

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090921\
 Data File : VL037597.D
 Acq On : 9 Sep 2021 14:03
 Operator : SY/AP
 Sample : M3663-05DL 20X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 10 01:32:46 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Aug 17 02:13:47 2021
 QLast Update : Tue Aug 17 02:13:47 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1559476	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	4467836	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	3912168	10.00	ppbv	0.04

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.43	95	2740985	9.86	ppbv	0.04	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.60%	

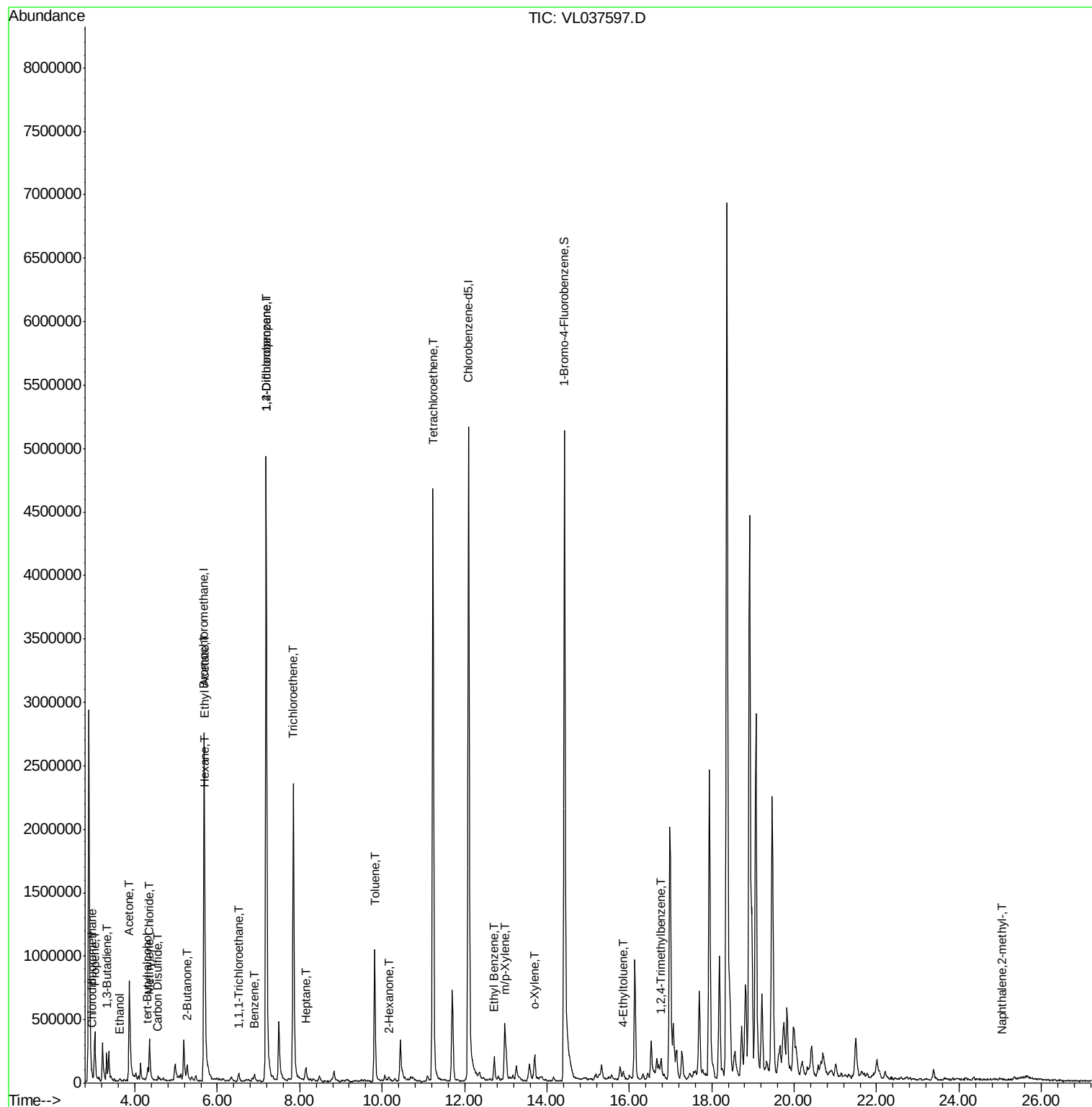
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.97	51	33066	0.111	ppbv #	72
9) Propene	3.02	41	158957	1.488	ppbv	87
10) Heptane	8.14	43	14168	0.058	ppbv #	6
13) Ethanol	3.62	45	6305	0.606	ppbv #	39
15) Acetone	3.86	43	1153659	7.269	ppbv	95
16) 1,3-Butadiene	3.31	39	64024	0.629	ppbv #	23
17) tert-Butyl alcohol	4.31	59	38328	0.264	ppbv #	72
20) Methylene Chloride	4.36	84	113169	1.424	ppbv	95
25) Ethyl Acetate	5.69	43	100926	0.250	ppbv #	80
26) Hexane	5.70	57	144458	0.733	ppbv #	47
27) Carbon Disulfide	4.56	76	12654	0.072	ppbv #	1
32) 1,1,1-Trichloroethane	6.53	97	8351	0.030	ppbv #	1
34) 2-Butanone	5.26	43	152639	0.837	ppbv #	74
36) Benzene	6.90	78	23031	0.061	ppbv #	94
38) Trichloroethene	7.84	130	879579	5.708	ppbv	93
39) 1,2-Dichloropropane	7.19	63	1049750	7.274	ppbv #	27
51) 2-Hexanone	10.15	43	4181	0.038	ppbv #	27
52) Tetrachloroethene	11.24	164	1329513	8.638	ppbv	98
53) Toluene	9.82	91	883843	2.061	ppbv	100
58) Ethyl Benzene	12.72	91	162273	0.299	ppbv	94
59) m/p-Xylene	13.01	91	112938	0.240	ppbv #	30
60) o-Xylene	13.70	91	151476	0.345	ppbv	99
72) 4-Ethyltoluene	15.85	105	18985	0.036	ppbv #	14
74) 1,2,4-Trimethylbenzene	16.78	105	25705	0.050	ppbv #	57
80) Naphthalene,2-methyl-	25.05	142	3411	0.035	ppbv #	81

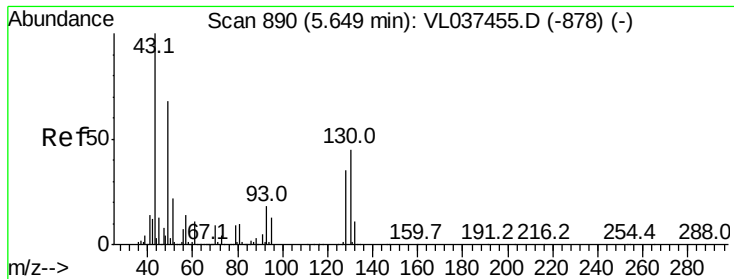
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.03 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

ClientSampleId :

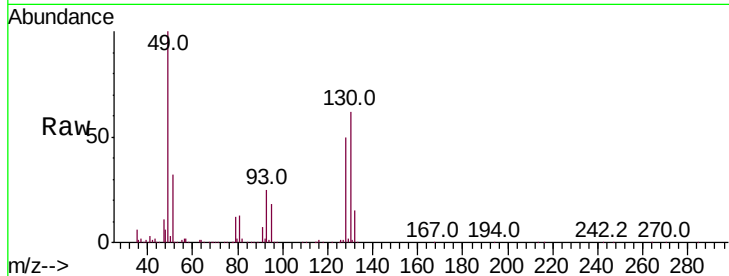
Tot Ion: 49 Resp: 1559476

Ion Ratio Lower Upper

49 100

128 52.2 27.5 82.4

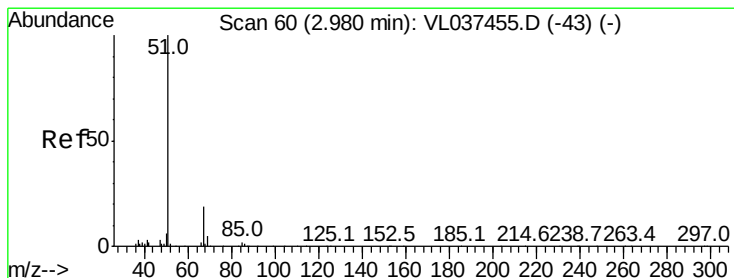
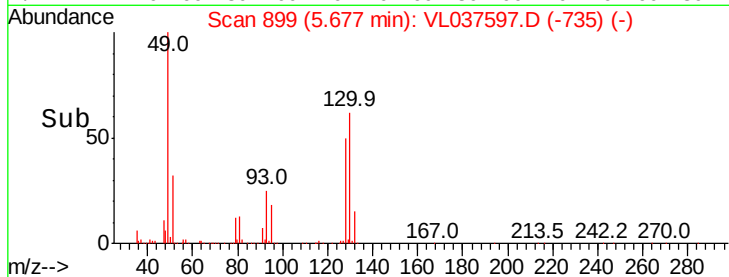
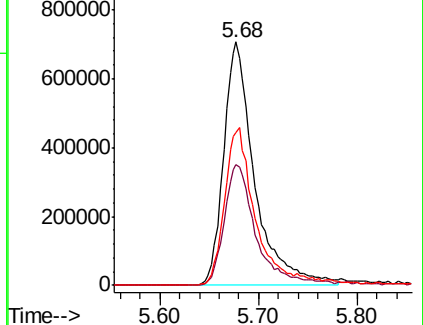
130 66.4 34.0 101.8



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



#3

Chlorodifluoromethane

Concen: 0.111 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL037597.D

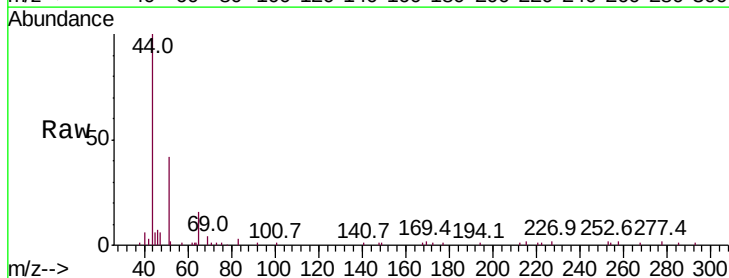
Acq: 9 Sep 2021 14:03

Tgt Ion: 51 Resp: 33066

Ion Ratio Lower Upper

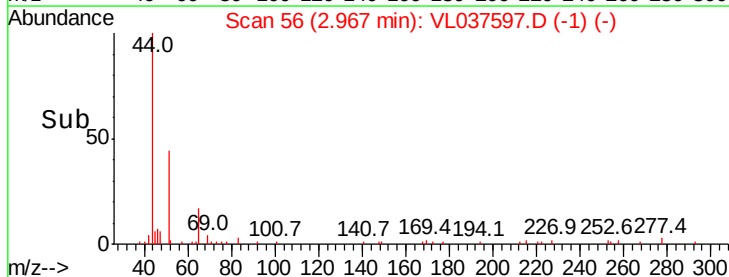
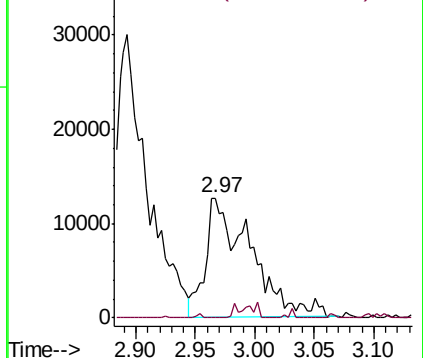
51 100

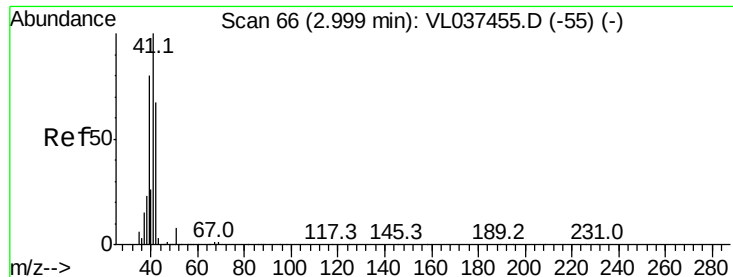
67 5.2 14.2 21.2#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 1.488 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.02 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

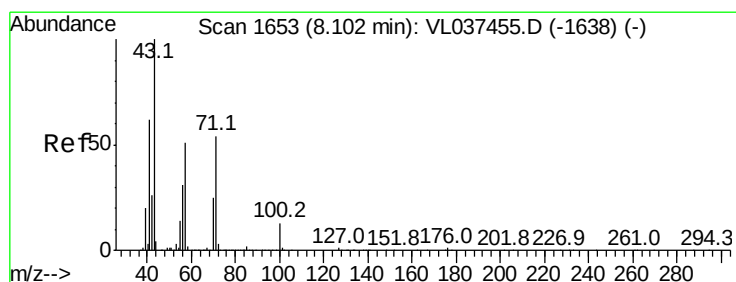
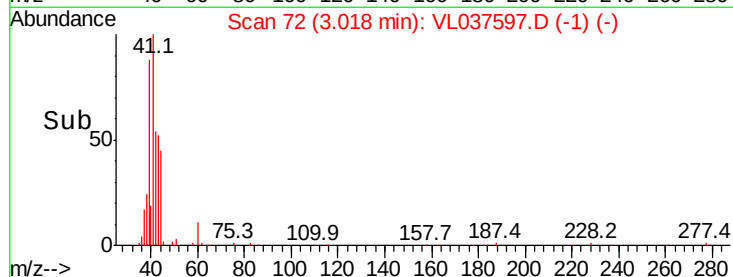
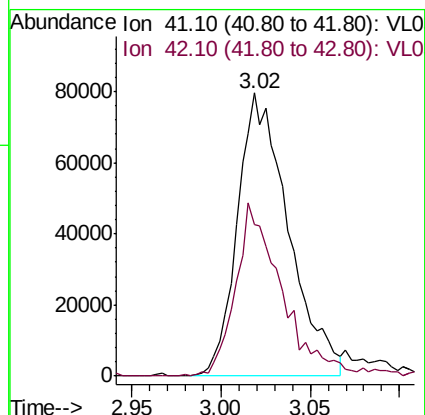
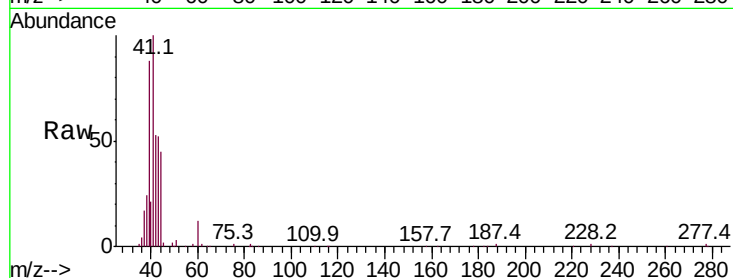
ClientSampleId :

Tot Ion: 41 Resp: 158957

Ion Ratio Lower Upper

41 100

42 56.4 53.7 80.5



#10

Heptane

Concen: 0.058 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.04 min

Lab File: VL037597.D

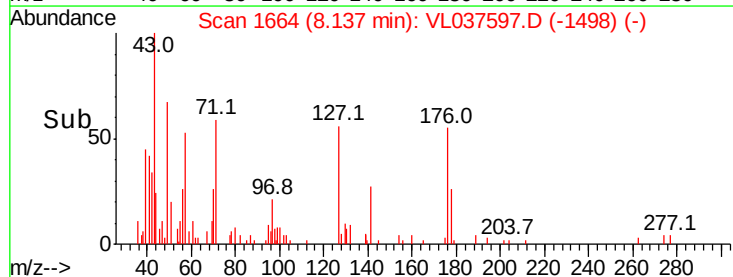
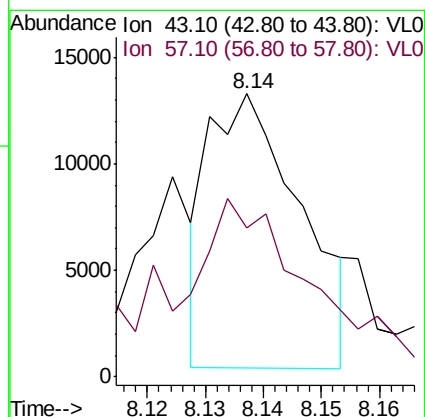
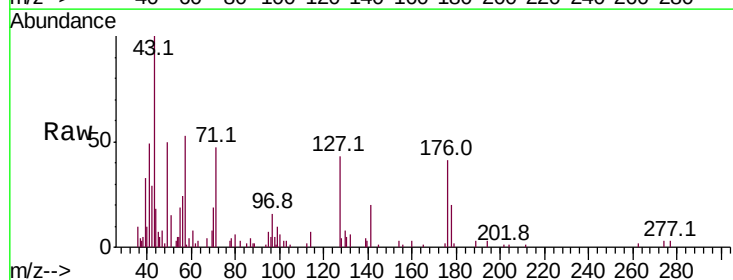
Acq: 9 Sep 2021 14:03

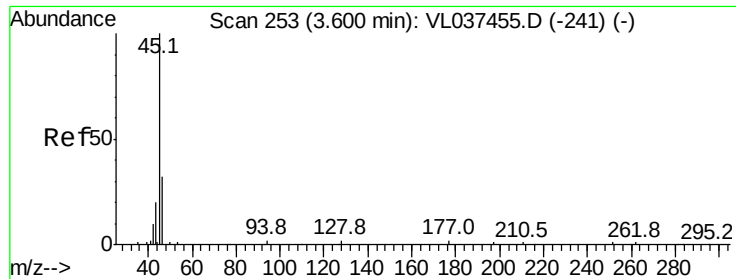
Tgt Ion: 43 Resp: 14168

Ion Ratio Lower Upper

43 100

57 117.0 41.0 61.6#

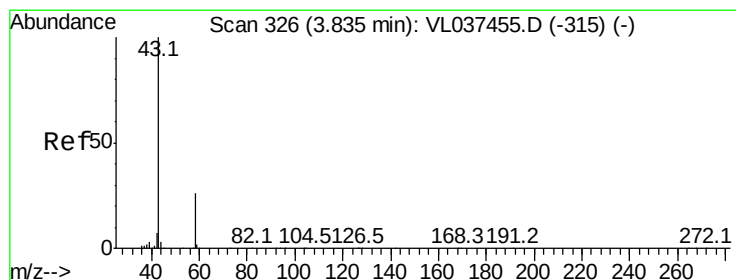
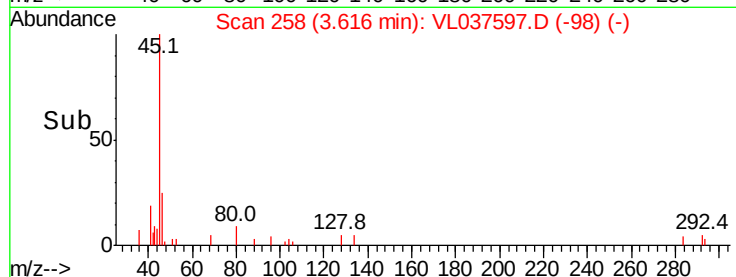
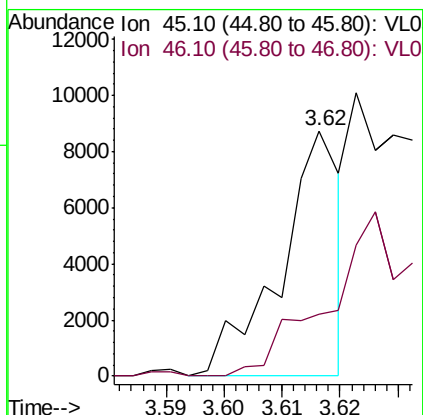
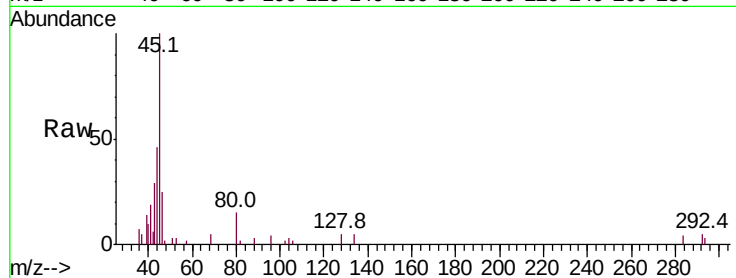




#13
Ethanol
Concen: 0.606 ppbv
RT: 3.62 min Scan# 258
Delta R.T. 0.02 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

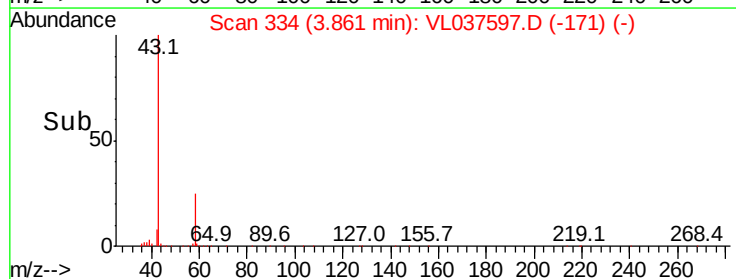
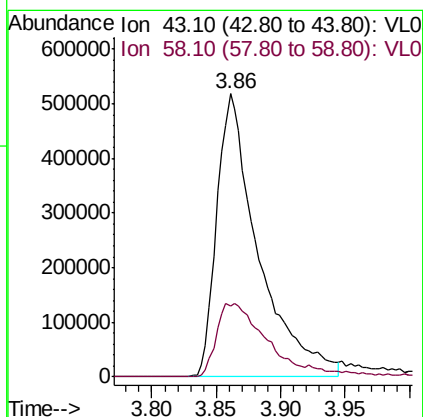
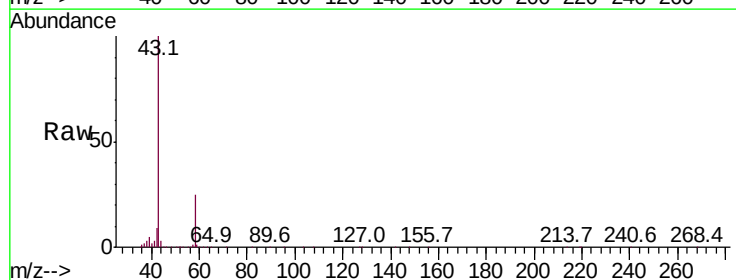
Instrument :
MSVOA_L
ClientSampled :

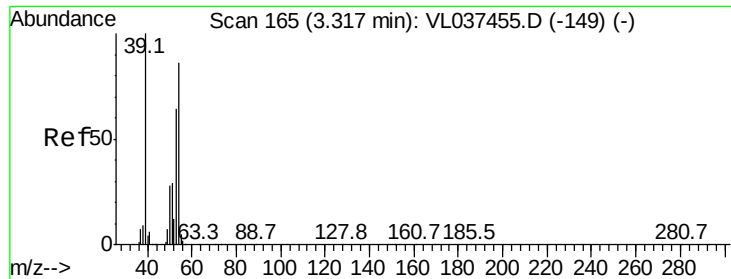
Tot Ion: 45 Resp: 6305
Ion Ratio Lower Upper
45 100
46 0.0 14.1 56.5#



#15
Acetone
Concen: 7.269 ppbv
RT: 3.86 min Scan# 334
Delta R.T. 0.03 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

Tgt Ion: 43 Resp: 1153659
Ion Ratio Lower Upper
43 100
58 33.8 24.8 37.2

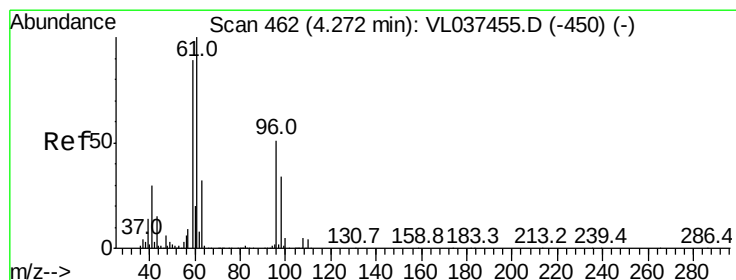
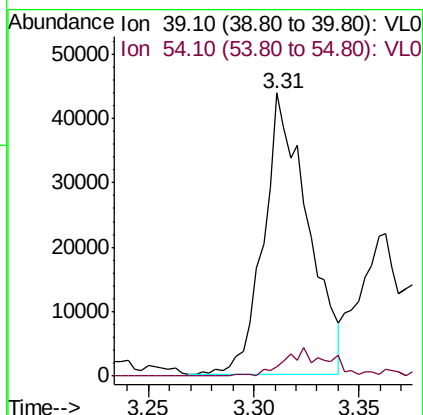
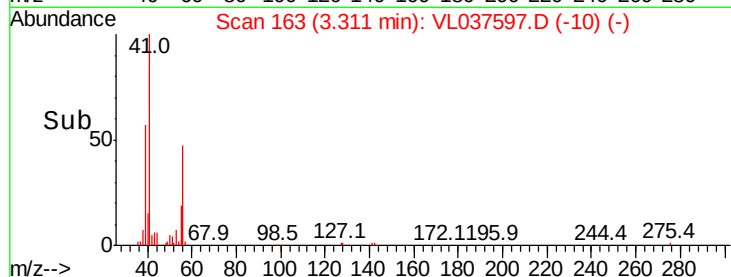
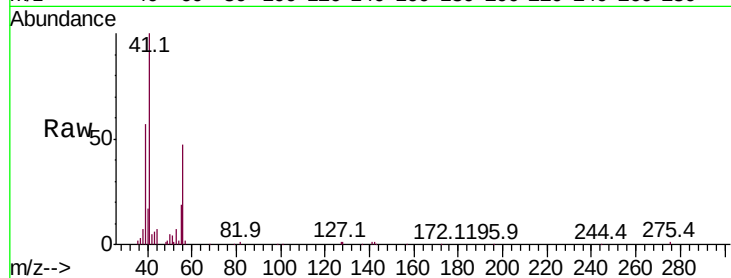




#16
1,3-Butadiene
Concen: 0.629 ppbv
RT: 3.31 min Scan# 163
Delta R.T. -0.01 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

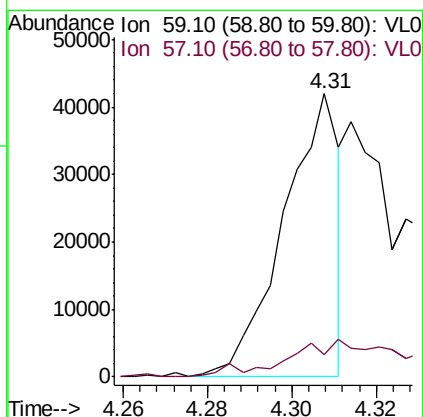
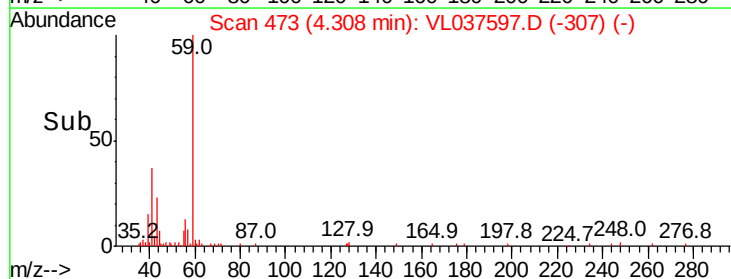
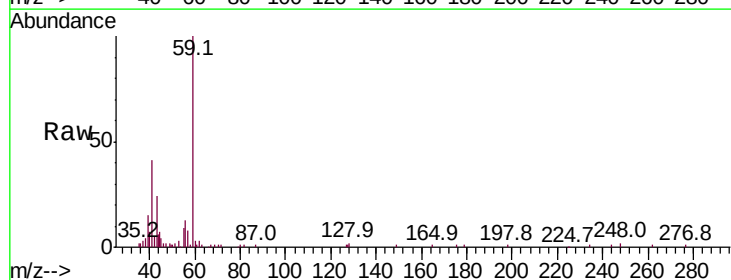
Instrument :
MSVOA_L
ClientSampleId :

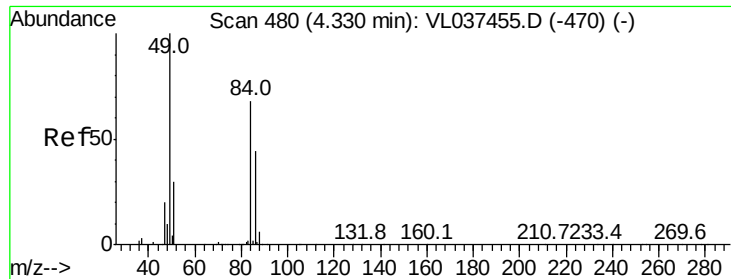
Tot Ion: 39 Resp: 64024
Ion Ratio Lower Upper
39 100
54 11.4 63.7 95.5#



#17
tert-Butyl alcohol
Concen: 0.264 ppbv
RT: 4.31 min Scan# 473
Delta R.T. 0.04 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

Tgt Ion: 59 Resp: 38328
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#

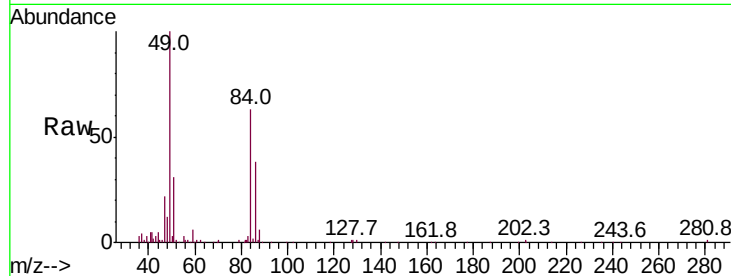




#20
Methylene Chloride
Concen: 1.424 ppbv
RT: 4.36 min Scan# 488
Delta R.T. 0.03 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	84	Resp:	113169
Ion	Ratio	Lower	Upper
84	100		
49	155.2	118.2	177.2
51	47.4	36.6	55.0
86	60.6	51.8	77.6



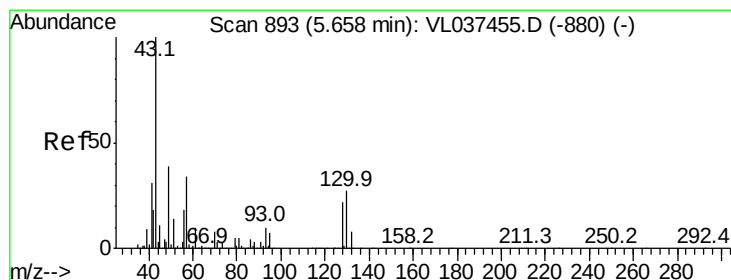
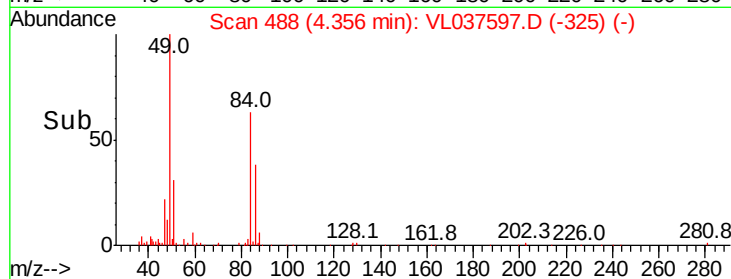
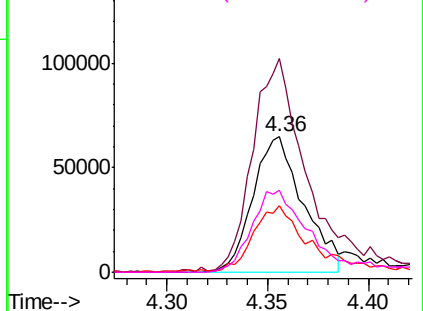
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

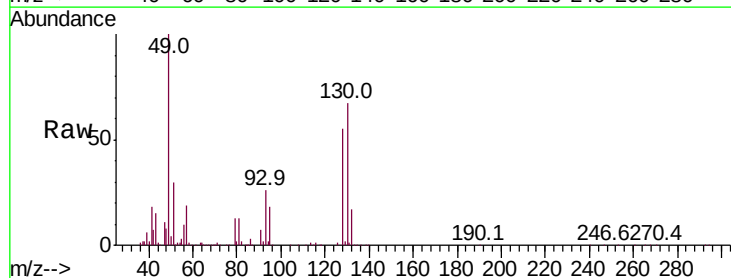
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#25
Ethyl Acetate
Concen: 0.250 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.04 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

Tgt Ion:	43	Resp:	100926
Ion	Ratio	Lower	Upper
43	100		
45	2.8	8.0	12.0#
61	0.7	8.0	12.0#
70	2.6	5.6	8.4#



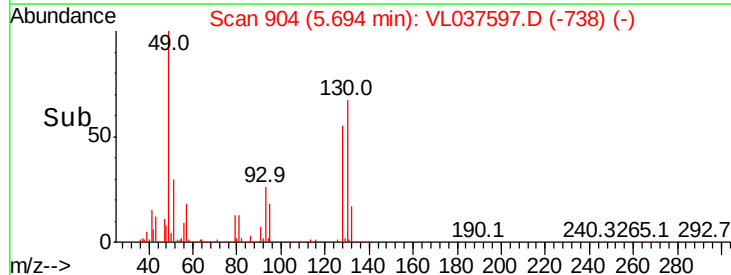
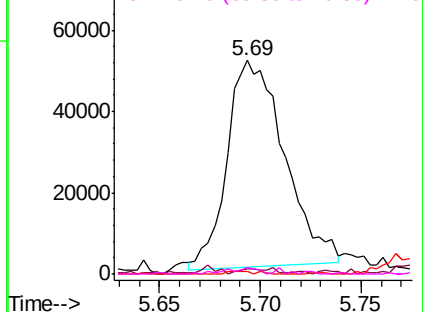
Abundance

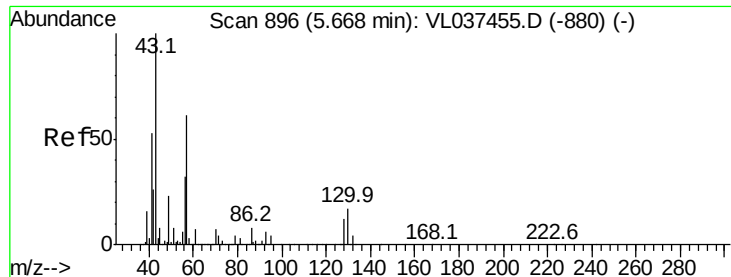
Ion 43.10 (42.80 to 43.80): VL0

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: 0.733 ppbv

RT: 5.70 min Scan# 906

Delta R.T. 0.03 min

Lab File: VL037597.D

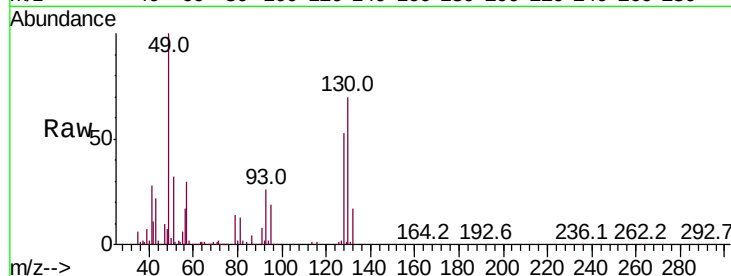
Acq: 9 Sep 2021 14:03

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 144458

Ion Ratio Lower Upper

57	100		
41	97.2	72.3	108.5
43	81.6	172.3	258.5#
56	57.8	42.8	64.2



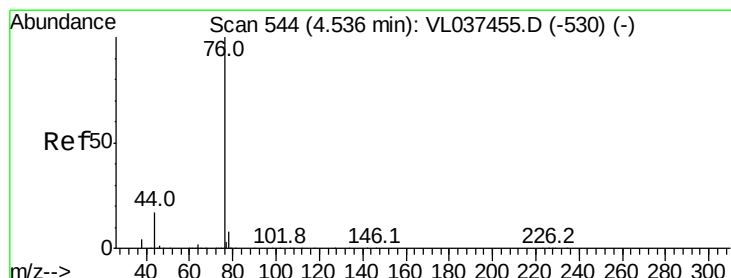
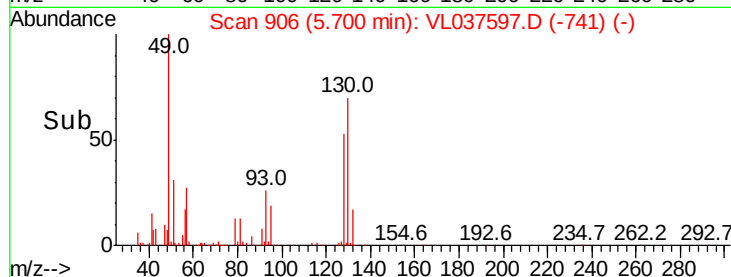
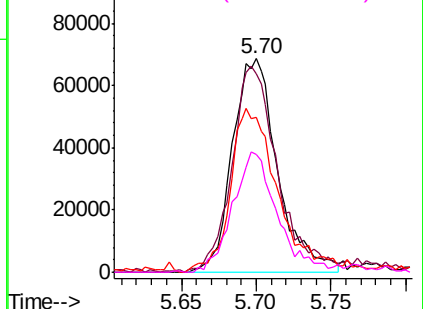
Abundance

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



#27

Carbon Disulfide

Concen: 0.072 ppbv

RT: 4.56 min Scan# 553

Delta R.T. 0.03 min

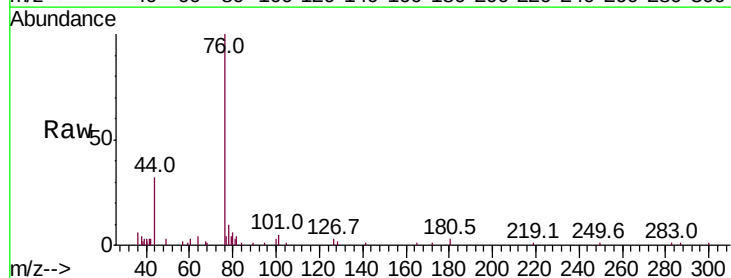
Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Tgt Ion: 76 Resp: 12654

Ion Ratio Lower Upper

76	100		
44	176.9	13.9	20.9#
78	49.5	7.9	11.9#

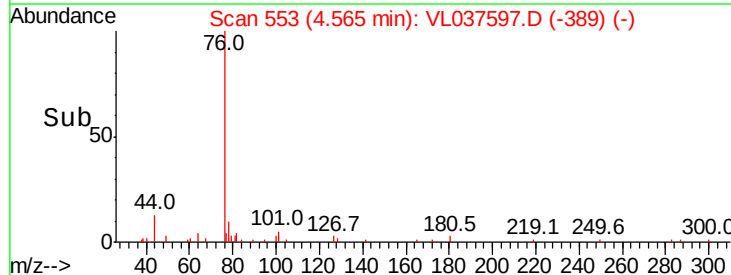
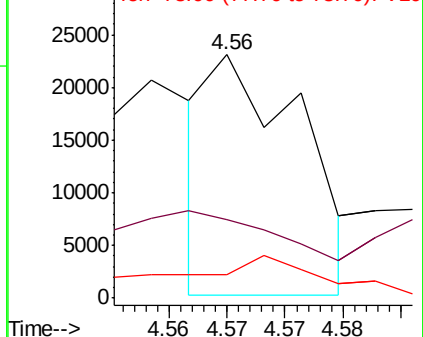


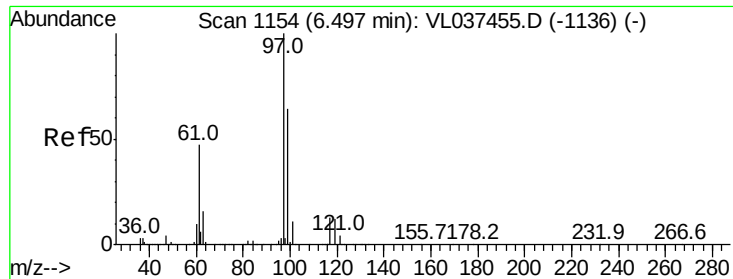
Abundance

Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#32

1,1,1-Trichloroethane

Concen: 0.030 ppbv

RT: 6.53 min Scan# 1165

Delta R.T. 0.04 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

ClientSampled :

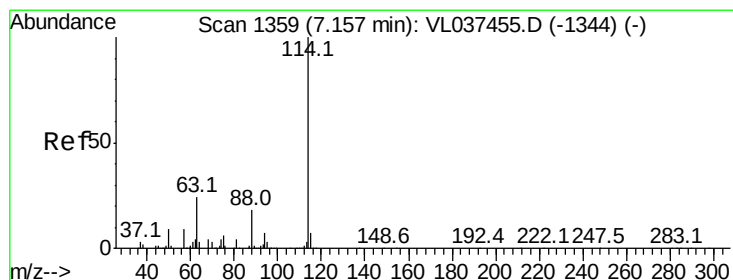
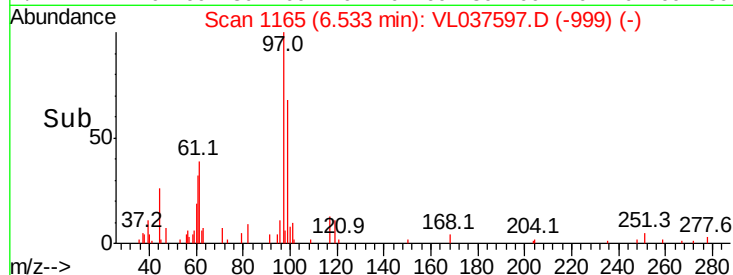
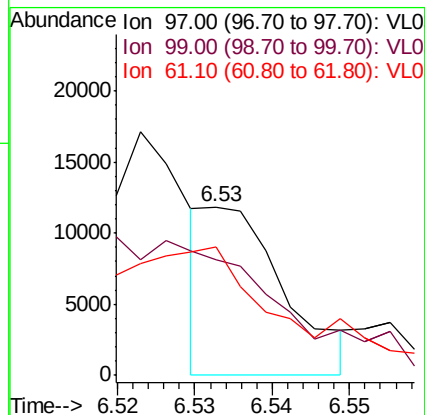
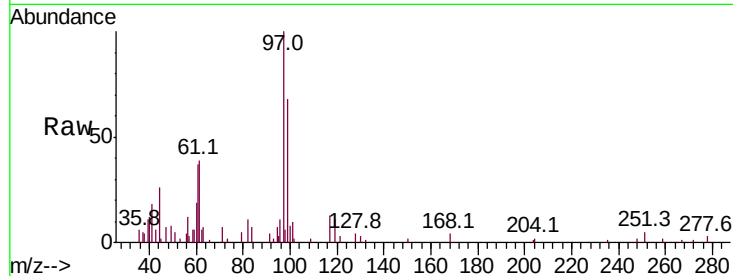
Tot Ion: 97 Resp: 8351

Ion Ratio Lower Upper

97 100

99 0.0 51.8 77.6#

61 237.8 39.6 59.4#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. 0.03 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

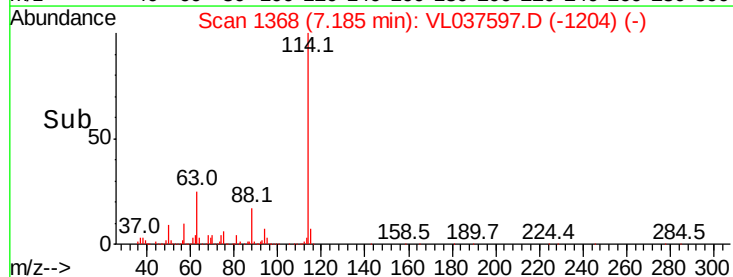
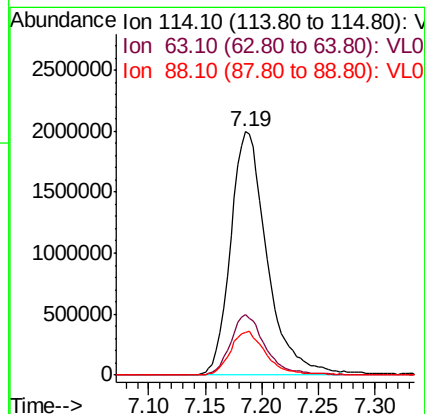
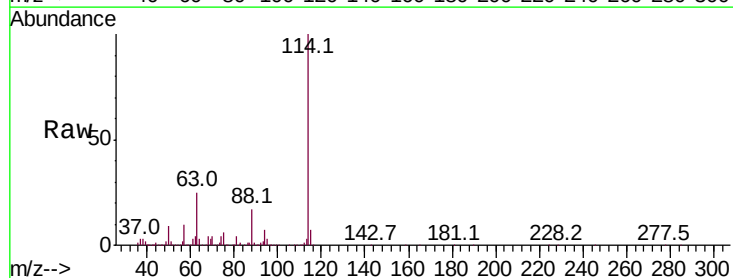
Tgt Ion: 114 Resp: 4467836

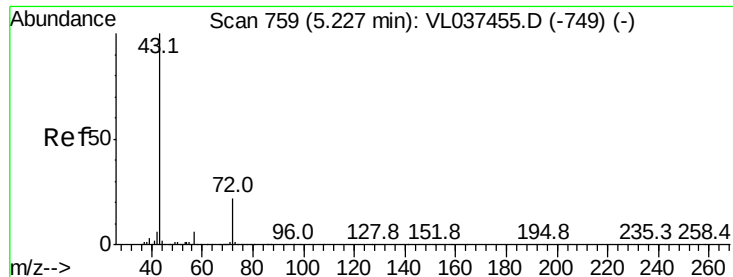
Ion Ratio Lower Upper

114 100

63 24.2 19.3 28.9

88 17.9 14.2 21.4

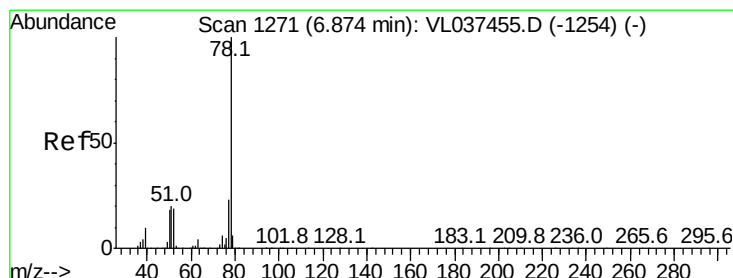
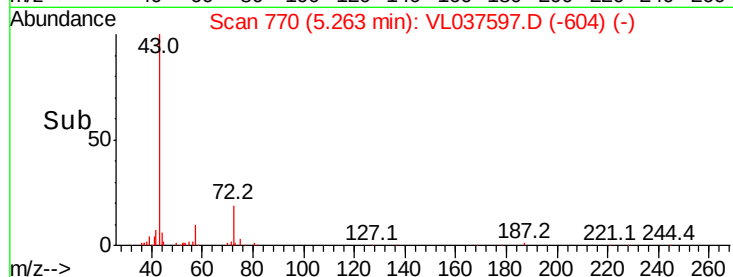
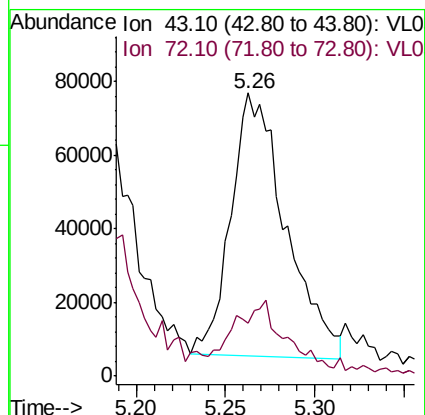
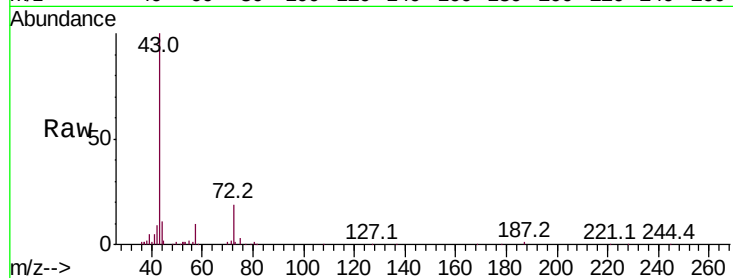




#34
 2-Butanone
 Concen: 0.837 ppbv
 RT: 5.26 min Scan# 770
 Delta R.T. 0.04 min
 Lab File: VL037597.D
 Acq: 9 Sep 2021 14:03

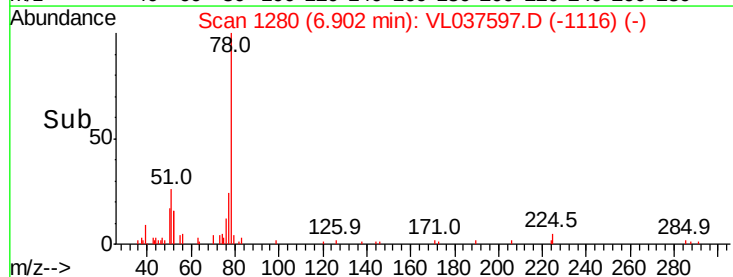
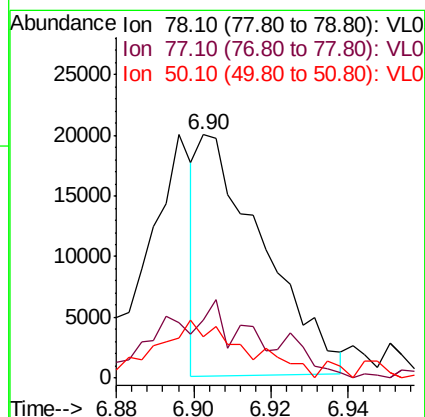
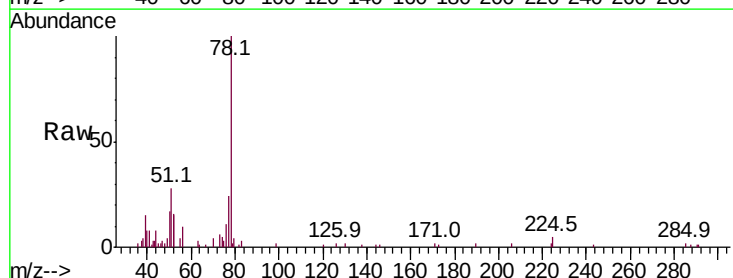
Instrument :
 MSVOA_L
 ClientSampleId :

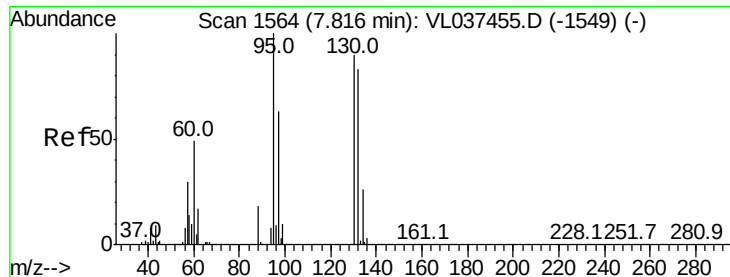
Tot Ion: 43 Resp: 152639
 Ion Ratio Lower Upper
 43 100
 72 33.9 17.4 26.0#



#36
 Benzene
 Concen: 0.061 ppbv
 RT: 6.90 min Scan# 1280
 Delta R.T. 0.03 min
 Lab File: VL037597.D
 Acq: 9 Sep 2021 14:03

Tgt Ion: 78 Resp: 23031
 Ion Ratio Lower Upper
 78 100
 77 23.3 18.2 27.4
 50 13.0 14.6 21.8#





#38

Trichloroethene

Concen: 5.708 ppbv

RT: 7.84 min Scan# 1573

Delta R.T. 0.03 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:130 Resp: 879579

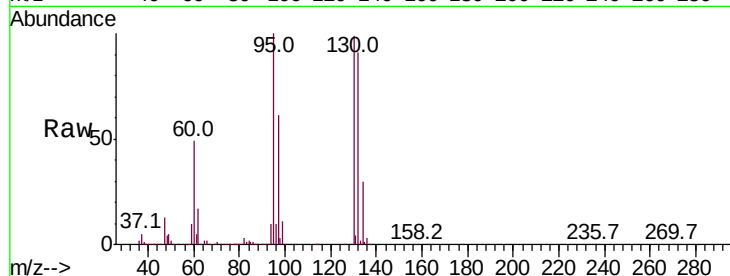
Ion Ratio Lower Upper

130 100

95 100.9 89.2 133.8

132 91.3 74.0 111.0

97 61.4 56.6 84.8

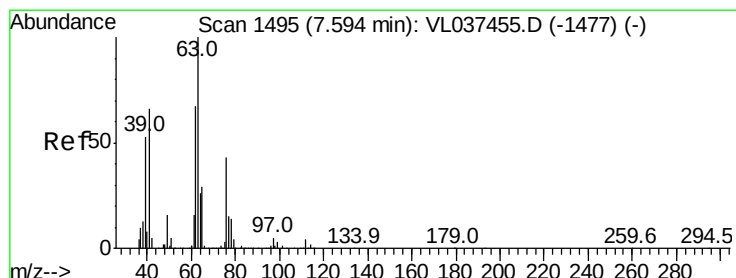
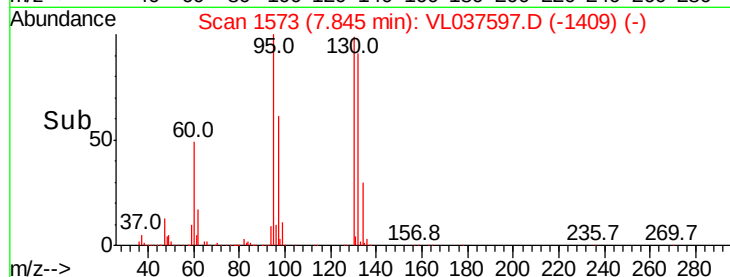
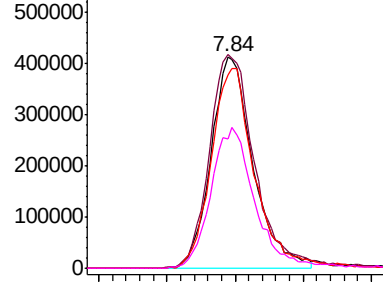


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.274 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.41 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

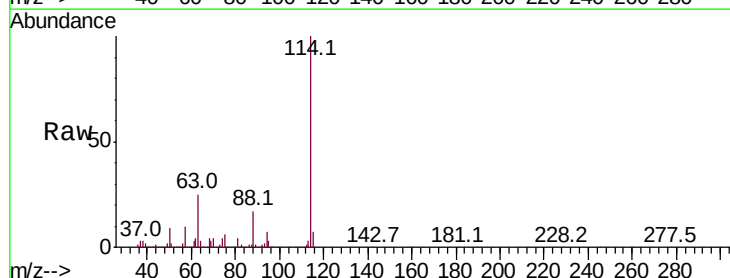
Tgt Ion: 63 Resp: 1049750

Ion Ratio Lower Upper

63 100

41 0.0 52.4 78.6#

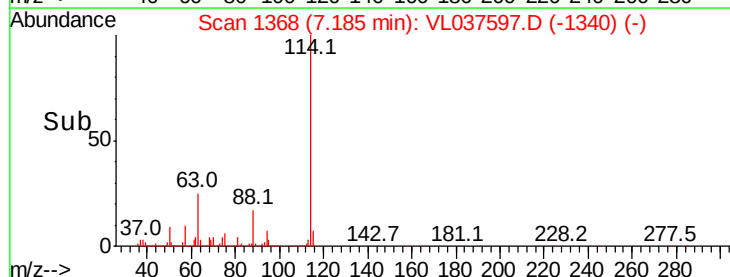
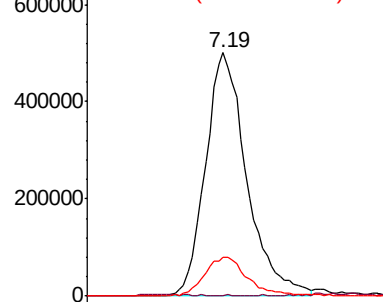
62 15.9 53.6 80.4#

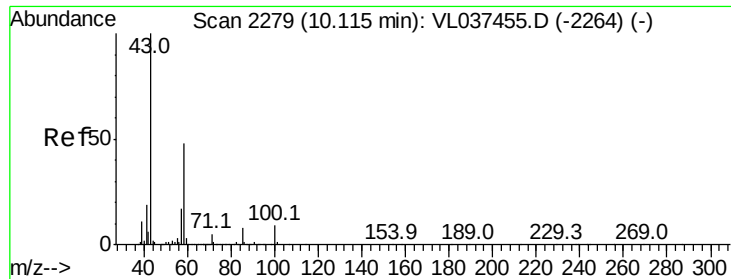


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

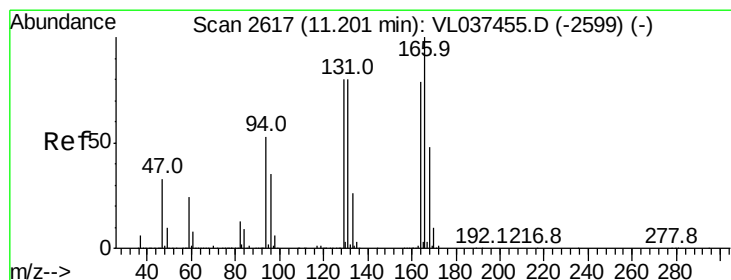
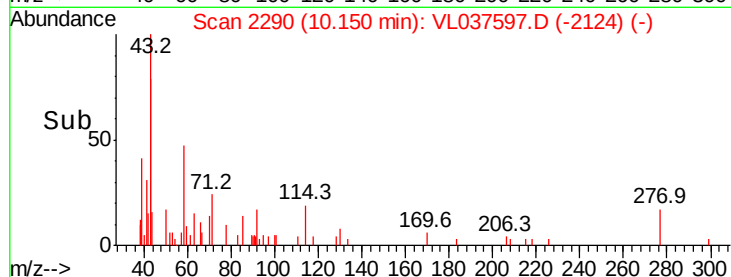
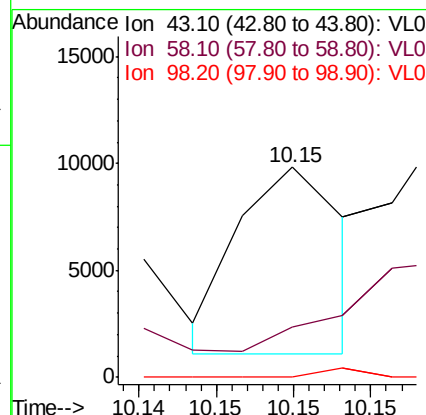
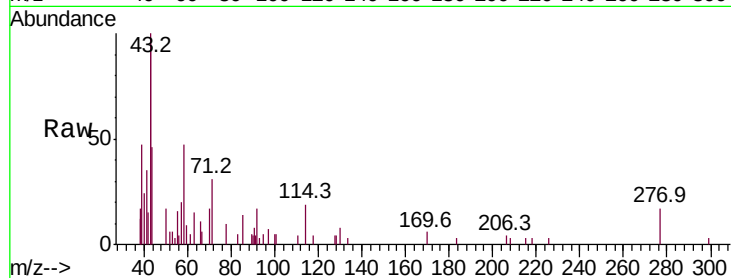




#51
2-Hexanone
Concen: 0.038 ppbv
RT: 10.15 min Scan# 2290
Delta R.T. 0.04 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

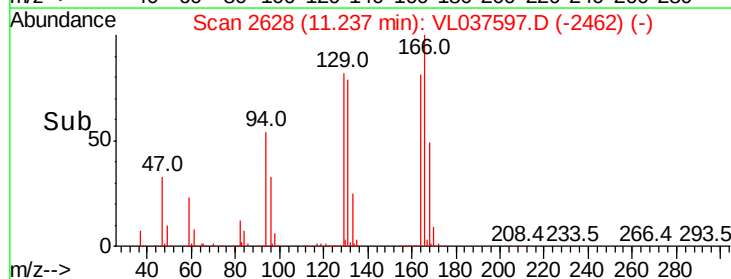
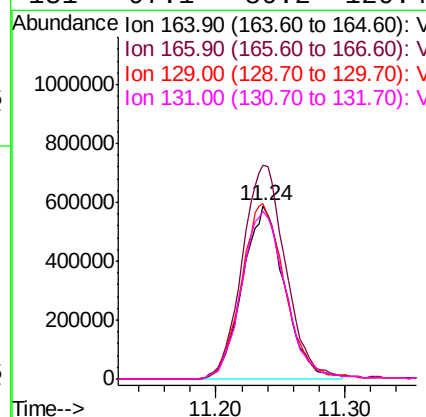
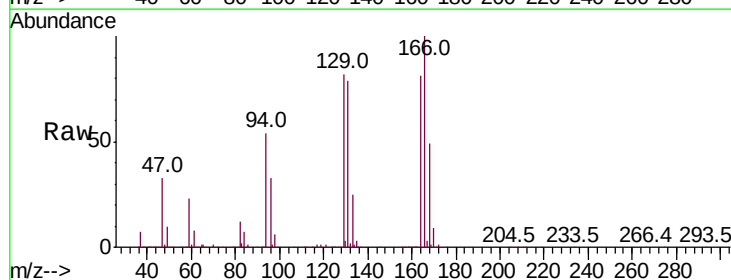
Instrument :
MSVOA_L
ClientSampleId :

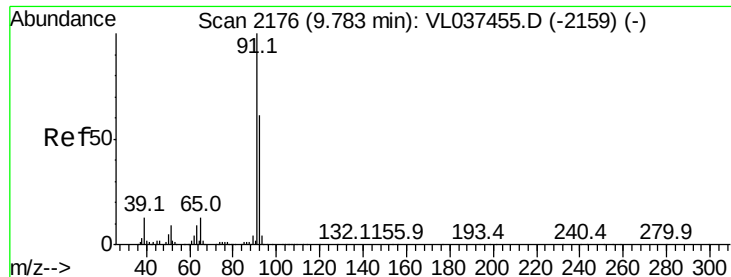
Tot Ion: 43 Resp: 4181
Ion Ratio Lower Upper
43 100
58 0.0 41.0 61.6#
98 0.0 0.3 0.5#



#52
Tetrachloroethene
Concen: 8.638 ppbv
RT: 11.24 min Scan# 2628
Delta R.T. 0.04 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

Tgt Ion: 164 Resp: 1329513
Ion Ratio Lower Upper
164 100
166 123.5 100.7 151.1
129 101.1 80.9 121.3
131 97.1 80.2 120.4





#53

Toluene

Concen: 2.061 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. 0.04 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

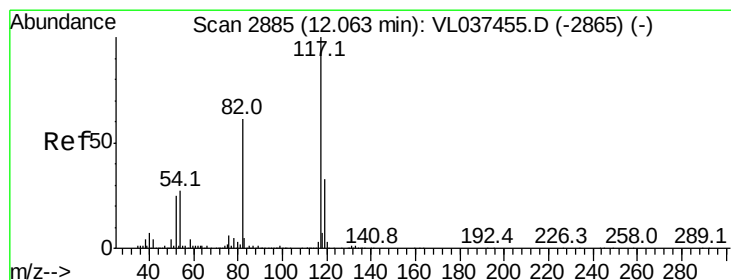
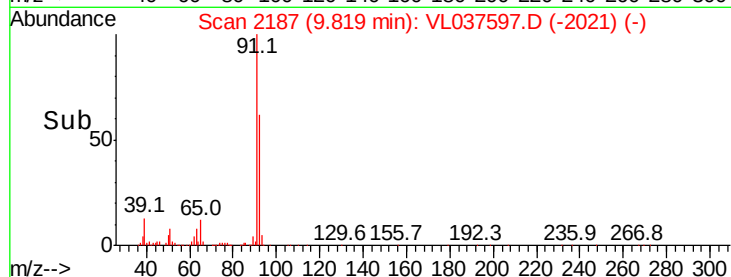
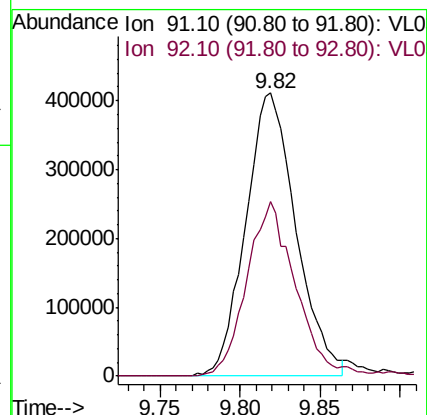
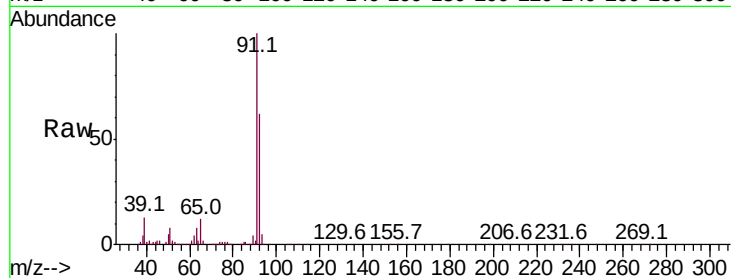
ClientSampleId :

Tot Ion: 91 Resp: 883843

Ion Ratio Lower Upper

91 100

92 60.9 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. 0.04 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

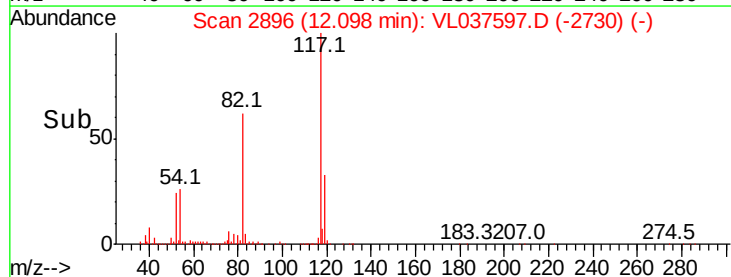
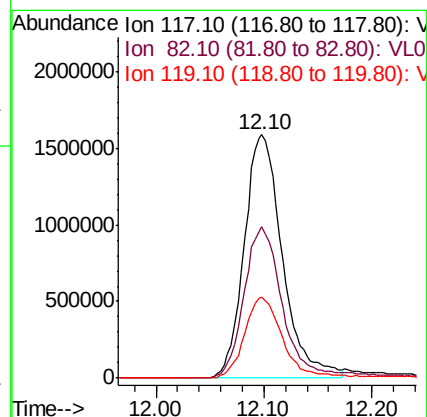
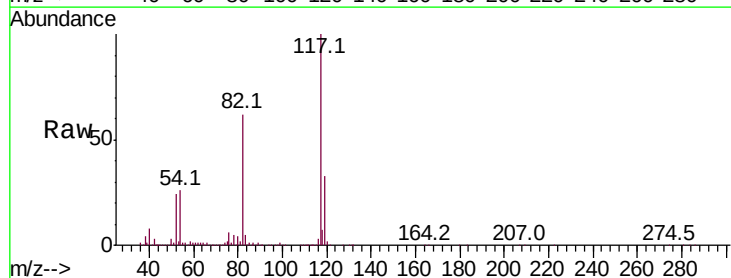
Tgt Ion: 117 Resp: 3912168

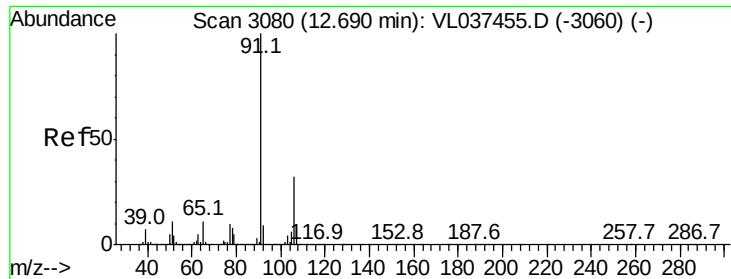
Ion Ratio Lower Upper

117 100

82 64.9 52.9 79.3

119 33.9 24.8 37.2

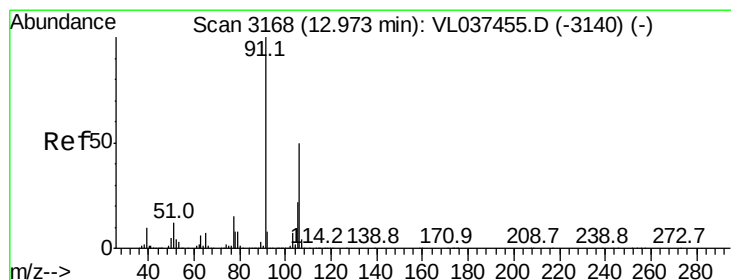
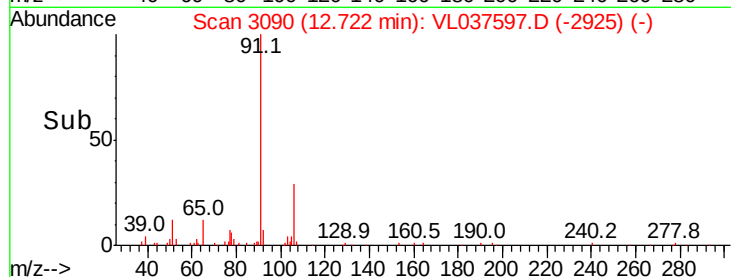
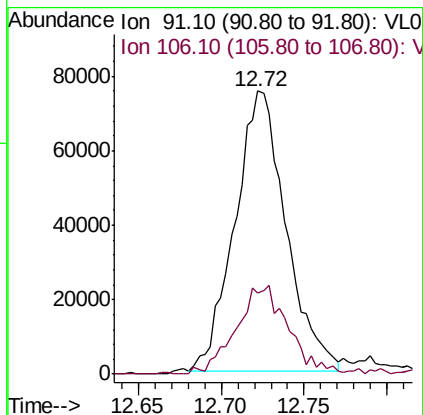
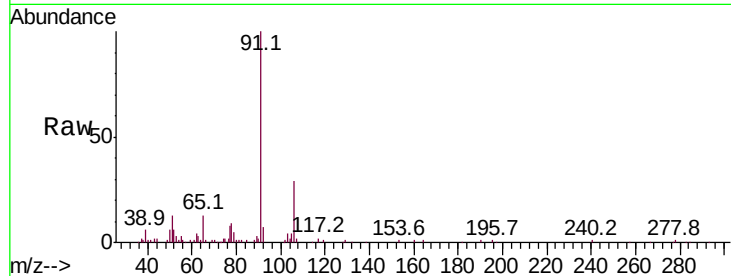




#58
Ethyl Benzene
Concen: 0.299 ppbv
RT: 12.72 min Scan# 3090
Delta R.T. 0.03 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

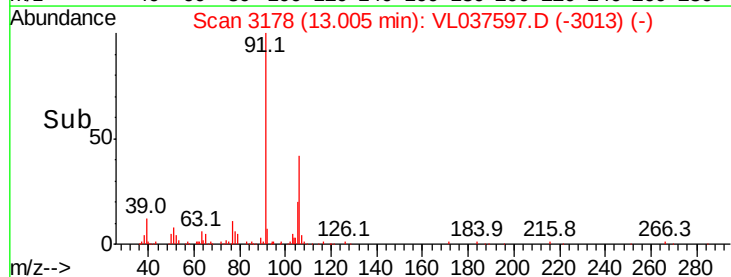
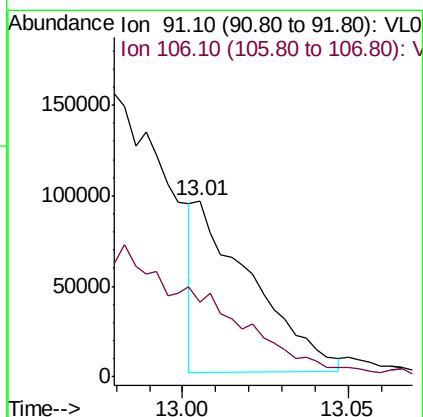
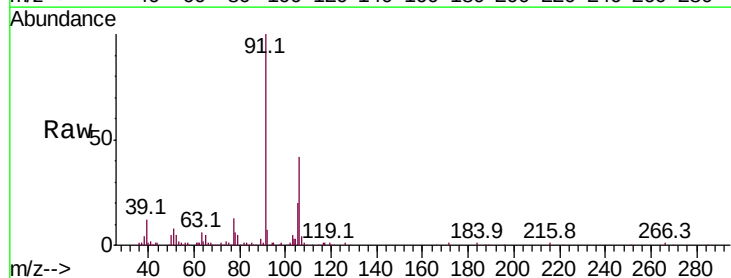
Instrument :
MSVOA_L
ClientSampleId :

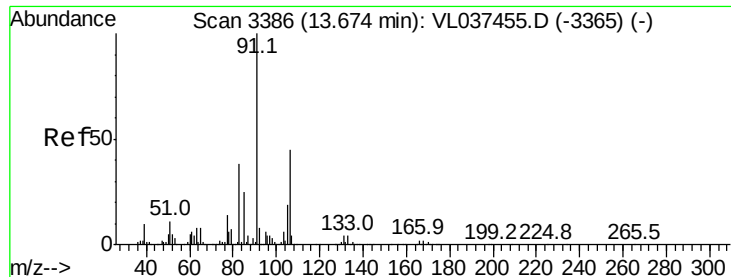
Tot Ion: 91 Resp: 162273
Ion Ratio Lower Upper
91 100
106 28.6 25.7 38.5



#59
m/p-Xylene
Concen: 0.240 ppbv
RT: 13.01 min Scan# 3178
Delta R.T. 0.03 min
Lab File: VL037597.D
Acq: 9 Sep 2021 14:03

Tgt Ion: 91 Resp: 112938
Ion Ratio Lower Upper
91 100
106 0.0 36.9 55.3#





#60

o-Xylene

Concen: 0.345 ppbv

RT: 13.70 min Scan# 3394

Delta R.T. 0.03 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

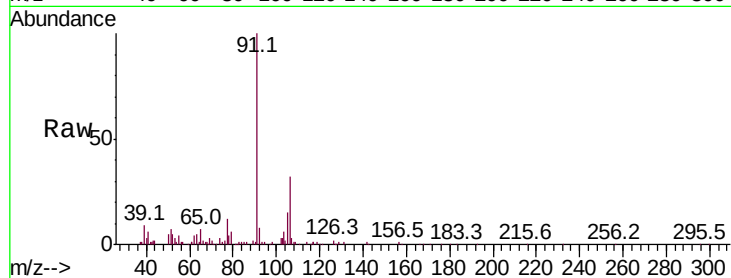
ClientSampleId :

Tot Ion: 91 Resp: 151476

Ion Ratio Lower Upper

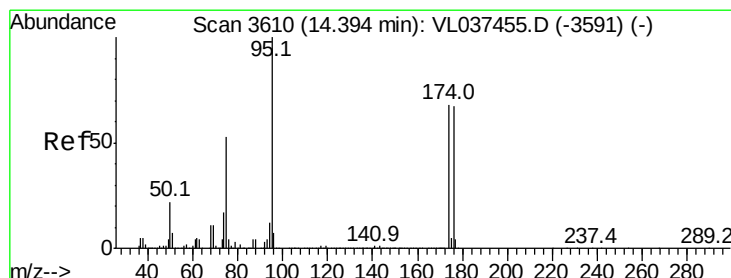
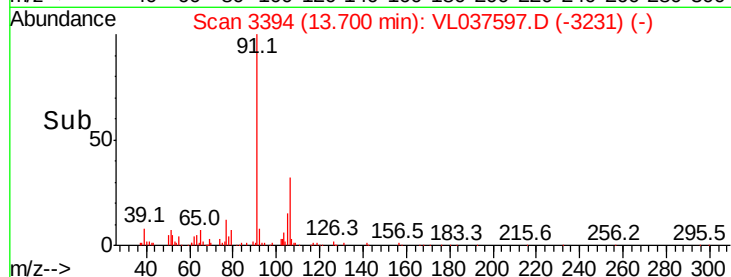
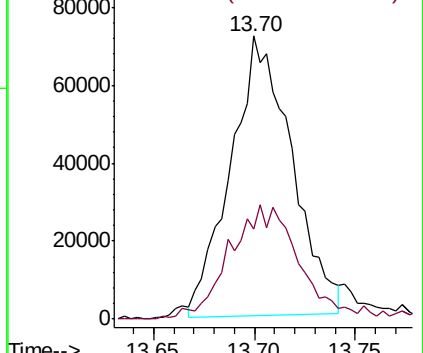
91 100

106 48.2 23.7 71.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.862 ppbv

RT: 14.43 min Scan# 3621

Delta R.T. 0.04 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

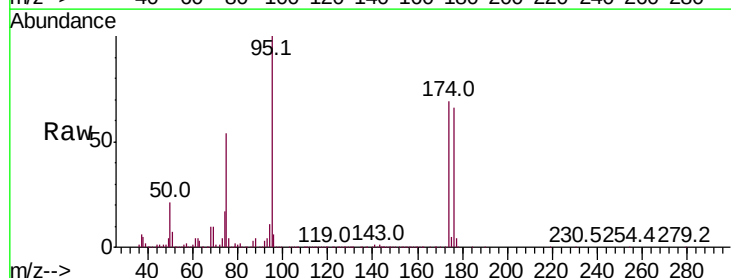
Tgt Ion: 95 Resp: 2740985

Ion Ratio Lower Upper

95 100

174 79.0 59.6 89.4

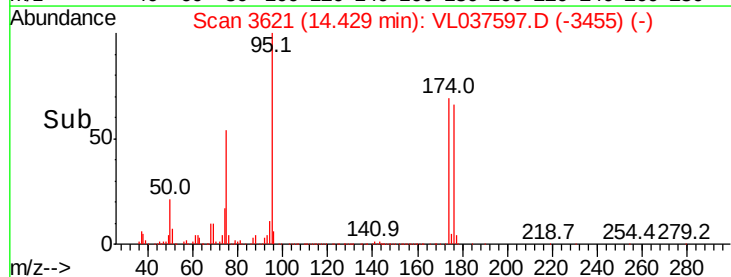
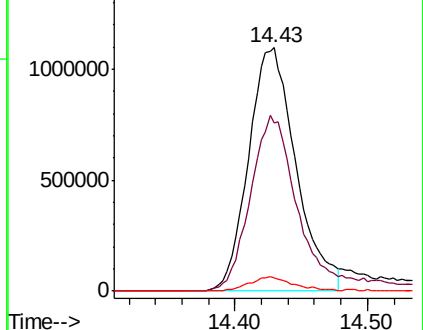
175 5.6 4.6 7.0

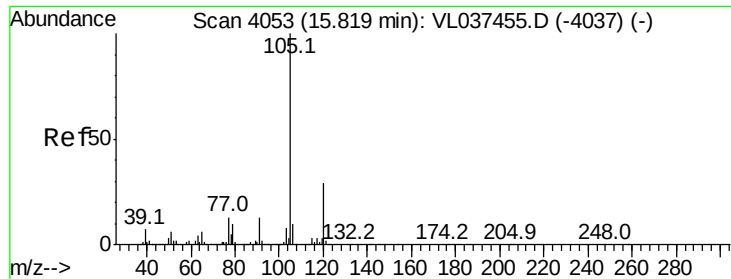


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.036 ppbv

RT: 15.85 min Scan# 4064

Delta R.T. 0.04 min

Lab File: VL037597.D

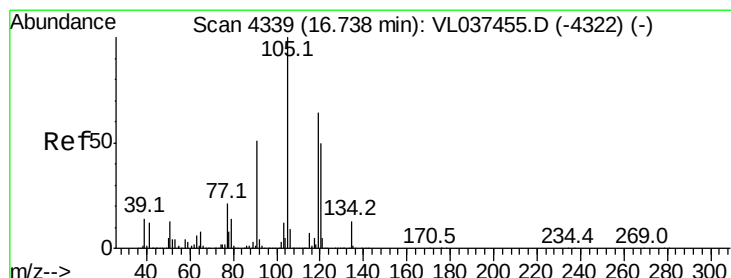
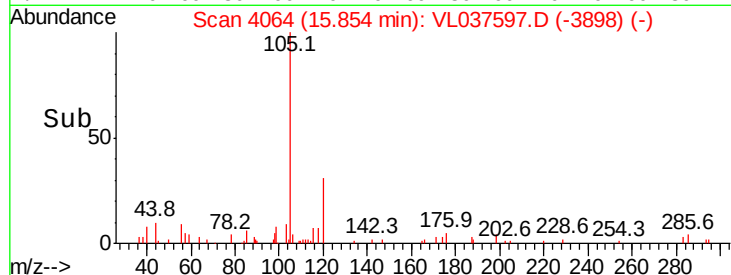
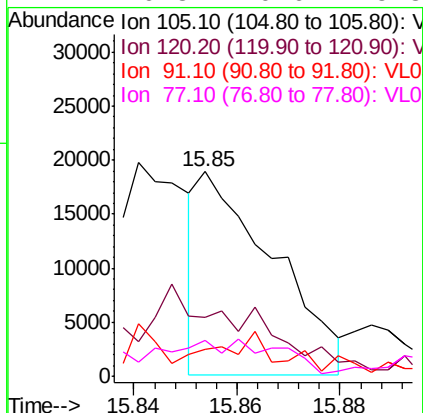
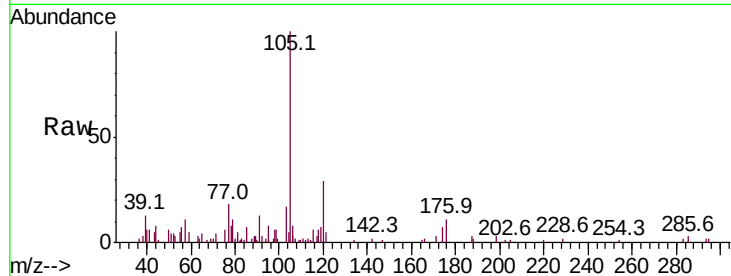
Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	18985
Ion	Ratio	Lower	Upper
105	100		
120	93.9	24.7	37.1#
91	0.0	9.8	14.8#
77	40.8	10.6	15.8#



#74

1,2,4-Trimethylbenzene

Concen: 0.050 ppbv

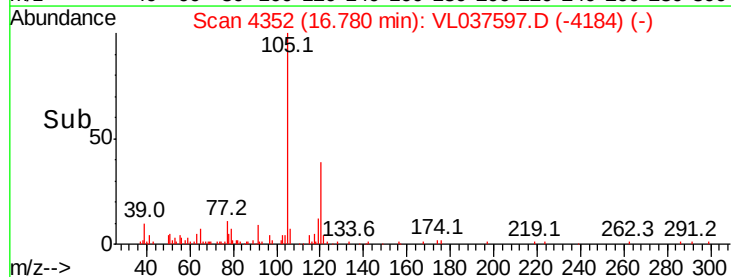
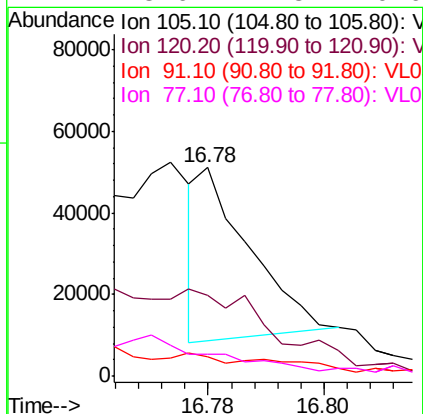
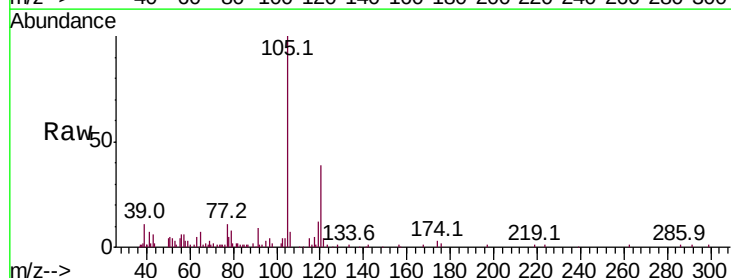
RT: 16.78 min Scan# 4352

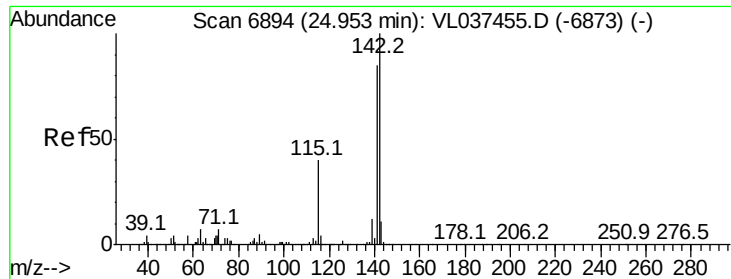
Delta R.T. 0.04 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Tgt Ion:	105	Resp:	25705
Ion	Ratio	Lower	Upper
105	100		
120	34.0	40.4	60.6#
91	7.2	44.6	67.0#
77	8.6	17.8	26.6#





#80

Naphthalene, 2-methyl-

Concen: 0.035 ppbv

RT: 25.05 min Scan# 6924

Delta R.T. 0.10 min

Lab File: VL037597.D

Acq: 9 Sep 2021 14:03

Instrument :

MSVOA_L

ClientSampleId :

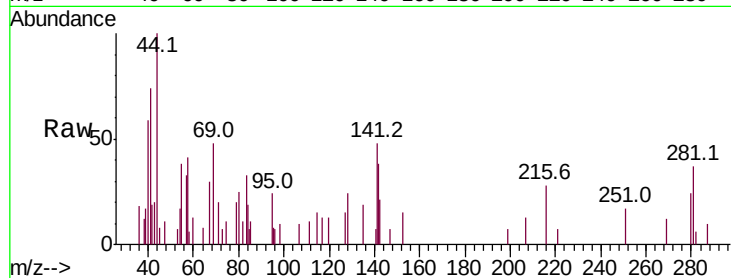
Tot Ion:142 Resp: 3411

Ion Ratio Lower Upper

142 100

141 72.7 64.7 97.1

115 12.2 28.4 42.6#



Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

