

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051322\
 Data File : VL039058.D
 Acq On : 14 May 2022 5:15
 Operator : SY/AP
 Sample : N2828-03DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Quant Time: May 14 07:19:13 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	926513	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2670895	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2257355	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	1701511	9.52	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.20%

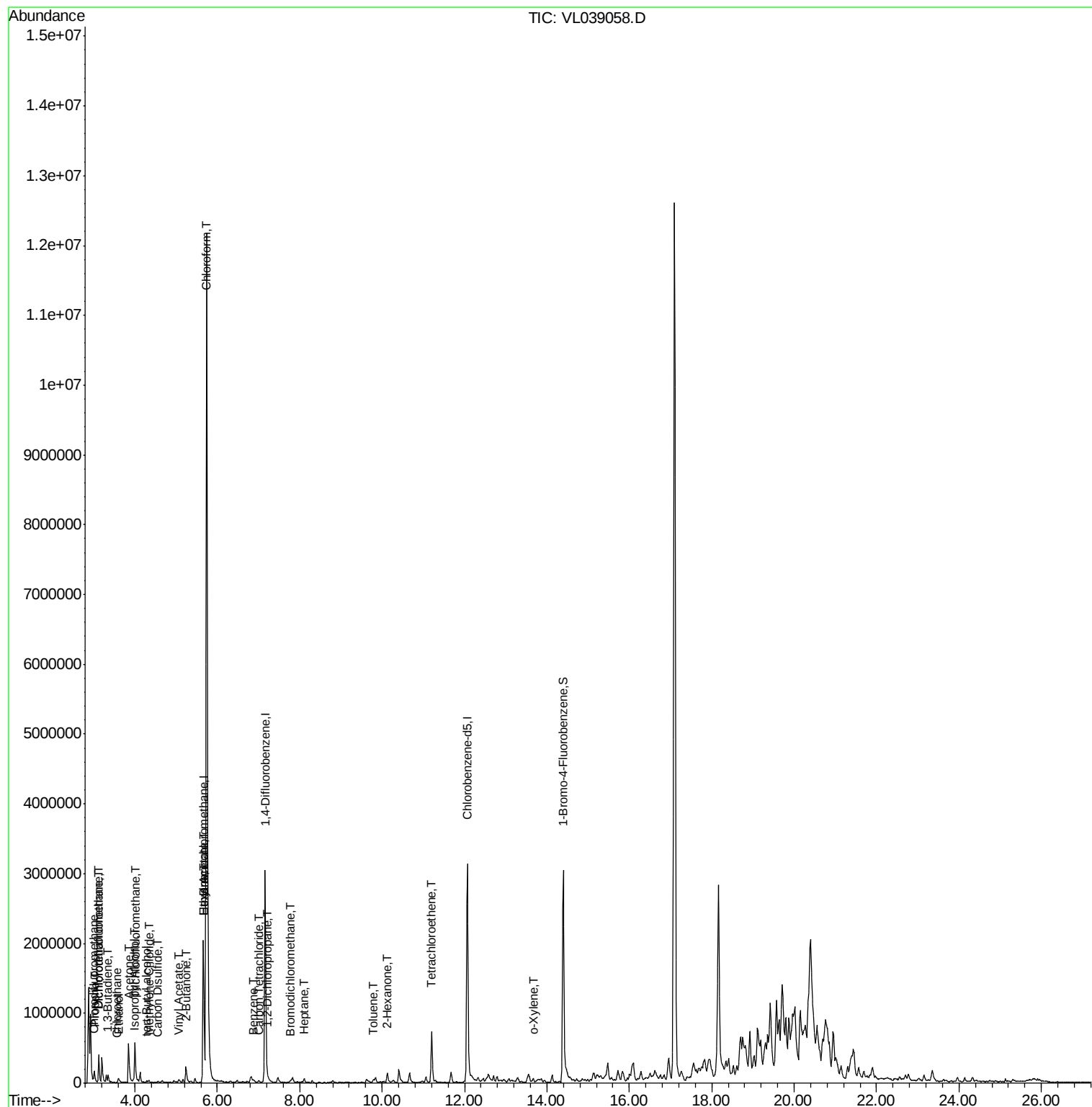
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.12	85	43179	0.297	ppbv	100
3) Chlorodifluoromethane	2.98	51	23908	0.208	ppbv #	81
7) Chloroethane	3.56	64	935	0.053	ppbv #	74
8) Dichlorotetrafluoroethane	3.12	85	43179	0.328	ppbv #	17
9) Propene	3.02	41	63681	1.268	ppbv	92
10) Heptane	8.10	43	11368	0.092	ppbv #	27
11) Trichlorofluoromethane	4.00	101	29661	0.238	ppbv	95
13) Ethanol	3.60	45	89252	25.120	ppbv	95
15) Acetone	3.84	43	685088	7.839	ppbv #	85
16) 1,3-Butadiene	3.33	39	2258	0.045	ppbv #	9
17) tert-Butyl alcohol	4.29	59	5998	0.089	ppbv #	25
19) Isopropyl Alcohol	3.97	45	31085	0.748	ppbv #	19
20) Methylene Chloride	4.34	84	3369	0.102	ppbv #	52
23) Vinyl Acetate	5.07	43	52691	0.762	ppbv #	94
25) Ethyl Acetate	5.67	43	100619	0.481	ppbv #	82
26) Hexane	5.67	57	139580	1.502	ppbv #	21
27) Carbon Disulfide	4.55	76	20301	0.230	ppbv #	95
29) Chloroform	5.74	83	11035672	73.388	ppbv	90
34) 2-Butanone	5.24	43	305190	2.240	ppbv	91
35) Carbon Tetrachloride	7.01	117	18595	0.106	ppbv #	93
36) Benzene	6.88	78	9995	0.044	ppbv #	83
39) 1,2-Dichloropropane	7.22	63	6844	0.077	ppbv #	33
42) Bromodichloromethane	7.77	83	9795	0.051	ppbv #	82
51) 2-Hexanone	10.12	43	130702	0.749	ppbv #	99
52) Tetrachloroethene	11.20	164	182764	2.238	ppbv	96
53) Toluene	9.78	91	19163	0.075	ppbv #	40
60) o-Xylene	13.67	91	8888	0.034	ppbv #	32

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 14 May 2022 5:15

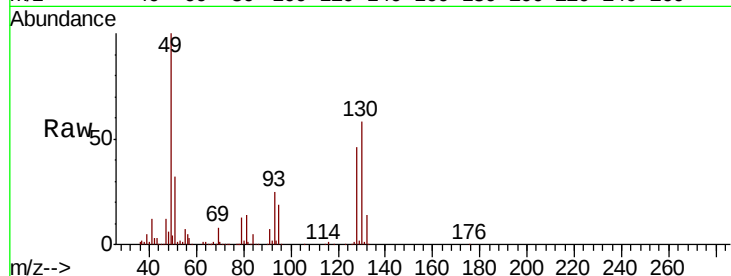
Tot Ion: 49 Resp: 926513

Ion Ratio Lower Upper

49 100

128 51.8 23.3 69.8

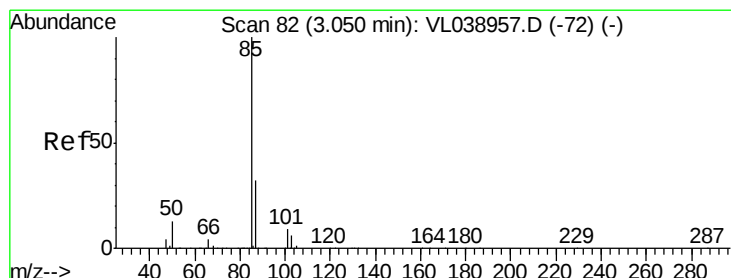
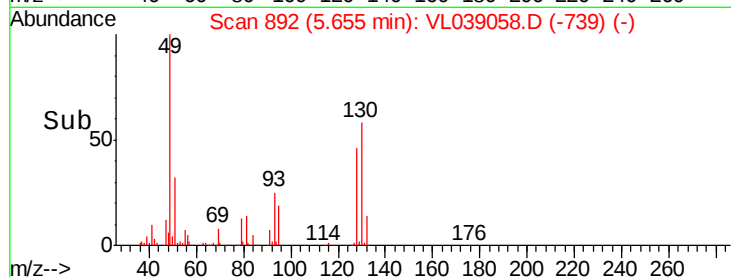
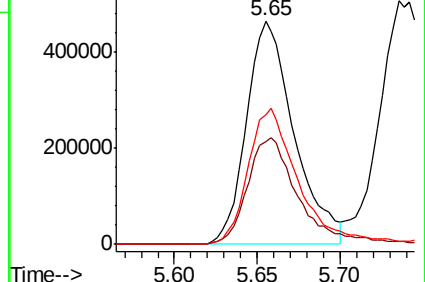
130 66.7 29.8 89.3



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: 0.297 ppbv

RT: 3.12 min Scan# 104

Delta R.T. 0.07 min

Lab File: VL039058.D

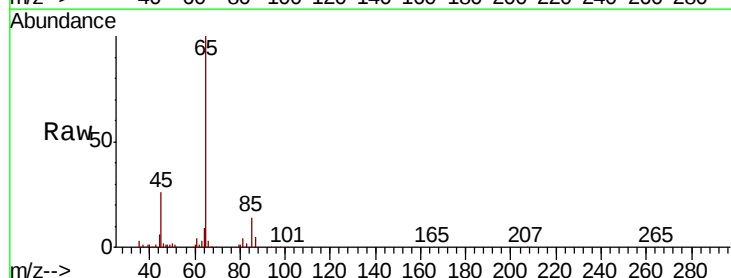
Acq: 14 May 2022 5:15

Tgt Ion: 85 Resp: 43179

Ion Ratio Lower Upper

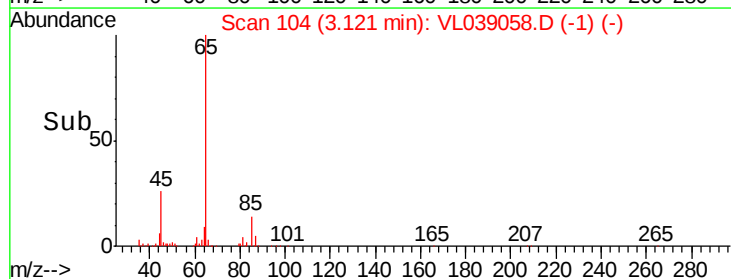
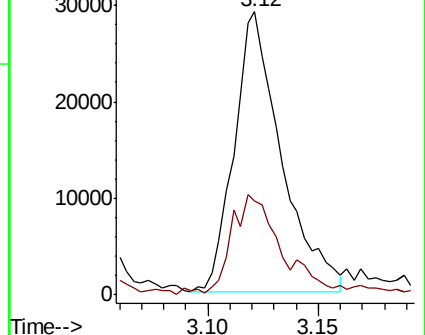
85 100

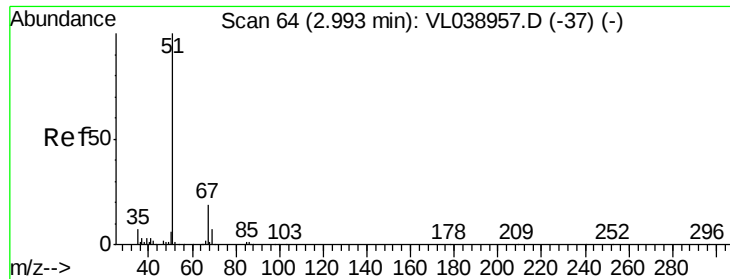
87 32.3 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.208 ppbv

RT: 2.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

SV2DL

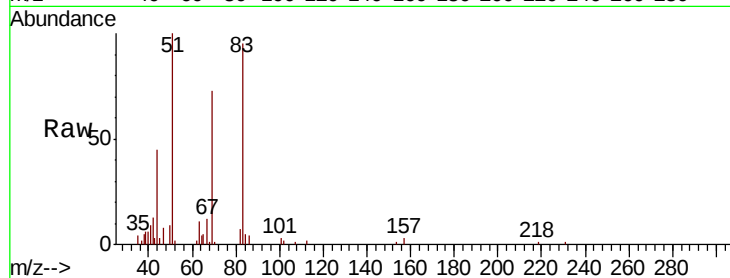
Acq: 14 May 2022 5:15

Tot Ion: 51 Resp: 23908

Ion Ratio Lower Upper

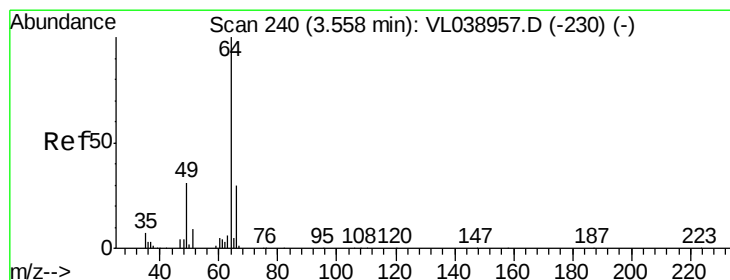
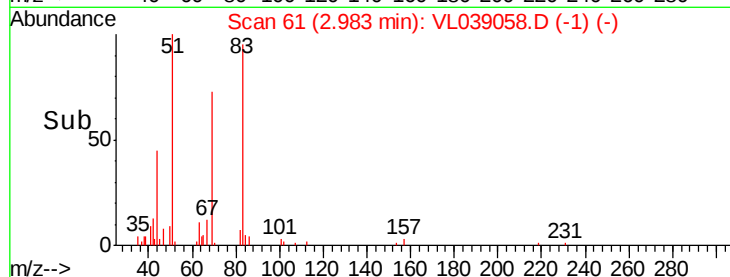
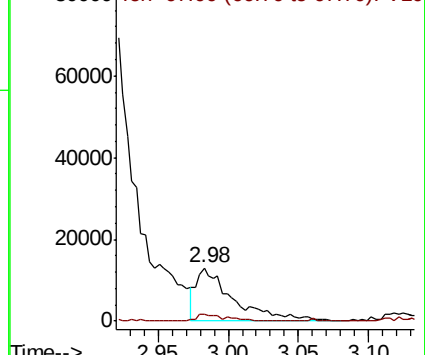
51 100

67 10.9 15.8 23.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#7

Chloroethane

Concen: 0.053 ppbv

RT: 3.56 min Scan# 239

Delta R.T. -0.00 min

Lab File: VL039058.D

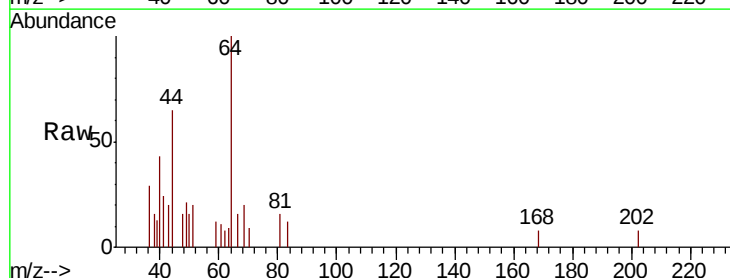
Acq: 14 May 2022 5:15

Tgt Ion: 64 Resp: 935

Ion Ratio Lower Upper

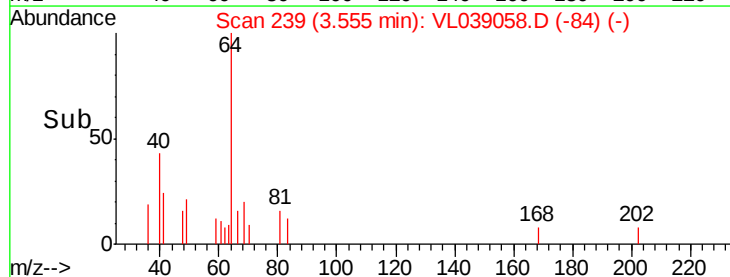
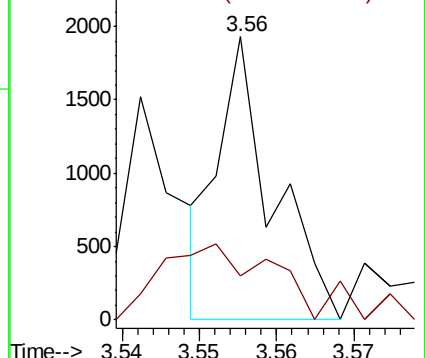
64 100

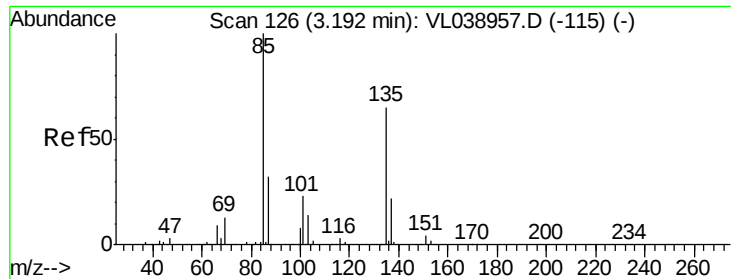
66 15.7 23.8 35.8#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#8

Dichlorotetrafluoroethane

Concen: 0.328 ppbv

RT: 3.12 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

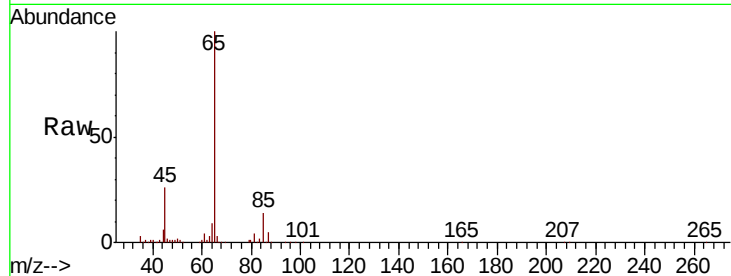
Acq: 14 May 2022 5:15 SV2DL

Tot Ion: 85 Resp: 43179

Ion Ratio Lower Upper

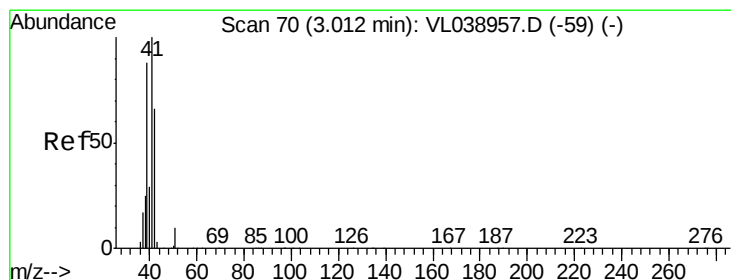
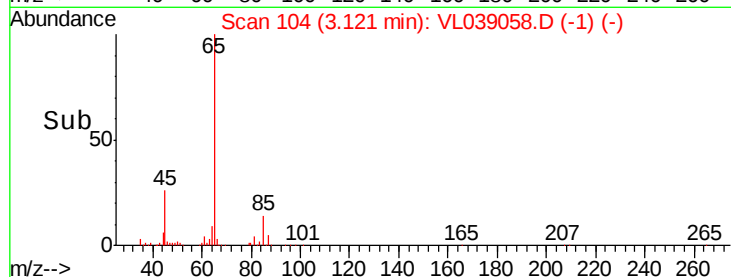
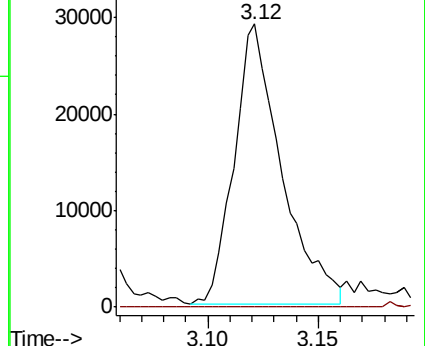
85 100

135 0.4 53.6 80.4#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 1.268 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL039058.D

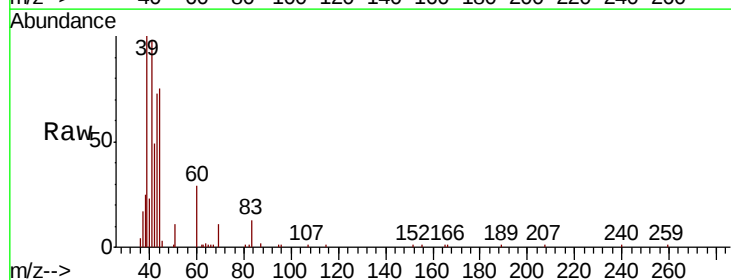
Acq: 14 May 2022 5:15

Tgt Ion: 41 Resp: 63681

Ion Ratio Lower Upper

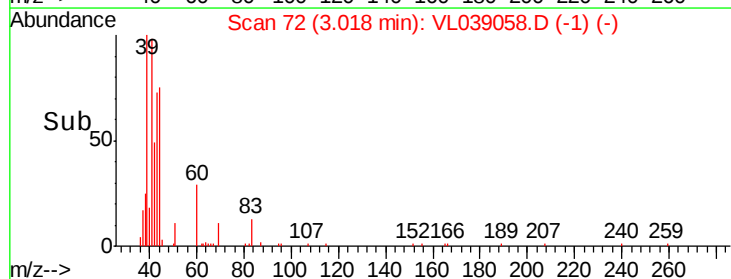
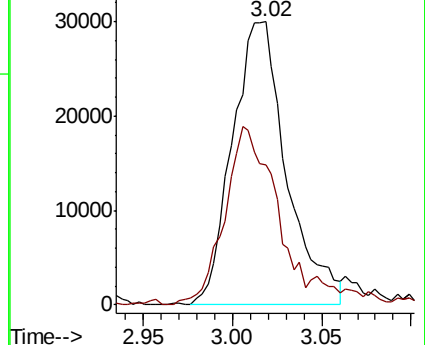
41 100

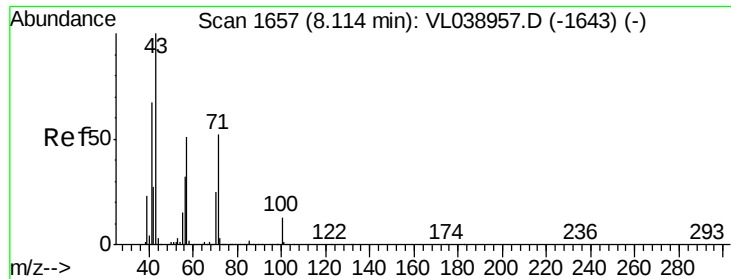
42 66.2 58.3 87.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.092 ppbv

RT: 8.10 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

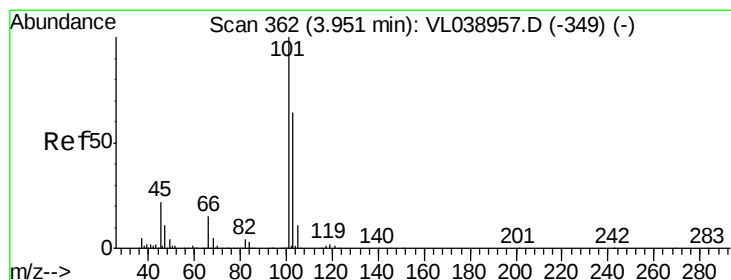
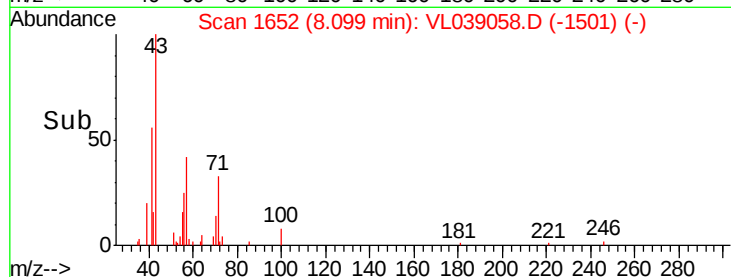
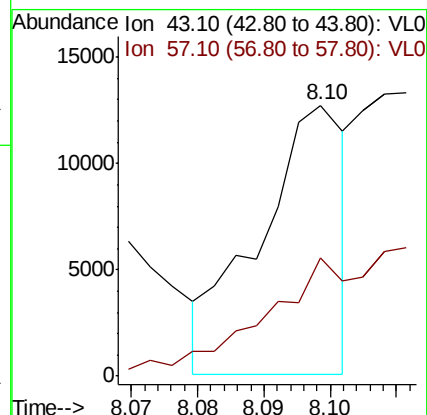
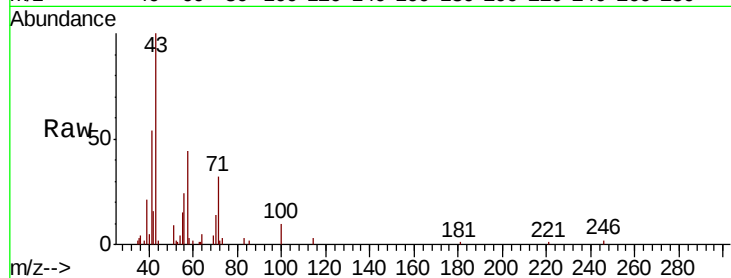
Acq: 14 May 2022 5:15

Tot Ion: 43 Resp: 11368

Ion Ratio Lower Upper

43 100

57 0.0 40.5 60.7#



#11

Trichlorofluoromethane

Concen: 0.238 ppbv

RT: 4.00 min Scan# 377

Delta R.T. 0.05 min

Lab File: VL039058.D

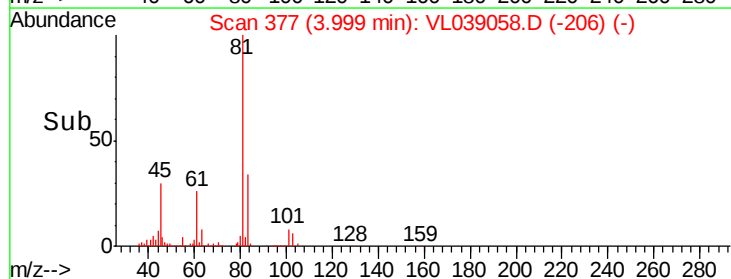
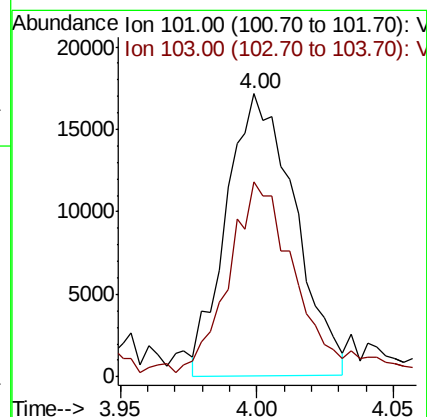
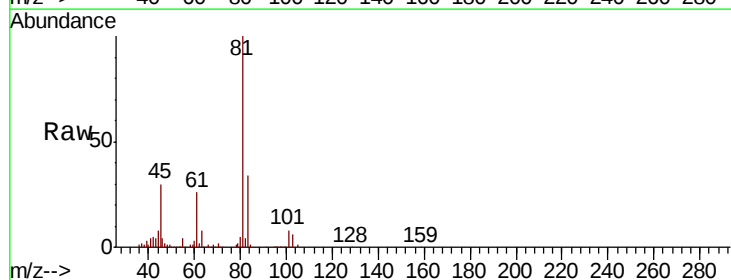
Acq: 14 May 2022 5:15

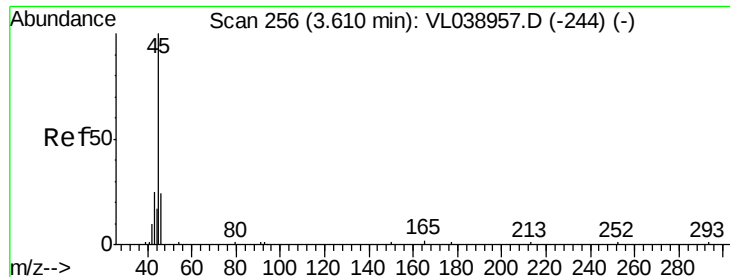
Tgt Ion: 101 Resp: 29661

Ion Ratio Lower Upper

101 100

103 68.1 51.5 77.3





#13

Ethanol

Concen: 25.120 ppbv

RT: 3.60 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

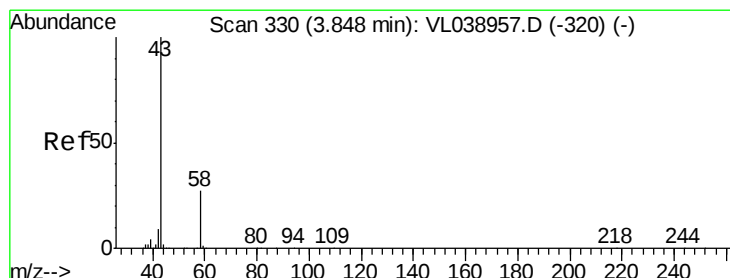
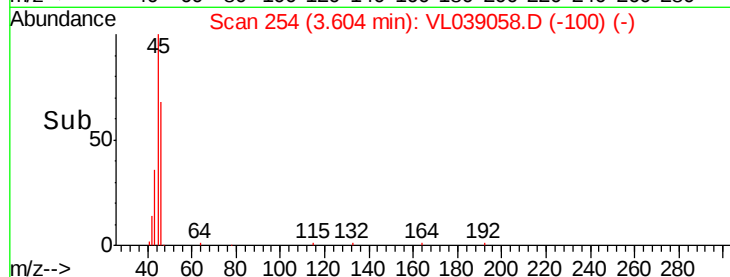
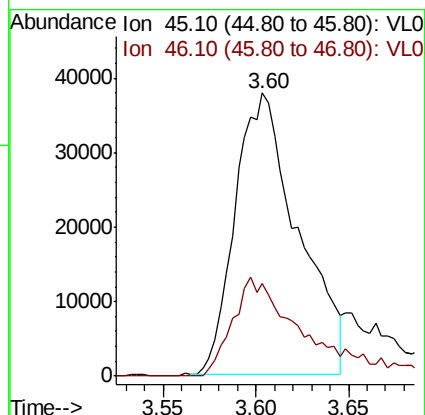
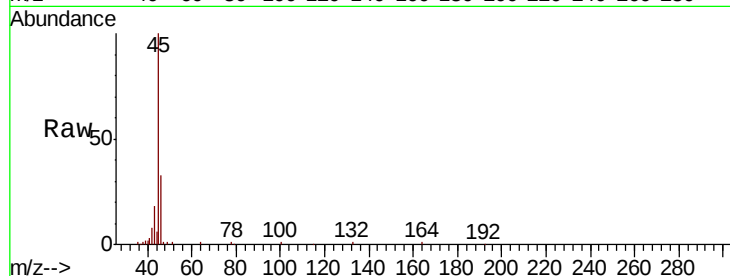
Acq: 14 May 2022 5:15

Tot Ion: 45 Resp: 89252

Ion Ratio Lower Upper

45 100

46 41.7 18.0 72.2



#15

Acetone

Concen: 7.839 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.00 min

Lab File: VL039058.D

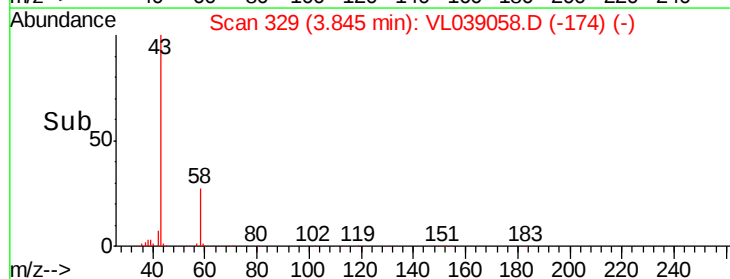
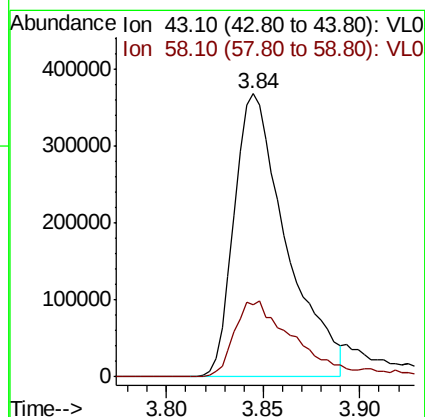
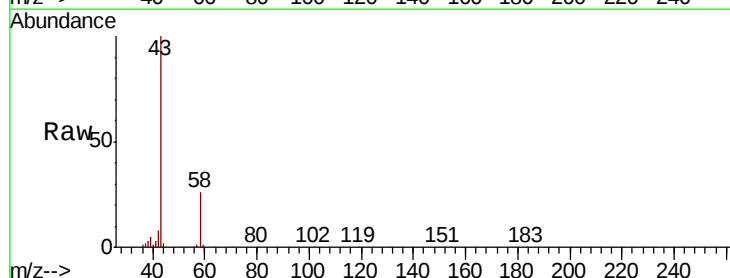
Acq: 14 May 2022 5:15

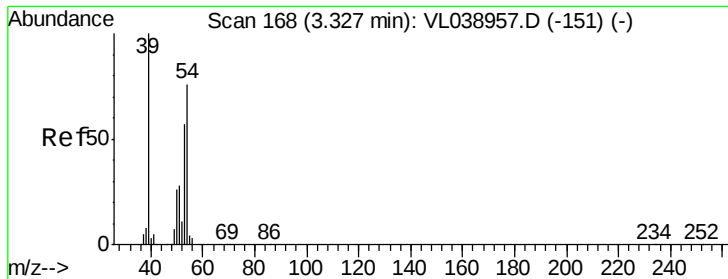
Tgt Ion: 43 Resp: 685088

Ion Ratio Lower Upper

43 100

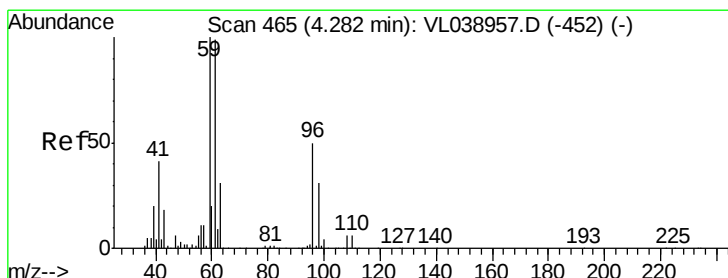
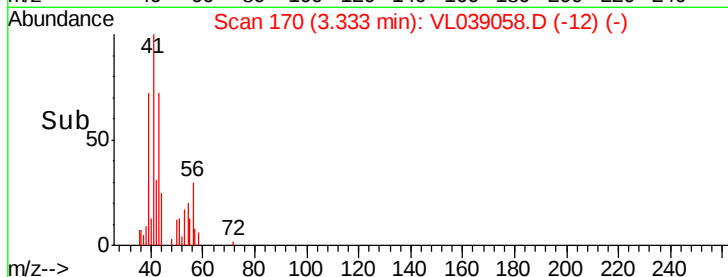
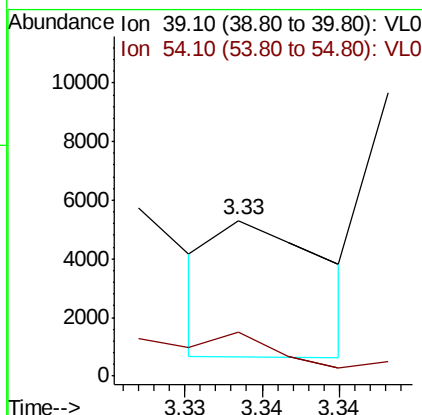
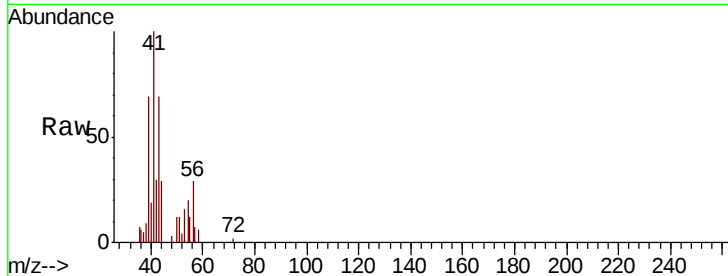
58 34.2 21.3 31.9#





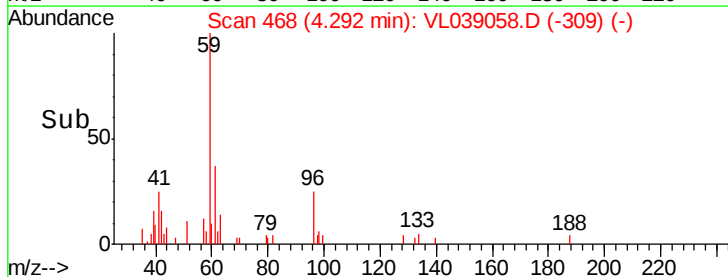
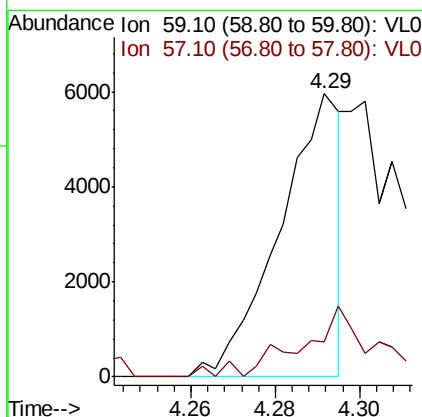
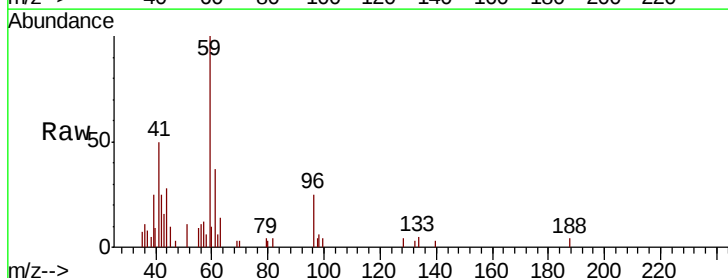
#16
 1,3-Butadiene
 Concen: 0.045 ppbv
 RT: 3.33
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV2DL
 Acq: 14 May 2022 5:15

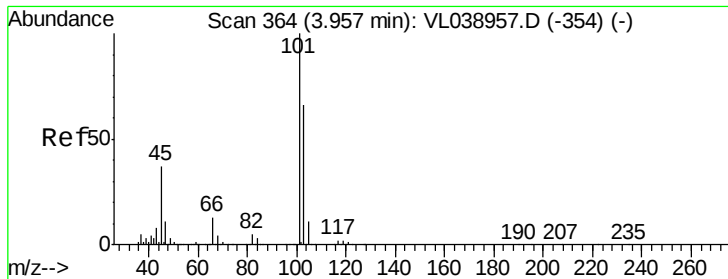
Tot Ion: 39 Resp: 2258
 Ion Ratio Lower Upper
 39 100
 54 0.0 65.2 97.8#



#17
 tert-Butyl alcohol
 Concen: 0.089 ppbv
 RT: 4.29 min Scan# 468
 Delta R.T. 0.01 min
 Lab File: VL039058.D
 Acq: 14 May 2022 5:15

Tgt Ion: 59 Resp: 5998
 Ion Ratio Lower Upper
 59 100
 57 40.3 9.2 13.8#





#19

Isopropyl Alcohol

Concen: 0.748 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

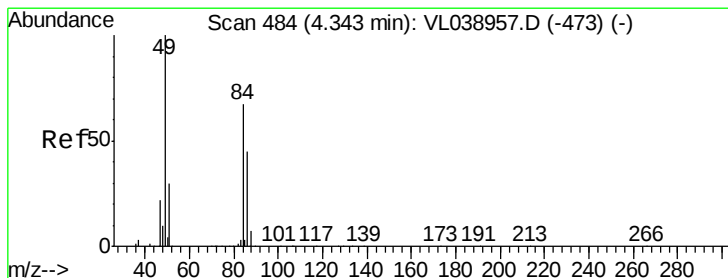
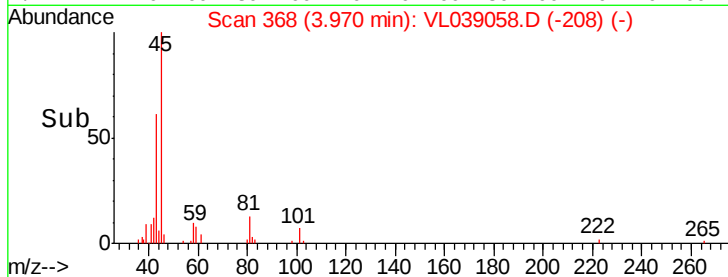
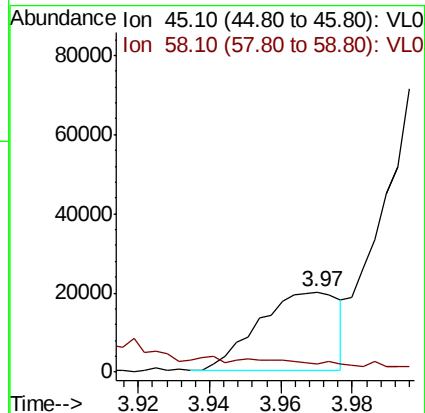
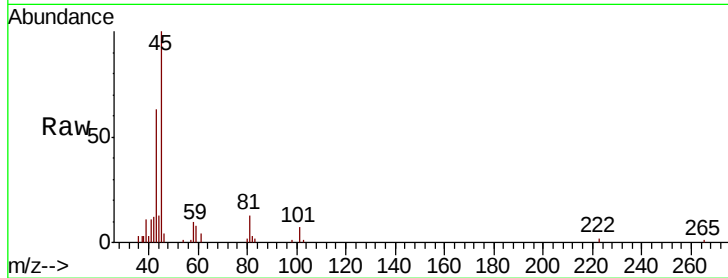
Acq: 14 May 2022 5:15

Tot Ion: 45 Resp: 31085

Ion Ratio Lower Upper

45 100

58 31.2 1.4 2.2#



#20

Methylene Chloride

Concen: 0.102 ppbv

RT: 4.34 min Scan# 482

Delta R.T. -0.01 min

Lab File: VL039058.D

Acq: 14 May 2022 5:15

Tgt Ion: 84 Resp: 3369

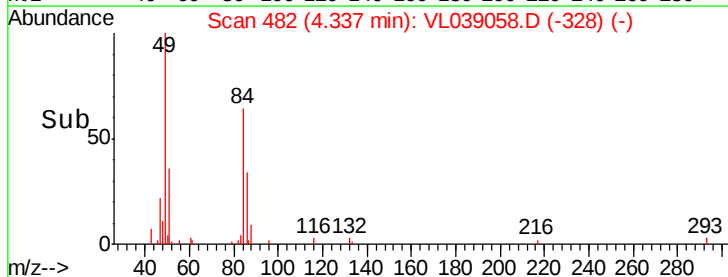
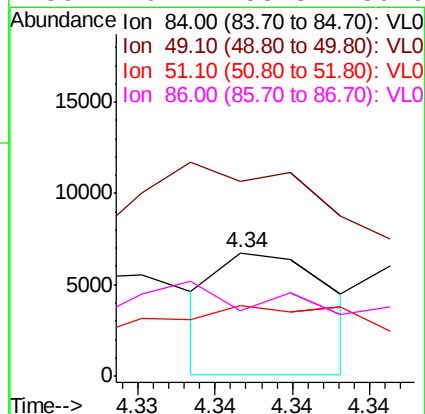
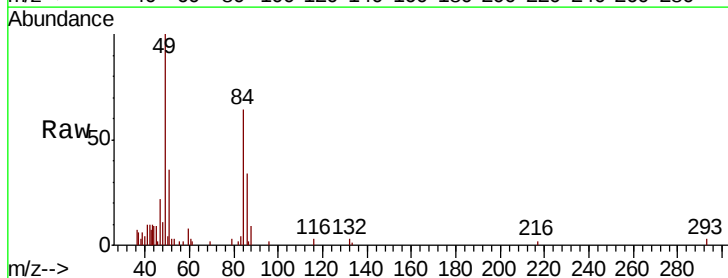
Ion Ratio Lower Upper

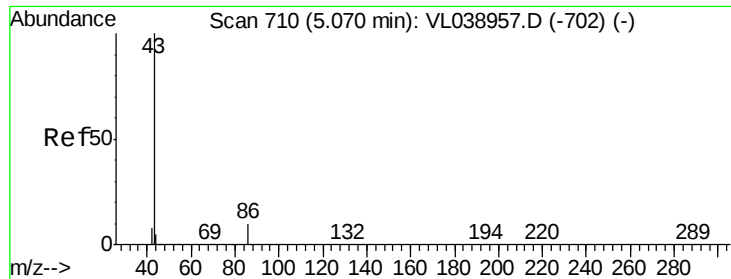
84 100

49 82.6 119.9 179.9#

51 33.8 35.7 53.5#

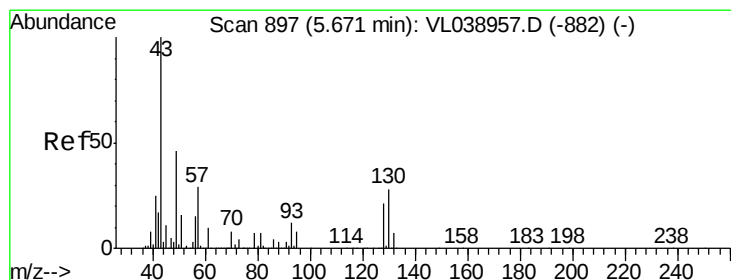
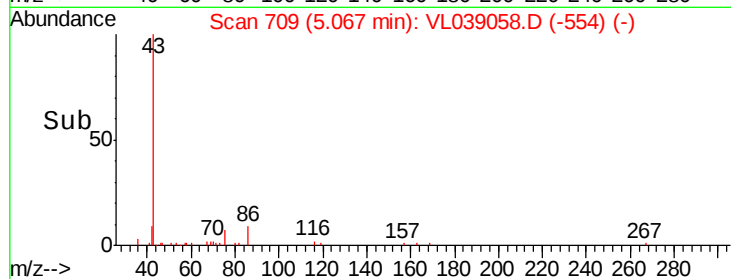
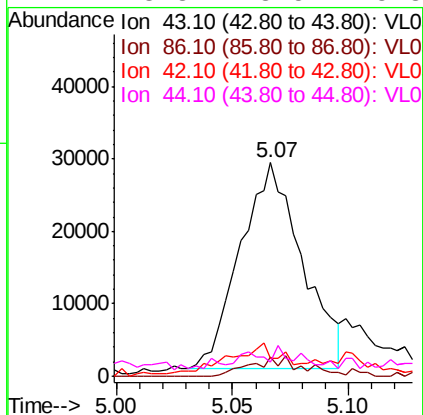
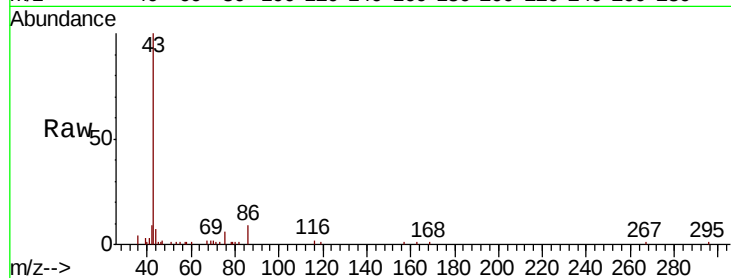
86 20.2 53.8 80.6#





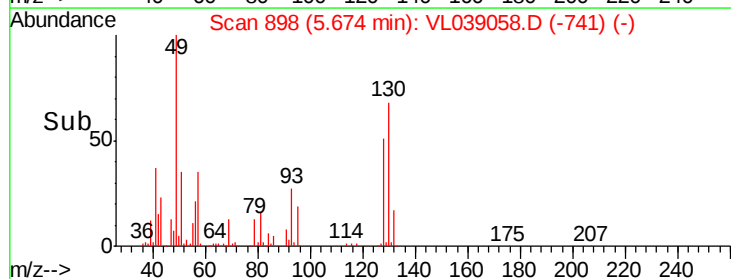
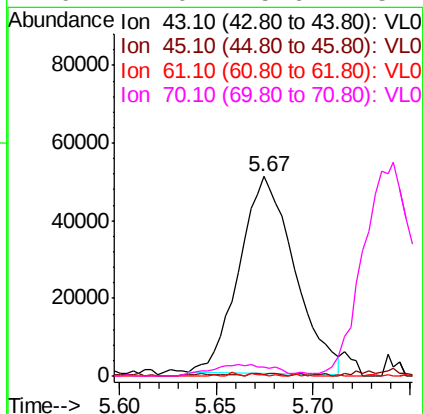
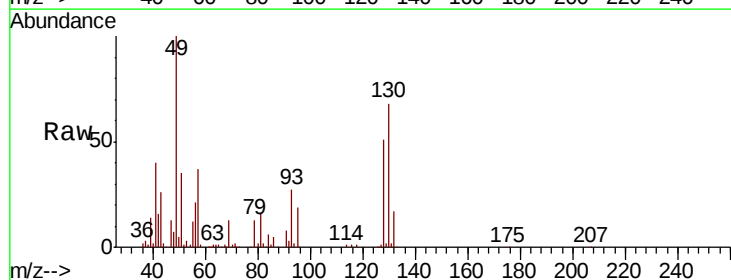
#23
 Vinyl Acetate
 Concen: 0.762 ppbv
 RT: 5.07
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV2DL
 Acq: 14 May 2022 5:15

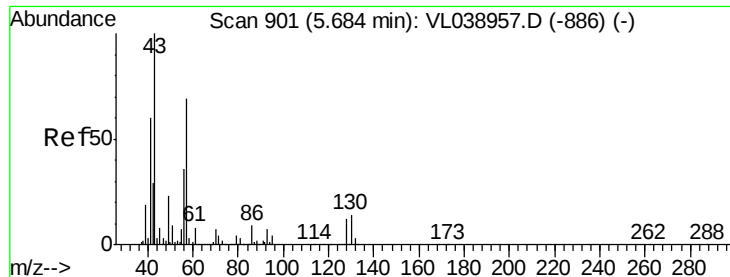
Tot Ion:	43	Resp:	52691
Ion	Ratio	Lower	Upper
43	100		
86	9.1	6.6	9.8
42	6.4	8.1	12.1#
44	3.3	3.5	5.3#



#25
 Ethyl Acetate
 Concen: 0.481 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. 0.00 min
 Lab File: VL039058.D
 Acq: 14 May 2022 5:15

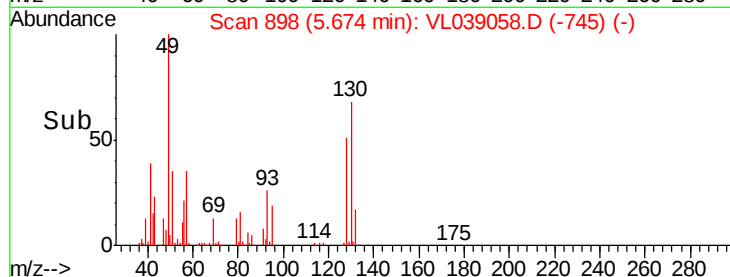
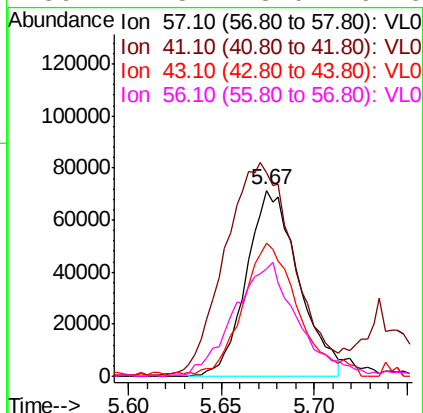
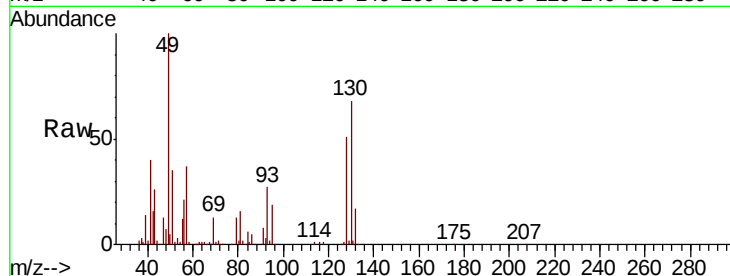
Tgt Ion:	43	Resp:	100619
Ion	Ratio	Lower	Upper
43	100		
45	1.0	8.1	12.1#
61	0.8	7.8	11.6#
70	7.0	5.6	8.4





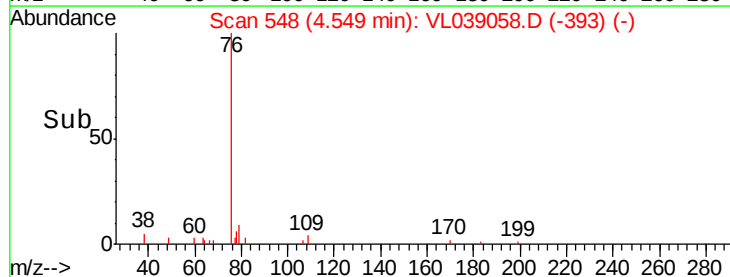
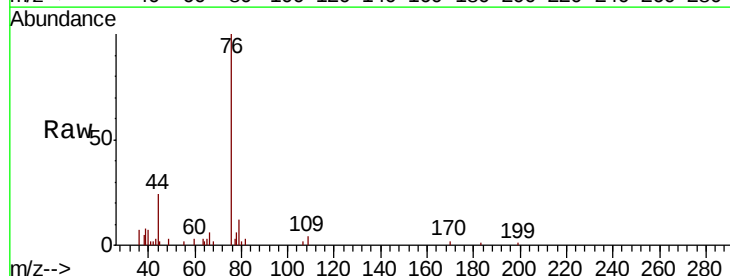
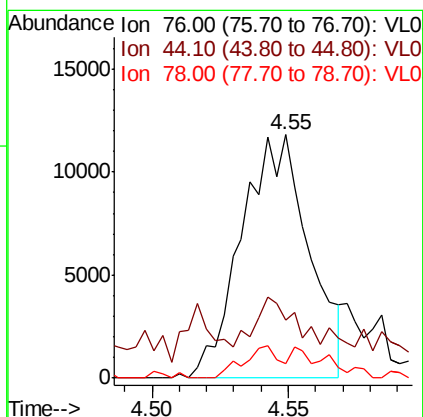
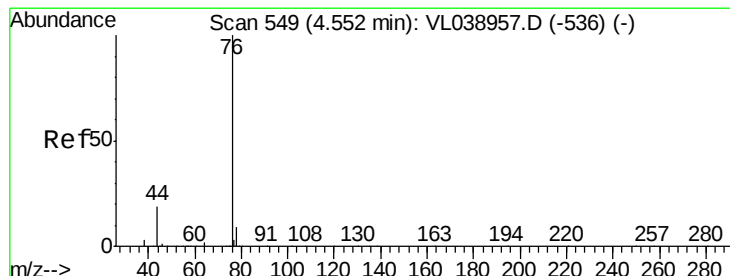
#26
Hexane
Concen: 1.502 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 May 2022 5:15

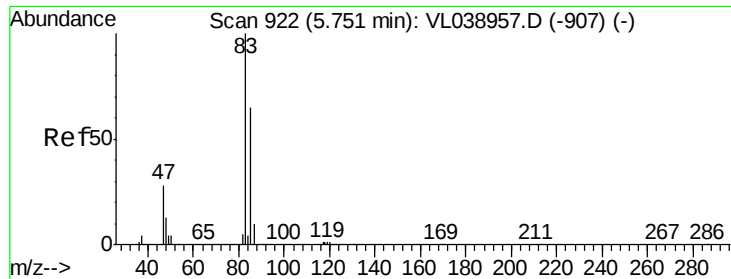
Tot Ion	57	Resp	139580
Ion Ratio	Lower	Upper	
57	100		
41	154.6	75.2	112.8#
43	77.3	190.8	286.2#
56	77.8	43.0	64.6#



#27
Carbon Disulfide
Concen: 0.230 ppbv
RT: 4.55 min Scan# 548
Delta R.T. -0.00 min
Lab File: VL039058.D
Acq: 14 May 2022 5:15

Tgt Ion	76	Resp	20301
Ion Ratio	Lower	Upper	
76	100		
44	19.7	15.3	22.9
78	14.7	8.2	12.2#





#29

Chloroform

Concen: 73.388 ppbv

RT: 5.74 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

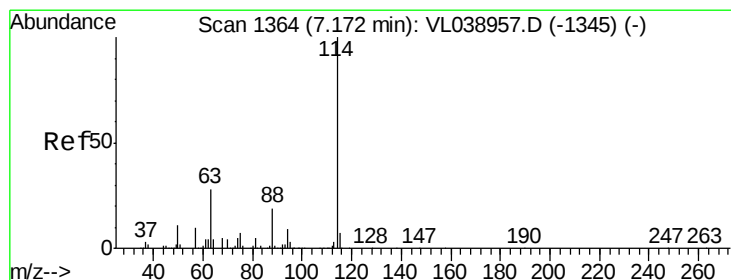
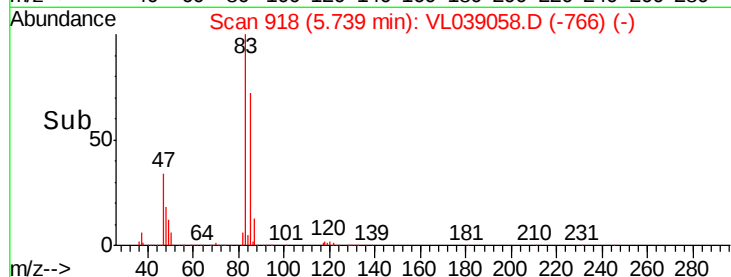
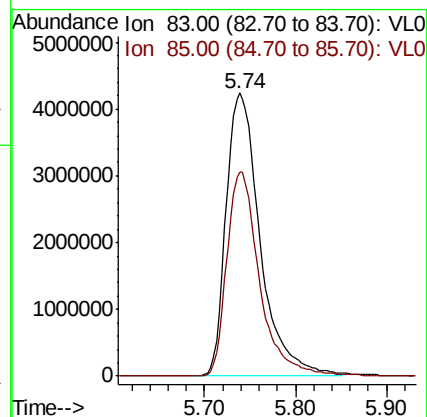
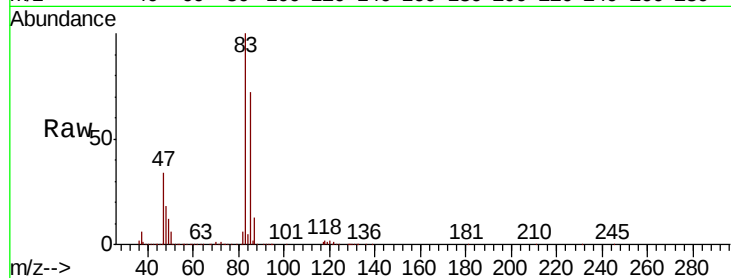
Acq: 14 May 2022 5:15

Tot Ion: 83 Resp: 11035672

Ion Ratio Lower Upper

83 100

85 72.2 51.8 77.6



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1361

Delta R.T. -0.01 min

Lab File: VL039058.D

Acq: 14 May 2022 5:15

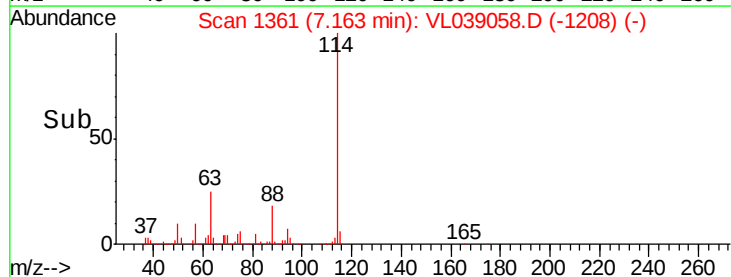
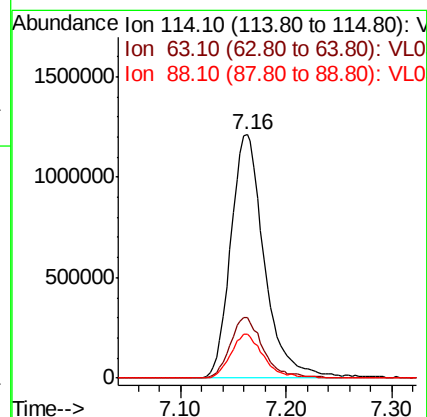
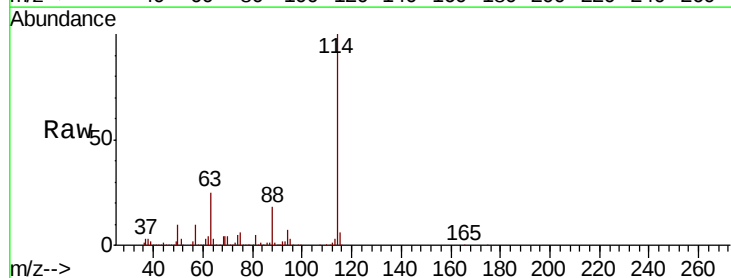
Tgt Ion: 114 Resp: 2670895

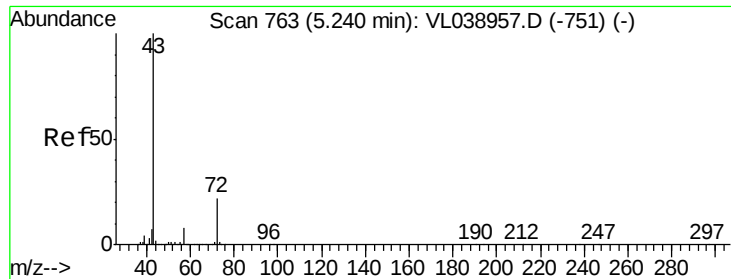
Ion Ratio Lower Upper

114 100

63 24.9 22.6 33.8

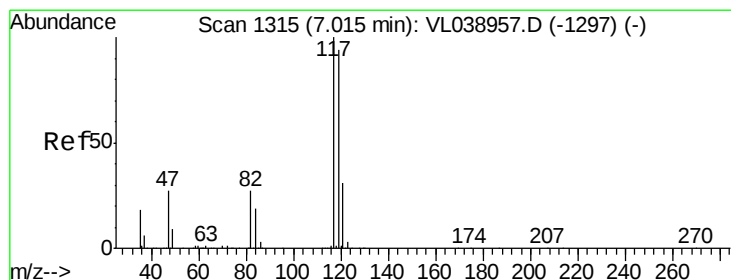
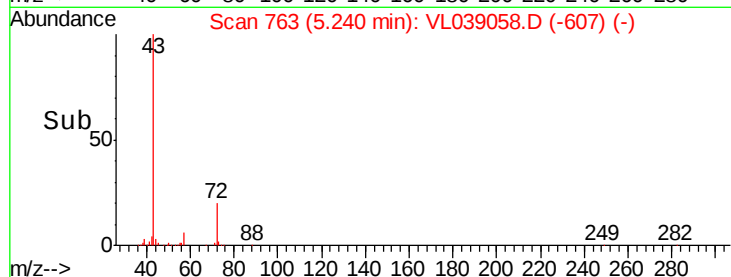
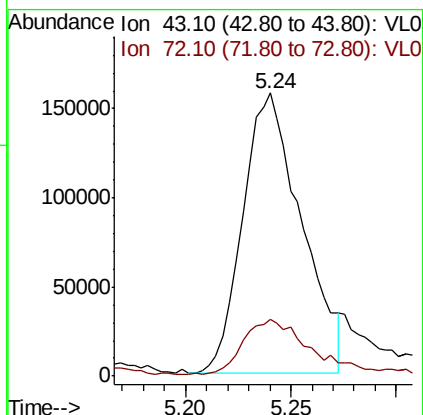
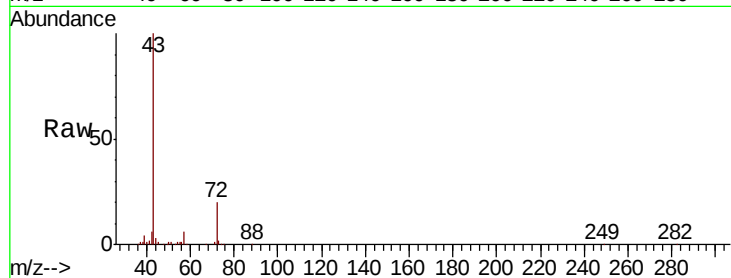
88 17.9 15.4 23.0





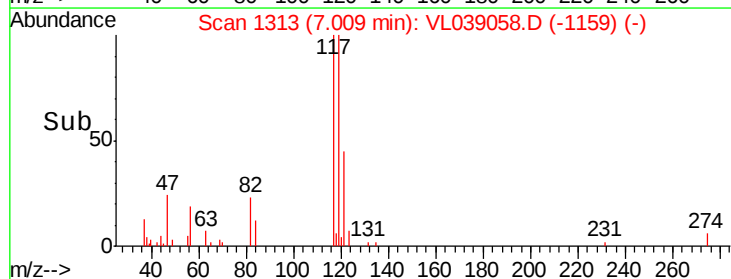
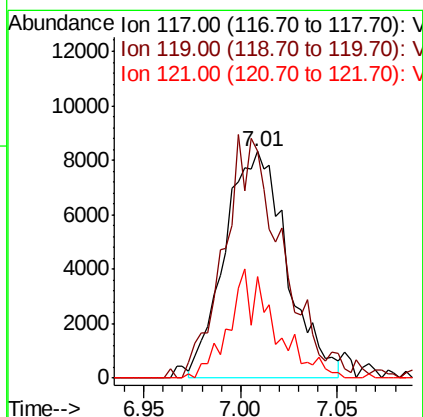
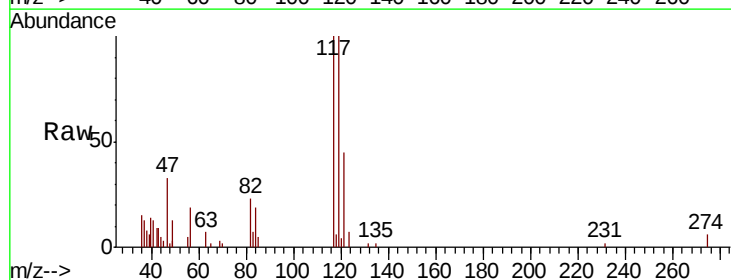
#34
2-Butanone
Concen: 2.240 ppbv
RT: 5.24
Delta R.T.: MSVOA_L
Lab File: ClientSampleId :
SV2DL
Acq: 14 May 2022 5:15

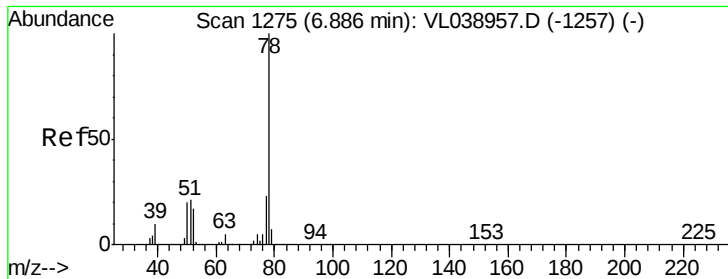
Tot Ion: 43 Resp: 305190
Ion Ratio Lower Upper
43 100
72 26.3 17.8 26.6



#35
Carbon Tetrachloride
Concen: 0.106 ppbv
RT: 7.01 min Scan# 1313
Delta R.T.: -0.01 min
Lab File: VL039058.D
Acq: 14 May 2022 5:15

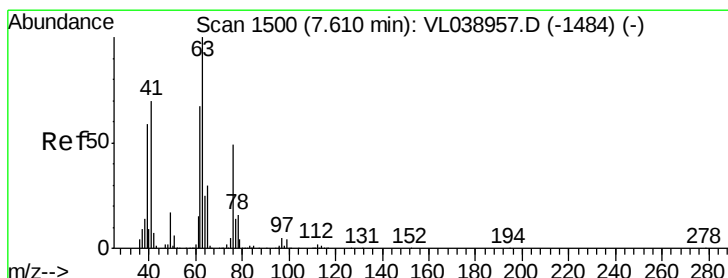
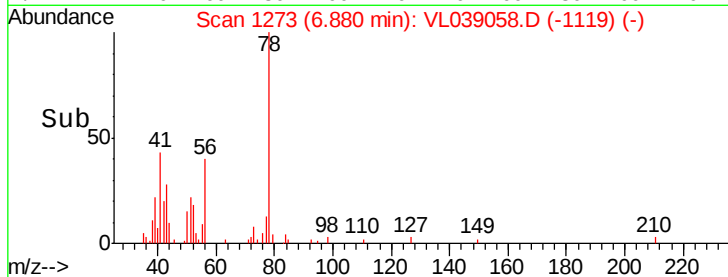
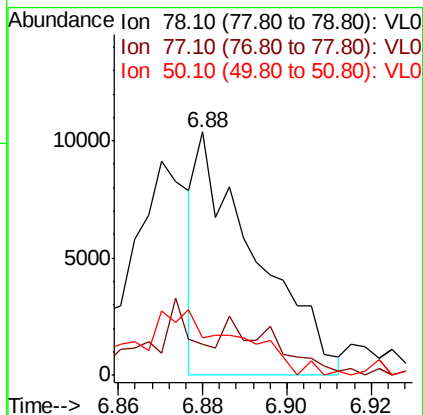
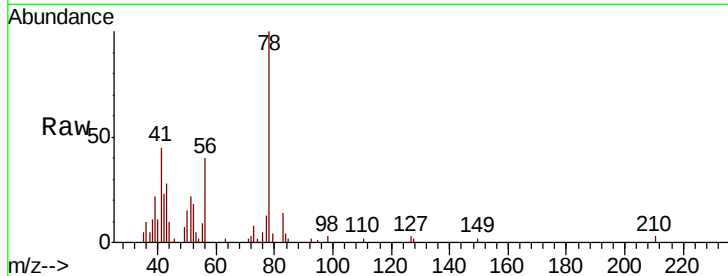
Tgt Ion: 117 Resp: 18595
Ion Ratio Lower Upper
117 100
119 90.8 75.2 112.8
121 41.9 24.6 37.0#





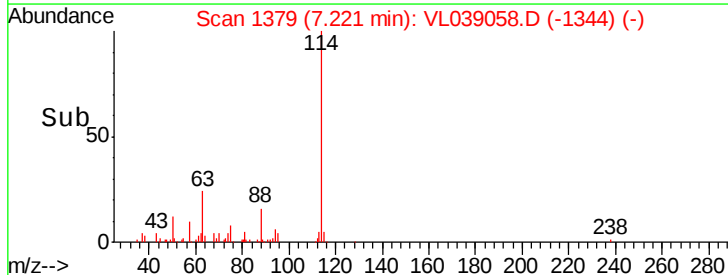
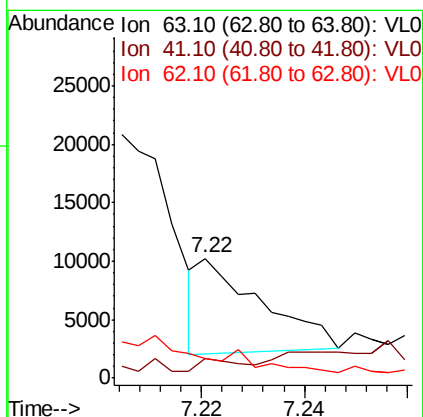
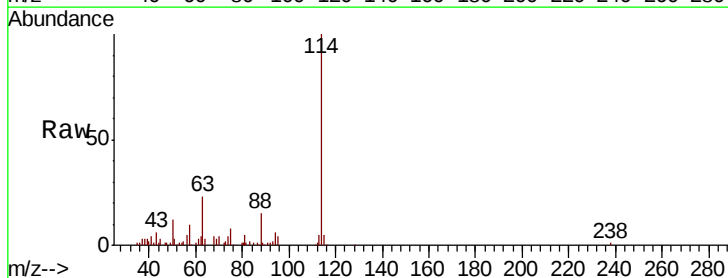
#36
Benzene
Concen: 0.044 ppbv
RT: 6.88
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 May 2022 5:15

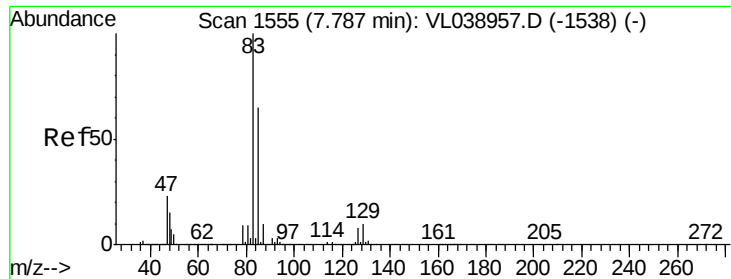
Tot Ion: 78 Resp: 9995
Ion Ratio Lower Upper
78 100
77 11.8 18.6 28.0#
50 14.9 15.6 23.4#



#39
1,2-Dichloropropane
Concen: 0.077 ppbv
RT: 7.22 min Scan# 1379
Delta R.T. -0.39 min
Lab File: VL039058.D
Acq: 14 May 2022 5:15

Tgt Ion: 63 Resp: 6844
Ion Ratio Lower Upper
63 100
41 13.6 55.9 83.9#
62 14.7 53.8 80.6#





#42

Bromodichloromethane

Concen: 0.051 ppbv

RT: 7.77 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 May 2022 5:15

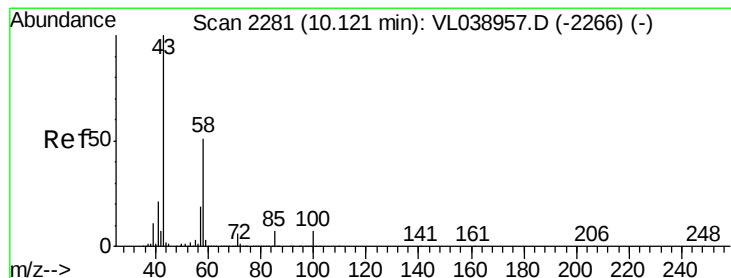
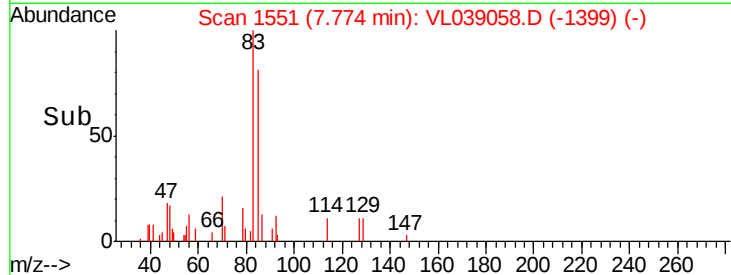
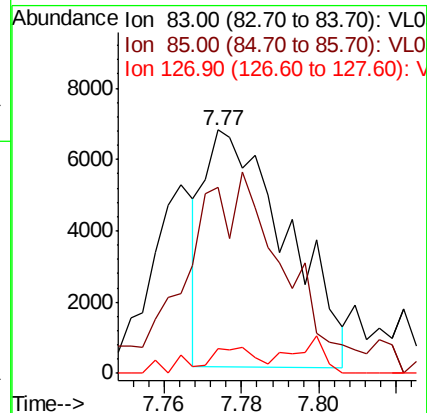
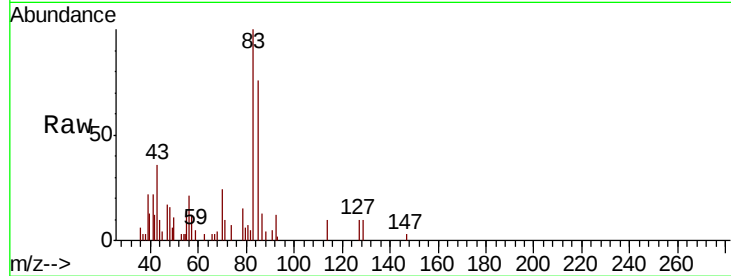
Tot Ion: 83 Resp: 9795

Ion Ratio Lower Upper

83 100

85 79.5 52.0 78.0#

127 12.3 6.0 9.0#



#51

2-Hexanone

Concen: 0.749 ppbv

RT: 10.12 min Scan# 2282

Delta R.T. 0.00 min

Lab File: VL039058.D

Acq: 14 May 2022 5:15

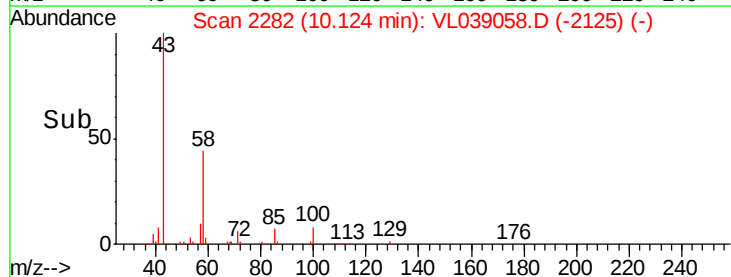
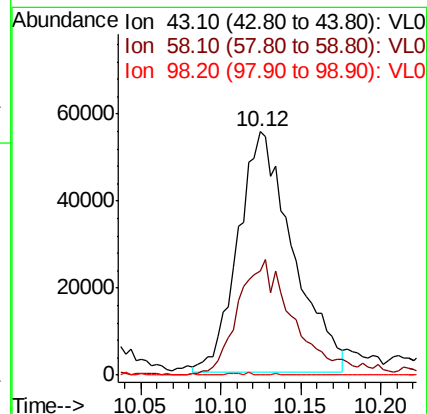
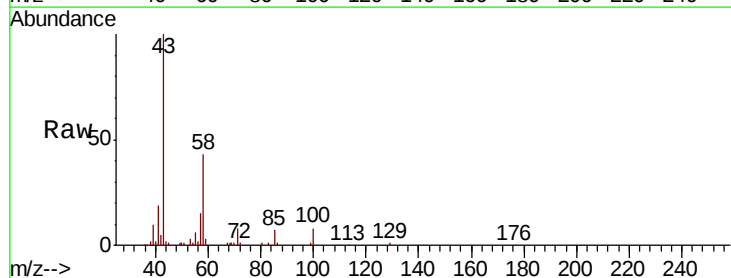
Tgt Ion: 43 Resp: 130702

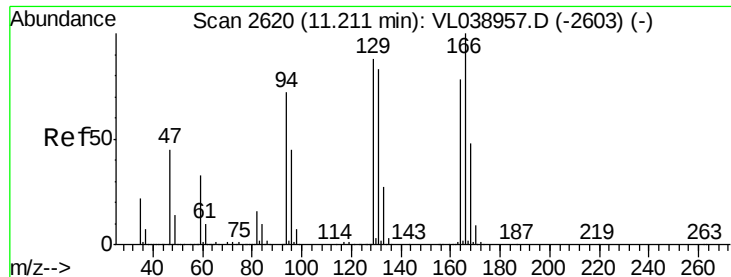
Ion Ratio Lower Upper

43 100

58 49.9 39.3 58.9

98 0.4 0.2 0.2#





#52

Tetrachloroethene

Concen: 2.238 ppbv

RT: 11.20

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 May 2022 5:15

Tot Ion:164 Resp: 182764

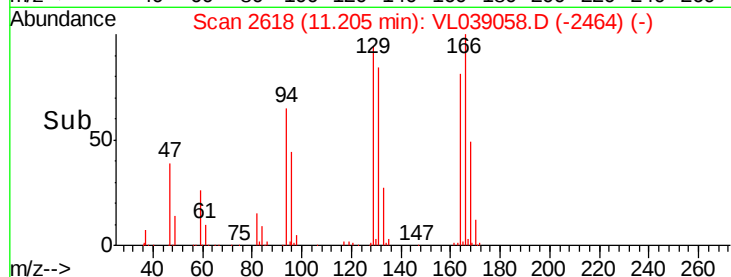
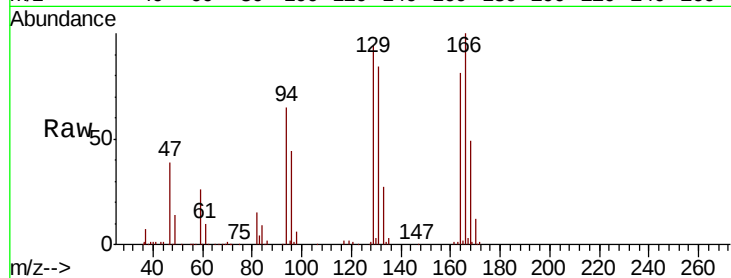
Ion Ratio Lower Upper

164 100

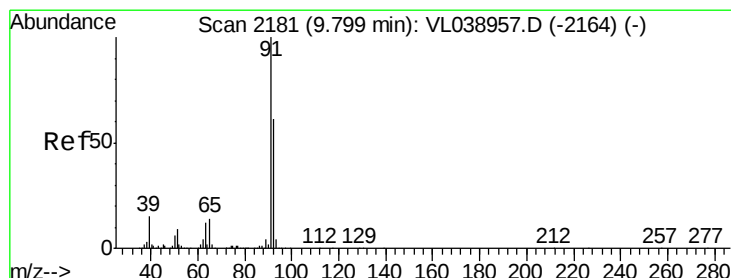
166 122.5 102.5 153.7

129 115.6 90.1 135.1

131 102.8 84.8 127.2



Time-->



#53

Toluene

Concen: 0.075 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.02 min

Lab File: VL039058.D

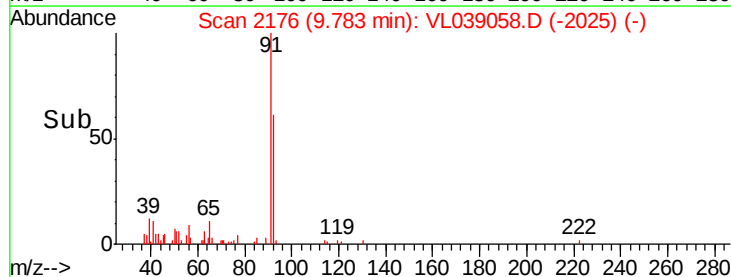
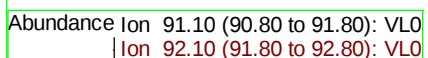
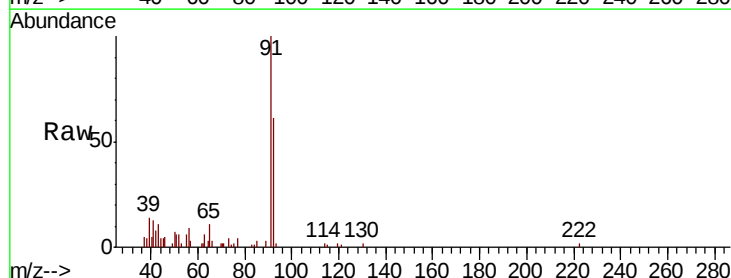
Acq: 14 May 2022 5:15

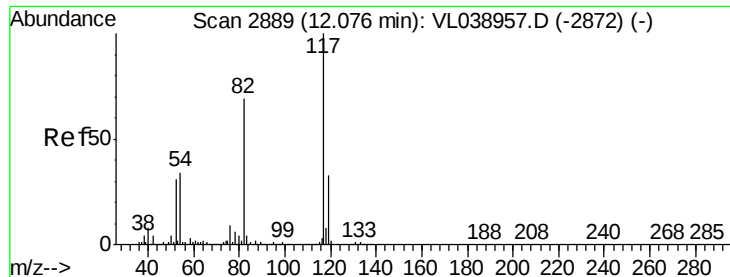
Tgt Ion: 91 Resp: 19163

Ion Ratio Lower Upper

91 100

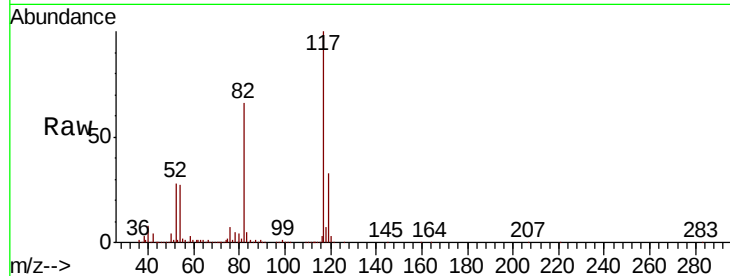
92 105.8 48.2 72.2#



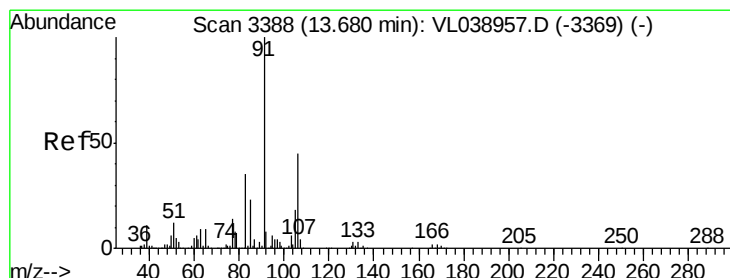
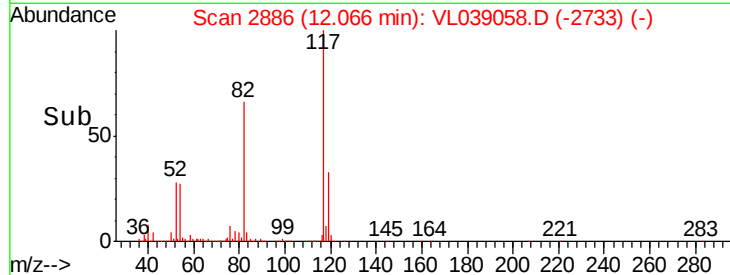
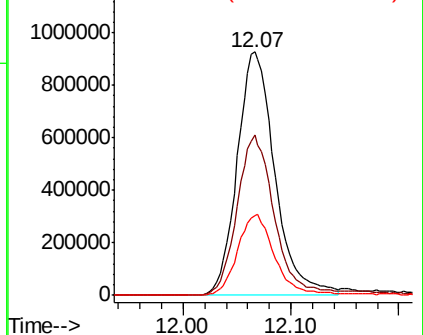


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId :
SV2DL
Acq: 14 May 2022 5:15

Tot Ion:117 Resp: 2257355
Ion Ratio Lower Upper
117 100
82 68.1 57.0 85.6
119 33.2 27.2 40.8

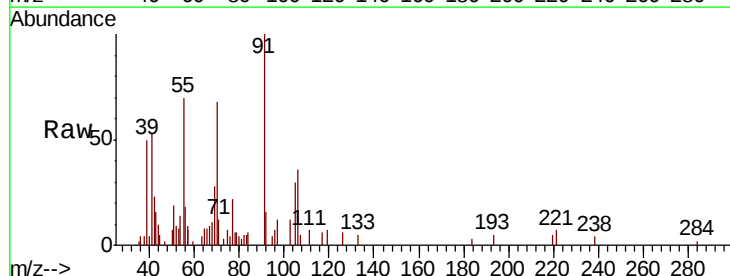


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

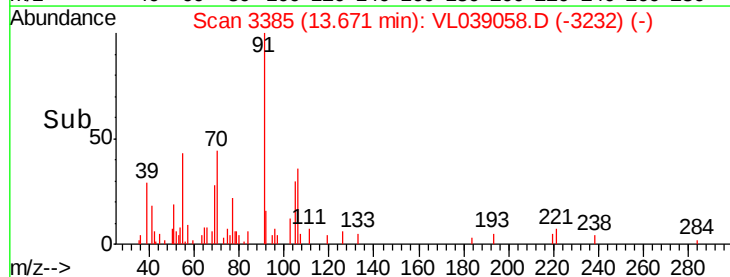
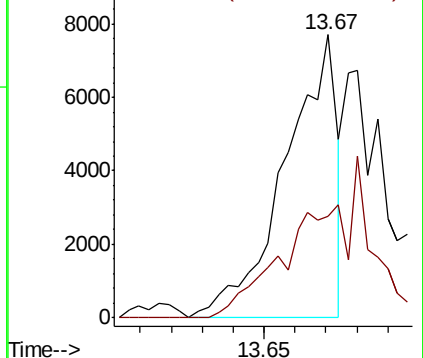


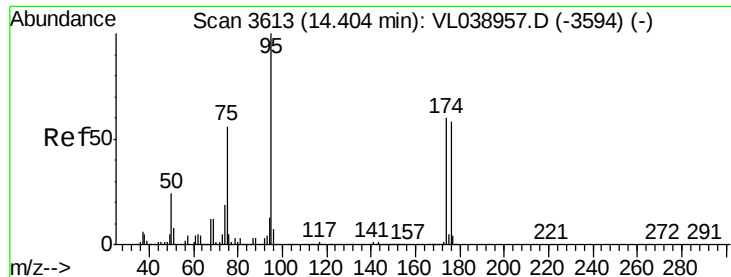
#60
o-Xylene
Concen: 0.034 ppbv
RT: 13.67 min Scan# 3385
Delta R.T. -0.01 min
Lab File: VL039058.D
Acq: 14 May 2022 5:15

Tgt Ion: 91 Resp: 8888
Ion Ratio Lower Upper
91 100
106 0.0 22.2 66.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.518 ppbv

RT: 14.39 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

SV2DL

Acq: 14 May 2022 3.15

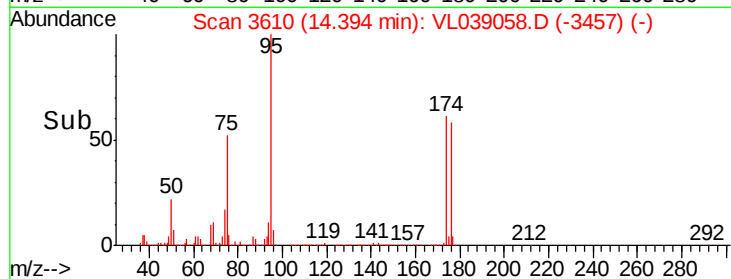
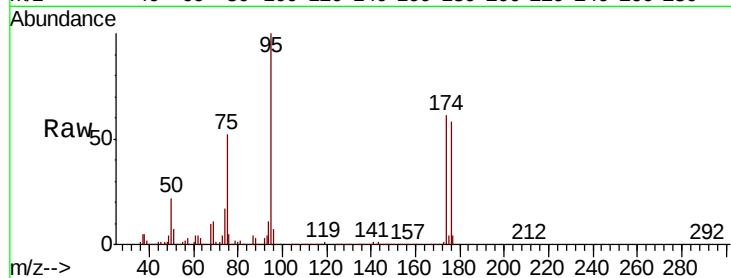
Tot Ion: 95 Resp: 1701511

Ion Ratio Lower Upper

95 100

174 66.3 50.8 76.2

175 4.7 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

