

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112321\
 Data File : VL038100.D
 Acq On : 23 Nov 2021 15:24
 Operator : SY/AP
 Sample : M4805-05
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-ROOK-COFFEE

Quant Time: Nov 24 06:54:17 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Nov 18 13:16:09 2021
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	939629	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2613020	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2215424	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1763606	11.04	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.40%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	33253	0.214 ppbv	96
3) Chlorodifluoromethane	2.97	51	3615688	18.323 ppbv #	61
4) Chloromethane	3.15	50	31415	0.468 ppbv	90
9) Propene	3.21	41	444009	6.110 ppbv	87
10) Heptane	8.12	43	72410	0.403 ppbv	93
11) Trichlorofluoromethane	3.96	101	91689	0.621 ppbv	95
12) 1,1,2-Trichlorotrifluoroet	4.48	101	3471	0.033 ppbv #	13
13) Ethanol	3.61	45	5548359	790.045 ppbv	89
15) Acetone	3.85	43	3038581	37.298 ppbv	99
16) 1,3-Butadiene	3.31	39	58571	0.922 ppbv #	14
17) tert-Butyl alcohol	4.31	59	34153	0.346 ppbv	96
19) Isopropyl Alcohol	3.98	45	4382120	74.446 ppbv	99
20) Methylene Chloride	4.35	84	601196	13.175 ppbv	97
21) Allyl Chloride	4.35	41	20719	0.275 ppbv #	19
23) Vinyl Acetate	5.06	43	268280	2.275 ppbv #	88
25) Ethyl Acetate	5.68	43	443768	1.639 ppbv #	90
26) Hexane	5.68	57	403926	3.095 ppbv #	61
27) Carbon Disulfide	4.55	76	4701	0.040 ppbv #	50
29) Chloroform	5.75	83	52973	0.275 ppbv	87
30) Cyclohexane	7.13	84	3665	0.031 ppbv #	1
34) 2-Butanone	5.24	43	235759	2.238 ppbv	98
36) Benzene	6.89	78	70248	0.270 ppbv #	95
37) 1,2-Dichloroethane	6.31	62	6612	0.053 ppbv	99
39) 1,2-Dichloropropane	7.17	63	663991	6.641 ppbv #	27
44) 2,2,4-Trimethylpentane	7.86	57	191542	0.439 ppbv	95
50) 4-Methyl-2-Pentanone	8.75	43	16045	0.100 ppbv #	87
53) Toluene	9.80	91	581081	1.938 ppbv	99
58) Ethyl Benzene	12.70	91	159725	0.436 ppbv	91
59) m/p-Xylene	12.96	91	250209	0.812 ppbv	98
60) o-Xylene	13.68	91	84155	0.294 ppbv	95
61) Styrene	13.52	104	53276	0.348 ppbv	87
74) 1,2,4-Trimethylbenzene	16.75	105	36759	0.118 ppbv #	69

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-ROOK-COFFEE

Acq: 23 Nov 2021 15:24

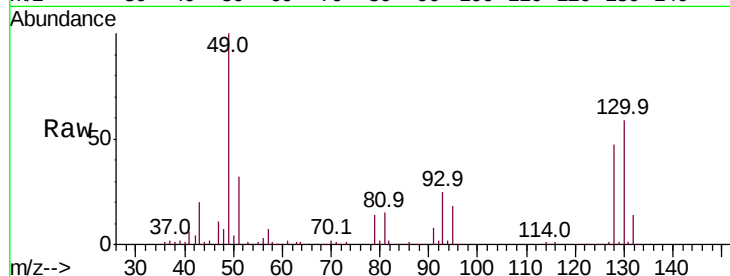
Tot Ion: 49 Resp: 939629

Ion Ratio Lower Upper

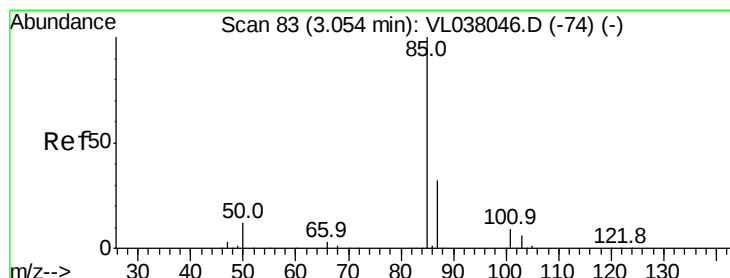
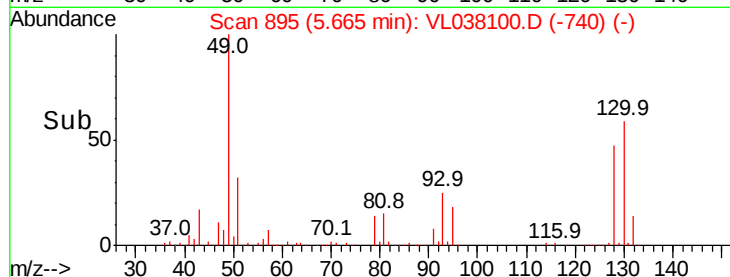
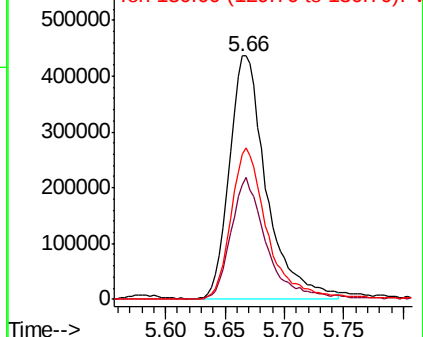
49 100

128 48.8 26.5 79.5

130 62.4 32.5 97.4



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: 0.214 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.00 min

Lab File: VL038100.D

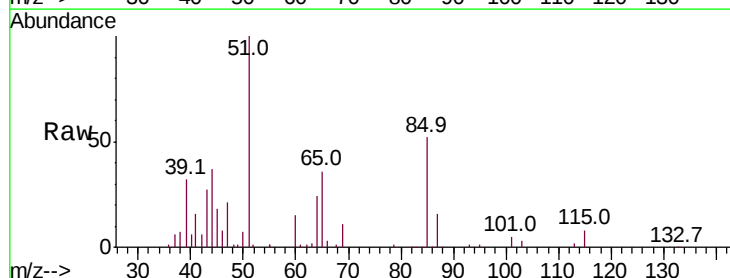
Acq: 23 Nov 2021 15:24

Tgt Ion: 85 Resp: 33253

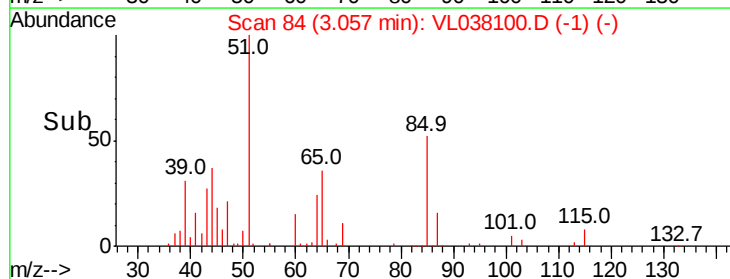
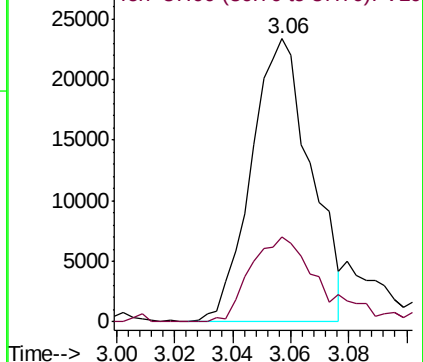
Ion Ratio Lower Upper

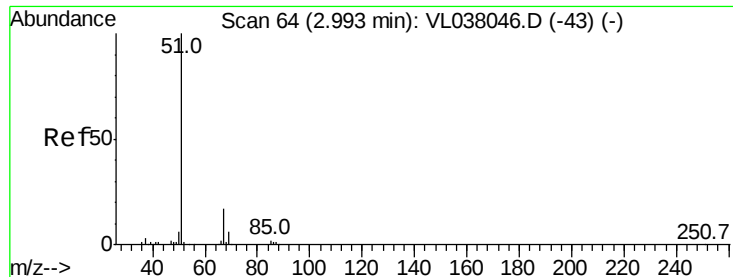
85 100

87 30.1 25.8 38.6



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 18.323 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

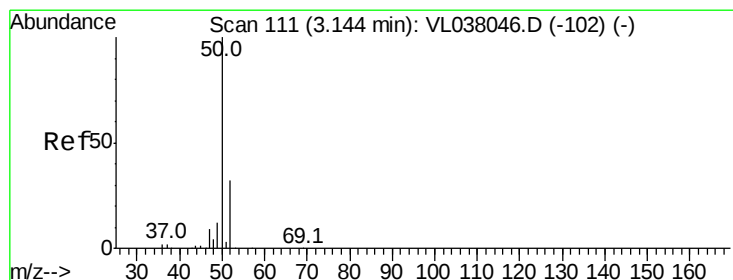
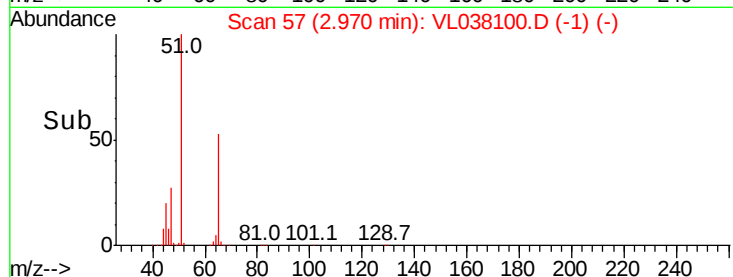
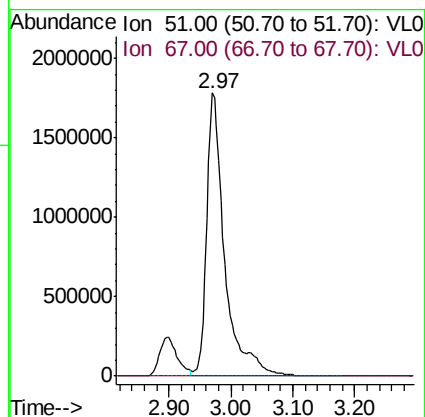
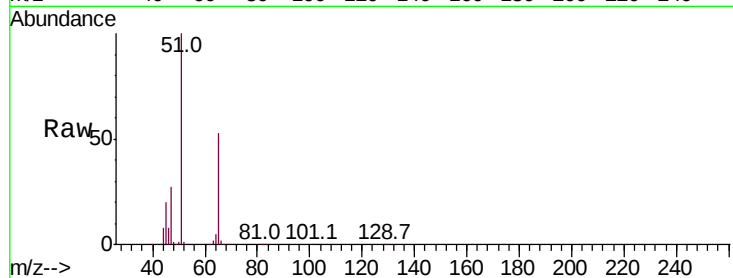
Acq: 23 Nov 2021 15:24

Tot Ion: 51 Resp: 3615688

Ion Ratio Lower Upper

51 100

67 0.2 13.8 20.8#



#4

Chloromethane

Concen: 0.468 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.00 min

Lab File: VL038100.D

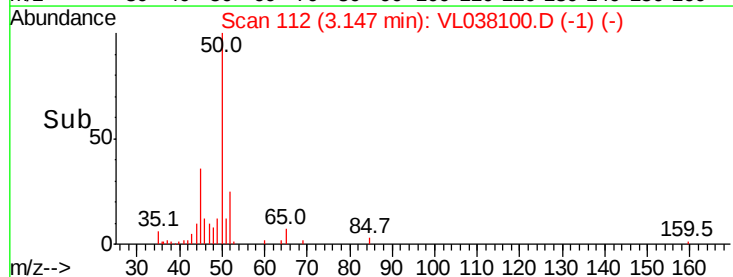
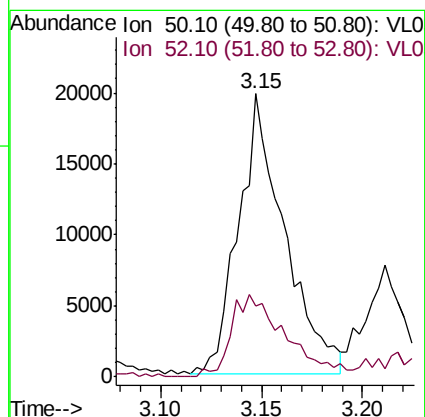
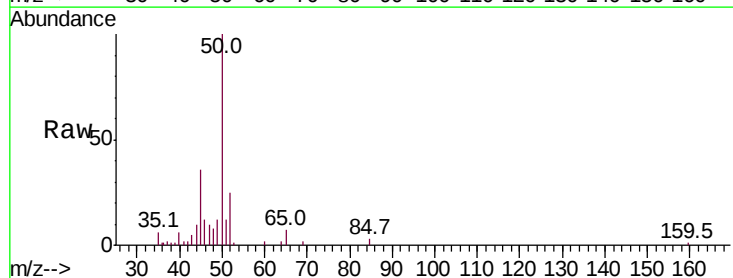
Acq: 23 Nov 2021 15:24

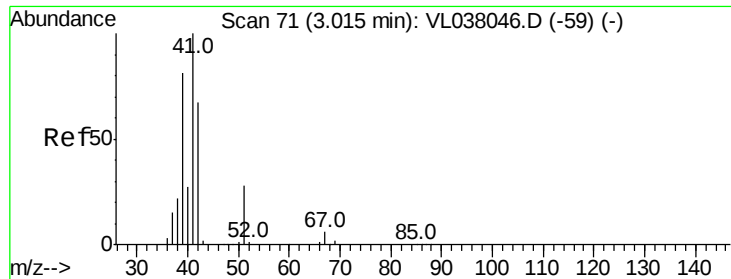
Tgt Ion: 50 Resp: 31415

Ion Ratio Lower Upper

50 100

52 26.0 25.4 38.0





#9

Propene

Concen: 6.110 ppbv

RT: 3.21 Instrument: MSVOA_1

Delta R.T. 0.00 min

Lab File: ClientSampleId: IA-ROOK-COFFEE

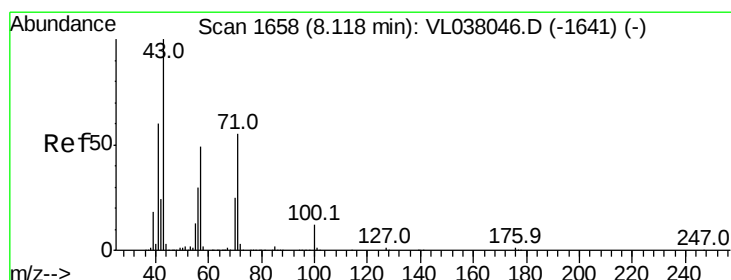
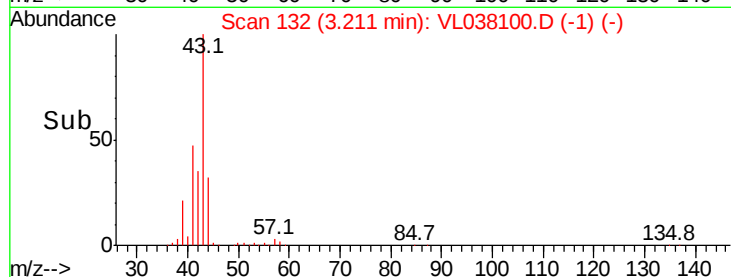
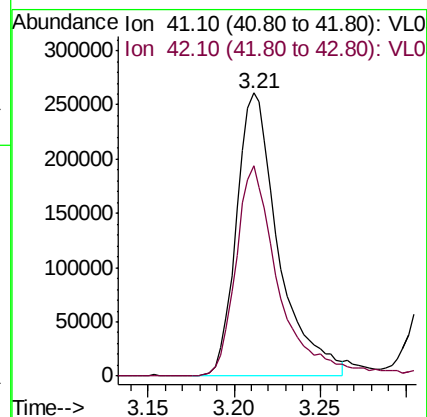
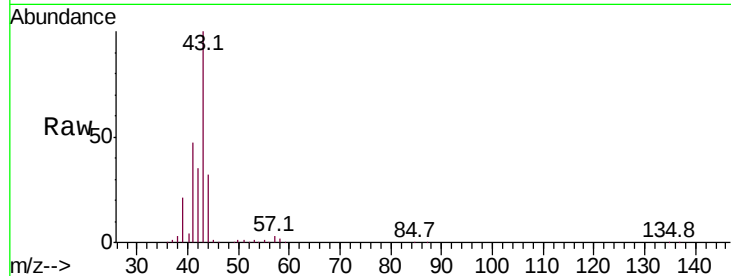
Acq: 23 Nov 2021 15:24

Tot Ion: 41 Resp: 444009

Ion Ratio Lower Upper

41 100

42 77.5 53.8 80.8



#10

Heptane

Concen: 0.403 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. 0.00 min

Lab File: VL038100.D

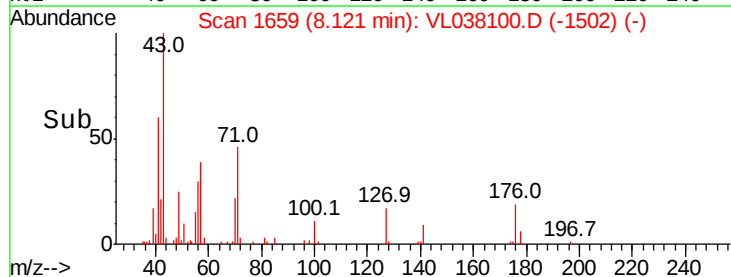
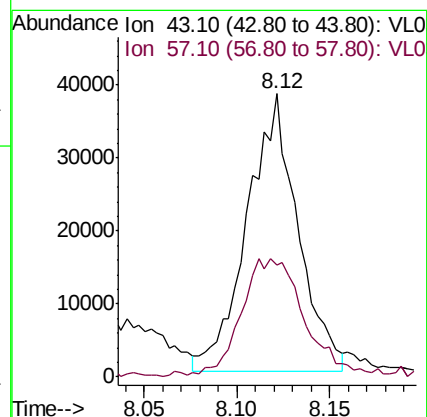
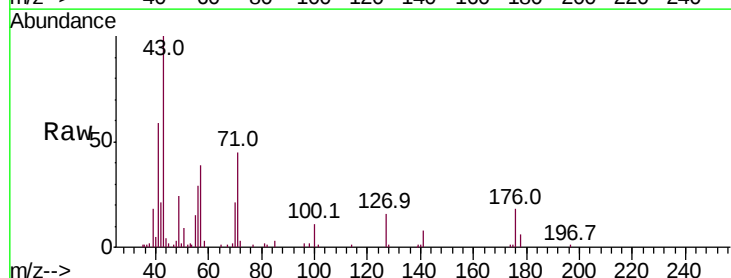
Acq: 23 Nov 2021 15:24

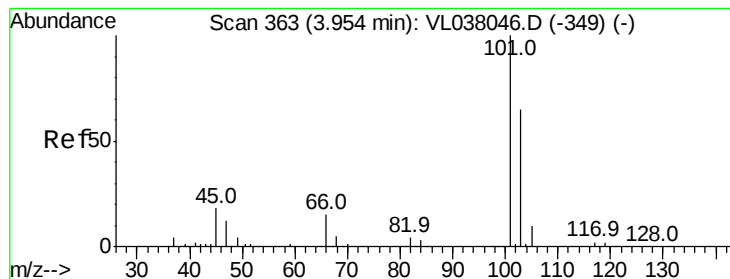
Tgt Ion: 43 Resp: 72410

Ion Ratio Lower Upper

43 100

57 55.2 40.4 60.6





#11

Trichlorofluoromethane

Concen: 0.621 ppbv

RT: 3.96 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

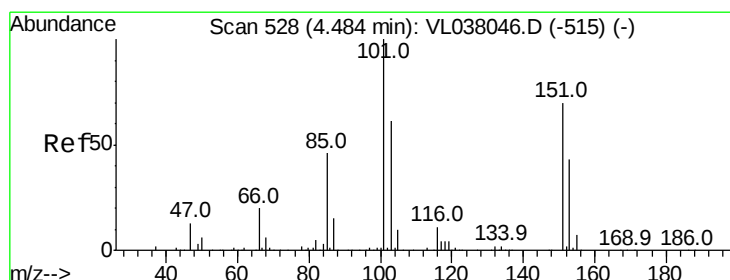
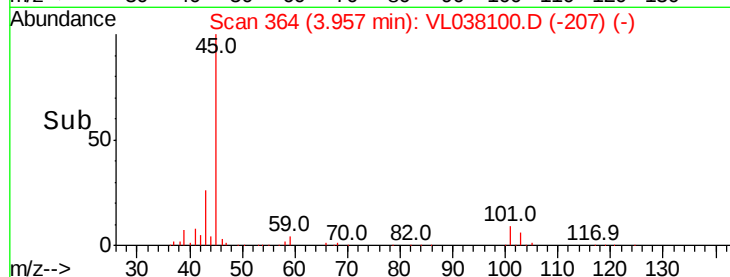
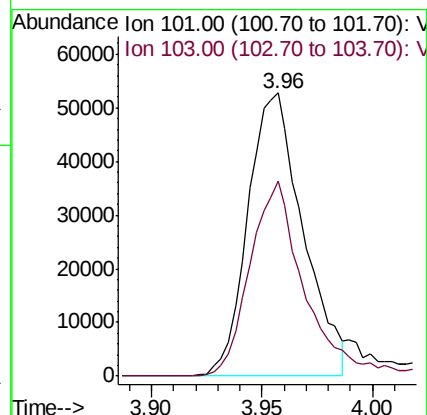
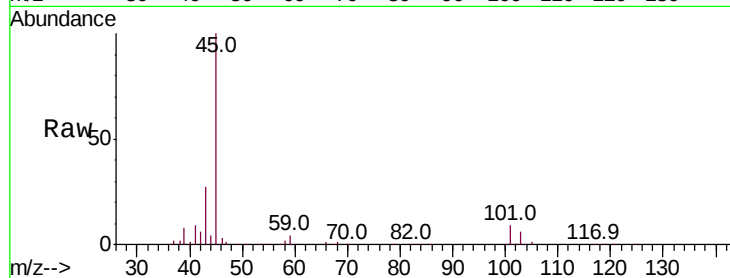
Acq: 23 Nov 2021 15:24

Tot Ion:101 Resp: 91689

Ion Ratio Lower Upper

101 100

103 69.0 51.8 77.6



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.033 ppbv

RT: 4.48 min Scan# 528

Delta R.T. 0.00 min

Lab File: VL038100.D

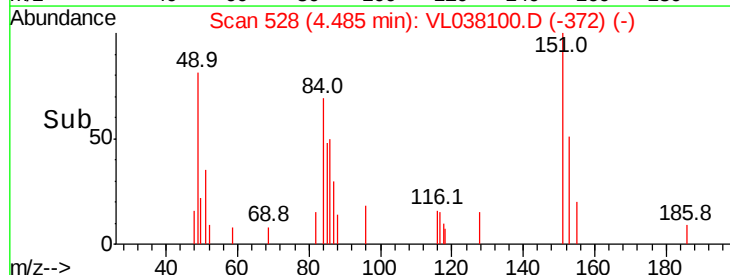
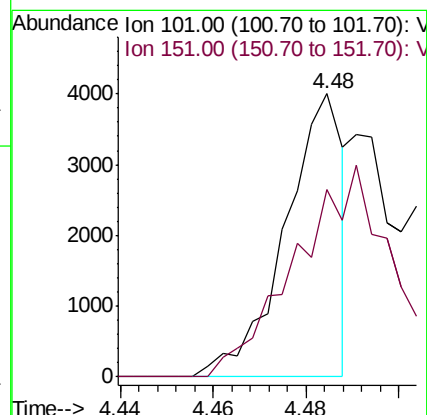
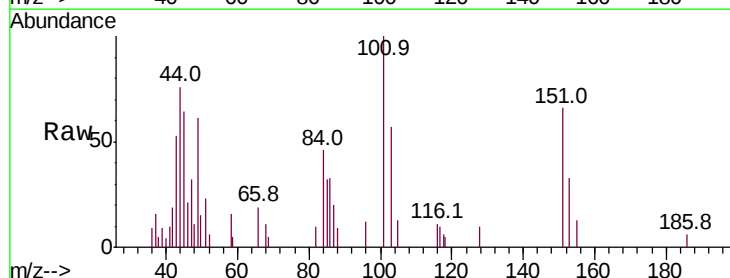
Acq: 23 Nov 2021 15:24

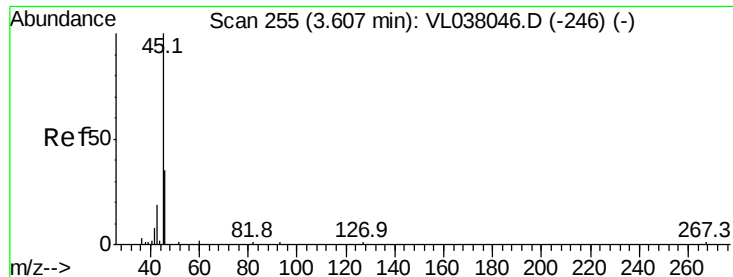
Tgt Ion:101 Resp: 3471

Ion Ratio Lower Upper

101 100

151 0.0 59.0 88.4#





#13

Ethanol

Concen: 790.045 ppbv

RT: 3.61 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

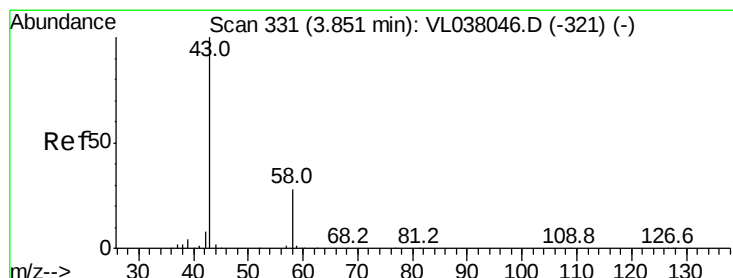
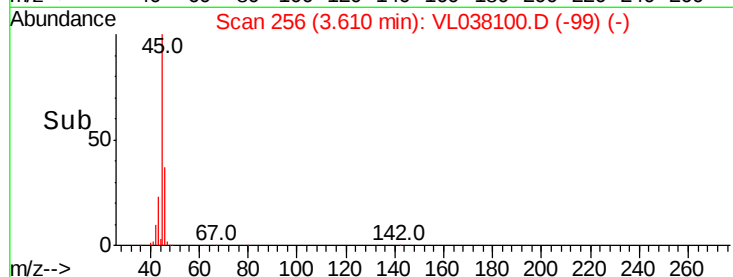
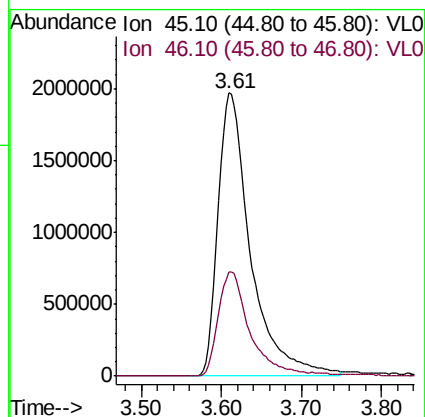
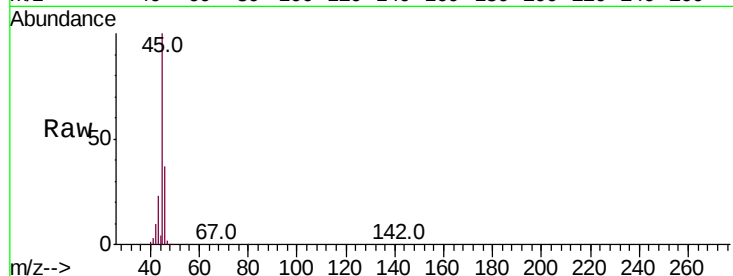
Acq: 23 Nov 2021 15:24

Tot Ion: 45 Resp: 5548359

Ion Ratio Lower Upper

45 100

46 37.1 17.6 70.2



#15

Acetone

Concen: 37.298 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.00 min

Lab File: VL038100.D

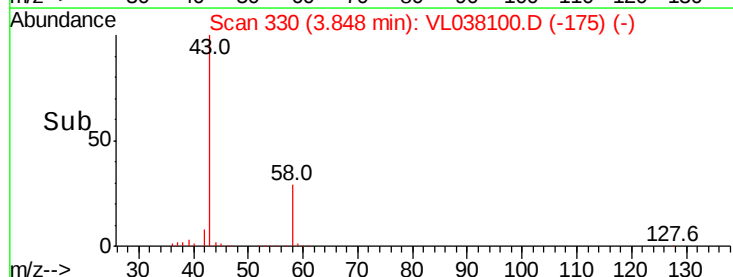
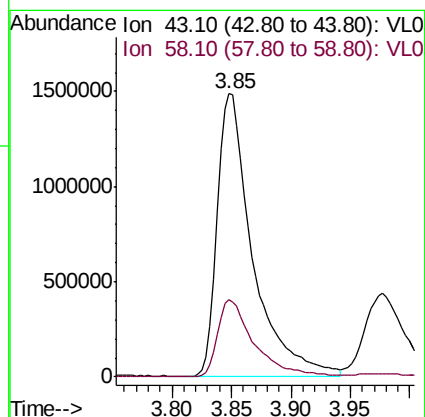
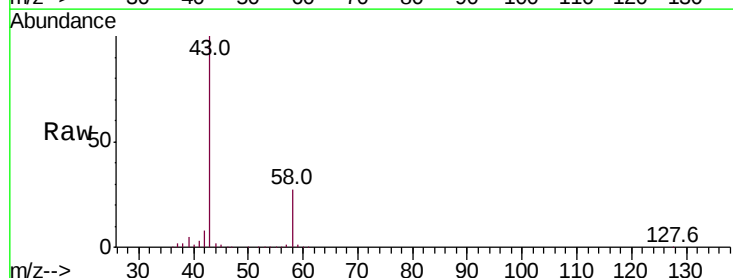
Acq: 23 Nov 2021 15:24

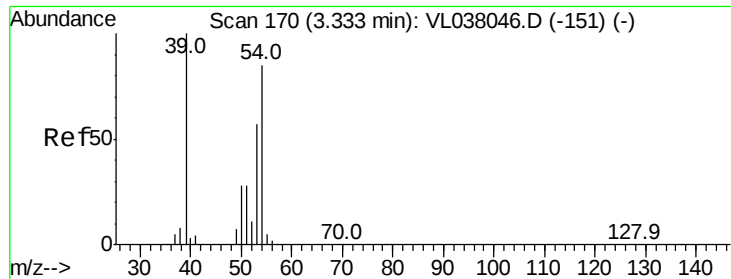
Tgt Ion: 43 Resp: 3038581

Ion Ratio Lower Upper

43 100

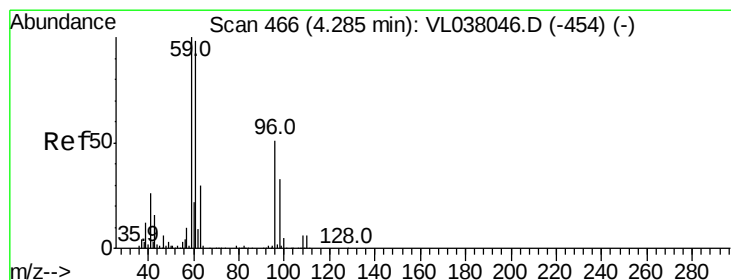
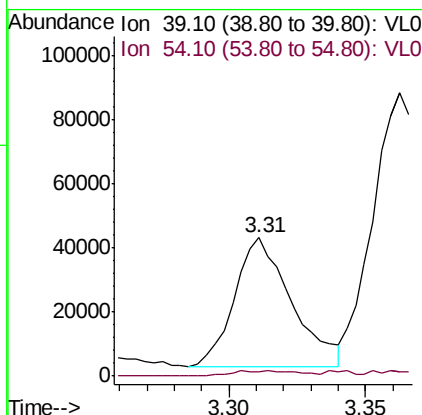
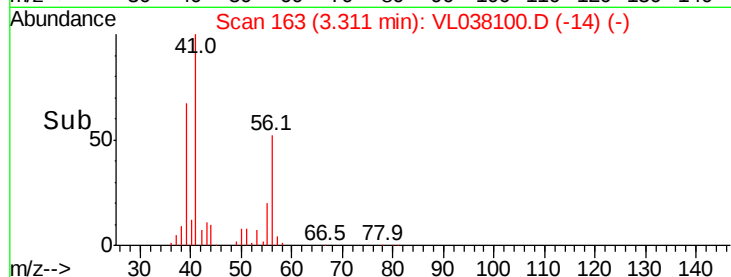
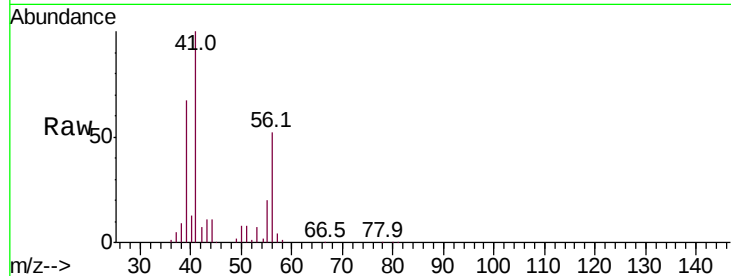
58 28.7 22.4 33.6





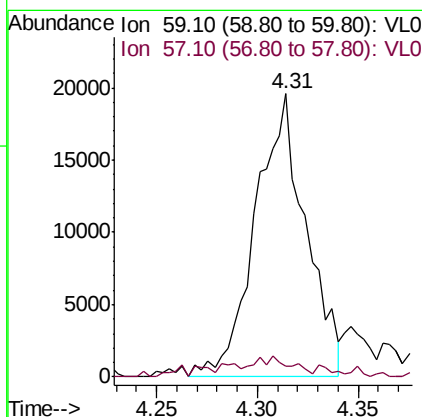
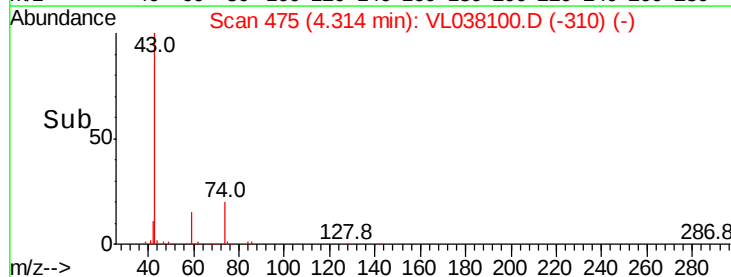
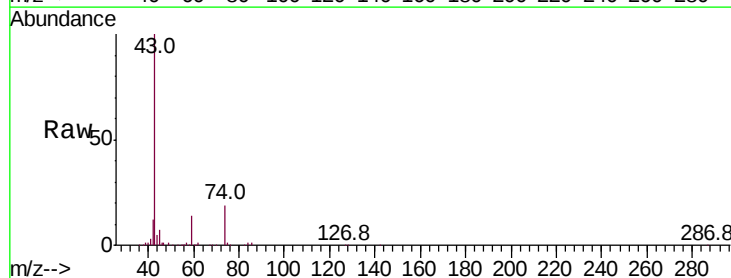
#16
 1,3-Butadiene
 Concen: 0.922 ppbv
 RT: 3.31 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 23 Nov 2021 15:24

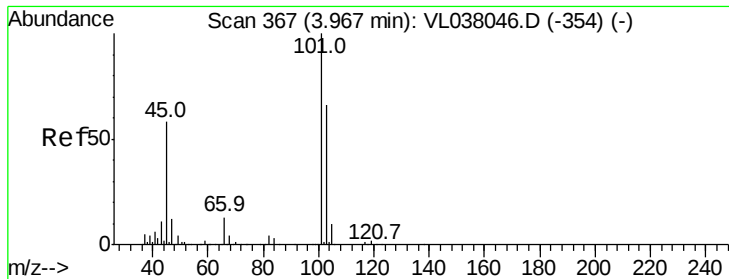
Tot Ion: 39 Resp: 58571
 Ion Ratio Lower Upper
 39 100
 54 4.7 64.4 96.6#



#17
 tert-Butyl alcohol
 Concen: 0.346 ppbv
 RT: 4.31 min Scan# 475
 Delta R.T. 0.03 min
 Lab File: VL038100.D
 Acq: 23 Nov 2021 15:24

Tgt Ion: 59 Resp: 34153
 Ion Ratio Lower Upper
 59 100
 57 12.3 8.6 13.0





#19

Isopropyl Alcohol

Concen: 74.446 ppbv

RT: 3.98

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

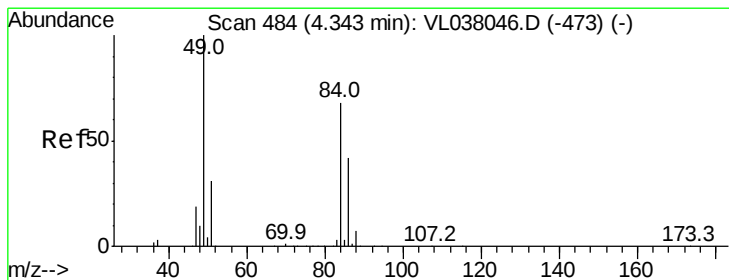
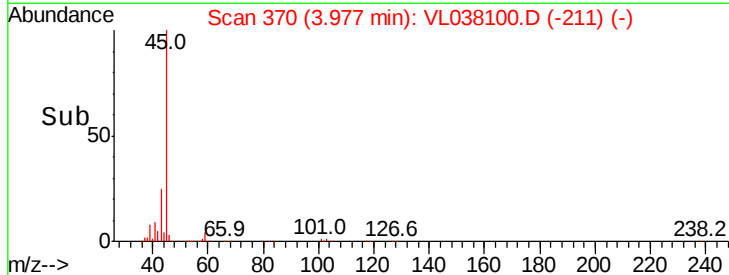
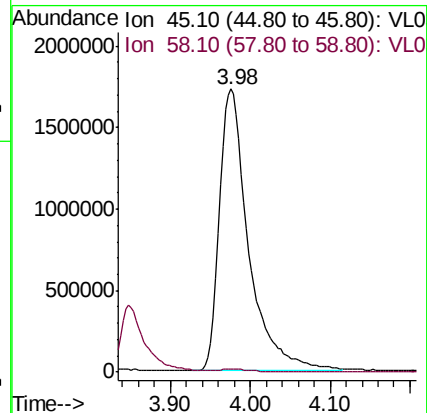
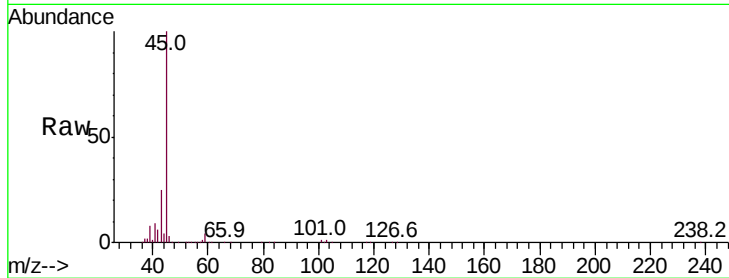
Acq: 23 Nov 2021 15:24

Tot Ion: 45 Resp: 4382120

Ion Ratio Lower Upper

45 100

58 1.5 1.4 2.0



#20

Methylene Chloride

Concen: 13.175 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.01 min

Lab File: VL038100.D

Acq: 23 Nov 2021 15:24

Tgt Ion: 84 Resp: 601196

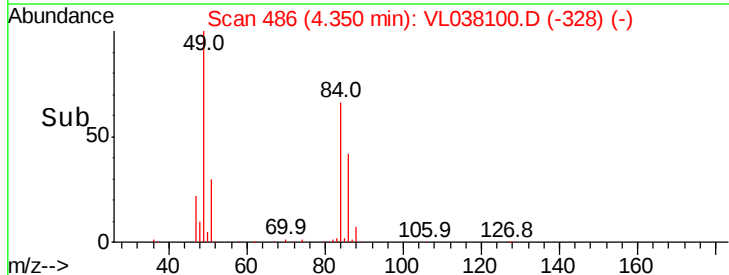
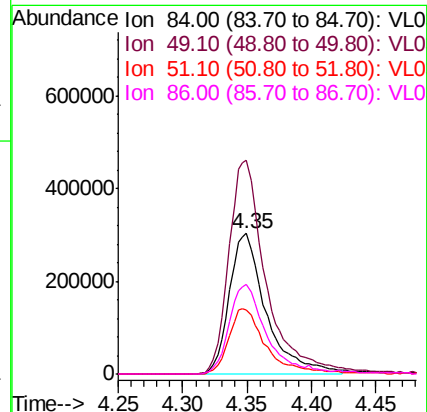
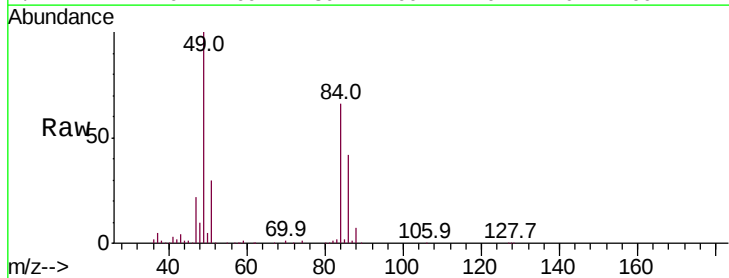
Ion Ratio Lower Upper

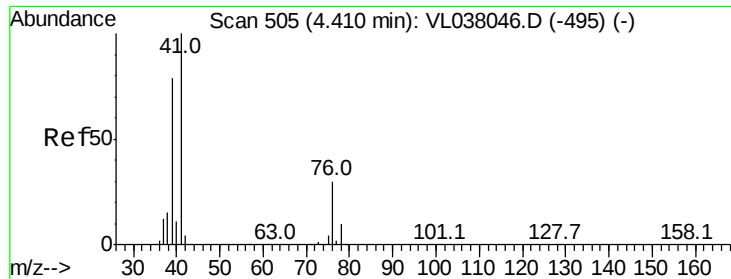
84 100

49 152.0 118.2 177.2

51 45.4 36.8 55.2

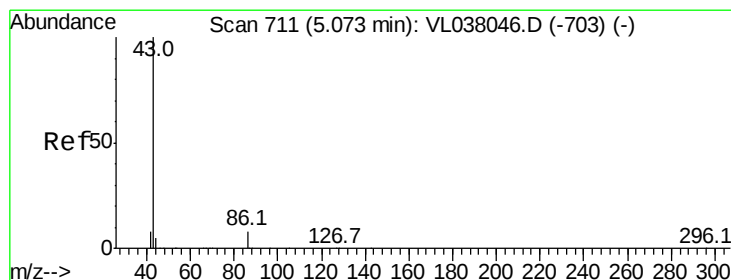
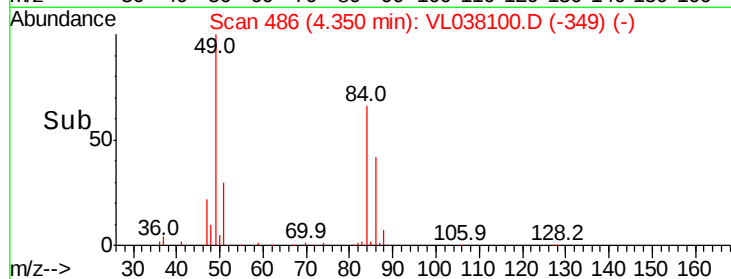
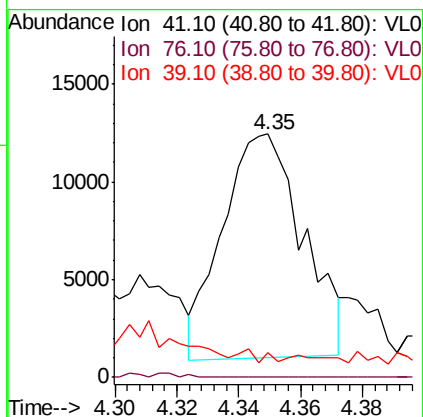
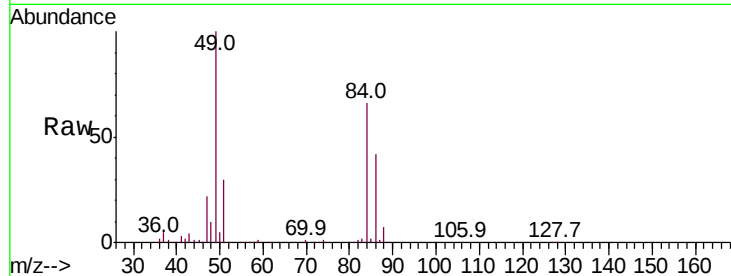
86 63.7 49.0 73.6





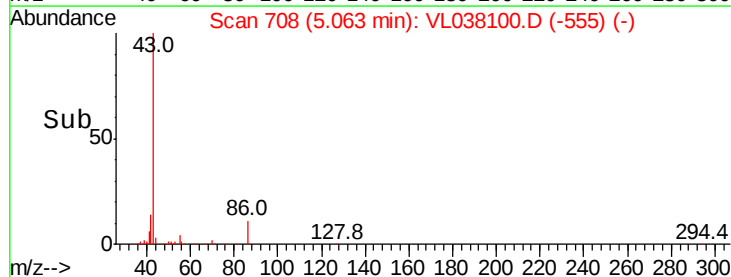
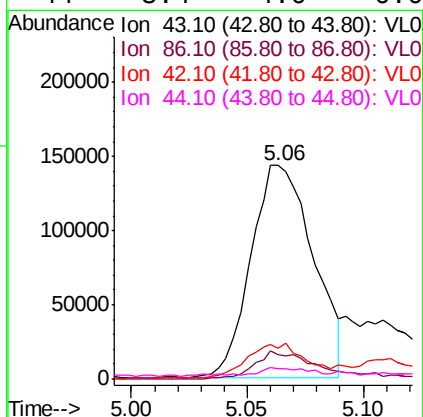
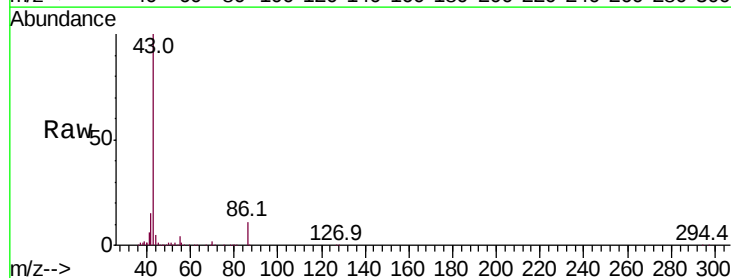
#21
Allvl Chloride
Concen: 0.275 ppbv
RT: 4.35
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 23 Nov 2021 15:24

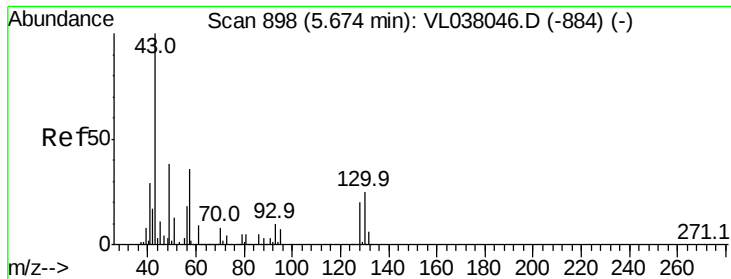
Tot Ion: 41 Resp: 20719
Ion Ratio Lower Upper
41 100
76 61.9 24.6 36.8#
39 0.0 63.4 95.0#



#23
Vinyl Acetate
Concen: 2.275 ppbv
RT: 5.06 min Scan# 708
Delta R.T.: -0.01 min
Lab File: VL038100.D
Acq: 23 Nov 2021 15:24

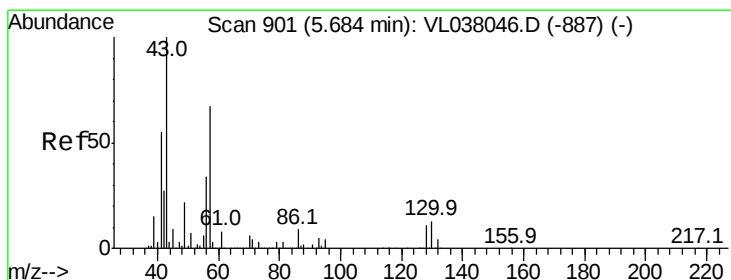
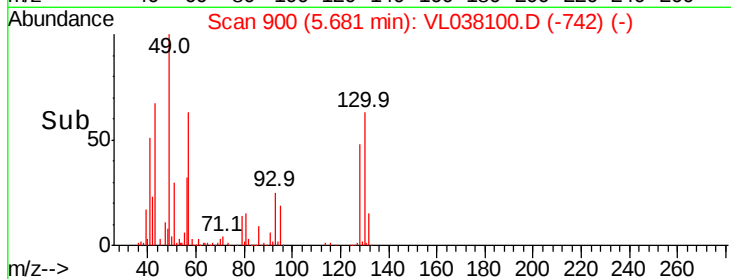
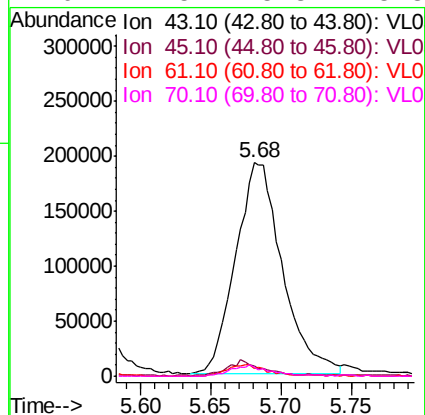
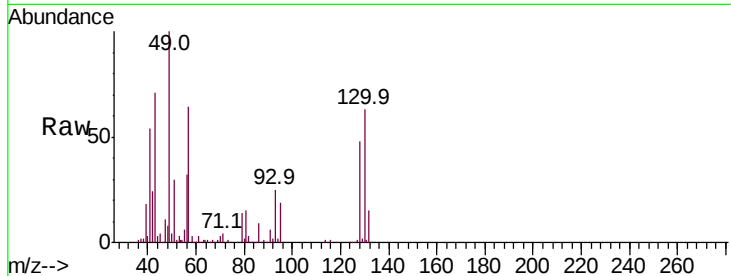
Tgt Ion: 43 Resp: 268280
Ion Ratio Lower Upper
43 100
86 11.5 5.3 7.9#
42 14.2 7.0 10.6#
44 3.4 4.0 6.0#





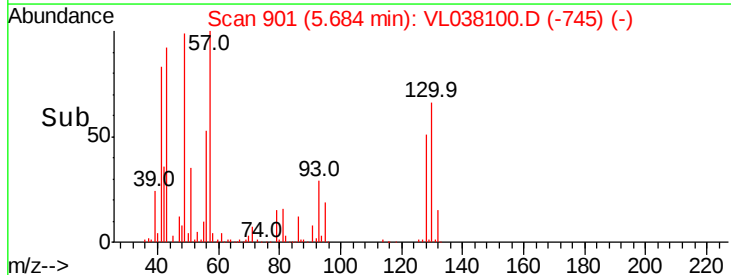
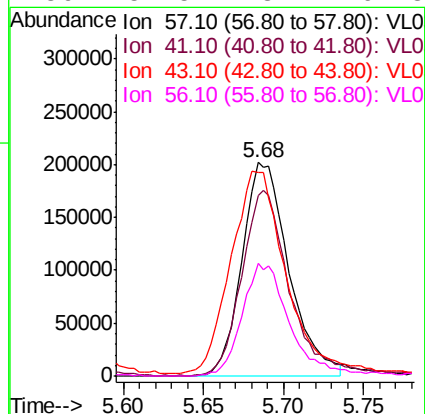
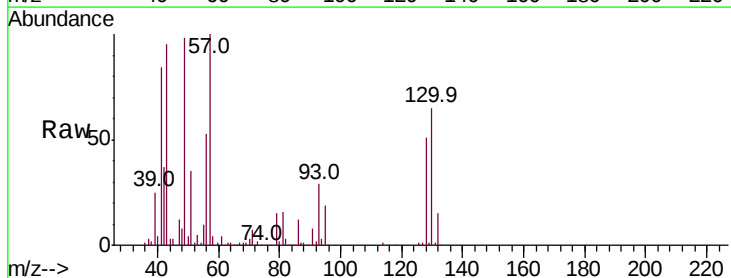
#25
Ethyl Acetate
Concen: 1.639 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 15:24

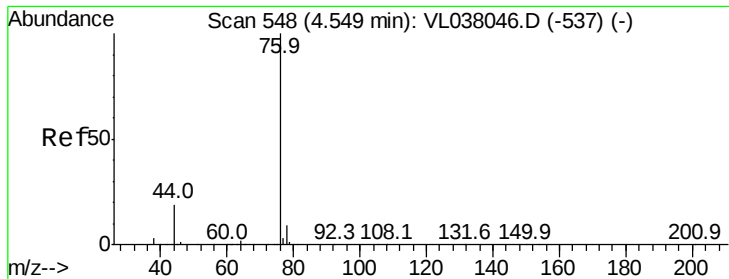
Tot Ion	Ratio	Lower	Upper
43	100		
45	6.7	7.9	11.9#
61	5.0	7.8	11.6#
70	4.5	5.8	8.8#



#26
Hexane
Concen: 3.095 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.00 min
Lab File: VL038100.D
Acq: 23 Nov 2021 15:24

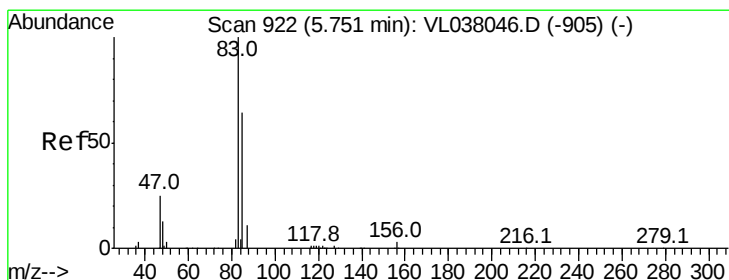
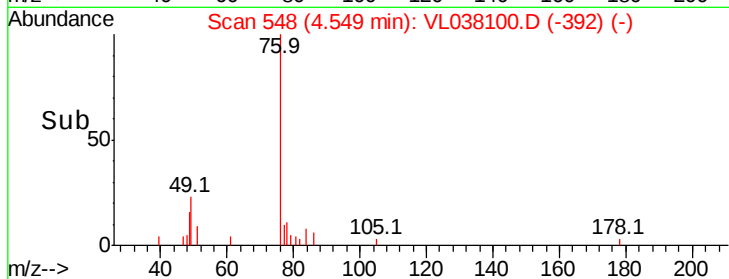
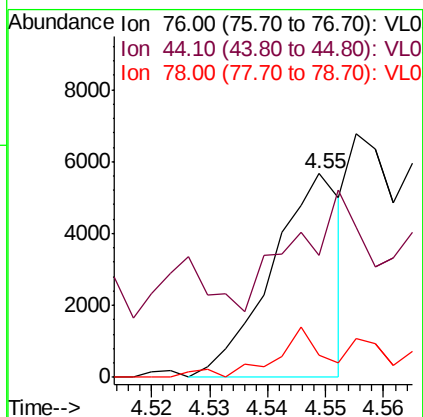
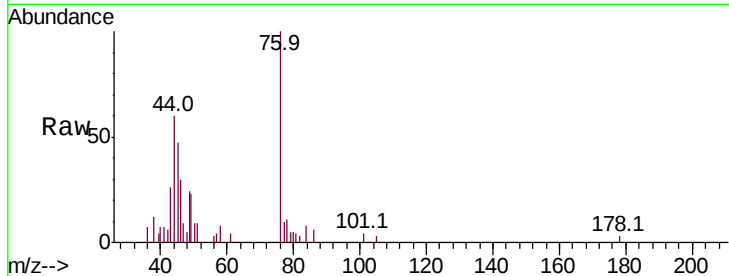
Tgt Ion	Ratio	Lower	Upper
57	100		
41	89.5	71.4	107.2
43	114.6	174.6	261.8#
56	54.5	43.2	64.8





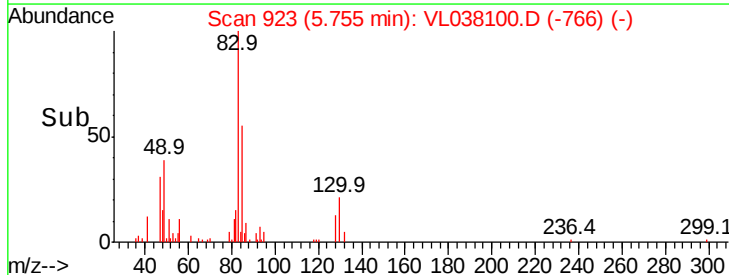
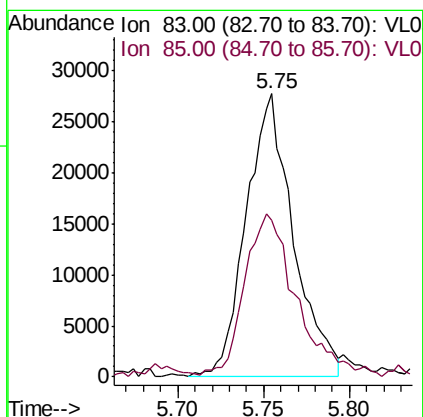
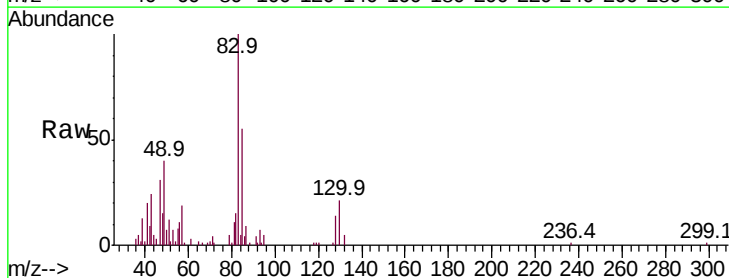
#27
Carbon Disulfide
Concen: 0.040 ppbv
RT: 4.55
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 15:24

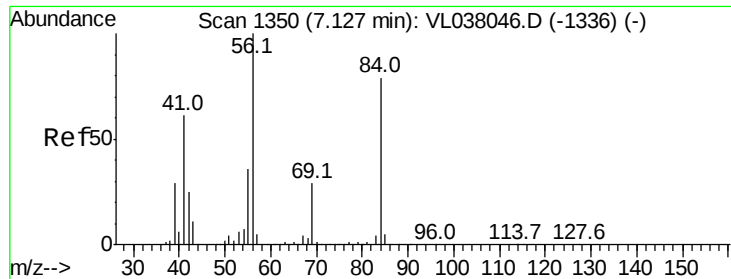
Tot Ion: 76 Resp: 4701
Ion Ratio Lower Upper
76 100
44 0.0 14.9 22.3#
78 34.4 7.6 11.4#



#29
Chloroform
Concen: 0.275 ppbv
RT: 5.75 min Scan# 923
Delta R.T. 0.00 min
Lab File: VL038100.D
Acq: 23 Nov 2021 15:24

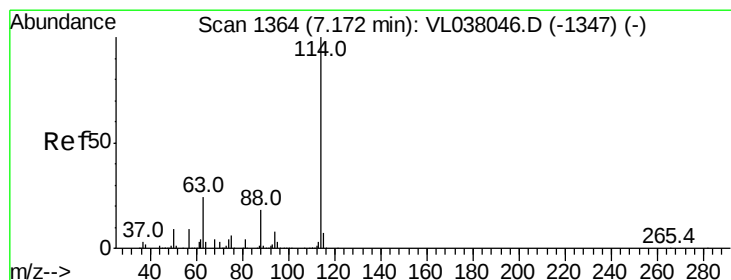
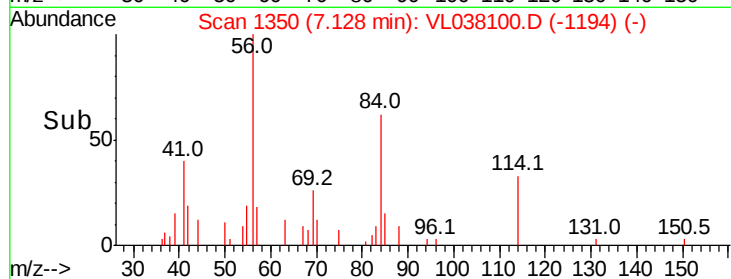
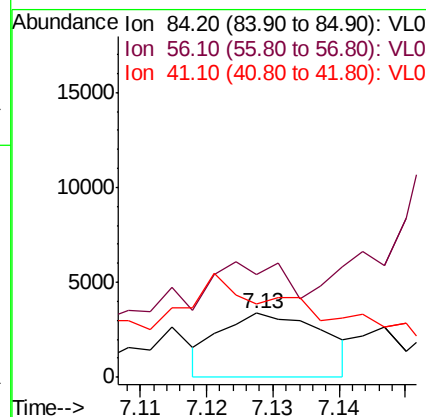
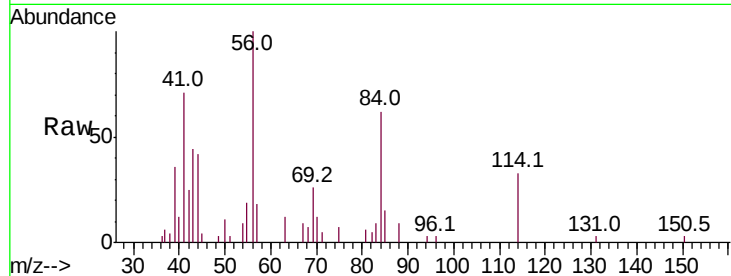
Tgt Ion: 83 Resp: 52973
Ion Ratio Lower Upper
83 100
85 53.8 51.0 76.6





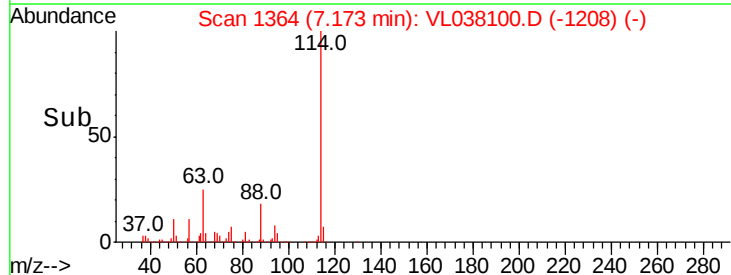
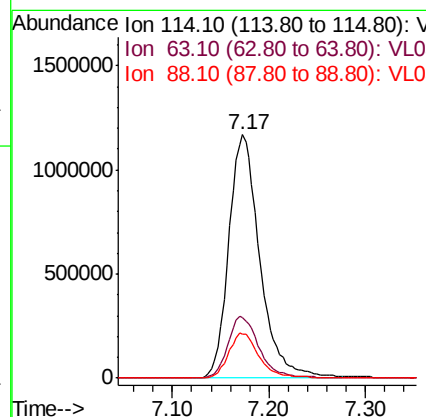
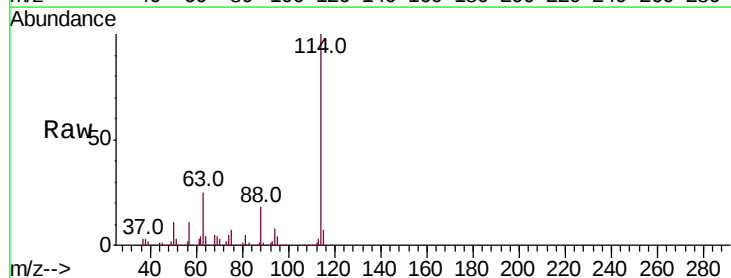
#30
Cvclohexane
Concen: 0.031 ppbv
RT: 7.13
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 15:24

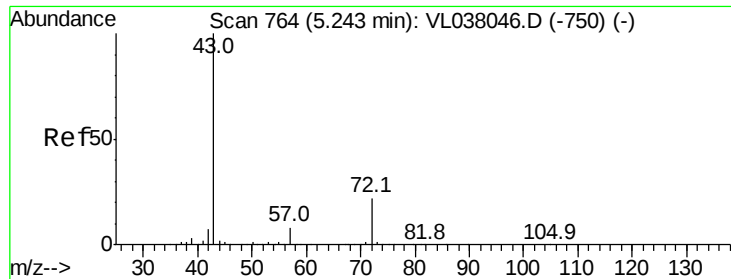
Tot Ion: 84 Resp: 3665
Ion Ratio Lower Upper
84 100
56 0.0 108.1 162.1#
41 0.0 64.4 96.6#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1364
Delta R.T. 0.00 min
Lab File: VL038100.D
Acq: 23 Nov 2021 15:24

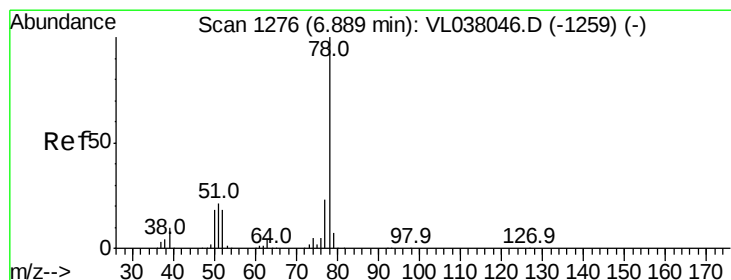
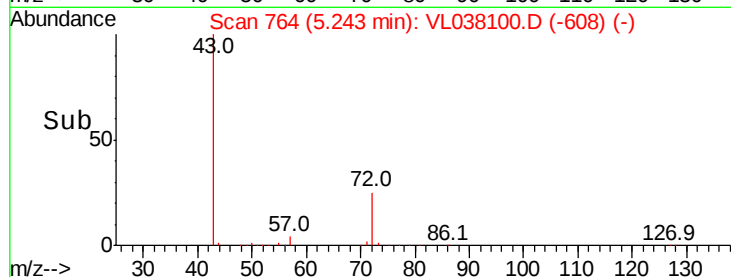
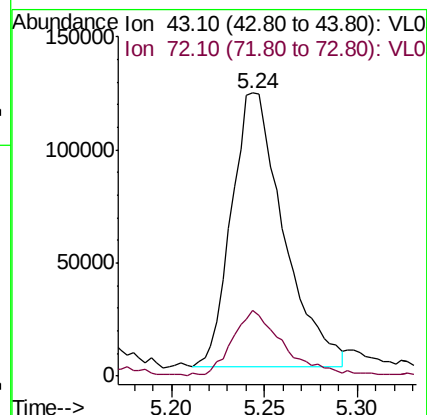
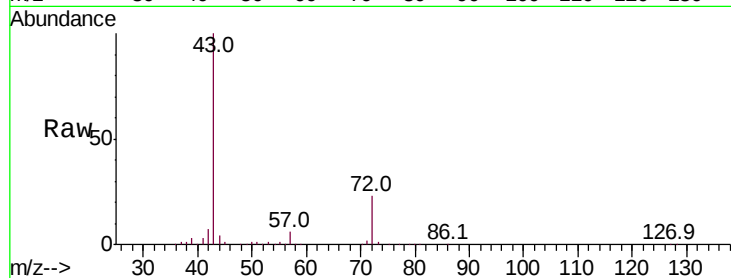
Tgt Ion: 114 Resp: 2613020
Ion Ratio Lower Upper
114 100
63 25.8 19.7 29.5
88 18.6 14.4 21.6





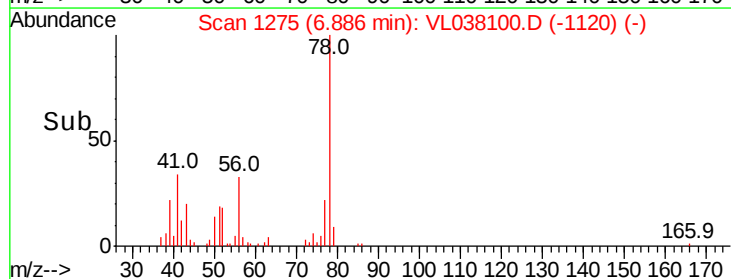
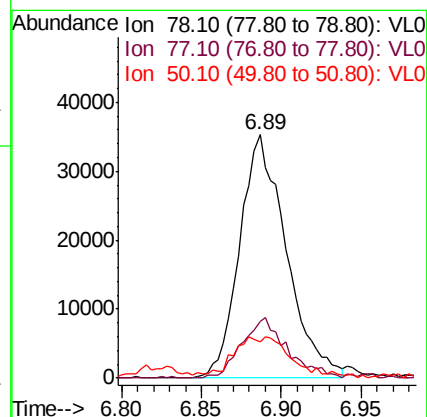
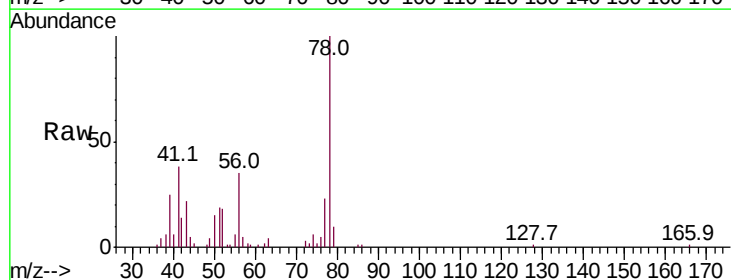
#34
2-Butanone
Concen: 2.238 ppbv
RT: 5.24
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
IA-ROOK-COFFEE
Acq: 23 Nov 2021 15:24

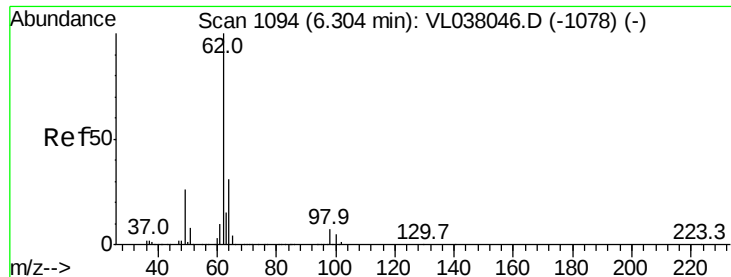
Tot Ion: 43 Resp: 235759
Ion Ratio Lower Upper
43 100
72 24.7 18.8 28.2



#36
Benzene
Concen: 0.270 ppbv
RT: 6.89 min Scan# 1275
Delta R.T. -0.00 min
Lab File: VL038100.D
Acq: 23 Nov 2021 15:24

Tgt Ion: 78 Resp: 70248
Ion Ratio Lower Upper
78 100
77 23.4 18.2 27.4
50 13.9 14.7 22.1#





#37

1,2-Dichloroethane

Concen: 0.053 ppbv

RT: 6.31 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

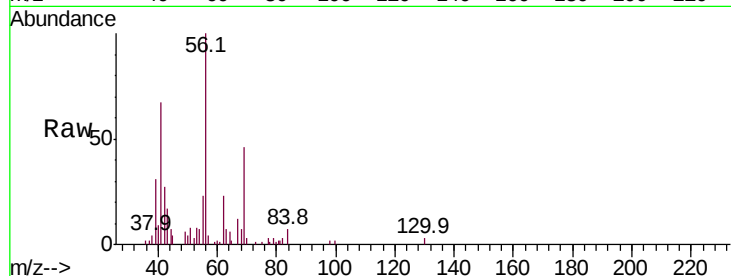
Acq: 23 Nov 2021 15:24

Tot Ion: 62 Resp: 6612

Ion Ratio Lower Upper

62 100

98 6.8 5.8 8.6



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

6.31

4000

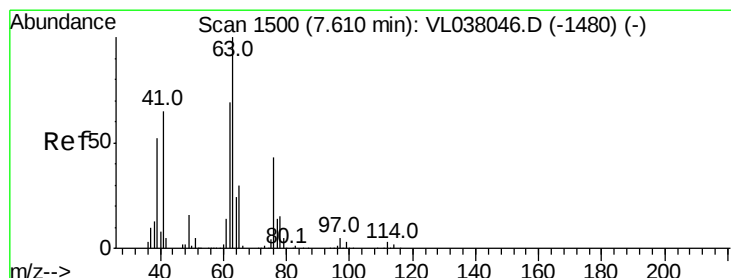
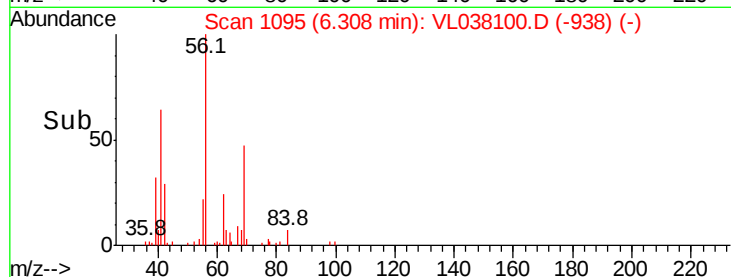
3000

2000

1000

0

Time--> 6.26 6.28 6.30 6.32 6.34



#39

1,2-Dichloropropane

Concen: 6.641 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.44 min

Lab File: VL038100.D

Acq: 23 Nov 2021 15:24

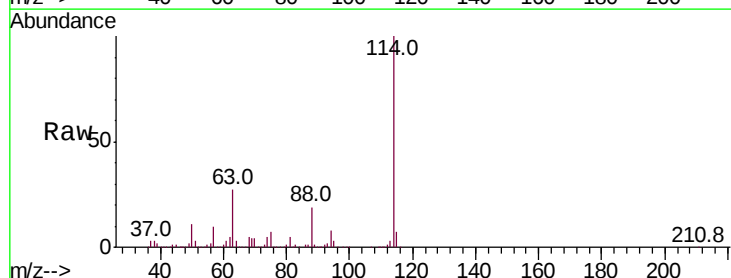
Tgt Ion: 63 Resp: 663991

Ion Ratio Lower Upper

63 100

41 0.0 52.3 78.5#

62 17.0 55.1 82.7#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

7.17

400000

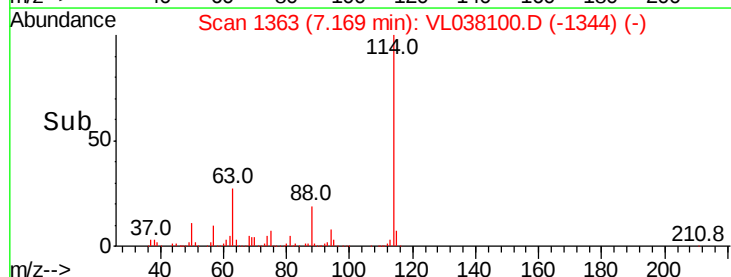
300000

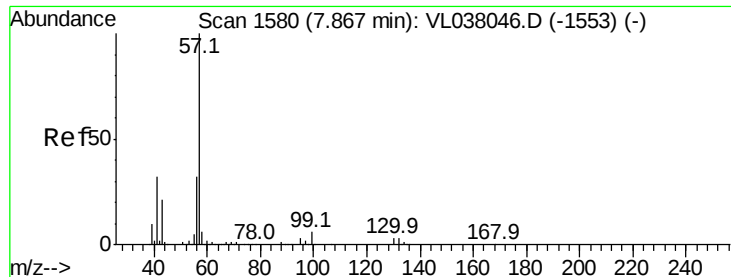
200000

100000

0

Time--> 7.10 7.20 7.30





#44

2,2,4-Trimethylpentane

Concen: 0.439 ppbv

RT: 7.86 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 23 Nov 2021 15:24

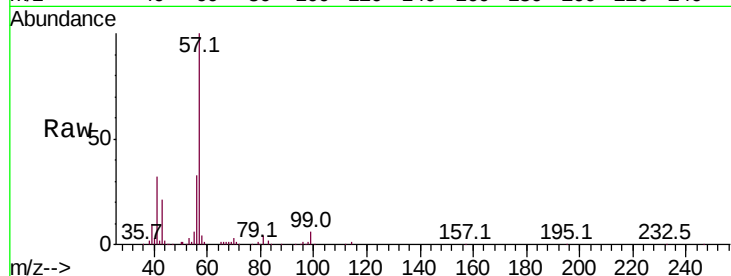
Tot Ion: 57 Resp: 191542

Ion Ratio Lower Upper

57 100

41 34.6 25.8 38.6

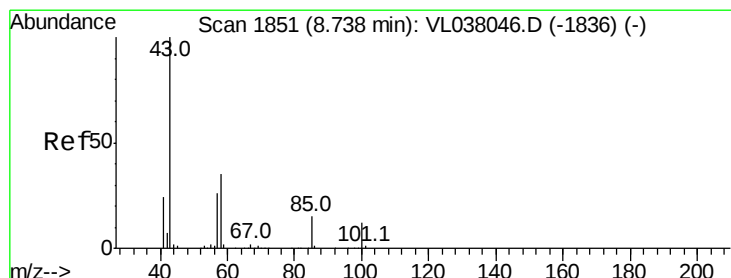
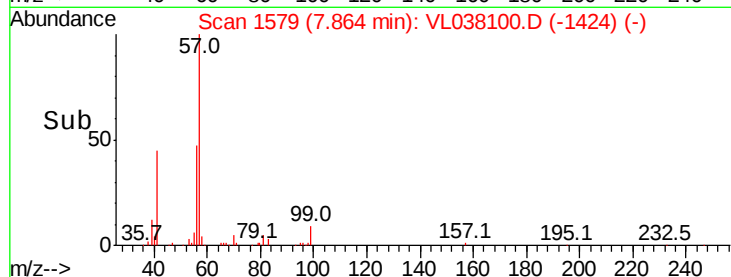
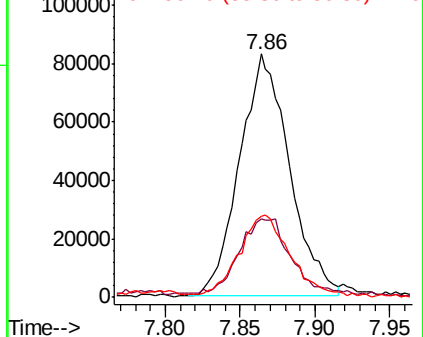
56 35.3 25.6 38.4



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#50

4-Methyl-2-Pentanone

Concen: 0.100 ppbv

RT: 8.75 min Scan# 1854

Delta R.T. 0.01 min

Lab File: VL038100.D

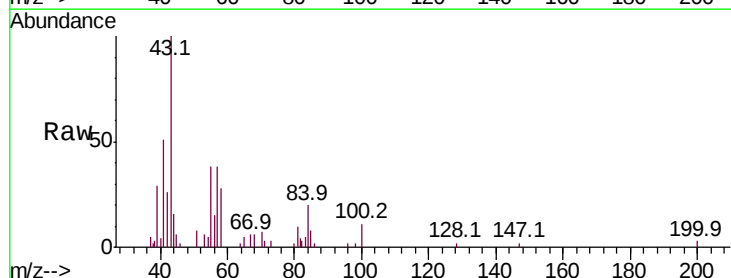
Acq: 23 Nov 2021 15:24

Tgt Ion: 43 Resp: 16045

Ion Ratio Lower Upper

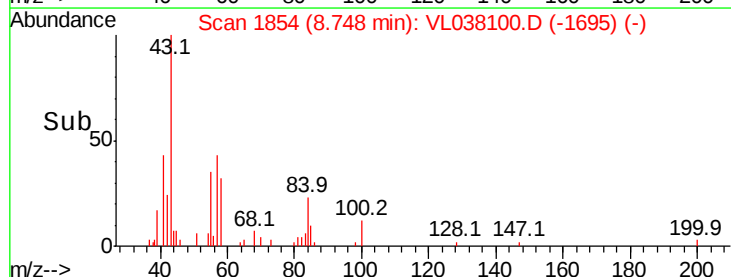
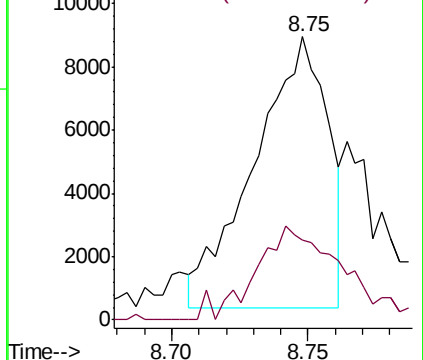
43 100

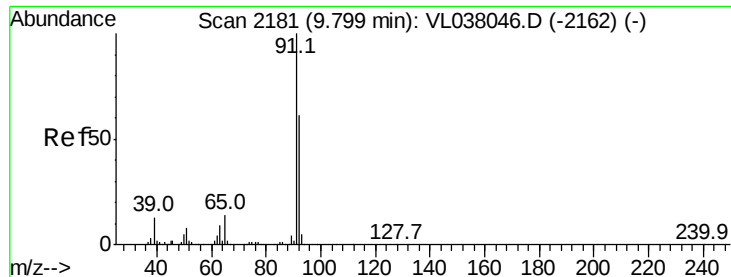
58 44.5 29.4 44.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#53

Toluene

Concen: 1.938 ppbv

RT: 9.80 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

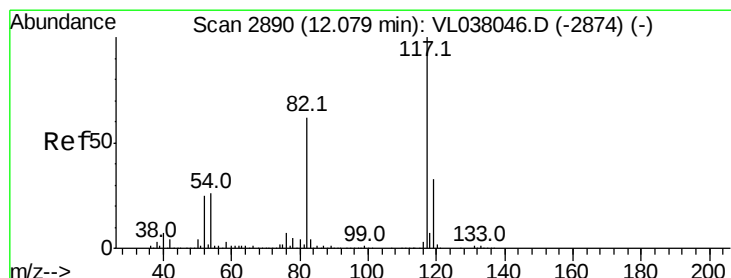
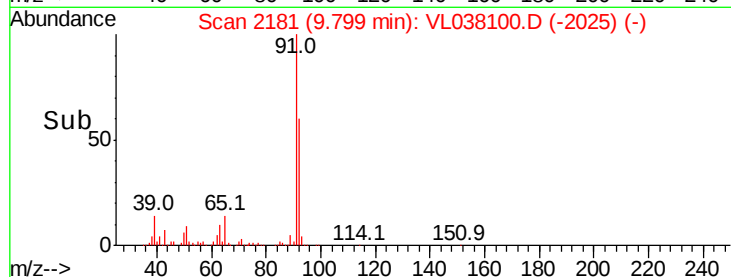
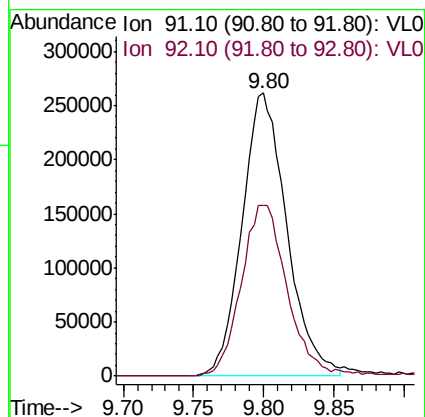
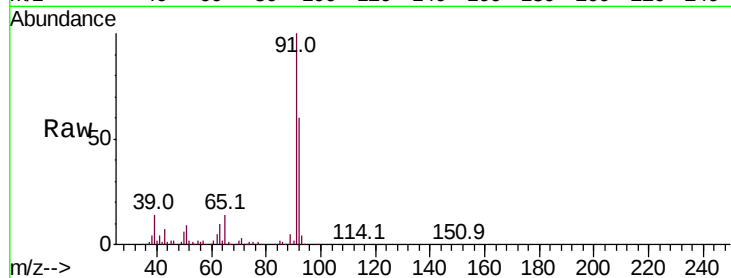
Acq: 23 Nov 2021 15:24

Tot Ion: 91 Resp: 581081

Ion Ratio Lower Upper

91 100

92 62.6 49.7 74.5



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2890

Delta R.T. 0.00 min

Lab File: VL038100.D

Acq: 23 Nov 2021 15:24

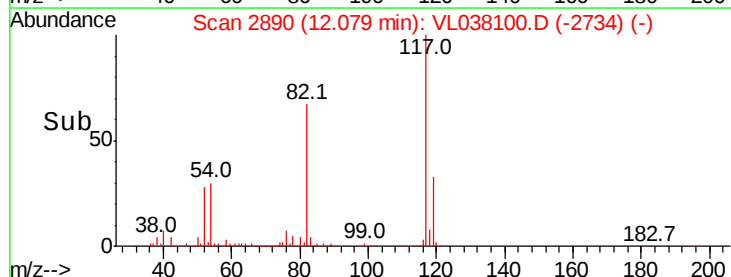
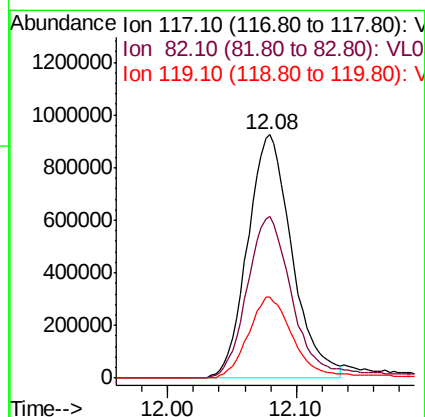
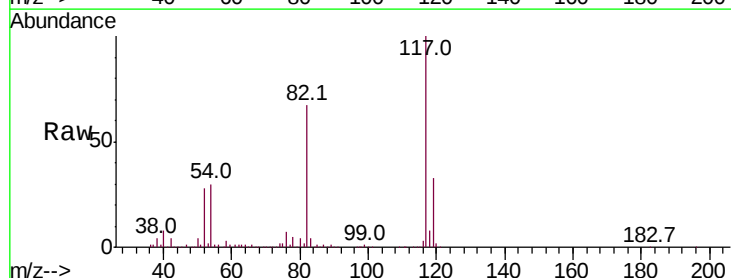
Tgt Ion: 117 Resp: 2215424

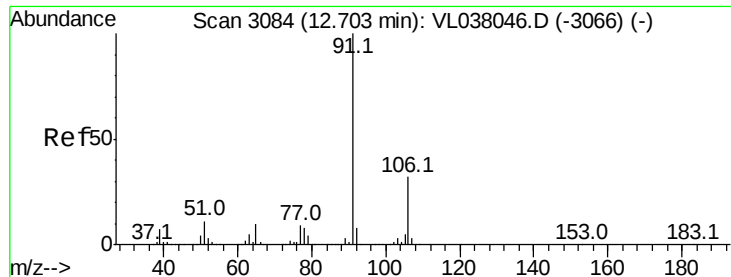
Ion Ratio Lower Upper

117 100

82 72.6 52.8 79.2

119 35.0 26.8 40.2





#58

Ethyl Benzene

Concen: 0.436 ppbv

RT: 12.70

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

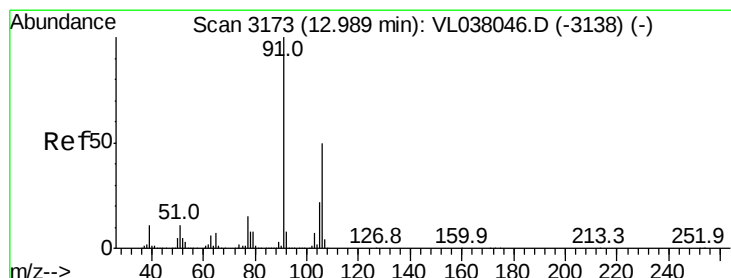
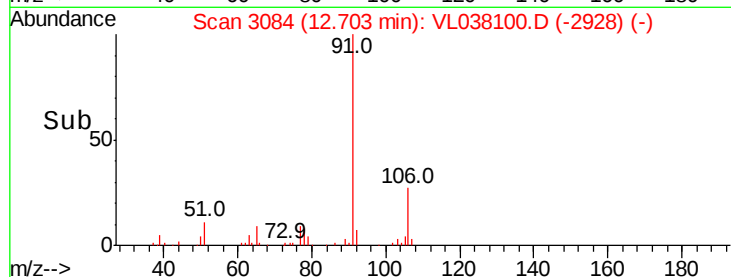
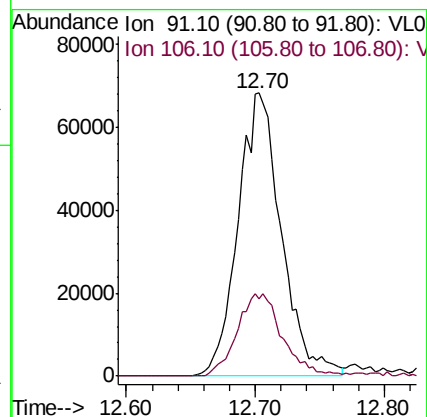
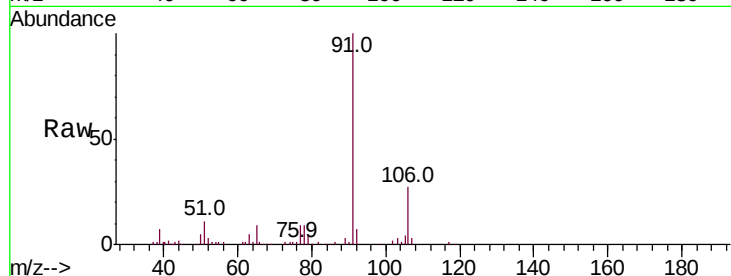
Acq: 23 Nov 2021 15:24

Tot Ion: 91 Resp: 159725

Ion Ratio Lower Upper

91 100

106 27.2 25.8 38.6



#59

m/p-Xylene

Concen: 0.812 ppbv

RT: 12.96 min Scan# 3163

Delta R.T. -0.03 min

Lab File: VL038100.D

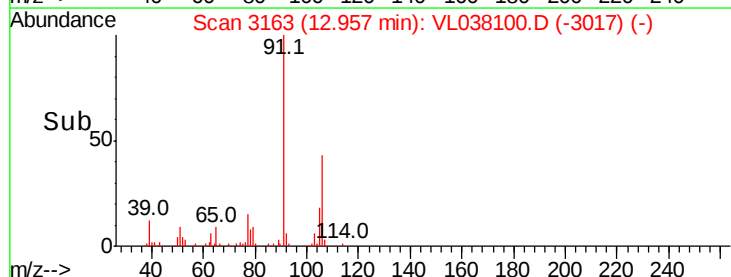
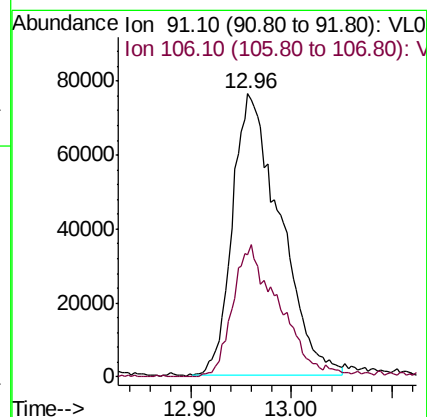
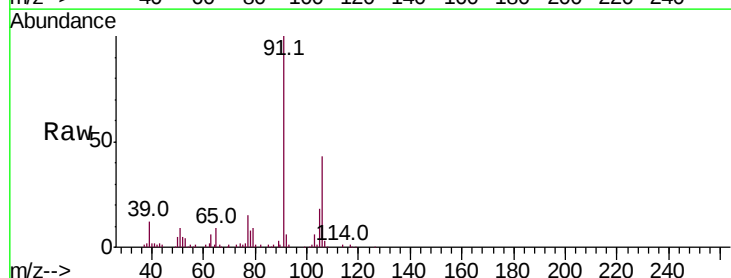
Acq: 23 Nov 2021 15:24

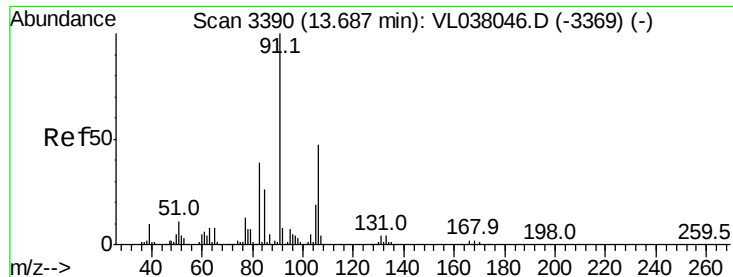
Tgt Ion: 91 Resp: 250209

Ion Ratio Lower Upper

91 100

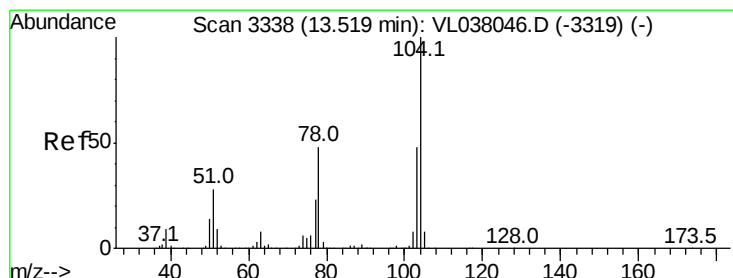
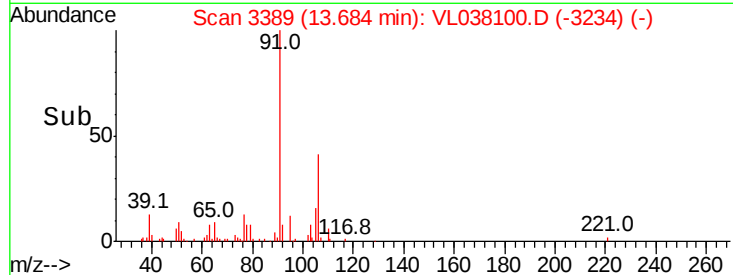
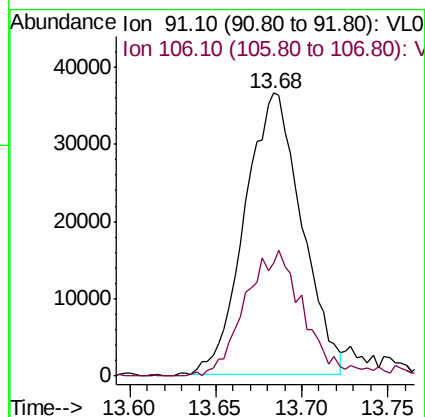
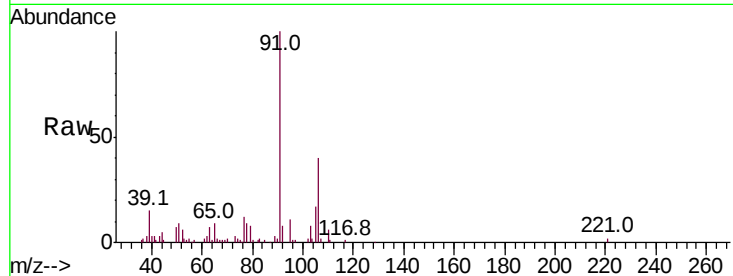
106 46.2 38.1 57.1





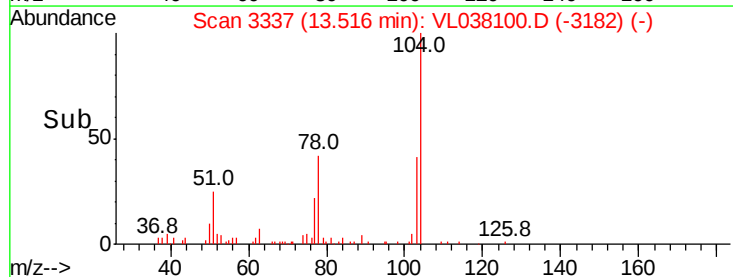
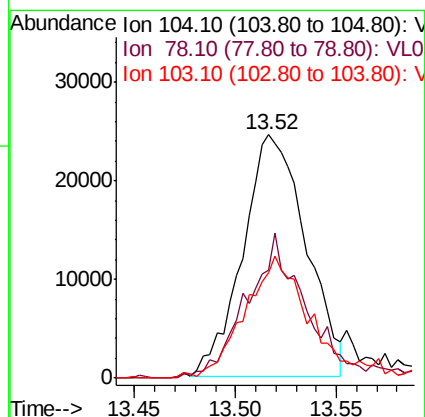
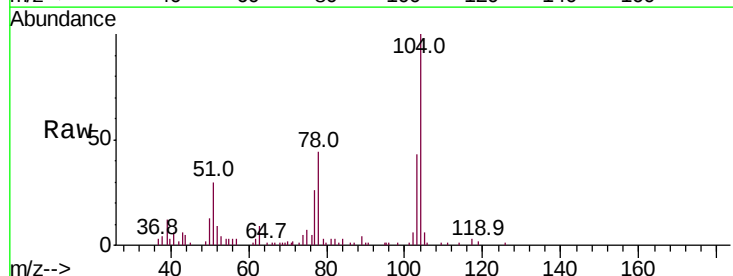
#60
o-Xylene
Concen: 0.294 ppbv
RT: 13.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 15:24

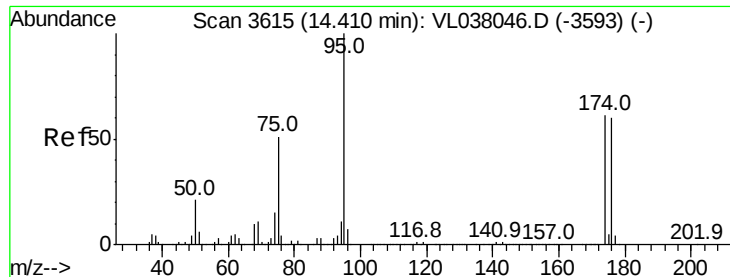
Tot Ion: 91 Resp: 84155
Ion Ratio Lower Upper
91 100
106 45.0 24.2 72.6



#61
Styrene
Concen: 0.348 ppbv
RT: 13.52 min Scan# 3337
Delta R.T. -0.00 min
Lab File: VL038100.D
Acq: 23 Nov 2021 15:24

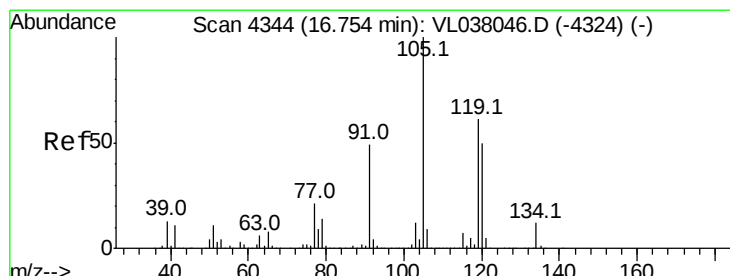
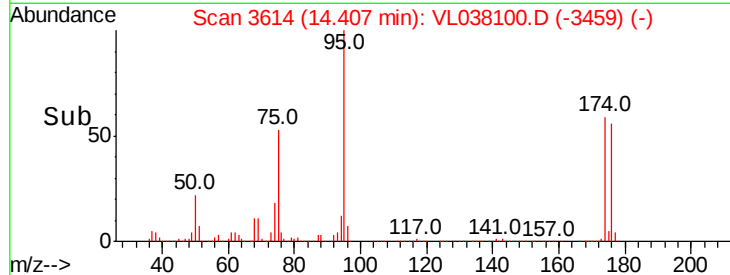
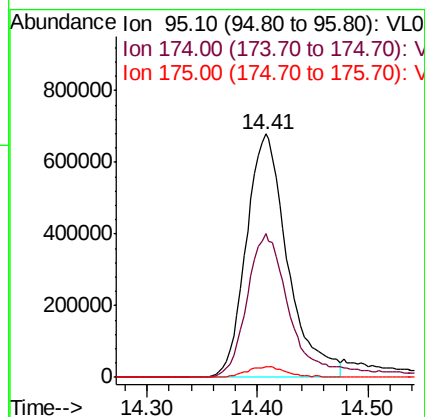
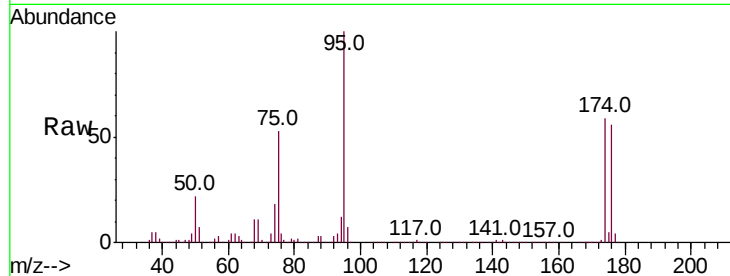
Tgt Ion: 104 Resp: 53276
Ion Ratio Lower Upper
104 100
78 58.6 39.8 59.6
103 56.1 38.2 57.2





#68
 1-Bromo-4-Fluorobenzene
 Concen: 11.036 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 23 Nov 2021 15:24

Tot Ion: 95 Resp: 1763606
 Ion Ratio Lower Upper
 95 100
 174 64.7 53.1 79.7
 175 4.7 4.0 6.0



#74
 1,2,4-Trimethylbenzene
 Concen: 0.118 ppbv
 RT: 16.75 min Scan# 4342
 Delta R.T. -0.01 min
 Lab File: VL038100.D
 Acq: 23 Nov 2021 15:24

Tgt Ion: 105 Resp: 36759
 Ion Ratio Lower Upper
 105 100
 120 43.9 40.1 60.1
 91 10.1 39.8 59.8#
 77 12.1 16.6 25.0#

