

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100121\
 Data File : VL037742.D
 Acq On : 1 Oct 2021 15:24
 Operator : SY/AP
 Sample : M4012-08
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P00

Quant Time: Oct 02 01:34:08 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 16 13:42:46 2021
 QLast Update : Thu Sep 16 13:42:46 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1200782	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3635839	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	3114742	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2108753	9.37	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.70%

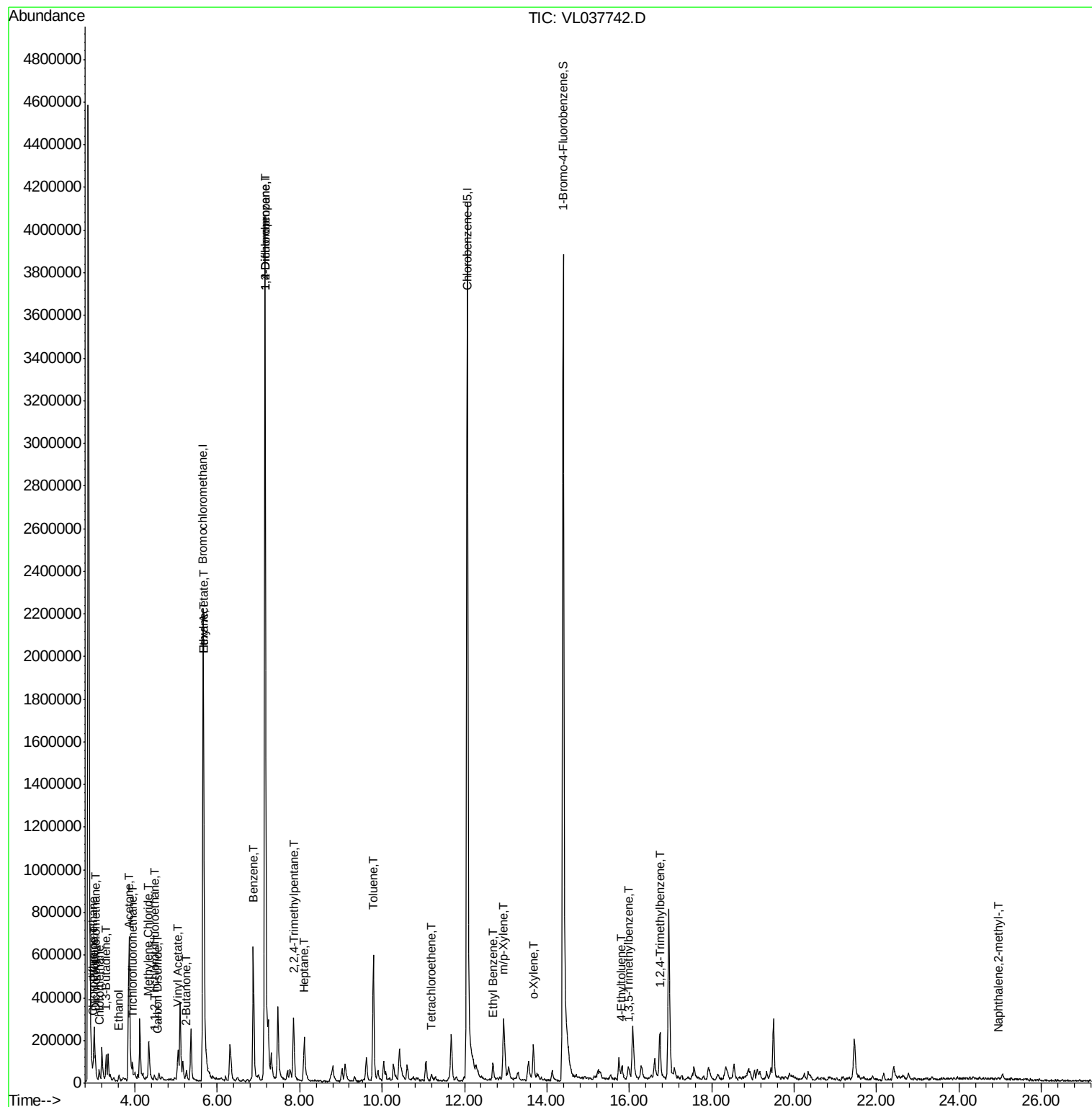
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	40342	0.186	ppbv	94
3) Chlorodifluoromethane	2.98	51	68200	0.301	ppbv #	91
4) Chloromethane	3.13	50	43041	0.514	ppbv	99
9) Propene	3.01	41	114951	1.439	ppbv	93
10) Heptane	8.10	43	69048	0.370	ppbv	98
11) Trichlorofluoromethane	3.94	101	35050	0.201	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.47	101	5958	0.046	ppbv #	52
13) Ethanol	3.61	45	17332	2.218	ppbv #	34
15) Acetone	3.84	43	325678	2.610	ppbv #	45
16) 1,3-Butadiene	3.30	39	26070	0.334	ppbv #	28
20) Methylene Chloride	4.33	84	65804	1.105	ppbv	93
23) Vinyl Acetate	5.05	43	35838	0.208	ppbv #	23
25) Ethyl Acetate	5.67	43	121728	0.403	ppbv #	82
26) Hexane	5.67	57	162342	1.131	ppbv #	45
27) Carbon Disulfide	4.54	76	4688	0.036	ppbv #	1
34) 2-Butanone	5.25	43	28349	0.192	ppbv #	53
36) Benzene	6.87	78	569632	1.879	ppbv	98
39) 1,2-Dichloropropane	7.16	63	842743	7.257	ppbv #	28
44) 2,2,4-Trimethylpentane	7.85	57	128735	0.253	ppbv #	16
52) Tetrachloroethene	11.20	164	4429	0.038	ppbv #	73
53) Toluene	9.79	91	416355	1.235	ppbv	99
58) Ethyl Benzene	12.70	91	30935	0.075	ppbv	93
59) m/p-Xylene	12.95	91	43707	0.121	ppbv #	31
60) o-Xylene	13.67	91	118499	0.346	ppbv	93
72) 4-Ethyltoluene	15.81	105	16427	0.042	ppbv #	55
73) 1,3,5-Trimethylbenzene	15.97	105	16278	0.044	ppbv	99
74) 1,2,4-Trimethylbenzene	16.73	105	76942	0.199	ppbv #	72
80) Naphthalene,2-methyl-	24.96	142	3764	0.069	ppbv	95

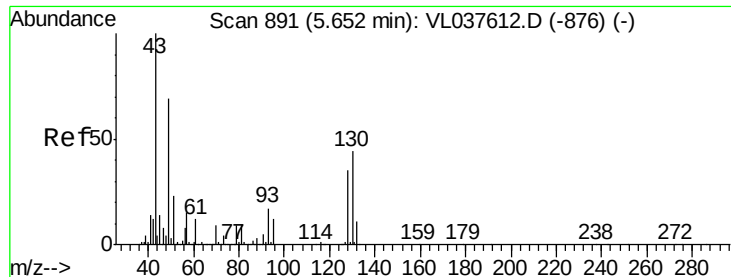
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Oct 02 01:34:08 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL091621AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 16 13:42:46 2021
QLast Update : Thu Sep 16 13:42:46 2021
Response via : Initial Calibration

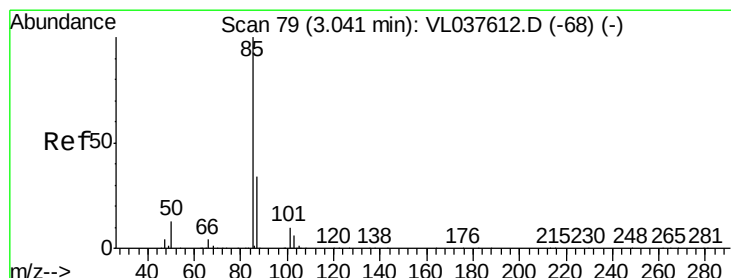
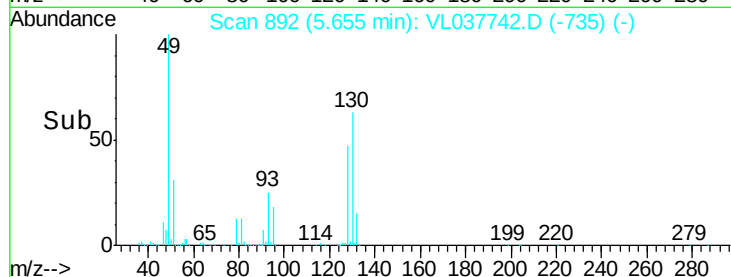
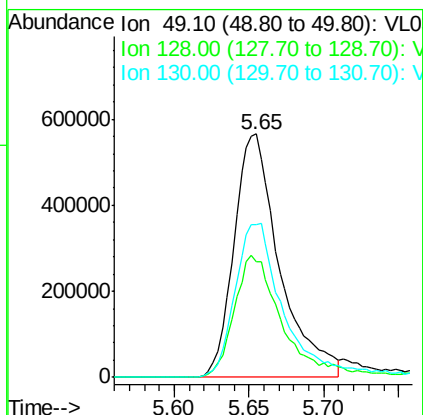
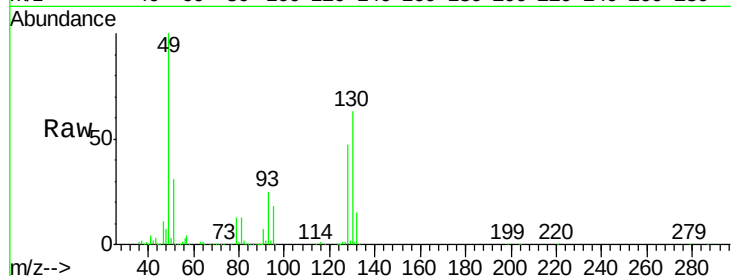




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65 min Scan# 892
 Delta R.T. 0.00 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

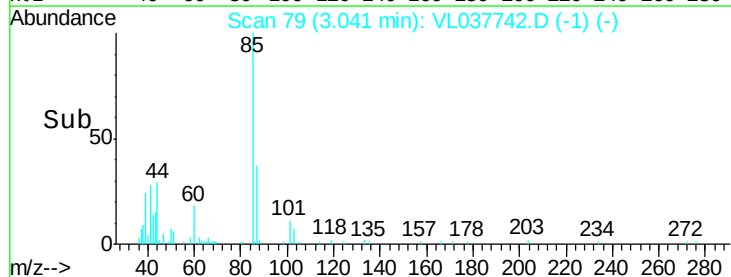
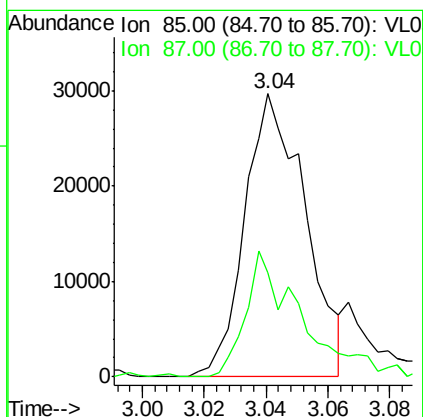
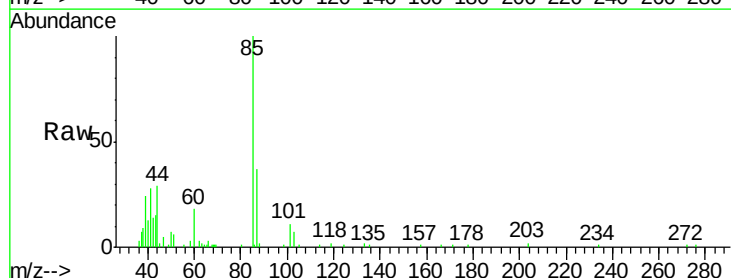
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P00

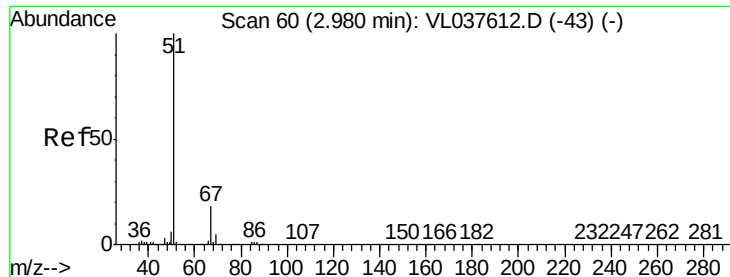
Tgt Ion: 49 Resp: 1200782
 Ion Ratio Lower Upper
 49 100
 128 56.1 27.9 83.6
 130 70.0 33.9 101.7



#2
 Dichlorodifluoromethane
 Concen: 0.186 ppbv
 RT: 3.04 min Scan# 79
 Delta R.T. 0.00 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

Tgt Ion: 85 Resp: 40342
 Ion Ratio Lower Upper
 85 100
 87 36.9 26.8 40.2





#3

Chlorodifluoromethane

Concen: 0.301 ppbv

RT: 2.98 min Scan# 60

Delta R.T. 0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleId :

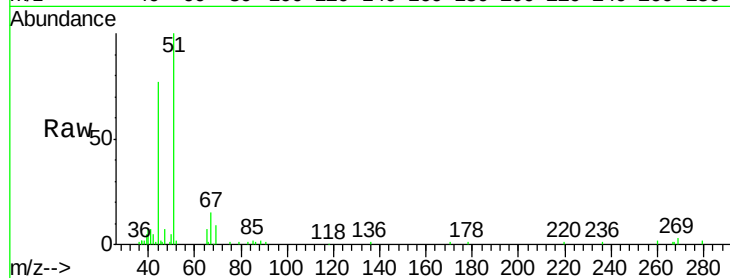
C0P00

Tgt Ion: 51 Resp: 68200

Ion Ratio Lower Upper

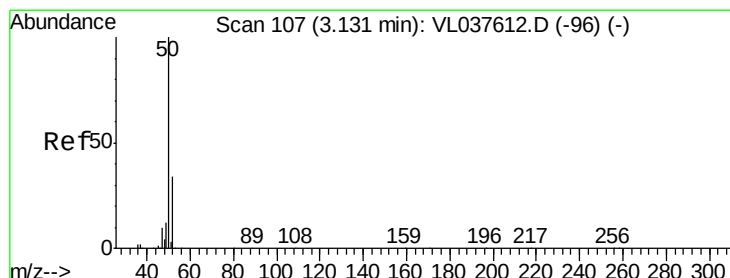
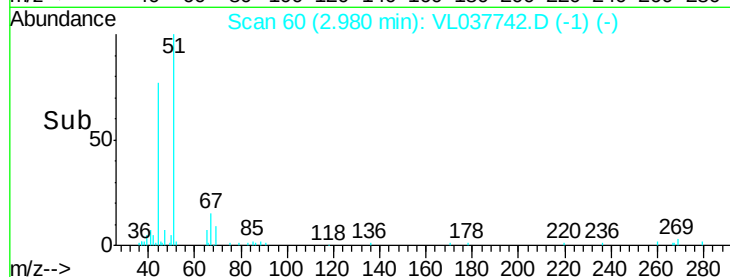
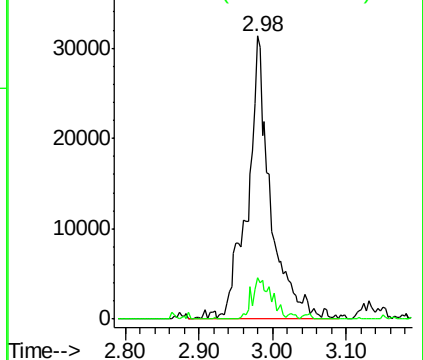
51 100

67 13.4 14.0 21.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.514 ppbv

RT: 3.13 min Scan# 108

Delta R.T. 0.00 min

Lab File: VL037742.D

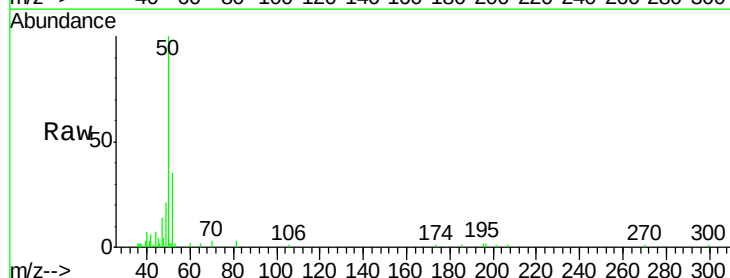
Acq: 1 Oct 2021 15:24

Tgt Ion: 50 Resp: 43041

Ion Ratio Lower Upper

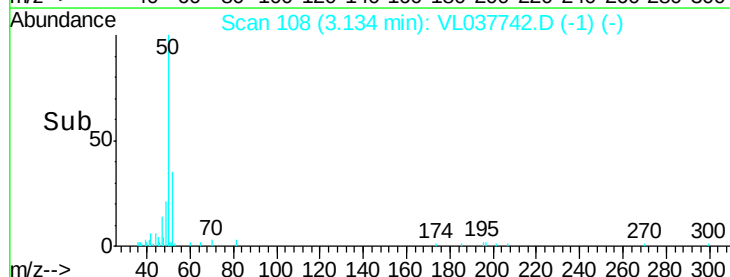
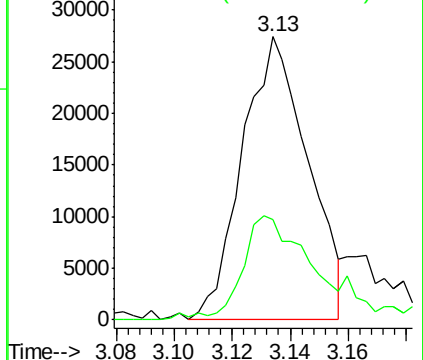
50 100

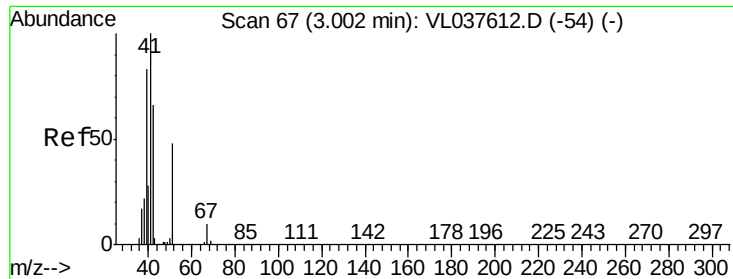
52 34.3 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.439 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleId :

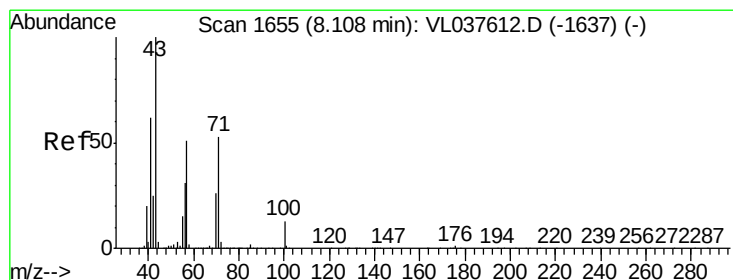
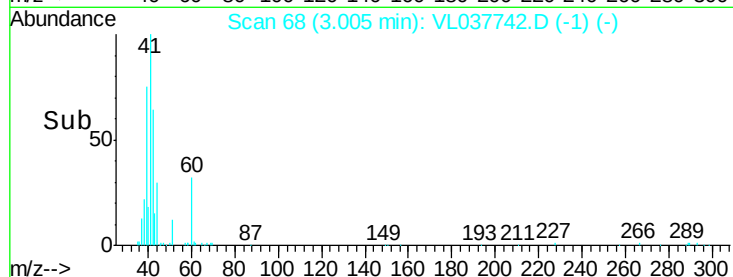
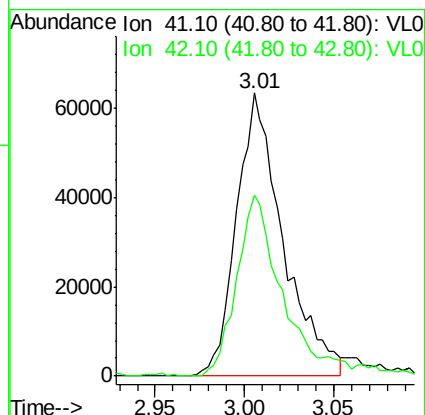
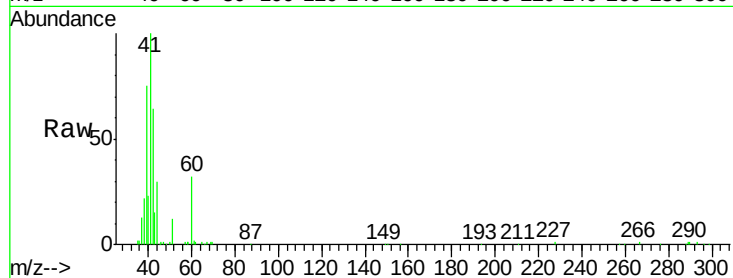
C0P00

Tgt Ion: 41 Resp: 114951

Ion Ratio Lower Upper

41 100

42 66.1 57.2 85.8



#10

Heptane

Concen: 0.370 ppbv

RT: 8.10 min Scan# 1654

Delta R.T. -0.00 min

Lab File: VL037742.D

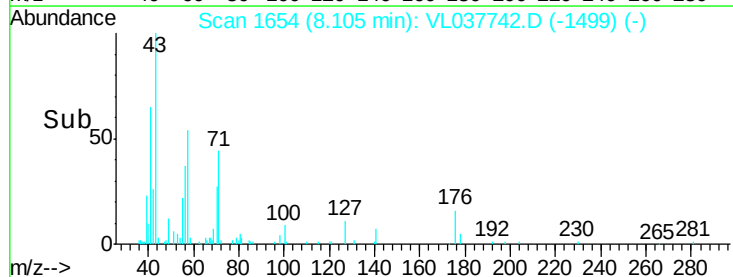
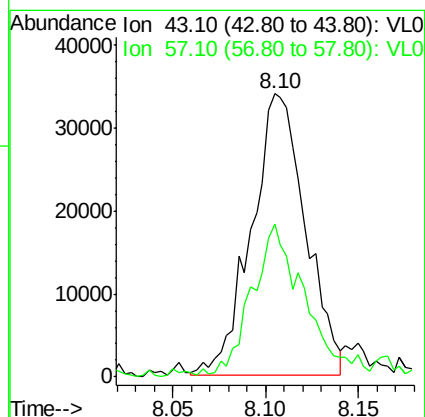
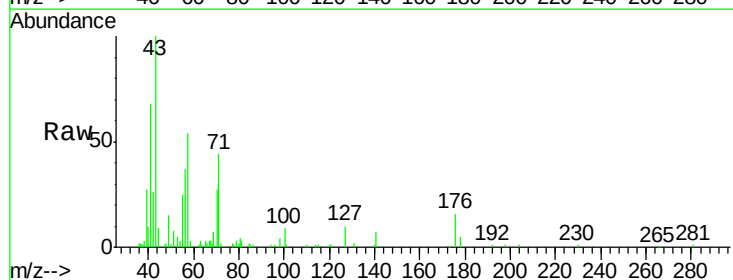
Acq: 1 Oct 2021 15:24

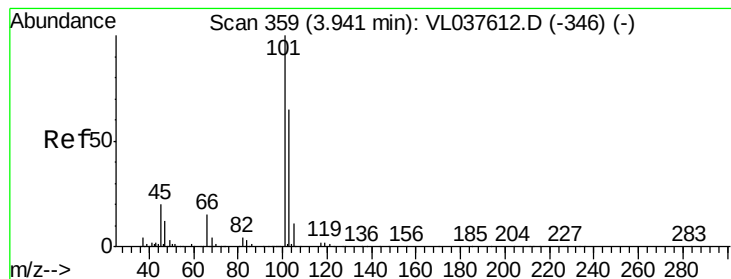
Tgt Ion: 43 Resp: 69048

Ion Ratio Lower Upper

43 100

57 51.6 40.1 60.1





#11

Trichlorofluoromethane

Concen: 0.201 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleId :

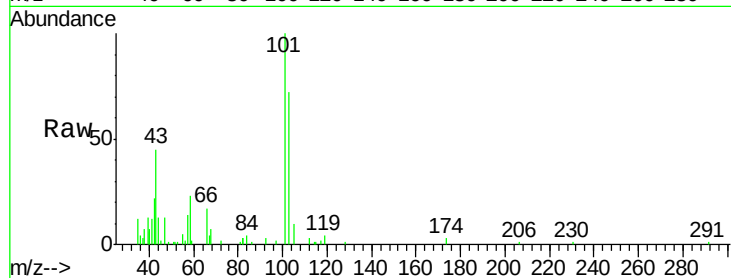
C0P00

Tgt Ion:101 Resp: 35050

Ion Ratio Lower Upper

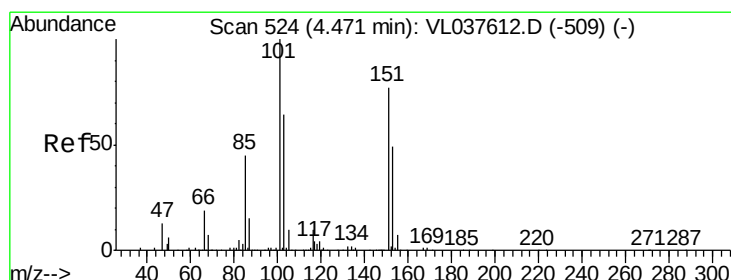
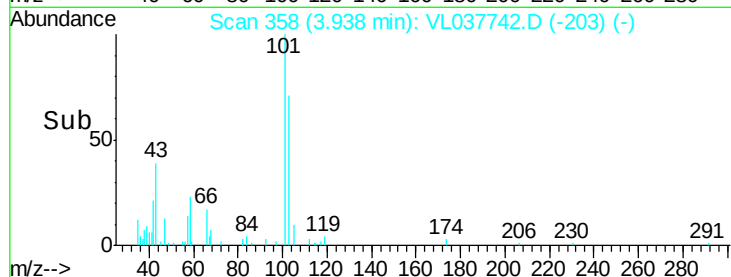
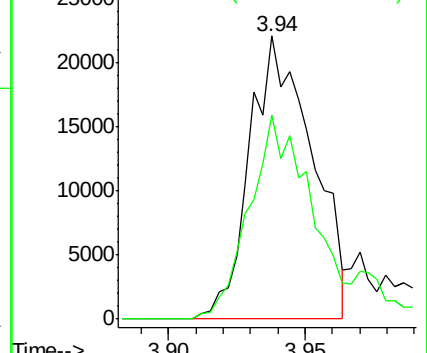
101 100

103 72.1 51.9 77.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.046 ppbv

RT: 4.47 min Scan# 525

Delta R.T. 0.00 min

Lab File: VL037742.D

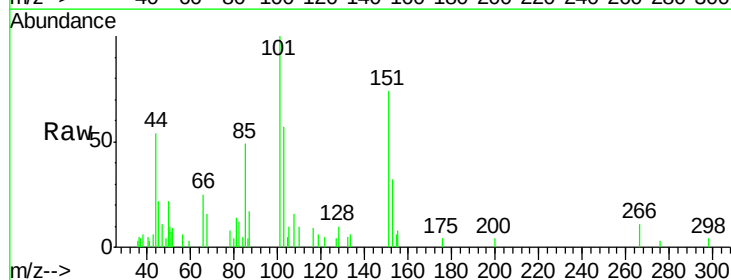
Acq: 1 Oct 2021 15:24

Tgt Ion:101 Resp: 5958

Ion Ratio Lower Upper

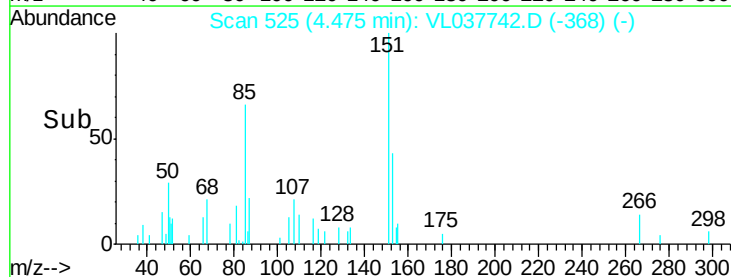
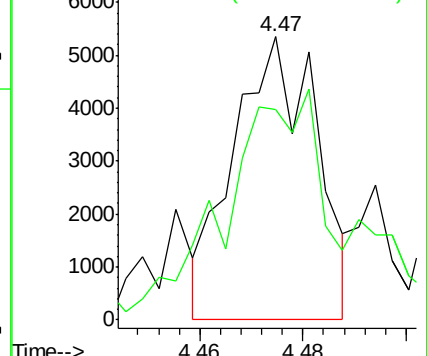
101 100

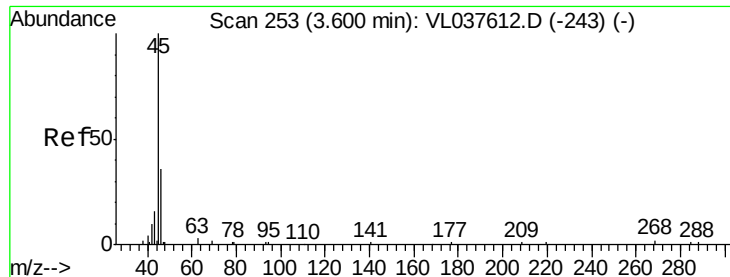
151 121.1 63.5 95.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

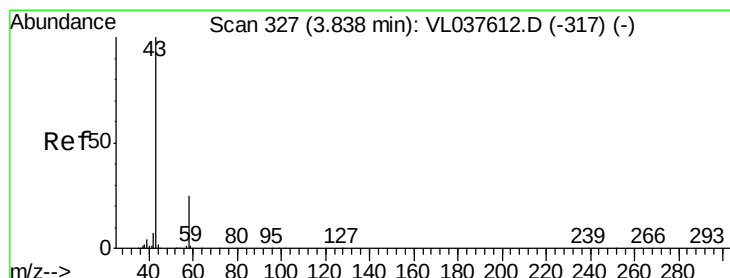
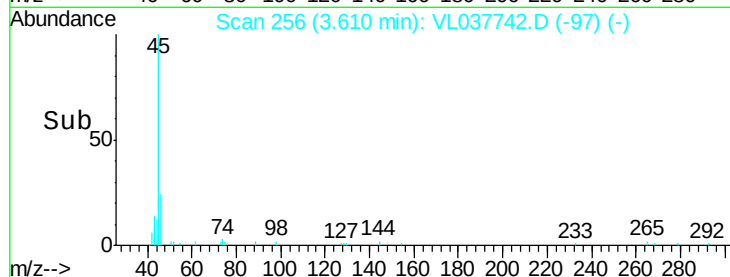
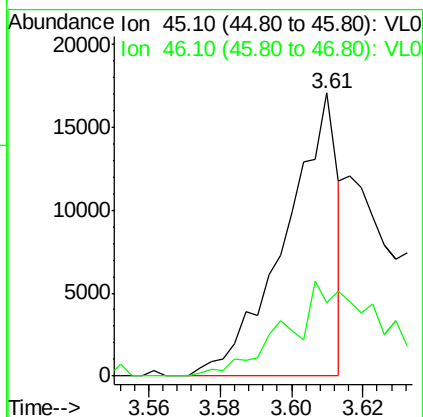
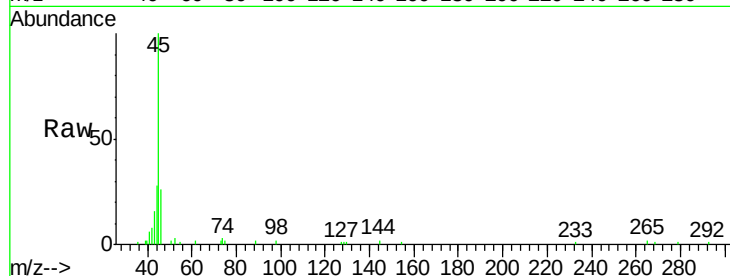




#13
Ethanol
Concen: 2.218 ppbv
RT: 3.61 min Scan# 256
Delta R.T. 0.01 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

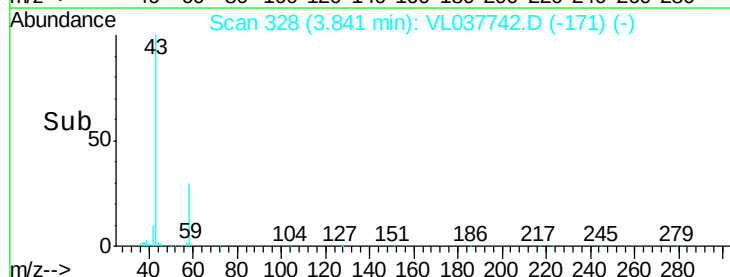
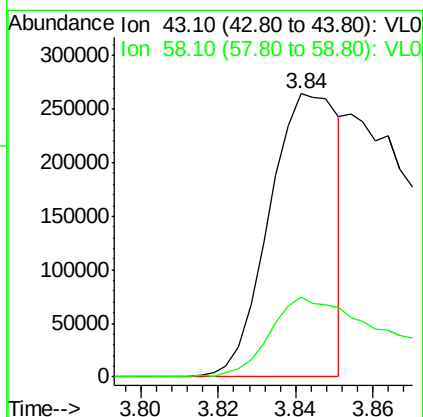
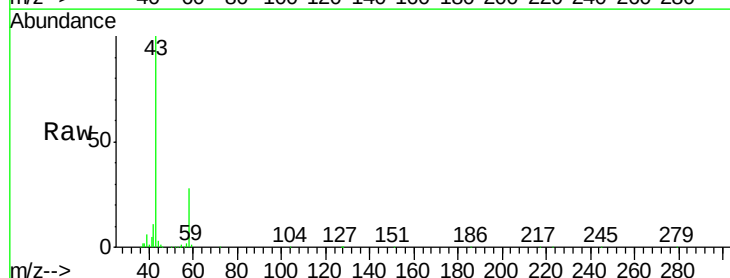
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C0P00

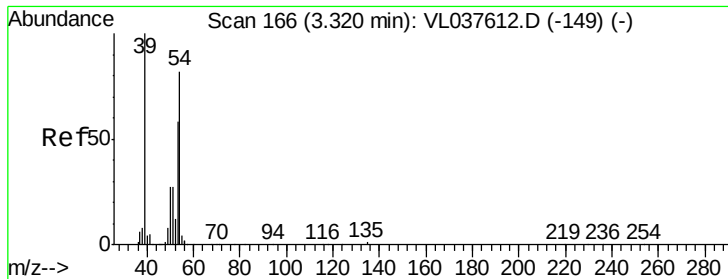
Tgt Ion: 45 Resp: 17332
Ion Ratio Lower Upper
45 100
46 85.4 17.2 68.8#



#15
Acetone
Concen: 2.610 ppbv
RT: 3.84 min Scan# 328
Delta R.T. 0.00 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

Tgt Ion: 43 Resp: 325678
Ion Ratio Lower Upper
43 100
58 61.1 24.9 37.3#

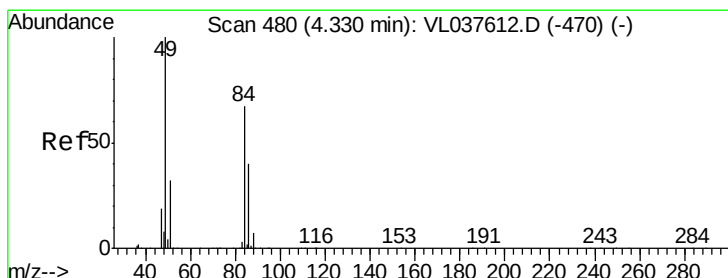
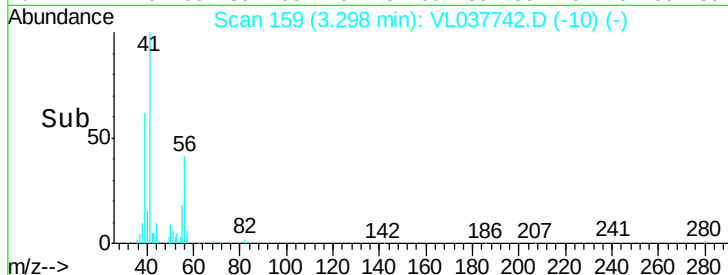
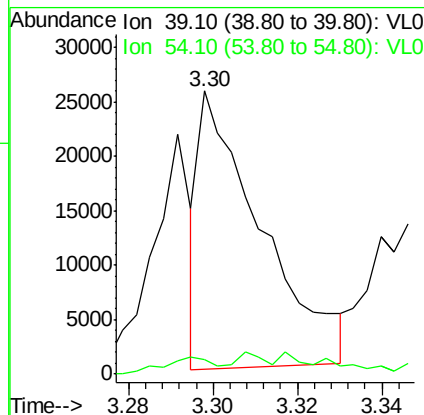
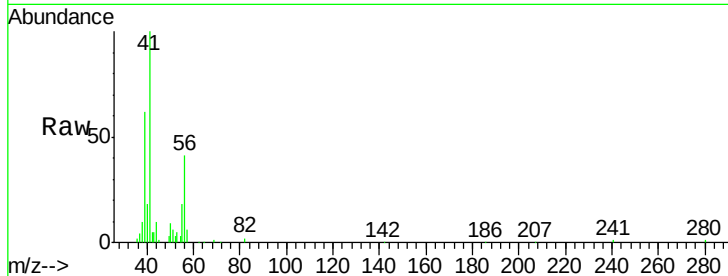




#16
 1,3-Butadiene
 Concen: 0.334 ppbv
 RT: 3.30 min Scan# 159
 Delta R.T. -0.02 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

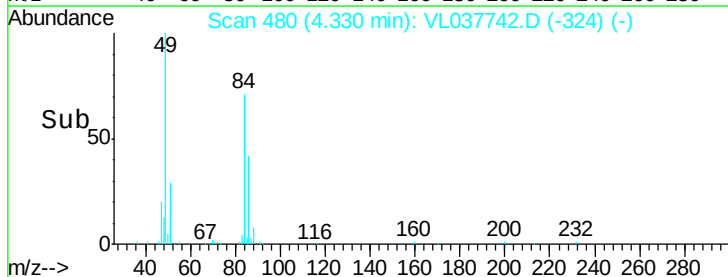
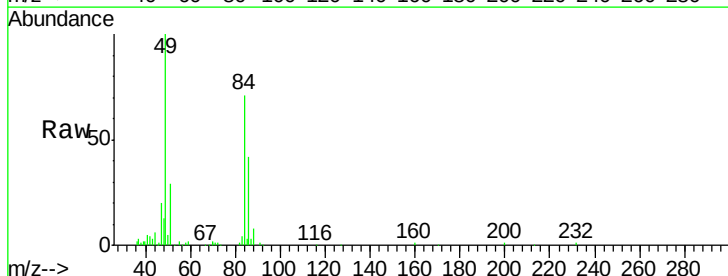
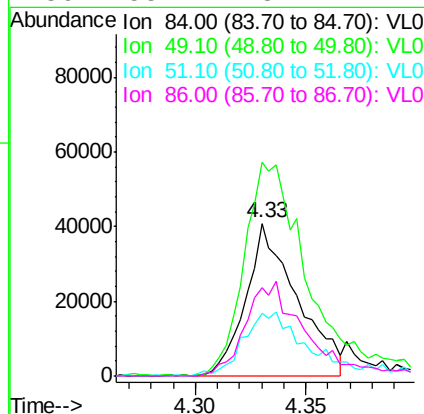
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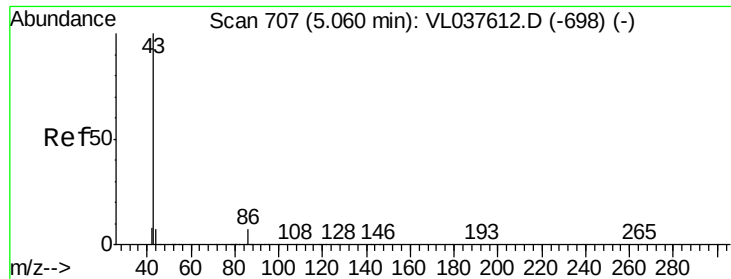
Tgt Ion: 39 Resp: 26070
 Ion Ratio Lower Upper
 39 100
 54 15.8 62.6 93.8#



#20
 Methylene Chloride
 Concen: 1.105 ppbv
 RT: 4.33 min Scan# 480
 Delta R.T. 0.00 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

Tgt Ion: 84 Resp: 65804
 Ion Ratio Lower Upper
 84 100
 49 140.2 120.0 180.0
 51 41.2 38.0 57.0
 86 58.4 48.2 72.2

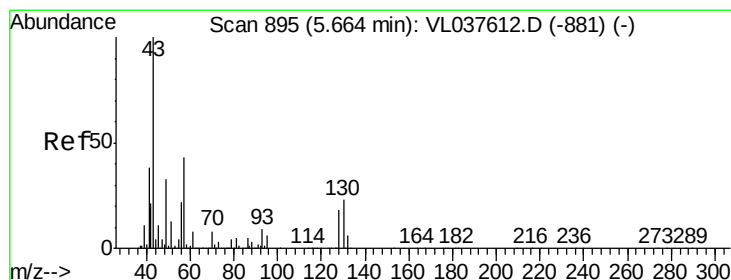
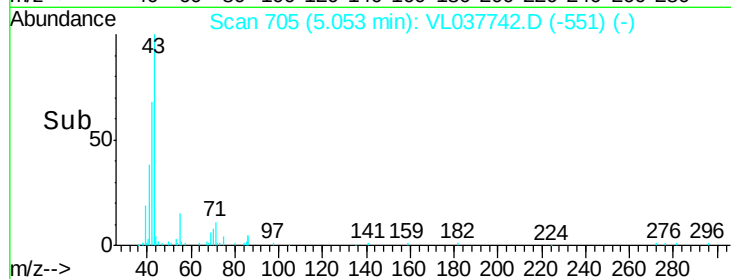
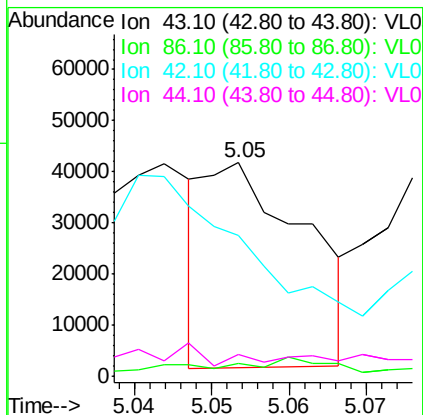
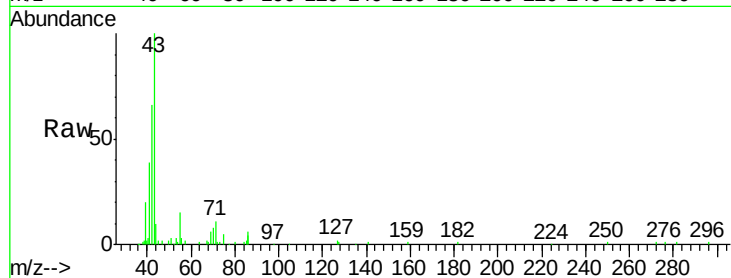




#23
 Vinyl Acetate
 Concen: 0.208 ppbv
 RT: 5.05 min Scan# 705
 Delta R.T. -0.01 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

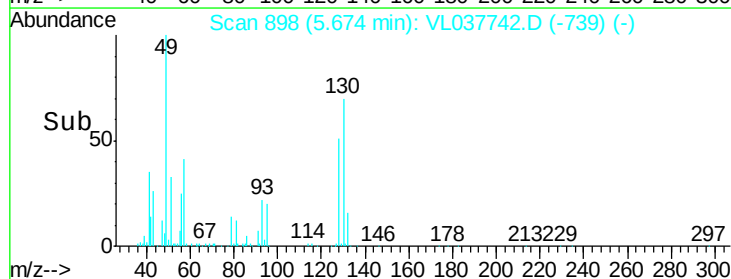
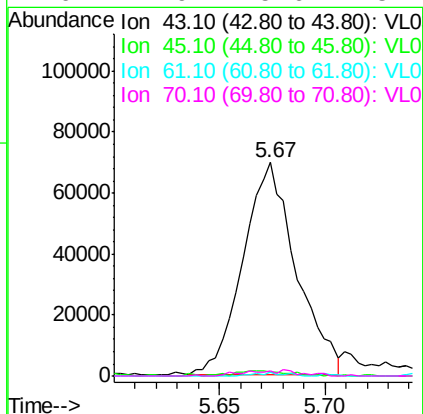
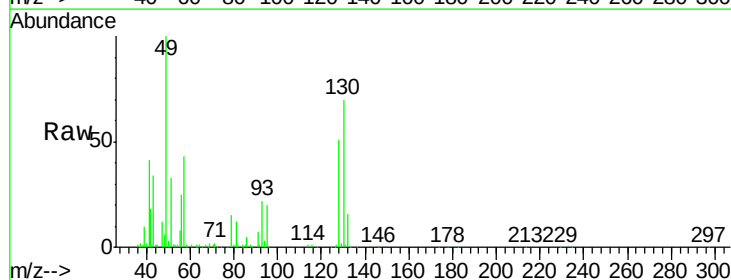
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P00

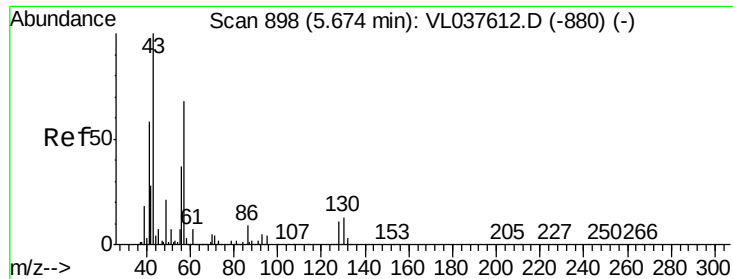
Tgt Ion:	43	Resp:	35838
Ion	Ratio	Lower	Upper
43	100		
86	1.3	5.0	7.6#
42	69.9	7.5	11.3#
44	7.1	4.7	7.1#



#25
 Ethyl Acetate
 Concen: 0.403 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. 0.01 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

Tgt Ion:	43	Resp:	121728
Ion	Ratio	Lower	Upper
43	100		
45	3.2	8.0	12.0#
61	1.0	7.5	11.3#
70	2.9	5.6	8.4#

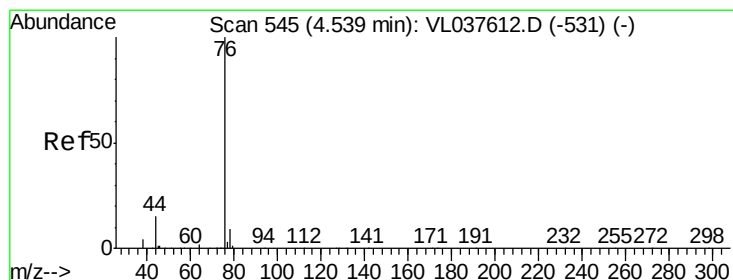
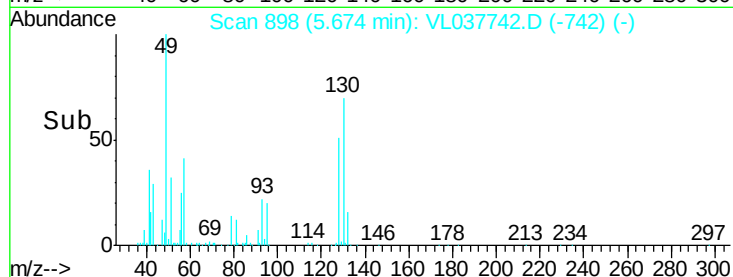
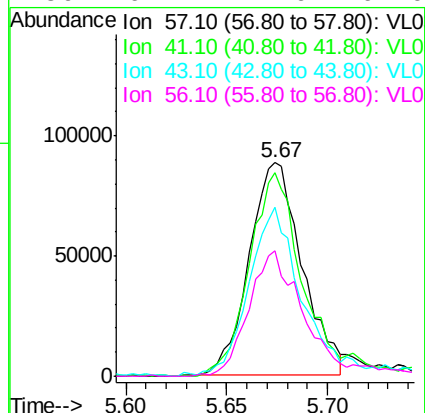
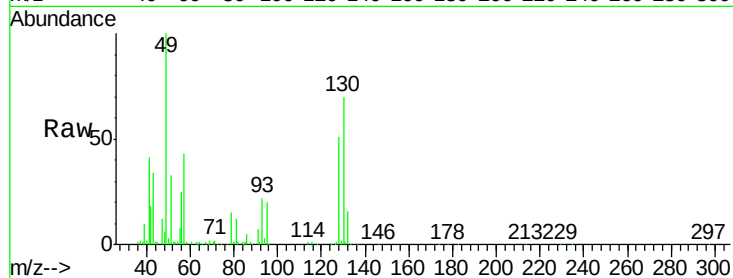




#26
Hexane
Concen: 1.131 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.00 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

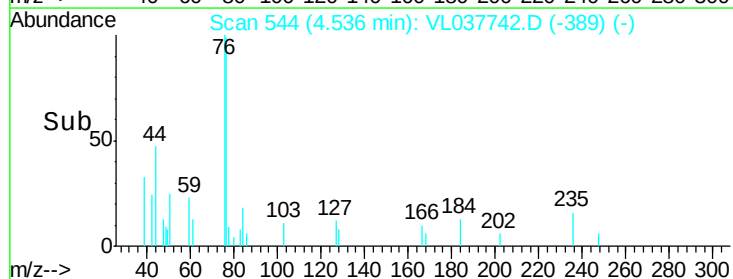
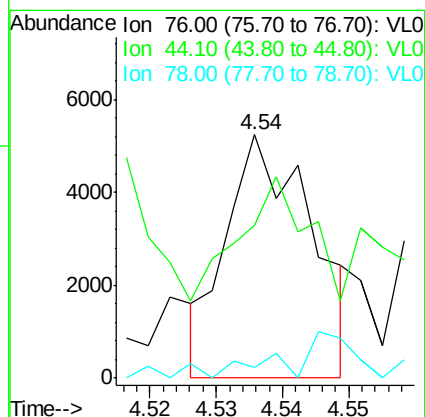
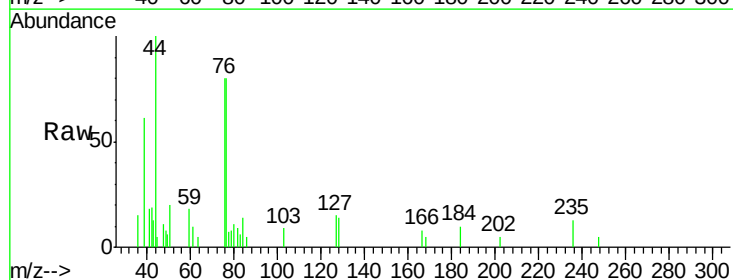
Instrument :
MSVOA_L
ClientSampleId :
C0P00

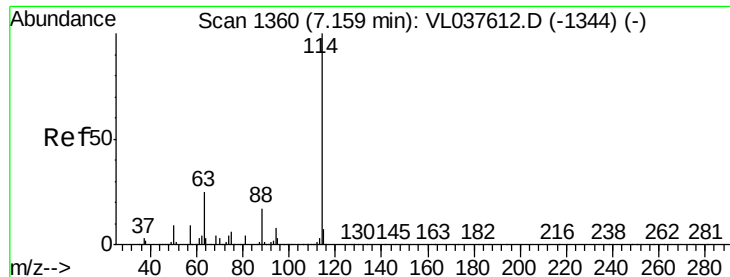
Tgt Ion: 57 Resp: 162342
Ion Ratio Lower Upper
57 100
41 101.6 70.9 106.3
43 84.9 170.4 255.6#
56 64.7 42.6 64.0#



#27
Carbon Disulfide
Concen: 0.036 ppbv
RT: 4.54 min Scan# 544
Delta R.T. -0.00 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

Tgt Ion: 76 Resp: 4688
Ion Ratio Lower Upper
76 100
44 90.6 14.2 21.2#
78 6.0 7.4 11.0#

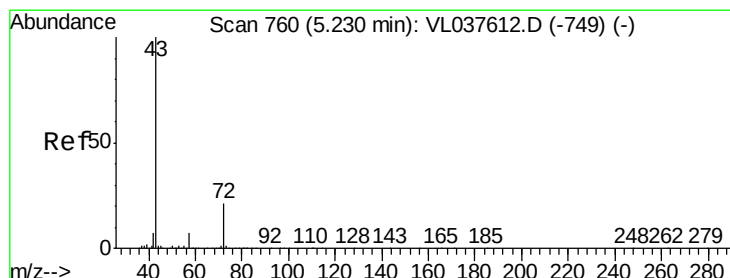
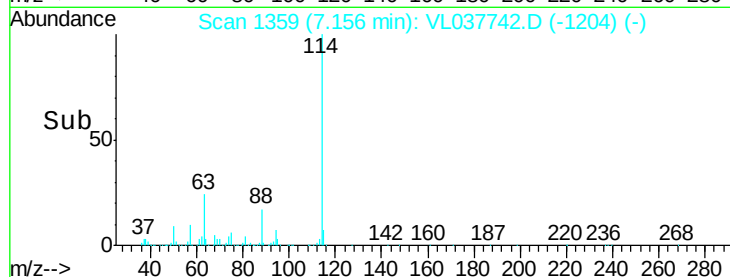
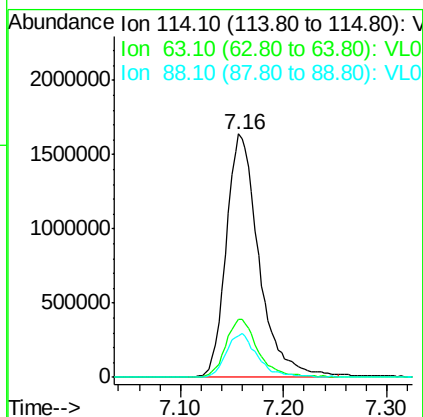
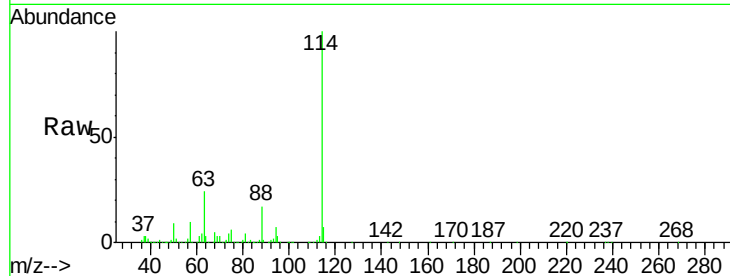




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.00 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

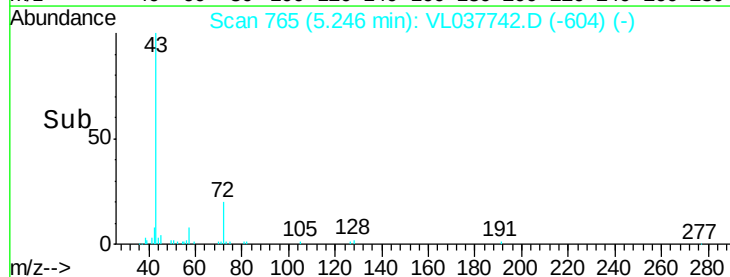
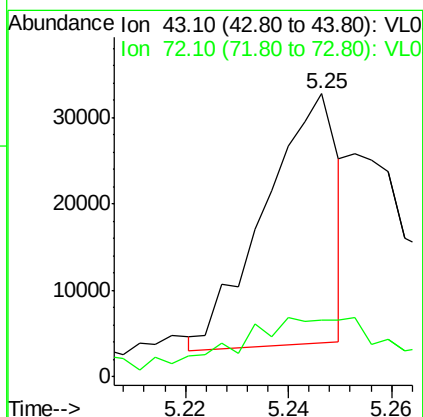
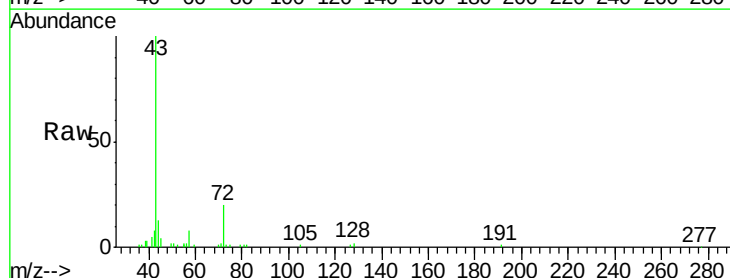
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P00

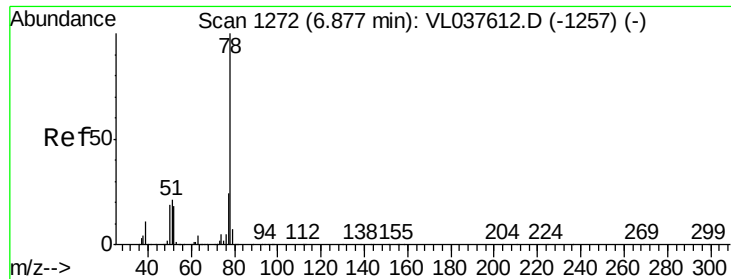
Tgt Ion: 114 Resp: 3635839
 Ion Ratio Lower Upper
 114 100
 63 24.0 19.6 29.4
 88 17.7 14.2 21.4



#34
 2-Butanone
 Concen: 0.192 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. 0.02 min
 Lab File: VL037742.D
 Acq: 1 Oct 2021 15:24

Tgt Ion: 43 Resp: 28349
 Ion Ratio Lower Upper
 43 100
 72 0.0 18.4 27.6#

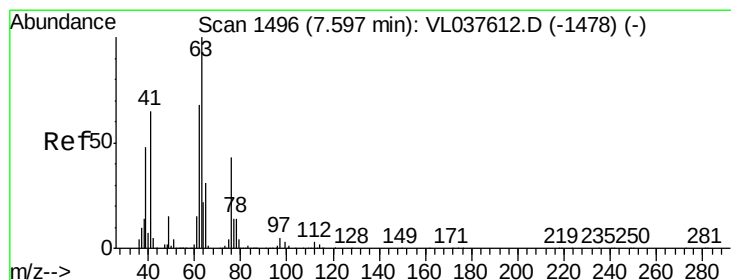
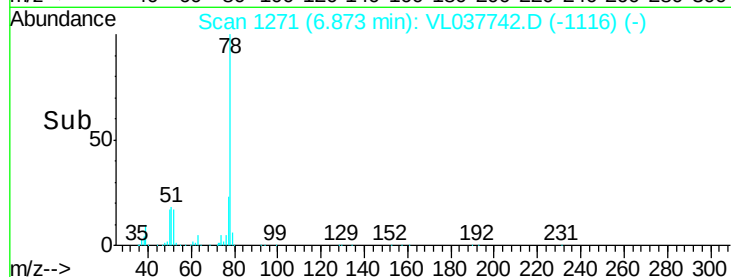
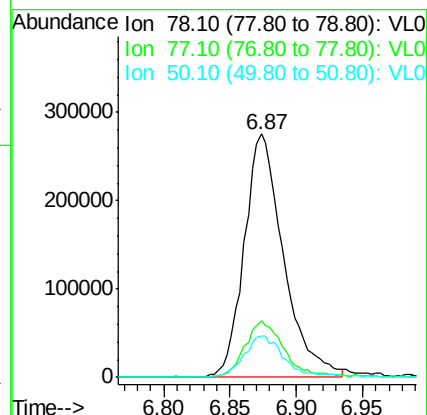
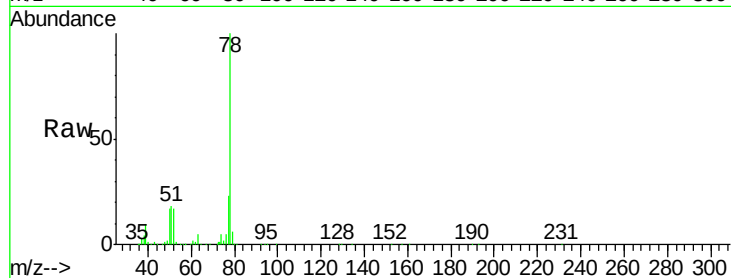




#36
Benzene
Concen: 1.879 ppbv
RT: 6.87 min Scan# 1271
Delta R.T. -0.00 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

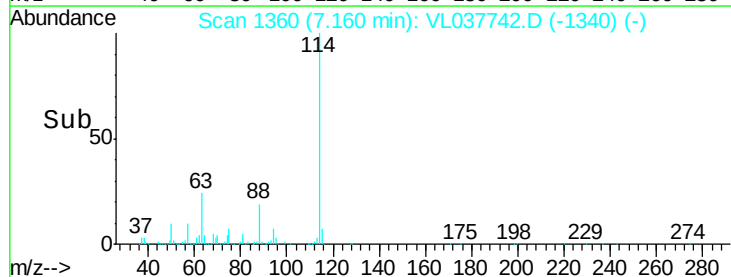
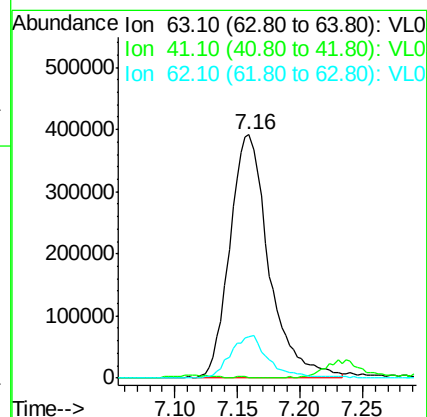
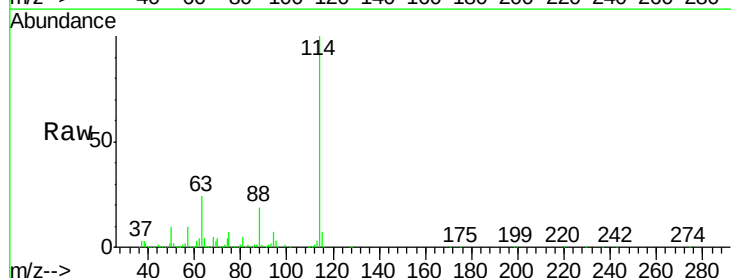
Instrument :
MSVOA_L
ClientSampleId :
C0P00

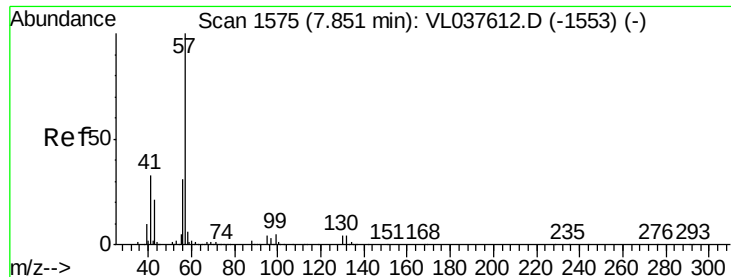
Tgt Ion: 78 Resp: 569632
Ion Ratio Lower Upper
78 100
77 23.0 19.0 28.4
50 16.9 14.8 22.2



#39
1,2-Dichloropropane
Concen: 7.257 ppbv
RT: 7.16 min Scan# 1360
Delta R.T. -0.44 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

Tgt Ion: 63 Resp: 842743
Ion Ratio Lower Upper
63 100
41 0.0 51.6 77.4#
62 17.0 54.6 81.8#





#44

2,2,4-Trimethylpentane

Concen: 0.253 ppbv

RT: 7.85 min Scan# 1574

Delta R.T. -0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleID :

C0P00

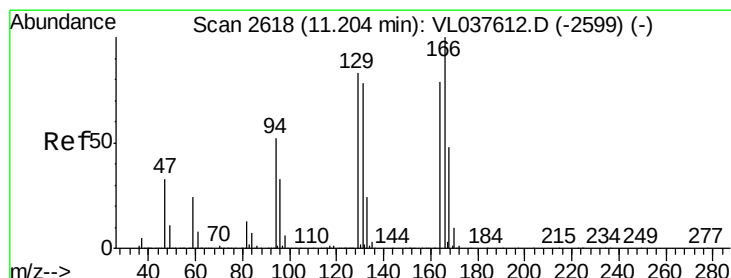
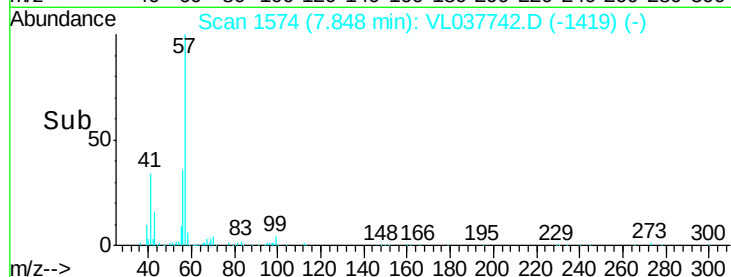
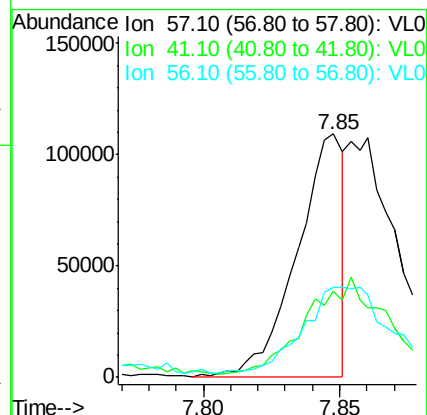
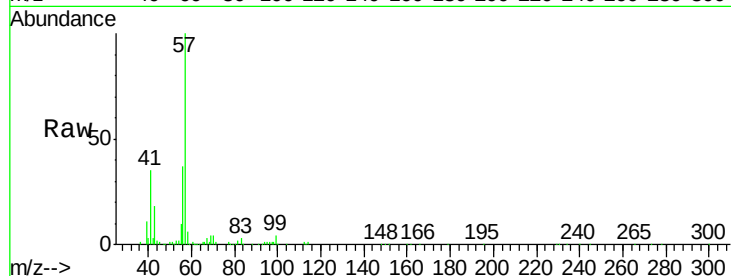
Tgt Ion: 57 Resp: 128735

Ion Ratio Lower Upper

57 100

41 77.8 26.1 39.1#

56 80.7 25.7 38.5#



#52

Tetrachloroethene

Concen: 0.038 ppbv

RT: 11.20 min Scan# 2618

Delta R.T. 0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Tgt Ion: 164 Resp: 4429

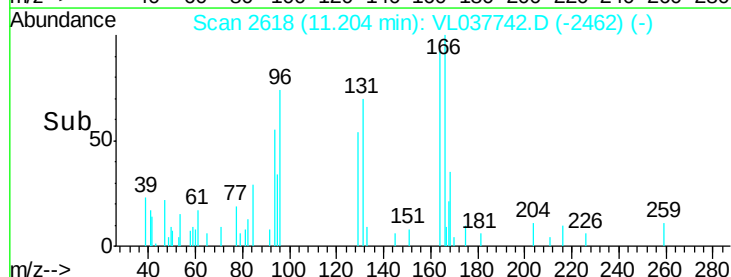
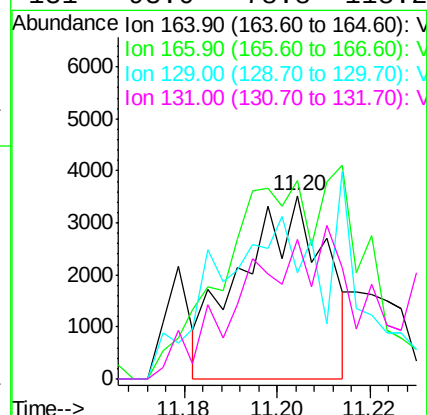
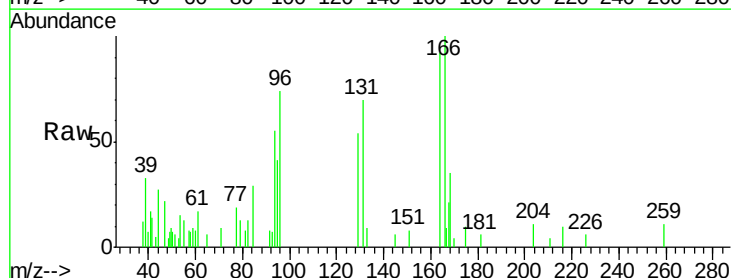
Ion Ratio Lower Upper

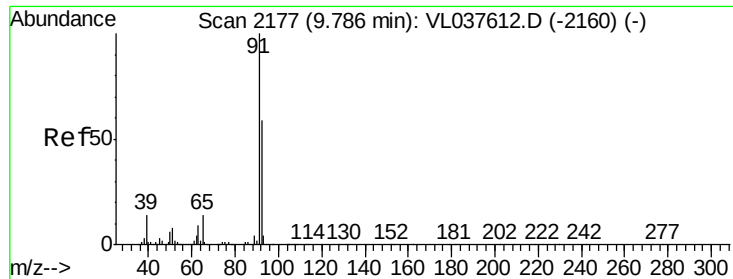
164 100

166 109.9 101.2 151.8

129 42.3 84.0 126.0#

131 93.0 78.8 118.2





#53

Toluene

Concen: 1.235 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. 0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleId :

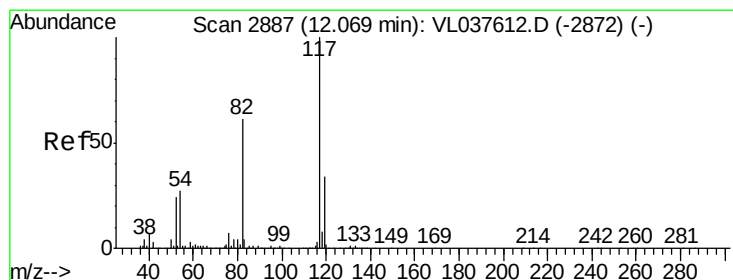
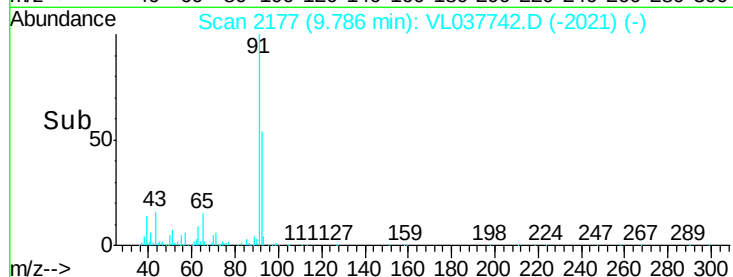
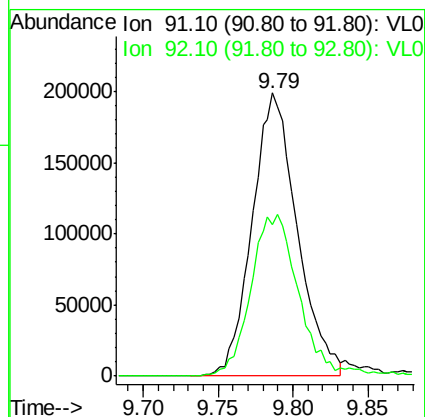
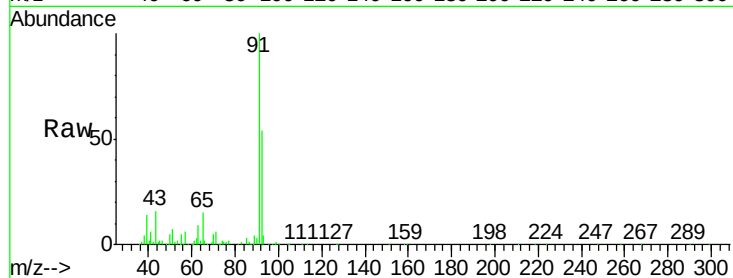
C0P00

Tgt Ion: 91 Resp: 416355

Ion Ratio Lower Upper

91 100

92 61.6 48.9 73.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2885

Delta R.T. -0.01 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

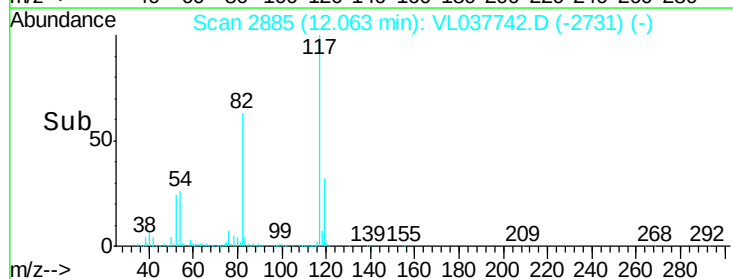
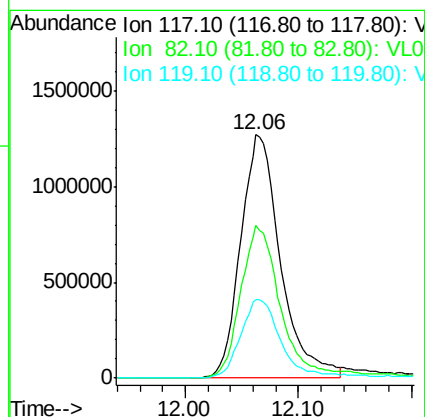
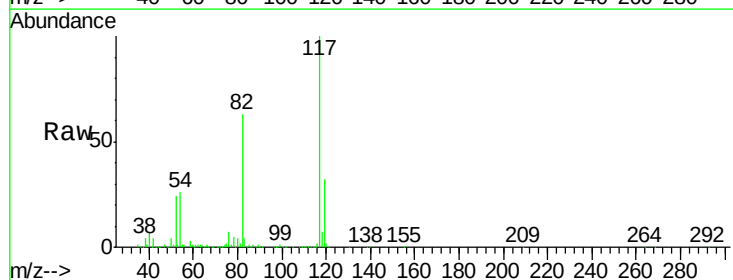
Tgt Ion: 117 Resp: 3114742

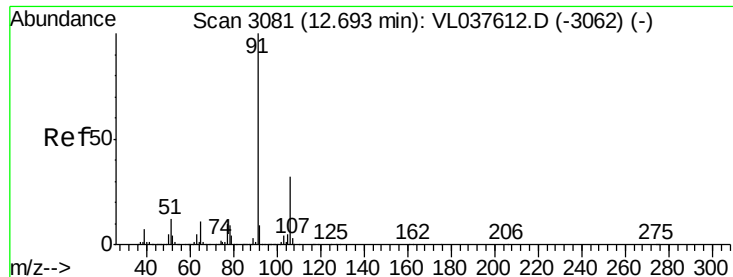
Ion Ratio Lower Upper

117 100

82 67.3 50.6 75.8

119 34.3 26.2 39.2





#58

Ethyl Benzene

Concen: 0.075 ppbv

RT: 12.70 min Scan# 3082

Delta R.T. 0.00 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleId :

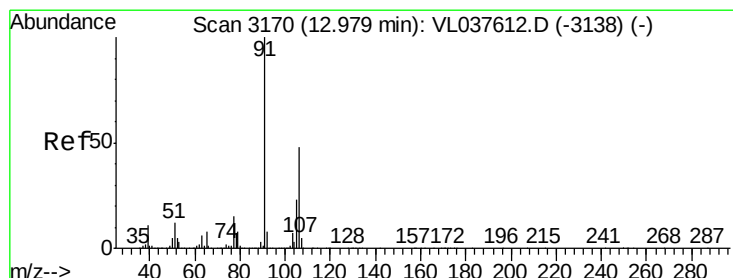
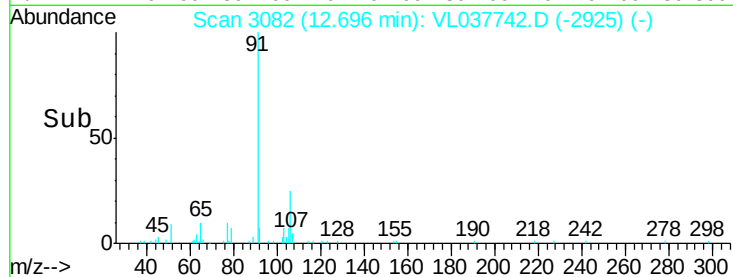
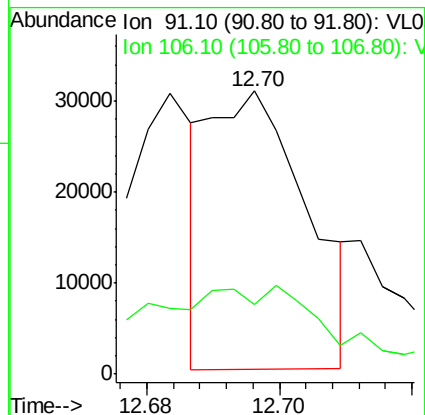
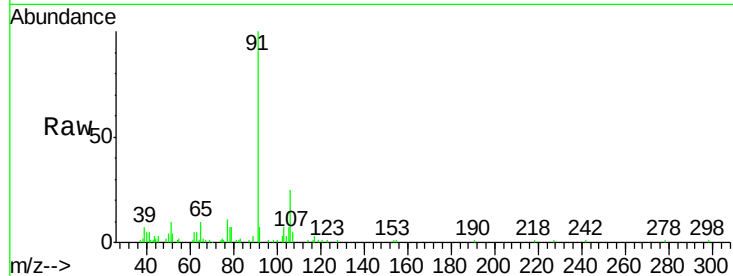
C0P00

Tgt Ion: 91 Resp: 30935

Ion Ratio Lower Upper

91 100

106 27.7 25.3 37.9



#59

m/p-Xylene

Concen: 0.121 ppbv

RT: 12.95 min Scan# 3162

Delta R.T. -0.03 min

Lab File: VL037742.D

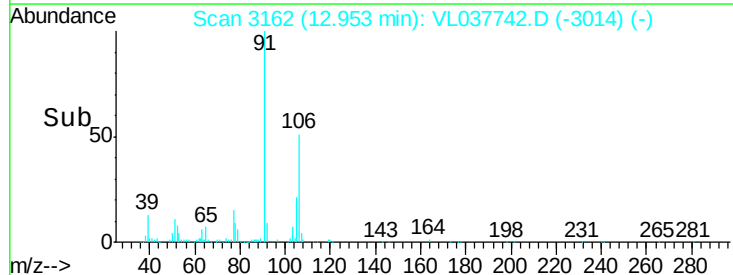
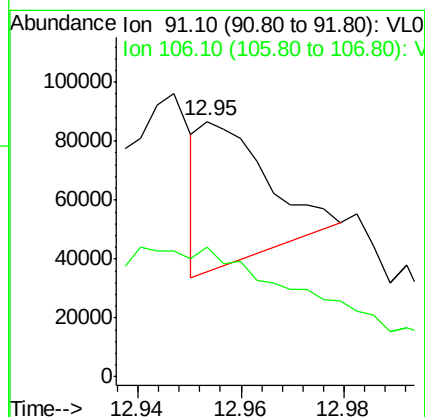
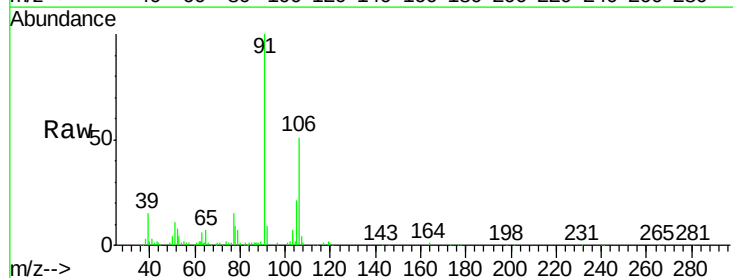
Acq: 1 Oct 2021 15:24

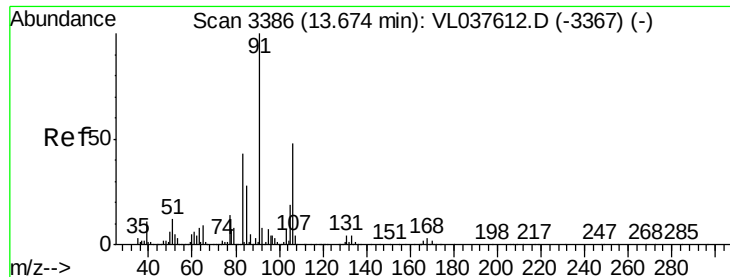
Tgt Ion: 91 Resp: 43707

Ion Ratio Lower Upper

91 100

106 0.0 36.6 55.0#

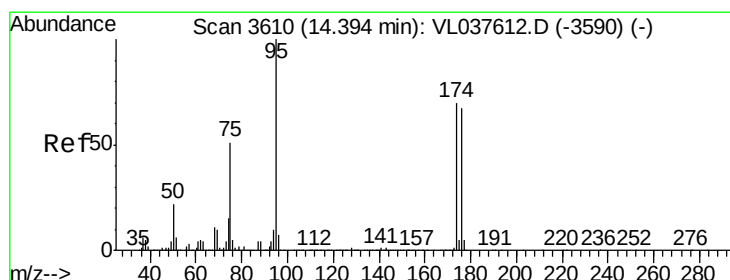
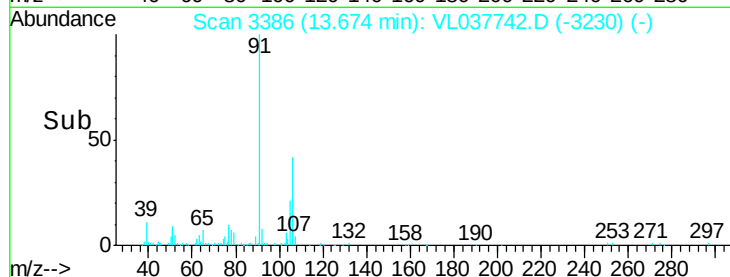
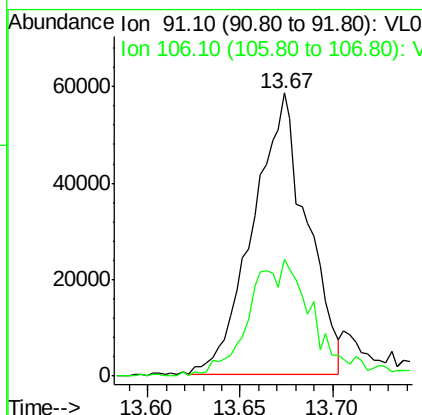
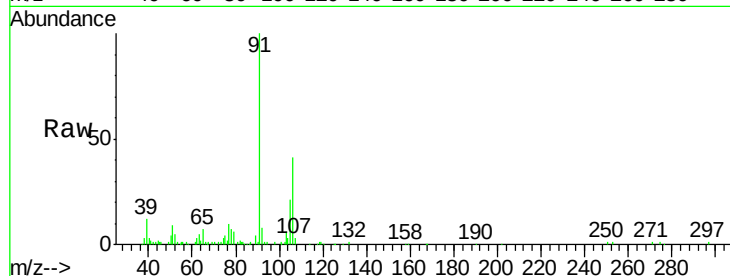




#60
o-Xylene
Concen: 0.346 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. 0.00 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

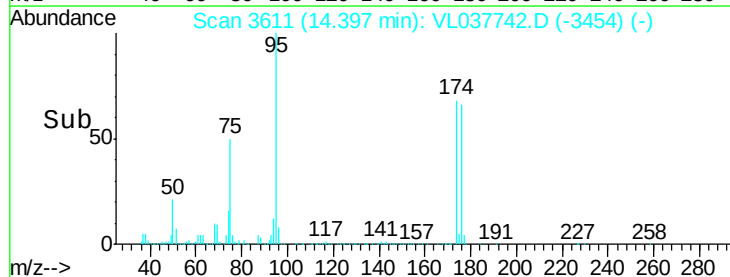
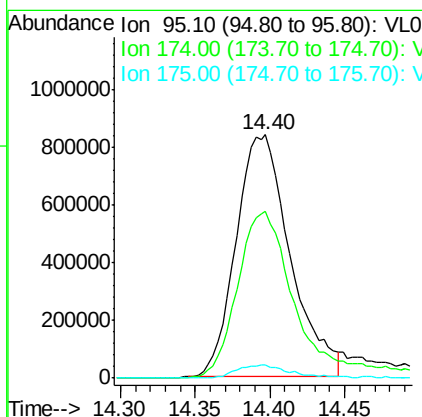
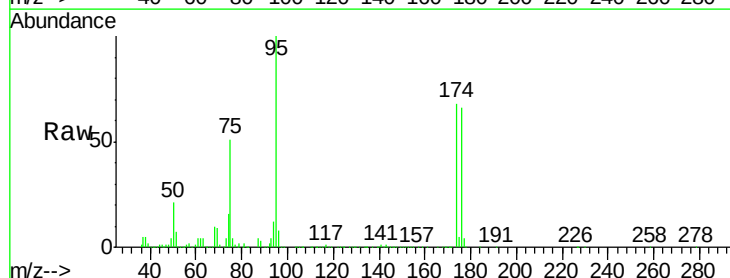
Instrument :
MSVOA_L
ClientSampleId :
C0P00

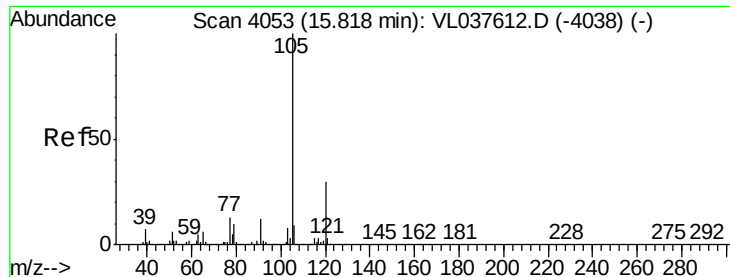
Tgt Ion: 91 Resp: 118499
Ion Ratio Lower Upper
91 100
106 50.4 23.0 69.0



#68
1-Bromo-4-Fluorobenzene
Concen: 9.368 ppbv
RT: 14.40 min Scan# 3611
Delta R.T. 0.00 min
Lab File: VL037742.D
Acq: 1 Oct 2021 15:24

Tgt Ion: 95 Resp: 2108753
Ion Ratio Lower Upper
95 100
174 79.3 56.3 84.5
175 5.7 4.4 6.6





#72

4-Ethyltoluene

Concen: 0.042 ppbv

RT: 15.81 min Scan# 4051

Delta R.T. -0.01 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

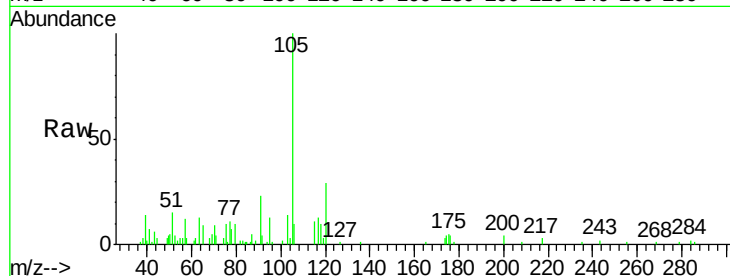
Instrument :

MSVOA_L

ClientSampleId :

C0P00

Tgt Ion:	105	Resp:	16427
Ion Ratio	Lower	Upper	
105	100		
120	0.0	24.7	37.1#
91	0.0	9.9	14.9#
77	0.0	10.5	15.7#

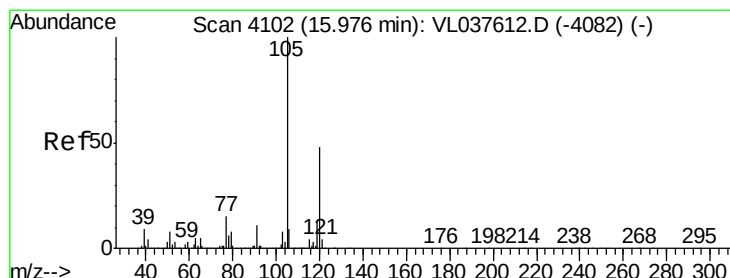
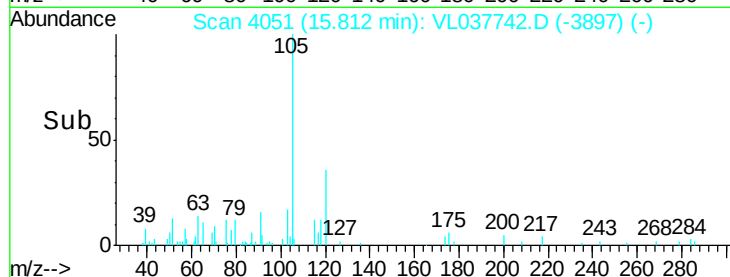
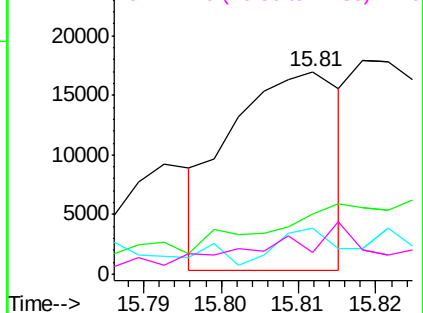


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#73

1,3,5-Trimethylbenzene

Concen: 0.044 ppbv

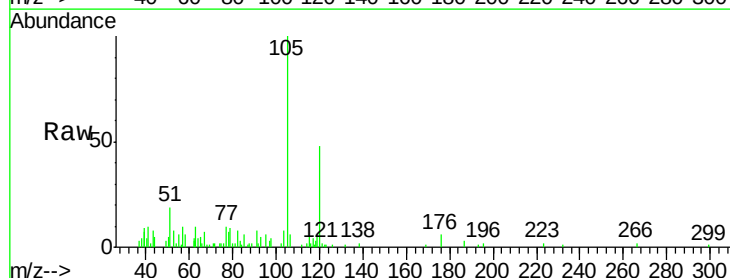
RT: 15.97 min Scan# 4099

Delta R.T. -0.01 min

Lab File: VL037742.D

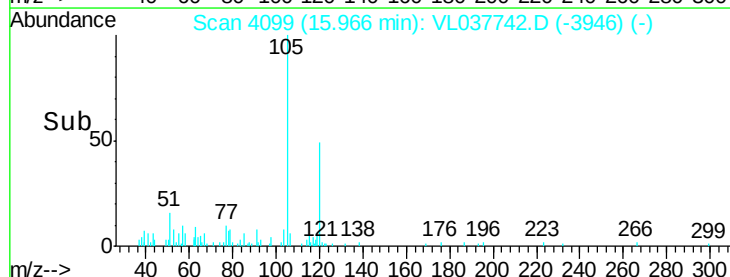
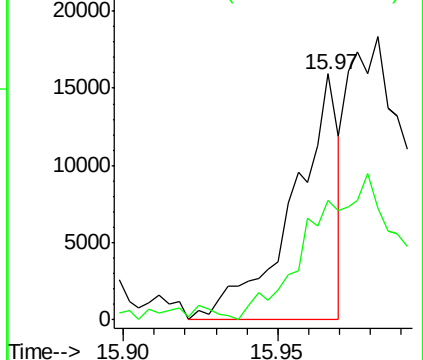
Acq: 1 Oct 2021 15:24

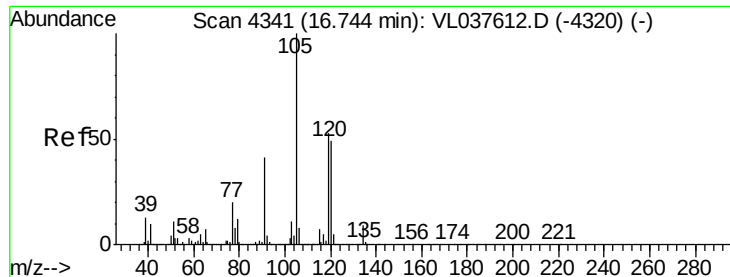
Tgt Ion:	105	Resp:	16278
Ion Ratio	Lower	Upper	
105	100		
120	48.8	38.3	57.5



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74

1,2,4-Trimethylbenzene

Concen: 0.199 ppbv

RT: 16.73 min Scan# 4338

Delta R.T. -0.01 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Instrument :

MSVOA_L

ClientSampleId :

C0P00

Tgt Ion:105 Resp: 76942

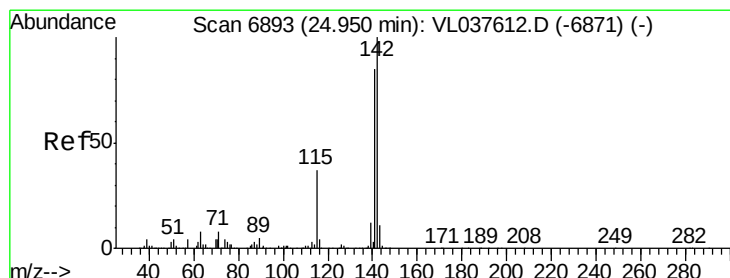
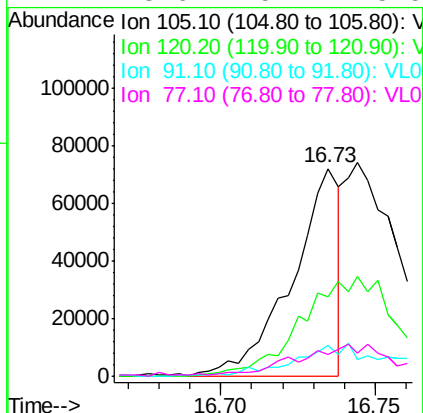
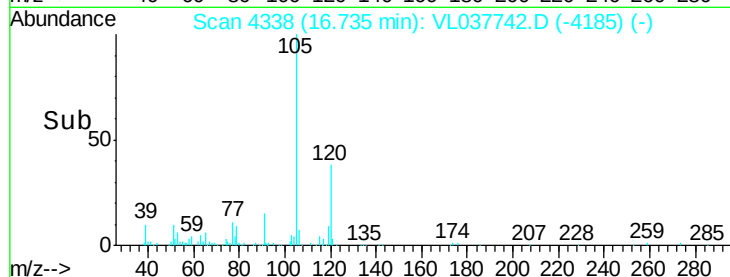
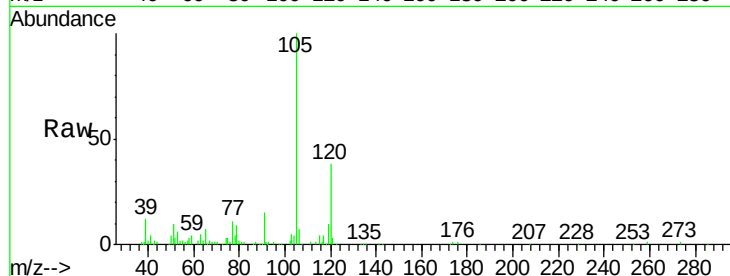
Ion Ratio Lower Upper

105 100

120 38.1 39.4 59.0#

91 14.6 33.3 49.9#

77 8.6 15.7 23.5#



#80

Naphthalene, 2-methyl-

Concen: 0.069 ppbv

RT: 24.96 min Scan# 6895

Delta R.T. 0.01 min

Lab File: VL037742.D

Acq: 1 Oct 2021 15:24

Tgt Ion:142 Resp: 3764

Ion Ratio Lower Upper

142 100

141 94.1 70.9 106.3

115 38.0 29.6 44.4

