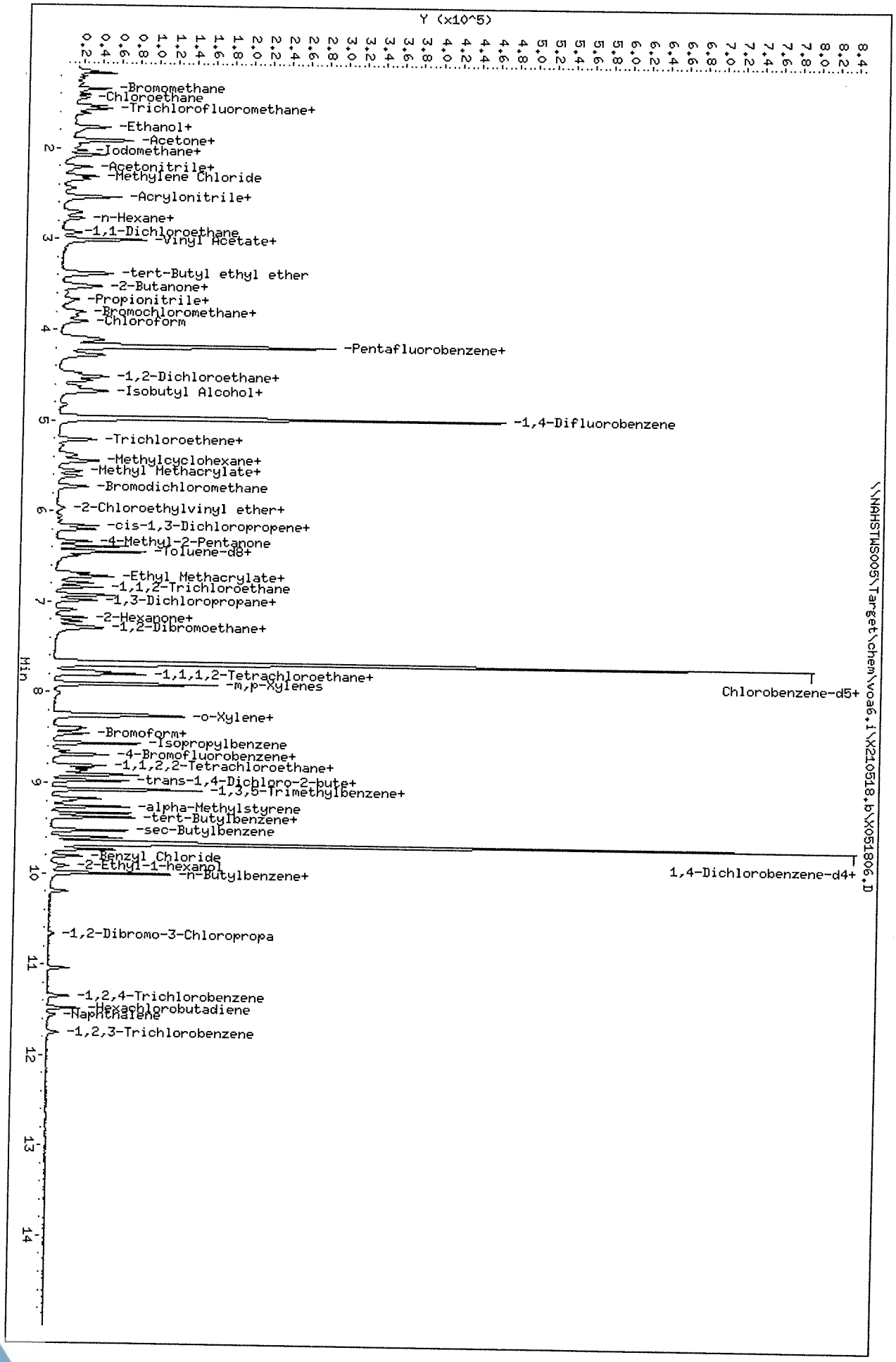
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	225058	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	374386	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	349203	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	167006	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	12495	5.00000	4.77(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	16438	5.00000	4.48(a)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	42740	5.00000	5.89
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	15616	5.00000	4.84(a)
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	12874	5.00000	5.06
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	19150	5.00000	5.00
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	14932	5.00000	4.92(a)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	9408	5.00000	4.63(a)
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	19958	5.00000	4.78(a)
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	11117	5.00000	4.93(a)
	32 1,1-Dichloropropene	75	4.275	4.275	(0.860)	15980	5.00000	4.98(a)
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	3826	5.00000	5.37
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	9928	5.00000	3.81(aMH)
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	7168	5.00000	7.00
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	40866	5.00000	4.81(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.665	10.665	(1.104)	1184	5.00000	6.69
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	11790	5.00000	4.83(a)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	22875	5.00000	4.88(a)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051806.D Page 2
Report Date: 08-Jun-2021 11:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	18828	5.00000	5.11
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	12574	5.00000	4.99(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	38648	5.00000	4.63(a)
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	23137	5.00000	4.82(a)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	20253	5.00000	5.10
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	24844	5.00000	5.29
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	18465	5.00000	4.95(a)
24	2-Butanone	43	3.588	3.588	(0.858)	7505	10.0000	9.03
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	35922	5.00000	4.82(a)
52	2-Hexanone	43	7.097	7.097	(0.925)	15257	10.0000	10.06
77	4-Chlorotoluene	91	9.074	9.074	(0.939)	41267	5.00000	4.75(a)
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	38993	5.00000	4.72(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	23491	10.0000	10.64
10	Acetone	43	1.983	1.983	(0.474)	8158	10.0000	9.92
37	Benzene	78	4.512	4.512	(0.908)	46553	5.00000	5.02
74	Bromobenzene	156	8.809	8.809	(0.912)	14708	5.00000	5.28
29	Bromochloromethane	128	3.802	3.802	(0.909)	7065	5.00000	5.15
39	Bromodichloromethane	83	5.729	5.729	(1.153)	18096	5.00000	5.00
66	Bromoform	173	8.415	8.415	(1.097)	7918	5.00000	4.68(Ta)
6	Bromomethane	94	1.338	1.338	(0.320)	15785	5.00000	6.25
19	Carbon Disulfide	76	2.069	2.069	(0.495)	49473	10.0000	9.33
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	16315	5.00000	4.99(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	32631	5.00000	4.76(a)
7	Chloroethane	64	1.403	1.403	(0.336)	8398	5.00000	4.92(aM)
28	Chloroform	83	3.910	3.910	(0.935)	24324	5.00000	5.08
3	Chloromethane	50	1.081	1.081	(0.258)	14179	5.00000	6.05
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	12551	5.00000	4.83(a)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	20073	5.00000	4.89(a)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	12858	5.00000	4.71(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	8941	5.00000	4.95(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	14123	5.00000	6.85
61	Ethylbenzene	106	7.799	7.799	(1.017)	16617	5.00000	4.91(a)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	4641	5.00000	7.52
67	Isopropylbenzene	105	8.559	8.559	(1.116)	49325	5.00000	4.76(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	41694	10.0000	9.56
17	Methylene Chloride	84	2.305	2.305	(0.551)	11006	5.00000	4.87(a)
87	n-Butylbenzene	91	9.991	9.991	(1.034)	34349	5.00000	4.38(a)
73	n-Propylbenzene	91	8.910	8.910	(0.922)	56986	5.00000	4.81(a)
92	Naphthalene	128	11.553	11.553	(1.196)	8781	5.00000	6.84
63	o-Xylene	106	8.244	8.244	(1.075)	20375	5.00000	4.80(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	45656	5.00000	4.66(a)
64	Styrene	104	8.258	8.258	(1.077)	31296	5.00000	5.55
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	34739	5.00000	4.91(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	9252	5.00000	4.76(a)
50	Toluene	91	6.446	6.446	(0.840)	49788	5.00000	4.94(a)
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	10258	5.00000	4.73(a)
51	trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	16774	5.00000	4.67(a)
38	Trichloroethene	130	5.214	5.214	(1.049)	13273	5.00000	5.35
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	22800	5.00000	5.27
5	Vinyl Chloride	62	1.145	1.145	(0.274)	14191	5.00000	5.22

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.

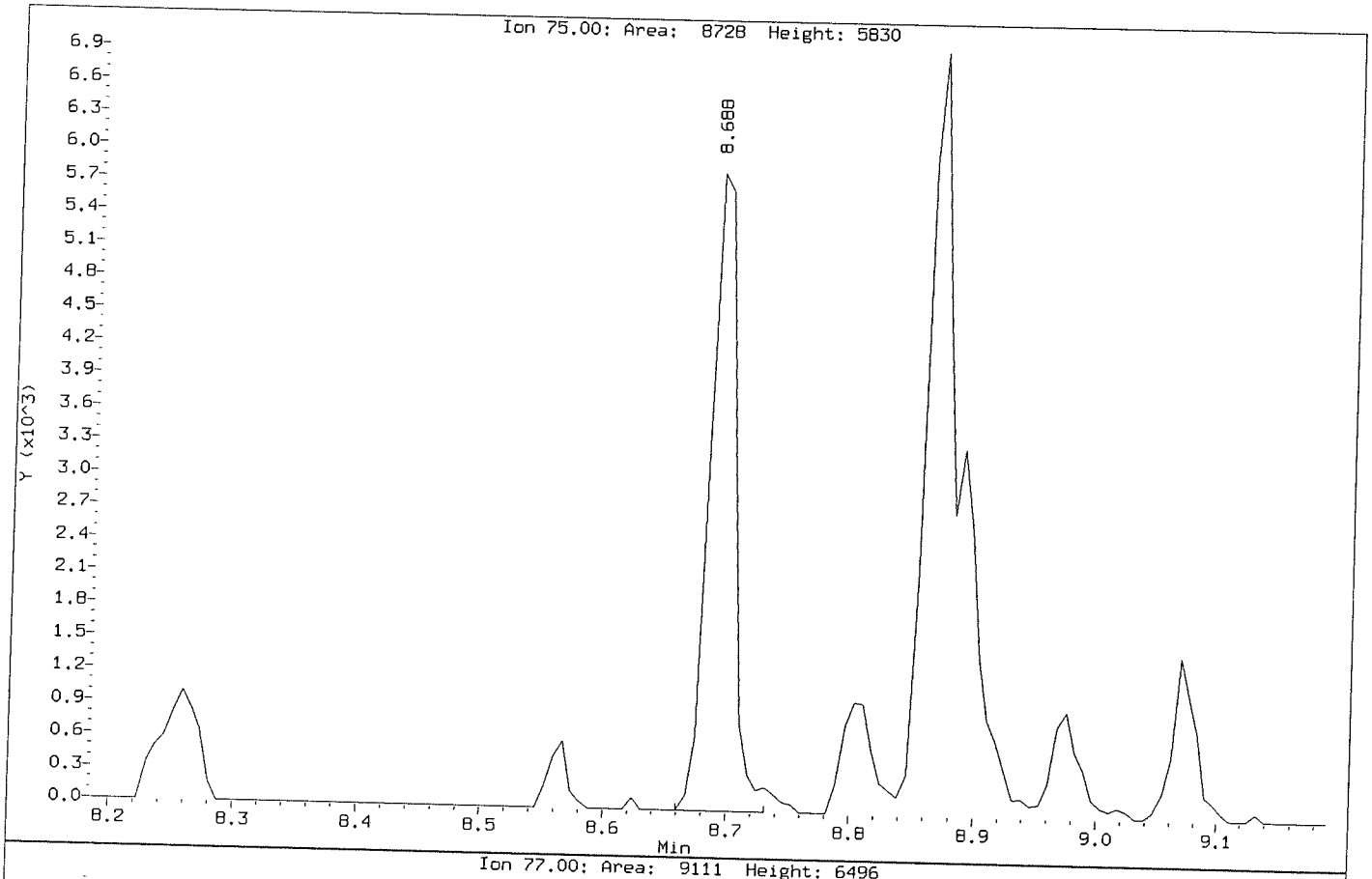


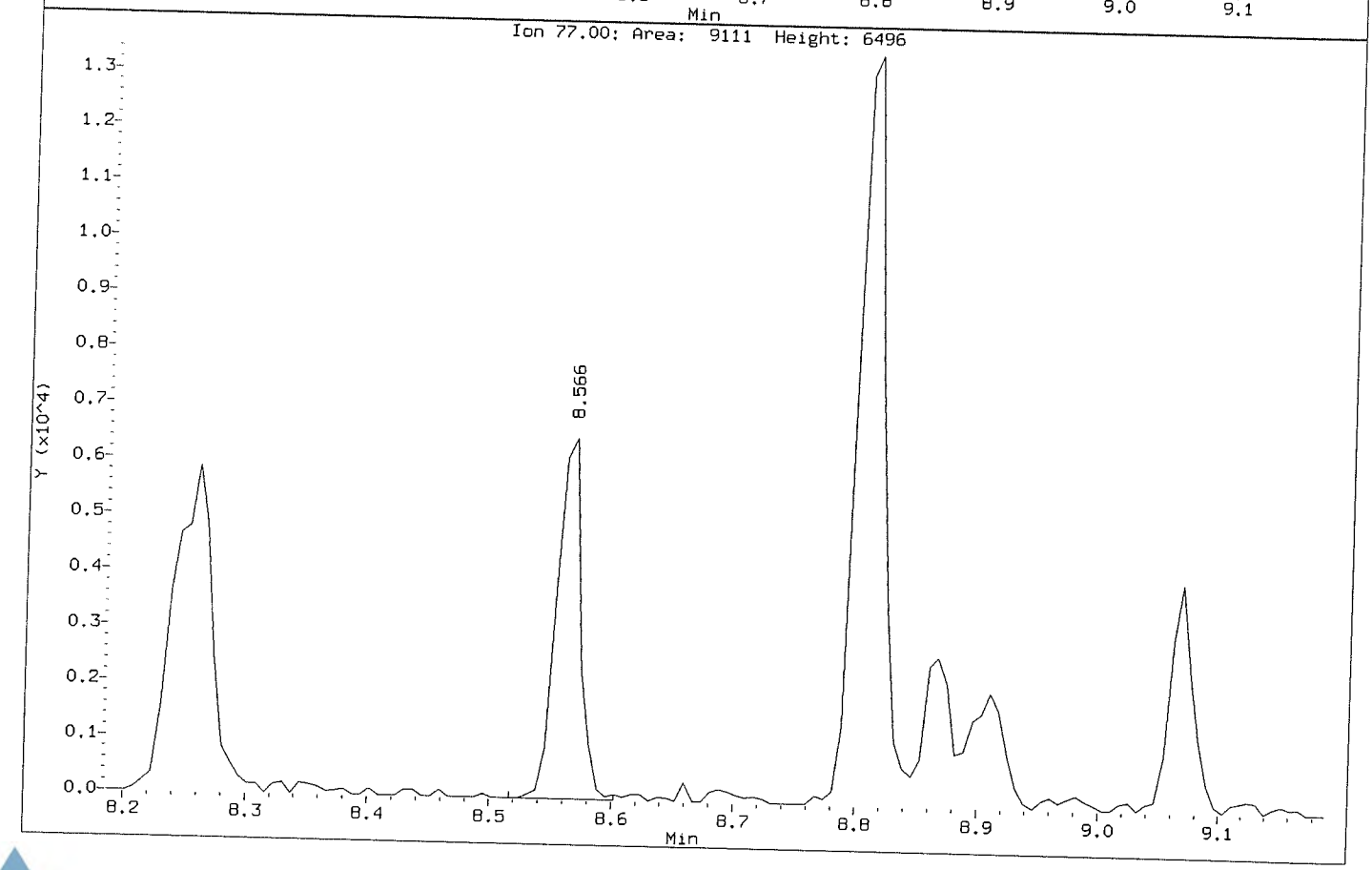
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051806.D
Date : 18-MAY-2021 13:07
Client ID: VSTD005
Sample Info: VSDT005;VSTD005;1;5;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051806.D
Injection Date: 18-MAY-2021 13:07
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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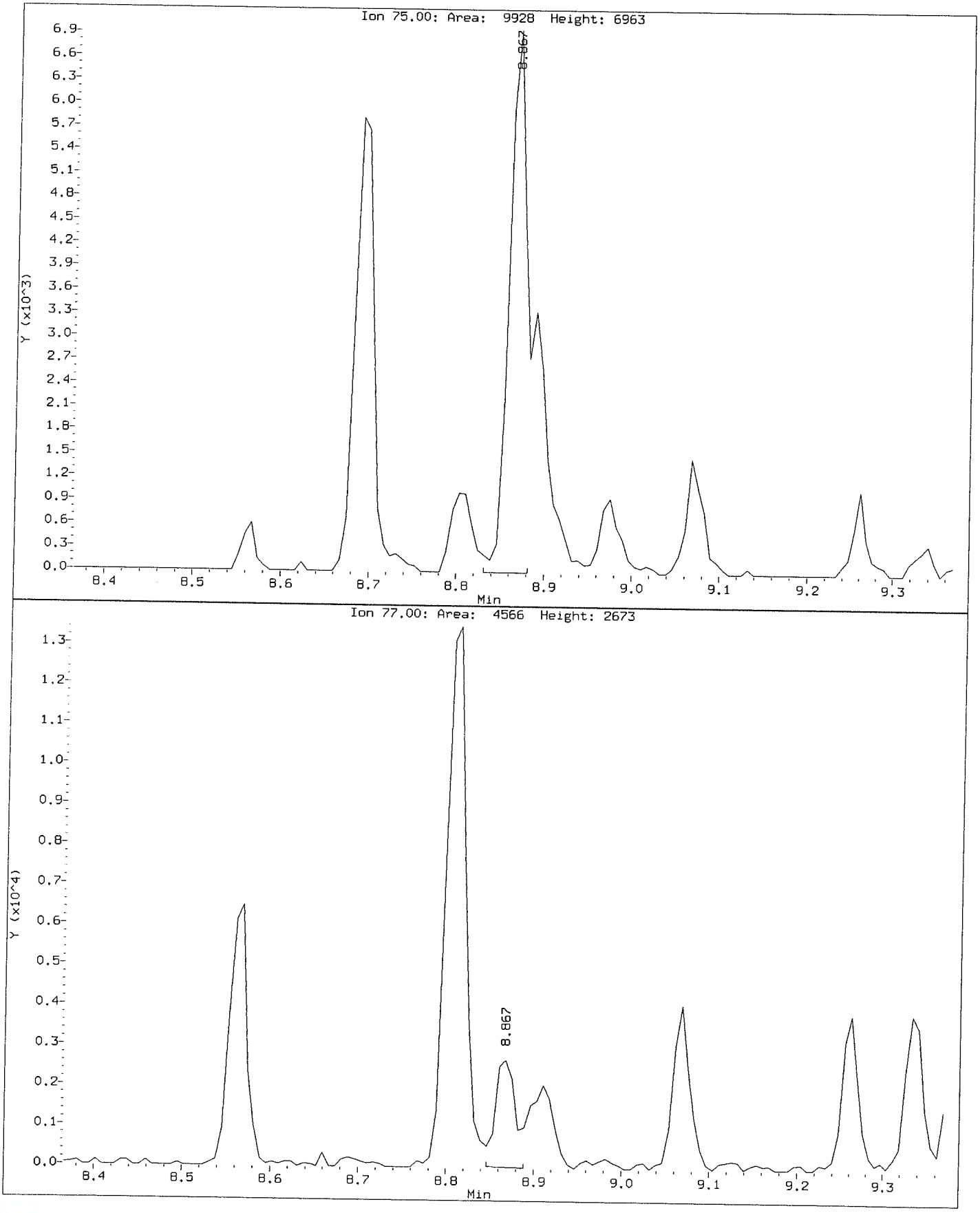
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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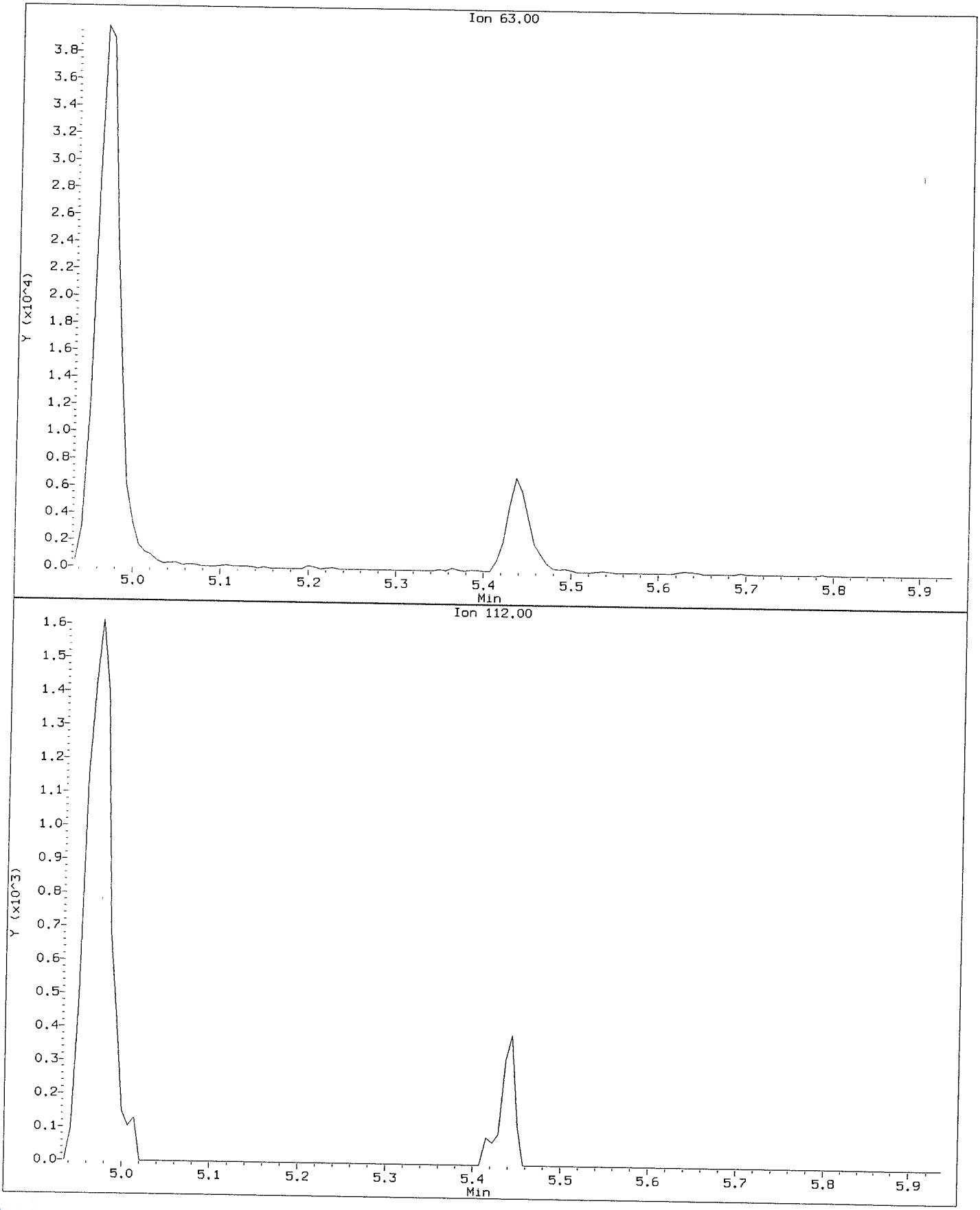
Injection Date: 18-MAY-2021 13:07
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5



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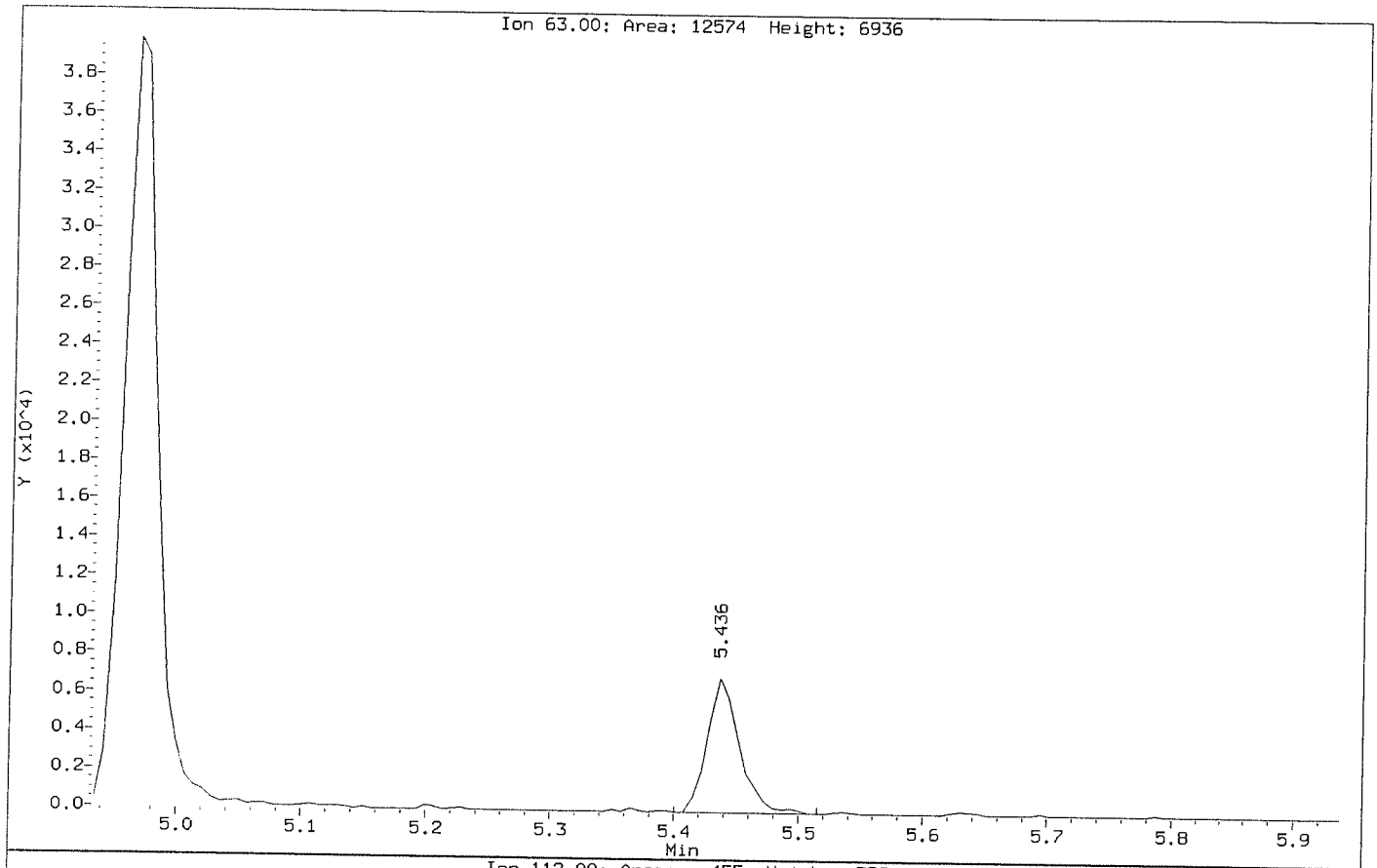
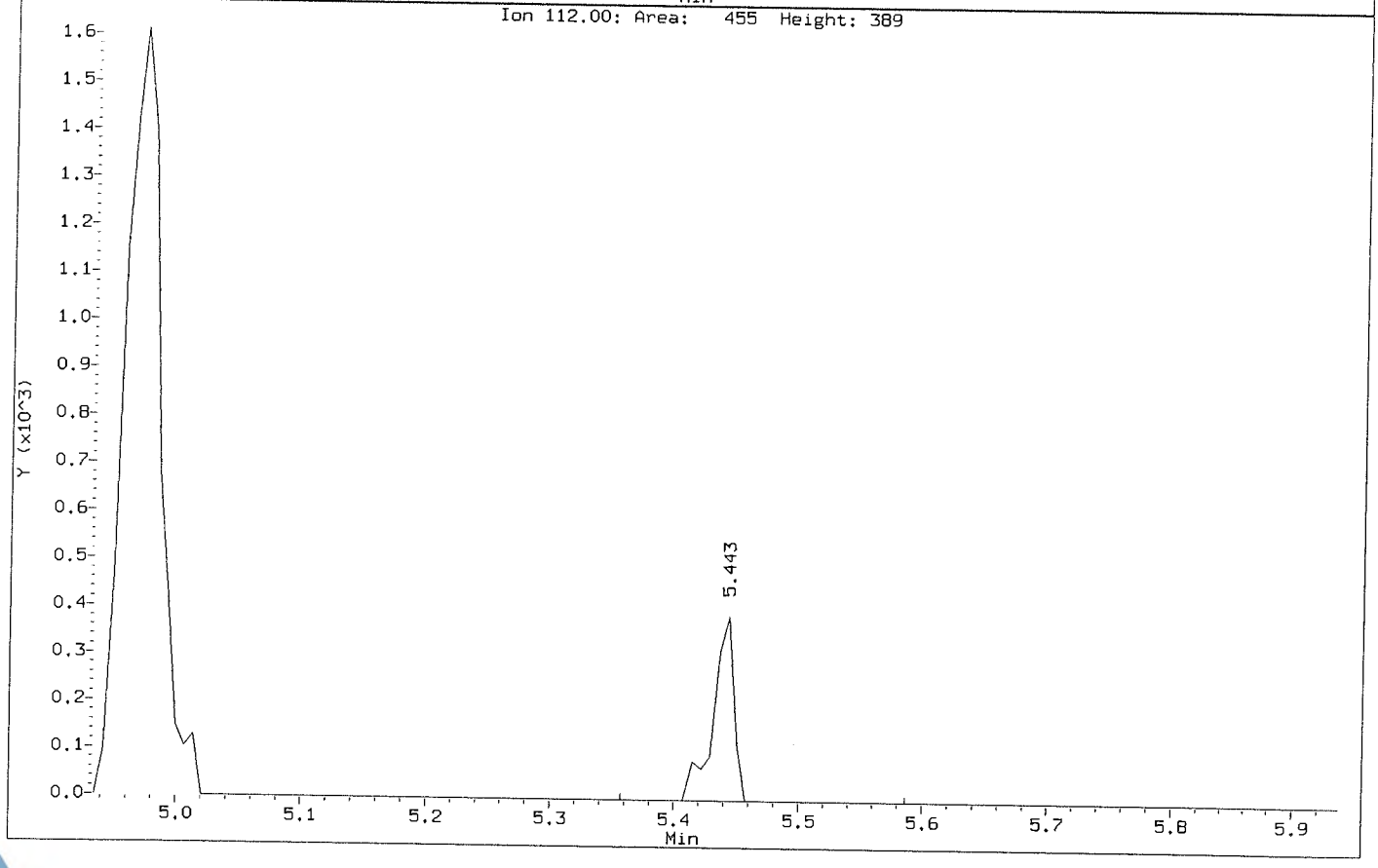
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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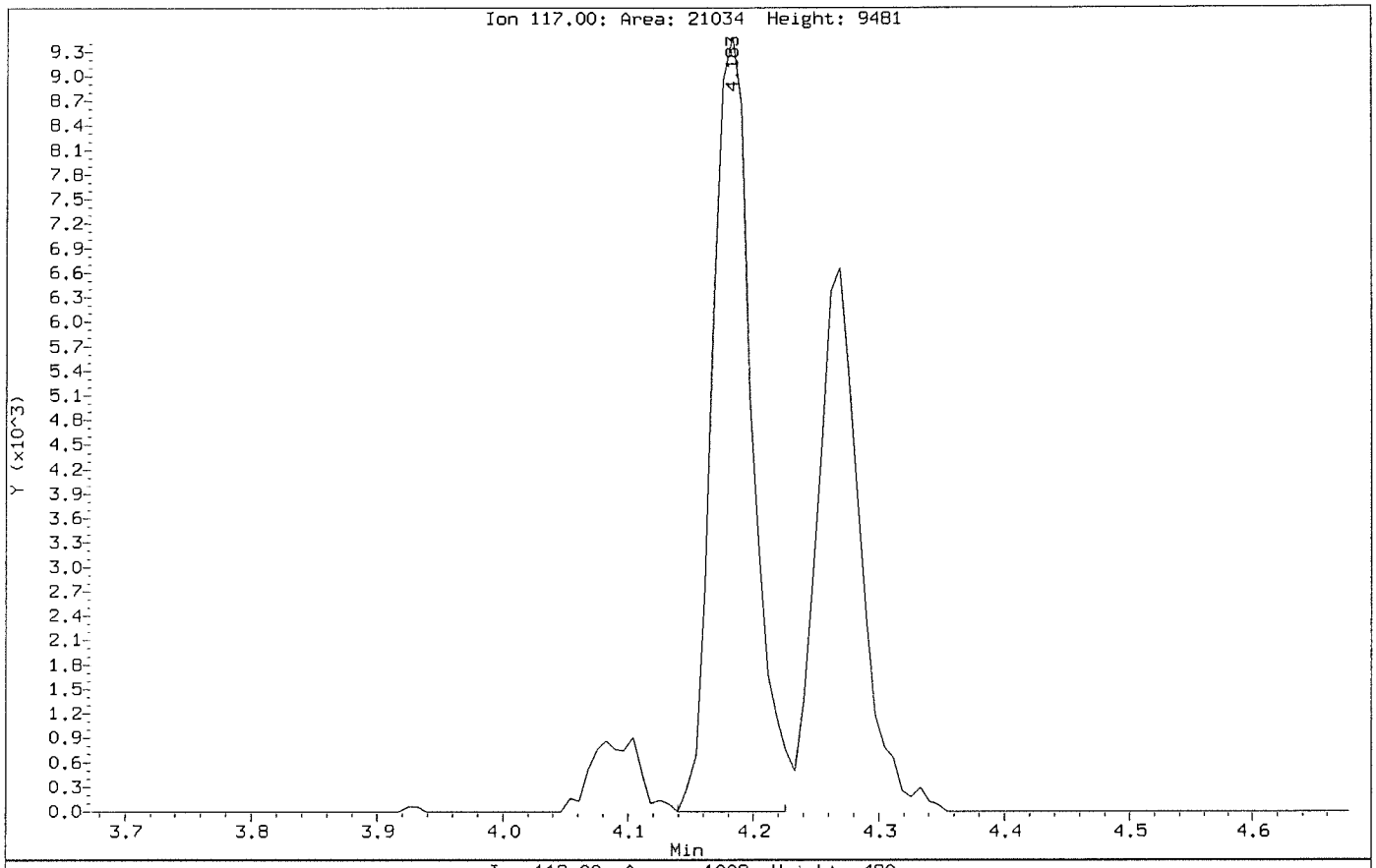
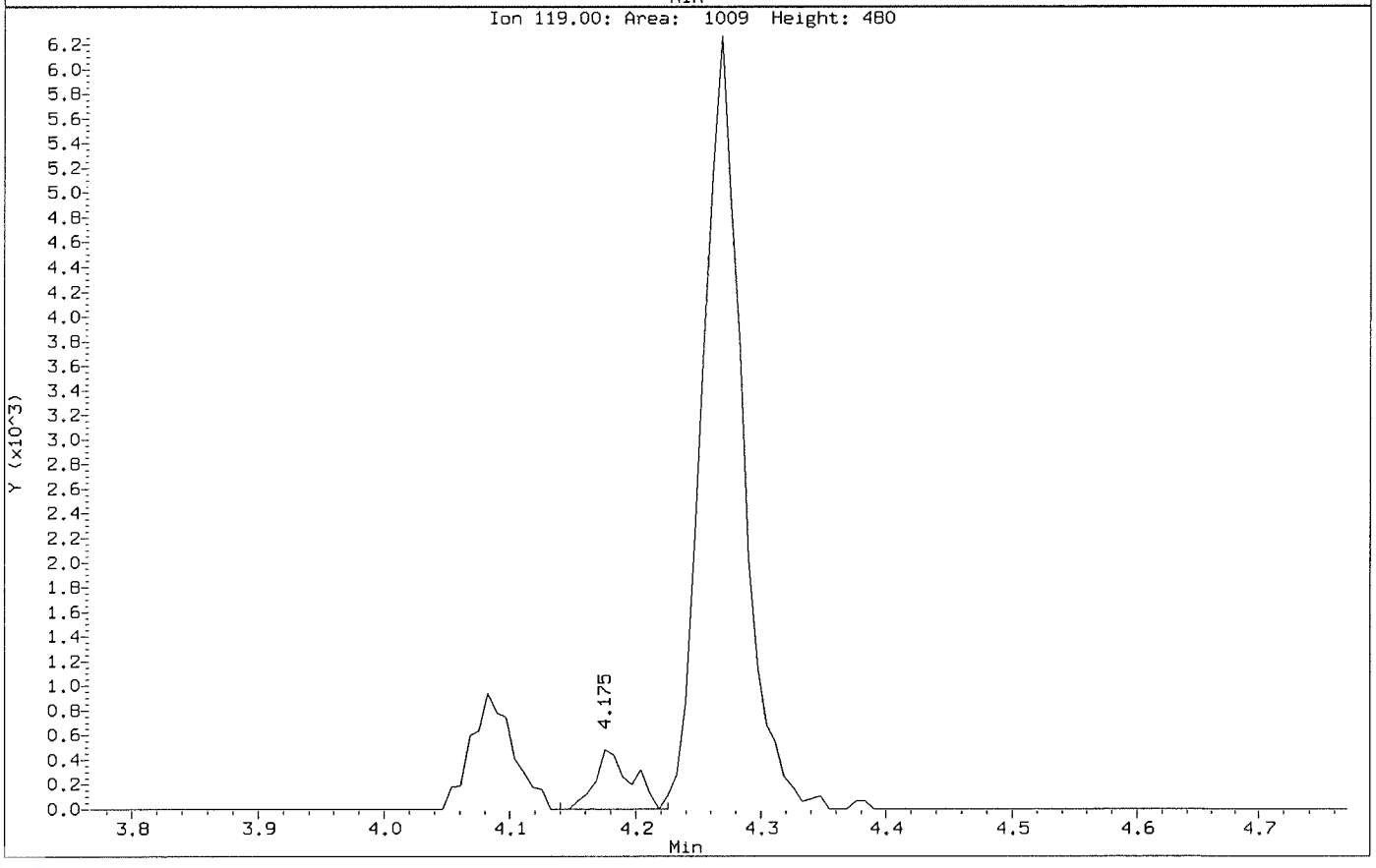
Injection Date: 18-MAY-2021 13:07
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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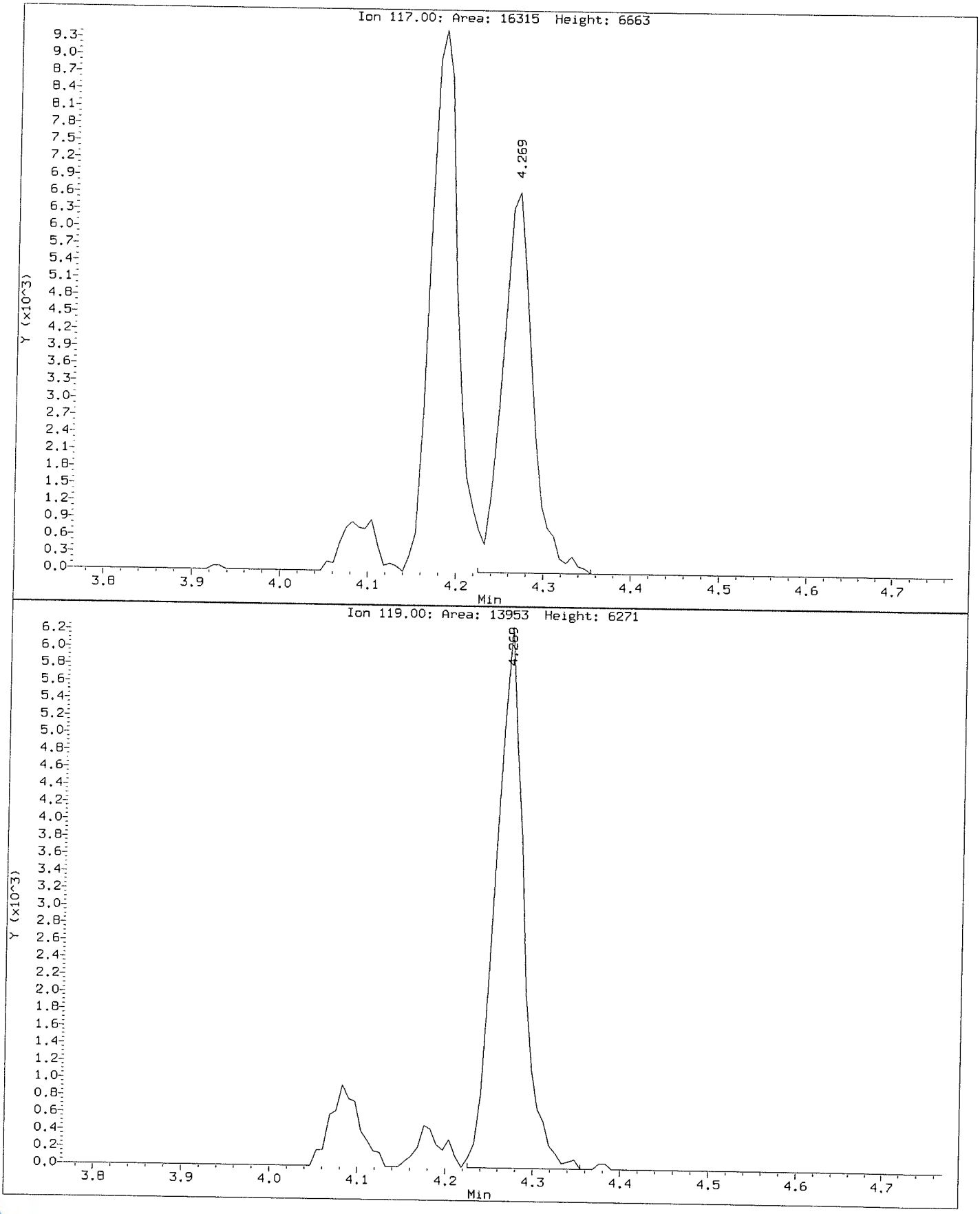
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Carbon Tetrachloride
CAS Number: 56-23-5



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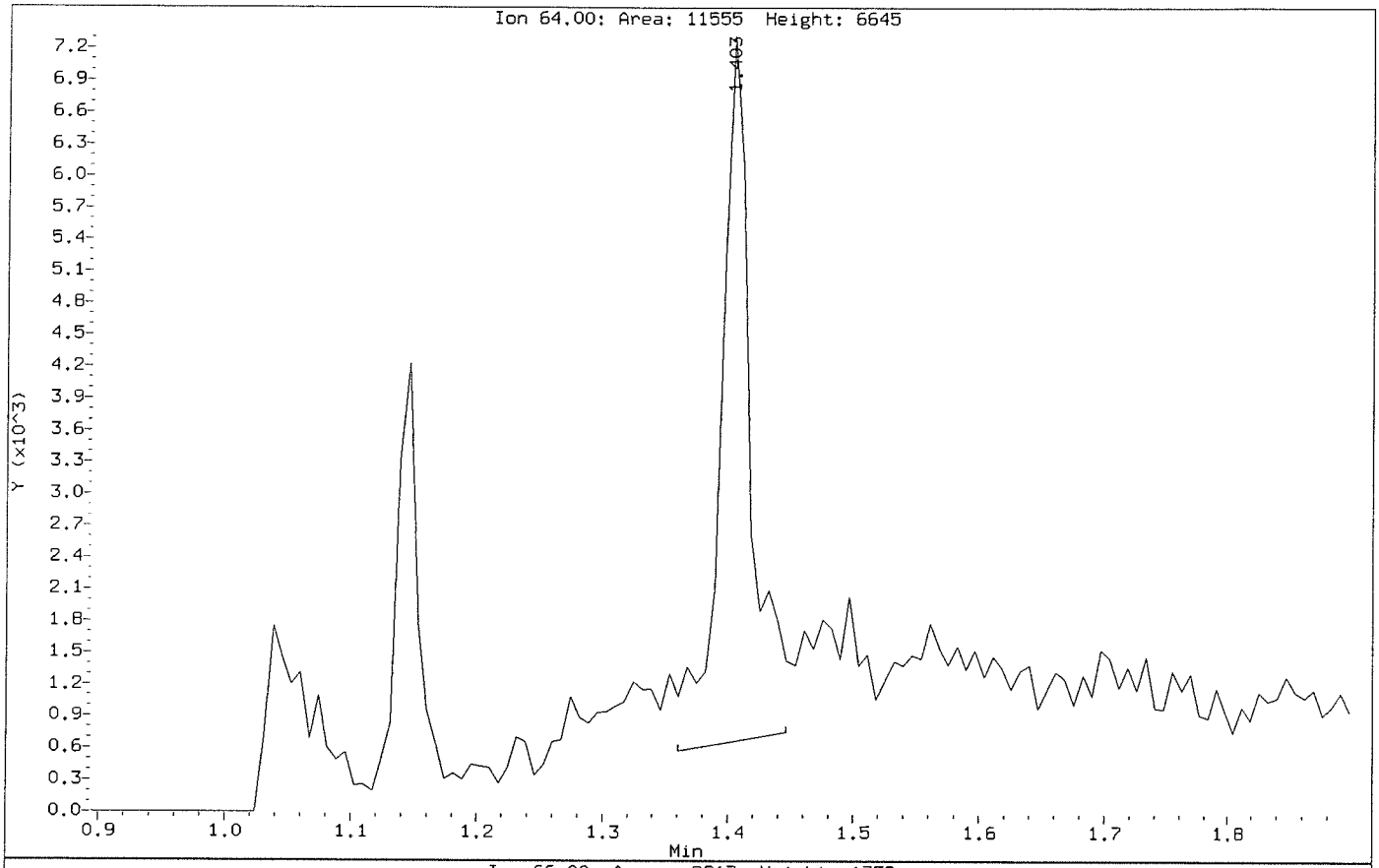
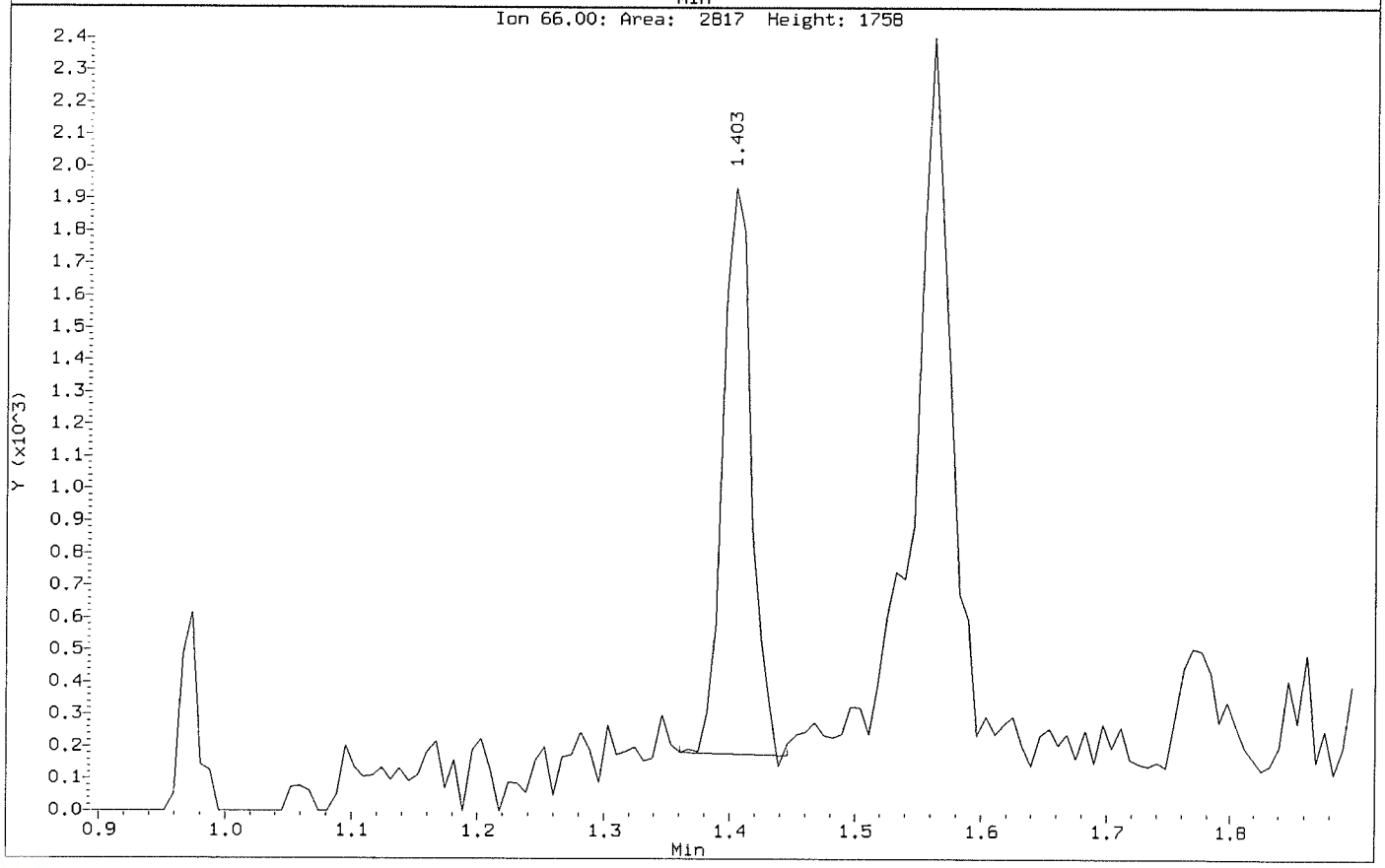
Injection Date: 18-MAY-2021 13:07
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Chloroethane
CAS Number: 75-00-3





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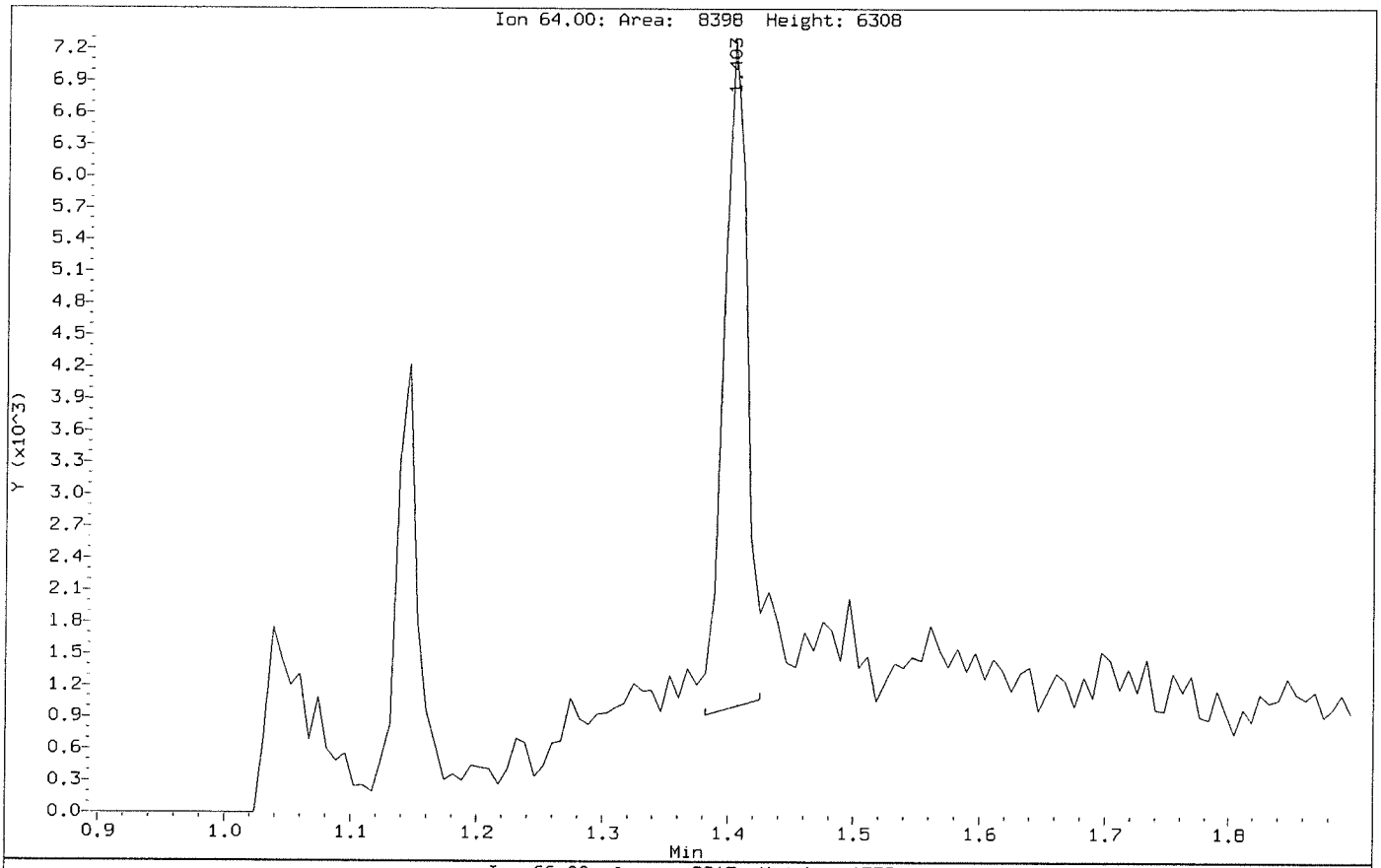
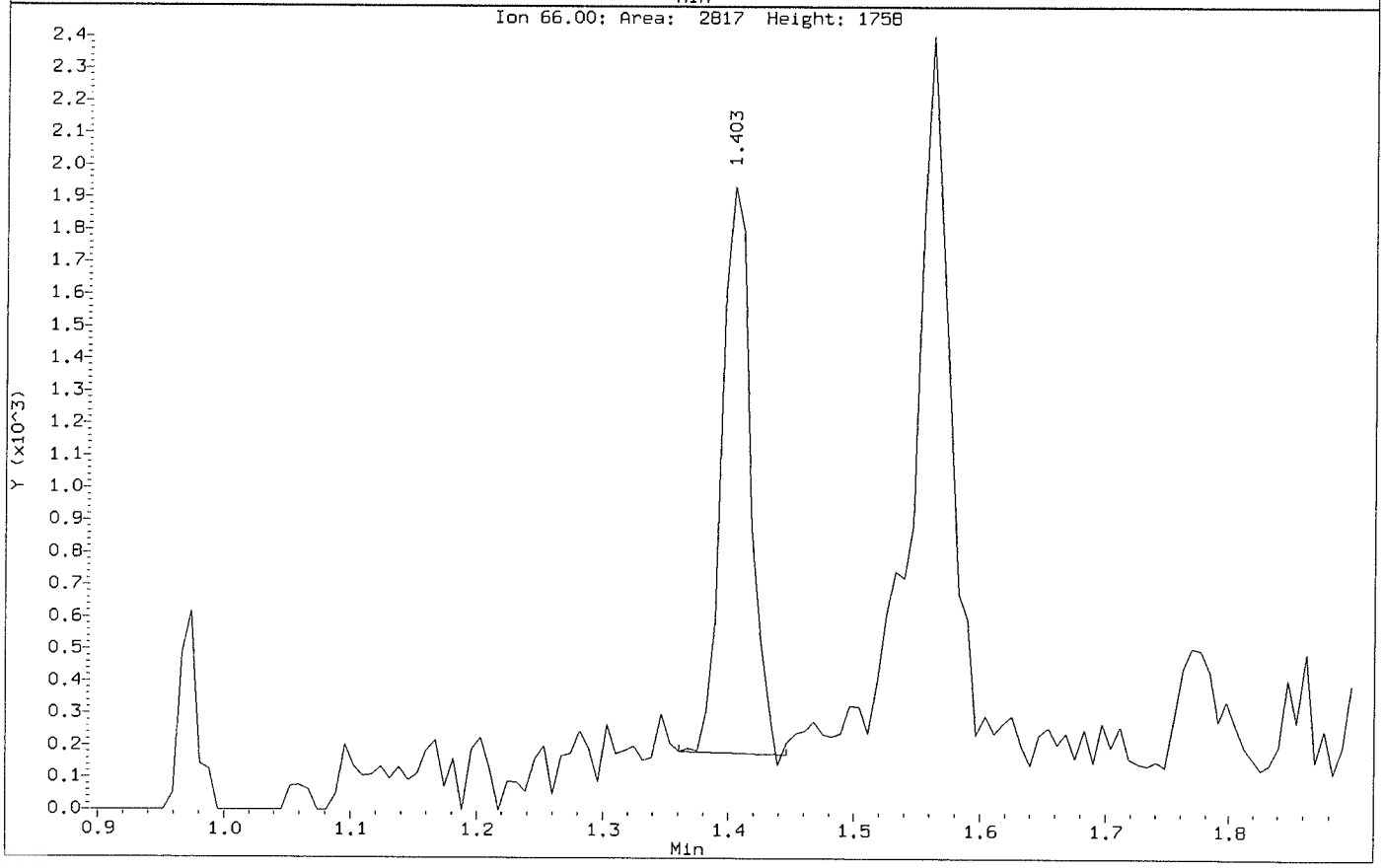
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Chloroethane
CAS Number: 75-00-3





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051807.D
Lab Smp Id: VSDT020 Client Smp ID: VSTD020
Inj Date : 18-MAY-2021 13:28
Operator : PC Inst ID: voa6.i
Smp Info : VSDT020;VSTD020;1;6;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:07 Cal File: X051806.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

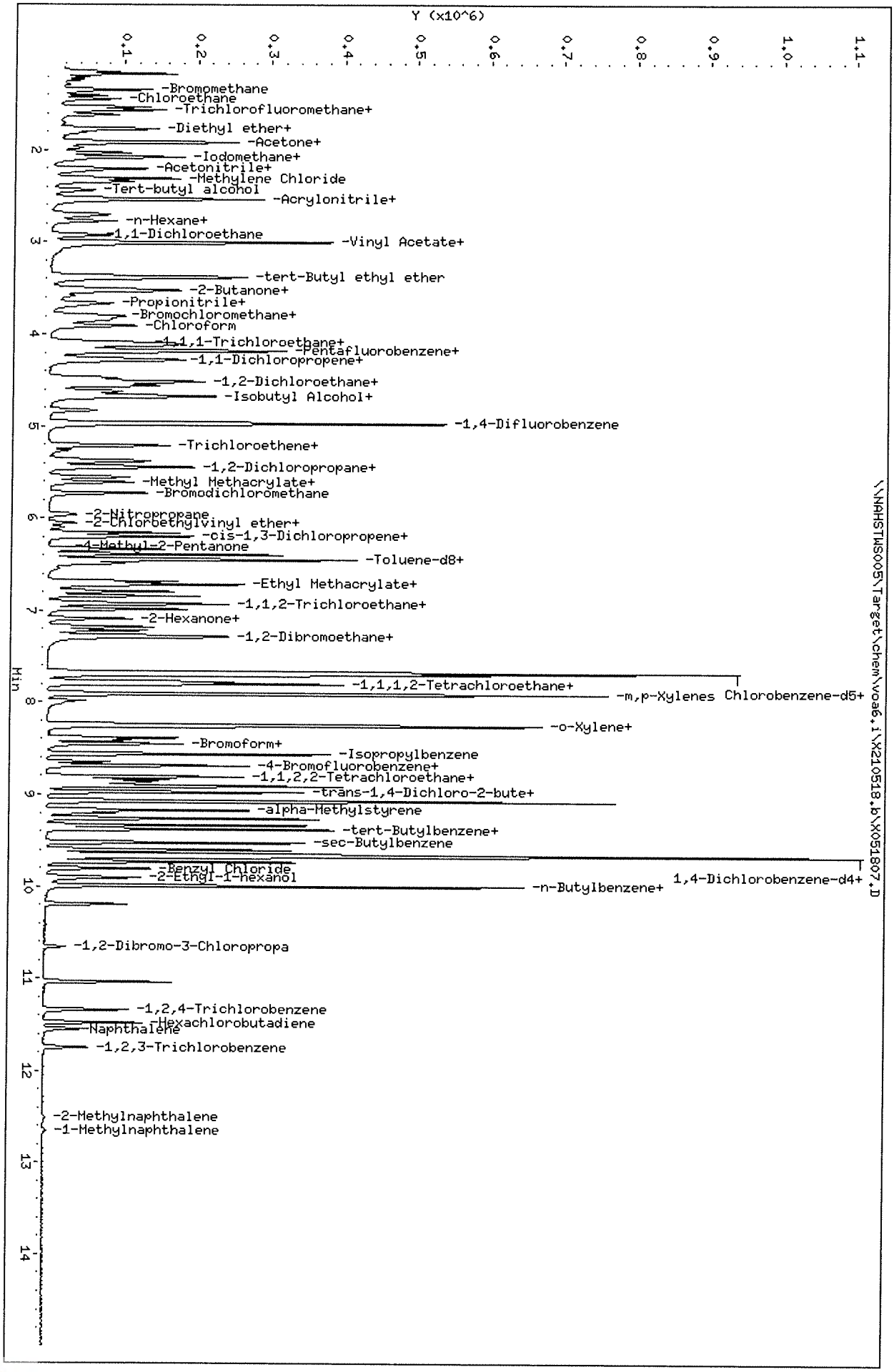
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	239147	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	395431	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	387314	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	196242	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	55528	20.0000	20.71
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	67187	20.0000	20.87
$	48 Toluene-d8	98	6.388	6.388	(0.833)	177650	20.0000	19.30
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	68387	20.0000	18.78
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	53138	20.0000	18.83
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	79461	20.0000	19.53
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	63561	20.0000	19.23
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	42865	20.0000	19.05
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	85085	20.0000	19.21
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	44209	20.0000	18.48
	32 1,1-Dichloropropene	75	4.283	4.283	(0.862)	63118	20.0000	18.63
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	17129	20.0000	18.97
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	50993	20.0000	18.76(MH)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	30700	20.0000	19.01
	79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	177707	20.0000	17.80
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	4660	20.0000	18.65
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	53873	20.0000	19.92
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	102122	20.0000	18.56

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051807.D Page 2
Report Date: 08-Jun-2021 11:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.916)	79057	20.0000	20.33
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	53324	20.0000	20.06
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	174662	20.0000	17.83
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	103039	20.0000	18.27
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	87802	20.0000	19.93
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	112231	20.0000	19.62
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	74977	20.0000	18.92
24	2-Butanone	43	3.581	3.581	(0.856)	35815	40.0000	40.57
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	154565	20.0000	17.67
52	2-Hexanone	43	7.090	7.090	(0.924)	64652	40.0000	39.20
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	187764	20.0000	18.41
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	167380	20.0000	17.27
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	96386	40.0000	39.12
10	Acetone	43	1.976	1.976	(0.473)	27873	40.0000	43.32
37	Benzene	78	4.512	4.512	(0.908)	188446	20.0000	19.26
74	Bromobenzene	156	8.802	8.802	(0.911)	63498	20.0000	19.41
29	Bromochloromethane	128	3.795	3.795	(0.908)	27530	20.0000	18.88
39	Bromodichloromethane	83	5.729	5.729	(1.153)	74633	20.0000	19.53
66	Bromoform	173	8.408	8.408	(1.096)	34786	20.0000	18.57
6	Bromomethane	94	1.339	1.339	(0.320)	51157	20.0000	20.06
19	Carbon Disulfide	76	2.069	2.069	(0.495)	208910	40.0000	37.07
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	62631	20.0000	18.17(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	141615	20.0000	18.64
7	Chloroethane	64	1.403	1.403	(0.336)	39588	20.0000	21.86
28	Chloroform	83	3.910	3.910	(0.935)	101443	20.0000	19.96
3	Chloromethane	50	1.073	1.073	(0.257)	54108	20.0000	21.11
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	52610	20.0000	19.08
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.238)	88923	20.0000	20.51
55	Dibromochloromethane	129	7.176	7.176	(0.936)	58237	20.0000	19.23
44	Dibromomethane	93	5.558	5.558	(1.118)	38557	20.0000	20.24
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	57043	20.0000	20.24
61	Ethylbenzene	106	7.800	7.800	(1.017)	67752	20.0000	18.05
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	20104	20.0000	19.17
67	Isopropylbenzene	105	8.559	8.559	(1.116)	203782	20.0000	17.76
62	m,p-Xylenes	106	7.907	7.907	(1.031)	179924	40.0000	37.19
17	Methylene Chloride	84	2.306	2.306	(0.551)	46728	20.0000	19.48
87	n-Butylbenzene	91	9.991	9.991	(1.034)	158021	20.0000	17.14
73	n-Propylbenzene	91	8.910	8.910	(0.922)	240606	20.0000	17.31
92	Naphthalene	128	11.546	11.546	(1.195)	42386	20.0000	18.49
63	o-Xylene	106	8.244	8.244	(1.075)	85643	20.0000	18.20
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	198389	20.0000	17.24
64	Styrene	104	8.258	8.258	(1.077)	151430	20.0000	18.31
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	140248	20.0000	16.87
56	Tetrachloroethene	164	6.926	6.926	(0.903)	39827	20.0000	18.50
50	Toluene	91	6.446	6.446	(0.840)	211082	20.0000	18.88
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	42462	20.0000	18.45
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.344)	76644	20.0000	20.20
38	Trichloroethene	130	5.207	5.207	(1.048)	50471	20.0000	19.27
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	89444	20.0000	19.45
5	Vinyl Chloride	62	1.145	1.145	(0.274)	54952	20.0000	19.03

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

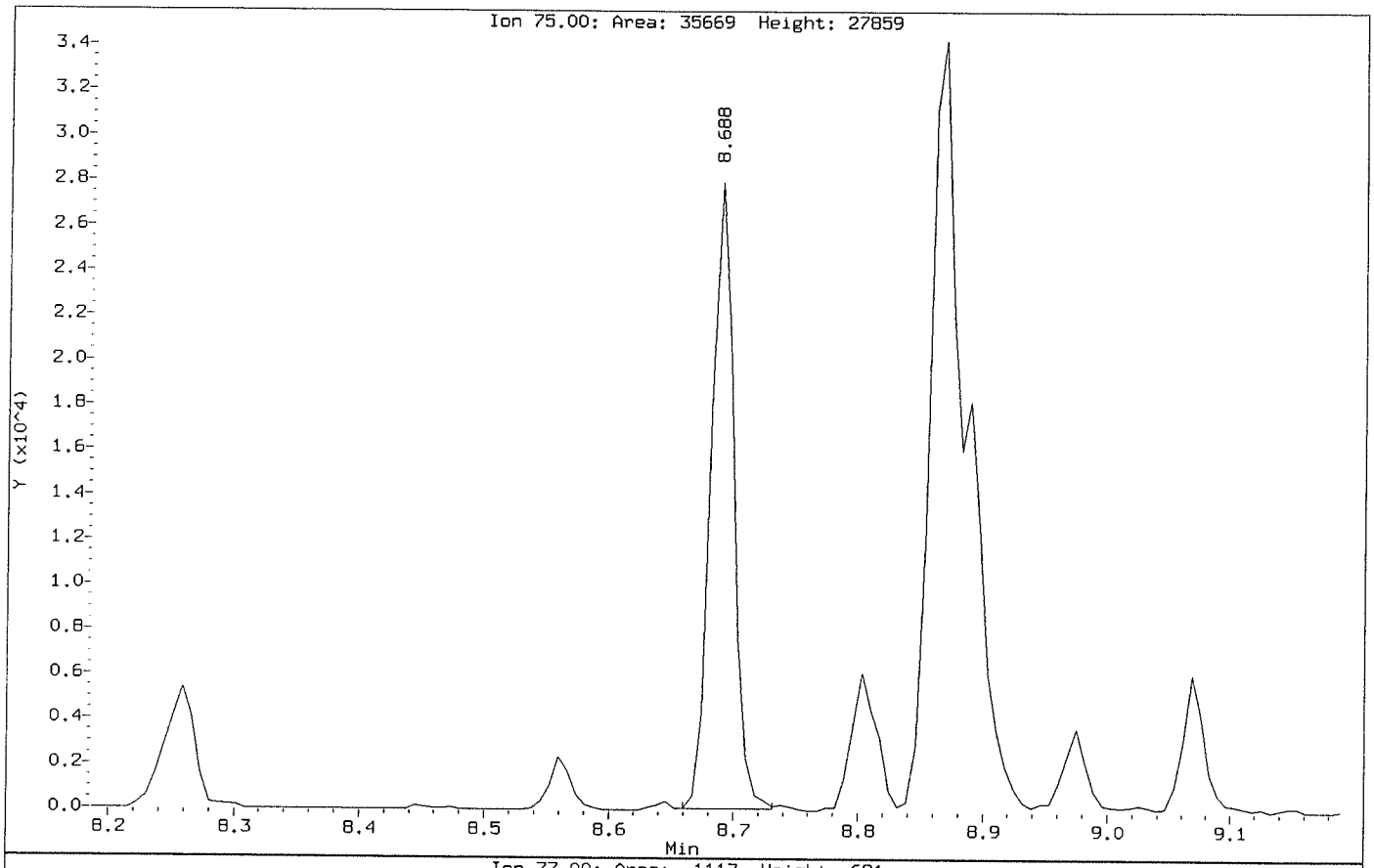


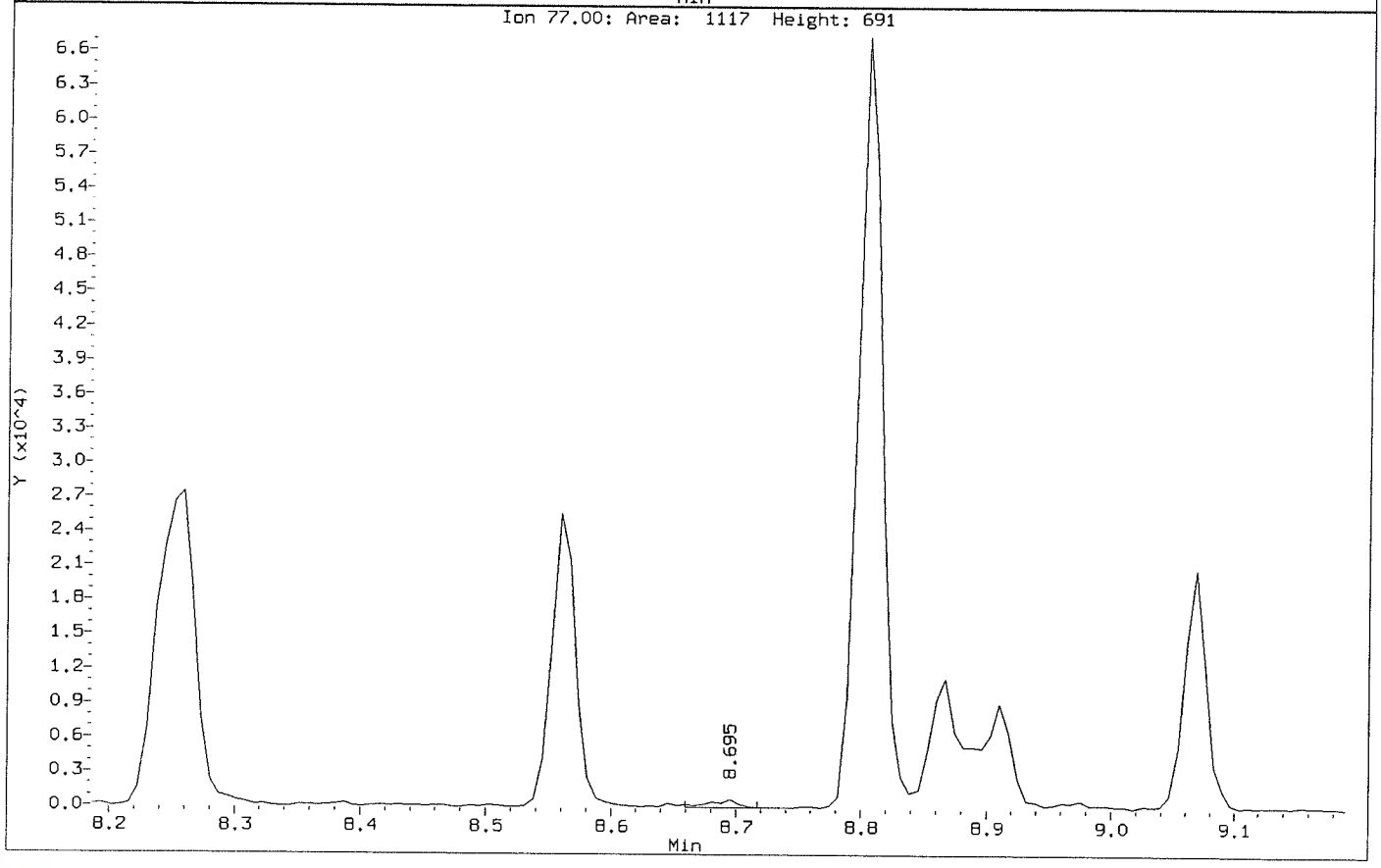
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051807.D
Date : 18-MAY-2021 13:28
Client ID: VSTD020
Sample Info: VSDT020;VSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051807.D
Injection Date: 18-MAY-2021 13:28
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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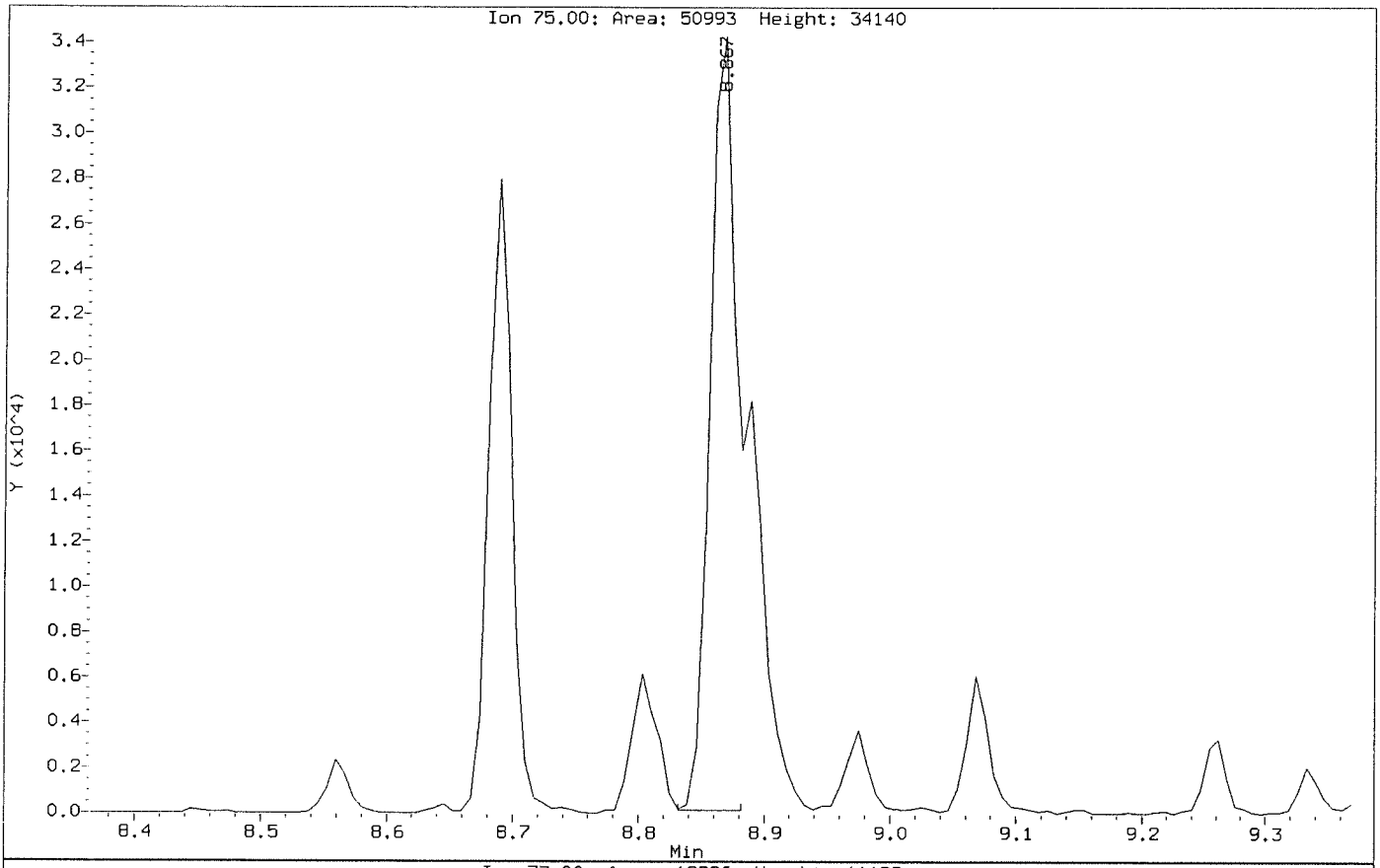
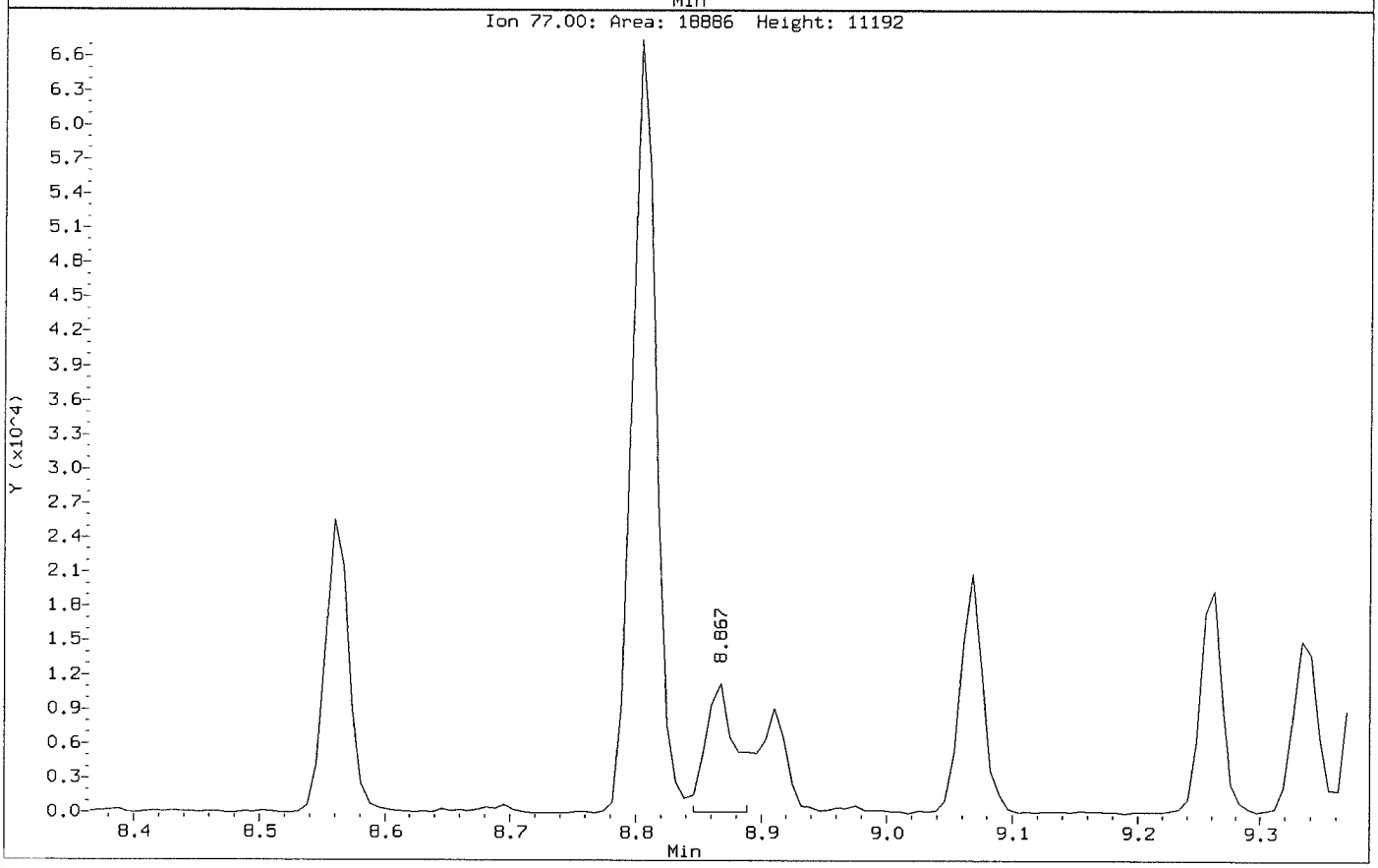
Injection Date: 18-MAY-2021 13:28
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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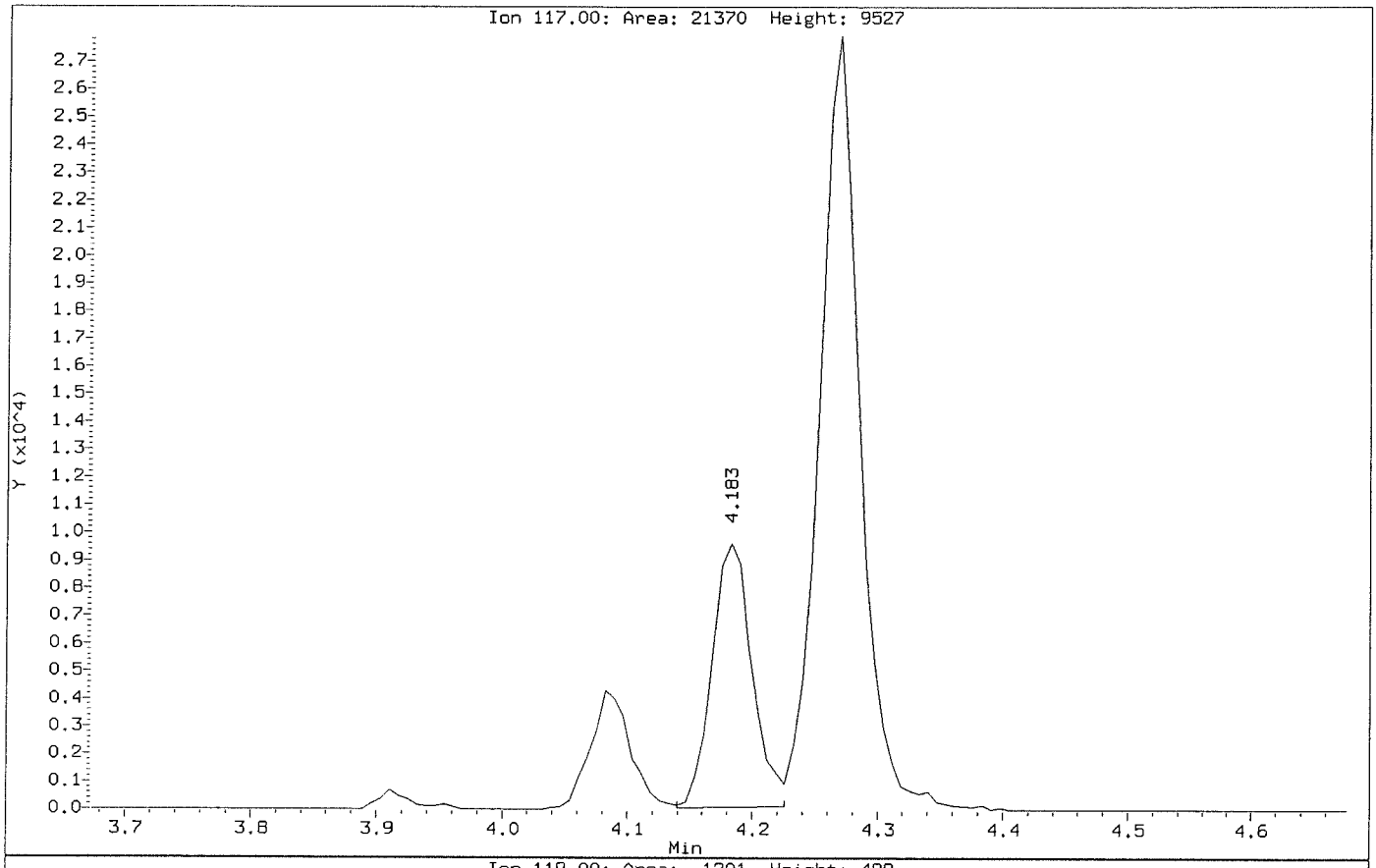
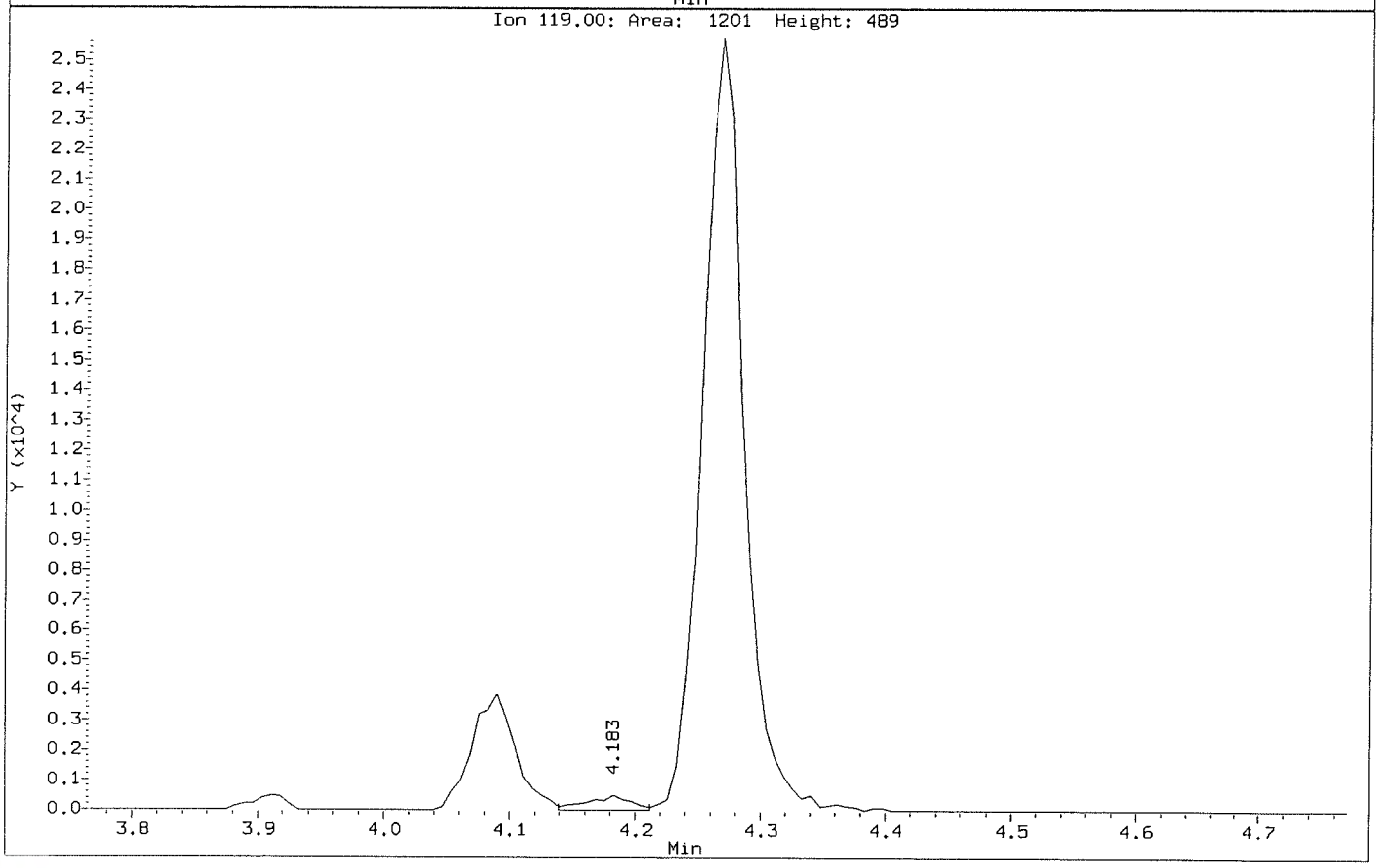
Injection Date: 18-MAY-2021 13:28
Instrument: voa6.i
Client Sample ID: VSTD020

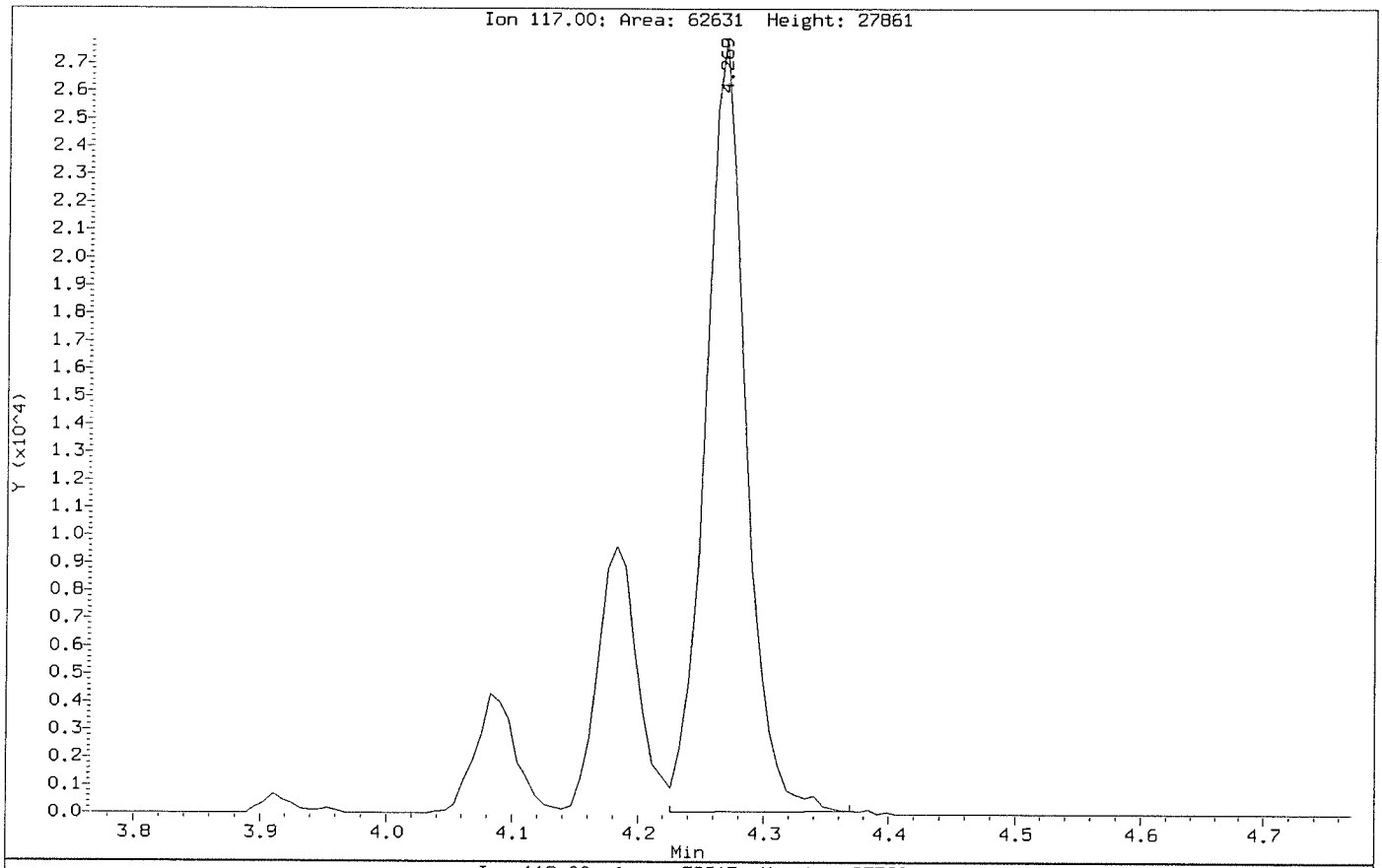
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

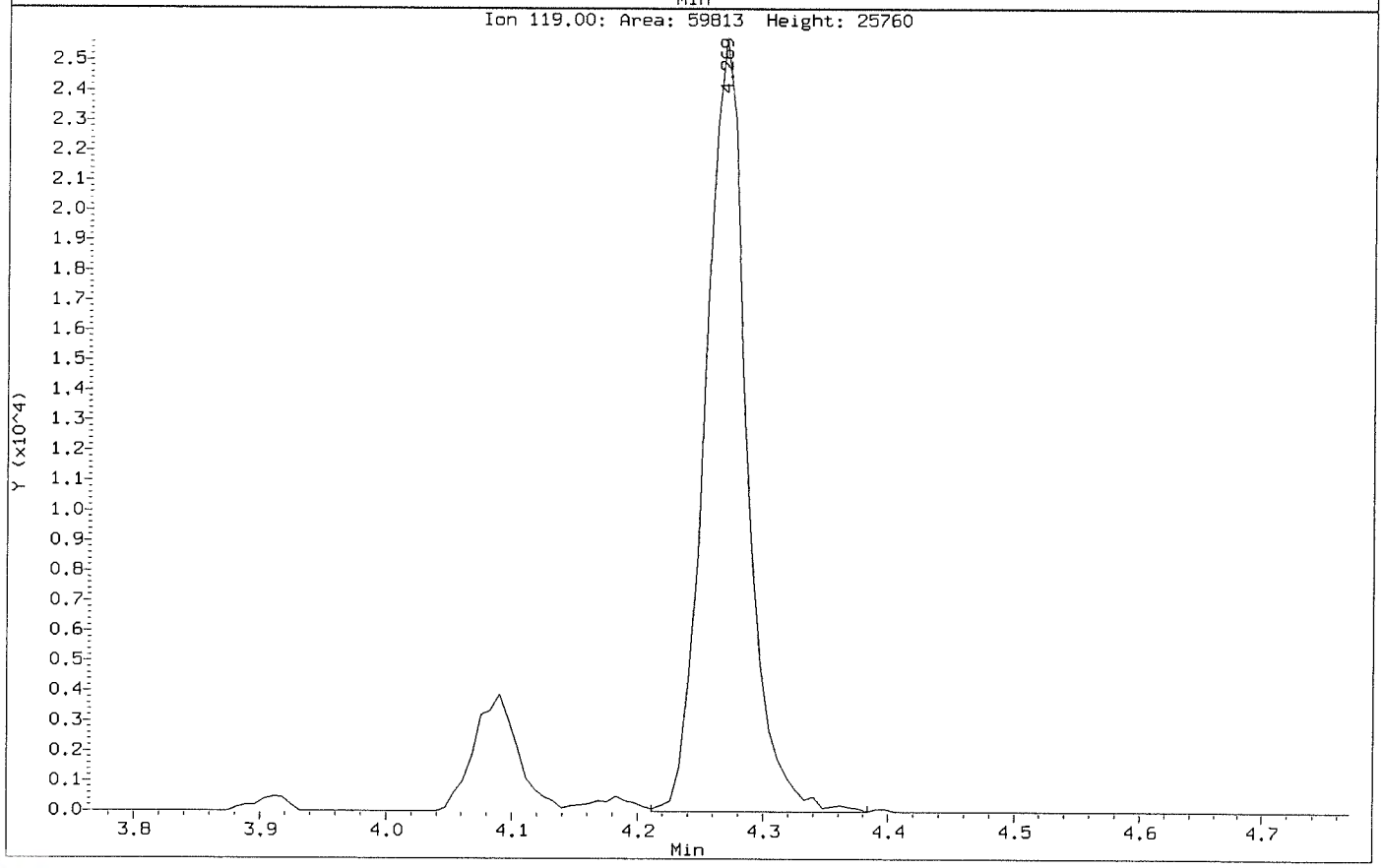




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051807.D
Injection Date: 18-MAY-2021 13:28
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051808.D Page 1
Report Date: 08-Jun-2021 11:42

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051808.D
Lab Smp Id: VSDT050 Client Smp ID: VSTD050
Inj Date : 18-MAY-2021 13:49
Operator : PC Inst ID: voa6.i
Smp Info : VSDT050;VSTD050;1;7;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:28 Cal File: X051807.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

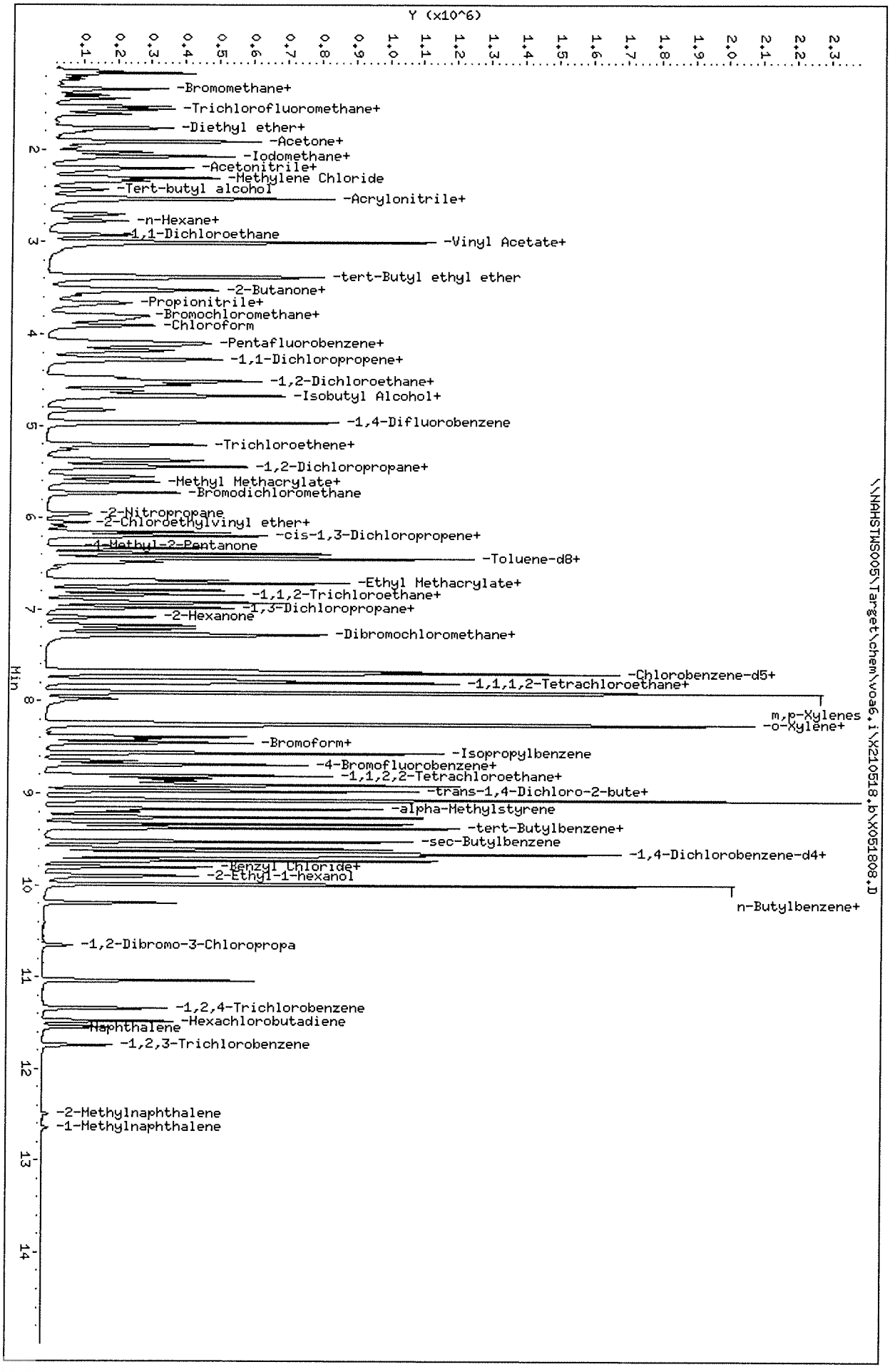
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	271623	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	462076	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	443934	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	234223	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	145001	50.0000	47.91
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	177225	50.0000	50.15
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	483036	50.0000	44.41
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	197985	50.0000	47.25
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	158680	50.0000	49.06
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	219680	50.0000	47.55
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	192852	50.0000	49.70
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	126274	50.0000	48.96
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	244803	50.0000	48.66
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	113858	50.0000	41.91
32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	169476	50.0000	42.81
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	53322	50.0000	47.87
71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	161438	50.0000	50.79(MH)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	93881	50.0000	44.87
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	554335	50.0000	46.53
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	14297	50.0000	45.43
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	158974	50.0000	51.29
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	296098	50.0000	45.10

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051808.D Page 2
Report Date: 08-Jun-2021 11:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	227654	50.0000	50.10
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	149596	50.0000	48.17
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	547543	50.0000	46.83
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	319195	50.0000	47.43
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	251676	50.0000	49.85
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	328636	50.0000	47.76
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	208486	50.0000	46.33
24	2-Butanone	43	3.581	3.581	(0.856)	99370	100.000	99.10
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	468855	50.0000	44.91
52	2-Hexanone	43	7.083	7.083	(0.923)	184352	100.000	97.93
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	567359	50.0000	46.61
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	521890	50.0000	45.12
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	268097	100.000	94.82
10	Acetone	43	1.976	1.976	(0.473)	67628	100.000	98.41
37	Benzene	78	4.512	4.512	(0.909)	558350	50.0000	48.84
74	Bromobenzene	156	8.802	8.802	(0.911)	182153	50.0000	46.65
29	Bromochloromethane	128	3.795	3.795	(0.908)	81173	50.0000	49.03
39	Bromodichloromethane	83	5.729	5.729	(1.154)	217522	50.0000	48.72
66	Bromoform	173	8.408	8.408	(1.096)	108857	50.0000	50.70
6	Bromomethane	94	1.339	1.339	(0.320)	137904	50.0000	48.28
19	Carbon Disulfide	76	2.069	2.069	(0.495)	618017	100.000	96.57
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	174579	50.0000	43.34(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	415148	50.0000	47.69
7	Chloroethane	64	1.403	1.403	(0.336)	91299	50.0000	44.40
28	Chloroform	83	3.910	3.910	(0.935)	276573	50.0000	47.92
3	Chloromethane	50	1.081	1.081	(0.258)	144469	50.0000	49.31
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	150804	50.0000	48.17
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	254601	50.0000	50.25
55	Dibromochloromethane	129	7.176	7.176	(0.936)	176711	50.0000	50.92
44	Dibromomethane	93	5.550	5.550	(1.118)	108491	50.0000	48.74
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	146727	50.0000	43.21
61	Ethylbenzene	106	7.800	7.800	(1.017)	206868	50.0000	48.08
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	54907	50.0000	39.76
67	Isopropylbenzene	105	8.559	8.559	(1.116)	617711	50.0000	46.98
62	m,p-Xylenes	106	7.907	7.907	(1.031)	542165	100.000	97.79
17	Methylene Chloride	84	2.306	2.306	(0.551)	132553	50.0000	48.66
87	n-Butylbenzene	91	9.991	9.991	(1.034)	487657	50.0000	44.33
73	n-Propylbenzene	91	8.910	8.910	(0.922)	762402	50.0000	45.95
92	Naphthalene	128	11.546	11.546	(1.195)	135654	50.0000	44.37
63	o-Xylene	106	8.244	8.244	(1.075)	260680	50.0000	48.34
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	600068	50.0000	43.70
64	Styrene	104	8.258	8.258	(1.077)	468440	50.0000	46.43
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	433704	50.0000	43.71
56	Tetrachloroethene	164	6.926	6.926	(0.903)	113805	50.0000	46.13
50	Toluene	91	6.446	6.446	(0.840)	631628	50.0000	49.31
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	121902	50.0000	46.64
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	240773	50.0000	54.33
38	Trichloroethene	130	5.207	5.207	(1.049)	143217	50.0000	46.80
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	218785	50.0000	41.90
5	Vinyl Chloride	62	1.145	1.145	(0.274)	141344	50.0000	43.10

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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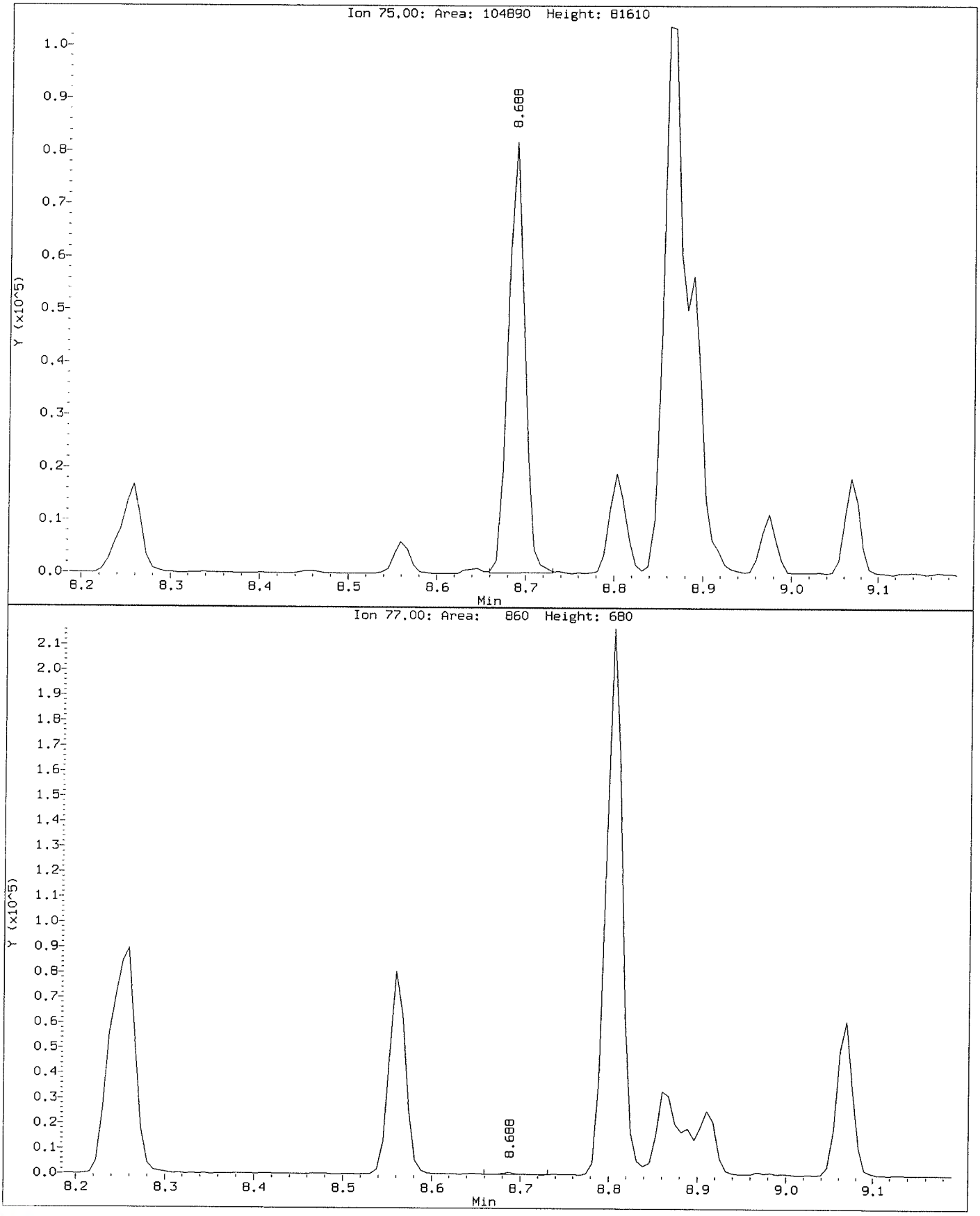
Sample Info: VSDT050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051808.D
Injection Date: 18-MAY-2021 13:49
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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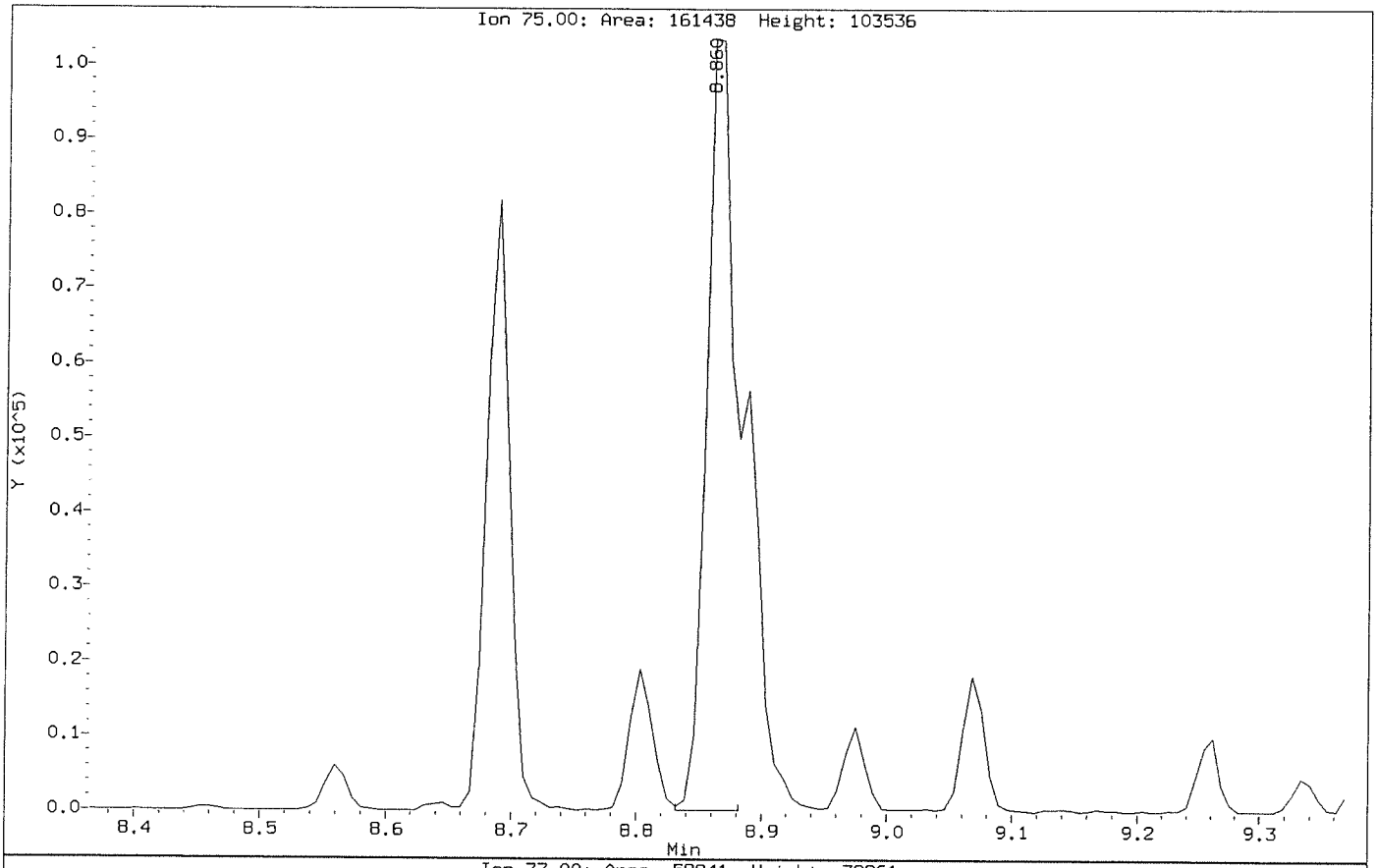
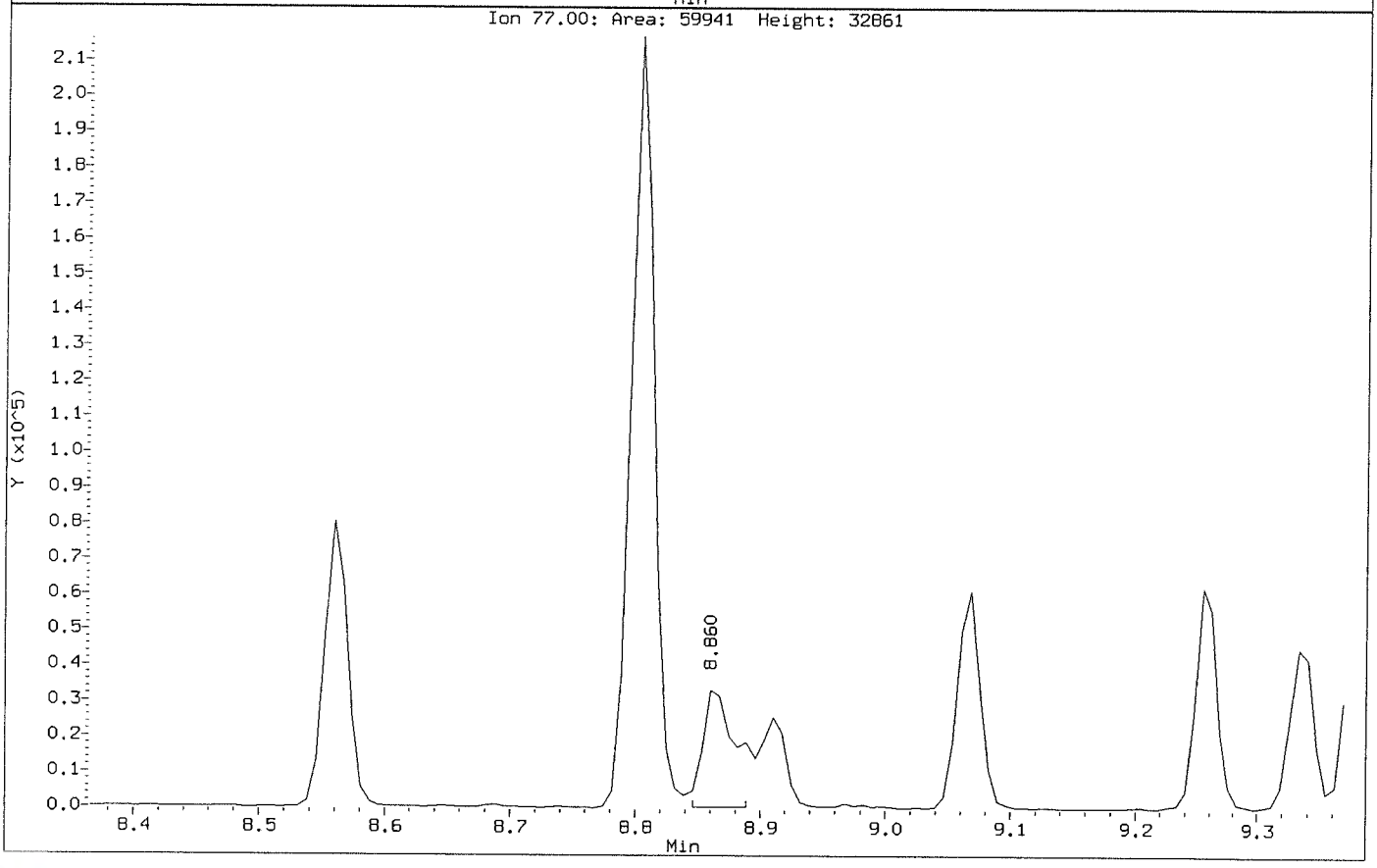
Injection Date: 18-MAY-2021 13:49
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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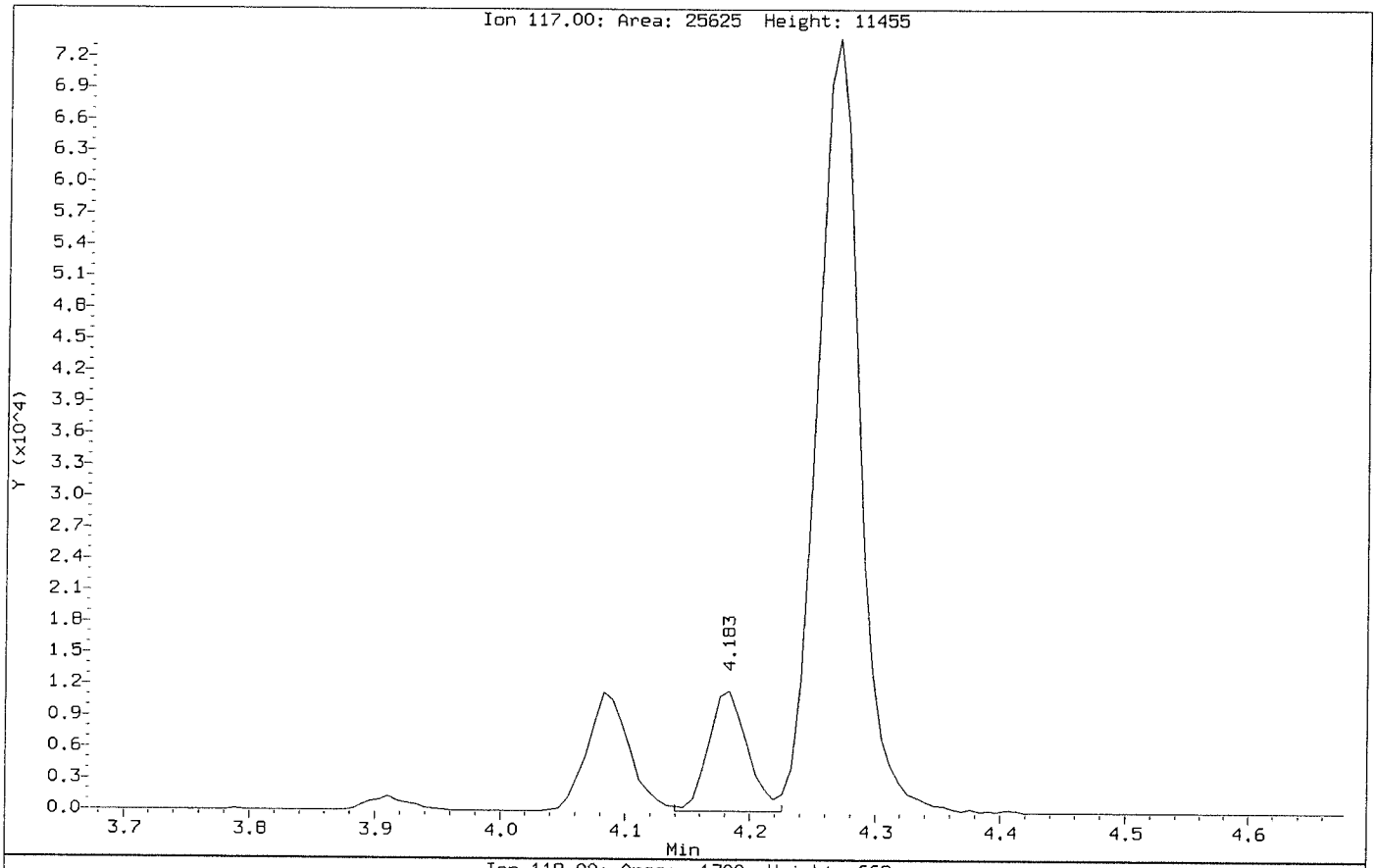
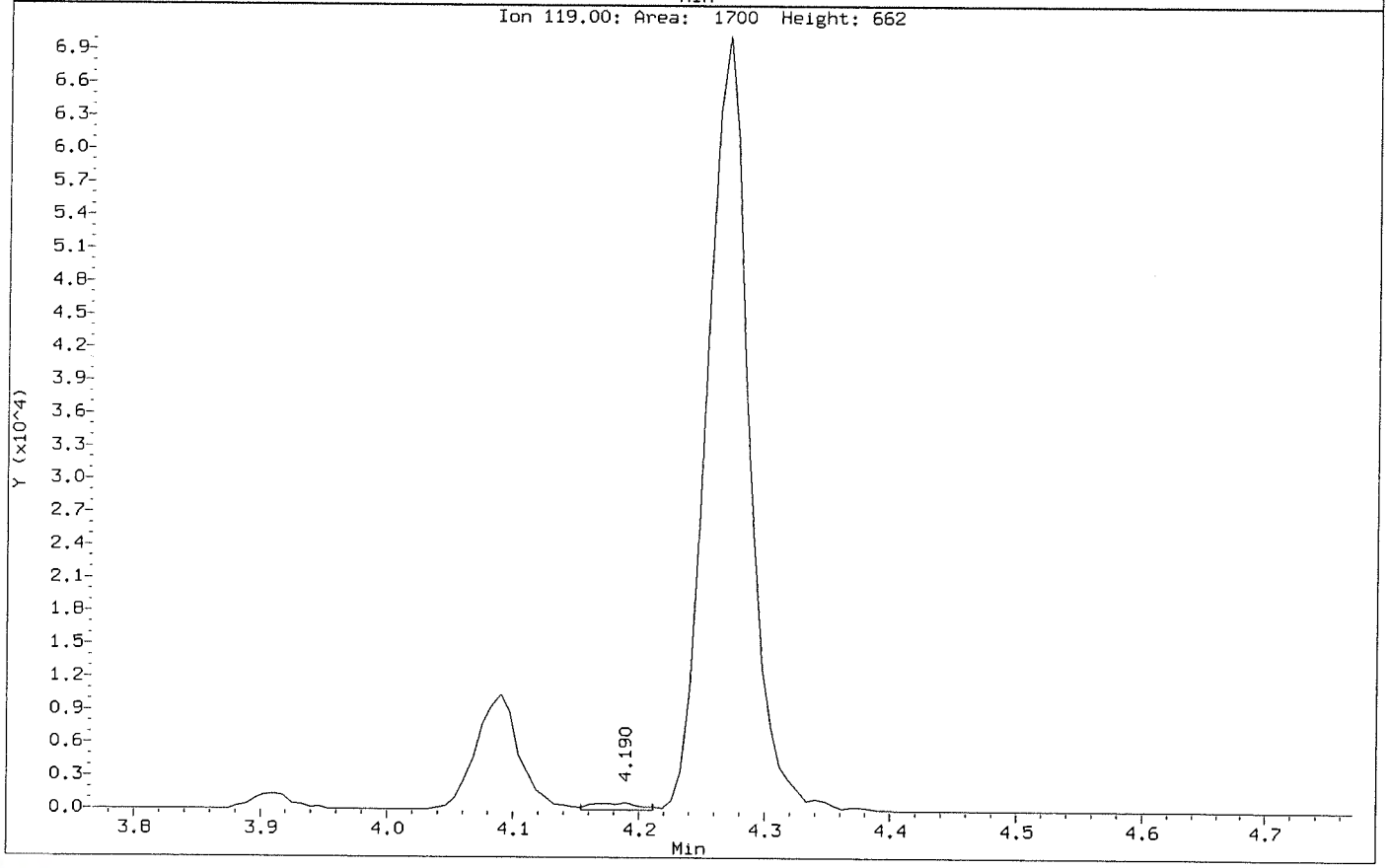
Injection Date: 18-MAY-2021 13:49
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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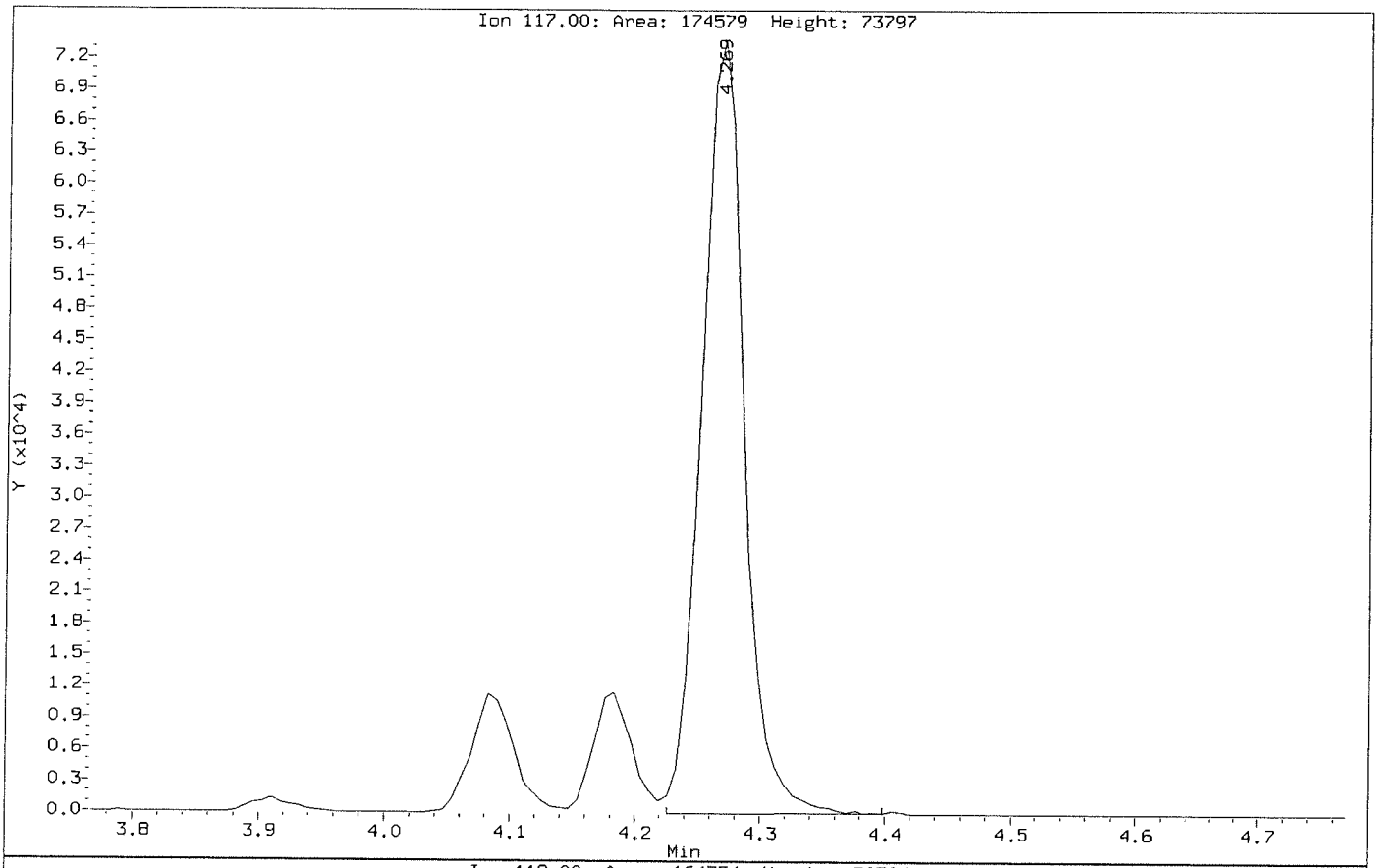
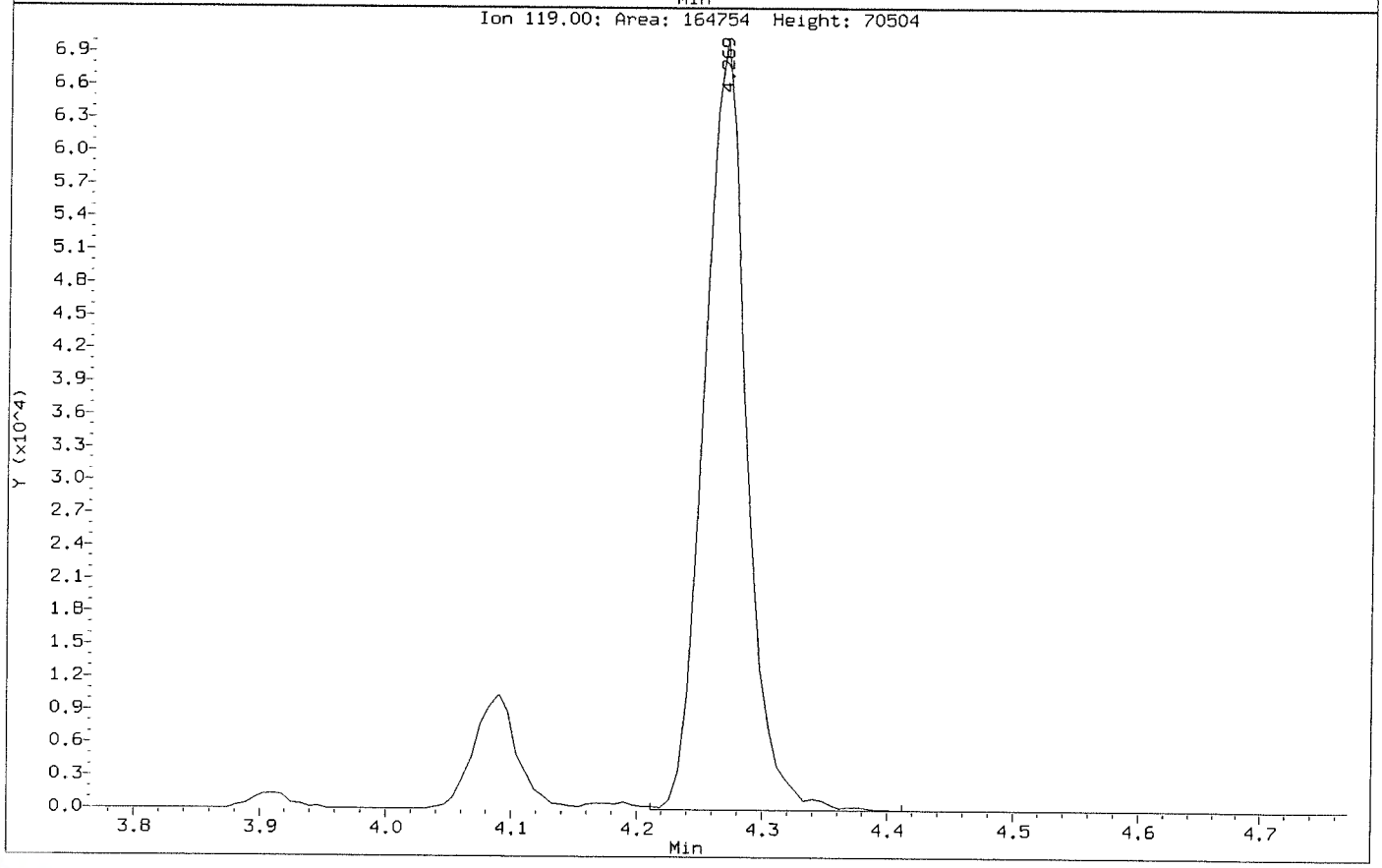
Injection Date: 18-MAY-2021 13:49
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051809.D
Lab Smp Id: VSDT100 Client Smp ID: VSTD100
Inj Date : 18-MAY-2021 14:10
Operator : PC Inst ID: voa6.i
Smp Info : VSDT100;VSTD100;1;8;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

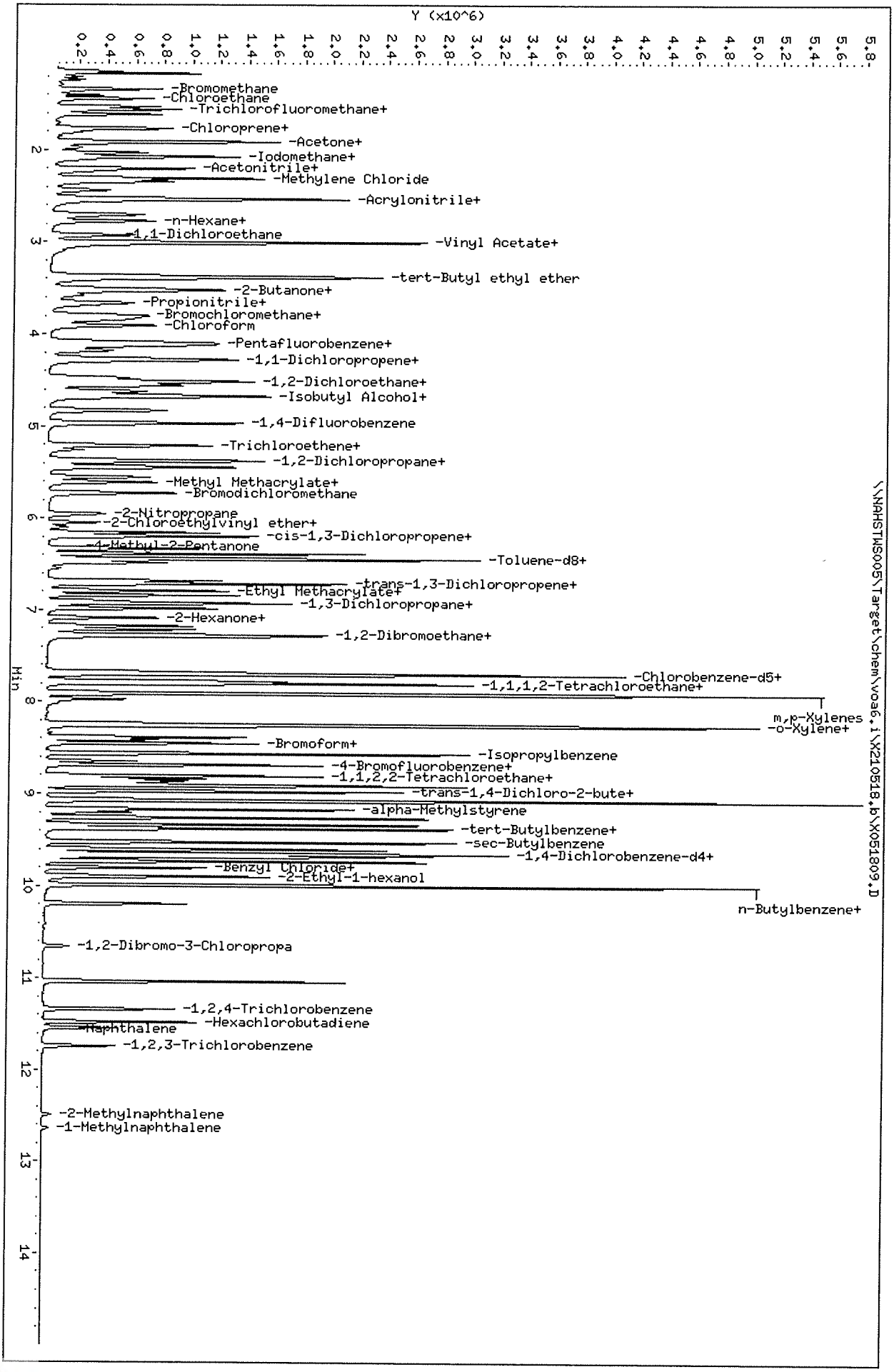
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	314001	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	515778	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	499074	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263690	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	355480	100.000	101.86
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	428979	100.000	106.40
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1269181	100.000	102.44
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	494712	100.000	104.87
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	370212	100.000	101.81
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	563928	100.000	105.58
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	443127	100.000	101.99
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	297064	100.000	102.46
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	592075	100.000	101.82
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	287208	100.000	91.46
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	458513	100.000	103.77
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	129422	100.000	99.33
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	370826	100.000	104.28 (MH)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	230076	100.000	94.78
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	1381832	100.000	103.03
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	35357	100.000	97.87
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	370175	100.000	106.24
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	710748	100.000	96.16

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051809.D Page 2
Report Date: 08-Jun-2021 11:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	496566	100.000	97.91
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	346292	100.000	99.90
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	1375282	100.000	104.48
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	759728	100.000	100.28
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	570759	100.000	100.57
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	774191	100.000	99.68
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	542311	100.000	104.25
24	2-Butanone	43	3.580	3.580	(0.856)	243094	200.000	209.73(A)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	1122830	100.000	95.54
52	2-Hexanone	43	7.090	7.090	(0.924)	424072	200.000	200.67(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	1388921	100.000	101.35
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	1372597	100.000	105.42
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	642103	200.000	201.91(A)
10	Acetone	43	1.976	1.976	(0.473)	161640	200.000	208.98(A)
37	Benzene	78	4.512	4.512	(0.909)	1325440	100.000	103.87
74	Bromobenzene	156	8.802	8.802	(0.911)	434635	100.000	98.87
29	Bromochloromethane	128	3.795	3.795	(0.908)	192522	100.000	100.60
39	Bromodichloromethane	83	5.729	5.729	(1.154)	522723	100.000	104.89
66	Bromoform	173	8.408	8.408	(1.096)	260736	100.000	108.02
6	Bromomethane	94	1.338	1.338	(0.320)	330862	100.000	100.72
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1515397	200.000	204.83(A)
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	477105	100.000	106.12(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	991098	100.000	101.27
7	Chloroethane	64	1.403	1.403	(0.336)	231805	100.000	97.52
28	Chloroform	83	3.910	3.910	(0.935)	675366	100.000	101.23
3	Chloromethane	50	1.073	1.073	(0.257)	323129	100.000	95.20
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	374274	100.000	103.42
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	610311	100.000	107.93
55	Dibromochloromethane	129	7.176	7.176	(0.936)	418487	100.000	107.28
44	Dibromomethane	93	5.550	5.550	(1.118)	257462	100.000	103.63
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	385804	100.000	95.65
61	Ethylbenzene	106	7.799	7.799	(1.017)	512156	100.000	105.90
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	159233	100.000	97.40
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1609936	100.000	108.92
62	m,p-Xylenes	106	7.907	7.907	(1.031)	1348570	200.000	216.38(A)
17	Methylene Chloride	84	2.305	2.305	(0.551)	327997	100.000	104.16
87	n-Butylbenzene	91	9.991	9.991	(1.034)	1312086	100.000	105.96
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1949961	100.000	104.41
92	Naphthalene	128	11.539	11.539	(1.194)	338098	100.000	94.47
63	o-Xylene	106	8.244	8.244	(1.075)	632124	100.000	104.28
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	1619983	100.000	104.81
64	Styrene	104	8.258	8.258	(1.077)	1137742	100.000	98.28
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	1137349	100.000	101.82
56	Tetrachloroethene	164	6.926	6.926	(0.903)	296905	100.000	107.06
50	Toluene	91	6.446	6.446	(0.840)	1538042	100.000	106.81
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	308131	100.000	101.99
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	546481	100.000	110.47
38	Trichloroethene	130	5.206	5.206	(1.049)	347501	100.000	101.74
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	566576	100.000	93.87
5	Vinyl Chloride	62	1.145	1.145	(0.274)	347786	100.000	91.73

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.



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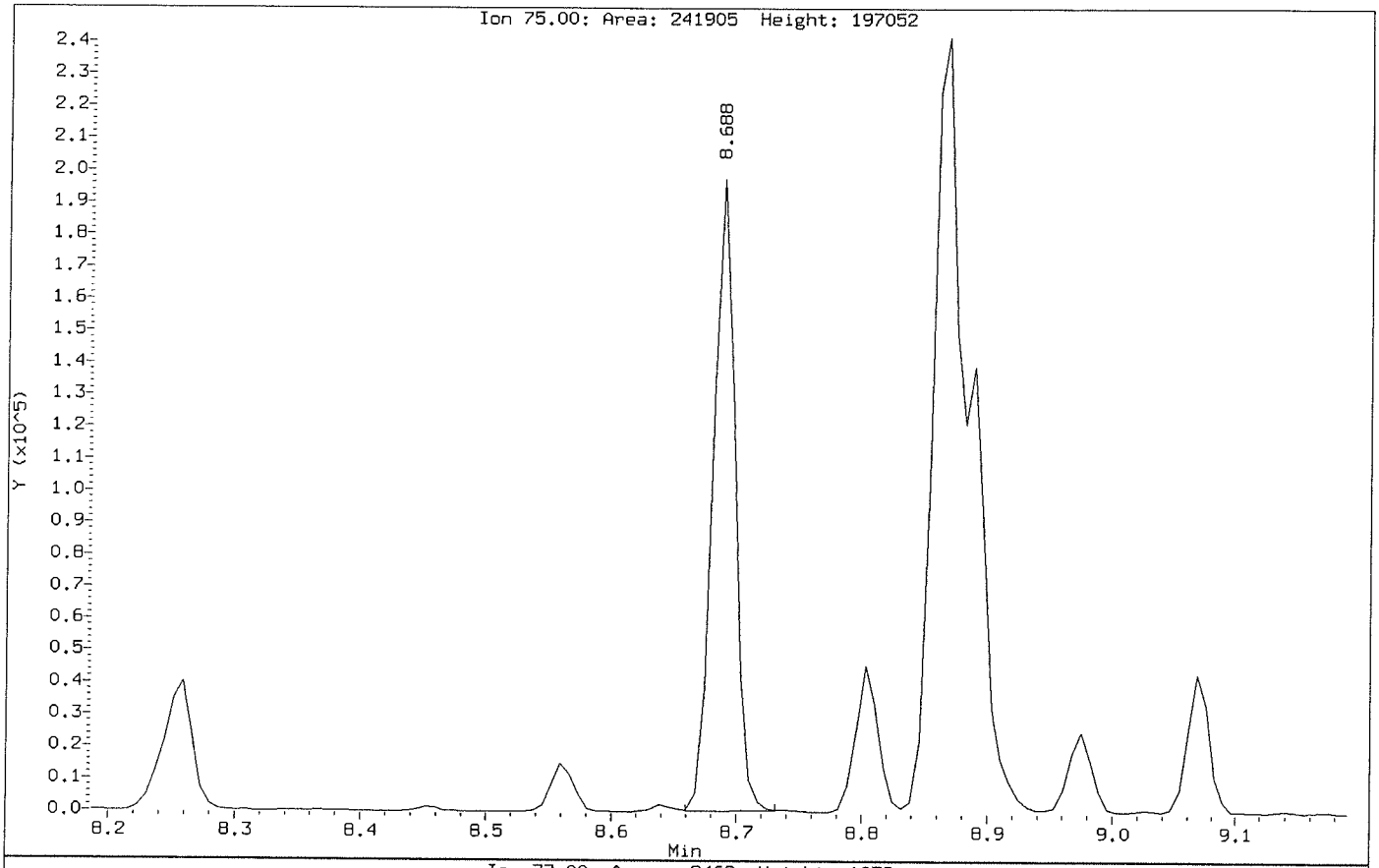
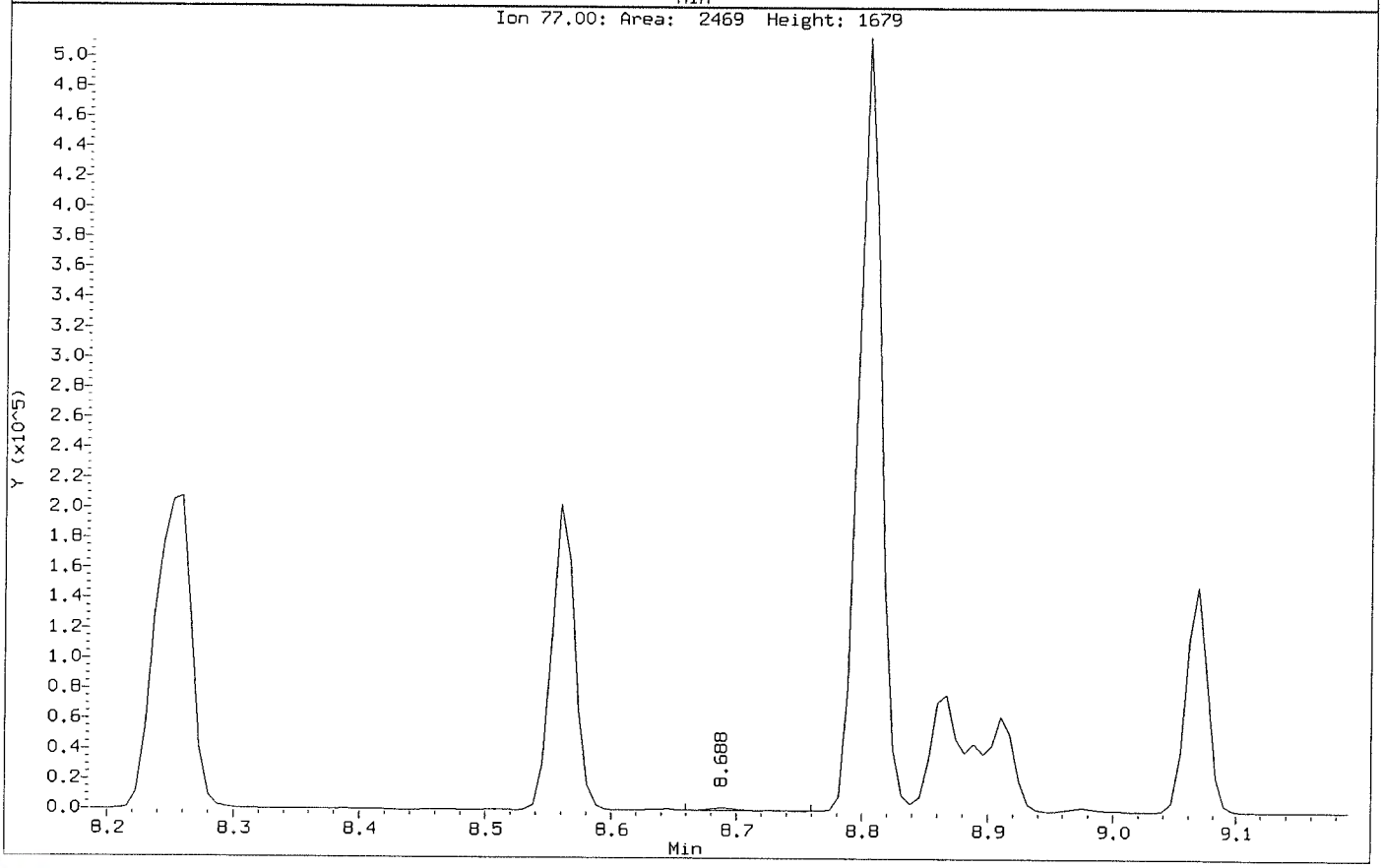
Date : 18-MAY-2021 14:10
Client ID: VSTD100
Sample Info: WSDT100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051809.D
Injection Date: 18-MAY-2021 14:10
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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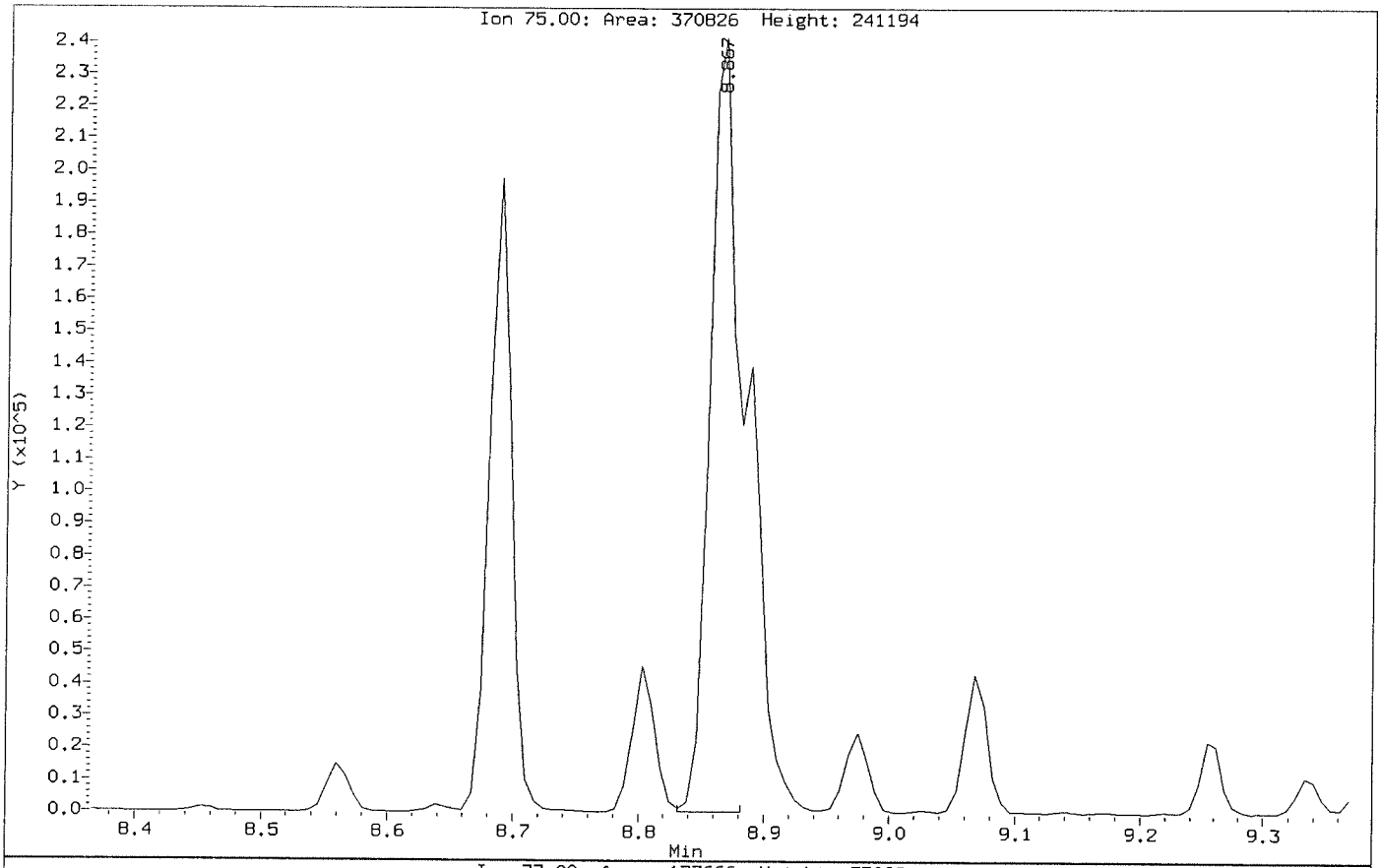
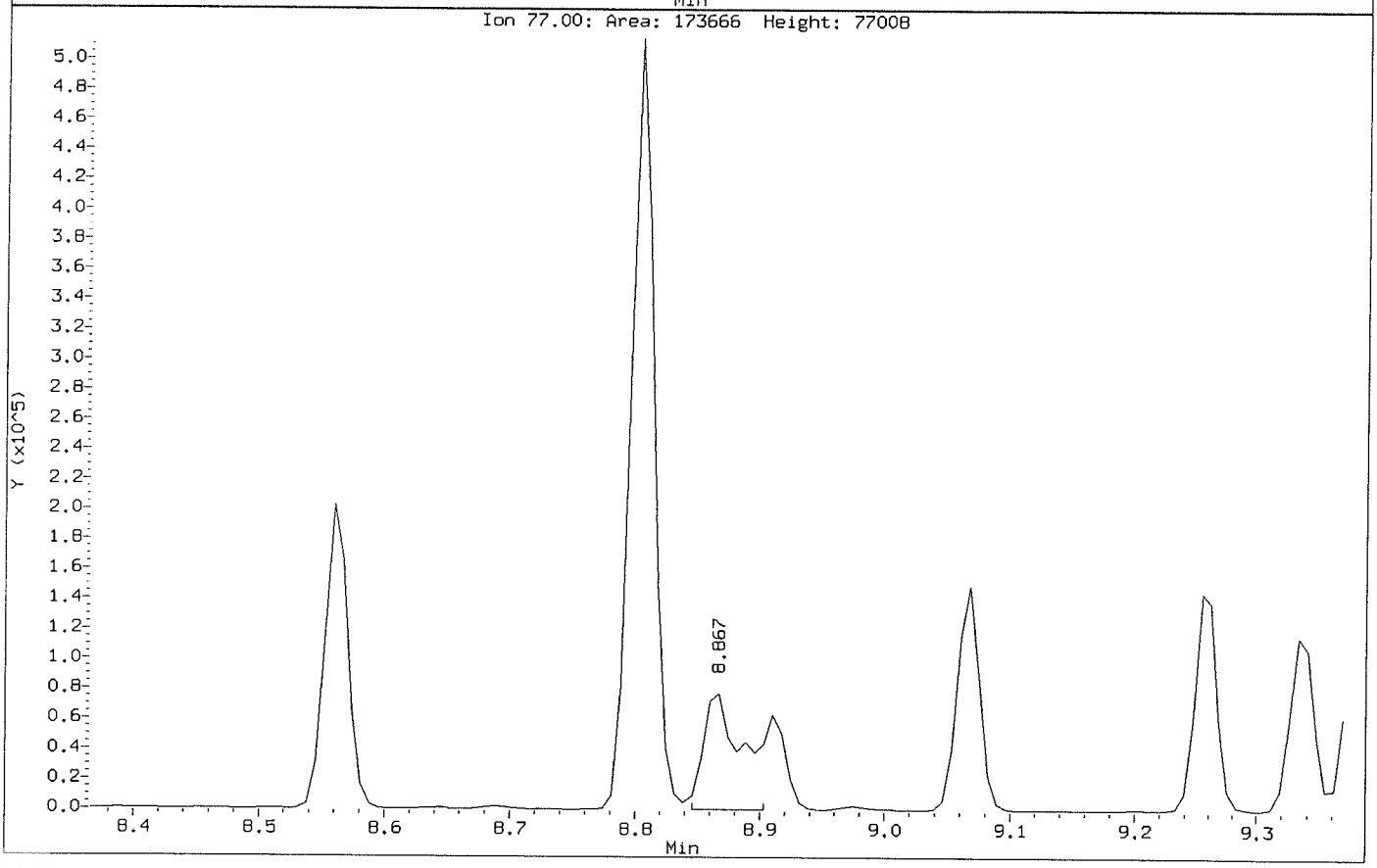
Injection Date: 18-MAY-2021 14:10
Instrument: voa6.i
Client Sample ID: VSTD100

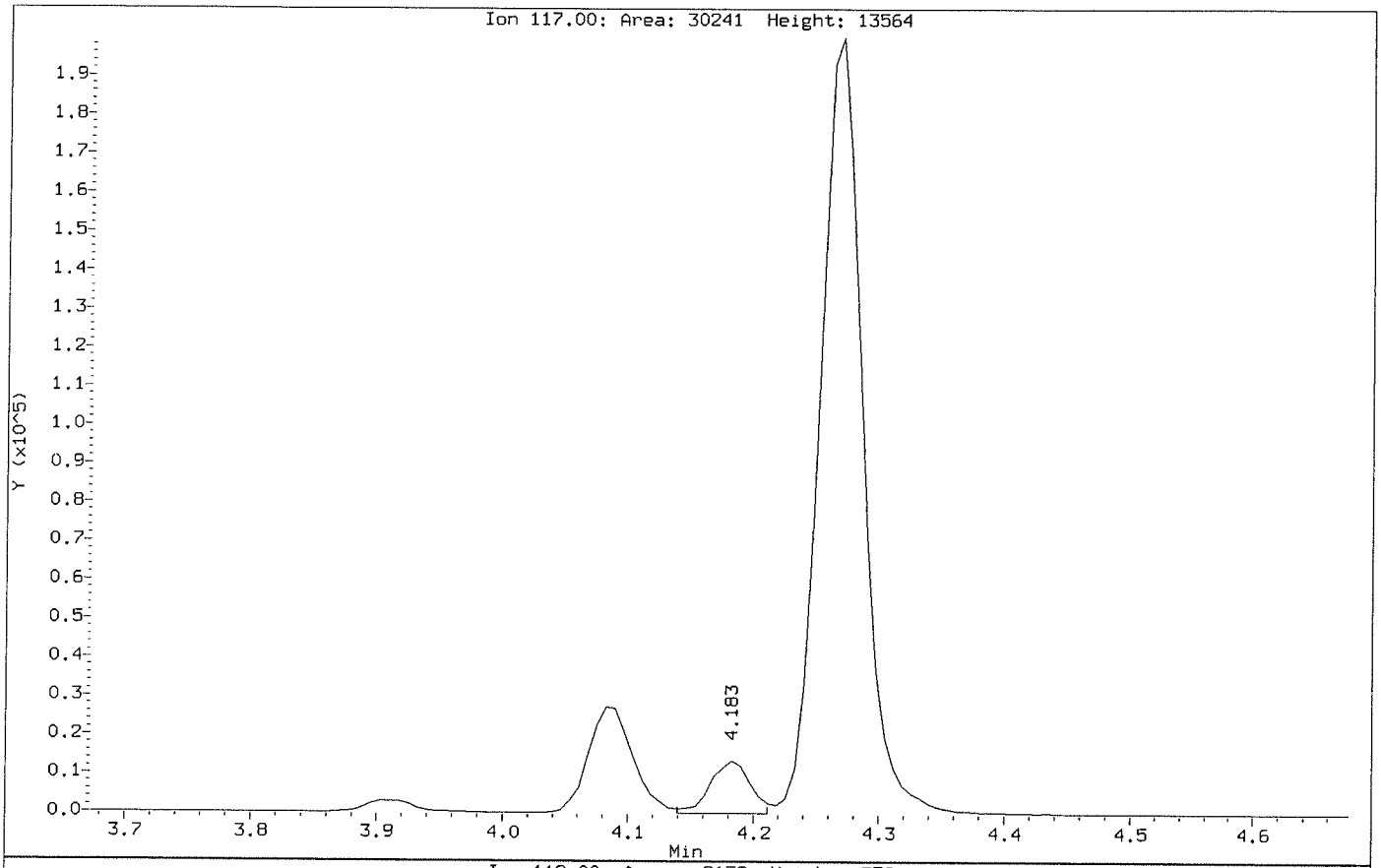
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

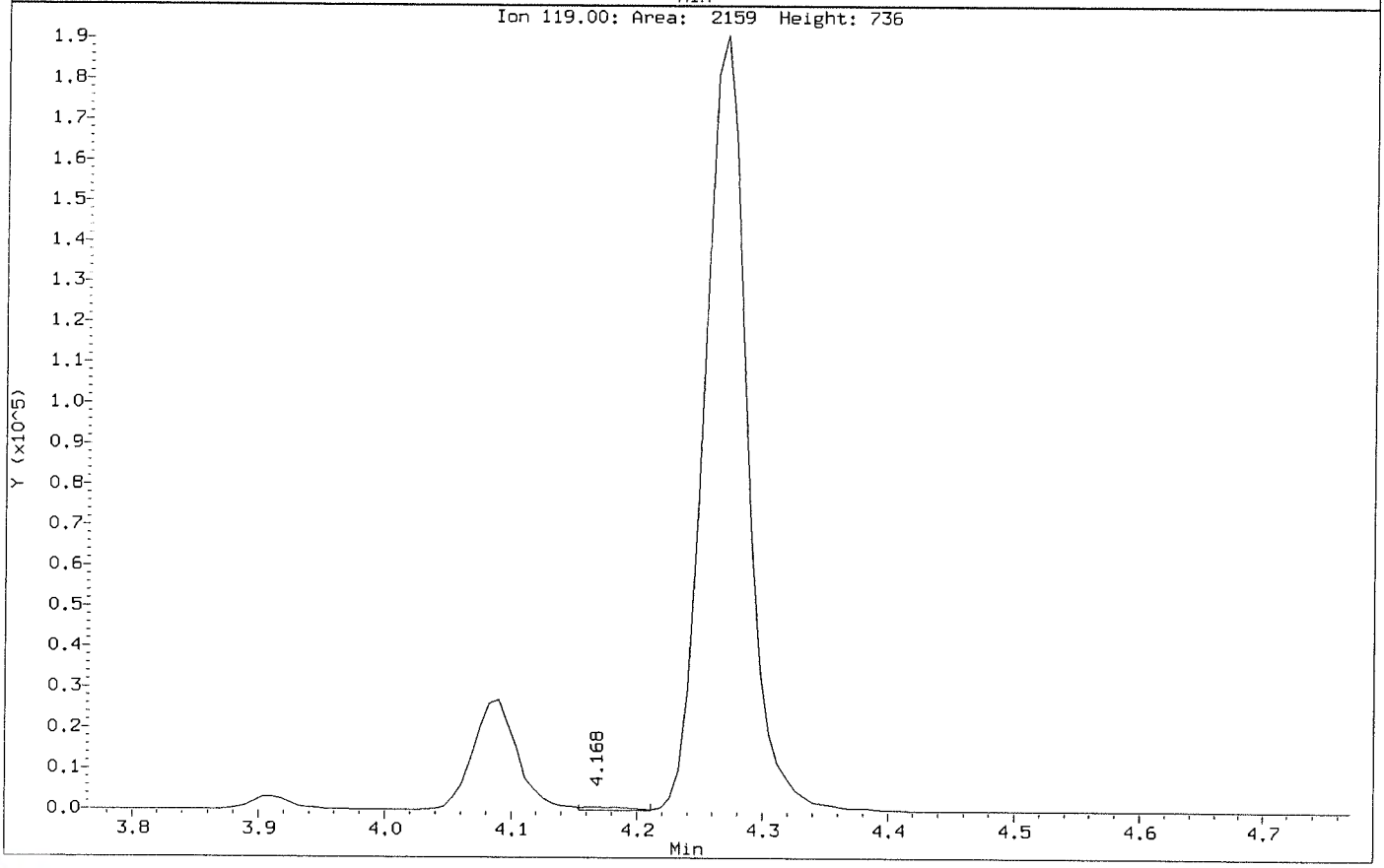




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051809.D
Injection Date: 18-MAY-2021 14:10
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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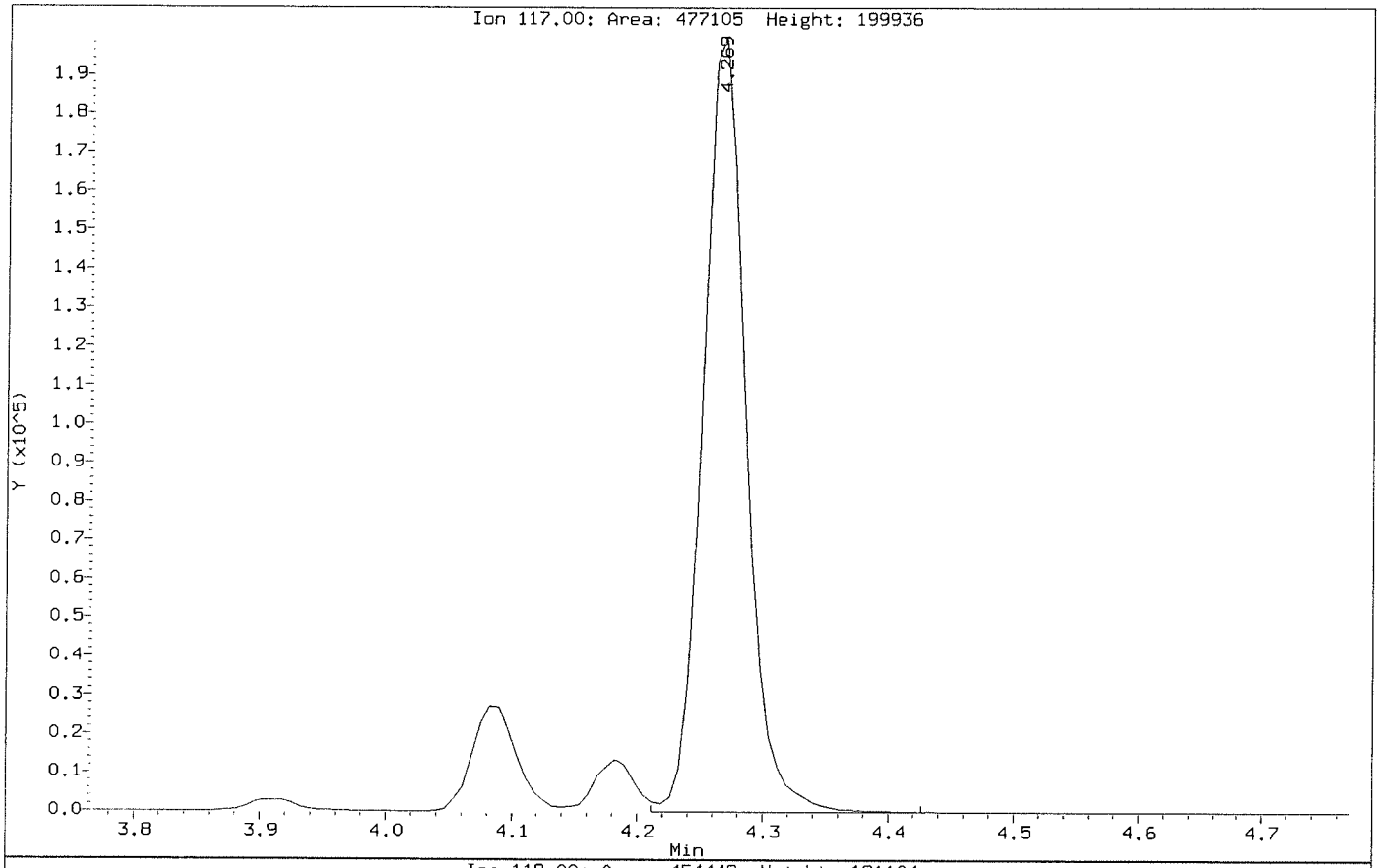
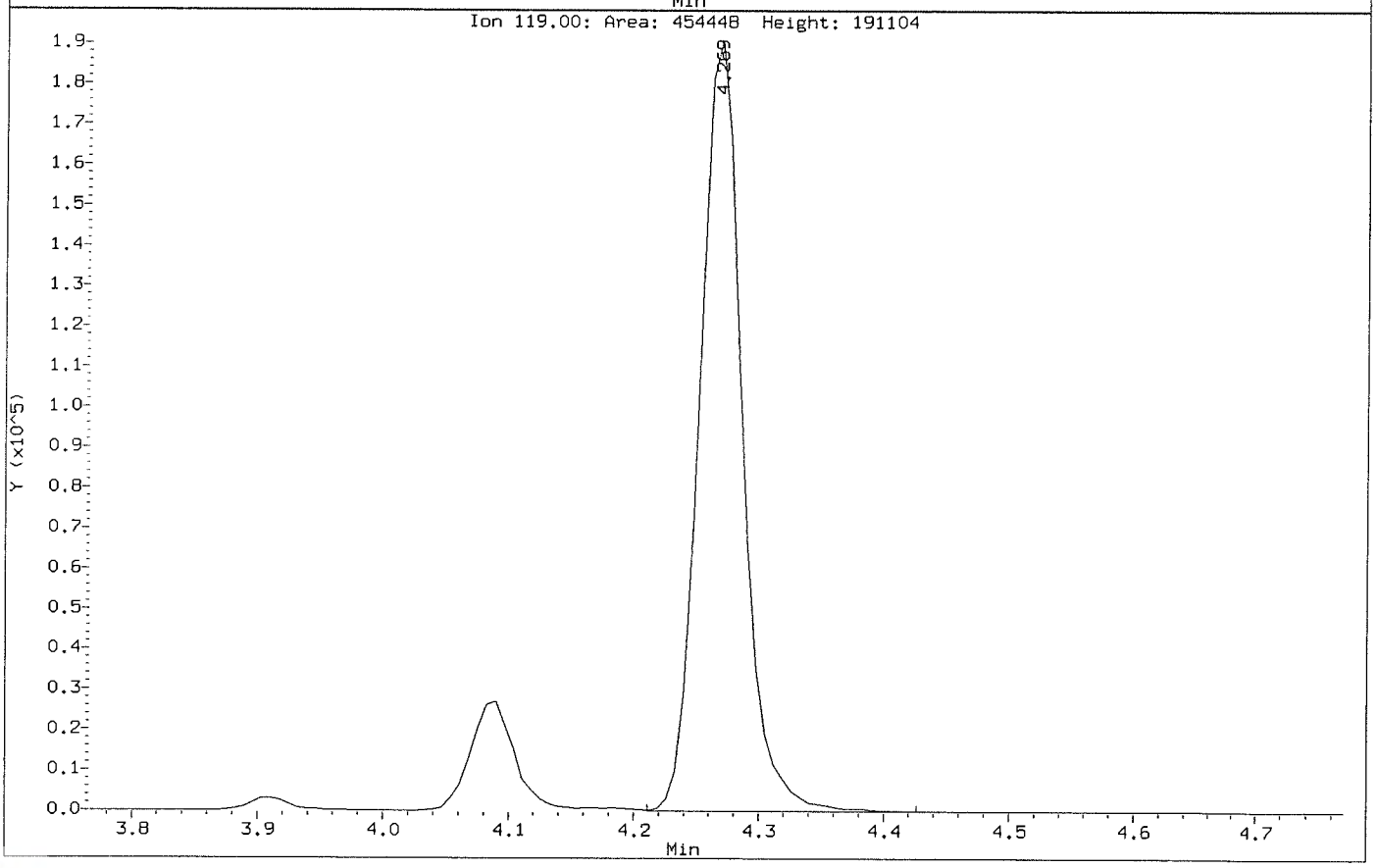
Injection Date: 18-MAY-2021 14:10
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051810.D Page 1
Report Date: 08-Jun-2021 11:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051810.D
Lab Smp Id: VSDT150 Client Smp ID: VSTD150
Inj Date : 18-MAY-2021 14:31
Operator : PC Inst ID: voa6.i
Smp Info : VSDT150;VSTD150;1;9;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 14:10 Cal File: X051809.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

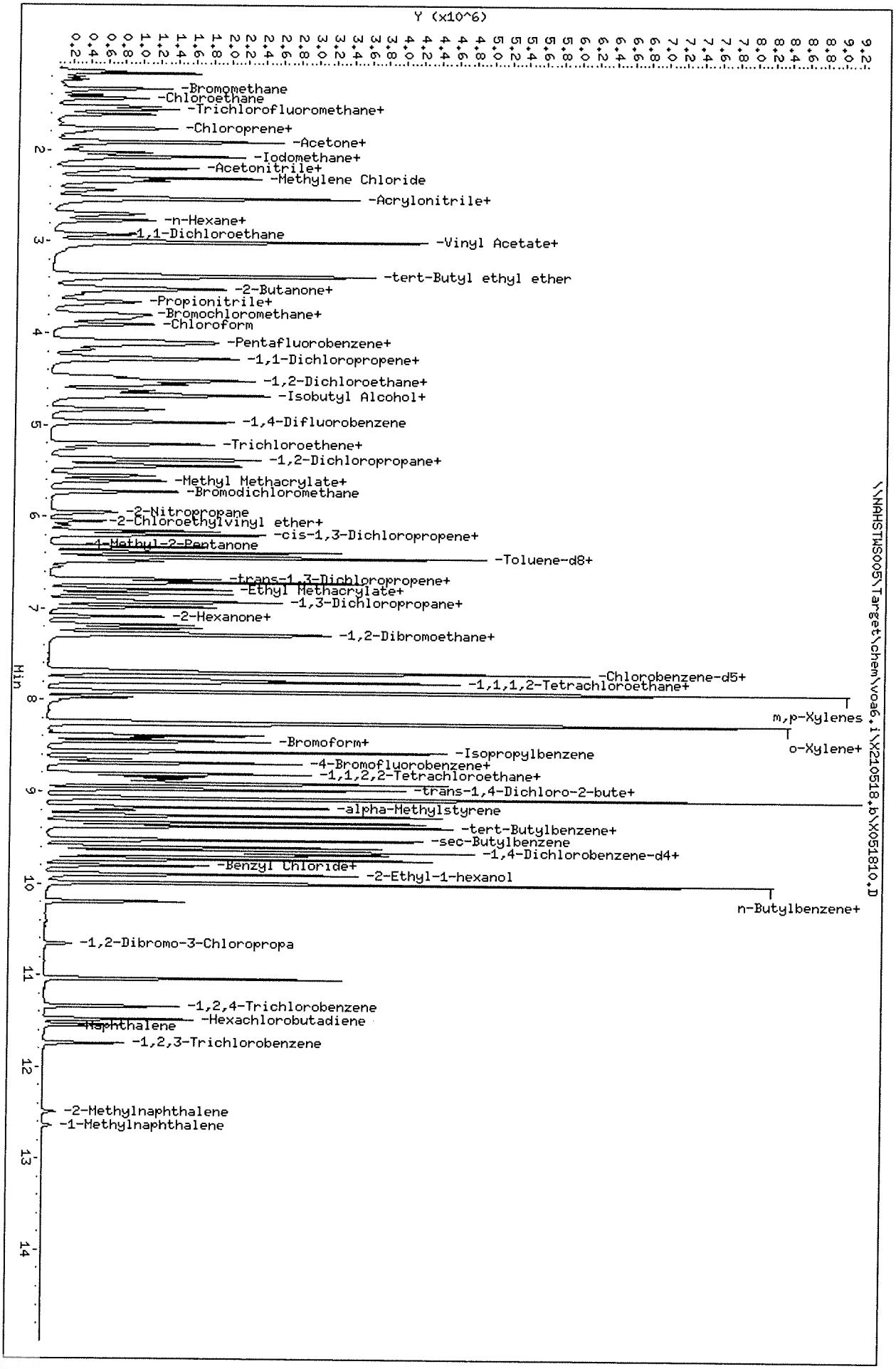
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	329109	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	561232	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	528578	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	275715	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	559479	150.000	153.07
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	631492	150.000	149.95
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1868970	150.000	142.03
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	751419	150.000	150.35
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	583245	150.000	151.45
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	897728	150.000	160.37
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	690313	150.000	152.22
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	459596	150.000	149.68
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	952111	150.000	156.22
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	466111	150.000	141.61
32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	721187	150.000	150.00
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	217046	150.000	153.02
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	570152	150.000	153.63(MH)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	378072	150.000	147.54
79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	2166512	150.000	154.49
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	55728	150.000	146.72
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	578368	150.000	156.73
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1139772	150.000	147.49

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051810.D Page 2
Report Date: 08-Jun-2021 11:42

						AMOUNTS	
	QUANT SIG					CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.916)	771966	150.000	139.89
42 1,2-Dichloropropane	63	5.436	5.436	(1.094)	552978	150.000	146.61
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	2177669	150.000	158.22
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	1194968	150.000	150.85
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	901901	150.000	150.04
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1228277	150.000	151.12
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	851542	150.000	156.19
24 2-Butanone	43	3.580	3.580	(0.856)	372510	300.000	306.63(A)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	1760413	150.000	143.25
52 2-Hexanone	43	7.090	7.090	(0.924)	684773	300.000	306.08(A)
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	2179360	150.000	152.09
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	2130981	150.000	156.53
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	1037606	300.000	308.03(A)
10 Acetone	43	1.976	1.976	(0.473)	237075	300.000	294.50(A)
37 Benzene	78	4.512	4.512	(0.908)	2104958	150.000	151.60
74 Bromobenzene	156	8.802	8.802	(0.911)	688486	150.000	149.79
29 Bromochloromethane	128	3.795	3.795	(0.908)	308322	150.000	153.72
39 Bromodichloromethane	83	5.722	5.722	(1.151)	826506	150.000	152.41
66 Bromoform	173	8.408	8.408	(1.096)	428300	150.000	167.54
6 Bromomethane	94	1.331	1.331	(0.318)	596164	150.000	173.50
19 Carbon Disulfide	76	2.069	2.069	(0.495)	2589664	300.000	333.97(A)
34 Carbon Tetrachloride	117	4.268	4.268	(0.859)	758939	150.000	155.14
59 Chlorobenzene	112	7.692	7.692	(1.003)	1550410	150.000	149.58
7 Chloroethane	64	1.403	1.403	(0.336)	345673	150.000	138.75
28 Chloroform	83	3.910	3.910	(0.935)	1055145	150.000	150.90
3 Chloromethane	50	1.073	1.073	(0.257)	530291	150.000	148.93
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	604470	150.000	159.36
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	975279	150.000	158.51
55 Dibromochloromethane	129	7.176	7.176	(0.936)	660021	150.000	159.75
44 Dibromomethane	93	5.550	5.550	(1.117)	415353	150.000	153.64
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	635388	150.000	149.11
61 Ethylbenzene	106	7.799	7.799	(1.017)	794587	150.000	155.13
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	251193	150.000	145.34
67 Isopropylbenzene	105	8.559	8.559	(1.116)	2535541	150.000	161.98
62 m,p-Xylenes	106	7.907	7.907	(1.031)	2132347	300.000	323.04(A)
17 Methylene Chloride	84	2.305	2.305	(0.551)	531906	150.000	161.17
87 n-Butylbenzene	91	9.991	9.991	(1.034)	2079941	150.000	160.65
73 n-Propylbenzene	91	8.910	8.910	(0.922)	2928436	150.000	149.96
92 Naphthalene	128	11.539	11.539	(1.194)	555881	150.000	146.77
63 o-Xylene	106	8.244	8.244	(1.075)	1010780	150.000	157.44
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	2534431	150.000	156.82
64 Styrene	104	8.258	8.258	(1.077)	1857964	150.000	150.58
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	1789516	150.000	153.23
56 Tetrachloroethene	164	6.933	6.933	(0.904)	471649	150.000	160.58
50 Toluene	91	6.446	6.446	(0.840)	2428646	150.000	159.25
20 trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	513534	150.000	162.18
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.344)	875463	150.000	162.64
38 Trichloroethene	130	5.206	5.206	(1.048)	549218	150.000	147.78
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	898149	150.000	141.97
5 Vinyl Chloride	62	1.138	1.138	(0.272)	553097	150.000	139.19

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.

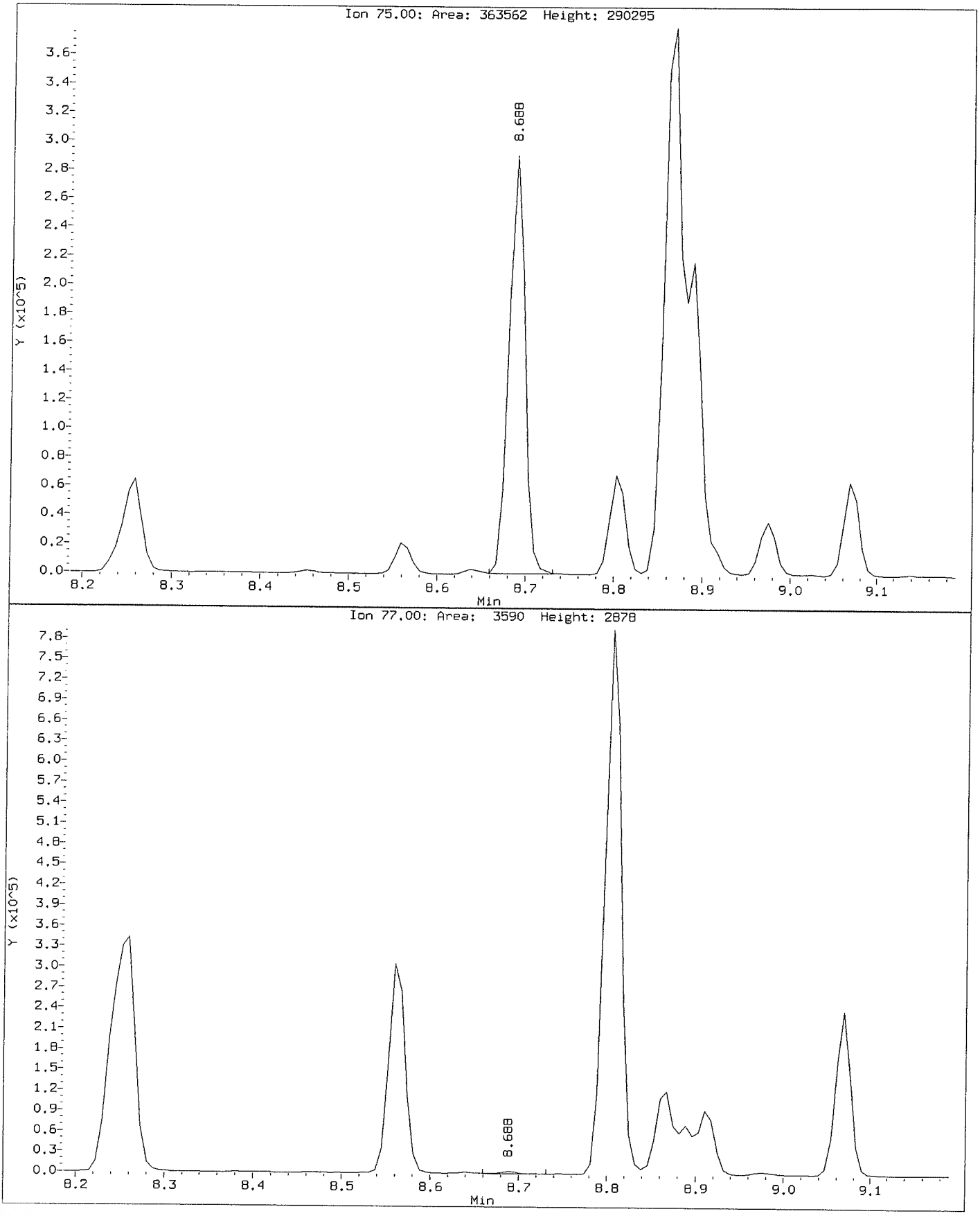


Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051810.D
Date : 18-MAY-2021 14:31
Client ID: VSTD150
Sample Info: VSDT150;VSTD150;1;9;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051810.D
Injection Date: 18-MAY-2021 14:31
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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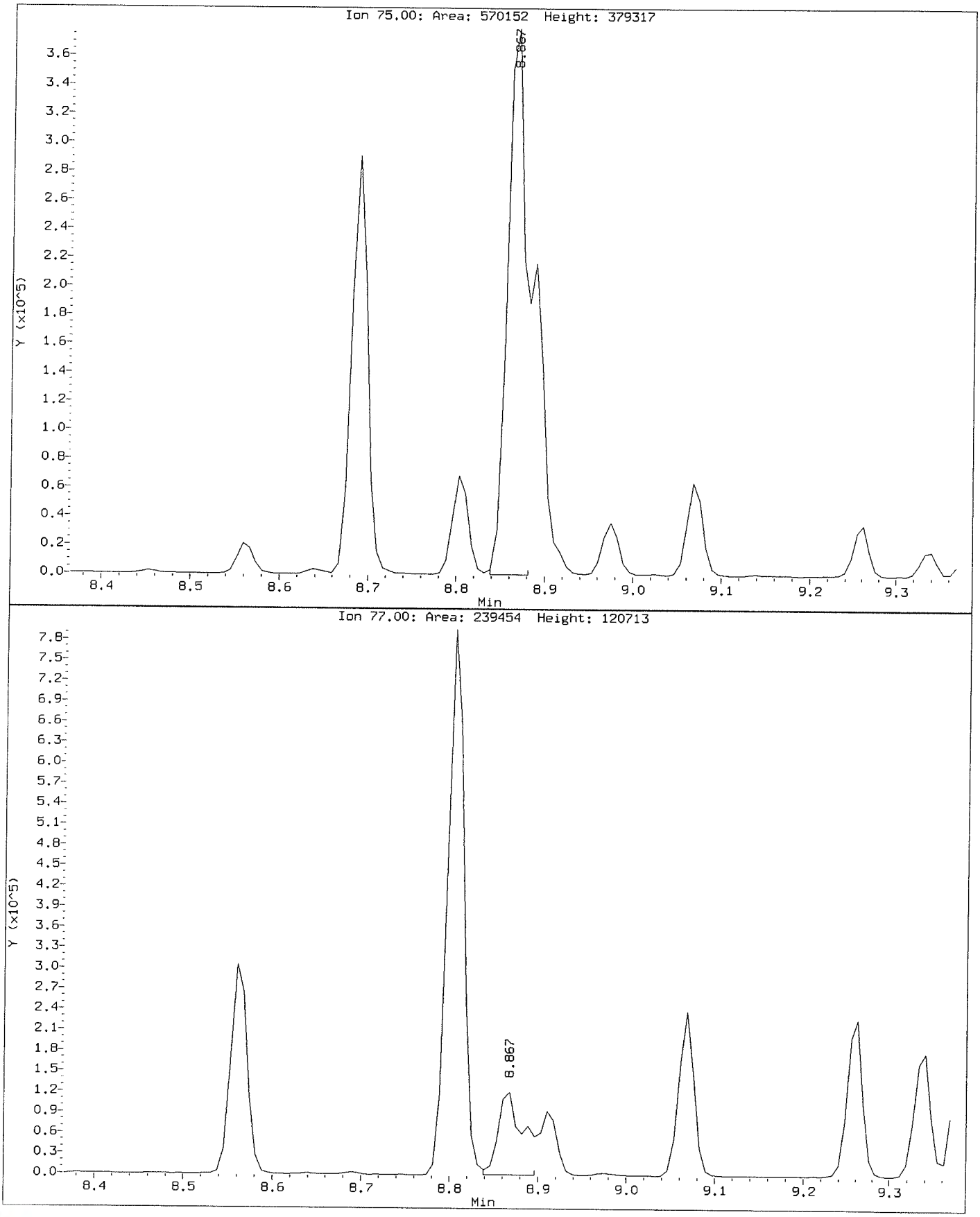
Injection Date: 18-MAY-2021 14:31
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051811.D
Lab Smp Id: VSDT200 Client Smp ID: VSTD200
Inj Date : 18-MAY-2021 14:52
Operator : PC Inst ID: voa6.i
Smp Info : VSDT200;VSTD200;1;10;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 14:31 Cal File: X051810.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

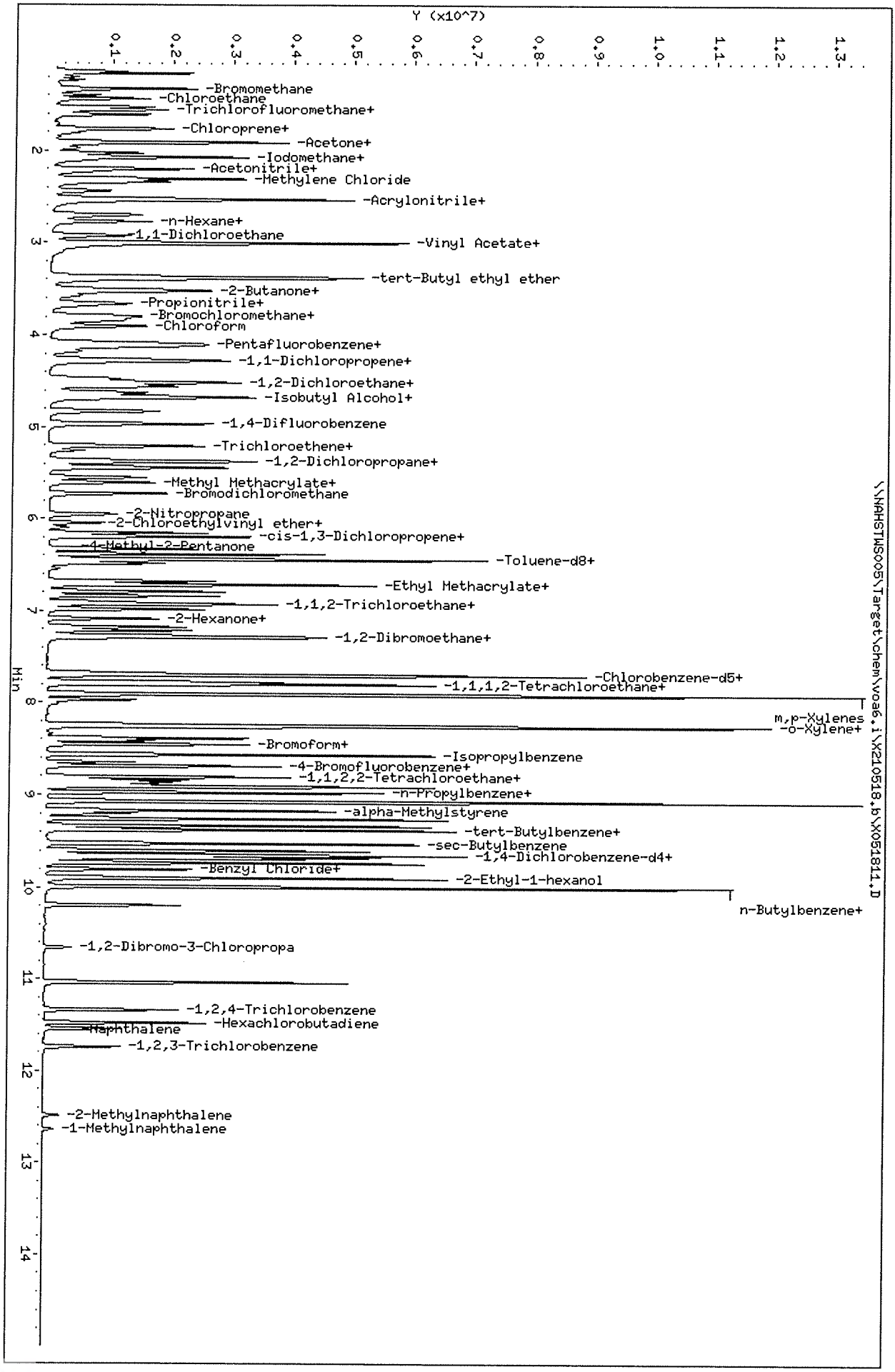
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	345916	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	588472	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	555625	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290246	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	756859	200.000	197.08
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	867782	200.000	196.44
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2599039	200.000	187.57
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1039902	200.000	197.91
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	817405	200.000	201.93(A)
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1267981	200.000	215.51(A)
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	941646	200.000	197.40
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	644929	200.000	199.81
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	1359241	200.000	212.18(A)
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	685117	200.000	198.04
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	1025250	200.000	203.38(A)
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	307927	200.000	198.57
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	760241	200.000	194.77(MH)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	556188	200.000	205.21(A)
79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	3046305	200.000	206.36(A)
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	81966	200.000	204.37(A)
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	808859	200.000	208.52(A)
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1637655	200.000	201.31(A)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051811.D Page 2
Report Date: 08-Jun-2021 11:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	1042686	200.000	180.20
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	761644	200.000	192.58
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	3139978	200.000	216.72(A)
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	1690760	200.000	202.76(A)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	1218096	200.000	192.78
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1710708	200.000	199.85
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	1199420	200.000	209.30(A)
24	2-Butanone	43	3.580	3.580	(0.856)	513022	400.000	401.78(A)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	2458535	200.000	190.05
52	2-Hexanone	43	7.090	7.090	(0.924)	929961	400.000	395.53(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	3087694	200.000	204.70(A)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	3103142	200.000	216.53(A)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	1395319	400.000	394.03(A)
10	Acetone	43	1.976	1.976	(0.473)	336393	400.000	399.38(A)
37	Benzene	78	4.512	4.512	(0.909)	2912199	200.000	200.02(A)
74	Bromobenzene	156	8.809	8.809	(0.912)	960630	200.000	198.54
29	Bromochloromethane	128	3.795	3.795	(0.908)	421944	200.000	200.14(A)
39	Bromodichloromethane	83	5.722	5.722	(1.153)	1143964	200.000	201.19(A)
66	Bromoform	173	8.408	8.408	(1.096)	591908	200.000	220.27(A)
6	Bromomethane	94	1.331	1.331	(0.318)	1028472	200.000	285.09(A)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	3804461	400.000	466.80(A)
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	1096156	200.000	213.70(A)
59	Chlorobenzene	112	7.692	7.692	(1.003)	2262308	200.000	207.64(A)
7	Chloroethane	64	1.396	1.396	(0.334)	499152	200.000	190.62
28	Chloroform	83	3.910	3.910	(0.935)	1481226	200.000	201.55(A)
3	Chloromethane	50	1.073	1.073	(0.257)	760194	200.000	203.04(A)
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	842045	200.000	211.21(A)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	1345882	200.000	208.61(A)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	936355	200.000	215.61(A)
44	Dibromomethane	93	5.550	5.550	(1.118)	570422	200.000	201.24(A)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	916851	200.000	203.94(A)
61	Ethylbenzene	106	7.799	7.799	(1.017)	1127474	200.000	209.41(A)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	377761	200.000	206.26(A)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	3672148	200.000	223.17(A)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	3061828	400.000	441.27(A)
17	Methylene Chloride	84	2.298	2.298	(0.550)	744253	200.000	214.56(A)
87	n-Butylbenzene	91	9.991	9.991	(1.034)	3008380	200.000	220.73(A)
73	n-Propylbenzene	91	8.910	8.910	(0.922)	4200522	200.000	204.34(A)
92	Naphthalene	128	11.539	11.539	(1.194)	826266	200.000	205.96(A)
63	o-Xylene	106	8.244	8.244	(1.075)	1438569	200.000	213.16(A)
81	sec-Butylbenzene	105	9.526	9.526	(0.986)	3709108	200.000	218.02(A)
64	Styrene	104	8.258	8.258	(1.077)	2618657	200.000	201.30(A)
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	2556764	200.000	207.96(A)
56	Tetrachloroethene	164	6.926	6.926	(0.903)	689947	200.000	223.46(A)
50	Toluene	91	6.446	6.446	(0.840)	3431584	200.000	214.06(A)
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	732798	200.000	220.19(A)
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1193973	200.000	211.55(A)
38	Trichloroethene	130	5.206	5.206	(1.049)	782732	200.000	200.86(A)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1300834	200.000	195.63
5	Vinyl Chloride	62	1.138	1.138	(0.272)	806948	200.000	193.21

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.

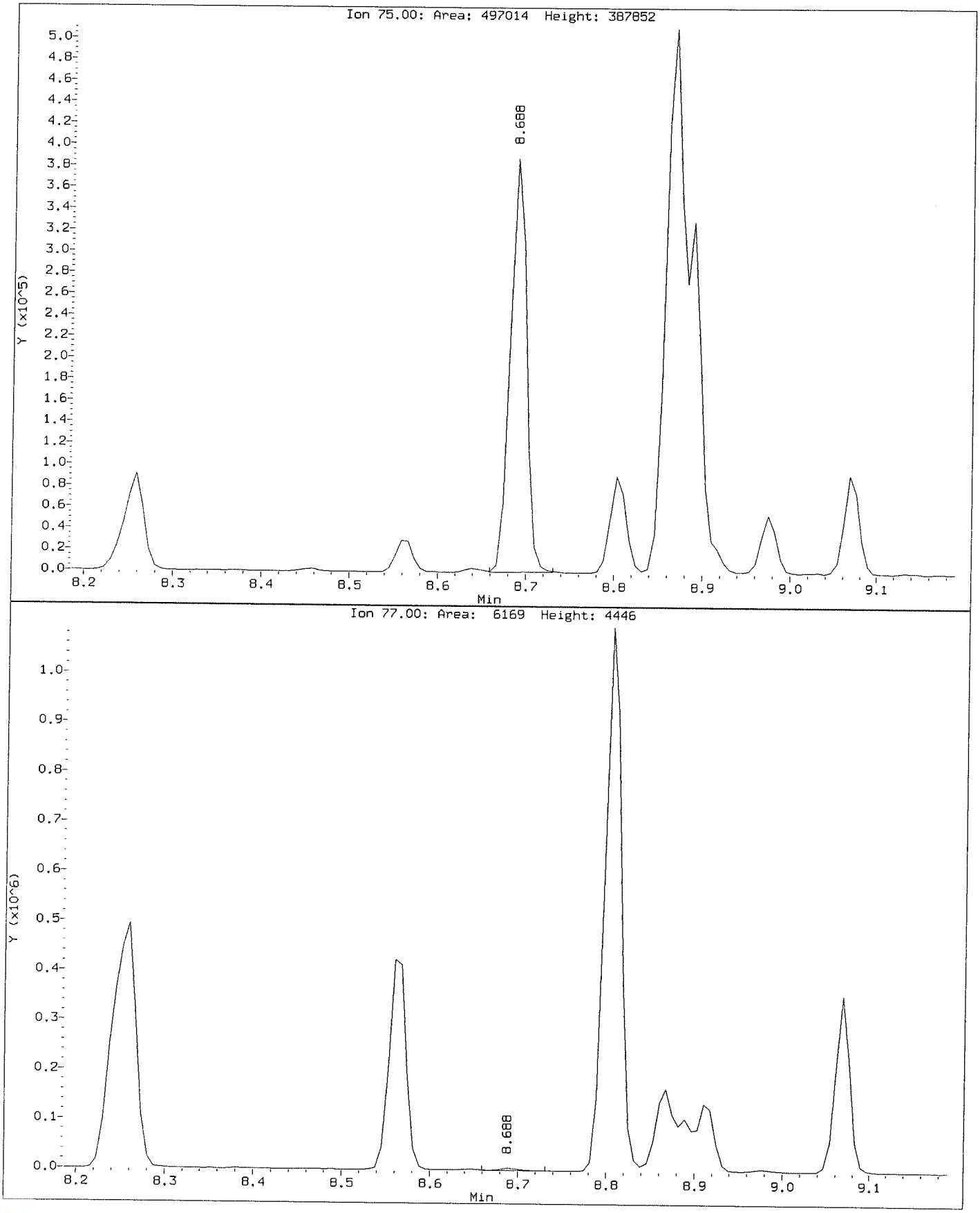


Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051811.D
Date : 18-MAY-2021 14:52
Client ID: VSTD200
Sample Info: VSDT200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051811.D
Injection Date: 18-MAY-2021 14:52
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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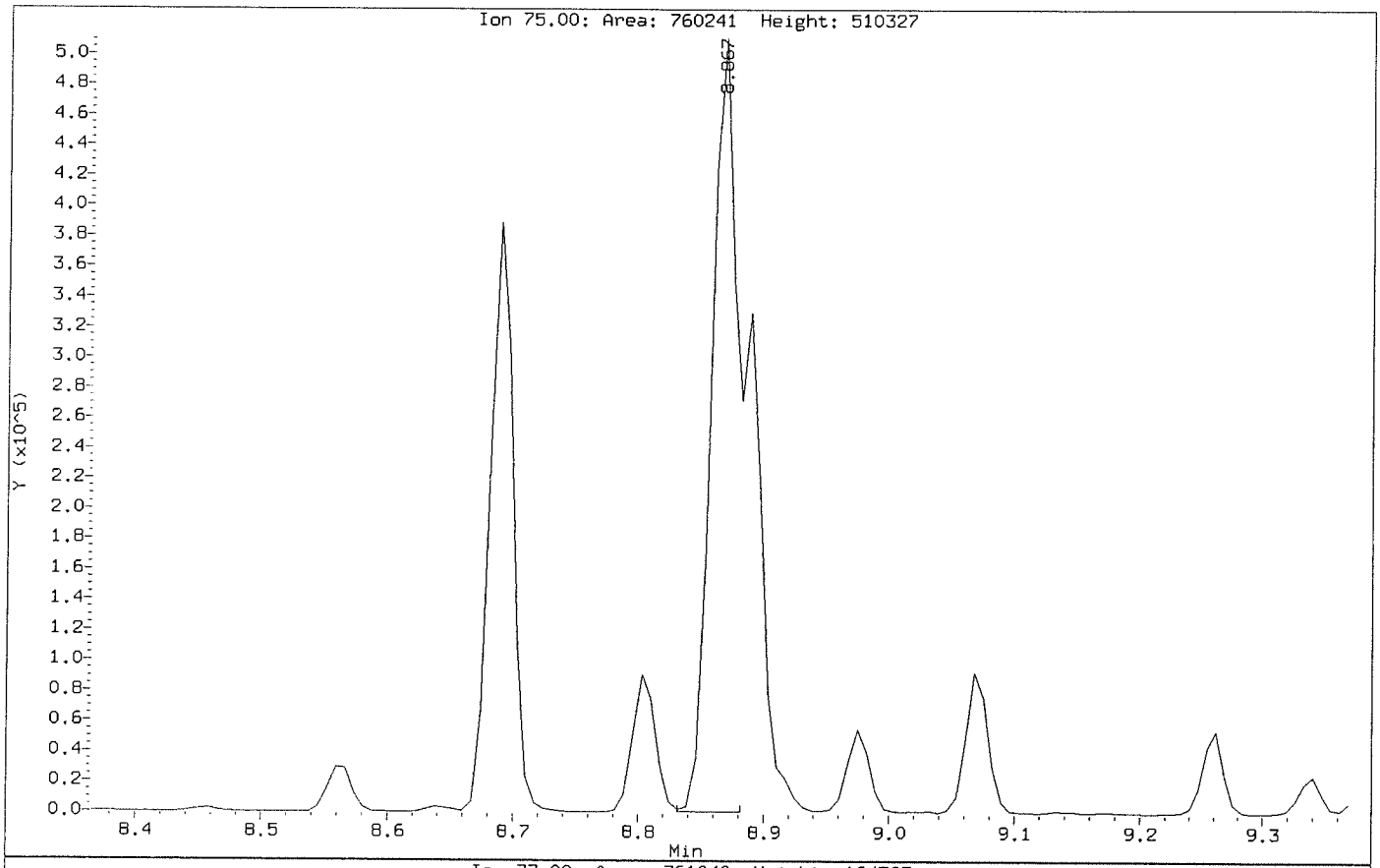
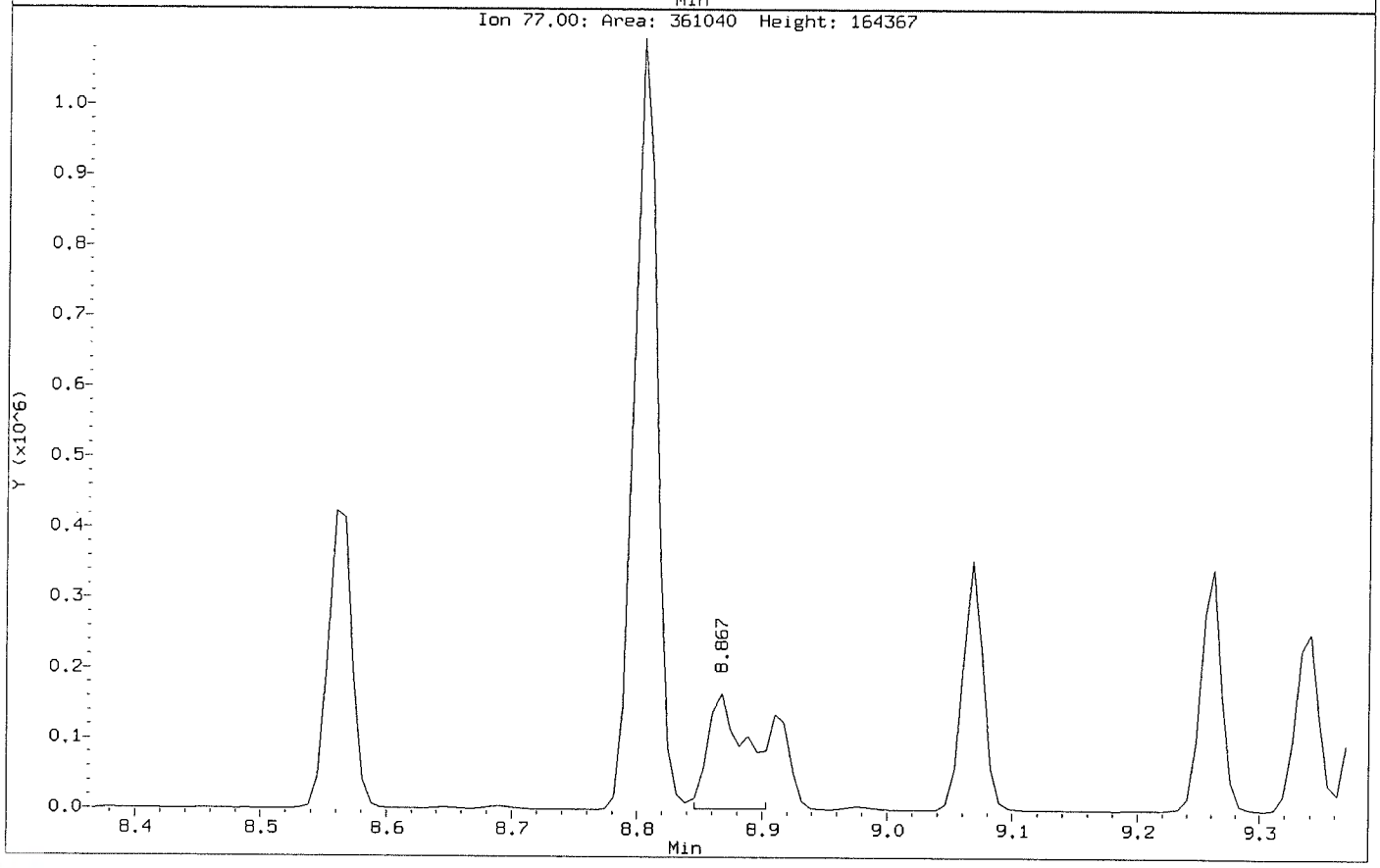
Injection Date: 18-MAY-2021 14:52
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051814.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 18-MAY-2021 16:04
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210518.b\8260W.m
Meth Date : 08-Jun-2021 11:42 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 14:52 Cal File: X051811.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

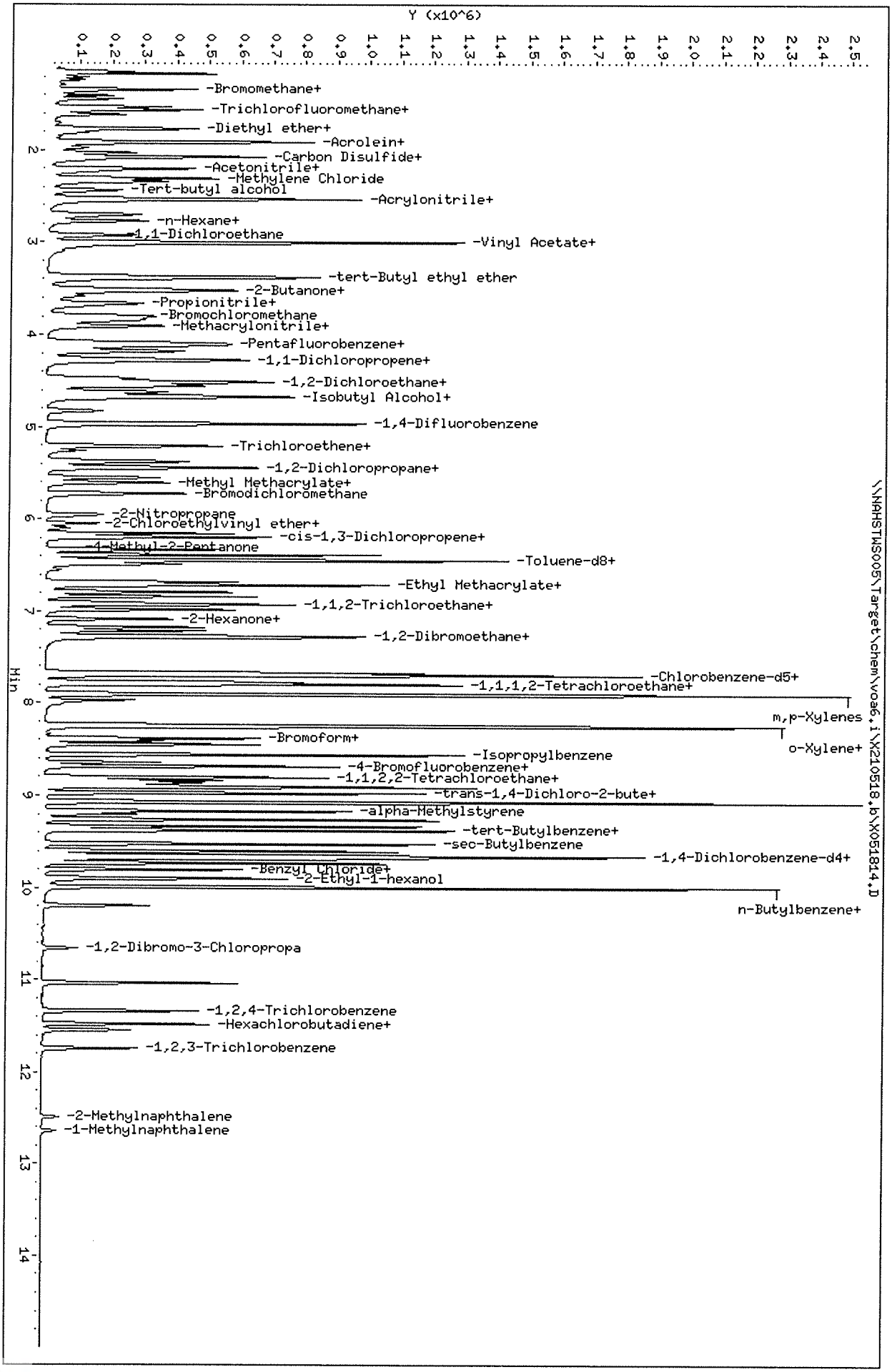
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	314020	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	520811	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	484823	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250460	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	175772	50.2504	50.25
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	205067	50.1979	50.19
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	584625	49.1076	49.10
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	230369	50.3369	50.33
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	170258	48.2027	48.20
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	270319	50.6112	50.61
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	214655	51.7580	51.75
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	140911	50.0345	50.03
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	274803	47.2562	47.25
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	148405	47.2568	47.25
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	215541	48.3130	48.31
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	71059	59.1408	59.14
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	180570	53.1631	53.16(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	120554	53.3923	53.39
79 1,2,4-Trimethylbenzene	105	9.382	9.383	(0.971)	597253	46.8861	46.88
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.658	(1.103)	19095	56.3452	56.34
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	175810	51.9432	51.94
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	329044	46.8735	46.87

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\X051814.D Page 2
Report Date: 08-Jun-2021 11:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	250302	48.8804	48.88
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	167115	47.7459	47.74
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	590381	47.2215	47.22
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	343639	47.7565	47.75
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	277959	50.4174	50.41
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	352814	47.9586	47.95
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	260587	50.0938	50.09
24	2-Butanone	43	3.580	3.580	(0.856)	119740	103.302	103.30
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	510642	45.7453	45.74
52	2-Hexanone	43	7.090	7.090	(0.924)	215239	104.715	104.71
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	612096	47.0259	47.02
82	p-Isopropyltoluene	119	9.647	9.655	(0.999)	578626	46.7908	46.79
45	4-Methyl-2-Pentanone	43	6.324	6.331	(0.824)	315436	102.153	102.15
10	Acetone	43	1.976	1.976	(0.473)	92565	117.467	117.46
37	Benzene	78	4.512	4.512	(0.909)	646518	50.1763	50.17
74	Bromobenzene	156	8.802	8.809	(0.911)	196985	47.1796	47.17
29	Bromochloromethane	128	3.795	3.795	(0.908)	92140	48.1462	48.14
39	Bromodichloromethane	83	5.729	5.722	(1.154)	248409	49.3648	49.36
66	Bromoform	173	8.408	8.408	(1.096)	122293	52.1571	52.15
6	Bromomethane	94	1.338	1.331	(0.320)	187724	56.9415	56.94
19	Carbon Disulfide	76	2.069	2.069	(0.495)	792228	107.080	107.07
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	219217	48.2910	48.29
59	Chlorobenzene	112	7.692	7.692	(1.003)	455368	47.8996	47.89
7	Chloroethane	64	1.403	1.396	(0.336)	111773	47.0223	47.02
28	Chloroform	83	3.910	3.910	(0.935)	318549	47.7476	47.74
3	Chloromethane	50	1.073	1.073	(0.257)	175510	51.8144	51.81
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	177242	48.9746	48.97
46	cis-1,3-Dichloropropene	75	6.152	6.159	(1.240)	286606	50.1968	50.19
55	Dibromochloromethane	129	7.176	7.176	(0.936)	198733	52.4448	52.44
44	Dibromomethane	93	5.550	5.550	(1.118)	125829	50.1588	50.15
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	202217	51.1231	51.12
61	Ethylbenzene	106	7.799	7.799	(1.017)	229958	48.9489	48.94
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	72493	48.3476	48.34
67	Isopropylbenzene	105	8.559	8.566	(1.116)	689621	48.0318	48.03
62	m,p-Xylenes	106	7.900	7.907	(1.030)	598088	98.7859	98.78
17	Methylene Chloride	84	2.305	2.298	(0.551)	155672	49.4373	49.43
87	n-Butylbenzene	91	9.991	9.991	(1.034)	559802	47.5986	47.59
73	n-Propylbenzene	91	8.910	8.910	(0.922)	842024	47.4685	47.46
92	Naphthalene	128	11.539	11.539	(1.194)	198367	59.5423	59.54(M)
63	o-Xylene	106	8.244	8.244	(1.075)	286204	48.6033	48.60
81	sec-Butylbenzene	105	9.519	9.526	(0.985)	681120	46.3974	46.39
64	Styrene	104	8.258	8.258	(1.077)	512733	46.5385	46.53
78	tert-Butylbenzene	119	9.339	9.340	(0.967)	481642	45.4003	45.40
56	Tetrachloroethene	164	6.926	6.926	(0.903)	135210	50.1892	50.18
50	Toluene	91	6.446	6.446	(0.840)	698935	49.9665	49.96
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	151505	50.1483	50.14
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	259978	52.0492	52.04
38	Trichloroethene	130	5.206	5.206	(1.049)	166097	48.1615	48.16
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	289827	48.0155	48.01
5	Vinyl Chloride	62	1.145	1.138	(0.274)	181830	47.9597	47.95

QC Flag Legend

M - Compound response manually integrated.



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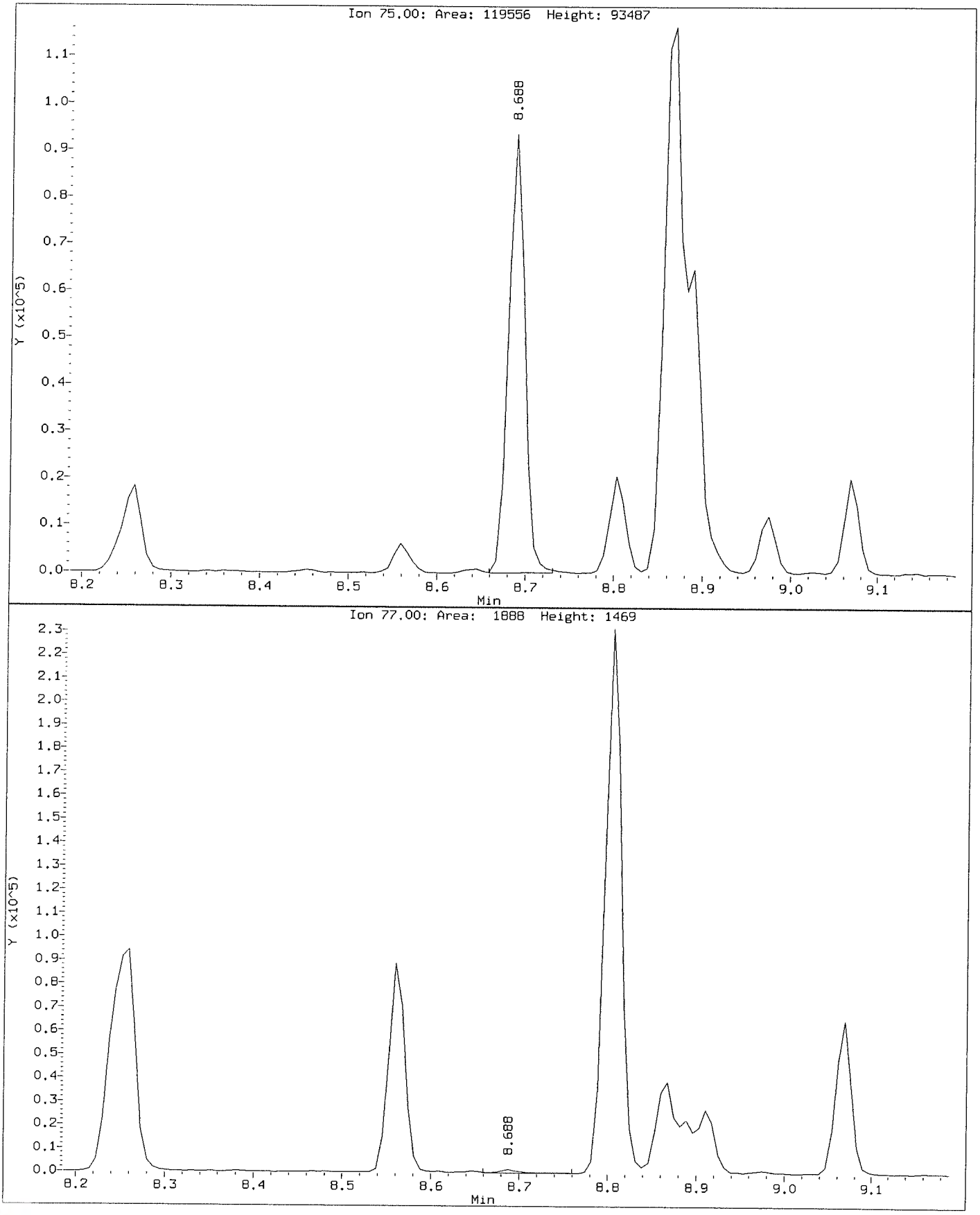
Date : 18-MAY-2021 16:04
Client ID: ICV
Sample Info: CCV;CCV;2;;ICV
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210518.b\Before\X051814.D
Injection Date: 18-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: ICV

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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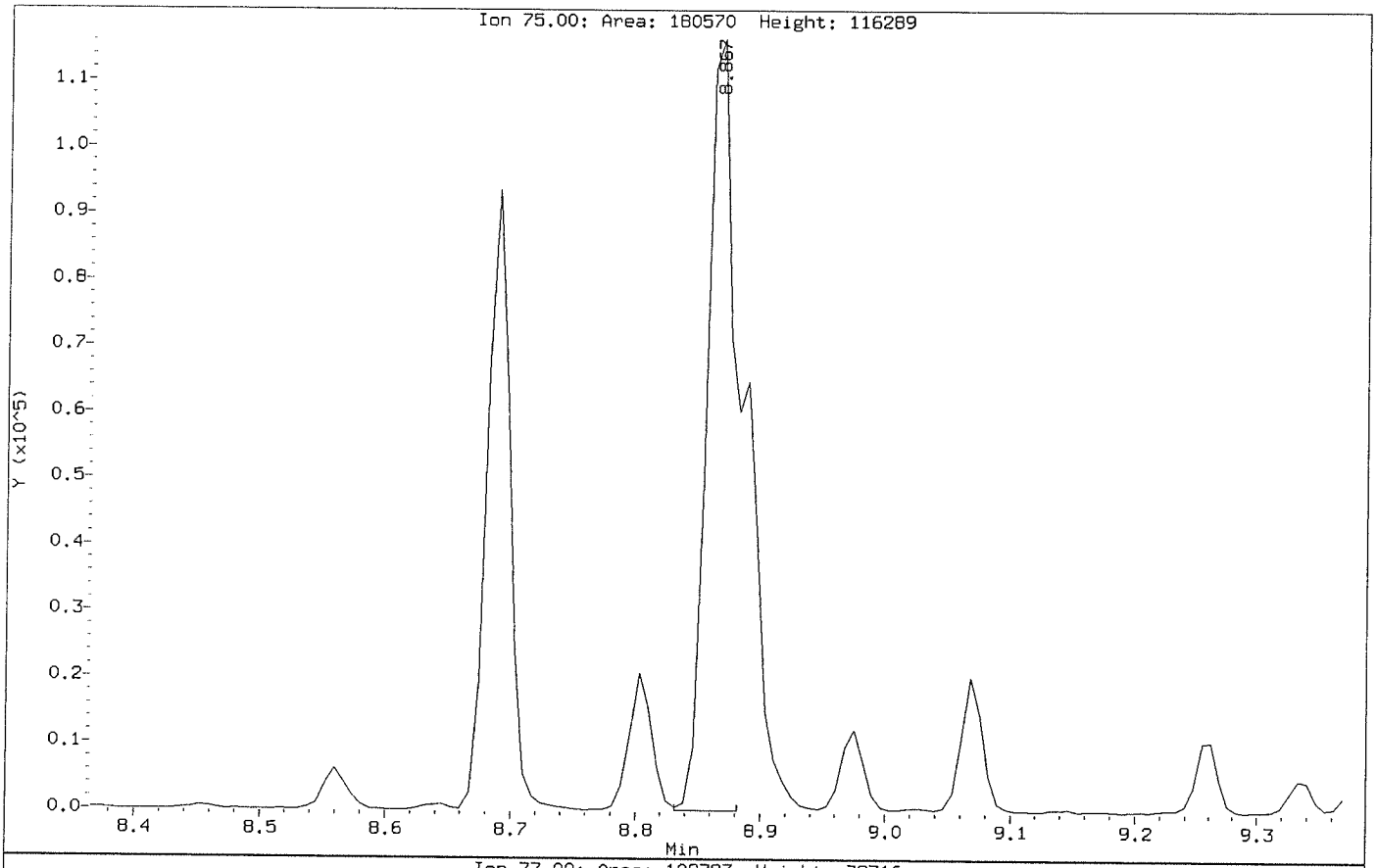
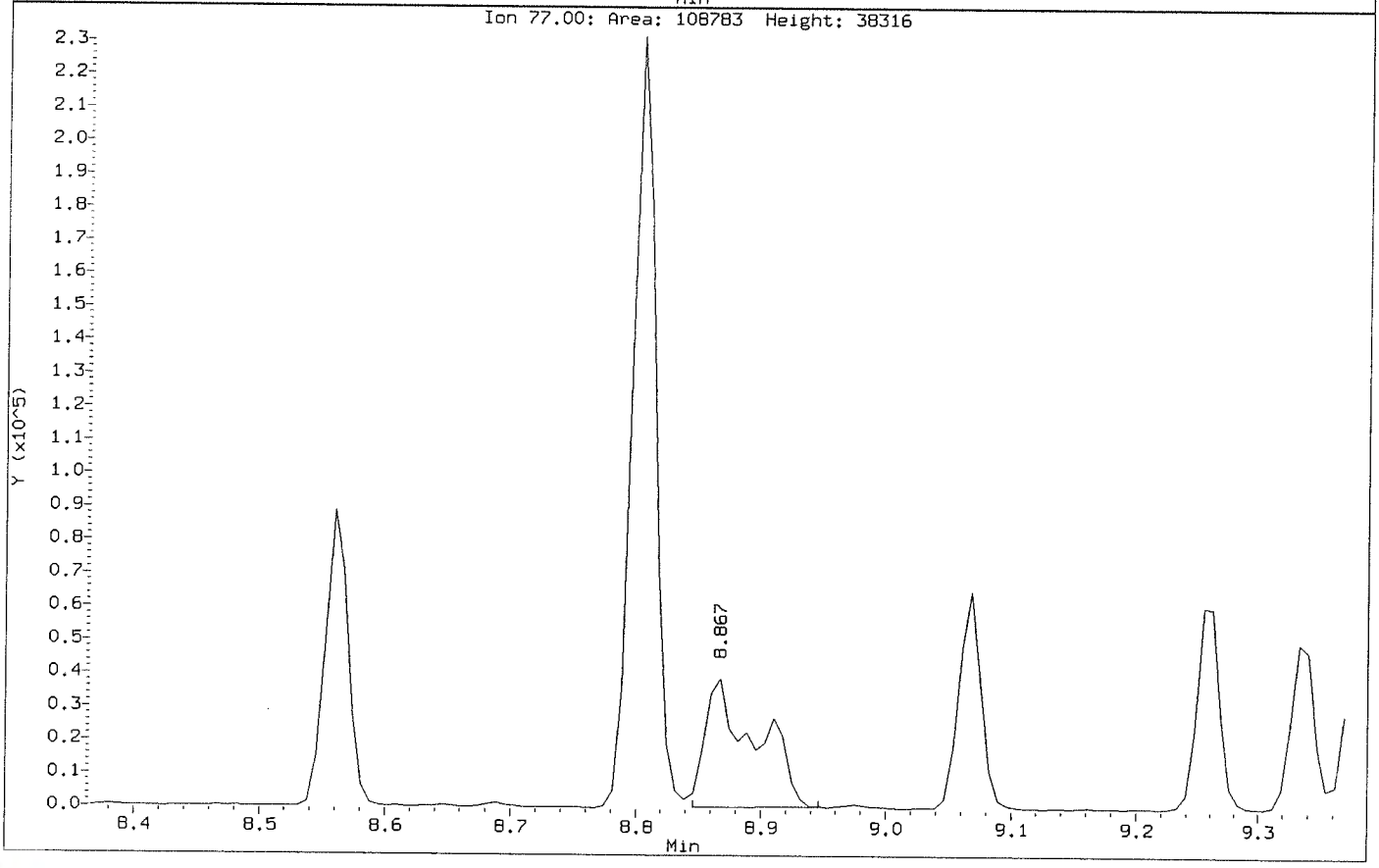
Injection Date: 18-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: ICV

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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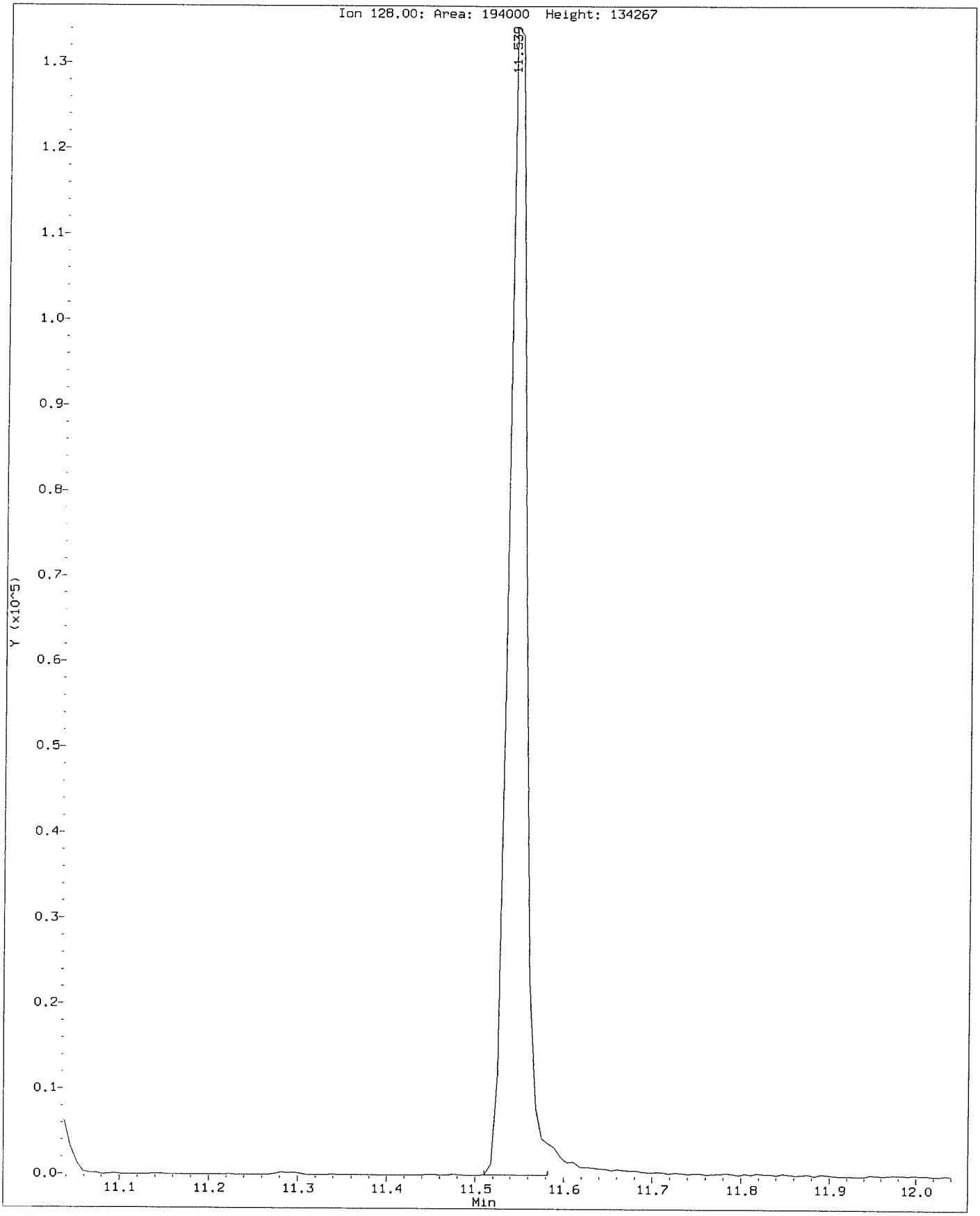
Injection Date: 18-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: ICV

Compound: Naphthalene
CAS Number: 91-20-3



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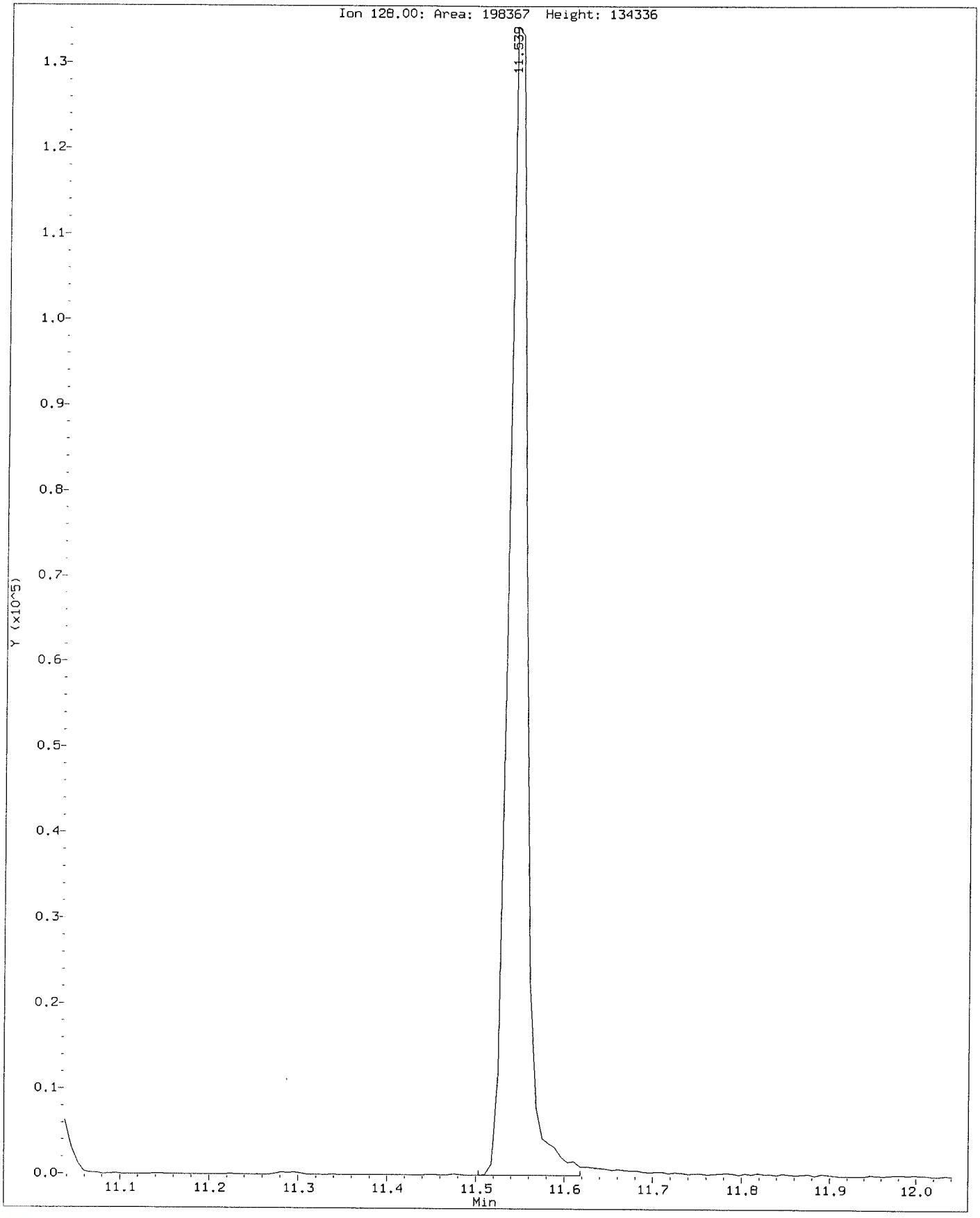
Injection Date: 18-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: ICV

Compound: Naphthalene
CAS Number: 91-20-3



MSVOA06 -Logbook

Batch: 44959 **Analyst:** Presenta Cabascango

Date: 05-21-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-21-2021 10:12 am	1.00	50 mL	50 mL	X052101.D	Liquid	Y	NA
2	CCV	CCV	05-21-2021 10:33 am	1.00	50 mL	50 mL	X052102a.D	Liquid	Y	NA
3	CCV	CCV	05-21-2021 10:54 am	1.00	50 mL	50 mL	X052103.D	Liquid	Y	NA
4	CCB	SAMP	05-21-2021 11:15 am	1.00	50 mL	50 mL	X052104.D	Liquid	Y	NA
5	VLCSW-210521	LCS	05-21-2021 11:36 am	1.00	50 mL	50 mL	X052105.D	Liquid	Y	NA
6	BLANK	SAMP	05-21-2021 11:57 am	1.00	50 mL	50 mL	X052106.D	Liquid	Y	NA
7	VBLKW-210521	MBLK	05-21-2021 12:18 pm	1.00	50 mL	50 mL	X052107.D	Liquid	Y	NA
8	HS21050898-01	SAMP	05-21-2021 12:39 pm	1.00	50 mL	50 mL	X052108.D	Liquid	Y	NA
9	HS21050898-02	SAMP	05-21-2021 01:00 pm	1.00	50 mL	50 mL	X052109.D	Liquid	Y	NA
10	HS21050892-08	SAMP	05-21-2021 01:21 pm	1.00	50 mL	50 mL	X052110.D	Liquid	Y	NA
11	HS21050972-03	SAMP	05-21-2021 01:43 pm	1.00	50 mL	50 mL	X052111.D	Liquid	Y	NA
12	HS21050972-03MS	MS	05-21-2021 02:04 pm	1.00	50 mL	50 mL	X052112.D	Liquid	Y	NA
13	HS21050972-03MSD	MSD	05-21-2021 02:25 pm	1.00	50 mL	50 mL	X052113.D	Liquid	Y	NA
14	HS21050629-02	SAMP	05-21-2021 02:46 pm	100000.	0.5 µL	50 mL	X052114.D	Liquid	Y	NA
15	HS21050668-11	SAMP	05-21-2021 03:07 pm	50000.(	1 µL	50 mL	X052115.D	Liquid	Y	NA
16	HS21050629-01	SAMP	05-21-2021 03:28 pm	500.0(	100 µL	50 mL	X052116.D	Liquid	Y	NA
17	HS21050629-10	SAMP	05-21-2021 03:49 pm	250.0(	200 µL	50 mL	X052117.D	Liquid	Y	NA
18	HS21050972-01	SAMP	05-21-2021 04:10 pm	1.00	50 mL	50 mL	X052118.D	Liquid	Y	NA
19	HS21050972-02	SAMP	05-21-2021 04:31 pm	1.00	50 mL	50 mL	X052119.D	Liquid	Y	NA
20	HS21050972-04	SAMP	05-21-2021 04:52 pm	1.00	50 mL	50 mL	X052120.D	Liquid	Y	NA
21	HS21050972-05	SAMP	05-21-2021 05:13 pm	1.00	50 mL	50 mL	X052121.D	Liquid	Y	NA
22	HS21050972-06	SAMP	05-21-2021 05:34 pm	1.00	50 mL	50 mL	X052122.D	Liquid	Y	NA
23	HS21050972-07	SAMP	05-21-2021 05:55 pm	1.00	50 mL	50 mL	X052123.D	Liquid	Y	NA
24	MBLK-165999	MBLK	05-21-2021 06:16 pm	20.00	2.5 mL	50 mL	X052124.D	Liquid	Y	NA
25	HS21050668-01	SAMP	05-21-2021 06:37 pm	20.00	2.5 mL	50 mL	X052125.D	Liquid	Y	NA
26	HS21050668-04	SAMP	05-21-2021 06:58 pm	20.00	2.5 mL	50 mL	X052126.D	Liquid	Y	NA
27	HS21050668-06	SAMP	05-21-2021 07:20 pm	20.00	2.5 mL	50 mL	X052127.D	Liquid	Y	NA
28	HS21050668-10	SAMP	05-21-2021 07:41 pm	20.00	2.5 mL	50 mL	X052128.D	Liquid	Y	NA
29	HS21050668-05	SAMP	05-21-2021 08:02 pm	50.00	1 mL	50 mL	X052129.D	Liquid	Y	NA
30	HS21050668-07	SAMP	05-21-2021 08:23 pm	50.00	1 mL	50 mL	X052130.D	Liquid	Y	NA
31	CCV-END	CCV	05-21-2021 08:44 pm	1.00	50 mL	50 mL	X052131.D	Liquid	Y	NA
32	BLANK	SAMP	05-21-2021 09:05 pm	1.00	50 mL	50 mL	X052132.D	Liquid	Y	NA

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

	CLIENT SAMPLE NO.	SMC1 (DCE) #	SMC2 #	SMC3 (TOL) #	OTHER #	TOT OUT
01	VLCSW-210521	99	96	98	97	0
02	VBLKW-210521	93	91	110	91	0
03	HS21050898-01	93	90	108	90	0
04	HS21050898-02	92	91	108	88	0
05	HS21050972-03MS	90	90	104	97	0
06	HS21050972-03MSD	96	92	103	99	0
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		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3 (TOL)	= Toluene-d8	(0-130)
OTHER	= 4-Bromofluorobenzene	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-210521

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Lab File ID: X052107 Lab Sample ID: VBLKW-210521

Date Analyzed: 05/21/21 Time Analyzed: 1218

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210521	VLCSW-210521	X052105	1136
02	HS21050898-01	HS21050898-01	X052108	1239
03	HS21050898-02	HS21050898-02	X052109	1300
04	HS21050972-03MS	HS21050972-03MS	X052112	1404
05	HS21050972-03MSD	HS21050972-03MSD	X052113	1425
06				
07				
08				
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30				

COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Lab File ID: X052101 BFB Injection Date: 05/21/21

Instrument ID: VOA6 BFB Injection Time: 1012

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.7
75	30.0 - 60.0% of mass 95	52.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.0 (1.5)1
174	Greater than 50.0% of mass 95	68.9
175	5.0 - 9.0% of mass 174	5.6 (8.1)1
176	95.0 - 101.0% of mass 174	67.9 (98.6)1
177	5.0 - 9.0% of mass 176	4.5 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X052103	05/21/21	1054
02	VLCSW-210521	VLCSW-210521	X052105	05/21/21	1136
03	VBLKW-210521	VBLKW-210521	X052107	05/21/21	1218
04	HS21050898-01	HS21050898-01	X052108	05/21/21	1239
05	HS21050898-02	HS21050898-02	X052109	05/21/21	1300
06	HS21050972-03MS	HS21050972-03MS	X052112	05/21/21	1404
07	HS21050972-03MSD	HS21050972-03MSD	X052113	05/21/21	1425
08	CCV-END	CCV-END	X052131	05/21/21	2044
09					
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16					
17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Instrument ID: VOA6 Calibration Date: 05/21/21 Time: 1054

Lab File ID: X052103 Init. Calib. Date(s): 05/18/21 05/18/21

Init. Calib. Times: 1123 1452

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5480000	0.5791681	0.5791681	0.2	-5.69	20.00	AVRG
trans-1,3-Dichloropropene	0.4790000	0.5277729	0.5277729	0.1	-10.18	20.00	AVRG
1,3-Dichlorobenzene	1.4360000	1.3997150	1.3997150	0.6	2.53	20.00	AVRG
2,2-Dichloropropane	0.8280000	0.8792704	0.8792704	0.1	-6.19	20.00	AVRG
1,1-Dichloropropene	0.4280000	0.4368445	0.4368445	0.1	-2.07	20.00	AVRG
Dibromomethane	0.2410000	0.2472383	0.2472383	0.1	-2.59	20.00	AVRG
1,2-Dibromoethane	0.3490000	0.3621627	0.3621627	0.1	-3.77	20.00	AVRG
trans-1,2-Dichloroethene	0.4810000	0.4937579	0.4937579	0.1	-2.65	20.00	AVRG
1,1,1,2-Tetrachloroethane	0.3640000	0.3674629	0.3674629	0.1	-0.95	20.00	AVRG
1,1,1-Trichloroethane	0.8500000	0.8936031	0.8936031	0.1	-5.13	20.00	AVRG
1,1,2,2-Tetrachloroethane	49.860655	50.000000	0.8259440	0.3	0.28	20.00	LINR
1,1,2-Trichloroethane	0.2900000	0.2866647	0.2866647	0.1	1.15	20.00	AVRG
1,1-Dichloroethane	0.9260000	0.9466885	0.9466885	0.2	-2.23	20.00	AVRG
1,1-Dichloroethene	0.5000000	0.4724459	0.4724459	0.1	5.51	20.00	AVRG
Trichloroethene	0.3310000	0.3333773	0.3333773	0.2	-0.72	20.00	AVRG
1,2,3-Trichlorobenzene	49.091594	50.000000	0.2336514	0.01	1.82	20.00	2RDR
Trichlorofluoromethane	0.9610000	0.9223315	0.9223315	0.1	4.02	20.00	AVRG
1,2,4-Trichlorobenzene	46.609217	50.000000	0.4172193	0.1	6.78	20.00	LINR
1,2,4-Trimethylbenzene	2.5430000	2.4869705	2.4869705	0.1	2.20	20.00	AVRG
Tetrachloroethene	0.2780000	0.2896380	0.2896380	0.2	-4.19	20.00	AVRG
1,2-Dichlorobenzene	1.4010000	1.3453778	1.3453778	0.4	3.97	20.00	AVRG
1,2-Dichloroethane	0.4910000	0.5009528	0.5009528	0.1	-2.03	20.00	AVRG
1,2-Dichloropropane	0.3360000	0.3320503	0.3320503	0.1	1.18	20.00	AVRG
1,3,5-Trimethylbenzene	2.4960000	2.4461714	2.4461714	0.1	2.00	20.00	AVRG
1,3-Dichloropropane	0.5690000	0.5596983	0.5596983	0.1	1.63	20.00	AVRG
1,4-Dichlorobenzene	48.575835	50.000000	1.4268900	0.4	2.85	20.00	LINR
Toluene	1.4430000	1.4975173	1.4975173	0.4	-3.78	20.00	AVRG
2-Butanone	0.1850000	0.1946863	0.1946863	0.1	-5.24	20.00	AVRG
2-Chlorotoluene	2.2280000	2.0978276	2.0978276	0.1	5.84	20.00	AVRG
2-Hexanone	97.290999	100.00000	0.2062802	0.1	2.71	20.00	LINR
4-Chlorotoluene	2.5980000	2.5787673	2.5787673	0.1	0.74	20.00	AVRG
tert-Butylbenzene	2.1180000	2.0349185	2.0349185	0.1	3.92	20.00	AVRG
4-Methyl-2-Pentanone	96.595943	100.00000	0.3075984	0.1	3.40	20.00	LINR
Acetone	115.40955	100.00000	0.1449145	0.1	-15.41	20.00	LINR
Benzene	1.2370000	1.2460477	1.2460477	0.5	-0.73	20.00	AVRG
Bromobenzene	0.8340000	0.8026621	0.8026621	0.1	3.76	20.00	AVRG
Bromochloromethane	0.3050000	0.3036319	0.3036319	0.1	0.45	20.00	AVRG
Bromodichloromethane	0.4830000	0.5000748	0.5000748	0.2	-3.54	20.00	AVRG
Bromoform	0.2420000	0.2518305	0.2518305	0.1	-4.06	20.00	AVRG
Bromomethane	52.187571	50.000000	0.5483141	0.1	-4.38	20.00	LINR
Carbon Disulfide	1.1780000	1.2319480	1.2319480	0.1	-4.58	20.00	AVRG
Carbon Tetrachloride	0.4360000	0.4510744	0.4510744	0.1	-3.46	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date: 05/21/21 Time: 1054

Lab File ID: X052103 Init. Calib. Date(s): 05/18/21 05/18/21

Init. Calib. Times: 1123 1452

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	0.9800000	0.9771051	0.9771051	0.5	0.30	20.00	AVRG
Chloroethane	0.3780000	0.3991376	0.3991376	0.1	-5.59	20.00	AVRG
Chloroform	1.0620000	1.0762571	1.0762571	0.2	-1.34	20.00	AVRG
Chloromethane	52.099472	50.000000	0.5620022	0.1	-4.20	20.00	LINR
cis-1,2-Dichloroethene	0.5760000	0.5890006	0.5890006	0.1	-2.26	20.00	AVRG
Dibromochloromethane	0.3900000	0.3976663	0.3976663	0.1	-1.96	20.00	AVRG
Dichlorodifluoromethane	52.107600	50.000000	0.6568893	0.1	-4.22	20.00	LINR
Ethylbenzene	0.4840000	0.4978221	0.4978221	0.1	-2.86	20.00	AVRG
Hexachlorobutadiene	48.793660	50.000000	0.2922982	0.1	2.41	20.00	LINR
Isopropylbenzene	1.4800000	1.5284175	1.5284175	0.1	-3.27	20.00	AVRG
m,p-Xylenes	0.6240000	0.6454563	0.6454563	0.1	-3.44	20.00	AVRG
Methylene Chloride	0.5010000	0.5084833	0.5084833	0.1	-1.49	20.00	AVRG
n-Butylbenzene	2.3480000	2.3916754	2.3916754	0.5	-1.86	20.00	AVRG
n-Propylbenzene	3.5410000	3.5249108	3.5249108	0.1	0.45	20.00	AVRG
Naphthalene	45.871078	50.000000	0.6001648	0.2	8.26	20.00	LINR
o-Xylene	0.6070000	0.6155132	0.6155132	0.3	-1.40	20.00	AVRG
sec-Butylbenzene	2.9310000	2.8571668	2.8571668	0.1	2.52	20.00	AVRG
Styrene	47.571989	50.000000	1.0819766	0.3	4.86	20.00	LINR
Vinyl Chloride	0.6040000	0.5722600	0.5722600	0.1	5.25	20.00	AVRG
1,2,3-Trichloropropane	48.783790	50.000000	0.6622455	0.1	2.43	20.00	LINR
p-Isopropyltoluene	2.4690000	2.4869104	2.4869104	0.1	-0.72	20.00	AVRG
1,2-Dibromo-3-Chloropropane	48.151425	50.000000	6.48e-002	0.05	3.70	20.00	LINR
1,2-Dichloroethane-d4	52.182258	50.000000	0.6782161	0.1	-4.36	20.00	LINR
Dibromofluoromethane	50.043798	50.000000	0.5574568	0.1	-0.09	20.00	LINR
Toluene-d8	48.052073	50.000000	1.1793884	0.1	3.90	20.00	LINR
4-Bromofluorobenzene	49.833465	50.000000	0.4703973	0.1	0.33	20.00	LINR

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Instrument ID: VOA6 Calibration Date: 05/21/21 Time: 2044

Lab File ID: X052131 Init. Calib. Date(s): 05/18/21 05/18/21

Init. Calib. Times: 1123 1452

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5480000	0.5649068	0.5649068	0.2	-3.08	50.00	AVRG
trans-1,3-Dichloropropene	0.4790000	0.5078913	0.5078913	0.1	-6.03	50.00	AVRG
1,3-Dichlorobenzene	1.4360000	1.3636256	1.3636256	0.6	5.04	50.00	AVRG
2,2-Dichloropropane	0.8280000	0.7450642	0.7450642	0.1	10.02	50.00	AVRG
1,1-Dichloropropene	0.4280000	0.4323877	0.4323877	0.1	-1.02	50.00	AVRG
Dibromomethane	0.2410000	0.2465580	0.2465580	0.1	-2.31	50.00	AVRG
1,2-Dibromoethane	0.3490000	0.3563797	0.3563797	0.1	-2.11	50.00	AVRG
trans-1,2-Dichloroethene	0.4810000	0.4741722	0.4741722	0.1	1.42	50.00	AVRG
1,1,1,2-Tetrachloroethane	0.3640000	0.3531024	0.3531024	0.1	2.99	50.00	AVRG
1,1,1-Trichloroethane	0.8500000	0.9132739	0.9132739	0.1	-7.44	50.00	AVRG
1,1,2,2-Tetrachloroethane	47.401440	50.000000	0.7856359	0.3	5.20	50.00	LINR
1,1,2-Trichloroethane	0.2900000	0.2905152	0.2905152	0.1	-0.18	50.00	AVRG
1,1-Dichloroethane	0.9260000	0.8673908	0.8673908	0.2	6.33	50.00	AVRG
1,1-Dichloroethene	0.5000000	0.4904564	0.4904564	0.1	1.91	50.00	AVRG
Trichloroethene	0.3310000	0.3392649	0.3392649	0.2	-2.50	50.00	AVRG
1,2,3-Trichlorobenzene	34.540021	50.000000	0.1622721	0.01	30.92	50.00	2RDR
Trichlorofluoromethane	0.9610000	0.9979740	0.9979740	0.1	-3.85	50.00	AVRG
1,2,4-Trichlorobenzene	36.941032	50.000000	0.3258394	0.1	26.12	50.00	LINR
1,2,4-Trimethylbenzene	2.5430000	2.4342300	2.4342300	0.1	4.28	50.00	AVRG
Tetrachloroethene	0.2780000	0.2908741	0.2908741	0.2	-4.63	50.00	AVRG
1,2-Dichlorobenzene	1.4010000	1.2786709	1.2786709	0.4	8.73	50.00	AVRG
1,2-Dichloroethane	0.4910000	0.5168108	0.5168108	0.1	-5.26	50.00	AVRG
1,2-Dichloropropane	0.3360000	0.3388410	0.3388410	0.1	-0.84	50.00	AVRG
1,3,5-Trimethylbenzene	2.4960000	2.4277791	2.4277791	0.1	2.73	50.00	AVRG
1,3-Dichloropropane	0.5690000	0.5636572	0.5636572	0.1	0.94	50.00	AVRG
1,4-Dichlorobenzene	47.949038	50.000000	1.4083818	0.4	4.10	50.00	LINR
Toluene	1.4430000	1.4574286	1.4574286	0.4	-1.00	50.00	AVRG
2-Butanone	0.1850000	0.1864929	0.1864929	0.1	-0.81	50.00	AVRG
2-Chlorotoluene	2.2280000	2.1068978	2.1068978	0.1	5.44	50.00	AVRG
2-Hexanone	104.49501	100.00000	0.2215120	0.1	-4.50	50.00	LINR
4-Chlorotoluene	2.5980000	2.5144936	2.5144936	0.1	3.21	50.00	AVRG
tert-Butylbenzene	2.1180000	2.0794133	2.0794133	0.1	1.82	50.00	AVRG
4-Methyl-2-Pentanone	100.91037	100.00000	0.3213497	0.1	-0.91	50.00	LINR
Acetone	112.63355	100.00000	0.1415778	0.1	-12.63	50.00	LINR
Benzene	1.2370000	1.2567440	1.2567440	0.5	-1.60	50.00	AVRG
Bromobenzene	0.8340000	0.8115880	0.8115880	0.1	2.69	50.00	AVRG
Bromochloromethane	0.3050000	0.3147806	0.3147806	0.1	-3.21	50.00	AVRG
Bromodichloromethane	0.4830000	0.5016327	0.5016327	0.2	-3.86	50.00	AVRG
Bromoform	0.2420000	0.2485230	0.2485230	0.1	-2.70	50.00	AVRG
Bromomethane	52.793072	50.000000	0.5546182	0.1	-5.59	50.00	LINR
Carbon Disulfide	1.1780000	1.1255722	1.1255722	0.1	4.45	50.00	AVRG
Carbon Tetrachloride	0.4360000	0.4403654	0.4403654	0.1	-1.00	50.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105089

Instrument ID: VOA6 Calibration Date: 05/21/21 Time: 2044

Lab File ID: X052131 Init. Calib. Date(s): 05/18/21 05/18/21

Init. Calib. Times: 1123 1452

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	0.9800000	0.9730352	0.9730352	0.5	0.71	50.00	AVRG
Chloroethane	0.3780000	0.3810897	0.3810897	0.1	-0.82	50.00	AVRG
Chloroform	1.0620000	1.0747769	1.0747769	0.2	-1.20	50.00	AVRG
Chloromethane	46.220375	50.000000	0.4982952	0.1	7.56	50.00	LINR
cis-1,2-Dichloroethene	0.5760000	0.5931207	0.5931207	0.1	-2.97	50.00	AVRG
Dibromochloromethane	0.3900000	0.3960050	0.3960050	0.1	-1.54	50.00	AVRG
Dichlorodifluoromethane	44.631628	50.000000	0.5587285	0.1	10.74	50.00	LINR
Ethylbenzene	0.4840000	0.4940379	0.4940379	0.1	-2.07	50.00	AVRG
Hexachlorobutadiene	39.191890	50.000000	0.2307609	0.1	21.62	50.00	LINR
Isopropylbenzene	1.4800000	1.5809618	1.5809618	0.1	-6.82	50.00	AVRG
m,p-Xylenes	0.6240000	0.6486087	0.6486087	0.1	-3.94	50.00	AVRG
Methylene Chloride	0.5010000	0.4727347	0.4727347	0.1	5.64	50.00	AVRG
n-Butylbenzene	2.3480000	2.2259363	2.2259363	0.5	5.20	50.00	AVRG
n-Propylbenzene	3.5410000	3.5674803	3.5674803	0.1	-0.75	50.00	AVRG
Naphthalene	35.181644	50.000000	0.4501621	0.2	29.64	50.00	LINR
o-Xylene	0.6070000	0.6099637	0.6099637	0.3	-0.49	50.00	AVRG
sec-Butylbenzene	2.9310000	2.8702545	2.8702545	0.1	2.07	50.00	AVRG
Styrene	47.973048	50.000000	1.0914493	0.3	4.05	50.00	LINR
Vinyl Chloride	0.6040000	0.5562039	0.5562039	0.1	7.91	50.00	AVRG
1,2,3-Trichloropropane	49.231215	50.000000	0.6682436	0.1	1.54	50.00	LINR
p-Isopropyltoluene	2.4690000	2.4124204	2.4124204	0.1	2.29	50.00	AVRG
1,2-Dibromo-3-Chloropropane	41.111787	50.000000	5.5e-002	0.05	17.78	50.00	LINR
1,2-Dichloroethane-d4	53.021349	50.000000	0.6888625	0.1	-6.04	50.00	LINR
Dibromofluoromethane	53.709663	50.000000	0.5981070	0.1	-7.42	50.00	LINR
Toluene-d8	47.637349	50.000000	1.1689900	0.1	4.72	50.00	LINR
4-Bromofluorobenzene	51.392897	50.000000	0.4851534	0.1	-2.78	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Lab File ID (Standard): X052103 Date Analyzed: 05/21/21

Instrument ID: VOA6 Time Analyzed: 1054

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(CBZ) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(DCB) AREA	#	RT	#
	12 HOUR STD	436210		7.67		447649		4.96		232971		9.66	
	UPPER LIMIT	872420		8.17		895298		5.46		465942		10.16	
	LOWER LIMIT	218105		7.17		223825		4.46		116486		9.16	
	CLIENT SAMPLE NO.												
01	VLCSW-210521	376751		7.67		397267		4.96		193570		9.66	
02	VBLKW-210521	360382		7.67		398677		4.96		160883		9.66	
03	HS21050898-01	370660		7.67		391935		4.97		170706		9.66	
04	HS21050898-02	354423		7.67		388405		4.96		167539		9.66	
05	HS21050972-03MS	402712		7.67		426912		4.96		199997		9.66	
06	HS21050972-03MSD	412291		7.67		437796		4.96		205010		9.66	
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21050898

Lab File ID (Standard): X052103 Date Analyzed: 05/21/21

Instrument ID: VOA6 Time Analyzed: 1054

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	269942	4.18				
	UPPER LIMIT	539884	4.68				
	LOWER LIMIT	134971	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-210521	241349	4.18				
02	VBLKW-210521	257307	4.18				
03	HS21050898-01	255345	4.18				
04	HS21050898-02	249185	4.18				
05	HS21050972-03MS	268883	4.18				
06	HS21050972-03MSD	279299	4.18				
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052101.D

Date : 21-MAY-2021 10:12

Client ID: BFB

Instrument: voa6.i

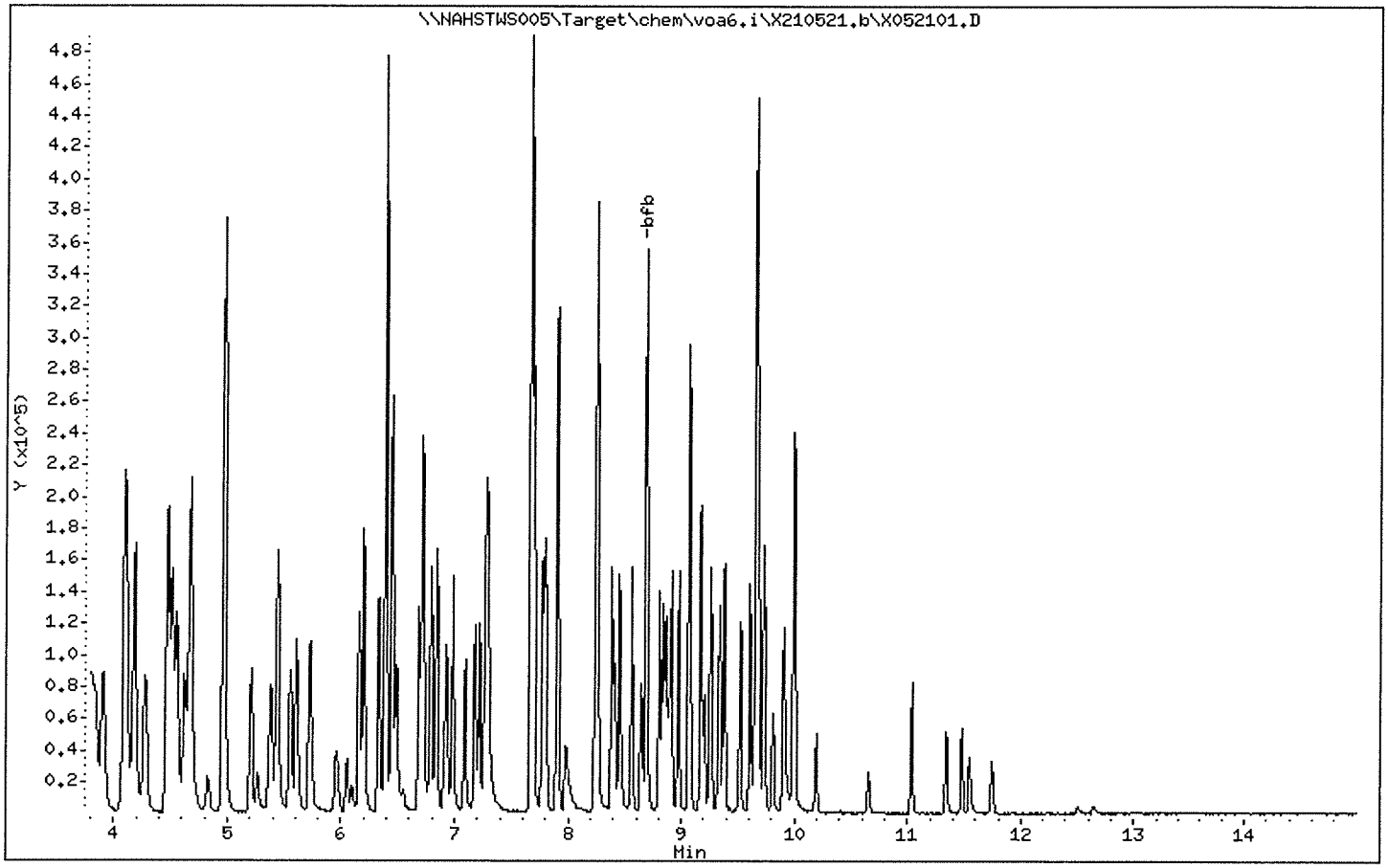
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052101.D

Date : 21-MAY-2021 10:12

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

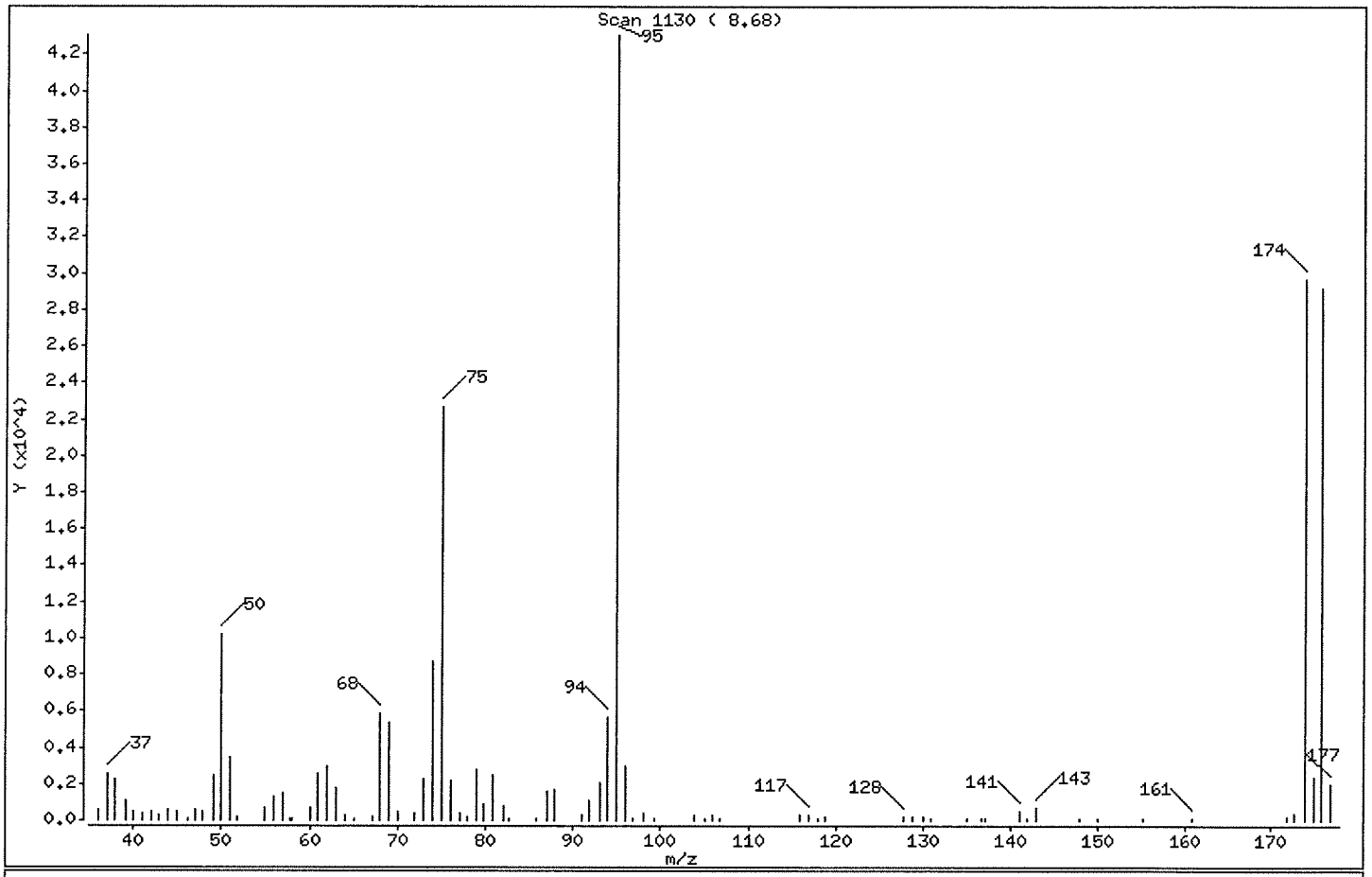
Volume Injected (uL): 2.0

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	23.66
75	30.00 - 60.00% of mass 95	52.57
96	5.00 - 9.00% of mass 95	6.79
173	Less than 2.00% of mass 174	1.01 (1.47)
174	Greater than 50.00% of mass 95	68.87
175	5.00 - 9.00% of mass 174	5.58 (8.11)
176	95.00 - 101.00% of mass 174	67.92 (98.62)
177	5.00 - 9.00% of mass 176	4.49 (6.61)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052101.D

Date : 21-MAY-2021 10:12

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: X052101.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	551	60.00	651	85.90	84	129.90	227
37.00	2526	61.00	2527	87.00	1588	130.80	95
38.00	2251	62.00	2969	87.90	1670	135.00	87
39.10	1112	63.00	1764	90.90	311	136.60	109
39.90	448	64.00	282	91.90	1067	137.10	61
41.10	384	65.10	56	93.00	2069	141.00	515
42.00	542	67.10	169	94.00	5624	141.80	69
42.90	304	67.90	5832	95.00	43024	142.90	684
44.00	598	69.00	5319	96.00	2921	147.90	59
45.00	456	70.00	526	96.90	101	149.90	59
46.10	99	72.00	414	98.10	363	155.00	81
47.00	549	73.00	2255	99.20	81	160.90	104
47.90	465	74.00	8696	103.90	345	171.90	238
49.00	2501	75.00	22616	105.10	136	172.80	436
50.00	10178	76.00	2166	106.00	262	173.90	29632
51.00	3453	77.00	414	106.80	118	174.90	2402
51.90	206	78.00	158	115.90	271	175.90	29224
55.00	697	78.90	2809	116.90	329	176.90	1932
56.00	1305	79.80	878	117.90	142		
57.00	1440	80.90	2428	118.80	162		
57.90	109	82.00	775	127.70	189		
58.10	109	82.80	119	128.80	166		

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052103.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-MAY-2021 10:54
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\8260W.m
Meth Date : 08-Jun-2021 15:03 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

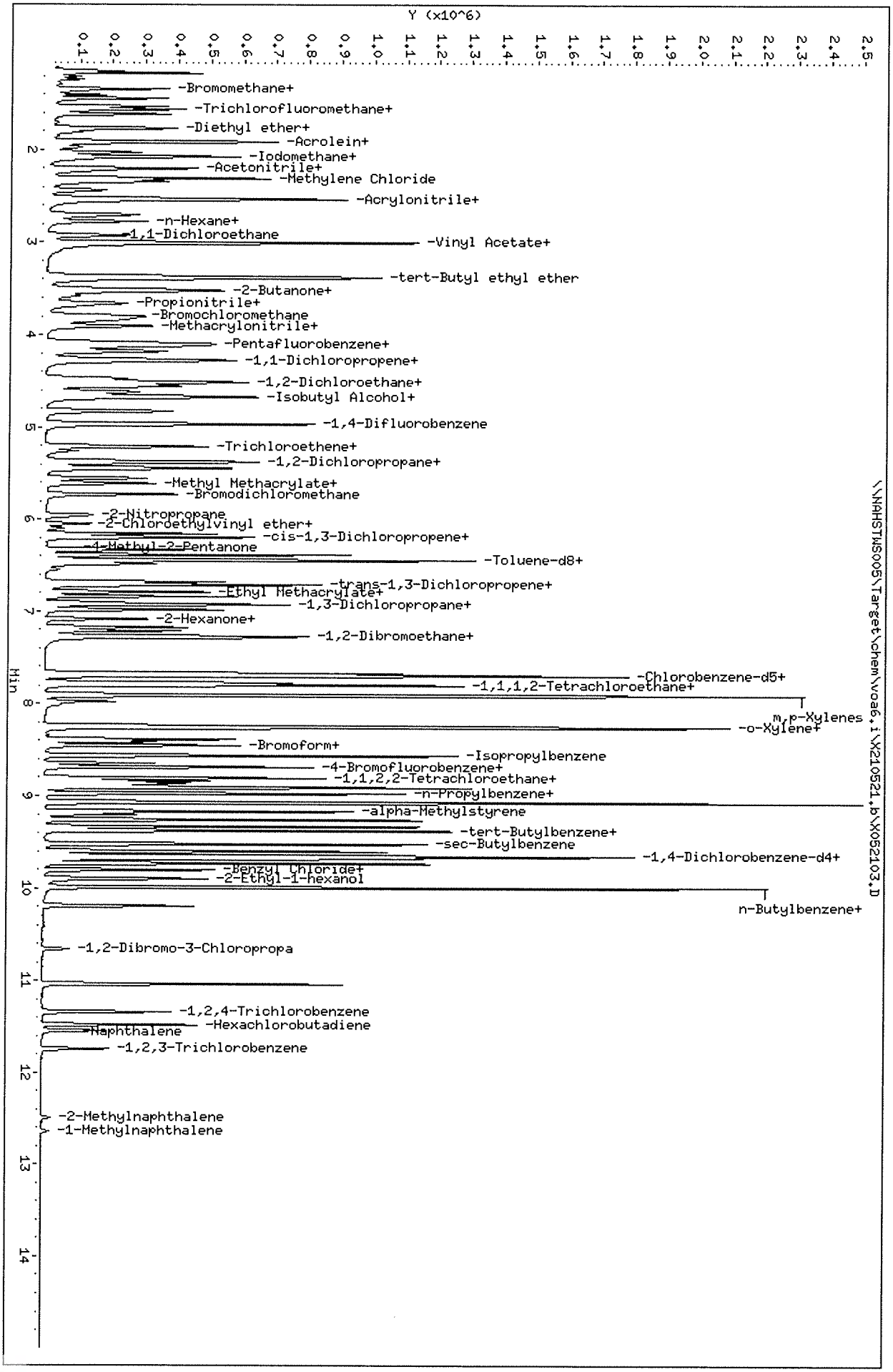
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	269942	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	447649	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	436210	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	232971	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	150481	50.0000	50.04
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	183079	50.0000	52.18
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	514461	50.0000	48.05
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	205192	50.0000	49.83
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	160291	50.0000	50.43
31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	241221	50.0000	52.53
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	192421	50.0000	49.86
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	125046	50.0000	49.34
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	255551	50.0000	51.12
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	127533	50.0000	47.24
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	195553	50.0000	50.99
93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	54434	50.0000	49.09
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	154284	50.0000	48.78(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	97200	50.0000	46.60
79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	579392	50.0000	48.89
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	15103	50.0000	48.15
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	157979	50.0000	51.87
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	313434	50.0000	48.00

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052103.D Page 2
Report Date: 08-Jun-2021 15:03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	224251	50.0000	50.95
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	148642	50.0000	49.40
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	569887	50.0000	49.00
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	326093	50.0000	48.72
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	244146	50.0000	49.21
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	332424	50.0000	48.57
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	237352	50.0000	53.07
24	2-Butanone	43	3.580	3.580	(0.856)	105108	100.000	105.48
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	488733	50.0000	47.06
52	2-Hexanone	43	7.090	7.090	(0.924)	179963	100.000	97.29
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	600778	50.0000	49.62
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	579378	50.0000	50.36
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	268355	100.000	96.59
10	Acetone	43	1.976	1.976	(0.473)	78237	100.000	115.40
37	Benzene	78	4.512	4.512	(0.909)	557792	50.0000	50.36
74	Bromobenzene	156	8.802	8.802	(0.911)	186997	50.0000	48.14
29	Bromochloromethane	128	3.795	3.795	(0.908)	81963	50.0000	49.82
39	Bromodichloromethane	83	5.729	5.729	(1.154)	223858	50.0000	51.75
66	Bromoform	173	8.408	8.408	(1.096)	109851	50.0000	52.07
6	Bromomethane	94	1.338	1.338	(0.320)	148013	50.0000	52.18
19	Carbon Disulfide	76	2.069	2.069	(0.495)	665109	100.000	104.57
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	201923	50.0000	51.75
59	Chlorobenzene	112	7.692	7.692	(1.003)	426223	50.0000	49.83
7	Chloroethane	64	1.403	1.403	(0.336)	107744	50.0000	52.72
28	Chloroform	83	3.910	3.910	(0.935)	290527	50.0000	50.65
3	Chloromethane	50	1.073	1.073	(0.257)	151708	50.0000	52.09
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	158996	50.0000	51.10
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	259264	50.0000	52.82
55	Dibromochloromethane	129	7.176	7.176	(0.936)	173466	50.0000	50.87
44	Dibromomethane	93	5.550	5.550	(1.118)	110676	50.0000	51.32
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	177322	50.0000	52.10
61	Ethylbenzene	106	7.799	7.799	(1.017)	217155	50.0000	51.37
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	68097	50.0000	48.79
67	Isopropylbenzene	105	8.559	8.559	(1.116)	666711	50.0000	51.61
62	m,p-Xylenes	106	7.907	7.907	(1.031)	563109	100.000	103.37
17	Methylene Chloride	84	2.305	2.305	(0.551)	137261	50.0000	50.70
87	n-Butylbenzene	91	9.991	9.991	(1.034)	557191	50.0000	50.93
73	n-Propylbenzene	91	8.910	8.910	(0.922)	821202	50.0000	49.76
92	Naphthalene	128	11.546	11.546	(1.195)	139821	50.0000	45.87
63	o-Xylene	106	8.244	8.244	(1.075)	268493	50.0000	50.67
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	665637	50.0000	48.74
64	Styrene	104	8.258	8.258	(1.077)	471969	50.0000	47.57
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	474077	50.0000	48.04
56	Tetrachloroethene	164	6.926	6.926	(0.903)	126343	50.0000	52.12
50	Toluene	91	6.446	6.446	(0.840)	653232	50.0000	51.90
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	133286	50.0000	51.32
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	236257	50.0000	55.03
38	Trichloroethene	130	5.206	5.206	(1.049)	149236	50.0000	50.34
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	248976	50.0000	47.98
5	Vinyl Chloride	62	1.145	1.145	(0.274)	154477	50.0000	47.39

QC Flag Legend

M - Compound response manually integrated.



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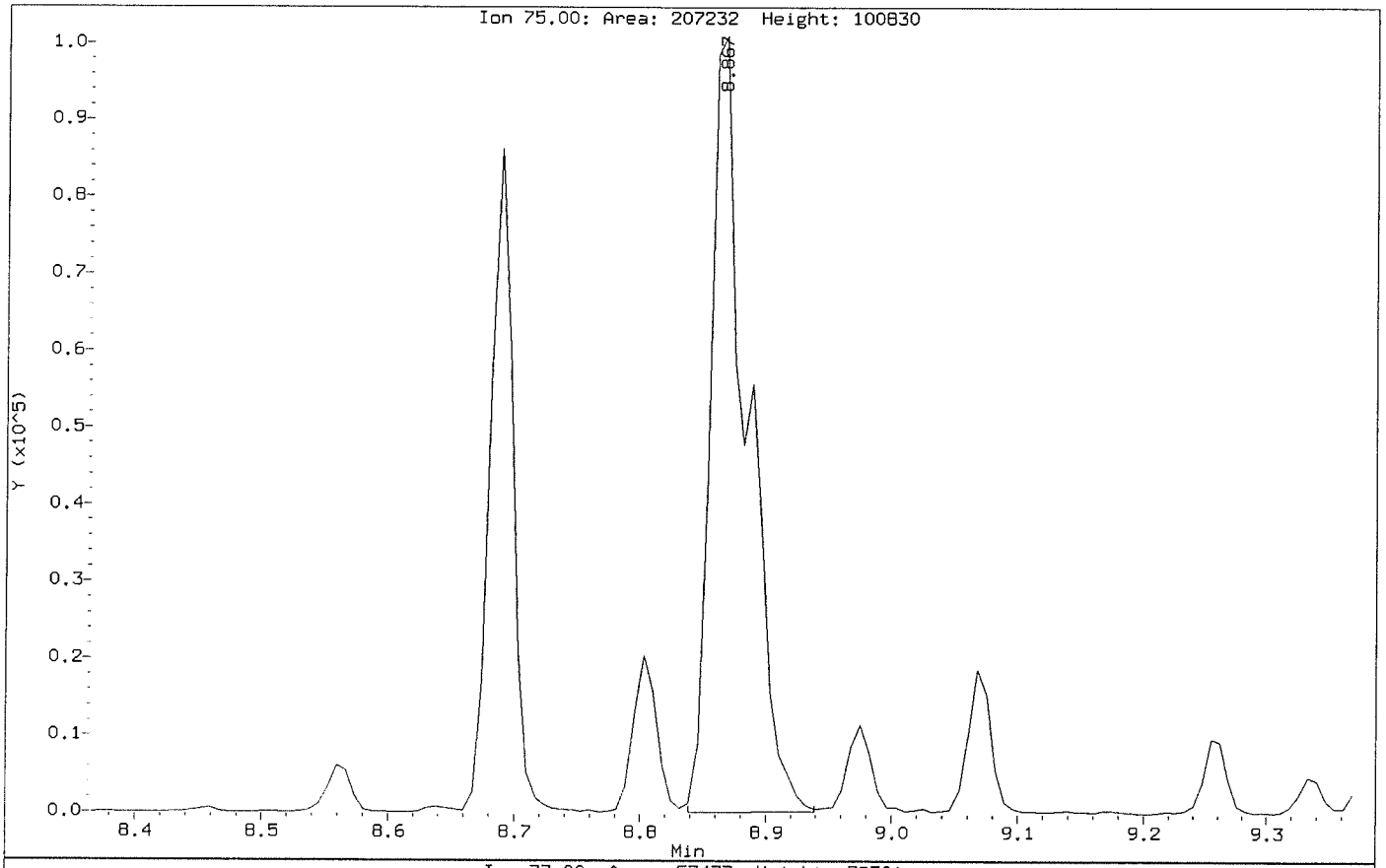
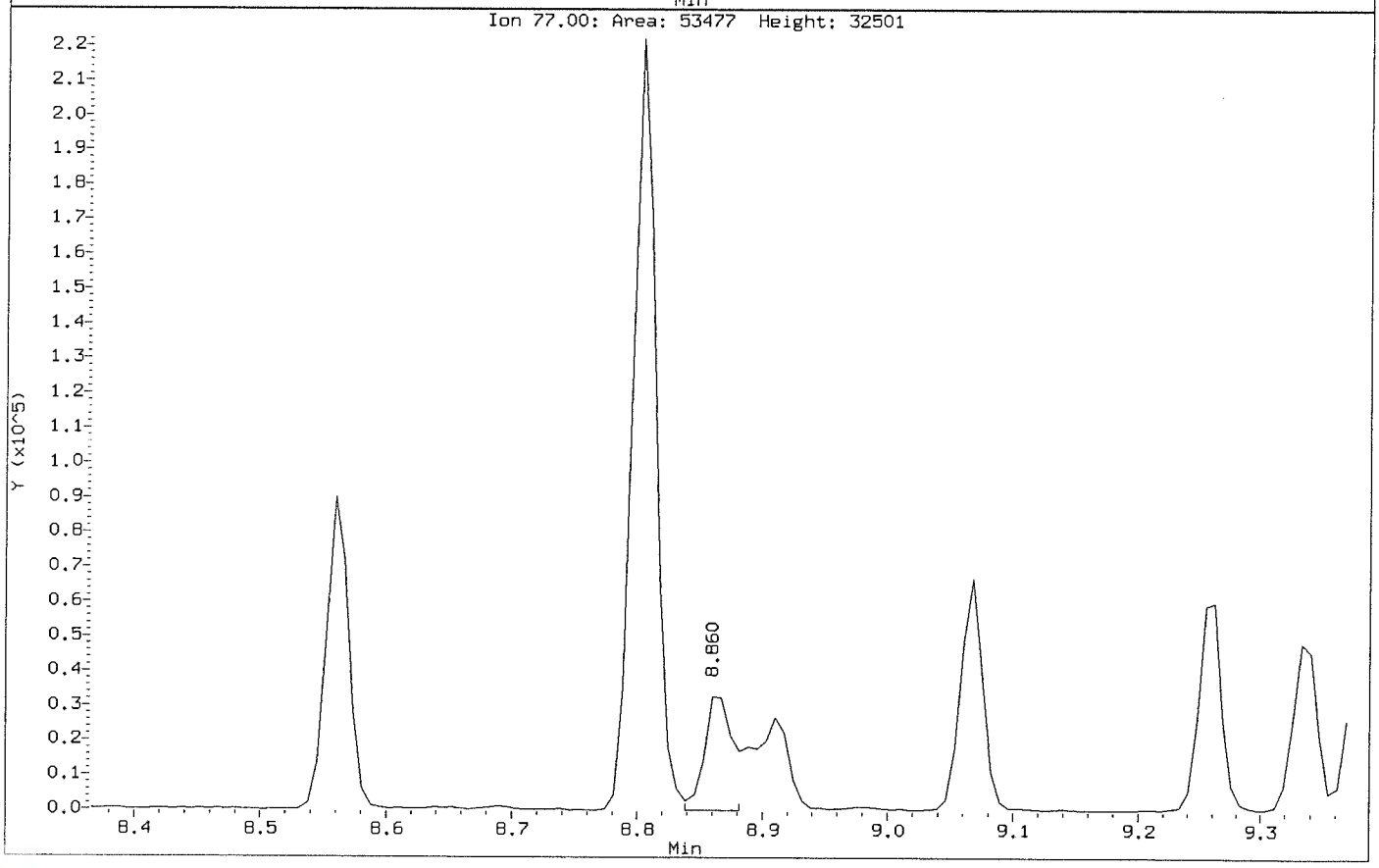
Date : 21-MAY-2021 10:54
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\Before\X052103.D
Injection Date: 21-MAY-2021 10:54
Instrument: voa6.i
Client Sample ID: CCV

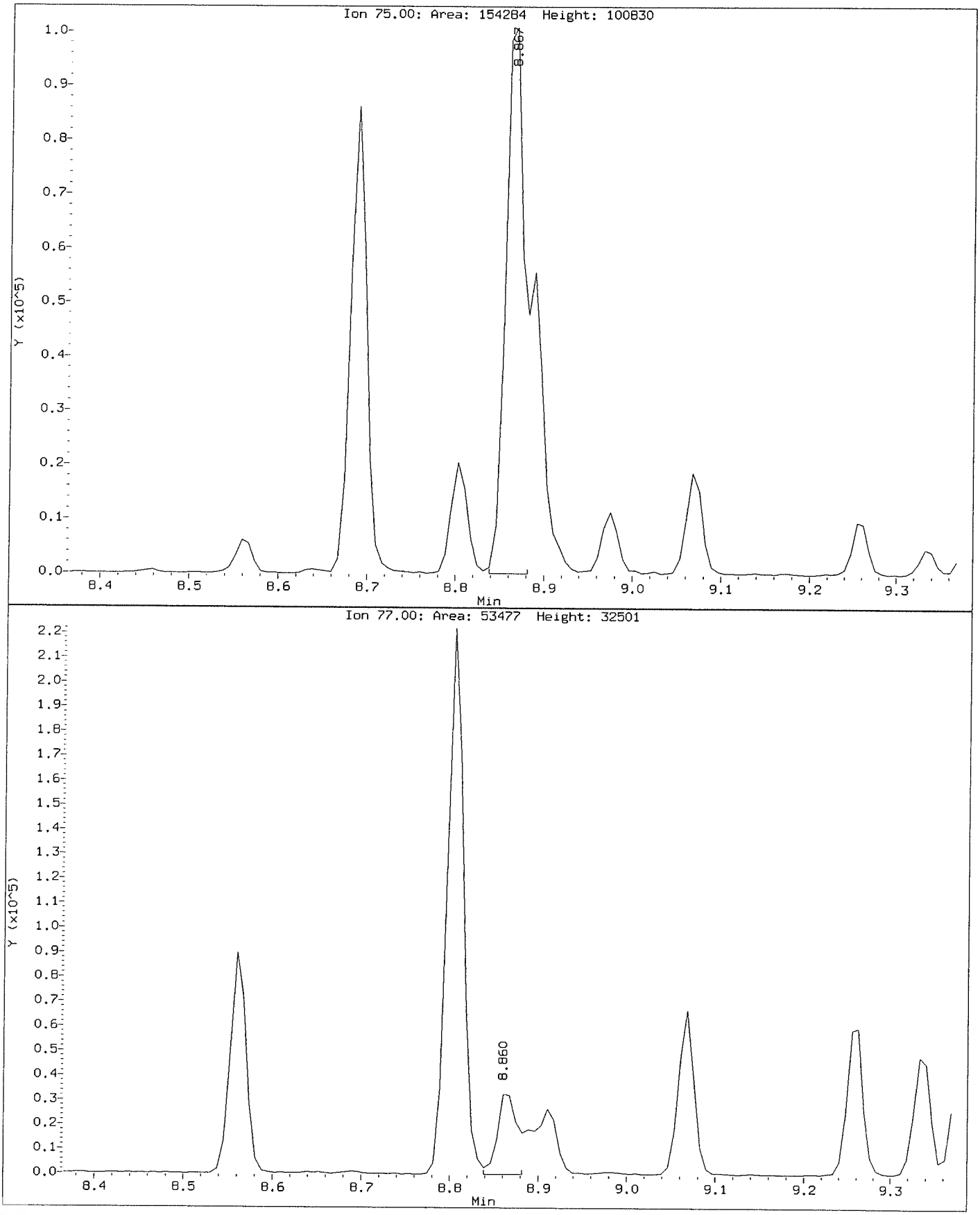
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052103.D
Injection Date: 21-MAY-2021 10:54
Instrument: voa6.i
Client Sample ID: CCV

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052105.D
Lab Smp Id: VLCSW-210521 Client Smp ID: VLCSW-210521
Inj Date : 21-MAY-2021 11:36
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-210521;VLCSW-210521;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\8260W.m
Meth Date : 08-Jun-2021 15:03 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

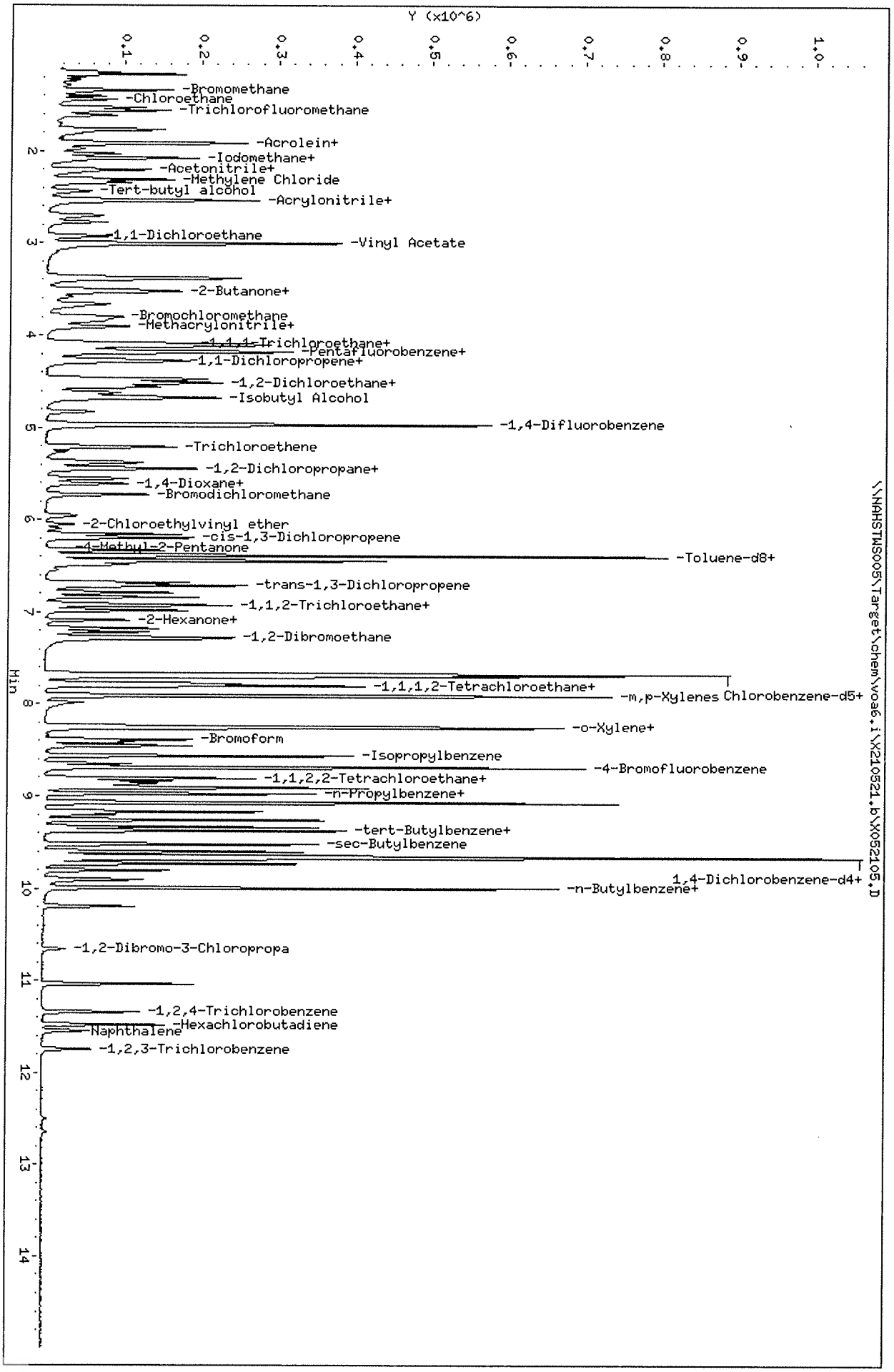
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	241349	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	397267	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	376751	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	193570	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	129420	48.1301	48.13
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	155453	49.4935	49.49
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	456017	49.2887	49.28
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	173011	48.6521	48.65
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	54411	19.8235	19.82
31 1,1,1-Trichloroethane	97	4.082	4.089	(0.976)	79316	19.3216	19.32
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	63697	19.5458	19.54
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	42518	19.4279	19.42
22 1,1-Dichloroethane	63	2.922	2.921	(0.699)	84340	18.8705	18.87
11 1,1-Dichloroethene	96	1.919	1.911	(0.459)	48377	20.0432	20.04
32 1,1-Dichloropropene	75	4.283	4.282	(0.863)	65680	19.3003	19.30
93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	17866	20.0198	20.01
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	51385	19.1855	19.18(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	32298	20.1201	20.12
79 1,2,4-Trimethylbenzene	105	9.375	9.383	(0.970)	176226	17.9001	17.90
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	5028	20.2551	20.25
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	51708	19.6595	19.65
88 1,2-Dichlorobenzene	146	9.992	9.991	(1.034)	98776	18.2064	18.20

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052105.D Page 2
Report Date: 08-Jun-2021 15:03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	79378	20.3221	20.32
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	50691	18.9867	18.98
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	173007	17.9049	17.90
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	103628	18.6340	18.63
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	84475	19.7177	19.71
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	108260	19.1936	19.19
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	78177	19.5534	19.55
24	2-Butanone	43	3.581	3.580	(0.856)	34139	38.3205	38.32
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	155814	18.0608	18.06
52	2-Hexanone	43	7.090	7.090	(0.924)	63888	39.8300	39.83
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	182091	18.1012	18.10
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	166725	17.4447	17.44
45	4-Methyl-2-Pentanone	43	6.331	6.324	(0.825)	92727	38.6980	38.69
10	Acetone	43	1.976	1.976	(0.473)	31677	49.4424	49.44
37	Benzene	78	4.512	4.512	(0.909)	194849	19.8250	19.82
74	Bromobenzene	156	8.802	8.802	(0.911)	62791	19.4589	19.45
29	Bromochloromethane	128	3.795	3.795	(0.908)	28869	19.6272	19.62
39	Bromodichloromethane	83	5.729	5.729	(1.154)	74004	19.2798	19.27
66	Bromoform	173	8.408	8.408	(1.096)	35752	19.6219	19.62
6	Bromomethane	94	1.339	1.338	(0.320)	62458	24.3789	24.37
19	Carbon Disulfide	76	2.069	2.069	(0.495)	227368	39.9851	39.98
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	62337	18.0026	18.00
59	Chlorobenzene	112	7.692	7.692	(1.003)	144505	19.5605	19.56
7	Chloroethane	64	1.403	1.403	(0.336)	43421	23.7672	23.76
28	Chloroform	83	3.903	3.910	(0.933)	93541	18.2427	18.24
3	Chloromethane	50	1.074	1.073	(0.257)	52244	20.2123	20.21
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	52652	18.9291	18.92
46	cis-1,3-Dichloropropene	75	6.152	6.159	(1.240)	84664	19.4396	19.43
55	Dibromochloromethane	129	7.176	7.176	(0.936)	58694	19.9322	19.93
44	Dibromomethane	93	5.550	5.550	(1.118)	37054	19.3642	19.36
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	56427	19.8848	19.88
61	Ethylbenzene	106	7.800	7.799	(1.017)	71858	19.6833	19.68
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	22451	21.2830	21.28
67	Isopropylbenzene	105	8.559	8.559	(1.116)	206861	18.5407	18.54
62	m,p-Xylenes	106	7.907	7.907	(1.031)	181168	38.5070	38.50
17	Methylene Chloride	84	2.306	2.305	(0.551)	45634	18.8558	18.85
87	n-Butylbenzene	91	9.992	9.991	(1.034)	164035	18.0467	18.04
73	n-Propylbenzene	91	8.910	8.910	(0.922)	251581	18.3510	18.35
92	Naphthalene	128	11.546	11.546	(1.195)	47164	20.4655	20.46
63	o-Xylene	106	8.244	8.244	(1.075)	88646	19.3721	19.37
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	190795	16.8166	16.81
64	Styrene	104	8.258	8.258	(1.077)	152757	18.9294	18.92
78	tert-Butylbenzene	119	9.333	9.340	(0.966)	138894	16.9402	16.94
56	Tetrachloroethene	164	6.933	6.926	(0.904)	40836	19.5062	19.50
50	Toluene	91	6.446	6.446	(0.840)	220836	20.3161	20.31
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	44291	19.0746	19.07
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	79221	20.7929	20.79
38	Trichloroethene	130	5.207	5.206	(1.049)	50953	19.3689	19.36
8	Trichlorofluoromethane	101	1.561	1.560	(0.373)	92228	19.8800	19.88
5	Vinyl Chloride	62	1.145	1.145	(0.274)	57845	19.8513	19.85

QC Flag Legend

M - Compound response manually integrated.



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Date : 21-MAY-2021 11:36
Client ID: VLCSW-210521
Sample Info: VLCSW-210521;VLCSW-210521;3;;LCS
Purge Volume: 5.0
Column phase: DB624

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

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052107.D
Lab Smp Id: VBLKW-210521 Client Smp ID: VBLKW-210521
Inj Date : 21-MAY-2021 12:18
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-210521;VBLKW-210521;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\8260W.m
Meth Date : 08-Jun-2021 15:03 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

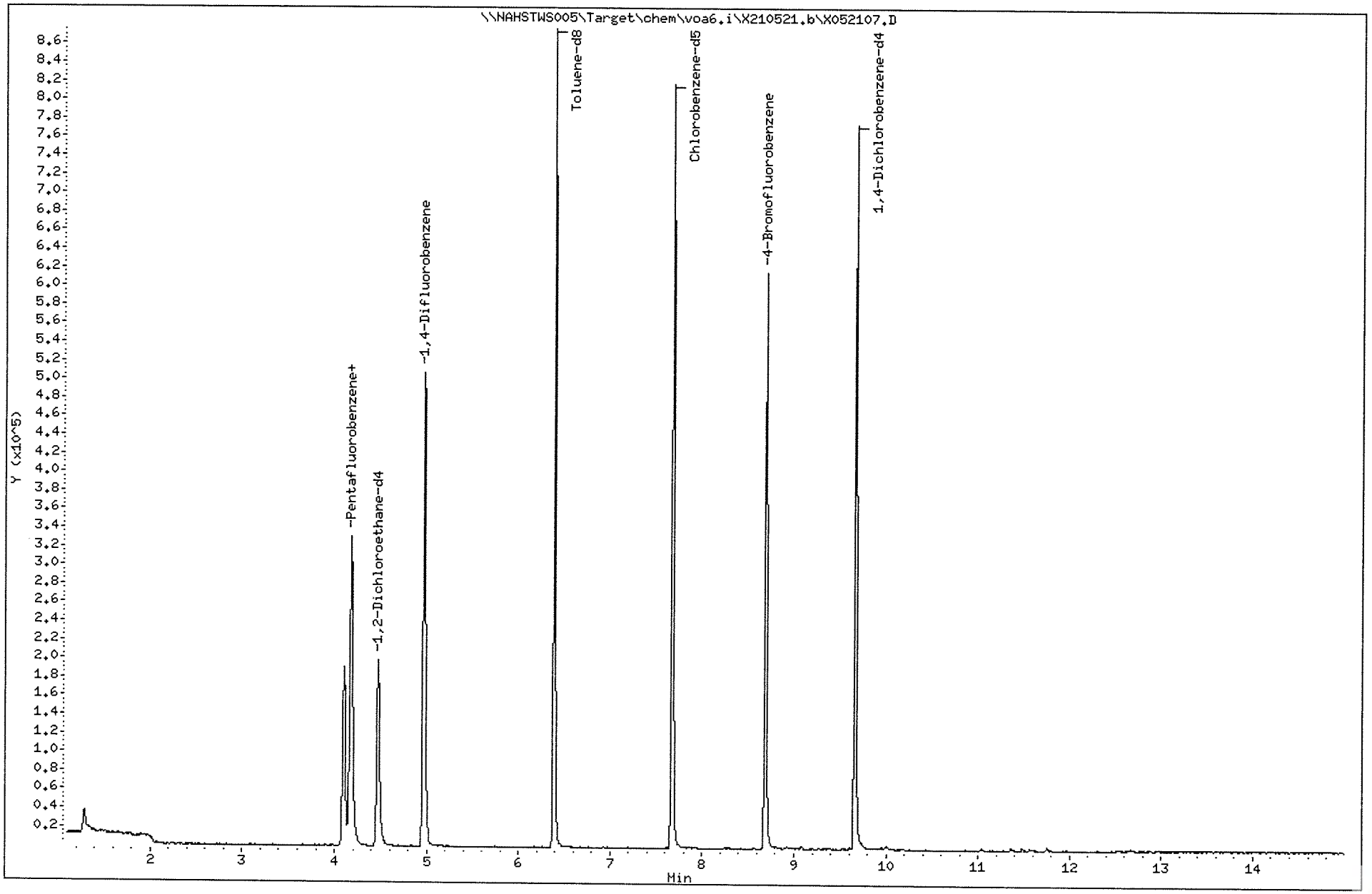
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	257307	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	398677	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	360382	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	160883	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	130537	45.5224	45.52
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	155701	46.4211	46.42
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	486563	54.8619	54.86
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	154564	45.4469	45.44

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052107.D
Date : 21-MAY-2021 12:18
Client ID: VBLKW-210521
Sample Info: VBLKW-210521;VBLKW-210521;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



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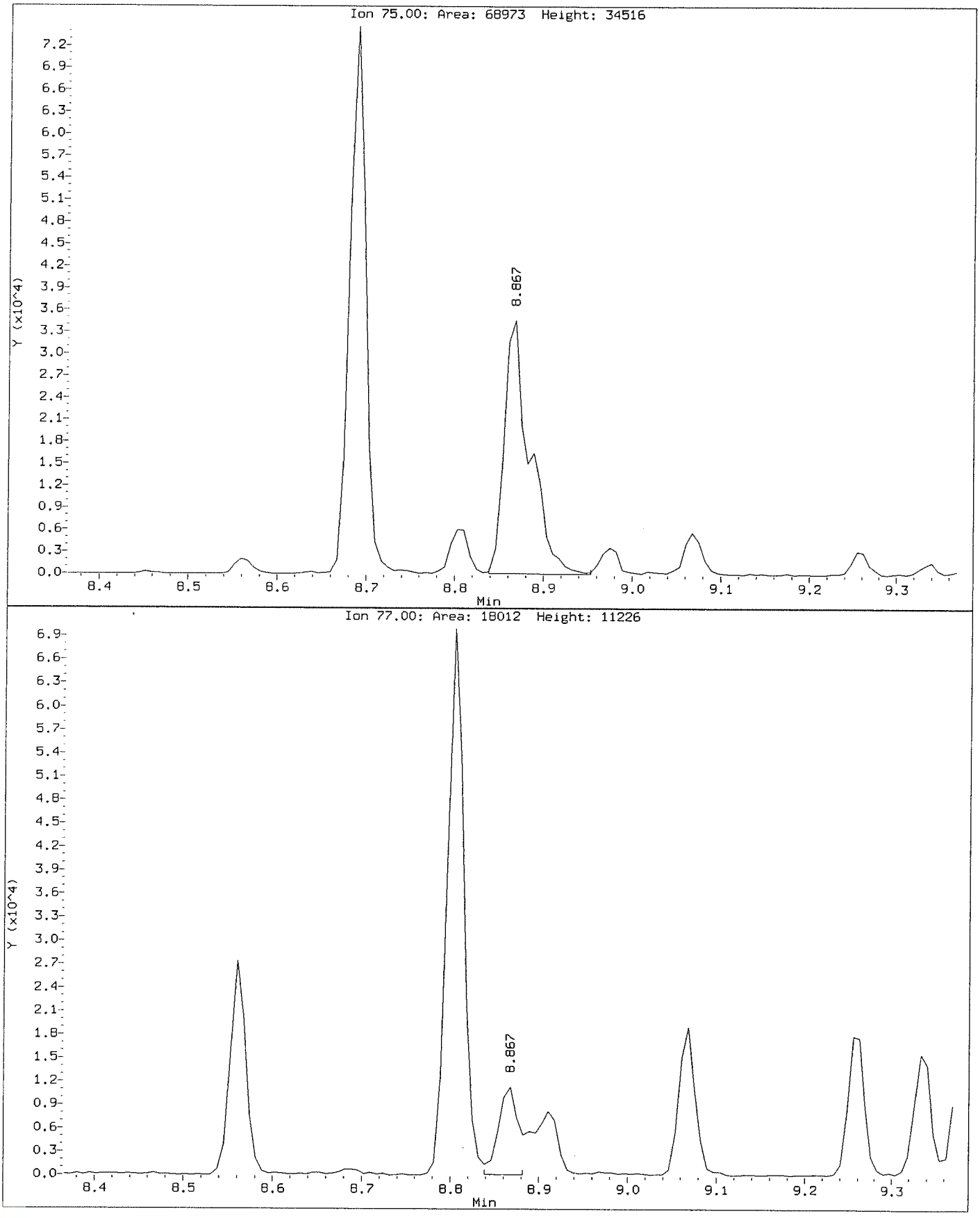
Injection Date: 21-MAY-2021 11:36
Instrument: voa6.i
Client Sample ID: VLCSW-210521

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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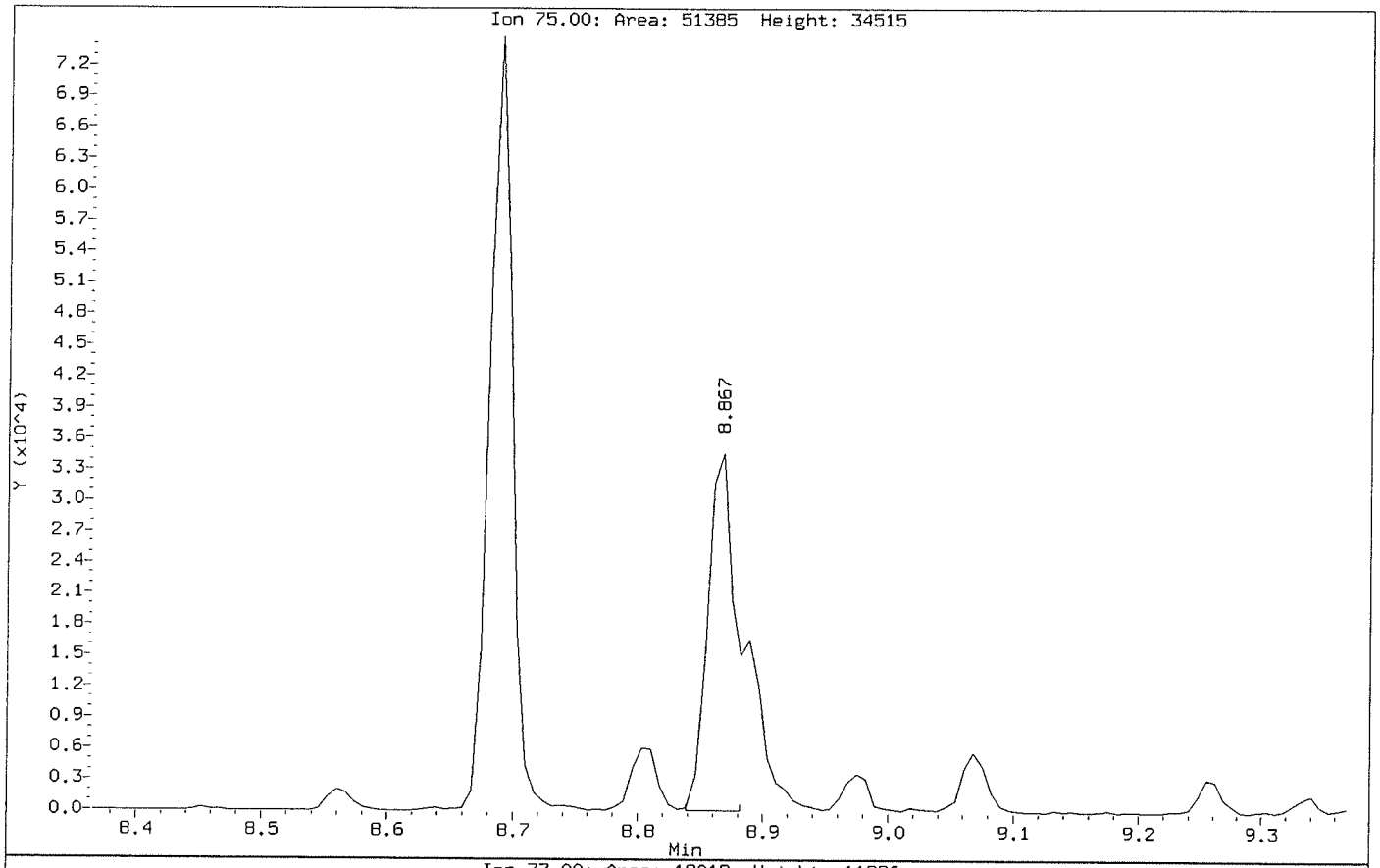
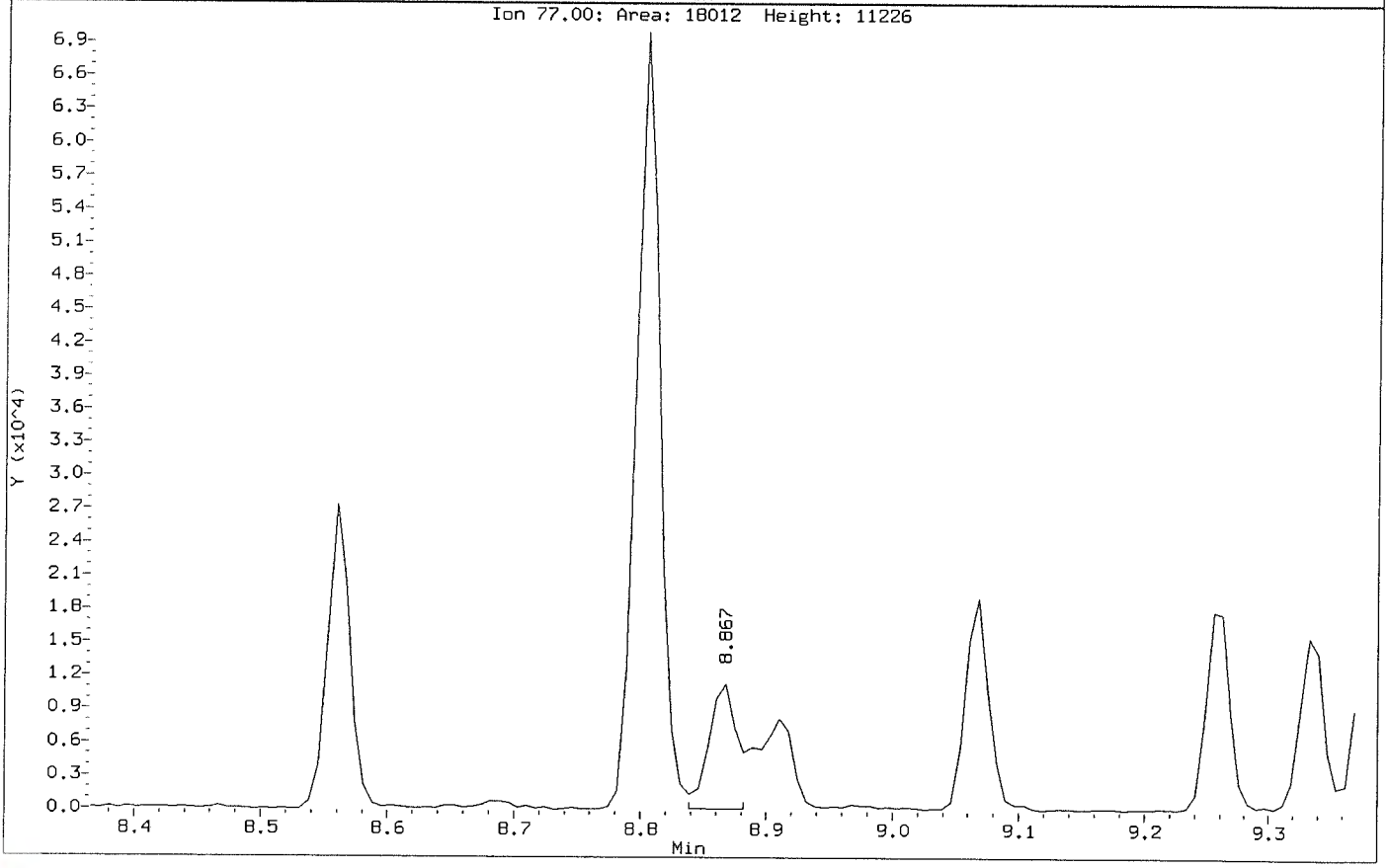
Injection Date: 21-MAY-2021 11:36
Instrument: voa6.i
Client Sample ID: VLCSW-210521

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052108.D
Lab Smp Id: HS21050898-01 Client Smp ID: HS21050898-01
Inj Date : 21-MAY-2021 12:39
Operator : PC Inst ID: voa6.i
Smp Info : HS21050898-01;HS21050898-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\8260W.m
Meth Date : 08-Jun-2021 15:03 Qin.Xu Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

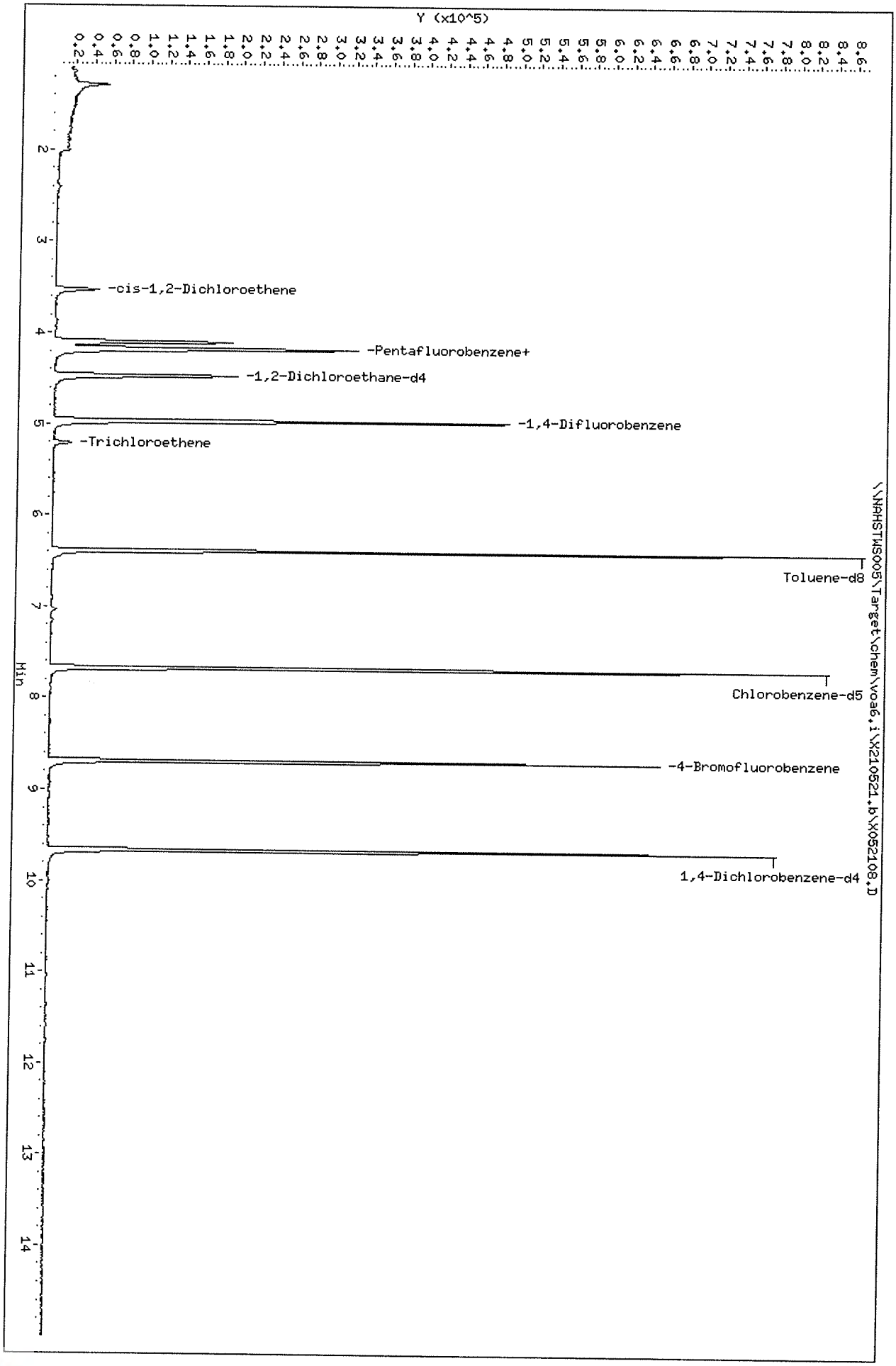
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	255345	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	391935	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	370660	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	170706	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	128896	45.2944	45.29
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	154892	46.5378	46.53
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	490924	53.8380	53.83
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	157349	44.9841	44.98
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	22897	7.78060	7.78
38 Trichloroethene	130	5.207	5.206	(1.048)	6752	2.60158	2.60(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



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Date : 21-MAY-2021 12:39
Client ID: HS21050898-01
Sample Info: HS21050898-01;HS21050898-01;;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052108.D

Date : 21-MAY-2021 12:39

Client ID: HS21050898-01

Instrument: voa6.i

Sample Info: HS21050898-01;HS21050898-01;;;

Purge Volume: 5.0

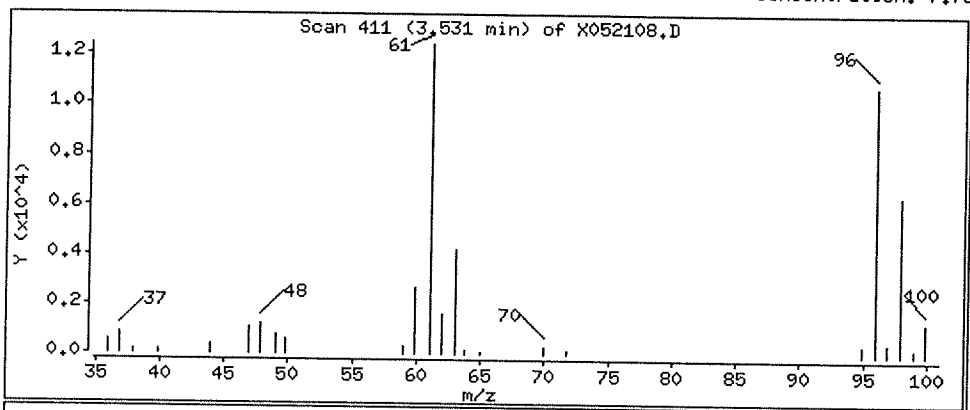
Operator: PC

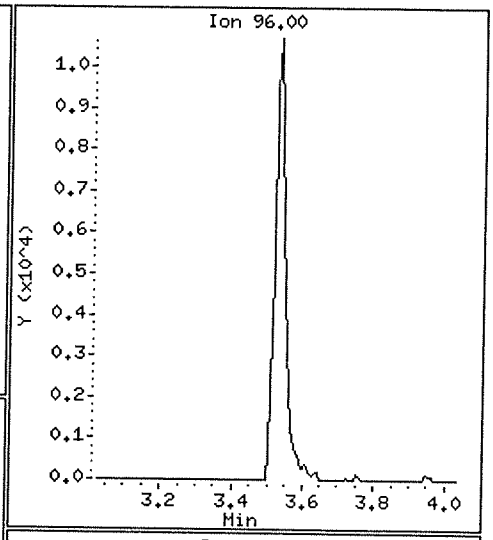
Column phase: DB624

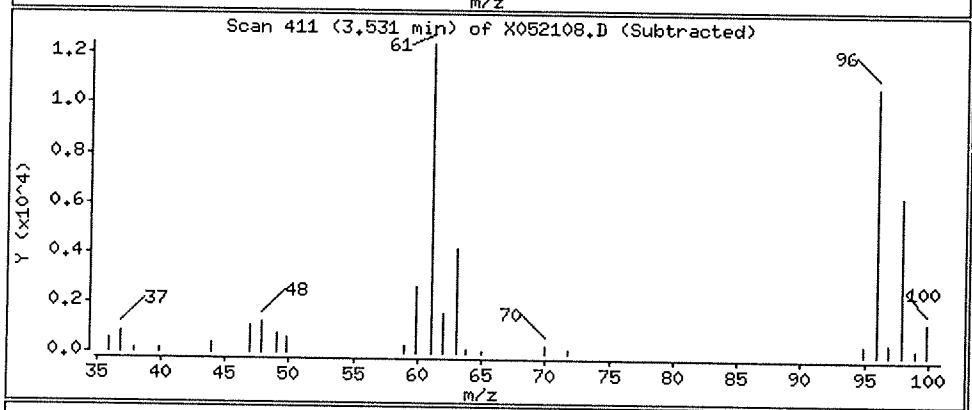
Column diameter: 0.18

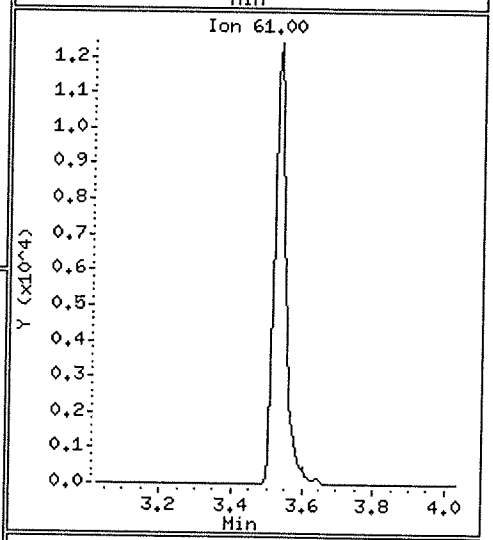
27 cis-1,2-Dichloroethene

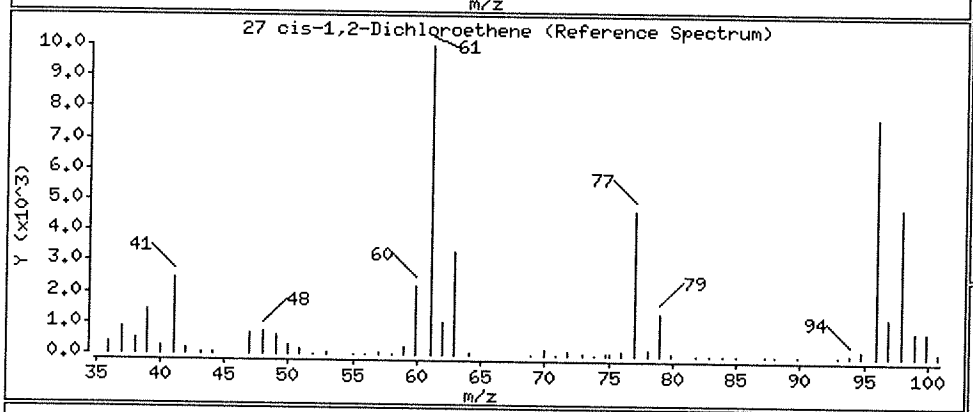
Concentration: 7.78 ug/l

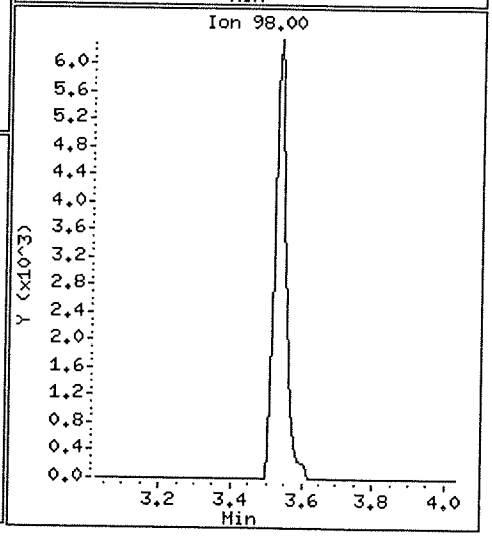


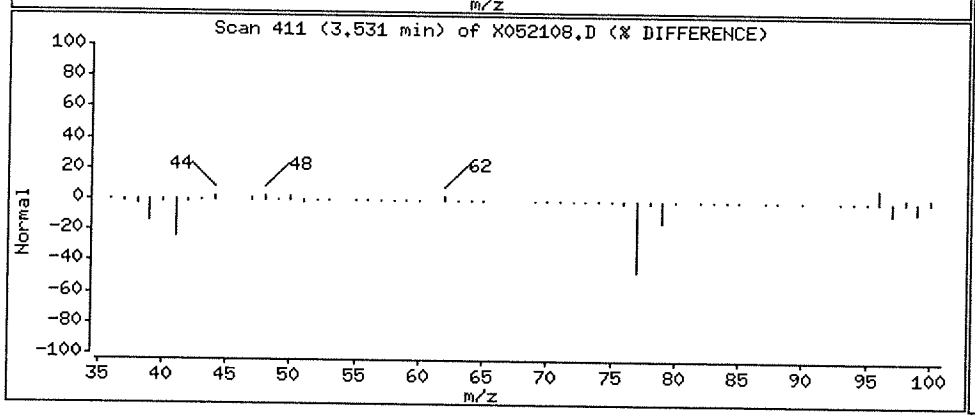












Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052108.D

Date : 21-MAY-2021 12:39

Client ID: HS21050898-01

Instrument: voa6.i

Sample Info: HS21050898-01;HS21050898-01;;;

Purge Volume: 5.0

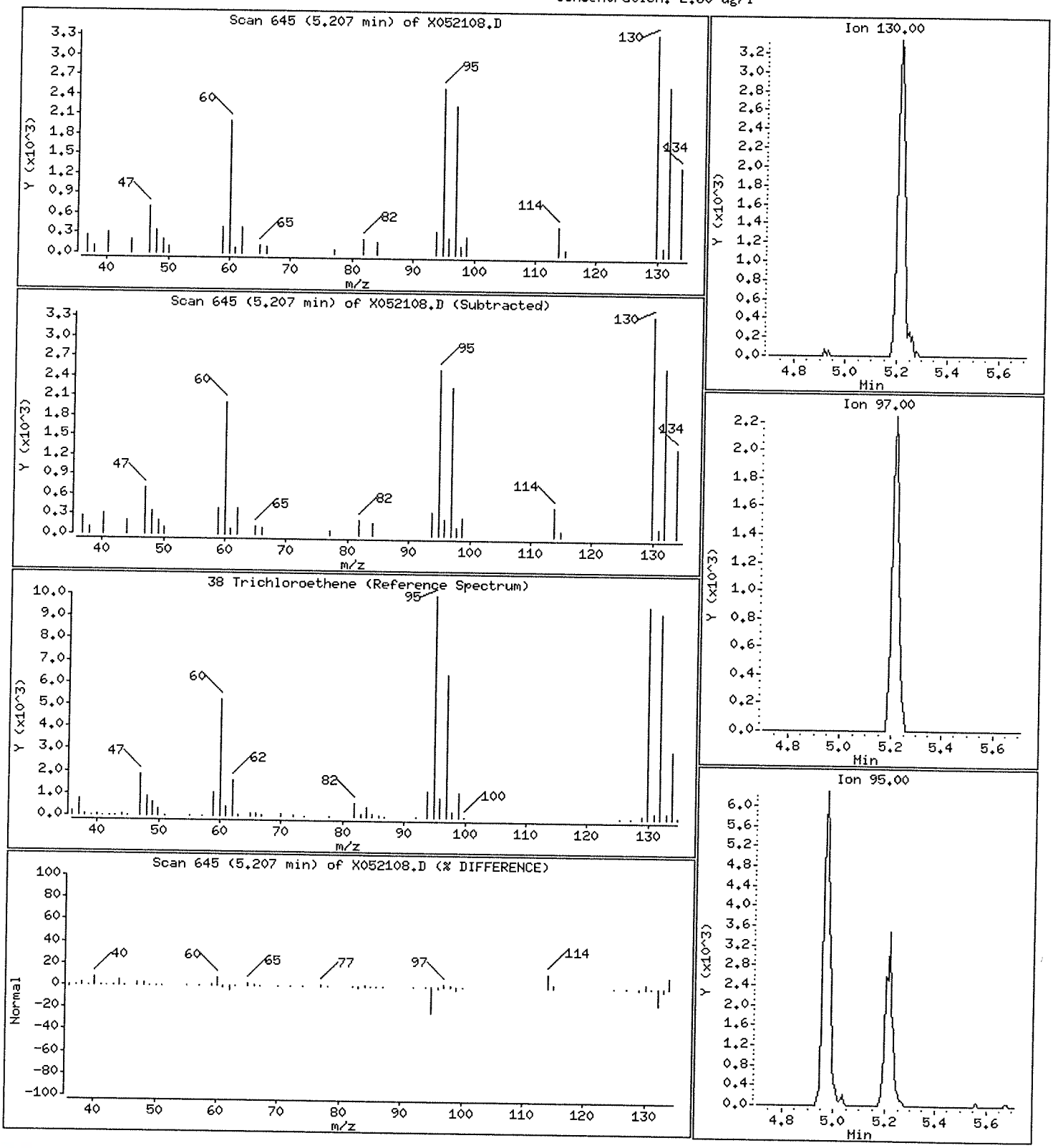
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 2.60 ug/l



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052109.D
Lab Smp Id: HS21050898-02 Client Smp ID: HS21050898-02
Inj Date : 21-MAY-2021 13:00
Operator : PC Inst ID: voa6.i
Smp Info : HS21050898-02;HS21050898-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\8260W.m
Meth Date : 08-Jun-2021 15:03 Qin.Xu Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

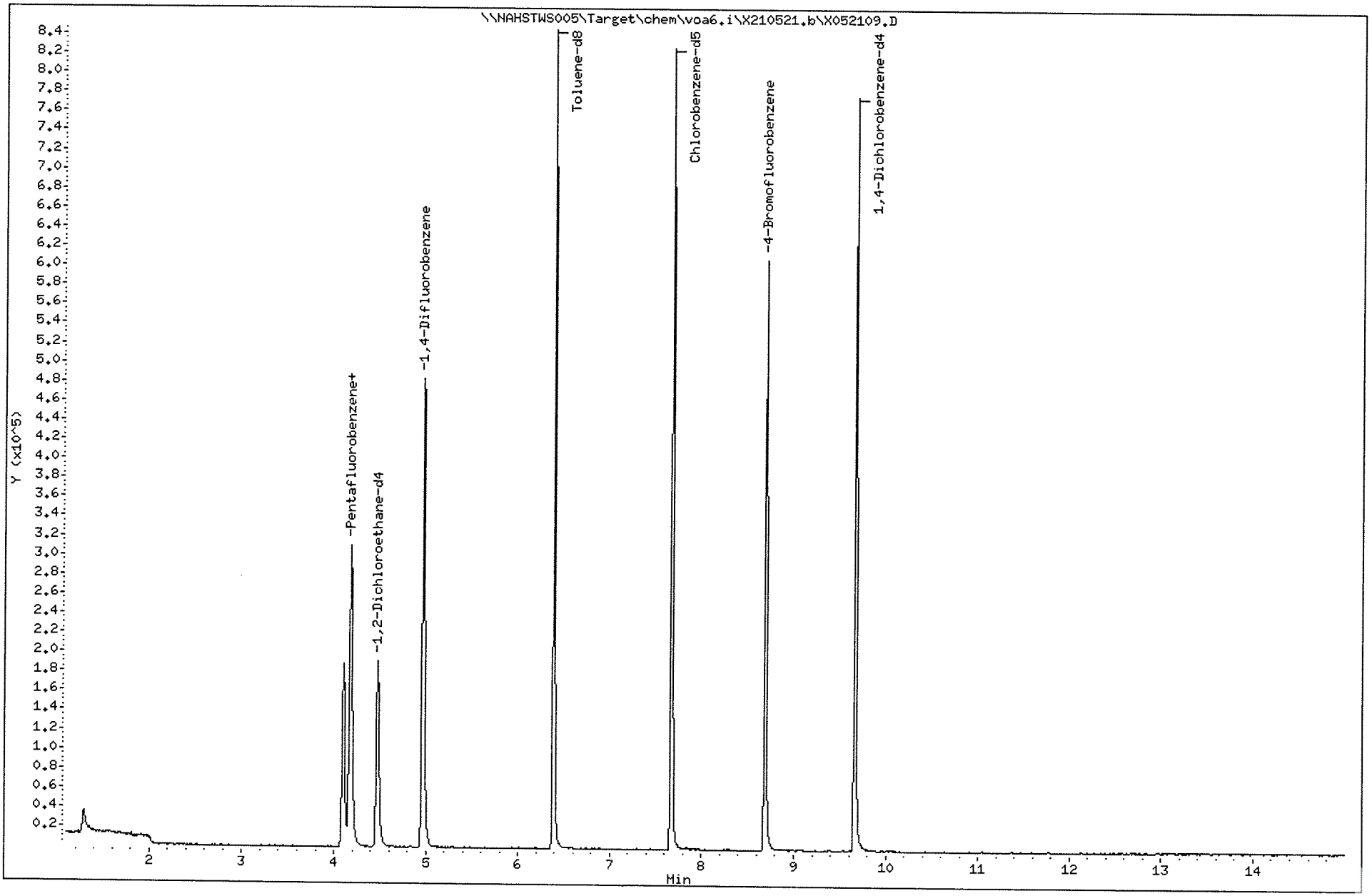
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	249185	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	388405	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	354423	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	167539	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	125829	45.3098	45.30
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	149837	46.1208	46.12
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	472598	54.1958	54.19
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	147511	44.1059	44.10

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052109.D
Date : 21-MAY-2021 13:00
Client ID: HS21050898-02
Sample Info: HS21050898-02;HS21050898-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052112.D Page 1
Report Date: 08-Jun-2021 15:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052112.D
Lab Smp Id: HS21050972-03MS Client Smp ID: HS21050972-03MS
Inj Date : 21-MAY-2021 14:04
Operator : PC Inst ID: voa6.i
Smp Info : HS21050972-03MS;HS21050972-03MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\8260W.m
Meth Date : 08-Jun-2021 15:03 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 12 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

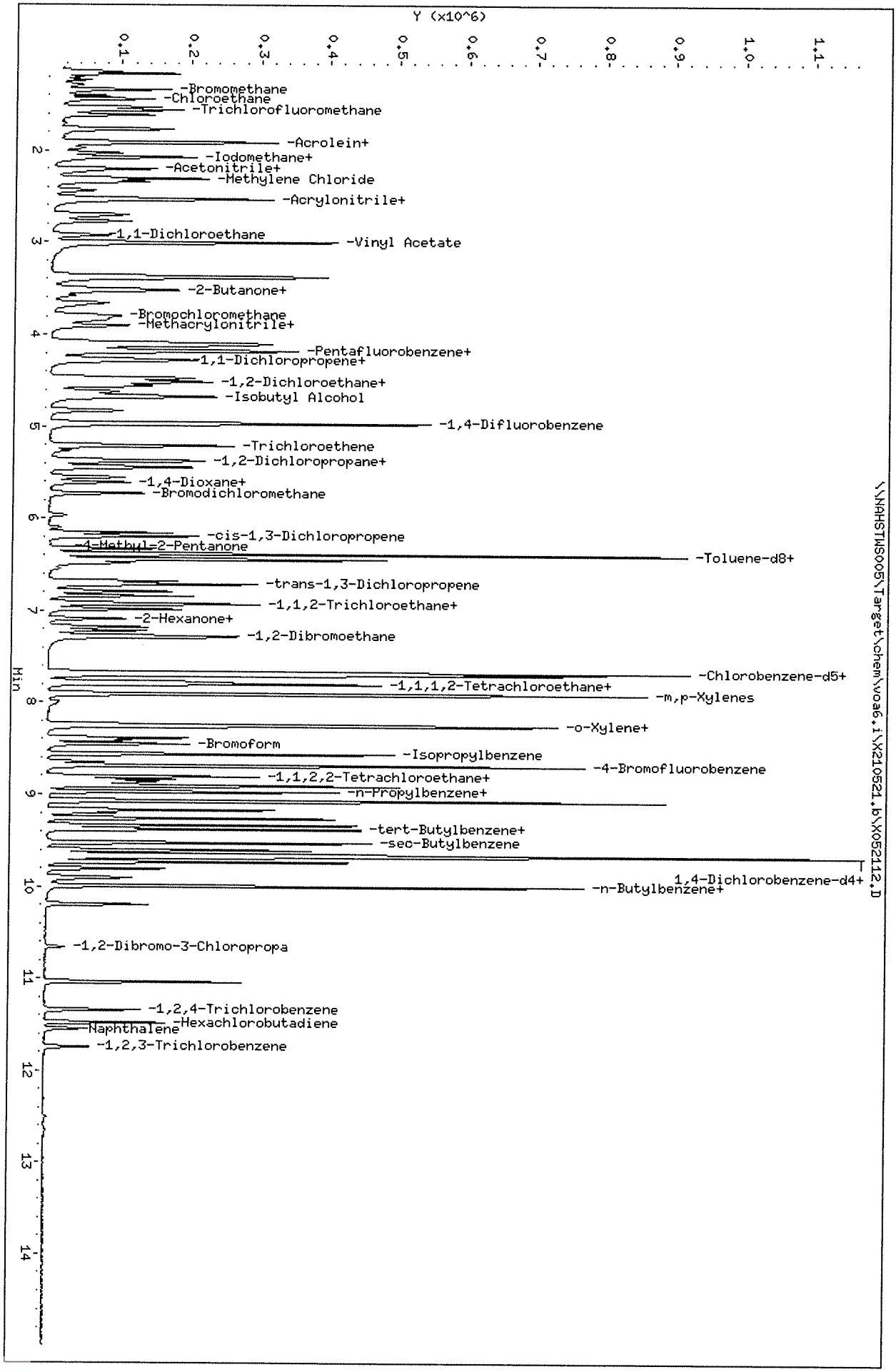
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	268883	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	426912	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	402712	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	199997	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	135576	45.2428	45.24
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	157144	44.7908	44.79
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	512374	51.7581	51.75
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	184056	48.4220	48.42
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	56296	19.1880	19.18
31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	85891	18.7807	18.78
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	66686	19.8125	19.81
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	43145	18.4435	18.44
22 1,1-Dichloroethane	63	2.922	2.921	(0.699)	83737	16.8170	16.81
11 1,1-Dichloroethene	96	1.912	1.911	(0.457)	53505	19.8978	19.89
32 1,1-Dichloropropene	75	4.283	4.282	(0.863)	72846	19.9196	19.91
93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	18763	20.3377	20.33
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	53276	19.2544	19.25(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	33063	19.9575	19.95
79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	210418	20.6863	20.68
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	5485	21.2964	21.29
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	55319	19.6765	19.67
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	107868	19.2434	19.24

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052112.D Page 2
Report Date: 08-Jun-2021 15:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	79007	18.8225	18.82
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	51327	17.8899	17.88
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	207487	20.7832	20.78
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	115936	20.1773	20.17
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	85426	18.6543	18.65
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	119168	20.4320	20.43
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	77823	17.4716	17.47
24 2-Butanone	43	3.581	3.580	(0.856)	33079	33.3284	33.32
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	177699	19.9356	19.93
52 2-Hexanone	43	7.090	7.090	(0.924)	62388	36.3640	36.36
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	207220	19.9372	19.93
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	215693	21.8431	21.84
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	93765	36.6133	36.61
10 Acetone	43	1.976	1.976	(0.473)	28679	39.2133	39.21
37 Benzene	78	4.512	4.512	(0.909)	196568	18.6111	18.61
74 Bromobenzene	156	8.802	8.802	(0.911)	64960	19.4842	19.48
29 Bromochloromethane	128	3.795	3.795	(0.908)	28273	17.2536	17.25
39 Bromodichloromethane	83	5.729	5.729	(1.154)	73404	17.7956	17.79
66 Bromoform	173	8.408	8.408	(1.096)	36684	18.8355	18.83
6 Bromomethane	94	1.339	1.338	(0.320)	70425	24.6795	24.67
19 Carbon Disulfide	76	2.069	2.069	(0.495)	241600	38.1372	38.13
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	71502	19.2155	19.21
59 Chlorobenzene	112	7.692	7.692	(1.003)	152540	19.3171	19.31
7 Chloroethane	64	1.403	1.403	(0.336)	47398	23.2874	23.28
28 Chloroform	83	3.910	3.910	(0.935)	99768	17.4647	17.46
3 Chloromethane	50	1.081	1.073	(0.258)	51843	18.0290	18.02
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	53852	17.3780	17.37
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	83466	17.8337	17.83
55 Dibromochloromethane	129	7.176	7.176	(0.936)	57695	18.3299	18.32
44 Dibromomethane	93	5.550	5.550	(1.118)	36378	17.6908	17.69
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	56355	18.0410	18.04
61 Ethylbenzene	106	7.800	7.799	(1.017)	82662	21.1831	21.18
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	24585	22.3664	22.36
67 Isopropylbenzene	105	8.559	8.559	(1.116)	250400	20.9962	20.99
62 m,p-Xylenes	106	7.907	7.907	(1.031)	205939	40.9503	40.95
17 Methylene Chloride	84	2.306	2.305	(0.551)	46326	17.1816	17.18
87 n-Butylbenzene	91	9.991	9.991	(1.034)	204565	21.7824	21.78
73 n-Propylbenzene	91	8.910	8.910	(0.922)	308565	21.7842	21.78
92 Naphthalene	128	11.546	11.546	(1.195)	43340	18.5450	18.54
63 o-Xylene	106	8.244	8.244	(1.075)	94465	19.3130	19.31
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	254901	21.7449	21.74
64 Styrene	104	8.258	8.258	(1.077)	164847	19.0938	19.09
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	180716	21.3327	21.33
56 Tetrachloroethene	164	6.926	6.926	(0.903)	49986	22.3377	22.33
50 Toluene	91	6.446	6.446	(0.840)	238126	20.4945	20.49
20 trans-1,2-Dichloroethene	96	2.535	2.528	(0.606)	46120	17.8284	17.82
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	77701	18.9778	18.97
38 Trichloroethene	130	5.207	5.206	(1.049)	79705	28.1946	28.19
8 Trichlorofluoromethane	101	1.561	1.560	(0.373)	106320	20.5708	20.57
5 Vinyl Chloride	62	1.138	1.145	(0.272)	58678	18.0751	18.07

QC Flag Legend

M - Compound response manually integrated.



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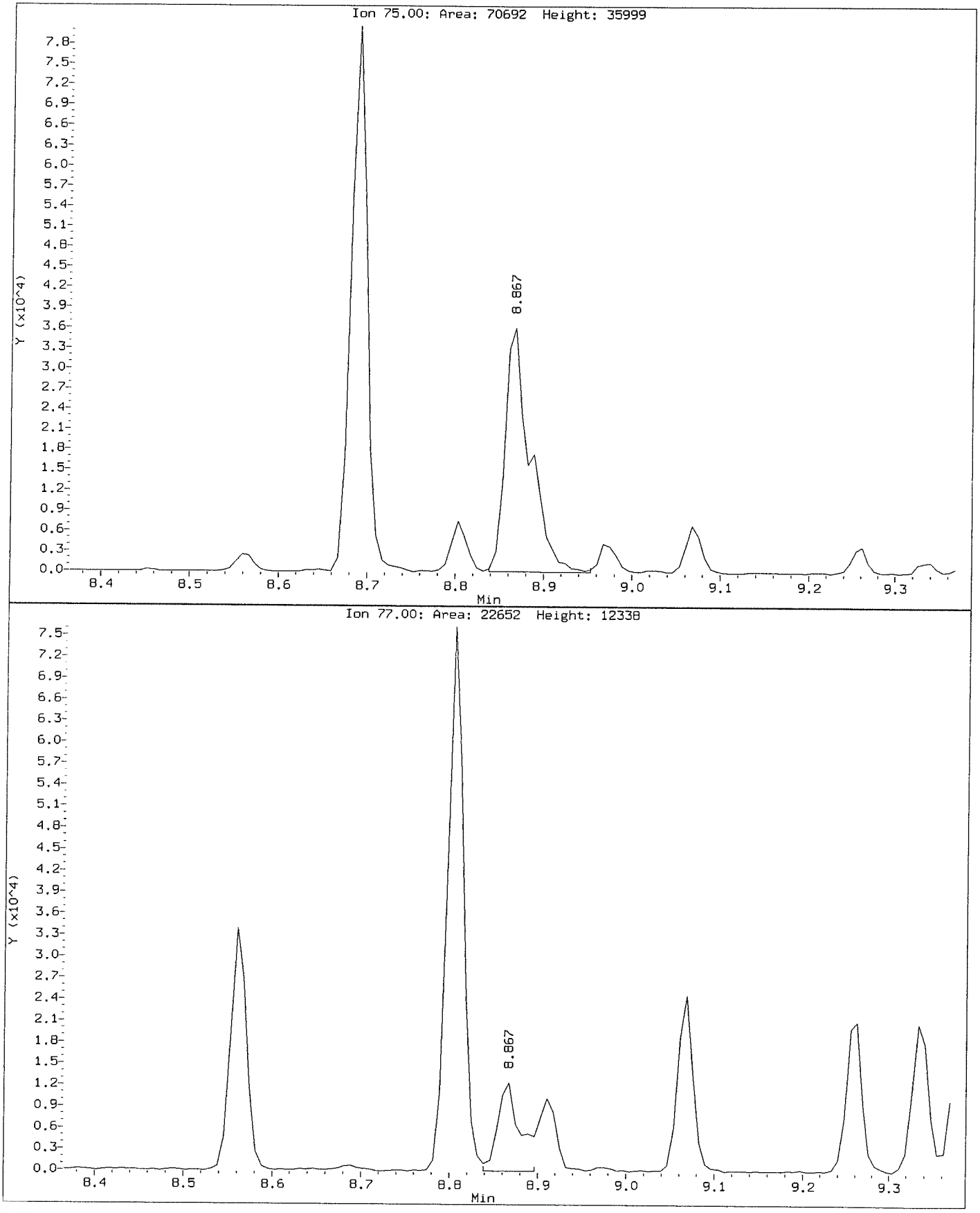
Sample Info: HS21050972-03MS;HS21050972-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\Before\X052112.D
Injection Date: 21-MAY-2021 14:04
Instrument: voa6.i
Client Sample ID: HS21050972-03MS

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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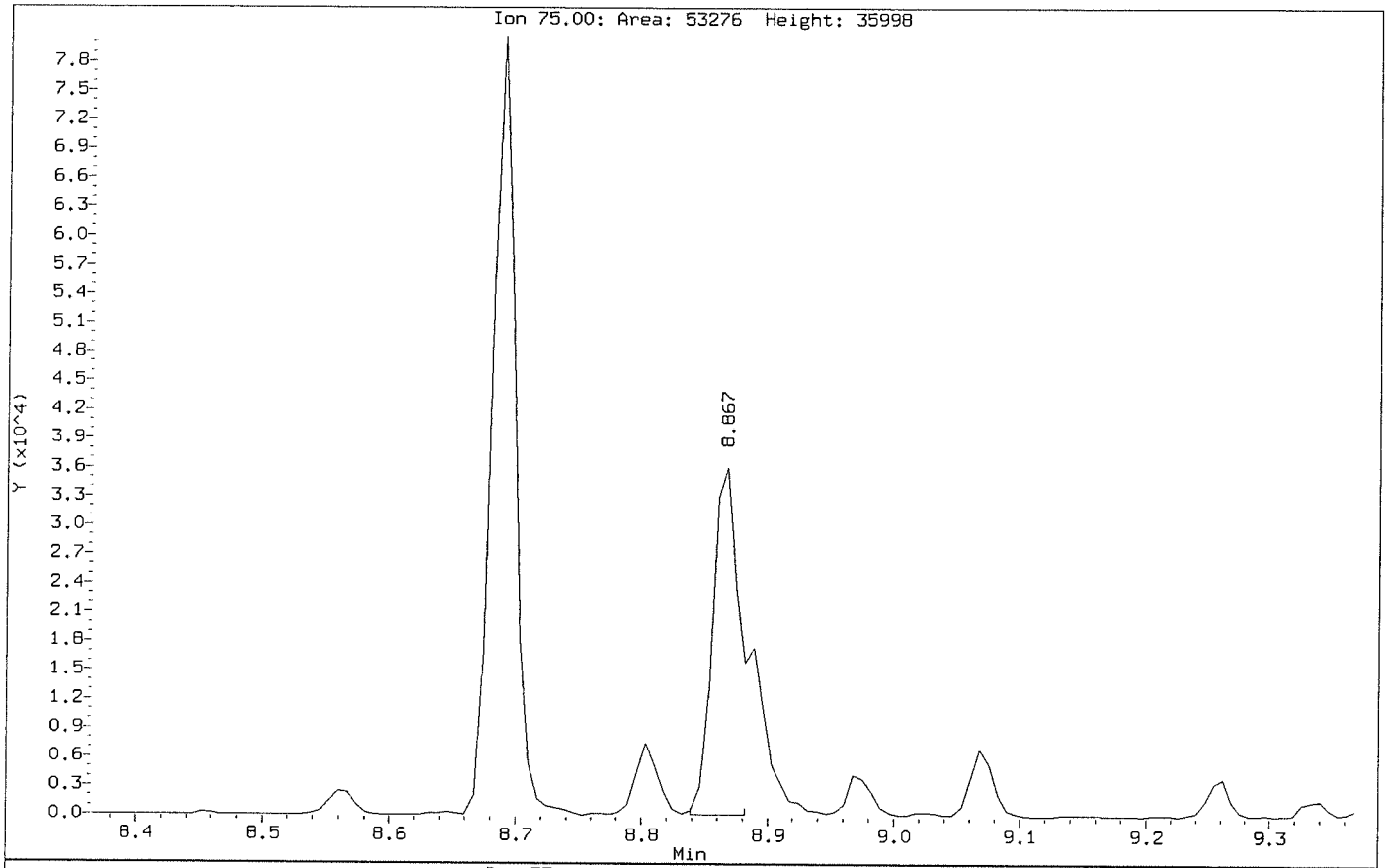
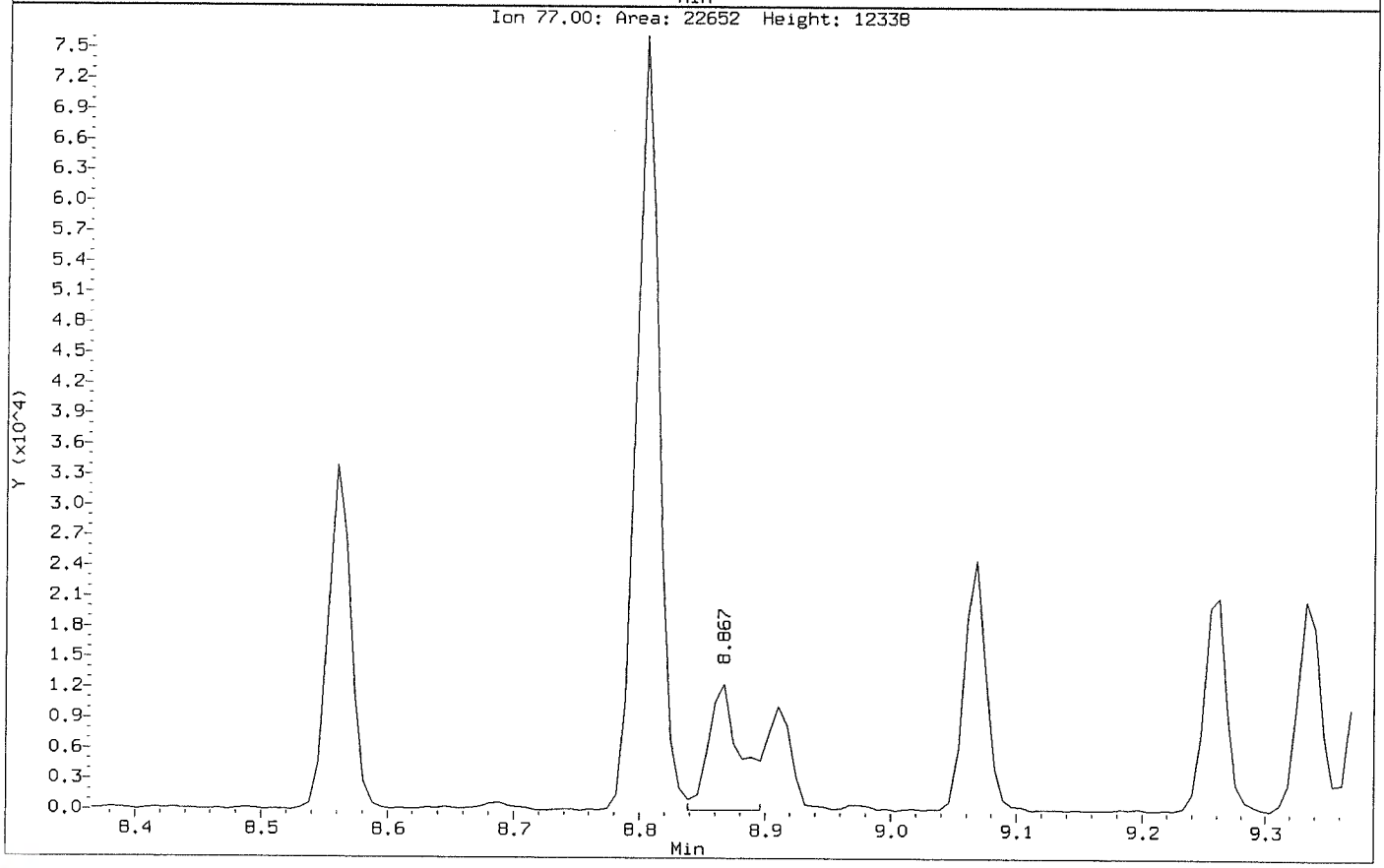
Instrument: voa6.i
Client Sample ID: HS21050972-03MS

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052113.D
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Operator : PC Inst ID: voa6.i
Smp Info : HS21050972-03MSD;HS21050972-03MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 08-Jun-2021 15:03 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

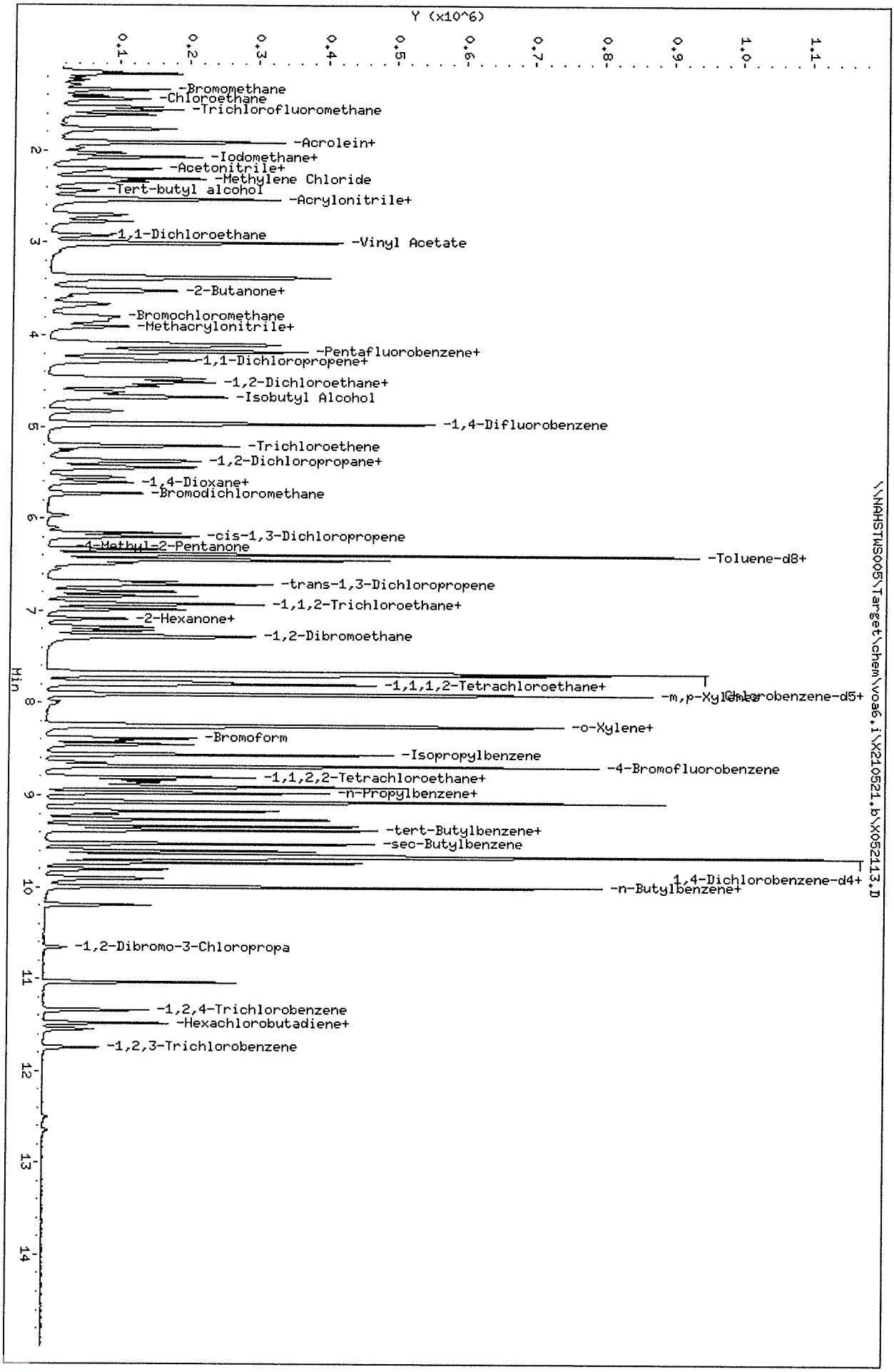
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	279299	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	437796	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	412291	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	205010	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	143139	45.9890	45.98
$	35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	174388	47.9390	47.93
$	48 Toluene-d8	98	6.388	6.388	(0.833)	523633	51.6683	51.66
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	192839	49.5511	49.55
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.778	(1.013)	57545	19.1580	19.15
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	88740	18.6800	18.68
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	70014	20.3054	20.30
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	45342	18.9324	18.93
	22 1,1-Dichloroethane	63	2.922	2.921	(0.699)	86995	16.8197	16.81
	11 1,1-Dichloroethene	96	1.912	1.911	(0.457)	54638	19.5614	19.56
	32 1,1-Dichloropropene	75	4.283	4.282	(0.863)	70906	18.9071	18.90
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	22284	23.4455	23.44
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	56740	20.0289	20.02(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	38724	22.4513	22.45
	79 1,2,4-Trimethylbenzene	105	9.375	9.383	(0.970)	208262	19.9737	19.97
	89 1,2-Dibromo-3-Chloropropane	155	10.650	10.658	(1.102)	5799	21.9146	21.91
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	57051	19.8211	19.82
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	110133	19.1670	19.16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	80568	18.7172	18.71
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	53429	18.1596	18.15
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	209471	20.4689	20.46
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	113230	19.2245	19.22
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	88978	18.9785	18.97
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	121507	20.3249	20.32
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	79063	17.0880	17.08
24 2-Butanone	43	3.581	3.580	(0.856)	34017	32.9953	32.99
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	176753	19.3446	19.34
52 2-Hexanone	43	7.090	7.090	(0.924)	66747	38.0131	38.01
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	211997	19.8980	19.89
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	212083	20.9523	20.95
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	101012	38.5221	38.52
10 Acetone	43	1.976	1.976	(0.473)	27807	36.2598	36.25
37 Benzene	78	4.512	4.512	(0.909)	204580	18.8882	18.88
74 Bromobenzene	156	8.802	8.802	(0.911)	67135	19.6442	19.64
29 Bromochloromethane	128	3.795	3.795	(0.908)	28405	16.6877	16.68
39 Bromodichloromethane	83	5.722	5.729	(1.153)	75078	17.7489	17.74
66 Bromoform	173	8.408	8.408	(1.096)	39590	19.8553	19.85
6 Bromomethane	94	1.339	1.338	(0.320)	67007	22.5659	22.56
19 Carbon Disulfide	76	2.069	2.069	(0.495)	246247	37.4211	37.42
34 Carbon Tetrachloride	117	4.261	4.268	(0.859)	72291	18.9445	18.94
59 Chlorobenzene	112	7.692	7.692	(1.003)	155138	19.1896	19.18
7 Chloroethane	64	1.403	1.403	(0.336)	45696	21.6139	21.61
28 Chloroform	83	3.910	3.910	(0.935)	99136	16.7068	16.70
3 Chloromethane	50	1.073	1.073	(0.257)	53321	17.8538	17.85
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	55318	17.1854	17.18
46 cis-1,3-Dichloropropene	75	6.152	6.159	(1.240)	86603	18.0440	18.04
55 Dibromochloromethane	129	7.176	7.176	(0.936)	62677	19.4500	19.45
44 Dibromomethane	93	5.550	5.550	(1.118)	39371	18.6703	18.67
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	56179	17.3977	17.39
61 Ethylbenzene	106	7.800	7.799	(1.017)	80990	20.2724	20.27
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	25233	22.3905	22.39
67 Isopropylbenzene	105	8.559	8.559	(1.116)	254294	20.8273	20.82
62 m,p-Xylenes	106	7.900	7.907	(1.030)	208658	40.5270	40.52
17 Methylene Chloride	84	2.306	2.305	(0.551)	48128	17.1842	17.18
87 n-Butylbenzene	91	9.991	9.991	(1.034)	203950	21.1859	21.18
73 n-Propylbenzene	91	8.910	8.910	(0.922)	311235	21.4354	21.43
92 Naphthalene	128	11.546	11.546	(1.195)	54379	22.0045	22.00
63 o-Xylene	106	8.244	8.244	(1.075)	96739	19.3184	19.31
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	257758	21.4509	21.45
64 Styrene	104	8.258	8.258	(1.077)	164395	18.6447	18.64
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	179632	20.6862	20.68
56 Tetrachloroethene	164	6.926	6.926	(0.903)	49206	21.4783	21.47
50 Toluene	91	6.446	6.446	(0.840)	240104	20.1847	20.18
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	48986	18.2301	18.23
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	82025	19.5358	19.53
38 Trichloroethene	130	5.207	5.206	(1.049)	82081	28.3132	28.31
8 Trichlorofluoromethane	101	1.561	1.560	(0.373)	109420	20.3811	20.38
5 Vinyl Chloride	62	1.138	1.145	(0.272)	61539	18.2494	18.24

QC Flag Legend

M - Compound response manually integrated.



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Sample Info: HS21050972-03MSD;HS21050972-03MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

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

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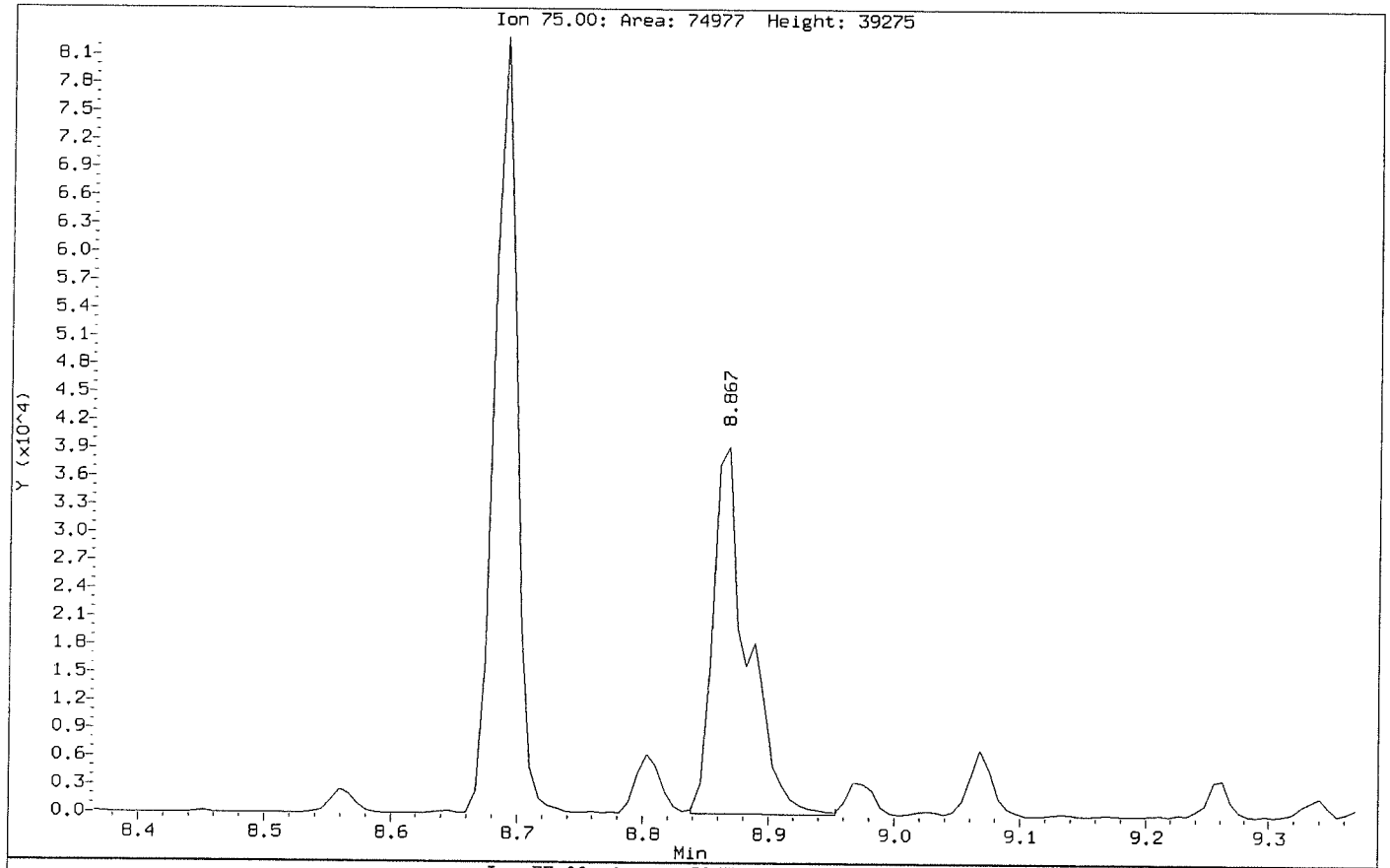
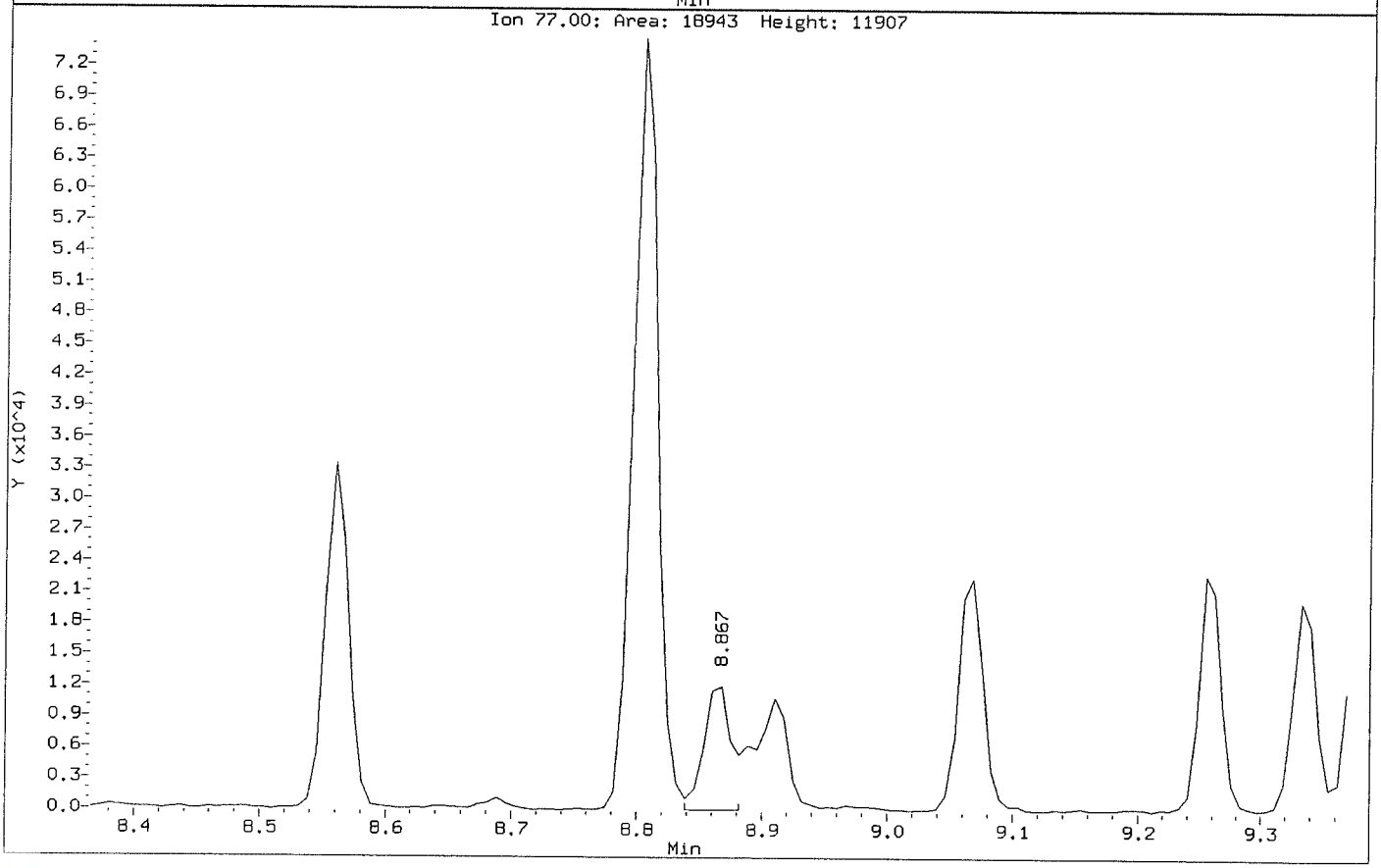
Injection Date: 21-MAY-2021 14:25
Instrument: voa6.i
Client Sample ID: HS21050972-03MSD

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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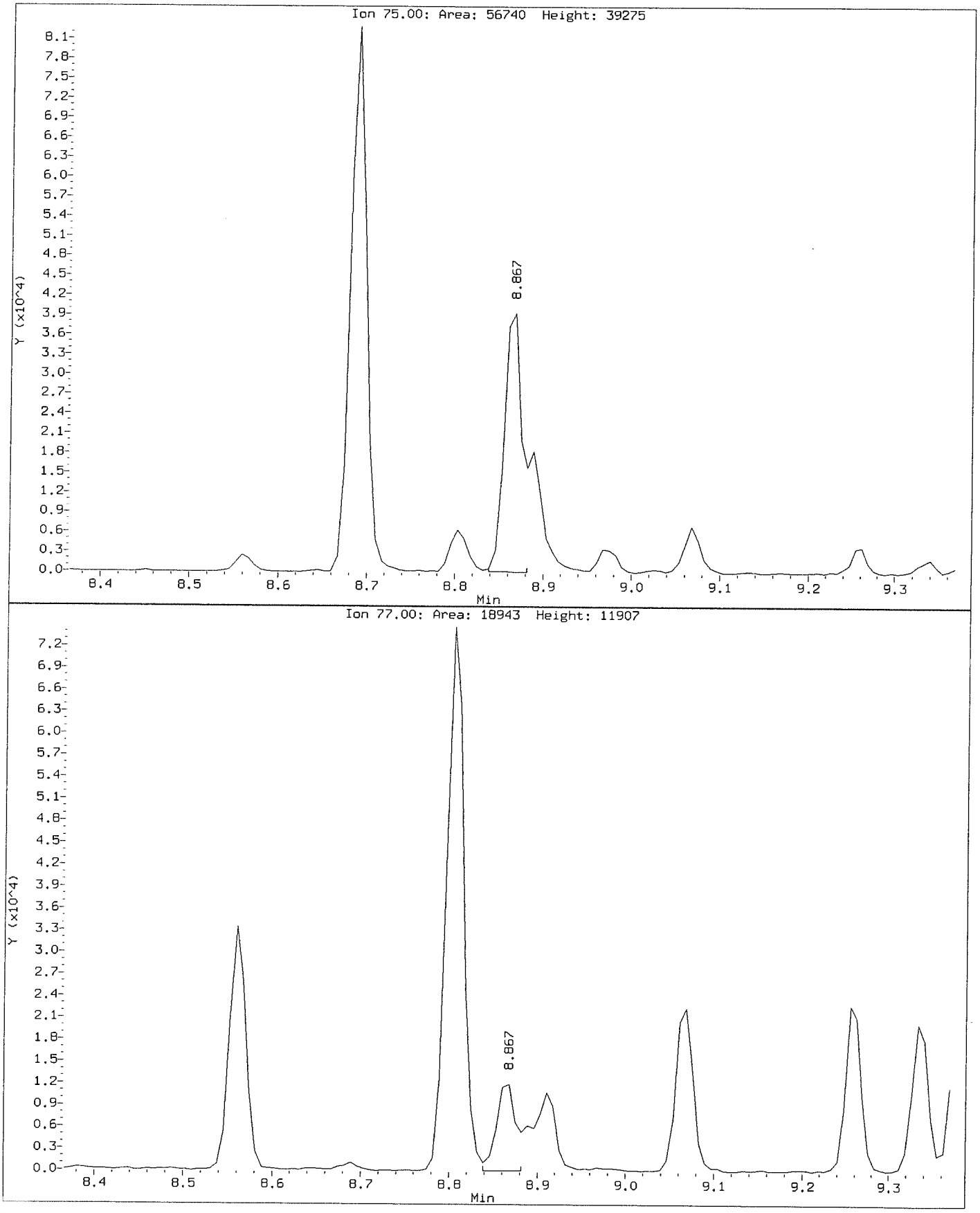
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Smp Info : CCV-END;CCV-END;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 08-Jun-2021 15:03 voa6.i Quant Type: ISTD
Cal Date : 18-MAY-2021 13:49 Cal File: X051808.D
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

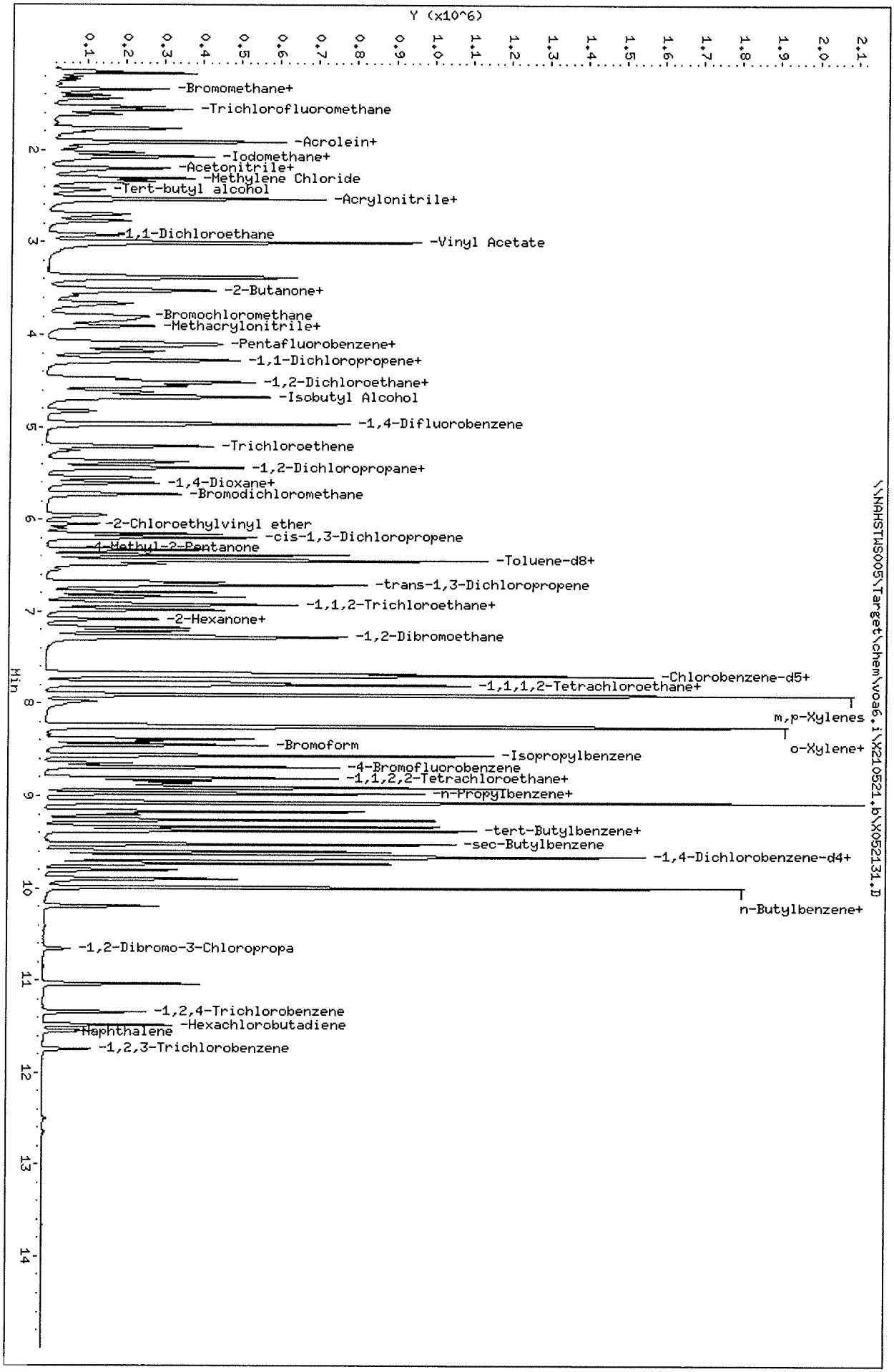
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	222609	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	382194	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	378975	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	202296	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	133144	50.0000	53.70
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	153347	50.0000	53.02
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	443018	50.0000	47.63
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	183861	50.0000	51.39
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	133817	50.0000	48.46
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	203303	50.0000	53.69
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	158931	50.0000	47.40
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	110098	50.0000	50.01
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	193089	50.0000	46.83
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	109180	50.0000	49.04
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	165256	50.0000	50.47
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	32827	50.0000	34.54
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	135183	50.0000	49.23(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	65916	50.0000	36.94
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	492435	50.0000	47.86
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	11131	50.0000	41.11
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	135059	50.0000	51.04
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	258670	50.0000	45.62

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210521.b\X052131.D Page 2
Report Date: 08-Jun-2021 15:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	197522	50.0000	52.56
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	129503	50.0000	50.41
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	491130	50.0000	48.63
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	275856	50.0000	47.46
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	213612	50.0000	49.56
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	284910	50.0000	47.94
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	165858	50.0000	44.97
24 2-Butanone	43	3.580	3.580	(0.856)	83030	100.000	101.04
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	426217	50.0000	47.27
52 2-Hexanone	43	7.090	7.090	(0.924)	167895	100.000	104.49
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	508672	50.0000	48.38
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	488023	50.0000	48.86
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	243567	100.000	100.91
10 Acetone	43	1.976	1.976	(0.473)	63033	100.000	112.63
37 Benzene	78	4.512	4.512	(0.909)	480320	50.0000	50.79
74 Bromobenzene	156	8.802	8.802	(0.911)	164181	50.0000	48.68
29 Bromochloromethane	128	3.795	3.795	(0.908)	70073	50.0000	51.65
39 Bromodichloromethane	83	5.729	5.729	(1.154)	191721	50.0000	51.91
66 Bromoform	173	8.408	8.408	(1.096)	94184	50.0000	51.38
6 Bromomethane	94	1.338	1.338	(0.320)	123463	50.0000	52.79
19 Carbon Disulfide	76	2.069	2.069	(0.495)	501125	100.000	95.54
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	168305	50.0000	50.52
59 Chlorobenzene	112	7.692	7.692	(1.003)	368756	50.0000	49.62
7 Chloroethane	64	1.403	1.403	(0.336)	84834	50.0000	50.34
28 Chloroform	83	3.910	3.910	(0.935)	239255	50.0000	50.58
3 Chloromethane	50	1.081	1.081	(0.258)	110925	50.0000	46.22
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	132034	50.0000	51.46
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	215904	50.0000	51.52
55 Dibromochloromethane	129	7.176	7.176	(0.936)	150076	50.0000	50.66
44 Dibromomethane	93	5.550	5.550	(1.118)	94233	50.0000	51.18
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	124378	50.0000	44.63
61 Ethylbenzene	106	7.799	7.799	(1.017)	187228	50.0000	50.98
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	46682	50.0000	39.19
67 Isopropylbenzene	105	8.559	8.559	(1.116)	599145	50.0000	53.38
62 m,p-Xylenes	106	7.907	7.907	(1.031)	491613	100.000	103.87
17 Methylene Chloride	84	2.305	2.305	(0.551)	105235	50.0000	47.14
87 n-Butylbenzene	91	9.991	9.991	(1.034)	450298	50.0000	47.40
73 n-Propylbenzene	91	8.910	8.910	(0.922)	721687	50.0000	50.37
92 Naphthalene	128	11.539	11.539	(1.194)	91066	50.0000	35.18
63 o-Xylene	106	8.244	8.244	(1.075)	231161	50.0000	50.22
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	580641	50.0000	48.96
64 Styrene	104	8.258	8.258	(1.077)	413632	50.0000	47.97
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	420657	50.0000	49.09
56 Tetrachloroethene	164	6.926	6.926	(0.903)	110234	50.0000	52.34
50 Toluene	91	6.446	6.446	(0.840)	552329	50.0000	50.51
20 trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	105555	50.0000	49.28
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	194113	50.0000	52.95
38 Trichloroethene	130	5.206	5.206	(1.049)	129665	50.0000	51.23
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	222158	50.0000	51.91
5 Vinyl Chloride	62	1.145	1.145	(0.274)	123816	50.0000	46.06

QC Flag Legend

M - Compound response manually integrated.



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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

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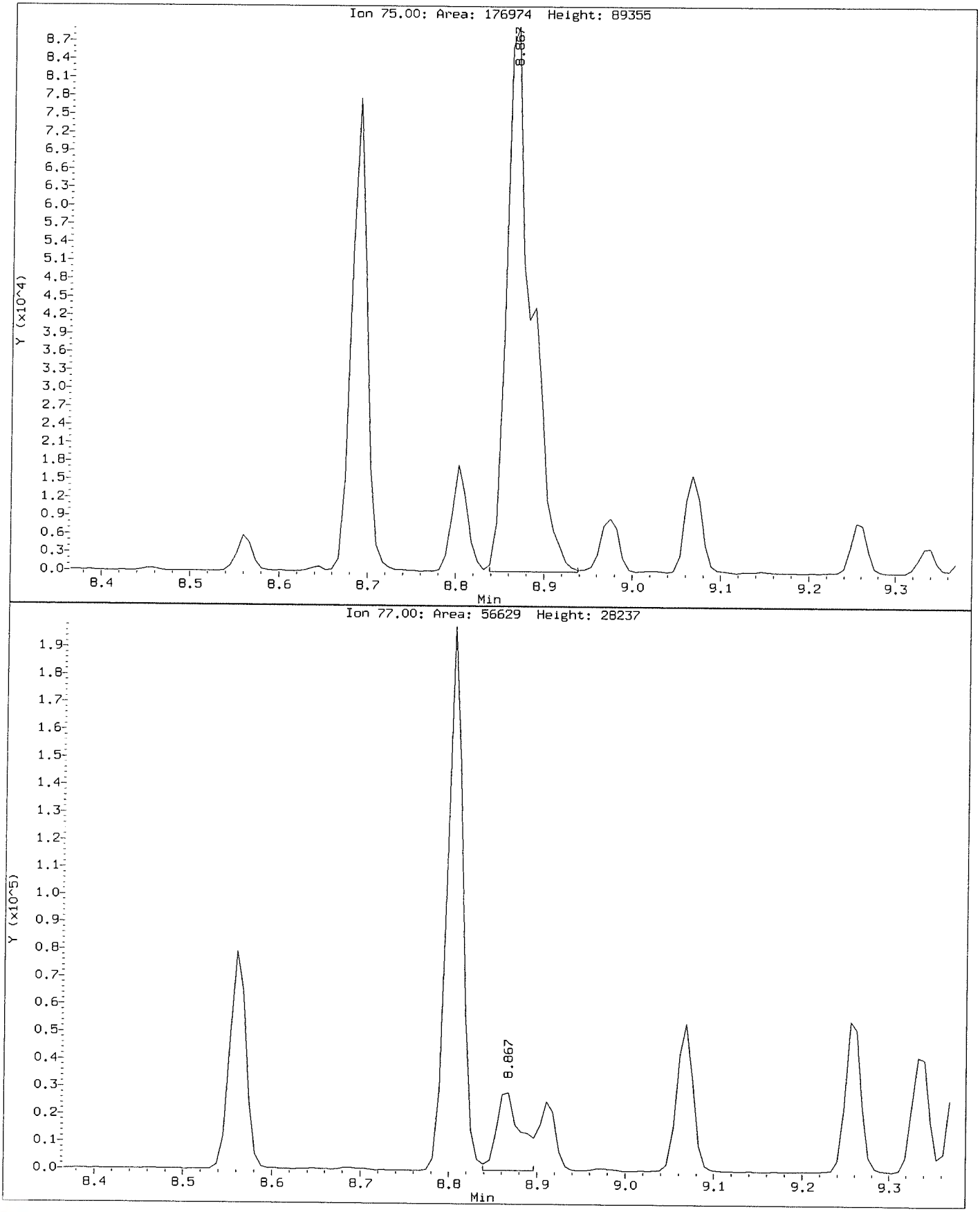
Injection Date: 21-MAY-2021 20:44
Instrument: voa6.i
Client Sample ID: CCV-END

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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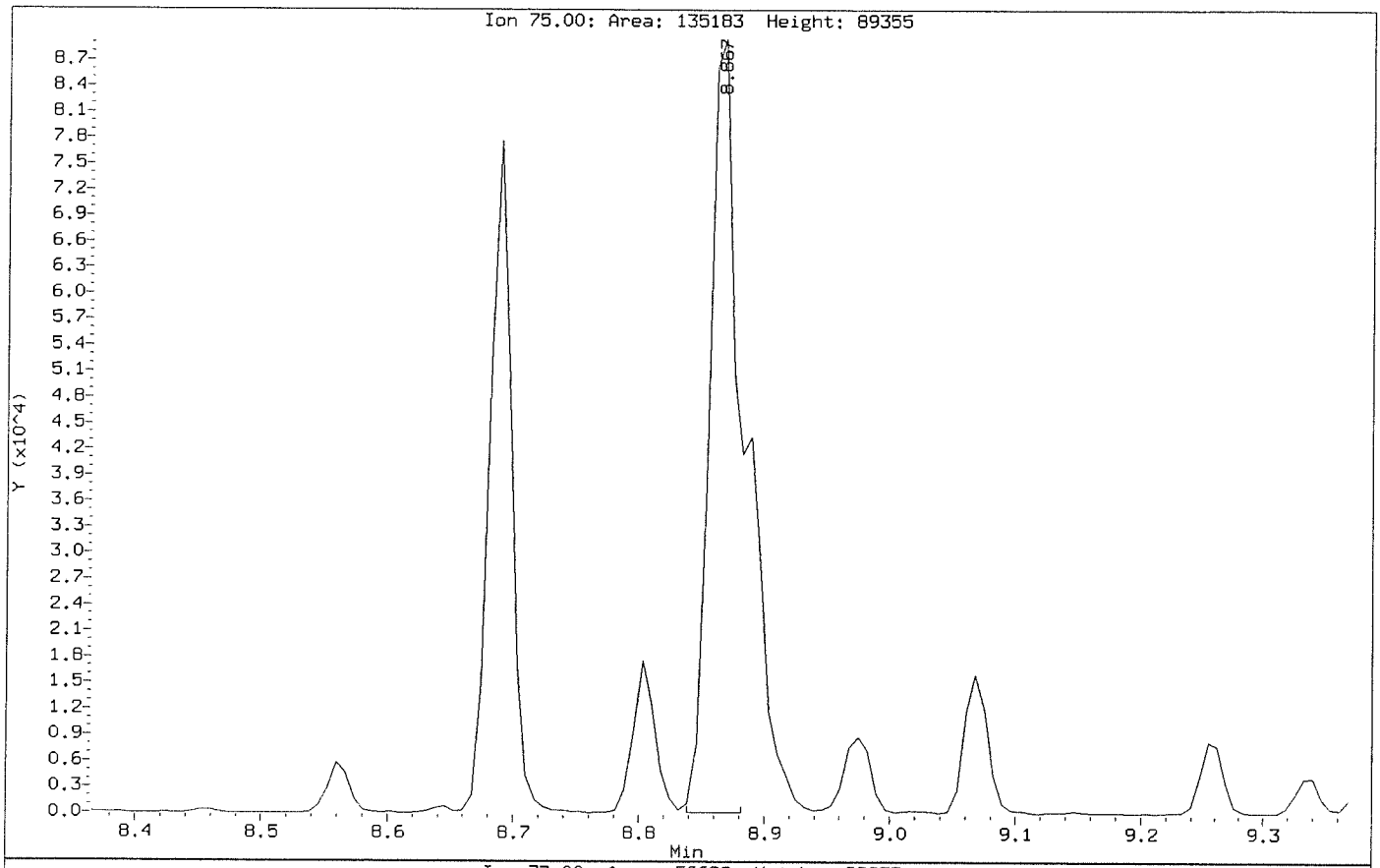
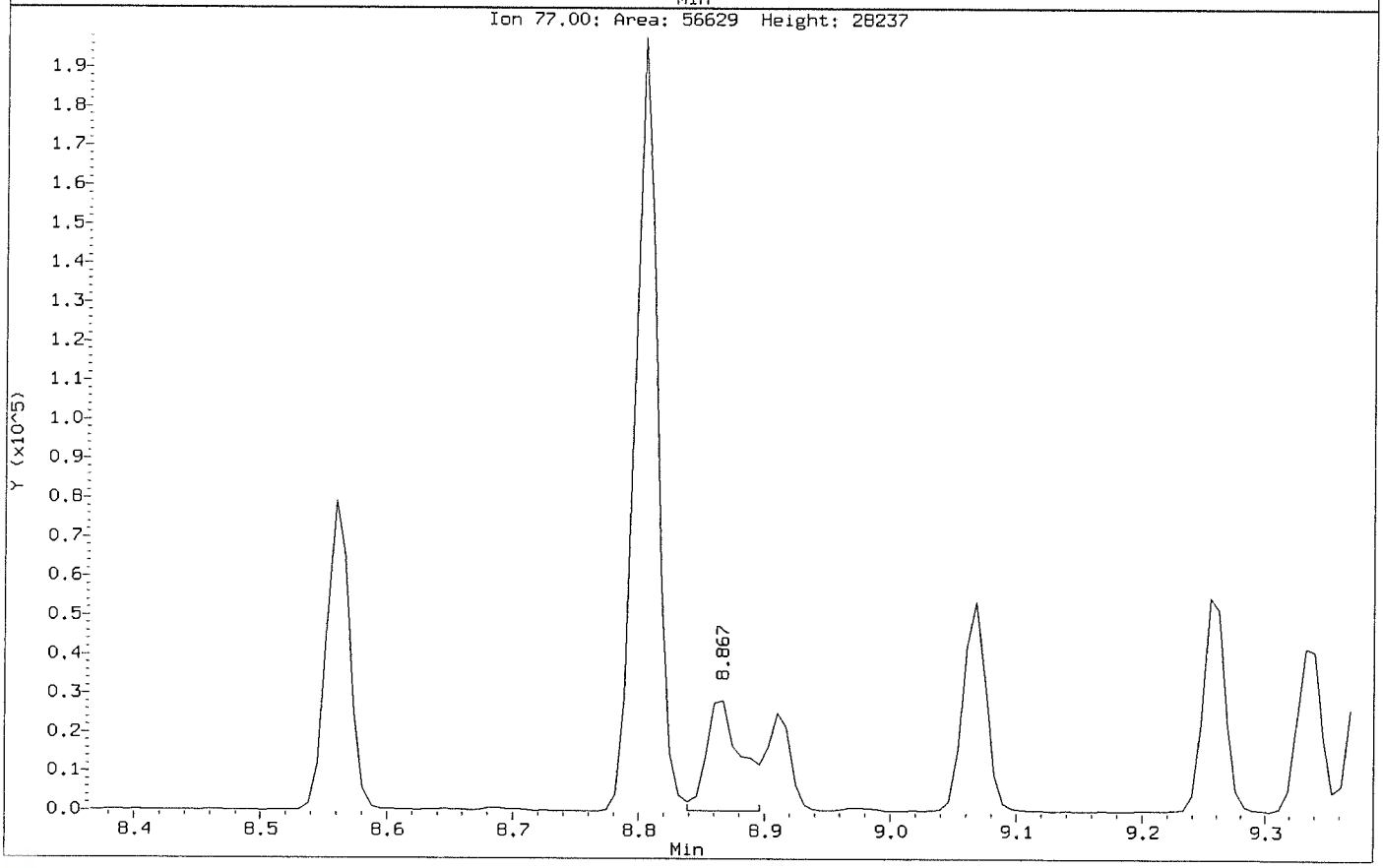
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





HS21050898 Wet Chem Raw Data (9056_anions_W)

ALS WO# HS21050898

Sequence: 060221
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method
	STD1		Calibration	BB1	1.00	1	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD2		Calibration	BB2	1.00	2	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD3		Calibration	BB3	1.00	3	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD4		Calibration	BB4	1.00	4	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD5		Calibration	BB5	1.00	5	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD6		Calibration	BB6	1.00	6	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICV		Unknown	BB7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICB		Unknown	BB8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	MBLK		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21050896-11		Unknown	GC1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21050896-11MS		Unknown	GC2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21050896-11MSD		Unknown	GC3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21050898-01		Unknown	RB4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21050898-01DF20		Unknown	RB5	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO

Sequence: 060221
Last Update Operator: alshs.nouser

CD	Name	me	Status	Inject Time
	STD1	5.0	Finished	5/5/2021 6:12:32 PM -05:00
	STD2	5.0	Finished	5/5/2021 6:20:08 PM -05:00
	STD3	5.0	Finished	5/5/2021 6:27:33 PM -05:00
	STD4	5.0	Finished	5/5/2021 6:34:56 PM -05:00
	STD5	5.0	Finished	5/5/2021 6:42:20 PM -05:00
	STD6	5.0	Finished	5/5/2021 6:49:43 PM -05:00
	ICV	5.0	Finished	5/5/2021 6:57:07 PM -05:00
	ICB	5.0	Finished	5/5/2021 7:14:09 PM -05:00
	CCV1	5.0	Finished	6/2/2021 7:36:56 PM -05:00
	CCB	5.0	Finished	6/2/2021 7:44:19 PM -05:00
	MBLK	5.0	Finished	6/2/2021 7:51:42 PM -05:00
	LCS	5.0	Finished	6/2/2021 7:59:06 PM -05:00
	HS21050896-11	5.0	Finished	6/2/2021 8:36:05 PM -05:00
	HS21050896-11MS	5.0	Finished	6/2/2021 8:43:28 PM -05:00
	HS21050896-11MSD	5.0	Finished	6/2/2021 8:50:51 PM -05:00
	CCV	5.0	Finished	6/2/2021 9:05:41 PM -05:00
	CCB	5.0	Finished	6/2/2021 9:13:05 PM -05:00
	CCV1	5.0	Finished	6/3/2021 1:46:37 AM -05:00
	CCB	5.0	Finished	6/3/2021 2:01:25 AM -05:00
	HS21050898-01	5.0	Finished	6/3/2021 2:23:35 AM -05:00
	HS21050898-01DF20	5.0	Finished	6/3/2021 2:30:59 AM -05:00
	CCV	5.0	Finished	6/3/2021 3:15:18 AM -05:00
	CCB	5.0	Finished	6/3/2021 3:30:05 AM -05:00

Sequence: 060221
Injection #6: STD6

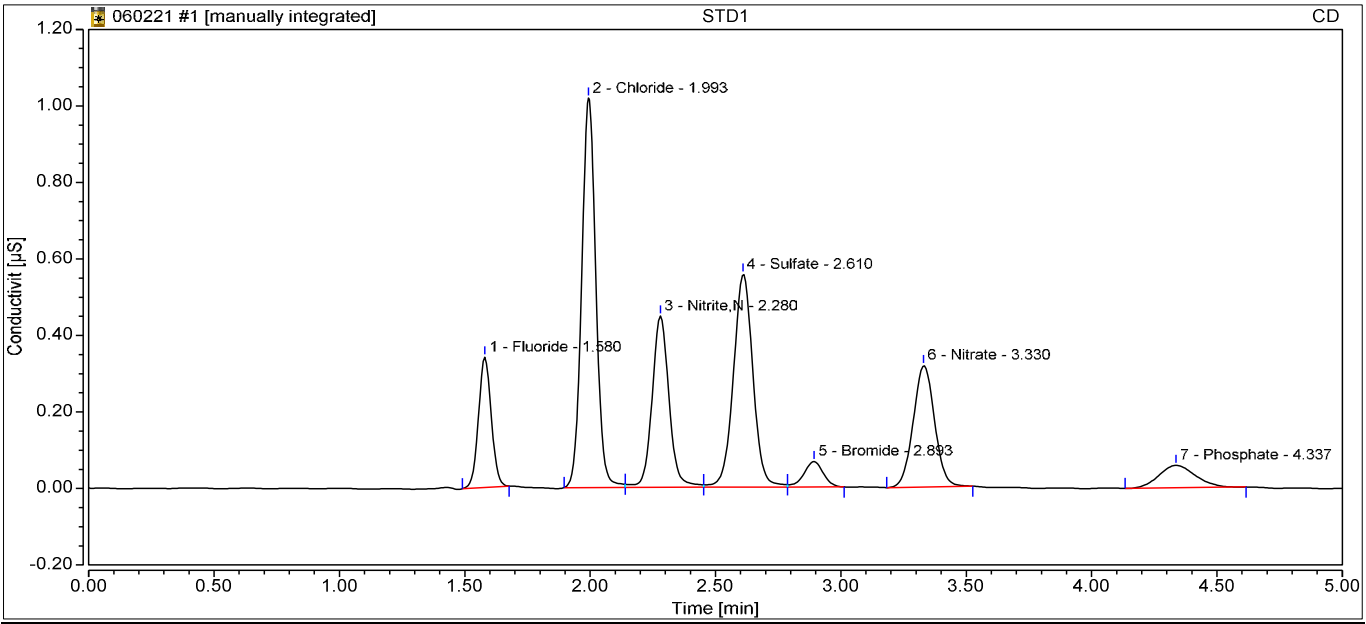
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*26.4373*	*0.99601*	*0.0037*	*0.2049*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	0.6871	1.00000	-0.0005	0.1344	0.0000
3	Nitrite,N	Lin, WithOffset, 1/	Area	6	17.7767	0.99788	0.0149	0.2622	0.0000
4	Sulfate	Lin, WithOffset, 1/	Area	6	1.7139	0.99998	0.0010	0.0990	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	3.9005	0.99992	0.0004	0.0565	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	4.7579	0.99988	-0.0013	0.3350	0.0000
7	Phosphate	Lin, WithOffset, 1/	Area	6	7.9708	0.99971	-0.0045	0.1295	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					**26.4373**	1.00000			
Minimum					0.6871	**0.99601**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BB1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:12**	*Sample Weight:*	**1.0000**

Run Time:

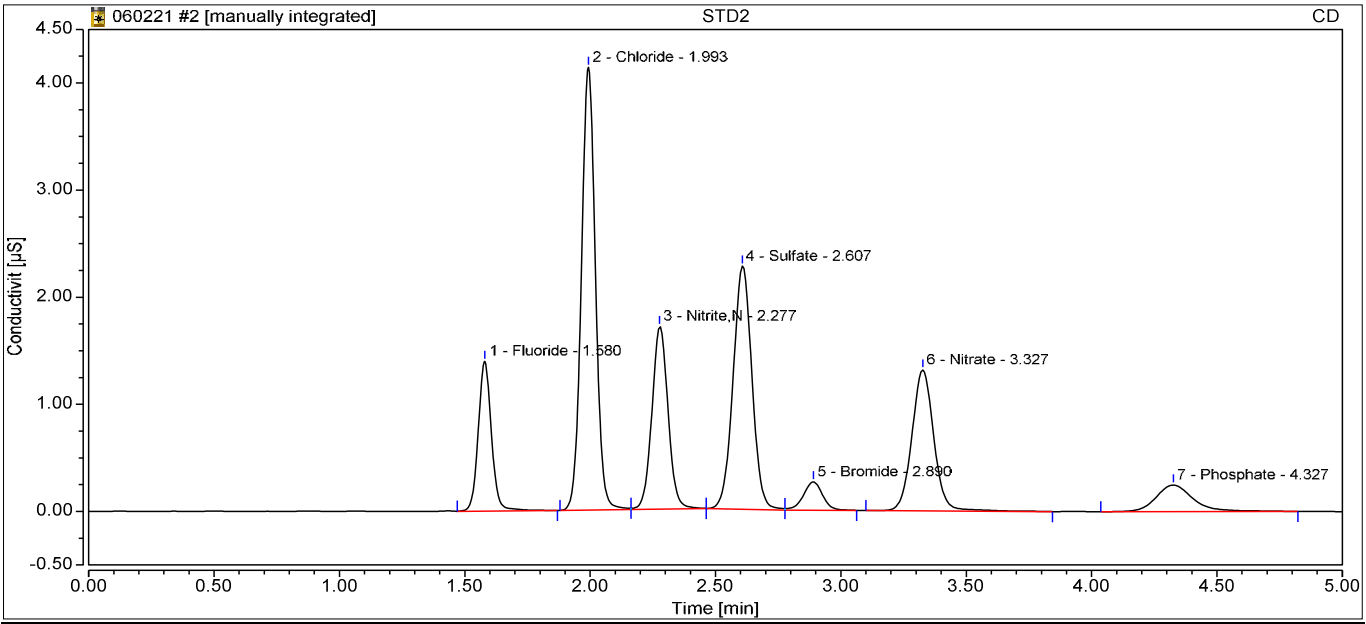


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB*	0.020	0.0804	0.0804	1.0000
2	1.99	Chloride	BM *	0.067	0.4989	0.4989	1.0000
3	2.28	Nitrite,N	M *	0.035	0.0767	0.0767	1.0000
4	2.61	Sulfate	M *	0.050	0.4965	0.4965	1.0000
5	2.89	Bromide	MB*	0.006	0.0985	0.0985	1.0000
6	3.33	Nitrate	BMB*	0.031	0.0974	0.0974	1.0000
7	4.34	Phosphate	BMB*	0.010	0.1110	0.1110	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.219**		**1.46**	

2 STD2			
Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:20**	*Sample Weight:*	**1.0000**

Run Time:



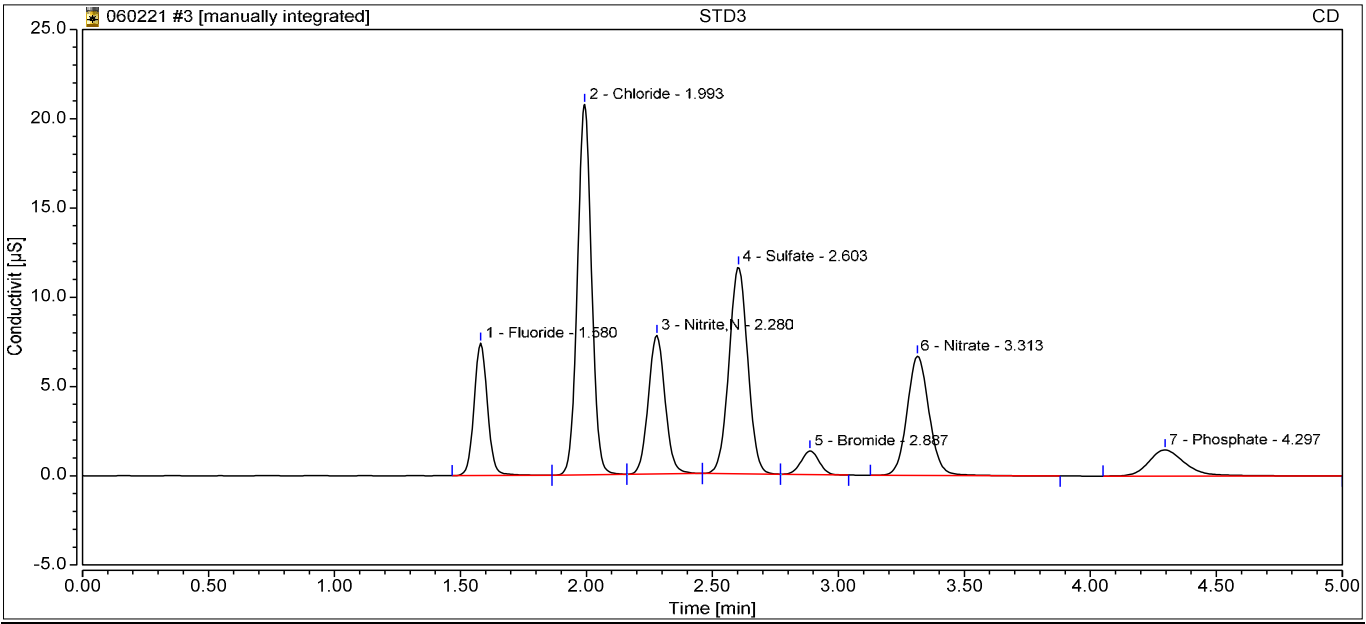
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.085	0.3985	0.3985	1.0000
2	1.99	Chloride	BM *	0.268	1.9973	1.9973	1.0000
3	2.28	Nitrite,N	Mb*	0.127	0.4273	0.4273	1.0000
4	2.61	Sulfate	bM *	0.198	1.9879	1.9879	1.0000
5	2.89	Bromide	MB*	0.024	0.4134	0.4134	1.0000
6	3.33	Nitrate	BMB	0.133	0.4017	0.4017	1.0000
7	4.33	Phosphate	BMB	0.043	0.3676	0.3676	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.878**		**5.99**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:27**	*Sample Weight:*	**1.0000**

Run Time:



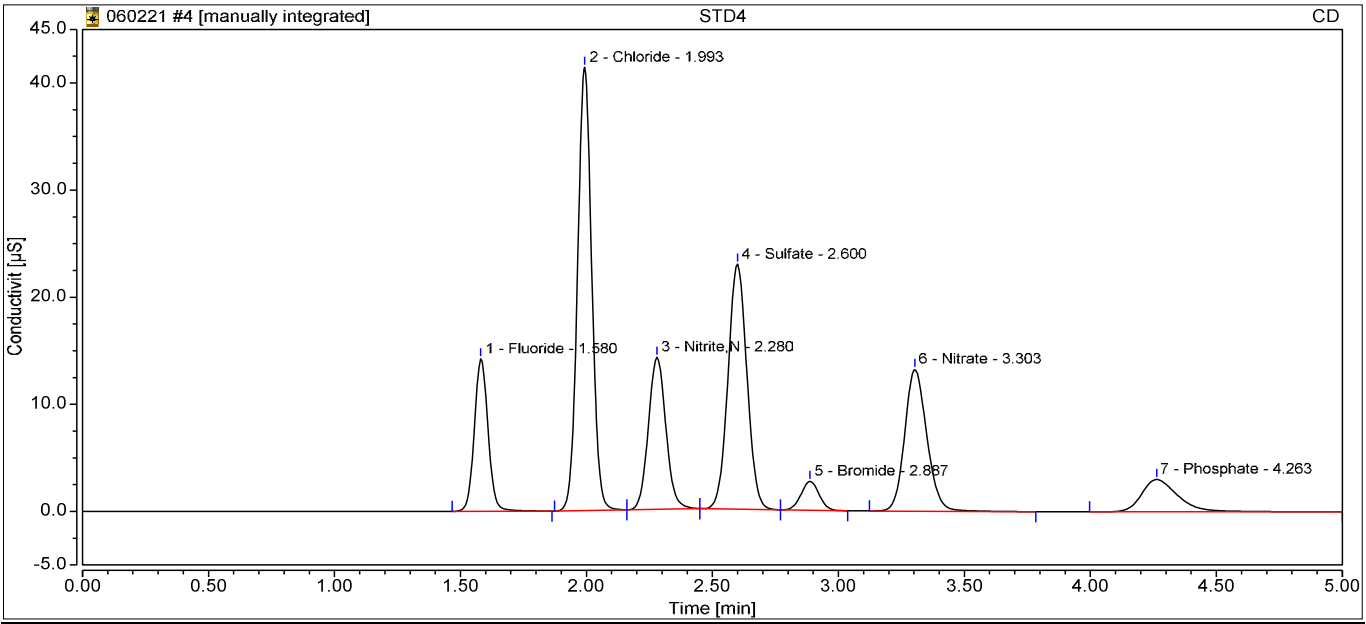
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMb*	0.459	2.2233	2.2233	1.0000
2	1.99	Chloride	bM *	1.346	10.0167	10.0167	1.0000
3	2.28	Nitrite,N	Mb*	0.600	2.2303	2.2303	1.0000
4	2.60	Sulfate	bM *	1.000	10.0941	10.0941	1.0000
5	2.89	Bromide	MB*	0.112	1.9684	1.9684	1.0000
6	3.31	Nitrate	BMB	0.675	2.0188	2.0188	1.0000
7	4.30	Phosphate	BMB	0.247	1.9396	1.9396	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**4.438**		**30.49**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BB4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:34**	*Sample Weight:*	**1.0000**

Run Time:



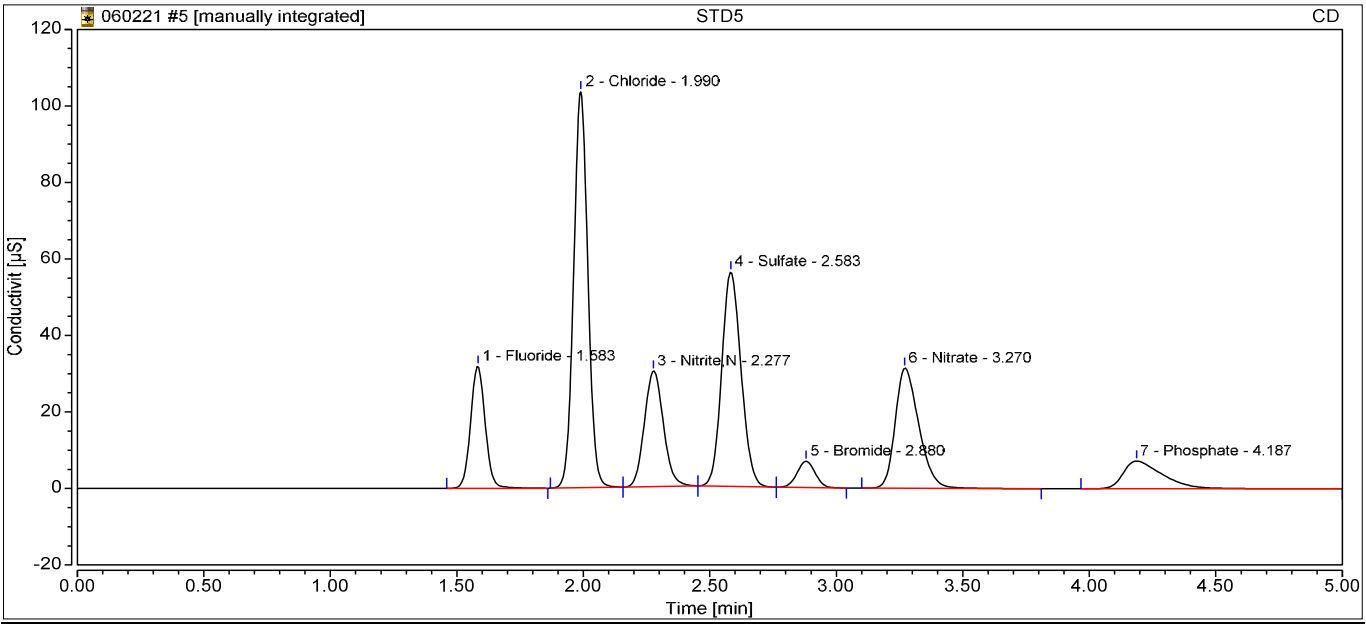
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.903	4.3869	4.3869	1.0000
2	1.99	Chloride	BM *	2.691	20.0267	20.0267	1.0000
3	2.28	Nitrite,N	Mb*	1.144	4.3066	4.3066	1.0000
4	2.60	Sulfate	bMB*	1.988	20.0727	20.0727	1.0000
5	2.89	Bromide	BMB	0.224	3.9555	3.9555	1.0000
6	3.30	Nitrate	BMB	1.350	4.0333	4.0333	1.0000
7	4.26	Phosphate	BMB	0.506	3.9429	3.9429	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.805**		**60.72**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BB5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:42**	*Sample Weight:*	**1.0000**

Run Time:

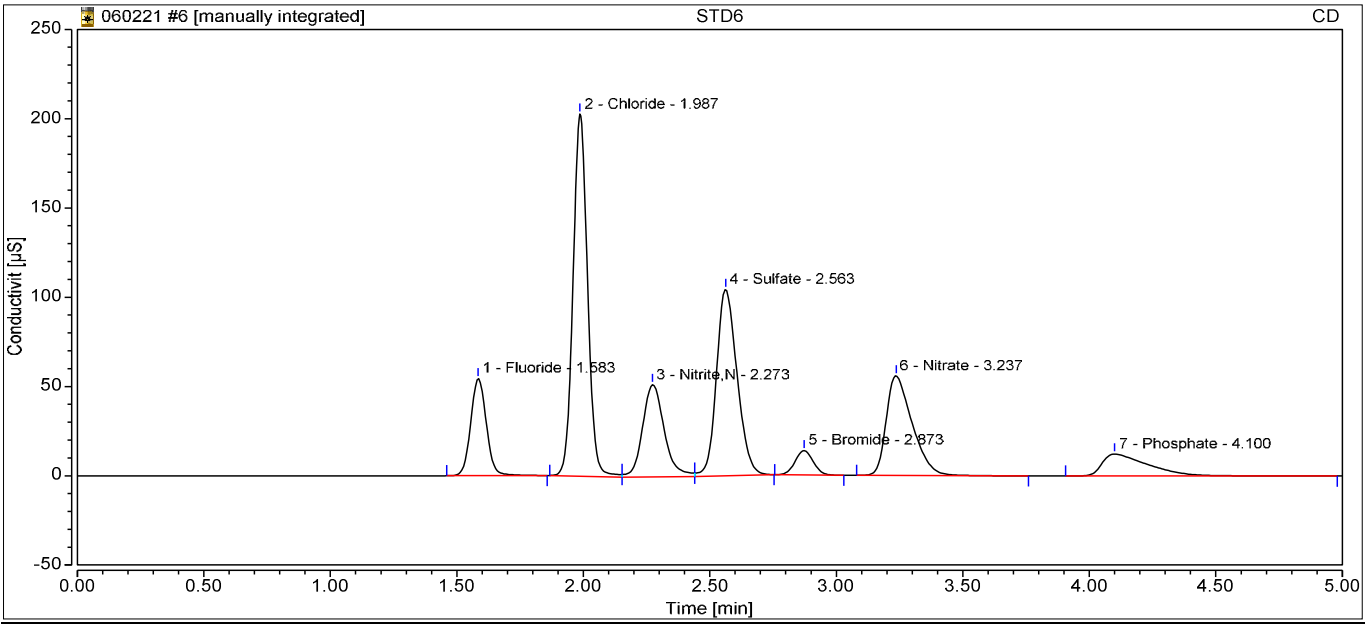


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.140	10.4243	10.4243	1.0000
2	1.99	Chloride	BMb*	6.732	50.0934	50.0934	1.0000
3	2.28	Nitrite,N	bMb*	2.637	9.9988	9.9988	1.0000
4	2.58	Sulfate	bMB*	4.966	50.1541	50.1541	1.0000
5	2.88	Bromide	BMB	0.571	10.1112	10.1112	1.0000
6	3.27	Nitrate	BMB	3.393	10.1328	10.1328	1.0000
7	4.19	Phosphate	BMB	1.313	10.1773	10.1773	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.751**		**151.09**	

6 STD6			
Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BB6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:49**	*Sample Weight:*	**1.0000**

Run Time:



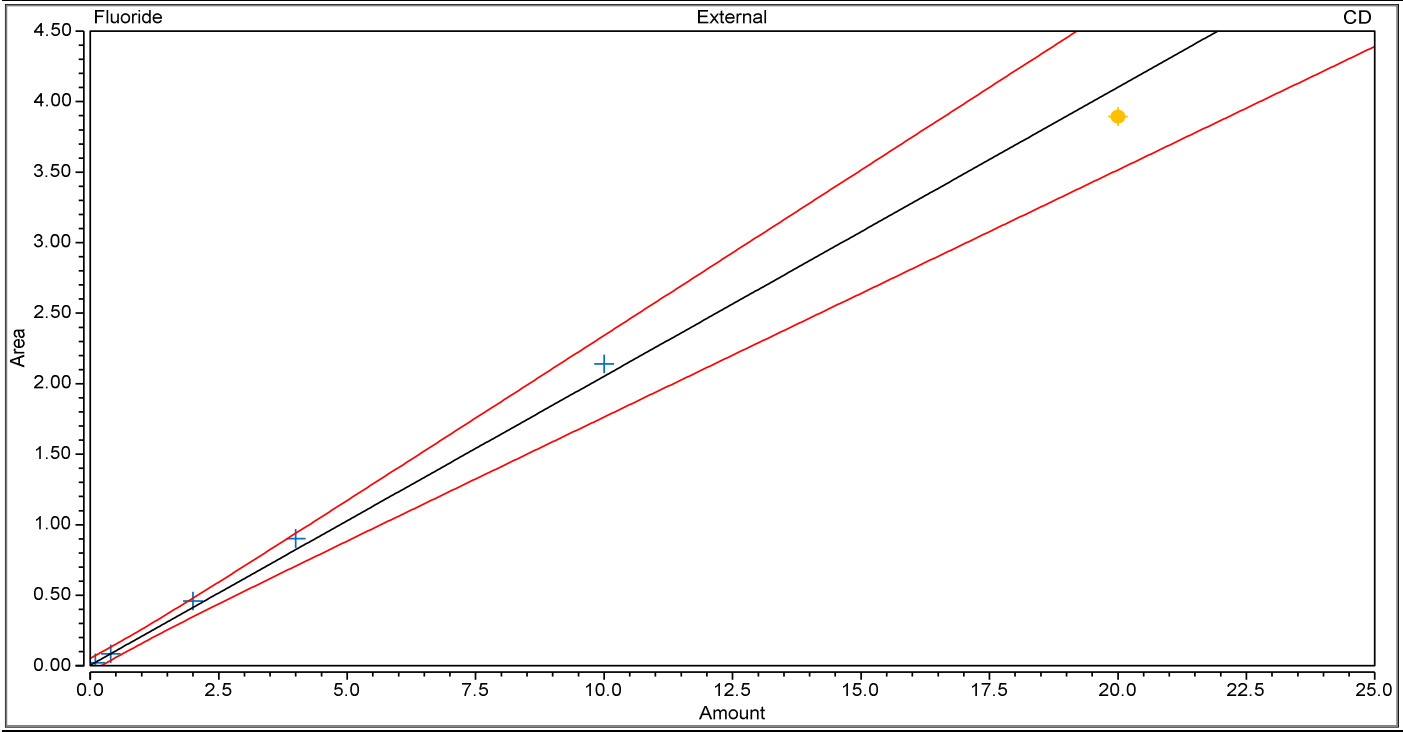
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	3.894	18.9867	18.9867	1.0000
2	1.99	Chloride	BM *	13.421	99.8669	99.8669	1.0000
3	2.27	Nitrite,N	M *	5.117	19.4604	19.4604	1.0000
4	2.56	Sulfate	MB*	9.870	99.6947	99.6947	1.0000
5	2.87	Bromide	BMB	1.127	19.9531	19.9531	1.0000
6	3.24	Nitrate	BMB	6.637	19.8160	19.8160	1.0000
7	4.10	Phosphate	BMB	2.580	19.9616	19.9616	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**42.646**		**297.74**	

Calibration

Calibration Details	Fluoride		
Calibration Type	Lin, WithOffset, 1/A	*Offset (C0)*	0.0037
Evaluation Type	Area	*Slope (C1)*	0.2049
Number of Calibration Points	6	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9960

Calibration Plot **Fluoride**

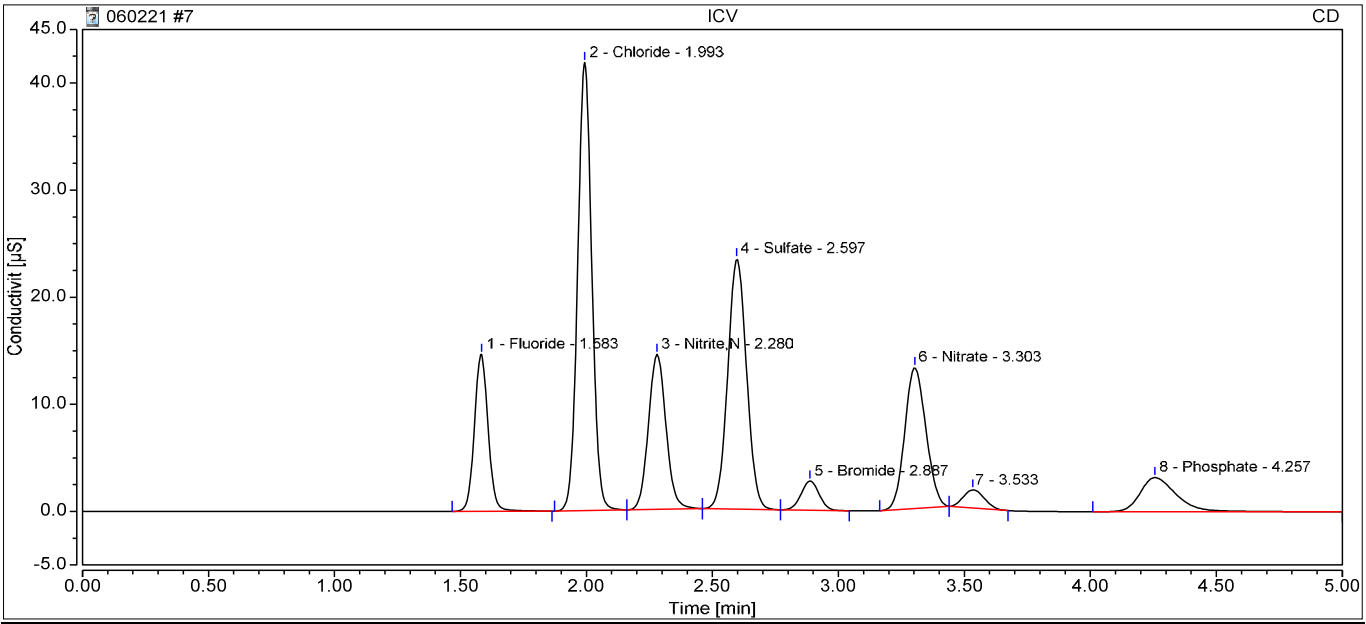


Calibration Results **Fluoride**

No.	Injection Name	Calibration Level	X Value CD Fluoride	Y Value CD Fluoride	Y Value CD Fluoride	Area µS*min CD Fluoride	Height µS CD Fluoride
1	STD1	1	0.1000	0.0202	0.0202	0.020	0.341
2	STD2	2	0.4000	0.0854	0.0854	0.085	1.397
3	STD3	3	2.0000	0.4593	0.4593	0.459	7.420
4	STD4	4	4.0000	0.9026	0.9026	0.903	14.229
5	STD5	5	10.0000	2.1397	2.1397	2.140	31.975
6	STD6	6	20.0000	3.8942	3.8942	3.894	54.315

7 ICV			
Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BB7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:57**	*Sample Weight:*	**1.0000**

Run Time:



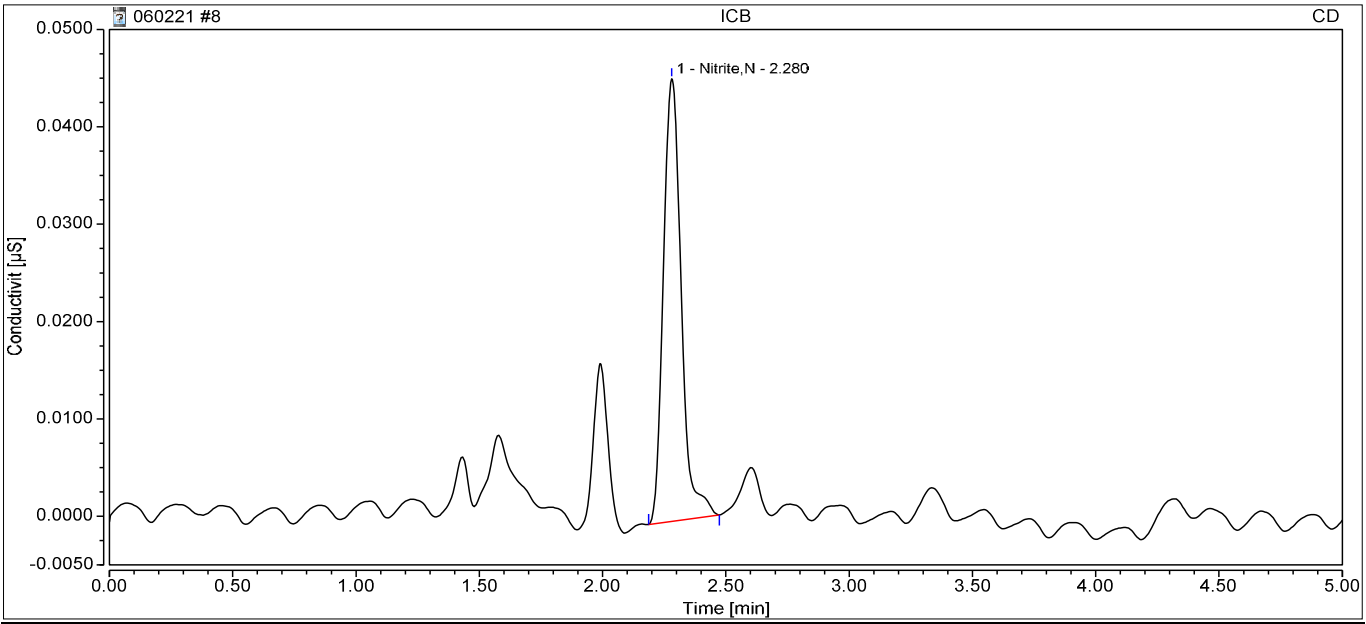
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.924	4.4936	4.4936	1.0000
2	1.99	Chloride	BMB	2.715	20.2077	20.2077	1.0000
3	2.28	Nitrite,N	BMB	1.168	4.3995	4.3995	1.0000
4	2.60	Sulfate	BMB	2.028	20.4771	20.4771	1.0000
5	2.89	Bromide	BMB	0.226	3.9960	3.9960	1.0000
6	3.30	Nitrate	BMB	1.281	3.8265	3.8265	1.0000
8	4.26	Phosphate	BMB	0.533	4.1549	4.1549	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.876**		**61.56**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BB8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 19:14**	*Sample Weight:*	**1.0000**

Run Time:



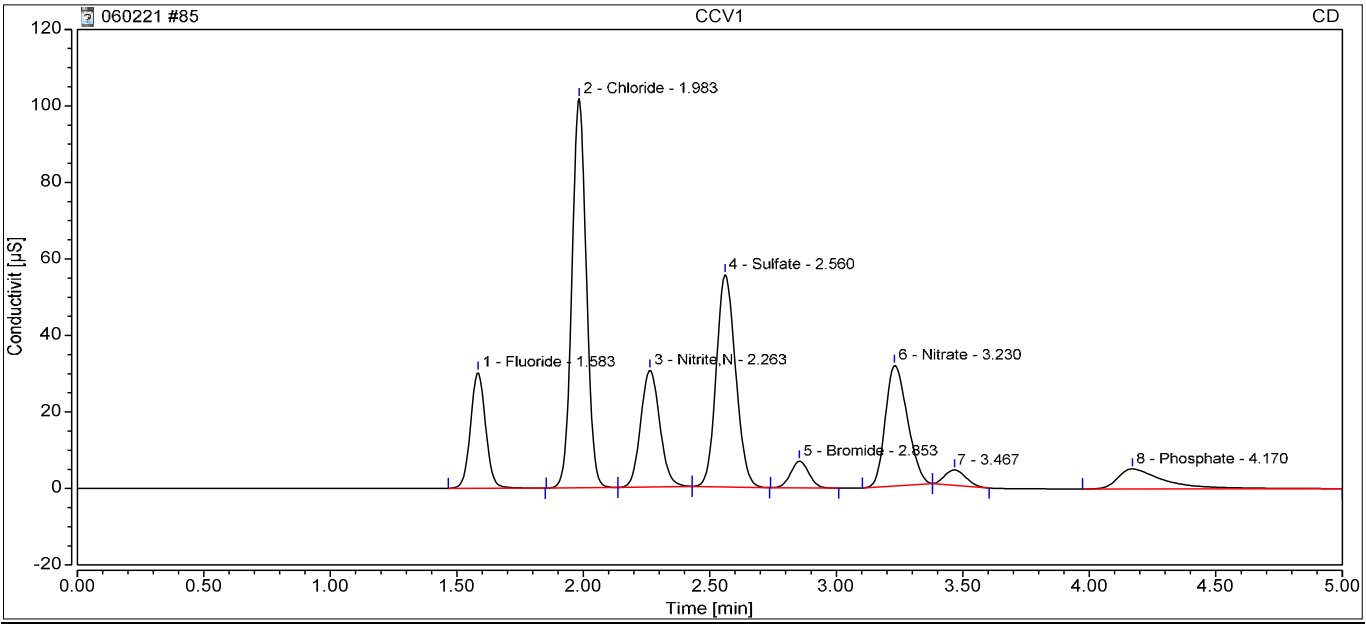
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.28	Nitrite,N	BMB	0.004	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.004**		**0.00**	

85 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 19:36**	*Sample Weight:*	**1.0000**

Run Time:



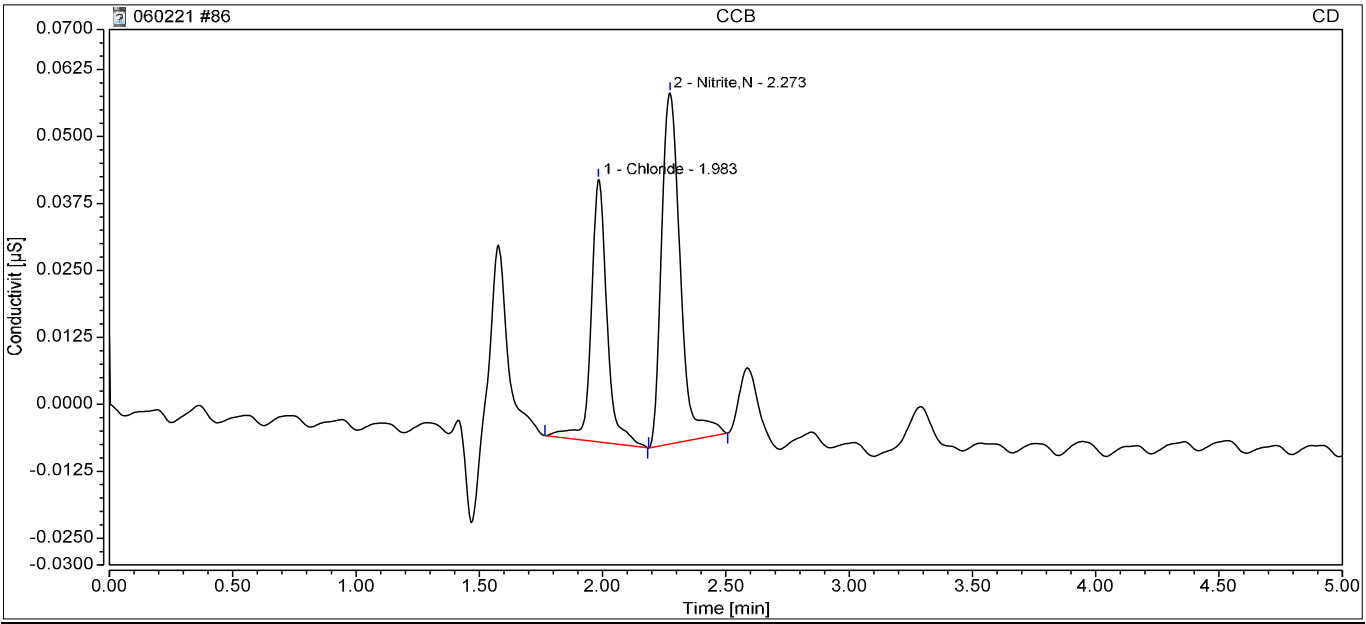
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.102	10.2424	10.2424	1.0000
2	1.98	Chloride	BMB	6.719	49.9985	49.9985	1.0000
3	2.26	Nitrite,N	BMB	2.670	10.1282	10.1282	1.0000
4	2.56	Sulfate	BMB	4.924	49.7316	49.7316	1.0000
5	2.85	Bromide	BMB	0.579	10.2526	10.2526	1.0000
6	3.23	Nitrate	BMB	3.196	9.5432	9.5432	1.0000
8	4.17	Phosphate	BMB	1.097	8.5100	8.5100	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.288**		**148.41**	

86 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 19:44**	*Sample Weight:*	**1.0000**

Run Time:



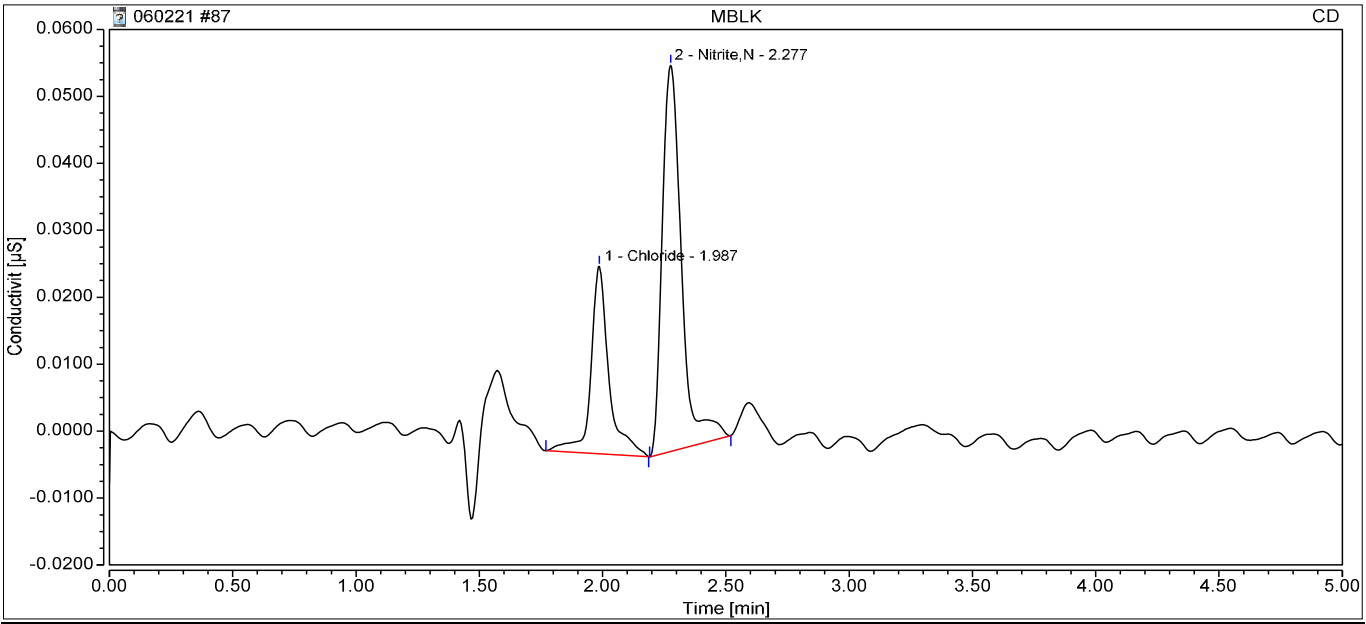
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.98	Chloride	BMB	0.004	0.0309	0.0309	1.0000
2	2.27	Nitrite,N	BMB	0.006	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.009**		**0.03**	

87 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 19:51**	*Sample Weight:*	**1.0000**

Run Time:



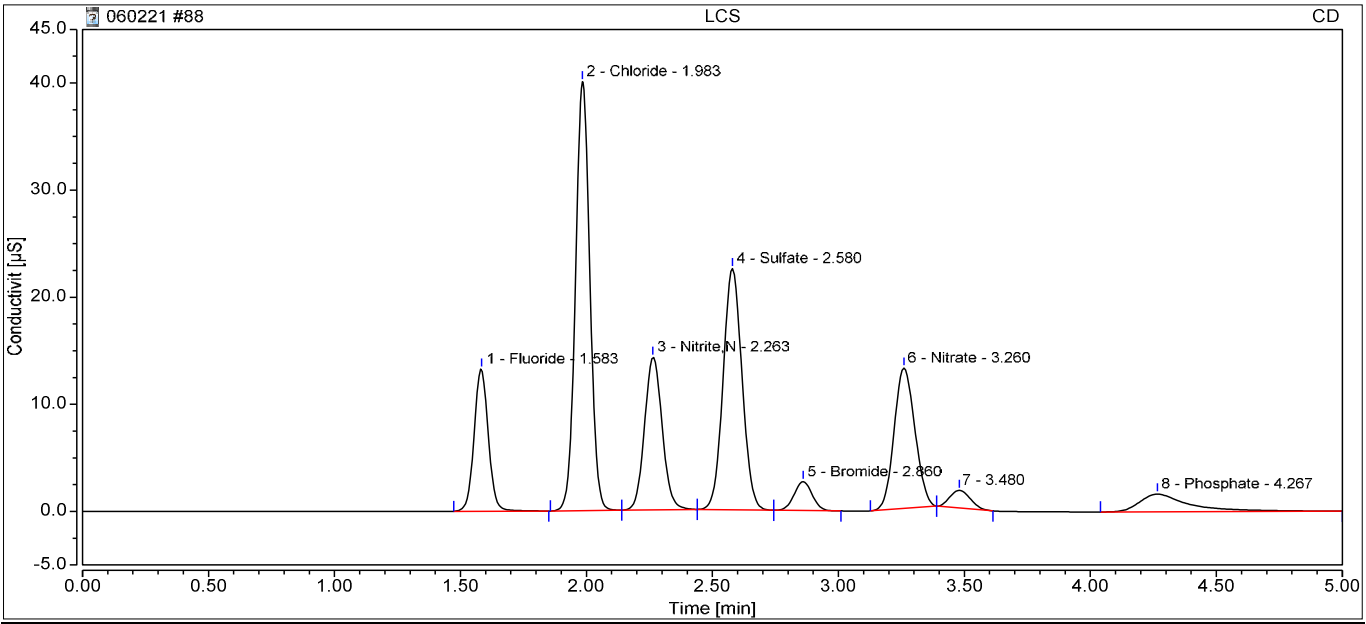
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.99	Chloride	BMB	0.002	0.0212	0.0212	1.0000
2	2.28	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.008**		**0.02**	

88 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 19:59**	*Sample Weight:*	**1.0000**

Run Time:

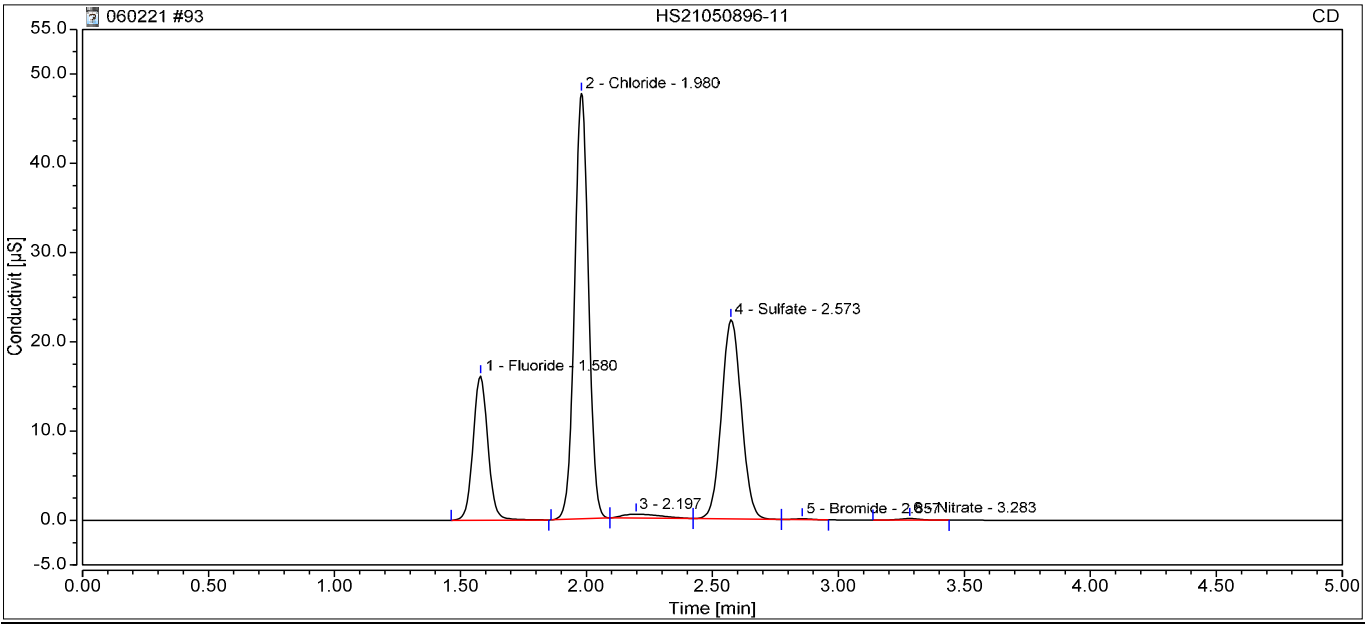


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.870	4.2278	4.2278	1.0000
2	1.98	Chloride	BMB	2.643	19.6700	19.6700	1.0000
3	2.26	Nitrite,N	BMB	1.159	4.3645	4.3645	1.0000
4	2.58	Sulfate	BMB	1.959	19.7801	19.7801	1.0000
5	2.86	Bromide	BMB	0.225	3.9748	3.9748	1.0000
6	3.26	Nitrate	BMB	1.257	3.7556	3.7556	1.0000
8	4.27	Phosphate	BMB	0.381	2.9760	2.9760	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.494**		**58.75**	

93 HS21050896-11			
Sample Name:	**HS21050896-11**	*Injection Volume:*	**5.00**
Vial Number:	**GC1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 20:36**	*Sample Weight:*	**1.0000**

Run Time:



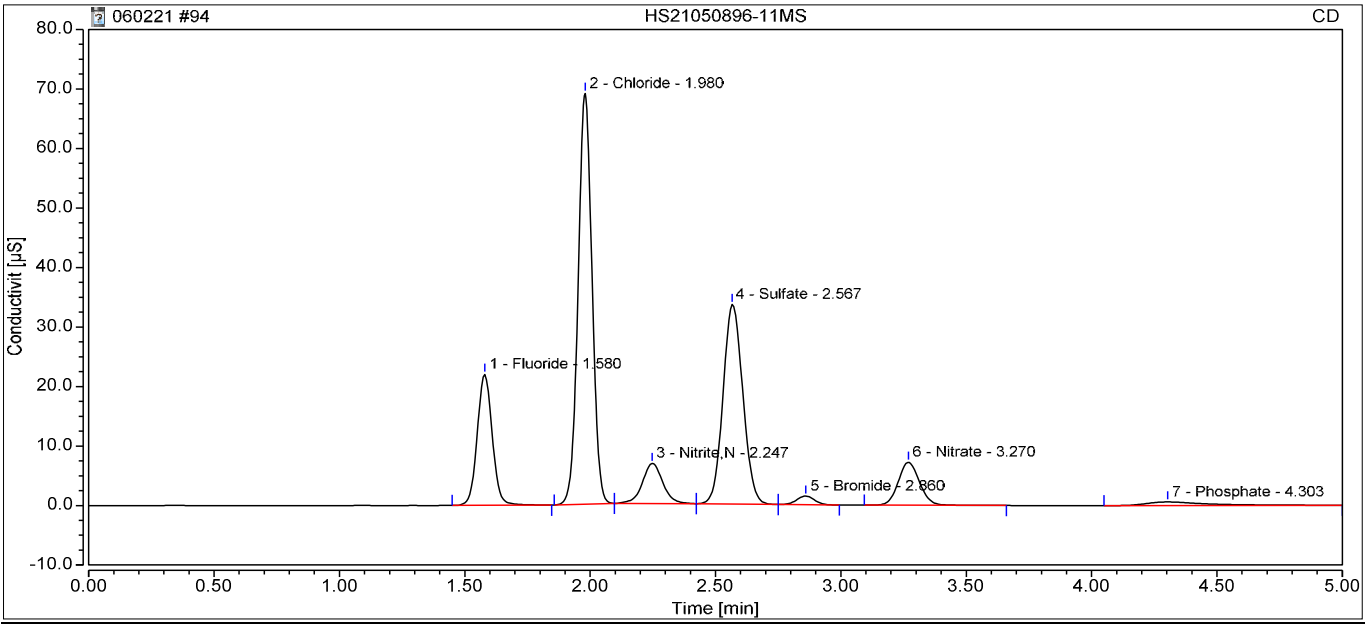
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	1.102	5.3601	5.3601	1.0000
2	1.98	Chloride	BMB	3.052	22.7172	22.7172	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
4	2.57	Sulfate	BMB	2.035	20.5496	20.5496	1.0000
5	2.86	Bromide	BMB	0.007	0.1207	0.1207	1.0000
6	3.28	Nitrate	BMB	0.017	0.0555	0.0555	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**6.214**		**48.80**	

94 HS21050896-11MS

Sample Name:	**HS21050896-11MS**	*Injection Volume:*	**5.00**
Vial Number:	**GC2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 20:43**	*Sample Weight:*	**1.0000**

Run Time:



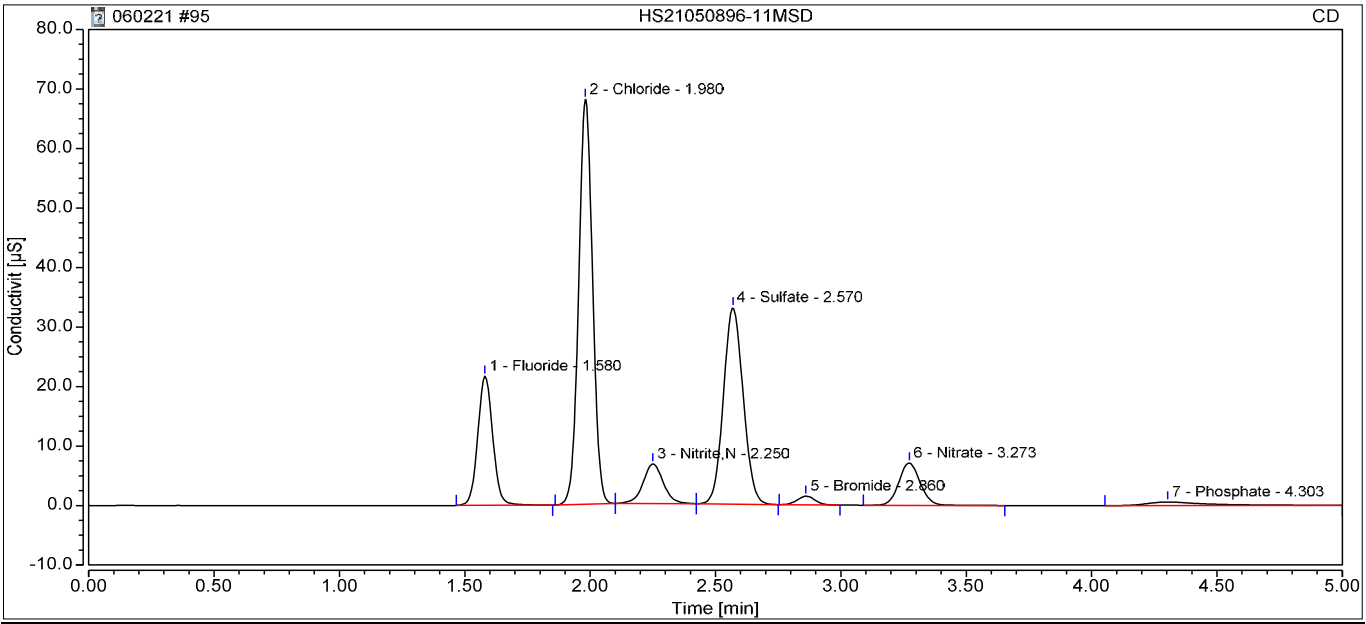
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	1.533	7.4628	7.4628	1.0000
2	1.98	Chloride	BMB	4.432	32.9789	32.9789	1.0000
3	2.25	Nitrite,N	BMB	0.634	2.3604	2.3604	1.0000
4	2.57	Sulfate	BMB	3.071	31.0154	31.0154	1.0000
5	2.86	Bromide	BMB	0.121	2.1318	2.1318	1.0000
6	3.27	Nitrate	BMB	0.713	2.1317	2.1317	1.0000
7	4.30	Phosphate	BMB	0.171	1.3529	1.3529	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**10.674**		**79.43**	

95 HS21050896-11MSD

Sample Name:	**HS21050896-11MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GC3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 20:50**	*Sample Weight:*	**1.0000**

Run Time:

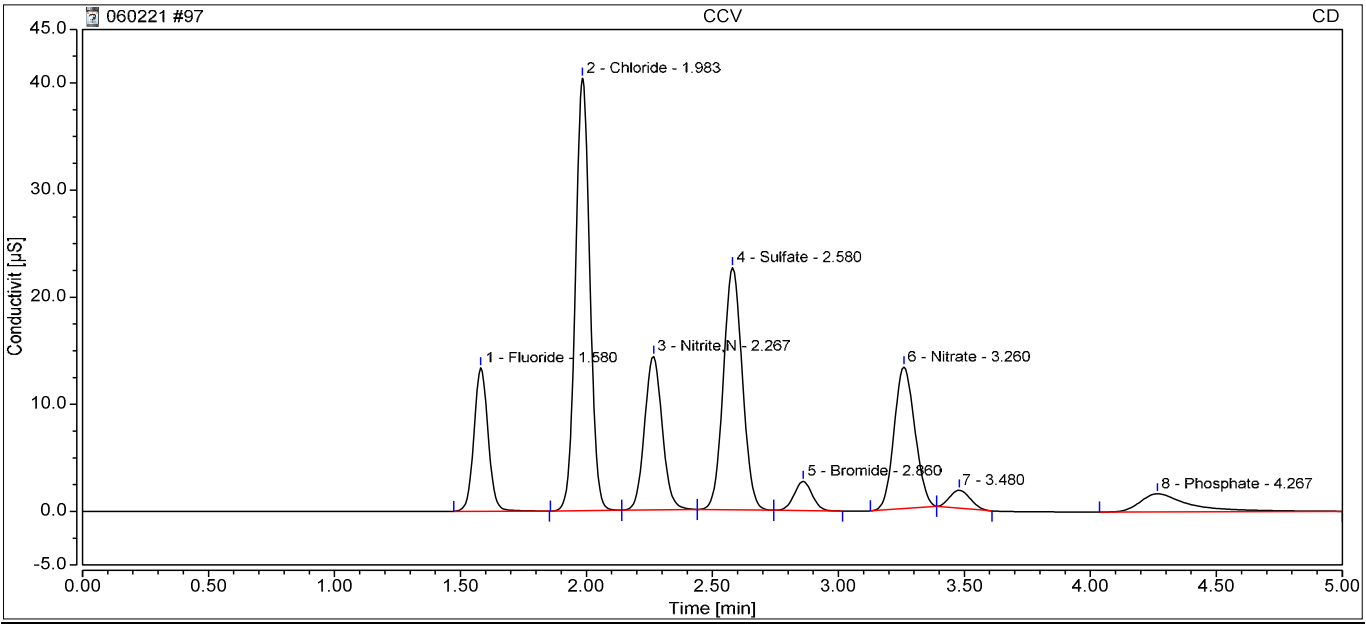


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	1.508	7.3429	7.3429	1.0000
2	1.98	Chloride	BMB	4.376	32.5662	32.5662	1.0000
3	2.25	Nitrite,N	BMB	0.626	2.3300	2.3300	1.0000
4	2.57	Sulfate	BMB	3.013	30.4322	30.4322	1.0000
5	2.86	Bromide	BMB	0.119	2.1074	2.1074	1.0000
6	3.27	Nitrate	BMB	0.703	2.1019	2.1019	1.0000
7	4.30	Phosphate	BMB	0.168	1.3315	1.3315	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**10.514**		**78.21**	

97 CCV			
Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 21:05**	*Sample Weight:*	**1.0000**

Run Time:



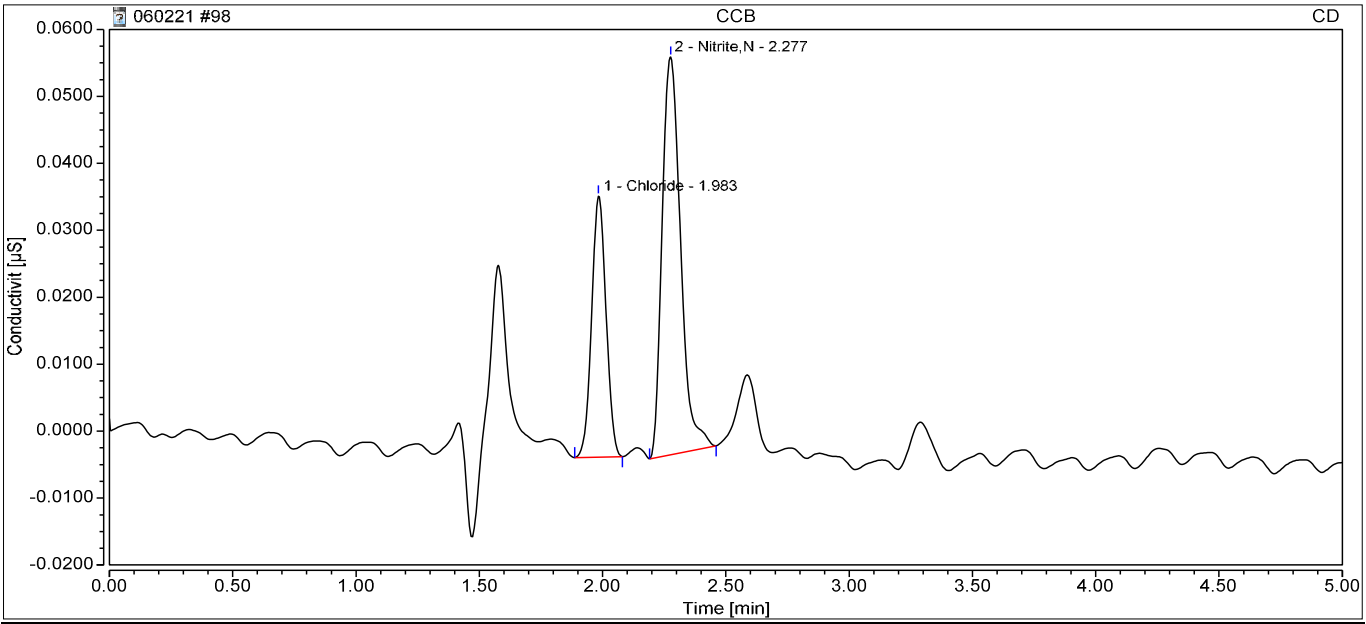
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.876	4.2570	4.2570	1.0000
2	1.98	Chloride	BMB	2.670	19.8694	19.8694	1.0000
3	2.27	Nitrite,N	BMB	1.166	4.3898	4.3898	1.0000
4	2.58	Sulfate	BMB	1.970	19.8936	19.8936	1.0000
5	2.86	Bromide	BMB	0.226	3.9885	3.9885	1.0000
6	3.26	Nitrate	BMB	1.263	3.7740	3.7740	1.0000
8	4.27	Phosphate	BMB	0.384	2.9977	2.9977	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.554**		**59.17**	

98 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/02/2021 21:13**	*Sample Weight:*	**1.0000**

Run Time:



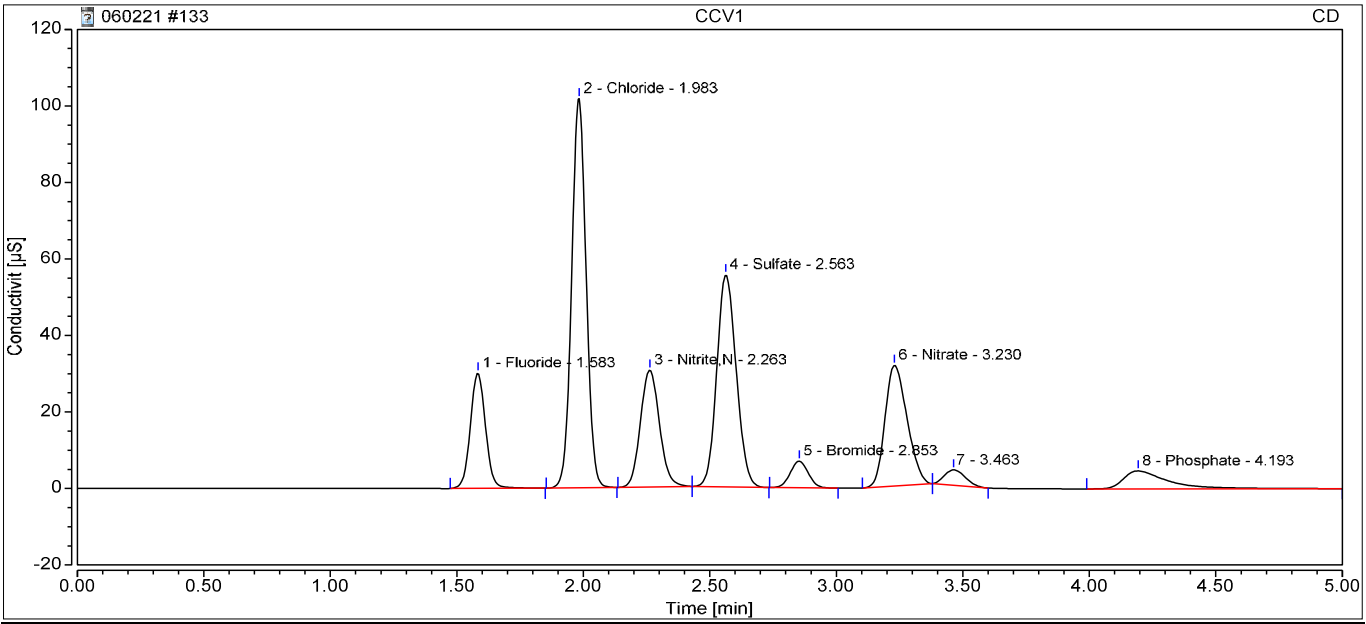
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.98	Chloride	BMB	0.003	0.0232	0.0232	1.0000
2	2.28	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.008**		**0.02**	

133 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/03/2021 01:46**	*Sample Weight:*	**1.0000**

Run Time:



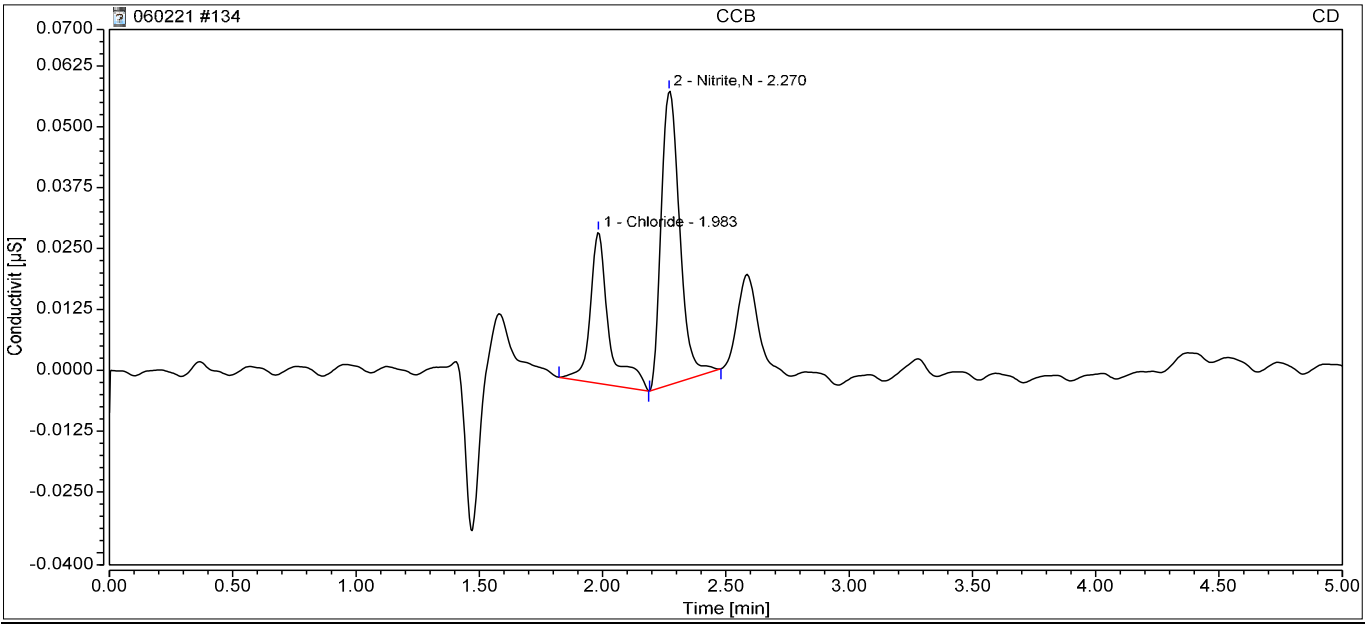
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.094	10.2028	10.2028	1.0000
2	1.98	Chloride	BMB	6.735	50.1219	50.1219	1.0000
3	2.26	Nitrite,N	BMB	2.662	10.0950	10.0950	1.0000
4	2.56	Sulfate	BMB	4.934	49.8300	49.8300	1.0000
5	2.85	Bromide	BMB	0.577	10.2189	10.2189	1.0000
6	3.23	Nitrate	BMB	3.184	9.5077	9.5077	1.0000
8	4.19	Phosphate	BMB	0.950	7.3757	7.3757	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.137**		**147.35**	

134 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/03/2021 02:01**	*Sample Weight:*	**1.0000**

Run Time:



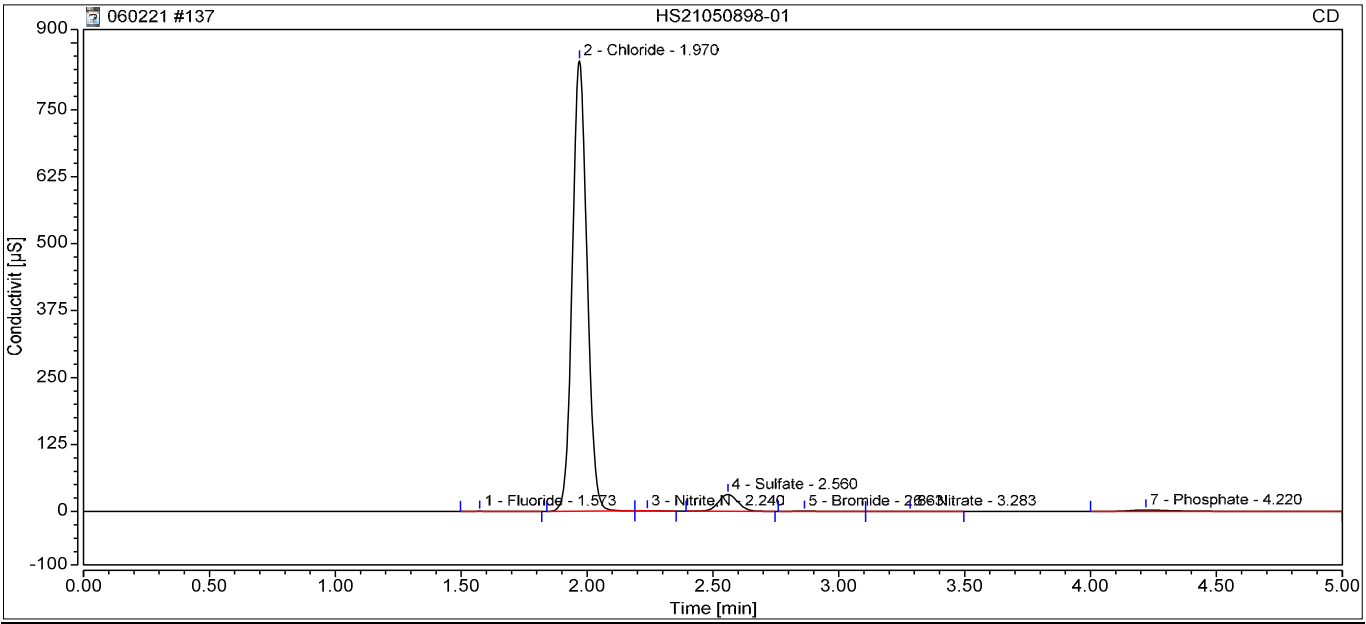
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.98	Chloride	BMB	0.003	0.0240	0.0240	1.0000
2	2.27	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.008**		**0.02**	

137 HS21050898-01

Sample Name:	**HS21050898-01**	*Injection Volume:*	**5.00**
Vial Number:	**RB4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/03/2021 02:23**	*Sample Weight:*	**1.0000**

Run Time:



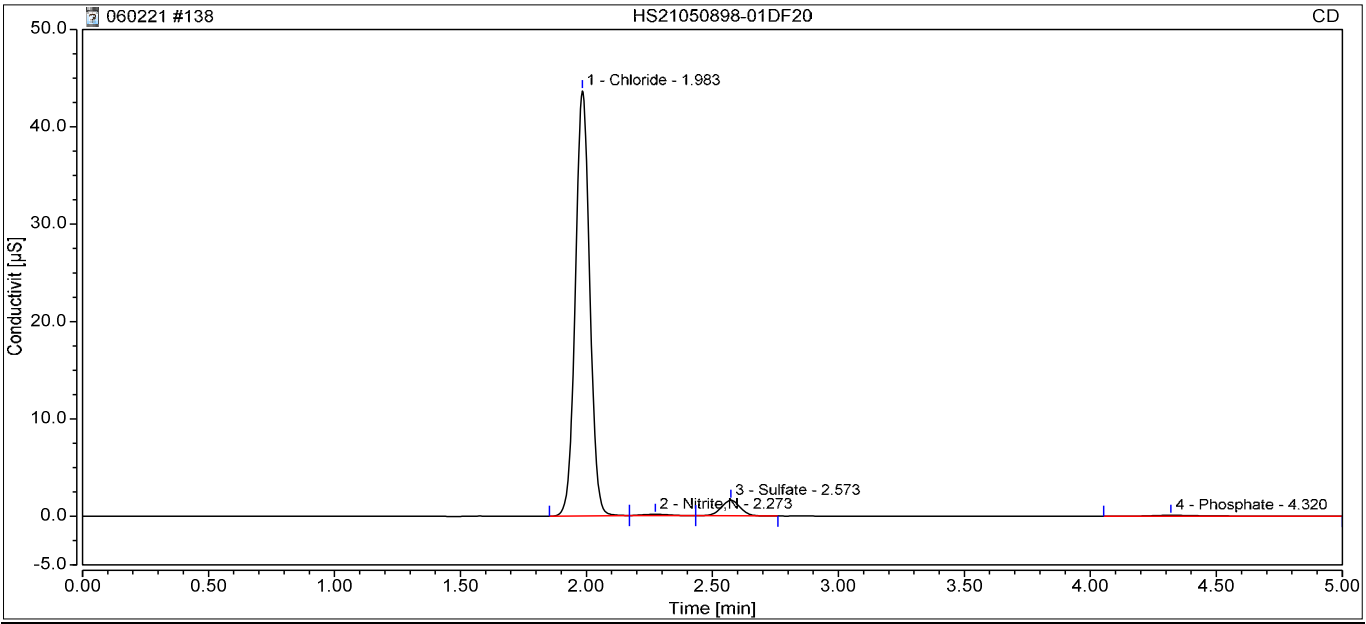
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.57	Fluoride	BMB	0.029	0.1238	0.1238	1.0000
2	1.97	Chloride	BMB	57.088	424.7933	424.7933	1.0000
3	2.24	Nitrite,N	BMB	0.023	0.0328	0.0328	1.0000
4	2.56	Sulfate	BMB	2.815	28.4222	28.4222	1.0000
5	2.86	Bromide	BMB	0.038	0.6597	0.6597	1.0000
6	3.28	Nitrate	BMB	0.015	0.0479	0.0479	1.0000
7	4.22	Phosphate	BMB	0.568	4.4215	4.4215	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**60.575**		**458.50**	

138 HS21050898-01DF20

Sample Name:	**HS21050898-01DF20**	*Injection Volume:*	**5.00**
Vial Number:	**RB5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/03/2021 02:30**	*Sample Weight:*	**1.0000**

Run Time:



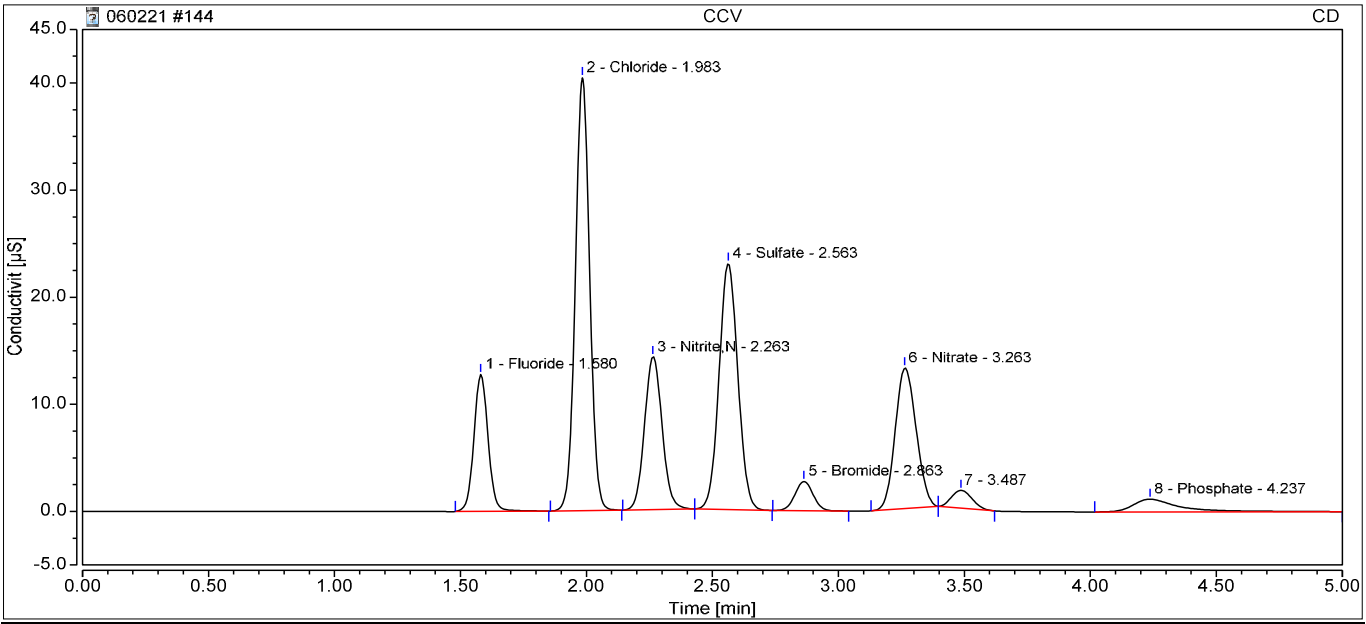
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	20.0000
1	1.98	Chloride	BMB	2.882	21.4515	429.0298	20.0000
2	2.27	Nitrite,N	BMB	0.015	n.a.	n.a.	20.0000
3	2.57	Sulfate	BMB	0.138	1.3802	27.6040	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	20.0000
4	4.32	Phosphate	BMB	0.028	0.2513	5.0264	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**3.063**		**461.66**	

144 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/03/2021 03:15**	*Sample Weight:*	**1.0000**

Run Time:



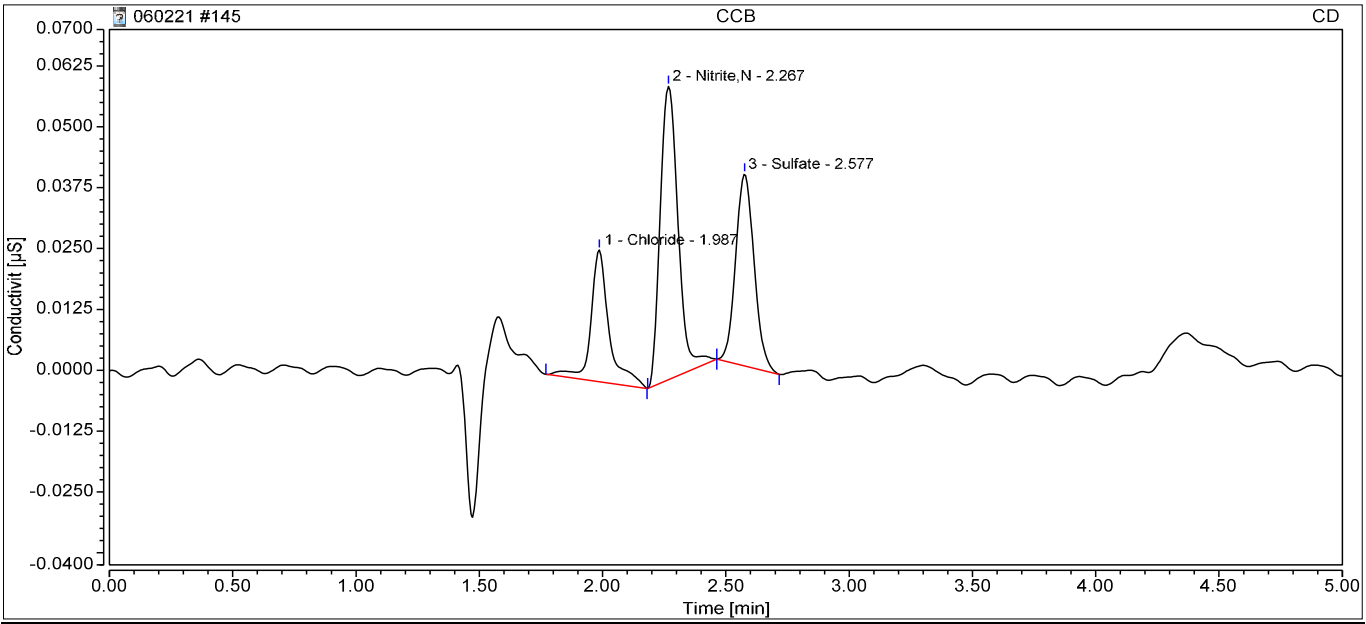
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.833	4.0468	4.0468	1.0000
2	1.98	Chloride	BMB	2.662	19.8135	19.8135	1.0000
3	2.26	Nitrite,N	BMB	1.157	4.3548	4.3548	1.0000
4	2.56	Sulfate	BMB	1.985	20.0457	20.0457	1.0000
5	2.86	Bromide	BMB	0.228	4.0273	4.0273	1.0000
6	3.26	Nitrate	BMB	1.266	3.7826	3.7826	1.0000
8	4.24	Phosphate	BMB	0.251	1.9701	1.9701	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.382**		**58.04**	

145 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/03/2021 03:30**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.99	Chloride	BMB	0.002	0.0209	0.0209	1.0000
2	2.27	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
3	2.58	Sulfate	BMB	0.003	0.0243	0.0243	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.011**		**0.05**	

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

WorkOrder: HS21051310

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

29-Jun-2021

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

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HS21051310 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS21051310

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 07, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21051310**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on May 26, 2021 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
Ragen Giga
Project Manager

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21051310

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21051310-01	LH18/24-SP650_052521	Water		25-May-2021 14:00	26-May-2021 10:25	☐
HS21051310-02	LH18/24-SP650_052521_BIX	Water		25-May-2021 14:00	26-May-2021 10:25	☐

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21051310

Work Order Comments

• The analysis for Perchlorate was subcontracted our ALS Houston TX, High Resolution Lab. Final report attached.

WetChemistry by Method E350.3

Batch ID: R384779

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E365.3

Batch ID: R384637

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E415.1

Batch ID: R384460

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Sample ID: LH18/24-SP650_052521
Collection Date: 25-May-2021 14:00

ANALYTICAL REPORT
WorkOrder:HS21051310
Lab ID:HS21051310-01
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		**Method:E350.3**						Analyst: YP
Nitrogen, Ammonia (As N)	**19**	a	**0.10**	**0.20**	**0.20**	**mg/L**	1	02-Jun-2021 10:11
ORTHO PHOSPHATE (PO4) AS P BY E365.3		**Method:E365.3**						Analyst: KVL
Phosphorus, Total Orthophosphate (As P)	**4.81**	a	**0.100**	**0.250**	**0.250**	**mg/L**	10	26-May-2021 14:15
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: JAC
Organic Carbon, Total	**2.46**	a	**0.500**	**0.500**	**1.00**	**mg/L**	1	26-May-2021 19:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Weekly Samples WorkOrder:HS21051310
Sample ID: LH18/24-SP650_052521_BIX Lab ID:HS21051310-02
Collection Date: 25-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2021 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21051310

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R384460 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS21051310-01	LH18/24-SP650_052521	25 May 2021 14:00			26 May 2021 19:54	1
Batch ID: R384637 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3				**Matrix:** Water	
HS21051310-01	LH18/24-SP650_052521	25 May 2021 14:00			26 May 2021 14:15	10
Batch ID: R384779 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS21051310-01	LH18/24-SP650_052521	25 May 2021 14:00			02 Jun 2021 10:11	1
Batch ID: R385099 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21051310-02	LH18/24-SP650_052521_BIX	25 May 2021 14:00			07 Jun 2021 17:34	1

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21051310

QC BATCH REPORT

Batch ID: R384460 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON BY E415.1

MBLK Sample ID: **MBLK-05262021** Units: **mg/L** Analysis Date: **26-May-2021 19:17**
Client ID: Run ID: **TOC_04_384460** SeqNo: **6112250** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	0.500	1.00								U

LCS Sample ID: **LCS-05262021** Units: **mg/L** Analysis Date: **26-May-2021 19:28**
Client ID: Run ID: **TOC_04_384460** SeqNo: **6112251** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	11.12	1.00	10	0	111	85 - 115				

LCSD Sample ID: **LCSD-0526021** Units: **mg/L** Analysis Date: **26-May-2021 19:40**
Client ID: Run ID: **TOC_04_384460** SeqNo: **6112252** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.26	1.00	10	0	103	85 - 115	11.12	8.04	20	

MS Sample ID: **HS21051310-01MS** Units: **mg/L** Analysis Date: **26-May-2021 20:09**
Client ID: **LH18/24-SP650_052521** Run ID: **TOC_04_384460** SeqNo: **6112254** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	13.92	1.00	10	2.455	115	80 - 120				

The following samples were analyzed in this batch: HS21051310-01

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21051310

QC BATCH REPORT

Batch ID: R384637 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3

MBLK Sample ID: **MBLK-R384637** Units: **mg/L** Analysis Date: **26-May-2021 14:00**
Client ID: Run ID: **UV-2450_384637** SeqNo: **6116095** 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)	0.0250	0.0250								U

LCS Sample ID: **LCS-R384637** Units: **mg/L** Analysis Date: **26-May-2021 14:00**
Client ID: Run ID: **UV-2450_384637** SeqNo: **6116094** 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)	0.23	0.0250	0.25	0	92.0	85 - 115				

LCSD Sample ID: **LCSD-R384637** Units: **mg/L** Analysis Date: **26-May-2021 14:00**
Client ID: Run ID: **UV-2450_384637** SeqNo: **6116105** 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)	0.229	0.0250	0.25	0	91.6	85 - 115	0.23	0.436	20	

MS Sample ID: **HS21051310-01MS** Units: **mg/L** Analysis Date: **26-May-2021 14:16**
Client ID: **LH18/24-SP650_052521** Run ID: **UV-2450_384637** SeqNo: **6116097** 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)	7.36	0.250	2.5	4.81	102	80 - 120				

MSD Sample ID: **HS21051310-01MSD** Units: **mg/L** Analysis Date: **26-May-2021 14:16**
Client ID: **LH18/24-SP650_052521** Run ID: **UV-2450_384637** SeqNo: **6116096** 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)	7.31	0.250	2.5	4.81	100	80 - 120	7.36	0.682	20	

The following samples were analyzed in this batch: HS21051310-01

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21051310

QC BATCH REPORT

Batch ID: R384779 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R384779** Units: **mg/L** Analysis Date: **02-Jun-2021 10:11**
Client ID: Run ID: **WetChem_HS_384779** SeqNo: **6118508** 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)	0.20	0.20								U

LCS Sample ID: **LCS-R384779** Units: **mg/L** Analysis Date: **02-Jun-2021 10:11**
Client ID: Run ID: **WetChem_HS_384779** SeqNo: **6118507** 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)	10.1	0.20	10	0	101	80 - 120				

MS Sample ID: **HS21051310-01MS** Units: **mg/L** Analysis Date: **02-Jun-2021 10:11**
Client ID: **LH18/24-SP650_052521** Run ID: **WetChem_HS_384779** SeqNo: **6118510** 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)	28.5	0.20	10	18.53	99.7	80 - 120				

MSD Sample ID: **HS21051310-01MSD** Units: **mg/L** Analysis Date: **02-Jun-2021 10:11**
Client ID: **LH18/24-SP650_052521** Run ID: **WetChem_HS_384779** SeqNo: **6118509** 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)	28.76	0.20	10	18.53	102	80 - 120	28.5	0.919	20	

The following samples were analyzed in this batch: HS21051310-01

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS21051310**

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	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 07-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21051310

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21051310-01	LH18/24-SP650_052521	Login	5/26/2021 12:30:15 PM	PMG	WET019
HS21051310-01	LH18/24-SP650_052521	Login	5/26/2021 12:30:15 PM	PMG	WET019
HS21051310-01	LH18/24-SP650_052521	Login	5/26/2021 12:30:15 PM	PMG	WET019
HS21051310-02	LH18/24-SP650_052521_BIX	Login	5/26/2021 12:30:15 PM	PMG	Sub

ALS Houston, US Date: 07-Jun-21

Sample Receipt Checklist

Work Order ID: HS21051310 **Date/Time Received:** **26-May-2021 10:25**

Client Name: Bhate Environmental **Received by:** **Paresh M. Giga**

Completed By:	/S/ Paresh M. Giga	26-May-2021 12:34	**Reviewed by:**	/S/ Ragen Giga	27-May-2021 13:11
	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):	0.9C U/C	IR31
Cooler(s)/Kit(s):	46900	
Date/Time sample(s) sent to storage:	5/26/2021 12:45	

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: R.J Modashia

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 WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O. Number

HS21051310
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_052521	Water	05/25/21 / 14:00		3	X	X			H2SO4	
LH18/24-SP650_052521	Water	05/25/21 / 14:00		1			X		NONE	
LH18/24–SP650_052521_BIX	Water	05/25/21 / 14:00		1				X	NONE	

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	05/25/21	14:30									

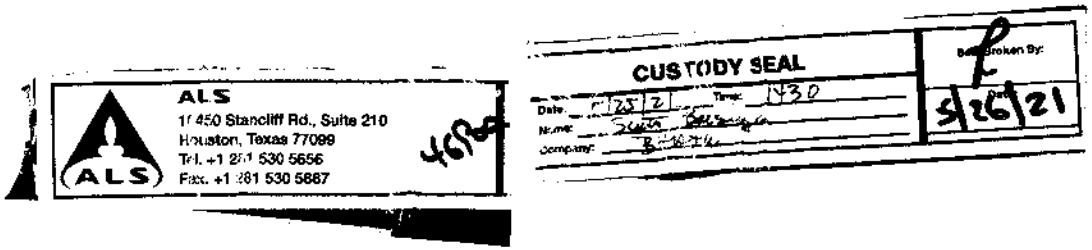
For Lab Use Only

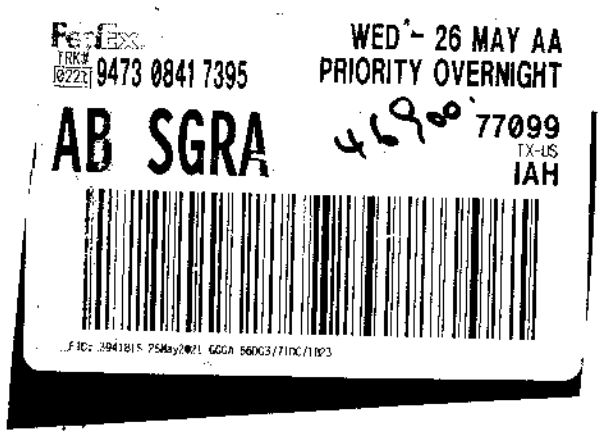
Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
	5/26/21	10:21							

Remarks:

4 6 °C 0.9°
+31
cf. cec.

(Word) S:\1-ces\Forms\Chain of Custody - BiWeekly


ALS
1r 450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 5/25/21
Time: 1430
Name:
Comp.any:
Broken By:
5/26/21


FedEx
TRK# 9473 0841 7395
WED - 26 MAY AA
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US
IAH

June 07, 2021 Service Request No:E2100592

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21051310

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory May 26, 2021
For your reference, these analyses have been assigned our service request number **E2100592.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100592
Project:	HS21051310	**Date Received:**	05/26/21
Sample Matrix:	W		

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 05/26/21.

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:

EQ2100327: 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 batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report. The LCS/DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100592
Project: HS21051310

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100592-001	LH18/24-SP650_052521_BIX	5/25/2021	1400

Service Request Summary

Folder #: **E2100592**
Client Name: ALS Environmental - US
Project Name: HS21051310
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051310
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100592-001	LH18/24-SP650_052521_BIX	Water	05/25/21 1400	**IV**

Service Request Summary

Folder #: **E2100592**
Client Name: ALS Environmental - US
Project Name: HS21051310
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051310
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/10,IV due 6/17

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

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:** **16190**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21051310
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21051310-02**	**LH18/24-SP650_052521_BIX**	**Water**	**25 May 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			10 Jun 2021

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: 5/26/21 1933

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist: EG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/26/21 Initials: EG

Date/Time Logged in: 5/26/21 Initials: EG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ◉ Courier (ALS) ○ 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?
N/A		5/26/21	1933	EG	4.2	☒
						☐
						☐
						☐

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#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100577-001	LH18/24-SP650_051821_BIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2100590-001	LHSMW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100590-002	LHSMW01-210524-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100590-003	04WW04-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100590-004	04WW08-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100590-005	04WW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100590-006	04WW06-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100590-007	LHSMW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100590-008	04WW11-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100590-009	04WW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100590-010	04WW07-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100590-011	04WW07-210525-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100590-012	04WW09-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100590-013	04WW05-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100590-014	04WW10-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100591-001	LH18/24-SP140_052521	.01	6850/ClO4 DOD			Water	10mL	
17	E2100592-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	E2100593-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Water	10mL	
19	EQ2100327-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2100327-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2100327-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100327-04	04WW10-210525 MS	.01	6850/ClO4 DOD			Liquid	10mL	
23	EQ2100327-05	04WW10-210525 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100577-001	100.00µL	E2100590-001	100.00µL	E2100590-002	100.00µL	E2100590-003	100.00µL	E2100590-004	100.00µL	E2100590-005	100.00µL
E2100590-006	100.00µL	E2100590-007	100.00µL	E2100590-008	100.00µL	E2100590-009	100.00µL	E2100590-010	100.00µL	E2100590-011	100.00µL
E2100590-012	100.00µL	E2100590-013	100.00µL	E2100590-014	100.00µL	E2100591-001	100.00µL	E2100592-001	100.00µL	E2100593-001	100.00µL
EQ2100327-01	100.00µL	EQ2100327-02	100.00µL	EQ2100327-03	100.00µL	EQ2100327-04	100.00µL	EQ2100327-05	100.00µL		

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100327-02	1.00µL	EQ2100327-03	1.00µL	EQ2100327-04	1.00µL	EQ2100327-05	1.00µL

Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

Preparation Steps

Step: Preparation
Started: 5/27/21 13:04
Finished: 5/27/21 13:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/27/21

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
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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Collected:**	5/25/21 1400
Sample Matrix:	Water	**Date Received:**	5/26/21
Sample Name:	LH18/24-SP650_052521_BIX	**Units:**	µg/L
Lab Code:	E2100592-001	**Basis:**	As Received

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	**49.9**		0.500	0.250	0.125	5	5/27/21	6/2/21 13:28	380303	725907	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100327-01	**Basis:**	As Received

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	5/27/21	5/28/21 12:53	380303	725747	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310
Sample Matrix: Water

Service Request: E2100592
Date Analyzed: 5/28/21

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: As Received

Extraction Lot: 380303

	Lab Control Sample EQ2100327-02			Duplicate Lab Control Sample EQ2100327-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.0878	0.100	88	84 - 119	14	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:**	E2100592
Project:	HS21051310	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-02	**Basis:**	As Received

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	**0.101**		0.100	0.0500	0.0250	1	5/27/21	5/28/21 13:02	380303	725747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-03	**Basis:**	As Received

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	**0.0878**	J	0.100	0.0500	0.0250	1	5/27/21	5/28/21 15:59	380303	725747	

HS21051310 Wet Chem Raw Data (NIT-AMM_W- E350.3 - ISE)

ALS WO# HS21051310

NH3_Amm_W_ISE/350.3

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Logbook **31705**

Ion Selective Electrode Logbook

Analyst: YP				Date: 6/2/21	
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F					
Probe Calibration Date: 6/1/21		Cal Std ID: 316134807-R901		Probe ID: 241-10076	
Std Level		mV	Conc., mg/L:	Sodium Thiosulfate ID: 3100604012	
STD 1 (mg/L):	0.2	135.6	0.200	Std Level / mV / Conc., mg/L:	
STD 2 (mg/L):	1	93.3	1.004	STD 4 (mg/L): 10 / 37.0 / 10.002	
STD 3 (mg/L):	5	53.8	5.001	STD 5 (mg/L): 50 / -4.2 / 50.041	
LSC / MS Spike ID: 3100603721				ICAL Date & Slope: 100.0+/-59.0mV	
ICV Cal STD ID: 316134806					
DPD Reagent ID: 3100603120					

WO # / SX #	Bottle #	Initial g or ml	Final Vol. ml	Dilution Factor	Initial Conc. mg/L	Final Conc. mg/L	Chlorine Check (+/–)	Comments
CeV		50ml	50ml		10.170			
CeB					0.009			
MBLK					0.008			
LCS					10.098			
HS2105310-01					18.533		-ve	
-01MS					24.500			
-01MSD					28.763			
HS2105241-01					0.069		+ve	Rechecked
HS2106004-01					0.080		+ve	"
CeV					9.774			
CCB					0.010			
								YP 6/2/21

Batch ID:	Reported By	Reviewed By:
384779 / 384780	YP	KL

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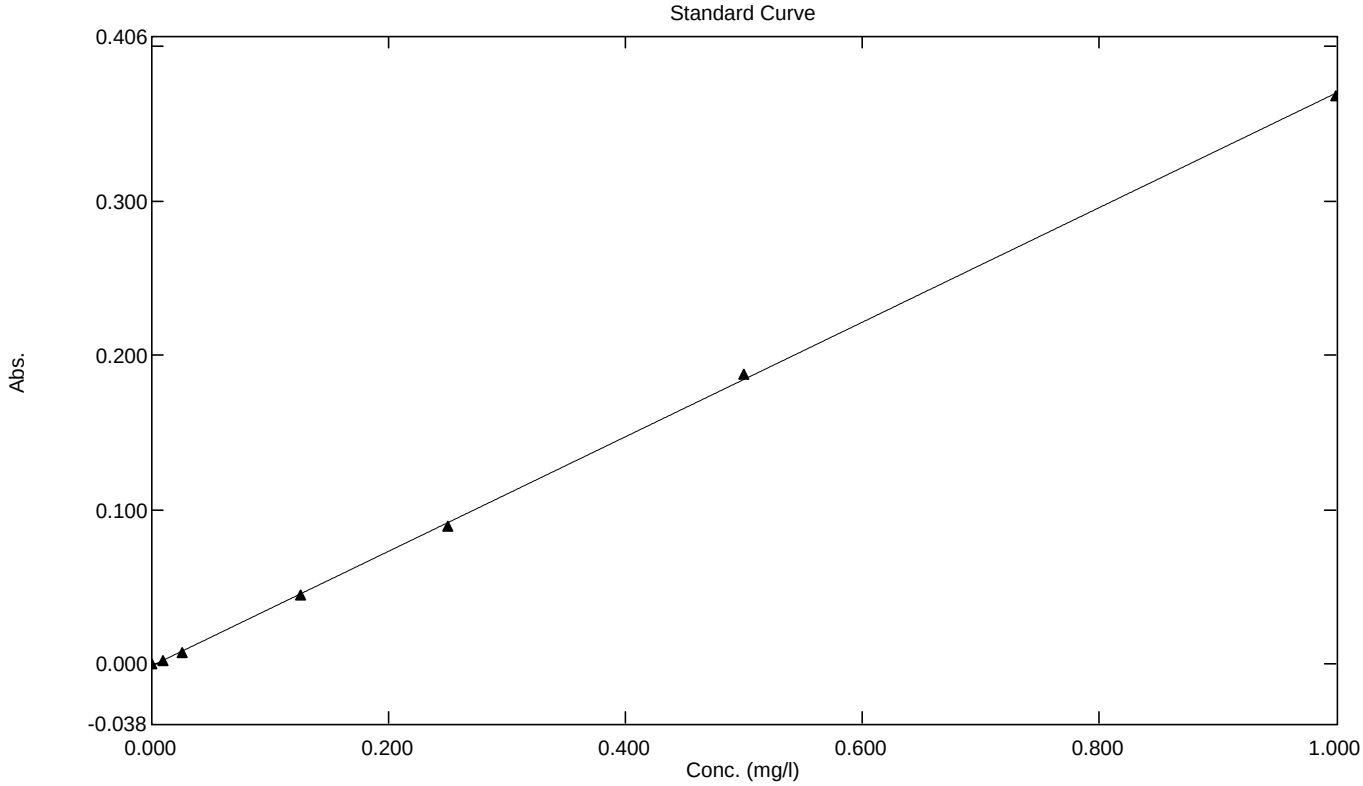
HS21051310 Wet Chem Raw Data (P-ORTHO)

ALS WO# HS21051310

Standard Table Report

06/29/2021 09:10:45 AM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\O_PO4_UNKNOWN\2021\05262021_P_ORTHO_S.p



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	0.002	1.000	
3	STD3	Standard		0.025	0.007	1.000	
4	STD4	Standard		0.125	0.044	1.000	
5	STD5	Standard		0.250	0.089	1.000	
6	STD6	Standard		0.500	0.188	1.000	
7	STD7	Standard		1.000	0.368	1.000	
8							

Sample Table Report

06/29/2021 09:11:13 AM

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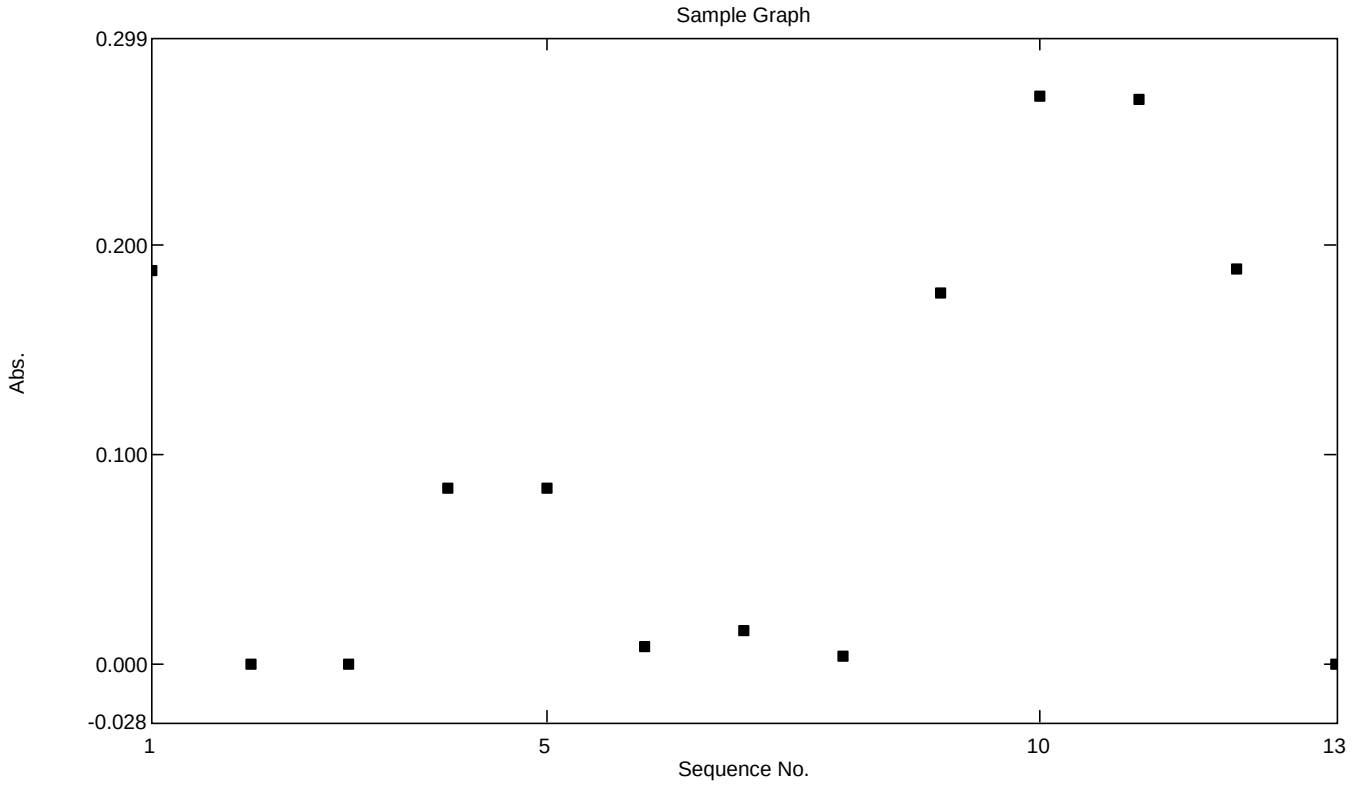


Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL650.	Comments
1	CCV	Unknown		05/26/2021	02:12:53 PM	0.511	0.188	316133106 WC-14
2	CCB	Unknown		05/26/2021	02:13:04 PM	0.003	0.000	316134507 UV-11
3	MBLK	Unknown		05/26/2021	02:13:34 PM	0.003	-0.000	
4	LCS	Unknown		05/26/2021	02:13:46 PM	0.230	0.084	316133107 WC-14
5	LCSD	Unknown		05/26/2021	02:13:55 PM	0.229	0.084	
6	LOQ	Unknown		05/26/2021	02:14:17 PM	0.025	0.008	
7	HS21051294.01	Unknown		05/26/2021	02:14:48 PM	0.047	0.016	
8	HS21051294.02	Unknown		05/26/2021	02:15:09 PM	0.014	0.004	
9	HS21051310.01	Unknown		05/26/2021	02:15:40 PM	0.481	0.177	
10	HS21051310.01MS	Unknown		05/26/2021	02:16:05 PM	0.736	0.272	
11	HS21051310.01MS D	Unknown		05/26/2021	02:16:35 PM	0.731	0.270	
12	CCV2	Unknown		05/26/2021	02:16:46 PM	0.512	0.189	
13	CCB2	Unknown		05/28/2021	05:23:39 PM	0.002	-0.000	HS21051310-01 PF-10X
14								

HS21051310 Wet Chem Raw Data (TOC_W)

ALS WO# HS21051310

	Type	Analysis	Sample Name	Sample ID	Origin	Result
1	Standard	NPOC	CAL	3150171(01-07)	02_25_2021_CAL.2021_02_	
2	Unknown	NPOC	ICV	315017108	02_25_2021_CAL.cal	NPOC:10.14mg/L
3	Unknown	NPOC	ICB		02_25_2021_CAL.cal	NPOC:-0.1140mg/L
4	Unknown	NPOC	CCV	315017106	02_25_2021_CAL.cal	NPOC:25.02mg/L
5	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:-0.07587mg/L
6	Unknown	NPOC	MBLK-02252021		02_25_2021_CAL.cal	NPOC:-0.1214mg/L
7	Unknown	NPOC	LCS-02252021		02_25_2021_CAL.cal	NPOC:10.15mg/L
8	Unknown	NPOC	LCSD02252021		02_25_2021_CAL.cal	NPOC:10.16mg/L
9	Unknown	NPOC	HS21020689-01		02_25_2021_CAL.cal	NPOC:22.48mg/L
10	Unknown	NPOC	HS21020689-02		02_25_2021_CAL.cal	NPOC:17.34mg/L
11	Unknown	NPOC	HS21020689-02MS		02_25_2021_CAL.cal	NPOC:28.25mg/L
12	Unknown	NPOC	HS21020689-03		02_25_2021_CAL.cal	NPOC:10.22mg/L
13	Unknown	NPOC	HS21020538-01		02_25_2021_CAL.cal	NPOC:20.36mg/L
14	Unknown	NPOC	HS21020538-02		02_25_2021_CAL.cal	NPOC:4.452mg/L
15	Unknown	NPOC	HS21020793-02DF10		02_25_2021_CAL.cal	NPOC:17.50mg/L
16	Unknown	NPOC	CCV		02_25_2021_CAL.cal	NPOC:25.46mg/L
17	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:0.08018mg/L

	Notes	Status	Date / Time	Vial
1		Completed	2/25/2021 1	1, 2, 3, 4, 5,
2		Completed	2/25/2021 1	8
3		Completed	2/25/2021 1	9
4		Completed	2/25/2021 1	10
5		Completed	2/25/2021 1	11
6		Completed	2/25/2021 1	12
7		Completed	2/25/2021 1	13
8		Completed	2/25/2021 1:	14
9		Completed	2/25/2021 1:	15
10		Completed	2/25/2021 1:	16
11		Completed	2/25/2021 1:	17
12		Completed	2/25/2021 2:	18
13		Completed	2/25/2021 2:	19
14		Completed	2/25/2021 2:	20
15		Completed	2/25/2021 2:	21
16		Completed	2/25/2021 3:	22
17		Completed	2/25/2021 3:	23

TOC-Control L Report

2021_02_25_001.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

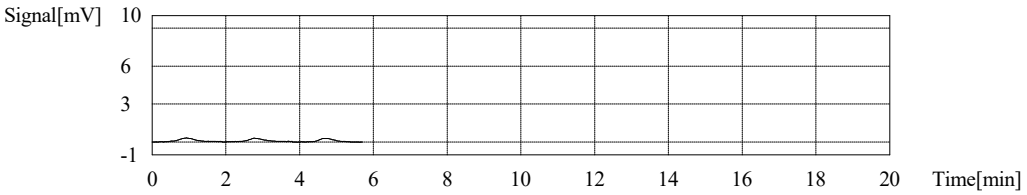
Sample Name:	CAL
Sample ID:	3150171(01-07)
Cal. Curve:	02_25_2021_CAL.2021_02_25_09_13_02.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7577	50uL	1.000	*******		2/25/2021 9:21:39 AM
2	0.6368	50uL	1.000	*******		2/25/2021 9:23:47 AM
3	0.6500	50uL	1.000	*******		2/25/2021 9:25:55 AM

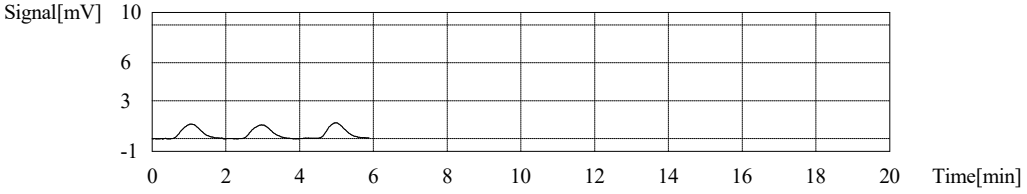
Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	0.6815



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.063	50uL	1.000	*******		2/25/2021 9:34:44 AM
2	3.946	50uL	1.000	*******		2/25/2021 9:37:02 AM
3	3.886	50uL	1.000	*******		2/25/2021 9:39:10 AM

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	3.965

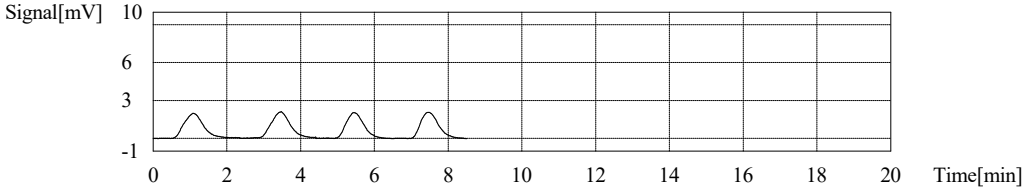


Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.014	50uL	1.000	*******		2/25/2021 9:48:25 AM
2	6.976	50uL	1.000	*******		2/25/2021 9:50:44 AM
3	6.738	50uL	1.000	*******	E	2/25/2021 9:53:02 AM
4	6.989	50uL	1.000	*******		2/25/2021 9:55:18 AM

TOC-Control L Report

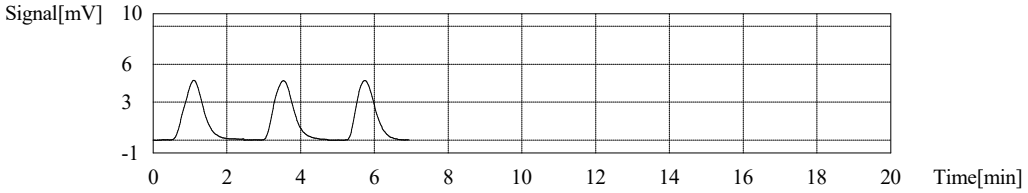
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 6.993



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.70	50uL	1.000	*******		2/25/2021 10:04:35 AM
2	16.99	50uL	1.000	*******		2/25/2021 10:07:06 AM
3	16.40	50uL	1.000	*******		2/25/2021 10:09:32 AM

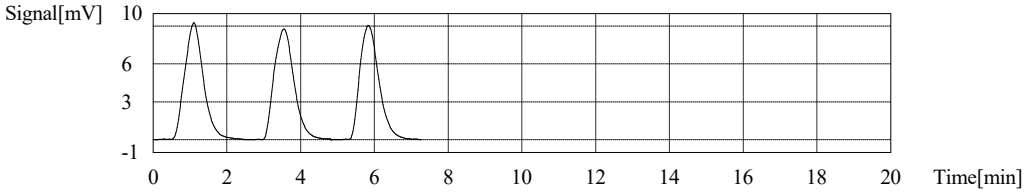
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 16.70



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	32.33	50uL	1.000	*******		2/25/2021 10:18:54 AM
2	32.41	50uL	1.000	*******		2/25/2021 10:21:29 AM
3	32.27	50uL	1.000	*******		2/25/2021 10:24:10 AM

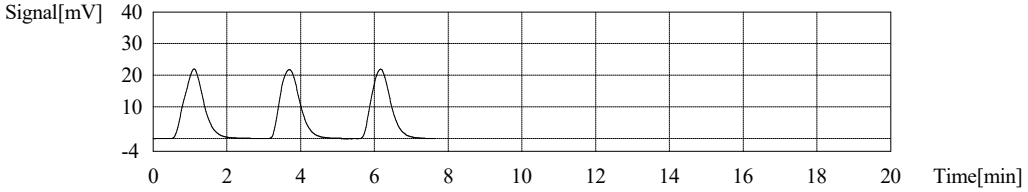
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 32.34



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.83	50uL	1.000	*******		2/25/2021 10:33:42 AM
2	80.51	50uL	1.000	*******		2/25/2021 10:36:25 AM
3	79.09	50uL	1.000	*******		2/25/2021 10:39:12 AM

Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 79.81



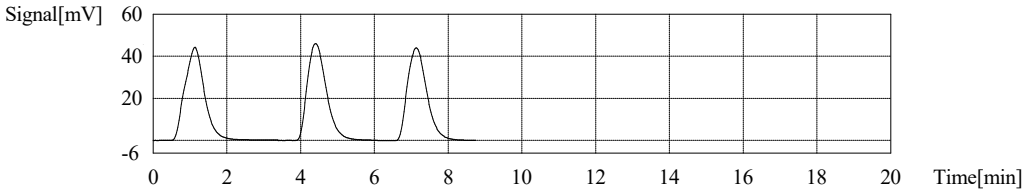
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	162.4	50uL	1.000	*******		2/25/2021 10:49:29 AM
2	163.8	50uL	1.000	*******		2/25/2021 10:52:26 AM
3	159.9	50uL	1.000	*******		2/25/2021 10:55:21 AM

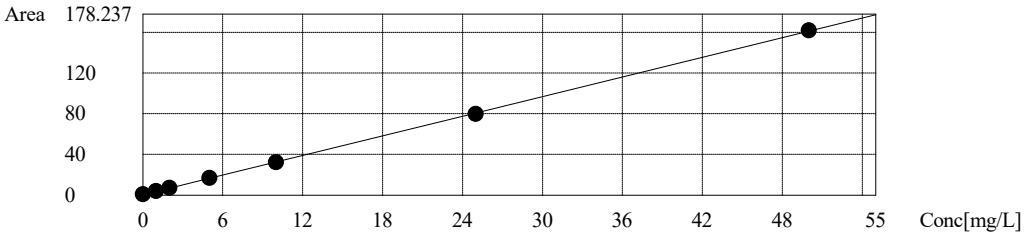
TOC-Control L Report

2021_02_25_001.tlx

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	162.0



Slope:	3.220
Intercept	0.4365
r^2	0.9999
r	1.0000
RSE(%)	N/A
Zero Shift	No



Sample

Sample Name:	ICV
Sample ID:	315017108
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

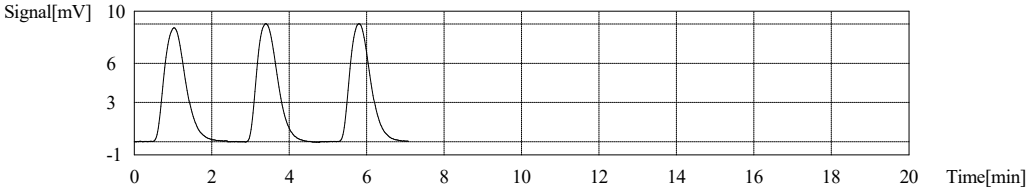
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.04	10.13mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:32:06 AM
2	33.24	10.19mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:34:44 AM
3	32.98	10.11mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:37:17 AM

Mean Area	33.09
Mean Conc.	10.14mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.1140mg/L

1. Det

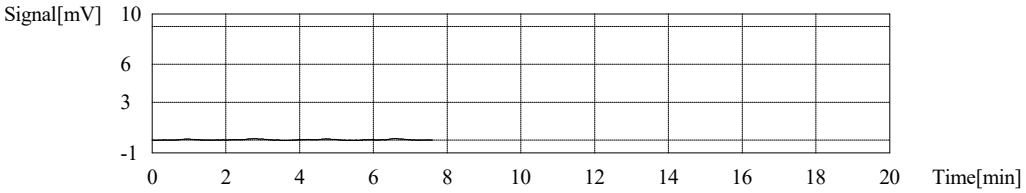
TOC-Control L Report

2021_02_25_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:46:05 AM
2	0.2080	-0.07096mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:48:13 AM
3	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:50:20 AM
4	0.2102	-0.07028mg/L	50uL	1.000	E	02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:52:27 AM

Mean Area 0.06933
Mean Conc. -0.1140mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status	Date / Time
1	Unknown	NPOC	CCV	316134602	05_10_2021	NPOC:25.8		Completed	5/26/2021 6:
2	Unknown	NPOC	CCB	TOC_W	05_10_2021	NPOC:0.19		Completed	5/26/2021 7:
3	Unknown	NPOC	MBLK-05262021	TOC_W 531	05_10_2021	NPOC:0.13		Completed	5/26/2021 7:
4	Unknown	NPOC	LCS-05262021		05_10_2021	NPOC:11.1		Completed	5/26/2021 7:
5	Unknown	NPOC	LCSD-0526021		05_10_2021	NPOC:10.2		Completed	5/26/2021 7:
6	Unknown	NPOC	HS21051310-01		05_10_2021	NPOC:2.45		Completed	5/26/2021 7:
7	Unknown	NPOC	HS21051310-01MS		05_10_2021	NPOC:13.9		Completed	5/26/2021 8:
8	Unknown	NPOC	HS21051319-01		05_10_2021	NPOC:8.31		Completed	5/26/2021 8:
9	Unknown	NPOC	HS21051328-01		05_10_2021	NPOC:11.0		Completed	5/26/2021 8:
10	Unknown	NPOC	HS21051334-01		05_10_2021	NPOC:5.12		Completed	5/26/2021 8:
11	Unknown	NPOC	HS21051228-02DF20		05_10_2021	NPOC:20.8		Completed	5/26/2021 9:
12	Unknown	NPOC	HS21051228-03DF20		05_10_2021	NPOC:29.9		Completed	5/26/2021 9:
13	Unknown	NPOC	CCV	316134602	05_10_2021	NPOC:26.1		Completed	5/26/2021 9:
14	Unknown	NPOC	CCB		05_10_2021	NPOC:0.15		Completed	5/26/2021 9:
15	Unknown	NPOC	HS21051320-10		05_10_2021	NPOC:7.52		Completed	5/26/2021 9:
16	Unknown	NPOC	HS21051320-11		05_10_2021	NPOC:8.48		Completed	5/26/2021 1
17	Unknown	NPOC	HS21051320-12		05_10_2021	NPOC:91.5		Completed	5/26/2021 1
18	Unknown	NPOC	HS21051320-13		05_10_2021	NPOC:2.44		Completed	5/26/2021 1
19	Unknown	NPOC	CCV	316134602	05_10_2021	NPOC:25.8		Completed	5/26/2021 1
20	Unknown	NPOC	CCB		05_10_2021	NPOC:0.28		Completed	5/26/2021 1
21	Unknown	NPOC	MBLK2-05262021	TOC_W 531	05_10_2021	NPOC:0.20		Completed	5/26/2021 1
22	Unknown	NPOC	LCS2-05262021		05_10_2021	NPOC:10.9		Completed	5/26/2021 1
23	Unknown	NPOC	LCSD2-0526021		05_10_2021	NPOC:10.0		Completed	5/26/2021 1
24	Unknown	NPOC	HS21051320-14		05_10_2021	NPOC:2.61		Completed	5/26/2021 1
25	Unknown	NPOC	HS21051320-14MS		05_10_2021	NPOC:14.0		Completed	5/27/2021 1
26	Unknown	NPOC	HS21051325-01		05_10_2021	NPOC:7.39		Completed	5/27/2021 1
27	Unknown	NPOC	CCV	316134602	05_10_2021	NPOC:26.1		Completed	5/27/2021 1
28	Unknown	NPOC	CCB		05_10_2021	NPOC:0.19		Completed	5/27/2021 1

	Vial
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	1
14	2
15	13
16	14
17	15
18	16
19	17
20	18
21	3
22	4
23	5
24	19
25	20
26	21
27	17
28	18

TOC-Control L Report

Instr.Information

Instrument Options TOC/ASI/IC Unit/
Catalyst Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 316134602
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

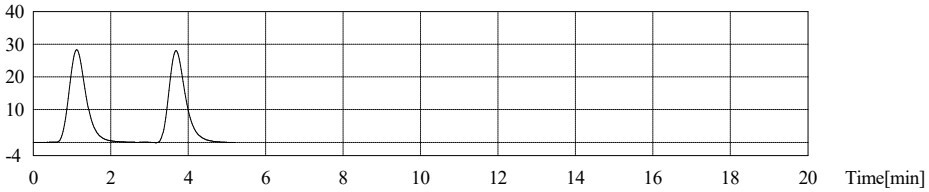
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.78	26.08mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 6:48:59 PM
2	85.39	25.66mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 6:51:57 PM

Mean Area 86.09
Mean Conc. 25.87mg/L



Sample

Sample Name: CCB
Sample ID: TOC_W
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1980mg/L

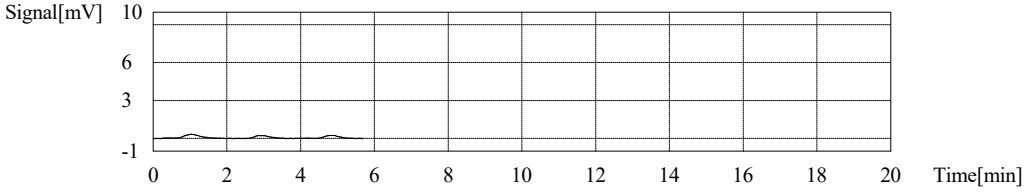
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8379	0.2518mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:00:08 PM
2	0.6793	0.2042mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:03:08 PM
3	0.6385	0.1919mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:06:08 PM

TOC-Control L Report

Mean Area 0.6589
Mean Conc. 0.1980mg/L



Sample

Sample Name: MBLK-05262021
Sample ID: TOC_W 5310B
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

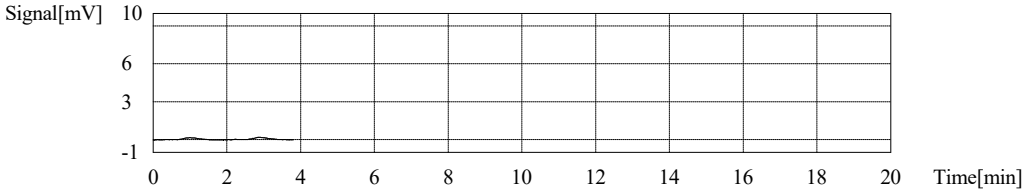
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1328mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4376	0.1315mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:14:20 PM
2	0.4461	0.1341mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:17:20 PM

Mean Area 0.4419
Mean Conc. 0.1328mg/L



Sample

Sample Name: LCS-05262021
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.12mg/L

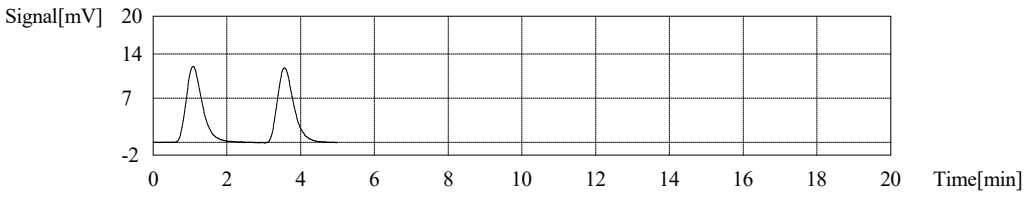
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.79	11.06mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:25:53 PM
2	37.19	11.18mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:28:55 PM

TOC-Control L Report

Mean Area 36.99
Mean Conc. 11.12mg/L



Sample

Sample Name: LCSD-0526021
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

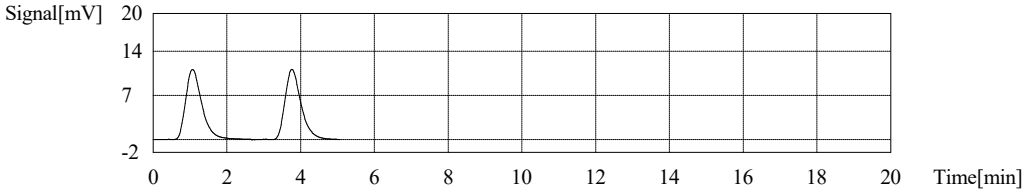
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.20	10.28mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:37:56 PM
2	34.10	10.25mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:40:40 PM

Mean Area 34.15
Mean Conc. 10.26mg/L



Sample

Sample Name: HS21051310-01
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.455mg/L

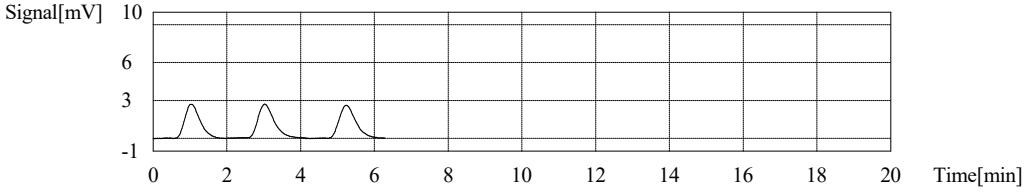
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.900	2.374mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:48:43 PM
2	8.137	2.446mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:51:54 PM
3	8.197	2.464mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 7:54:52 PM

TOC-Control L Report

Mean Area 8.167
Mean Conc. 2.455mg/L



Sample

Sample Name: HS21051310-01MS
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

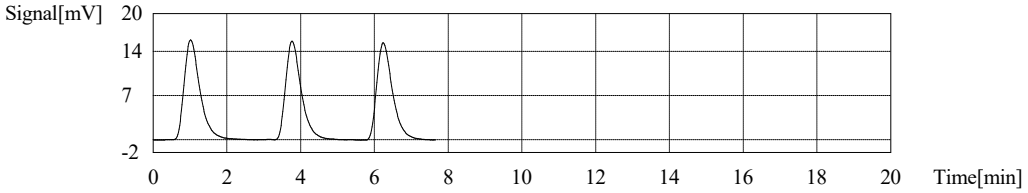
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.92mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.75	14.35mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 8:03:54 PM
2	46.33	13.92mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 8:06:38 PM
3	46.29	13.91mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 8:09:37 PM

Mean Area 46.31
Mean Conc. 13.92mg/L



Sample

Sample Name: CCV
Sample ID: 316134602
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.18mg/L

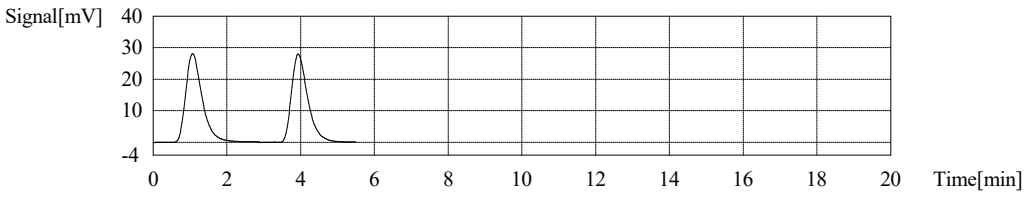
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.48	26.29mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 9:24:20 PM
2	86.76	26.08mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 9:27:12 PM

TOC-Control L Report

Mean Area 87.12
Mean Conc. 26.18mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

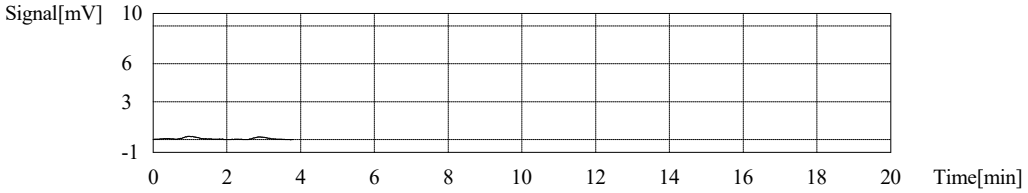
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1529mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5442	0.1636mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 9:35:21 PM
2	0.4736	0.1423mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 9:38:21 PM

Mean Area 0.5089
Mean Conc. 0.1529mg/L



Sample

Sample Name: HS21051320-10
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.521mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.86	7.472mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 9:46:44 PM
2	25.19	7.571mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/26/2021 9:49:48 PM

HS21051310 - Sub Perch IV (E2100592)

ALS WO# HS21051310

June 07, 2021 Service Request No:E2100592

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21051310

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory May 26, 2021
For your reference, these analyses have been assigned our service request number **E2100592.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100592
Project:	HS21051310	**Date Received:**	05/26/21
Sample Matrix:	W		

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 05/26/21.

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:

EQ2100327: 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 batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report. The LCS/DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100592
Project: HS21051310

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100592-001	LH18/24-SP650_052521_BIX	5/25/2021	1400

Service Request Summary

Folder #: **E2100592**
Client Name: ALS Environmental - US
Project Name: HS21051310
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051310
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100592-001	LH18/24-SP650_052521_BIX	Water	05/25/21 1400	**IV**

Service Request Summary

Folder #: **E2100592**
Client Name: ALS Environmental - US
Project Name: HS21051310
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051310
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/10,IV due 6/17

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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

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State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

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:** **16190**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21051310
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21051310-02**	**LH18/24-SP650_052521_BIX**	**Water**	**25 May 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			10 Jun 2021

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: 5/26/21 1933

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/26/21 Initials: CG

Date/Time Logged in: 5/26/21 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?
N/A		5/26/21	1933	CG	4.2	☒
						☐
						☐
						☐

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#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100577-001	LH18/24-SP650_051821_BIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2100590-001	LHSMW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100590-002	LHSMW01-210524-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100590-003	04WW04-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100590-004	04WW08-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100590-005	04WW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100590-006	04WW06-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100590-007	LHSMW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100590-008	04WW11-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100590-009	04WW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100590-010	04WW07-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100590-011	04WW07-210525-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100590-012	04WW09-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100590-013	04WW05-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100590-014	04WW10-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100591-001	LH18/24-SP140_052521	.01	6850/ClO4 DOD			Water	10mL	
17	E2100592-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	E2100593-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Water	10mL	
19	EQ2100327-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2100327-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2100327-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100327-04	04WW10-210525 MS	.01	6850/ClO4 DOD			Liquid	10mL	
23	EQ2100327-05	04WW10-210525 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100577-001	100.00µL	E2100590-001	100.00µL	E2100590-002	100.00µL	E2100590-003	100.00µL	E2100590-004	100.00µL	E2100590-005	100.00µL
E2100590-006	100.00µL	E2100590-007	100.00µL	E2100590-008	100.00µL	E2100590-009	100.00µL	E2100590-010	100.00µL	E2100590-011	100.00µL
E2100590-012	100.00µL	E2100590-013	100.00µL	E2100590-014	100.00µL	E2100591-001	100.00µL	E2100592-001	100.00µL	E2100593-001	100.00µL
EQ2100327-01	100.00µL	EQ2100327-02	100.00µL	EQ2100327-03	100.00µL	EQ2100327-04	100.00µL	EQ2100327-05	100.00µL		

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100327-02	1.00µL	EQ2100327-03	1.00µL	EQ2100327-04	1.00µL	EQ2100327-05	1.00µL

Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

Preparation Steps

Step: Preparation
Started: 5/27/21 13:04
Finished: 5/27/21 13:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/27/21

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:**	E2100592
Project:	HS21051310	**Date Collected:**	5/25/21 1400
Sample Matrix:	Water	**Date Received:**	5/26/21
Sample Name:	LH18/24-SP650_052521_BIX	**Units:**	µg/L
Lab Code:	E2100592-001	**Basis:**	As Received

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	**49.9**		0.500	0.250	0.125	5	5/27/21	6/2/21 13:28	380303	725907	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100327-01	**Basis:**	As Received

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	5/27/21	5/28/21 12:53	380303	725747	

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: HS21051310
Sample Matrix: Water

Service Request: E2100592
Date Analyzed: 5/28/21

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: As Received

Extraction Lot: 380303

	Lab Control Sample EQ2100327-02			Duplicate Lab Control Sample EQ2100327-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.0878	0.100	88	84 - 119	14	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:**	E2100592
Project:	HS21051310	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-02	**Basis:**	As Received

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	**0.101**		0.100	0.0500	0.0250	1	5/27/21	5/28/21 13:02	380303	725747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-03	**Basis:**	As Received

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	**0.0878**	J	0.100	0.0500	0.0250	1	5/27/21	5/28/21 15:59	380303	725747	

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

20210528

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/28/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100033**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210528_008	Perchlorate6850c.lcm	1x	☒	3100810-05	5/28/2021 9:36
2	PERCHLORATE2		20210528_009	Perchlorate6850c.lcm	1x	☒	3100810-06	5/28/2021 9:44
3	PERCHLORATE3		20210528_010	Perchlorate6850c.lcm	1x	☒	3100810-07	5/28/2021 9:53
4	PERCHLORATE4		20210528_011	Perchlorate6850c.lcm	1x	☒	3100810-08	5/28/2021 10:21
5	PERCHLORATE5		20210528_012	Perchlorate6850c.lcm	1x	☒	3100810-09	5/28/2021 10:29
6	PERCHLORATE6		20210528_013	Perchlorate6850c.lcm	1x	☒	3100811-01	5/28/2021 10:38
7	PERCHLORATE7		20210528_014	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 10:46
8	PERCHLORATE8		20210528_015	Perchlorate6850c.lcm	1x	☒	3100811-03	5/28/2021 10:54
9	PERCHLORATE9		20210528_016	Perchlorate6850c.lcm	1x	☒	3100811-04	5/28/2021 11:03
10	PERCHLORATE10		20210528_017	Perchlorate6850c.lcm	1x	☒	3100811-05	5/28/2021 11:11
11	PERCHLORATEICV		20210528_018	Perchlorate6850c.lcm	1x	☒	3100811-06	5/28/2021 11:19
12	IB		20210528_019	Perchlorate6850c.lcm	1x	☒		5/28/2021 11:49
13	IB		20210528_020	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:20
14	ICS		20210528_021	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:28
15	LODV		20210528_022	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:37
16	PERCHLORATE7		20210528_023	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 12:45
17	EQ2100327-01		20210528_024	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:53
18	EQ2100327-02		20210528_025	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:02
19	EQ2100327-03DNU-RR		20210528_026	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:10
20	EQ2100327-04DNU-RR		20210528_027	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:19
21	EQ2100327-05		20210528_028	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:27
22	E2100577-001DNU		20210528_029	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:35
23	E2100590-001		20210528_030	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:44
24	E2100590-002DNU		20210528_031	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:52
25	E2100590-003		20210528_032	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:01
26	E2100590-004		20210528_033	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:09
27	PERCHLORATE7		20210528_034	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 14:17
28	E2100590-005		20210528_035	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:26
29	E2100590-006		20210528_036	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:34
30	E2100590-007		20210528_037	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:43
31	E2100590-008		20210528_038	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:51
32	E2100590-009		20210528_039	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:59
33	E2100590-010		20210528_040	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:08
34	E2100590-011		20210528_041	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:16
35	E2100590-012DNU		20210528_042	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 15:24
36	E2100590-013		20210528_043	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:33
37	E2100590-014		20210528_044	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:41
38	PERCHLORATE7		20210528_045	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 15:50
39	EQ2100327-03		20210528_046	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:59
40	EQ2100327-04		20210528_047	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:07
41	E2100590-012DNU		20210528_048	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 16:15
42	IB		20210528_049	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:24
43	E2100591-001DNU		20210528_050	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	5/28/2021 16:32
44	E2100592-001RR-Carryover		20210528_051	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:41
45	E2100593-001RR-Carryover		20210528_052	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:49
46	E2100378-003		20210528_053	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:57
47	PERCHLORATE7		20210528_054	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 17:06
48								

Initial Calibration - Detailed Report

Calibration ID: EC2100033 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100033-01	PERCHLORATE1	20210528_008	05/28/2021 09:36
02	EC2100033-02	PERCHLORATE2	20210528_009	05/28/2021 09:44
03	EC2100033-03	PERCHLORATE3	20210528_010	05/28/2021 09:53
04	EC2100033-04	PERCHLORATE4	20210528_011	05/28/2021 10:21
05	EC2100033-05	PERCHLORATE5	20210528_012	05/28/2021 10:29
06	EC2100033-06	PERCHLORATE6	20210528_013	05/28/2021 10:38
07	EC2100033-07	PERCHLORATE7	20210528_014	05/28/2021 10:46
08	EC2100033-08	PERCHLORATE8	20210528_015	05/28/2021 10:54
09	EC2100033-09	PERCHLORATE9	20210528_016	05/28/2021 11:03
10	EC2100033-10	PERCHLORATE10	20210528_017	05/28/2021 11:11

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 10.55** **Average RF = 0.1479**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1652	02	0.5000	0.147	03	0.7000	0.1544	04	1.0000	0.1801
05	2.0000	0.1539	06	5.0000	0.1393	07	10.0000	0.1379	08	20.0000	0.1333
09	30.0000	0.1372	10	50.0000	0.1312						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.112	11.7	02	0.5000	0.497	-0.7	03	0.7000	0.730	4.3
04	1.0000	1.22	21.7	05	2.0000	2.08	4.0	06	5.0000	4.71	-5.8
07	10.0000	9.32	-6.8	08	20.0000	18.0	-9.9	09	30.0000	27.8	-7.2
10	50.0000	44.4	-11.3								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100033	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210528_018	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100033-11	T	Average RF	10	9.609	ng/mL	-3.9	<= 15

Insight Report

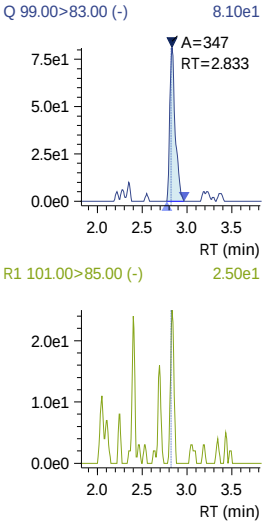
Method File: I:\LCMS01\DATA\20210528\20210528.lcm

20210528_008

Sample ID: PERCHLORATE1
Date Acquired: 5/28/2021 9:36:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_008.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

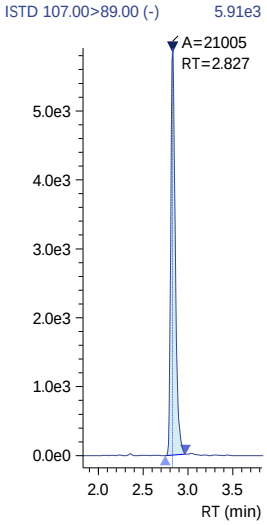
Perchlorate

Conc 0.11324
R#1 30.86 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 6/3/2021 1:54:27 PM

Method File: I:\LCMS01\DATA\20210528\20210528.lcm
Project File: I:\LCMS01\DATA\20210528\20210528.damlp

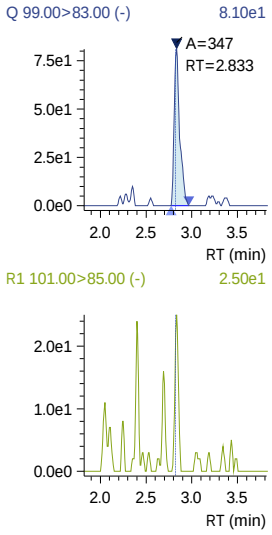
20210528_008

Sample ID: PERCHLORATE1
Date Acquired: 5/28/2021 9:36:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_008.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.833	347	21005	1	0.112	ng/mL	0.1000	30.86
Sodium Perchlorate-18O4_IS	Auto	2.827	21005	21005	1	1.00	ng/mL	1.0000	----

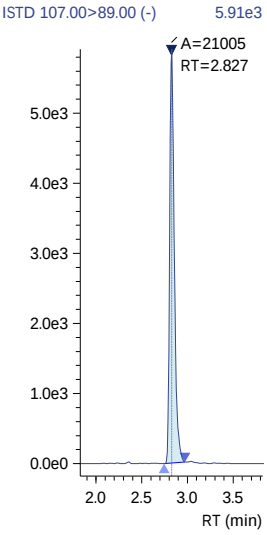
Perchlorate

Conc 0.112
R#1 30.86 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

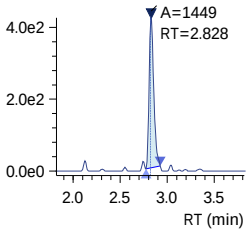
20210528_009

Sample ID: PERCHLORATE2
Date Acquired: 5/28/2021 9:44:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_009.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

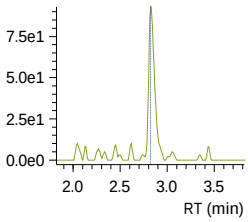
Perchlorate

Conc 0.47273
R#1 21.15 (0.00)

Q 99.00>83.00 (-) 4.27e2



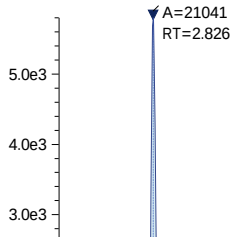
R1 101.00>85.00 (-) 9.30e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.80e3



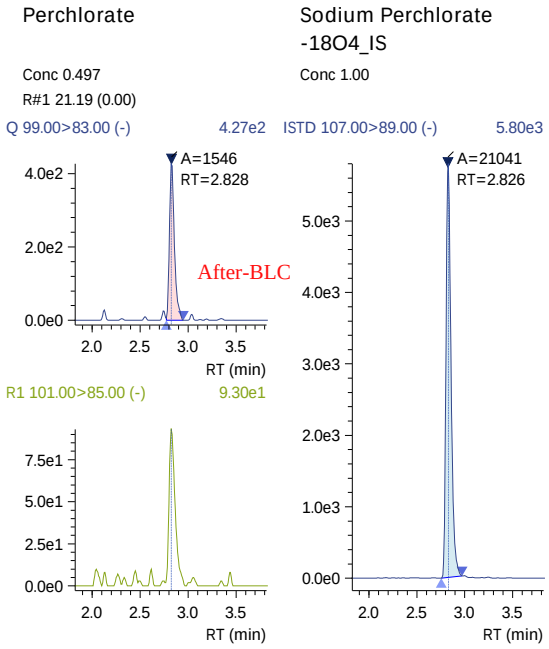
Insight Report

Printed at 6/3/2021 1:54:27 PM

20210528_009

Sample ID: PERCHLORATE2
Date Acquired: 5/28/2021 9:44:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_009.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.828	1546	21041	1	0.497	ng/mL	0.5000	21.19
Sodium Perchlorate-18O4_IS	Auto	2.826	21041	21041	1	1.00	ng/mL	1.0000	----



Before

Insight Report

Printed at 6/2/2021 3:26:02 PM

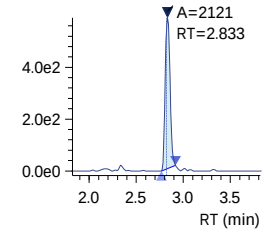
20210528_010

Sample ID: PERCHLORATE3
Date Acquired: 5/28/2021 9:53:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_010.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

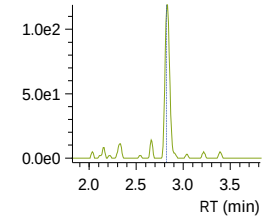
Perchlorate

Conc 0.70091
R#1 20.83 (0.00)

Q 99.00>83.00 (-) 5.91e2



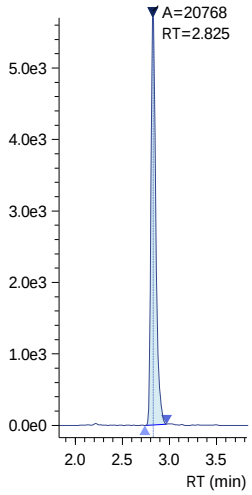
R1 101.00>85.00 (-) 1.19e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.70e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

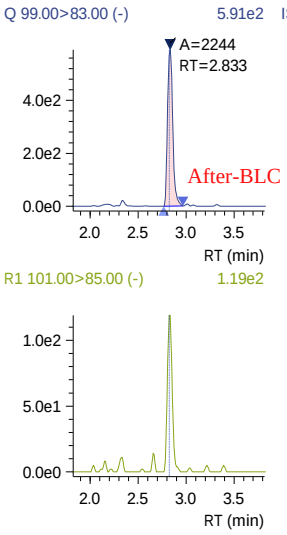
20210528_010

Sample ID: PERCHLORATE3
Date Acquired: 5/28/2021 9:53:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_010.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.833	2244	20768	1	0.730	ng/mL	0.7000	20.89
Sodium Perchlorate-18O4_IS	Auto	2.825	20768	20768	1	1.00	ng/mL	1.0000	----

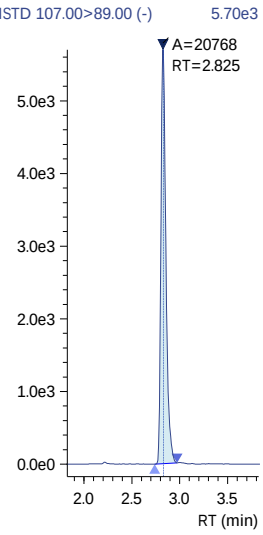
Perchlorate

Conc 0.730
R#1 20.89 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

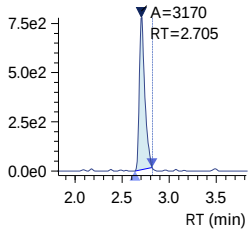
20210528_011

Sample ID: PERCHLORATE4
Date Acquired: 5/28/2021 10:21:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_011.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

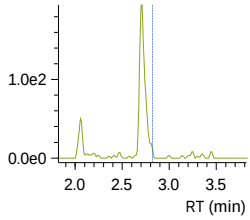
Perchlorate

Conc 1.20329
R#1 23.92 (0.00)

Q 99.00>83.00 (-) 7.79e2



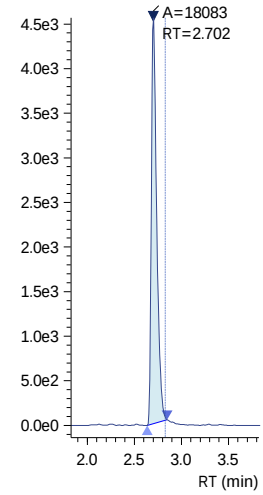
R1 101.00>85.00 (-) 1.95e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.57e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

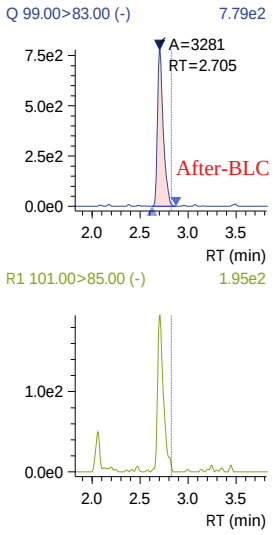
20210528_011

Sample ID: PERCHLORATE4
Date Acquired: 5/28/2021 10:21:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_011.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.705	3281	18219	1	1.22	ng/mL	1.0000	24.51
Sodium Perchlorate-18O4_IS	M	2.702	18219	18219	1	1.00	ng/mL	1.0000	----

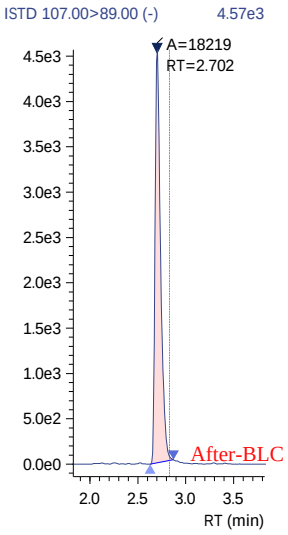
Perchlorate

Conc 1.22
R#1 24.51 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Insight Report

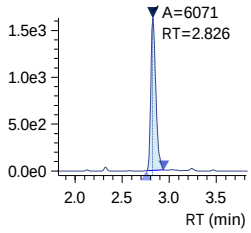
20210528_012

Sample ID: PERCHLORATE5
Date Acquired: 5/28/2021 10:29:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_012.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

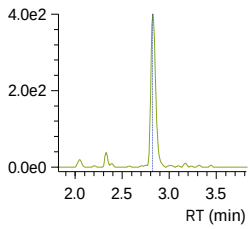
Perchlorate

Conc 2.11246
R#1 24.32 (0.00)

Q 99.00>83.00 (-) 1.64e3



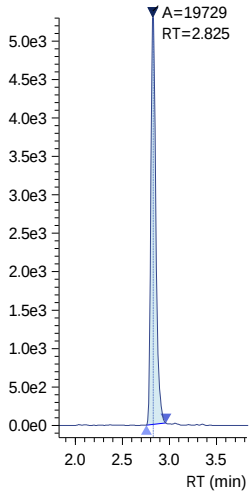
R1 101.00>85.00 (-) 4.01e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.30e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

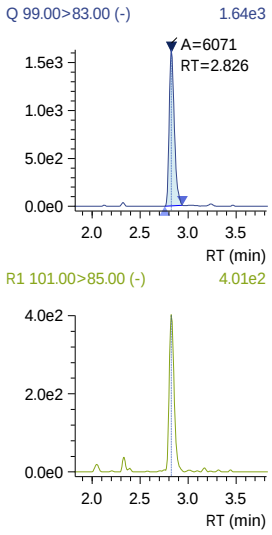
20210528_012

Sample ID: PERCHLORATE5
Date Acquired: 5/28/2021 10:29:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_012.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.826	6071	19729	1	2.08	ng/mL	2.0000	24.32
Sodium Perchlorate-18O4 _IS	Auto	2.825	19729	19729	1	1.00	ng/mL	1.0000	----

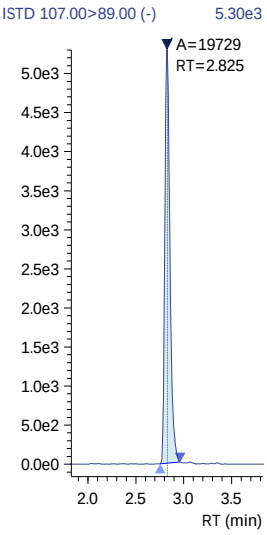
Perchlorate

Conc 2.08
R#1 24.32 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

Printed at 6/2/2021 3:26:02 PM

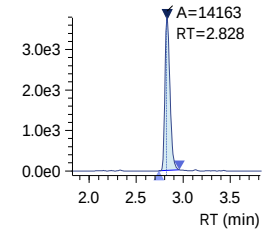
20210528_013

Sample ID: PERCHLORATE6
Date Acquired: 5/28/2021 10:38:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_013.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

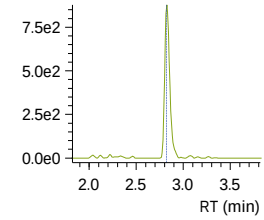
Perchlorate

Conc 4.78263
R#1 23.31 (0.00)

Q 99.00>83.00 (-) 3.78e3



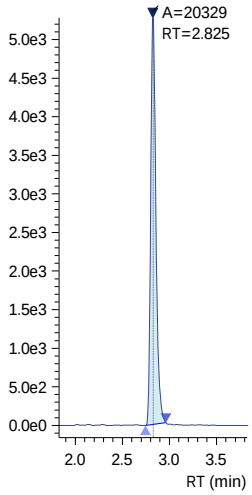
R1 101.00>85.00 (-) 8.78e2



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.28e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

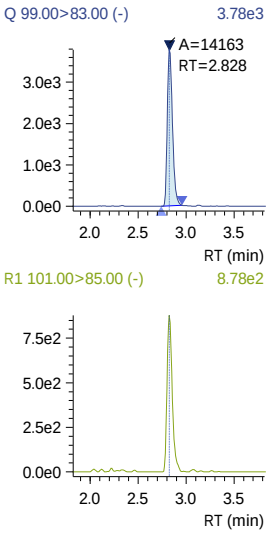
20210528_013

Sample ID: PERCHLORATE6
Date Acquired: 5/28/2021 10:38:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_013.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.828	14163	20329	1	4.71	ng/mL	5.0000	23.31
Sodium Perchlorate-18O4_IS	Auto	2.825	20329	20329	1	1.00	ng/mL	1.0000	----

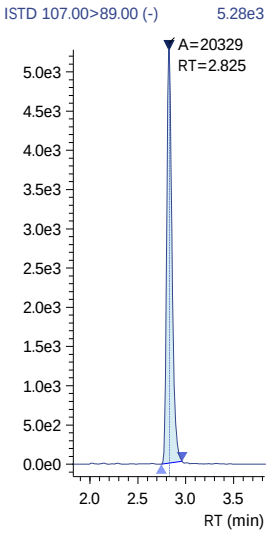
Perchlorate

Conc 4.71
R#1 23.31 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

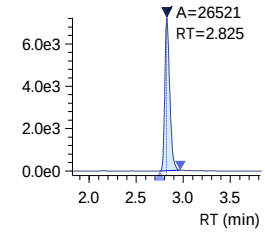
20210528_014

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 10:46:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_014.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

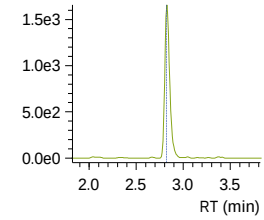
Perchlorate

Conc 9.46934
R#1 22.92 (0.00)

Q 99.00>83.00 (-) 7.24e3



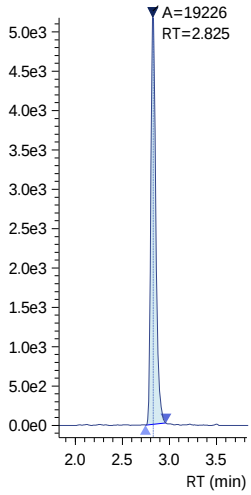
R1 101.00>85.00 (-) 1.66e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.18e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

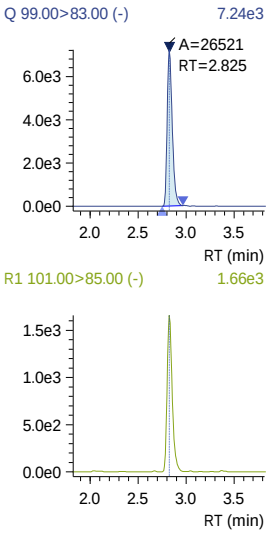
20210528_014

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 10:46:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_014.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.825	26521	19226	1	9.33	ng/mL	10.0000	22.92
Sodium Perchlorate-18O4 _IS	Auto	2.825	19226	19226	1	1.00	ng/mL	1.0000	----

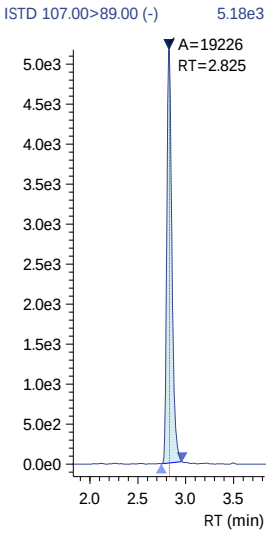
Perchlorate

Conc 9.33
R#1 22.92 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Insight Report

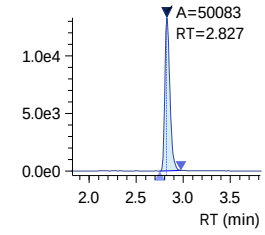
20210528_015

Sample ID: PERCHLORATE8
Date Acquired: 5/28/2021 10:54:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_015.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

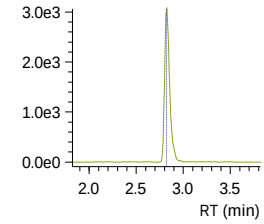
Perchlorate

Conc 18.29528
R#1 23.01 (0.00)

Q 99.00>83.00 (-) 1.33e4



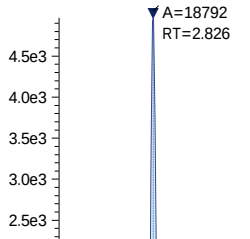
R1 101.00>85.00 (-) 3.06e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.97e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

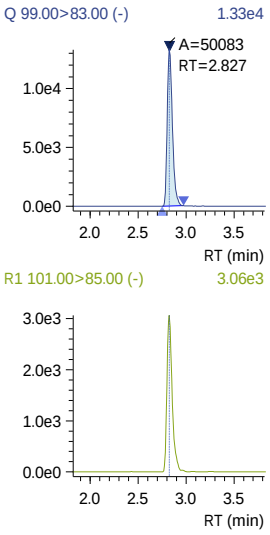
20210528_015

Sample ID: PERCHLORATE8
Date Acquired: 5/28/2021 10:54:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_015.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.827	50083	18792	1	18.0	ng/mL	20.0000	23.01
Sodium Perchlorate-18O4 _IS	Auto	2.826	18792	18792	1	1.00	ng/mL	1.0000	----

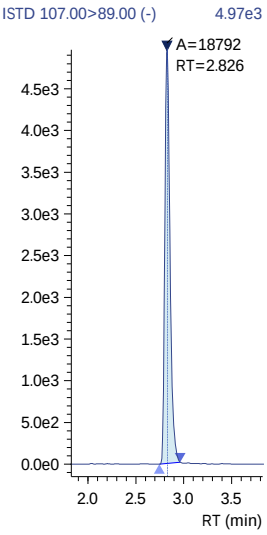
Perchlorate

Conc 18.0
R#1 23.01 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

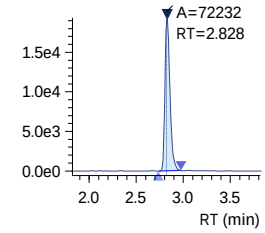
20210528_016

Sample ID: PERCHLORATE9
Date Acquired: 5/28/2021 11:03:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_016.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

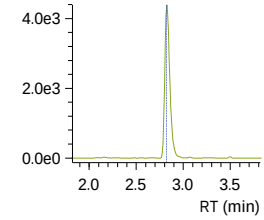
Perchlorate

Conc 28.26444
R#1 22.69 (0.00)

Q 99.00>83.00 (-) 1.94e4



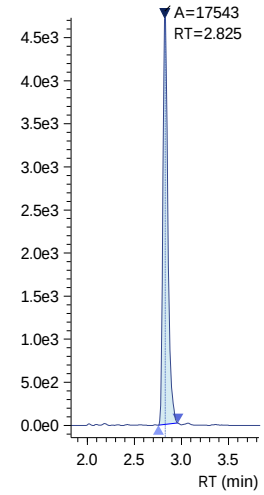
R1 101.00>85.00 (-) 4.39e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.73e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

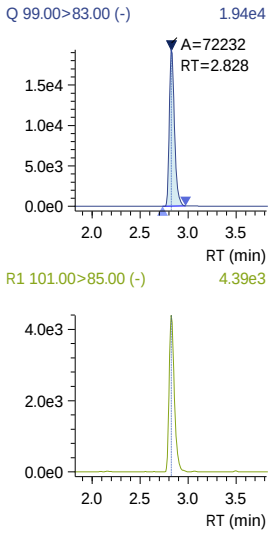
20210528_016

Sample ID: PERCHLORATE9
Date Acquired: 5/28/2021 11:03:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_016.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.828	72232	17543	1	27.8	ng/mL	30.0000	22.69
Sodium Perchlorate-18O4_IS	Auto	2.825	17543	17543	1	1.00	ng/mL	1.0000	----

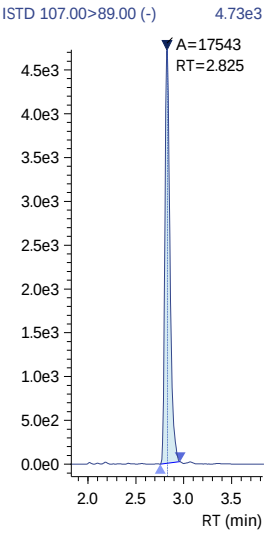
Perchlorate

Conc 27.8
R#1 22.69 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Before

Insight Report

Printed at 6/2/2021 3:26:02 PM

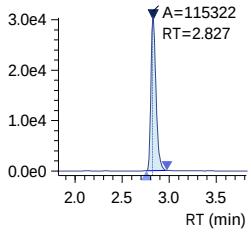
20210528_017

Sample ID: PERCHLORATE10
Date Acquired: 5/28/2021 11:11:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_017.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

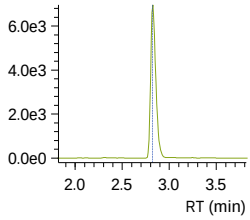
Perchlorate

Conc 45.04836
R#1 22.92 (0.00)

Q 99.00>83.00 (-) 3.04e4



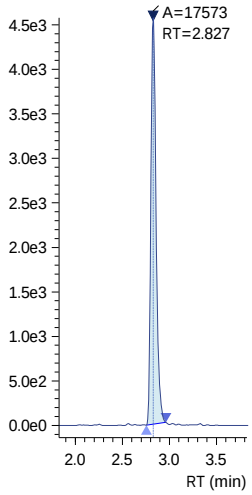
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.58e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

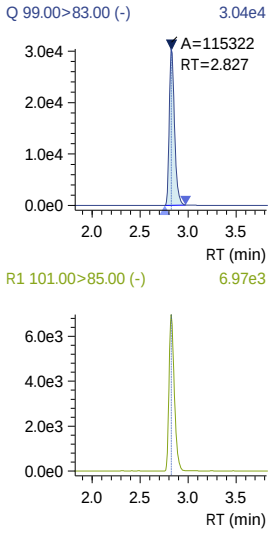
20210528_017

Sample ID: PERCHLORATE10
Date Acquired: 5/28/2021 11:11:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_017.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.827	115322	17573	1	44.4	ng/mL	50.0000	22.92
Sodium Perchlorate-18O4_IS	Auto	2.827	17573	17573	1	1.00	ng/mL	1.0000	----

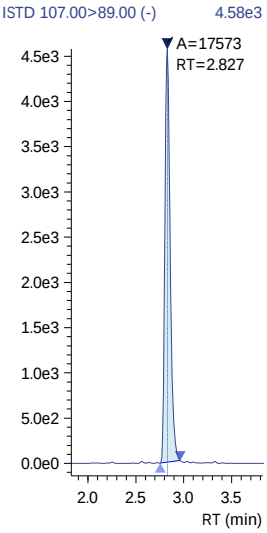
Perchlorate

Conc 44.4
R#1 22.92 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



Insight Report

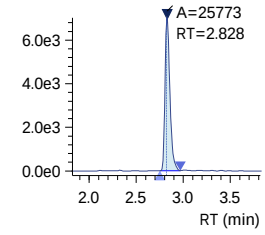
20210528_018

Sample ID: PERCHLORATEICV
Date Acquired: 5/28/2021 11:19:58 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_018.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

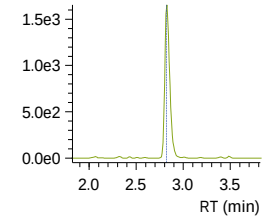
Perchlorate

Conc 9.75937
R#1 23.57 (0.00)

Q 99.00>83.00 (-) 7.03e3



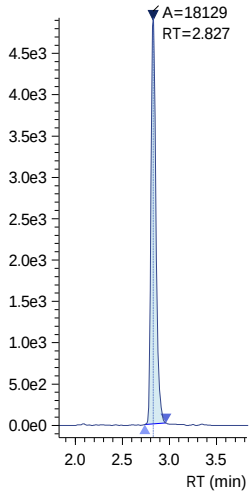
R1 101.00>85.00 (-) 1.66e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.93e3



Insight Report

Printed at 6/3/2021 1:54:27 PM

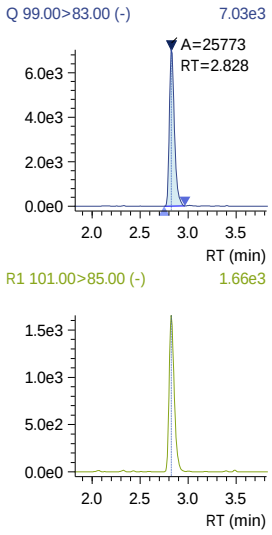
20210528_018

Sample ID: PERCHLORATEICV
Date Acquired: 5/28/2021 11:19:58 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_018.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.828	25773	18129	1	9.61	ng/mL	10.0000	23.57
Sodium Perchlorate-18O4 _IS	Auto	2.827	18129	18129	1	1.00	ng/mL	1.0000	----

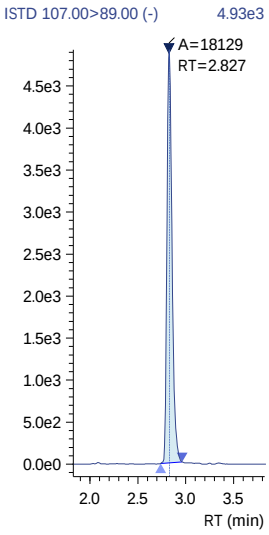
Perchlorate

Conc 9.61
R#1 23.57 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00



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

20210528

ALS Environmental

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/28/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100033**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210528_008	Perchlorate6850c.lcm	1x	☒	3100810-05	5/28/2021 9:36
2	PERCHLORATE2		20210528_009	Perchlorate6850c.lcm	1x	☒	3100810-06	5/28/2021 9:44
3	PERCHLORATE3		20210528_010	Perchlorate6850c.lcm	1x	☒	3100810-07	5/28/2021 9:53
4	PERCHLORATE4		20210528_011	Perchlorate6850c.lcm	1x	☒	3100810-08	5/28/2021 10:21
5	PERCHLORATE5		20210528_012	Perchlorate6850c.lcm	1x	☒	3100810-09	5/28/2021 10:29
6	PERCHLORATE6		20210528_013	Perchlorate6850c.lcm	1x	☒	3100811-01	5/28/2021 10:38
7	PERCHLORATE7		20210528_014	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 10:46
8	PERCHLORATE8		20210528_015	Perchlorate6850c.lcm	1x	☒	3100811-03	5/28/2021 10:54
9	PERCHLORATE9		20210528_016	Perchlorate6850c.lcm	1x	☒	3100811-04	5/28/2021 11:03
10	PERCHLORATE10		20210528_017	Perchlorate6850c.lcm	1x	☒	3100811-05	5/28/2021 11:11
11	PERCHLORATEICV		20210528_018	Perchlorate6850c.lcm	1x	☒	3100811-06	5/28/2021 11:19
12	IB		20210528_019	Perchlorate6850c.lcm	1x	☒		5/28/2021 11:49
13	IB		20210528_020	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:20
14	ICS		20210528_021	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:28
15	LODV		20210528_022	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:37
16	PERCHLORATE7		20210528_023	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 12:45
17	EQ2100327-01		20210528_024	Perchlorate6850c.lcm	1x	☒		5/28/2021 12:53
18	EQ2100327-02		20210528_025	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:02
19	EQ2100327-03DNU-RR		20210528_026	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:10
20	EQ2100327-04DNU-RR		20210528_027	Perchlorate6850c.lcm	1x	☒	Reanalyze	5/28/2021 13:19
21	EQ2100327-05		20210528_028	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:27
22	E2100577-001DNU		20210528_029	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:35
23	E2100590-001		20210528_030	Perchlorate6850c.lcm	1x	☒		5/28/2021 13:44
24	E2100590-002DNU		20210528_031	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 13:52
25	E2100590-003		20210528_032	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:01
26	E2100590-004		20210528_033	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:09
27	PERCHLORATE7		20210528_034	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 14:17
28	E2100590-005		20210528_035	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:26
29	E2100590-006		20210528_036	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:34
30	E2100590-007		20210528_037	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:43
31	E2100590-008		20210528_038	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:51
32	E2100590-009		20210528_039	Perchlorate6850c.lcm	1x	☒		5/28/2021 14:59
33	E2100590-010		20210528_040	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:08
34	E2100590-011		20210528_041	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:16
35	E2100590-012DNU		20210528_042	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 15:24
36	E2100590-013		20210528_043	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:33
37	E2100590-014		20210528_044	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:41
38	PERCHLORATE7		20210528_045	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 15:50
39	EQ2100327-03		20210528_046	Perchlorate6850c.lcm	1x	☒		5/28/2021 15:59
40	EQ2100327-04		20210528_047	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:07
41	E2100590-012DNU		20210528_048	Perchlorate6850c.lcm	1x	☒	Internal Standard failed	5/28/2021 16:15
42	IB		20210528_049	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:24
43	E2100591-001DNU		20210528_050	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	5/28/2021 16:32
44	E2100592-001RR-Carryover		20210528_051	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:41
45	E2100593-001RR-Carryover		20210528_052	Perchlorate6850c.lcm	1x	☒	Reanalyze possible carryover	5/28/2021 16:49
46	E2100378-003		20210528_053	Perchlorate6850c.lcm	1x	☒		5/28/2021 16:57
47	PERCHLORATE7		20210528_054	Perchlorate6850c.lcm	1x	☒	3100811-02	5/28/2021 17:06
48								

20210602

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 5/28/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100033**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100809-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	ICS		20210602_007	Perchlorate6850c.lcm	1x	☒		6/2/2021 10:32
2	PERCHLORATE7		20210602_009	Perchlorate6850c.lcm	1x	☒	3100811-02	6/2/2021 10:49
3	LODV		20210602_010	Perchlorate6850c.lcm	1x	☒		6/2/2021 11:46
4	E2100577-001		20210602_011	Perchlorate6850c.lcm	1x	☒		6/2/2021 12:12
5	E2100590-002		20210602_012	Perchlorate6850c.lcm	1x	☒		6/2/2021 12:20
6	E2100590-012DNU		20210602_013	Perchlorate6850c.lcm	1x	☒	Internal Standard Failed	6/2/2021 12:29
7	E2100378-003		20210602_014	Perchlorate6850c.lcm	1x	☒		6/2/2021 12:37
8	E2100592-001DNU-E		20210602_015	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	6/2/2021 12:46
9	E2100593-001DNU-E		20210602_016	Perchlorate6850c.lcm	1x	☒	Over Calibration Range	6/2/2021 12:54
10	E2100591-001X200		20210602_017	Perchlorate6850c.lcm	200x	☒		6/2/2021 13:02
11	PERCHLORATE7		20210602_018	Perchlorate6850c.lcm	1x	☒	3100811-02	6/2/2021 13:11
12	E2100592-001X5		20210602_019	Perchlorate6850c.lcm	5x	☒		6/2/2021 13:28
13	E2100593-001X10		20210602_020	Perchlorate6850c.lcm	10x	☒		6/2/2021 14:33
14	E2100590-012X10		20210602_021	Perchlorate6850c.lcm	10x	☒		6/2/2021 14:41
15	PERCHLORATE7		20210602_022	Perchlorate6850c.lcm	1x	☒	3100811-02	6/2/2021 14:49
16								
17								
18								
19								
20								
21								

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310

Service Request: E2100592
Date Analyzed: 5/28/21

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\20210528\20210528_023

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.51	0.1479	0.1406	-4.9	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310

Service Request: E2100592
Date Analyzed: 5/28/21

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\20210528\20210528_034

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.71	0.1479	0.1436	-3.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310

Service Request: E2100592
Date Analyzed: 5/28/21

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\20210528\20210528_045

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.25	0.1479	0.1369	-7.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Analyzed:**	5/28/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	5/28/21
File ID:	I:\LCMS01\DATA\20210528\20210528_054	**Calibration ID:**	EC2100033
		Analysis Lot:	725747
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.45	0.1479	0.1398	-5.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310

Service Request: E2100592
Date Analyzed: 6/ 2/21

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\20210602\20210602_009

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725907
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1479	0.1353	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310

Service Request: E2100592
Date Analyzed: 6/ 2/21

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\20210602\20210602_018

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725907
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.16	0.1479	0.1354	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051310

Service Request: E2100592
Date Analyzed: 6/ 2/21

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\20210602\20210602_022

Calibration Date: 5/28/21
Calibration ID: EC2100033
Analysis Lot: 725907
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1479	0.1352	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100592
Project:	HS21051310	**Date Analyzed:**	5/28/21 12:45

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_023	**Lab Code:**	EQ2100331-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-01	17,843	2.82
Method Blank	EQ2100327-01	17,176	2.82
Lab Control Sample	EQ2100327-02	18,111	2.82

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:**	E2100592
Project:	HS21051310	**Date Analyzed:**	5/28/21 14:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_034	**Lab Code:**	EQ2100331-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-02	15,477	2.82

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:**	E2100592
Project:	HS21051310	**Date Analyzed:**	5/28/21 15:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_045	**Lab Code:**	EQ2100331-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-03	14,737	2.83
Duplicate Lab Control Sample	EQ2100327-03	14,821	2.70

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:**	E2100592
Project:	HS21051310	**Date Analyzed:**	5/28/21 17:06

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210528\20210528_054	**Lab Code:**	EQ2100331-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100331-04	15,489	2.83

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:**	E2100592
Project:	HS21051310	**Date Analyzed:**	6/2/21 10:49

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210602\20210602_009	**Lab Code:**	EQ2100335-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725907
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100335-01	17,848	2.80

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:**	E2100592
Project:	HS21051310	**Date Analyzed:**	6/2/21 13:11

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210602\20210602_018	**Lab Code:**	EQ2100335-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725907
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100335-02	15,806	2.80
LH18/24-SP650_052521_BIX	E2100592-001	15,067	2.68

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:**	E2100592
Project:	HS21051310	**Date Analyzed:**	6/2/21 14:49

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210602\20210602_022	**Lab Code:**	EQ2100335-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	725907
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	19,423	2.81
	Upper Limit ==>	29,135	4.81
	Lower Limit ==>	9,712	0.81
Associated Analyses			
Continuing Calibration Verification	EQ2100335-03	15,791	2.80

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

Printed at 6/2/2021 3:21:28 PM

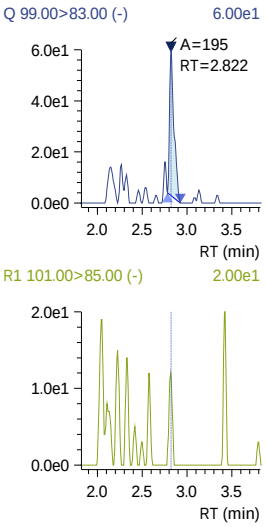
20210528_022

Sample ID: LODV
Date Acquired: 5/28/2021 12:37:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_022.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.822	195	21158	1	0.06215	ng/mL	----	18.18
Sodium Perchlorate-18O4 _IS	Auto	2.825	21158	21158	1	1.00000	ng/mL	----	----

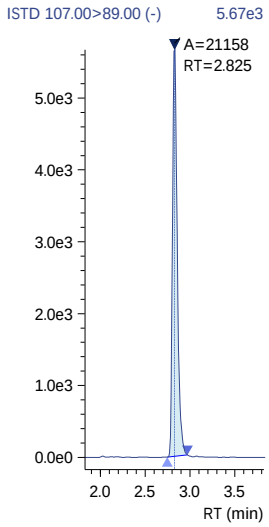
Perchlorate

Conc 0.06215
R#1 18.18 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

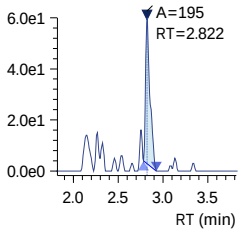
20210528_022

Sample ID: LODV
Date Acquired: 5/28/2021 12:37:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_022.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

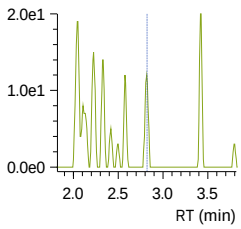
Perchlorate

Conc 0.06310
R#1 18.18 (0.00)

Q 99.00>83.00 (-) 6.00e1



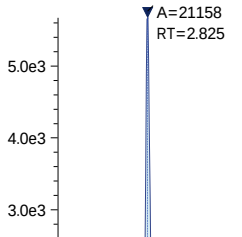
R1 101.00>85.00 (-) 2.00e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 5.67e3



Insight Report

Printed at 6/2/2021 3:21:28 PM

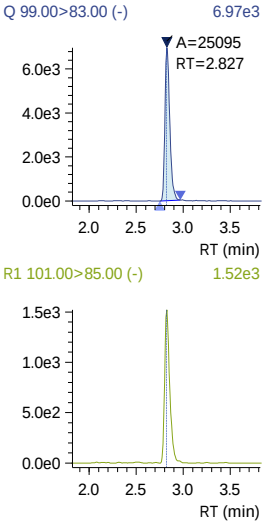
20210528_023

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 12:45:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_023.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.827	25095	17843	1	9.50812	ng/mL	10.0000	21.79
Sodium Perchlorate-18O4 _IS	Auto	2.824	17843	17843	1	1.00000	ng/mL	1.0000	----

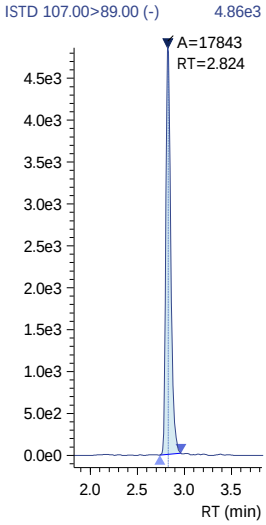
Perchlorate

Conc 9.50812
R#1 21.79 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 6/2/2021 3:26:02 PM

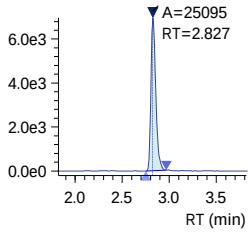
20210528_023

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 12:45:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_023.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

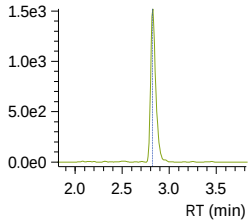
Perchlorate

Conc 9.65477
R#1 21.79 (0.00)

Q 99.00>83.00 (-) 6.97e3



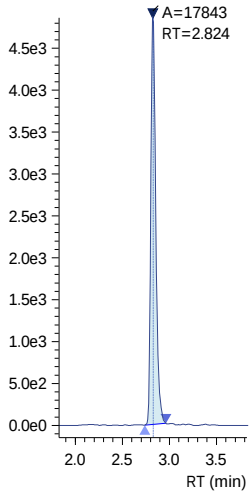
R1 101.00>85.00 (-) 1.52e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.86e3



Insight Report

Printed at 6/2/2021 3:21:28 PM

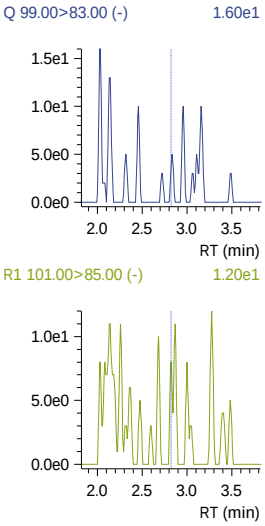
20210528_024

Sample ID: EQ2100327-01
Date Acquired: 5/28/2021 12:53:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_024.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	17176	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	Auto	2.823	17176	17176	1	1.00000	ng/mL	----	----

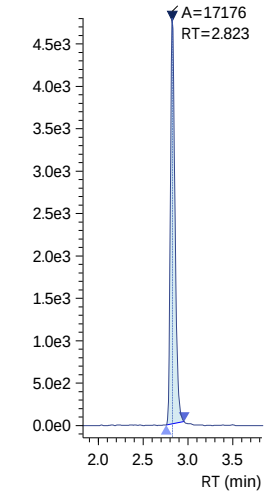
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

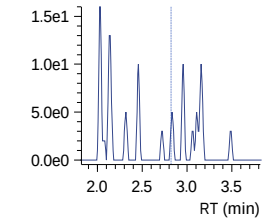
20210528_024

Sample ID: EQ2100327-01
Date Acquired: 5/28/2021 12:53:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_024.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 2

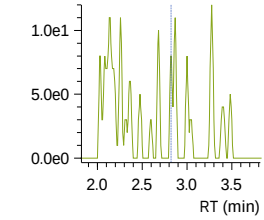
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 1.60e1



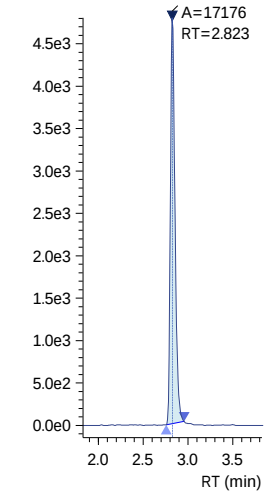
R1 101.00>85.00 (-) 1.20e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.81e3



Insight Report

Printed at 6/2/2021 3:40:19 PM

Method File: I:\LCMS01\DATA\20210528\20210528.lcm
Project File: I:\LCMS01\DATA\20210528\20210528.damlp

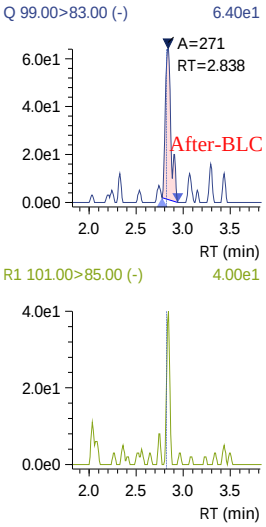
20210528_025

Sample ID: EQ2100327-02
Date Acquired: 5/28/2021 1:02:14 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_025.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.838	271	18111	1	0.10097	ng/mL	----	58.73
Sodium Perchlorate-18O4 _IS	Auto	2.824	18111	18111	1	1.00000	ng/mL	----	----

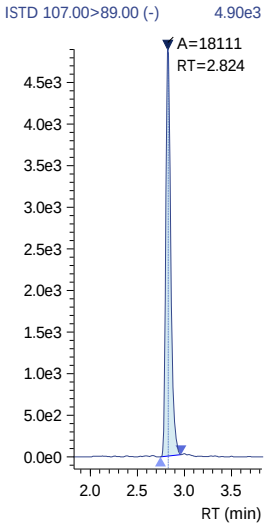
Perchlorate

Conc 0.10097
R#1 58.73 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Before

Insight Report

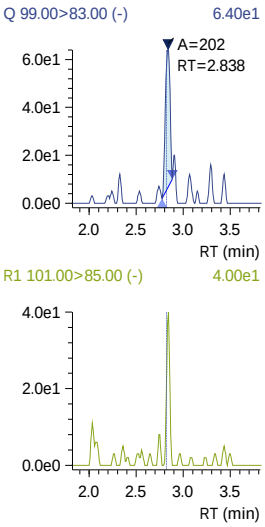
Method File: I:\LCMS01\DATA\20210528\20210528.lcm

20210528_025

Sample ID: EQ2100327-02
Date Acquired: 5/28/2021 1:02:14 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_025.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 2

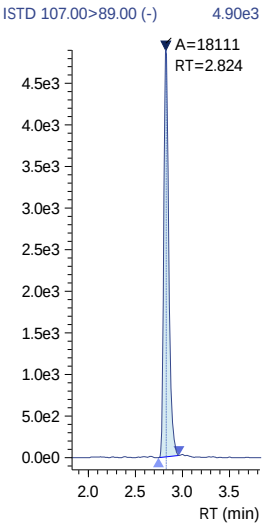
Perchlorate

Conc 0.07637
R#1 61.67 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 6/2/2021 3:21:28 PM

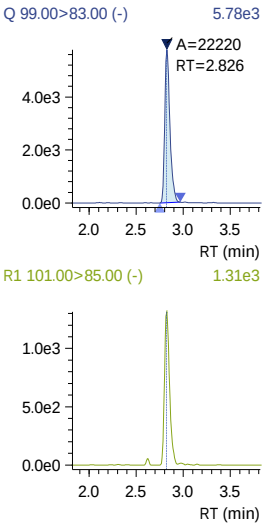
20210528_034

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 2:17:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_034.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.826	22220	15477	1	9.70565	ng/mL	10.0000	22.71
Sodium Perchlorate-18O4 _IS	Auto	2.824	15477	15477	1	1.00000	ng/mL	1.0000	----

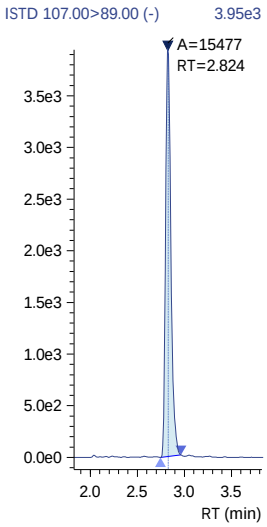
Perchlorate

Conc 9.70565
R#1 22.71 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

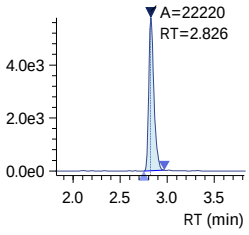
20210528_034

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 2:17:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_034.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

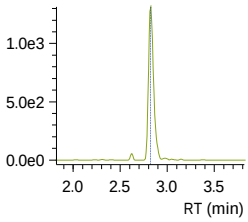
Perchlorate

Conc 9.85535
R#1 22.71 (0.00)

Q 99.00>83.00 (-) 5.78e3



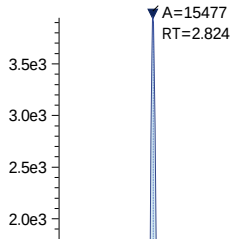
R1 101.00>85.00 (-) 1.31e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.95e3



Insight Report

Printed at 6/2/2021 3:21:28 PM

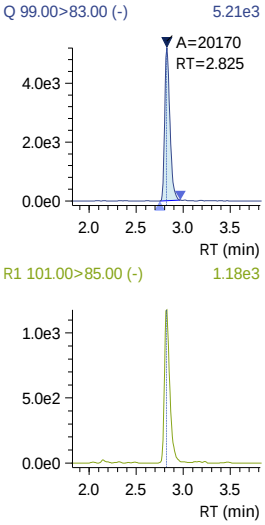
20210528_045

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 3:50:09 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_045.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.825	20170	14737	1	9.25238	ng/mL	10.0000	22.56
Sodium Perchlorate-18O4 _IS	Auto	2.825	14737	14737	1	1.00000	ng/mL	1.0000	----

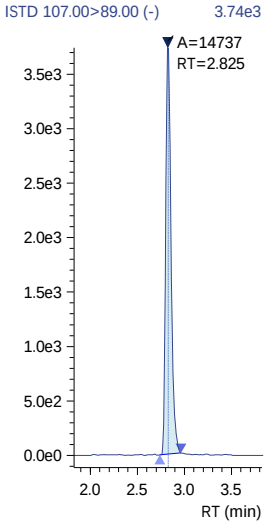
Perchlorate

Conc 9.25238
R#1 22.56 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 6/2/2021 3:26:02 PM

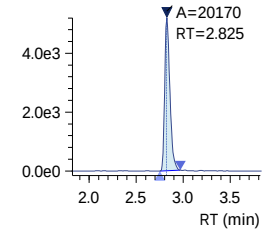
20210528_045

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 3:50:09 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_045.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

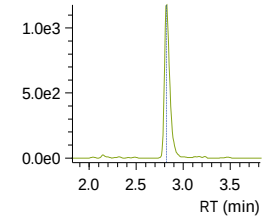
Perchlorate

Conc 9.39508
R#1 22.56 (0.00)

Q 99.00>83.00 (-) 5.21e3



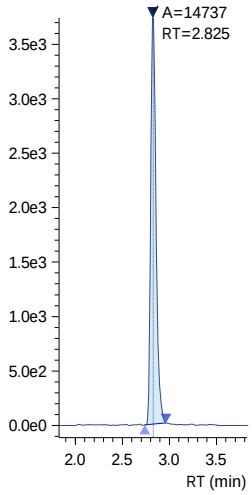
R1 101.00>85.00 (-) 1.18e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.74e3



Insight Report

Printed at 6/2/2021 3:21:28 PM

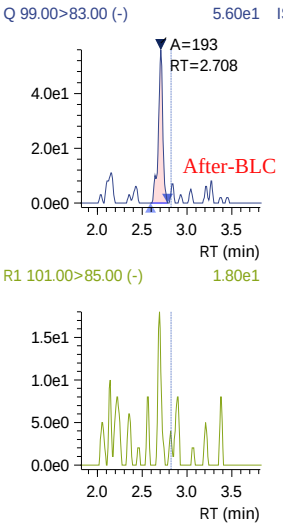
20210528_046

Sample ID: EQ2100327-03
Date Acquired: 5/28/2021 3:59:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_046.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.708	193	14821	1	0.08781	ng/mL	----	31.37
Sodium Perchlorate-18O4 _IS	Auto	2.698	14821	14821	1	1.00000	ng/mL	----	----

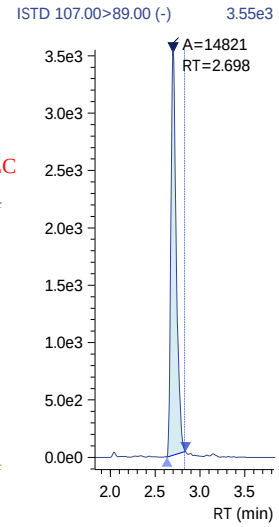
Perchlorate

Conc 0.08781
R#1 31.37 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 6/2/2021 3:26:02 PM

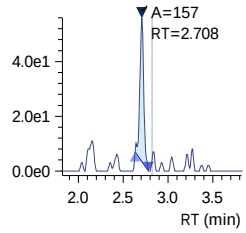
20210528_046

Sample ID: EQ2100327-03
Date Acquired: 5/28/2021 3:59:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_046.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 2

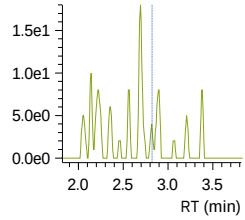
Perchlorate

Conc 0.07260
R#1 34.78 (0.00)

Q 99.00>83.00 (-) 5.60e1



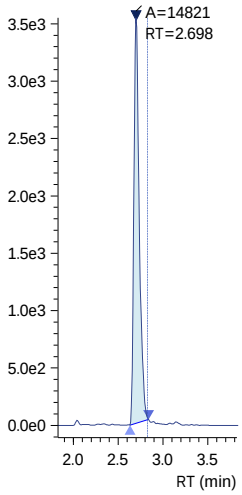
R1 101.00>85.00 (-) 1.80e1



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.55e3



Insight Report

Printed at 6/2/2021 3:21:28 PM

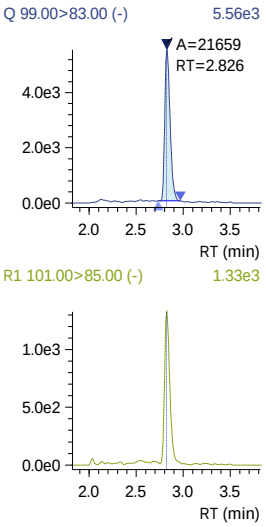
20210528_054

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 5:06:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\20210528_054.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.826	21659	15489	1	9.45338	ng/mL	10.0000	23.89
Sodium Perchlorate-18O4 _IS	Auto	2.825	15489	15489	1	1.00000	ng/mL	1.0000	----

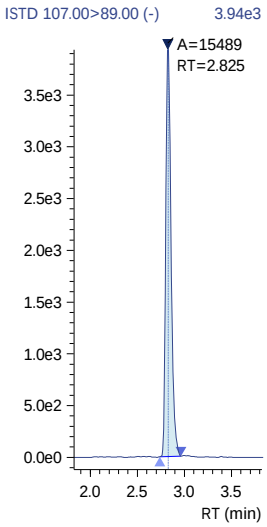
Perchlorate

Conc 9.45338
R#1 23.89 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

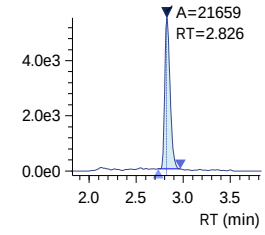
20210528_054

Sample ID: PERCHLORATE7
Date Acquired: 5/28/2021 5:06:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210528\Before\20210528_054.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

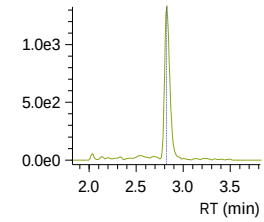
Perchlorate

Conc 9.59919
R#1 23.89 (0.00)

Q 99.00>83.00 (-) 5.56e3



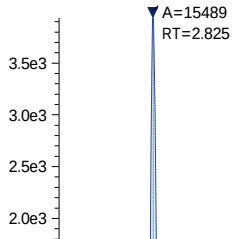
R1 101.00>85.00 (-) 1.33e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 3.94e3



Insight Report

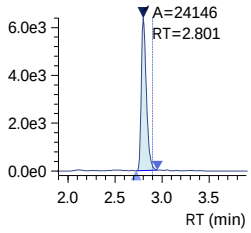
20210602_009

Sample ID: PERCHLORATE7
Date Acquired: 6/2/2021 10:49:35 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\Before\20210602_009.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

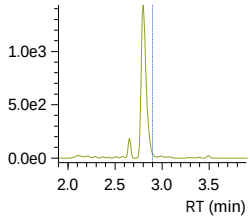
Perchlorate

Conc 9.50137
R#1 22.41 (0.00)

Q 99.00>83.00 (-) 6.41e3



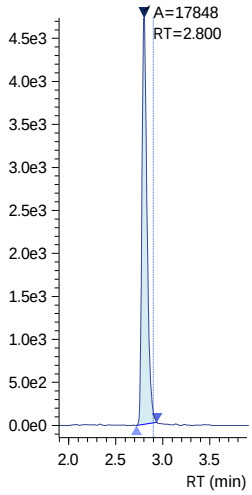
R1 101.00>85.00 (-) 1.44e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.74e3



Insight Report

Printed at 6/2/2021 4:31:08 PM

Method File: I:\LCMS01\DATA\20210602\20210528.lcm
Project File: I:\LCMS01\DATA\20210602\20210602.damlp

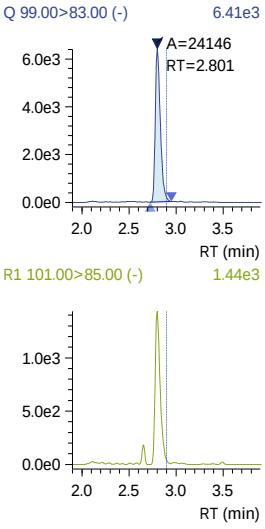
20210602_009

Sample ID: PERCHLORATE7
Date Acquired: 6/2/2021 10:49:35 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\20210602_009.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	24146	17848	1	9.14570	ng/mL	10.0000	22.41
Sodium Perchlorate-18O4 _IS	Auto	2.800	17848	17848	1	1.00000	ng/mL	1.0000	----

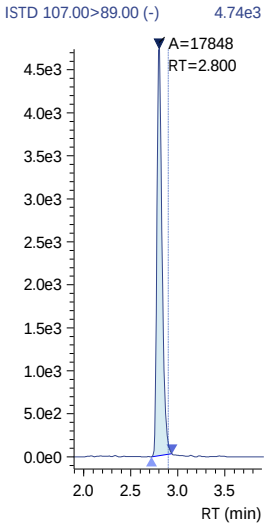
Perchlorate

Conc 9.14570
R#1 22.41 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

Printed at 6/2/2021 3:04:38 PM

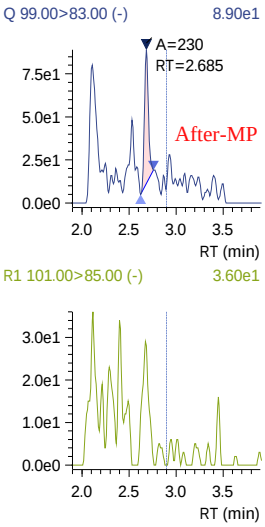
20210602_010

Sample ID: LODV
Date Acquired: 6/2/2021 11:46:47 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\20210602_010.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.685	230	23895	1	0.06507	ng/mL	----	24.68
Sodium Perchlorate-18O4 _IS	M	2.677	23895	23895	1	1.00000	ng/mL	----	----

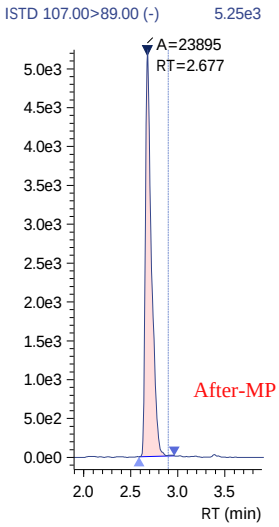
Perchlorate

Conc 0.06507
R#1 24.68 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



Insight Report

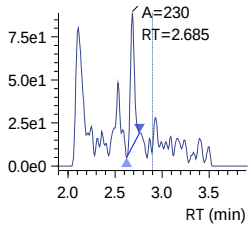
20210602_010

Sample ID: LODV
Date Acquired: 6/2/2021 11:46:47 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\Before\20210602_010.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

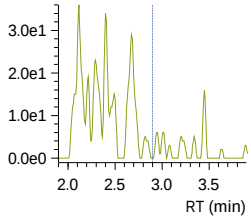
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 8.90e1



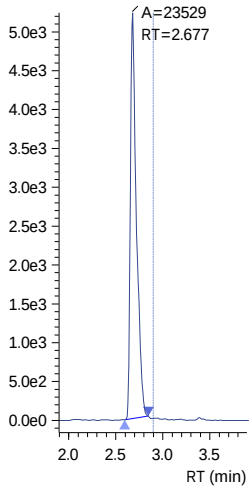
R1 101.00>85.00 (-) 3.60e1



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 5.25e3



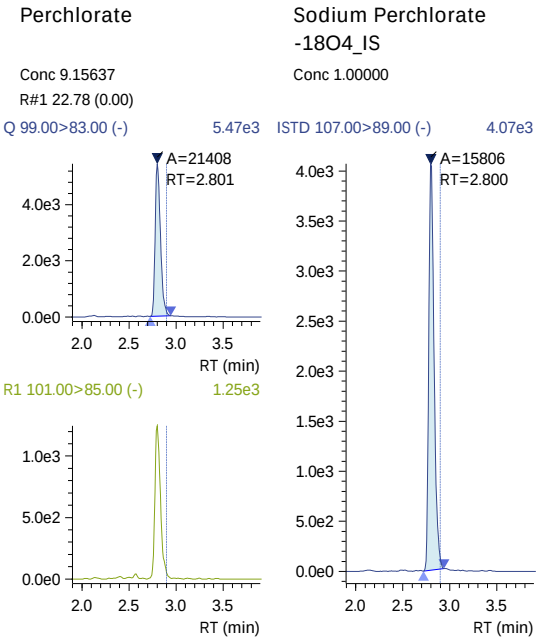
Insight Report

Printed at 6/2/2021 3:04:38 PM

20210602_018

Sample ID: PERCHLORATE7
Date Acquired: 6/2/2021 1:11:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\20210602_018.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	21408	15806	1	9.15637	ng/mL	10.0000	22.78
Sodium Perchlorate-18O4 _IS	Auto	2.800	15806	15806	1	1.00000	ng/mL	1.0000	----



Insight Report

Printed at 6/2/2021 3:07:51 PM

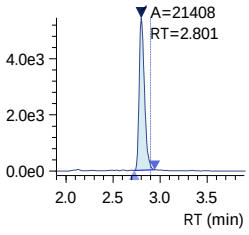
20210602_018

Sample ID: PERCHLORATE7
Date Acquired: 6/2/2021 1:11:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\Before\20210602_018.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

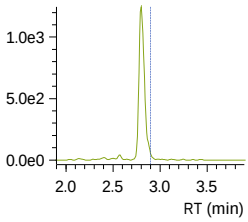
Perchlorate

Conc 9.51245
R#1 22.78 (0.00)

Q 99.00>83.00 (-) 5.47e3



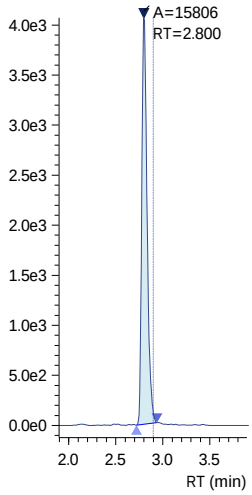
R1 101.00>85.00 (-) 1.25e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.07e3



Before

Insight Report

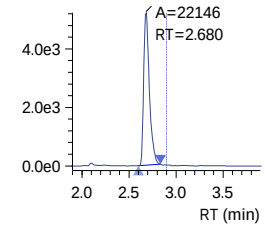
20210602_019

Sample ID: E2100592-001X5
Date Acquired: 6/2/2021 1:28:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\Before\20210602_019.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 2

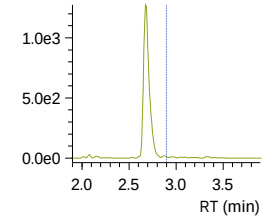
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 5.24e3



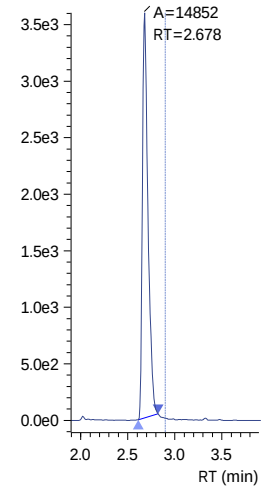
R1 101.00>85.00 (-) 1.27e3



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 3.61e3



Insight Report

Printed at 6/2/2021 3:04:38 PM

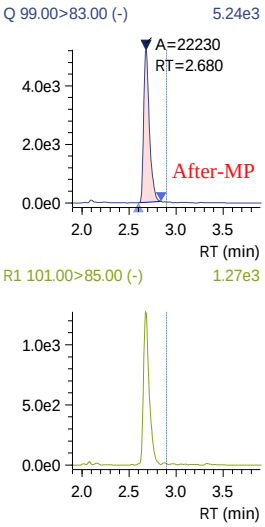
20210602_019

Sample ID: E2100592-001X5
Date Acquired: 6/2/2021 1:28:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\20210602_019.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.680	22230	15067	1	9.97402	ng/mL	----	24.49
Sodium Perchlorate-18O4_IS	M	2.678	15067	15067	1	1.00000	ng/mL	----	----

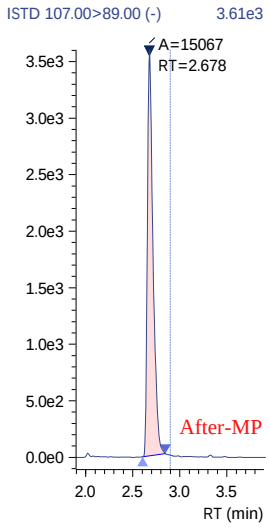
Perchlorate

Conc 9.97402
R#1 24.49 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.00000



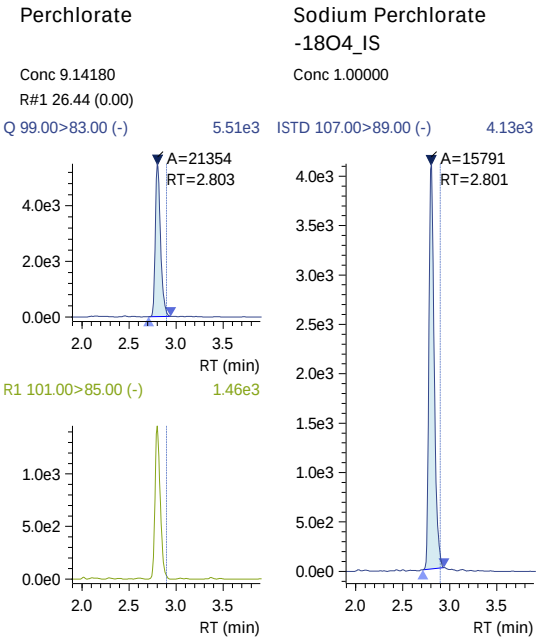
Insight Report

Printed at 6/2/2021 3:04:38 PM

20210602_022

Sample ID: PERCHLORATE7
Date Acquired: 6/2/2021 2:49:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\20210602_022.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.803	21354	15791	1	9.14180	ng/mL	10.0000	26.44
Sodium Perchlorate-18O4 _IS	Auto	2.801	15791	15791	1	1.00000	ng/mL	1.0000	----



Insight Report

Printed at 6/2/2021 3:07:51 PM

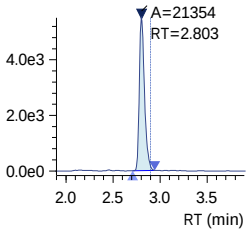
20210602_022

Sample ID: PERCHLORATE7
Date Acquired: 6/2/2021 2:49:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210602\Before\20210602_022.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

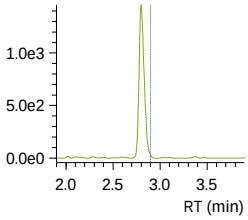
Perchlorate

Conc 9.49732
R#1 26.44 (0.00)

Q 99.00>83.00 (-) 5.51e3



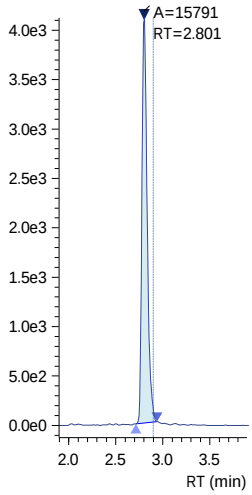
R1 101.00>85.00 (-) 1.46e3



Sodium Perchlorate -18O4_IS

Conc 1.00000

ISTD 107.00>89.00 (-) 4.13e3



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

WorkOrder: HS21051312

Groundwater Treatment Plant Quarterly Effluent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

10-Aug-2021

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

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HS21051312 Wet Chem Raw Data (COD)

HS21051312 Wet Chem Raw Data (9056_anions_W)

HS21051312 Wet Chem Raw Data (O&G_1664_W_HS)

- O&G Rev 7.0

HS21051312 Groundwater Treatment Plant Quarterly Effluent Samples Final

ALS WO# HS21051312

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 10, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21051312**

Laboratory Results for: **Groundwater Treatment Plant Quarterly Effluent Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on May 26, 2021 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
RJ Modashia
Project Manager

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
Work Order: HS21051312

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21051312-01	LH18/24-SP650_052521	Water		25-May-2021 14:00	26-May-2021 10:25	☐
HS21051312-02	LH18/24-SP650_05252021_BIX	Water		25-May-2021 14:00	26-May-2021 10:25	☐
HS21051312-03	Trip Blank	Water	CG-051121-43	25-May-2021 00:00	26-May-2021 10:25	☐

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Groundwater Treatment Plant Quarterly Effluent Samples
Work Order: HS21051312

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: 166286

Sample ID: LH18/24-SP650_052521 (HS21051312-01)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

GCMS Volatiles by Method SW8260

Batch ID: R384680

Sample ID: CCV

• Hexachlorobutadiene exceeded %D limits for CCV. Samples are ND for this compound.

Sample ID: HS21051441-03MS

• MSD is for an unrelated sample

Metals by Method SW7470A

Batch ID: 166687

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020A

Batch ID: 166391

Sample ID: HS21051153-03MSD

• MS/MSD and DUPs are for an unrelated sample

WetChemistry by Method SW9056

Batch ID: R385334

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E1664A

Batch ID: R385268

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E410.4

Batch ID: R384513

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Groundwater Treatment Plant Quarterly Effluent Samples WorkOrder:HS21051312
Sample ID: LH18/24-SP650_052521 Lab ID:HS21051312-01
Collection Date: 25-May-2021 14:00 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	30-May-2021 15:10
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 15:10
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 15:10
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 15:10
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 15:10
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 15:10
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	30-May-2021 15:10
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	30-May-2021 15:10
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	30-May-2021 15:10
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	30-May-2021 15:10
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	30-May-2021 15:10
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 15:10
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Groundwater Treatment Plant Quarterly Effluent Samples WorkOrder:HS21051312
Sample ID: LH18/24-SP650_052521 Lab ID:HS21051312-01
Collection Date: 25-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
cis-1,2-Dichloroethene	**9.0**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-May-2021 15:10
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	30-May-2021 15:10
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	30-May-2021 15:10
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-May-2021 15:10
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	30-May-2021 15:10
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 15:10
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 15:10
Trichloroethene	**3.3**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-May-2021 15:10
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 15:10
Vinyl chloride	**0.89**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	30-May-2021 15:10
Surr: 1,2-Dichloroethane-d4	*92.3*			**0**	*81-118*	*%REC*	*1*	*30-May-2021 15:10*
Surr: 4-Bromofluorobenzene	*90.9*			**0**	*85-114*	*%REC*	*1*	*30-May-2021 15:10*
Surr: Dibromofluoromethane	*91.1*			**0**	*80-119*	*%REC*	*1*	*30-May-2021 15:10*
Surr: Toluene-d8	*104*			**0**	*89-112*	*%REC*	*1*	*30-May-2021 15:10*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 27-May-2021		Analyst: ACN
1,4-Dioxane	**0.15**		**0.010**	**0.010**	**0.010**	**ug/L**	1	09-Jun-2021 13:45
Surr: 2-Fluorobiphenyl	*0*	*S*		0	*40-140*	*%REC*	*1*	*09-Jun-2021 13:45*
Surr: 4-Terphenyl-d14	*0*	*S*		0	*40-140*	*%REC*	*1*	*09-Jun-2021 13:45*
Surr: Nitrobenzene-d5	*0*	*S*		0	*40-140*	*%REC*	*1*	*09-Jun-2021 13:45*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Groundwater Treatment Plant Quarterly Effluent Samples WorkOrder:HS21051312
Sample ID: LH18/24-SP650_052521 Lab ID:HS21051312-01
Collection Date: 25-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 01-Jun-2021		Analyst: JHD
Aluminum	**0.0414**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	04-Jun-2021 16:03
Antimony	0.00100	U	0.000400	0.00100	0.00500	mg/L	1	04-Jun-2021 16:03
Arsenic	**0.000919**	J	**0.000400**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
Barium	**0.0774**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	04-Jun-2021 16:03
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	04-Jun-2021 16:03
Calcium	**4.31**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	04-Jun-2021 16:03
Chromium	**0.00202**	J	**0.000400**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
Cobalt	**0.000643**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
Iron	**0.182**	J	**0.0120**	**0.0500**	**0.200**	**mg/L**	1	04-Jun-2021 16:03
Lead	0.00100	U	0.000600	0.00100	0.00500	mg/L	1	04-Jun-2021 16:03
Magnesium	**6.17**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	04-Jun-2021 16:03
Manganese	**0.0412**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
Nickel	**0.00291**	J	**0.000600**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
Potassium	**1.25**		**0.0180**	**0.0500**	**0.200**	**mg/L**	1	04-Jun-2021 16:03
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	04-Jun-2021 16:03
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	04-Jun-2021 16:03
Sodium	**367**		**0.140**	**0**	**2.00**	**mg/L**	10	04-Jun-2021 16:07
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	04-Jun-2021 16:03
Vanadium	0.00100	U	0.000600	0.00100	0.00500	mg/L	1	04-Jun-2021 16:03
Zinc	**0.0179**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	04-Jun-2021 16:03
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 09-Jun-2021		Analyst: MSC
Mercury	**0.0000470**	J	**0.0000300**	**0.000100**	**0.000200**	**mg/L**	1	09-Jun-2021 11:55
OIL & GREASE (HEM) BY E1664A		**Method:E1664A**						Analyst: KAH
Oil and Grease	1.00	U	0.610	1.00	2.00	mg/L	1	09-Jun-2021 14:10
CHEMICAL OXYGEN DEMAND BY E410.4		**Method:E410.4**						Analyst: TH
Chemical Oxygen Demand	**8.00**	J	**5.00**	**15.0**	**15.0**	**mg/L**	1	27-May-2021 13:00
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Chloride	**320**		**4.00**	**10.0**	**10.0**	**mg/L**	20	09-Jun-2021 16:47
Sulfate	**26.7**		**0.200**	**0.500**	**0.500**	**mg/L**	1	09-Jun-2021 16:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Groundwater Treatment Plant Quarterly Effluent Samples WorkOrder:HS21051312

Sample ID: LH18/24-SP650_05252021_BIX Lab ID:HS21051312-02

Collection Date: 25-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2021 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Groundwater Treatment Plant Quarterly Effluent Samples WorkOrder:HS21051312

Sample ID: Trip Blank Lab ID:HS21051312-03

Collection Date: 25-May-2021 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	30-May-2021 14:28
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:28
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:28
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:28
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:28
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:28
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	30-May-2021 14:28
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	30-May-2021 14:28
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	30-May-2021 14:28
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	30-May-2021 14:28
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	30-May-2021 14:28
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:28
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Groundwater Treatment Plant Quarterly Effluent Samples WorkOrder:HS21051312

Sample ID: Trip Blank Lab ID:HS21051312-03

Collection Date: 25-May-2021 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	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	30-May-2021 14:28
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	30-May-2021 14:28
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-May-2021 14:28
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	30-May-2021 14:28
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:28
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:28
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:28
Surr: 1,2-Dichloroethane-d4	*90.7*			**0**	*81-118*	*%REC*	*1*	*30-May-2021 14:28*
Surr: 4-Bromofluorobenzene	*95.0*			**0**	*85-114*	*%REC*	*1*	*30-May-2021 14:28*
Surr: Dibromofluoromethane	*91.1*			**0**	*80-119*	*%REC*	*1*	*30-May-2021 14:28*
Surr: Toluene-d8	*104*			**0**	*89-112*	*%REC*	*1*	*30-May-2021 14:28*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Batch ID: 166286 **Start Date:** 27 May 2021 07:40 **End Date:** 27 May 2021 13:00
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_SIM

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21051312-01	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 166391 **Start Date:** 01 Jun 2021 09:30 **End Date:** 01 Jun 2021 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21051312-01		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 166687 **Start Date:** 09 Jun 2021 08:30 **End Date:** 09 Jun 2021 11:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21051312-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 166286 (0)	**Test Name :** SEMIVOLATILES SIM				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00		27 May 2021 07:40	09 Jun 2021 13:45	1
Batch ID: 166391 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00		01 Jun 2021 14:00	04 Jun 2021 16:07	10
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00		01 Jun 2021 14:00	04 Jun 2021 16:03	1
Batch ID: 166687 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00		09 Jun 2021 11:30	09 Jun 2021 11:55	1
Batch ID: R384513 (0)	**Test Name :** CHEMICAL OXYGEN DEMAND BY E410.4				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00			27 May 2021 13:00	1
Batch ID: R384680 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00			30 May 2021 15:10	1
HS21051312-03	Trip Blank	25 May 2021 00:00			30 May 2021 14:28	1
Batch ID: R385099 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21051312-02	LH18/24-SP650_05252021_BIX	25 May 2021 14:00			07 Jun 2021 17:34	1
Batch ID: R385268 (0)	**Test Name :** OIL & GREASE (HEM) BY E1664A				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00			09 Jun 2021 14:10	1
Batch ID: R385334 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00			09 Jun 2021 16:47	20
HS21051312-01	LH18/24-SP650_052521	25 May 2021 14:00			09 Jun 2021 16:39	1

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-166391** Units: **mg/L** Analysis Date: **04-Jun-2021 14:52**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123447** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00500	0.0100								U
Antimony	0.00100	0.00500								U
Arsenic	0.00100	0.00500								U
Barium	0.00250	0.00500								U
Beryllium	0.000500	0.00200								U
Cadmium	0.000500	0.00200								U
Calcium	0.0500	0.500								U
Chromium	0.00100	0.00500								U
Cobalt	0.000500	0.00500								U
Iron	0.0500	0.200								U
Lead	0.00100	0.00500								U
Magnesium	0.0500	0.200								U
Manganese	0.00250	0.00500								U
Nickel	0.00100	0.00500								U
Potassium	0.0500	0.200								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U
Sodium	0	0.200								U
Thallium	0.000500	0.00200								U
Vanadium	0.00100	0.00500								U
Zinc	0.00250	0.00500								U

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

LCS Sample ID: **LCS-166391** Units: **mg/L** Analysis Date: **04-Jun-2021 14:54**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123448** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04951	0.0100	0.05	0	99.0	84 - 117				
Antimony	0.05078	0.00500	0.05	0	102	85 - 117				
Arsenic	0.04715	0.00500	0.05	0	94.3	84 - 116				
Barium	0.05022	0.00500	0.05	0	100	86 - 114				
Beryllium	0.04821	0.00200	0.05	0	96.4	83 - 121				
Cadmium	0.05171	0.00200	0.05	0	103	87 - 115				
Calcium	4.579	0.500	5	0	91.6	87 - 118				
Chromium	0.04841	0.00500	0.05	0	96.8	85 - 116				
Cobalt	0.04924	0.00500	0.05	0	98.5	86 - 115				
Iron	4.883	0.200	5	0	97.7	87 - 118				
Lead	0.04969	0.00500	0.05	0	99.4	88 - 115				
Magnesium	4.892	0.200	5	0	97.8	83 - 118				
Manganese	0.04563	0.00500	0.05	0	91.3	87 - 115				
Nickel	0.05102	0.00500	0.05	0	102	85 - 117				
Potassium	4.802	0.200	5	0	96.0	87 - 115				
Selenium	0.0487	0.00500	0.05	0	97.4	80 - 120				
Silver	0.05223	0.00500	0.05	0	104	85 - 116				
Sodium	4.823	0.200	5	0	96.5	85 - 117				
Thallium	0.05109	0.00200	0.05	0	102	82 - 116				
Vanadium	0.04776	0.00500	0.05	0	95.5	86 - 115				
Zinc	0.05115	0.00500	0.05	0	102	83 - 119				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MS Sample ID: **HS21051153-03MS** Units: **mg/L** Analysis Date: **04-Jun-2021 15:04**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123453** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1031	0.0100	0.05	0.04787	110	84 - 117				
Antimony	0.05484	0.00500	0.05	0	110	85 - 117				
Arsenic	0.06829	0.00500	0.05	0.01718	102	84 - 116				
Barium	0.1019	0.00500	0.05	0.04688	110	86 - 114				
Beryllium	0.04969	0.00200	0.05	0	99.4	83 - 121				
Cadmium	0.05224	0.00200	0.05	0	104	87 - 115				
Calcium	189.1	0.500	5	182.4	134	87 - 118				SEO
Chromium	0.05233	0.00500	0.05	0.001758	101	85 - 116				
Cobalt	0.05135	0.00500	0.05	0.000681	101	86 - 115				
Iron	18.67	0.200	5	13.33	107	87 - 118				
Lead	0.0517	0.00500	0.05	0	103	88 - 115				
Magnesium	50.15	0.200	5	44.6	111	83 - 118				O
Manganese	0.3809	0.00500	0.05	0.323	116	87 - 115				SO
Nickel	0.05465	0.00500	0.05	0.003662	102	85 - 117				
Potassium	18.47	0.200	5	13.5	99.5	87 - 115				
Selenium	0.05212	0.00500	0.05	0	104	80 - 120				
Silver	0.05068	0.00500	0.05	0	101	85 - 116				
Sodium	65.33	0.200	5	59.23	122	85 - 117				SO
Thallium	0.05155	0.00200	0.05	0	103	82 - 116				
Vanadium	0.05199	0.00500	0.05	0.001058	102	86 - 115				
Zinc	0.05331	0.00500	0.05	0.002193	102	83 - 119				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MSD Sample ID: **HS21051153-03MSD** Units: **mg/L** Analysis Date: **04-Jun-2021 15:06**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123454** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1015	0.0100	0.05	0.04787	107	84 - 117	0.1031	1.47	20	
Antimony	0.05538	0.00500	0.05	0	111	85 - 117	0.05484	0.976	20	
Arsenic	0.06783	0.00500	0.05	0.01718	101	84 - 116	0.06829	0.667	20	
Barium	0.1032	0.00500	0.05	0.04688	113	86 - 114	0.1019	1.3	20	
Beryllium	0.0496	0.00200	0.05	0	99.2	83 - 121	0.04969	0.183	20	
Cadmium	0.0529	0.00200	0.05	0	106	87 - 115	0.05224	1.26	20	
Calcium	191.3	0.500	5	182.4	178	87 - 118	189.1	1.15	20	SEO
Chromium	0.05188	0.00500	0.05	0.001758	100	85 - 116	0.05233	0.846	20	
Cobalt	0.05137	0.00500	0.05	0.000681	101	86 - 115	0.05135	0.037	20	
Iron	18.67	0.200	5	13.33	107	87 - 118	18.67	0	20	
Lead	0.05349	0.00500	0.05	0	107	88 - 115	0.0517	3.4	20	
Magnesium	51.09	0.200	5	44.6	130	83 - 118	50.15	1.85	20	SO
Manganese	0.384	0.00500	0.05	0.323	122	87 - 115	0.3809	0.802	20	SO
Nickel	0.05526	0.00500	0.05	0.003662	103	85 - 117	0.05465	1.12	20	
Potassium	18.72	0.200	5	13.5	104	87 - 115	18.47	1.34	20	
Selenium	0.05066	0.00500	0.05	0	101	80 - 120	0.05212	2.83	20	
Silver	0.05094	0.00500	0.05	0	102	85 - 116	0.05068	0.506	20	
Sodium	66.37	0.200	5	59.23	143	85 - 117	65.33	1.58	20	SO
Thallium	0.0549	0.00200	0.05	0	110	82 - 116	0.05155	6.29	20	
Vanadium	0.05177	0.00500	0.05	0.001058	101	86 - 115	0.05199	0.424	20	
Zinc	0.05227	0.00500	0.05	0.002193	100	83 - 119	0.05331	1.96	20	

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS21051153-03PDS** Units: **mg/L** Analysis Date: **04-Jun-2021 15:08**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123455** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1604	0.0100	0.1	0.04787	113	80 - 120				
Antimony	0.1189	0.00500	0.1	0.00004	119	80 - 120				
Arsenic	0.1292	0.00500	0.1	0.01718	112	80 - 120				
Barium	0.1666	0.00500	0.1	0.04688	120	80 - 120				
Beryllium	0.107	0.00200	0.1	0.000005	107	80 - 120				
Cadmium	0.1139	0.00200	0.1	0.000049	114	80 - 120				
Chromium	0.1137	0.00500	0.1	0.001758	112	80 - 120				
Cobalt	0.1122	0.00500	0.1	0.000681	112	80 - 120				
Iron	24.91	0.200	10	13.33	116	80 - 120				
Lead	0.1189	0.00500	0.1	0.000088	119	80 - 120				
Magnesium	56.64	0.200	10	44.6	120	80 - 120				SO
Nickel	0.1162	0.00500	0.1	0.003662	113	80 - 120				
Potassium	24.63	0.200	10	13.5	111	80 - 120				
Selenium	0.1139	0.00500	0.1	0.000293	114	80 - 120				
Silver	0.1066	0.00500	0.1	-0.000017	107	80 - 120				
Sodium	72.28	0.200	10	59.23	130	80 - 120				SO
Vanadium	0.1142	0.00500	0.1	0.001058	113	80 - 120				
Zinc	0.115	0.00500	0.1	0.002193	113	80 - 120				

PDS Sample ID: **HS21051153-03PDS** Units: **mg/L** Analysis Date: **04-Jun-2021 16:18**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123585** PrepDate: **01-Jun-2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	276.7	5.00	100	182.5	94.3	80 - 120				
Manganese	1.273	0.0500	1	0.3244	94.8	80 - 120				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS21051153-03SD** Units: **mg/L** Analysis Date: **04-Jun-2021 15:02**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123452** PrepDate: **01-Jun-2021** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Aluminum	0.0567	0.0500					0.04787	0	10	
Antimony	0.00500	0.0250					0.00004	0	10	U
Arsenic	0.01853	0.0250					0.01718	0	10	J
Barium	0.04954	0.0250					0.04688	5.68	10	
Beryllium	0.00250	0.0100					0.000005	0	10	U
Cadmium	0.00250	0.0100					0.000049	0	10	U
Chromium	0.00500	0.0250					0.001758	0	10	U
Cobalt	0.000721	0.0250					0.000681	0	10	J
Lead	0.00500	0.0250					0.000088	0	10	U
Magnesium	48.88	1.00					44.6	9.6	10	
Nickel	0.004353	0.0250					0.003662	0	10	J
Potassium	14.54	1.00					13.5	7.67	10	
Selenium	0.0125	0.0250					0.000293	0	10	U
Silver	0.00250	0.0250					-0.000017	0	10	U
Sodium	64.5	1.00					59.23	8.89	10	
Thallium	0.00250	0.0100					-0.000015	0	10	U
Vanadium	0.00500	0.0250					0.001058	0	10	U
Zinc	0.0125	0.0250					0.002193	0	10	U

SD Sample ID: **HS21051153-03SD** Units: **mg/L** Analysis Date: **04-Jun-2021 16:16**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123584** PrepDate: **01-Jun-2021** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	183.3	25.0					182.5	0.465	10	

SD Sample ID: **HS21051153-03SD** Units: **mg/L** Analysis Date: **07-Jun-2021 11:23**
Client ID: Run ID: **ICPMS06_385065** SeqNo: **6124955** PrepDate: **01-Jun-2021** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Manganese	0.316	0.250					0.3244	2.57	10	

The following samples were analyzed in this batch: HS21051312-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166687 (0) **Instrument: HG03** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-166687** Units: **mg/L** Analysis Date: **09-Jun-2021 11:49**
Client ID: Run ID: **HG03_385226** SeqNo: **6129298** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000100	0.000200								U

LCS Sample ID: **LCS-166687** Units: **mg/L** Analysis Date: **09-Jun-2021 11:54**
Client ID: Run ID: **HG03_385226** SeqNo: **6129891** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00490	0.000200	0.005	0	98.0	82 - 119				

MS Sample ID: **HS21051312-01MS** Units: **mg/L** Analysis Date: **09-Jun-2021 12:00**
Client ID: **LH18/24-SP650_052521** Run ID: **HG03_385226** SeqNo: **6129301** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00549	0.000200	0.005	0.00004700	109	82 - 119				

MSD Sample ID: **HS21051312-01MSD** Units: **mg/L** Analysis Date: **09-Jun-2021 12:02**
Client ID: **LH18/24-SP650_052521** Run ID: **HG03_385226** SeqNo: **6129302** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00540	0.000200	0.005	0.00004700	107	82 - 119	0.005490	1.65	20	

The following samples were analyzed in this batch: HS21051312-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: 166286 (0) **Instrument: SV-6** **Method: SEMIVOLATILES SIM**

MBLK Sample ID: **MBLK-166286** Units: **ug/L** Analysis Date: **09-Jun-2021 11:39**
Client ID: Run ID: **SV-6_385248** SeqNo: **6129735** PrepDate: **27-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.010	0.010								U
Surr: 2-Fluorobiphenyl	*0.04561*	*0*	*0.08*	*0*	*57.0*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.04726*	*0*	*0.08*	*0*	*59.1*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.03525*	*0*	*0.08*	*0*	*44.1*	*40 - 140*				

LCS Sample ID: **LCS-166286** Units: **ug/L** Analysis Date: **09-Jun-2021 11:57**
Client ID: Run ID: **SV-6_385248** SeqNo: **6129736** PrepDate: **27-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0903	0.010	0.08	0	113	40 - 140				
Surr: 2-Fluorobiphenyl	*0.0563*	*0*	*0.08*	*0*	*70.4*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.05508*	*0*	*0.08*	*0*	*68.9*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.04176*	*0*	*0.08*	*0*	*52.2*	*40 - 140*				

LCSD Sample ID: **LCSD-166286** Units: **ug/L** Analysis Date: **09-Jun-2021 12:15**
Client ID: Run ID: **SV-6_385248** SeqNo: **6129737** PrepDate: **27-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0884	0.010	0.08	0	111	40 - 140	0.0903	2.13	20	
Surr: 2-Fluorobiphenyl	*0.05657*	*0*	*0.08*	*0*	*70.7*	*40 - 140*	*0.0563*	*0.478*	*20*	
Surr: 4-Terphenyl-d14	*0.0575*	*0*	*0.08*	*0*	*71.9*	*40 - 140*	*0.05508*	*4.28*	*20*	
Surr: Nitrobenzene-d5	*0.04427*	*0*	*0.08*	*0*	*55.3*	*40 - 140*	*0.04176*	*5.85*	*20*	

The following samples were analyzed in this batch: HS21051312-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210530** Units: **ug/L** Analysis Date: **30-May-2021 14:07**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116800** 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	0.50	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	0.50	1.0								U
1,1-Dichloroethene	0.50	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	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	1.0	1.0								U
1,2-Dichloroethane	0.50	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	0.50	1.0								U
2-Butanone	1.0	2.0								U
2-Chlorotoluene	1.0	1.0								U
2-Hexanone	2.0	2.0								U
4-Chlorotoluene	1.0	1.0								U
4-Isopropyltoluene	1.0	1.0								U
4-Methyl-2-pentanone	2.0	2.0								U
Acetone	2.0	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	1.0	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	1.0	1.0								U
Bromomethane	1.0	1.0								U

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210530** Units: **ug/L** Analysis Date: **30-May-2021 14:07**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116800** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2.0	2.0								U
Carbon tetrachloride	1.0	1.0								U
Chlorobenzene	1.0	1.0								U
Chloroethane	1.0	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	1.0	1.0								U
Dibromomethane	0.50	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	2.0	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	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	1.0	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*47.54*	*1.0*	*50*	*0*	*95.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.46*	*1.0*	*50*	*0*	*96.9*	*85 - 114*				
Surr: Dibromofluoromethane	*45.25*	*1.0*	*50*	*0*	*90.5*	*80 - 119*				
Surr: Toluene-d8	*50.88*	*1.0*	*50*	*0*	*102*	*89 - 112*				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210530** Units: **ug/L** Analysis Date: **30-May-2021 13:04**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116799** 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	21.51	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	18.81	1.0	20	0	94.0	74 - 131				
1,1,2,2-Tetrachloroethane	19.93	1.0	20	0	99.6	71 - 121				
1,1,2-Trichloroethane	20.07	1.0	20	0	100	80 - 119				
1,1-Dichloroethane	18.36	1.0	20	0	91.8	77 - 125				
1,1-Dichloroethene	18.53	1.0	20	0	92.6	71 - 131				
1,1-Dichloropropene	19.62	1.0	20	0	98.1	78 - 125				
1,2,3-Trichlorobenzene	19.04	1.0	20	0	95.2	69 - 129				
1,2,3-Trichloropropane	18.61	1.0	20	0	93.1	73 - 122				
1,2,4-Trichlorobenzene	22.07	1.0	20	0	110	69 - 130				
1,2,4-Trimethylbenzene	19.36	1.0	20	0	96.8	76 - 124				
1,2-Dibromo-3-chloropropane	19.19	1.0	20	0	95.9	62 - 128				
1,2-Dibromoethane	19.73	1.0	20	0	98.7	77 - 121				
1,2-Dichlorobenzene	19.68	1.0	20	0	98.4	80 - 119				
1,2-Dichloroethane	21.51	1.0	20	0	108	73 - 128				
1,2-Dichloropropane	19.86	1.0	20	0	99.3	78 - 122				
1,3,5-Trimethylbenzene	18.65	1.0	20	0	93.3	75 - 124				
1,3-Dichlorobenzene	20.4	1.0	20	0	102	80 - 119				
1,3-Dichloropropane	19.37	1.0	20	0	96.9	80 - 119				
1,4-Dichlorobenzene	20.27	1.0	20	0	101	79 - 118				
2,2-Dichloropropane	19.46	1.0	20	0	97.3	60 - 139				
2-Butanone	35.86	2.0	40	0	89.7	56 - 143				
2-Chlorotoluene	19.2	1.0	20	0	96.0	79 - 122				
2-Hexanone	37.21	2.0	40	0	93.0	57 - 139				
4-Chlorotoluene	18.91	1.0	20	0	94.6	78 - 122				
4-Isopropyltoluene	19	1.0	20	0	95.0	77 - 127				
4-Methyl-2-pentanone	35.67	2.0	40	0	89.2	67 - 130				
Acetone	39.2	2.0	40	0	98.0	39 - 160				
Benzene	20.11	1.0	20	0	101	79 - 120				
Bromobenzene	20.95	1.0	20	0	105	80 - 120				
Bromochloromethane	18.93	1.0	20	0	94.7	78 - 123				
Bromodichloromethane	20.68	1.0	20	0	103	79 - 125				
Bromoform	21.4	1.0	20	0	107	66 - 130				
Bromomethane	21.58	1.0	20	0	108	53 - 141				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210530** Units: **ug/L** Analysis Date: **30-May-2021 13:04**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116799** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	36.05	2.0	40	0	90.1	64 - 133				
Carbon tetrachloride	19.76	1.0	20	0	98.8	72 - 136				
Chlorobenzene	19.49	1.0	20	0	97.5	82 - 118				
Chloroethane	18.38	1.0	20	0	91.9	60 - 138				
Chloroform	18.82	1.0	20	0	94.1	79 - 124				
Chloromethane	16.85	1.0	20	0	84.2	50 - 139				
cis-1,2-Dichloroethene	19.39	1.0	20	0	97.0	78 - 123				
cis-1,3-Dichloropropene	21.47	1.0	20	0	107	75 - 124				
Dibromochloromethane	21.43	1.0	20	0	107	74 - 126				
Dibromomethane	20.55	1.0	20	0	103	79 - 123				
Dichlorodifluoromethane	19.08	1.0	20	0	95.4	32 - 152				
Ethylbenzene	19.65	1.0	20	0	98.3	79 - 121				
Hexachlorobutadiene	26.13	1.0	20	0	131	66 - 134				
Isopropylbenzene	18.72	1.0	20	0	93.6	72 - 131				
m,p-Xylene	38.38	2.0	40	0	96.0	80 - 121				
Methylene chloride	20	2.0	20	0	100.0	74 - 124				
Naphthalene	18.07	1.0	20	0	90.3	61 - 128				
n-Butylbenzene	18.92	1.0	20	0	94.6	75 - 128				
n-Propylbenzene	18.35	1.0	20	0	91.7	76 - 126				
o-Xylene	19.3	1.0	20	0	96.5	78 - 122				
sec-Butylbenzene	18.29	1.0	20	0	91.4	77 - 126				
Styrene	20.46	1.0	20	0	102	78 - 123				
tert-Butylbenzene	18.21	1.0	20	0	91.0	78 - 124				
Tetrachloroethene	20.56	1.0	20	0	103	74 - 129				
Toluene	19.03	1.0	20	0	95.1	80 - 121				
trans-1,2-Dichloroethene	18.89	1.0	20	0	94.5	75 - 124				
trans-1,3-Dichloropropene	21.63	1.0	20	0	108	73 - 127				
Trichloroethene	21.3	1.0	20	0	107	79 - 123				
Trichlorofluoromethane	18.29	1.0	20	0	91.4	65 - 141				
Vinyl chloride	18.26	1.0	20	0	91.3	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.41*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.65*	*1.0*	*50*	*0*	*97.3*	*85 - 114*				
Surr: Dibromofluoromethane	*48.6*	*1.0*	*50*	*0*	*97.2*	*80 - 119*				
Surr: Toluene-d8	*47.89*	*1.0*	*50*	*0*	*95.8*	*89 - 112*				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21051441-03MS** Units: **ug/L** Analysis Date: **30-May-2021 16:14**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116806** 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	20.1	1.0	20	0	101	78 - 124				
1,1,1-Trichloroethane	17.76	1.0	20	0	88.8	74 - 131				
1,1,2,2-Tetrachloroethane	18.58	1.0	20	0	92.9	71 - 121				
1,1,2-Trichloroethane	18.34	1.0	20	0	91.7	80 - 119				
1,1-Dichloroethane	15.44	1.0	20	0	77.2	77 - 125				
1,1-Dichloroethene	17.74	1.0	20	0.695	85.2	71 - 131				
1,1-Dichloropropene	20.25	1.0	20	0	101	78 - 125				
1,2,3-Trichlorobenzene	16.99	1.0	20	0	84.9	69 - 129				
1,2,3-Trichloropropane	17.28	1.0	20	0	86.4	73 - 122				
1,2,4-Trichlorobenzene	19.19	1.0	20	0	95.9	69 - 130				
1,2,4-Trimethylbenzene	19.32	1.0	20	0	96.6	76 - 124				
1,2-Dibromo-3-chloropropane	16.88	1.0	20	0	84.4	62 - 128				
1,2-Dibromoethane	18.47	1.0	20	0	92.3	77 - 121				
1,2-Dichlorobenzene	19.79	1.0	20	0.78	95.0	80 - 119				
1,2-Dichloroethane	18.53	1.0	20	0	92.6	73 - 128				
1,2-Dichloropropane	18.18	1.0	20	0	90.9	78 - 122				
1,3,5-Trimethylbenzene	19.37	1.0	20	0	96.9	75 - 124				
1,3-Dichlorobenzene	19.8	1.0	20	0	99.0	80 - 119				
1,3-Dichloropropane	18.28	1.0	20	0	91.4	80 - 119				
1,4-Dichlorobenzene	19.26	1.0	20	0	96.3	79 - 118				
2,2-Dichloropropane	17.65	1.0	20	0	88.3	60 - 139				
2-Butanone	27.24	2.0	40	0	68.1	56 - 143				
2-Chlorotoluene	19.11	1.0	20	0	95.6	79 - 122				
2-Hexanone	32.71	2.0	40	0	81.8	57 - 139				
4-Chlorotoluene	18.55	1.0	20	0	92.7	78 - 122				
4-Isopropyltoluene	20.4	1.0	20	0	102	77 - 127				
4-Methyl-2-pentanone	32.78	2.0	40	0	82.0	67 - 130				
Acetone	24.37	2.0	40	0	60.9	39 - 160				
Benzene	18.78	1.0	20	0	93.9	79 - 120				
Bromobenzene	19.75	1.0	20	0	98.7	80 - 120				
Bromochloromethane	16.18	1.0	20	0	80.9	78 - 123				
Bromodichloromethane	18.32	1.0	20	0	91.6	79 - 125				
Bromoform	19.2	1.0	20	0	96.0	66 - 130				
Bromomethane	18.49	1.0	20	0	92.5	53 - 141				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21051441-03MS** Units: **ug/L** Analysis Date: **30-May-2021 16:14**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116806** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	33.43	2.0	40	0	83.6	64 - 133				
Carbon tetrachloride	20.91	1.0	20	0	105	72 - 136				
Chlorobenzene	23.79	1.0	20	4.839	94.7	82 - 118				
Chloroethane	16	1.0	20	0	80.0	60 - 138				
Chloroform	16.31	1.0	20	0	81.6	79 - 124				
Chloromethane	12.12	1.0	20	0	60.6	50 - 139				
cis-1,2-Dichloroethene	87.32	1.0	20	67.77	97.7	78 - 123				
cis-1,3-Dichloropropene	18.97	1.0	20	0	94.8	75 - 124				
Dibromochloromethane	19.77	1.0	20	0	98.9	74 - 126				
Dibromomethane	17.98	1.0	20	0	89.9	79 - 123				
Dichlorodifluoromethane	11.55	1.0	20	0	57.8	32 - 152				
Ethylbenzene	20.33	1.0	20	0	102	79 - 121				
Hexachlorobutadiene	26.03	1.0	20	0	130	66 - 134				
Isopropylbenzene	20.38	1.0	20	0	102	72 - 131				
m,p-Xylene	39.79	2.0	40	0	99.5	80 - 121				
Methylene chloride	15.93	2.0	20	0	79.7	74 - 124				
Naphthalene	14.89	1.0	20	0	74.5	61 - 128				
n-Butylbenzene	20.03	1.0	20	0	100	75 - 128				
n-Propylbenzene	19.85	1.0	20	0	99.2	76 - 126				
o-Xylene	19.11	1.0	20	0	95.6	78 - 122				
sec-Butylbenzene	20.4	1.0	20	0	102	77 - 126				
Styrene	19.17	1.0	20	0	95.9	78 - 123				
tert-Butylbenzene	20.02	1.0	20	0	100	78 - 124				
Tetrachloroethene	22.68	1.0	20	0	113	74 - 129				
Toluene	18.73	1.0	20	0	93.6	80 - 121				
trans-1,2-Dichloroethene	16.8	1.0	20	0	84.0	75 - 124				
trans-1,3-Dichloropropene	18.55	1.0	20	0	92.7	73 - 127				
Trichloroethene	22.67	1.0	20	1.191	107	79 - 123				
Trichlorofluoromethane	17.5	1.0	20	0	87.5	65 - 141				
Vinyl chloride	18.22	1.0	20	3.223	75.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*45.58*	*1.0*	*50*	*0*	*91.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.76*	*1.0*	*50*	*0*	*97.5*	*85 - 114*				
Surr: Dibromofluoromethane	*45.18*	*1.0*	*50*	*0*	*90.4*	*80 - 119*				
Surr: Toluene-d8	*50.05*	*1.0*	*50*	*0*	*100*	*89 - 112*				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21051441-03MSD** Units: **ug/L** Analysis Date: **30-May-2021 16:35**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116807** 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	18.76	1.0	20	0	93.8	78 - 124	20.1	6.93	20	
1,1,1-Trichloroethane	16.05	1.0	20	0	80.2	74 - 131	17.76	10.1	20	
1,1,2,2-Tetrachloroethane	17.33	1.0	20	0	86.6	71 - 121	18.58	6.97	20	
1,1,2-Trichloroethane	17.25	1.0	20	0	86.2	80 - 119	18.34	6.15	20	
1,1-Dichloroethane	14.1	1.0	20	0	70.5	77 - 125	15.44	9.11	20	S
1,1-Dichloroethene	16.07	1.0	20	0.695	76.9	71 - 131	17.74	9.92	20	
1,1-Dichloropropene	18.46	1.0	20	0	92.3	78 - 125	20.25	9.29	20	
1,2,3-Trichlorobenzene	17.27	1.0	20	0	86.3	69 - 129	16.99	1.64	20	
1,2,3-Trichloropropane	16.71	1.0	20	0	83.5	73 - 122	17.28	3.36	20	
1,2,4-Trichlorobenzene	19.19	1.0	20	0	96.0	69 - 130	19.19	0.0363	20	
1,2,4-Trimethylbenzene	18.01	1.0	20	0	90.1	76 - 124	19.32	6.98	20	
1,2-Dibromo-3-chloropropane	17.75	1.0	20	0	88.8	62 - 128	16.88	5	20	
1,2-Dibromoethane	17.56	1.0	20	0	87.8	77 - 121	18.47	5.07	20	
1,2-Dichlorobenzene	18.35	1.0	20	0.78	87.8	80 - 119	19.79	7.57	20	
1,2-Dichloroethane	17.94	1.0	20	0	89.7	73 - 128	18.53	3.23	20	
1,2-Dichloropropane	17.4	1.0	20	0	87.0	78 - 122	18.18	4.38	20	
1,3,5-Trimethylbenzene	17.76	1.0	20	0	88.8	75 - 124	19.37	8.67	20	
1,3-Dichlorobenzene	18.07	1.0	20	0	90.4	80 - 119	19.8	9.14	20	
1,3-Dichloropropane	16.98	1.0	20	0	84.9	80 - 119	18.28	7.36	20	
1,4-Dichlorobenzene	18.36	1.0	20	0	91.8	79 - 118	19.26	4.8	20	
2,2-Dichloropropane	16.33	1.0	20	0	81.6	60 - 139	17.65	7.8	20	
2-Butanone	26.63	2.0	40	0	66.6	56 - 143	27.24	2.26	20	
2-Chlorotoluene	17.68	1.0	20	0	88.4	79 - 122	19.11	7.79	20	
2-Hexanone	31.88	2.0	40	0	79.7	57 - 139	32.71	2.59	20	
4-Chlorotoluene	17	1.0	20	0	85.0	78 - 122	18.55	8.69	20	
4-Isopropyltoluene	18.91	1.0	20	0	94.6	77 - 127	20.4	7.55	20	
4-Methyl-2-pentanone	31.43	2.0	40	0	78.6	67 - 130	32.78	4.22	20	
Acetone	23.78	2.0	40	0	59.4	39 - 160	24.37	2.46	20	
Benzene	17.61	1.0	20	0	88.0	79 - 120	18.78	6.46	20	
Bromobenzene	18.28	1.0	20	0	91.4	80 - 120	19.75	7.7	20	
Bromochloromethane	15.73	1.0	20	0	78.7	78 - 123	16.18	2.8	20	
Bromodichloromethane	17.36	1.0	20	0	86.8	79 - 125	18.32	5.38	20	
Bromoform	18.18	1.0	20	0	90.9	66 - 130	19.2	5.43	20	
Bromomethane	16.81	1.0	20	0	84.0	53 - 141	18.49	9.57	20	

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21051441-03MSD** Units: **ug/L** Analysis Date: **30-May-2021 16:35**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116807** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	30.37	2.0	40	0	75.9	64 - 133	33.43	9.61	20	
Carbon tetrachloride	19.21	1.0	20	0	96.0	72 - 136	20.91	8.5	20	
Chlorobenzene	21.74	1.0	20	4.839	84.5	82 - 118	23.79	9	20	
Chloroethane	20.95	1.0	20	0	105	60 - 138	16	26.8	20	R
Chloroform	15.05	1.0	20	0	75.2	79 - 124	16.31	8.08	20	S
Chloromethane	11.34	1.0	20	0	56.7	50 - 139	12.12	6.65	20	
cis-1,2-Dichloroethene	81.38	1.0	20	67.77	68.0	78 - 123	87.32	7.05	20	S
cis-1,3-Dichloropropene	17.56	1.0	20	0	87.8	75 - 124	18.97	7.72	20	
Dibromochloromethane	18.53	1.0	20	0	92.6	74 - 126	19.77	6.5	20	
Dibromomethane	17.15	1.0	20	0	85.8	79 - 123	17.98	4.7	20	
Dichlorodifluoromethane	10.63	1.0	20	0	53.2	32 - 152	11.55	8.3	20	
Ethylbenzene	18.58	1.0	20	0	92.9	79 - 121	20.33	9	20	
Hexachlorobutadiene	23.04	1.0	20	0	115	66 - 134	26.03	12.2	20	
Isopropylbenzene	18.84	1.0	20	0	94.2	72 - 131	20.38	7.84	20	
m,p-Xylene	36.36	2.0	40	0	90.9	80 - 121	39.79	8.99	20	
Methylene chloride	15.26	2.0	20	0	76.3	74 - 124	15.93	4.36	20	
Naphthalene	16.16	1.0	20	0	80.8	61 - 128	14.89	8.16	20	
n-Butylbenzene	18.7	1.0	20	0	93.5	75 - 128	20.03	6.88	20	
n-Propylbenzene	18.17	1.0	20	0	90.9	76 - 126	19.85	8.83	20	
o-Xylene	17.81	1.0	20	0	89.1	78 - 122	19.11	7.06	20	
sec-Butylbenzene	18.55	1.0	20	0	92.7	77 - 126	20.4	9.53	20	
Styrene	17.71	1.0	20	0	88.6	78 - 123	19.17	7.93	20	
tert-Butylbenzene	18.34	1.0	20	0	91.7	78 - 124	20.02	8.71	20	
Tetrachloroethene	21.11	1.0	20	0	106	74 - 129	22.68	7.16	20	
Toluene	17.29	1.0	20	0	86.4	80 - 121	18.73	8.02	20	
trans-1,2-Dichloroethene	15.5	1.0	20	0	77.5	75 - 124	16.8	8	20	
trans-1,3-Dichloropropene	17.82	1.0	20	0	89.1	73 - 127	18.55	3.98	20	
Trichloroethene	20.65	1.0	20	1.191	97.3	79 - 123	22.67	9.32	20	
Trichlorofluoromethane	15.77	1.0	20	0	78.8	65 - 141	17.5	10.4	20	
Vinyl chloride	16.66	1.0	20	3.223	67.2	58 - 137	18.22	8.99	20	
Surr: 1,2-Dichloroethane-d4	*44.07*	*1.0*	*50*	*0*	*88.1*	*81 - 118*	*45.58*	*3.36*	*20*	
Surr: 4-Bromofluorobenzene	*48.81*	*1.0*	*50*	*0*	*97.6*	*85 - 114*	*48.76*	*0.0914*	*20*	
Surr: Dibromofluoromethane	*44.86*	*1.0*	*50*	*0*	*89.7*	*80 - 119*	*45.18*	*0.702*	*20*	
Surr: Toluene-d8	*50.36*	*1.0*	*50*	*0*	*101*	*89 - 112*	*50.05*	*0.608*	*20*	

ALS Houston, US Date: 10-Jun-21

Client:	Bhate Environmental Associates, Inc.
Project:	Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder:	HS21051312

QC BATCH REPORT

Batch ID:	**R384680 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS21051312-01 HS21051312-03

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R384513 (0) **Instrument: WetChem_HS** **Method: CHEMICAL OXYGEN DEMAND BY E410.4**

MBLK Sample ID: **MBLK-R384513** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113391** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	15.0	15.0								U

LCS Sample ID: **LCS-R384513** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113390** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	99	15.0	100	0	99.0	85 - 115				

LCSD Sample ID: **LCSD-R384513** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113389** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	99	15.0	100	0	99.0	85 - 115	99	0	20	

MS Sample ID: **HS21051294-01MS** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113393** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	78	15.0	50	30	96.0	80 - 120				

MSD Sample ID: **HS21051294-01MSD** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113392** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	77	15.0	50	30	94.0	80 - 120	78	1.29	20	

The following samples were analyzed in this batch: HS21051312-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R385268 (0) **Instrument: Balance1** **Method: OIL & GREASE (HEM) BY E1664A**

MBLK Sample ID: **WBLKW-060921** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130111** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	1.00	2.00								U

LCS Sample ID: **WLCSW-060921** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130113** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	38.7	2.00	40	0	96.8	78 - 114				

LCSD Sample ID: **WLCSDW-060921** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130112** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	39	2.00	40	0	97.5	78 - 114	38.7	0.772	18	

MS Sample ID: **HS21051265-01MS** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130091** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	37.4	2.00	40	4.348	82.6	78 - 114				

The following samples were analyzed in this batch: HS21051312-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

QC BATCH REPORT

Batch ID: R385334 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **09-Jun-2021 14:19**
Client ID: Run ID: **ICS-Integrion_385334** SeqNo: **6131583** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.500	0.500								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **09-Jun-2021 14:26**
Client ID: Run ID: **ICS-Integrion_385334** SeqNo: **6131584** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.35	0.500	20	0	96.7	80 - 120				
Sulfate	19.31	0.500	20	0	96.5	80 - 120				

MS Sample ID: **HS21051314-01MS** Units: **mg/L** Analysis Date: **09-Jun-2021 17:38**
Client ID: Run ID: **ICS-Integrion_385334** SeqNo: **6131593** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	360.9	10.0	200	168.8	96.1	80 - 120				
Sulfate	222.9	10.0	200	25	99.0	80 - 120				

MSD Sample ID: **HS21051314-01MSD** Units: **mg/L** Analysis Date: **09-Jun-2021 17:46**
Client ID: Run ID: **ICS-Integrion_385334** SeqNo: **6131594** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	370.2	10.0	200	168.8	101	80 - 120	360.9	2.53	20	
Sulfate	230.6	10.0	200	25	103	80 - 120	222.9	3.37	20	

The following samples were analyzed in this batch: HS21051312-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: **HS21051312**

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

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
Work Order: HS21051312

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21051312-01	LH18/24-SP650_052521	Login	5/26/2021 12:43:32 PM	PMG	MET026
HS21051312-01	LH18/24-SP650_052521	Login	5/26/2021 12:43:32 PM	PMG	Disposed
HS21051312-01	LH18/24-SP650_052521	Login	5/26/2021 12:43:32 PM	PMG	EXT170
HS21051312-01	LH18/24-SP650_052521	Login	5/26/2021 12:43:32 PM	PMG	Disposed
HS21051312-01	LH18/24-SP650_052521	Login	5/26/2021 12:43:32 PM	PMG	Disposed
HS21051312-01	LH18/24-SP650_052521	Login	5/26/2021 12:43:32 PM	PMG	VOA087
HS21051312-02	LH18/24-SP650_05252021_BIX	Login	5/26/2021 12:43:32 PM	PMG	Sub
HS21051312-03	Trip Blank	Login	5/26/2021 12:43:32 PM	PMG	VOA087

ALS Houston, US Date: 10-Jun-21

Sample Receipt Checklist

Work Order ID: HS21051312 **Date/Time Received:** **26-May-2021 10:25**

Client Name: Bhate Environmental **Received by:** **Paresh M. Giga**

Completed By:	/S/ Paresh M. Giga	26-May-2021 12:46	**Reviewed by:**	/S/ Ragen Giga	27-May-2021 13:06
	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):	0.9C U/C	IR31	
Cooler(s)/Kit(s):	46900		
Date/Time sample(s) sent to storage:	5/26/2021 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:

HS21051312

Bhate Environmental Associates, Inc.

Groundwater Treatment Plant Quarterly Effluent Sampl

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS, 10450 Stancliff Rd., Suite 210 Houston, Tx. 77099 ATTN: RJ Modashia

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 QUARTERLY EFFLUENT SAMPLES

Prepared By:
Scott Beesinger

P. O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	ROD Volatiles	Total Metals	Oil & Grease	Chemical Oxygen Demand	Chloride & Sulfate	1, 4 - DIOXANE	PERCHLORATE				Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_052521	Water	05/25/21 / 14:00		4	3		1								HCL	
LH18/24-SP650_052521	Water	05/25/21 / 14:00		1		1									HNO3	
LH18/24-SP650_052521	Water	05/25/21 / 14:00		2					1	1					NONE	
LH18/24-SP650_052521	Water	05/25/21 / 14:00		1				1							H2SO4	
LH18/24-SP650_052521_BIX	Water	05/25/21 / 14:00		1							1				NONE	
Trip Blank	Water	05/25/21		2	2										HCL	

Additional Remarks: **Standard TAT**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
	05/25/21	14:30		5/26/21	10:25						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:
46900 0.90 Chr. Cl Fl. SO4

(Word) S:\Users\Forms\Chain of Custody - BiWeekly

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

4684

CUSTODY SEAL

Date: 5/25/21 Time: 1430

Name: Sara Belanger

Company: Battelle

Seal Broken By:

5/26/21

FedEx
Trk# 9473 0841 7395
8221

WED - 26 MAY AA
PRIORITY OVERNIGHT

AB SGRA

4690

77099
TX-US
IAH

June 07, 2021 Service Request No:E2100593

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21051312

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory May 26, 2021
For your reference, these analyses have been assigned our service request number **E2100593.**

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.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

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 Houston	**Service Request No.:**	E2100593
Project:	HS21051312	**Date Received:**	05/26/21
Sample Matrix:	W		

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 05/26/21.

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:

EQ2100327: 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 batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report. The LCS/DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

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:**E2100593
Project: HS21051312

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100593-001	LH18/24-SP650_052521_BIX	5/25/2021	1400

Service Request Summary

Folder #: **E2100593**
Client Name: ALS Environmental - US
Project Name: HS21051312
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051312
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100593-001	LH18/24-SP650_052521_BIX	Water	05/25/21 1400	**IV**

Service Request Summary

Folder #: **E2100593**
Client Name: ALS Environmental - US
Project Name: HS21051312
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051312
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/10,IV due 6/17

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	Internal standard not within the specified limits. See case narrative.
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.
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.

Data Qualifiers

Lab Standard

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
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

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: **Colorado** **COC ID:** **16191**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21051312
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21051312-02**	**LH18/24-SP650_05252021_BIX**	**Water**	**25 May 2021 14:00**
	SUB_Perch-6850			10 Jun 2021

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: 5/26/21 1933

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist: EG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/26/21 Initials: EG

Date/Time Logged in: 5/26/21 Initials: EG

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?
N/A		5/26/21	1933	EG	4.2	☒
						☐
						☐
						☐

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#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100577-001	LH18/24-SP650_051821_BIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2100590-001	LHSMW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100590-002	LHSMW01-210524-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100590-003	04WW04-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100590-004	04WW08-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100590-005	04WW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100590-006	04WW06-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100590-007	LHSMW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100590-008	04WW11-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100590-009	04WW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100590-010	04WW07-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100590-011	04WW07-210525-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100590-012	04WW09-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100590-013	04WW05-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100590-014	04WW10-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100591-001	LH18/24-SP140_052521	.01	6850/ClO4 DOD			Water	10mL	
17	E2100592-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	E2100593-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Water	10mL	
19	EQ2100327-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2100327-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2100327-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100327-04	04WW10-210525 MS	.01	6850/ClO4 DOD			Liquid	10mL	
23	EQ2100327-05	04WW10-210525 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100577-001	100.00µL	E2100590-001	100.00µL	E2100590-002	100.00µL	E2100590-003	100.00µL	E2100590-004	100.00µL	E2100590-005	100.00µL
E2100590-006	100.00µL	E2100590-007	100.00µL	E2100590-008	100.00µL	E2100590-009	100.00µL	E2100590-010	100.00µL	E2100590-011	100.00µL
E2100590-012	100.00µL	E2100590-013	100.00µL	E2100590-014	100.00µL	E2100591-001	100.00µL	E2100592-001	100.00µL	E2100593-001	100.00µL
EQ2100327-01	100.00µL	EQ2100327-02	100.00µL	EQ2100327-03	100.00µL	EQ2100327-04	100.00µL	EQ2100327-05	100.00µL		

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100327-02	1.00µL	EQ2100327-03	1.00µL	EQ2100327-04	1.00µL	EQ2100327-05	1.00µL

Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

Preparation Steps

Step: Preparation
Started: 5/27/21 13:04
Finished: 5/27/21 13:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/27/21

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:**	E2100593
Project:	HS21051312	**Date Collected:**	5/25/21 1400
Sample Matrix:	Water	**Date Received:**	5/26/21
Sample Name:	LH18/24-SP650_052521_BIX	**Units:**	µg/L
Lab Code:	E2100593-001	**Basis:**	As Received

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	**55.3**		1.00	0.500	0.250	10	5/27/21	6/2/21 14:33	380303	725907	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100593
Project:	HS21051312	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100327-01	**Basis:**	As Received

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	5/27/21	5/28/21 12:53	380303	725747	

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: HS21051312
Sample Matrix: Water

Service Request: E2100593
Date Analyzed: 5/28/21

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: As Received

Extraction Lot: 380303

	Lab Control Sample EQ2100327-02			Duplicate Lab Control Sample EQ2100327-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.0878	0.100	88	84 - 119	14	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:**	E2100593
Project:	HS21051312	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-02	**Basis:**	As Received

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	**0.101**		0.100	0.0500	0.0250	1	5/27/21	5/28/21 13:02	380303	725747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100593
Project:	HS21051312	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-03	**Basis:**	As Received

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	**0.0878**	J	0.100	0.0500	0.0250	1	5/27/21	5/28/21 15:59	380303	725747	

HS21051312 8260_W_DOD Raw Data

ALS WO# HS21051312

MSVOA06 -Logbook

Batch: 44971 **Analyst:** Presenta Cabascango

Date: 05-26-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-26-2021 12:13 pm	1.00	50 mL	50 mL	X052601.D	Liquid	Y	NA
2	VSTD000.25	ICAL1	05-26-2021 12:34 pm	1.00	50 mL	50 mL	X052602.D	Liquid	Y	NA
3	VSTD000.5	ICAL2	05-26-2021 12:55 pm	1.00	50 mL	50 mL	X052603.D	Liquid	Y	NA
4	VSTD001	ICAL3	05-26-2021 01:37 pm	1.00	50 mL	50 mL	X052604.D	Liquid	Y	NA
5	VSTD002	ICAL4	05-26-2021 01:58 pm	1.00	50 mL	50 mL	X052605.D	Liquid	Y	NA
6	VSTD005	ICAL5	05-26-2021 02:19 pm	1.00	50 mL	50 mL	X052606.D	Liquid	Y	NA
7	VSTD020	ICAL6	05-26-2021 02:40 pm	1.00	50 mL	50 mL	X052607.D	Liquid	Y	NA
8	VSTD050	ICAL7	05-26-2021 03:01 pm	1.00	50 mL	50 mL	X052608.D	Liquid	Y	NA
9	VSTD100	ICAL8	05-26-2021 03:22 pm	1.00	50 mL	50 mL	X052609.D	Liquid	Y	NA
10	VSTD150	ICAL9	05-26-2021 03:43 pm	1.00	50 mL	50 mL	X052610.D	Liquid	Y	NA
11	VSTD200	ICAL	05-26-2021 04:04 pm	1.00	50 mL	50 mL	X052611.D	Liquid	Y	NA
12	BLANK	SAMP	05-26-2021 04:25 pm	1.00	50 mL	50 mL	X052612.D	Liquid	Y	NA
13	BLANK	SAMP	05-26-2021 04:46 pm	1.00	50 mL	50 mL	X052613.D	Liquid	Y	NA
14	CCV	CCV	05-26-2021 05:07 pm	1.00	50 mL	50 mL	X052614.D	Liquid	Y	NA
15	BLANK	SAMP	05-26-2021 05:28 pm	1.00	50 mL	50 mL	X052615.D	Liquid	Y	NA
16	VLCSW-210526	LCS	05-26-2021 05:49 pm	1.00	50 mL	50 mL	X052616.D	Liquid	Y	NA
17	BLANK	SAMP	05-26-2021 06:10 pm	1.00	50 mL	50 mL	X052617.D	Liquid	Y	NA
18	VBLKW-210526	MBLK	05-26-2021 06:31 pm	1.00	50 mL	50 mL	X052618.D	Liquid	Y	NA
19	HS21051001-12	SAMP	05-26-2021 06:52 pm	1.00	50 mL	50 mL	X052619.D	Liquid	Y	NA
20	HS21051001-13	SAMP	05-26-2021 07:13 pm	1.00	50 mL	50 mL	X052620.D	Liquid	Y	NA
21	HS21051002-10	SAMP	05-26-2021 07:34 pm	1.00	50 mL	50 mL	X052621.D	Liquid	Y	NA
22	HS21051002-10MS	MS	05-26-2021 07:55 pm	1.00	50 mL	50 mL	X052622.D	Liquid	Y	NA
23	HS21051002-10MSD	MSD	05-26-2021 08:16 pm	1.00	50 mL	50 mL	X052623.D	Liquid	Y	NA
24	HS21051001-03	SAMP	05-26-2021 08:37 pm	10.00	5 mL	50 mL	X052624.D	Liquid	Y	NA
25	HS21051002-11	SAMP	05-26-2021 08:58 pm	1.00	50 mL	50 mL	X052625.D	Liquid	Y	NA
26	HS21051002-12	SAMP	05-26-2021 09:19 pm	1.00	50 mL	50 mL	X052626.D	Liquid	Y	NA
27	HS21051001-07	SAMP	05-26-2021 09:40 pm	5.00	10 mL	50 mL	X052627.D	Liquid	Y	NA
28	HS21051001-07	SAMP	05-26-2021 10:01 pm	25.00	2 mL	50 mL	X052628.D	Liquid	Y	NA
29	HS21051001-14	SAMP	05-26-2021 10:22 pm	50.00	1 mL	50 mL	X052629.D	Liquid	Y	NA
30	HS21051001-14	SAMP	05-26-2021 10:43 pm	1000.0	50 µL	50 mL	X052630.D	Liquid	Y	NA
31	CCV-END	CCV	05-26-2021 11:04 pm	1.00	50 mL	50 mL	X052631.D	Liquid	Y	NA
32	BLANK	SAMP	05-26-2021 11:25 pm	1.00	50 mL	50 mL	X052632.D	Liquid	Y	NA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,3-Dichloropropene	50.00	49.32	99	80-120
trans-1,3-Dichloroprope	50.00	49.93	100	80-120
1,3-Dichlorobenzene	50.00	48.33	97	80-120
2,2-Dichloropropane	50.00	46.54	93	80-120
1,1-Dichloropropene	50.00	47.74	95	80-120
Dibromomethane	50.00	47.09	94	80-120
1,2-Dibromoethane	50.00	46.02	92	80-120
trans-1,2-Dichloroethen	50.00	45.39	91	80-120
1,1,1,2-Tetrachloroetha	50.00	49.25	98	80-120
1,1,1-Trichloroethane	50.00	45.35	91	80-120
1,1,2,2-Tetrachloroetha	50.00	48.29	96	80-120
1,1,2-Trichloroethane	50.00	46.80	94	80-120
1,1-Dichloroethane	50.00	43.31	87	80-120
1,1-Dichloroethene	50.00	47.05	94	80-120
Trichloroethene	50.00	49.64	99	80-120
1,2,3-Trichlorobenzene	50.00	54.27	108	80-120
Trichlorofluoromethane	50.00	49.37	99	80-120
1,2,4-Trichlorobenzene	50.00	54.38	109	80-120
1,2,4-Trimethylbenzene	50.00	47.26	94	80-120
Tetrachloroethene	50.00	51.72	103	80-120
1,2-Dichlorobenzene	50.00	48.14	96	80-120
1,2-Dichloroethane	50.00	48.52	97	80-120
1,2-Dichloropropane	50.00	47.14	94	80-120
1,3,5-Trimethylbenzene	50.00	48.76	98	80-120
1,3-Dichloropropane	50.00	45.62	91	80-120
1,4-Dichlorobenzene	50.00	47.04	94	80-120
Toluene	50.00	45.98	92	80-120
2-Butanone	100.00	88.97	89	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
2-Chlorotoluene	50.00	46.15	92	80-120
2-Hexanone	100.00	93.39	93	80-120
4-Chlorotoluene	50.00	47.27	94	80-120
tert-Butylbenzene	50.00	48.13	96	80-120
4-Methyl-2-Pentanone	100.00	86.96	87	80-120
Acetone	100.00	105.10	105	80-120
Benzene	50.00	47.37	95	80-120
Bromobenzene	50.00	48.43	97	80-120
Bromochloromethane	50.00	45.06	90	80-120
Bromodichloromethane	50.00	46.92	94	80-120
Bromoform	50.00	50.57	101	80-120
Bromomethane	50.00	55.55	111	80-120
Carbon Disulfide	100.00	90.27	90	80-120
Carbon Tetrachloride	50.00	48.83	98	80-120
Chlorobenzene	50.00	46.21	92	80-120
Chloroethane	50.00	50.92	102	80-120
Chloroform	50.00	44.19	88	80-120
Chloromethane	50.00	51.24	102	80-120
cis-1,2-Dichloroethene	50.00	46.52	93	80-120
Dibromochloromethane	50.00	47.87	96	80-120
Dichlorodifluoromethane	50.00	51.43	103	80-120
Ethylbenzene	50.00	50.46	101	80-120
Hexachlorobutadiene	50.00	59.59	119	80-120
Isopropylbenzene	50.00	50.27	100	80-120
m,p-Xylenes	100.00	98.28	98	80-120
Methylene Chloride	50.00	47.68	95	80-120
n-Butylbenzene	50.00	51.17	102	80-120
n-Propylbenzene	50.00	47.26	94	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Naphthalene	50.00	52.05	104	80-120
o-Xylene	50.00	48.77	98	80-120
sec-Butylbenzene	50.00	47.77	96	80-120
Styrene	50.00	50.71	101	80-120
Vinyl Chloride	50.00	47.03	94	80-120
1,2,3-Trichloropropane	50.00	59.56	119	80-120
p-Isopropyltoluene	50.00	49.53	99	80-120
1,2-Dibromo-3-Chloropro	50.00	51.36	103	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID: X052601 BFB Injection Date: 05/26/21

Instrument ID: VOA6 BFB Injection Time: 1213

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1.2 (1.6)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5)1
176	95.0 - 101.0% of mass 174	71.7 (97.3)1
177	5.0 - 9.0% of mass 176	5.8 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X052602	05/26/21	1234
02	VSTD000.5	VSTD000.5	X052603	05/26/21	1255
03	VSTD001	VSTD001	X052604	05/26/21	1337
04	VSTD002	VSTD002	X052605	05/26/21	1358
05	VSTD005	VSTD005	X052606	05/26/21	1419
06	VSTD020	VSTD020	X052607	05/26/21	1440
07	VSTD050	VSTD050	X052608	05/26/21	1501
08	VSTD100	VSTD100	X052609	05/26/21	1522
09	VSTD150	VSTD150	X052610	05/26/21	1543
10	VSTD200	VSTD200	X052611	05/26/21	1604
11	ICV	ICV	X052614	05/26/21	1707
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
cis-1,3-Dichloropropene		0.563	0.482	0.444	0.530	0.514
trans-1,3-Dichloropropene		0.459	0.430	0.391	0.438	0.433
1,3-Dichlorobenzene		1.679	1.474	1.452	1.411	1.338
2,2-Dichloropropane		0.729	0.753	0.719	0.743	0.655
1,1-Dichloropropene		0.430	0.438	0.392	0.370	0.369
Dibromomethane		0.247	0.229	0.195	0.240	0.226
1,2-Dibromoethane		0.438	0.372	0.348	0.382	0.354
trans-1,2-Dichloroethene		0.556	0.483	0.471	0.493	0.442
1,1,1,2-Tetrachloroethane		0.429	0.362	0.340	0.364	0.354
1,1,1-Trichloroethane		0.869	0.768	0.758	0.755	0.696
1,1,2,2-Tetrachloroethane		2582	4348	9638	24326	94744
1,1,2-Trichloroethane		0.288	0.267	0.276	0.308	0.262
1,1-Dichloroethane		0.943	0.782	0.838	0.854	0.788
1,1-Dichloroethene		0.564	0.533	0.567	0.525	0.492
Trichloroethene		0.403	0.316	0.338	0.346	0.338
1,2,3-Trichlorobenzene		0.283	0.329	0.316	0.285	0.294
Trichlorofluoromethane		0.970	0.796	1.036	0.976	0.871
1,2,4-Trichlorobenzene		0.471	0.460	0.455	0.471	0.497
1,2,4-Trimethylbenzene		2.805	2.419	2.374	2.134	2.172
Tetrachloroethene		0.340	0.285	0.310	0.288	0.279
1,2-Dichlorobenzene		1.530	1.282	1.414	1.353	1.296
1,2-Dichloroethane		0.458	0.385	0.386	0.421	0.392
1,2-Dichloropropane		0.341	0.282	0.302	0.315	0.285
1,3,5-Trimethylbenzene		2.808	2.273	2.406	2.134	2.139
1,3-Dichloropropane		0.640	0.561	0.508	0.574	0.527
1,4-Dichlorobenzene		1.766	1.630	1.520	1.456	1.390
Toluene		1.818	1.510	1.502	1.457	1.334
2-Butanone		0.176	0.151	0.149	0.151	0.148
2-Chlorotoluene		2.084	2.024	2.165	1.975	1.822
2-Hexanone		0.202	0.181	0.159	0.197	0.181
4-Chlorotoluene		2.618	2.412	2.415	2.145	2.100
tert-Butylbenzene		2.327	1.957	2.145	1.845	1.855
4-Methyl-2-Pentanone		0.338	0.320	0.271	0.292	0.269
Acetone		5938	6356	9004	15534	45478
Benzene		1.346	1.154	1.195	1.196	1.116
Bromobenzene		0.907	0.845	0.895	0.828	0.820
Bromochloromethane		0.324	0.327	0.293	0.333	0.304
Bromodichloromethane		0.478	0.441	0.440	0.454	0.419
Bromoform		0.270	0.286	0.249	0.247	0.258
Bromomethane		2714	5134	10705	24597	81986
Carbon Disulfide		1.596	1.170	1.322	1.248	1.165
Carbon Tetrachloride		0.452	0.426	0.444	0.402	0.386
Chlorobenzene		1.360	1.043	1.008	1.031	0.964
Chloroethane		1981	3557	6715	15071	58283

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Chloroform		1.051	0.854	0.901	0.981	0.851
Chloromethane		2318	4657	9388	23565	83965
cis-1,2-Dichloroethene		0.434	0.571	0.579	0.574	0.536
Dibromochloromethane		0.477	0.388	0.368	0.408	0.398
Dichlorodifluoromethane		2066	3382	8466	18295	78750
Ethylbenzene		0.530	0.453	0.476	0.484	0.469
Hexachlorobutadiene		1178	1684	3790	8556	34297
Isopropylbenzene		1.794	1.329	1.481	1.308	1.350
m,p-Xylenes		0.748	0.576	0.610	0.589	0.586
Methylene Chloride		3718	5537	9737	21744	78742
n-Butylbenzene		2.088	1.860	1.974	1.724	1.817
n-Propylbenzene		3.822	3.401	3.438	2.900	2.957
Naphthalene		0.732	0.741	0.714	0.673	0.734
o-Xylene		0.712	0.592	0.576	0.596	0.571
sec-Butylbenzene		3.355	2.559	2.858	2.427	2.460
Styrene		1.143	0.928	0.885	0.945	0.954
Vinyl Chloride		0.488	0.725	0.692	0.637	0.574
1,2,3-Trichloropropane		0.744	0.649	0.642	0.654	0.633
p-Isopropyltoluene		2.903	2.250	2.461	2.047	2.138
1,2-Dibromo-3-Chloropropane		75	420	630	2323	9854
1,2-Dichloroethane-d4		2577	4768	8542	21575	79438
Dibromofluoromethane		2388	4774	8033	21089	83421
Toluene-d8		1.572	1.496	1.177	1.238	1.162
4-Bromofluorobenzene		3467	6016	10368	25524	97463

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
cis-1,3-Dichloropropene	0.503	0.509	0.502	0.512
trans-1,3-Dichloropropene	0.431	0.448	0.444	0.458
1,3-Dichlorobenzene	1.264	1.366	1.320	1.389
2,2-Dichloropropane	0.630	0.646	0.622	0.659
1,1-Dichloropropene	0.341	0.377	0.354	0.374
Dibromomethane	0.213	0.216	0.210	0.213
1,2-Dibromoethane	0.352	0.359	0.349	0.358
trans-1,2-Dichloroethene	0.443	0.444	0.425	0.445
1,1,1,2-Tetrachloroethane	0.352	0.375	0.367	0.384
1,1,1-Trichloroethane	0.673	0.710	0.688	0.733
1,1,2,2-Tetrachloroethane	241138	539471	832157	1217789
1,1,2-Trichloroethane	0.257	0.260	0.256	0.263
1,1-Dichloroethane	0.746	0.727	0.699	0.736
1,1-Dichloroethene	0.466	0.492	0.481	0.515
Trichloroethene	0.332	0.345	0.328	0.343
1,2,3-Trichlorobenzene	0.281	0.298	0.309	0.329
Trichlorofluoromethane	0.817	0.903	0.857	0.896
1,2,4-Trichlorobenzene	0.472	0.524	0.533	0.564
1,2,4-Trimethylbenzene	2.004	2.223	2.158	2.235
Tetrachloroethene	0.268	0.331	0.323	0.345
1,2-Dichlorobenzene	1.250	1.367	1.343	1.372
1,2-Dichloroethane	0.383	0.384	0.380	0.396
1,2-Dichloropropane	0.280	0.283	0.276	0.286
1,3,5-Trimethylbenzene	1.957	2.236	2.185	2.288
1,3-Dichloropropane	0.505	0.513	0.502	0.518
1,4-Dichlorobenzene	1.310	1.404	1.357	1.411
Toluene	1.302	1.393	1.361	1.459
2-Butanone	0.155	0.153	0.140	0.145
2-Chlorotoluene	1.630	1.741	1.680	1.723
2-Hexanone	0.175	0.193	0.186	0.196
4-Chlorotoluene	1.957	2.131	2.093	2.186
tert-Butylbenzene	1.600	1.949	1.866	1.966
4-Methyl-2-Pentanone	0.260	0.279	0.275	0.287
Acetone	109289	231561	361295	519345
Benzene	1.090	1.098	1.059	1.083
Bromobenzene	0.755	0.805	0.796	0.816
Bromochloromethane	0.294	0.284	0.277	0.285
Bromodichloromethane	0.409	0.408	0.406	0.413
Bromoform	0.276	0.304	0.304	0.314
Bromomethane	208957	464431	786302	
Carbon Disulfide	1.136	1.147	1.072	1.137
Carbon Tetrachloride	0.366	0.424	0.405	0.425
Chlorobenzene	0.930	1.002	0.987	1.042
Chloroethane	169882	322237	494207	731139

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
Chloroform	0.830	0.818	0.796	0.831
Chloromethane	214824	427715	633860	908675
cis-1,2-Dichloroethene	0.516	0.508	0.488	0.510
Dibromochloromethane	0.401	0.420	0.413	0.431
Dichlorodifluoromethane	189027	442975	654875	978413
Ethylbenzene	0.442	0.494	0.472	0.502
Hexachlorobutadiene	87915	268099	433230	655226
Isopropylbenzene	1.289	1.551	1.510	1.593
m,p-Xylenes	0.565	0.650	0.634	0.674
Methylene Chloride	199728	421178	646121	946394
n-Butylbenzene	1.665	2.125	2.071	2.181
n-Propylbenzene	2.652	3.027	2.828	3.045
Naphthalene	0.682	0.703	0.703	0.749
o-Xylene	0.556	0.621	0.618	0.651
sec-Butylbenzene	2.130	2.640	2.537	2.663
Styrene	0.978	1.102	1.092	1.152
Vinyl Chloride	0.550	0.558	0.537	0.564
1,2,3-Trichloropropane	0.581	0.580	0.556	0.570
p-Isopropyltoluene	1.968	2.363	2.285	2.392
1,2-Dibromo-3-Chloropropane	26546	62281	97075	144783
1,2-Dichloroethane-d4	202707	450261	696836	998694
Dibromofluoromethane	198305	469782	715769	1043408
Toluene-d8	1.035	1.206	1.127	1.195
4-Bromofluorobenzene	243279	606080	931244	1352939

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
cis-1,3-Dichloropropene	AVRG		0.50650854		6.388	15.000
trans-1,3-Dichloropropene	AVRG		0.43694869		4.647	15.000
1,3-Dichlorobenzene	AVRG		1.41029902		8.507	15.000
2,2-Dichloropropane	AVRG		0.68406039		7.525	15.000
1,1-Dichloropropene	AVRG		0.38294444		8.481	15.000
Dibromomethane	AVRG		0.22118034		7.360	15.000
1,2-Dibromoethane	AVRG		0.36812214		7.741	15.000
trans-1,2-Dichloroethene	AVRG		0.46686379		8.551	15.000
1,1,1,2-Tetrachloroethane	AVRG		0.36976577		6.936	15.000
1,1,1-Trichloroethane	AVRG		0.73890640		8.017	15.000
1,1,2,2-Tetrachloroethane	LINR	-2.39e-002	1.48234879		0.9995765	0.9900000
1,1,2-Trichloroethane	AVRG		0.27085272		6.305	15.000
1,1-Dichloroethane	AVRG		0.79045824		9.700	15.000
1,1-Dichloroethene	AVRG		0.51503132		6.878	15.000
Trichloroethene	AVRG		0.34316996		7.076	15.000
1,2,3-Trichlorobenzene	AVRG		0.30268951		6.244	15.000
Trichlorofluoromethane	AVRG		0.90253943		8.713	15.000
1,2,4-Trichlorobenzene	AVRG		0.49434198		7.710	15.000
1,2,4-Trimethylbenzene	AVRG		2.28052238		10.202	15.000
Tetrachloroethene	AVRG		0.30780299		9.261	15.000
1,2-Dichlorobenzene	AVRG		1.35618432		6.087	15.000
1,2-Dichloroethane	AVRG		0.39838777		6.393	15.000
1,2-Dichloropropane	AVRG		0.29431649		7.228	15.000
1,3,5-Trimethylbenzene	AVRG		2.26957979		10.449	15.000
1,3-Dichloropropane	AVRG		0.53857857		8.492	15.000
1,4-Dichlorobenzene	AVRG		1.47165689		9.862	15.000
Toluene	AVRG		1.45969768		10.489	15.000
2-Butanone	AVRG		0.15212279		6.497	15.000
2-Chlorotoluene	AVRG		1.87147769		10.382	15.000
2-Hexanone	AVRG		0.18573488		7.212	15.000
4-Chlorotoluene	AVRG		2.22871518		9.348	15.000
tert-Butylbenzene	AVRG		1.94574941		10.438	15.000
4-Methyl-2-Pentanone	AVRG		0.28792795		8.880	15.000
Acetone	LINR	-0.1192488	8.29690774		0.9998328	0.9900000
Benzene	AVRG		1.14864603		7.713	15.000
Bromobenzene	AVRG		0.82956540		5.737	15.000
Bromochloromethane	AVRG		0.30233090		6.875	15.000
Bromodichloromethane	AVRG		0.42984419		5.798	15.000
Bromoform	AVRG		0.27881115		8.919	15.000
Bromomethane	LINR	3.056e-003	1.93039335		0.9986047	0.9900000
Carbon Disulfide	AVRG		1.22136627		12.937	15.000
Carbon Tetrachloride	AVRG		0.41448436		6.639	15.000
Chlorobenzene	AVRG		1.04086521		12.054	15.000
Chloroethane	LINR	-2.83e-002	2.93277028		0.9979846	0.9900000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Chloroform	AVRG		0.87928016		9.604	15.000
Chloromethane	LINR	-5.49e-002	2.33480241		0.9978695	0.9900000
cis-1,2-Dichloroethene	AVRG		0.52406781		8.954	15.000
Dibromochloromethane	AVRG		0.41152986		7.456	15.000
Dichlorodifluoromethane	LINR	-4.2e-003	2.18637335		0.9985940	0.9900000
Ethylbenzene	AVRG		0.48019388		5.533	15.000
Hexachlorobutadiene	2ORDR	1.978e-002	3.30529341	-0.4157995	0.9978942	0.9900000
Isopropylbenzene	AVRG		1.46719468		11.350	15.000
m,p-Xylenes	AVRG		0.62598444		9.328	15.000
Methylene Chloride	LINR	-2.66e-002	2.26403519		0.9993950	0.9900000
n-Butylbenzene	AVRG		1.94513549		9.549	15.000
n-Propylbenzene	AVRG		3.11891495		11.698	15.000
Naphthalene	AVRG		0.71451827		3.699	15.000
o-Xylene	AVRG		0.61039840		7.858	15.000
sec-Butylbenzene	AVRG		2.62550633		12.857	15.000
Styrene	AVRG		1.01998348		9.987	15.000
Vinyl Chloride	AVRG		0.59185680		13.042	15.000
1,2,3-Trichloropropane	AVRG		0.62337735		9.428	15.000
p-Isopropyltoluene	AVRG		2.31190973		11.883	15.000
1,2-Dibromo-3-Chloropropane	LINR	1.025e-002	12.4779790		0.9993248	0.9900000
1,2-Dichloroethane-d4	LINR	-1.39e-002	2.12273607		0.9998254	0.9900000
Dibromofluoromethane	LINR	-3.3e-003	2.03856572		0.9993599	0.9900000
Toluene-d8	AVRG		1.24546498		14.000	15.000
4-Bromofluorobenzene	LINR	1.501e-002	2.24316621		0.9989319	0.9900000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

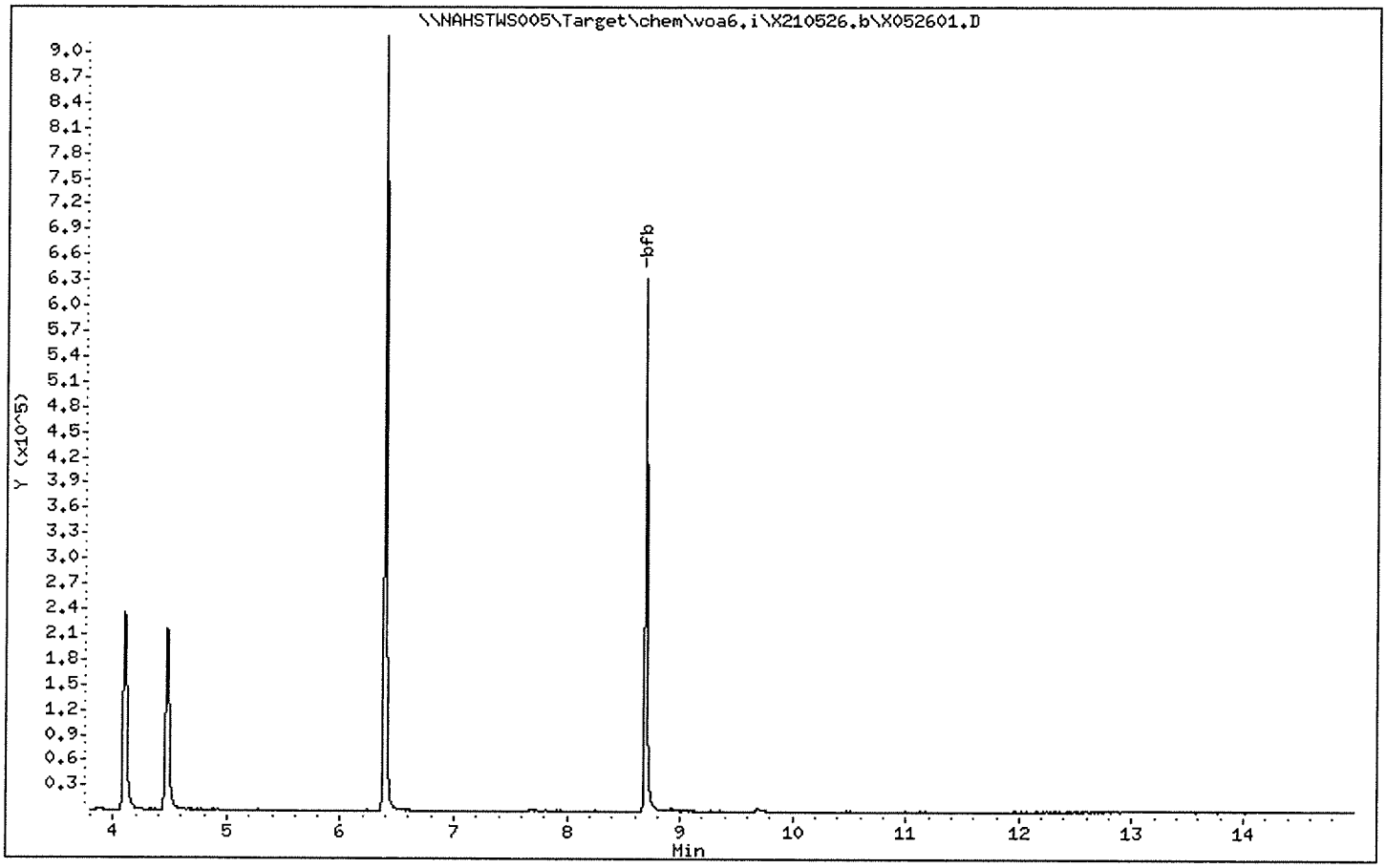
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

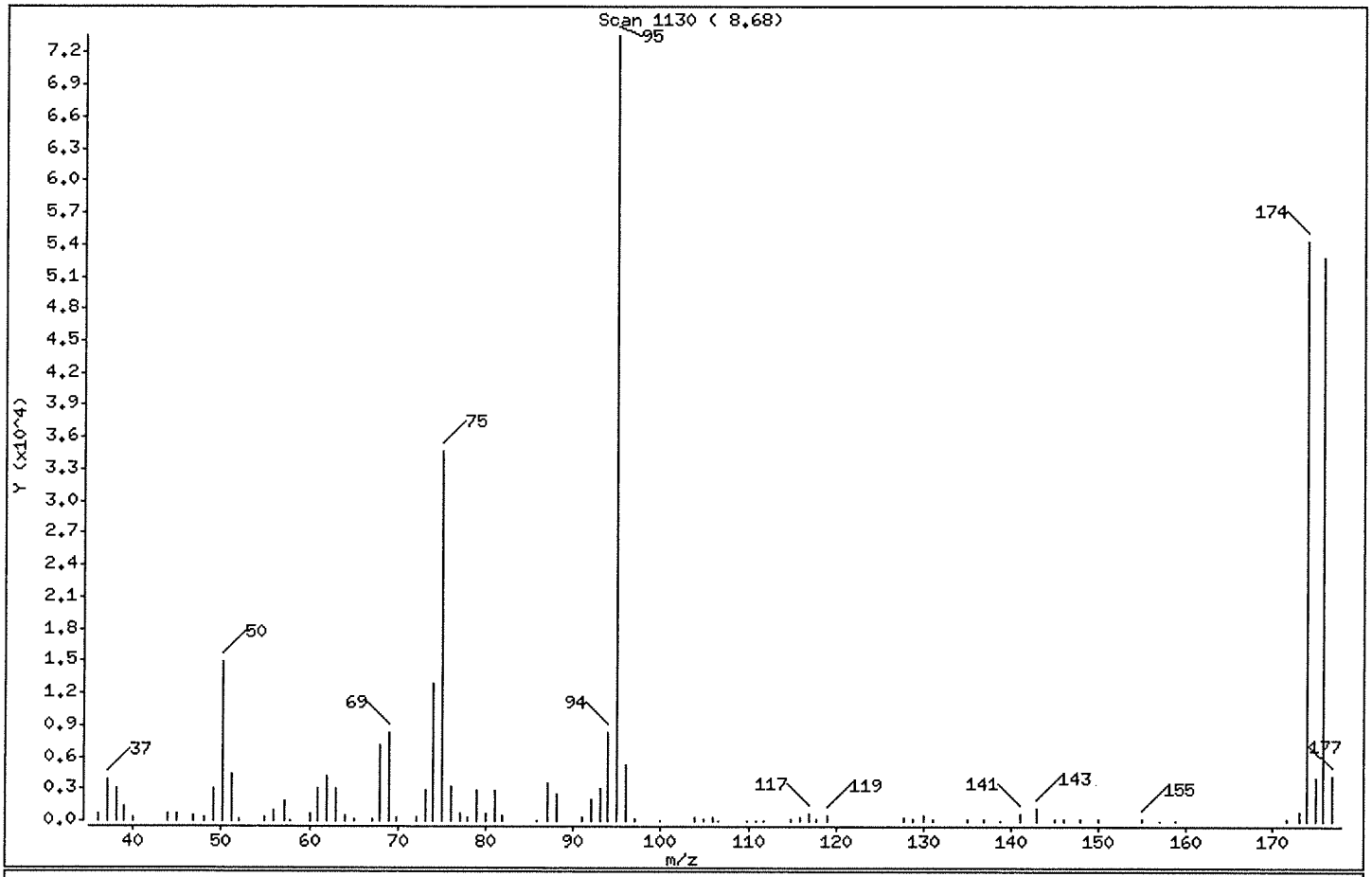
Volume Injected (uL): 2.0

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	20.27
75	30.00 - 60.00% of mass 95	47.11
96	5.00 - 9.00% of mass 95	7.09
173	Less than 2.00% of mass 174	1.21 (1.65)
174	Greater than 50.00% of mass 95	73.71
175	5.00 - 9.00% of mass 174	5.53 (7.50)
176	95.00 - 101.00% of mass 174	71.72 (97.30)
177	5.00 - 9.00% of mass 176	5.80 (8.08)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

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: X052601.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	701	64.00	450	92.00	1948	129.90	446
37.10	3860	65.10	94	93.00	3086	131.00	138
38.10	2991	67.10	200	94.00	8371	134.90	242
39.00	1380	68.00	7129	95.00	73600	136.80	249
40.00	299	69.00	8375	96.00	5216	138.80	68
44.00	654	69.90	378	97.00	210	141.00	700
45.00	741	72.10	268	99.90	64	142.90	1171
46.90	575	73.10	2836	103.90	279	144.90	108
48.00	378	74.00	12821	104.90	92	145.90	193
49.00	3035	75.00	34672	106.00	316	147.90	184
50.10	14921	76.00	3178	106.60	79	149.80	96
51.10	4354	77.00	694	109.80	50	154.80	188
52.00	245	78.00	394	111.00	55	157.00	80
54.90	255	78.90	2868	111.80	65	158.80	78
56.00	937	80.00	698	114.90	144	171.70	159
57.10	1853	81.00	2937	115.90	277	173.10	893
57.90	83	81.90	478	117.00	604	173.90	54248
60.00	725	85.90	55	117.80	207	175.00	4070
61.00	3025	87.00	3593	119.00	429	175.90	52784
62.00	4311	88.00	2599	127.80	262	176.90	4266
63.00	3050	90.90	275	128.70	107		

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 26-MAY-2021 12:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 16:04 Cal File: X052611.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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	4.182	4.182	(1.000)	426285	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	674139	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	610874	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290894	50.0000	
$	30 Dibromofluoromethane	113	4.110	4.110	(0.983)	1296	0.25000	0.14(a)
$	35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	1637	0.25000	(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	5966	0.25000	0.39(Ta)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	3329	0.25000	1.36(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	990	0.25000	0.21(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	1336	0.25000	0.21(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	1214	0.25000	(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	753	0.25000	0.22(a)
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	2164	0.25000	0.32(Ta)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	1029	0.25000	0.23(aM)
	32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	1659	0.25000	0.32(a)
	93 1,2,3-Trichlorobenzene	180	11.768	11.768	(1.218)	157	0.25000	0.08(aM)
	71 1,2,3-Trichloropropane	75	8.874	8.874	(0.918)	805	0.25000	0.22(a)
	90 1,2,4-Trichlorobenzene	180	11.381	11.381	(1.178)	419	0.25000	0.14(aM)
	79 1,2,4-Trimethylbenzene	105	9.390	9.390	(0.972)	3370	0.25000	0.25(a)
	57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	996	0.25000	0.22(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	1981	0.25000	0.25(a)
	33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	1320	0.25000	0.24(a)

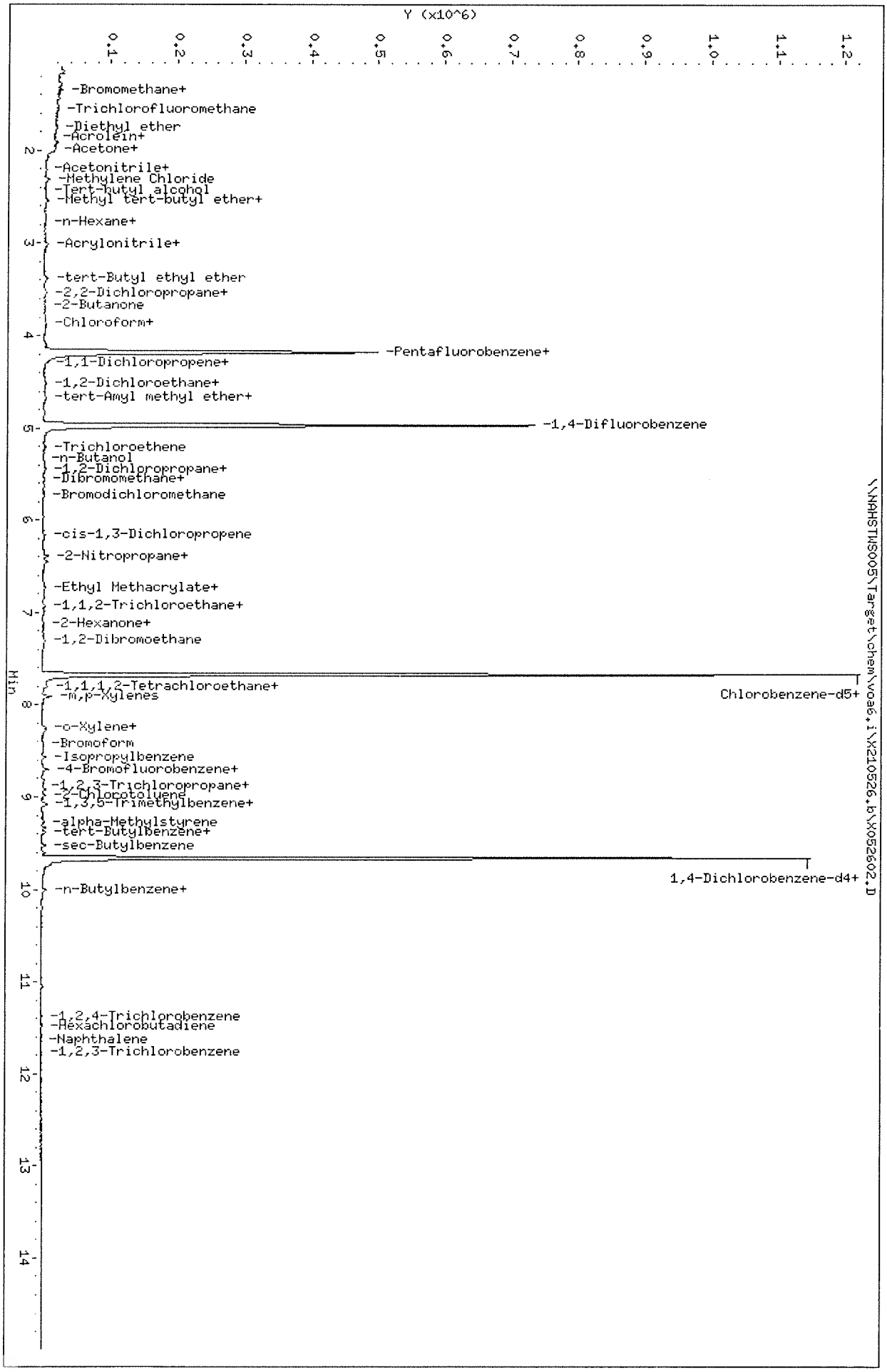
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	942	0.25000	0.23(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	3546	0.25000	0.26(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	2271	0.25000	0.27(a)
54	1,3-Dichloropropane	76	6.990	6.990	(0.911)	1601	0.25000	0.24(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2474	0.25000	0.28(a)
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	1764	0.25000	0.30(aM)
24	2-Butanone	43	3.638	3.638	(0.870)	822	0.50000	0.63(aM)
76	2-Chlorotoluene	91	8.981	8.981	(0.930)	3256	0.25000	0.29(a)
52	2-Hexanone	43	7.119	7.119	(0.928)	1338	0.50000	0.58(a)
77	4-Chlorotoluene	91	9.082	9.082	(0.940)	3012	0.25000	0.23(a)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	3422	0.25000	0.25(a)
45	4-Methyl-2-Pentanone	43	6.345	6.345	(0.827)	1681	0.50000	0.47(aM)
10	Acetone	43	1.983	1.983	(0.474)	4618	0.50000	(a)
37	Benzene	78	4.519	4.519	(0.909)	4046	0.25000	0.26(a)
74	Bromobenzene	156	8.817	8.817	(0.913)	1145	0.25000	0.23(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	767	0.25000	0.29(a)
39	Bromodichloromethane	83	5.736	5.736	(1.154)	1481	0.25000	0.25(aM)
66	Bromoform	173	8.415	8.415	(1.097)	607	0.25000	0.17(aM)
6	Bromomethane	94	1.345	1.345	(0.322)	1260	0.25000	0.43(aM)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	5419	0.50000	0.52(a)
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	1221	0.25000	0.21(aM)
59	Chlorobenzene	112	7.692	7.692	(1.003)	3251	0.25000	0.25(a)
7	Chloroethane	64	1.403	1.403	(0.336)	1049	0.25000	(aM)
28	Chloroform	83	3.910	3.910	(0.935)	1985	0.25000	0.26(a)
3	Chloromethane	50	1.080	1.080	(0.258)	1611	0.25000	(aM)
27	cis-1,2-Dichloroethene	96	3.545	3.545	(0.848)	1299	0.25000	0.29(aM)
46	cis-1,3-Dichloropropene	75	6.166	6.166	(1.241)	1589	0.25000	0.23(a)
55	Dibromochloromethane	129	7.183	7.183	(0.937)	1077	0.25000	0.21(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	652	0.25000	0.21(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	693	0.25000	(aM)
61	Ethylbenzene	106	7.807	7.807	(1.018)	1393	0.25000	0.23(a)
91	Hexachlorobutadiene	225	11.488	11.488	(1.189)	410	0.25000	1.22(aM)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	3777	0.25000	0.21(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	4222	0.50000	0.55(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	2986	0.25000	(aM)
87	n-Butylbenzene	91	10.006	10.006	(1.036)	1824	0.25000	0.16(a)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	4411	0.25000	0.24(a)
92	Naphthalene	128	11.632	11.632	(1.204)	659	0.25000	0.15(a)
63	o-Xylene	106	8.258	8.258	(1.077)	1806	0.25000	0.24(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	3696	0.25000	0.24(a)
64	Styrene	104	8.272	8.272	(1.078)	1997	0.25000	0.16(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	2503	0.25000	0.22(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	834	0.25000	0.22(a)
50	Toluene	91	6.453	6.453	(0.841)	5337	0.25000	0.29(aM)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	1028	0.25000	0.25(a)
51	trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	1582	0.25000	0.26(a)
38	Trichloroethene	130	5.214	5.214	(1.049)	1200	0.25000	0.25(aM)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1786	0.25000	0.23(a)
5	Vinyl Chloride	62	1.138	1.138	(0.272)	1365	0.25000	0.27(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D
Date : 26-MAY-2021 12:34
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

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 26-MAY-2021 12:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 12:34 Cal File: X052602.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

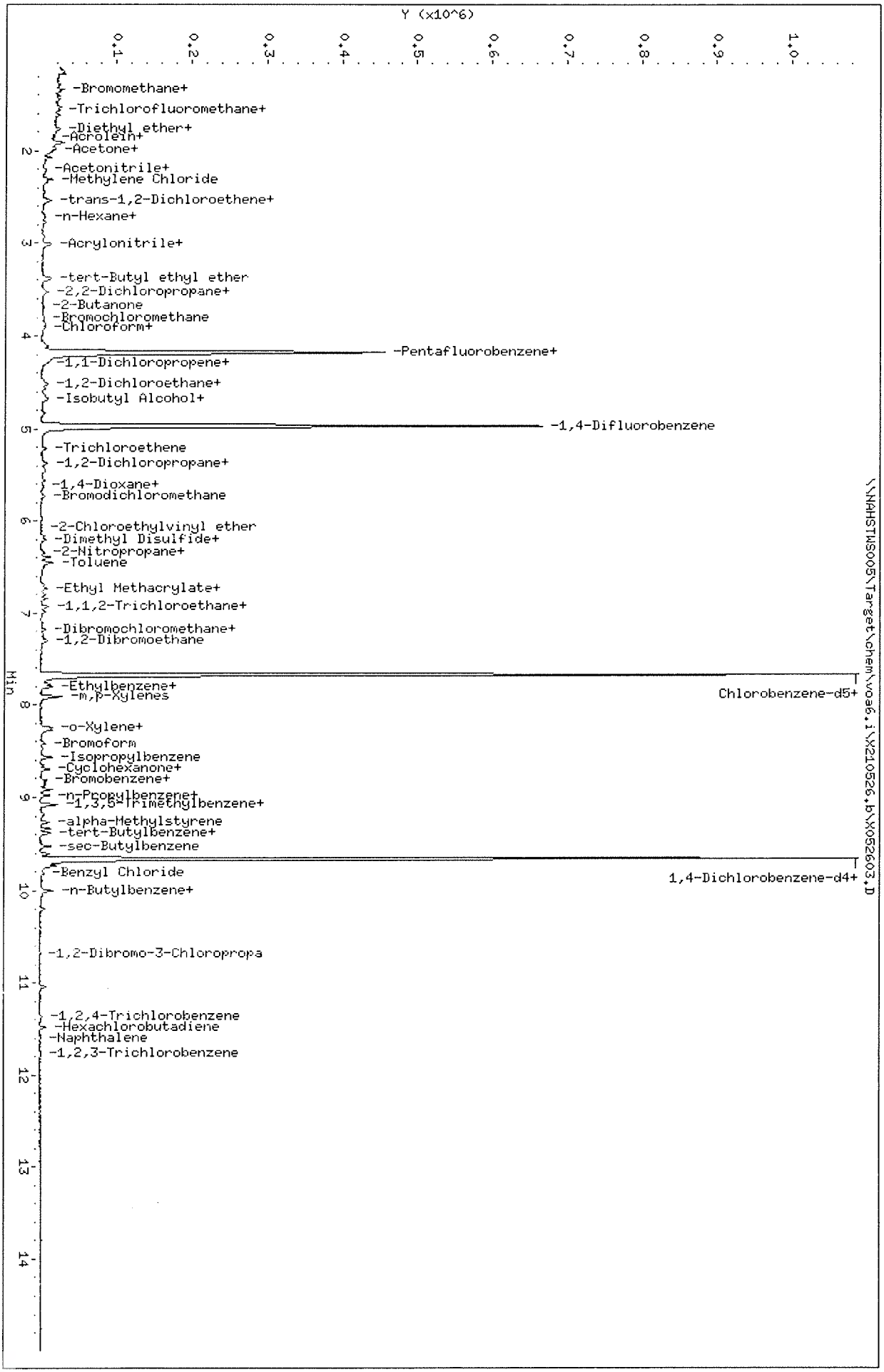
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	388108	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	614574	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	542822	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263849	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2388	0.50000	0.46(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	2577	0.50000	0.01(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	8531	0.50000	0.63(a)
$	69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	3467	0.50000	1.46(aM)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	2329	0.50000	0.58(aM)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	3372	0.50000	0.58(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	2582	0.50000	(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1564	0.50000	0.53(a)
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	3660	0.50000	0.59(TaM)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	2187	0.50000	0.54(aM)
	32 1,1-Dichloropropene	75	4.289	4.289	(0.863)	2646	0.50000	0.56(aM)
	93 1,2,3-Trichlorobenzene	180	11.761	11.761	(1.217)	747	0.50000	0.46(aM)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	1963	0.50000	0.59(aM)
	90 1,2,4-Trichlorobenzene	180	11.374	11.374	(1.177)	1242	0.50000	0.47(aM)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	7401	0.50000	0.61(aM)
	89 1,2-Dibromo-3-Chloropropane	155	10.686	10.686	(1.106)	75	0.50000	0.68(aM)
	57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	2378	0.50000	0.59(a)
	88 1,2-Dichlorobenzene	146	10.006	10.006	(1.036)	4037	0.50000	0.56(aM)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	2812	0.50000	0.57(a)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	2095	0.50000	0.57(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	7408	0.50000	0.61(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	4429	0.50000	0.59(a)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	3475	0.50000	0.59(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	4661	0.50000	0.60(aM)
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	2828	0.50000	0.53(aM)
24	2-Butanone	43	3.623	3.623	(0.866)	1364	1.00000	1.15(aH)
76	2-Chlorotoluene	91	8.981	8.981	(0.930)	5500	0.50000	0.55(aM)
52	2-Hexanone	43	7.105	7.105	(0.926)	2198	1.00000	1.09(aM)
77	4-Chlorotoluene	91	9.074	9.074	(0.939)	6909	0.50000	0.58(aM)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	7659	0.50000	0.62(a)
45	4-Methyl-2-Pentanone	43	6.338	6.338	(0.826)	3675	1.00000	1.17(a)
10	Acetone	43	1.983	1.983	(0.474)	5938	1.00000	0.38(a)
37	Benzene	78	4.519	4.519	(0.909)	8273	0.50000	0.58(aM)
74	Bromobenzene	156	8.817	8.817	(0.913)	2394	0.50000	0.54(a)
29	Bromochloromethane	128	3.810	3.810	(0.911)	1259	0.50000	0.53(a)
39	Bromodichloromethane	83	5.729	5.729	(1.153)	2938	0.50000	0.55(aM)
66	Bromoform	173	8.415	8.415	(1.097)	1467	0.50000	0.48(aM)
6	Bromomethane	94	1.338	1.338	(0.320)	2714	0.50000	0.82(aM)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	12392	1.00000	1.30(a)
34	Carbon Tetrachloride	117	4.261	4.261	(0.857)	2781	0.50000	0.54(aH)
59	Chlorobenzene	112	7.699	7.699	(1.004)	7385	0.50000	0.65(a)
7	Chloroethane	64	1.410	1.410	(0.337)	1981	0.50000	(aM)
28	Chloroform	83	3.910	3.910	(0.935)	4079	0.50000	0.59(a)
3	Chloromethane	50	1.080	1.080	(0.258)	2318	0.50000	(aM)
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1686	0.50000	0.41(aM)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	3459	0.50000	0.55(aM)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	2590	0.50000	0.57(a)
44	Dibromomethane	93	5.565	5.565	(1.120)	1521	0.50000	0.55(aM)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	2066	0.50000	0.37(aM)
61	Ethylbenzene	106	7.807	7.807	(1.018)	2880	0.50000	0.55(a)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	1178	0.50000	1.72(aM)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	9741	0.50000	0.61(aM)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	8123	1.00000	1.19(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	3718	0.50000	(a)
87	n-Butylbenzene	91	9.998	9.998	(1.035)	5510	0.50000	0.53(aM)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	10083	0.50000	0.61(aM)
92	Naphthalene	128	11.603	11.603	(1.201)	1931	0.50000	0.51(a)
63	o-Xylene	106	8.243	8.243	(1.075)	3864	0.50000	0.58(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	8852	0.50000	0.63(aM)
64	Styrene	104	8.272	8.272	(1.078)	6206	0.50000	0.56(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	6141	0.50000	0.59(aM)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	1845	0.50000	0.55(aM)
50	Toluene	91	6.453	6.453	(0.841)	9870	0.50000	0.62(aM)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	2156	0.50000	0.59(a)
51	trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	2821	0.50000	0.52(a)
38	Trichloroethene	130	5.206	5.206	(1.048)	2475	0.50000	0.58(a)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	3764	0.50000	0.53(a)
5	Vinyl Chloride	62	1.138	1.138	(0.272)	1895	0.50000	0.41(aM)

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.



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Date : 26-MAY-2021 12:55
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

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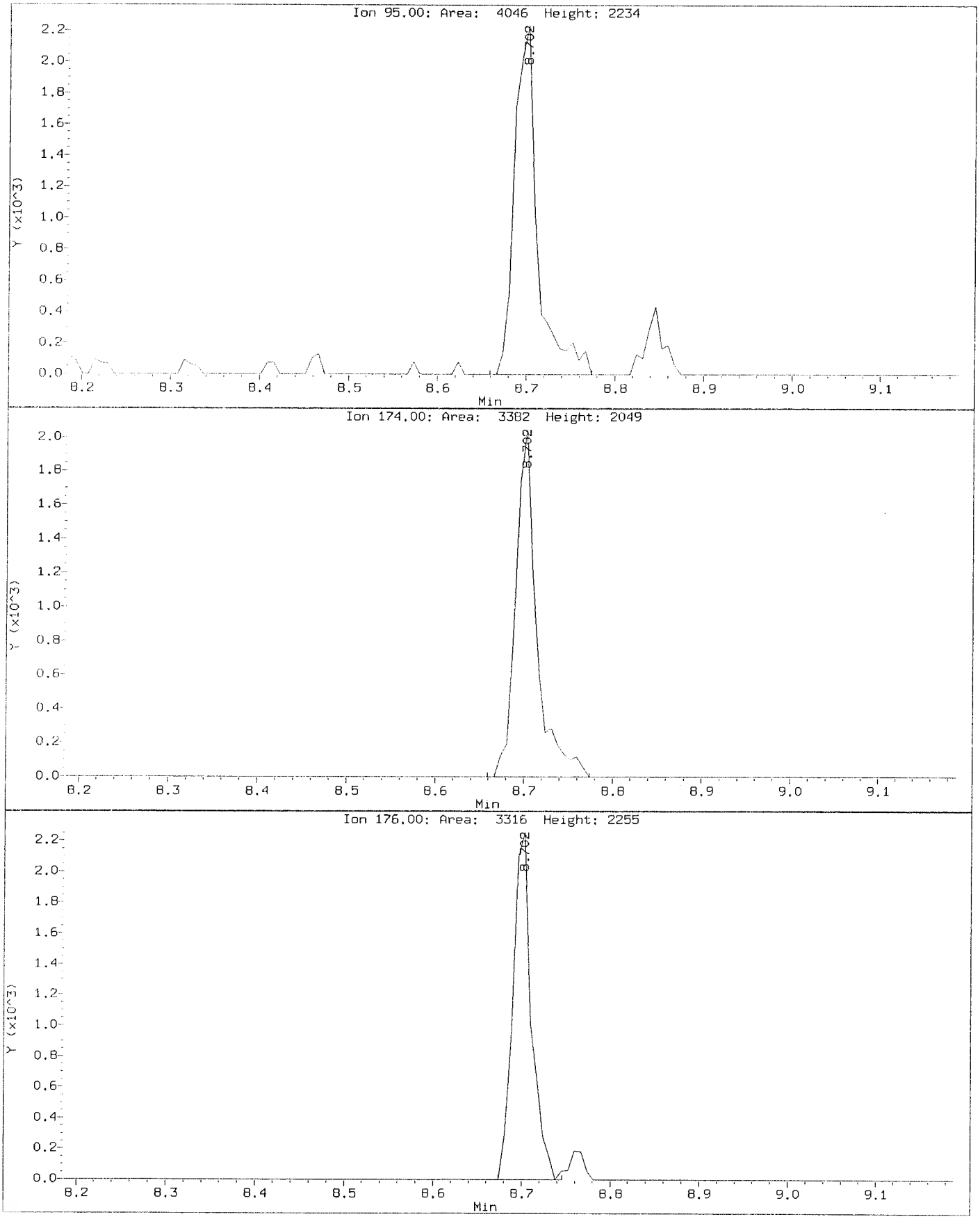
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 4-Bromofluorobenzene
CAS Number: 460-00-4



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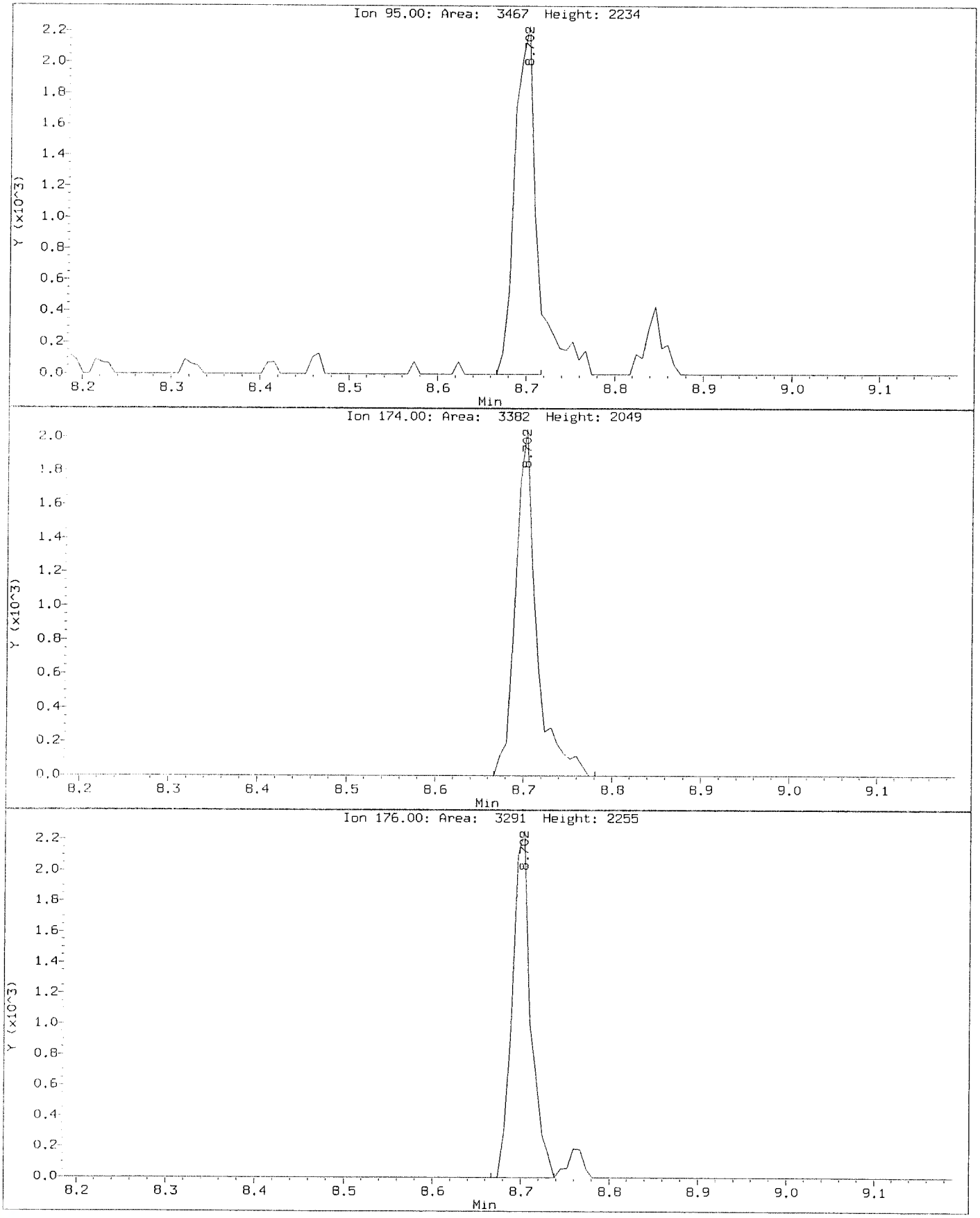
Client Sample ID: VSTD000.5

Compound: 4-Bromofluorobenzene
CAS Number: 460-00-4



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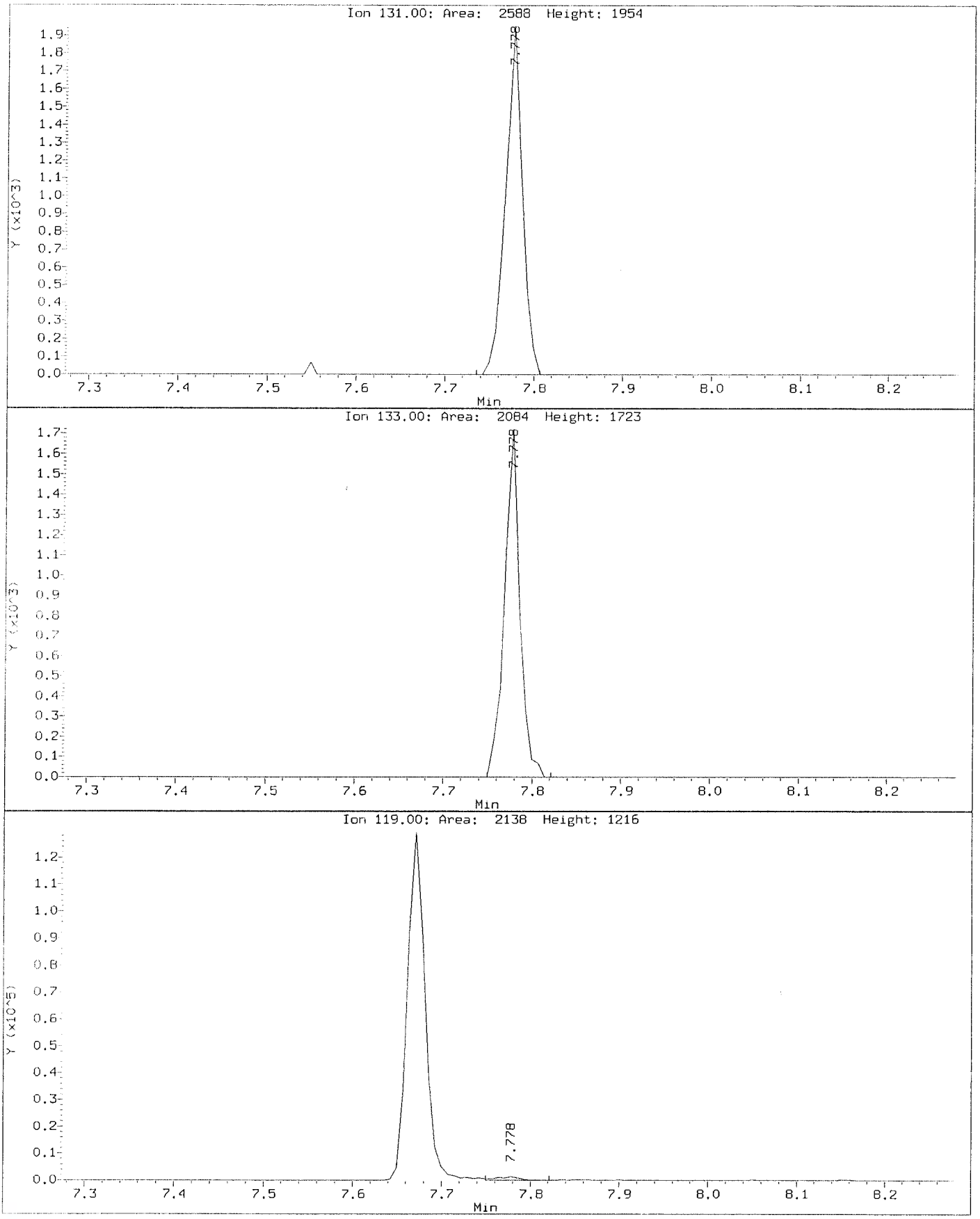
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,1,2-Tetrachloroethane
CAS Number: 630-20-6



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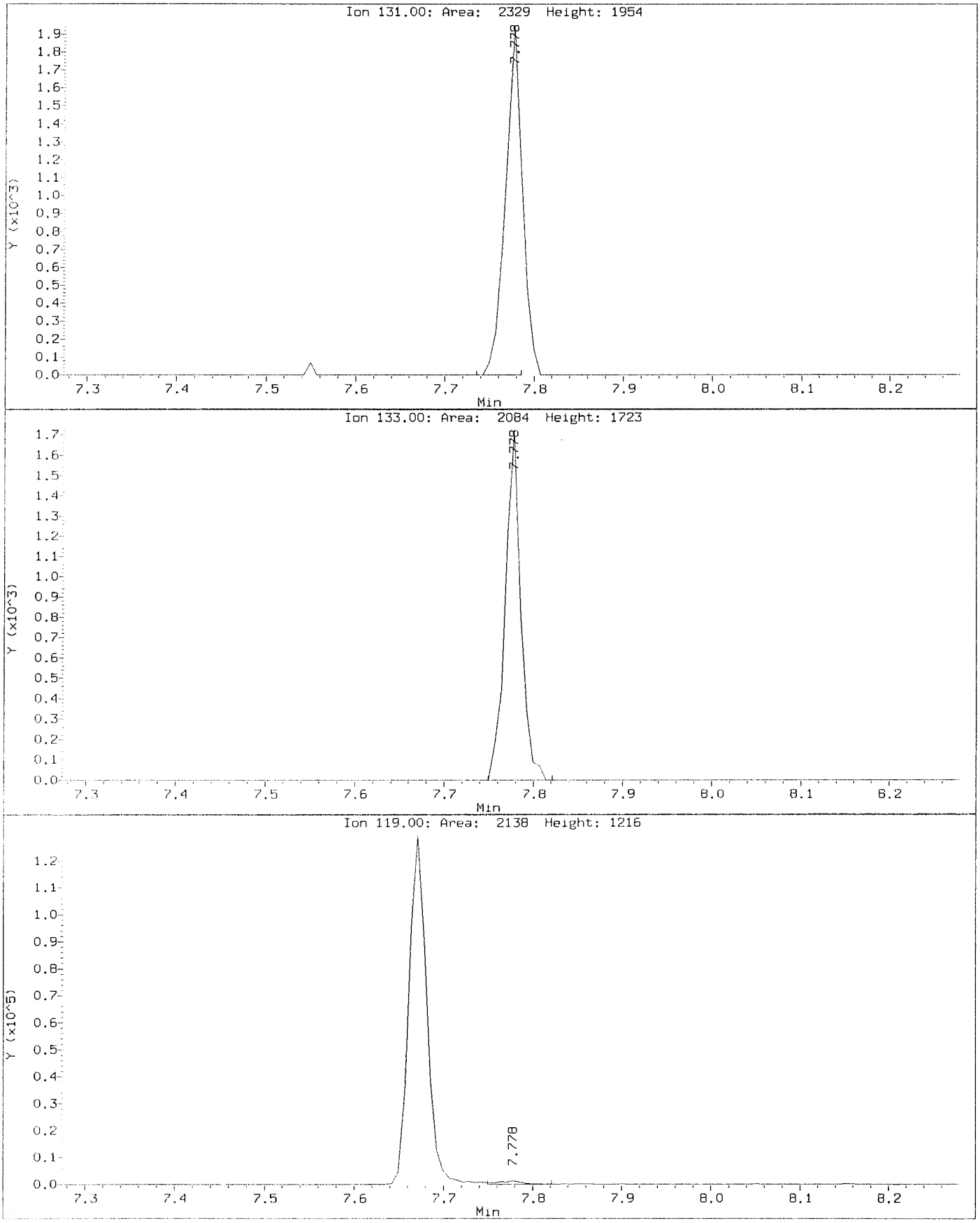
Client Sample ID: VSTD000.5

Compound: 1,1,1,2-Tetrachloroethane
CAS Number: 630-20-6



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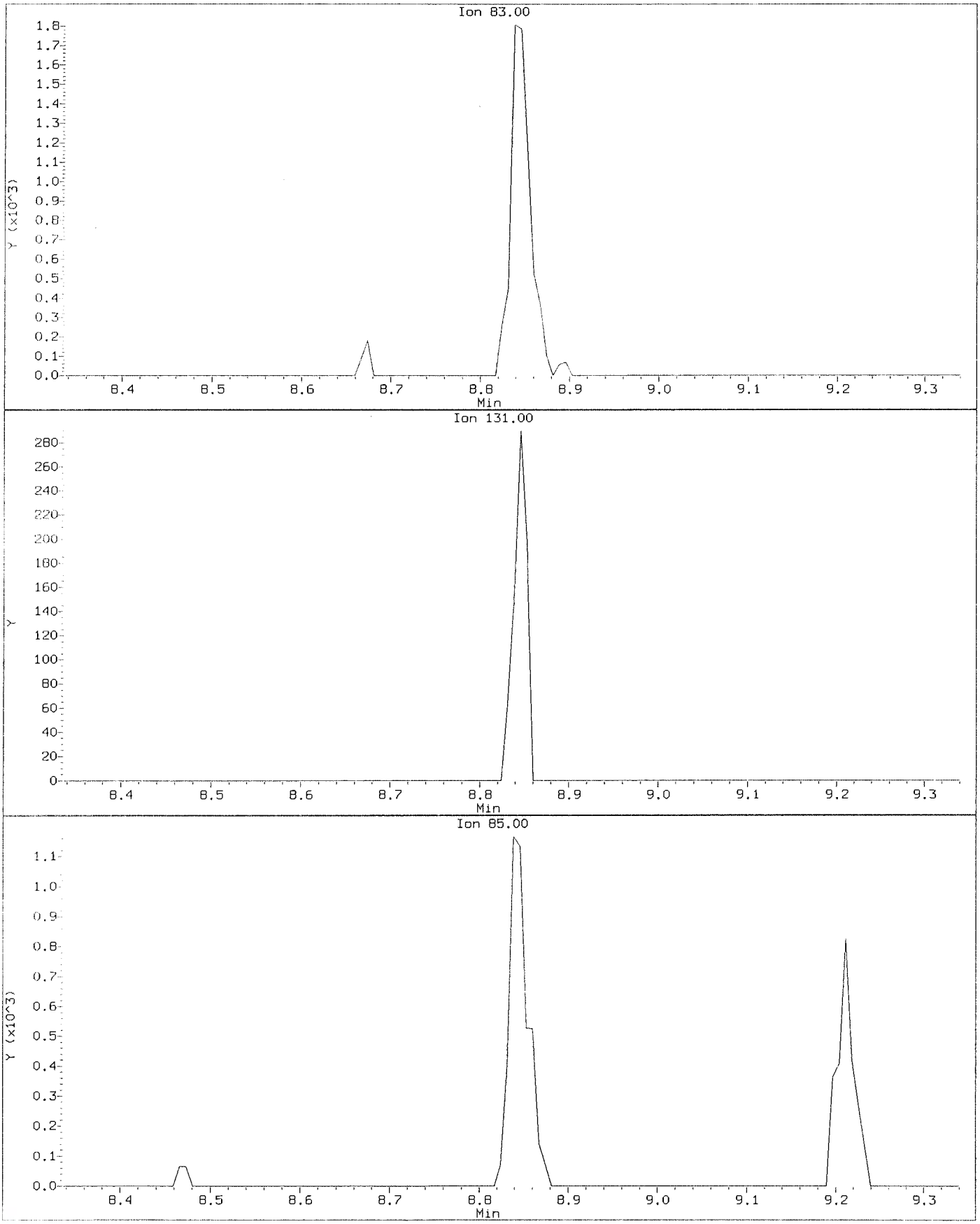
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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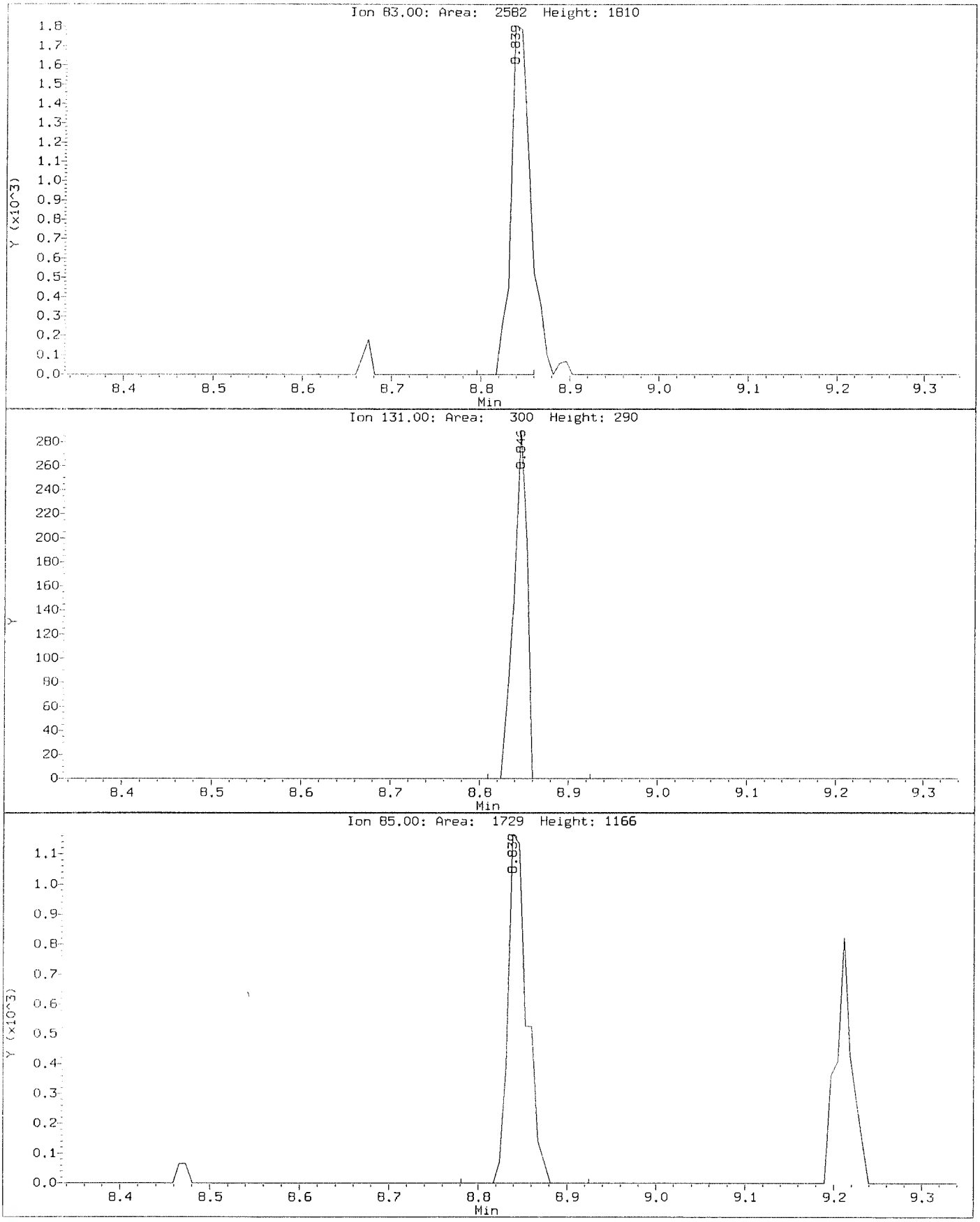
Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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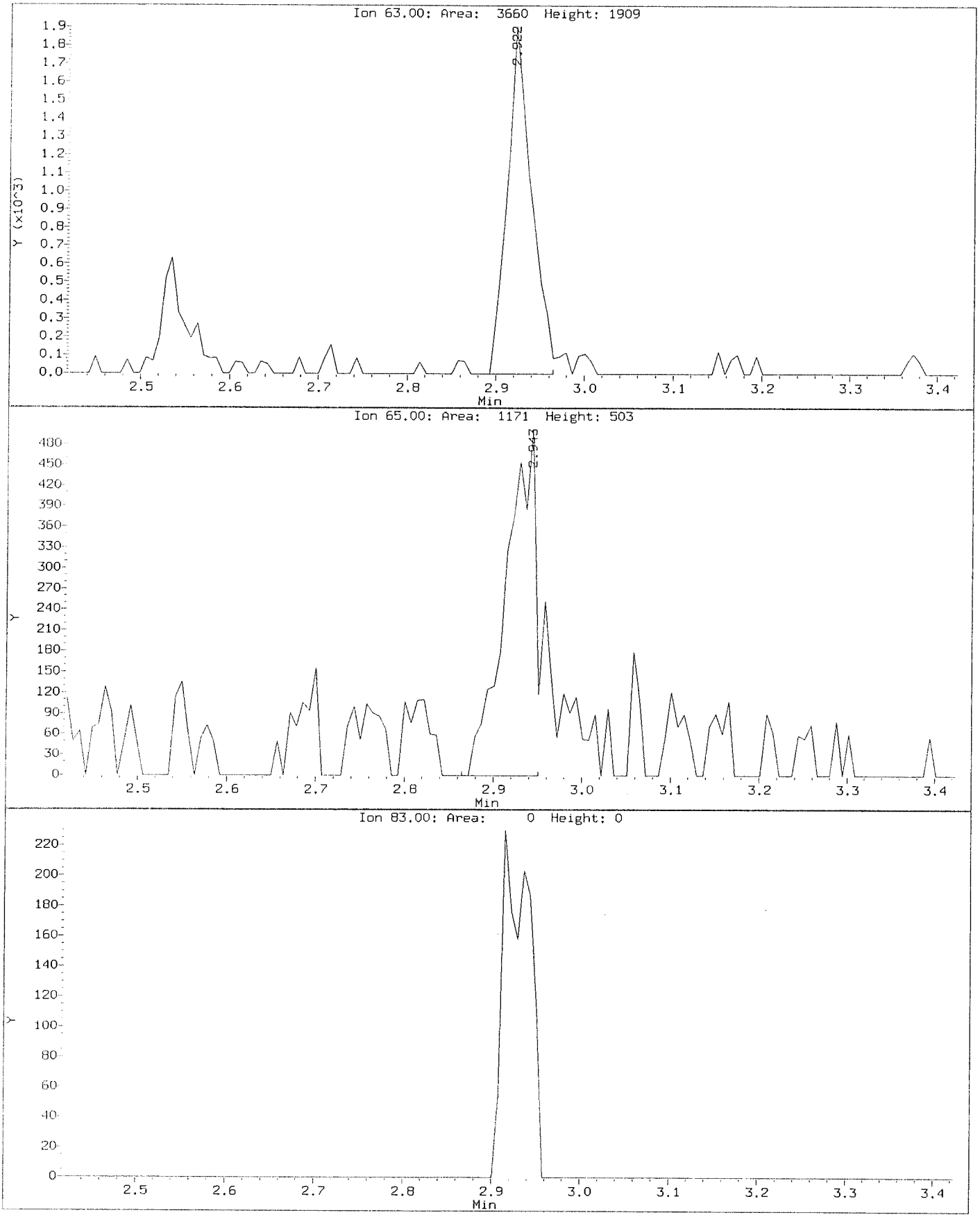
Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



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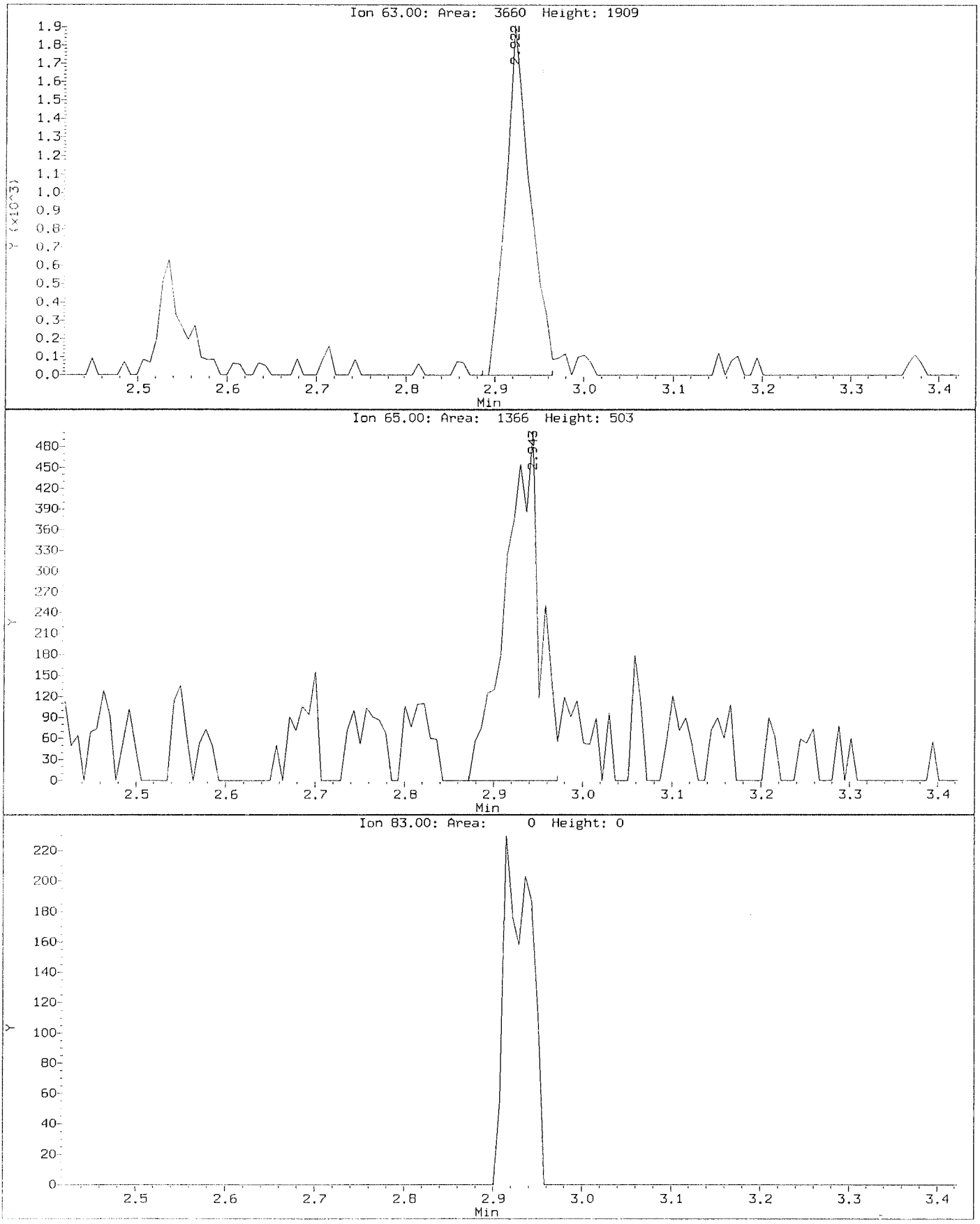
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



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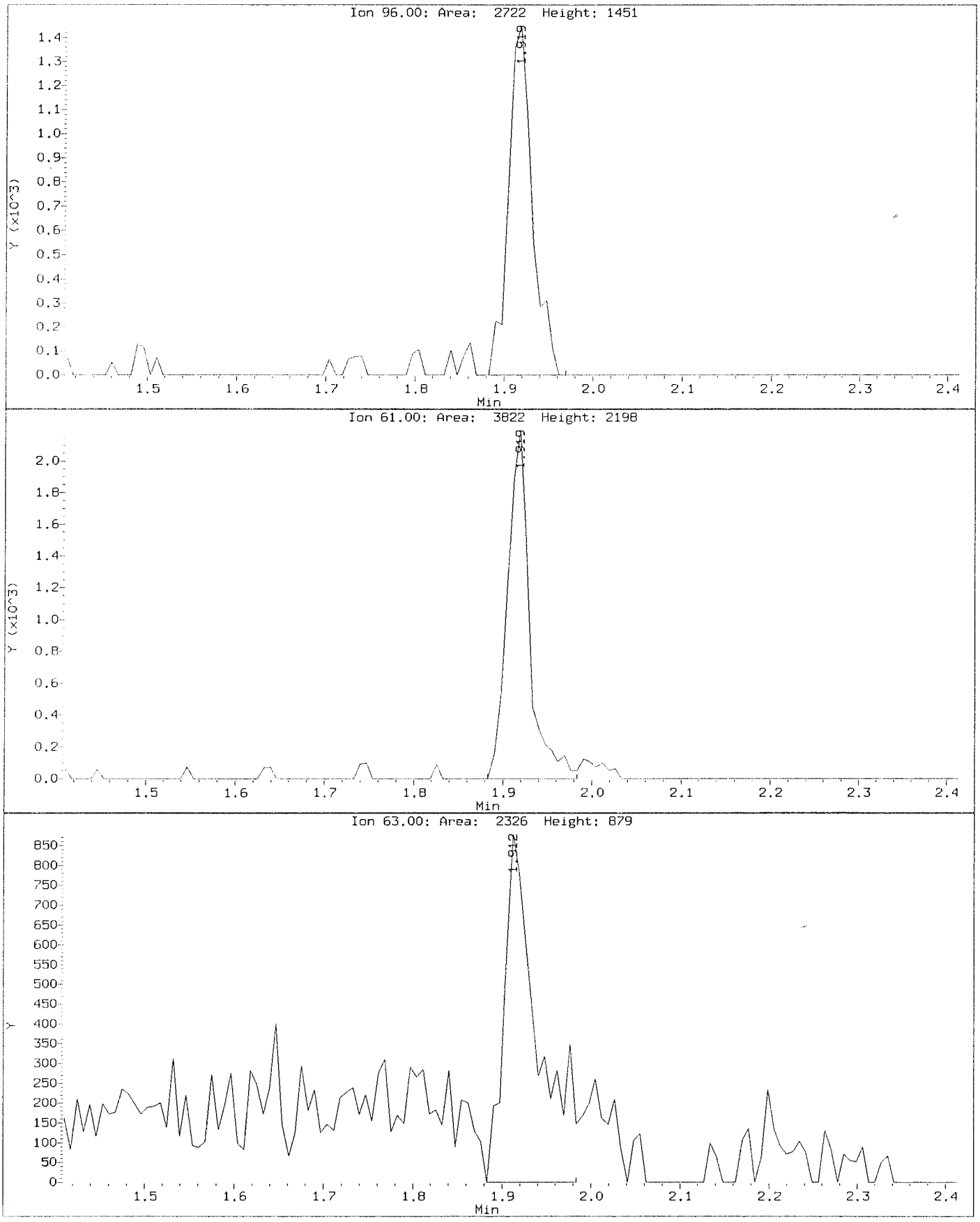
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



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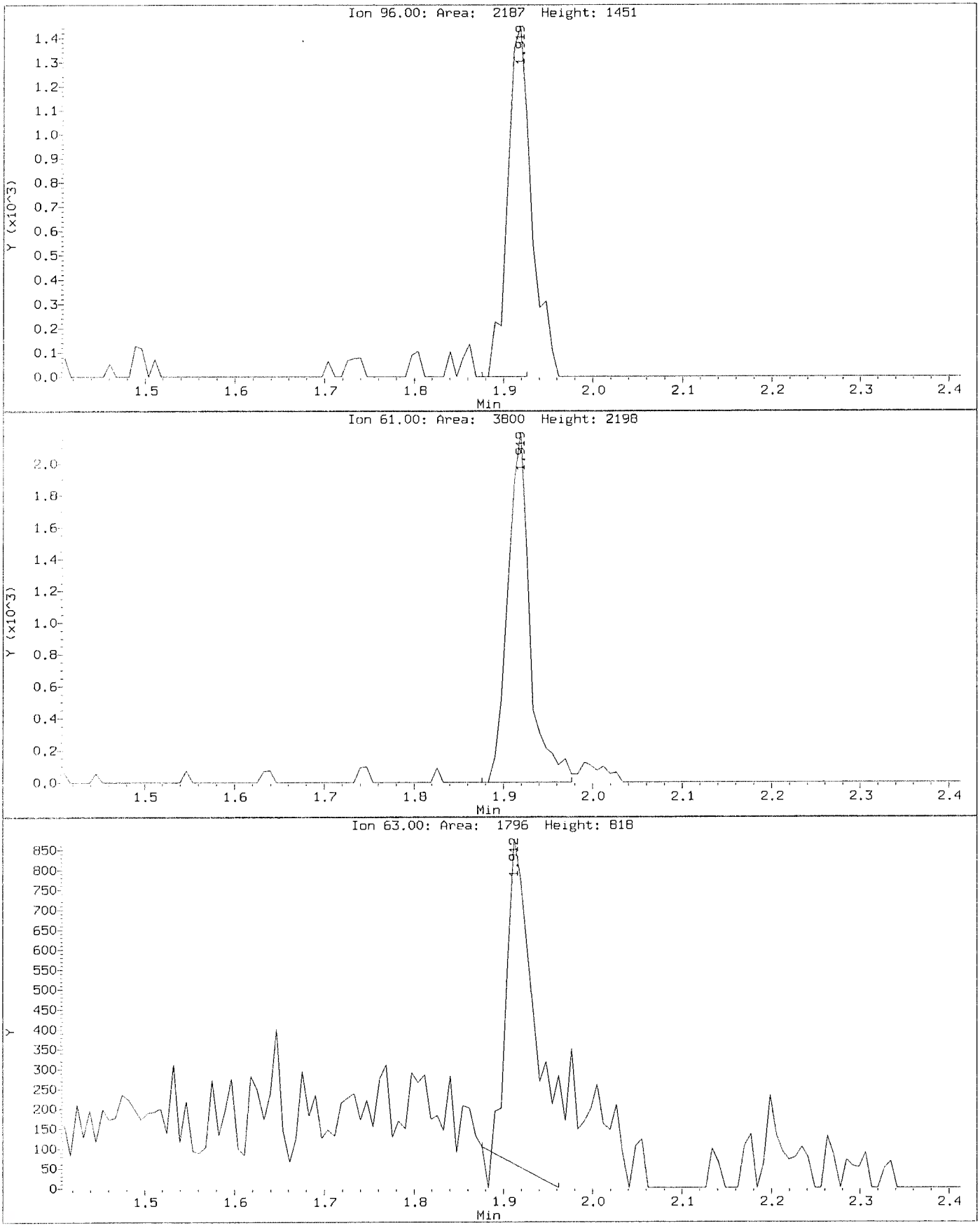
Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



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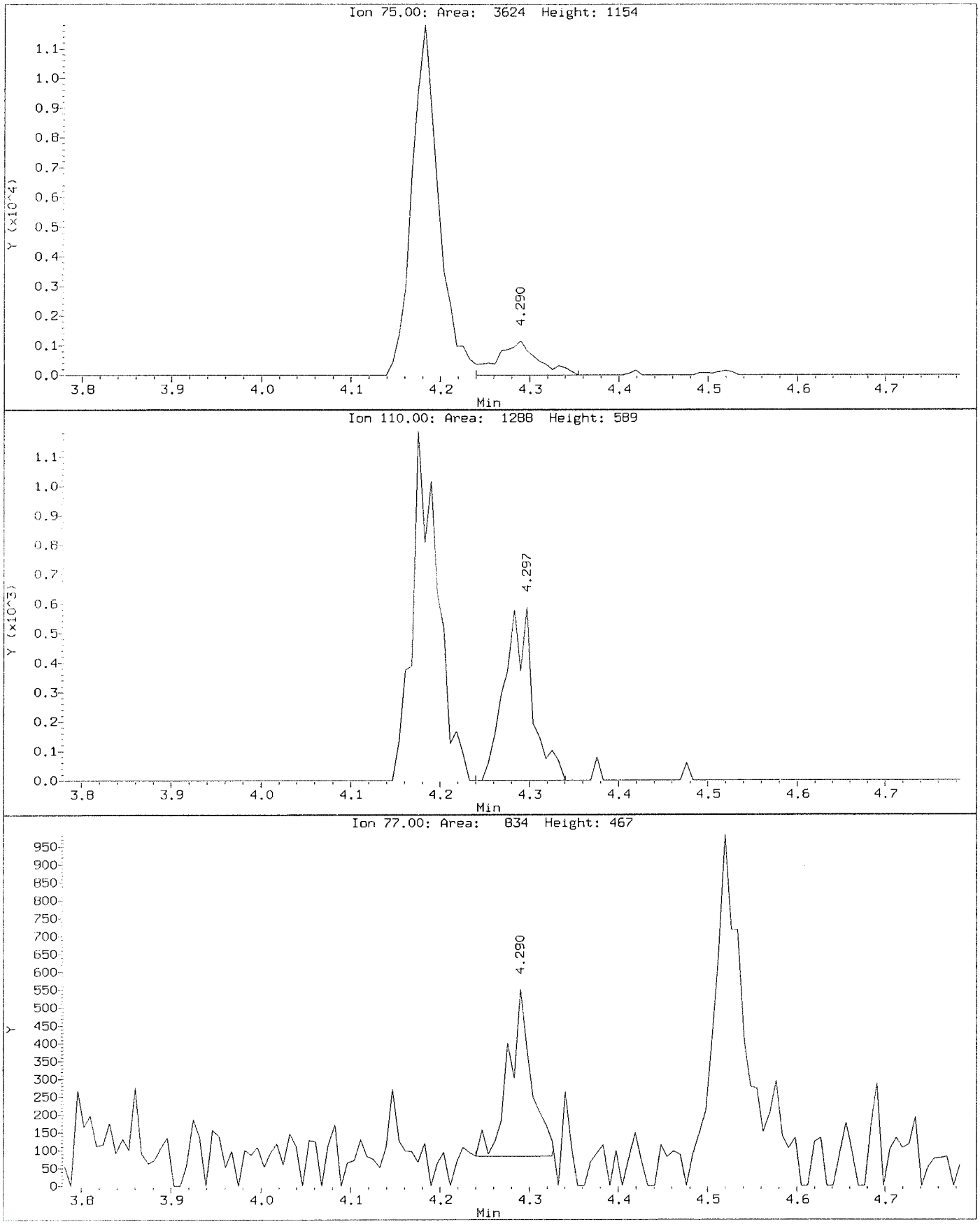
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloropropene
CAS Number: 563-58-6



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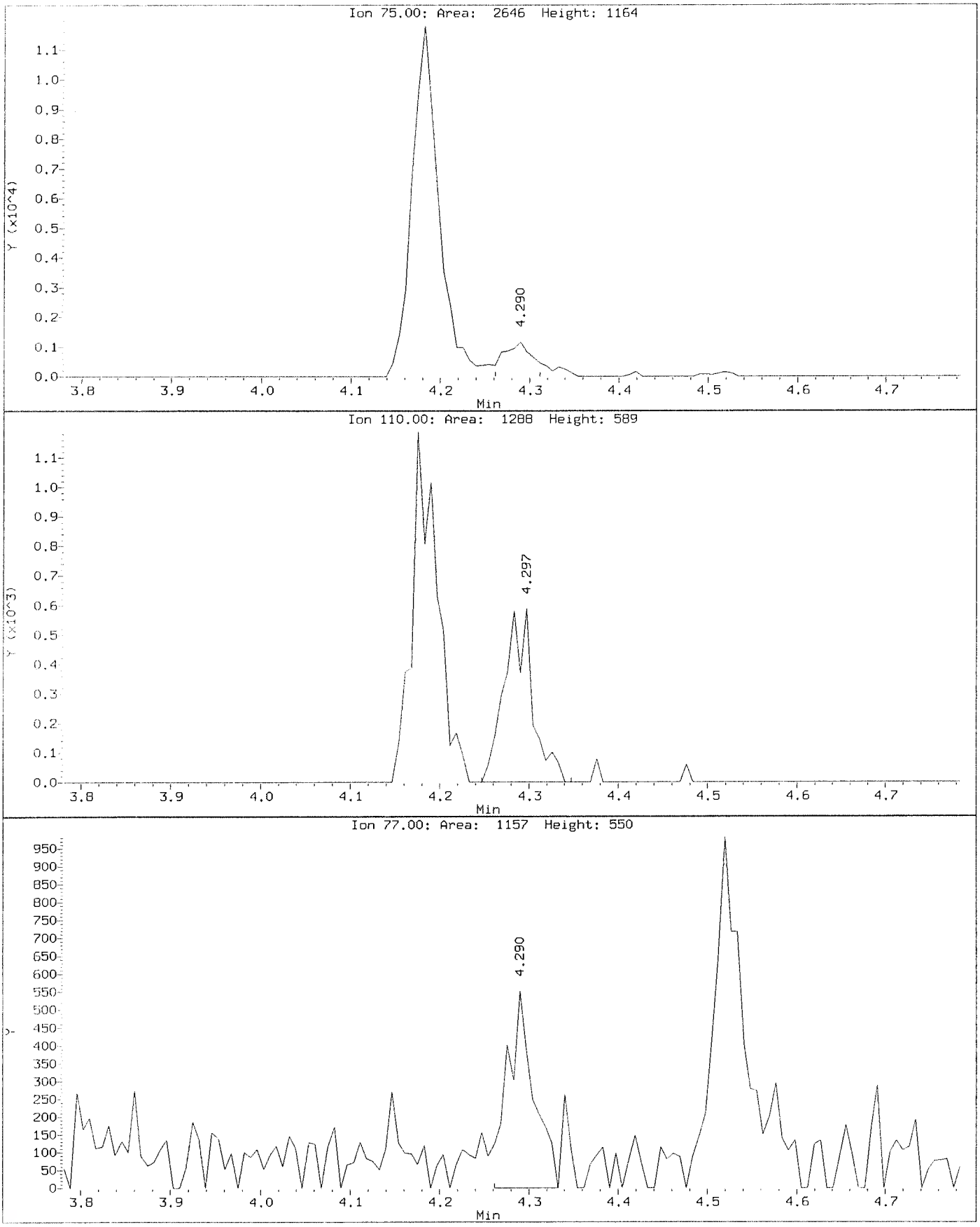
Compound: 1,1-Dichloropropene
CAS Number: 563-58-6



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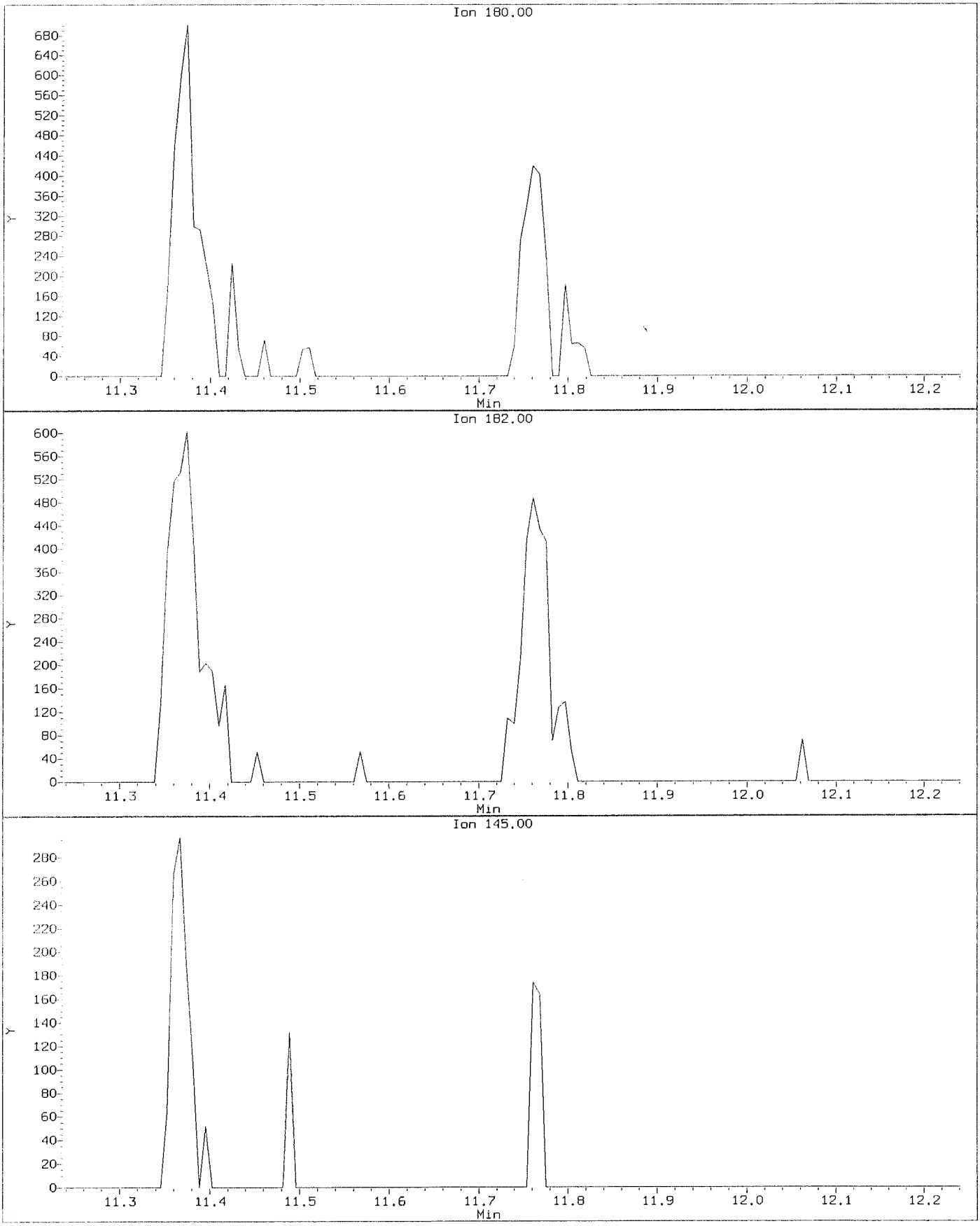
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6



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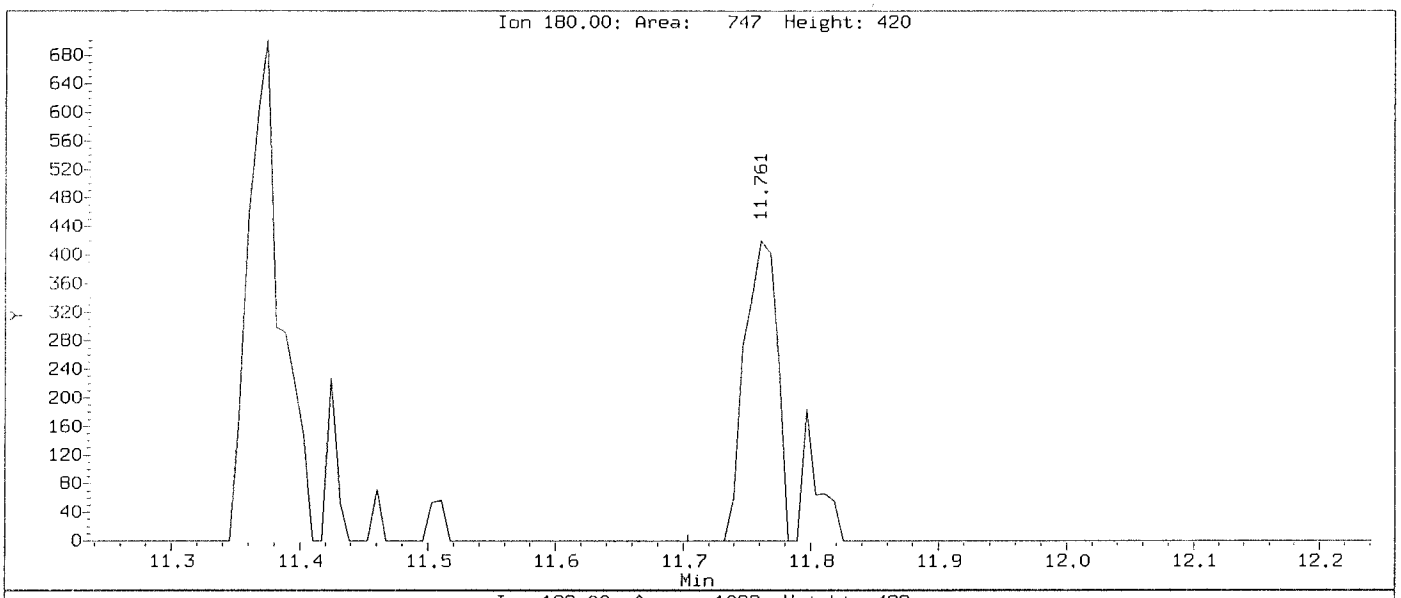
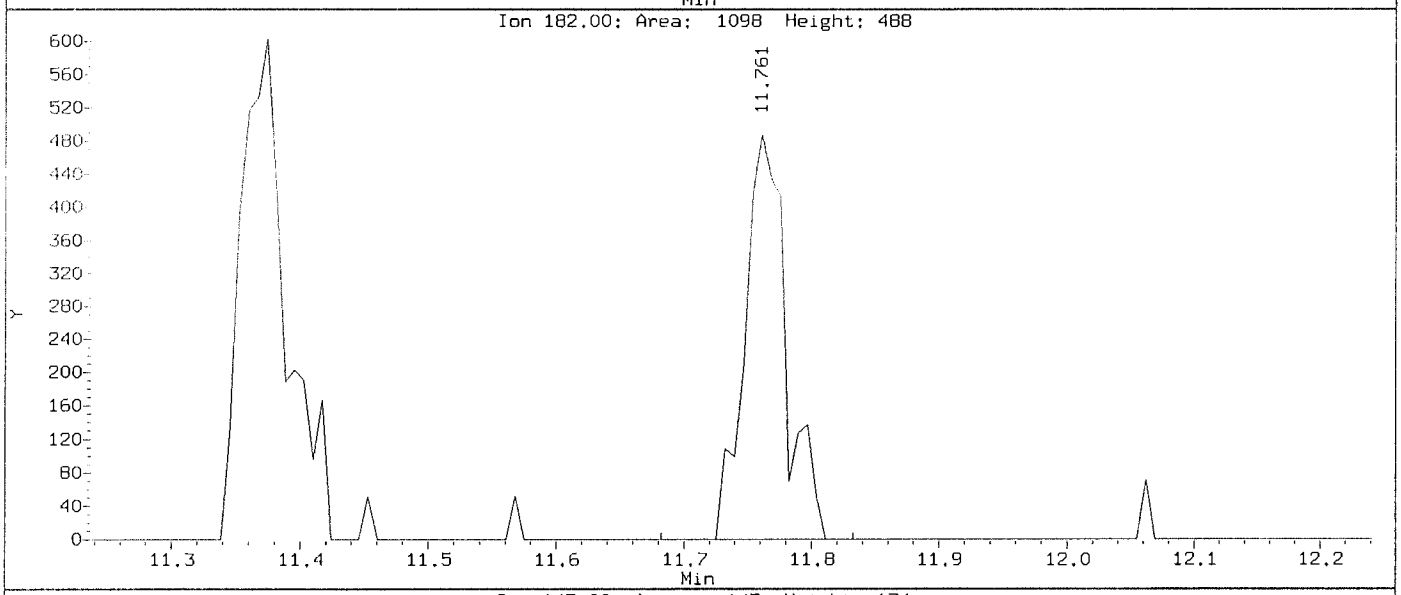
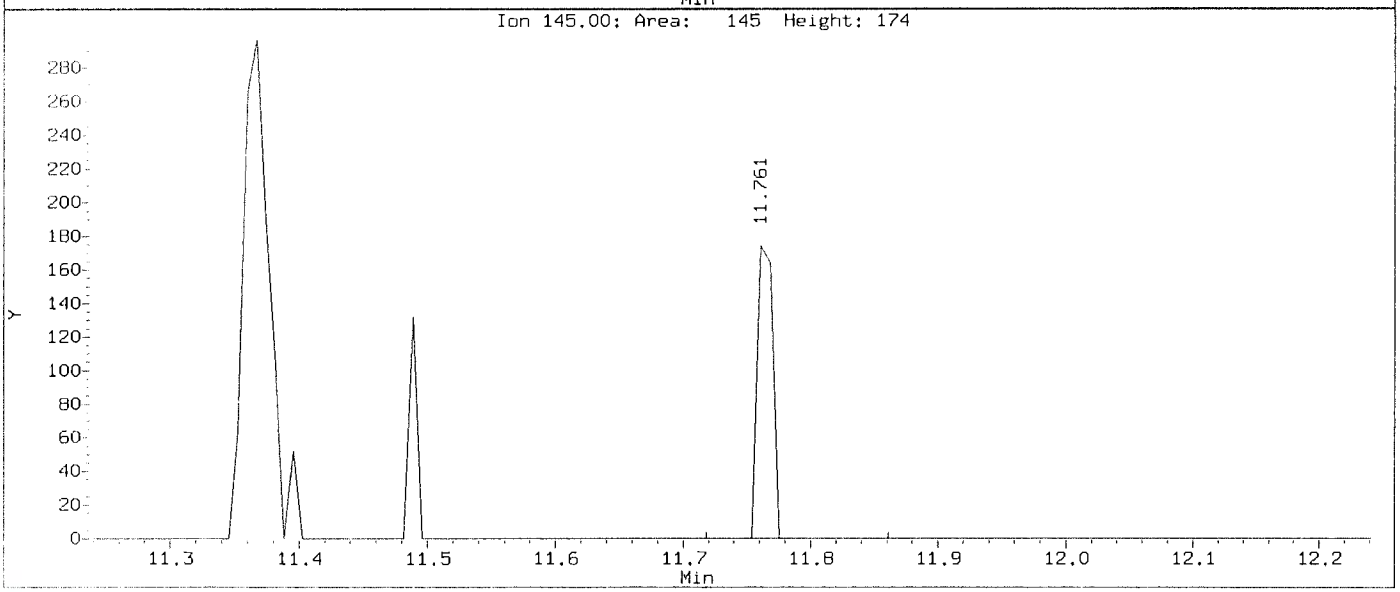
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6







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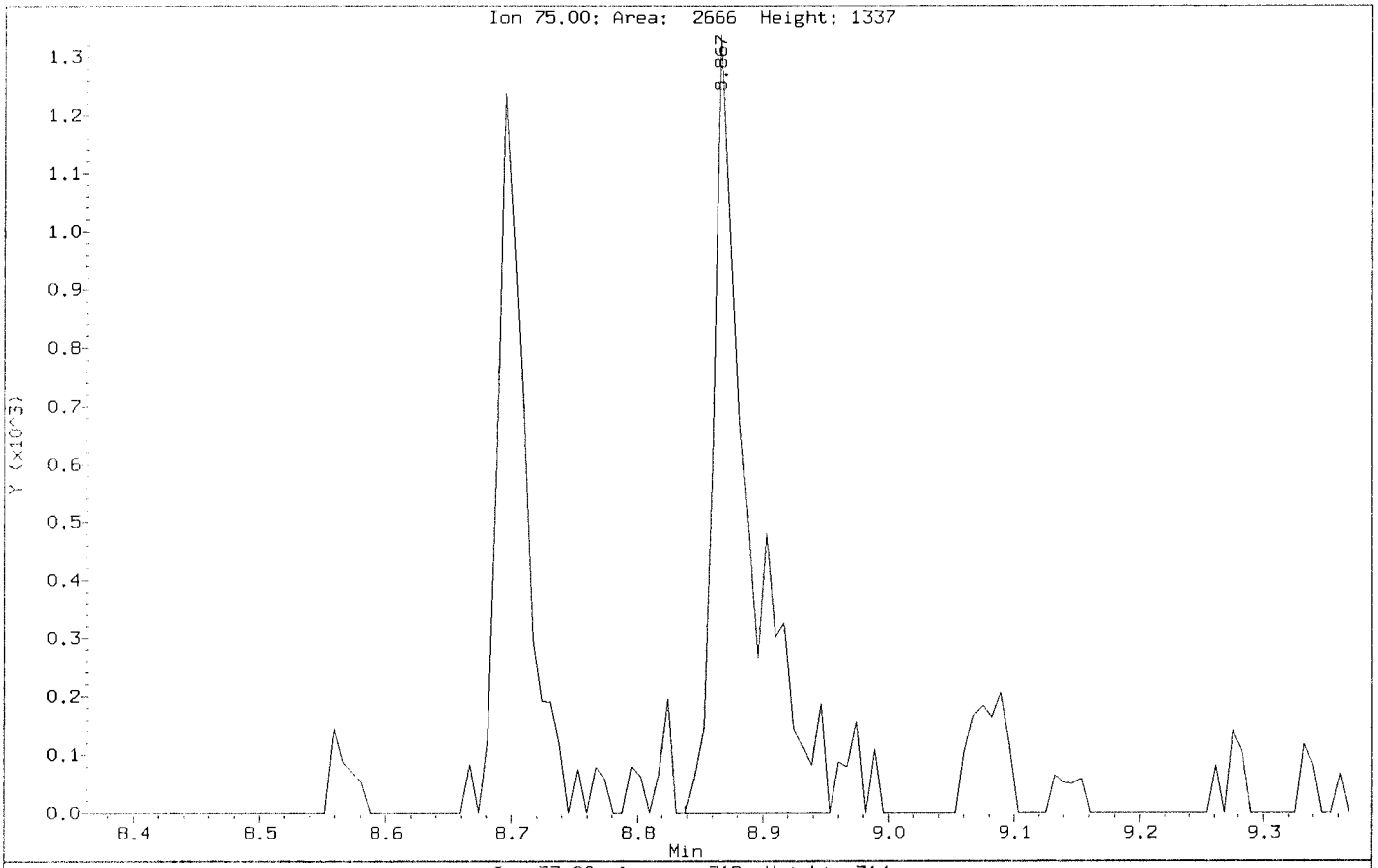
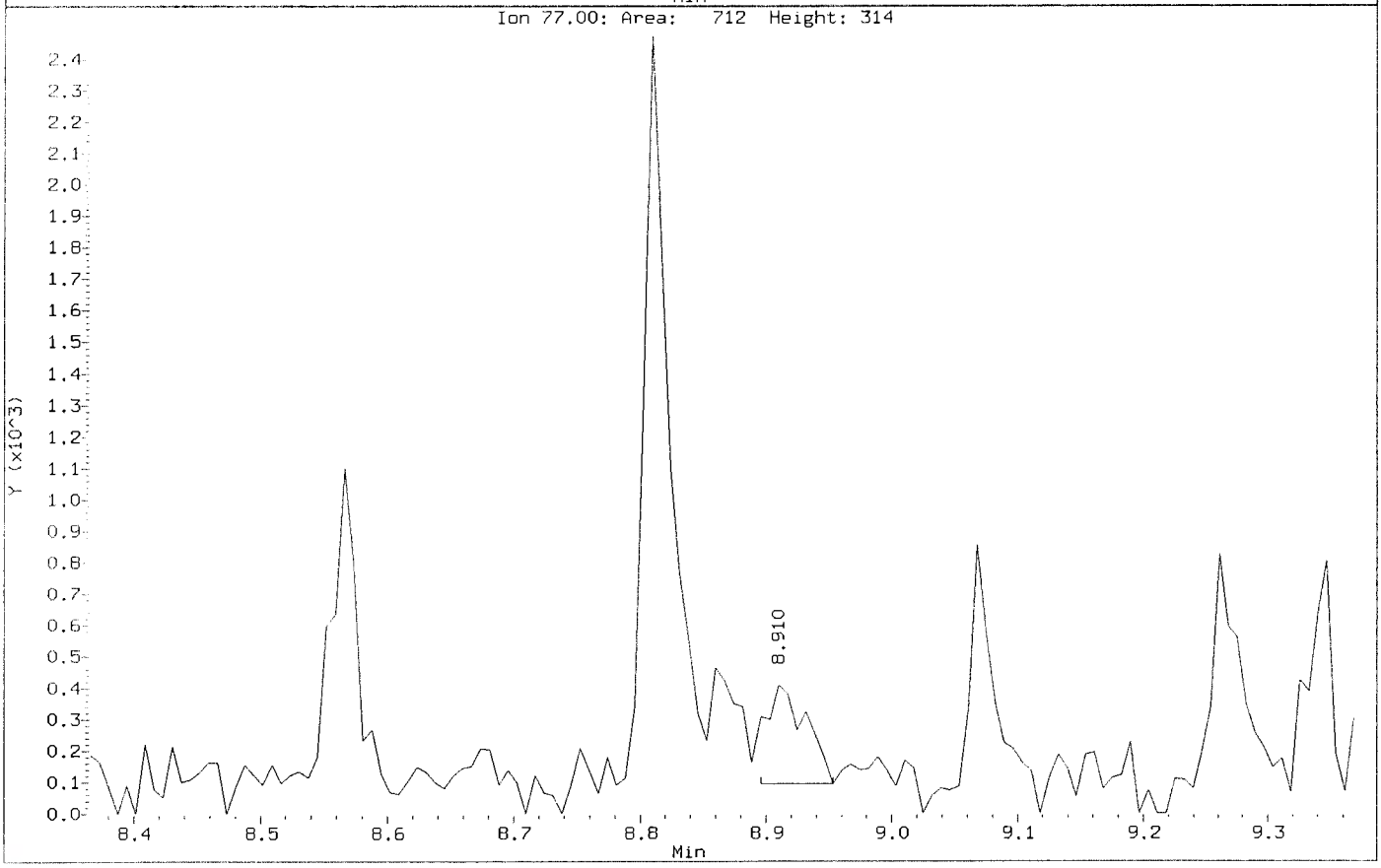
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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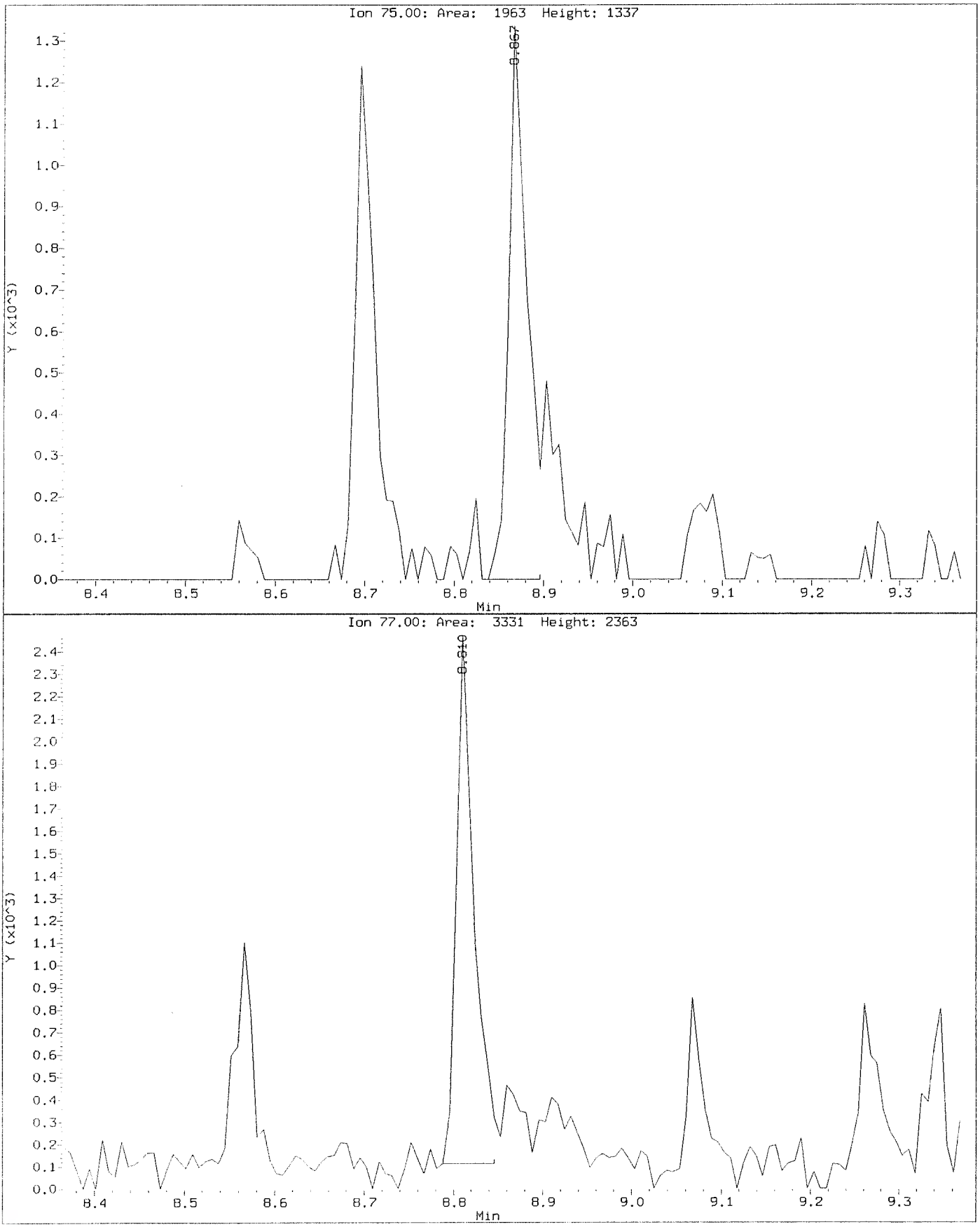
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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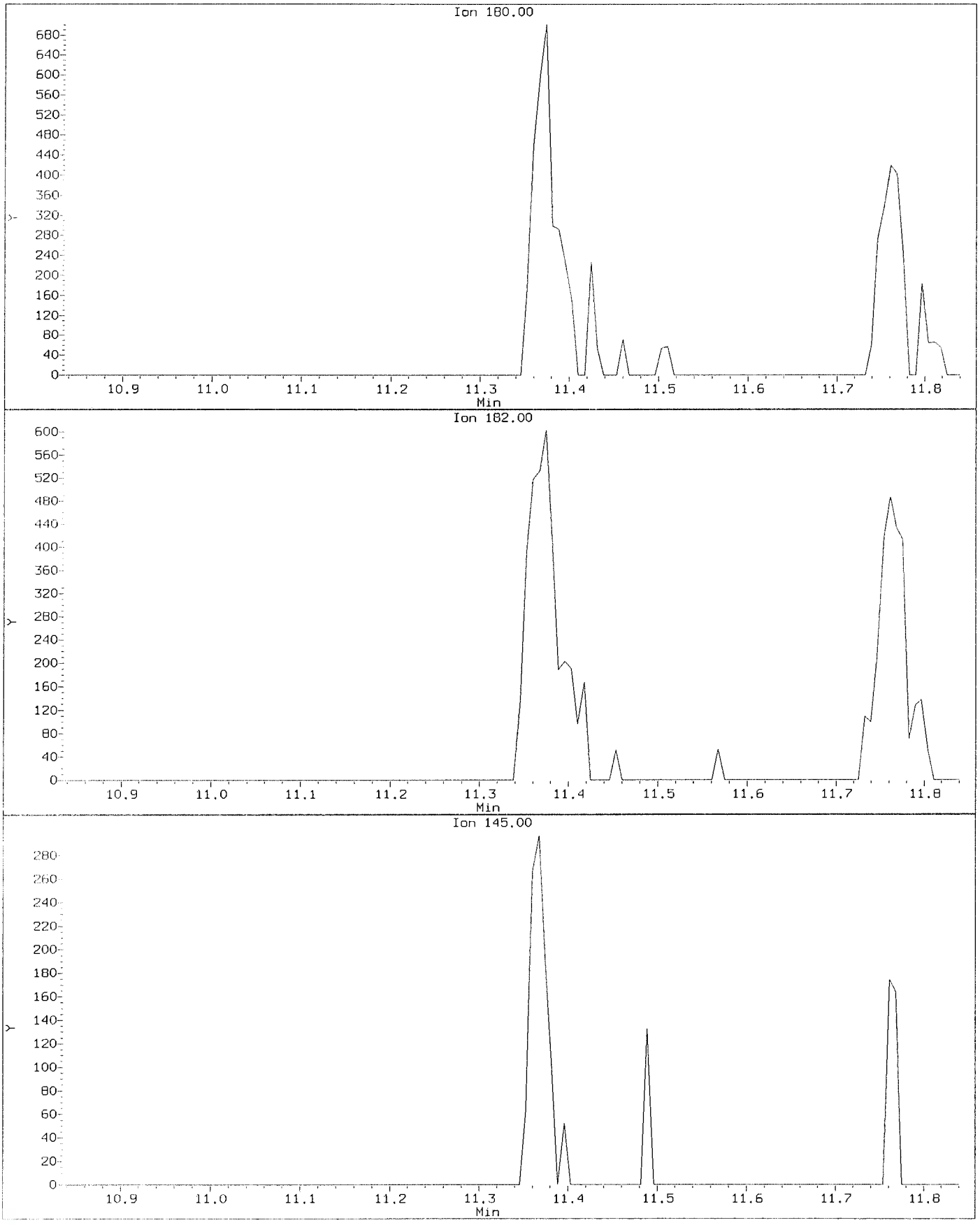
Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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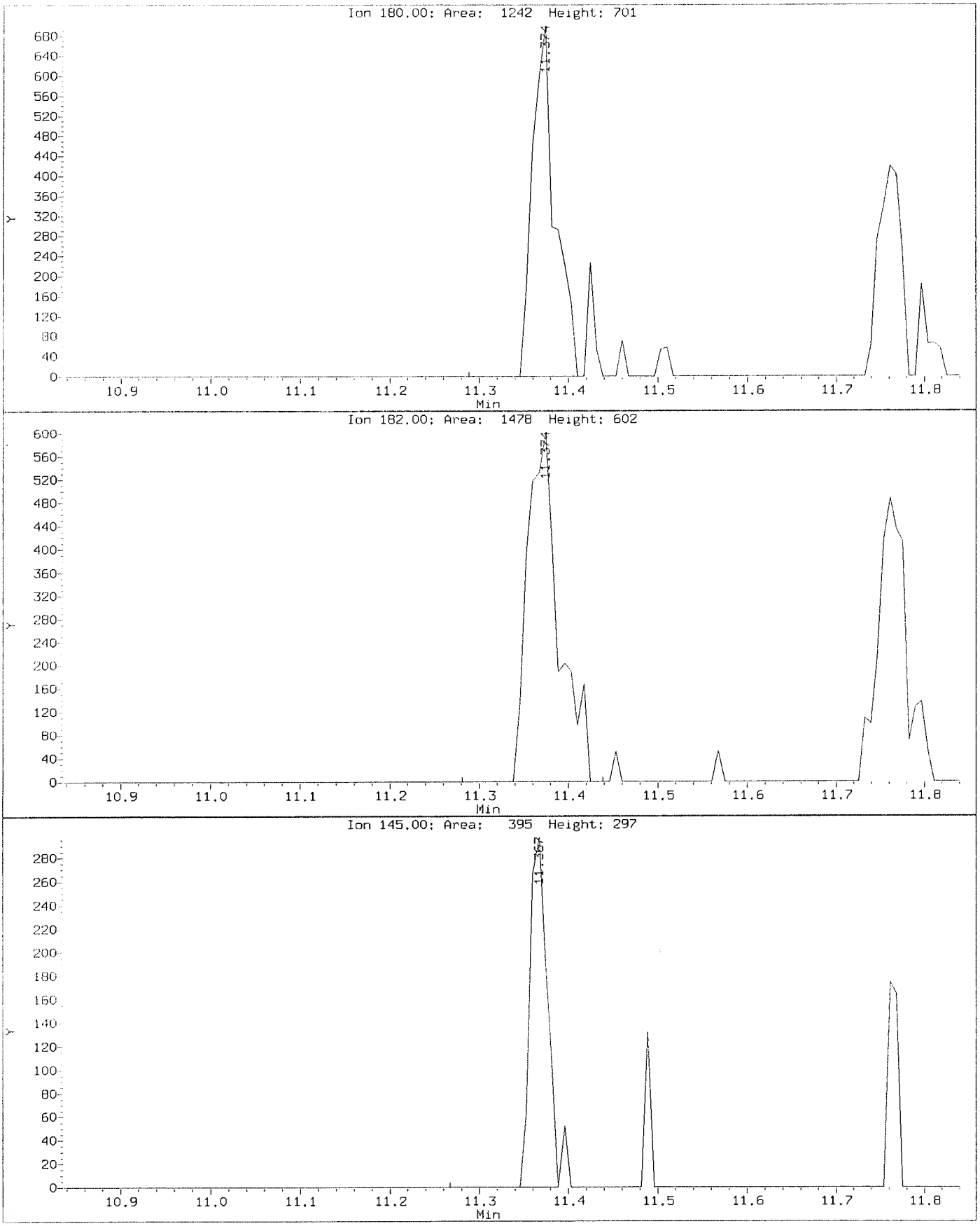
Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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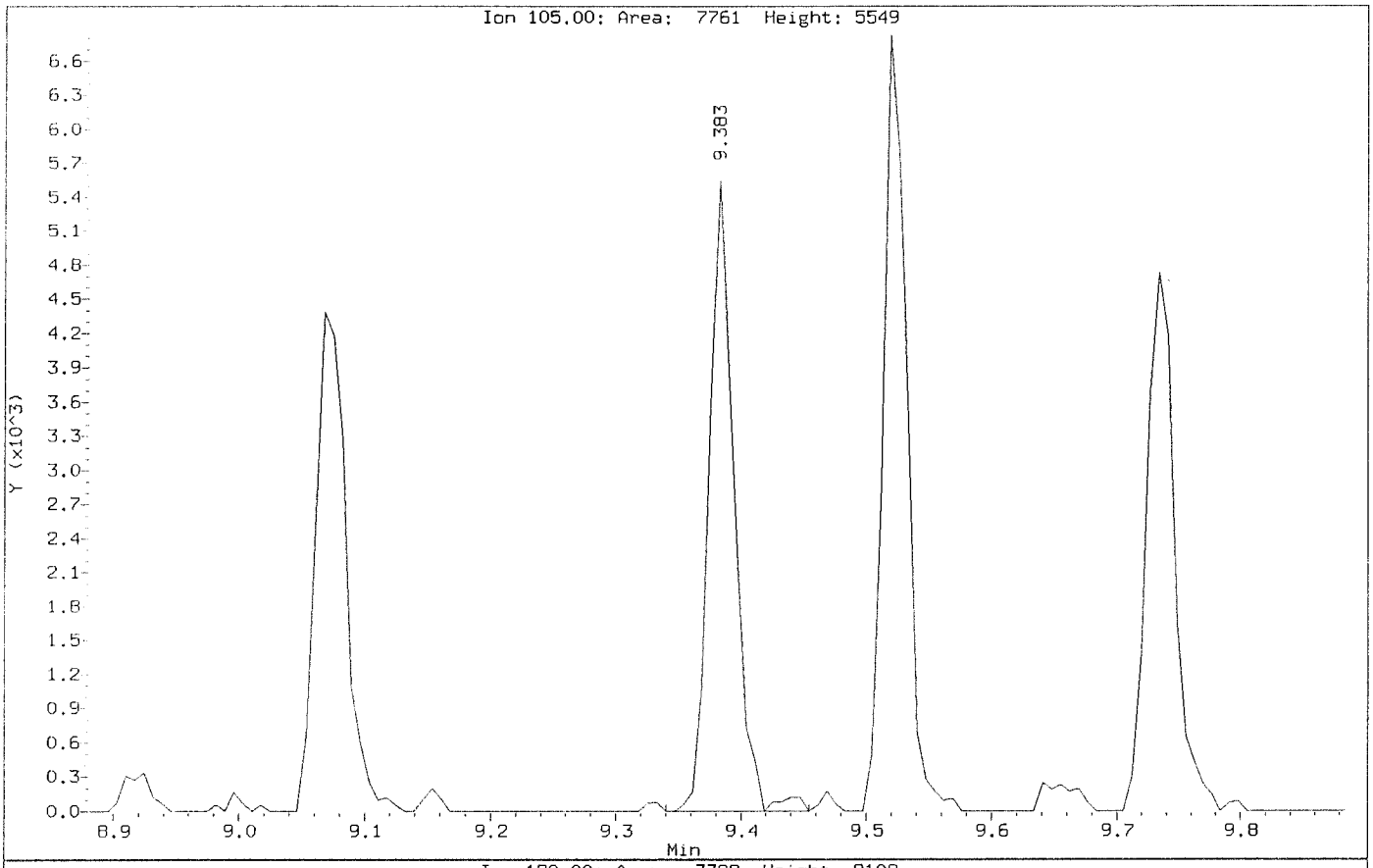
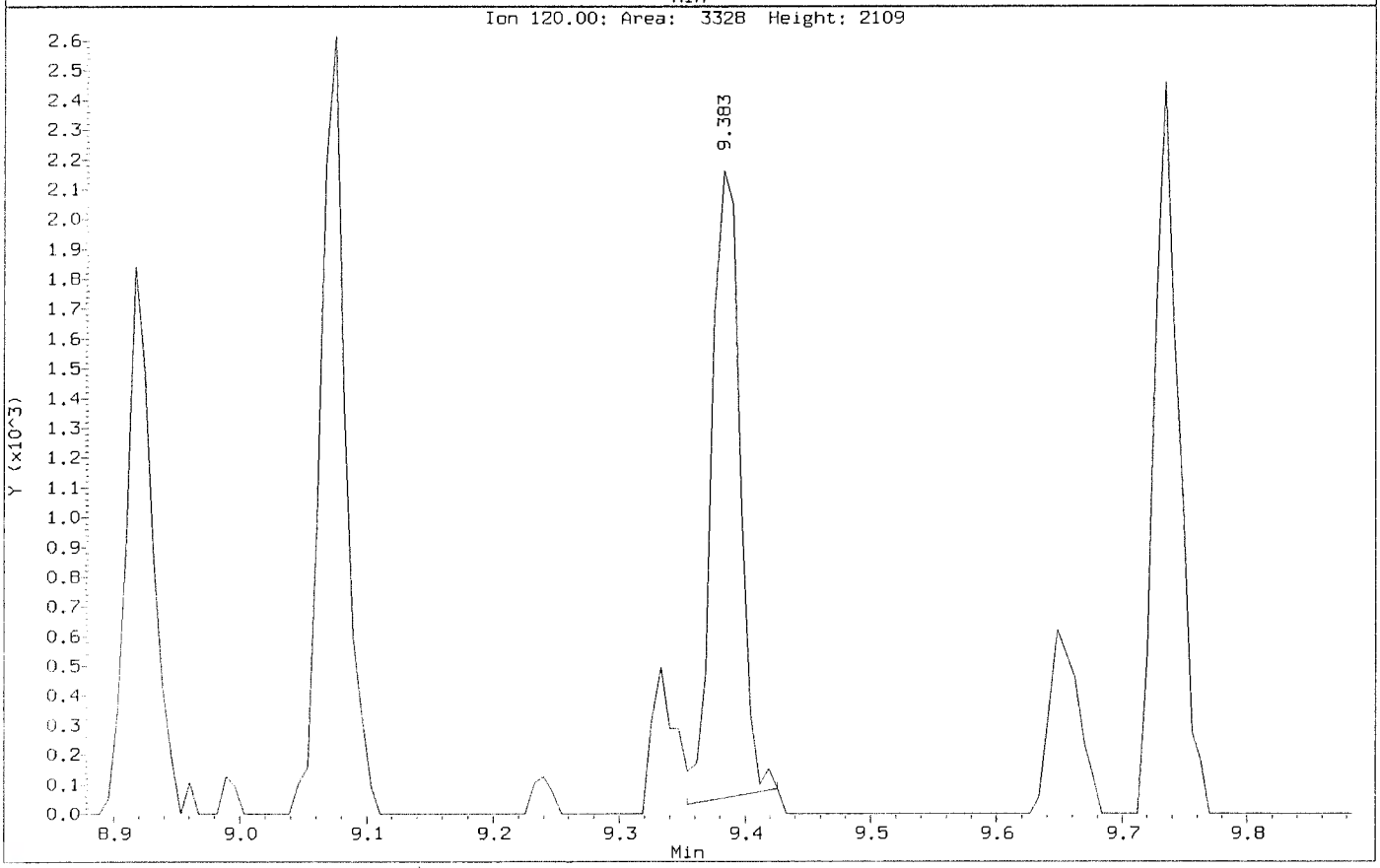
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6





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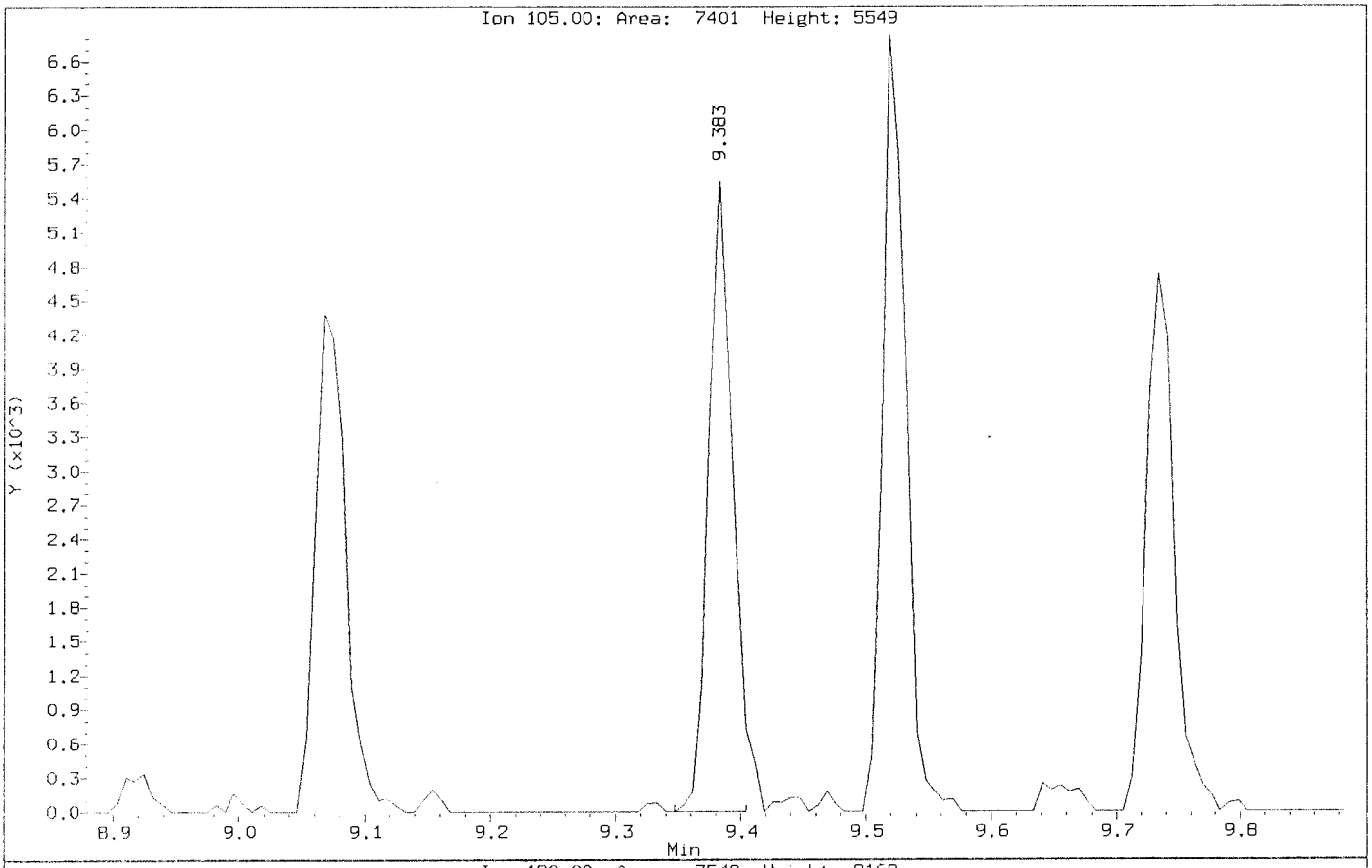
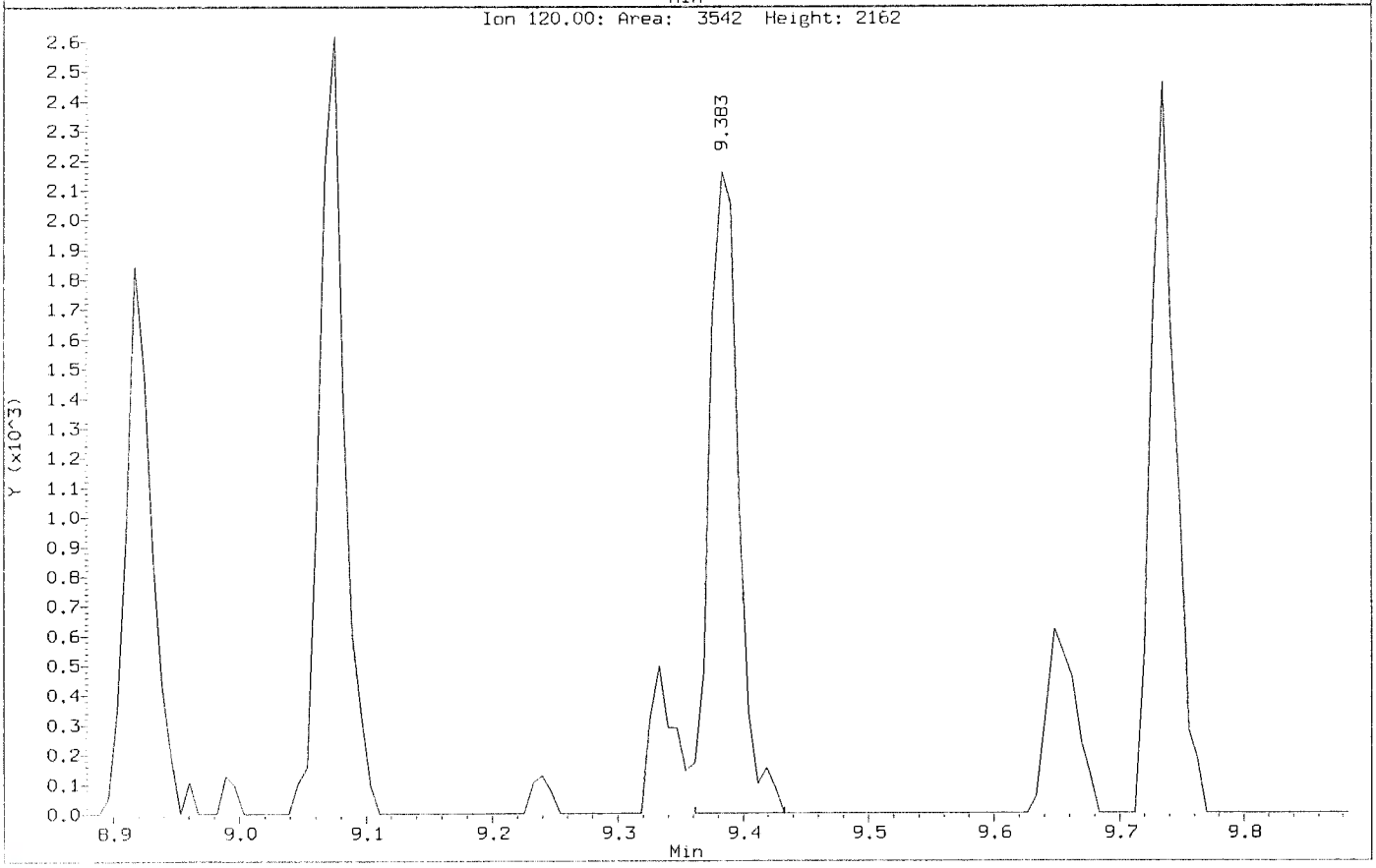
Client Sample ID: VSTD000.5

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6





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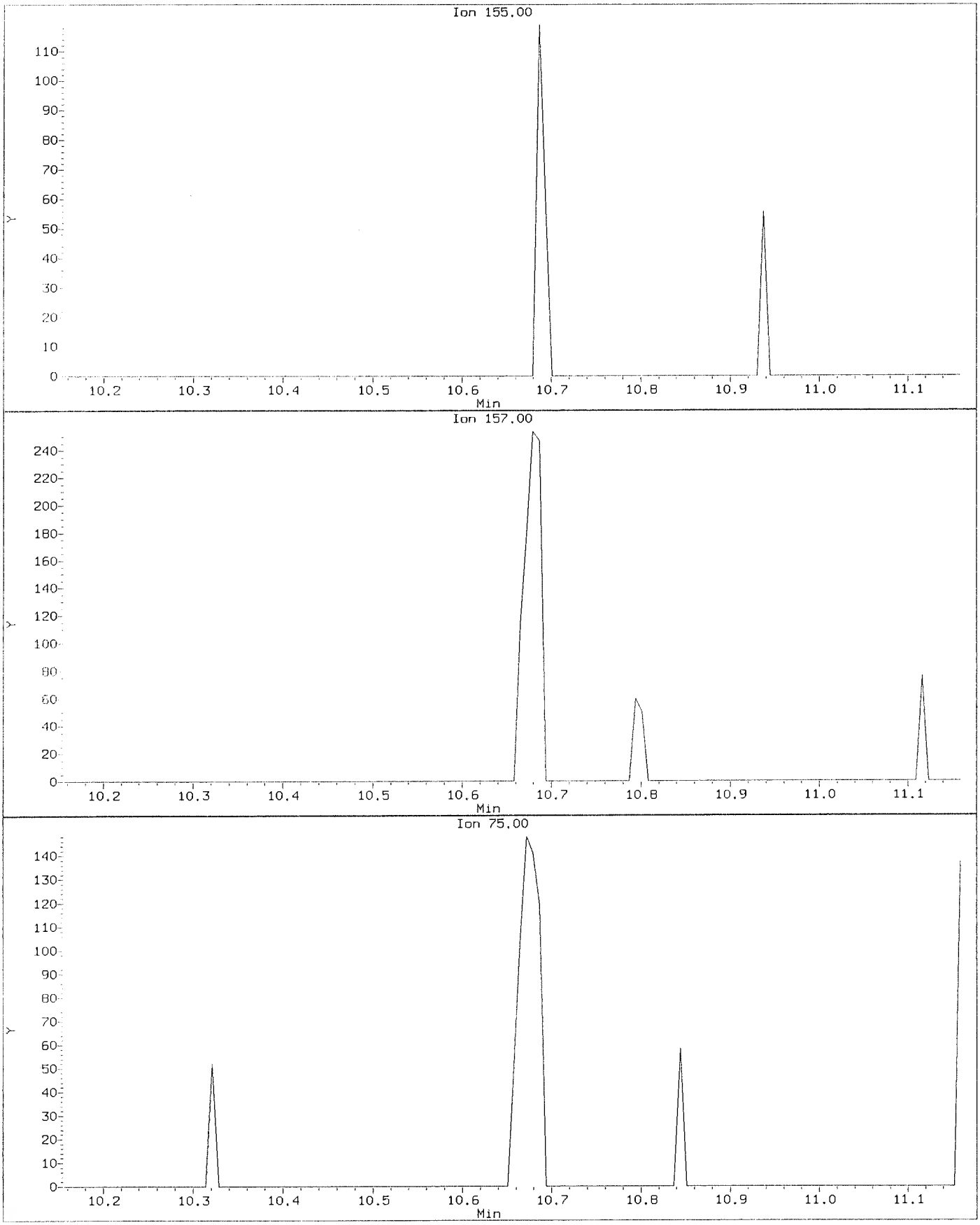
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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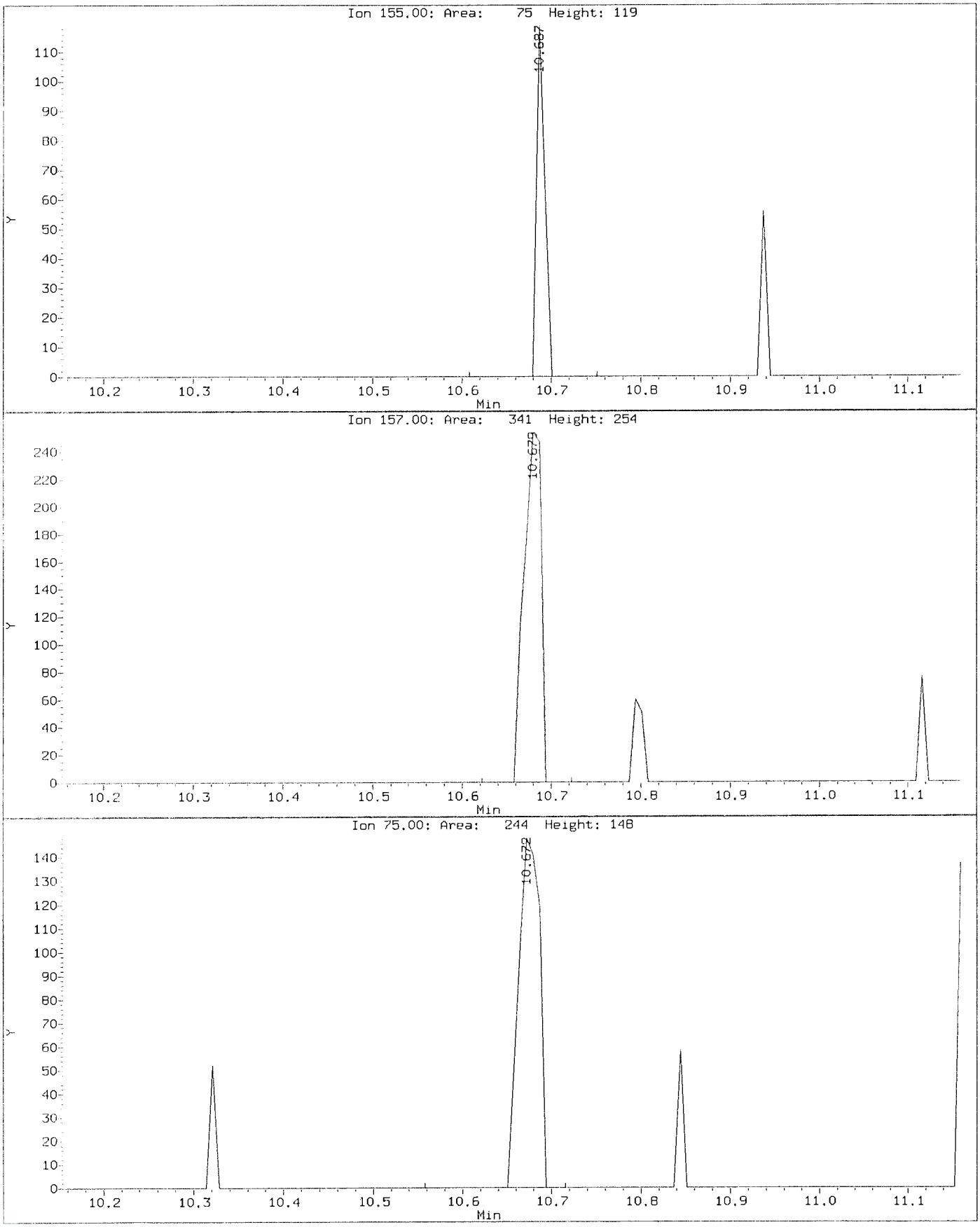
Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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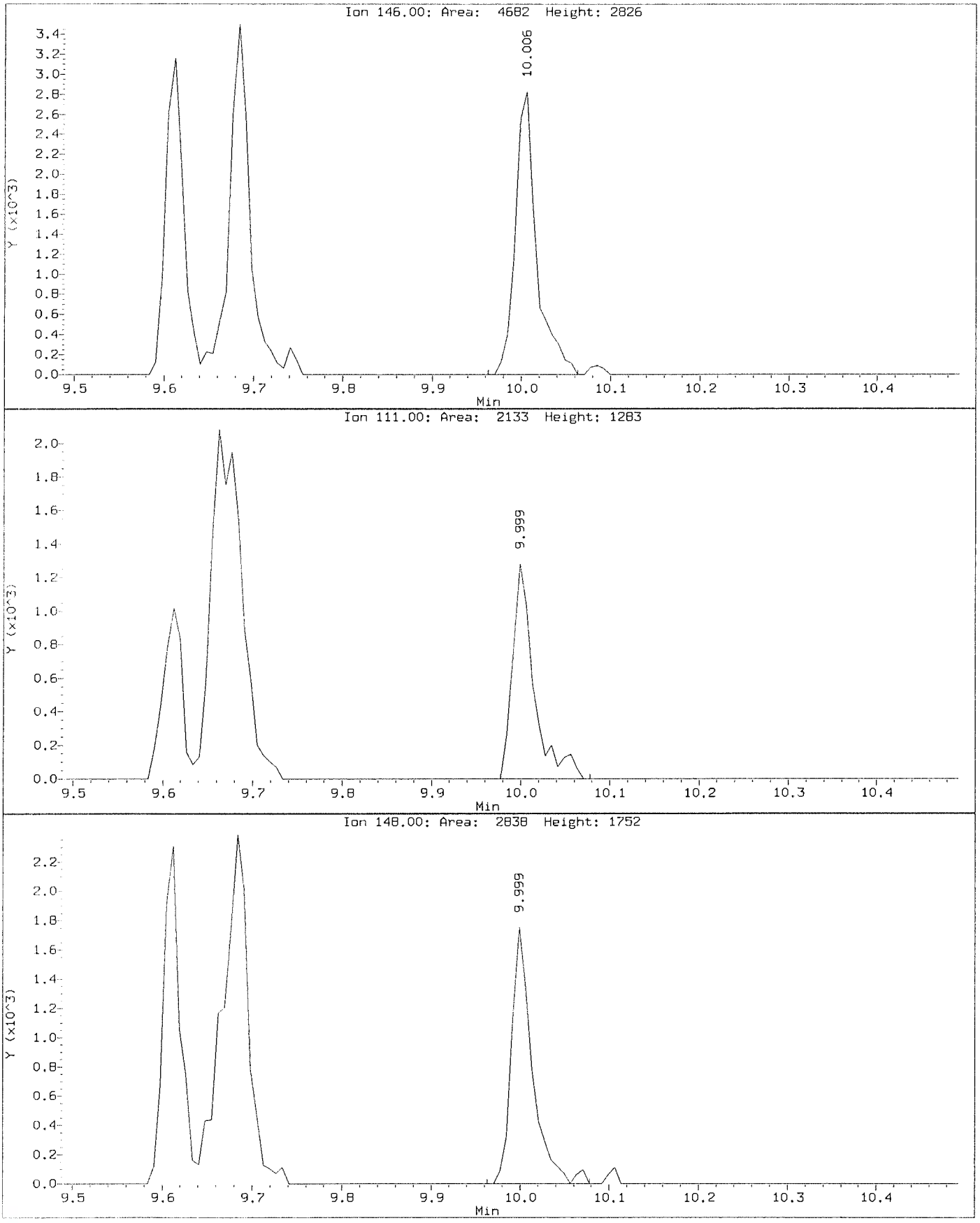
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1.2-Dichlorobenzene
CAS Number: 95-50-1



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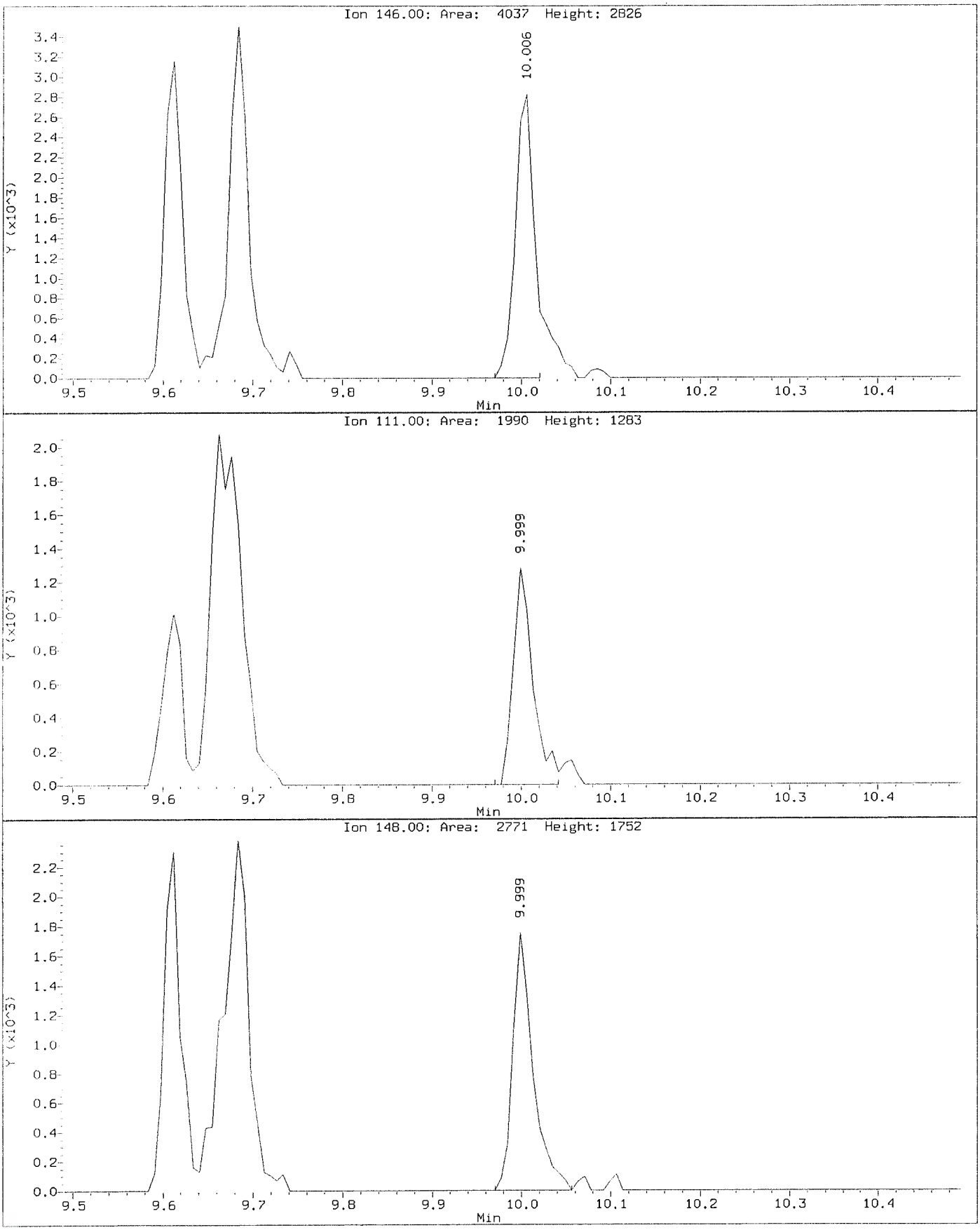
Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1



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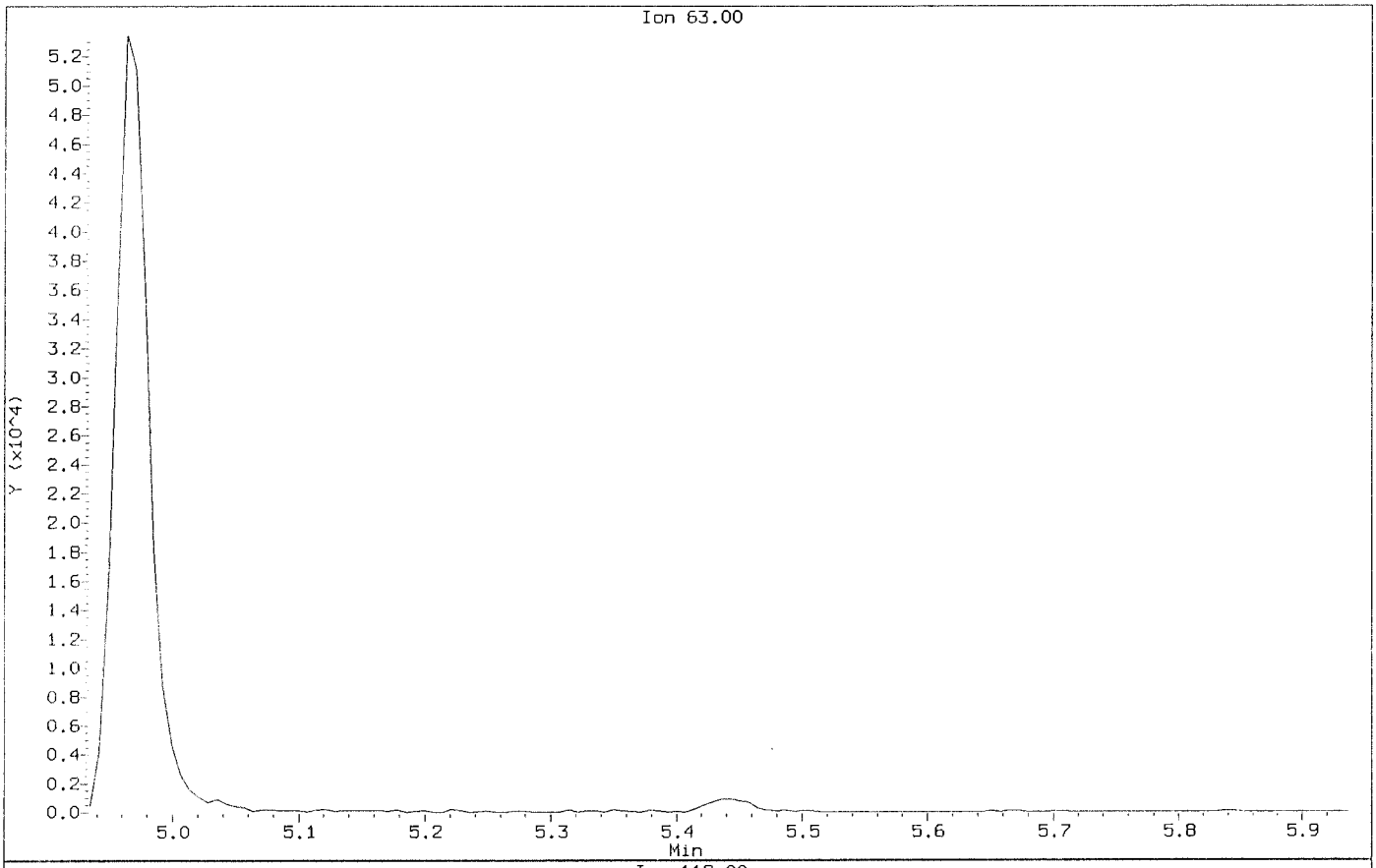
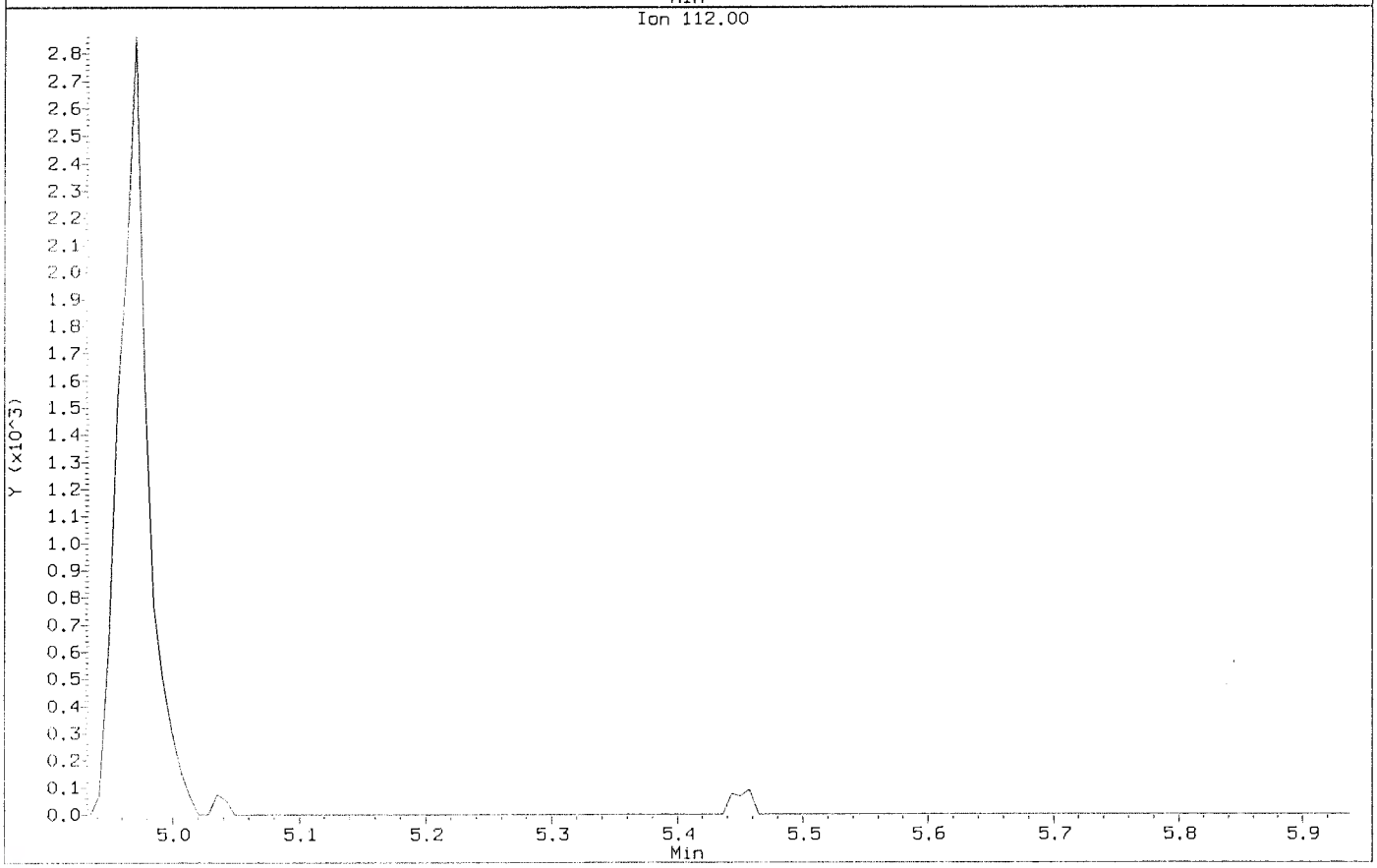
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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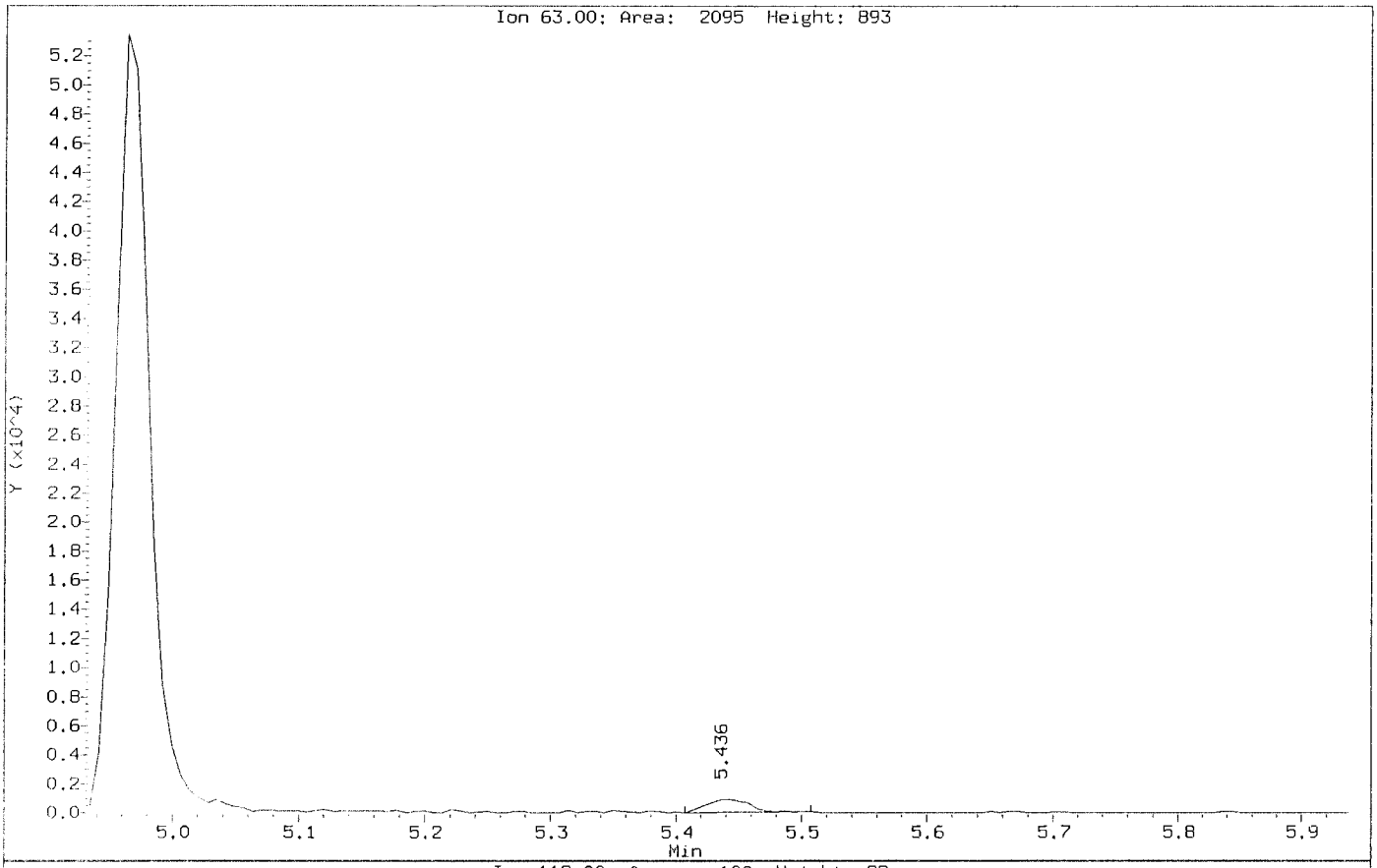
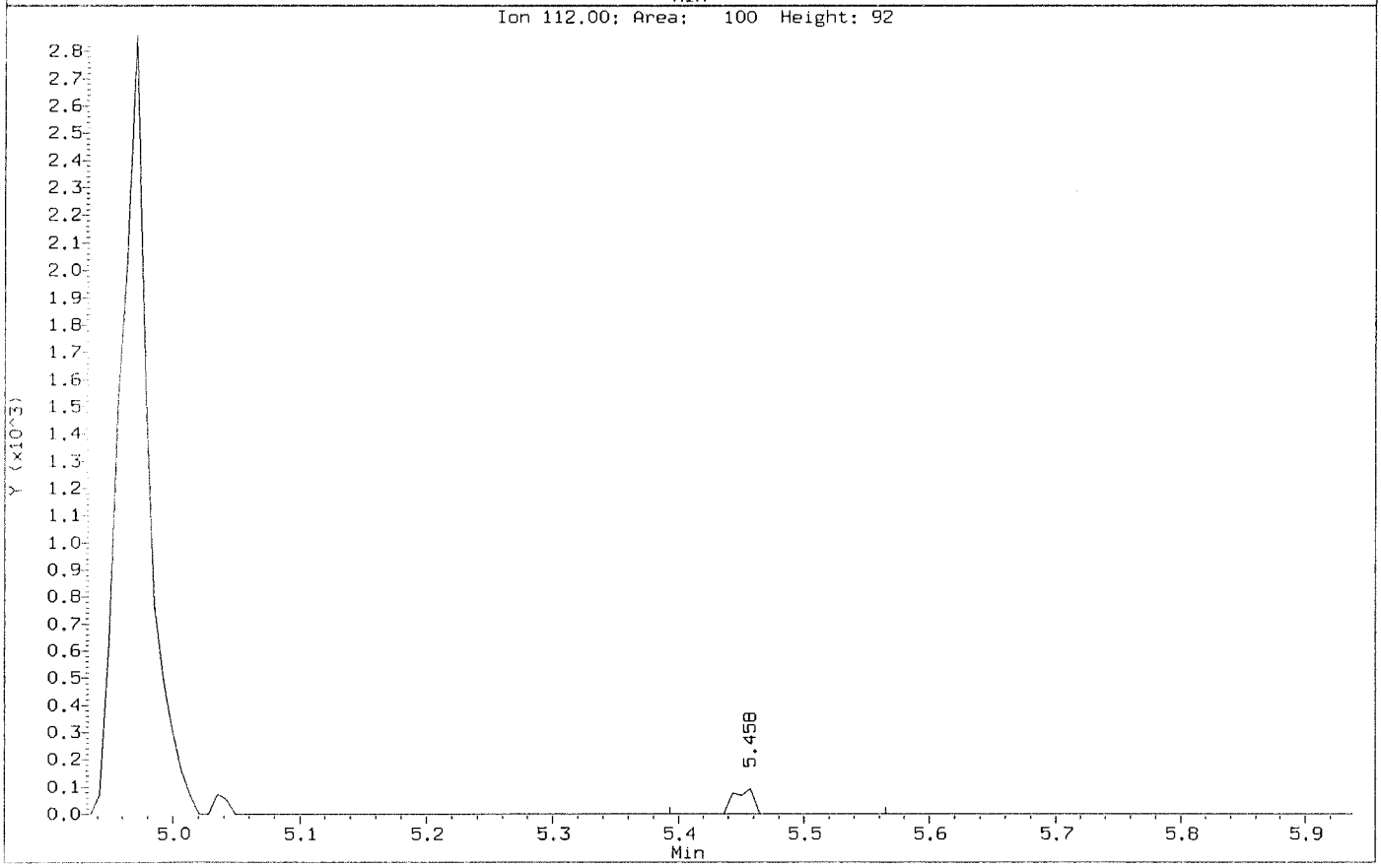
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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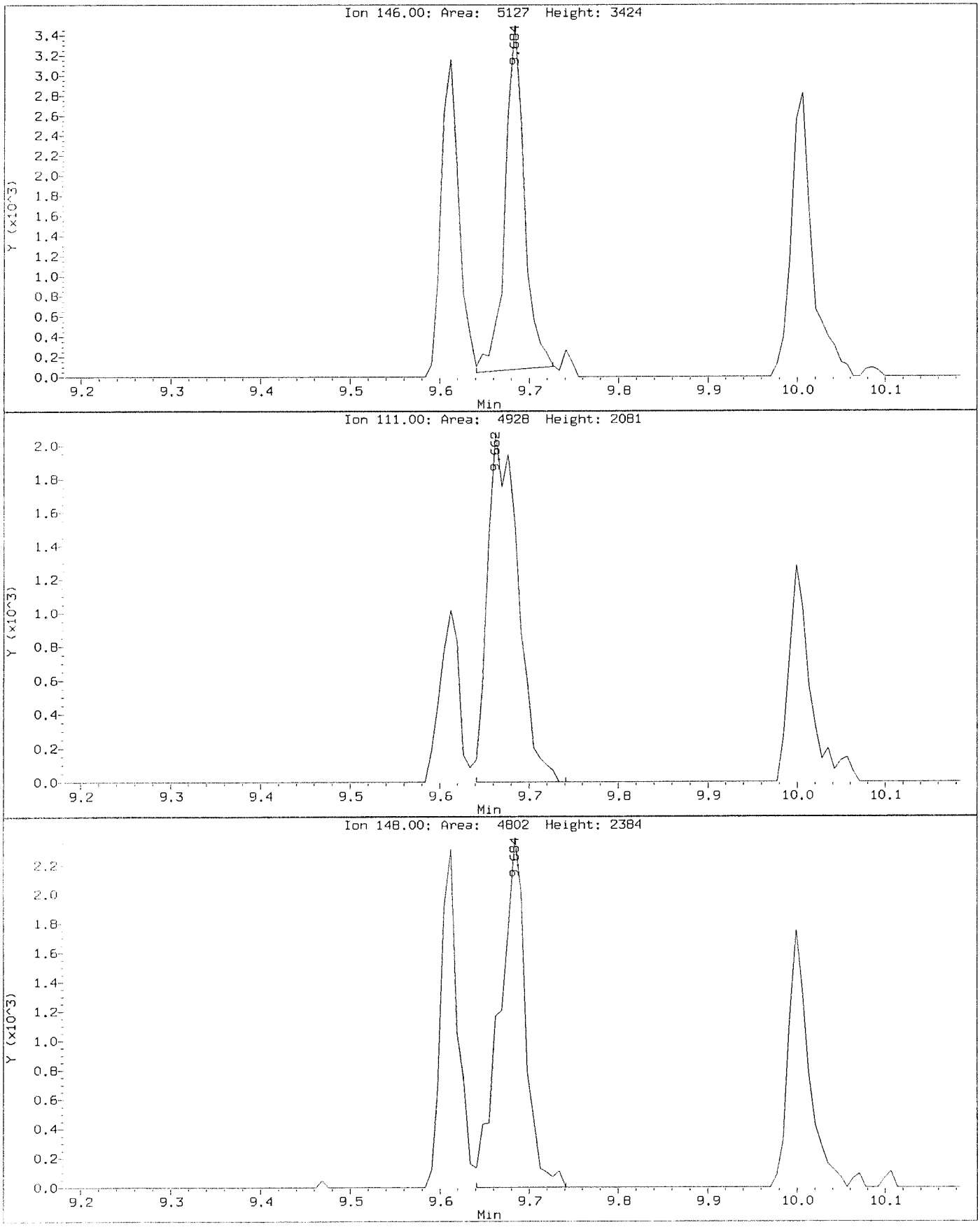
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



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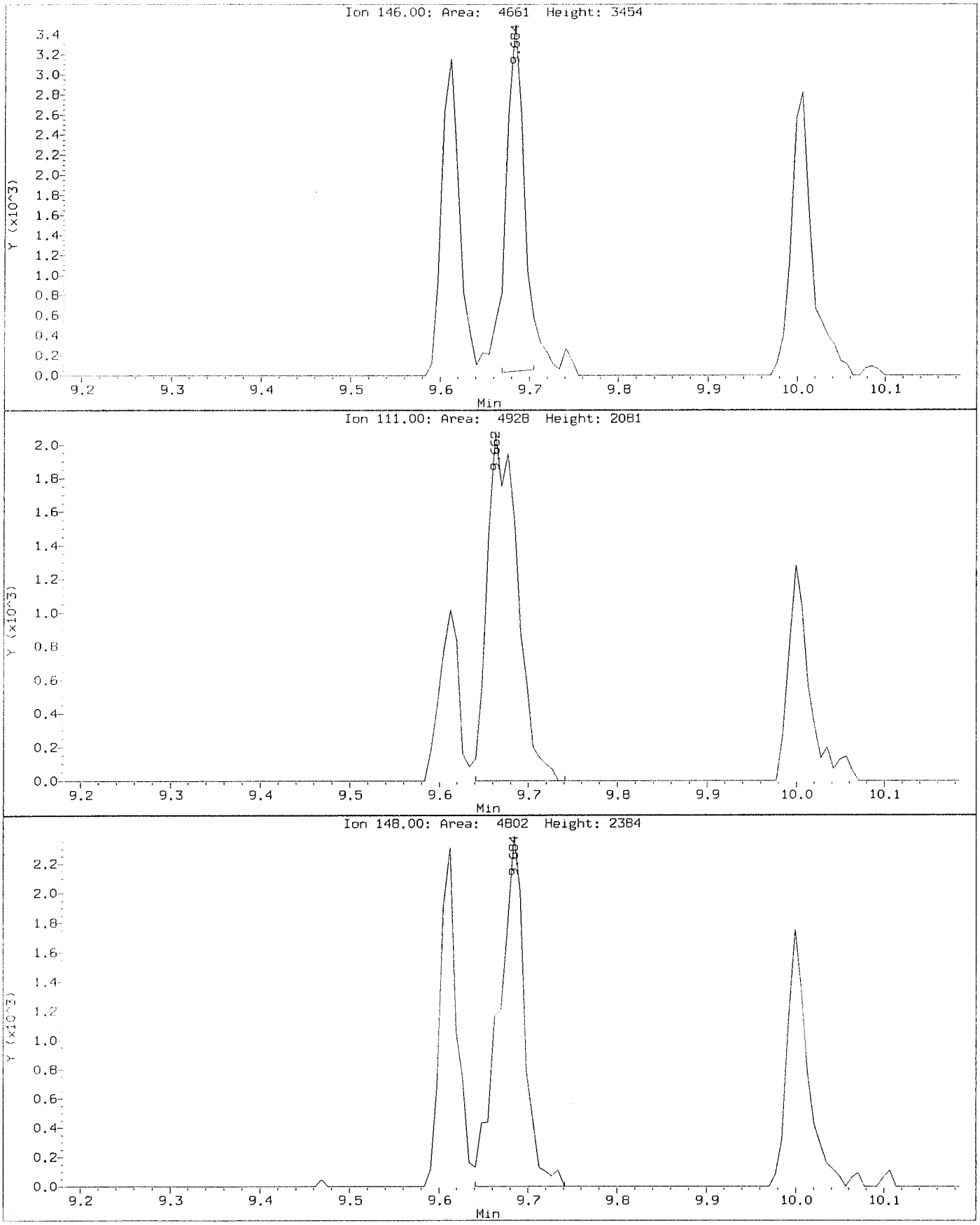
Client Sample ID: VSTD000.5

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



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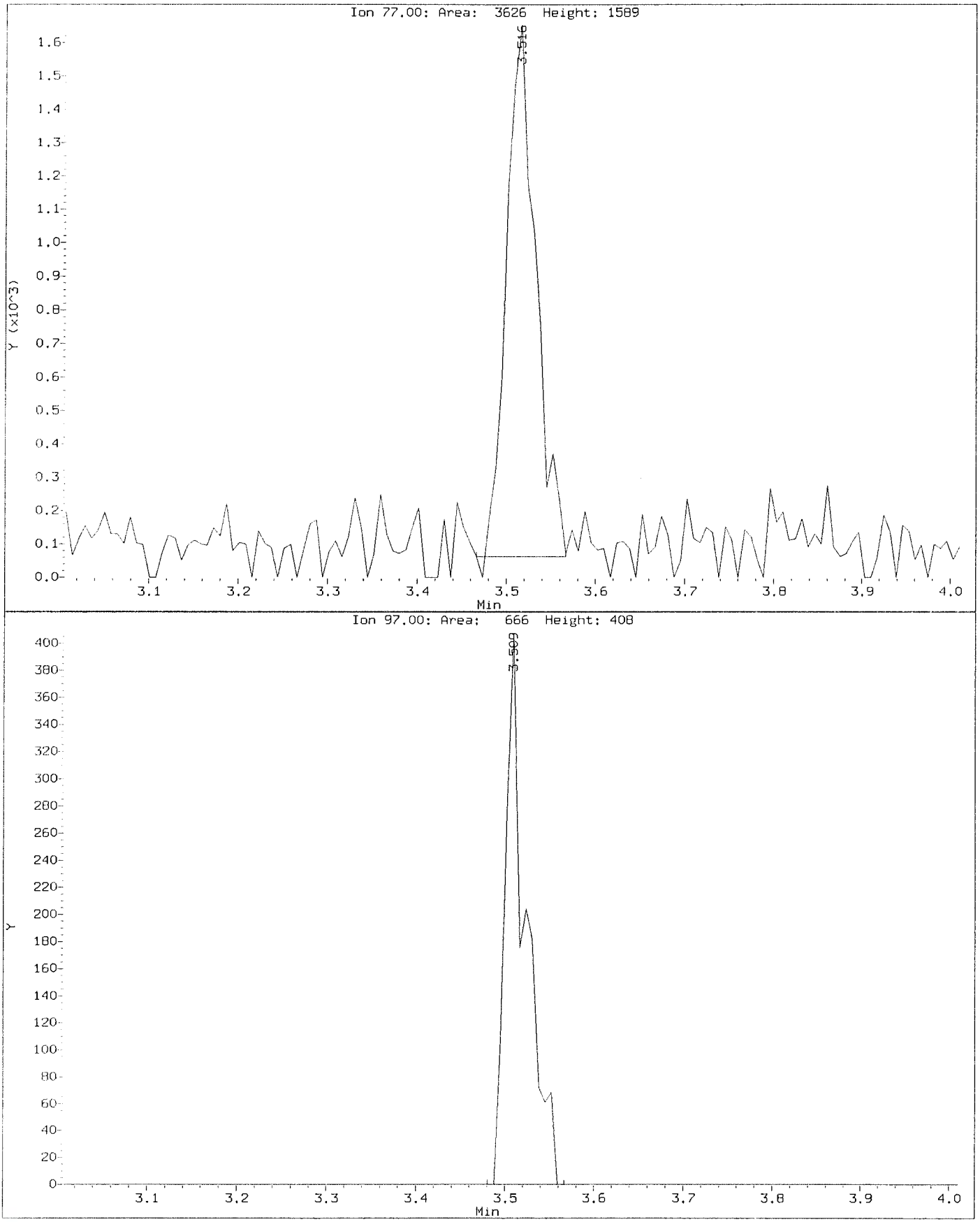
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2,2-Dichloropropane
CAS Number: 594-20-7



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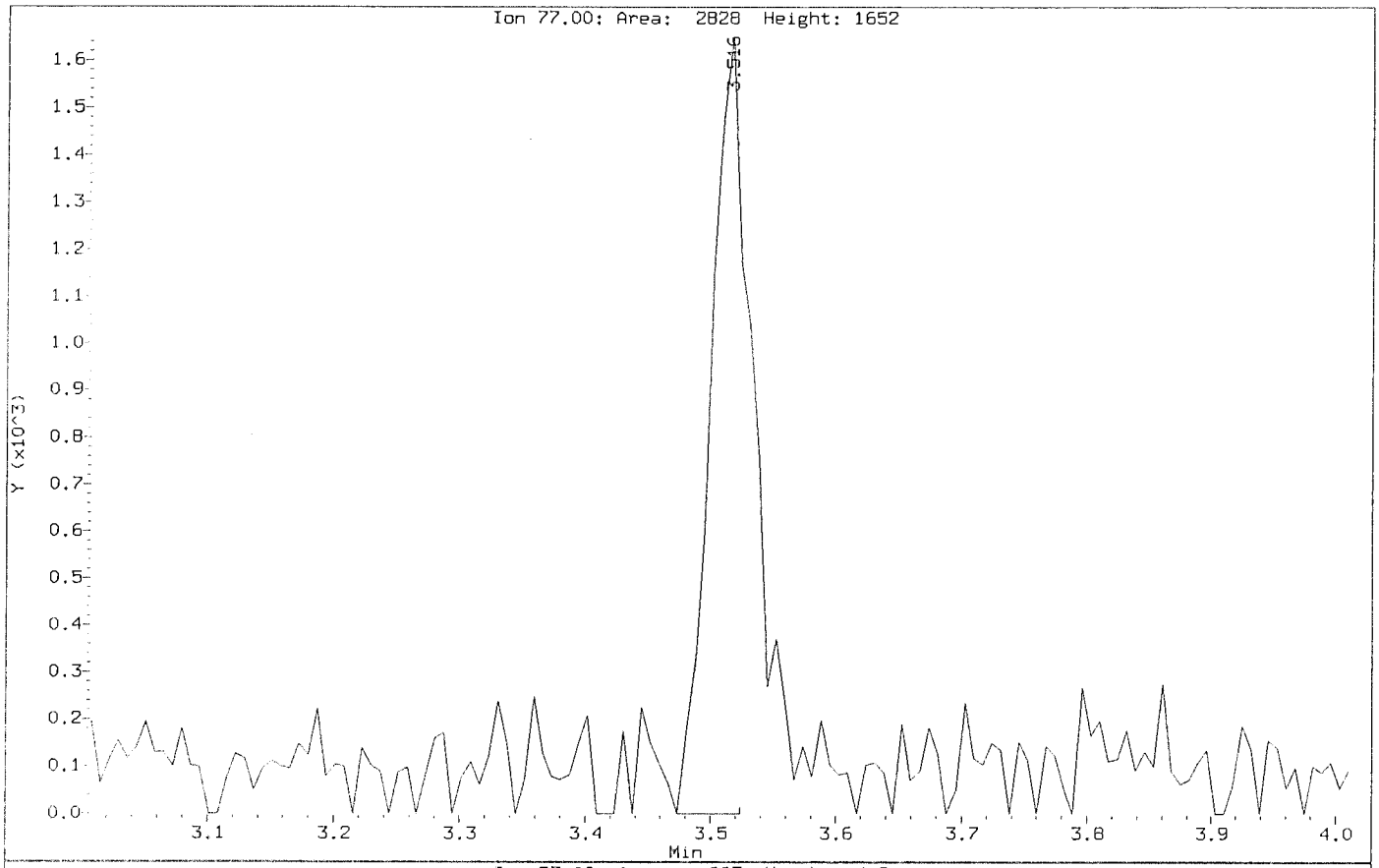
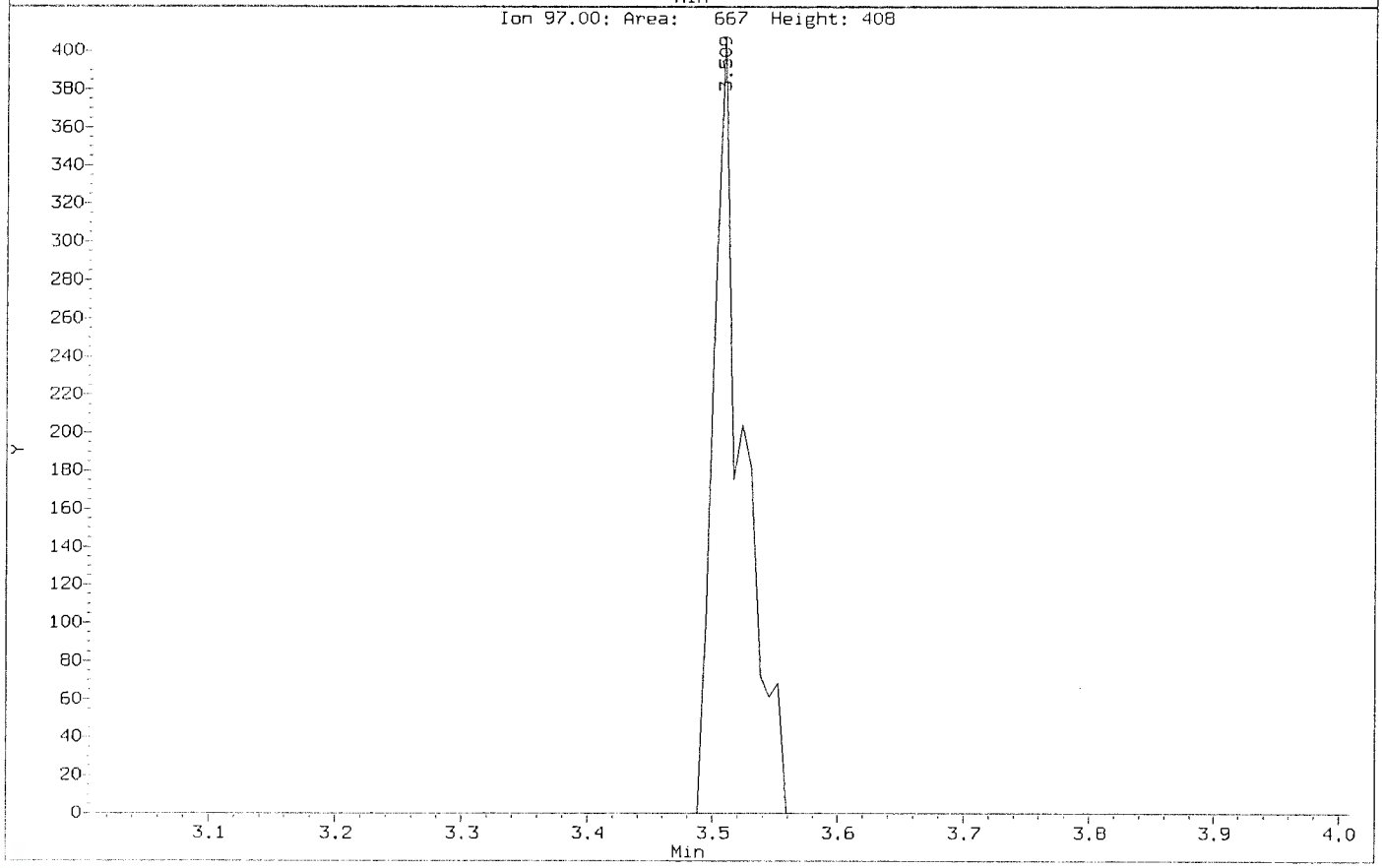
Client Sample ID: VSTD000.5

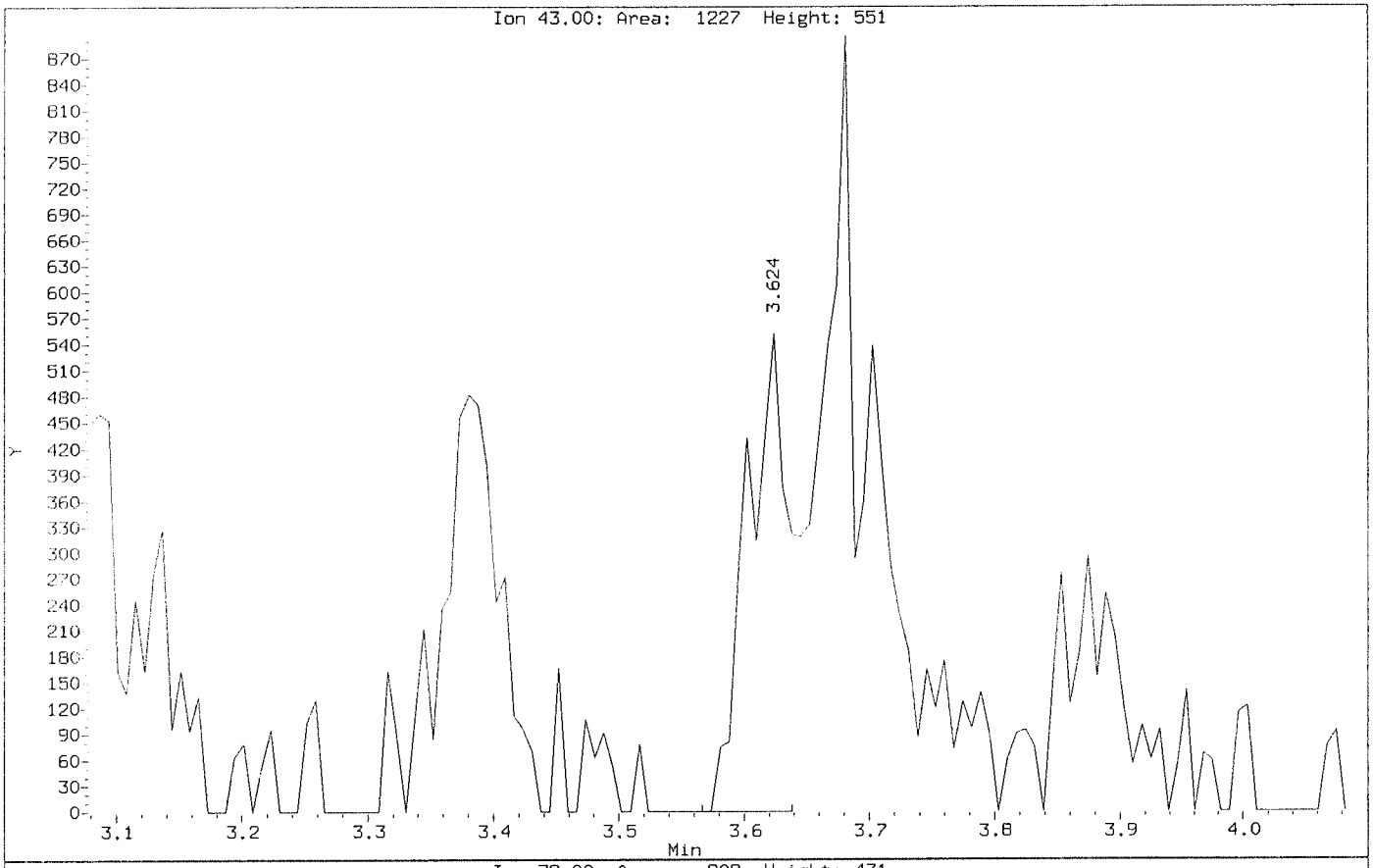
Compound: 2,2-Dichloropropane
CAS Number: 594-20-7

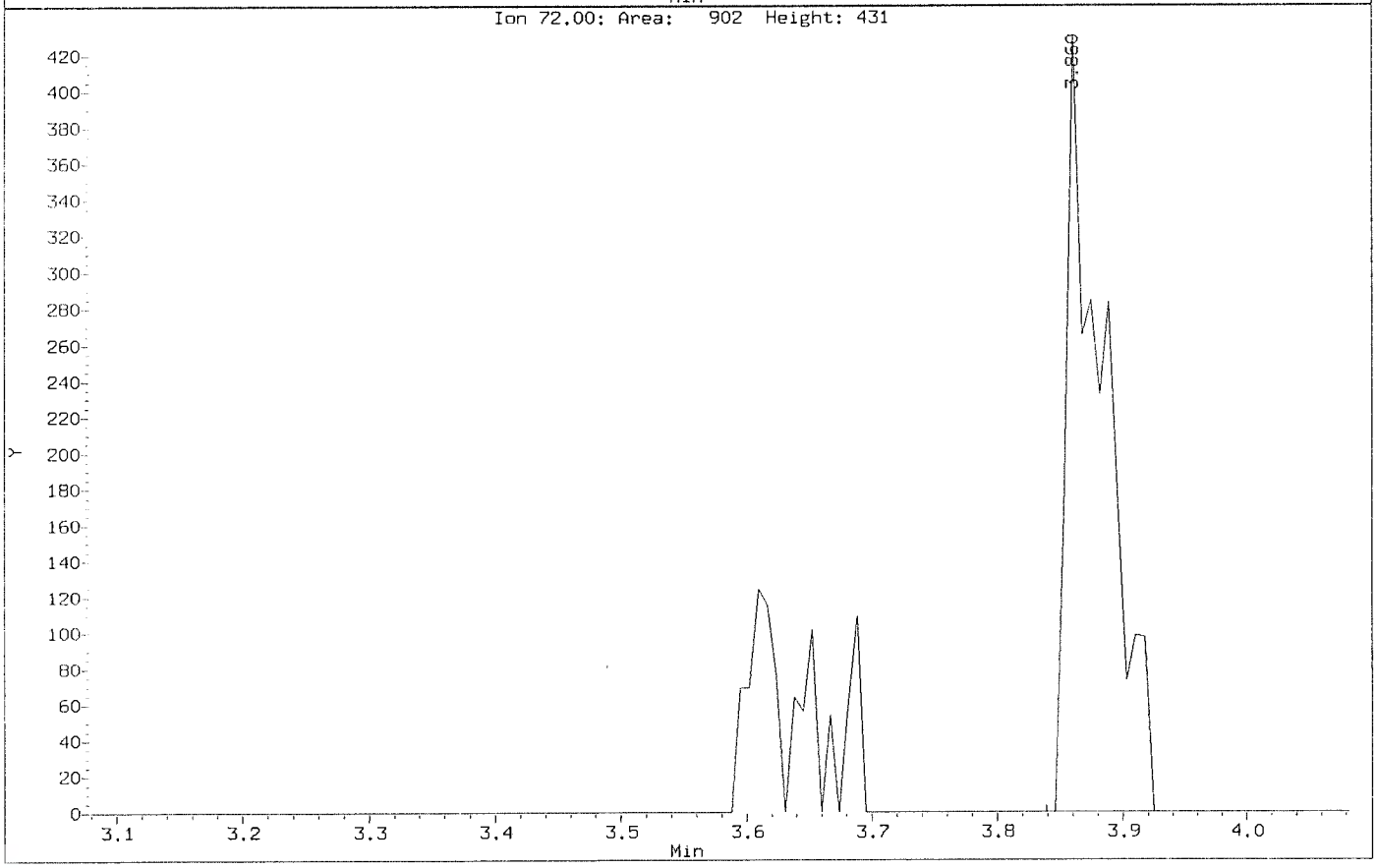




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Butanone
CAS Number: 78-93-3





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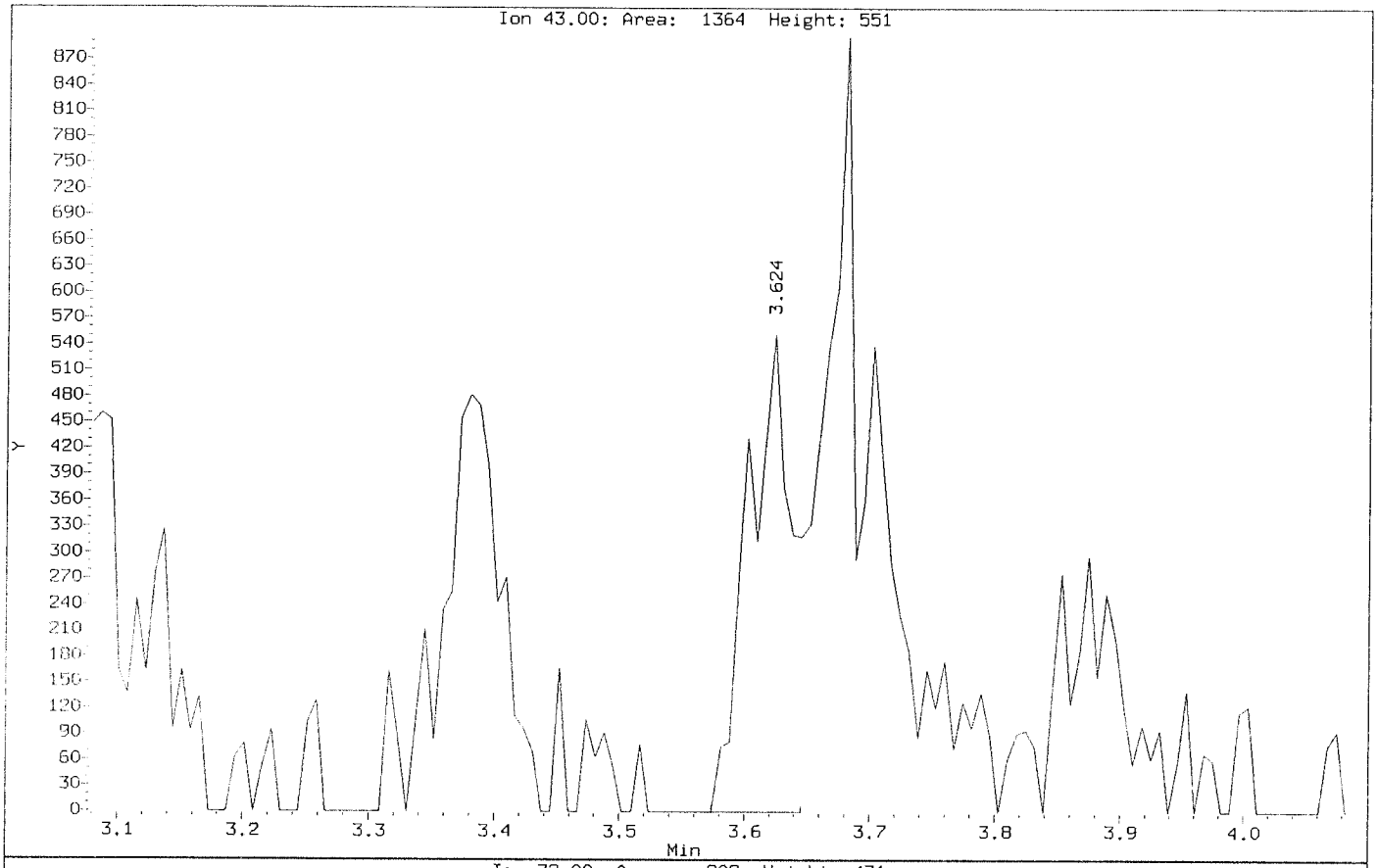
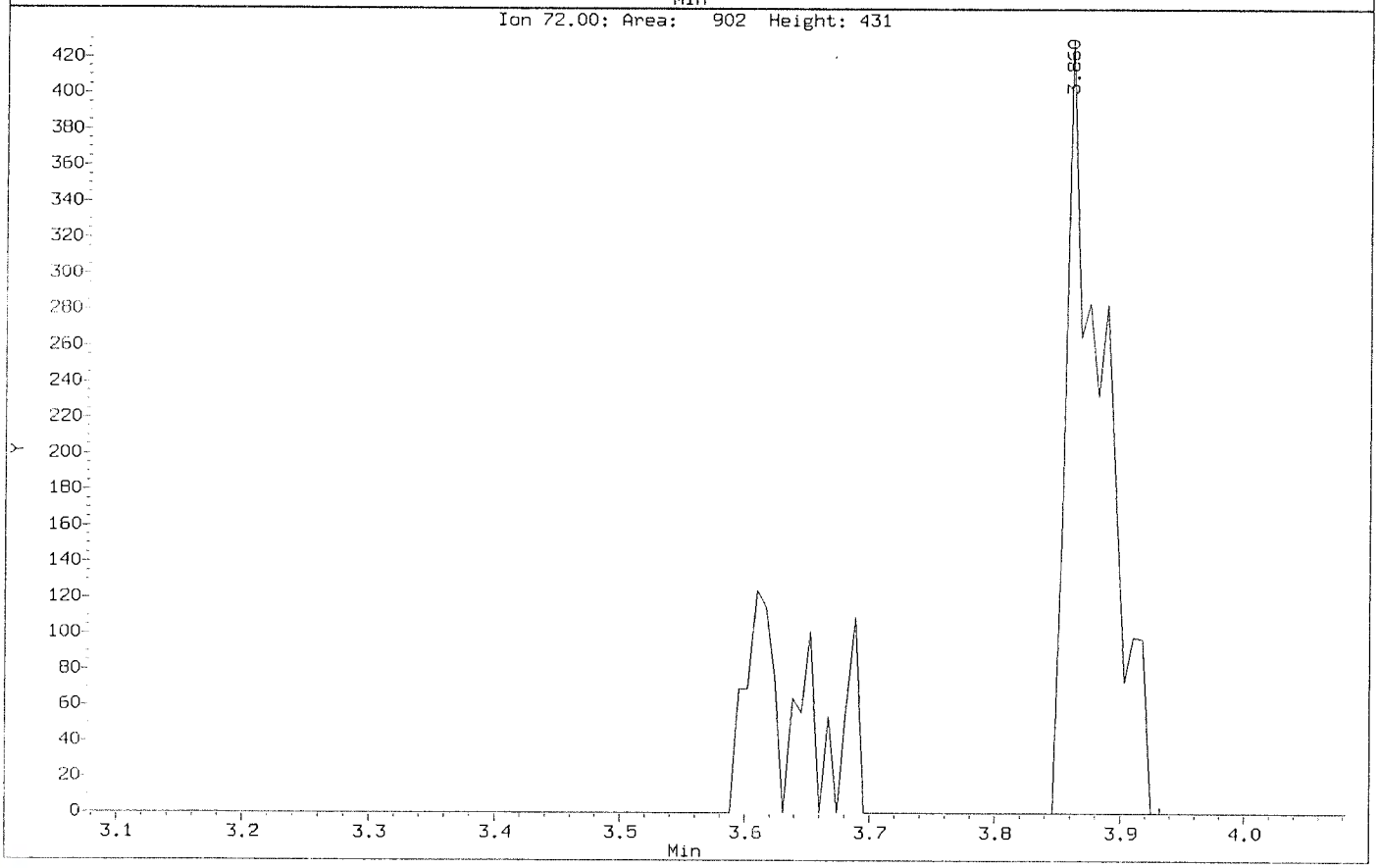
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Butanone
CAS Number: 78-93-3





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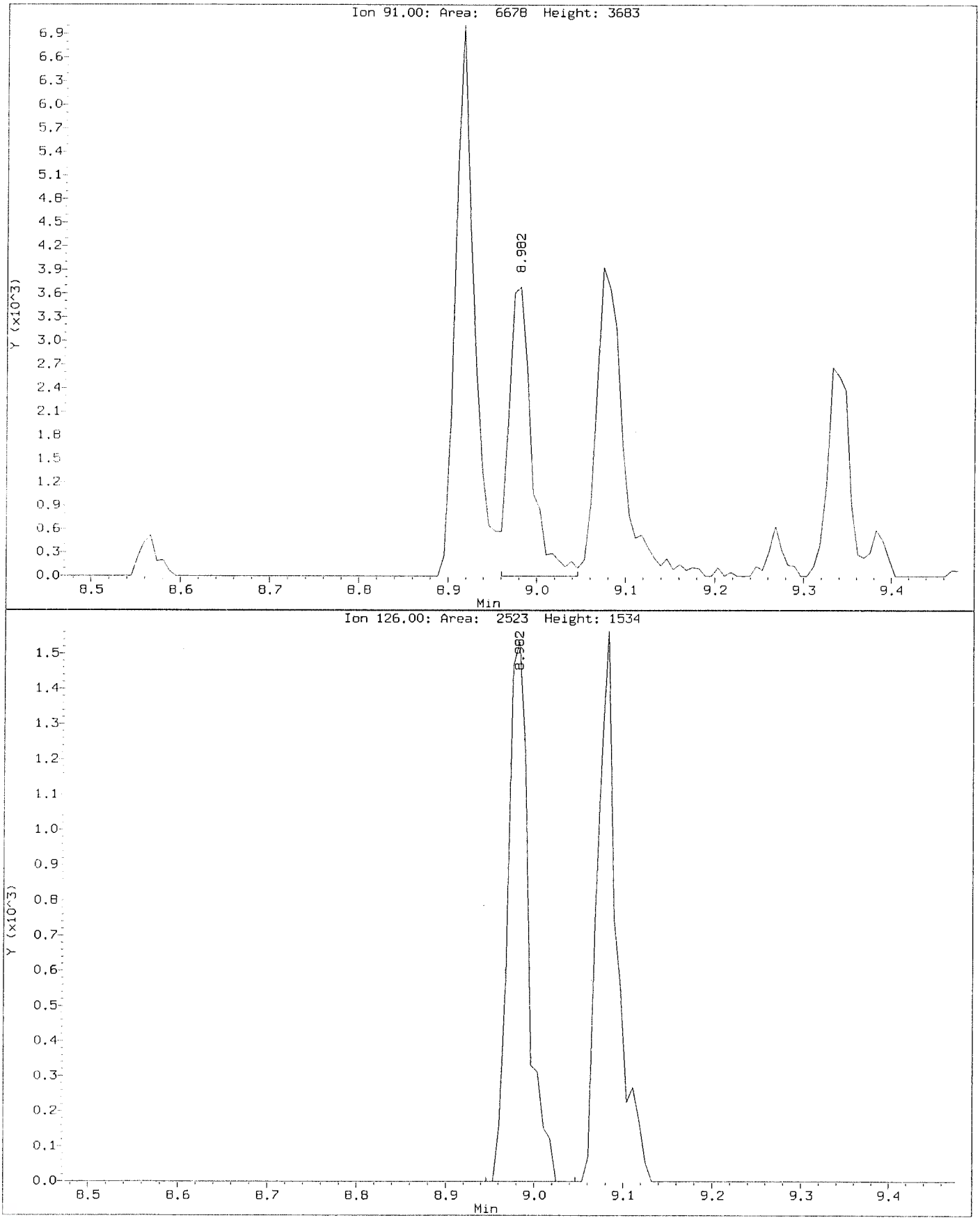
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Chlorotoluene
CAS Number: 95-49-8



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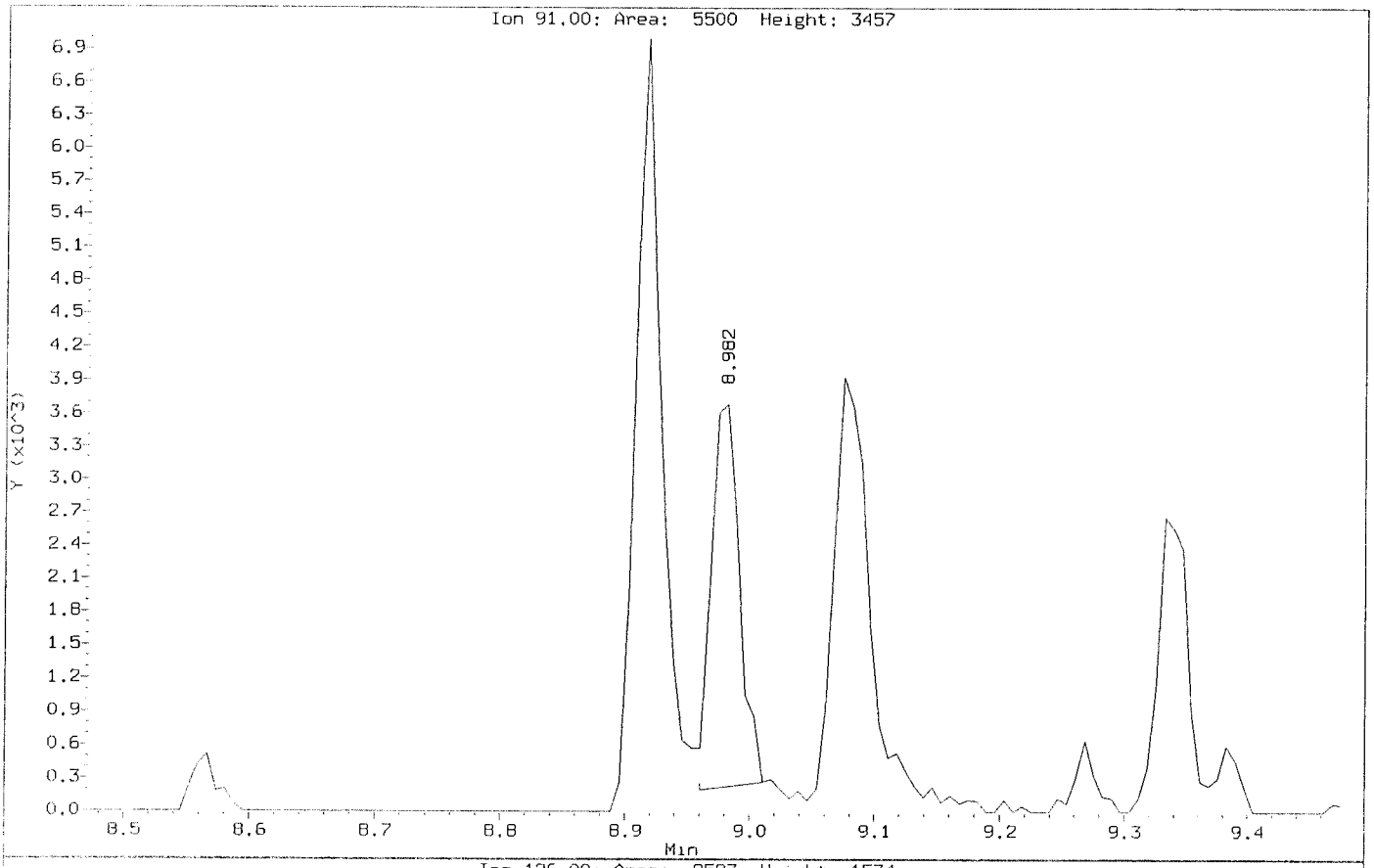
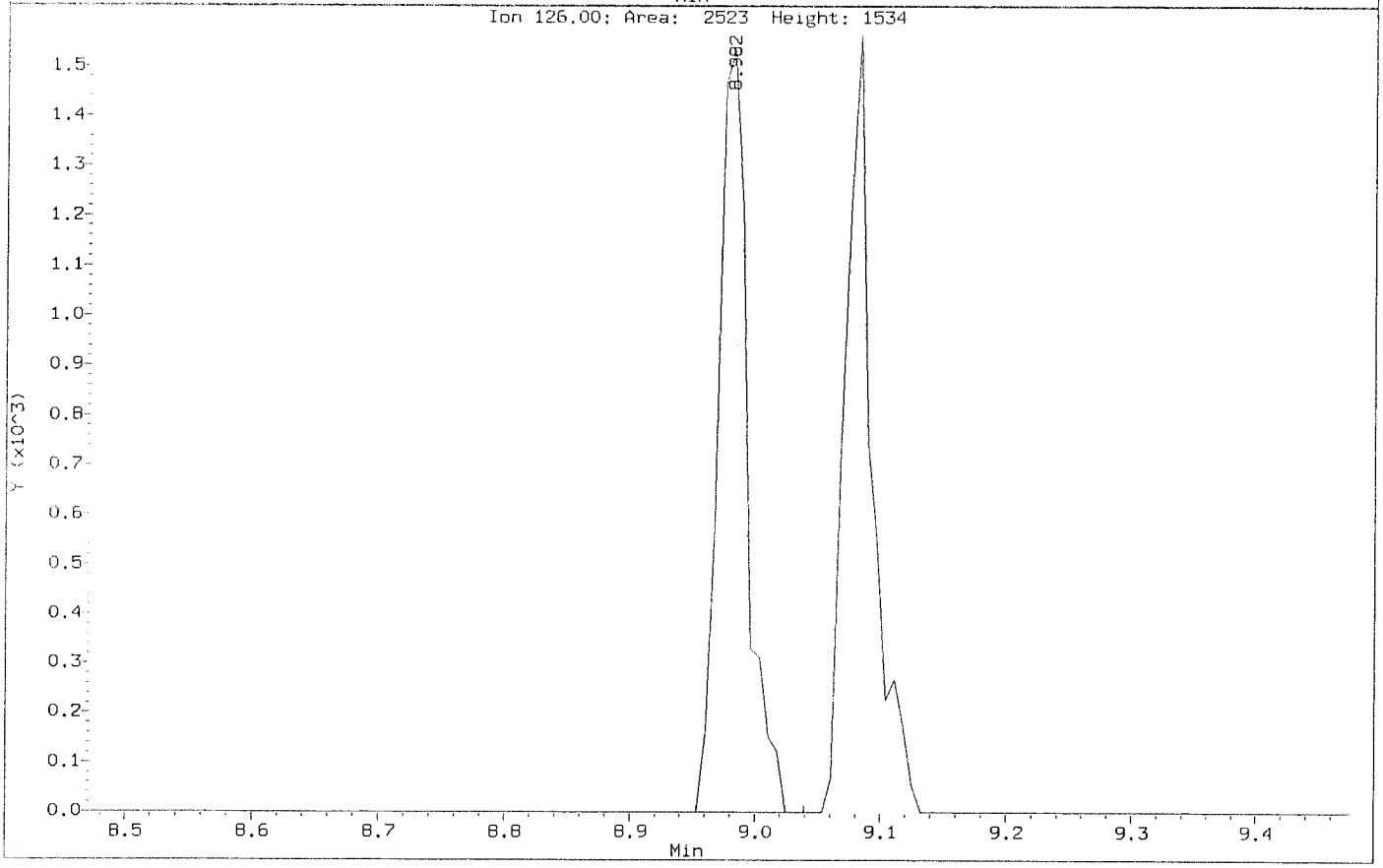
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Chlorotoluene
CAS Number: 95-49-8





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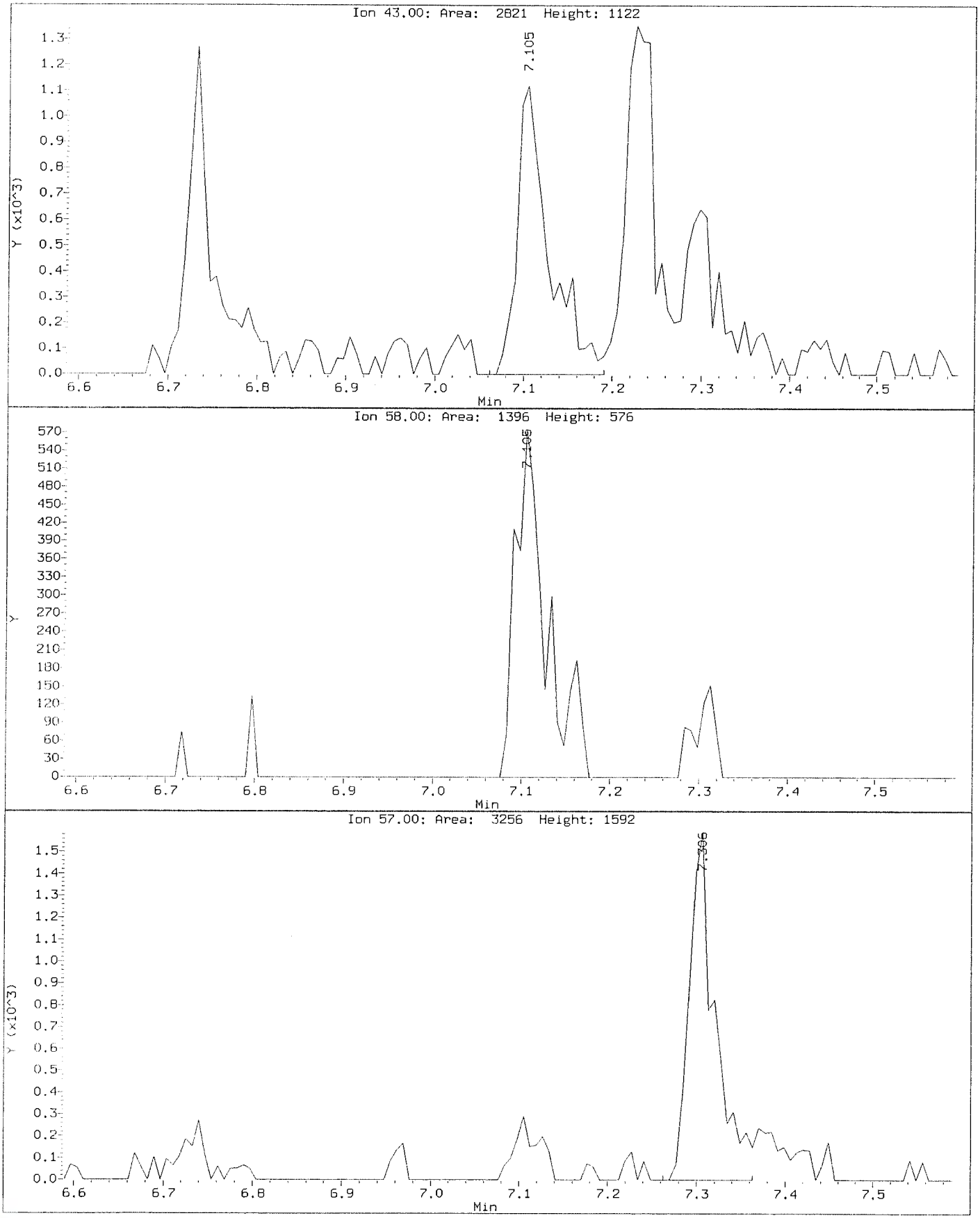
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Hexanone
CAS Number: 591-78-6



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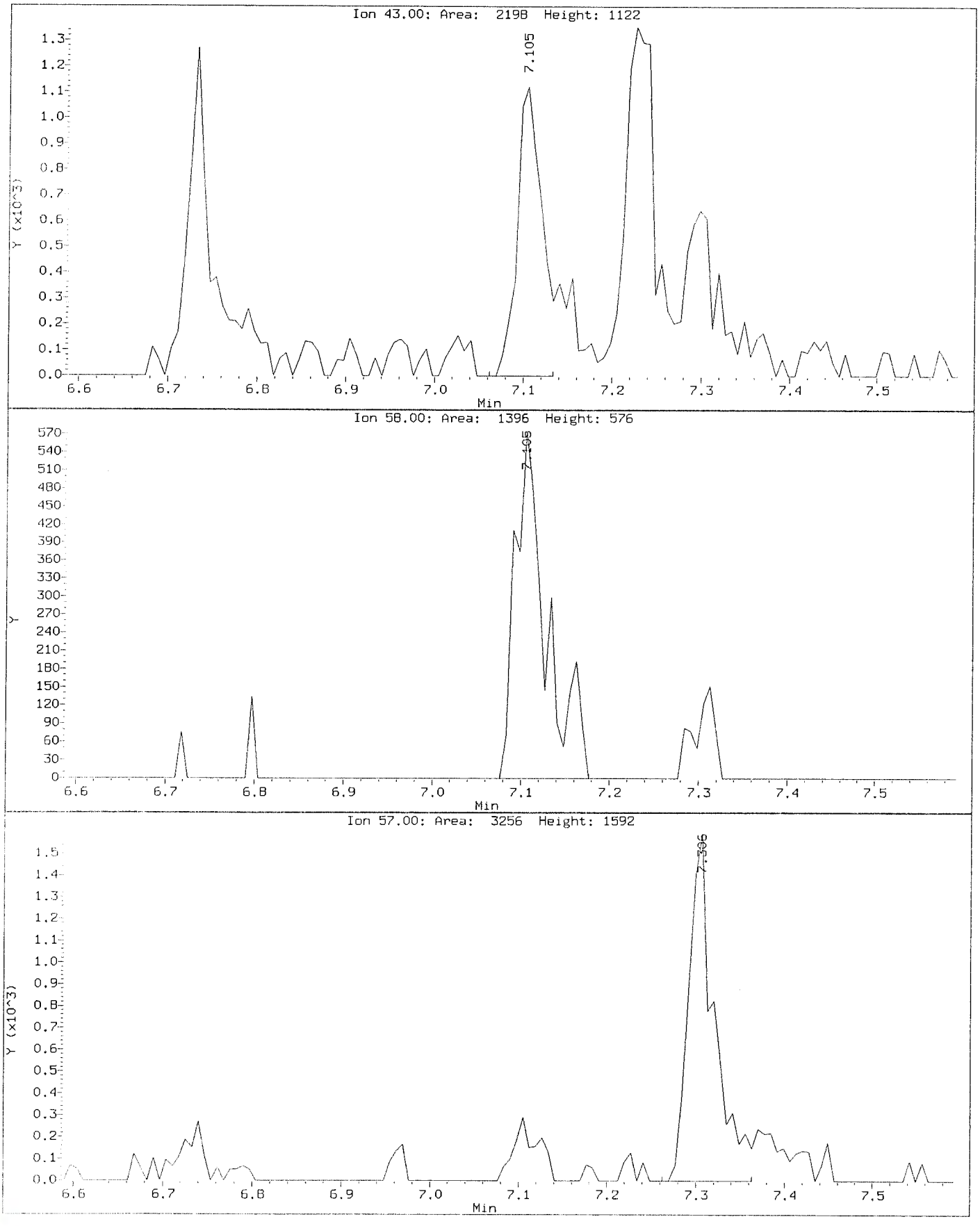
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Hexanone
CAS Number: 591-78-6



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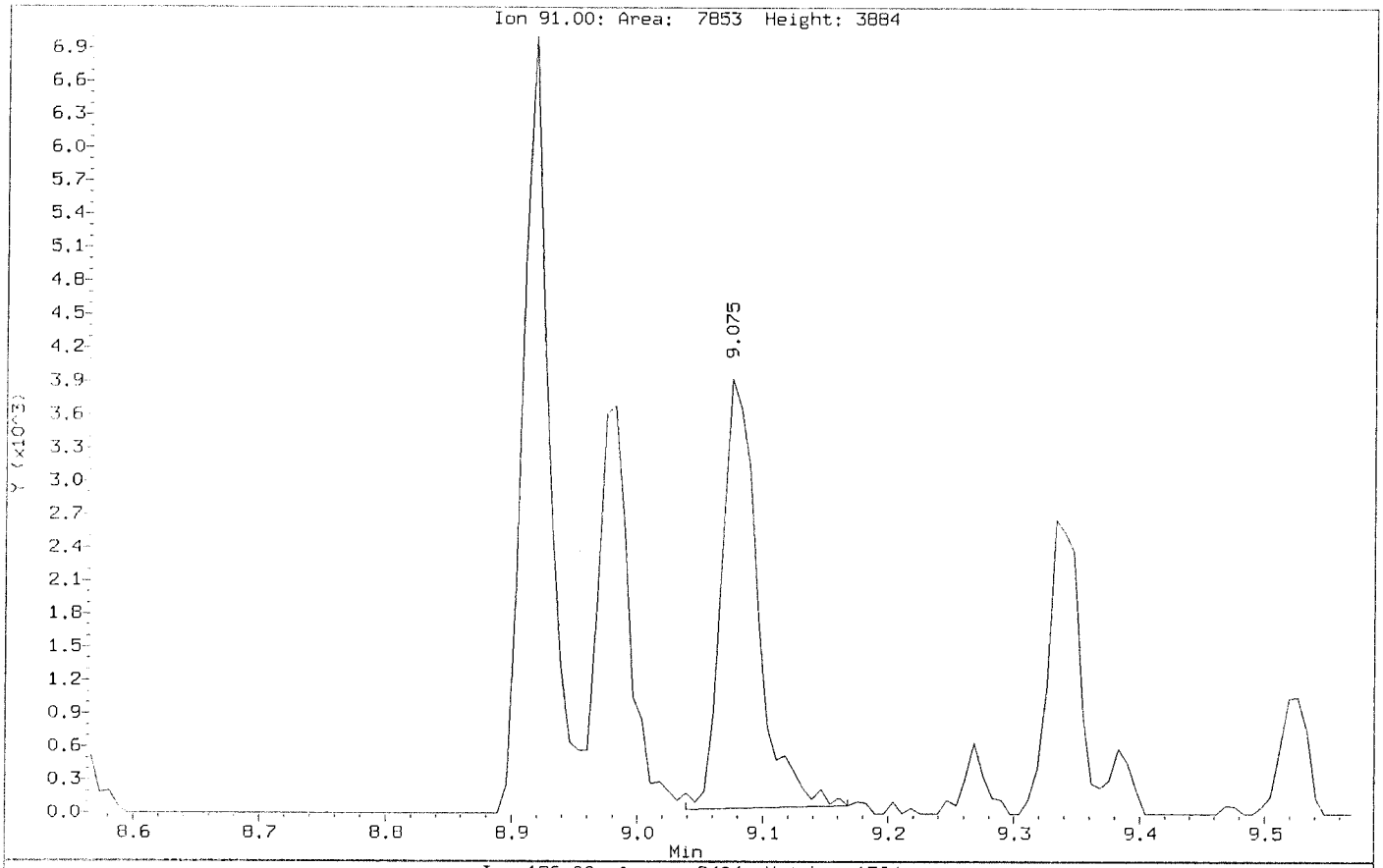
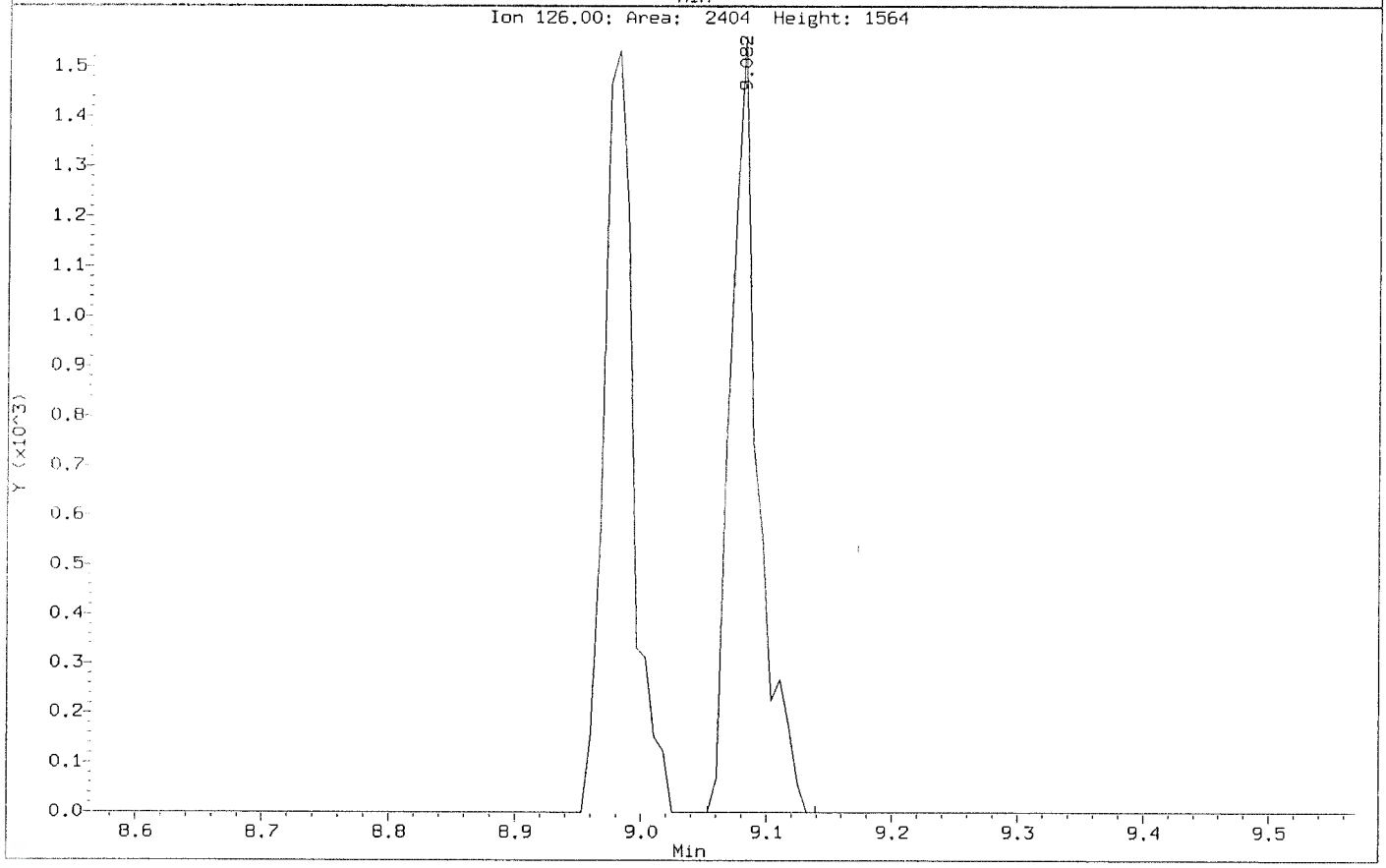
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 4-Chlorotoluene
CAS Number: 106-43-4





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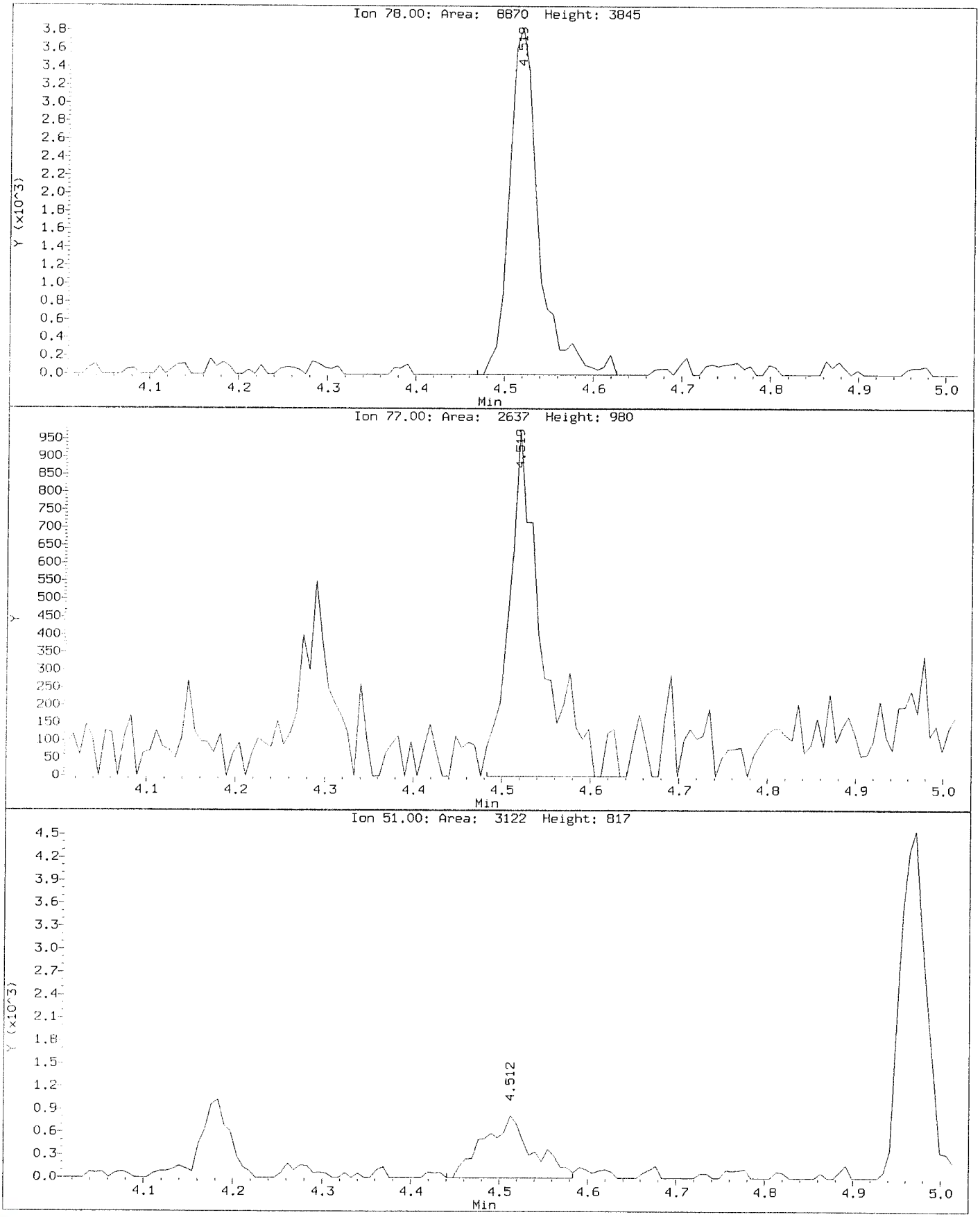
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Benzene
CAS Number: 71-43-2



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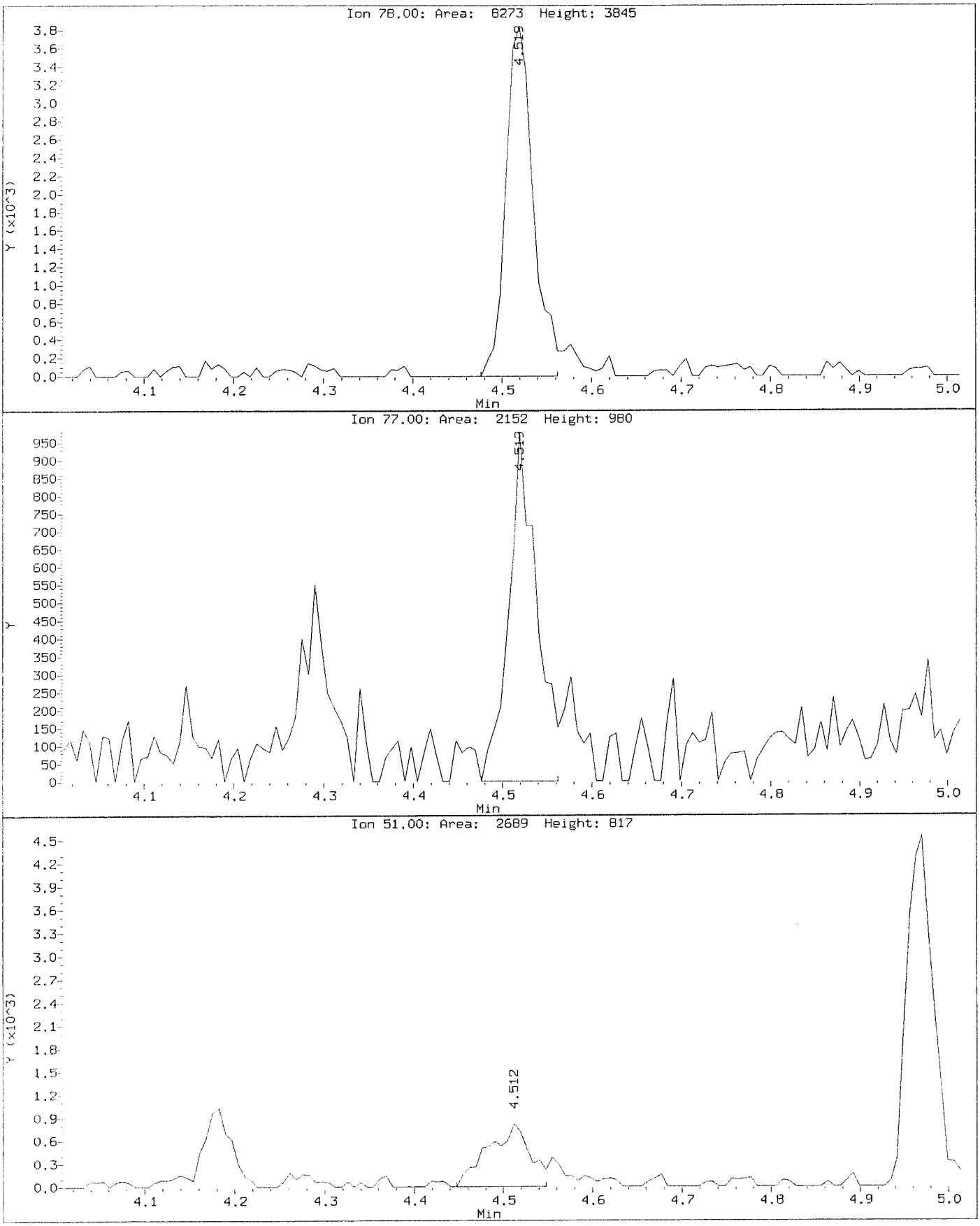
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Benzene
CAS Number: 71-43-2



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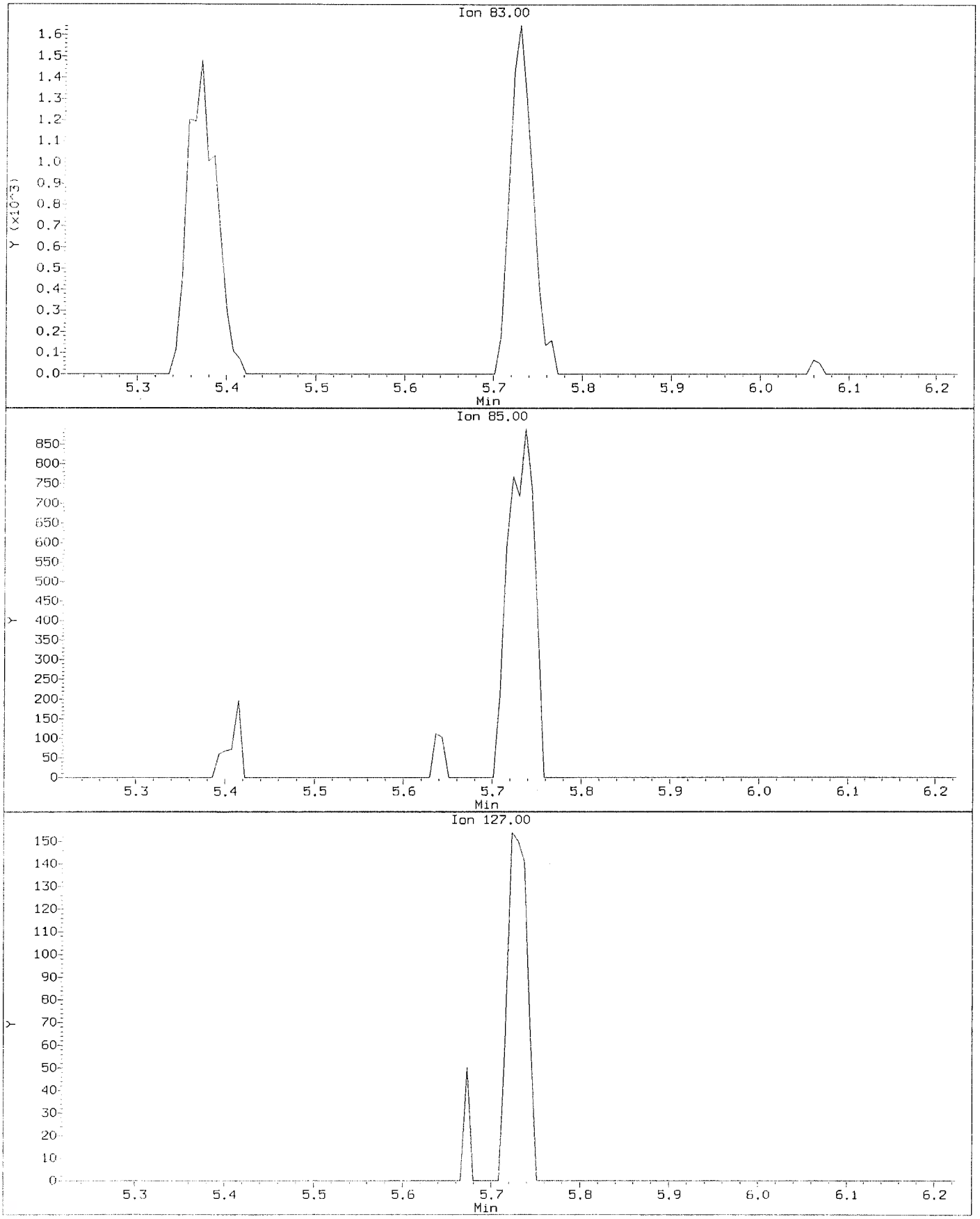
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



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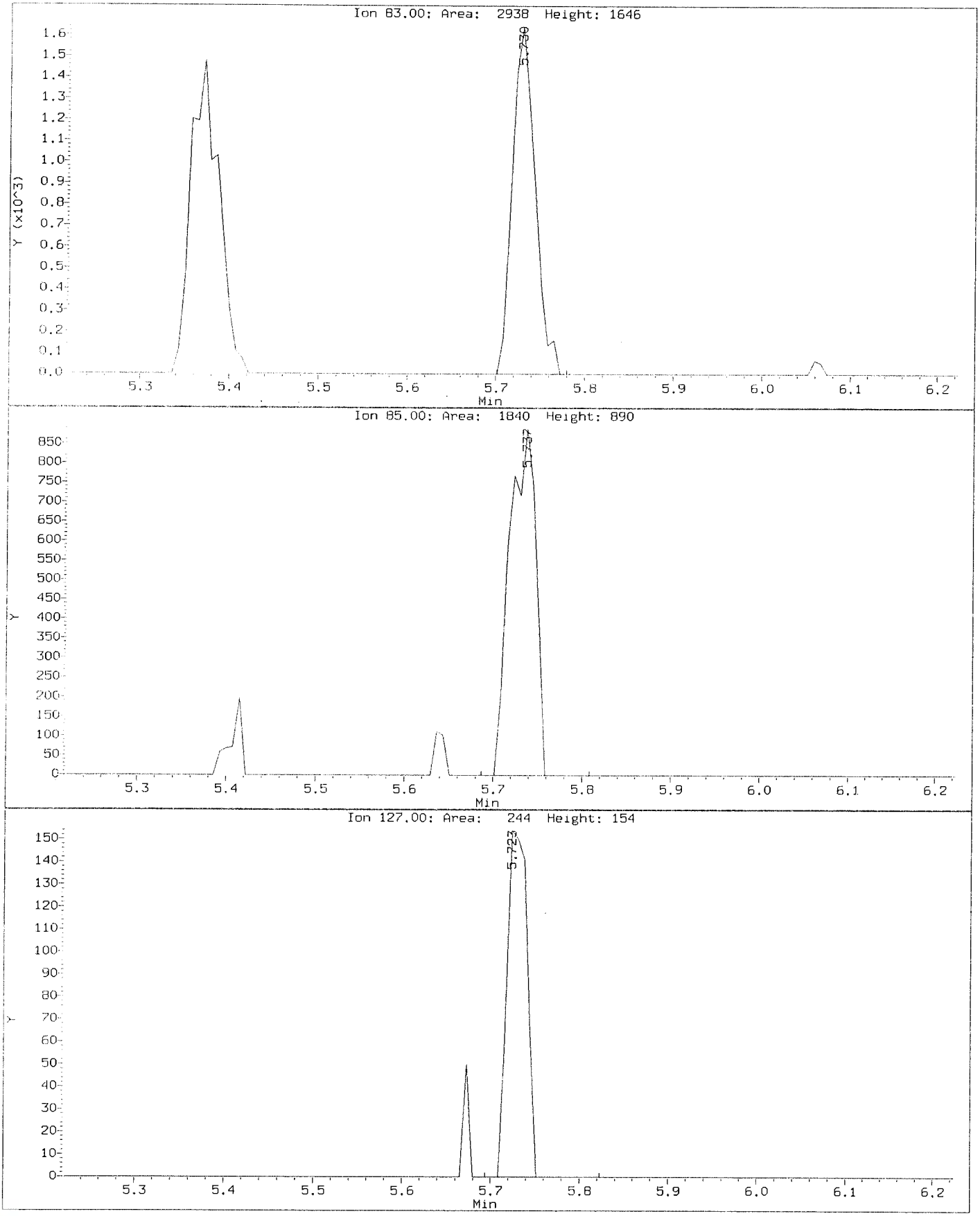
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



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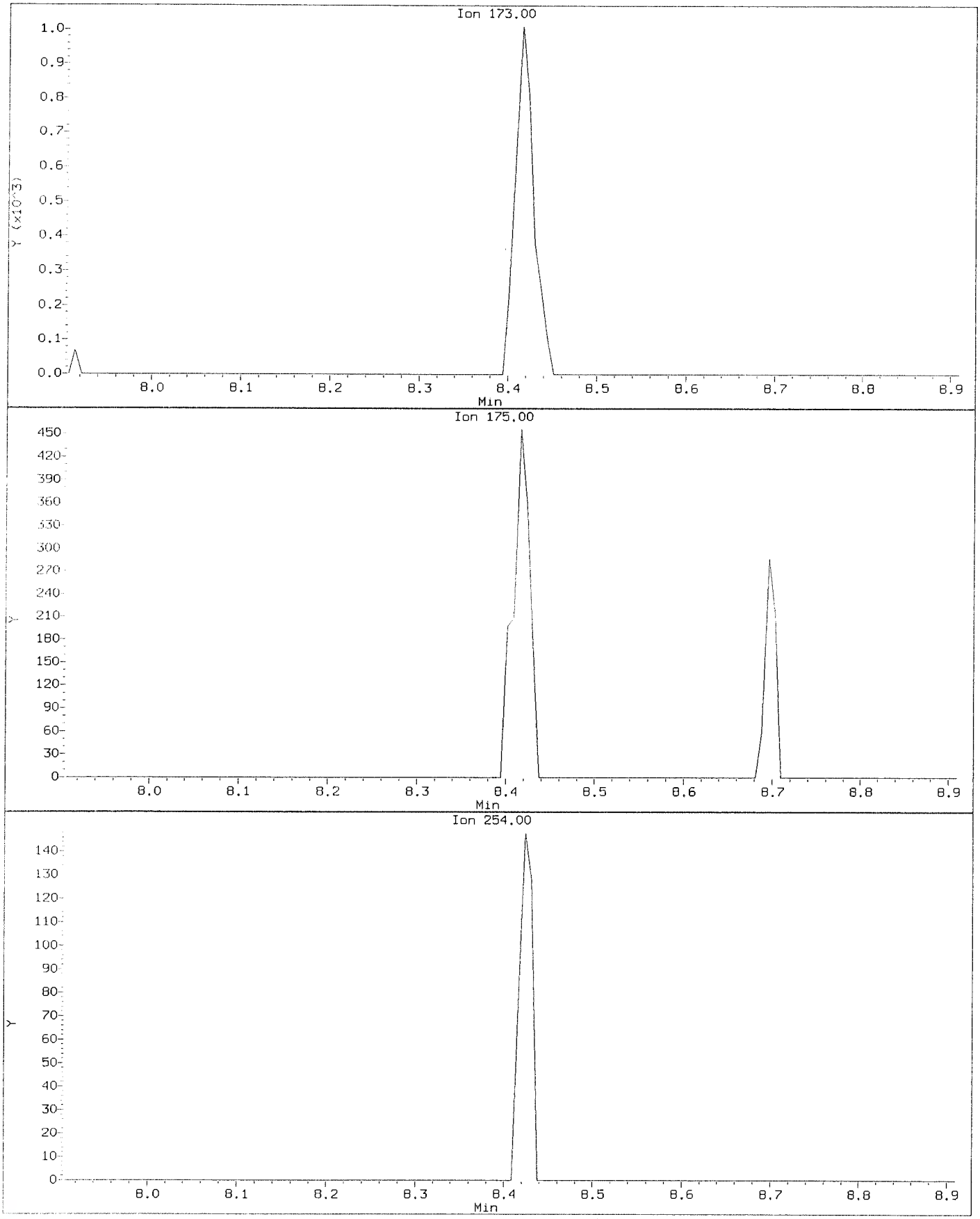
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromoform
CAS Number: 75-25-2



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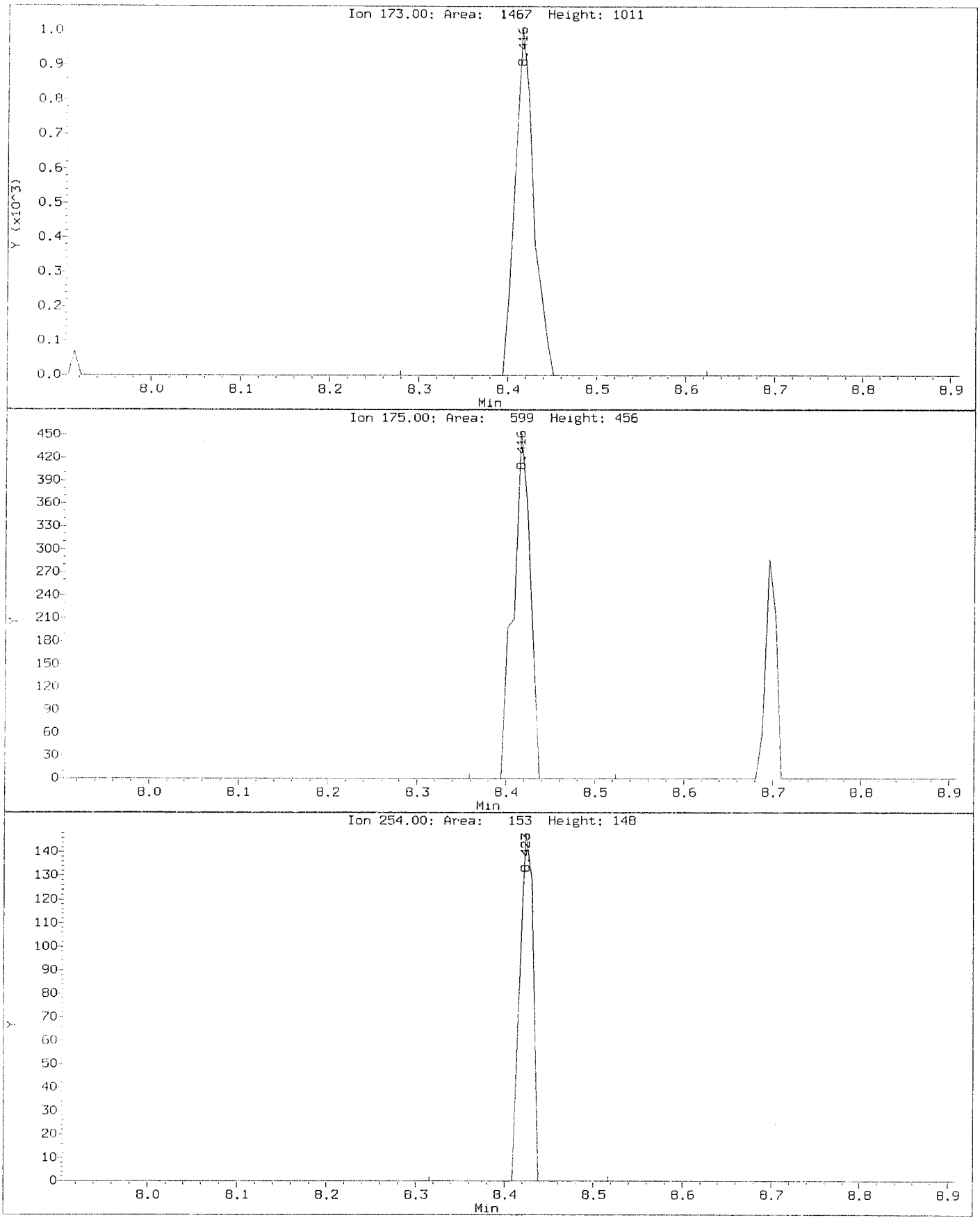
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromoform
CAS Number: 75-25-2



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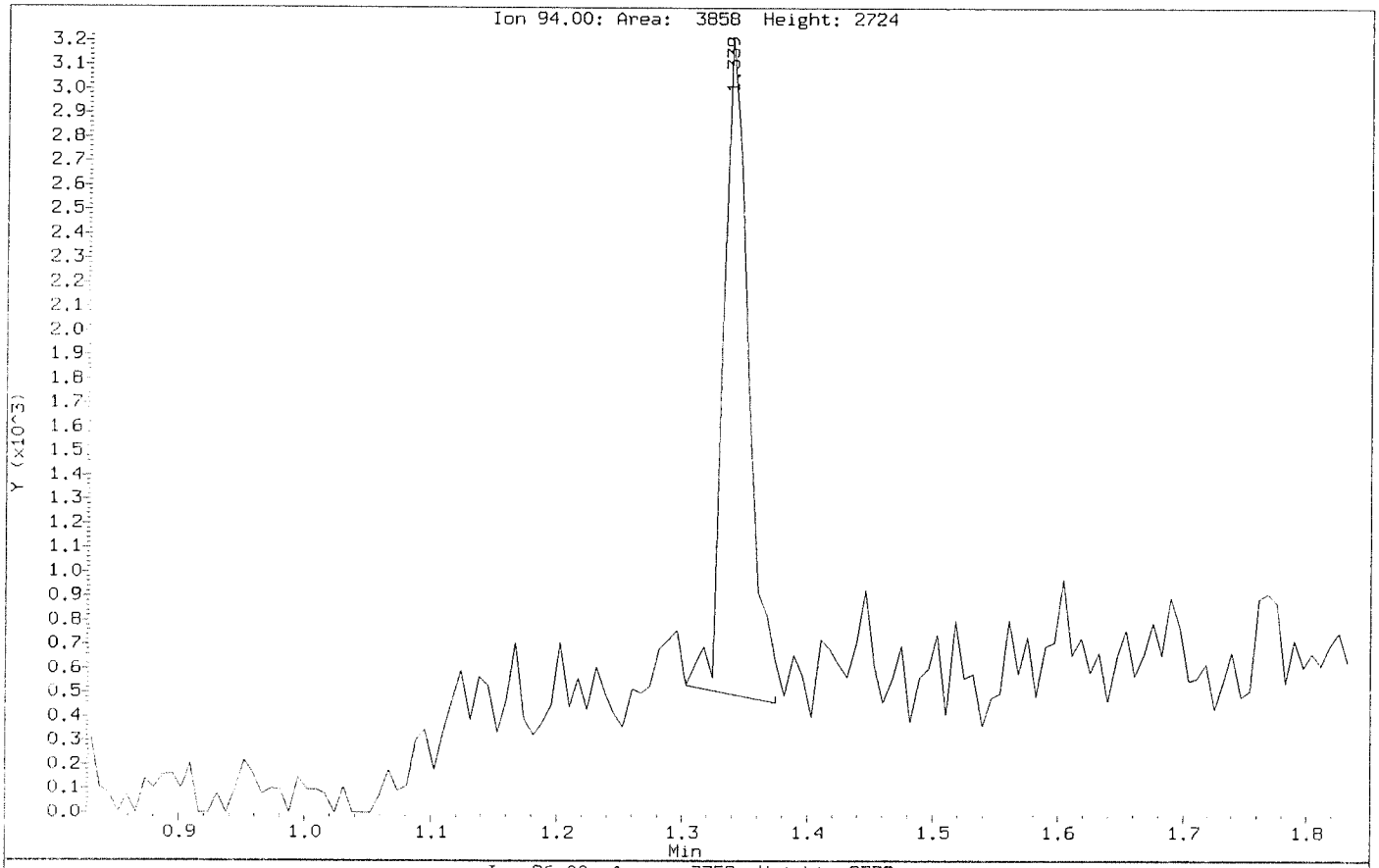
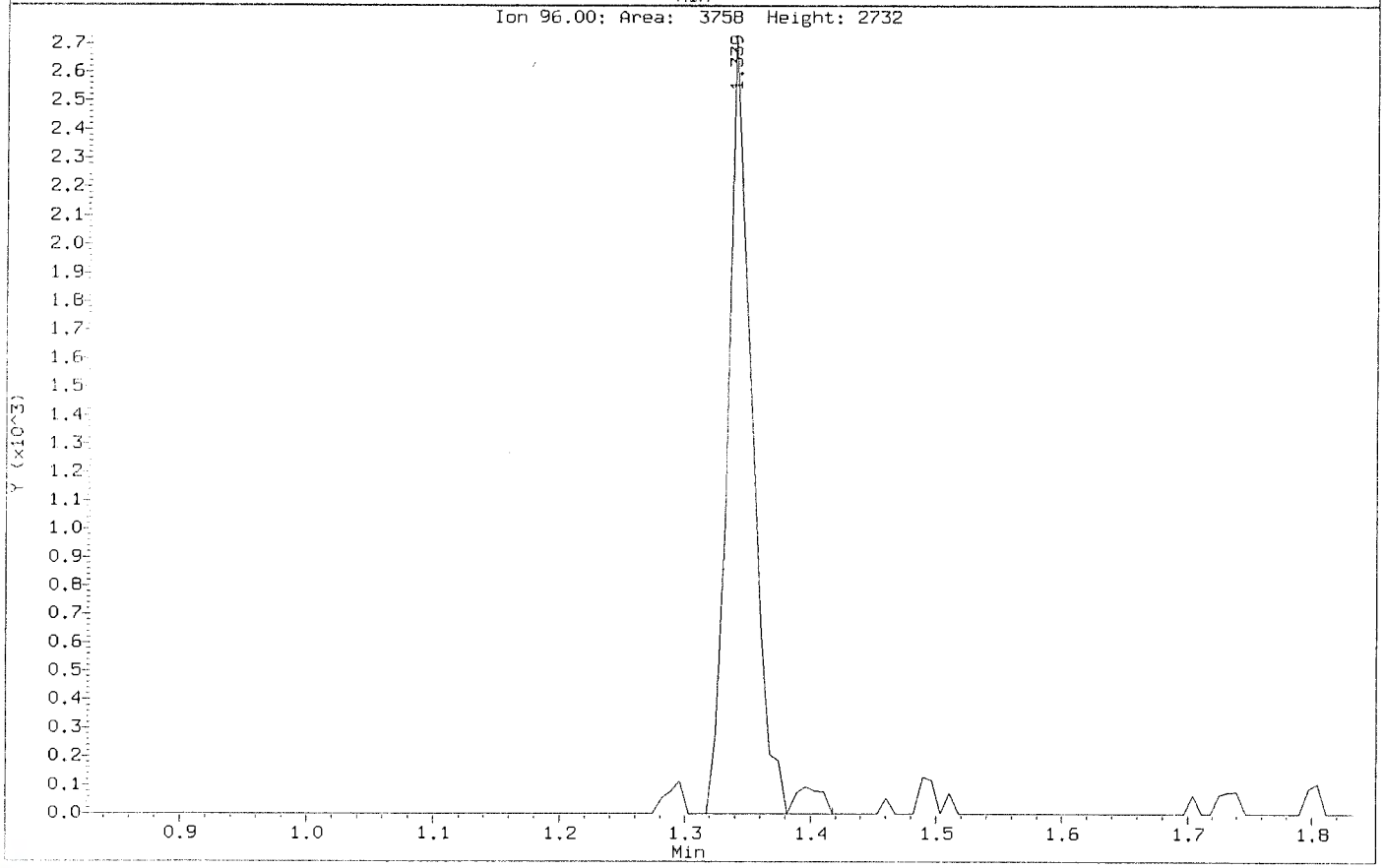
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromomethane
CAS Number: 74-83-9





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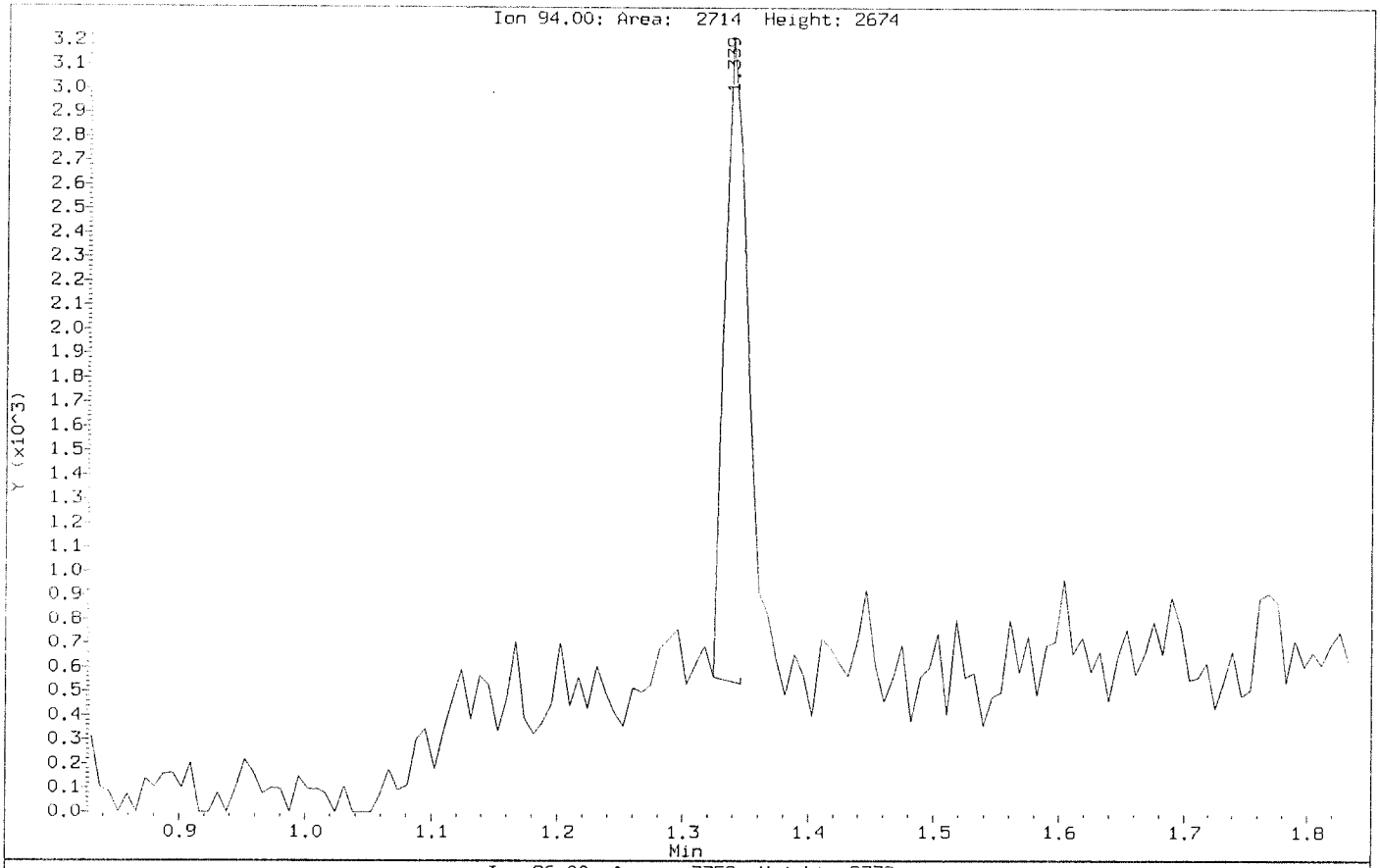
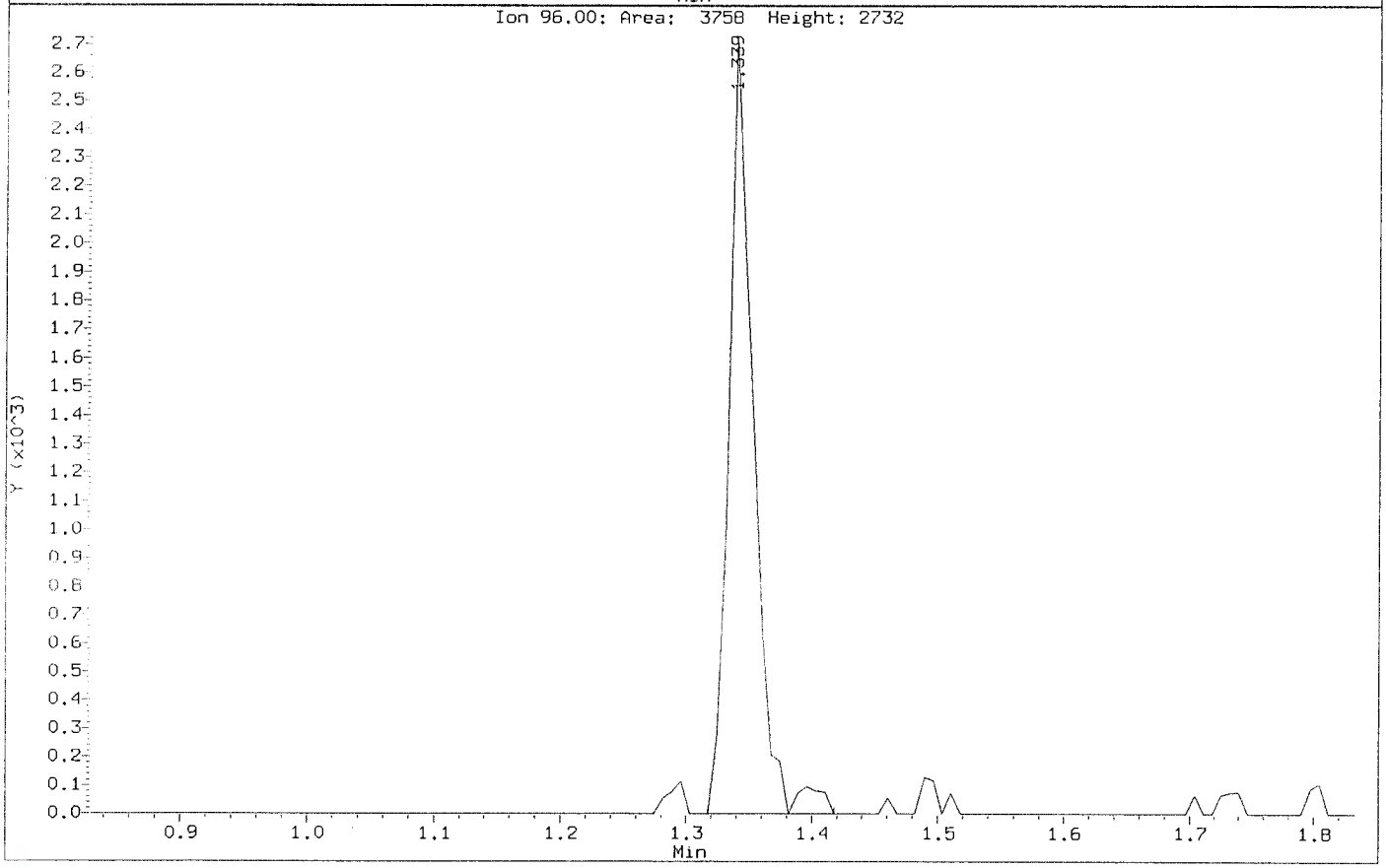
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromomethane
CAS Number: 74-83-9





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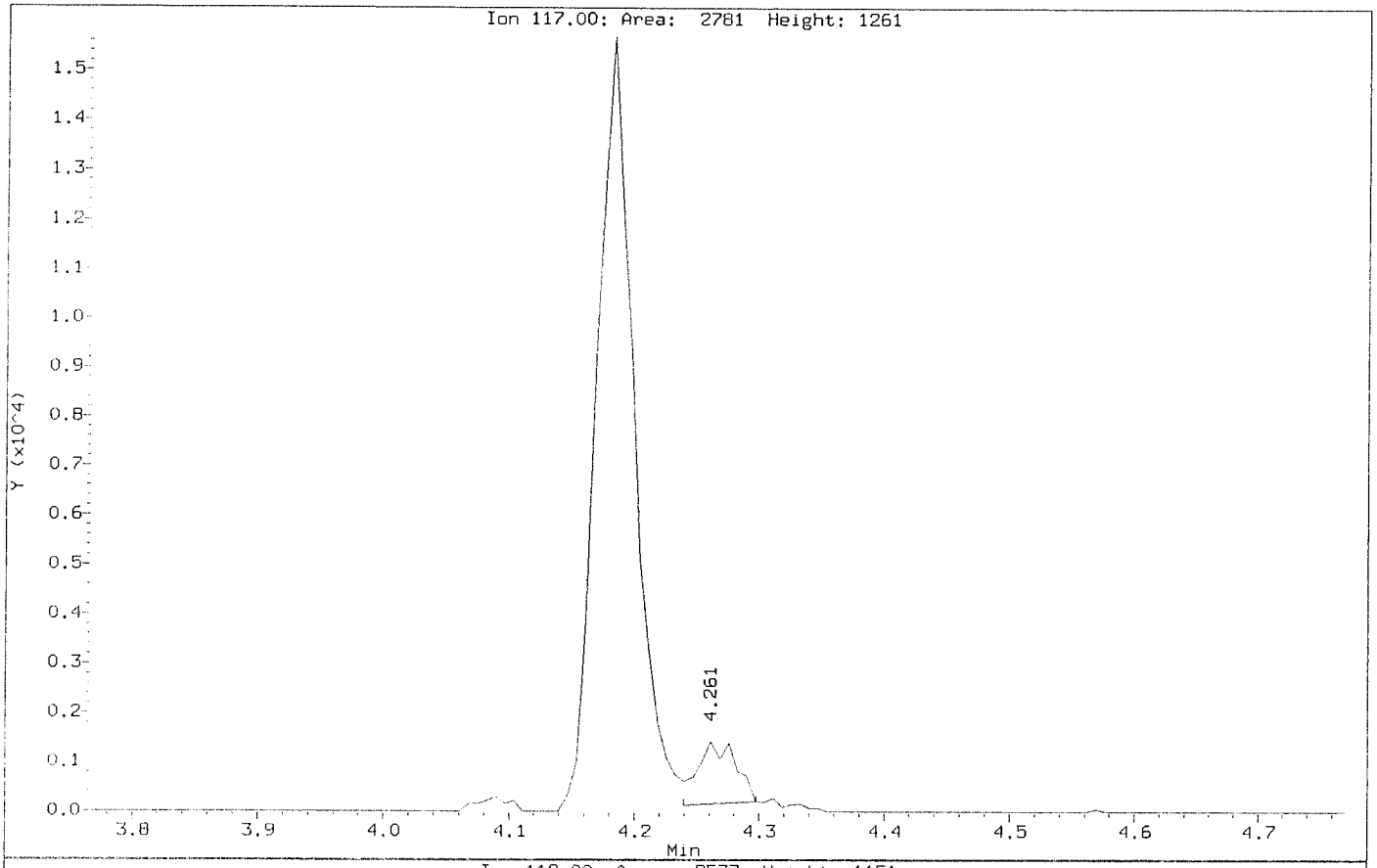
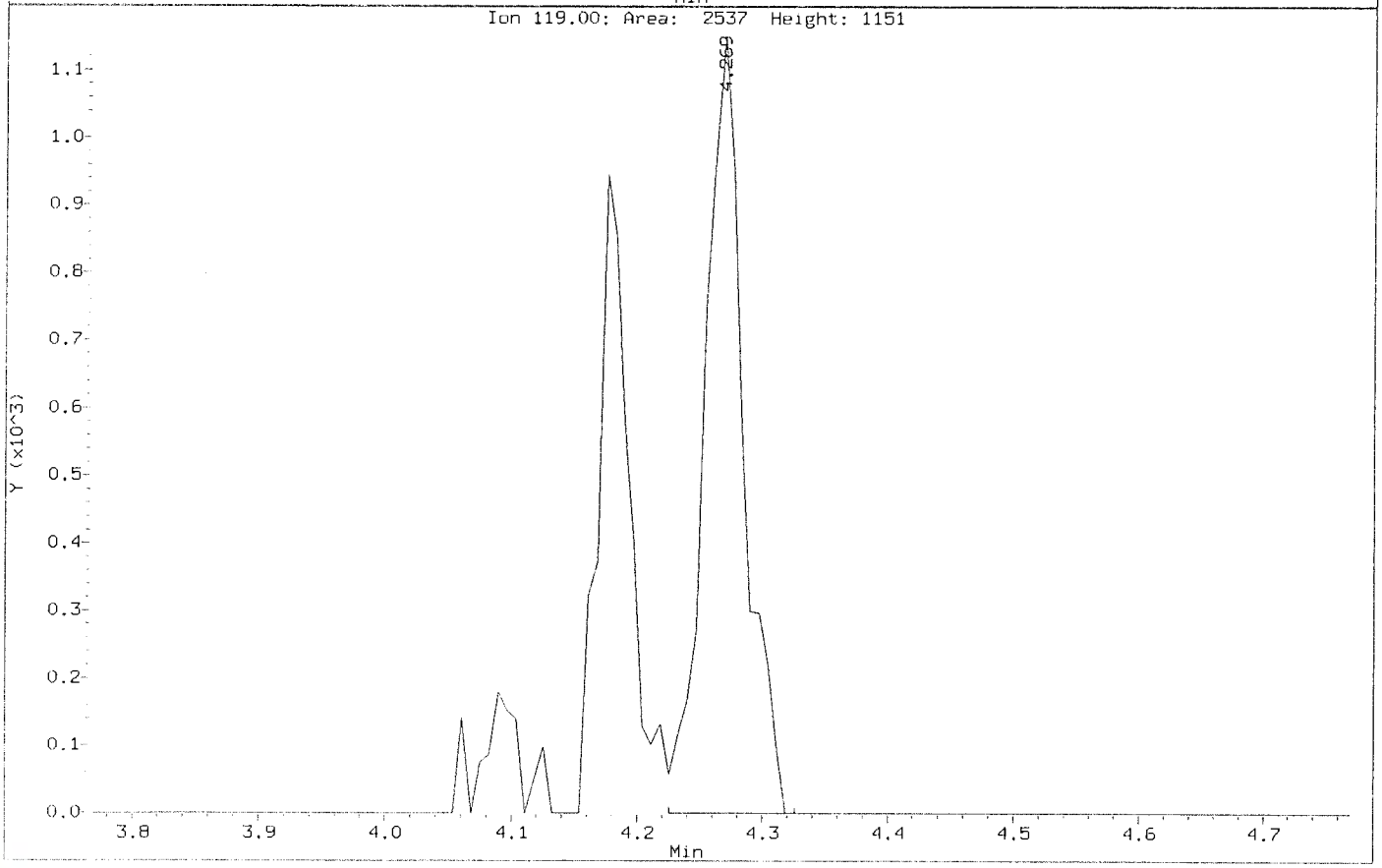
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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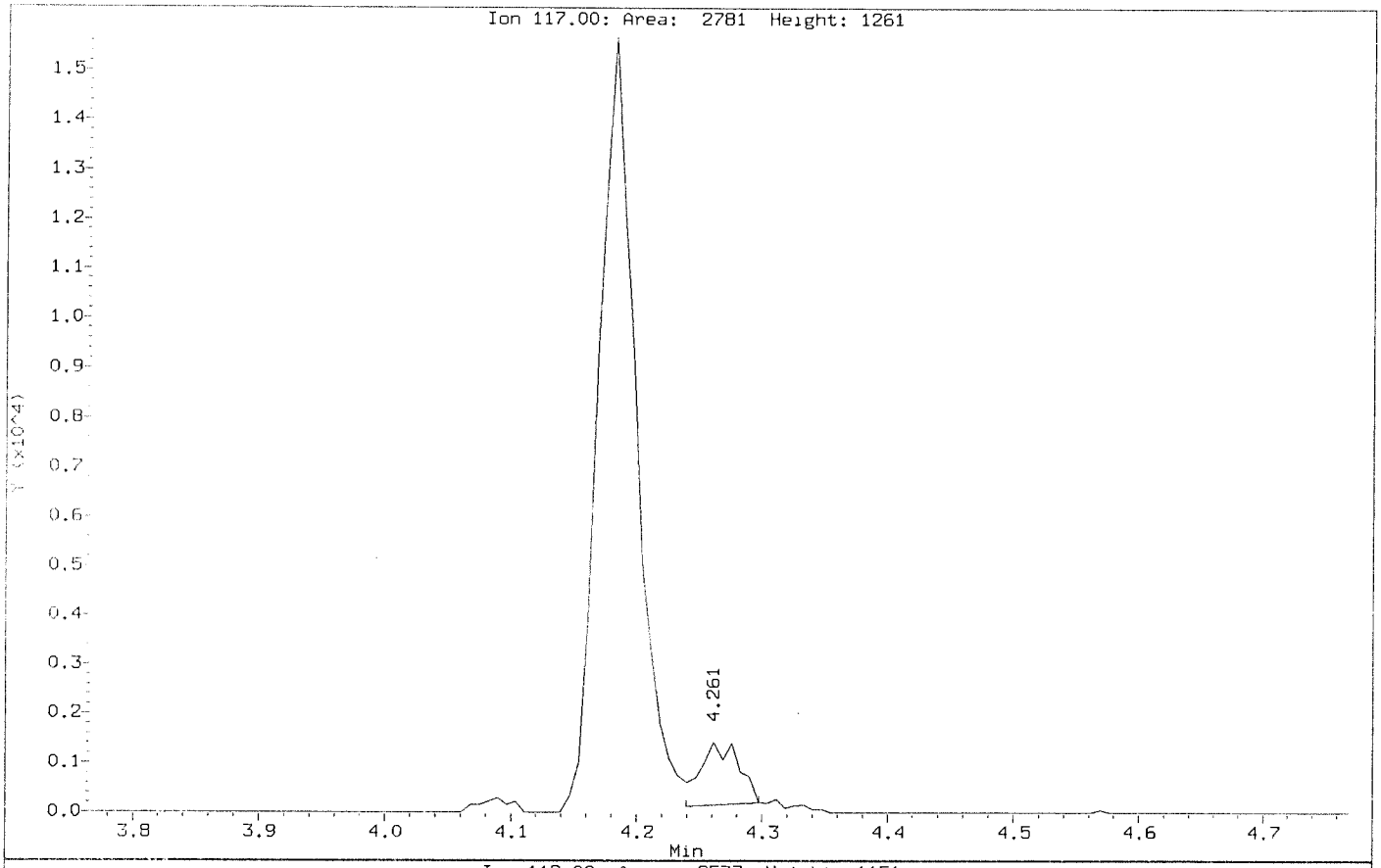
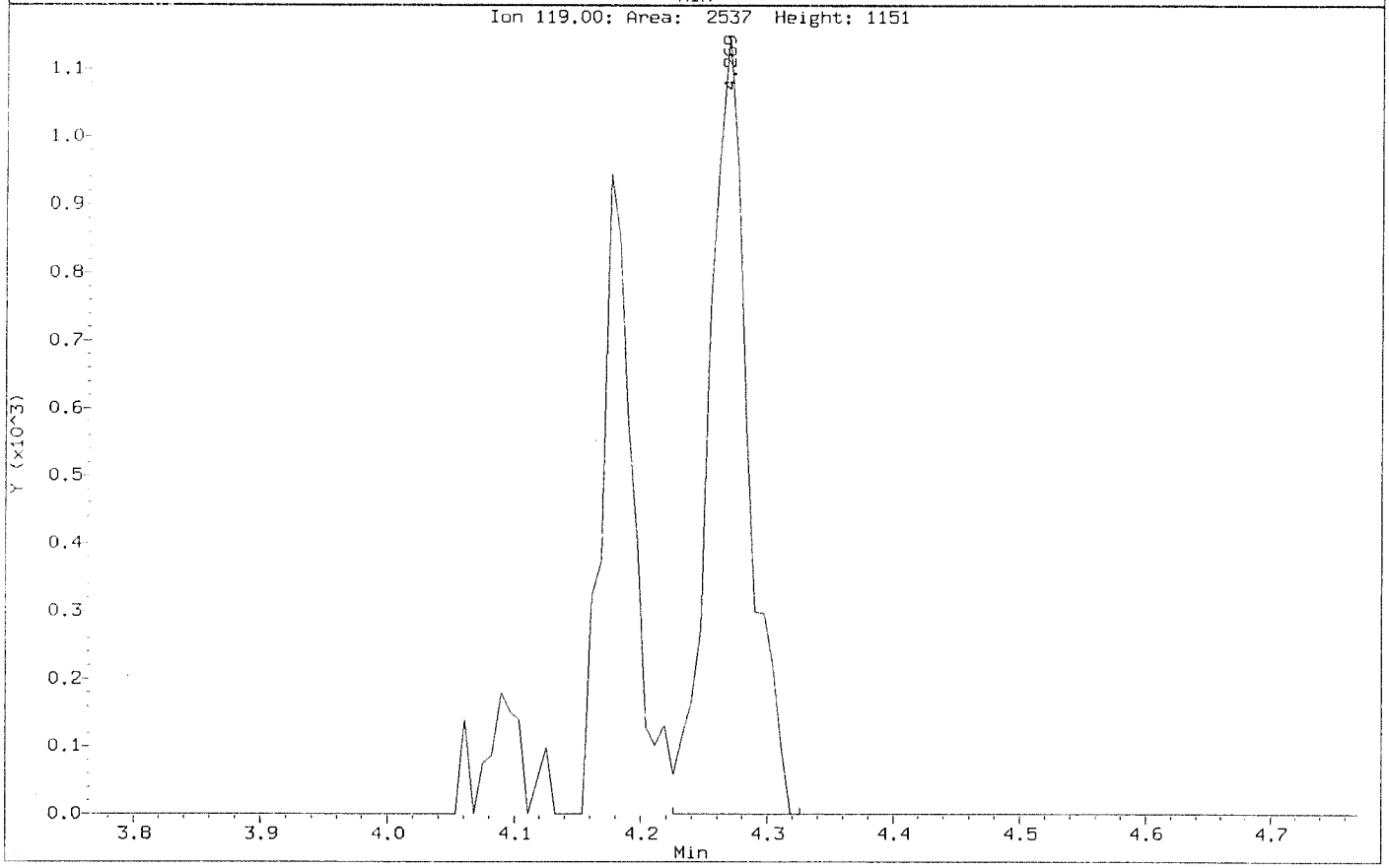
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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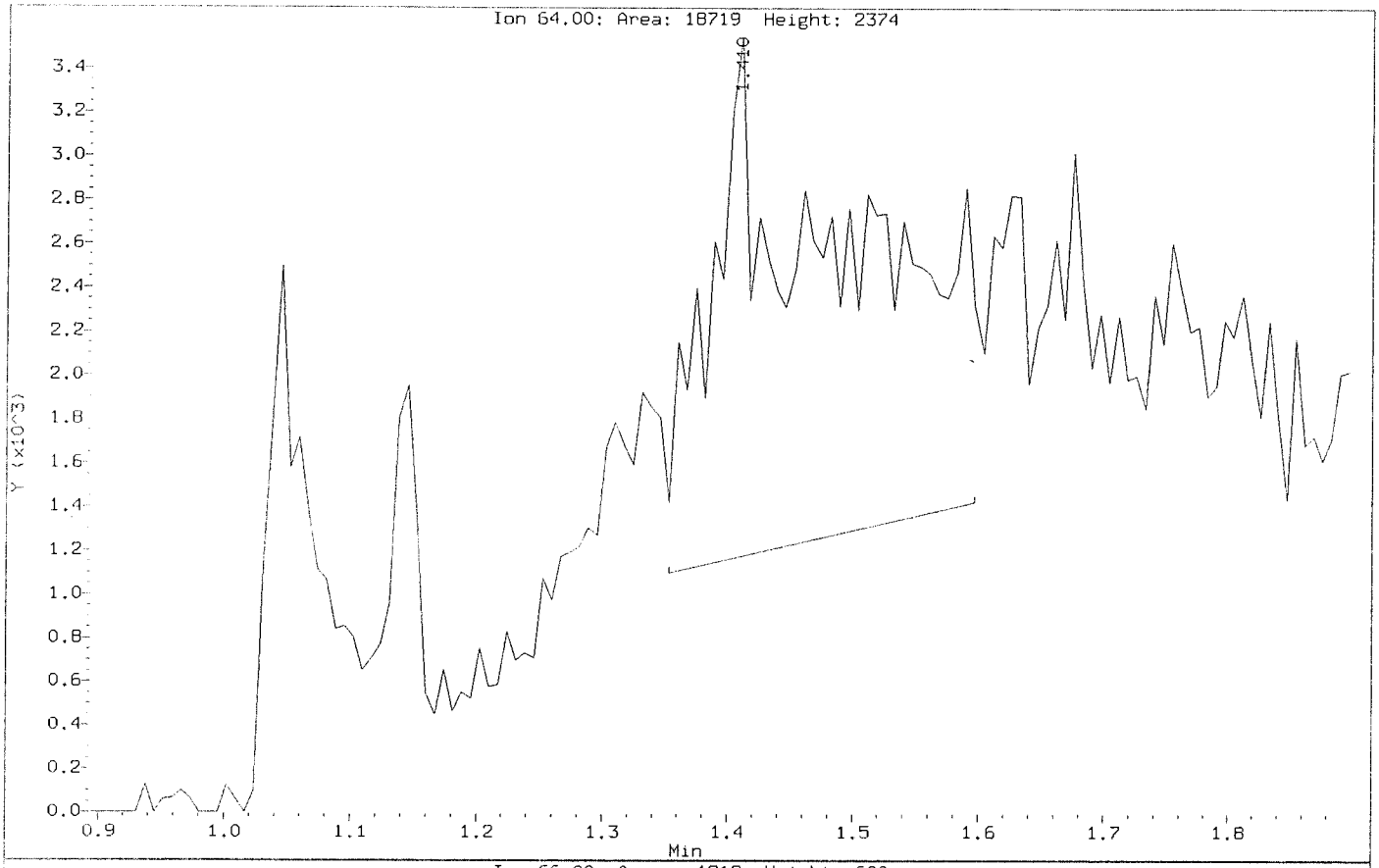
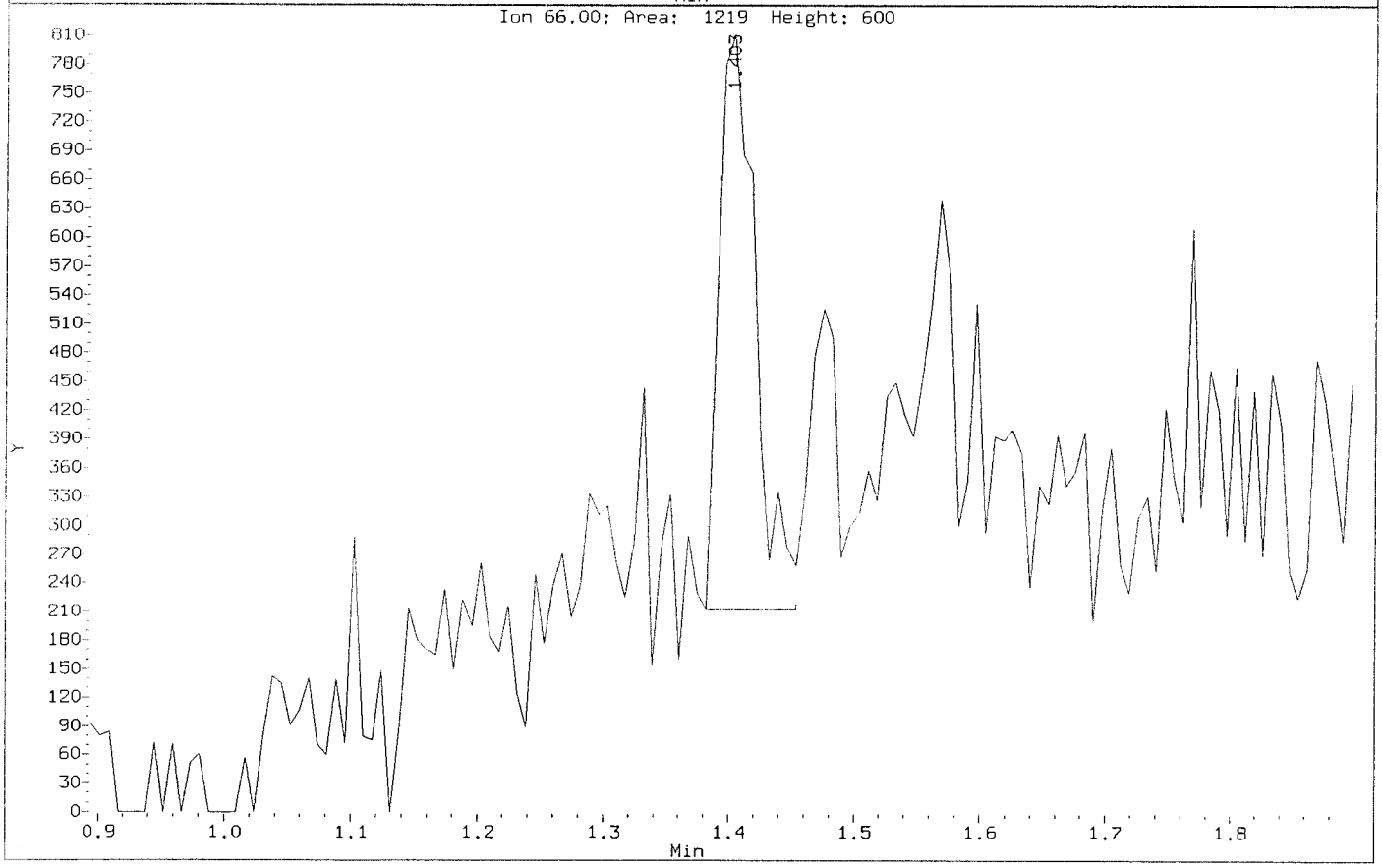
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloroethane
CAS Number: 75-00-3





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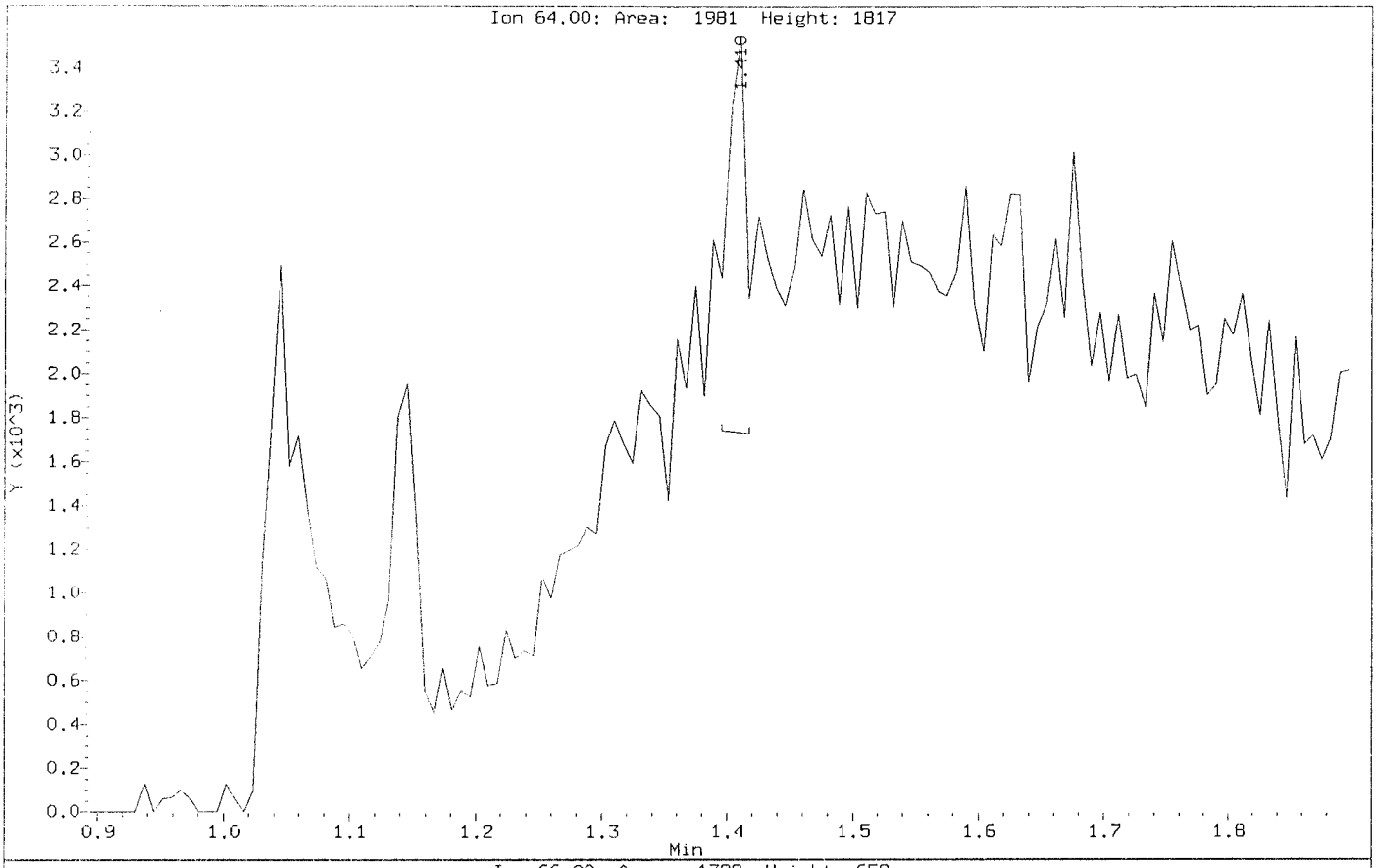
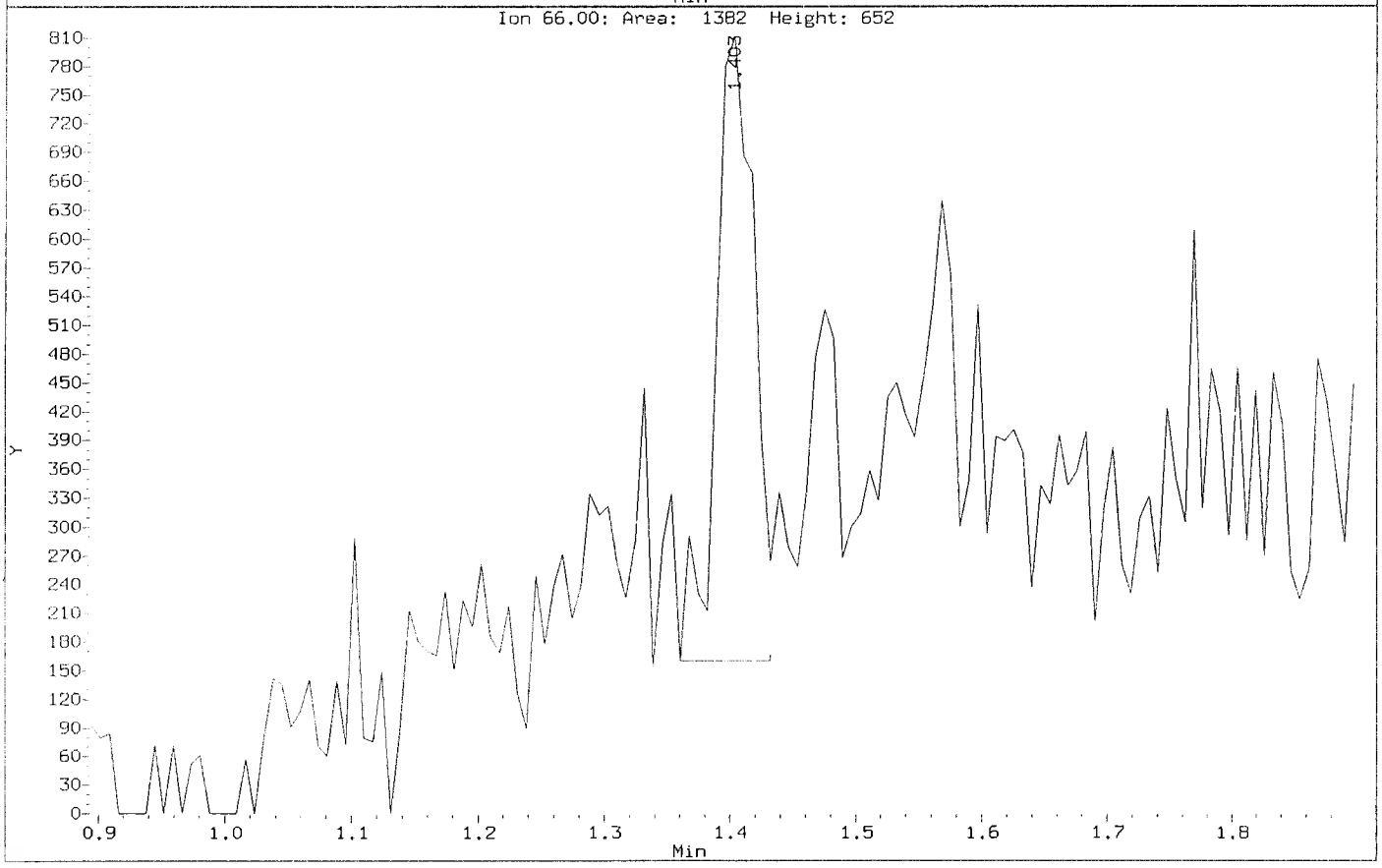
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloroethane
CAS Number: 75-00-3





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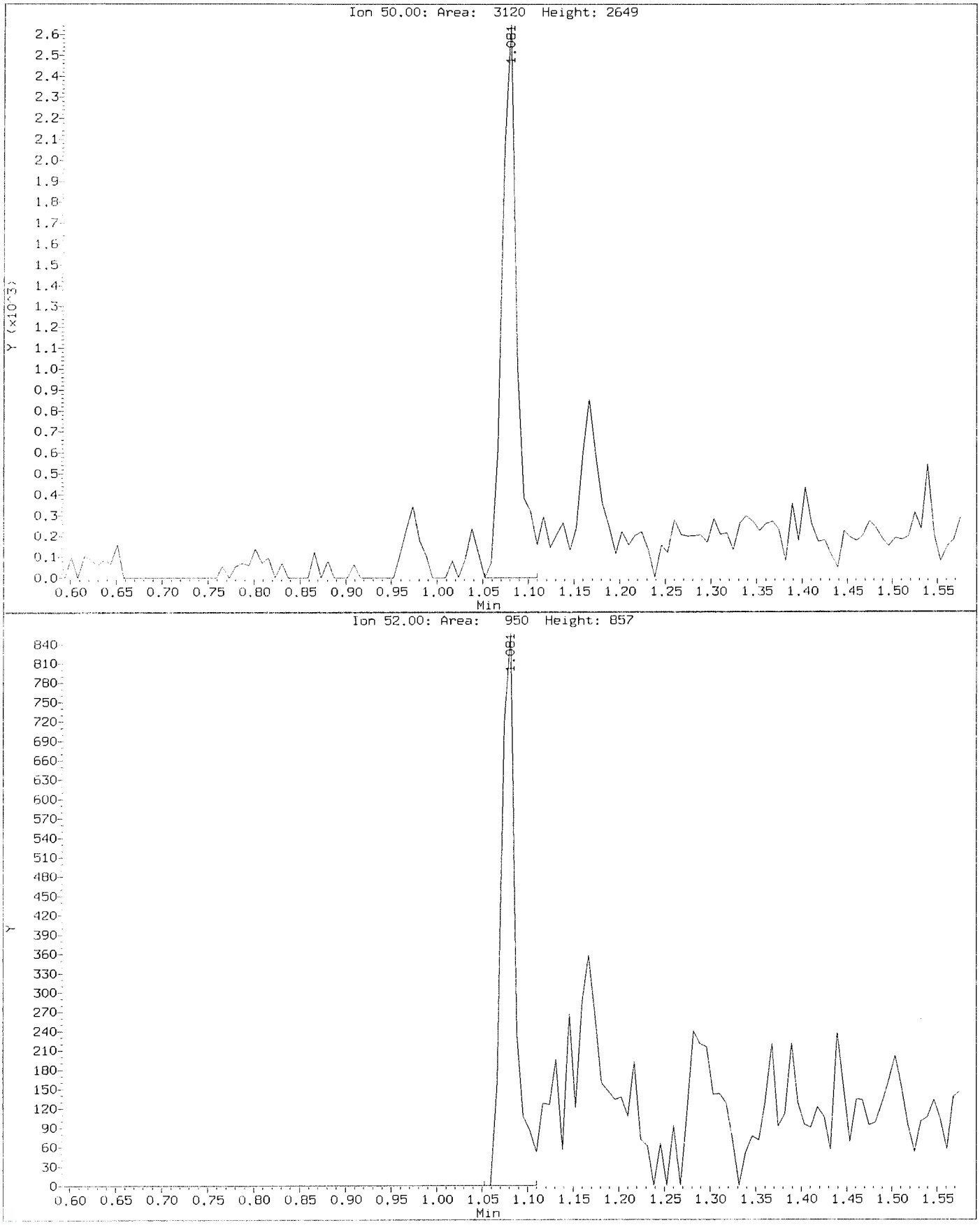
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloromethane
CAS Number: 74-87-3



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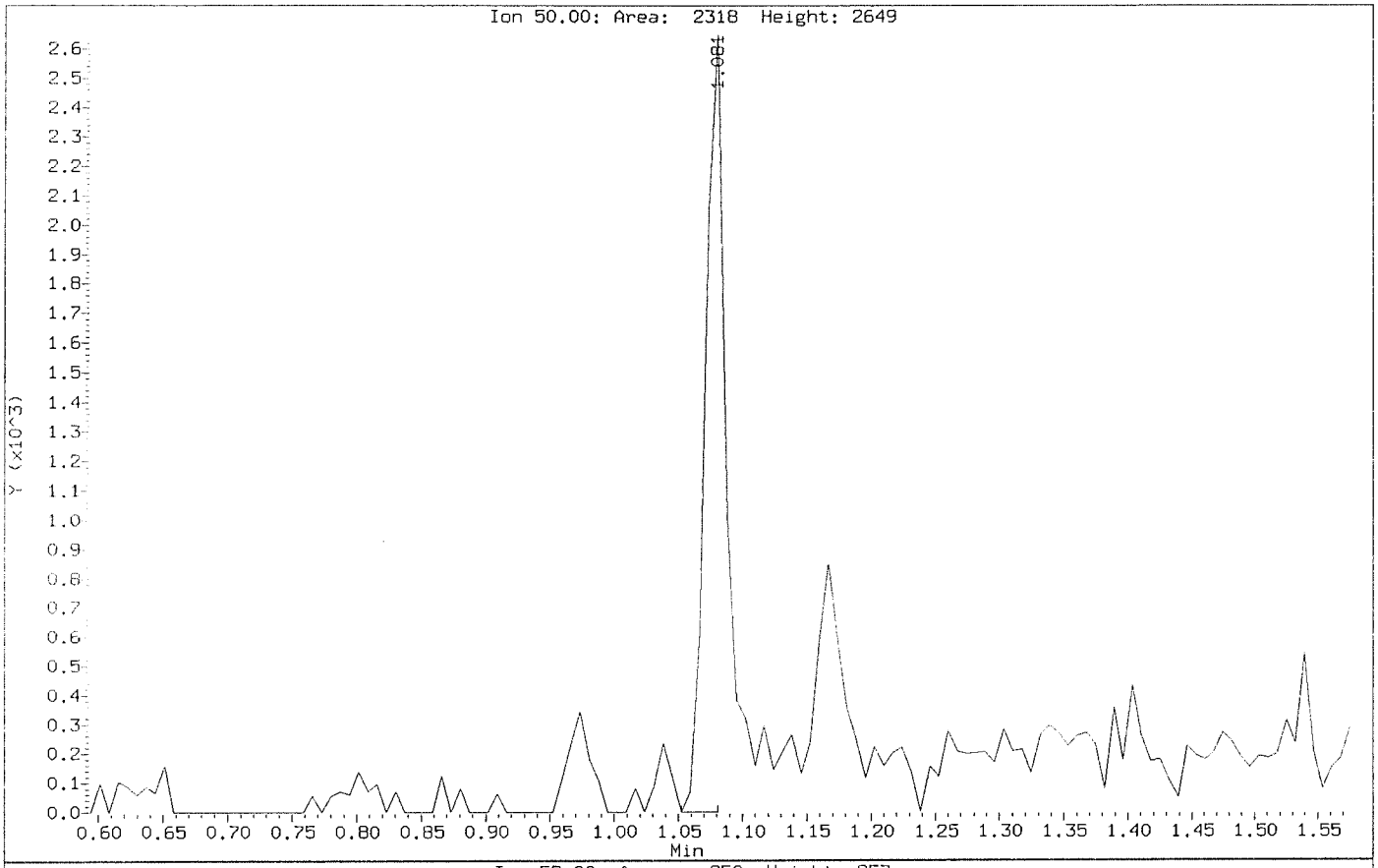
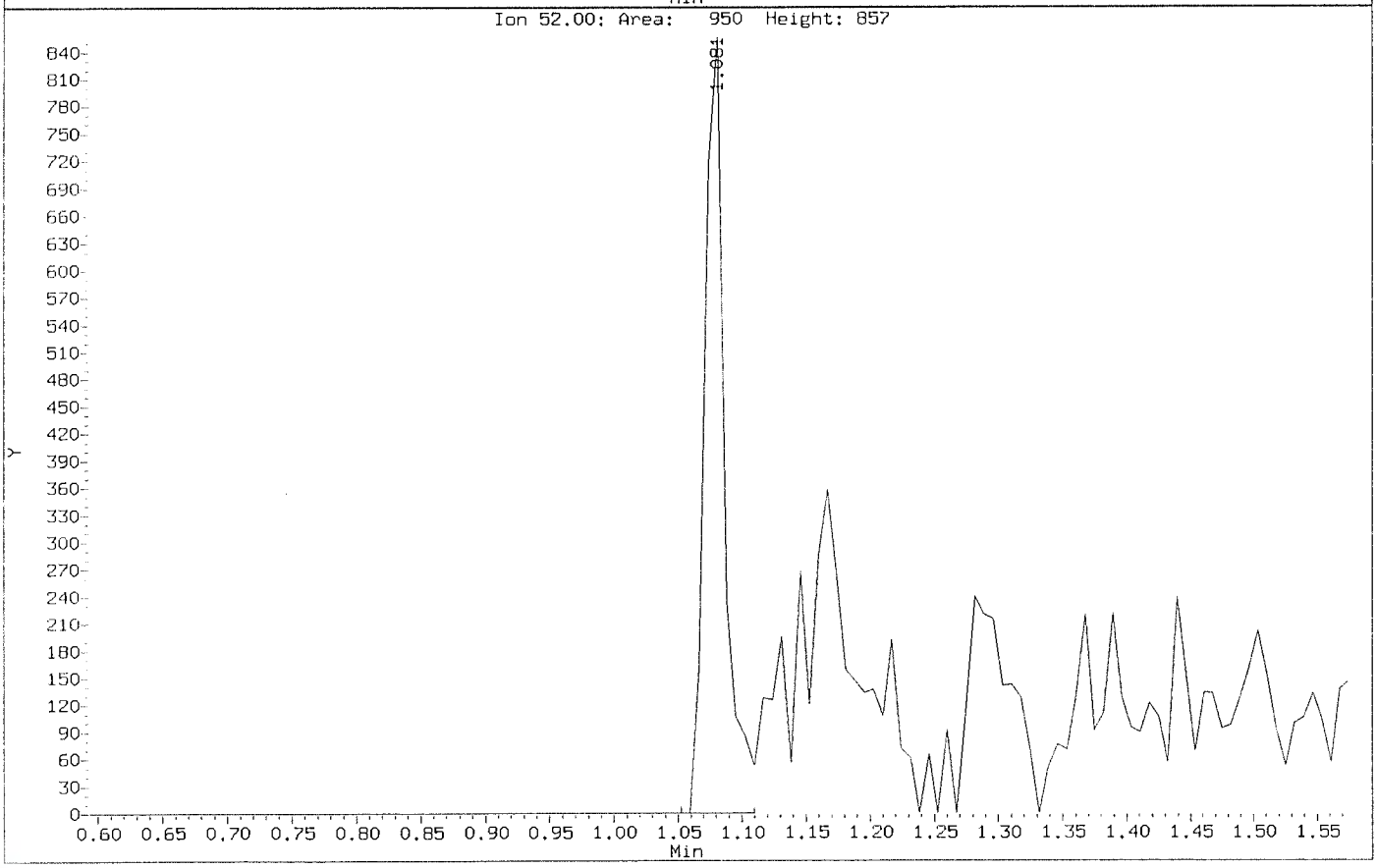
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloromethane
CAS Number: 74-87-3





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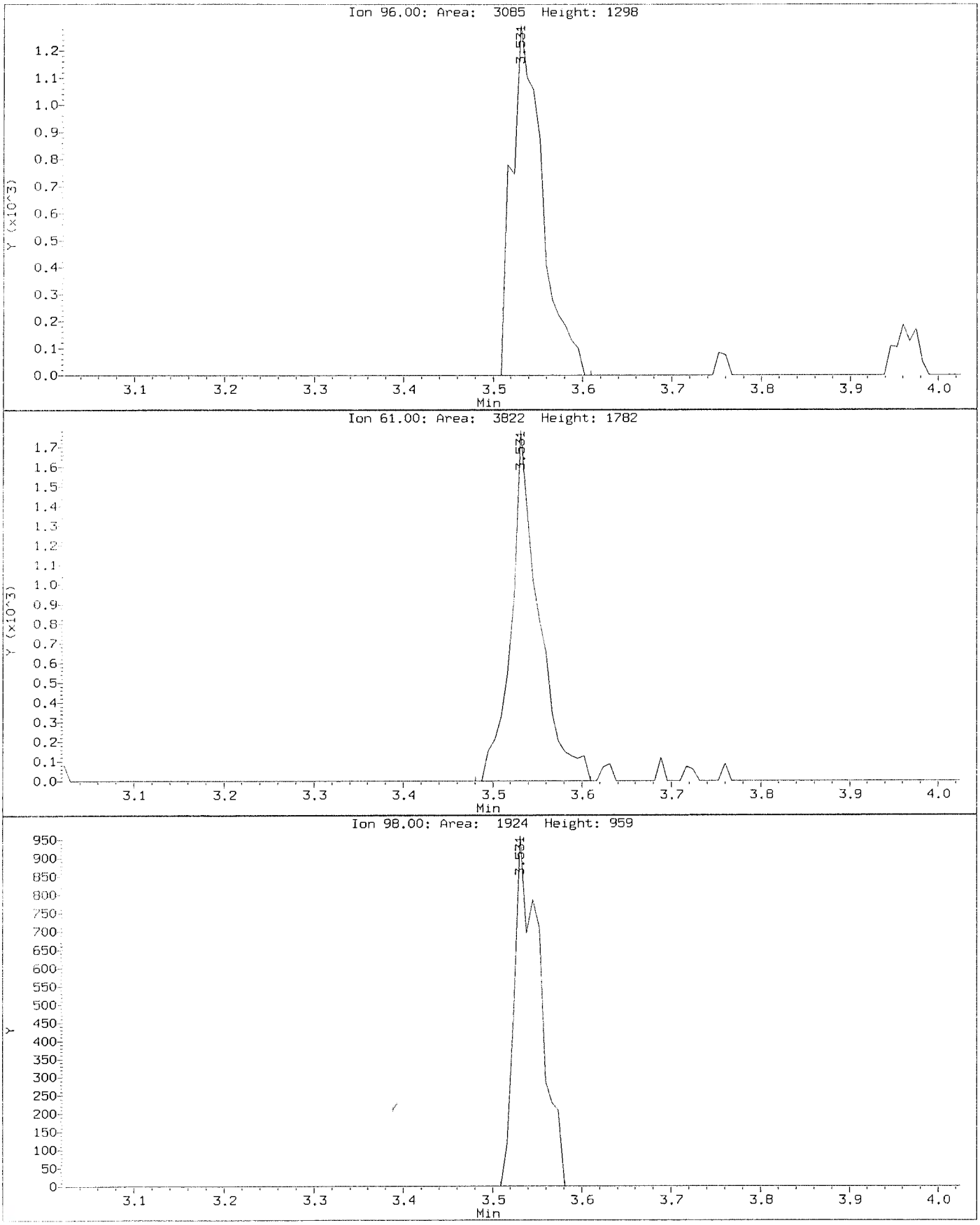
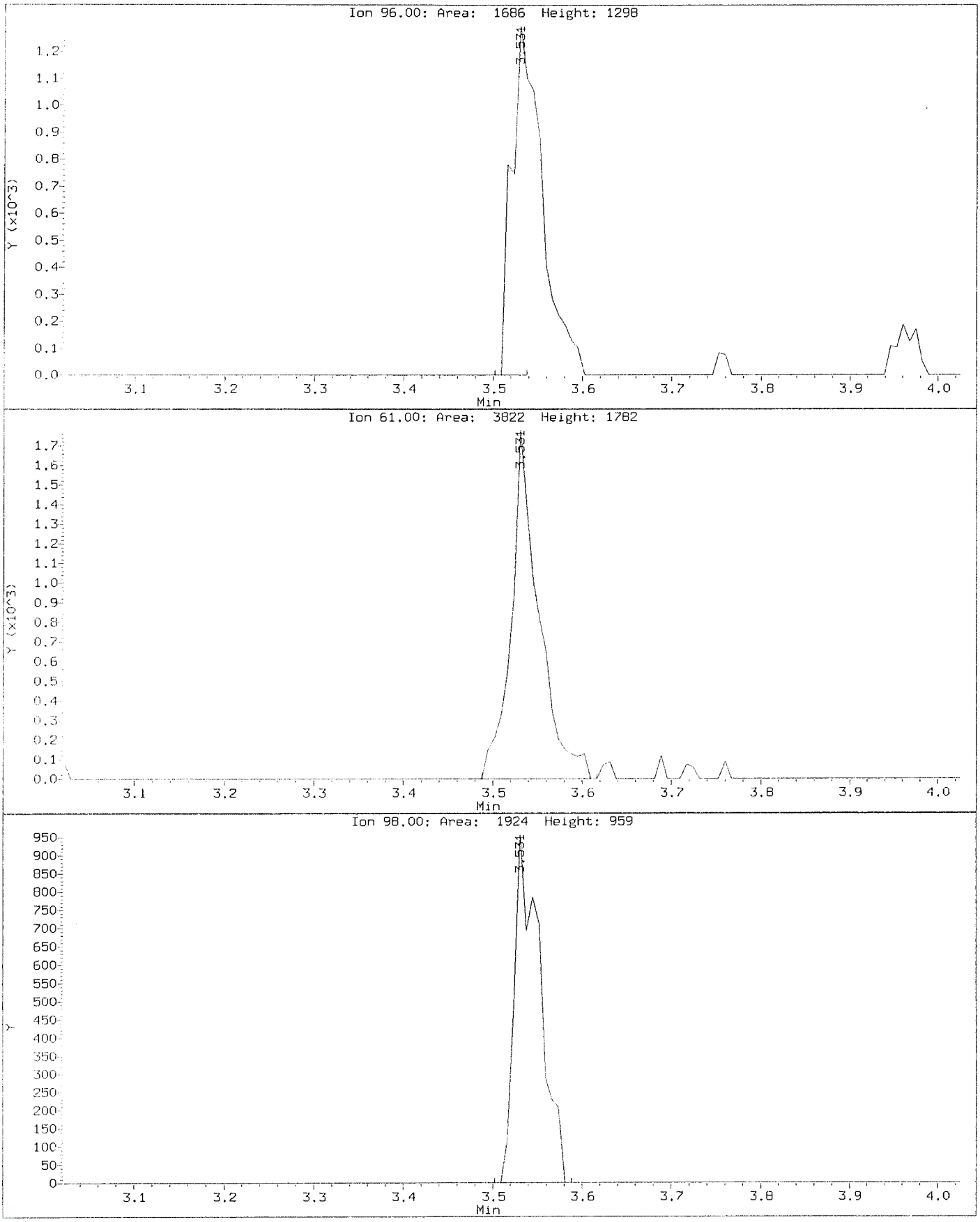
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



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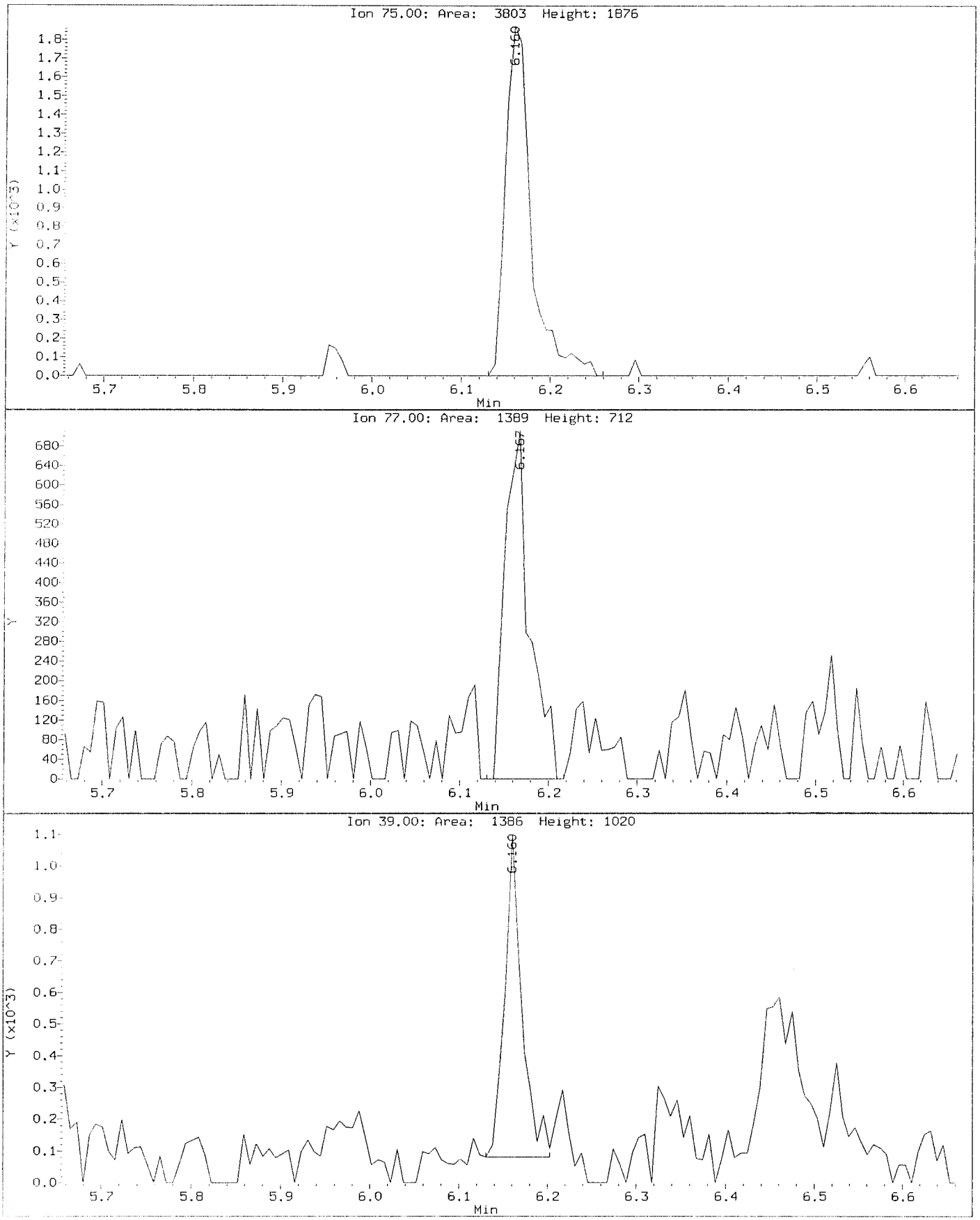
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5



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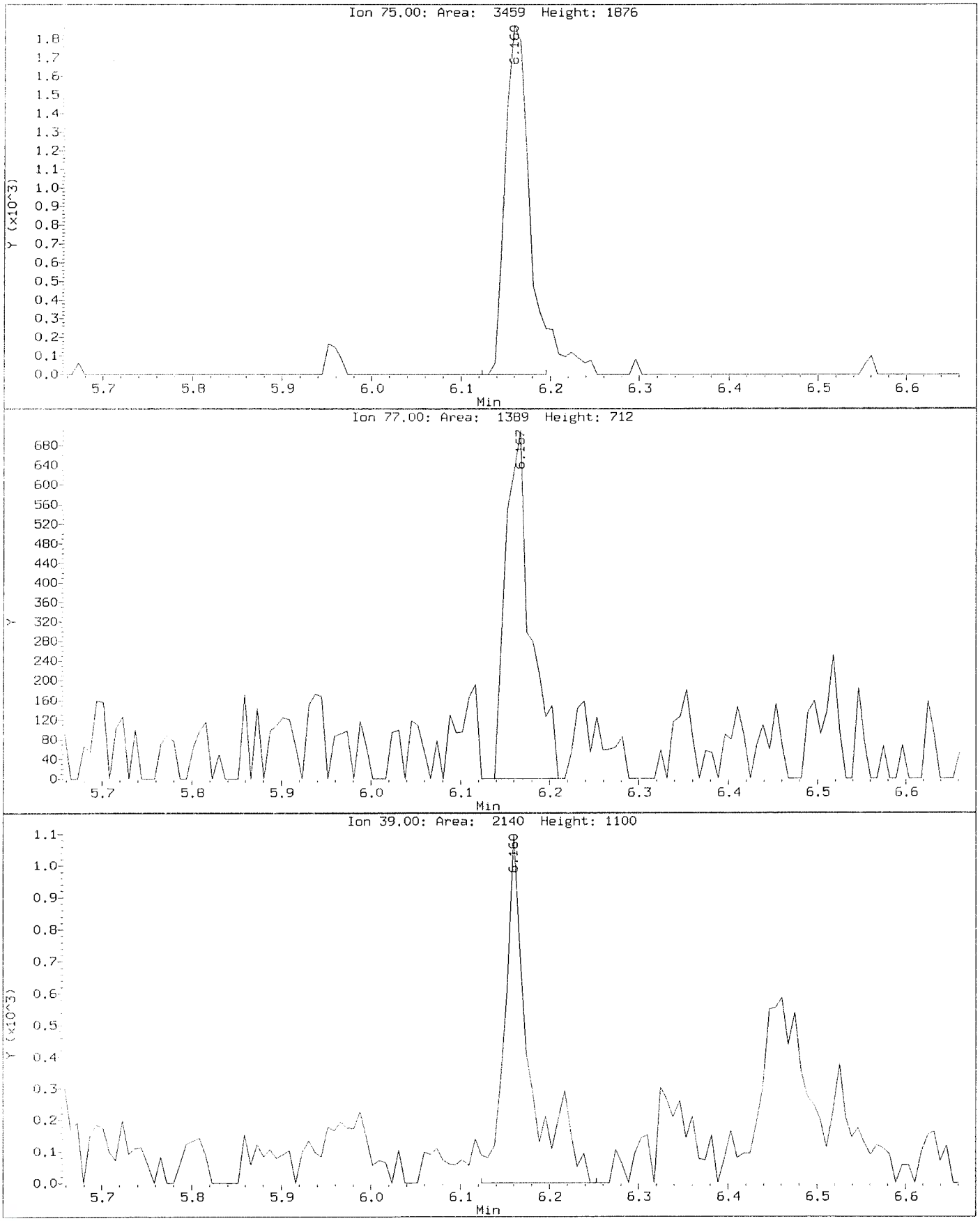
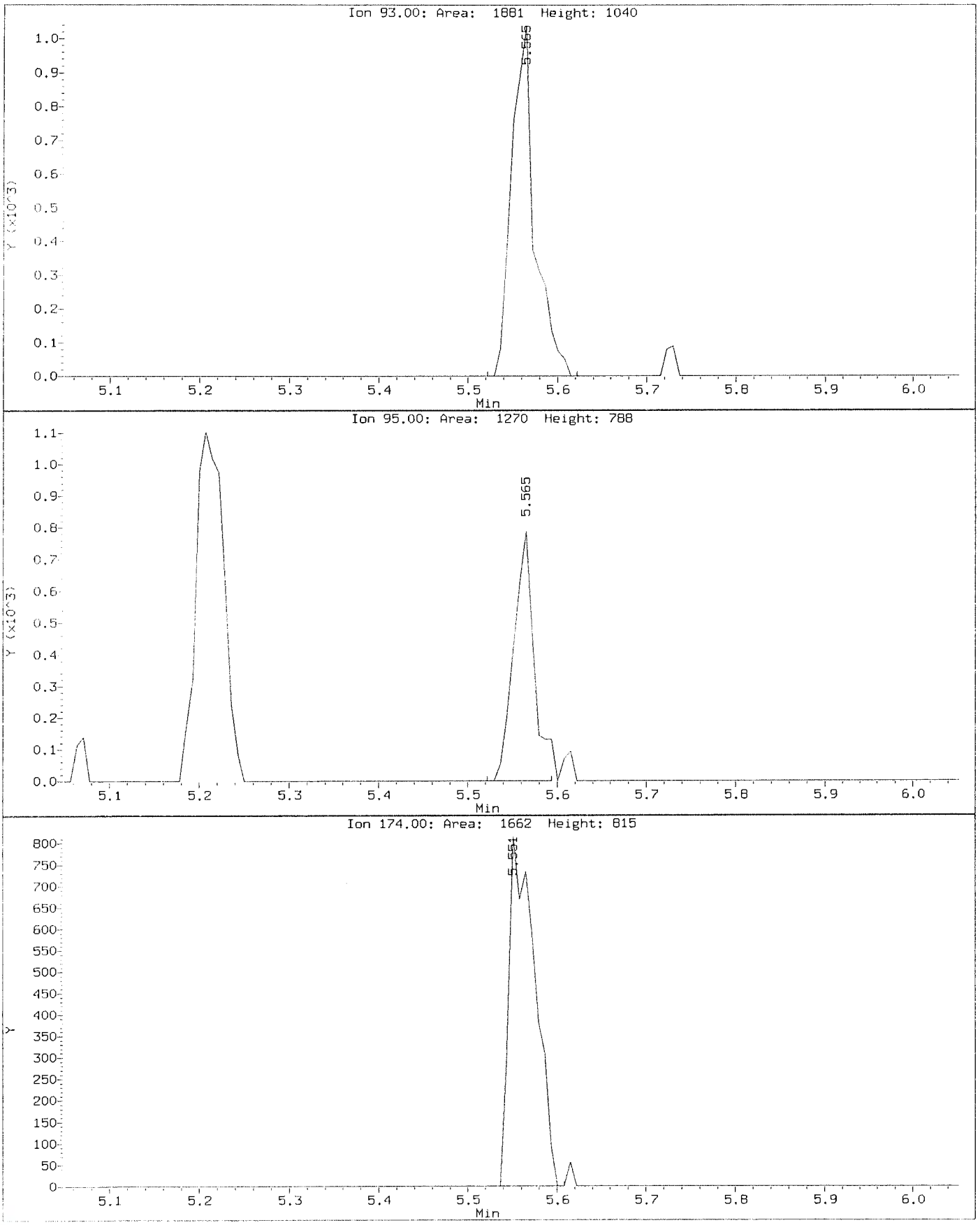
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dibromomethane
CAS Number: 74-95-3



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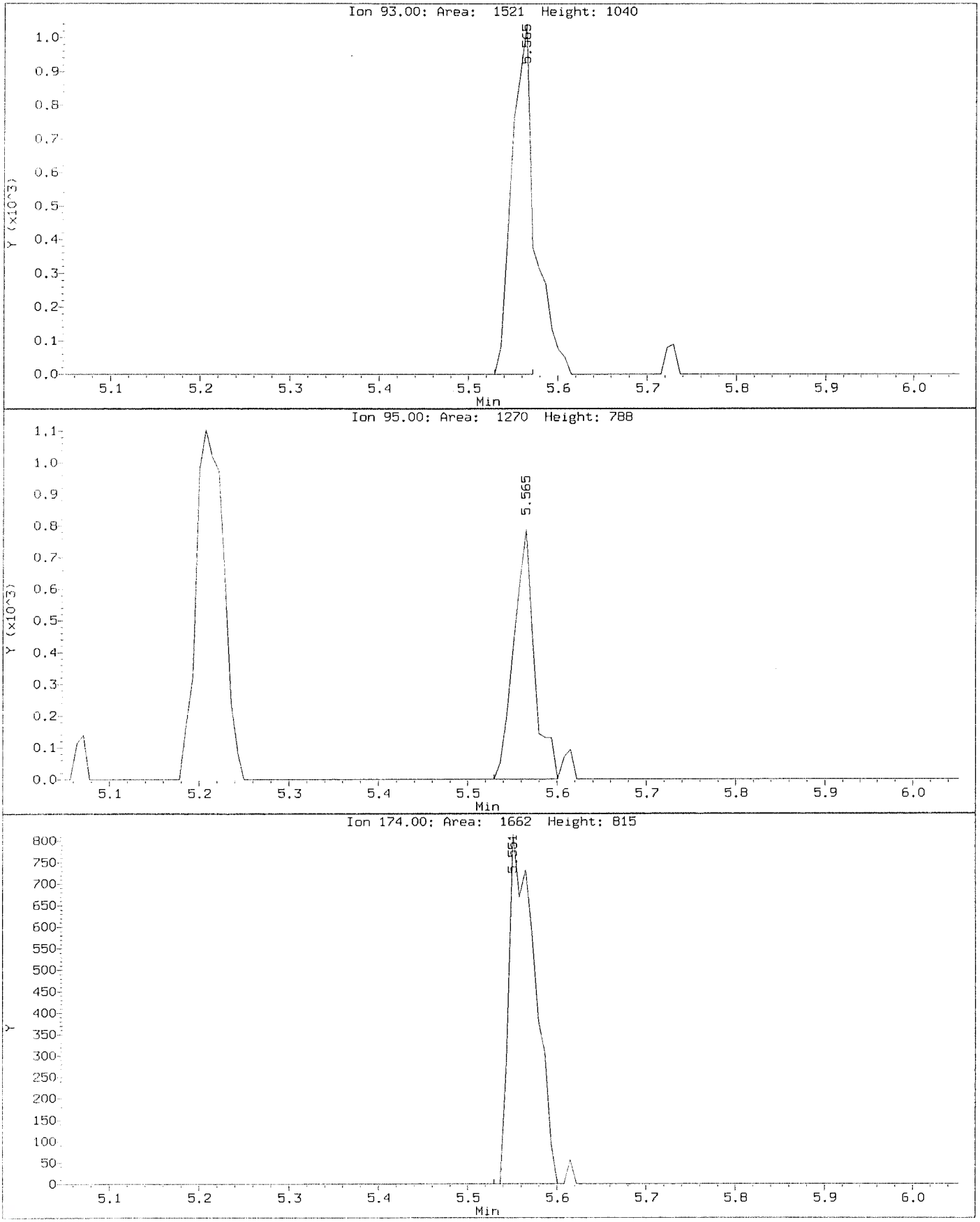
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dibromomethane
CAS Number: 74-95-3



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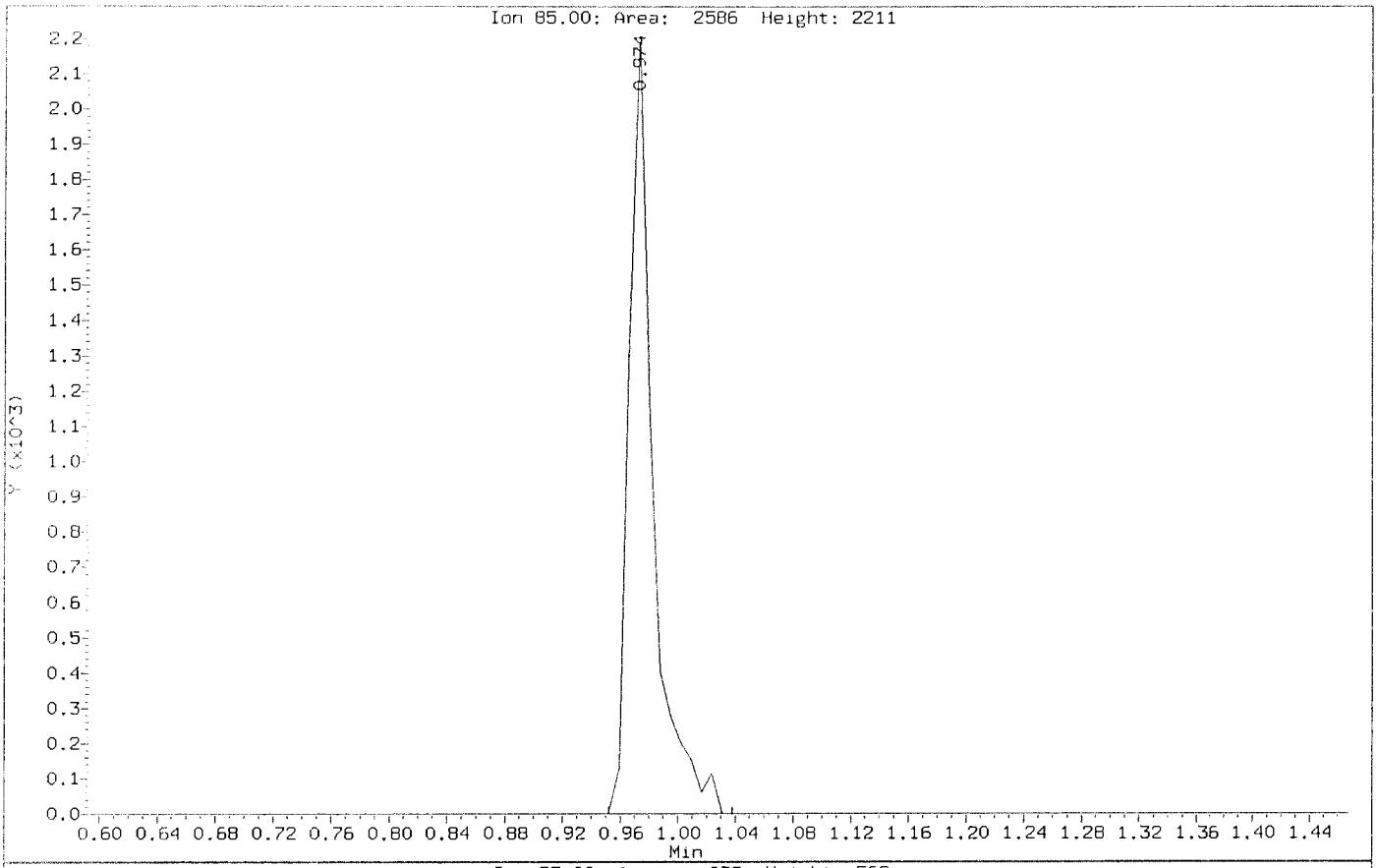
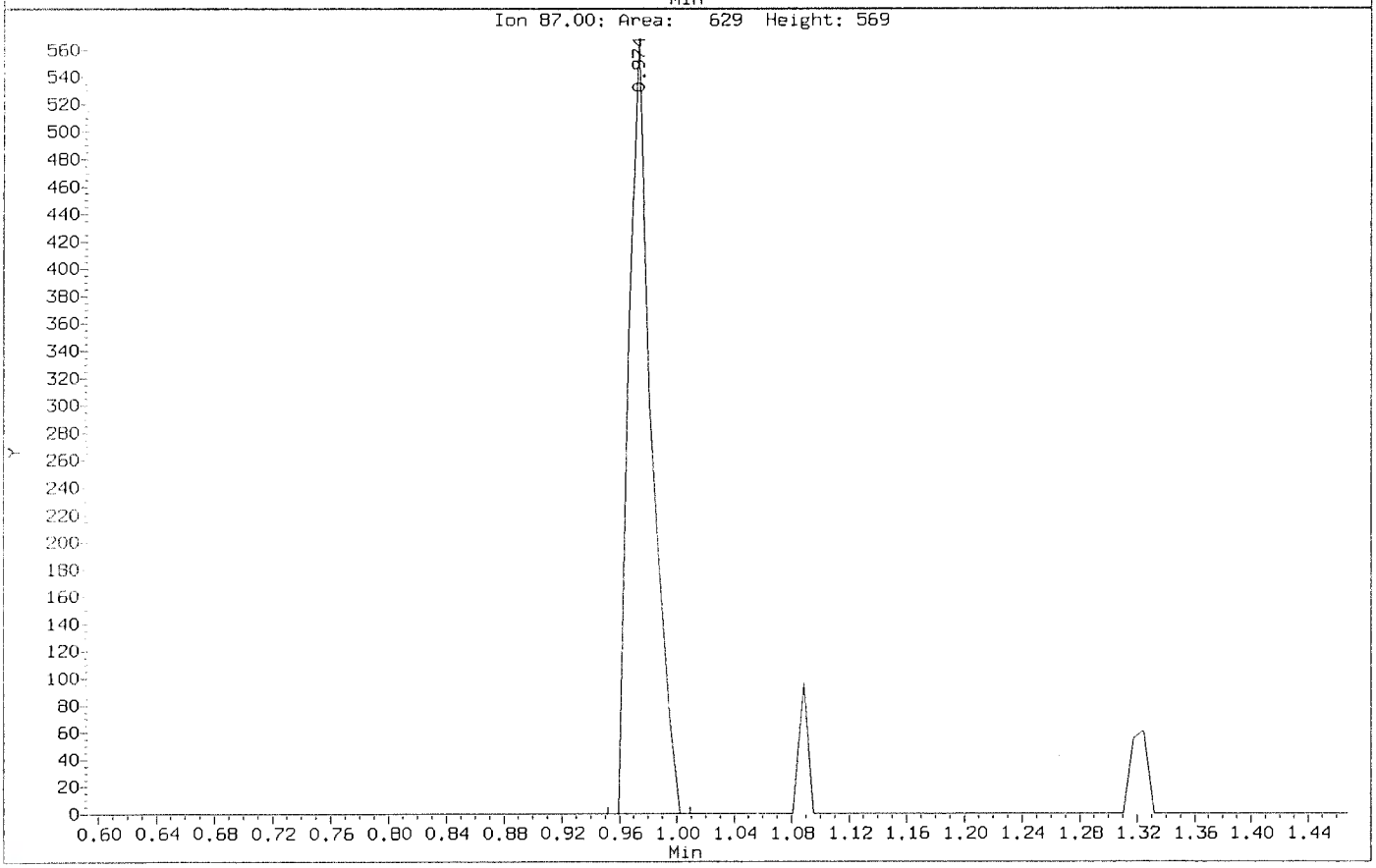
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





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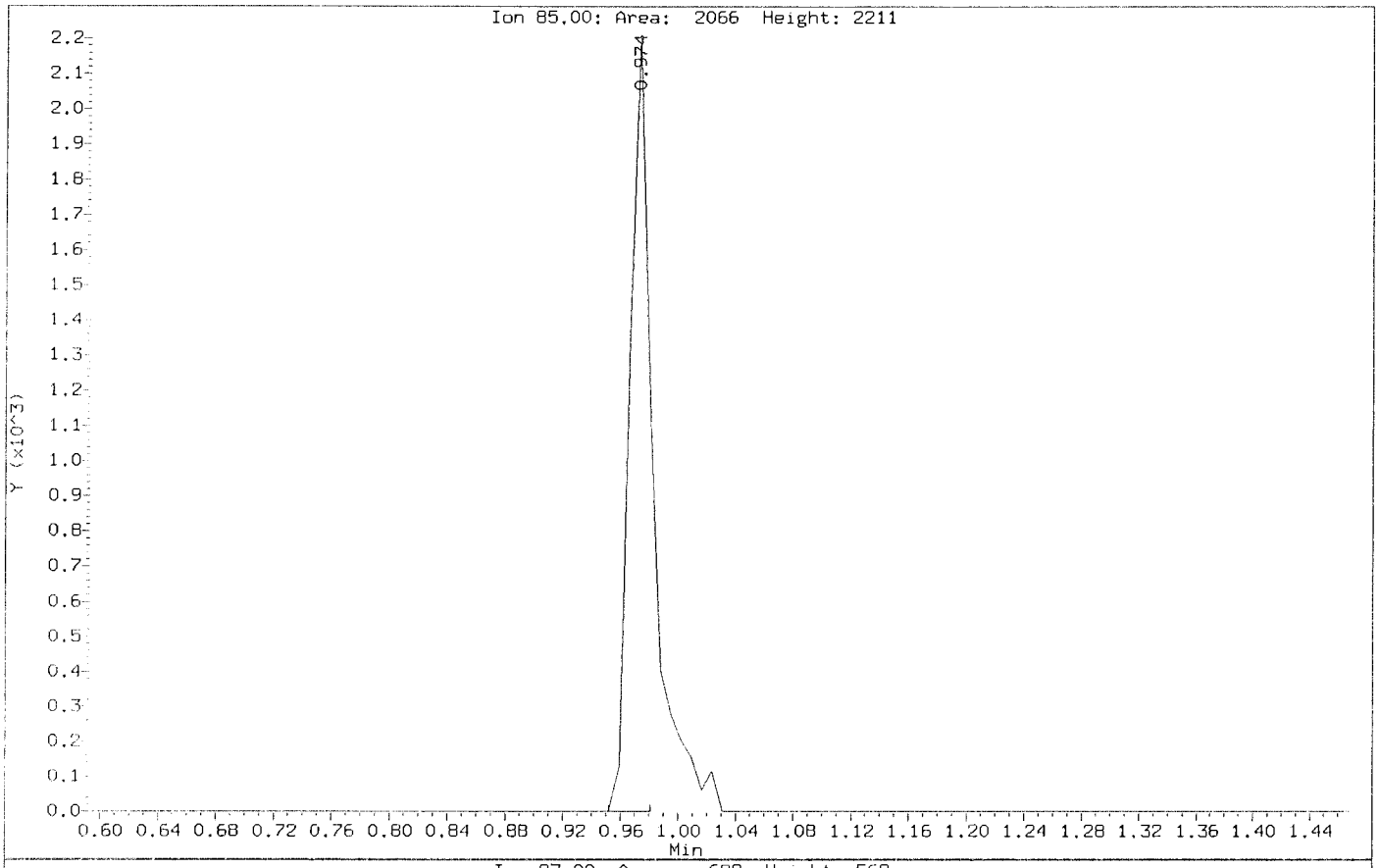
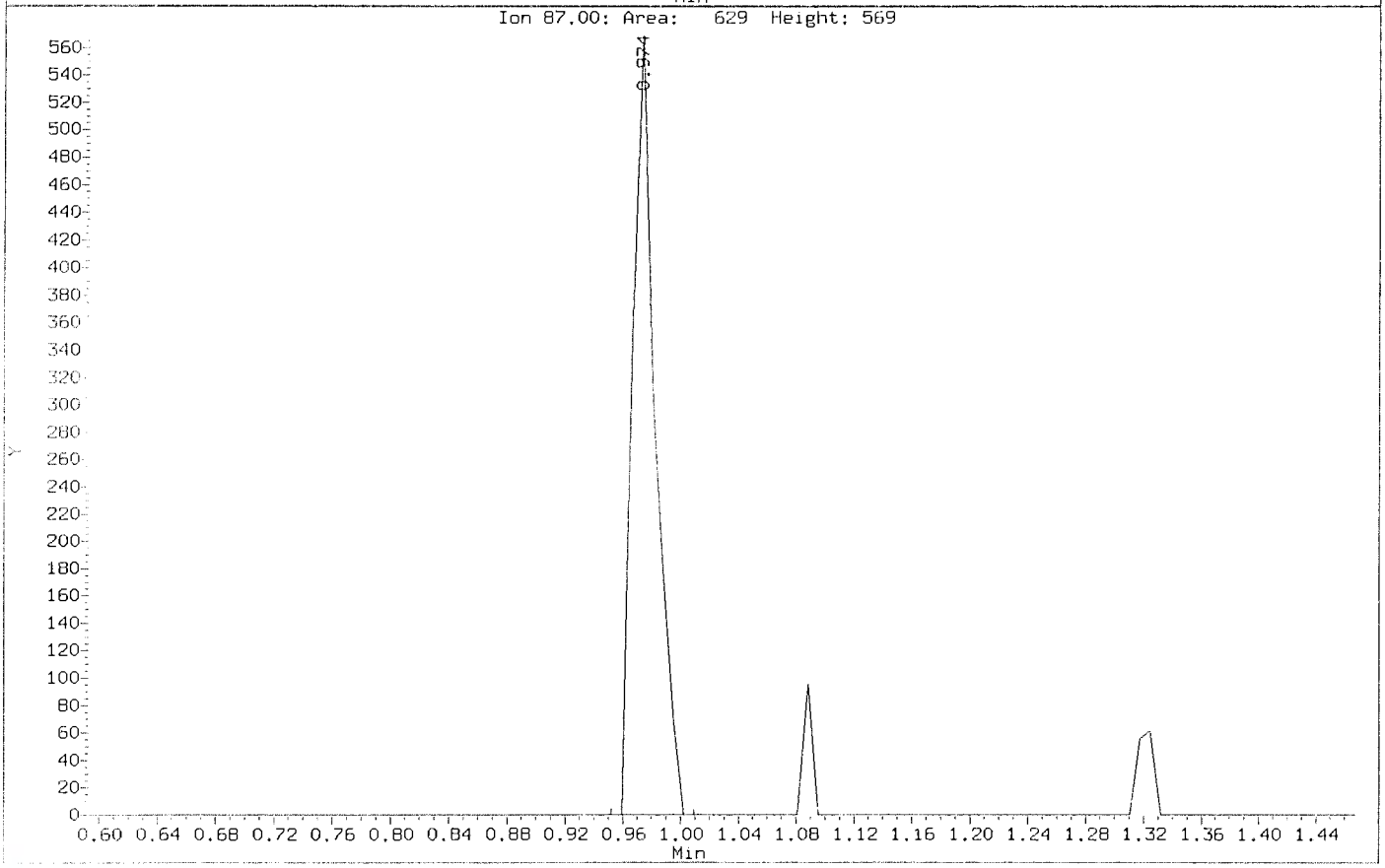
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





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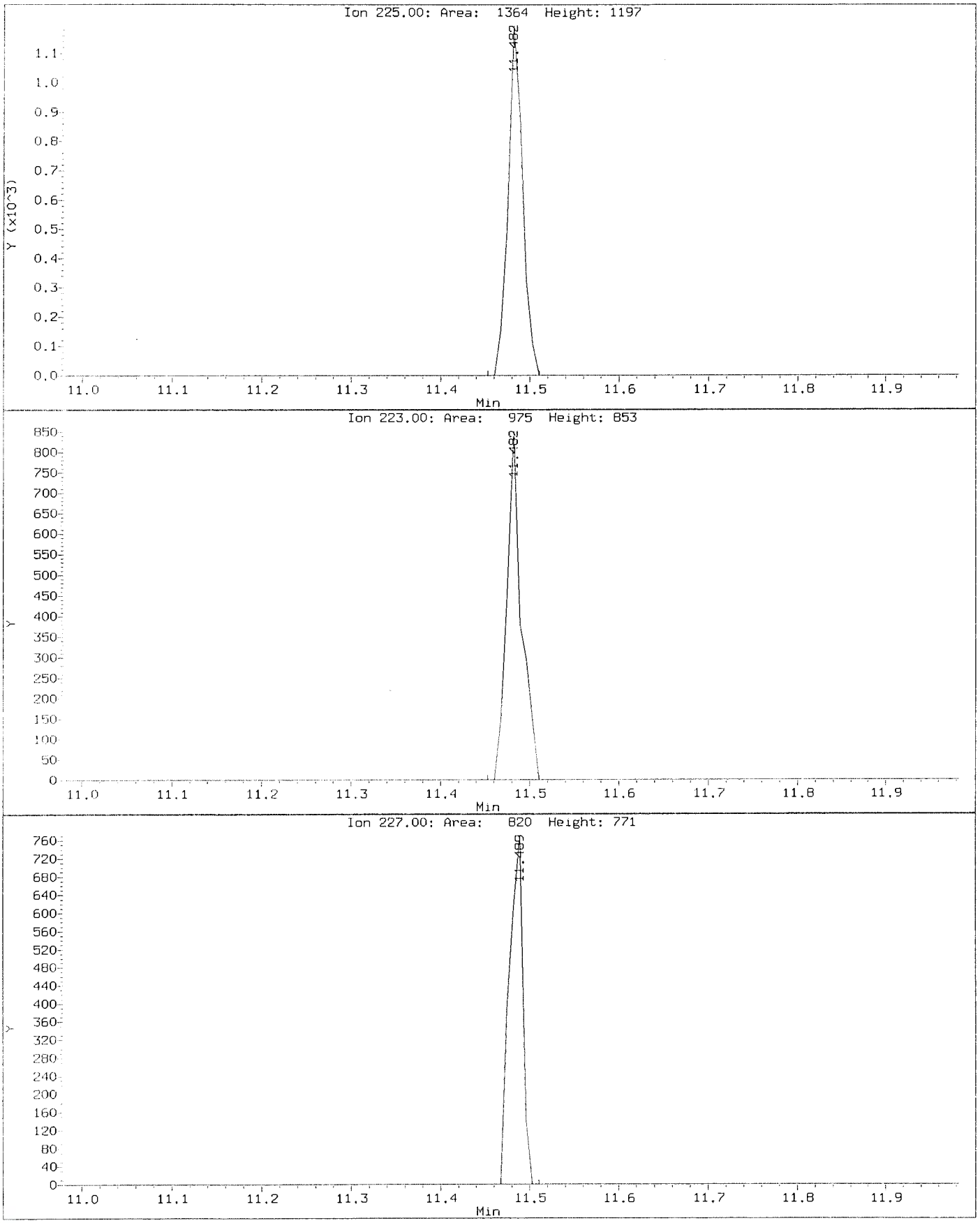
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



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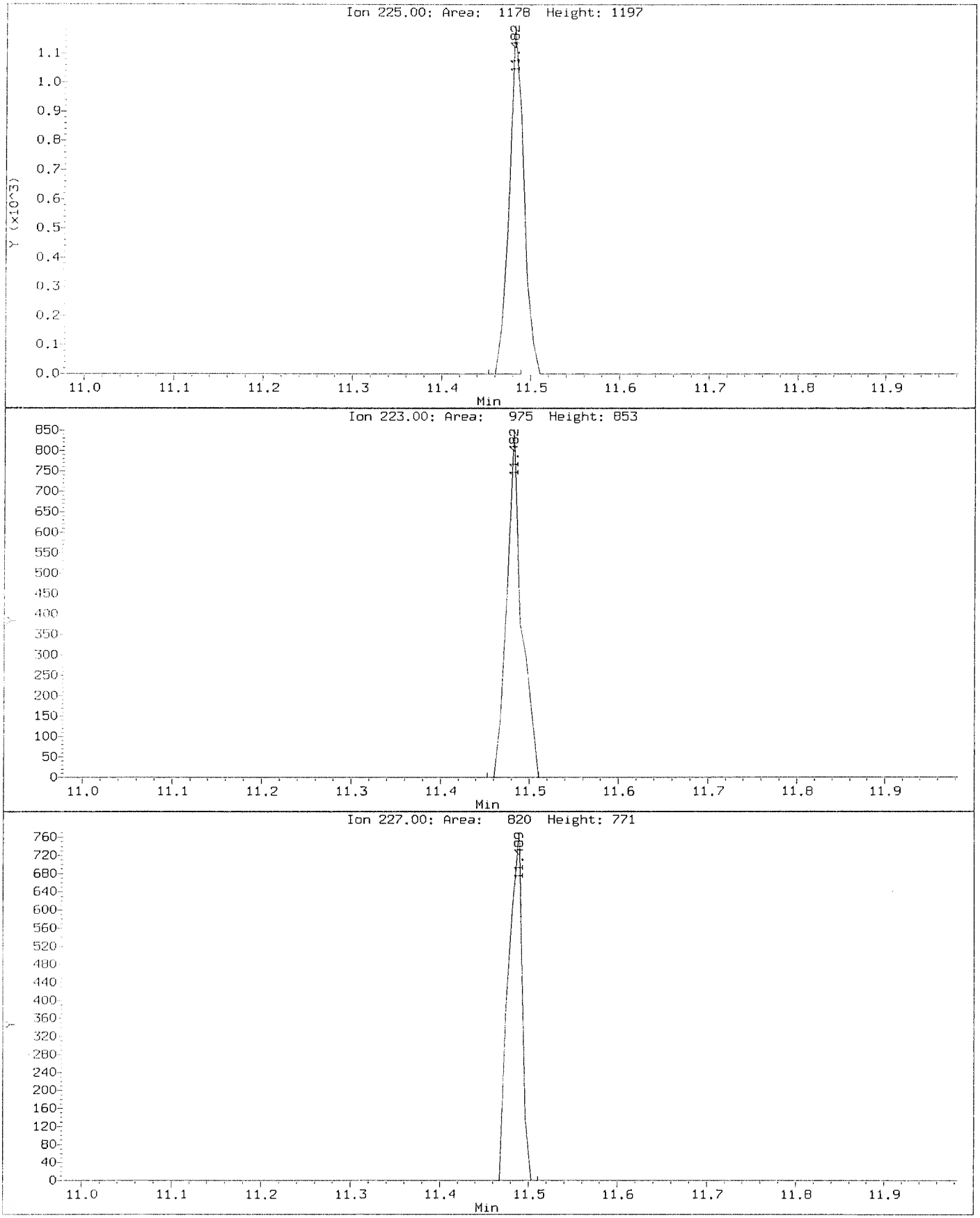
Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



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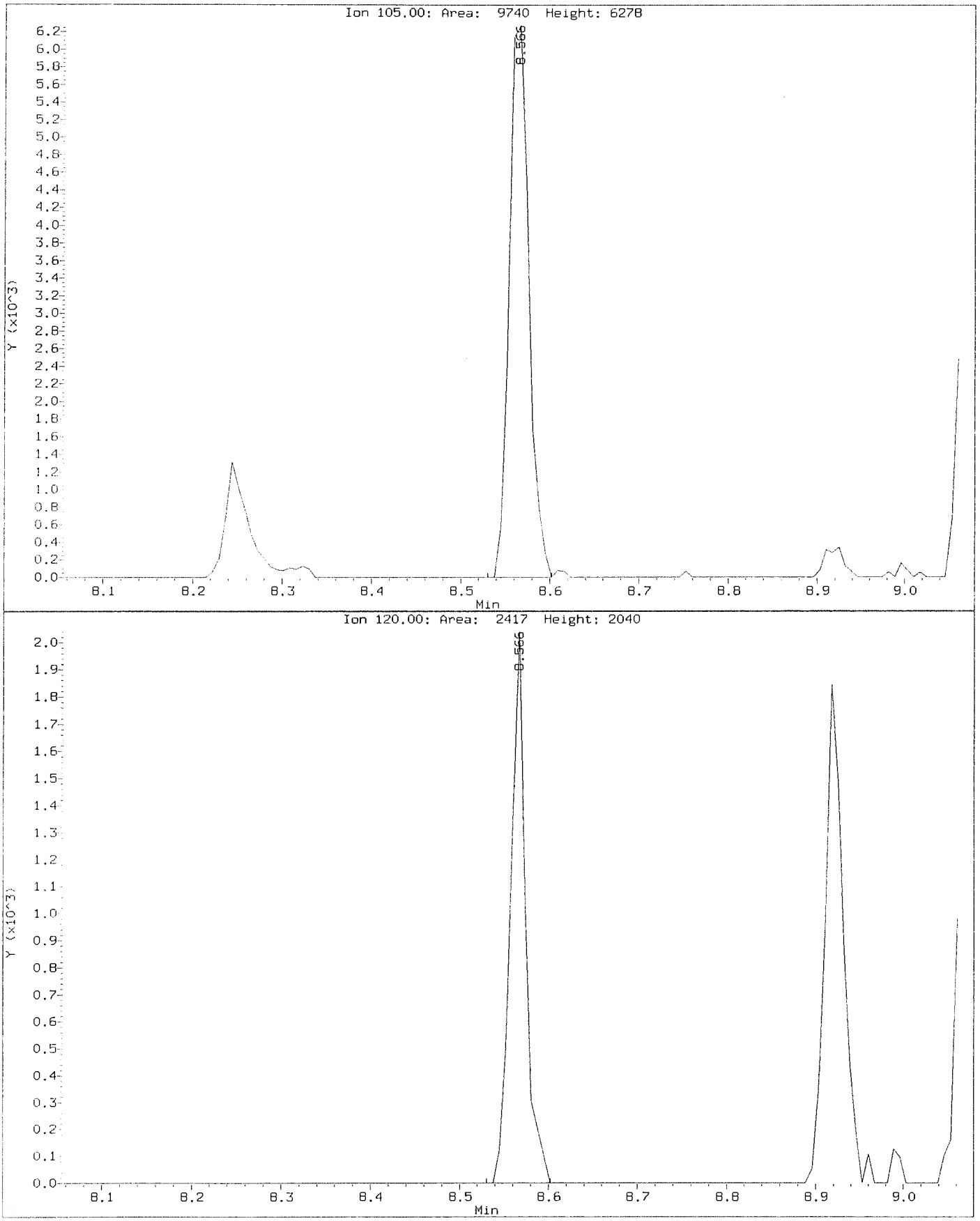
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Isopropylbenzene
CAS Number: 98-82-8



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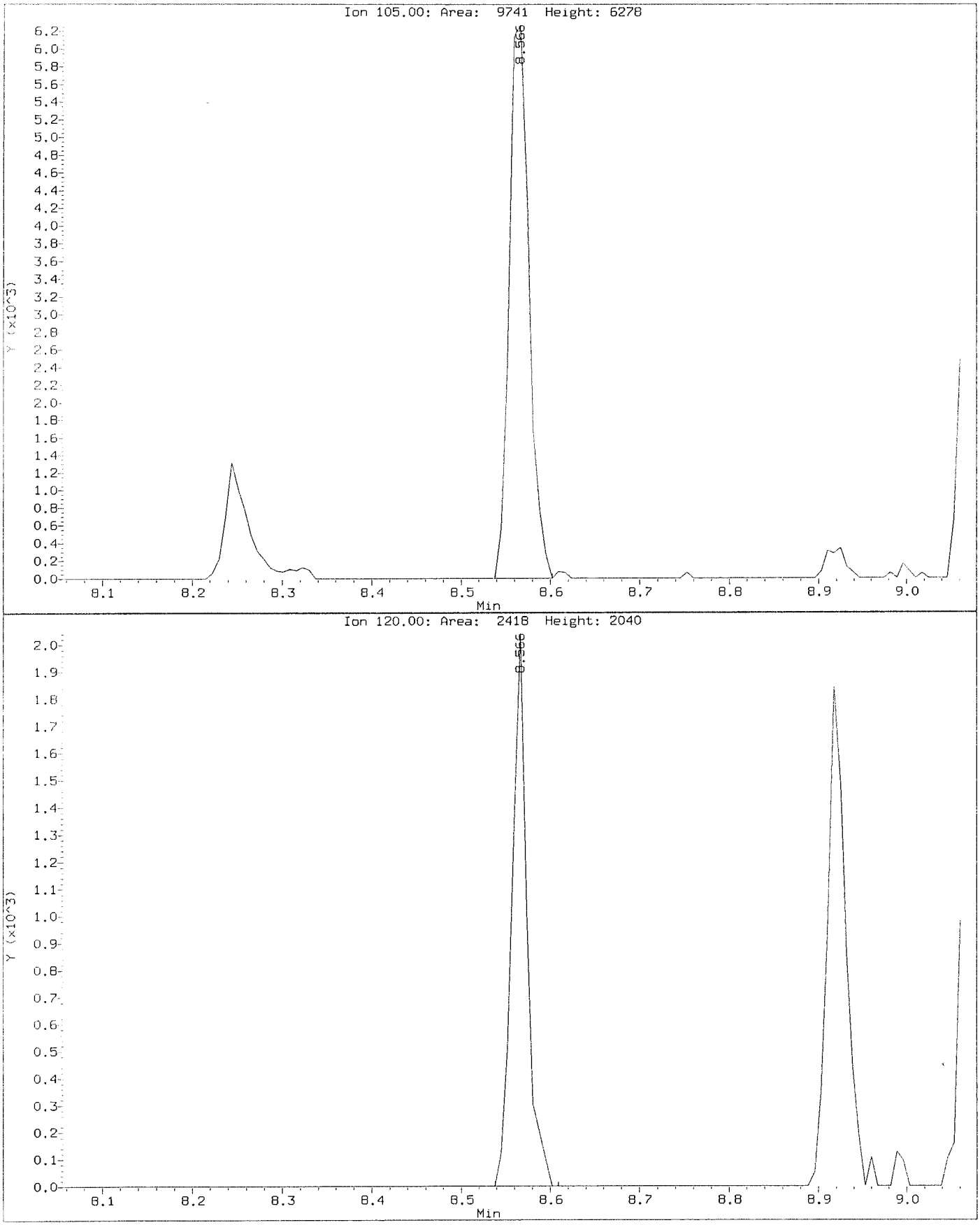
Client Sample ID: VSTD000.5

Compound: Isopropylbenzene
CAS Number: 98-82-8



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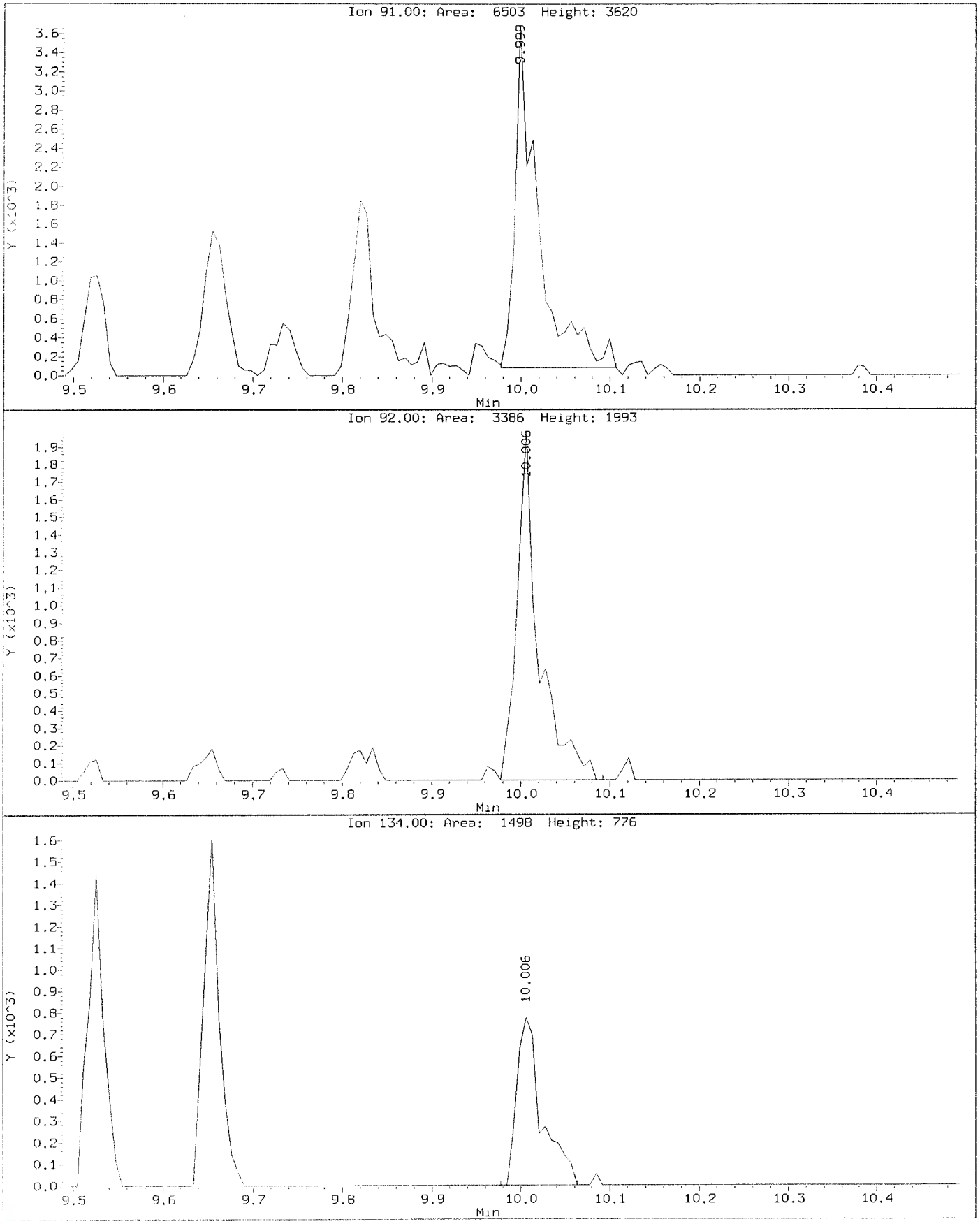
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: n-Butylbenzene
CAS Number: 104-51-8



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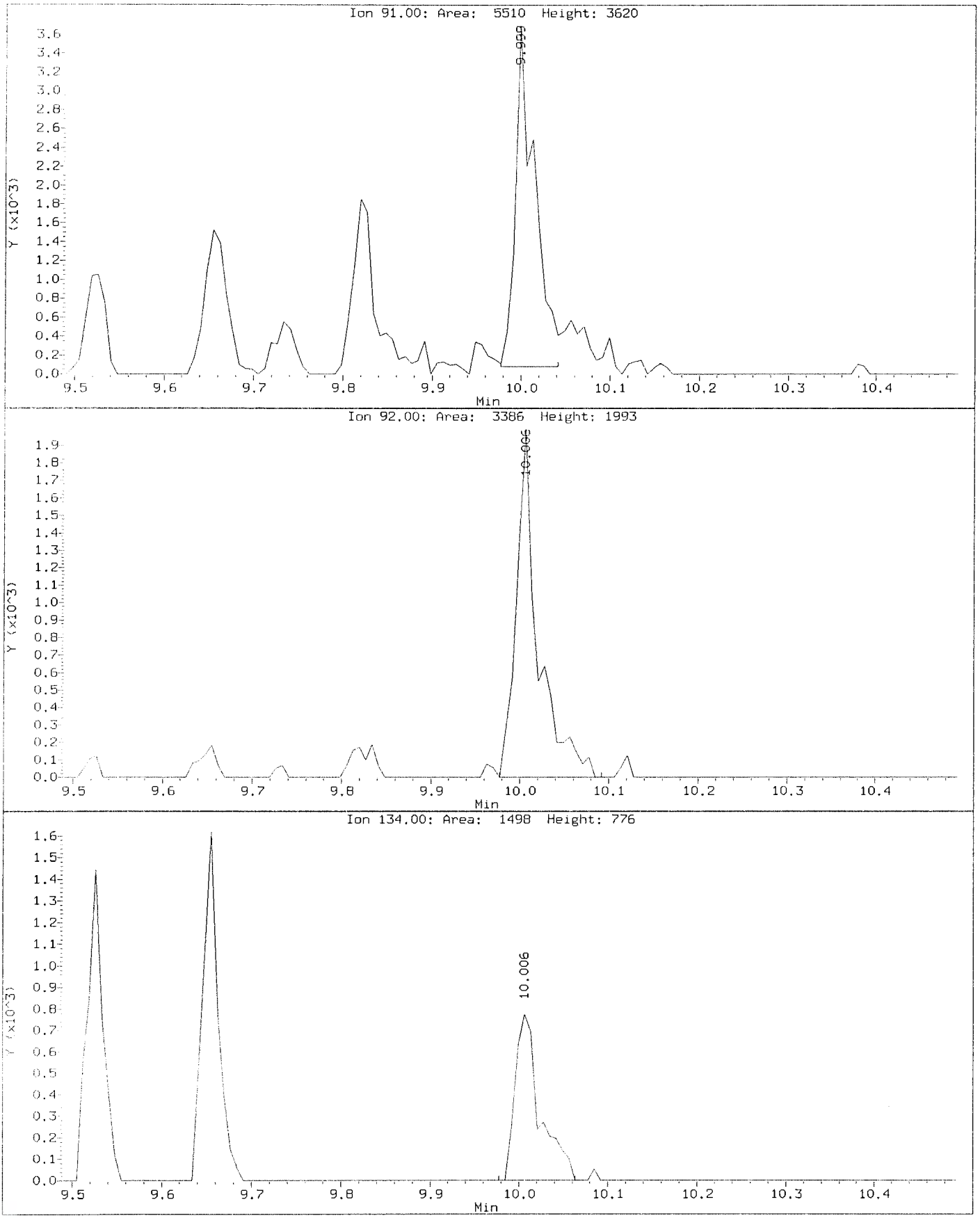
Client Sample ID: VSTD000.5

Compound: n-Butylbenzene
CAS Number: 104-51-8



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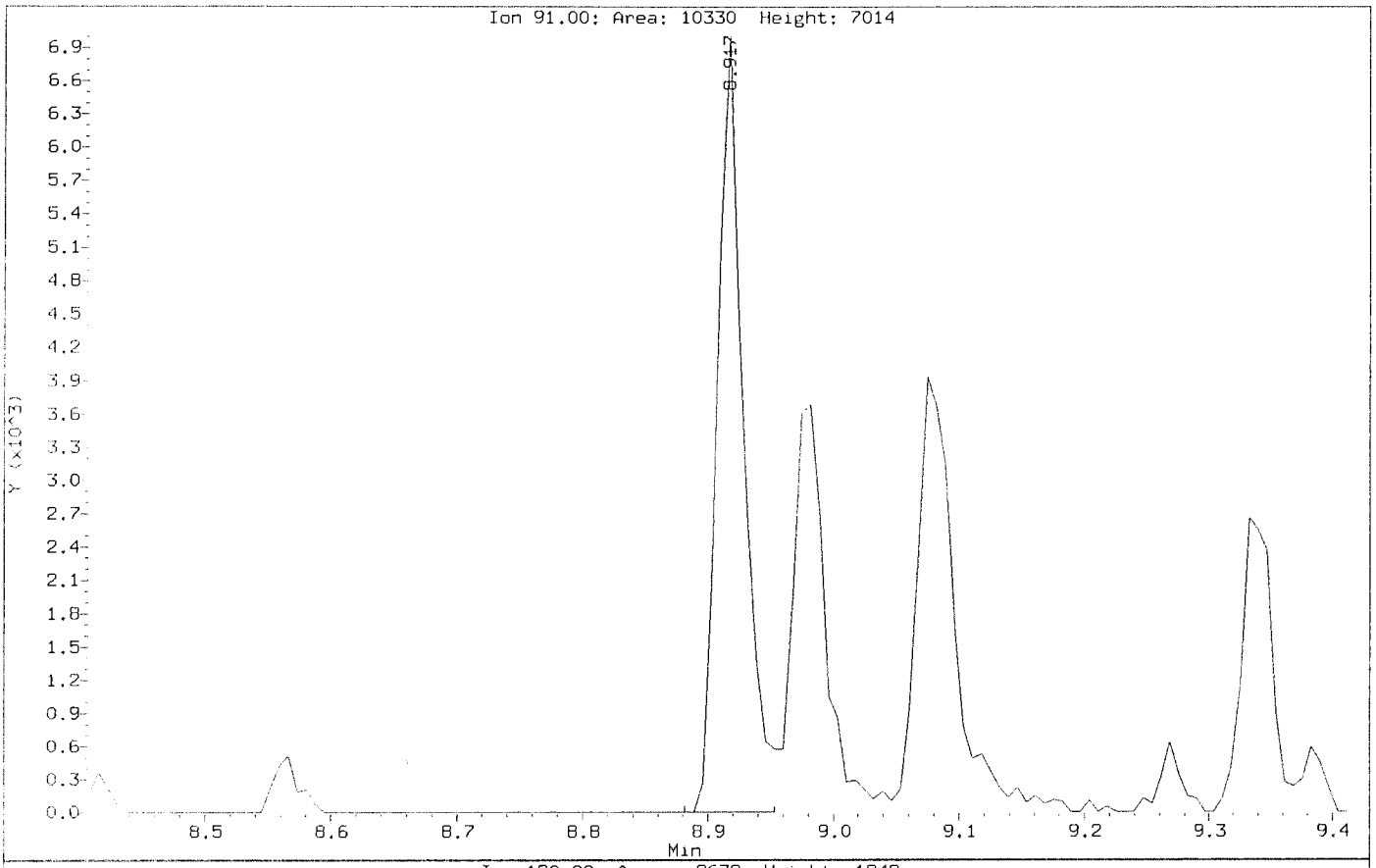
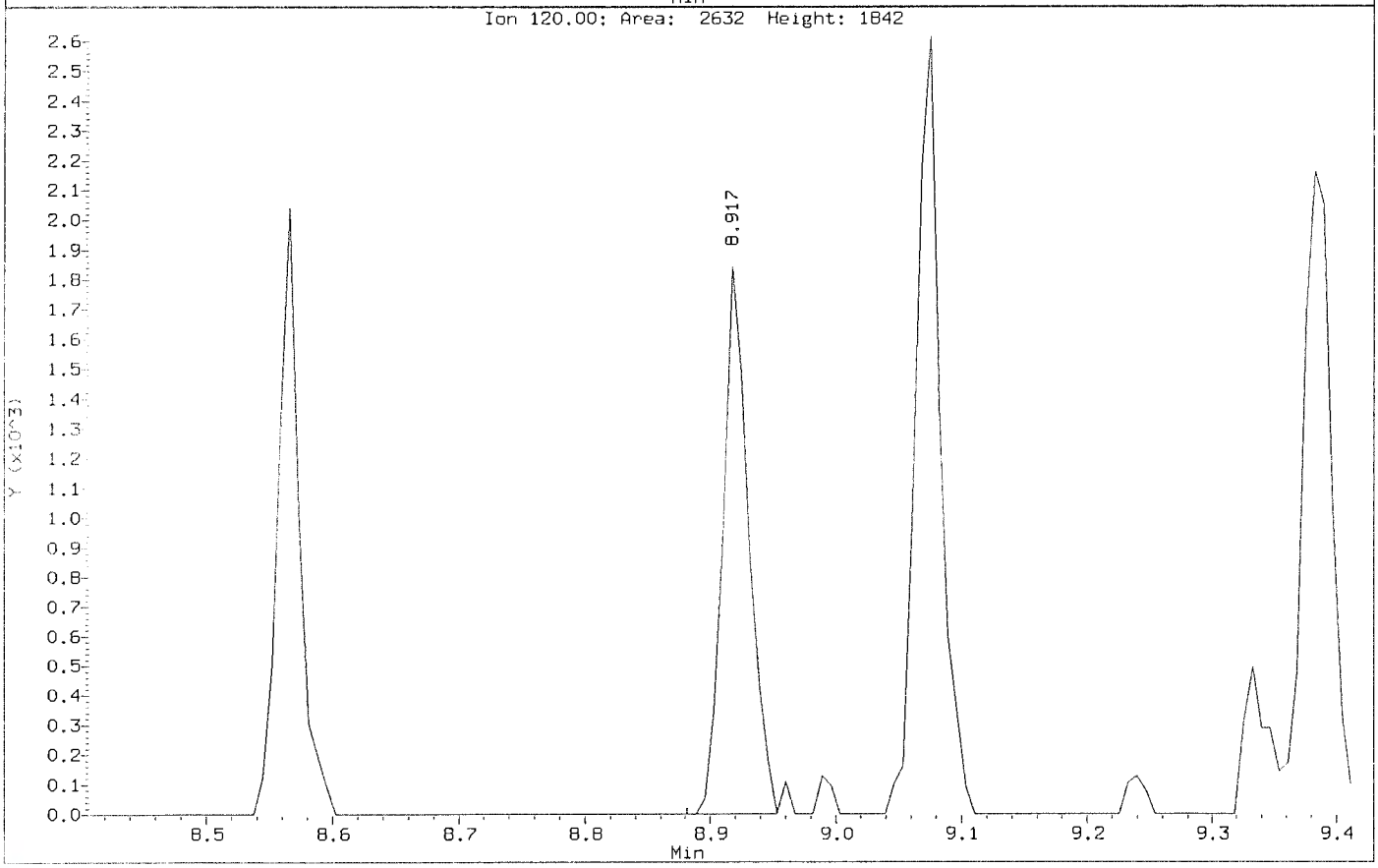
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: n-Propylbenzene
CAS Number: 106-65-1





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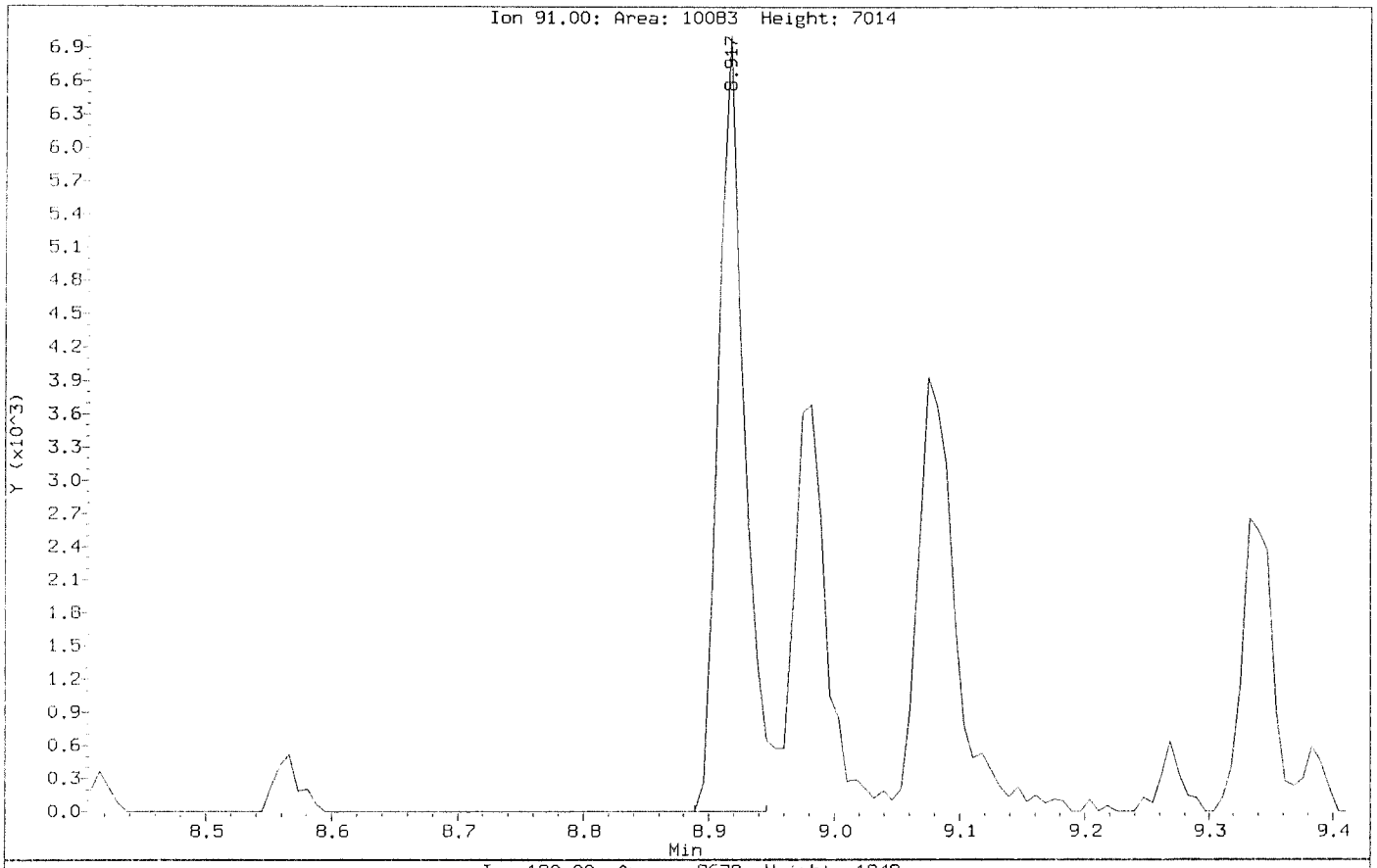
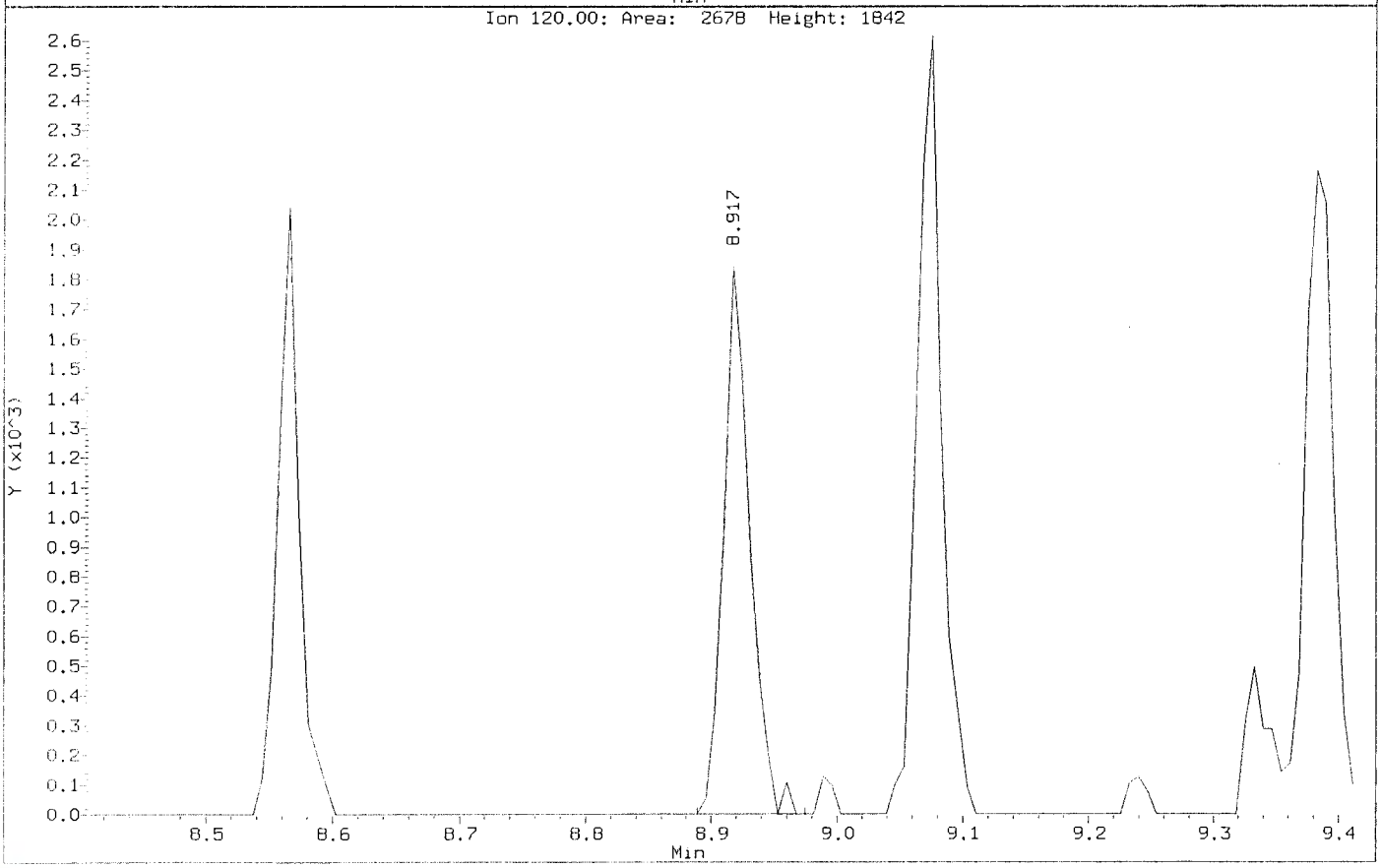
Client Sample ID: VSTD000.5

Compound: n-Propylbenzene
CAS Number: 106-65-1





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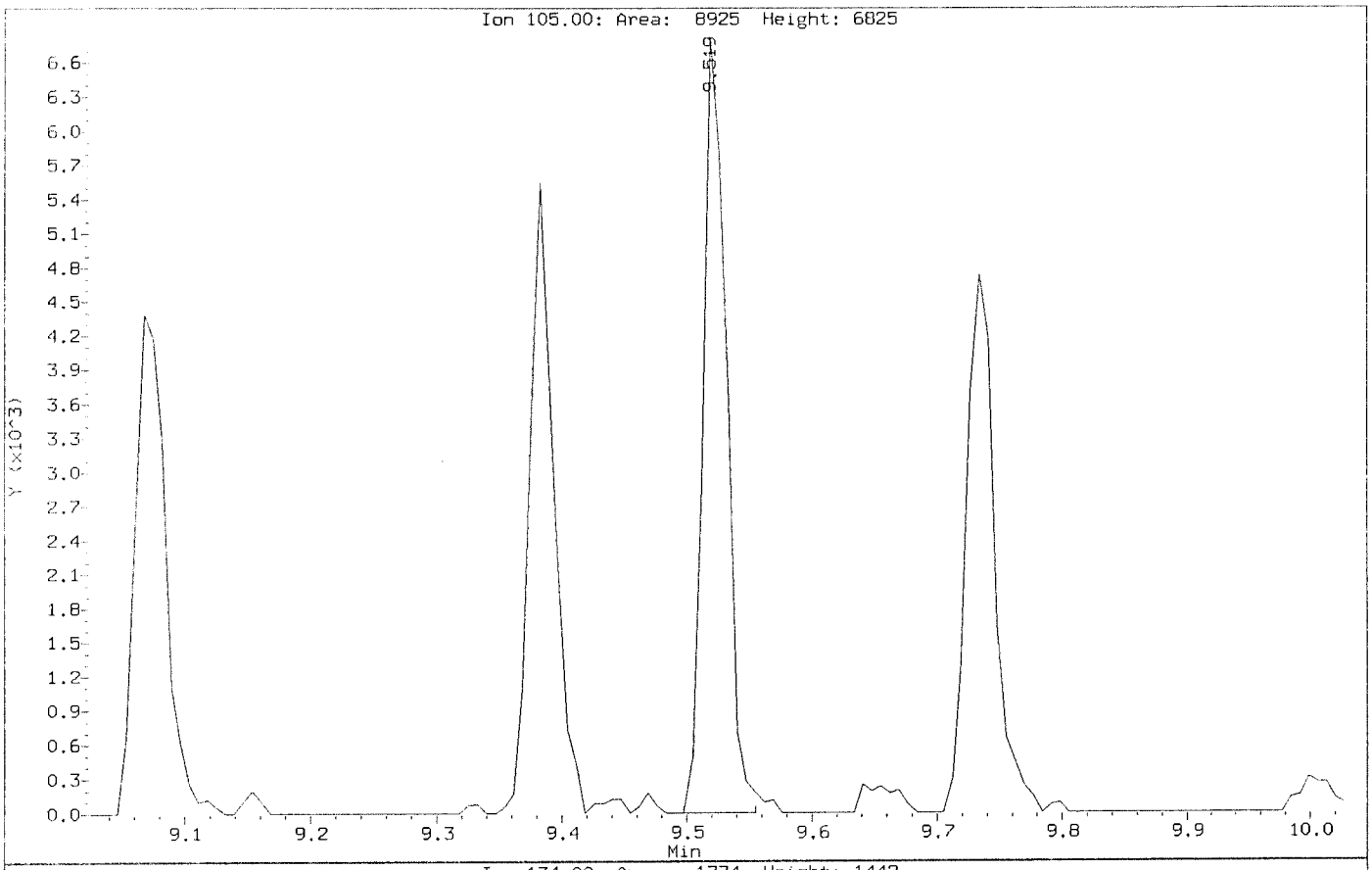
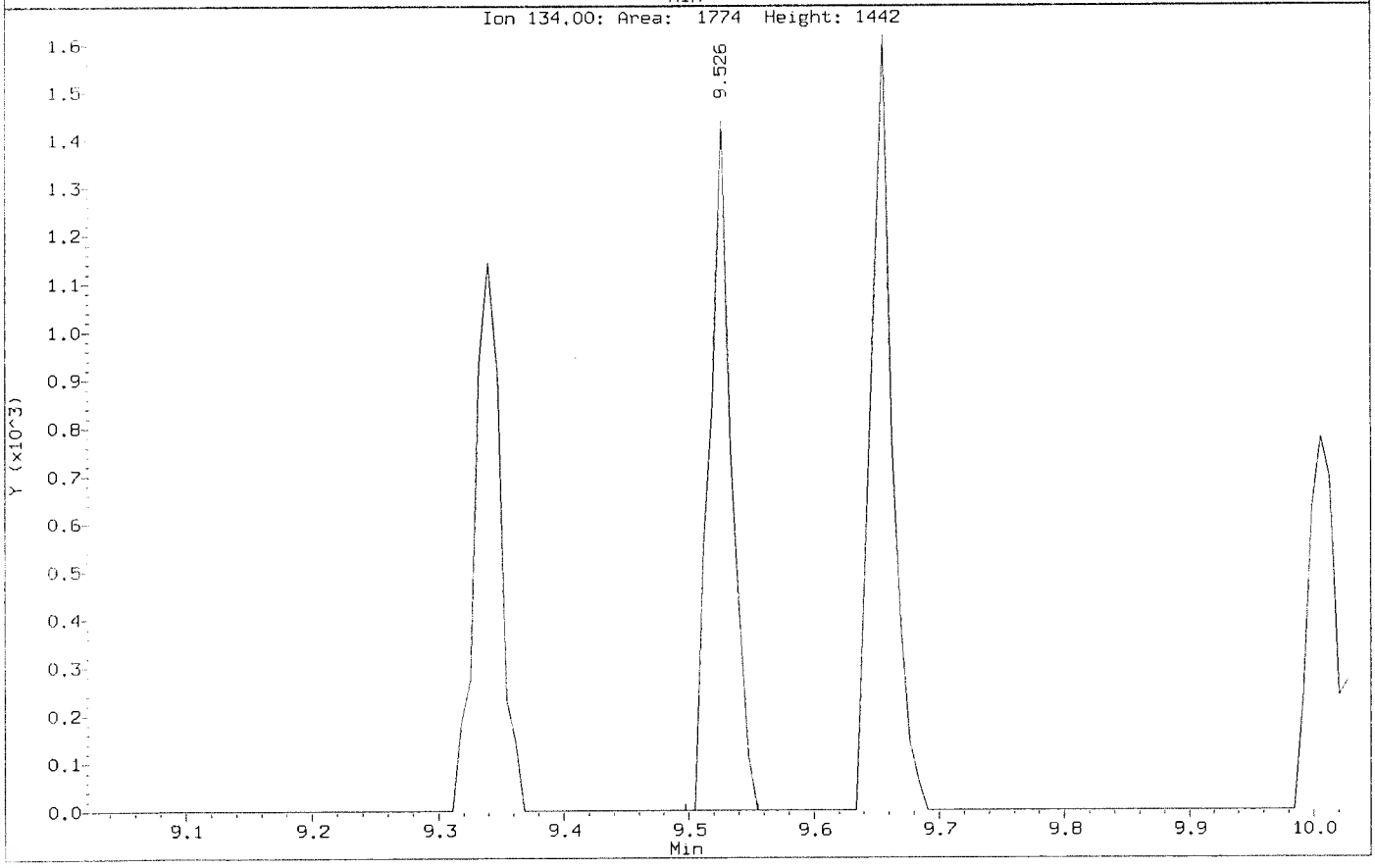
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: sec-Butylbenzene
CAS Number: 135-98-8





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Injection Date: 26-MAY-2021 12:55
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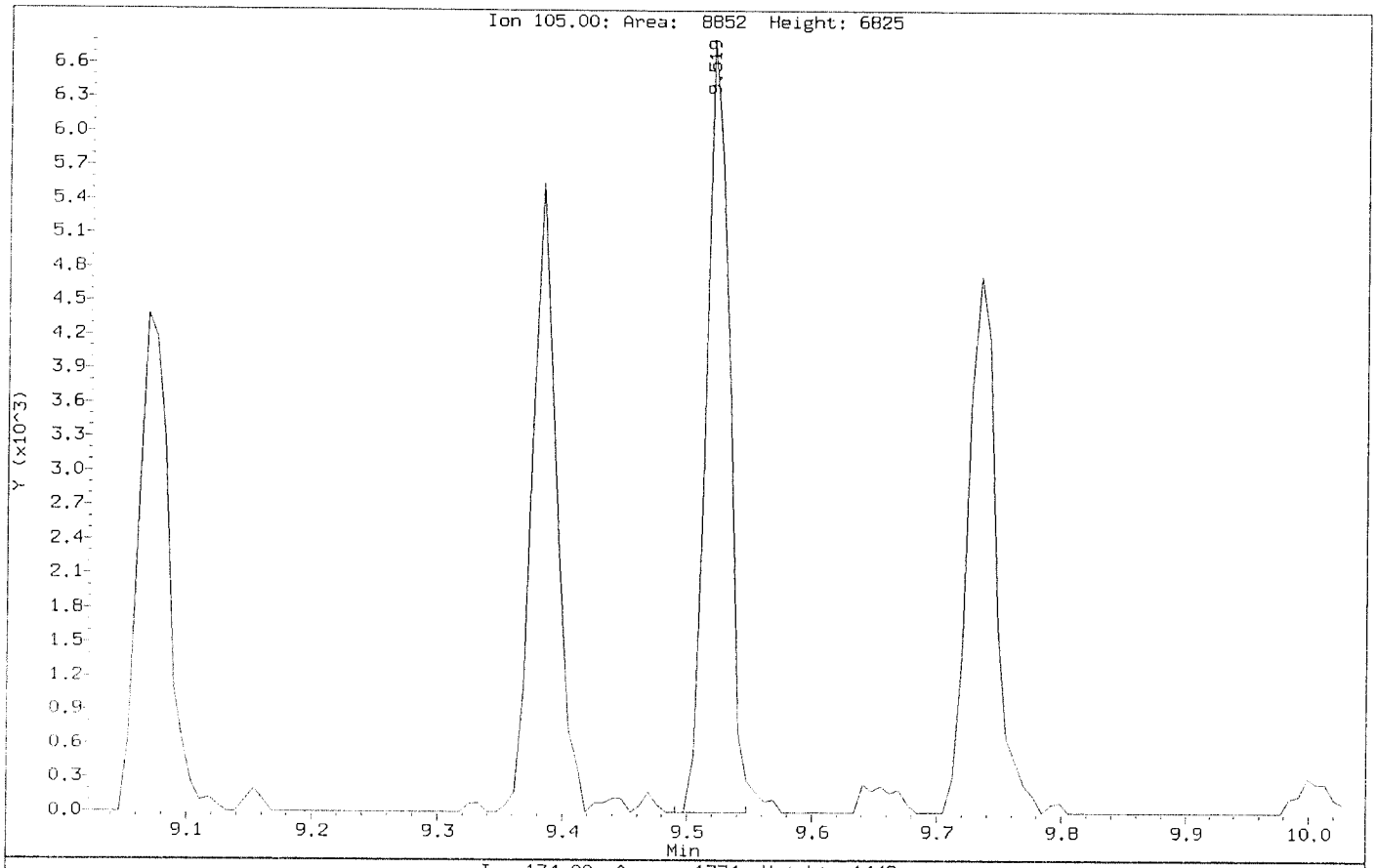
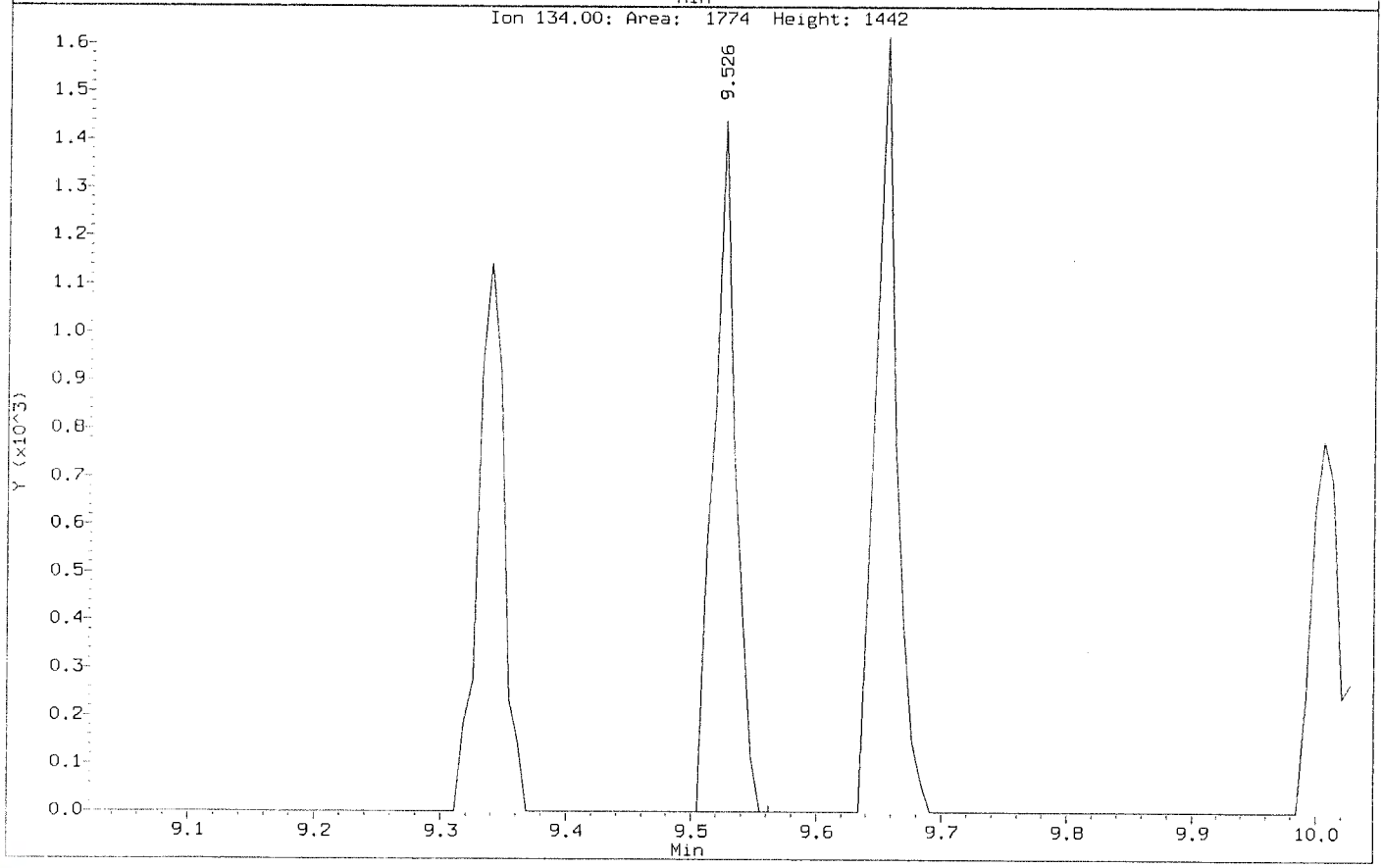
Client Sample ID: VSTD000.5

Compound: sec-Butylbenzene
CAS Number: 135-98-8





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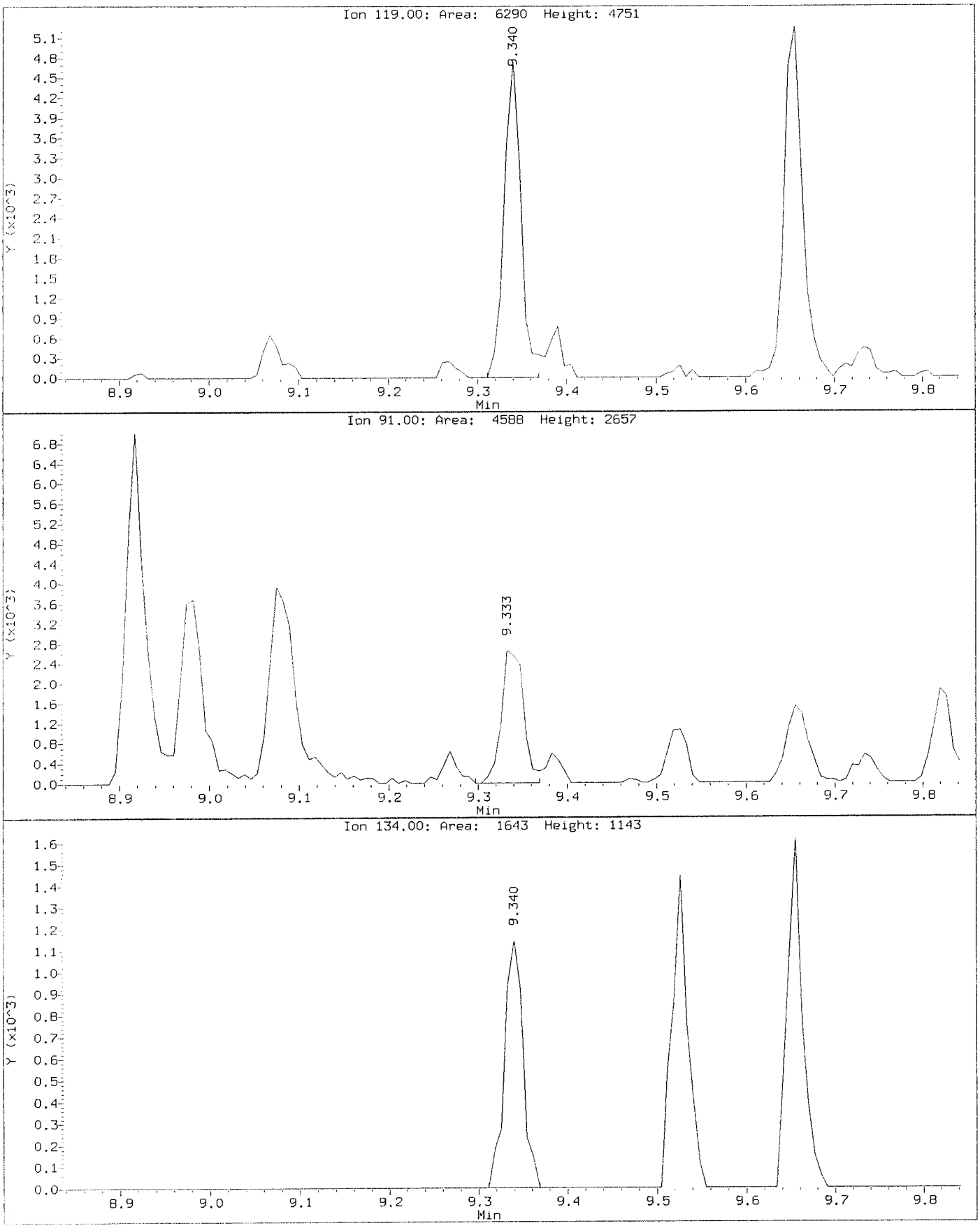
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: tert-Butylbenzene
CAS Number: 98-06-6



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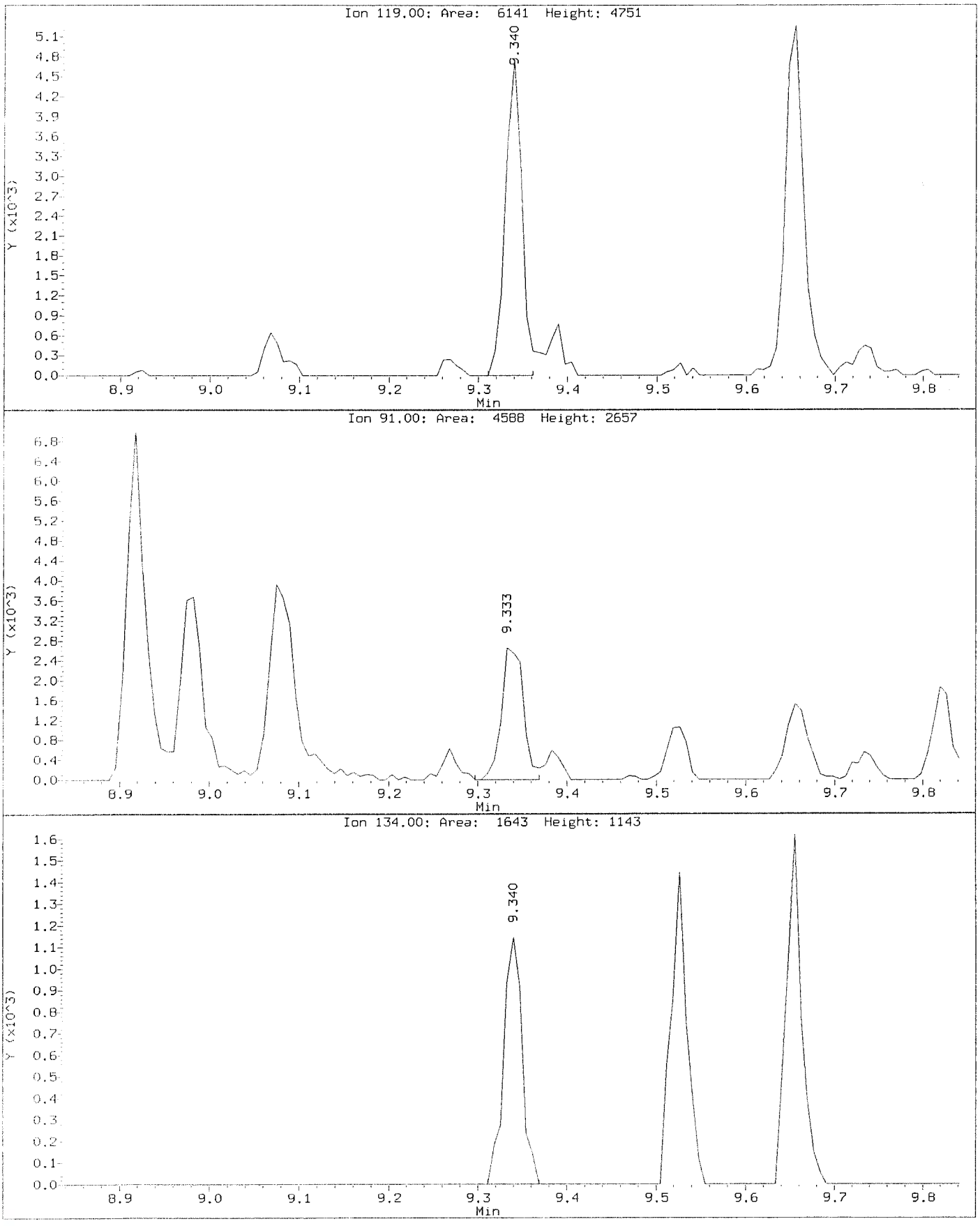
Client Sample ID: VSTD000.5

Compound: tert-Butylbenzene
CAS Number: 98-06-6



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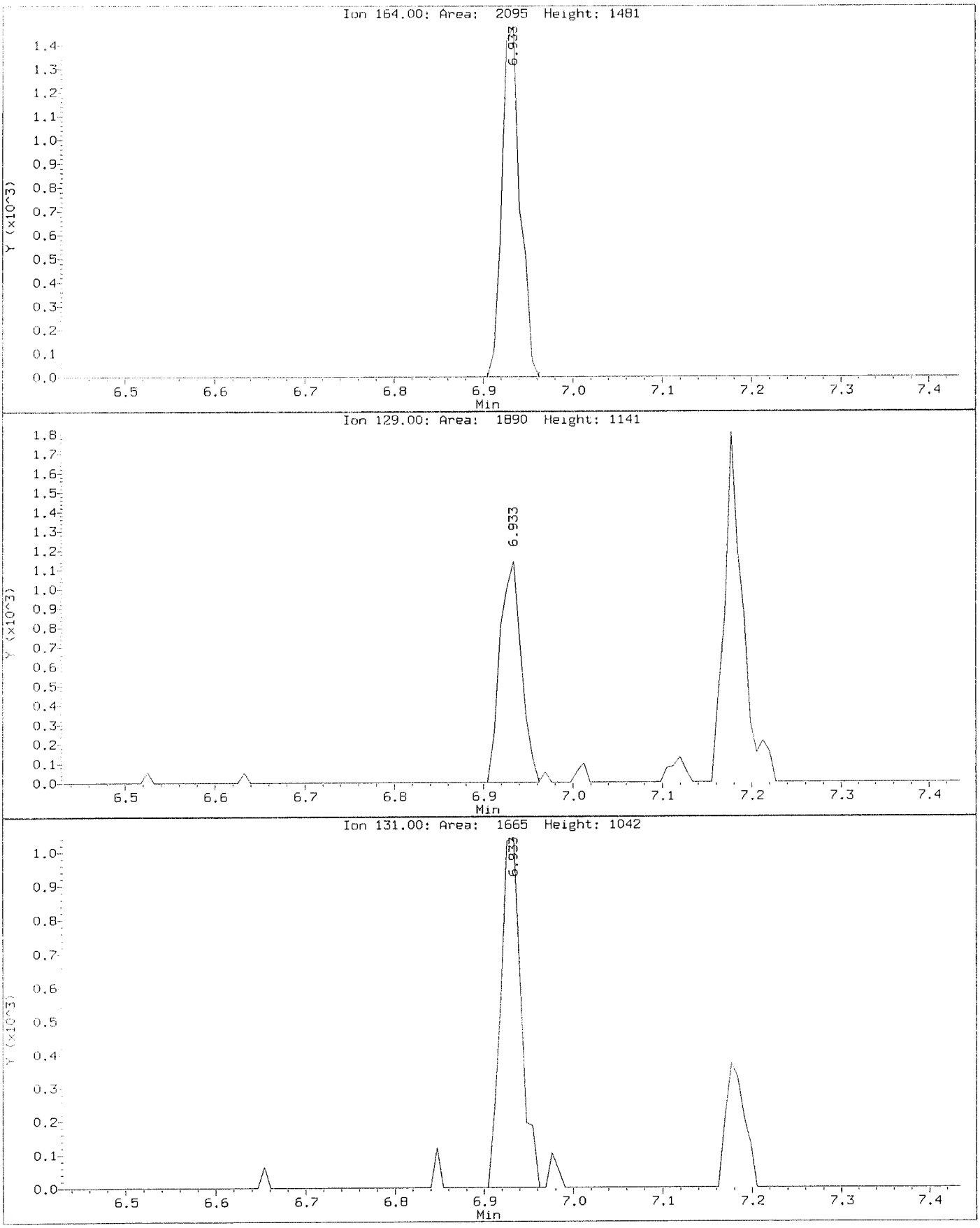
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Tetrachloroethene
CAS Number: 127-18-4



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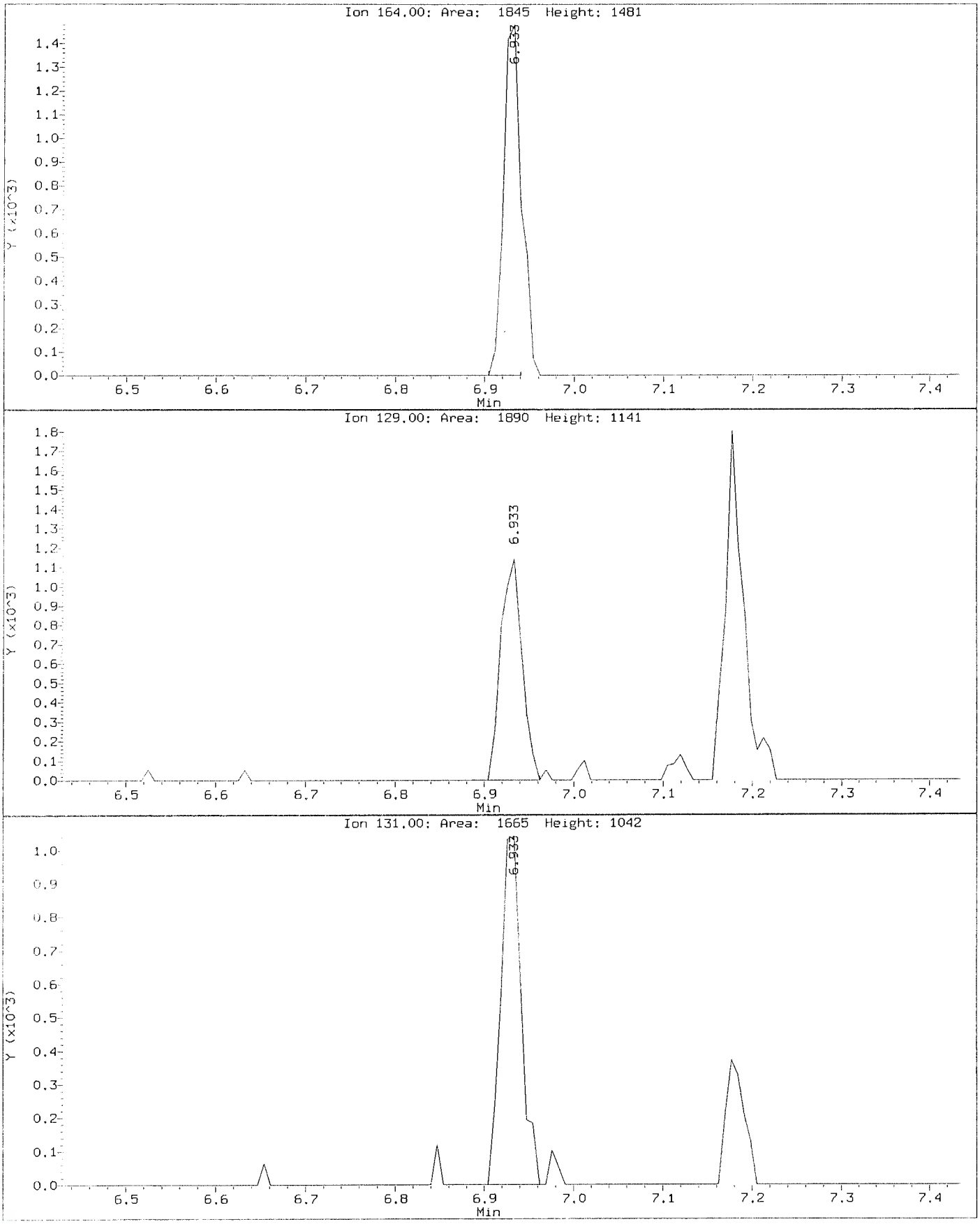
Client Sample ID: VSTD000.5

Compound: Tetrachloroethene
CAS Number: 127-18-4



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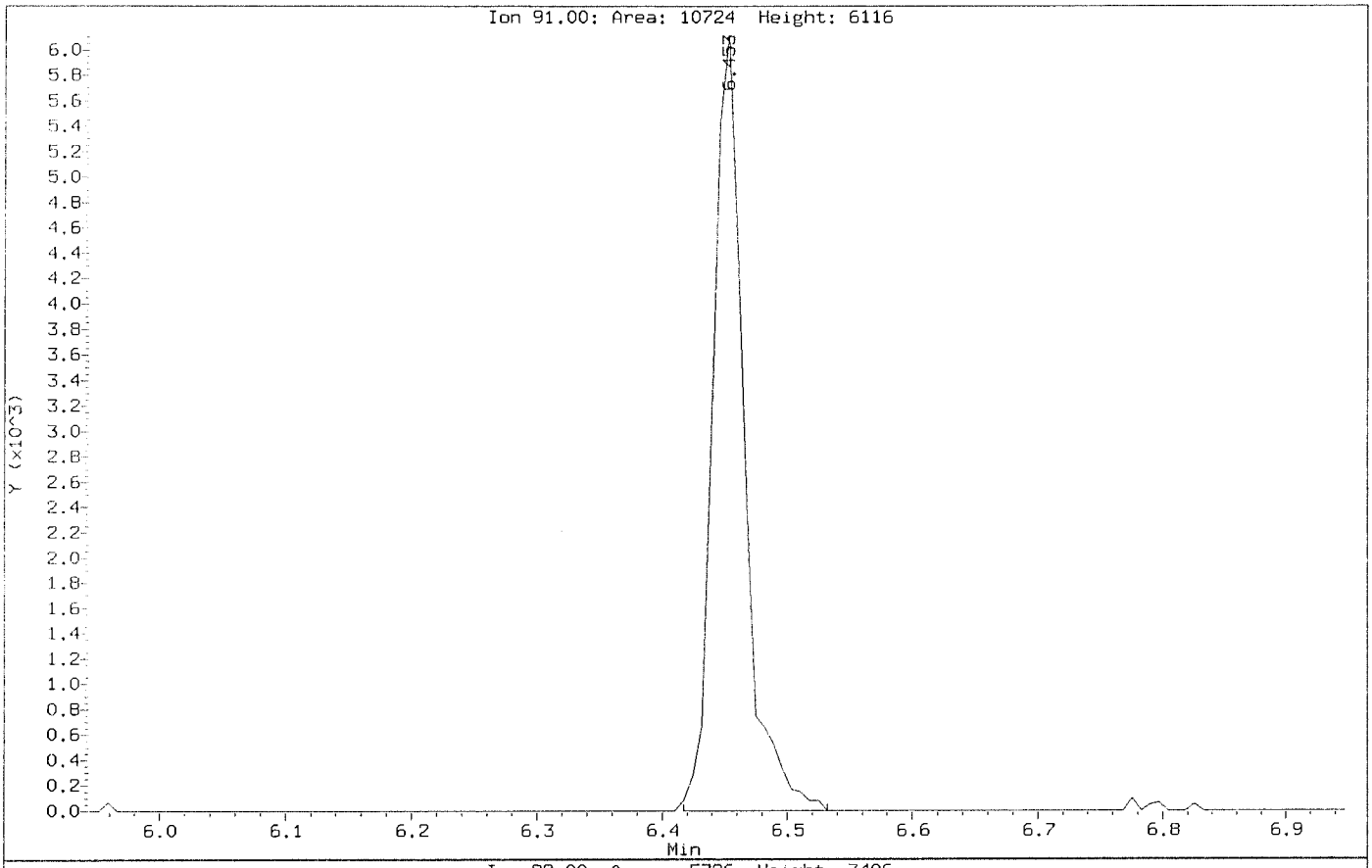
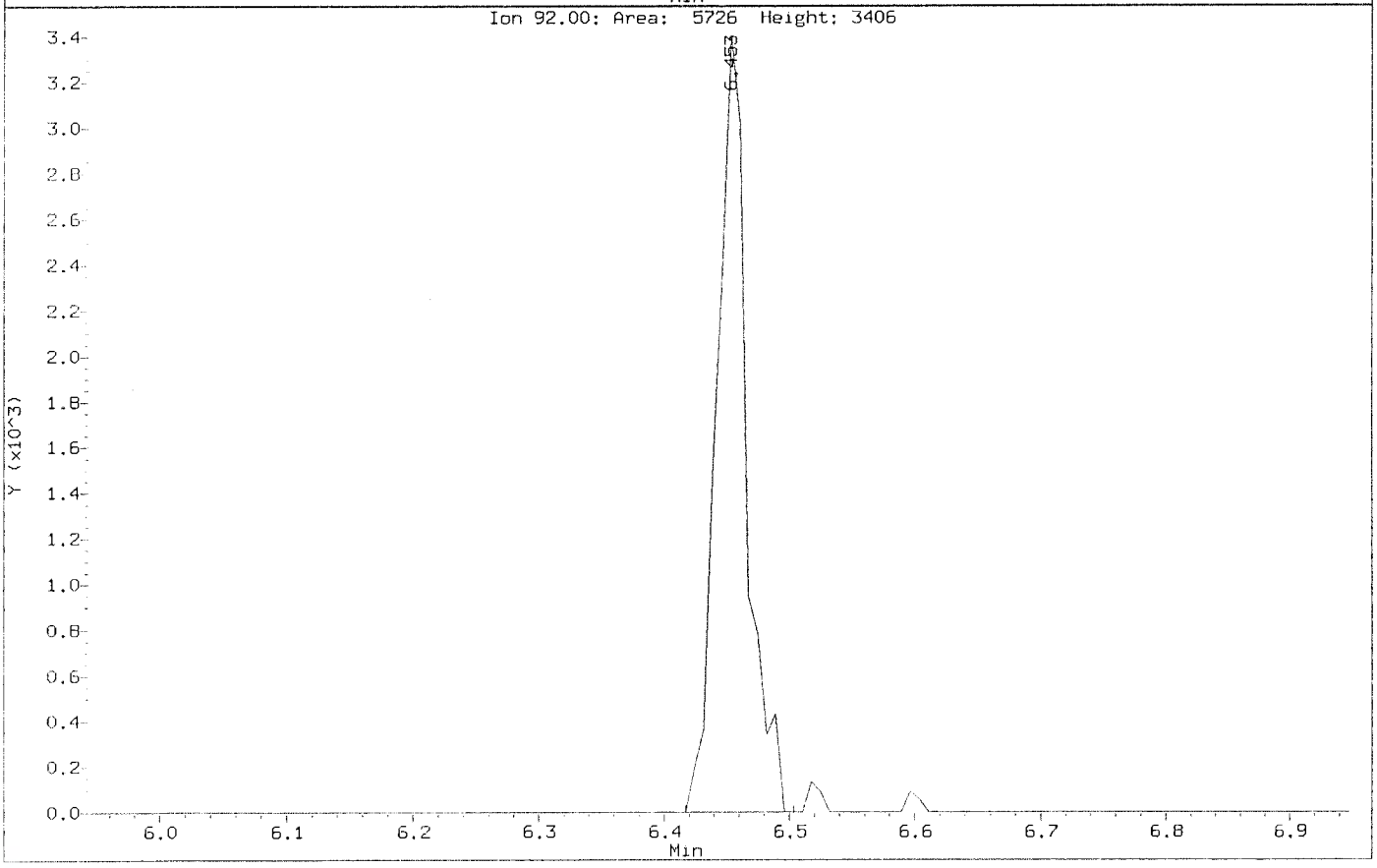
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene
CAS Number: 108-88-3





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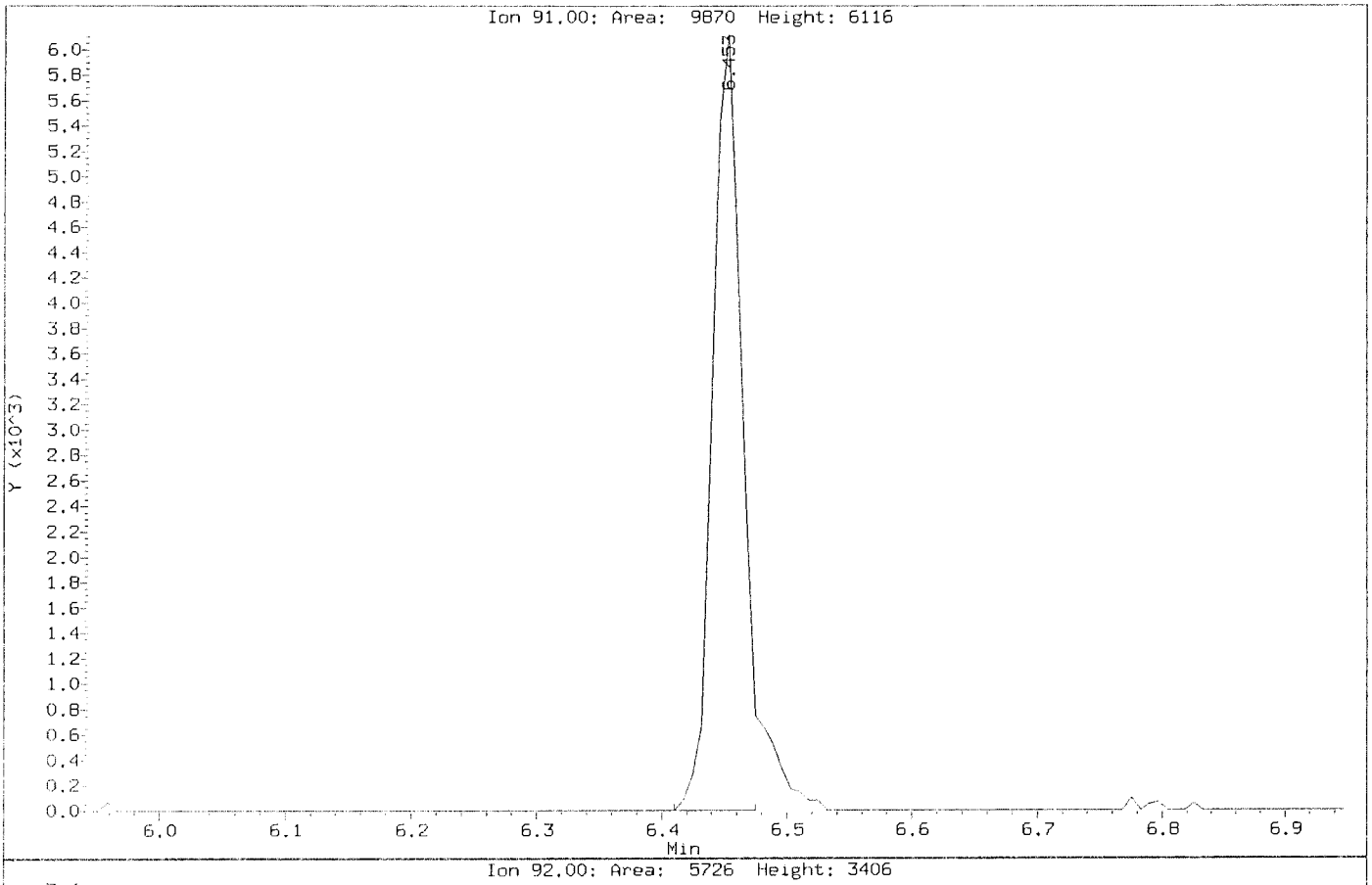
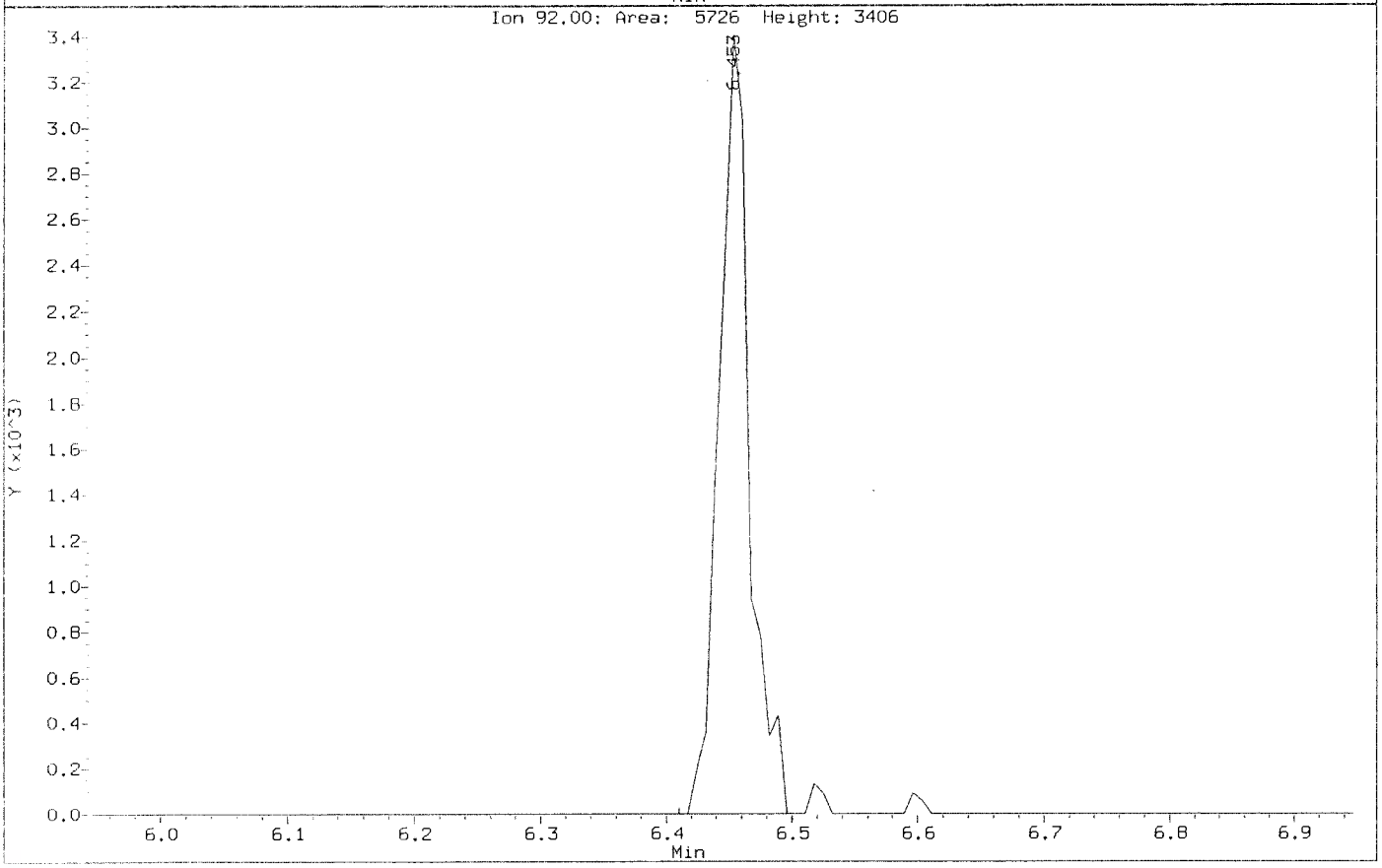
Compound: Toluene
CAS Number: 108-88-3





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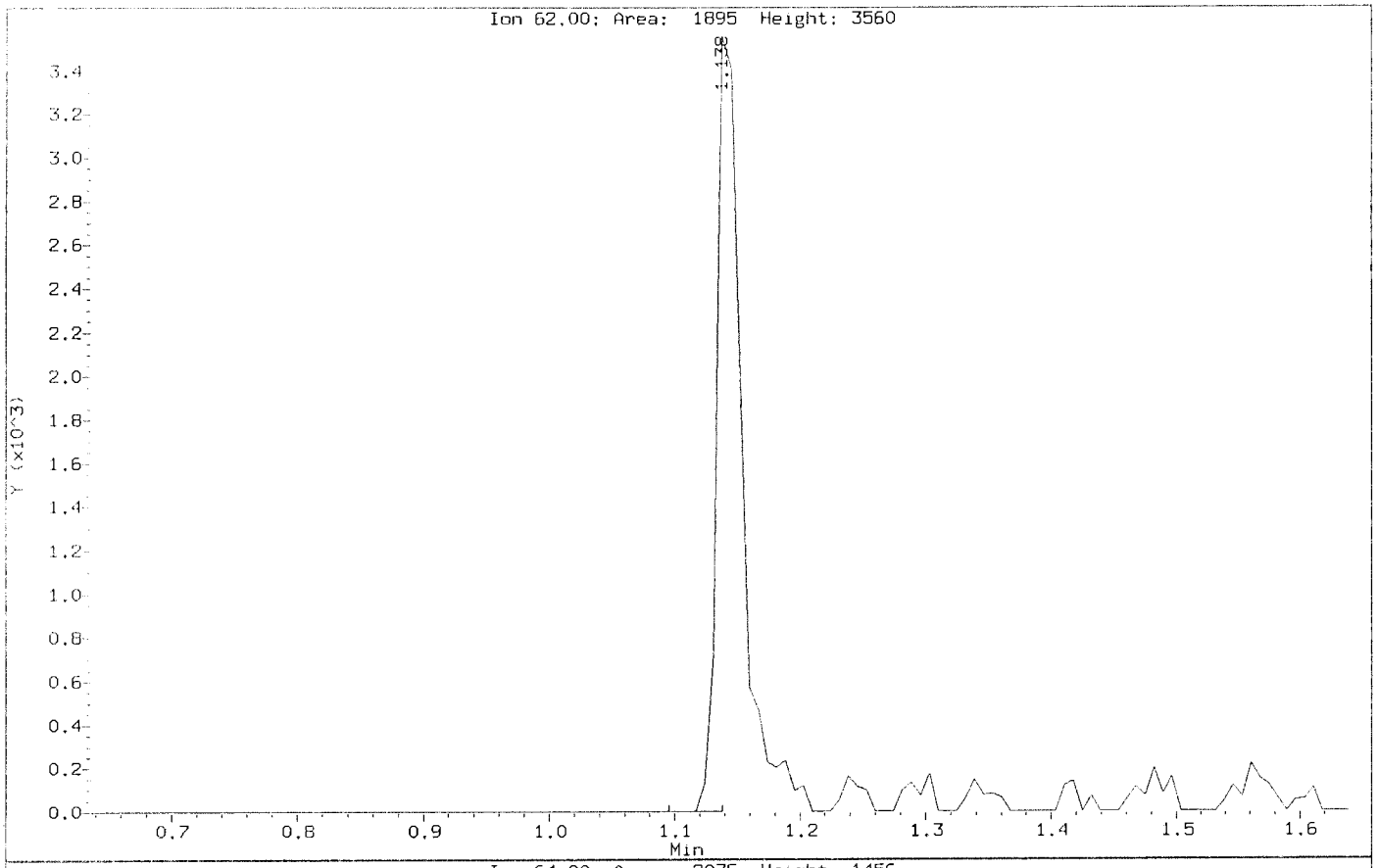
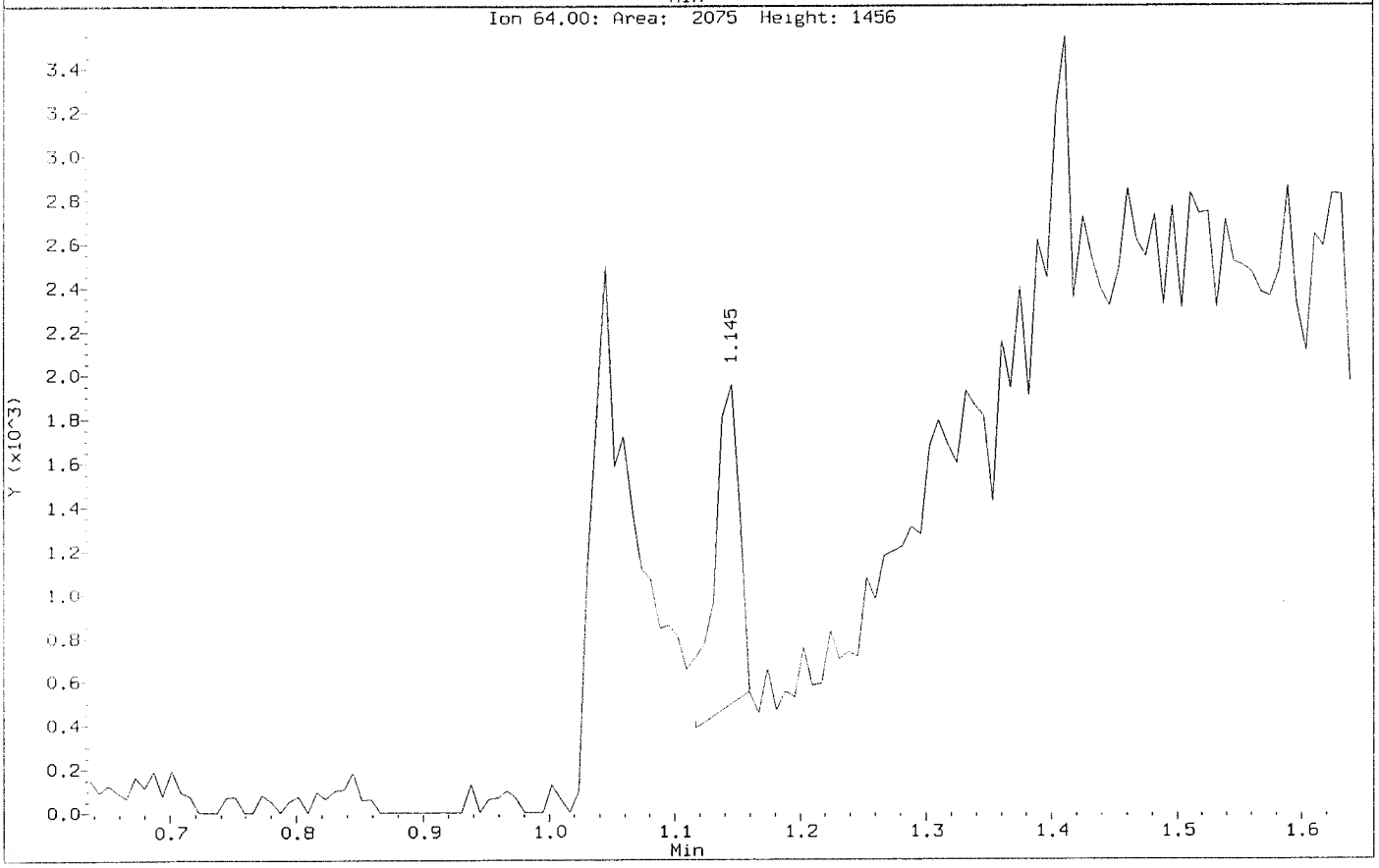
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 26-MAY-2021 13:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:16 Cal File: X052689.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

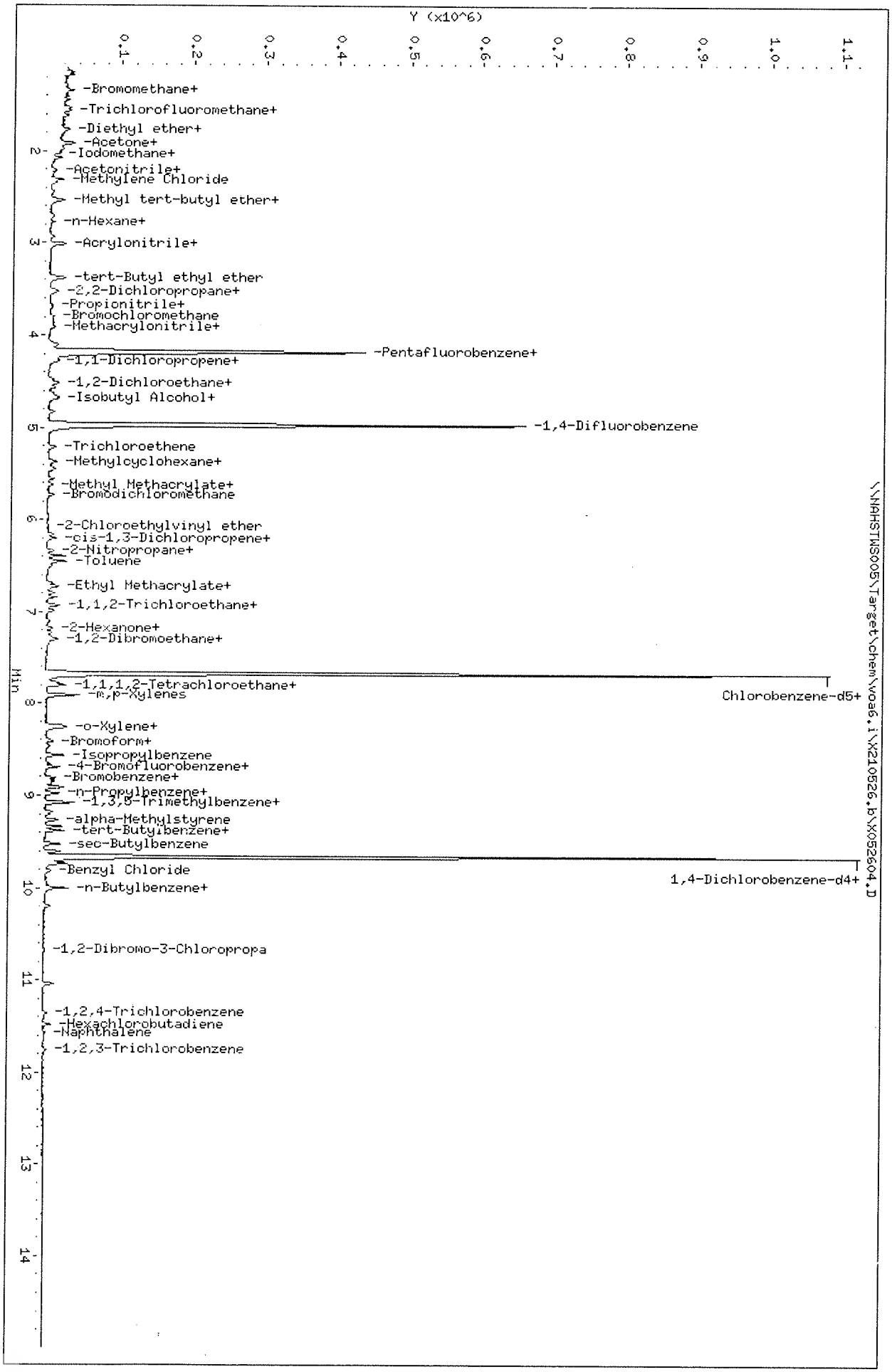
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	374662	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596470	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	539050	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263816	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4774	1.00000	1.13(a)
$	35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	4768	1.00000	0.65(a)
$	46 Toluene-d8	98	6.388	6.388	(0.833)	16130	1.00000	1.20(a)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6016	1.00000	2.00(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	3901	1.00000	0.97(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	5755	1.00000	1.03(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	4348	1.00000	0.02(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	2883	1.00000	0.98(a)
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	5856	1.00000	0.98(a)
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3995	1.00000	1.03(a)
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	5224	1.00000	1.14(a)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	1736	1.00000	1.08(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	3425	1.00000	1.04(aM)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	2427	1.00000	0.93(a)
	79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	12763	1.00000	1.06(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.665	10.665	(1.104)	420	1.00000	1.50(aM)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	4007	1.00000	1.00(a)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	6762	1.00000	0.94(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4589	1.00000	0.96(a)
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	3370	1.00000	0.95(aM)
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	11991	1.00000	1.00(a)
83 1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	7778	1.00000	1.04(a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	6044	1.00000	1.04(a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	8598	1.00000	1.10(a)
26 2,2-Dichloropropane	77	3.502	3.502	(0.837)	5645	1.00000	1.10(a)
24 2-Butanone	43	3.609	3.609	(0.863)	2263	2.00000	1.98(aH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	10677	1.00000	1.08(a)
52 2-Hexanone	43	7.105	7.105	(0.926)	3902	2.00000	1.94(a)
77 4-Chlorotoluene	91	9.075	9.075	(0.939)	12726	1.00000	1.08(a)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	11873	1.00000	0.97(a)
45 4-Methyl-2-Pentanone	43	6.338	6.338	(0.826)	6892	2.00000	2.22(a)
10 Acetone	43	1.976	1.976	(0.473)	6356	2.00000	1.07(a)
37 Benzene	78	4.512	4.512	(0.909)	13768	1.00000	1.00(a)
74 Bromobenzene	156	8.810	8.810	(0.912)	4457	1.00000	1.01(a)
29 Bromochloromethane	128	3.795	3.795	(0.908)	2448	1.00000	1.08(a)
39 Bromodichloromethane	83	5.729	5.729	(1.154)	5258	1.00000	1.02(aM)
66 Bromoform	173	8.416	8.416	(1.097)	3086	1.00000	1.02(Ta)
6 Bromomethane	94	1.338	1.338	(0.320)	5134	1.00000	1.47(aM)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	17528	2.00000	1.91(a)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	5081	1.00000	1.02(aH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	11243	1.00000	1.00(a)
7 Chloroethane	64	1.403	1.403	(0.336)	3557	1.00000	(aM)
28 Chloroform	83	3.910	3.910	(0.935)	6401	1.00000	0.97(a)
3 Chloromethane	50	1.081	1.081	(0.258)	4657	1.00000	(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	4276	1.00000	1.08(a)
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	5752	1.00000	0.95(a)
55 Dibromochloromethane	129	7.184	7.184	(0.937)	4180	1.00000	0.94(a)
44 Dibromomethane	93	5.558	5.558	(1.120)	2737	1.00000	1.03(a)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	3382	1.00000	0.77(a)
61 Ethylbenzene	106	7.800	7.800	(1.017)	4880	1.00000	0.94(a)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	1684	1.00000	2.04(a)
67 Isopropylbenzene	105	8.566	8.566	(1.117)	14326	1.00000	0.90(a)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	12425	2.00000	1.84(a)
17 Methylene Chloride	84	2.306	2.306	(0.551)	5537	1.00000	0.34(a)
87 n-Butylbenzene	91	9.999	9.999	(1.035)	9814	1.00000	0.95(a)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	17945	1.00000	1.09(a)
92 Naphthalene	128	11.567	11.567	(1.197)	3910	1.00000	1.03(a)
63 o-Xylene	106	8.244	8.244	(1.075)	6381	1.00000	0.96(a)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	13504	1.00000	0.97(a)
64 Styrene	104	8.265	8.265	(1.078)	10006	1.00000	0.90(a)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	10328	1.00000	1.00(a)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	3075	1.00000	0.92(a)
50 Toluene	91	6.453	6.453	(0.841)	16276	1.00000	1.03(a)
20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	3617	1.00000	1.03(a)
51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.348)	5128	1.00000	0.98(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	3767	1.00000	0.92(a)
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	5964	1.00000	0.88(a)
5 Vinyl Chloride	62	1.138	1.138	(0.272)	5435	1.00000	1.22(aM)

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.

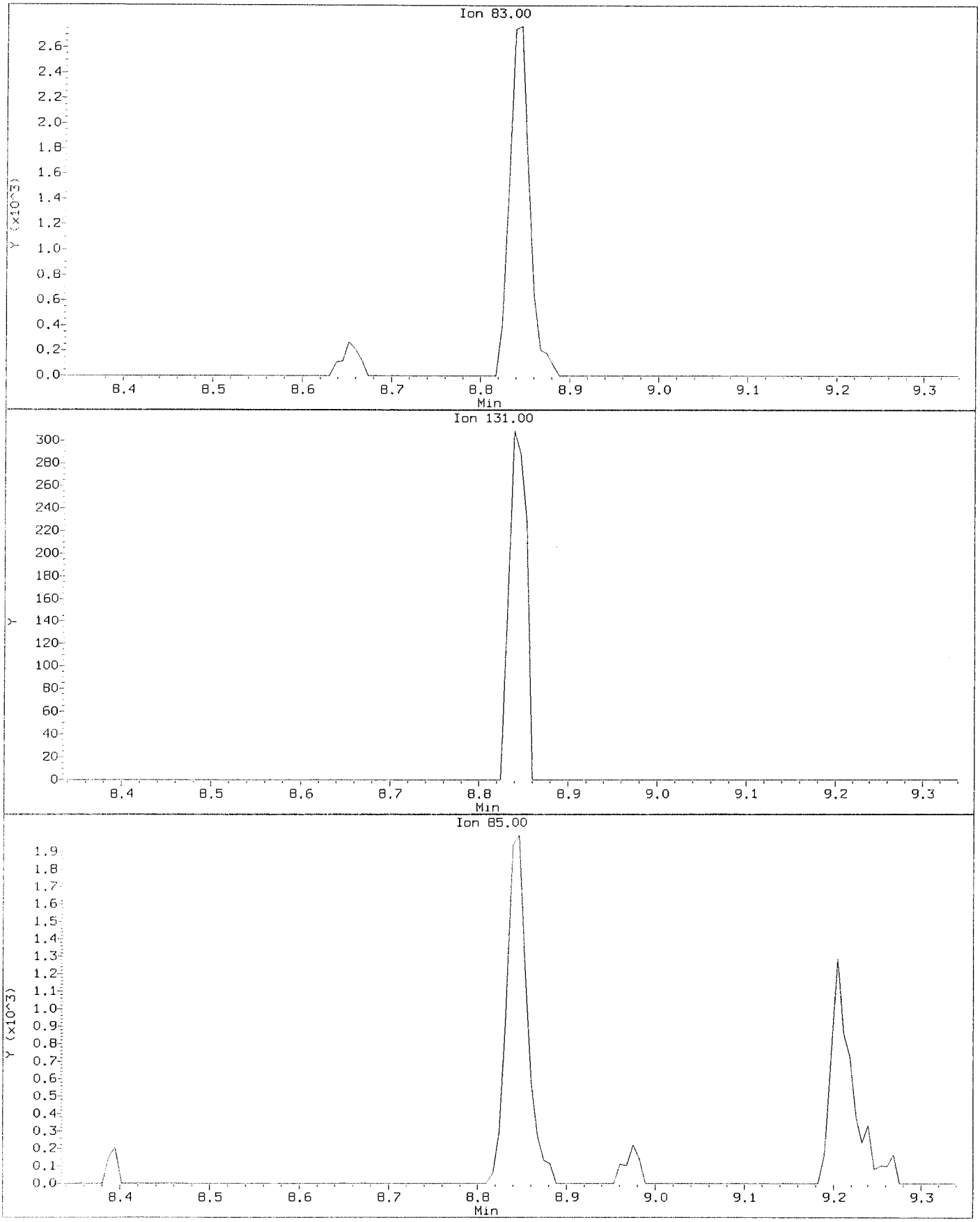


Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Date : 26-MAY-2021 13:37
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052604.D
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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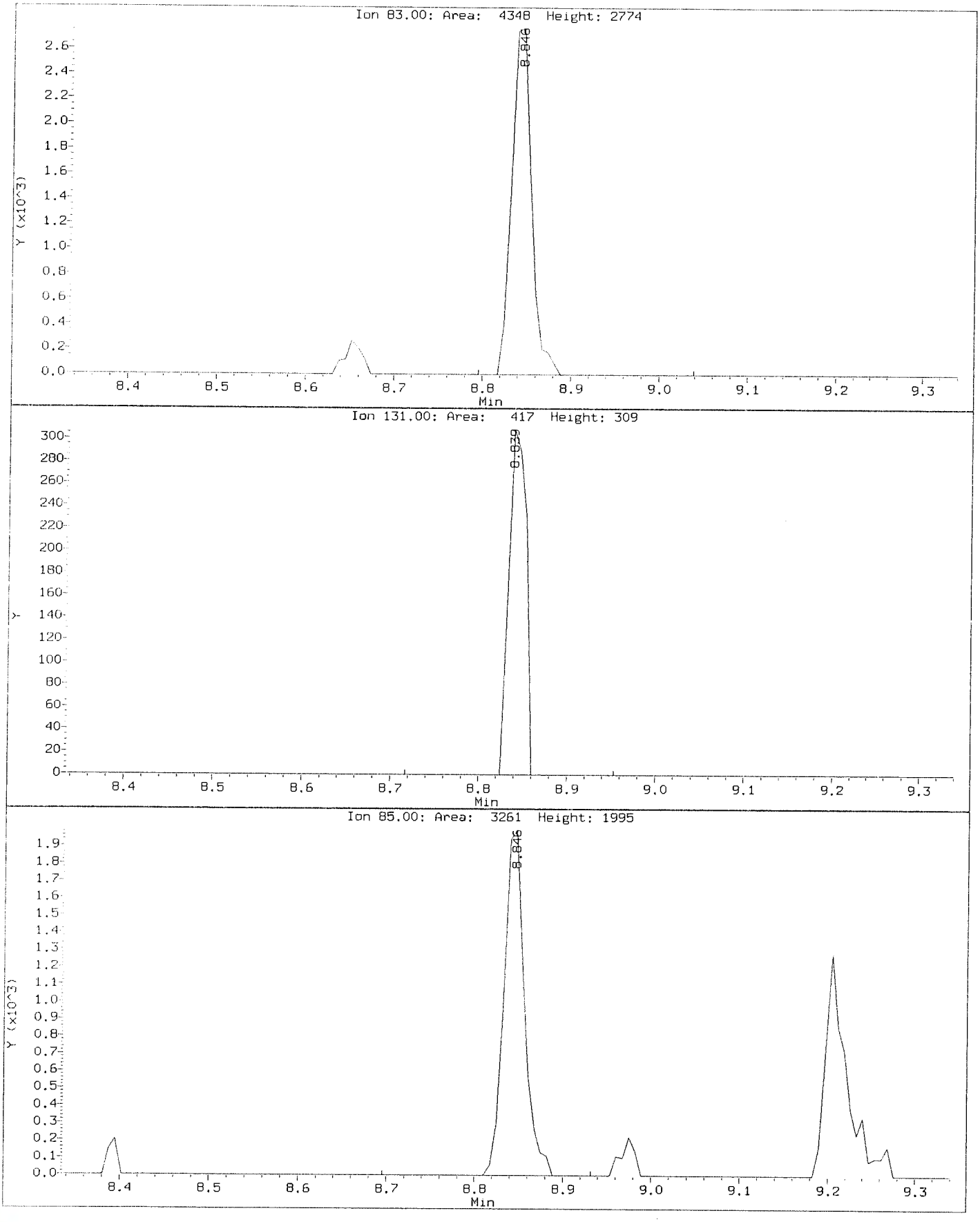
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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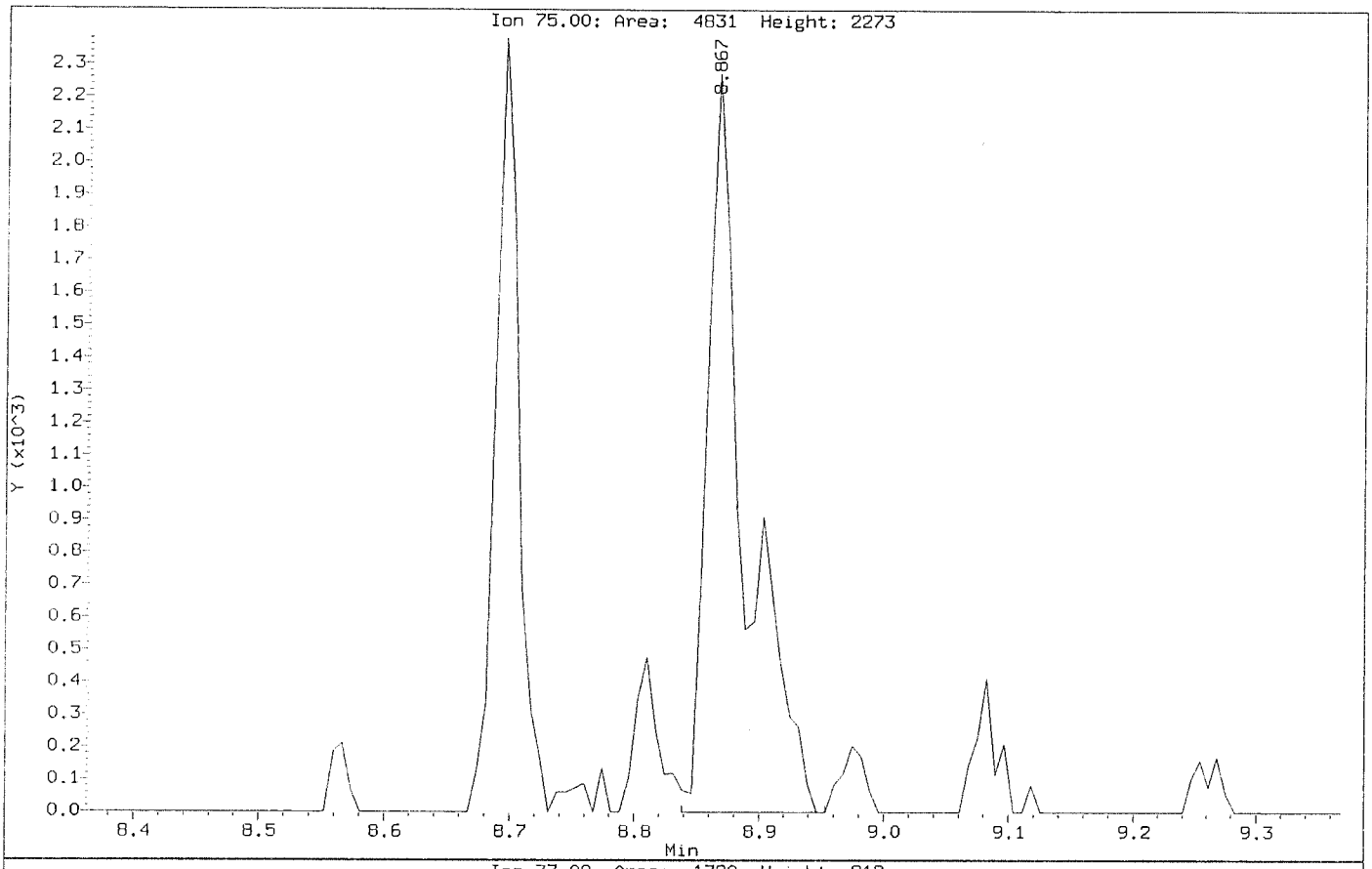
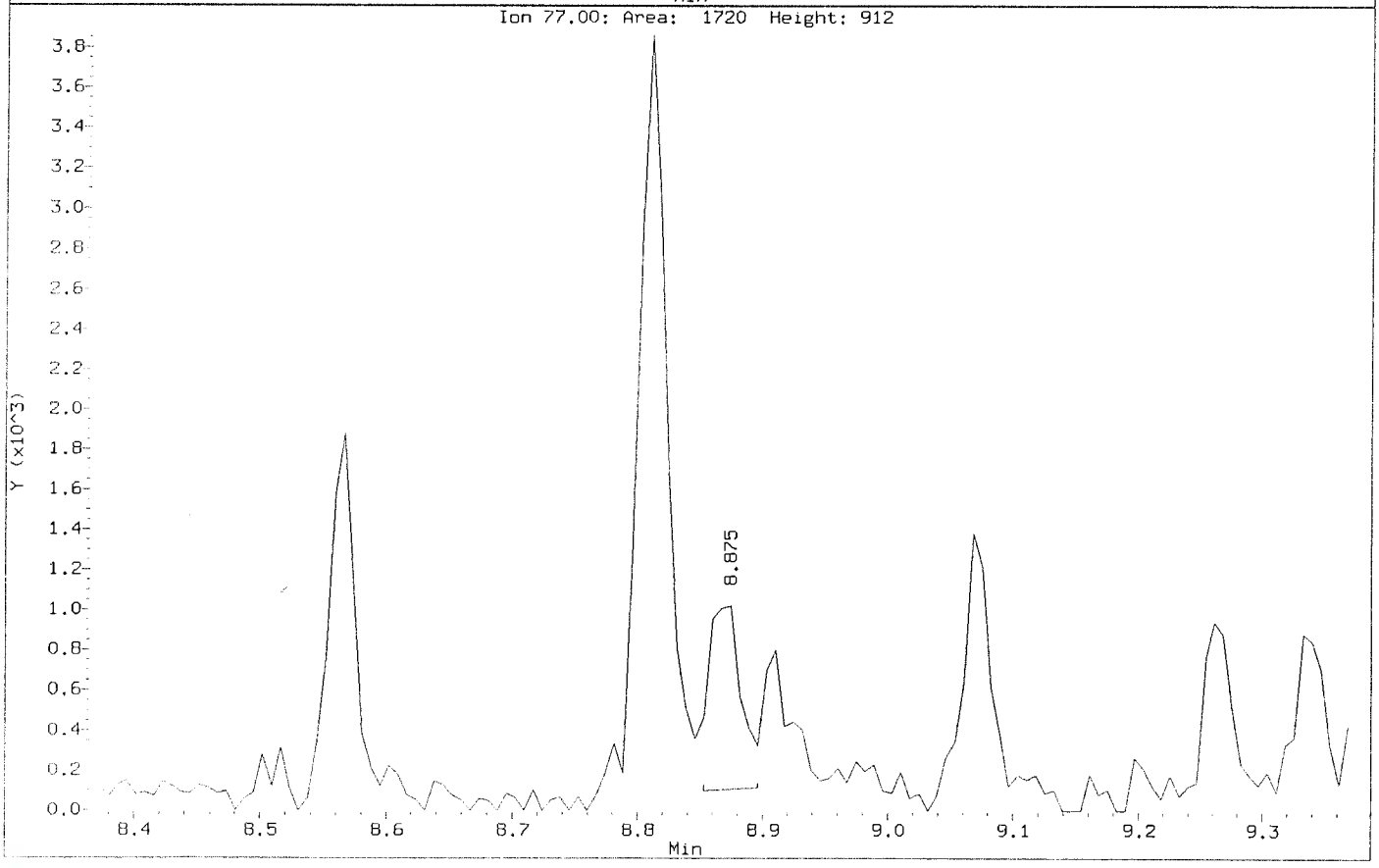
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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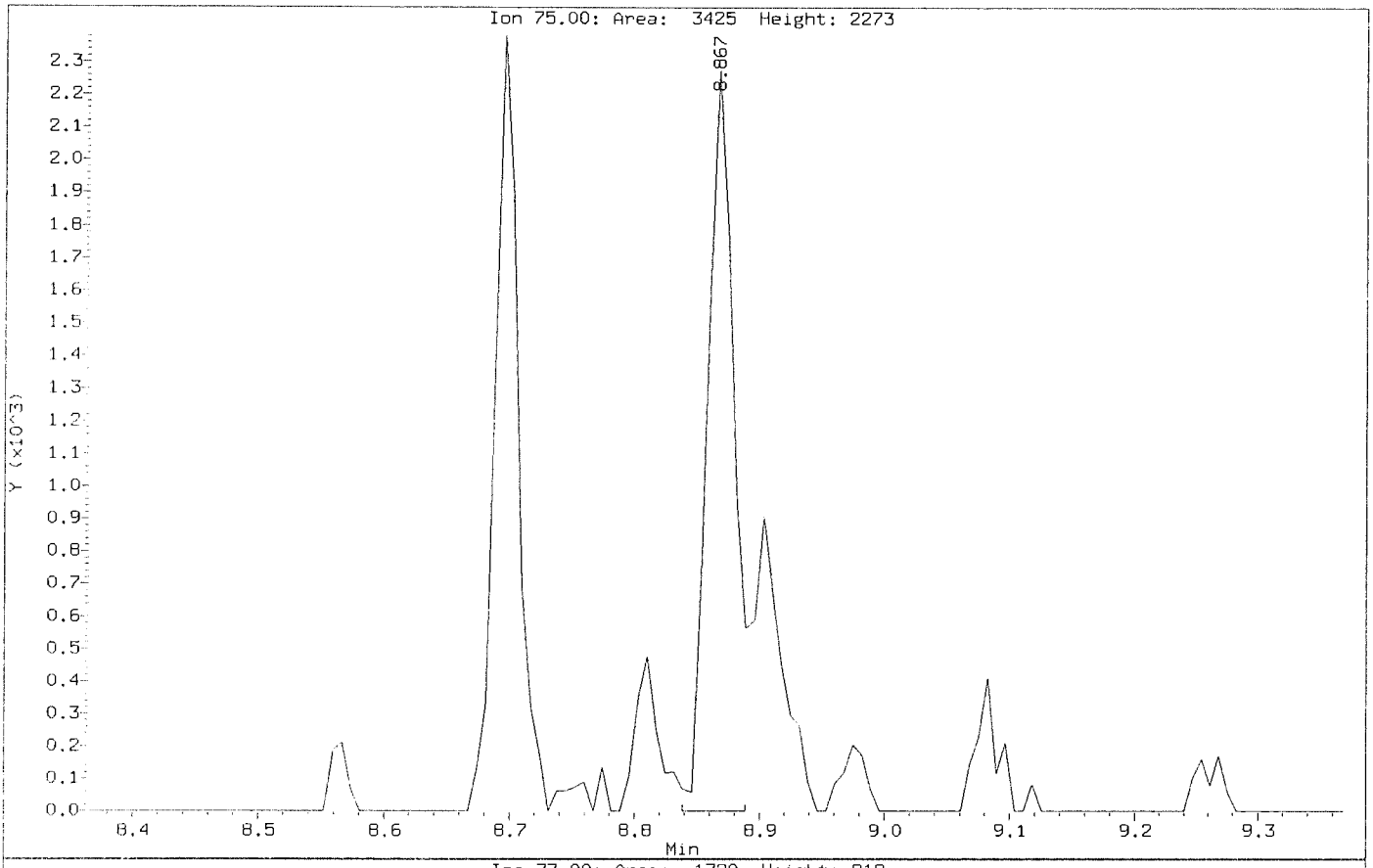
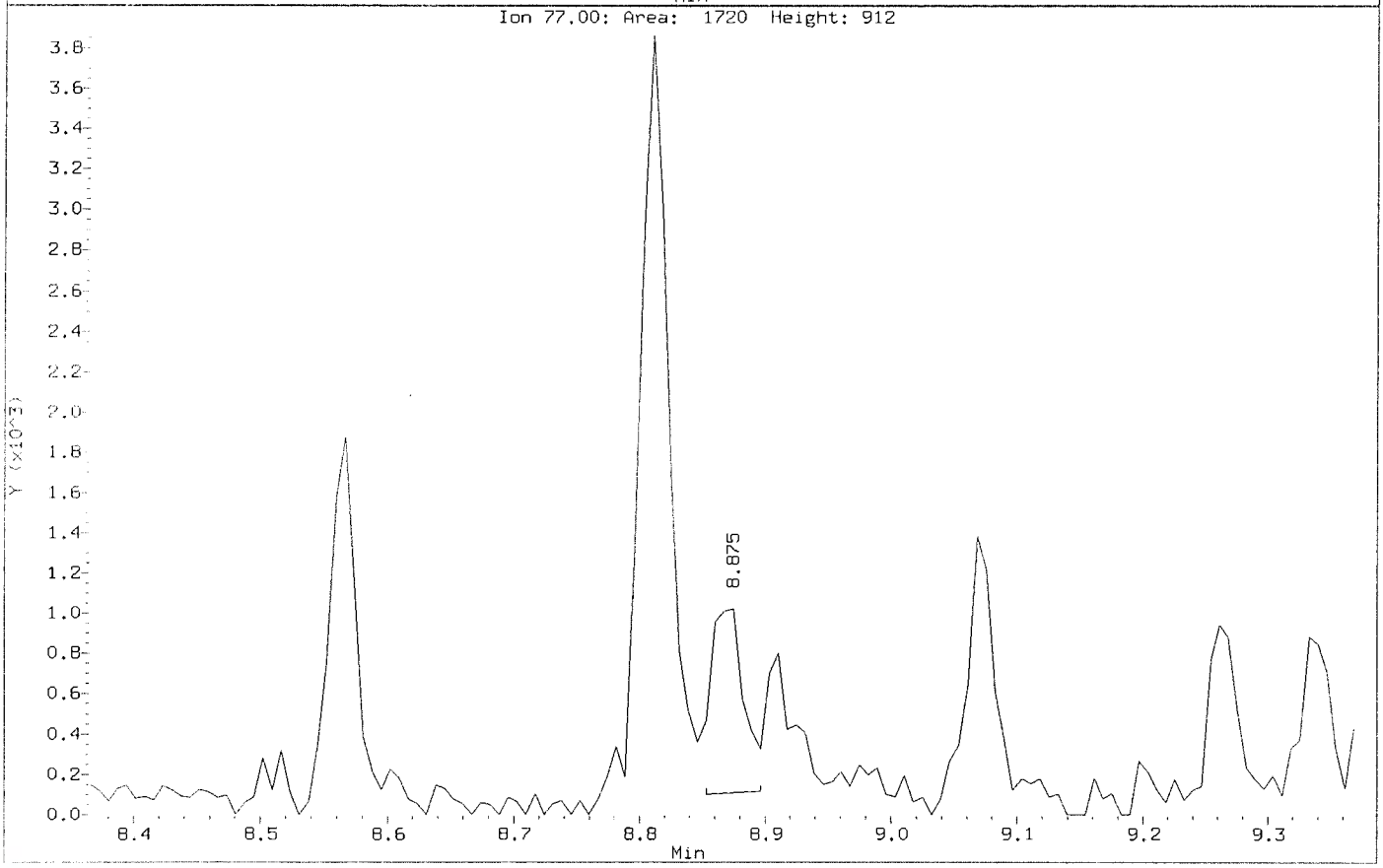
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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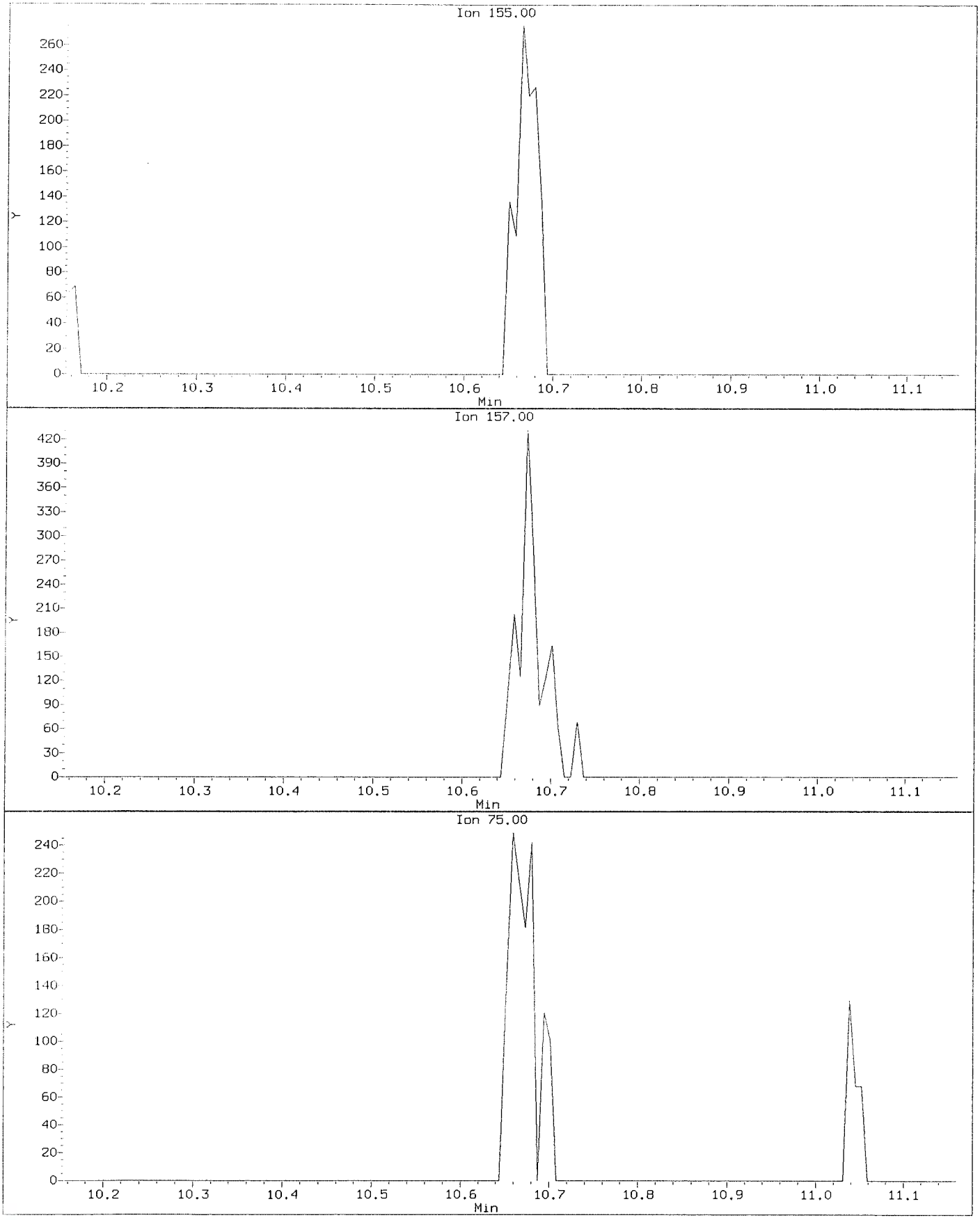
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



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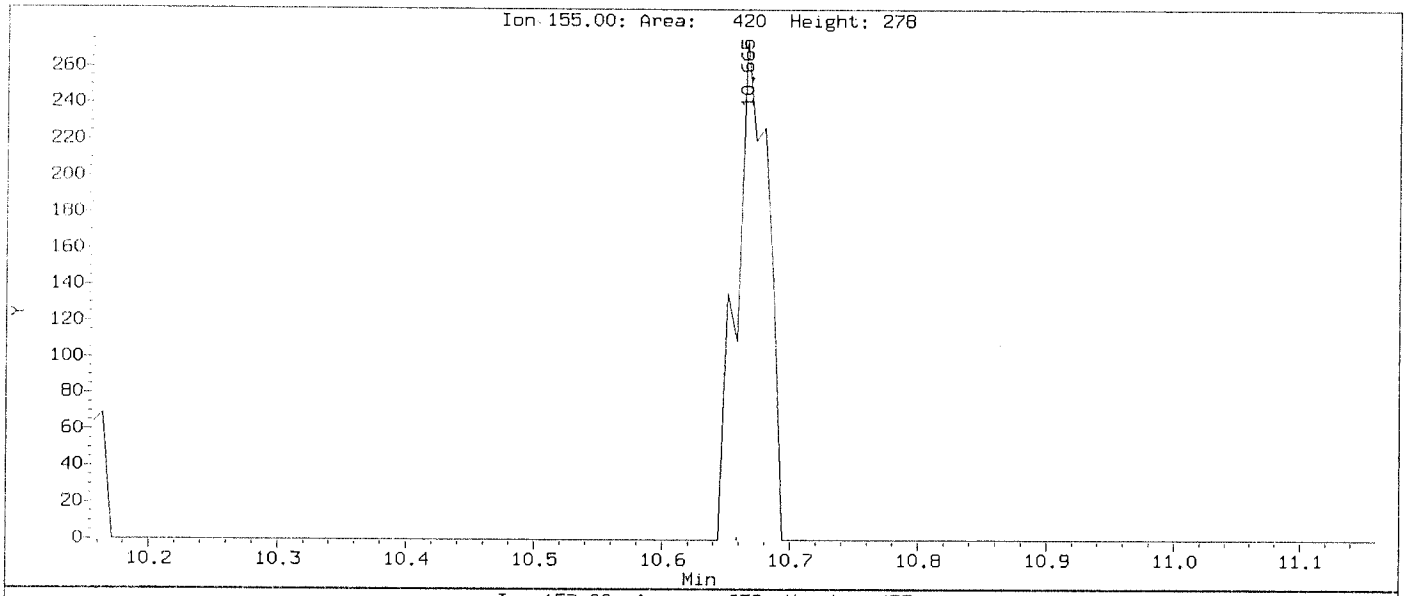
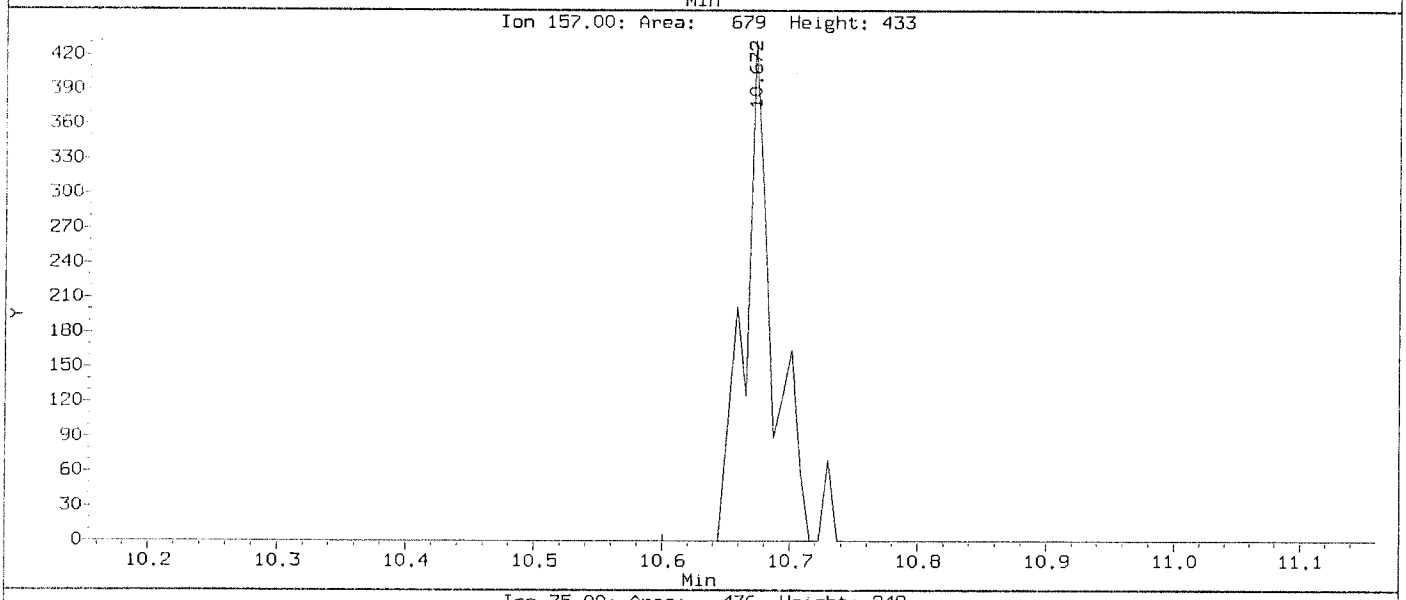
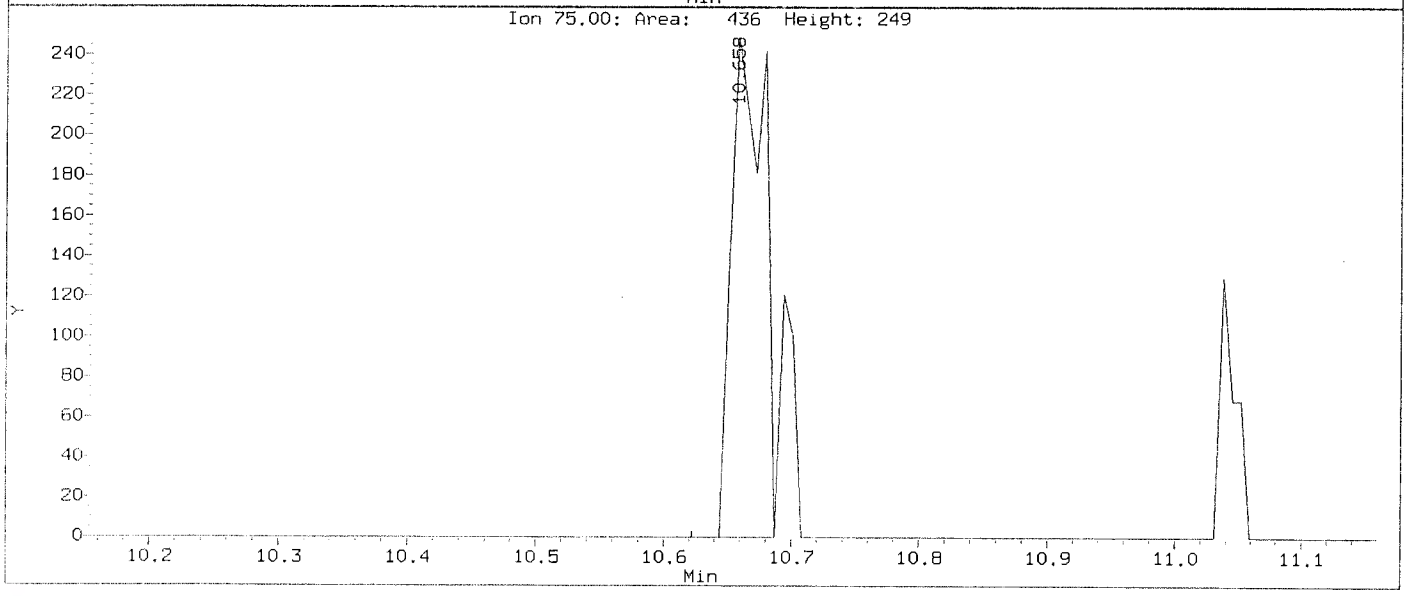
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8







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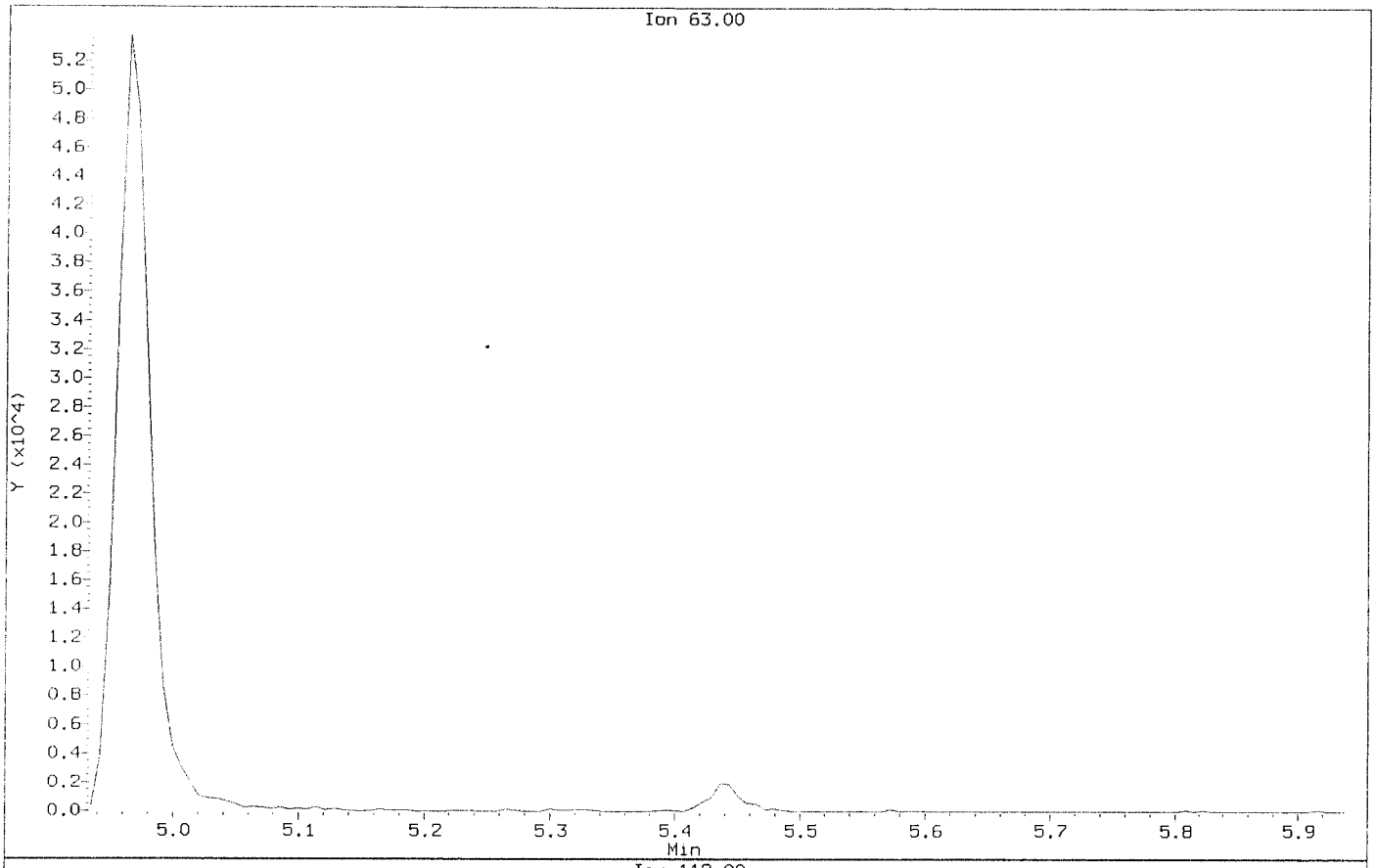
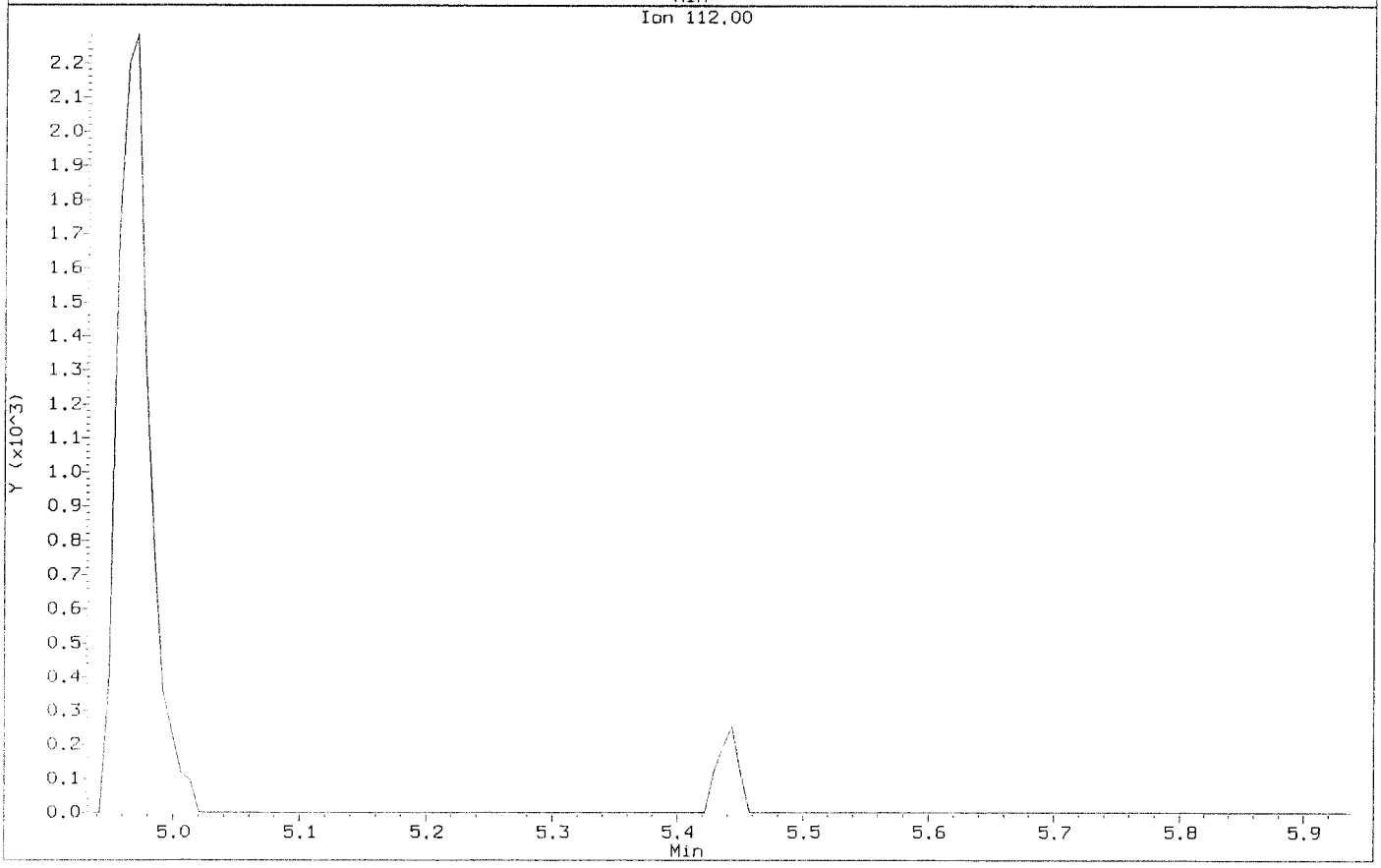
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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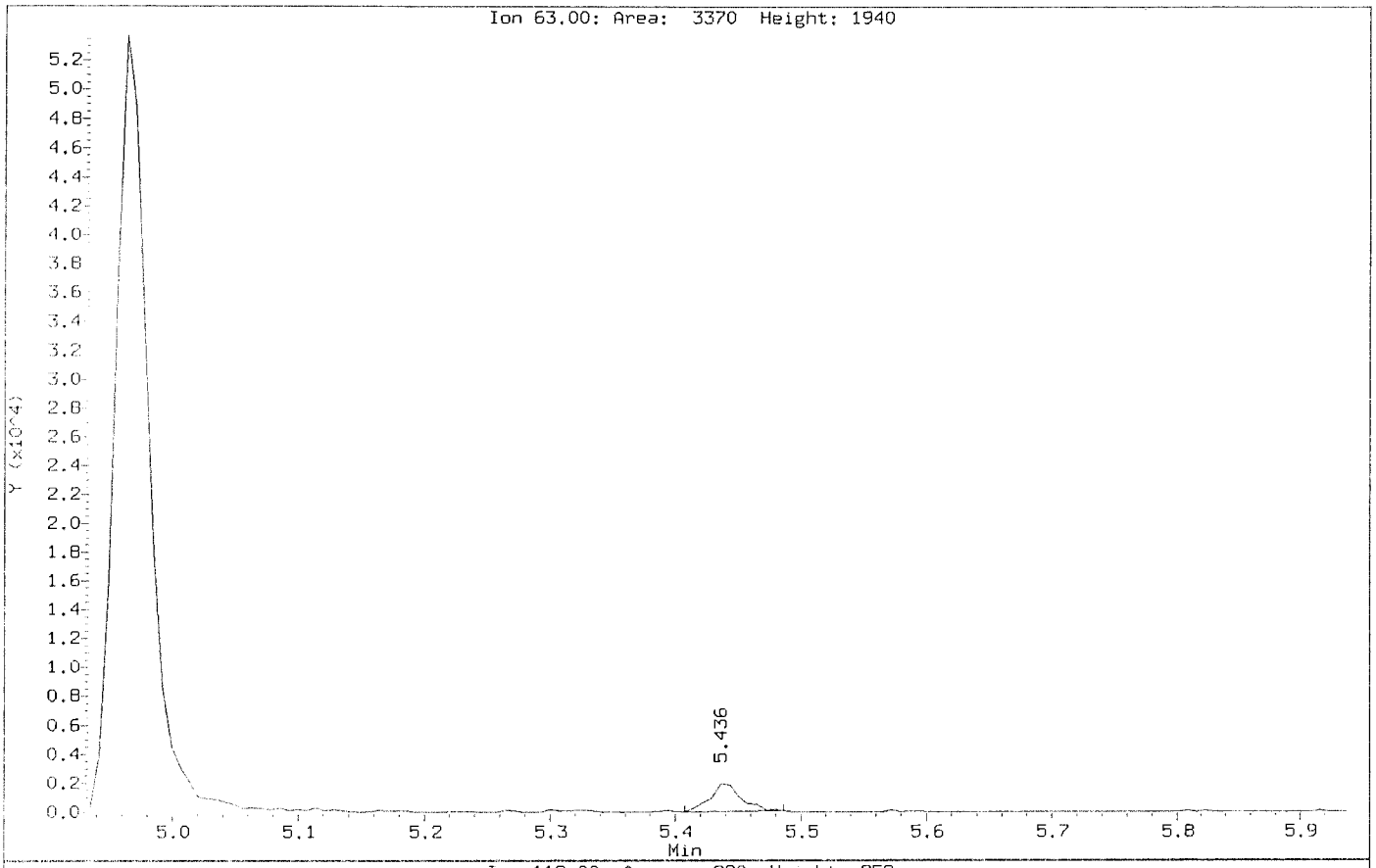
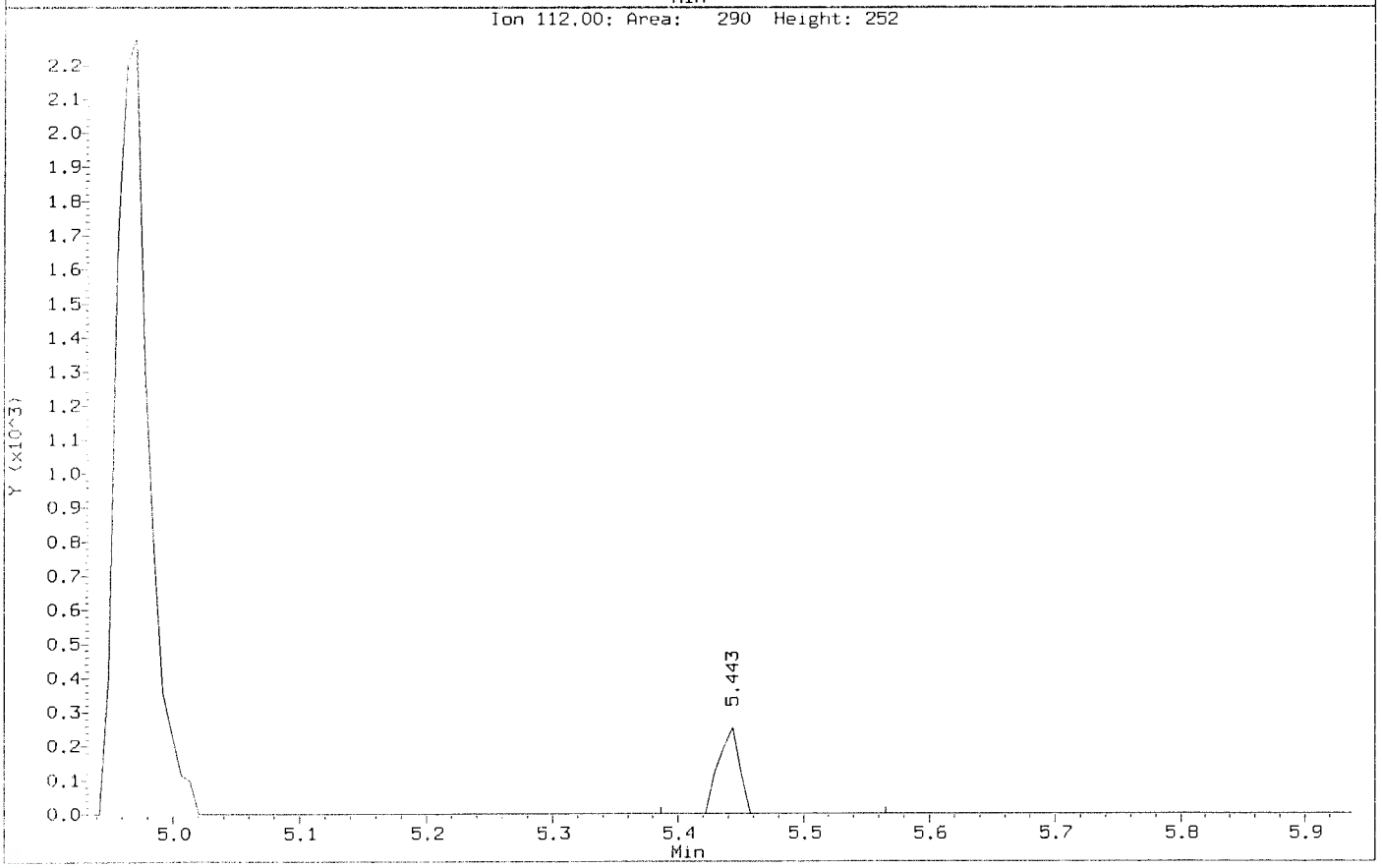
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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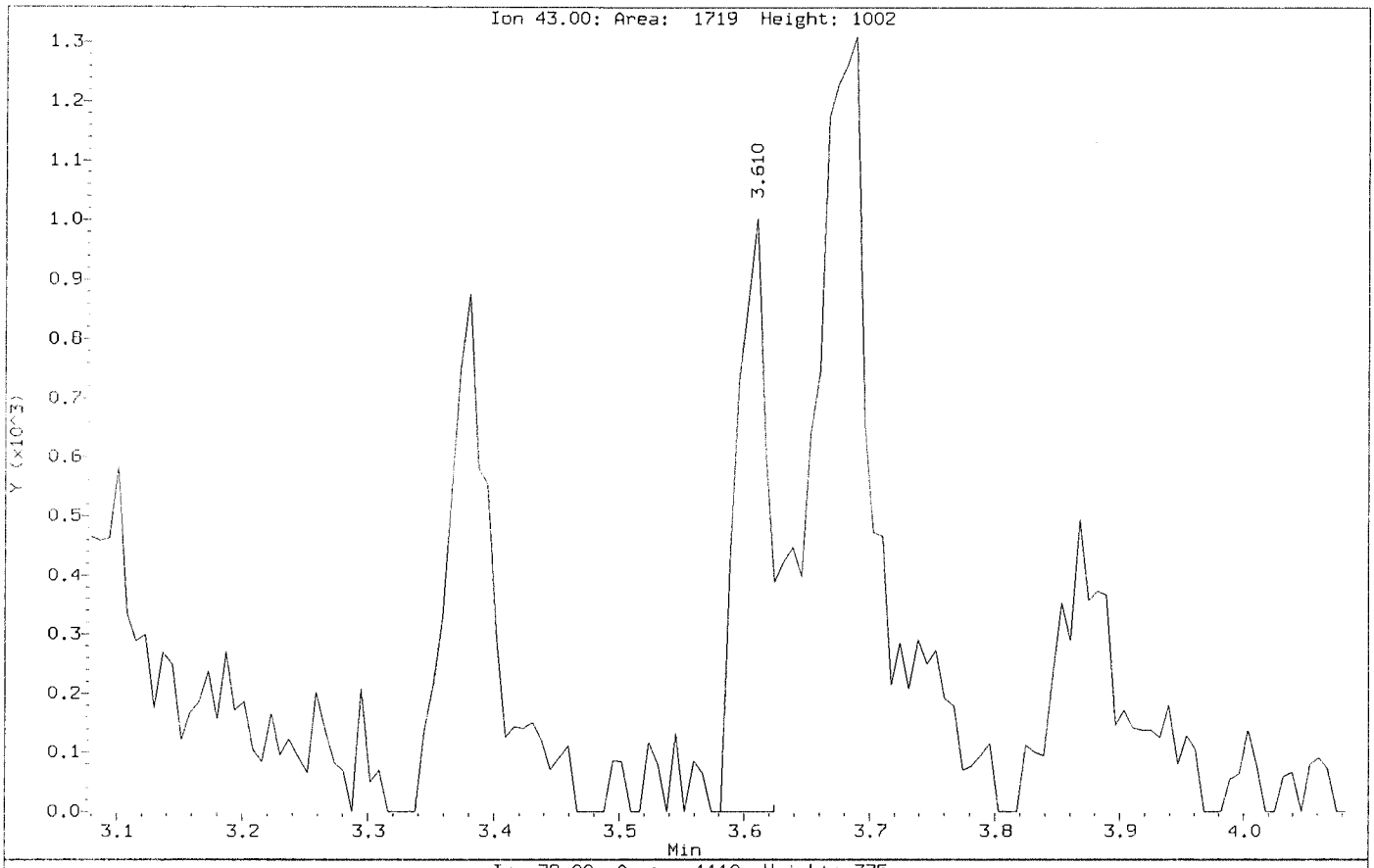
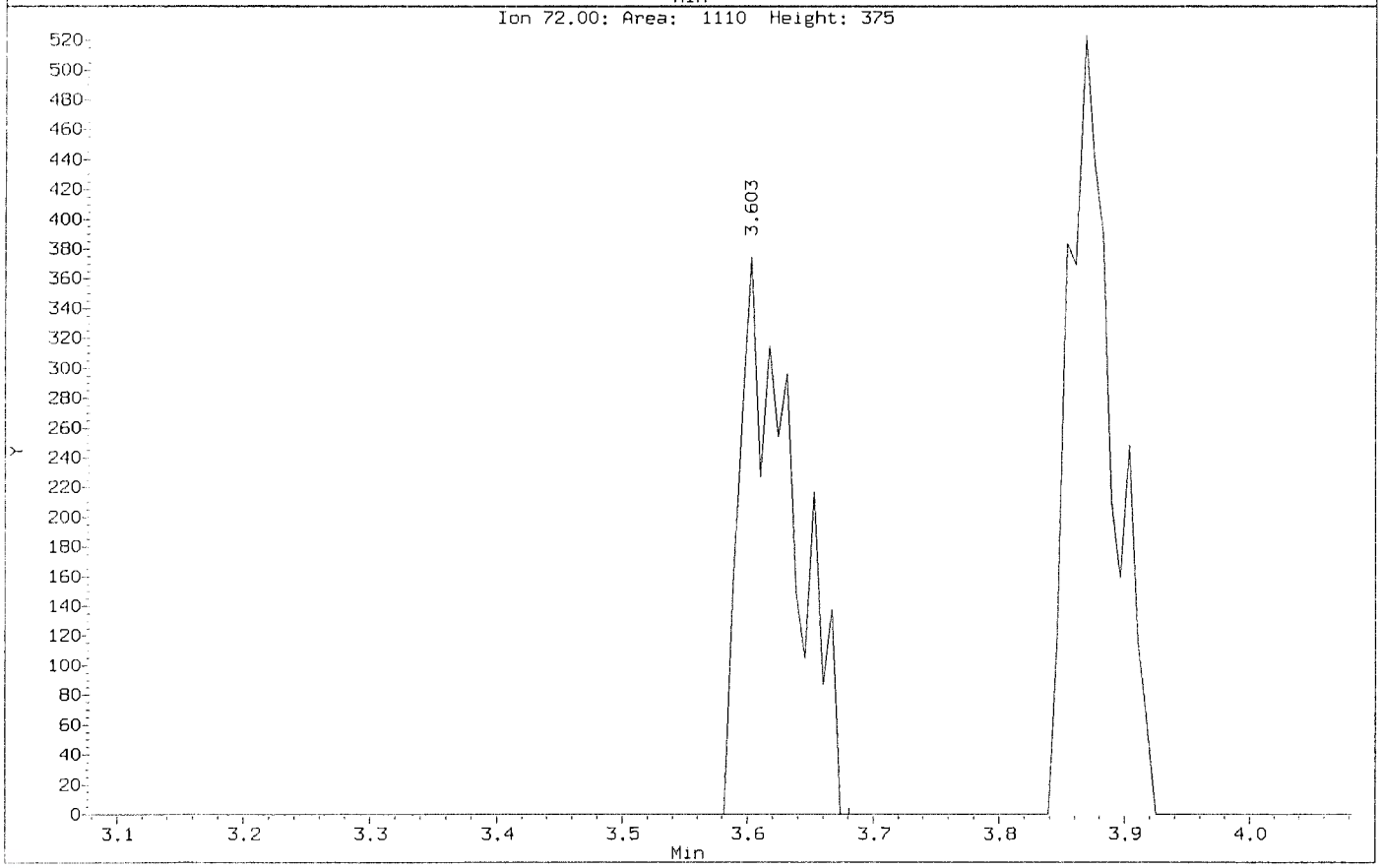
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 2-Butanone
CAS Number: 78-93-3





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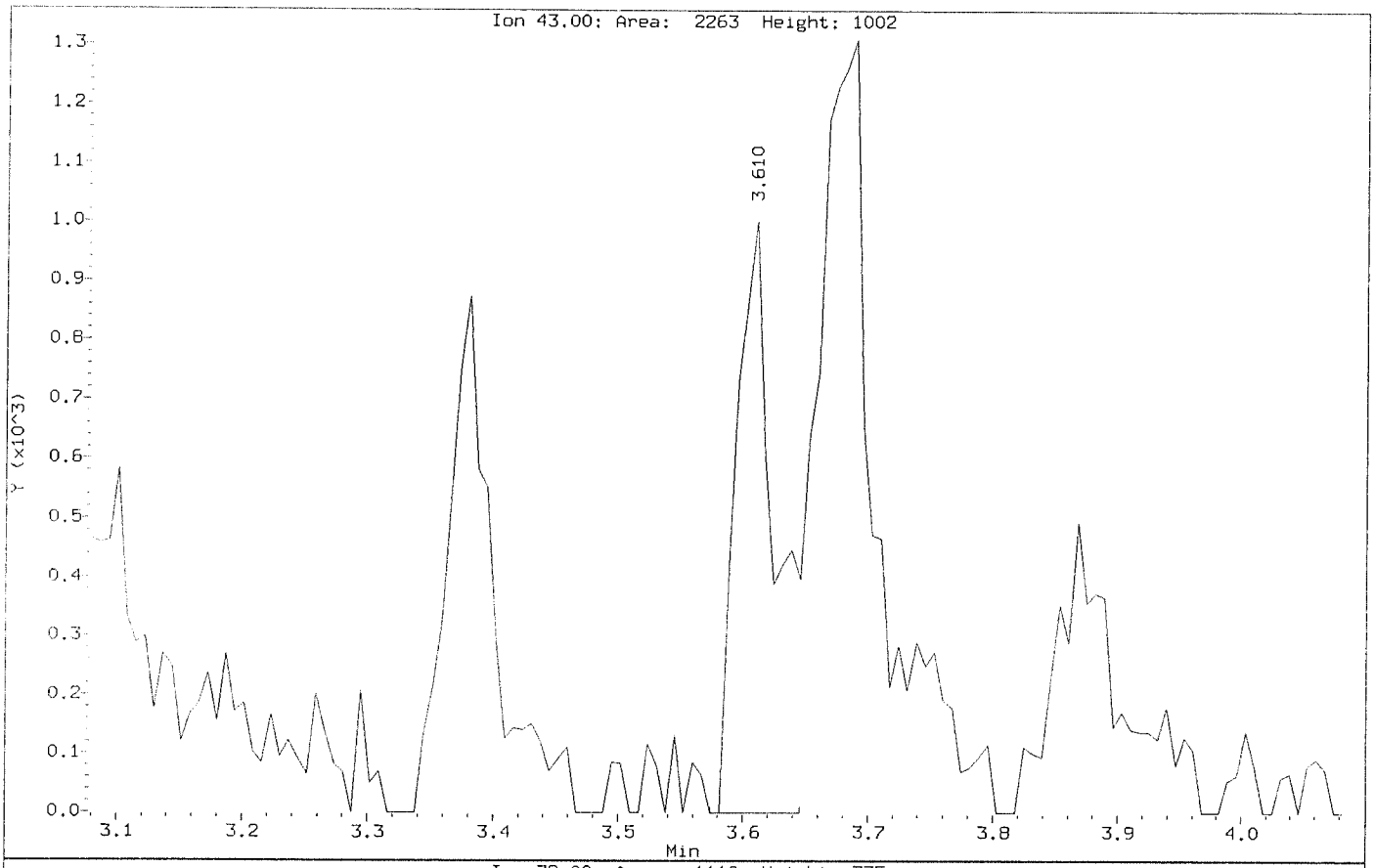
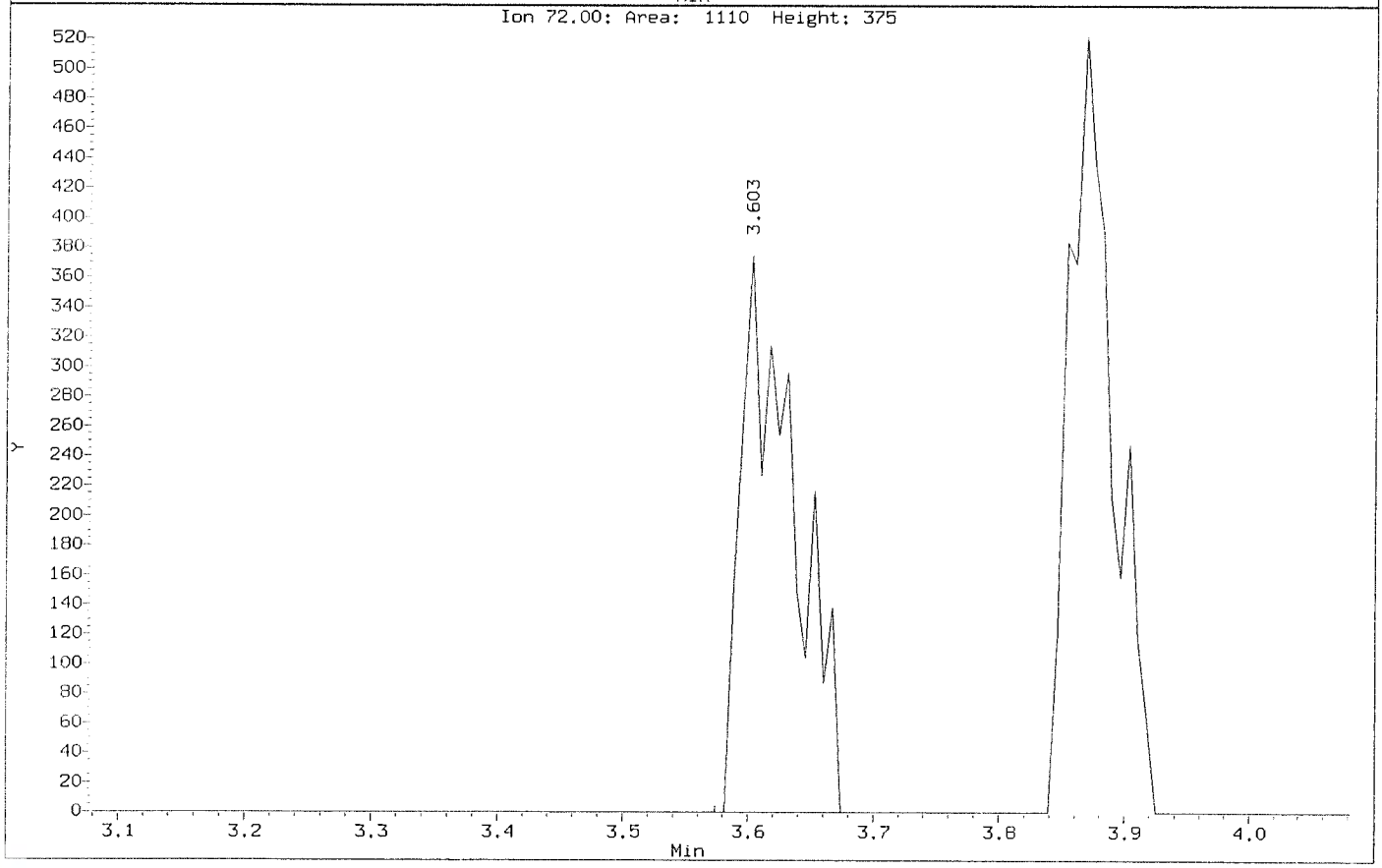
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 2-Butanone
CAS Number: 78-93-3





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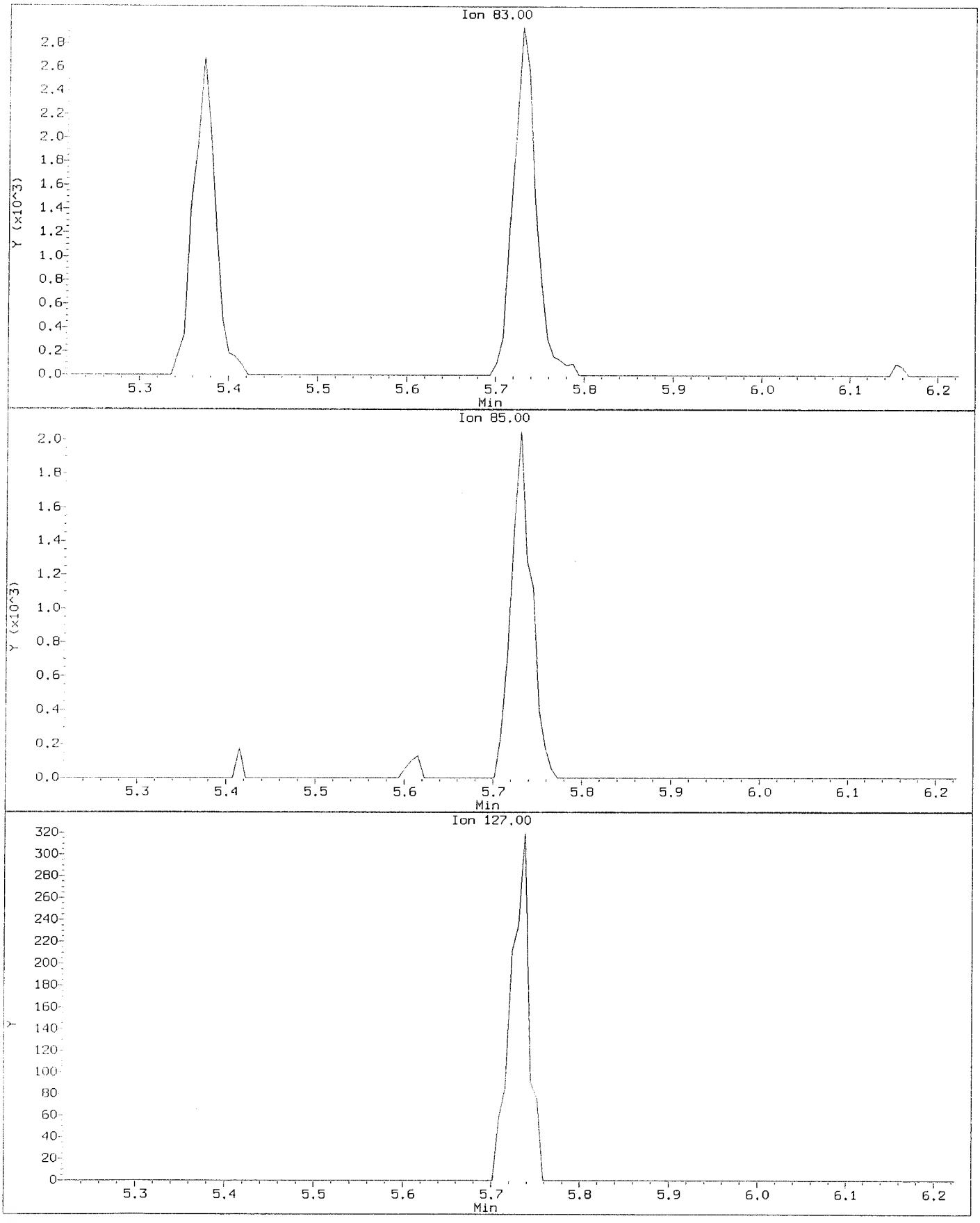
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromodichloromethane
CAS Number: 75-27-4



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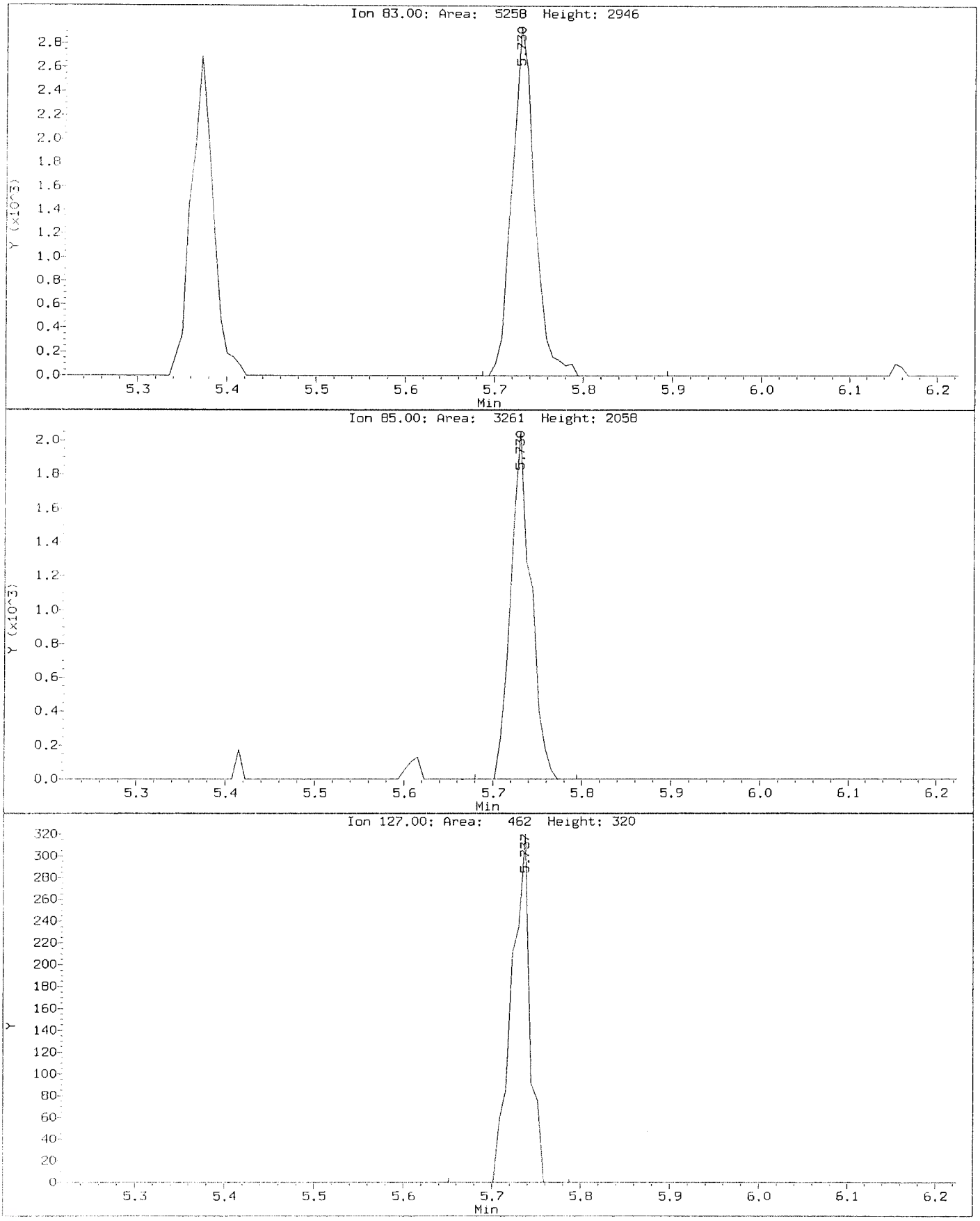
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromodichloromethane
CAS Number: 75-27-4



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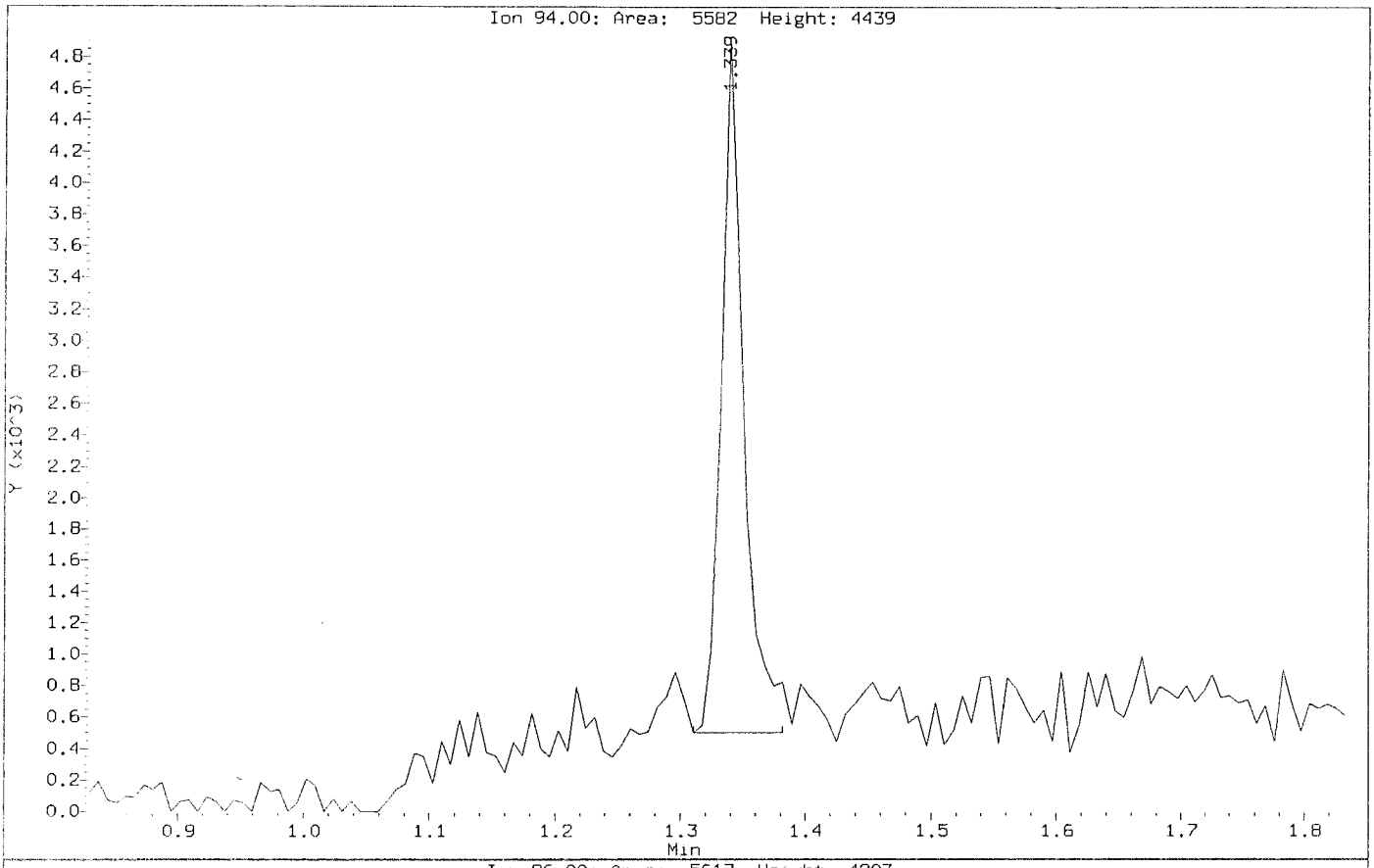
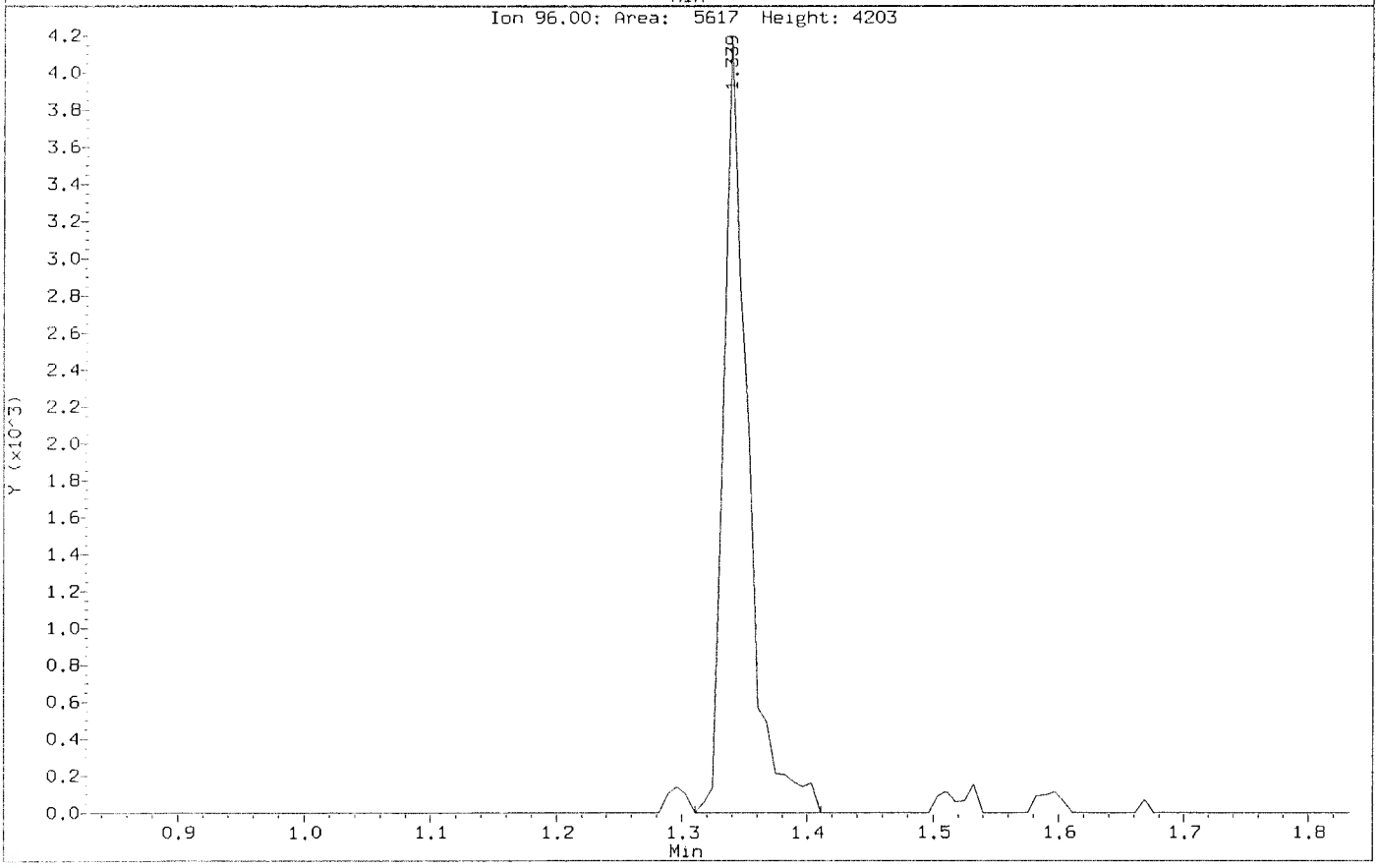
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromomethane
CAS Number: 74-83-9





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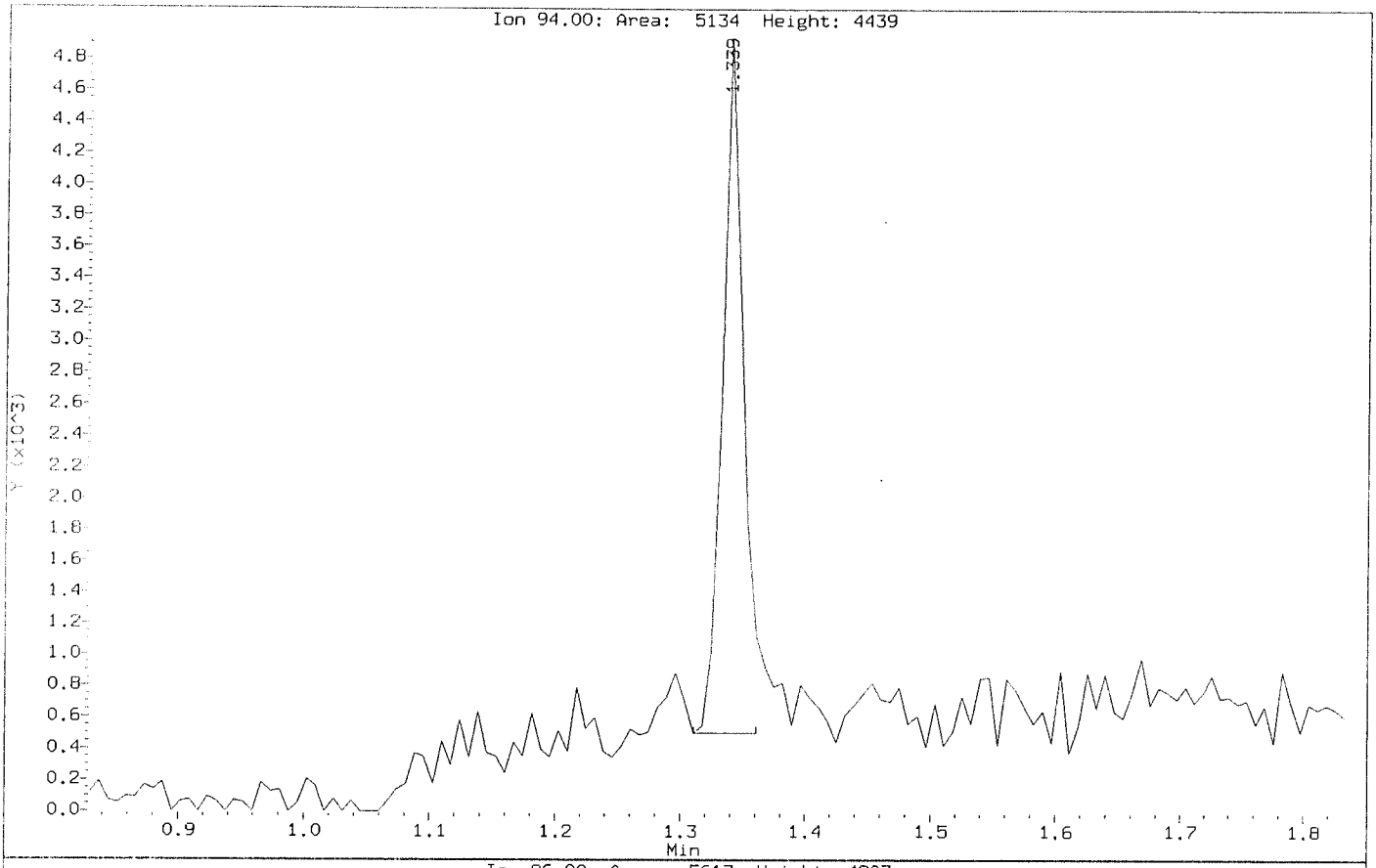
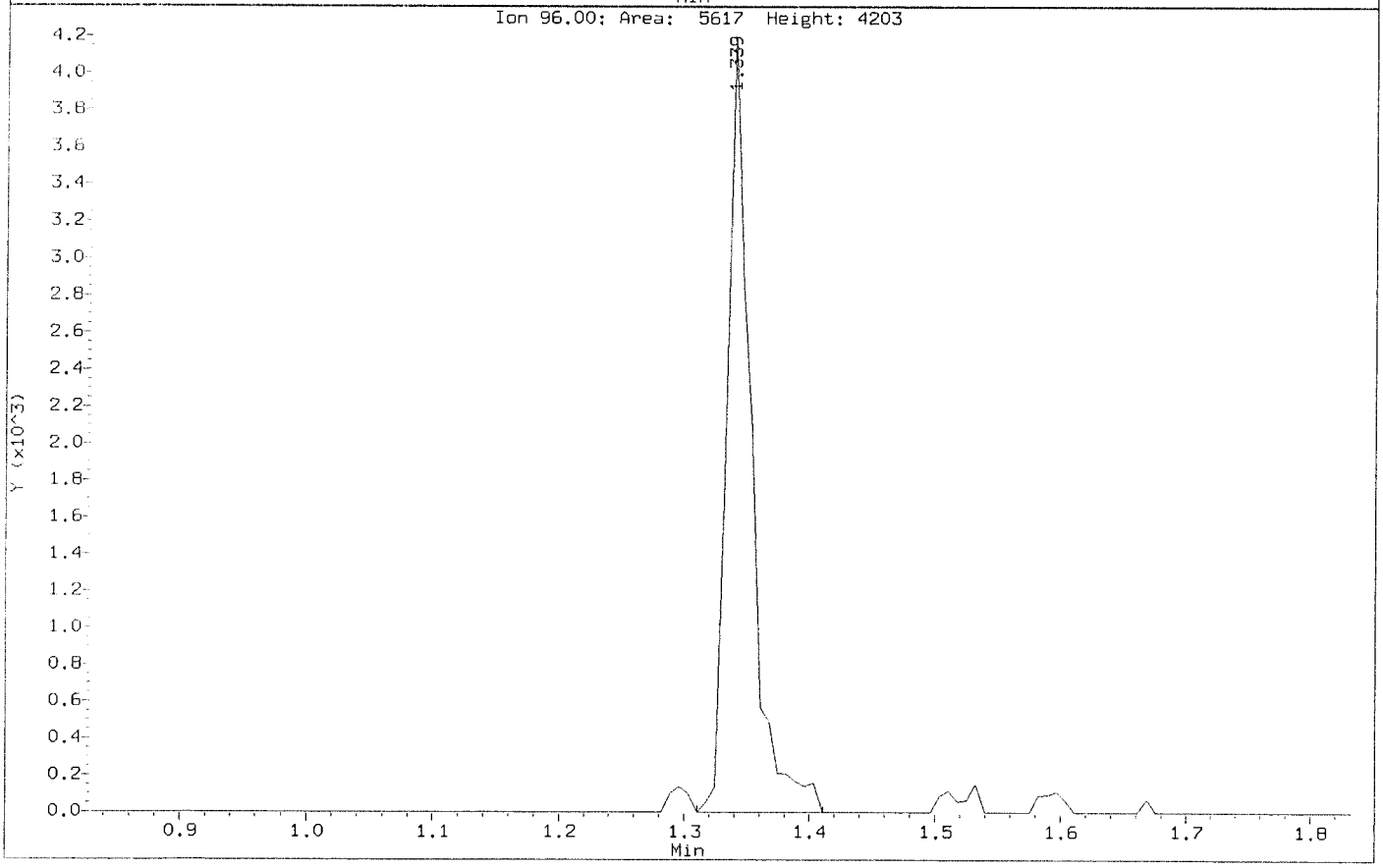
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromomethane
CAS Number: 74-83-9





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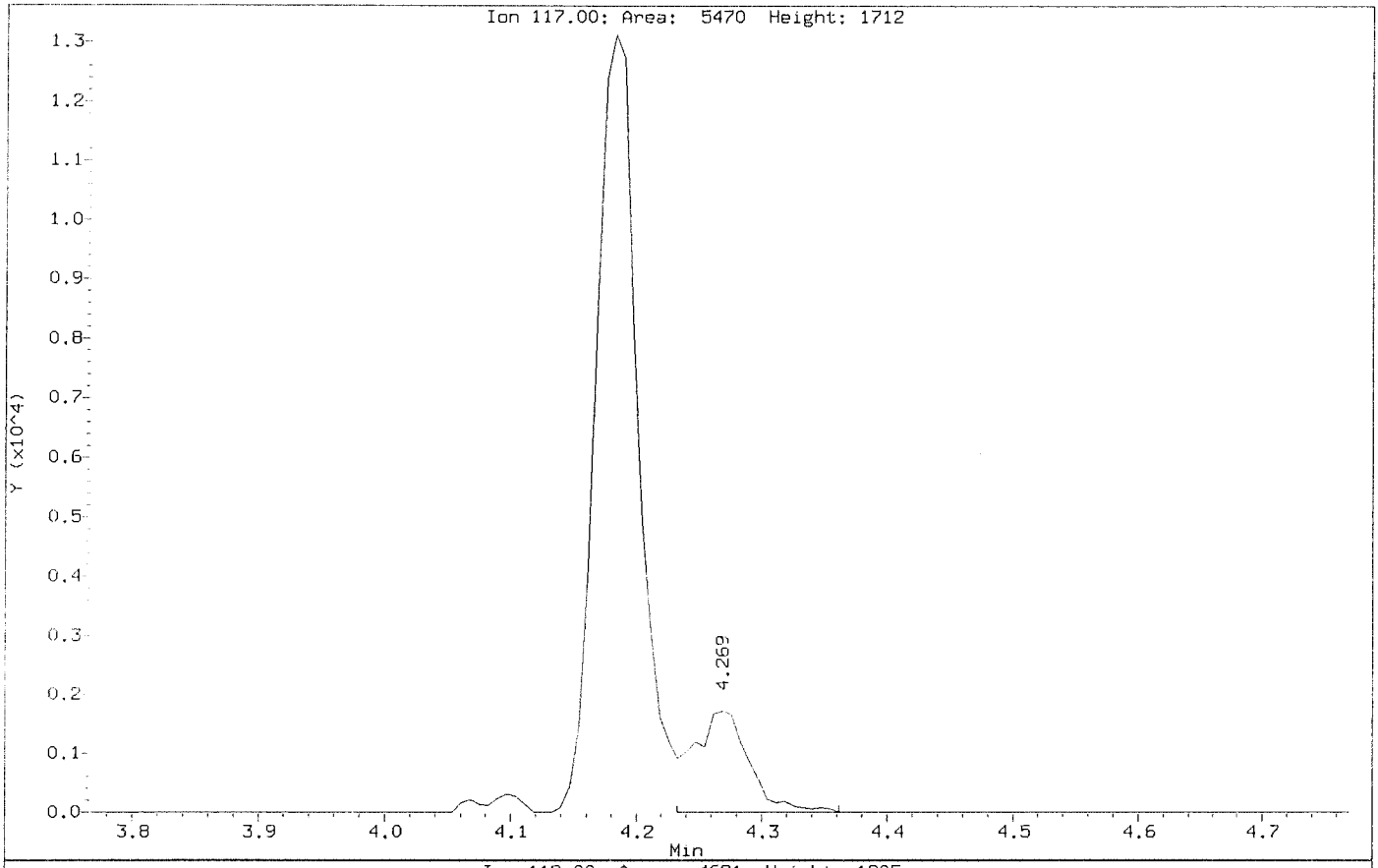
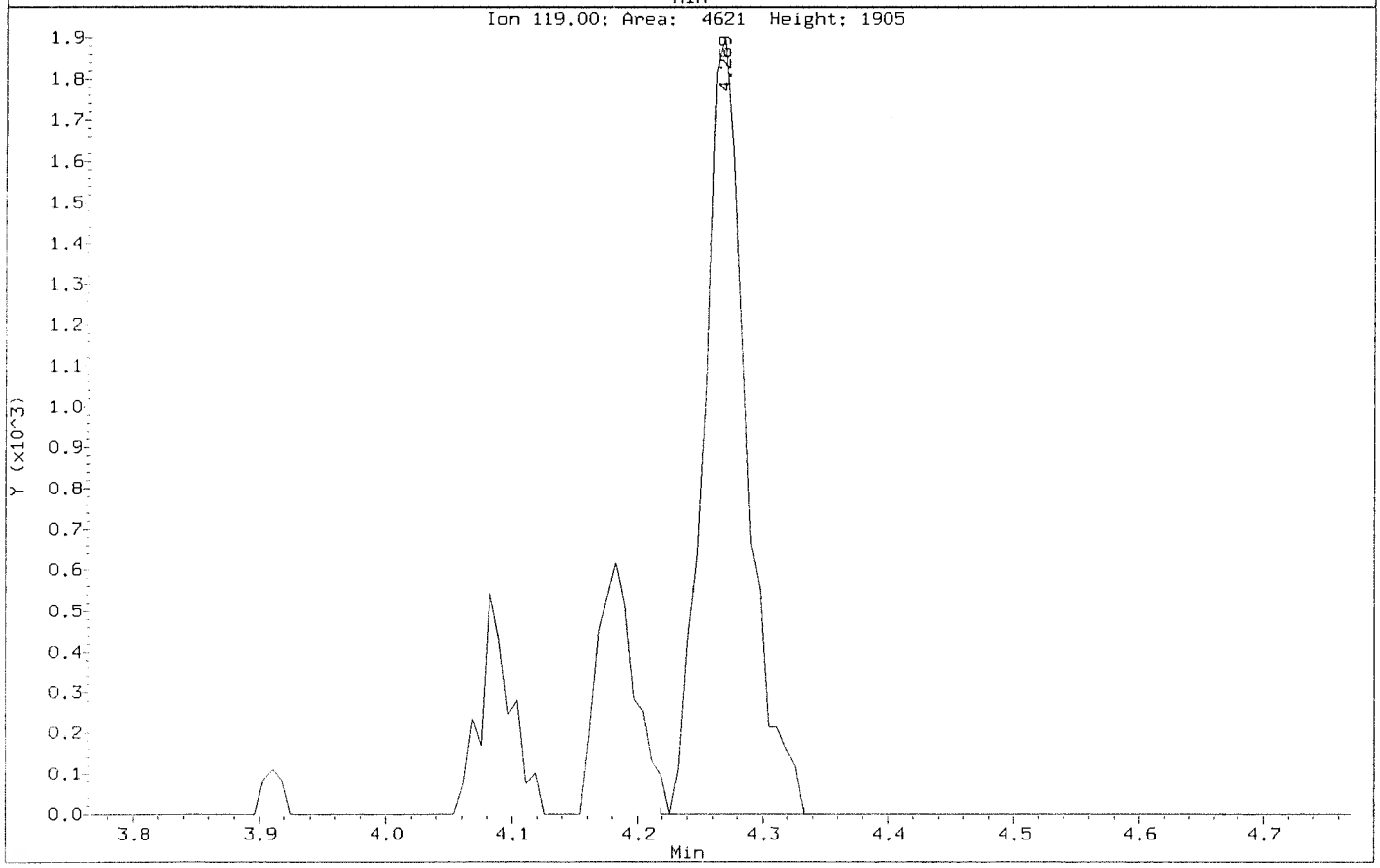
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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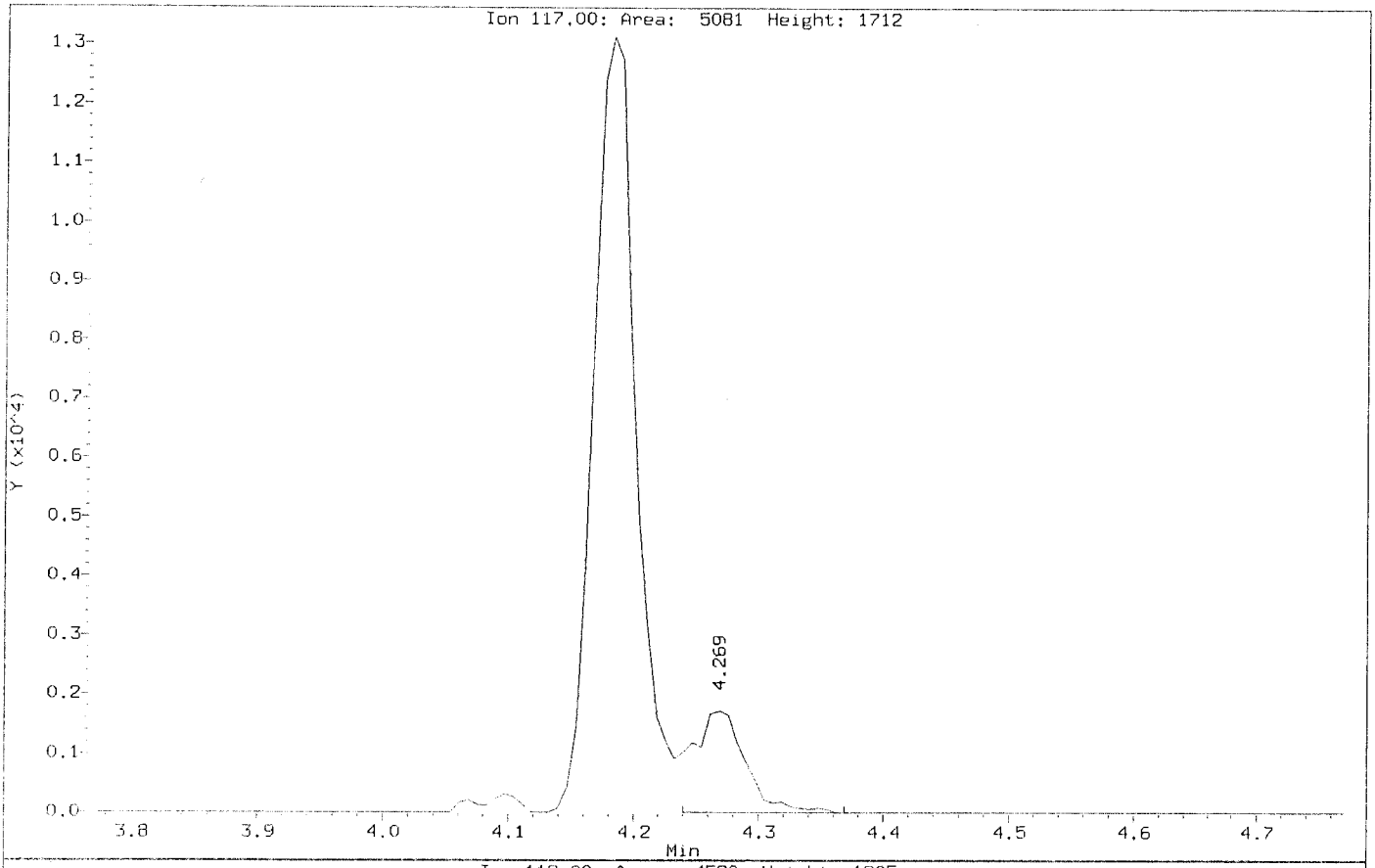
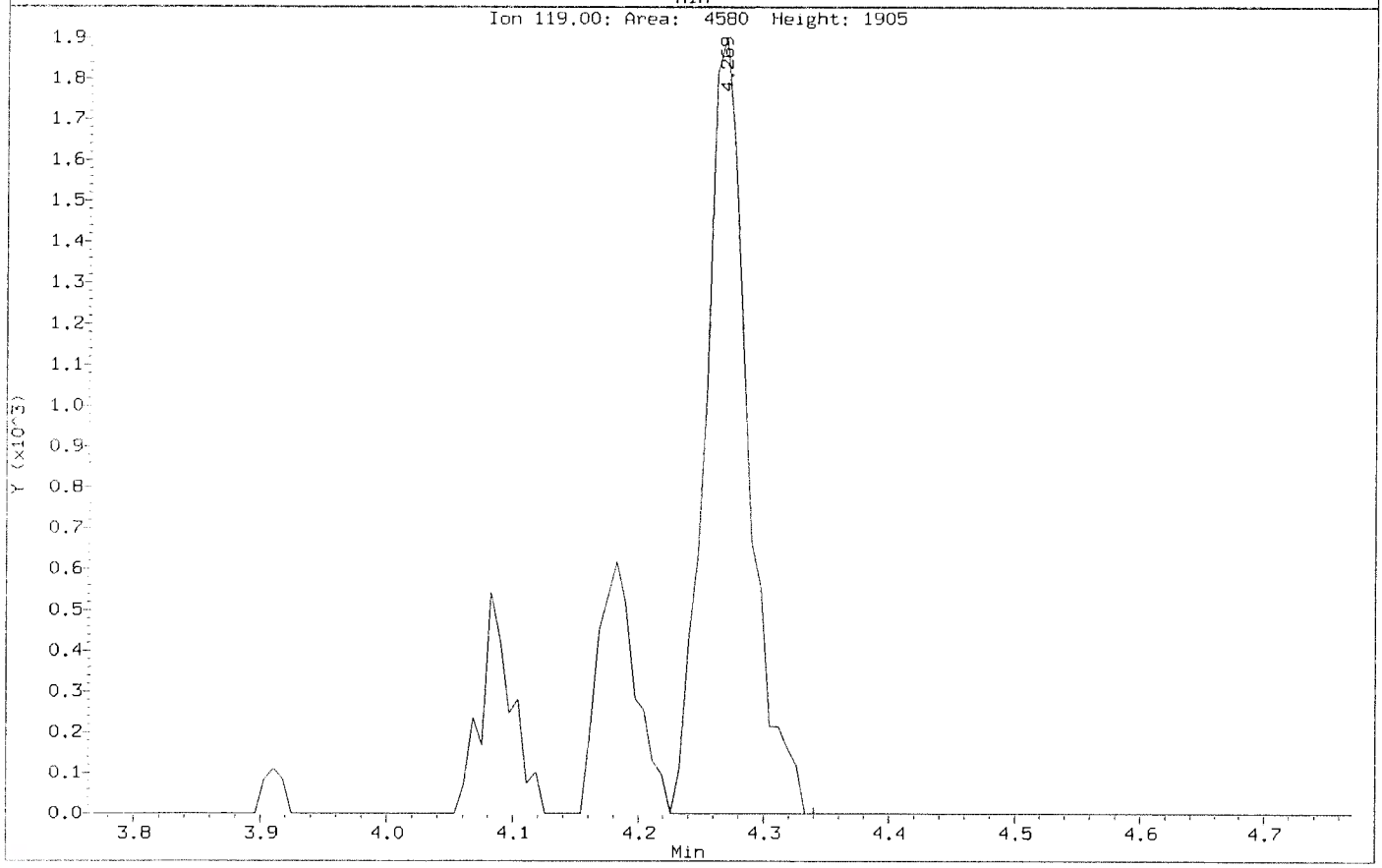
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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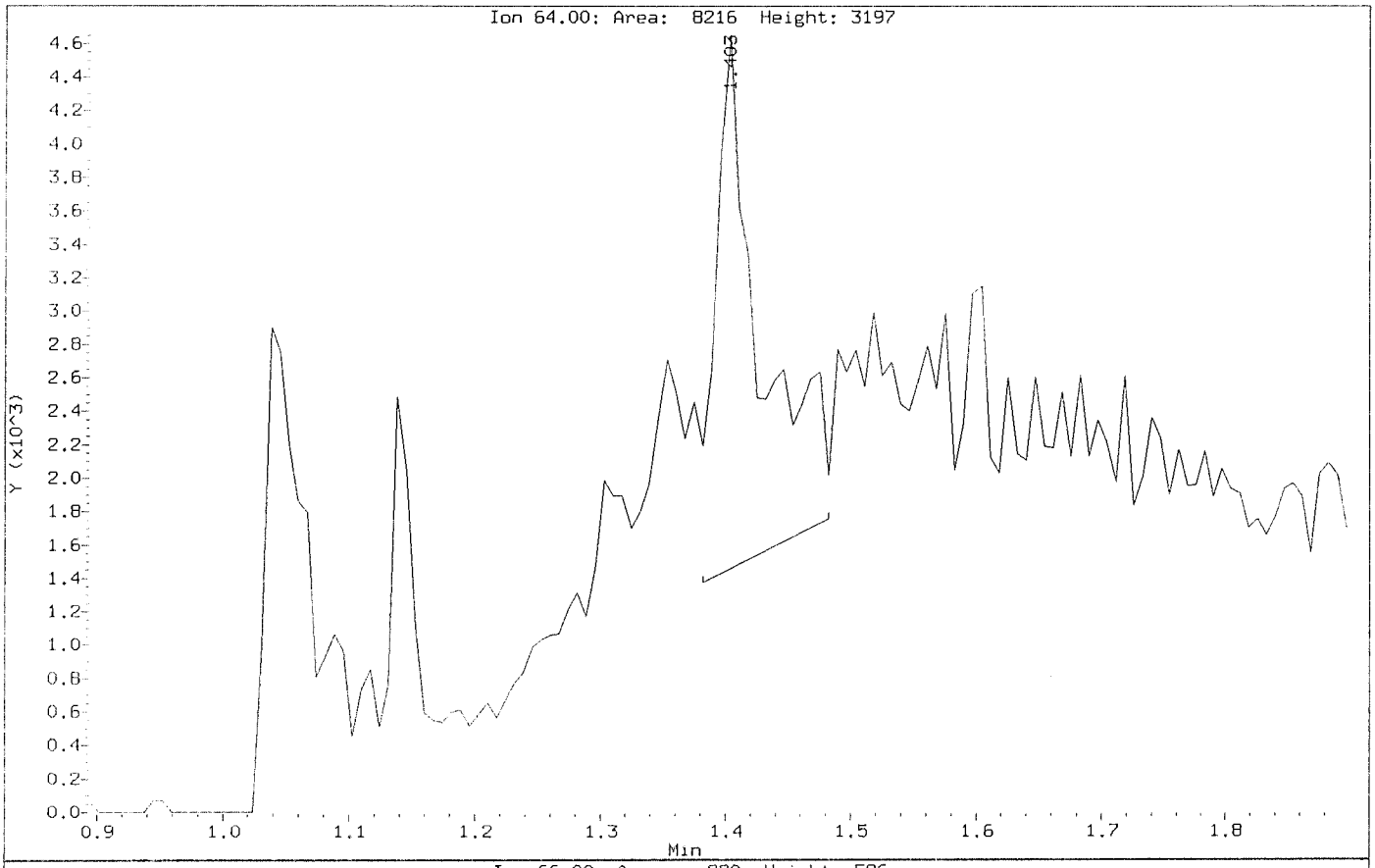
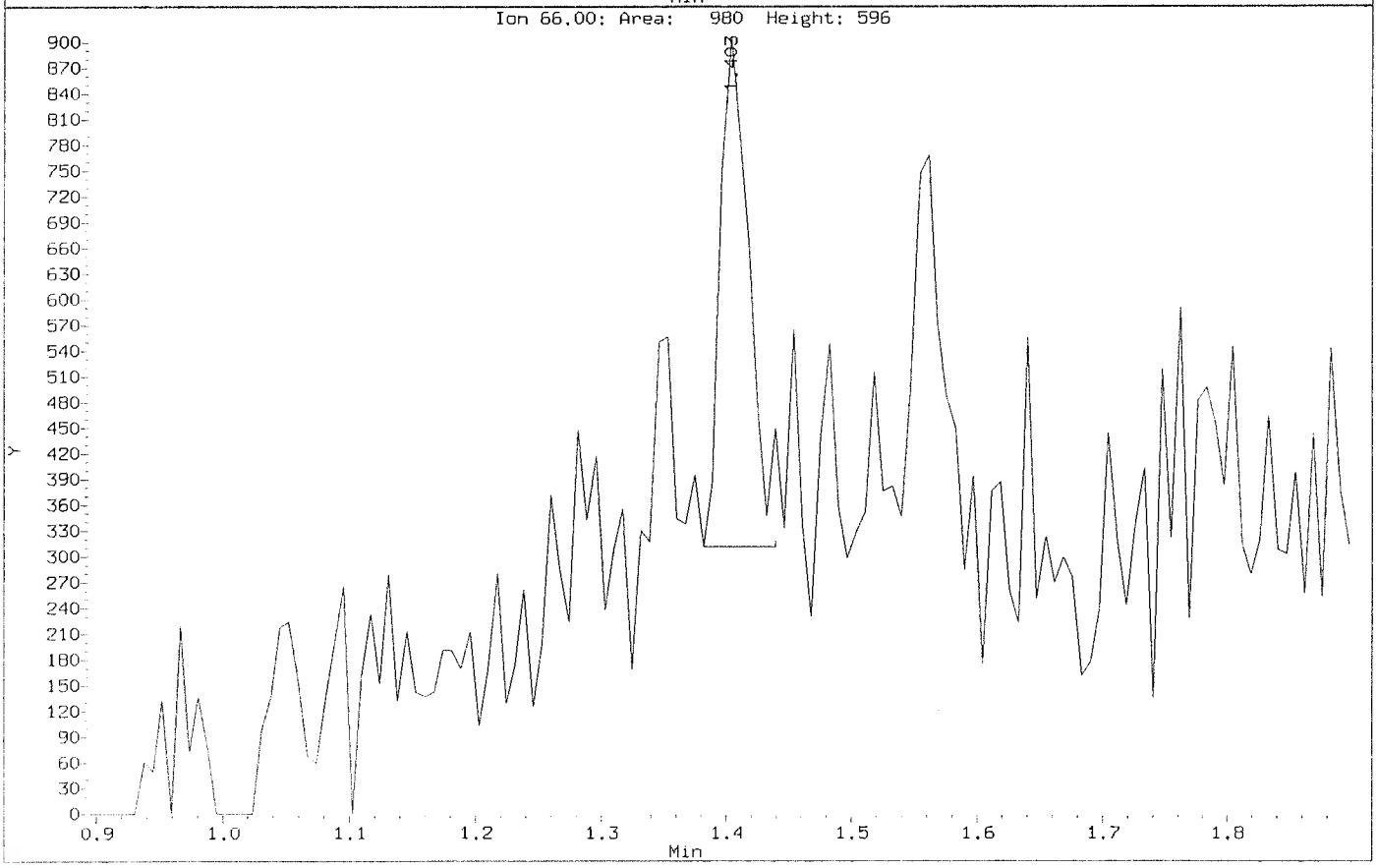
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloroethane
CAS Number: 75-00-3





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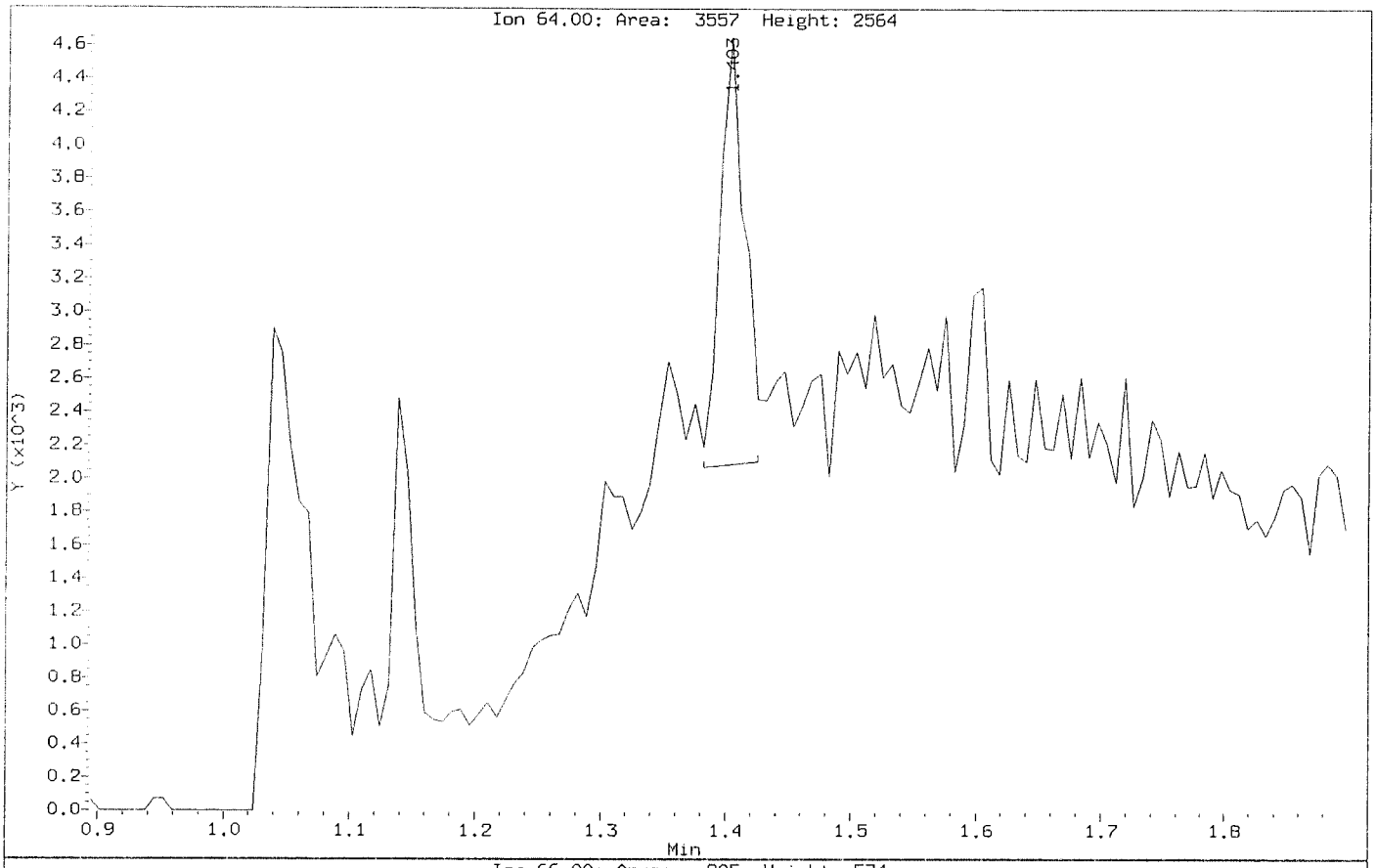
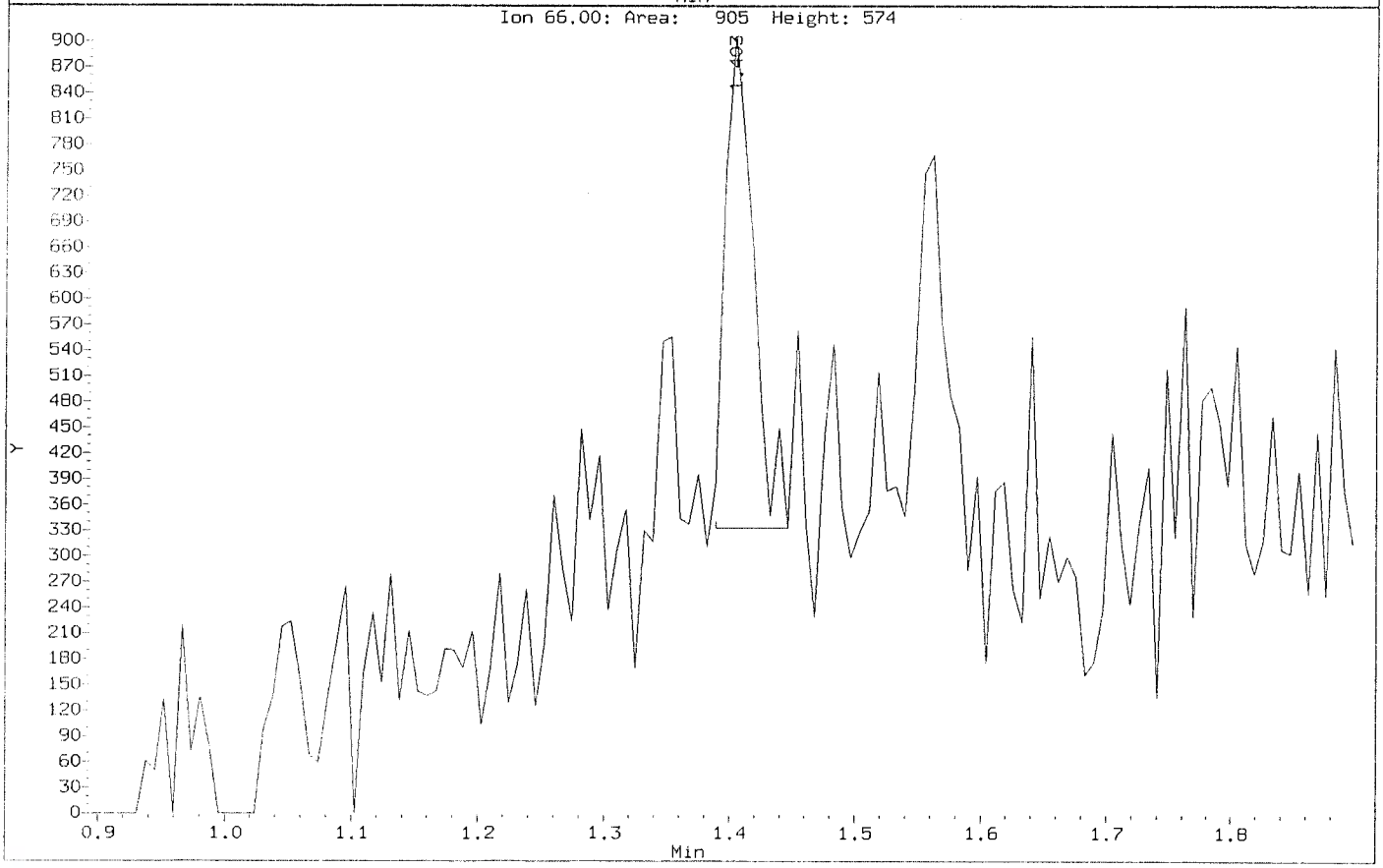
Client Sample ID: VSTD001

Compound: Chloroethane
CAS Number: 75-00-3





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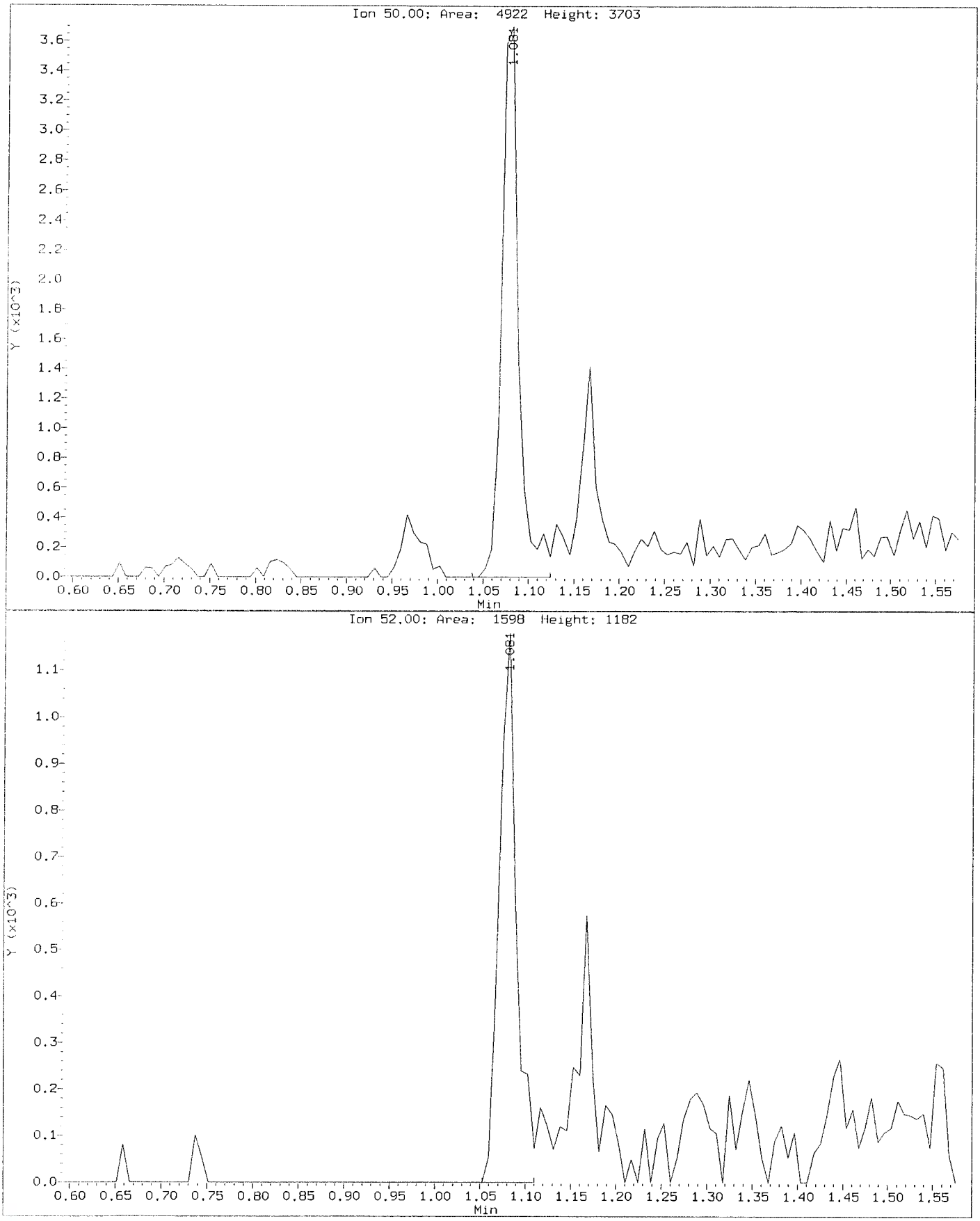
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3



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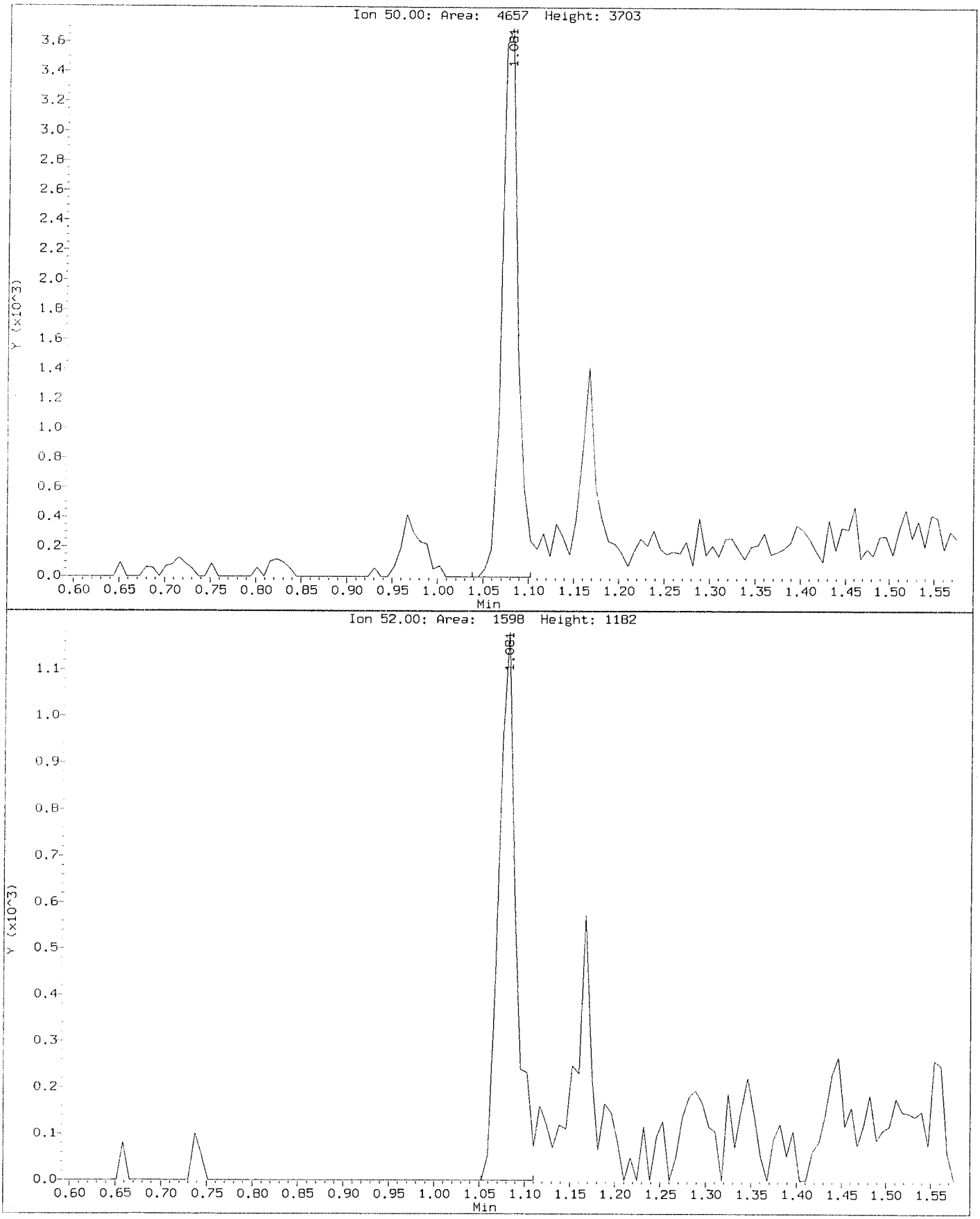
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3



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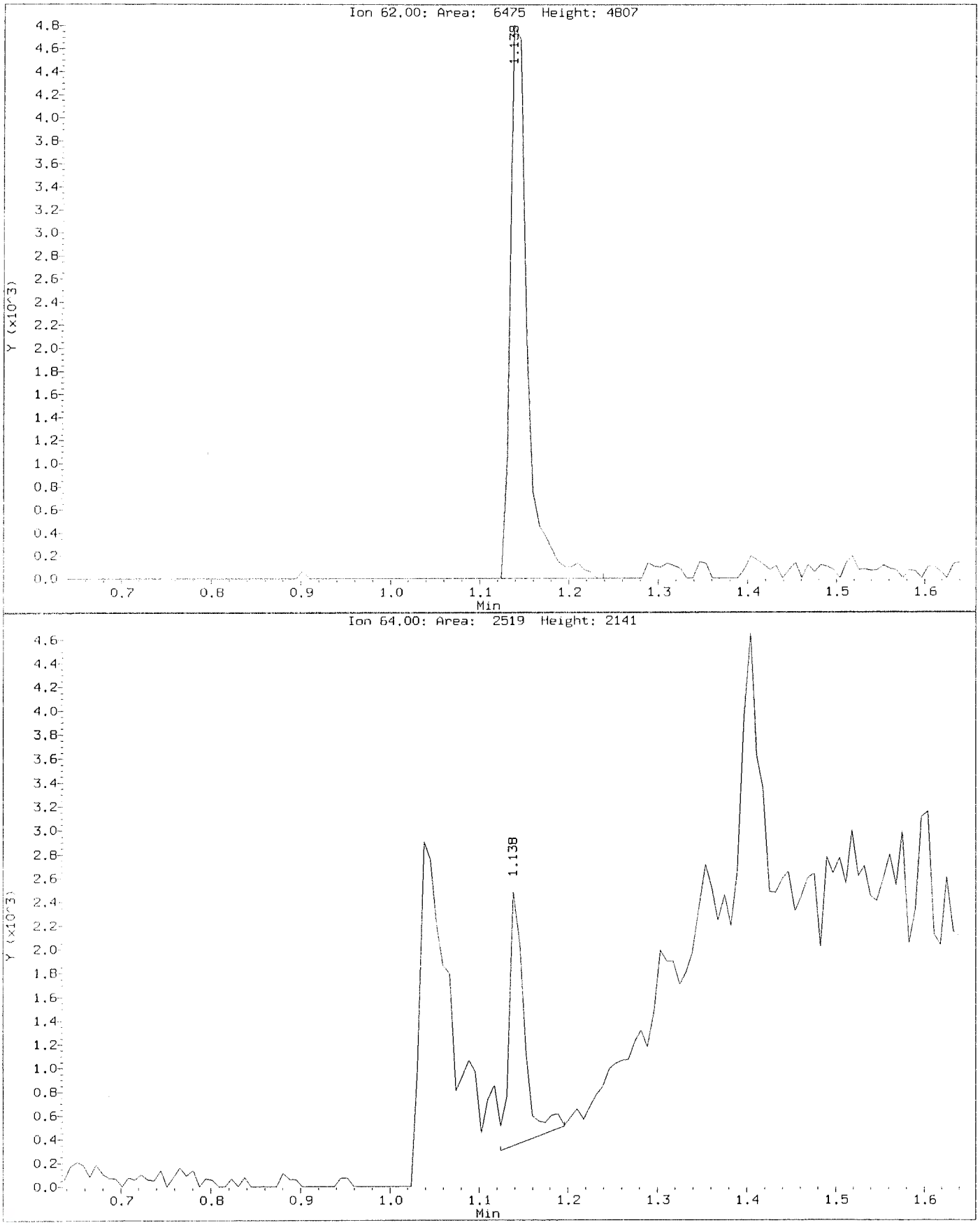
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4



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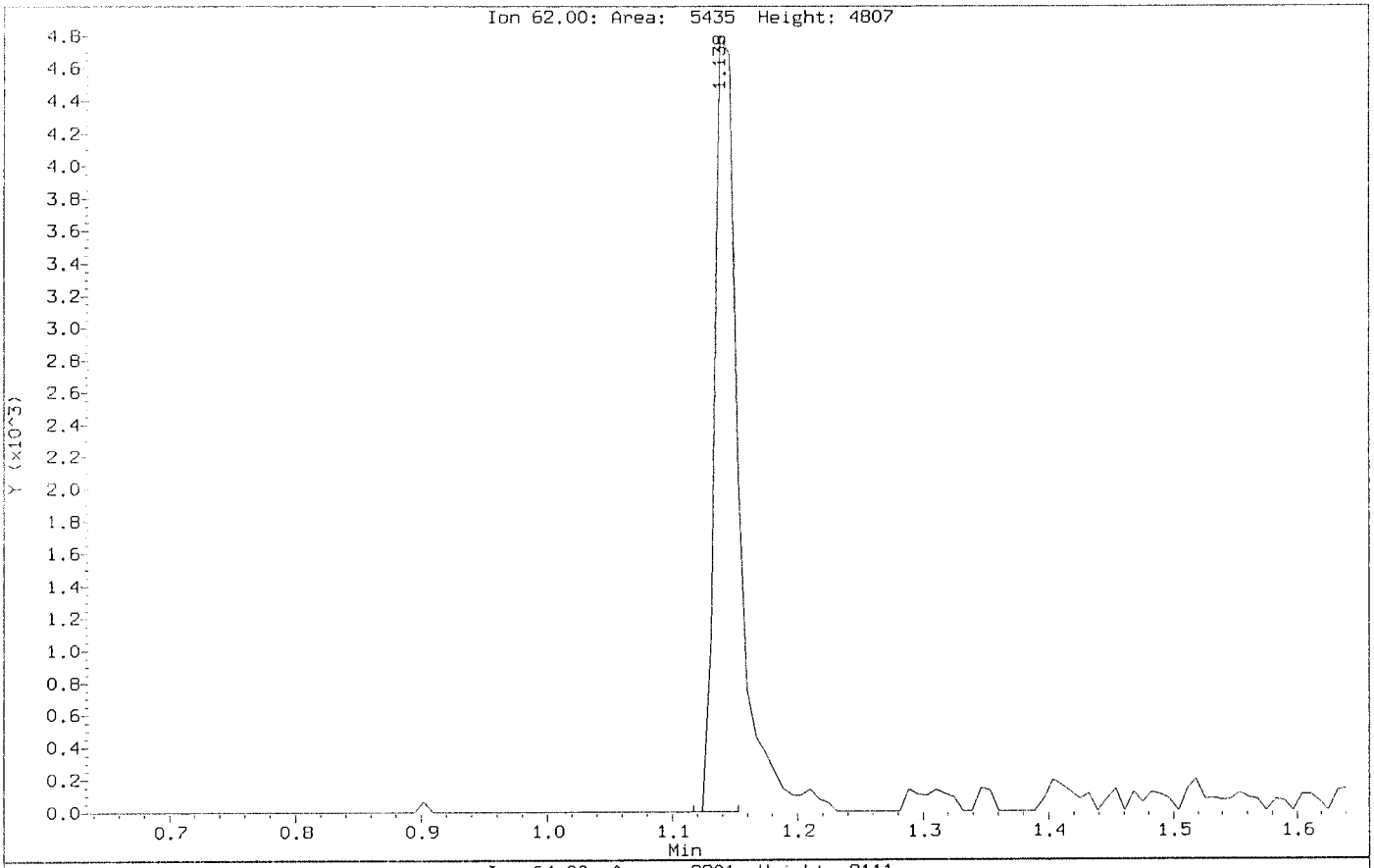
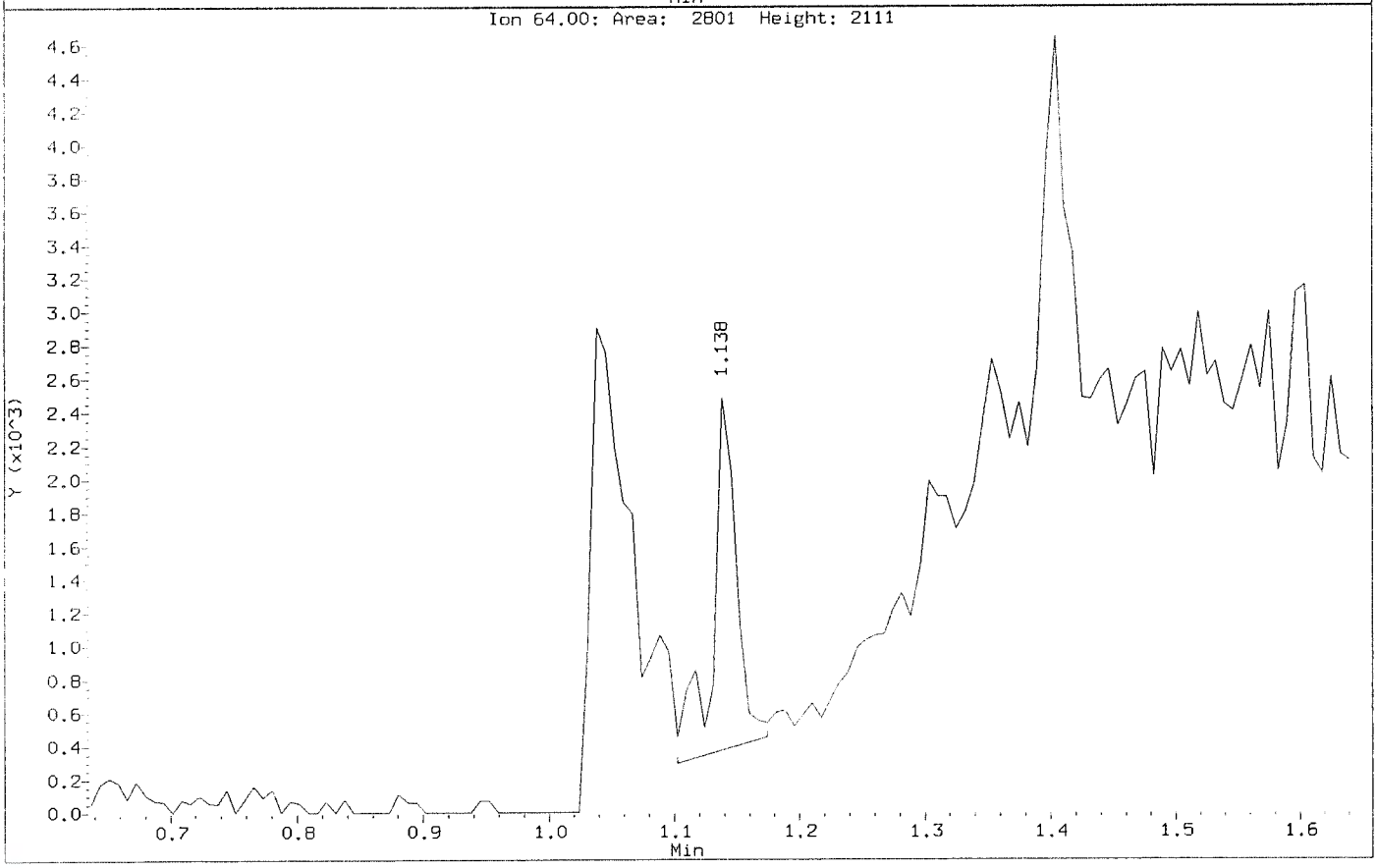
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052605.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 26-MAY-2021 13:58
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:37 Cal File: X052604.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

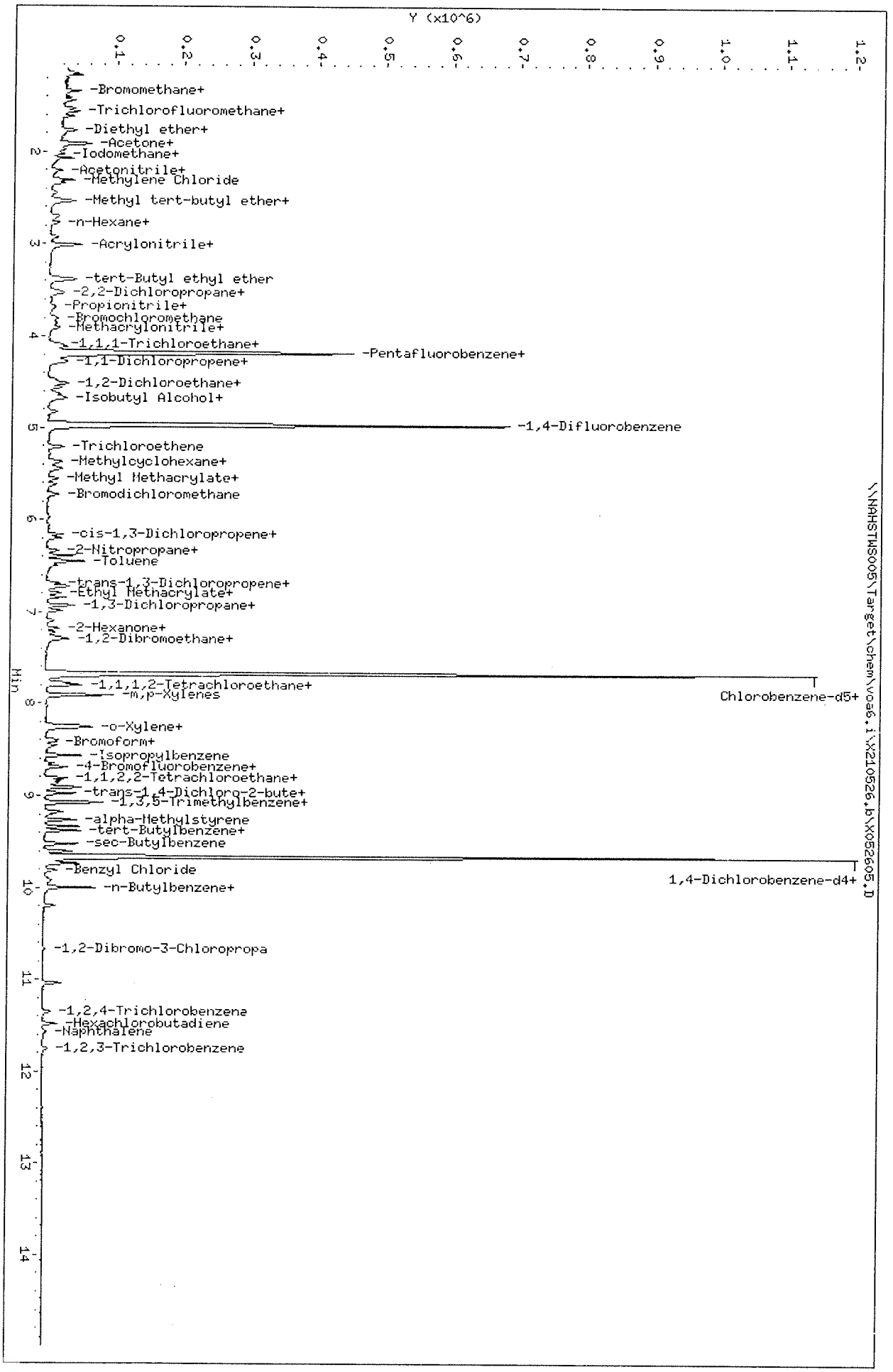
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT STG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	387304	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	629894	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	565577	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	269984	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8033	2.00000	1.94(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	8542	2.00000	1.64(a)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	26638	2.00000	1.89(a)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	10368	2.00000	2.80(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	7699	2.00000	1.84(a)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	11748	2.00000	2.05(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	9638	2.00000	1.44(a)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6242	2.00000	2.03(a)
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	12991	2.00000	2.12(a)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	8783	2.00000	2.20(a)
	32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	9888	2.00000	2.04(a)
	93 1,2,3-Trichlorobenzene	180	11.753	11.753	(1.216)	3409	2.00000	2.08(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	6933	2.00000	2.05(aM)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	4917	2.00000	1.84(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	25642	2.00000	2.08(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	630	2.00000	1.96(a)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	7883	2.00000	1.89(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	15268	2.00000	2.08(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	9733	2.00000	1.93(a)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	7597	2.00000	2.04(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	25985	2.00000	2.12(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	15680	2.00000	2.05(a)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	11498	2.00000	1.88(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	16413	2.00000	2.06(a)
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	11139	2.00000	2.10(a)
24	2-Butanone	43	3.595	3.595	(0.860)	4608	4.00000	3.91(aH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	23380	2.00000	2.31(a)
52	2-Hexanone	43	7.097	7.097	(0.925)	7204	4.00000	3.42(a)
77	4-Chlorotoluene	91	9.074	9.074	(0.939)	26083	2.00000	2.16(a)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	26579	2.00000	2.12(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	12267	4.00000	3.76(a)
10	Acetone	43	1.976	1.976	(0.473)	9004	4.00000	3.68(a)
37	Benzene	78	4.512	4.512	(0.908)	30110	2.00000	2.08(a)
74	Bromobenzene	156	8.809	8.809	(0.912)	9664	2.00000	2.15(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	4539	2.00000	1.93(a)
39	Bromodichloromethane	83	5.729	5.729	(1.153)	11090	2.00000	2.04(a)
66	Bromoform	173	8.415	8.415	(1.097)	5644	2.00000	1.78(Ta)
6	Bromomethane	94	1.338	1.338	(0.320)	10705	2.00000	2.82(a)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	40958	4.00000	4.32(a)
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	11201	2.00000	2.14(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	22805	2.00000	1.93(a)
7	Chloroethane	64	1.403	1.403	(0.336)	6715	2.00000	1.12(aM)
28	Chloroform	83	3.910	3.910	(0.935)	13954	2.00000	2.04(a)
3	Chloromethane	50	1.073	1.073	(0.257)	9388	2.00000	0.08(a)
27	cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	8971	2.00000	2.20(a)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	11180	2.00000	1.75(a)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	8317	2.00000	1.78(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	4906	2.00000	1.76(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	8466	2.00000	2.17(aM)
61	Ethylbenzene	106	7.799	7.799	(1.017)	10776	2.00000	1.98(a)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	3790	2.00000	3.30(a)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	33508	2.00000	2.01(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	27594	4.00000	3.89(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	9737	2.00000	1.51(a)
87	n-Butylbenzene	91	9.998	9.998	(1.035)	21318	2.00000	2.02(a)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	37124	2.00000	2.20(a)
92	Naphthalene	128	11.560	11.560	(1.196)	7708	2.00000	1.99(aM)
63	o-Xylene	106	8.243	8.243	(1.075)	13034	2.00000	1.88(a)
81	sec-Butylbenzene	105	9.526	9.526	(0.986)	30860	2.00000	2.17(a)
64	Styrene	104	8.265	8.265	(1.078)	20015	2.00000	1.73(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	23163	2.00000	2.20(a)
56	Tetrachloroethene	164	6.925	6.925	(0.903)	7019	2.00000	2.01(a)
50	Toluene	91	6.446	6.446	(0.840)	33990	2.00000	2.05(a)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	7304	2.00000	2.01(a)
51	trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	9851	2.00000	1.78(a)
38	Trichloroethene	130	5.206	5.206	(1.048)	8523	2.00000	1.97(a)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	16056	2.00000	2.29(a)
5	Vinyl Chloride	62	1.145	1.145	(0.274)	10726	2.00000	2.33(aM)

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.



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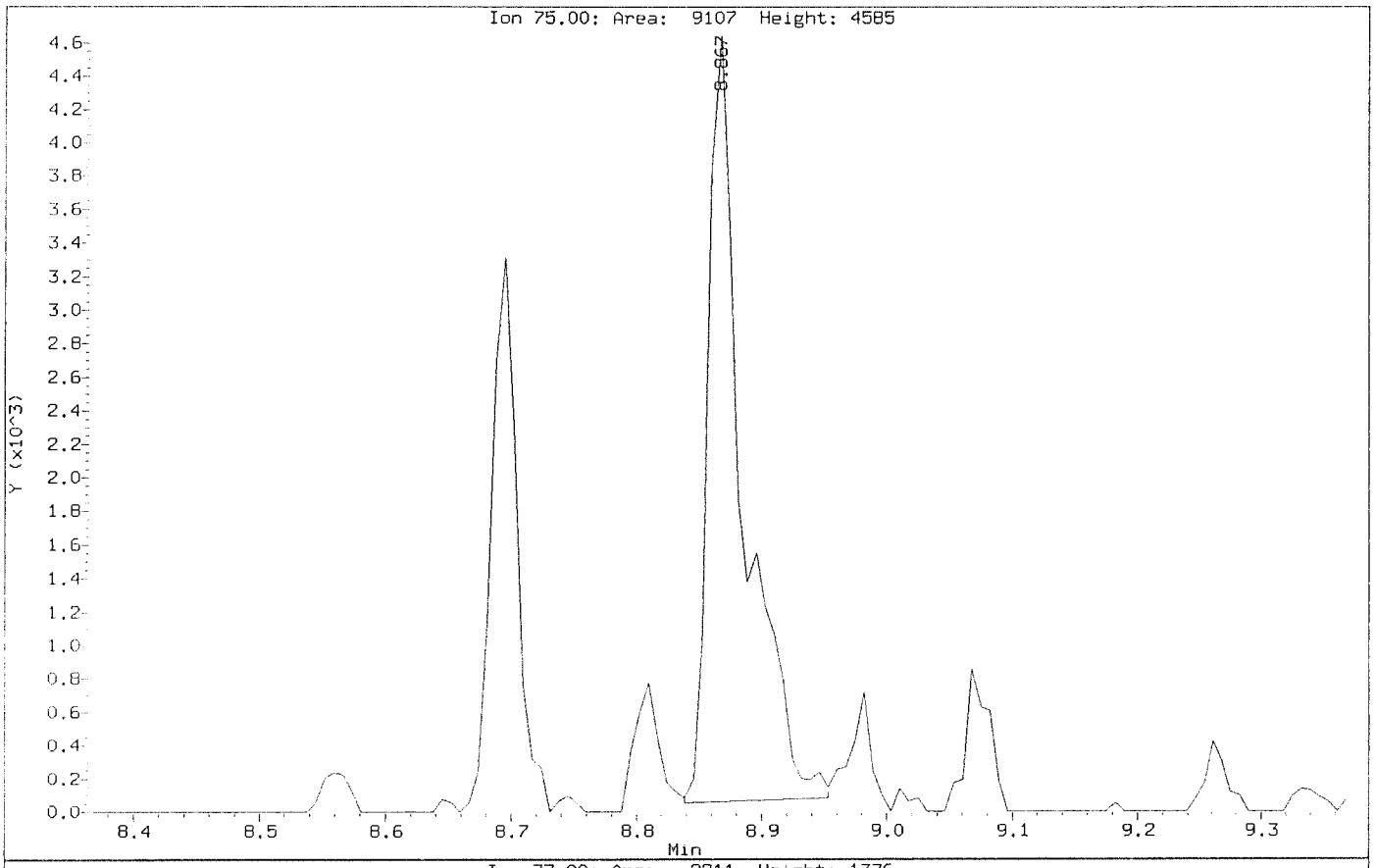
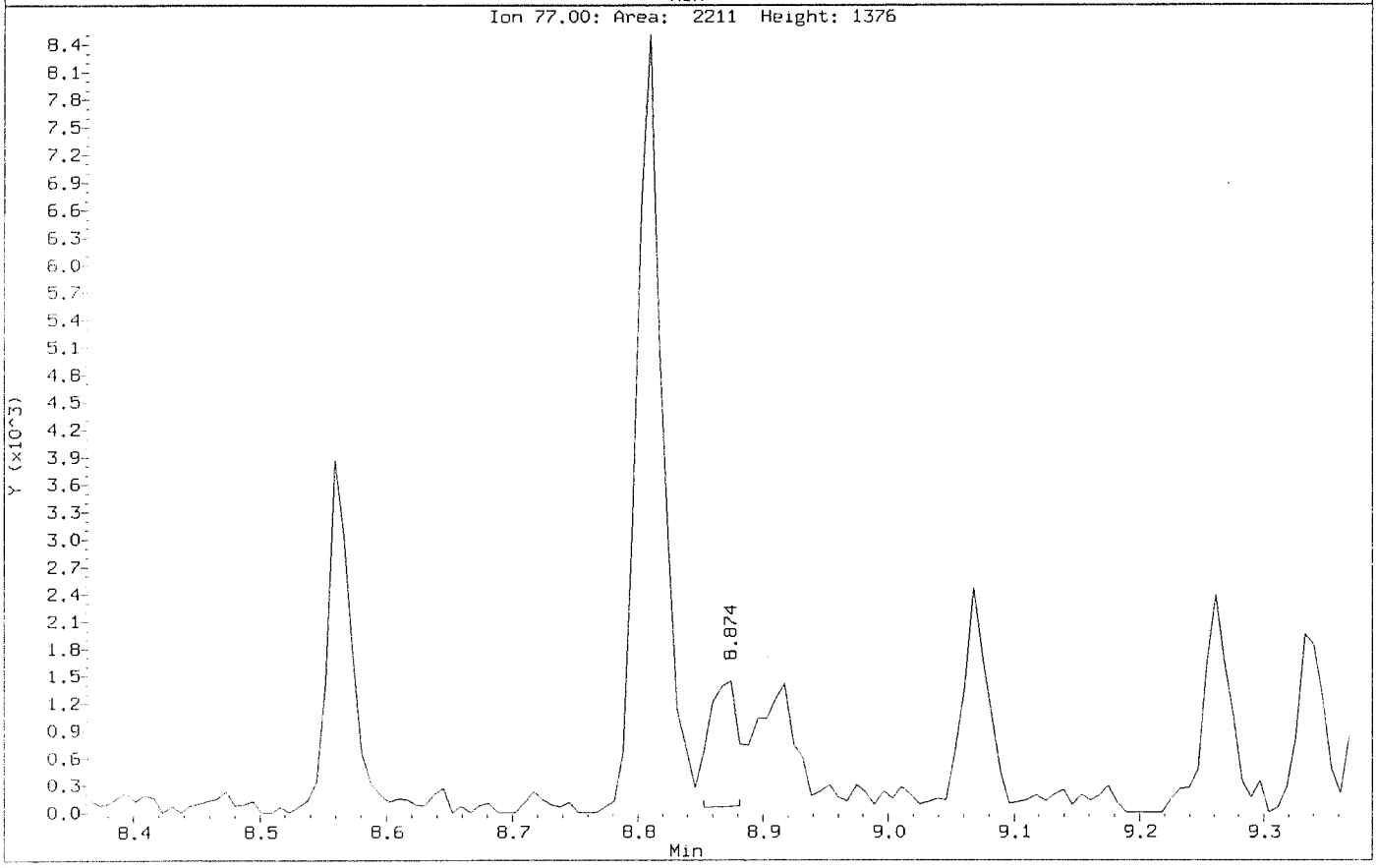
Date : 26-MAY-2021 13:58
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052605.D
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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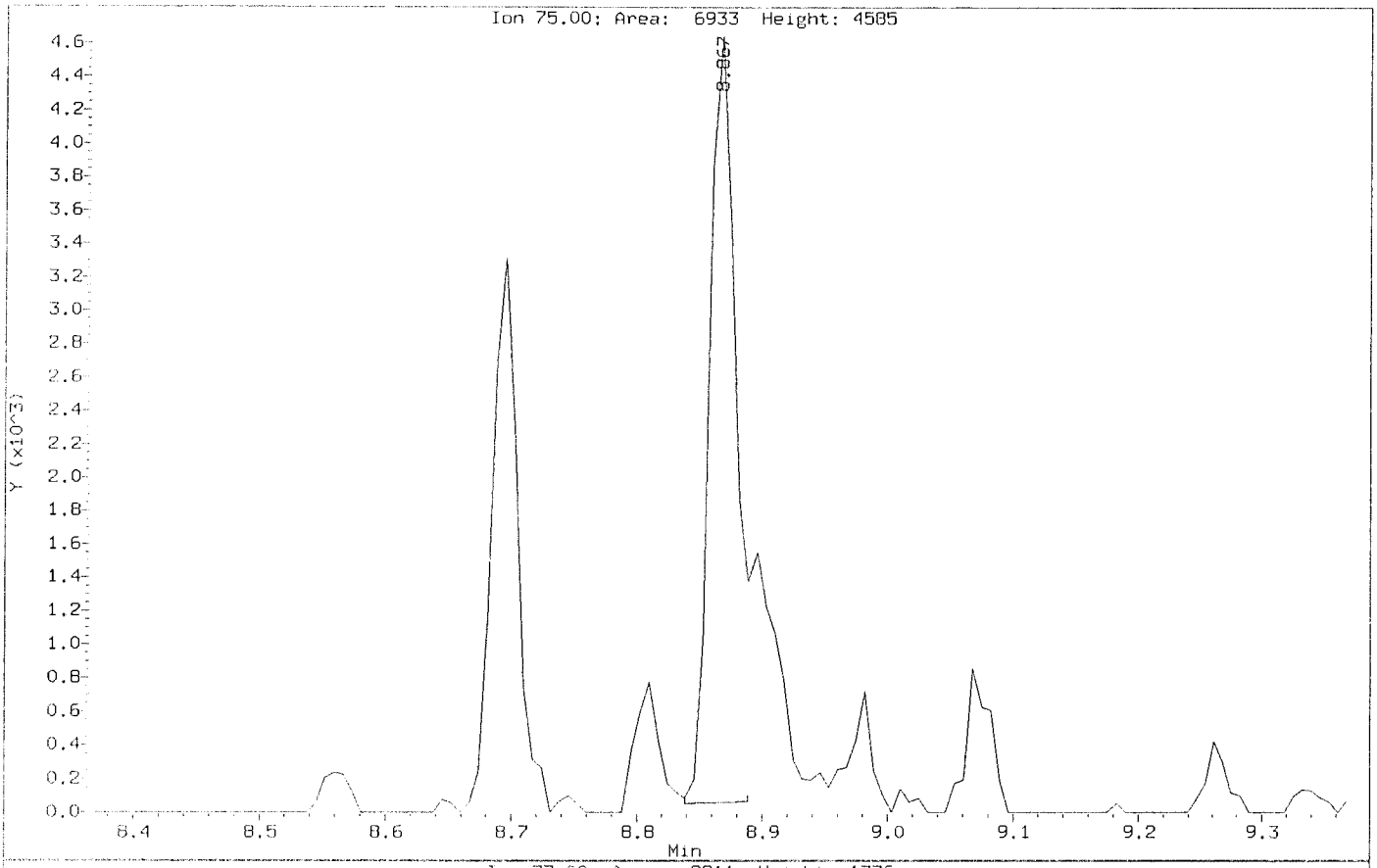
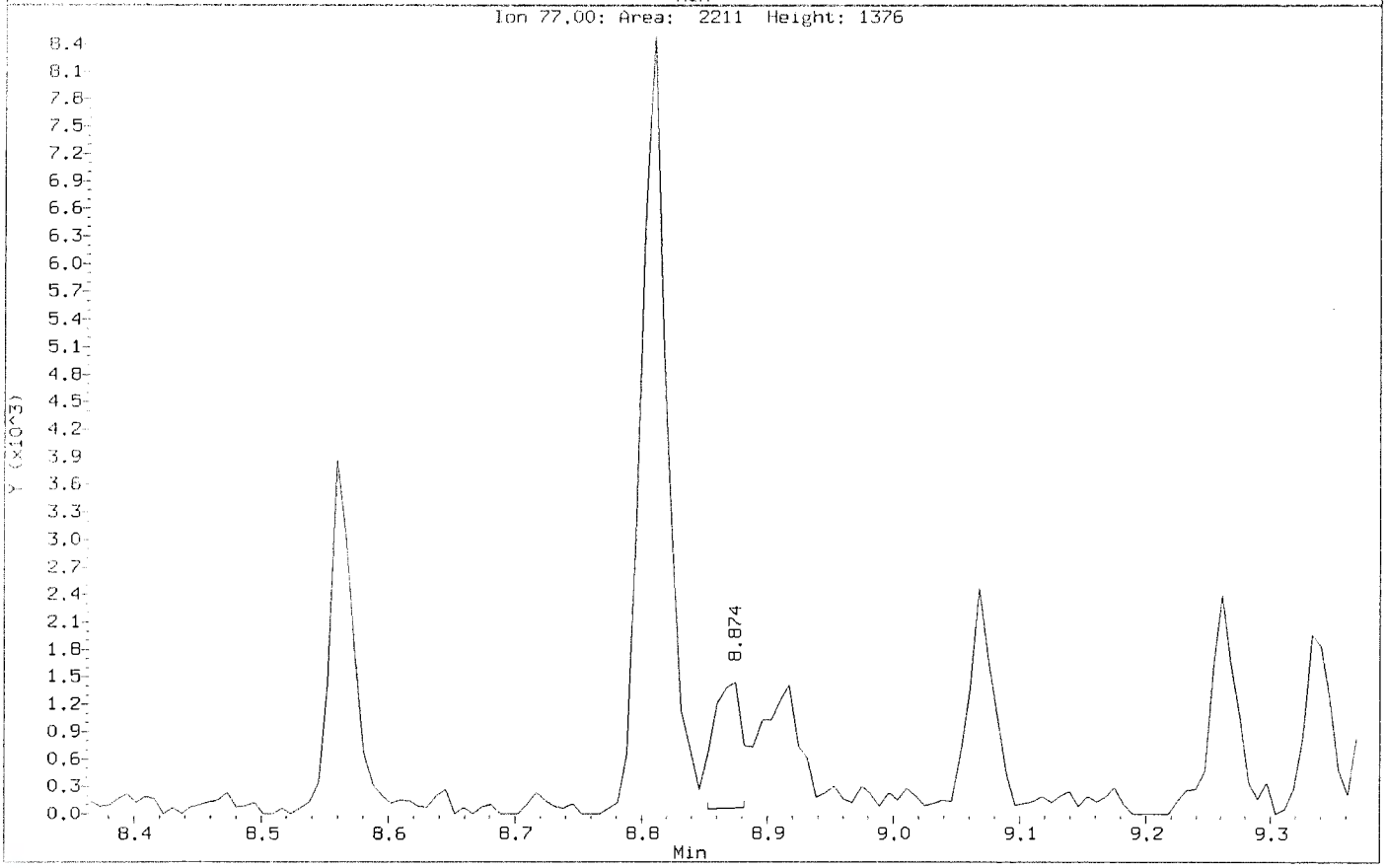
Compound: 1.2.3-Trichloropropane
CAS Number: 96-18-4





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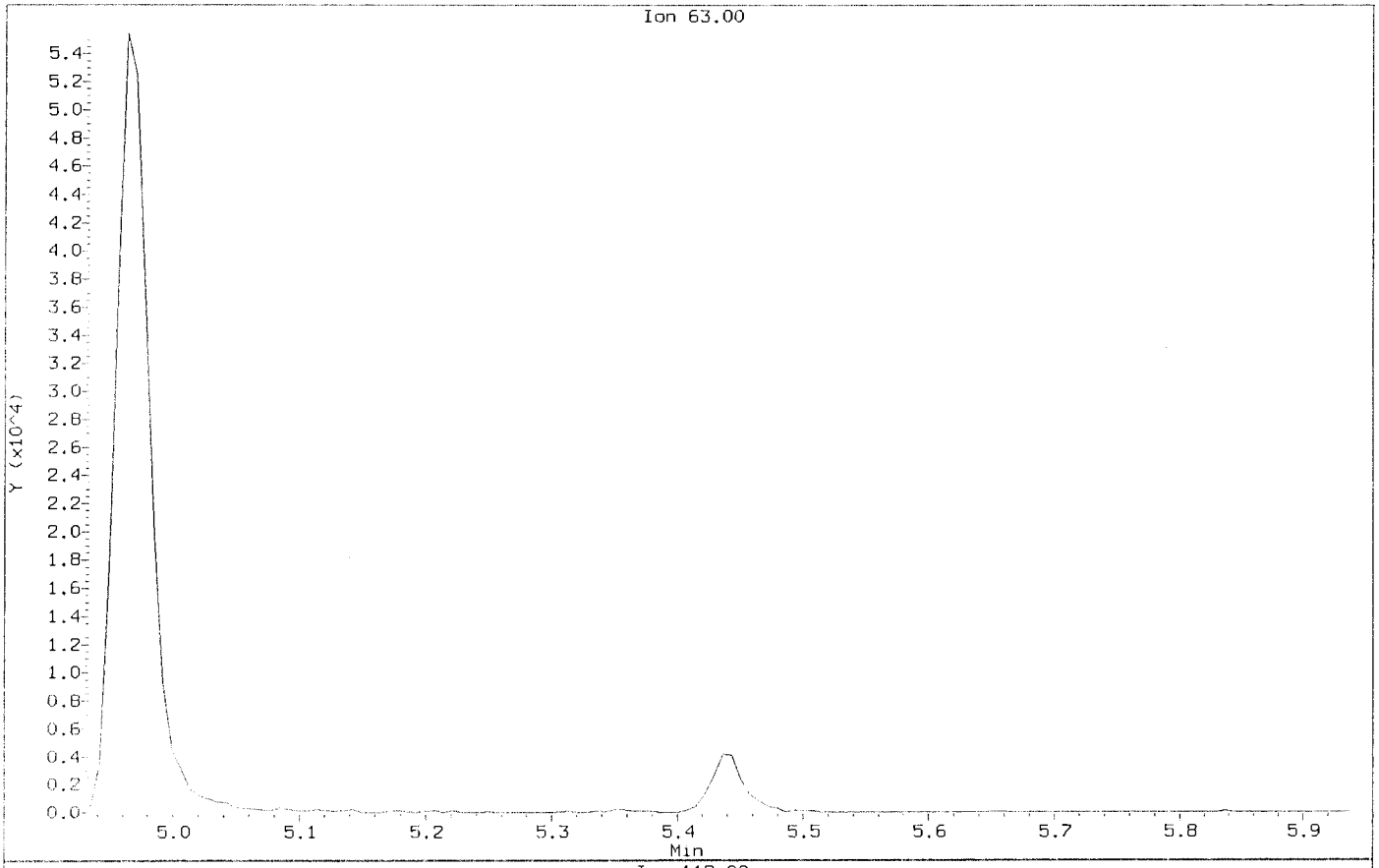
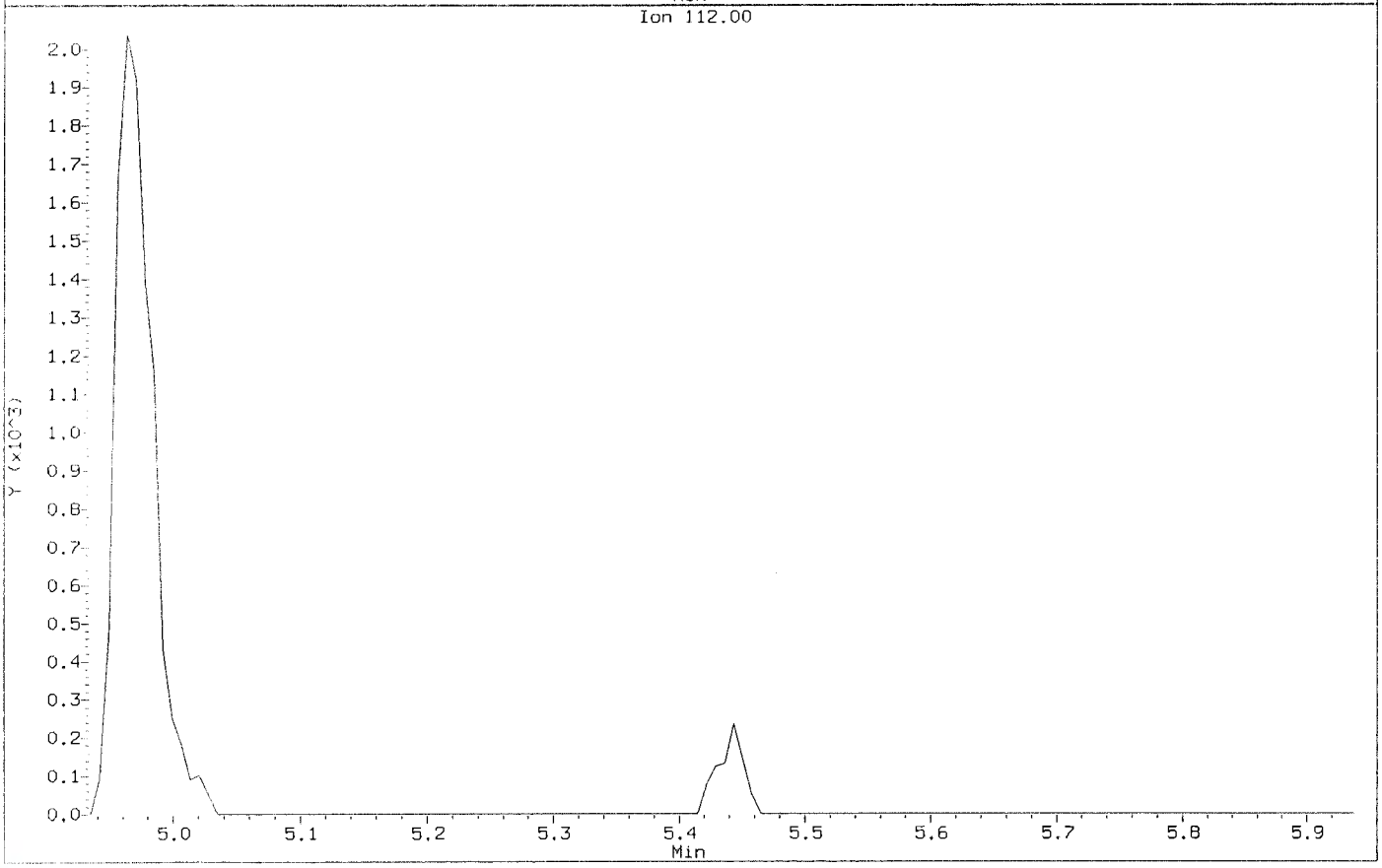
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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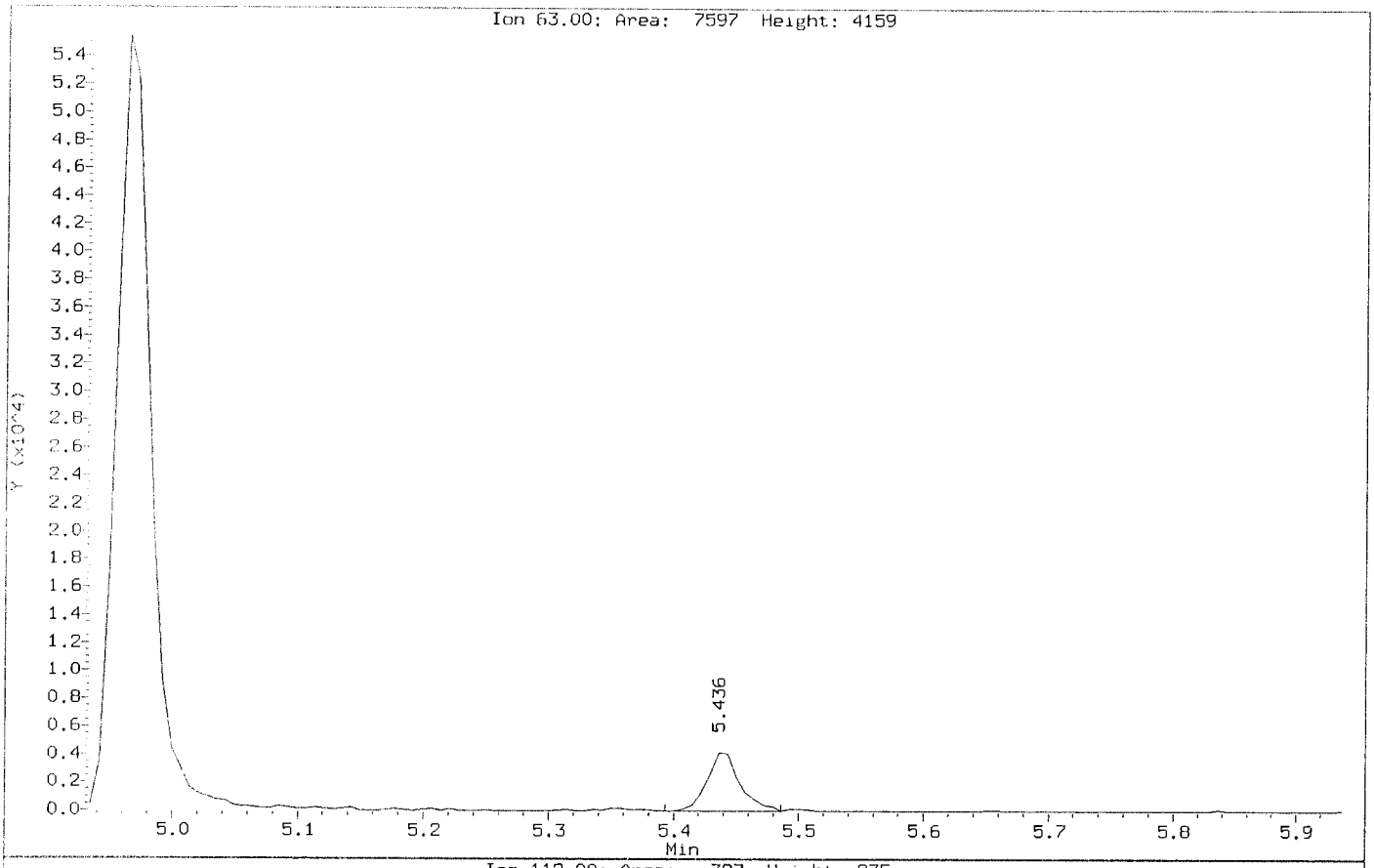
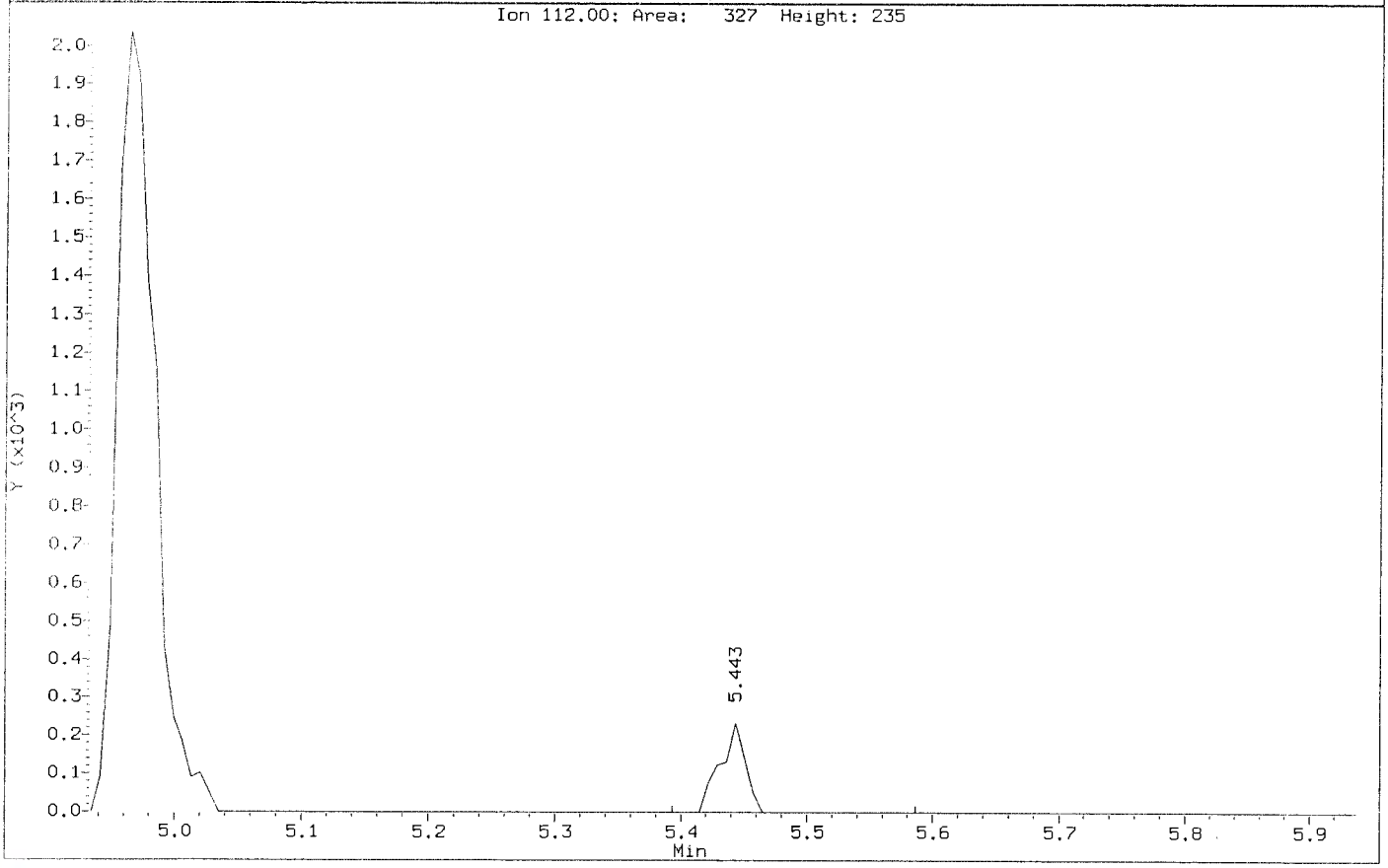
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





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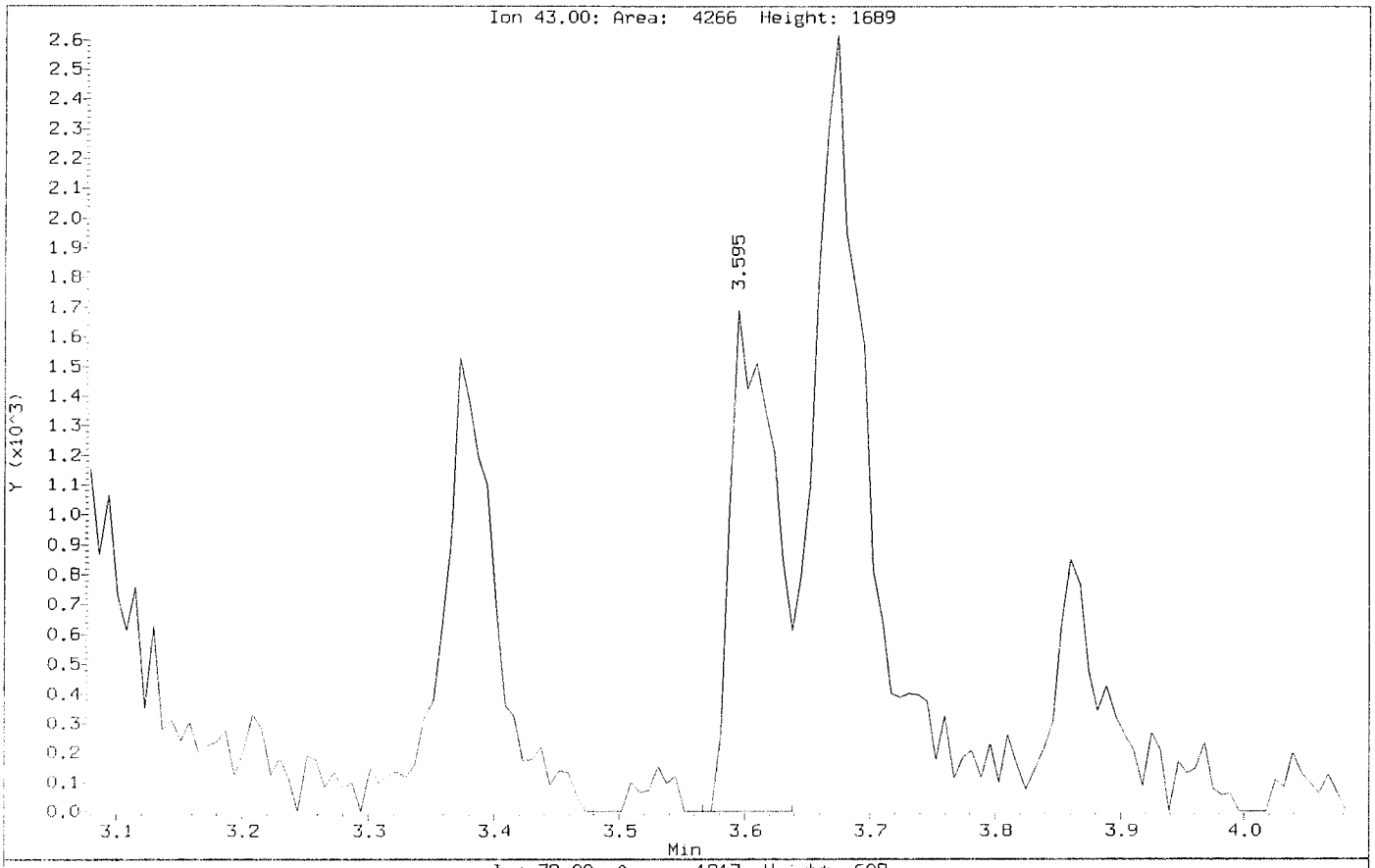
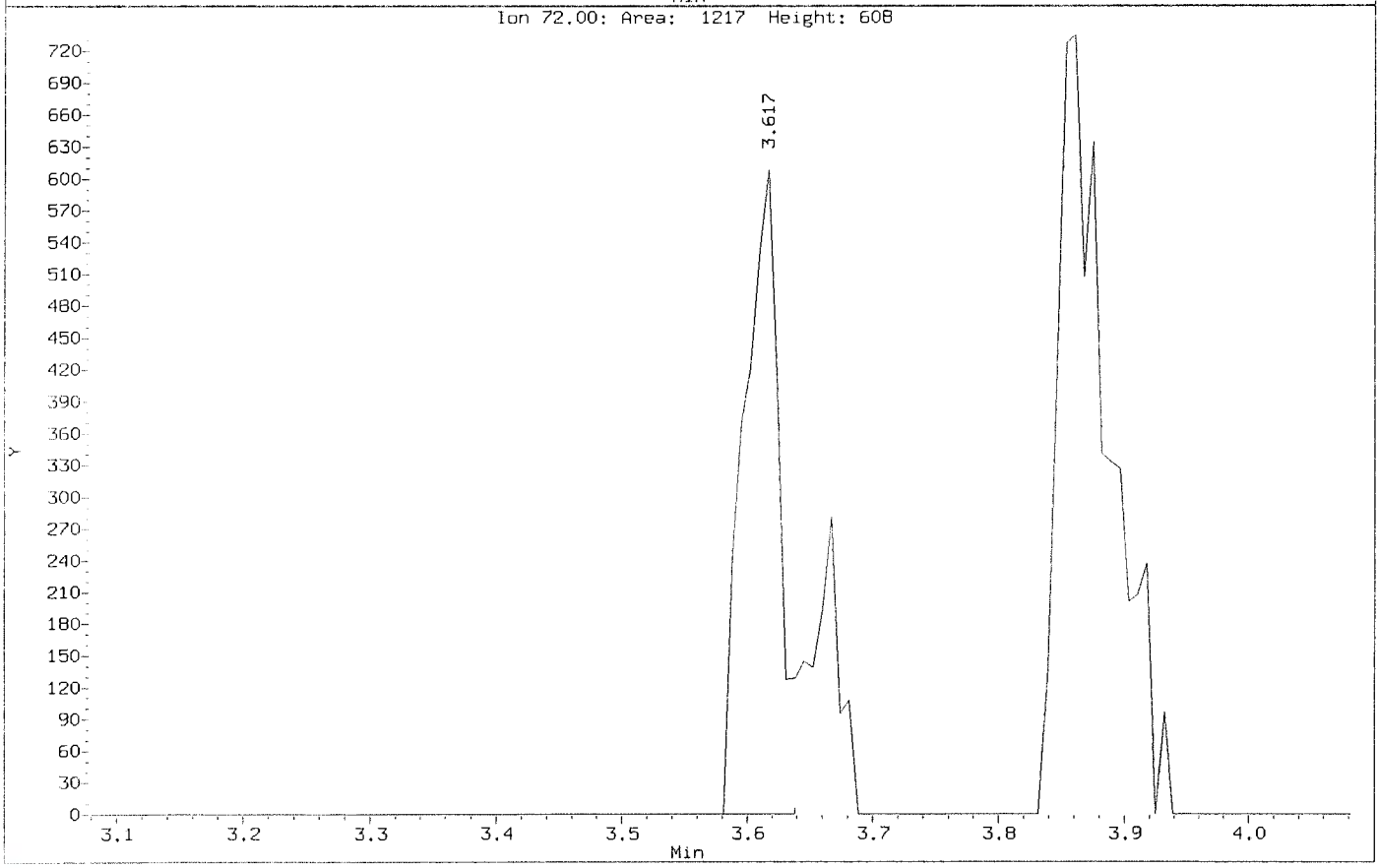
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 2-Butanone
CAS Number: 78-93-3





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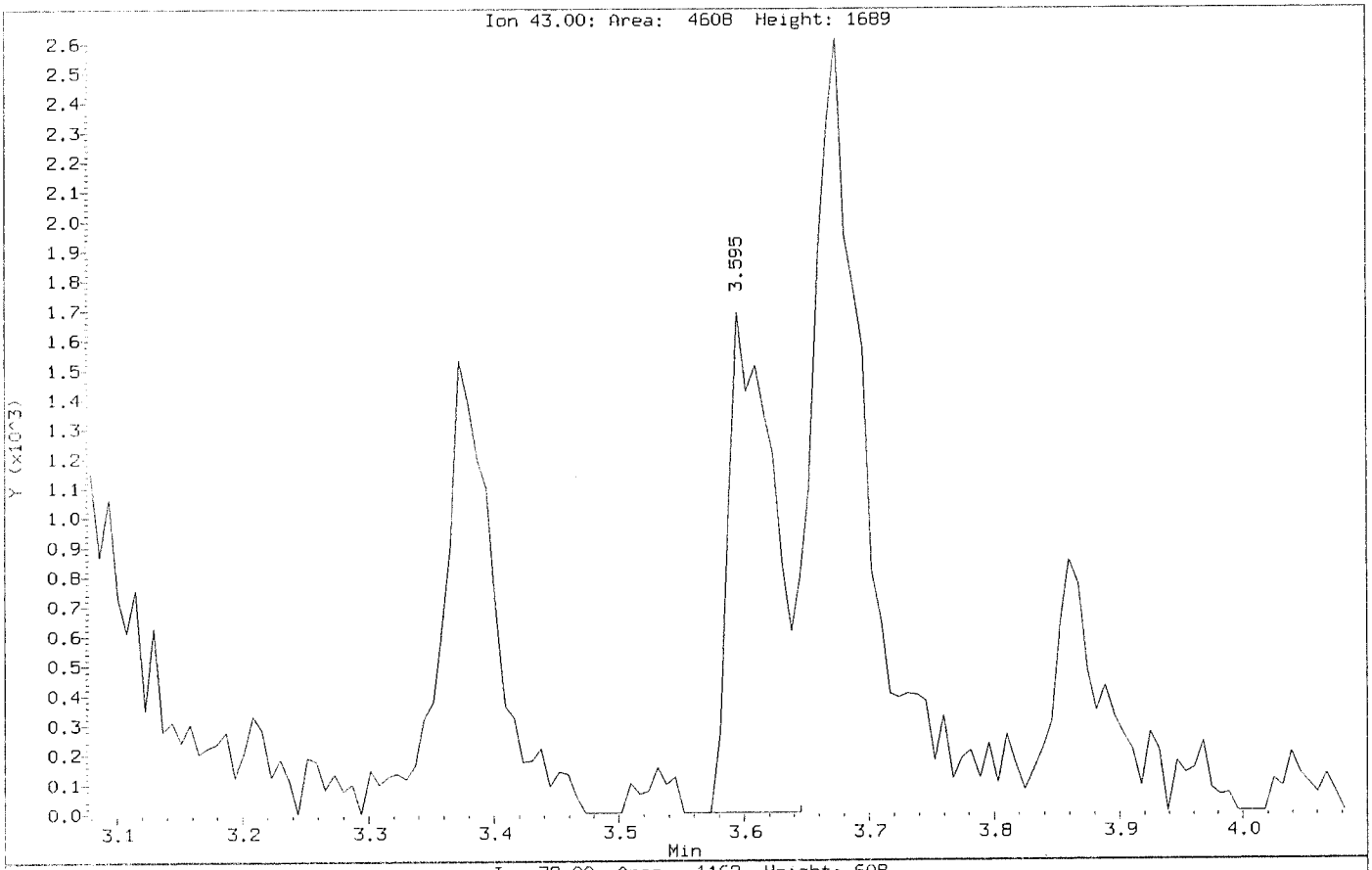
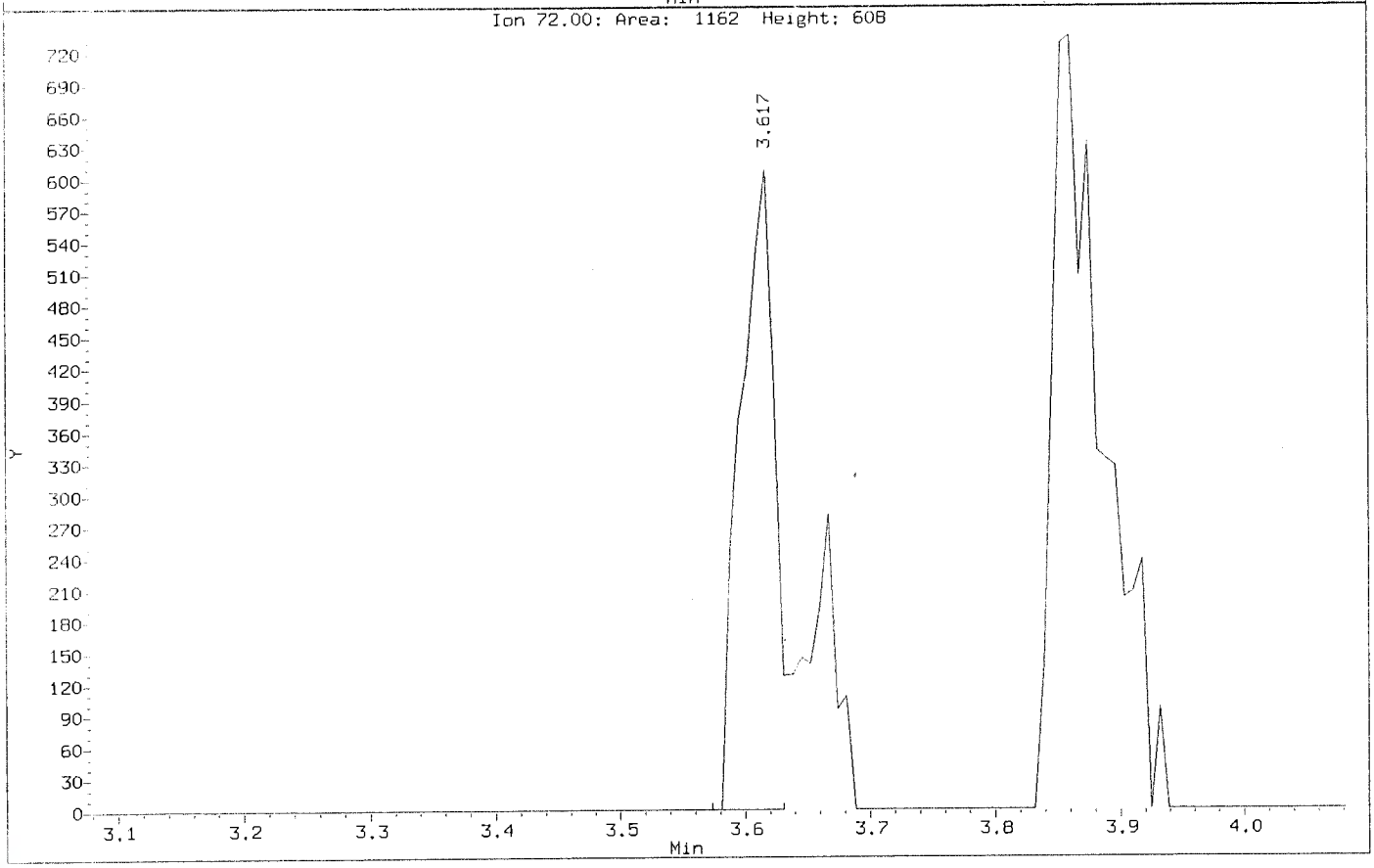
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 2-Butanone
CAS Number: 78-93-3





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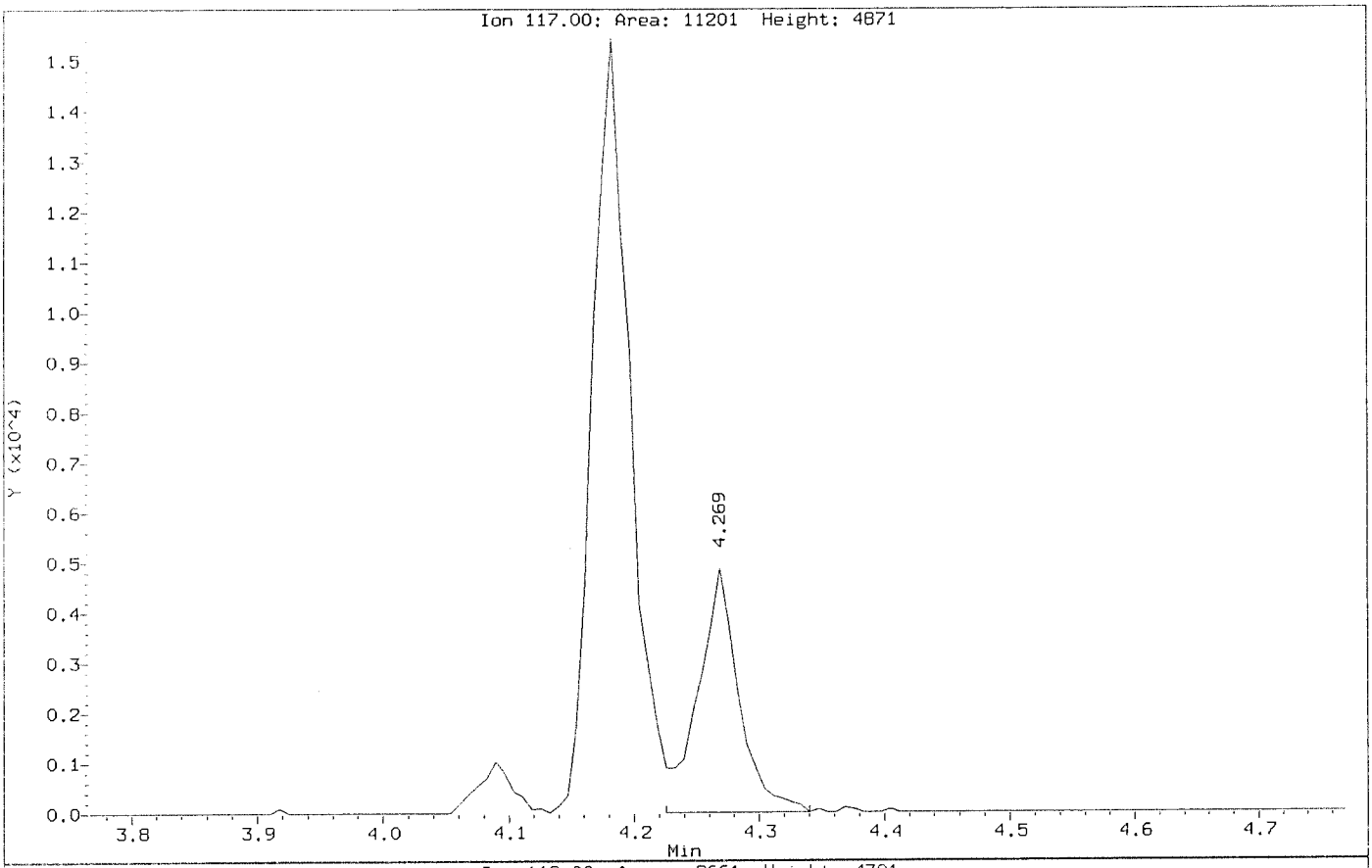
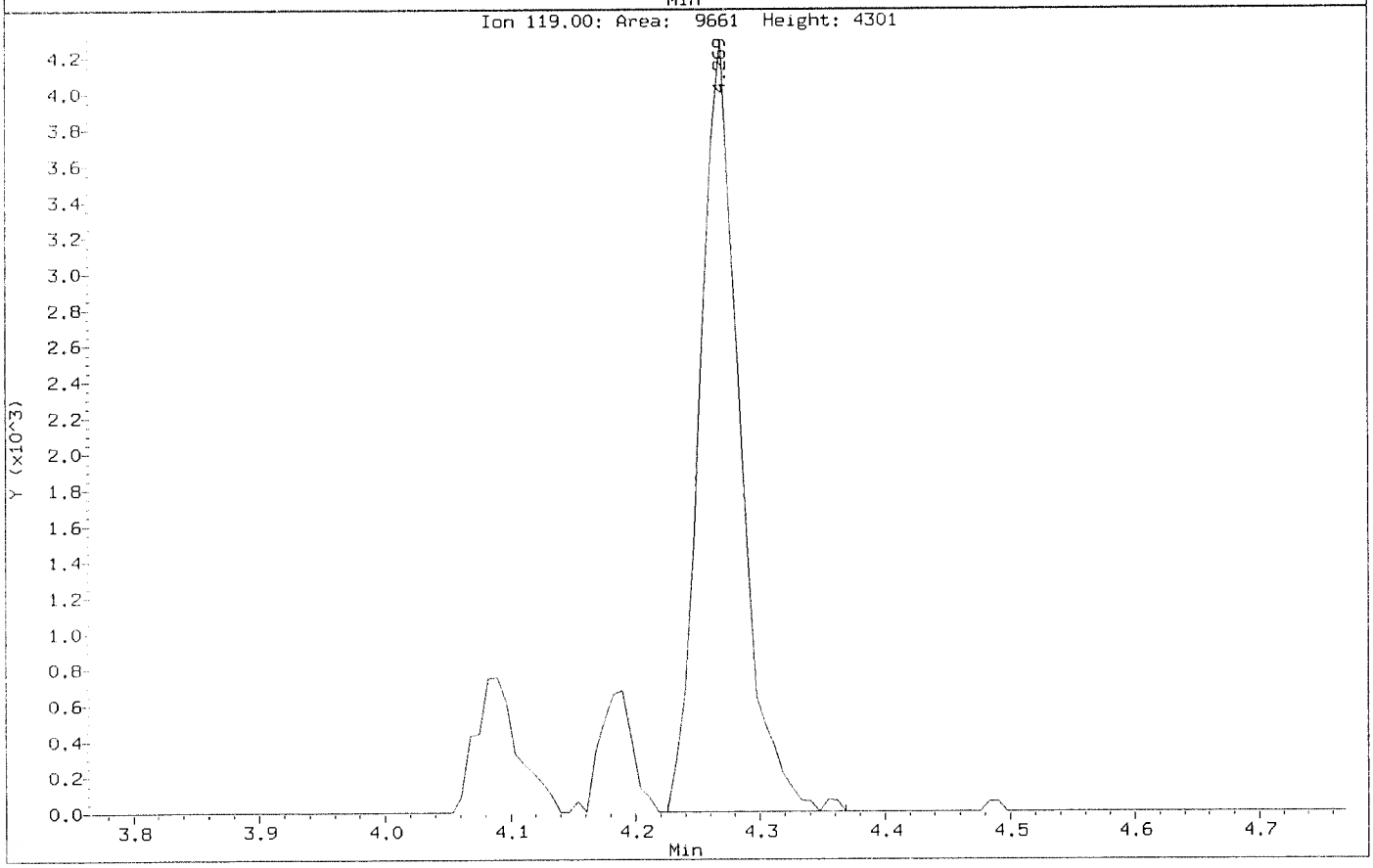
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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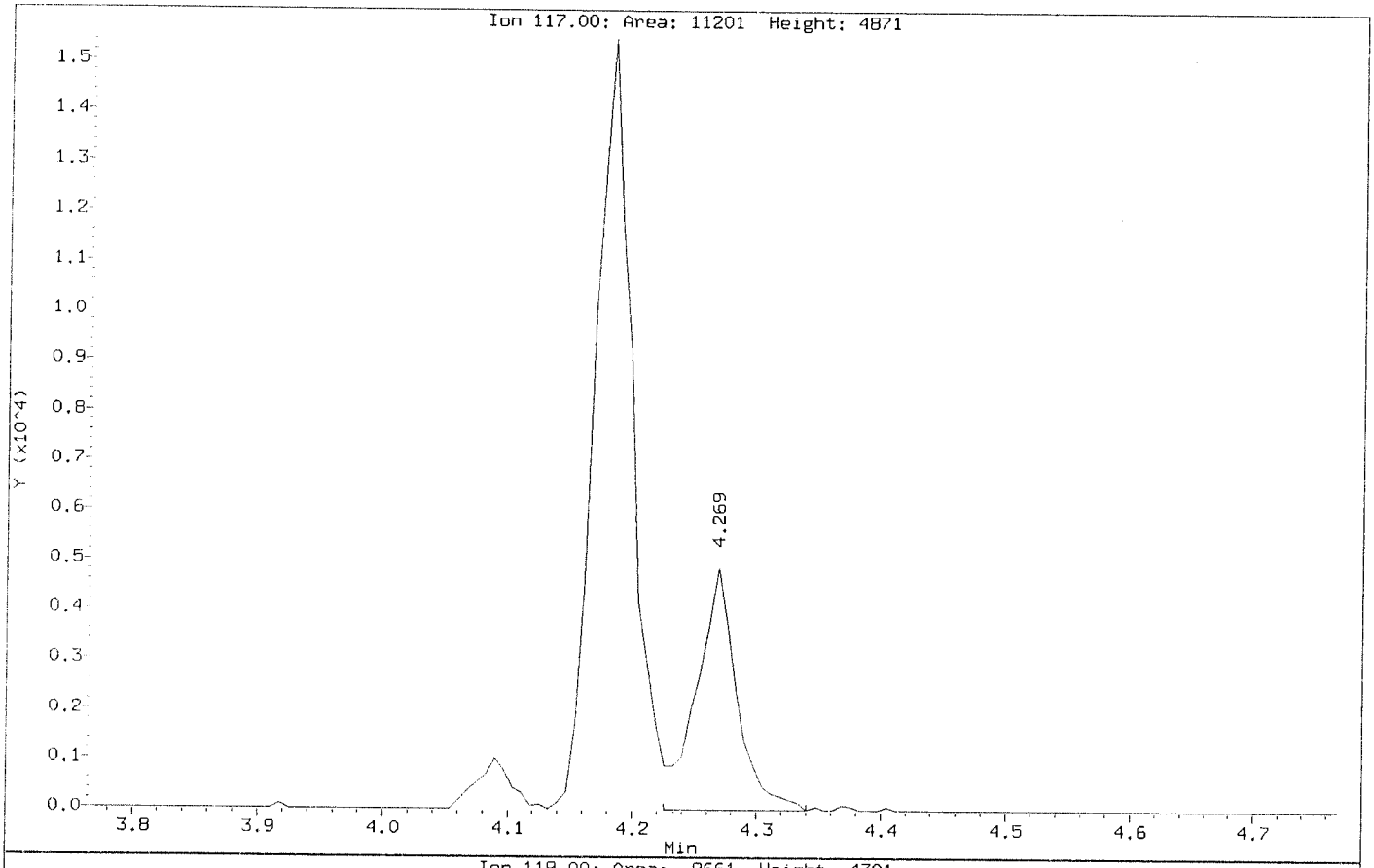
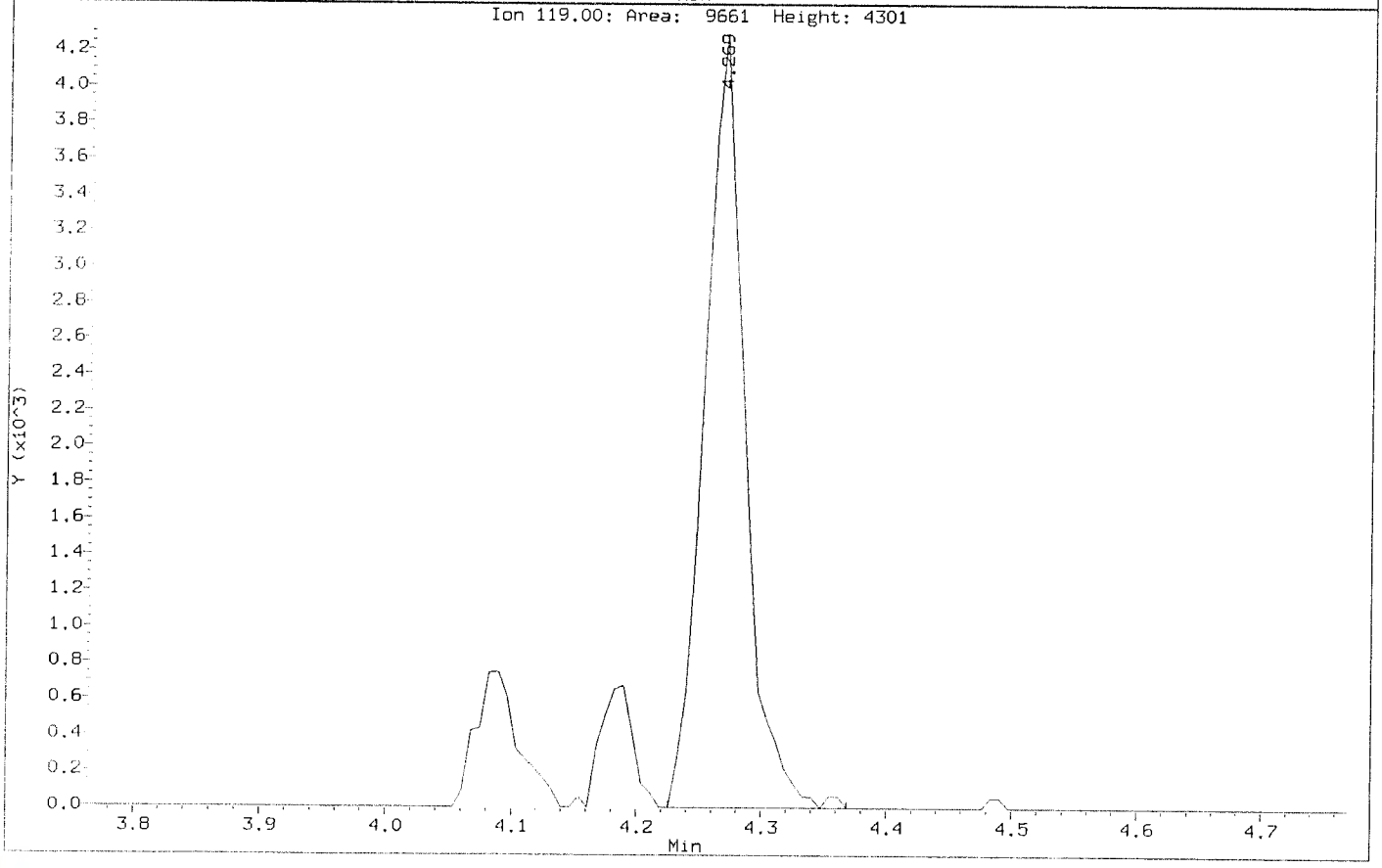
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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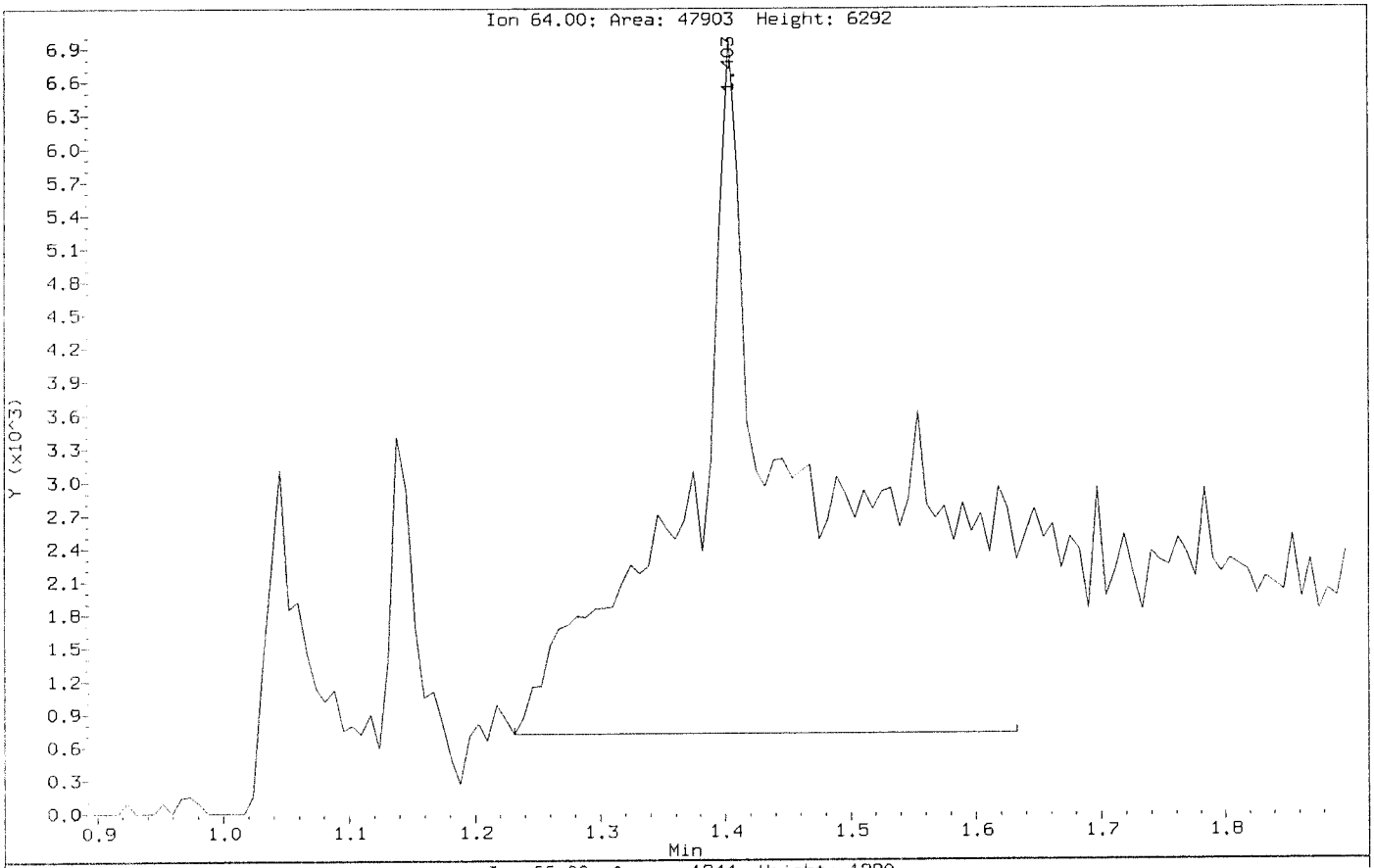
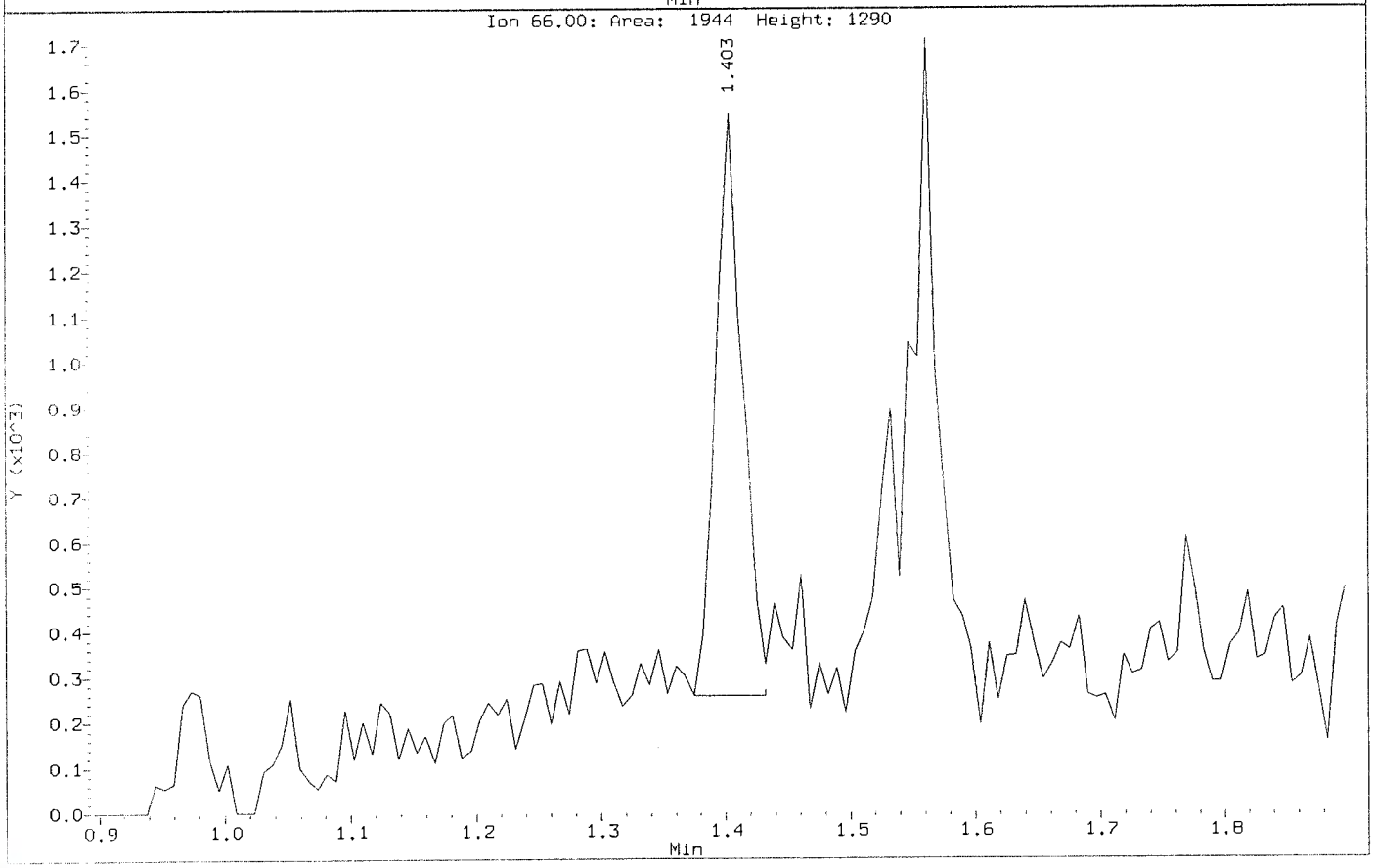
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Chloroethane
CAS Number: 75-00-3





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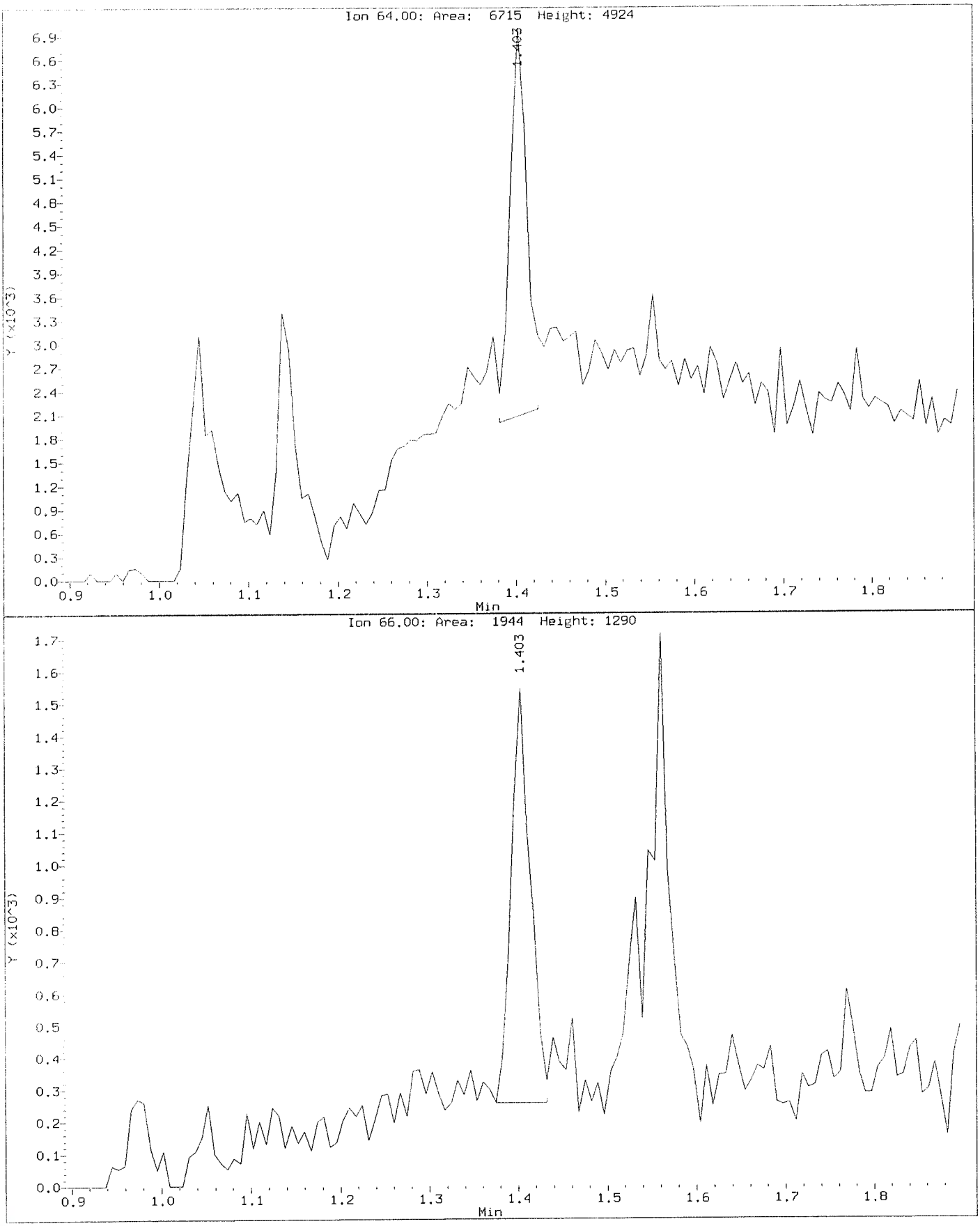
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Chloroethane
CAS Number: 75-00-3



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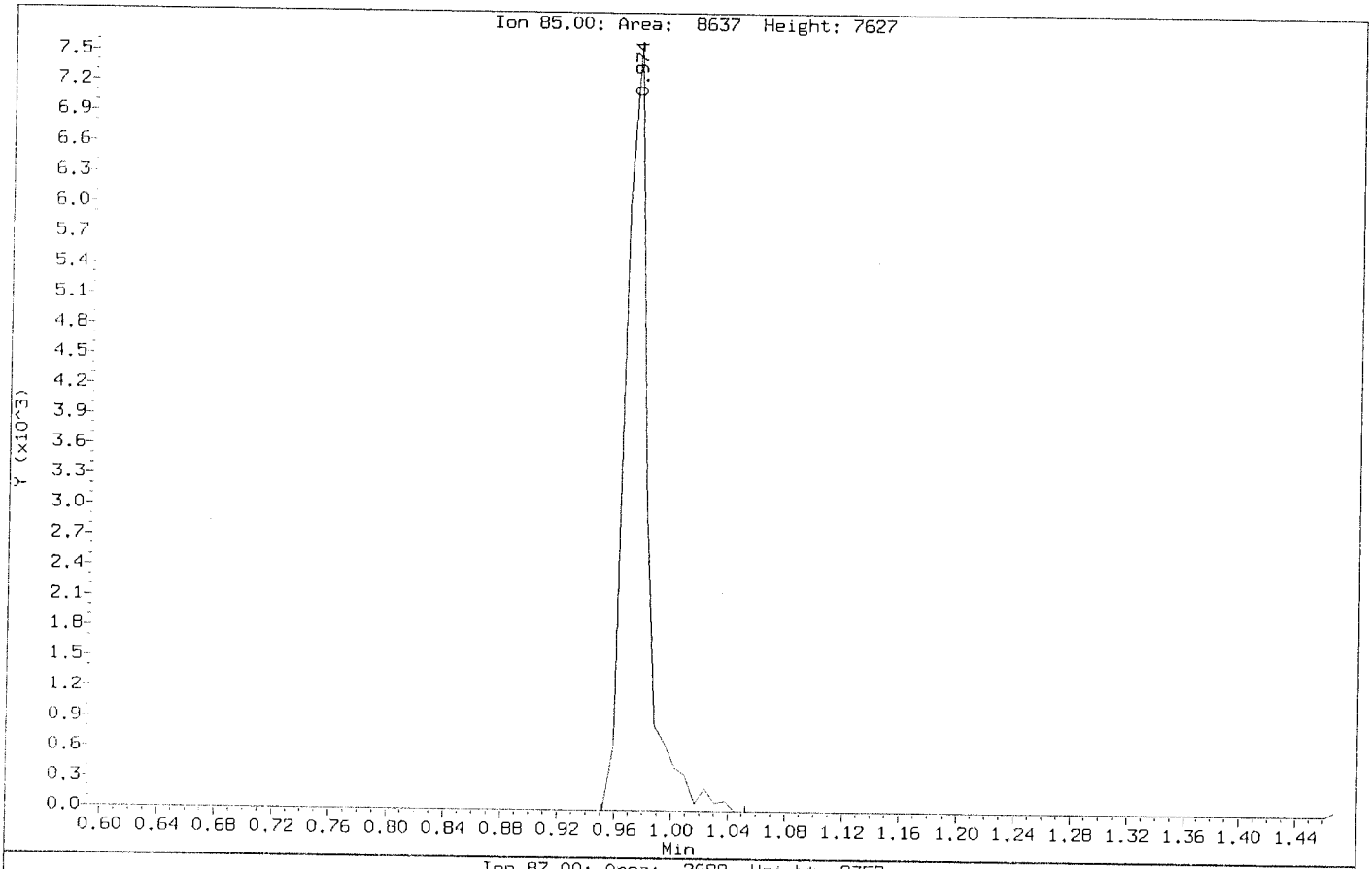
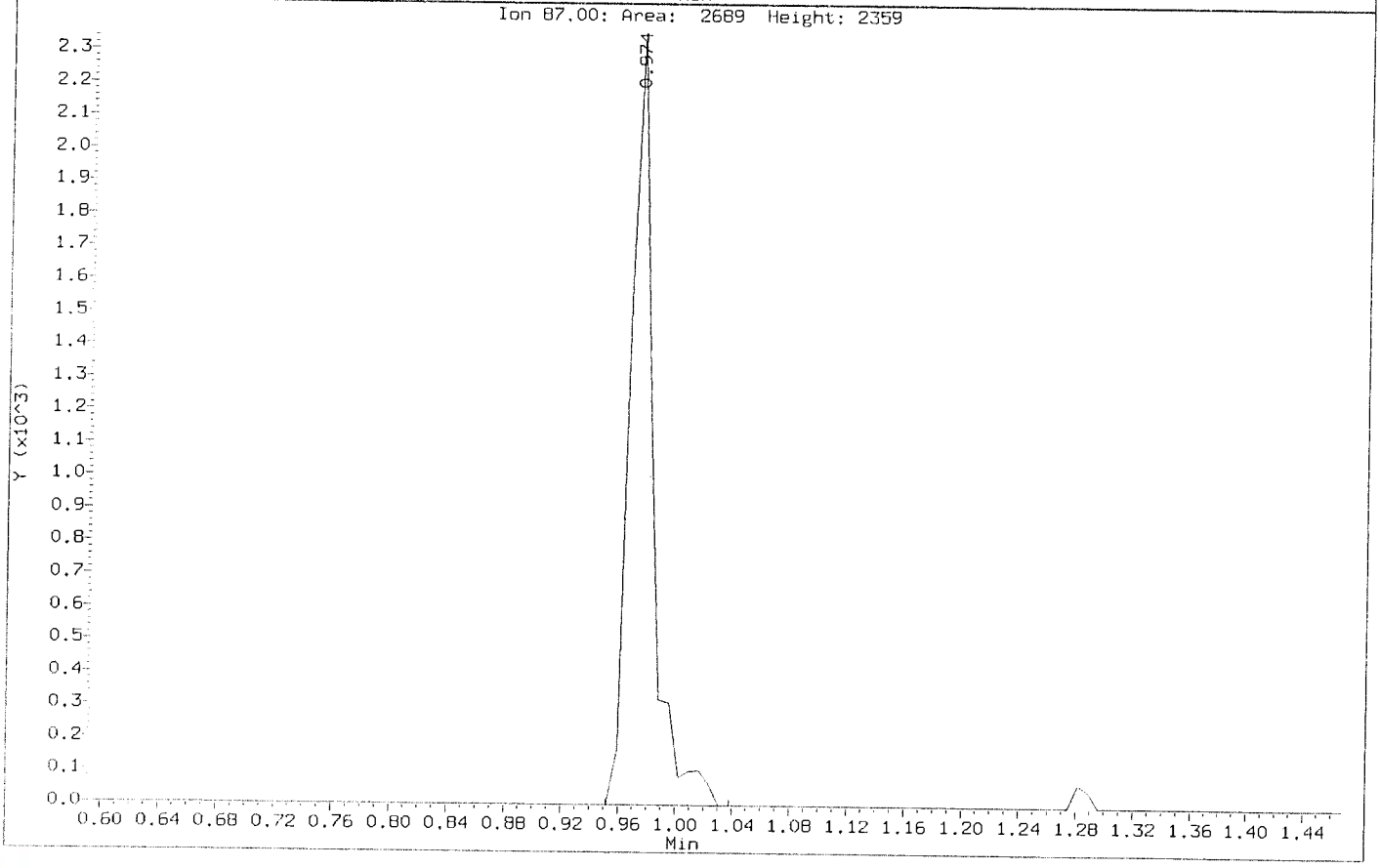
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





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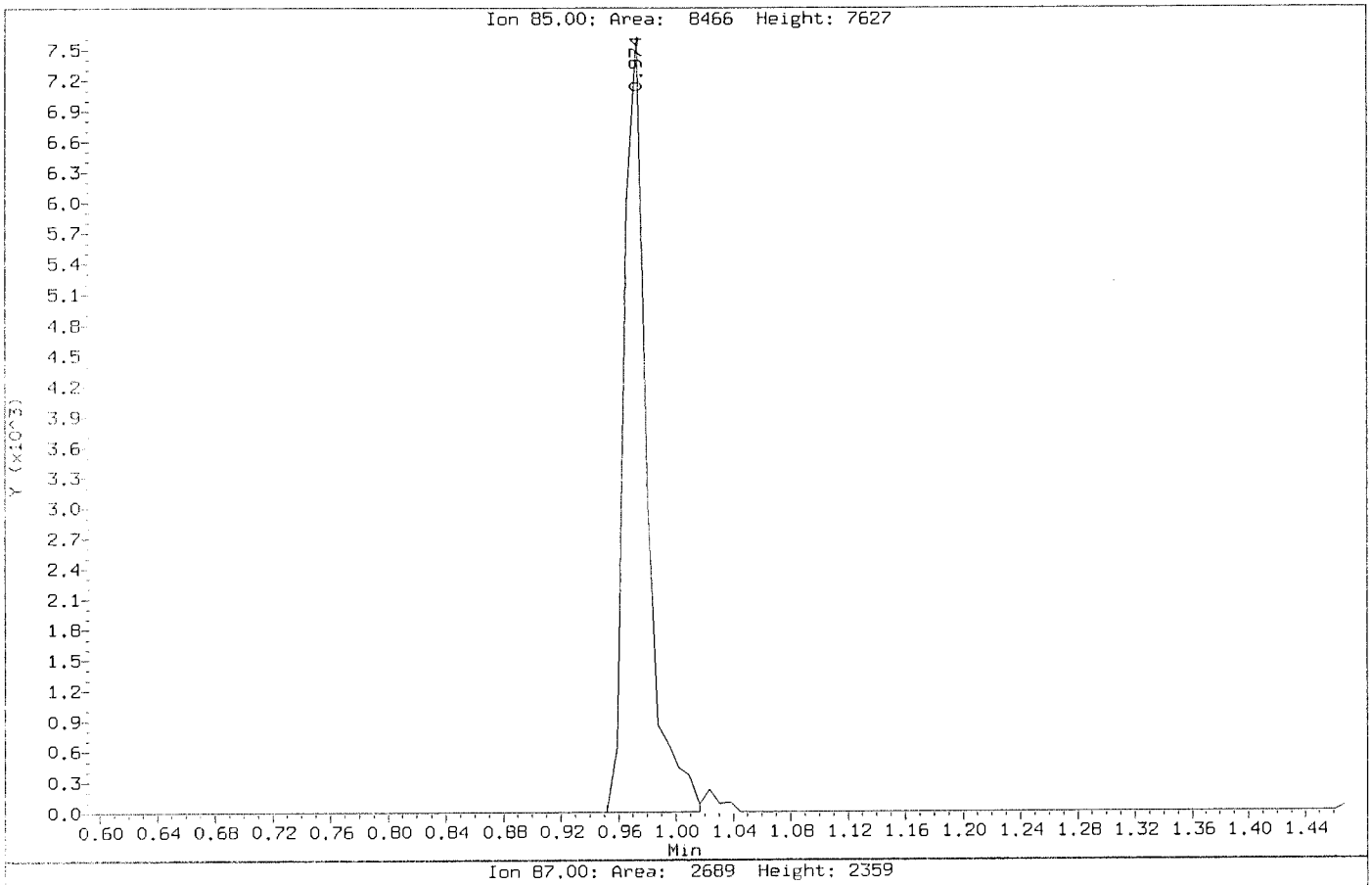
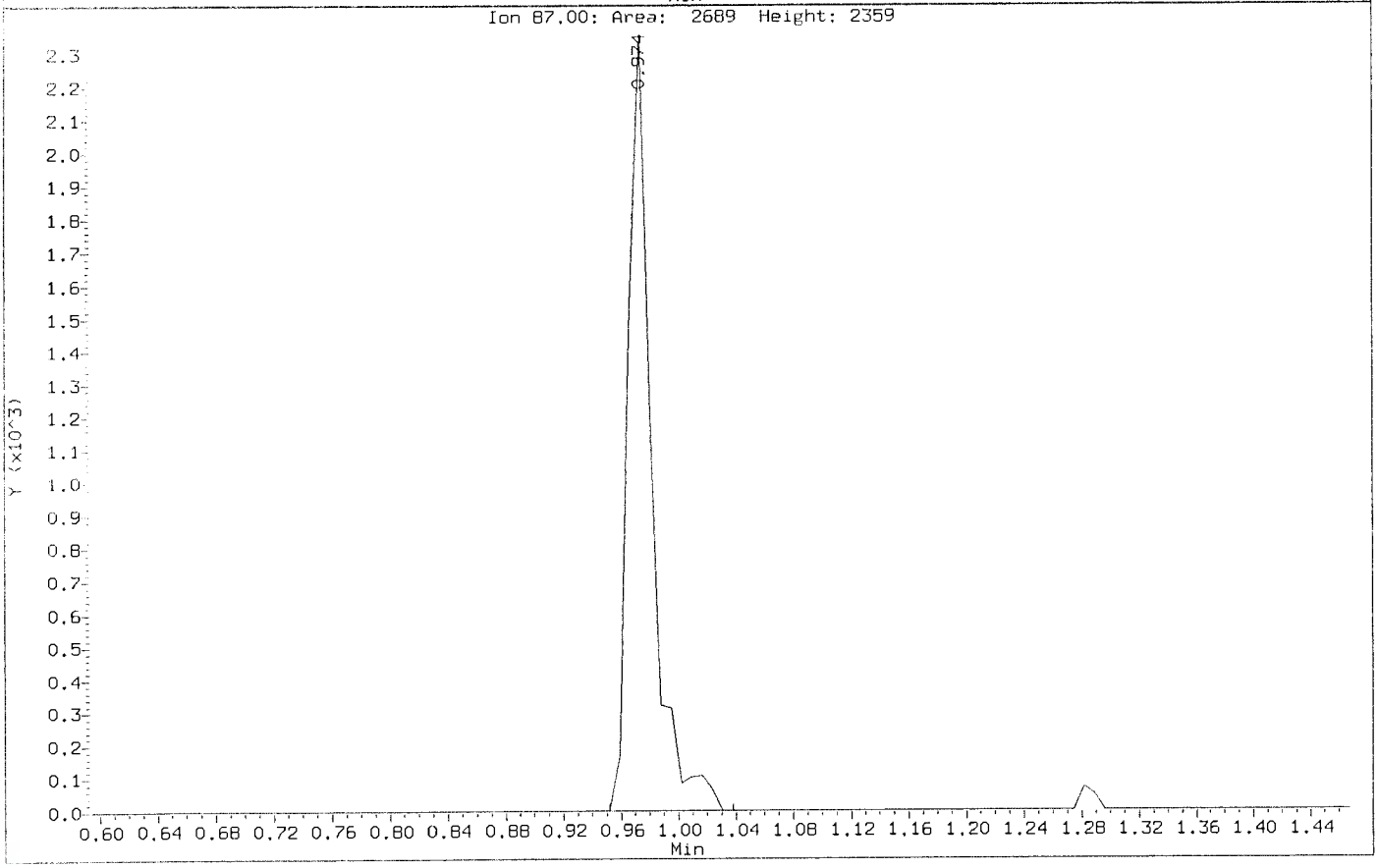
Instrument: voa6.i
Client Sample ID: VSTD002

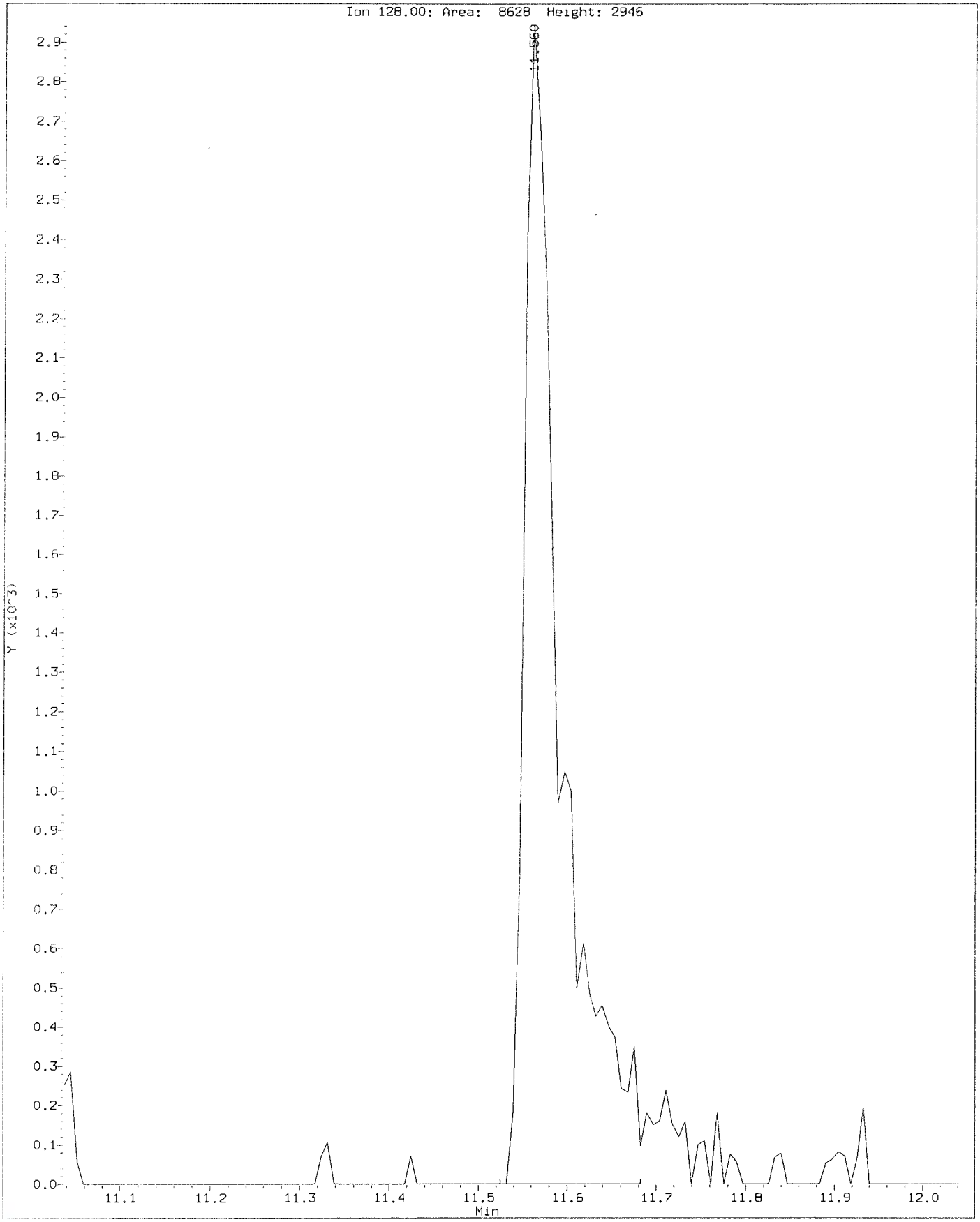
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





Data File: \\MAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052605.D
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Naphthalene
CAS Number: 91-20-3



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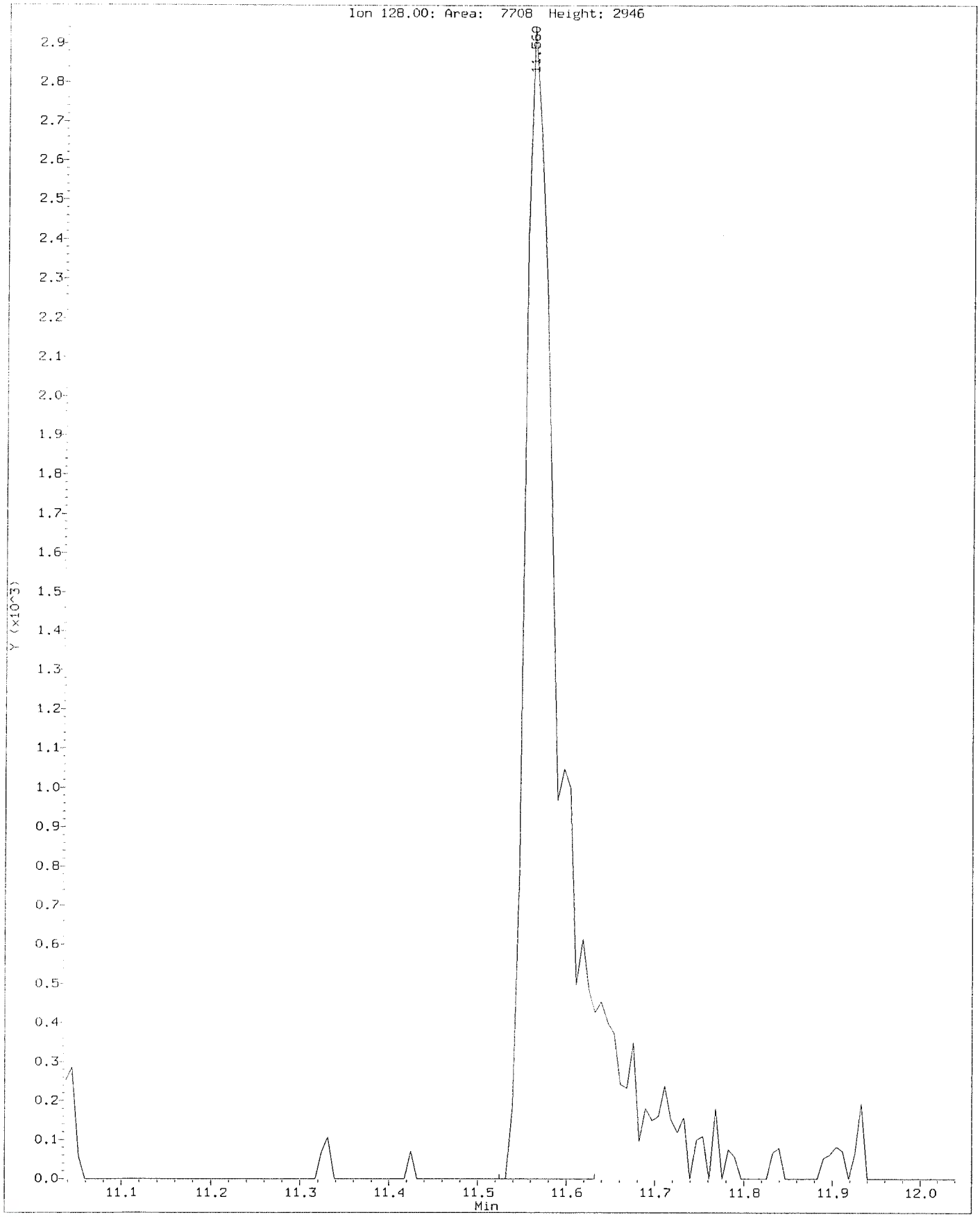
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Naphthalene
CAS Number: 91-20-3



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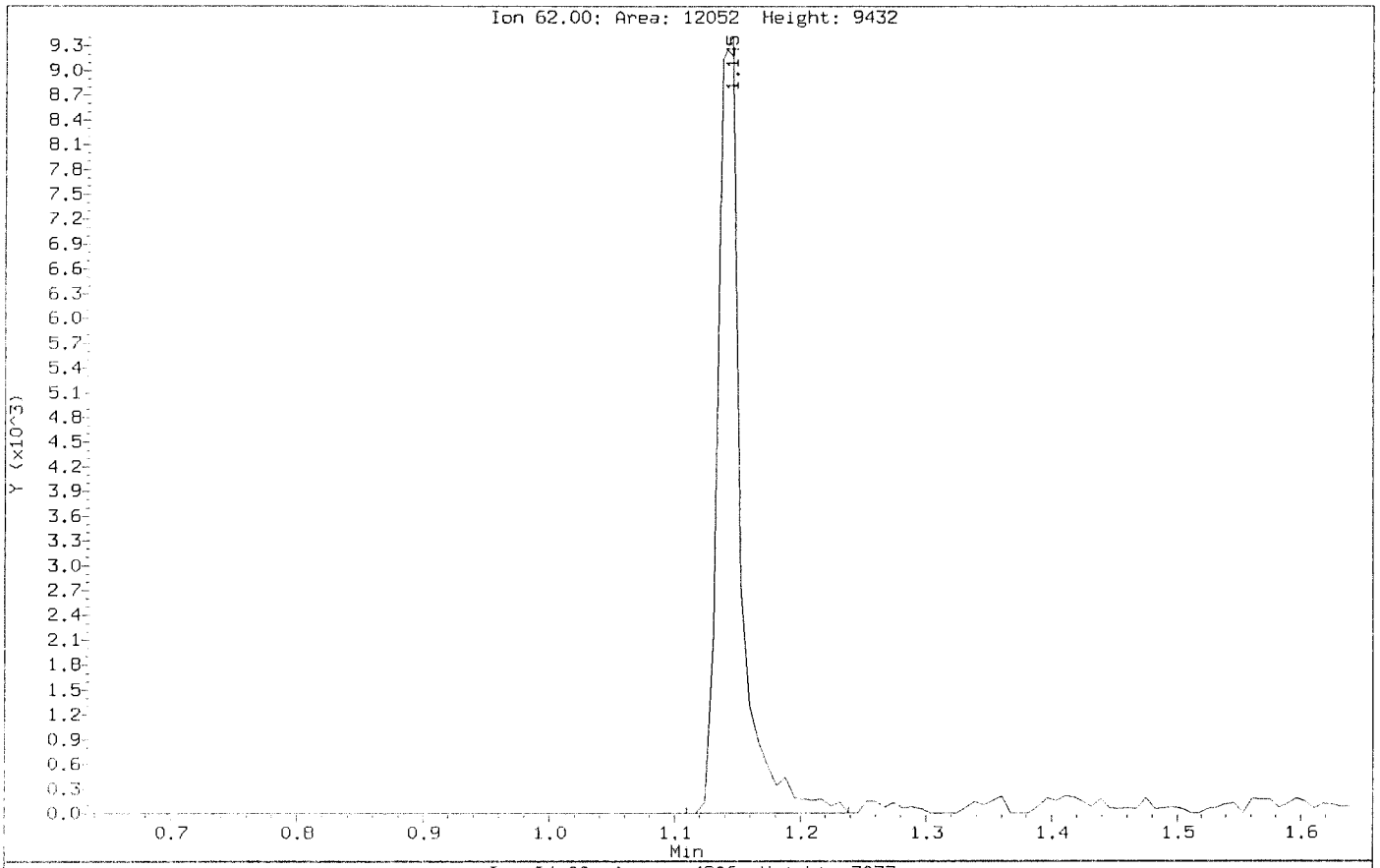
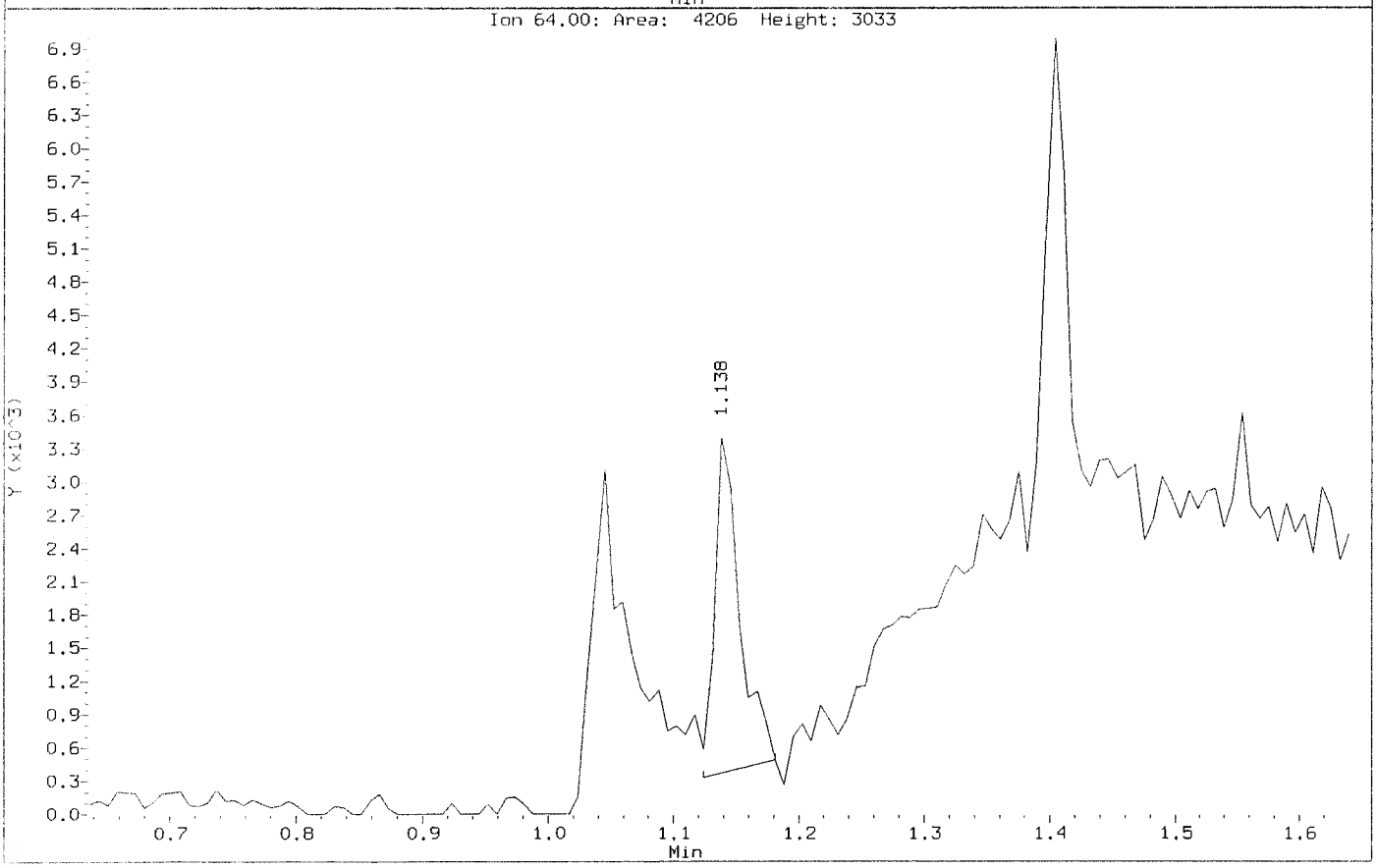
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Vinyl Chloride
CAS Number: 75-01-4





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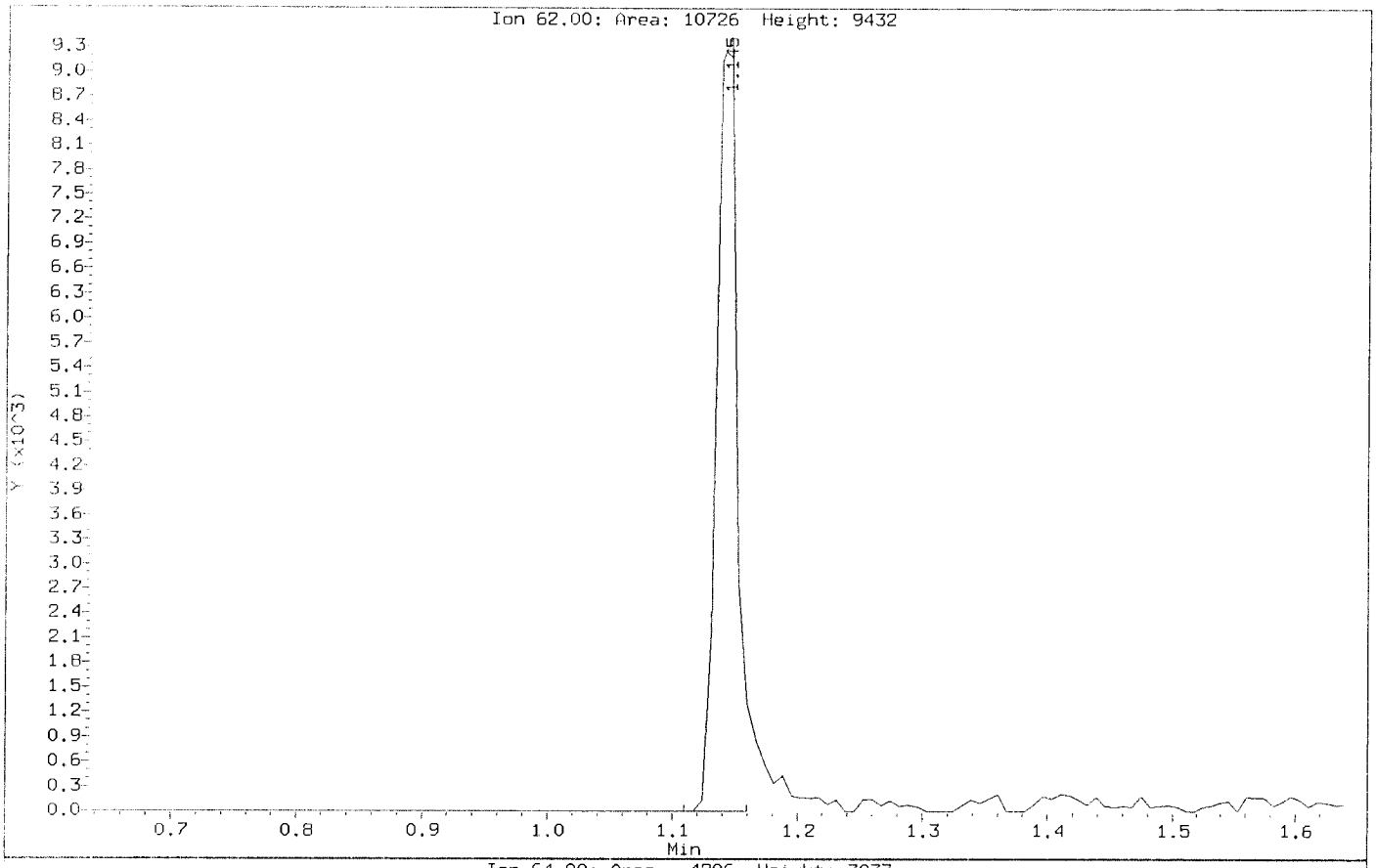
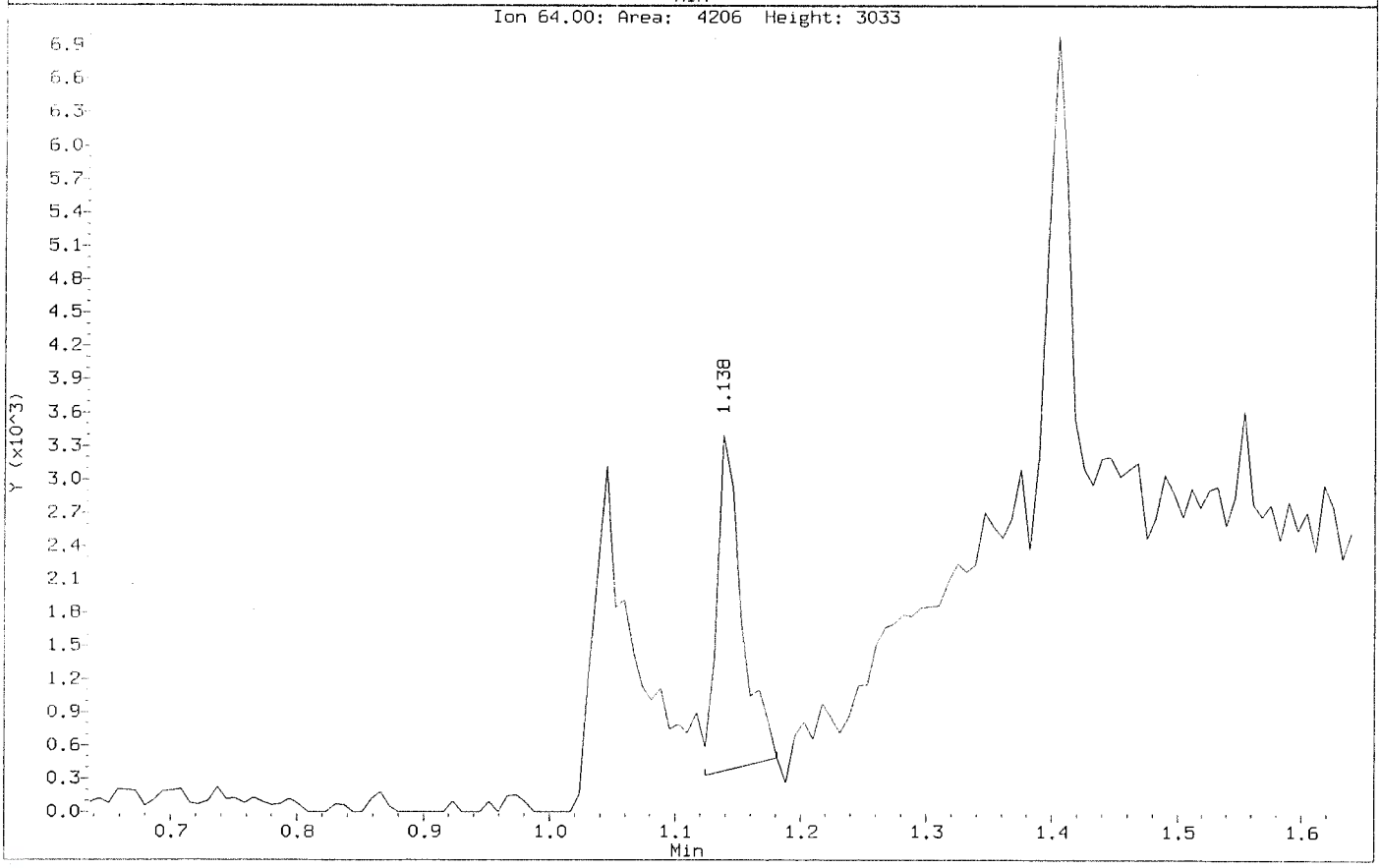
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052606.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 26-MAY-2021 14:19
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:58 Cal File: X052605.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

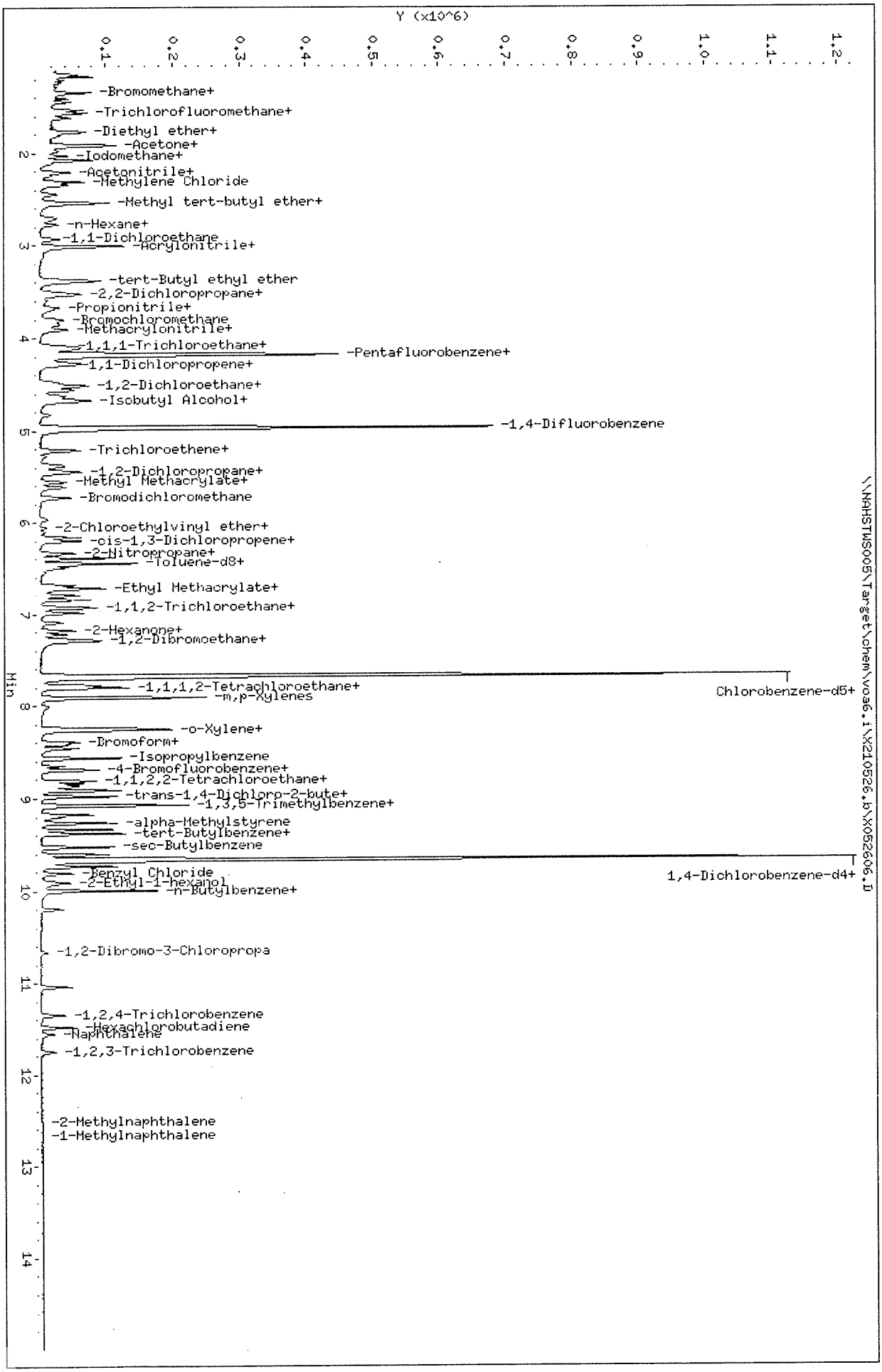
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	375848	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	599369	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	554828	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	272673	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	21089	5.00000	5.55
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	21575	5.00000	5.39
$	48 Toluene-d8	98	6.388	6.388	(0.833)	68712	5.00000	4.97(a)
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	25524	5.00000	5.91
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	20225	5.00000	4.92(a)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	28395	5.00000	5.11
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	24326	5.00000	5.41
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	17061	5.00000	5.67
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	32111	5.00000	5.40
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	19736	5.00000	5.09
	32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	22162	5.00000	4.82(a)
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	7772	5.00000	4.70(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	17848	5.00000	5.25(M)
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	12851	5.00000	4.76(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	58187	5.00000	4.67(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	2323	5.00000	5.82
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	21217	5.00000	5.19
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	36886	5.00000	4.98(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	25252	5.00000	5.28
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	18865	5.00000	5.34
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	58197	5.00000	4.70(a)
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	38487	5.00000	5.00
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	31865	5.00000	5.33
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	39709	5.00000	4.94(a)
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	27936	5.00000	5.43
24	2-Butanone	43	3.588	3.588	(0.858)	11362	10.0000	9.93(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	53843	5.00000	5.27
52	2-Hexanone	43	7.090	7.090	(0.924)	21892	10.0000	10.62
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	58486	5.00000	4.81(a)
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	55825	5.00000	4.42(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	32371	10.0000	10.13
10	Acetone	43	1.976	1.976	(0.473)	15534	10.0000	11.18
37	Benzene	78	4.512	4.512	(0.908)	71697	5.00000	5.20
74	Bromobenzene	156	8.809	8.809	(0.912)	22574	5.00000	4.98(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	12517	5.00000	5.50
39	Bromodichloromethane	83	5.722	5.722	(1.151)	27200	5.00000	5.27
66	Bromoform	173	8.408	8.408	(1.096)	13722	5.00000	4.43(a)
6	Bromomethane	94	1.338	1.338	(0.320)	24597	5.00000	6.46
19	Carbon Disulfide	76	2.069	2.069	(0.495)	93831	10.0000	10.22
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	24074	5.00000	4.84(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	57208	5.00000	4.95(a)
7	Chloroethane	64	1.403	1.403	(0.336)	15071	5.00000	4.46(aM)
28	Chloroform	83	3.910	3.910	(0.935)	36863	5.00000	5.57
3	Chloromethane	50	1.080	1.080	(0.258)	23565	5.00000	4.57(a)
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	21562	5.00000	5.47
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	31771	5.00000	5.23
55	Dibromochloromethane	129	7.176	7.176	(0.936)	22651	5.00000	4.96(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	14381	5.00000	5.42
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	18295	5.00000	5.11
61	Ethylbenzene	106	7.799	7.799	(1.017)	26847	5.00000	5.03
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	8556	5.00000	6.15
67	Isopropylbenzene	105	8.566	8.566	(1.117)	72549	5.00000	4.45(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	65384	10.0000	9.41
17	Methylene Chloride	84	2.305	2.305	(0.551)	21744	5.00000	5.22
87	n-Butylbenzene	91	9.998	9.998	(1.035)	47016	5.00000	4.43(a)
73	n-Propylbenzene	91	8.910	8.910	(0.922)	79074	5.00000	4.64(a)
92	Naphthalene	128	11.553	11.553	(1.196)	18362	5.00000	4.71(a)
63	o-Xylene	106	8.244	8.244	(1.075)	33045	5.00000	4.87(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	66177	5.00000	4.62(a)
64	Styrene	104	8.258	8.258	(1.077)	52432	5.00000	4.63(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	50317	5.00000	4.74(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	16008	5.00000	4.68(a)
50	Toluene	91	6.446	6.446	(0.840)	80843	5.00000	4.99(a)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	18528	5.00000	5.27
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.344)	26258	5.00000	5.01
38	Trichloroethene	130	5.206	5.206	(1.048)	20721	5.00000	5.03
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	36670	5.00000	5.40
5	Vinyl Chloride	62	1.145	1.145	(0.274)	23945	5.00000	5.38(M)

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.



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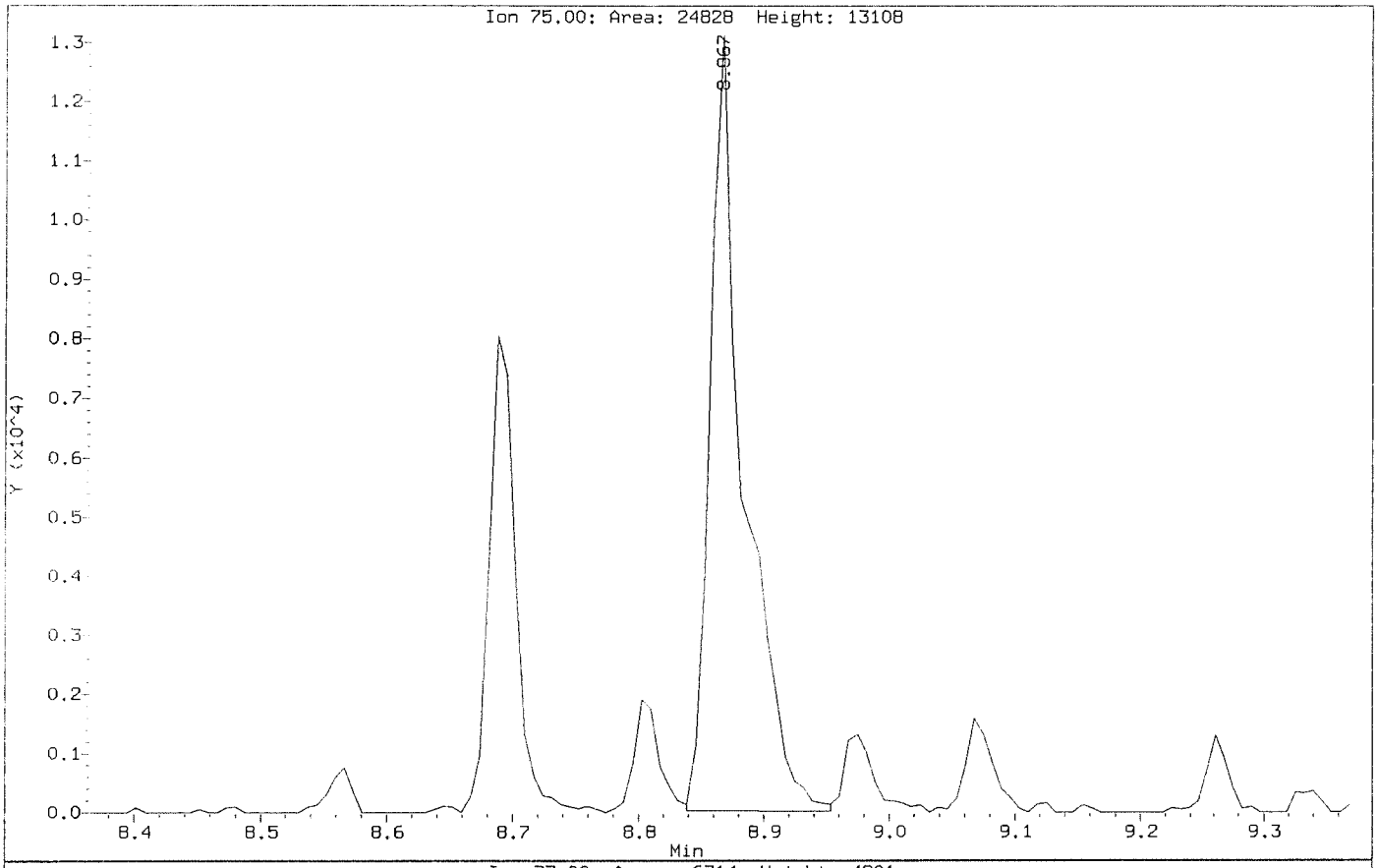
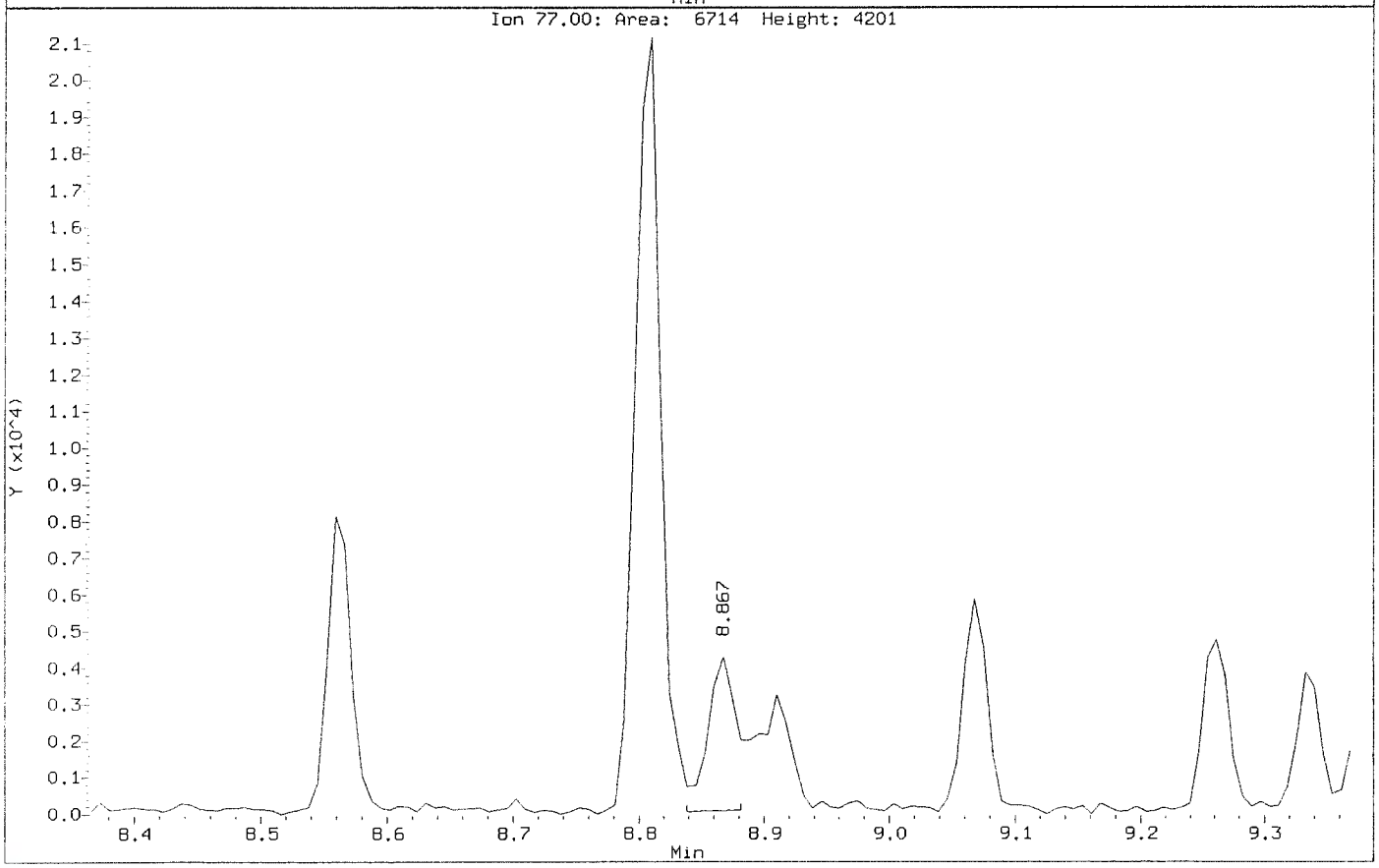
Date : 26-MAY-2021 14:19
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052606.D
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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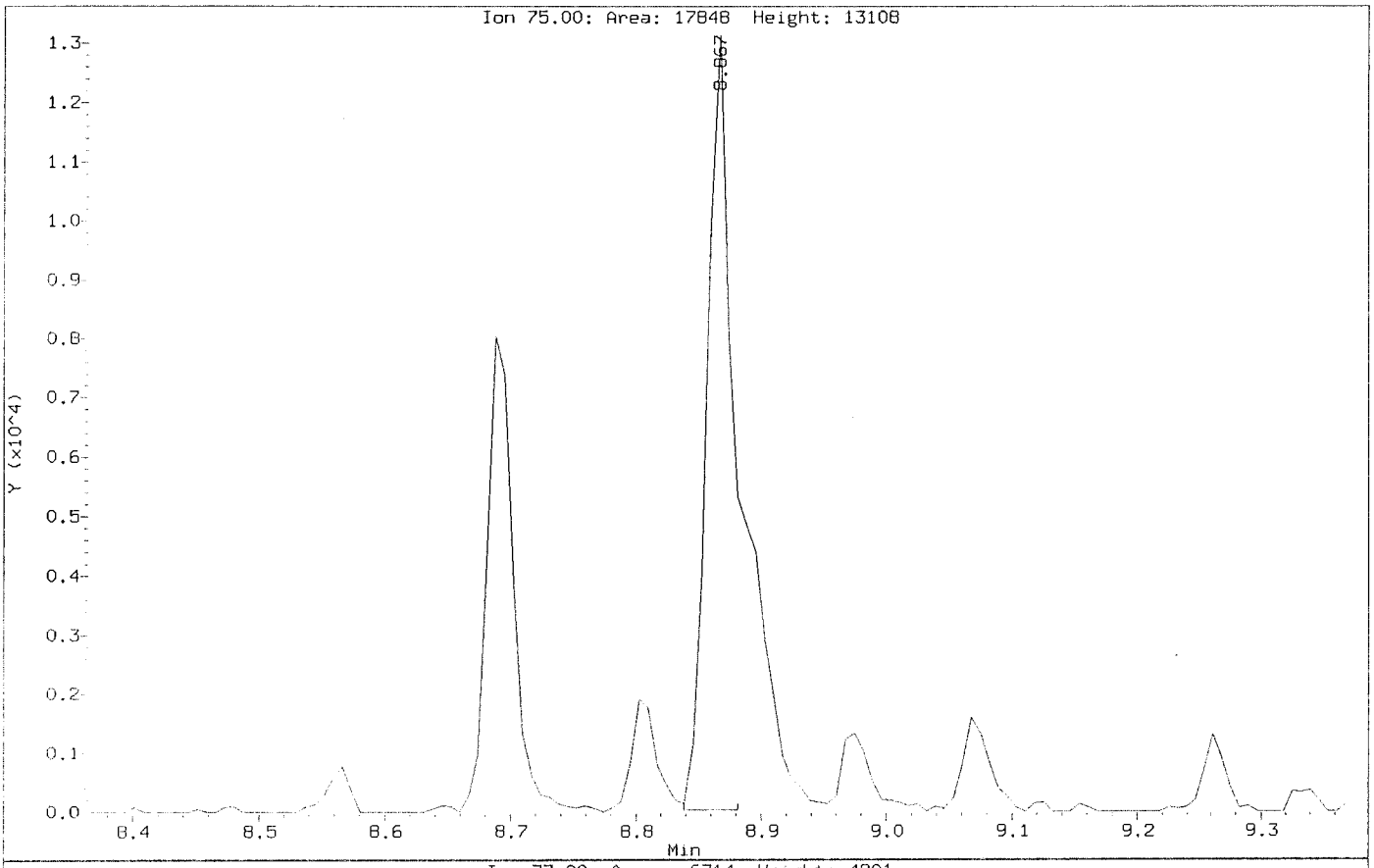
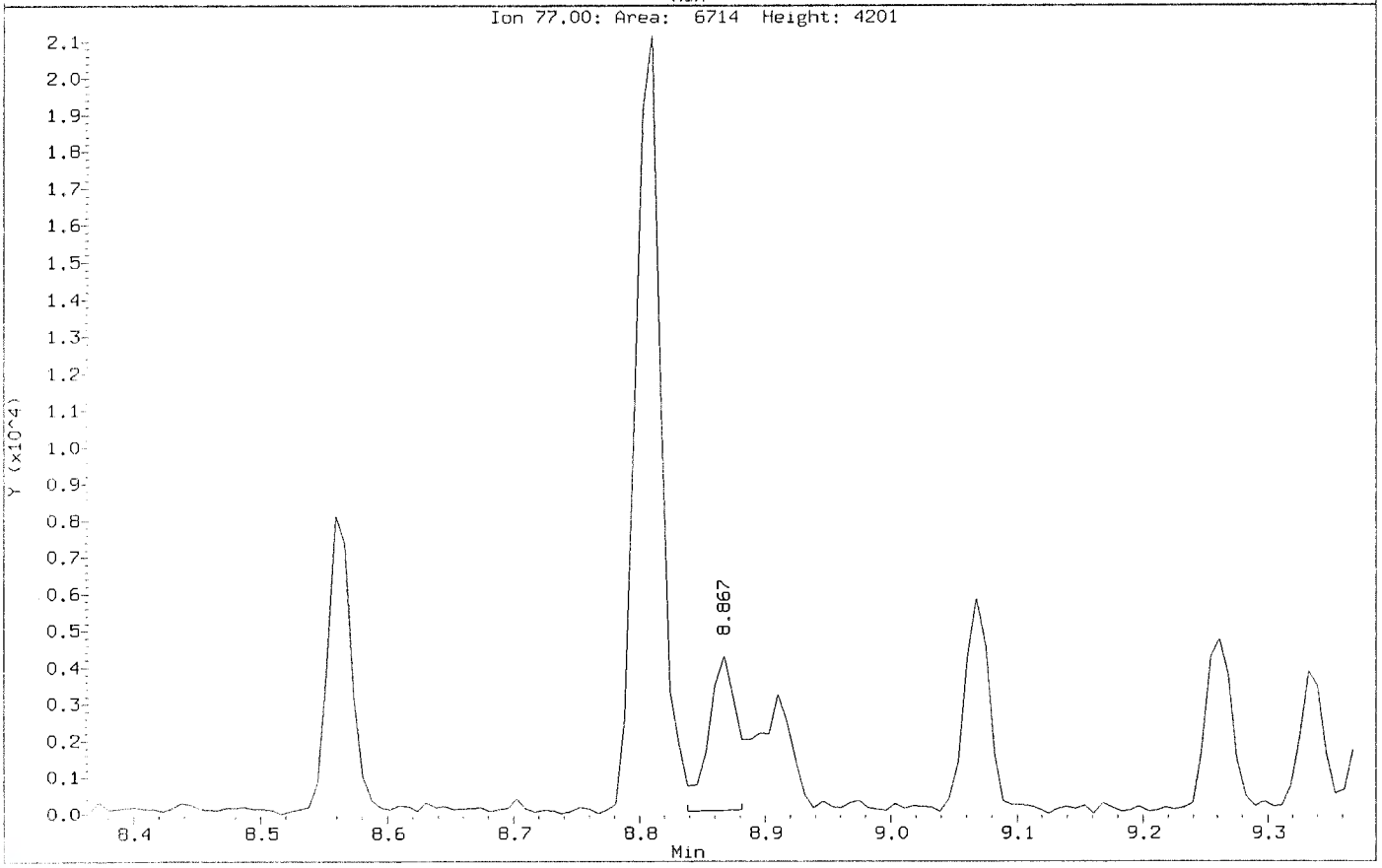
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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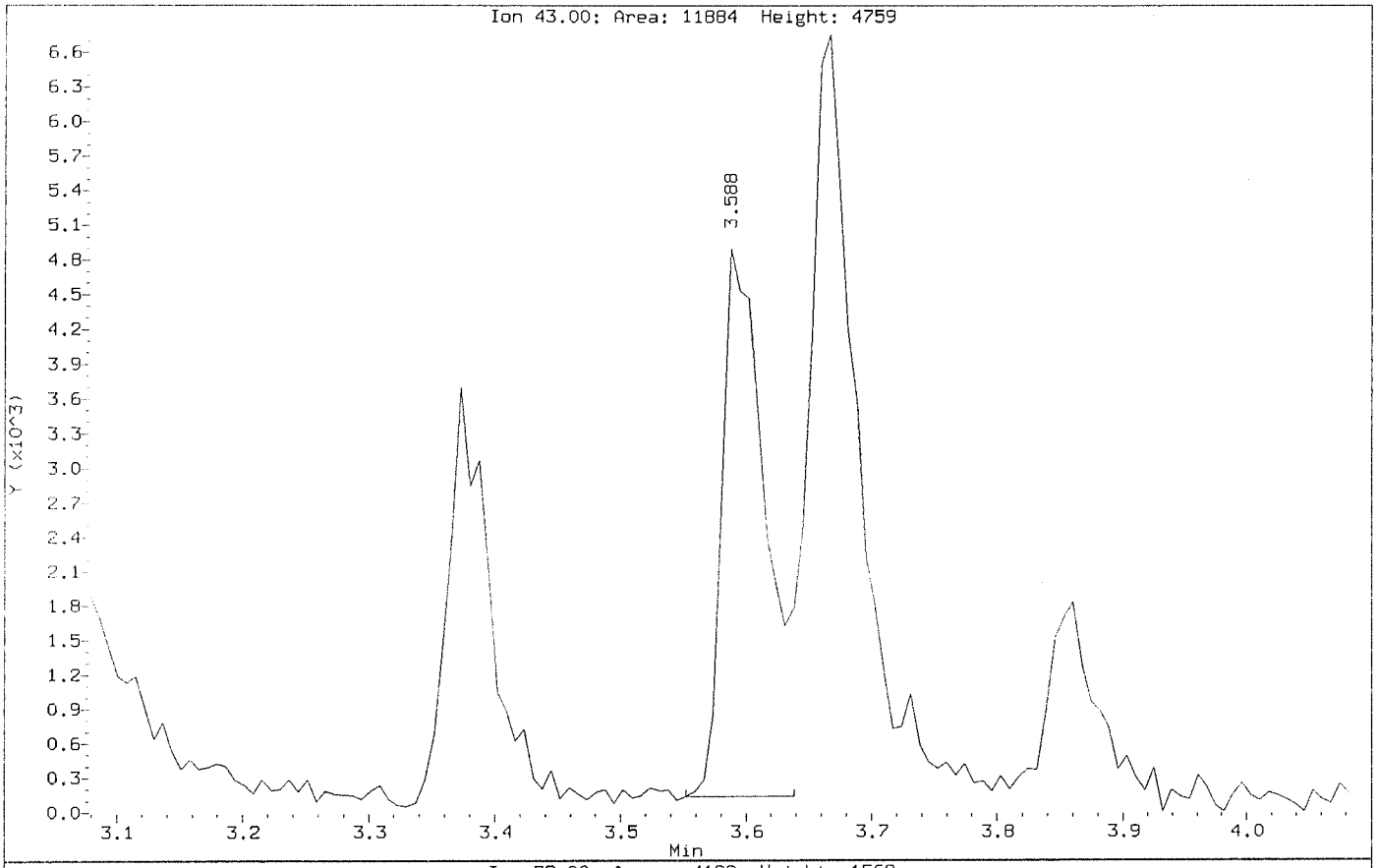
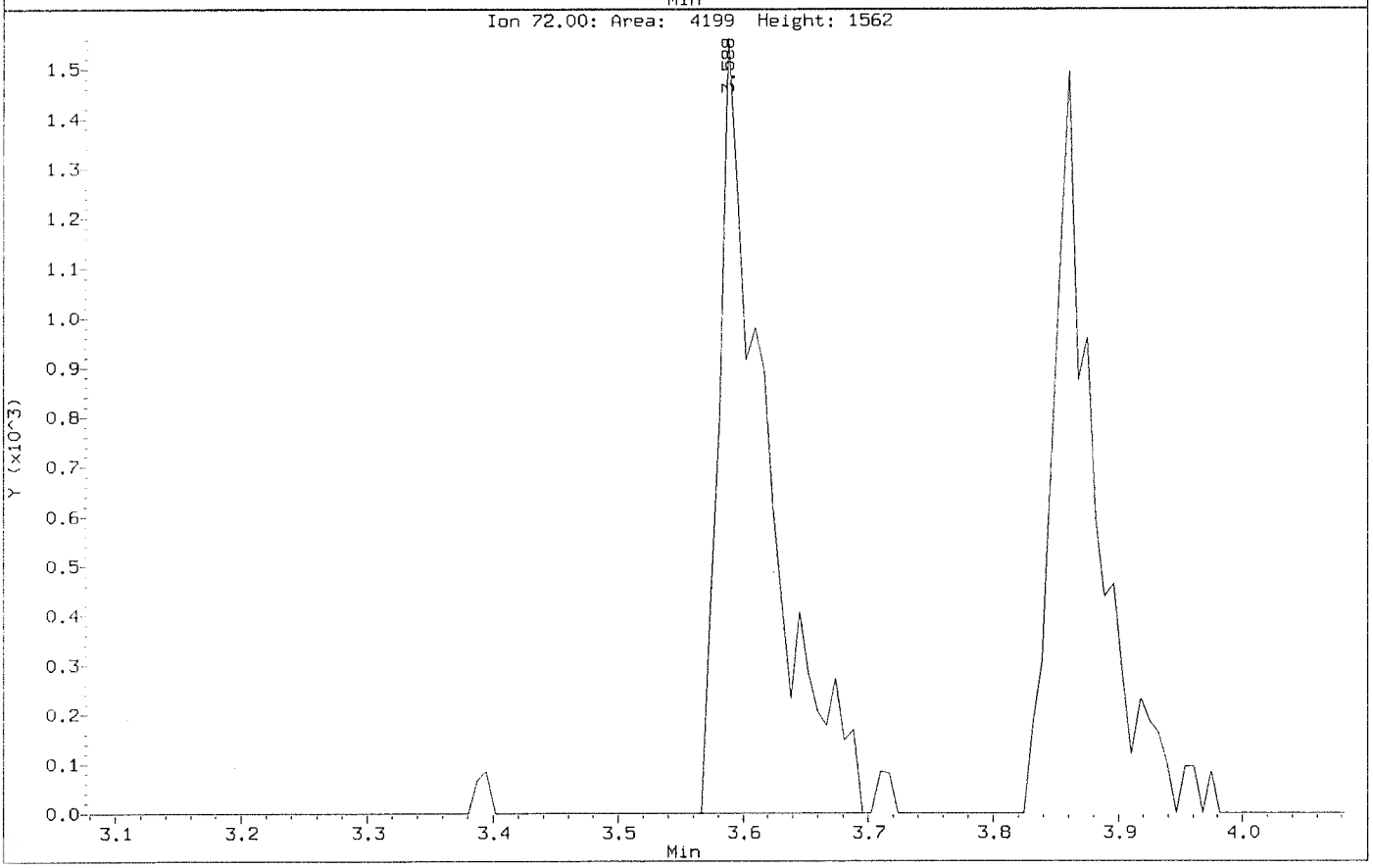
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 2-Butanone
CAS Number: 78-93-3





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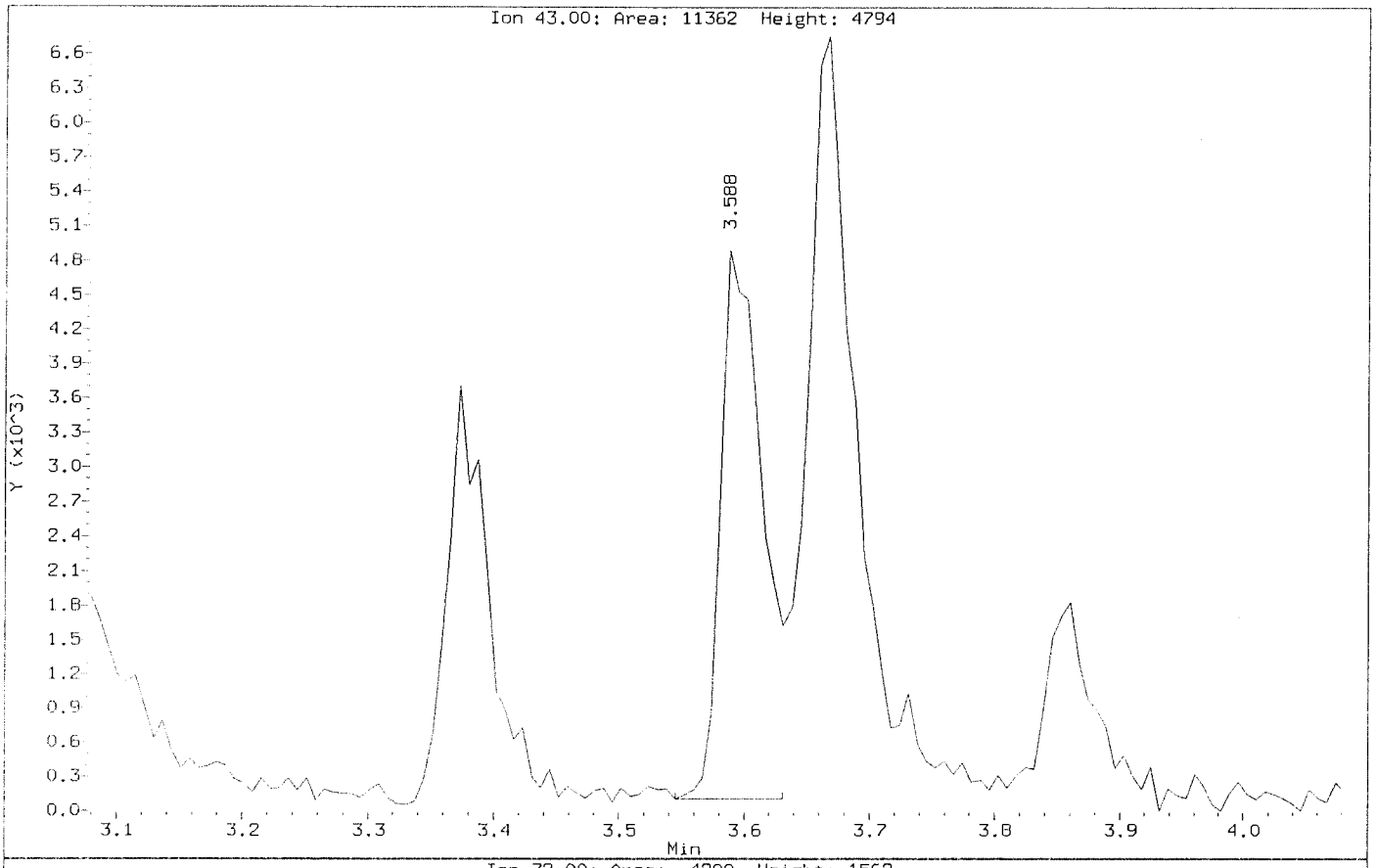
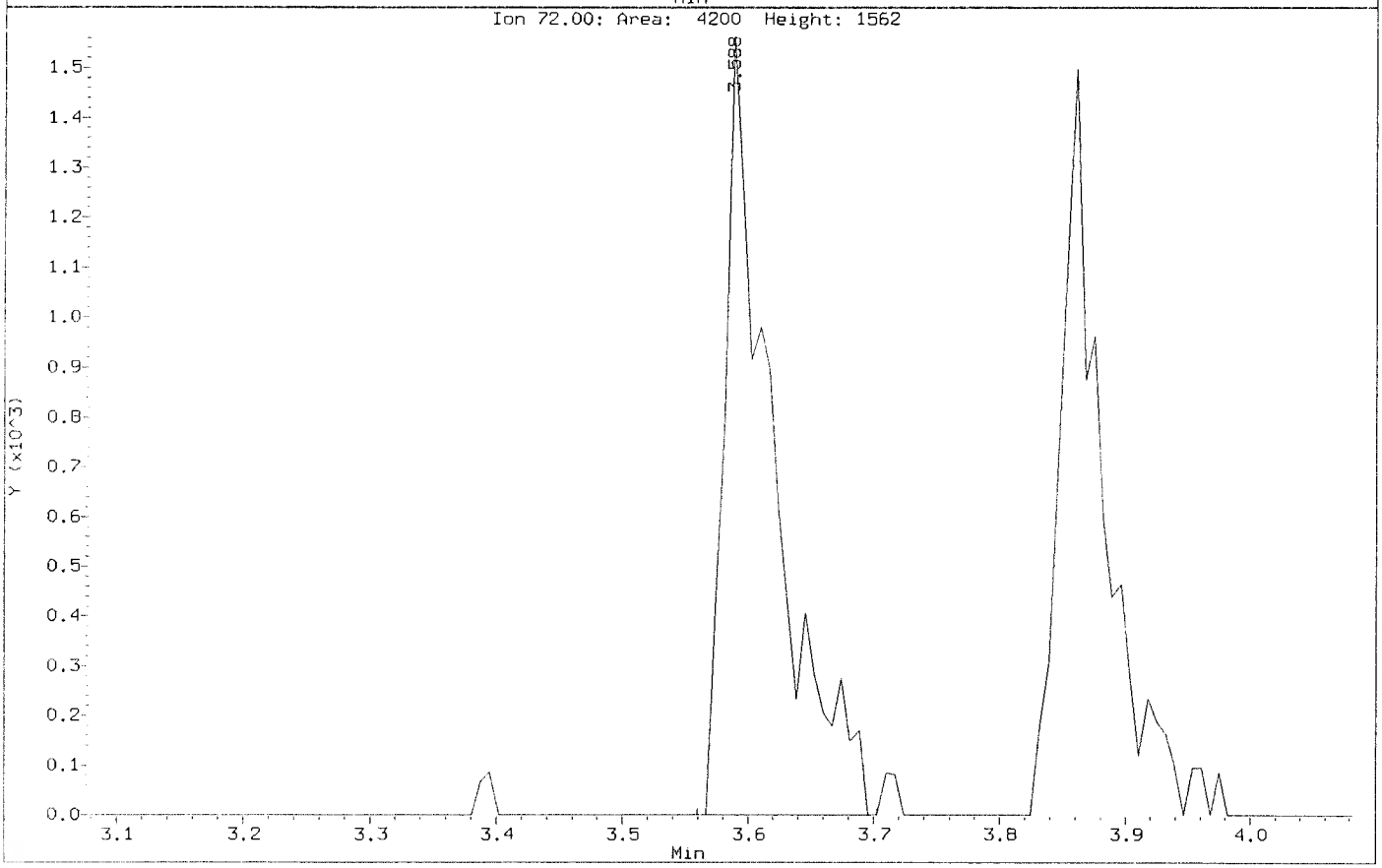
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: 2-Butanone
CAS Number: 78-93-3





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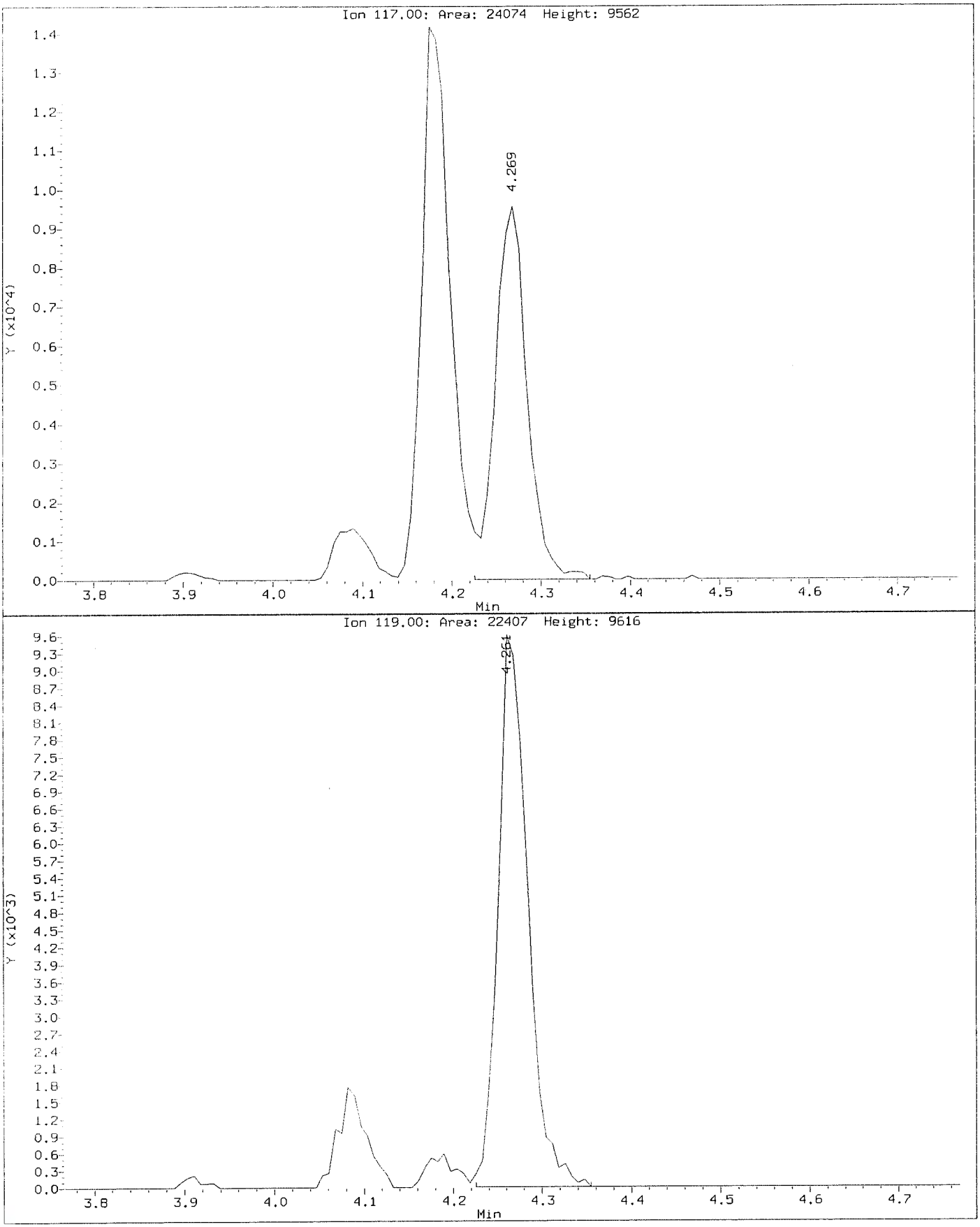
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Carbon Tetrachloride
CAS Number: 56-23-5



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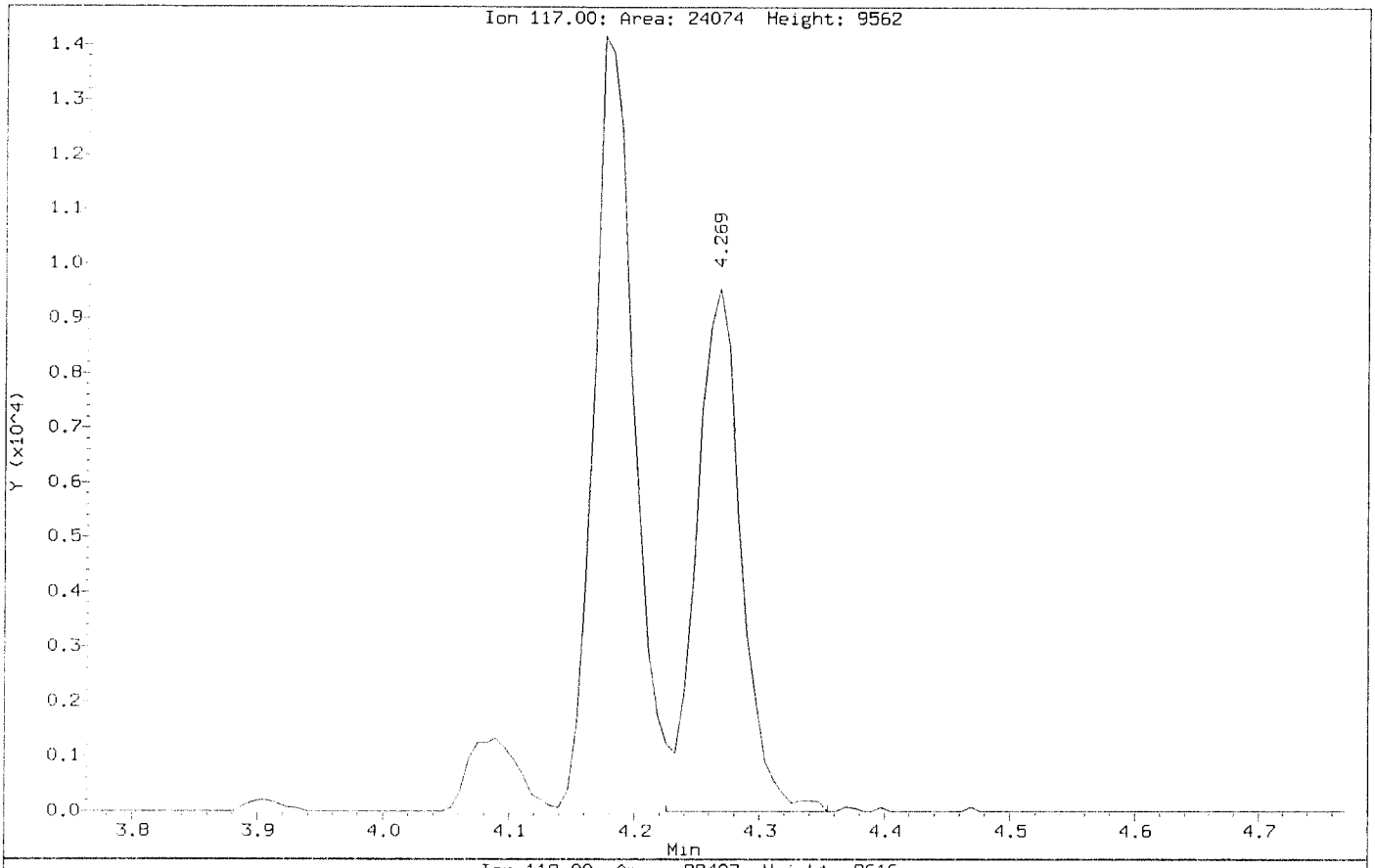
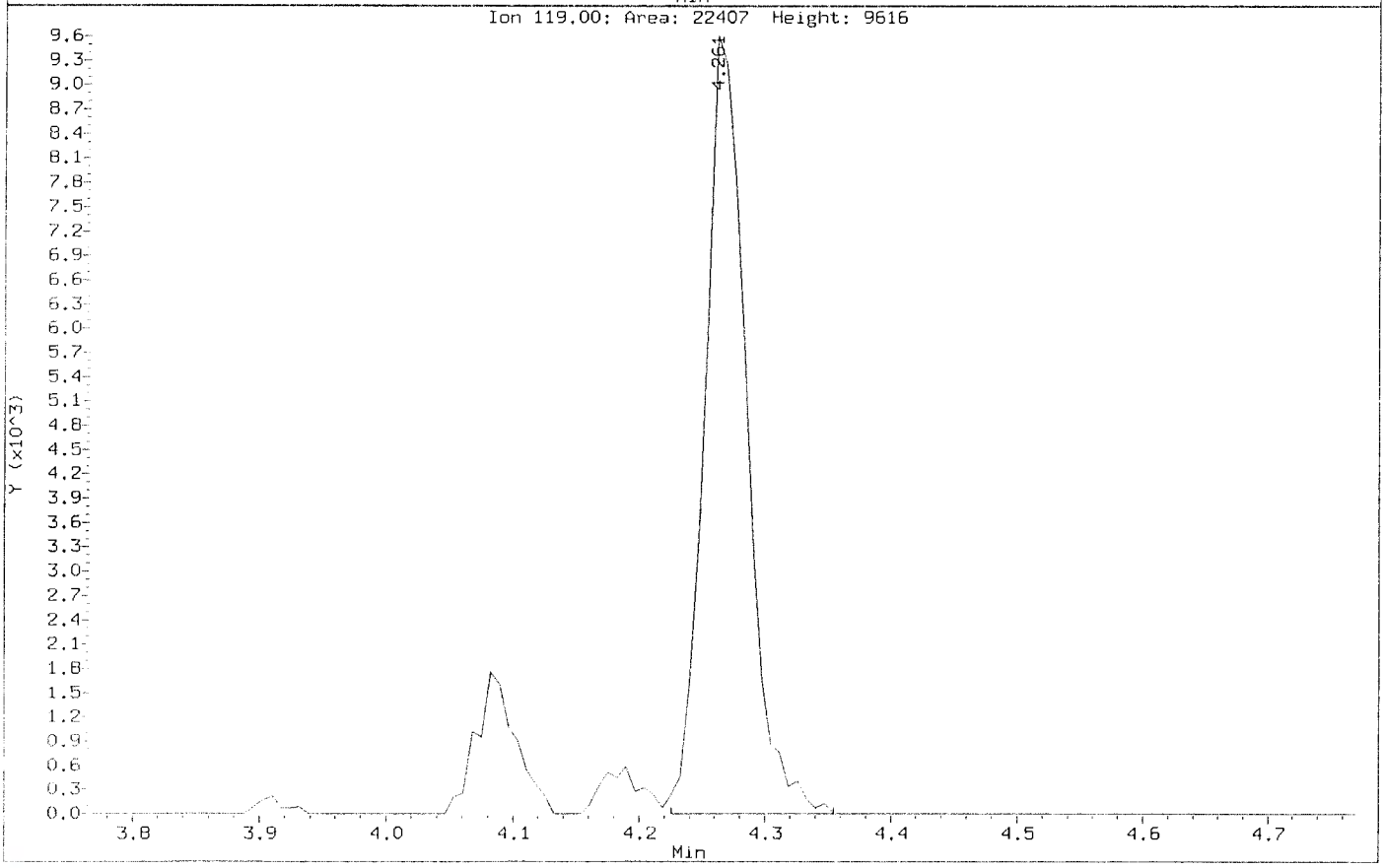
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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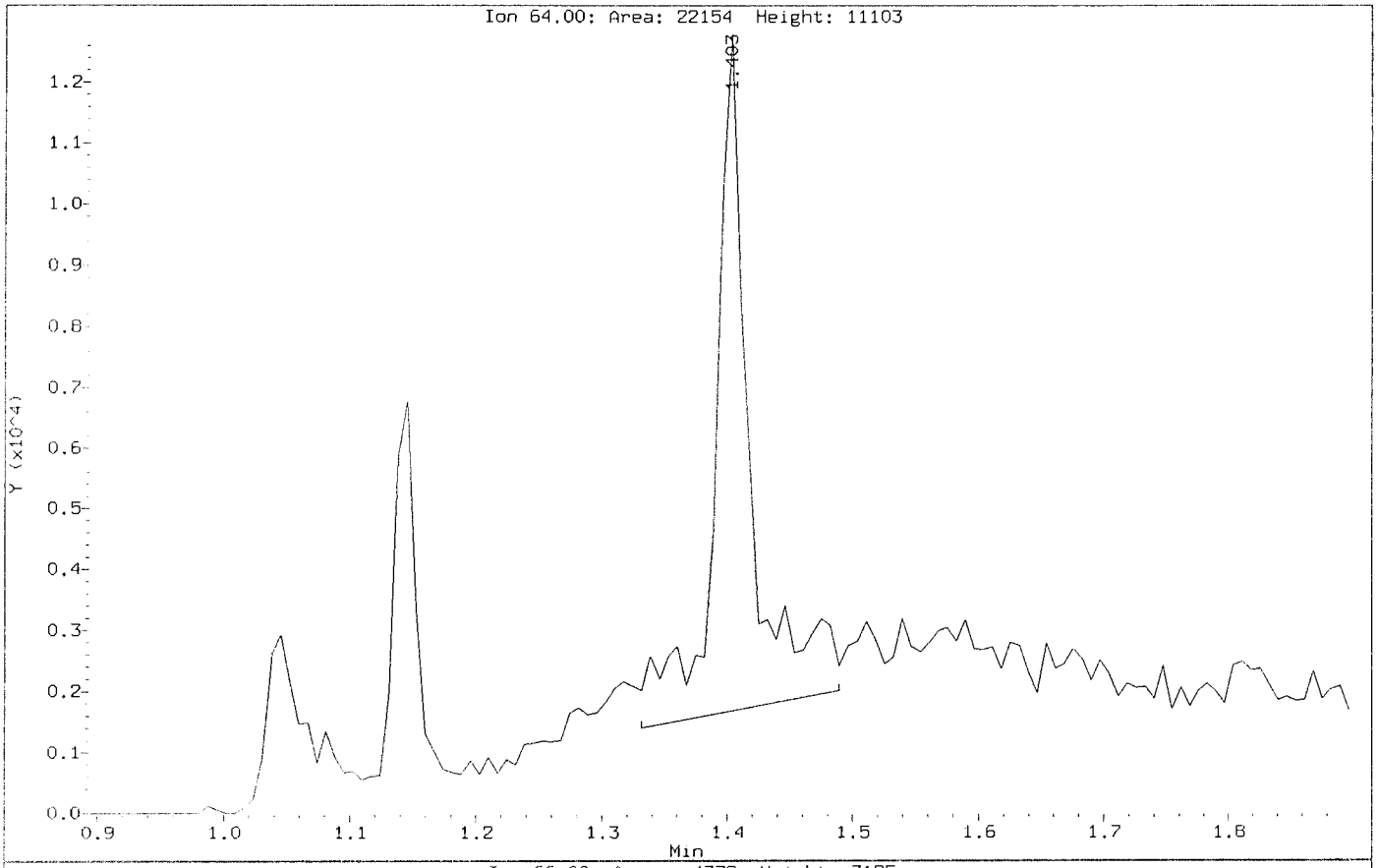
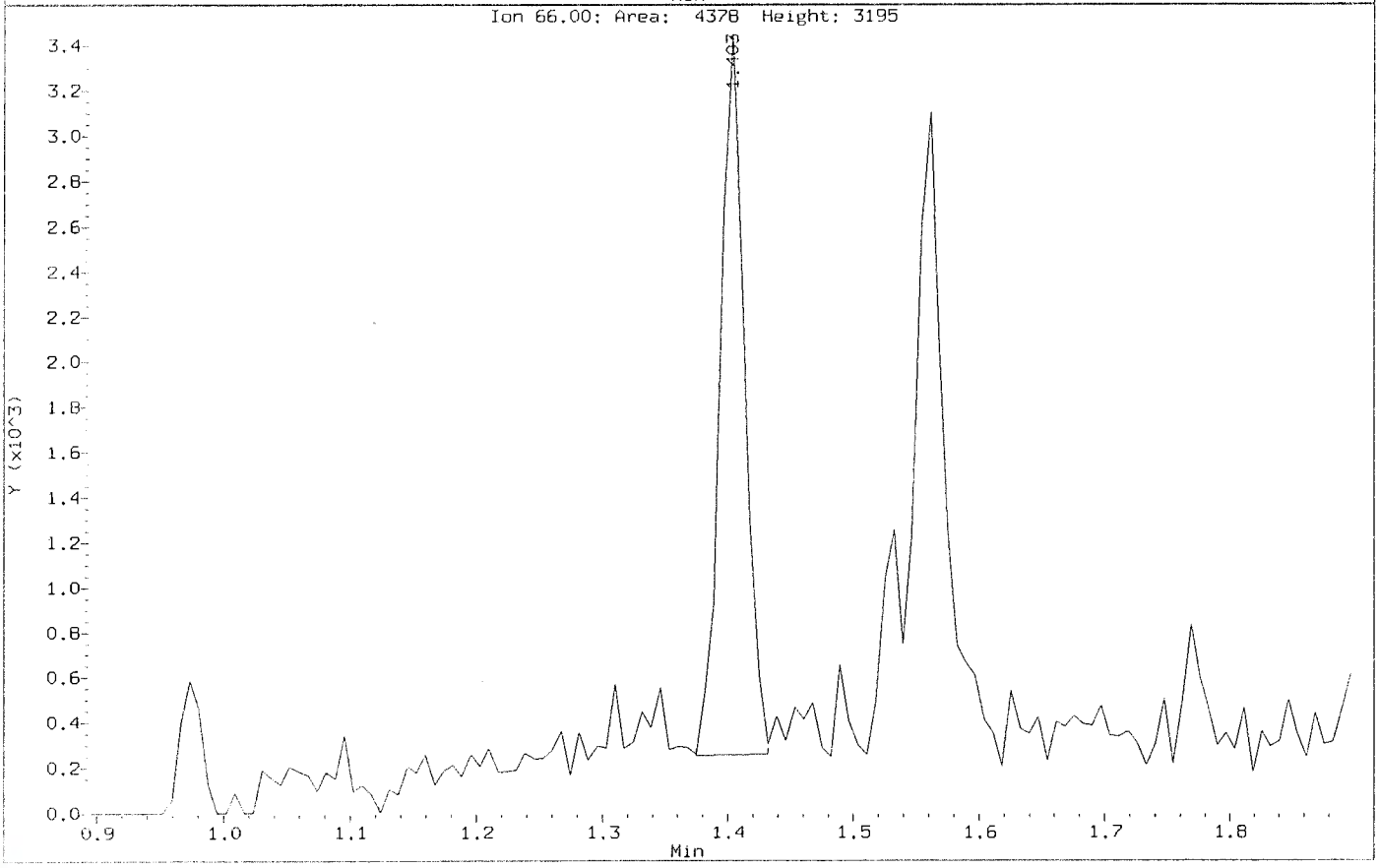
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Chloroethane
CAS Number: 75-00-3





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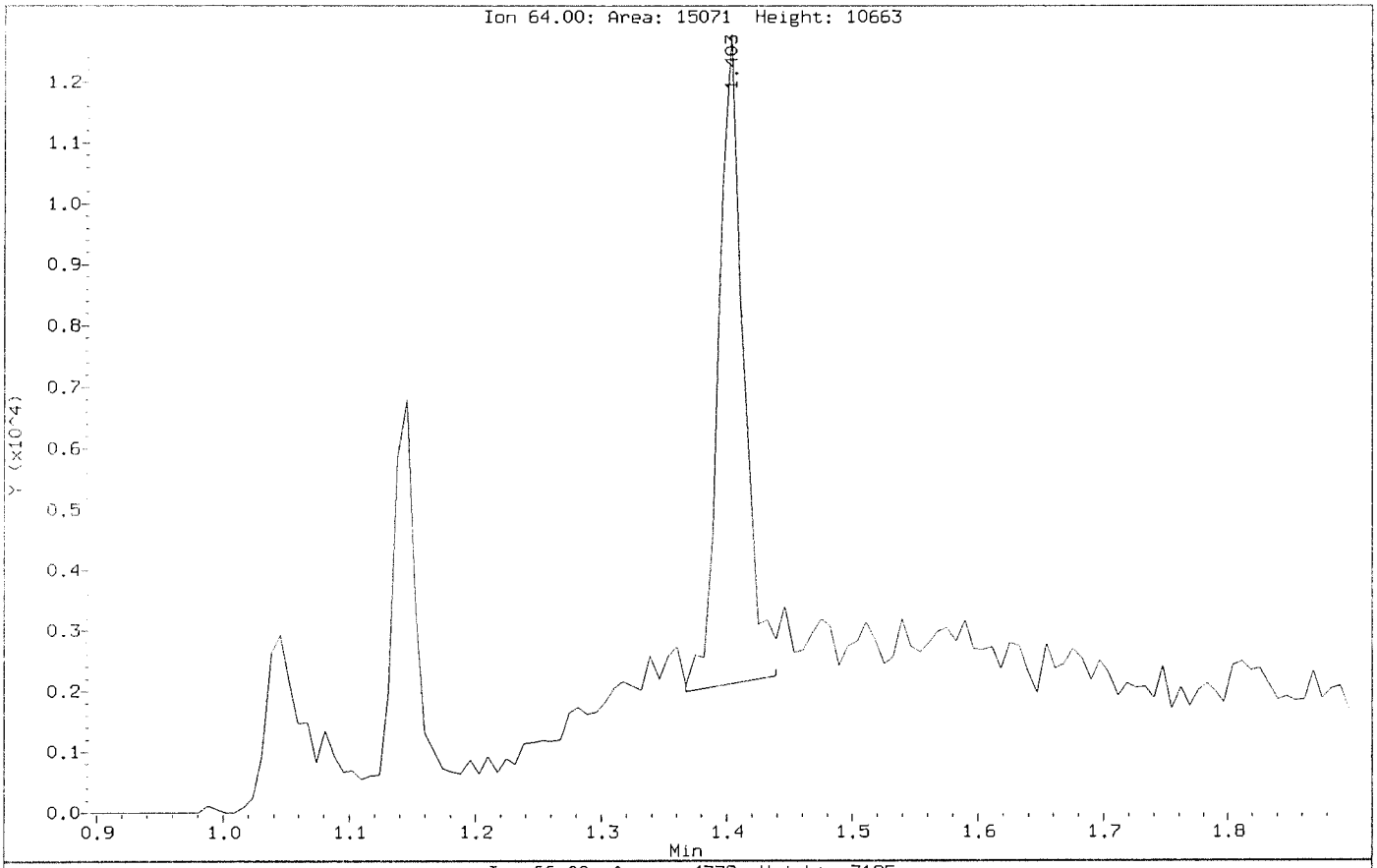
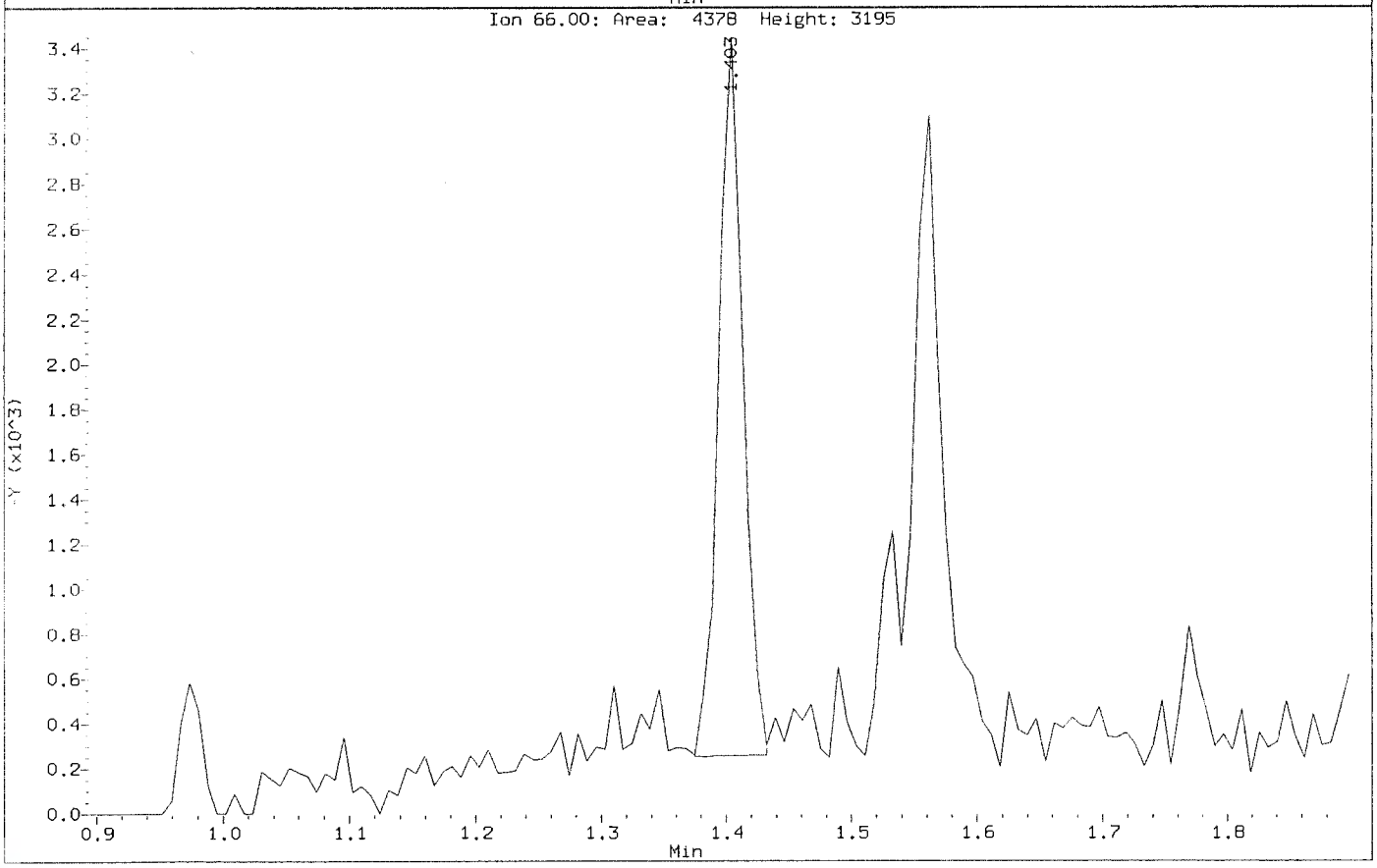
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

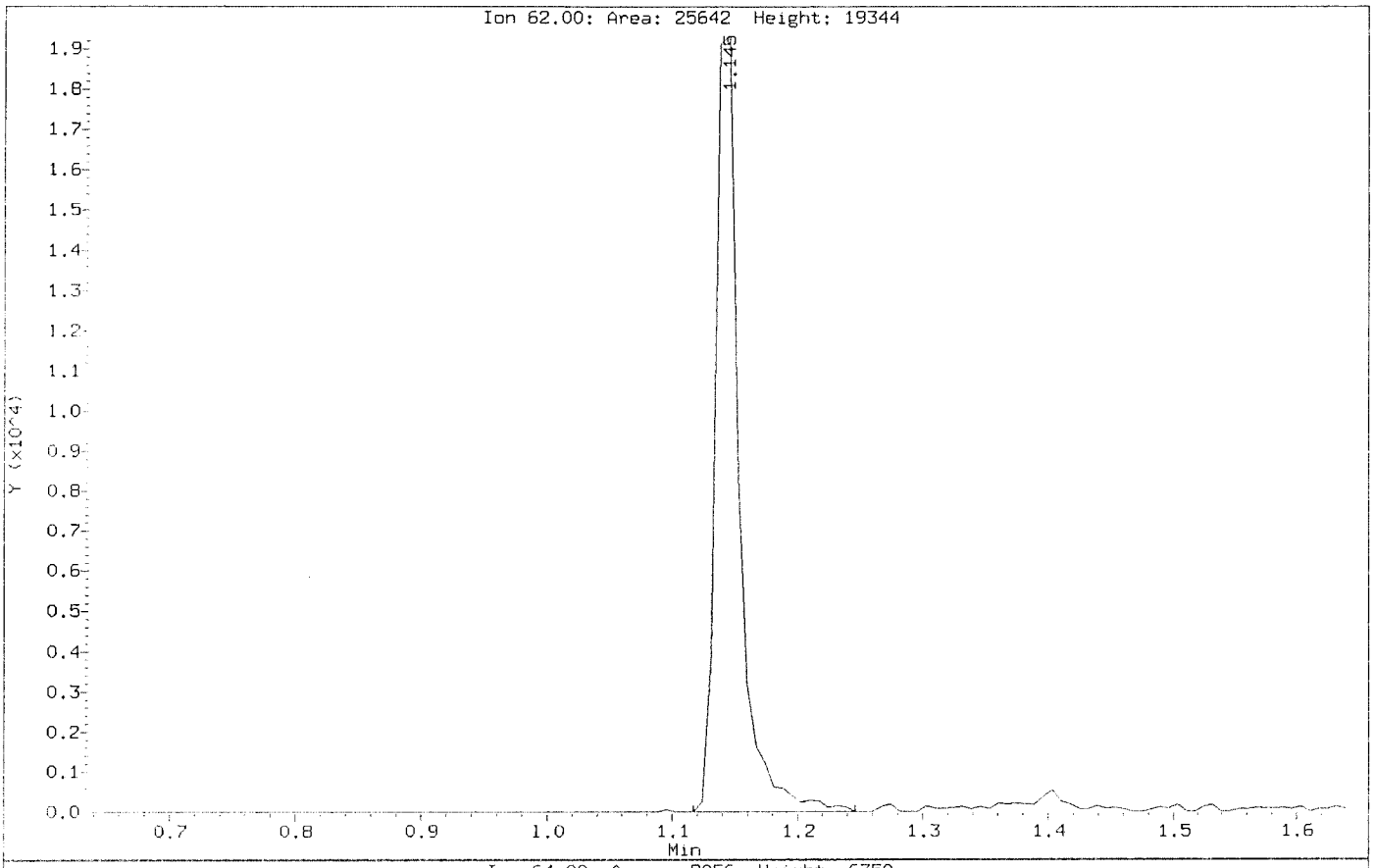
Compound: Chloroethane
CAS Number: 75-00-3

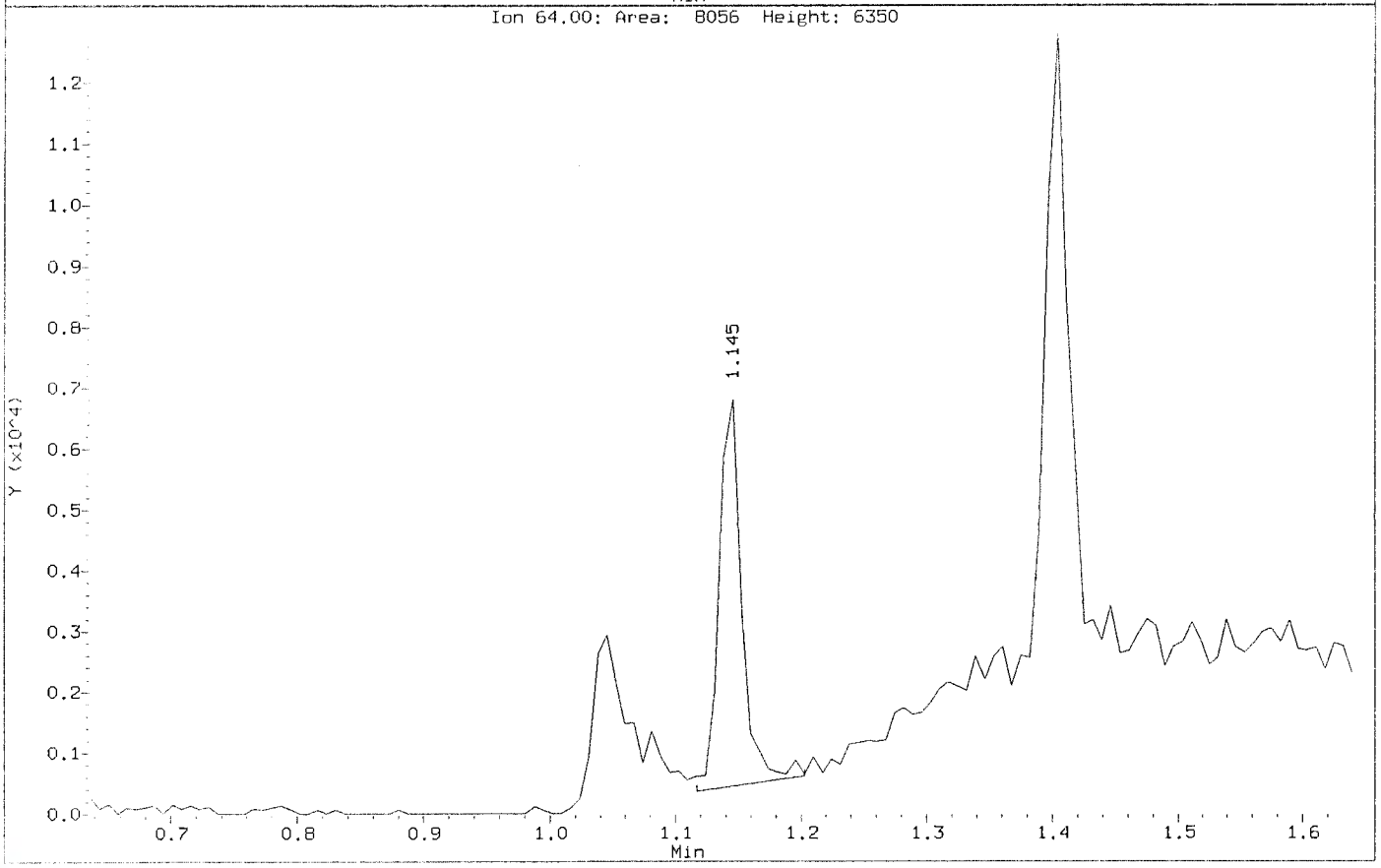




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052606.D
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Vinyl Chloride
CAS Number: 75-01-4





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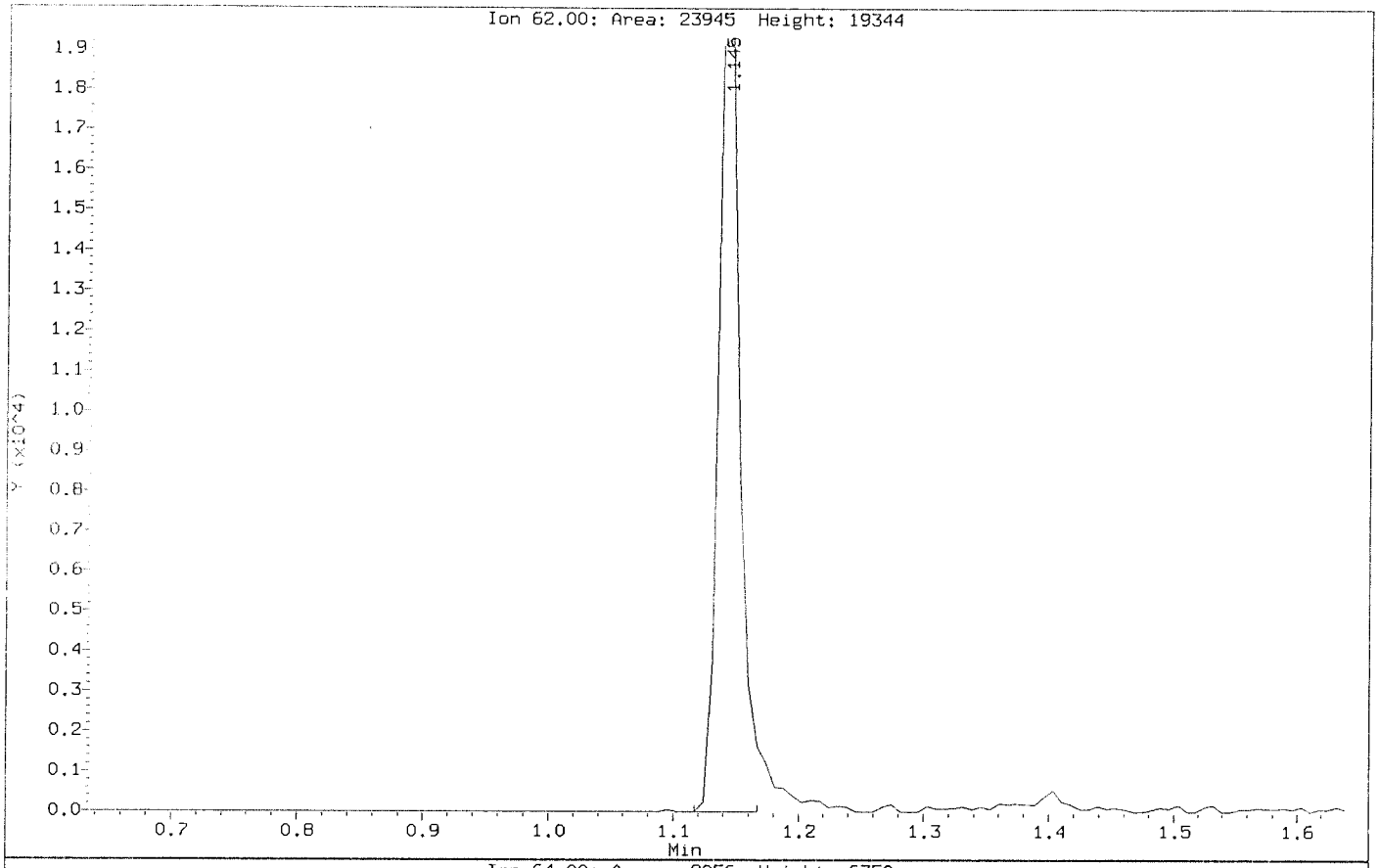
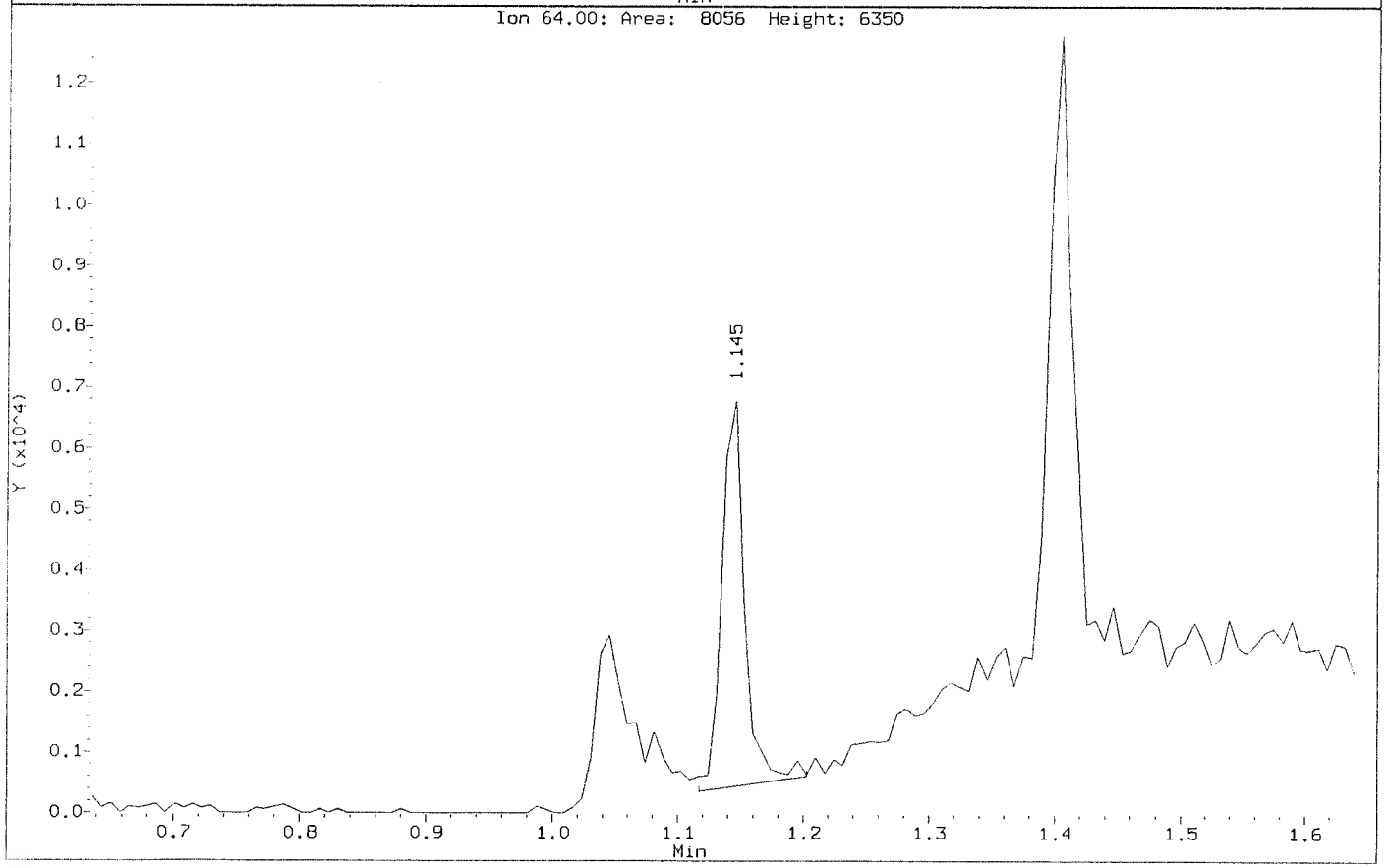
Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052607.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 26-MAY-2021 14:40
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 14:19 Cal File: X052606.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

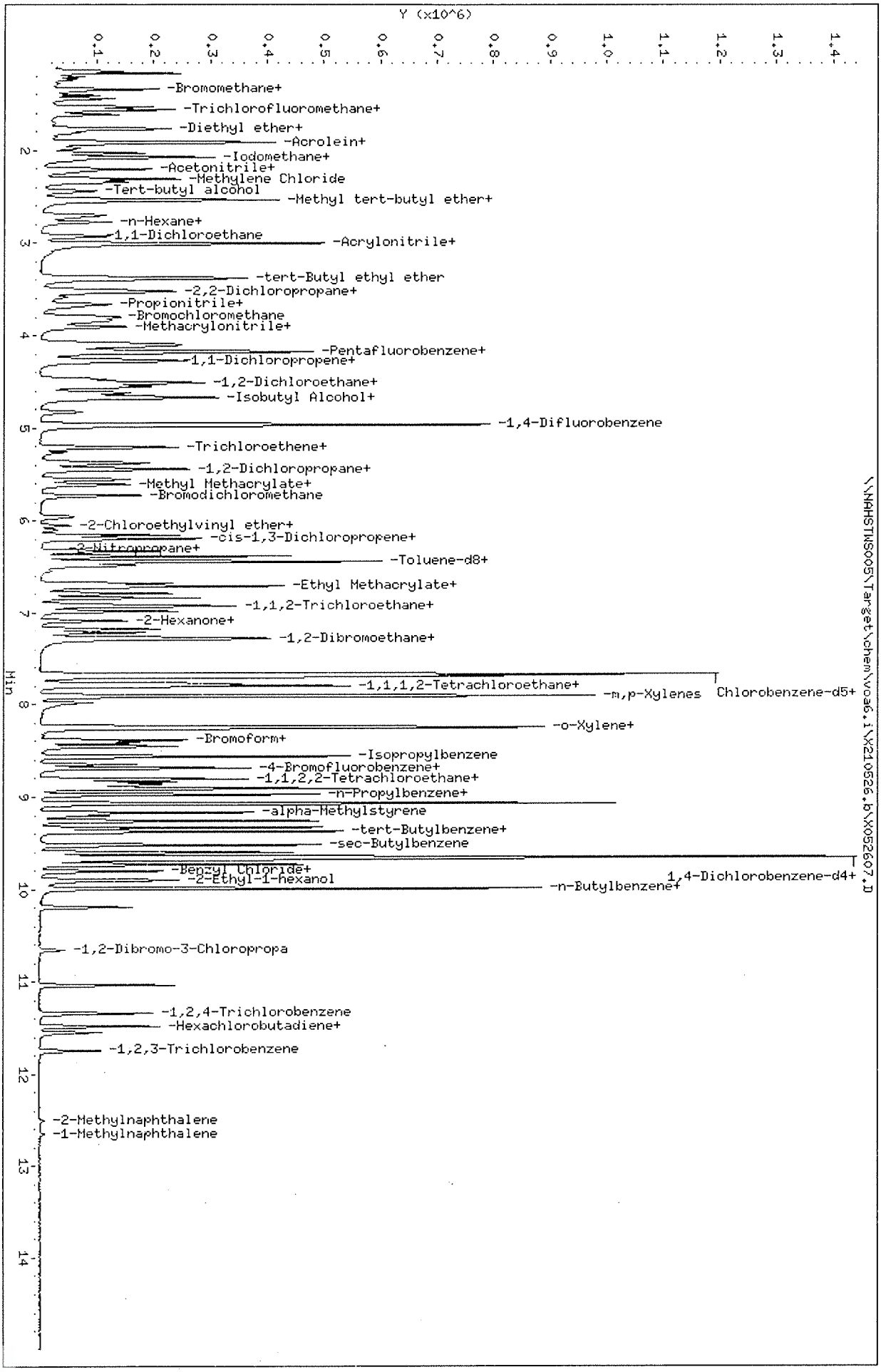
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	399349	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	620725	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	575687	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297335	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	83421	20.0000	21.12
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	79438	20.0000	20.41
$	48 Toluene-d8	98	6.388	6.388	(0.833)	267583	20.0000	18.65
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	97463	20.0000	19.73
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	81457	20.0000	19.13
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	111104	20.0000	18.82
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	94744	20.0000	22.42
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	60385	20.0000	19.36
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	135905	20.0000	19.94
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	78545	20.0000	19.09
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	91604	20.0000	19.26
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	34932	20.0000	19.40
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	75324	20.0000	20.31(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	59165	20.0000	20.12
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	258314	20.0000	19.04
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	9854	20.0000	21.18
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	81626	20.0000	19.25
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	154085	20.0000	19.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	97430	20.0000	19.69
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	70678	20.0000	19.34
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	254418	20.0000	18.85
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	159109	20.0000	18.97
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	121266	20.0000	19.55
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	165351	20.0000	18.89
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	104699	20.0000	19.16
24	2-Butanone	43	3.580	3.580	(0.856)	47300	40.0000	38.92(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	216732	20.0000	19.47
52	2-Hexanone	43	7.090	7.090	(0.924)	83319	40.0000	38.96
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	249789	20.0000	18.84
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	254273	20.0000	18.49
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	124052	40.0000	37.41
10	Acetone	43	1.976	1.976	(0.473)	45478	40.0000	41.28
37	Benzene	78	4.512	4.512	(0.909)	277041	20.0000	19.42
74	Bromobenzene	156	8.802	8.802	(0.911)	97493	20.0000	19.76
29	Bromochloromethane	128	3.795	3.795	(0.908)	48508	20.0000	20.08
39	Bromodichloromethane	83	5.729	5.729	(1.154)	104002	20.0000	19.48
66	Bromoform	173	8.408	8.408	(1.096)	59434	20.0000	18.51
6	Bromomethane	94	1.338	1.338	(0.320)	81986	20.0000	19.96
19	Carbon Disulfide	76	2.069	2.069	(0.495)	372089	40.0000	38.14
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	95975	20.0000	18.65(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	222059	20.0000	18.52
7	Chloroethane	64	1.403	1.403	(0.336)	58283	20.0000	19.98
28	Chloroform	83	3.910	3.910	(0.935)	135997	20.0000	19.36
3	Chloromethane	50	1.073	1.073	(0.257)	83965	20.0000	21.80
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	85550	20.0000	20.43
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	127546	20.0000	20.28
55	Dibromochloromethane	129	7.176	7.176	(0.936)	91711	20.0000	19.35
44	Dibromomethane	93	5.550	5.550	(1.118)	56237	20.0000	20.48
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	78750	20.0000	21.34
61	Ethylbenzene	106	7.799	7.799	(1.017)	107937	20.0000	19.52
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	34297	20.0000	19.77
67	Isopropylbenzene	105	8.559	8.559	(1.116)	310873	20.0000	18.40
62	m,p-Xylenes	106	7.907	7.907	(1.031)	270046	40.0000	37.46
17	Methylene Chloride	84	2.305	2.305	(0.551)	78742	20.0000	20.99
87	n-Butylbenzene	91	9.991	9.991	(1.034)	216151	20.0000	18.68
73	n-Propylbenzene	91	8.910	8.910	(0.922)	351677	20.0000	18.96
92	Naphthalene	128	11.546	11.546	(1.195)	87321	20.0000	20.55
63	o-Xylene	106	8.244	8.244	(1.075)	131590	20.0000	18.72
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	292609	20.0000	18.74
64	Styrene	104	8.258	8.258	(1.077)	219724	20.0000	18.70
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	220623	20.0000	19.06
56	Tetrachloroethene	164	6.926	6.926	(0.903)	64343	20.0000	18.15
50	Toluene	91	6.446	6.446	(0.840)	307300	20.0000	18.28
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	70656	20.0000	18.94
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	107611	20.0000	19.83
38	Trichloroethene	130	5.206	5.206	(1.049)	83800	20.0000	19.67
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	139135	20.0000	19.30
5	Vinyl Chloride	62	1.138	1.138	(0.272)	91766	20.0000	19.41

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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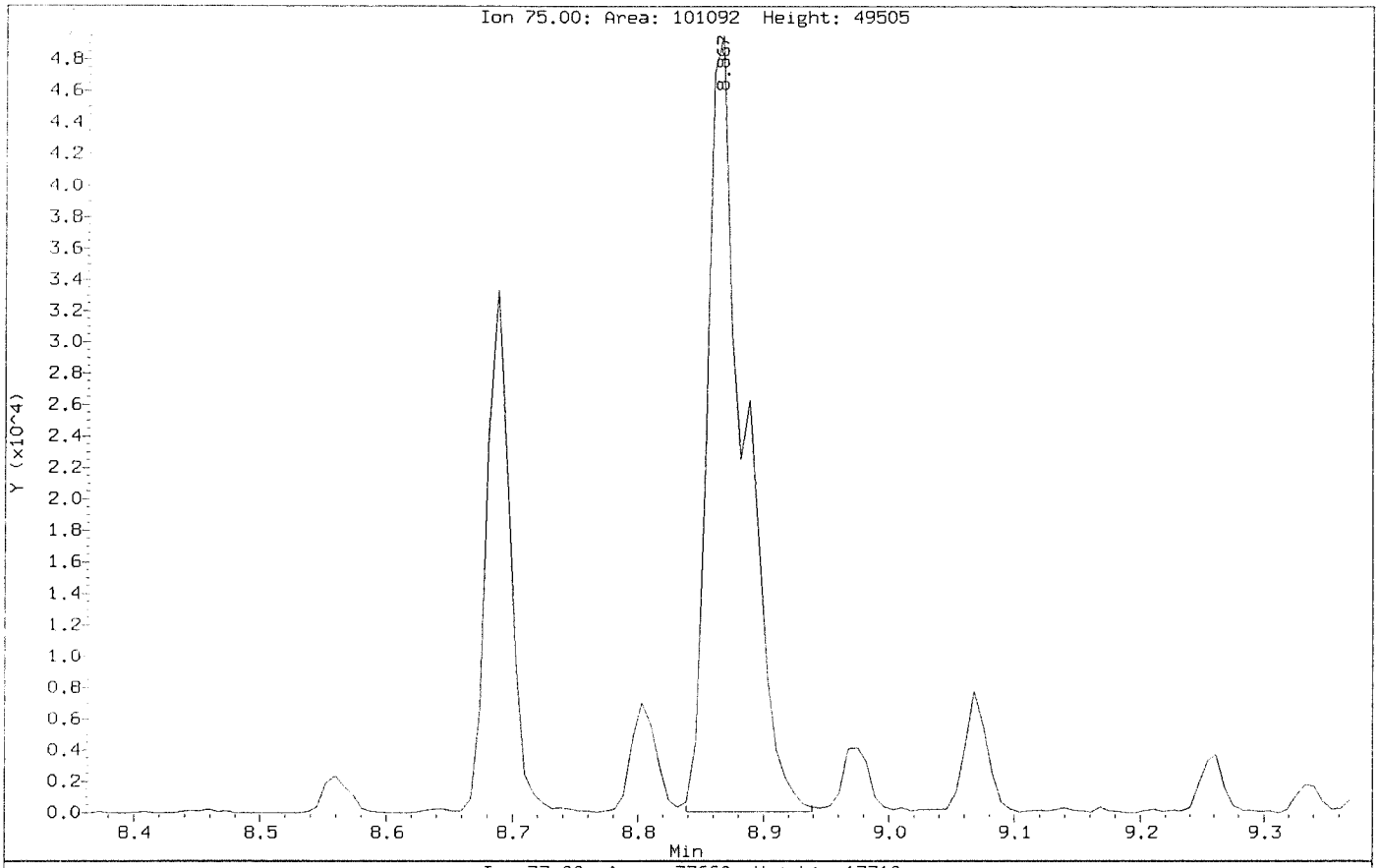
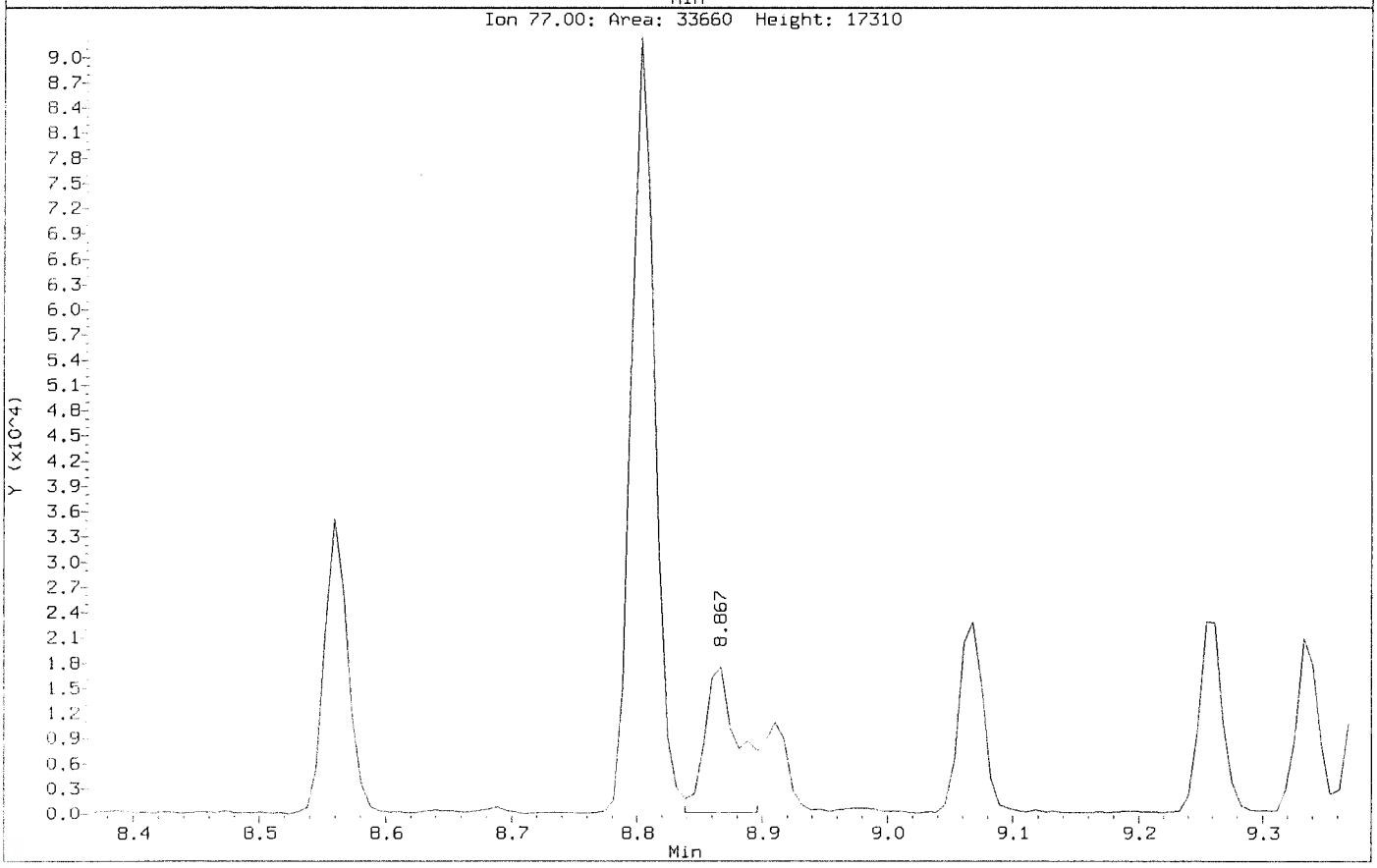
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052607.D
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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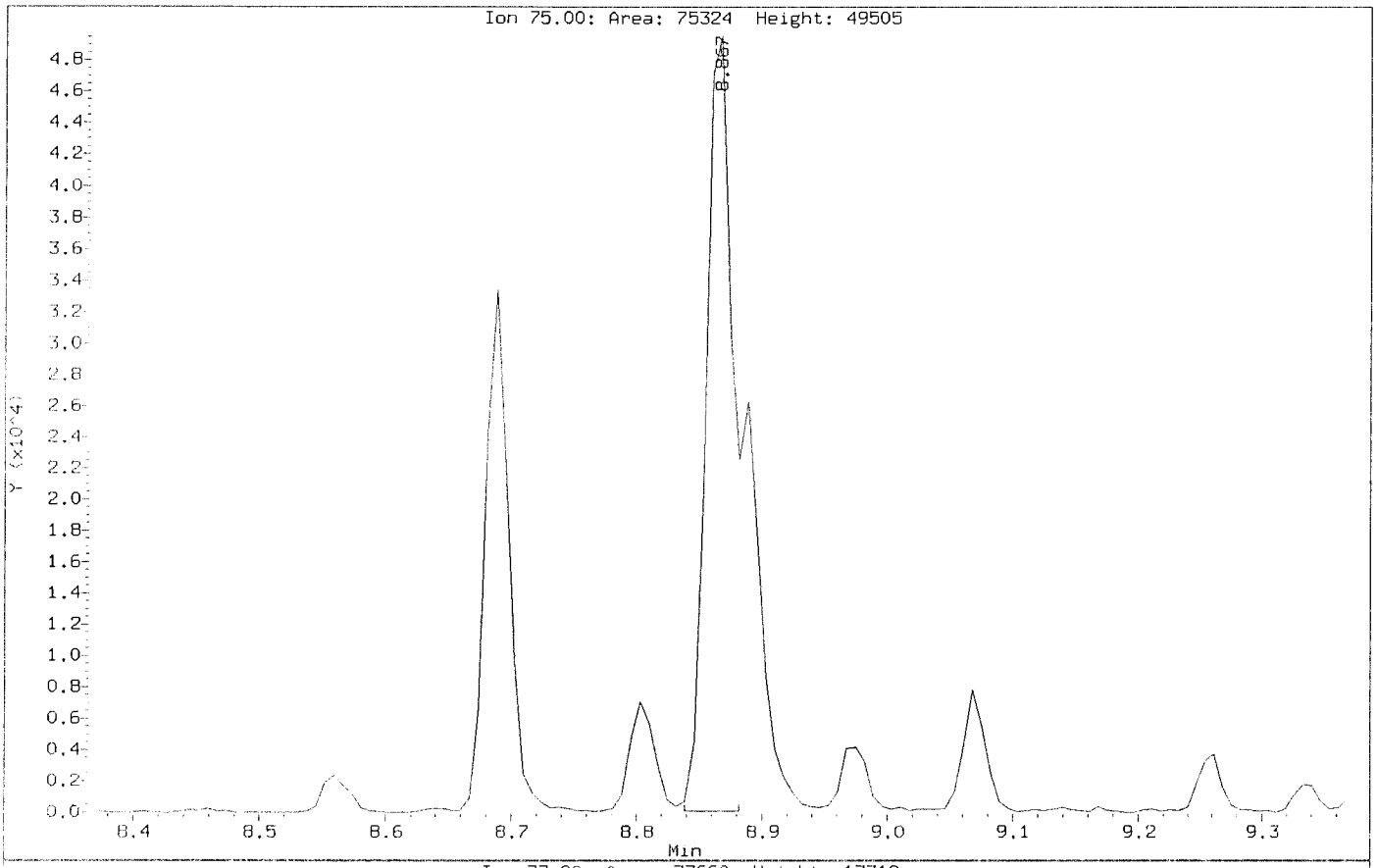
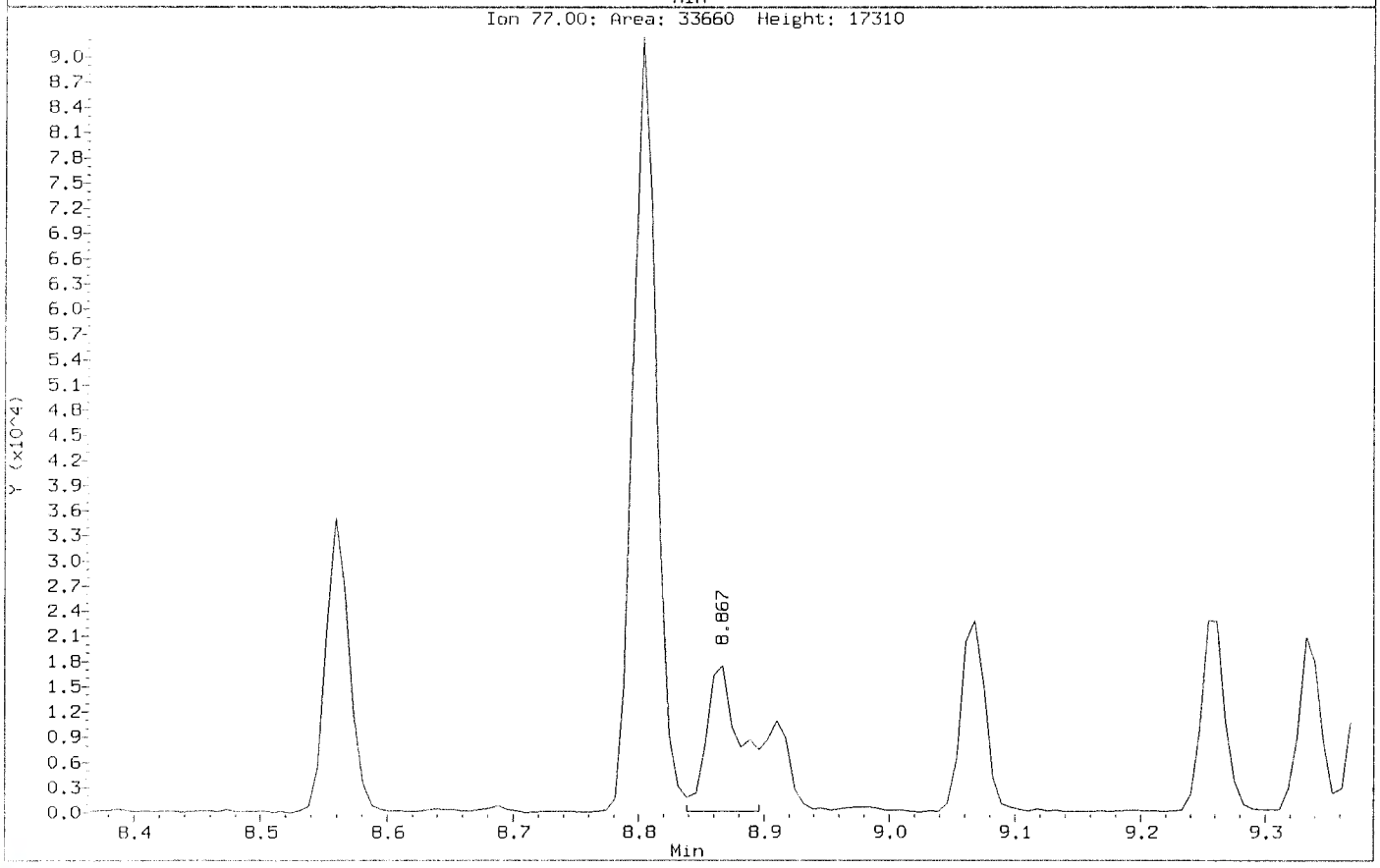
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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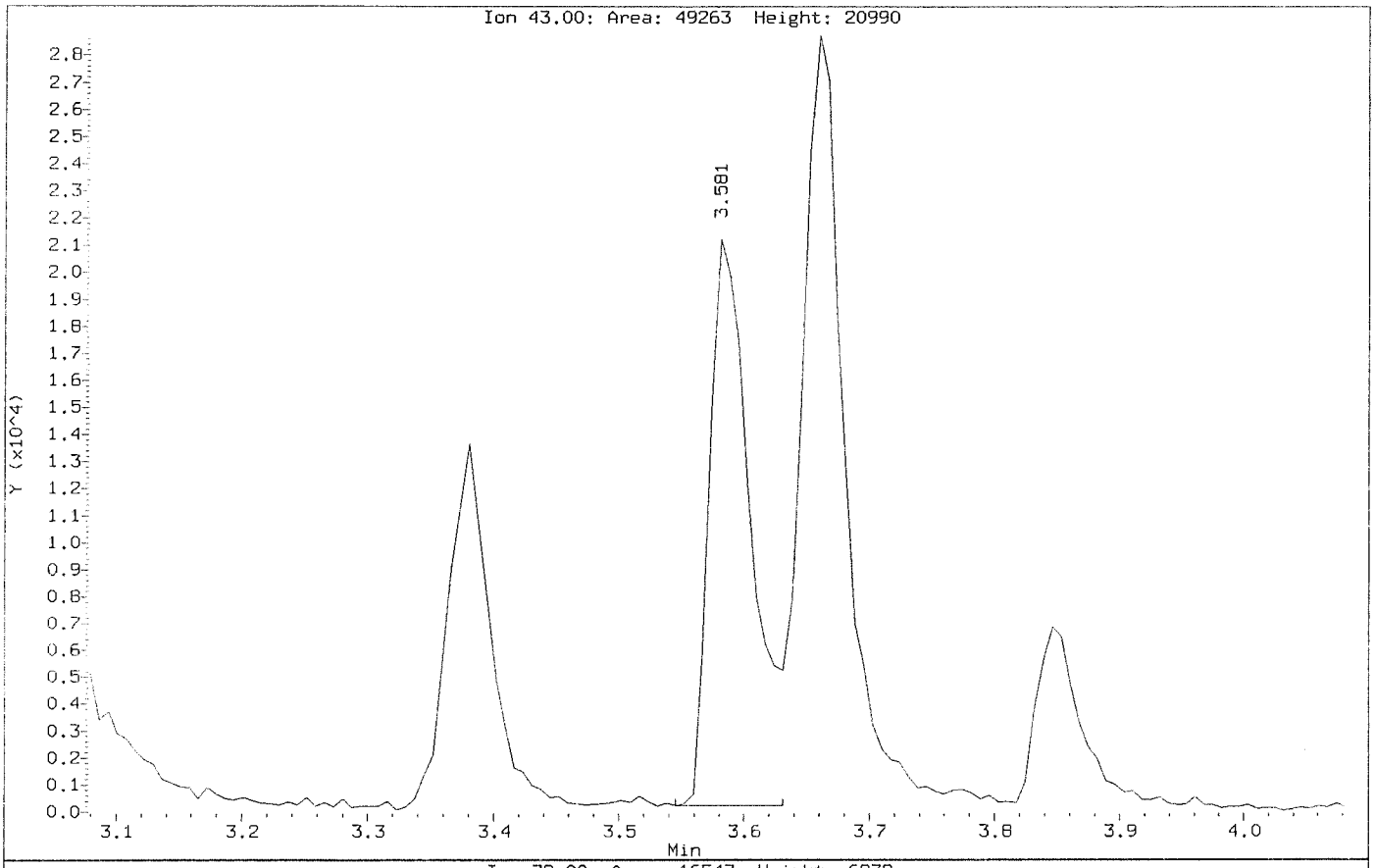
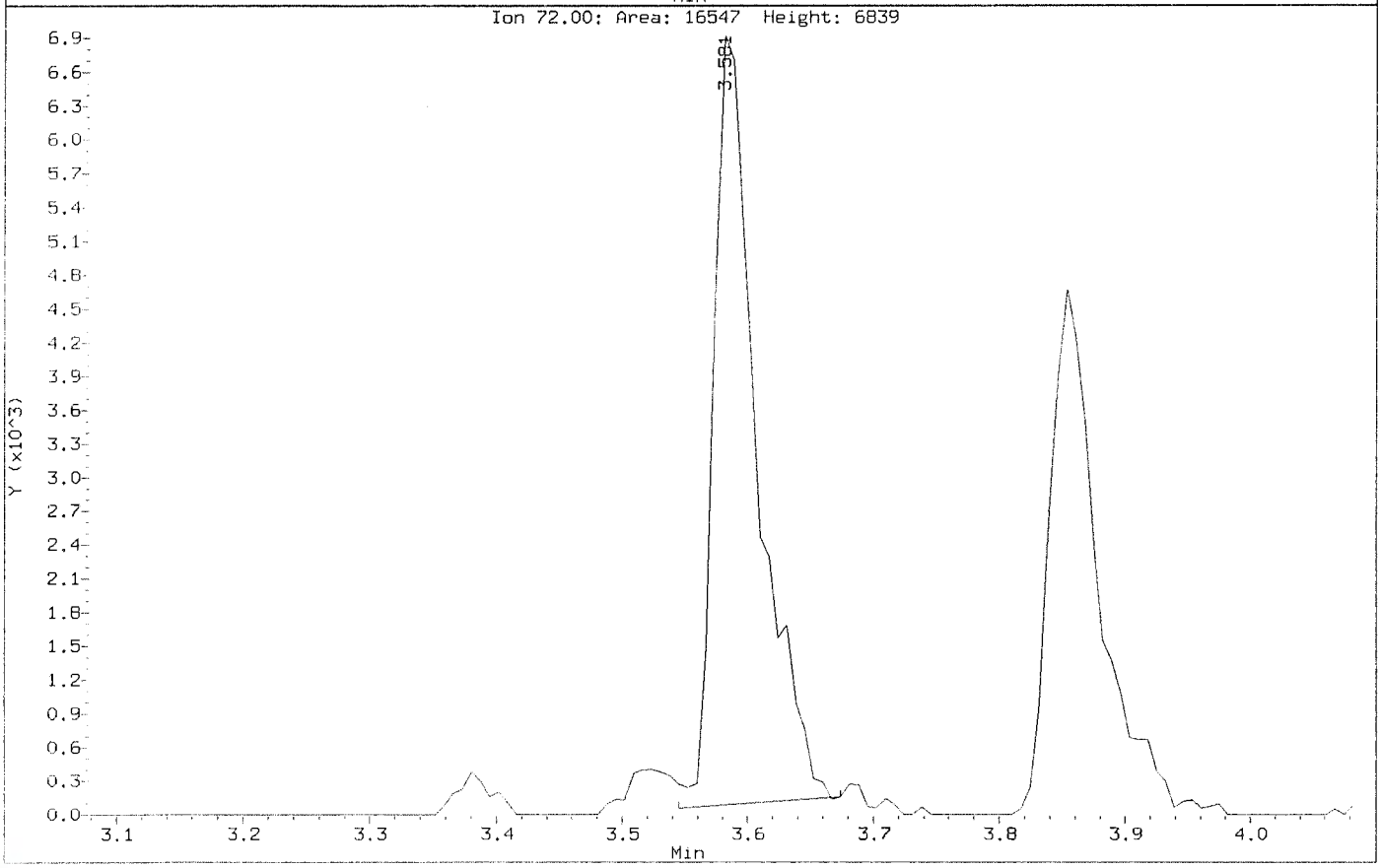
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: 2-Butanone
CAS Number: 78-93-3





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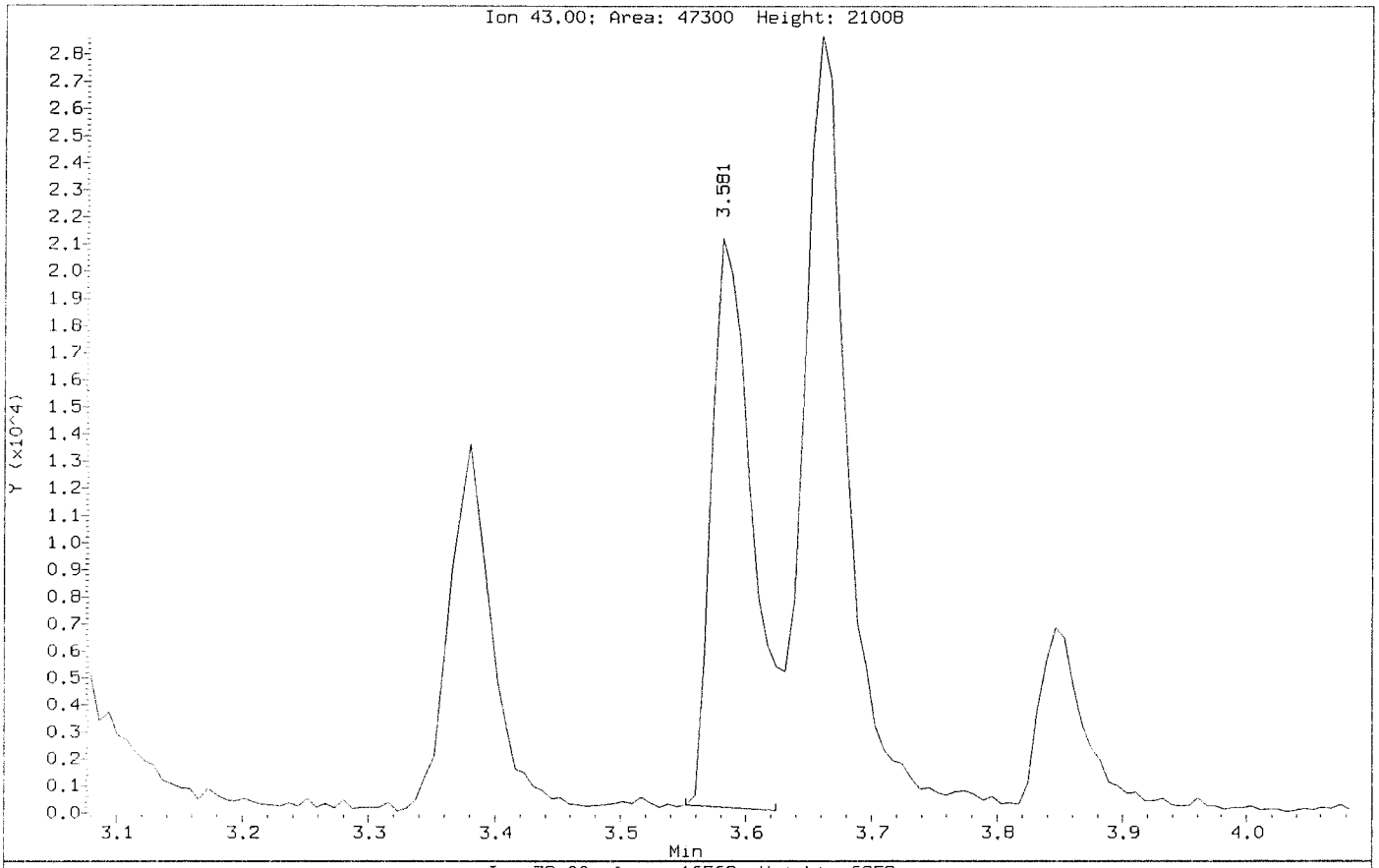
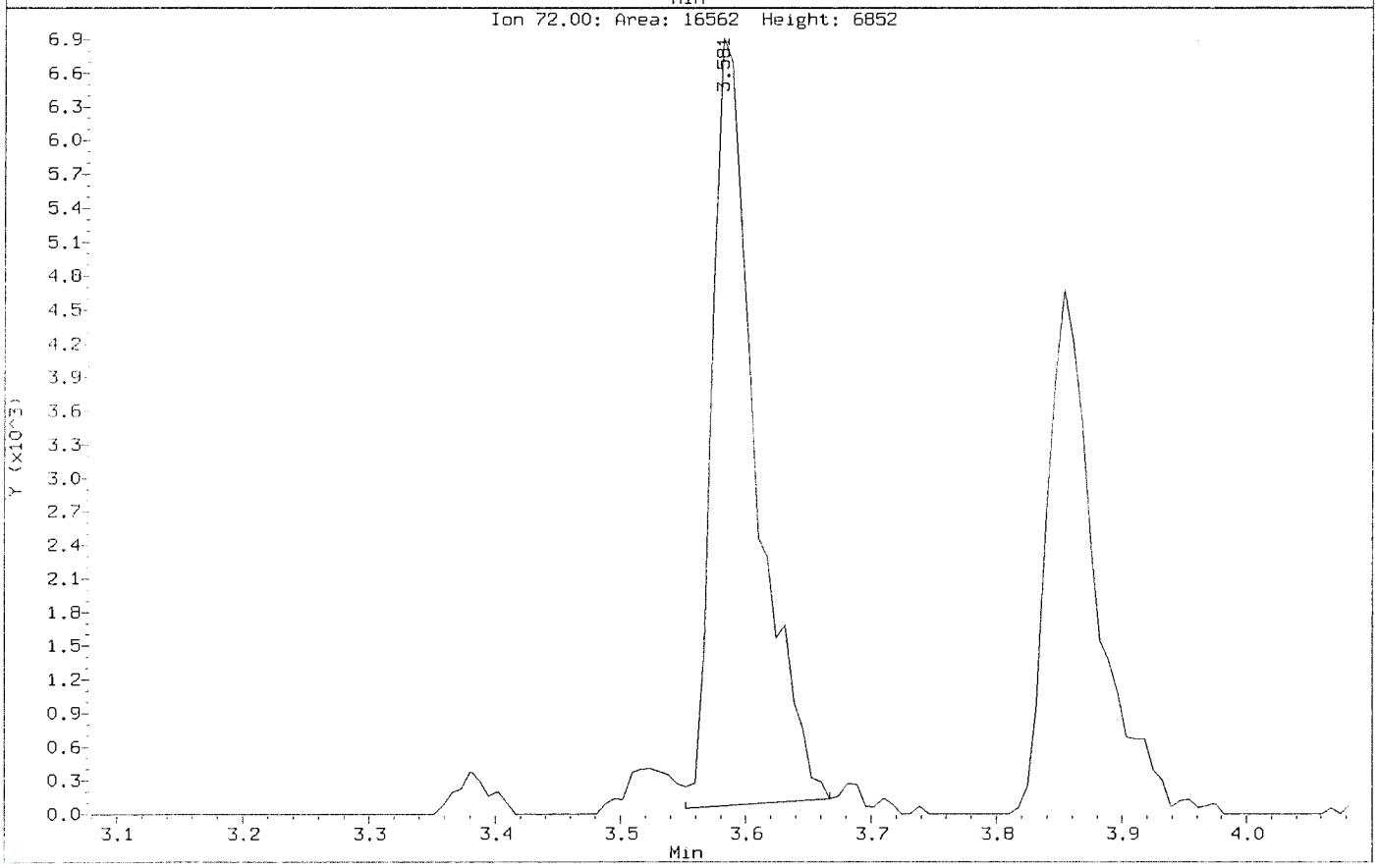
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: 2-Butanone
CAS Number: 78-93-3





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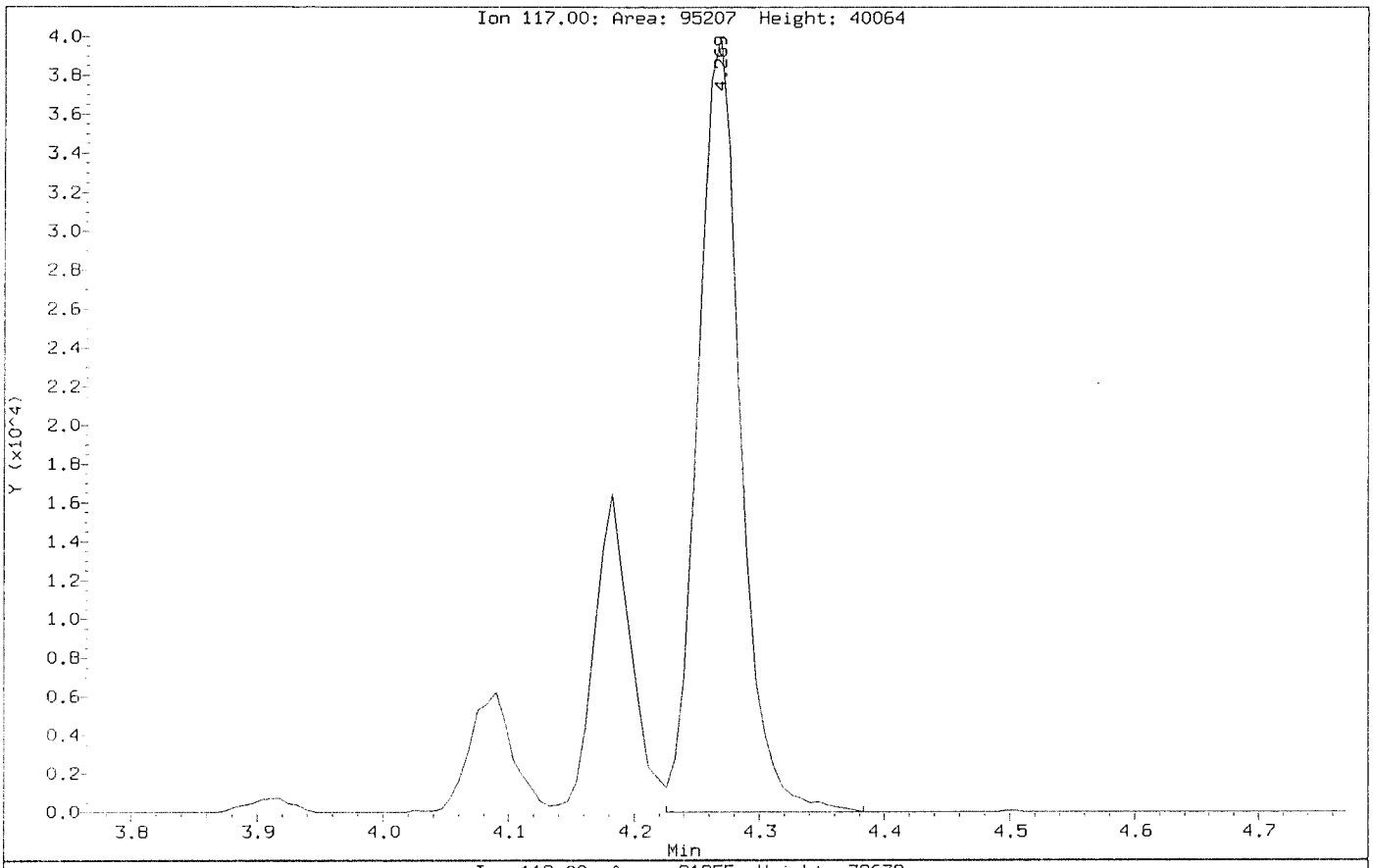
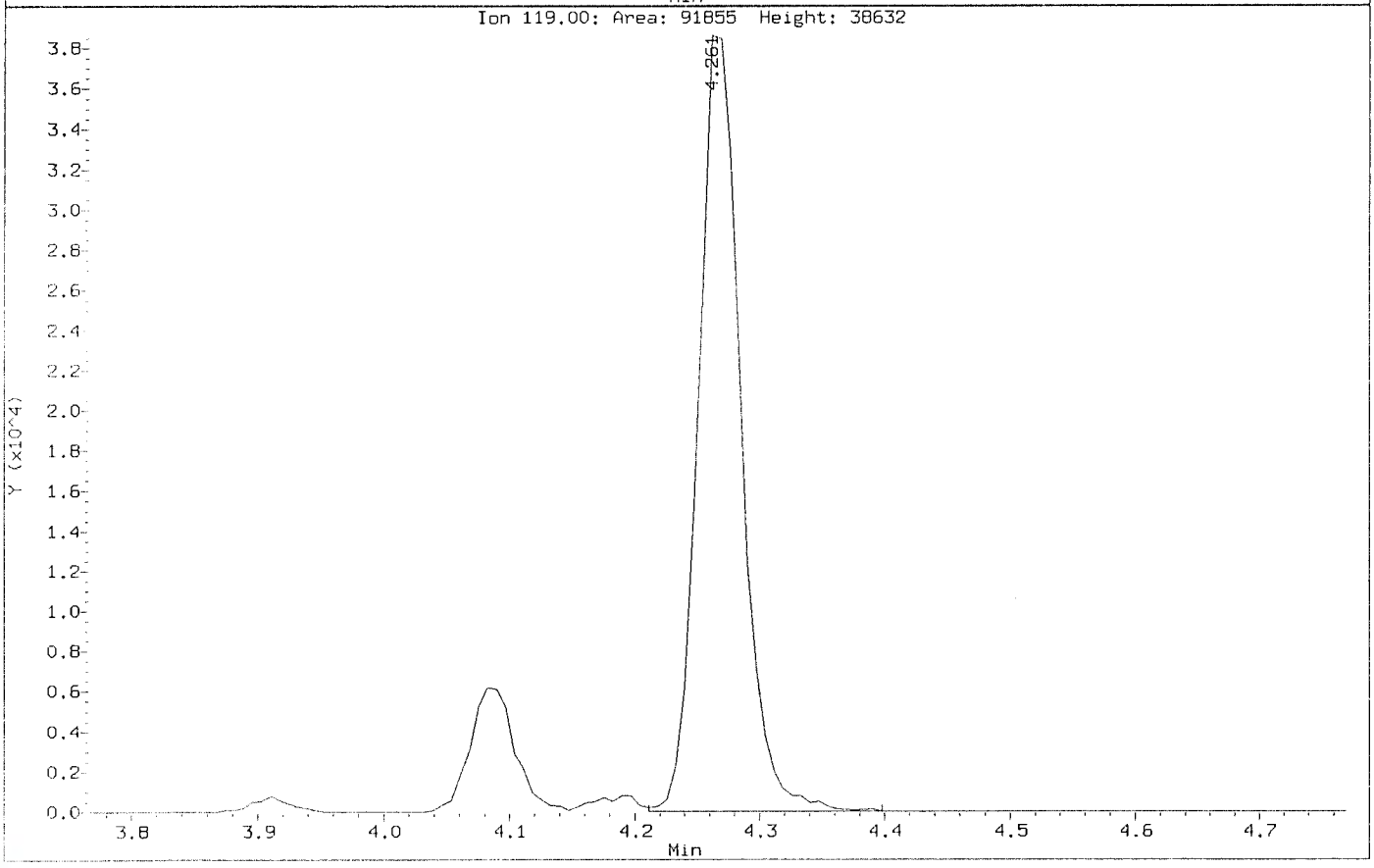
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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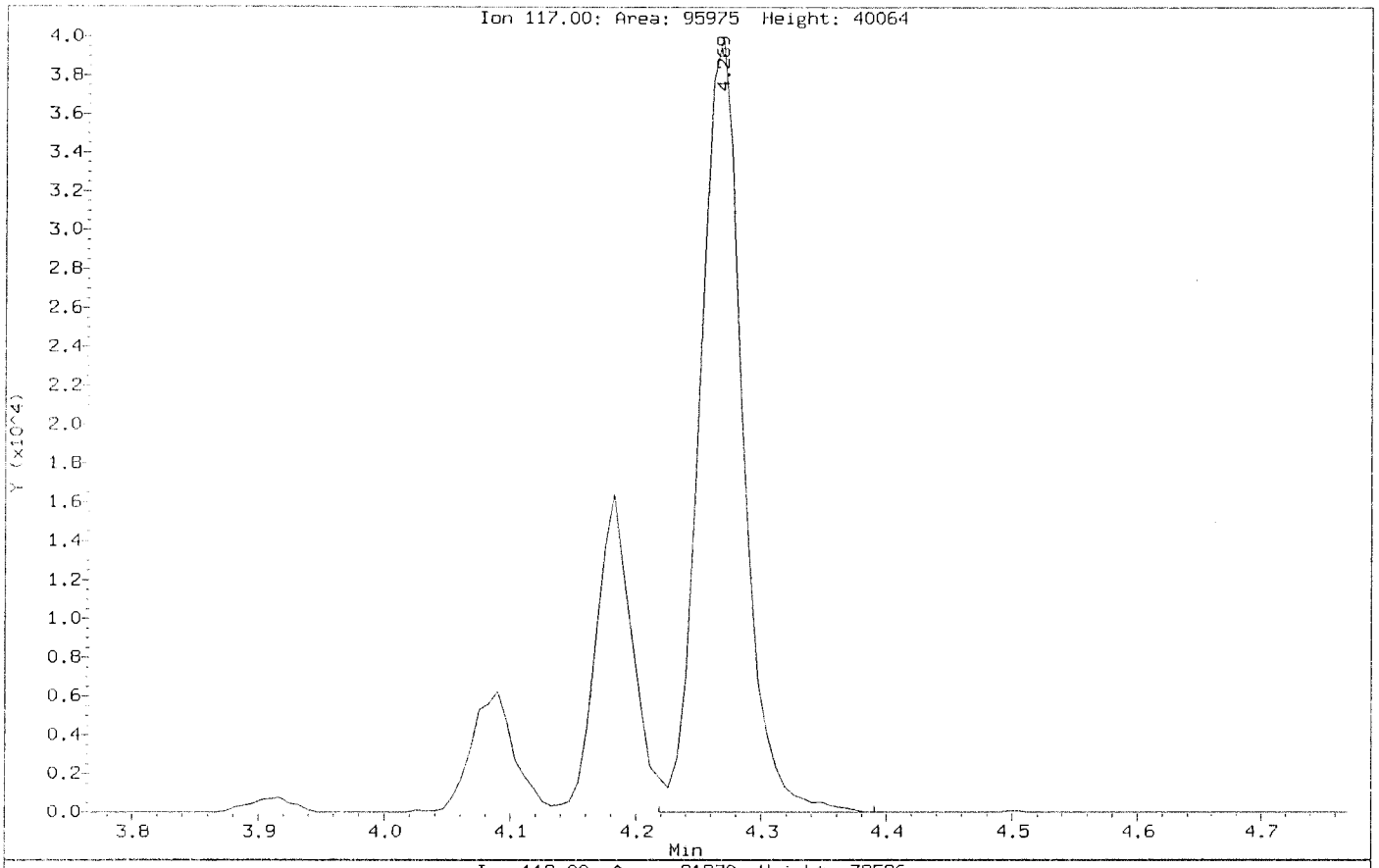
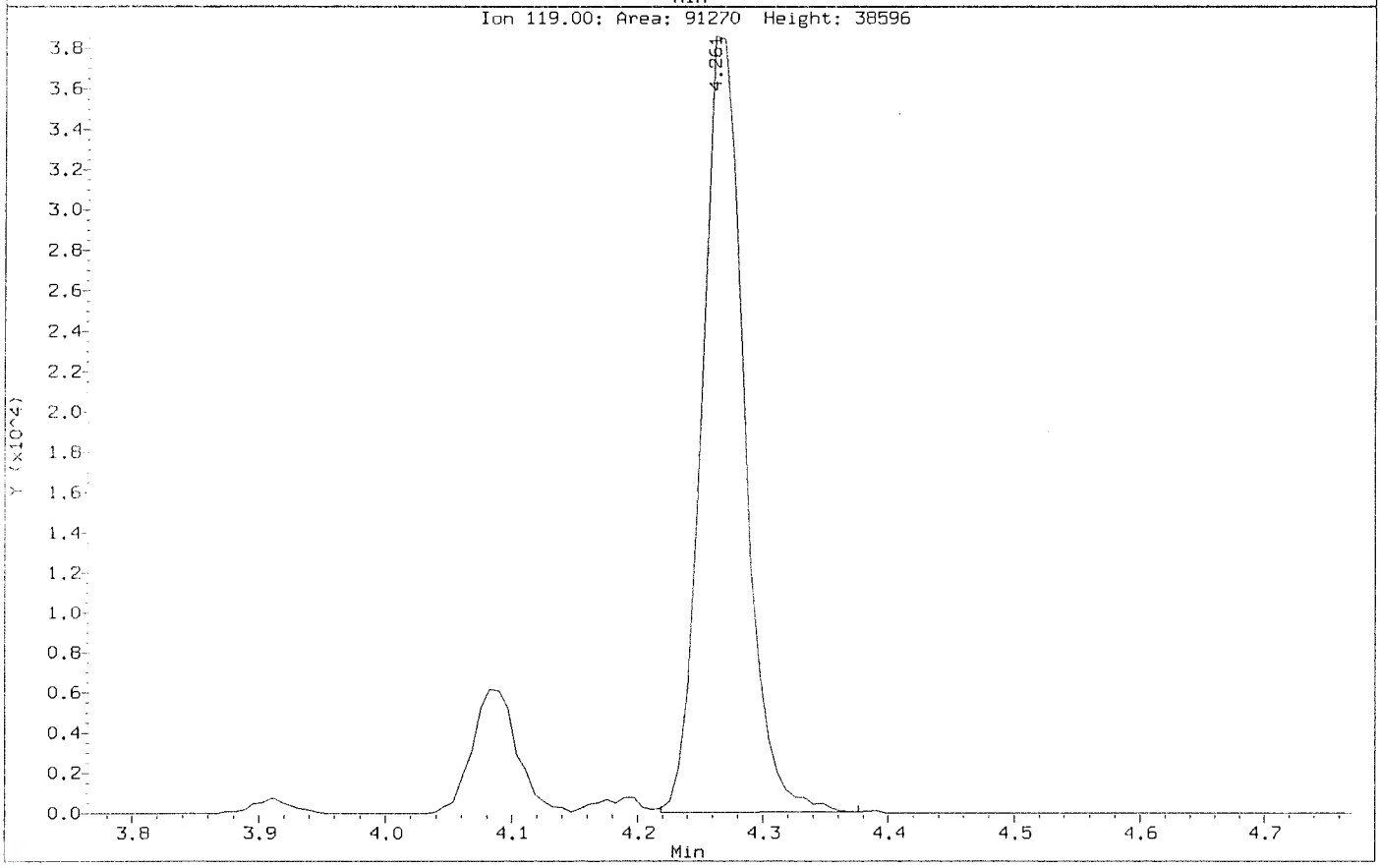
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052608.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 26-MAY-2021 15:01
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 14:40 Cal File: X052607.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

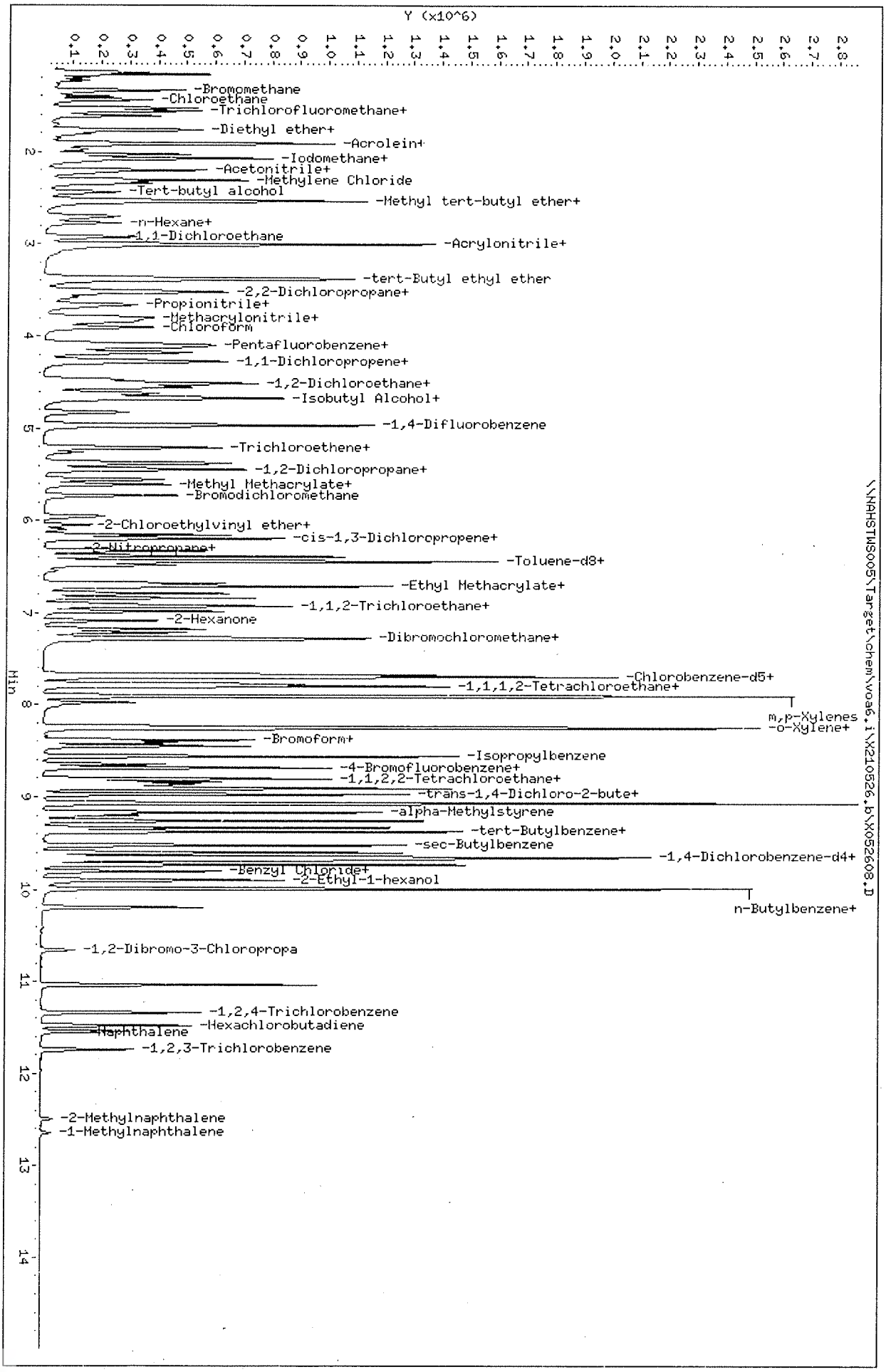
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	424959	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	666769	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	619576	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	345661	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	198305	50.0000	47.39
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	202707	50.0000	49.93
$	48 Toluene-d8	98	6.388	6.388	(0.833)	641202	50.0000	41.54
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	243279	50.0000	44.79
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	218401	50.0000	47.66
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	286118	50.0000	45.55
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	241138	50.0000	50.50
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	159364	50.0000	47.48
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	316911	50.0000	47.17
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	198252	50.0000	45.29
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	227298	50.0000	44.50
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	97298	50.0000	46.49
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	200716	50.0000	46.57(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	163230	50.0000	47.76
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	692725	50.0000	43.93
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	26546	50.0000	48.42
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	218312	50.0000	47.85
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	432173	50.0000	46.09

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052608.D Page 2
Report Date: 30-Jun-2021 18:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	255497	50.0000	48.09
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	186813	50.0000	47.59
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	676389	50.0000	43.10
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	436776	50.0000	44.79
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	312775	50.0000	46.86
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	452783	50.0000	44.50
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	267855	50.0000	46.07
24 2-Butanone	43	3.581	3.581	(0.856)	132056	100.000	102.13(H)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	563374	50.0000	43.54
52 2-Hexanone	43	7.090	7.090	(0.924)	217409	100.000	94.46
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	676517	50.0000	43.90
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	680168	50.0000	42.55
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	322230	100.000	90.31
10 Acetone	43	1.976	1.976	(0.473)	109289	100.000	100.72
37 Benzene	78	4.512	4.512	(0.909)	726648	50.0000	47.43
74 Bromobenzene	156	8.802	8.802	(0.911)	261051	50.0000	45.51
29 Bromochloromethane	128	3.795	3.795	(0.908)	125003	50.0000	48.64
39 Bromodichloromethane	83	5.722	5.722	(1.153)	272973	50.0000	47.62
66 Bromoform	173	8.408	8.408	(1.096)	170774	50.0000	49.42
6 Bromomethane	94	1.339	1.339	(0.320)	208957	50.0000	47.61
19 Carbon Disulfide	76	2.069	2.069	(0.495)	965194	100.000	92.98
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	244057	50.0000	44.15(H)
59 Chlorobenzene	112	7.692	7.692	(1.003)	575989	50.0000	44.65
7 Chloroethane	64	1.403	1.403	(0.336)	169882	50.0000	57.20
28 Chloroform	83	3.910	3.910	(0.935)	352687	50.0000	47.19
3 Chloromethane	50	1.073	1.073	(0.257)	214824	50.0000	56.27
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	219469	50.0000	49.27
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	335383	50.0000	49.65
55 Dibromochloromethane	129	7.176	7.176	(0.936)	248499	50.0000	48.73
44 Dibromomethane	93	5.550	5.550	(1.118)	141864	50.0000	48.09
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	189027	50.0000	48.41
61 Ethylbenzene	106	7.800	7.800	(1.017)	273828	50.0000	46.01
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	87915	50.0000	41.67
67 Isopropylbenzene	105	8.559	8.559	(1.116)	798894	50.0000	43.94
62 m,p-Xylenes	106	7.907	7.907	(1.031)	700454	100.000	90.30
17 Methylene Chloride	84	2.306	2.306	(0.551)	199728	50.0000	51.87
87 n-Butylbenzene	91	9.991	9.991	(1.034)	575579	50.0000	42.80
73 n-Propylbenzene	91	8.910	8.910	(0.922)	916886	50.0000	42.52
92 Naphthalene	128	11.539	11.539	(1.194)	235637	50.0000	47.70
63 o-Xylene	106	8.244	8.244	(1.075)	344243	50.0000	45.51
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	736380	50.0000	40.57
64 Styrene	104	8.258	8.258	(1.077)	606041	50.0000	47.94
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	553101	50.0000	41.11
56 Tetrachloroethene	164	6.926	6.926	(0.903)	165887	50.0000	43.49
50 Toluene	91	6.446	6.446	(0.840)	806999	50.0000	44.61
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	188221	50.0000	47.43
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	287700	50.0000	49.37
38 Trichloroethene	130	5.207	5.207	(1.049)	221368	50.0000	48.37
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	347393	50.0000	45.28
5 Vinyl Chloride	62	1.138	1.138	(0.272)	233856	50.0000	46.48

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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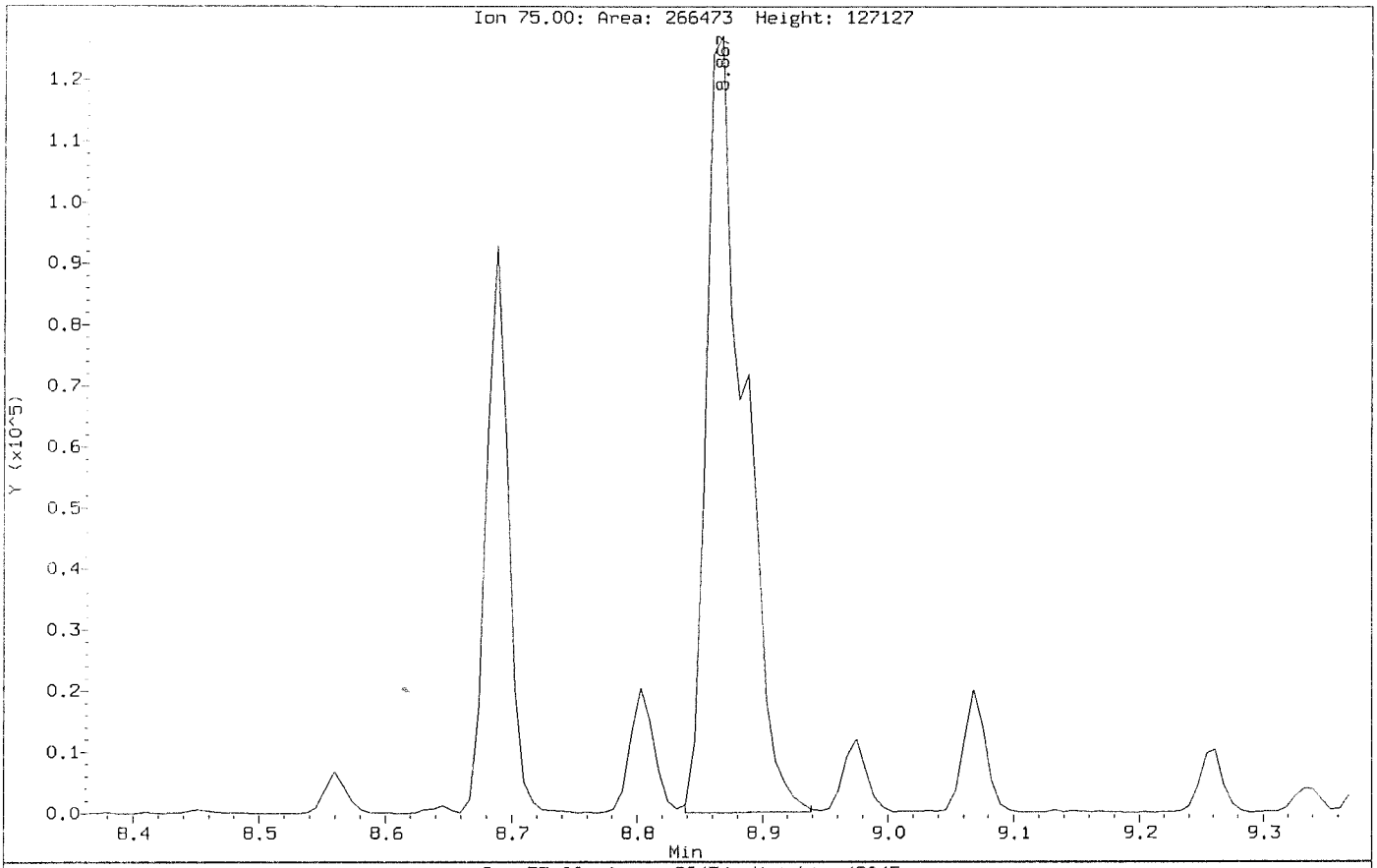
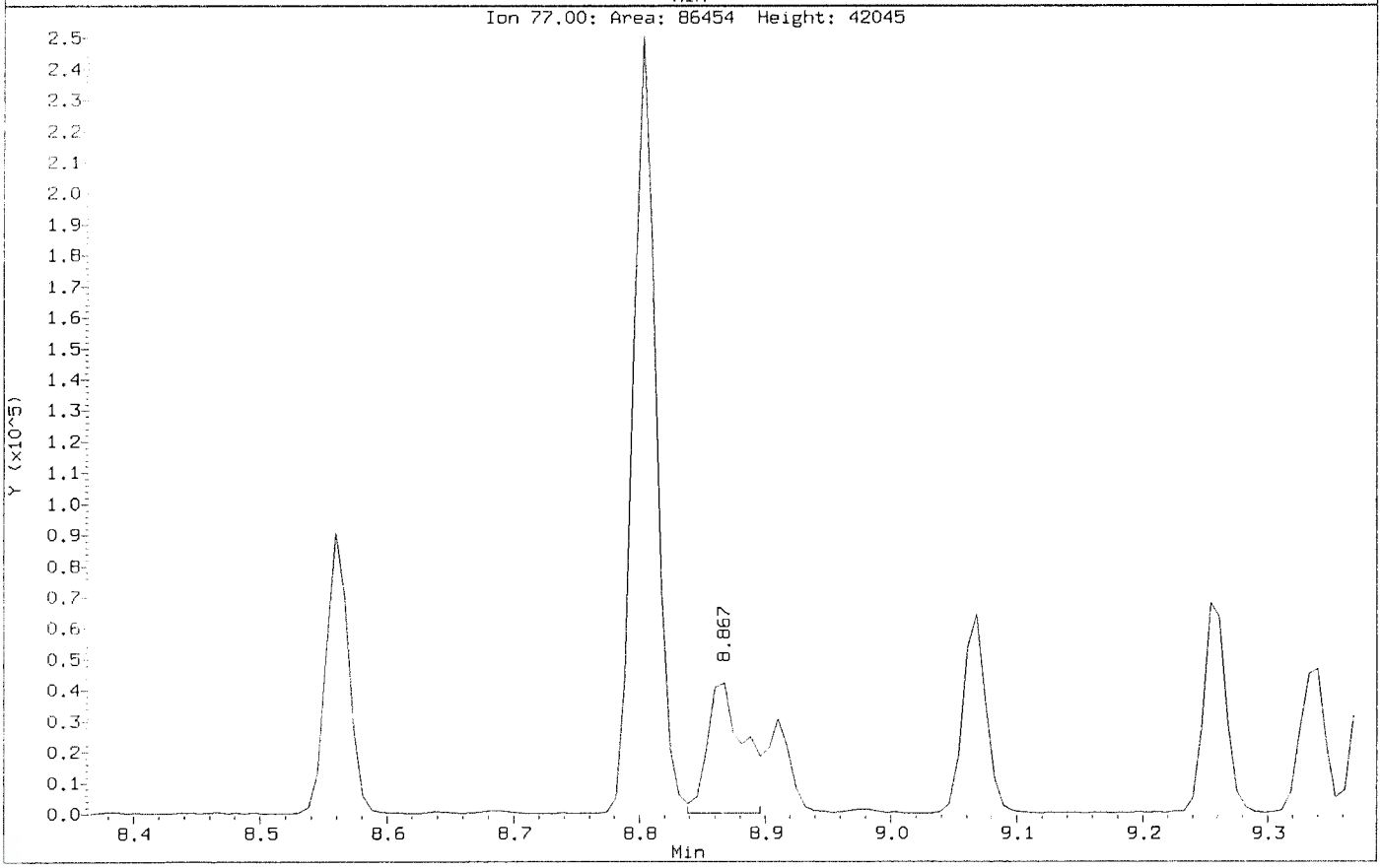
Date : 26-MAY-2021 15:01
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052608.D
Injection Date: 26-MAY-2021 15:01
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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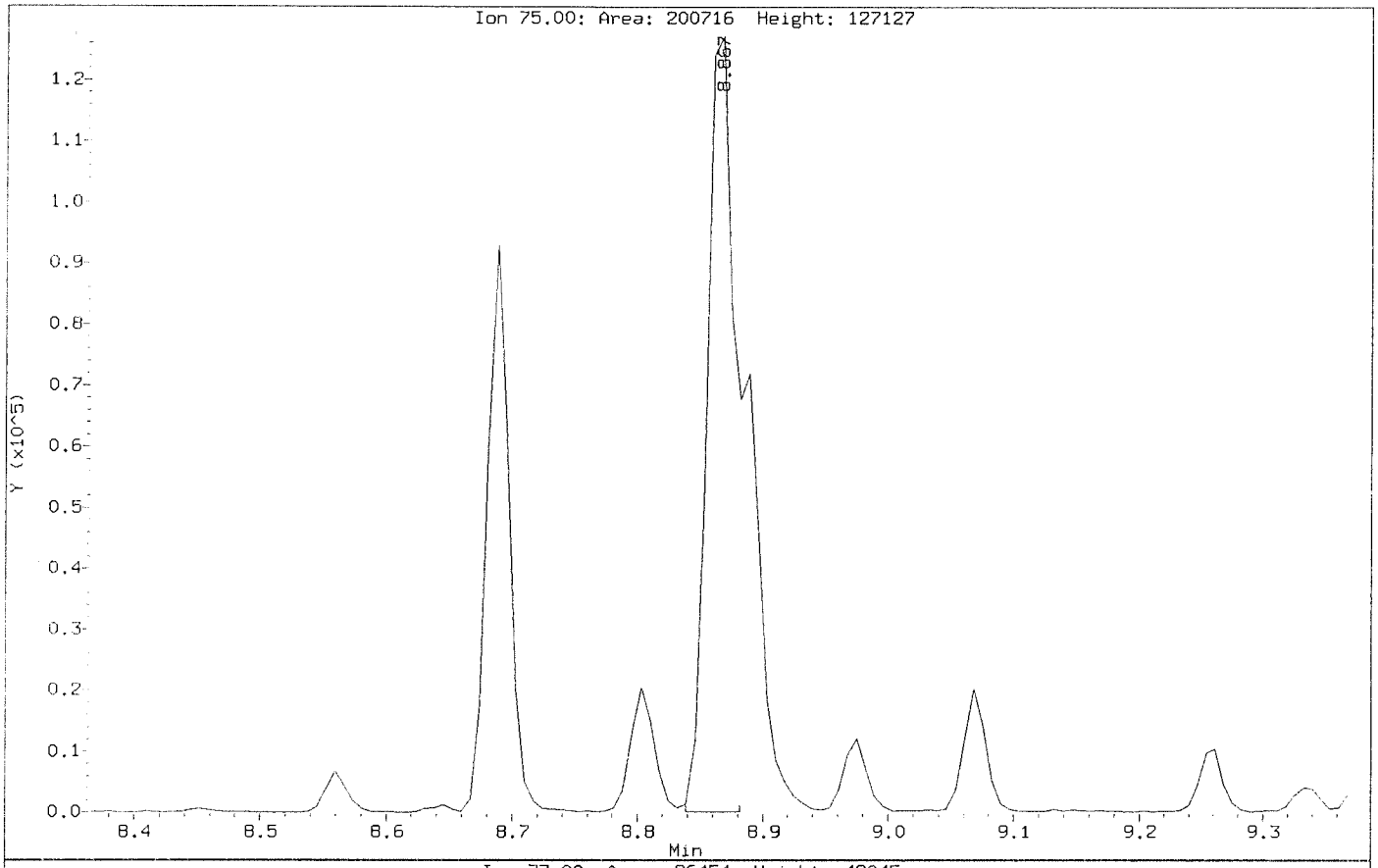
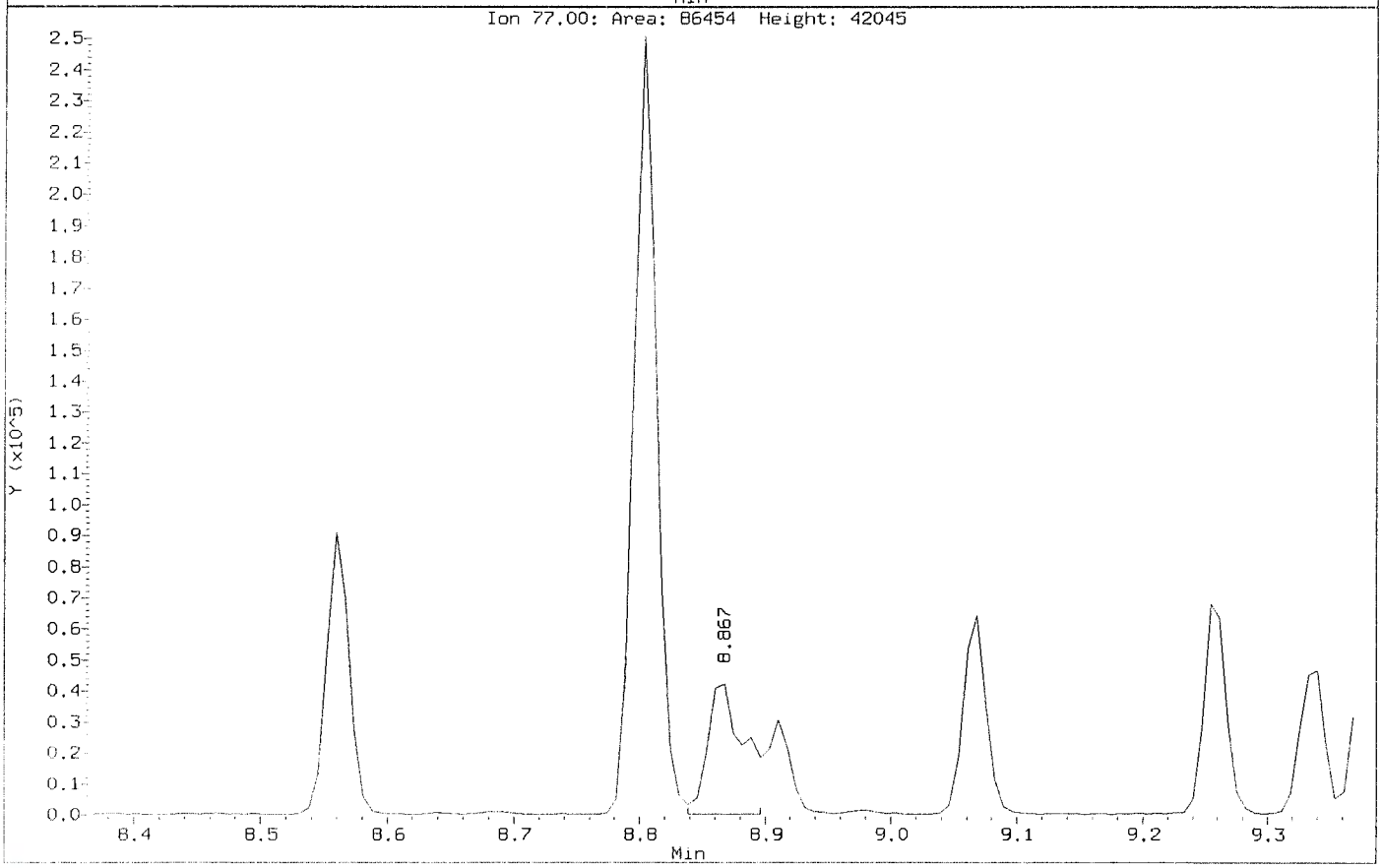
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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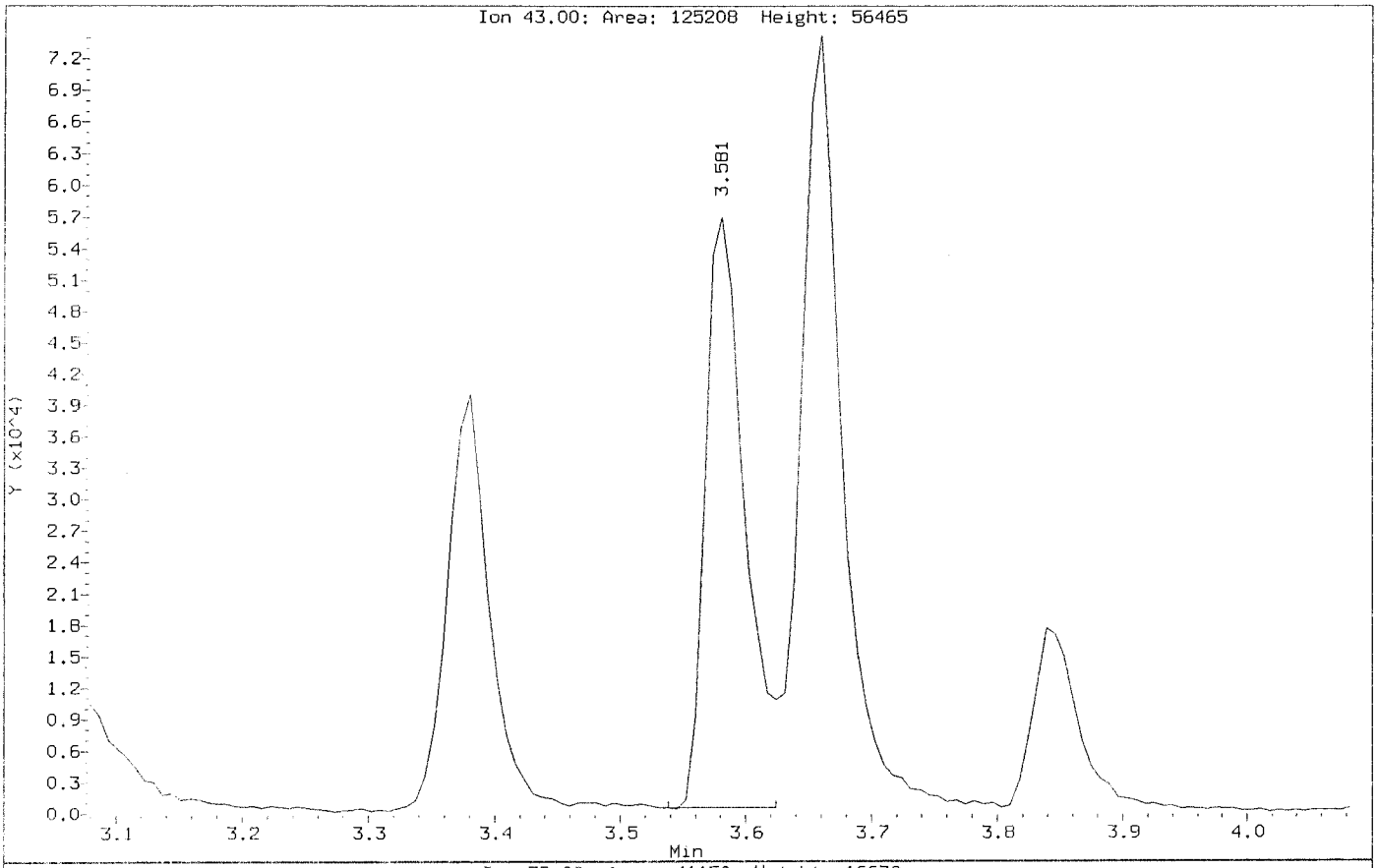
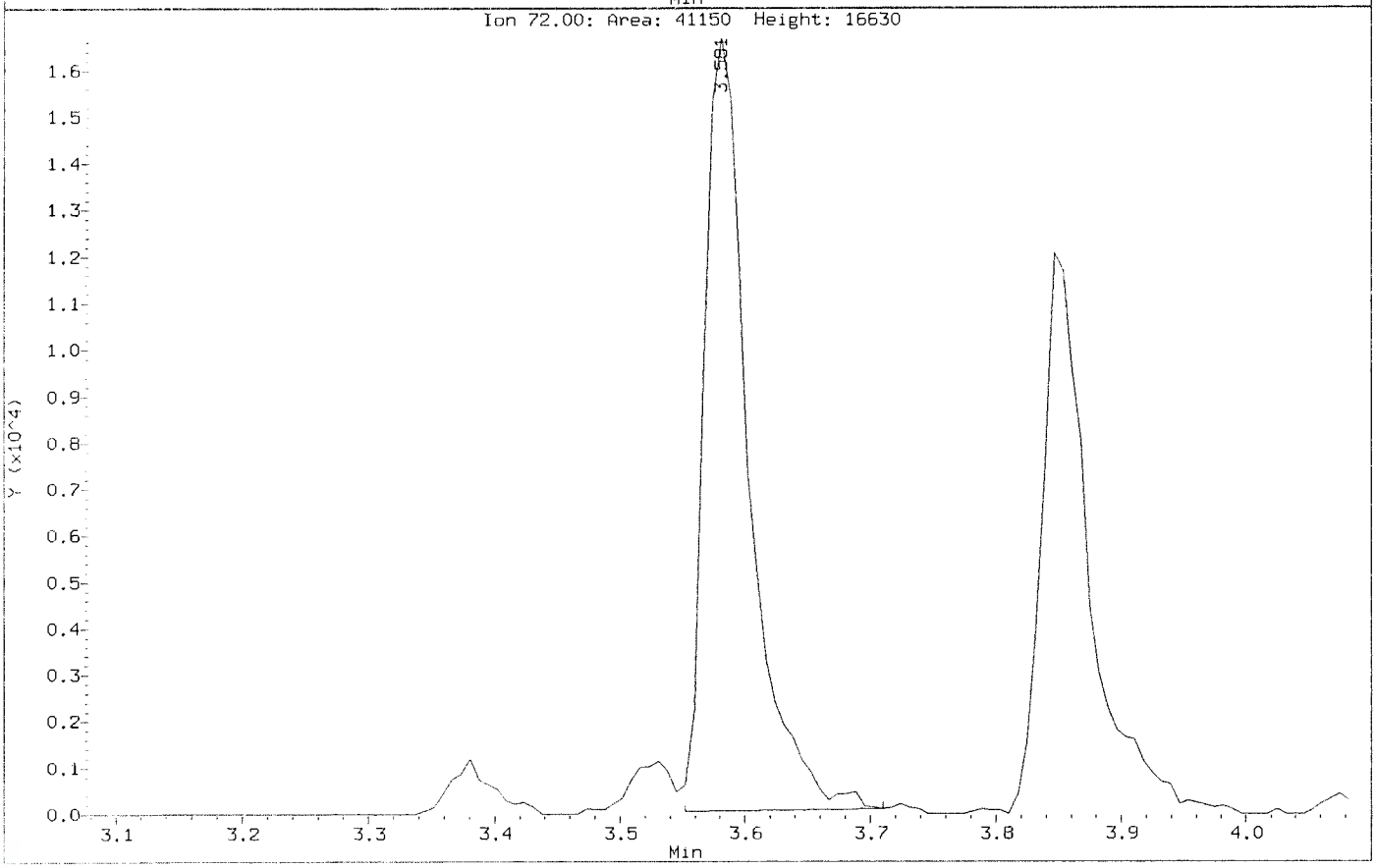
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: 2-Butanone
CAS Number: 78-93-3





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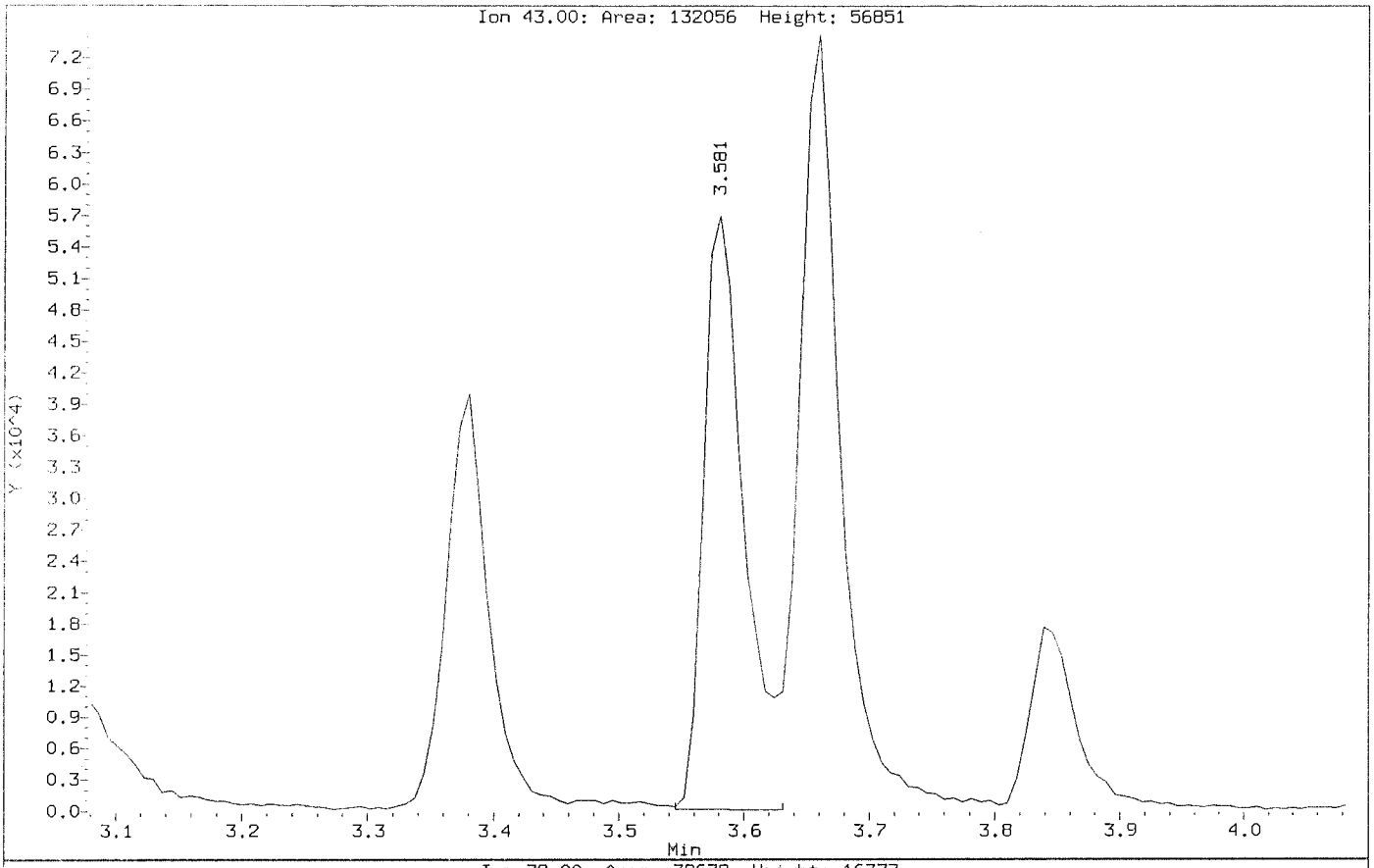
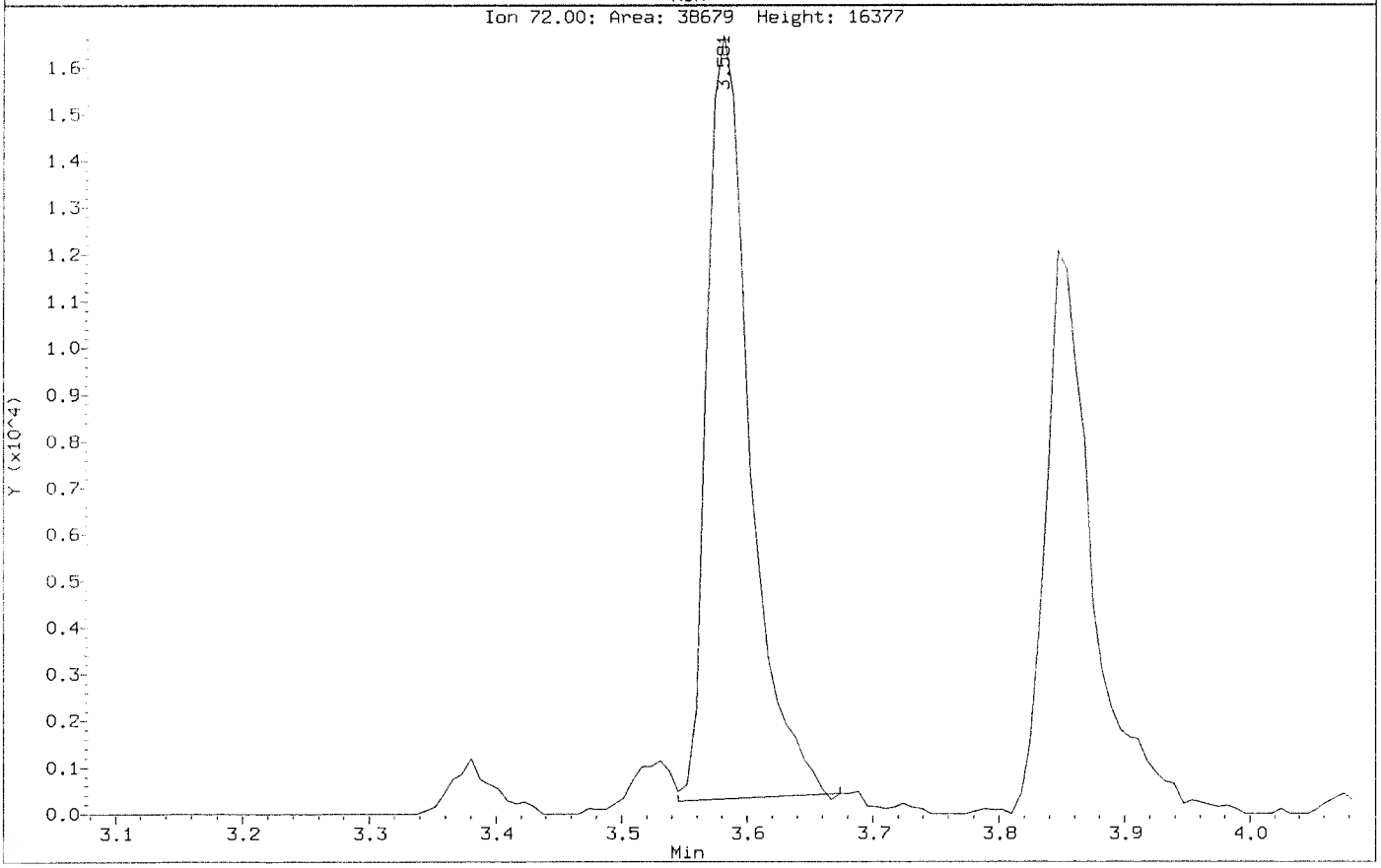
Client Sample ID: VSTD050

Compound: 2-Butanone
CAS Number: 78-93-3





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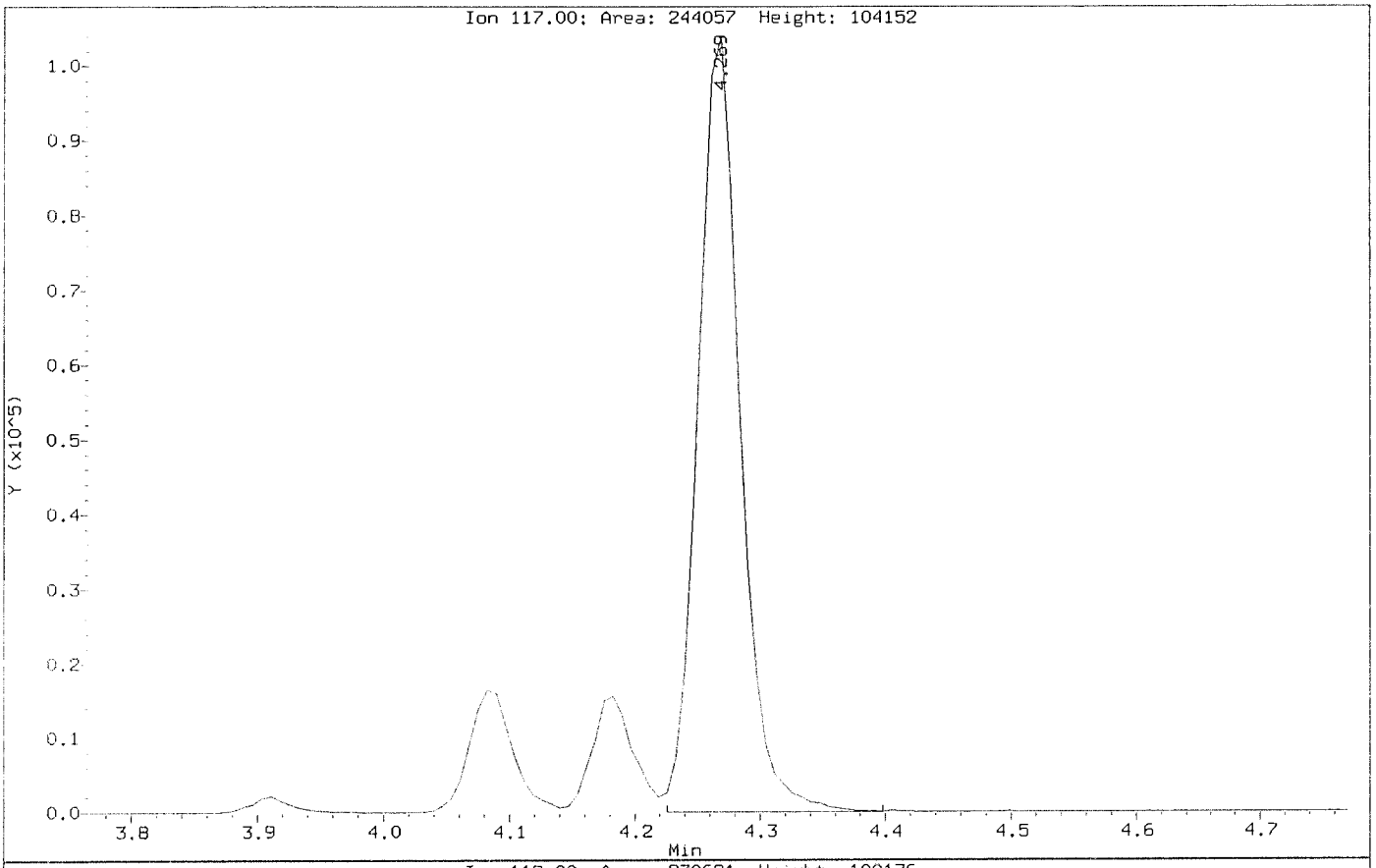
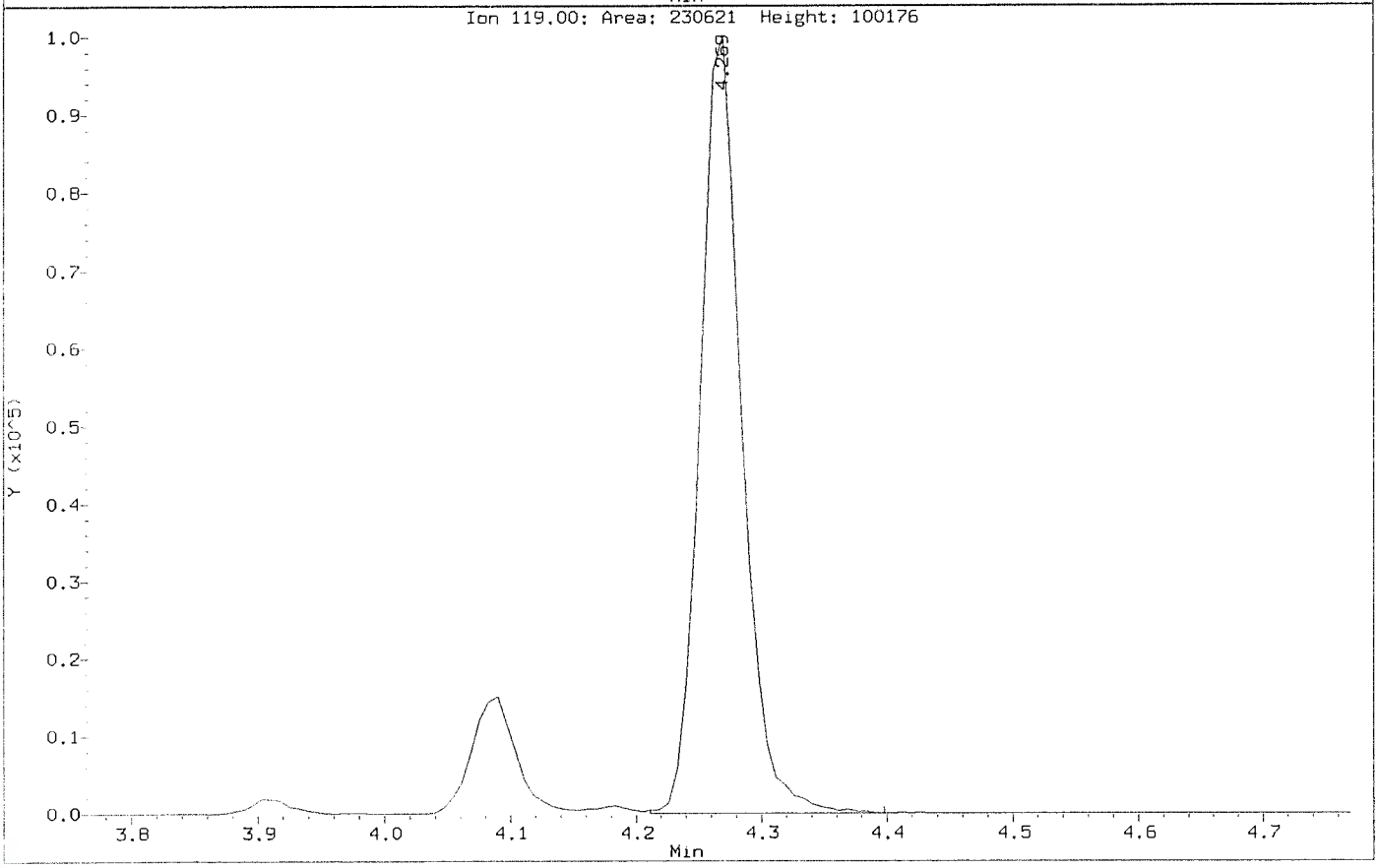
Injection Date: 26-MAY-2021 15:01
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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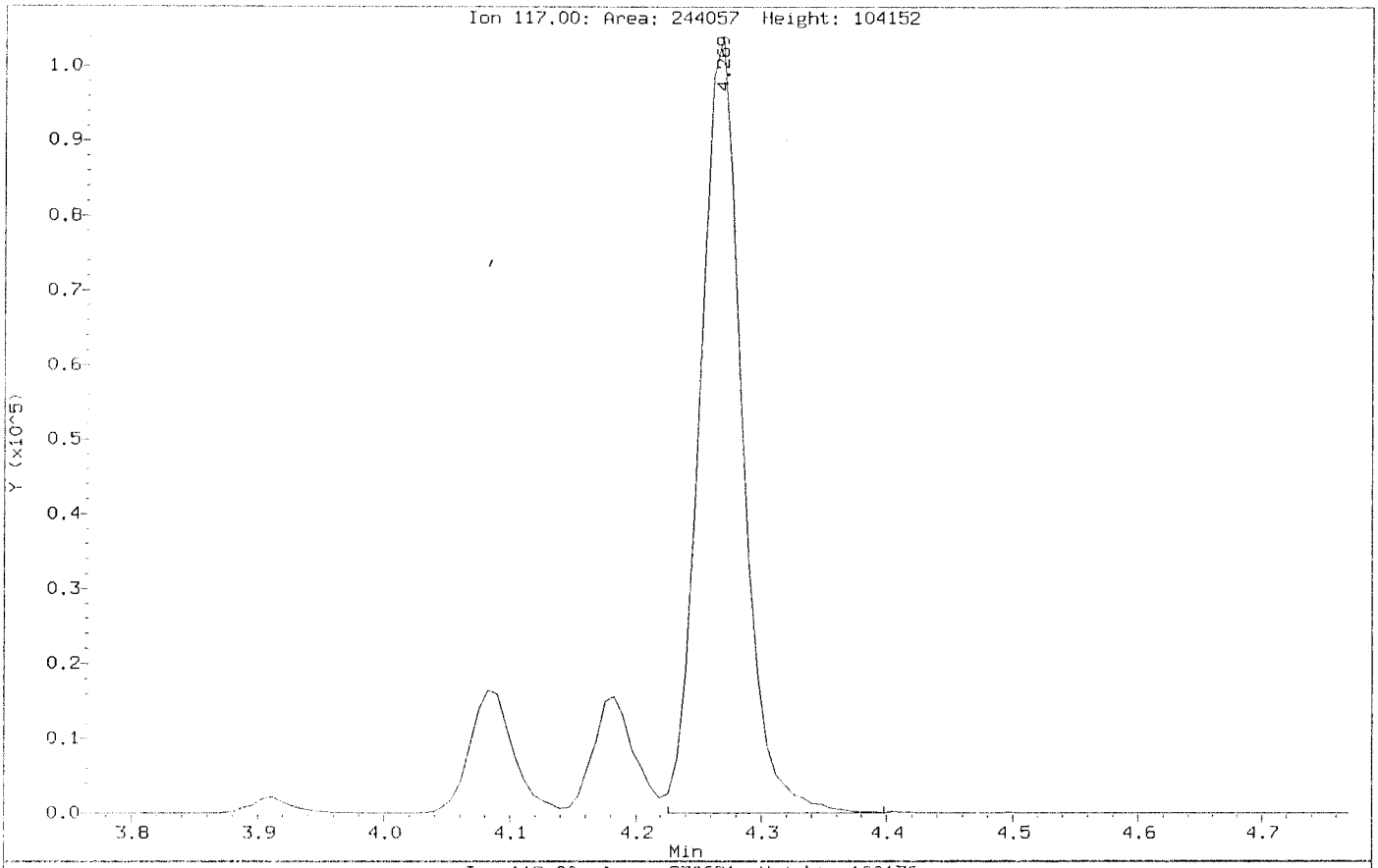
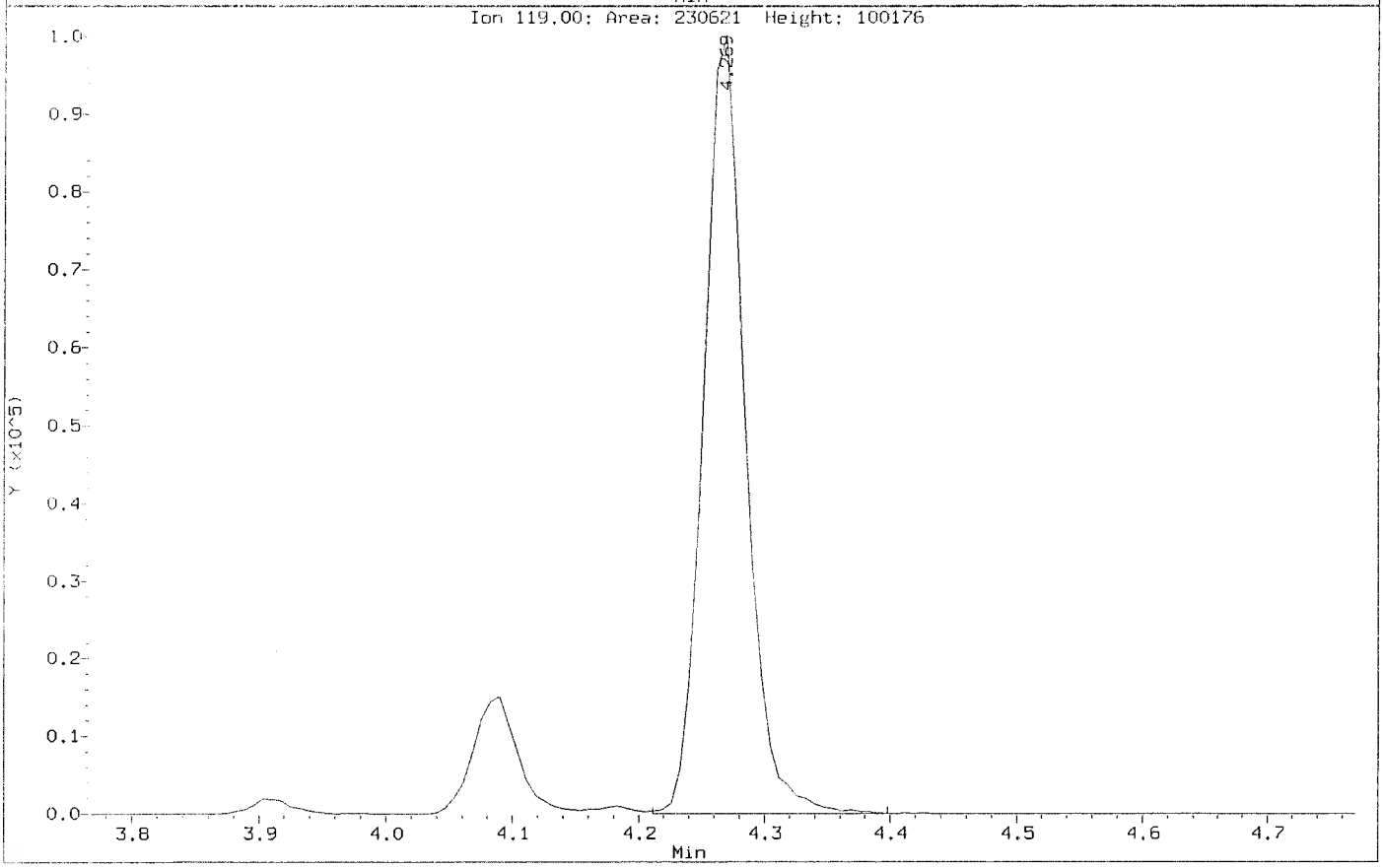
Injection Date: 26-MAY-2021 15:01
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052609.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 26-MAY-2021 15:22
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

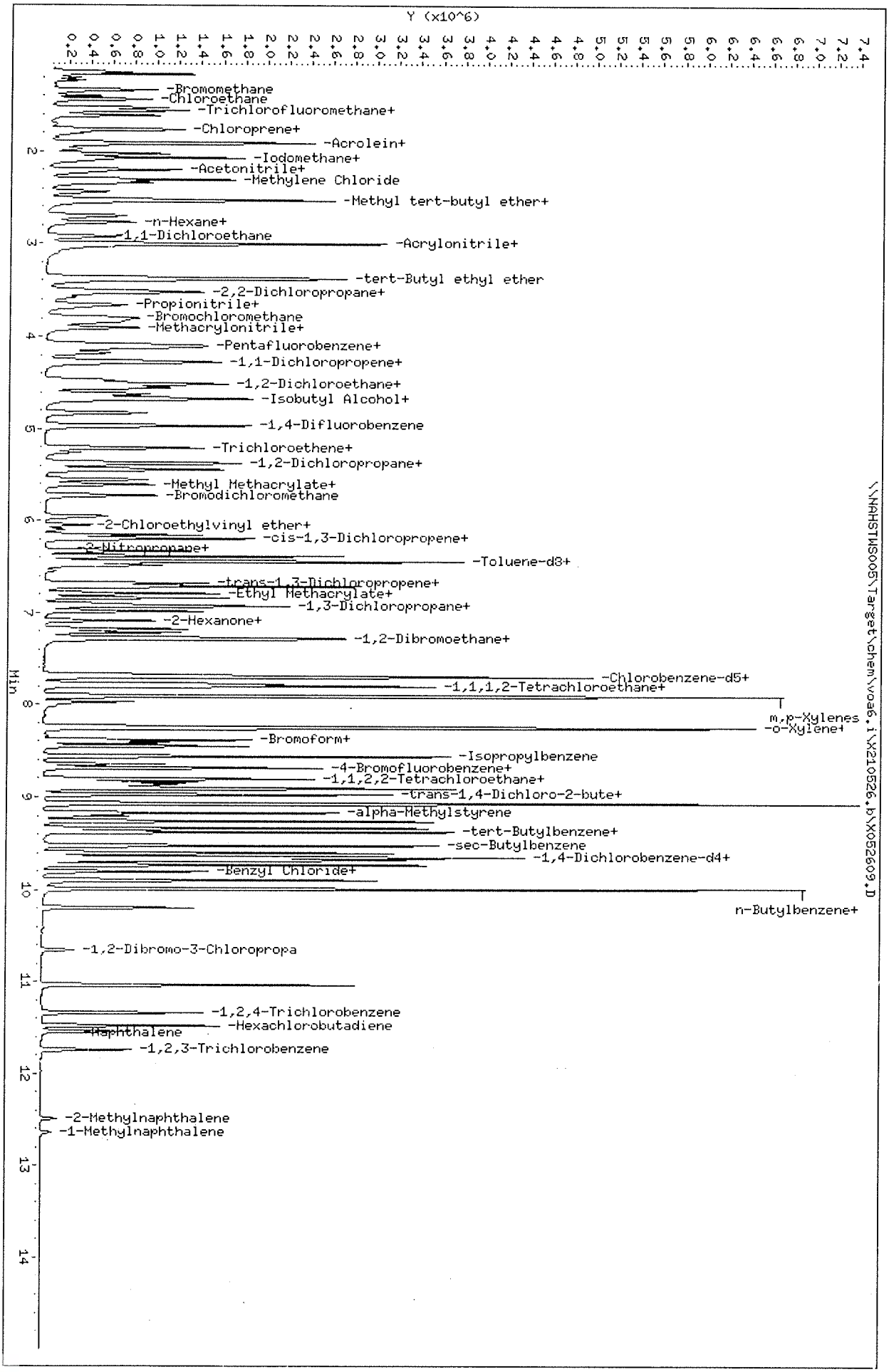
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	465829	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	710792	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	666442	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	392601	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	469782	100.000	102.62
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	450261	100.000	101.89
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1608002	100.000	96.86
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	606080	100.000	102.75
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	499295	100.000	101.30
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	661548	100.000	96.09
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	539471	100.000	100.64
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	346404	100.000	95.95
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	677723	100.000	92.02
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	458831	100.000	95.62
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	536358	100.000	98.52
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	234050	100.000	98.47
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	455527	100.000	93.06(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	411722	100.000	106.07
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	1745248	100.000	97.46
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	62281	100.000	99.48
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	478499	100.000	97.52
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1073113	100.000	100.77

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	546071	100.000	96.42
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	402126	100.000	96.11
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	1755512	100.000	98.50
83	1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	1072305	100.000	96.83
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	683449	100.000	95.20
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1102148	100.000	95.37
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	601433	100.000	94.37
24	2-Butanone	43	3.580	3.580	(0.856)	285717	200.000	201.59(AH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	1366733	100.000	93.00
52	2-Hexanone	43	7.090	7.090	(0.924)	514396	200.000	207.78(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	1673614	100.000	95.63
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	1855232	100.000	102.19
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	743310	200.000	193.68
10	Acetone	43	1.976	1.976	(0.473)	231561	200.000	200.25(A)
37	Benzene	78	4.512	4.512	(0.909)	1561197	100.000	95.60
74	Bromobenzene	156	8.802	8.802	(0.911)	631992	100.000	97.02
29	Bromochloromethane	128	3.795	3.795	(0.908)	264940	100.000	94.06
39	Bromodichloromethane	83	5.729	5.729	(1.154)	580394	100.000	94.98
66	Bromoform	173	8.408	8.408	(1.096)	405148	100.000	109.02
6	Bromomethane	94	1.338	1.338	(0.320)	464431	100.000	96.38
19	Carbon Disulfide	76	2.069	2.069	(0.495)	2136484	200.000	187.75
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	602380	100.000	102.23(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	1335922	100.000	96.29
7	Chloroethane	64	1.403	1.403	(0.336)	322237	100.000	100.02
28	Chloroform	83	3.910	3.910	(0.935)	762402	100.000	93.06
3	Chloromethane	50	1.073	1.073	(0.257)	427715	100.000	104.44
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	473541	100.000	96.98
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	723500	100.000	100.47
55	Dibromochloromethane	129	7.176	7.176	(0.936)	559785	100.000	102.05
44	Dibromomethane	93	5.550	5.550	(1.118)	307713	100.000	97.86
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	442975	100.000	103.74
61	Ethylbenzene	106	7.799	7.799	(1.017)	658754	100.000	102.92
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	268099	100.000	104.15
67	Isopropylbenzene	105	8.559	8.559	(1.116)	2067374	100.000	105.71
62	m,p-Xylenes	106	7.907	7.907	(1.031)	1732036	200.000	207.58(A)
17	Methylene Chloride	84	2.305	2.305	(0.551)	421178	100.000	101.02
87	n-Butylbenzene	91	9.991	9.991	(1.034)	1668557	100.000	109.24
73	n-Propylbenzene	91	8.910	8.910	(0.922)	2376997	100.000	97.06
92	Naphthalene	128	11.538	11.538	(1.194)	552247	100.000	98.43
63	o-Xylene	106	8.243	8.243	(1.075)	828253	100.000	101.80
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	2073082	100.000	100.55
64	Styrene	104	8.258	8.258	(1.077)	1469045	100.000	108.05
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	1530236	100.000	100.15
56	Tetrachloroethene	164	6.925	6.925	(0.903)	441656	100.000	107.65
50	Toluene	91	6.446	6.446	(0.840)	1856343	100.000	95.41
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	413319	100.000	95.02
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	636938	100.000	102.54
38	Trichloroethene	130	5.206	5.206	(1.049)	490520	100.000	100.54
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	841243	100.000	100.04
5	Vinyl Chloride	62	1.138	1.138	(0.272)	519936	100.000	94.29

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.



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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\X210526.b\Before2\X052609.D
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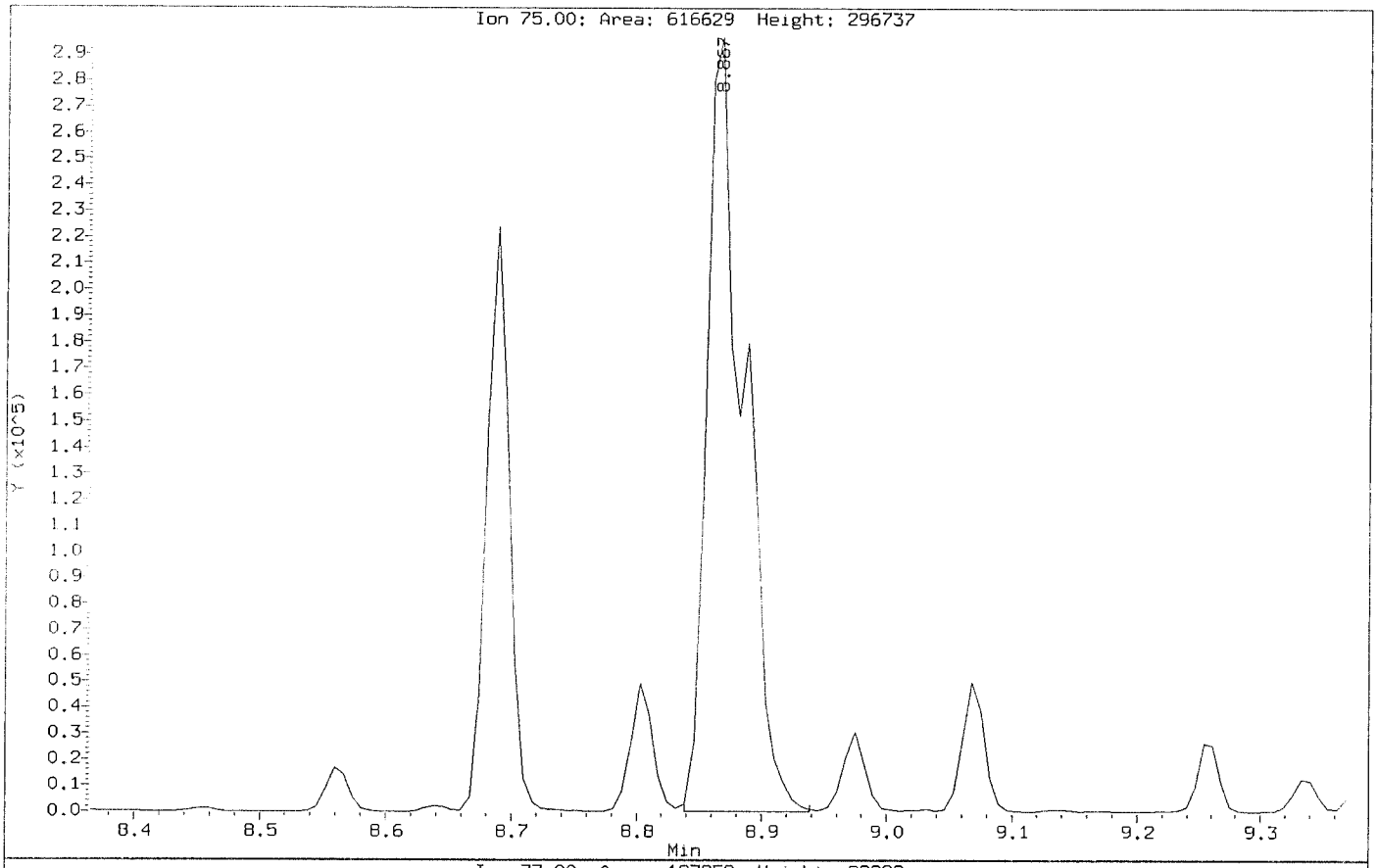
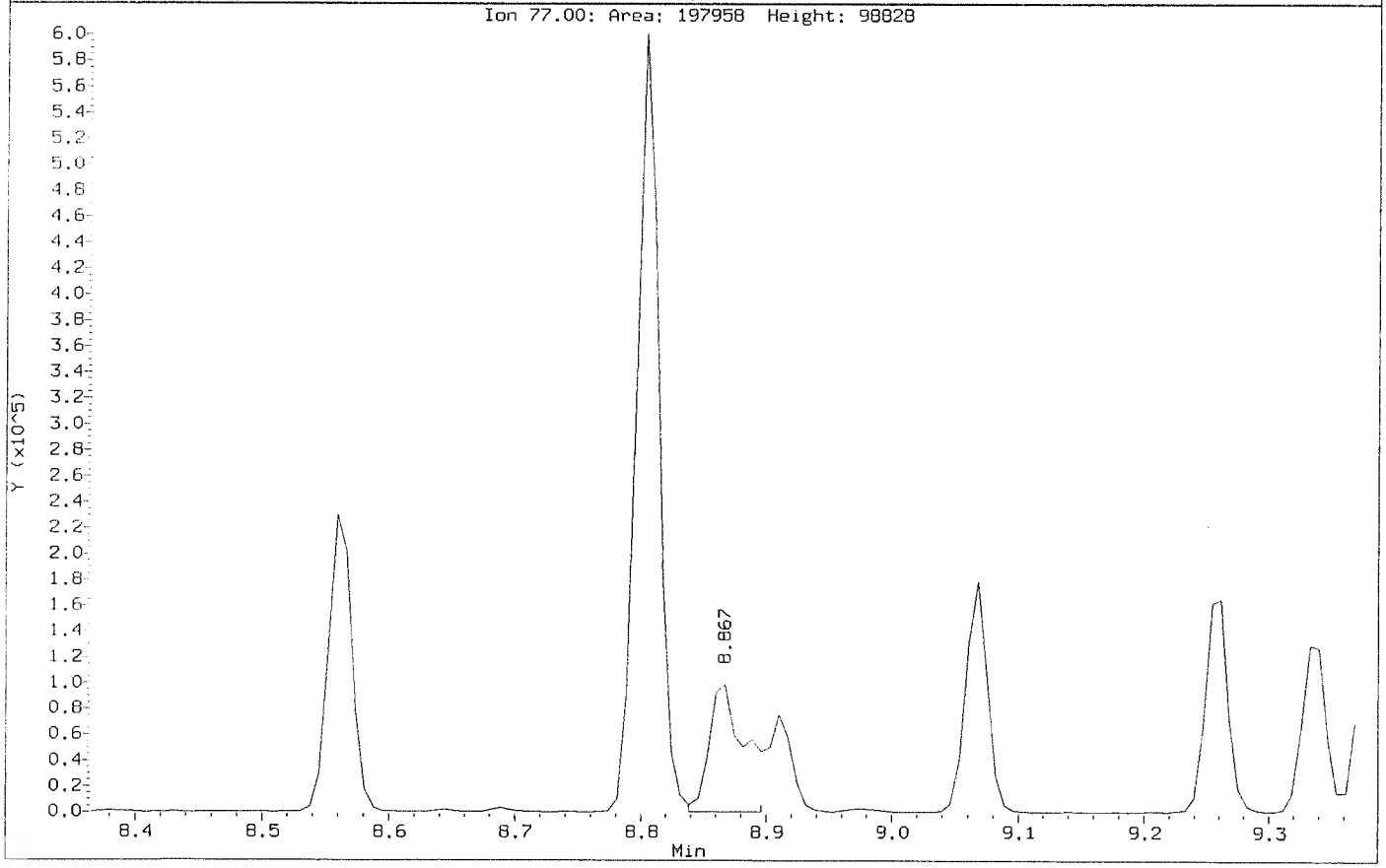
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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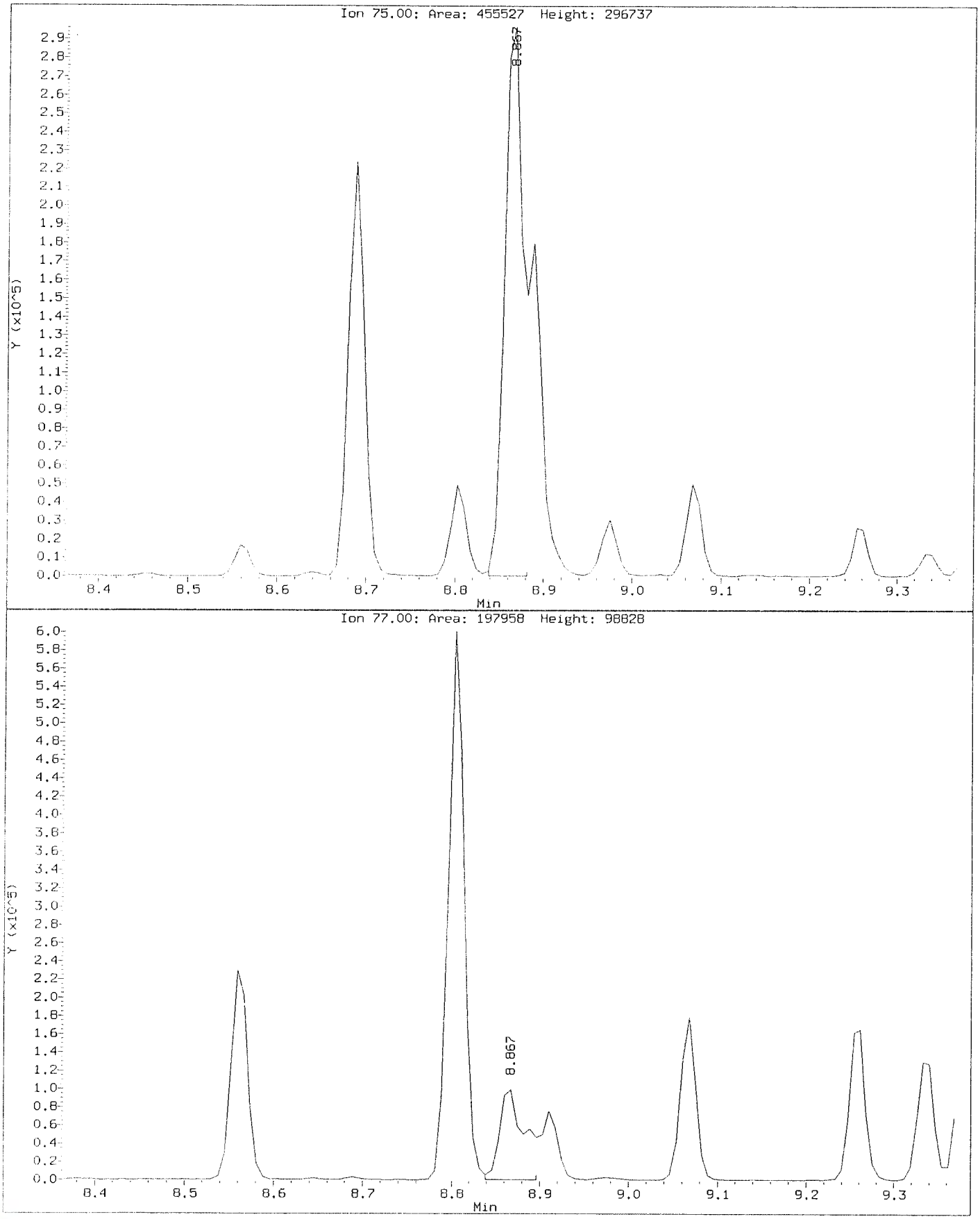
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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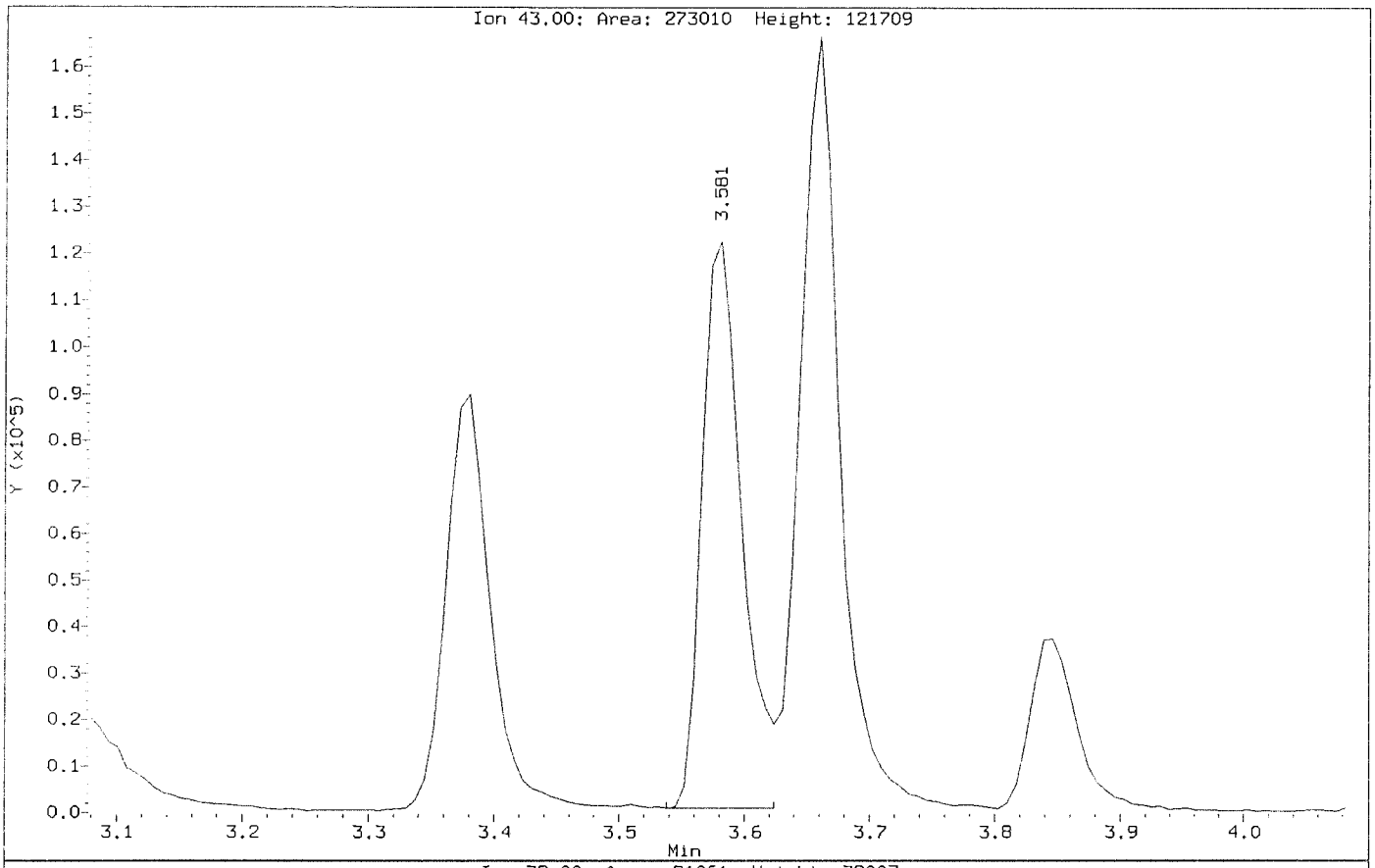
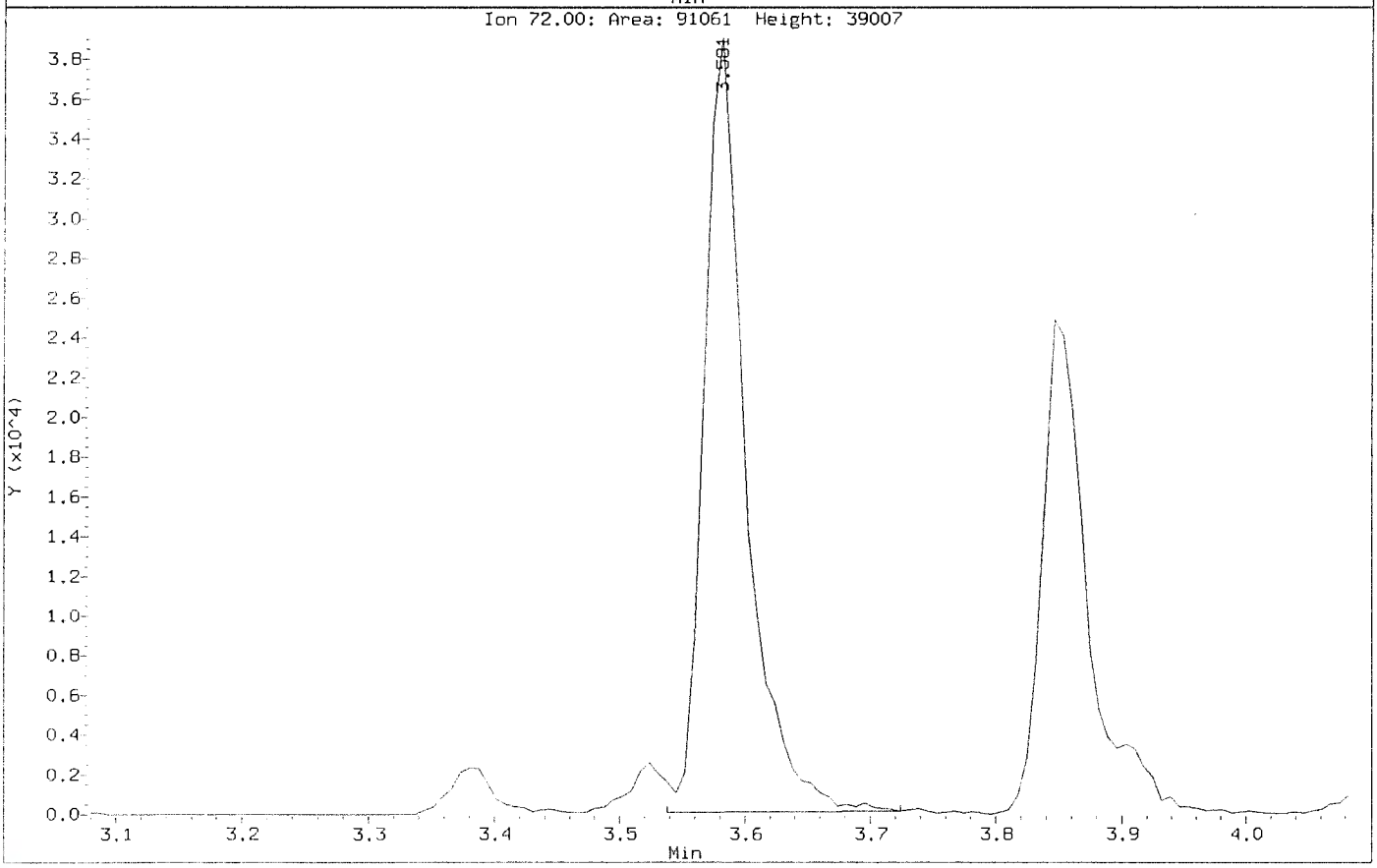
Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: 2-Butanone
CAS Number: 78-93-3





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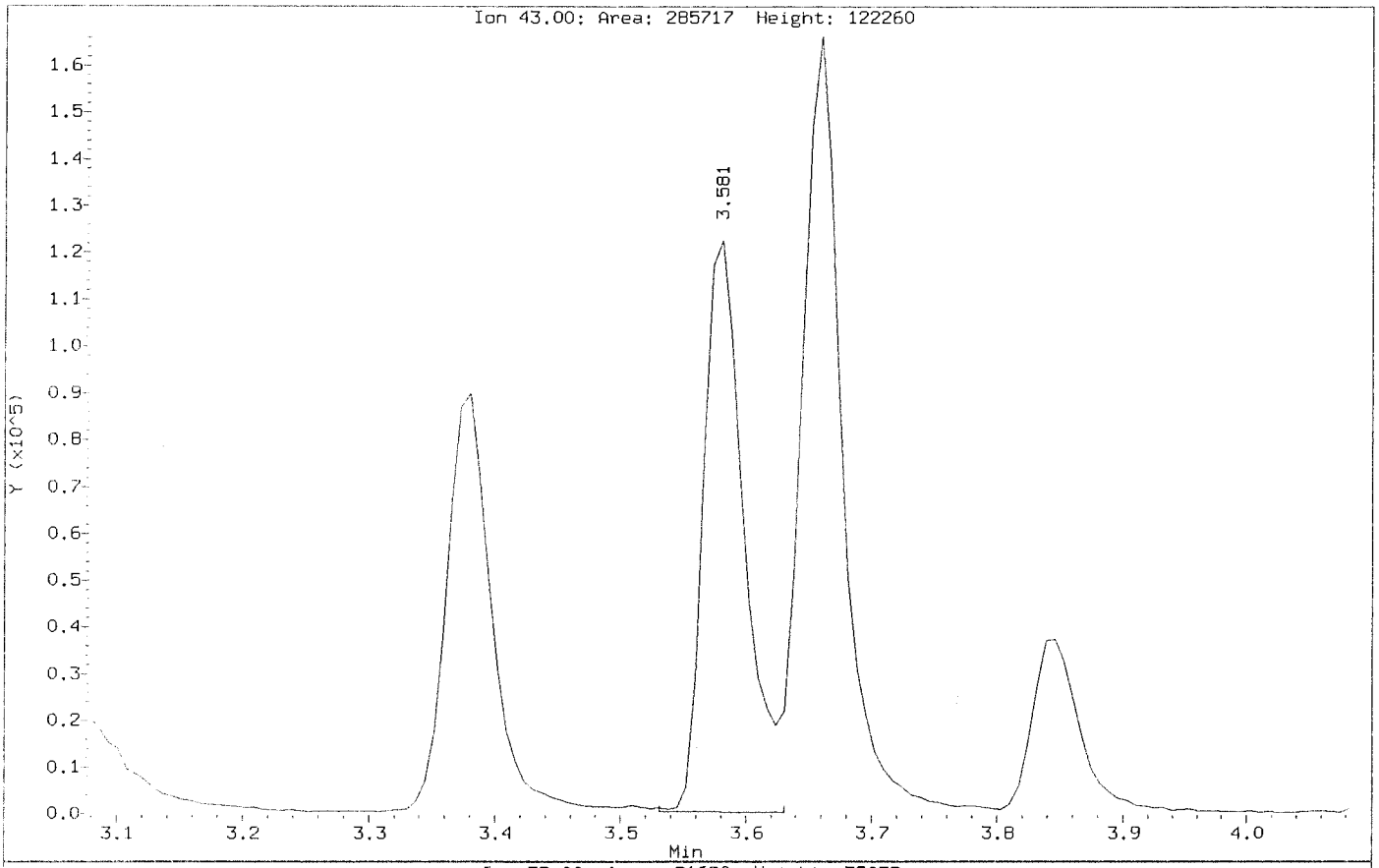
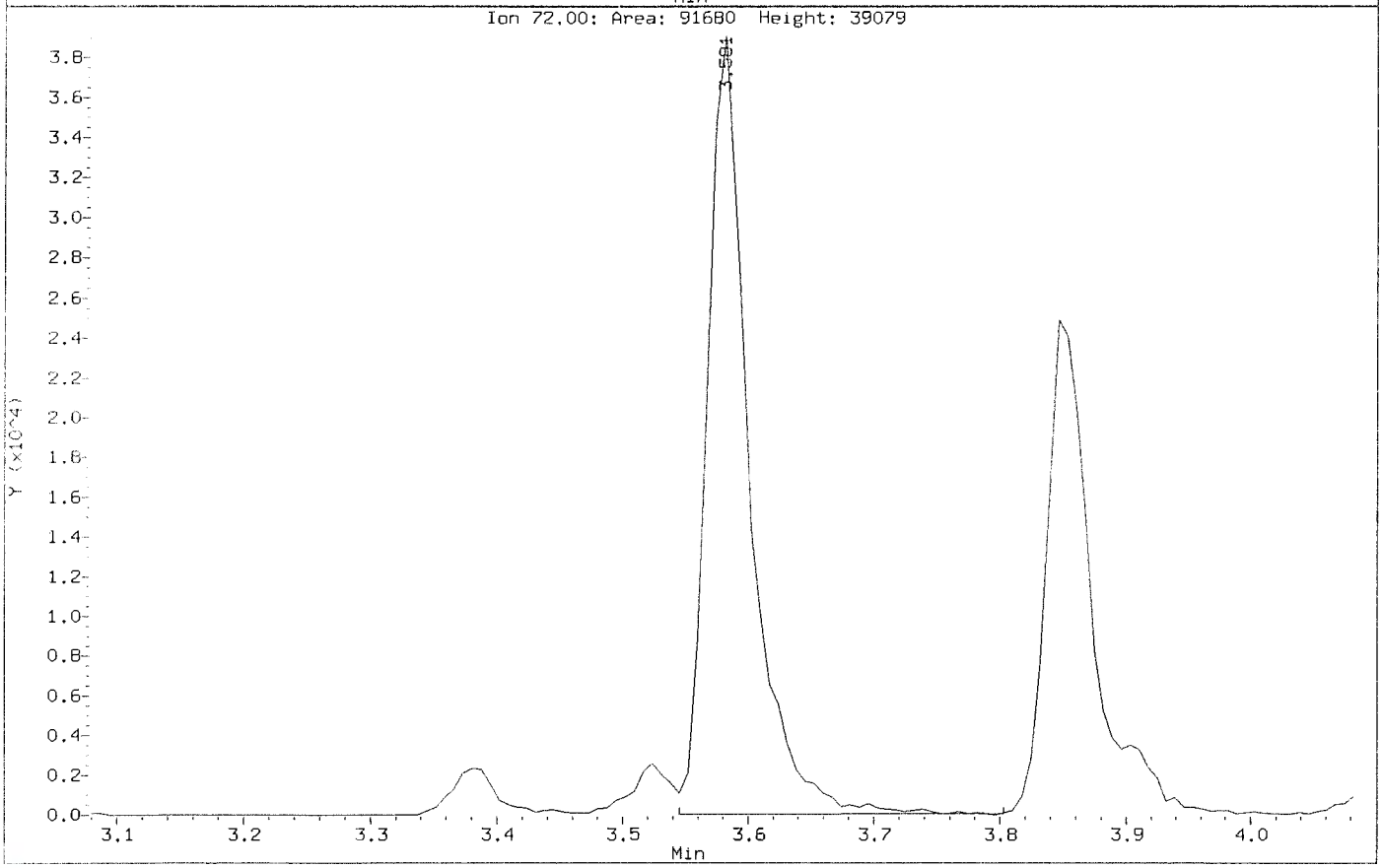
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: 2-Butanone
CAS Number: 78-93-3





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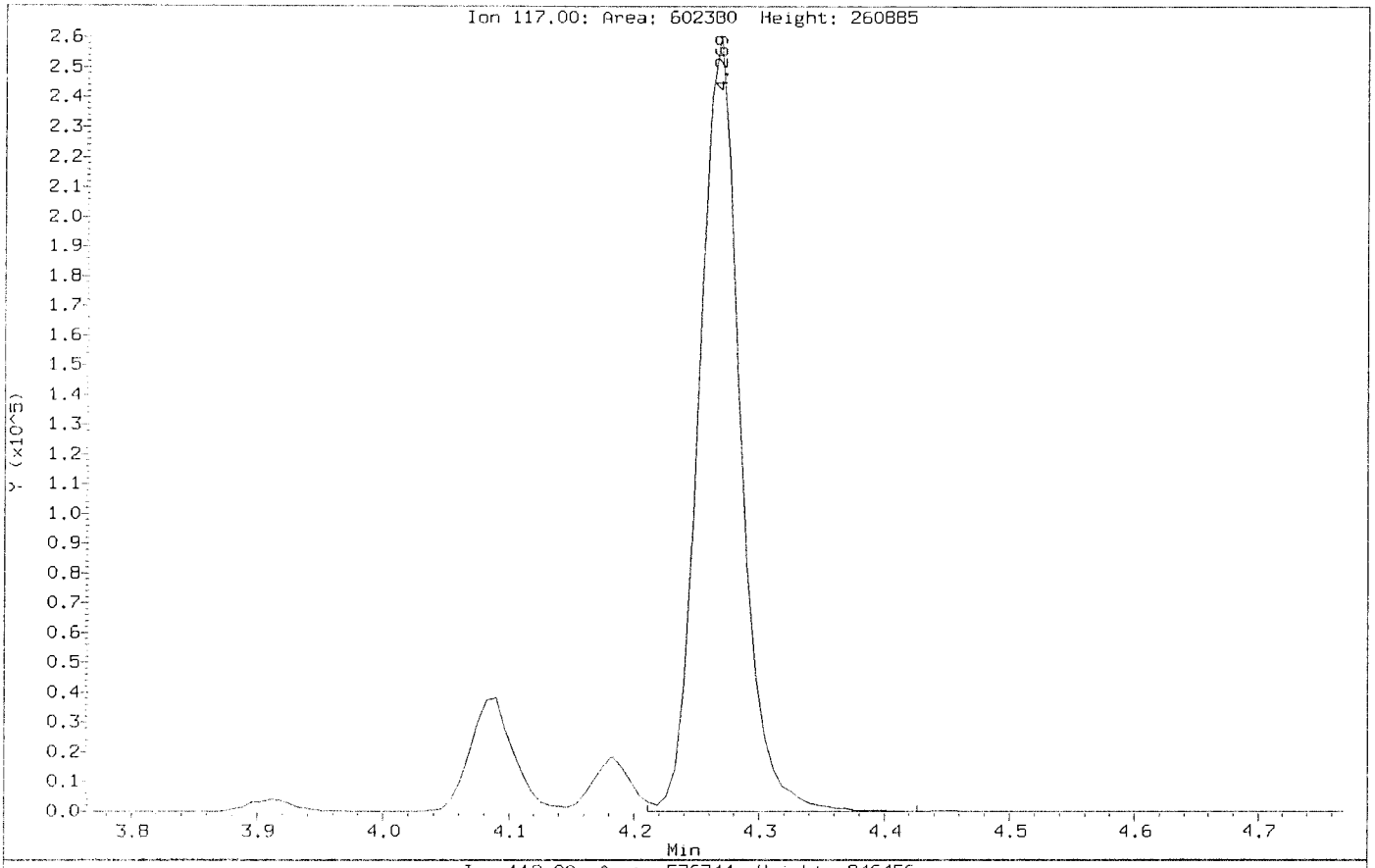
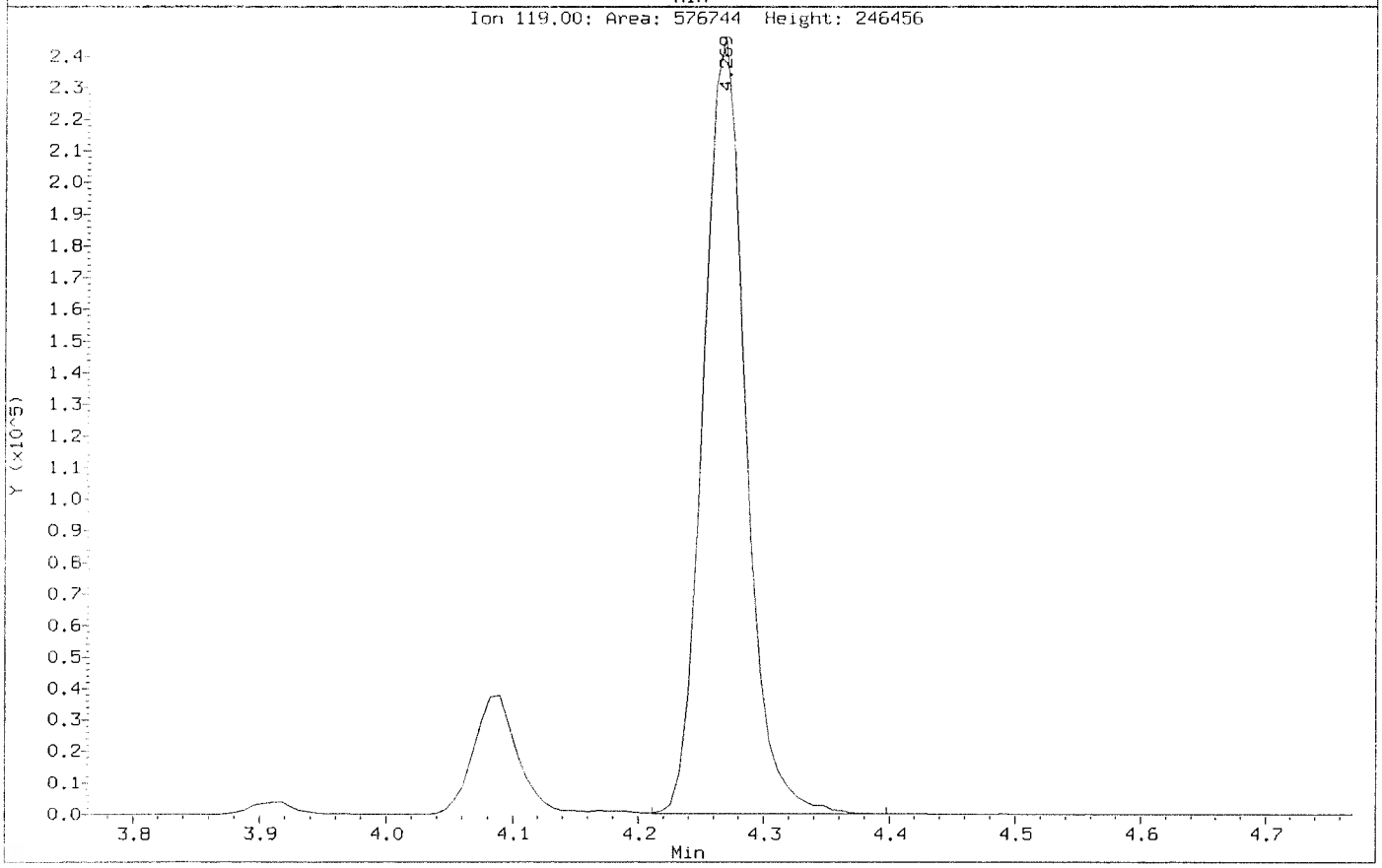
Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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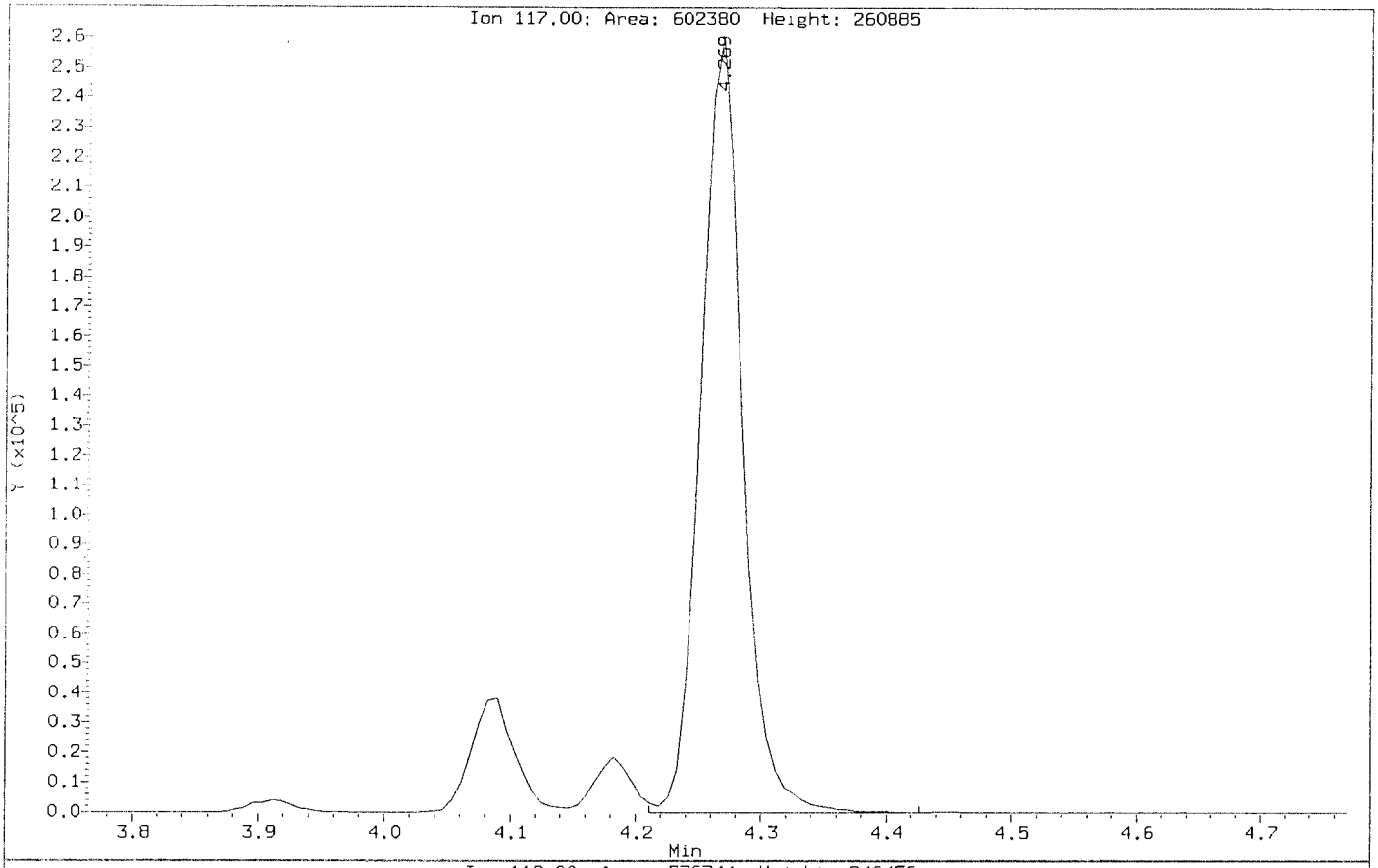
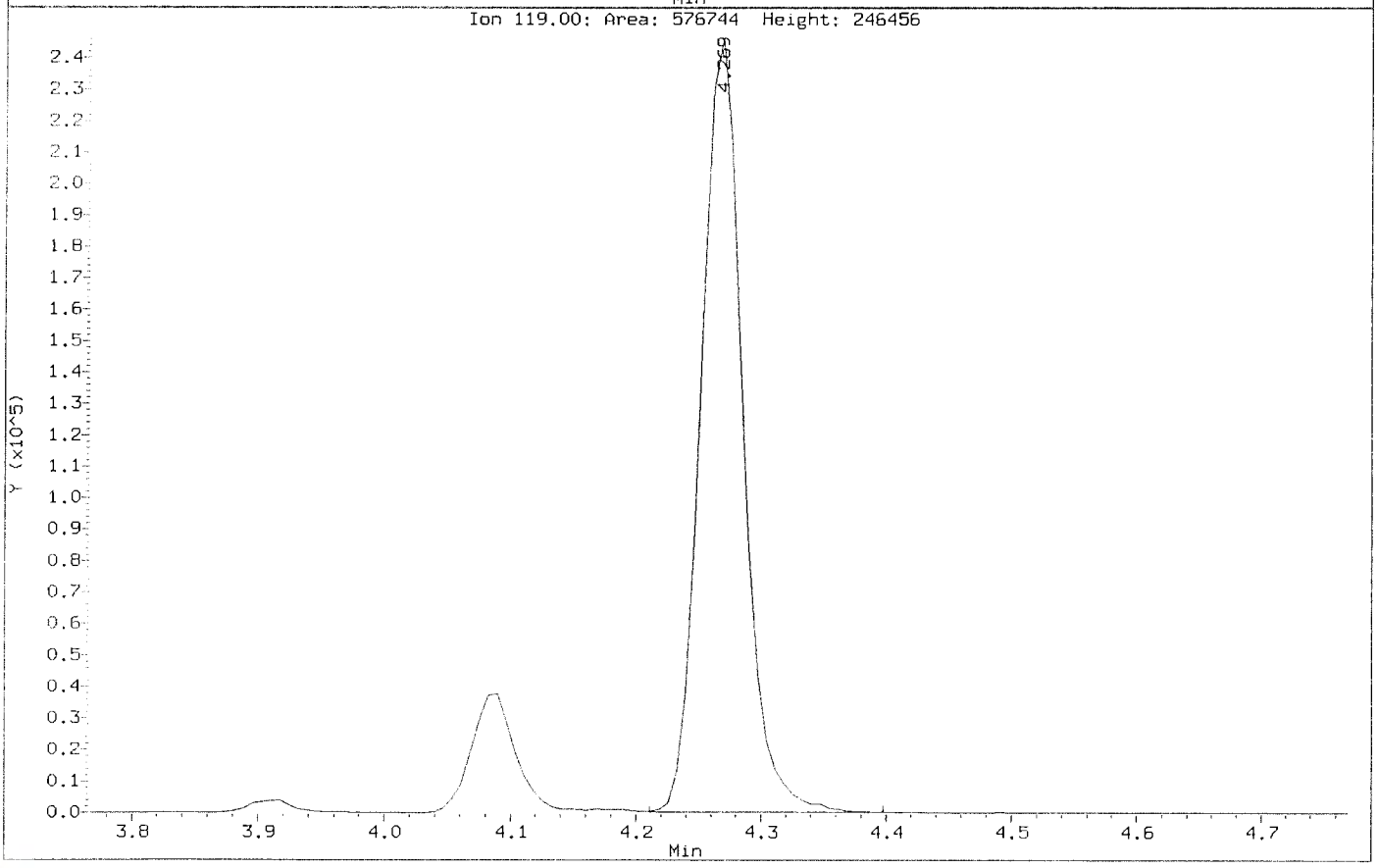
Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052610.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 26-MAY-2021 15:43
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:22 Cal File: X052609.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

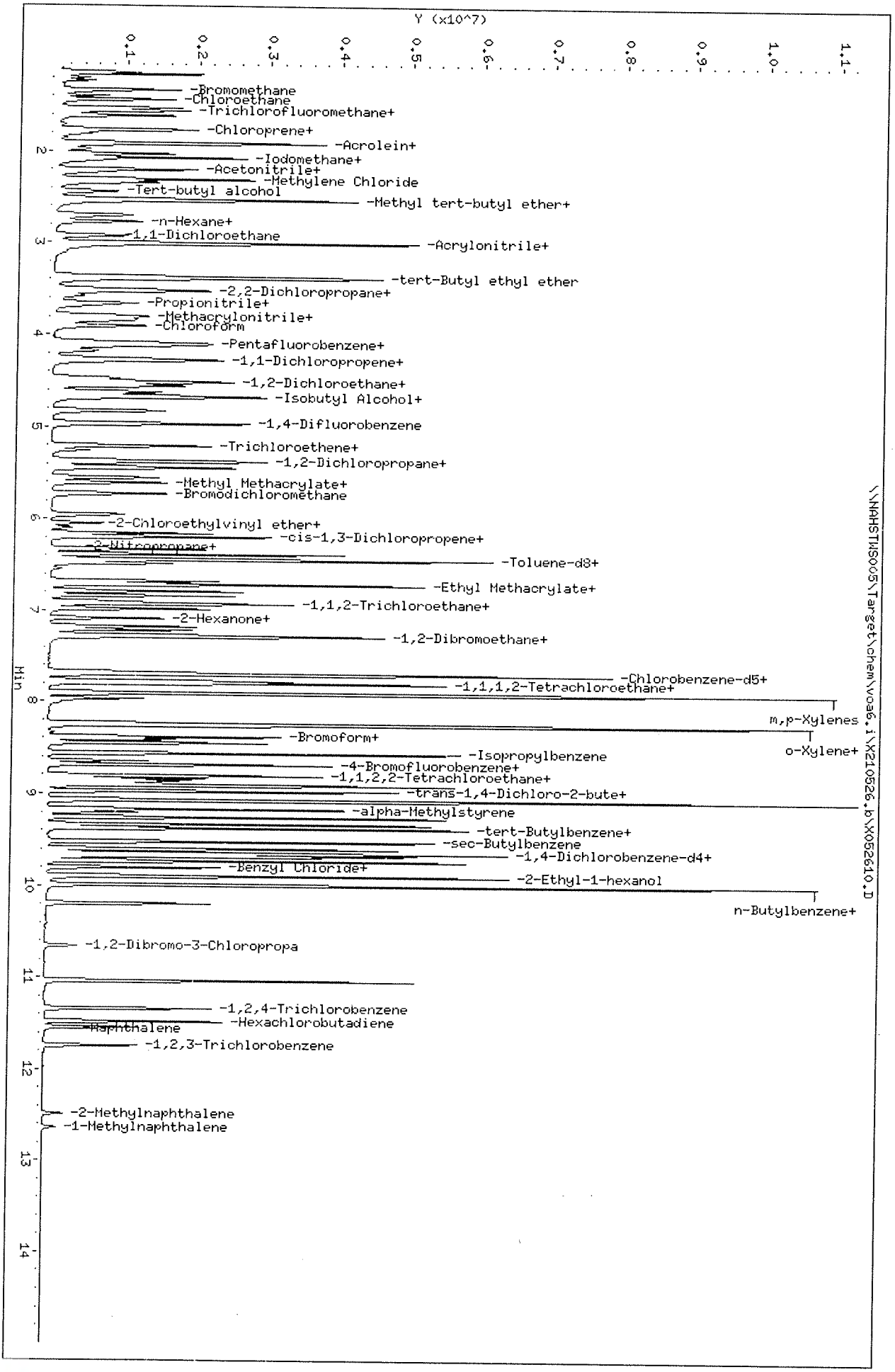
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	496717	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	755988	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	712100	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	415744	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	715769	150.000	146.71
$ 35 1,2-Dichloroethane-d4	65	4.468	4.468	(1.069)	696836	150.000	148.20
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2408134	150.000	135.76
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	931244	150.000	147.42
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	784505	150.000	148.96
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1024526	150.000	139.57
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	832157	150.000	147.15
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	547310	150.000	141.88
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	1041496	150.000	132.62
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	716685	150.000	140.07
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	803649	150.000	138.79
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	385015	150.000	152.97
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	694082	150.000	133.90(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	655214	150.000	161.83
79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	2691902	150.000	141.96
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	97075	150.000	146.19
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	745007	150.000	142.10
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1675583	150.000	148.59

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052610.D Page 2
Report Date: 30-Jun-2021 18:30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.554	4.554	(0.918)	860786	150.000	142.90
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	625353	150.000	140.52
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	2725713	150.000	144.43
83	1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	1646410	150.000	140.40
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	1072067	150.000	139.76
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1693050	150.000	138.35
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	926747	150.000	136.37
24	2-Butanone	43	3.580	3.580	(0.856)	418873	300.000	277.17(AH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	2094808	150.000	134.61
52	2-Hexanone	43	7.090	7.090	(0.924)	794291	300.000	300.27(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	2610637	150.000	140.87
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	2849522	150.000	148.23
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	1175728	300.000	286.71(A)
10	Acetone	43	1.976	1.976	(0.473)	361295	300.000	295.78(A)
37	Benzene	78	4.511	4.511	(0.909)	2402438	150.000	138.33
74	Bromobenzene	156	8.802	8.802	(0.911)	992332	150.000	143.86
29	Bromochloromethane	128	3.795	3.795	(0.909)	412667	150.000	137.39
39	Bromodichloromethane	83	5.722	5.722	(1.153)	921182	150.000	141.73
66	Bromoform	173	8.408	8.408	(1.096)	649384	150.000	163.53
6	Bromomethane	94	1.331	1.331	(0.318)	786302	150.000	152.94
19	Carbon Disulfide	76	2.069	2.069	(0.495)	3195658	300.000	263.37(A)
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	917973	150.000	146.47(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	2108986	150.000	142.26
7	Chloroethane	64	1.396	1.396	(0.334)	494207	150.000	144.48
28	Chloroform	83	3.910	3.910	(0.935)	1186262	150.000	135.80
3	Chloromethane	50	1.073	1.073	(0.257)	633860	150.000	146.22
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	727278	150.000	139.69
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	1139309	150.000	148.76
55	Dibromochloromethane	129	7.176	7.176	(0.936)	882492	150.000	150.57
44	Dibromomethane	93	5.550	5.550	(1.118)	476483	150.000	142.48
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	654875	150.000	143.91
61	Ethylbenzene	106	7.799	7.799	(1.017)	1007746	150.000	147.35
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	433230	150.000	150.62
67	Isopropylbenzene	105	8.559	8.559	(1.116)	3224819	150.000	154.32
62	m,p-Xylenes	106	7.907	7.907	(1.031)	2710635	300.000	304.04(A)
17	Methylene Chloride	84	2.305	2.305	(0.551)	646121	150.000	145.92
87	n-Butylbenzene	91	9.991	9.991	(1.034)	2582559	150.000	159.67
73	n-Propylbenzene	91	8.910	8.910	(0.922)	3527326	150.000	136.01
92	Naphthalene	128	11.538	11.538	(1.194)	876476	150.000	147.52
63	o-Xylene	106	8.243	8.243	(1.075)	1321003	150.000	151.95
81	sec-Butylbenzene	105	9.518	9.518	(0.985)	3164362	150.000	144.94
64	Styrene	104	8.258	8.258	(1.077)	2333940	150.000	160.66
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	2327731	150.000	143.87
56	Tetrachloroethene	164	6.925	6.925	(0.903)	689168	150.000	157.21
50	Toluene	91	6.445	6.445	(0.840)	2907224	150.000	139.84
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	633195	150.000	136.52
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1006695	150.000	152.37
38	Trichloroethene	130	5.206	5.206	(1.049)	743912	150.000	143.37
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1277632	150.000	142.49
5	Vinyl Chloride	62	1.138	1.138	(0.272)	799846	150.000	136.03

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.



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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

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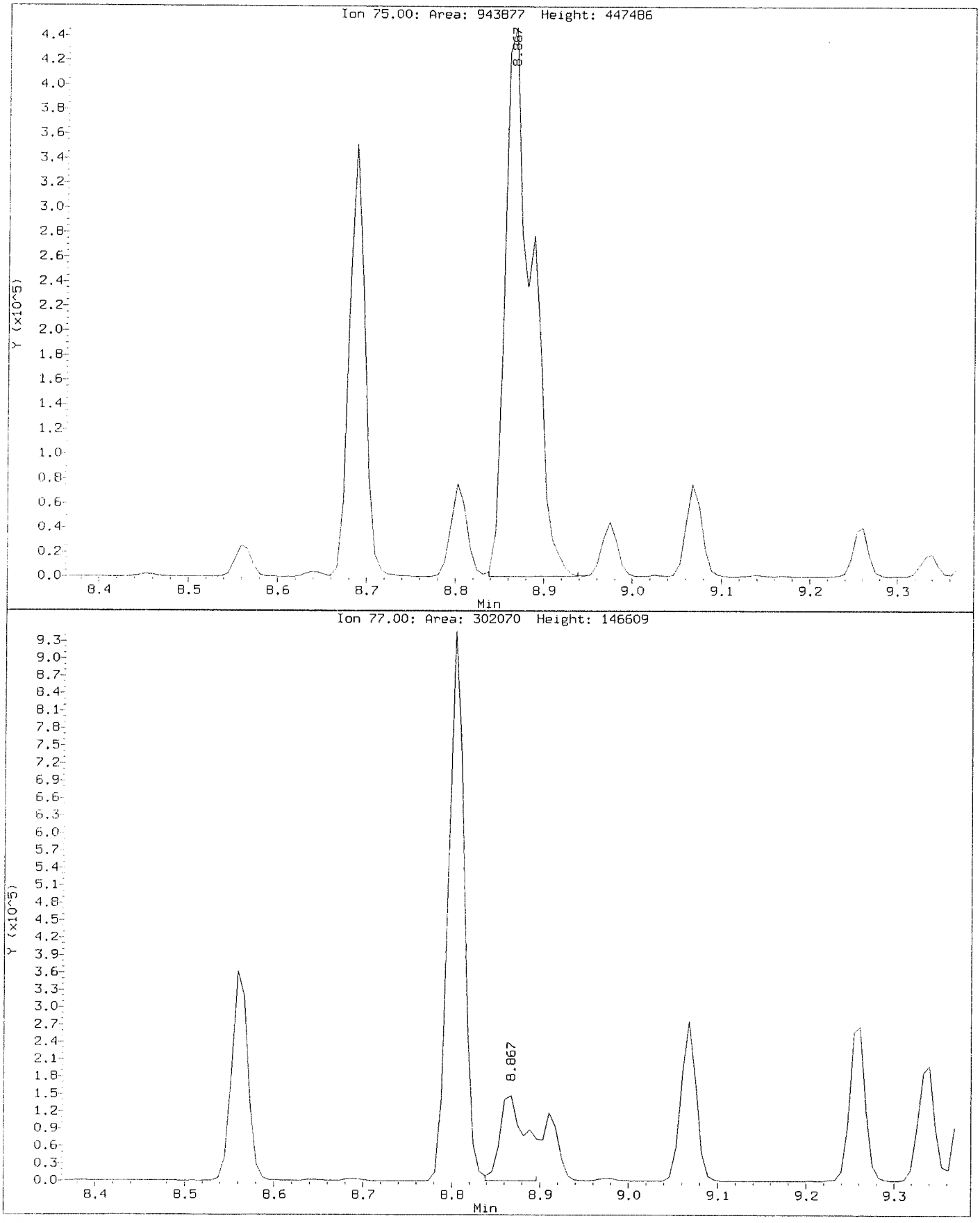
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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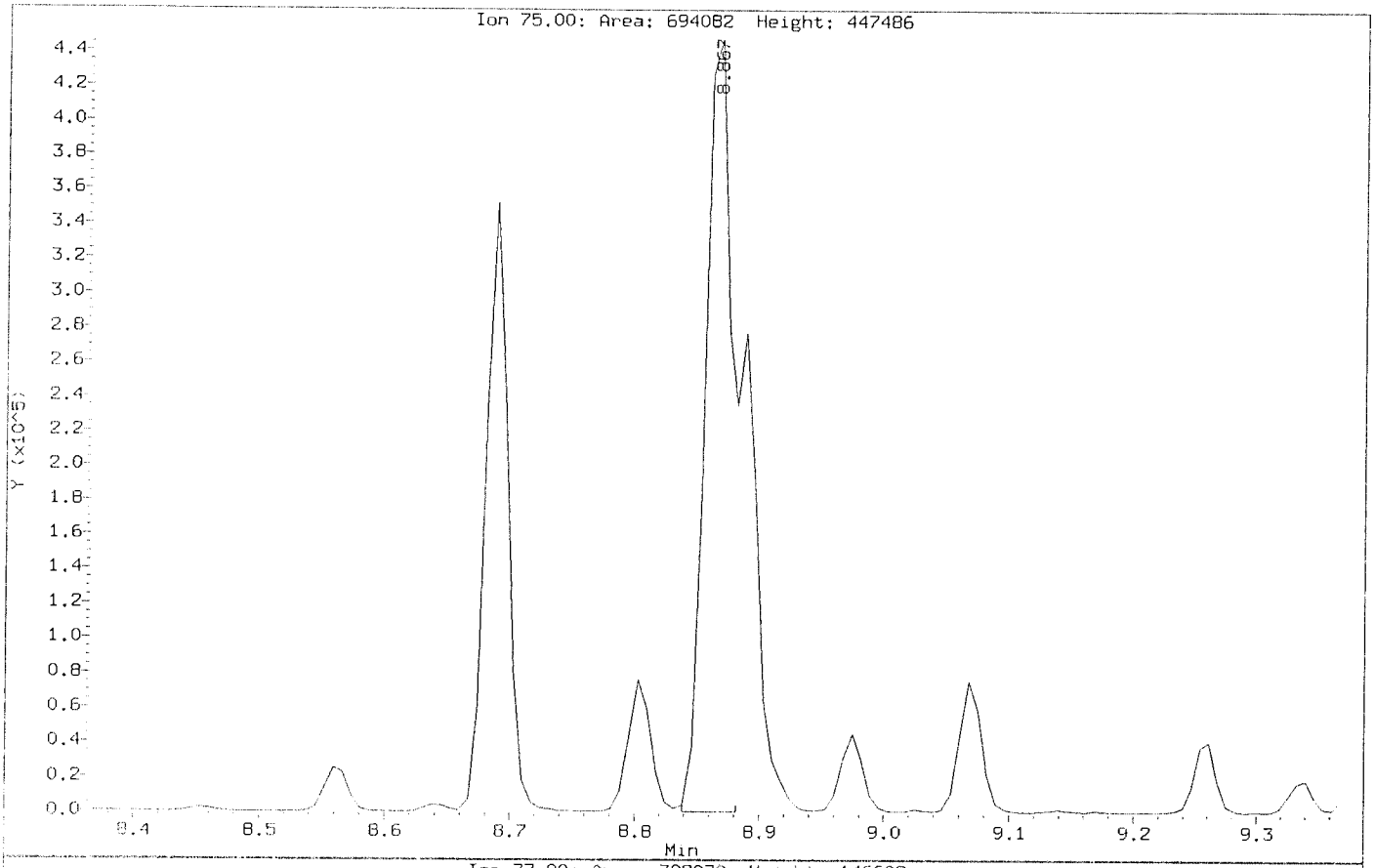
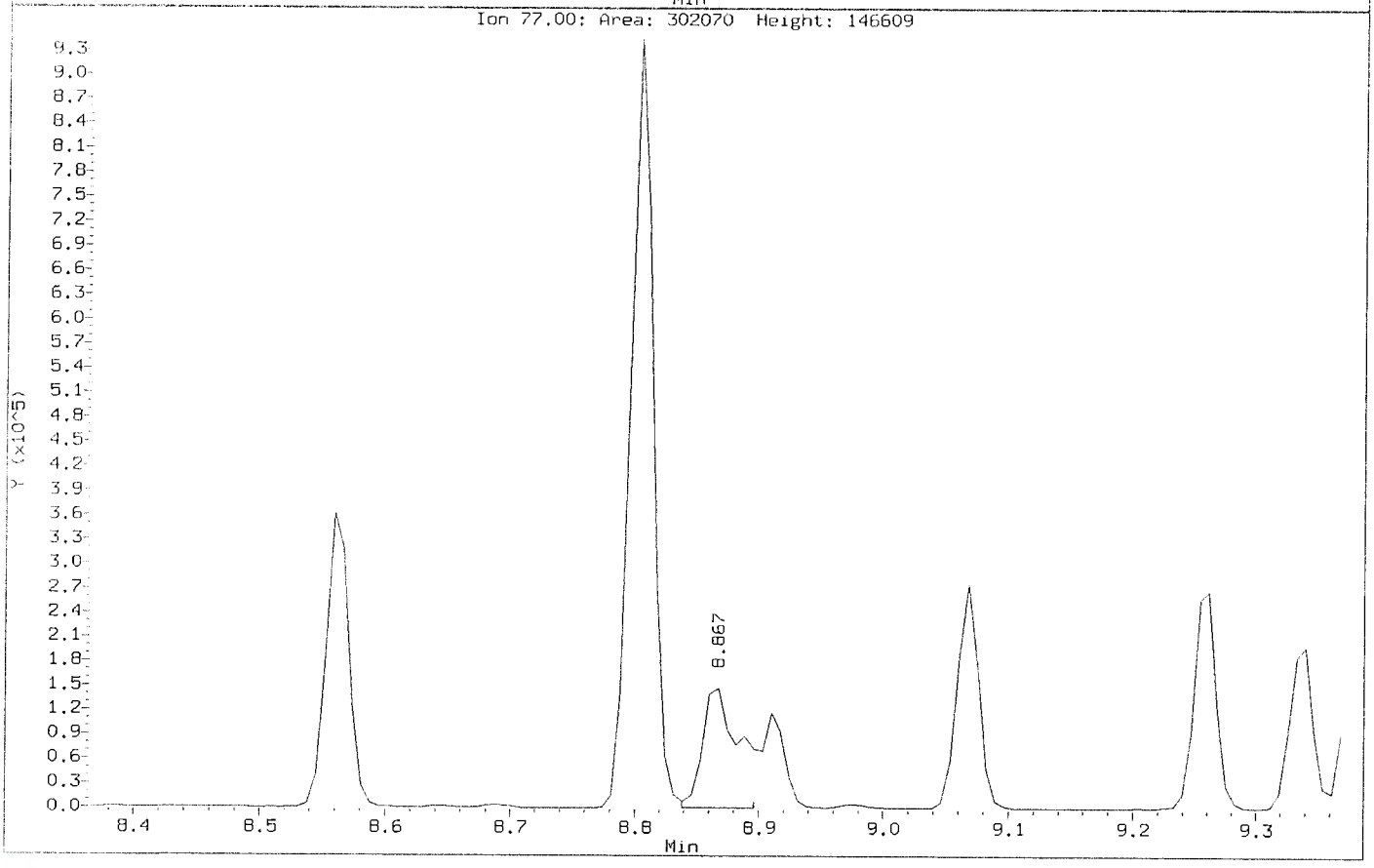
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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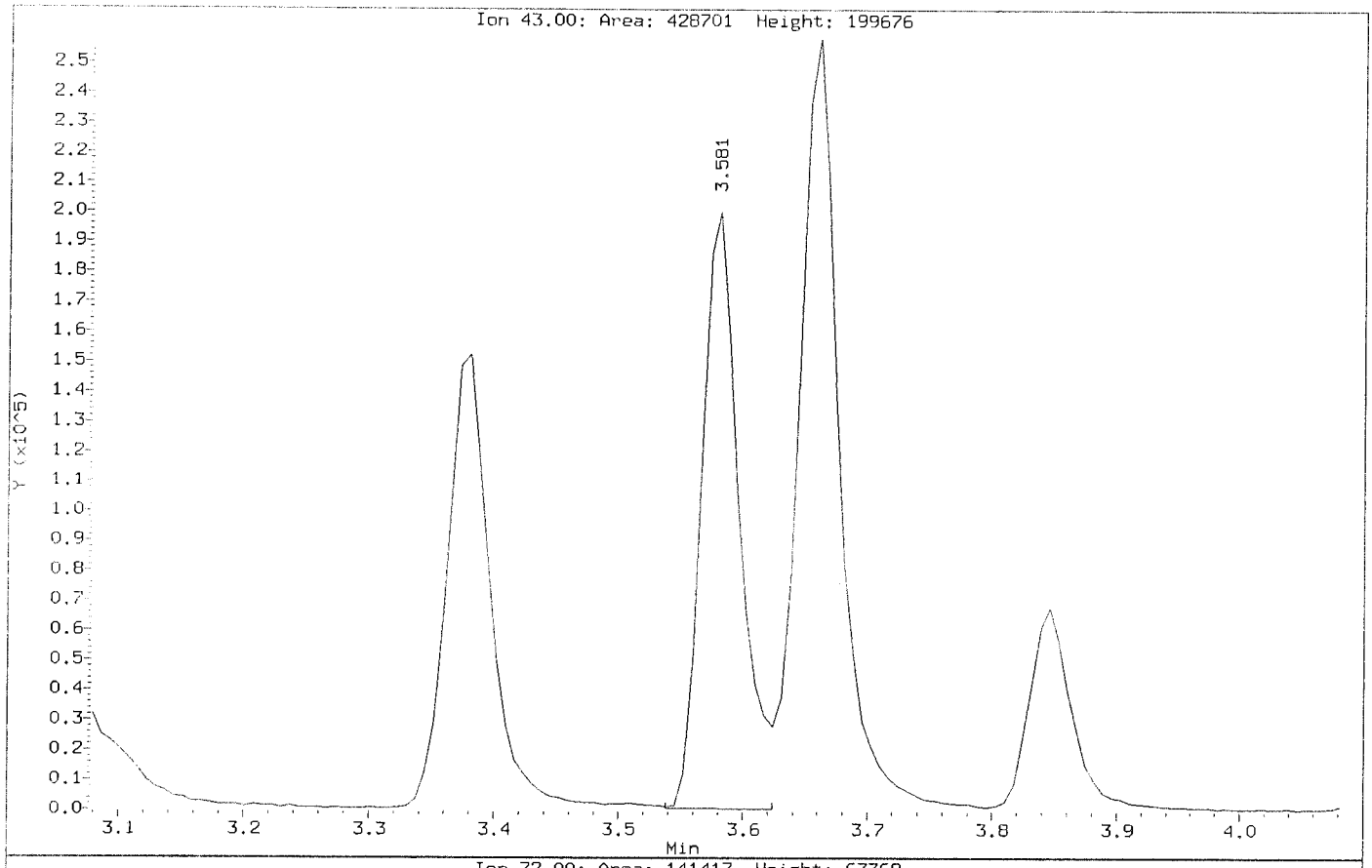
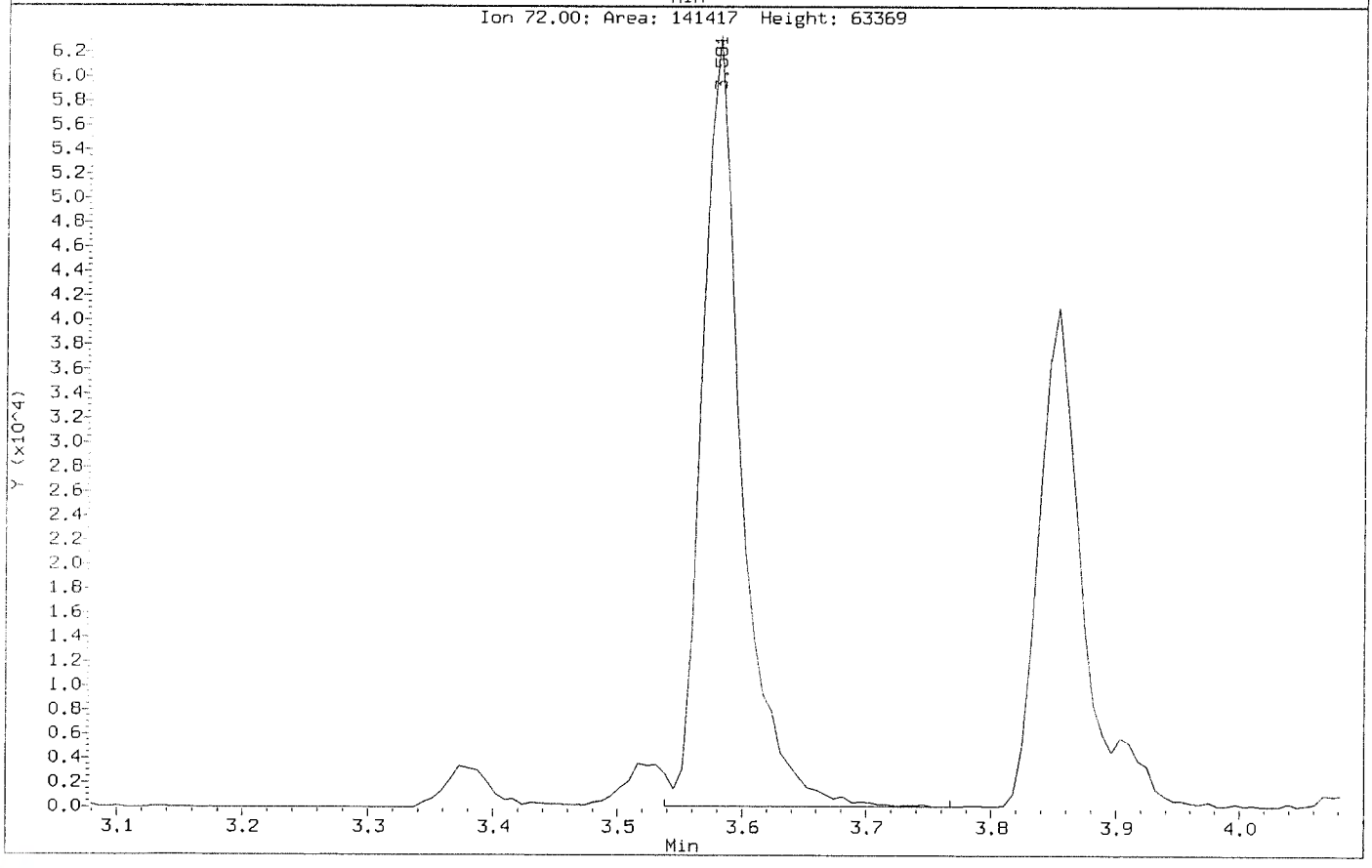
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: 2-Butanone
CAS Number: 78-93-3





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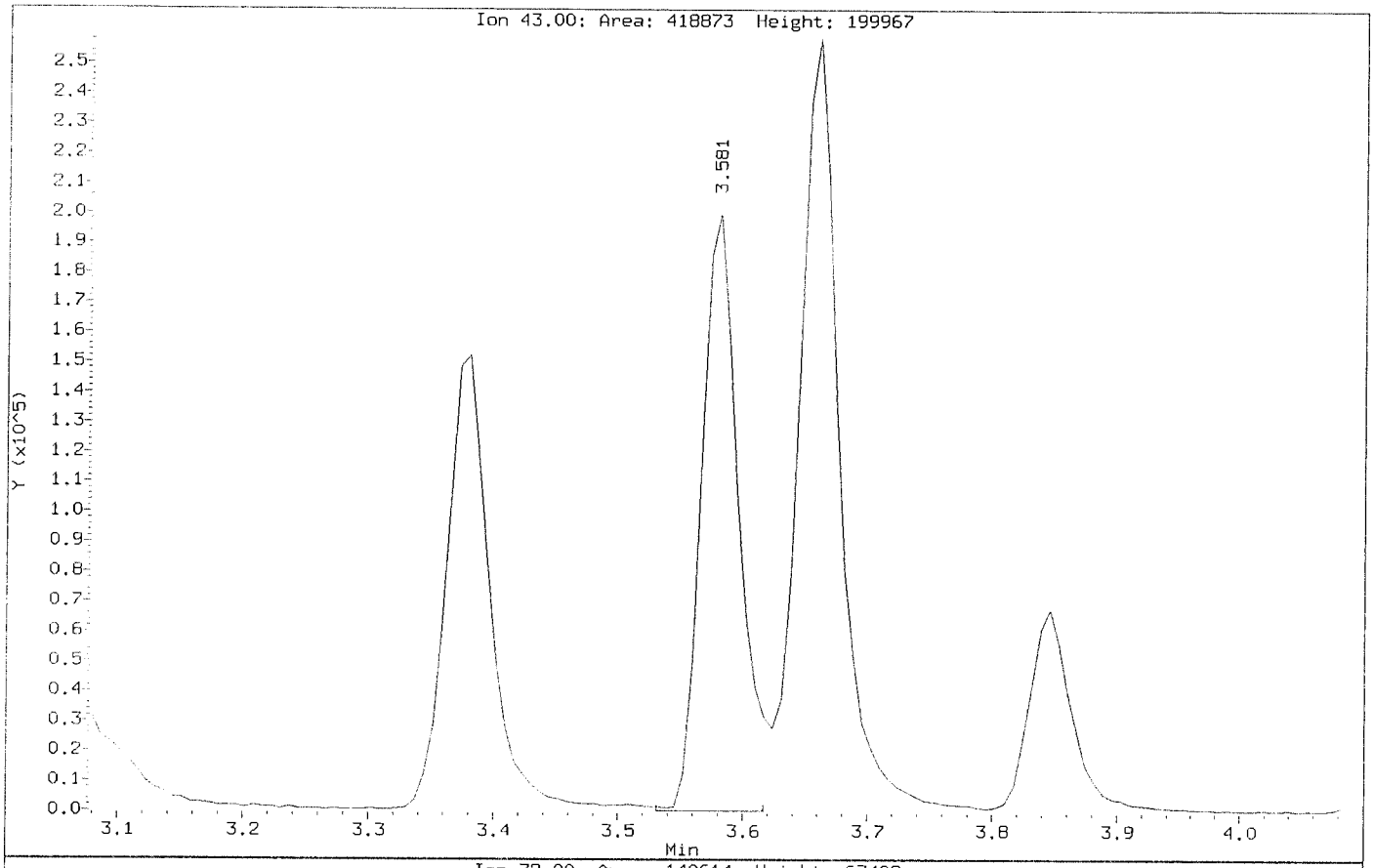
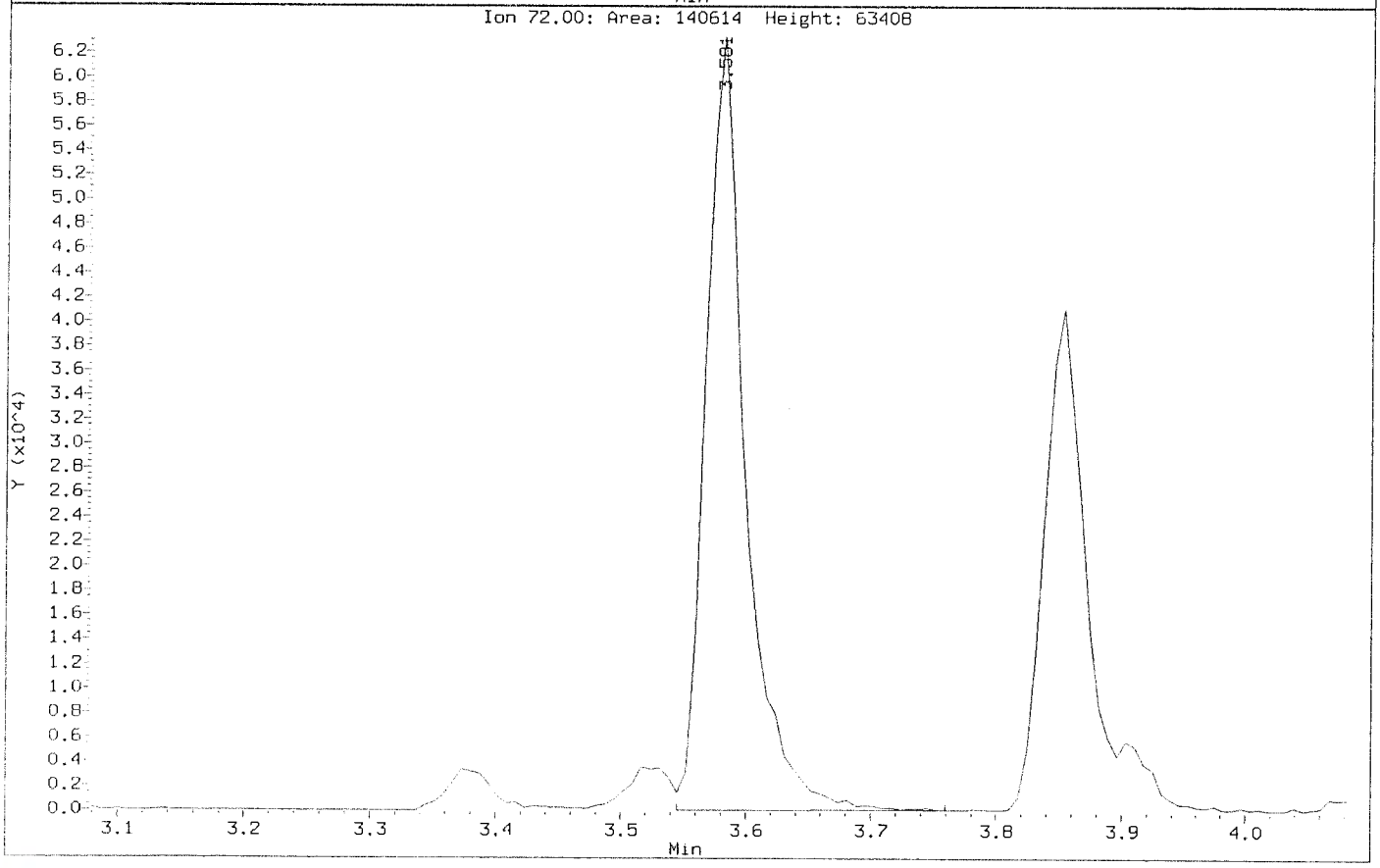
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: 2-Butanone
CAS Number: 78-93-3





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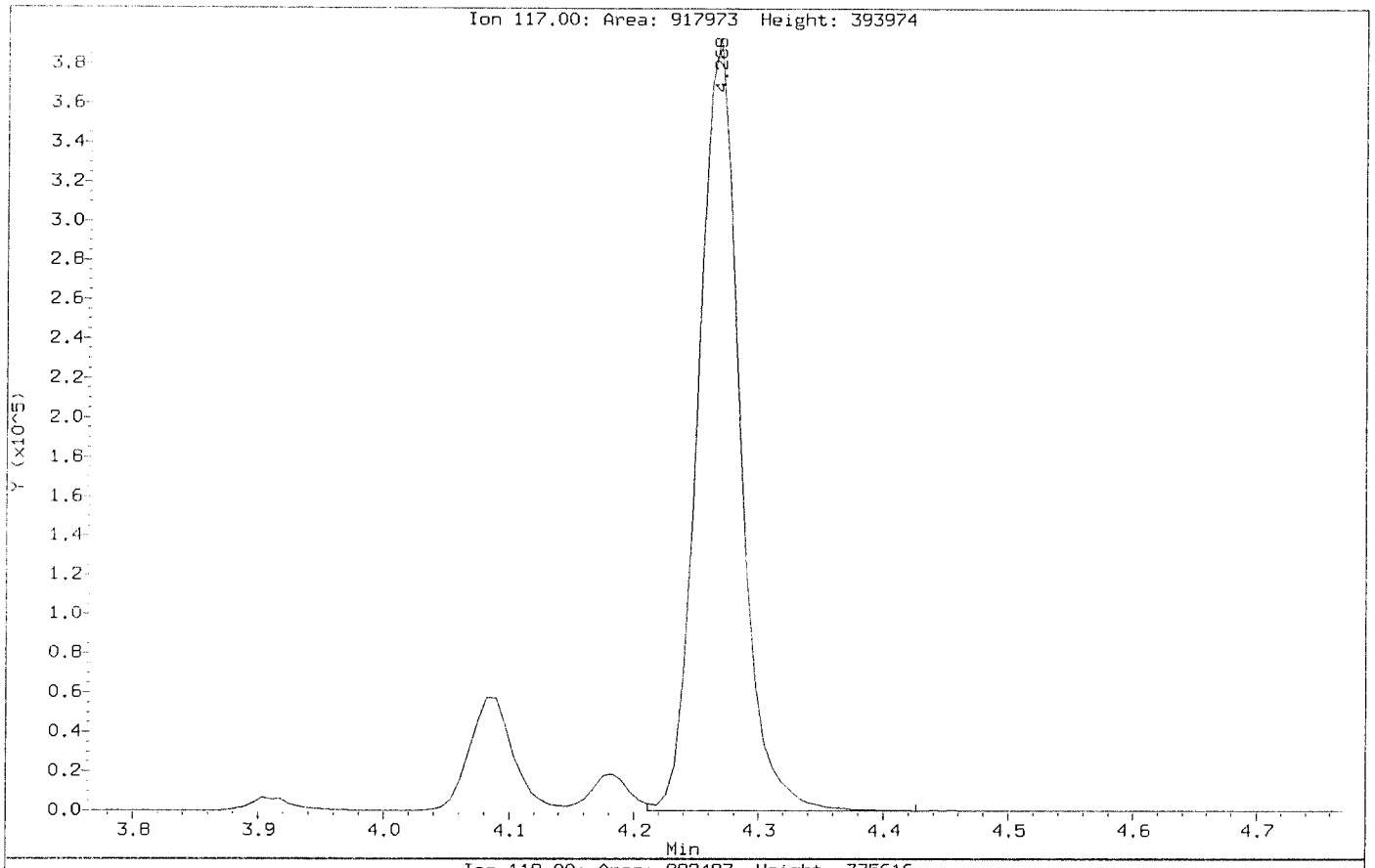
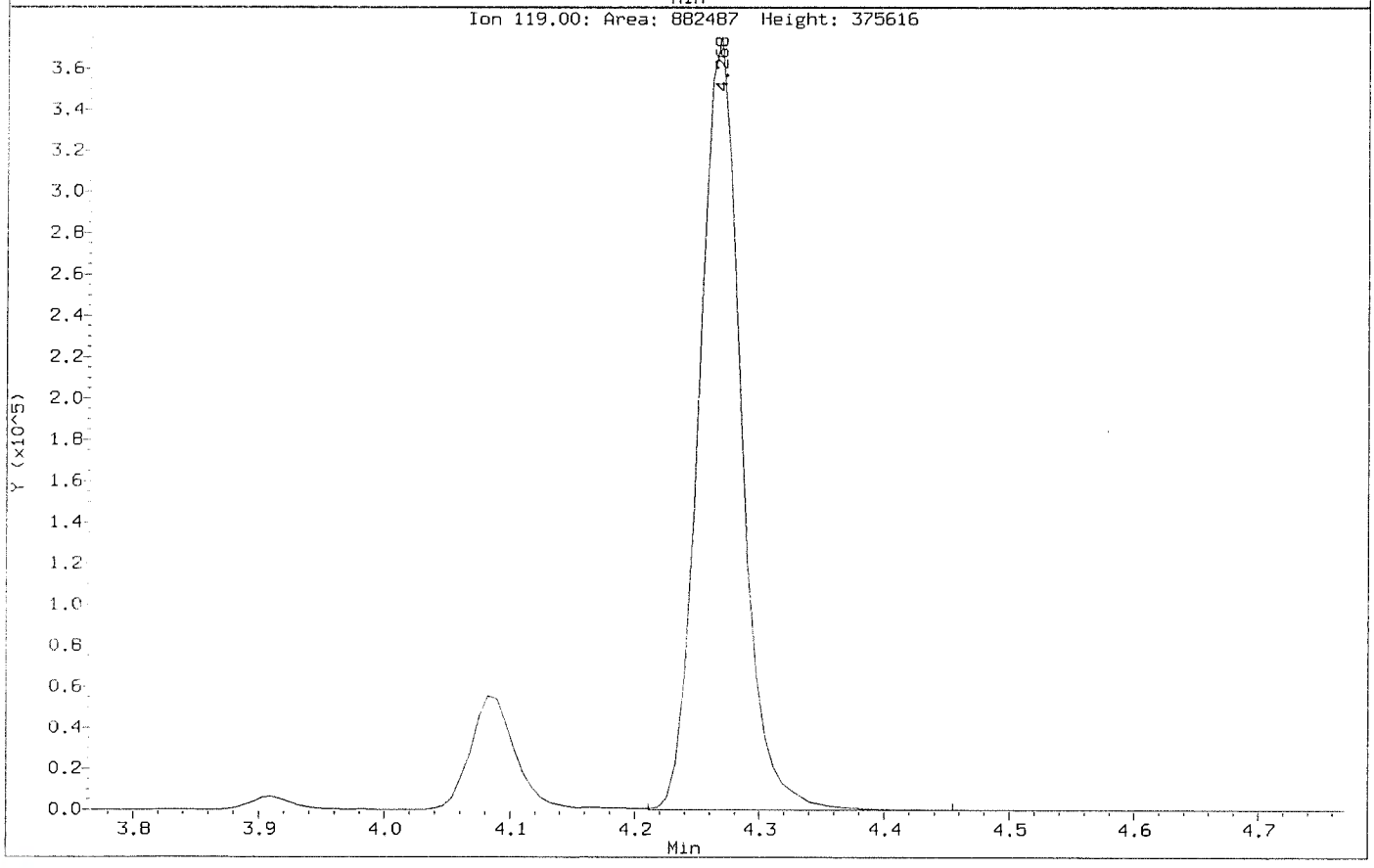
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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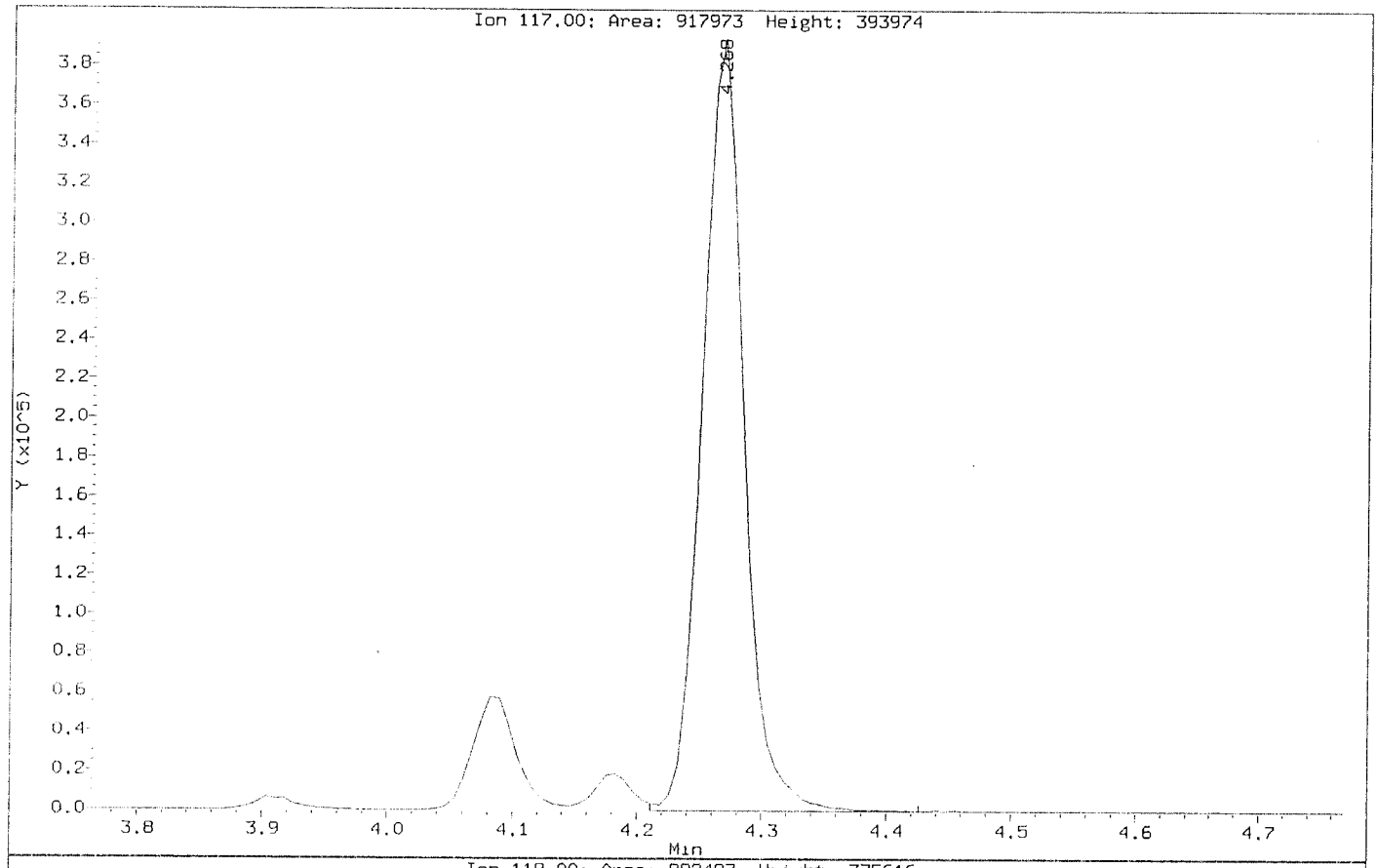
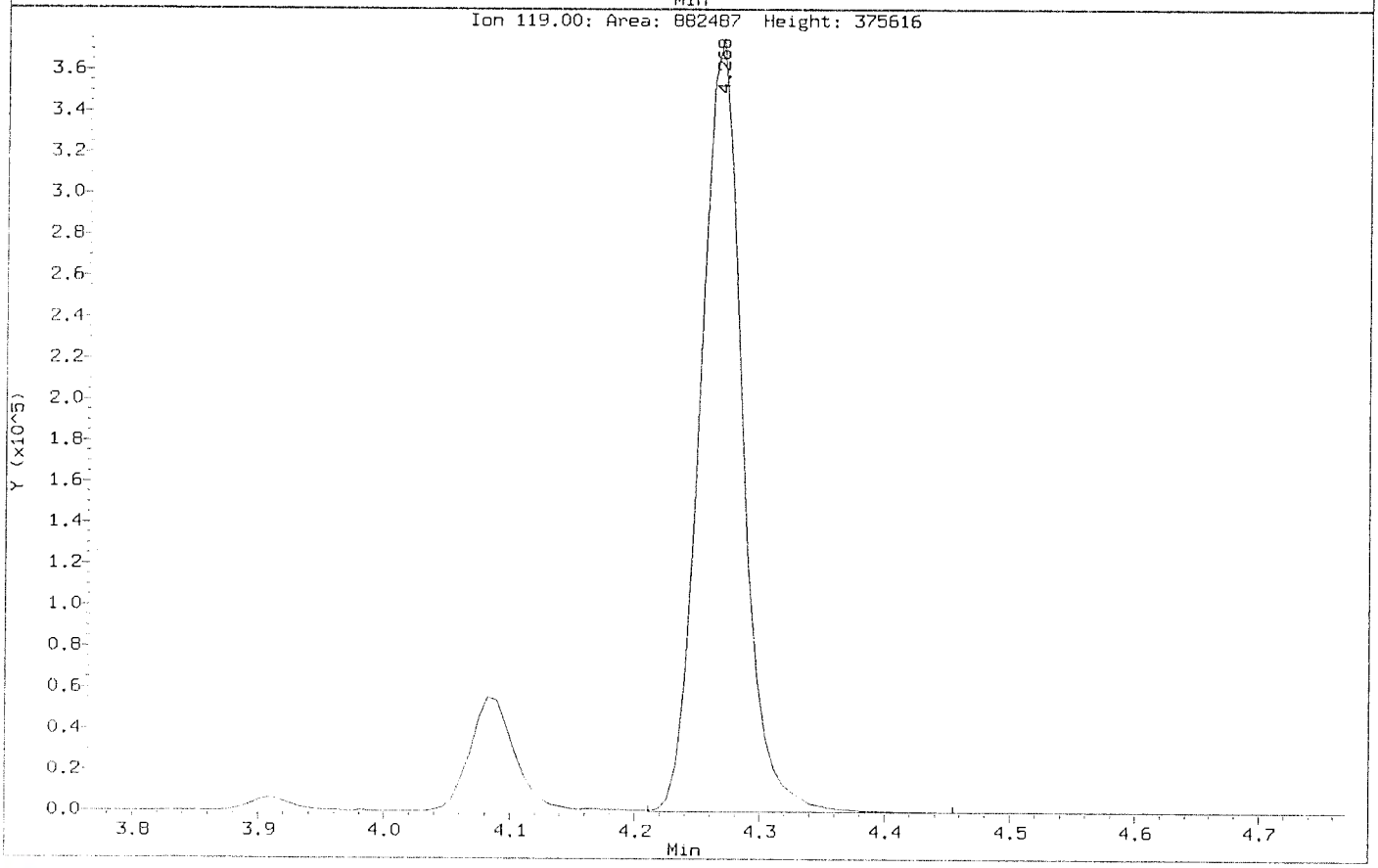
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 26-MAY-2021 16:04
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:43 Cal File: X052610.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

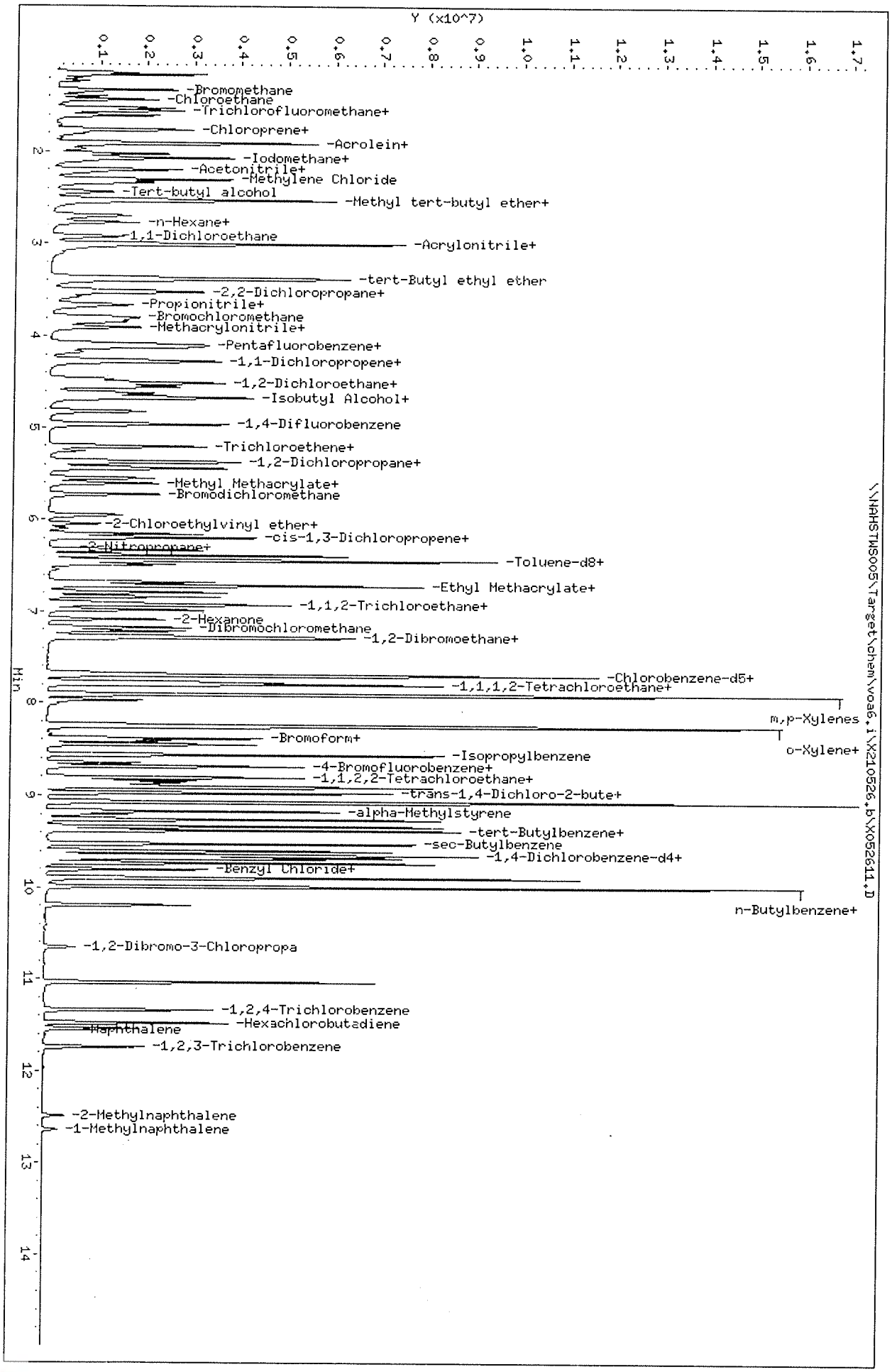
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	527290	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	811816	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	755473	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	445629	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	1043408	200.000	201.53(A)
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	998694	200.000	200.33(A)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	3611012	200.000	191.88
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1352939	200.000	201.60(A)
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	1160674	200.000	207.74(A)
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1546157	200.000	198.41
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	1217789	200.000	201.34(A)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	795336	200.000	194.34
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	1553138	200.000	186.31
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	1086071	200.000	199.96
32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	1215669	200.000	195.52
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	587179	200.000	217.65(A)
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	1016225	200.000	182.90(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	1006020	200.000	228.33(A)
79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	3984770	200.000	196.04
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	144783	200.000	203.21(A)
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	1081620	200.000	194.46
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	2444820	200.000	202.26(A)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D Page 2
Report Date: 30-Jun-2021 18:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	1287189	200.000	198.99
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	927936	200.000	194.18
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	4079042	200.000	201.65(A)
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	2476726	200.000	197.04
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	1564813	200.000	192.29
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2515937	200.000	191.81
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	1390015	200.000	192.68
24 2-Butanone	43	3.581	3.581	(0.856)	612469	400.000	381.77(AH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	3071832	200.000	184.16
52 2-Hexanone	43	7.090	7.090	(0.924)	1187324	400.000	423.08(A)
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	3896306	200.000	196.15
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	4264800	200.000	206.97(A)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	1734309	400.000	398.65(A)
10 Acetone	43	1.976	1.976	(0.473)	519345	400.000	402.63(A)
37 Benzene	78	4.512	4.512	(0.909)	3517442	200.000	188.60
74 Bromobenzene	156	8.810	8.810	(0.912)	1454241	200.000	196.69
29 Bromochloromethane	128	3.795	3.795	(0.908)	600567	200.000	188.36
39 Bromodichloromethane	83	5.722	5.722	(1.153)	1341462	200.000	192.21
66 Bromoform	173	8.408	8.408	(1.096)	949877	200.000	225.48(A)
6 Bromomethane	94	1.331	1.331	(0.318)	1239498	200.000	227.04(A)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	4795917	400.000	372.34(A)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	1378935	200.000	204.90(AH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	3148357	200.000	200.18(A)
7 Chloroethane	64	1.396	1.396	(0.334)	731139	200.000	201.91(A)
28 Chloroform	83	3.910	3.910	(0.935)	1752890	200.000	189.03
3 Chloromethane	50	1.073	1.073	(0.257)	908675	200.000	198.43
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	1076621	200.000	194.80
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	1661934	200.000	202.08(A)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	1301247	200.000	209.27(A)
44 Dibromomethane	93	5.550	5.550	(1.118)	692444	200.000	192.81
2 Dichlorodifluoromethane	85	0.966	0.966	(0.231)	978413	200.000	202.63(A)
61 Ethylbenzene	106	7.800	7.800	(1.017)	1516023	200.000	208.94(A)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	655226	200.000	199.03
67 Isopropylbenzene	105	8.559	8.559	(1.116)	4812871	200.000	217.10(A)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	4076675	400.000	431.01(A)
17 Methylene Chloride	84	2.298	2.298	(0.550)	946394	200.000	201.84(A)
87 n-Butylbenzene	91	9.991	9.991	(1.034)	3888439	200.000	224.29(A)
73 n-Propylbenzene	91	8.910	8.910	(0.922)	5428268	200.000	195.27
92 Naphthalene	128	11.539	11.539	(1.194)	1334488	200.000	209.55(A)
63 o Xylene	106	8.244	8.244	(1.075)	1968239	200.000	213.41(A)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	4746456	200.000	202.83(A)
64 Styrene	104	8.258	8.258	(1.077)	3480363	200.000	225.83(A)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	3505119	200.000	202.12(A)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	1043185	200.000	224.30(A)
50 Toluene	91	6.446	6.446	(0.840)	4409516	200.000	195.93
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	939280	200.000	190.77
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1486499	200.000	209.53(A)
38 Trichloroethene	130	5.207	5.207	(1.049)	1115378	200.000	200.18(A)
8 Trichlorofluoromethane	101	1.553	1.553	(0.372)	1890285	200.000	198.60
5 Vinyl Chloride	62	1.138	1.138	(0.272)	1189726	200.000	190.61

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.



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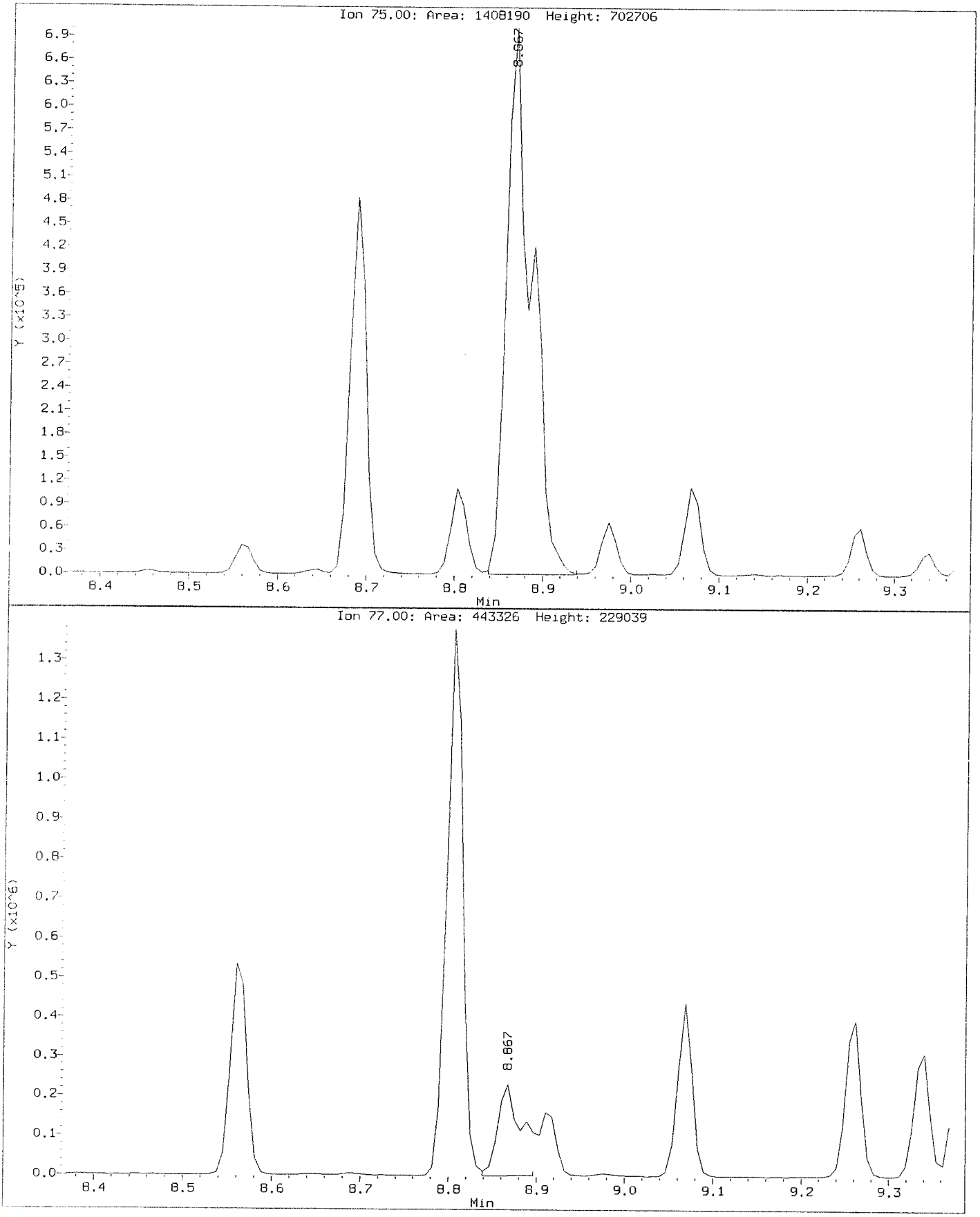
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052611.D
Injection Date: 26-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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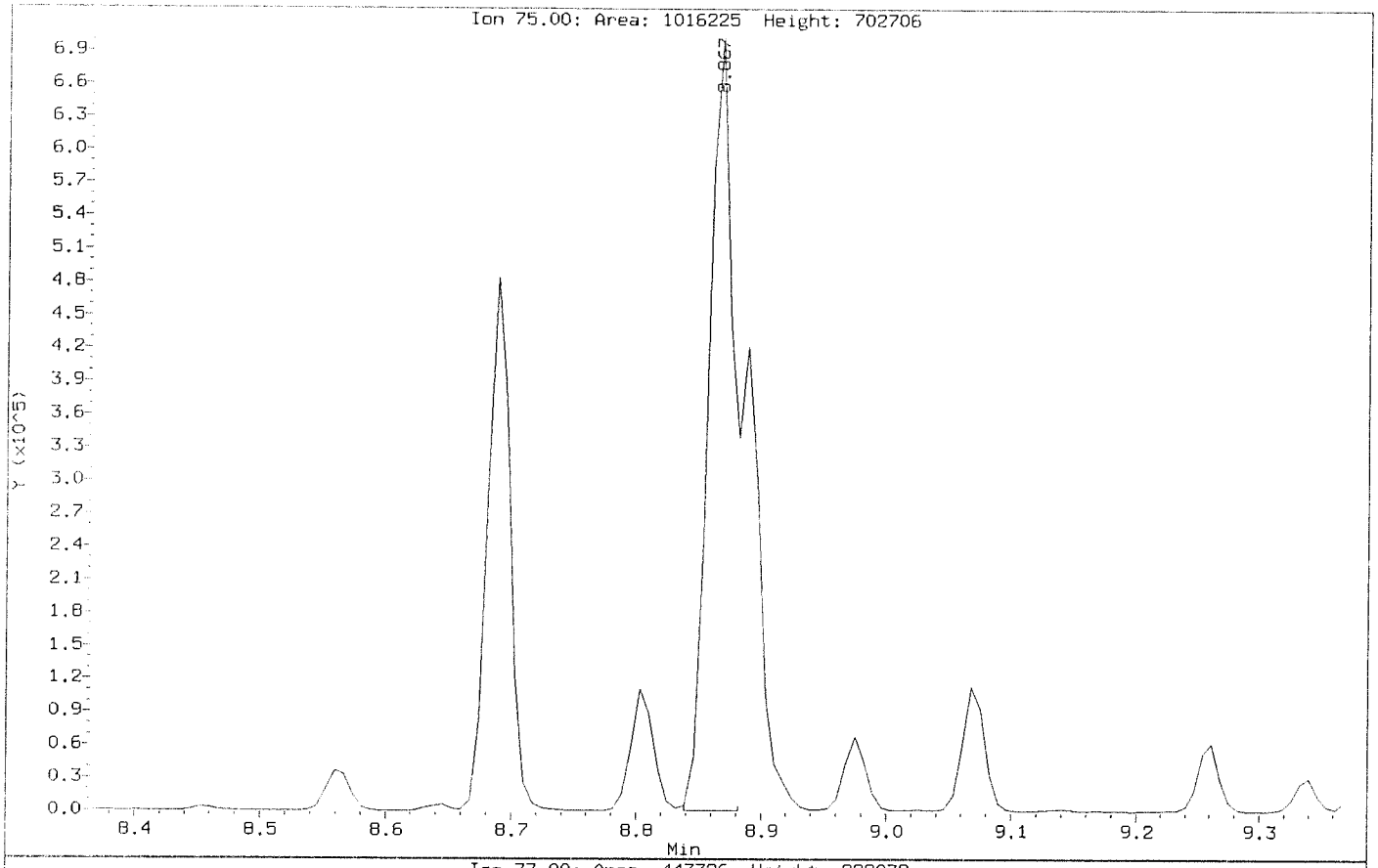
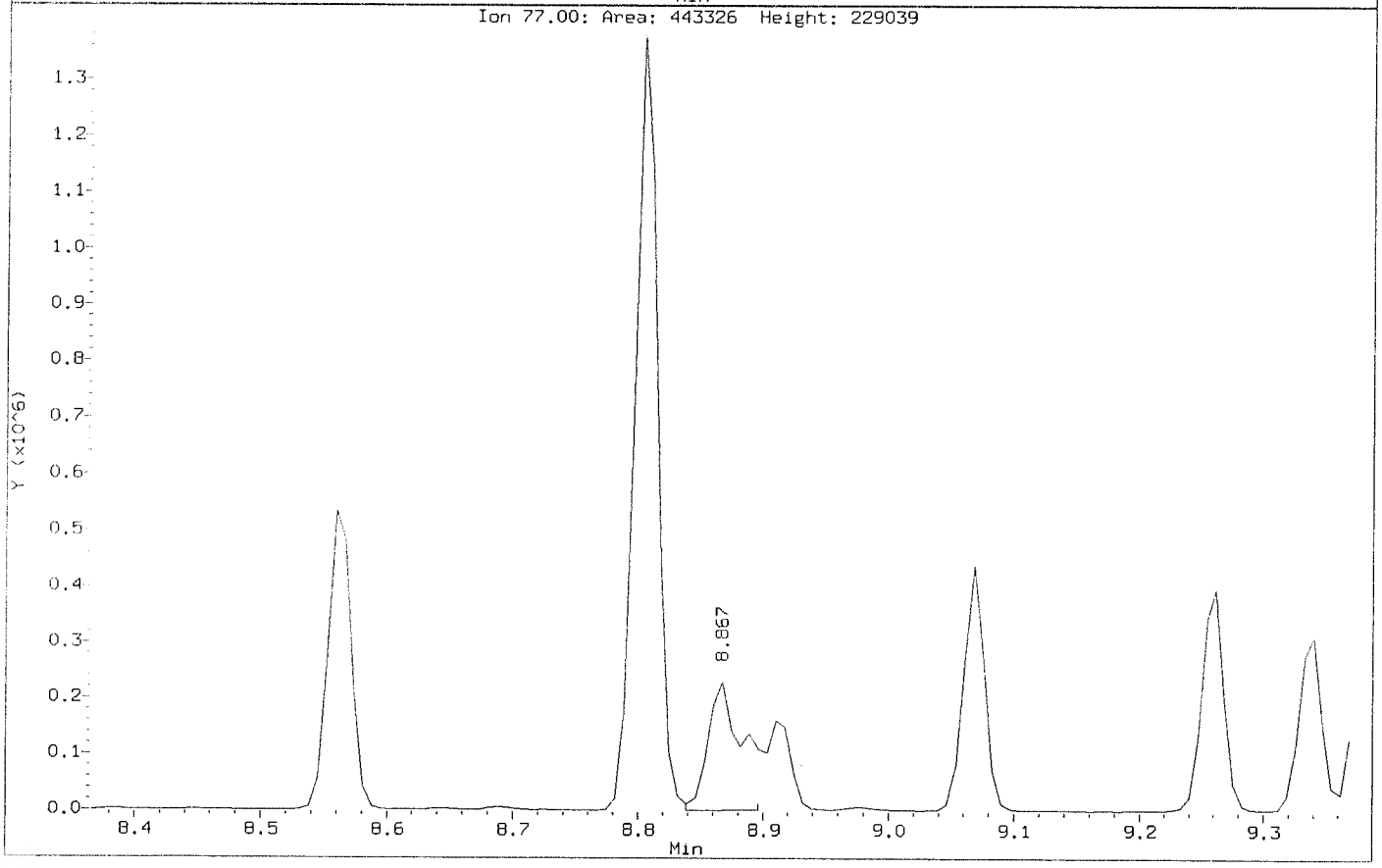
Client Sample ID: VSTD200

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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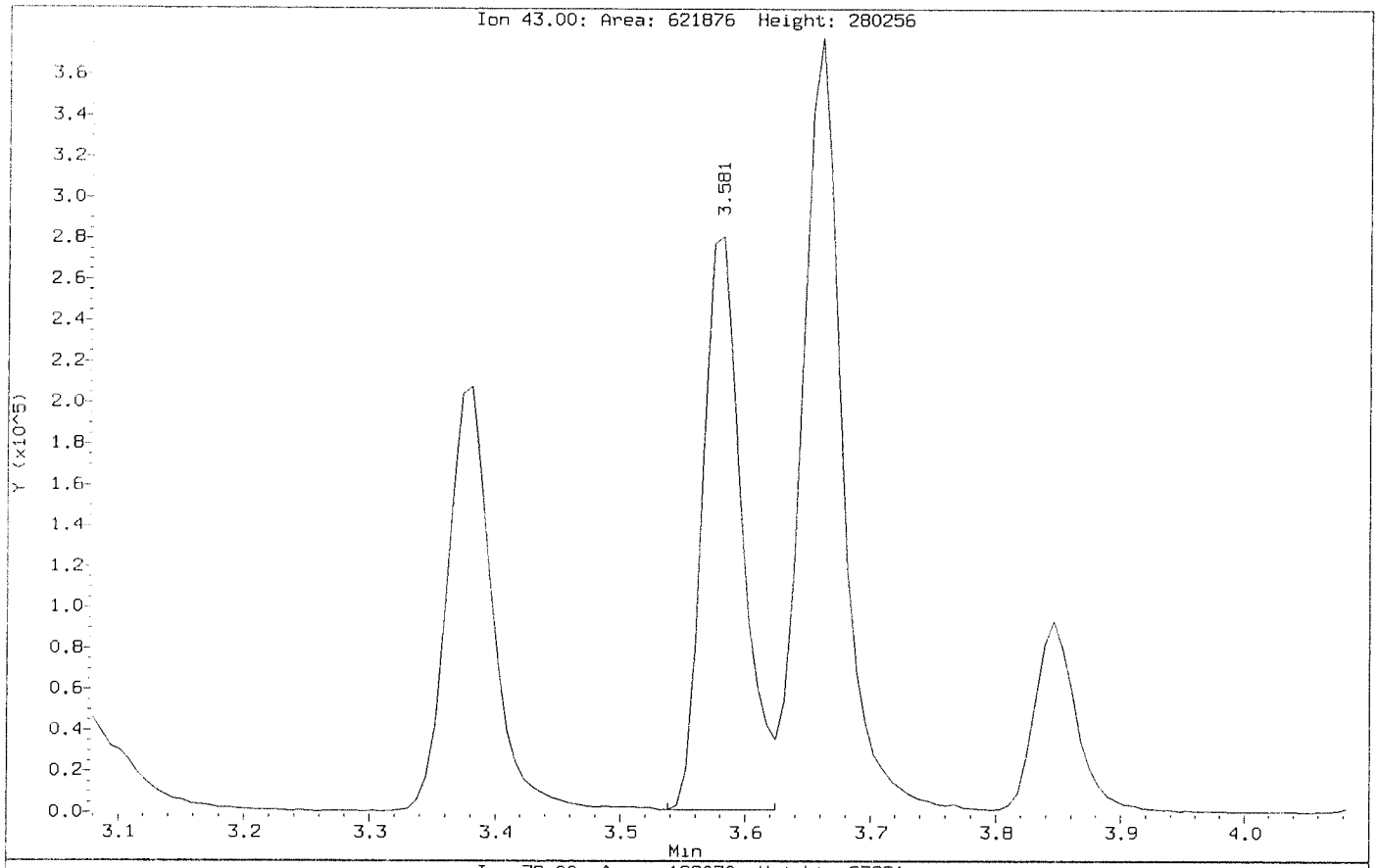
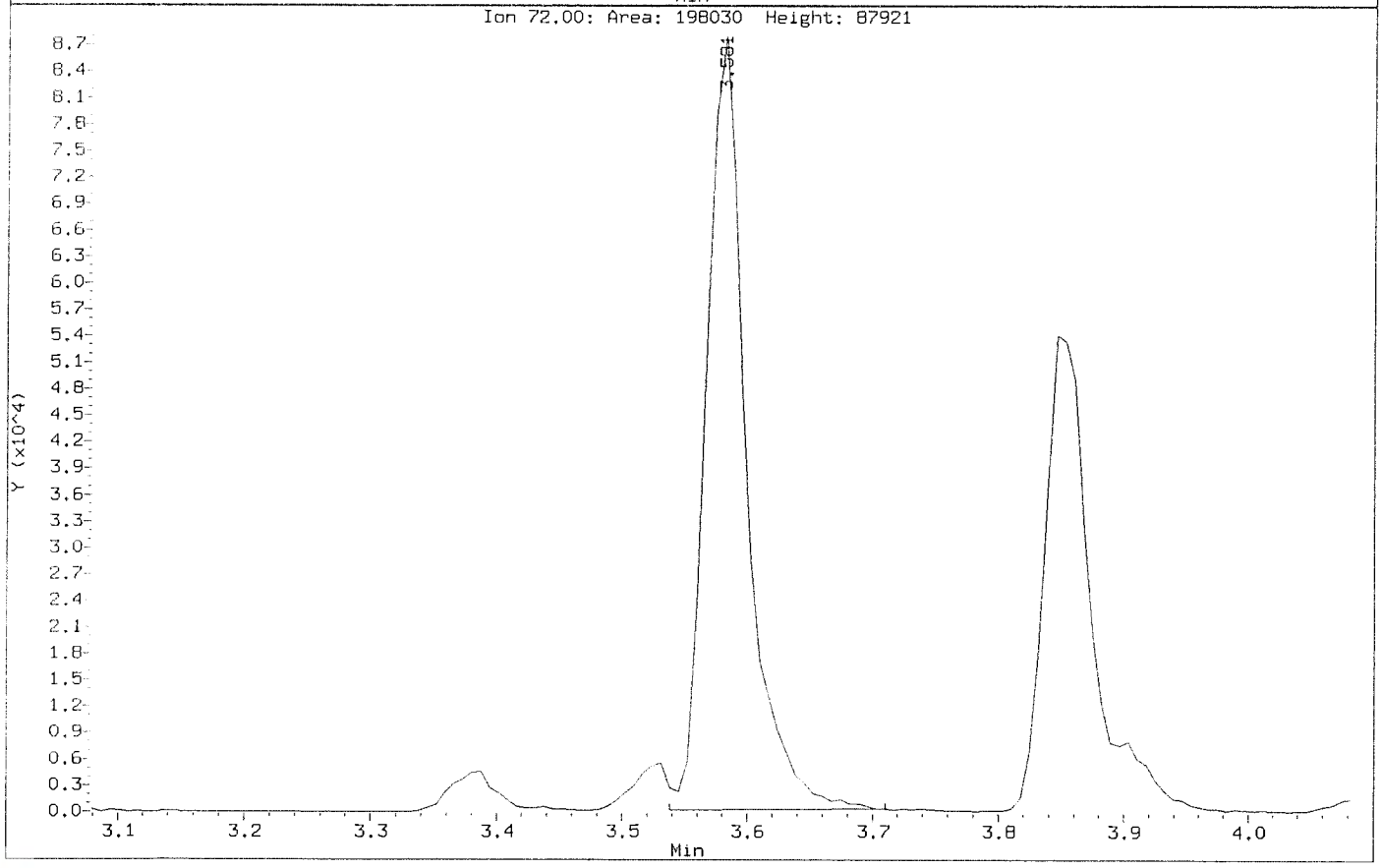
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: 2-Butanone
CAS Number: 78-93-3





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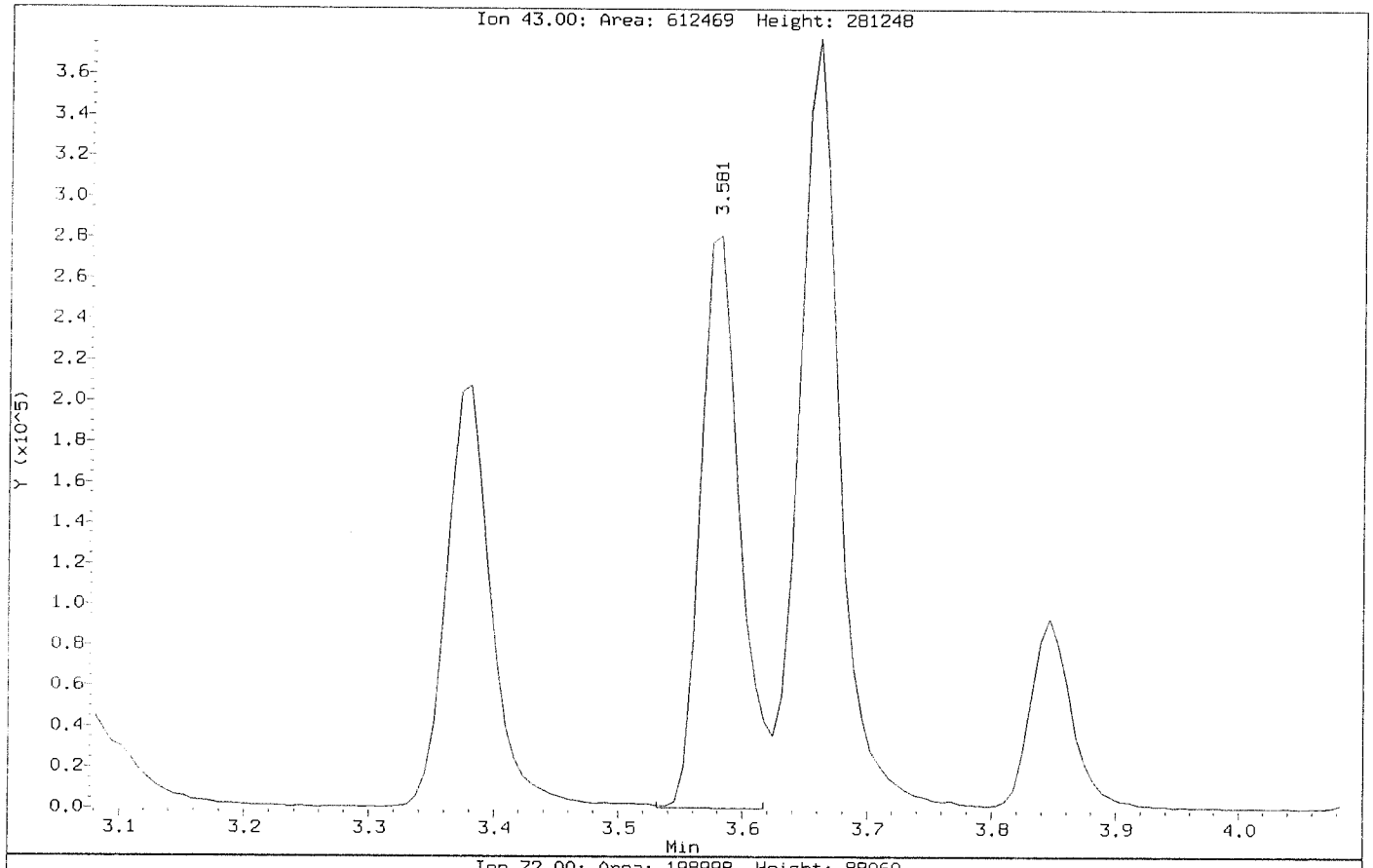
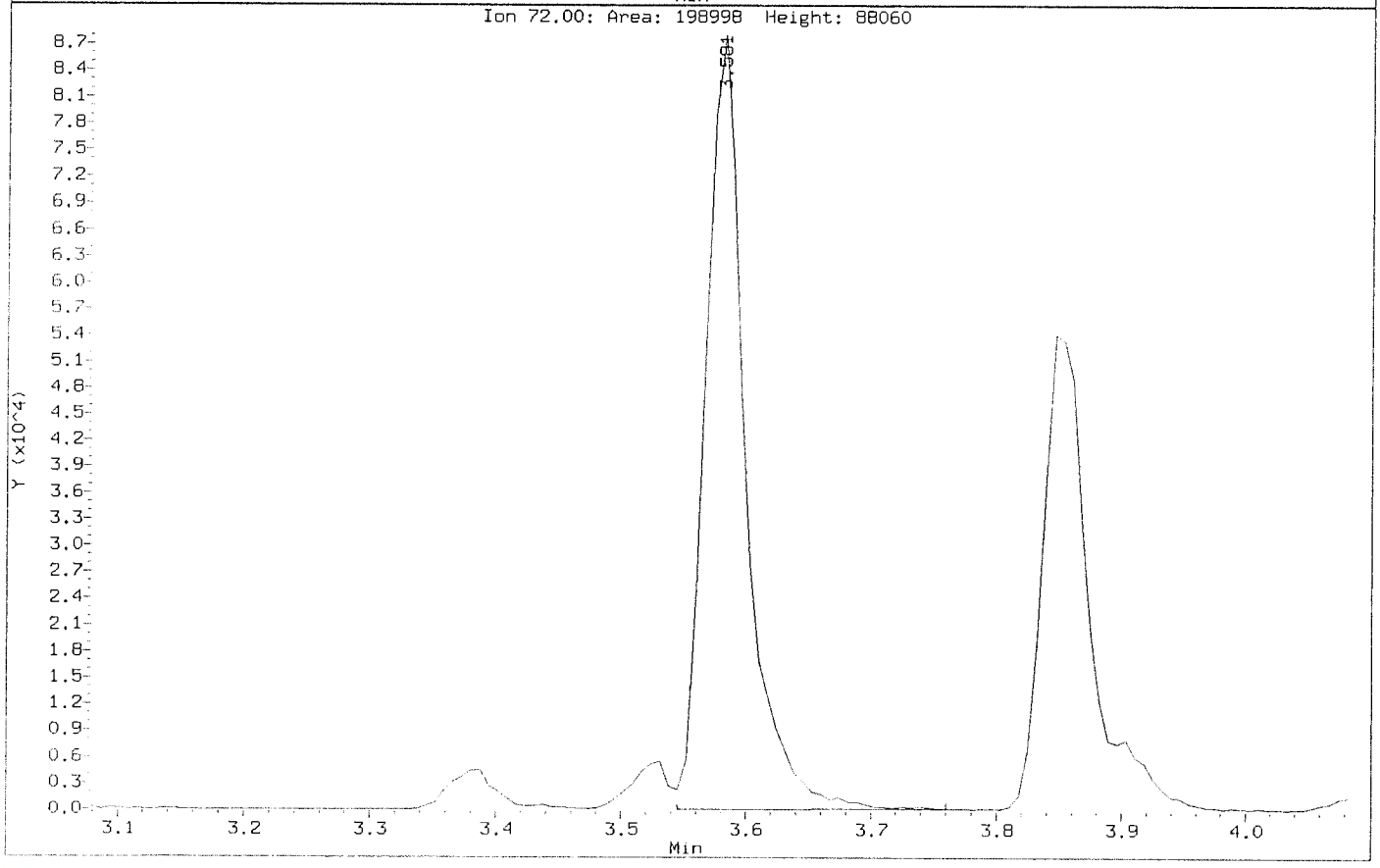
Client Sample ID: VSTD200

Compound: 2-Butanone
CAS Number: 78-93-3





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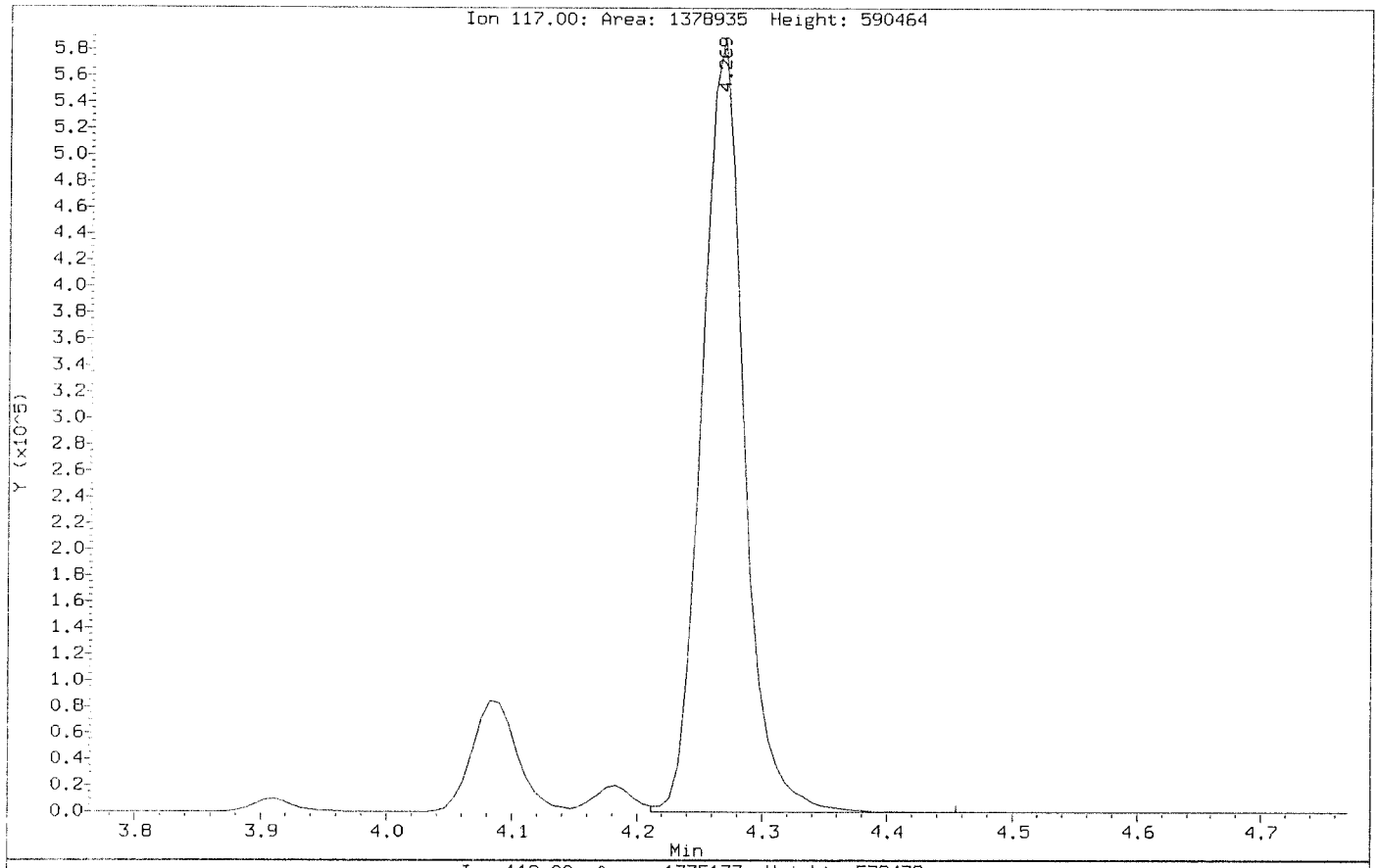
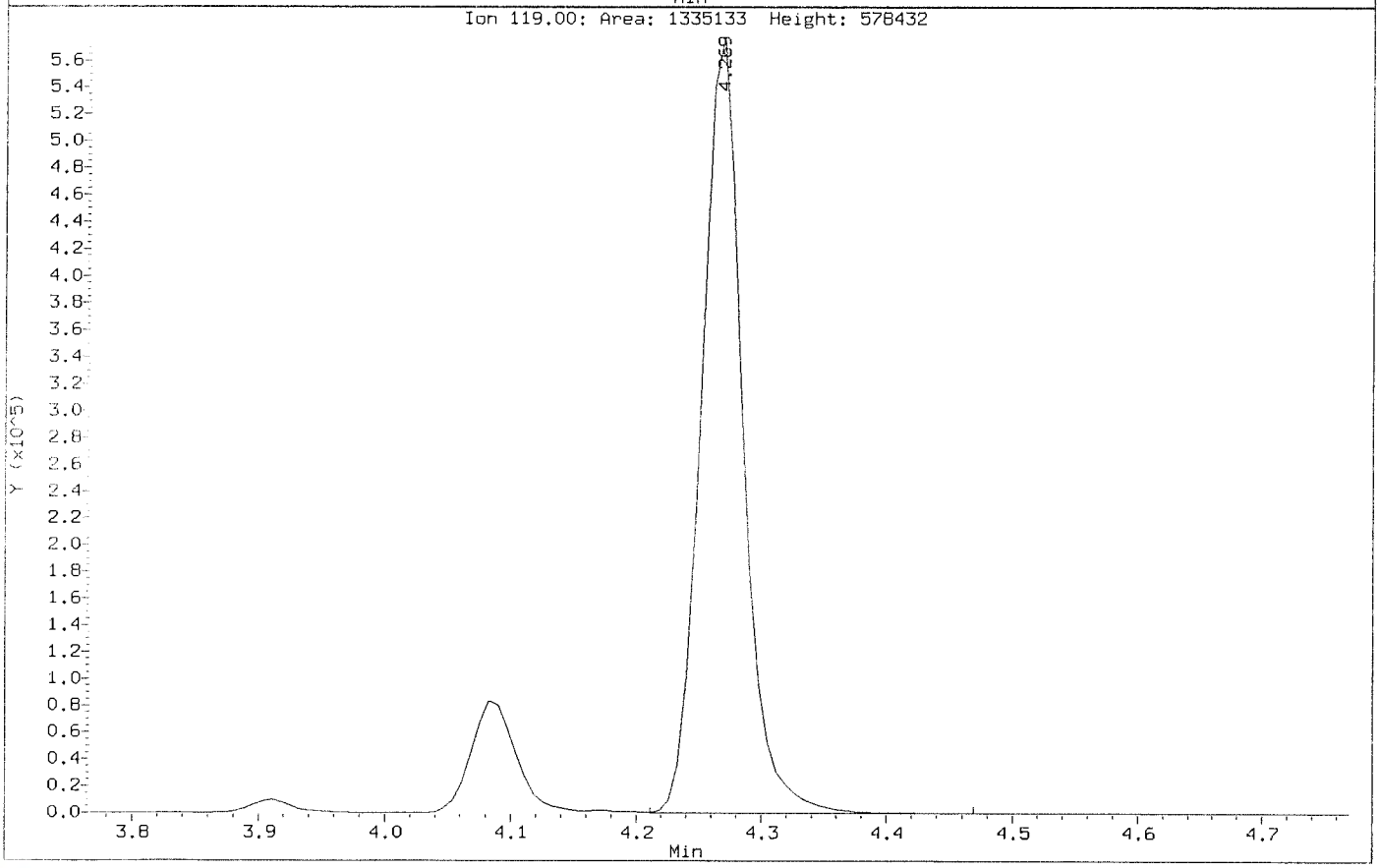
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





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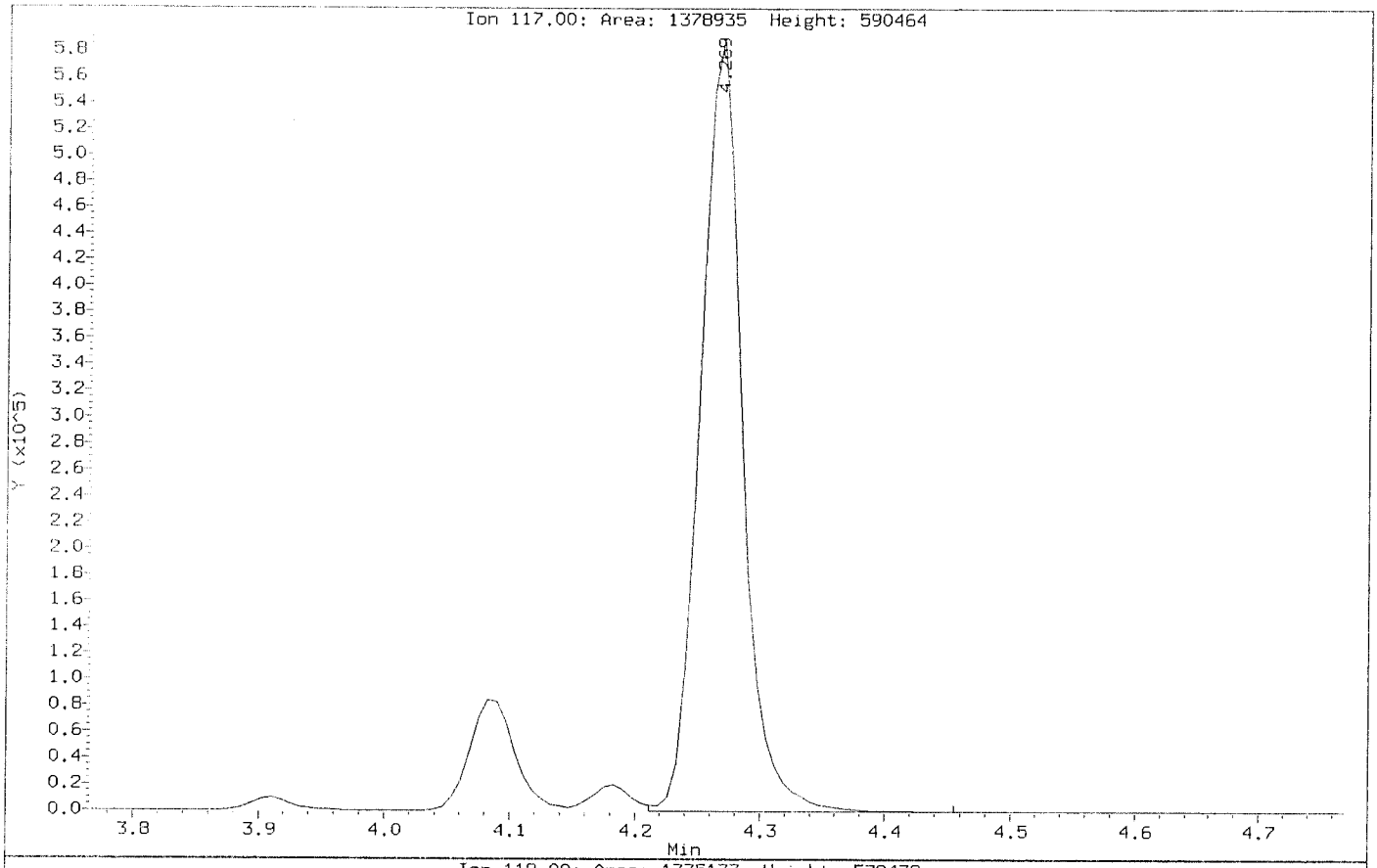
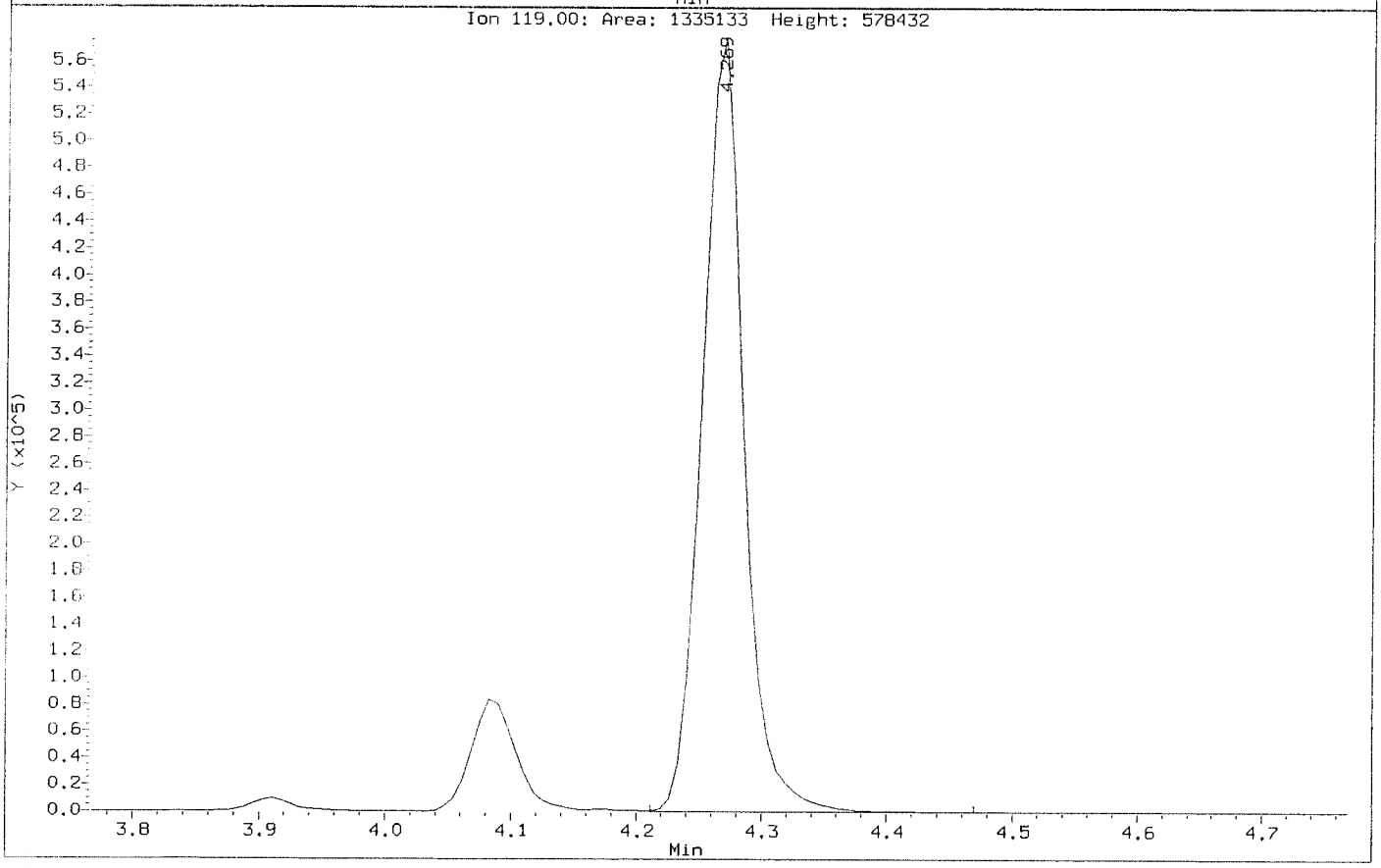
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

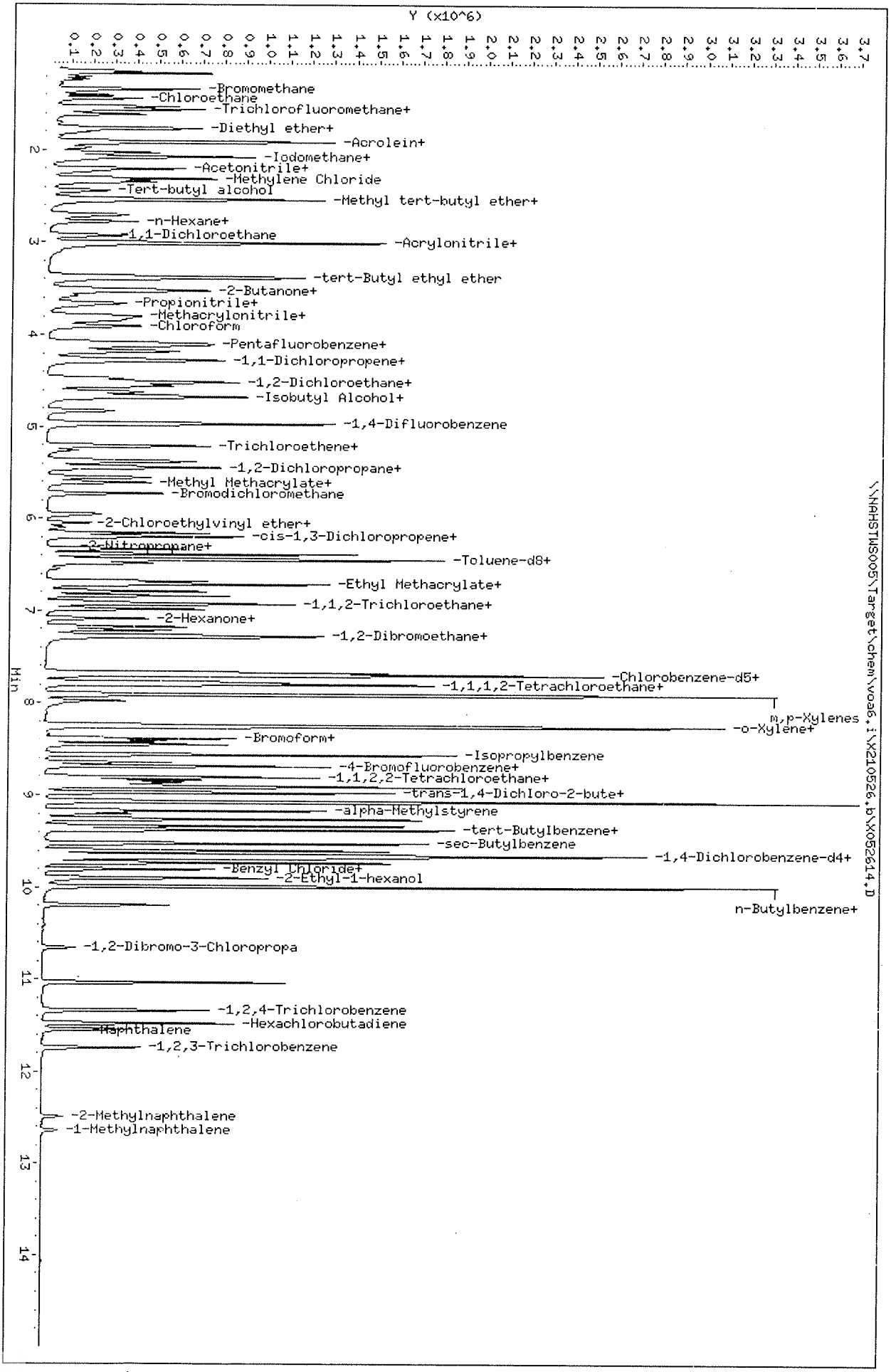
Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052614.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 26-MAY-2021 17:07
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 16:04 Cal File: X052611.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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	4.182	4.182	(1.000)	506914	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	749401	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	706349	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	404605	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	247247	49.5505	49.55
$	35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	239842	49.5243	49.52
$	48 Toluene-d8	98	6.388	6.388	(0.833)	833853	47.3924	47.39
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	315807	50.8964	50.89
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	257281	49.2529	49.25
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	339781	45.3571	45.35
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	270178	48.2956	48.29
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	179104	46.8083	46.80
	22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	347110	43.3136	43.31
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	245712	47.0575	47.05
	32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	274032	47.7443	47.74
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	132944	54.2763	54.27
	71 1,2,3-Trichloropropane	75	8.860	8.867	(0.917)	300466	59.5639	59.56
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	217548	54.3834	54.38
	79 1,2,4-Trimethylbenzene	105	9.375	9.383	(0.970)	872205	47.2632	47.26
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	32977	51.3630	51.36
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	239375	46.0296	46.02
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	528355	48.1444	48.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	289734	48.5232	48.52
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	207974	47.1466	47.14
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	895653	48.7678	48.76
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	551654	48.3386	48.33
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	347121	45.6229	45.62
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	560227	47.0431	47.04
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	322832	46.5498	46.54
24	2-Butanone	43	3.580	3.581	(0.856)	137219	88.9725	88.97
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	698906	46.1501	46.15
52	2-Hexanone	43	7.090	7.090	(0.924)	245058	93.3955	93.39
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	852569	47.2731	47.27
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	926735	49.5363	49.53
45	4-Methyl-2-Pentanone	43	6.324	6.331	(0.824)	353755	86.9700	86.96
10	Acetone	43	1.976	1.976	(0.473)	135713	105.102	105.10
37	Benzene	78	4.512	4.512	(0.909)	815678	47.3793	47.37
74	Bromobenzene	156	8.802	8.810	(0.911)	325168	48.4391	48.43
29	Bromochloromethane	128	3.795	3.795	(0.908)	138143	45.0694	45.06
39	Bromodichloromethane	83	5.722	5.722	(1.153)	302319	46.9256	46.92
66	Bromoform	173	8.408	8.408	(1.096)	199211	50.5771	50.57
6	Bromomethane	94	1.338	1.331	(0.320)	290943	55.5502	55.55
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1117790	90.2714	90.27
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	303364	48.8328	48.83
59	Chlorobenzene	112	7.692	7.692	(1.003)	679625	46.2195	46.21
7	Chloroethane	64	1.403	1.396	(0.336)	180947	50.9274	50.92
28	Chloroform	83	3.910	3.910	(0.935)	393929	44.1902	44.19
3	Chloromethane	50	1.073	1.073	(0.257)	234438	51.2462	51.24
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	247214	46.5287	46.52
46	cis-1,3-Dichloropropene	75	6.152	6.159	(1.240)	374428	49.3216	49.32
55	Dibromochloromethane	129	7.176	7.176	(0.936)	278310	47.8716	47.87
44	Dibromomethane	93	5.550	5.550	(1.118)	156126	47.0960	47.09
2	Dichlorodifluoromethane	85	0.973	0.966	(0.233)	239483	51.4356	51.43
61	Ethylbenzene	106	7.800	7.800	(1.017)	342336	50.4646	50.46
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	150526	59.5954	59.59
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1042060	50.2754	50.27
62	m,p-Xylenes	106	7.907	7.907	(1.031)	869159	98.2848	98.28
17	Methylene Chloride	84	2.305	2.298	(0.551)	219481	47.6850	47.68
87	n-Butylbenzene	91	9.991	9.991	(1.034)	805502	51.1747	51.17
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1192846	47.2628	47.26
92	Naphthalene	128	11.546	11.539	(1.195)	300951	52.0501	52.05
63	o-Xylene	106	8.244	8.244	(1.075)	420555	48.7708	48.77
81	sec-Butylbenzene	105	9.519	9.526	(0.985)	1015061	47.7769	47.77
64	Styrene	104	8.258	8.258	(1.077)	730776	50.7156	50.71
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	757897	48.1351	48.13
56	Tetrachloroethene	164	6.926	6.933	(0.903)	224904	51.7220	51.72
50	Toluene	91	6.446	6.446	(0.840)	948186	45.9813	45.98
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	214846	45.3913	45.39
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	327047	49.9385	49.93
38	Trichloroethene	130	5.206	5.207	(1.049)	255360	49.6477	49.64
8	Trichlorofluoromethane	101	1.560	1.553	(0.373)	451809	49.3770	49.37
5	Vinyl Chloride	62	1.138	1.138	(0.272)	282225	47.0343	47.03



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052614.D
Date : 26-MAY-2021 17:07
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

MSVOA06 -Logbook

Batch: 45005
Date: 05-30-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-30-2021 11:40 am	1.00	50 mL	50 mL	X053001.D	Liquid	Y	NA
2	CCV	CCV	05-30-2021 12:01 pm	1.00	50 mL	50 mL	X053002a.D	Liquid	Y	NA
3	CCV	CCV	05-30-2021 12:22 pm	1.00	50 mL	50 mL	X053003.D	Liquid	Y	NA
4	CCB	SAMP	05-30-2021 12:43 pm	1.00	50 mL	50 mL	X053004.D	Liquid	Y	NA
5	VLCSW-210530	LCS	05-30-2021 01:04 pm	1.00	50 mL	50 mL	X053005.D	Liquid	Y	NA
6	BLANK	SAMP	05-30-2021 01:25 pm	1.00	50 mL	50 mL	X053006.D	Liquid	Y	NA
7	BLANK	SAMP	05-30-2021 01:46 pm	1.00	50 mL	50 mL	X053007.D	Liquid	Y	NA
8	VBLKW-210530	MBLK	05-30-2021 02:07 pm	1.00	50 mL	50 mL	X053008.D	Liquid	Y	NA
9	HS21051312-03	SAMP	05-30-2021 02:28 pm	1.00	50 mL	50 mL	X053009.D	Liquid	Y	NA
10	HS21051314-02	SAMP	05-30-2021 02:49 pm	1.00	50 mL	50 mL	X053010.D	Liquid	Y	NA
11	HS21051312-01	SAMP	05-30-2021 03:10 pm	1.00	50 mL	50 mL	X053011.D	Liquid	Y	NA
12	HS21051441-03	SAMP	05-30-2021 03:32 pm	1.00	50 mL	50 mL	X053012.D	Liquid	Y	NA
13	HS21051314-01	SAMP	05-30-2021 03:53 pm	10.00	5 mL	50 mL	X053013.D	Liquid	Y	NA
14	HS21051441-03MS	MS	05-30-2021 04:14 pm	1.00	50 mL	50 mL	X053014.D	Liquid	Y	NA
15	HS21051441-03MSD	MSD	05-30-2021 04:35 pm	1.00	50 mL	50 mL	X053015.D	Liquid	Y	NA
16	HS21051314-01	SAMP	05-30-2021 04:56 pm	100.0(	500 µL	50 mL	X053016.D	Liquid	Y	NA
17	HS21051153-06	SAMP	05-30-2021 05:17 pm	10.00	5 mL	50 mL	X053017.D	Liquid	Y	NA
18	HS21051153-10	SAMP	05-30-2021 05:38 pm	10.00	5 mL	50 mL	X053018.D	Liquid	Y	NA
19	HS21051153-11	SAMP	05-30-2021 05:59 pm	10.00	5 mL	50 mL	X053019.D	Liquid	Y	NA
20	HS21051153-12	SAMP	05-30-2021 06:20 pm	10.00	5 mL	50 mL	X053020.D	Liquid	Y	NA
21	HS21051153-13	SAMP	05-30-2021 06:41 pm	5.00	10 mL	50 mL	X053021.D	Liquid	Y	NA
22	HS21051153-14	SAMP	05-30-2021 07:02 pm	5.00	10 mL	50 mL	X053022.D	Liquid	Y	NA
23	HS21051441-01	SAMP	05-30-2021 07:23 pm	1.00	50 mL	50 mL	X053023.D	Liquid	Y	NA
24	MBLK-166312	MBLK	05-30-2021 07:44 pm	20.00	2.5 mL	50 mL	X053024.D	Liquid	Y	NA
25	HS21051140-01	SAMP	05-30-2021 08:05 pm	20.00	2.5 mL	50 mL	X053025.D	Liquid	Y	NA
26	HS21051418-01	SAMP	05-30-2021 08:26 pm	20.00	2.5 mL	50 mL	X053026.D	Liquid	Y	NA
27	HS21051418-03	SAMP	05-30-2021 08:47 pm	20.00	2.5 mL	50 mL	X053027.D	Liquid	Y	NA
28	HS21051418-04	SAMP	05-30-2021 09:08 pm	20.00	2.5 mL	50 mL	X053028.D	Liquid	Y	NA
29	HS21051418-05	SAMP	05-30-2021 09:30 pm	20.00	2.5 mL	50 mL	X053029.D	Liquid	Y	NA
30	HS21051418-07	SAMP	05-30-2021 09:51 pm	20.00	2.5 mL	50 mL	X053030.D	Liquid	Y	NA
31	HS21051418-08	SAMP	05-30-2021 10:12 pm	20.00	2.5 mL	50 mL	X053031.D	Liquid	Y	NA
32	CCV-END	CCV	05-30-2021 10:33 pm	1.00	50 mL	50 mL	X053032.D	Liquid	Y	NA
33	BFB	TUNE	05-30-2021 10:54 pm	1.00	50 mL	50 mL	Y053001.D	Liquid	Y	NA
34	CCV	CCV	05-30-2021 11:14 pm	1.00	50 mL	50 mL	Y053002a.D	Liquid	Y	NA
35	CCV	CCV	05-30-2021 11:35 pm	1.00	50 mL	50 mL	Y053003.D	Liquid	Y	NA
36	CCB	SAMP	05-30-2021 11:56 pm	1.00	50 mL	50 mL	Y053004.D	Liquid	Y	NA
37	VLCSW-210530	LCS	05-31-2021 12:17 am	1.00	50 mL	50 mL	Y053005.D	Liquid	Y	NA
38	BLANK	SAMP	05-31-2021 12:39 am	1.00	50 mL	50 mL	Y053006.D	Liquid	Y	NA
39	VBLKW-210530	MBLK	05-31-2021 01:00 am	1.00	50 mL	50 mL	Y053007.D	Liquid	Y	NA
40	HS21051043-01	SAMP	05-31-2021 01:21 am	1.00	50 mL	50 mL	Y053008.D	Liquid	Y	NA
41	HS21051043-01MS	MS	05-31-2021 01:42 am	1.00	50 mL	50 mL	Y053009.D	Liquid	Y	NA

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	HS21051043-01MSD	MSD	05-31-2021 02:03 am	1.00	50 mL	50 mL	Y053010.D	Liquid	Y	NA
43	HS21051282-01	SAMP	05-31-2021 02:24 am	1.00	50 mL	50 mL	Y053011.D	Liquid	Y	NA
44	HS21051282-02	SAMP	05-31-2021 02:45 am	1.00	50 mL	50 mL	Y053012.D	Liquid	Y	NA
45	HS21051282-03	SAMP	05-31-2021 03:06 am	1.00	50 mL	50 mL	Y053013.D	Liquid	Y	NA
46	HS21051282-04	SAMP	05-31-2021 03:27 am	1.00	50 mL	50 mL	Y053014.D	Liquid	Y	NA
47	HS21051282-05	SAMP	05-31-2021 03:48 am	1.00	50 mL	50 mL	Y053015.D	Liquid	Y	NA
48	HS21051282-06	SAMP	05-31-2021 04:09 am	1.00	50 mL	50 mL	Y053016.D	Liquid	Y	NA
49	HS21051282-07	SAMP	05-31-2021 04:30 am	1.00	50 mL	50 mL	Y053017.D	Liquid	Y	NA
50	HS21051282-08	SAMP	05-31-2021 04:51 am	1.00	50 mL	50 mL	Y053018.D	Liquid	Y	NA
51	HS21051282-09	SAMP	05-31-2021 05:12 am	1.00	50 mL	50 mL	Y053019.D	Liquid	Y	NA
52	HS21051130-01	SAMP	05-31-2021 05:34 am	1.00	50 mL	50 mL	Y053020.D	Liquid	Y	NA
53	HS21051130-02	SAMP	05-31-2021 05:55 am	1.00	50 mL	50 mL	Y053021.D	Liquid	Y	NA
54	HS21051130-03	SAMP	05-31-2021 06:16 am	1.00	50 mL	50 mL	Y053022.D	Liquid	Y	NA
55	HS21051130-04	SAMP	05-31-2021 06:37 am	1.00	50 mL	50 mL	Y053023.D	Liquid	Y	NA
56	HS21051130-05	SAMP	05-31-2021 06:58 am	1.00	50 mL	50 mL	Y053024.D	Liquid	Y	NA
57	HS21051130-06	SAMP	05-31-2021 07:19 am	1.00	50 mL	50 mL	Y053025.D	Liquid	Y	NA
58	HS21051130-07	SAMP	05-31-2021 07:40 am	1.00	50 mL	50 mL	Y053026.D	Liquid	Y	NA
59	HS21051130-08	SAMP	05-31-2021 08:01 am	1.00	50 mL	50 mL	Y053027.D	Liquid	Y	NA
60	HS21051130-09	SAMP	05-31-2021 08:22 am	1.00	50 mL	50 mL	Y053028.D	Liquid	Y	NA
61	HS21051130-10	SAMP	05-31-2021 08:43 am	1.00	50 mL	50 mL	Y053029.D	Liquid	Y	NA
62	BLANK	SAMP	05-31-2021 09:04 am	1.00	50 mL	50 mL	Y053030.D	Liquid	Y	NA

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

	CLIENT SAMPLE NO.	SMC1 (DCE)#	SMC2 #	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-210530	103	97	96	97	0
02	VBLKW-210530	95	90	102	97	0
03	HS21051312-03	91	91	104	95	0
04	HS21051312-01	92	91	104	91	0
05	HS21051441-03MS	91	90	100	98	0
06	HS21051441-03MSD	88	90	101	98	0
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		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3 (TOL)	= Toluene-d8	(0-130)
OTHER	= 4-Bromofluorobenzene	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-210530

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID: X053008 Lab Sample ID: VBLKW-210530

Date Analyzed: 05/30/21 Time Analyzed: 1407

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210530	VLCSW-210530	X053005	1304
02	HS21051312-03	HS21051312-03	X053009	1428
03	HS21051312-01	HS21051312-01	X053011	1510
04	HS21051441-03MS	HS21051441-03MS	X053014	1614
05	HS21051441-03MSD	HS21051441-03MSD	X053015	1635
06				
07				
08				
09				
10				
11				
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30				

COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID: X053001 BFB Injection Date: 05/30/21

Instrument ID: VOA6 BFB Injection Time: 1140

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1.0)1
174	Greater than 50.0% of mass 95	79.7
175	5.0 - 9.0% of mass 174	6.2 (7.8)1
176	95.0 - 101.0% of mass 174	78.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.1 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X053003	05/30/21	1222
02	VLCSW-210530	VLCSW-210530	X053005	05/30/21	1304
03	VBLKW-210530	VBLKW-210530	X053008	05/30/21	1407
04	HS21051312-03	HS21051312-03	X053009	05/30/21	1428
05	HS21051312-01	HS21051312-01	X053011	05/30/21	1510
06	HS21051441-03MS	HS21051441-03MS	X053014	05/30/21	1614
07	HS21051441-03MSD	HS21051441-03MSD	X053015	05/30/21	1635
08	CCV-END	CCV-END	X053032	05/30/21	2233
09					
10					
11					
12					
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15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 1222

Lab File ID: X053003 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5060000	0.5124695	0.5124695	0.2	-1.28	20.00	AVRG
trans-1,3-Dichloropropene	0.4370000	0.4494963	0.4494963	0.1	-2.86	20.00	AVRG
1,3-Dichlorobenzene	1.4100000	1.4045751	1.4045751	0.6	0.38	20.00	AVRG
2,2-Dichloropropane	0.6840000	0.6459384	0.6459384	0.1	5.56	20.00	AVRG
1,1-Dichloropropene	0.3830000	0.3858224	0.3858224	0.1	-0.74	20.00	AVRG
Dibromomethane	0.2210000	0.2119382	0.2119382	0.1	4.10	20.00	AVRG
1,2-Dibromoethane	0.3680000	0.3394983	0.3394983	0.1	7.74	20.00	AVRG
trans-1,2-Dichloroethene	0.4670000	0.4083585	0.4083585	0.1	12.56	20.00	AVRG
1,1,1,2-Tetrachloroethane	0.3700000	0.3814254	0.3814254	0.1	-3.09	20.00	AVRG
1,1,1-Trichloroethane	0.7390000	0.6699560	0.6699560	0.1	9.34	20.00	AVRG
1,1,2,2-Tetrachloroethane	46.867114	50.000000	0.6484811	0.3	6.26	20.00	LINR
1,1,2-Trichloroethane	0.2710000	0.2532319	0.2532319	0.1	6.56	20.00	AVRG
1,1-Dichloroethane	0.7900000	0.6851315	0.6851315	0.2	13.27	20.00	AVRG
1,1-Dichloroethene	0.5150000	0.4483587	0.4483587	0.1	12.94	20.00	AVRG
Trichloroethene	0.3430000	0.3580496	0.3580496	0.2	-4.39	20.00	AVRG
1,2,3-Trichlorobenzene	0.3030000	0.2771394	0.2771394	0.01	8.53	20.00	AVRG
Trichlorofluoromethane	0.9020000	0.8082567	0.8082567	0.1	10.39	20.00	AVRG
1,2,4-Trichlorobenzene	0.4940000	0.4948873	0.4948873	0.1	-0.18	20.00	AVRG
1,2,4-Trimethylbenzene	2.2800000	2.2357466	2.2357466	0.1	1.94	20.00	AVRG
Tetrachloroethene	0.3080000	0.3381025	0.3381025	0.2	-9.77	20.00	AVRG
1,2-Dichlorobenzene	1.3560000	1.3147375	1.3147375	0.4	3.04	20.00	AVRG
1,2-Dichloroethane	0.3980000	0.3881381	0.3881381	0.1	2.48	20.00	AVRG
1,2-Dichloropropane	0.2940000	0.2805030	0.2805030	0.1	4.59	20.00	AVRG
1,3,5-Trimethylbenzene	2.2700000	2.2300091	2.2300091	0.1	1.76	20.00	AVRG
1,3-Dichloropropane	0.5390000	0.4977000	0.4977000	0.1	7.66	20.00	AVRG
1,4-Dichlorobenzene	1.4720000	1.4128974	1.4128974	0.4	4.02	20.00	AVRG
Toluene	1.4600000	1.3762571	1.3762571	0.4	5.74	20.00	AVRG
2-Butanone	0.1520000	0.1222297	0.1222297	0.1	19.58	20.00	AVRG
2-Chlorotoluene	1.8720000	1.7943017	1.7943017	0.1	4.15	20.00	AVRG
2-Hexanone	0.1860000	0.1590807	0.1590807	0.1	14.47	20.00	AVRG
4-Chlorotoluene	2.2280000	2.1445340	2.1445340	0.1	3.75	20.00	AVRG
tert-Butylbenzene	1.9460000	1.9362577	1.9362577	0.1	0.50	20.00	AVRG
4-Methyl-2-Pentanone	0.2880000	0.2338241	0.2338241	0.1	18.81	20.00	AVRG
Acetone	84.623406	100.00000	0.1091803	0.1	15.38	20.00	LINR
Benzene	1.1480000	1.1058573	1.1058573	0.5	3.67	20.00	AVRG
Bromobenzene	0.8300000	0.8446496	0.8446496	0.1	-1.76	20.00	AVRG
Bromochloromethane	0.3020000	0.2766784	0.2766784	0.1	8.38	20.00	AVRG
Bromodichloromethane	0.4300000	0.4186886	0.4186886	0.2	2.63	20.00	AVRG
Bromoform	0.2790000	0.2903224	0.2903224	0.1	-4.06	20.00	AVRG
Bromomethane	43.981584	50.000000	0.4540917	0.1	12.04	20.00	LINR
Carbon Disulfide	1.2210000	1.0654961	1.0654961	0.1	12.74	20.00	AVRG
Carbon Tetrachloride	0.4140000	0.4348273	0.4348273	0.1	-5.03	20.00	AVRG

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 1222

Lab File ID: X053003 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Chlorobenzene	1.0410000	0.9875999	0.9875999	0.5	5.13	20.00	AVRG	
Chloroethane	45.145865	50.000000	0.3175311	0.1	9.71	20.00	LINR	
Chloroform	0.8790000	0.7671344	0.7671344	0.2	12.73	20.00	AVRG	
Chloromethane	44.149791	50.000000	0.4016924	0.1	11.70	20.00	LINR	
cis-1,2-Dichloroethene	0.5240000	0.4694021	0.4694021	0.1	10.42	20.00	AVRG	
Dibromochloromethane	0.4120000	0.4200611	0.4200611	0.1	-1.96	20.00	AVRG	
Dichlorodifluoromethane	46.996755	50.000000	0.4318282	0.1	6.01	20.00	LINR	
Ethylbenzene	0.4800000	0.4925264	0.4925264	0.1	-2.61	20.00	AVRG	
Hexachlorobutadiene	60.451131	50.000000	0.3777492	0.1	-20.90	20.00	2RDR	<-
Isopropylbenzene	1.4670000	1.5321059	1.5321059	0.1	-4.44	20.00	AVRG	
m,p-Xylenes	0.6260000	0.6361318	0.6361318	0.1	-1.62	20.00	AVRG	
Methylene Chloride	46.243534	50.000000	0.4202413	0.1	7.51	20.00	LINR	
n-Butylbenzene	1.9450000	2.0343734	2.0343734	0.5	-4.60	20.00	AVRG	
n-Propylbenzene	3.1190000	3.0797540	3.0797540	0.1	1.26	20.00	AVRG	
Naphthalene	0.7140000	0.5898876	0.5898876	0.2	17.38	20.00	AVRG	
o-Xylene	0.6100000	0.6138729	0.6138729	0.3	-0.63	20.00	AVRG	
sec-Butylbenzene	2.6250000	2.6716402	2.6716402	0.1	-1.78	20.00	AVRG	
Styrene	1.0200000	1.0592351	1.0592351	0.3	-3.85	20.00	AVRG	
Vinyl Chloride	0.5920000	0.5161979	0.5161979	0.1	12.80	20.00	AVRG	
1,2,3-Trichloropropane	0.6230000	0.5518265	0.5518265	0.1	11.42	20.00	AVRG	
p-Isopropyltoluene	2.3120000	2.3895149	2.3895149	0.1	-3.35	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	45.446036	50.000000	7.2e-002	0.05	9.11	20.00	LINR	
1,2-Dichloroethane-d4	47.783154	50.000000	0.4567368	0.1	4.43	20.00	LINR	
Dibromofluoromethane	47.970717	50.000000	0.4722502	0.1	4.06	20.00	LINR	
Toluene-d8	1.2450000	1.1781719	1.1781719	0.1	5.37	20.00	AVRG	
4-Bromofluorobenzene	51.230689	50.000000	0.4500785	0.1	-2.46	20.00	LINR	

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 2233

Lab File ID: X053032 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
cis-1,3-Dichloropropene	0.5060000	0.4644789	0.4644789	0.2	8.20	50.00	AVRG	
trans-1,3-Dichloropropene	0.4370000	0.4011570	0.4011570	0.1	8.20	50.00	AVRG	
1,3-Dichlorobenzene	1.4100000	1.2890871	1.2890871	0.6	8.58	50.00	AVRG	
2,2-Dichloropropane	0.6840000	0.5288840	0.5288840	0.1	22.68	50.00	AVRG	
1,1-Dichloropropene	0.3830000	0.3438499	0.3438499	0.1	10.22	50.00	AVRG	
Dibromomethane	0.2210000	0.2022468	0.2022468	0.1	8.48	50.00	AVRG	
1,2-Dibromoethane	0.3680000	0.3215991	0.3215991	0.1	12.61	50.00	AVRG	
trans-1,2-Dichloroethene	0.4670000	0.3941670	0.3941670	0.1	15.60	50.00	AVRG	
1,1,1,2-Tetrachloroethane	0.3700000	0.3575117	0.3575117	0.1	3.38	50.00	AVRG	
1,1,1-Trichloroethane	0.7390000	0.6457267	0.6457267	0.1	12.62	50.00	AVRG	
1,1,2,2-Tetrachloroethane	44.436821	50.000000	0.6156913	0.3	11.13	50.00	LINR	
1,1,2-Trichloroethane	0.2710000	0.2388729	0.2388729	0.1	11.86	50.00	AVRG	
1,1-Dichloroethane	0.7900000	0.6506625	0.6506625	0.2	17.64	50.00	AVRG	
1,1-Dichloroethene	0.5150000	0.4251807	0.4251807	0.1	17.44	50.00	AVRG	
Trichloroethene	0.3430000	0.3358920	0.3358920	0.2	2.07	50.00	AVRG	
1,2,3-Trichlorobenzene	0.3030000	0.1572928	0.1572928	0.01	48.09	50.00	AVRG	
Trichlorofluoromethane	0.9020000	0.7627482	0.7627482	0.1	15.44	50.00	AVRG	
1,2,4-Trichlorobenzene	0.4940000	0.3189883	0.3189883	0.1	35.43	50.00	AVRG	
1,2,4-Trimethylbenzene	2.2800000	2.1095738	2.1095738	0.1	7.47	50.00	AVRG	
Tetrachloroethene	0.3080000	0.2984602	0.2984602	0.2	3.10	50.00	AVRG	
1,2-Dichlorobenzene	1.3560000	1.1904528	1.1904528	0.4	12.21	50.00	AVRG	
1,2-Dichloroethane	0.3980000	0.3760895	0.3760895	0.1	5.50	50.00	AVRG	
1,2-Dichloropropane	0.2940000	0.2640387	0.2640387	0.1	10.19	50.00	AVRG	
1,3,5-Trimethylbenzene	2.2700000	2.0251717	2.0251717	0.1	10.78	50.00	AVRG	
1,3-Dichloropropane	0.5390000	0.4700222	0.4700222	0.1	12.80	50.00	AVRG	
1,4-Dichlorobenzene	1.4720000	1.3131749	1.3131749	0.4	10.79	50.00	AVRG	
Toluene	1.4600000	1.2864460	1.2864460	0.4	11.89	50.00	AVRG	
2-Butanone	0.1520000	0.1185181	0.1185181	0.1	22.03	50.00	AVRG	
2-Chlorotoluene	1.8720000	1.6689041	1.6689041	0.1	10.85	50.00	AVRG	
2-Hexanone	0.1860000	0.1487137	0.1487137	0.1	20.05	50.00	AVRG	
4-Chlorotoluene	2.2280000	1.9698632	1.9698632	0.1	11.59	50.00	AVRG	
tert-Butylbenzene	1.9460000	1.7632413	1.7632413	0.1	9.39	50.00	AVRG	
4-Methyl-2-Pentanone	0.2880000	0.2220834	0.2220834	0.1	22.89	50.00	AVRG	
Acetone	73.765966	100.00000	9.61e-002	0.1	26.23	50.00	LINR	<-
Benzene	1.1480000	1.0481882	1.0481882	0.5	8.69	50.00	AVRG	
Bromobenzene	0.8300000	0.7921308	0.7921308	0.1	4.56	50.00	AVRG	
Bromochloromethane	0.3020000	0.2725451	0.2725451	0.1	9.75	50.00	AVRG	
Bromodichloromethane	0.4300000	0.3946065	0.3946065	0.2	8.23	50.00	AVRG	
Bromoform	0.2790000	0.2640894	0.2640894	0.1	5.34	50.00	AVRG	
Bromomethane	41.604701	50.000000	0.4294659	0.1	16.79	50.00	LINR	
Carbon Disulfide	1.2210000	0.9732282	0.9732282	0.1	20.29	50.00	AVRG	
Carbon Tetrachloride	0.4140000	0.3934922	0.3934922	0.1	4.95	50.00	AVRG	

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 2233

Lab File ID: X053032 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	1.0410000	0.9320661	0.9320661	0.5	10.46	50.00	AVRG
Chloroethane	46.797502	50.000000	0.3287944	0.1	6.40	50.00	LINR
Chloroform	0.8790000	0.7617750	0.7617750	0.2	13.34	50.00	AVRG
Chloromethane	42.371890	50.000000	0.3864629	0.1	15.26	50.00	LINR
cis-1,2-Dichloroethene	0.5240000	0.4594290	0.4594290	0.1	12.32	50.00	AVRG
Dibromochloromethane	0.4120000	0.3905470	0.3905470	0.1	5.21	50.00	AVRG
Dichlorodifluoromethane	44.585647	50.000000	0.4097724	0.1	10.83	50.00	LINR
Ethylbenzene	0.4800000	0.4595672	0.4595672	0.1	4.26	50.00	AVRG
Hexachlorobutadiene	43.229668	50.000000	0.2643865	0.1	13.54	50.00	2RDR
Isopropylbenzene	1.4670000	1.3732297	1.3732297	0.1	6.39	50.00	AVRG
m,p-Xylenes	0.6260000	0.5760380	0.5760380	0.1	7.98	50.00	AVRG
Methylene Chloride	44.179227	50.000000	0.4020057	0.1	11.64	50.00	LINR
n-Butylbenzene	1.9450000	1.6703412	1.6703412	0.5	14.12	50.00	AVRG
n-Propylbenzene	3.1190000	2.7429939	2.7429939	0.1	12.06	50.00	AVRG
Naphthalene	0.7140000	0.3934242	0.3934242	0.2	44.90	50.00	AVRG
o-Xylene	0.6100000	0.5703537	0.5703537	0.3	6.50	50.00	AVRG
sec-Butylbenzene	2.6250000	2.3283971	2.3283971	0.1	11.30	50.00	AVRG
Styrene	1.0200000	0.9893682	0.9893682	0.3	3.00	50.00	AVRG
Vinyl Chloride	0.5920000	0.4862994	0.4862994	0.1	17.85	50.00	AVRG
1,2,3-Trichloropropane	0.6230000	0.5147187	0.5147187	0.1	17.38	50.00	AVRG
p-Isopropyltoluene	2.3120000	2.0807156	2.0807156	0.1	10.00	50.00	AVRG
1,2-Dibromo-3-Chloropropane	36.418401	50.000000	5.76e-002	0.05	27.16	50.00	LINR
1,2-Dichloroethane-d4	47.271152	50.000000	0.4519129	0.1	5.46	50.00	LINR
Dibromofluoromethane	48.086555	50.000000	0.4733867	0.1	3.83	50.00	LINR
Toluene-d8	1.2450000	1.1450528	1.1450528	0.1	8.03	50.00	AVRG
4-Bromofluorobenzene	48.847100	50.000000	0.4288265	0.1	2.30	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID (Standard): X053003 Date Analyzed: 05/30/21

Instrument ID: VOA6 Time Analyzed: 1222

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	756528	7.67	804961	4.96	429809	9.66
	UPPER LIMIT	1513056	8.17	1609922	5.46	859618	10.16
	LOWER LIMIT	378264	7.17	402481	4.46	214905	9.16
	CLIENT SAMPLE NO.						
01	VLCSW-210530	704506	7.67	749233	4.96	385381	9.66
02	VBLKW-210530	758478	7.67	844380	4.97	380991	9.66
03	HS21051312-03	724011	7.67	827398	4.96	354076	9.66
04	HS21051312-01	722034	7.67	815445	4.96	356061	9.66
05	HS21051441-03MS	748268	7.67	825942	4.96	410658	9.66
06	HS21051441-03MSD	788220	7.67	856793	4.96	434422	9.66
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID (Standard): X053003 Date Analyzed: 05/30/21

Instrument ID: VOA6 Time Analyzed: 1222

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	571248	4.18				
	UPPER LIMIT	1142496	4.68				
	LOWER LIMIT	285624	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-210530	524742	4.18				
02	VBLKW-210530	615444	4.18				
03	HS21051312-03	607420	4.18				
04	HS21051312-01	601802	4.18				
05	HS21051441-03MS	615043	4.18				
06	HS21051441-03MSD	639703	4.18				
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053001.D

Date : 30-MAY-2021 11:40

Client ID: BFB

Instrument: voa6.i

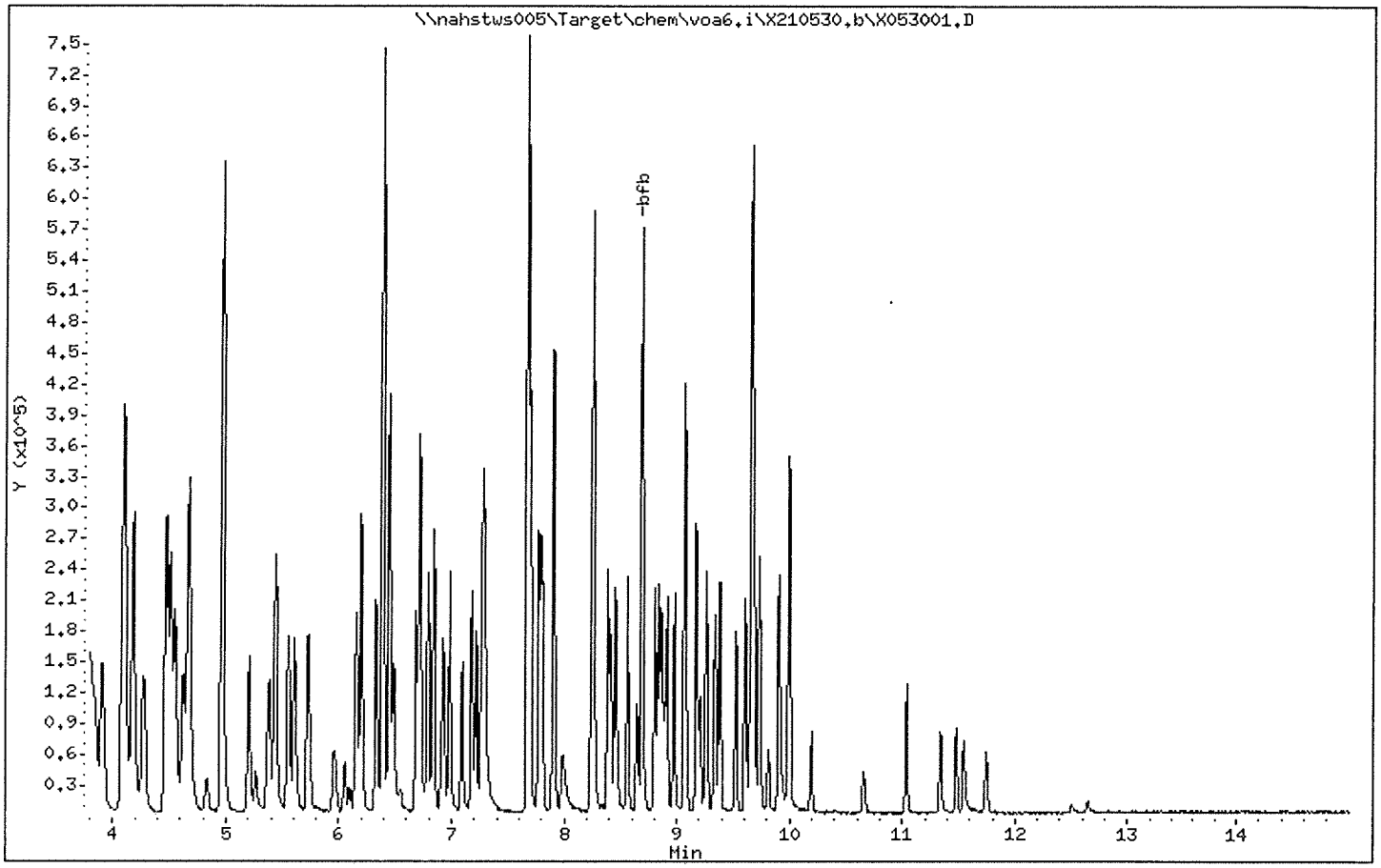
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053001.D

Date : 30-MAY-2021 11:40

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

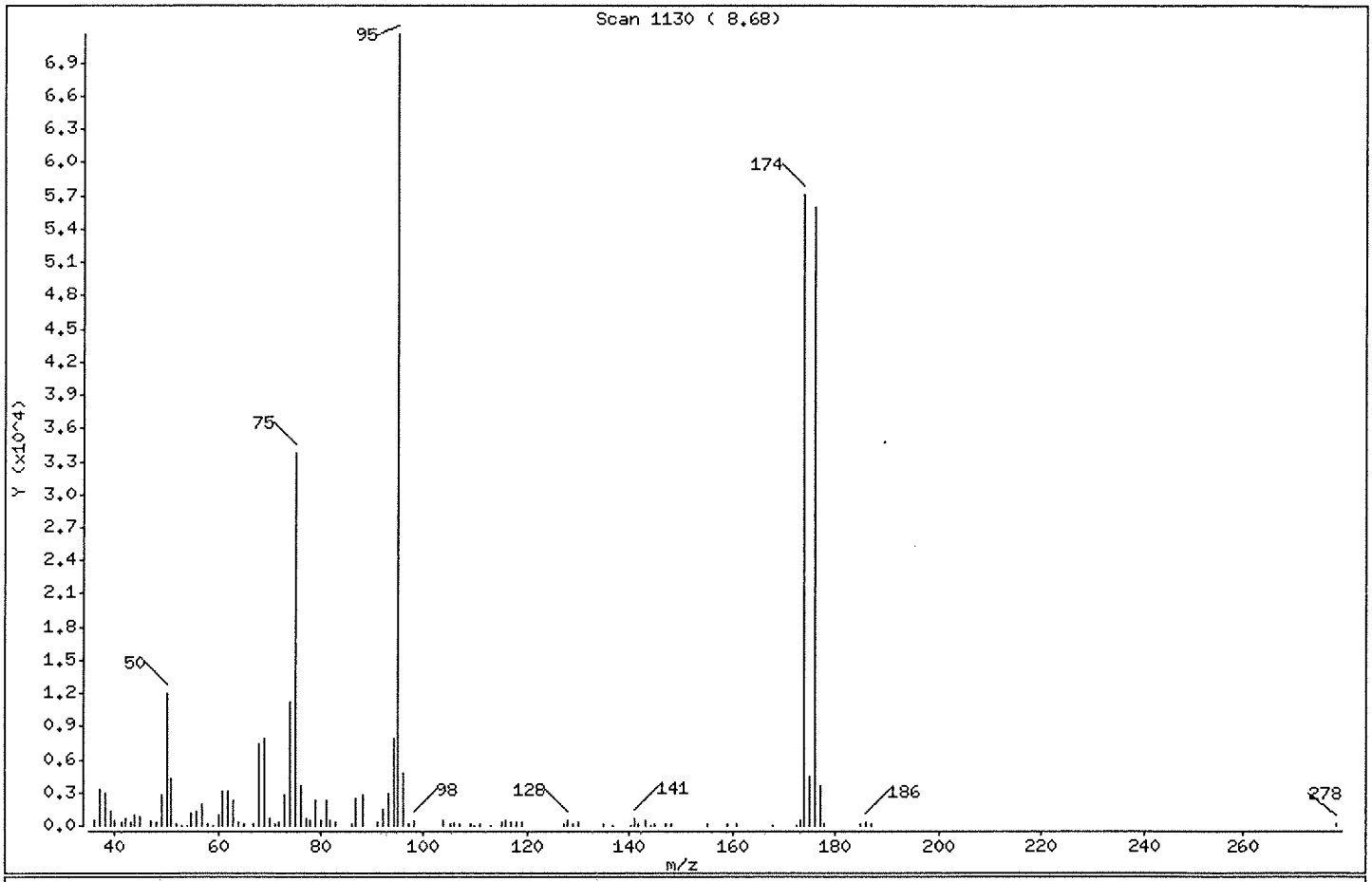
Volume Injected (uL): 2.0

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	16.81
75	30.00 - 60.00% of mass 95	47.20
96	5.00 - 9.00% of mass 95	6.77
173	Less than 2.00% of mass 174	0.78 (0.97)
174	Greater than 50.00% of mass 95	79.72
175	5.00 - 9.00% of mass 174	6.22 (7.81)
176	95.00 - 101.00% of mass 174	78.15 (98.02)
177	5.00 - 9.00% of mass 176	5.13 (6.57)

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053001.D

Date : 30-MAY-2021 11:40

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: X053001.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	533	62.10	3137	92.00	1504	136.80	65
37.10	3343	63.00	2246	93.00	3009	140.10	62
38.10	2908	64.10	304	94.00	7918	140.80	645
39.10	1354	65.00	234	95.00	71600	141.70	142
40.00	450	67.00	185	96.00	4850	142.90	452
41.20	347	68.00	7338	97.00	128	144.00	51
42.10	617	69.00	7894	98.00	560	144.80	106
43.00	321	70.00	631	103.90	508	147.00	85
44.00	1054	71.10	132	105.20	110	147.90	199
45.00	839	71.90	394	105.90	371	155.00	222
47.00	479	73.00	2853	107.00	113	159.00	138
48.00	367	74.00	11220	109.00	113	160.90	113
49.10	2819	75.00	33792	109.90	73	167.90	60
50.10	12038	76.00	3550	110.90	93	172.30	70
51.10	4201	77.00	698	112.90	80	173.00	555
52.10	225	78.00	455	114.90	376	173.90	57080
53.00	60	78.90	2338	115.80	487	174.90	4457
54.30	78	79.90	572	116.90	343	175.90	55952
55.00	1114	80.90	2302	117.90	281	176.90	3674
56.00	1255	81.80	444	118.80	333	177.90	189
57.00	2055	83.00	302	127.00	138	184.80	94
58.00	126	86.10	169	127.90	462	186.00	290
59.10	55	86.90	2540	128.90	235	186.90	97
60.00	980	88.00	2830	129.90	370	278.10	99
61.00	3167	90.90	256	134.90	168		

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053003.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 30-MAY-2021 12:22
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

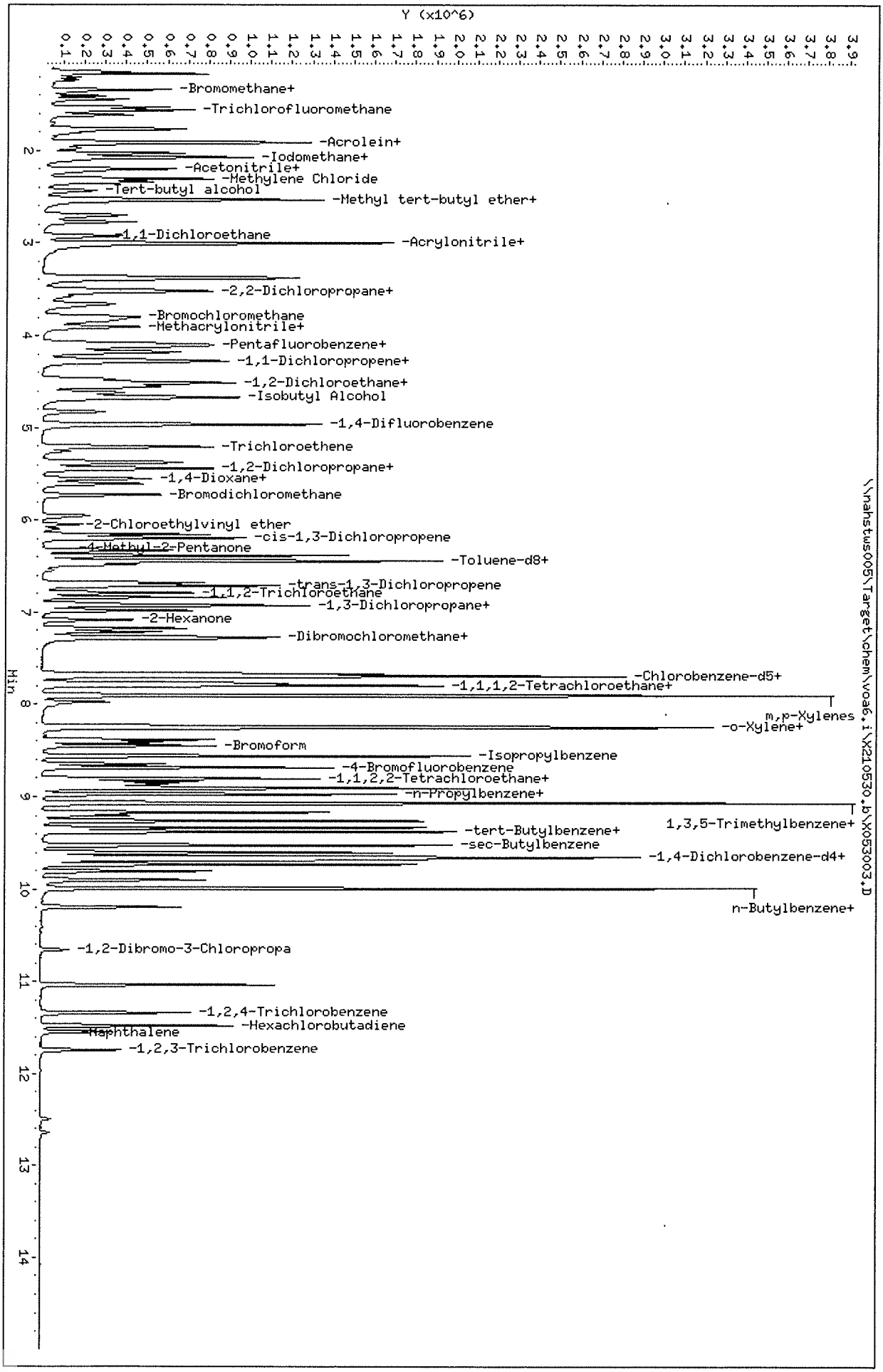
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	571248	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	804961	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	756528	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	429809	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	269772	50.0000	47.97
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	260910	50.0000	47.78
$	48 Toluene-d8	98	6.388	6.388	(0.833)	891320	50.0000	47.29
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	340497	50.0000	51.23
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	288559	50.0000	51.57
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	382711	50.0000	45.33
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	278723	50.0000	46.86
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	191577	50.0000	46.74
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	391380	50.0000	43.33
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	256124	50.0000	43.52
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	310572	50.0000	50.37
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	119117	50.0000	45.77
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	237180	50.0000	44.26(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	212707	50.0000	50.05
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	960944	50.0000	49.01
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	30955	50.0000	45.44
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	256840	50.0000	46.11
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	565086	50.0000	48.47

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	312436	50.0000	48.71
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	225794	50.0000	47.65
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	958478	50.0000	49.12
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	603699	50.0000	49.79
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	376524	50.0000	46.20
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	607276	50.0000	48.00
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	368991	50.0000	47.21
24	2-Butanone	43	3.580	3.580	(0.856)	139647	100.000	80.34 (M)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	771207	50.0000	47.93
52	2-Hexanone	43	7.083	7.083	(0.923)	240698	100.000	85.64
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	921740	50.0000	48.11
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	1027035	50.0000	51.67
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	353789	100.000	81.20
10	Acetone	43	1.976	1.976	(0.473)	124738	100.000	84.62
37	Benzene	78	4.512	4.512	(0.909)	890172	50.0000	48.13
74	Bromobenzene	156	8.802	8.802	(0.911)	363038	50.0000	50.90
29	Bromochloromethane	128	3.795	3.795	(0.908)	158052	50.0000	45.75
39	Bromodichloromethane	83	5.722	5.722	(1.153)	337028	50.0000	48.70
66	Bromoform	173	8.408	8.408	(1.096)	219637	50.0000	52.06
6	Bromomethane	94	1.338	1.338	(0.320)	259399	50.0000	43.98
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1217325	100.000	87.23
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	350019	50.0000	52.45
59	Chlorobenzene	112	7.692	7.692	(1.003)	747147	50.0000	47.44
7	Chloroethane	64	1.403	1.403	(0.336)	181389	50.0000	45.14
28	Chloroform	83	3.910	3.910	(0.935)	438224	50.0000	43.62
3	Chloromethane	50	1.073	1.073	(0.257)	229466	50.0000	44.14
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	268145	50.0000	44.78
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	412518	50.0000	50.58
55	Dibromochloromethane	129	7.176	7.176	(0.936)	317788	50.0000	51.03
44	Dibromomethane	93	5.550	5.550	(1.118)	170602	50.0000	47.91
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	246681	50.0000	46.99
61	Ethylbenzene	106	7.800	7.800	(1.017)	372610	50.0000	51.28
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	162360	50.0000	60.45
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1159081	50.0000	52.21
62	m,p-Xylenes	106	7.900	7.900	(1.030)	962503	100.000	101.62
17	Methylene Chloride	84	2.305	2.305	(0.551)	240062	50.0000	46.24
87	n-Butylbenzene	91	9.991	9.991	(1.034)	874392	50.0000	52.29
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1323706	50.0000	49.37
92	Naphthalene	128	11.539	11.539	(1.194)	253539	50.0000	41.27
63	o-Xylene	106	8.244	8.244	(1.075)	464412	50.0000	50.28
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	1148295	50.0000	50.87
64	Styrene	104	8.258	8.258	(1.077)	801341	50.0000	51.92
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	832221	50.0000	49.75
56	Tetrachloroethene	164	6.926	6.926	(0.903)	255784	50.0000	54.92
50	Toluene	91	6.446	6.446	(0.840)	1041177	50.0000	47.14
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	233274	50.0000	43.73
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	361827	50.0000	51.43
38	Trichloroethene	130	5.206	5.206	(1.049)	288216	50.0000	52.16
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	461715	50.0000	44.77
5	Vinyl Chloride	62	1.145	1.145	(0.274)	294877	50.0000	43.60

QC Flag Legend

M - Compound response manually integrated.



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Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

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

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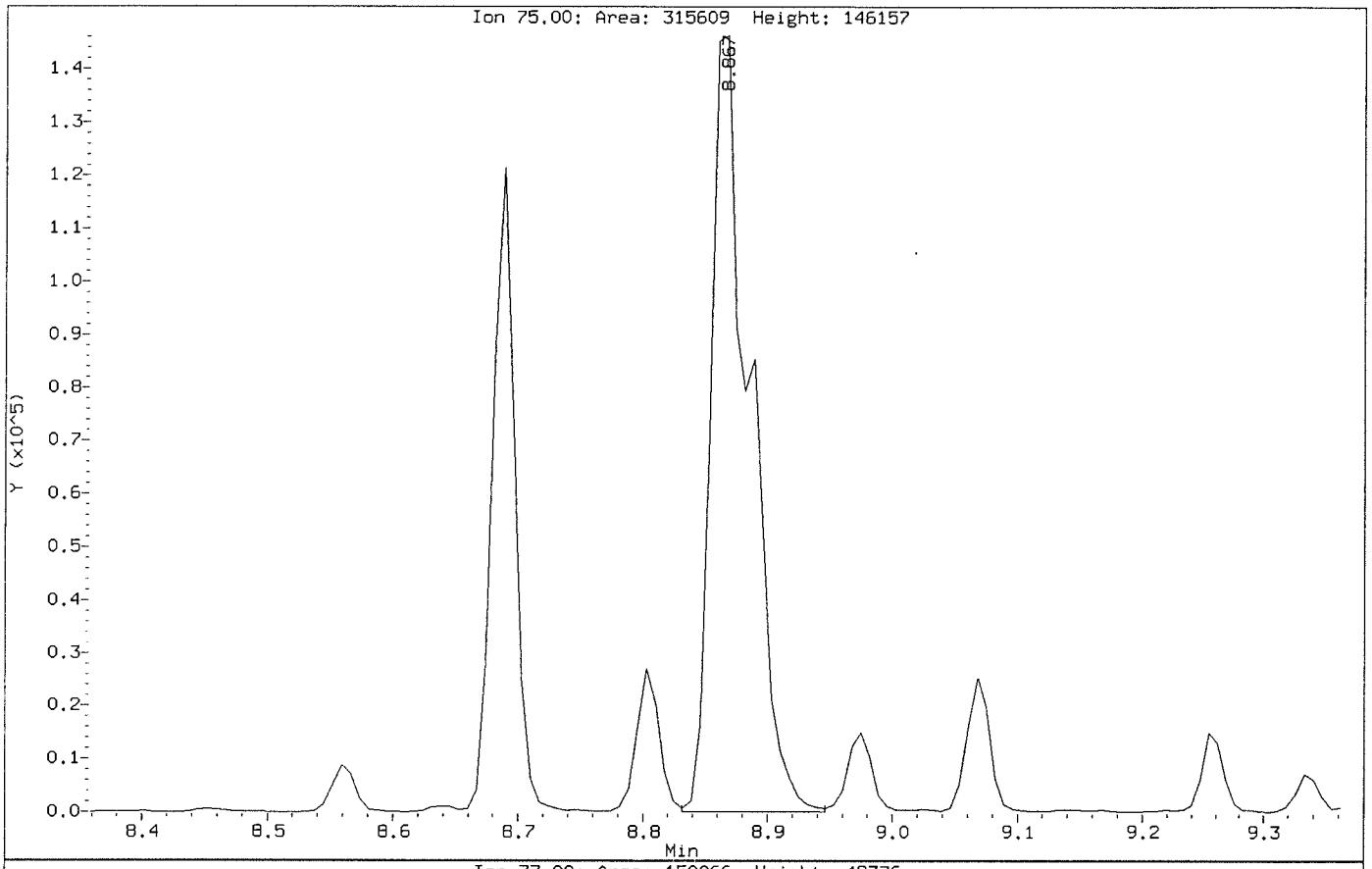
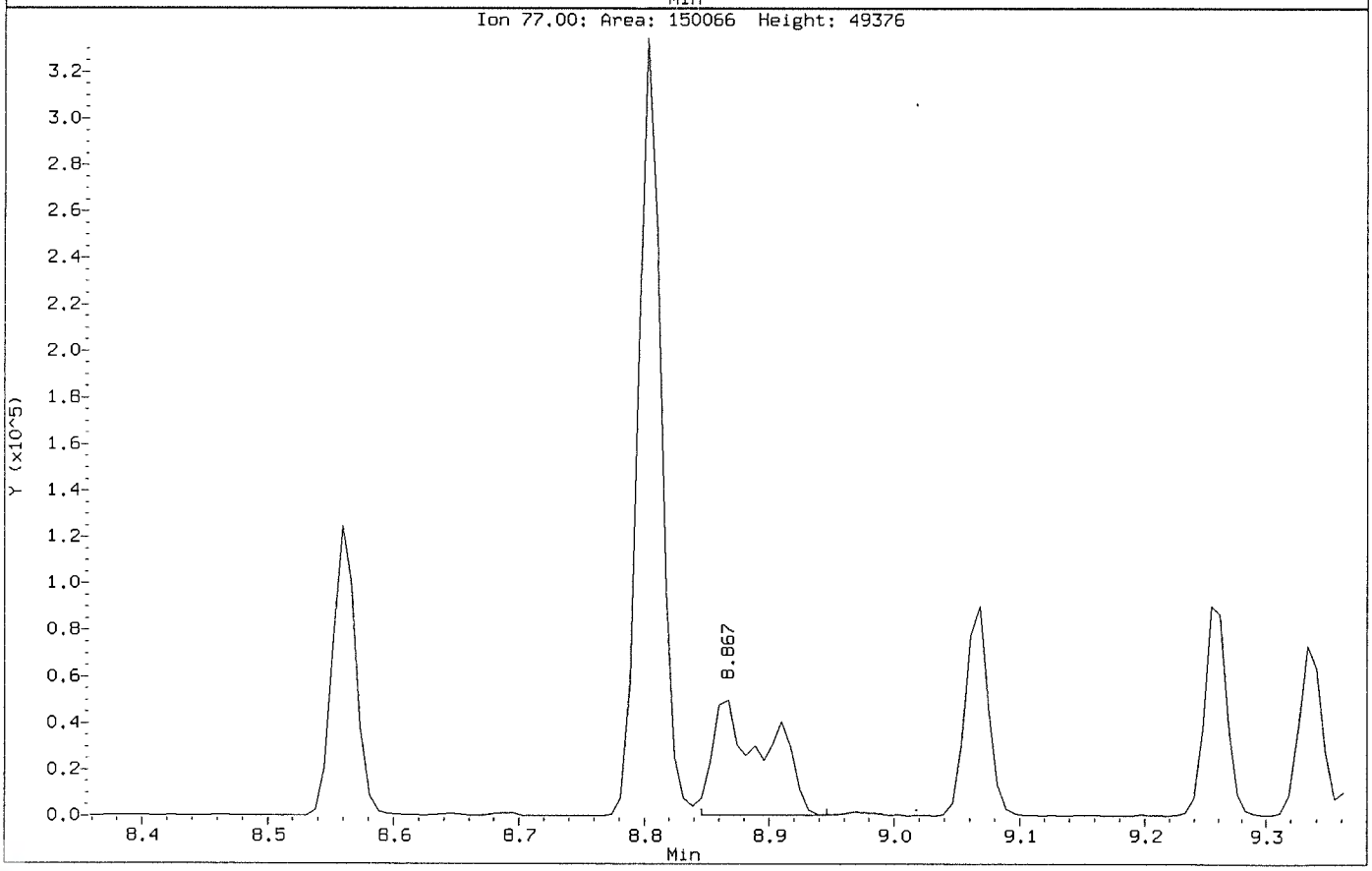
Instrument: voa6.i
Client Sample ID: CCV

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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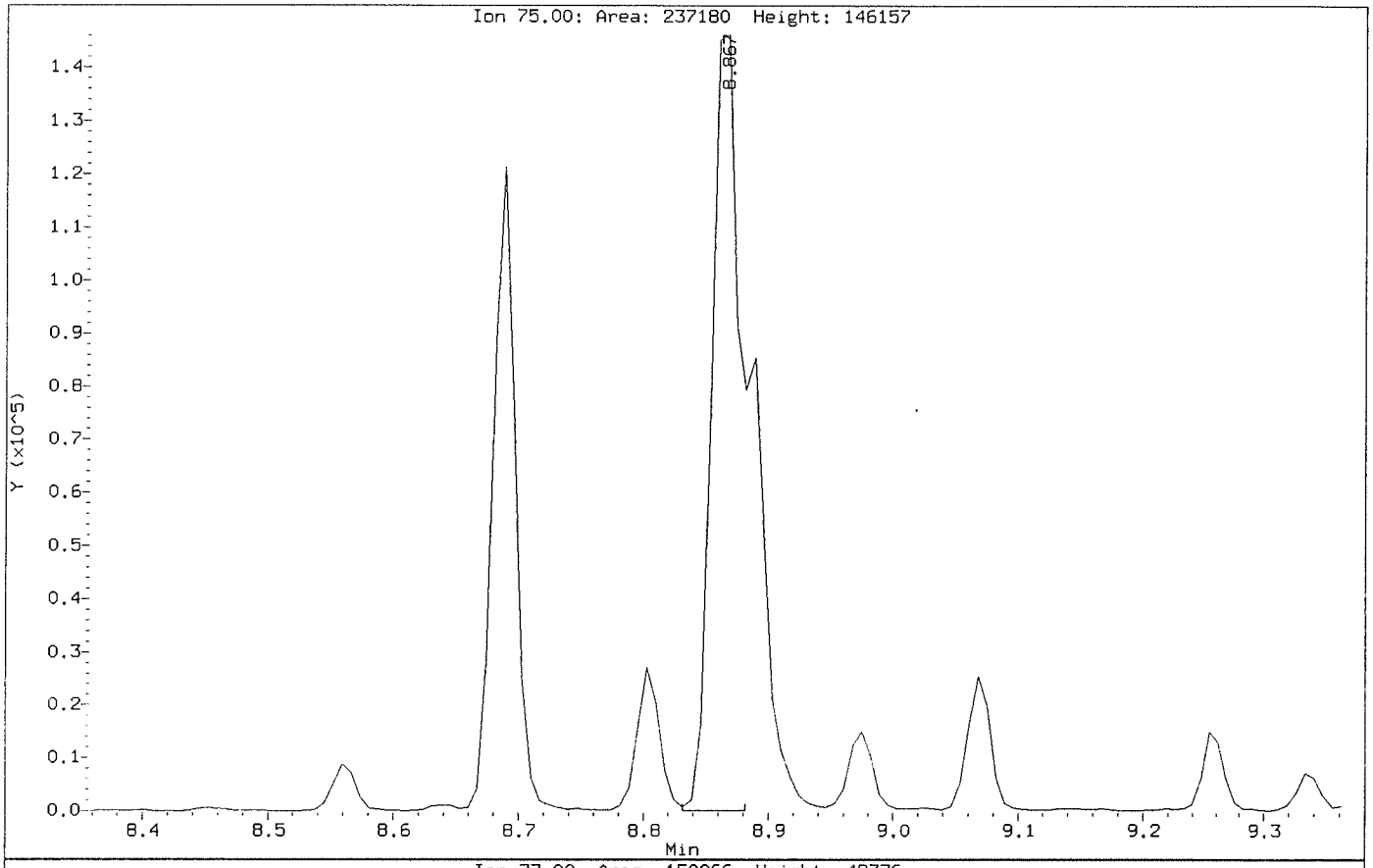
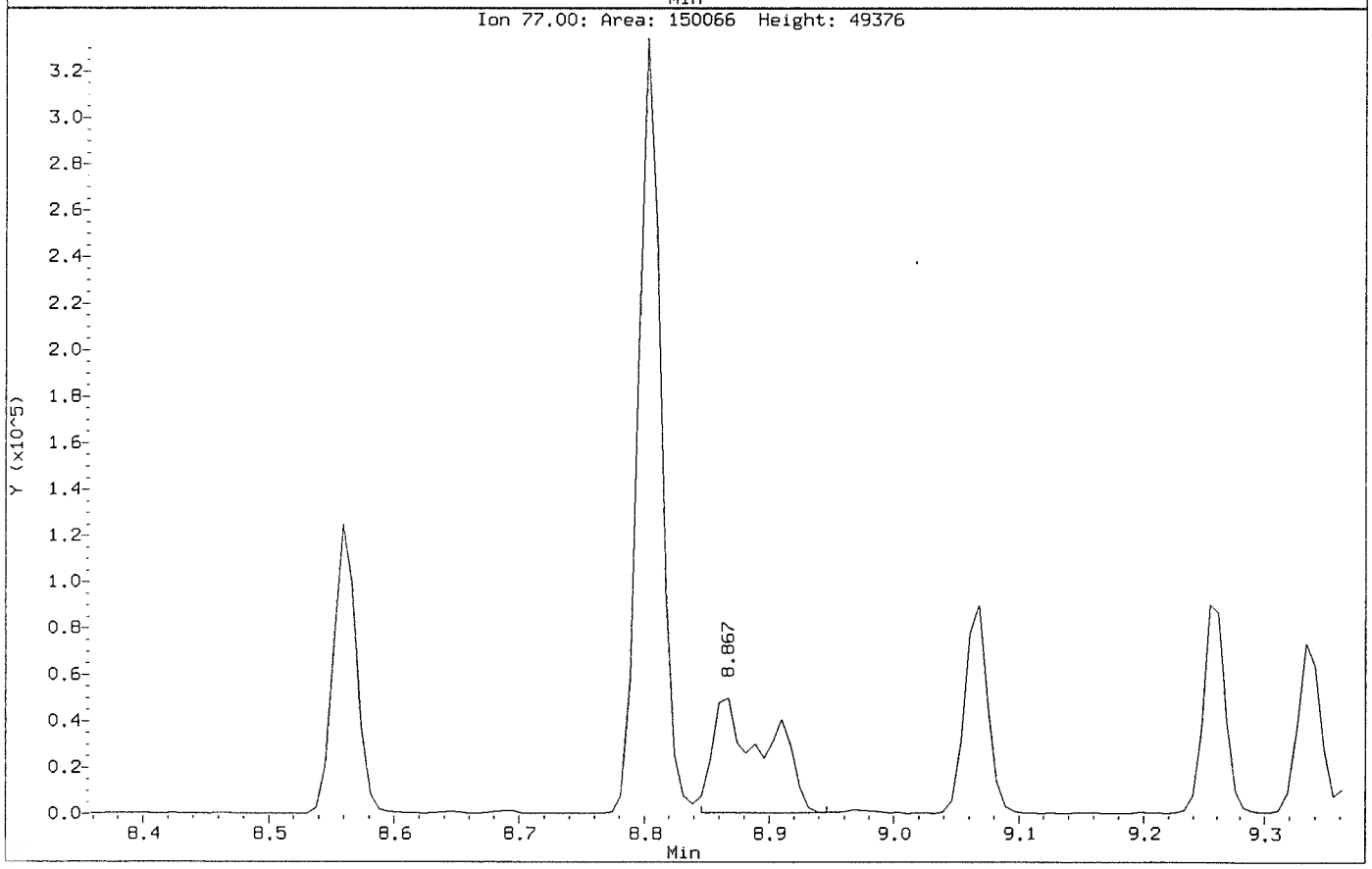
Instrument: voa6.i
Client Sample ID: CCV

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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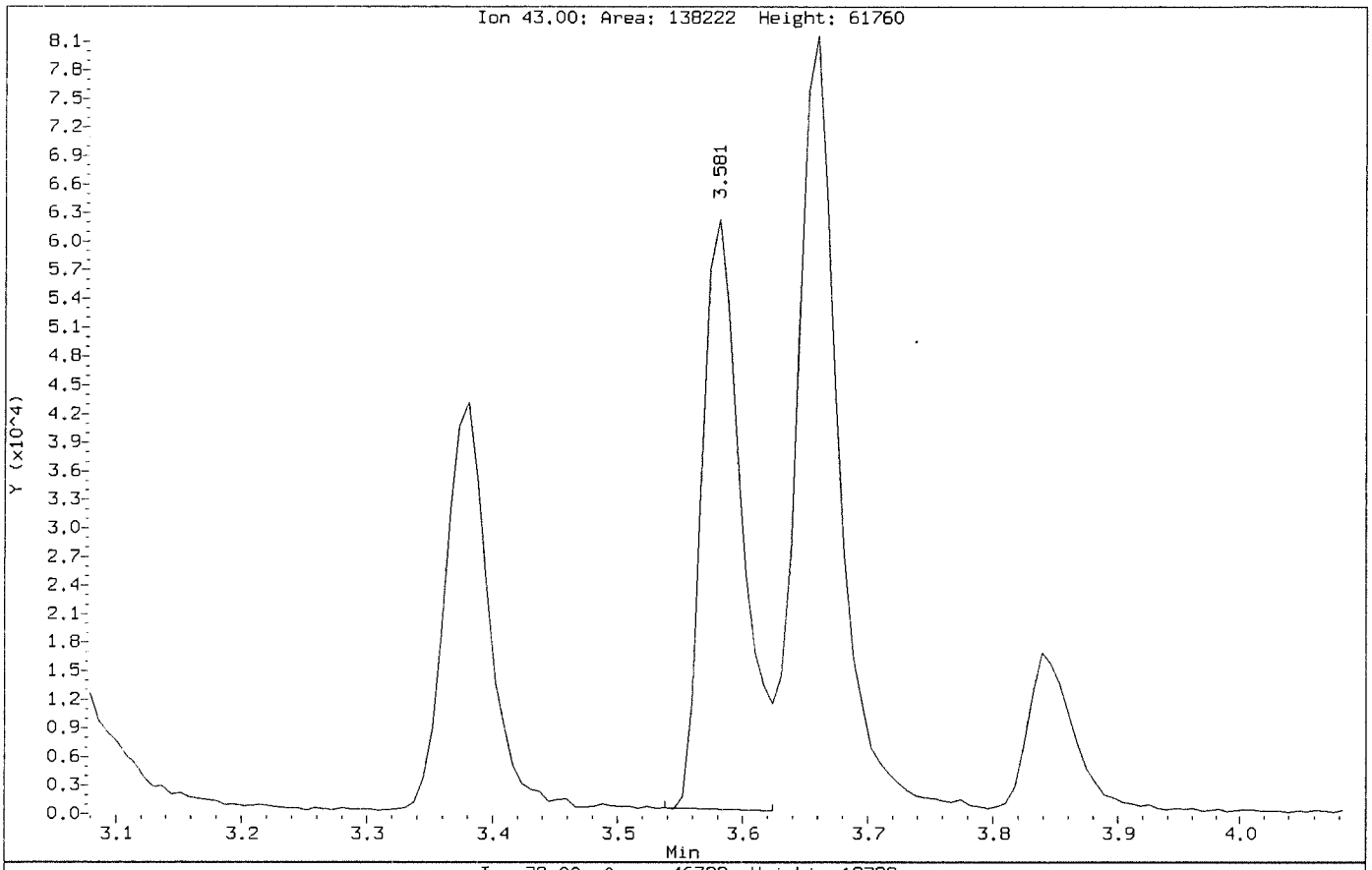
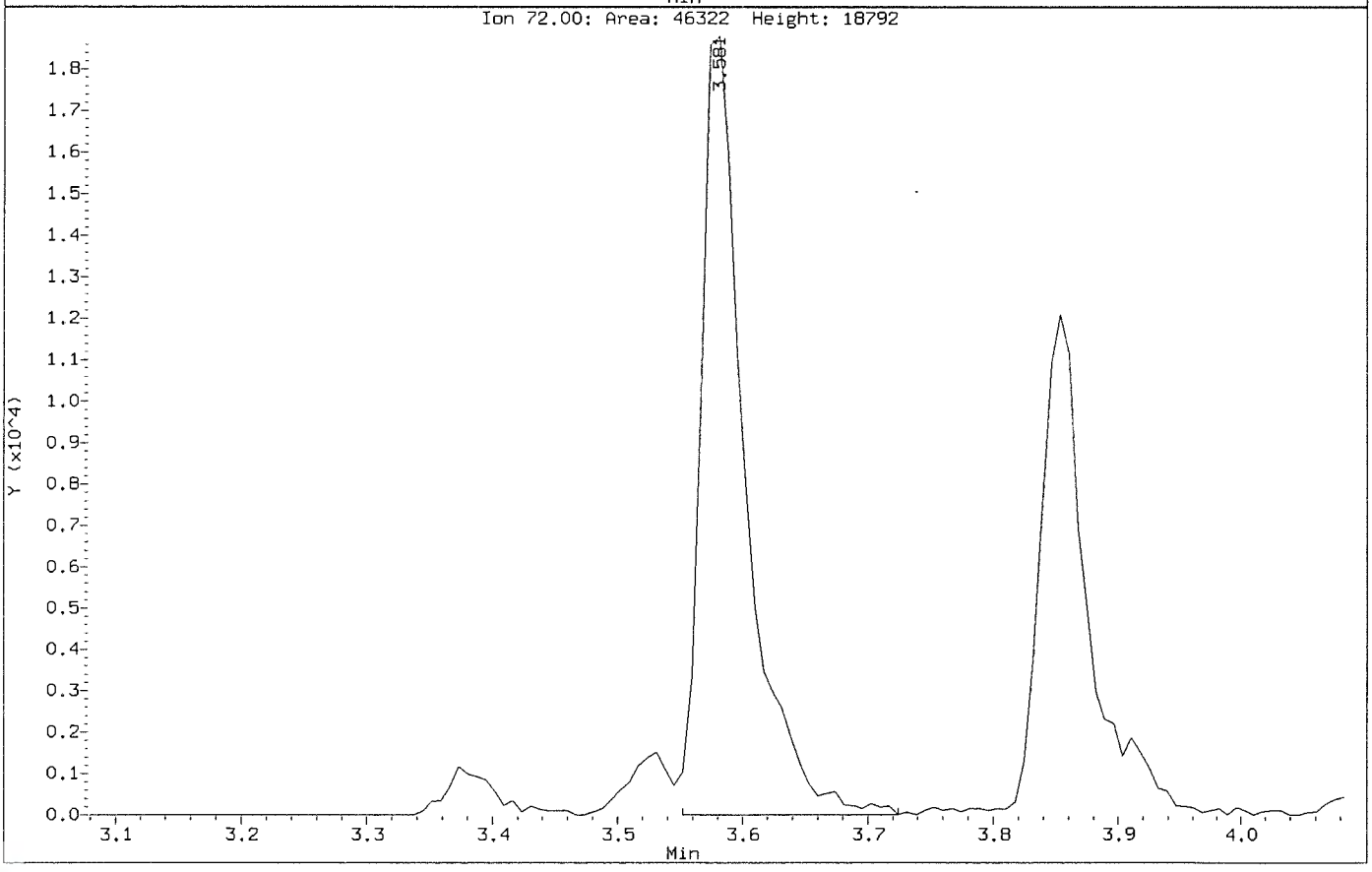
Injection Date: 30-MAY-2021 12:22
Instrument: voa6.i
Client Sample ID: CCV

Compound: 2-Butanone
CAS Number: 78-93-3





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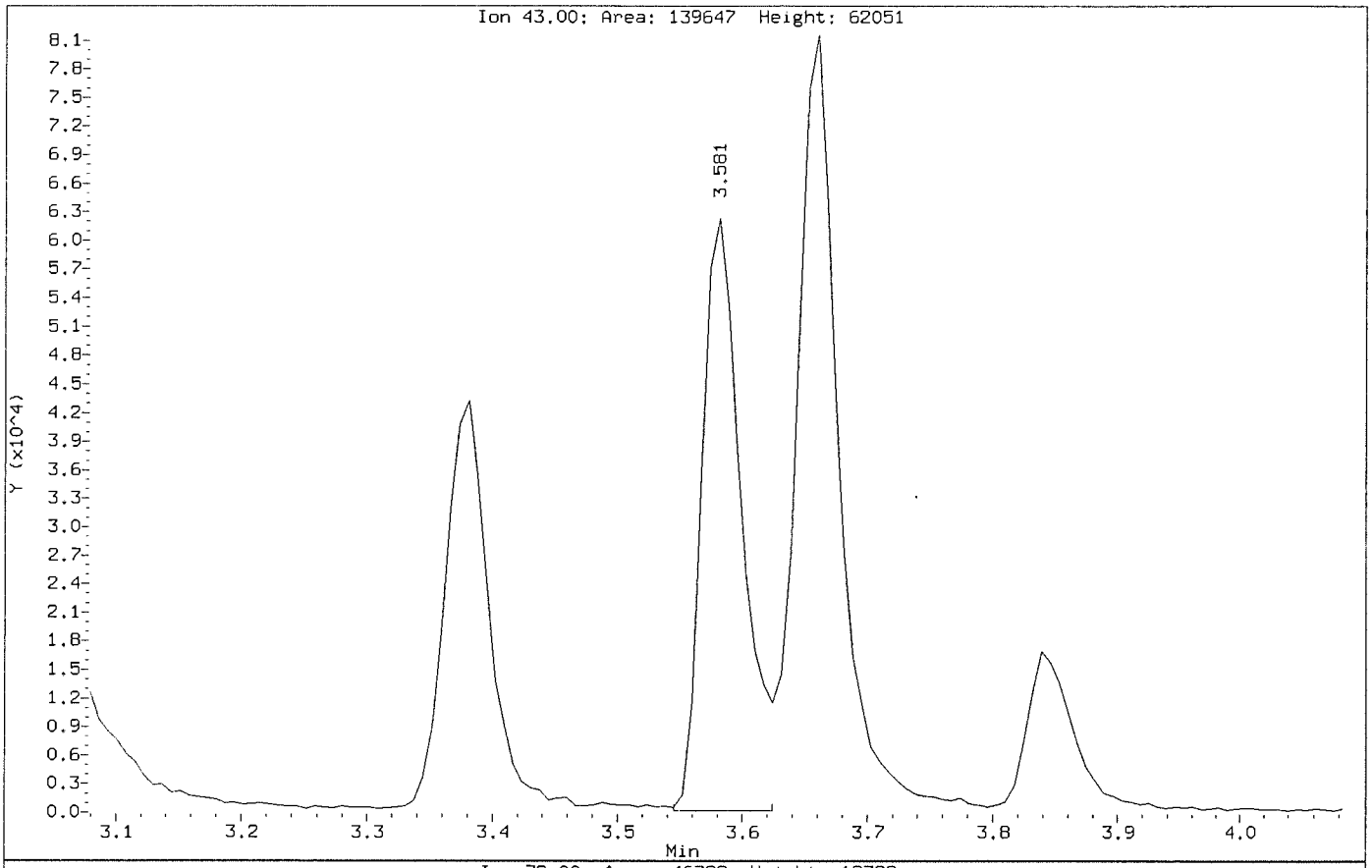
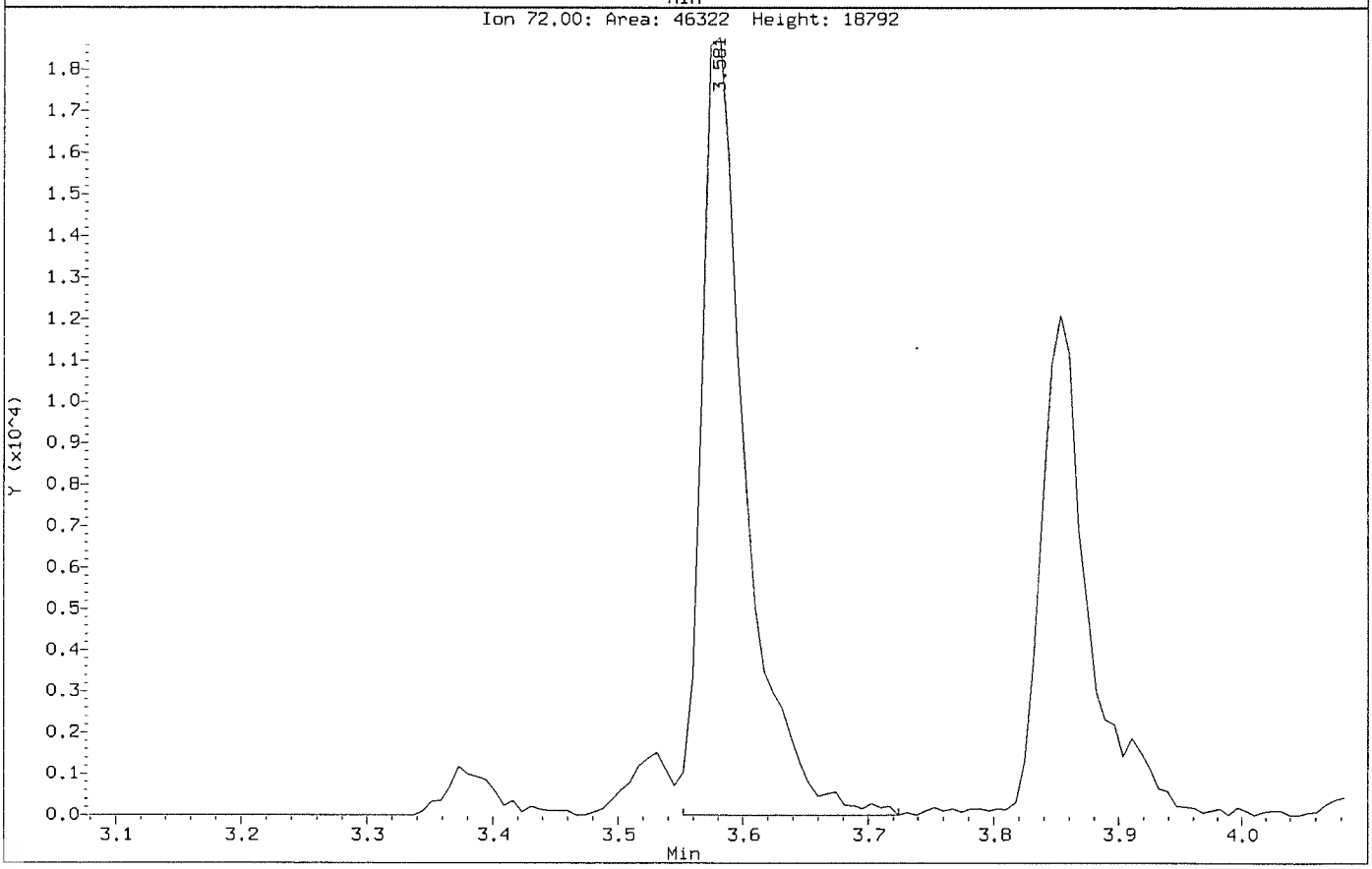
Instrument: voa6.i
Client Sample ID: CCV

Compound: 2-Butanone
CAS Number: 78-93-3





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Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053005.D
Lab Smp Id: VLCSW-210530 Client Smp ID: VLCSW-210530
Inj Date : 30-MAY-2021 13:04
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-210530;VLCSW-210530;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

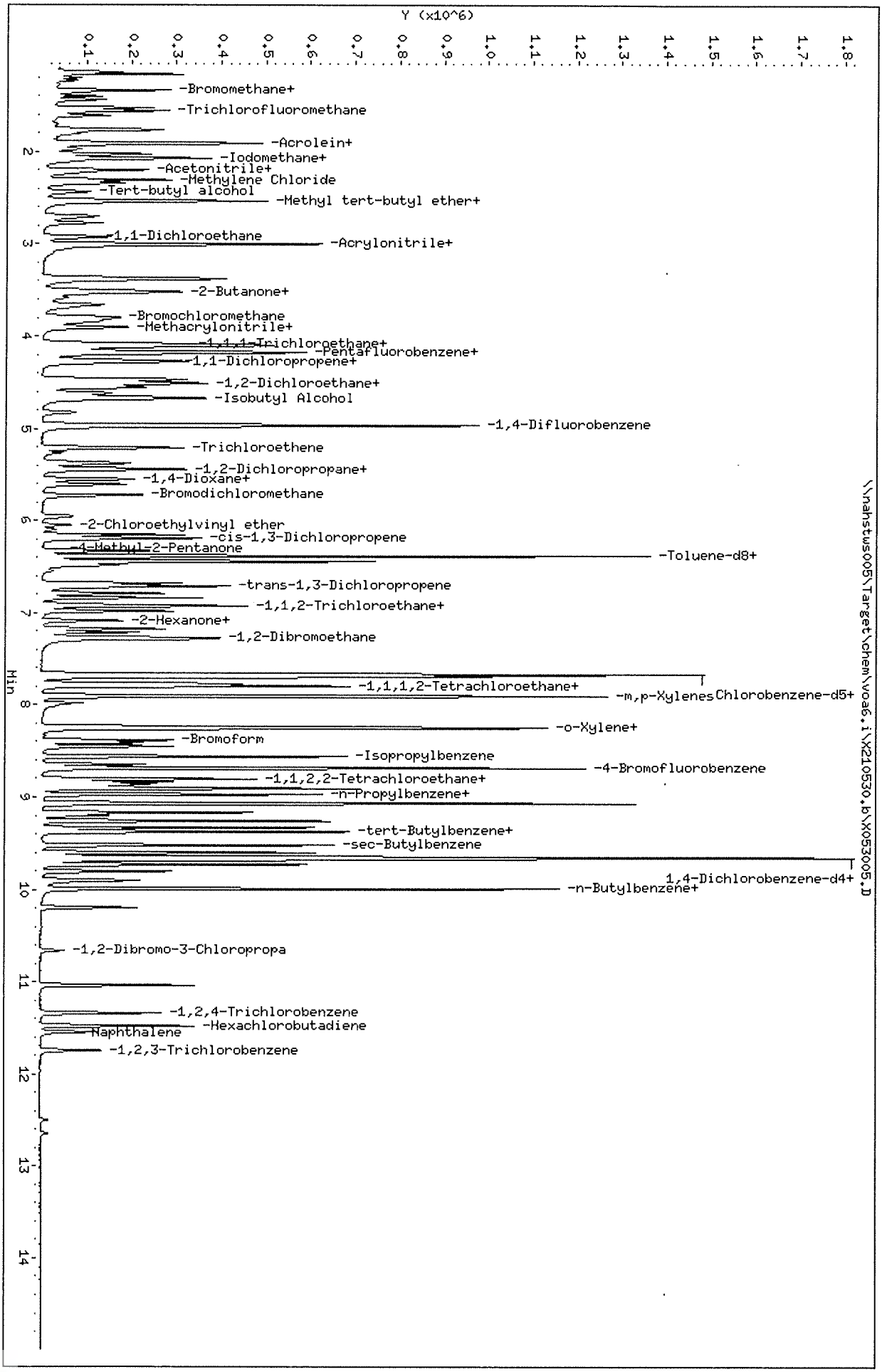
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	524742	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	749233	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	704506	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	385381	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	251068	48.6037	48.60
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	257612	51.4124	51.41
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	840410	47.8900	47.89
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	300873	48.6500	48.65
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	112085	21.5133	21.51
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	145846	18.8074	18.80
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	109830	19.9261	19.92
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	76599	20.0713	20.07
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	152336	18.3632	18.36
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	100157	18.5298	18.52
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	112569	19.6172	19.61
93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	44412	19.0363	19.03
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	89431	18.6130	18.61(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	84075	22.0658	22.06
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	340306	19.3604	19.36
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	11536	19.1884	19.18
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	102355	19.7334	19.73
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	205686	19.6773	19.67

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	128430	21.5136	21.51
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	87595	19.8618	19.86
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	326275	18.6517	18.65
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	221711	20.3965	20.39
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	147014	19.3729	19.37
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	229907	20.2687	20.26
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	139700	19.4593	19.45
24	2-Butanone	43	3.580	3.580	(0.856)	57253	35.8615	35.86
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	276952	19.1999	19.19
52	2-Hexanone	43	7.090	7.083	(0.924)	97387	37.2128	37.21
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	324878	18.9123	18.91
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	338583	19.0009	19.00
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	144714	35.6707	35.67
10	Acetone	43	1.976	1.976	(0.473)	57122	39.1965	39.19
37	Benzene	78	4.512	4.512	(0.909)	346178	20.1125	20.11
74	Bromobenzene	156	8.802	8.802	(0.911)	133981	20.9543	20.95
29	Bromochloromethane	128	3.795	3.795	(0.908)	60075	18.9337	18.93
39	Bromodichloromethane	83	5.722	5.722	(1.153)	133207	20.6809	20.68
66	Bromoform	173	8.408	8.408	(1.096)	84063	21.3983	21.39
6	Bromomethane	94	1.338	1.338	(0.320)	116494	21.5804	21.58
19	Carbon Disulfide	76	2.069	2.069	(0.495)	462084	36.0495	36.04
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	122750	19.7636	19.76
59	Chlorobenzene	112	7.692	7.692	(1.003)	285855	19.4911	19.49
7	Chloroethane	64	1.403	1.403	(0.336)	70826	18.3758	18.37
28	Chloroform	83	3.910	3.910	(0.935)	173686	18.8218	18.82
3	Chloromethane	50	1.081	1.073	(0.258)	88063	16.8477	16.84
27	cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	106670	19.3945	19.39
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	162934	21.4673	21.46
55	Dibromochloromethane	129	7.176	7.176	(0.936)	124265	21.4305	21.43
44	Dibromomethane	93	5.550	5.550	(1.118)	68114	20.5515	20.55
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	92587	19.0784	19.07
61	Ethylbenzene	106	7.800	7.800	(1.017)	132969	19.6526	19.65
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	59792	26.1296	26.12
67	Isopropylbenzene	105	8.559	8.559	(1.116)	386957	18.7180	18.71
62	m,p-Xylenes	106	7.907	7.900	(1.031)	338554	38.3840	38.38
17	Methylene Chloride	84	2.305	2.305	(0.551)	98847	19.9956	19.99
87	n-Butylbenzene	91	9.991	9.991	(1.034)	283650	18.9196	18.91
73	n-Propylbenzene	91	8.910	8.910	(0.922)	441066	18.3476	18.34
92	Naphthalene	128	11.546	11.539	(1.195)	99515	18.0699	18.06
63	o-Xylene	106	8.244	8.244	(1.075)	166007	19.3018	19.30
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	370034	18.2856	18.28
64	Styrene	104	8.258	8.258	(1.077)	294050	20.4604	20.46
78	tert-Butylbenzene	119	9.340	9.332	(0.967)	273065	18.2079	18.20
56	Tetrachloroethene	164	6.926	6.926	(0.903)	89181	20.5629	20.56
50	Toluene	91	6.446	6.446	(0.840)	391315	19.0261	19.02
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	92570	18.8931	18.89
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	141614	21.6286	21.62
38	Trichloroethene	130	5.207	5.206	(1.049)	109538	21.3014	21.30
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	173214	18.2869	18.28
5	Vinyl Chloride	62	1.145	1.145	(0.274)	113441	18.2632	18.26

QC Flag Legend

M - Compound response manually integrated.



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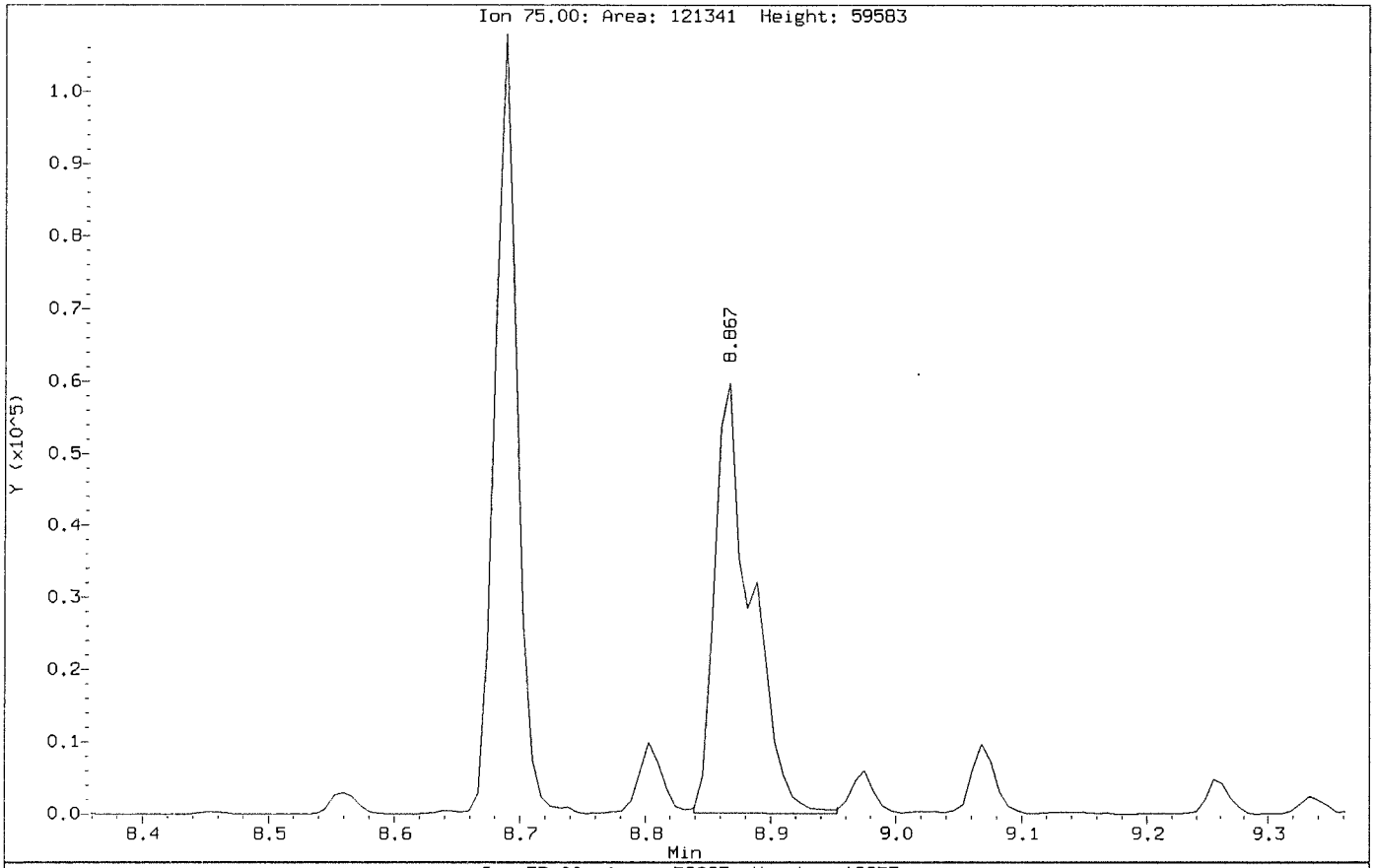
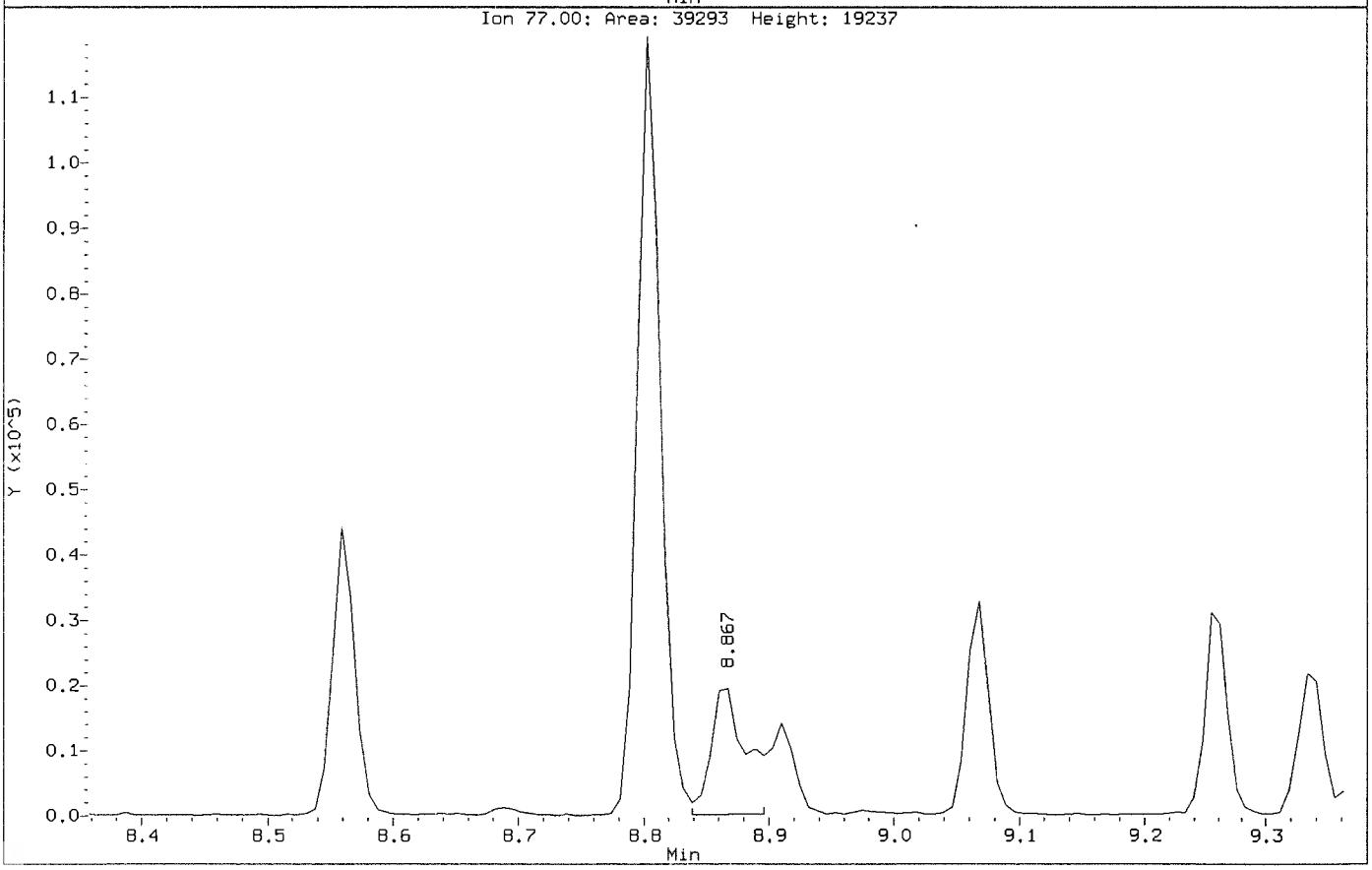
Sample Info: WLCSW-210530;WLCSW-210530;3;;LCS
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053005.D
Injection Date: 30-MAY-2021 13:04
Instrument: voa6.i
Client Sample ID: VLCSW-210530

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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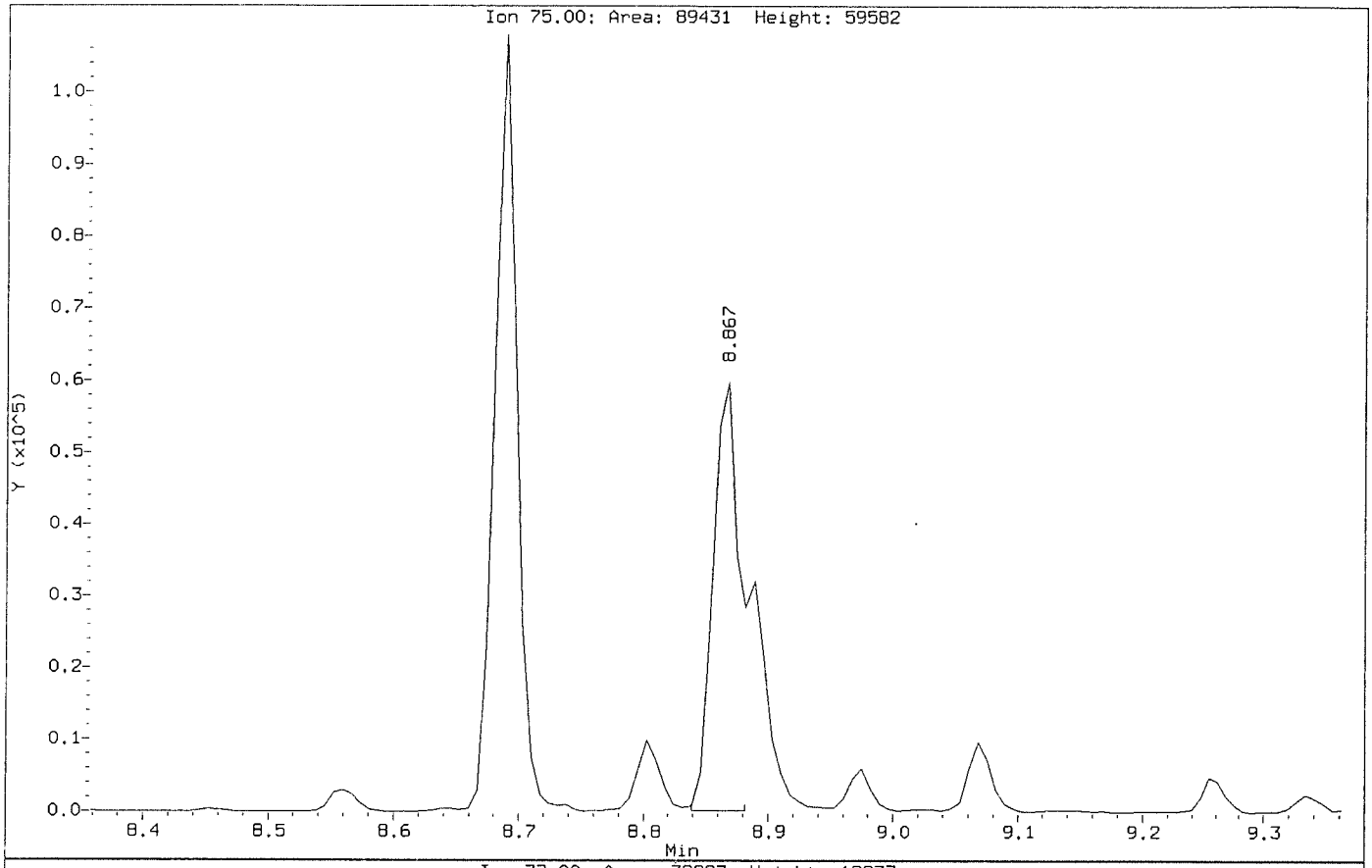
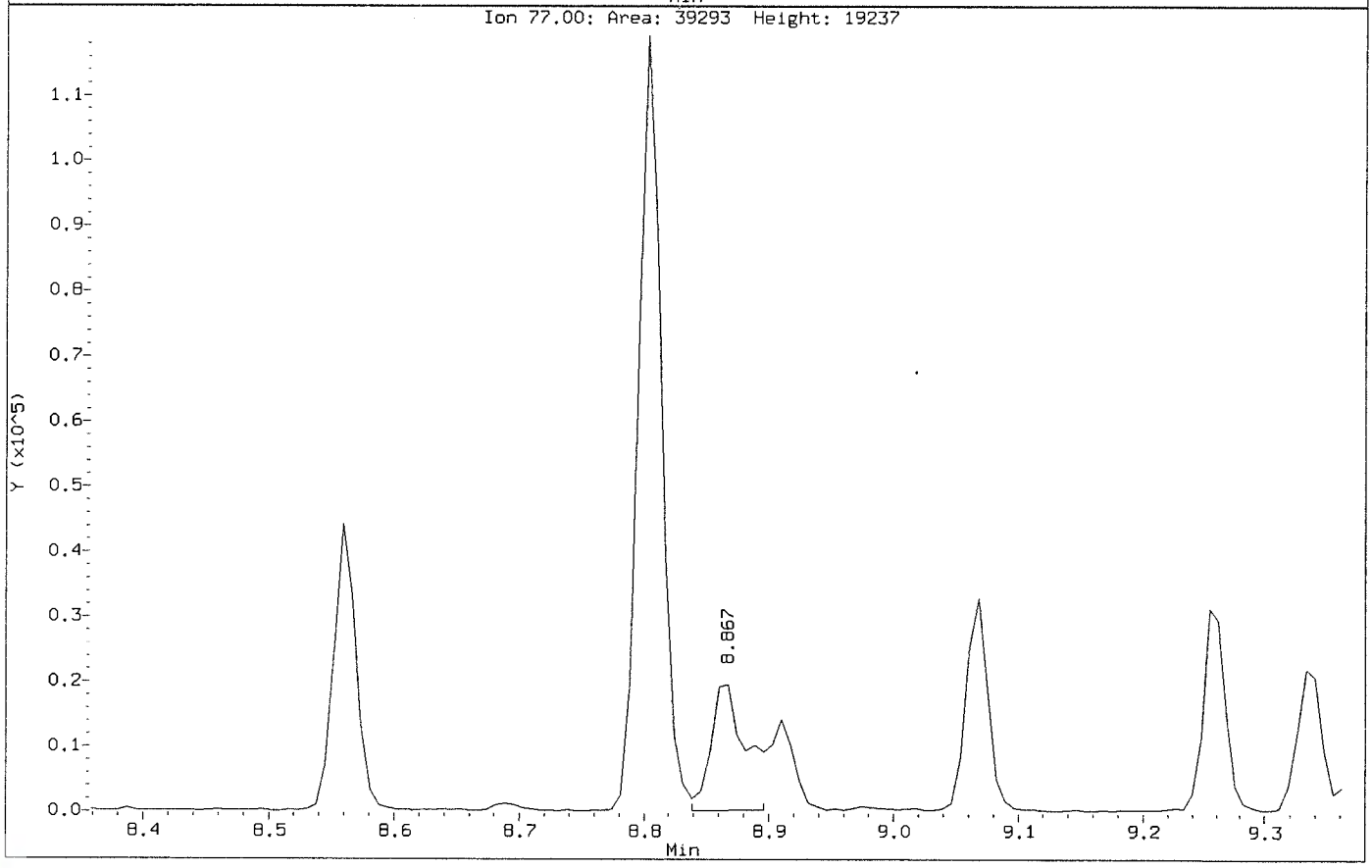
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053008.D
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Inj Date : 30-MAY-2021 14:07
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-210530;VBLKW-210530;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	615444	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	844380	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	758478	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	380991	50.0000	
$ 30 Dibromofluoromethane	113	4.104	4.096	(0.981)	274229	45.2522	45.25
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	279686	47.5400	47.54
$ 48 Toluene-d8	98	6.389	6.388	(0.833)	961241	50.8777	50.87
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	322604	48.4550	48.45

01060779

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053008.D

Date : 30-MAY-2021 14:07

Client ID: VBLKW-210530

Sample Info: VBLKW-210530;VBLKW-210530;3;;BLANK

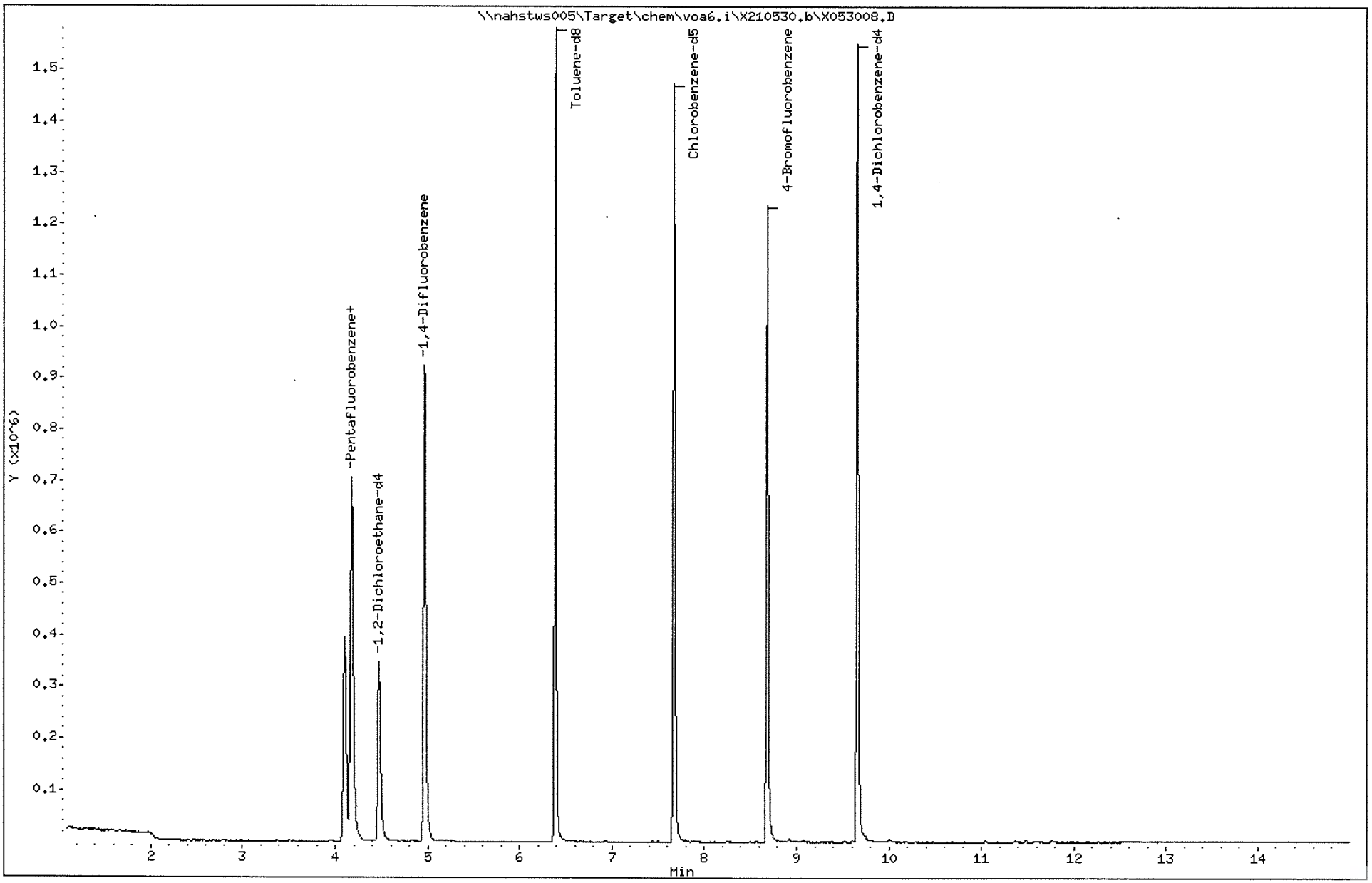
Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18



ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053009.D
Lab Smp Id: HS21051312-03 Client Smp ID: HS21051312-03
Inj Date : 30-MAY-2021 14:28
Operator : PC Inst ID: voa6.i
Smp Info : HS21051312-03;HS21051312-03;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:37 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

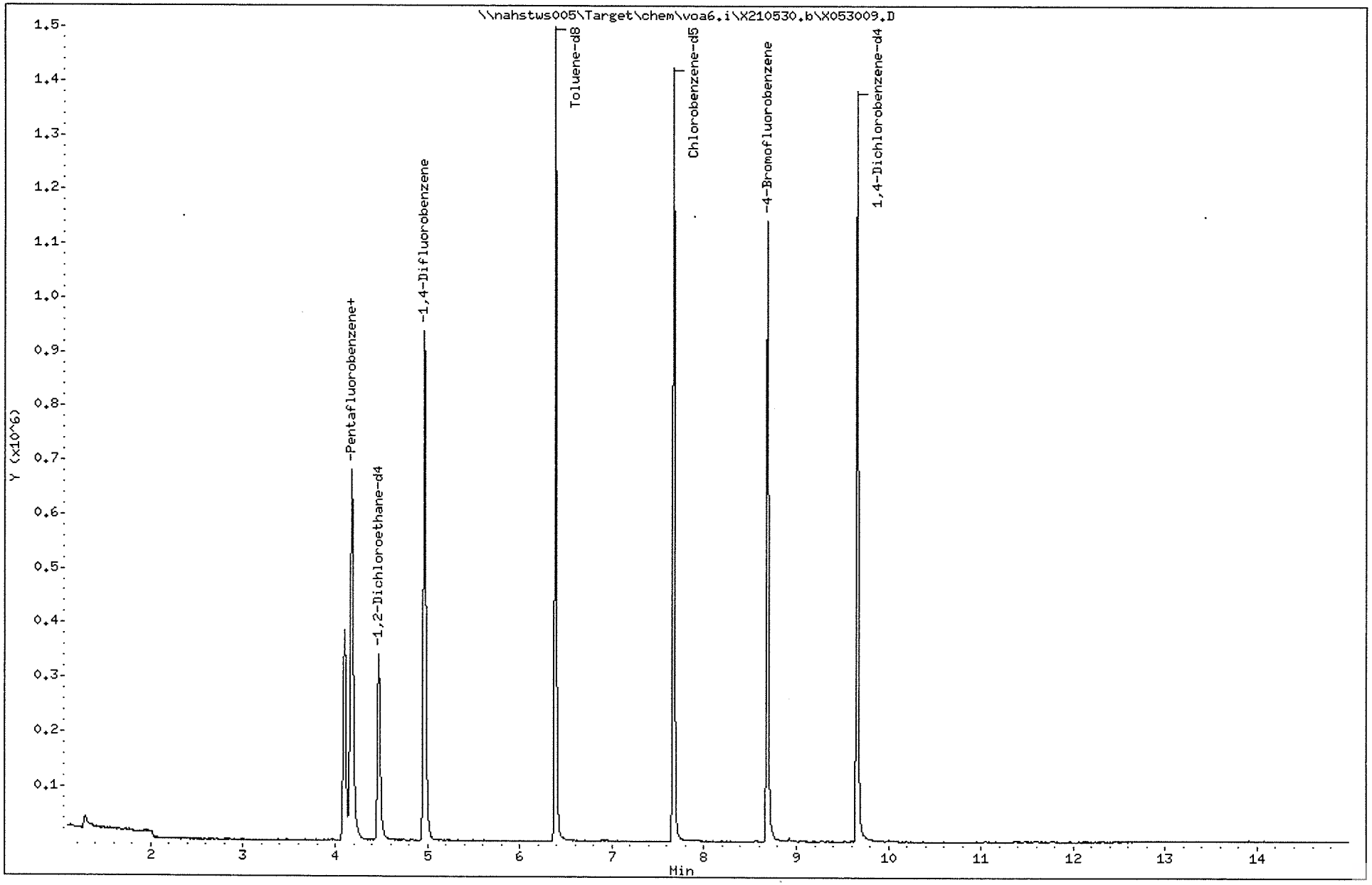
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	607420	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	827398	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	724011	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	354076	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	272468	45.5566	45.55
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	263530	45.3542	45.35
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	939572	52.0983	52.09
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	301874	47.5147	47.51

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053009.D
Date : 30-MAY-2021 14:28
Client ID: HS21051312-03
Sample Info: HS21051312-03;HS21051312-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053011.D
Lab Smp Id: HS21051312-01 Client Smp ID: HS21051312-01
Inj Date : 30-MAY-2021 15:10
Operator : PC Inst ID: voa6.i
Smp Info : HS21051312-01;HS21051312-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:37 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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

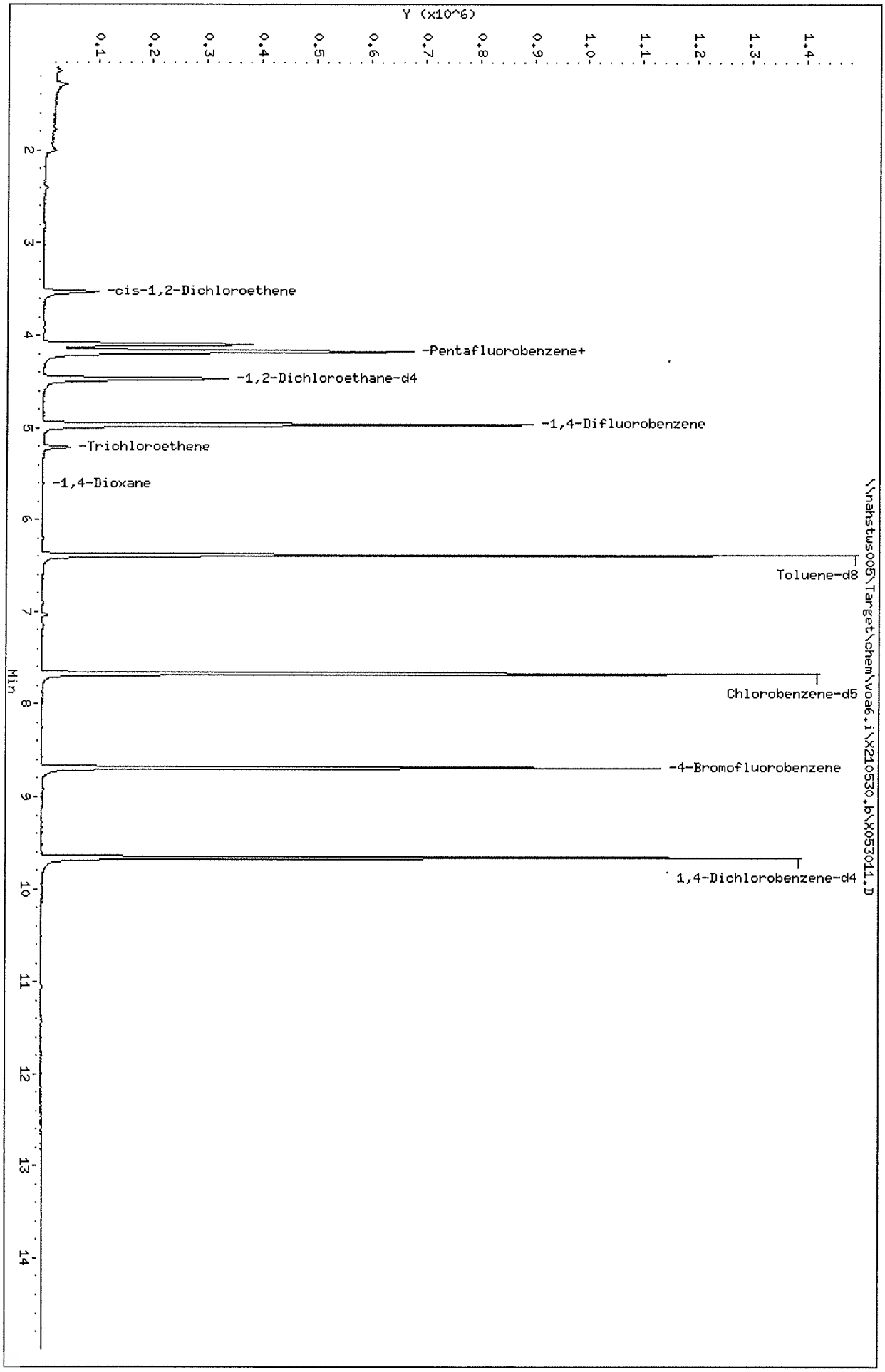
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	601802	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	815445	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	722034	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356061	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	269914	45.5509	45.55
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	265536	46.1378	46.13
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	931966	51.8180	51.81
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	287644	45.4323	45.43
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	56624	8.97696	8.97
38 Trichloroethene	130	5.214	5.206	(1.051)	18679	3.33749	3.33(a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	6331	0.88873	0.88(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053011.D
Date : 30-MAY-2021 15:10
Client ID: HS21051312-01
Sample Info: HS21051312-01;HS21051312-01;;;
Purge Volume: 5.0
Column phase: DB624

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



Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053011.D

Date : 30-MAY-2021 15:10

Client ID: HS21051312-01

Instrument: voa6.i

Sample Info: HS21051312-01;HS21051312-01;;;

Purge Volume: 5.0

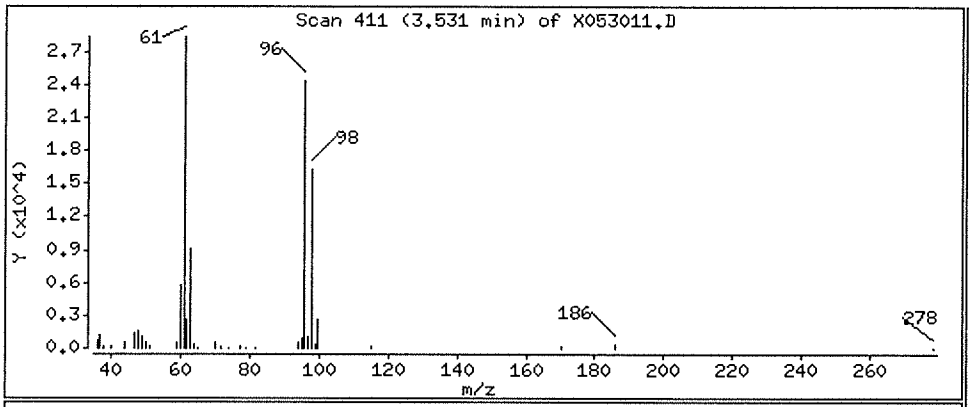
Operator: PC

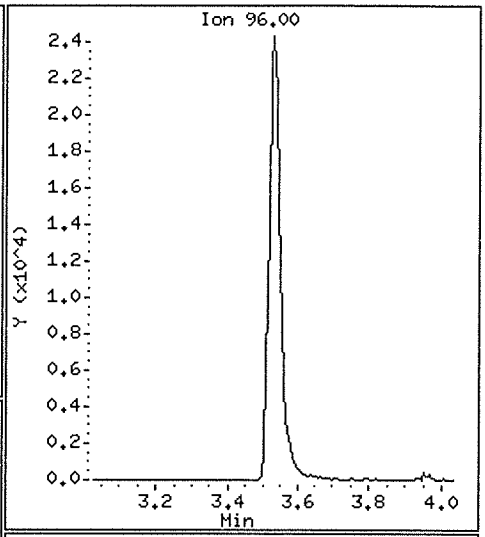
Column phase: DB624

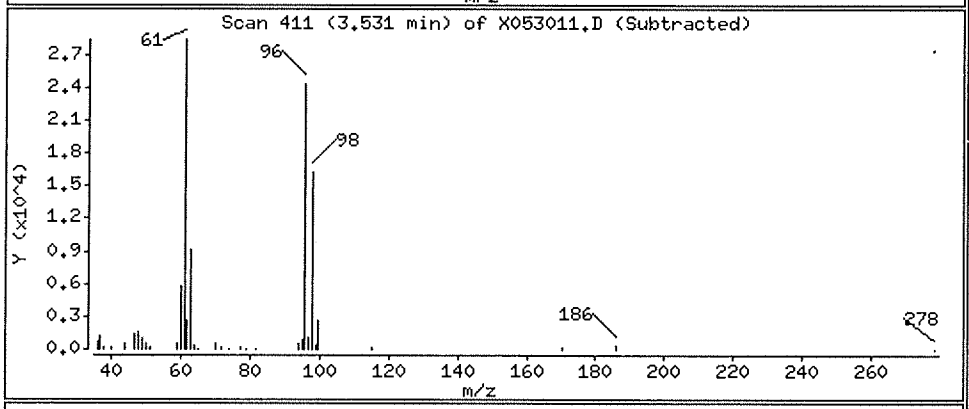
Column diameter: 0.18

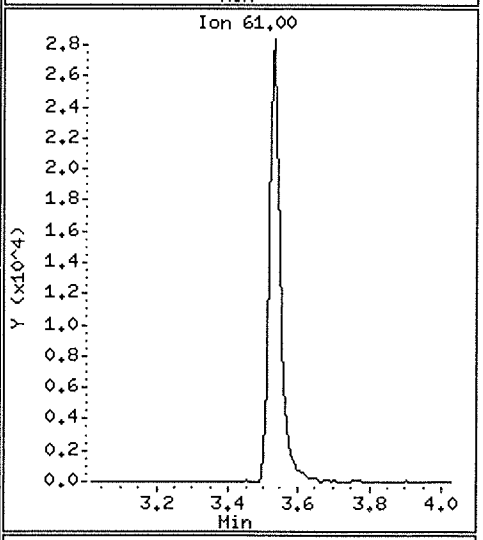
27 cis-1,2-Dichloroethene

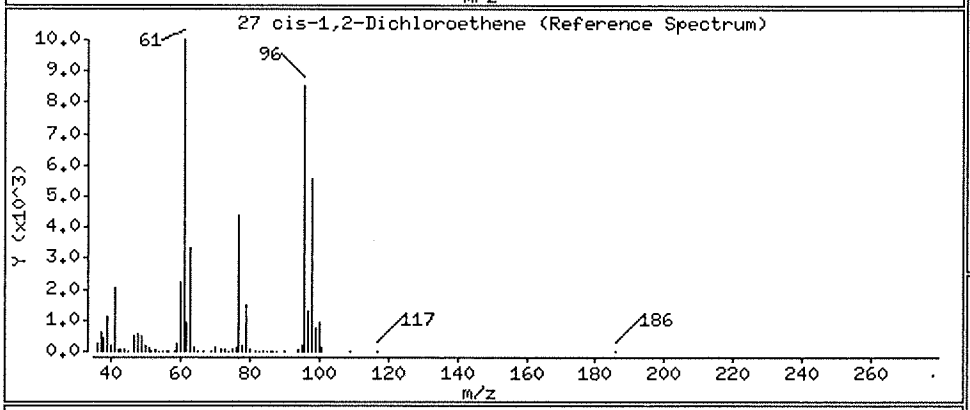
Concentration: 8.97 ug/l

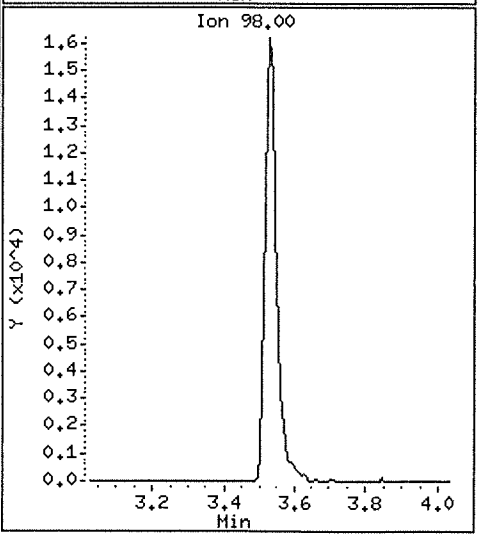


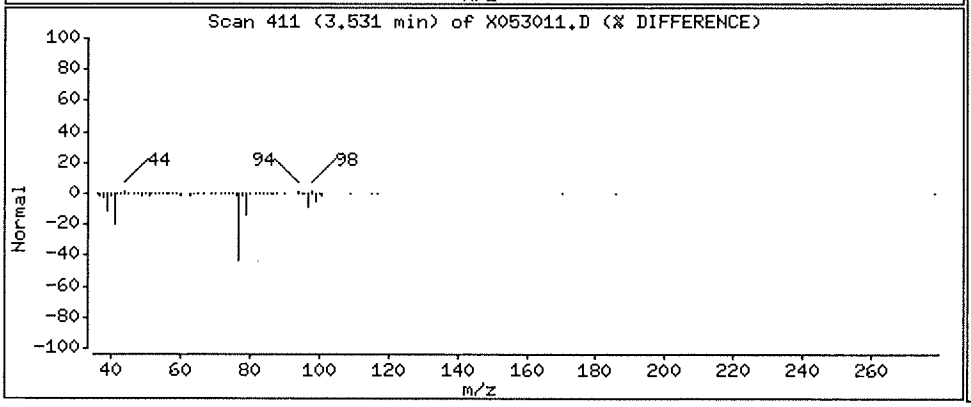












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053011.D

Date : 30-MAY-2021 15:10

Client ID: HS21051312-01

Instrument: voa6.i

Sample Info: HS21051312-01;HS21051312-01;;;

Purge Volume: 5.0

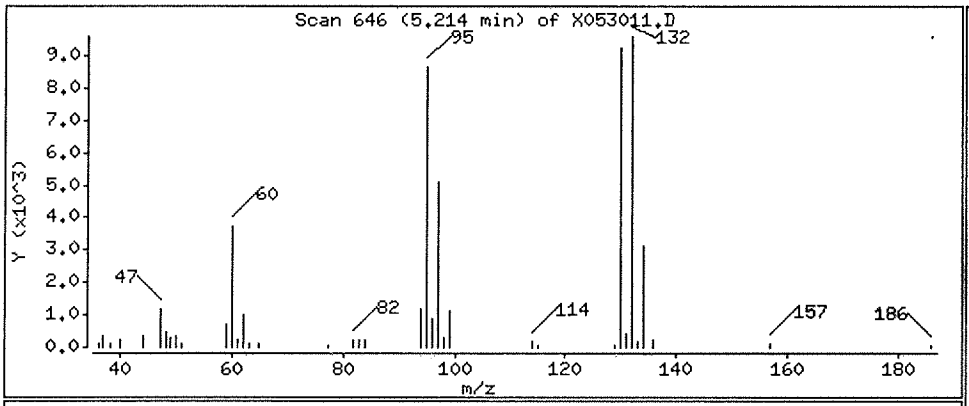
Operator: PC

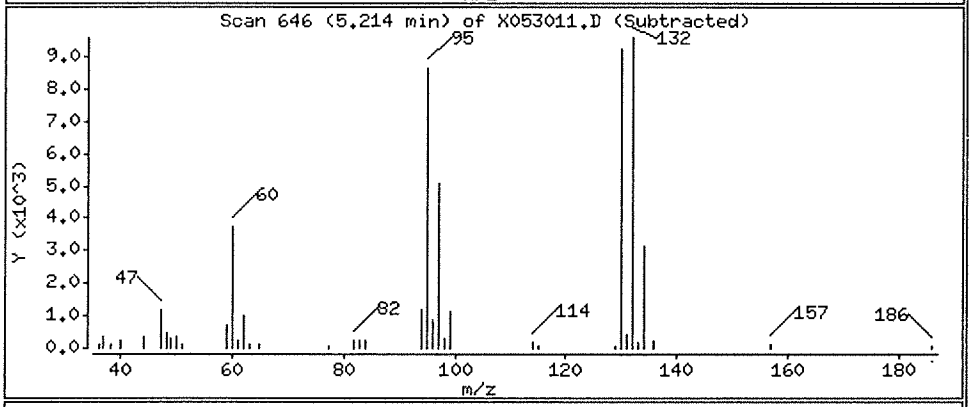
Column phase: DB624

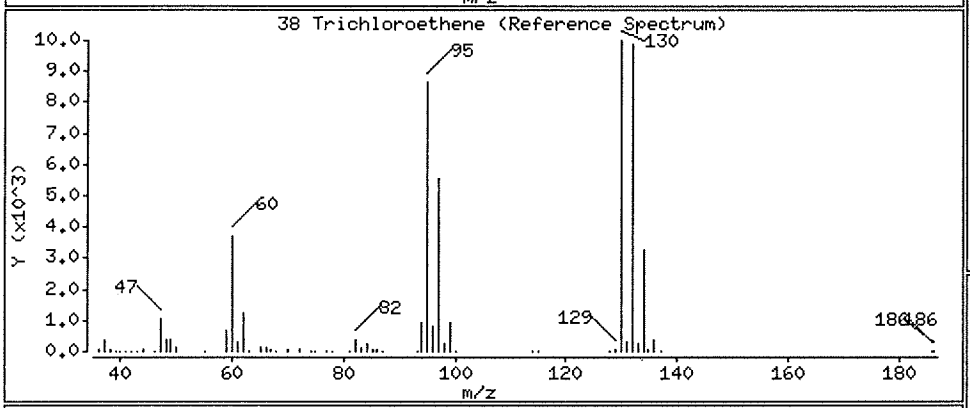
Column diameter: 0.18

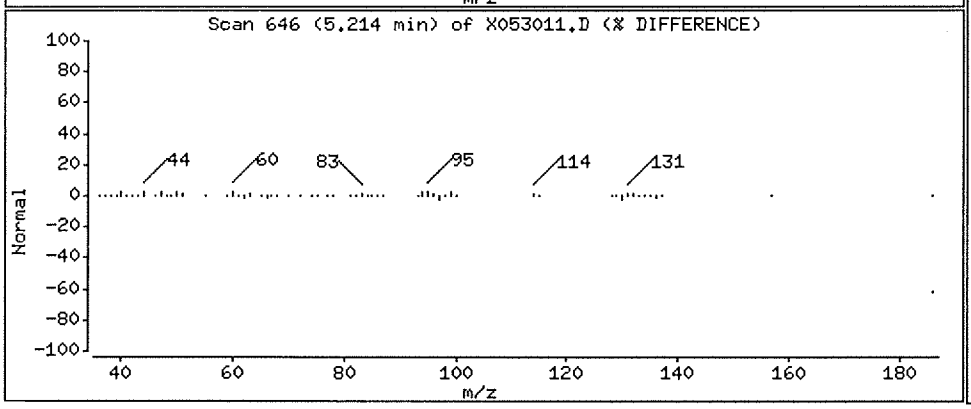
38 Trichloroethene

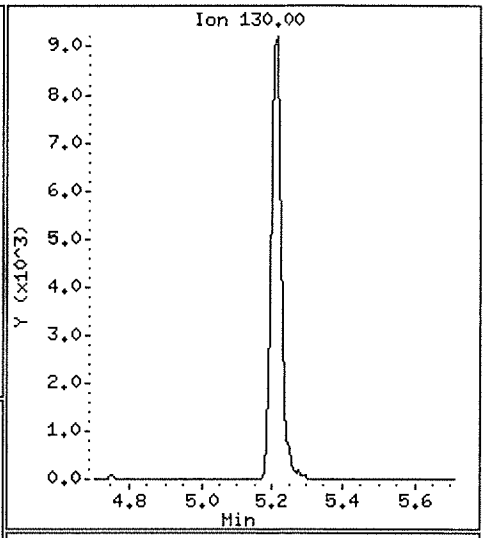
Concentration: 3.33 ug/l

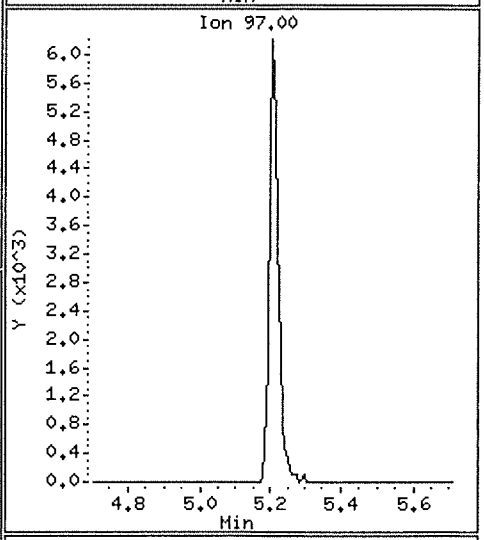


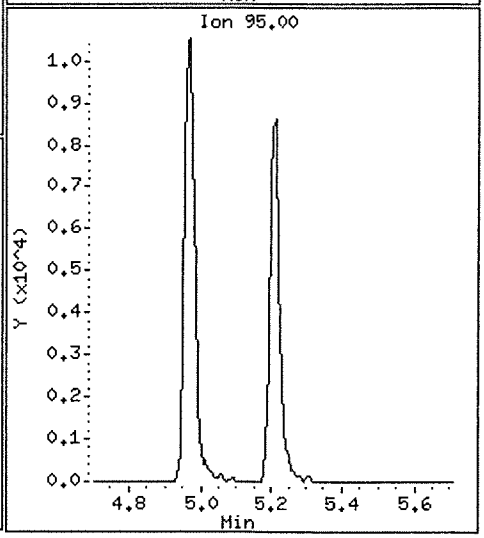












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053011.D

Date : 30-MAY-2021 15:10

Client ID: HS21051312-01

Instrument: voa6.i

Sample Info: HS21051312-01;HS21051312-01;;;

Purge Volume: 5.0

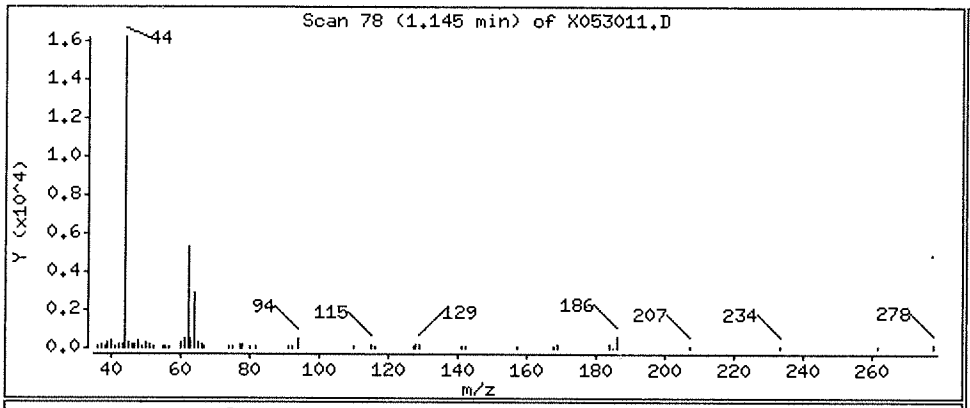
Operator: PC

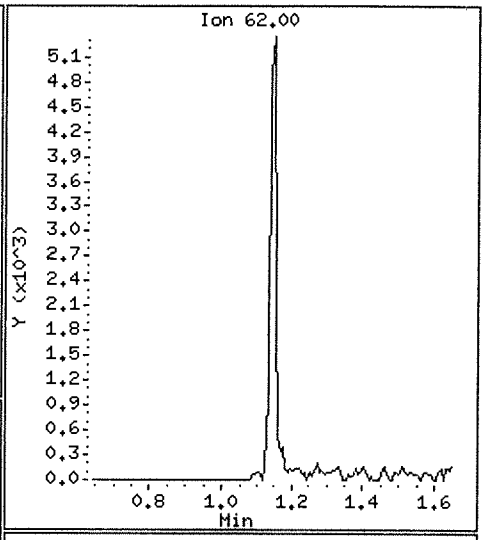
Column phase: DB624

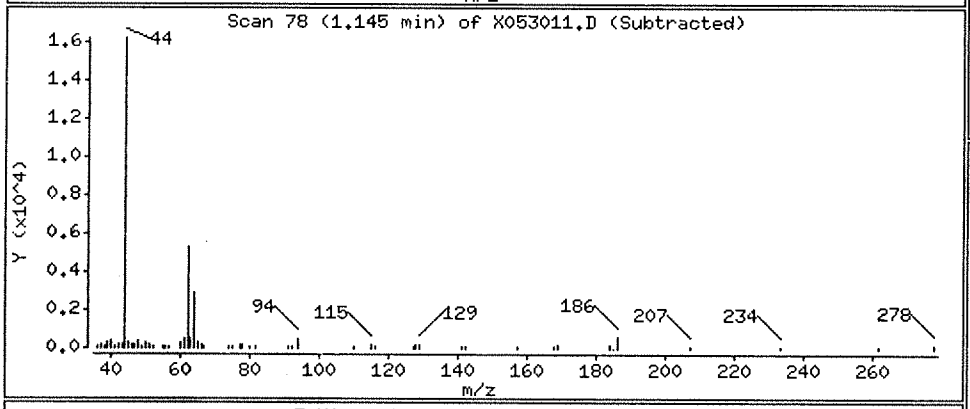
Column diameter: 0.18

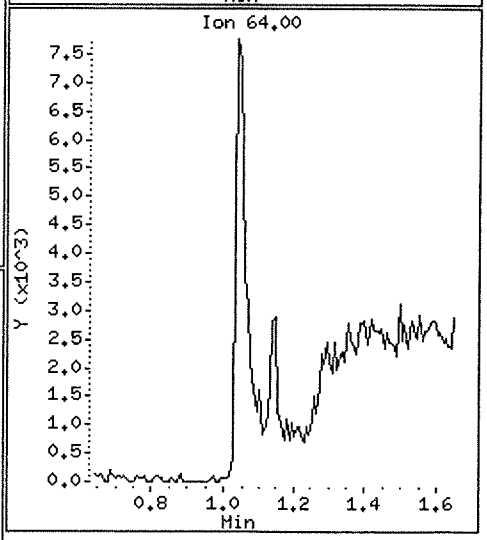
5 Vinyl Chloride

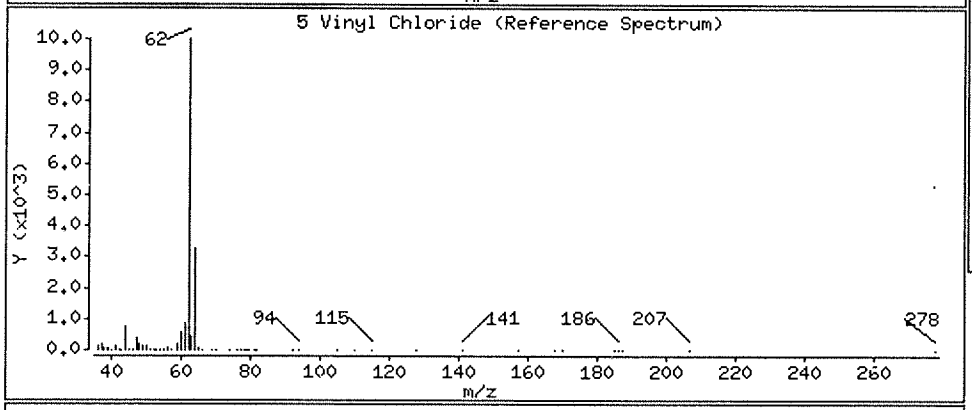
Concentration: 0.88 ug/l

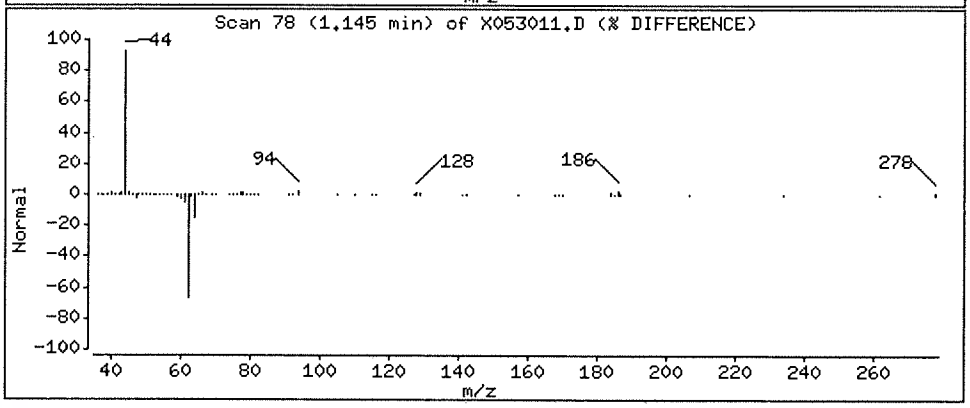












ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053014.D
Lab Smp Id: HS21051441-03MS Client Smp ID: HS21051441-03MS
Inj Date : 30-MAY-2021 16:14
Operator : PC Inst ID: voa6.i
Smp Info : HS21051441-03MS;HS21051441-03MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

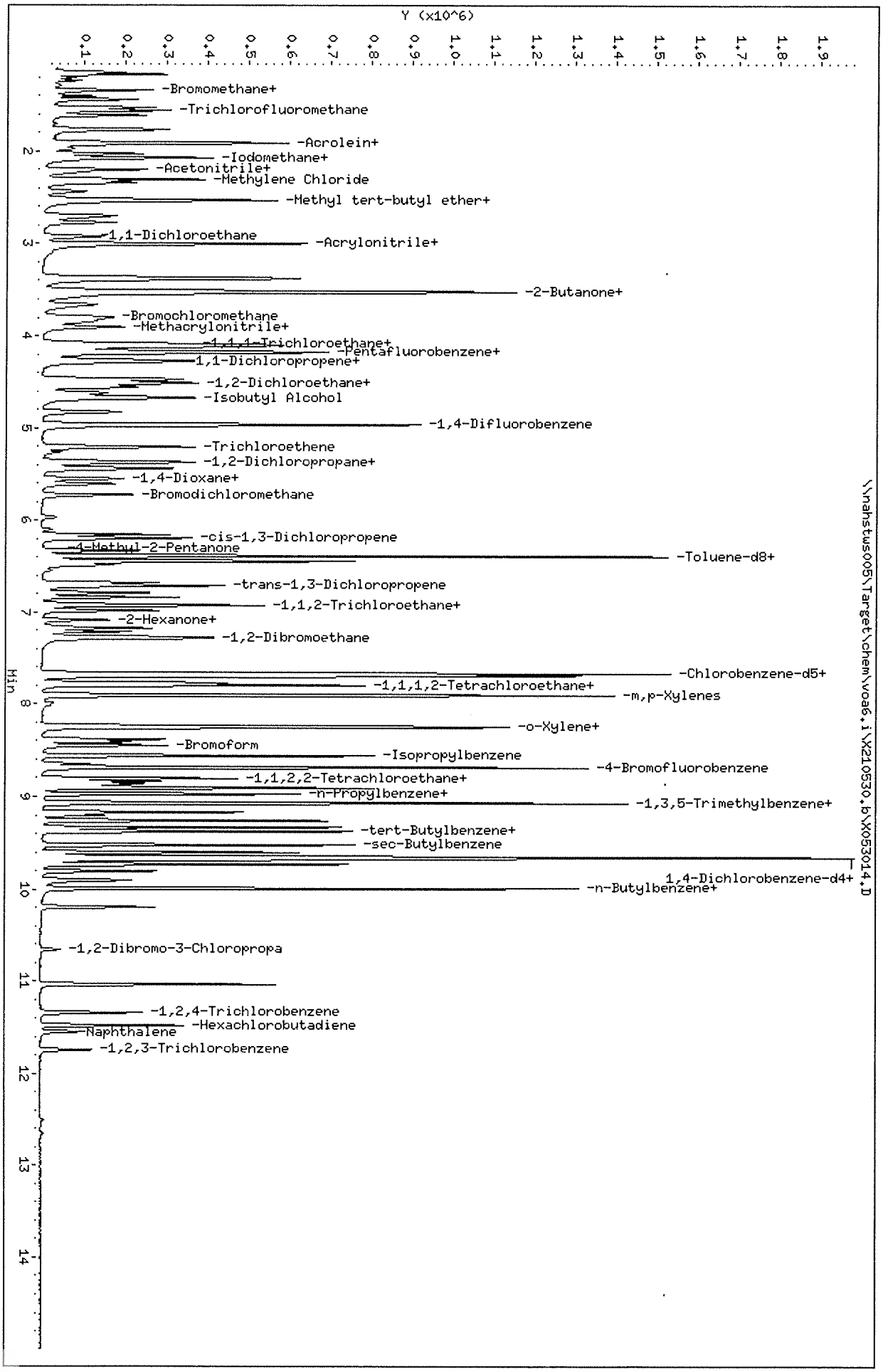
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	615043	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	825942	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	748268	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	410658	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	273585	45.1751	45.17
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	268133	45.5778	45.57
$	48 Toluene-d8	98	6.388	6.388	(0.833)	932908	50.0518	50.05
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	320318	48.7633	48.76
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	111247	20.1036	20.10
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	161436	17.7613	17.76
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	109562	18.5776	18.57
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	74351	18.3428	18.34
	22 1,1-Dichloroethane	63	2.922	2.921	(0.699)	150170	15.4443	15.44
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	112404	17.7424	17.74
	32 1,1-Dichloropropene	75	4.283	4.282	(0.863)	128128	20.2548	20.25
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	42227	16.9857	16.98
	71 1,2,3-Trichloropropane	75	8.860	8.867	(0.917)	88466	17.2789	17.27(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	77903	19.1874	19.18
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	361782	19.3153	19.31
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	10776	16.8842	16.88
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	101747	18.4690	18.46
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	220424	19.7893	19.78

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	121914	18.5254	18.52
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	88395	18.1817	18.18
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	361090	19.3713	19.37
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	229387	19.8037	19.80
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	147356	18.2823	18.28
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	232802	19.2606	19.26
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	148524	17.6509	17.65
24	2-Butanone	43	3.581	3.580	(0.856)	50970	27.2386	27.23
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	293740	19.1103	19.11
52	2-Hexanone	43	7.090	7.083	(0.924)	90932	32.7142	32.71
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	339526	18.5485	18.54
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	387285	20.3962	20.39
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	141250	32.7806	32.78
10	Acetone	43	1.976	1.976	(0.473)	44968	24.3684	24.36
37	Benzene	78	4.512	4.512	(0.909)	356337	18.7800	18.77
74	Bromobenzene	156	8.802	8.802	(0.911)	134552	19.7483	19.74
29	Bromochloromethane	128	3.795	3.795	(0.908)	60161	16.1770	16.17
39	Bromodichloromethane	83	5.722	5.722	(1.153)	130098	18.3223	18.32
66	Bromoform	173	8.408	8.408	(1.096)	80096	19.1961	19.19
6	Bromomethane	94	1.339	1.338	(0.320)	116879	18.4948	18.49
19	Carbon Disulfide	76	2.069	2.069	(0.495)	502253	33.4304	33.43
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	143186	20.9128	20.91
59	Chlorobenzene	112	7.692	7.692	(1.003)	370528	23.7870	23.78
7	Chloroethane	64	1.403	1.403	(0.336)	73065	16.0037	16.00
28	Chloroform	83	3.910	3.910	(0.935)	176452	16.3141	16.31
3	Chloromethane	50	1.073	1.073	(0.257)	78316	12.1212	12.12
27	cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	562893	87.3178	87.31
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	158686	18.9658	18.96
55	Dibromochloromethane	129	7.176	7.176	(0.936)	121761	19.7706	19.77
44	Dibromomethane	93	5.550	5.550	(1.118)	65675	17.9752	17.97
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	66169	11.5508	11.55
61	Ethylbenzene	106	7.800	7.800	(1.017)	146099	20.3303	20.33
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	63451	26.0280	26.02
67	Isopropylbenzene	105	8.559	8.559	(1.116)	447409	20.3765	20.37
62	m,p-Xylenes	106	7.900	7.900	(1.030)	372729	39.7871	39.78
17	Methylene Chloride	84	2.306	2.305	(0.551)	93793	15.9346	15.93
87	n-Butylbenzene	91	9.991	9.991	(1.034)	320047	20.0334	20.03
73	n-Propylbenzene	91	8.910	8.910	(0.922)	508478	19.8499	19.84
92	Naphthalene	128	11.546	11.539	(1.195)	87393	14.8920	14.89
63	o-Xylene	106	8.244	8.244	(1.075)	174601	19.1138	19.11
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	439955	20.4026	20.40
64	Styrene	104	8.258	8.258	(1.077)	292691	19.1747	19.17
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	319857	20.0151	20.01
56	Tetrachloroethene	164	6.926	6.926	(0.903)	104477	22.6809	22.68
50	Toluene	91	6.446	6.446	(0.840)	409150	18.7298	18.72
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	96456	16.7959	16.79
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	133857	18.5452	18.54
38	Trichloroethene	130	5.207	5.206	(1.049)	128483	22.6651	22.66
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	194336	17.5046	17.50
5	Vinyl Chloride	62	1.145	1.145	(0.274)	132681	18.2245	18.22

QC Flag Legend

M - Compound response manually integrated.



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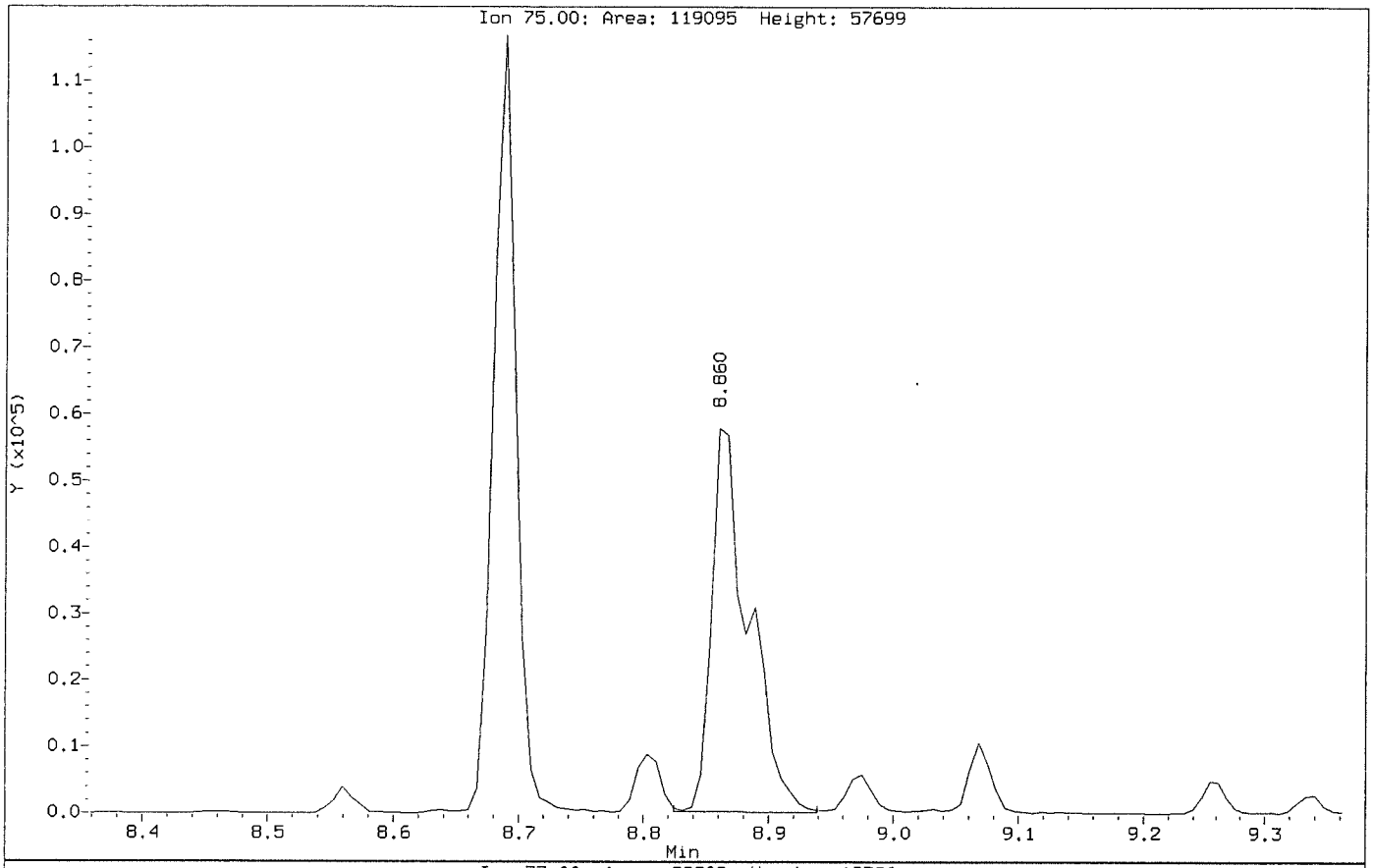
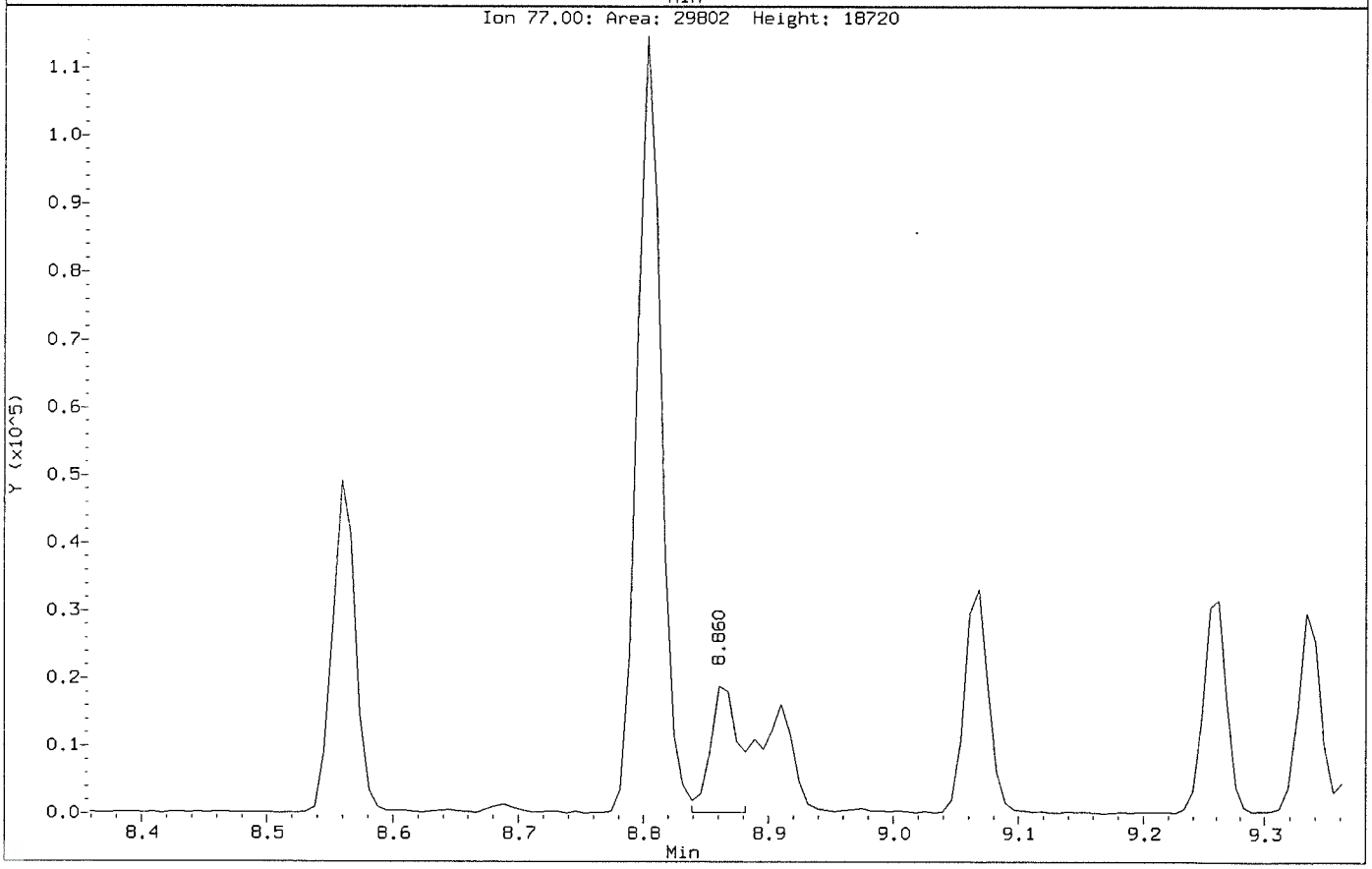
Date : 30-MAY-2021 16:14
Client ID: HS21051441-03MS
Sample Info: HS21051441-03MS;HS21051441-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053014.D
Injection Date: 30-MAY-2021 16:14
Instrument: voa6.i
Client Sample ID: HS21051441-03MS

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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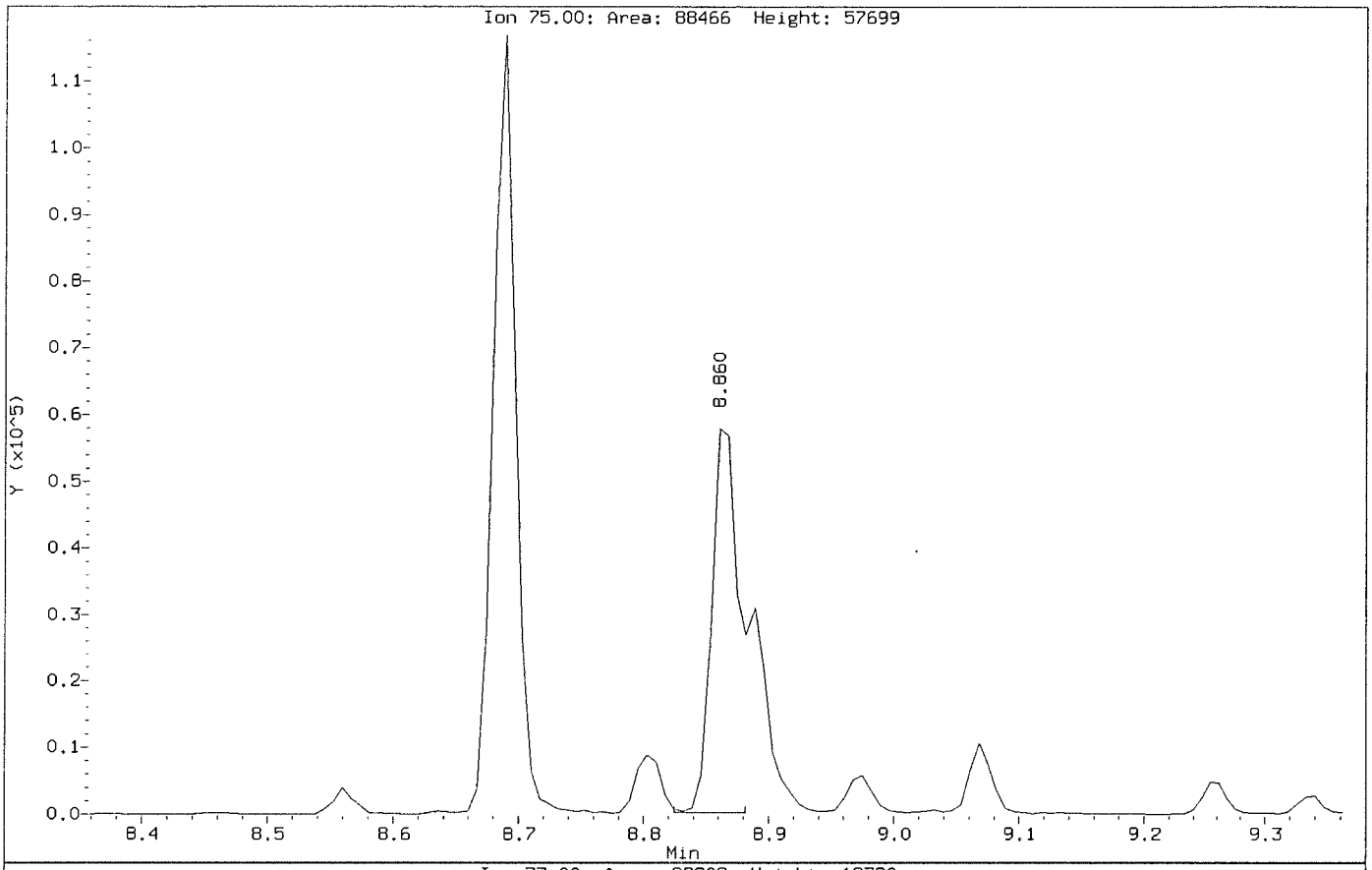
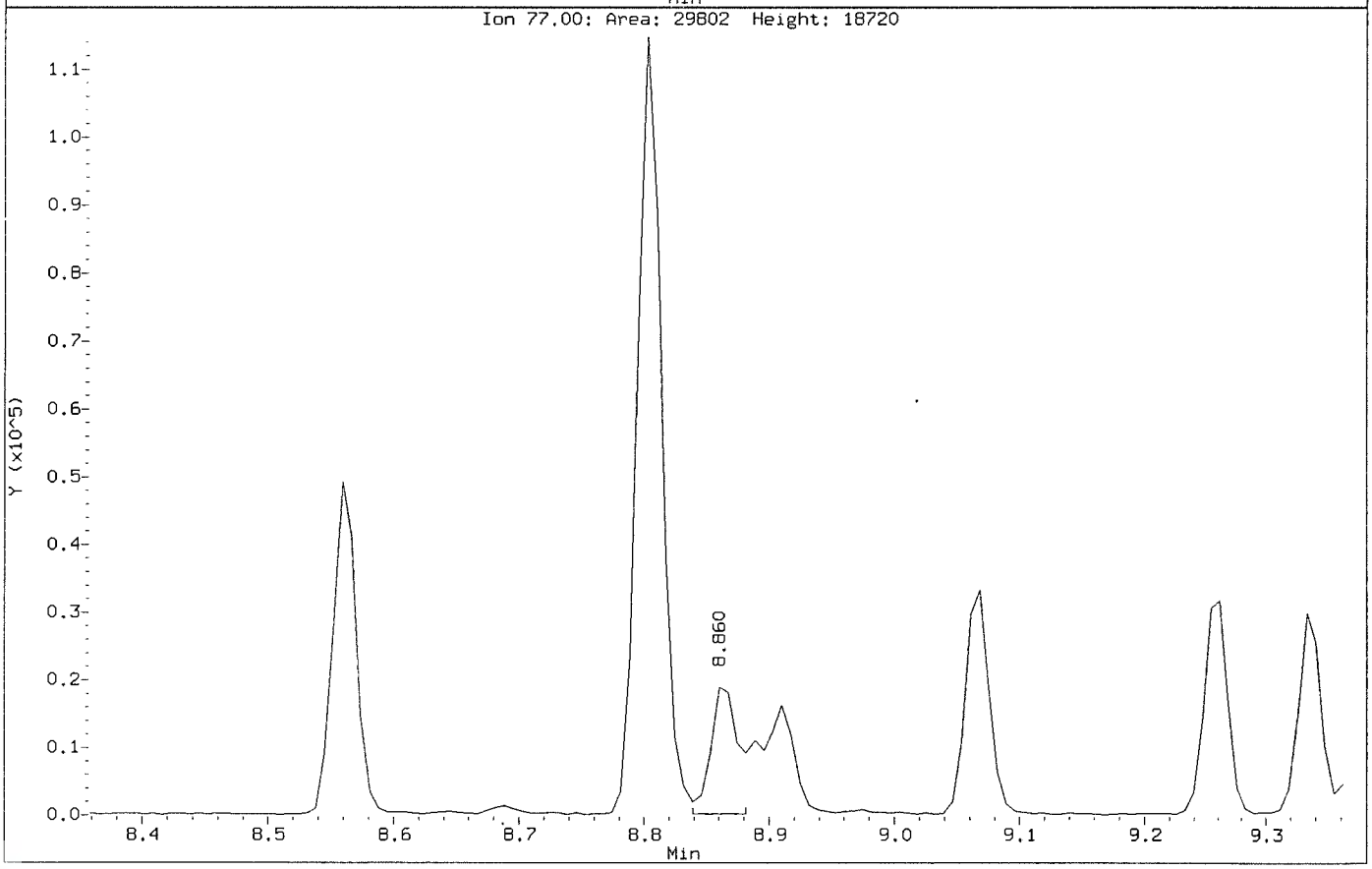
Injection Date: 30-MAY-2021 16:14
Instrument: voa6.i
Client Sample ID: HS21051441-03MS

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053015.D
Lab Smp Id: HS21051441-03MSD Client Smp ID: HS21051441-03MSD
Inj Date : 30-MAY-2021 16:35
Operator : PC Inst ID: voa6.i
Smp Info : HS21051441-03MSD;HS21051441-03MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

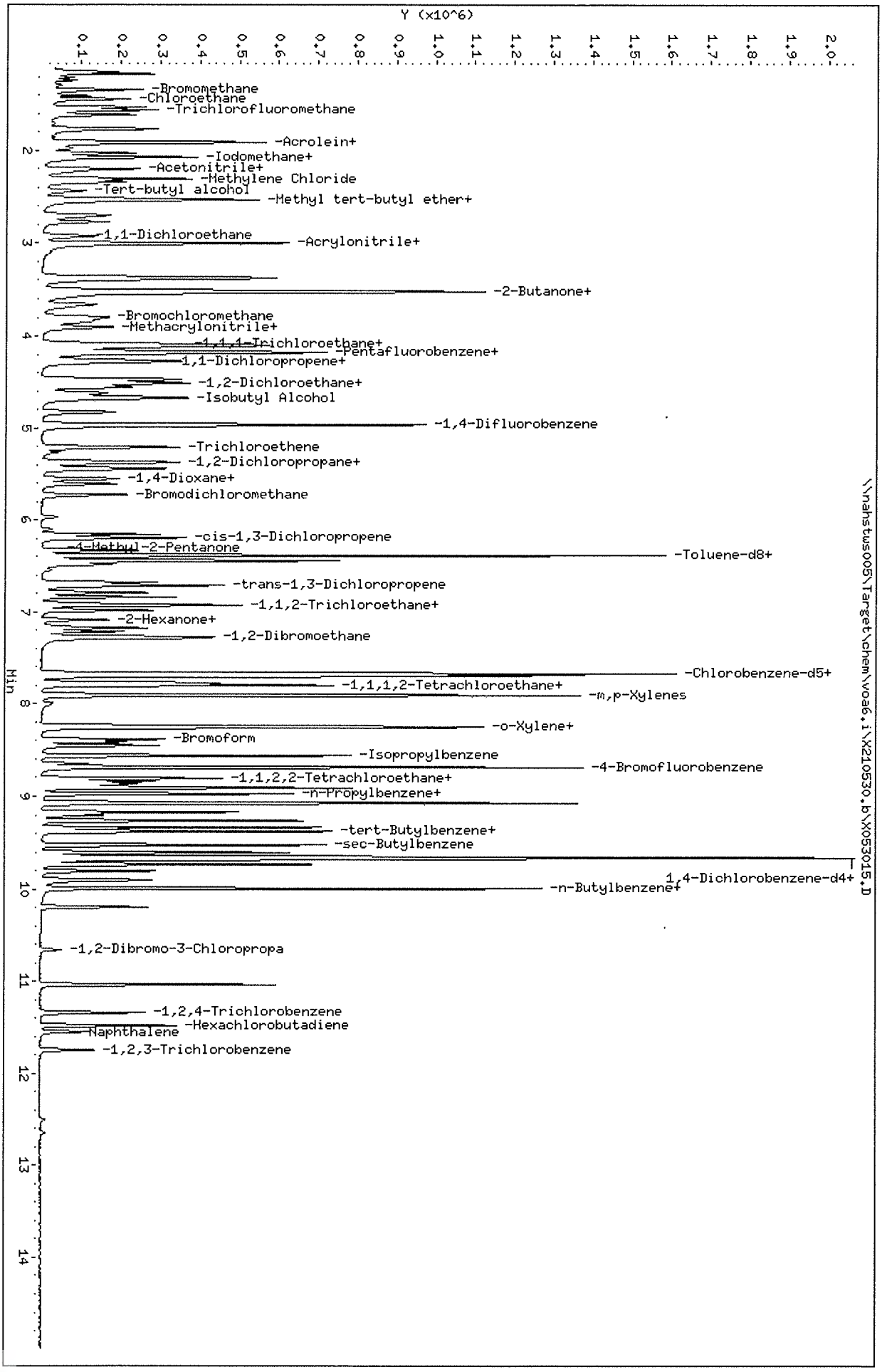
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	639703	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	856793	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	788220	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	434422	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	282570	44.8589	44.85
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	269819	44.0738	44.07
$	48 Toluene-d8	98	6.388	6.388	(0.833)	988709	50.3570	50.35
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	337734	48.8079	48.80
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	109339	18.7573	18.75
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	151708	16.0476	16.04
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	108573	17.3272	17.32
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	73649	17.2487	17.24
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	142575	14.0980	14.09
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	105862	16.0656	16.06
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	121111	18.4562	18.45
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	45409	17.2664	17.26
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	90496	16.7085	16.70(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	82441	19.1944	19.19
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	356908	18.0128	18.01
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	12003	17.7508	17.75
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	101884	17.5564	17.55
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	216162	18.3450	18.34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	122451	17.9370	17.93
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	87764	17.4019	17.40
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	350232	17.7610	17.76
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	221446	18.0724	18.07
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	144208	16.9849	16.98
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	234739	18.3585	18.35
26	2,2-Dichloropropane	77	3.516	3.509	(0.841)	142883	16.3259	16.32
24	2-Butanone	43	3.580	3.580	(0.856)	51830	26.6305	26.63
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	287451	17.6782	17.67
52	2-Hexanone	43	7.090	7.083	(0.924)	93339	31.8781	31.87
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	329268	17.0041	17.00
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	379888	18.9122	18.91
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	142643	31.4260	31.42
10	Acetone	43	1.976	1.976	(0.473)	45856	23.7750	23.77
37	Benzene	78	4.512	4.512	(0.909)	346530	17.6055	17.60
74	Bromobenzene	156	8.802	8.802	(0.911)	131788	18.2845	18.28
29	Bromochloromethane	128	3.795	3.795	(0.908)	60848	15.7310	15.73
39	Bromodichloromethane	83	5.722	5.722	(1.153)	127884	17.3620	17.36
66	Bromoform	173	8.408	8.408	(1.096)	79916	18.1822	18.18
6	Bromomethane	94	1.338	1.338	(0.320)	110372	16.8059	16.80
19	Carbon Disulfide	76	2.069	2.069	(0.495)	474492	30.3651	30.36
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	136422	19.2075	19.20
59	Chlorobenzene	112	7.692	7.692	(1.003)	356701	21.7386	21.73
7	Chloroethane	64	1.403	1.403	(0.336)	97579	20.9515	20.95
28	Chloroform	83	3.910	3.910	(0.935)	169275	15.0473	15.04
3	Chloromethane	50	1.073	1.073	(0.257)	77181	11.3410	11.34
27	cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	545616	81.3750	81.37
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	152385	17.5570	17.55
55	Dibromochloromethane	129	7.176	7.176	(0.936)	120187	18.5259	18.52
44	Dibromomethane	93	5.550	5.550	(1.118)	65002	17.1504	17.15
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	63438	10.6308	10.63
61	Ethylbenzene	106	7.799	7.800	(1.017)	140649	18.5799	18.57
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	58959	23.0356	23.03
67	Isopropylbenzene	105	8.559	8.559	(1.116)	435748	18.8395	18.83
62	m,p-Xylenes	106	7.900	7.900	(1.030)	358842	36.3632	36.36
17	Methylene Chloride	84	2.305	2.305	(0.551)	93714	15.2551	15.25
87	n-Butylbenzene	91	9.991	9.991	(1.034)	316034	18.7000	18.70
73	n-Propylbenzene	91	8.910	8.910	(0.922)	492430	18.1719	18.17
92	Naphthalene	128	11.546	11.539	(1.195)	100314	16.1587	16.15
63	o-Xylene	106	8.244	8.244	(1.075)	171388	17.8111	17.81
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	423087	18.5470	18.54
64	Styrene	104	8.258	8.258	(1.077)	284794	17.7117	17.71
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	310118	18.3442	18.34
56	Tetrachloroethene	164	6.926	6.926	(0.903)	102451	21.1138	21.11
50	Toluene	91	6.446	6.446	(0.840)	397750	17.2850	17.28
20	trans-1,2-Dichloroethene	96	2.527	2.528	(0.604)	92610	15.5046	15.50
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	133435	17.8211	17.82
38	Trichloroethene	130	5.206	5.206	(1.049)	121409	20.6460	20.64
8	Trichlorofluoromethane	101	1.560	1.561	(0.373)	182069	15.7674	15.76
5	Vinyl Chloride	62	1.145	1.145	(0.274)	126132	16.6571	16.65

QC Flag Legend

M - Compound response manually integrated.



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Date : 30-MAY-2021 16:35
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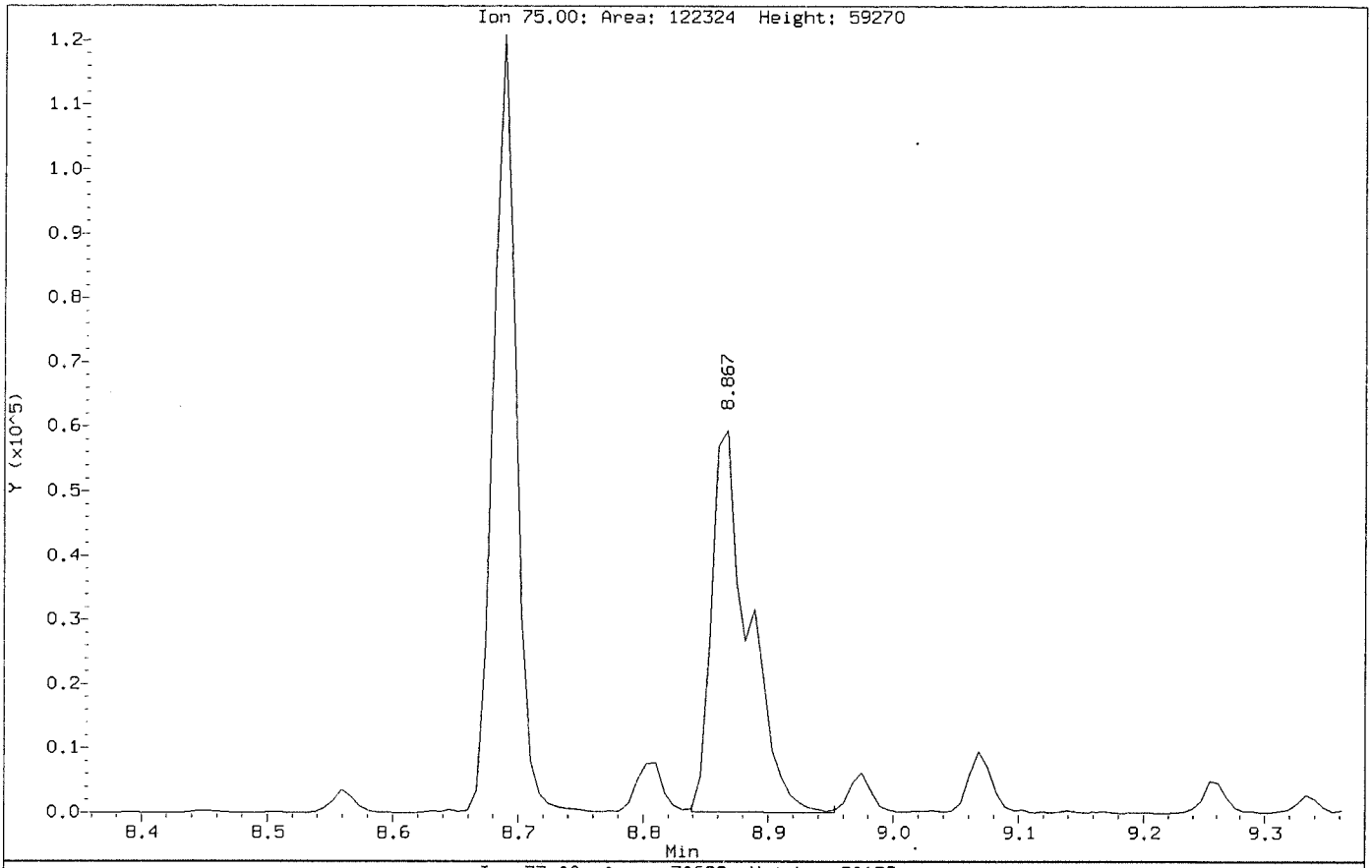
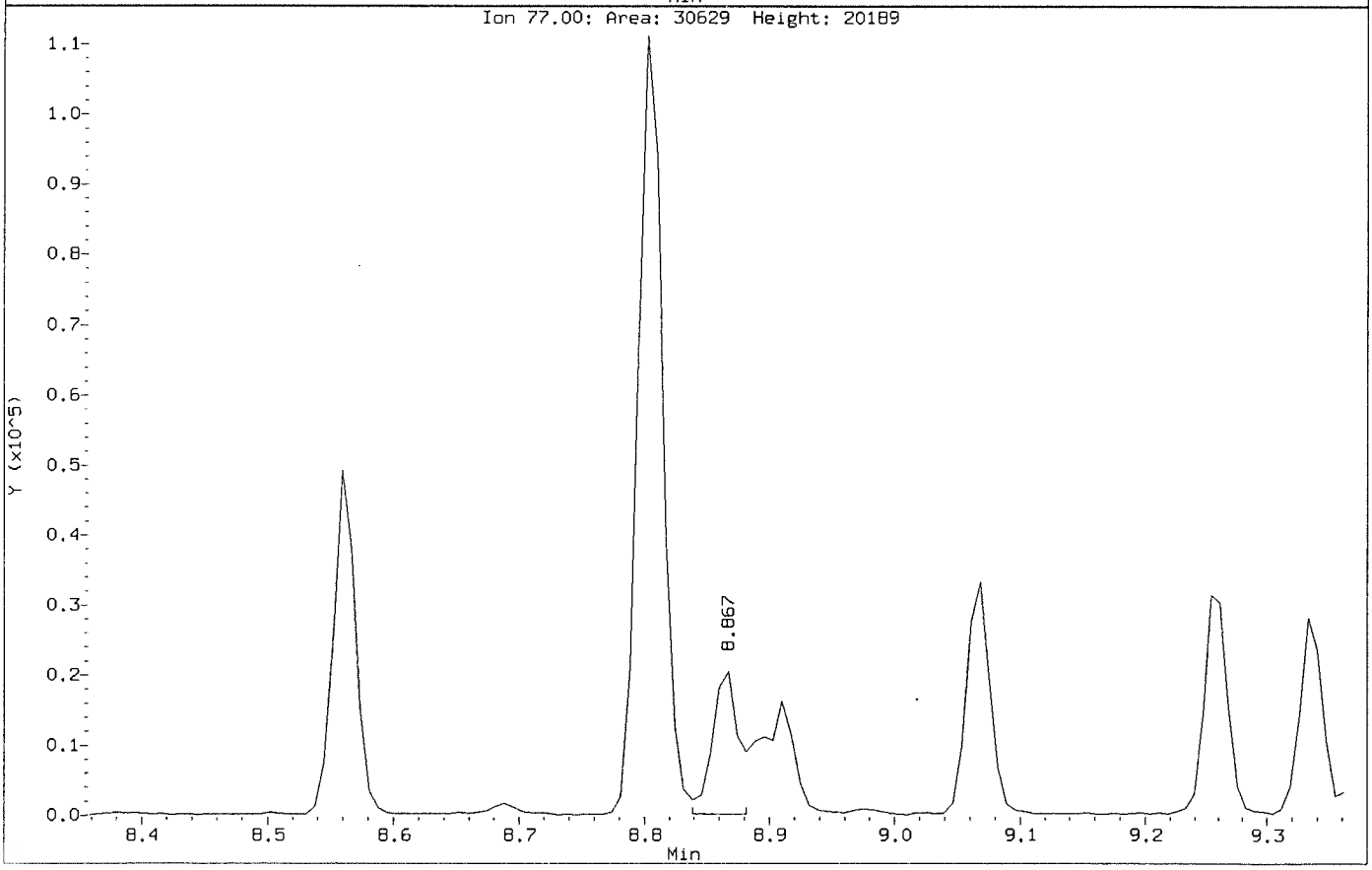
Sample Info: HS21051441-03MSD;HS21051441-03MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053015.D
Injection Date: 30-MAY-2021 16:35
Instrument: voa6.i
Client Sample ID: HS21051441-03MSD

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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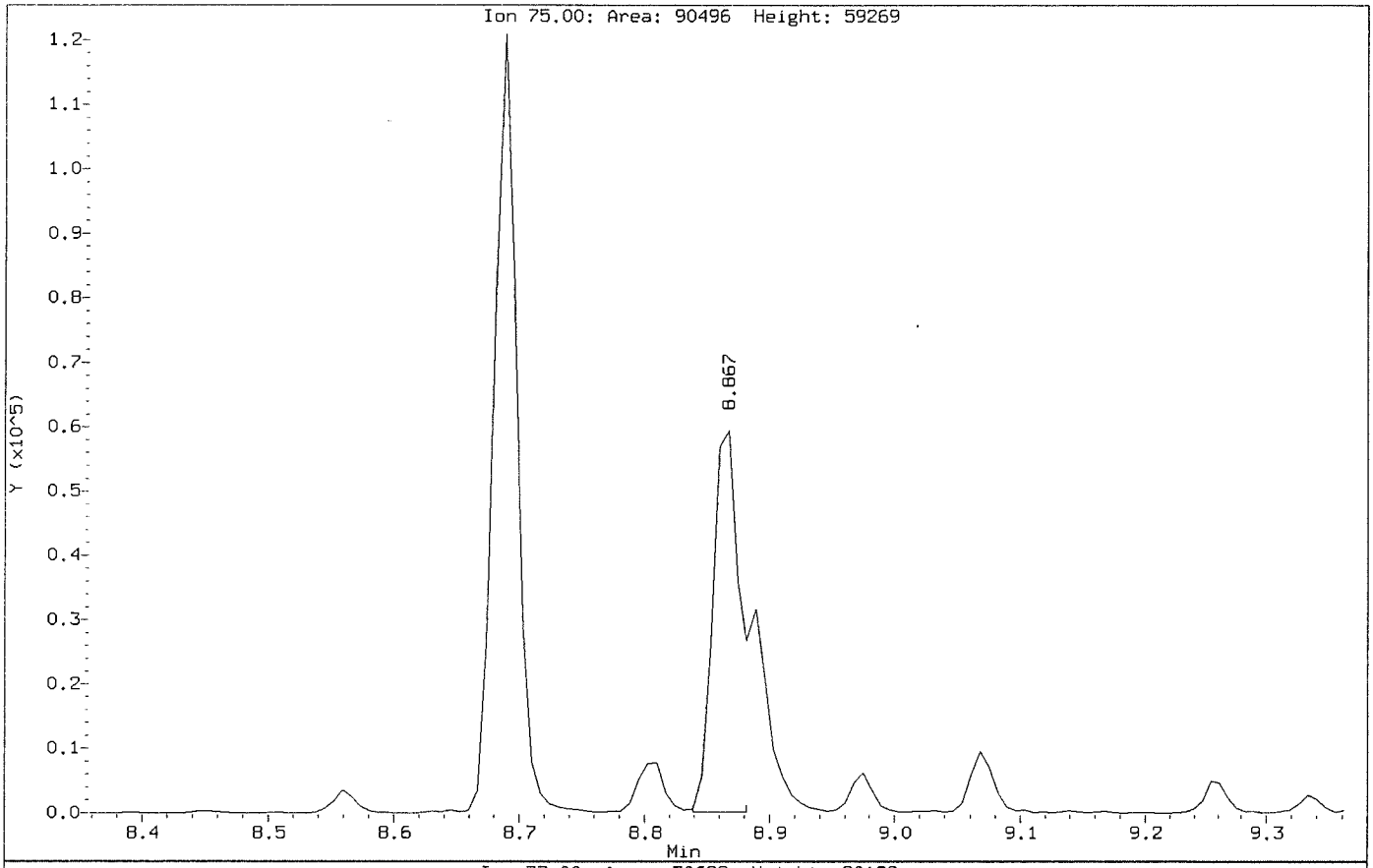
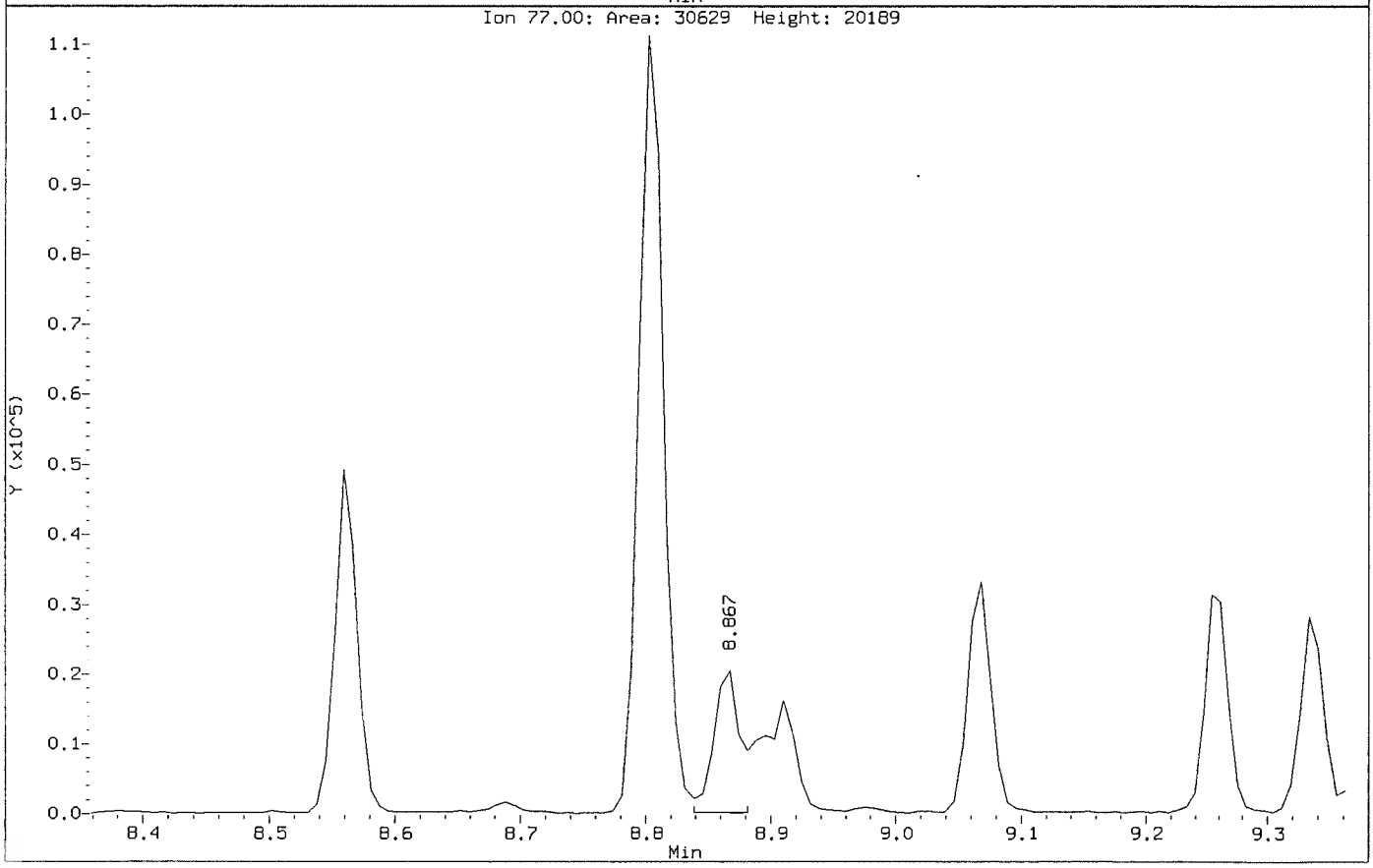
Injection Date: 30-MAY-2021 16:35
Instrument: voa6.i
Client Sample ID: HS21051441-03MSD

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





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Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053032.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 30-MAY-2021 22:33
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

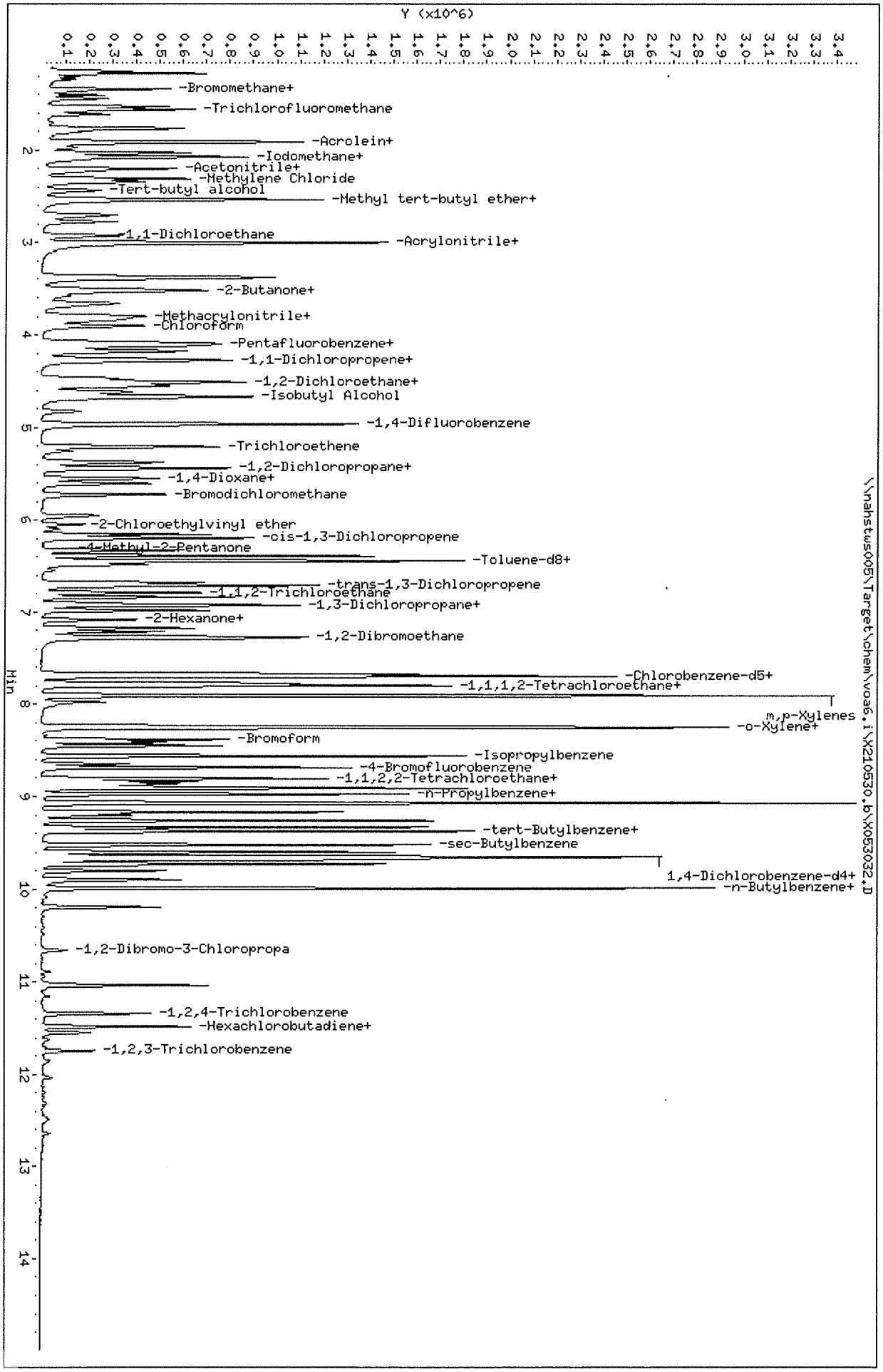
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	542567	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	791543	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	746535	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	416103	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	256844	50.0000	48.08
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	245193	50.0000	47.27
$	48 Toluene-d8	98	6.388	6.388	(0.833)	854822	50.0000	45.96
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	320134	50.0000	48.84
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	266895	50.0000	48.34
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	350350	50.0000	43.69
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	256191	50.0000	44.43
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	178327	50.0000	44.09
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	353028	50.0000	41.15
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	230689	50.0000	41.27
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	272172	50.0000	44.89
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	65450	50.0000	25.98
	71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	214176	50.0000	41.28(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	132732	50.0000	32.26
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	877800	50.0000	46.25
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	23947	50.0000	36.41
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	240085	50.0000	43.68
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	495351	50.0000	43.88

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	297691	50.0000	47.20
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	208998	50.0000	44.85
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	842680	50.0000	44.61
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	536393	50.0000	45.70
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	350888	50.0000	43.63
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	546416	50.0000	44.61
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	286955	50.0000	38.65
24	2-Butanone	43	3.581	3.581	(0.856)	128608	100.000	77.90
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	694436	50.0000	44.58
52	2-Hexanone	43	7.083	7.083	(0.923)	222040	100.000	80.06
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	819666	50.0000	44.19
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	865792	50.0000	44.99
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	331586	100.000	77.13
10	Acetone	43	1.976	1.976	(0.473)	104275	100.000	73.76
37	Benzene	78	4.512	4.512	(0.909)	829686	50.0000	45.62
74	Bromobenzene	156	8.802	8.802	(0.911)	329608	50.0000	47.74
29	Bromochloromethane	128	3.795	3.795	(0.908)	147874	50.0000	45.07
39	Bromodichloromethane	83	5.722	5.722	(1.153)	312348	50.0000	45.90
66	Bromoform	173	8.408	8.408	(1.096)	197152	50.0000	47.35
6	Bromomethane	94	1.339	1.339	(0.320)	233014	50.0000	41.60
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1056083	100.000	79.68
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	311466	50.0000	47.46
59	Chlorobenzene	112	7.692	7.692	(1.003)	695820	50.0000	44.77
7	Chloroethane	64	1.403	1.403	(0.336)	178393	50.0000	46.79
28	Chloroform	83	3.910	3.910	(0.935)	413314	50.0000	43.31
3	Chloromethane	50	1.081	1.081	(0.258)	209682	50.0000	42.37
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	249271	50.0000	43.83
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	367655	50.0000	45.85
55	Dibromochloromethane	129	7.176	7.176	(0.936)	291557	50.0000	47.45
44	Dibromomethane	93	5.550	5.550	(1.118)	160087	50.0000	45.71
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	222329	50.0000	44.58
61	Ethylbenzene	106	7.800	7.800	(1.017)	343083	50.0000	47.85
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	110012	50.0000	43.22
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1025164	50.0000	46.79
62	m,p-Xylenes	106	7.900	7.900	(1.030)	860065	100.000	92.02
17	Methylene Chloride	84	2.306	2.306	(0.551)	218115	50.0000	44.17
87	n-Butylbenzene	91	9.991	9.991	(1.034)	695034	50.0000	42.93
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1141368	50.0000	43.97
92	Naphthalene	128	11.539	11.539	(1.194)	163705	50.0000	27.53
63	o-Xylene	106	8.244	8.244	(1.075)	425789	50.0000	46.71
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	968853	50.0000	44.34
64	Styrene	104	8.258	8.258	(1.077)	738598	50.0000	48.49
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	733690	50.0000	45.31
56	Tetrachloroethene	164	6.926	6.926	(0.903)	222811	50.0000	48.48
50	Toluene	91	6.446	6.446	(0.840)	960377	50.0000	44.06
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	213862	50.0000	42.21
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	317533	50.0000	45.90
38	Trichloroethene	130	5.207	5.207	(1.049)	265873	50.0000	48.93
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	413842	50.0000	42.25
5	Vinyl Chloride	62	1.145	1.145	(0.274)	263850	50.0000	41.08

QC Flag Legend

M - Compound response manually integrated.

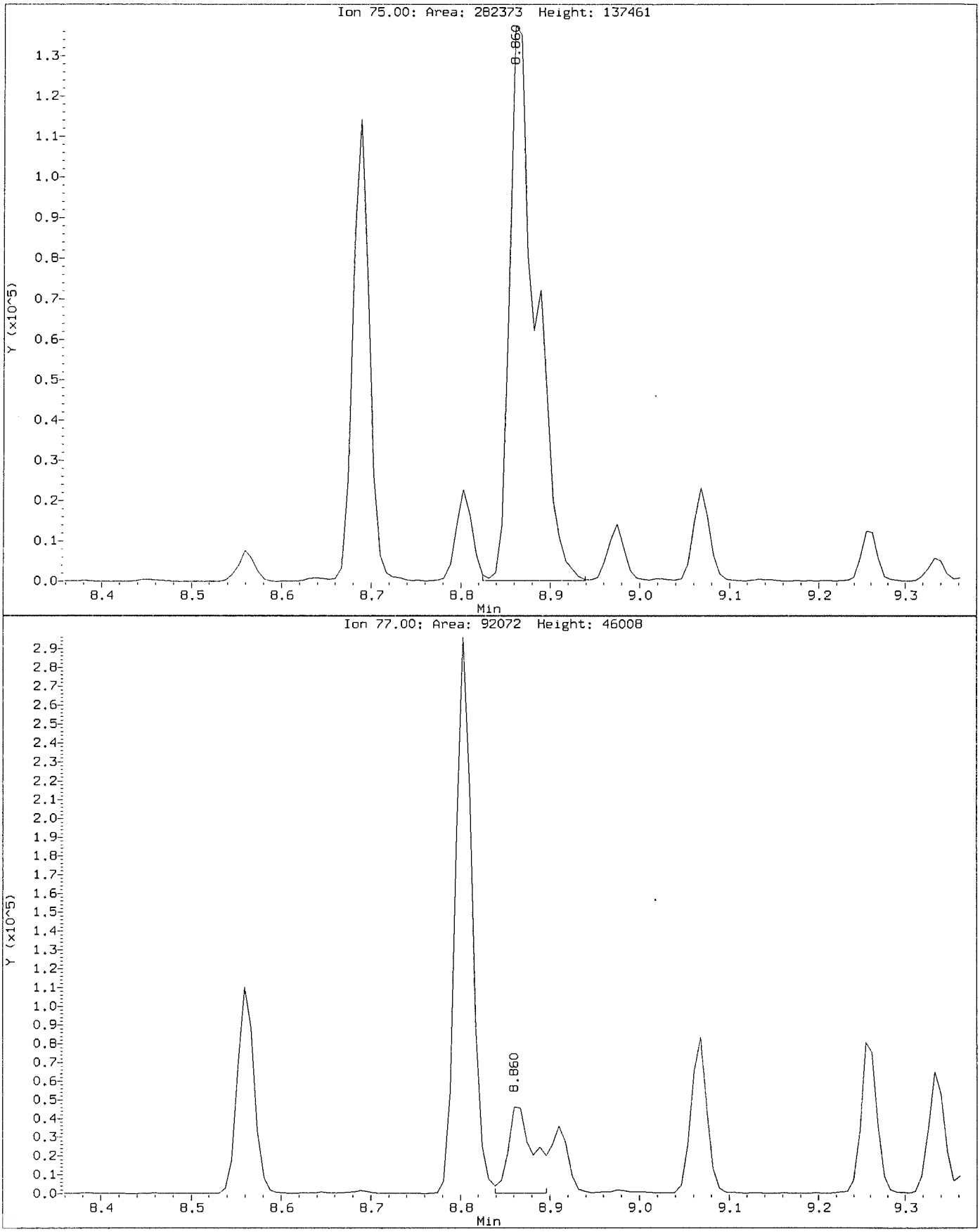


Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053032.D
Date : 30-MAY-2021 22:33
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

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

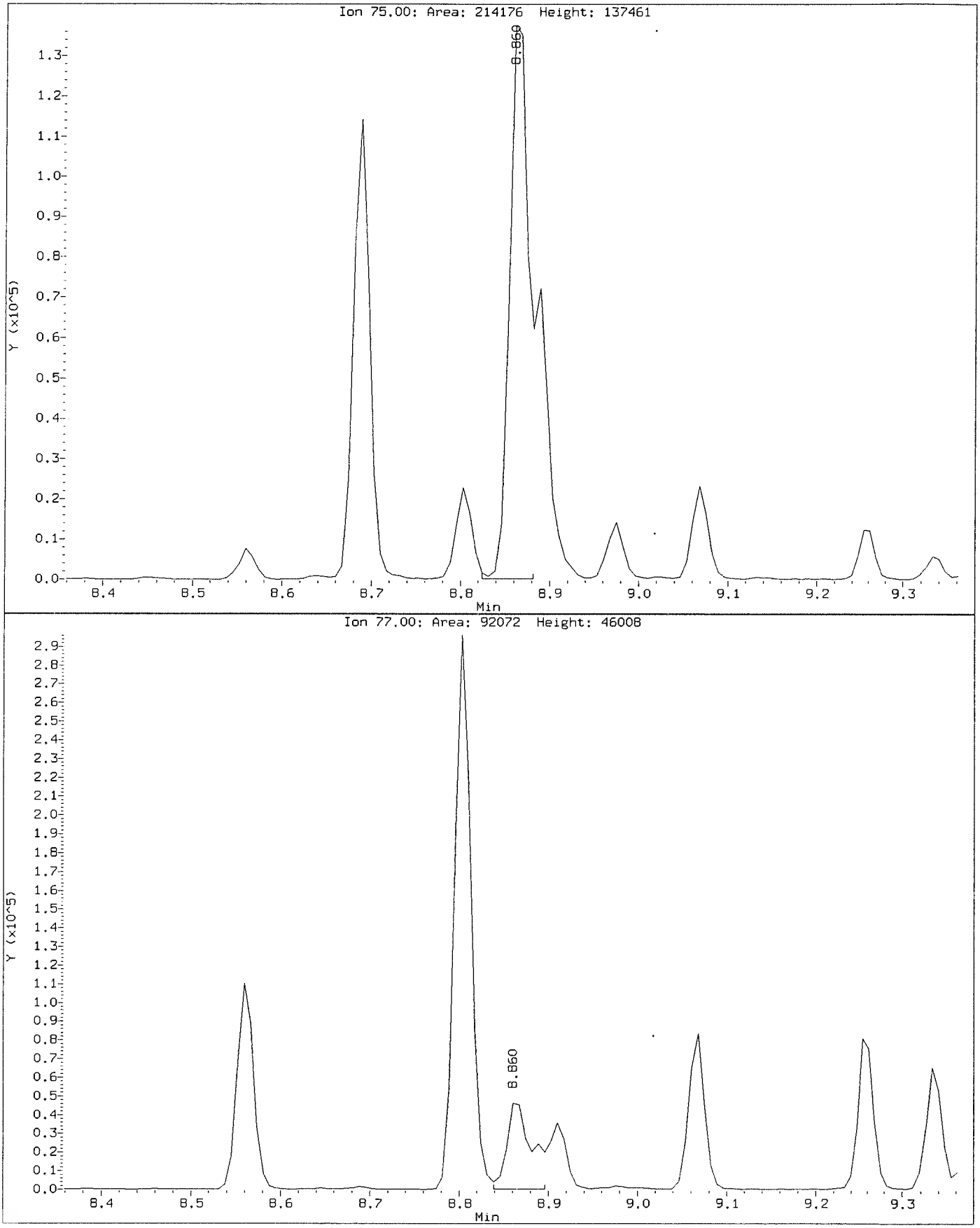
Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053032.D
Injection Date: 30-MAY-2021 22:33
Instrument: voa6.i
Client Sample ID: CCV-END

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053032.D
Injection Date: 30-MAY-2021 22:33
Instrument: voa6.i
Client Sample ID: CCV-END

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



HS21051312 8270SIM_W Raw Data

ALS WO# HS21051312

Prep Batch Report

Batch ID: 166286
Prep Code: 3510_B_SIM
Start Date: 27 May 2021 07:40 AM
End Date: 27 May 2021 01:00 PM
Technician: Todi Lala

Init Sample Weight / Volume: 1000
Final Sample Volume: 1
Original Factor: 0.001
Prep Unit Factor: 1
Prep Unit: mL

Sample ID	Fraction	Matrix	pH	Initial Weight / Volume	Final Volume	Prep Factor	Spike Factor	Fail Safe	Due Date	Comments
HS21051312-01	E	Water	9	1000	1	0.001	1	08 Jun 2021	10 Jun 2021	ph adj 1/13
HS21051314-01	E	Water	7	1000	1	0.001	1	08 Jun 2021	10 Jun 2021	ph adj 1/13
LCS-166286	A		5	1000	1	0.001	1			ph adj 1/13
LCSD-166286	A		5	1000	1	0.001	1			ph adj 1/13
MBLK-166286	A		5	1000	1	0.001	1			ph adj 1/13

SV06 -Logbook

Batch: 45062 **Analyst:** Andrew Neir

Date: 06-07-2021 **Reviewer:**

Method: 8270DSIM **Laboratory:** Houston

Comments: MSSV003

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	DFTPP	TUNE	06-07-2021 10:54 am	1.00			001.D	Liquid	Y	NA
2	SLSTD-2.5	SAMP	06-07-2021 11:05 am	1.00			002.D	Liquid	Y	NA
3	DXSIM-0.08	SAMP	06-07-2021 11:25 am	1.00			003.D	Liquid	Y	NA
4	DXSIM-0.01	SAMP	06-07-2021 11:43 am	1.00			004.D	Liquid	Y	NA
5	DXSIM-0.03	SAMP	06-07-2021 12:01 pm	1.00			005.D	Liquid	Y	NA
6	DXSIM-0.05	SAMP	06-07-2021 12:19 pm	1.00			006.D	Liquid	Y	NA
7	DXSIM-0.1	SAMP	06-07-2021 12:43 pm	1.00			007.D	Liquid	Y	NA
8	DXSIM-0.15	SAMP	06-07-2021 01:01 pm	1.00			008.D	Liquid	Y	NA
9	DXSIM-0.2	SAMP	06-07-2021 01:19 pm	1.00			009.D	Liquid	Y	NA
10	DXSIM-0.5	SAMP	06-07-2021 01:37 pm	1.00			010.D	Liquid	Y	NA
11	DXSIM-ICV	SAMP	06-07-2021 01:55 pm	1.00			011.D	Liquid	Y	NA

Chemical	Value
IS ID	3141114-01
CAL STD ID	3141106-05/ 3141114-07
DFTPP ID	31411105-05
PCP Tailing	1.19
Benz. Tailing	1.16
Routine SOP Maintenance	ACN

FORM 3
WATER SEMIVOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Matrix Spike - Sample No.: DXSIM-ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	% REC #	QC. LIMITS REC.
1,4-Dioxane	0.08000	0.08066	101	40-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

_____

FORM III SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID: 001 DFTPP Injection Date: 06/07/21

Instrument ID: SV6 DFTPP Injection Time: 1054

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	
68	Less than 2.0% of mass 69	( )1
69	Mass 69 relative abundance	
70	Less than 2.0% of mass 69	( )1
127	10.0 - 80.0% of mass 198	
197	Less than 2.0% of mass 198	
198	Base Peak, 100% relative abundance	
199	5.0 to 9.0% of mass 198	
275	10.0 - 60.0% of mass 198	
365	1.0 - 100.0% of mass 198	
441	Present, but less than mass 443	
442	50.0 - 150.0% of mass 198	
443	15.0 - 24.0% of mass 442	( )2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DXSIM-0.08	DXSIM-0.08	003	06/07/21	1125
02	DXSIM-0.01	DXSIM-0.01	004	06/07/21	1143
03	DXSIM-0.03	DXSIM-0.03	005	06/07/21	1201
04	DXSIM-0.05	DXSIM-0.05	006	06/07/21	1219
05	DXSIM-0.1	DXSIM-0.1	007	06/07/21	1243
06	DXSIM-0.15	DXSIM-0.15	008	06/07/21	1301
07	DXSIM-0.2	DXSIM-0.2	009	06/07/21	1319
08	DXSIM-0.5	DXSIM-0.5	010	06/07/21	1337
09	DXSIM-ICV	DXSIM-ICV	011	06/07/21	1355
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

LAB FILE ID: RF0.01: 004 RF0.03: 005 RF0.05: 006
RF0.08: 003 RF0.1: 007 RF0.15: 008

COMPOUND	RF0.01	RF0.03	RF0.05	RF0.08	RF0.1	RF0.15
1,4-Dioxane	0.045	0.050	0.050	0.050	0.052	0.050
Nitrobenzene-d5	0.627	0.342	0.307	0.275	0.249	0.236
4-Terphenyl-d14	0.872	0.984	0.900	0.878	0.885	0.882
2-Fluorobiphenyl	1.469	1.506	1.386	1.139	1.282	1.246

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

LAB FILE ID: RF0.2: 009 RF0.5: 010

COMPOUND	RF0.2	RF0.5	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dioxane	0.053	0.062	AVRG	5.153e-002	9.321	20.000
Nitrobenzene-d5	0.225	0.186	AVRG	0.30626740	45.228	20.000
4-Terphenyl-d14	0.916	0.902	AVRG	0.90228060	3.988	20.000
2-Fluorobiphenyl	1.279	1.369	AVRG	1.33461899	9.099	20.000

FORM VI SV

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

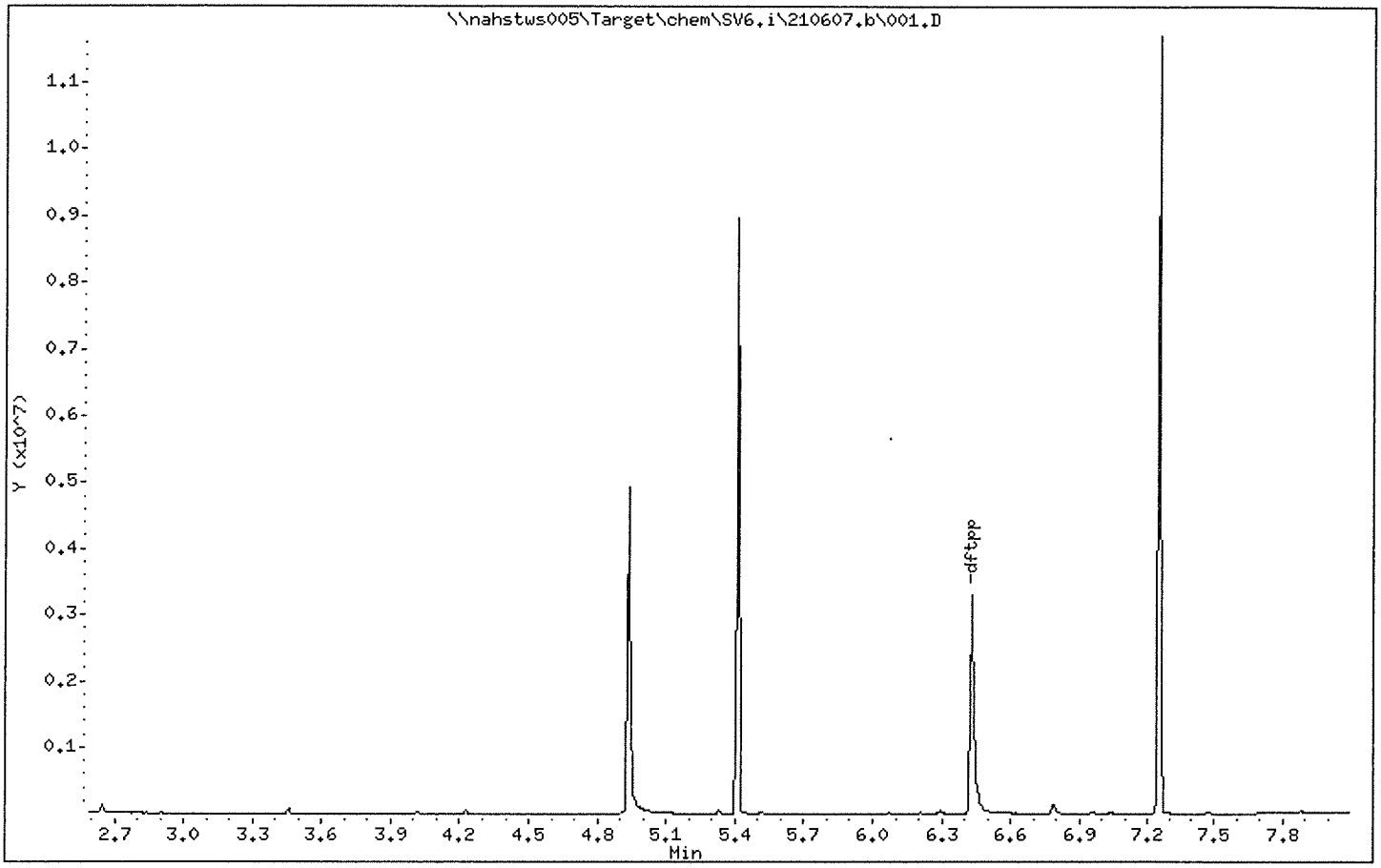
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

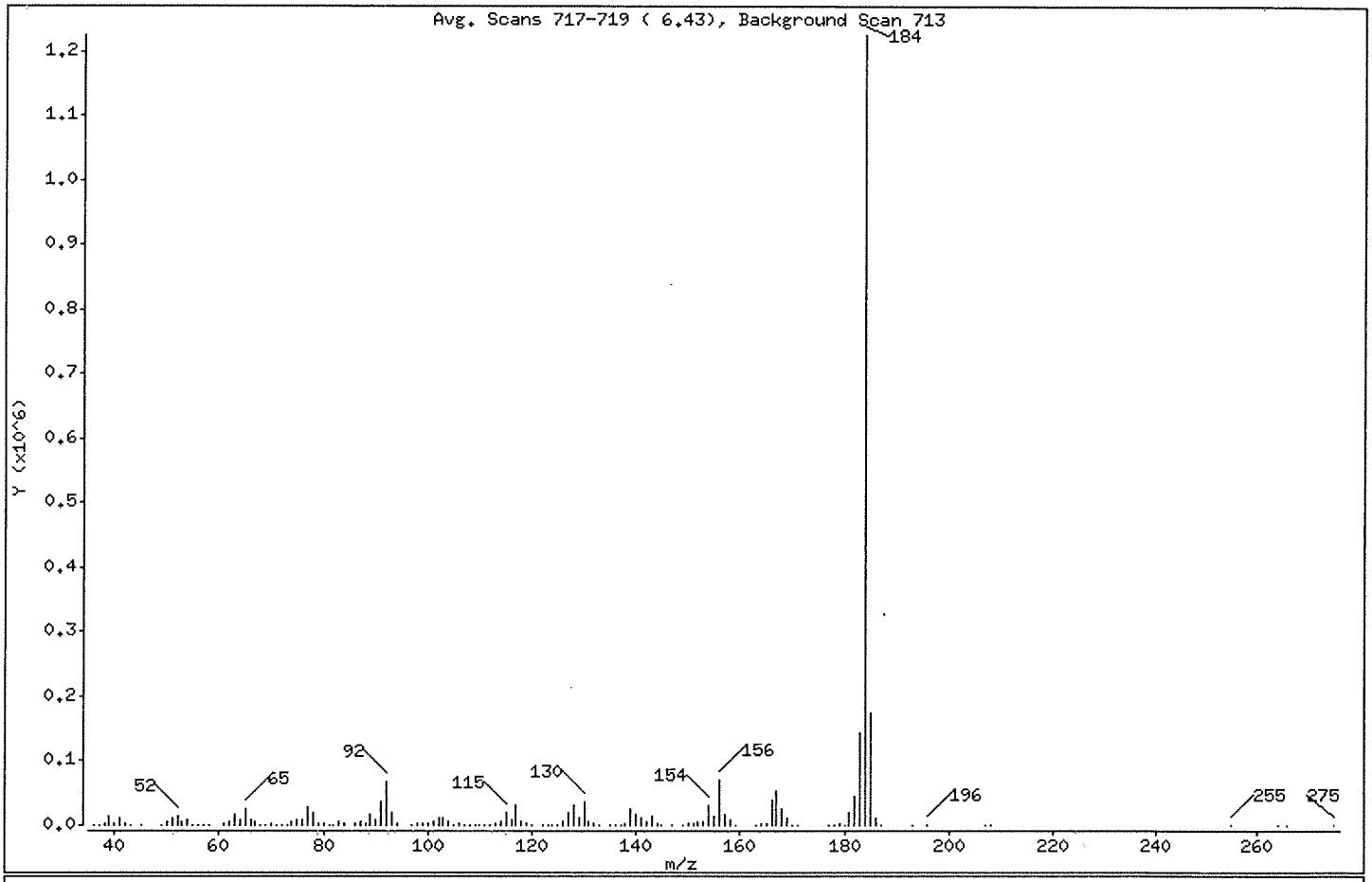
Sample Info: DFTPP;DFTPP;3;;DFTPP

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	0.00 *
51	10.00 - 80.00% of mass 198	0.00 *
68	Less than 2.00% of mass 69	0.00 (30.70) *
69	Mass 69 relative abundance	0.00
70	Less than 2.00% of mass 69	0.00 (204.88) *
127	10.00 - 80.00% of mass 198	0.00 *
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	0.00 *
275	10.00 - 60.00% of mass 198	0.00 *
365	1.00 - 100.00% of mass 198	0.00 *
441	Present, but less than mass 443	0.00 *
442	50.00 - 150.00% of mass 198	0.00 *
443	15.00 - 24.00% of mass 442	0.00 (0.00) *

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Avg. Scans 717-719 (6.43), Background Scan 713
Location of Maximum: 184.00
Number of points: 139

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	66	77.00	27208	115.00	19616	154.00	29696
37.00	723	78.00	19160	116.00	9496	155.00	12787
38.00	3683	79.00	3350	117.00	30536	156.00	69376
39.00	13742	80.00	2589	118.00	5356	157.00	15760
40.00	3525	81.00	230	119.00	1708	158.00	7780
41.00	10079	82.00	1042	120.00	126	159.00	776
42.00	3486	83.00	6926	122.00	276	163.00	79
43.00	875	84.00	1455	123.00	258	164.00	2662
45.00	238	86.00	3038	124.00	326	165.00	3079
49.00	233	87.00	4401	125.00	1314	166.00	40184
50.00	6456	88.00	3236	126.00	6081	167.00	54176
51.00	11712	89.00	15500	127.00	20088	168.00	24096
52.00	15222	90.00	8725	128.00	31512	169.00	10592
53.00	5566	91.00	37064	129.00	11325	170.00	1087
54.00	7961	92.00	66480	130.00	36480	171.00	54
55.00	390	93.00	19560	131.00	6337	177.00	113
56.00	338	94.00	1587	132.00	1987	178.00	169
57.00	666	97.00	260	133.00	409	179.00	2045
58.00	619	98.00	1967	135.00	123	180.00	1060
61.00	2122	99.00	2035	136.00	50	181.00	19496
62.00	6707	100.00	2741	137.00	1118	182.00	43872
63.00	16304	101.00	6710	138.00	2080	183.00	142720
64.00	8906	102.00	12364	139.00	25104	184.00	1225216
65.00	24136	103.00	9893	140.00	16085	185.00	174720
66.00	8364	104.00	5923	141.00	11903	186.00	11359
67.00	4338	105.00	1075	142.00	5267	187.00	391
68.00	428	106.00	3889	143.00	12736	193.00	59
69.00	1394	107.00	604	144.00	2562	196.00	156
70.00	2856	108.00	107	145.00	1121	207.00	79
71.00	577	109.00	169	147.00	120	208.00	121
72.00	108	110.00	687	149.00	192	255.00	155
73.00	566	111.00	931	150.00	1409	264.00	60
74.00	6794	112.00	581	151.00	3569	266.00	12
75.00	9480	113.00	4145	152.00	4655	275.00	224
76.00	9507	114.00	4690	153.00	4974		

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Avg. Scans 717-719 (6.43), Background Scan 713
Location of Maximum: 184.00
Number of points: 139

m/z	Y	m/z	Y	m/z	Y	m/z	Y

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\003.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 07-JUN-2021 11:25 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 3 Calibration Sample, Level: 4
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

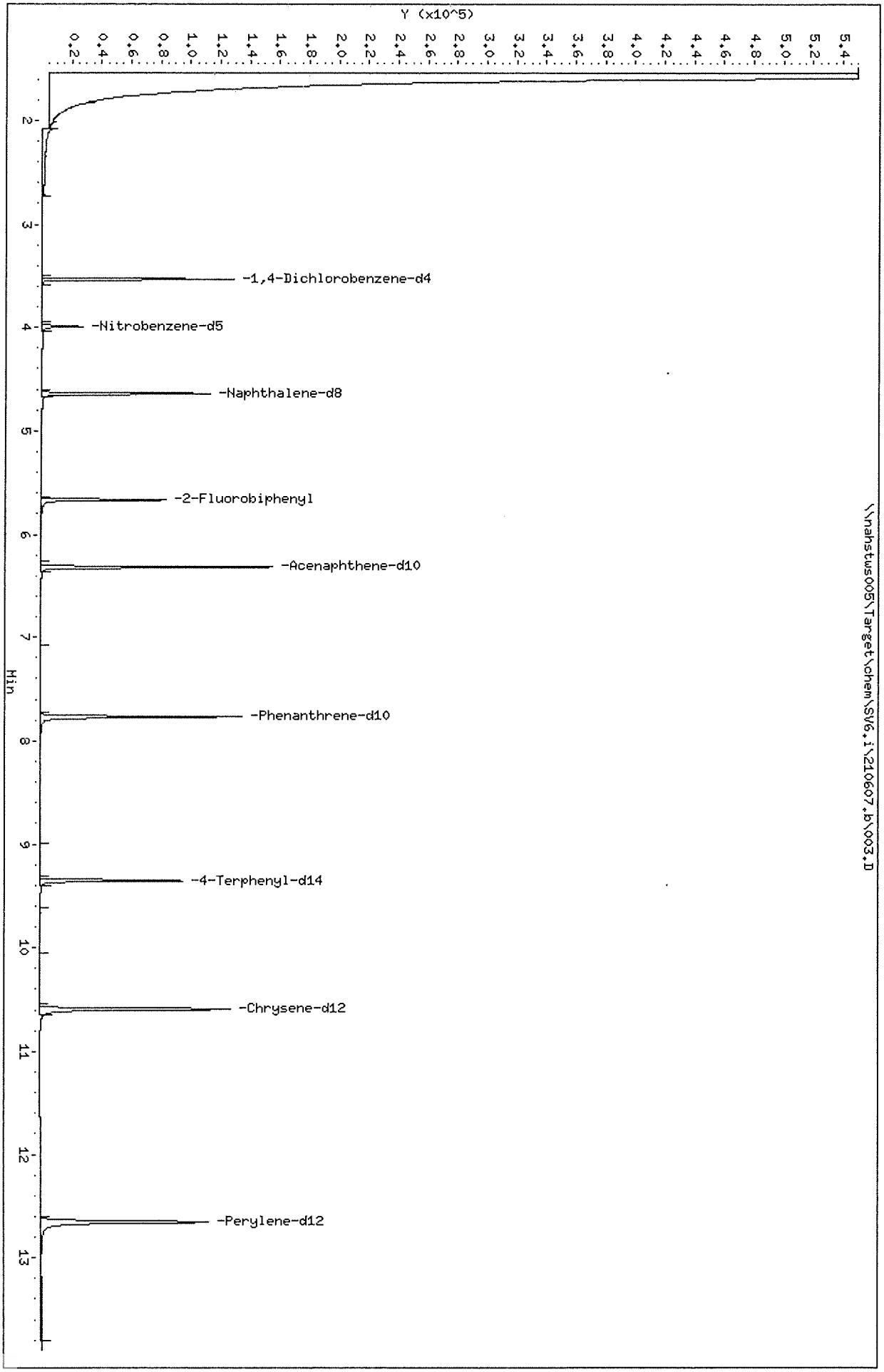
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	37444	0.10000	(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	127295	0.10000	
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	28048	0.08000	0.07194 (Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	78359	0.10000	(Q)
$ 69 2-Fluorobiphenyl	172	5.666	5.666	(0.896)	71387	0.08000	0.06826 (Q)
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	161444	0.10000	
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	161496	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	113379	0.08000	0.07781 (M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	163563	0.10000	
1 1,4-Dioxane	58	1.833	1.833	(0.518)	1504	0.08000	0.07795 (aM)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\003.D
Date : 07-JUN-2021 11:25
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\004.D
Lab Smp Id: DXSIM-0.01 Client Smp ID: DXSIM-0.01
Inj Date : 07-JUN-2021 11:43 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.01;DXSIM-0.01
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 11:25 Cal File: 003.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

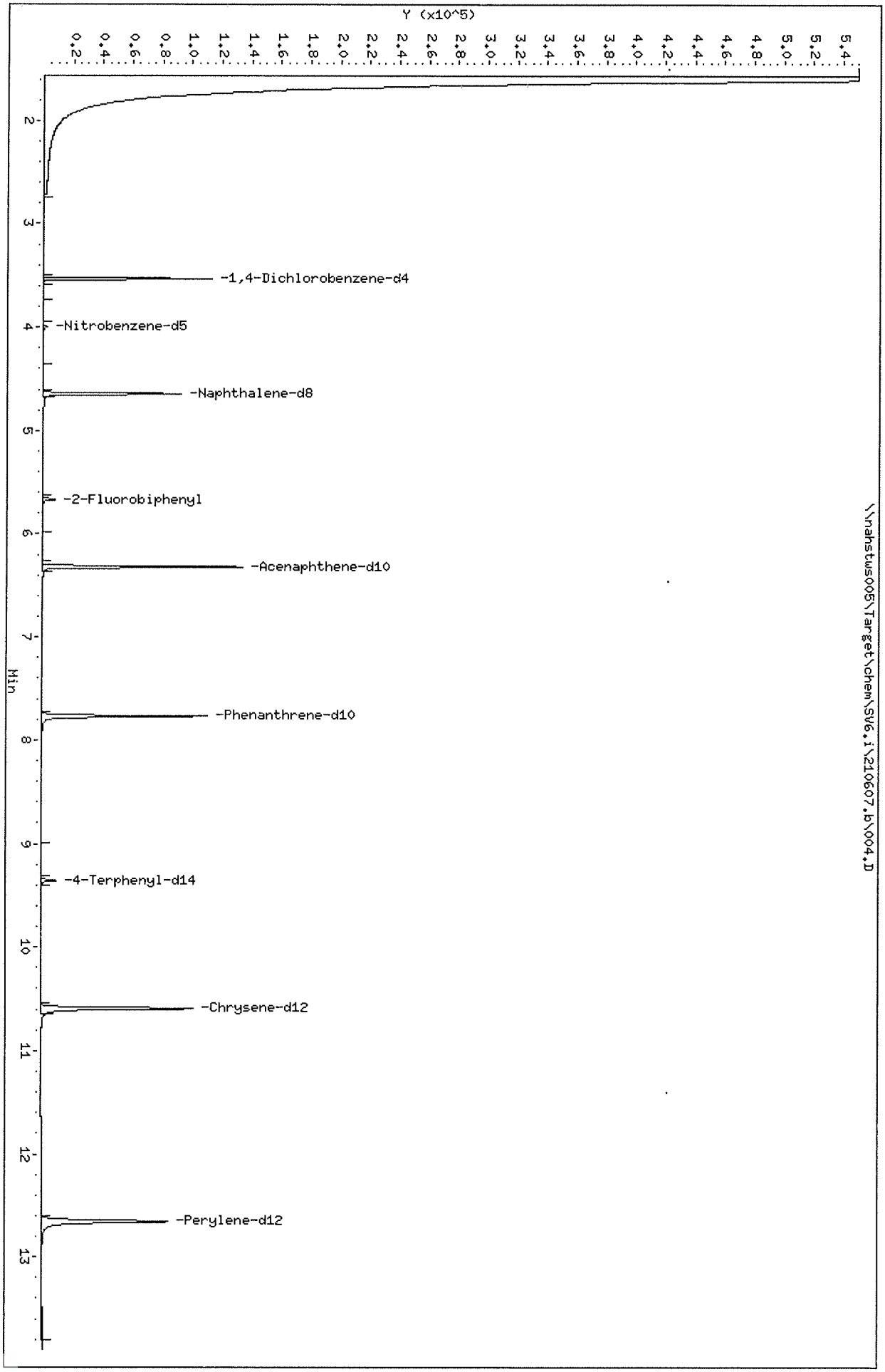
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

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	3.532	3.532	(1.000)	32441	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	108743	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.993	3.993	(1.000)	6821	0.01000	0.02048	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	69538	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	10217	0.01000	0.01101	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	139165	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	139300	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	12143	0.01000	0.009661	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	136463	0.10000		

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\SV6,i\210607,b\004,D
Date : 07-JUN-2021 11:43
Client ID: DXSIM-0,01
Sample Info: DXSIM-0,01;DXSIM-0,01
Purge Volume: 1000,0
Column phase: RTX-5SIL MS

Instrument: SV6,i
Operator: LG
Column diameter: 0,28

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\005.D
Lab Smp Id: DXSIM-0.03 Client Smp ID: DXSIM-0.03
Inj Date : 07-JUN-2021 12:01 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.03;DXSIM-0.03
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 11:43 Cal File: 004.D
Als bottle: 5 Calibration Sample, Level: 2
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

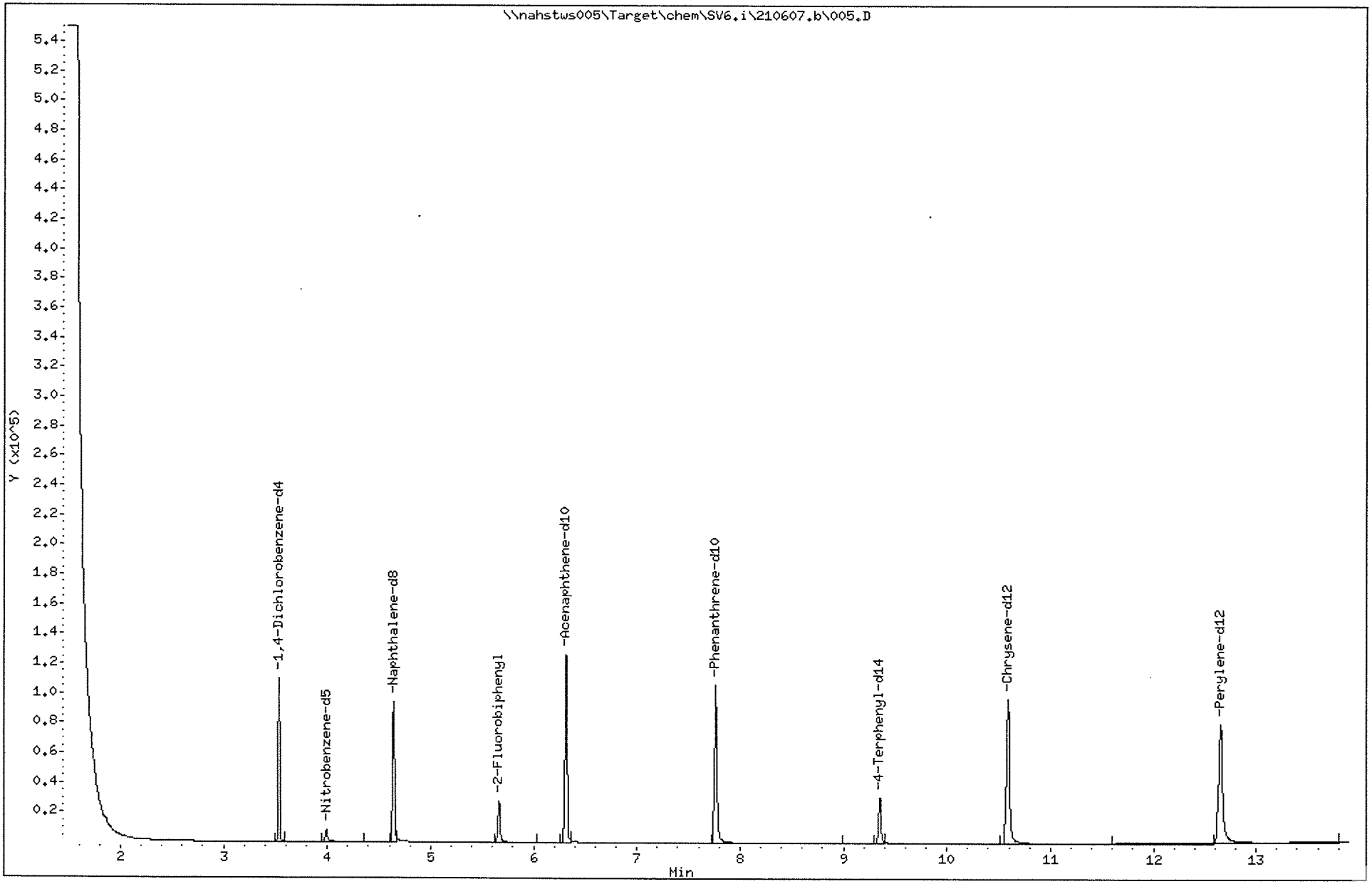
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	38001	0.10000		(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	129653	0.10000		
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	13323	0.03000	0.03355	
* 86 Acenaphthene-d10	164	6.320	6.320	(1.000)	79894	0.10000		
$ 69 2-Fluorobiphenyl	172	5.666	5.666	(0.896)	36092	0.03000	0.03385	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	165510	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	166418	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	49106	0.03000	0.03270	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	160787	0.10000		

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\SV6.i\210607.b\005.D
Date : 07-JUN-2021 12:01
Client ID: DXSIM-0.03
Sample Info: DXSIM-0.03;DXSIM-0.03
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\006.D
Lab Smp Id: DXSIM-0.05 Client Smp ID: DXSIM-0.05
Inj Date : 07-JUN-2021 12:19 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.05;DXSIM-0.05
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:01 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 3
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

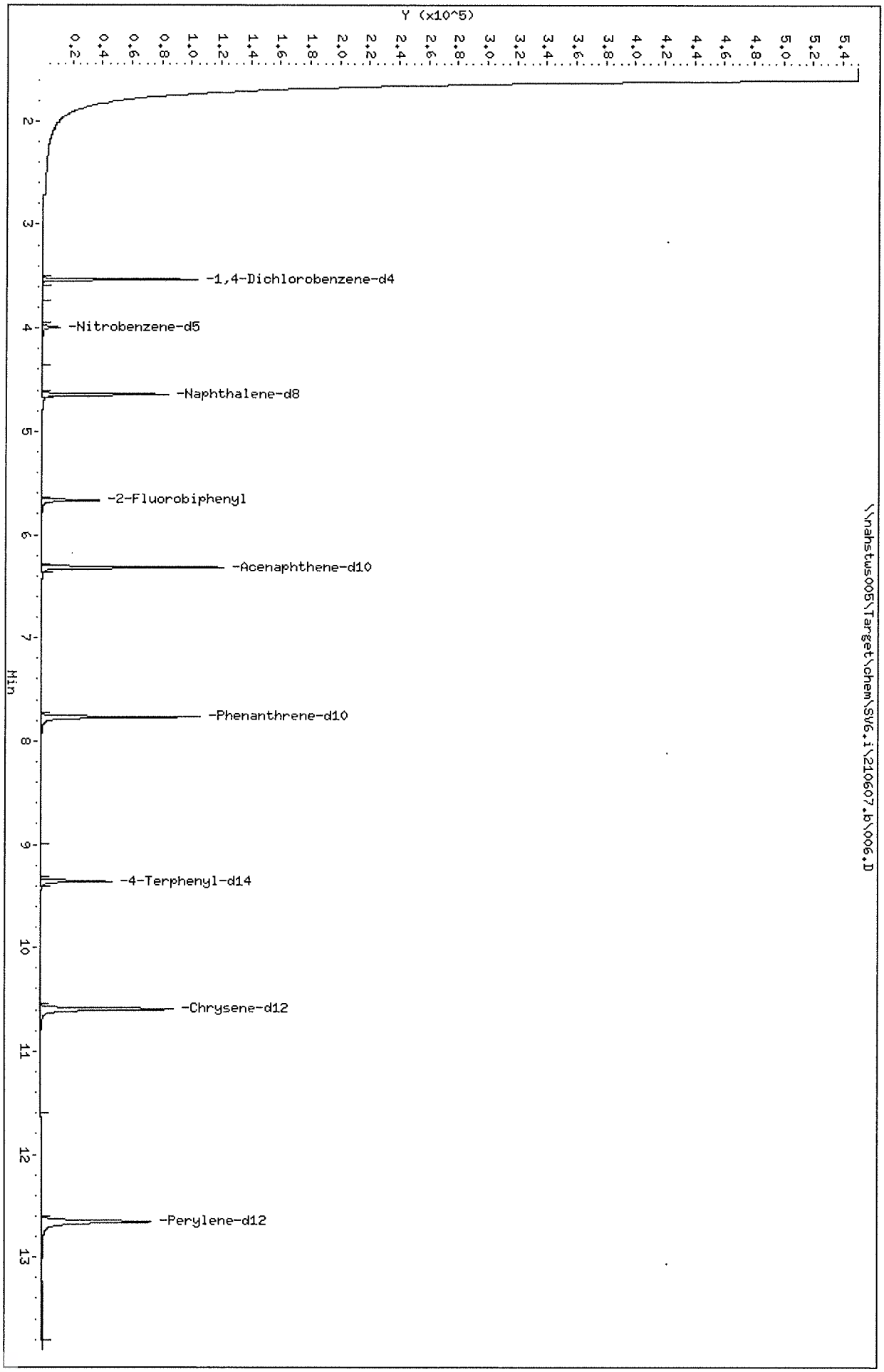
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.531	3.531	(1.000)	30540	0.10000		(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	102937	0.10000		
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	15816	0.05000	0.05017	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	62420	0.10000		(Q)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	43274	0.05000	0.05194	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	129763	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	129060	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	58071	0.05000	0.04987	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	123621	0.10000		

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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\006.D
Date : 07-JUN-2021 12:19
Client ID: DXSIM-0.05
Sample Info: DXSIM-0.05;DXSIM-0.05
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



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GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\007.D
Lab Smp Id: DXSIM-0.1 Client Smp ID: DXSIM-0.1
Inj Date : 07-JUN-2021 12:43 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.1;DXSIM-0.1
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:19 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 5
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

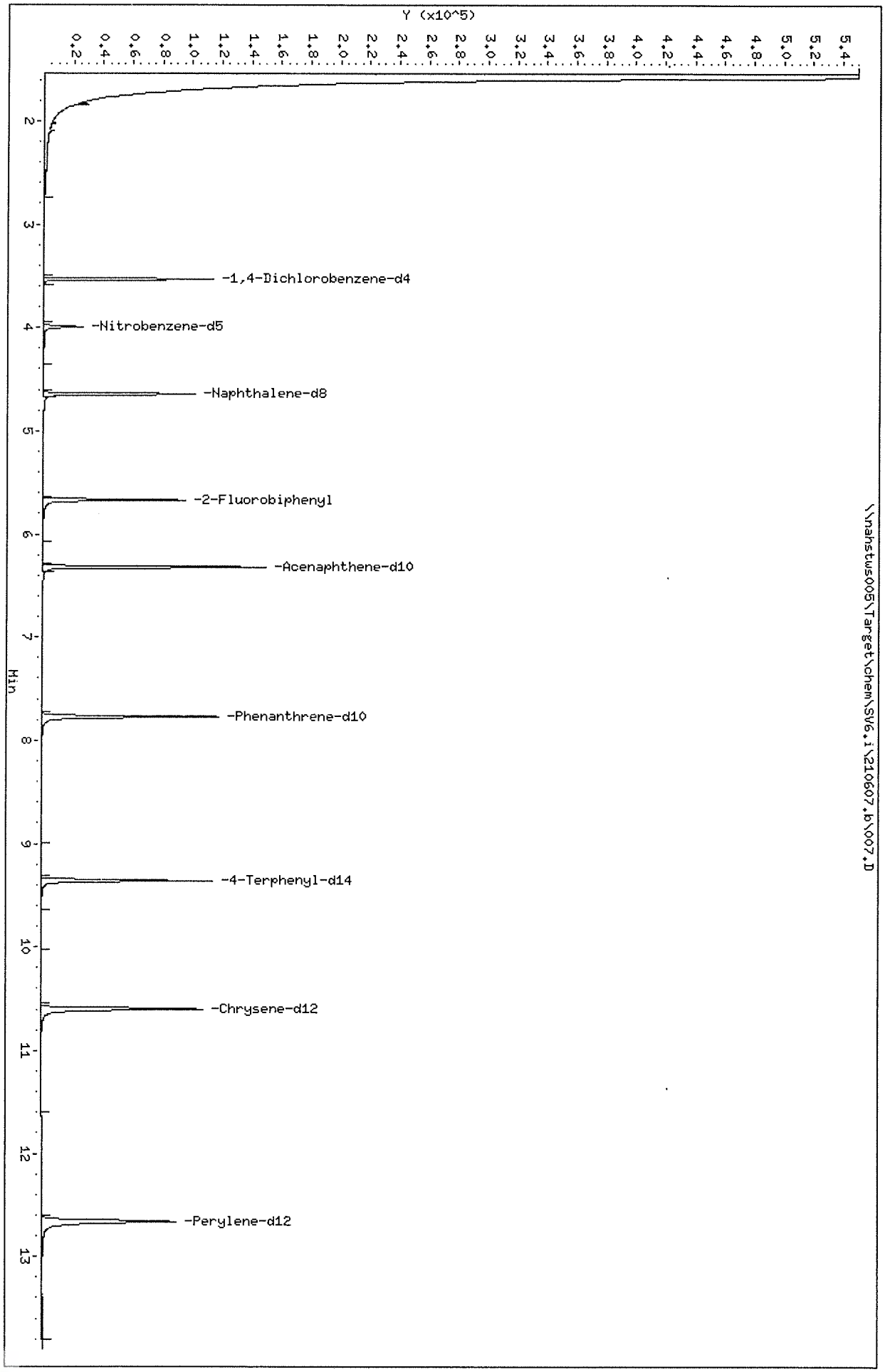
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	36721	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.644	(1.000)	125484	0.10000		
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	31308	0.10000	0.08146	
* 86 Acenaphthene-d10	164	6.320	6.320	(1.000)	79287	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.669	5.669	(0.936)	101666	0.10000	0.09608	
* 126 Phenanthrene-d10	188	7.776	7.776	(1.000)	157971	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	160256	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.883)	141769	0.10000	0.09804	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	155555	0.10000		
1 1,4-Dioxane	58	1.836	1.836	(0.519)	1898	0.10000	0.1003	(aQM)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\007.D
Date : 07-JUN-2021 12:43
Client ID: DXSIM-0.1
Sample Info: DXSIM-0.1;DXSIM-0.1
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\008.D
Lab Smp Id: DXSIM-0.15 Client Smp ID: DXSIM-0.15
Inj Date : 07-JUN-2021 13:01 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.15;DXSIM-0.15
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:43 Cal File: 007.D
Als bottle: 8 Calibration Sample, Level: 6
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

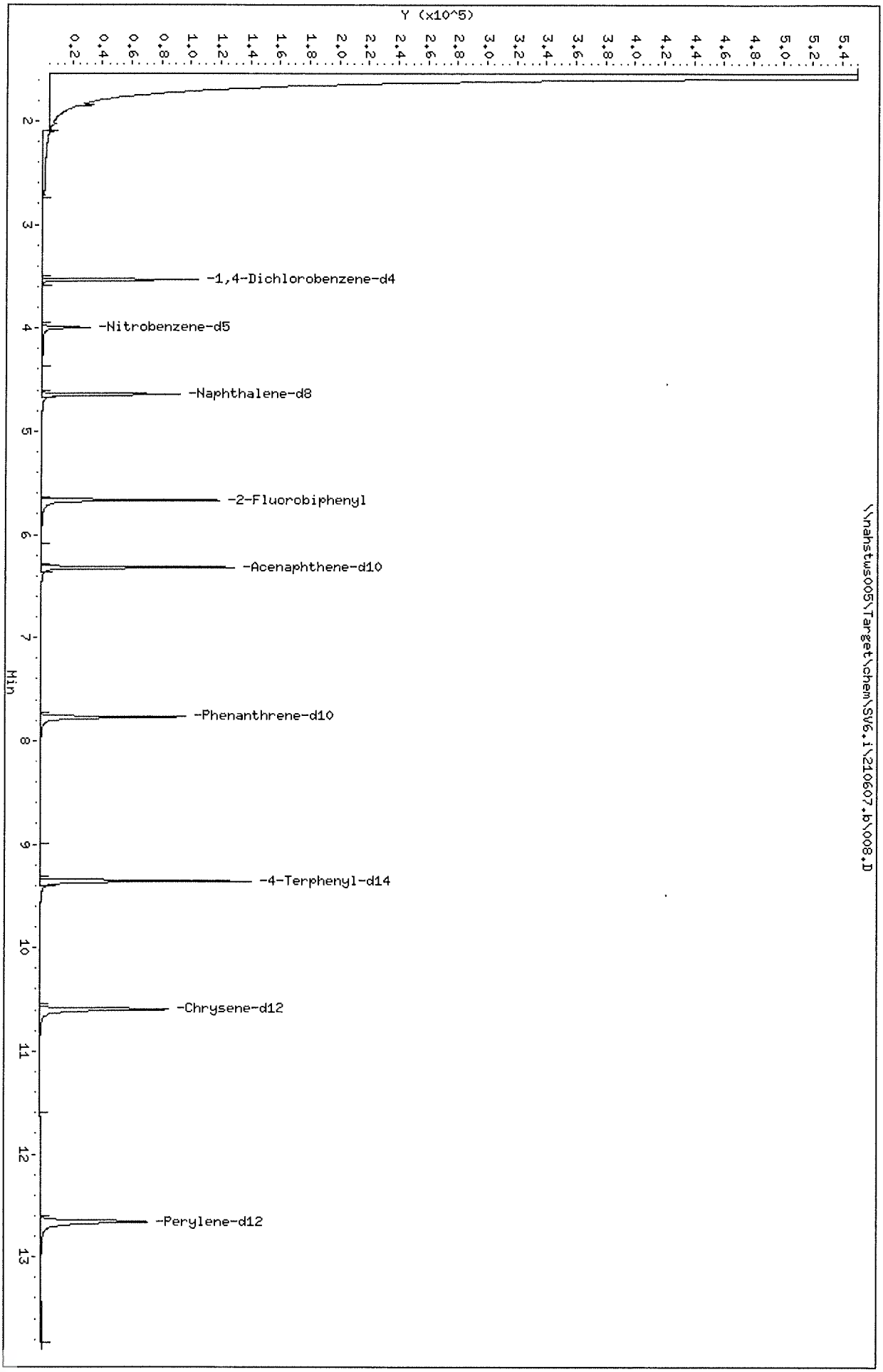
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	31974	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.644	(1.000)	106586	0.10000		
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	37770	0.15000	0.1157	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	68282	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.932)	127675	0.15000	0.1401	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	133068	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	136695	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	180944	0.15000	0.1467	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	128306	0.10000		
1 1,4-Dioxane	58	1.847	1.847	(0.522)	2410	0.15000	0.1463	(aQM)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\008.D
Date : 07-JUN-2021 13:01
Client ID: DXSIM-0.15
Sample Info: DXSIM-0.15;DXSIM-0.15
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\009.D
Lab Smp Id: DXSIM-0.2 Client Smp ID: DXSIM-0.2
Inj Date : 07-JUN-2021 13:19 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.2;DXSIM-0.2
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:01 Cal File: 008.D
Als bottle: 9 Calibration Sample, Level: 7
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

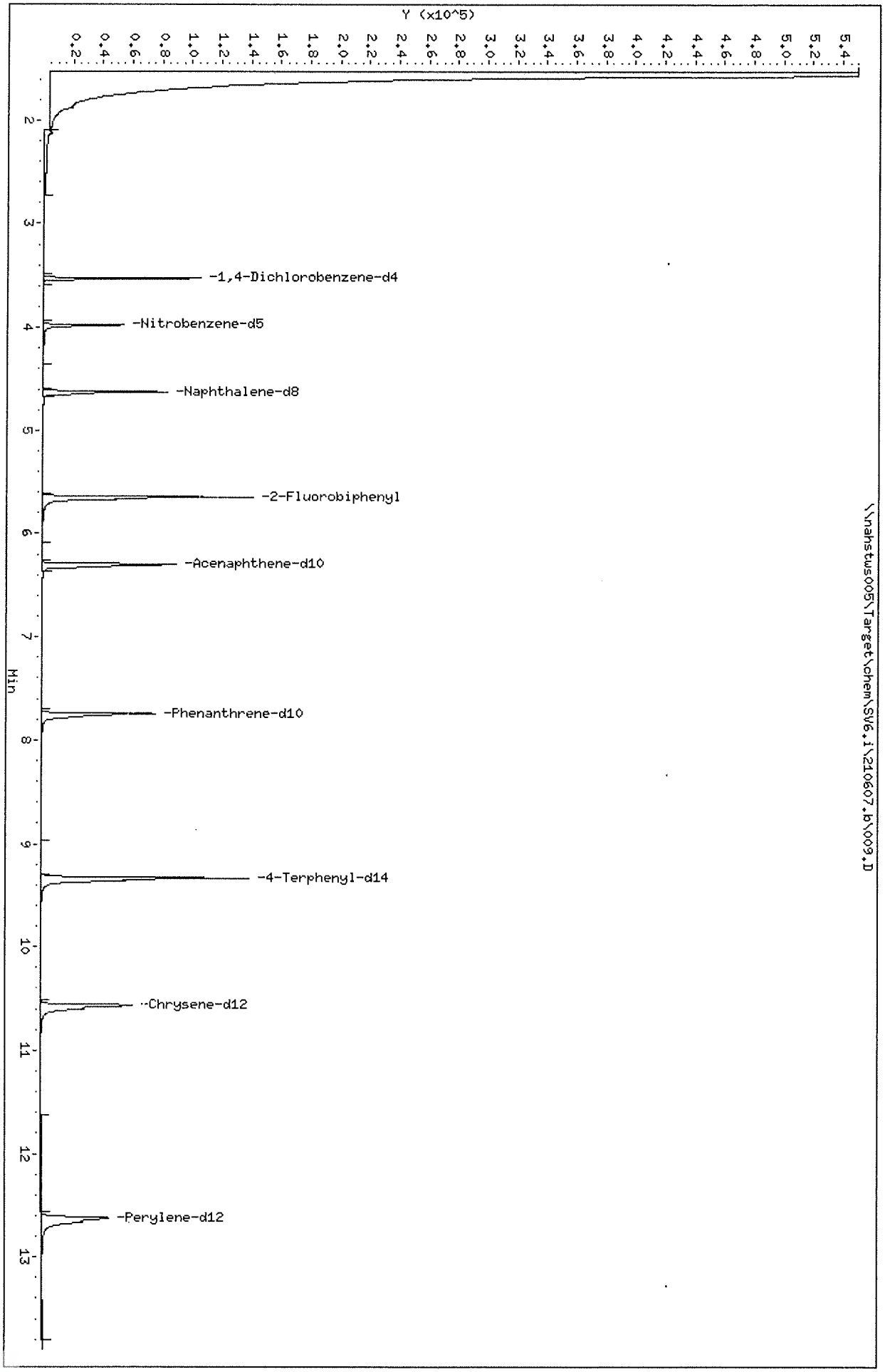
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.532	(1.000)	32671	0.10000		(a)
* 45 Naphthalene-d8	136	4.626	4.626	(1.000)	113469	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.982	3.982	(0.917)	51149	0.20000	0.1472	
* 86 Acenaphthene-d10	164	6.299	6.299	(1.000)	68302	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.648	5.648	(1.000)	174723	0.20000	0.1917	(A)
* 126 Phenanthrene-d10	188	7.749	7.749	(1.000)	141566	0.10000		
* 182 Chrysene-d12	240	10.562	10.562	(1.000)	134180	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.330	9.330	(0.883)	245911	0.20000	0.2031	(AM)
* 198 Perylene-d12	264	12.625	12.625	(1.000)	125962	0.10000		(M)
1 1,4-Dioxane	58	1.881	1.881	(0.533)	3443	0.20000	0.2045	(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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\009.D
Date : 07-JUN-2021 13:19
Client ID: DXSIM-0.2
Sample Info: DXSIM-0.2;DXSIM-0.2
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\010.D Page 1
Report Date: 06-Aug-2021 13:31

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\010.D
Lab Smp Id: DXSIM-0.5 Client Smp ID: DXSIM-0.5
Inj Date : 07-JUN-2021 13:37 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.5;DXSIM-0.5
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:19 Cal File: 009.D
Als bottle: 10 Calibration Sample, Level: 8
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

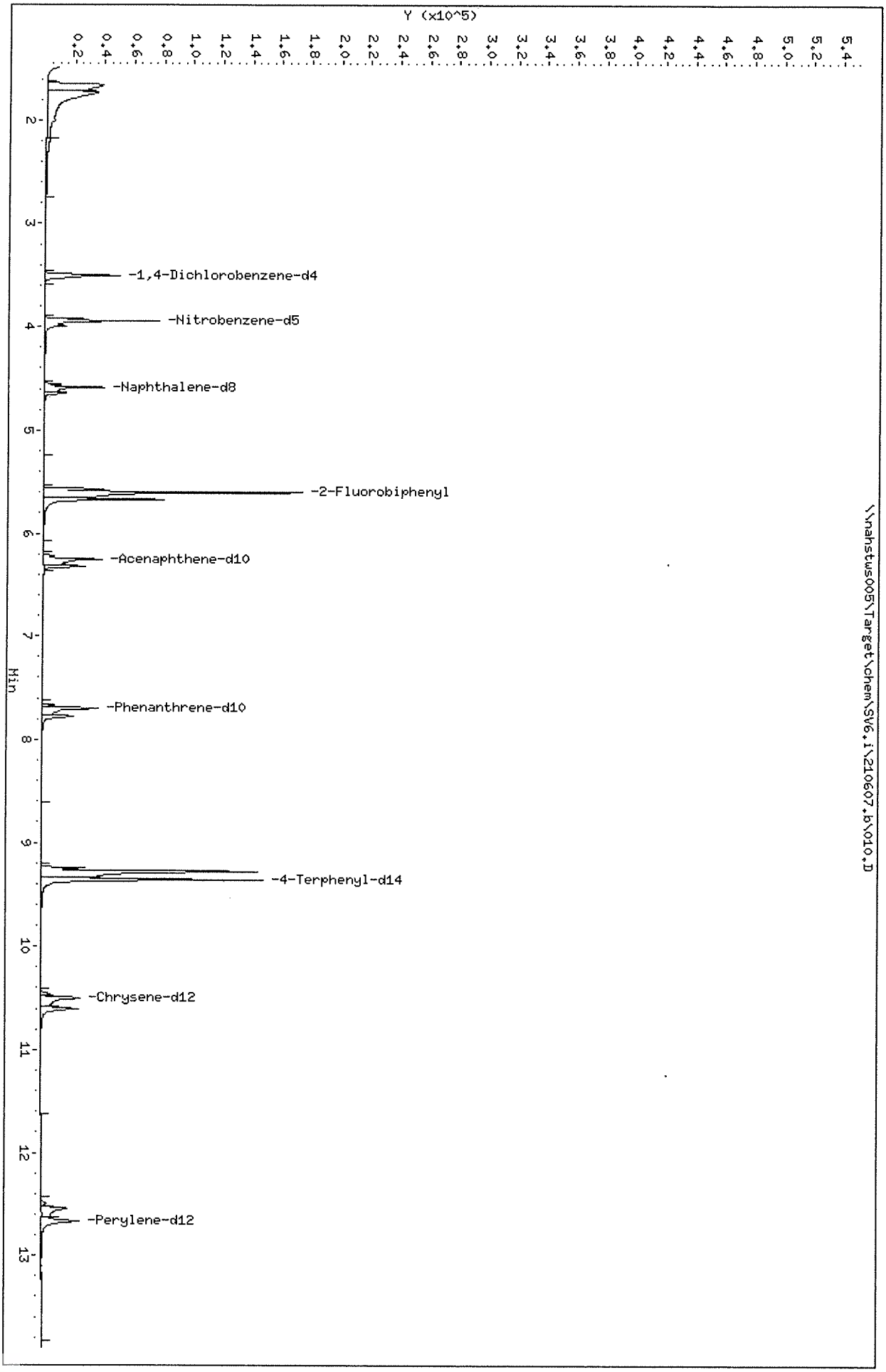
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.505	3.505	(1.000)	28197	0.10000		(a)
* 45 Naphthalene-d8	136	4.585	4.585	(1.000)	86691	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.945	3.945	(0.860)	80842	0.50000	0.3045	(AQM)
* 86 Acenaphthene-d10	164	6.251	6.251	(1.000)	49687	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.600	5.600	(0.896)	340029	0.50000	0.5128	(AM)
* 126 Phenanthrene-d10	188	7.700	7.700	(1.000)	111127	0.10000		(M)
* 182 Chrysene-d12	240	10.503	10.503	(1.000)	104718	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.891)	472282	0.50000	0.4998	(AM)
* 198 Perylene-d12	264	12.668	12.668	(1.000)	98459	0.10000		(M)
1 1,4-Dioxane	58	2.006	2.006	(0.572)	8747	0.50000	0.6020	(AQM)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\010.D
Date : 07-JUN-2021 13:37
Client ID: DXSIM-0.5
Sample Info: DXSIM-0.5;DXSIM-0.5
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\011.D Page 1
Report Date: 06-Aug-2021 13:31

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\011.D
Lab Smp Id: DXSIM-ICV Client Smp ID: DXSIM-ICV
Inj Date : 07-JUN-2021 13:55 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-ICV;DXSIM-ICV
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 11 QC Sample: METHSPIKE
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

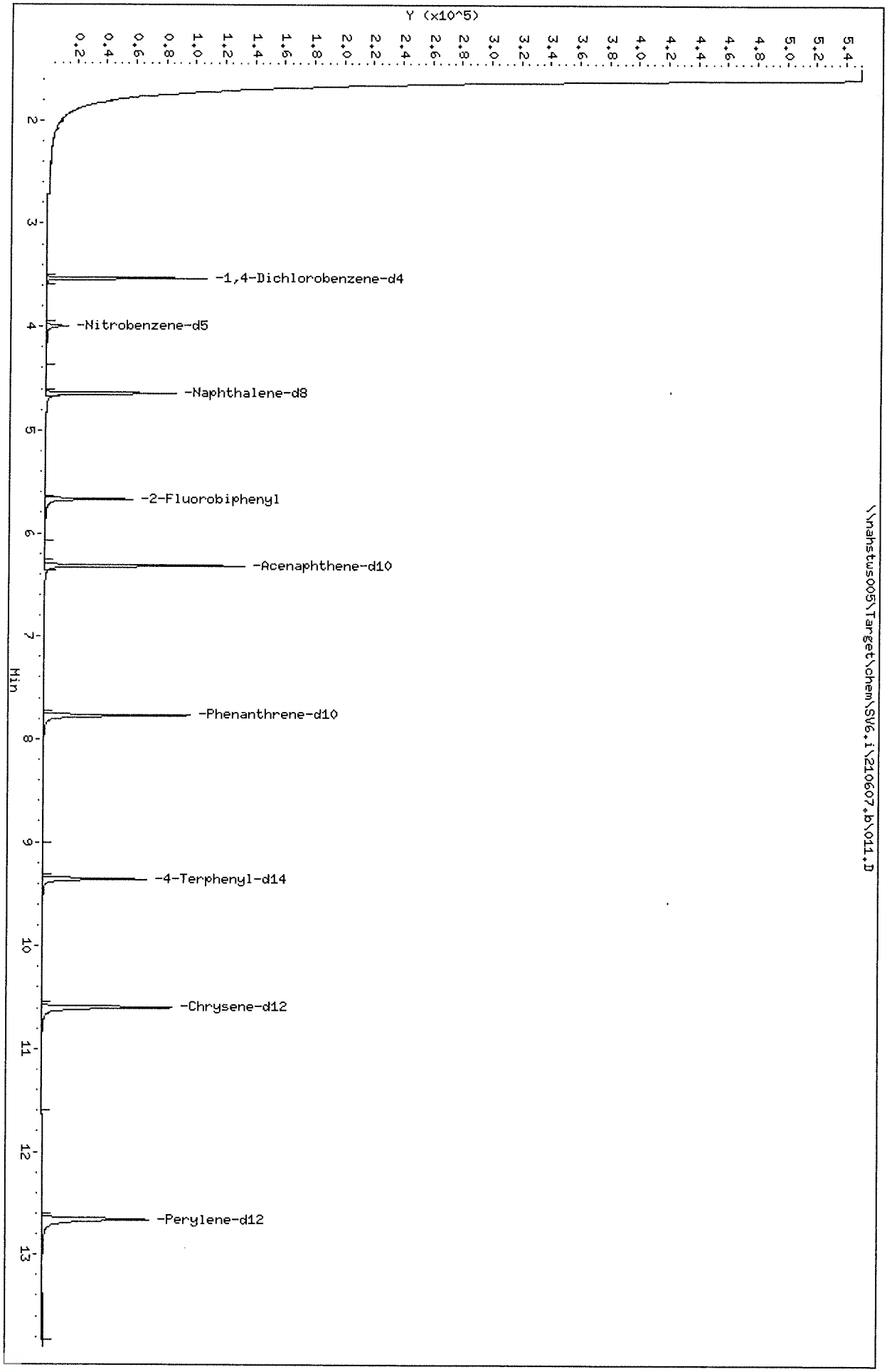
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.505	(1.000)	31156	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.585	(1.000)	105707	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.945	(0.921)	20403	0.06302	0.06302	
* 86 Acenaphthene-d10	164	6.321	6.251	(1.000)	68049	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.670	5.600	(1.000)	66382	0.07309	0.07309	
* 126 Phenanthrene-d10	188	7.770	7.700	(1.000)	137852	0.10000		(M)
* 182 Chrysene-d12	240	10.594	10.503	(1.000)	131692	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.362	(0.883)	93833	0.07897	0.07897	(M)
* 198 Perylene-d12	264	12.662	12.668	(1.000)	121944	0.10000		
1 1,4-Dioxane	58	1.818	2.006	(0.515)	1295	0.08066	0.08066	(aM)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\011.D
Date : 07-JUN-2021 13:55
Client ID: DXSIM-ICV
Sample Info: DXSIM-ICV;DXSIM-ICV
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



SV06 -Logbook

Batch: 45070 **Analyst:** Andrew Neir

Date: 06-09-2021 **Reviewer:**

Method: 8270DSIM **Laboratory:** Houston

Comments: MSSV003

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	DFTPP	TUNE	06-09-2021 10:14 am	1.00			001.D		Y	NA
2	SLSTD-2.5	SAMP	06-09-2021 10:26 am	1.00			002.D		Y	NA
3	DXSIM-0.08	CCV	06-09-2021 10:45 am	1.00			003.D		Y	NA
4	CCB	SAMP	06-09-2021 11:21 am	1.00			004.D		Y	NA
5	MBLK-166286	MBLK	06-09-2021 11:39 am	1.00	1000.00 mL	1.00 mL	005.D	Liquid	Y	NA
6	LCS-166286	LCS	06-09-2021 11:57 am	1.00	1000.00 mL	1.00 mL	006.D	Liquid	Y	NA
7	LCSD-166286	LCSD	06-09-2021 12:15 pm	1.00	1000.00 mL	1.00 mL	007.D	Liquid	Y	NA
8	HS210501312-01	SAMP	06-09-2021 12:33 pm	1.00	1000.00 mL	1.00 mL	008.D	Liquid	Y	NA
9	HS210501314-01	SAMP	06-09-2021 12:51 pm	1.00	1000.00 mL	1.00 mL	009.D	Liquid	Y	NA
10	HS21051312-01	SAMP	06-09-2021 01:45 pm	1.00	1000.00 mL	1.00 mL	010.D	Liquid	Y	NA
11	HS21051314-01	SAMP	06-09-2021 02:03 pm	1.00	1000.00 mL	1.00 mL	011.D	Liquid	Y	NA
12	DXSIM-0.08	SAMP	06-09-2021 02:28 pm	1.00			012.D		Y	NA

Chemical	Value
IS ID	3141114-01
CAL STD ID	3141106-05/ 3141114-07
DFTPP ID	31411105-05
PCP Tailing	1.21
Benz. Tailing	1.15
Routine SOP Maintenance	ACN

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

	CLIENT SAMPLE NO.	S1 (NBZ)#	S2 #	S3 (FBP)#	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	MBLK-166286	44	59	57						0
02	LCS-166286	52	69	70						0
03	LCSD-166286	55	72	71						0
04	HS21051312-01	0D	0D	0D						0
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(40-140)
S2 = 4-Terphenyl-d14	(40-140)
S3 (FBP) = 2-Fluorobiphenyl	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MBLK-166286

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID: 005 Lab Sample ID: MBLK-166286

Instrument ID: SV6 Date Extracted:

Matrix: (soil/water) WATER Date Analyzed: 06/09/21

Level:(low/med) LOW Time Analyzed: 1139

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LCS-166286	LCS-166286	006	06/09/21
02	LCSD-166286	LCSD-166286	007	06/09/21
03	HS21051312-01	HS21051312-01	010	06/09/21
04				
05				
06				
07				
08				
09				
10				
11				
12				
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29				
30				

COMMENTS:

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID: 001 DFTPP Injection Date: 06/09/21

Instrument ID: SV6 DFTPP Injection Time: 1014

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	23.7
68	Less than 2.0% of mass 69	0.4 (1.6)1
69	Mass 69 relative abundance	25.6
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	34.2
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	24.9
365	1.0 - 100.0% of mass 198	2.9
441	Present, but less than mass 443	11.3
442	50.0 - 150.0% of mass 198	76.2
443	15.0 - 24.0% of mass 442	15.3 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DXSIM-0.08	DXSIM-0.08	003	06/09/21	1045
02	MBLK-166286	MBLK-166286	005	06/09/21	1139
03	LCS-166286	LCS-166286	006	06/09/21	1157
04	LCSD-166286	LCSD-166286	007	06/09/21	1215
05	HS21051312-01	HS21051312-01	010	06/09/21	1345
06	DXSIM-0.08	DXSIM-0.08	012	06/09/21	1428
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Instrument ID: SV6 Calibration Date: 06/09/21 Time: 1045

Lab File ID: 003 Init. Calib. Date(s): 06/07/21 06/07/21

Init. Calib. Times: 1125 1337

GC Column: RTX-5SIL MS ID: 0.28 (mm)

COMPOUND	RRF OR AMOUNT	RRF8e-002 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,4-Dioxane	5.2e-002	5.2e-002	0.01	0.00	20.00	AVRG
Nitrobenzene-d5	0.3060000	0.2502310	0.01	-18.22	20.00	AVRG
4-Terphenyl-d14	0.9020000	0.8835439	0.01	-2.05	20.00	AVRG
2-Fluorobiphenyl	1.3340000	1.1732143	0.01	-12.05	20.00	AVRG

FORM VII SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Instrument ID: SV6 Calibration Date: 06/09/21 Time: 1428

Lab File ID: 012 Init. Calib. Date(s): 06/07/21 06/07/21

Init. Calib. Times: 1125 1337

GC Column: RTX-5SIL MS ID: 0.28 (mm)

COMPOUND	RRF OR AMOUNT	RRF8e-002 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,4-Dioxane	5.2e-002	4.35e-002	0.01	-16.35	50.00	AVRG
Nitrobenzene-d5	0.3060000	0.3013025	0.01	-1.54	50.00	AVRG
4-Terphenyl-d14	0.9020000	0.8691192	0.01	-3.64	50.00	AVRG
2-Fluorobiphenyl	1.3340000	1.3393753	0.01	0.40	50.00	AVRG

FORM VII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID (Standard): 003 Date Analyzed: 06/09/21

Instrument ID: SV6 Time Analyzed: 1045

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	35807	3.54	122292	4.65	80614	6.32
	UPPER LIMIT	71614	4.04	244584	5.15	161228	6.82
	LOWER LIMIT	17904	3.04	61146	4.15	40307	5.82
	CLIENT SAMPLE NO.						
01	MBLK-166286	41567	3.54	145993	4.64	88919	6.32
02	LCS-166286	34564	3.54	115479	4.65	72423	6.32
03	LCSD-166286	32922	3.54	114339	4.65	68759	6.32
04	HS21051312-01	36309	3.54	126925	4.64	80734	6.32
05							
06							
07							
08							
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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: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051312

Lab File ID (Standard): 003 Date Analyzed: 06/09/21

Instrument ID: SV6 Time Analyzed: 1045

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	162540		7.77		157628		10.60		146107		12.66	
	UPPER LIMIT	325080		8.27		315256		11.10		292214		13.16	
	LOWER LIMIT	81270		7.27		78814		10.10		73054		12.16	
	CLIENT SAMPLE NO.												
01	MBLK-166286	183706		7.77		177881		10.59		165194		12.66	
02	LCS-166286	150704		7.77		147544		10.59		133220		12.66	
03	LCSD-166286	143008		7.77		140633		10.59		124602		12.66	
04	HS21051312-01	162774		7.78		173233		10.60		175537		12.66	
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.

FORM VIII SV

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

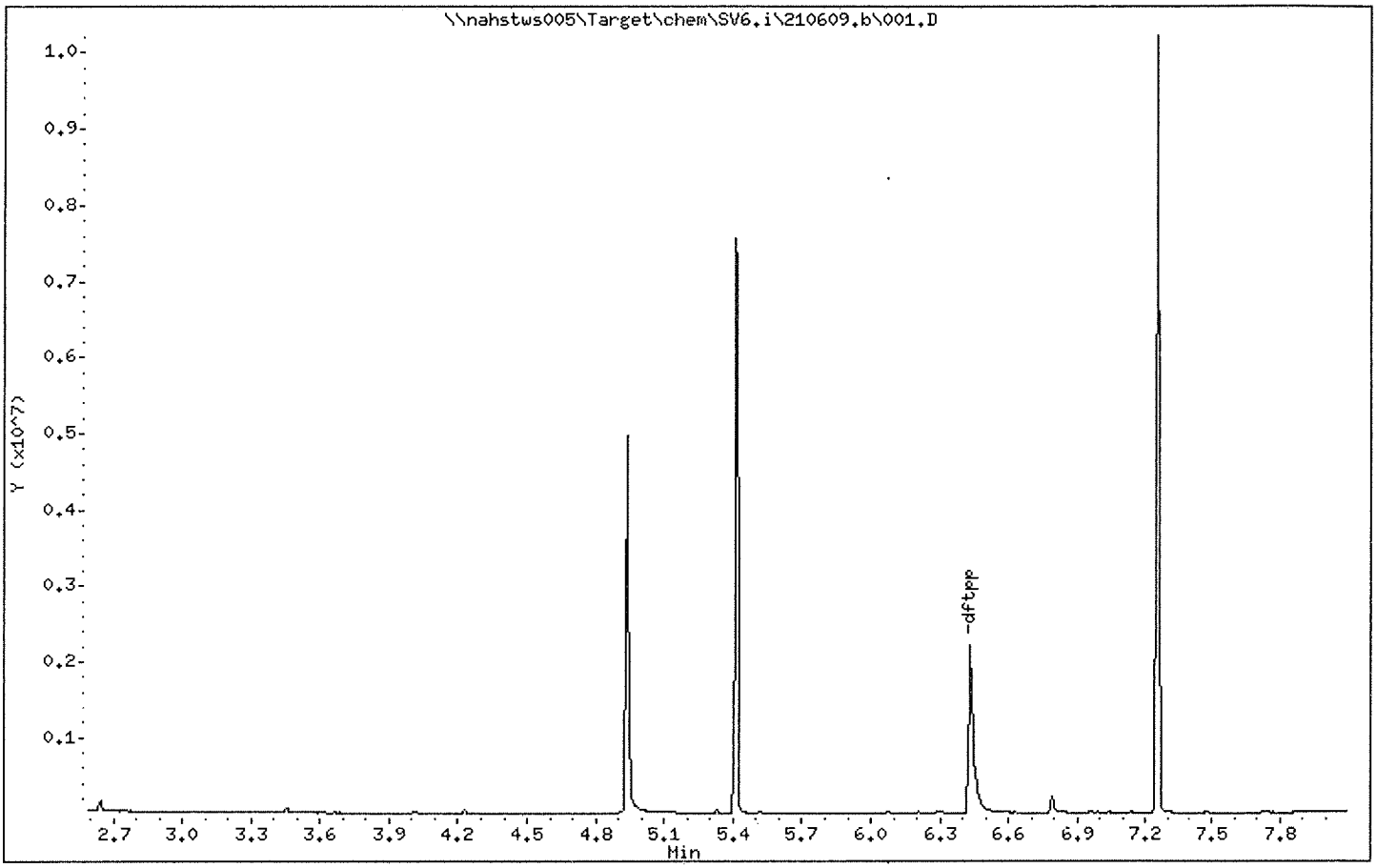
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

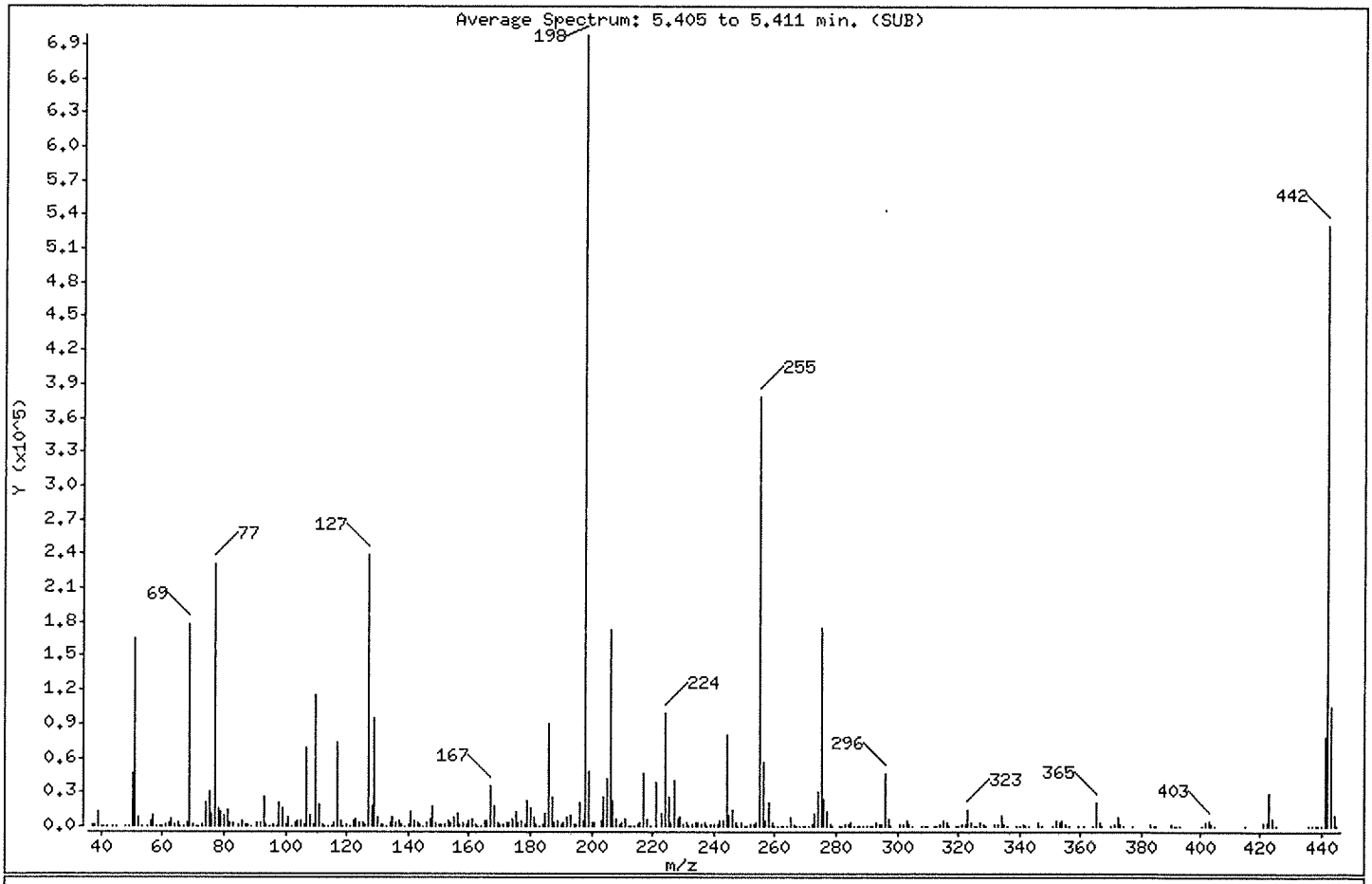
Sample Info: DFTPP;DFTPP;3;;DFTPP

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	23.69
68	Less than 2.00% of mass 69	0.41 (1.62)
69	Mass 69 relative abundance	25.57
70	Less than 2.00% of mass 69	0.12 (0.47)
127	10.00 - 80.00% of mass 198	34.22
197	Less than 2.00% of mass 198	0.60
199	5.00 - 9.00% of mass 198	6.94
275	10.00 - 60.00% of mass 198	24.95
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	11.26
442	50.00 - 150.00% of mass 198	76.20
443	15.00 - 24.00% of mass 442	15.25 (20.02)

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.405 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	843	127.00	238720	212.00	429	301.00	871
38.00	2286	128.00	17488	213.00	489	302.00	823
39.00	12513	129.00	95368	214.00	163	303.00	5368
40.00	516	130.00	7852	215.00	1940	304.00	1347
41.00	166	131.00	1573	216.00	3988	305.00	144
42.00	77	132.00	938	217.00	46224	308.00	731
44.00	23	133.00	366	218.00	6032	309.00	354
45.00	318	134.00	2671	219.00	621	310.00	670
48.00	6	135.00	8409	221.00	39024	312.00	175
49.00	582	136.00	3039	223.00	10875	313.00	241
50.00	47296	137.00	4141	224.00	99464	314.00	2346
51.00	165248	138.00	857	225.00	25048	315.00	5146
52.00	8159	139.00	692	226.00	2816	316.00	3108
53.00	412	140.00	1264	227.00	40504	317.00	579
55.00	772	141.00	13041	228.00	5875	319.00	80
56.00	4069	142.00	4280	229.00	8517	320.00	182
57.00	9741	143.00	3088	230.00	1119	321.00	1537
58.00	381	144.00	869	231.00	3415	322.00	811
59.00	89	145.00	732	232.00	778	323.00	15104
60.00	84	146.00	2430	233.00	862	324.00	2840
61.00	1784	147.00	7117	234.00	2513	325.00	193
62.00	2456	148.00	18192	235.00	2947	326.00	306
63.00	6108	149.00	3314	236.00	2005	327.00	2929
64.00	1041	150.00	1007	237.00	3287	328.00	1572
65.00	3052	151.00	1944	238.00	417	329.00	218
66.00	224	152.00	1055	239.00	1548	332.00	1215
67.00	285	153.00	4369	240.00	1167	333.00	1414
68.00	2893	154.00	3004	241.00	2184	334.00	9770
69.00	178432	155.00	7836	242.00	5311	335.00	2279
70.00	839	156.00	11217	243.00	5557	336.00	306
71.00	84	157.00	2133	244.00	80280	339.00	152
72.00	96	158.00	2532	245.00	10320	340.00	138
73.00	1551	159.00	2236	246.00	13863	341.00	1633
74.00	20992	160.00	4343	247.00	2749	342.00	577
75.00	29928	161.00	6345	248.00	622	343.00	117

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.405 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	11800	162.00	2063	249.00	2658	346.00	3176
77.00	230400	163.00	729	250.00	517	347.00	681
78.00	15304	164.00	762	251.00	744	351.00	189
79.00	13175	165.00	4636	252.00	867	352.00	4623
80.00	9918	166.00	4219	253.00	1931	353.00	3020
81.00	14745	167.00	35112	254.00	2968	354.00	4503
82.00	3616	168.00	17336	255.00	379264	355.00	925
83.00	3370	169.00	2719	256.00	56752	356.00	95
85.00	2373	170.00	1171	257.00	4263	359.00	417
86.00	4510	171.00	1294	258.00	20984	361.00	75
87.00	2064	172.00	2418	259.00	3244	364.00	138
88.00	828	173.00	3410	260.00	552	365.00	20144
89.00	352	174.00	6619	261.00	675	366.00	2906
91.00	3181	175.00	12838	262.00	87	367.00	203
92.00	3715	176.00	3505	263.00	169	370.00	410
93.00	25752	177.00	5400	264.00	663	371.00	1257
94.00	1764	178.00	1787	265.00	8708	372.00	7958
95.00	383	179.00	23088	266.00	1438	373.00	1864
96.00	1215	180.00	16271	267.00	119	374.00	178
97.00	300	181.00	7564	268.00	193	377.00	139
98.00	21504	182.00	1254	269.00	106	383.00	2143
99.00	15621	183.00	785	270.00	507	384.00	569
100.00	1277	184.00	1935	271.00	743	385.00	150
101.00	8112	185.00	11187	272.00	978	390.00	1102
102.00	440	186.00	89224	273.00	11619	391.00	628
103.00	2658	187.00	24984	274.00	30720	392.00	573
104.00	5286	188.00	2589	275.00	174080	393.00	75
105.00	5043	189.00	5149	276.00	23544	401.00	503
106.00	1742	190.00	990	277.00	13583	402.00	3154
107.00	69200	191.00	2894	278.00	2137	403.00	4581
108.00	10075	192.00	8052	279.00	503	404.00	1561
109.00	1851	193.00	8859	281.00	103	405.00	210
110.00	116256	194.00	1827	282.00	217	415.00	206
111.00	18576	195.00	1294	283.00	1642	421.00	3967
112.00	2306	196.00	20376	284.00	1189	422.00	3287

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.405 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	751	197.00	4197	285.00	2448	423.00	28984
114.00	160	198.00	697728	286.00	504	424.00	6192
115.00	148	199.00	48400	287.00	75	425.00	709
116.00	3484	200.00	3490	288.00	133	436.00	207
117.00	74472	201.00	3334	289.00	559	437.00	283
118.00	5581	203.00	4608	290.00	520	438.00	280
119.00	485	204.00	26048	291.00	392	439.00	370
120.00	905	205.00	41608	292.00	671	440.00	690
121.00	324	206.00	173248	293.00	3057	441.00	78584
122.00	4724	207.00	23048	294.00	907	442.00	531712
123.00	6973	208.00	5786	295.00	1094	443.00	106432
124.00	3365	209.00	1874	296.00	46208	444.00	9878
125.00	3215	210.00	3064	297.00	6780	445.00	500
126.00	1346	211.00	7022	298.00	521		

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\003.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 09-JUN-2021 10:45 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 3 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

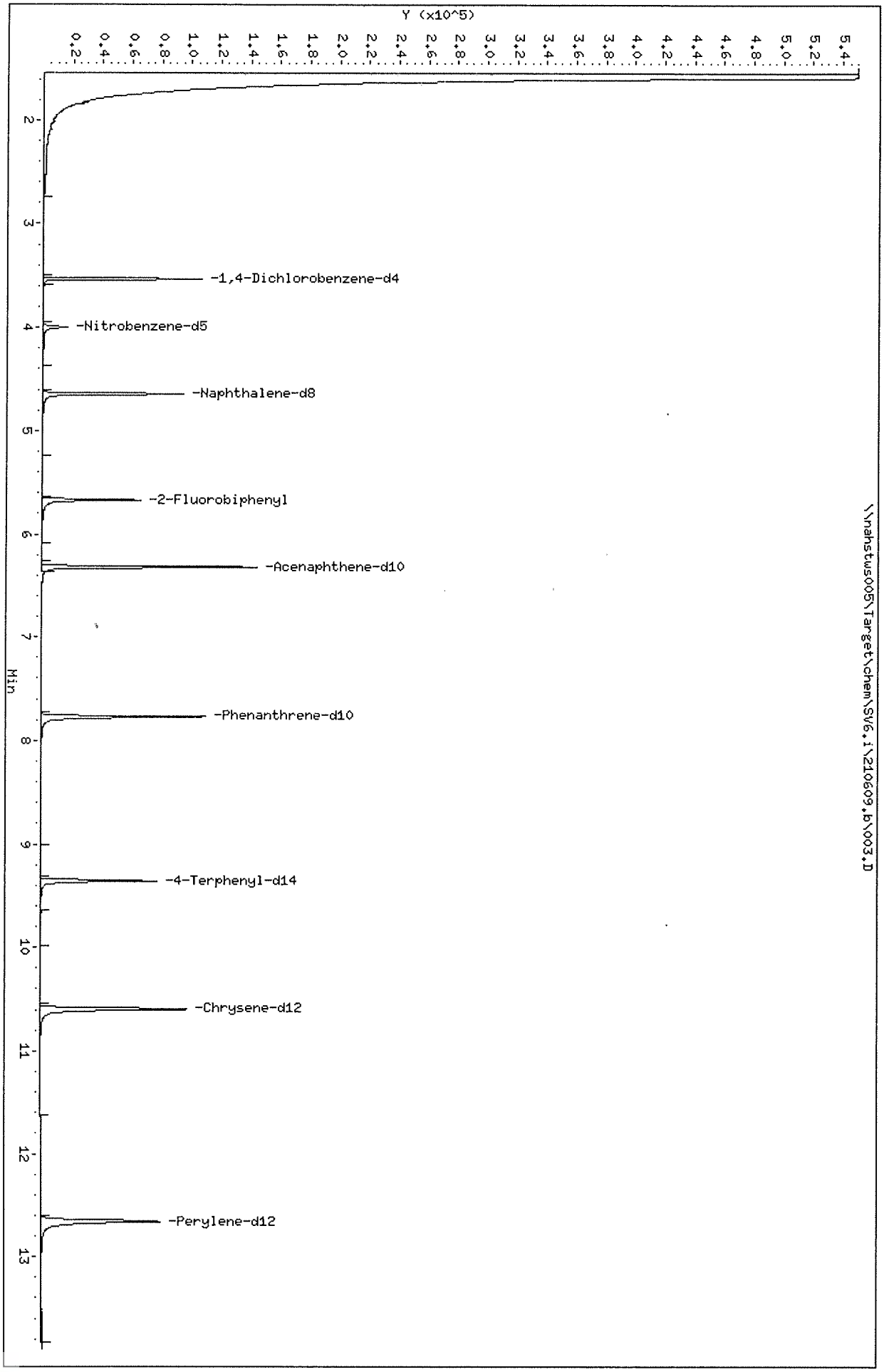
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	35807	0.10000	(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	122292	0.10000	
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	24481	0.08000	0.06536(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	80614	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(1.000)	75662	0.08000	0.07032
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	162540	0.10000	
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	157628	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	111417	0.08000	0.07834(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	146107	0.10000	
1 1,4-Dioxane	58	1.833	1.833	(0.518)	1489	0.08000	0.08070(aQ)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\003.D
Date : 09-JUN-2021 10:45
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\005.D Page 1
Report Date: 06-Aug-2021 13:11

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\005.D
Lab Smp Id: MBLK-166286 Client Smp ID: MBLK-166286
Inj Date : 09-JUN-2021 11:39 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-166286;MBLK-166286;3;;BLANK
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.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

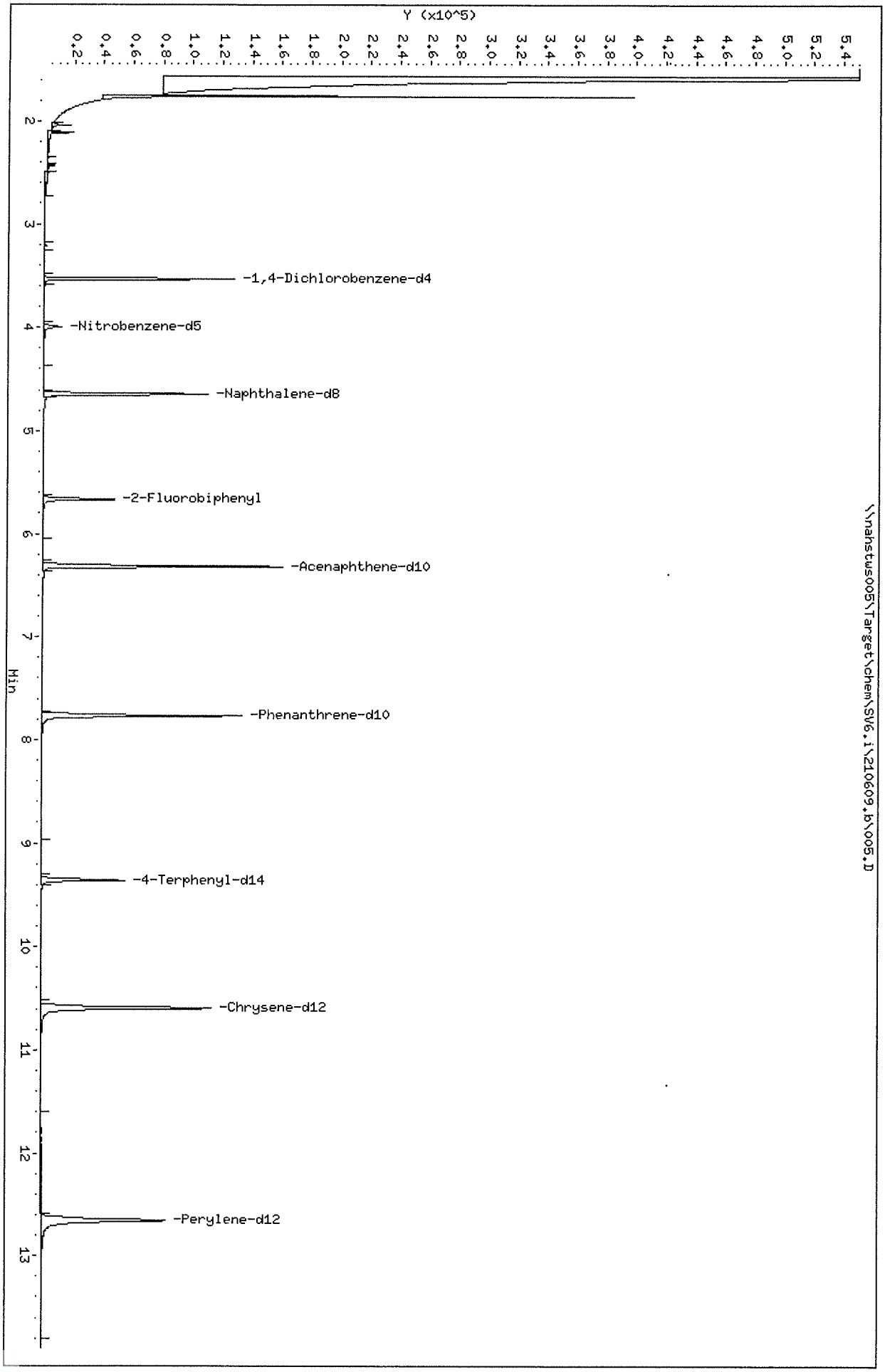
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	41567	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.645	(1.000)	145993	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.906)	15762	0.03525	0.03525	(Q)
* 86 Acenaphthene-d10	164	6.320	6.321	(1.000)	88919	0.10000		
$ 69 2-Fluorobiphenyl	172	5.669	5.670	(0.897)	54129	0.04561	0.04561	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	183706	0.10000		
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	177881	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	75853	0.04726	0.04726	(M)
* 198 Perylene-d12	264	12.657	12.662	(1.000)	165194	0.10000		

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.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\005.D
Date : 09-JUN-2021 11:39
Client ID: MBLK-166286
Sample Info: MBLK-166286;MBLK-166286;3;;BLANK
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\006.D
Lab Smp Id: LCS-166286 Client Smp ID: LCS-166286
Inj Date : 09-JUN-2021 11:57 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : LCS-166286;LCS-166286;3;;LCS
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 6 QC Sample: LCS
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

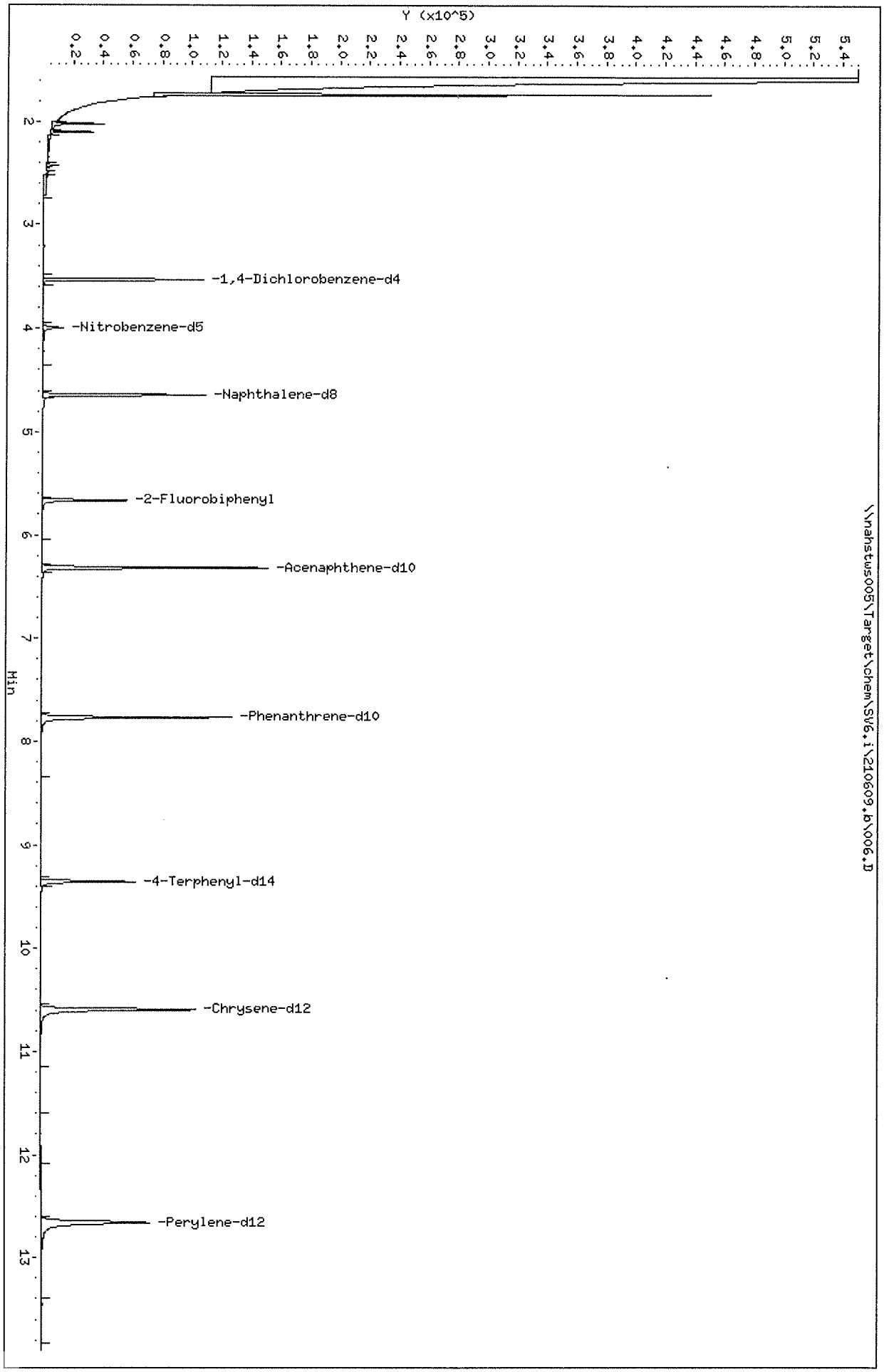
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	34564	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	115479	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.886)	14769	0.04176	0.04176	(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	72423	0.10000		
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	54422	0.05630	0.05630	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	150704	0.10000		
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	147544	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	73331	0.05508	0.05508	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	133220	0.10000		
1 1,4-Dioxane	58	1.792	1.833	(0.507)	1609	0.09034	0.09034	(aM)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\006.D
Date : 09-JUN-2021 11:57
Client ID: LCS-166286
Sample Info: LCS-166286;LCS-166286;3;;LCS
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\007.D
Lab Smp Id: LCSD-166286 Client Smp ID: LCSD-166286
Inj Date : 09-JUN-2021 12:15 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-166286;LCSD-166286;3;;LCSD
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 7 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

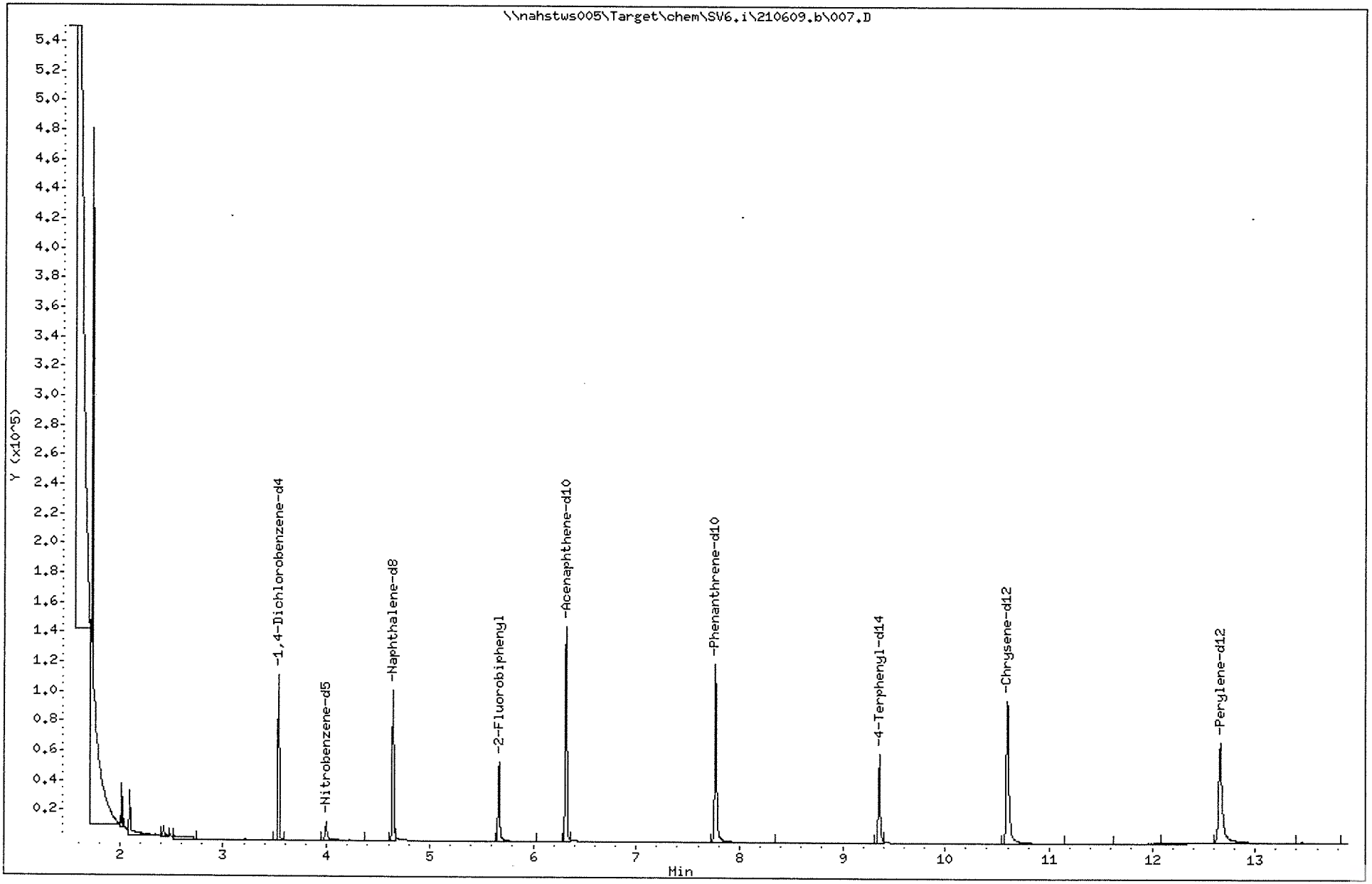
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	32922	0.10000	(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	114339	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.902)	15504	0.04427	0.04427(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	68759	0.10000	
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	51916	0.05657	0.05657
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	143008	0.10000	
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	140633	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	72957	0.05750	0.05750(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	124602	0.10000	
1 1,4-Dioxane	58	1.785	1.833	(0.505)	1500	0.08842	0.08842(aMH)

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.
H - Operator selected an alternate compound hit.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\007.D
Date : 09-JUN-2021 12:15
Client ID: LCSD-166286
Sample Info: LCSD-166286;LCSD-166286;3;;LCSD
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\010.D
Lab Smp Id: HS21051312-01 Client Smp ID: HS21051312-01
Inj Date : 09-JUN-2021 13:45 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : HS210501312-01;HS21051312-01
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:08 devak.giga Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 10
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

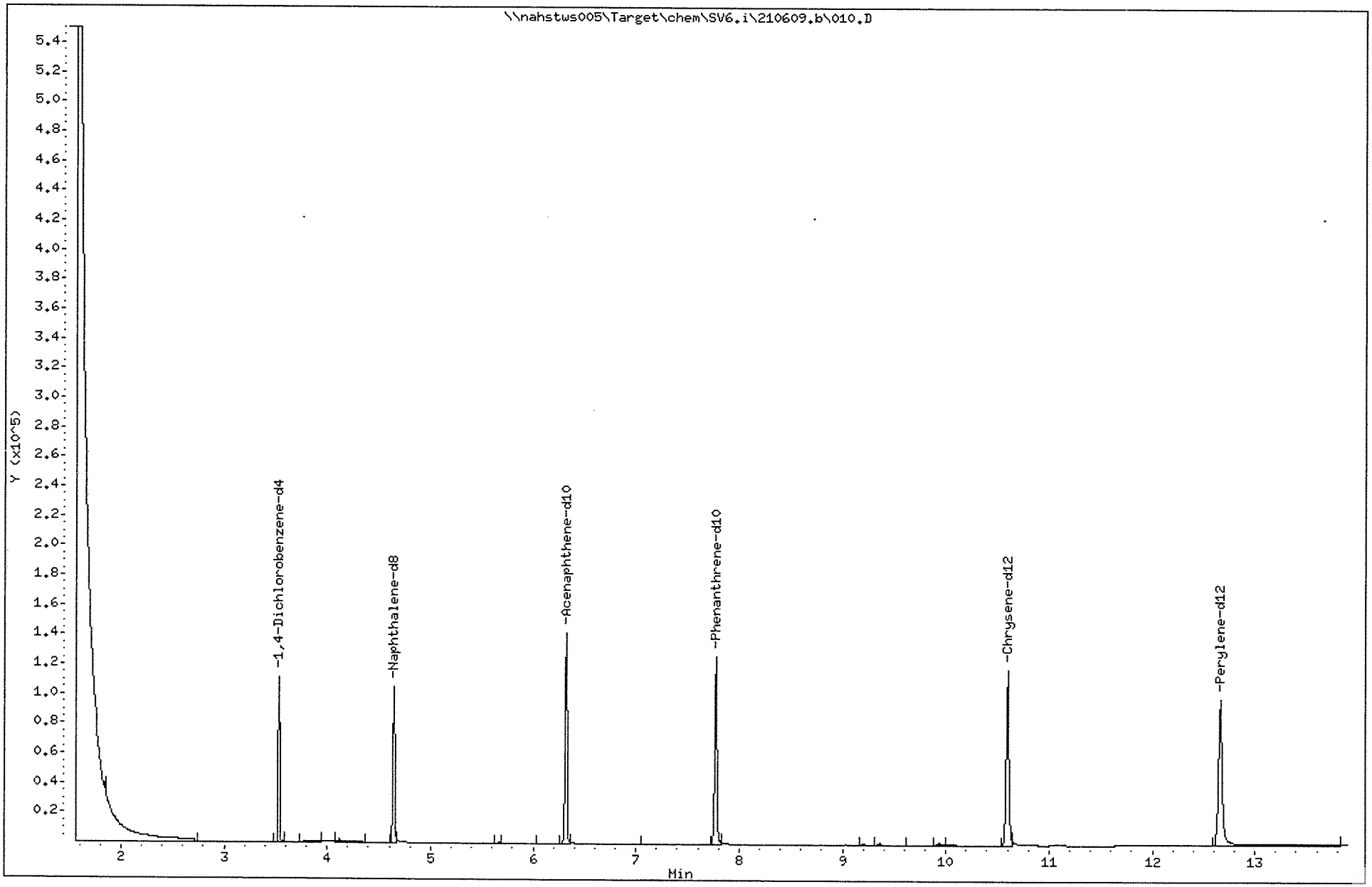
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	36309	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.645	(1.000)	126925	0.10000		(M)
* 86 Acenaphthene-d10	164	6.320	6.321	(1.000)	80734	0.10000		(QM)
* 126 Phenanthrene-d10	188	7.776	7.770	(1.000)	162774	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	173233	0.10000		(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	175537	0.10000		
1 1,4-Dioxane	58	1.851	1.833	(0.523)	2764	0.14773	0.1477	(a)

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.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\010.D
Date : 09-JUN-2021 13:45
Client ID: HS21051312-01
Sample Info: HS210501312-01;HS21051312-01
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\010.D

Date : 09-JUN-2021 13:45

Client ID: HS21051312-01

Instrument: SV6.i

Sample Info: HS210501312-01;HS21051312-01

Purge Volume: 1000.0

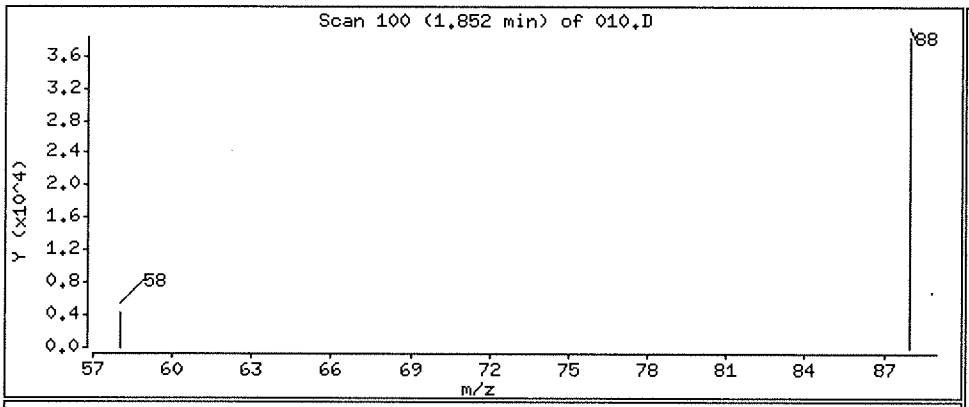
Operator: LG

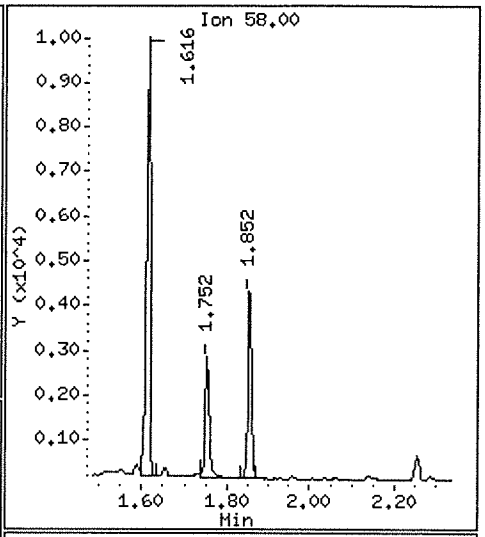
Column phase: RTX-5SIL MS

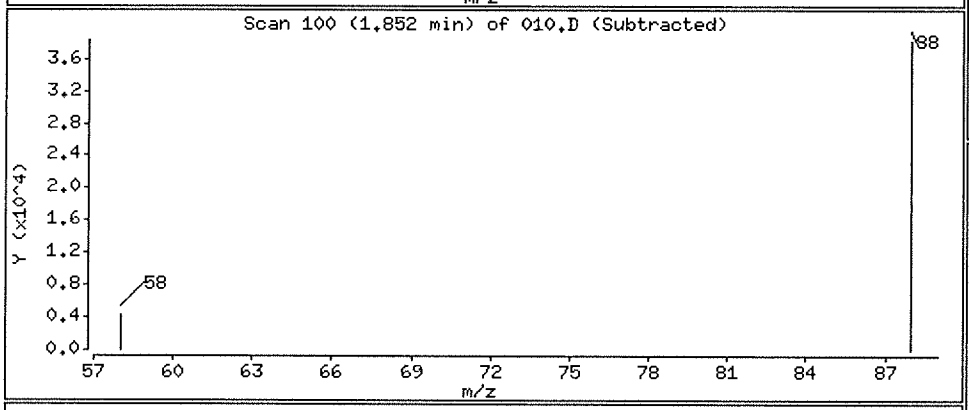
Column diameter: 0.28

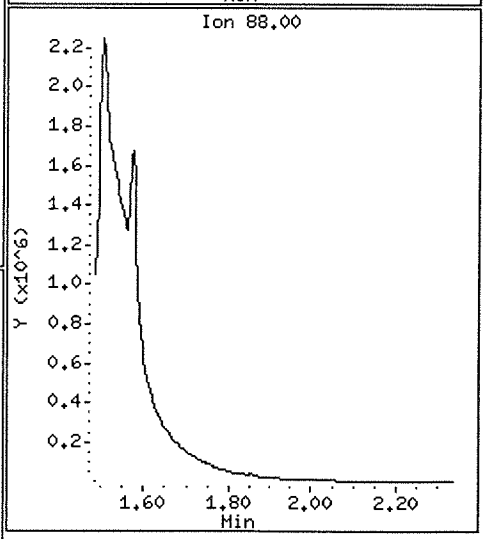
1 1,4-Dioxane

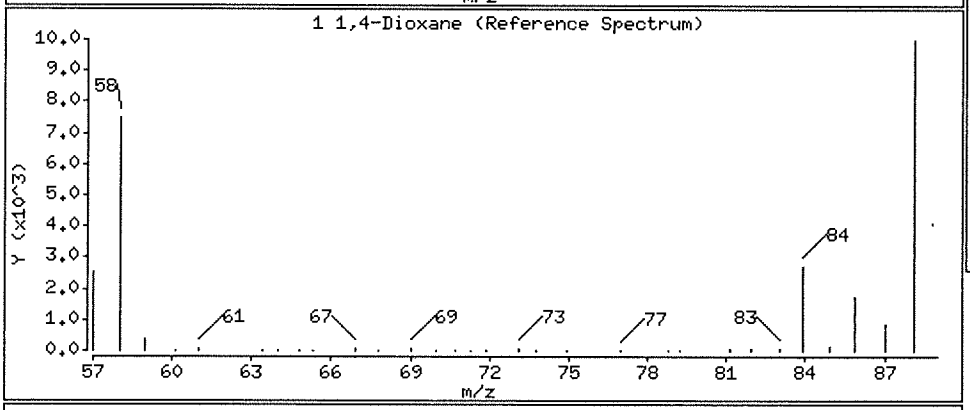
Concentration: 0.1477 ug/L

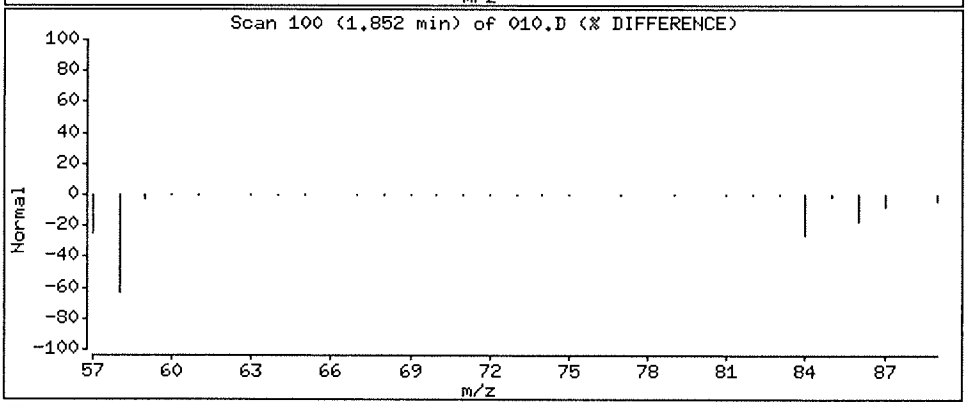












Data File: \\nahstws005\Target\chem\SV6.i\210609:b\012.D Page 1
Report Date: 06-Aug-2021 13:12

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\012.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 09-JUN-2021 14:28 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIMEND.m
Meth Date : 06-Aug-2021 13:11 devak.giga Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 12 QC Sample: METHSPIKE
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

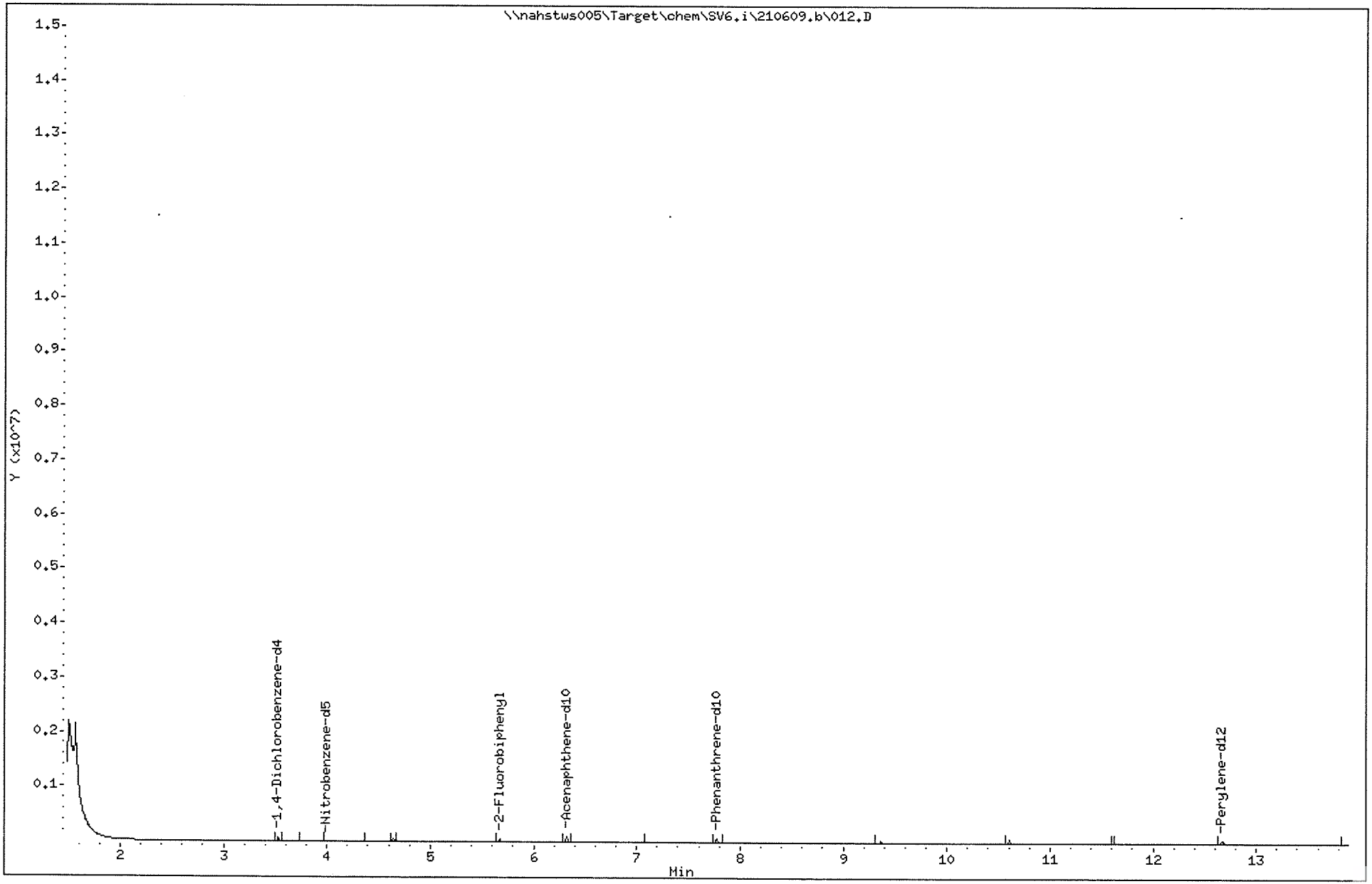
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.526	3.505	(1.000)	17813	0.10000		(a)
$ 33 Nitrobenzene-d5	82	3.993	3.945	(1.000)	16683			(R)
* 86 Acenaphthene-d10	164	6.084	6.251	(1.000)	887	0.10000		(Q)
$ 69 2-Fluorobiphenyl	172	5.673	5.600	(0.932)	37642	3.17974	3.180	(AR)
* 126 Phenanthrene-d10	188	7.776	7.700	(1.000)	74076	0.10000		
* 198 Perylene-d12	264	12.673	12.668	(1.000)	76772	0.10000		
1 1,4-Dioxane	58	1.770	2.007	(0.502)	620	0.06754	0.06754	(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.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\012.D
Date : 09-JUN-2021 14:28
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LC
Column diameter: 0.28



HS21051312 - ME - HG_W_DODICP_W_DOD

ALS WO# HS21051312

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Instrument:ICPMS06

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

FORM 12 - PREPARATION LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312
Start Date: 09-Jun-2021 08:30 End Date: 09-Jun-2021 11:30

Batch ID: 166687
Prep Code: Hg_WPr
Method: SW7470A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS21051312-01	LH18/24-SP650_052521	Water		10	10	1
HS21051312-01MS				10	10	1
HS21051312-01MSD				10	10	1
LCS-166687				10	10	1
MBLK-166687				10	10	1

FORM 12 - PREPARATION LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312
Start Date: 01-Jun-2021 09:30 End Date: 01-Jun-2021 14:00

Batch ID: 166391
Prep Code: 3010A
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS21051153-03MS				10	10	1
HS21051153-03MSD				10	10	1
HS21051153-03PDS				10	10	1
HS21051153-03SD				10	10	1
HS21051312-01	LH18/24-SP650_052521	Water		10	10	1
LCS-166391				10	10	1
MBLK-166391				10	10	1

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312
Start Date: 09-Jun-2021 End Date: 09-Jun-2021

Run ID:HG03_385226
Instrument:HG03
Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICCV 1	1	09-Jun-2021 11:11	HG03_385226 Raw Data_6129178	HG
ICV	1	09-Jun-2021 11:16	_6129179	HG
ICB	1	09-Jun-2021 11:18	_6129180	HG
CRA	1	09-Jun-2021 11:20	_6129181	HG
MBLK-166687	1	09-Jun-2021 11:49	_6129298	HG
LCS-166687	1	09-Jun-2021 11:54	_6129891	HG
LH18/24-SP650_052521	1	09-Jun-2021 11:55	_6129300	HG
LH18/24-SP650_052521MS	1	09-Jun-2021 12:00	_6129301	HG
LH18/24-SP650_052521MSD	1	09-Jun-2021 12:02	_6129302	HG
CCV 2	1	09-Jun-2021 12:14	_6129581	HG
CCB 1	1	09-Jun-2021 12:15	_6129582	HG
CCV 3	1	09-Jun-2021 12:39	_6129593	HG
CCB 2	1	09-Jun-2021 12:41	_6129594	HG
CCV 4	1	09-Jun-2021 13:09	_6129575	HG
CCB 3	1	09-Jun-2021 13:11	_6129576	HG
CCV 5	1	09-Jun-2021 13:35	_6129691	HG
CCB 4	1	09-Jun-2021 13:37	_6129692	HG
CCV 6	1	09-Jun-2021 14:15	_6129837	HG
CCB 5	1	09-Jun-2021 14:16	_6129838	HG
CCV 7	1	09-Jun-2021 14:36	_6129849	HG
CCB 6	1	09-Jun-2021 14:37	_6129850	HG
CCV 8	1	09-Jun-2021 15:08	_6129895	HG
CCB 7	1	09-Jun-2021 15:10	_6129896	HG

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312
Start Date: 04-Jun-2021 End Date: 05-Jun-2021

Run ID:ICPMS06_384999
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_384999_Tune	1	04-Jun-2021 00:00	ICPMS06_384999_Tune_1	
CAL BLK	1	04-Jun-2021 10:59	008CALB.d_6123427	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
2/10/200	1	04-Jun-2021 11:01	009CALS.d_6123428	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
5/25/500	1	04-Jun-2021 11:03	010CALS.d_6123429	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
10/50/100	1	04-Jun-2021 11:05	011CALS.d_6123430	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
100/500/10K	1	04-Jun-2021 11:07	012CALS.d_6123431	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
200/1000/20K	1	04-Jun-2021 11:09	013CALS.d_6123432	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICV	1	04-Jun-2021 11:13	015_ICV.d_6123434	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	04-Jun-2021 11:16	017LCV2.d_6123436	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLICV5	1	04-Jun-2021 11:18	018LCV5.d_6123437	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICB	1	04-Jun-2021 11:31	020_ICB.d_6123439	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	04-Jun-2021 11:33	021ICSA.d_6123440	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSAB	1	04-Jun-2021 11:35	022ICSB.d_6123441	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 1	1	04-Jun-2021 14:47	110_CCV.d_6123445	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 1	1	04-Jun-2021 14:49	111_CCB.d_6123446	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
MBLK-166391	1	04-Jun-2021 14:52	112SMPL.d_6123447	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LCS-166391	1	04-Jun-2021 14:54	113SMPL.d_6123448	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZSD	5	04-Jun-2021 15:02	117SMPL.d_6123452	AG AL AS BA BE CD CO CR K MG NA NI PB SB SE TL V ZN
ZZZZZZMS	1	04-Jun-2021 15:04	118SMPL.d_6123453	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZMSD	1	04-Jun-2021 15:06	119SMPL.d_6123454	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZPDS	1	04-Jun-2021 15:08	120SMPL.d_6123455	AG AL AS BA BE CD CO CR FE K MG NA NI PB SB SE V ZN
CCV 2	1	04-Jun-2021 15:15	122_CCV.d_6123457	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 2	1	04-Jun-2021 15:17	123_CCB.d_6123458	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 3	1	04-Jun-2021 15:43	134_CCV.d_6123469	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 3	1	04-Jun-2021 15:45	135_CCB.d_6123470	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 4	1	04-Jun-2021 15:49	137_CCV.d_6123472	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 4	1	04-Jun-2021 15:51	138_CCB.d_6123473	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LH18/24-SP650_052521	1	04-Jun-2021 16:03	143SMPL.d_6123478	AG AL AS BA BE CA CD CO CR FE K MG MN NI PB SB SE TL V ZN
LH18/24-SP650_052521	10	04-Jun-2021 16:07	144SMPL.d_6123582	NA
ZZZZZZSD	50	04-Jun-2021 16:16	146SMPL.d_6123584	CA
ZZZZZZPDS	10	04-Jun-2021 16:18	147SMPL.d_6123585	CA MN
CCV 5	1	04-Jun-2021 16:25	149_CCV.d_6123587	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 5	1	04-Jun-2021 16:27	150_CCB.d_6123588	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Effluent Samples

WorkOrder: HS21051312

Start Date: 04-Jun-2021 End Date: 05-Jun-2021

Run ID:ICPMS06_384999

Instrument:ICPMS06

Method:

Sample No.	D/F	Time	FileID	Analytes
CCV 6	1	05-Jun-2021 00:06	306_CCV.d_6124198	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 6	1	05-Jun-2021 00:08	307_CCB.d_6124199	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLCCV2	1	05-Jun-2021 00:12	309LCV2.d_6124201	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLCCV5	1	05-Jun-2021 00:14	310LCV5.d_6124202	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	05-Jun-2021 00:16	311ICSA.d_6124203	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSAB	1	05-Jun-2021 00:18	312ICSB.d_6124204	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312
Start Date: 07-Jun-2021 End Date: 07-Jun-2021

Run ID:ICPMS06_385065
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_385065_Tune	1	07-Jun-2021 00:00	ICPMS06_385065_Tune_1	
CAL BLK	1	07-Jun-2021 10:34	014CALB.d_6124901	MN
2/10/200	1	07-Jun-2021 10:35	015CALS.d_6124902	MN
5/25/500	1	07-Jun-2021 10:37	016CALS.d_6124903	MN
10/50/100	1	07-Jun-2021 10:39	017CALS.d_6124904	MN
100/500/10K	1	07-Jun-2021 10:41	018CALS.d_6124905	MN
200/1000/20K	1	07-Jun-2021 10:43	019CALS.d_6124906	MN
ICV	1	07-Jun-2021 10:52	021_ICV.d_6124908	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICB	1	07-Jun-2021 10:53	022_ICB.d_6124909	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	07-Jun-2021 10:55	023LCV2.d_6124910	MN
LLICV5	1	07-Jun-2021 10:57	024LCV5.d_6124911	MN
ICSA	1	07-Jun-2021 10:59	025ICSA.d_6124912	MN
ICSAB	1	07-Jun-2021 11:01	026ICSB.d_6124913	MN
CCV 1	1	07-Jun-2021 11:16	031_CCV.d_6124953	MN
CCB 1	1	07-Jun-2021 11:18	032_CCB.d_6124954	MN
ZZZZZZSD	50	07-Jun-2021 11:23	034SMPL.d_6124955	MN
CCV 2	1	07-Jun-2021 11:42	043_CCV.d_6124957	MN
CCB 2	1	07-Jun-2021 11:44	044_CCB.d_6124958	MN

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: HG03_385226

Project: Groundwater Treatment Plant Quarterly Effluent Samples Instrument: HG03

WorkOrder: HS21051312 Method: SW7470A

ICCV1 Date: 09-Jun-2021 11:11 Seq: 6129178 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.14	103	90-110	

ICV Date: 09-Jun-2021 11:16 Seq: 6129179 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5	100	90-110	

CCV2 Date: 09-Jun-2021 12:14 Seq: 6129581 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.08	102	90-110	

CCV3 Date: 09-Jun-2021 12:39 Seq: 6129593 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	4.96	99	90-110	

CCV4 Date: 09-Jun-2021 13:09 Seq: 6129575 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.03	101	90-110	

CCV5 Date: 09-Jun-2021 13:35 Seq: 6129691 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.02	100	90-110	

CCV6 Date: 09-Jun-2021 14:15 Seq: 6129837 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.09	102	90-110	

CCV7 Date: 09-Jun-2021 14:36 Seq: 6129849 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.08	102	90-110	

CCV8 Date: 09-Jun-2021 15:08 Seq: 6129895 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	4.95	99	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Effluent Samples Instrument: ICPMS06

WorkOrder: HS21051312 Method: SW6020A

ICV Date: 04-Jun-2021 11:13 Seq: 6123434 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	94.242	94	90-110	
Antimony	100	100.225	100	90-110	
Arsenic	100	97.117	97	90-110	
Barium	100	99.073	99	90-110	
Beryllium	100	100.35	100	90-110	
Cadmium	100	99.553	100	90-110	
Calcium	10000	9648.242	97	90-110	
Chromium	100	99.072	99	90-110	
Cobalt	100	101.703	102	90-110	
Iron	10000	9946.558	100	90-110	
Lead	100	102.287	102	90-110	
Magnesium	10000	9898.879	99	90-110	
Manganese	100	94.914	95	90-110	
Nickel	100	99.576	100	90-110	
Potassium	10000	9800.68	98	90-110	
Selenium	100	97.127	97	90-110	
Silver	100	100.952	101	90-110	
Sodium	10000	9722.018	97	90-110	
Thallium	100	102.99	103	90-110	
Vanadium	100	96.132	96	90-110	
Zinc	100	99.788	100	90-110	

CCV1 Date: 04-Jun-2021 14:47 Seq: 6123445 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	97.208	97	90-110	
Antimony	100	101.603	102	90-110	
Arsenic	100	98.524	99	90-110	
Barium	100	100.396	100	90-110	
Beryllium	100	97.923	98	90-110	
Cadmium	100	101.861	102	90-110	
Calcium	10000	9056.659	91	90-110	
Chromium	100	98.527	99	90-110	
Cobalt	100	102.26	102	90-110	
Iron	10000	9639.831	96	90-110	
Lead	100	103.067	103	90-110	
Magnesium	10000	9398.499	94	90-110	
Manganese	100	100.142	100	90-110	
Nickel	100	99.641	100	90-110	
Potassium	10000	9357.578	94	90-110	
Selenium	100	97.456	98	90-110	
Silver	100	102.629	103	90-110	
Sodium	10000	9476.727	95	90-110	
Thallium	100	103.439	103	90-110	
Vanadium	100	96.16	96	90-110	
Zinc	100	100.336	100	90-110	

CCV2 Date: 04-Jun-2021 15:15 Seq: 6123457 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	92.676	93	90-110	
Antimony	100	106.204	106	90-110	
Arsenic	100	99.611	100	90-110	
Barium	100	99.719	100	90-110	
Beryllium	100	96.507	97	90-110	
Cadmium	100	100.297	100	90-110	
Calcium	10000	9312.494	93	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Effluent Samples Instrument: ICPMS06

WorkOrder: HS21051312 Method: SW6020A

CCV2	Date: 04-Jun-2021 15:15		Seq: 6123457	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	99.837	100	90-110	
Cobalt	100	105.024	105	90-110	
Iron	10000	9942.036	99	90-110	
Lead	100	103.623	104	90-110	
Magnesium	10000	9733.272	97	90-110	
Manganese	100	99.522	100	90-110	
Nickel	100	103.198	103	90-110	
Potassium	10000	9548.507	96	90-110	
Selenium	100	96.932	97	90-110	
Silver	100	100.303	100	90-110	
Sodium	10000	9636.785	96	90-110	
Thallium	100	103.424	103	90-110	
Vanadium	100	97.378	97	90-110	
Zinc	100	103.243	103	90-110	

CCV3	Date: 04-Jun-2021 15:43		Seq: 6123469	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	91.033	91	90-110	
Antimony	100	103.927	104	90-110	
Arsenic	100	98.057	98	90-110	
Barium	100	99.994	100	90-110	
Beryllium	100	99.524	100	90-110	
Cadmium	100	100.915	101	90-110	
Calcium	10000	8993.639	90	90-110	S
Chromium	100	97.232	97	90-110	
Cobalt	100	102.13	102	90-110	
Iron	10000	9686.715	97	90-110	
Lead	100	102.192	102	90-110	
Magnesium	10000	9401.241	94	90-110	
Manganese	100	96.948	97	90-110	
Nickel	100	99.622	100	90-110	
Potassium	10000	9176.402	92	90-110	
Selenium	100	96.698	97	90-110	
Silver	100	99.935	100	90-110	
Sodium	10000	9320.091	93	90-110	
Thallium	100	102.268	102	90-110	
Vanadium	100	94.89	95	90-110	
Zinc	100	99.604	100	90-110	

CCV4	Date: 04-Jun-2021 15:49		Seq: 6123472	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	92.261	92	90-110	
Antimony	100	105.385	105	90-110	
Arsenic	100	99.277	99	90-110	
Barium	100	99.317	99	90-110	
Beryllium	100	99.126	99	90-110	
Cadmium	100	100.99	101	90-110	
Calcium	10000	9122.097	91	90-110	
Chromium	100	98.634	99	90-110	
Cobalt	100	102.463	102	90-110	
Iron	10000	9701.853	97	90-110	
Lead	100	104.36	104	90-110	
Magnesium	10000	9288.71	93	90-110	
Manganese	100	98.103	98	90-110	
Nickel	100	100.38	100	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Effluent Samples Instrument: ICPMS06

WorkOrder: HS21051312 Method: SW6020A

CCV4	Date: 04-Jun-2021 15:49		Seq: 6123472	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Potassium	10000	9221.503	92	90-110	
Selenium	100	97.811	98	90-110	
Silver	100	101.255	101	90-110	
Sodium	10000	9381.723	94	90-110	
Thallium	100	104.394	104	90-110	
Vanadium	100	95.664	96	90-110	
Zinc	100	101.721	102	90-110	

CCV5	Date: 04-Jun-2021 16:25		Seq: 6123587	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	93.635	94	90-110	
Antimony	100	105.854	106	90-110	
Arsenic	100	99.401	99	90-110	
Barium	100	98.032	98	90-110	
Beryllium	100	97.524	98	90-110	
Cadmium	100	99.18	99	90-110	
Calcium	10000	9181.177	92	90-110	
Chromium	100	98.95	99	90-110	
Cobalt	100	105.551	106	90-110	
Iron	10000	9834.676	98	90-110	
Lead	100	102.014	102	90-110	
Magnesium	10000	9559.113	96	90-110	
Manganese	100	98.881	99	90-110	
Nickel	100	101.312	101	90-110	
Potassium	10000	9344.765	93	90-110	
Selenium	100	98.267	98	90-110	
Silver	100	99.513	100	90-110	
Sodium	10000	9418.966	94	90-110	
Thallium	100	102.052	102	90-110	
Vanadium	100	96.87	97	90-110	
Zinc	100	102.69	103	90-110	

CCV6	Date: 05-Jun-2021 00:06		Seq: 6124198	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	100.591	101	90-110	
Antimony	100	98.924	99	90-110	
Arsenic	100	100.738	101	90-110	
Barium	100	103.776	104	90-110	
Beryllium	100	101.846	102	90-110	
Cadmium	100	102.347	102	90-110	
Calcium	10000	9660.301	97	90-110	
Chromium	100	99.544	100	90-110	
Cobalt	100	102.825	103	90-110	
Iron	10000	9904.165	99	90-110	
Lead	100	101.132	101	90-110	
Magnesium	10000	9468.889	95	90-110	
Manganese	100	100.757	101	90-110	
Nickel	100	104.046	104	90-110	
Potassium	10000	9740.564	97	90-110	
Selenium	100	102.505	103	90-110	
Silver	100	105.877	106	90-110	
Sodium	10000	9393.511	94	90-110	
Thallium	100	104.319	104	90-110	
Vanadium	100	99.445	99	90-110	
Zinc	100	101.75	102	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_385065
Instrument: ICPMS06
Method: SW6020A

ICV	Date: 07-Jun-2021 10:52		Seq: 6124908	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Manganese	100	96.038	96	90-110	

CCV1	Date: 07-Jun-2021 11:16		Seq: 6124953	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Manganese	100	95.018	95	90-110	

CCV2	Date: 07-Jun-2021 11:42		Seq: 6124957	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Manganese	100	97.201	97	90-110	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: HG03_385226
Instrument: HG03
Method: SW7470A

ICB	Date: 09-Jun-2021 11:18		Seq: 6129180	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

MBLK-166687	Date: 09-Jun-2021 11:49		Seq: 6129298	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB1	Date: 09-Jun-2021 12:15		Seq: 6129582	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB2	Date: 09-Jun-2021 12:41		Seq: 6129594	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB3	Date: 09-Jun-2021 13:11		Seq: 6129576	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB4	Date: 09-Jun-2021 13:37		Seq: 6129692	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB5	Date: 09-Jun-2021 14:16		Seq: 6129838	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB6	Date: 09-Jun-2021 14:37		Seq: 6129850	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB7	Date: 09-Jun-2021 15:10		Seq: 6129896	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 04-Jun-2021 11:31		Seq: 6123439	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	2.49	1.8	10	J	
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	
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	

CCB1	Date: 04-Jun-2021 14:49		Seq: 6123446	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	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.703	0.7	5	J	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	23.6	14	200	J	
Thallium	0.872	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

MBLK-166391	Date: 04-Jun-2021 14:52		Seq: 6123447	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	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

MBLK-166391	Date: 04-Jun-2021 14:52		Seq: 6123447	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	5	0.4	5	U	
Cobalt	5	0.1	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: 04-Jun-2021 15:17		Seq: 6123458	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-1.893	1.8	10	J	
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	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.801	0.7	5	J	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	31.68	14	200	J	
Thallium	0.905	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB3	Date: 04-Jun-2021 15:45		Seq: 6123470	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-1.82	1.8	10	J	
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	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.705	0.7	5	J	
Nickel	2	0.6	2	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

CCB3	Date: 04-Jun-2021 15:45		Seq: 6123470	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	200	14	200	U	
Thallium	0.859	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB4	Date: 04-Jun-2021 15:51		Seq: 6123473	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-1.848	1.8	10	J	
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	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.7	0.7	5		
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	0.846	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB5	Date: 04-Jun-2021 16:27		Seq: 6123588	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	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.765	0.7	5	J	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	19.52	14	200	J	
Thallium	0.887	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

CCB6 | Date: 05-Jun-2021 00:08 | Seq: 6124199 | CCB | Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Aluminum	2.777	1.8	10	J
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
Iron	200	12	200	U
Lead	2	0.6	2	U
Magnesium	200	10	200	U
Manganese	1.007	0.7	5	J
Nickel	2	0.6	2	U
Potassium	200	18	200	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
Sodium	-29.71	14	200	J
Thallium	0.92	0.2	2	J
Vanadium	5	0.6	5	U
Zinc	4	2	4	U

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_385065
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 07-Jun-2021 10:53		Seq: 6124909	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Manganese	5	0.7	5	U	

CCB1	Date: 07-Jun-2021 11:18		Seq: 6124954	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Manganese	5	0.7	5	U	

CCB2	Date: 07-Jun-2021 11:44		Seq: 6124958	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Manganese	5	0.7	5	U	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Effluent Samples Instrument:ICPMS06

WorkOrder: HS21051312 Method:SW6020A

ICSA	Date: 04-Jun-2021 11:33	Seq: 6123440	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100000	94950	95.0	
Antimony		-0.004	0	
Arsenic		0.082	0	
Barium		0.459	0	
Beryllium		0.001	0	
Cadmium		1.237	0	
Calcium	100000	99210	99.2	
Chromium		2.041	0	
Cobalt		0.085	0	
Iron	100000	102000	102	
Lead		0.071	0	
Magnesium	100000	103600	104	
Manganese		12.45	0	
Nickel		0.074	0	
Potassium	100000	102700	103	
Selenium		0.728	0	
Silver		0.269	0	
Sodium	100000	103500	103	
Thallium		0.001	0	
Vanadium		0.077	0	
Zinc		0.912	0	

ICSAB	Date: 04-Jun-2021 11:35	Seq: 6123441	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100500	93630	93.2	
Antimony	100	103.4	103	
Arsenic	100	103.9	104	
Barium	100	100.3	100	
Beryllium	100	99.93	99.9	
Cadmium	100	100.2	100	
Calcium	110000	109500	99.5	
Chromium	100	100.9	101	
Cobalt	100	98.5	98.5	
Iron	110000	111500	101	
Lead	100	104.3	104	
Magnesium	110000	113600	103	
Manganese	100	104.5	105	
Nickel	100	98.7	98.7	
Potassium	110000	112500	102	
Selenium	100	103.9	104	
Silver	100	97.03	97.0	
Sodium	110000	112500	102	
Thallium	100	103.2	103	
Vanadium	100	99.01	99.0	
Zinc	100	100.7	101	

ICSA	Date: 05-Jun-2021 00:16	Seq: 6124203	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100000	91460	91.5	
Antimony		-0.038	0	
Arsenic		0.043	0	
Barium		0.493	0	
Beryllium		0.006	0	
Cadmium		0.883	0	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Effluent Samples Instrument:ICPMS06

WorkOrder: HS21051312 Method:SW6020A

ICSA	Date: 05-Jun-2021 00:16	Seq: 6124203	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Calcium	100000	100700	101	
Chromium		1.93	0	
Cobalt		0.069	0	
Iron	100000	98560	98.6	
Lead		0.084	0	
Magnesium	100000	97550	97.5	
Manganese		12.08	0	
Nickel		0.044	0	
Potassium	100000	101600	102	
Selenium		0.695	0	
Silver		0.29	0	
Sodium	100000	97510	97.5	
Thallium		0.078	0	
Vanadium		-0.09	0	
Zinc		0.938	0	

ICSAB	Date: 05-Jun-2021 00:18	Seq: 6124204	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100500	89920	89.5	
Antimony	100	96.24	96.2	
Arsenic	100	98.56	98.6	
Barium	100	102.4	102	
Beryllium	100	99.93	99.9	
Cadmium	100	98.85	98.9	
Calcium	110000	110400	100	
Chromium	100	97.87	97.9	
Cobalt	100	96.06	96.1	
Iron	110000	107100	97.4	
Lead	100	100.7	101	
Magnesium	110000	106300	96.6	
Manganese	100	100.9	101	
Nickel	100	98.5	98.5	
Potassium	110000	109500	99.5	
Selenium	100	99.67	99.7	
Silver	100	99.29	99.3	
Sodium	110000	106900	97.2	
Thallium	100	102.5	103	
Vanadium	100	98.37	98.4	
Zinc	100	97.75	97.8	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Run ID: ICPMS06_385065
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 07-Jun-2021 10:59	Seq: 6124912	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Manganese		12.18	0	

ICSAB	Date: 07-Jun-2021 11:01	Seq: 6124913	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Manganese	100	106.8	107	

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Date Analyzed: 09-Jun-2021 12:02
Date Extracted: 09-Jun-2021 11:30
Units: ug/L

Matrix Spike: HS21051312-01MS
Client Sample ID: LH18/24-SP650_052521

Analysis Method: SW7470A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Mercury	0.04700	5.490	5.000	109	5.400	5.000	107	82-119	1.65	20

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Effluent Samples

WorkOrder: HS21051312

Date Analyzed: 04-Jun-2021 15:06

Date Extracted: 01-Jun-2021 13:30

Units: ug/L

Matrix Spike: HS21051153-03MS

Analysis Method: SW6020A

Client Sample ID:

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum	47.87	103.1	50.00	110	101.5	50.00	107	84-117	1.47	20
Antimony	5.000	54.84	50.00	110	55.38	50.00	111	85-117	0.976	20
Arsenic	17.18	68.29	50.00	102	67.83	50.00	101	84-116	0.667	20
Barium	46.88	101.9	50.00	110	103.2	50.00	113	86-114	1.30	20
Beryllium	2.000	49.69	50.00	99.4	49.60	50.00	99.2	83-121	0.183	20
Cadmium	2.000	52.24	50.00	104	52.90	50.00	106	87-115	1.26	20
Calcium	182400	189100	5000	134	191300	5000	178	87-118	1.15	20
Chromium	1.758	52.33	50.00	101	51.88	50.00	100	85-116	0.846	20
Cobalt	0.6810	51.35	50.00	101	51.37	50.00	101	86-115	0.0370	20
Iron	13330	18670	5000	107	18670	5000	107	87-118	0.000787	20
Lead	5.000	51.70	50.00	103	53.49	50.00	107	88-115	3.40	20
Magnesium	44600	50150	5000	111	51090	5000	130	83-118	1.85	20
Manganese	323.0	380.9	50.00	116	384.0	50.00	122	87-115	0.802	20
Nickel	3.662	54.65	50.00	102	55.26	50.00	103	85-117	1.12	20
Potassium	13500	18470	5000	99.5	18720	5000	104	87-115	1.34	20
Selenium	5.000	52.12	50.00	104	50.66	50.00	101	80-120	2.83	20
Silver	5.000	50.68	50.00	101	50.94	50.00	102	85-116	0.506	20
Sodium	59230	65330	5000	122	66370	5000	143	85-117	1.58	20
Thallium	2.000	51.56	50.00	103	54.90	50.00	110	82-116	6.29	20
Vanadium	1.058	51.99	50.00	102	51.77	50.00	101	86-115	0.424	20
Zinc	2.193	53.31	50.00	102	52.27	50.00	100	83-119	1.96	20

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Date Analyzed: 04-Jun-2021 15:08
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: HS21051153-03PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Aluminum	47.87	160.4	100	113	80-120
Antimony	0	118.9	100	119	80-120
Arsenic	17.18	129.2	100	112	80-120
Barium	46.88	166.6	100	120	80-120
Beryllium	0	107	100	107	80-120
Cadmium	0	113.9	100	114	80-120
Chromium	1.758	113.7	100	112	80-120
Cobalt	0.681	112.2	100	112	80-120
Iron	13330	24910	10000	116	80-120
Lead	0	118.9	100	119	80-120
Magnesium	44600	56640	10000	120	80-120
Nickel	3.662	116.2	100	113	80-120
Potassium	13500	24630	10000	111	80-120
Selenium	0	113.9	100	114	80-120
Silver	0	106.6	100	107	80-120
Sodium	59230	72280	10000	130	80-120
Vanadium	1.058	114.2	100	113	80-120
Zinc	2.193	115	100	113	80-120
Calcium	182500	276700	100000	94	80-120
Manganese	324.4	1273	1000	95	80-120

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Date Analyzed: 09-Jun-2021 11:54
Date Extracted: 09-Jun-2021 11:30
Units: ug/L

Lab Sample ID: LCS-166687 Analysis Method: SW7470A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Mercury	5	4.9	98	82-119

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Date Analyzed: 04-Jun-2021 14:54
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: LCS-166391 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Aluminum	50	49.51	99	84-117
Antimony	50	50.78	102	85-117
Arsenic	50	47.15	94	84-116
Barium	50	50.22	100	86-114
Beryllium	50	48.21	96	83-121
Cadmium	50	51.71	103	87-115
Calcium	5000	4579	92	87-118
Chromium	50	48.41	97	85-116
Cobalt	50	49.24	99	86-115
Iron	5000	4883	98	87-118
Lead	50	49.69	99	88-115
Magnesium	5000	4892	98	83-118
Manganese	50	45.63	91	87-115
Nickel	50	51.02	102	85-117
Potassium	5000	4802	96	87-115
Selenium	50	48.7	97	80-120
Silver	50	52.23	104	85-116
Sodium	5000	4823	97	85-117
Thallium	50	51.09	102	82-116
Vanadium	50	47.76	96	86-115
Zinc	50	51.15	102	83-119

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Date Analyzed: 04-Jun-2021 15:02
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: HS21051153-03SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Aluminum	47.87		56.7		18	
Antimony	0	U	0	U	0	
Arsenic	17.18		18.53	J	8	
Barium	46.88		49.54		6	
Beryllium	0	U	0	U	0	
Cadmium	0	U	0	U	0	
Chromium	1.758	J	0	U	0	
Cobalt	0.681	J	0.721	J	6	
Lead	0	U	0	U	0	
Magnesium	44600		48880		10	
Nickel	3.662	J	4.353	J	19	
Potassium	13500		14540		8	
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	
Sodium	59230		64500		9	
Thallium	0	U	0	U	0	
Vanadium	1.058	J	0	U	0	
Zinc	2.193	J	0	U	0	
Calcium	182500		183300		0	

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Effluent Samples
WorkOrder: HS21051312

Date Analyzed: 07-Jun-2021 11:23
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: HS21051153-03SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Manganese	324.4		316		3	

Report Generated By Teledyne Leeman QuickTrace

Analyst: ALSHS.NoUser

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\06092021AW.wszf

Creation Date: 6/9/2021 10:09:28 AM

Comment:

Results

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
Calibration Blank	STD	06/09/21 10:48:28 am	0.000	7	182.78	0.00	
Replicates	12.2	-12.1	16.2	11.9			
Standard #1 (0.2 ppb)	STD	06/09/21 10:53:49 am	0.200	923	3.71	12.46	
Replicates	876.8	917.4	952.0	945.5			
Standard #2 (0.5 ppb)	STD	06/09/21 10:59:47 am	0.500	2339	0.77	40.86	
Replicates	2315.3	2346.5	2335.0	2357.5			
Standard #3 (2.0 ppb)	STD	06/09/21 11:01:30 am	2.000	8963	1.54	77.68	
Replicates	8786.6	8924.2	9047.2	9095.8			
Standard #4 (5.0 ppb)	STD	06/09/21 11:03:12 am	5.000	22208	0.84	150.11	
Replicates	21942.7	22215.5	22317.0	22356.5			
Standard #5 (10.0 ppb)	STD	06/09/21 11:08:48 am	10.000	42714	1.08	-92.88	
Replicates	42085.6	42674.2	42950.4	43146.6			

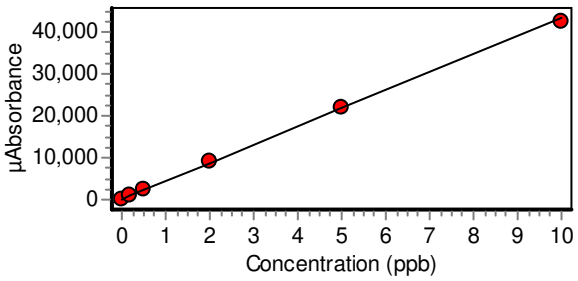
Calibration

Equation: Abs = 4310.751x + 7.073

R2: 0.99940

SEE: 491.6282

Flags:



ICCV	UNK	06/09/21 11:11:58 am	5.140	22393	0.77		
Replicates	22147.6	22413.9	22476.4	22536.1			
ICV	UNK	06/09/21 11:16:59 am	5.000	21816	1.94		
Replicates	21264.6	21726.9	22036.5	22235.7			
ICB	UNK	06/09/21 11:18:41 am	-0.007	-23	45.90		
Replicates	-23.5	-41.1	-18.8	-8.1			
CRA	UNK	06/09/21 11:20:22 am	0.203	891	5.00		
Replicates	853.4	869.1	888.8	953.9			
MBLK-166687	UNK	06/09/21 11:49:11 am	0.010	50	28.81		s
Replicates	67.7	38.8	50.0	44.8			
LCS-16687	UNK	06/09/21 11:54:14 am	4.900	21380	1.03		
Replicates	21073.9	21373.3	21508.6	21564.6			
HS21051312-01	UNK	06/09/21 11:55:56 am	0.047	212	9.95		s
Replicates	181.7	224.8	218.2	223.2			

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS21051312-01MS				UNK	06/09/21 12:00:45 pm	5.490	23936	2.09		
Replicates	23332.8	23802.4	24082.2	24525.9						
HS21051312-01MSD				UNK	06/09/21 12:02:27 pm	5.400	23539	0.86		
Replicates	23262.2	23521.0	23651.8	23721.3						
HS21051314-01				UNK	06/09/21 12:04:09 pm	0.044	201	6.82		s
Replicates	187.0	212.4	192.1	211.9						
MBLK-166688				UNK	06/09/21 12:05:51 pm	0.031	143	6.63		s
Replicates	154.4	133.4	144.2	138.7						
LCS-16688				UNK	06/09/21 12:09:10 pm	5.190	22630	1.59		
Replicates	22154.2	22571.0	22814.0	22979.5						
HS21060247-01				UNK	06/09/21 12:10:51 pm	0.063	280	8.45		s
Replicates	270.4	266.0	267.9	314.0						
HS21060247-01MS				UNK	06/09/21 12:12:32 pm	6.590	28724	2.40		
Replicates	27874.6	28539.6	28978.5	29504.5						
CCV				UNK	06/09/21 12:14:15 pm	5.080	22154	1.06		
Replicates	21818.2	22164.4	22314.0	22319.9						
CCB				UNK	06/09/21 12:15:58 pm	-0.009	-30	58.72		
Replicates	-16.1	-10.6	-59.3	-35.9						
HS21060247-01MSD				UNK	06/09/21 12:18:10 pm	6.550	28571	2.47		
Replicates	27692.1	28381.1	28867.2	29343.7						
HS21060290-01				UNK	06/09/21 12:21:37 pm	0.069	310	5.63		s
Replicates	317.3	327.3	287.7	305.8						
HS21060290-02				UNK	06/09/21 12:23:19 pm	0.078	346	6.79		s
Replicates	321.7	346.6	377.1	339.9						
HS21060290-03				UNK	06/09/21 12:25:01 pm	0.066	296	3.04		
Replicates	303.0	295.4	301.9	283.9						
HS21060290-04				UNK	06/09/21 12:26:42 pm	0.044	198	14.73		s
Replicates	200.1	213.5	158.3	221.8						
HS21060315-01				UNK	06/09/21 12:29:37 pm	0.074	331	4.56		
Replicates	322.6	316.8	350.3	333.9						
HS21060413-01				UNK	06/09/21 12:31:20 pm	0.048	217	14.78		s
Replicates	251.7	219.0	219.2	176.2						
MBLK-166364				UNK	06/09/21 12:33:02 pm	0.024	113	15.58		s
Replicates	118.8	123.8	88.3	120.5						
LCS-166364				UNK	06/09/21 12:36:11 pm	5.330	23256	1.29		
Replicates	22871.5	23212.5	23350.9	23589.0						
HS21060238-01				UNK	06/09/21 12:37:54 pm	0.970	4235	0.51		
Replicates	4206.1	4232.0	4253.5	4250.0						

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
CCV				UNK	06/09/21 12:39:37 pm	4.960	21637	1.74		
	Replicates	21148.3	21549.2	21850.8	22000.2					
CCB				UNK	06/09/21 12:41:20 pm	-0.001	1	316.99		
	Replicates	9.8	21.7	-20.1	-6.3					
HS21060238-01MS				UNK	06/09/21 12:49:46 pm	5.120	22302	2.09		
	Replicates	21734.2	22155.3	22491.3	22825.8					
HS21060238-01MSD				UNK	06/09/21 12:51:27 pm	5.270	22992	1.71		
	Replicates	22517.5	22883.2	23121.2	23447.4					
HS21060239-01				UNK	06/09/21 12:53:08 pm	0.151	666	4.71		
	Replicates	634.6	656.7	663.7	708.5					
HS21060275-01				UNK	06/09/21 12:54:49 pm	0.048	215	10.17		s
	Replicates	206.4	235.1	230.3	189.8					
HS21060305-01				UNK	06/09/21 12:56:31 pm	0.060	268	9.19		s
	Replicates	261.8	303.1	249.9	256.7					
HS21060335-01				UNK	06/09/21 12:58:13 pm	0.036	165	13.81		s
	Replicates	156.3	142.3	166.3	193.8					
HS21060433-01				UNK	06/09/21 12:59:55 pm	0.035	160	6.65		s
	Replicates	154.0	151.6	174.3	159.3					
HS21060434-01				UNK	06/09/21 01:01:37 pm	0.054	242	9.36		s
	Replicates	233.7	215.3	260.3	260.4					
MBLK-166691				UNK	06/09/21 01:06:13 pm	0.033	151	14.50		s
	Replicates	157.6	157.4	169.5	121.2					
MBLKF1-166691				UNK	06/09/21 01:07:56 pm	0.031	141	5.57		s
	Replicates	139.0	146.9	130.9	146.1					
CCV				UNK	06/09/21 01:09:39 pm	5.030	21937	1.47		
	Replicates	21504.9	21892.4	22111.1	22240.9					
CCB				UNK	06/09/21 01:11:22 pm	-0.009	-32	18.37		
	Replicates	-24.3	-27.8	-34.3	-40.3					
LCS-166691				UNK	06/09/21 01:16:15 pm	6.210	27066	0.85		
	Replicates	26787.5	27010.2	27128.4	27339.7					
LCS-166691				UNK	06/09/21 01:20:26 pm	4.960	21636	0.99		
	Replicates	21361.2	21583.1	21750.0	21851.5					
HS21060324-07				UNK	06/09/21 01:22:09 pm	0.029	134	10.37		s
	Replicates	125.3	146.9	143.9	120.6					
HS21060324-07MS				UNK	06/09/21 01:23:50 pm	5.570	24303	2.27		
	Replicates	23662.9	24092.8	24508.7	24947.2					
HS21060324-07MSD				UNK	06/09/21 01:25:32 pm	5.670	24730	2.12		
	Replicates	24125.8	24547.4	24881.4	25364.8					

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS21060228-01					UNK	06/09/21 01:27:13 pm	0.033	149	16.22		s
	Replicates	146.3	179.4	123.6	146.2						
HS21060324-09					UNK	06/09/21 01:28:54 pm	0.025	117	35.87		s
	Replicates	88.2	141.4	78.6	158.7						
HS21060324-17					UNK	06/09/21 01:30:36 pm	0.035	160	10.09		s
	Replicates	142.1	153.2	176.4	169.0						
HS21060324-18					UNK	06/09/21 01:32:17 pm	0.606	2647	1.32		
	Replicates	2688.3	2652.1	2645.4	2603.4						
HS21060324-19					UNK	06/09/21 01:33:59 pm	0.130	573	2.05		
	Replicates	583.0	582.7	566.9	559.9						
CCV					UNK	06/09/21 01:35:42 pm	5.020	21906	1.09		
	Replicates	21575.3	21894.1	22037.9	22117.6						
CCB					UNK	06/09/21 01:37:25 pm	-0.006	-17	88.22		
	Replicates	-27.2	-31.2	14.8	-26.3						
HS21060369-01					UNK	06/09/21 01:53:24 pm	0.017	80	17.94		s
	Replicates	75.7	78.9	97.7	66.7						
MBLK-166689					UNK	06/09/21 01:55:06 pm	0.029	135	12.01		s
	Replicates	157.5	132.2	123.7	126.8						
LCS-166689					UNK	06/09/21 02:01:26 pm	4.690	20459	2.01		
	Replicates	19967.0	20310.9	20637.0	20919.2						
HS21051446-01					UNK	06/09/21 02:03:09 pm	0.052	235	8.20		s
	Replicates	242.4	238.1	207.9	250.7						
HS21051446-01MS					UNK	06/09/21 02:04:51 pm	5.220	22744	1.99		
	Replicates	22170.1	22622.0	22972.5	23209.6						
HS21051446-01MSD					UNK	06/09/21 02:06:32 pm	5.250	22873	0.73		
	Replicates	22648.5	22847.4	22985.9	23009.5						
HS21051446-02					UNK	06/09/21 02:08:14 pm	-0.007	-26	30.57		
	Replicates	-38.0	-25.8	-13.7	-24.7						
HS21051446-03					UNK	06/09/21 02:09:55 pm	0.046	207	19.05		s
	Replicates	169.2	190.7	210.7	258.5						
HS21051446-04					UNK	06/09/21 02:11:37 pm	0.026	121	11.94		s
	Replicates	120.6	139.8	110.8	111.3						
HS21051446-05					UNK	06/09/21 02:13:19 pm	0.015	72	15.31		s
	Replicates	68.2	62.2	71.1	85.6						
CCV					UNK	06/09/21 02:15:01 pm	5.090	22173	1.08		
	Replicates	21826.8	22210.2	22367.4	22286.7						
CCB					UNK	06/09/21 02:16:45 pm	-0.009	-33	19.14		
	Replicates	-41.8	-29.9	-24.1	-36.3						

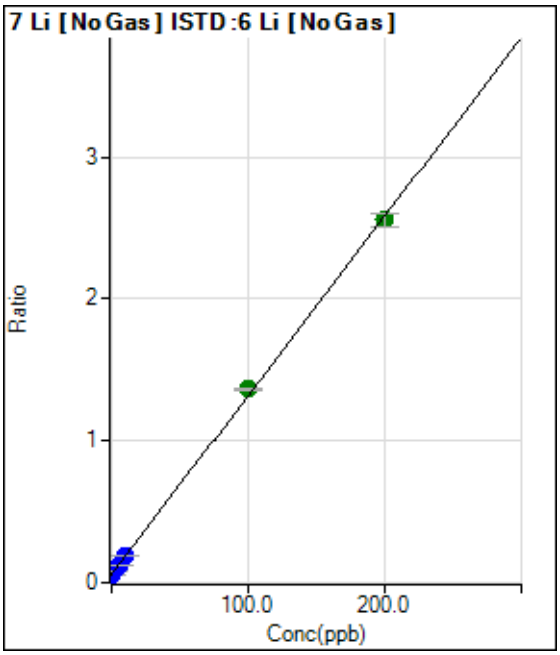
Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS21051446-06				UNK	06/09/21 02:19:10 pm	0.021	98	22.39		s
Replicates	73.7	109.5	89.0	118.8						
HS21051446-07				UNK	06/09/21 02:20:52 pm	0.020	93	28.74		s
Replicates	81.0	83.4	77.3	129.6						
HS21051446-08				UNK	06/09/21 02:22:34 pm	0.030	139	14.58		s
Replicates	119.7	165.0	140.7	131.2						
HS21051446-09				UNK	06/09/21 02:24:16 pm	0.020	96	19.59		s
Replicates	71.0	96.4	108.9	106.6						
HS21051446-10				UNK	06/09/21 02:25:58 pm	0.014	68	22.87		s
Replicates	57.5	88.5	60.6	66.1						
HS21051446-11				UNK	06/09/21 02:27:41 pm	0.033	150	17.31		s
Replicates	126.3	134.8	156.0	181.6						
HS21051446-12				UNK	06/09/21 02:29:23 pm	0.022	101	18.65		s
Replicates	84.7	109.2	88.9	122.1						
HS21051446-13				UNK	06/09/21 02:31:05 pm	0.017	80	47.32		s
Replicates	42.3	60.7	117.3	99.2						
HS21051446-14				UNK	06/09/21 02:32:47 pm	0.013	63	28.14		s
Replicates	48.6	73.3	51.1	80.3						
HS21051446-15				UNK	06/09/21 02:34:29 pm	0.014	67	9.14		s
Replicates	74.9	62.9	63.7	68.2						
CCV				UNK	06/09/21 02:36:11 pm	5.080	22156	0.63		
Replicates	21947.5	22245.4	22229.1	22202.4						
CCB				UNK	06/09/21 02:37:55 pm	0.018	84	63.02		s
Replicates	96.9	146.3	54.1	38.3						
HS21051512-01				UNK	06/09/21 02:43:55 pm	0.043	194	6.63		s
Replicates	175.6	198.3	202.8	199.1						
HS21051512-02				UNK	06/09/21 02:45:37 pm	0.038	171	11.79		s
Replicates	150.5	191.9	182.4	159.4						
HS21051512-04				UNK	06/09/21 02:47:19 pm	0.025	116	22.15		s
Replicates	95.6	142.0	95.4	131.2						
HS21051512-05				UNK	06/09/21 02:49:01 pm	0.057	254	3.63		
Replicates	245.5	247.5	257.1	264.8						
HS21051512-06				UNK	06/09/21 02:50:43 pm	0.043	196	16.46		s
Replicates	193.8	153.5	209.9	225.9						
CCV				UNK	06/09/21 03:08:40 pm	4.950	21572	1.68		
Replicates	21108.2	21480.5	21765.0	21933.7						
CCB				UNK	06/09/21 03:10:23 pm	-0.009	-34	58.60		
Replicates	-49.0	-59.2	-14.5	-12.2						

Calibration for 203_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060421A.b\
Analysis File: 060421A.batch.bin
DA Date-Time: 6/4/2021 8:38:03 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	196CALB.d	CAL BLK	6/4/2021 8:23:44 PM
2	197CALS.d	2/10/200	6/4/2021 8:25:43 PM
3	198CALS.d	5/25/500	6/4/2021 8:27:41 PM
4	199CALS.d	10/50/100	6/4/2021 8:29:40 PM
5	200CALS.d	100/500/10K	6/4/2021 8:31:39 PM
6	201CALS.d	200/1000/20K	6/4/2021 8:33:32 PM

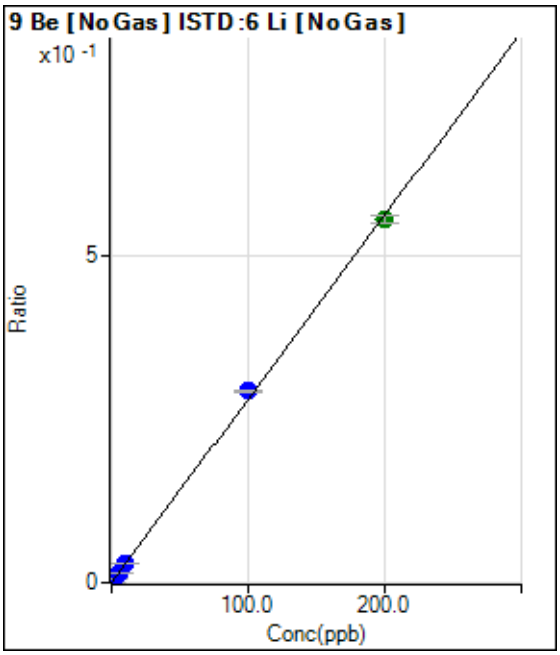
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84375.70	0.0579	P	2.5
2	☐	2.000	2.139	121473.56	0.0849	P	1.2
3	☐	5.000	5.243	174916.12	0.1240	P	2.4
4	☐	10.000	10.365	266250.98	0.1886	P	2.9
5	☐	100.000	103.703	1875962.99	1.3653	A	1.1
6	☐	200.000	198.123	3374239.12	2.5556	A	3.4

y = 0.0126 * x + 0.0579
R = 0.9998
DL = 0.3377
BEC = 4.593

Weight: <None>
Min Conc: <None>

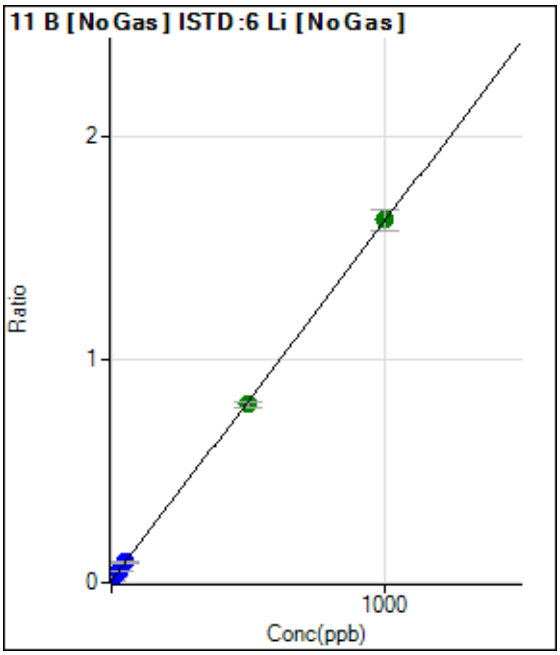


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.67	0.0000	P	63.9
2	☐	2.000	2.018	8134.08	0.0057	P	1.2
3	☐	5.000	5.199	20636.90	0.0146	P	4.1
4	☐	10.000	10.308	40947.76	0.0290	P	3.2
5	☐	100.000	104.662	404478.97	0.2944	P	1.1
6	☐	200.000	197.648	734148.01	0.5559	A	2.3

y = 0.0028 * x + 7.9379E-006
R = 0.9996
DL = 0.00541
BEC = 0.002822

Weight: <None>
Min Conc: <None>

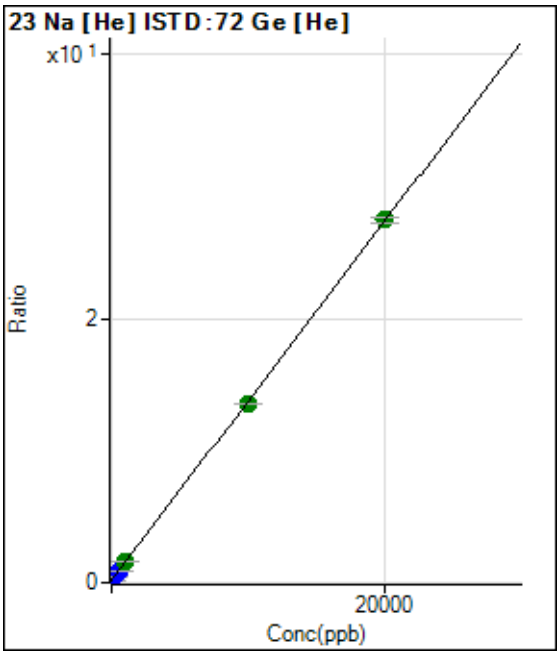
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12490.63	0.0086	P	6.3
2	☐	10.000	10.311	36069.70	0.0252	P	2.6
3	☐	25.000	25.225	69475.72	0.0492	P	2.7
4	☐	50.000	51.676	129723.77	0.0919	P	4.4
5	☐	500.000	490.778	1098981.52	0.7999	A	3.2
6	☐	1000.000	1004.518	2148977.00	1.6283	A	5.6

y = 0.0016 * x + 0.0086
R = 0.9999
DL = 1.012
BEC = 5.318

Weight: <None>
Min Conc: <None>

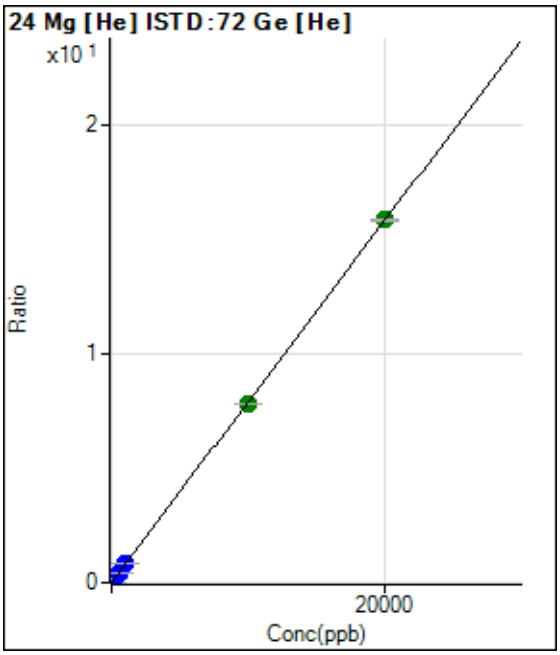


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	151525.38	0.1846	P	1.3
2	☐	200.000	202.870	377950.72	0.4600	P	0.3
3	☐	500.000	507.277	718648.19	0.8733	P	2.3
4	☐	1000.000	1007.604	1259896.78	1.5526	A	1.1
5	☐	10000.000	9816.949	10833043.59	13.5128	A	0.3
6	☐	20000.000	20090.935	21274444.27	27.4616	A	1.7

y = 0.0014 * x + 0.1846
R = 0.9999
DL = 5.461
BEC = 135.9

Weight: <None>
Min Conc: <None>

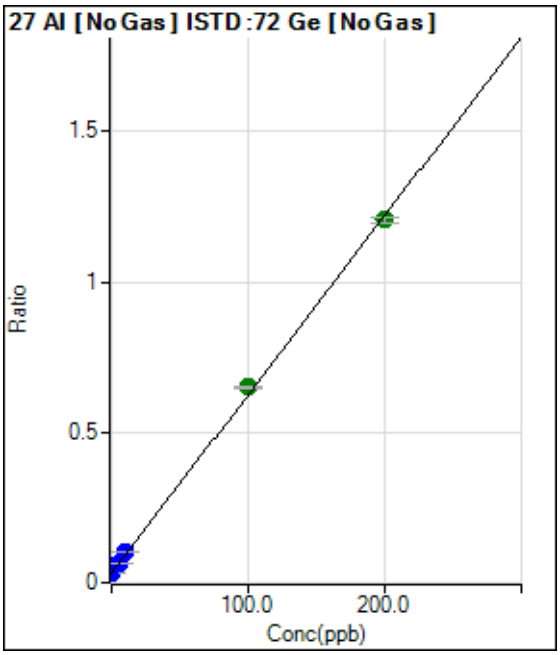
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1610.12	0.0020	P	2.0
2	☐	200.000	213.330	139923.21	0.1703	P	1.0
3	☐	500.000	528.951	345095.76	0.4194	P	2.1
4	☐	1000.000	1057.029	678446.26	0.8361	P	1.0
5	☐	10000.000	9876.372	6249325.74	7.7953	A	0.9
6	☐	20000.000	20058.106	12262893.99	15.8296	A	0.7

y = 7.8909E-004 * x + 0.0020
R = 1.0000
DL = 0.1502
BEC = 2.485

Weight: <None>
Min Conc: <None>

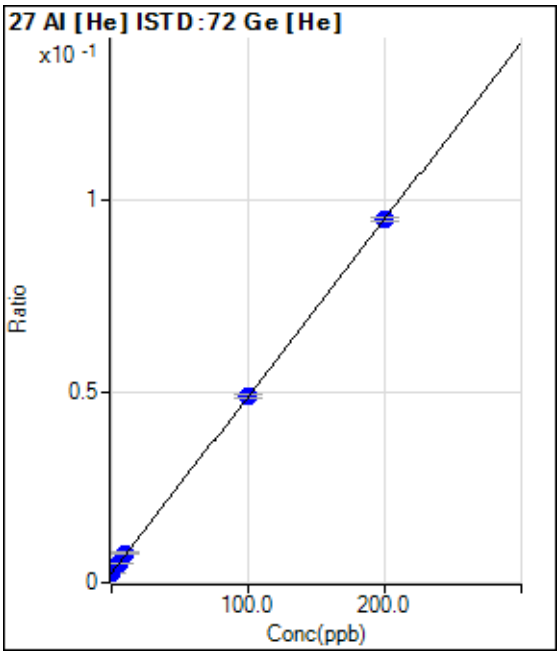


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91771.54	0.0314	P	0.8
2	☐	2.000	4.349	166952.11	0.0572	P	0.6
3	☐	5.000	5.844	189321.03	0.0661	P	2.8
4	☐	10.000	11.559	287241.86	0.1000	P	1.5
5	☐	100.000	104.154	1846229.14	0.6500	A	1.4
6	☐	200.000	197.800	3269190.78	1.2063	A	1.9

y = 0.0059 * x + 0.0314
R = 0.9997
DL = 0.1273
BEC = 5.284

Weight: <None>
Min Conc: <None>

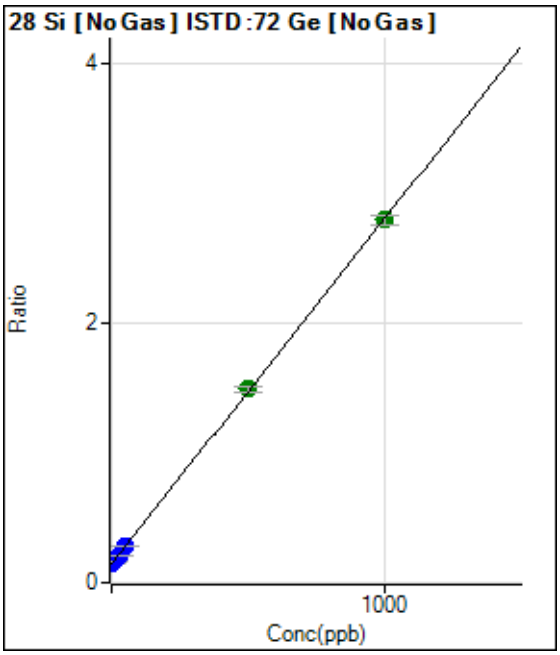
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2036.85	0.0025	P	1.8
2	☐	2.000	3.726	3453.81	0.0042	P	2.9
3	☐	5.000	5.529	4144.03	0.0050	P	6.1
4	☐	10.000	11.223	6224.83	0.0077	P	3.7
5	☐	100.000	100.289	39162.05	0.0489	P	1.7
6	☐	200.000	199.764	73480.29	0.0948	P	0.9

y = 4.6239E-004 * x + 0.0025
R = 1.0000
DL = 0.2877
BEC = 5.365

Weight: <None>
Min Conc: <None>

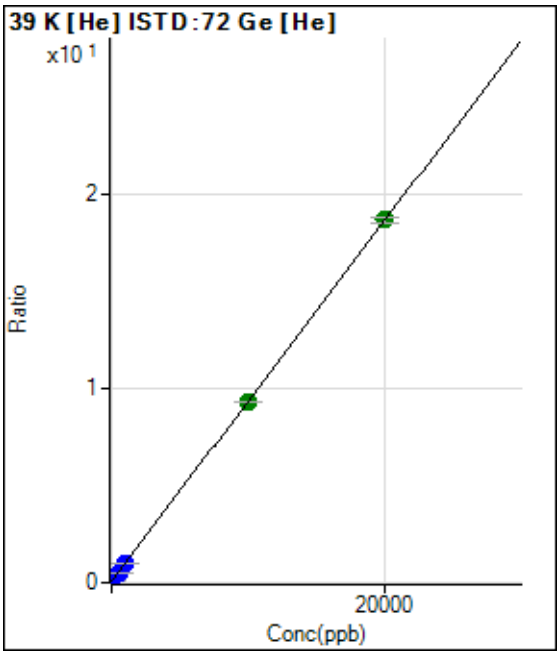


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	423471.92	0.1448	P	0.6
2	☐	10.000	8.809	490768.61	0.1682	P	3.3
3	☐	25.000	24.957	604682.45	0.2111	P	2.6
4	☐	50.000	51.153	805977.43	0.2807	P	1.1
5	☐	500.000	506.016	4228020.56	1.4889	A	2.6
6	☐	1000.000	996.947	7568598.84	2.7929	A	2.4

y = 0.0027 * x + 0.1448
R = 1.0000
DL = 0.9592
BEC = 54.53

Weight: <None>
Min Conc: <None>

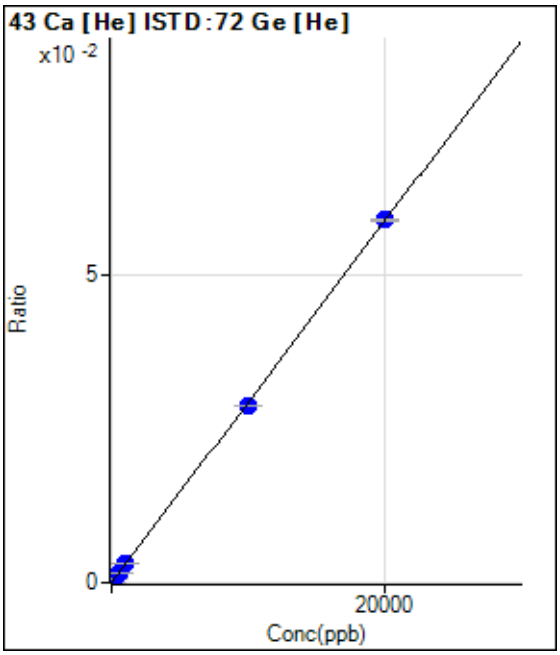
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53225.91	0.0648	P	1.8
2	☐	200.000	208.622	212181.32	0.2582	P	0.4
3	☐	500.000	510.347	442735.79	0.5380	P	1.3
4	☐	1000.000	1034.212	830641.06	1.0236	P	1.4
5	☐	10000.000	9922.438	7426627.60	9.2636	A	0.5
6	☐	20000.000	20036.725	14440812.29	18.6402	A	1.3

y = 9.2706E-004 * x + 0.0648
R = 1.0000
DL = 3.754
BEC = 69.93

Weight: <None>
Min Conc: <None>

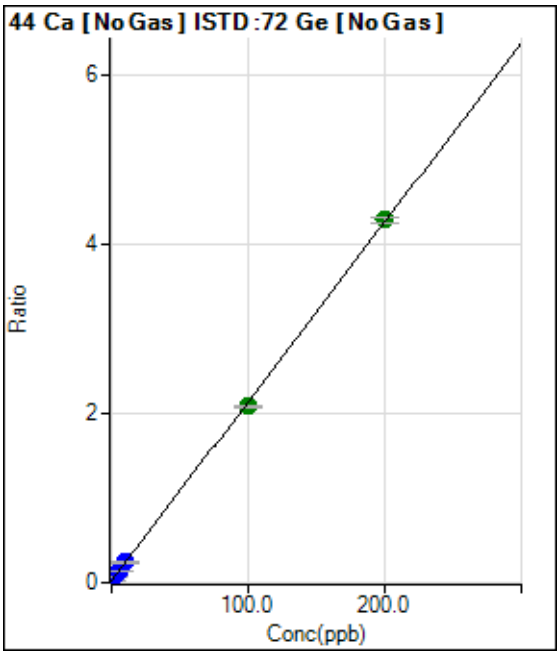


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	89.3
2	☐	200.000	209.520	526.69	0.0006	P	3.1
3	☐	500.000	544.579	1333.43	0.0016	P	3.8
4	☐	1000.000	1080.572	2586.96	0.0032	P	4.6
5	☐	10000.000	9799.013	22989.46	0.0287	P	0.7
6	☐	20000.000	20095.255	45535.45	0.0588	P	0.7

y = 2.9235E-006 * x + 2.8493E-005
R = 0.9999
DL = 26.1
BEC = 9.746

Weight: <None>
Min Conc: <None>

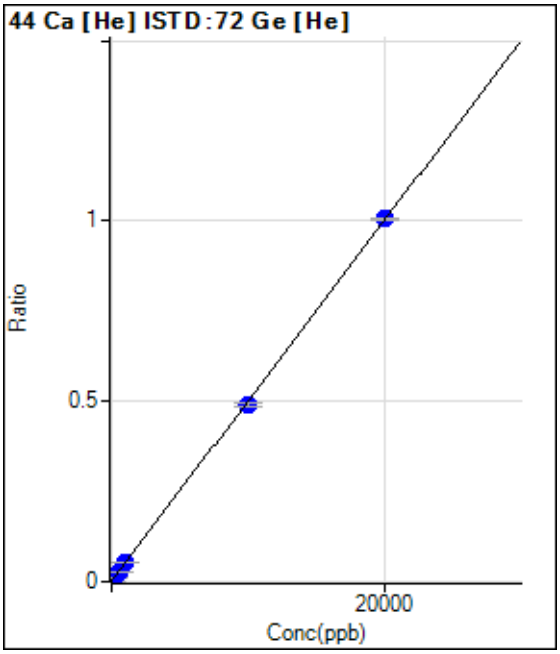
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61761.70	0.0211	P	1.5
2	☐	2.000	2.107	191693.42	0.0657	P	0.9
3	☐	5.000	5.125	371108.13	0.1296	P	2.2
4	☐	10.000	10.310	686966.94	0.2392	P	1.2
5	☐	100.000	97.194	5900869.29	2.0774	A	0.9
6	☐	200.000	201.383	11604186.50	4.2818	A	1.9

y = 0.0212 * x + 0.0211
R = 0.9999
DL = 0.04609
BEC = 0.9984

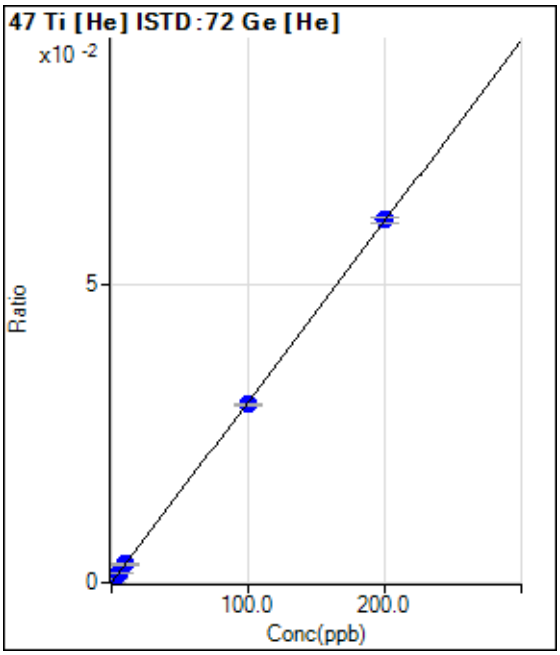
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1163.40	0.0014	P	8.0
2	☐	200.000	207.264	9673.56	0.0118	P	6.5
3	☐	500.000	497.354	21613.91	0.0263	P	3.5
4	☐	1000.000	1019.920	42502.61	0.0524	P	0.4
5	☐	10000.000	9803.290	393766.26	0.4912	P	1.6
6	☐	20000.000	20097.352	778975.20	1.0055	P	0.8

y = 4.9963E-005 * x + 0.0014
R = 0.9999
DL = 6.81
BEC = 28.36

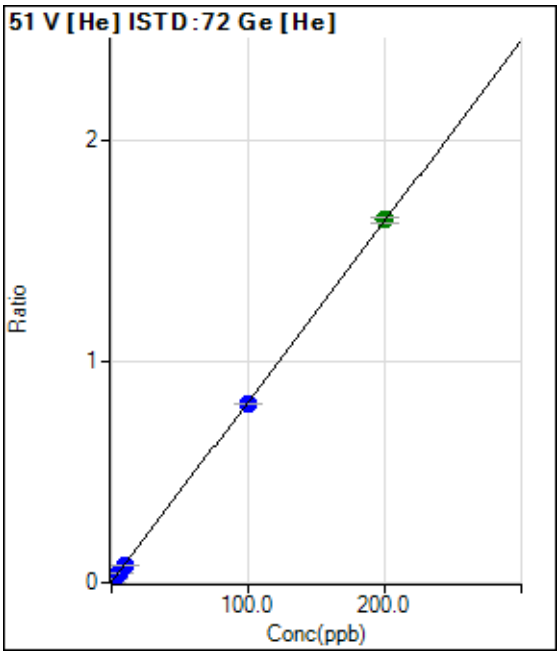
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	1.888	473.35	0.0006	P	7.5
3	☐	5.000	5.361	1340.09	0.0016	P	3.2
4	☐	10.000	10.261	2526.94	0.0031	P	4.6
5	☐	100.000	98.488	23927.85	0.0299	P	2.0
6	☐	200.000	200.735	47131.05	0.0608	P	1.7

y = 3.0305E-004 * x + 4.0412E-006
R = 1.0000
DL = 0.06929
BEC = 0.01334

Weight: <None>
Min Conc: <None>

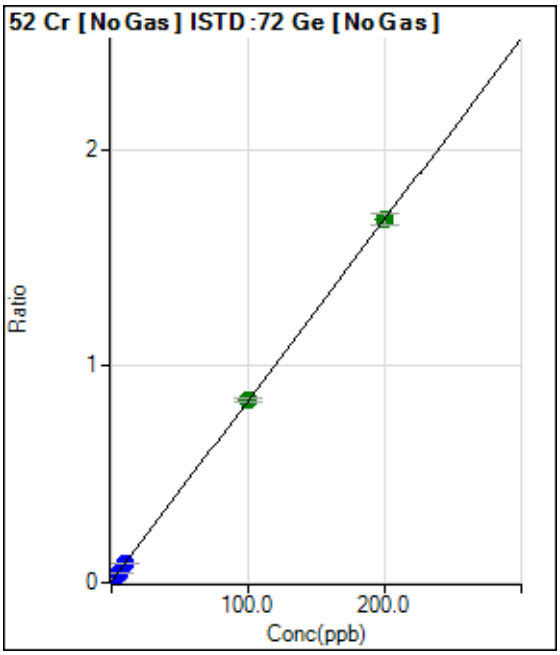


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1642.33	0.0020	P	6.5
2	☐	2.000	1.955	14765.76	0.0180	P	1.9
3	☐	5.000	4.808	33975.33	0.0413	P	1.1
4	☐	10.000	9.805	66623.15	0.0821	P	0.6
5	☐	100.000	98.630	647520.56	0.8077	P	0.7
6	☐	200.000	200.700	1271679.95	1.6416	A	1.3

y = 0.0082 * x + 0.0020
R = 1.0000
DL = 0.04763
BEC = 0.2449

Weight: <None>
Min Conc: <None>

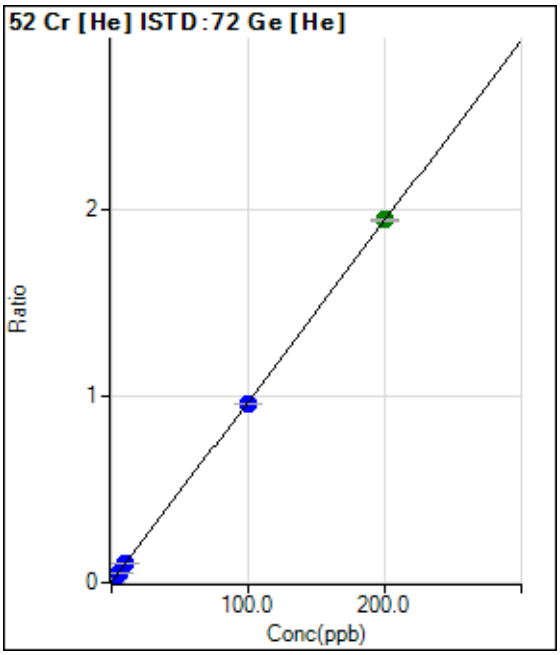
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14791.58	0.0051	P	4.4
2	☐	2.000	2.030	64254.02	0.0220	P	1.2
3	☐	5.000	5.124	137141.27	0.0479	P	2.1
4	☐	10.000	10.171	258572.15	0.0901	P	1.9
5	☐	100.000	100.325	2395164.24	0.8435	A	2.5
6	☐	200.000	199.825	4538687.12	1.6750	A	3.1

y = 0.0084 * x + 0.0051
R = 1.0000
DL = 0.08045
BEC = 0.6053

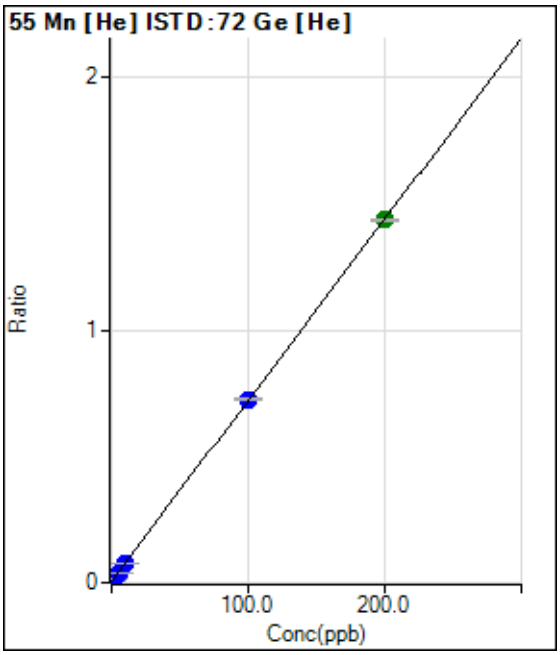
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1863.49	0.0023	P	7.3
2	☐	2.000	1.956	17418.03	0.0212	P	2.2
3	☐	5.000	4.910	40974.96	0.0498	P	1.8
4	☐	10.000	10.060	80837.99	0.0996	P	2.2
5	☐	100.000	98.898	769056.06	0.9593	P	0.4
6	☐	200.000	200.551	1505228.47	1.9430	A	0.5

y = 0.0097 * x + 0.0023
R = 1.0000
DL = 0.05118
BEC = 0.2345

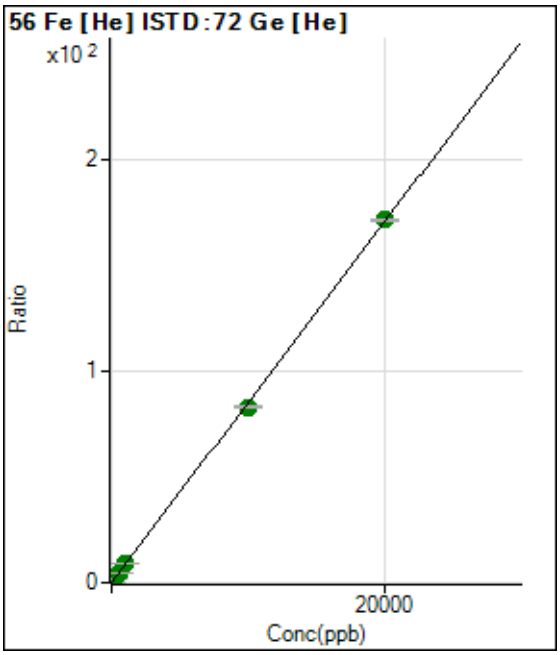
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4477.48	0.0055	P	5.3
2	☐	2.000	1.403	12746.11	0.0155	P	0.8
3	☐	5.000	4.281	29749.39	0.0361	P	1.7
4	☐	10.000	9.514	59770.95	0.0737	P	1.8
5	☐	100.000	100.581	582356.45	0.7265	P	1.5
6	☐	200.000	199.758	1113564.33	1.4374	A	0.8

y = 0.0072 * x + 0.0055
R = 1.0000
DL = 0.122
BEC = 0.7609

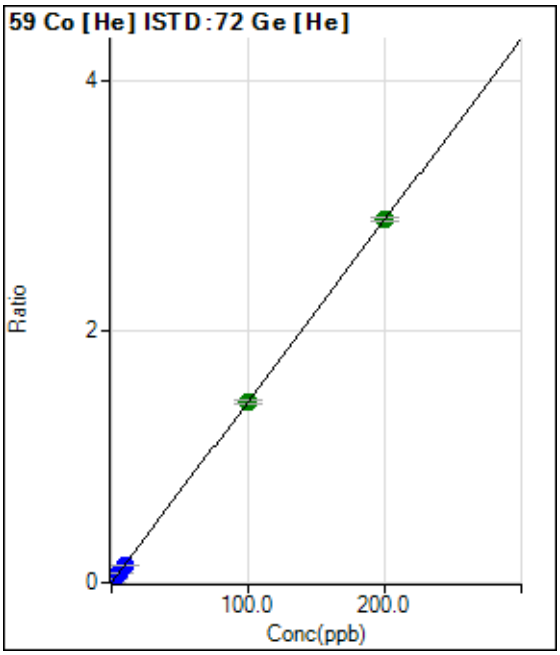
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14754.87	0.0180	P	2.9
2	☐	200.000	209.934	1485020.34	1.8074	A	1.0
3	☐	500.000	505.949	3563648.80	4.3305	A	2.1
4	☐	1000.000	1017.694	7053875.10	8.6923	A	0.3
5	☐	10000.000	9753.407	66657824.01	83.1516	A	1.0
6	☐	20000.000	20122.164	132885121.35	171.5302	A	0.7

y = 0.0085 * x + 0.0180
R = 0.9999
DL = 0.1859
BEC = 2.109

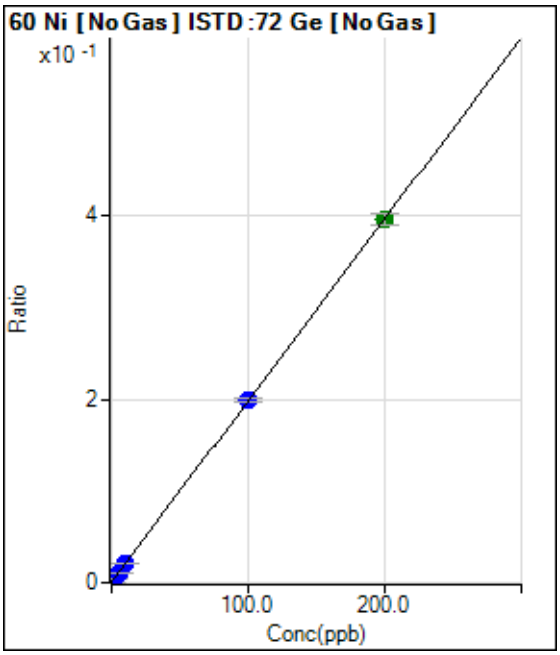
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0001	P	27.1
2	☐	2.000	2.009	23861.18	0.0290	P	2.2
3	☐	5.000	4.886	58043.53	0.0705	P	2.7
4	☐	10.000	9.899	115909.58	0.1428	P	1.7
5	☐	100.000	99.796	1153810.79	1.4394	A	1.6
6	☐	200.000	200.110	2235804.45	2.8861	A	1.1

y = 0.0144 * x + 6.9032E-005
R = 1.0000
DL = 0.003891
BEC = 0.004786

Weight: <None>
Min Conc: <None>

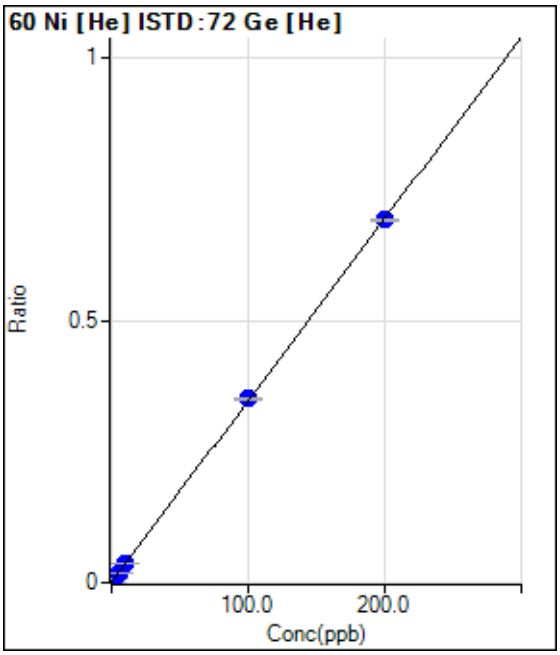


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1686.81	0.0006	P	7.3
2	☐	2.000	1.964	13019.76	0.0045	P	3.1
3	☐	5.000	5.119	30661.46	0.0107	P	2.5
4	☐	10.000	10.180	59493.24	0.0207	P	1.2
5	☐	100.000	100.703	567481.61	0.1998	P	2.1
6	☐	200.000	199.637	1071947.17	0.3956	A	3.0

y = 0.0020 * x + 5.7701E-004
R = 1.0000
DL = 0.0641
BEC = 0.2916

Weight: <None>
Min Conc: <None>

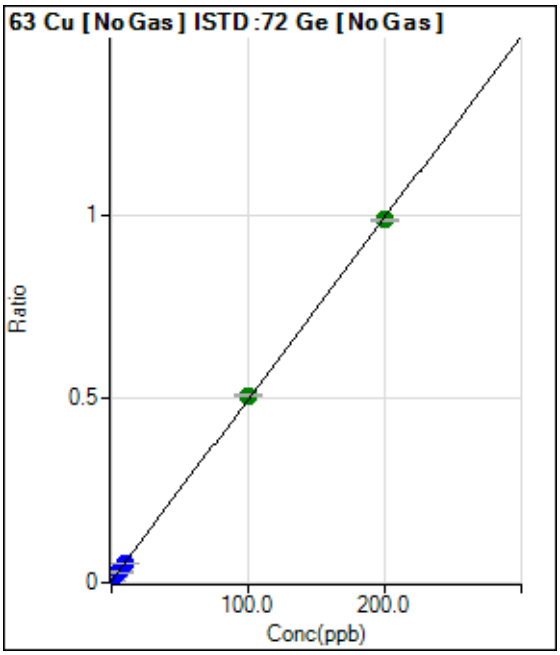
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0006	P	3.5
2	☐	2.000	2.037	6324.90	0.0077	P	1.6
3	☐	5.000	5.156	15215.44	0.0185	P	3.9
4	☐	10.000	10.056	28767.46	0.0354	P	2.4
5	☐	100.000	100.916	280475.37	0.3499	P	1.7
6	☐	200.000	199.535	535409.20	0.6911	P	0.7

y = 0.0035 * x + 6.4956E-004
R = 1.0000
DL = 0.01976
BEC = 0.1877

Weight: <None>
Min Conc: <None>

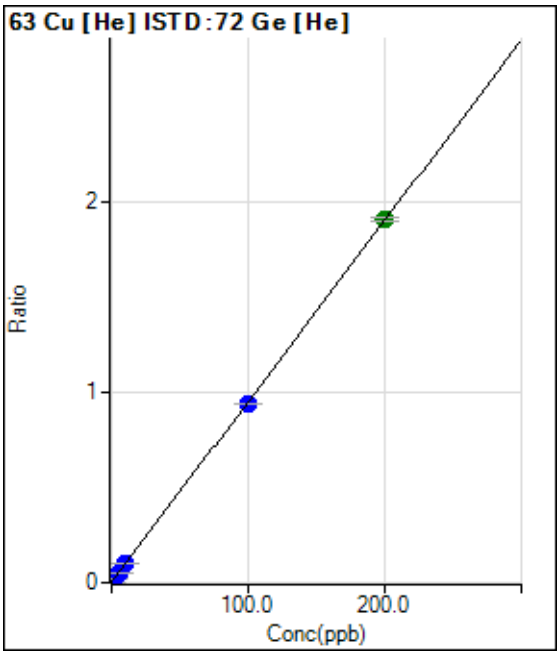


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14591.40	0.0050	P	4.4
2	☐	2.000	1.896	41874.77	0.0144	P	2.5
3	☐	5.000	4.890	83441.77	0.0291	P	3.8
4	☐	10.000	9.916	154914.34	0.0540	P	3.2
5	☐	100.000	102.242	1448139.04	0.5099	A	1.8
6	☐	200.000	198.887	2676274.18	0.9872	A	0.8

y = 0.0049 * x + 0.0050
R = 0.9999
DL = 0.1343
BEC = 1.01

Weight: <None>
Min Conc: <None>

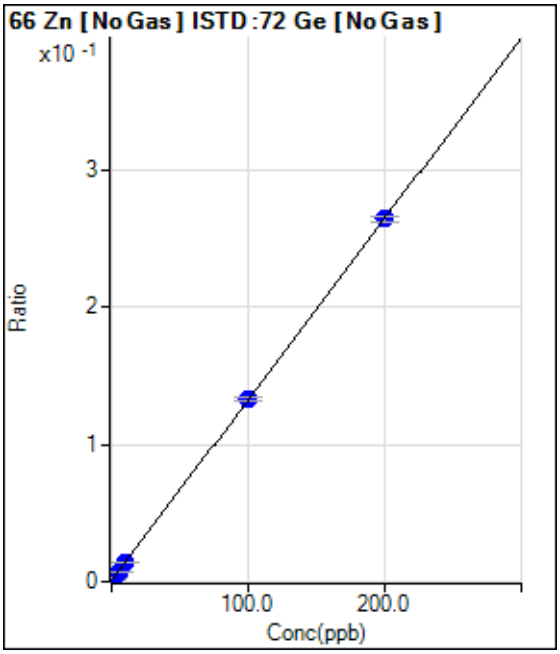
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1476.77	0.0018	P	9.3
2	☐	2.000	2.056	17491.55	0.0213	P	0.6
3	☐	5.000	5.075	41082.35	0.0499	P	0.9
4	☐	10.000	10.054	78811.36	0.0971	P	0.4
5	☐	100.000	98.981	753783.04	0.9402	P	0.4
6	☐	200.000	200.505	1474034.46	1.9028	A	1.0

y = 0.0095 * x + 0.0018
R = 1.0000
DL = 0.05311
BEC = 0.1898

Weight: <None>
Min Conc: <None>

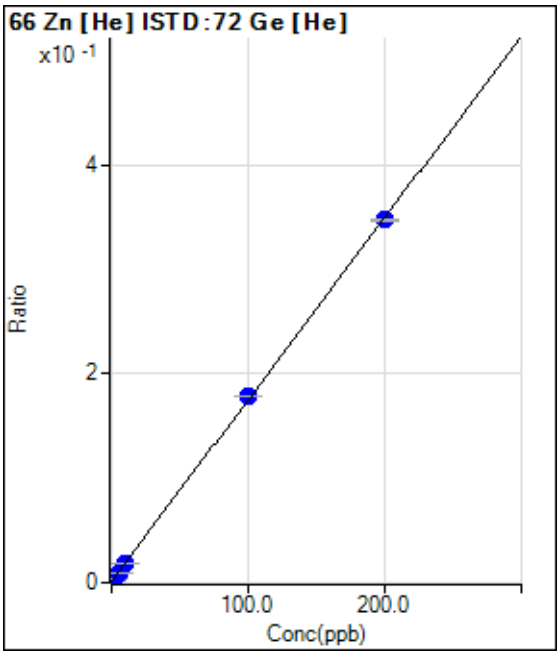


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2320.24	0.0008	P	11.1
2	☐	2.000	1.882	9543.55	0.0033	P	1.7
3	☐	5.000	5.122	21590.86	0.0075	P	1.5
4	☐	10.000	10.271	41089.15	0.0143	P	1.1
5	☐	100.000	100.095	376308.64	0.1325	P	2.6
6	☐	200.000	199.937	715249.68	0.2639	P	1.7

y = 0.0013 * x + 7.9372E-004
R = 1.0000
DL = 0.2
BEC = 0.6031

Weight: <None>
Min Conc: <None>

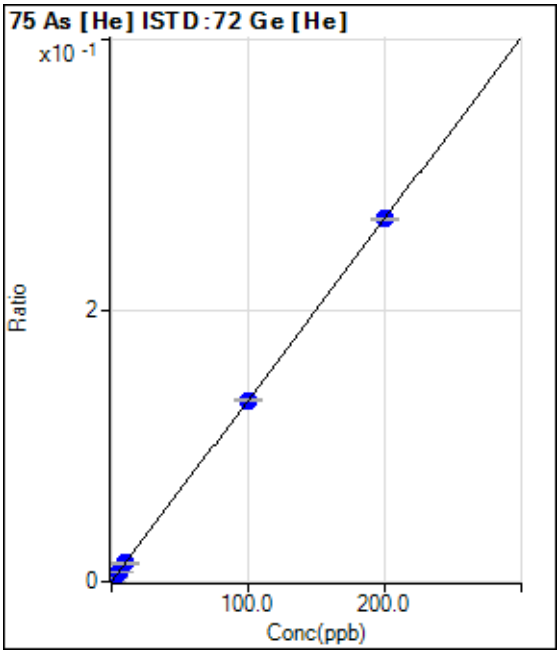
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	990.06	0.0012	P	13.8
2	☐	2.000	1.712	3440.50	0.0042	P	2.0
3	☐	5.000	5.015	8185.94	0.0099	P	3.8
4	☐	10.000	10.058	15195.42	0.0187	P	2.5
5	☐	100.000	102.060	143461.99	0.1790	P	0.5
6	☐	200.000	198.970	269384.36	0.3477	P	0.2

y = 0.0017 * x + 0.0012
R = 0.9999
DL = 0.2859
BEC = 0.6927

Weight: <None>
Min Conc: <None>

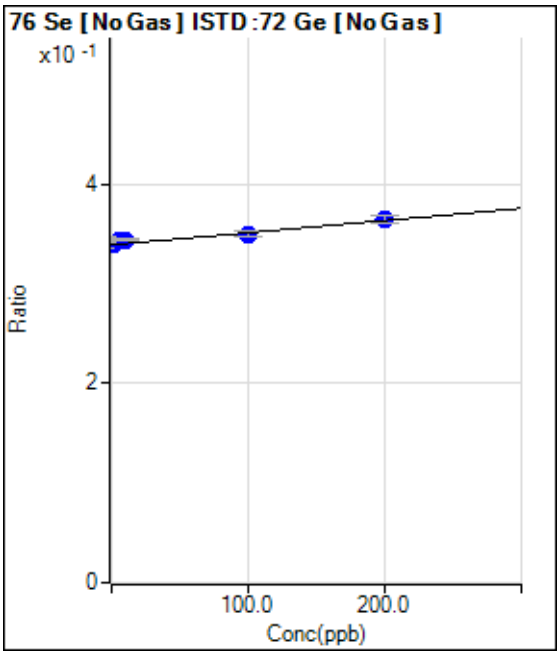


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104.44	0.0001	P	12.8
2	☐	2.000	2.065	2370.22	0.0029	P	4.6
3	☐	5.000	4.888	5476.69	0.0067	P	2.0
4	☐	10.000	10.001	10942.26	0.0135	P	2.3
5	☐	100.000	99.996	107163.75	0.1337	P	1.2
6	☐	200.000	200.004	207038.26	0.2673	P	0.5

y = 0.0013 * x + 1.2716E-004
R = 1.0000
DL = 0.03668
BEC = 0.09521

Weight: <None>
Min Conc: <None>

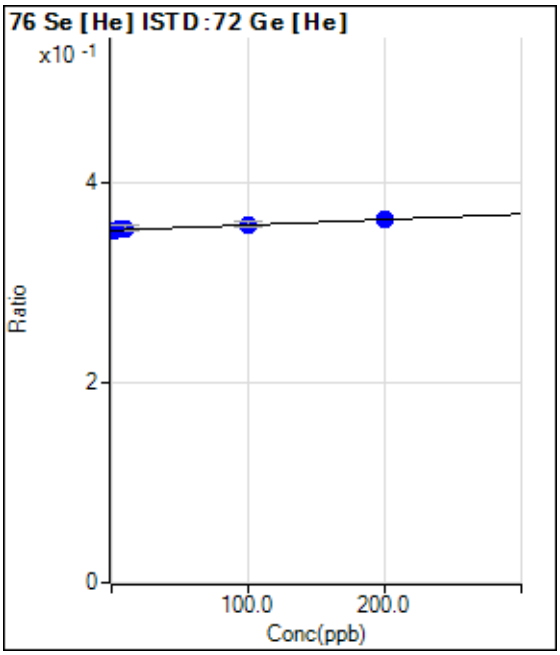
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	992266.44	0.3394	P	0.6
2	☐	2.000	0.922	990458.71	0.3395	P	1.7
3	☐	5.000	43.893	987433.65	0.3447	P	2.2
4	☐	10.000	42.379	989320.69	0.3445	P	1.0
5	☐	100.000	85.769	993602.41	0.3499	P	1.6
6	☐	200.000	204.535	987552.95	0.3644	P	2.0

y = 1.2243E-004 * x + 0.3394
R = 0.9674
DL = 48.02
BEC = 2772

Weight: <None>
Min Conc: <None>

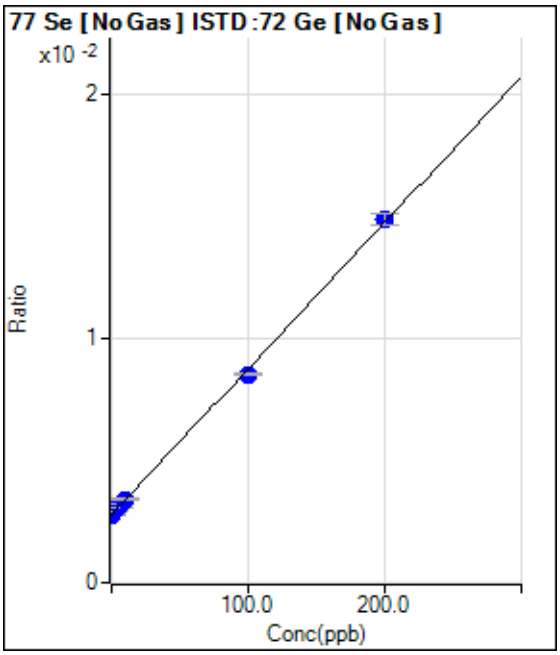


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	289779.94	0.3530	P	1.3
2	☐	2.000	1.720	290083.86	0.3530	P	0.7
3	☐	5.000	34.622	292027.02	0.3548	P	1.5
4	☐	10.000	43.822	288362.26	0.3553	P	1.2
5	☐	100.000	111.001	287771.38	0.3590	P	2.0
6	☐	200.000	192.071	281531.18	0.3634	P	0.1

y = 5.4438E-005 * x + 0.3530
R = 0.9799
DL = 252
BEC = 6484

Weight: <None>
Min Conc: <None>

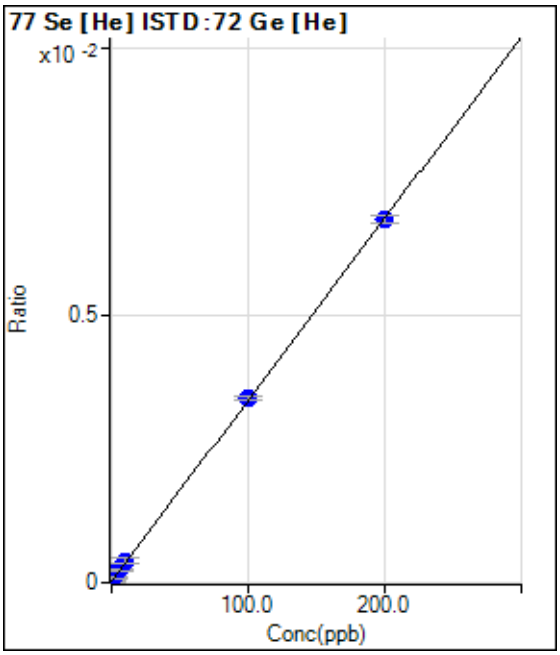
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8155.98	0.0028	P	3.6
2	☐	2.000	2.263	8532.83	0.0029	P	1.5
3	☐	5.000	6.577	9113.22	0.0032	P	5.4
4	☐	10.000	10.508	9813.71	0.0034	P	3.4
5	☐	100.000	96.214	24295.47	0.0086	P	0.4
6	☐	200.000	201.825	40317.13	0.0149	P	3.1

y = 5.9902E-005 * x + 0.0028
R = 0.9997
DL = 4.988
BEC = 46.56

Weight: <None>
Min Conc: <None>

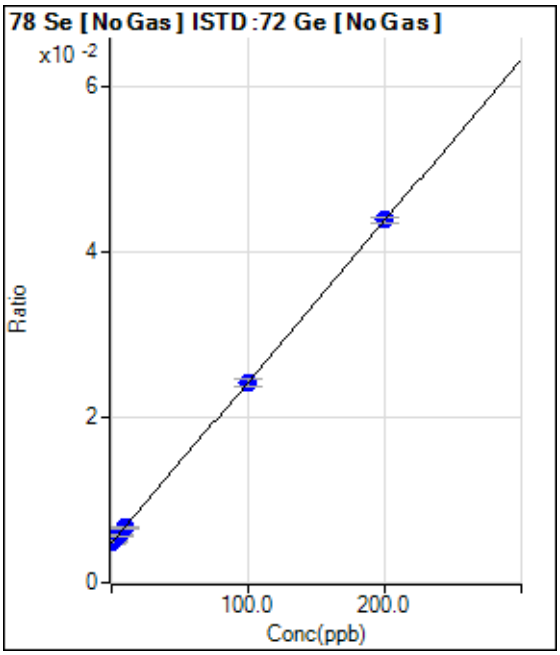


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	124.8
2	☐	2.000	2.389	83.33	0.0001	P	34.5
3	☐	5.000	6.341	193.34	0.0002	P	21.0
4	☐	10.000	11.276	326.68	0.0004	P	30.0
5	☐	100.000	101.149	2767.00	0.0035	P	1.5
6	☐	200.000	199.324	5254.45	0.0068	P	2.1

y = 3.3925E-005 * x + 2.0326E-005
R = 1.0000
DL = 2.243
BEC = 0.5991

Weight: <None>
Min Conc: <None>

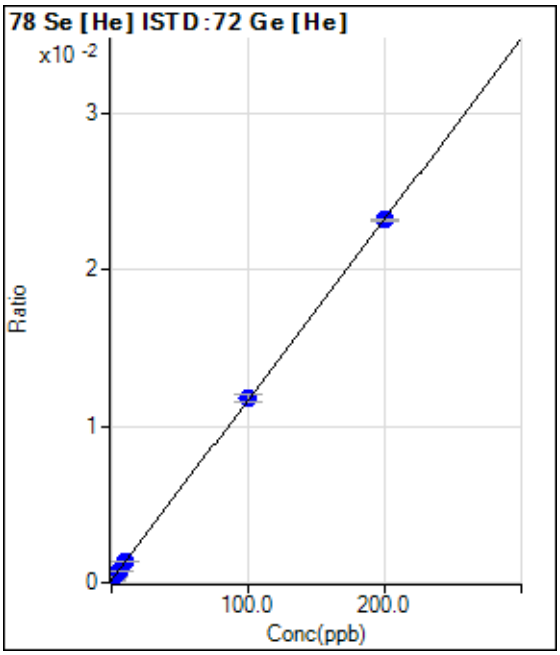
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14020.82	0.0048	P	1.8
2	☐	2.000	1.511	14848.40	0.0051	P	3.4
3	☐	5.000	4.692	16356.81	0.0057	P	3.0
4	☐	10.000	9.486	19093.79	0.0066	P	3.2
5	☐	100.000	99.188	68607.93	0.0242	P	3.7
6	☐	200.000	200.445	119086.72	0.0439	P	1.7

y = 1.9529E-004 * x + 0.0048
R = 1.0000
DL = 1.323
BEC = 24.55

Weight: <None>
Min Conc: <None>

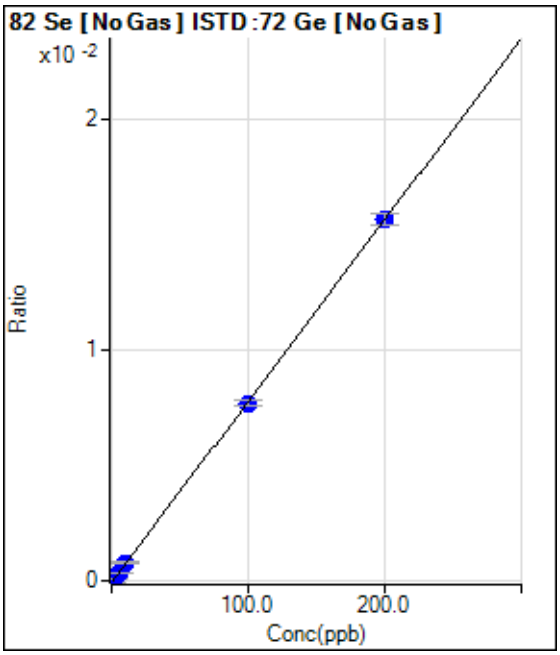


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	145.33	0.0002	P	10.1
2	☐	2.000	1.832	318.67	0.0004	P	8.4
3	☐	5.000	4.961	615.35	0.0007	P	6.2
4	☐	10.000	9.926	1070.71	0.0013	P	2.6
5	☐	100.000	100.820	9442.66	0.0118	P	3.4
6	☐	200.000	199.596	17933.92	0.0231	P	0.6

y = 1.1509E-004 * x + 1.7697E-004
R = 1.0000
DL = 0.464
BEC = 1.538

Weight: <None>
Min Conc: <None>

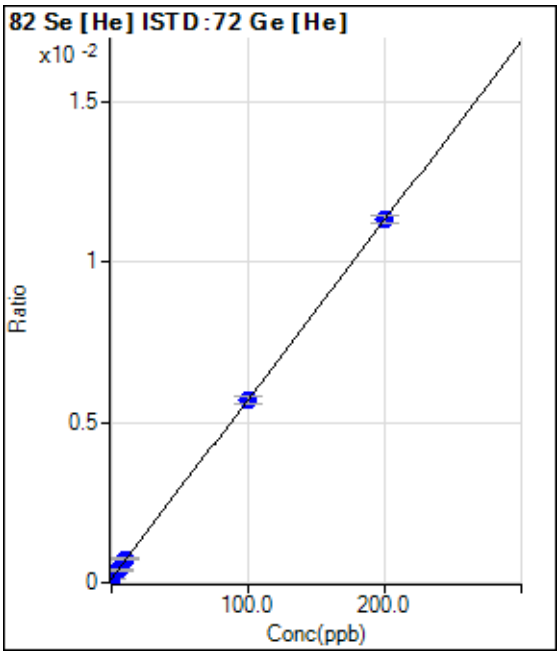
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-256.28	-0.0001	P	-6.2
2	☐	2.000	2.489	314.44	0.0001	P	42.3
3	☐	5.000	4.926	857.59	0.0003	P	2.2
4	☐	10.000	10.867	2201.69	0.0008	P	14.1
5	☐	100.000	98.988	21829.61	0.0077	P	2.7
6	☐	200.000	200.459	42423.72	0.0157	P	2.9

y = 7.8531E-005 * x - 8.7633E-005
R = 1.0000
DL = 0.2073
BEC = -1.116

Weight: <None>
Min Conc: <None>

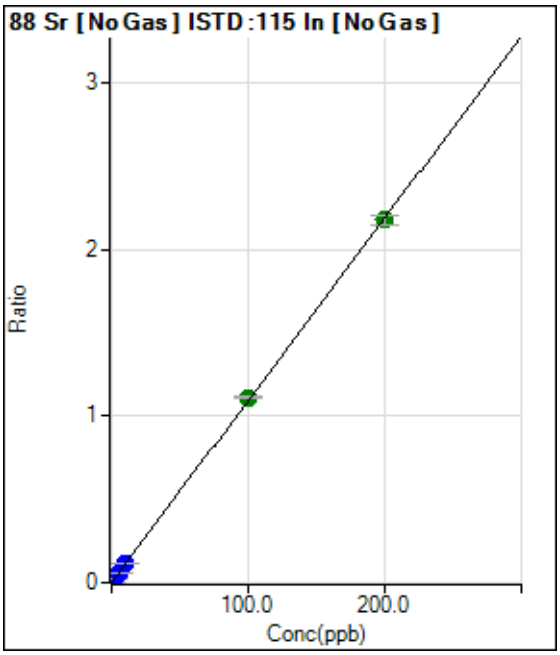


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	19.9
2	☐	2.000	2.906	240.01	0.0003	P	0.2
3	☐	5.000	4.792	326.68	0.0004	P	13.5
4	☐	10.000	10.994	603.36	0.0007	P	6.5
5	☐	100.000	99.520	4554.20	0.0057	P	4.7
6	☐	200.000	200.186	8753.00	0.0113	P	2.1

y = 5.5790E-005 * x + 1.2999E-004
R = 1.0000
DL = 1.393
BEC = 2.33

Weight: <None>
Min Conc: <None>

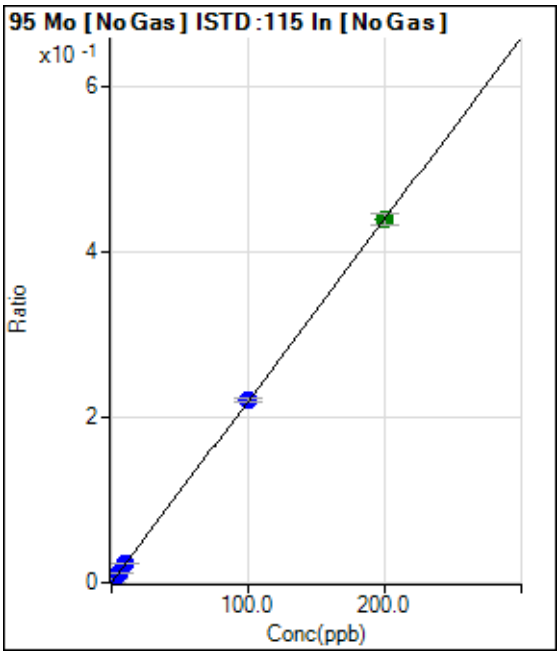
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2400.26	0.0007	P	12.2
2	☐	2.000	2.049	81591.32	0.0231	P	0.5
3	☐	5.000	4.982	194892.69	0.0552	P	0.6
4	☐	10.000	10.163	387645.96	0.1119	P	0.8
5	☐	100.000	101.500	3782803.80	1.1111	A	1.2
6	☐	200.000	199.242	7256540.52	2.1805	A	2.7

y = 0.0109 * x + 6.8518E-004
R = 1.0000
DL = 0.02295
BEC = 0.06263

Weight: <None>
Min Conc: <None>

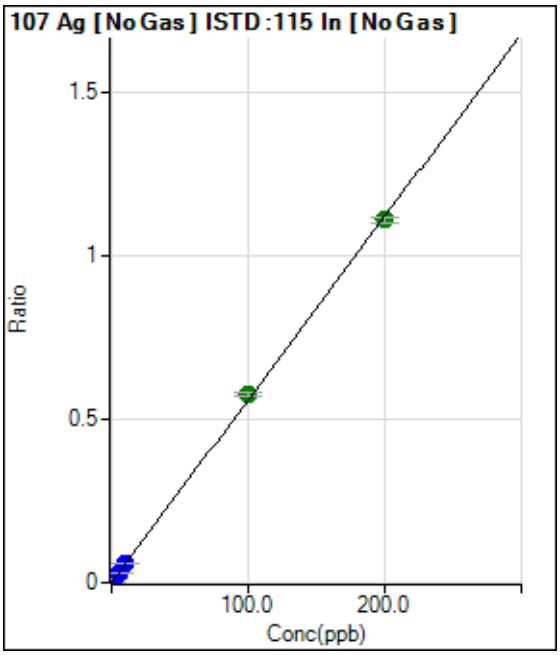


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0000	P	22.1
2	☐	2.000	1.980	15395.85	0.0044	P	6.1
3	☐	5.000	4.949	38412.47	0.0109	P	0.8
4	☐	10.000	10.159	77310.27	0.0223	P	2.0
5	☐	100.000	100.585	751558.61	0.2208	P	1.6
6	☐	200.000	199.701	1458570.65	0.4383	A	3.3

y = 0.0022 * x + 1.5234E-005
R = 1.0000
DL = 0.004603
BEC = 0.006941

Weight: <None>
Min Conc: <None>

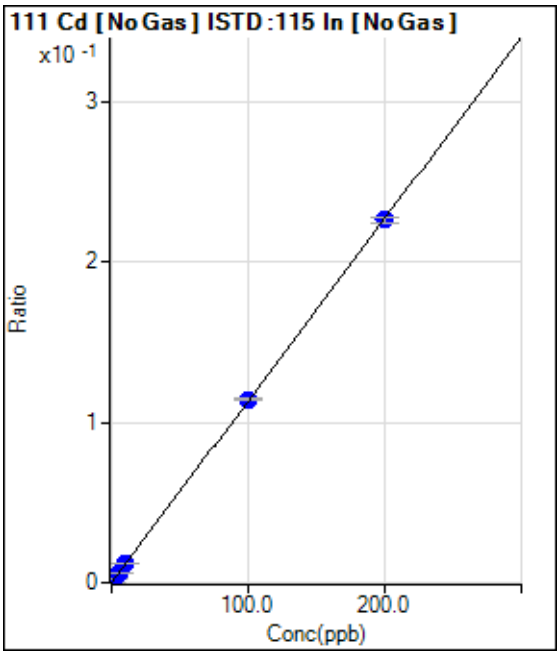
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.69	0.0001	P	3.8
2	☐	2.000	2.078	41592.36	0.0118	P	1.2
3	☐	5.000	5.078	100949.87	0.0286	P	1.8
4	☐	10.000	10.353	201476.72	0.0581	P	1.5
5	☐	100.000	103.232	1969494.71	0.5786	A	2.6
6	☐	200.000	198.364	3700244.22	1.1117	A	1.7

y = 0.0056 * x + 1.3322E-004
R = 0.9998
DL = 0.002688
BEC = 0.02377

Weight: <None>
Min Conc: <None>

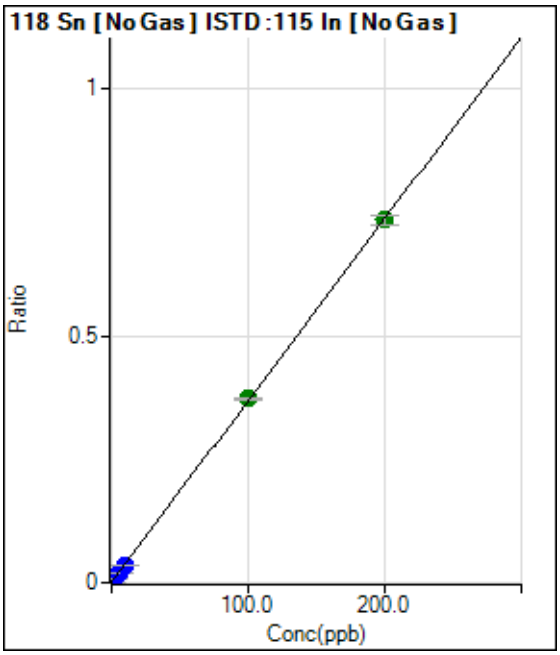


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.2
2	☐	2.000	2.035	8156.00	0.0023	P	2.3
3	☐	5.000	4.981	19958.69	0.0057	P	2.1
4	☐	10.000	10.137	39847.11	0.0115	P	1.4
5	☐	100.000	100.910	389619.77	0.1145	P	1.6
6	☐	200.000	199.538	753260.20	0.2263	P	1.9

y = 0.0011 * x + 1.8910E-006
R = 1.0000
DL = 0.008663
BEC = 0.001667

Weight: <None>
Min Conc: <None>

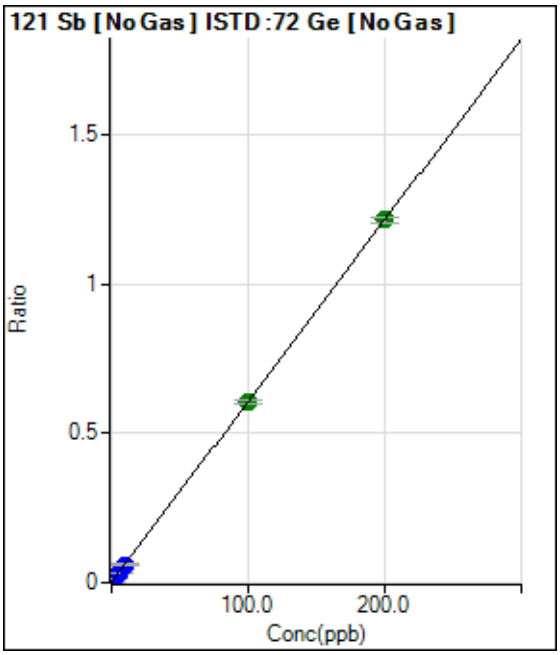
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2616.98	0.0007	P	3.3
2	☐	2.000	1.946	27893.29	0.0079	P	2.5
3	☐	5.000	4.654	63034.57	0.0179	P	1.1
4	☐	10.000	9.688	125969.32	0.0364	P	1.3
5	☐	100.000	100.935	1265350.58	0.3717	A	1.8
6	☐	200.000	199.558	2443437.57	0.7342	A	2.4

y = 0.0037 * x + 7.4689E-004
R = 1.0000
DL = 0.02028
BEC = 0.2032

Weight: <None>
Min Conc: <None>

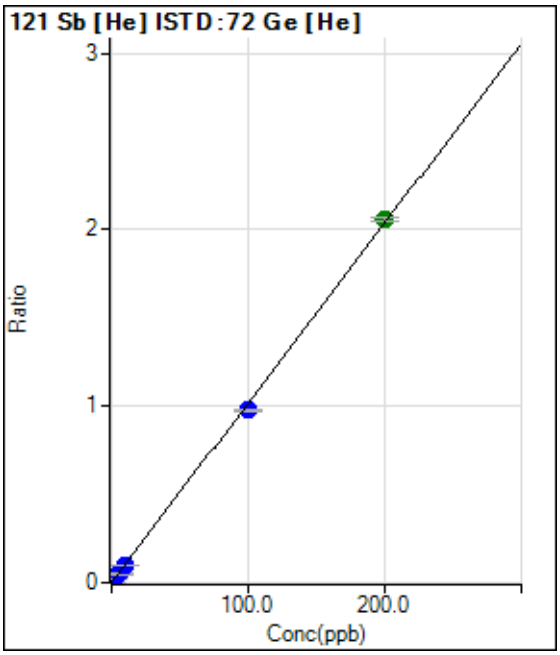


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3257.13	0.0011	P	2.1
2	☐	2.000	2.019	38978.26	0.0134	P	3.3
3	☐	5.000	4.907	88463.97	0.0309	P	1.7
4	☐	10.000	9.847	174705.57	0.0608	P	1.6
5	☐	100.000	99.589	1718577.16	0.6052	A	2.7
6	☐	200.000	200.215	3294997.03	1.2156	A	1.4

y = 0.0061 * x + 0.0011
R = 1.0000
DL = 0.0116
BEC = 0.1836

Weight: <None>
Min Conc: <None>

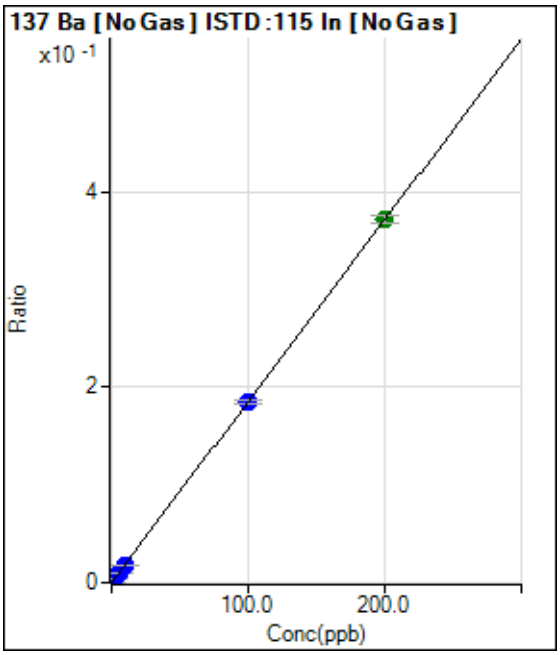
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1550.12	0.0019	P	3.7
2	☐	2.000	1.949	17829.10	0.0217	P	1.6
3	☐	5.000	4.725	41064.48	0.0499	P	3.7
4	☐	10.000	9.640	81043.44	0.0999	P	0.6
5	☐	100.000	96.094	784477.90	0.9786	P	1.2
6	☐	200.000	201.979	1591876.23	2.0548	A	1.0

y = 0.0102 * x + 0.0019
R = 0.9997
DL = 0.02072
BEC = 0.1858

Weight: <None>
Min Conc: <None>

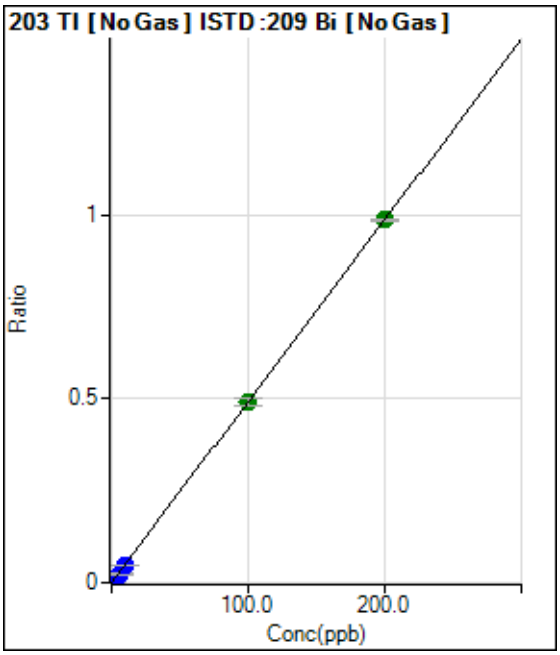


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.69	0.0001	P	6.8
2	☐	2.000	2.544	17124.86	0.0048	P	4.6
3	☐	5.000	4.945	32845.11	0.0093	P	1.4
4	☐	10.000	9.842	63682.83	0.0184	P	2.5
5	☐	100.000	99.653	629348.77	0.1849	P	2.1
6	☐	200.000	200.177	1235626.44	0.3712	A	2.1

y = 0.0019 * x + 1.3319E-004
R = 1.0000
DL = 0.01456
BEC = 0.07184

Weight: <None>
Min Conc: <None>

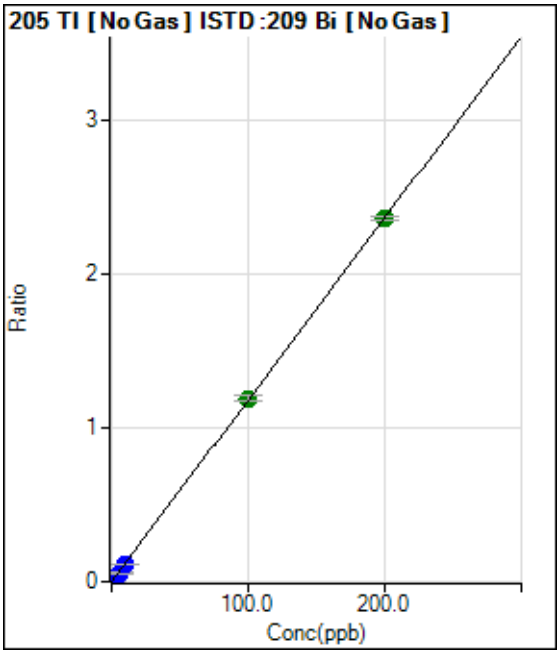
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.00	0.0000	P	19.5
2	☐	2.000	1.893	31941.12	0.0094	P	2.0
3	☐	5.000	4.744	80344.44	0.0234	P	3.1
4	☐	10.000	9.629	161618.25	0.0475	P	3.0
5	☐	100.000	99.681	1635680.44	0.4916	A	3.4
6	☐	200.000	200.185	3182349.85	0.9873	A	0.6

y = 0.0049 * x + 4.7003E-005
R = 1.0000
DL = 0.005568
BEC = 0.009531

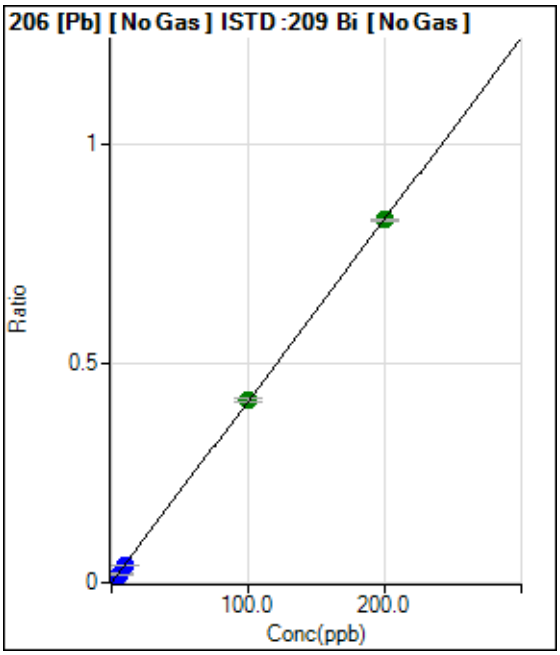
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.68	0.0001	P	19.2
2	☐	2.000	1.919	77382.75	0.0227	P	5.0
3	☐	5.000	4.752	192589.91	0.0562	P	3.1
4	☐	10.000	9.731	390879.08	0.1150	P	3.0
5	☐	100.000	100.747	3957588.79	1.1895	A	2.9
6	☐	200.000	199.647	7597378.84	2.3571	A	1.1

y = 0.0118 * x + 8.4116E-005
R = 1.0000
DL = 0.004107
BEC = 0.007125

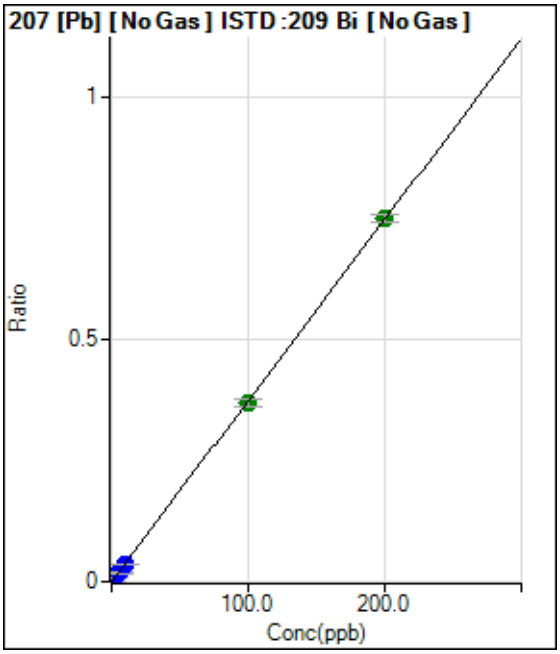
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	406.68	0.0001	P	4.0
2	☐	2.000	1.917	27373.76	0.0080	P	3.9
3	☐	5.000	4.724	67345.28	0.0196	P	3.3
4	☐	10.000	9.596	135251.06	0.0398	P	3.3
5	☐	100.000	100.513	1382729.41	0.4156	A	2.7
6	☐	200.000	199.771	2662168.09	0.8259	A	0.5

y = 0.0041 * x + 1.1929E-004
R = 1.0000
DL = 0.003483
BEC = 0.02886

Weight: <None>
Min Conc: <None>

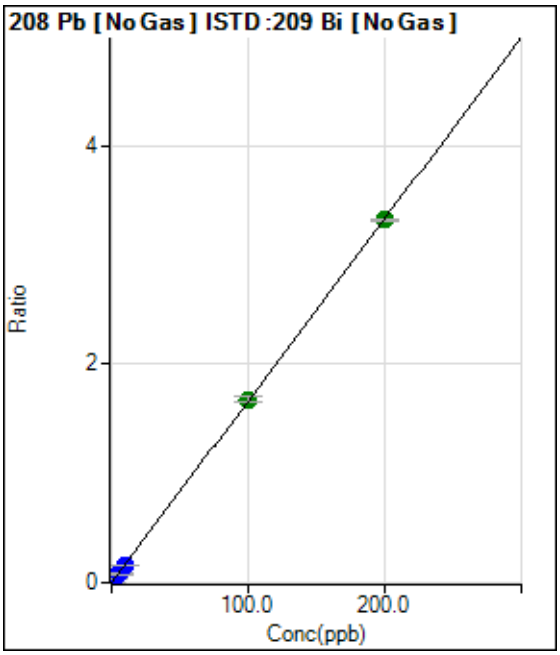


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	366.68	0.0001	P	22.2
2	☐	2.000	1.913	24681.58	0.0073	P	3.9
3	☐	5.000	4.785	61602.08	0.0180	P	4.4
4	☐	10.000	9.552	121663.18	0.0358	P	2.3
5	☐	100.000	99.053	1230775.63	0.3700	A	4.6
6	☐	200.000	200.502	2413692.72	0.7489	A	2.0

y = 0.0037 * x + 1.0778E-004
R = 1.0000
DL = 0.01918
BEC = 0.02886

Weight: <None>
Min Conc: <None>

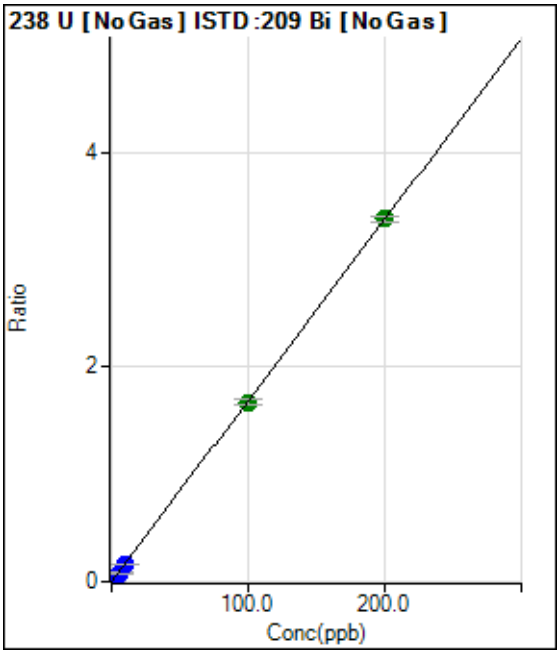
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1700.08	0.0005	P	4.8
2	☐	2.000	1.950	112093.81	0.0329	P	2.8
3	☐	5.000	4.780	274278.45	0.0800	P	3.5
4	☐	10.000	9.654	547854.80	0.1611	P	1.8
5	☐	100.000	100.833	5582281.25	1.6780	A	3.5
6	☐	200.000	199.607	10705528.23	3.3213	A	0.7

y = 0.0166 * x + 4.9889E-004
R = 1.0000
DL = 0.004331
BEC = 0.02999

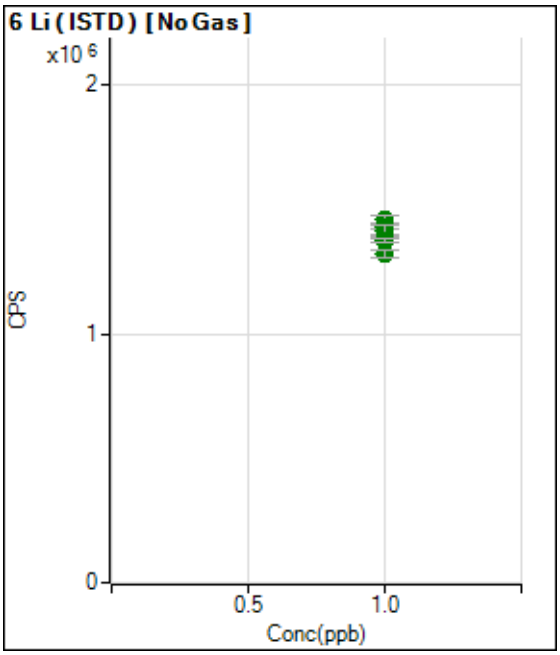
Weight: <None>
Min Conc: <None>



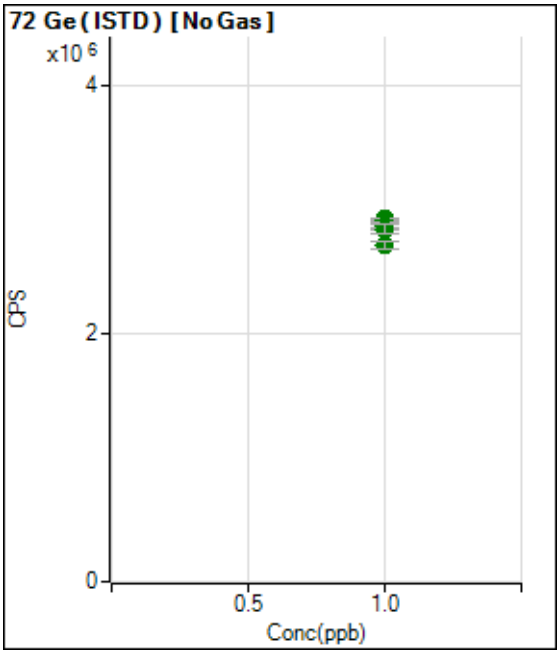
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	64.6
2	☐	2.000	1.900	109032.69	0.0320	P	2.2
3	☐	5.000	4.719	272620.99	0.0795	P	3.4
4	☐	10.000	9.569	548260.68	0.1613	P	3.0
5	☐	100.000	99.175	5560030.34	1.6712	A	3.3
6	☐	200.000	200.442	10887064.42	3.3777	A	1.6

y = 0.0169 * x + 1.1659E-005
R = 1.0000
DL = 0.001342
BEC = 0.0006918

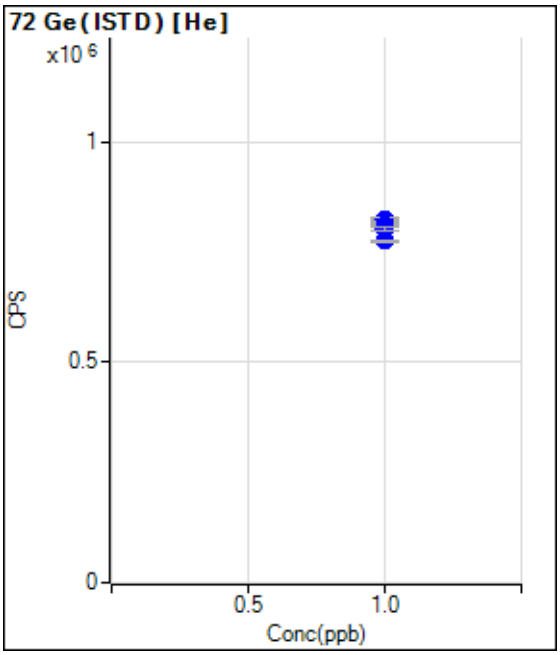
Weight: <None>
Min Conc: <None>



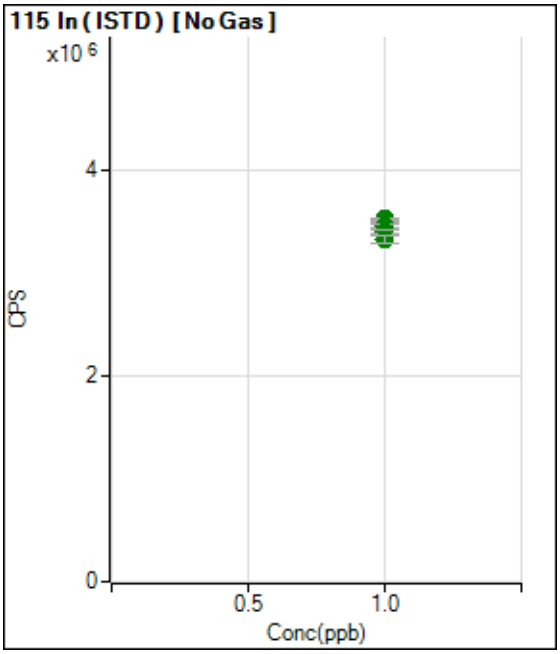
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1457720.65		A	2.1
2	☐	1.000		1431463.91		A	1.0
3	☐	1.000		1411048.46		A	1.6
4	☐	1.000		1412796.90		A	2.9
5	☐	1.000		1374056.89		A	0.9
6	☐	1.000		1321116.42		A	2.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2924007.35		A	0.5
2	☐	1.000		2918024.02		A	1.3
3	☐	1.000		2865266.63		A	2.2
4	☐	1.000		2871614.02		A	1.4
5	☐	1.000		2840792.14		A	2.5
6	☐	1.000		2710783.19		A	1.9

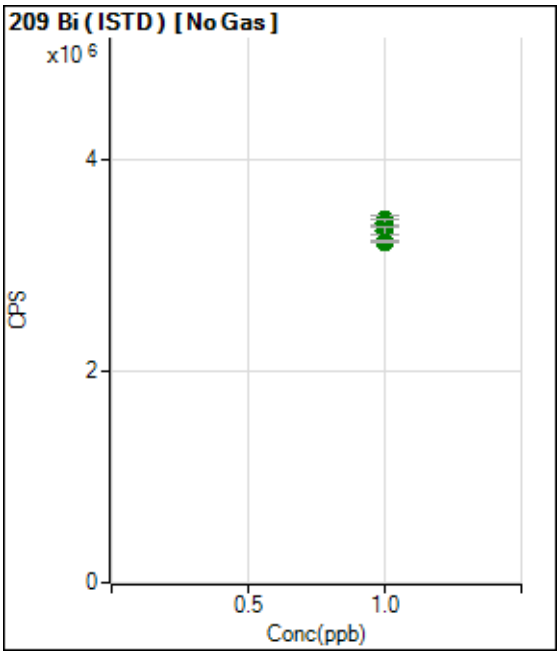


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		821026.21		P	0.4
2	☐	1.000		821646.97		P	0.2
3	☐	1.000		823120.95		P	1.7
4	☐	1.000		811509.36		P	0.4
5	☐	1.000		801691.58		P	0.9
6	☐	1.000		774691.27		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3503685.71		A	0.5
2	☐	1.000		3532107.15		A	0.9
3	☐	1.000		3531449.03		A	0.7
4	☐	1.000		3465397.94		A	0.9
5	☐	1.000		3404799.31		A	1.5
6	☐	1.000		3329489.01		A	2.5

Calibration for 203_ICV.d



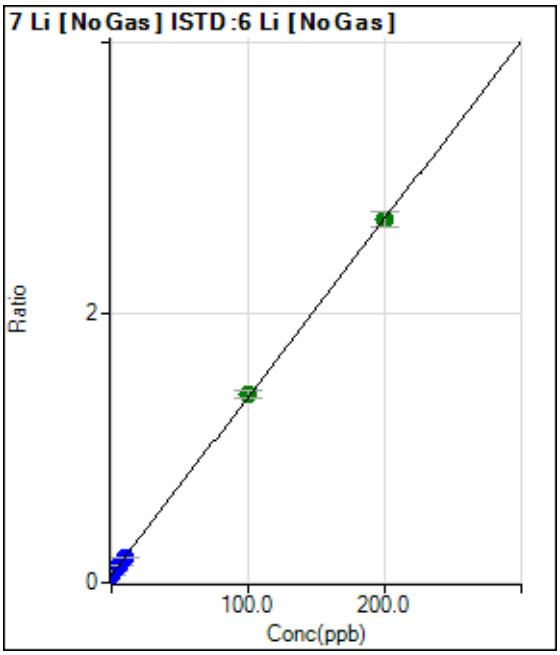
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3408283.28		A	1.6
2	☐	1.000		3404718.49		A	1.9
3	☐	1.000		3429517.87		A	2.9
4	☐	1.000		3401536.62		A	2.3
5	☐	1.000		3328746.20		A	2.6
6	☐	1.000		3223436.72		A	0.8

Calibration for 015_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060421A.b\
Analysis File: 060421A.batch.bin
DA Date-Time: 6/4/2021 4:05:17 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	008CALB.d	CAL BLK	6/4/2021 10:59:35 AM
2	009CALS.d	2/10/200	6/4/2021 11:01:34 AM
3	010CALS.d	5/25/500	6/4/2021 11:03:33 AM
4	011CALS.d	10/50/100	6/4/2021 11:05:31 AM
5	012CALS.d	100/500/10K	6/4/2021 11:07:28 AM
6	013CALS.d	200/1000/20K	6/4/2021 11:09:20 AM

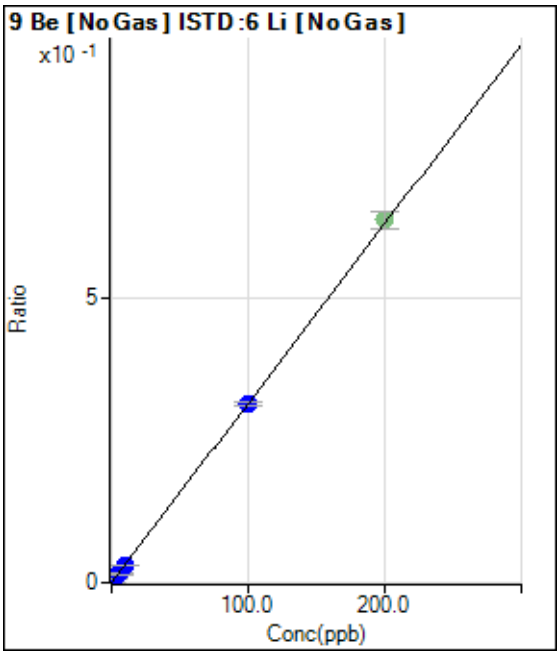
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108504.16	0.0588	P	2.0
2	☐	2.000	1.980	157714.23	0.0849	P	0.2
3	☐	5.000	5.089	229098.14	0.1258	P	1.4
4	☐	10.000	9.901	346343.26	0.1892	P	2.2
5	☐	100.000	101.081	2449446.63	1.3900	A	4.0
6	☐	200.000	199.463	4550861.91	2.6857	A	4.1

y = 0.0132 * x + 0.0588
R = 1.0000
DL = 0.2697
BEC = 4.466

Weight: <None>
Min Conc: <None>

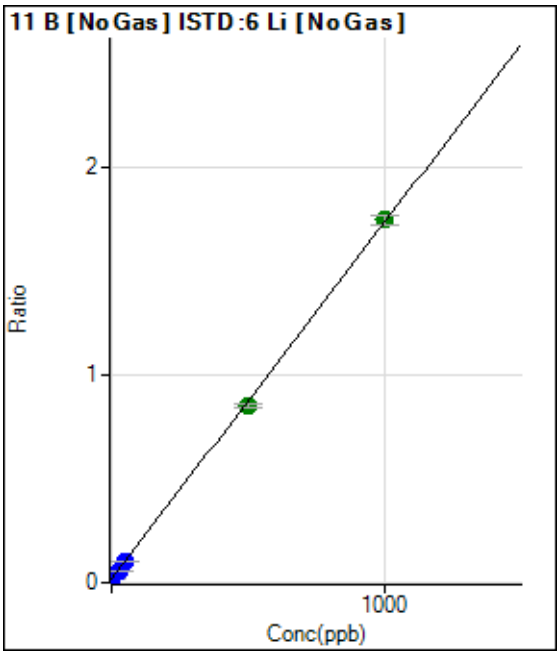


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	61.6
2	☐	2.000	1.907	11219.51	0.0060	P	3.3
3	☐	5.000	4.846	27897.74	0.0153	P	2.5
4	☐	10.000	9.605	55557.59	0.0304	P	2.3
5	☐	100.000	100.049	557075.07	0.3160	P	1.7
6	☑	200.000		1082986.60	0.6391	A	4.6

y = 0.0032 * x + 1.3644E-005
R = 1.0000
DL = 0.007982
BEC = 0.004319

Weight: <None>
Min Conc: <None>

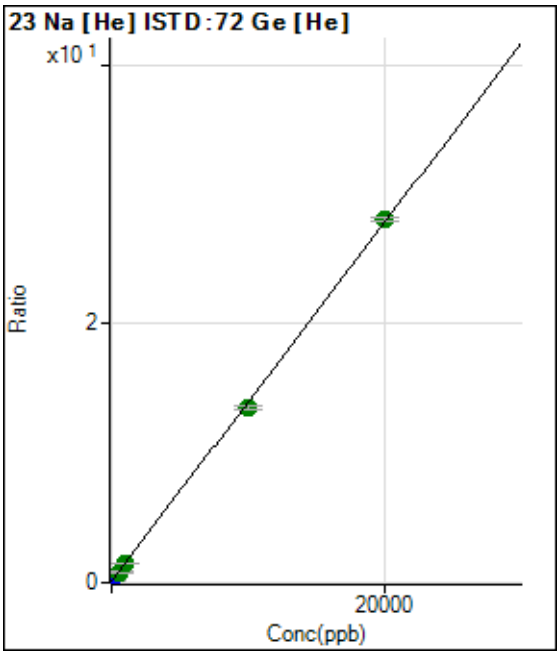
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33025.51	0.0179	P	3.2
2	☐	10.000	8.929	61728.19	0.0332	P	0.7
3	☐	25.000	24.060	107774.89	0.0592	P	0.8
4	☐	50.000	48.424	184884.12	0.1010	P	1.8
5	☐	500.000	486.089	1502218.00	0.8520	A	2.6
6	☐	1000.000	1007.069	2959436.94	1.7460	A	2.6

y = 0.0017 * x + 0.0179
R = 0.9999
DL = 1.005
BEC = 10.43

Weight: <None>
Min Conc: <None>

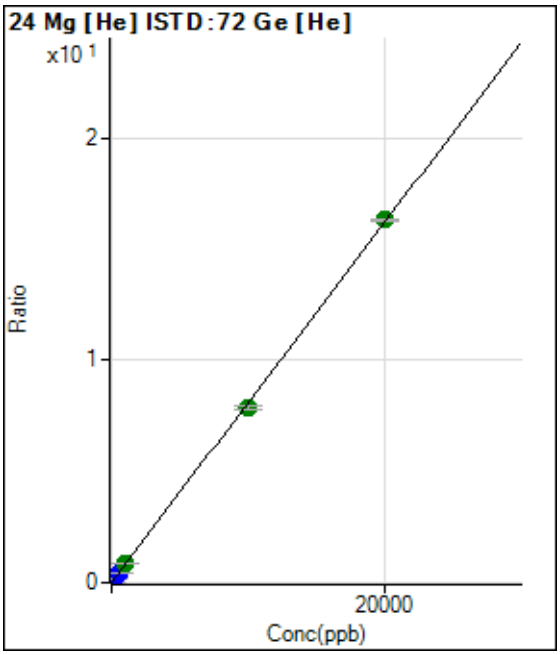


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125173.96	0.1157	P	2.6
2	☐	200.000	209.189	431130.41	0.4054	P	1.0
3	☐	500.000	503.172	869707.15	0.8125	A	1.4
4	☐	1000.000	1022.007	1603916.33	1.5309	A	1.2
5	☐	10000.000	9697.080	14269972.71	13.5435	A	2.3
6	☐	20000.000	20150.189	28026345.42	28.0182	A	1.1

y = 0.0014 * x + 0.1157
R = 0.9998
DL = 6.5
BEC = 83.57

Weight: <None>
Min Conc: <None>

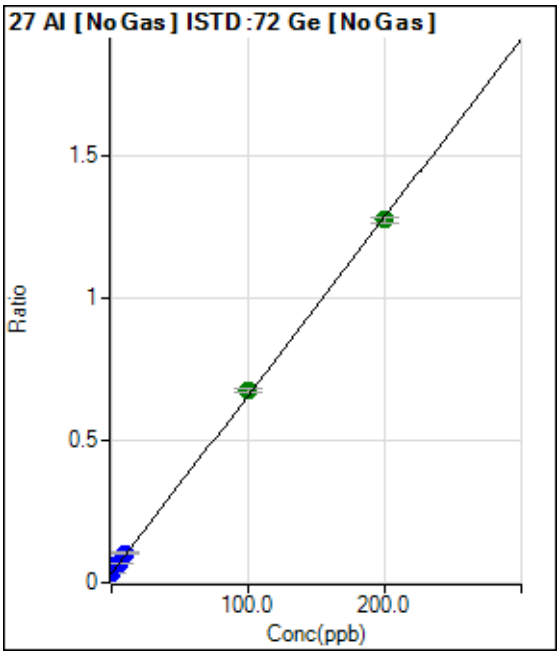
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1963.51	0.0018	P	2.6
2	☐	200.000	211.050	183842.95	0.1729	P	1.8
3	☐	500.000	511.855	445941.67	0.4167	P	2.5
4	☐	1000.000	1024.797	872112.93	0.8324	A	1.2
5	☐	10000.000	9698.659	8283697.79	7.8626	A	2.9
6	☐	20000.000	20149.024	16337398.51	16.3326	A	0.7

y = 8.1050E-004 * x + 0.0018
R = 0.9998
DL = 0.1728
BEC = 2.238

Weight: <None>
Min Conc: <None>

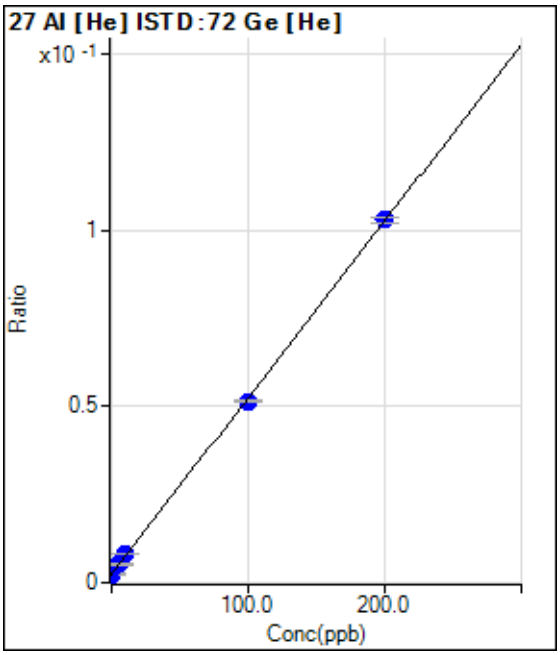


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	114095.73	0.0323	P	3.6
2	☐	2.000	4.229	209316.38	0.0589	P	1.1
3	☐	5.000	5.801	240912.83	0.0687	P	1.6
4	☐	10.000	11.540	365946.83	0.1047	P	0.6
5	☐	100.000	102.815	2330675.70	0.6774	A	1.7
6	☐	200.000	198.473	4282438.48	1.2775	A	1.6

y = 0.0063 * x + 0.0323
R = 0.9999
DL = 0.5615
BEC = 5.155

Weight: <None>
Min Conc: <None>

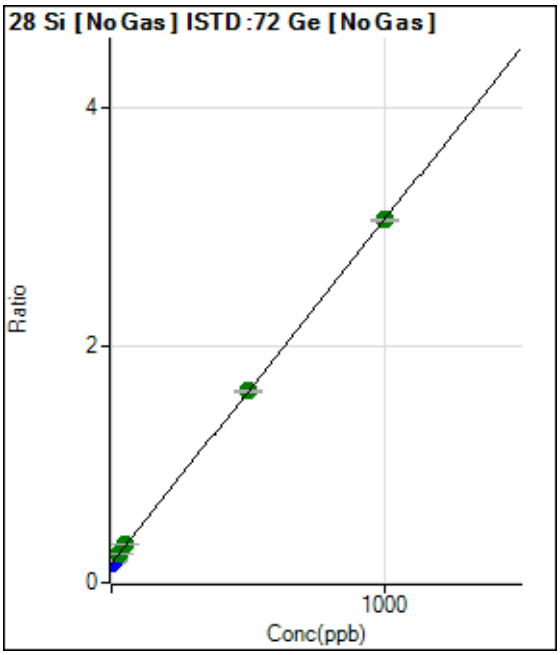
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2626.96	0.0024	P	4.3
2	☐	2.000	4.393	4920.94	0.0046	P	3.6
3	☐	5.000	5.677	5644.60	0.0053	P	5.2
4	☐	10.000	11.440	8542.75	0.0082	P	3.1
5	☐	100.000	98.123	54312.90	0.0515	P	1.4
6	☐	200.000	200.826	102978.95	0.1029	P	1.5

y = 5.0052E-004 * x + 0.0024
R = 0.9999
DL = 0.6234
BEC = 4.853

Weight: <None>
Min Conc: <None>

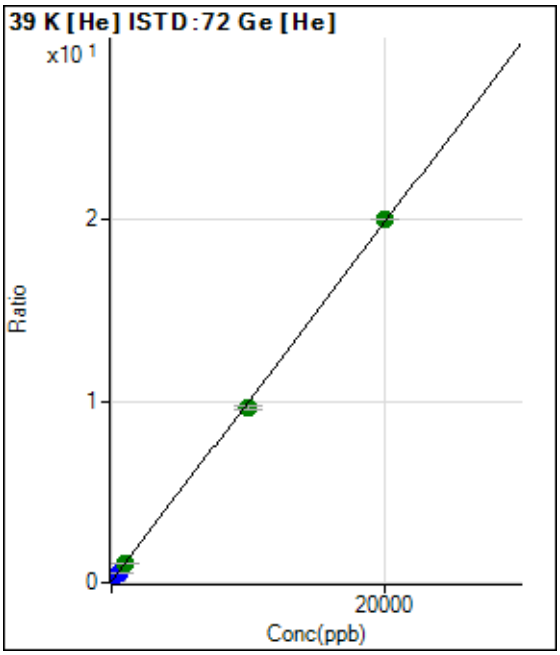


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575676.37	0.1632	P	2.4
2	☐	10.000	7.741	659759.83	0.1856	P	1.0
3	☐	25.000	26.282	838681.86	0.2393	A	1.2
4	☐	50.000	53.505	1111423.86	0.3181	A	0.8
5	☐	500.000	501.829	5561426.59	1.6163	A	0.9
6	☐	1000.000	998.901	10244676.72	3.0558	A	0.2

y = 0.0029 * x + 0.1632
R = 1.0000
DL = 4.087
BEC = 56.35

Weight: <None>
Min Conc: <None>

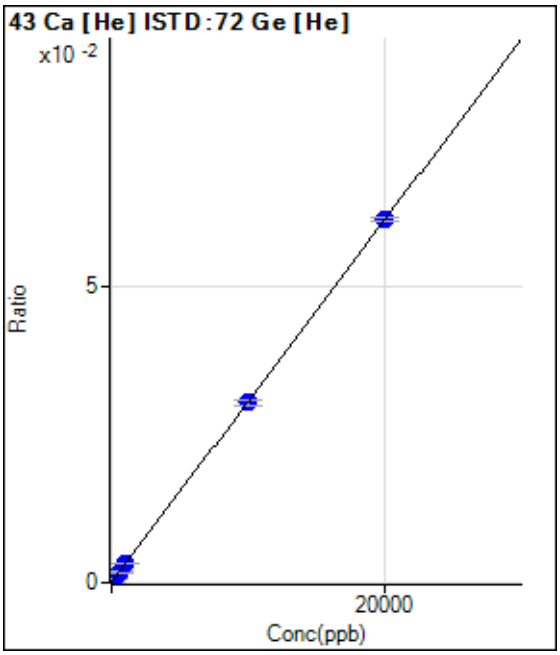
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84728.73	0.0783	P	1.4
2	☐	200.000	204.771	298481.56	0.2807	P	0.5
3	☐	500.000	495.974	608337.65	0.5684	P	2.6
4	☐	1000.000	1032.811	1151158.29	1.0989	A	2.2
5	☐	10000.000	9705.936	10187139.22	9.6690	A	2.6
6	☐	20000.000	20145.444	19990532.20	19.9846	A	0.1

y = 9.8813E-004 * x + 0.0783
R = 0.9998
DL = 3.432
BEC = 79.25

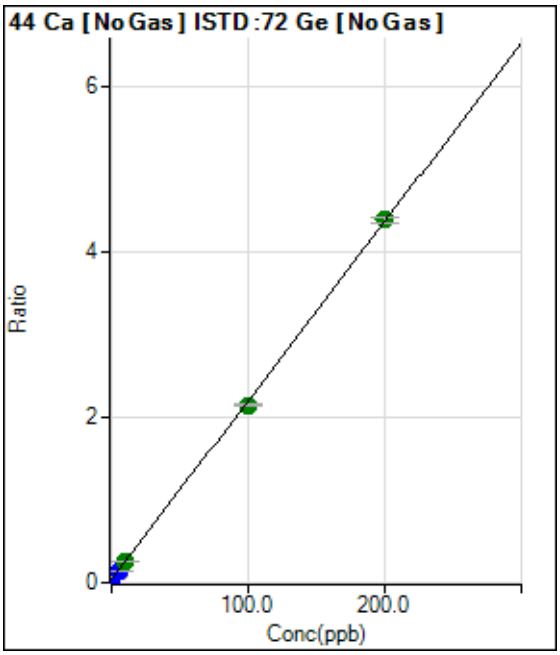
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	10.0
2	☐	200.000	218.132	773.37	0.0007	P	6.3
3	☐	500.000	541.982	1833.49	0.0017	P	8.9
4	☐	1000.000	1047.533	3410.49	0.0033	P	5.7
5	☐	10000.000	9942.544	32007.65	0.0304	P	3.4
6	☐	20000.000	20025.121	61149.11	0.0611	P	1.2

y = 3.0496E-006 * x + 6.1676E-005
R = 1.0000
DL = 6.097
BEC = 20.22

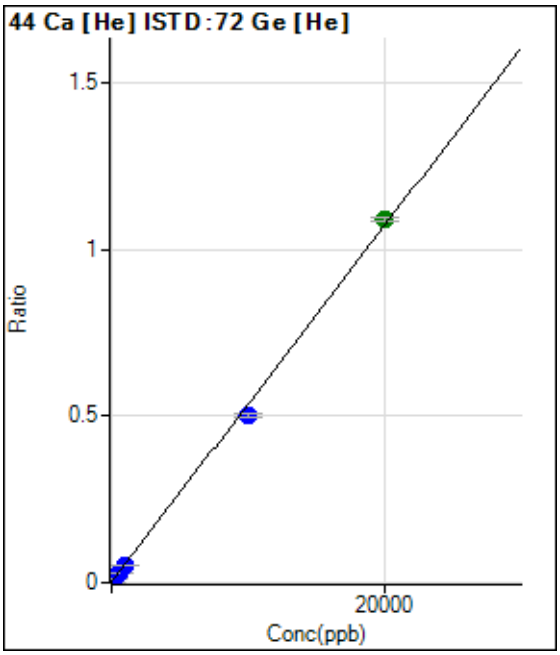
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133741.15	0.0379	P	3.1
2	☐	2.000	2.025	290635.97	0.0818	P	1.2
3	☐	5.000	5.080	518321.96	0.1479	P	1.1
4	☐	10.000	10.544	929868.11	0.2661	A	1.1
5	☐	100.000	97.710	7408412.39	2.1531	A	1.6
6	☐	200.000	201.115	14721544.36	4.3915	A	1.9

y = 0.0216 * x + 0.0379
R = 0.9999
DL = 0.1651
BEC = 1.751

Weight: <None>
Min Conc: <None>

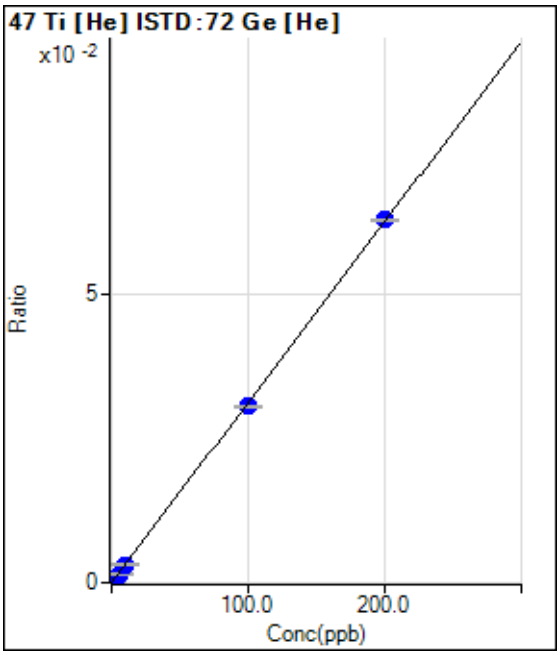


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2050.19	0.0019	P	3.6
2	☐	200.000	193.660	13016.37	0.0122	P	1.3
3	☐	500.000	484.090	29689.12	0.0278	P	5.4
4	☐	1000.000	964.752	55970.57	0.0534	P	1.7
5	☐	10000.000	9347.153	528038.87	0.5012	P	2.1
6	☐	20000.000	20328.647	1088007.72	1.0877	A	1.1

y = 5.3413E-005 * x + 0.0019
R = 0.9993
DL = 3.832
BEC = 35.48

Weight: <None>
Min Conc: <None>

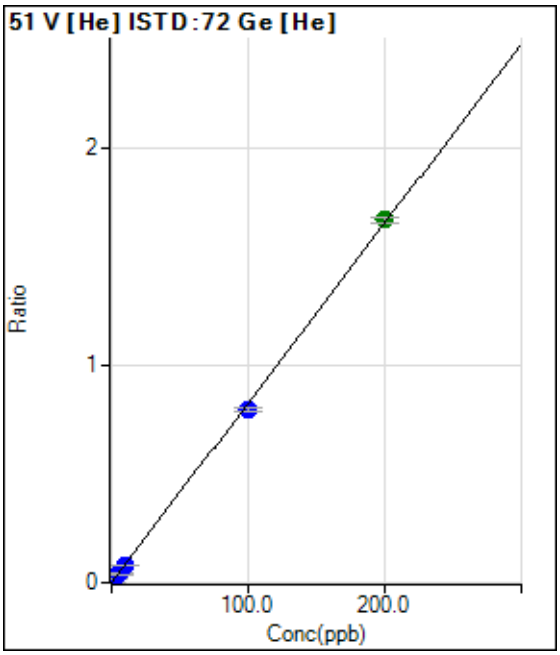
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	48.8
2	☐	2.000	2.025	696.70	0.0007	P	6.2
3	☐	5.000	4.726	1606.80	0.0015	P	6.4
4	☐	10.000	9.868	3257.11	0.0031	P	7.0
5	☐	100.000	97.747	32241.57	0.0306	P	1.5
6	☐	200.000	201.140	62957.90	0.0629	P	0.3

y = 3.1281E-004 * x + 2.1480E-005
R = 0.9999
DL = 0.1006
BEC = 0.06867

Weight: <None>
Min Conc: <None>

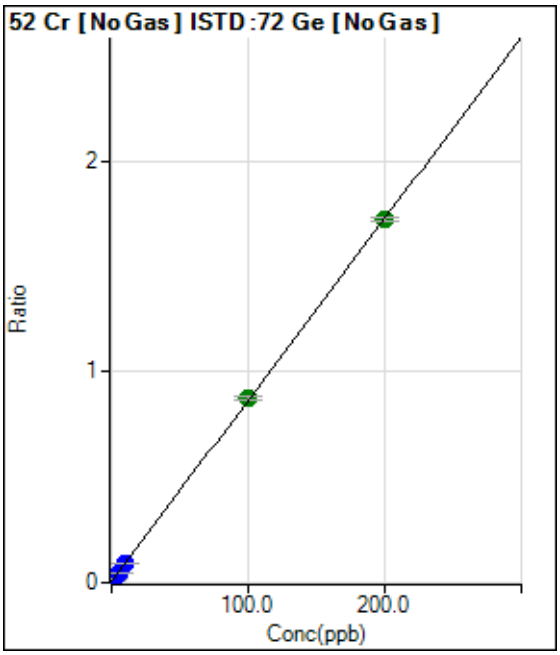


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1173.39	0.0011	P	8.7
2	☐	2.000	1.923	18024.08	0.0169	P	1.0
3	☐	5.000	4.756	43146.52	0.0403	P	2.8
4	☐	10.000	9.792	85753.97	0.0818	P	1.0
5	☐	100.000	95.971	835168.28	0.7927	P	2.5
6	☐	200.000	202.032	1667995.25	1.6675	A	1.5

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.03421
BEC = 0.1316

Weight: <None>
Min Conc: <None>

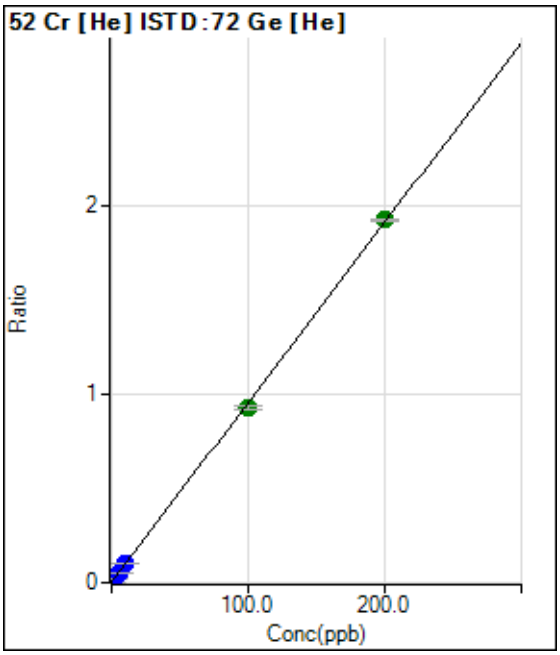
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17421.26	0.0049	P	2.9
2	☐	2.000	2.032	79774.97	0.0224	P	2.4
3	☐	5.000	5.106	171412.12	0.0489	P	2.4
4	☐	10.000	10.183	323626.57	0.0926	P	0.9
5	☐	100.000	101.140	3013706.93	0.8759	A	1.8
6	☐	200.000	199.418	5773704.29	1.7222	A	0.9

y = 0.0086 * x + 0.0049
R = 1.0000
DL = 0.04976
BEC = 0.5734

Weight: <None>
Min Conc: <None>

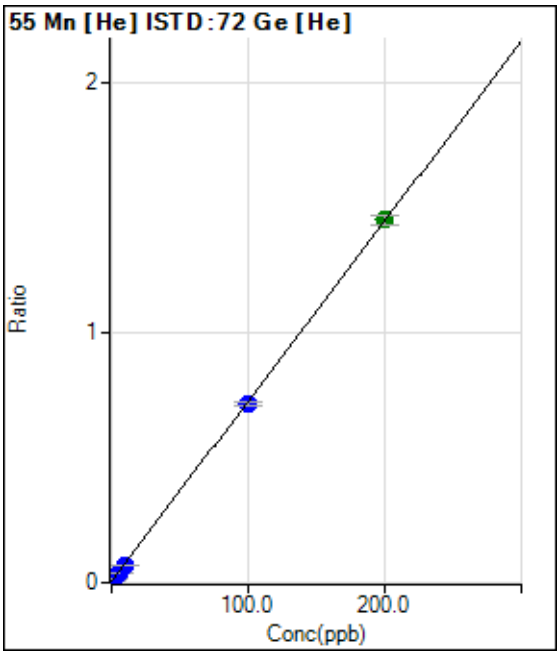


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2353.58	0.0022	P	8.5
2	☐	2.000	2.027	22906.11	0.0215	P	2.5
3	☐	5.000	4.903	52440.72	0.0490	P	3.6
4	☐	10.000	10.083	103187.00	0.0985	P	1.3
5	☐	100.000	96.832	977024.10	0.9271	A	2.6
6	☐	200.000	201.582	1928188.36	1.9276	A	0.5

y = 0.0096 * x + 0.0022
R = 0.9998
DL = 0.05789
BEC = 0.2276

Weight: <None>
Min Conc: <None>

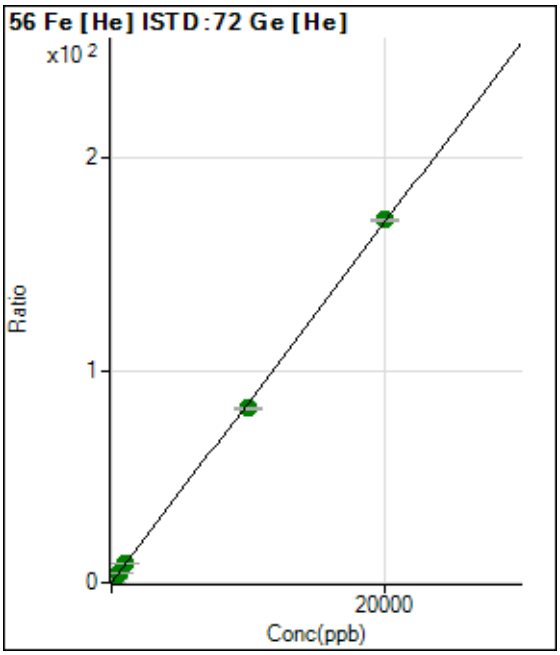
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6291.57	0.0058	P	5.3
2	☐	2.000	1.311	16229.86	0.0153	P	2.0
3	☐	5.000	4.209	38685.18	0.0361	P	1.2
4	☐	10.000	9.173	75333.88	0.0719	P	2.7
5	☐	100.000	98.619	754897.85	0.7164	P	1.8
6	☐	200.000	200.758	1452768.89	1.4524	A	2.3

y = 0.0072 * x + 0.0058
R = 1.0000
DL = 0.1279
BEC = 0.8068

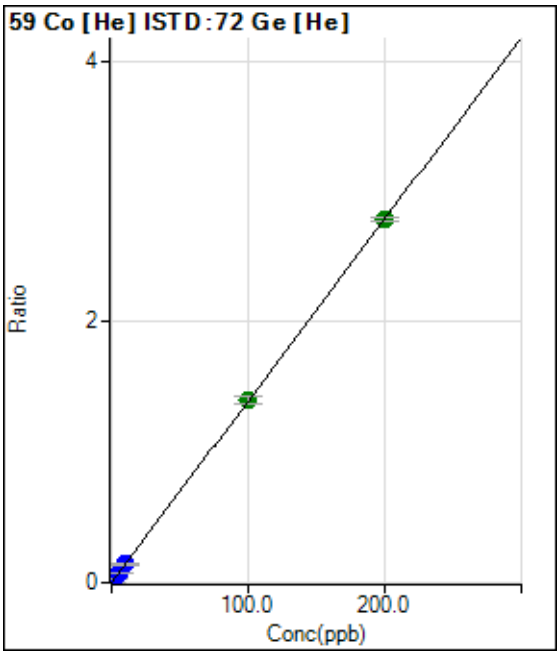
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20322.05	0.0188	P	0.8
2	☐	200.000	211.154	1923593.93	1.8086	A	0.6
3	☐	500.000	504.118	4592542.33	4.2918	A	3.7
4	☐	1000.000	1022.100	9096099.65	8.6823	A	1.6
5	☐	10000.000	9674.526	86432778.71	82.0223	A	1.3
6	☐	20000.000	20161.417	170960904.12	170.9116	A	0.5

y = 0.0085 * x + 0.0188
R = 0.9998
DL = 0.056
BEC = 2.216

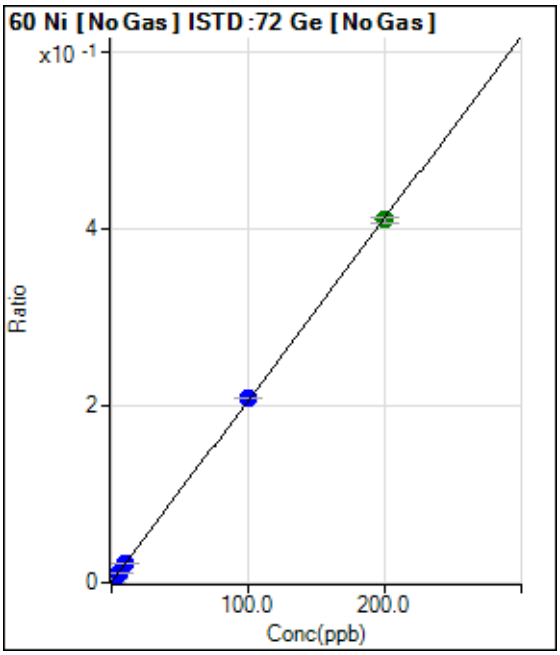
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	39.2
2	☐	2.000	2.028	30093.66	0.0283	P	1.3
3	☐	5.000	4.960	73964.07	0.0691	P	3.0
4	☐	10.000	10.087	147168.25	0.1405	P	1.8
5	☐	100.000	100.633	1475794.51	1.4009	A	3.6
6	☐	200.000	199.680	2780514.44	2.7797	A	1.1

y = 0.0139 * x + 6.4935E-005
R = 1.0000
DL = 0.005491
BEC = 0.004665

Weight: <None>
Min Conc: <None>

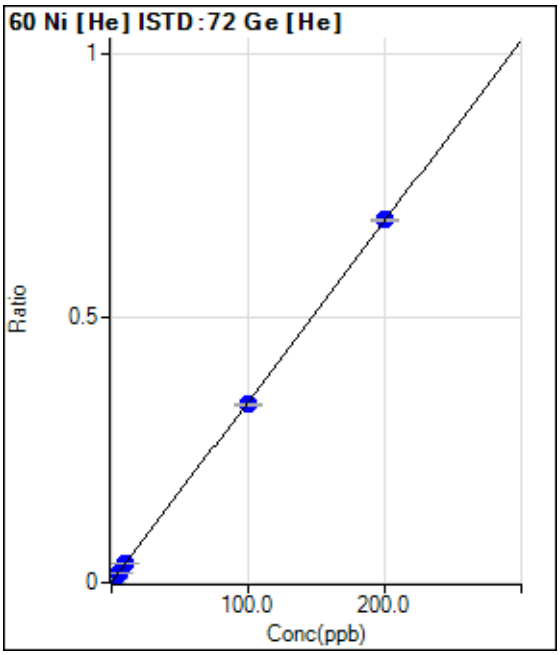


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1436.77	0.0004	P	8.9
2	☐	2.000	1.935	15619.18	0.0044	P	3.4
3	☐	5.000	5.067	38006.69	0.0108	P	2.2
4	☐	10.000	10.298	75535.63	0.0216	P	1.1
5	☐	100.000	101.441	720332.64	0.2093	P	0.5
6	☐	200.000	199.263	1377267.32	0.4108	A	1.3

y = 0.0021 * x + 4.0757E-004
R = 1.0000
DL = 0.05285
BEC = 0.1979

Weight: <None>
Min Conc: <None>

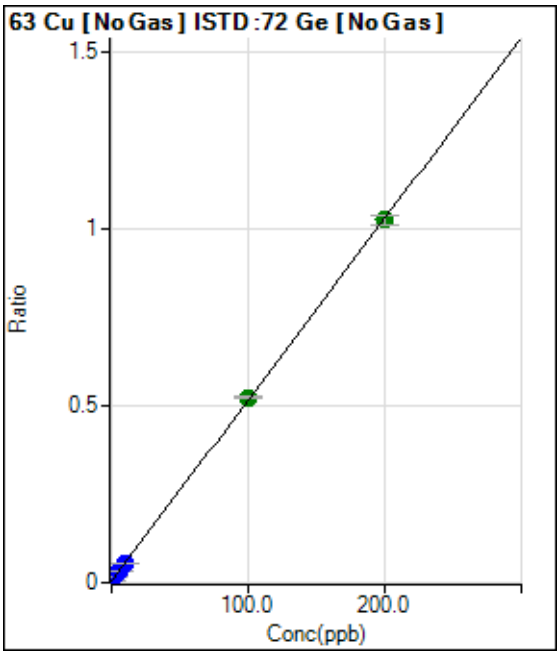
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0006	P	11.6
2	☐	2.000	1.921	7595.58	0.0071	P	4.3
3	☐	5.000	5.045	19073.58	0.0178	P	3.9
4	☐	10.000	10.374	37722.51	0.0360	P	3.1
5	☐	100.000	98.619	355542.81	0.3374	P	1.0
6	☐	200.000	200.672	686126.66	0.6859	P	0.4

y = 0.0034 * x + 5.8256E-004
R = 1.0000
DL = 0.05937
BEC = 0.1706

Weight: <None>
Min Conc: <None>

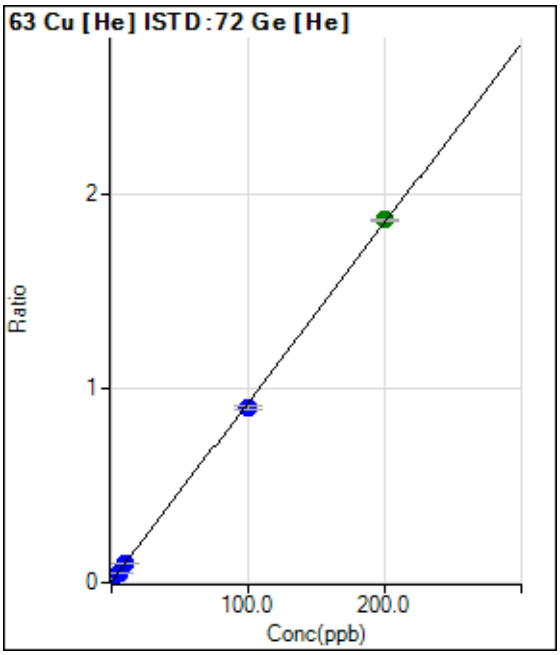


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15692.58	0.0044	P	4.3
2	☐	2.000	1.994	52136.76	0.0147	P	0.7
3	☐	5.000	5.104	107274.39	0.0306	P	0.4
4	☐	10.000	10.127	196866.07	0.0563	P	0.8
5	☐	100.000	101.136	1798780.39	0.5228	A	1.0
6	☐	200.000	199.423	3440739.01	1.0265	A	2.7

y = 0.0051 * x + 0.0044
R = 1.0000
DL = 0.1112
BEC = 0.8675

Weight: <None>
Min Conc: <None>

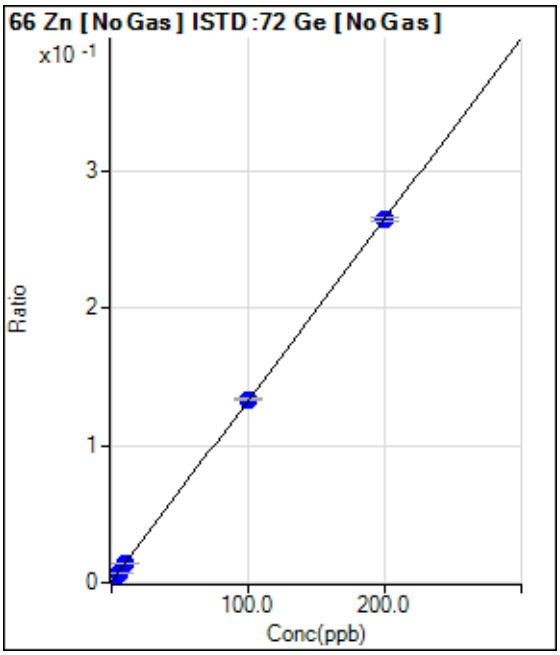
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6431.62	0.0059	P	2.7
2	☐	2.000	2.040	26369.23	0.0248	P	1.8
3	☐	5.000	5.013	55931.82	0.0523	P	2.5
4	☐	10.000	10.012	103143.03	0.0984	P	0.5
5	☐	100.000	96.502	945697.09	0.8975	P	2.2
6	☐	200.000	201.747	1870483.62	1.8699	A	0.9

y = 0.0092 * x + 0.0059
R = 0.9998
DL = 0.0513
BEC = 0.6434

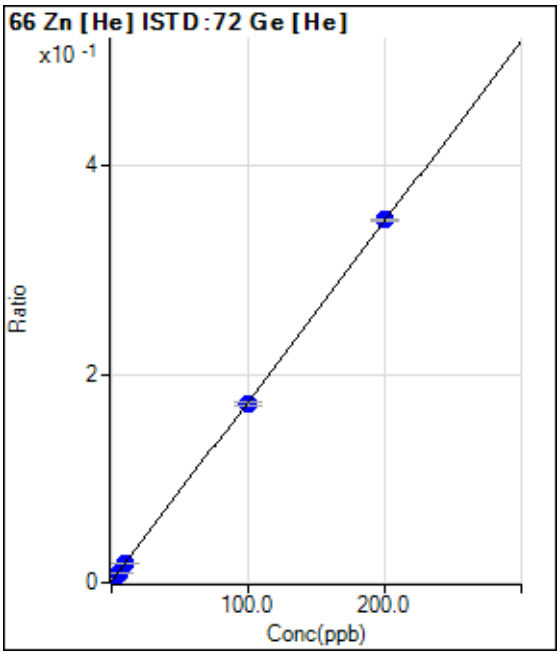
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2977.05	0.0008	P	5.3
2	☐	2.000	1.805	11475.06	0.0032	P	3.6
3	☐	5.000	5.056	26365.91	0.0075	P	3.3
4	☐	10.000	10.120	49657.69	0.0142	P	1.8
5	☐	100.000	100.624	460299.80	0.1338	P	0.5
6	☐	200.000	199.683	887145.35	0.2646	P	1.2

y = 0.0013 * x + 8.4414E-004
R = 1.0000
DL = 0.1025
BEC = 0.639

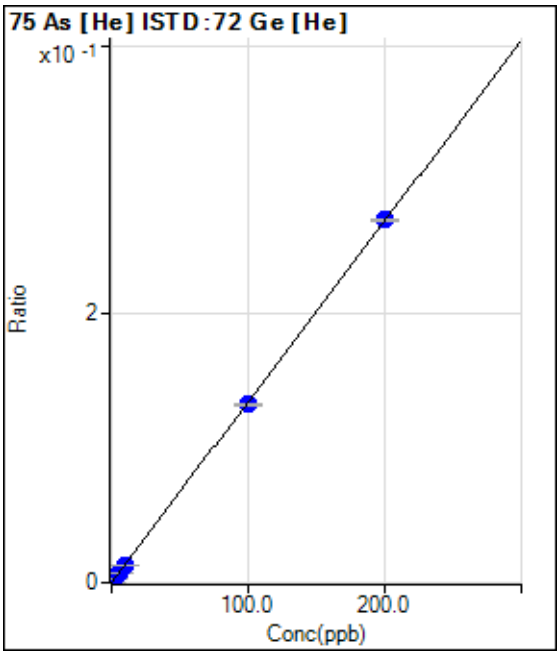
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.74	0.0011	P	6.7
2	☐	2.000	1.836	4504.16	0.0042	P	1.6
3	☐	5.000	4.978	10354.13	0.0097	P	2.5
4	☐	10.000	10.001	19237.27	0.0184	P	2.5
5	☐	100.000	98.479	180588.42	0.1714	P	2.0
6	☐	200.000	200.763	348403.35	0.3483	P	0.3

y = 0.0017 * x + 0.0011
R = 1.0000
DL = 0.124
BEC = 0.6131

Weight: <None>
Min Conc: <None>

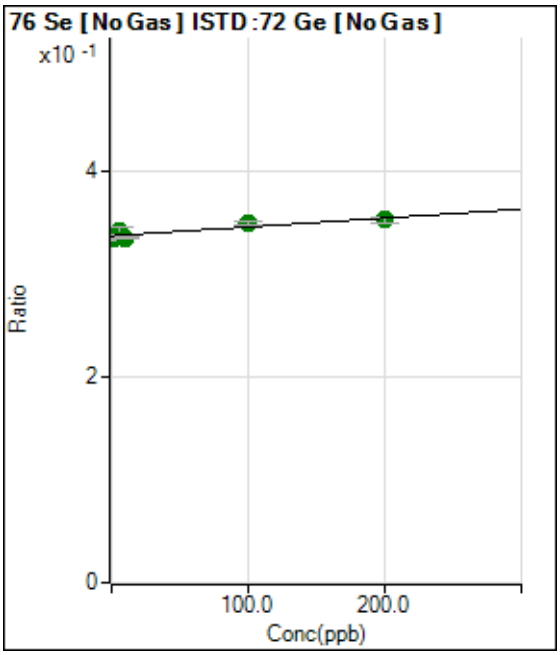


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	15.7
2	☐	2.000	2.050	3052.59	0.0029	P	4.5
3	☐	5.000	5.000	7322.02	0.0068	P	2.2
4	☐	10.000	9.977	14186.38	0.0135	P	1.0
5	☐	100.000	98.513	139839.87	0.1327	P	1.8
6	☐	200.000	200.744	270401.53	0.2703	P	0.5

y = 0.0013 * x + 1.1076E-004
R = 1.0000
DL = 0.03883
BEC = 0.08229

Weight: <None>
Min Conc: <None>

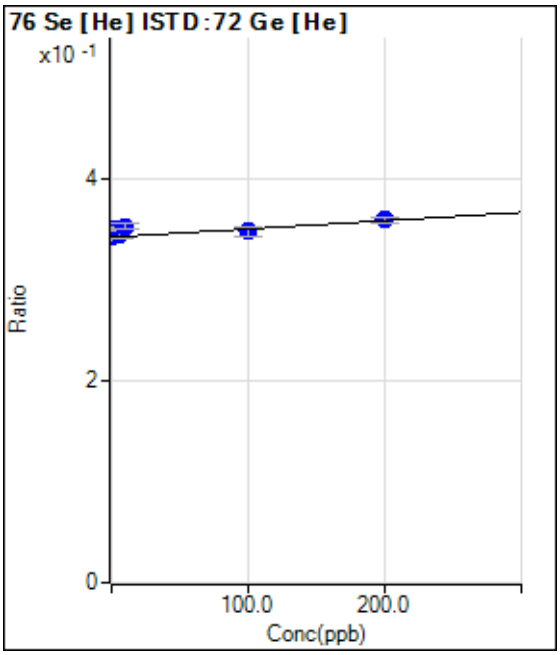
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1192343.37	0.3379	A	0.9
2	☐	2.000	-25.916	1193297.66	0.3356	A	1.1
3	☐	5.000	59.303	1202157.64	0.3430	A	2.6
4	☐	10.000	-24.271	1173155.71	0.3358	A	0.7
5	☐	100.000	144.499	1205644.56	0.3504	A	1.2
6	☐	200.000	178.385	1184498.13	0.3533	A	1.5

y = 8.6649E-005 * x + 0.3379
R = 0.9019
DL = 105.2
BEC = 3899

Weight: <None>
Min Conc: <None>

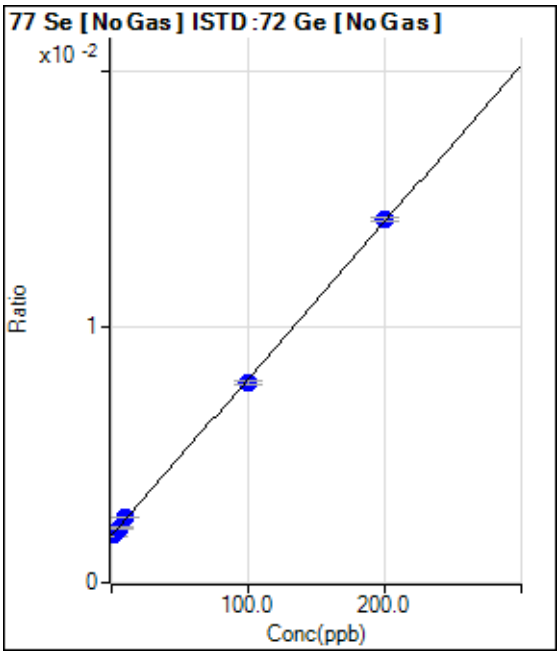


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369756.70	0.3418	P	1.5
2	☐	2.000	89.092	371261.65	0.3491	P	1.2
3	☐	5.000	36.311	369002.78	0.3448	P	2.0
4	☐	10.000	133.868	369571.54	0.3528	P	1.2
5	☐	100.000	67.568	365951.12	0.3473	P	2.3
6	☐	200.000	208.369	358959.36	0.3589	P	1.6

y = 8.1972E-005 * x + 0.3418
R = 0.7223
DL = 184.2
BEC = 4169

Weight: <None>
Min Conc: <None>

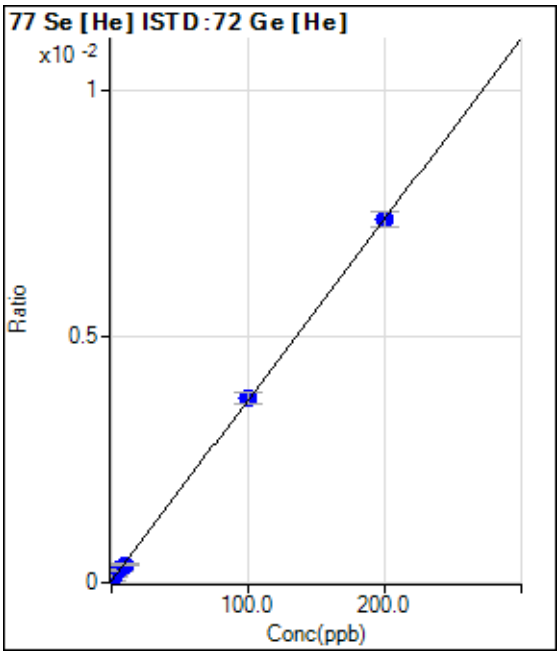
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6518.38	0.0018	P	3.2
2	☐	2.000	0.570	6688.43	0.0019	P	6.3
3	☐	5.000	4.457	7432.18	0.0021	P	2.9
4	☐	10.000	11.469	8913.11	0.0026	P	1.6
5	☐	100.000	97.444	26947.17	0.0078	P	1.1
6	☐	200.000	201.232	47624.64	0.0142	P	1.1

y = 6.1420E-005 * x + 0.0018
R = 0.9998
DL = 2.915
BEC = 30.07

Weight: <None>
Min Conc: <None>

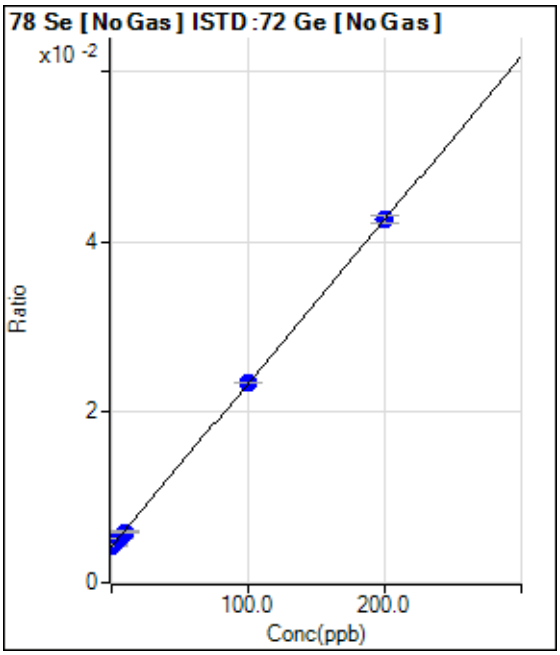


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0000	P	79.9
2	☐	2.000	2.588	143.34	0.0001	P	40.7
3	☐	5.000	5.967	276.68	0.0003	P	7.0
4	☐	10.000	8.902	383.35	0.0004	P	15.9
5	☐	100.000	100.815	3937.30	0.0037	P	5.7
6	☐	200.000	199.617	7365.47	0.0074	P	4.4

y = 3.6687E-005 * x + 3.9717E-005
R = 1.0000
DL = 2.596
BEC = 1.083

Weight: <None>
Min Conc: <None>

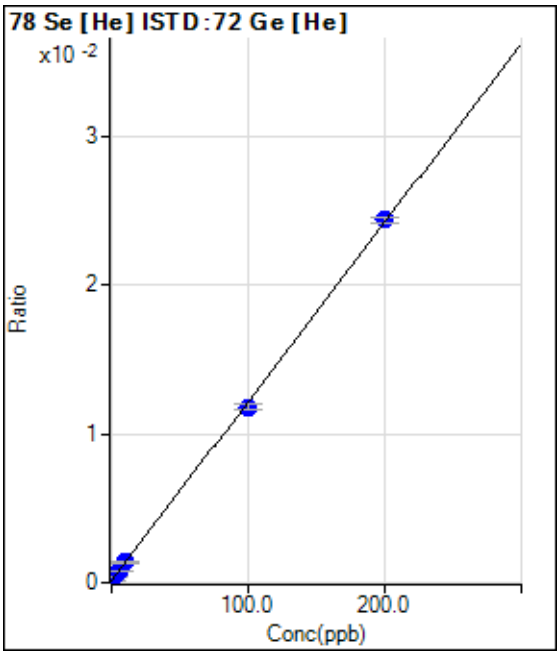
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14888.48	0.0042	P	1.8
2	☐	2.000	1.446	15983.00	0.0045	P	4.4
3	☐	5.000	5.304	18346.07	0.0052	P	1.2
4	☐	10.000	9.154	20866.41	0.0060	P	0.8
5	☐	100.000	100.201	80600.19	0.0234	P	0.6
6	☐	200.000	199.940	142612.46	0.0425	P	2.0

y = 1.9169E-004 * x + 0.0042
R = 1.0000
DL = 1.203
BEC = 22

Weight: <None>
Min Conc: <None>

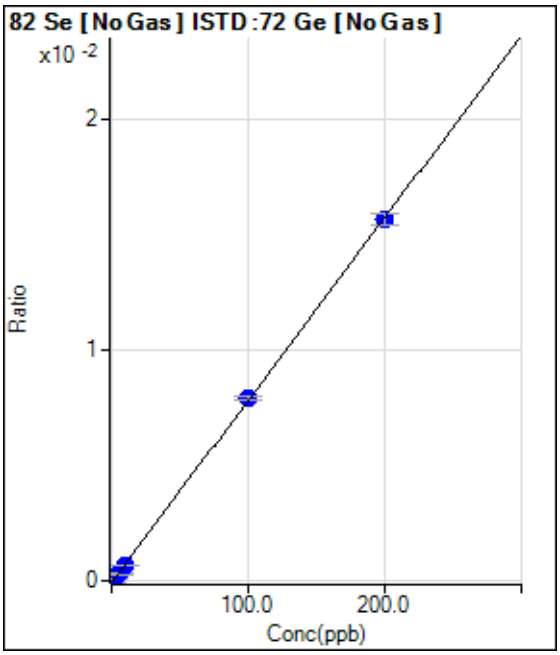


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.00	0.0001	P	7.1
2	☐	2.000	2.204	431.34	0.0004	P	3.6
3	☐	5.000	5.334	837.36	0.0008	P	0.7
4	☐	10.000	10.116	1421.41	0.0014	P	3.9
5	☐	100.000	96.870	12420.39	0.0118	P	3.0
6	☐	200.000	201.549	24384.69	0.0244	P	1.4

y = 1.2025E-004 * x + 1.4058E-004
R = 0.9998
DL = 0.2488
BEC = 1.169

Weight: <None>
Min Conc: <None>

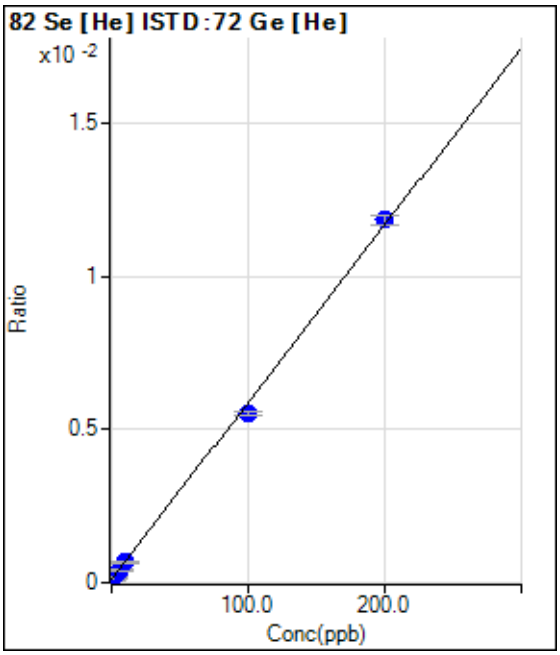
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-237.21	-0.0001	P	-39.7
2	☐	2.000	2.055	336.79	0.0001	P	51.5
3	☐	5.000	5.136	1183.93	0.0003	P	23.5
4	☐	10.000	9.714	2440.49	0.0007	P	6.4
5	☐	100.000	101.404	27289.61	0.0079	P	1.8
6	☐	200.000	199.309	52462.74	0.0157	P	3.2

y = 7.8872E-005 * x - 6.7533E-005
R = 1.0000
DL = 1.019
BEC = -0.8562

Weight: <None>
Min Conc: <None>

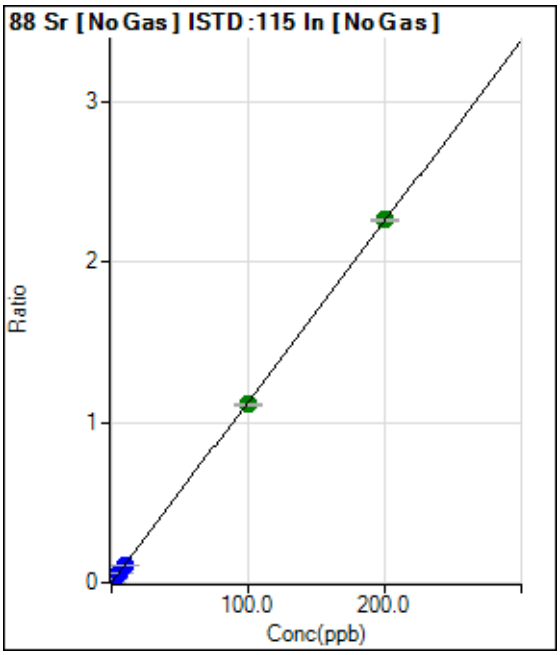


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	20.6
2	☐	2.000	0.953	170.00	0.0002	P	12.7
3	☐	5.000	5.087	426.68	0.0004	P	19.5
4	☐	10.000	9.841	706.70	0.0007	P	5.1
5	☐	100.000	93.993	5848.03	0.0055	P	2.0
6	☐	200.000	203.020	11865.46	0.0119	P	2.7

y = 5.7910E-005 * x + 1.0479E-004
R = 0.9994
DL = 1.121
BEC = 1.81

Weight: <None>
Min Conc: <None>

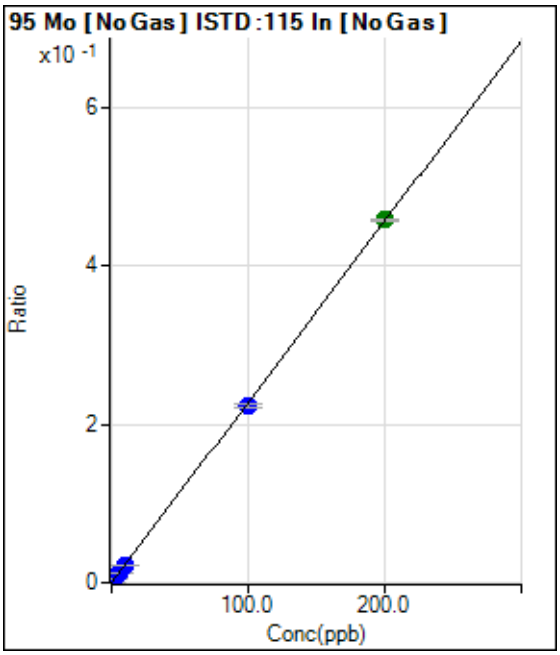
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.73	0.0008	P	9.9
2	☐	2.000	1.999	94424.99	0.0233	P	3.2
3	☐	5.000	4.915	228622.86	0.0561	P	1.3
4	☐	10.000	9.859	448383.51	0.1118	P	1.3
5	☐	100.000	98.511	4397374.20	1.1106	A	1.7
6	☐	200.000	200.754	8652127.37	2.2624	A	0.8

y = 0.0113 * x + 7.5304E-004
R = 1.0000
DL = 0.01989
BEC = 0.06684

Weight: <None>
Min Conc: <None>

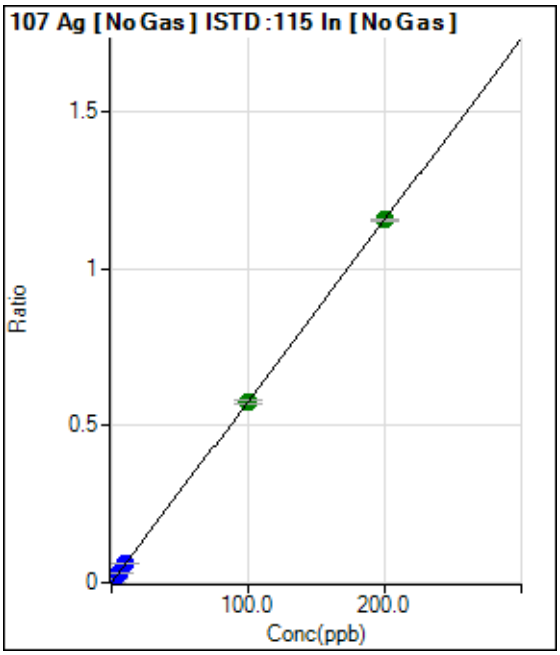


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	223.34	0.0001	P	21.7
2	☐	2.000	1.938	18132.61	0.0045	P	5.4
3	☐	5.000	4.904	45735.30	0.0112	P	0.8
4	☐	10.000	9.877	90459.08	0.0226	P	1.4
5	☐	100.000	98.117	885383.50	0.2236	P	1.6
6	☐	200.000	200.951	1751129.50	0.4579	A	0.3

y = 0.0023 * x + 5.5578E-005
R = 0.9999
DL = 0.01584
BEC = 0.02439

Weight: <None>
Min Conc: <None>

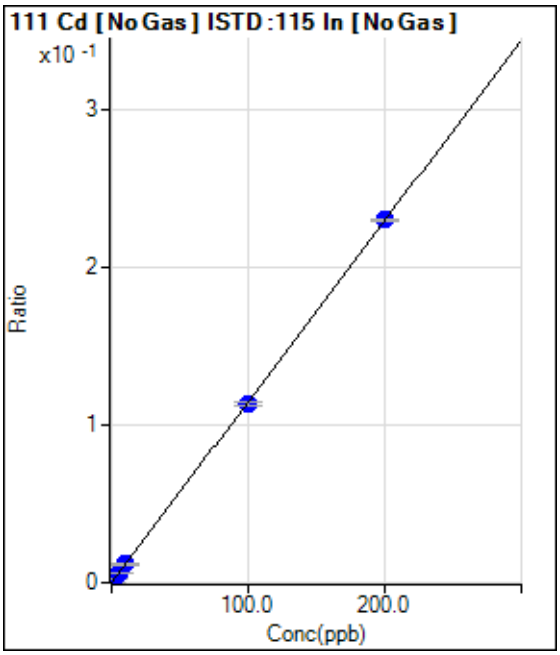
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	820.04	0.0002	P	10.6
2	☐	2.000	2.017	48097.67	0.0119	P	4.6
3	☐	5.000	5.027	119150.05	0.0293	P	1.2
4	☐	10.000	10.147	235970.07	0.0588	P	0.9
5	☐	100.000	99.823	2284891.63	0.5771	A	2.4
6	☐	200.000	200.080	4422624.62	1.1565	A	0.4

y = 0.0058 * x + 2.0418E-004
R = 1.0000
DL = 0.01119
BEC = 0.03533

Weight: <None>
Min Conc: <None>

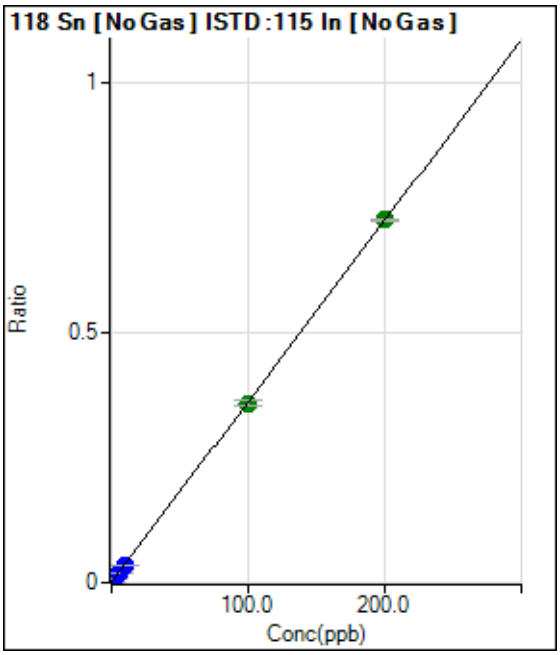


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	124.9
2	☐	2.000	1.986	9256.77	0.0023	P	6.6
3	☐	5.000	4.859	22729.76	0.0056	P	0.7
4	☐	10.000	10.153	46736.33	0.0117	P	1.6
5	☐	100.000	98.663	448338.52	0.1132	P	1.8
6	☐	200.000	200.665	880693.01	0.2303	P	0.2

y = 0.0011 * x + 4.1579E-006
R = 1.0000
DL = 0.01357
BEC = 0.003623

Weight: <None>
Min Conc: <None>

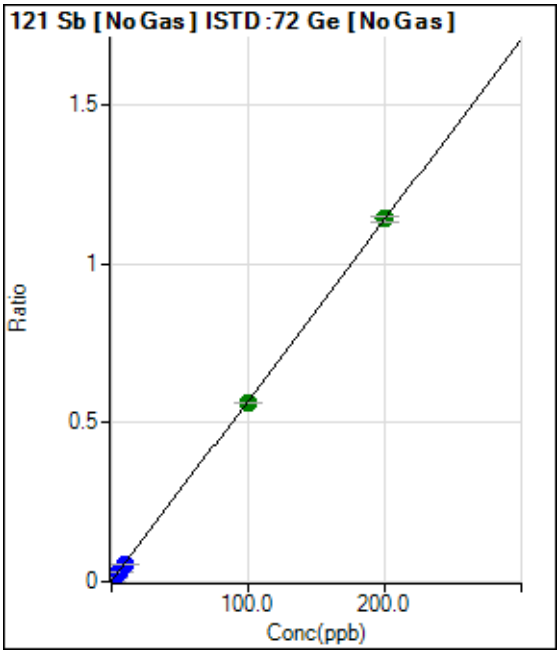
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3317.16	0.0008	P	3.1
2	☐	2.000	1.910	31384.36	0.0077	P	2.3
3	☐	5.000	4.808	74222.45	0.0182	P	1.7
4	☐	10.000	9.628	142988.95	0.0357	P	2.0
5	☐	100.000	99.192	1424470.97	0.3597	A	3.1
6	☐	200.000	200.429	2776211.84	0.7260	A	0.7

y = 0.0036 * x + 8.2600E-004
R = 1.0000
DL = 0.02125
BEC = 0.2283

Weight: <None>
Min Conc: <None>

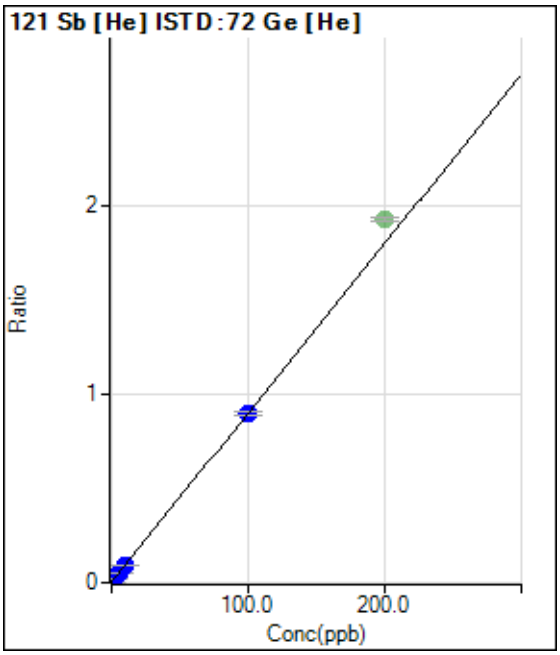


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5744.70	0.0016	P	1.7
2	☐	2.000	1.981	45823.78	0.0129	P	1.3
3	☐	5.000	4.863	102612.56	0.0293	P	1.0
4	☐	10.000	9.770	199746.07	0.0572	P	0.5
5	☐	100.000	98.749	1937352.16	0.5630	A	0.8
6	☐	200.000	200.640	3830002.96	1.1423	A	1.4

y = 0.0057 * x + 0.0016
R = 1.0000
DL = 0.01468
BEC = 0.2862

Weight: <None>
Min Conc: <None>

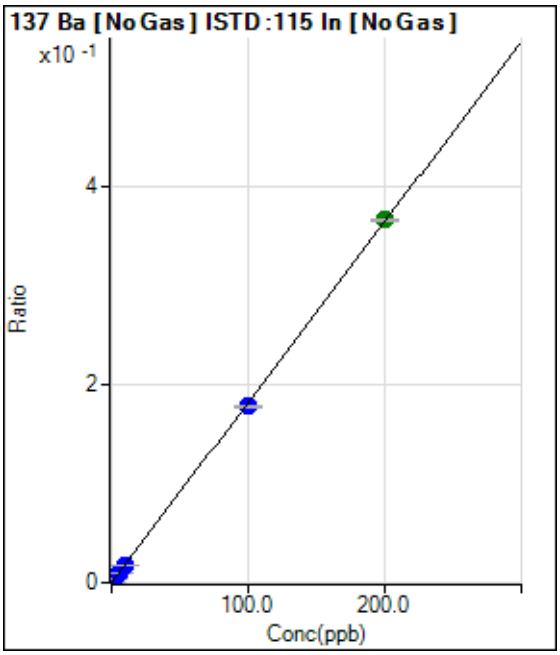
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.39	0.0027	P	5.1
2	☐	2.000	2.056	22556.36	0.0212	P	2.6
3	☐	5.000	5.008	51130.01	0.0478	P	2.2
4	☐	10.000	10.182	98810.88	0.0943	P	1.2
5	☐	100.000	99.980	950448.71	0.9021	P	2.5
6	☑	200.000		1928731.64	1.9282	A	1.2

y = 0.0090 * x + 0.0027
R = 1.0000
DL = 0.04623
BEC = 0.3021

Weight: <None>
Min Conc: <None>

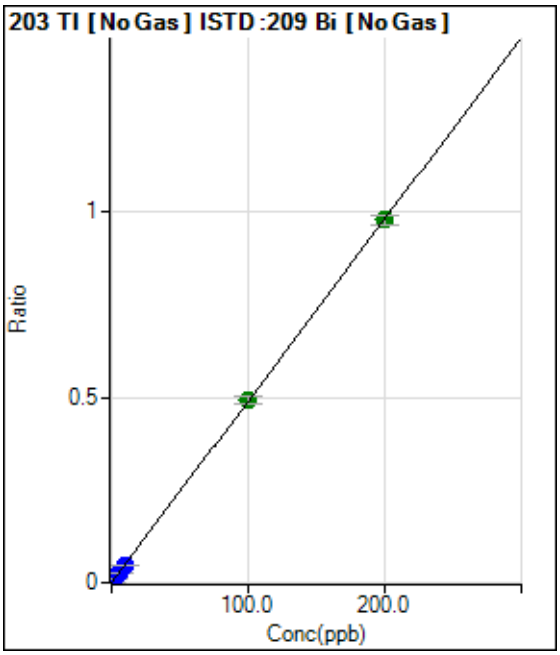


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	443.35	0.0001	P	25.1
2	☐	2.000	2.545	19221.12	0.0047	P	2.5
3	☐	5.000	4.879	36575.15	0.0090	P	0.7
4	☐	10.000	9.919	72743.40	0.0181	P	2.4
5	☐	100.000	97.725	703913.77	0.1778	P	1.2
6	☐	200.000	201.139	1398741.70	0.3658	A	0.8

y = 0.0018 * x + 1.1044E-004
R = 0.9999
DL = 0.04577
BEC = 0.06075

Weight: <None>
Min Conc: <None>

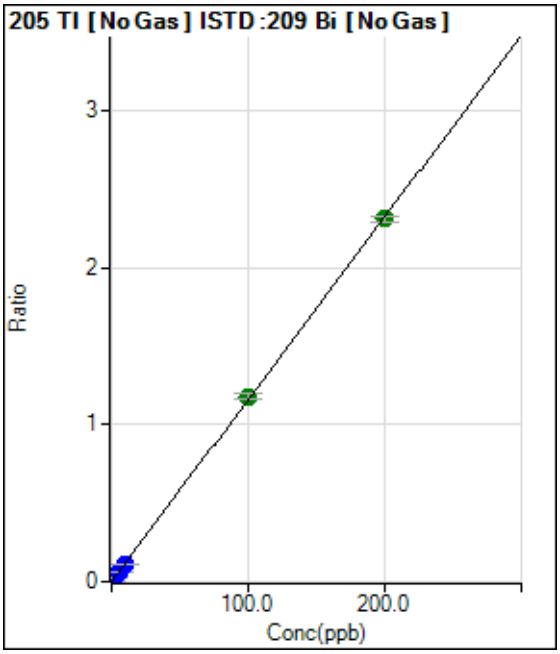
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	426.68	0.0001	P	22.8
2	☐	2.000	1.941	34792.08	0.0096	P	5.4
3	☐	5.000	4.812	86555.60	0.0237	P	2.6
4	☐	10.000	9.535	172776.42	0.0469	P	2.7
5	☐	100.000	100.522	1773883.98	0.4929	A	4.0
6	☐	200.000	199.768	3495434.32	0.9795	A	2.3

y = 0.0049 * x + 1.1833E-004
R = 1.0000
DL = 0.01648
BEC = 0.02414

Weight: <None>
Min Conc: <None>

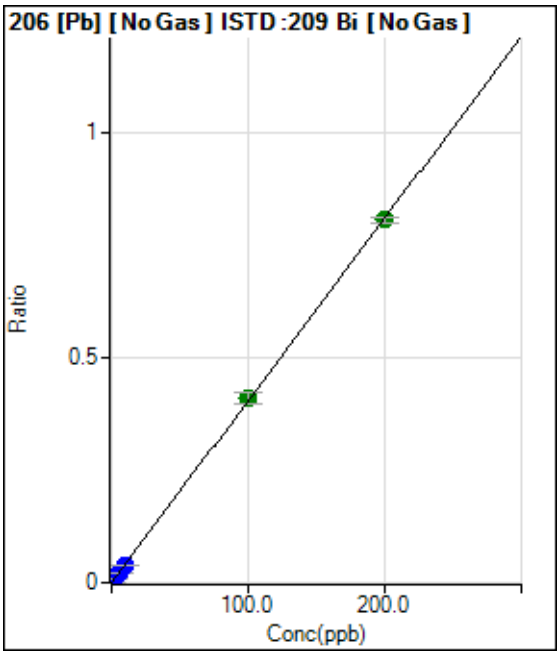


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.07	0.0003	P	11.9
2	☐	2.000	1.996	84717.02	0.0235	P	3.7
3	☐	5.000	4.866	207186.20	0.0567	P	1.7
4	☐	10.000	9.716	416657.91	0.1130	P	1.4
5	☐	100.000	101.703	4246780.25	1.1799	A	3.1
6	☐	200.000	199.166	8244475.29	2.3102	A	1.7

y = 0.0116 * x + 3.1084E-004
R = 0.9999
DL = 0.009554
BEC = 0.0268

Weight: <None>
Min Conc: <None>

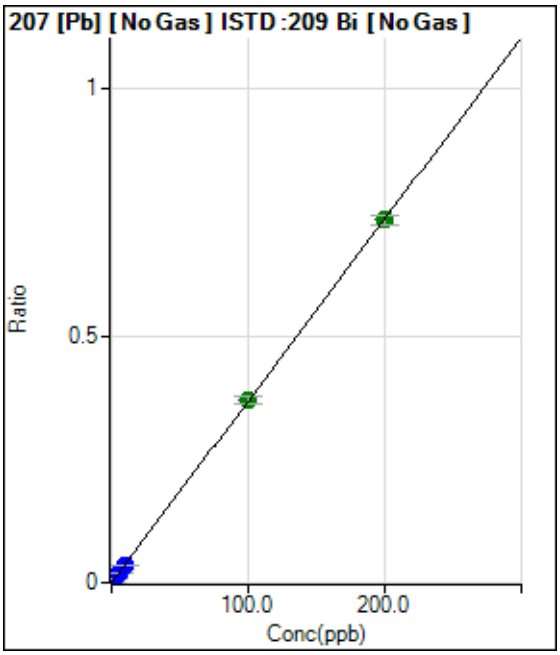
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	560.03	0.0002	P	14.4
2	☐	2.000	1.980	29451.90	0.0082	P	2.3
3	☐	5.000	4.902	72859.17	0.0200	P	2.1
4	☐	10.000	9.755	145859.57	0.0396	P	2.3
5	☐	100.000	101.466	1475024.51	0.4100	A	5.5
6	☐	200.000	199.282	2873055.79	0.8051	A	1.9

y = 0.0040 * x + 1.5565E-004
R = 1.0000
DL = 0.0166
BEC = 0.03854

Weight: <None>
Min Conc: <None>

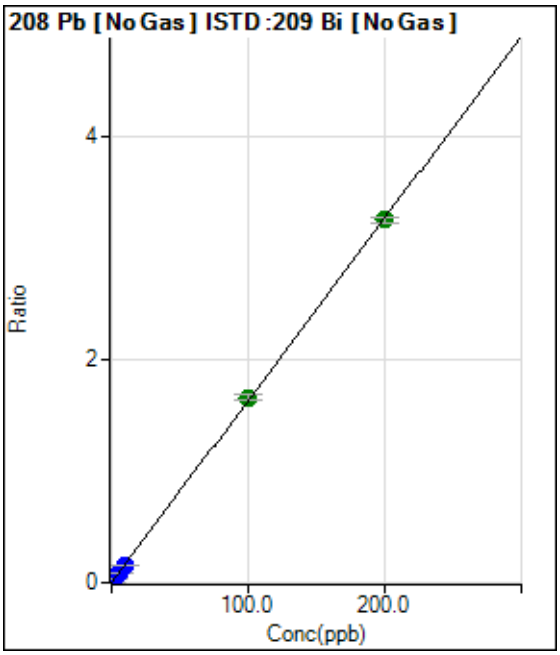


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0002	P	12.8
2	☐	2.000	1.948	26421.64	0.0073	P	2.6
3	☐	5.000	4.838	65508.57	0.0179	P	1.7
4	☐	10.000	9.718	132297.63	0.0359	P	3.0
5	☐	100.000	100.581	1331944.49	0.3700	A	3.3
6	☐	200.000	199.728	2621461.52	0.7346	A	2.8

y = 0.0037 * x + 1.5356E-004
R = 1.0000
DL = 0.01608
BEC = 0.04176

Weight: <None>
Min Conc: <None>

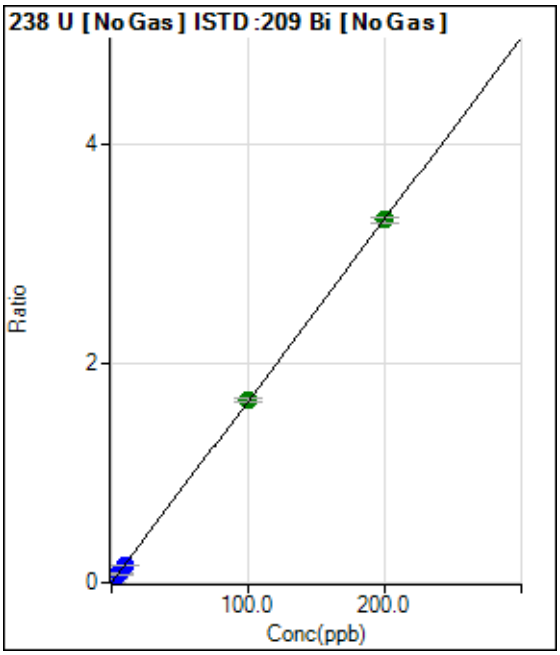
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2400.14	0.0007	P	0.7
2	☐	2.000	1.989	119485.93	0.0331	P	2.9
3	☐	5.000	4.887	293278.99	0.0803	P	1.5
4	☐	10.000	9.792	590894.29	0.1603	P	2.5
5	☐	100.000	101.575	5961660.20	1.6564	A	3.3
6	☐	200.000	199.226	11591494.52	3.2481	A	1.3

y = 0.0163 * x + 6.6648E-004
R = 1.0000
DL = 0.0009123
BEC = 0.04089

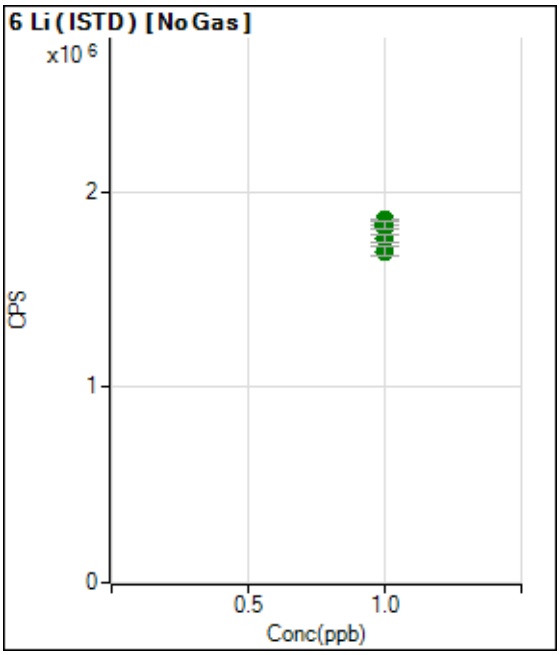
Weight: <None>
Min Conc: <None>



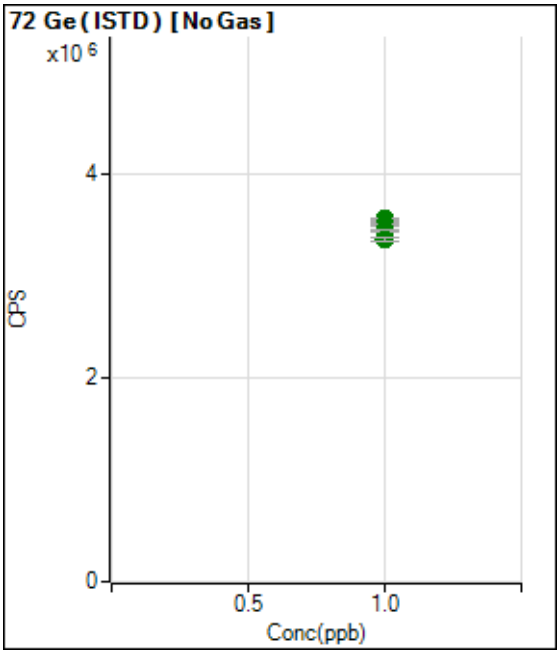
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	23.8
2	☐	2.000	1.942	116437.11	0.0322	P	2.3
3	☐	5.000	4.820	291903.71	0.0800	P	2.9
4	☐	10.000	9.565	584845.86	0.1586	P	2.7
5	☐	100.000	100.556	6001852.00	1.6674	A	2.8
6	☐	200.000	199.749	11819957.32	3.3122	A	1.5

y = 0.0166 * x + 3.8826E-005
R = 1.0000
DL = 0.001673
BEC = 0.002342

Weight: <None>
Min Conc: <None>

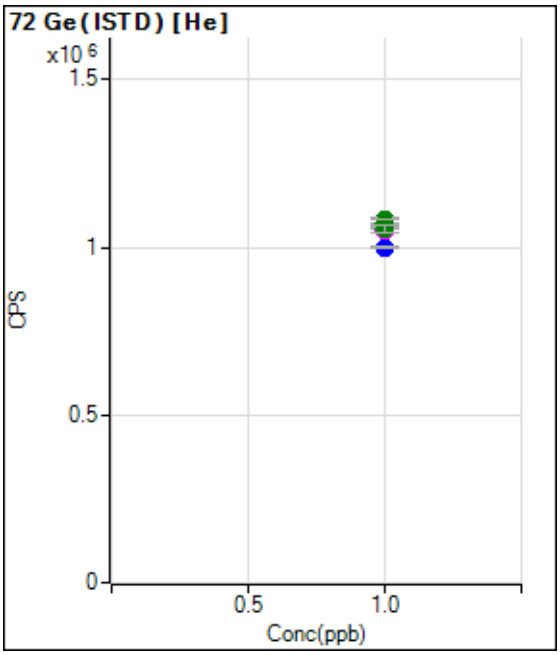


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1845435.82		A	1.9
2	☐	1.000		1857954.58		A	0.5
3	☐	1.000		1820914.24		A	1.0
4	☐	1.000		1830966.28		A	1.9
5	☐	1.000		1763063.66		A	1.9
6	☐	1.000		1695773.28		A	2.8

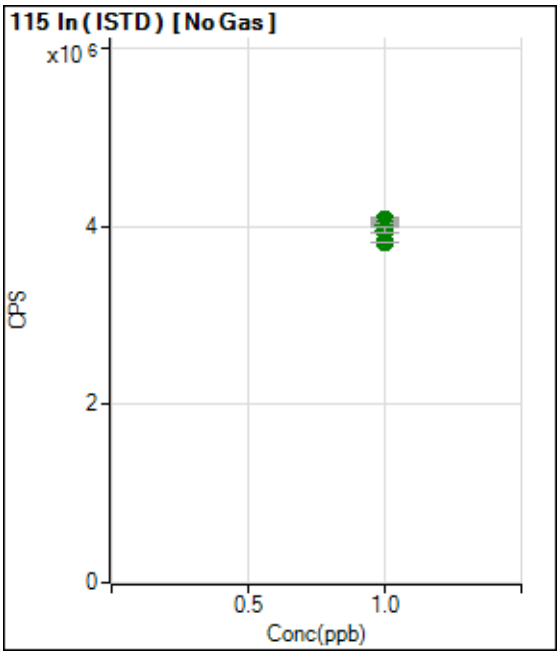


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3529374.43		A	2.1
2	☐	1.000		3555305.47		A	0.7
3	☐	1.000		3505254.22		A	1.1
4	☐	1.000		3493937.14		A	0.6
5	☐	1.000		3440894.32		A	0.8
6	☐	1.000		3352551.93		A	1.2

Calibration for 015_ICV.d

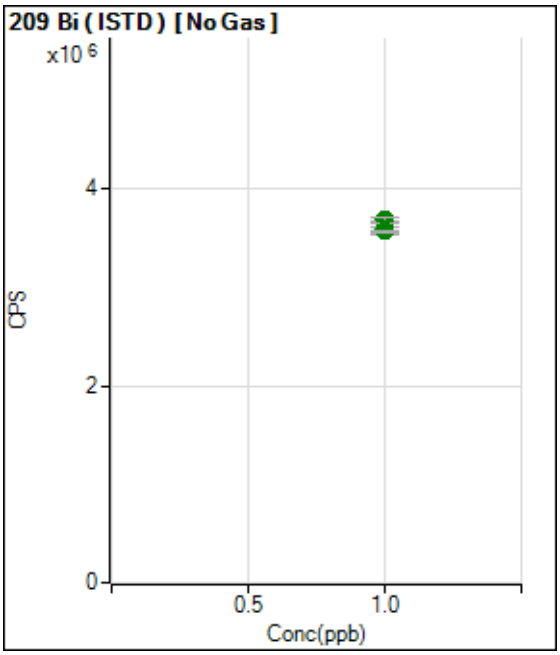


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1081993.24		A	1.6
2	☐	1.000		1063560.61		A	0.9
3	☐	1.000		1070622.98		A	2.1
4	☐	1.000		1047766.49		M	1.2
5	☐	1.000		1053938.60		A	1.9
6	☐	1.000		1000295.09		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4016066.83		A	0.4
2	☐	1.000		4058930.25		A	2.5
3	☐	1.000		4073237.28		A	0.9
4	☐	1.000		4010249.86		A	1.1
5	☐	1.000		3960129.01		A	1.4
6	☐	1.000		3824234.95		A	0.4

Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3601111.82		A	0.9
2	☐	1.000		3613074.11		A	1.9
3	☐	1.000		3651945.99		A	1.7
4	☐	1.000		3687668.80		A	1.7
5	☐	1.000		3601582.13		A	3.0
6	☐	1.000		3568942.87		A	0.9

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	008CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T10:59:35-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	108504	0.00
Be	9	1	No Gas	25	240.00
V	51	2	He	1173	0.61
Cr	52	2	He	2354	0.40
Fe	56	2	He	20322	0.00
Se	78	2	He	152	3.77
As	75	2	He	120	14.08
Ca	44	2	He	2050	0.18
Na	23	2	He	125174	0.00
Mg	24	2	He	1964	0.21
K	39	2	He	84729	0.00
Mn	55	2	He	6292	0.10
Co	59	2	He	70	53.99
Ni	60	2	He	630	1.76
Cu	63	2	He	6432	0.04
Zn	66	2	He	1147	0.49
Al	27	2	He	2627	0.11
B	11	1	No Gas	33026	0.00
Al	27	1	No Gas	114096	0.00
Si	28	1	No Gas	575676	0.00
Ag	107	1	No Gas	820	1.30
Cd	111	1	No Gas	17	749.40
Sr	88	1	No Gas	3024	0.32
Mo	95	1	No Gas	223	9.89
Sn	118	1	No Gas	3317	0.09
Sb	121	1	No Gas	5745	0.07
Ba	137	1	No Gas	443	5.60
Tl	205	1	No Gas	1120	1.13
Tl	203	1	No Gas	427	5.53
Pb	208	1	No Gas	2400	0.06
U	238	1	No Gas	140	17.68
Ca	43	2	He	67	12.99
Sb	121	2	He	2940	0.19
Ti	47	2	He	23	212.09
Cu	63	1	No Gas	15693	0.03

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	1845436	1.89
Ge	72	2	He	1081993	1.58
Ge	72	1	No Gas	3529374	2.09
In	115	1	No Gas	4016067	0.41

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	3601112	0.92

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	009CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:01:34-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	11220	0.03
V	51	2	He	18024	0.01
Cr	52	2	He	22906	0.01
Fe	56	2	He	1923594	0.00
Se	78	2	He	431	0.70
As	75	2	He	3053	0.15
Ca	44	2	He	13016	0.01
Na	23	2	He	431130	0.00
Mg	24	2	He	183843	0.00
K	39	2	He	298482	0.00
Mn	55	2	He	16230	0.02
Co	59	2	He	30094	0.01
Ni	60	2	He	7596	0.05
Cu	63	2	He	26369	0.00
Zn	66	2	He	4504	0.03
Al	27	2	He	4921	0.06
B	11	1	No Gas	61728	0.00
Al	27	1	No Gas	209316	0.00
Si	28	1	No Gas	659760	0.00
Ag	107	1	No Gas	48098	0.01
Cd	111	1	No Gas	9257	0.05
Sr	88	1	No Gas	94425	0.00
Mo	95	1	No Gas	18133	0.02
Sn	118	1	No Gas	31384	0.00
Sb	121	1	No Gas	45824	0.00
Ba	137	1	No Gas	19221	0.01
Tl	205	1	No Gas	84717	0.00
Tl	203	1	No Gas	34792	0.01
Pb	208	1	No Gas	119486	0.00
U	238	1	No Gas	116437	0.00
Ca	43	2	He	773	0.92
Sb	121	2	He	22556	0.01
Cu	63	1	No Gas	52137	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	1857955	0.49	1845436	100.68	70	120	
Ge	72	2	He	1063561	0.90	1081993	98.30	70	120	
Ge	72	1	No Gas	3555305	0.69	3529374	100.73	70	120	

Calibration Standard Report

In	115	1	No Gas	4058930	2.46	4016067	101.07	70	120	
Bi	209	1	No Gas	3613074	1.91	3601112	100.33	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:03:33-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	27898	0.01
V	51	2	He	43147	0.00
Cr	52	2	He	52441	0.00
Fe	56	2	He	4592542	0.00
Se	78	2	He	837	0.33
As	75	2	He	7322	0.01
Ca	44	2	He	29689	0.01
Na	23	2	He	869707	0.00
Mg	24	2	He	445942	0.00
K	39	2	He	608338	0.00
Mn	55	2	He	38685	0.00
Co	59	2	He	73964	0.00
Ni	60	2	He	19074	0.03
Cu	63	2	He	55932	0.00
Zn	66	2	He	10354	0.03
Al	27	2	He	5645	0.11
B	11	1	No Gas	107775	0.00
Al	27	1	No Gas	240913	0.00
Si	28	1	No Gas	838682	0.00
Ag	107	1	No Gas	119150	0.00
Cd	111	1	No Gas	22730	0.01
Sr	88	1	No Gas	228623	0.00
Mo	95	1	No Gas	45735	0.00
Sn	118	1	No Gas	74222	0.00
Sb	121	1	No Gas	102613	0.00
Ba	137	1	No Gas	36575	0.00
Tl	205	1	No Gas	207186	0.00
Tl	203	1	No Gas	86556	0.00
Pb	208	1	No Gas	293279	0.00
U	238	1	No Gas	291904	0.00
Ca	43	2	He	1833	0.38
Sb	121	2	He	51130	0.00
Cu	63	1	No Gas	107274	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	1820914	0.97	1845436	98.67	70	120	
Ge	72	2	He	1070623	2.08	1081993	98.95	70	120	
Ge	72	1	No Gas	3505254	1.09	3529374	99.32	70	120	

Calibration Standard Report

In	115	1	No Gas	4073237	0.85	4016067	101.42	70	120	
Bi	209	1	No Gas	3651946	1.69	3601112	101.41	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:05:31-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	55558	0.00
V	51	2	He	85754	0.00
Cr	52	2	He	103187	0.00
Fe	56	2	He	9096100	0.00
Se	78	2	He	1421	0.20
As	75	2	He	14186	0.00
Ca	44	2	He	55971	0.00
Na	23	2	He	1603916	0.00
Mg	24	2	He	872113	0.00
K	39	2	He	1151158	0.00
Mn	55	2	He	75334	0.00
Co	59	2	He	147168	0.00
Ni	60	2	He	37723	0.01
Cu	63	2	He	103143	0.00
Zn	66	2	He	19237	0.02
Al	27	2	He	8543	0.03
B	11	1	No Gas	184884	0.00
Al	27	1	No Gas	365947	0.00
Si	28	1	No Gas	1111424	0.00
Ag	107	1	No Gas	235970	0.00
Cd	111	1	No Gas	46736	0.00
Sr	88	1	No Gas	448384	0.00
Mo	95	1	No Gas	90459	0.00
Sn	118	1	No Gas	142989	0.00
Sb	121	1	No Gas	199746	0.00
Ba	137	1	No Gas	72743	0.00
Tl	205	1	No Gas	416658	0.00
Tl	203	1	No Gas	172776	0.00
Pb	208	1	No Gas	590894	0.00
U	238	1	No Gas	584846	0.00
Ca	43	2	He	3410	0.14
Sb	121	2	He	98811	0.00
Cu	63	1	No Gas	196866	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	1830966	1.85	1845436	99.22	70	120	
Ge	72	2	He	1047766	1.16	1081993	96.84	70	120	
Ge	72	1	No Gas	3493937	0.58	3529374	99.00	70	120	

Calibration Standard Report

In	115	1	No Gas	4010250	1.10	4016067	99.86	70	120	
Bi	209	1	No Gas	3687669	1.74	3601112	102.40	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:07:28-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	557075	0.00
V	51	2	He	835168	0.00
Cr	52	2	He	977024	0.00
Fe	56	2	He	86432779	0.00
Se	78	2	He	12420	0.01
As	75	2	He	139840	0.00
Ca	44	2	He	528039	0.00
Na	23	2	He	14269973	0.00
Mg	24	2	He	8283698	0.00
K	39	2	He	10187139	0.00
Mn	55	2	He	754898	0.00
Co	59	2	He	1475795	0.00
Ni	60	2	He	355543	0.00
Cu	63	2	He	945697	0.00
Zn	66	2	He	180588	0.00
Al	27	2	He	54313	0.00
B	11	1	No Gas	1502218	0.00
Al	27	1	No Gas	2330676	0.00
Si	28	1	No Gas	5561427	0.00
Ag	107	1	No Gas	2284892	0.00
Cd	111	1	No Gas	448339	0.00
Sr	88	1	No Gas	4397374	0.00
Mo	95	1	No Gas	885384	0.00
Sn	118	1	No Gas	1424471	0.00
Sb	121	1	No Gas	1937352	0.00
Ba	137	1	No Gas	703914	0.00
Tl	205	1	No Gas	4246780	0.00
Tl	203	1	No Gas	1773884	0.00
Pb	208	1	No Gas	5961660	0.00
U	238	1	No Gas	6001852	0.00
Ca	43	2	He	32008	0.01
Sb	121	2	He	950449	0.00
Cu	63	1	No Gas	1798780	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	1763064	1.95	1845436	95.54	70	120	
Ge	72	2	He	1053939	1.94	1081993	97.41	70	120	
Ge	72	1	No Gas	3440894	0.80	3529374	97.49	70	120	

Calibration Standard Report

In	115	1	No Gas	3960129	1.41	4016067	98.61	70	120	
Bi	209	1	No Gas	3601582	3.05	3601112	100.01	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:09:20-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	1082987	0.00
V	51	2	He	1667995	0.00
Cr	52	2	He	1928188	0.00
Fe	56	2	He	170960904	0.00
Se	78	2	He	24385	0.01
As	75	2	He	270402	0.00
Ca	44	2	He	1088008	0.00
Na	23	2	He	28026345	0.00
Mg	24	2	He	16337399	0.00
K	39	2	He	19990532	0.00
Mn	55	2	He	1452769	0.00
Co	59	2	He	2780514	0.00
Ni	60	2	He	686127	0.00
Cu	63	2	He	1870484	0.00
Zn	66	2	He	348403	0.00
Al	27	2	He	102979	0.00
B	11	1	No Gas	2959437	0.00
Al	27	1	No Gas	4282438	0.00
Si	28	1	No Gas	10244677	0.00
Ag	107	1	No Gas	4422625	0.00
Cd	111	1	No Gas	880693	0.00
Sr	88	1	No Gas	8652127	0.00
Mo	95	1	No Gas	1751130	0.00
Sn	118	1	No Gas	2776212	0.00
Sb	121	1	No Gas	3830003	0.00
Ba	137	1	No Gas	1398742	0.00
Tl	205	1	No Gas	8244475	0.00
Tl	203	1	No Gas	3495434	0.00
Pb	208	1	No Gas	11591495	0.00
U	238	1	No Gas	11819957	0.00
Ca	43	2	He	61149	0.00
Sb	121	2	He	1928732	0.00
Cu	63	1	No Gas	3440739	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	1695773	2.85	1845436	91.89	70	120	
Ge	72	2	He	1000295	0.20	1081993	92.45	70	120	
Ge	72	1	No Gas	3352552	1.20	3529374	94.99	70	120	

Calibration Standard Report

In	115	1	No Gas	3824235	0.36	4016067	95.22	70	120	
Bi	209	1	No Gas	3568943	0.87	3601112	99.11	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	015_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:13:08-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	99.811	0.959	2375068	1.49	100	99.8	90	110	
Be	9	1	No Gas	99.423	0.282	548201	0.56	100	99.4	90	110	
V	51	2	He	96.132	0.020	838227	0.39	100	96.1	90	110	
Cr	52	2	He	99.072	0.984	1001331	1.33	100	99.1	90	110	
Fe	56	2	He	9946.558	1.025	89026302	1.29	10000	99.5	90	110	
Se	78	2	He	97.127	1.894	12478	1.84	100	97.1	90	110	
As	75	2	He	97.117	0.583	138120	0.43	100	97.1	90	110	
Ca	44	2	He	9648.242	0.234	546044	0.60	10000	96.5	90	110	
Na	23	2	He	9722.018	0.501	14334141	0.23	10000	97.2	90	110	
Mg	24	2	He	9898.879	1.154	8471569	0.81	10000	99.0	90	110	
K	39	2	He	9800.680	1.387	10306062	1.04	10000	98.0	90	110	
Mn	55	2	He	94.914	0.836	728137	1.04	100	94.9	90	110	
Co	59	2	He	101.703	1.130	1494632	0.95	100	101.7	90	110	
Ni	60	2	He	99.576	1.686	359626	1.61	100	99.6	90	110	
Cu	63	2	He	97.501	1.265	957259	1.24	100	97.5	90	110	
Zn	66	2	He	99.788	0.594	183325	0.46	100	99.8	90	110	
Al	27	2	He	94.242	0.722	52362	0.84	100	94.2	90	110	
B	11	1	No Gas	498.322	1.088	1509871	1.74	500	99.7	90	110	
Al	27	1	No Gas	100.938	1.857	2254810	0.89	100	100.9	90	110	
Si	28	1	No Gas	507.372	2.321	5529799	1.08	500	101.5	90	110	
Ag	107	1	No Gas	100.952	1.726	2323270	0.86	100	101.0	90	110	
Cd	111	1	No Gas	99.553	1.268	454833	0.34	100	99.6	90	110	
Sr	88	1	No Gas	99.473	0.731	4464523	0.81	100	99.5	90	110	
Mo	95	1	No Gas	97.070	1.058	880685	0.57	100	97.1	90	110	
Sn	118	1	No Gas	99.514	0.656	1436638	0.86	100	99.5	90	110	
Sb	121	1	No Gas	102.086	2.378	1971489	1.30	100	102.1	90	110	
Ba	137	1	No Gas	99.073	1.150	717437	0.24	100	99.1	90	110	
Tl	205	1	No Gas	102.990	3.938	4316068	2.02	100	103.0	90	110	
Tl	203	1	No Gas	101.280	2.292	1794456	0.34	100	101.3	90	110	
Pb	208	1	No Gas	102.287	2.284	6026681	0.33	100	102.3	90	110	
U	238	1	No Gas	98.099	2.842	5877038	1.09	100	98.1	90	110	
Ca	43	2	He	10130.335	0.909	32679	1.00	10000	101.3	90	110	
Sb	121	2	He	94.907	0.252	954659	0.18	100	94.9	90	110	
Ti	47	2	He	97.804	1.465	32322	1.83	100	97.8	90	110	
Cu	63	1	No Gas	100.939	0.931	1767789	1.77	100	100.9	90	110	
Se	82	1	No Gas	101.021	2.324	26765	2.45	100	101.0	90	110	

QC ISTD Table

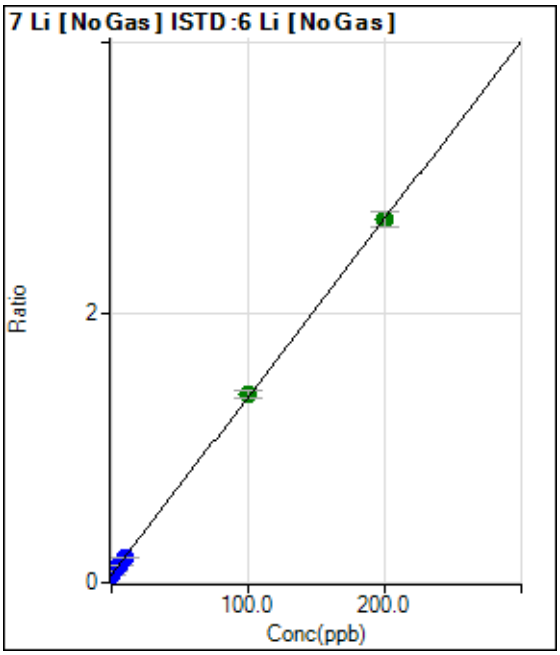
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1729416	0.74	1845436	93.71	70	120	
Ge	72	2	He	1055696	0.37	1081993	97.57	70	120	
Ge	72	1	No Gas	3388029	1.08	3529374	96.00	70	120	
In	115	1	No Gas	3981239	0.93	4016067	99.13	70	120	
Bi	209	1	No Gas	3614255	1.97	3601112	100.36	70	120	

Calibration for 015_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060421A.b\
Analysis File: 060421A.batch.bin
DA Date-Time: 6/4/2021 4:05:17 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	008CALB.d	CAL BLK	6/4/2021 10:59:35 AM
2	009CALS.d	2/10/200	6/4/2021 11:01:34 AM
3	010CALS.d	5/25/500	6/4/2021 11:03:33 AM
4	011CALS.d	10/50/100	6/4/2021 11:05:31 AM
5	012CALS.d	100/500/10K	6/4/2021 11:07:28 AM
6	013CALS.d	200/1000/20K	6/4/2021 11:09:20 AM

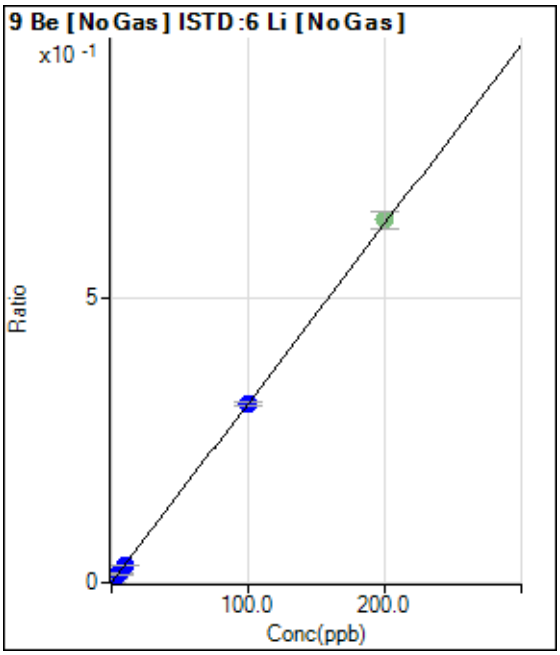
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108504.16	0.0588	P	2.0
2	☐	2.000	1.980	157714.23	0.0849	P	0.2
3	☐	5.000	5.089	229098.14	0.1258	P	1.4
4	☐	10.000	9.901	346343.26	0.1892	P	2.2
5	☐	100.000	101.081	2449446.63	1.3900	A	4.0
6	☐	200.000	199.463	4550861.91	2.6857	A	4.1

y = 0.0132 * x + 0.0588
R = 1.0000
DL = 0.2697
BEC = 4.466

Weight: <None>
Min Conc: <None>

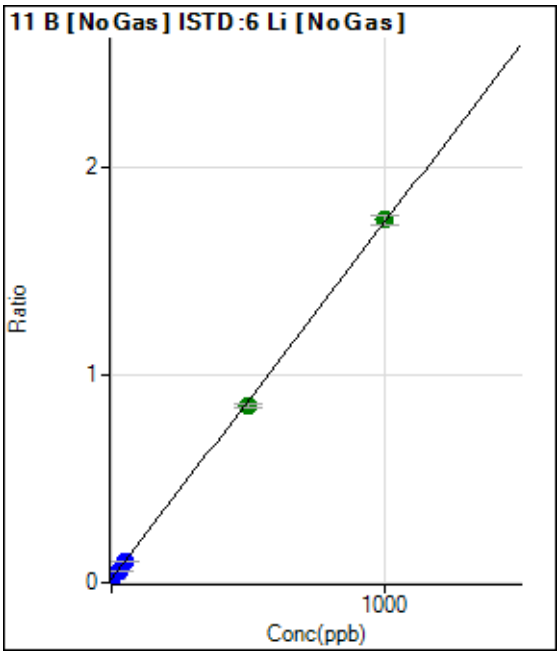


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	61.6
2	☐	2.000	1.907	11219.51	0.0060	P	3.3
3	☐	5.000	4.846	27897.74	0.0153	P	2.5
4	☐	10.000	9.605	55557.59	0.0304	P	2.3
5	☐	100.000	100.049	557075.07	0.3160	P	1.7
6	☑	200.000		1082986.60	0.6391	A	4.6

y = 0.0032 * x + 1.3644E-005
R = 1.0000
DL = 0.007982
BEC = 0.004319

Weight: <None>
Min Conc: <None>

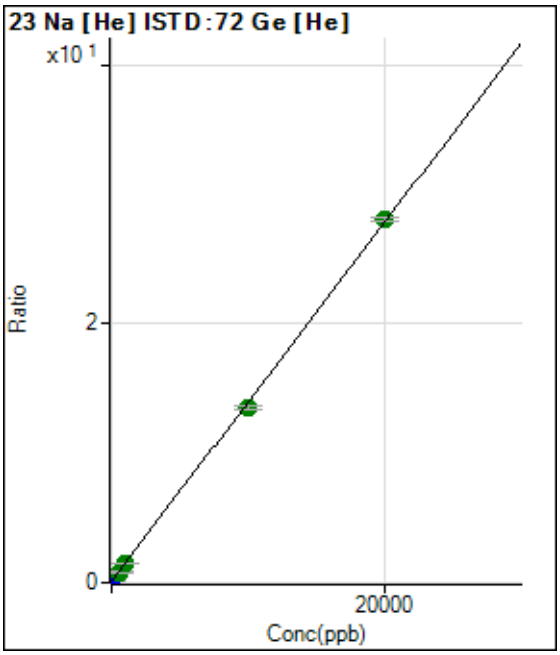
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33025.51	0.0179	P	3.2
2	☐	10.000	8.929	61728.19	0.0332	P	0.7
3	☐	25.000	24.060	107774.89	0.0592	P	0.8
4	☐	50.000	48.424	184884.12	0.1010	P	1.8
5	☐	500.000	486.089	1502218.00	0.8520	A	2.6
6	☐	1000.000	1007.069	2959436.94	1.7460	A	2.6

y = 0.0017 * x + 0.0179
R = 0.9999
DL = 1.005
BEC = 10.43

Weight: <None>
Min Conc: <None>

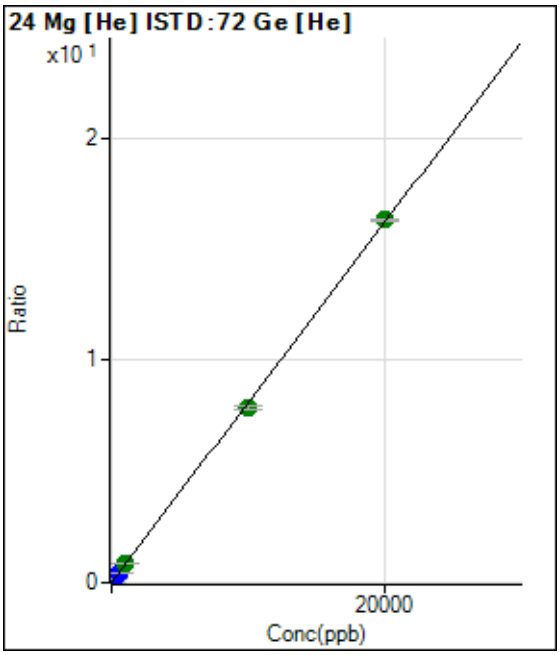


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125173.96	0.1157	P	2.6
2	☐	200.000	209.189	431130.41	0.4054	P	1.0
3	☐	500.000	503.172	869707.15	0.8125	A	1.4
4	☐	1000.000	1022.007	1603916.33	1.5309	A	1.2
5	☐	10000.000	9697.080	14269972.71	13.5435	A	2.3
6	☐	20000.000	20150.189	28026345.42	28.0182	A	1.1

y = 0.0014 * x + 0.1157
R = 0.9998
DL = 6.5
BEC = 83.57

Weight: <None>
Min Conc: <None>

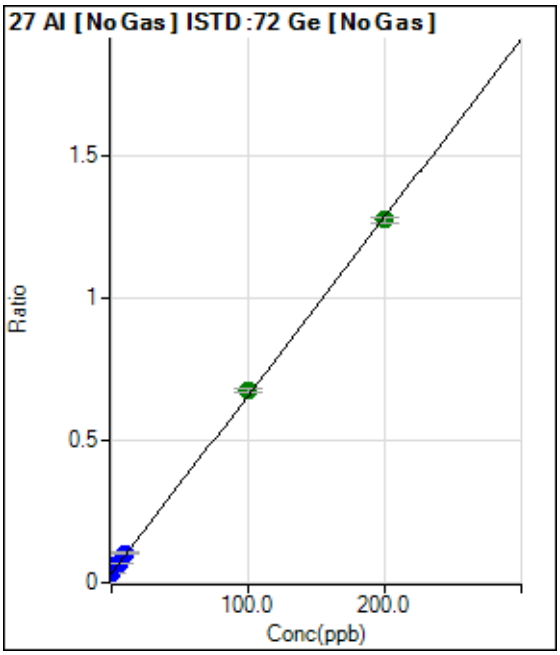
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1963.51	0.0018	P	2.6
2	☐	200.000	211.050	183842.95	0.1729	P	1.8
3	☐	500.000	511.855	445941.67	0.4167	P	2.5
4	☐	1000.000	1024.797	872112.93	0.8324	A	1.2
5	☐	10000.000	9698.659	8283697.79	7.8626	A	2.9
6	☐	20000.000	20149.024	16337398.51	16.3326	A	0.7

y = 8.1050E-004 * x + 0.0018
R = 0.9998
DL = 0.1728
BEC = 2.238

Weight: <None>
Min Conc: <None>

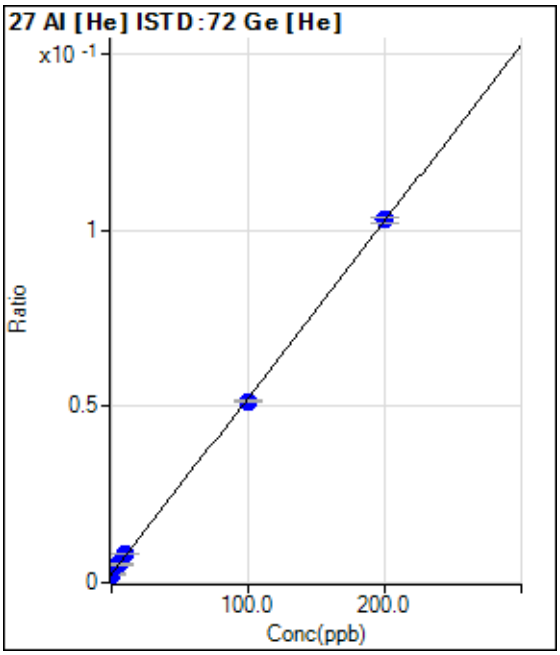


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	114095.73	0.0323	P	3.6
2	☐	2.000	4.229	209316.38	0.0589	P	1.1
3	☐	5.000	5.801	240912.83	0.0687	P	1.6
4	☐	10.000	11.540	365946.83	0.1047	P	0.6
5	☐	100.000	102.815	2330675.70	0.6774	A	1.7
6	☐	200.000	198.473	4282438.48	1.2775	A	1.6

y = 0.0063 * x + 0.0323
R = 0.9999
DL = 0.5615
BEC = 5.155

Weight: <None>
Min Conc: <None>

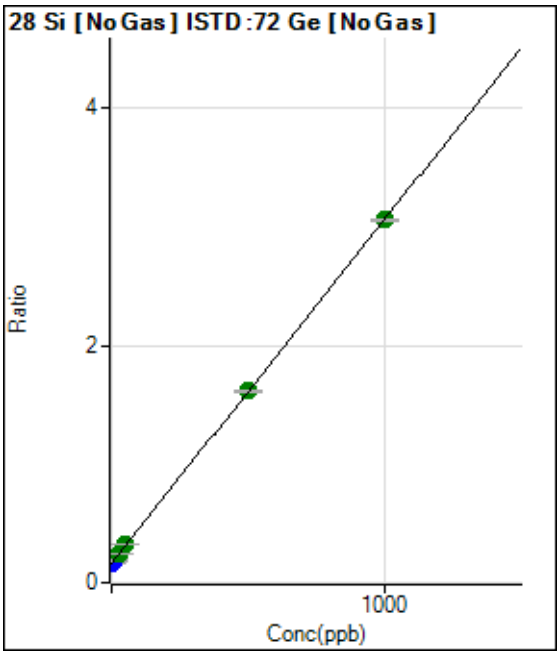
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2626.96	0.0024	P	4.3
2	☐	2.000	4.393	4920.94	0.0046	P	3.6
3	☐	5.000	5.677	5644.60	0.0053	P	5.2
4	☐	10.000	11.440	8542.75	0.0082	P	3.1
5	☐	100.000	98.123	54312.90	0.0515	P	1.4
6	☐	200.000	200.826	102978.95	0.1029	P	1.5

y = 5.0052E-004 * x + 0.0024
R = 0.9999
DL = 0.6234
BEC = 4.853

Weight: <None>
Min Conc: <None>

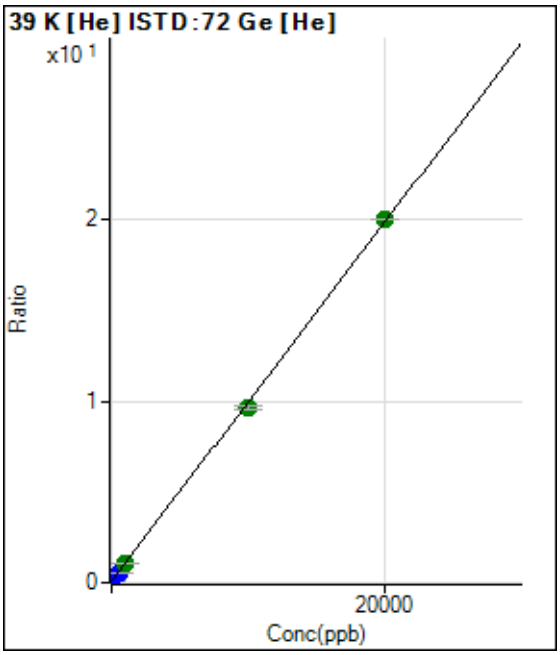


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575676.37	0.1632	P	2.4
2	☐	10.000	7.741	659759.83	0.1856	P	1.0
3	☐	25.000	26.282	838681.86	0.2393	A	1.2
4	☐	50.000	53.505	1111423.86	0.3181	A	0.8
5	☐	500.000	501.829	5561426.59	1.6163	A	0.9
6	☐	1000.000	998.901	10244676.72	3.0558	A	0.2

y = 0.0029 * x + 0.1632
R = 1.0000
DL = 4.087
BEC = 56.35

Weight: <None>
Min Conc: <None>

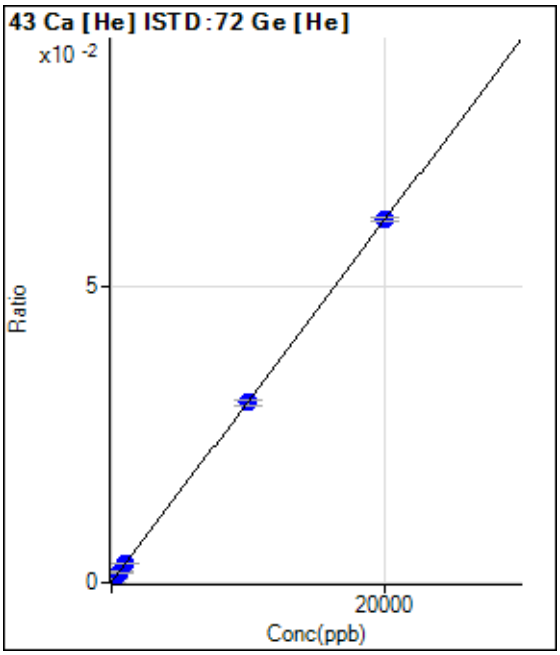
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84728.73	0.0783	P	1.4
2	☐	200.000	204.771	298481.56	0.2807	P	0.5
3	☐	500.000	495.974	608337.65	0.5684	P	2.6
4	☐	1000.000	1032.811	1151158.29	1.0989	A	2.2
5	☐	10000.000	9705.936	10187139.22	9.6690	A	2.6
6	☐	20000.000	20145.444	19990532.20	19.9846	A	0.1

y = 9.8813E-004 * x + 0.0783
R = 0.9998
DL = 3.432
BEC = 79.25

Weight: <None>
Min Conc: <None>

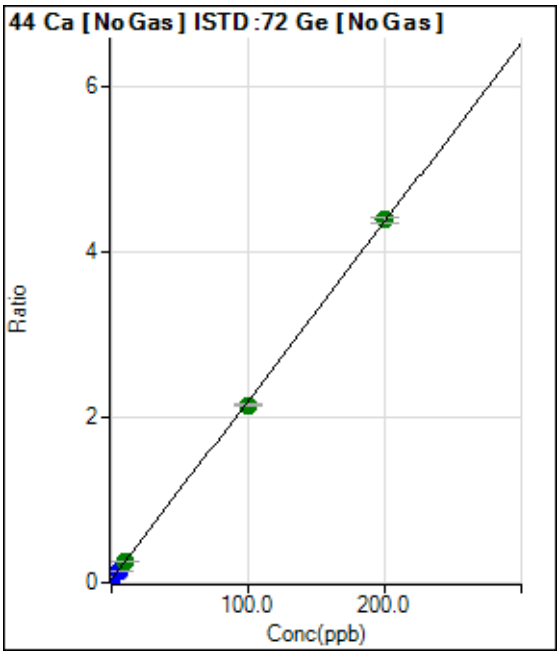


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	10.0
2	☐	200.000	218.132	773.37	0.0007	P	6.3
3	☐	500.000	541.982	1833.49	0.0017	P	8.9
4	☐	1000.000	1047.533	3410.49	0.0033	P	5.7
5	☐	10000.000	9942.544	32007.65	0.0304	P	3.4
6	☐	20000.000	20025.121	61149.11	0.0611	P	1.2

y = 3.0496E-006 * x + 6.1676E-005
R = 1.0000
DL = 6.097
BEC = 20.22

Weight: <None>
Min Conc: <None>

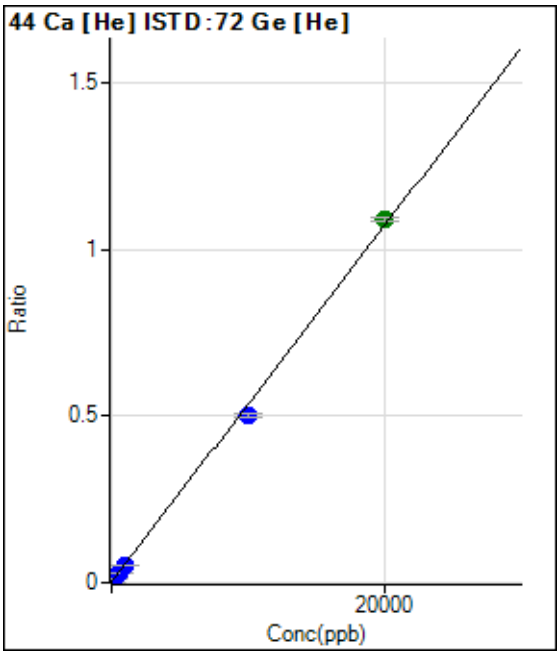
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133741.15	0.0379	P	3.1
2	☐	2.000	2.025	290635.97	0.0818	P	1.2
3	☐	5.000	5.080	518321.96	0.1479	P	1.1
4	☐	10.000	10.544	929868.11	0.2661	A	1.1
5	☐	100.000	97.710	7408412.39	2.1531	A	1.6
6	☐	200.000	201.115	14721544.36	4.3915	A	1.9

y = 0.0216 * x + 0.0379
R = 0.9999
DL = 0.1651
BEC = 1.751

Weight: <None>
Min Conc: <None>

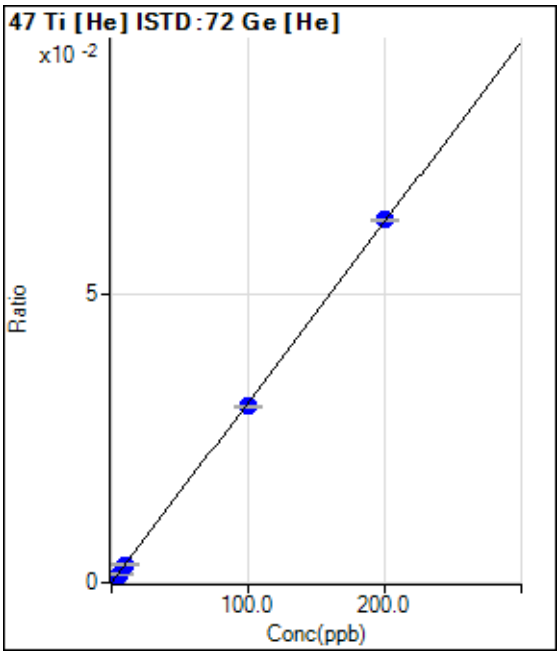


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2050.19	0.0019	P	3.6
2	☐	200.000	193.660	13016.37	0.0122	P	1.3
3	☐	500.000	484.090	29689.12	0.0278	P	5.4
4	☐	1000.000	964.752	55970.57	0.0534	P	1.7
5	☐	10000.000	9347.153	528038.87	0.5012	P	2.1
6	☐	20000.000	20328.647	1088007.72	1.0877	A	1.1

y = 5.3413E-005 * x + 0.0019
R = 0.9993
DL = 3.832
BEC = 35.48

Weight: <None>
Min Conc: <None>

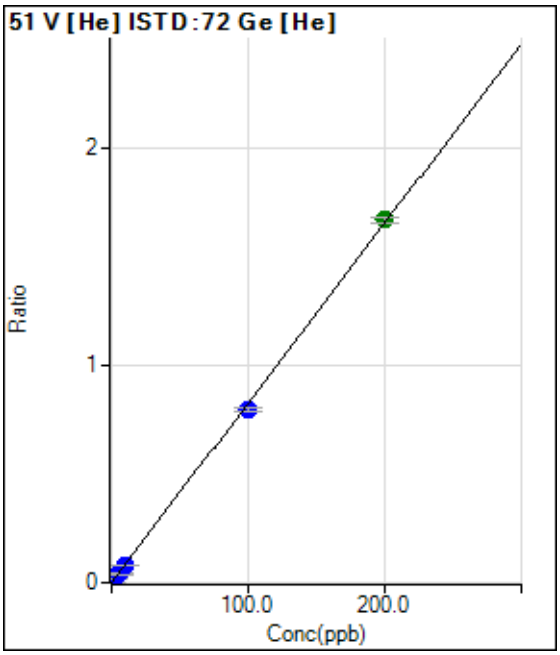
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	48.8
2	☐	2.000	2.025	696.70	0.0007	P	6.2
3	☐	5.000	4.726	1606.80	0.0015	P	6.4
4	☐	10.000	9.868	3257.11	0.0031	P	7.0
5	☐	100.000	97.747	32241.57	0.0306	P	1.5
6	☐	200.000	201.140	62957.90	0.0629	P	0.3

y = 3.1281E-004 * x + 2.1480E-005
R = 0.9999
DL = 0.1006
BEC = 0.06867

Weight: <None>
Min Conc: <None>

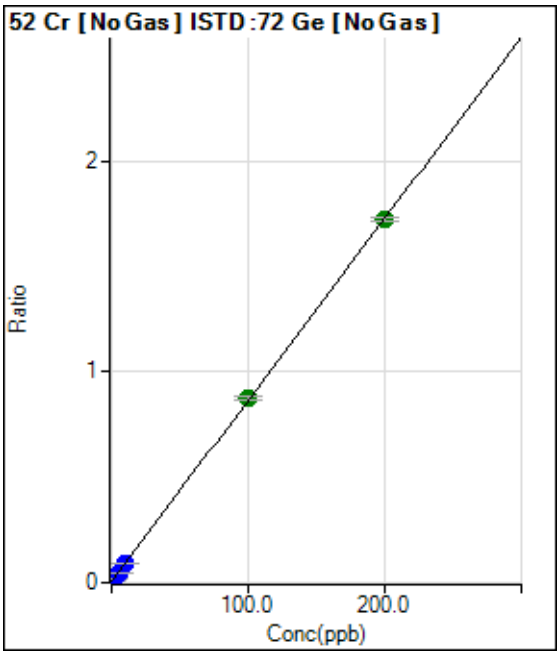


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1173.39	0.0011	P	8.7
2	☐	2.000	1.923	18024.08	0.0169	P	1.0
3	☐	5.000	4.756	43146.52	0.0403	P	2.8
4	☐	10.000	9.792	85753.97	0.0818	P	1.0
5	☐	100.000	95.971	835168.28	0.7927	P	2.5
6	☐	200.000	202.032	1667995.25	1.6675	A	1.5

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.03421
BEC = 0.1316

Weight: <None>
Min Conc: <None>

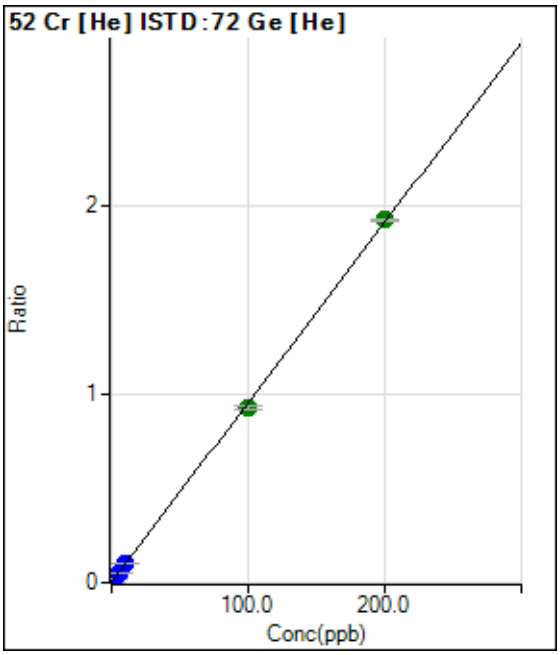
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17421.26	0.0049	P	2.9
2	☐	2.000	2.032	79774.97	0.0224	P	2.4
3	☐	5.000	5.106	171412.12	0.0489	P	2.4
4	☐	10.000	10.183	323626.57	0.0926	P	0.9
5	☐	100.000	101.140	3013706.93	0.8759	A	1.8
6	☐	200.000	199.418	5773704.29	1.7222	A	0.9

y = 0.0086 * x + 0.0049
R = 1.0000
DL = 0.04976
BEC = 0.5734

Weight: <None>
Min Conc: <None>

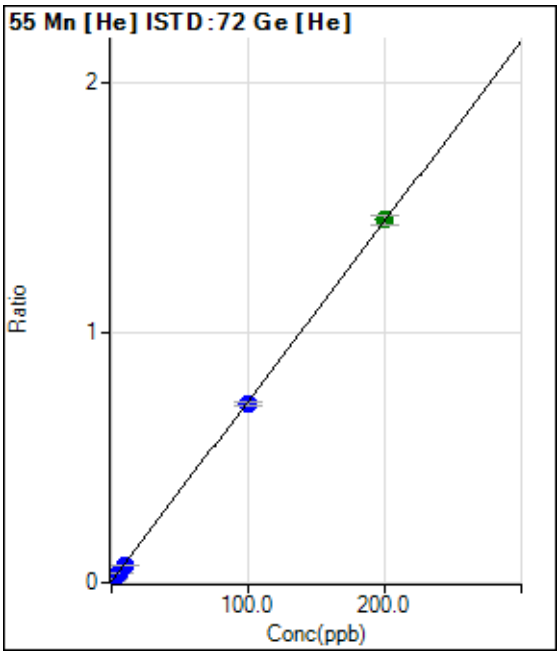


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2353.58	0.0022	P	8.5
2	☐	2.000	2.027	22906.11	0.0215	P	2.5
3	☐	5.000	4.903	52440.72	0.0490	P	3.6
4	☐	10.000	10.083	103187.00	0.0985	P	1.3
5	☐	100.000	96.832	977024.10	0.9271	A	2.6
6	☐	200.000	201.582	1928188.36	1.9276	A	0.5

y = 0.0096 * x + 0.0022
R = 0.9998
DL = 0.05789
BEC = 0.2276

Weight: <None>
Min Conc: <None>

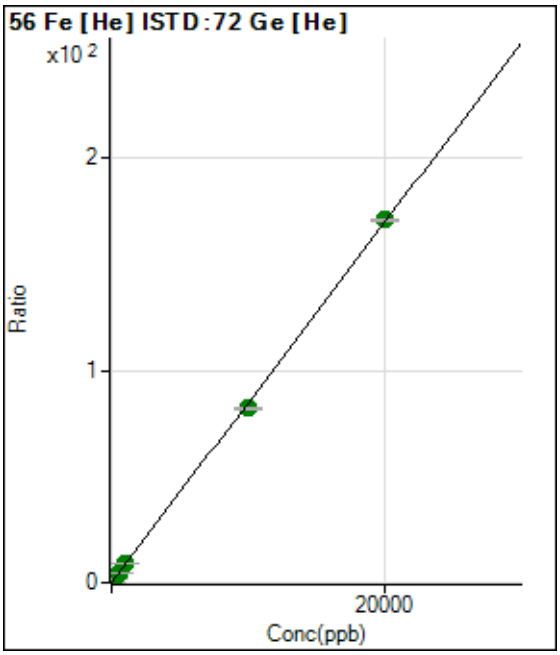
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6291.57	0.0058	P	5.3
2	☐	2.000	1.311	16229.86	0.0153	P	2.0
3	☐	5.000	4.209	38685.18	0.0361	P	1.2
4	☐	10.000	9.173	75333.88	0.0719	P	2.7
5	☐	100.000	98.619	754897.85	0.7164	P	1.8
6	☐	200.000	200.758	1452768.89	1.4524	A	2.3

y = 0.0072 * x + 0.0058
R = 1.0000
DL = 0.1279
BEC = 0.8068

Weight: <None>
Min Conc: <None>

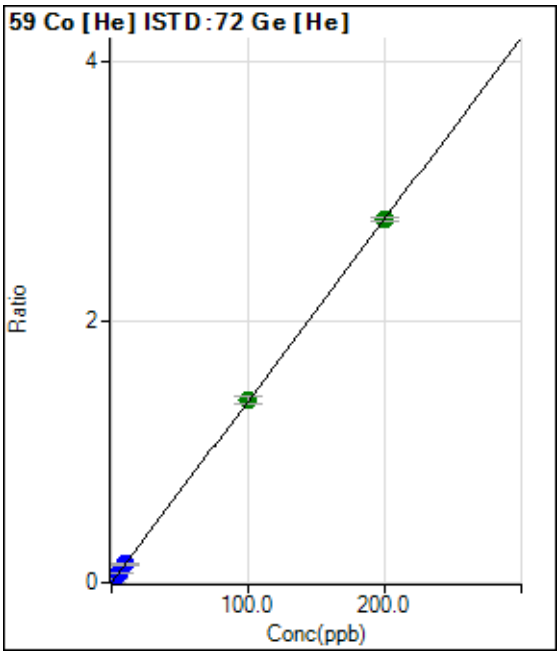


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20322.05	0.0188	P	0.8
2	☐	200.000	211.154	1923593.93	1.8086	A	0.6
3	☐	500.000	504.118	4592542.33	4.2918	A	3.7
4	☐	1000.000	1022.100	9096099.65	8.6823	A	1.6
5	☐	10000.000	9674.526	86432778.71	82.0223	A	1.3
6	☐	20000.000	20161.417	170960904.12	170.9116	A	0.5

y = 0.0085 * x + 0.0188
R = 0.9998
DL = 0.056
BEC = 2.216

Weight: <None>
Min Conc: <None>

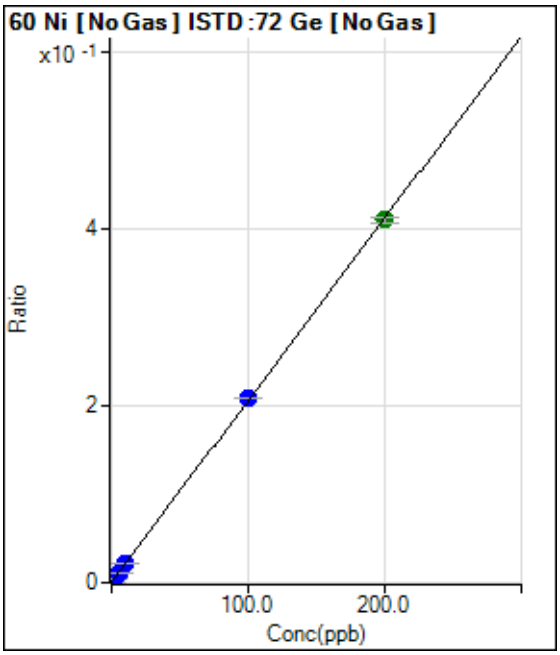
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	39.2
2	☐	2.000	2.028	30093.66	0.0283	P	1.3
3	☐	5.000	4.960	73964.07	0.0691	P	3.0
4	☐	10.000	10.087	147168.25	0.1405	P	1.8
5	☐	100.000	100.633	1475794.51	1.4009	A	3.6
6	☐	200.000	199.680	2780514.44	2.7797	A	1.1

y = 0.0139 * x + 6.4935E-005
R = 1.0000
DL = 0.005491
BEC = 0.004665

Weight: <None>
Min Conc: <None>

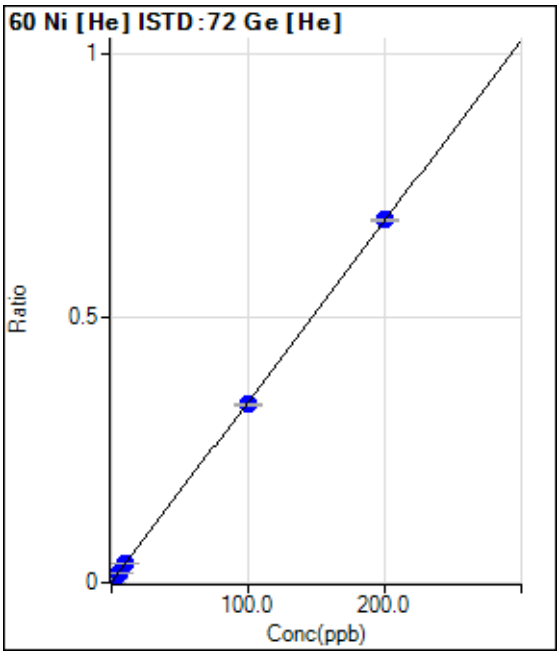


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1436.77	0.0004	P	8.9
2	☐	2.000	1.935	15619.18	0.0044	P	3.4
3	☐	5.000	5.067	38006.69	0.0108	P	2.2
4	☐	10.000	10.298	75535.63	0.0216	P	1.1
5	☐	100.000	101.441	720332.64	0.2093	P	0.5
6	☐	200.000	199.263	1377267.32	0.4108	A	1.3

y = 0.0021 * x + 4.0757E-004
R = 1.0000
DL = 0.05285
BEC = 0.1979

Weight: <None>
Min Conc: <None>

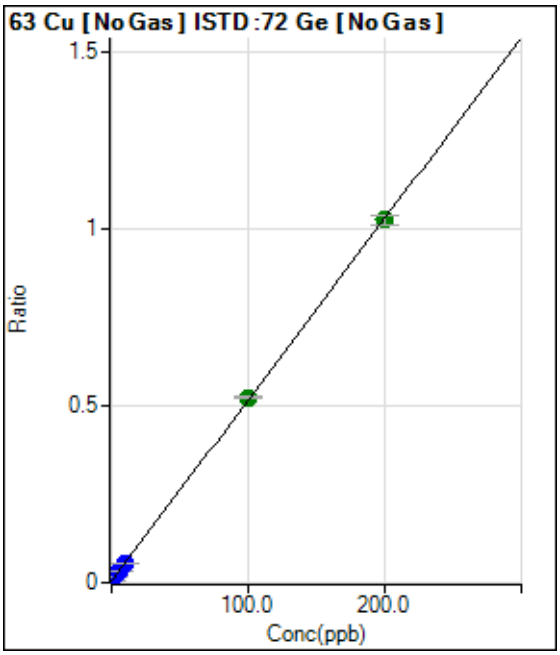
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0006	P	11.6
2	☐	2.000	1.921	7595.58	0.0071	P	4.3
3	☐	5.000	5.045	19073.58	0.0178	P	3.9
4	☐	10.000	10.374	37722.51	0.0360	P	3.1
5	☐	100.000	98.619	355542.81	0.3374	P	1.0
6	☐	200.000	200.672	686126.66	0.6859	P	0.4

y = 0.0034 * x + 5.8256E-004
R = 1.0000
DL = 0.05937
BEC = 0.1706

Weight: <None>
Min Conc: <None>

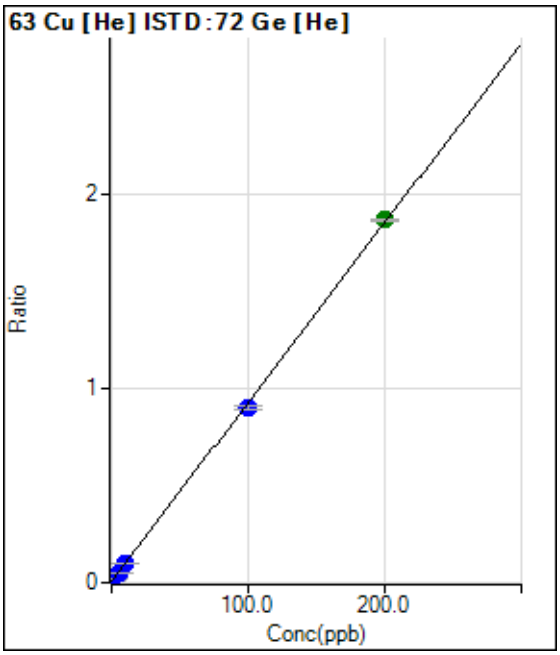


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15692.58	0.0044	P	4.3
2	☐	2.000	1.994	52136.76	0.0147	P	0.7
3	☐	5.000	5.104	107274.39	0.0306	P	0.4
4	☐	10.000	10.127	196866.07	0.0563	P	0.8
5	☐	100.000	101.136	1798780.39	0.5228	A	1.0
6	☐	200.000	199.423	3440739.01	1.0265	A	2.7

y = 0.0051 * x + 0.0044
R = 1.0000
DL = 0.1112
BEC = 0.8675

Weight: <None>
Min Conc: <None>

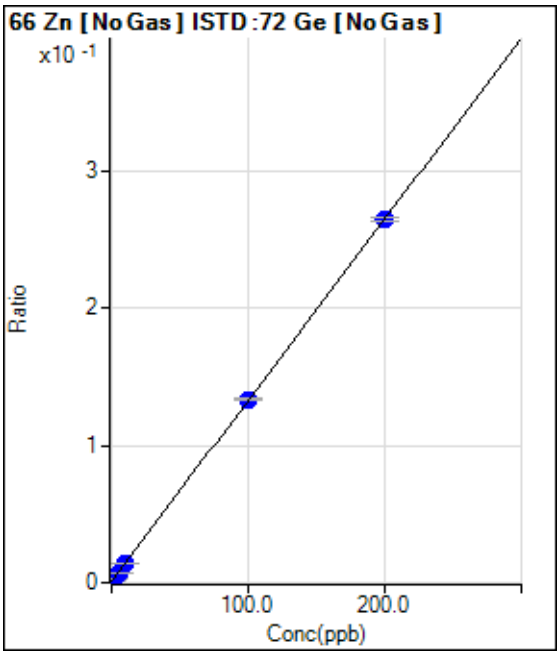
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6431.62	0.0059	P	2.7
2	☐	2.000	2.040	26369.23	0.0248	P	1.8
3	☐	5.000	5.013	55931.82	0.0523	P	2.5
4	☐	10.000	10.012	103143.03	0.0984	P	0.5
5	☐	100.000	96.502	945697.09	0.8975	P	2.2
6	☐	200.000	201.747	1870483.62	1.8699	A	0.9

y = 0.0092 * x + 0.0059
R = 0.9998
DL = 0.0513
BEC = 0.6434

Weight: <None>
Min Conc: <None>

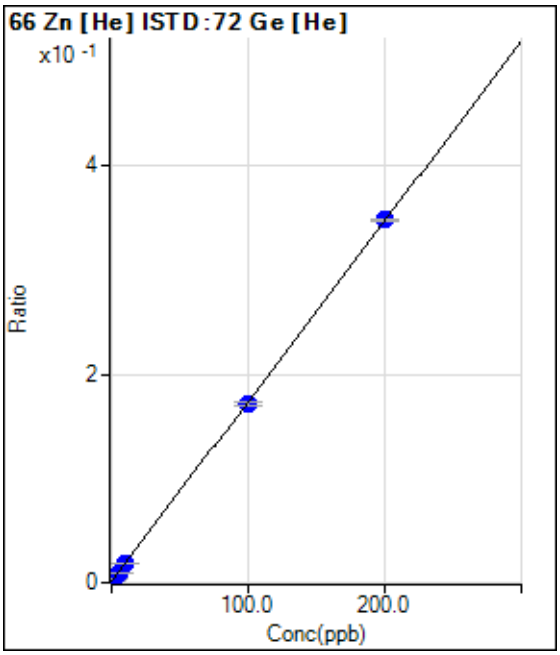


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2977.05	0.0008	P	5.3
2	☐	2.000	1.805	11475.06	0.0032	P	3.6
3	☐	5.000	5.056	26365.91	0.0075	P	3.3
4	☐	10.000	10.120	49657.69	0.0142	P	1.8
5	☐	100.000	100.624	460299.80	0.1338	P	0.5
6	☐	200.000	199.683	887145.35	0.2646	P	1.2

y = 0.0013 * x + 8.4414E-004
R = 1.0000
DL = 0.1025
BEC = 0.639

Weight: <None>
Min Conc: <None>

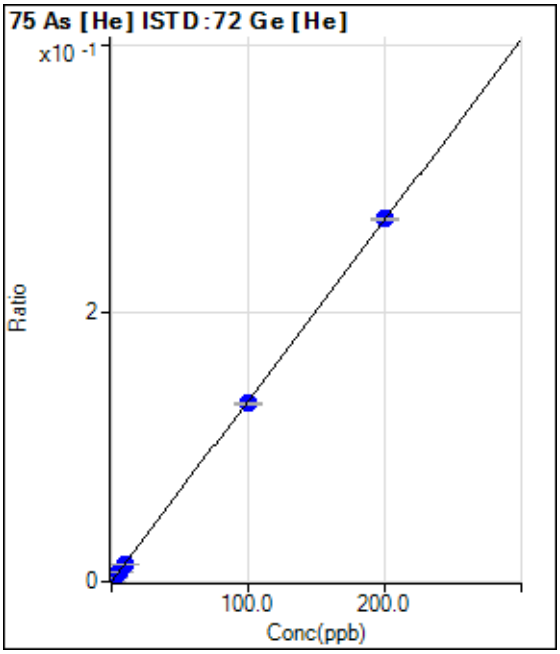
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.74	0.0011	P	6.7
2	☐	2.000	1.836	4504.16	0.0042	P	1.6
3	☐	5.000	4.978	10354.13	0.0097	P	2.5
4	☐	10.000	10.001	19237.27	0.0184	P	2.5
5	☐	100.000	98.479	180588.42	0.1714	P	2.0
6	☐	200.000	200.763	348403.35	0.3483	P	0.3

y = 0.0017 * x + 0.0011
R = 1.0000
DL = 0.124
BEC = 0.6131

Weight: <None>
Min Conc: <None>

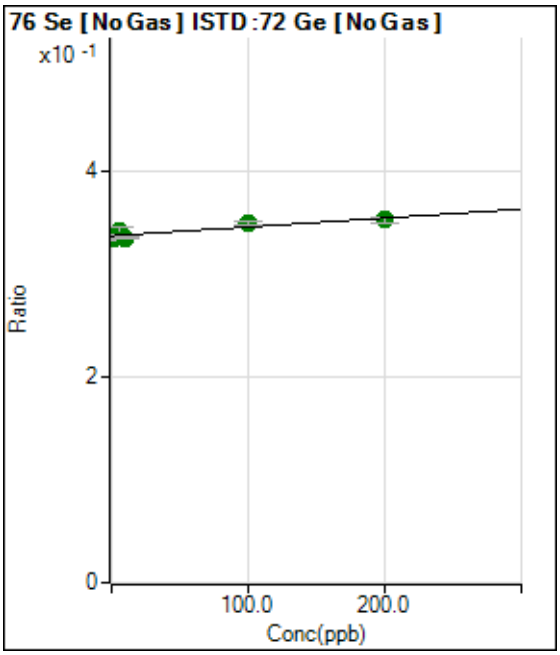


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	15.7
2	☐	2.000	2.050	3052.59	0.0029	P	4.5
3	☐	5.000	5.000	7322.02	0.0068	P	2.2
4	☐	10.000	9.977	14186.38	0.0135	P	1.0
5	☐	100.000	98.513	139839.87	0.1327	P	1.8
6	☐	200.000	200.744	270401.53	0.2703	P	0.5

y = 0.0013 * x + 1.1076E-004
R = 1.0000
DL = 0.03883
BEC = 0.08229

Weight: <None>
Min Conc: <None>

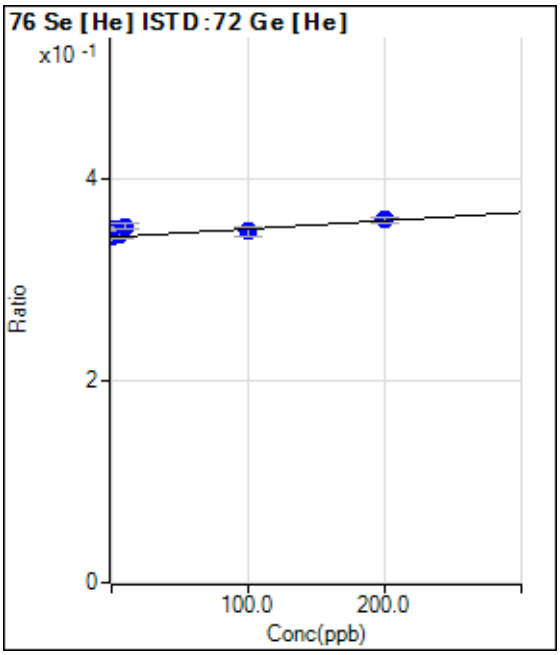
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1192343.37	0.3379	A	0.9
2	☐	2.000	-25.916	1193297.66	0.3356	A	1.1
3	☐	5.000	59.303	1202157.64	0.3430	A	2.6
4	☐	10.000	-24.271	1173155.71	0.3358	A	0.7
5	☐	100.000	144.499	1205644.56	0.3504	A	1.2
6	☐	200.000	178.385	1184498.13	0.3533	A	1.5

y = 8.6649E-005 * x + 0.3379
R = 0.9019
DL = 105.2
BEC = 3899

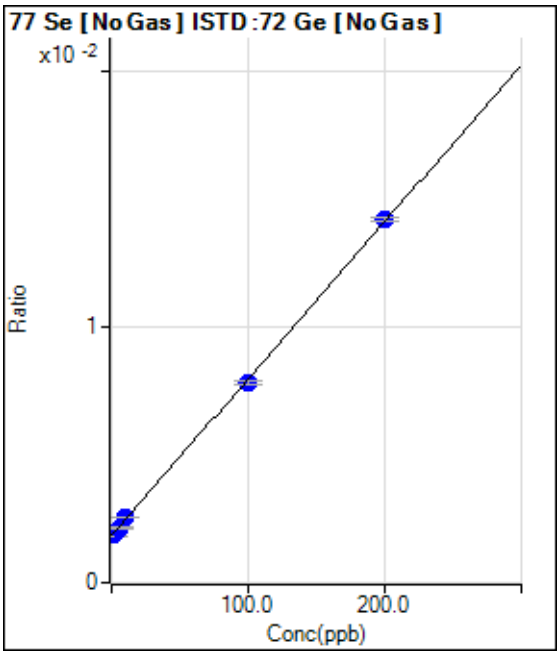
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369756.70	0.3418	P	1.5
2	☐	2.000	89.092	371261.65	0.3491	P	1.2
3	☐	5.000	36.311	369002.78	0.3448	P	2.0
4	☐	10.000	133.868	369571.54	0.3528	P	1.2
5	☐	100.000	67.568	365951.12	0.3473	P	2.3
6	☐	200.000	208.369	358959.36	0.3589	P	1.6

y = 8.1972E-005 * x + 0.3418
R = 0.7223
DL = 184.2
BEC = 4169

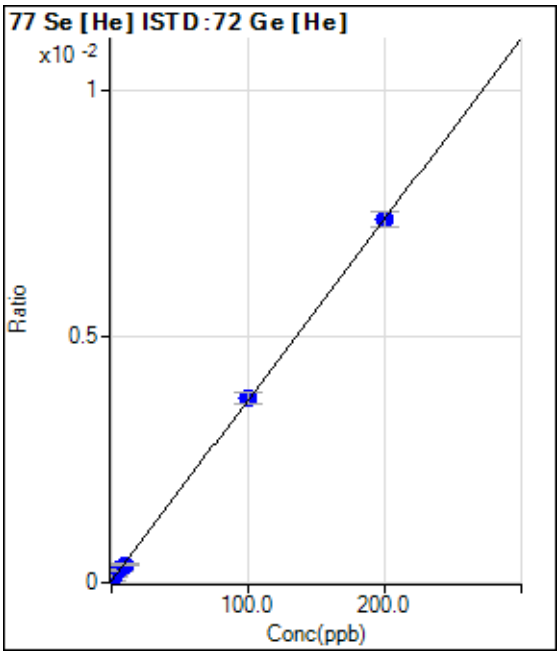
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6518.38	0.0018	P	3.2
2	☐	2.000	0.570	6688.43	0.0019	P	6.3
3	☐	5.000	4.457	7432.18	0.0021	P	2.9
4	☐	10.000	11.469	8913.11	0.0026	P	1.6
5	☐	100.000	97.444	26947.17	0.0078	P	1.1
6	☐	200.000	201.232	47624.64	0.0142	P	1.1

y = 6.1420E-005 * x + 0.0018
R = 0.9998
DL = 2.915
BEC = 30.07

Weight: <None>
Min Conc: <None>

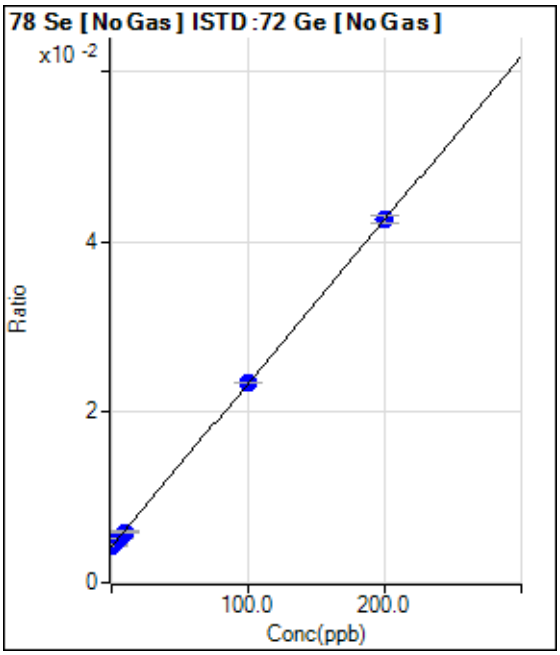


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0000	P	79.9
2	☐	2.000	2.588	143.34	0.0001	P	40.7
3	☐	5.000	5.967	276.68	0.0003	P	7.0
4	☐	10.000	8.902	383.35	0.0004	P	15.9
5	☐	100.000	100.815	3937.30	0.0037	P	5.7
6	☐	200.000	199.617	7365.47	0.0074	P	4.4

y = 3.6687E-005 * x + 3.9717E-005
R = 1.0000
DL = 2.596
BEC = 1.083

Weight: <None>
Min Conc: <None>

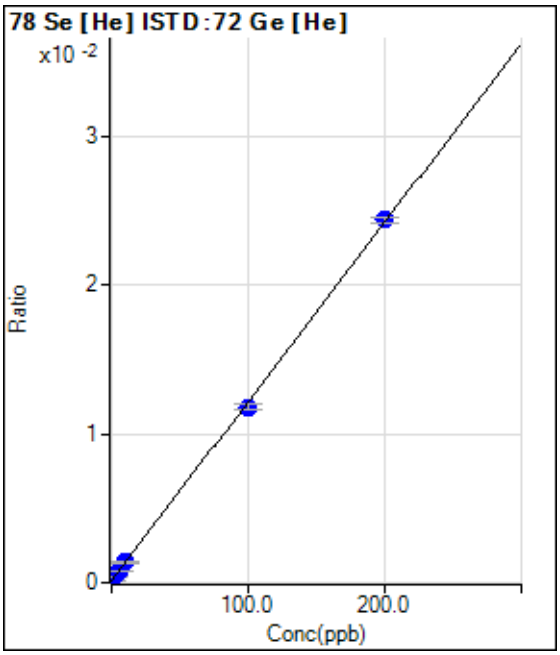
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14888.48	0.0042	P	1.8
2	☐	2.000	1.446	15983.00	0.0045	P	4.4
3	☐	5.000	5.304	18346.07	0.0052	P	1.2
4	☐	10.000	9.154	20866.41	0.0060	P	0.8
5	☐	100.000	100.201	80600.19	0.0234	P	0.6
6	☐	200.000	199.940	142612.46	0.0425	P	2.0

y = 1.9169E-004 * x + 0.0042
R = 1.0000
DL = 1.203
BEC = 22

Weight: <None>
Min Conc: <None>

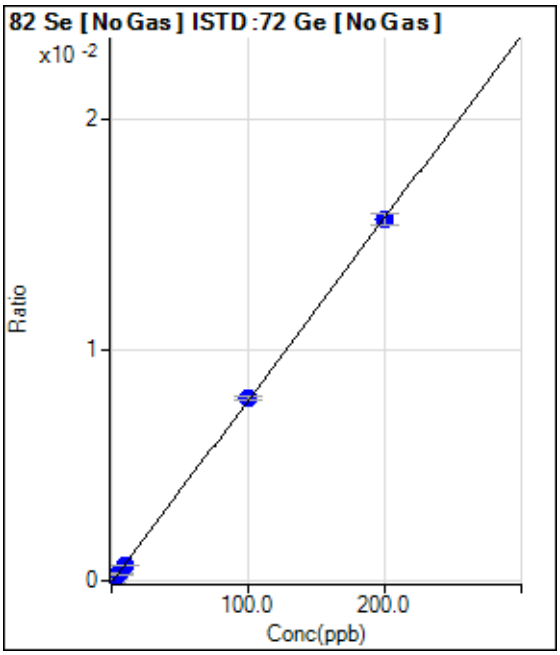


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.00	0.0001	P	7.1
2	☐	2.000	2.204	431.34	0.0004	P	3.6
3	☐	5.000	5.334	837.36	0.0008	P	0.7
4	☐	10.000	10.116	1421.41	0.0014	P	3.9
5	☐	100.000	96.870	12420.39	0.0118	P	3.0
6	☐	200.000	201.549	24384.69	0.0244	P	1.4

y = 1.2025E-004 * x + 1.4058E-004
R = 0.9998
DL = 0.2488
BEC = 1.169

Weight: <None>
Min Conc: <None>

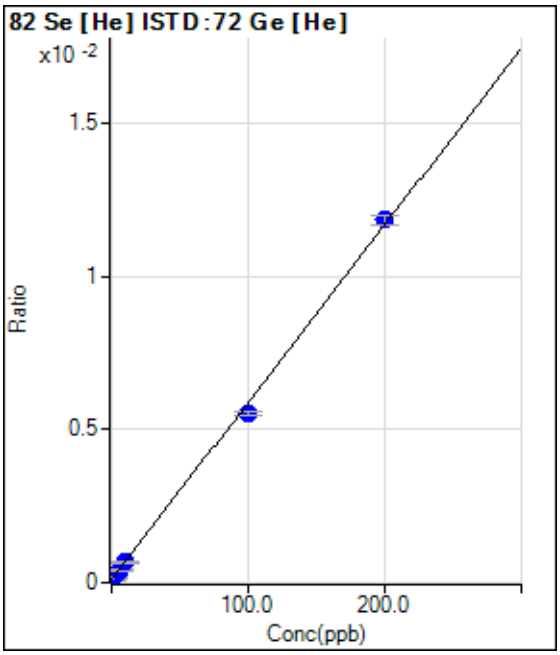
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-237.21	-0.0001	P	-39.7
2	☐	2.000	2.055	336.79	0.0001	P	51.5
3	☐	5.000	5.136	1183.93	0.0003	P	23.5
4	☐	10.000	9.714	2440.49	0.0007	P	6.4
5	☐	100.000	101.404	27289.61	0.0079	P	1.8
6	☐	200.000	199.309	52462.74	0.0157	P	3.2

y = 7.8872E-005 * x - 6.7533E-005
R = 1.0000
DL = 1.019
BEC = -0.8562

Weight: <None>
Min Conc: <None>

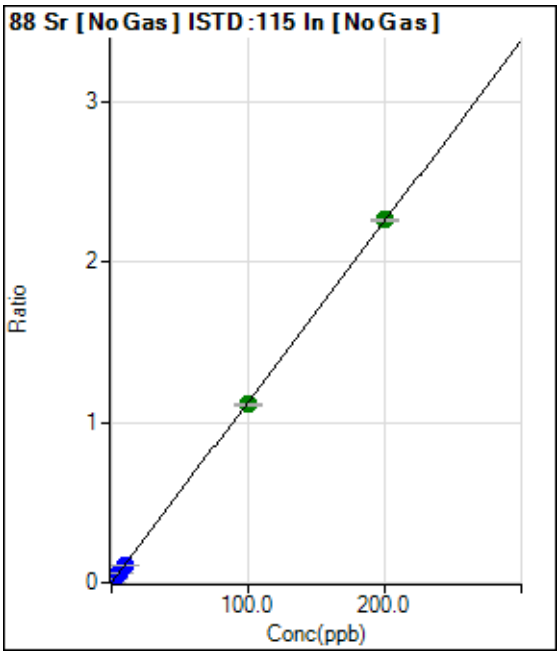


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	20.6
2	☐	2.000	0.953	170.00	0.0002	P	12.7
3	☐	5.000	5.087	426.68	0.0004	P	19.5
4	☐	10.000	9.841	706.70	0.0007	P	5.1
5	☐	100.000	93.993	5848.03	0.0055	P	2.0
6	☐	200.000	203.020	11865.46	0.0119	P	2.7

y = 5.7910E-005 * x + 1.0479E-004
R = 0.9994
DL = 1.121
BEC = 1.81

Weight: <None>
Min Conc: <None>

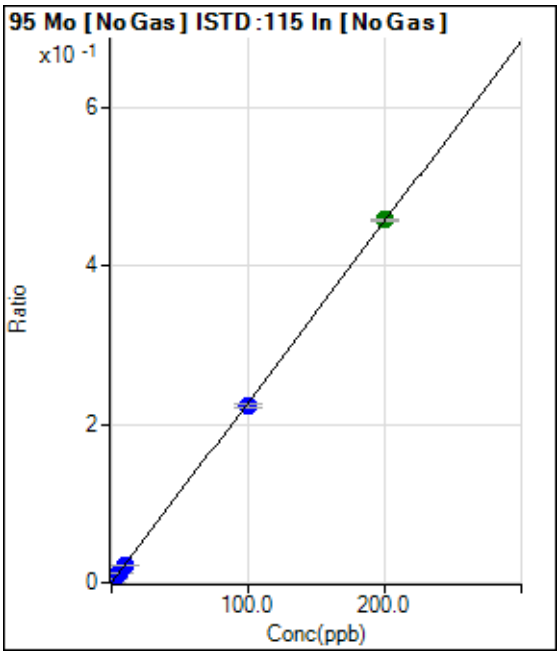
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.73	0.0008	P	9.9
2	☐	2.000	1.999	94424.99	0.0233	P	3.2
3	☐	5.000	4.915	228622.86	0.0561	P	1.3
4	☐	10.000	9.859	448383.51	0.1118	P	1.3
5	☐	100.000	98.511	4397374.20	1.1106	A	1.7
6	☐	200.000	200.754	8652127.37	2.2624	A	0.8

y = 0.0113 * x + 7.5304E-004
R = 1.0000
DL = 0.01989
BEC = 0.06684

Weight: <None>
Min Conc: <None>

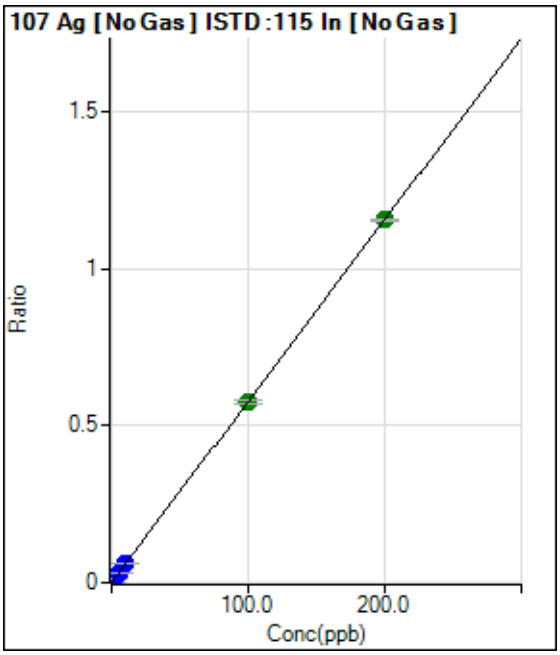


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	223.34	0.0001	P	21.7
2	☐	2.000	1.938	18132.61	0.0045	P	5.4
3	☐	5.000	4.904	45735.30	0.0112	P	0.8
4	☐	10.000	9.877	90459.08	0.0226	P	1.4
5	☐	100.000	98.117	885383.50	0.2236	P	1.6
6	☐	200.000	200.951	1751129.50	0.4579	A	0.3

y = 0.0023 * x + 5.5578E-005
R = 0.9999
DL = 0.01584
BEC = 0.02439

Weight: <None>
Min Conc: <None>

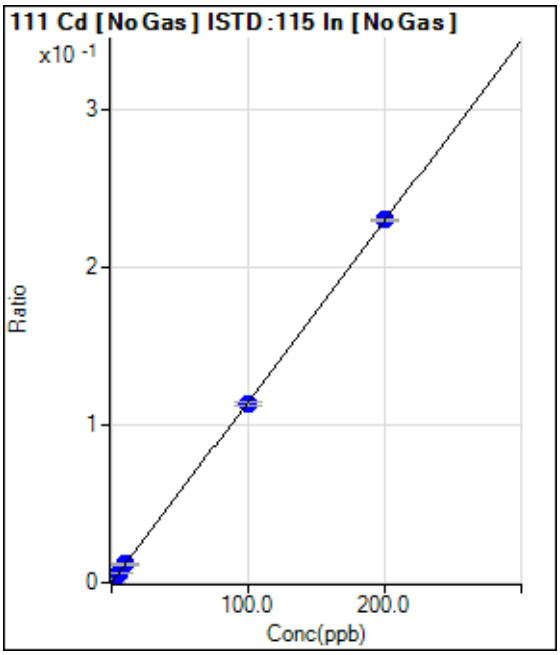
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	820.04	0.0002	P	10.6
2	☐	2.000	2.017	48097.67	0.0119	P	4.6
3	☐	5.000	5.027	119150.05	0.0293	P	1.2
4	☐	10.000	10.147	235970.07	0.0588	P	0.9
5	☐	100.000	99.823	2284891.63	0.5771	A	2.4
6	☐	200.000	200.080	4422624.62	1.1565	A	0.4

y = 0.0058 * x + 2.0418E-004
R = 1.0000
DL = 0.01119
BEC = 0.03533

Weight: <None>
Min Conc: <None>

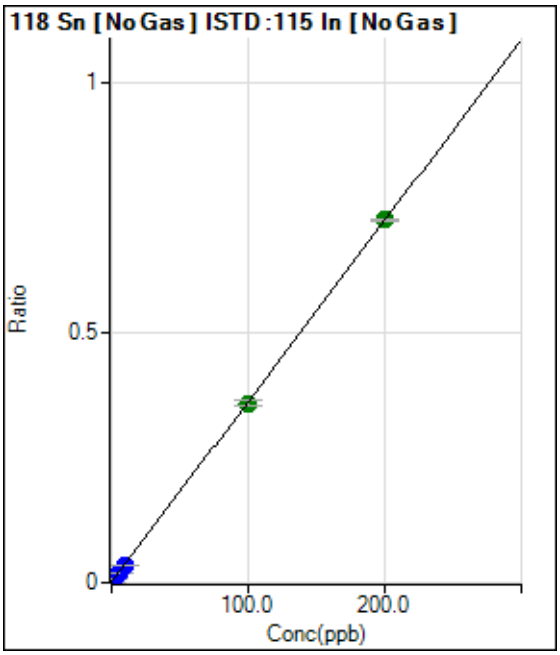


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	124.9
2	☐	2.000	1.986	9256.77	0.0023	P	6.6
3	☐	5.000	4.859	22729.76	0.0056	P	0.7
4	☐	10.000	10.153	46736.33	0.0117	P	1.6
5	☐	100.000	98.663	448338.52	0.1132	P	1.8
6	☐	200.000	200.665	880693.01	0.2303	P	0.2

y = 0.0011 * x + 4.1579E-006
R = 1.0000
DL = 0.01357
BEC = 0.003623

Weight: <None>
Min Conc: <None>

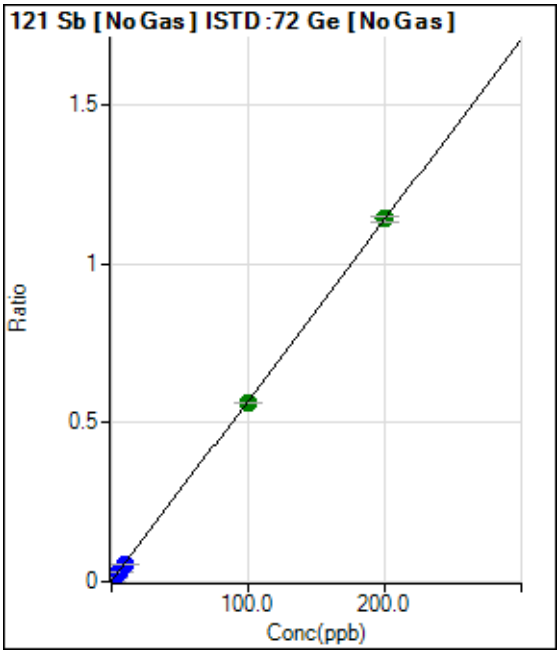
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3317.16	0.0008	P	3.1
2	☐	2.000	1.910	31384.36	0.0077	P	2.3
3	☐	5.000	4.808	74222.45	0.0182	P	1.7
4	☐	10.000	9.628	142988.95	0.0357	P	2.0
5	☐	100.000	99.192	1424470.97	0.3597	A	3.1
6	☐	200.000	200.429	2776211.84	0.7260	A	0.7

y = 0.0036 * x + 8.2600E-004
R = 1.0000
DL = 0.02125
BEC = 0.2283

Weight: <None>
Min Conc: <None>

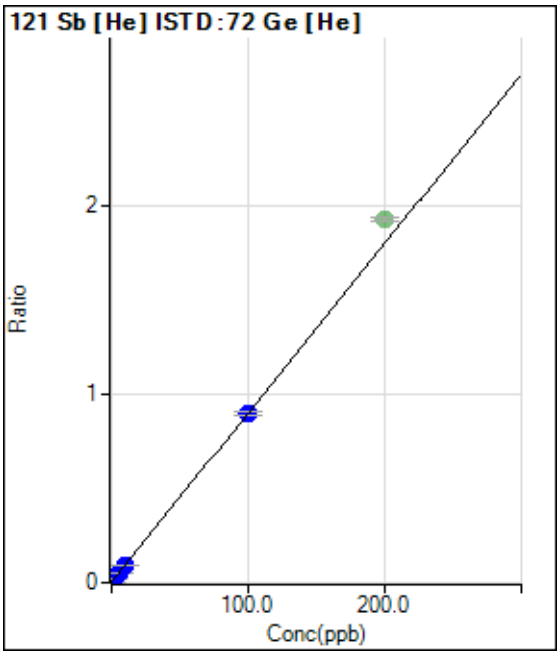


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5744.70	0.0016	P	1.7
2	☐	2.000	1.981	45823.78	0.0129	P	1.3
3	☐	5.000	4.863	102612.56	0.0293	P	1.0
4	☐	10.000	9.770	199746.07	0.0572	P	0.5
5	☐	100.000	98.749	1937352.16	0.5630	A	0.8
6	☐	200.000	200.640	3830002.96	1.1423	A	1.4

y = 0.0057 * x + 0.0016
R = 1.0000
DL = 0.01468
BEC = 0.2862

Weight: <None>
Min Conc: <None>

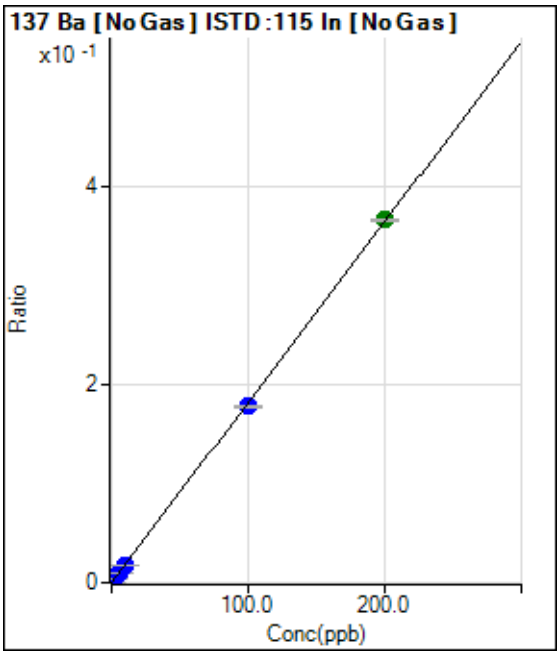
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.39	0.0027	P	5.1
2	☐	2.000	2.056	22556.36	0.0212	P	2.6
3	☐	5.000	5.008	51130.01	0.0478	P	2.2
4	☐	10.000	10.182	98810.88	0.0943	P	1.2
5	☐	100.000	99.980	950448.71	0.9021	P	2.5
6	☑	200.000		1928731.64	1.9282	A	1.2

y = 0.0090 * x + 0.0027
R = 1.0000
DL = 0.04623
BEC = 0.3021

Weight: <None>
Min Conc: <None>

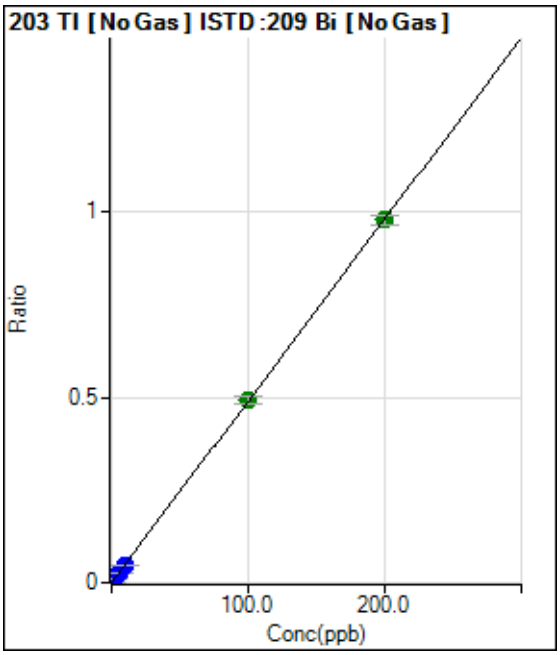


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	443.35	0.0001	P	25.1
2	☐	2.000	2.545	19221.12	0.0047	P	2.5
3	☐	5.000	4.879	36575.15	0.0090	P	0.7
4	☐	10.000	9.919	72743.40	0.0181	P	2.4
5	☐	100.000	97.725	703913.77	0.1778	P	1.2
6	☐	200.000	201.139	1398741.70	0.3658	A	0.8

y = 0.0018 * x + 1.1044E-004
R = 0.9999
DL = 0.04577
BEC = 0.06075

Weight: <None>
Min Conc: <None>

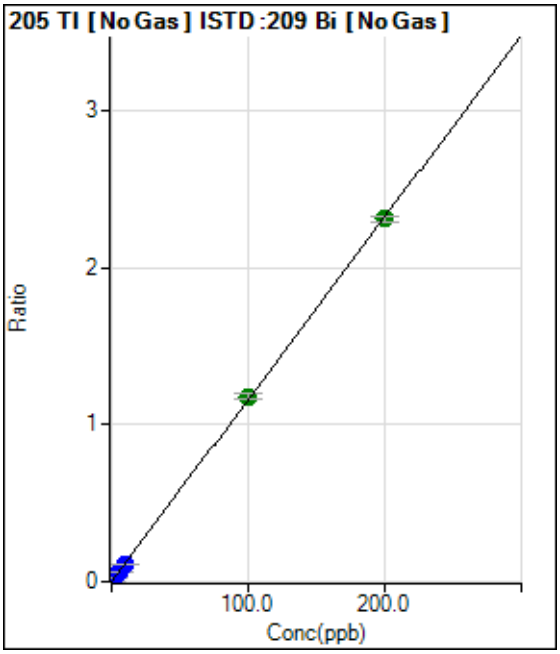
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	426.68	0.0001	P	22.8
2	☐	2.000	1.941	34792.08	0.0096	P	5.4
3	☐	5.000	4.812	86555.60	0.0237	P	2.6
4	☐	10.000	9.535	172776.42	0.0469	P	2.7
5	☐	100.000	100.522	1773883.98	0.4929	A	4.0
6	☐	200.000	199.768	3495434.32	0.9795	A	2.3

y = 0.0049 * x + 1.1833E-004
R = 1.0000
DL = 0.01648
BEC = 0.02414

Weight: <None>
Min Conc: <None>

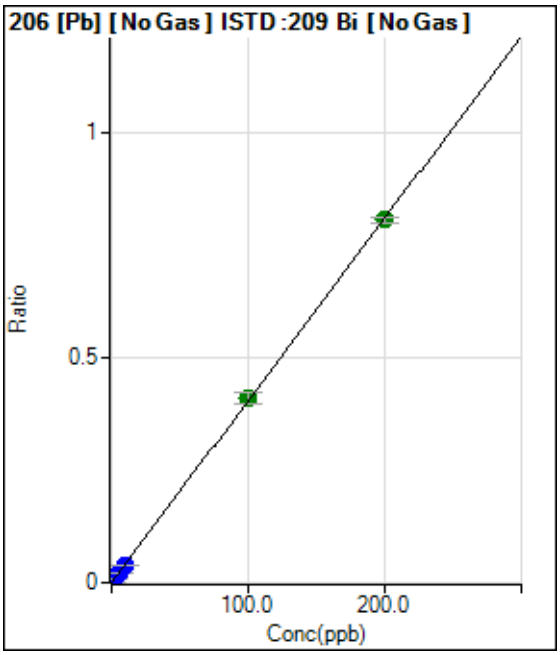


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.07	0.0003	P	11.9
2	☐	2.000	1.996	84717.02	0.0235	P	3.7
3	☐	5.000	4.866	207186.20	0.0567	P	1.7
4	☐	10.000	9.716	416657.91	0.1130	P	1.4
5	☐	100.000	101.703	4246780.25	1.1799	A	3.1
6	☐	200.000	199.166	8244475.29	2.3102	A	1.7

y = 0.0116 * x + 3.1084E-004
R = 0.9999
DL = 0.009554
BEC = 0.0268

Weight: <None>
Min Conc: <None>

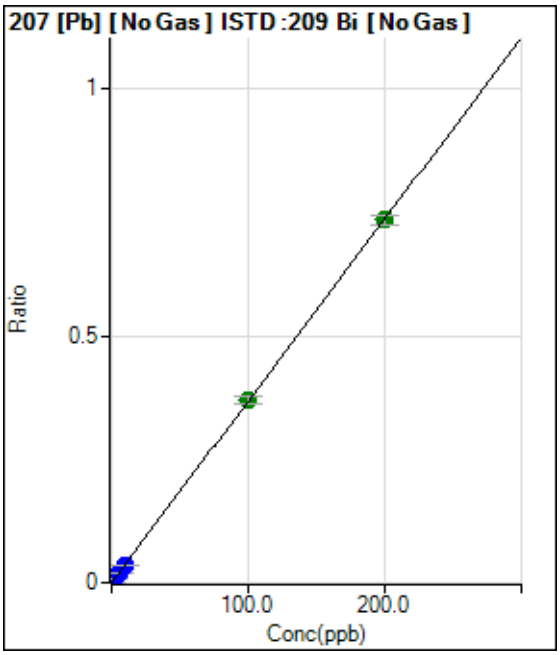
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	560.03	0.0002	P	14.4
2	☐	2.000	1.980	29451.90	0.0082	P	2.3
3	☐	5.000	4.902	72859.17	0.0200	P	2.1
4	☐	10.000	9.755	145859.57	0.0396	P	2.3
5	☐	100.000	101.466	1475024.51	0.4100	A	5.5
6	☐	200.000	199.282	2873055.79	0.8051	A	1.9

y = 0.0040 * x + 1.5565E-004
R = 1.0000
DL = 0.0166
BEC = 0.03854

Weight: <None>
Min Conc: <None>

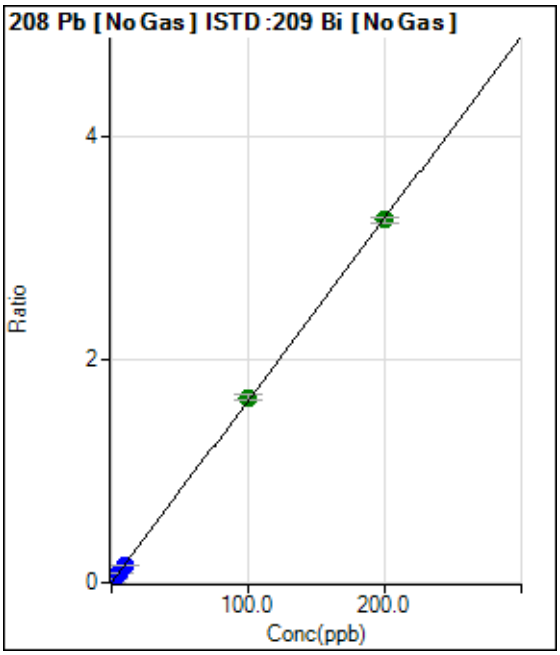


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0002	P	12.8
2	☐	2.000	1.948	26421.64	0.0073	P	2.6
3	☐	5.000	4.838	65508.57	0.0179	P	1.7
4	☐	10.000	9.718	132297.63	0.0359	P	3.0
5	☐	100.000	100.581	1331944.49	0.3700	A	3.3
6	☐	200.000	199.728	2621461.52	0.7346	A	2.8

y = 0.0037 * x + 1.5356E-004
R = 1.0000
DL = 0.01608
BEC = 0.04176

Weight: <None>
Min Conc: <None>

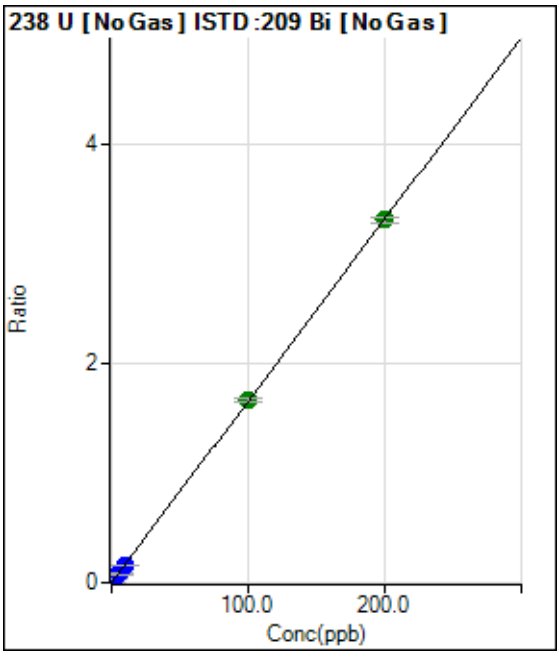
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2400.14	0.0007	P	0.7
2	☐	2.000	1.989	119485.93	0.0331	P	2.9
3	☐	5.000	4.887	293278.99	0.0803	P	1.5
4	☐	10.000	9.792	590894.29	0.1603	P	2.5
5	☐	100.000	101.575	5961660.20	1.6564	A	3.3
6	☐	200.000	199.226	11591494.52	3.2481	A	1.3

y = 0.0163 * x + 6.6648E-004
R = 1.0000
DL = 0.0009123
BEC = 0.04089

Weight: <None>
Min Conc: <None>

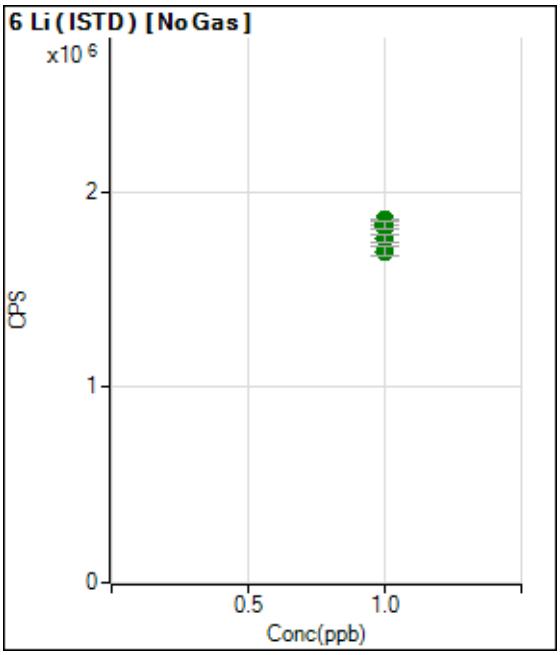


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	23.8
2	☐	2.000	1.942	116437.11	0.0322	P	2.3
3	☐	5.000	4.820	291903.71	0.0800	P	2.9
4	☐	10.000	9.565	584845.86	0.1586	P	2.7
5	☐	100.000	100.556	6001852.00	1.6674	A	2.8
6	☐	200.000	199.749	11819957.32	3.3122	A	1.5

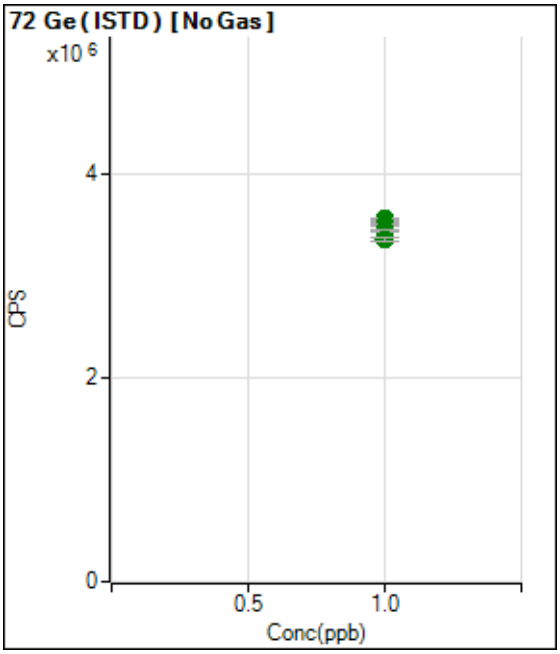
y = 0.0166 * x + 3.8826E-005
R = 1.0000
DL = 0.001673
BEC = 0.002342

Weight: <None>
Min Conc: <None>

Calibration for 015_ICV.d

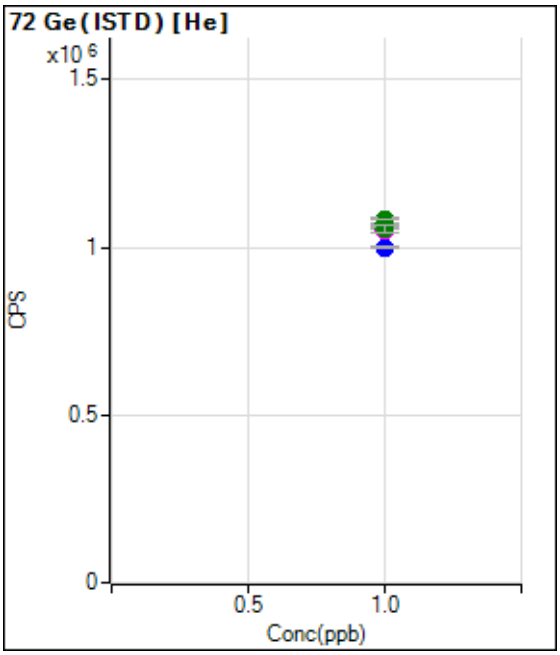


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1845435.82		A	1.9
2	☐	1.000		1857954.58		A	0.5
3	☐	1.000		1820914.24		A	1.0
4	☐	1.000		1830966.28		A	1.9
5	☐	1.000		1763063.66		A	1.9
6	☐	1.000		1695773.28		A	2.8

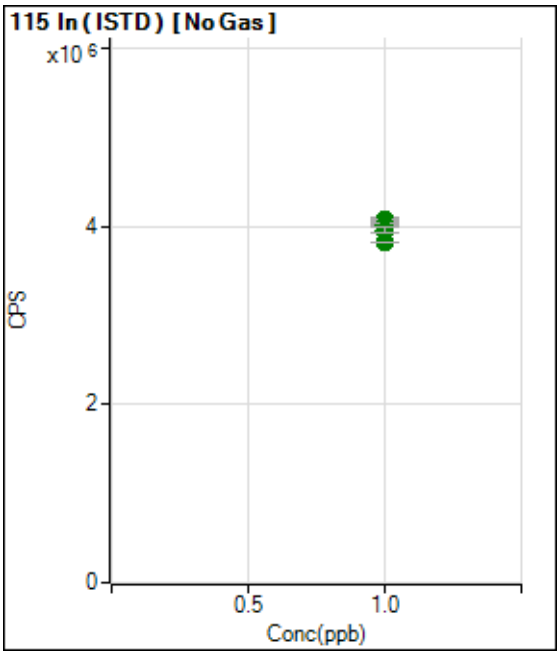


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3529374.43		A	2.1
2	☐	1.000		3555305.47		A	0.7
3	☐	1.000		3505254.22		A	1.1
4	☐	1.000		3493937.14		A	0.6
5	☐	1.000		3440894.32		A	0.8
6	☐	1.000		3352551.93		A	1.2

Calibration for 015_ICV.d

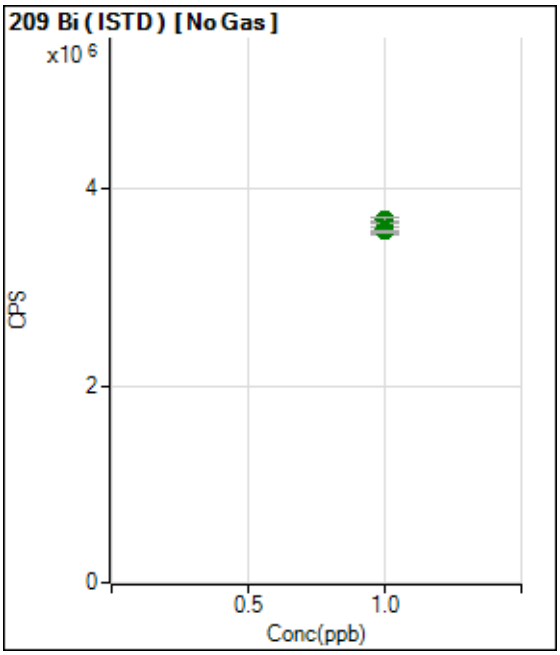


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1081993.24		A	1.6
2	☐	1.000		1063560.61		A	0.9
3	☐	1.000		1070622.98		A	2.1
4	☐	1.000		1047766.49		M	1.2
5	☐	1.000		1053938.60		A	1.9
6	☐	1.000		1000295.09		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4016066.83		A	0.4
2	☐	1.000		4058930.25		A	2.5
3	☐	1.000		4073237.28		A	0.9
4	☐	1.000		4010249.86		A	1.1
5	☐	1.000		3960129.01		A	1.4
6	☐	1.000		3824234.95		A	0.4

Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3601111.82		A	0.9
2	☐	1.000		3613074.11		A	1.9
3	☐	1.000		3651945.99		A	1.7
4	☐	1.000		3687668.80		A	1.7
5	☐	1.000		3601582.13		A	3.0
6	☐	1.000		3568942.87		A	0.9

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	017LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:16:59-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	008CALB.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	1.993	1.993	5.87	154578	0.00	2	
Be	9	1	No Gas	1.916	1.916	2.30	11124	0.02	2	
V	51	2	He	1.937	1.937	2.24	17788	0.01	2	
Cr	52	2	He	1.955	1.955	0.90	21734	0.01	2	
Fe	56	2	He	210.461	210.461	2.93	1878953	0.01	200	
Se	78	2	He	2.192	2.192	2.65	421	0.52	2	
As	75	2	He	2.003	2.003	5.31	2925	0.07	2	
Ca	44	2	He	202.166	202.166	3.43	13233	1.53	200	
Na	23	2	He	205.906	205.906	0.92	417861	0.05	200	
Mg	24	2	He	208.397	208.397	0.66	177967	0.12	200	
K	39	2	He	190.913	190.913	2.50	278279	0.07	200	
Mn	55	2	He	1.355	1.355	5.56	16237	0.01	2	NewName Main CR1 Failed
Co	59	2	He	2.031	2.031	2.08	29532	0.01	2	
Ni	60	2	He	1.841	1.841	8.22	7159	0.03	2	
Cu	63	2	He	1.868	1.868	1.85	24195	0.01	2	
Zn	66	2	He	1.876	1.876	2.88	4487	0.04	2	
Al	27	2	He	4.212	4.212	3.97	4731	0.09	2	NewName Main CR1 Failed
B	11	1	No Gas	16.137	16.137	6.03	82844	0.02	10	NewName Main CR1 Failed
Al	27	1	No Gas	4.321	4.321	1.06	206050	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	7.840	7.840	4.23	644181	0.00	10	
Ag	107	1	No Gas	2.038	2.038	1.83	47824	0.00	2	
Cd	111	1	No Gas	2.030	2.030	2.34	9313	0.02	2	
Sr	88	1	No Gas	2.025	2.025	1.80	94056	0.00	2	
Mo	95	1	No Gas	1.964	1.964	0.59	18079	0.01	2	
Sn	118	1	No Gas	1.986	1.986	2.62	31973	0.01	2	
Sb	121	1	No Gas	1.916	1.916	4.38	43389	0.00	2	
Ba	137	1	No Gas	2.625	2.625	1.76	19488	0.01	2	NewName Main CR1 Failed
Tl	205	1	No Gas	1.979	1.979	4.35	85066	0.00	2	
Tl	203	1	No Gas	1.951	1.951	6.03	35387	0.01	2	
Pb	208	1	No Gas	1.976	1.976	3.52	120257	0.00	2	
U	238	1	No Gas	1.938	1.938	3.97	117675	0.00	2	
Ca	43	2	He	231.950	231.950	28.71	803	28.87	200	
Sb	121	2	He	1.909	1.909	1.65	21745	0.01	2	
Ti	47	2	He	1.876	1.876	24.09	633	0.30	200	
Cu	63	1	No Gas	1.768	1.768	3.86	46824	0.00	2	
Se	82	1	No Gas	2.076	2.076	25.34	334	0.62	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	1817753	1.80	1845436	98.50	70	120	
Ge	72	2	He	1042508	1.29	1081993	96.35	70	120	
Ge	72	1	No Gas	3465871	0.60	3529374	98.20	70	120	
In	115	1	No Gas	3991095	1.07	4016067	99.38	70	120	
Bi	209	1	No Gas	3660705	4.18	3601112	101.65	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	018LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:18:58-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	008CALB.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	4.902	4.902	2.38	224765	0.00	5	
Be	9	1	No Gas	4.743	4.743	1.13	27577	0.02	5	
V	51	2	He	4.818	4.818	1.25	42569	0.01	5	
Cr	52	2	He	4.883	4.883	0.31	50905	0.01	5	
Fe	56	2	He	507.359	507.359	0.85	4504152	0.01	500	
Se	78	2	He	5.285	5.285	1.86	809	0.65	5	
As	75	2	He	4.942	4.942	2.66	7052	0.07	5	
Ca	44	2	He	484.271	484.271	1.72	28951	1.67	500	
Na	23	2	He	507.891	507.891	0.59	854060	0.06	500	
Mg	24	2	He	518.403	518.403	0.57	440046	0.12	500	
K	39	2	He	494.240	494.240	0.52	590940	0.08	500	
Mn	55	2	He	4.241	4.241	2.72	37933	0.01	5	
Co	59	2	He	5.051	5.051	1.69	73387	0.01	5	
Ni	60	2	He	5.041	5.041	4.65	18556	0.03	5	
Cu	63	2	He	4.853	4.853	1.48	52957	0.01	5	
Zn	66	2	He	5.007	5.007	6.21	10134	0.05	5	
Al	27	2	He	5.125	5.125	4.48	5208	0.10	5	
B	11	1	No Gas	27.176	27.176	2.17	117571	0.02	25	
Al	27	1	No Gas	5.874	5.874	2.12	238010	0.00	5	
Si	28	1	No Gas	23.193	23.193	3.27	792254	0.00	25	
Ag	107	1	No Gas	4.932	4.932	1.72	114711	0.00	5	
Cd	111	1	No Gas	5.025	5.025	2.44	23057	0.02	5	
Sr	88	1	No Gas	4.897	4.897	1.64	223439	0.00	5	
Mo	95	1	No Gas	4.902	4.902	2.72	44856	0.01	5	
Sn	118	1	No Gas	4.802	4.802	1.11	72731	0.01	5	
Sb	121	1	No Gas	4.890	4.890	0.50	101236	0.00	5	
Ba	137	1	No Gas	4.887	4.887	1.54	35937	0.01	5	
Tl	205	1	No Gas	4.814	4.814	2.80	206642	0.00	5	
Tl	203	1	No Gas	4.745	4.745	2.24	86062	0.01	5	
Pb	208	1	No Gas	4.874	4.874	3.14	294843	0.00	5	
U	238	1	No Gas	4.771	4.771	2.66	291287	0.00	5	
Ca	43	2	He	540.530	540.530	7.26	1783	30.31	500	
Sb	121	2	He	4.670	4.670	2.21	49089	0.01	5	
Ti	47	2	He	4.947	4.947	13.97	1637	0.30	5	
Cu	63	1	No Gas	4.853	4.853	0.74	100852	0.00	5	
Se	82	1	No Gas	4.960	4.960	22.22	1113	0.45	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	1822080	1.49	1845436	98.73	70	120	
Ge	72	2	He	1042792	0.59	1081993	96.38	70	120	
Ge	72	1	No Gas	3439969	1.17	3529374	97.47	70	120	

Sample Report

In	115	1	No Gas	3996140	1.51	4016067	99.50	70	120	
Bi	209	1	No Gas	3682125	2.40	3601112	102.25	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	020_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:31:46-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	0.014	897.4	108302	1.8	0.5	
Be	9	1	No Gas	-0.001	-230.6	22	35.3	0.5	
V	51	2	He	-0.015	-12.4	1027	2.5	2.5	
Cr	52	2	He	-0.036	-52.0	1960	10.5	2.5	
Fe	56	2	He	-0.158	-40.5	18673	2.9	100	
Se	78	2	He	0.168	82.6	172	9.1	1	
As	75	2	He	0.011	209.7	134	23.4	2.5	
Ca	44	2	He	-9.397	-37.1	1493	14.8	100	
Na	23	2	He	-1.203	-186.6	122059	0.9	100	
Mg	24	2	He	7.514	2.0	8463	3.1	100	
K	39	2	He	-7.461	-18.8	75931	1.6	100	
Mn	55	2	He	-0.667	-3.5	1073	15.6	2.5	
Co	59	2	He	0.000	-840.9	67	34.6	2.5	
Ni	60	2	He	-0.090	-6.8	293	8.6	2.5	
Cu	63	2	He	-0.120	-2.0	5181	2.1	1	
Zn	66	2	He	-0.055	-181.2	1033	18.7	2.5	
Al	27	2	He	2.490	23.2	3937	9.4	5	
B	11	1	No Gas	-1.955	-8.9	26712	2.3	0.5	
Al	27	1	No Gas	2.572	3.4	168159	1.1	5	
Si	28	1	No Gas	41.373	2.1	981495	0.8	10	ICB Main CR1 Failed
Ag	107	1	No Gas	-0.011	-14.4	570	4.6	2.5	
Cd	111	1	No Gas	-0.003	-42.0	3	173.2	1	
Sr	88	1	No Gas	-0.015	-9.7	2347	1.1	2.5	
Mo	95	1	No Gas	-0.009	-6.0	137	4.2	2.5	
Sn	118	1	No Gas	-0.073	-12.5	2267	7.6	5	
Sb	121	1	No Gas	-0.135	-5.3	2984	4.7	2.5	
Ba	137	1	No Gas	0.061	31.8	890	14.7	2.5	
Tl	205	1	No Gas	-0.007	-7.7	843	4.9	1	
Tl	203	1	No Gas	-0.005	-49.1	353	11.8	1	
Pb	208	1	No Gas	-0.011	-10.6	1817	1.8	2.5	
U	238	1	No Gas	-0.001	-35.3	90	19.2	2.5	
Ca	43	2	He	-7.004	-108.7	43	58.1	100	
Sb	121	2	He	-0.146	-6.0	1503	4.8	2.5	
Ti	47	2	He	-0.019	-95.1	17	34.6	2.5	
Se	82	1	No Gas	0.160	116.5	-190	-26.7	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	1836116	1.02	1845436	99.49	70	120	
Ge	72	2	He	1070560	1.86	1081993	98.94	70	120	
Ge	72	1	No Gas	3468587	0.43	3529374	98.28	70	120	
In	115	1	No Gas	4026587	1.82	4016067	100.26	70	120	
Bi	209	1	No Gas	3709232	2.10	3601112	103.00	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	021ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:33:45-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	0.456	11.7	109253	0.6	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.001	190.2	30	44.1	0	ICSA Main CR1 Failed
V	51	2	He	0.077	26.5	1620	9.5	0	ICSA Main CR1 Failed
Cr	52	2	He	2.041	3.0	20442	2.4	0	ICSA Main CR1 Failed
Fe	56	2	He	102016.178	2.3	815620895	1.5	0	
Se	78	2	He	0.728	56.6	215	22.3	0	ICSA Main CR1 Failed
As	75	2	He	0.082	23.8	209	12.9	0	ICSA Main CR1 Failed
Ca	44	2	He	99211.239	1.8	5000324	1.5	0	
Na	23	2	He	103478.091	0.8	135275771	1.0	0	
Mg	24	2	He	103554.151	1.3	79170729	0.7	0	
K	39	2	He	102656.466	0.9	95759439	0.7	0	
Mn	55	2	He	12.453	1.7	90119	1.0	0	
Co	59	2	He	0.085	18.8	1183	18.4	0	ICSA Main CR1 Failed
Ni	60	2	He	0.074	33.3	787	8.9	0	ICSA Main CR1 Failed
Cu	63	2	He	-0.047	-54.9	5194	3.4	0	ICSA Main CR1 Failed
Zn	66	2	He	0.912	16.3	2487	8.7	0	ICSA Main CR1 Failed
Al	27	2	He	94952.185	1.5	44830409	0.4	0	
B	11	1	No Gas	-0.244	-92.5	29474	2.9	0	ICSA Main CR1 Failed
Al	27	1	No Gas	95852.254	1.0	1865231226	1.2	0	
Si	28	1	No Gas	19.415	4.8	680398	0.3	0	ICSA Main CR1 Failed
Ag	107	1	No Gas	0.269	2.9	6315	1.0	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.237	3.4	5114	1.8	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.181	2.0	50496	1.7	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1963.166	3.0	16066499	1.1	0	
Sn	118	1	No Gas	0.093	18.5	4177	5.4	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.025	11.0	5481	0.7	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.459	1.4	3394	0.9	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.001	513.4	1043	14.7	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.003	156.6	430	14.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.071	6.5	5917	2.6	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.002	54.8	247	24.8	0	ICSA Main CR1 Failed
Ca	43	2	He	100919.063	1.9	290376	2.0	0	
Sb	121	2	He	-0.004	-719.8	2530	11.1	0	ICSA Main CR1 Failed
Ti	47	2	He	2032.858	0.7	599897	1.5	0	
Se	82	1	No Gas	0.256	227.0	-147	-97.3	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	1685658	0.73	1845436	91.34	70	120	
Ge	72	2	He	943343	1.13	1081993	87.19	70	120	
Ge	72	1	No Gas	3101666	1.09	3529374	87.88	70	120	
In	115	1	No Gas	3593322	1.92	4016067	89.47	70	120	
Bi	209	1	No Gas	3254884	2.39	3601112	90.39	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	022ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:35:48-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	101.959	1.054	2241028	0.54	100	102.0	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	99.929	1.078	504723	0.82	100	99.9	80	120	
V	51	2	He	99.011	1.893	771103	0.34	100	99.0	80	120	
Cr	52	2	He	100.930	1.379	911170	0.69	100	100.9	80	120	
Fe	56	2	He	111467.180	2.202	890933720	1.02	100	111467.2	80	120	
Se	78	2	He	103.901	1.120	11915	0.77	100	103.9	80	120	
As	75	2	He	103.890	1.306	131978	0.67	100	103.9	80	120	
Ca	44	2	He	109476.288	1.507	5516019	0.88	100	109476.3	80	120	
Na	23	2	He	112493.374	2.000	147002224	1.32	100	112493.4	80	120	
Mg	24	2	He	113564.109	3.262	86783169	1.80	100	113564.1	80	120	
K	39	2	He	112543.132	2.840	104925652	1.14	100	112543.1	80	120	
Mn	55	2	He	104.514	1.161	715658	0.63	100	104.5	80	120	
Co	59	2	He	98.501	0.566	1293219	1.33	100	98.5	80	120	
Ni	60	2	He	98.698	0.693	318442	1.08	100	98.7	80	120	
Cu	63	2	He	95.157	1.114	834707	0.89	100	95.2	80	120	
Zn	66	2	He	100.709	1.906	165257	1.05	100	100.7	80	120	
Al	27	2	He	93631.321	2.505	44190531	0.80	100	93631.3	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	517.481	2.428	1448723	3.27	100	517.5	80	120	
Al	27	1	No Gas	93053.857	2.183	1835882479	2.11	100	93053.9	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	534.836	2.550	5383247	2.19	100	534.8	80	120	
Ag	107	1	No Gas	97.030	0.587	2020235	1.89	100	97.0	80	120	
Cd	111	1	No Gas	100.226	1.873	414179	0.70	100	100.2	80	120	
Sr	88	1	No Gas	104.580	2.010	4244984	0.51	100	104.6	80	120	
Mo	95	1	No Gas	2064.066	0.932	16935082	0.69	100	2064.1	80	120	
Sn	118	1	No Gas	103.442	1.543	1350670	1.68	100	103.4	80	120	
Sb	121	1	No Gas	101.727	1.440	1823749	1.56	100	101.7	80	120	
Ba	137	1	No Gas	100.313	1.995	657037	1.15	100	100.3	80	120	
Tl	205	1	No Gas	103.194	2.104	3874301	1.39	100	103.2	80	120	
Tl	203	1	No Gas	101.759	3.549	1614599	2.30	100	101.8	80	120	
Pb	208	1	No Gas	104.278	2.047	5502790	0.66	100	104.3	80	120	
U	238	1	No Gas	105.617	1.925	5668158	1.84	100	105.6	80	120	
Ca	43	2	He	109495.814	1.740	314933	0.14	100	109495.8	80	120	
Sb	121	2	He	103.416	1.883	879804	0.94	100	103.4	80	120	
Ti	47	2	He	2111.064	1.118	622786	1.24	100	2111.1	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	97.675	0.391	1588129	0.61	100	97.7	80	120	
Se	82	1	No Gas	105.223	1.697	25886	2.06	100	105.2	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	1599061	1.33	1845436	86.65	70	120	
Ge	72	2	He	943165	1.77	1081993	87.17	70	120	
Ge	72	1	No Gas	3144622	0.35	3529374	89.10	70	120	
In	115	1	No Gas	3601367	1.53	4016067	89.67	70	120	
Bi	209	1	No Gas	3236755	1.45	3601112	89.88	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	110_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:47:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	99.081	1.952	2421591	1.29	100	99.1	90	110	
Be	9	1	No Gas	97.923	2.064	549248	0.31	100	97.9	90	110	
V	51	2	He	96.160	0.736	866184	0.13	100	96.2	90	110	
Cr	52	2	He	98.527	2.952	1028651	2.47	100	98.5	90	110	
Fe	56	2	He	9639.831	1.393	89132885	1.33	10000	96.4	90	110	
Se	78	2	He	97.456	0.956	12934	0.65	100	97.5	90	110	
As	75	2	He	98.524	1.297	144748	0.66	100	98.5	90	110	
Ca	44	2	He	9056.659	0.812	529635	0.73	10000	90.6	90	110	
Na	23	2	He	9476.727	0.868	14437545	0.16	10000	94.8	90	110	
Mg	24	2	He	9398.499	0.597	8309657	0.62	10000	94.0	90	110	
K	39	2	He	9357.578	1.551	10169134	0.85	10000	93.6	90	110	
Mn	55	2	He	100.142	1.352	793290	1.25	100	100.1	90	110	
Co	59	2	He	102.260	1.495	1552514	1.27	100	102.3	90	110	
Ni	60	2	He	99.641	0.591	371761	0.11	100	99.6	90	110	
Cu	63	2	He	97.389	1.341	987777	1.09	100	97.4	90	110	
Zn	66	2	He	100.336	1.836	190412	1.27	100	100.3	90	110	
Al	27	2	He	97.208	3.141	55706	2.31	100	97.2	90	110	
B	11	1	No Gas	518.756	4.026	1611998	1.91	500	103.8	90	110	
Al	27	1	No Gas	103.779	1.461	2497692	1.29	100	103.8	90	110	
Si	28	1	No Gas	506.862	0.943	5960517	0.77	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.629	1.406	2498556	1.59	100	102.6	90	110	
Cd	111	1	No Gas	101.861	0.251	492293	0.22	100	101.9	90	110	
Sr	88	1	No Gas	99.771	0.143	4736652	0.48	100	99.8	90	110	
Mo	95	1	No Gas	100.456	1.053	964062	0.72	100	100.5	90	110	
Sn	118	1	No Gas	100.830	0.353	1539702	0.62	100	100.8	90	110	
Sb	121	1	No Gas	101.988	1.892	2125060	2.12	100	102.0	90	110	
Ba	137	1	No Gas	100.396	1.924	769033	1.66	100	100.4	90	110	
Tl	205	1	No Gas	103.439	2.119	4666743	0.09	100	103.4	90	110	
Tl	203	1	No Gas	102.149	2.471	1947927	0.82	100	102.1	90	110	
Pb	208	1	No Gas	103.067	2.169	6536102	0.39	100	103.1	90	110	
U	238	1	No Gas	100.272	2.870	6465776	1.41	100	100.3	90	110	
Ca	43	2	He	9368.730	2.694	31226	2.48	10000	93.7	90	110	
Sb	121	2	He	101.603	0.098	999776	0.79	100	101.6	90	110	
Ti	47	2	He	93.600	1.176	31954	0.70	100	93.6	90	110	
Cu	63	1	No Gas	100.145	1.739	1891972	1.67	100	100.1	90	110	
Se	82	1	No Gas	100.334	3.385	28676	3.58	100	100.3	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	1776142	2.07	1845436	96.25	70	120	
Ge	72	2	He	1090625	0.70	1081993	100.80	70	120	
Ge	72	1	No Gas	3654719	0.25	3529374	103.55	70	120	
In	115	1	No Gas	4211203	0.47	4016067	104.86	70	120	
Bi	209	1	No Gas	3890087	2.06	3601112	108.02	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	111_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:49:44-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	-0.016	-723.4	105300	1.0	0.5	
Be	9	1	No Gas	0.006	46.9	57	27.0	0.5	
V	51	2	He	0.046	37.0	1610	9.0	2.5	
Cr	52	2	He	-0.083	-17.2	1523	10.0	2.5	
Fe	56	2	He	1.525	9.7	34942	4.1	100	
Se	78	2	He	-0.002	-2603.6	155	4.2	2	
As	75	2	He	0.040	73.5	181	23.4	2.5	
Ca	44	2	He	-15.311	-7.8	1187	5.5	100	
Na	23	2	He	23.597	7.3	163511	1.1	100	
Mg	24	2	He	-0.033	-358.7	1970	5.7	100	
K	39	2	He	-16.796	-0.7	68004	0.4	100	
Mn	55	2	He	0.703	2.3	11992	1.6	2.5	
Co	59	2	He	0.001	56.3	90	11.1	2.5	
Ni	60	2	He	0.162	17.8	1250	9.0	2.5	
Cu	63	2	He	-0.442	-3.0	2050	6.4	2	
Zn	66	2	He	0.104	22.9	1367	2.8	2.5	
Al	27	2	He	-1.529	-10.8	1833	5.5	5	
B	11	1	No Gas	11.568	23.8	67818	11.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.864	-3.5	76407	0.8	5	
Si	28	1	No Gas	-7.493	-8.1	523518	0.1	10	
Ag	107	1	No Gas	-0.010	-19.9	617	8.0	2.5	
Cd	111	1	No Gas	0.003	161.5	33	75.5	1	
Sr	88	1	No Gas	-0.031	-7.8	1747	6.3	2.5	
Mo	95	1	No Gas	0.214	44.9	2317	39.8	2.5	
Sn	118	1	No Gas	0.204	25.9	6675	11.7	5	
Sb	121	1	No Gas	0.043	78.7	6925	9.1	2.5	
Ba	137	1	No Gas	-0.013	-54.4	373	13.7	2.5	
Tl	205	1	No Gas	0.872	59.7	41093	59.2	1	
Tl	203	1	No Gas	0.882	59.8	17516	59.5	1	
Pb	208	1	No Gas	0.016	28.0	3634	8.4	2.5	
U	238	1	No Gas	0.023	48.1	1630	44.9	2.5	
Ca	43	2	He	3.574	80.7	80	12.5	100	
Sb	121	2	He	-0.031	-47.4	2690	4.9	2.5	
Ti	47	2	He	0.009	189.8	27	21.7	2.5	
Cu	63	1	No Gas	-0.285	-8.9	11055	5.5	2.5	
Se	82	1	No Gas	-0.023	-1674.4	-257	-44.4	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	1797387	1.64	1845436	97.40	70	120	
Ge	72	2	He	1101935	0.54	1081993	101.84	70	120	
Ge	72	1	No Gas	3701050	1.30	3529374	104.86	70	120	
In	115	1	No Gas	4269174	0.50	4016067	106.30	70	120	
Bi	209	1	No Gas	3925689	1.25	3601112	109.01	70	120	

Sample Report

Sample Table

Sample Name	MBLK-166391
Data File Name	112SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:52:37-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	0.110	0.110	38.73	104961	0.00	2000	
Be	9	1	No Gas	0.000	0.000	-372.78	22	0.00	2000	
V	51	2	He	0.059	0.059	23.66	1708	0.00	2000	
Cr	52	2	He	-0.062	-0.062	-26.35	1713	0.00	2000	
Fe	56	2	He	0.783	0.783	2.44	27561	0.00	200000	
Se	78	2	He	0.165	0.165	28.05	174	0.09	2000	
As	75	2	He	0.026	0.026	116.75	158	0.02	2000	
Ca	44	2	He	-14.464	-14.464	-12.38	1217	-1.19	200000	
Na	23	2	He	13.396	13.396	7.42	145586	0.01	200000	
Mg	24	2	He	1.916	1.916	9.79	3651	0.05	200000	
K	39	2	He	-16.535	-16.535	-11.90	67187	-0.02	200000	
Mn	55	2	He	0.584	0.584	9.53	10868	0.01	2000	
Co	59	2	He	0.000	0.000	-219.51	63	0.00	2000	
Ni	60	2	He	0.336	0.336	2.60	1877	0.02	2000	
Cu	63	2	He	-0.428	-0.428	-3.27	2154	-0.02	2000	
Zn	66	2	He	0.381	0.381	10.77	1863	0.02	2000	
Al	27	2	He	-0.848	-0.848	-47.03	2174	-0.04	2000	
B	11	1	No Gas	0.704	0.704	81.73	33286	0.00	2000	
Al	27	1	No Gas	-0.749	-0.749	-6.09	99504	0.00	2000	
Si	28	1	No Gas	4.005	4.005	11.64	628996	0.00	2000	
Ag	107	1	No Gas	-0.018	-0.018	-12.24	433	0.00	2000	
Cd	111	1	No Gas	-0.001	-0.001	-337.25	13	-0.01	2000	
Sr	88	1	No Gas	-0.027	-0.027	-6.12	1934	0.00	2000	
Mo	95	1	No Gas	0.020	0.020	37.32	433	0.00	2000	
Sn	118	1	No Gas	0.025	0.025	98.97	3927	0.00	2000	
Sb	121	1	No Gas	-0.141	-0.141	-3.81	2967	0.00	2000	
Ba	137	1	No Gas	-0.001	-0.001	-2661.31	467	0.00	2000	
Tl	205	1	No Gas	-0.010	-0.010	-45.89	793	0.00	2000	
Tl	203	1	No Gas	-0.006	-0.006	-54.37	360	0.00	2000	
Pb	208	1	No Gas	-0.005	-0.005	-34.54	2380	0.00	2000	
U	238	1	No Gas	0.000	0.000	697.57	163	0.00	2000	
Ca	43	2	He	-15.176	-15.176	-11.70	17	-91.05	200000	
Sb	121	2	He	-0.157	-0.157	-4.27	1413	-0.01	2000	
Ti	47	2	He	0.000	0.000	-29940.46	23	0.00	2000	
Cu	63	1	No Gas	-0.494	-0.494	-7.41	6892	-0.01	2000	
Zn	66	1	No Gas	0.429	0.429	9.43	5078	0.01	2000	
Se	82	1	No Gas	0.269	0.269	165.68	-166	-0.16	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	1741968	0.44	1845436	94.39	70	120	
Ge	72	2	He	1084320	0.73	1081993	100.22	70	120	
Ge	72	1	No Gas	3599275	0.63	3529374	101.98	70	120	
In	115	1	No Gas	4277662	1.68	4016067	106.51	70	120	

Sample Report

Bi	209	1	No Gas	4025094	1.79	3601112	111.77	70	120	

Sample Report

Sample Table

Sample Name	LCS-166391
Data File Name	113SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:54:37-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	0.003	0.003	720.25	108729	0.00	2000	
Be	9	1	No Gas	48.207	48.207	0.87	281326	0.02	2000	
V	51	2	He	47.761	47.761	1.67	441126	0.01	2000	
Cr	52	2	He	48.410	48.410	0.92	518803	0.01	2000	
Fe	56	2	He	4883.184	4883.184	0.66	46244761	0.01	200000	
Se	78	2	He	48.697	48.697	2.58	6696	0.73	2000	
As	75	2	He	47.151	47.151	0.98	71001	0.07	2000	
Ca	44	2	He	4579.097	4579.097	0.81	275250	1.66	200000	
Na	23	2	He	4823.474	4823.474	2.27	7587431	0.06	200000	
Mg	24	2	He	4891.516	4891.516	1.46	4429465	0.11	200000	
K	39	2	He	4802.148	4802.148	0.59	5386609	0.09	200000	
Mn	55	2	He	45.628	45.628	1.40	373637	0.01	2000	
Co	59	2	He	49.245	49.245	0.66	765608	0.01	2000	
Ni	60	2	He	51.020	51.020	0.38	195244	0.03	2000	
Cu	63	2	He	49.296	49.296	1.71	515225	0.01	2000	
Zn	66	2	He	51.148	51.148	0.26	99983	0.05	2000	
Al	27	2	He	49.509	49.509	2.27	30384	0.16	2000	
B	11	1	No Gas	-2.454	-2.454	-5.67	25293	-0.01	2000	
Al	27	1	No Gas	54.700	54.700	3.03	1390860	0.00	2000	
Si	28	1	No Gas	84.775	84.775	0.90	1513536	0.01	2000	
Ag	107	1	No Gas	52.227	52.227	1.04	1298442	0.00	2000	
Cd	111	1	No Gas	51.709	51.709	1.11	255133	0.02	2000	
Sr	88	1	No Gas	0.048	0.048	16.14	5555	0.00	2000	
Mo	95	1	No Gas	49.049	49.049	1.11	480675	0.01	2000	
Sn	118	1	No Gas	-0.082	-0.082	-7.69	2274	0.00	2000	
Sb	121	1	No Gas	50.446	50.446	1.48	1068189	0.00	2000	
Ba	137	1	No Gas	50.216	50.216	0.66	392938	0.01	2000	
Tl	205	1	No Gas	51.087	51.087	3.87	2377459	0.00	2000	
Tl	203	1	No Gas	47.834	47.834	2.43	941171	0.01	2000	
Pb	208	1	No Gas	49.687	49.687	2.26	3251640	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-37.76	97	0.00	2000	
Ca	43	2	He	4631.337	4631.337	5.62	15843	29.23	200000	
Sb	121	2	He	50.775	50.775	1.90	513073	0.01	2000	
Ti	47	2	He	47.237	47.237	5.14	16520	0.29	2000	
Cu	63	1	No Gas	49.887	49.887	1.26	963366	0.01	2000	
Zn	66	1	No Gas	52.836	52.836	0.69	261643	0.02	2000	
Se	82	1	No Gas	52.375	52.375	4.80	15049	0.35	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	1847415	0.75	1845436	100.11	70	120	
Ge	72	2	He	1116795	0.98	1081993	103.22	70	120	
Ge	72	1	No Gas	3703786	0.60	3529374	104.94	70	120	
In	115	1	No Gas	4299381	1.10	4016067	107.05	70	120	

Sample Report

Bi	209	1	No Gas	4012957	2.48	3601112	111.44	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03SD
Data File Name	117SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:02:33-05:00
Sample Type	Sample
Dilution	5
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	15.299	76.494	2.26	424362	0.00	2000	
Be	9	1	No Gas	0.001	0.006	126.23	28	0.00	2000	
V	51	2	He	0.316	1.580	8.51	3658	0.01	2000	
Cr	52	2	He	0.302	1.511	8.43	5014	0.01	2000	
Fe	56	2	He	2936.808	14684.039	0.76	24684295	0.01	200000	
Se	78	2	He	0.163	0.816	79.94	159	0.10	2000	
As	75	2	He	3.706	18.528	0.86	5052	0.07	2000	
Ca	44	2	He	40001.952	200009.762	1.63	2118773	1.89	200000	
Na	23	2	He	12899.564	64497.818	2.16	17812485	0.07	200000	
Mg	24	2	He	9775.929	48879.646	2.28	7851660	0.12	200000	
K	39	2	He	2907.101	14535.507	2.08	2923855	0.10	200000	
Mn	55	2	He	69.749	348.745	1.20	503710	0.01	2000	
Co	59	2	He	0.144	0.721	10.98	2054	0.01	2000	
Ni	60	2	He	0.871	4.353	11.01	3524	0.02	2000	
Cu	63	2	He	-0.217	-1.083	-6.57	3907	-0.01	2000	
Zn	66	2	He	0.560	2.799	3.14	2010	0.03	2000	
Al	27	2	He	11.339	56.695	27.58	8023	0.14	2000	
B	11	1	No Gas	127.635	638.176	3.93	386138	0.03	2000	
Al	27	1	No Gas	10.419	52.096	21.39	333220	0.00	2000	
Si	28	1	No Gas	3112.223	15561.117	0.34	31289930	0.01	2000	>LDR
Ag	107	1	No Gas	-0.022	-0.112	-5.61	297	-0.01	2000	
Cd	111	1	No Gas	0.010	0.052	24.99	63	0.02	2000	
Sr	88	1	No Gas	305.902	1529.512	1.21	13626763	0.00	2000	
Mo	95	1	No Gas	0.383	1.915	6.32	3671	0.01	2000	
Sn	118	1	No Gas	-0.047	-0.235	-32.67	2594	0.00	2000	
Sb	121	1	No Gas	-0.106	-0.531	-10.91	3491	0.00	2000	
Ba	137	1	No Gas	9.908	49.540	0.94	71641	0.01	2000	
Tl	205	1	No Gas	-0.018	-0.092	-14.89	360	-0.01	2000	
Tl	203	1	No Gas	-0.015	-0.073	-4.51	170	-0.01	2000	
Pb	208	1	No Gas	0.012	0.062	25.97	3180	0.00	2000	
U	238	1	No Gas	0.354	1.771	2.11	21616	0.00	2000	
Ca	43	2	He	40447.560	202237.802	1.75	122276	33.08	200000	
Sb	121	2	He	-0.112	-0.558	-15.51	1697	-0.01	2000	
Ti	47	2	He	0.125	0.626	112.39	60	0.21	2000	
Cu	63	1	No Gas	-0.312	-1.558	-11.98	9717	0.00	2000	
Zn	66	1	No Gas	0.538	2.689	6.64	5301	0.01	2000	
Se	82	1	No Gas	0.423	2.115	90.07	-116	-0.36	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	1630826	2.58	1845436	88.37	70	120	
Ge	72	2	He	990877	1.07	1081993	91.58	70	120	
Ge	72	1	No Gas	3410171	0.19	3529374	96.62	70	120	
In	115	1	No Gas	3953294	0.42	4016067	98.44	70	120	

Sample Report

Bi	209	1	No Gas	3656517	2.34	3601112	101.54	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03MS
Data File Name	118SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:04:32-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	72.906	72.906	2.27	1587187	0.00	2000	
Be	9	1	No Gas	49.689	49.689	1.36	244493	0.02	2000	
V	51	2	He	51.994	51.994	0.19	406688	0.01	2000	
Cr	52	2	He	52.326	52.326	0.51	474824	0.01	2000	
Fe	56	2	He	18669.955	18669.955	0.23	149710514	0.01	200000	
Se	78	2	He	52.117	52.117	2.57	6062	0.86	2000	
As	75	2	He	68.286	68.286	0.84	87052	0.08	2000	
Ca	44	2	He	189109.733	189109.733	0.64	9555996	1.98	200000	>LDR
Na	23	2	He	65330.650	65330.650	0.23	85681859	0.08	200000	
Mg	24	2	He	50153.672	50153.672	0.47	38453221	0.13	200000	
K	39	2	He	18474.974	18474.974	1.47	17340723	0.11	200000	
Mn	55	2	He	380.926	380.926	0.19	2601851	0.01	2000	
Co	59	2	He	51.349	51.349	0.88	676193	0.01	2000	
Ni	60	2	He	54.651	54.651	0.80	177093	0.03	2000	
Cu	63	2	He	49.947	49.947	0.87	442130	0.01	2000	
Zn	66	2	He	53.311	53.311	1.51	88215	0.06	2000	
Al	27	2	He	103.052	103.052	0.82	51086	0.20	2000	
B	11	1	No Gas	488.065	488.065	0.76	1332419	0.04	2000	
Al	27	1	No Gas	108.294	108.294	2.15	2323217	0.00	2000	
Si	28	1	No Gas	14968.034	14968.034	0.49	142014078	0.01	2000	>LDR
Ag	107	1	No Gas	50.681	50.681	1.58	1108686	0.00	2000	
Cd	111	1	No Gas	52.236	52.236	1.38	226784	0.02	2000	
Sr	88	1	No Gas	1476.682	1476.682	2.61	62931216	0.00	2000	
Mo	95	1	No Gas	53.727	53.727	0.93	463279	0.01	2000	
Sn	118	1	No Gas	-0.091	-0.091	-6.51	1880	0.00	2000	
Sb	121	1	No Gas	53.250	53.250	0.87	993464	0.01	2000	
Ba	137	1	No Gas	101.898	101.898	1.87	701128	0.01	2000	
Tl	205	1	No Gas	51.555	51.555	4.15	2113034	0.00	2000	
Tl	203	1	No Gas	48.539	48.539	3.56	840993	0.01	2000	
Pb	208	1	No Gas	51.703	51.703	2.42	2979876	0.00	2000	
U	238	1	No Gas	1.680	1.680	3.03	98546	0.00	2000	
Ca	43	2	He	195430.906	195430.906	1.04	563772	34.66	200000	>LDR
Sb	121	2	He	54.840	54.840	0.29	469203	0.01	2000	
Ti	47	2	He	51.733	51.733	1.50	15329	0.34	2000	
Cu	63	1	No Gas	48.832	48.832	0.48	831389	0.01	2000	
Zn	66	1	No Gas	53.575	53.575	0.59	233777	0.02	2000	
Se	82	1	No Gas	55.789	55.789	1.90	14142	0.39	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	1557642	0.17	1845436	84.41	70	120	
Ge	72	2	He	945919	1.09	1081993	87.42	70	120	
Ge	72	1	No Gas	3264141	0.24	3529374	92.48	70	120	
In	115	1	No Gas	3783020	0.75	4016067	94.20	70	120	
Bi	209	1	No Gas	3534040	2.05	3601112	98.14	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03MSD
Data File Name	119SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:06:32-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	71.852	71.852	0.73	1468690	0.00	2000	
Be	9	1	No Gas	49.598	49.598	1.45	228952	0.02	2000	
V	51	2	He	51.774	51.774	0.75	363907	0.01	2000	
Cr	52	2	He	51.885	51.885	1.75	423066	0.01	2000	
Fe	56	2	He	18670.102	18670.102	1.69	134520258	0.01	200000	
Se	78	2	He	50.663	50.663	1.63	5298	0.96	2000	
As	75	2	He	67.832	67.832	0.62	77703	0.09	2000	
Ca	44	2	He	191294.713	191294.713	0.39	8686638	2.20	200000	>LDR
Na	23	2	He	66371.822	66371.822	1.40	78214666	0.08	200000	
Mg	24	2	He	51092.687	51092.687	1.17	35199034	0.15	200000	
K	39	2	He	18723.801	18723.801	0.77	15793081	0.12	200000	
Mn	55	2	He	383.995	383.995	0.93	2357030	0.02	2000	
Co	59	2	He	51.368	51.368	1.87	607803	0.01	2000	
Ni	60	2	He	55.264	55.264	2.53	160902	0.03	2000	
Cu	63	2	He	50.614	50.614	0.68	402533	0.01	2000	
Zn	66	2	He	52.274	52.274	1.46	77755	0.07	2000	
Al	27	2	He	101.544	101.544	0.17	45268	0.22	2000	
B	11	1	No Gas	483.632	483.632	1.54	1238894	0.04	2000	
Al	27	1	No Gas	107.345	107.345	3.58	2157836	0.00	2000	
Si	28	1	No Gas	15155.434	15155.434	0.56	134571238	0.01	2000	>LDR
Ag	107	1	No Gas	50.938	50.938	2.70	1045883	0.00	2000	
Cd	111	1	No Gas	52.899	52.899	1.70	215574	0.02	2000	
Sr	88	1	No Gas	1480.711	1480.711	2.37	59231926	0.00	2000	
Mo	95	1	No Gas	54.607	54.607	2.29	441935	0.01	2000	
Sn	118	1	No Gas	-0.096	-0.096	-12.67	1700	-0.01	2000	
Sb	121	1	No Gas	53.880	53.880	1.54	940552	0.01	2000	
Ba	137	1	No Gas	103.234	103.234	1.72	666739	0.02	2000	
Tl	205	1	No Gas	54.902	54.902	1.14	2089767	0.00	2000	
Tl	203	1	No Gas	51.840	51.840	1.15	834046	0.01	2000	
Pb	208	1	No Gas	53.492	53.492	1.19	2862424	0.00	2000	
U	238	1	No Gas	1.728	1.728	0.63	94127	0.00	2000	
Ca	43	2	He	198167.662	198167.662	0.79	513732	38.57	200000	>LDR
Sb	121	2	He	55.378	55.378	1.01	425727	0.01	2000	
Ti	47	2	He	50.814	50.814	2.95	13527	0.38	2000	
Cu	63	1	No Gas	49.398	49.398	0.98	786912	0.01	2000	
Zn	66	1	No Gas	54.157	54.157	0.46	221158	0.02	2000	
Se	82	1	No Gas	54.833	54.833	2.58	13008	0.42	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	1461197	1.36	1845436	79.18	70	120	
Ge	72	2	He	850033	1.04	1081993	78.56	70	120	
Ge	72	1	No Gas	3055276	2.94	3529374	86.57	70	120	
In	115	1	No Gas	3550920	1.14	4016067	88.42	70	120	
Bi	209	1	No Gas	3280722	1.91	3601112	91.10	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03PDS
Data File Name	120SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:08:32-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	69.905	69.905	2.37	1418236	0.00	2000	
Be	9	1	No Gas	107.033	107.033	1.49	489569	0.02	2000	
V	51	2	He	114.243	114.243	0.98	793292	0.01	2000	
Cr	52	2	He	113.720	113.720	1.05	915214	0.01	2000	
Fe	56	2	He	24913.763	24913.763	0.45	177589924	0.01	200000	
Se	78	2	He	113.878	113.878	1.95	11633	0.98	2000	
As	75	2	He	129.189	129.189	0.53	146319	0.09	2000	
Ca	44	2	He	198804.955	198804.955	0.17	8930637	2.23	200000	>LDR
Na	23	2	He	72278.093	72278.093	0.52	84257820	0.09	200000	
Mg	24	2	He	56644.390	56644.390	1.22	38607771	0.15	200000	
K	39	2	He	24629.883	24629.883	1.18	20530755	0.12	200000	
Mn	55	2	He	445.574	445.574	0.93	2704596	0.02	2000	
Co	59	2	He	112.217	112.217	0.74	1313619	0.01	2000	
Ni	60	2	He	116.185	116.185	0.25	334151	0.03	2000	
Cu	63	2	He	110.852	110.852	0.84	866197	0.01	2000	
Zn	66	2	He	115.014	115.014	0.58	168169	0.07	2000	
Al	27	2	He	160.382	160.382	2.68	69538	0.23	2000	
B	11	1	No Gas	480.057	480.057	0.90	1218898	0.04	2000	
Al	27	1	No Gas	173.158	173.158	11.44	3324211	0.01	2000	
Si	28	1	No Gas	14827.647	14827.647	0.55	127937911	0.01	2000	>LDR
Ag	107	1	No Gas	106.553	106.553	2.51	2143751	0.00	2000	
Cd	111	1	No Gas	113.948	113.948	1.32	455172	0.03	2000	
Sr	88	1	No Gas	1472.037	1472.037	0.99	57725907	0.00	2000	
Mo	95	1	No Gas	117.168	117.168	1.57	929331	0.01	2000	
Sn	118	1	No Gas	-0.035	-0.035	-35.05	2430	0.00	2000	
Sb	121	1	No Gas	118.044	118.044	0.22	1996933	0.01	2000	
Ba	137	1	No Gas	166.613	166.613	0.64	1054676	0.02	2000	
Tl	205	1	No Gas	124.201	124.201	3.49	4639036	0.00	2000	
Tl	203	1	No Gas	120.879	120.879	3.07	1908759	0.01	2000	
Pb	208	1	No Gas	118.914	118.914	4.55	6240383	0.00	2000	
U	238	1	No Gas	1.713	1.713	4.52	91537	0.00	2000	
Ca	43	2	He	202482.770	202482.770	0.08	519285	38.99	200000	>LDR
Sb	121	2	He	118.860	118.860	0.45	901351	0.01	2000	
Ti	47	2	He	111.089	111.089	0.71	29238	0.38	2000	
Cu	63	1	No Gas	110.016	110.016	0.78	1686891	0.01	2000	
Zn	66	1	No Gas	115.880	115.880	1.12	456891	0.03	2000	
Se	82	1	No Gas	119.003	119.003	0.58	27661	0.43	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	1448122	0.80	1845436	78.47	70	120	
Ge	72	2	He	840875	0.57	1081993	77.72	70	120	
Ge	72	1	No Gas	2968488	1.49	3529374	84.11	70	120	
In	115	1	No Gas	3480986	1.40	4016067	86.68	70	120	
Bi	209	1	No Gas	3222267	4.02	3601112	89.48	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	122_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:15:30-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	98.697	0.870	2134520	2.15	100	98.7	90	110	
Be	9	1	No Gas	96.507	0.837	478885	0.73	100	96.5	90	110	
V	51	2	He	97.378	0.696	767430	0.50	100	97.4	90	110	
Cr	52	2	He	99.837	0.679	912011	0.84	100	99.8	90	110	
Fe	56	2	He	9942.036	1.216	80425979	0.78	10000	99.4	90	110	
Se	78	2	He	96.932	1.037	11256	0.59	100	96.9	90	110	
As	75	2	He	99.611	0.350	128046	0.70	100	99.6	90	110	
Ca	44	2	He	9312.494	0.250	476428	0.41	10000	93.1	90	110	
Na	23	2	He	9636.785	0.900	12843387	0.88	10000	96.4	90	110	
Mg	24	2	He	9733.272	1.011	7529018	0.74	10000	97.3	90	110	
K	39	2	He	9548.507	1.379	9077351	0.98	10000	95.5	90	110	
Mn	55	2	He	99.522	1.079	689815	1.27	100	99.5	90	110	
Co	59	2	He	105.024	1.210	1395013	0.77	100	105.0	90	110	
Ni	60	2	He	103.198	0.392	336857	0.63	100	103.2	90	110	
Cu	63	2	He	101.242	0.445	898213	0.60	100	101.2	90	110	
Zn	66	2	He	103.243	0.744	171402	0.85	100	103.2	90	110	
Al	27	2	He	92.676	1.336	46579	1.07	100	92.7	90	110	
B	11	1	No Gas	509.581	0.591	1401817	1.33	500	101.9	90	110	
Al	27	1	No Gas	99.856	1.542	2168646	0.27	100	99.9	90	110	
Si	28	1	No Gas	498.801	0.450	5292299	1.06	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.303	2.573	2243678	2.27	100	100.3	90	110	
Cd	111	1	No Gas	100.297	0.561	445416	0.61	100	100.3	90	110	
Sr	88	1	No Gas	99.847	1.482	4355808	1.72	100	99.8	90	110	
Mo	95	1	No Gas	97.732	0.625	861846	0.35	100	97.7	90	110	
Sn	118	1	No Gas	100.409	1.491	1408895	1.53	100	100.4	90	110	
Sb	121	1	No Gas	103.320	1.606	1938867	0.42	100	103.3	90	110	
Ba	137	1	No Gas	99.719	0.532	701899	0.24	100	99.7	90	110	
Tl	205	1	No Gas	103.424	2.105	4343831	1.55	100	103.4	90	110	
Tl	203	1	No Gas	103.240	2.559	1832574	0.60	100	103.2	90	110	
Pb	208	1	No Gas	103.623	1.880	6117403	0.75	100	103.6	90	110	
U	238	1	No Gas	100.178	1.230	6014402	1.27	100	100.2	90	110	
Ca	43	2	He	9474.999	2.881	27628	2.49	10000	94.7	90	110	
Sb	121	2	He	106.204	0.918	914182	0.69	100	106.2	90	110	
Ti	47	2	He	94.377	1.018	28189	0.75	100	94.4	90	110	
Cu	63	1	No Gas	99.428	1.608	1692051	1.20	100	99.4	90	110	
Se	82	1	No Gas	100.850	1.138	25967	2.39	100	100.8	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	1570985	1.39	1845436	85.13	70	120	
Ge	72	2	He	954194	0.44	1081993	88.19	70	120	
Ge	72	1	No Gas	3292158	1.25	3529374	93.28	70	120	
In	115	1	No Gas	3869557	0.33	4016067	96.35	70	120	
Bi	209	1	No Gas	3621111	1.99	3601112	100.56	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	123_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:17:23-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	-0.045	-99.4	92859	0.8	0.5	
Be	9	1	No Gas	0.011	13.5	77	10.0	0.5	
V	51	2	He	0.002	94.1	1064	1.7	2.5	
Cr	52	2	He	-0.081	-20.7	1350	11.2	2.5	
Fe	56	2	He	2.448	11.6	38077	5.9	100	
Se	78	2	He	-0.018	-567.4	133	9.2	2	
As	75	2	He	0.023	39.2	137	8.8	2.5	
Ca	44	2	He	-12.411	-16.7	1187	8.9	100	
Na	23	2	He	31.676	0.9	153729	0.0	100	
Mg	24	2	He	0.780	22.6	2357	5.8	100	
K	39	2	He	-11.722	-14.3	64280	2.4	100	
Mn	55	2	He	0.801	9.2	11161	4.6	2.5	
Co	59	2	He	0.005	35.9	133	18.9	2.5	
Ni	60	2	He	0.122	17.6	963	7.5	2.5	
Cu	63	2	He	-0.440	-1.5	1813	3.4	2	
Zn	66	2	He	0.329	23.3	1570	8.3	2.5	
Al	27	2	He	-1.893	-12.3	1427	7.7	5	
B	11	1	No Gas	19.354	14.3	81519	9.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.873	-2.6	68669	0.8	5	
Si	28	1	No Gas	-2.124	-36.7	523615	0.5	10	
Ag	107	1	No Gas	-0.010	-27.0	570	9.8	2.5	
Cd	111	1	No Gas	0.008	62.1	53	43.3	1	
Sr	88	1	No Gas	-0.016	-30.6	2240	8.5	2.5	
Mo	95	1	No Gas	0.206	27.8	2077	26.0	2.5	
Sn	118	1	No Gas	0.183	17.4	5875	9.1	5	
Sb	121	1	No Gas	0.137	24.0	8019	8.2	2.5	
Ba	137	1	No Gas	0.010	160.4	507	21.1	2.5	
Tl	205	1	No Gas	0.905	58.7	39844	58.7	1	
Tl	203	1	No Gas	0.910	57.3	16888	57.4	1	
Pb	208	1	No Gas	0.020	41.3	3670	14.5	2.5	
U	238	1	No Gas	0.027	24.1	1767	23.5	2.5	
Ca	43	2	He	-0.933	-1053.7	57	50.9	100	
Sb	121	2	He	0.077	17.0	3284	3.6	2.5	
Ti	47	2	He	-0.024	-77.9	13	43.3	2.5	
Cu	63	1	No Gas	-0.457	-5.2	7012	5.0	2.5	
Se	82	1	No Gas	0.417	78.8	-116	-75.0	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	1594894	0.46	1845436	86.42	70	120	
Ge	72	2	He	963327	0.22	1081993	89.03	70	120	
Ge	72	1	No Gas	3335163	0.99	3529374	94.50	70	120	
In	115	1	No Gas	3949470	1.47	4016067	98.34	70	120	
Bi	209	1	No Gas	3666041	1.63	3601112	101.80	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	134_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:43:53-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	100.505	1.301	2337469	0.53	100	100.5	90	110	
Be	9	1	No Gas	99.524	1.148	531569	0.50	100	99.5	90	110	
V	51	2	He	94.890	1.494	837845	1.20	100	94.9	90	110	
Cr	52	2	He	97.232	3.009	995137	2.87	100	97.2	90	110	
Fe	56	2	He	9686.715	0.672	87798932	1.33	10000	96.9	90	110	
Se	78	2	He	96.698	0.375	12581	0.63	100	96.7	90	110	
As	75	2	He	98.057	0.092	141222	0.79	100	98.1	90	110	
Ca	44	2	He	8993.639	1.246	515565	1.33	10000	89.9	90	110	CCV Main CR1-2 Failed
Na	23	2	He	9320.091	0.511	13920353	0.36	10000	93.2	90	110	
Mg	24	2	He	9401.241	0.960	8147917	1.39	10000	94.0	90	110	
K	39	2	He	9176.402	0.883	9777840	1.70	10000	91.8	90	110	
Mn	55	2	He	96.948	0.876	753014	1.18	100	96.9	90	110	
Co	59	2	He	102.130	1.248	1520023	2.02	100	102.1	90	110	
Ni	60	2	He	99.622	0.270	364350	0.80	100	99.6	90	110	
Cu	63	2	He	96.900	0.762	963434	0.91	100	96.9	90	110	
Zn	66	2	He	99.604	0.582	185301	0.28	100	99.6	90	110	
Al	27	2	He	91.033	0.393	51308	1.09	100	91.0	90	110	
B	11	1	No Gas	531.236	1.114	1571669	0.99	500	106.2	90	110	
Al	27	1	No Gas	98.429	1.717	2349024	0.60	100	98.4	90	110	
Si	28	1	No Gas	498.166	1.751	5804283	0.79	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.935	1.091	2487055	0.69	100	99.9	90	110	
Cd	111	1	No Gas	100.915	0.442	498581	0.31	100	100.9	90	110	
Sr	88	1	No Gas	98.118	0.158	4761974	0.60	100	98.1	90	110	
Mo	95	1	No Gas	96.649	1.123	948184	0.47	100	96.6	90	110	
Sn	118	1	No Gas	99.300	1.131	1550082	0.39	100	99.3	90	110	
Sb	121	1	No Gas	103.881	0.638	2140776	0.73	100	103.9	90	110	
Ba	137	1	No Gas	99.994	0.909	783031	0.80	100	100.0	90	110	
Tl	205	1	No Gas	102.268	2.821	4850268	1.09	100	102.3	90	110	
Tl	203	1	No Gas	102.181	1.527	2048742	0.57	100	102.2	90	110	
Pb	208	1	No Gas	102.192	2.937	6812466	1.05	100	102.2	90	110	
U	238	1	No Gas	99.934	1.810	6775267	0.18	100	99.9	90	110	
Ca	43	2	He	9384.330	3.024	30658	2.66	10000	93.8	90	110	
Sb	121	2	He	103.927	0.199	1002344	0.73	100	103.9	90	110	
Ti	47	2	He	92.886	1.233	31086	1.67	100	92.9	90	110	
Cu	63	1	No Gas	97.336	1.831	1819225	1.06	100	97.3	90	110	
Se	82	1	No Gas	102.295	2.300	28919	1.64	100	102.3	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	1690962	1.04	1845436	91.63	70	120	
Ge	72	2	He	1069059	0.85	1081993	98.80	70	120	
Ge	72	1	No Gas	3615070	1.05	3529374	102.43	70	120	
In	115	1	No Gas	4305034	0.75	4016067	107.20	70	120	
Bi	209	1	No Gas	4089597	1.91	3601112	113.56	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	135_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:45:46-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	-0.042	-239.9	102904	0.7	0.5	
Be	9	1	No Gas	0.006	59.7	57	33.4	0.5	
V	51	2	He	0.076	19.9	1886	6.6	2.5	
Cr	52	2	He	-0.089	-15.7	1453	9.7	2.5	
Fe	56	2	He	1.800	13.3	37465	4.9	100	
Se	78	2	He	-0.046	-205.0	149	7.4	2	
As	75	2	He	0.034	78.7	172	22.9	2.5	
Ca	44	2	He	-11.620	-10.3	1403	6.0	100	
Na	23	2	He	9.799	6.9	142340	0.4	100	
Mg	24	2	He	0.394	100.7	2347	14.1	100	
K	39	2	He	-16.478	-7.5	68285	1.3	100	
Mn	55	2	He	0.705	1.6	11992	0.4	2.5	
Co	59	2	He	0.006	17.7	160	10.8	2.5	
Ni	60	2	He	0.156	15.6	1230	8.6	2.5	
Cu	63	2	He	-0.451	-3.5	1957	9.3	2	
Zn	66	2	He	0.257	12.3	1657	3.3	2.5	
Al	27	2	He	-1.820	-13.0	1670	6.8	5	
B	11	1	No Gas	18.187	17.0	86670	9.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.712	-11.5	79731	6.0	5	
Si	28	1	No Gas	-1.917	-27.7	581657	0.6	10	
Ag	107	1	No Gas	-0.011	-16.3	617	6.6	2.5	
Cd	111	1	No Gas	0.002	86.7	30	33.3	1	
Sr	88	1	No Gas	-0.016	-34.1	2494	10.2	2.5	
Mo	95	1	No Gas	0.180	49.8	2034	42.9	2.5	
Sn	118	1	No Gas	0.190	18.7	6632	7.7	5	
Sb	121	1	No Gas	-0.007	-352.9	5855	8.9	2.5	
Ba	137	1	No Gas	-0.014	-81.9	373	24.9	2.5	
Tl	205	1	No Gas	0.859	58.1	43285	58.3	1	
Tl	203	1	No Gas	0.849	56.2	18040	56.7	1	
Pb	208	1	No Gas	0.008	29.2	3310	6.4	2.5	
U	238	1	No Gas	0.024	47.8	1857	45.7	2.5	
Ca	43	2	He	-1.373	-446.5	63	32.9	100	
Sb	121	2	He	-0.072	-10.3	2280	2.7	2.5	
Ti	47	2	He	-0.030	-54.2	13	43.3	2.5	
Cu	63	1	No Gas	-0.601	-1.8	5034	4.2	2.5	
Se	82	1	No Gas	0.239	138.9	-180	-53.8	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	1766885	1.87	1845436	95.74	70	120	
Ge	72	2	He	1101004	1.11	1081993	101.76	70	120	
Ge	72	1	No Gas	3690550	0.44	3529374	104.57	70	120	
In	115	1	No Gas	4385428	0.85	4016067	109.20	70	120	
Bi	209	1	No Gas	4182911	2.08	3601112	116.16	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	137_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:49:48-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	99.510	0.195	2352098	0.73	100	99.5	90	110	
Be	9	1	No Gas	99.126	1.352	537820	0.83	100	99.1	90	110	
V	51	2	He	95.664	1.065	855683	0.55	100	95.7	90	110	
Cr	52	2	He	98.634	2.142	1022561	1.45	100	98.6	90	110	
Fe	56	2	He	9701.853	1.013	89075899	0.15	10000	97.0	90	110	
Se	78	2	He	97.811	0.467	12890	0.69	100	97.8	90	110	
As	75	2	He	99.277	1.557	144829	0.50	100	99.3	90	110	
Ca	44	2	He	9122.097	1.146	529716	1.16	10000	91.2	90	110	
Na	23	2	He	9381.723	2.531	14192773	1.73	10000	93.8	90	110	
Mg	24	2	He	9288.710	1.368	8154814	0.87	10000	92.9	90	110	
K	39	2	He	9221.503	0.502	9953151	1.00	10000	92.2	90	110	
Mn	55	2	He	98.103	0.964	771819	0.75	100	98.1	90	110	
Co	59	2	He	102.463	0.243	1544827	1.33	100	102.5	90	110	
Ni	60	2	He	100.380	1.188	371880	0.28	100	100.4	90	110	
Cu	63	2	He	98.399	1.454	990921	0.36	100	98.4	90	110	
Zn	66	2	He	101.721	0.930	191679	0.36	100	101.7	90	110	
Al	27	2	He	92.261	0.850	52643	1.31	100	92.3	90	110	
B	11	1	No Gas	521.185	1.364	1566853	0.58	500	104.2	90	110	
Al	27	1	No Gas	100.252	2.417	2403685	2.16	100	100.3	90	110	
Si	28	1	No Gas	487.133	1.069	5720482	0.78	5000	9.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.255	0.952	2561690	1.08	100	101.3	90	110	
Cd	111	1	No Gas	100.990	0.644	507216	0.83	100	101.0	90	110	
Sr	88	1	No Gas	97.219	1.285	4796381	1.17	100	97.2	90	110	
Mo	95	1	No Gas	96.556	1.130	962967	1.04	100	96.6	90	110	
Sn	118	1	No Gas	99.007	0.498	1571160	0.51	100	99.0	90	110	
Sb	121	1	No Gas	106.917	1.300	2215268	1.01	100	106.9	90	110	
Ba	137	1	No Gas	99.317	0.843	790608	0.94	100	99.3	90	110	
Tl	205	1	No Gas	104.394	3.704	4890746	2.09	100	104.4	90	110	
Tl	203	1	No Gas	102.153	2.439	2023139	0.10	100	102.2	90	110	
Pb	208	1	No Gas	104.360	2.796	6872727	0.47	100	104.4	90	110	
U	238	1	No Gas	102.183	1.637	6845152	2.23	100	102.2	90	110	
Ca	43	2	He	9394.153	0.664	31092	0.47	10000	93.9	90	110	
Sb	121	2	He	105.385	0.752	1029588	0.47	100	105.4	90	110	
Ti	47	2	He	93.987	2.811	31861	2.52	100	94.0	90	110	
Cu	63	1	No Gas	99.998	1.885	1878923	1.57	100	100.0	90	110	
Se	82	1	No Gas	105.531	0.166	30010	0.52	100	105.5	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	1717698	0.77	1845436	93.08	70	120	
Ge	72	2	He	1083019	1.12	1081993	100.09	70	120	
Ge	72	1	No Gas	3634899	0.36	3529374	102.99	70	120	
In	115	1	No Gas	4376210	0.29	4016067	108.97	70	120	
Bi	209	1	No Gas	4040413	2.45	3601112	112.20	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	138_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:51:40-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	0.002	3218.0	103258	0.2	0.5	
Be	9	1	No Gas	0.012	41.0	88	29.0	0.5	
V	51	2	He	0.043	20.1	1590	3.8	2.5	
Cr	52	2	He	-0.091	-12.4	1440	7.0	2.5	
Fe	56	2	He	1.829	2.4	37829	2.7	100	
Se	78	2	He	0.103	126.5	169	9.0	2	
As	75	2	He	0.025	22.8	159	6.4	2.5	
Ca	44	2	He	-12.159	-16.4	1373	7.6	100	
Na	23	2	He	11.432	96.9	145096	11.4	100	
Mg	24	2	He	0.420	72.5	2380	13.1	100	
K	39	2	He	-17.416	-4.1	67404	0.7	100	
Mn	55	2	He	0.700	10.2	11979	4.4	2.5	
Co	59	2	He	0.006	27.5	160	16.5	2.5	
Ni	60	2	He	0.144	11.9	1183	3.8	2.5	
Cu	63	2	He	-0.465	-3.7	1813	9.5	2	
Zn	66	2	He	0.363	26.9	1860	8.8	2.5	
Al	27	2	He	-1.848	-9.6	1660	7.5	5	
B	11	1	No Gas	16.530	14.5	81209	8.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.888	-2.6	76270	0.8	5	
Si	28	1	No Gas	-4.622	-15.5	557253	0.3	10	
Ag	107	1	No Gas	-0.013	-31.3	557	18.1	2.5	
Cd	111	1	No Gas	0.008	40.1	57	27.0	1	
Sr	88	1	No Gas	-0.024	-22.7	2124	12.4	2.5	
Mo	95	1	No Gas	0.190	37.5	2134	33.8	2.5	
Sn	118	1	No Gas	0.267	18.9	7811	10.1	5	
Sb	121	1	No Gas	0.028	112.0	6655	11.3	2.5	
Ba	137	1	No Gas	-0.014	-14.9	373	4.1	2.5	
Tl	205	1	No Gas	0.846	57.0	41634	57.6	1	
Tl	203	1	No Gas	0.847	59.2	17583	60.0	1	
Pb	208	1	No Gas	0.014	37.2	3637	10.3	2.5	
U	238	1	No Gas	0.024	34.9	1780	34.5	2.5	
Ca	43	2	He	-2.369	-132.2	60	16.7	100	
Sb	121	2	He	-0.046	-35.3	2544	7.1	2.5	
Ti	47	2	He	-0.011	-280.0	20	50.0	2.5	
Cu	63	1	No Gas	-0.591	-0.7	5281	0.7	2.5	
Se	82	1	No Gas	0.359	180.2	-146	-131.1	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	1755320	1.19	1845436	95.12	70	120	
Ge	72	2	He	1103282	1.64	1081993	101.97	70	120	
Ge	72	1	No Gas	3721037	1.51	3529374	105.43	70	120	
In	115	1	No Gas	4358847	0.65	4016067	108.54	70	120	
Bi	209	1	No Gas	4085879	3.00	3601112	113.46	70	120	

Sample Report

Sample Table

Sample Name	HS21051314-01
Data File Name	143SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:03:41-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	11.688	11.688	1.01	326711	0.00	2000	
Be	9	1	No Gas	0.018	0.018	25.20	108	0.02	2000	
V	51	2	He	0.591	0.591	1.61	5532	0.01	2000	
Cr	52	2	He	2.025	2.025	1.34	19972	0.01	2000	
Fe	56	2	He	181.977	181.977	2.74	1449433	0.01	200000	
Se	78	2	He	0.683	0.683	37.39	207	0.33	2000	
As	75	2	He	0.919	0.919	7.09	1251	0.07	2000	
Ca	44	2	He	4312.894	4312.894	1.31	215629	2.00	200000	
Na	23	2	He	354456.738	354456.738	0.19	455779753	0.08	200000	>LDR
Mg	24	2	He	6169.663	6169.663	1.18	4644044	0.13	200000	
K	39	2	He	1253.928	1253.928	3.66	1222969	0.10	200000	
Mn	55	2	He	41.158	41.158	0.83	280720	0.01	2000	
Co	59	2	He	0.643	0.643	3.24	8376	0.01	2000	
Ni	60	2	He	2.910	2.910	3.00	9767	0.03	2000	
Cu	63	2	He	0.742	0.742	10.48	11885	0.01	2000	
Zn	66	2	He	17.888	17.888	1.23	29710	0.06	2000	
Al	27	2	He	41.390	41.390	9.92	21494	0.19	2000	
B	11	1	No Gas	52.349	52.349	2.53	165534	0.03	2000	
Al	27	1	No Gas	41.443	41.443	5.16	906317	0.00	2000	
Si	28	1	No Gas	10561.104	10561.104	1.48	95372612	0.01	2000	>LDR
Ag	107	1	No Gas	-0.025	-0.025	-1.59	223	-0.01	2000	
Cd	111	1	No Gas	0.031	0.031	8.60	143	0.02	2000	
Sr	88	1	No Gas	121.922	121.922	2.89	4951021	0.00	2000	
Mo	95	1	No Gas	3.087	3.087	2.82	25535	0.01	2000	
Sn	118	1	No Gas	-0.102	-0.102	-8.67	1643	-0.01	2000	
Sb	121	1	No Gas	0.199	0.199	4.95	8566	0.00	2000	
Ba	137	1	No Gas	77.418	77.418	2.92	507427	0.02	2000	
Tl	205	1	No Gas	-0.022	-0.022	-7.69	183	-0.01	2000	
Tl	203	1	No Gas	-0.018	-0.018	-2.66	100	-0.02	2000	
Pb	208	1	No Gas	0.032	0.032	9.99	3834	0.00	2000	
U	238	1	No Gas	0.739	0.739	3.24	39939	0.00	2000	
Ca	43	2	He	4592.545	4592.545	1.66	13060	35.17	200000	
Sb	121	2	He	0.197	0.197	15.19	4167	0.00	2000	
Ti	47	2	He	0.872	0.872	19.02	273	0.32	2000	
Cu	63	1	No Gas	1.642	1.642	4.09	39869	0.00	2000	
Zn	66	1	No Gas	17.569	17.569	1.18	74598	0.02	2000	
Se	82	1	No Gas	0.630	0.630	65.58	-53	-1.18	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	1535496	4.97	1845436	83.21	70	120	
Ge	72	2	He	928384	0.46	1081993	85.80	70	120	
Ge	72	1	No Gas	3100495	5.18	3529374	87.85	70	120	
In	115	1	No Gas	3600375	3.34	4016067	89.65	70	120	
Bi	209	1	No Gas	3246541	2.45	3601112	90.15	70	120	

Sample Report

Sample Table

Sample Name	HS21051312-01
Data File Name	144SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:07:34-05:00
Sample Type	Sample
Dilution	10
Comment	
ISTD Ref FileName	008CALB.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	1.065	10.654	5.41	105367	0.00	2000	
Be	9	1	No Gas	0.000	-0.003	-392.70	18	0.00	2000	
V	51	2	He	0.160	1.600	9.76	1913	0.01	2000	
Cr	52	2	He	0.145	1.450	3.23	2830	0.01	2000	
Fe	56	2	He	18.469	184.686	0.45	139437	0.01	200000	
Se	78	2	He	0.386	3.859	42.12	149	0.26	2000	
As	75	2	He	0.096	0.962	8.18	191	0.05	2000	
Ca	44	2	He	429.314	4293.135	2.45	19741	2.17	200000	
Na	23	2	He	36664.514	366645.143	0.93	40471104	0.09	200000	
Mg	24	2	He	655.930	6559.305	0.19	424250	0.15	200000	
K	39	2	He	116.113	1161.130	0.94	153523	0.08	200000	
Mn	55	2	He	5.153	51.530	0.55	34153	0.02	2000	
Co	59	2	He	0.066	0.655	7.41	777	0.01	2000	
Ni	60	2	He	0.308	3.083	15.64	1300	0.02	2000	
Cu	63	2	He	-0.367	-3.670	-5.94	2030	-0.02	2000	
Zn	66	2	He	1.931	19.311	6.44	3501	0.06	2000	
Al	27	2	He	2.601	26.013	51.88	2964	0.09	2000	
B	11	1	No Gas	11.000	110.003	6.71	53192	0.02	2000	
Al	27	1	No Gas	3.143	31.435	26.58	149011	0.00	2000	
Si	28	1	No Gas	1043.119	10431.186	0.28	9110804	0.01	2000	
Ag	107	1	No Gas	-0.022	-0.218	-10.44	263	-0.01	2000	
Cd	111	1	No Gas	0.000	-0.002	-2148.38	13	0.00	2000	
Sr	88	1	No Gas	12.096	120.962	1.65	462866	0.00	2000	
Mo	95	1	No Gas	0.307	3.070	3.70	2550	0.01	2000	
Sn	118	1	No Gas	-0.001	-0.006	-648.07	2784	0.00	2000	
Sb	121	1	No Gas	-0.119	-1.186	-8.20	2727	0.00	2000	
Ba	137	1	No Gas	7.915	79.154	1.68	48979	0.02	2000	
Tl	205	1	No Gas	-0.019	-0.188	-3.76	307	-0.01	2000	
Tl	203	1	No Gas	-0.016	-0.165	-10.28	123	-0.01	2000	
Pb	208	1	No Gas	-0.005	-0.048	-36.84	1930	0.00	2000	
U	238	1	No Gas	0.068	0.679	6.80	3814	0.00	2000	
Ca	43	2	He	401.758	4017.577	6.34	1023	39.26	200000	
Sb	121	2	He	-0.132	-1.320	-8.05	1217	-0.01	2000	
Ti	47	2	He	0.051	0.510	269.05	30	0.17	2000	
Cu	63	1	No Gas	-0.434	-4.342	-2.17	6355	-0.01	2000	
Zn	66	1	No Gas	1.947	19.474	1.83	9777	0.02	2000	
Se	82	1	No Gas	0.497	4.967	106.69	-82	-0.61	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	1446677	1.47	1845436	78.39	70	120	
Ge	72	2	He	795292	0.98	1081993	73.50	70	120	
Ge	72	1	No Gas	2861655	0.81	3529374	81.08	70	120	
In	115	1	No Gas	3378160	1.01	4016067	84.12	70	120	

Sample Report

Bi	209	1	No Gas	3281356	4.91	3601112	91.12	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03SD
Data File Name	146SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:16:16-05:00
Sample Type	Sample
Dilution	50
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	1.339	66.958	7.06	122650	0.00	2000	
Be	9	1	No Gas	-0.004	-0.183	-15.57	3	-0.11	2000	
V	51	2	He	0.173	8.649	8.77	2382	0.01	2000	
Cr	52	2	He	-0.044	-2.184	-25.15	1667	0.00	2000	
Fe	56	2	He	283.404	14170.213	0.81	2296229	0.01	200000	
Se	78	2	He	0.245	12.259	84.17	161	0.15	2000	
As	75	2	He	0.361	18.074	10.74	567	0.06	2000	
Ca	44	2	He	3666.393	183319.627	0.48	187542	1.95	200000	
Na	23	2	He	1299.114	64955.687	1.34	1815986	0.07	200000	
Mg	24	2	He	976.164	48808.224	0.48	752139	0.13	200000	
K	39	2	He	262.116	13105.809	0.63	319938	0.08	200000	
Mn	55	2	He	7.392	369.583	2.34	56032	0.01	2000	
Co	59	2	He	0.011	0.549	7.38	207	0.01	2000	
Ni	60	2	He	0.057	2.843	16.42	737	0.01	2000	
Cu	63	2	He	-0.460	-23.024	-3.94	1603	-0.03	2000	
Zn	66	2	He	0.177	8.859	38.46	1297	0.01	2000	
Al	27	2	He	-0.422	-21.111	-43.94	2104	-0.02	2000	
B	11	1	No Gas	11.834	591.688	2.19	61313	0.02	2000	
Al	27	1	No Gas	-0.316	-15.787	-48.11	99840	0.00	2000	
Si	28	1	No Gas	286.162	14308.079	2.69	3260607	0.01	2000	
Ag	107	1	No Gas	-0.018	-0.905	-16.59	390	0.00	2000	
Cd	111	1	No Gas	-0.002	-0.107	-59.90	7	-0.03	2000	
Sr	88	1	No Gas	29.304	1465.208	3.42	1296050	0.00	2000	
Mo	95	1	No Gas	0.024	1.192	44.70	430	0.01	2000	
Sn	118	1	No Gas	-0.013	-0.661	-121.86	3047	0.00	2000	
Sb	121	1	No Gas	-0.129	-6.461	-6.04	2934	0.00	2000	
Ba	137	1	No Gas	0.931	46.548	1.97	7062	0.01	2000	
Tl	205	1	No Gas	-0.020	-1.006	-8.03	290	-0.01	2000	
Tl	203	1	No Gas	-0.017	-0.834	-5.07	137	-0.01	2000	
Pb	208	1	No Gas	-0.010	-0.507	-6.78	1873	0.00	2000	
U	238	1	No Gas	0.031	1.561	2.86	2080	0.00	2000	
Ca	43	2	He	3813.461	190673.031	3.35	11088	34.39	200000	
Sb	121	2	He	-0.141	-7.054	-12.07	1373	-0.01	2000	
Ti	47	2	He	-0.024	-1.182	-218.25	13	-0.18	2000	
Cu	63	1	No Gas	-0.581	-29.026	-3.14	4834	-0.01	2000	
Zn	66	1	No Gas	0.141	7.051	24.34	3387	0.00	2000	
Se	82	1	No Gas	0.567	28.371	73.83	-76	-0.75	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	1604697	1.87	1845436	86.95	70	120	
Ge	72	2	He	948490	0.40	1081993	87.66	70	120	
Ge	72	1	No Gas	3287631	0.95	3529374	93.15	70	120	
In	115	1	No Gas	3917589	0.88	4016067	97.55	70	120	

Sample Report

Bi	209	1	No Gas	3738568	0.59	3601112	103.82	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03PDS
Data File Name	147SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:18:16-05:00
Sample Type	Sample
Dilution	10
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.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	6.990	69.904	3.55	233213	0.00	2000	
Be	9	1	No Gas	96.157	961.573	1.63	469546	0.02	2000	
V	51	2	He	98.921	989.212	0.66	764170	0.01	2000	
Cr	52	2	He	98.793	987.930	0.76	884635	0.01	2000	
Fe	56	2	He	11382.401	113824.012	1.11	90255915	0.01	200000	
Se	78	2	He	97.215	972.147	1.20	11066	0.88	2000	
As	75	2	He	97.778	977.778	0.38	123205	0.08	2000	
Ca	44	2	He	27674.082	276740.817	2.65	1384227	2.00	200000	
Na	23	2	He	15794.453	157944.530	0.87	20564153	0.08	200000	
Mg	24	2	He	14274.672	142746.719	0.94	10823010	0.13	200000	
K	39	2	He	11043.711	110437.113	0.53	10280128	0.11	200000	
Mn	55	2	He	127.271	1272.709	0.49	863163	0.01	2000	
Co	59	2	He	103.486	1034.856	1.11	1347473	0.01	2000	
Ni	60	2	He	102.315	1023.153	0.53	327374	0.03	2000	
Cu	63	2	He	98.093	980.934	0.15	853233	0.01	2000	
Zn	66	2	He	102.657	1026.573	0.13	167064	0.06	2000	
Al	27	2	He	91.067	910.666	1.53	44906	0.20	2000	
B	11	1	No Gas	46.288	462.876	0.75	150476	0.03	2000	
Al	27	1	No Gas	96.299	962.993	1.12	2016276	0.00	2000	
Si	28	1	No Gas	1431.872	14318.723	0.31	13651971	0.01	2000	
Ag	107	1	No Gas	95.701	957.012	2.08	2125098	0.00	2000	
Cd	111	1	No Gas	99.809	998.091	1.34	439989	0.02	2000	
Sr	88	1	No Gas	135.233	1352.332	1.87	5854819	0.00	2000	
Mo	95	1	No Gas	98.755	987.555	1.30	864482	0.01	2000	
Sn	118	1	No Gas	-0.034	-0.335	-18.18	2707	0.00	2000	
Sb	121	1	No Gas	106.099	1060.990	2.51	1915837	0.01	2000	
Ba	137	1	No Gas	106.126	1061.255	1.16	741490	0.01	2000	
Tl	205	1	No Gas	103.672	1036.719	2.41	4420665	0.00	2000	
Tl	203	1	No Gas	103.119	1031.190	2.41	1858589	0.01	2000	
Pb	208	1	No Gas	100.751	1007.511	3.41	6037431	0.00	2000	
U	238	1	No Gas	0.150	1.498	3.67	9274	0.00	2000	
Ca	43	2	He	27289.455	272894.554	1.11	77897	35.03	200000	
Sb	121	2	He	104.422	1044.217	0.95	881113	0.01	2000	
Ti	47	2	He	97.528	975.280	2.35	28553	0.34	2000	
Cu	63	1	No Gas	95.904	959.039	2.33	1571003	0.01	2000	
Zn	66	1	No Gas	102.406	1024.057	0.73	431232	0.02	2000	
Se	82	1	No Gas	106.678	1066.785	2.41	26442	0.40	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	1546091	1.46	1845436	83.78	70	120	
Ge	72	2	He	935316	0.44	1081993	86.44	70	120	
Ge	72	1	No Gas	3167867	0.42	3529374	89.76	70	120	
In	115	1	No Gas	3841420	0.93	4016067	95.65	70	120	

Sample Report

Bi	209	1	No Gas	3677511	3.29	3601112	102.12	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	149_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:25:08-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	100.217	2.487	2140937	2.08	100	100.2	90	110	
Be	9	1	No Gas	97.524	1.143	478408	0.29	100	97.5	90	110	
V	51	2	He	96.870	0.902	770018	0.88	100	96.9	90	110	
Cr	52	2	He	98.950	1.425	911759	1.88	100	98.9	90	110	
Fe	56	2	He	9834.676	2.550	80231267	0.95	10000	98.3	90	110	
Se	78	2	He	98.267	1.365	11508	0.98	100	98.3	90	110	
As	75	2	He	99.401	1.248	128876	1.15	100	99.4	90	110	
Ca	44	2	He	9181.177	0.971	473795	1.22	10000	91.8	90	110	
Na	23	2	He	9418.966	1.195	12664112	1.37	10000	94.2	90	110	
Mg	24	2	He	9559.113	0.876	7459033	2.00	10000	95.6	90	110	
K	39	2	He	9344.765	0.736	8962310	0.98	10000	93.4	90	110	
Mn	55	2	He	98.881	1.096	691292	0.71	100	98.9	90	110	
Co	59	2	He	105.551	2.060	1413975	0.74	100	105.6	90	110	
Ni	60	2	He	101.312	1.056	333553	0.58	100	101.3	90	110	
Cu	63	2	He	100.050	1.133	895324	0.54	100	100.0	90	110	
Zn	66	2	He	102.690	1.815	171953	1.48	100	102.7	90	110	
Al	27	2	He	93.635	0.622	47448	1.89	100	93.6	90	110	
B	11	1	No Gas	500.601	3.525	1361834	3.33	500	100.1	90	110	
Al	27	1	No Gas	98.064	1.396	2136568	1.70	100	98.1	90	110	
Si	28	1	No Gas	473.449	1.363	5061738	1.52	5000	9.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.513	1.842	2279924	0.75	100	99.5	90	110	
Cd	111	1	No Gas	99.180	1.762	451099	0.56	100	99.2	90	110	
Sr	88	1	No Gas	97.360	1.931	4350055	1.39	100	97.4	90	110	
Mo	95	1	No Gas	96.479	2.116	871344	0.81	100	96.5	90	110	
Sn	118	1	No Gas	98.701	2.300	1418383	1.13	100	98.7	90	110	
Sb	121	1	No Gas	104.495	0.515	1965345	0.55	100	104.5	90	110	
Ba	137	1	No Gas	98.032	1.395	706751	0.95	100	98.0	90	110	
Tl	205	1	No Gas	102.052	1.352	4415878	0.82	100	102.1	90	110	
Tl	203	1	No Gas	101.095	0.636	1849139	0.89	100	101.1	90	110	
Pb	208	1	No Gas	102.014	1.752	6204460	0.36	100	102.0	90	110	
U	238	1	No Gas	100.502	1.702	6215601	0.41	100	100.5	90	110	
Ca	43	2	He	9429.122	1.428	27738	2.62	10000	94.3	90	110	
Sb	121	2	He	105.854	0.848	919058	1.04	100	105.9	90	110	
Ti	47	2	He	94.654	0.820	28520	2.10	100	94.7	90	110	
Cu	63	1	No Gas	98.437	0.378	1679115	0.63	100	98.4	90	110	
Se	82	1	No Gas	101.851	2.364	26281	2.55	100	101.9	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	1553046	0.86	1845436	84.16	70	120	
Ge	72	2	He	962506	1.64	1081993	88.96	70	120	
Ge	72	1	No Gas	3299273	0.39	3529374	93.48	70	120	
In	115	1	No Gas	3963650	1.30	4016067	98.69	70	120	
Bi	209	1	No Gas	3730302	1.42	3601112	103.59	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	150_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:27:02-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.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	-157.3	93760	1.2	0.5	
Be	9	1	No Gas	0.008	86.0	63	56.0	0.5	
V	51	2	He	0.046	10.5	1406	3.3	2.5	
Cr	52	2	He	-0.085	-13.9	1310	8.7	2.5	
Fe	56	2	He	1.947	12.0	33896	4.9	100	
Se	78	2	He	0.268	19.2	166	3.2	2	
As	75	2	He	0.019	119.8	131	23.1	2.5	
Ca	44	2	He	-14.696	-11.4	1067	8.4	100	
Na	23	2	He	19.524	4.2	137172	1.4	100	
Mg	24	2	He	0.737	30.8	2317	7.7	100	
K	39	2	He	-14.165	-7.7	61791	0.9	100	
Mn	55	2	He	0.765	3.2	10885	1.9	2.5	
Co	59	2	He	0.004	53.4	120	25.0	2.5	
Ni	60	2	He	0.134	30.0	1000	12.5	2.5	
Cu	63	2	He	-0.453	-7.1	1687	16.2	2	
Zn	66	2	He	0.436	6.7	1743	2.9	2.5	
Al	27	2	He	-0.850	-185.4	1921	38.5	5	
B	11	1	No Gas	13.257	22.0	65689	11.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.886	-6.1	67940	3.4	5	
Si	28	1	No Gas	-5.179	-5.9	490721	0.3	10	
Ag	107	1	No Gas	-0.004	-99.3	710	13.4	2.5	
Cd	111	1	No Gas	0.012	47.3	70	37.8	1	
Sr	88	1	No Gas	-0.023	-4.0	1980	2.8	2.5	
Mo	95	1	No Gas	0.188	48.7	1924	42.4	2.5	
Sn	118	1	No Gas	0.305	48.4	7653	26.6	5	
Sb	121	1	No Gas	0.141	23.0	8043	8.4	2.5	
Ba	137	1	No Gas	-0.009	-110.2	373	19.0	2.5	
Tl	205	1	No Gas	0.887	59.7	40574	59.6	1	
Tl	203	1	No Gas	0.891	61.0	17179	61.0	1	
Pb	208	1	No Gas	0.014	11.2	3410	4.3	2.5	
U	238	1	No Gas	0.026	41.9	1787	40.2	2.5	
Ca	43	2	He	-8.835	-80.5	33	62.4	100	
Sb	121	2	He	0.039	31.8	2947	3.9	2.5	
Ti	47	2	He	0.009	758.5	23	89.2	2.5	
Cu	63	1	No Gas	-0.522	-4.2	5855	5.7	2.5	
Se	82	1	No Gas	0.526	96.1	-86	-153.2	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	1617592	1.25	1845436	87.65	70	120	
Ge	72	2	He	960866	0.76	1081993	88.81	70	120	
Ge	72	1	No Gas	3312096	0.80	3529374	93.84	70	120	
In	115	1	No Gas	3974276	1.54	4016067	98.96	70	120	
Bi	209	1	No Gas	3804328	1.68	3601112	105.64	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	306_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:06:43-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	196CALB.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	100.676	2.856	1545734	1.82	100	100.7	90	110	
Be	9	1	No Gas	101.846	2.186	333655	0.31	100	101.8	90	110	
V	51	2	He	99.445	0.791	590161	0.57	100	99.4	90	110	
Cr	52	2	He	99.544	1.174	699714	0.96	100	99.5	90	110	
Fe	56	2	He	9904.165	1.193	61191406	1.56	10000	99.0	90	110	
Se	78	2	He	102.505	2.463	8677	2.12	100	102.5	90	110	
As	75	2	He	100.738	0.364	97594	0.54	100	100.7	90	110	
Ca	44	2	He	9660.301	0.594	350794	0.27	10000	96.6	90	110	
Na	23	2	He	9393.511	0.274	9375883	0.45	10000	93.9	90	110	
Mg	24	2	He	9468.889	0.492	5416170	0.84	10000	94.7	90	110	
K	39	2	He	9740.564	0.360	6590969	0.58	10000	97.4	90	110	
Mn	55	2	He	100.757	0.658	527370	0.28	100	100.8	90	110	
Co	59	2	He	102.825	1.202	1074722	1.16	100	102.8	90	110	
Ni	60	2	He	104.046	1.360	261396	1.72	100	104.0	90	110	
Cu	63	2	He	102.197	0.711	703464	0.53	100	102.2	90	110	
Zn	66	2	He	101.750	0.593	129295	0.91	100	101.7	90	110	
Al	27	2	He	100.591	2.486	35502	2.00	100	100.6	90	110	
B	11	1	No Gas	518.235	2.218	983268	0.95	500	103.6	90	110	
Al	27	1	No Gas	104.906	2.260	1702324	0.88	100	104.9	90	110	
Si	28	1	No Gas	509.495	2.962	3896414	1.45	5000	10.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	105.877	1.178	1835625	0.32	100	105.9	90	110	
Cd	111	1	No Gas	102.347	0.886	359080	0.31	100	102.3	90	110	
Sr	88	1	No Gas	107.412	1.448	3637091	0.47	100	107.4	90	110	
Mo	95	1	No Gas	103.943	0.876	705807	2.00	100	103.9	90	110	
Sn	118	1	No Gas	103.608	0.932	1180252	1.28	100	103.6	90	110	
Sb	121	1	No Gas	100.555	1.464	1589542	0.67	100	100.6	90	110	
Ba	137	1	No Gas	103.776	0.980	595551	0.70	100	103.8	90	110	
Tl	205	1	No Gas	104.319	1.992	3757969	0.45	100	104.3	90	110	
Tl	203	1	No Gas	104.394	3.693	1570556	1.42	100	104.4	90	110	
Pb	208	1	No Gas	101.132	2.546	5134678	0.47	100	101.1	90	110	
U	238	1	No Gas	102.221	1.725	5256153	0.85	100	102.2	90	110	
Ca	43	2	He	9704.977	1.150	20582	1.40	10000	97.0	90	110	
Sb	121	2	He	98.924	0.357	730016	0.51	100	98.9	90	110	
Ti	47	2	He	103.830	2.047	22806	2.25	100	103.8	90	110	
Cu	63	1	No Gas	102.755	2.708	1332774	1.43	100	102.8	90	110	
Se	82	1	No Gas	101.309	3.690	20464	3.06	100	101.3	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	1165109	2.34	1457721	79.93	70	120	
Ge	72	2	He	724682	0.37	821026	88.27	70	120	
Ge	72	1	No Gas	2601420	1.28	2924007	88.97	70	120	
In	115	1	No Gas	3093584	1.19	3503686	88.30	70	120	
Bi	209	1	No Gas	3052116	2.32	3408283	89.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	307_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:08:37-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	196CALB.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	0.510	9.2	77476	1.4	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.026	31.3	97	29.9	0.5	
V	51	2	He	-0.112	-5.6	789	5.5	2.5	
Cr	52	2	He	-0.091	-7.7	1007	5.7	2.5	
Fe	56	2	He	8.212	8.3	63761	6.4	100	
Se	78	2	He	0.325	20.5	155	2.7	2	
As	75	2	He	0.012	59.9	103	5.6	2.5	
Ca	44	2	He	6.727	60.7	1270	10.8	100	
Na	23	2	He	-29.707	-6.7	104539	1.3	100	
Mg	24	2	He	1.258	29.7	2140	9.2	100	
K	39	2	He	1.843	83.0	48228	1.2	100	
Mn	55	2	He	1.007	4.7	9187	3.5	2.5	
Co	59	2	He	0.014	47.3	197	35.7	2.5	
Ni	60	2	He	0.066	52.8	637	14.1	2.5	
Cu	63	2	He	0.028	51.4	1497	7.1	2	
Zn	66	2	He	0.350	13.7	1317	5.1	2.5	
Al	27	2	He	2.777	46.2	2727	14.9	5	
B	11	1	No Gas	43.640	9.7	95099	9.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	1.958	15.6	112636	2.8	5	
Si	28	1	No Gas	1.710	170.5	391063	3.7	10	
Ag	107	1	No Gas	0.008	12.9	567	1.0	2.5	
Cd	111	1	No Gas	0.023	35.3	87	35.3	1	
Sr	88	1	No Gas	0.057	2.8	4121	1.1	2.5	
Mo	95	1	No Gas	0.261	32.2	1850	33.8	2.5	
Sn	118	1	No Gas	0.261	22.3	5355	14.3	5	
Sb	121	1	No Gas	0.182	24.4	5808	11.1	2.5	
Ba	137	1	No Gas	0.028	34.5	580	12.1	2.5	
Tl	205	1	No Gas	0.920	58.6	32832	59.8	1	
Tl	203	1	No Gas	0.898	56.4	13423	57.5	1	
Pb	208	1	No Gas	0.053	17.2	4147	12.8	2.5	
U	238	1	No Gas	0.037	45.5	1884	46.4	2.5	
Ca	43	2	He	21.640	65.5	67	45.8	100	
Sb	121	2	He	0.078	10.6	1944	3.5	2.5	
Ti	47	2	He	1.277	9.0	283	8.9	2.5	
Cu	63	1	No Gas	-0.366	-14.3	8333	8.5	2.5	
Se	82	1	No Gas	0.503	34.5	-126	-28.4	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	1204658	2.25	1457721	82.64	70	120	
Ge	72	2	He	724892	0.88	821026	88.29	70	120	
Ge	72	1	No Gas	2619449	1.50	2924007	89.58	70	120	
In	115	1	No Gas	3136825	2.43	3503686	89.53	70	120	
Bi	209	1	No Gas	2983306	1.76	3408283	87.53	70	120	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	309LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:12:35-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	196CALB.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	2.409	2.409	6.59	106288	0.00	2	
Be	9	1	No Gas	1.986	1.986	2.46	6738	0.03	2	
V	51	2	He	1.857	1.857	2.15	12663	0.01	2	
Cr	52	2	He	1.904	1.904	2.55	15255	0.01	2	
Fe	56	2	He	209.109	209.109	1.79	1327342	0.02	200	
Se	78	2	He	2.336	2.336	8.66	329	0.71	2	
As	75	2	He	1.983	1.983	3.33	2047	0.10	2	
Ca	44	2	He	193.308	193.308	5.80	8166	2.37	200	
Na	23	2	He	157.800	157.800	1.20	294036	0.05	200	
Mg	24	2	He	200.511	200.511	0.87	118104	0.17	200	
K	39	2	He	197.543	197.543	0.99	182824	0.11	200	
Mn	55	2	He	1.331	1.331	7.07	11055	0.01	2	NewName Main CR1 Failed
Co	59	2	He	1.922	1.922	0.94	20492	0.01	2	
Ni	60	2	He	1.981	1.981	5.04	5535	0.04	2	
Cu	63	2	He	2.101	2.101	2.73	16016	0.01	2	
Zn	66	2	He	1.769	1.769	6.09	3160	0.06	2	
Al	27	2	He	4.363	4.363	40.13	3317	0.13	2	NewName Main CR1 Failed
B	11	1	No Gas	27.540	27.540	4.79	63789	0.04	10	NewName Main CR1 Failed
Al	27	1	No Gas	4.262	4.262	9.98	150892	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	10.423	10.423	6.78	458953	0.00	10	
Ag	107	1	No Gas	1.994	1.994	1.76	36838	0.01	2	
Cd	111	1	No Gas	2.043	2.043	5.42	7552	0.03	2	
Sr	88	1	No Gas	2.043	2.043	2.25	75053	0.00	2	
Mo	95	1	No Gas	1.970	1.970	3.20	14138	0.01	2	
Sn	118	1	No Gas	1.908	1.908	2.01	25288	0.01	2	
Sb	121	1	No Gas	1.848	1.848	1.47	32795	0.01	2	
Ba	137	1	No Gas	2.618	2.618	1.87	16247	0.02	2	NewName Main CR1 Failed
Tl	205	1	No Gas	1.876	1.876	1.94	69272	0.00	2	
Tl	203	1	No Gas	1.886	1.886	4.82	29114	0.01	2	
Pb	208	1	No Gas	1.929	1.929	1.43	101547	0.00	2	
U	238	1	No Gas	1.889	1.889	2.68	99200	0.00	2	
Ca	43	2	He	253.080	253.080	30.58	567	44.66	200	
Sb	121	2	He	1.786	1.786	1.96	14779	0.01	2	
Ti	47	2	He	2.523	2.523	12.72	567	0.45	200	
Cu	63	1	No Gas	1.600	1.600	11.18	34277	0.00	2	
Se	82	1	No Gas	2.296	2.296	22.89	248	0.93	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	1204424	1.63	1457721	82.62	70	120	
Ge	72	2	He	737305	0.31	821026	89.80	70	120	
Ge	72	1	No Gas	2660604	1.23	2924007	90.99	70	120	
In	115	1	No Gas	3259007	2.39	3503686	93.02	70	120	
Bi	209	1	No Gas	3116651	2.21	3408283	91.44	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	310LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:14:33-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	196CALB.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	5.321	5.321	2.79	152716	0.00	5	
Be	9	1	No Gas	4.971	4.971	1.65	17095	0.03	5	
V	51	2	He	4.659	4.659	0.97	29753	0.02	5	
Cr	52	2	He	4.812	4.812	1.44	36272	0.01	5	
Fe	56	2	He	495.528	495.528	1.04	3149979	0.02	500	
Se	78	2	He	4.866	4.866	6.39	547	0.89	5	
As	75	2	He	4.775	4.775	3.97	4831	0.10	5	
Ca	44	2	He	487.874	487.874	3.18	19154	2.55	500	
Na	23	2	He	449.030	449.030	1.54	589814	0.08	500	
Mg	24	2	He	492.555	492.555	1.26	290107	0.17	500	
K	39	2	He	492.940	492.940	0.79	387532	0.13	500	
Mn	55	2	He	4.073	4.073	4.04	25734	0.02	5	
Co	59	2	He	4.876	4.876	1.84	52274	0.01	5	
Ni	60	2	He	4.947	4.947	3.95	13193	0.04	5	
Cu	63	2	He	5.145	5.145	2.59	37562	0.01	5	
Zn	66	2	He	4.770	4.770	4.28	7065	0.07	5	
Al	27	2	He	4.787	4.787	22.08	3487	0.14	5	
B	11	1	No Gas	37.150	37.150	2.48	83672	0.04	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	11.547	11.547	70.82	263819	0.00	5	NewName2 Main CR1 Failed
Si	28	1	No Gas	130.431	130.431	93.63	1296637	0.01	25	NewName2 Main CR1 Failed
Ag	107	1	No Gas	5.128	5.128	2.94	92512	0.01	5	
Cd	111	1	No Gas	5.057	5.057	0.72	18390	0.03	5	
Sr	88	1	No Gas	5.036	5.036	1.64	178766	0.00	5	
Mo	95	1	No Gas	4.874	4.874	1.19	34335	0.01	5	
Sn	118	1	No Gas	4.815	4.815	2.36	59099	0.01	5	
Sb	121	1	No Gas	4.768	4.768	0.40	79088	0.01	5	
Ba	137	1	No Gas	5.057	5.057	2.44	30473	0.02	5	
Tl	205	1	No Gas	4.834	4.834	2.52	174251	0.00	5	
Tl	203	1	No Gas	4.809	4.809	3.14	72443	0.01	5	
Pb	208	1	No Gas	4.863	4.863	1.72	248212	0.00	5	
U	238	1	No Gas	4.782	4.782	2.09	245753	0.00	5	
Ca	43	2	He	483.070	483.070	6.72	1070	45.14	500	
Sb	121	2	He	4.637	4.637	1.02	36401	0.01	5	
Ti	47	2	He	5.572	5.572	7.29	1257	0.44	5	
Cu	63	1	No Gas	4.663	4.663	3.29	73749	0.01	5	
Se	82	1	No Gas	4.537	4.537	12.32	707	0.64	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	1222068	1.33	1457721	83.83	70	120	
Ge	72	2	He	742650	0.38	821026	90.45	70	120	
Ge	72	1	No Gas	2632705	1.20	2924007	90.04	70	120	
In	115	1	No Gas	3205415	1.42	3503686	91.49	70	120	
Bi	209	1	No Gas	3049557	1.35	3408283	89.47	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	311ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:16:33-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	196CALB.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	0.876	8.6	80505	1.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.006	91.9	28	62.0	0	ICSA Main CR1 Failed
V	51	2	He	-0.090	-6.3	890	3.9	0	ICSA Main CR1 Failed
Cr	52	2	He	1.930	2.8	14731	2.9	0	ICSA Main CR1 Failed
Fe	56	2	He	98561.516	0.8	590740178	0.8	0	
Se	78	2	He	0.695	28.7	181	8.9	0	ICSA Main CR1 Failed
As	75	2	He	0.043	29.3	130	8.9	0	ICSA Main CR1 Failed
Ca	44	2	He	100692.506	1.4	3538488	1.1	0	
Na	23	2	He	97514.411	1.4	93224172	1.4	0	
Mg	24	2	He	97545.980	0.3	54126198	0.2	0	
K	39	2	He	101614.149	1.2	66284719	0.8	0	
Mn	55	2	He	12.084	1.5	64750	1.5	0	
Co	59	2	He	0.069	14.6	747	13.7	0	ICSA Main CR1 Failed
Ni	60	2	He	0.044	31.3	563	6.2	0	ICSA Main CR1 Failed
Cu	63	2	He	0.163	12.4	2350	6.1	0	ICSA Main CR1 Failed
Zn	66	2	He	0.938	8.0	1997	4.2	0	ICSA Main CR1 Failed
Al	27	2	He	91455.573	0.9	29737642	0.9	0	
B	11	1	No Gas	17.000	4.9	42021	3.8	0	
Al	27	1	No Gas	91035.531	0.2	1370790486	0.2	0	
Si	28	1	No Gas	17.883	3.8	487534	0.8	0	ICSA Main CR1 Failed
Ag	107	1	No Gas	0.290	10.9	5308	9.5	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.883	2.1	3027	2.5	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.230	4.0	42665	3.2	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1966.500	1.6	13024844	0.9	0	
Sn	118	1	No Gas	0.143	17.6	3837	7.7	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	-0.027	-27.0	2404	4.8	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.493	4.0	3160	3.6	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.078	53.6	2804	49.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.071	39.5	1110	35.8	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.084	0.9	5307	1.4	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.006	35.9	300	32.8	0	ICSA Main CR1 Failed
Ca	43	2	He	97874.737	0.8	201224	0.5	0	
Sb	121	2	He	-0.038	-51.3	1060	13.4	0	ICSA Main CR1 Failed
Ti	47	2	He	1974.859	1.8	420815	1.5	0	
Se	82	1	No Gas	0.467	109.6	-129	-78.8	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	1167684	0.28	1457721	80.10	70	120	
Ge	72	2	He	703176	0.44	821026	85.65	70	120	
Ge	72	1	No Gas	2534935	0.12	2924007	86.69	70	120	
In	115	1	No Gas	3018122	0.71	3503686	86.14	70	120	
Bi	209	1	No Gas	2797300	1.03	3408283	82.07	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	312ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:18:34-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	196CALB.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	100.366	3.436	1500612	0.37	100	100.4	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	99.927	2.425	318816	0.87	100	99.9	80	120	
V	51	2	He	98.374	1.046	560713	0.40	100	98.4	80	120	
Cr	52	2	He	97.870	0.733	660757	0.03	100	97.9	80	120	
Fe	56	2	He	107086.933	1.117	635284937	0.64	100	107086.9	80	120	
Se	78	2	He	99.671	1.548	8107	0.85	100	99.7	80	120	
As	75	2	He	98.557	1.775	91700	1.23	100	98.6	80	120	
Ca	44	2	He	110436.547	0.429	3841446	0.86	100	110436.5	80	120	
Na	23	2	He	106910.011	0.358	101156215	0.90	100	106910.0	80	120	
Mg	24	2	He	106282.872	0.698	58375817	1.29	100	106282.9	80	120	
K	39	2	He	109494.197	1.377	70693411	0.95	100	109494.2	80	120	ICSB Main CR1 Failed
Mn	55	2	He	100.877	0.759	507105	0.58	100	100.9	80	120	
Co	59	2	He	96.061	0.724	964300	0.44	100	96.1	80	120	
Ni	60	2	He	98.504	0.811	237697	0.75	100	98.5	80	120	
Cu	63	2	He	95.155	0.393	629167	0.37	100	95.2	80	120	
Zn	66	2	He	97.754	1.030	119331	0.31	100	97.8	80	120	
Al	27	2	He	89924.887	0.405	28942953	1.00	100	89924.9	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	528.007	1.505	975769	2.74	100	528.0	80	120	
Al	27	1	No Gas	92165.429	1.275	1346195873	0.67	100	92165.4	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	512.915	3.478	3705643	2.11	100	512.9	80	120	
Ag	107	1	No Gas	99.294	2.311	1633027	1.35	100	99.3	80	120	
Cd	111	1	No Gas	98.852	1.711	328992	0.37	100	98.9	80	120	
Sr	88	1	No Gas	107.194	1.531	3443385	0.57	100	107.2	80	120	
Mo	95	1	No Gas	2102.400	2.441	13538940	1.29	100	2102.4	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	101.381	2.244	1095627	2.32	100	101.4	80	120	
Sb	121	1	No Gas	99.363	1.259	1484878	0.88	100	99.4	80	120	
Ba	137	1	No Gas	102.407	1.294	557519	0.66	100	102.4	80	120	
Tl	205	1	No Gas	102.524	3.017	3343762	0.69	100	102.5	80	120	
Tl	203	1	No Gas	101.455	2.129	1382464	0.46	100	101.5	80	120	
Pb	208	1	No Gas	100.747	2.840	4631528	0.51	100	100.7	80	120	
U	238	1	No Gas	104.440	2.808	4861918	0.53	100	104.4	80	120	
Ca	43	2	He	107289.265	0.827	218329	0.21	100	107289.3	80	120	
Sb	121	2	He	96.237	0.817	682116	0.50	100	96.2	80	120	
Ti	47	2	He	2075.394	1.252	437737	0.76	100	2075.4	80	120	
Cu	63	1	No Gas	98.418	0.215	1207568	1.71	100	98.4	80	120	
Se	82	1	No Gas	102.333	2.418	19546	2.54	100	102.3	80	120	

QC ISTD Table

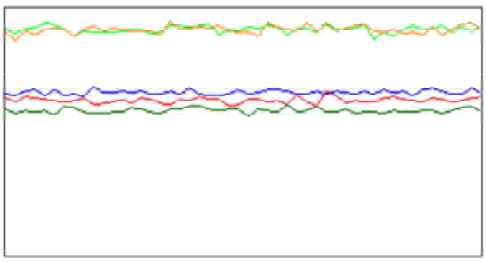
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1134801	2.89	1457721	77.85	70	120	
Ge	72	2	He	696023	0.76	821026	84.77	70	120	
Ge	72	1	No Gas	2459218	1.50	2924007	84.10	70	120	
In	115	1	No Gas	2934833	1.37	3503686	83.76	70	120	
Bi	209	1	No Gas	2763721	2.34	3408283	81.09	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq. Date-Time	6/4/2021 10:04:32 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	10000	6285	62847.51		
24	20000	18321	183206.35		
59	50000	33087	330873.39		
115	50000	45743	457433.02		
208	50000	29369	293686.70		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	1.986	5.000	
24	1.622	5.000	
59	1.375	5.000	
115	1.787	5.000	
208	1.623	5.000	

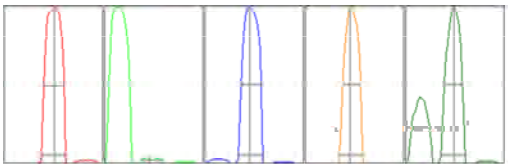
Mass	Background	Background (Required)	Background (Flag)
9	0.300		
24	0.600		
59	0.300		
115	0.200		
208	0.800		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.582 %
Doubly Charged	70 / 140 0.872 %

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	6268.85	9.05	8.90 - 9.10	
24	18450.21	23.90	23.90 - 24.10	
59	33225.49	58.90	58.90 - 59.10	
115	47656.14	114.90	114.90 - 115.10	
208	29067.90	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.741		
24	0.67	0.746		
59	0.61	0.740		
115	0.54	0.723		
208	0.57	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 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	135	Axis Gain	1.0004	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.10		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

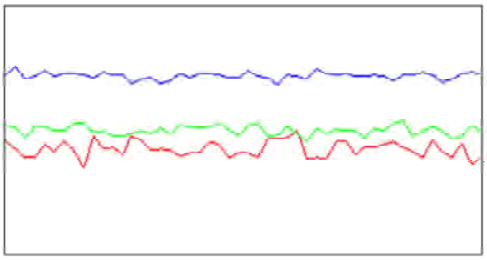
EM

Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 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	500	211	2113.96		
24	2000	997	9974.14		
59	20000	14390	143896.17		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

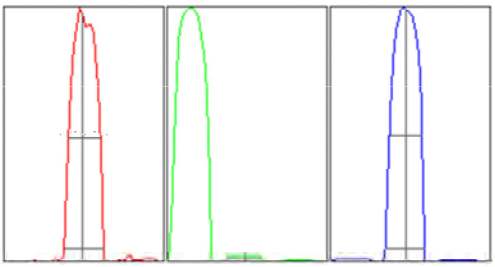
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	7.619	5.000	Fail
24	3.801	5.000	
59	1.940	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.200		
24	0.000		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.364 %
Doubly Charged	70 / 140 0.899 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	217.27	9.00	8.90 - 9.10	
24	986.40	24.00	23.90 - 24.10	
59	14345.13	58.95	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.741		
24	0.67	0.743		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.61	0.739		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 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	10.0 V	Deflect	0.2 V
Extract 2	-195.0 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	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0004	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.10		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

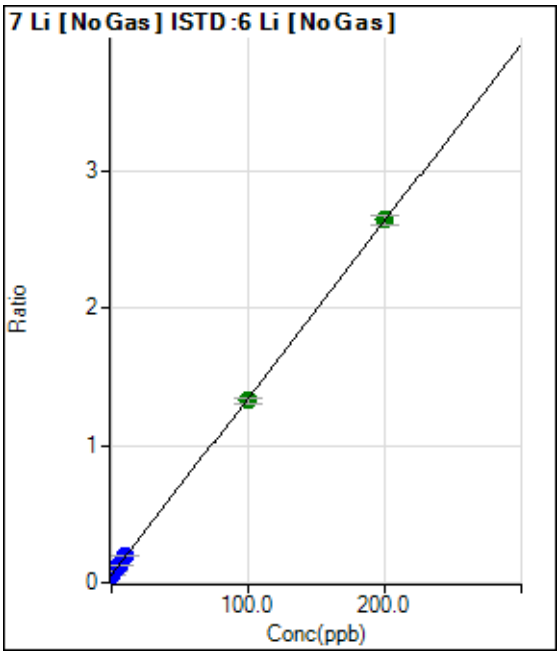
Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

Calibration for 250_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	243CALB.d	CAL BLK	6/7/2021 11:30:00 PM
2	244CALS.d	2/10/200	6/7/2021 11:32:00 PM
3	245CALS.d	5/25/500	6/7/2021 11:33:59 PM
4	246CALS.d	10/50/100	6/7/2021 11:35:58 PM
5	247CALS.d	100/500/10K	6/7/2021 11:37:57 PM
6	248CALS.d	200/1000/20K	6/7/2021 11:39:50 PM

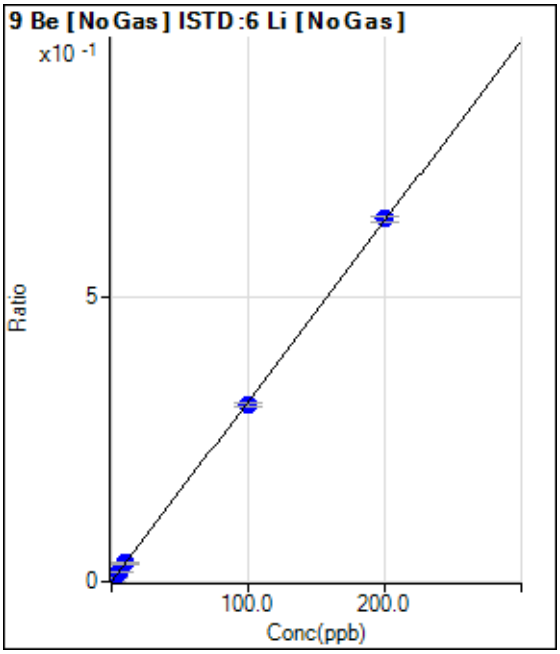
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60469.04	0.0575	P	2.4
2	☐	2.000	2.145	88247.48	0.0851	P	2.0
3	☐	5.000	5.190	128291.60	0.1243	P	3.4
4	☐	10.000	10.669	195018.75	0.1948	P	2.5
5	☐	100.000	98.523	1314034.77	1.3249	A	2.7
6	☐	200.000	200.699	2516357.20	2.6394	A	2.9

y = 0.0129 * x + 0.0575
R = 1.0000
DL = 0.3241
BEC = 4.471

Weight: <None>
Min Conc: <None>

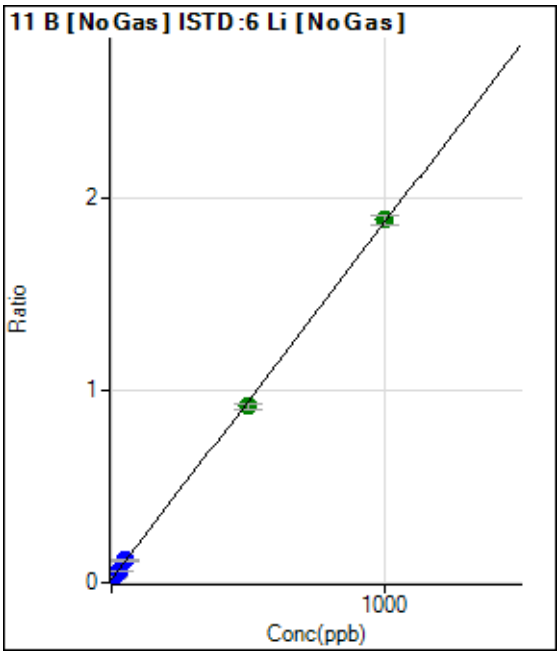


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	86.6
2	☐	2.000	2.055	6753.34	0.0065	P	1.4
3	☐	5.000	4.898	16027.55	0.0155	P	1.4
4	☐	10.000	10.220	32427.35	0.0324	P	1.9
5	☐	100.000	97.770	307190.40	0.3097	P	2.4
6	☐	200.000	201.106	607462.93	0.6371	P	1.6

y = 0.0032 * x + 3.2072E-006
R = 0.9999
DL = 0.002631
BEC = 0.001012

Weight: <None>
Min Conc: <None>

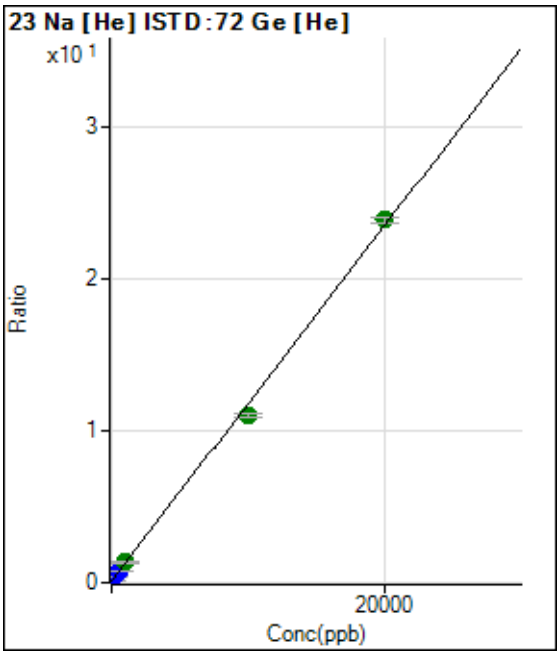
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17801.35	0.0169	P	1.0
2	☐	10.000	9.703	36260.02	0.0350	P	2.2
3	☐	25.000	24.868	65195.37	0.0632	P	3.8
4	☐	50.000	52.876	115326.03	0.1152	P	5.1
5	☐	500.000	484.656	910387.41	0.9180	A	3.2
6	☐	1000.000	1007.535	1802168.36	1.8902	A	2.4

y = 0.0019 * x + 0.0169
R = 0.9998
DL = 0.2836
BEC = 9.104

Weight: <None>
Min Conc: <None>

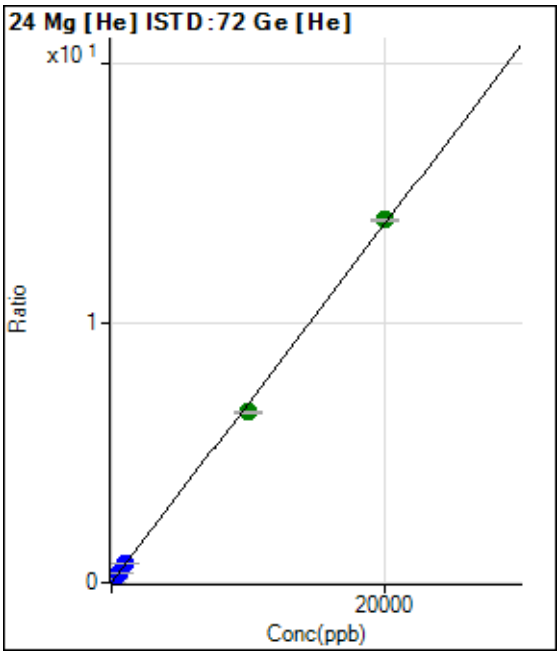


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	92766.88	0.1100	P	0.8
2	☐	200.000	219.105	305903.54	0.3663	P	0.9
3	☐	500.000	529.473	604905.73	0.7293	P	0.5
4	☐	1000.000	1051.923	1102244.73	1.3403	A	1.7
5	☐	10000.00	9326.350	9020049.03	11.0173	A	1.9
6	☐	20000.00	20333.30	19124674.30	23.8899	A	1.9

y = 0.0012 * x + 0.1100
R = 0.9992
DL = 2.286
BEC = 94.09

Weight: <None>
Min Conc: <None>

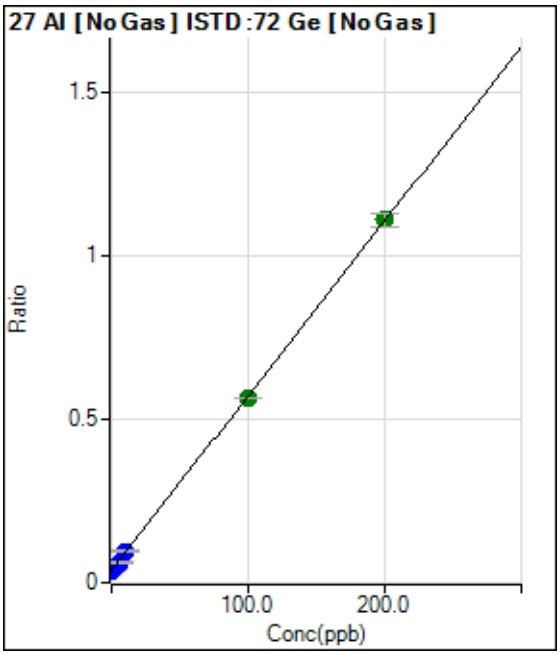
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1516.77	0.0018	P	4.0
2	☐	200.000	222.260	129762.65	0.1554	P	1.4
3	☐	500.000	544.140	313359.34	0.3778	P	1.5
4	☐	1000.000	1097.780	625323.60	0.7603	P	1.3
5	☐	10000.00	9497.213	5374032.63	6.5642	A	0.3
6	☐	20000.00	20245.17	11201121.50	13.9908	A	0.8

y = 6.9098E-004 * x + 0.0018
R = 0.9995
DL = 0.31
BEC = 2.604

Weight: <None>
Min Conc: <None>

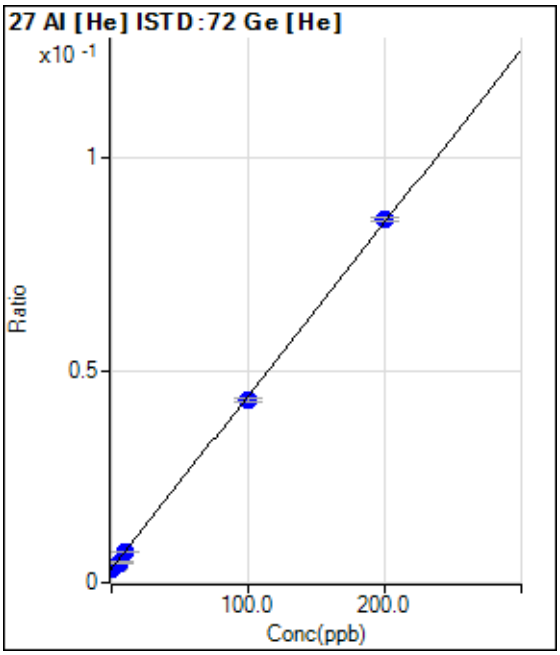


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	109251.13	0.0382	P	5.9
2	☐	2.000	0.935	124461.37	0.0432	P	1.3
3	☐	5.000	4.377	175443.55	0.0615	P	2.0
4	☐	10.000	10.950	273158.84	0.0966	P	2.7
5	☐	100.000	98.434	1569382.74	0.5638	A	0.5
6	☐	200.000	200.762	3011930.69	1.1102	A	3.8

y = 0.0053 * x + 0.0382
R = 0.9999
DL = 1.265
BEC = 7.148

Weight: <None>
Min Conc: <None>

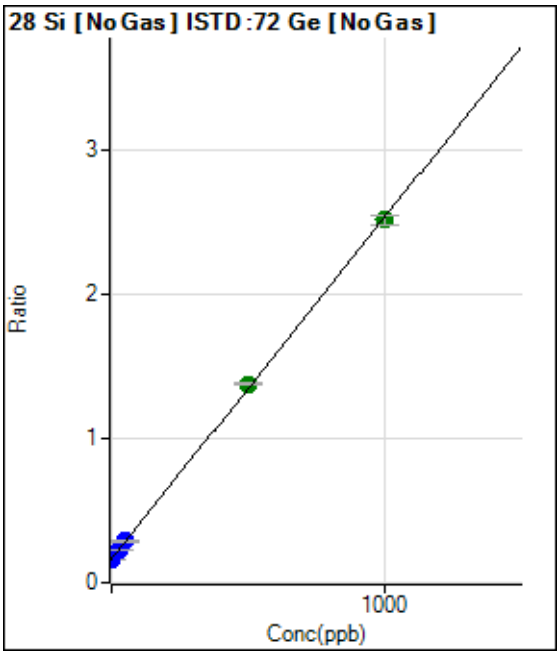
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2770.51	0.0033	P	22.5
2	☐	2.000	0.345	2860.34	0.0034	P	6.1
3	☐	5.000	3.273	3830.60	0.0046	P	6.8
4	☐	10.000	9.744	5968.05	0.0073	P	5.7
5	☐	100.000	96.989	35054.36	0.0428	P	2.2
6	☐	200.000	201.578	68411.80	0.0854	P	1.0

y = 4.0760E-004 * x + 0.0033
R = 0.9998
DL = 5.434
BEC = 8.058

Weight: <None>
Min Conc: <None>

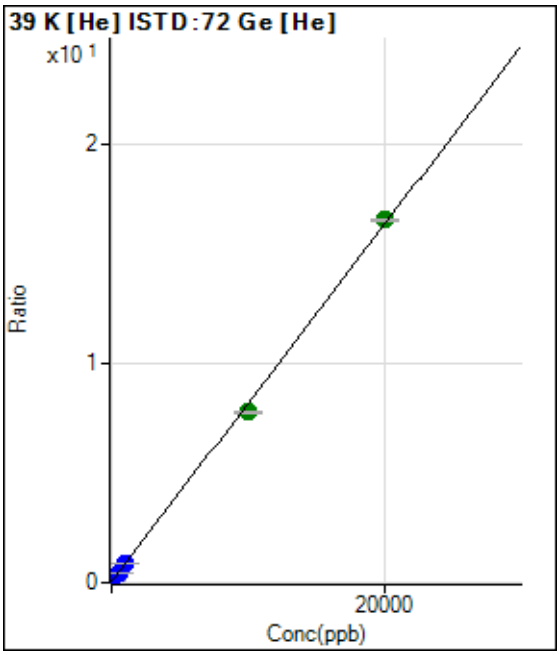


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	470785.39	0.1644	P	0.8
2	☐	10.000	13.184	564085.79	0.1956	P	0.9
3	☐	25.000	27.052	651129.38	0.2284	P	1.1
4	☐	50.000	52.207	813782.05	0.2879	P	1.3
5	☐	500.000	513.351	3836577.13	1.3782	A	0.4
6	☐	1000.000	993.131	6817613.65	2.5126	A	2.6

y = 0.0024 * x + 0.1644
R = 0.9999
DL = 1.723
BEC = 69.54

Weight: <None>
Min Conc: <None>

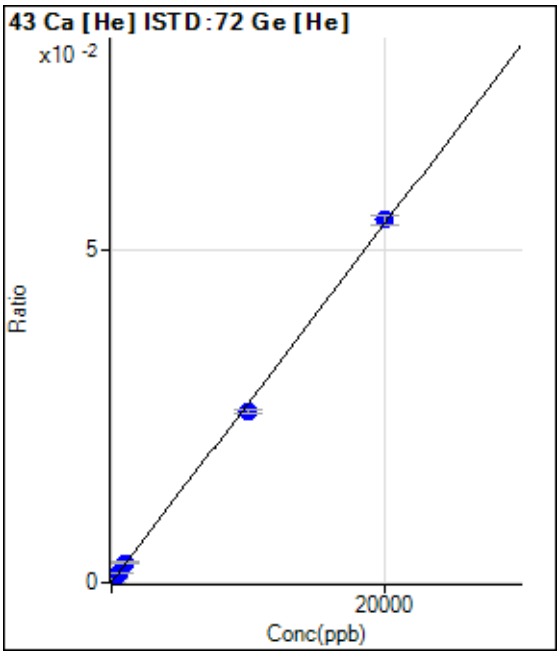
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38594.27	0.0458	P	1.5
2	☐	200.000	217.509	186466.04	0.2233	P	1.7
3	☐	500.000	525.478	393650.94	0.4746	P	1.0
4	☐	1000.000	1054.567	745431.26	0.9063	P	0.7
5	☐	10000.00	9480.040	6370800.74	7.7818	A	1.6
6	☐	20000.00	20256.44	13270587.72	16.5758	A	0.2

y = 8.1604E-004 * x + 0.0458
R = 0.9995
DL = 2.526
BEC = 56.1

Weight: <None>
Min Conc: <None>

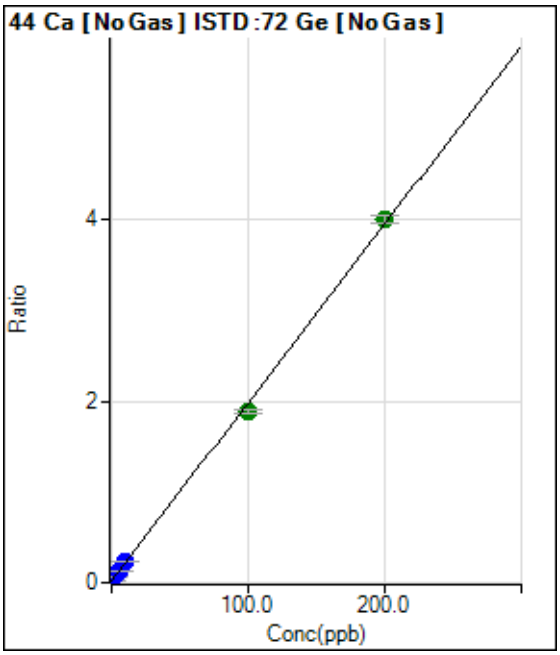


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	35.4
2	☐	200.000	228.978	556.69	0.0007	P	14.9
3	☐	500.000	529.803	1223.42	0.0015	P	4.1
4	☐	1000.000	1078.226	2423.59	0.0029	P	6.6
5	☐	10000.00	9521.761	20982.92	0.0256	P	1.4
6	☐	20000.00	20234.17	43552.57	0.0544	P	2.5

y = 2.6863E-006 * x + 5.1419E-005
R = 0.9996
DL = 20.3
BEC = 19.14

Weight: <None>
Min Conc: <None>

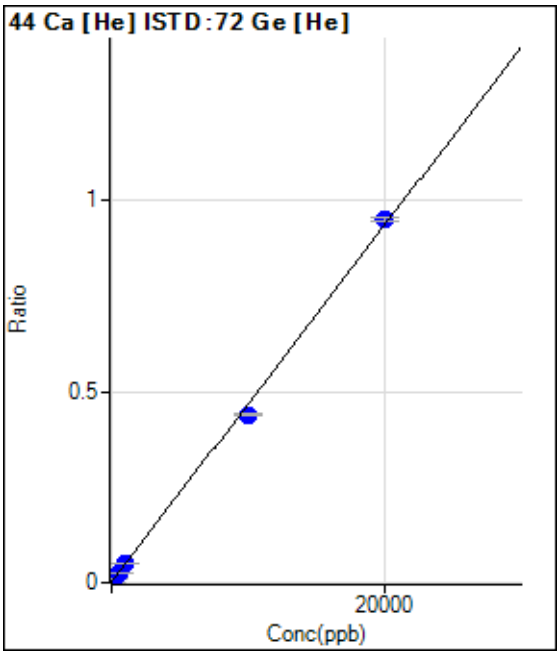
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55026.70	0.0192	P	1.1
2	☐	2.000	2.047	171284.62	0.0594	P	0.6
3	☐	5.000	5.241	347989.27	0.1221	P	0.7
4	☐	10.000	10.597	642150.78	0.2271	P	1.0
5	☐	100.000	94.820	5232355.44	1.8798	A	1.8
6	☐	200.000	202.554	10837649.42	3.9937	A	2.0

y = 0.0196 * x + 0.0192
R = 0.9995
DL = 0.03214
BEC = 0.9795

Weight: <None>
Min Conc: <None>

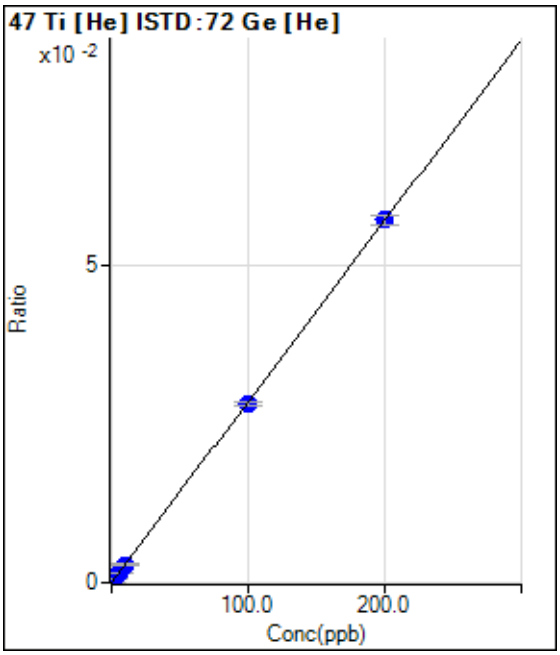


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1310.09	0.0016	P	5.6
2	☐	200.000	195.942	8936.41	0.0107	P	4.8
3	☐	500.000	502.044	20725.90	0.0250	P	3.8
4	☐	1000.000	1022.883	40553.21	0.0493	P	0.6
5	☐	10000.00	9383.527	359909.37	0.4396	P	0.6
6	☐	20000.00	20307.08	760198.66	0.9496	P	0.9

y = 4.6684E-005 * x + 0.0016
R = 0.9993
DL = 5.582
BEC = 33.28

Weight: <None>
Min Conc: <None>

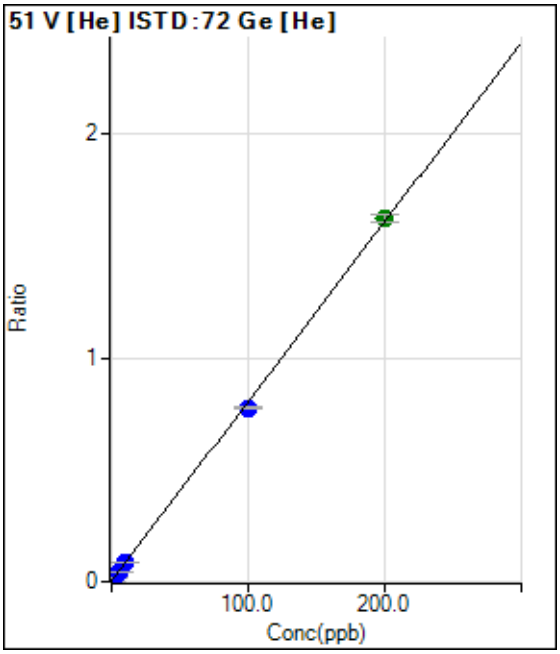
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	2.027	490.02	0.0006	P	14.7
3	☐	5.000	5.053	1203.41	0.0015	P	0.7
4	☐	10.000	10.060	2370.24	0.0029	P	7.6
5	☐	100.000	98.840	23113.07	0.0282	P	3.2
6	☐	200.000	200.575	45856.69	0.0573	P	2.6

y = 2.8555E-004 * x + 7.9059E-006
R = 1.0000
DL = 0.07193
BEC = 0.02769

Weight: <None>
Min Conc: <None>

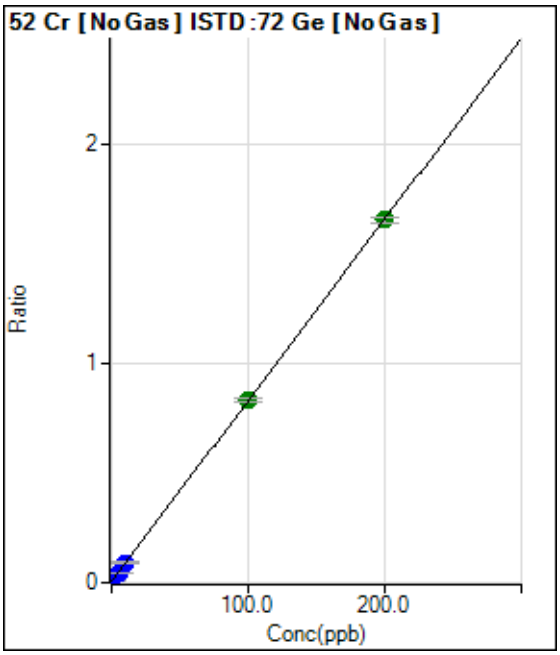


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2398.01	0.0028	P	4.0
2	☐	2.000	2.071	16261.91	0.0195	P	0.9
3	☐	5.000	4.945	35286.36	0.0425	P	1.7
4	☐	10.000	10.053	68713.33	0.0835	P	0.7
5	☐	100.000	96.496	636473.97	0.7774	P	0.4
6	☐	200.000	201.750	1298696.51	1.6223	A	2.3

y = 0.0080 * x + 0.0028
R = 0.9998
DL = 0.04261
BEC = 0.3543

Weight: <None>
Min Conc: <None>

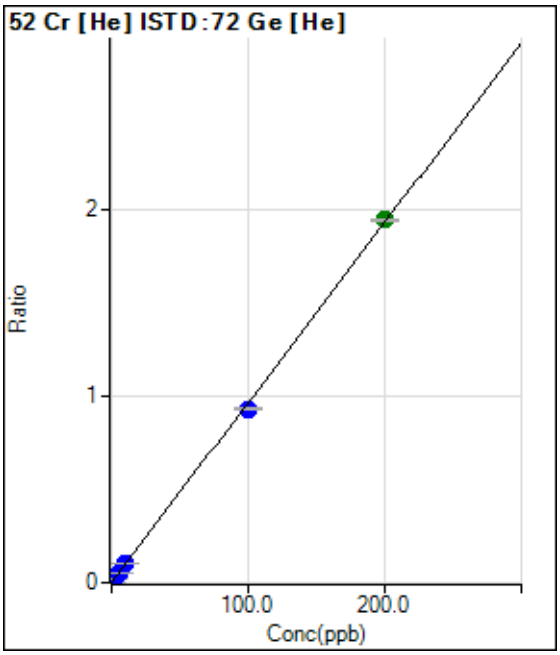
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13820.53	0.0048	P	4.5
2	☐	2.000	2.087	63597.80	0.0221	P	0.5
3	☐	5.000	5.144	134808.30	0.0473	P	1.7
4	☐	10.000	10.522	259140.84	0.0917	P	2.1
5	☐	100.000	100.292	2317569.39	0.8326	A	2.5
6	☐	200.000	199.823	4488733.58	1.6542	A	1.9

y = 0.0083 * x + 0.0048
R = 1.0000
DL = 0.07977
BEC = 0.585

Weight: <None>
Min Conc: <None>

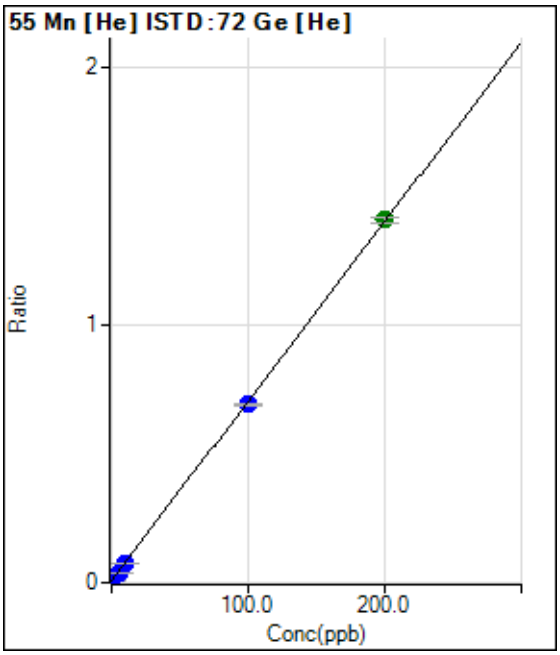


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1346.76	0.0016	P	10.1
2	☐	2.000	2.054	17891.92	0.0214	P	1.4
3	☐	5.000	5.029	41593.29	0.0501	P	2.6
4	☐	10.000	10.299	83081.67	0.1010	P	1.4
5	☐	100.000	96.613	764876.44	0.9343	P	0.6
6	☐	200.000	201.678	1559967.69	1.9485	A	0.2

y = 0.0097 * x + 0.0016
R = 0.9998
DL = 0.05034
BEC = 0.1654

Weight: <None>
Min Conc: <None>

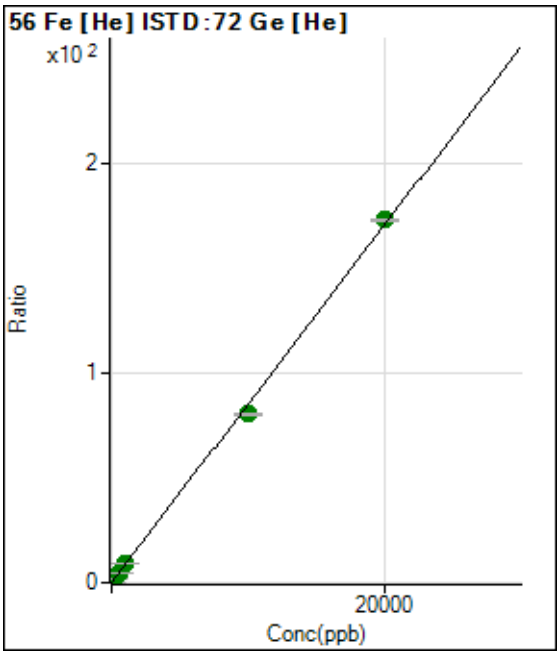
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7292.08	0.0086	P	3.0
2	☐	2.000	1.957	18596.22	0.0223	P	1.8
3	☐	5.000	4.460	32910.07	0.0397	P	1.8
4	☐	10.000	9.066	58994.05	0.0717	P	1.6
5	☐	100.000	97.971	565173.89	0.6903	P	0.8
6	☐	200.000	201.075	1127009.90	1.4077	A	1.9

y = 0.0070 * x + 0.0086
R = 0.9999
DL = 0.1118
BEC = 1.243

Weight: <None>
Min Conc: <None>

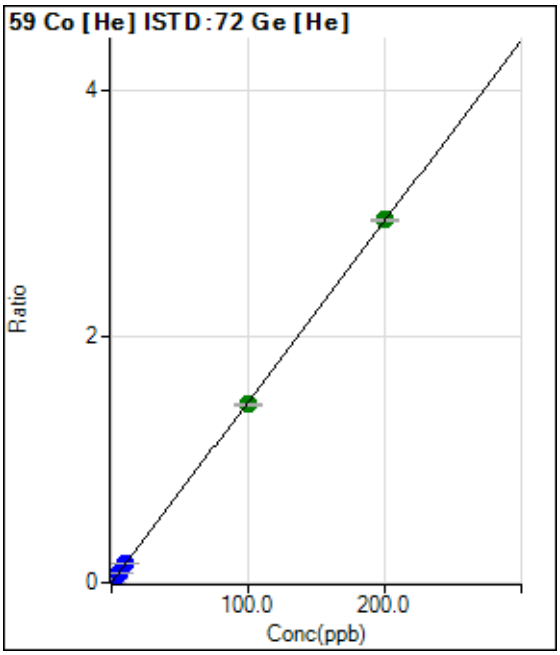


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21287.17	0.0252	P	6.4
2	☐	200.000	221.774	1600482.11	1.9163	A	0.5
3	☐	500.000	533.079	3791400.15	4.5709	A	1.8
4	☐	1000.000	1049.309	7379759.06	8.9728	A	0.7
5	☐	10000.00	9412.316	65729357.35	80.2852	A	0.3
6	☐	20000.00	20290.33	138536784.6	173.043	A	0.7

y = 0.0085 * x + 0.0252
R = 0.9994
DL = 0.5658
BEC = 2.961

Weight: <None>
Min Conc: <None>

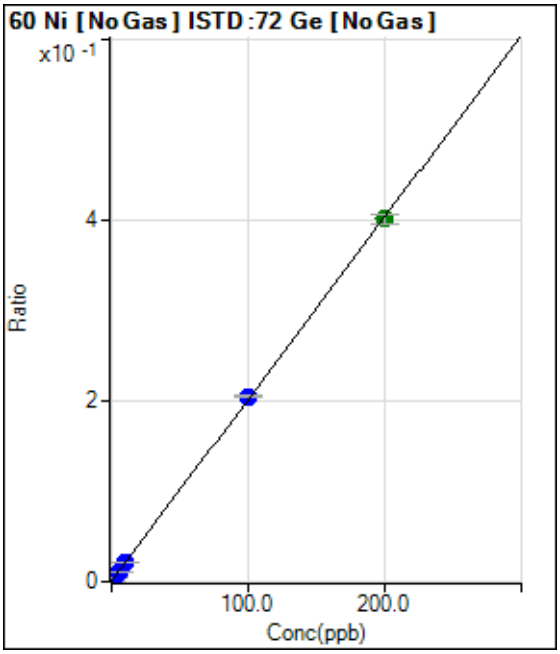
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0001	P	44.6
2	☐	2.000	2.071	25434.02	0.0305	P	4.6
3	☐	5.000	5.060	61642.77	0.0743	P	2.0
4	☐	10.000	10.276	124055.19	0.1508	P	1.2
5	☐	100.000	98.560	1183958.26	1.4462	A	0.8
6	☐	200.000	200.704	2357641.16	2.9449	A	0.6

y = 0.0147 * x + 6.7238E-005
R = 1.0000
DL = 0.00613
BEC = 0.004583

Weight: <None>
Min Conc: <None>

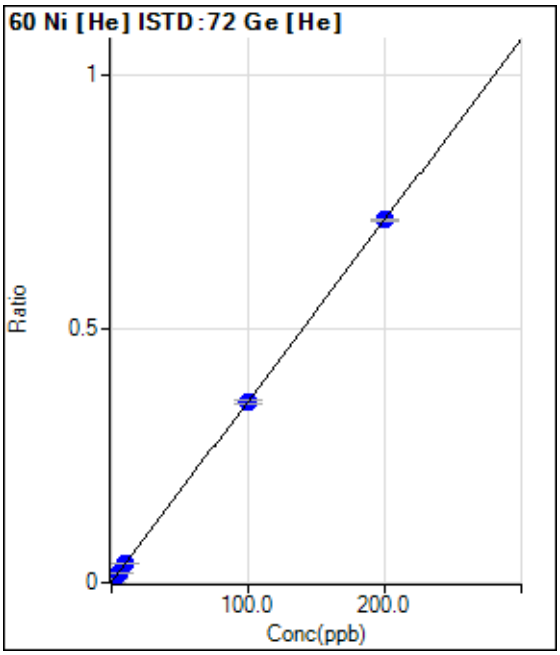


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1533.46	0.0005	P	10.3
2	☐	2.000	2.195	14261.09	0.0049	P	4.8
3	☐	5.000	5.111	30808.55	0.0108	P	2.7
4	☐	10.000	10.638	61944.10	0.0219	P	1.9
5	☐	100.000	101.568	569629.22	0.2046	P	1.2
6	☐	200.000	199.179	1087506.21	0.4008	A	2.4

y = 0.0020 * x + 5.3523E-004
R = 1.0000
DL = 0.08238
BEC = 0.2663

Weight: <None>
Min Conc: <None>

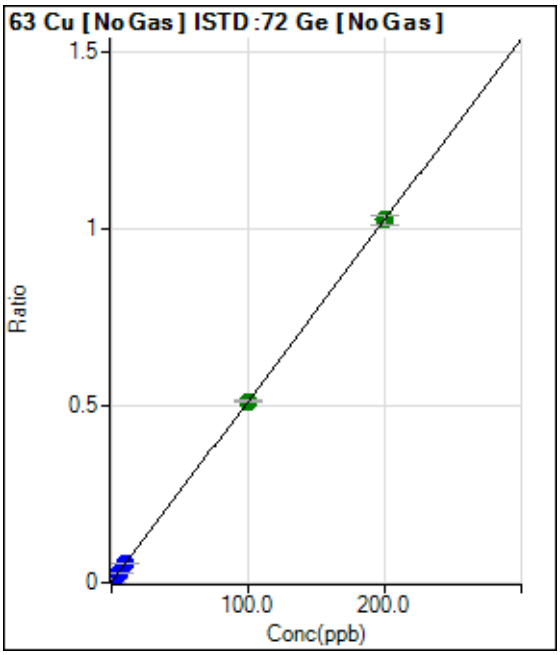
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	830.04	0.0010	P	14.4
2	☐	2.000	2.058	6941.87	0.0083	P	3.2
3	☐	5.000	4.883	15235.45	0.0184	P	3.8
4	☐	10.000	10.498	31546.80	0.0384	P	2.7
5	☐	100.000	99.768	291603.95	0.3562	P	1.7
6	☐	200.000	200.094	571112.07	0.7134	P	0.8

y = 0.0036 * x + 9.8435E-004
R = 1.0000
DL = 0.1198
BEC = 0.2765

Weight: <None>
Min Conc: <None>

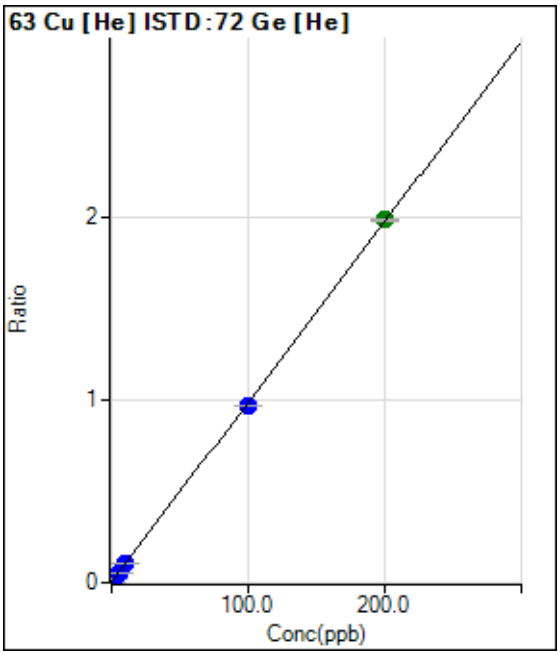


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3100.41	0.0011	P	6.6
2	☐	2.000	2.122	34460.64	0.0119	P	3.3
3	☐	5.000	5.234	79515.32	0.0279	P	1.0
4	☐	10.000	10.476	154742.62	0.0547	P	1.1
5	☐	100.000	99.840	1426404.87	0.5124	A	0.9
6	☐	200.000	200.049	2783230.06	1.0257	A	2.9

y = 0.0051 * x + 0.0011
R = 1.0000
DL = 0.04172
BEC = 0.2114

Weight: <None>
Min Conc: <None>

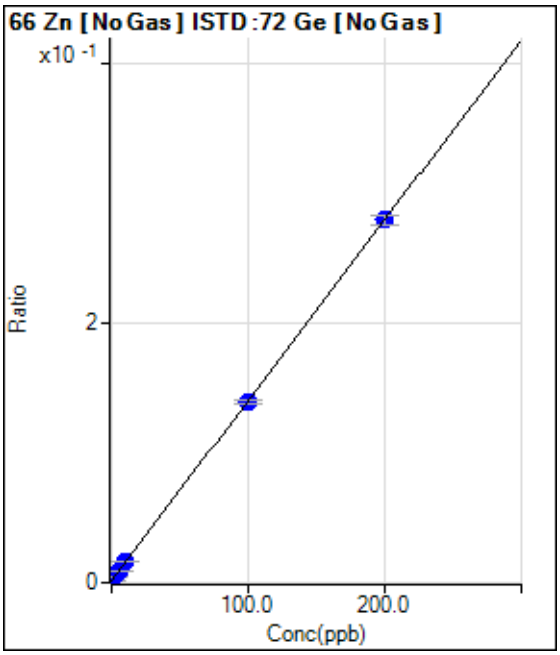
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1626.79	0.0019	P	5.3
2	☐	2.000	2.167	19490.93	0.0233	P	4.0
3	☐	5.000	5.185	44085.01	0.0532	P	3.1
4	☐	10.000	10.430	86336.38	0.1050	P	1.5
5	☐	100.000	97.863	793101.79	0.9687	P	0.9
6	☐	200.000	201.040	1591634.25	1.9881	A	0.3

y = 0.0099 * x + 0.0019
R = 0.9999
DL = 0.03093
BEC = 0.1953

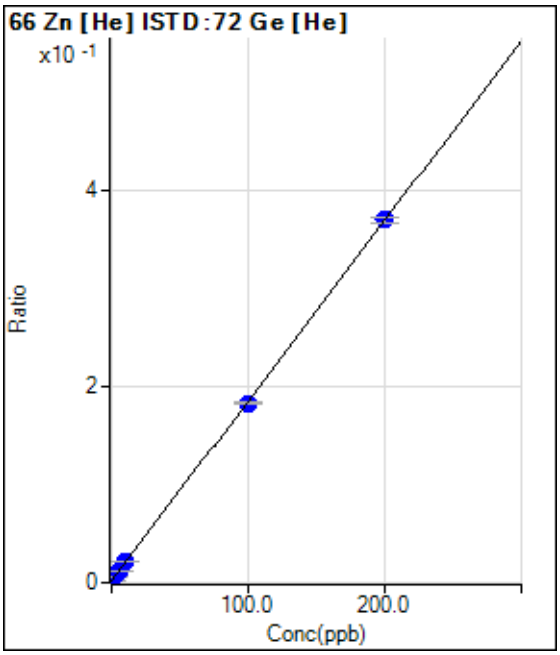
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3953.97	0.0014	P	9.3
2	☐	2.000	2.444	13760.53	0.0048	P	0.2
3	☐	5.000	5.209	24539.22	0.0086	P	0.6
4	☐	10.000	10.562	45329.14	0.0160	P	1.3
5	☐	100.000	99.385	387591.77	0.1392	P	1.8
6	☐	200.000	200.270	757527.64	0.2792	P	2.6

y = 0.0014 * x + 0.0014
R = 1.0000
DL = 0.2783
BEC = 0.9961

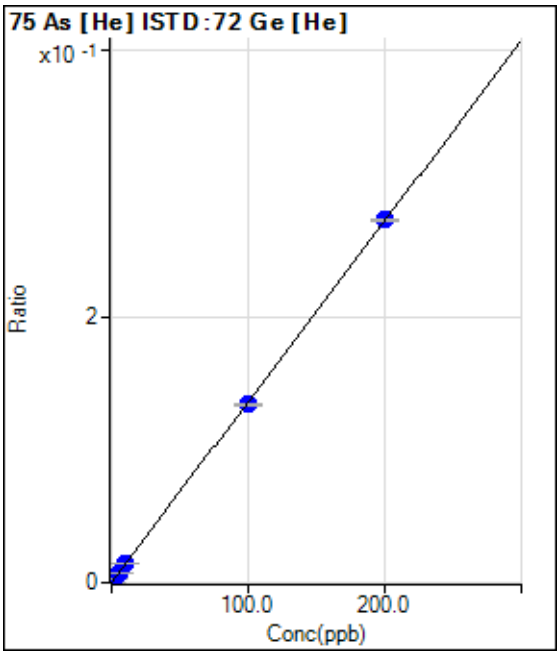
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1600.12	0.0019	P	10.0
2	☐	2.000	2.441	5334.49	0.0064	P	6.9
3	☐	5.000	5.166	9456.81	0.0114	P	1.6
4	☐	10.000	10.413	17317.98	0.0211	P	3.3
5	☐	100.000	98.804	150345.38	0.1836	P	0.4
6	☐	200.000	200.569	296886.30	0.3708	P	1.6

y = 0.0018 * x + 0.0019
R = 1.0000
DL = 0.3088
BEC = 1.032

Weight: <None>
Min Conc: <None>

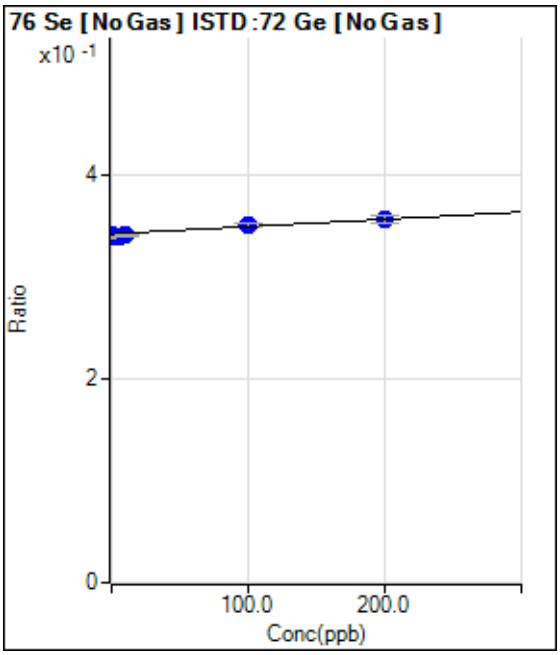


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.78	0.0002	P	14.3
2	☐	2.000	2.038	2439.12	0.0029	P	1.5
3	☐	5.000	4.933	5685.67	0.0069	P	1.5
4	☐	10.000	10.302	11637.27	0.0141	P	1.1
5	☐	100.000	98.488	109675.78	0.1340	P	0.9
6	☐	200.000	200.742	218478.19	0.2729	P	0.5

y = 0.0014 * x + 1.5155E-004
R = 1.0000
DL = 0.04773
BEC = 0.1115

Weight: <None>
Min Conc: <None>

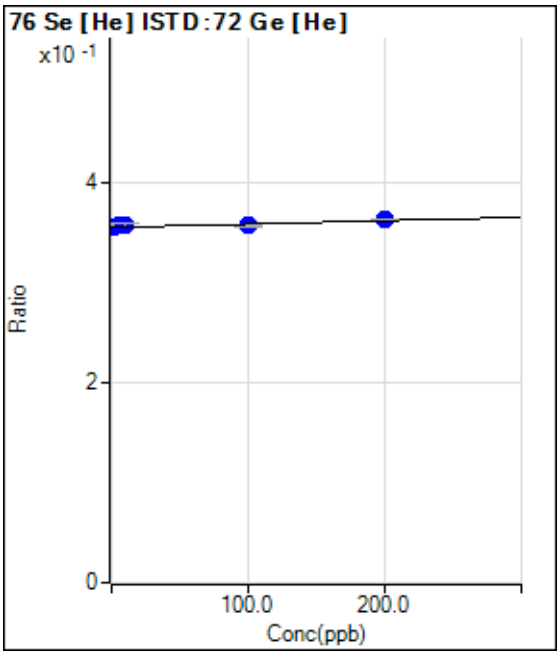
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	979099.57	0.3420	P	0.8
2	☐	2.000	-50.747	975748.08	0.3383	P	0.9
3	☐	5.000	-41.703	966439.75	0.3390	P	0.9
4	☐	10.000	-18.197	963125.22	0.3407	P	0.5
5	☐	100.000	124.588	976658.76	0.3509	P	1.3
6	☐	200.000	190.811	964924.18	0.3556	P	2.0

y = 7.1400E-005 * x + 0.3420
R = 0.9662
DL = 109.5
BEC = 4790

Weight: <None>
Min Conc: <None>

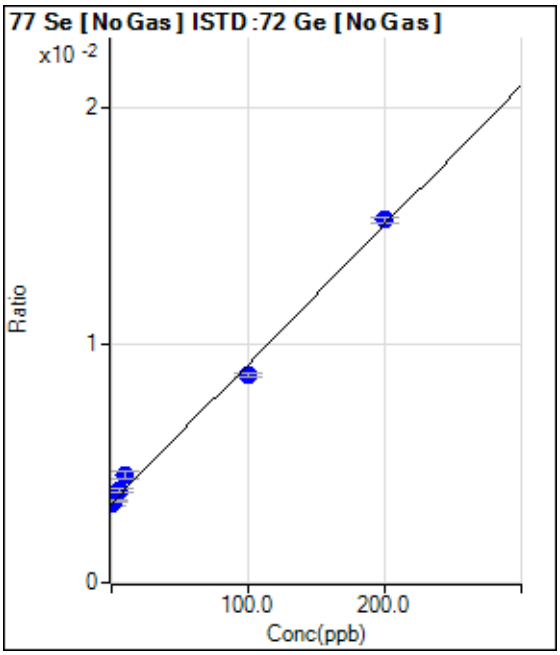


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	299902.99	0.3557	P	0.2
2	☐	2.000	-16.499	296638.93	0.3552	P	0.9
3	☐	5.000	53.133	296541.63	0.3575	P	0.7
4	☐	10.000	49.304	293922.29	0.3574	P	1.0
5	☐	100.000	51.808	292653.03	0.3575	P	0.5
6	☐	200.000	221.112	290730.48	0.3631	P	0.2

y = 3.3543E-005 * x + 0.3557
R = 0.9037
DL = 59.87
BEC = 1.061E+04

Weight: <None>
Min Conc: <None>

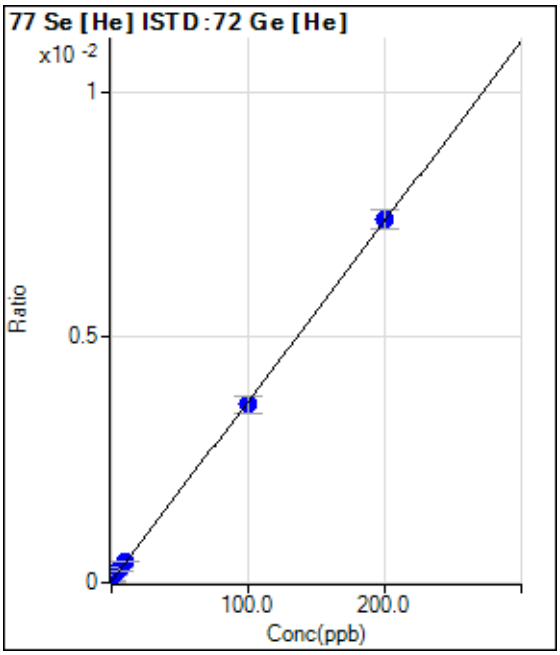
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9556.90	0.0033	P	4.7
2	☐	2.000	1.608	9900.50	0.0034	P	1.2
3	☐	5.000	9.055	11031.38	0.0039	P	3.8
4	☐	10.000	20.080	12759.59	0.0045	P	6.9
5	☐	100.000	92.021	24298.79	0.0087	P	2.5
6	☐	200.000	203.388	41397.22	0.0153	P	1.7

y = 5.8583E-005 * x + 0.0033
R = 0.9974
DL = 8.11
BEC = 56.99

Weight: <None>
Min Conc: <None>

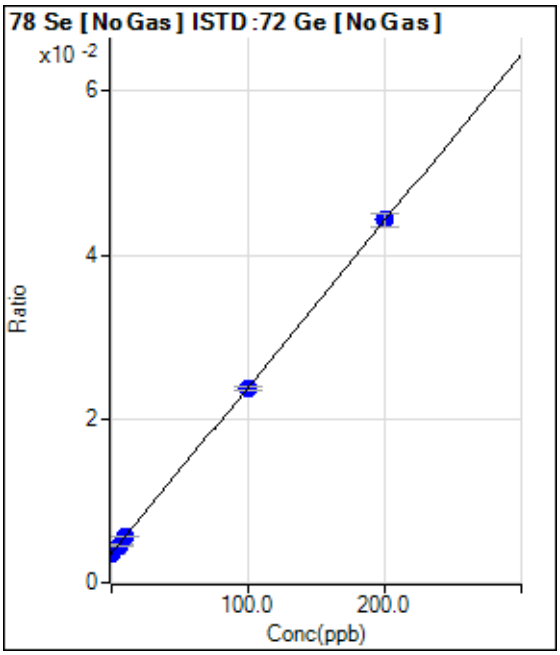


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	89.1
2	☐	2.000	3.495	130.00	0.0002	P	23.5
3	☐	5.000	6.715	226.67	0.0003	P	35.0
4	☐	10.000	11.077	356.68	0.0004	P	4.2
5	☐	100.000	98.244	2970.38	0.0036	P	9.2
6	☐	200.000	200.766	5914.75	0.0074	P	5.3

y = 3.6653E-005 * x + 2.7656E-005
R = 0.9999
DL = 2.016
BEC = 0.7545

Weight: <None>
Min Conc: <None>

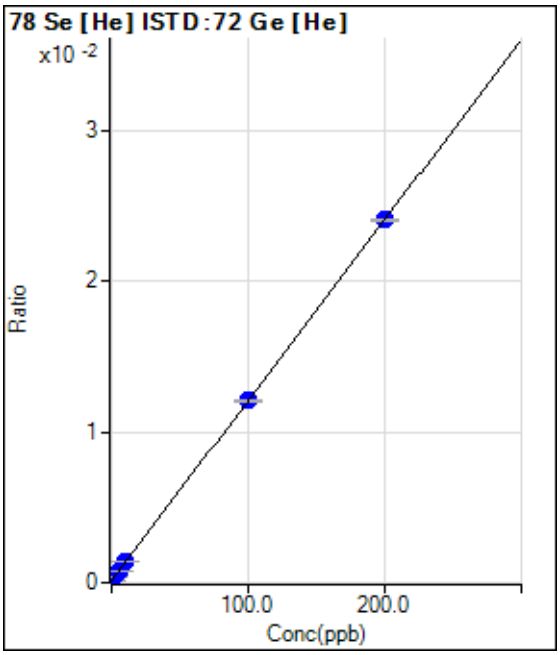
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10270.74	0.0036	P	0.8
2	☐	2.000	1.647	11308.26	0.0039	P	2.2
3	☐	5.000	4.513	12836.34	0.0045	P	3.4
4	☐	10.000	9.892	15812.83	0.0056	P	1.5
5	☐	100.000	98.927	65837.31	0.0237	P	1.7
6	☐	200.000	200.557	120081.51	0.0443	P	3.9

y = 2.0282E-004 * x + 0.0036
R = 1.0000
DL = 0.4414
BEC = 17.69

Weight: <None>
Min Conc: <None>

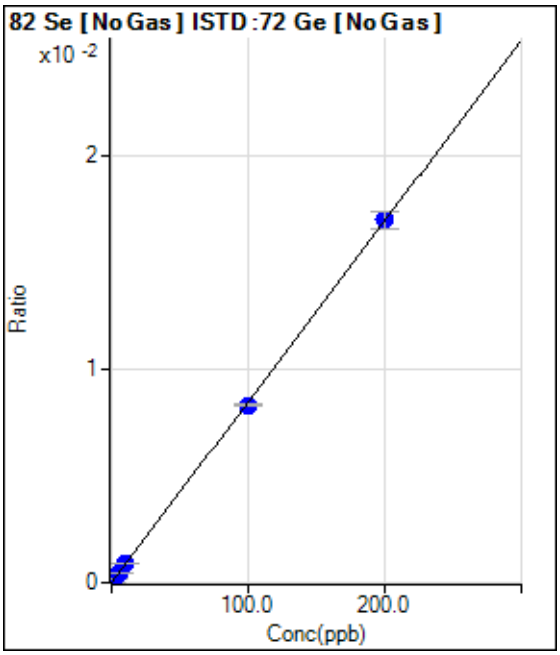


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	109.33	0.0001	P	6.7
2	☐	2.000	1.876	296.00	0.0004	P	8.0
3	☐	5.000	5.129	617.35	0.0007	P	6.3
4	☐	10.000	10.575	1148.72	0.0014	P	1.3
5	☐	100.000	99.937	9907.65	0.0121	P	1.2
6	☐	200.000	200.001	19285.11	0.0241	P	0.8

y = 1.1980E-004 * x + 1.2970E-004
R = 1.0000
DL = 0.2164
BEC = 1.083

Weight: <None>
Min Conc: <None>

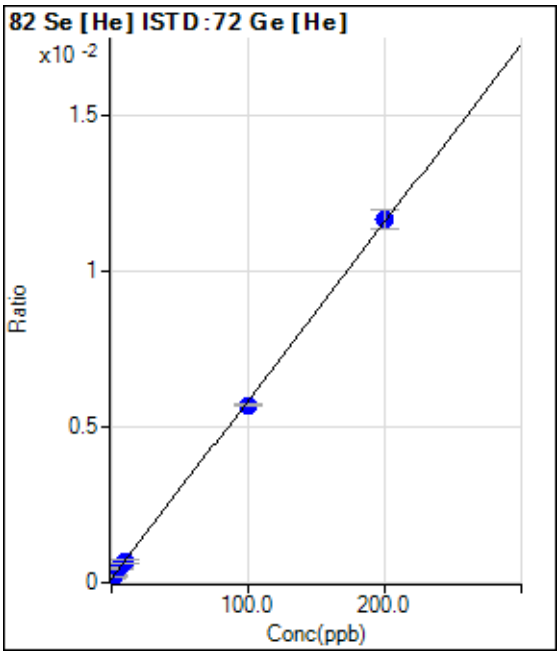
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-68.41	0.0000	P	-66.8
2	☐	2.000	1.948	408.26	0.0001	P	17.2
3	☐	5.000	5.233	1199.02	0.0004	P	6.4
4	☐	10.000	10.379	2425.20	0.0009	P	2.6
5	☐	100.000	98.321	23179.42	0.0083	P	1.9
6	☐	200.000	200.815	46206.02	0.0170	P	4.6

y = 8.4934E-005 * x - 2.3926E-005
R = 0.9999
DL = 0.5646
BEC = -0.2817

Weight: <None>
Min Conc: <None>

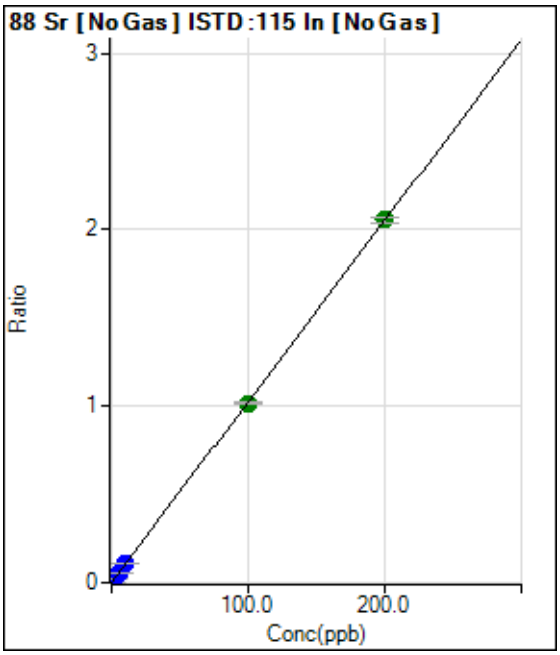


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	31.1
2	☐	2.000	1.349	176.67	0.0002	P	12.2
3	☐	5.000	5.941	393.35	0.0005	P	5.6
4	☐	10.000	9.555	560.02	0.0007	P	14.8
5	☐	100.000	97.256	4660.89	0.0057	P	1.6
6	☐	200.000	201.377	9320.09	0.0116	P	5.4

y = 5.7154E-005 * x + 1.3448E-004
R = 0.9998
DL = 2.197
BEC = 2.353

Weight: <None>
Min Conc: <None>

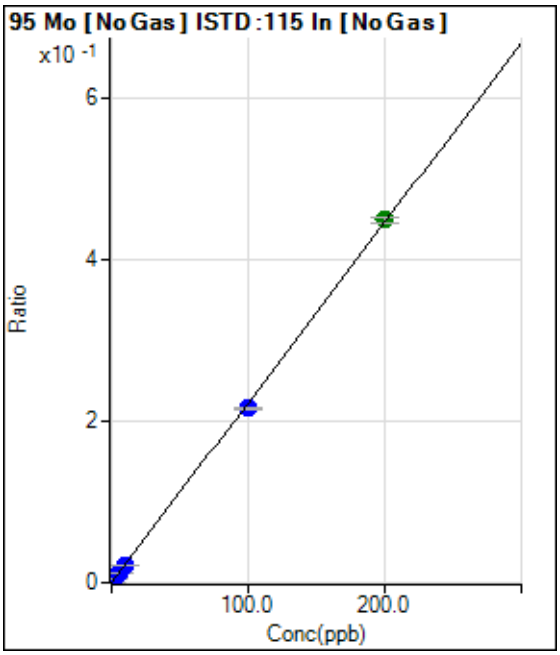
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3113.76	0.0009	P	2.4
2	☐	2.000	2.026	79270.55	0.0216	P	1.6
3	☐	5.000	5.075	194018.25	0.0529	P	2.7
4	☐	10.000	10.322	387062.57	0.1066	P	0.6
5	☐	100.000	98.963	3599123.49	1.0149	A	0.9
6	☐	200.000	200.500	7072481.14	2.0553	A	1.6

y = 0.0102 * x + 8.5048E-004
R = 1.0000
DL = 0.005983
BEC = 0.083

Weight: <None>
Min Conc: <None>

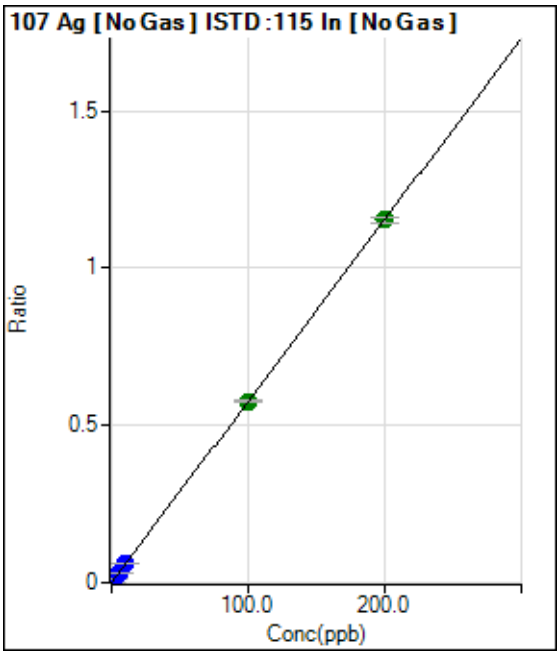


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	14.6
2	☐	2.000	1.988	16433.72	0.0045	P	1.5
3	☐	5.000	4.925	40434.95	0.0110	P	2.6
4	☐	10.000	9.878	79992.31	0.0220	P	2.7
5	☐	100.000	96.769	763580.43	0.2153	P	1.0
6	☐	200.000	201.623	1543688.20	0.4486	A	1.7

y = 0.0022 * x + 5.8248E-005
R = 0.9998
DL = 0.01148
BEC = 0.02618

Weight: <None>
Min Conc: <None>

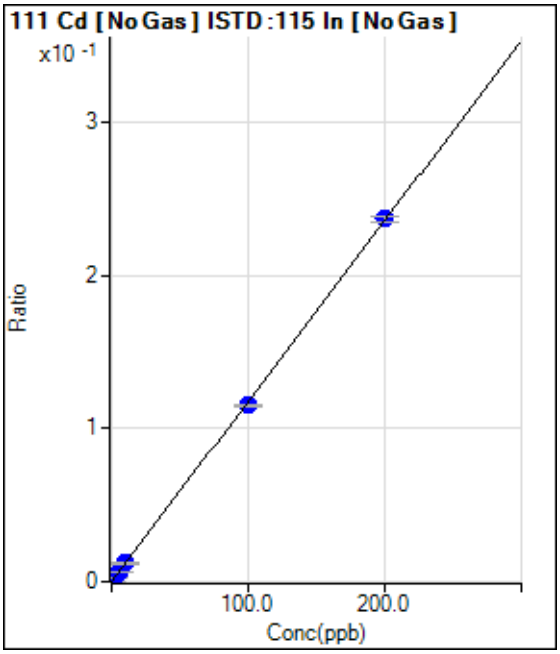
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	323.34	0.0001	P	20.8
2	☐	2.000	2.094	44612.09	0.0122	P	1.3
3	☐	5.000	5.157	109456.58	0.0298	P	2.4
4	☐	10.000	10.511	220304.74	0.0607	P	0.3
5	☐	100.000	99.899	2042426.22	0.5760	A	1.4
6	☐	200.000	200.020	3967919.00	1.1531	A	1.4

y = 0.0058 * x + 8.8344E-005
R = 1.0000
DL = 0.009572
BEC = 0.01533

Weight: <None>
Min Conc: <None>

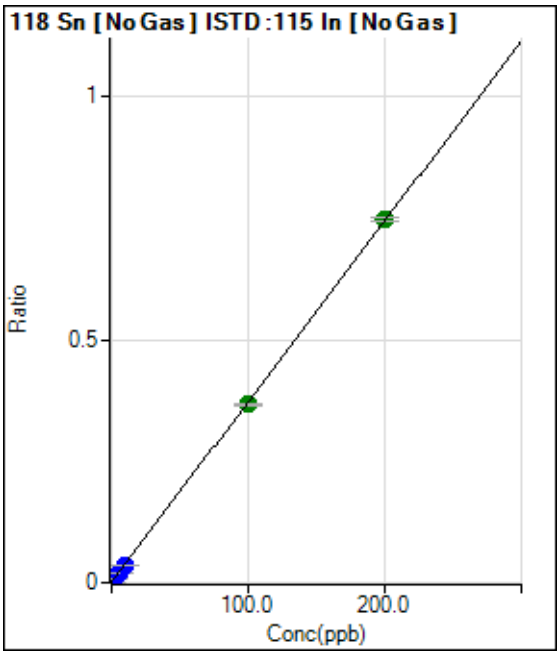


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	2.053	8866.46	0.0024	P	2.9
3	☐	5.000	5.077	21945.17	0.0060	P	3.4
4	☐	10.000	10.143	43334.72	0.0119	P	1.2
5	☐	100.000	97.835	408236.71	0.1151	P	1.0
6	☐	200.000	201.073	814147.51	0.2366	P	1.3

y = 0.0012 * x + 1.8186E-006
R = 0.9999
DL = 0.004016
BEC = 0.001546

Weight: <None>
Min Conc: <None>

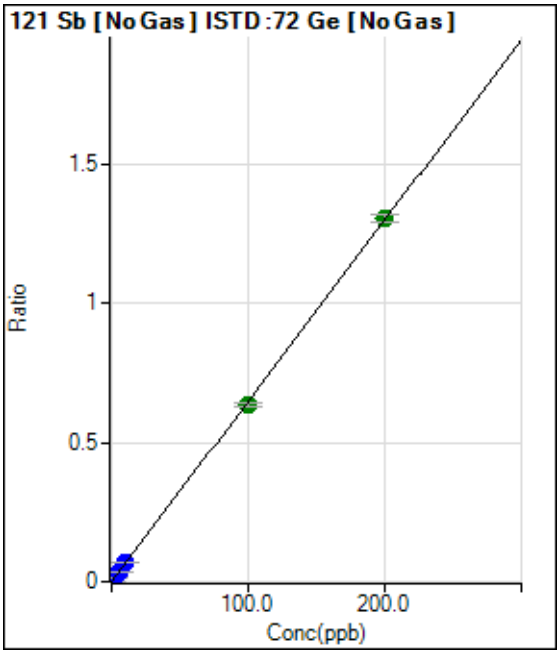
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3730.61	0.0010	P	1.2
2	☐	2.000	1.997	30954.98	0.0084	P	6.0
3	☐	5.000	4.758	68629.42	0.0187	P	2.2
4	☐	10.000	9.736	135022.27	0.0372	P	0.3
5	☐	100.000	98.409	1300315.89	0.3666	A	0.8
6	☐	200.000	200.815	2570793.14	0.7471	A	1.0

y = 0.0037 * x + 0.0010
R = 1.0000
DL = 0.009774
BEC = 0.2743

Weight: <None>
Min Conc: <None>

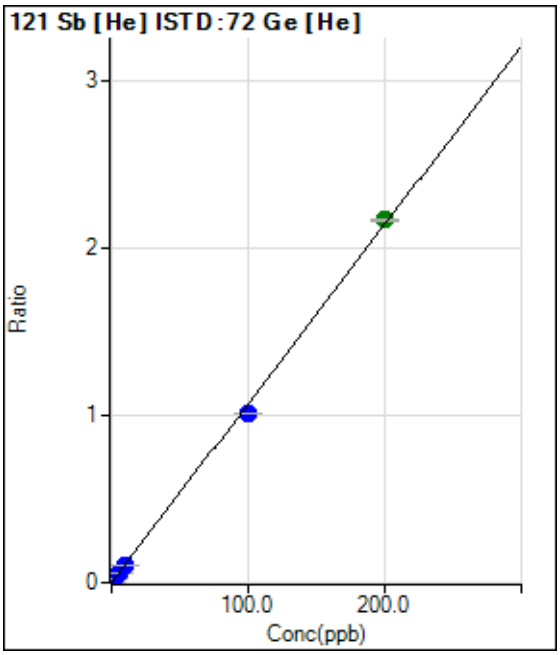


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2343.58	0.0008	P	3.2
2	☐	2.000	1.956	38948.13	0.0135	P	0.8
3	☐	5.000	4.976	94341.02	0.0331	P	0.7
4	☐	10.000	10.089	187306.30	0.0663	P	1.0
5	☐	100.000	98.068	1772741.59	0.6369	A	2.2
6	☐	200.000	200.963	3539095.99	1.3042	A	2.2

y = 0.0065 * x + 8.1845E-004
R = 0.9999
DL = 0.01225
BEC = 0.1262

Weight: <None>
Min Conc: <None>

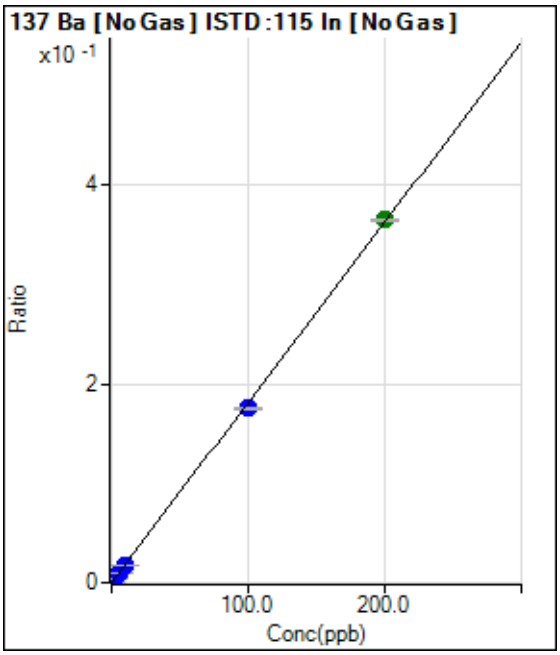
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1176.74	0.0014	P	5.5
2	☐	2.000	1.921	18303.04	0.0219	P	5.3
3	☐	5.000	4.920	44753.38	0.0540	P	3.2
4	☐	10.000	9.833	87561.34	0.1065	P	1.3
5	☐	100.000	94.470	827493.97	1.0107	P	1.0
6	☐	200.000	202.776	1735567.58	2.1679	A	0.8

y = 0.0107 * x + 0.0014
R = 0.9995
DL = 0.02141
BEC = 0.1307

Weight: <None>
Min Conc: <None>

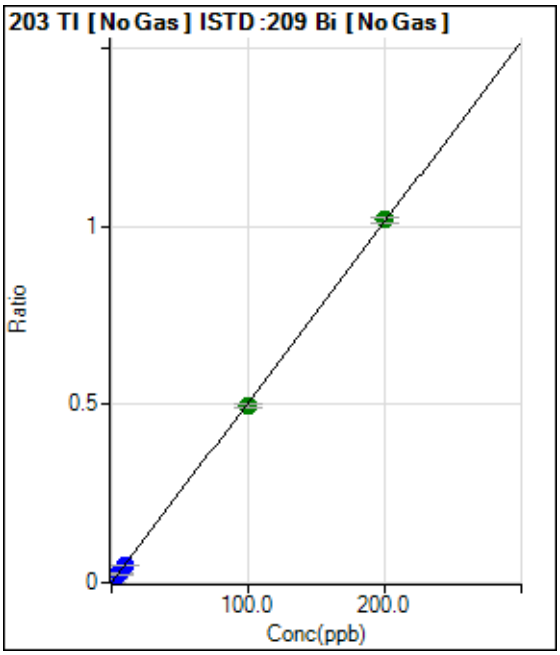


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	590.02	0.0002	P	21.0
2	☐	2.000	2.034	14111.24	0.0038	P	1.7
3	☐	5.000	4.831	32728.18	0.0089	P	1.0
4	☐	10.000	9.879	65575.66	0.0181	P	1.8
5	☐	100.000	97.054	624255.99	0.1760	P	1.1
6	☐	200.000	201.483	1256978.57	0.3653	A	0.6

y = 0.0018 * x + 1.6120E-004
R = 0.9998
DL = 0.05612
BEC = 0.08896

Weight: <None>
Min Conc: <None>

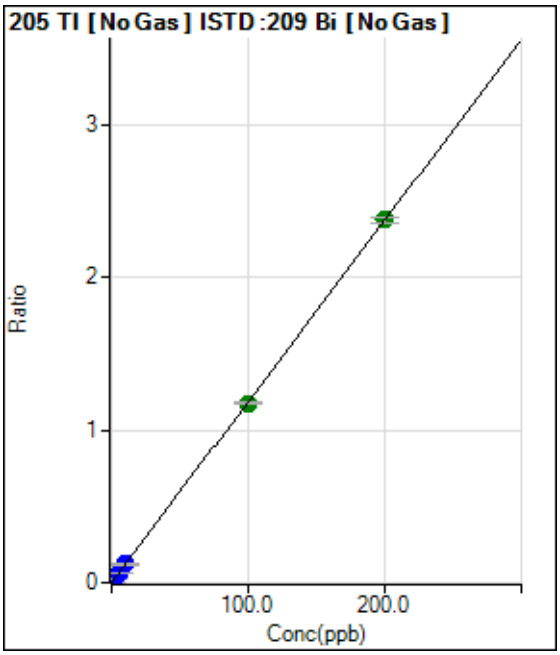
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	17.9
2	☐	2.000	1.907	35835.21	0.0097	P	3.6
3	☐	5.000	4.801	90876.08	0.0243	P	1.9
4	☐	10.000	9.865	185502.64	0.0500	P	2.6
5	☐	100.000	97.887	1811599.50	0.4956	A	1.4
6	☐	200.000	201.069	3616689.63	1.0179	A	1.9

y = 0.0051 * x + 4.5102E-005
R = 0.9999
DL = 0.004777
BEC = 0.008909

Weight: <None>
Min Conc: <None>

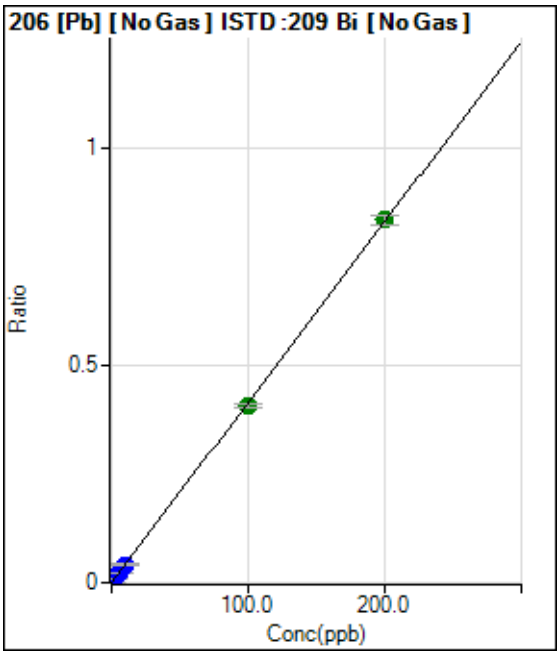


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	260.01	0.0001	P	12.5
2	☐	2.000	2.017	88606.78	0.0240	P	1.9
3	☐	5.000	4.922	217994.35	0.0584	P	2.3
4	☐	10.000	10.144	446419.28	0.1203	P	3.1
5	☐	100.000	99.179	4297520.35	1.1756	A	0.8
6	☐	200.000	200.405	8440127.16	2.3754	A	1.9

y = 0.0119 * x + 7.0316E-005
R = 1.0000
DL = 0.00222
BEC = 0.005932

Weight: <None>
Min Conc: <None>

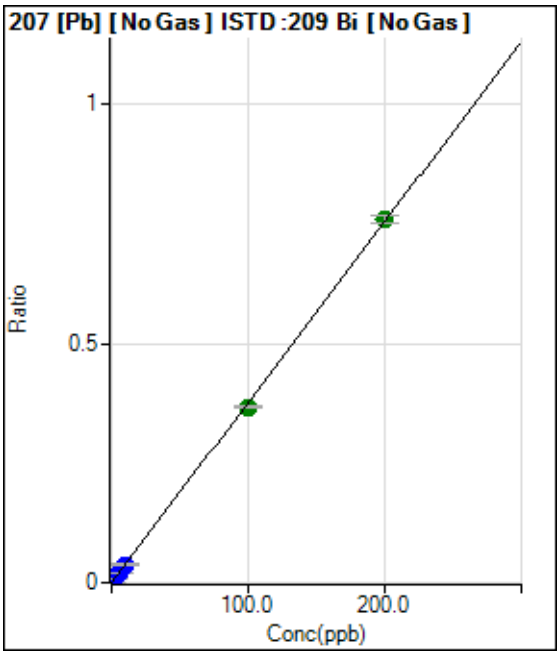
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	526.69	0.0001	P	9.8
2	☐	2.000	2.040	31757.32	0.0086	P	1.2
3	☐	5.000	4.956	77161.82	0.0207	P	2.0
4	☐	10.000	10.018	154525.73	0.0416	P	2.8
5	☐	100.000	97.799	1481401.96	0.4053	A	1.6
6	☐	200.000	201.100	2960114.75	0.8332	A	2.4

y = 0.0041 * x + 1.4248E-004
R = 0.9999
DL = 0.01008
BEC = 0.0344

Weight: <None>
Min Conc: <None>

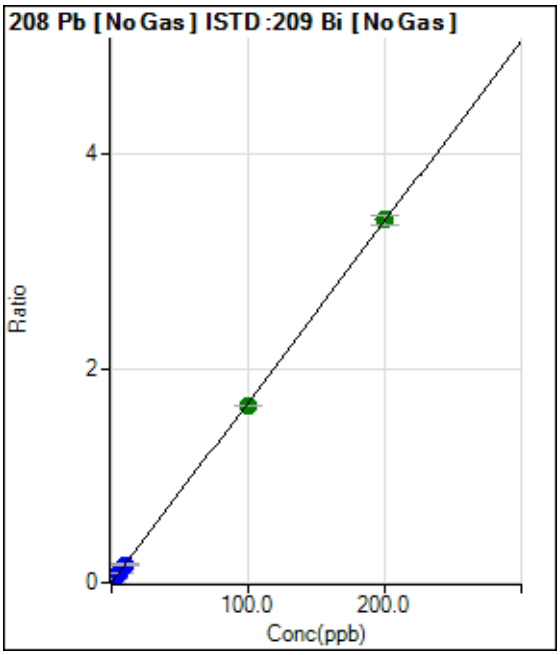


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	436.68	0.0001	P	6.6
2	☐	2.000	2.000	28255.66	0.0076	P	2.4
3	☐	5.000	4.892	69185.00	0.0185	P	0.9
4	☐	10.000	10.016	140320.94	0.0378	P	4.4
5	☐	100.000	97.465	1341611.80	0.3670	A	1.2
6	☐	200.000	201.269	2692274.75	0.7577	A	2.2

y = 0.0038 * x + 1.1829E-004
R = 0.9999
DL = 0.006249
BEC = 0.03143

Weight: <None>
Min Conc: <None>

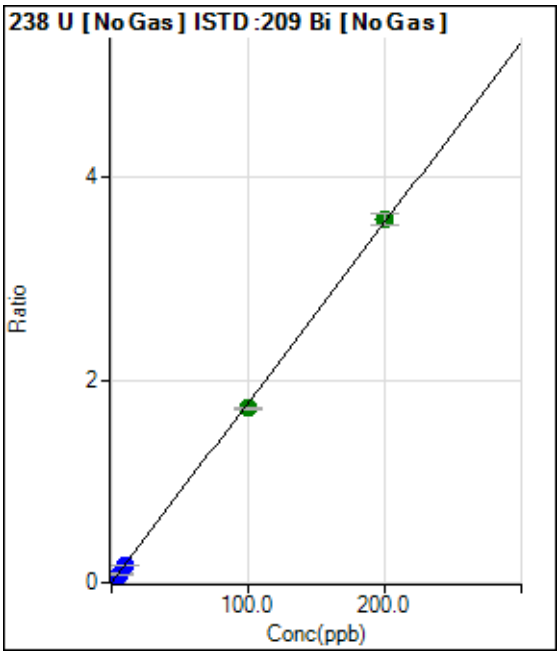
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1943.43	0.0005	P	10.7
2	☐	2.000	2.034	128631.93	0.0348	P	1.5
3	☐	5.000	4.902	310309.98	0.0831	P	1.5
4	☐	10.000	10.004	627595.85	0.1691	P	2.8
5	☐	100.000	98.081	6044327.26	1.6535	A	0.8
6	☐	200.000	200.962	12034742.53	3.3873	A	2.4

y = 0.0169 * x + 5.2615E-004
R = 0.9999
DL = 0.01
BEC = 0.03122

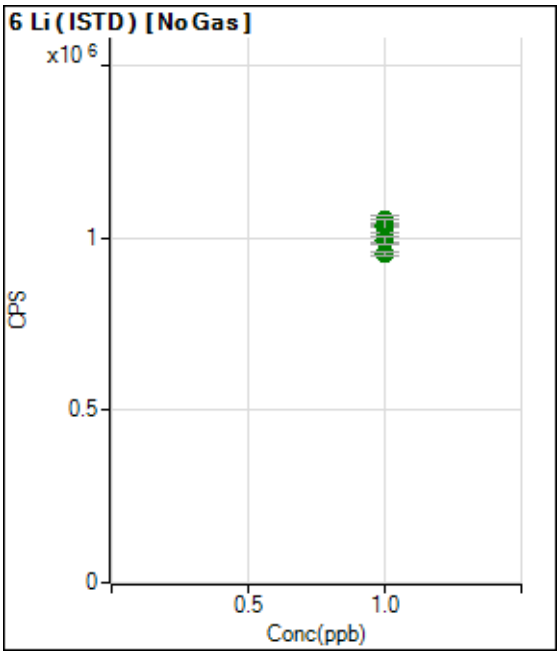
Weight: <None>
Min Conc: <None>



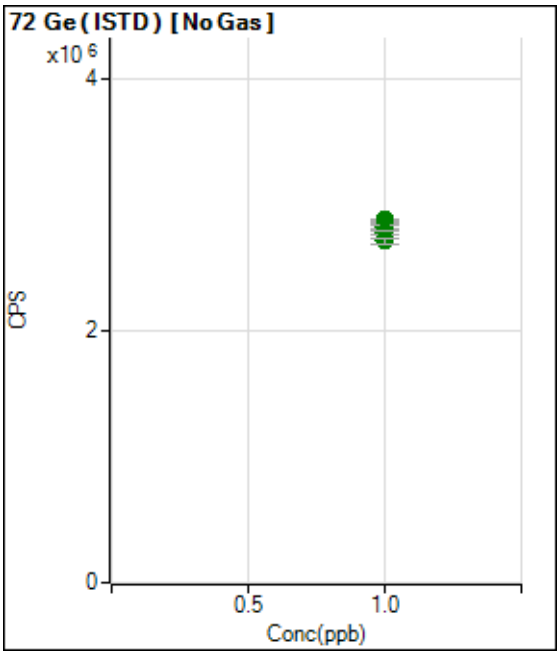
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	48.7
2	☐	2.000	1.950	128149.21	0.0347	P	1.2
3	☐	5.000	4.780	317306.34	0.0850	P	1.1
4	☐	10.000	9.770	644722.57	0.1737	P	1.8
5	☐	100.000	96.995	6304060.33	1.7245	A	0.9
6	☐	200.000	201.520	12728705.23	3.5829	A	3.0

y = 0.0178 * x + 1.2581E-005
R = 0.9998
DL = 0.001035
BEC = 0.0007076

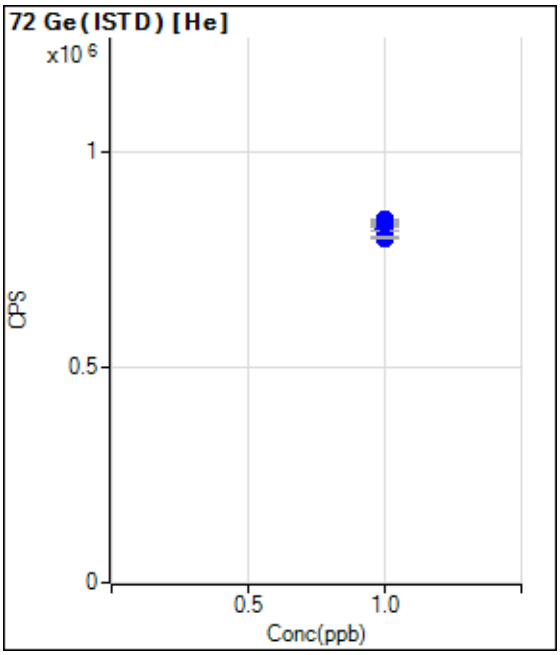
Weight: <None>
Min Conc: <None>



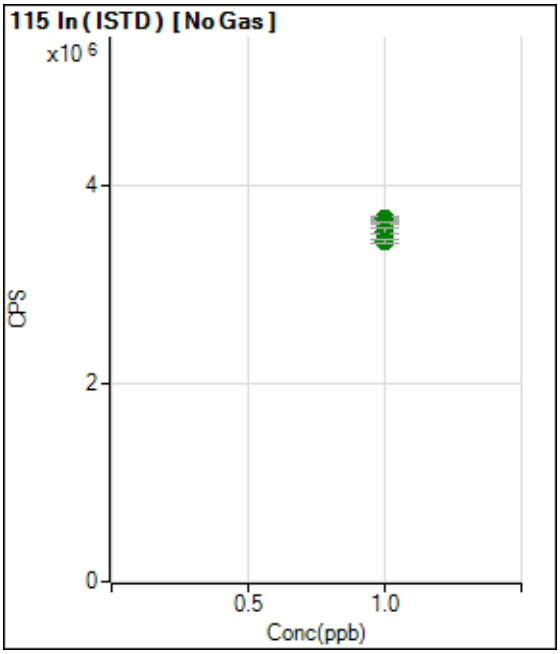
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1051870.23		A	2.6
2	☐	1.000		1037136.66		A	1.5
3	☐	1.000		1033121.52		A	3.6
4	☐	1.000		1001849.52		A	3.1
5	☐	1.000		992073.72		A	2.1
6	☐	1.000		953530.32		A	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2863232.04		A	1.0
2	☐	1.000		2883934.44		A	0.3
3	☐	1.000		2850944.44		A	0.1
4	☐	1.000		2827283.19		A	1.4
5	☐	1.000		2783725.69		A	0.7
6	☐	1.000		2714285.48		A	2.1

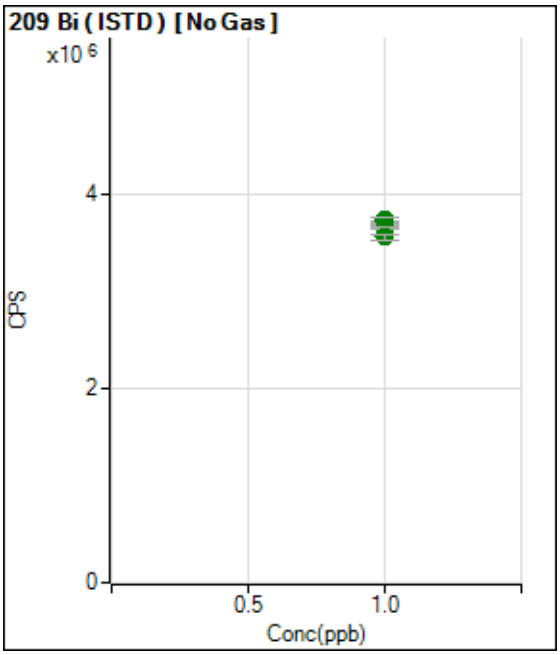


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		843078.01		P	0.4
2	☐	1.000		835187.83		P	0.5
3	☐	1.000		829507.30		P	0.9
4	☐	1.000		822490.77		P	0.9
5	☐	1.000		818695.04		P	0.2
6	☐	1.000		800595.25		P	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3661099.80		A	0.4
2	☐	1.000		3668720.22		A	1.3
3	☐	1.000		3671599.13		A	1.3
4	☐	1.000		3630609.11		A	0.4
5	☐	1.000		3546483.86		A	1.4
6	☐	1.000		3441296.34		A	0.9

Calibration for 250_ICV.d



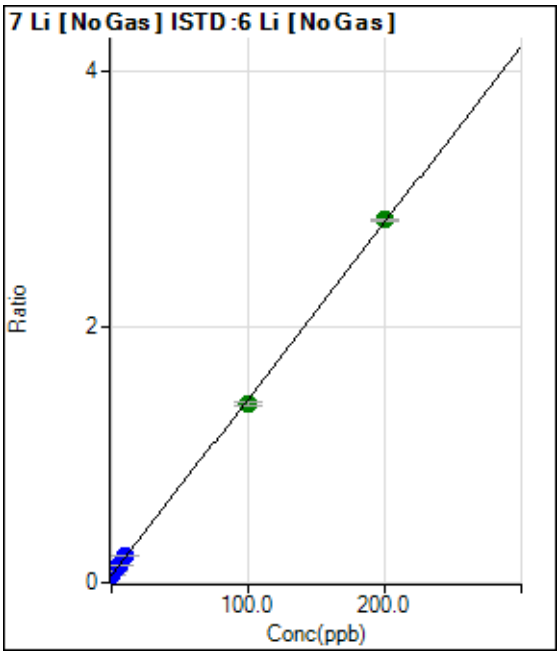
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3693234.01		A	1.5
2	☐	1.000		3695465.15		A	0.5
3	☐	1.000		3733095.36		A	1.2
4	☐	1.000		3712445.05		A	2.3
5	☐	1.000		3655626.09		A	0.3
6	☐	1.000		3553936.62		A	1.9

Calibration for 197_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	190CALB.d	CAL BLK	6/7/2021 9:42:35 PM
2	191CALS.d	2/10/200	6/7/2021 9:44:34 PM
3	192CALS.d	5/25/500	6/7/2021 9:46:34 PM
4	193CALS.d	10/50/100	6/7/2021 9:48:33 PM
5	194CALS.d	100/500/10K	6/7/2021 9:50:32 PM
6	195CALS.d	200/1000/20K	6/7/2021 9:52:25 PM

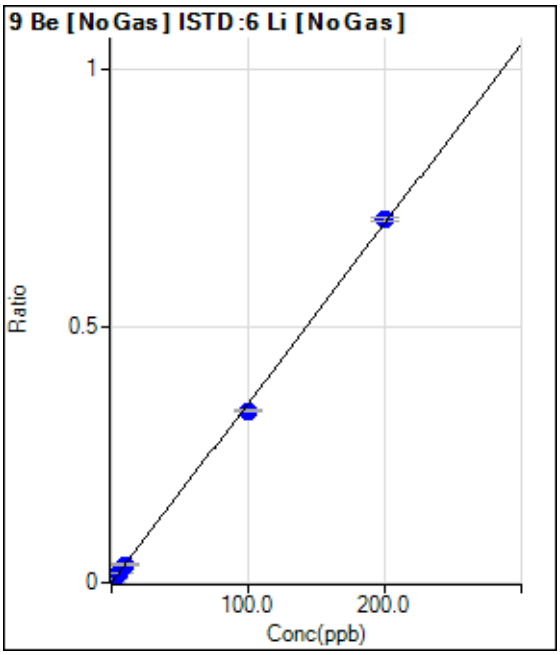
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56611.60	0.0583	P	3.2
2	☐	2.000	2.148	86235.25	0.0879	P	1.7
3	☐	5.000	5.320	129875.86	0.1317	P	2.0
4	☐	10.000	10.909	201028.84	0.2089	P	4.2
5	☐	100.000	96.848	1361698.42	1.3960	A	2.5
6	☐	200.000	201.521	2578738.24	2.8418	A	0.6

y = 0.0138 * x + 0.0583
R = 0.9998
DL = 0.4056
BEC = 4.218

Weight: <None>
Min Conc: <None>

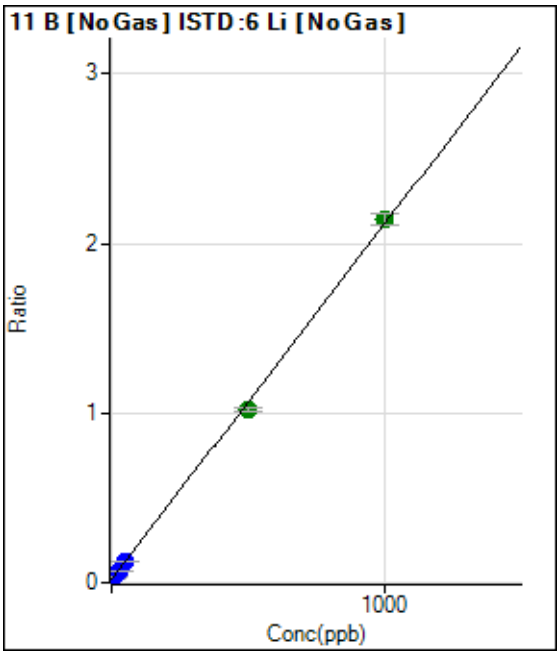


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.67	0.0000	P	64.8
2	☐	2.000	2.015	6931.77	0.0071	P	1.2
3	☐	5.000	5.050	17447.60	0.0177	P	0.8
4	☐	10.000	10.094	33999.41	0.0353	P	5.3
5	☐	100.000	95.721	326905.09	0.3351	P	1.4
6	☐	200.000	202.133	642102.11	0.7076	P	1.0

y = 0.0035 * x + 1.2001E-005
R = 0.9997
DL = 0.006669
BEC = 0.003428

Weight: <None>
Min Conc: <None>

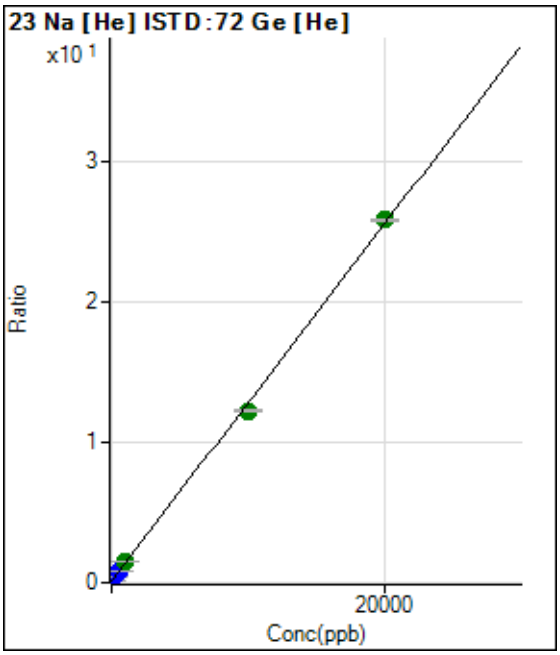
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17854.75	0.0184	P	0.9
2	☐	10.000	9.533	37610.27	0.0383	P	0.9
3	☐	25.000	24.082	67858.02	0.0688	P	2.8
4	☐	50.000	51.342	121174.30	0.1260	P	5.1
5	☐	500.000	476.970	993049.72	1.0180	A	1.9
6	☐	1000.000	1011.475	1939879.03	2.1382	A	3.2

y = 0.0021 * x + 0.0184
R = 0.9996
DL = 0.2275
BEC = 8.765

Weight: <None>
Min Conc: <None>

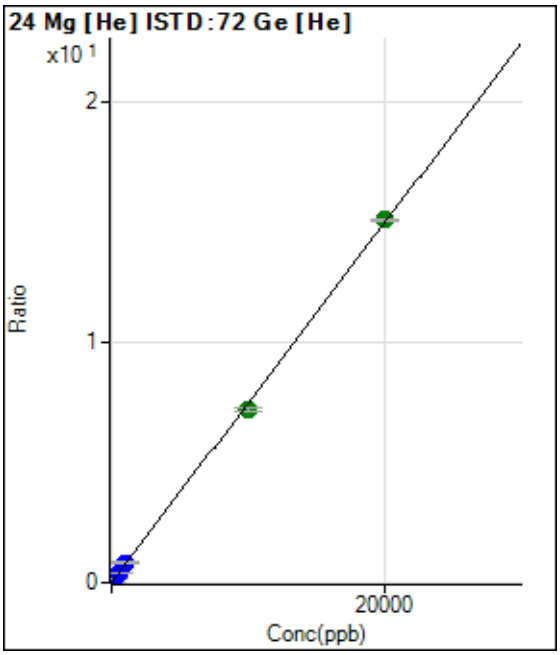


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81101.37	0.1028	P	0.6
2	☐	200.000	219.974	303481.23	0.3826	P	0.9
3	☐	500.000	536.607	624973.05	0.7855	P	0.3
4	☐	1000.000	1072.078	1161468.34	1.4667	A	1.1
5	☐	10000.00	9534.963	9714023.61	12.2332	A	1.4
6	☐	20000.00	20227.80	19823938.87	25.8367	A	0.6

y = 0.0013 * x + 0.1028
R = 0.9996
DL = 1.343
BEC = 80.79

Weight: <None>
Min Conc: <None>

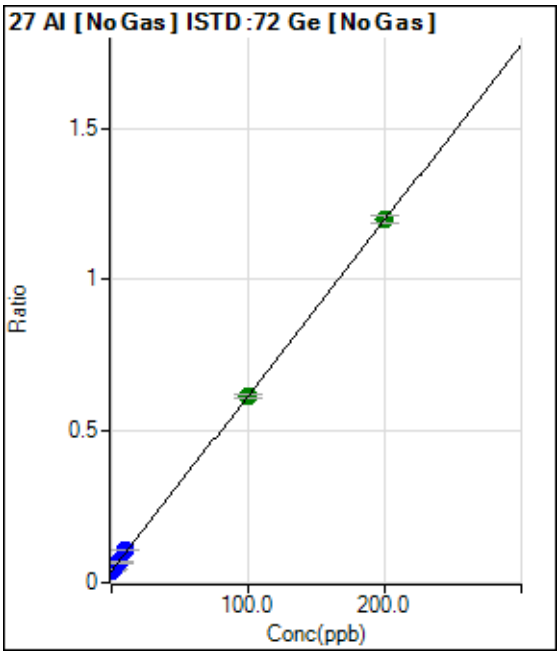
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1643.46	0.0021	P	2.8
2	☐	200.000	227.221	136580.37	0.1722	P	0.8
3	☐	500.000	555.516	332588.78	0.4180	P	1.0
4	☐	1000.000	1116.120	663349.76	0.8377	P	1.3
5	☐	10000.00	9638.039	5731599.50	7.2178	A	1.7
6	☐	20000.00	20173.51	11590235.66	15.1055	A	0.6

y = 7.4867E-004 * x + 0.0021
R = 0.9997
DL = 0.2298
BEC = 2.782

Weight: <None>
Min Conc: <None>

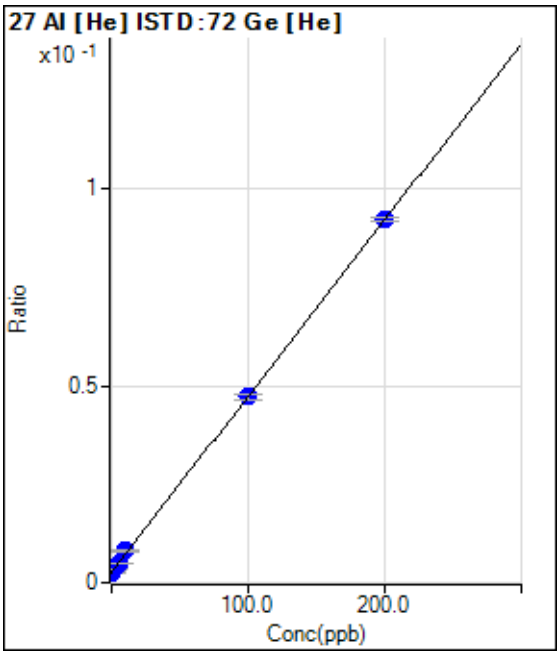


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104749.54	0.0387	P	1.1
2	☐	2.000	1.267	125387.40	0.0460	P	2.0
3	☐	5.000	4.949	180381.61	0.0673	P	2.5
4	☐	10.000	11.701	284973.47	0.1064	P	2.2
5	☐	100.000	99.477	1657909.71	0.6147	A	2.2
6	☐	200.000	200.185	3141579.33	1.1978	A	2.2

y = 0.0058 * x + 0.0387
R = 0.9999
DL = 0.2124
BEC = 6.68

Weight: <None>
Min Conc: <None>

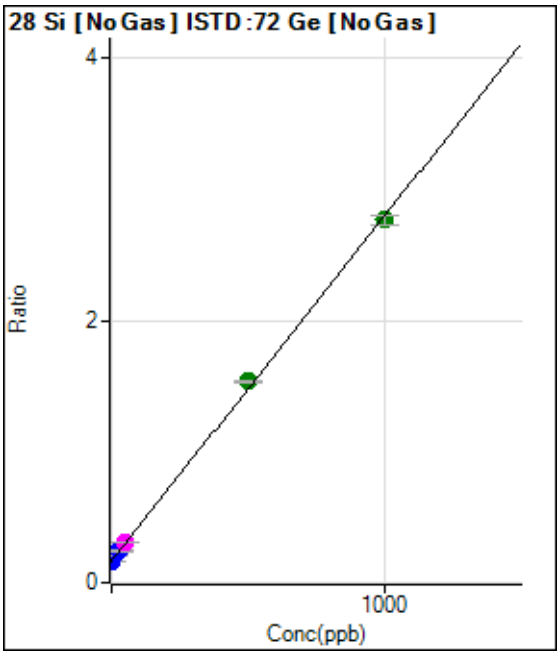
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2093.54	0.0027	P	17.4
2	☐	2.000	2.207	2887.02	0.0036	P	7.1
3	☐	5.000	5.165	3947.31	0.0050	P	1.4
4	☐	10.000	12.301	6451.60	0.0081	P	4.6
5	☐	100.000	99.490	37407.34	0.0471	P	2.3
6	☐	200.000	200.134	70652.45	0.0921	P	1.0

y = 4.4682E-004 * x + 0.0027
R = 0.9999
DL = 3.104
BEC = 5.938

Weight: <None>
Min Conc: <None>

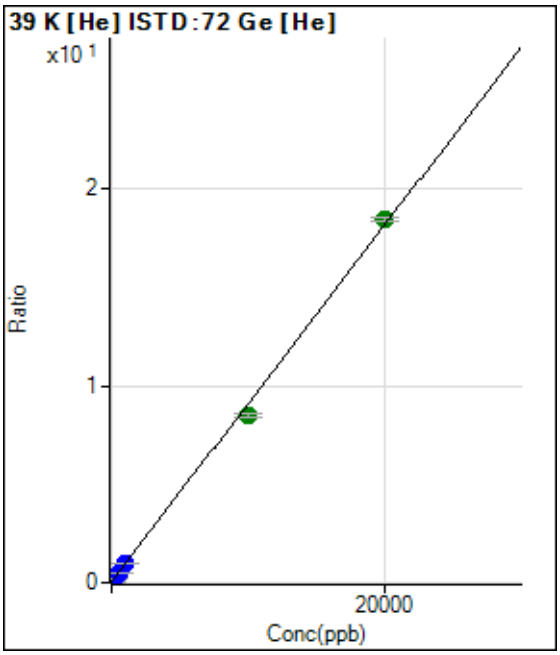


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	447886.92	0.1654	P	2.2
2	☐	10.000	15.534	561964.64	0.2062	P	2.4
3	☐	25.000	29.545	651212.06	0.2431	P	2.3
4	☐	50.000	55.160	831212.31	0.3104	M	2.6
5	☐	500.000	521.457	4145005.98	1.5366	A	1.1
6	☐	1000.000	988.844	7253784.48	2.7656	A	2.5

y = 0.0026 * x + 0.1654
R = 0.9997
DL = 4.116
BEC = 62.9

Weight: <None>
Min Conc: <None>

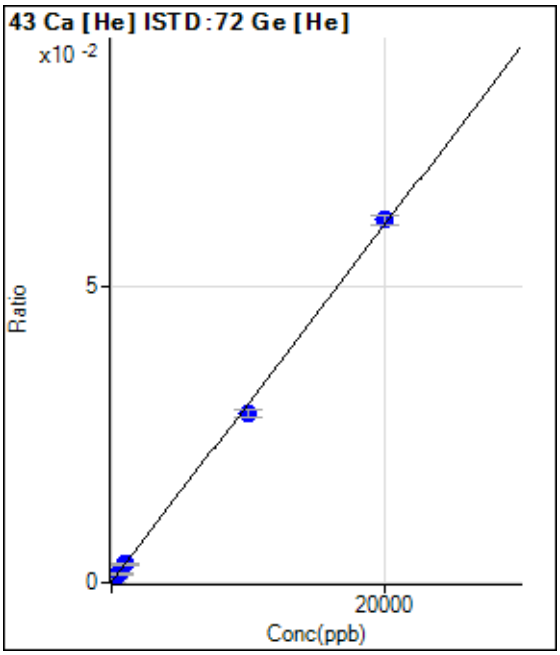
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38269.87	0.0485	P	2.8
2	☐	200.000	214.834	192538.77	0.2428	P	1.5
3	☐	500.000	522.689	414639.31	0.5211	P	1.6
4	☐	1000.000	1058.274	796174.28	1.0054	P	1.3
5	☐	10000.00	9382.359	6774967.40	8.5323	A	2.3
6	☐	20000.00	20305.19	14124221.87	18.4090	A	1.0

y = 9.0423E-004 * x + 0.0485
R = 0.9993
DL = 4.518
BEC = 53.63

Weight: <None>
Min Conc: <None>

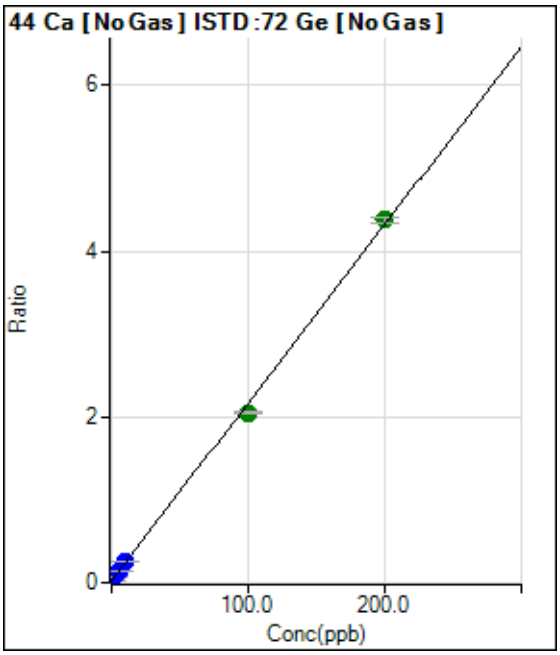


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	25.0
2	☐	200.000	191.044	536.69	0.0007	P	16.5
3	☐	500.000	454.242	1170.07	0.0015	P	7.2
4	☐	1000.000	999.053	2463.61	0.0031	P	6.0
5	☐	10000.00	9424.838	22628.90	0.0285	P	3.9
6	☐	20000.00	20288.86	46983.85	0.0612	P	2.4

y = 3.0134E-006 * x + 1.0138E-004
R = 0.9994
DL = 25.25
BEC = 33.64

Weight: <None>
Min Conc: <None>

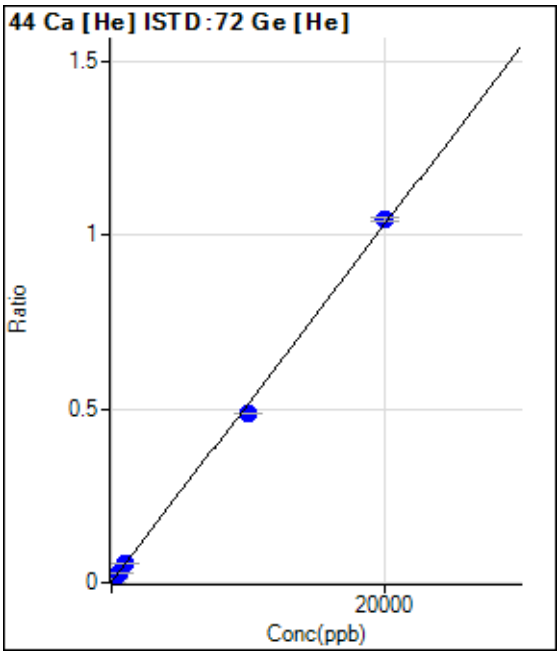
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59287.67	0.0219	P	2.8
2	☐	2.000	2.055	179926.79	0.0660	P	1.5
3	☐	5.000	5.364	367243.64	0.1371	P	2.1
4	☐	10.000	10.795	679312.10	0.2537	P	1.9
5	☐	100.000	94.266	5519235.75	2.0461	A	1.2
6	☐	200.000	202.817	11481061.50	4.3770	A	1.5

y = 0.0215 * x + 0.0219
R = 0.9994
DL = 0.085
BEC = 1.02

Weight: <None>
Min Conc: <None>

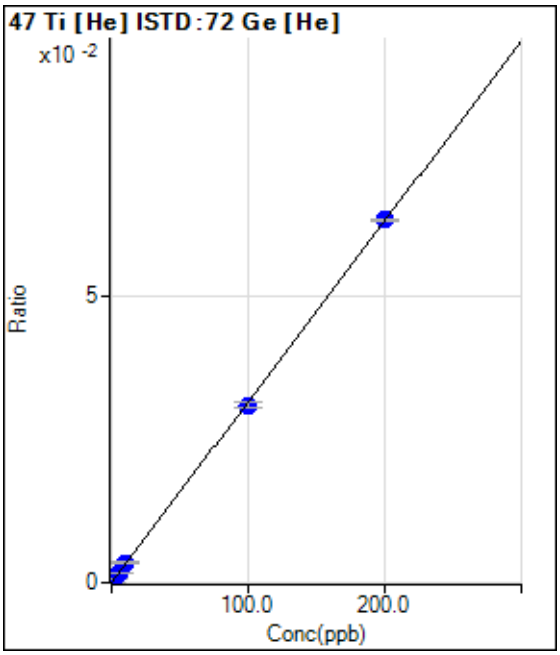


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1306.75	0.0017	P	3.1
2	☐	200.000	199.724	9450.10	0.0119	P	2.8
3	☐	500.000	505.803	21987.85	0.0276	P	1.7
4	☐	1000.000	1035.663	43425.52	0.0548	P	2.6
5	☐	10000.00	9443.055	386425.92	0.4866	P	1.0
6	☐	20000.00	20276.54	800216.55	1.0430	P	1.1

y = 5.1356E-005 * x + 0.0017
R = 0.9994
DL = 3.014
BEC = 32.25

Weight: <None>
Min Conc: <None>

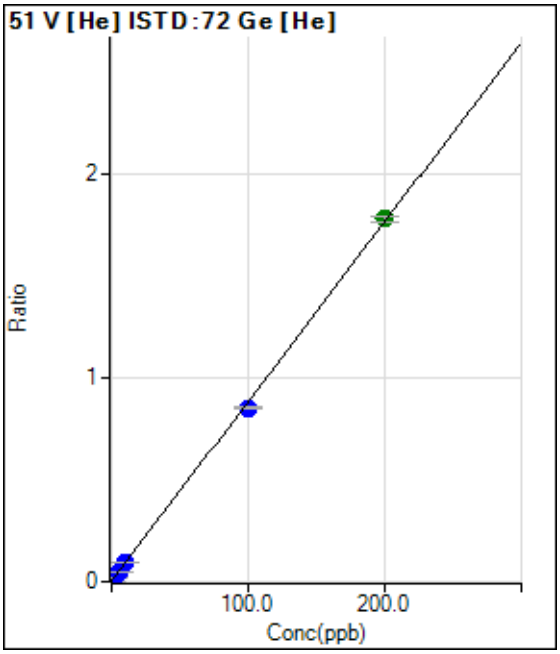
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.7
2	☐	2.000	1.853	480.02	0.0006	P	5.0
3	☐	5.000	5.477	1390.10	0.0017	P	8.3
4	☐	10.000	10.877	2730.32	0.0034	P	4.6
5	☐	100.000	98.279	24602.36	0.0310	P	3.8
6	☐	200.000	200.806	48559.31	0.0633	P	0.2

y = 3.1506E-004 * x + 2.1121E-005
R = 0.9999
DL = 0.1843
BEC = 0.06704

Weight: <None>
Min Conc: <None>

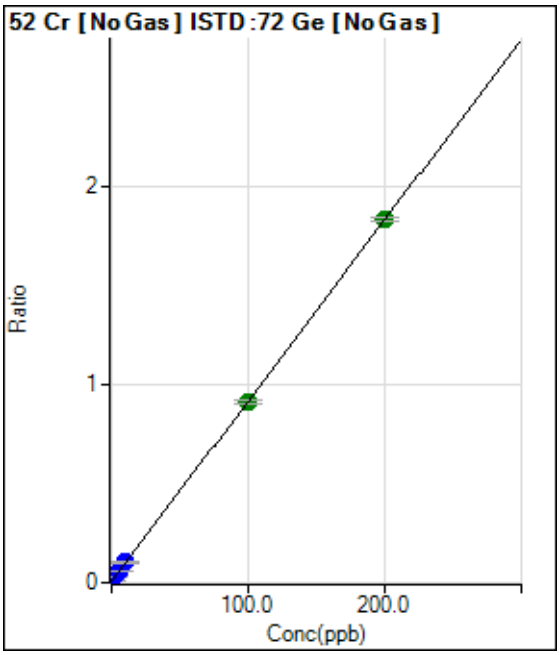


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2556.92	0.0032	P	3.3
2	☐	2.000	2.040	16803.68	0.0212	P	0.9
3	☐	5.000	4.949	37224.86	0.0468	P	1.1
4	☐	10.000	10.120	73066.65	0.0923	P	2.1
5	☐	100.000	96.427	676253.10	0.8516	P	1.0
6	☐	200.000	201.781	1364758.66	1.7785	A	1.5

y = 0.0088 * x + 0.0032
R = 0.9998
DL = 0.03622
BEC = 0.3683

Weight: <None>
Min Conc: <None>

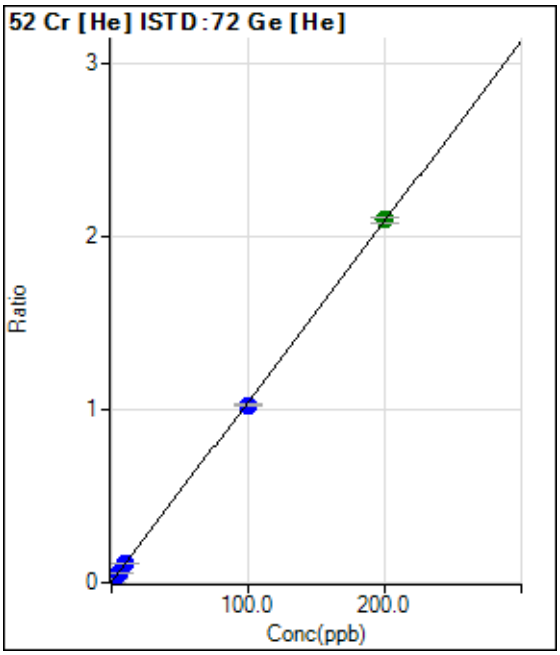
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16550.26	0.0061	P	2.9
2	☐	2.000	2.138	69767.63	0.0256	P	2.0
3	☐	5.000	5.300	145827.21	0.0544	P	2.4
4	☐	10.000	10.630	275878.18	0.1030	P	2.2
5	☐	100.000	99.403	2461146.47	0.9124	A	2.1
6	☐	200.000	200.258	4805858.26	1.8320	A	0.9

y = 0.0091 * x + 0.0061
R = 1.0000
DL = 0.05828
BEC = 0.6702

Weight: <None>
Min Conc: <None>

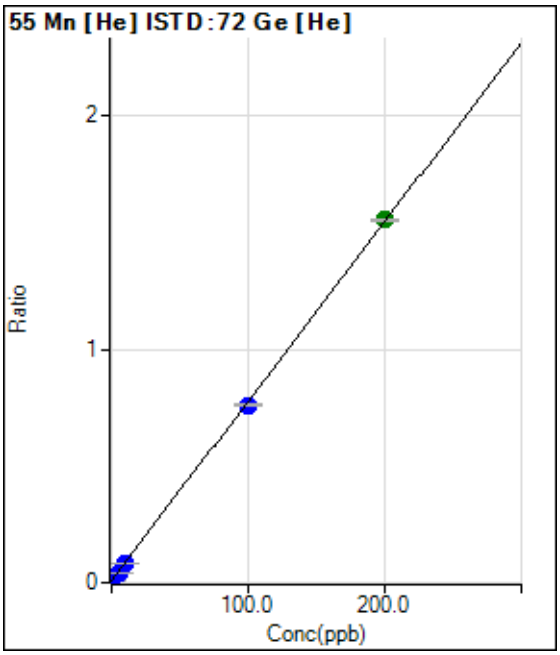


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1713.47	0.0022	P	4.7
2	☐	2.000	2.091	19003.50	0.0240	P	3.2
3	☐	5.000	5.140	44332.09	0.0557	P	2.7
4	☐	10.000	10.210	85951.91	0.1085	P	2.2
5	☐	100.000	98.194	814102.04	1.0252	P	1.2
6	☐	200.000	200.888	1607738.00	2.0951	A	1.7

y = 0.0104 * x + 0.0022
R = 0.9999
DL = 0.02948
BEC = 0.2084

Weight: <None>
Min Conc: <None>

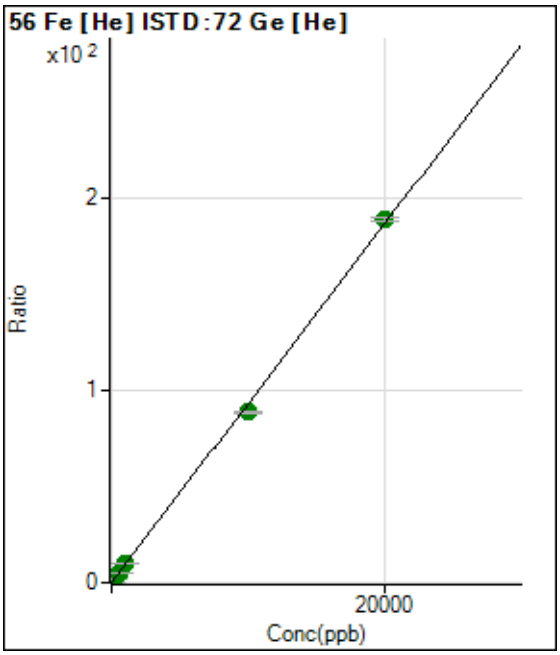
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7442.14	0.0094	P	3.7
2	☐	2.000	1.918	19160.36	0.0242	P	2.7
3	☐	5.000	4.443	34651.03	0.0435	P	1.1
4	☐	10.000	9.188	63339.75	0.0800	P	1.1
5	☐	100.000	97.737	603465.11	0.7600	P	1.6
6	☐	200.000	201.187	1192679.72	1.5544	A	0.8

y = 0.0077 * x + 0.0094
R = 0.9999
DL = 0.1381
BEC = 1.228

Weight: <None>
Min Conc: <None>

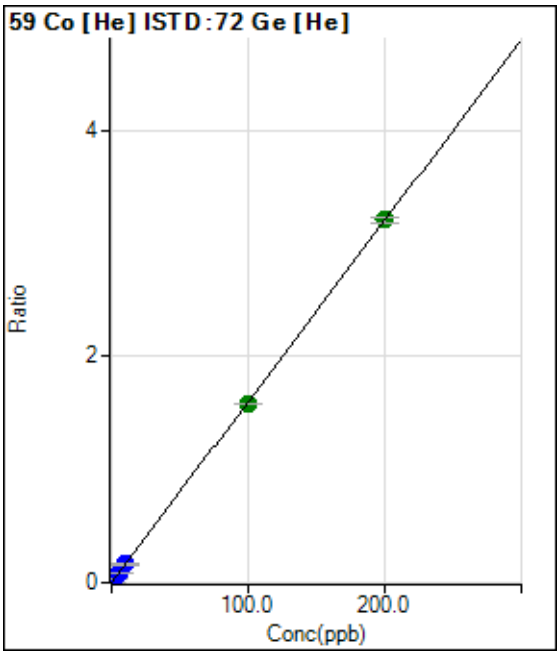


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21113.39	0.0268	P	1.6
2	☐	200.000	219.940	1648832.84	2.0787	A	0.8
3	☐	500.000	530.658	3960702.54	4.9776	A	0.6
4	☐	1000.000	1050.095	7778774.26	9.8238	A	2.1
5	☐	10000.00	9523.129	70573377.28	88.8741	A	1.3
6	☐	20000.00	20234.96	144879694.5	188.811	A	1.1

y = 0.0093 * x + 0.0268
R = 0.9996
DL = 0.1355
BEC = 2.868

Weight: <None>
Min Conc: <None>

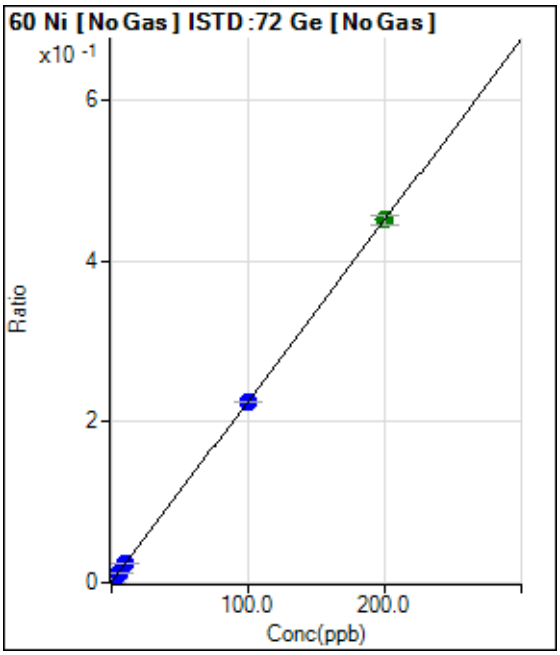
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0001	P	12.4
2	☐	2.000	2.052	26075.22	0.0329	P	1.5
3	☐	5.000	5.056	64395.59	0.0809	P	1.6
4	☐	10.000	10.128	128312.60	0.1620	P	2.1
5	☐	100.000	99.028	1257785.01	1.5839	A	0.5
6	☐	200.000	200.478	2460316.37	3.2064	A	1.6

y = 0.0160 * x + 5.9139E-005
R = 1.0000
DL = 0.001372
BEC = 0.003698

Weight: <None>
Min Conc: <None>

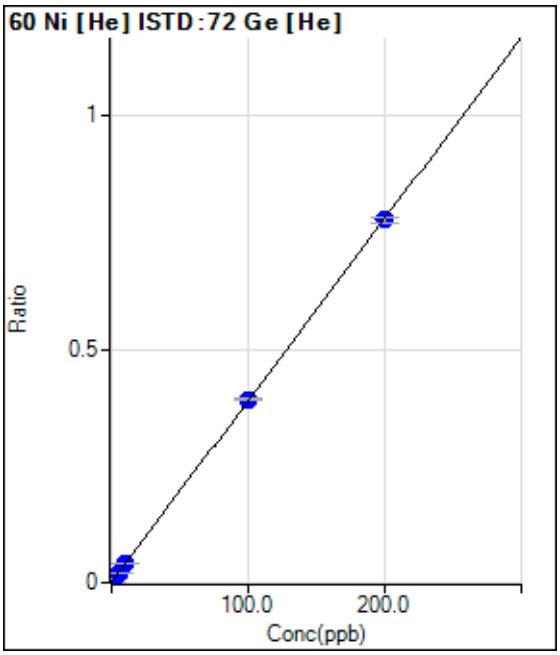


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1670.13	0.0006	P	6.0
2	☐	2.000	2.034	14150.89	0.0052	P	4.3
3	☐	5.000	5.085	32318.61	0.0121	P	1.1
4	☐	10.000	10.539	65169.16	0.0243	P	1.2
5	☐	100.000	99.604	606397.43	0.2248	P	1.0
6	☐	200.000	200.168	1183259.64	0.4511	A	2.4

y = 0.0023 * x + 6.1631E-004
R = 1.0000
DL = 0.04925
BEC = 0.2738

Weight: <None>
Min Conc: <None>

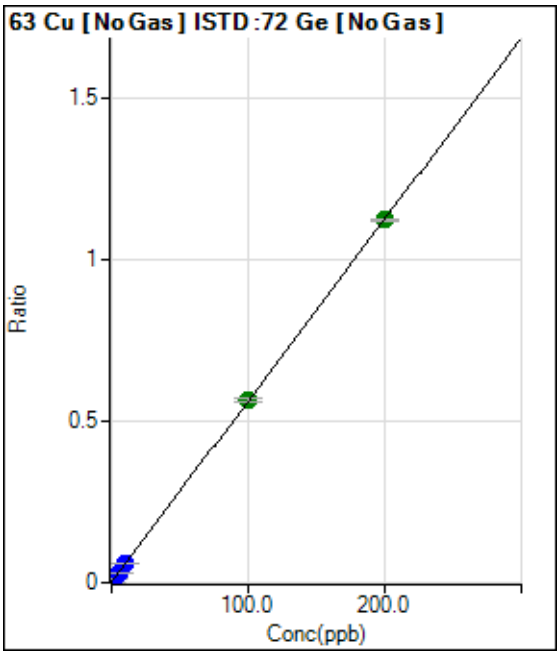
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	793.38	0.0010	P	23.1
2	☐	2.000	2.209	7608.90	0.0096	P	3.7
3	☐	5.000	5.185	16837.33	0.0212	P	5.1
4	☐	10.000	10.736	33845.62	0.0427	P	1.5
5	☐	100.000	100.864	312171.84	0.3931	P	0.5
6	☐	200.000	199.524	595881.97	0.7766	P	1.3

y = 0.0039 * x + 0.0010
R = 1.0000
DL = 0.1792
BEC = 0.2586

Weight: <None>
Min Conc: <None>

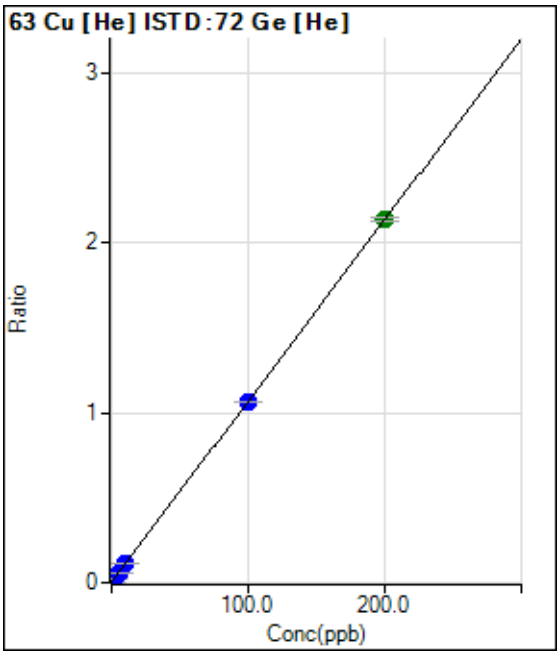


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3217.11	0.0012	P	4.6
2	☐	2.000	2.110	35520.14	0.0130	P	4.1
3	☐	5.000	5.298	82881.74	0.0309	P	3.1
4	☐	10.000	10.651	163348.54	0.0610	P	2.1
5	☐	100.000	100.364	1523837.32	0.5648	A	1.6
6	☐	200.000	199.777	2946485.89	1.1231	A	0.7

y = 0.0056 * x + 0.0012
R = 1.0000
DL = 0.02903
BEC = 0.2115

Weight: <None>
Min Conc: <None>

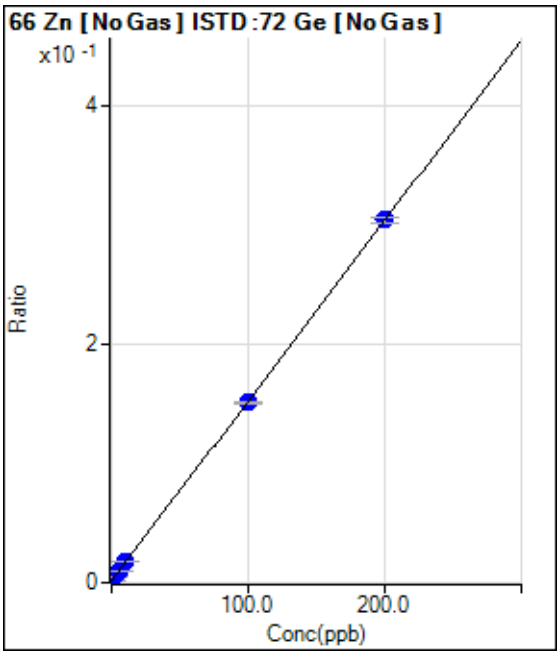
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1623.46	0.0021	P	7.8
2	☐	2.000	2.135	19681.15	0.0248	P	2.8
3	☐	5.000	5.267	46319.33	0.0582	P	1.5
4	☐	10.000	10.368	89178.32	0.1126	P	0.5
5	☐	100.000	99.776	846412.23	1.0658	P	0.4
6	☐	200.000	200.086	1638315.76	2.1353	A	1.0

y = 0.0107 * x + 0.0021
R = 1.0000
DL = 0.04498
BEC = 0.193

Weight: <None>
Min Conc: <None>

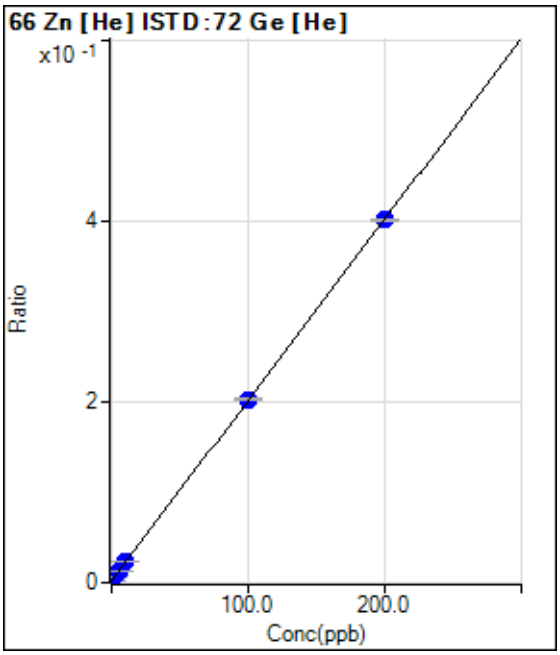


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3787.26	0.0014	P	5.8
2	☐	2.000	2.626	14638.11	0.0054	P	3.8
3	☐	5.000	5.298	25233.72	0.0094	P	0.6
4	☐	10.000	10.783	47432.77	0.0177	P	2.7
5	☐	100.000	99.078	408194.88	0.1513	P	1.7
6	☐	200.000	200.408	799158.27	0.3047	P	1.7

y = 0.0015 * x + 0.0014
R = 1.0000
DL = 0.1621
BEC = 0.9242

Weight: <None>
Min Conc: <None>

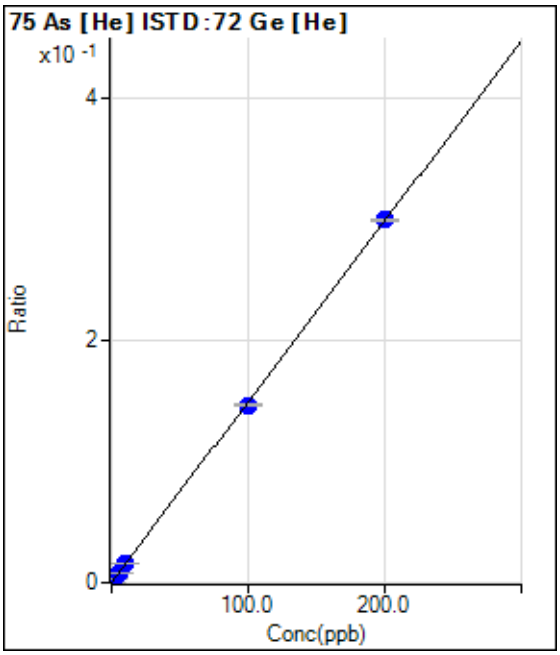
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1606.79	0.0020	P	9.8
2	☐	2.000	2.551	5657.94	0.0071	P	6.8
3	☐	5.000	5.223	9927.15	0.0125	P	3.6
4	☐	10.000	10.700	18549.73	0.0234	P	1.6
5	☐	100.000	100.475	161095.08	0.2029	P	1.8
6	☐	200.000	199.716	307881.75	0.4013	P	0.3

y = 0.0020 * x + 0.0020
R = 1.0000
DL = 0.2982
BEC = 1.019

Weight: <None>
Min Conc: <None>

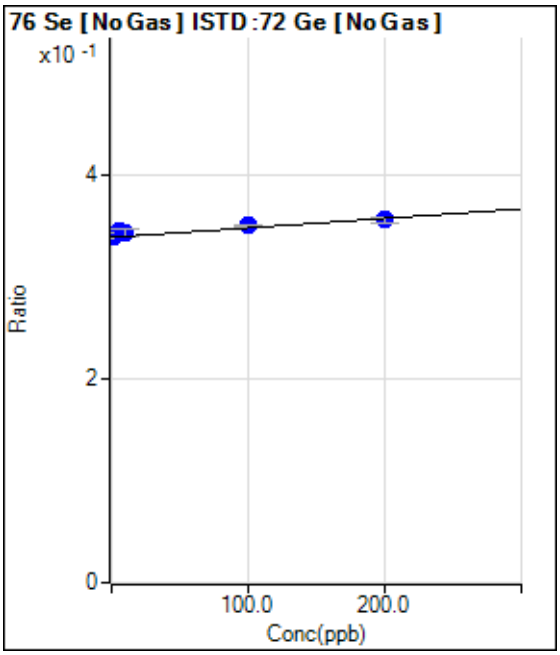


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.34	0.0002	P	5.1
2	☐	2.000	2.101	2660.28	0.0034	P	1.4
3	☐	5.000	4.910	6003.59	0.0075	P	1.9
4	☐	10.000	10.418	12485.82	0.0158	P	1.8
5	☐	100.000	98.320	116658.18	0.1469	P	1.2
6	☐	200.000	200.820	230052.05	0.2998	P	0.6

y = 0.0015 * x + 2.1966E-004
R = 0.9999
DL = 0.02242
BEC = 0.1472

Weight: <None>
Min Conc: <None>

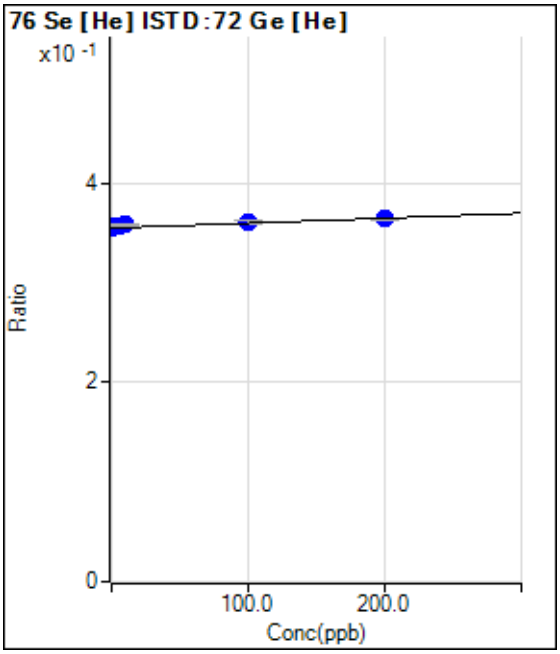
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	917081.36	0.3386	P	1.3
2	☐	2.000	2.554	923452.23	0.3389	P	1.3
3	☐	5.000	71.522	925231.50	0.3453	P	0.9
4	☐	10.000	55.110	920428.21	0.3438	P	2.2
5	☐	100.000	125.045	944916.73	0.3503	P	0.7
6	☐	200.000	183.554	933074.13	0.3557	P	1.5

y = 9.3105E-005 * x + 0.3386
R = 0.9246
DL = 143.2
BEC = 3637

Weight: <None>
Min Conc: <None>

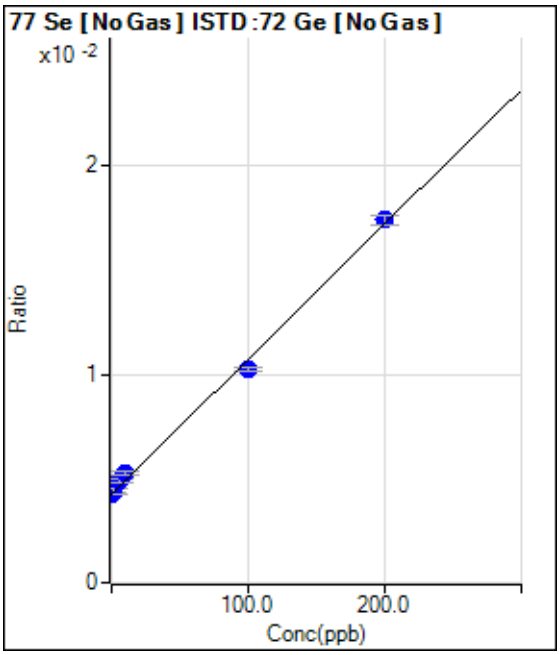


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	279949.40	0.3548	P	0.4
2	☐	2.000	43.802	283108.83	0.3569	P	1.2
3	☐	5.000	23.917	283236.84	0.3560	P	0.4
4	☐	10.000	69.865	283699.61	0.3582	P	0.7
5	☐	100.000	123.741	286600.68	0.3609	P	1.4
6	☐	200.000	184.245	279240.00	0.3639	P	0.2

y = 4.9710E-005 * x + 0.3548
R = 0.9485
DL = 88.29
BEC = 7137

Weight: <None>
Min Conc: <None>

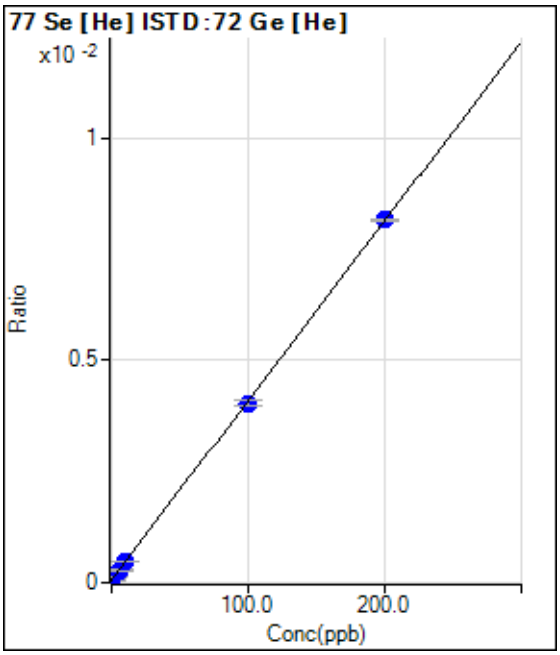
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11565.17	0.0043	P	2.0
2	☐	2.000	1.416	11882.12	0.0044	P	5.7
3	☐	5.000	9.760	13129.93	0.0049	P	3.3
4	☐	10.000	15.376	14094.28	0.0053	P	3.4
5	☐	100.000	92.810	27708.84	0.0103	P	1.9
6	☐	200.000	203.213	45661.07	0.0174	P	2.9

y = 6.4648E-005 * x + 0.0043
R = 0.9984
DL = 3.974
BEC = 66.06

Weight: <None>
Min Conc: <None>

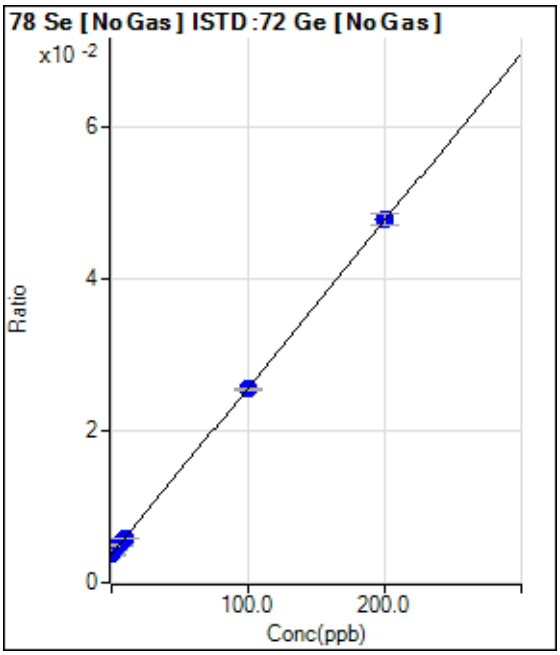


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0001	P	34.6
2	☐	2.000	2.183	120.00	0.0002	P	22.3
3	☐	5.000	5.396	223.34	0.0003	P	27.8
4	☐	10.000	10.327	380.01	0.0005	P	6.3
5	☐	100.000	98.494	3203.77	0.0040	P	2.7
6	☐	200.000	200.725	6258.21	0.0082	P	0.2

y = 4.0318E-005 * x + 6.3360E-005
R = 1.0000
DL = 1.632
BEC = 1.572

Weight: <None>
Min Conc: <None>

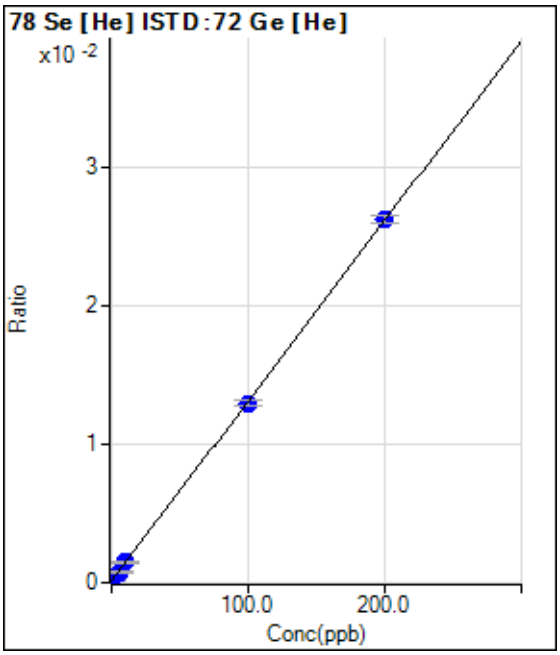
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10080.63	0.0037	P	2.5
2	☐	2.000	2.277	11508.41	0.0042	P	0.4
3	☐	5.000	5.600	13270.07	0.0050	P	3.5
4	☐	10.000	10.042	15886.27	0.0059	P	0.9
5	☐	100.000	98.973	68798.89	0.0255	P	1.3
6	☐	200.000	200.493	125493.51	0.0478	P	3.2

y = 2.2010E-004 * x + 0.0037
R = 1.0000
DL = 1.245
BEC = 16.91

Weight: <None>
Min Conc: <None>

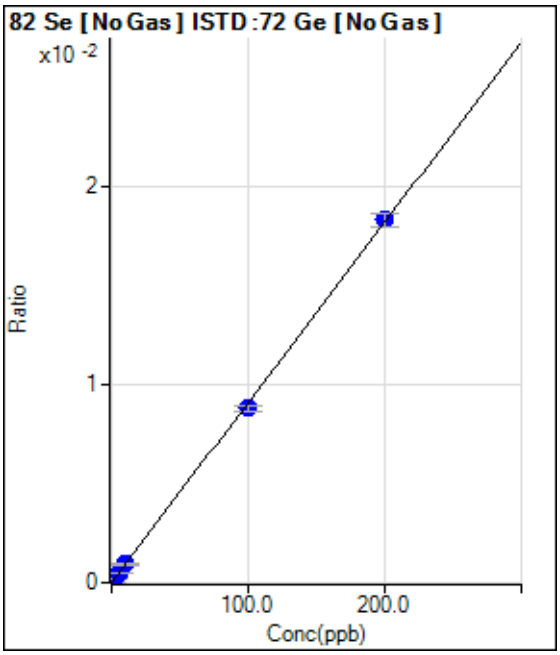


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.33	0.0001	P	18.4
2	☐	2.000	2.160	320.67	0.0004	P	2.5
3	☐	5.000	4.898	604.68	0.0008	P	6.8
4	☐	10.000	10.311	1158.72	0.0015	P	8.9
5	☐	100.000	98.844	10302.62	0.0130	P	2.6
6	☐	200.000	200.563	20101.64	0.0262	P	2.3

y = 1.3002E-004 * x + 1.2334E-004
R = 1.0000
DL = 0.5234
BEC = 0.9487

Weight: <None>
Min Conc: <None>

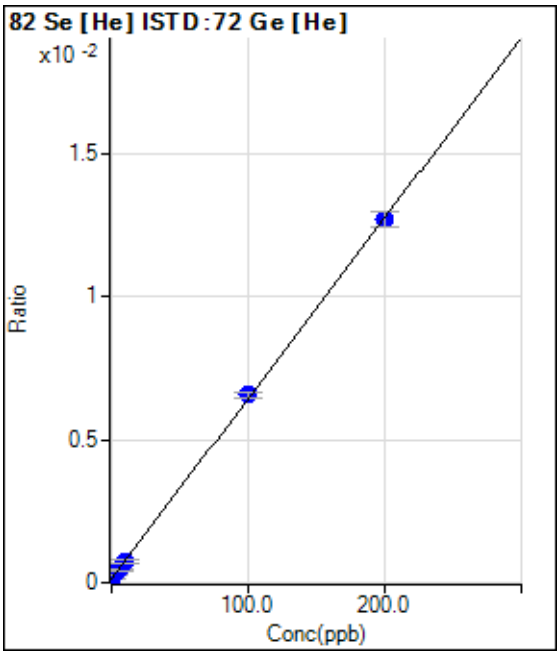
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-121.81	0.0000	P	-57.4
2	☐	2.000	1.737	308.01	0.0001	P	18.3
3	☐	5.000	5.169	1140.94	0.0004	P	3.7
4	☐	10.000	10.232	2372.28	0.0009	P	8.9
5	☐	100.000	96.668	23629.96	0.0088	P	2.6
6	☐	200.000	201.653	48052.91	0.0183	P	3.6

y = 9.1086E-005 * x - 4.5181E-005
R = 0.9998
DL = 0.8548
BEC = -0.496

Weight: <None>
Min Conc: <None>

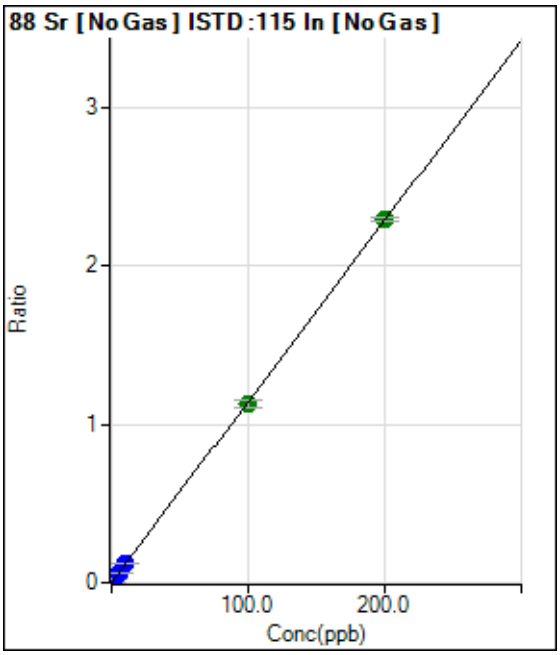


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	10.2
2	☐	2.000	2.126	220.01	0.0003	P	21.1
3	☐	5.000	4.706	350.01	0.0004	P	16.0
4	☐	10.000	9.494	586.69	0.0007	P	14.0
5	☐	100.000	101.963	5211.11	0.0066	P	3.4
6	☐	200.000	199.050	9723.65	0.0127	P	4.1

y = 6.2962E-005 * x + 1.4363E-004
R = 0.9999
DL = 0.6987
BEC = 2.281

Weight: <None>
Min Conc: <None>

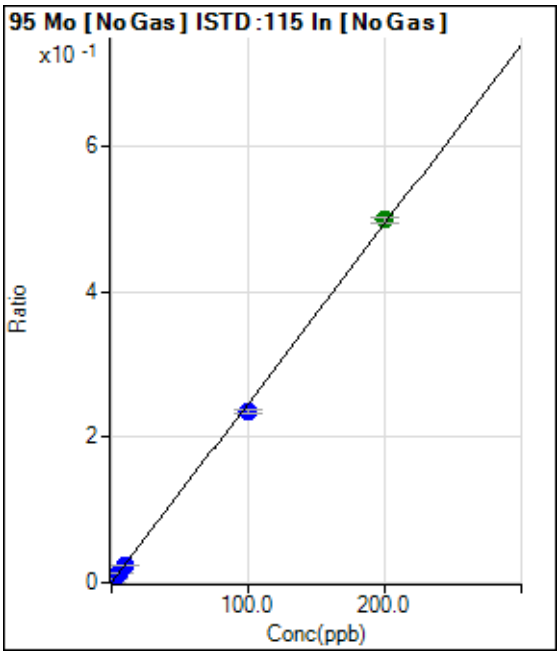
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3330.48	0.0010	P	11.7
2	☐	2.000	2.071	83365.71	0.0246	P	0.4
3	☐	5.000	5.096	202199.26	0.0591	P	2.6
4	☐	10.000	10.471	403922.78	0.1204	P	1.3
5	☐	100.000	98.796	3816929.73	1.1274	A	3.4
6	☐	200.000	200.575	7394420.51	2.2878	A	1.2

y = 0.0114 * x + 9.9442E-004
R = 1.0000
DL = 0.03072
BEC = 0.08722

Weight: <None>
Min Conc: <None>

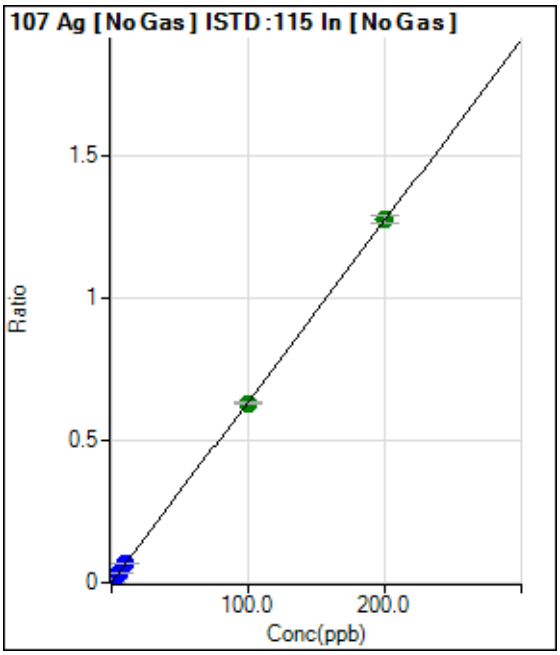


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0001	P	45.9
2	☐	2.000	1.992	16814.18	0.0050	P	4.1
3	☐	5.000	4.970	42103.44	0.0123	P	1.5
4	☐	10.000	10.029	83075.29	0.0248	P	2.0
5	☐	100.000	95.345	795371.58	0.2349	P	2.8
6	☐	200.000	202.327	1610988.31	0.4984	A	1.5

y = 0.0025 * x + 5.9915E-005
R = 0.9996
DL = 0.0335
BEC = 0.02432

Weight: <None>
Min Conc: <None>

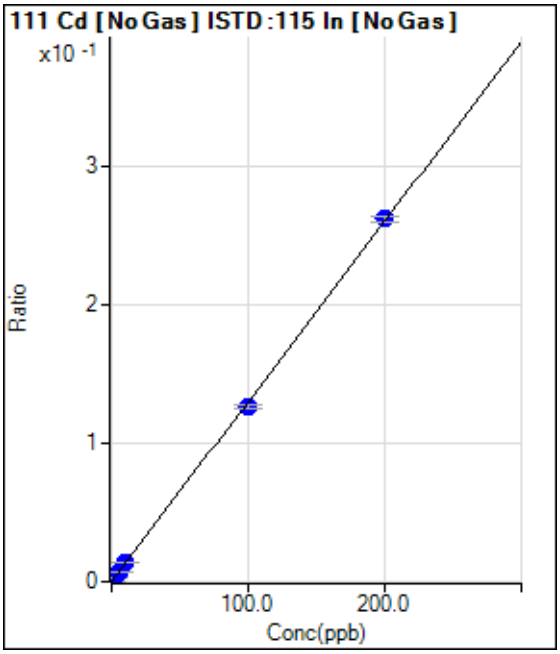
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	463.35	0.0001	P	23.9
2	☐	2.000	2.128	46381.61	0.0137	P	0.9
3	☐	5.000	5.093	111513.78	0.0326	P	0.8
4	☐	10.000	10.522	225349.96	0.0672	P	1.9
5	☐	100.000	99.016	2136661.42	0.6309	A	1.2
6	☐	200.000	200.462	4127751.50	1.2772	A	2.1

y = 0.0064 * x + 1.3864E-004
R = 1.0000
DL = 0.01559
BEC = 0.02176

Weight: <None>
Min Conc: <None>

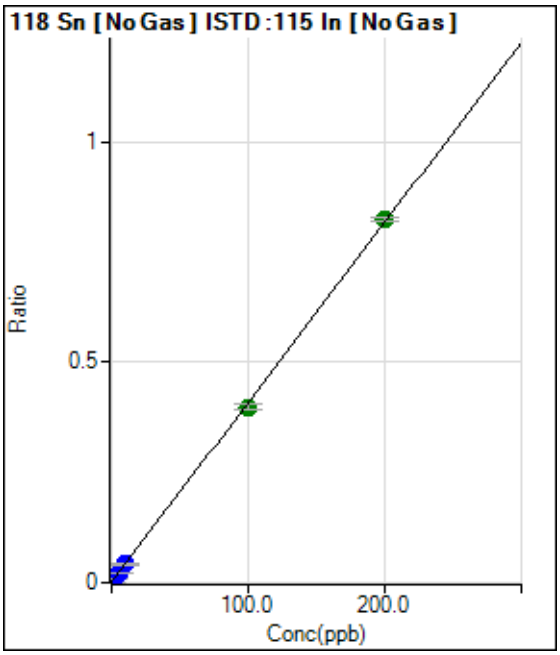


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	2.054	9043.25	0.0027	P	3.0
3	☐	5.000	5.052	22459.35	0.0066	P	2.2
4	☐	10.000	10.410	45374.98	0.0135	P	0.6
5	☐	100.000	96.836	425879.52	0.1258	P	2.2
6	☐	200.000	201.559	846074.78	0.2618	P	1.5

y = 0.0013 * x + 2.0025E-006
R = 0.9998
DL = 0.004006
BEC = 0.001542

Weight: <None>
Min Conc: <None>

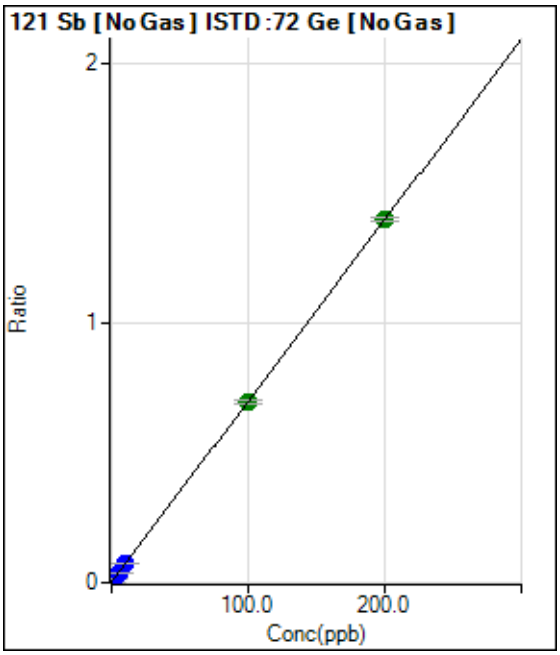
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4090.70	0.0012	P	5.3
2	☐	2.000	1.933	30846.60	0.0091	P	0.6
3	☐	5.000	4.770	70753.70	0.0207	P	2.7
4	☐	10.000	9.923	139865.58	0.0417	P	2.6
5	☐	100.000	97.104	1344851.96	0.3972	A	3.4
6	☐	200.000	201.459	2659382.36	0.8228	A	1.1

y = 0.0041 * x + 0.0012
R = 0.9999
DL = 0.04727
BEC = 0.2999

Weight: <None>
Min Conc: <None>

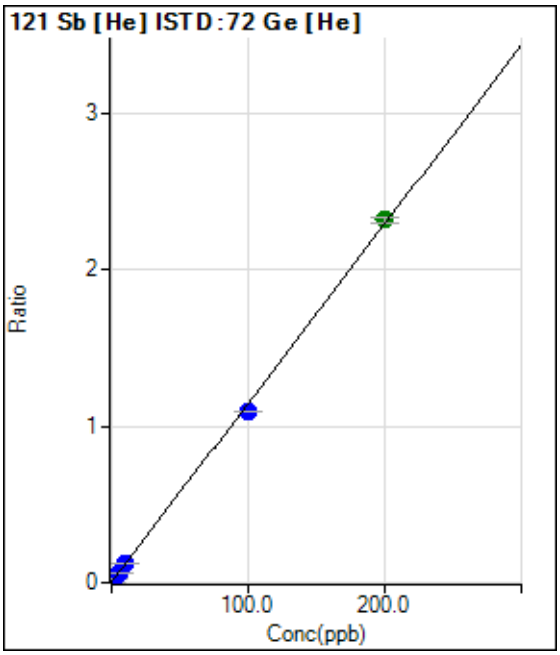


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4584.21	0.0017	P	4.7
2	☐	2.000	2.036	43291.80	0.0159	P	3.8
3	☐	5.000	5.117	100116.57	0.0374	P	2.8
4	☐	10.000	10.227	195460.01	0.0730	P	1.9
5	☐	100.000	99.636	1878312.42	0.6964	A	2.6
6	☐	200.000	200.167	3665479.95	1.3974	A	1.1

y = 0.0070 * x + 0.0017
R = 1.0000
DL = 0.03426
BEC = 0.2428

Weight: <None>
Min Conc: <None>

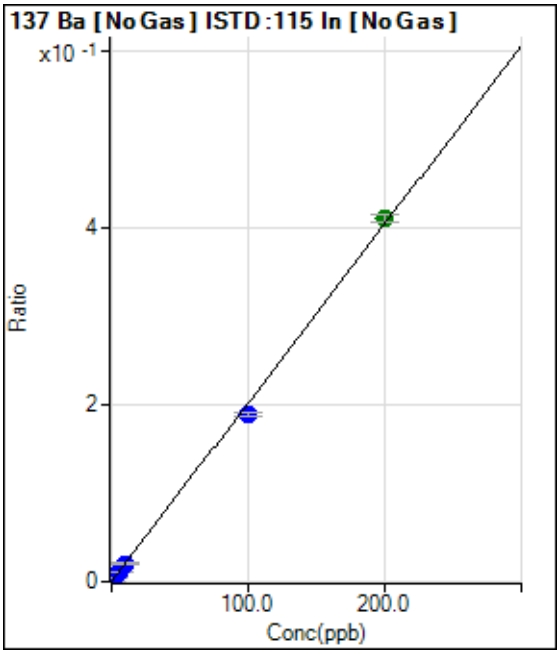
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2076.87	0.0026	P	7.8
2	☐	2.000	2.028	20466.31	0.0258	P	2.4
3	☐	5.000	4.923	46860.75	0.0589	P	1.4
4	☐	10.000	10.077	93287.05	0.1178	P	1.9
5	☐	100.000	95.141	865512.33	1.0899	P	0.3
6	☐	200.000	202.427	1776881.17	2.3159	A	1.4

y = 0.0114 * x + 0.0026
R = 0.9996
DL = 0.05365
BEC = 0.2303

Weight: <None>
Min Conc: <None>

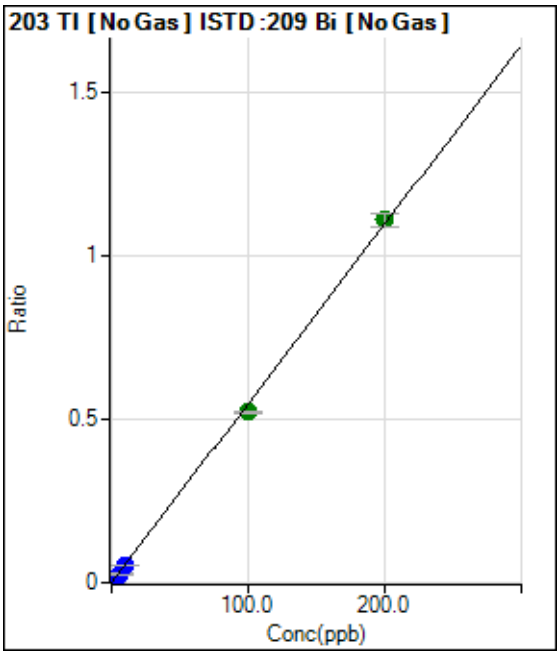


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0002	P	16.7
2	☐	2.000	2.042	14601.78	0.0043	P	3.0
3	☐	5.000	4.800	33814.43	0.0099	P	1.0
4	☐	10.000	10.000	68363.46	0.0204	P	2.8
5	☐	100.000	93.910	642709.44	0.1898	P	1.9
6	☐	200.000	203.050	1325592.77	0.4102	A	2.3

y = 0.0020 * x + 1.8845E-004
R = 0.9994
DL = 0.04689
BEC = 0.09334

Weight: <None>
Min Conc: <None>

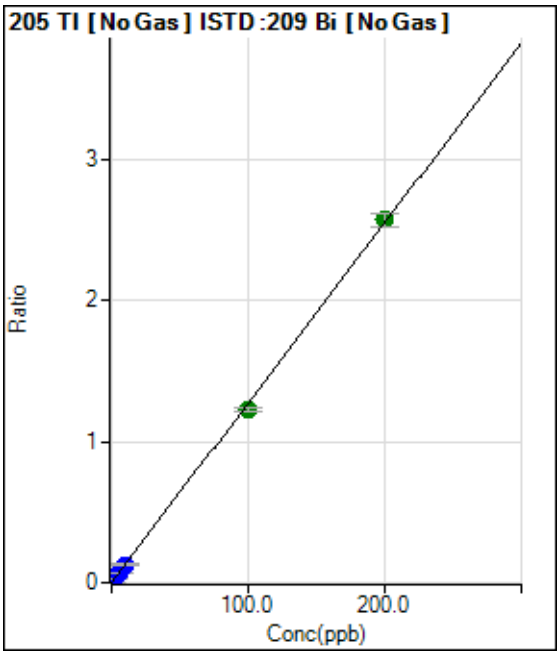
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.01	0.0001	P	27.9
2	☐	2.000	1.938	36911.67	0.0107	P	3.2
3	☐	5.000	4.807	93025.06	0.0264	P	2.5
4	☐	10.000	9.808	187442.09	0.0539	P	4.2
5	☐	100.000	95.027	1826914.30	0.5213	A	2.2
6	☐	200.000	202.502	3713699.42	1.1107	A	3.9

y = 0.0055 * x + 5.2327E-005
R = 0.9996
DL = 0.007996
BEC = 0.00954

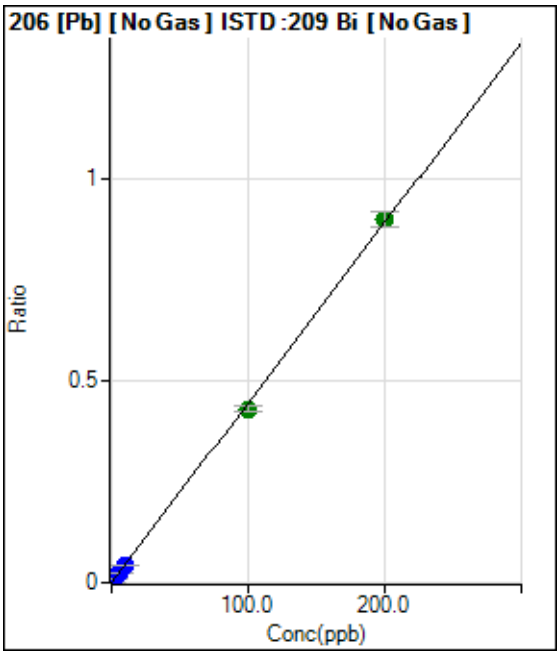
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	446.68	0.0001	P	16.7
2	☐	2.000	2.008	89002.76	0.0258	P	2.7
3	☐	5.000	4.924	221807.87	0.0630	P	2.5
4	☐	10.000	10.051	447148.58	0.1284	P	3.0
5	☐	100.000	96.479	4317210.35	1.2317	A	1.6
6	☐	200.000	201.760	8611572.79	2.5756	A	3.9

y = 0.0128 * x + 1.2982E-004
R = 0.9998
DL = 0.005087
BEC = 0.01017

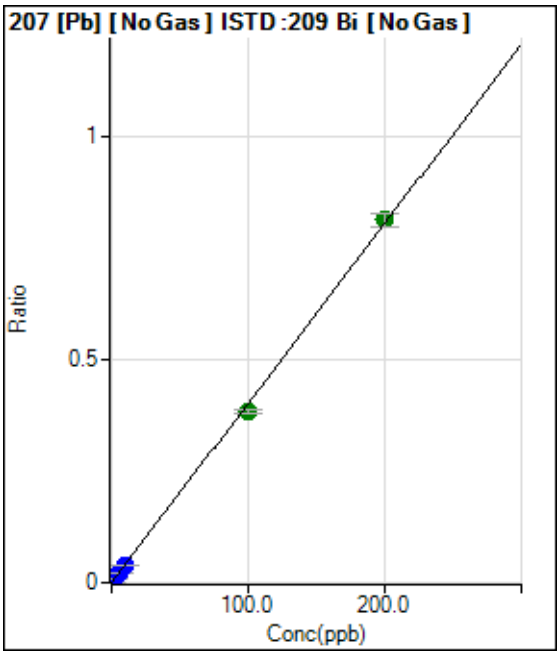
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0002	P	10.8
2	☐	2.000	2.027	31673.97	0.0092	P	3.8
3	☐	5.000	4.984	78543.14	0.0223	P	3.9
4	☐	10.000	9.969	154822.93	0.0445	P	2.4
5	☐	100.000	96.650	1505916.75	0.4297	A	2.5
6	☐	200.000	201.677	2996897.14	0.8964	A	4.3

y = 0.0044 * x + 1.6087E-004
R = 0.9998
DL = 0.01174
BEC = 0.0362

Weight: <None>
Min Conc: <None>

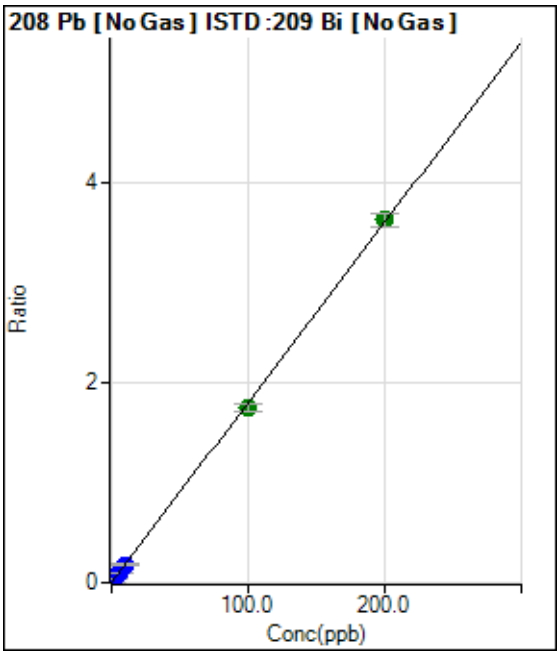


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	420.02	0.0001	P	5.7
2	☐	2.000	2.069	29224.70	0.0085	P	2.5
3	☐	5.000	4.946	70592.93	0.0200	P	2.6
4	☐	10.000	9.966	140223.61	0.0403	P	2.9
5	☐	100.000	95.590	1350050.60	0.3852	A	2.7
6	☐	200.000	202.207	2724178.40	0.8148	A	3.8

y = 0.0040 * x + 1.2205E-004
R = 0.9997
DL = 0.005172
BEC = 0.03029

Weight: <None>
Min Conc: <None>

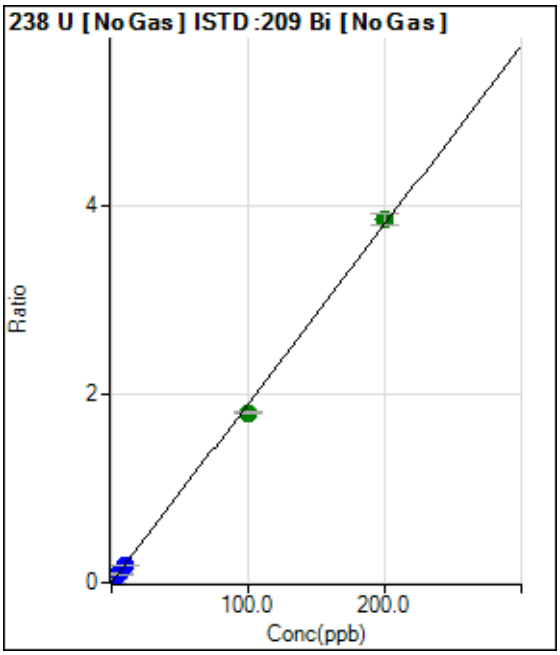
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2083.44	0.0006	P	1.6
2	☐	2.000	2.057	129966.48	0.0376	P	2.0
3	☐	5.000	4.969	316976.63	0.0900	P	3.2
4	☐	10.000	10.037	630988.99	0.1812	P	2.4
5	☐	100.000	97.102	6125112.41	1.7480	A	3.7
6	☐	200.000	201.447	12122509.20	3.6257	A	3.9

y = 0.0180 * x + 6.0562E-004
R = 0.9999
DL = 0.001606
BEC = 0.03365

Weight: <None>
Min Conc: <None>

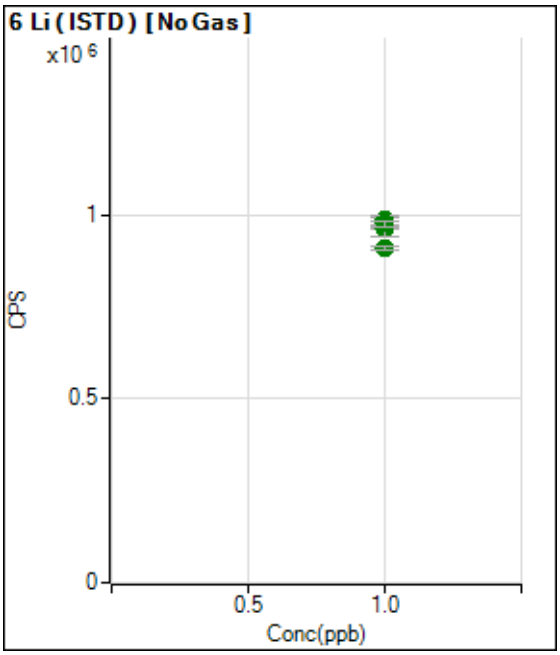


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0000	P	51.0
2	☐	2.000	1.980	129860.99	0.0376	P	2.0
3	☐	5.000	4.883	326265.77	0.0927	P	2.6
4	☐	10.000	9.884	652926.01	0.1875	P	3.3
5	☐	100.000	94.793	6303830.33	1.7985	A	1.7
6	☐	200.000	202.612	12855138.56	3.8441	A	3.3

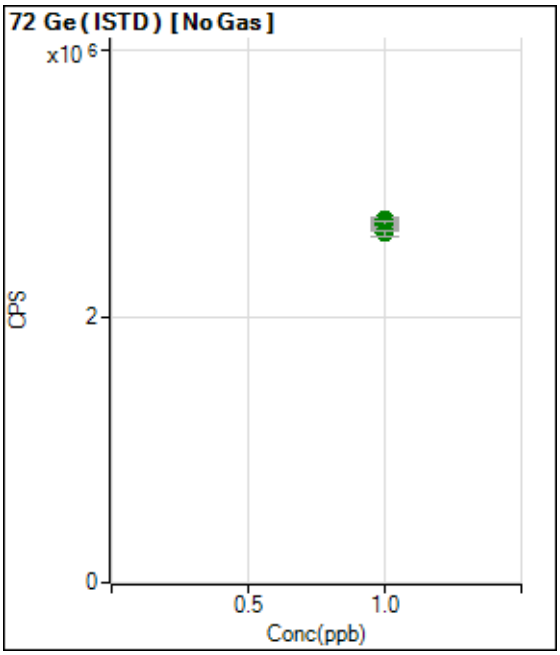
y = 0.0190 * x + 1.7533E-005
R = 0.9995
DL = 0.001415
BEC = 0.0009241

Weight: <None>
Min Conc: <None>

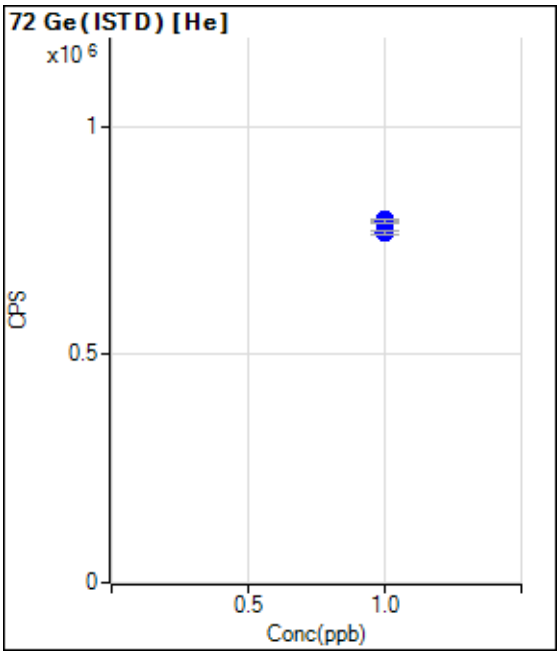
Calibration for 197_ICV.d



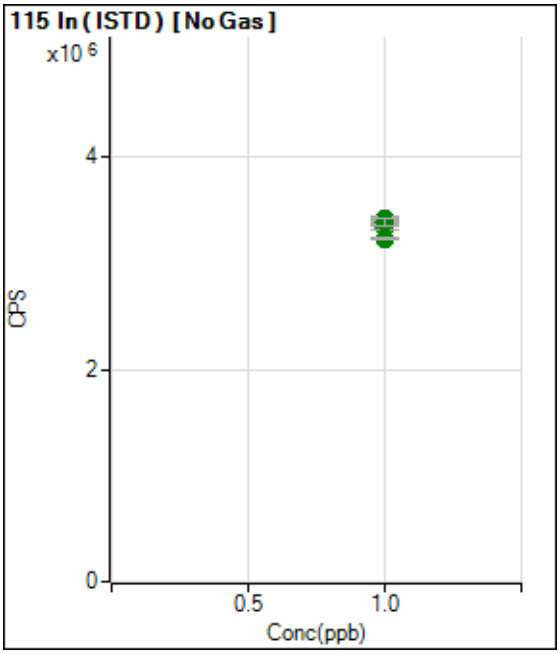
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		972019.60		A	1.8
2	☐	1.000		980849.56		A	2.0
3	☐	1.000		986111.34		A	2.3
4	☐	1.000		963239.03		A	4.2
5	☐	1.000		975650.08		A	1.3
6	☐	1.000		907477.08		A	1.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2708534.75		A	1.4
2	☐	1.000		2725452.56		A	1.5
3	☐	1.000		2679840.48		A	2.1
4	☐	1.000		2678297.25		A	2.0
5	☐	1.000		2697810.06		A	1.5
6	☐	1.000		2623395.69		A	1.3

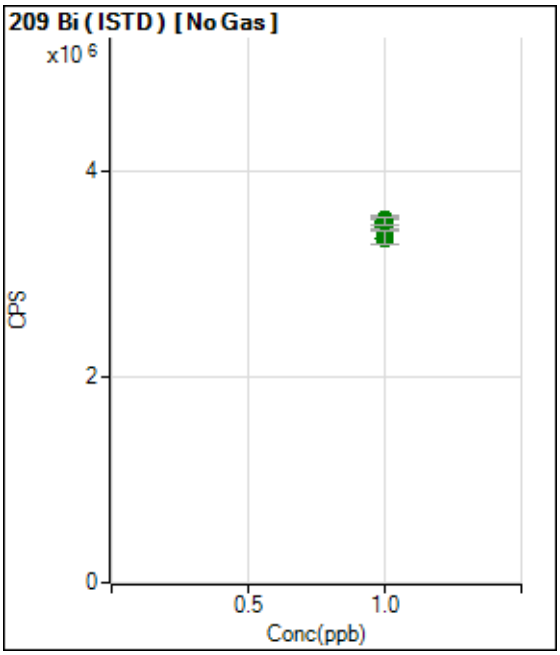


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		789102.05		P	0.0
2	☐	1.000		793177.96		P	0.6
3	☐	1.000		795692.49		P	0.5
4	☐	1.000		791959.26		P	1.2
5	☐	1.000		794152.44		P	1.1
6	☐	1.000		767293.77		P	1.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3346309.03		A	1.2
2	☐	1.000		3387257.78		A	1.1
3	☐	1.000		3422483.04		A	1.3
4	☐	1.000		3355826.83		A	1.8
5	☐	1.000		3387157.02		A	1.9
6	☐	1.000		3232282.45		A	0.8

Calibration for 197_ICV.d



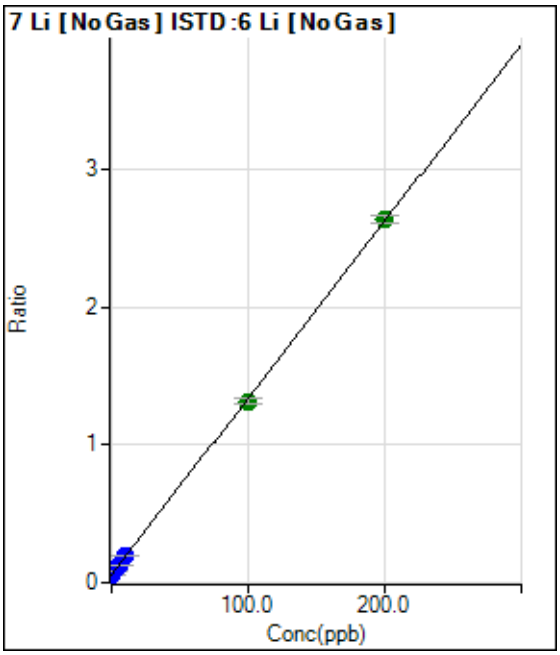
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3439629.22		A	1.6
2	☐	1.000		3455482.24		A	1.1
3	☐	1.000		3522765.78		A	2.7
4	☐	1.000		3483462.24		A	2.7
5	☐	1.000		3505819.53		A	1.9
6	☐	1.000		3346976.20		A	4.1

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	6/7/2021 10:34:01 AM
2	015CALS.d	2/10/200	6/7/2021 10:35:59 AM
3	016CALS.d	5/25/500	6/7/2021 10:37:59 AM
4	017CALS.d	10/50/100	6/7/2021 10:39:57 AM
5	018CALS.d	100/500/10K	6/7/2021 10:41:54 AM
6	019CALS.d	200/1000/20K	6/7/2021 10:43:45 AM

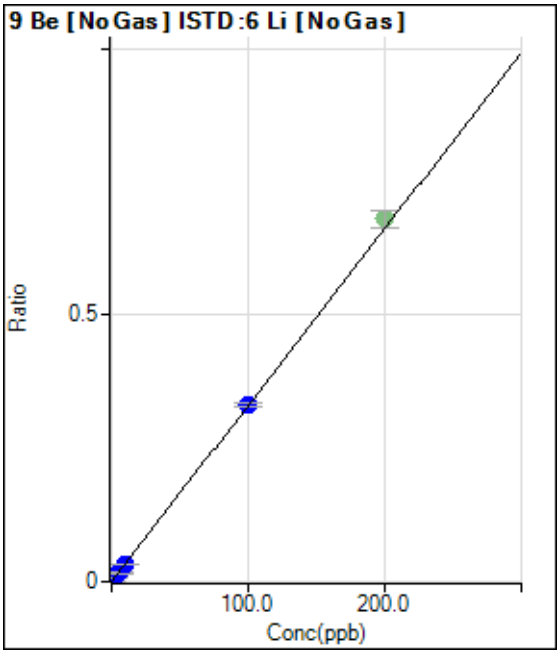
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72731.61	0.0584	P	0.6
2	☐	2.000	2.315	107311.68	0.0880	P	0.9
3	☐	5.000	5.219	156578.97	0.1252	P	2.9
4	☐	10.000	10.659	242313.77	0.1948	P	2.5
5	☐	100.000	98.201	1648242.94	1.3155	A	2.4
6	☐	200.000	200.858	3160660.37	2.6297	A	2.2

y = 0.0128 * x + 0.0584
R = 0.9999
DL = 0.08796
BEC = 4.562

Weight: <None>
Min Conc: <None>

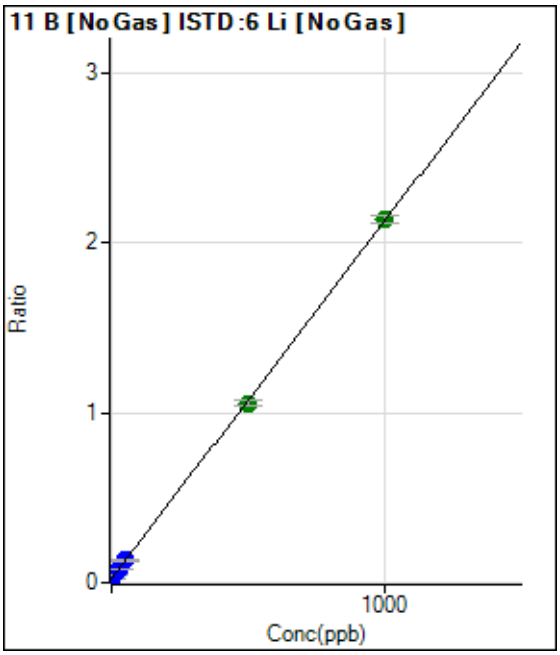


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.064	8327.52	0.0068	P	1.4
3	☐	5.000	4.966	20545.09	0.0164	P	2.5
4	☐	10.000	10.156	41785.29	0.0336	P	2.2
5	☐	100.000	99.985	414436.31	0.3307	P	1.9
6	☑	200.000		817948.35	0.6808	A	4.7

y = 0.0033 * x + 2.7009E-006
R = 1.0000
DL = 0.004243
BEC = 0.0008165

Weight: <None>
Min Conc: <None>

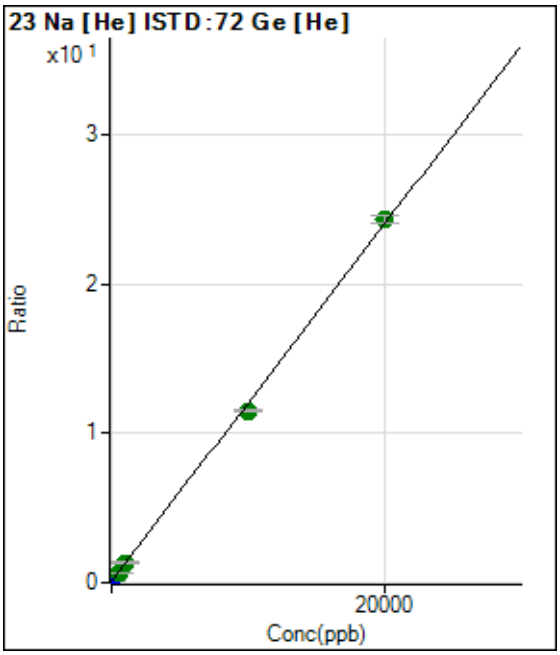
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27929.44	0.0224	P	2.5
2	☐	10.000	10.519	54317.73	0.0446	P	1.3
3	☐	25.000	24.927	93631.38	0.0749	P	2.5
4	☐	50.000	51.595	162888.53	0.1310	P	2.3
5	☐	500.000	491.999	1324821.00	1.0575	A	3.3
6	☐	1000.000	1003.917	2565502.30	2.1345	A	2.1

y = 0.0021 * x + 0.0224
R = 1.0000
DL = 0.7955
BEC = 10.66

Weight: <None>
Min Conc: <None>

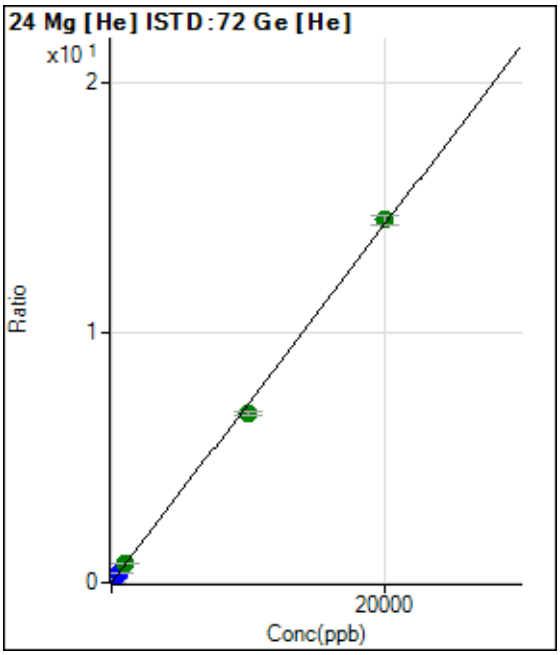


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94441.26	0.0859	P	1.0
2	☐	200.000	213.041	370183.13	0.3409	P	0.9
3	☐	500.000	506.931	752293.84	0.6926	A	2.3
4	☐	1000.000	1047.093	1451541.70	1.3391	A	3.0
5	☐	10000.00	9523.822	12444841.48	11.4843	A	1.0
6	☐	20000.00	20235.43	25357753.79	24.3042	A	2.2

y = 0.0012 * x + 0.0859
R = 0.9996
DL = 2.106
BEC = 71.79

Weight: <None>
Min Conc: <None>

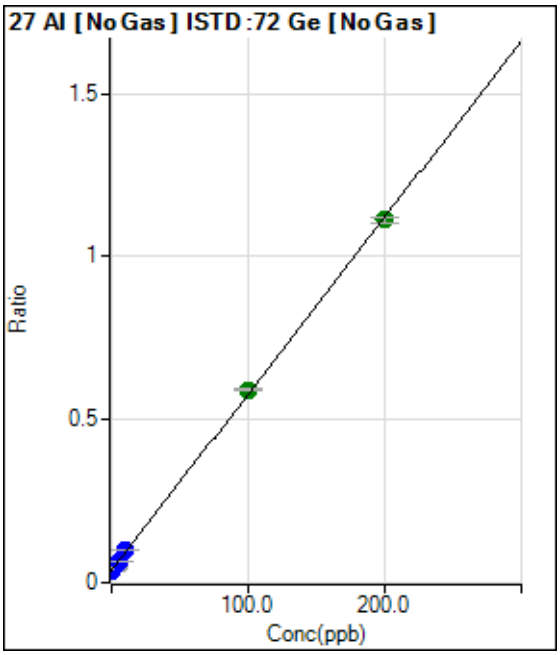
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1970.19	0.0018	P	6.7
2	☐	200.000	215.732	169309.19	0.1559	P	1.2
3	☐	500.000	528.212	411842.56	0.3791	P	1.6
4	☐	1000.000	1053.608	817753.77	0.7545	A	3.4
5	☐	10000.00	9444.694	7313132.39	6.7488	A	1.6
6	☐	20000.00	20274.11	15111806.02	14.4851	A	2.4

y = 7.1437E-004 * x + 0.0018
R = 0.9994
DL = 0.5013
BEC = 2.509

Weight: <None>
Min Conc: <None>

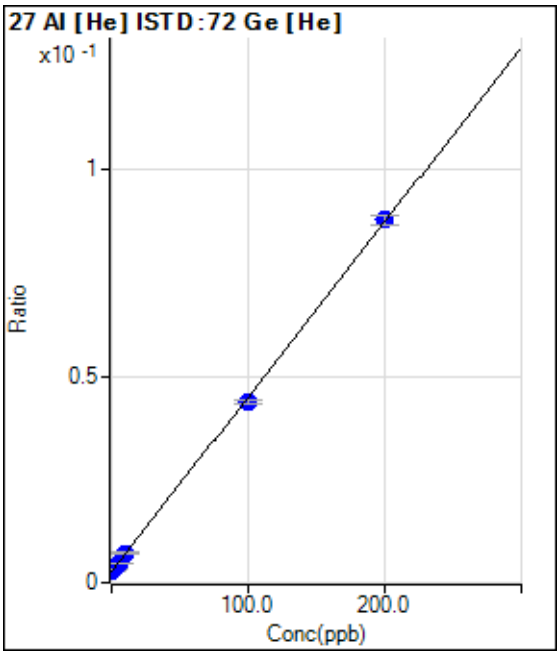


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133156.24	0.0373	P	0.8
2	☐	2.000	1.302	159798.80	0.0444	P	1.0
3	☐	5.000	4.789	227782.29	0.0632	P	2.7
4	☐	10.000	11.748	358229.01	0.1009	P	2.0
5	☐	100.000	102.509	2133384.29	0.5919	A	1.3
6	☐	200.000	198.670	3926154.84	1.1122	A	1.7

y = 0.0054 * x + 0.0373
R = 0.9998
DL = 0.1584
BEC = 6.898

Weight: <None>
Min Conc: <None>

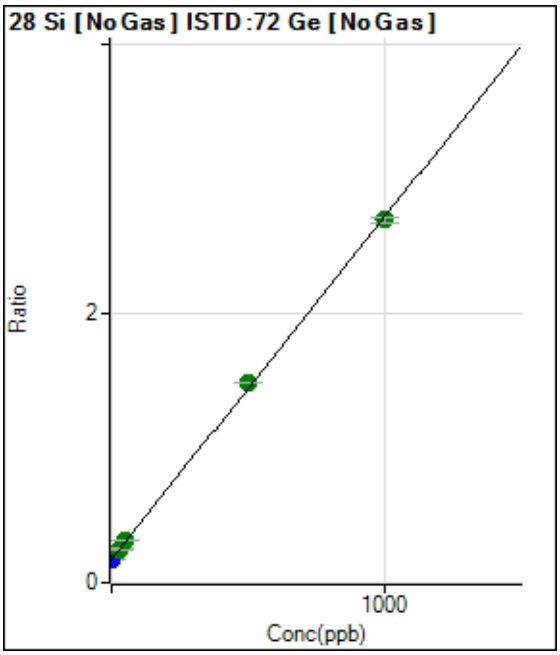
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.37	0.0027	P	7.6
2	☐	2.000	1.230	3470.49	0.0032	P	5.0
3	☐	5.000	4.693	5057.69	0.0047	P	9.5
4	☐	10.000	10.681	7799.02	0.0072	P	3.7
5	☐	100.000	97.348	47548.08	0.0439	P	2.6
6	☐	200.000	201.307	91688.25	0.0879	P	2.3

y = 4.2328E-004 * x + 0.0027
R = 0.9999
DL = 1.437
BEC = 6.319

Weight: <None>
Min Conc: <None>

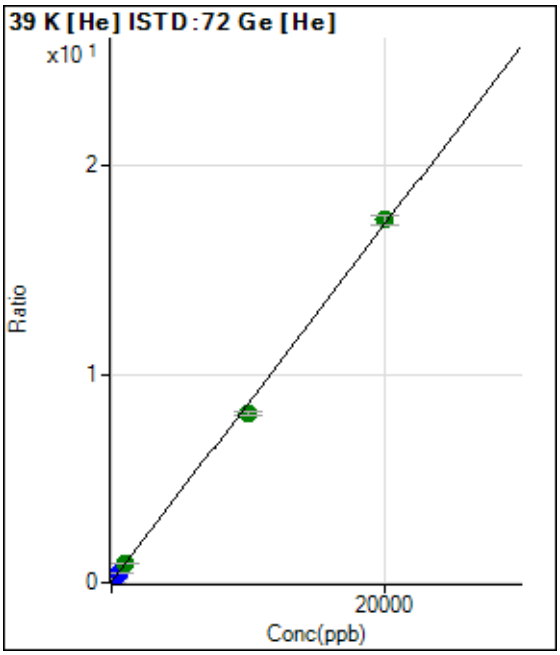


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619853.28	0.1737	P	0.7
2	☐	10.000	14.286	756528.03	0.2100	P	0.9
3	☐	25.000	29.479	896060.28	0.2487	A	2.3
4	☐	50.000	54.729	1110956.36	0.3128	A	2.0
5	☐	500.000	515.516	5349325.34	1.4841	A	0.2
6	☐	1000.000	991.851	9513529.03	2.6950	A	1.6

y = 0.0025 * x + 0.1737
R = 0.9998
DL = 1.36
BEC = 68.34

Weight: <None>
Min Conc: <None>

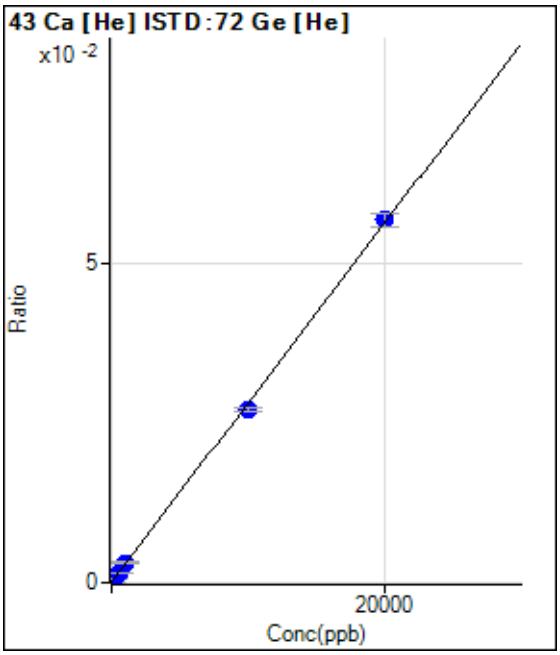
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44692.57	0.0407	P	2.0
2	☐	200.000	209.492	239134.12	0.2202	P	0.5
3	☐	500.000	507.508	516578.90	0.4756	P	2.7
4	☐	1000.000	1065.993	1034800.69	0.9543	A	0.9
5	☐	10000.00	9458.345	8827502.78	8.1474	A	2.3
6	☐	20000.00	20267.24	18166006.81	17.4116	A	2.4

y = 8.5710E-004 * x + 0.0407
R = 0.9995
DL = 2.86
BEC = 47.44

Weight: <None>
Min Conc: <None>

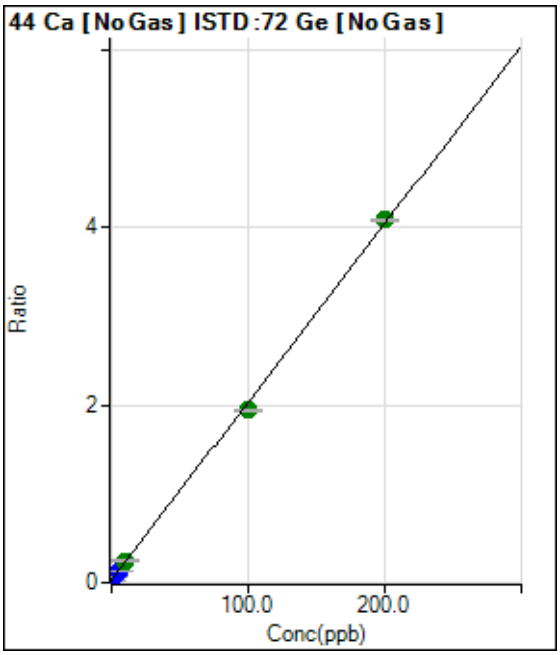


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	8.9
2	☐	200.000	196.717	666.70	0.0006	P	14.4
3	☐	500.000	517.176	1646.79	0.0015	P	1.0
4	☐	1000.000	1079.499	3357.14	0.0031	P	4.4
5	☐	10000.00	9610.195	29354.86	0.0271	P	2.3
6	☐	20000.00	20190.53	59301.23	0.0569	P	3.8

y = 2.8129E-006 * x + 6.0658E-005
R = 0.9997
DL = 5.769
BEC = 21.56

Weight: <None>
Min Conc: <None>

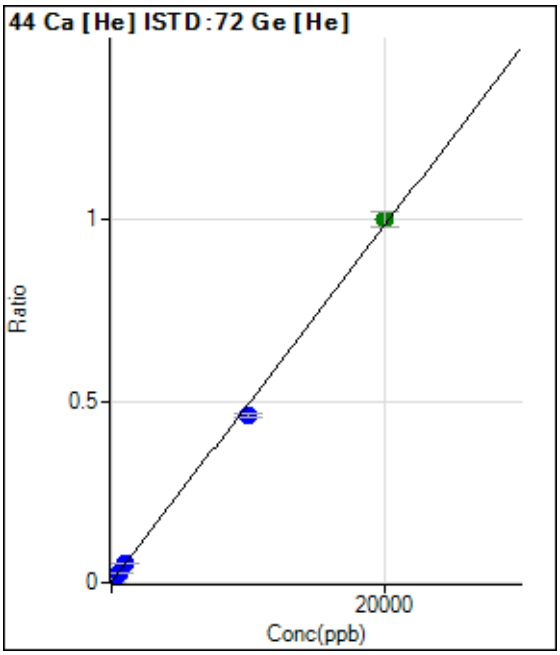
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106130.10	0.0297	P	0.7
2	☐	2.000	2.063	256101.77	0.0711	P	0.4
3	☐	5.000	5.215	483897.11	0.1343	P	1.0
4	☐	10.000	10.851	878123.63	0.2473	A	2.8
5	☐	100.000	95.298	6994221.98	1.9406	A	0.5
6	☐	200.000	202.302	14425699.37	4.0861	A	0.8

y = 0.0201 * x + 0.0297
R = 0.9996
DL = 0.02996
BEC = 1.483

Weight: <None>
Min Conc: <None>

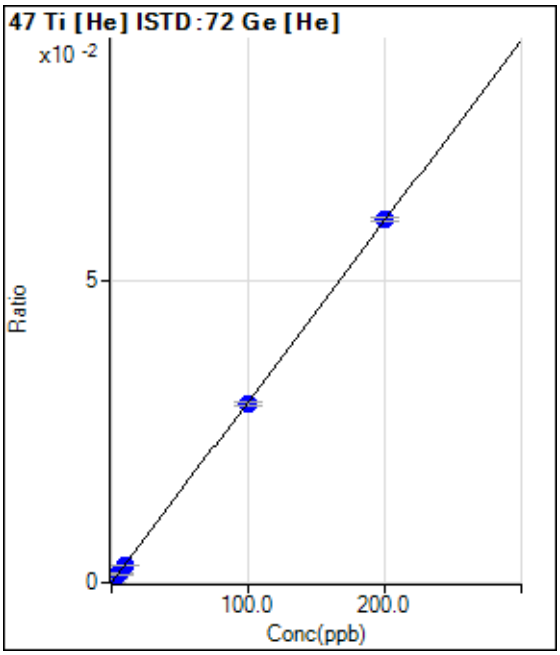


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1823.49	0.0017	P	5.7
2	☐	200.000	189.556	11908.69	0.0110	P	2.4
3	☐	500.000	488.967	27878.50	0.0257	P	1.9
4	☐	1000.000	999.339	55003.31	0.0507	P	1.1
5	☐	10000.00	9347.878	499103.71	0.4606	P	1.8
6	☐	20000.00	20326.47	1042623.89	0.9996	A	4.2

y = 4.9097E-005 * x + 0.0017
R = 0.9993
DL = 5.747
BEC = 33.79

Weight: <None>
Min Conc: <None>

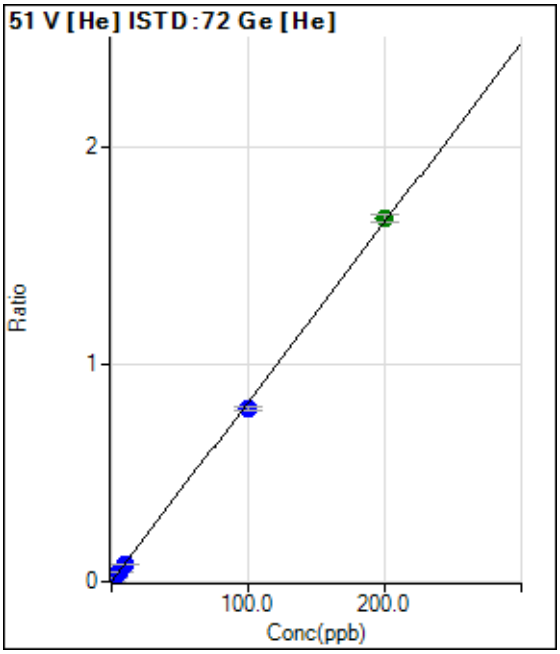
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.6
2	☐	2.000	2.190	726.70	0.0007	P	17.7
3	☐	5.000	4.851	1593.46	0.0015	P	4.4
4	☐	10.000	9.768	3187.10	0.0029	P	4.4
5	☐	100.000	98.766	32104.61	0.0296	P	2.3
6	☐	200.000	200.631	62793.57	0.0602	P	1.1

y = 2.9983E-004 * x + 1.2138E-005
R = 1.0000
DL = 0.05293
BEC = 0.04048

Weight: <None>
Min Conc: <None>

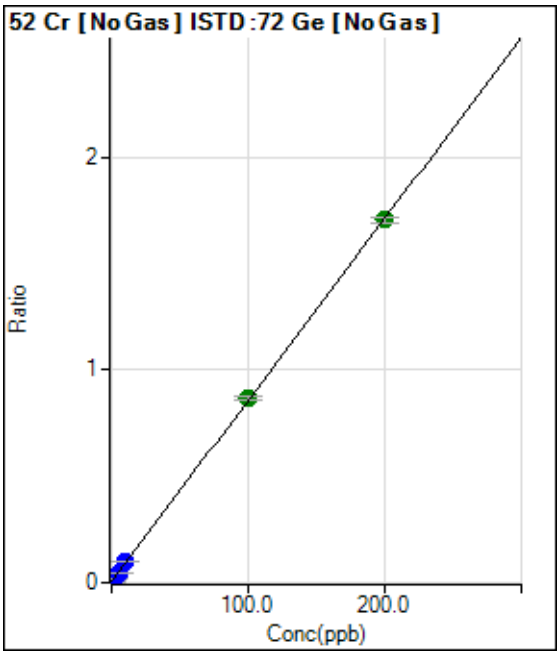


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1205.62	0.0011	P	4.3
2	☐	2.000	1.965	18795.16	0.0173	P	0.4
3	☐	5.000	4.830	44464.15	0.0409	P	3.2
4	☐	10.000	9.870	89429.45	0.0825	P	3.3
5	☐	100.000	96.041	859512.12	0.7933	P	2.3
6	☐	200.000	201.991	1739397.33	1.6672	A	2.3

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.01723
BEC = 0.133

Weight: <None>
Min Conc: <None>

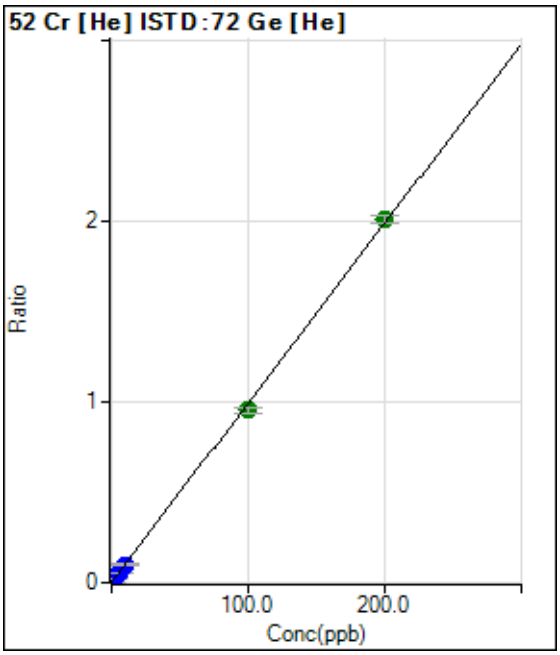
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16159.82	0.0045	P	3.5
2	☐	2.000	2.080	80221.24	0.0223	P	2.0
3	☐	5.000	5.130	173985.49	0.0483	P	0.6
4	☐	10.000	10.690	339942.47	0.0957	P	1.5
5	☐	100.000	100.992	3121308.18	0.8660	A	1.9
6	☐	200.000	199.465	6022344.08	1.7061	A	1.6

y = 0.0085 * x + 0.0045
R = 1.0000
DL = 0.05537
BEC = 0.531

Weight: <None>
Min Conc: <None>

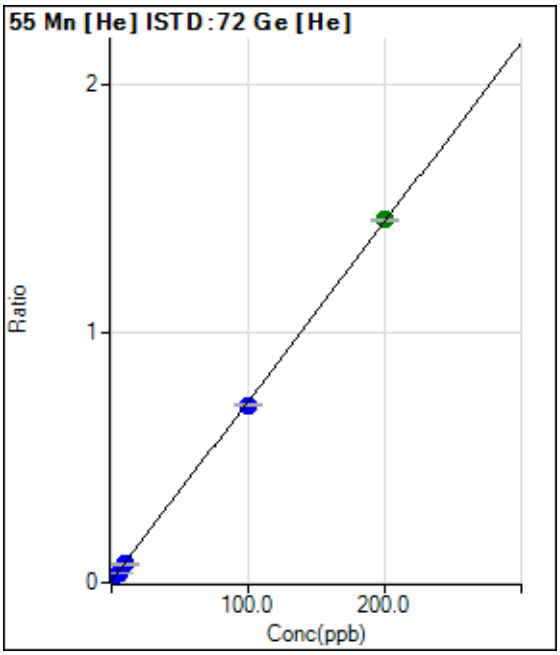


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2190.22	0.0020	P	2.8
2	☐	2.000	2.008	23820.97	0.0219	P	1.2
3	☐	5.000	4.940	55459.16	0.0511	P	2.4
4	☐	10.000	9.918	108940.96	0.1005	P	3.5
5	☐	100.000	95.834	1033390.25	0.9538	A	3.7
6	☐	200.000	202.088	2096273.46	2.0092	A	2.0

y = 0.0099 * x + 0.0020
R = 0.9997
DL = 0.01684
BEC = 0.2006

Weight: <None>
Min Conc: <None>

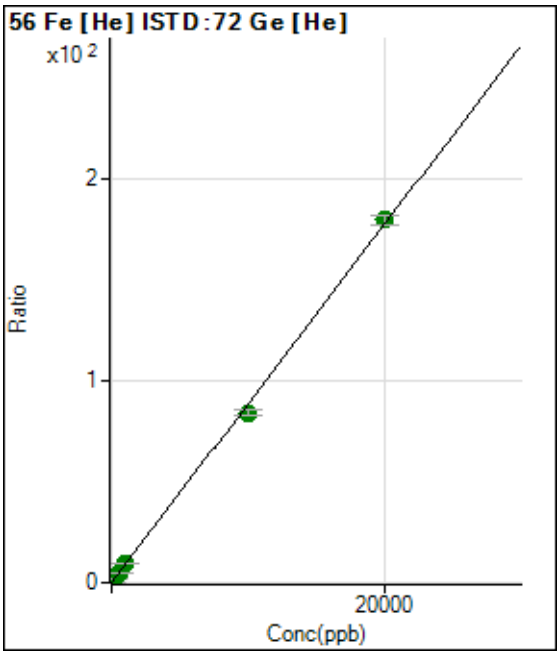
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9083.18	0.0083	P	3.4
2	☐	2.000	1.891	23737.67	0.0219	P	1.5
3	☐	5.000	4.395	43289.06	0.0399	P	3.5
4	☐	10.000	9.099	79859.17	0.0737	P	2.9
5	☐	100.000	97.763	770530.35	0.7111	P	1.4
6	☐	200.000	201.180	1518001.23	1.4546	A	0.6

y = 0.0072 * x + 0.0083
R = 0.9999
DL = 0.1173
BEC = 1.149

Weight: <None>
Min Conc: <None>

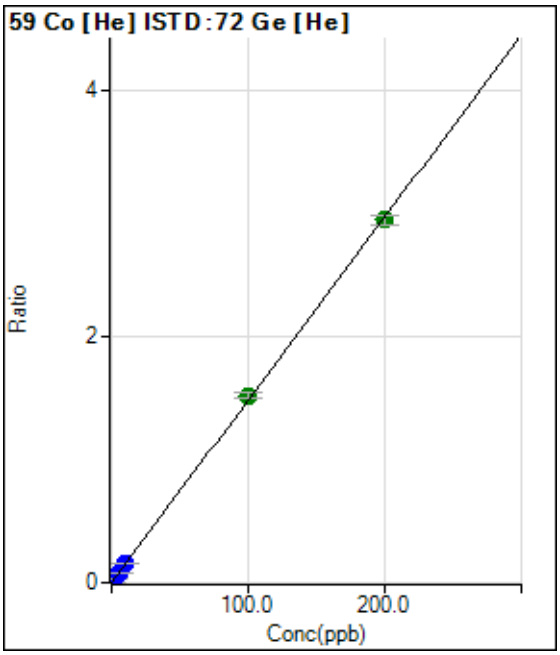


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26125.46	0.0238	P	1.5
2	☐	200.000	213.258	2079081.43	1.9145	A	1.8
3	☐	500.000	502.836	4868709.09	4.4820	A	1.6
4	☐	1000.000	1027.043	9898746.10	9.1296	A	1.6
5	☐	10000.00	9496.043	91244135.31	84.2164	A	2.7
6	☐	20000.00	20250.42	187331857.2	179.565	A	2.5

y = 0.0089 * x + 0.0238
R = 0.9995
DL = 0.1193
BEC = 2.681

Weight: <None>
Min Conc: <None>

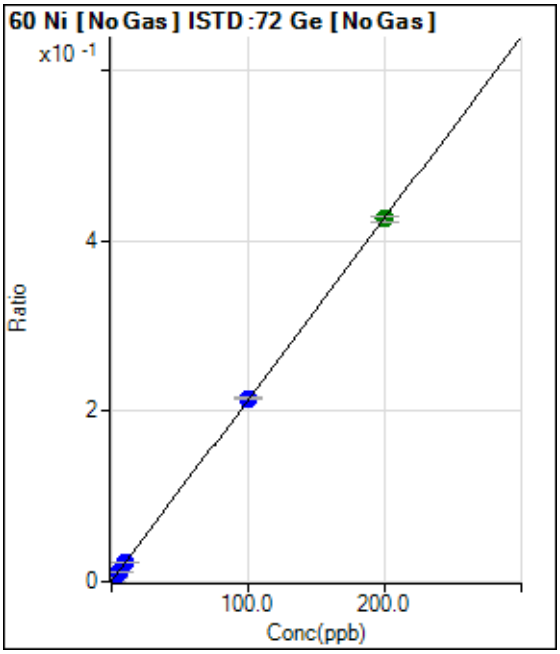
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	37.9
2	☐	2.000	2.028	32712.93	0.0301	P	1.2
3	☐	5.000	4.953	79826.48	0.0735	P	3.3
4	☐	10.000	10.169	163525.10	0.1508	P	2.2
5	☐	100.000	102.639	1649045.91	1.5219	A	2.6
6	☐	200.000	198.673	3073233.70	2.9458	A	2.8

y = 0.0148 * x + 6.0678E-005
R = 0.9999
DL = 0.004649
BEC = 0.004092

Weight: <None>
Min Conc: <None>

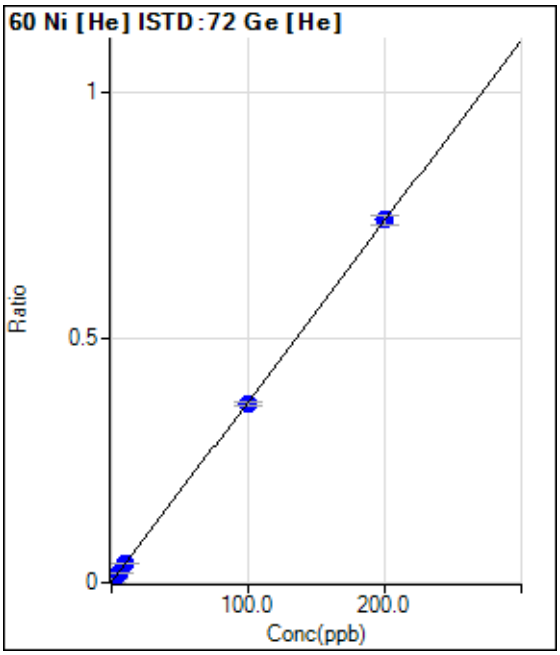


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2080.20	0.0006	P	10.6
2	☐	2.000	2.086	18078.95	0.0050	P	1.5
3	☐	5.000	5.015	40547.39	0.0113	P	0.4
4	☐	10.000	10.592	82099.86	0.0231	P	2.3
5	☐	100.000	100.665	773996.45	0.2148	P	1.1
6	☐	200.000	199.636	1501503.52	0.4253	A	1.8

y = 0.0021 * x + 5.8246E-004
R = 1.0000
DL = 0.0867
BEC = 0.2738

Weight: <None>
Min Conc: <None>

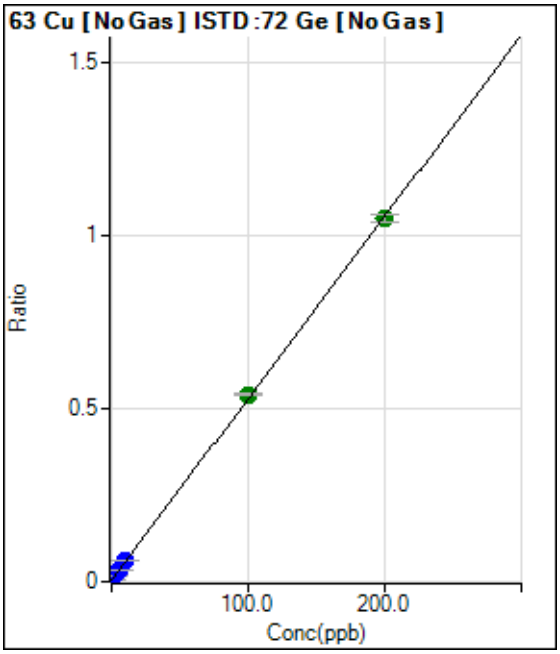
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	993.39	0.0009	P	13.8
2	☐	2.000	2.065	9246.65	0.0085	P	4.6
3	☐	5.000	4.951	20799.60	0.0191	P	1.7
4	☐	10.000	10.368	42396.08	0.0391	P	2.0
5	☐	100.000	98.682	394945.36	0.3645	P	2.5
6	☐	200.000	200.641	772251.24	0.7402	P	2.5

y = 0.0037 * x + 9.0355E-004
R = 1.0000
DL = 0.1015
BEC = 0.2452

Weight: <None>
Min Conc: <None>

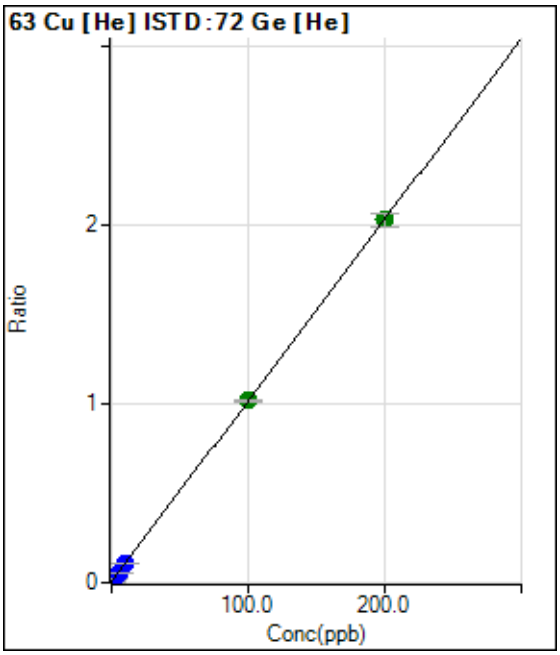


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14174.25	0.0040	P	1.8
2	☐	2.000	2.135	54616.41	0.0152	P	2.1
3	☐	5.000	5.240	113308.90	0.0314	P	1.2
4	☐	10.000	10.755	214356.53	0.0604	P	0.9
5	☐	100.000	102.214	1945650.80	0.5398	A	1.3
6	☐	200.000	198.848	3693846.82	1.0465	A	2.1

y = 0.0052 * x + 0.0040
R = 0.9999
DL = 0.04036
BEC = 0.7576

Weight: <None>
Min Conc: <None>

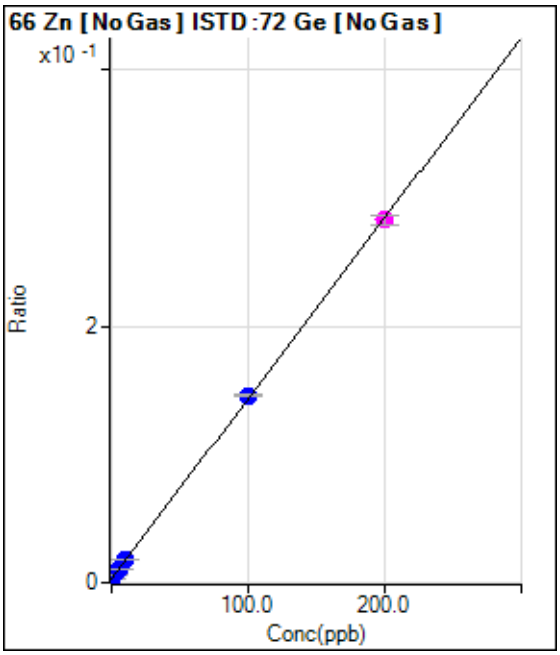
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5821.35	0.0053	P	4.6
2	☐	2.000	2.038	28172.79	0.0259	P	2.3
3	☐	5.000	5.064	61475.32	0.0566	P	3.7
4	☐	10.000	10.237	118187.20	0.1090	P	3.1
5	☐	100.000	100.125	1105263.34	1.0199	A	1.6
6	☐	200.000	199.923	2118562.62	2.0311	A	3.8

y = 0.0101 * x + 0.0053
R = 1.0000
DL = 0.07196
BEC = 0.5226

Weight: <None>
Min Conc: <None>

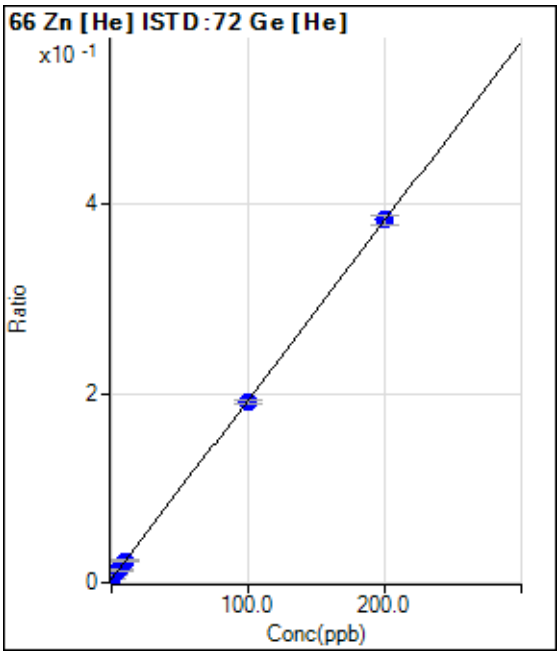


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10234.02	0.0029	P	3.8
2	☐	2.000	2.370	22348.90	0.0062	P	4.3
3	☐	5.000	5.236	36887.17	0.0102	P	2.4
4	☐	10.000	11.039	65380.73	0.0184	P	0.7
5	☐	100.000	101.697	526258.99	0.1460	P	1.4
6	☐	200.000	199.090	999280.56	0.2831	M	2.6

y = 0.0014 * x + 0.0029
R = 0.9999
DL = 0.2306
BEC = 2.038

Weight: <None>
Min Conc: <None>

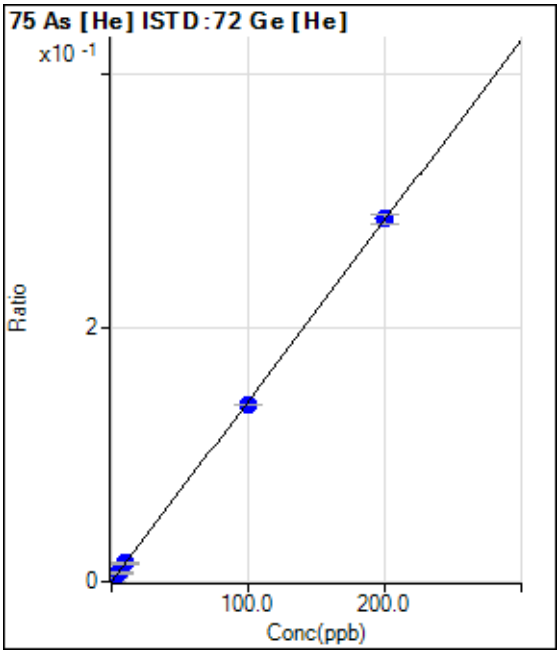
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4160.71	0.0038	P	11.5
2	☐	2.000	2.391	9029.83	0.0083	P	1.6
3	☐	5.000	5.062	14524.63	0.0134	P	4.0
4	☐	10.000	10.326	25303.94	0.0233	P	4.2
5	☐	100.000	99.062	207433.90	0.1914	P	2.5
6	☐	200.000	200.447	400130.76	0.3835	P	2.7

y = 0.0019 * x + 0.0038
R = 1.0000
DL = 0.6909
BEC = 1.998

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	134.45	0.0001	P	16.0
2	☐	2.000	1.975	3187.06	0.0029	P	1.9
3	☐	5.000	4.732	7448.76	0.0069	P	5.2
4	☐	10.000	10.082	15698.04	0.0145	P	3.3
5	☐	100.000	98.159	151632.47	0.1399	P	0.4
6	☐	200.000	200.923	298660.02	0.2863	P	2.5

y = 0.0014 * x + 1.2234E-004
R = 0.9999
DL = 0.04121
BEC = 0.0859

Weight: <None>
Min Conc: <None>