

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL037990.D
 Acq On : 9 Nov 2021 22:07
 Operator : SY/AP
 Sample : M4555-05
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 04:49:27 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov 02 05:54:07 2021
 QLast Update : Tue Nov 02 05:54:07 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1289627	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3751738	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3206436	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	2183055	9.37	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.70%

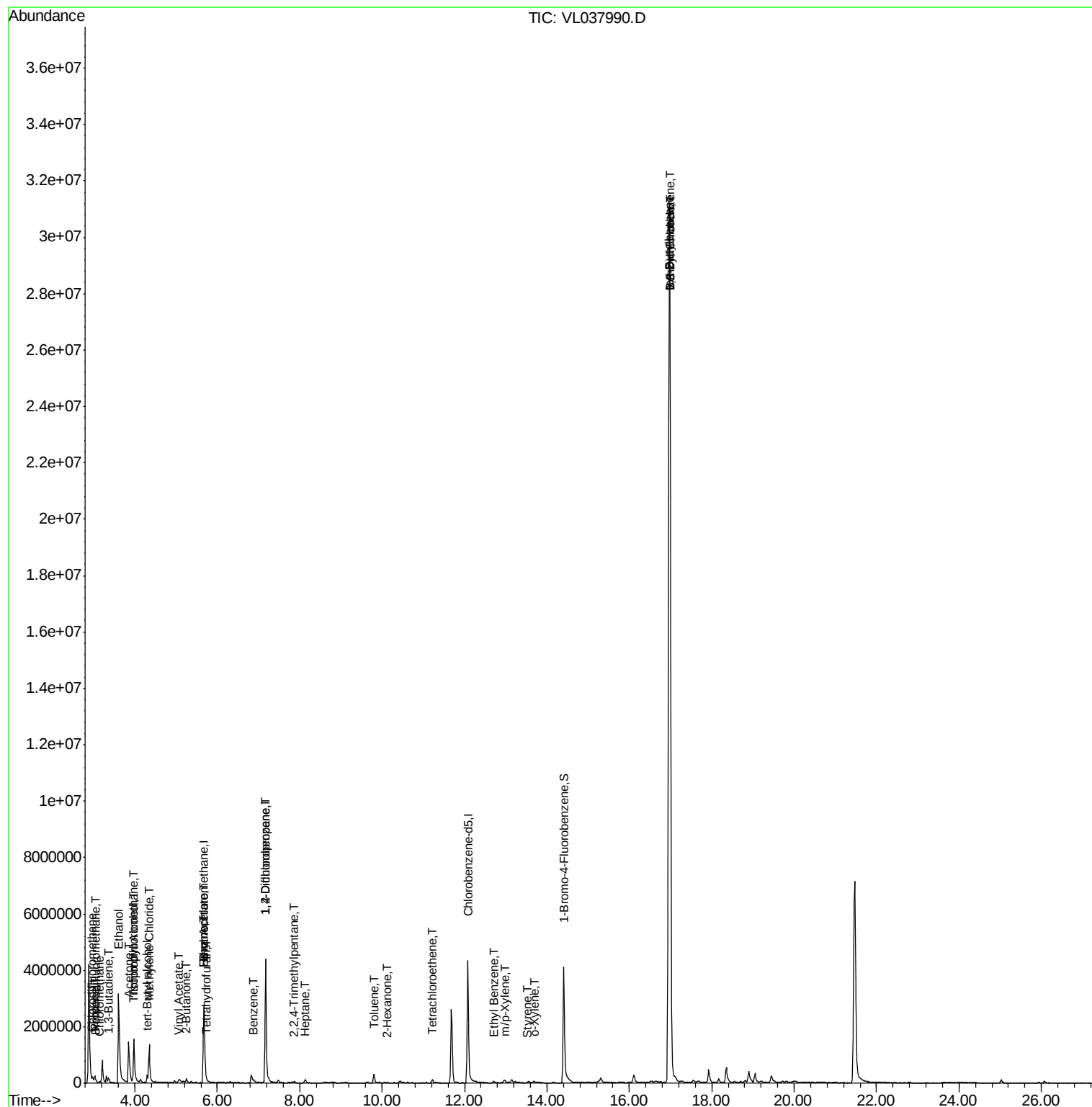
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	56869	0.313	ppbv 89
3) Chlorodifluoromethane	2.97	51	175144	0.730	ppbv # 73
4) Chloromethane	3.14	50	60986	0.668	ppbv 94
9) Propene	3.02	41	83249	0.967	ppbv 96
10) Heptane	8.11	43	6656	0.033	ppbv # 1
11) Trichlorofluoromethane	3.95	101	26216	0.145	ppbv 94
13) Ethanol	3.61	45	4308306	496.137	ppbv 90
15) Acetone	3.85	43	1874222	17.587	ppbv 99
16) 1,3-Butadiene	3.34	39	3324	0.040	ppbv # 10
17) tert-Butyl alcohol	4.30	59	264019	2.383	ppbv 98
19) Isopropyl Alcohol	3.97	45	1930096	28.323	ppbv # 94
20) Methylene Chloride	4.35	84	564664	9.652	ppbv 95
23) Vinyl Acetate	5.08	43	130810	0.815	ppbv # 91
25) Ethyl Acetate	5.69	43	432091	1.365	ppbv # 84
26) Hexane	5.69	57	492960	3.287	ppbv # 50
34) 2-Butanone	5.24	43	177661	1.278	ppbv 93
36) Benzene	6.89	78	25543	0.084	ppbv # 92
39) 1,2-Dichloropropane	7.17	63	876156	7.621	ppbv # 27
41) Tetrahydrofuran	5.74	42	2243	0.033	ppbv # 43
44) 2,2,4-Trimethylpentane	7.86	57	21268	0.041	ppbv # 28
51) 2-Hexanone	10.14	43	2596	0.034	ppbv # 1
52) Tetrachloroethene	11.22	164	34261	0.296	ppbv 90
53) Toluene	9.80	91	226451	0.691	ppbv 98
58) Ethyl Benzene	12.70	91	18471	0.047	ppbv 93
59) m/p-Xylene	12.99	91	19582	0.056	ppbv # 30
60) o-Xylene	13.69	91	20836	0.063	ppbv # 19
61) Styrene	13.52	104	5675	0.038	ppbv # 33
65) tert-Butylbenzene	16.97	119	242360	0.589	ppbv # 24
66) Benzyl Chloride	16.98	91	3865	0.180	ppbv # 66
75) 1,3-Dichlorobenzene	16.98	146	11930	0.052	ppbv # 1

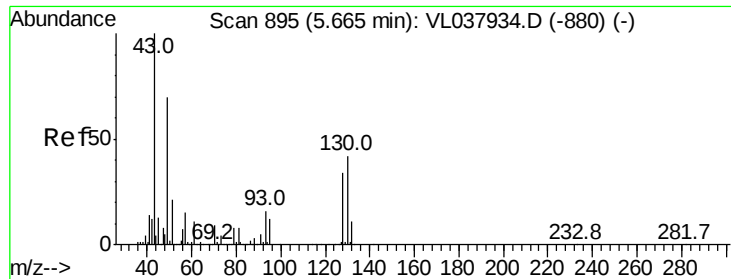
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Nov 02 05:54:07 2021
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 22:07

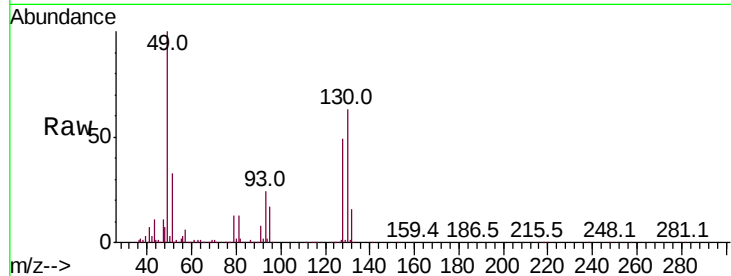
Tot Ion: 49 Resp: 1289627

Ion Ratio Lower Upper

49 100

128 54.0 27.0 81.0

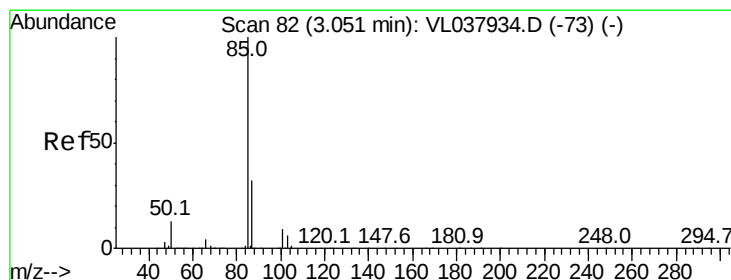
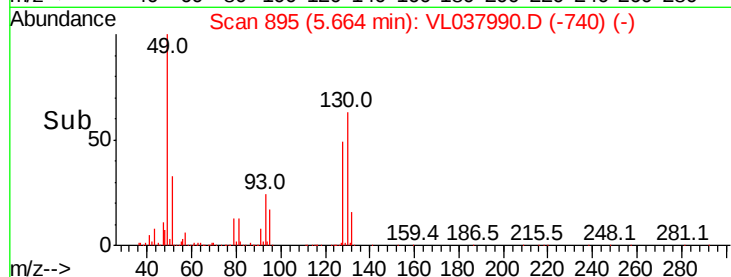
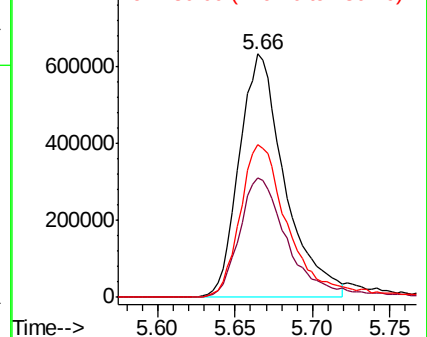
130 69.2 33.4 100.2



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: 0.313 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL037990.D

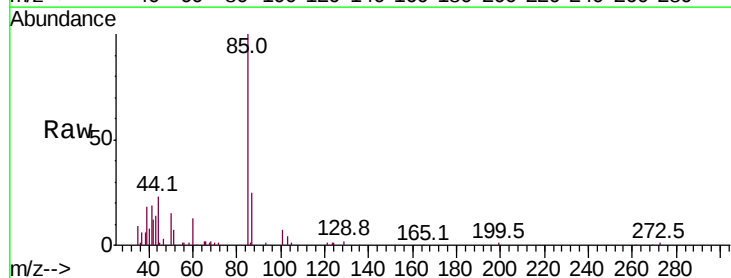
Acq: 9 Nov 2021 22:07

Tgt Ion: 85 Resp: 56869

Ion Ratio Lower Upper

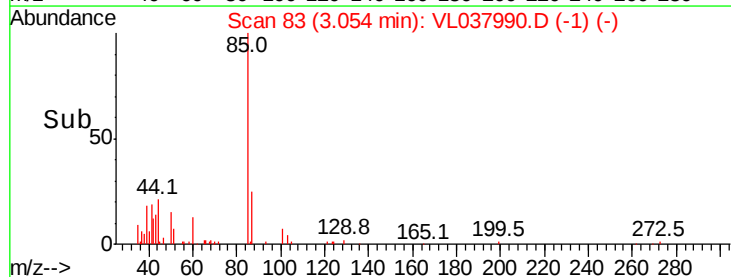
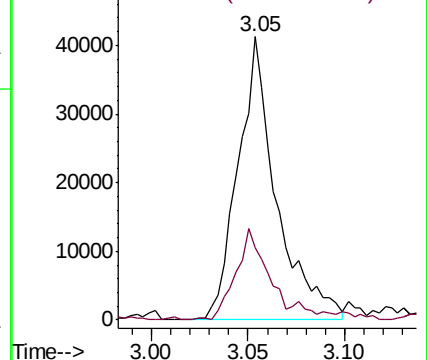
85 100

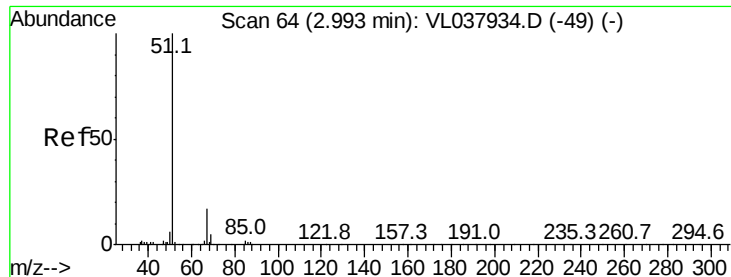
87 25.4 25.3 37.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.730 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

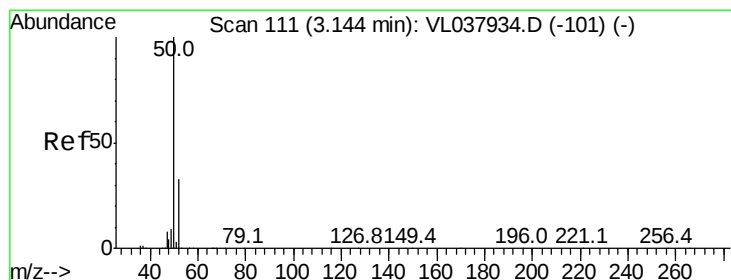
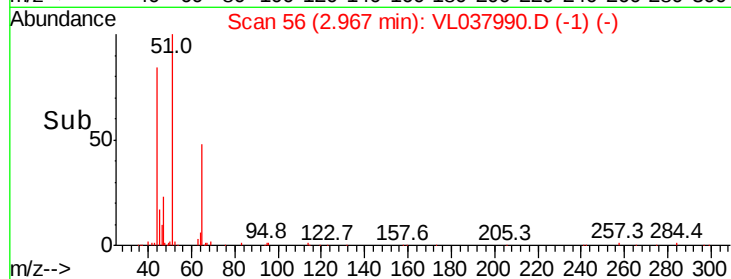
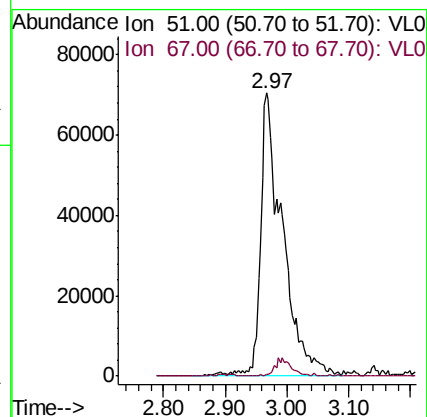
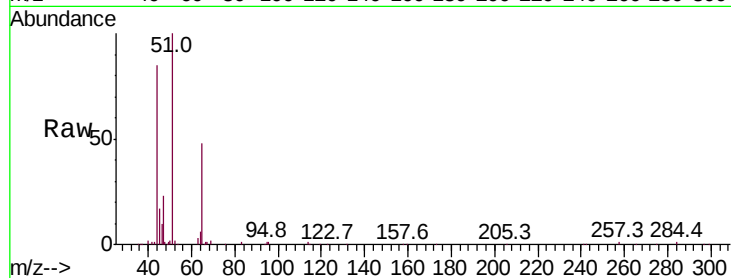
Acq: 9 Nov 2021 22:07

Tot Ion: 51 Resp: 175144

Ion Ratio Lower Upper

51 100

67 4.9 13.4 20.0#



#4

Chloromethane

Concen: 0.668 ppbv

RT: 3.14 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL037990.D

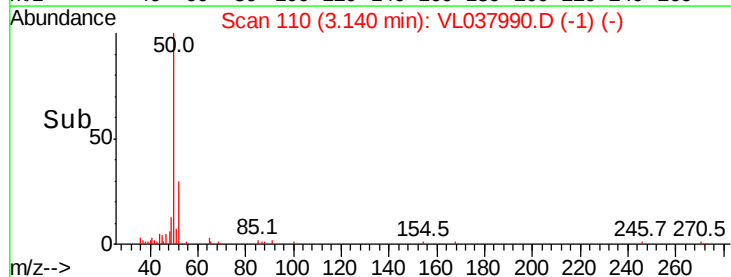
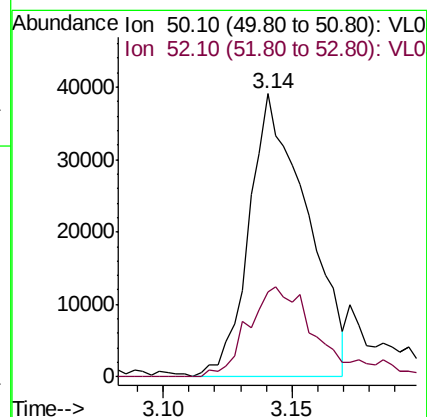
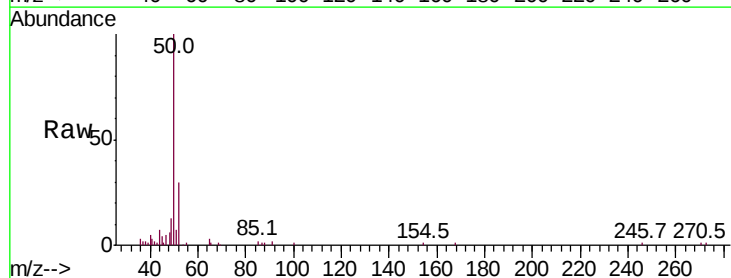
Acq: 9 Nov 2021 22:07

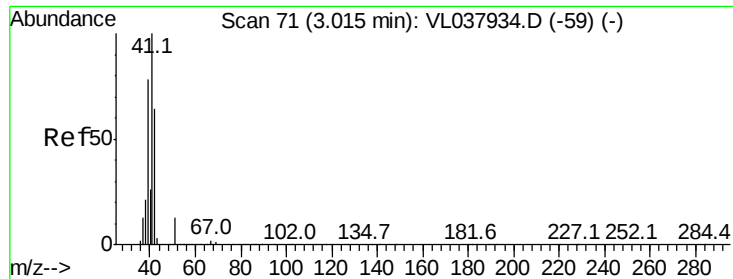
Tgt Ion: 50 Resp: 60986

Ion Ratio Lower Upper

50 100

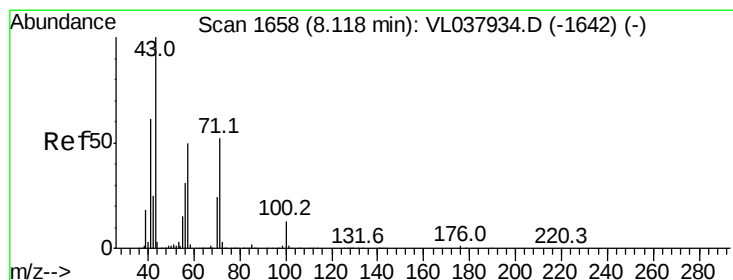
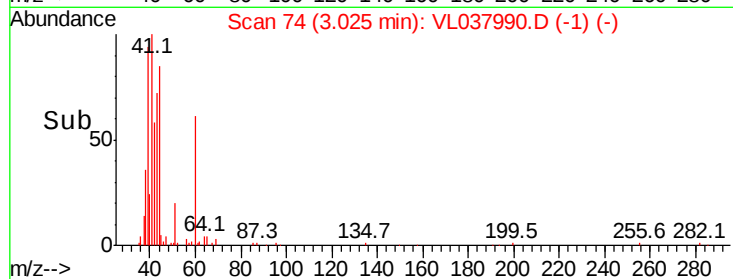
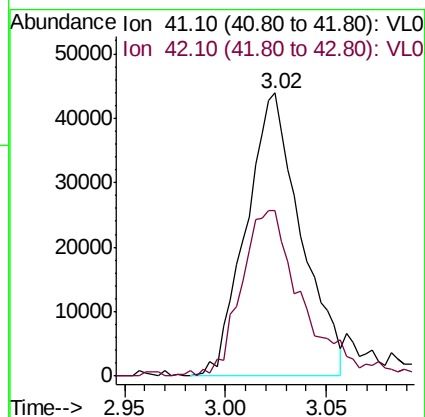
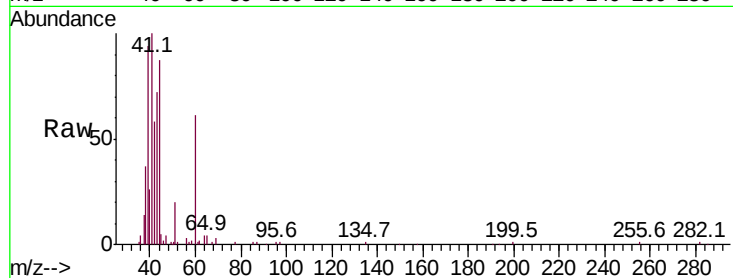
52 29.7 26.3 39.5





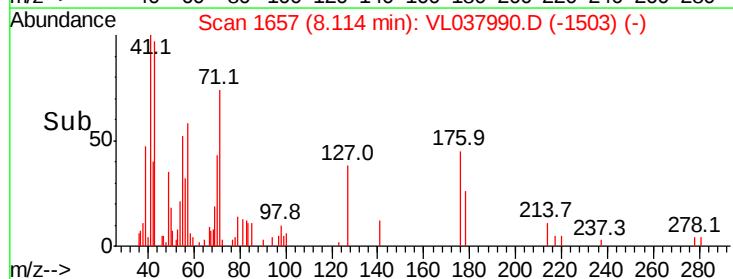
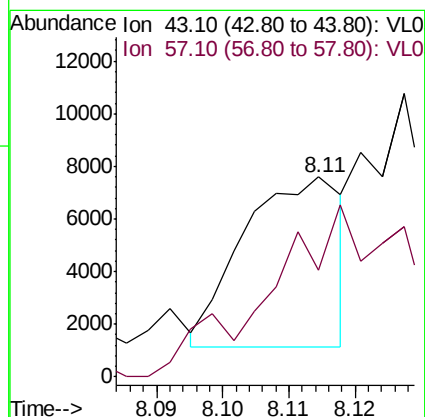
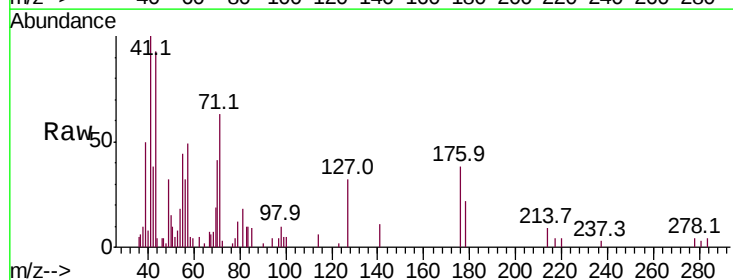
#9
 Propene
 Concen: 0.967 ppbv
 RT: 3.02
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 22:07

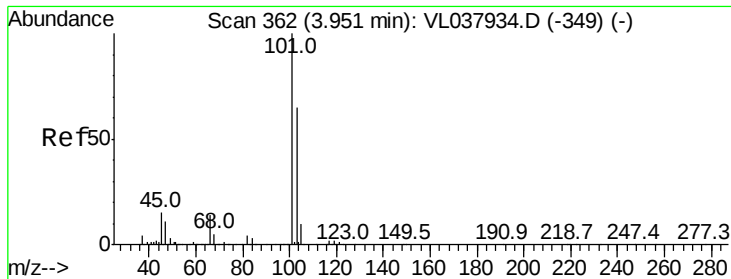
Tot Ion: 41 Resp: 83249
 Ion Ratio Lower Upper
 41 100
 42 68.3 57.6 86.4



#10
 Heptane
 Concen: 0.033 ppbv
 RT: 8.11 min Scan# 1657
 Delta R.T. -0.00 min
 Lab File: VL037990.D
 Acq: 9 Nov 2021 22:07

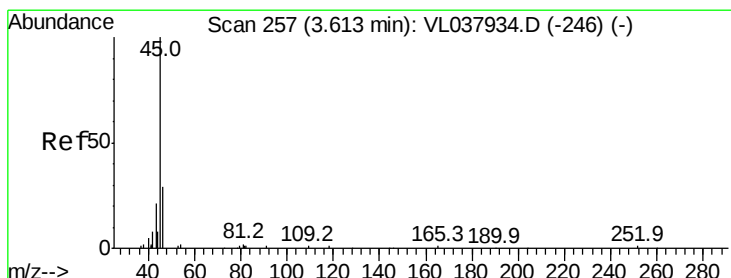
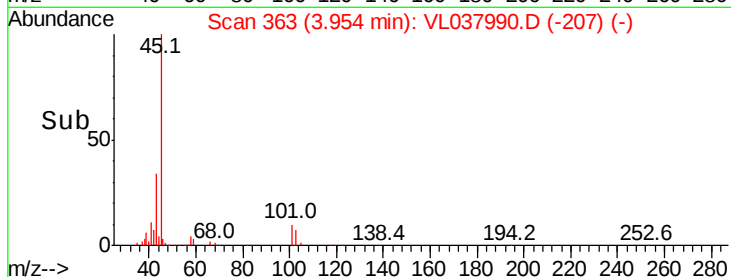
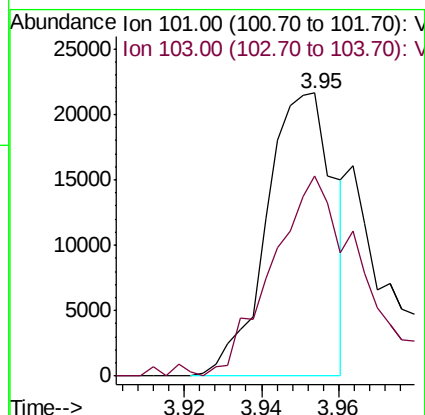
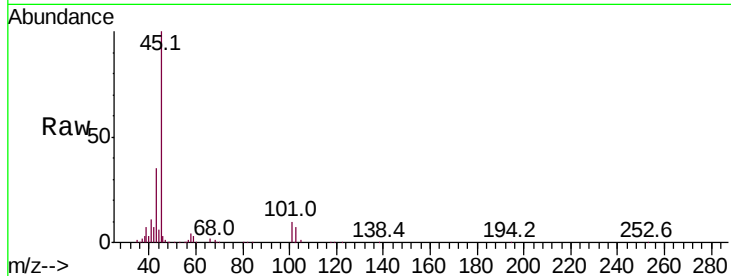
Tgt Ion: 43 Resp: 6656
 Ion Ratio Lower Upper
 43 100
 57 203.0 39.8 59.8#





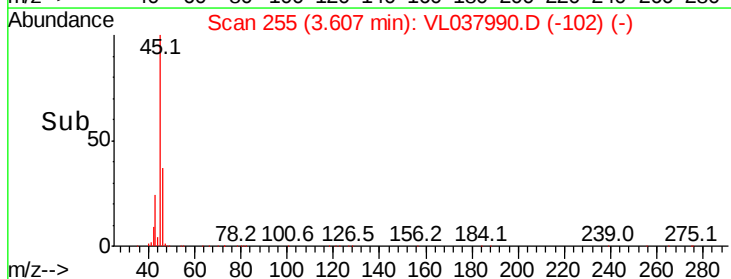
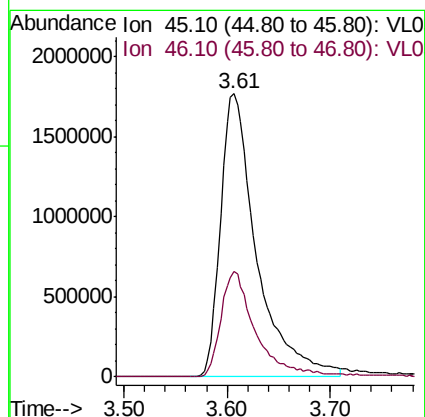
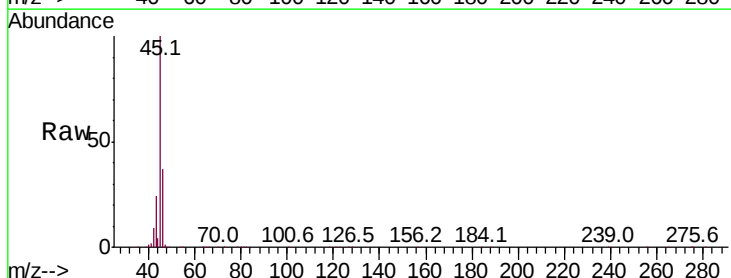
#11
 Trichlorofluoromethane
 Concen: 0.145 ppbv
 RT: 3.95
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 9 Nov 2021 22:07

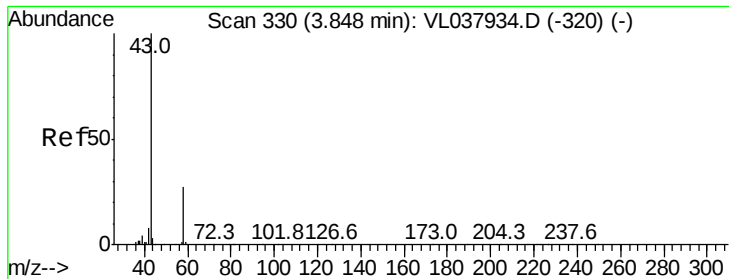
Tot Ion:101 Resp: 26216
 Ion Ratio Lower Upper
 101 100
 103 69.4 52.0 78.0



#13
 Ethanol
 Concen: 496.137 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. -0.01 min
 Lab File: VL037990.D
 Acq: 9 Nov 2021 22:07

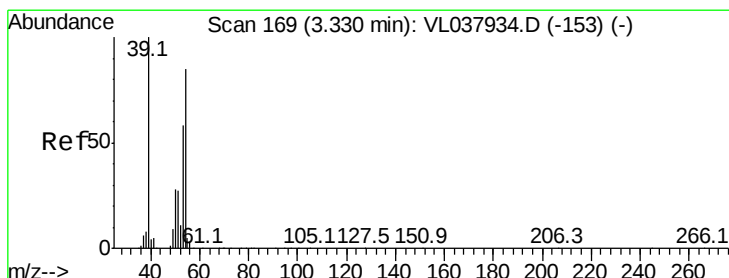
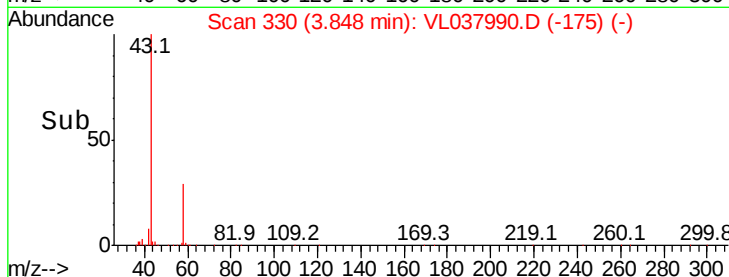
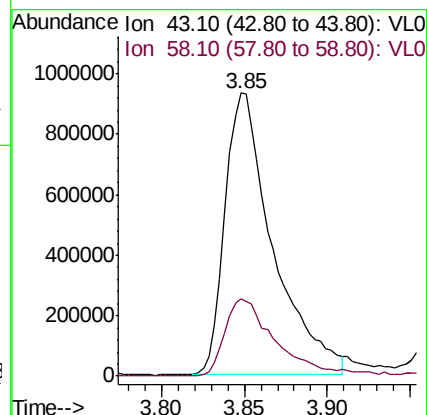
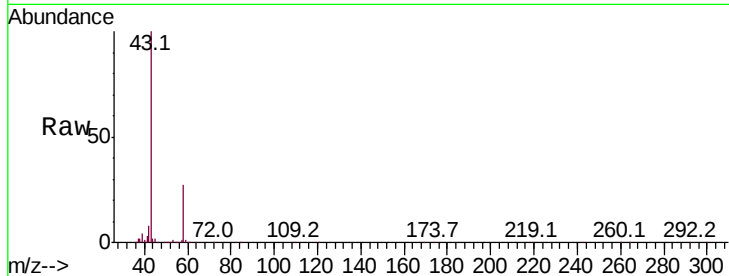
Tgt Ion: 45 Resp: 4308306
 Ion Ratio Lower Upper
 45 100
 46 37.1 17.4 69.8





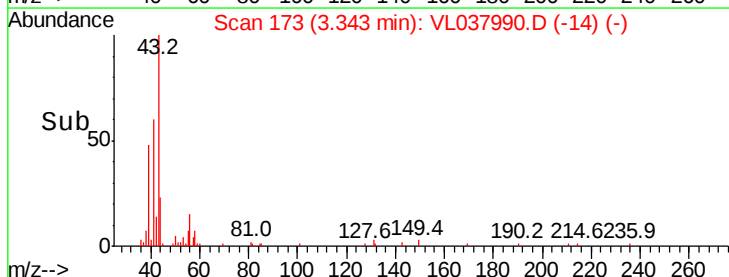
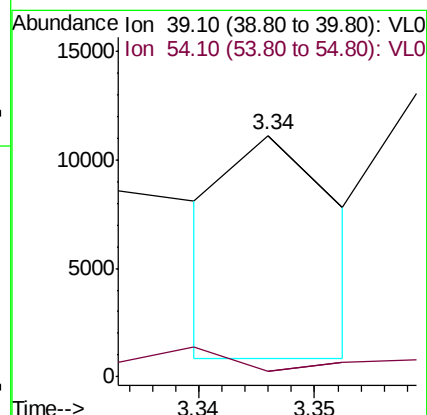
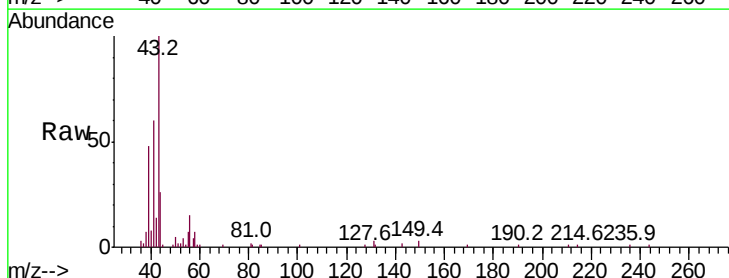
#15
Acetone
Concen: 17.587 ppbv
RT: 3.85
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 22:07

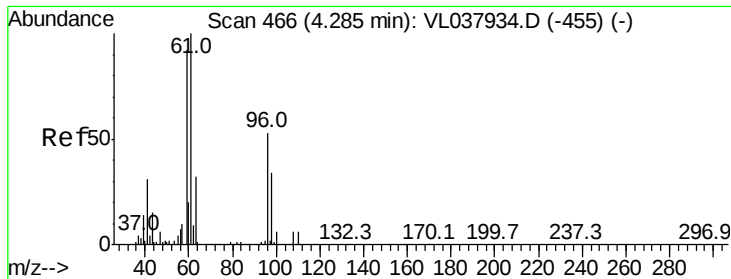
Tot Ion: 43 Resp: 1874222
Ion Ratio Lower Upper
43 100
58 29.7 23.3 34.9



#16
1,3-Butadiene
Concen: 0.040 ppbv
RT: 3.34 min Scan# 173
Delta R.T. 0.01 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

Tgt Ion: 39 Resp: 3324
Ion Ratio Lower Upper
39 100
54 0.0 62.6 93.8#

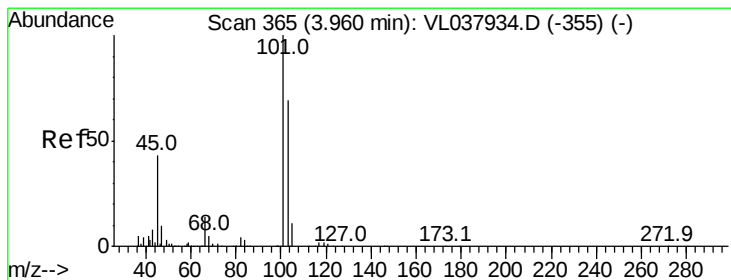
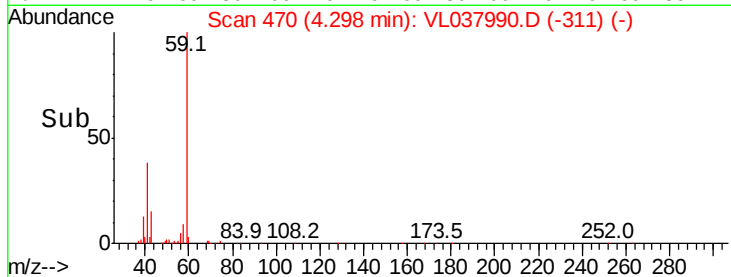
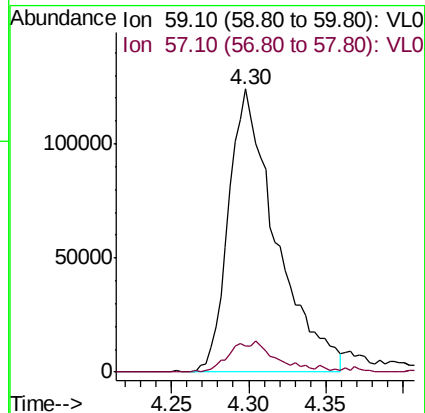
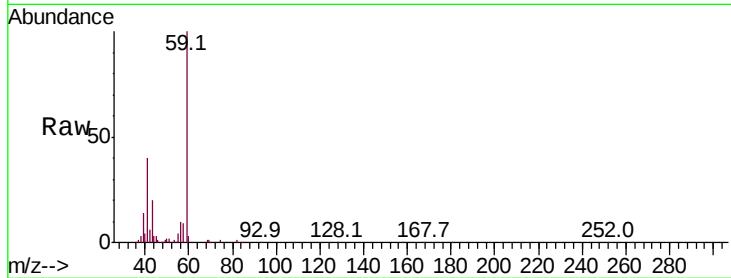




#17

tert-Butyl alcohol
Concen: 2.383 ppbv
RT: 4.30
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 22:07

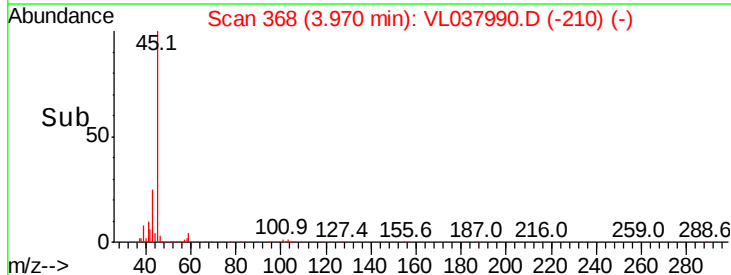
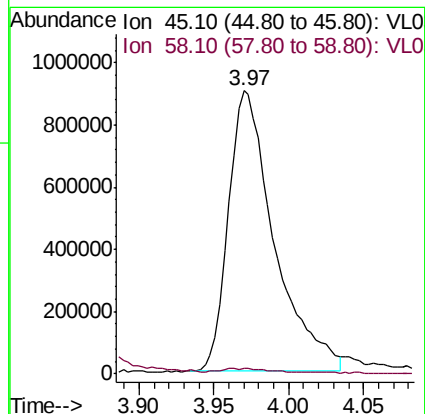
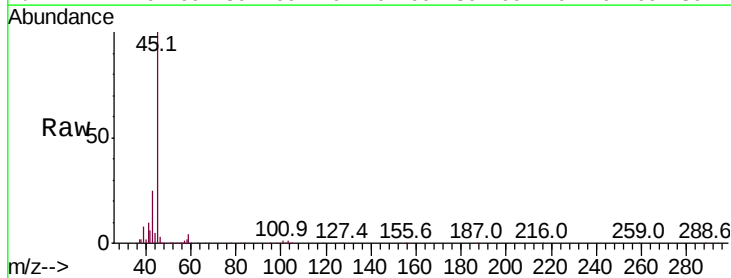
Tot Ion: 59 Resp: 264019
Ion Ratio Lower Upper
59 100
57 11.9 8.9 13.3

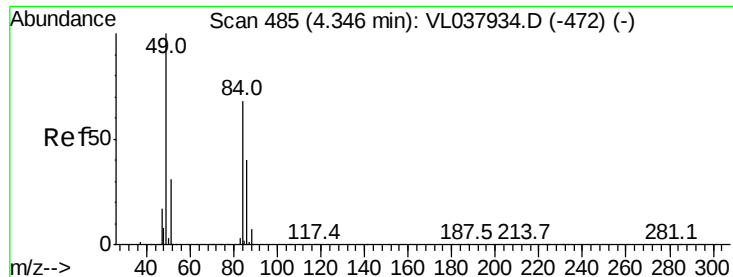


#19

Isopropyl Alcohol
Concen: 28.323 ppbv
RT: 3.97 min Scan# 368
Delta R.T. 0.01 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

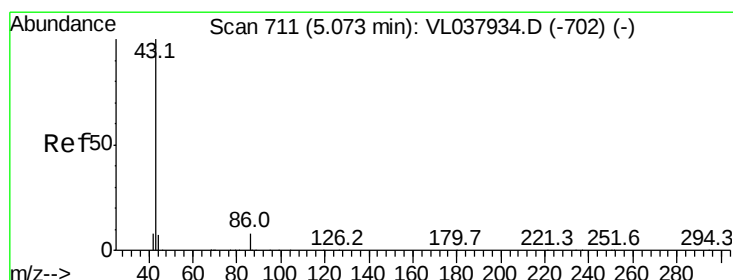
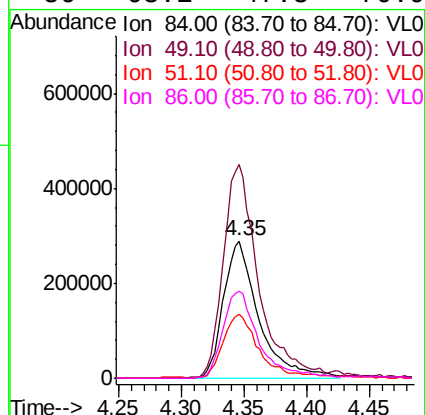
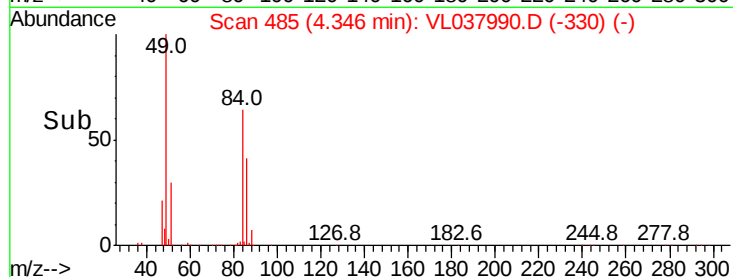
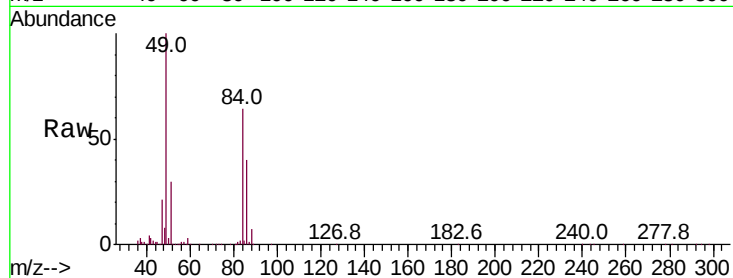
Tgt Ion: 45 Resp: 1930096
Ion Ratio Lower Upper
45 100
58 2.9 4.0 6.0#





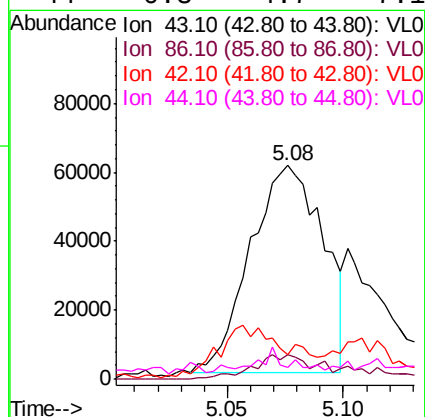
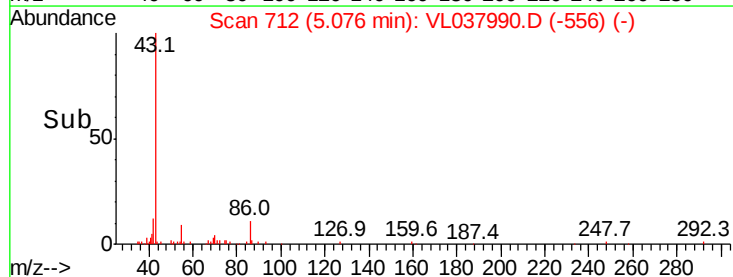
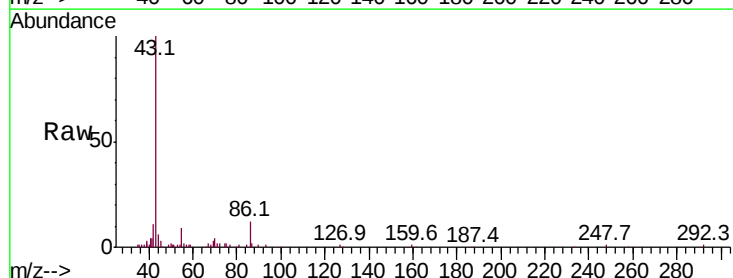
#20
Methvlene Chloride
Concen: 9.652 ppbv
RT: 4.35
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 9 Nov 2021 22:07

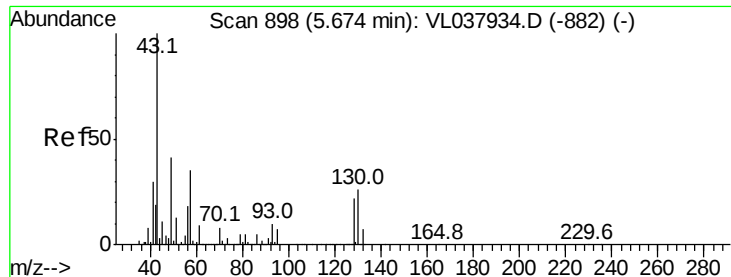
Tot Ion:	84	Resp:	564664
Ion	Ratio	Lower	Upper
84	100		
49	155.2	117.5	176.3
51	46.1	35.9	53.9
86	63.1	47.3	70.9



#23
Vinyl Acetate
Concen: 0.815 ppbv
RT: 5.08 min Scan# 712
Delta R.T. 0.00 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

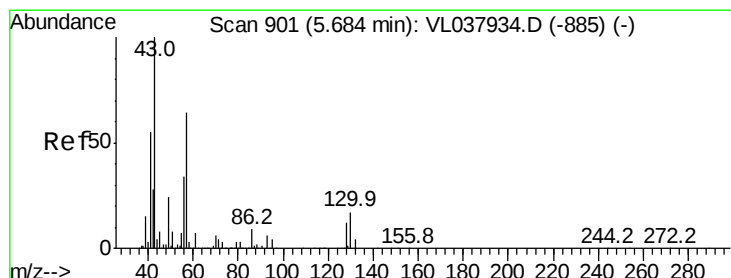
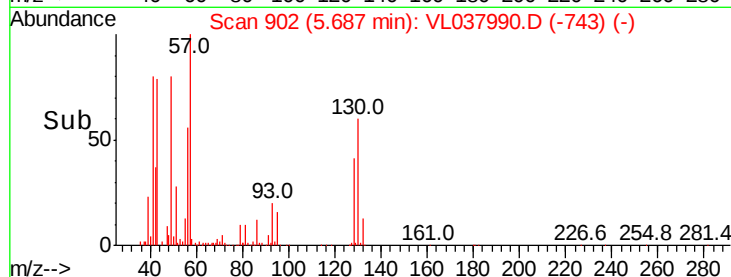
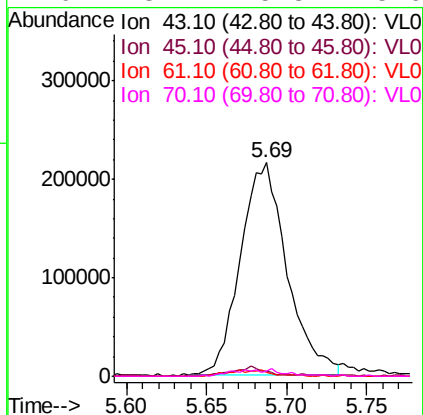
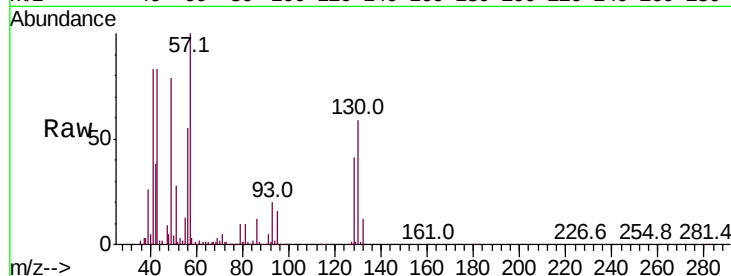
Tgt Ion:	43	Resp:	130810
Ion	Ratio	Lower	Upper
43	100		
86	12.0	5.5	8.3#
42	9.0	7.4	11.2
44	0.3	4.7	7.1#





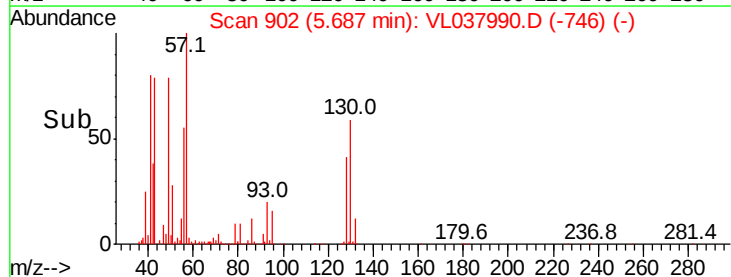
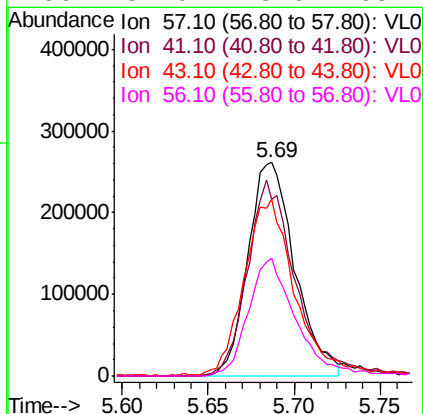
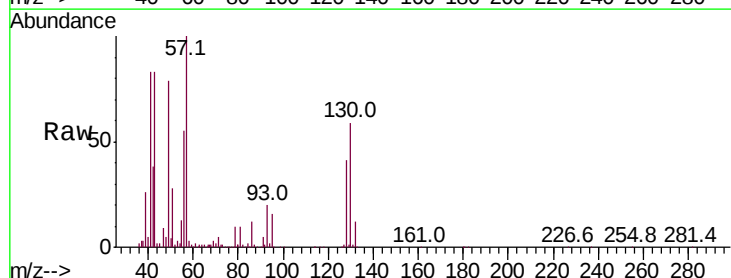
#25
Ethyl Acetate
Concen: 1.365 ppbv
RT: 5.69 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 22:07

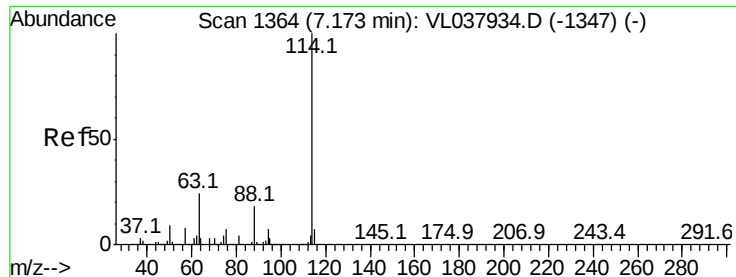
Tot Ion:	43	Resp:	432091
Ion	Ratio	Lower	Upper
43	100		
45	4.4	8.1	12.1#
61	2.8	8.1	12.1#
70	3.7	5.8	8.6#



#26
Hexane
Concen: 3.287 ppbv
RT: 5.69 min Scan# 902
Delta R.T.: 0.00 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

Tgt Ion:	57	Resp:	492960
Ion	Ratio	Lower	Upper
57	100		
41	96.2	71.0	106.6
43	91.2	173.0	259.6#
56	57.0	43.6	65.4





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 9 Nov 2021 22:07

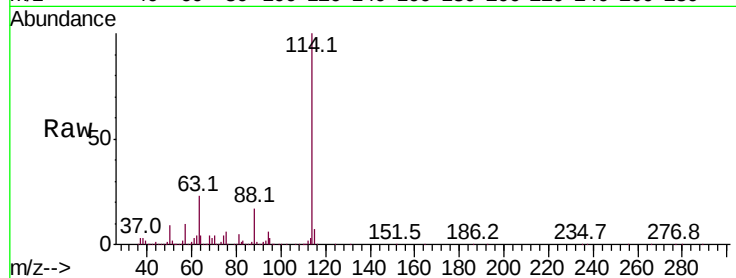
Tot Ion:114 Resp: 3751738

Ion Ratio Lower Upper

114 100

63 23.9 19.4 29.0

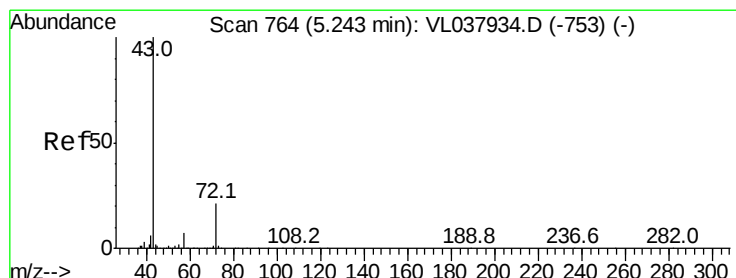
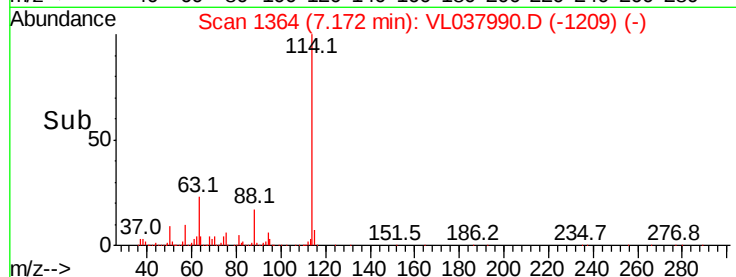
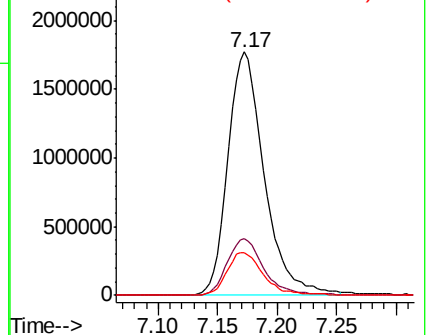
88 17.8 14.2 21.4



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.278 ppbv

RT: 5.24 min Scan# 764

Delta R.T. -0.00 min

Lab File: VL037990.D

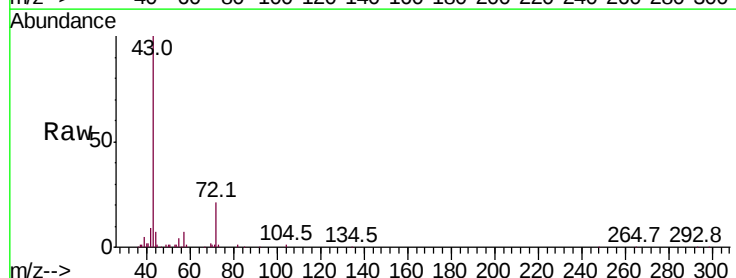
Acq: 9 Nov 2021 22:07

Tgt Ion: 43 Resp: 177661

Ion Ratio Lower Upper

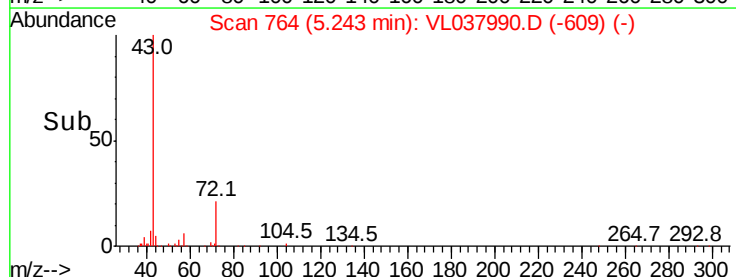
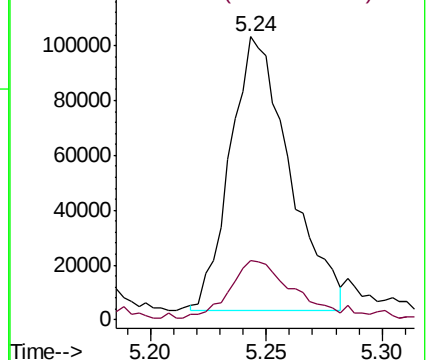
43 100

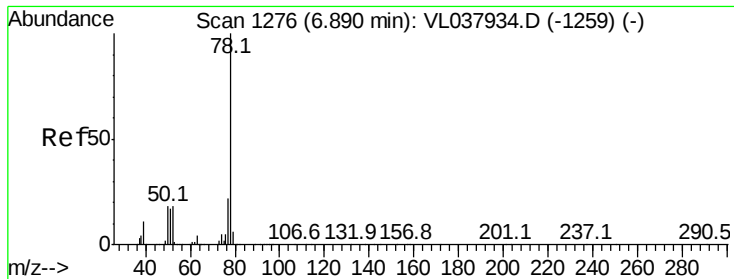
72 26.1 18.3 27.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

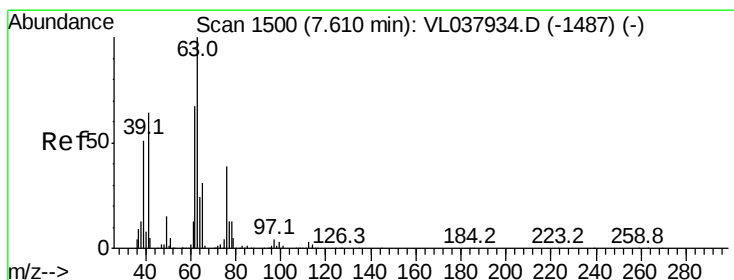
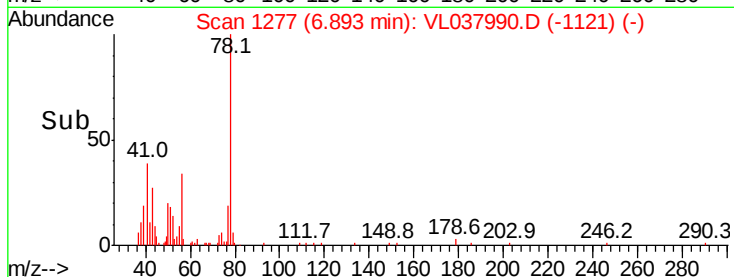
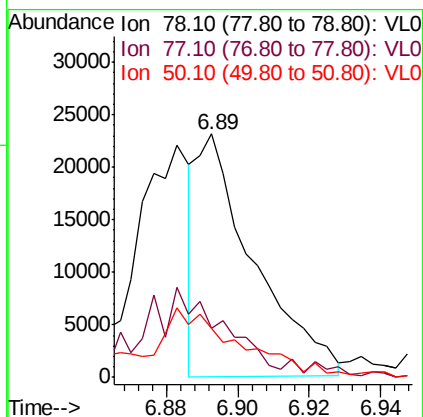
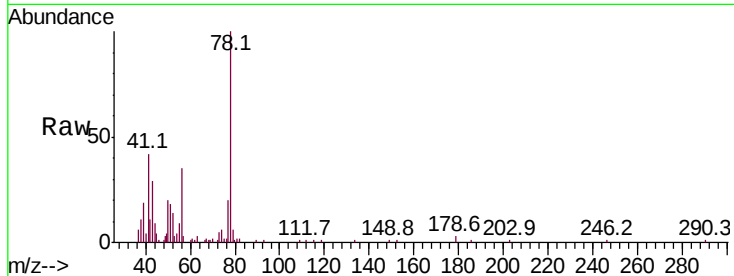
Ion 72.10 (71.80 to 72.80): VL0





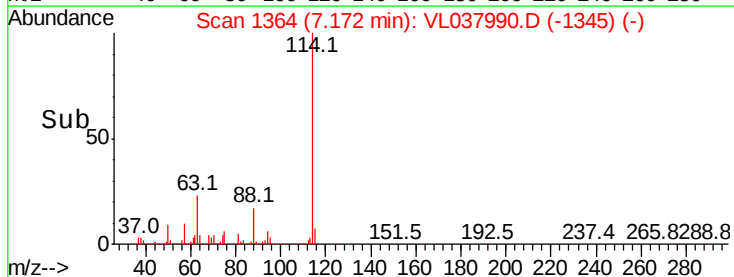
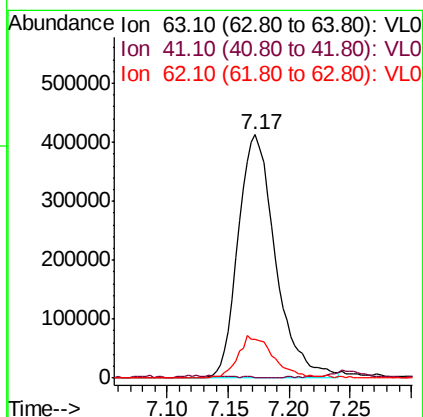
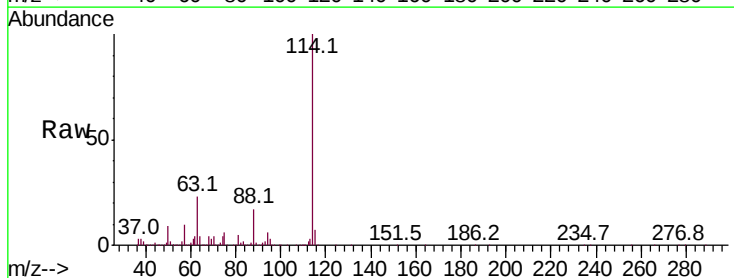
#36
Benzene
Concen: 0.084 ppbv
RT: 6.89
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 22:07

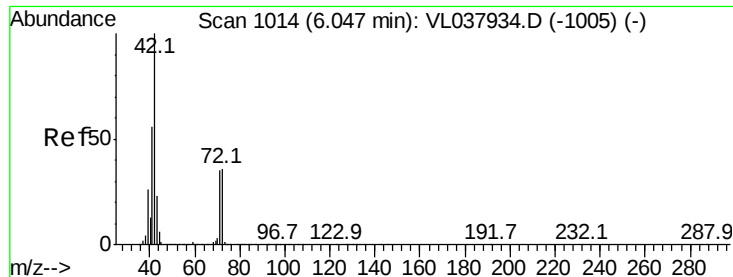
Tot Ion: 78 Resp: 25543
Ion Ratio Lower Upper
78 100
77 16.8 17.9 26.9#
50 19.1 14.4 21.6



#39
1,2-Dichloropropane
Concen: 7.621 ppbv
RT: 7.17 min Scan# 1364
Delta R.T. -0.44 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

Tgt Ion: 63 Resp: 876156
Ion Ratio Lower Upper
63 100
41 0.0 51.6 77.4#
62 16.1 53.5 80.3#





#41

Tetrahydrofuran

Concen: 0.033 ppbv

RT: 5.74 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 22:07

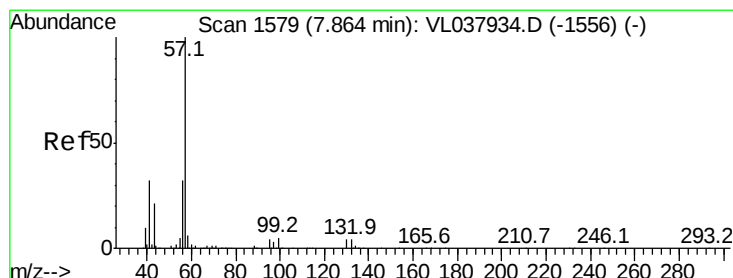
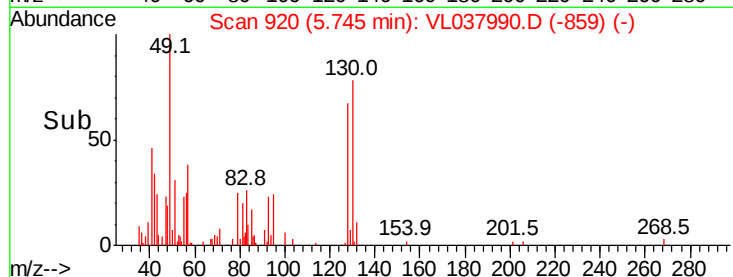
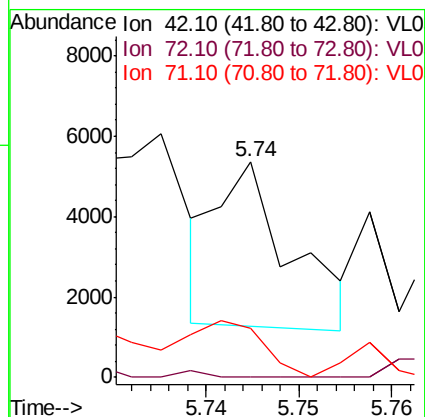
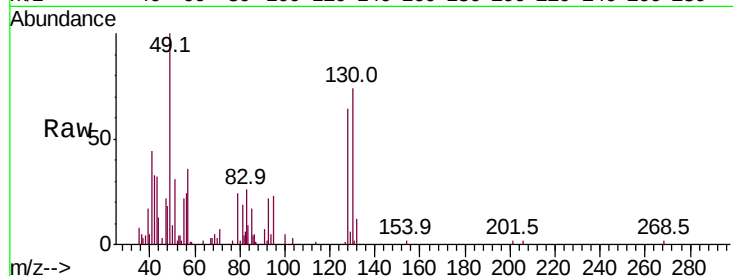
Tot Ion: 42 Resp: 2243

Ion Ratio Lower Upper

42 100

72 8.0 31.5 47.3#

71 0.0 30.5 45.7#



#44

2,2,4-Trimethylpentane

Concen: 0.041 ppbv

RT: 7.86 min Scan# 1579

Delta R.T. -0.00 min

Lab File: VL037990.D

Acq: 9 Nov 2021 22:07

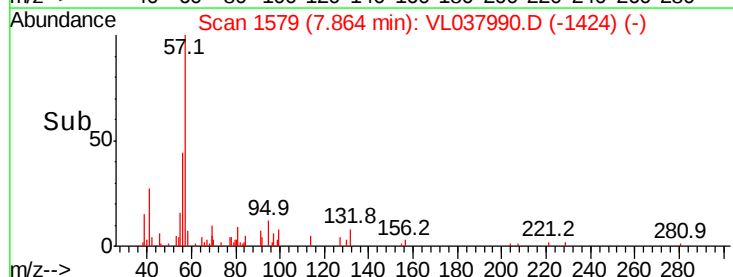
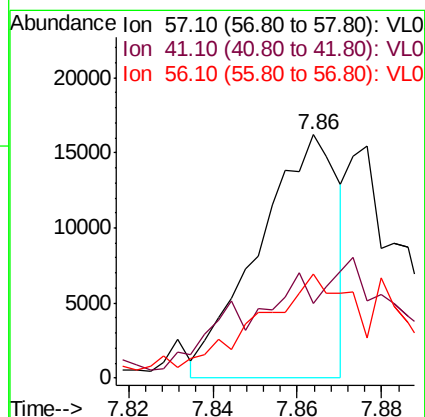
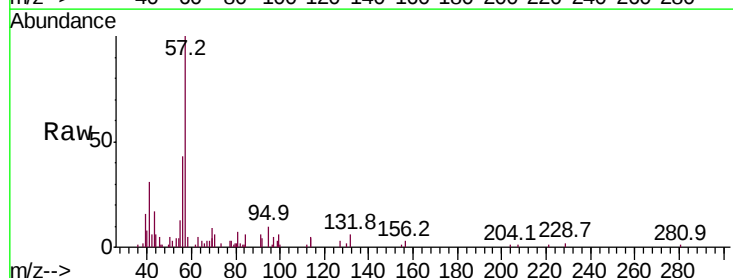
Tgt Ion: 57 Resp: 21268

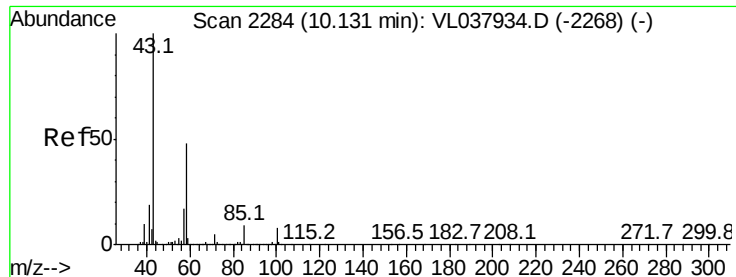
Ion Ratio Lower Upper

57 100

41 0.0 25.8 38.8#

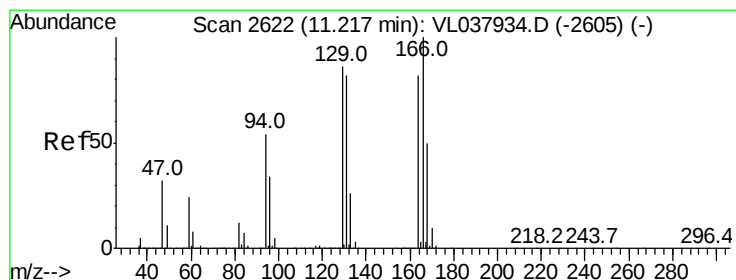
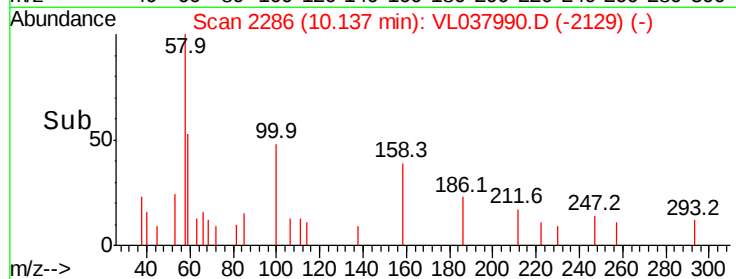
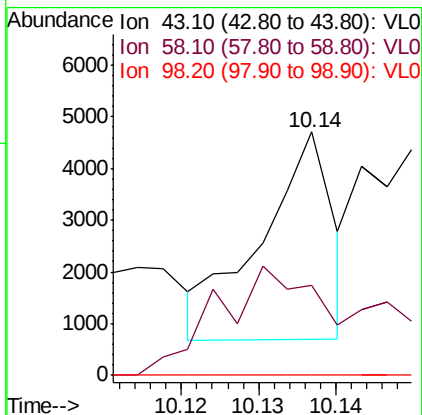
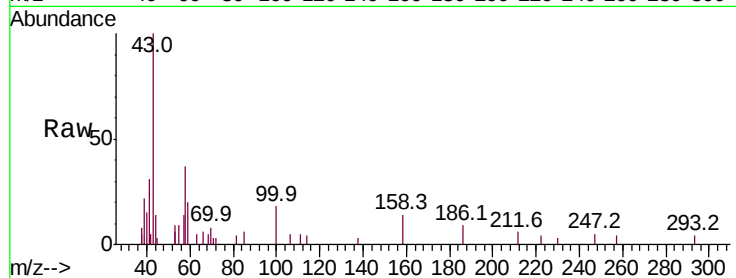
56 80.9 25.9 38.9#





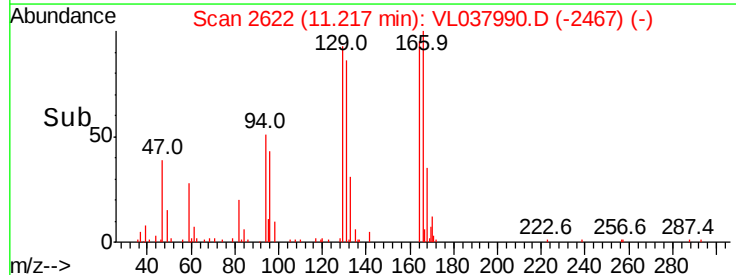
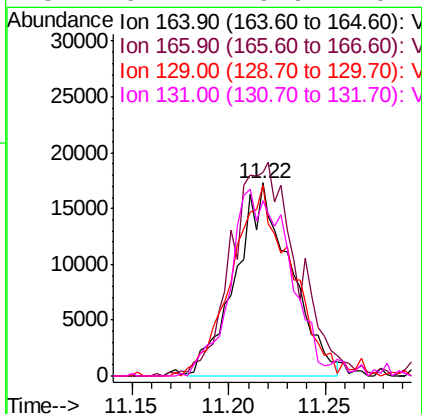
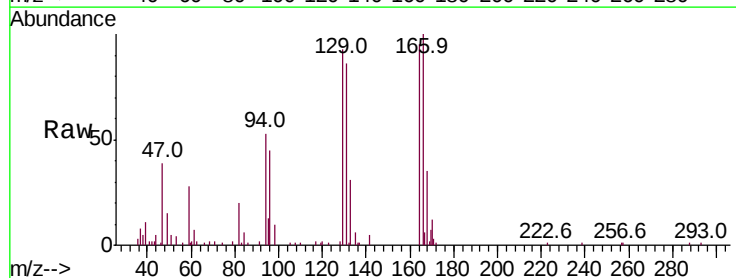
#51
2-Hexanone
Concen: 0.034 ppbv
RT: 10.14 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 22:07

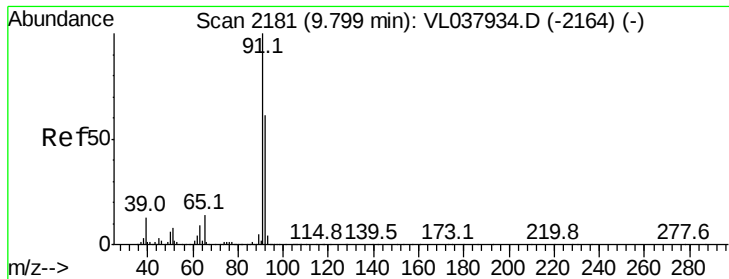
Tot Ion: 43 Resp: 2596
Ion Ratio Lower Upper
43 100
58 170.4 38.6 57.8#
98 0.0 1.0 1.4#



#52
Tetrachloroethene
Concen: 0.296 ppbv
RT: 11.22 min Scan# 2622
Delta R.T. -0.00 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

Tgt Ion: 164 Resp: 34261
Ion Ratio Lower Upper
164 100
166 105.2 97.6 146.4
129 98.7 84.2 126.2
131 92.2 79.6 119.4





#53

Toluene

Concen: 0.691 ppbv

RT: 9.80 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

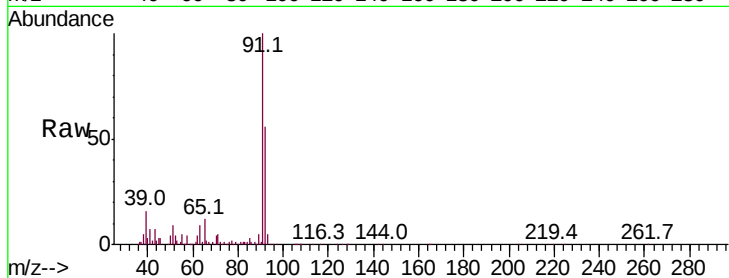
Acq: 9 Nov 2021 22:07

Tot Ion: 91 Resp: 226451

Ion Ratio Lower Upper

91 100

92 58.8 48.2 72.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

120000

100000

80000

60000

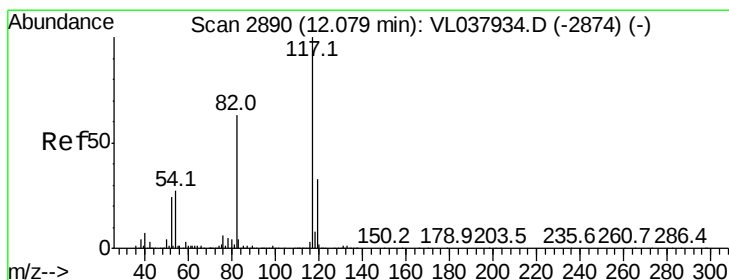
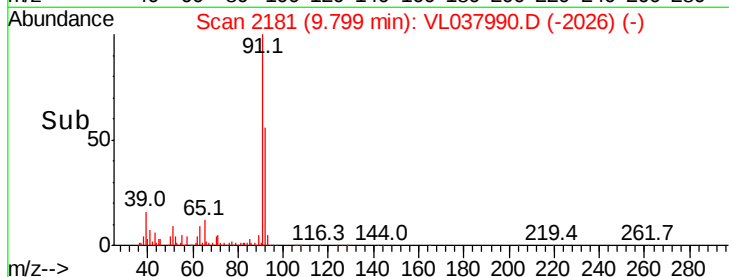
40000

20000

0

9.75 9.80 9.85

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2890

Delta R.T. -0.00 min

Lab File: VL037990.D

Acq: 9 Nov 2021 22:07

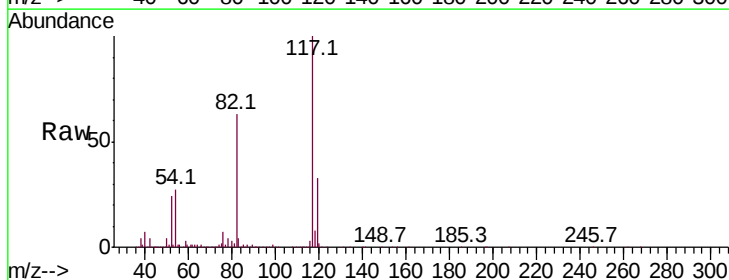
Tgt Ion: 117 Resp: 3206436

Ion Ratio Lower Upper

117 100

82 63.9 51.0 76.6

119 33.6 26.9 40.3



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

1500000

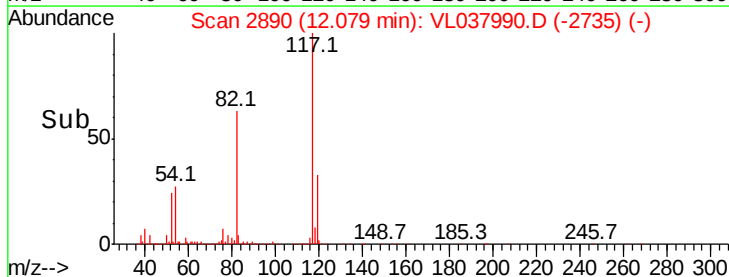
1000000

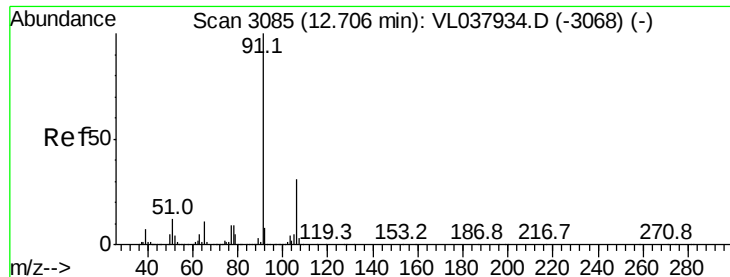
500000

0

12.00 12.10

Time-->





#58

Ethyl Benzene

Concen: 0.047 ppbv

RT: 12.70 min

Delta R.T. MSVOA_1

Lab File:

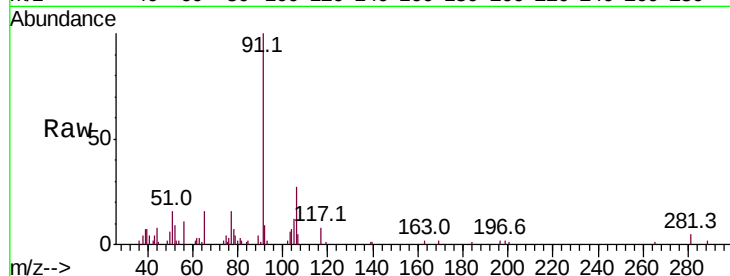
Acq: 9 Nov 2021 22:07

Tot Ion: 91 Resp: 18471

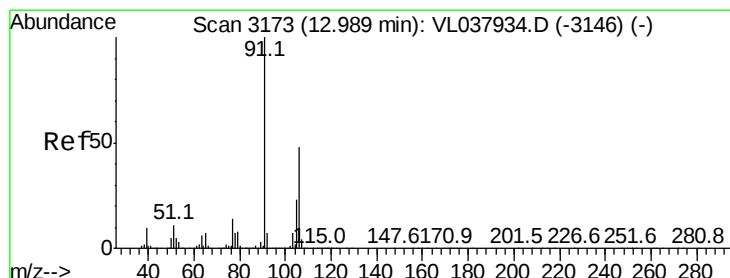
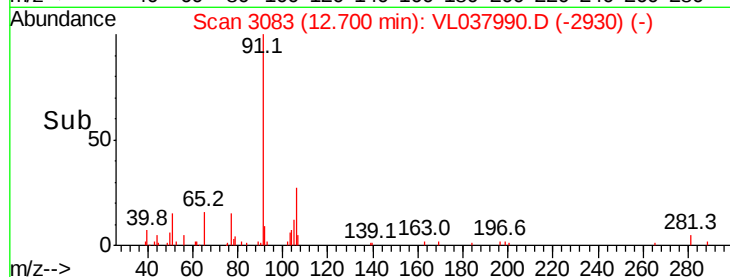
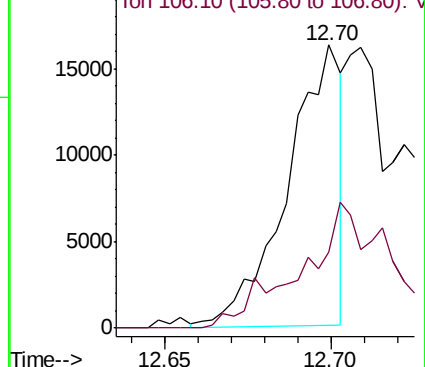
Ion Ratio Lower Upper

91 100

106 27.3 25.1 37.7



Abundance Ion 91.10 (90.80 to 91.80): VL0



#59

m/p-Xylene

Concen: 0.056 ppbv

RT: 12.99 min Scan# 3174

Delta R.T. 0.00 min

Lab File: VL037990.D

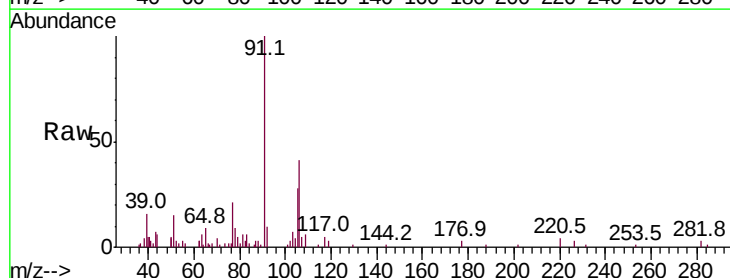
Acq: 9 Nov 2021 22:07

Tgt Ion: 91 Resp: 19582

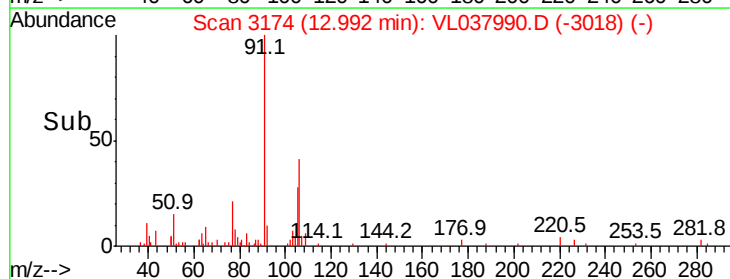
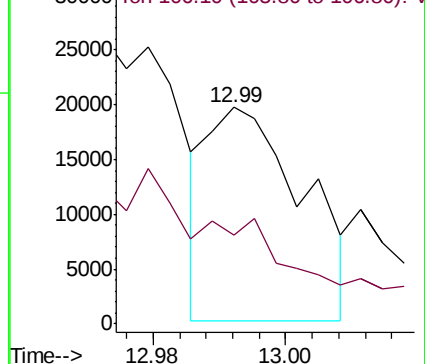
Ion Ratio Lower Upper

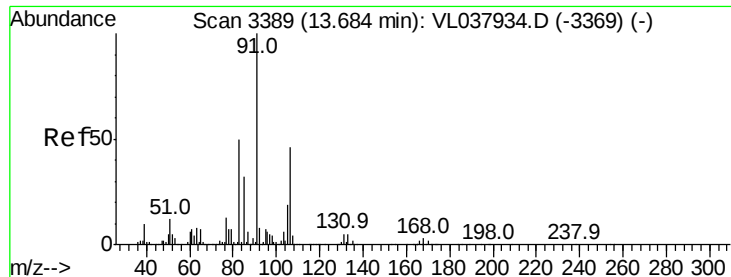
91 100

106 0.0 37.1 55.7#



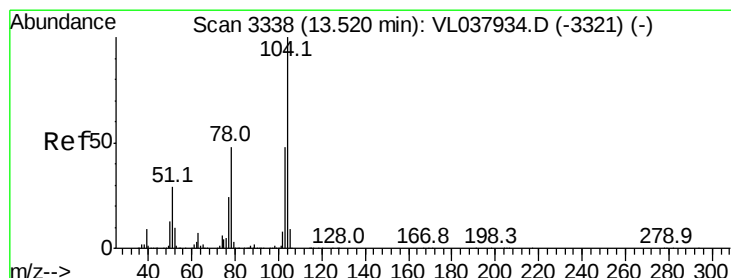
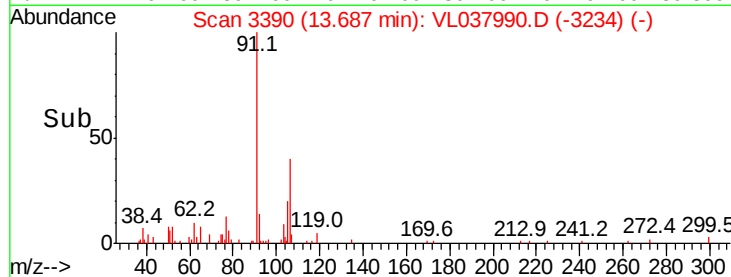
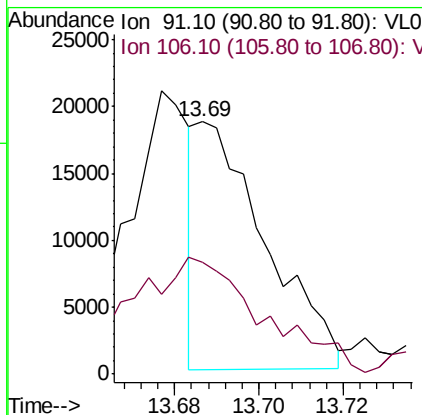
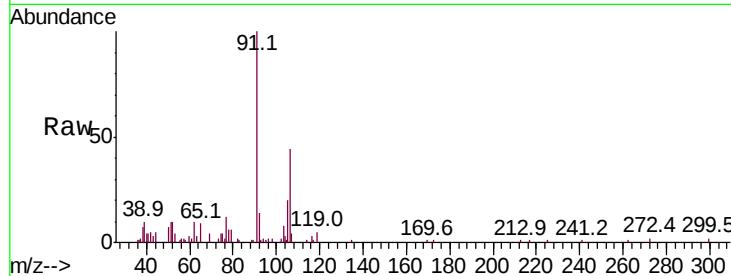
Abundance Ion 91.10 (90.80 to 91.80): VL0





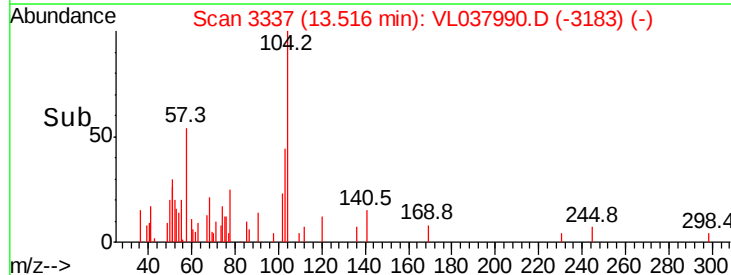
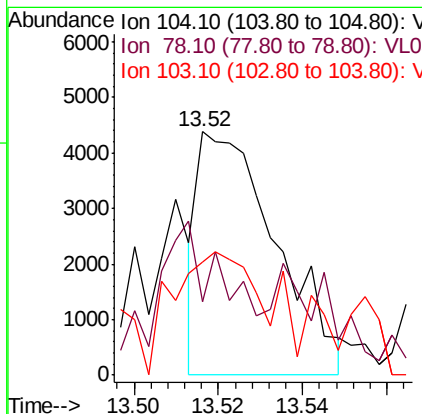
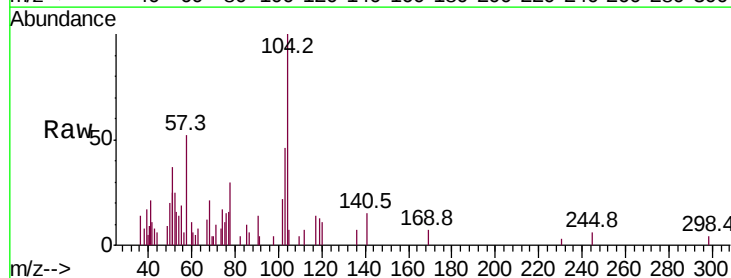
#60
o-Xylene
Concen: 0.063 ppbv
RT: 13.69
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 22:07

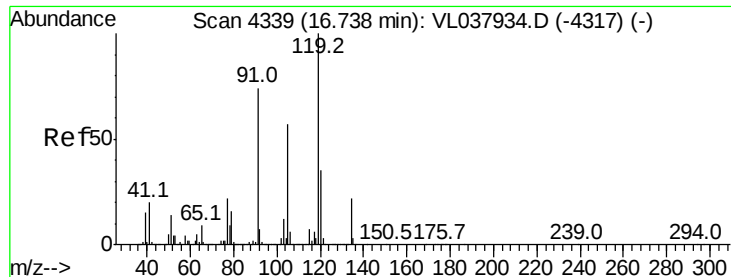
Tot Ion: 91 Resp: 20836
Ion Ratio Lower Upper
91 100
106 101.3 23.5 70.6#



#61
Styrene
Concen: 0.038 ppbv
RT: 13.52 min Scan# 3337
Delta R.T. -0.00 min
Lab File: VL037990.D
Acq: 9 Nov 2021 22:07

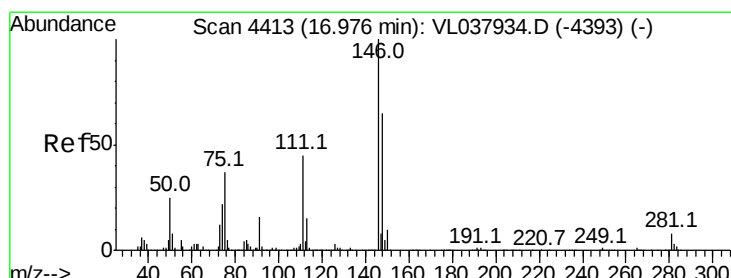
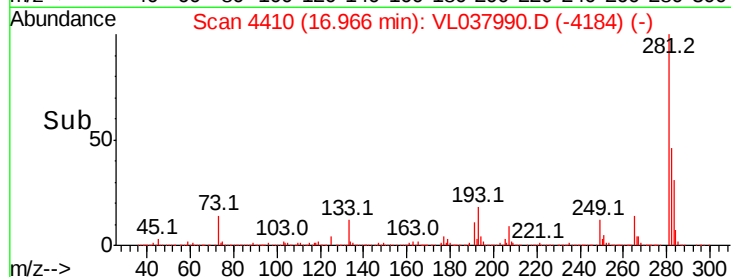
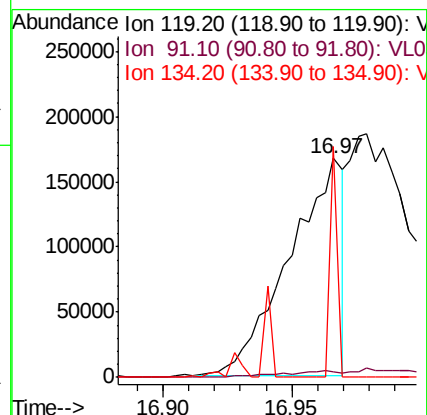
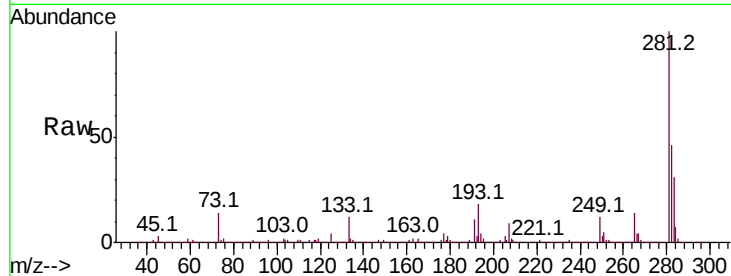
Tgt Ion: 104 Resp: 5675
Ion Ratio Lower Upper
104 100
78 0.0 39.3 58.9#
103 92.1 39.6 59.4#





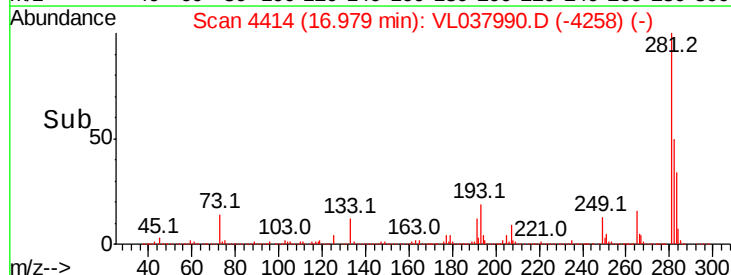
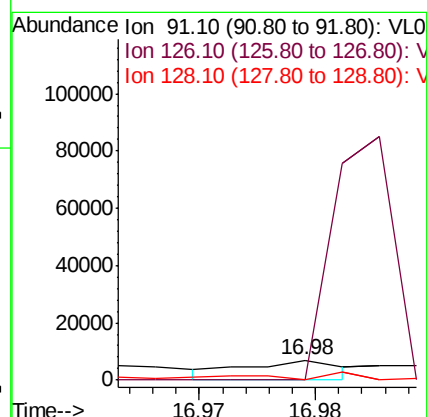
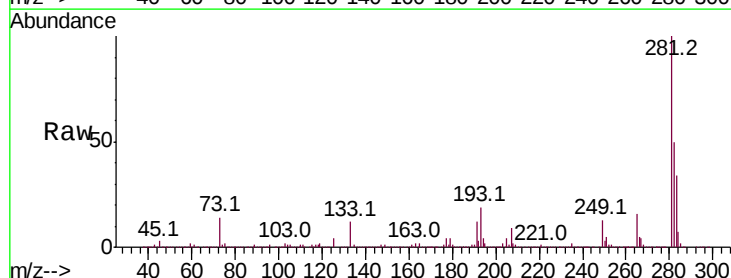
#65
 tert-Butylbenzene
 Concen: 0.589 ppbv
 RT: 16.97 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 9 Nov 2021 22:07

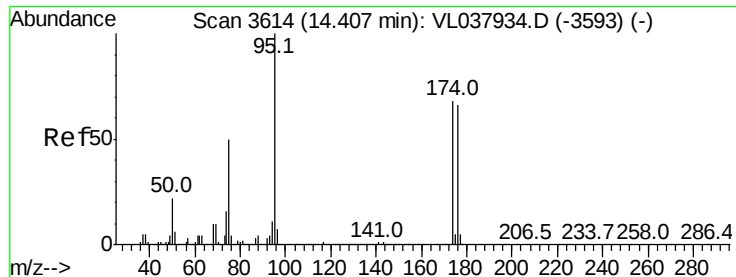
Tot Ion:	119	Resp:	242360
Ion Ratio	Lower	Upper	
119	100		
91	0.3	61.8	92.6#
134	8.5	16.6	25.0#



#66
 Benzyl Chloride
 Concen: 0.180 ppbv
 RT: 16.98 min Scan# 4414
 Delta R.T.: 0.00 min
 Lab File: VL037990.D
 Acq: 9 Nov 2021 22:07

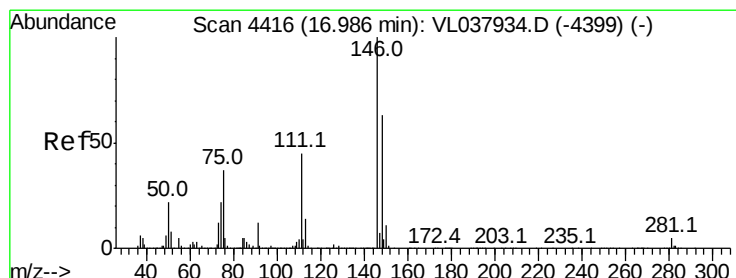
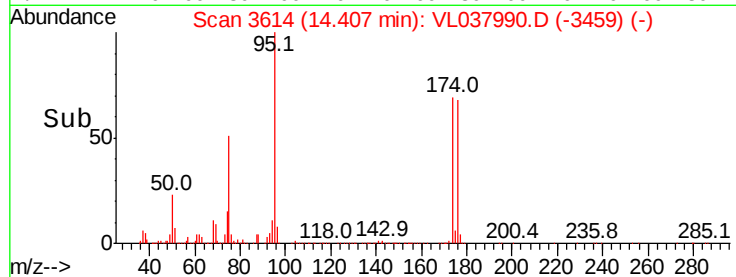
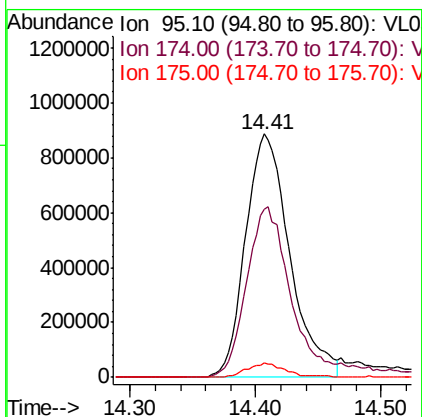
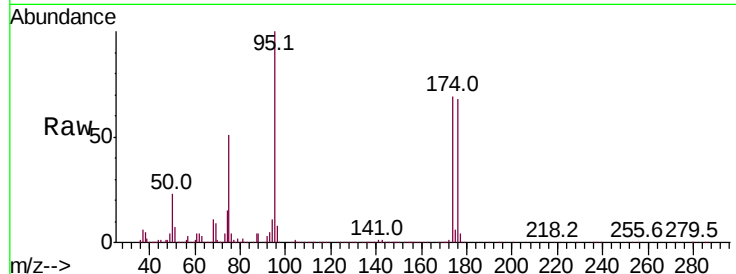
Tgt Ion:	91	Resp:	3865
Ion Ratio	Lower	Upper	
91	100		
126	0.0	13.8	20.6#
128	0.0	5.1	7.7#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.366 ppbv
 RT: 14.41
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 22:07

Tot Ion: 95 Resp: 2183055
 Ion Ratio Lower Upper
 95 100
 174 76.6 58.3 87.5
 175 5.5 4.6 6.8



#75
 1,3-Dichlorobenzene
 Concen: 0.052 ppbv
 RT: 16.98 min Scan# 4414
 Delta R.T. -0.01 min
 Lab File: VL037990.D
 Acq: 9 Nov 2021 22:07

Tgt Ion: 146 Resp: 11930
 Ion Ratio Lower Upper
 146 100
 111 1719.5 22.7 68.1#
 148 709.6 32.4 97.0#

