

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL038002.D
 Acq On : 10 Nov 2021 5:57
 Operator : SY/AP
 Sample : M4598-01DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 07:04:49 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 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	5.67	49	1513438	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4198783	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3509160	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	2488810	9.76	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.60%

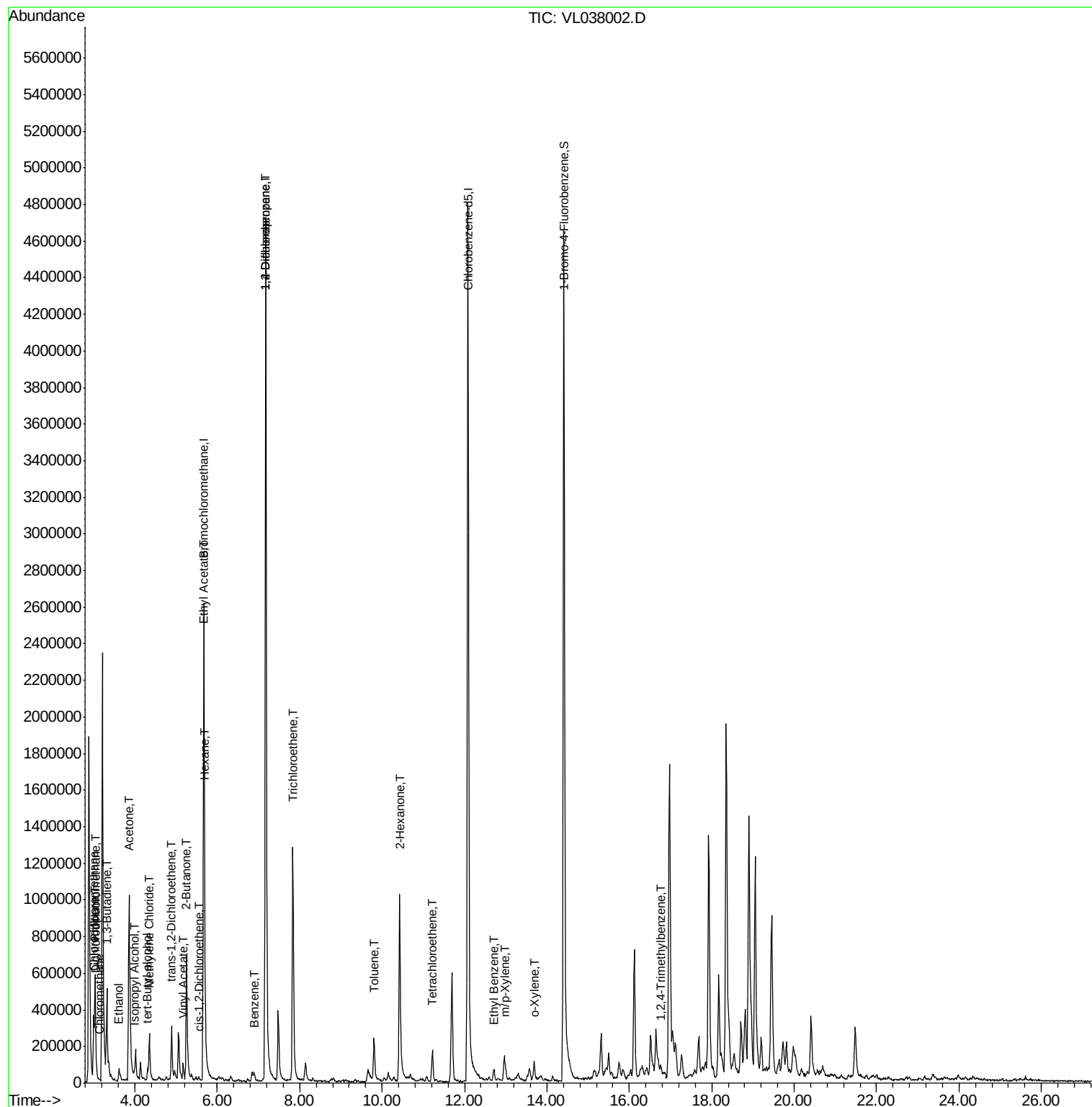
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	9944	0.047 ppbv	90
3) Chlorodifluoromethane	3.00	51	376562	1.337 ppbv	96
4) Chloromethane	3.15	50	4099	0.038 ppbv #	82
9) Propene	3.02	41	142101	1.407 ppbv	95
13) Ethanol	3.62	45	84120	8.255 ppbv	93
15) Acetone	3.85	43	1322095	10.572 ppbv #	78
16) 1,3-Butadiene	3.32	39	129937	1.319 ppbv #	20
17) tert-Butyl alcohol	4.30	59	18266	0.140 ppbv #	15
19) Isopropyl Alcohol	3.98	45	15199	0.190 ppbv #	85
20) Methylene Chloride	4.35	84	98706	1.438 ppbv	88
22) trans-1,2-Dichloroethene	4.89	96	107884	1.425 ppbv #	87
23) Vinyl Acetate	5.17	43	10833	0.058 ppbv #	25
25) Ethyl Acetate	5.69	43	66373	0.179 ppbv #	83
26) Hexane	5.70	57	86960	0.494 ppbv #	46
31) cis-1,2-Dichloroethene	5.55	61	8994	0.056 ppbv #	79
34) 2-Butanone	5.25	43	976345	6.275 ppbv	99
36) Benzene	6.89	78	13078	0.038 ppbv #	66
38) Trichloroethene	7.83	130	478927	3.375 ppbv	98
39) 1,2-Dichloropropane	7.18	63	990061	7.695 ppbv #	28
51) 2-Hexanone	10.42	43	254928	2.959 ppbv #	52
52) Tetrachloroethene	11.22	164	38792	0.299 ppbv	91
53) Toluene	9.80	91	183254	0.500 ppbv	97
58) Ethyl Benzene	12.70	91	17692	0.041 ppbv	99
59) m/p-Xylene	12.99	91	17635	0.046 ppbv #	30
60) o-Xylene	13.69	91	28003	0.078 ppbv #	30
74) 1,2,4-Trimethylbenzene	16.76	105	12494	0.031 ppbv #	68

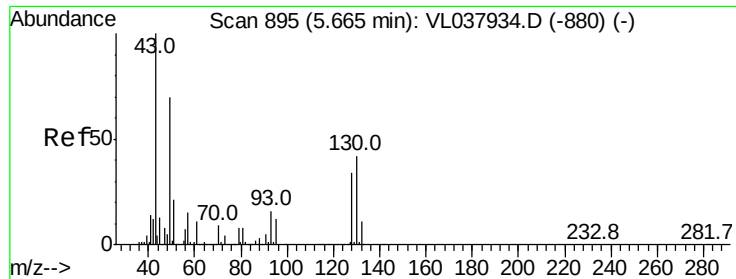
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 10 Nov 2021 5:57

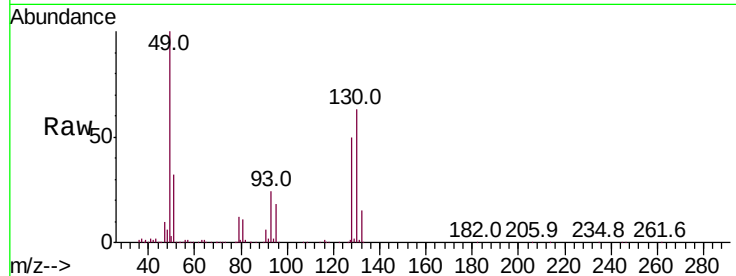
Tot Ion: 49 Resp: 1513438

Ion Ratio Lower Upper

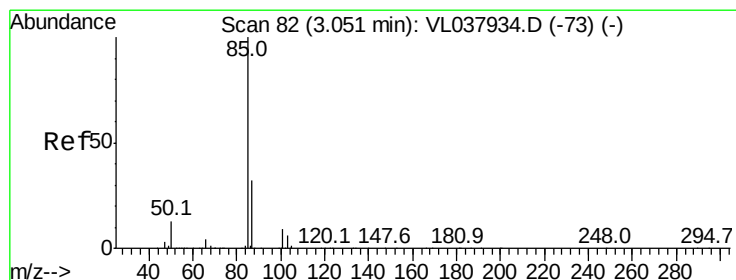
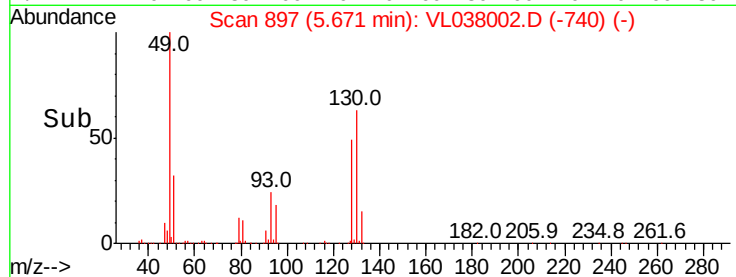
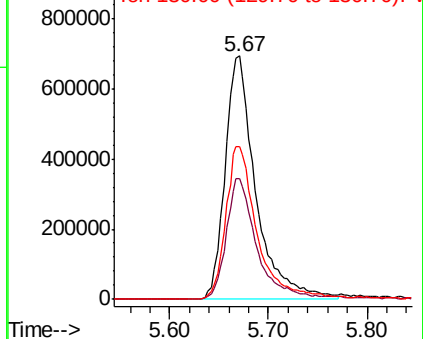
49 100

128 50.6 27.0 81.0

130 66.0 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: 0.047 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL038002.D

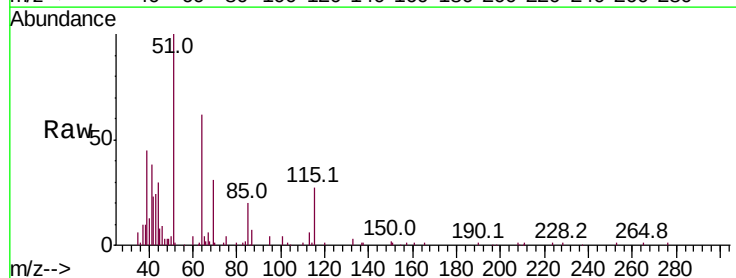
Acq: 10 Nov 2021 5:57

Tgt Ion: 85 Resp: 9944

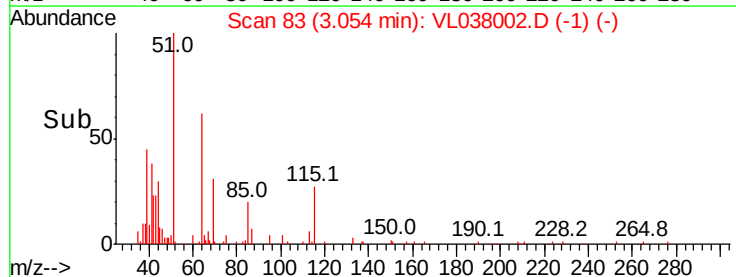
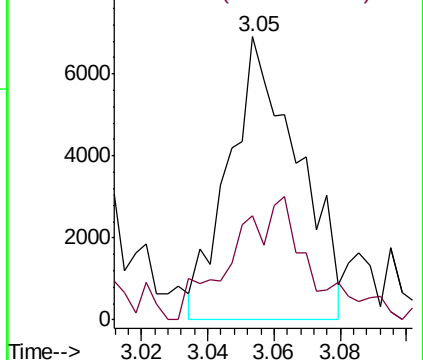
Ion Ratio Lower Upper

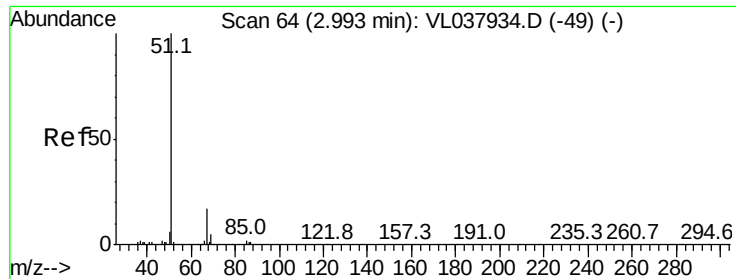
85 100

87 25.9 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: 1.337 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

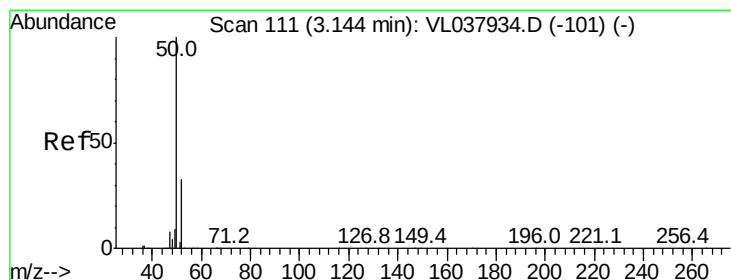
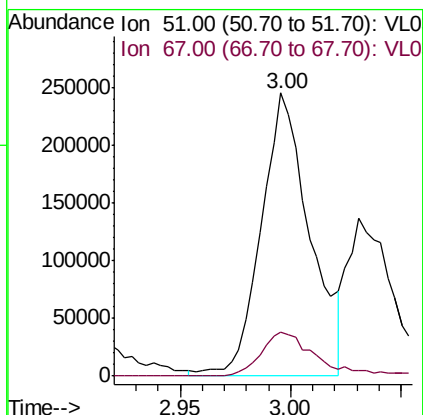
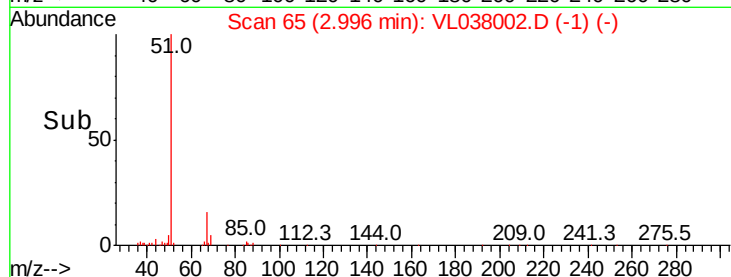
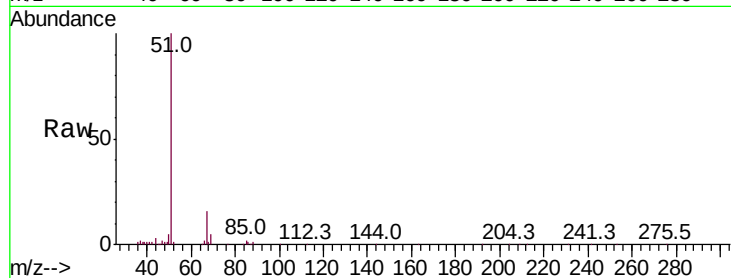
Acq: 10 Nov 2021 5:57

Tot Ion: 51 Resp: 376562

Ion Ratio Lower Upper

51 100

67 18.4 13.4 20.0



#4

Chloromethane

Concen: 0.038 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.00 min

Lab File: VL038002.D

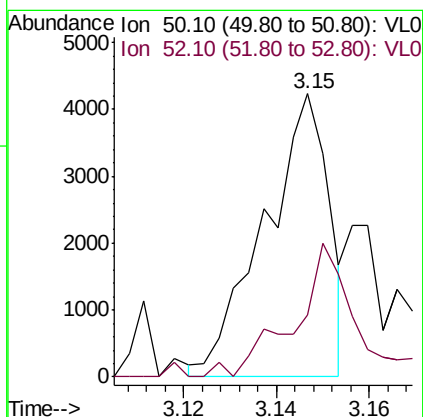
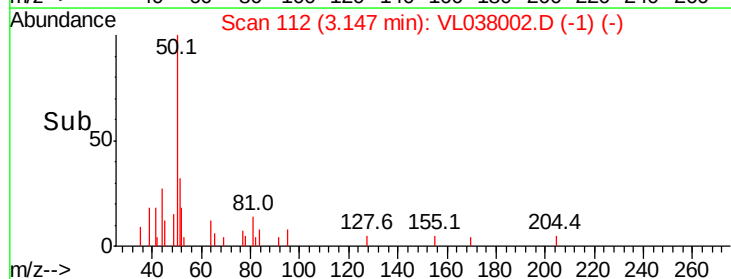
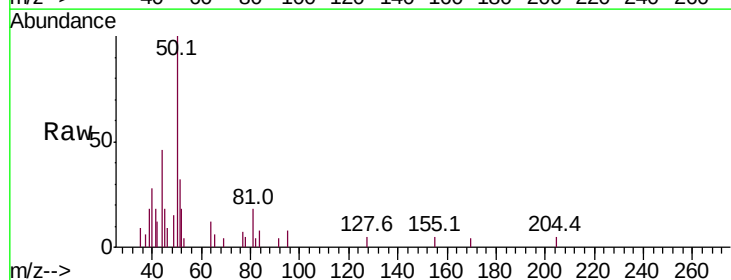
Acq: 10 Nov 2021 5:57

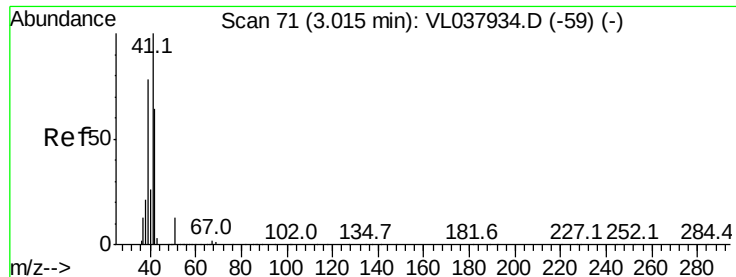
Tgt Ion: 50 Resp: 4099

Ion Ratio Lower Upper

50 100

52 22.9 26.3 39.5#





#9

Propene

Concen: 1.407 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

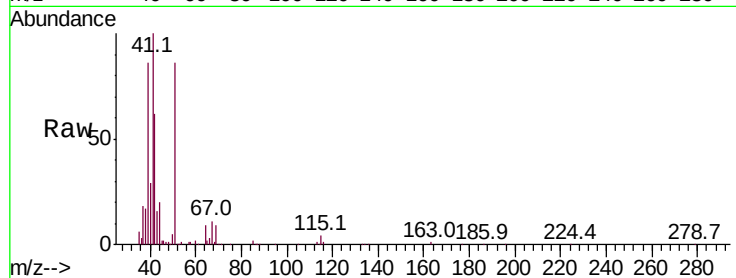
Acq: 10 Nov 2021 5:57

Tot Ion: 41 Resp: 142101

Ion Ratio Lower Upper

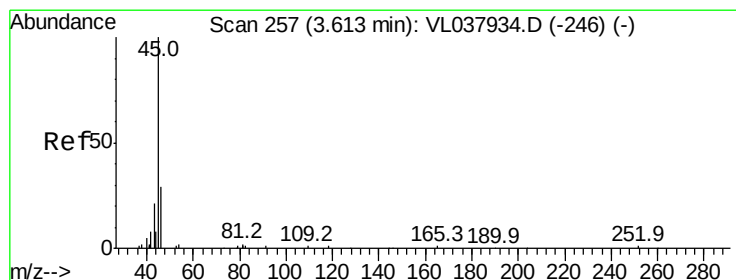
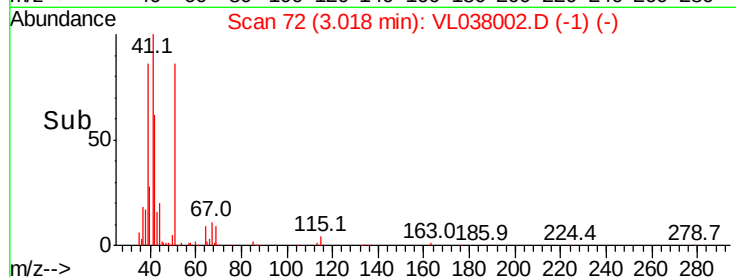
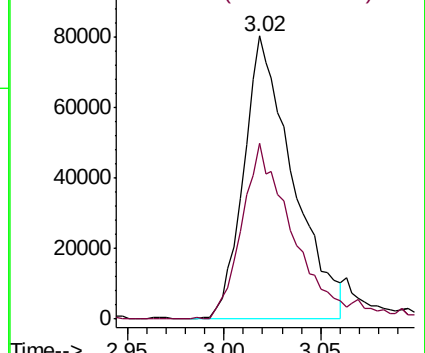
41 100

42 67.5 57.6 86.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#13

Ethanol

Concen: 8.255 ppbv

RT: 3.62 min Scan# 258

Delta R.T. 0.00 min

Lab File: VL038002.D

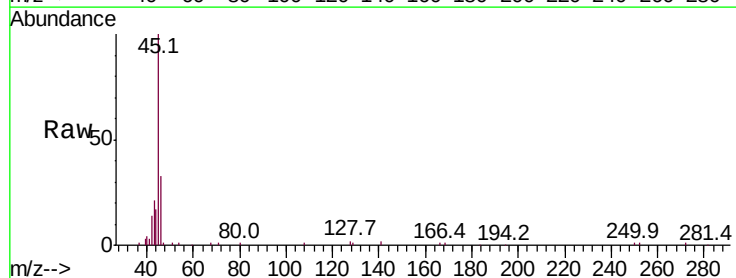
Acq: 10 Nov 2021 5:57

Tgt Ion: 45 Resp: 84120

Ion Ratio Lower Upper

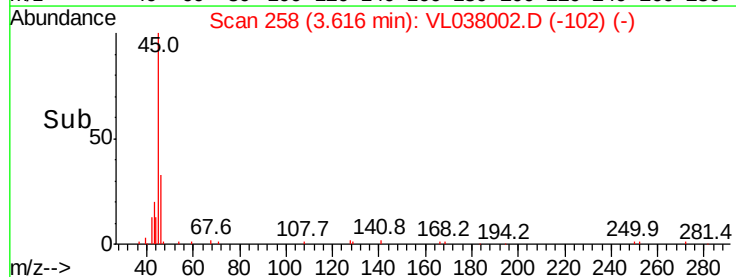
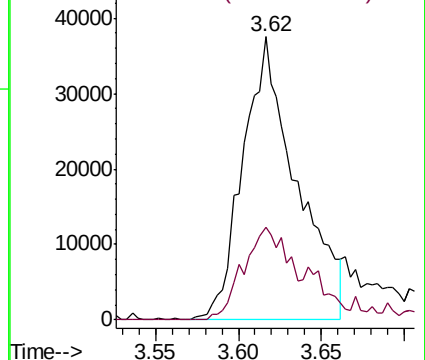
45 100

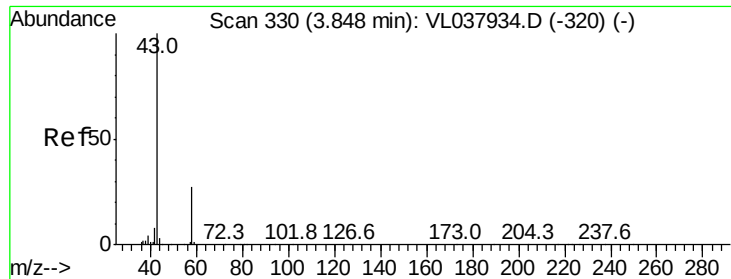
46 39.1 17.4 69.8



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 10.572 ppbv

RT: 3.85 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

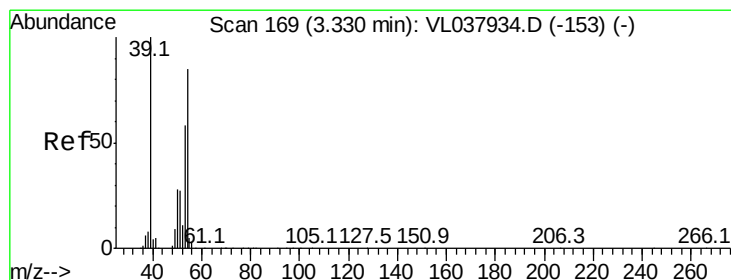
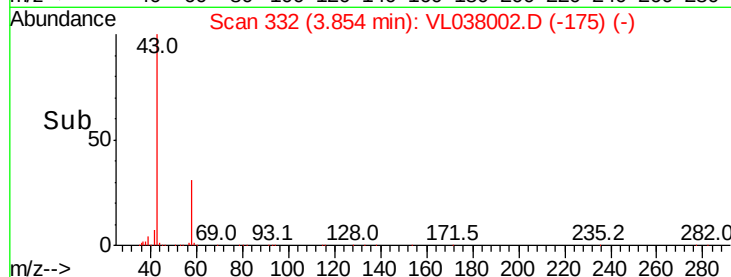
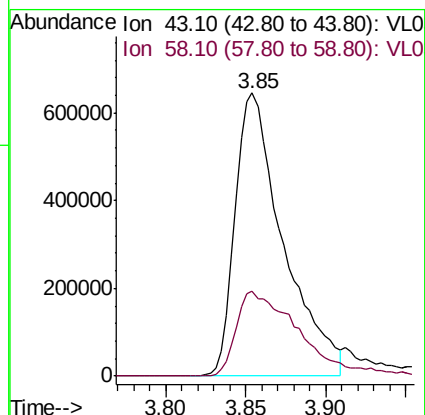
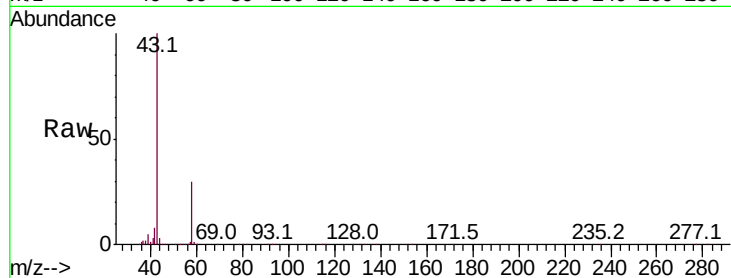
Acq: 10 Nov 2021 5:57

Tot Ion: 43 Resp: 1322095

Ion Ratio Lower Upper

43 100

58 41.0 23.3 34.9#



#16

1,3-Butadiene

Concen: 1.319 ppbv

RT: 3.32 min Scan# 165

Delta R.T. -0.01 min

Lab File: VL038002.D

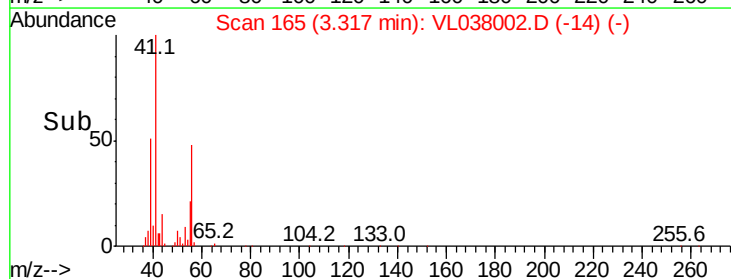
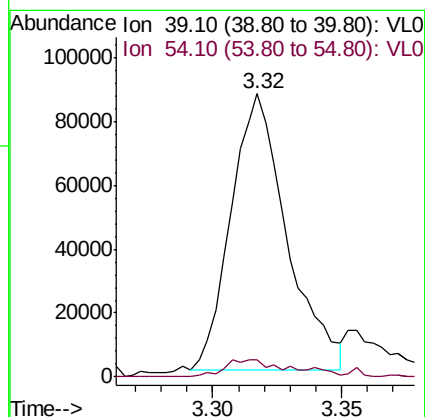
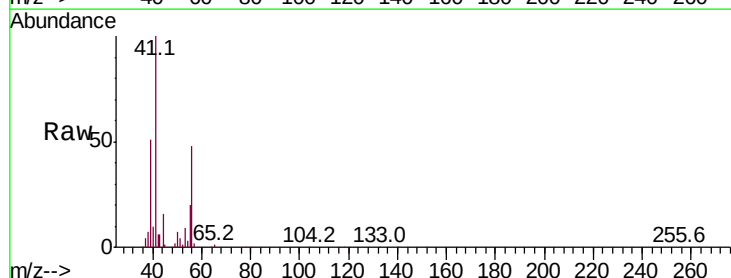
Acq: 10 Nov 2021 5:57

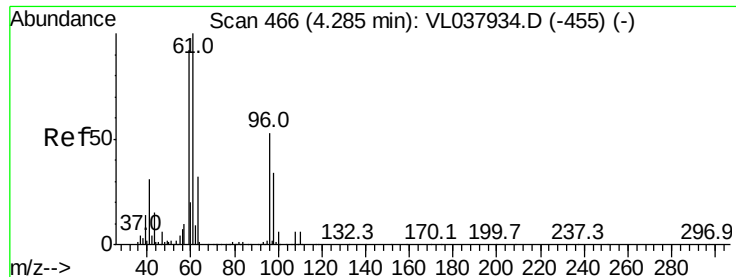
Tgt Ion: 39 Resp: 129937

Ion Ratio Lower Upper

39 100

54 8.5 62.6 93.8#





#17

tert-Butyl alcohol

Concen: 0.140 ppbv

RT: 4.30 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

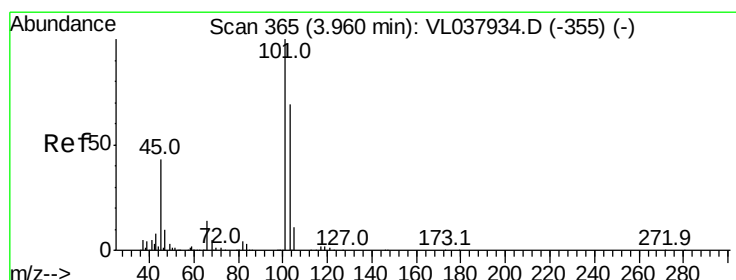
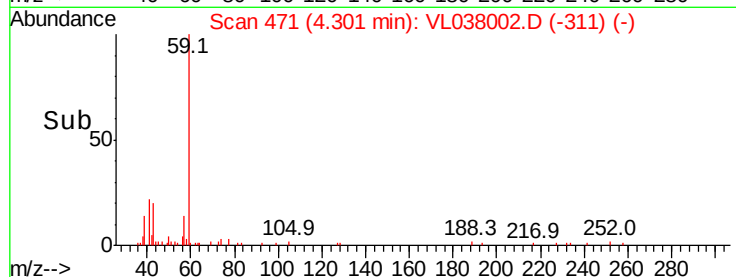
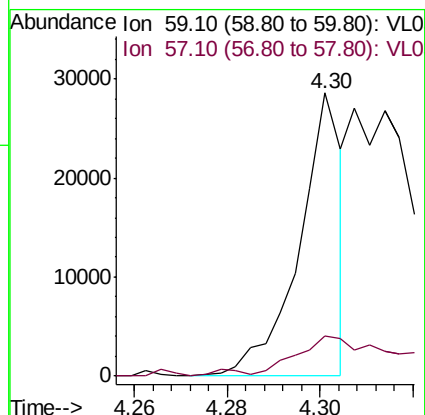
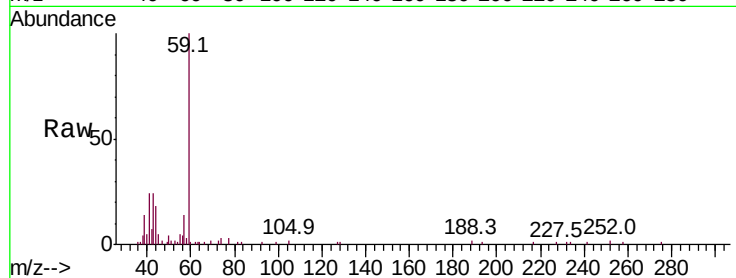
Acq: 10 Nov 2021 5:57

Tot Ion: 59 Resp: 18266

Ion Ratio Lower Upper

59 100

57 43.3 8.9 13.3#



#19

Isopropyl Alcohol

Concen: 0.190 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.02 min

Lab File: VL038002.D

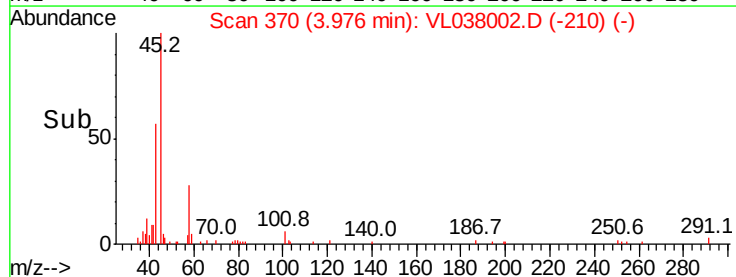
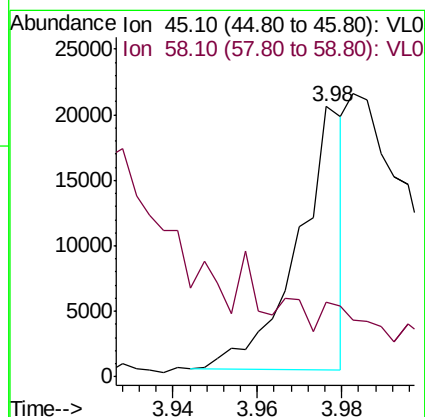
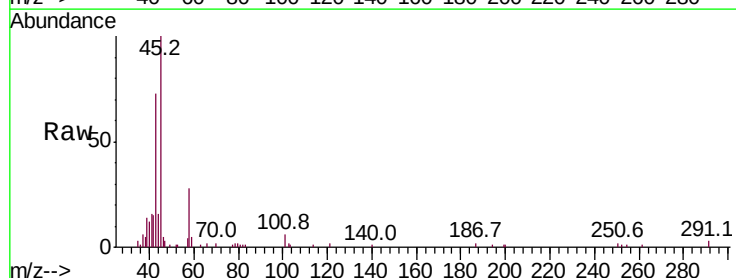
Acq: 10 Nov 2021 5:57

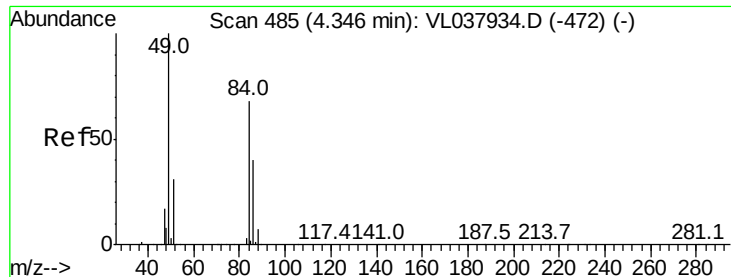
Tgt Ion: 45 Resp: 15199

Ion Ratio Lower Upper

45 100

58 0.0 4.0 6.0#





#20

Methylene Chloride

Concen: 1.438 ppbv

RT: 4.35 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 10 Nov 2021 5:57

Tot Ion: 84 Resp: 98706

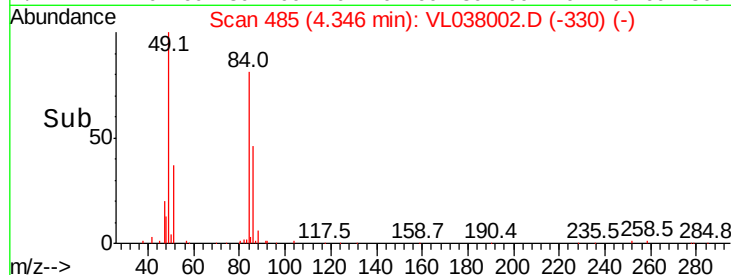
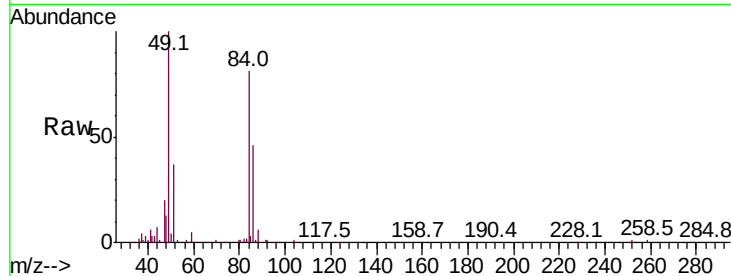
Ion Ratio Lower Upper

84 100

49 123.2 117.5 176.3

51 44.0 35.9 53.9

86 57.2 47.3 70.9

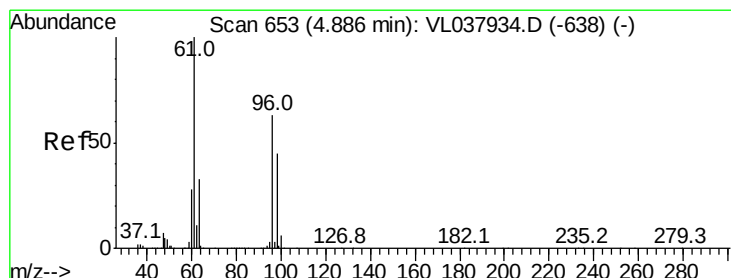
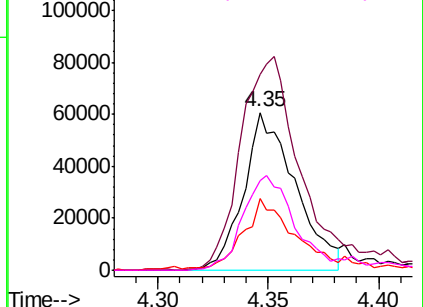


Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#22

trans-1,2-Dichloroethene

Concen: 1.425 ppbv

RT: 4.89 min Scan# 653

Delta R.T. -0.00 min

Lab File: VL038002.D

Acq: 10 Nov 2021 5:57

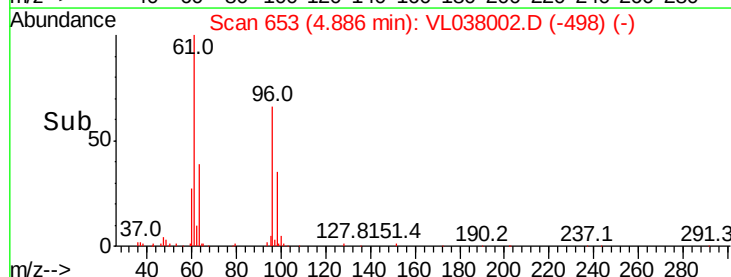
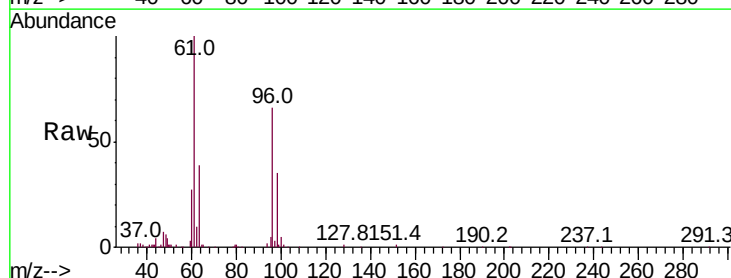
Tgt Ion: 96 Resp: 107884

Ion Ratio Lower Upper

96 100

61 148.9 127.8 191.6

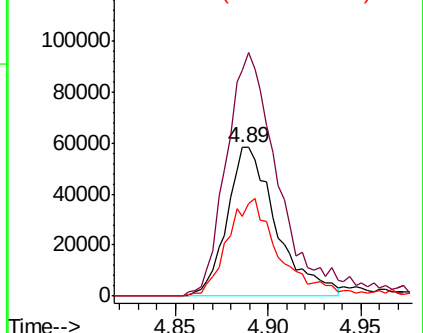
98 52.4 56.9 85.3#

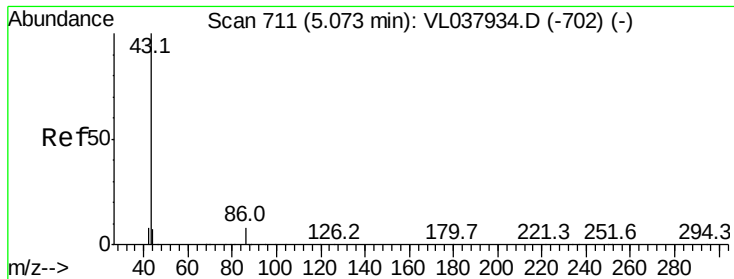


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 0.058 ppbv

RT: 5.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 10 Nov 2021 5:57

Tot Ion: 43 Resp: 10833

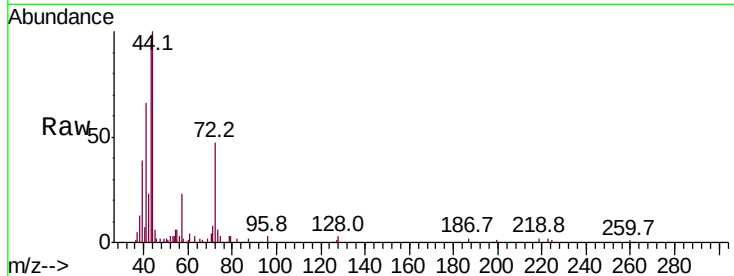
Ion Ratio Lower Upper

43 100

86 0.0 5.5 8.3#

42 15.4 7.4 11.2#

44 84.4 4.7 7.1#

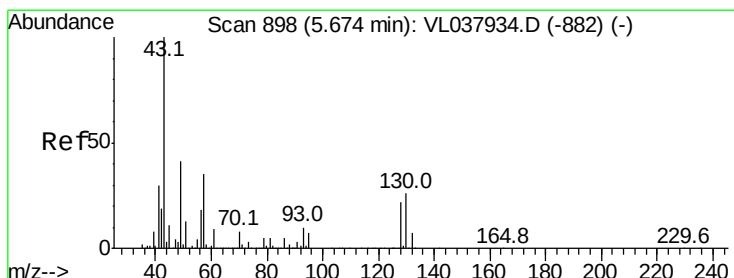
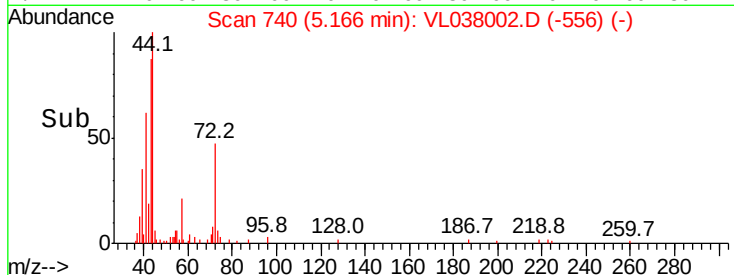
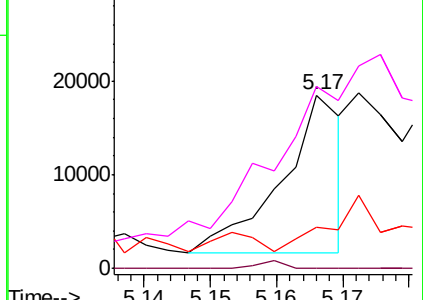


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.179 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.01 min

Lab File: VL038002.D

Acq: 10 Nov 2021 5:57

Tgt Ion: 43 Resp: 66373

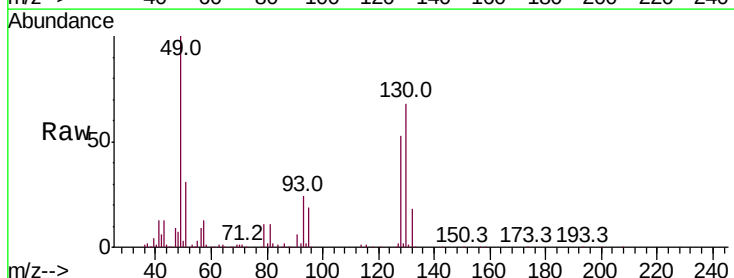
Ion Ratio Lower Upper

43 100

45 4.8 8.1 12.1#

61 1.5 8.1 12.1#

70 2.5 5.8 8.6#

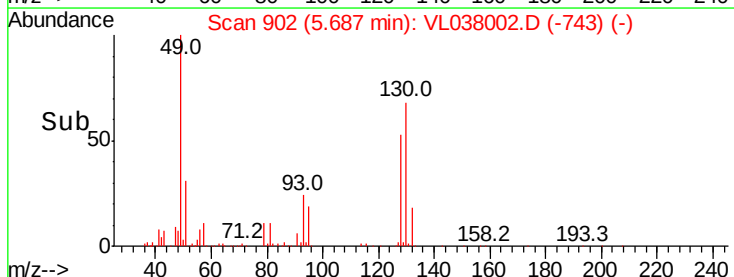
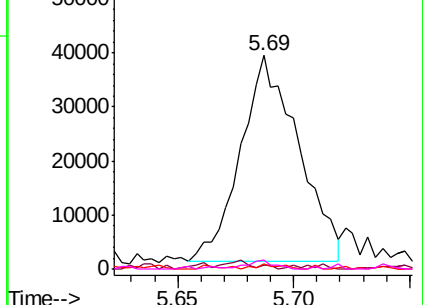


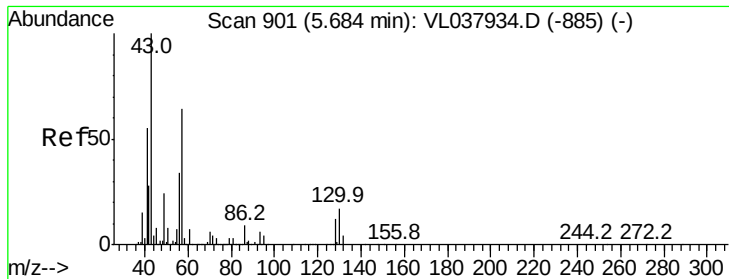
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

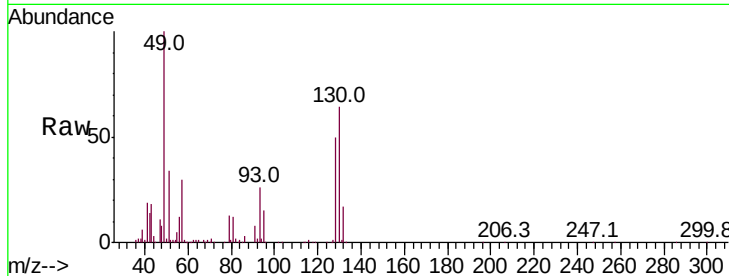
Ion 70.10 (69.80 to 70.80): VL0



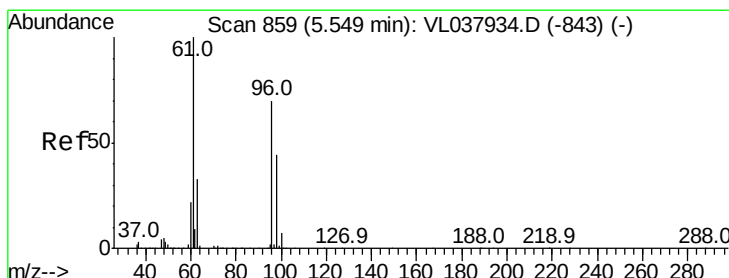
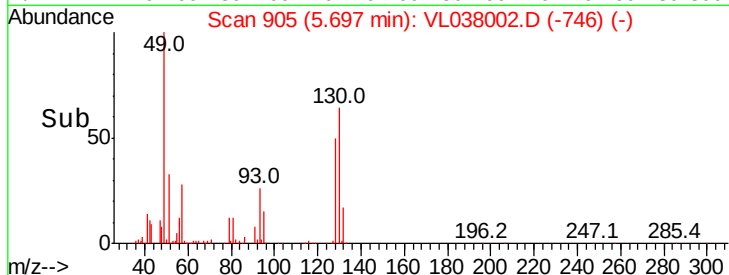
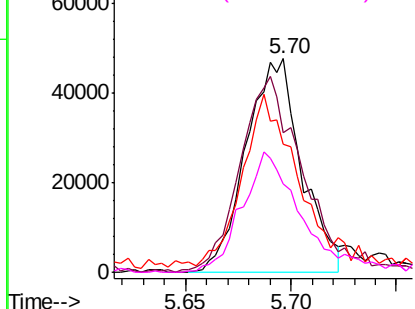


#26
Hexane
Concen: 0.494 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 Nov 2021 5:57

Tot Ion:	57	Resp:	86960
Ion	Ratio	Lower	Upper
57	100		
41	103.4	71.0	106.6
43	88.3	173.0	259.6#
56	63.1	43.6	65.4

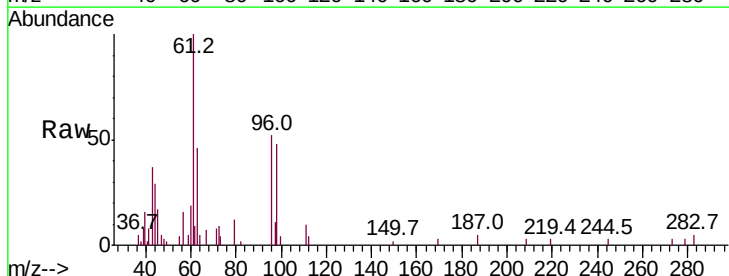


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

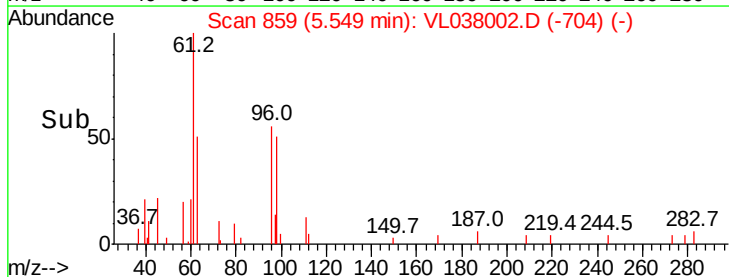
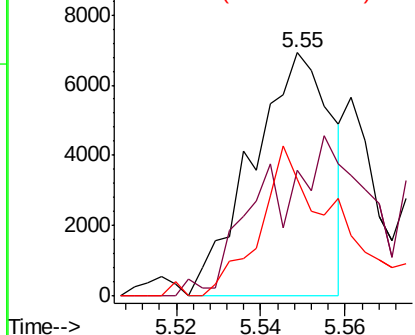


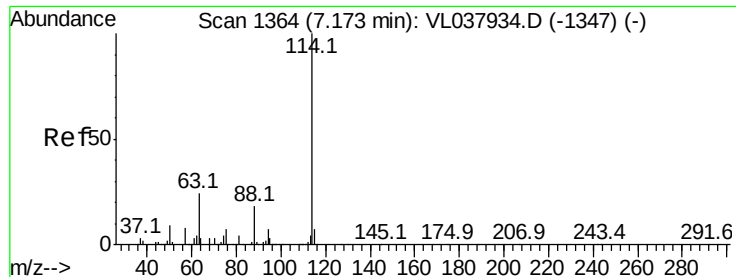
#31
cis-1,2-Dichloroethene
Concen: 0.056 ppbv
RT: 5.55 min Scan# 859
Delta R.T. -0.00 min
Lab File: VL038002.D
Acq: 10 Nov 2021 5:57

Tgt Ion:	61	Resp:	8994
Ion	Ratio	Lower	Upper
61	100		
96	44.7	55.6	83.4#
98	48.1	34.9	52.3



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0

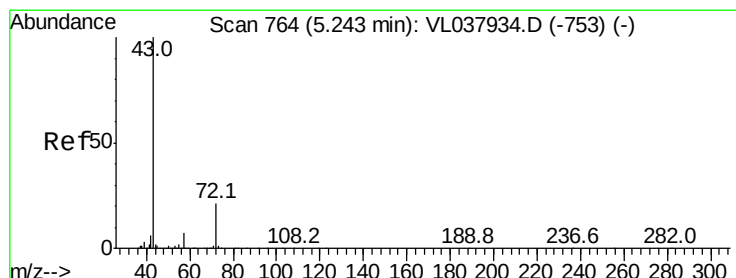
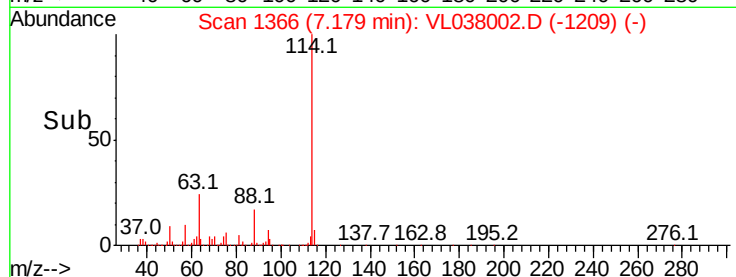
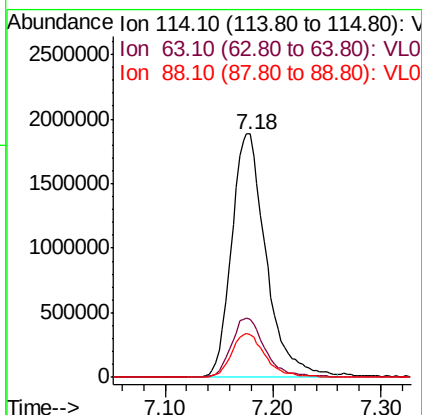
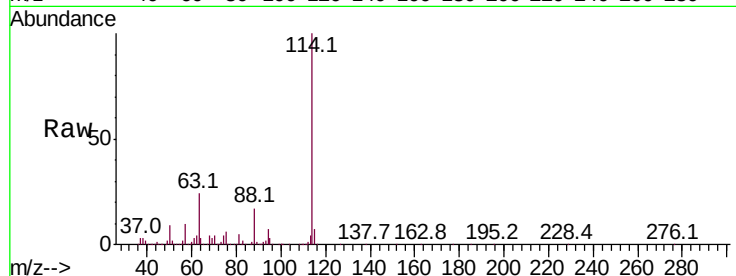




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 10 Nov 2021 5:57

Tot Ion: 114 Resp: 4198783

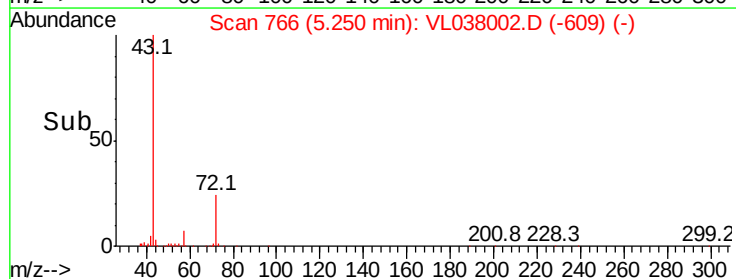
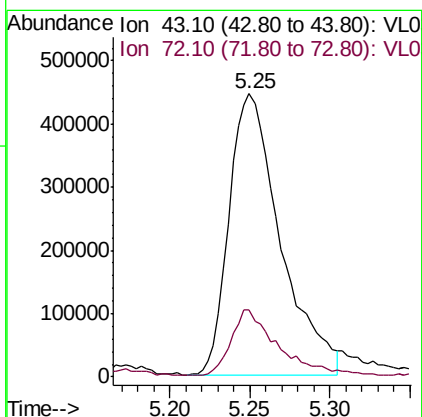
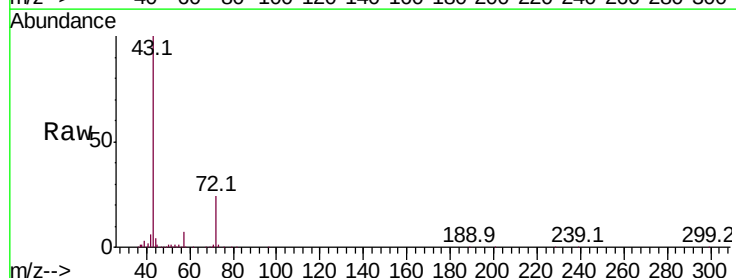
Ion	Ratio	Lower	Upper
114	100		
63	24.0	19.4	29.0
88	17.8	14.2	21.4

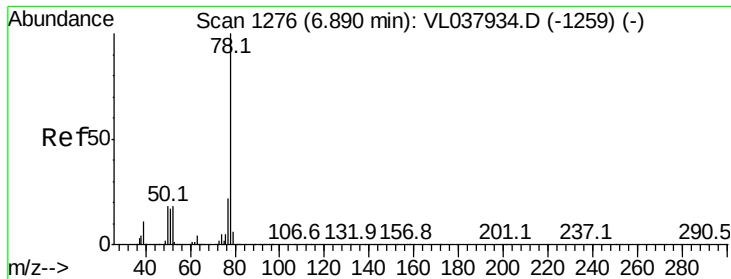


#34
 2-Butanone
 Concen: 6.275 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T.: 0.01 min
 Lab File: VL038002.D
 Acq: 10 Nov 2021 5:57

Tgt Ion: 43 Resp: 976345

Ion	Ratio	Lower	Upper
43	100		
72	23.5	18.3	27.5





#36

Benzene

Concen: 0.038 ppbv

RT: 6.89 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 10 Nov 2021 5:57

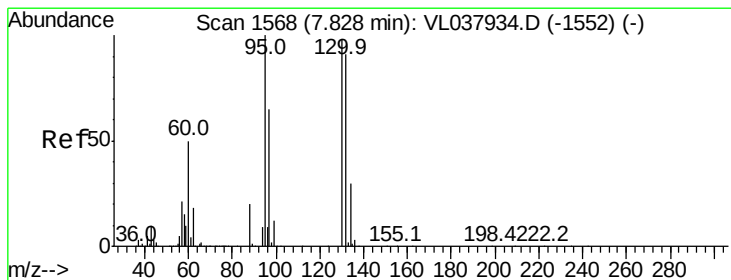
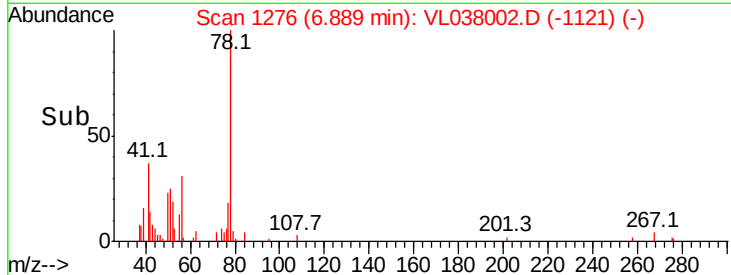
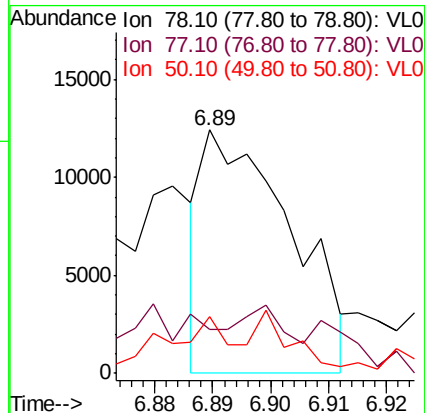
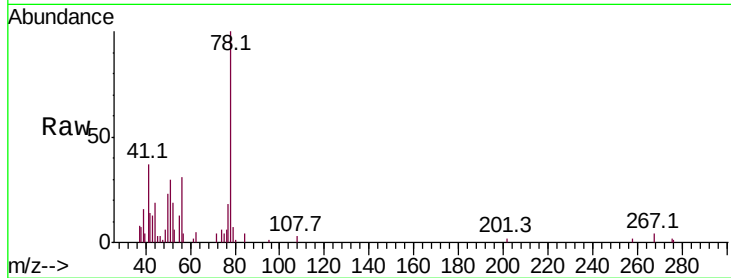
Tot Ion: 78 Resp: 13078

Ion Ratio Lower Upper

78 100

77 1.0 17.9 26.9#

50 27.2 14.4 21.6#



#38

Trichloroethene

Concen: 3.375 ppbv

RT: 7.83 min Scan# 1570

Delta R.T. 0.01 min

Lab File: VL038002.D

Acq: 10 Nov 2021 5:57

Tgt Ion: 130 Resp: 478927

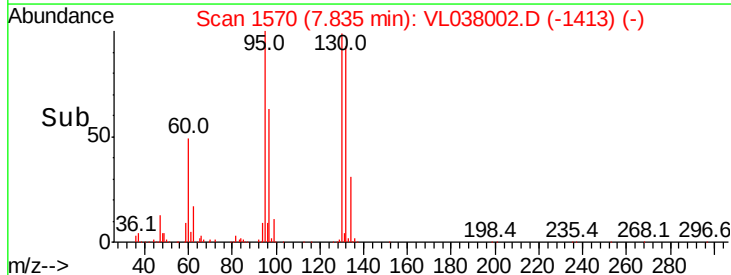
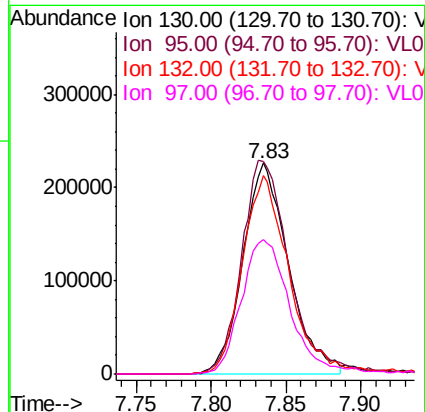
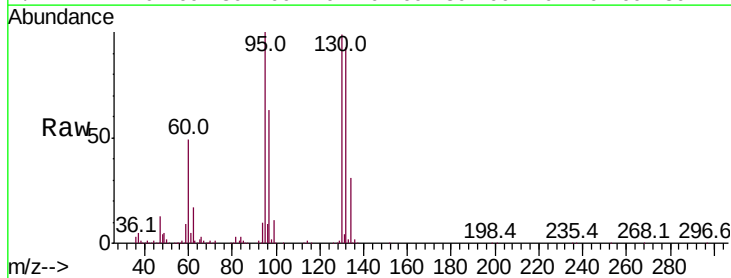
Ion Ratio Lower Upper

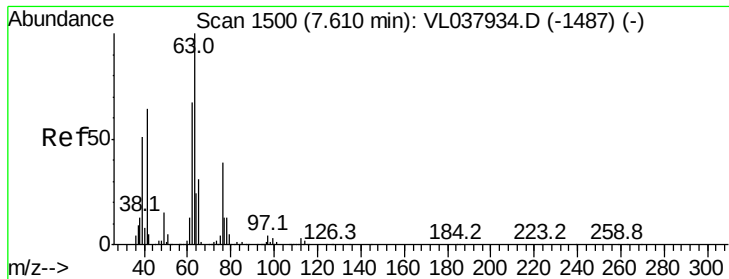
130 100

95 100.9 81.8 122.8

132 94.2 74.2 111.2

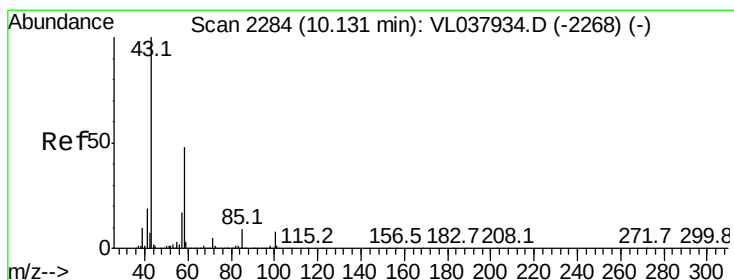
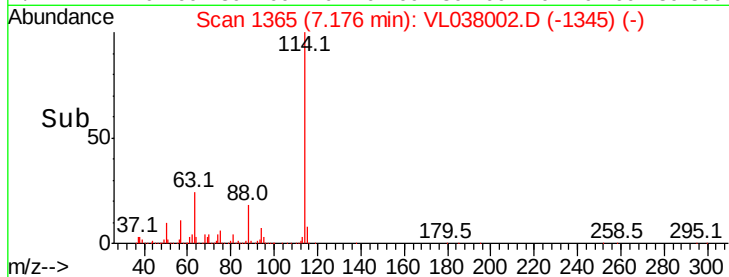
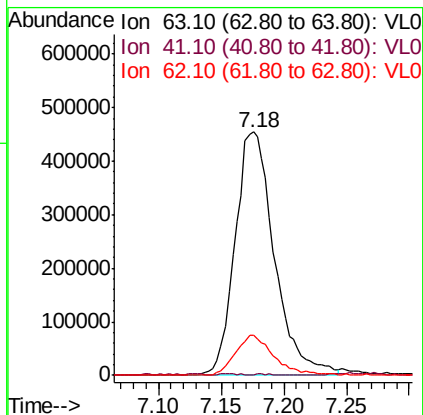
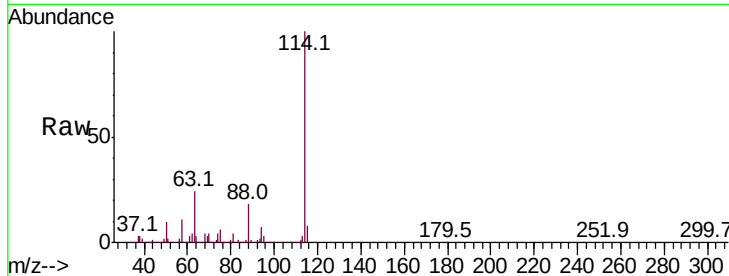
97 63.5 53.4 80.2





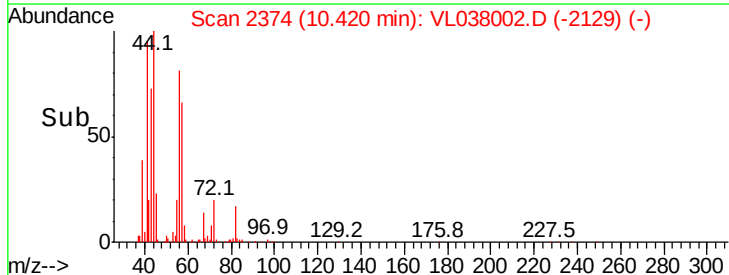
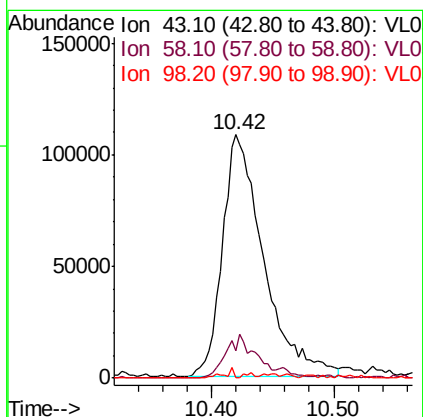
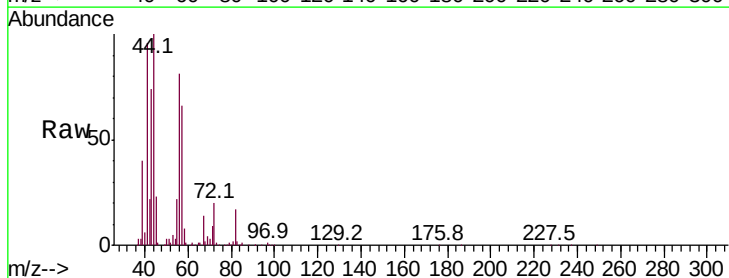
#39
 1,2-Dichloropropane
 Concen: 7.695 ppbv
 RT: 7.18
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 10 Nov 2021 5:57

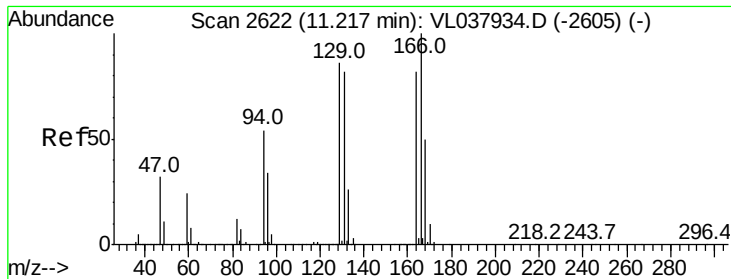
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	51.6	77.4#
62	16.7	53.5	80.3#



#51
 2-Hexanone
 Concen: 2.959 ppbv
 RT: 10.42 min Scan# 2374
 Delta R.T.: 0.29 min
 Lab File: VL038002.D
 Acq: 10 Nov 2021 5:57

Tgt Ion	Ratio	Lower	Upper
43	100		
58	15.1	38.6	57.8#
98	0.9	1.0	1.4#





#52

Tetrachloroethene

Concen: 0.299 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File:

Acq: 10 Nov 2021 5:57

Tot Ion: 164 Resp: 38792

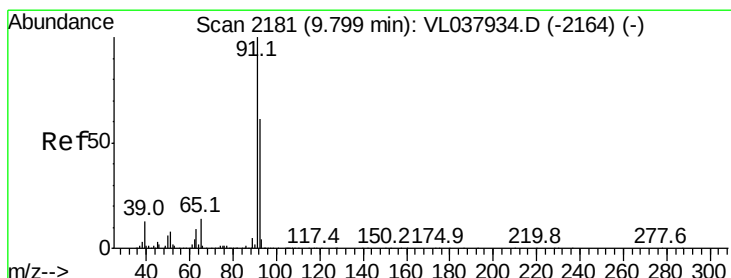
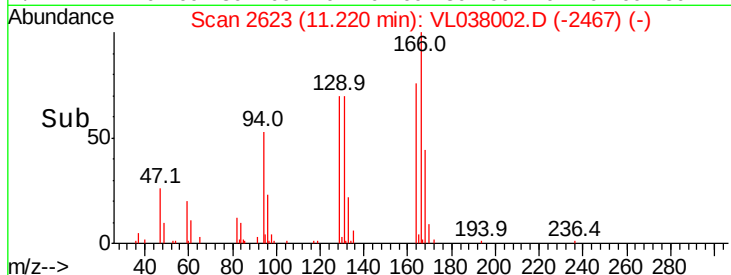
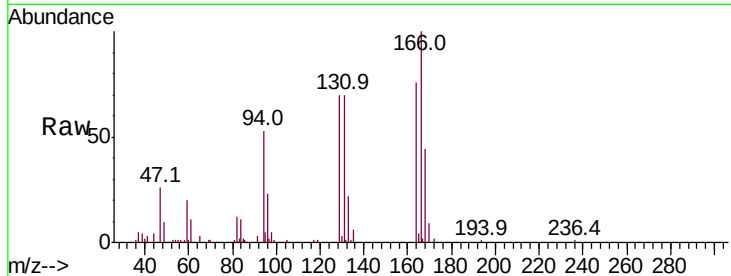
Ion Ratio Lower Upper

164 100

166 127.8 97.6 146.4

129 89.1 84.2 126.2

131 94.0 79.6 119.4



#53

Toluene

Concen: 0.500 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. 0.00 min

Lab File: VL038002.D

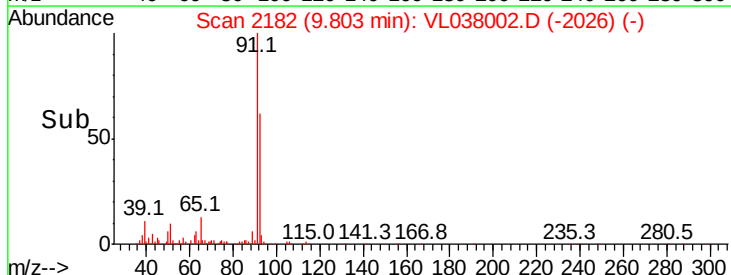
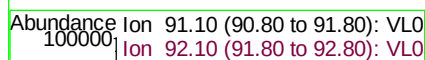
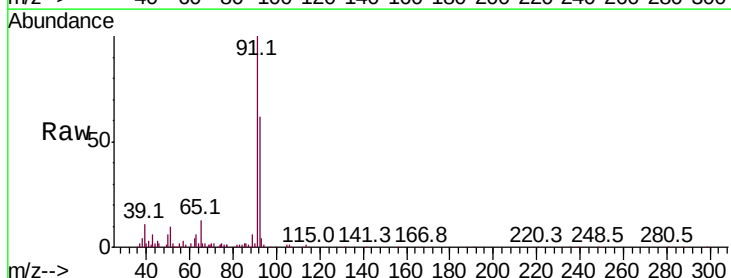
Acq: 10 Nov 2021 5:57

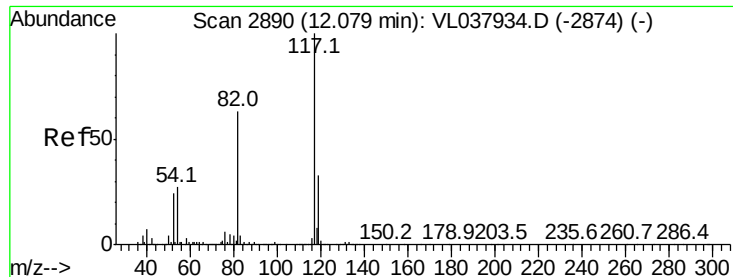
Tgt Ion: 91 Resp: 183254

Ion Ratio Lower Upper

91 100

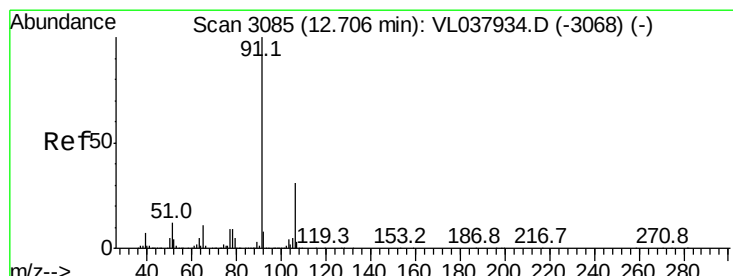
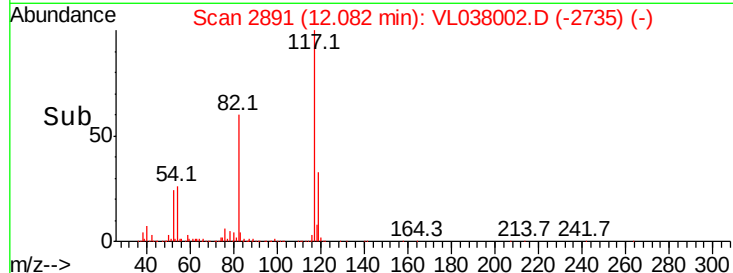
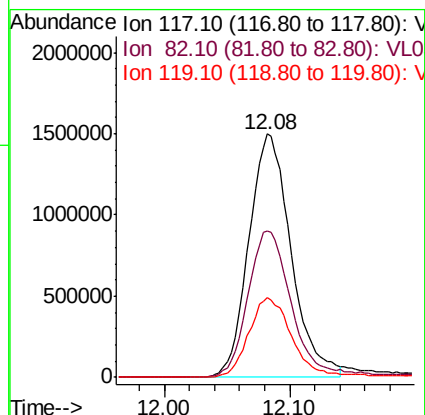
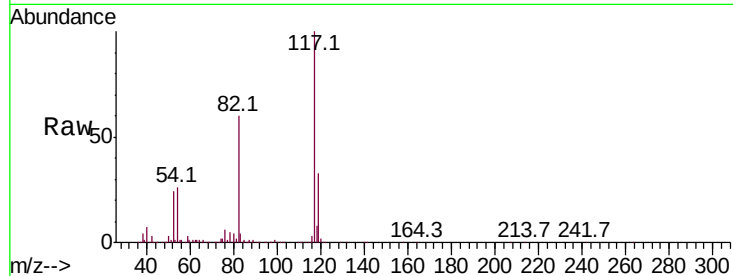
92 62.5 48.2 72.4





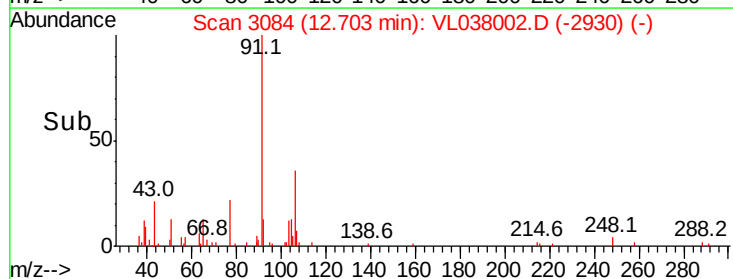
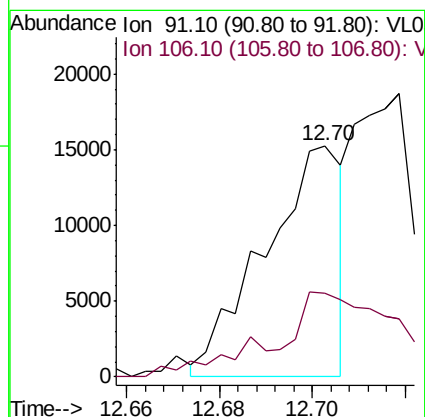
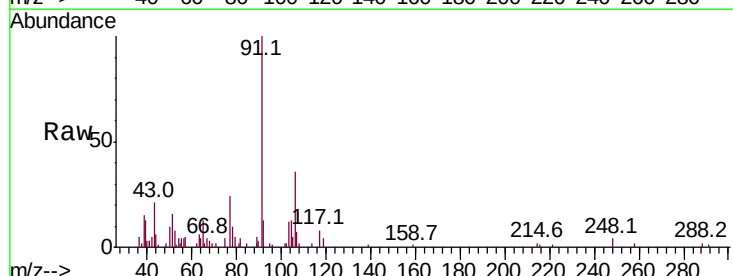
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 10 Nov 2021 5:57

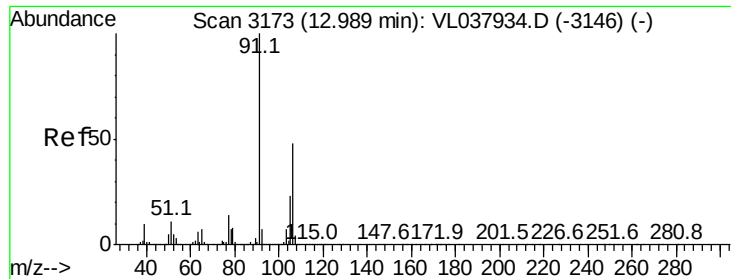
Tot Ion: 117 Resp: 3509160
Ion Ratio Lower Upper
117 100
82 64.9 51.0 76.6
119 34.5 26.9 40.3



#58
Ethyl Benzene
Concen: 0.041 ppbv
RT: 12.70 min Scan# 3084
Delta R.T. -0.00 min
Lab File: VL038002.D
Acq: 10 Nov 2021 5:57

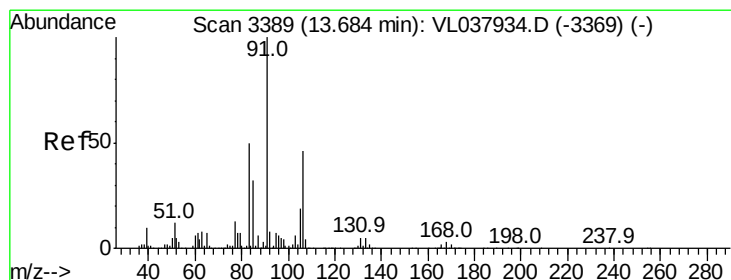
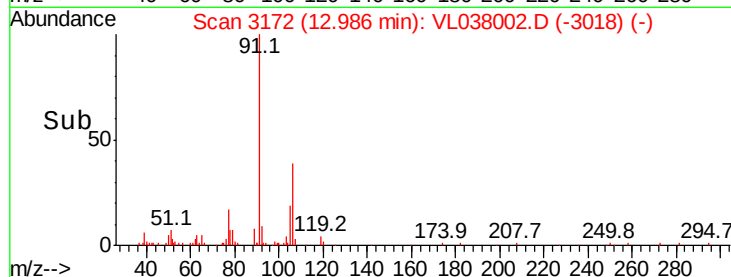
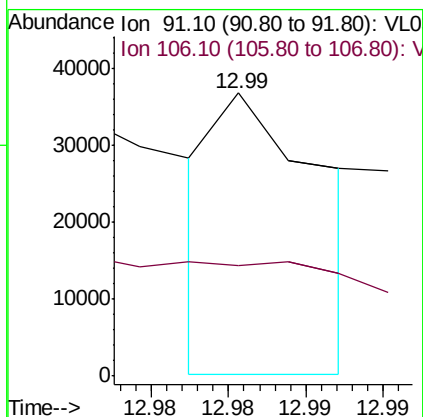
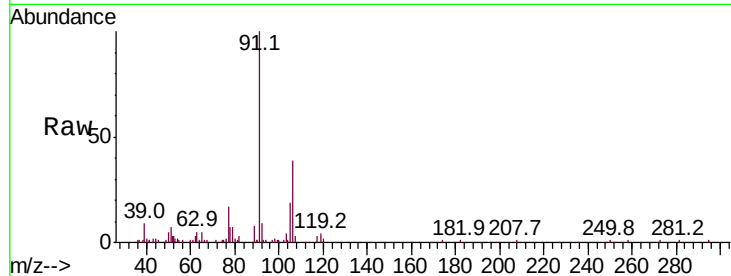
Tgt Ion: 91 Resp: 17692
Ion Ratio Lower Upper
91 100
106 30.6 25.1 37.7





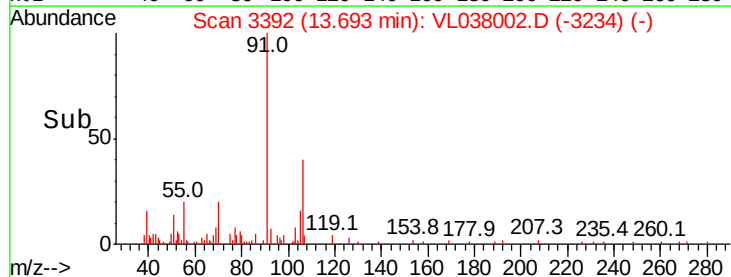
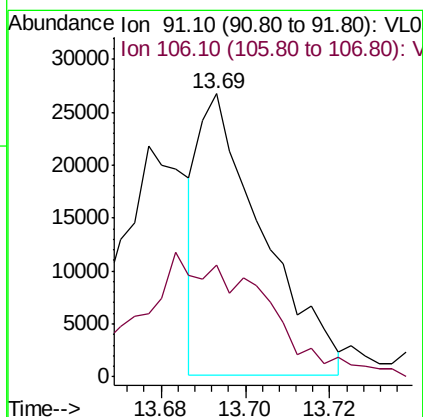
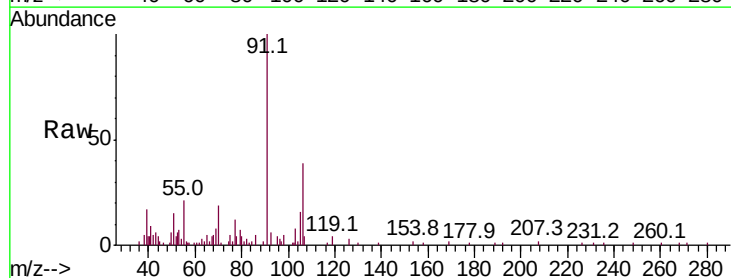
#59
m/p-Xylene
Concen: 0.046 ppbv
RT: 12.99 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 10 Nov 2021 5:57

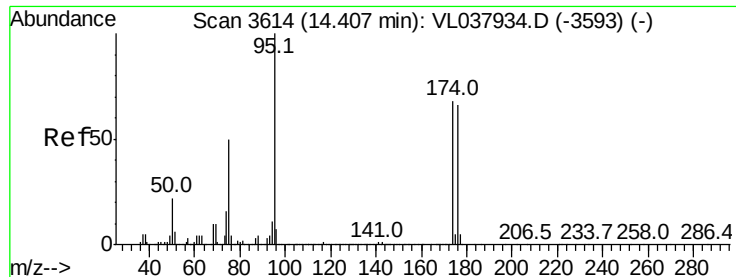
Tot Ion: 91 Resp: 17635
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#



#60
o-Xylene
Concen: 0.078 ppbv
RT: 13.69 min Scan# 3392
Delta R.T. 0.01 min
Lab File: VL038002.D
Acq: 10 Nov 2021 5:57

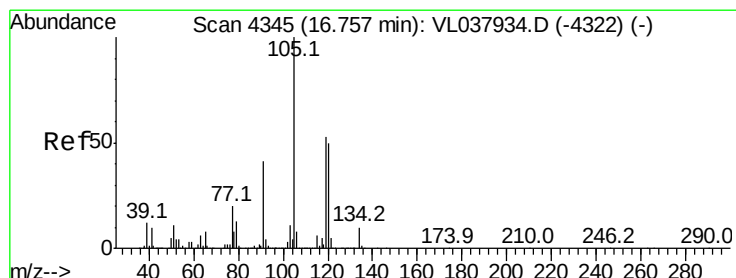
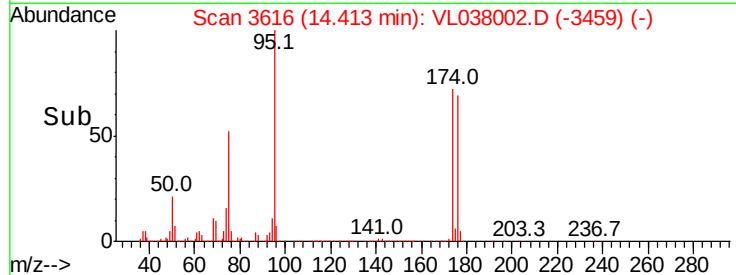
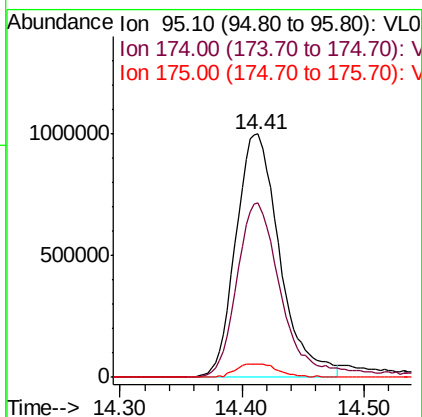
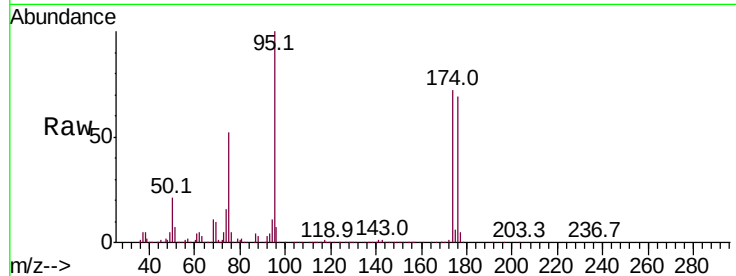
Tgt Ion: 91 Resp: 28003
Ion Ratio Lower Upper
91 100
106 0.0 23.5 70.6#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.757 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 10 Nov 2021 5:57

Tot Ion: 95 Resp: 2488810
 Ion Ratio Lower Upper
 95 100
 174 75.7 58.3 87.5
 175 5.7 4.6 6.8



#74
 1,2,4-Trimethylbenzene
 Concen: 0.031 ppbv
 RT: 16.76 min Scan# 4346
 Delta R.T. 0.00 min
 Lab File: VL038002.D
 Acq: 10 Nov 2021 5:57

Tgt Ion: 105 Resp: 12494
 Ion Ratio Lower Upper
 105 100
 120 41.6 40.0 60.0
 91 6.0 32.6 49.0#
 77 4.7 15.8 23.8#

