

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051322\
 Data File : VL039051.D
 Acq On : 14 May 2022 00:32
 Operator : SY/AP
 Sample : N2828-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Quant Time: May 14 03:47:19 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 05 10:12:15 2022
 QLast Update : Thu May 05 10:12:15 2022
 Response via : Initial Calibration

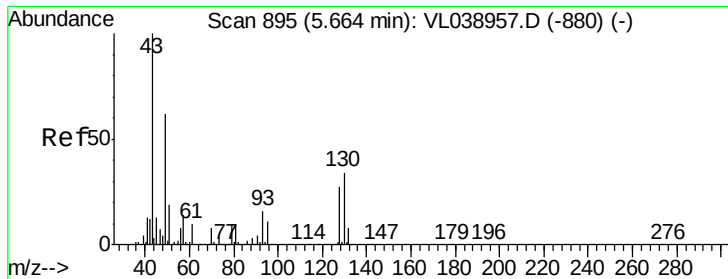
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	886662	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2155005	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	1803167	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	1450470	10.16	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	46898	0.338	ppbv	94
3) Chlorodifluoromethane	2.96	51	448040	4.072	ppbv #	68
4) Chloromethane	3.14	50	17501	0.318	ppbv	95
9) Propene	3.20	41	924645	19.244	ppbv	94
10) Heptane	8.10	43	34994	0.297	ppbv	90
13) Ethanol	3.59	45	3255451	957.415	ppbv	91
15) Acetone	3.84	43	446259	5.336	ppbv #	82
16) 1,3-Butadiene	3.35	39	502340	10.454	ppbv #	11
17) tert-Butyl alcohol	4.28	59	2680	0.042	ppbv #	70
19) Isopropyl Alcohol	3.95	45	1100473	27.673	ppbv	100
20) Methylene Chloride	4.33	84	132065	4.189	ppbv	95
21) Allyl Chloride	4.37	41	2184	0.038	ppbv #	19
23) Vinyl Acetate	5.04	43	49328	0.745	ppbv #	22
25) Ethyl Acetate	5.67	43	286910	1.433	ppbv #	97
26) Hexane	5.67	57	197278	2.218	ppbv #	71
27) Carbon Disulfide	4.55	76	3031	0.036	ppbv #	63
29) Chloroform	5.74	83	144924	1.007	ppbv	95
30) Cyclohexane	7.11	84	11319	0.152	ppbv #	13
34) 2-Butanone	5.23	43	40886	0.372	ppbv #	91
36) Benzene	6.87	78	68577	0.372	ppbv	96
39) 1,2-Dichloropropane	7.16	63	591603	8.244	ppbv #	25
44) 2,2,4-Trimethylpentane	7.84	57	77855	0.241	ppbv #	19
52) Tetrachloroethene	11.20	164	28543	0.433	ppbv	91
53) Toluene	9.79	91	281294	1.361	ppbv	98
59) m/p-Xylene	12.97	91	26852	0.121	ppbv #	33
60) o-Xylene	13.66	91	20490	0.098	ppbv #	32
72) 4-Ethyltoluene	15.81	105	8630	0.036	ppbv #	1
73) 1,3,5-Trimethylbenzene	15.97	105	8704	0.041	ppbv #	76
74) 1,2,4-Trimethylbenzene	16.73	105	41607	0.178	ppbv #	65

(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

Acq: 14 May 2022 00:32

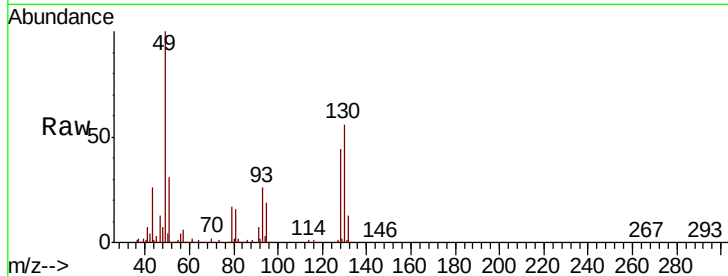
Tot Ion: 49 Resp: 886662

Ion Ratio Lower Upper

49 100

128 48.4 23.3 69.8

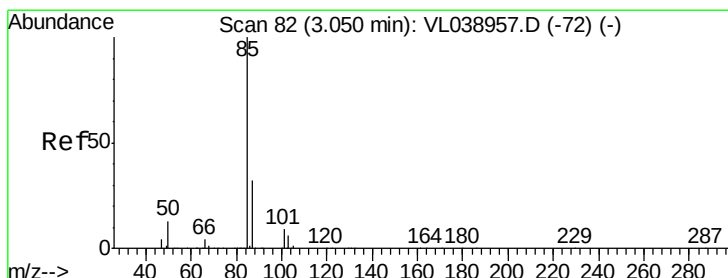
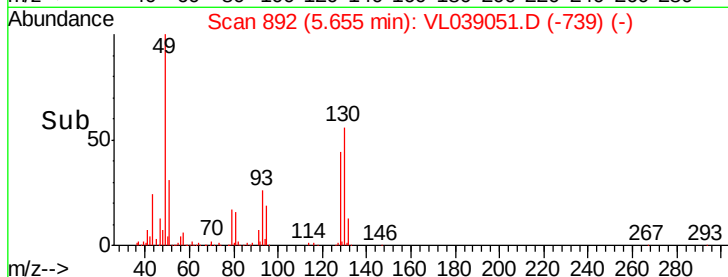
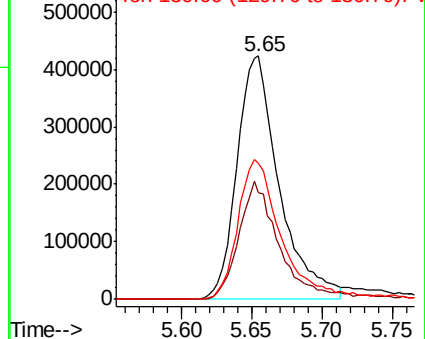
130 61.3 29.8 89.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.338 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL039051.D

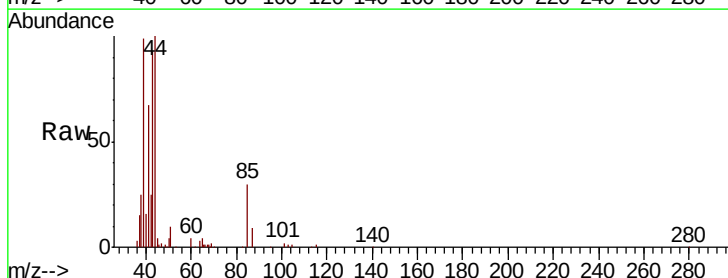
Acq: 14 May 2022 00:32

Tgt Ion: 85 Resp: 46898

Ion Ratio Lower Upper

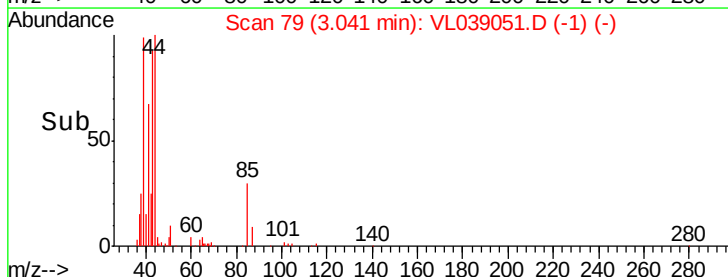
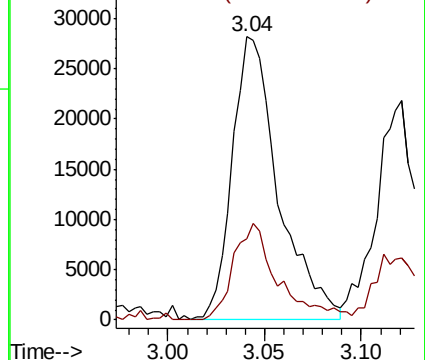
85 100

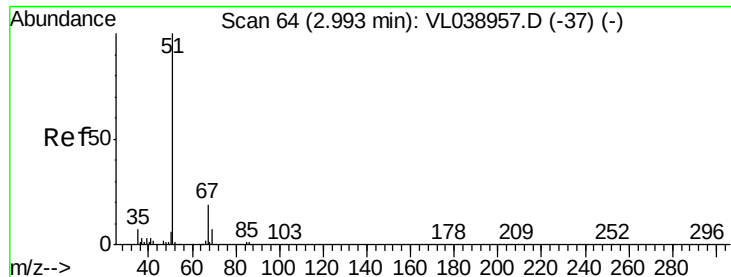
87 28.5 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 4.072 ppbv

RT: 2.96 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

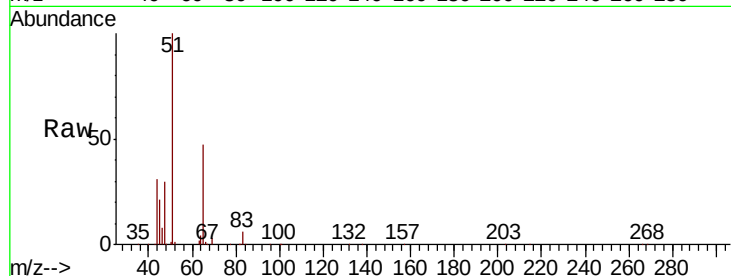
Acq: 14 May 2022 00:32

Tot Ion: 51 Resp: 448040

Ion Ratio Lower Upper

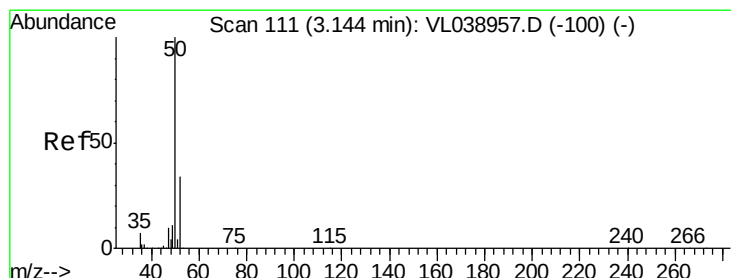
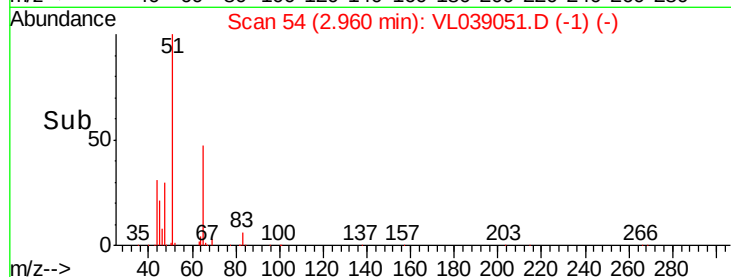
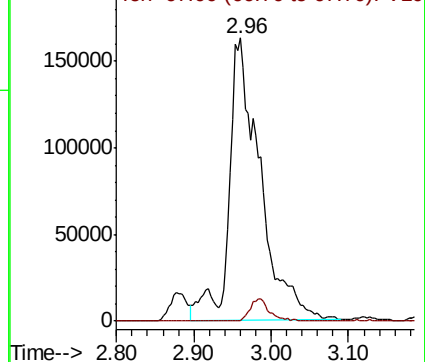
51 100

67 5.1 15.8 23.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.318 ppbv

RT: 3.14 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL039051.D

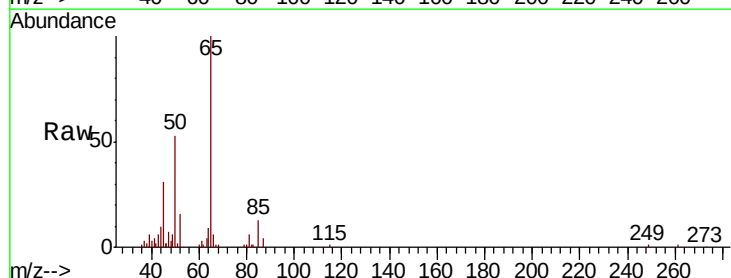
Acq: 14 May 2022 00:32

Tgt Ion: 50 Resp: 17501

Ion Ratio Lower Upper

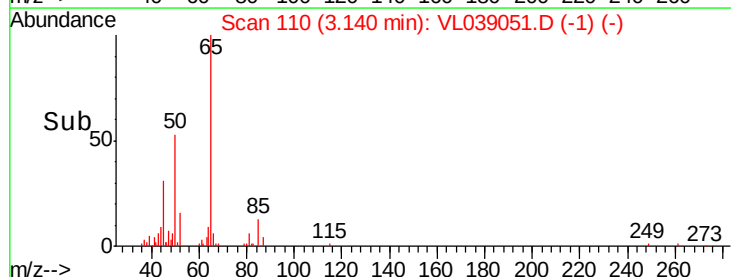
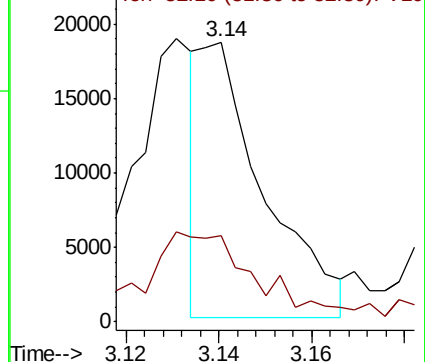
50 100

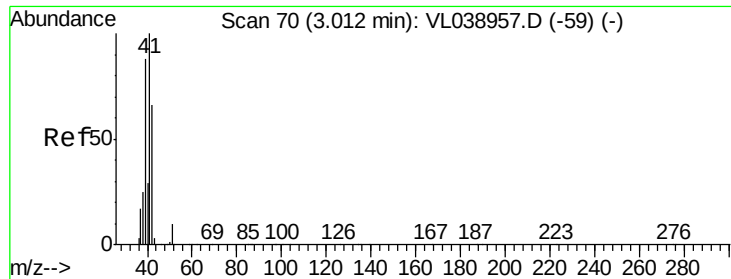
52 31.0 27.3 40.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 19.244 ppbv

RT: 3.20 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

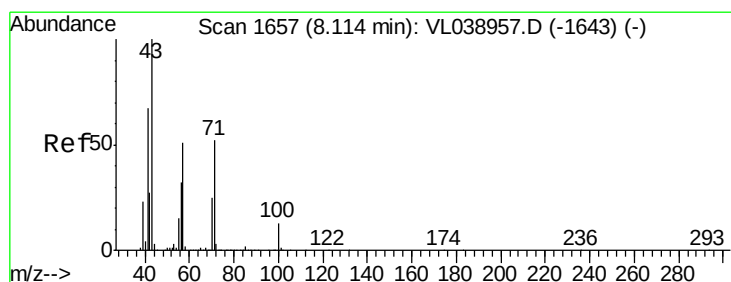
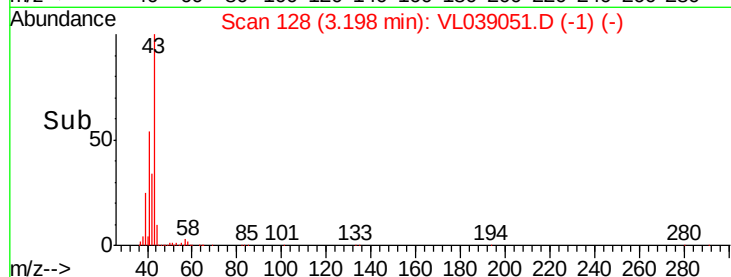
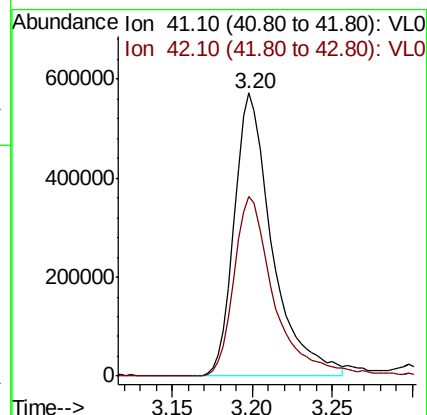
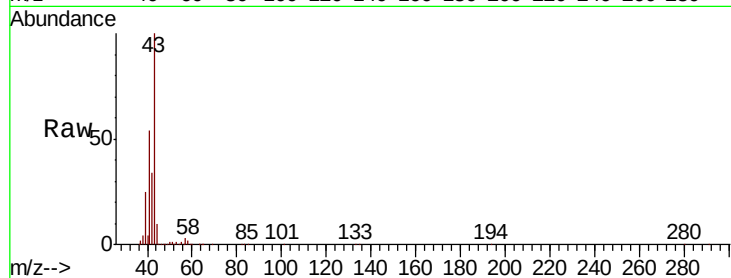
Acq: 14 May 2022 00:32

Tot Ion: 41 Resp: 924645

Ion Ratio Lower Upper

41 100

42 67.6 58.3 87.5



#10

Heptane

Concen: 0.297 ppbv

RT: 8.10 min Scan# 1654

Delta R.T. -0.01 min

Lab File: VL039051.D

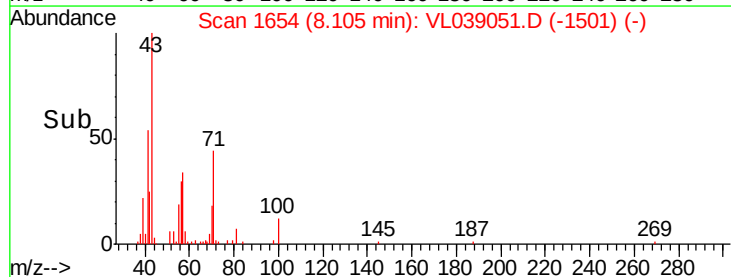
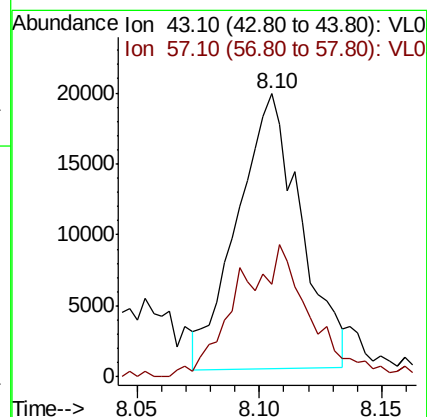
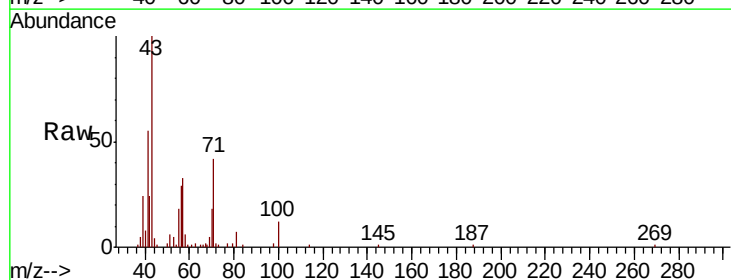
Acq: 14 May 2022 00:32

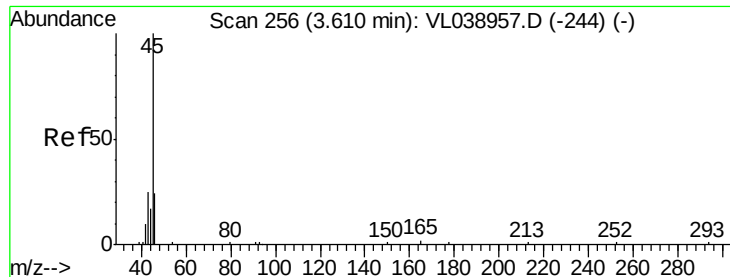
Tgt Ion: 43 Resp: 34994

Ion Ratio Lower Upper

43 100

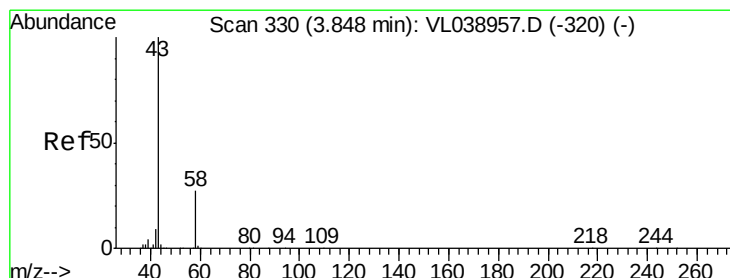
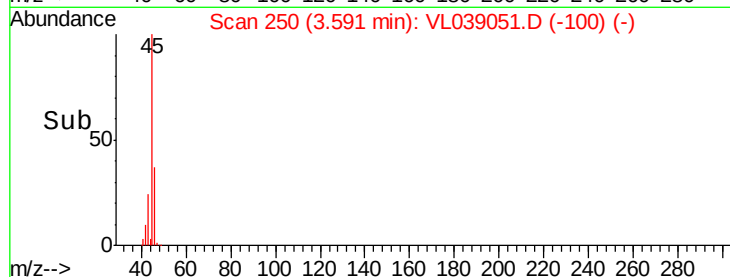
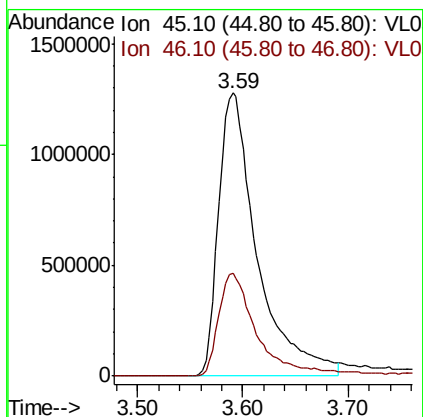
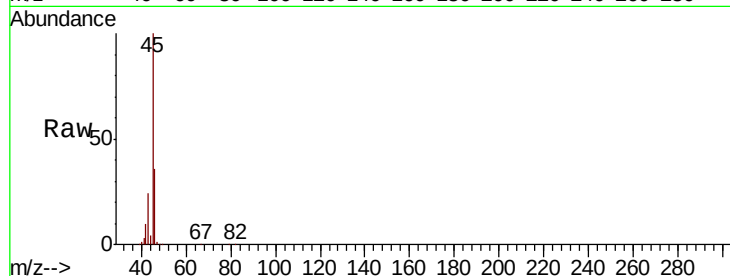
57 57.4 40.5 60.7





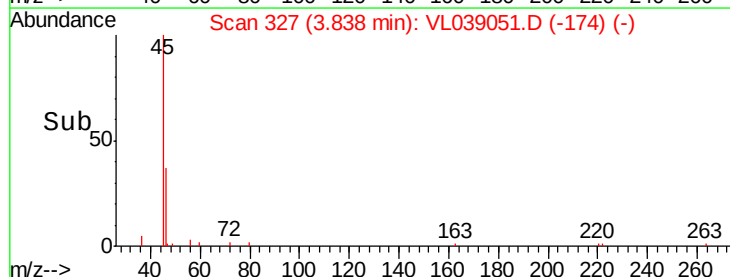
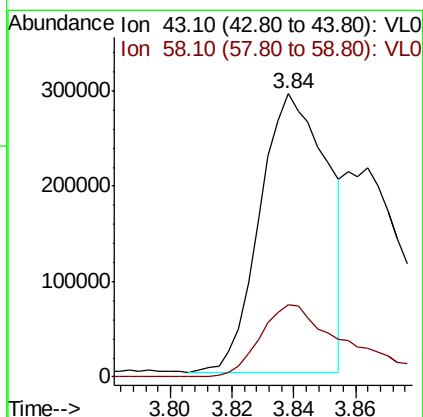
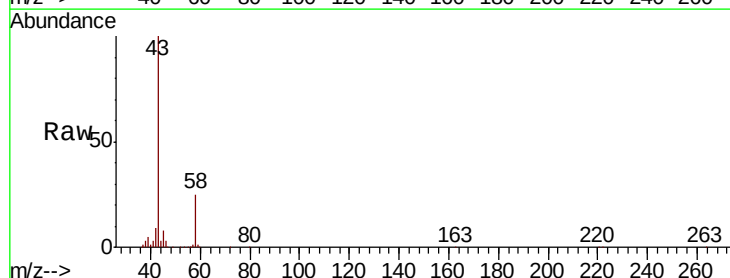
#13
Ethanol
Concen: 957.415 ppbv
RT: 3.59
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId:
BFB
Acq: 14 May 2022 00:32

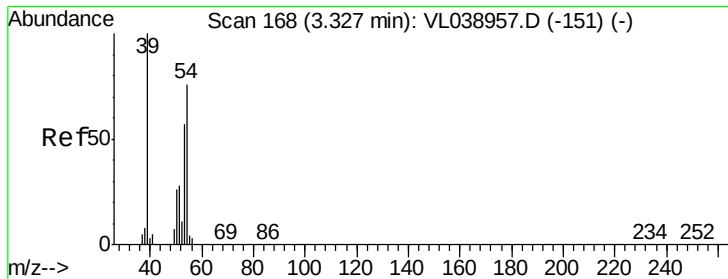
Tot Ion: 45 Resp: 3255451
Ion Ratio Lower Upper
45 100
46 38.9 18.0 72.2



#15
Acetone
Concen: 5.336 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.01 min
Lab File: VL039051.D
Acq: 14 May 2022 00:32

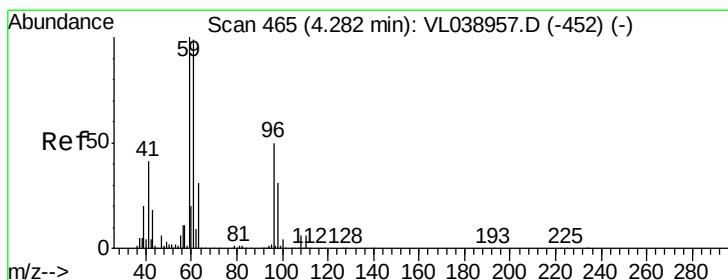
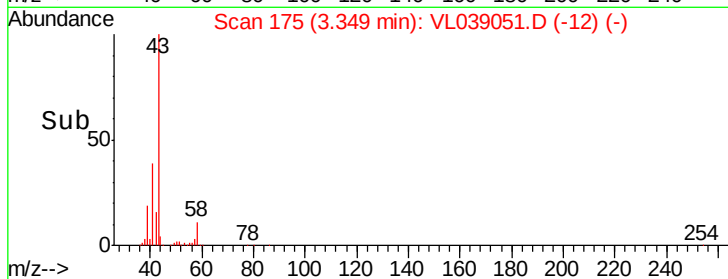
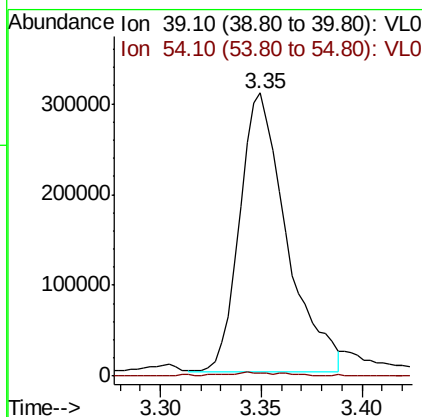
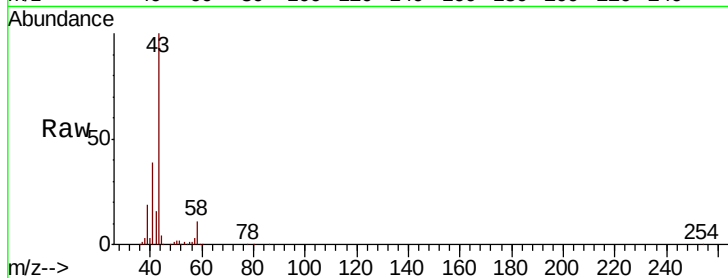
Tgt Ion: 43 Resp: 446259
Ion Ratio Lower Upper
43 100
58 35.7 21.3 31.9#





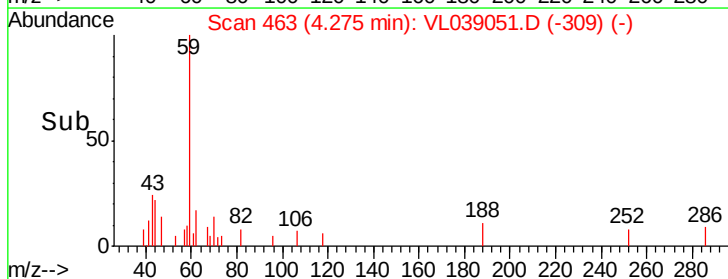
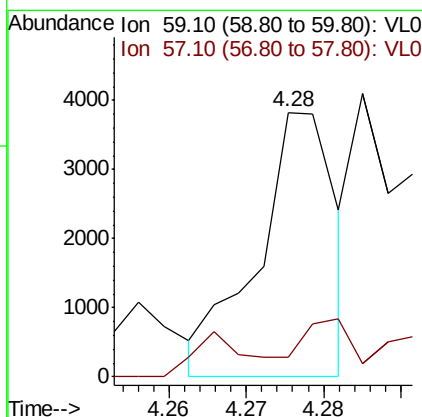
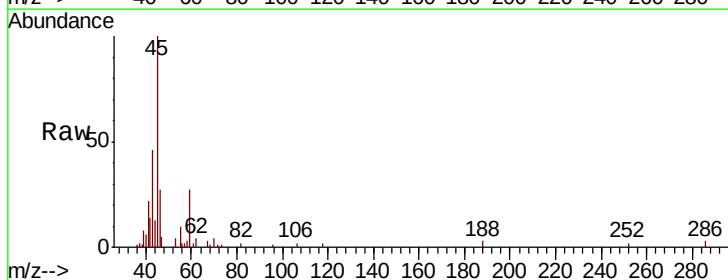
#16
 1,3-Butadiene
 Concen: 10.454 ppbv
 RT: 3.35
 Delta R.T.: MSVOA_L
 Lab File: ClientSampleId :
 BFB
 Acq: 14 May 2022 00:32

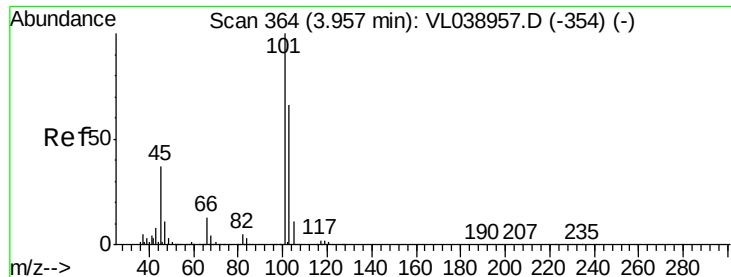
Tot Ion: 39 Resp: 502340
 Ion Ratio Lower Upper
 39 100
 54 2.4 65.2 97.8#



#17
 tert-Butyl alcohol
 Concen: 0.042 ppbv
 RT: 4.28 min Scan# 463
 Delta R.T.: -0.01 min
 Lab File: VL039051.D
 Acq: 14 May 2022 00:32

Tgt Ion: 59 Resp: 2680
 Ion Ratio Lower Upper
 59 100
 57 0.0 9.2 13.8#





#19

Isopropyl Alcohol

Concen: 27.673 ppbv

RT: 3.95 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

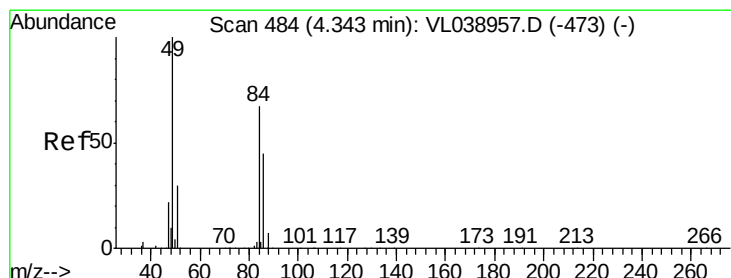
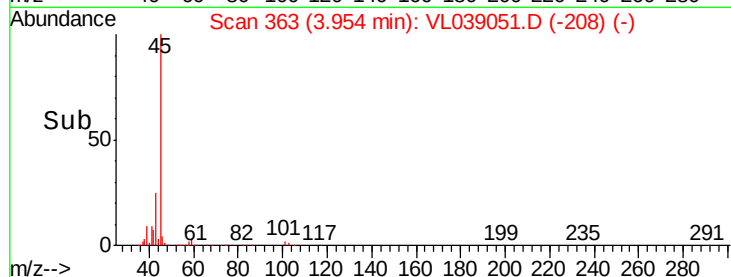
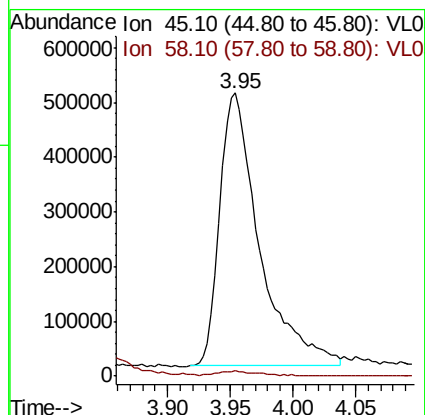
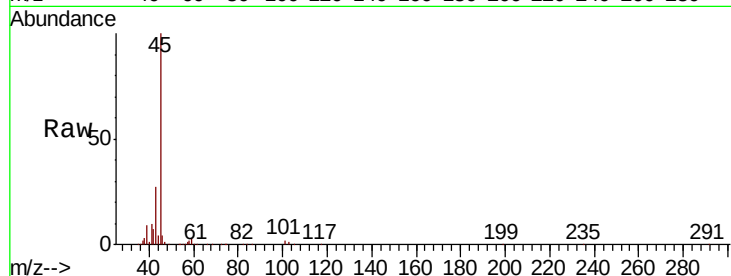
Acq: 14 May 2022 00:32

Tot Ion: 45 Resp: 1100473

Ion Ratio Lower Upper

45 100

58 1.8 1.4 2.2



#20

Methylene Chloride

Concen: 4.189 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.01 min

Lab File: VL039051.D

Acq: 14 May 2022 00:32

Tgt Ion: 84 Resp: 132065

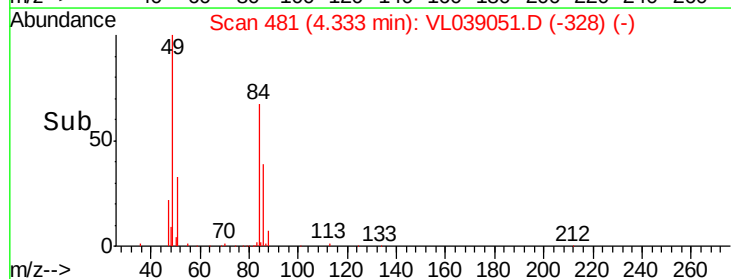
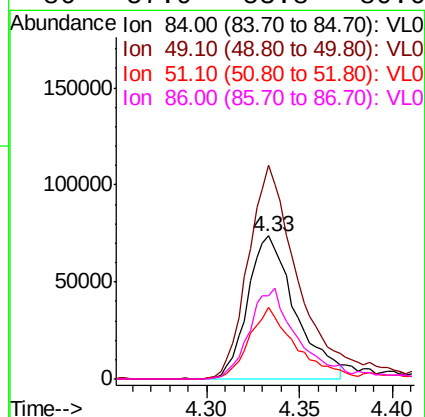
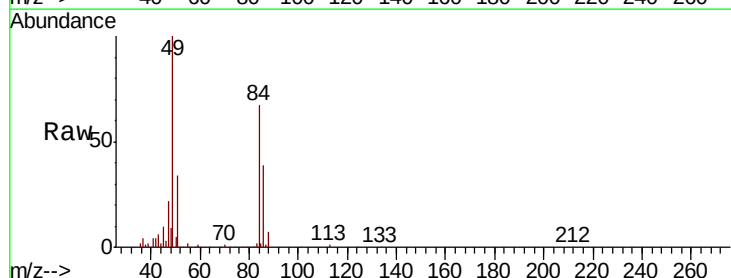
Ion Ratio Lower Upper

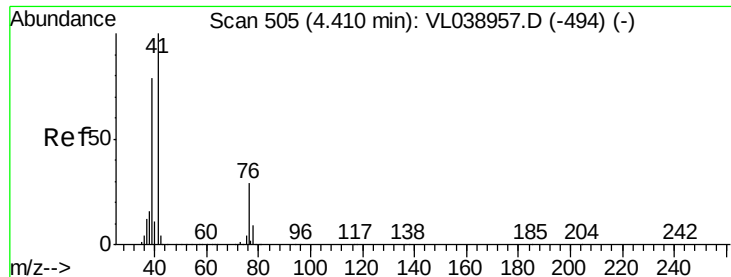
84 100

49 148.8 119.9 179.9

51 49.9 35.7 53.5

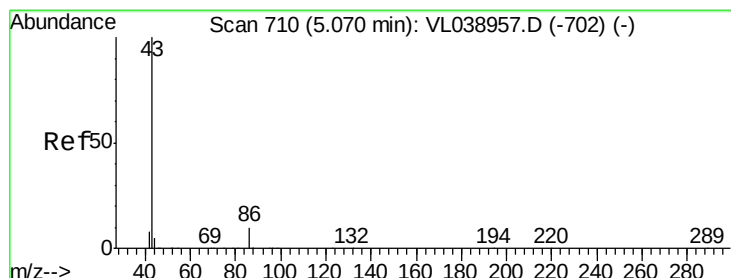
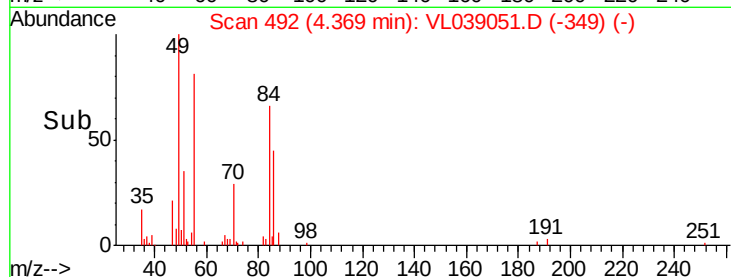
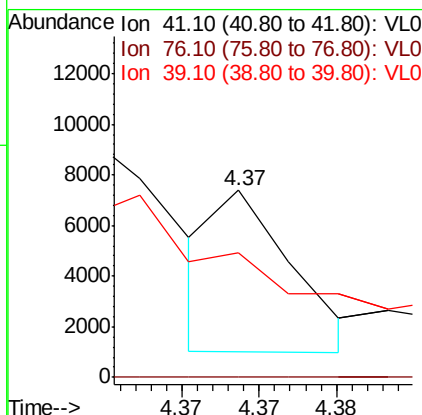
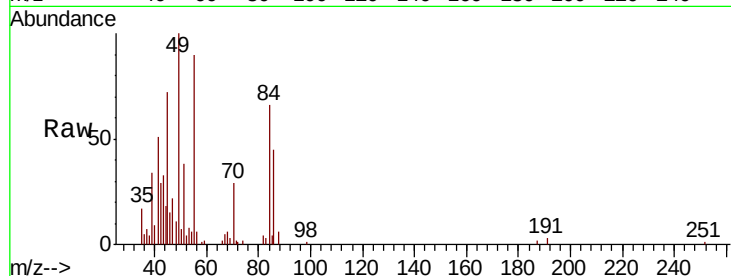
86 57.9 53.8 80.6





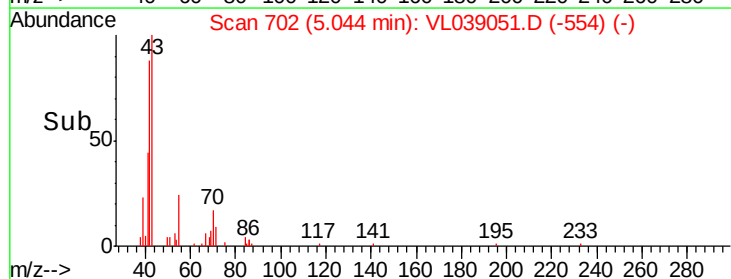
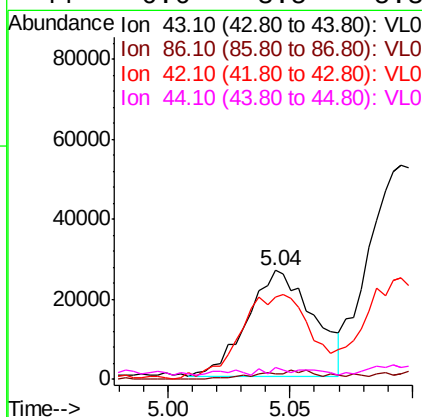
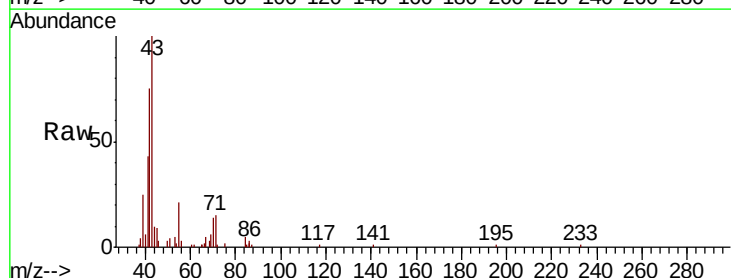
#21
 Allvl Chloride
 Concen: 0.038 ppbv
 RT: 4.37
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 BFB
 Acq: 14 May 2022 00:32

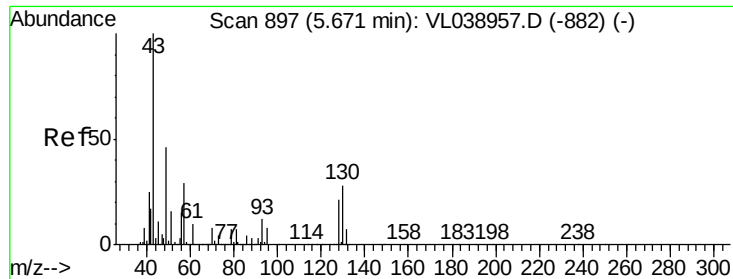
Tot Ion: 41 Resp: 2184
 Ion Ratio Lower Upper
 41 100
 76 0.0 24.2 36.4#
 39 0.0 63.8 95.8#



#23
 Vinyl Acetate
 Concen: 0.745 ppbv
 RT: 5.04 min Scan# 702
 Delta R.T. -0.03 min
 Lab File: VL039051.D
 Acq: 14 May 2022 00:32

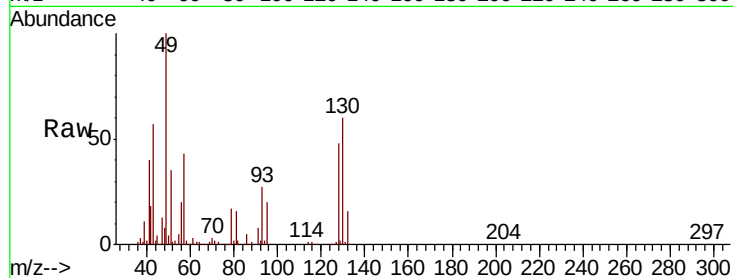
Tgt Ion: 43 Resp: 49328
 Ion Ratio Lower Upper
 43 100
 86 5.0 6.6 9.8#
 42 71.4 8.1 12.1#
 44 6.6 3.5 5.3#





#25
Ethyl Acetate
Concen: 1.433 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 May 2022 00:32

Tot Ion:	43	Resp:	286910
Ion	Ratio	Lower	Upper
43	100		
45	10.1	8.1	12.1
61	7.6	7.8	11.6#
70	6.3	5.6	8.4



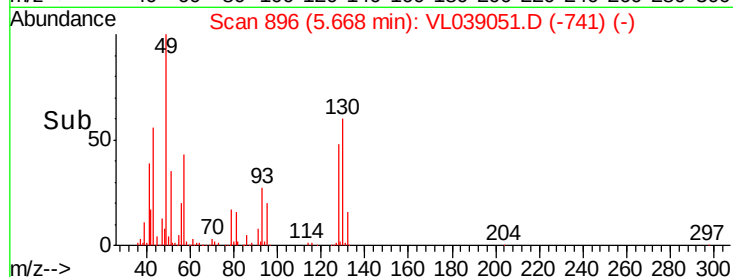
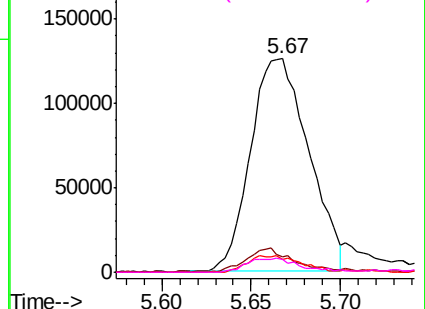
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

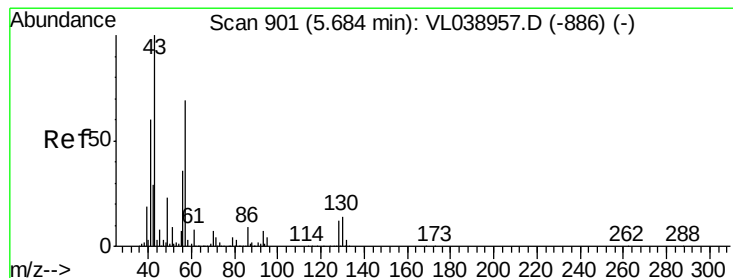
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 2.218 ppbv
RT: 5.67 min Scan# 897
Delta R.T. -0.01 min
Lab File: VL039051.D
Acq: 14 May 2022 00:32

Tgt Ion:	57	Resp:	197278
Ion	Ratio	Lower	Upper
57	100		
41	94.4	75.2	112.8
43	160.9	190.8	286.2#
56	51.5	43.0	64.6



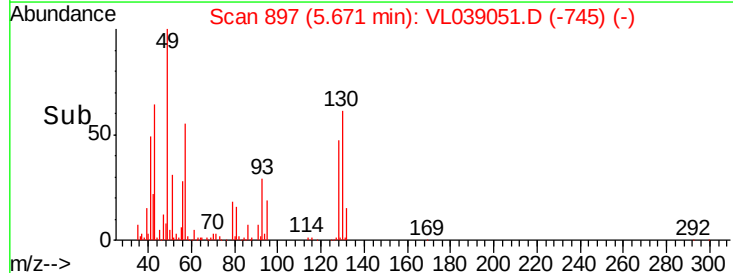
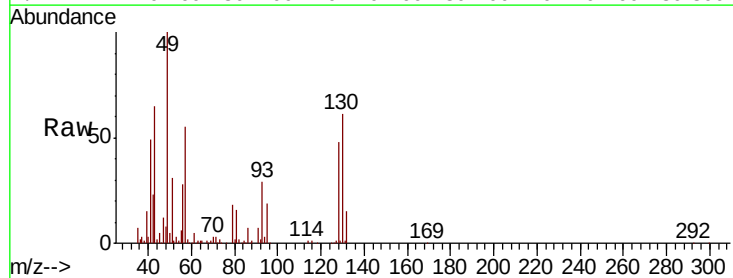
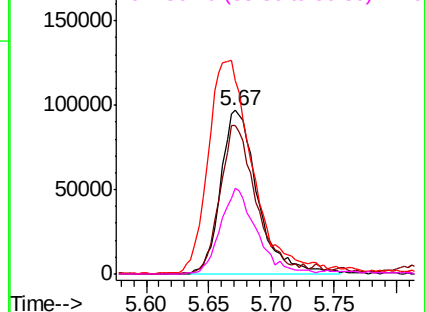
Abundance

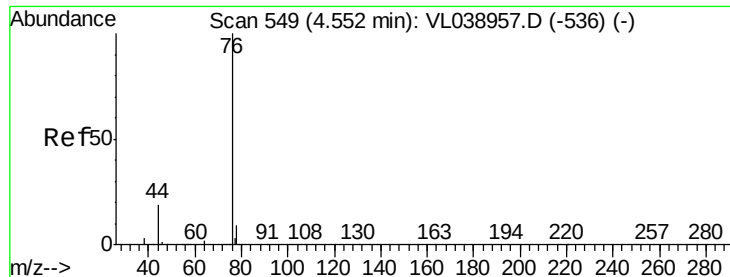
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.036 ppbv

RT: 4.55 Instrument: MSVOA_1

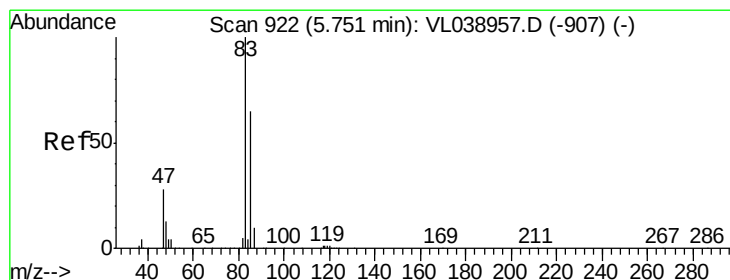
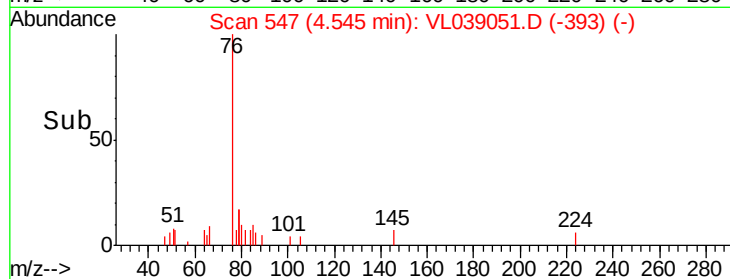
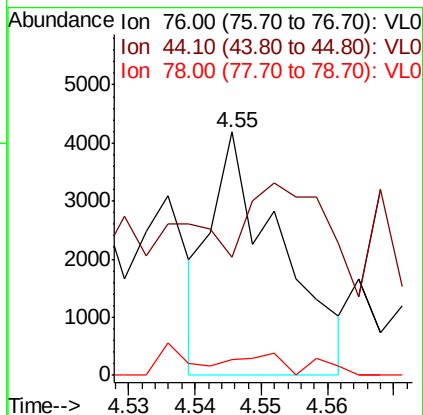
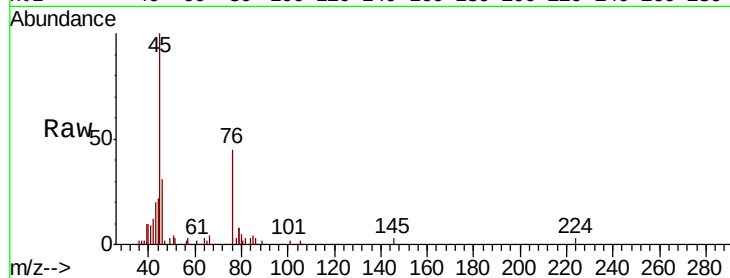
Delta R.T. ClientSampleId:

Lab File: BFB

Acq: 14 May 2022 00:32

Tot Ion: 76 Resp: 3031

Ion	Ratio	Lower	Upper
76	100		
44	0.0	15.3	22.9#
78	0.0	8.2	12.2#



#29

Chloroform

Concen: 1.007 ppbv

RT: 5.74 min Scan# 918

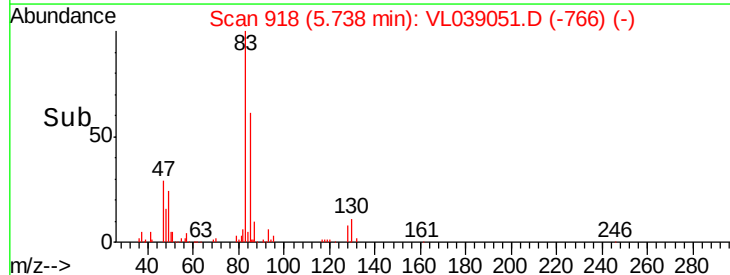
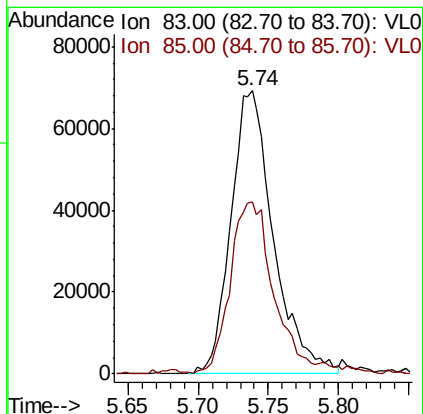
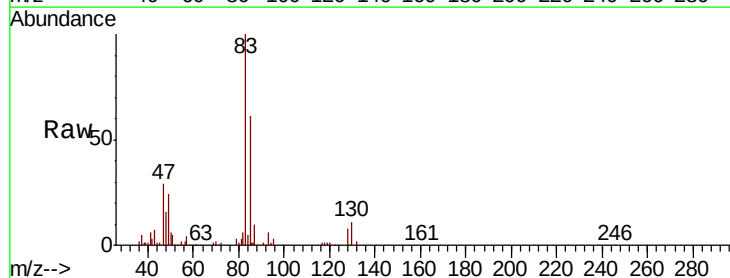
Delta R.T. -0.01 min

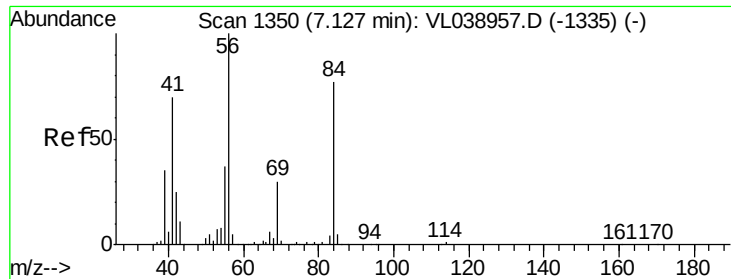
Lab File: VL039051.D

Acq: 14 May 2022 00:32

Tgt Ion: 83 Resp: 144924

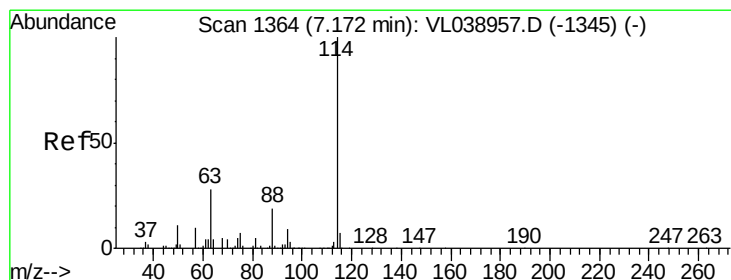
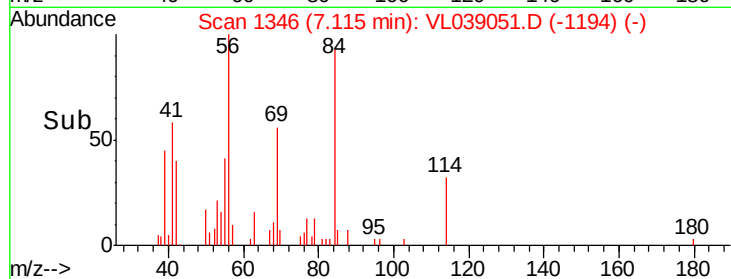
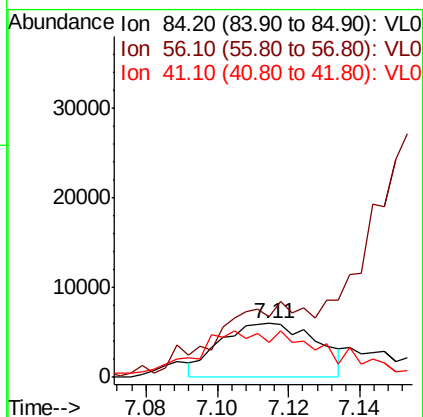
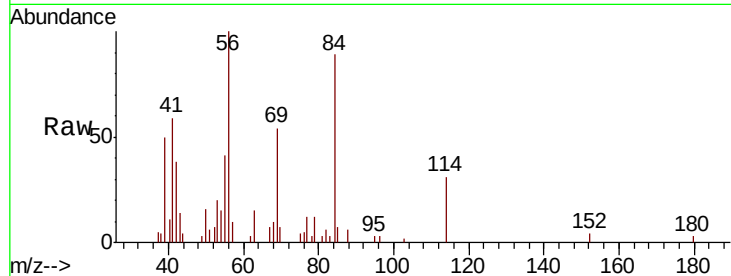
Ion	Ratio	Lower	Upper
83	100		
85	60.4	51.8	77.6





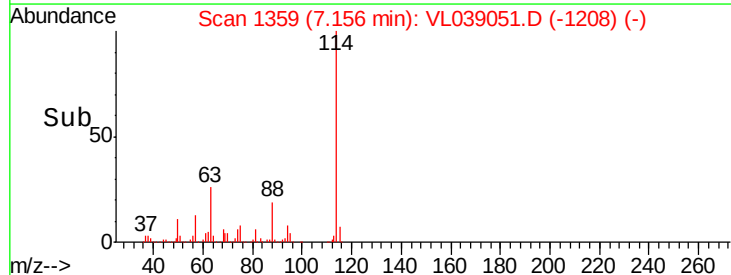
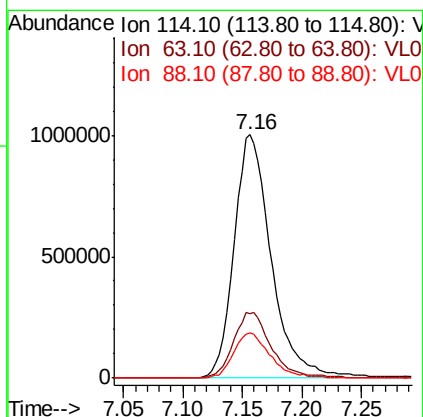
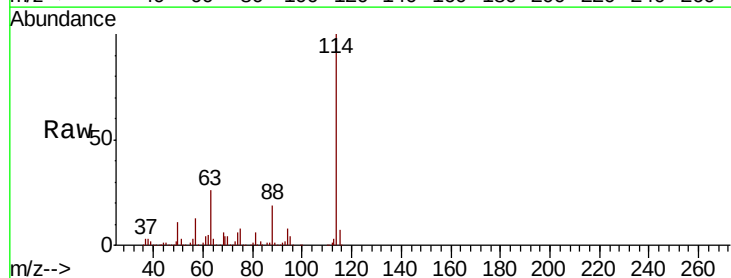
#30
Cvclohexane
Concen: 0.152 ppbv
RT: 7.11 min
Delta R.T.: MSVOA_L
Lab File: ClientSampleId : BFB
Acq: 14 May 2022 00:32

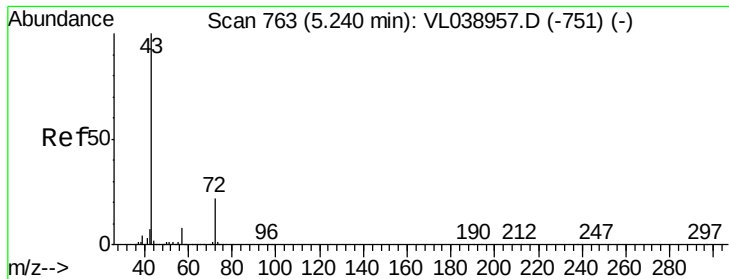
Tot Ion: 84 Resp: 11319
Ion Ratio Lower Upper
84 100
56 0.0 115.3 172.9#
41 126.9 72.0 108.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1359
Delta R.T.: -0.02 min
Lab File: VL039051.D
Acq: 14 May 2022 00:32

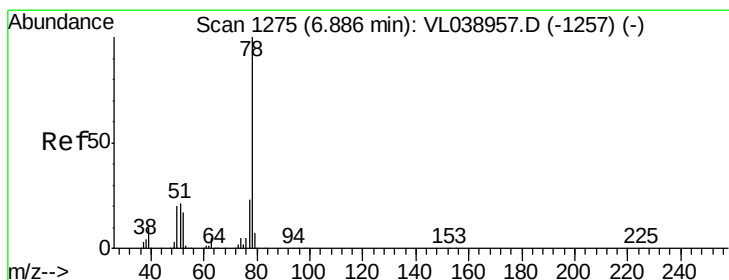
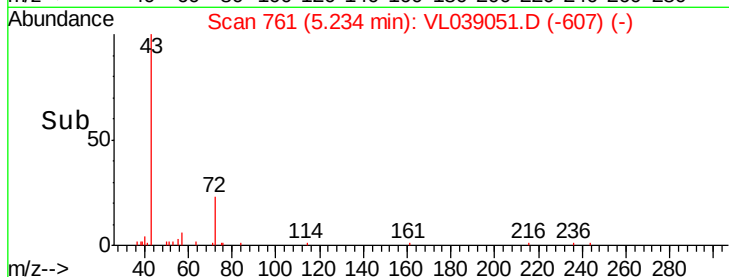
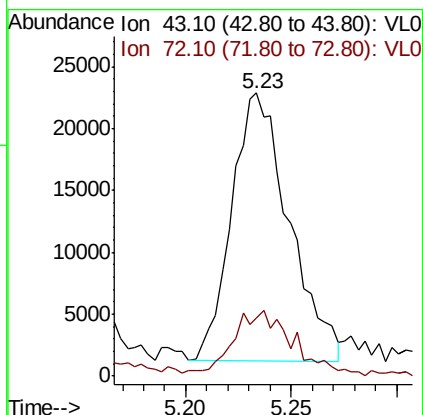
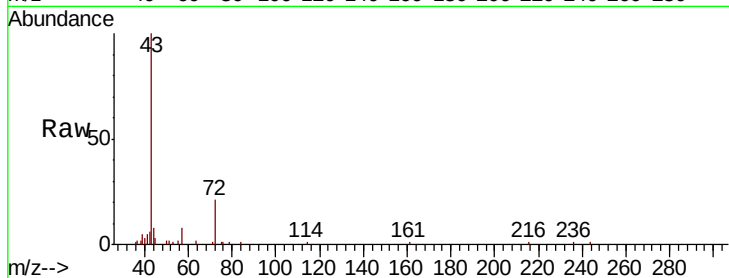
Tgt Ion: 114 Resp: 2155005
Ion Ratio Lower Upper
114 100
63 28.0 22.6 33.8
88 19.0 15.4 23.0





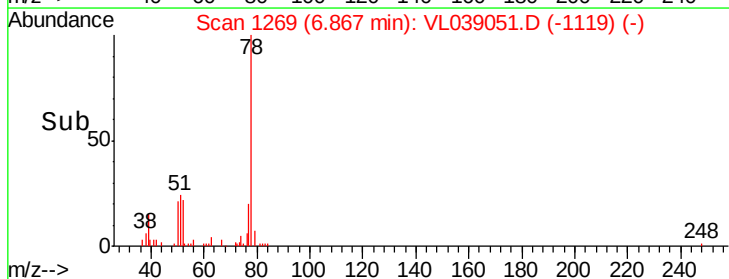
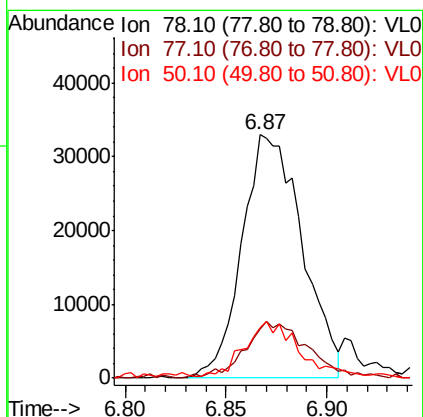
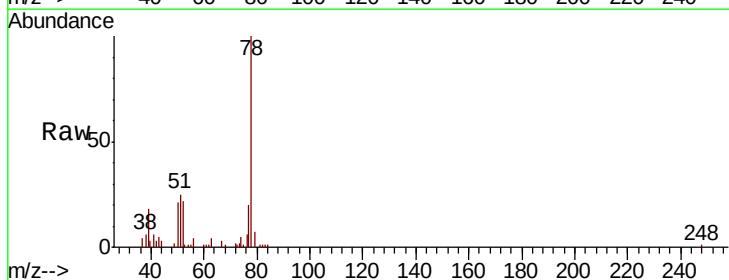
#34
 2-Butanone
 Concen: 0.372 ppbv
 RT: 5.23
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 BFB
 Acq: 14 May 2022 00:32

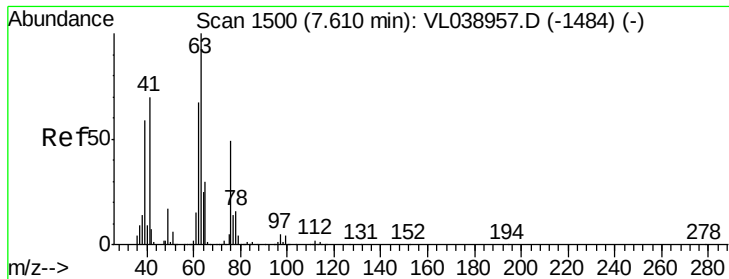
Tot Ion: 43 Resp: 40886
 Ion Ratio Lower Upper
 43 100
 72 26.7 17.8 26.6#



#36
 Benzene
 Concen: 0.372 ppbv
 RT: 6.87 min Scan# 1269
 Delta R.T. -0.02 min
 Lab File: VL039051.D
 Acq: 14 May 2022 00:32

Tgt Ion: 78 Resp: 68577
 Ion Ratio Lower Upper
 78 100
 77 19.7 18.6 28.0
 50 19.2 15.6 23.4





#39

1,2-Dichloropropane

Concen: 8.244 ppbv

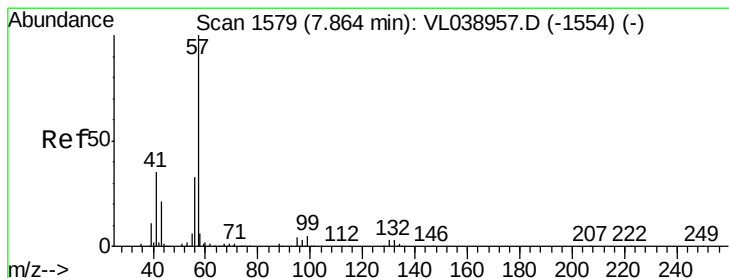
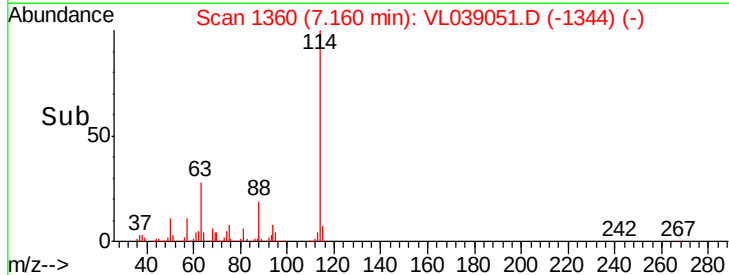
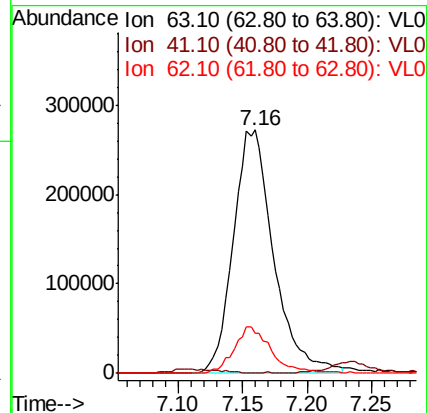
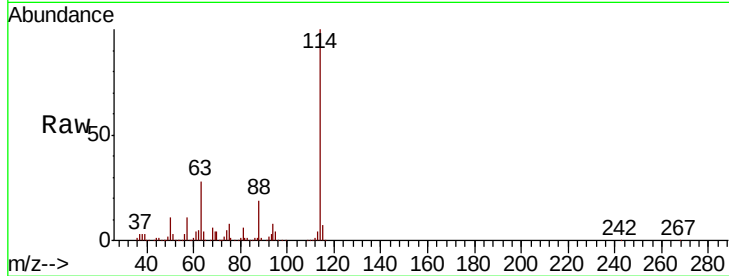
RT: 7.16 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: BFB

Acq: 14 May 2022 00:32

Tot Ion	63	Resp	591603
Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.9	83.9#
62	16.1	53.8	80.6#



#44

2,2,4-Trimethylpentane

Concen: 0.241 ppbv

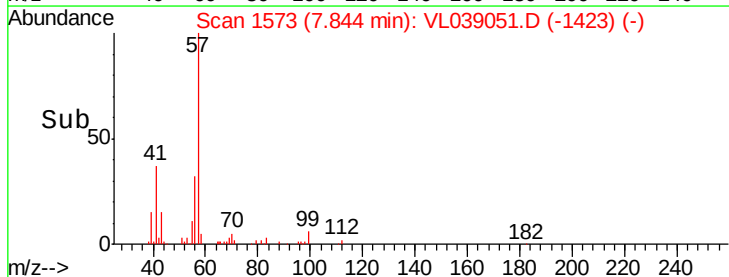
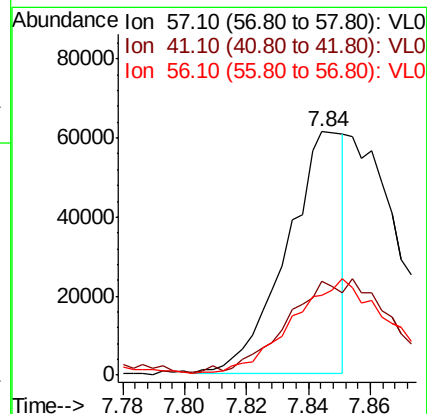
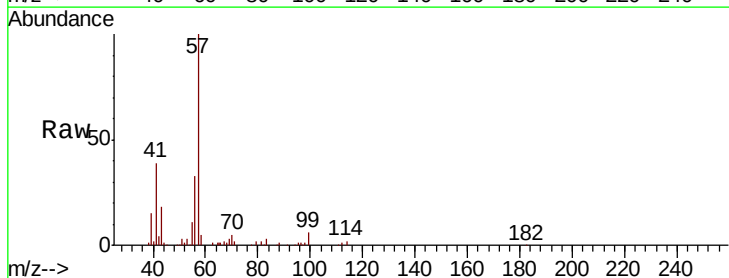
RT: 7.84 min Scan# 1573

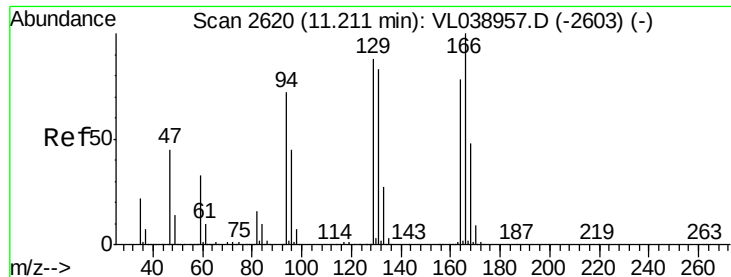
Delta R.T. -0.02 min

Lab File: VL039051.D

Acq: 14 May 2022 00:32

Tgt Ion	57	Resp	77855
Ion	Ratio	Lower	Upper
57	100		
41	79.3	26.3	39.5#
56	74.4	24.6	37.0#





#52

Tetrachloroethene

Concen: 0.433 ppbv

RT: 11.20

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 May 2022 00:32

Tot Ion:164 Resp: 28543

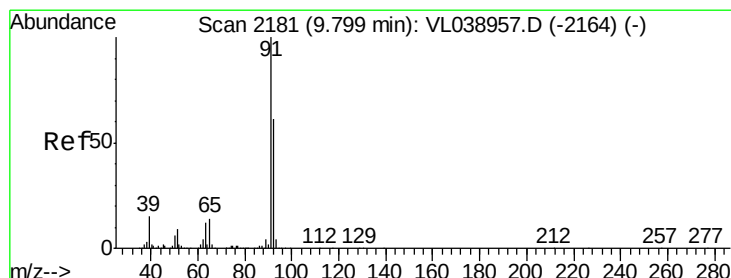
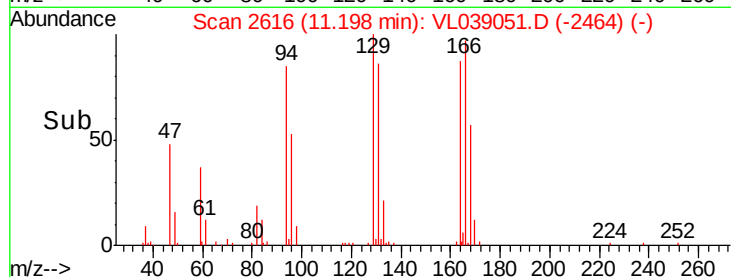
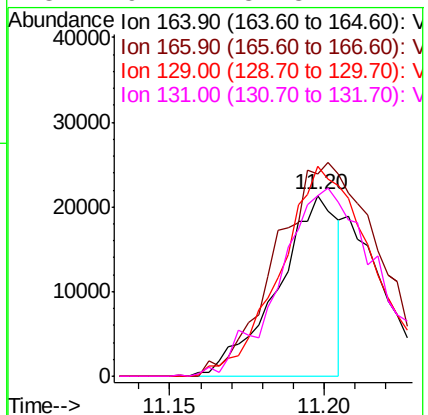
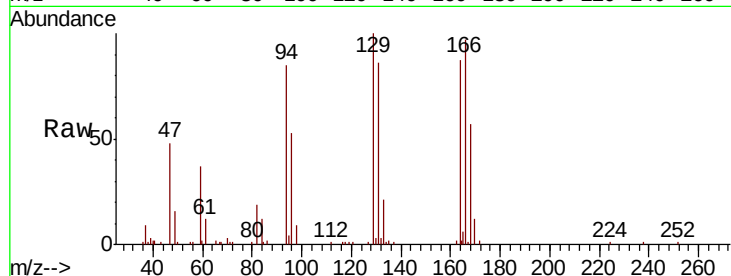
Ion Ratio Lower Upper

164 100

166 109.4 102.5 153.7

129 113.0 90.1 135.1

131 97.4 84.8 127.2



#53

Toluene

Concen: 1.361 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL039051.D

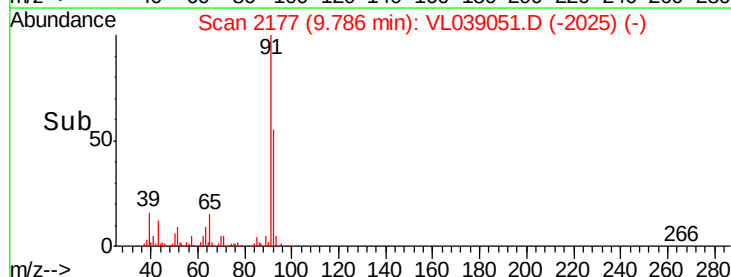
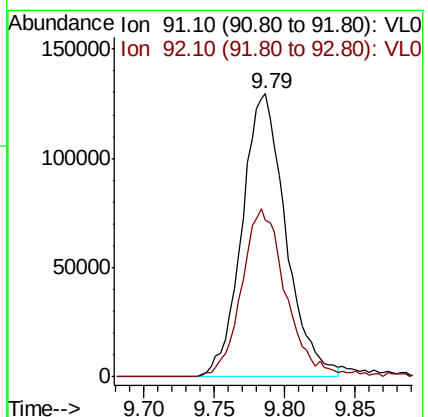
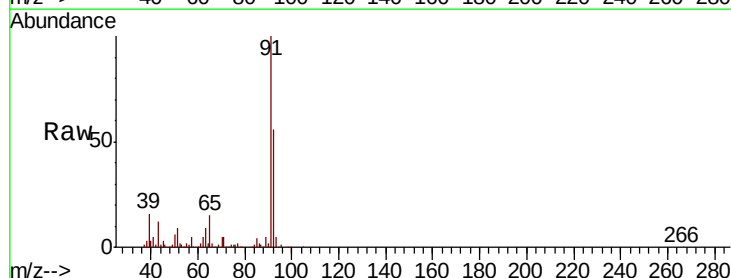
Acq: 14 May 2022 00:32

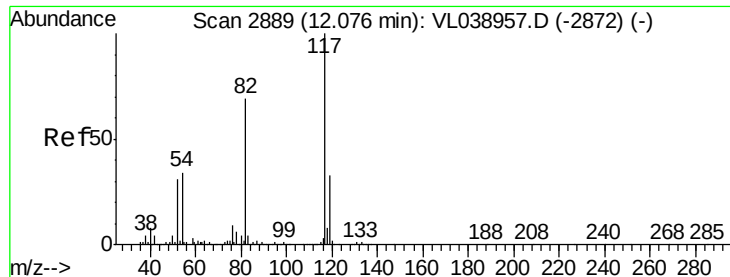
Tgt Ion: 91 Resp: 281294

Ion Ratio Lower Upper

91 100

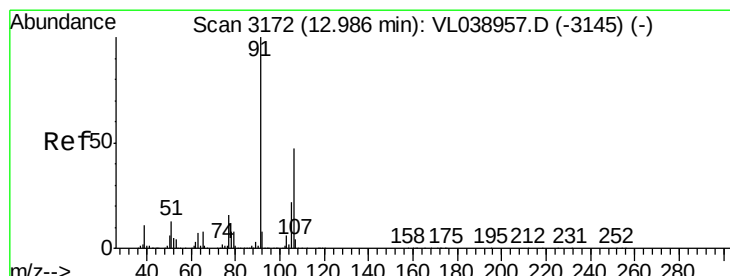
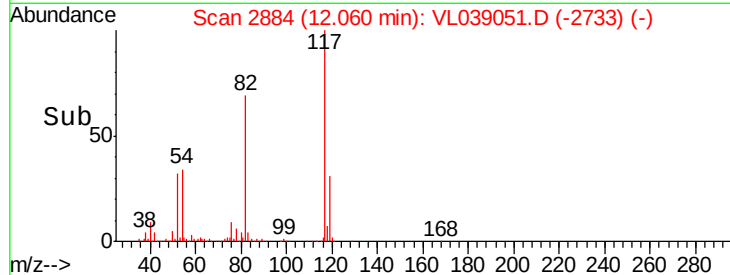
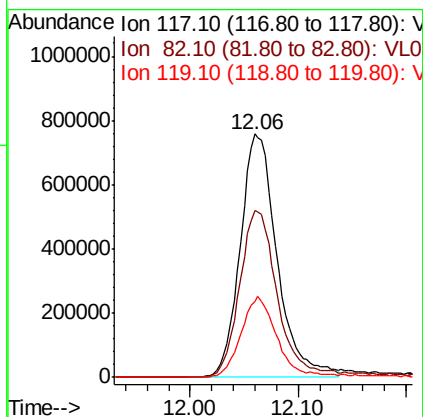
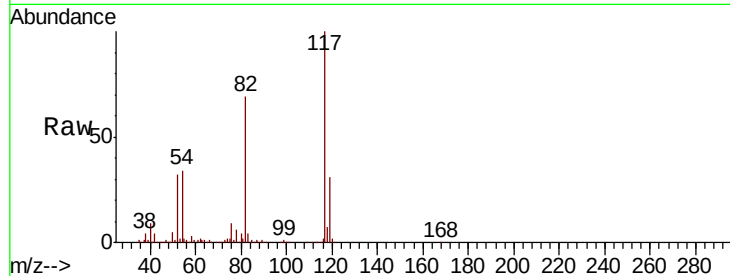
92 61.9 48.2 72.2





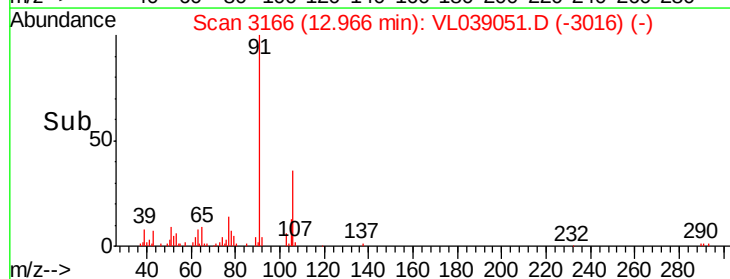
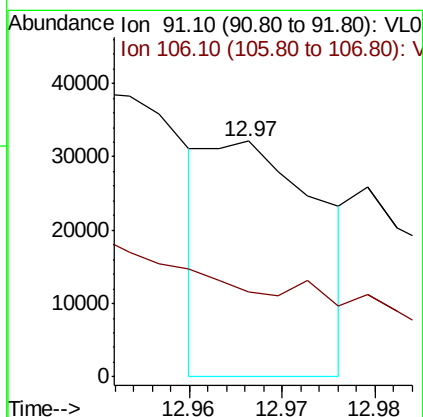
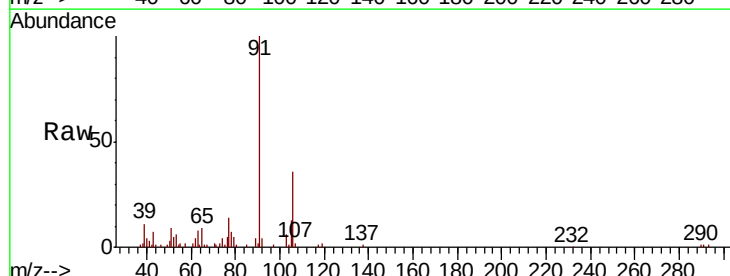
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 14 May 2022 00:32

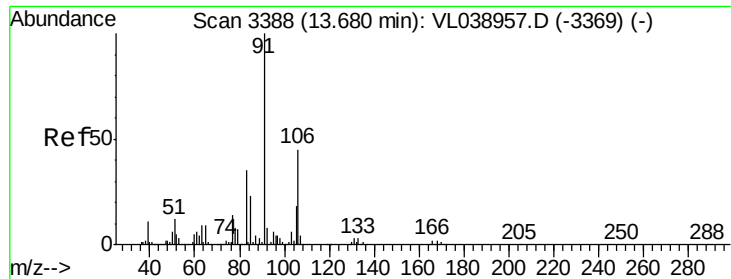
Tot Ion: 117 Resp: 1803167
Ion Ratio Lower Upper
117 100
82 74.0 57.0 85.6
119 33.6 27.2 40.8



#59
m/p-Xylene
Concen: 0.121 ppbv
RT: 12.97 min Scan# 3166
Delta R.T. -0.02 min
Lab File: VL039051.D
Acq: 14 May 2022 00:32

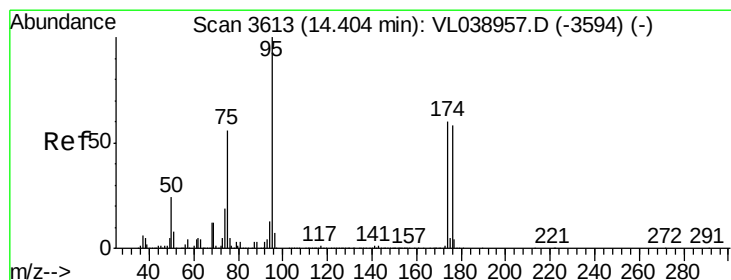
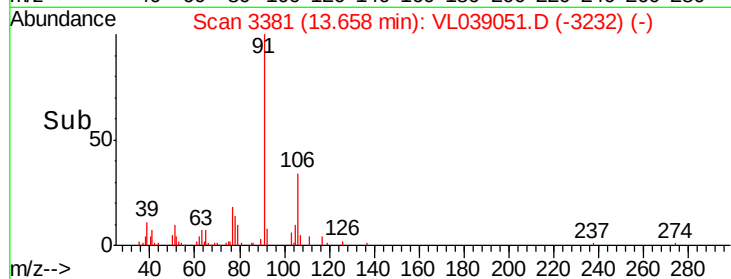
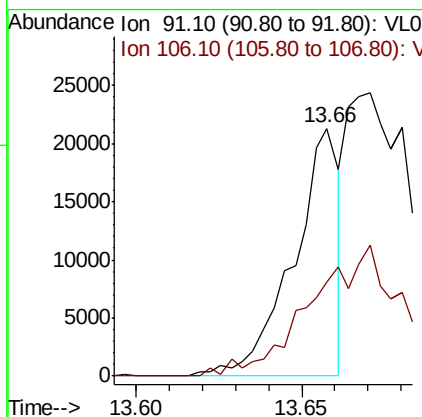
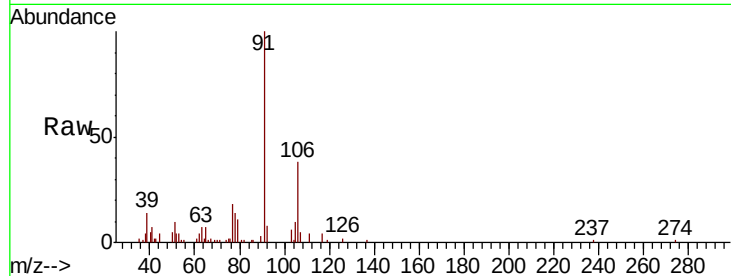
Tgt Ion: 91 Resp: 26852
Ion Ratio Lower Upper
91 100
106 0.0 34.6 52.0#





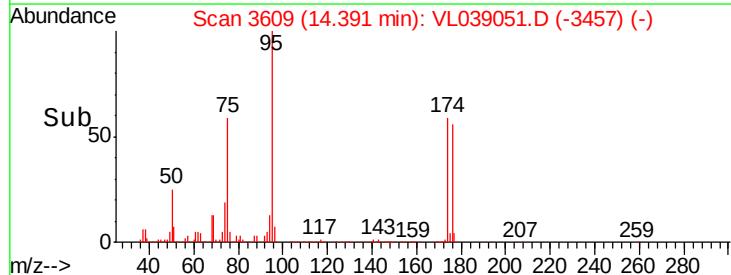
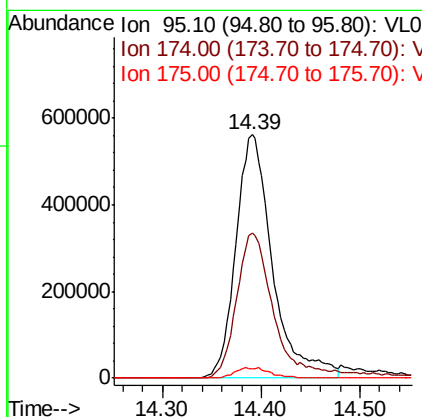
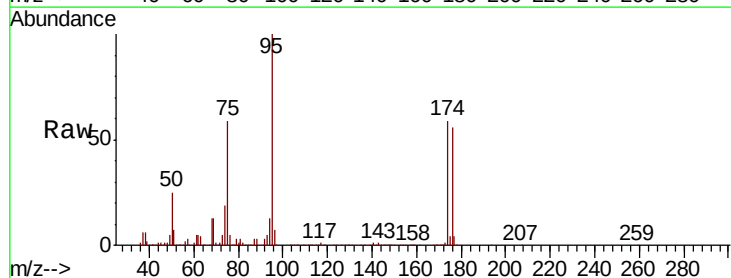
#60
o-Xylene
Concen: 0.098 ppbv
RT: 13.66
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 May 2022 00:32

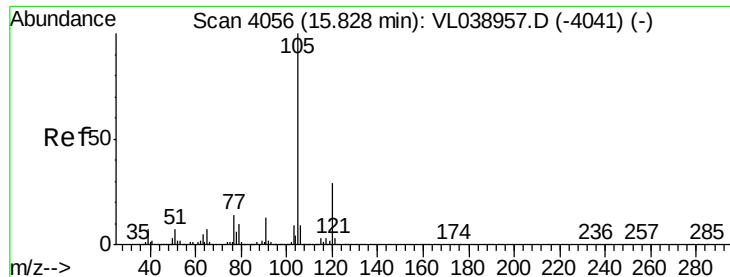
Tot Ion: 91 Resp: 20490
Ion Ratio Lower Upper
91 100
106 0.0 22.2 66.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.157 ppbv
RT: 14.39 min Scan# 3609
Delta R.T. -0.01 min
Lab File: VL039051.D
Acq: 14 May 2022 00:32

Tgt Ion: 95 Resp: 1450470
Ion Ratio Lower Upper
95 100
174 63.5 50.8 76.2
175 4.1 3.8 5.6





#72

4-Ethyltoluene

Concen: 0.036 ppbv

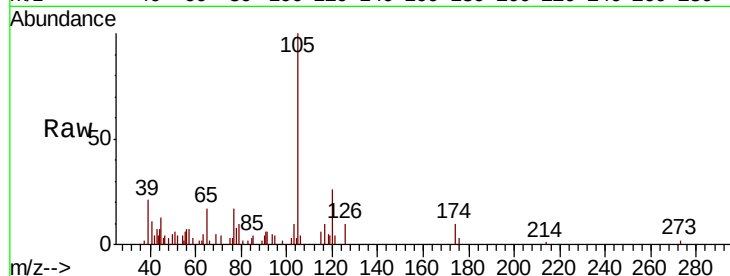
RT: 15.81 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 14 May 2022 00:32

Tot Ion:	105	Resp:	8630
Ion	Ratio	Lower	Upper
105	100		
120	96.5	23.4	35.0#
91	58.5	10.6	16.0#
77	0.0	12.5	18.7#

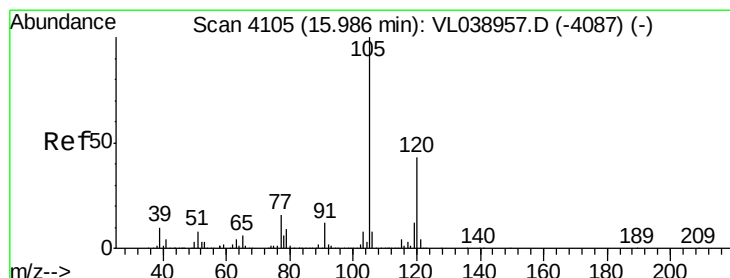
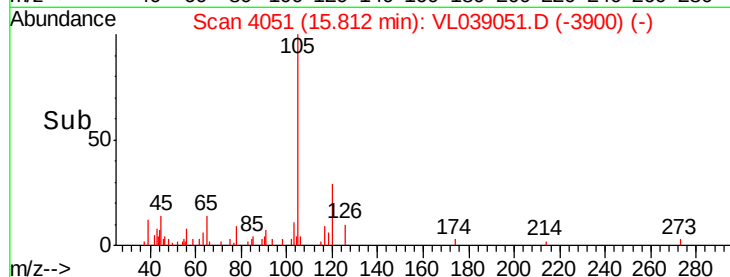
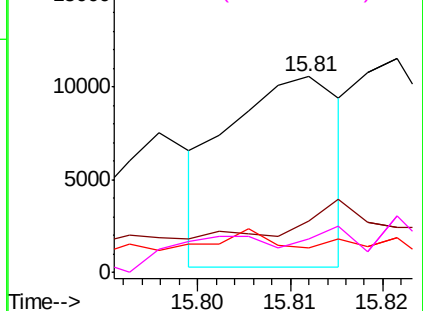


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#73

1,3,5-Trimethylbenzene

Concen: 0.041 ppbv

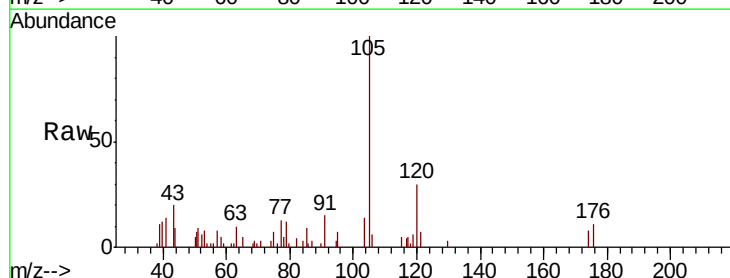
RT: 15.97 min Scan# 4099

Delta R.T. -0.02 min

Lab File: VL039051.D

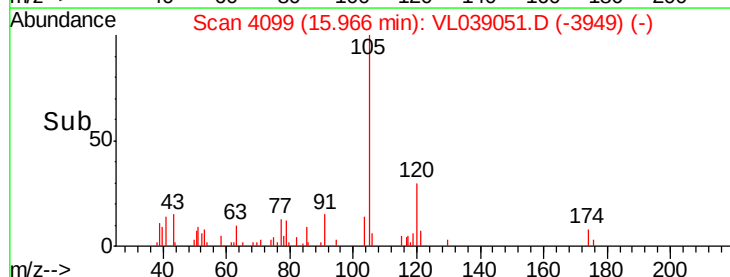
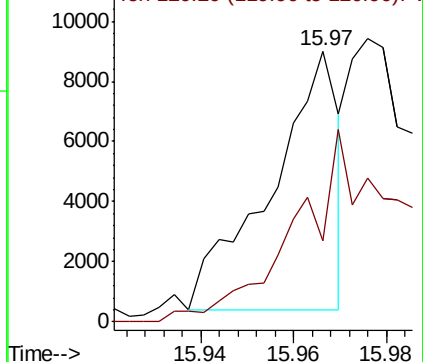
Acq: 14 May 2022 00:32

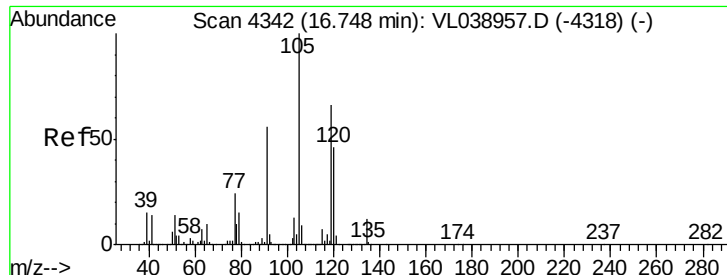
Tgt Ion:	105	Resp:	8704
Ion	Ratio	Lower	Upper
105	100		
120	27.6	34.4	51.6#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74

1,2,4-Trimethylbenzene

Concen: 0.178 ppbv

RT: 16.73 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

BFB

Acq: 14 May 2022 00:32

Tot Ion:105 Resp: 41607

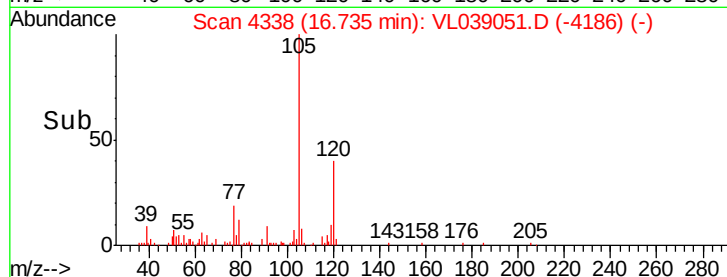
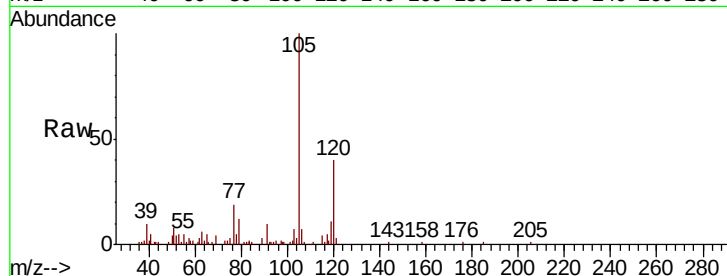
Ion Ratio Lower Upper

105 100

120 39.9 36.9 55.3

91 8.9 45.0 67.4#

77 15.9 19.2 28.8#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

