

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032621\
 Data File : VL036530.D
 Acq On : 27 Mar 2021 1:49
 Operator : SY/AP
 Sample : M1760-18
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 27 03:32:22 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1380615	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3051633	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2867203	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2196815	9.61	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.10%

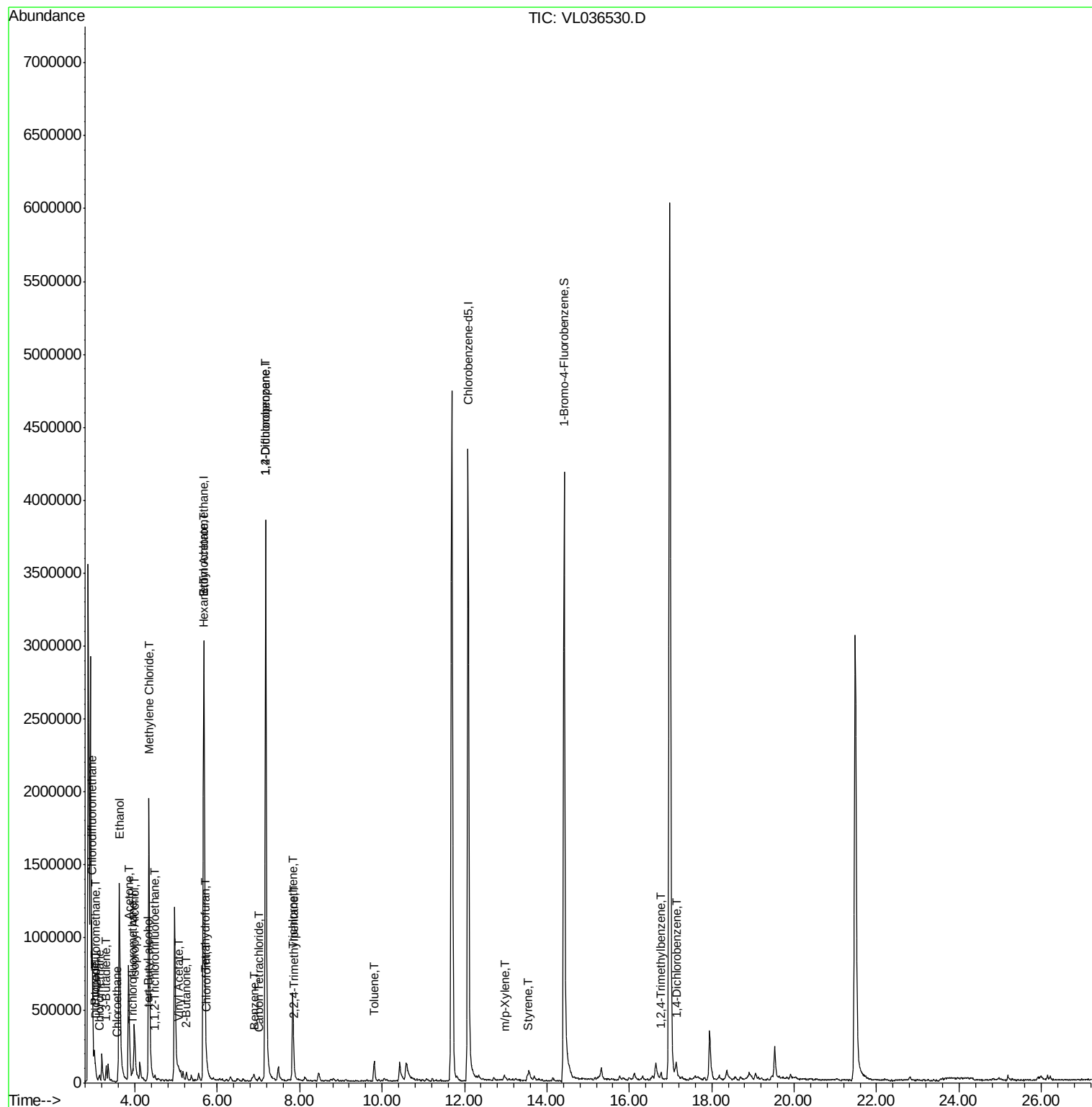
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	46298	0.206	ppbv 94
3) Chlorodifluoromethane	2.96	51	793505	3.076	ppbv # 62
4) Chloromethane	3.14	50	39109	0.429	ppbv 93
7) Chloroethane	3.55	64	1942	0.060	ppbv # 57
9) Propene	3.02	41	5628	0.068	ppbv # 1
11) Trichlorofluoromethane	3.95	101	47467	0.207	ppbv 86
12) 1,1,2-Trichlorotrifluoroet	4.47	101	3868	0.026	ppbv # 11
13) Ethanol	3.62	45	1916802	195.740	ppbv 95
15) Acetone	3.85	43	1028259	7.567	ppbv 100
16) 1,3-Butadiene	3.30	39	35003	0.370	ppbv # 23
17) tert-Butyl alcohol	4.31	59	10559	0.089	ppbv # 72
19) Isopropyl Alcohol	3.99	45	470624	6.296	ppbv 99
20) Methylene Chloride	4.34	84	757820	11.911	ppbv 91
23) Vinyl Acetate	5.06	43	11134	0.048	ppbv # 58
25) Ethyl Acetate	5.68	43	775953	2.402	ppbv # 96
26) Hexane	5.69	57	511860	3.414	ppbv # 77
29) Chloroform	5.75	83	20963	0.087	ppbv 99
34) 2-Butanone	5.25	43	53553	0.360	ppbv # 80
35) Carbon Tetrachloride	7.02	117	6857	0.029	ppbv # 80
36) Benzene	6.89	78	15194	0.054	ppbv # 91
38) Trichloroethene	7.83	130	180108	1.644	ppbv 92
39) 1,2-Dichloropropane	7.17	63	840825	7.365	ppbv # 23
41) Tetrahydrofuran	5.72	42	6120	0.089	ppbv # 42
44) 2,2,4-Trimethylpentane	7.88	57	11087	0.022	ppbv # 1
53) Toluene	9.80	91	104611	0.349	ppbv 97
59) m/p-Xylene	12.99	91	14731	0.040	ppbv # 32
61) Styrene	13.53	104	5381	0.030	ppbv # 1
74) 1,2,4-Trimethylbenzene	16.76	105	16698	0.043	ppbv # 71
76) 1,4-Dichlorobenzene	17.15	146	7736	0.036	ppbv # 1

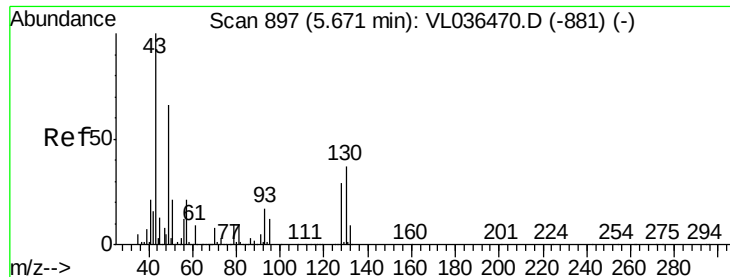
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Mar 25 09:42:40 2021
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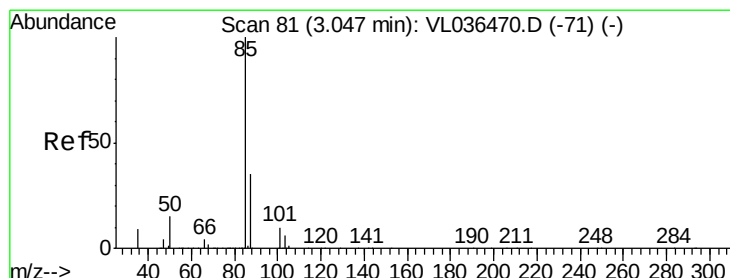
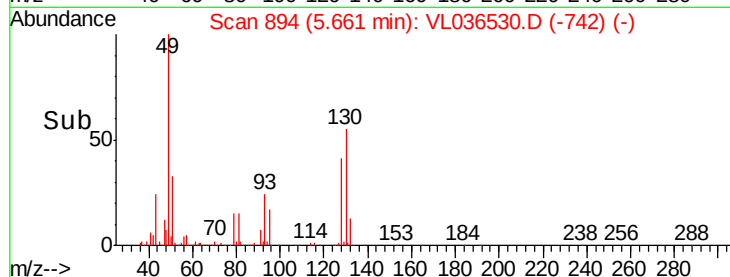
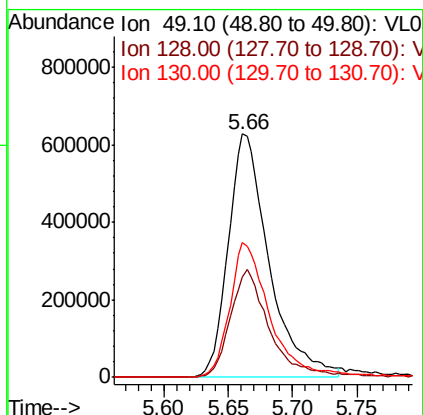
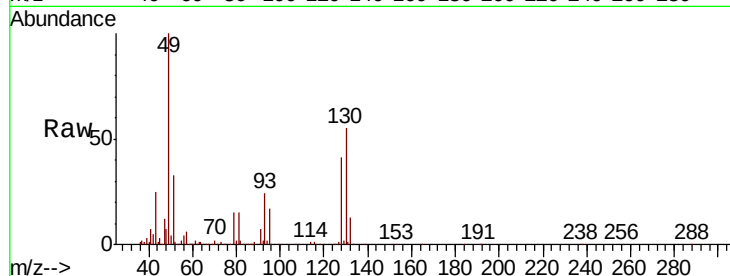




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.01 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

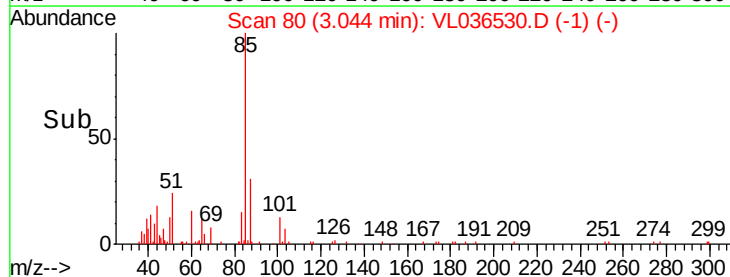
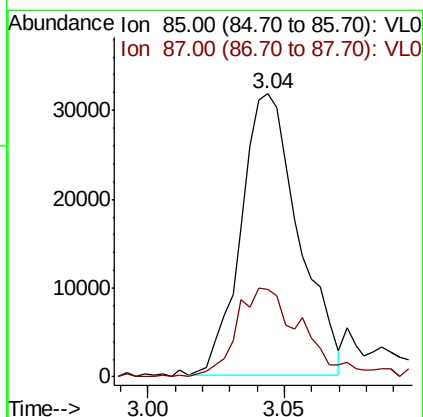
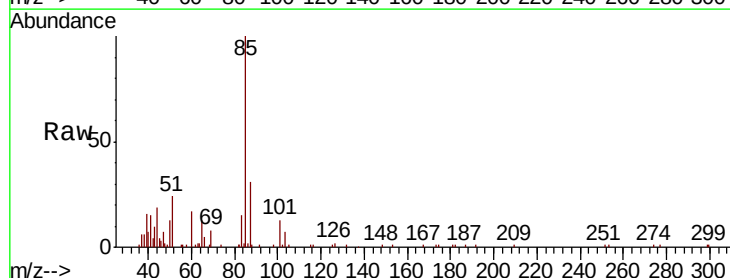
Instrument :
MSVOA_L
ClientSampleId :

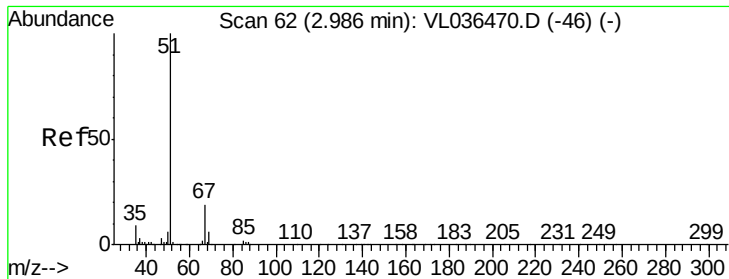
Tot Ion: 49 Resp: 1380615
Ion Ratio Lower Upper
49 100
128 43.1 23.5 70.6
130 55.5 29.1 87.4



#2
Dichlorodifluoromethane
Concen: 0.206 ppbv
RT: 3.04 min Scan# 80
Delta R.T. -0.00 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

Tgt Ion: 85 Resp: 46298
Ion Ratio Lower Upper
85 100
87 31.2 27.8 41.8





#3

Chlorodifluoromethane

Concen: 3.076 ppbv

RT: 2.96 min Scan# 53

Delta R.T. -0.03 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

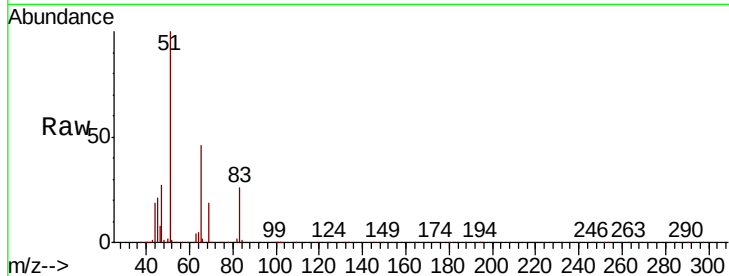
ClientSampleId :

Tot Ion: 51 Resp: 793505

Ion Ratio Lower Upper

51 100

67 1.4 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.96

400000

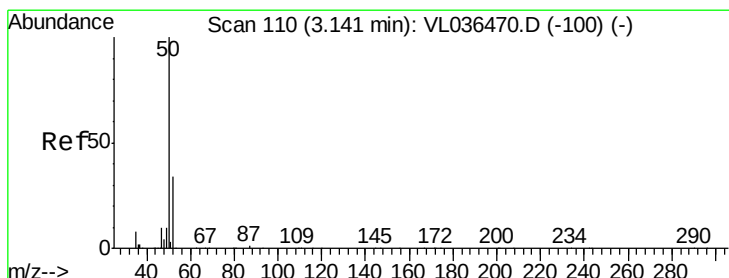
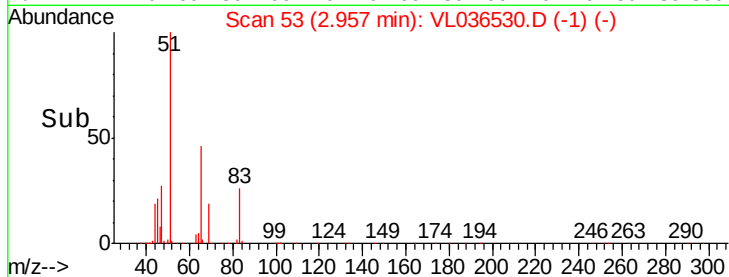
300000

200000

100000

0

Time-->



#4

Chloromethane

Concen: 0.429 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL036530.D

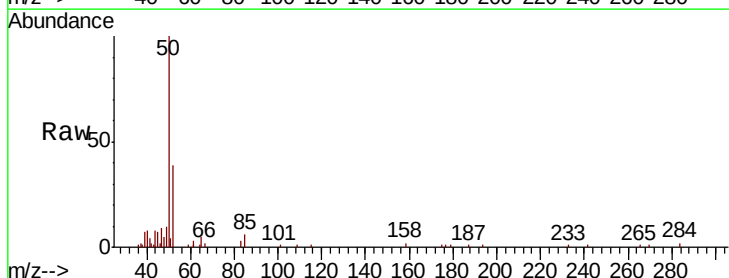
Acq: 27 Mar 2021 1:49

Tgt Ion: 50 Resp: 39109

Ion Ratio Lower Upper

50 100

52 37.9 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

25000

20000

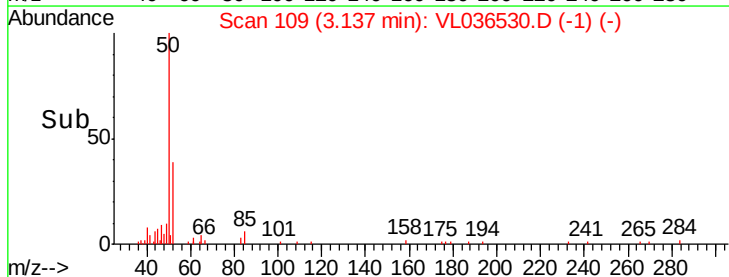
15000

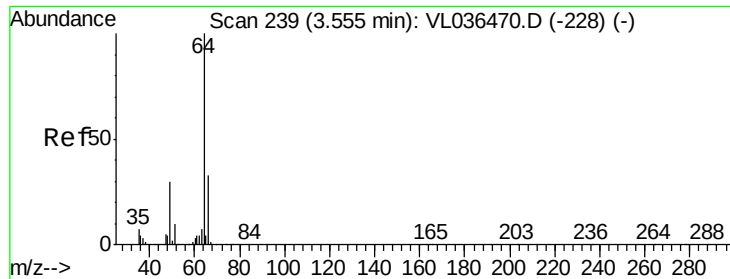
10000

5000

0

Time-->





#7

Chloroethane

Concen: 0.060 ppbv

RT: 3.55 min Scan# 237

Delta R.T. -0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

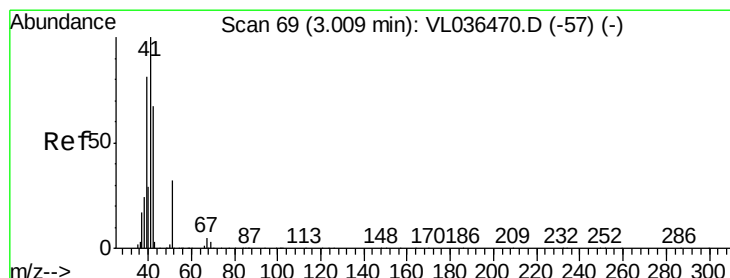
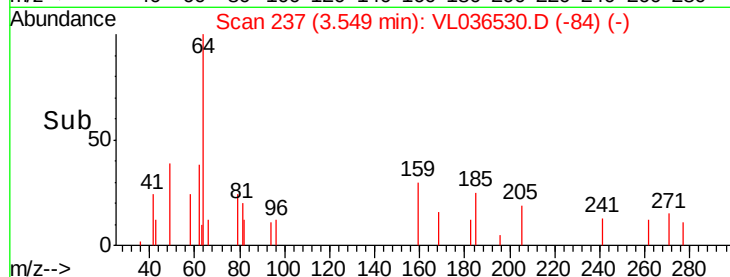
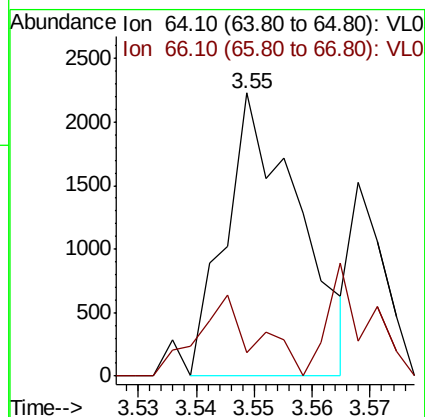
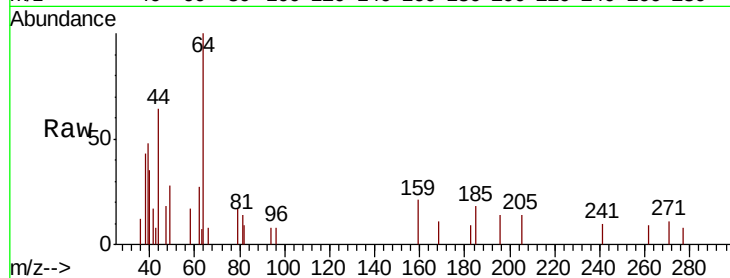
ClientSampleId :

Tot Ion: 64 Resp: 1942

Ion Ratio Lower Upper

64 100

66 8.3 26.2 39.2#



#9

Propene

Concen: 0.068 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL036530.D

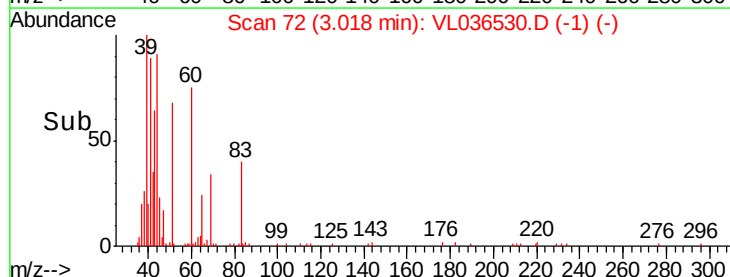
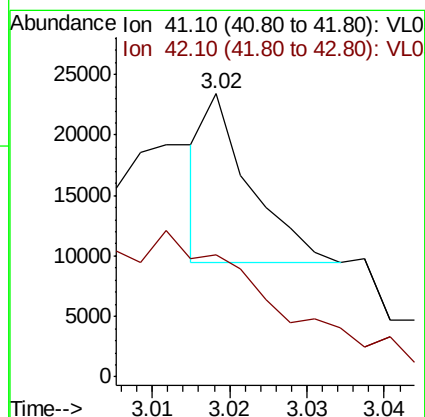
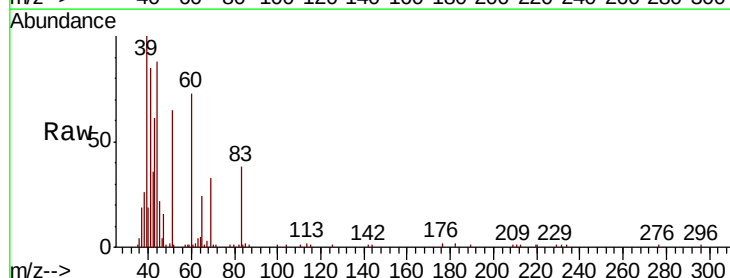
Acq: 27 Mar 2021 1:49

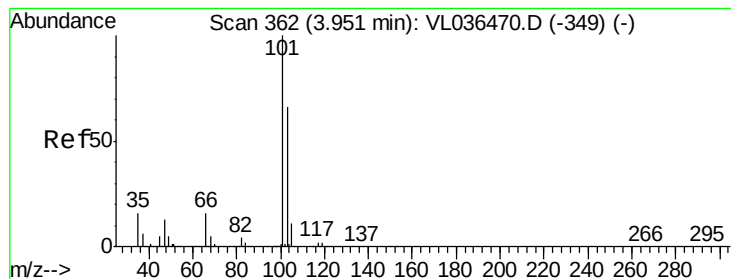
Tgt Ion: 41 Resp: 5628

Ion Ratio Lower Upper

41 100

42 436.3 57.0 85.4#





#11

Trichlorofluoromethane

Concen: 0.207 ppbv

RT: 3.95 min Scan# 361

Delta R.T. -0.00 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

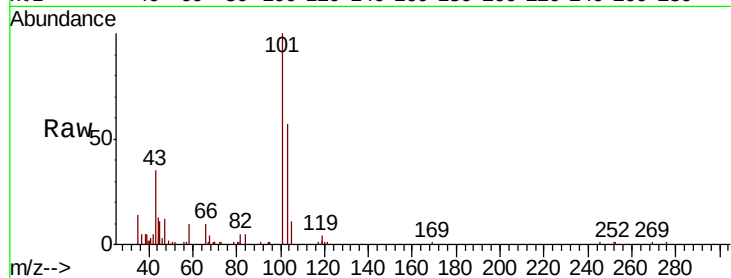
ClientSampleId :

Tot Ion:101 Resp: 47467

Ion Ratio Lower Upper

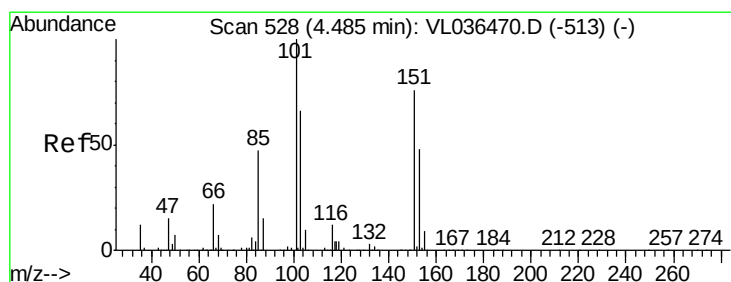
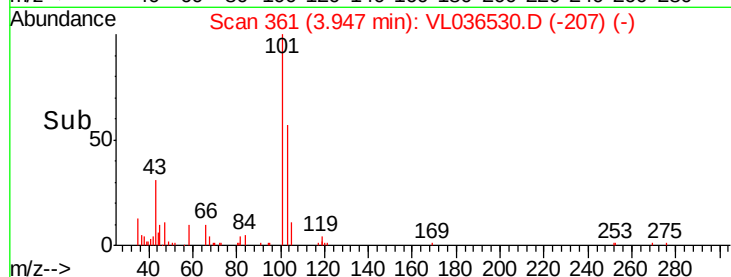
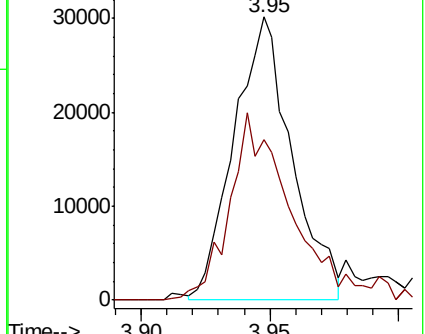
101 100

103 54.2 52.5 78.7



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: 0.026 ppbv

RT: 4.47 min Scan# 525

Delta R.T. -0.01 min

Lab File: VL036530.D

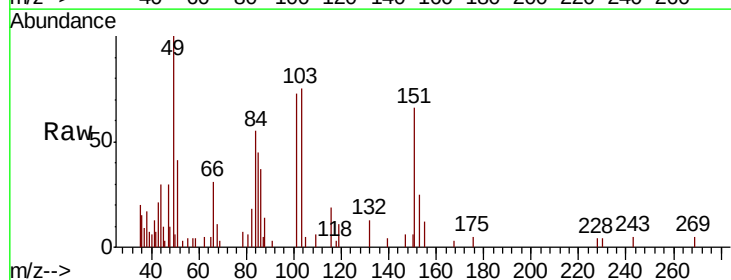
Acq: 27 Mar 2021 1:49

Tgt Ion:101 Resp: 3868

Ion Ratio Lower Upper

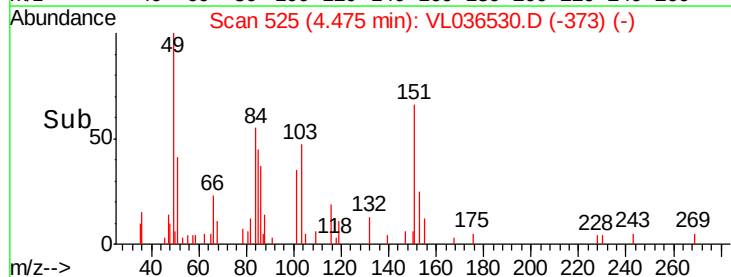
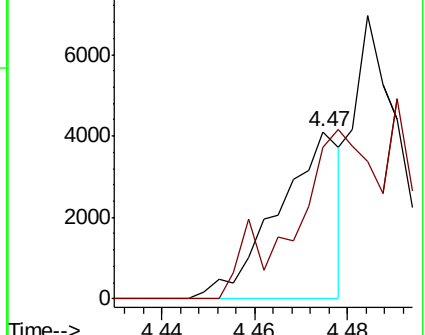
101 100

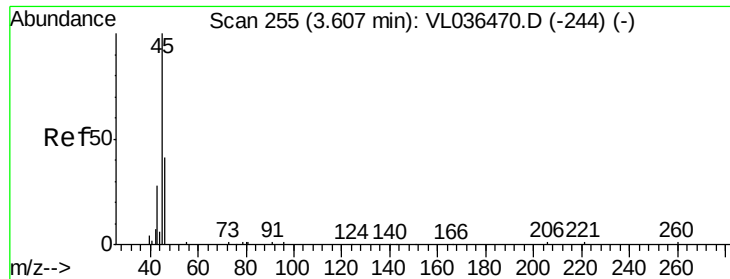
151 0.0 60.9 91.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 195.740 ppbv

RT: 3.62 min Scan# 259

Delta R.T. 0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

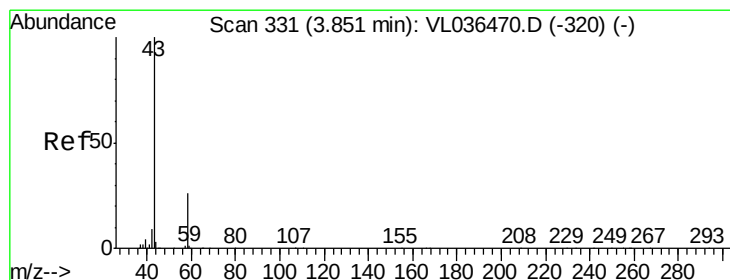
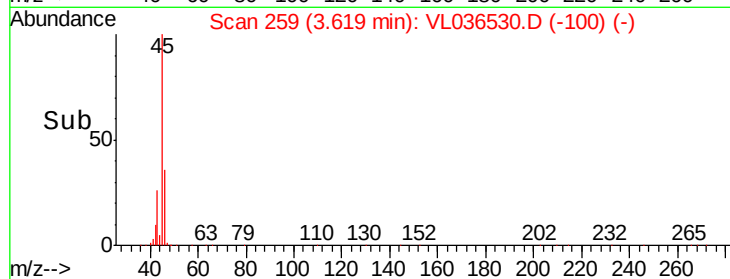
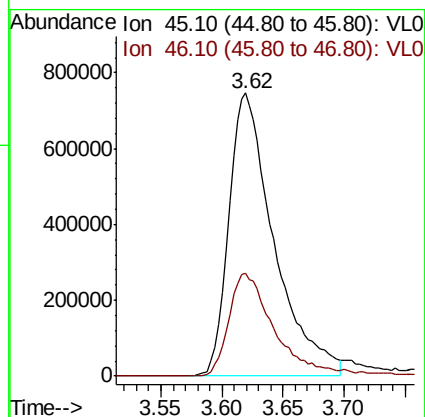
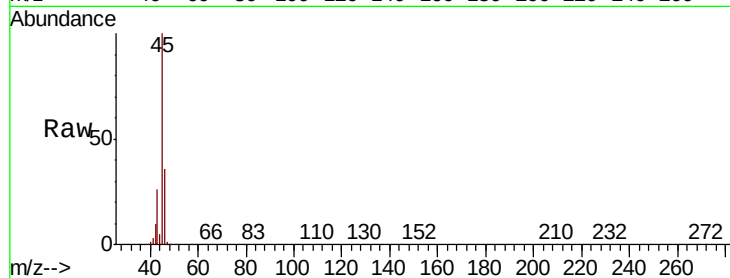
ClientSampleId :

Tot Ion: 45 Resp: 1916802

Ion Ratio Lower Upper

45 100

46 38.2 16.6 66.2



#15

Acetone

Concen: 7.567 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.00 min

Lab File: VL036530.D

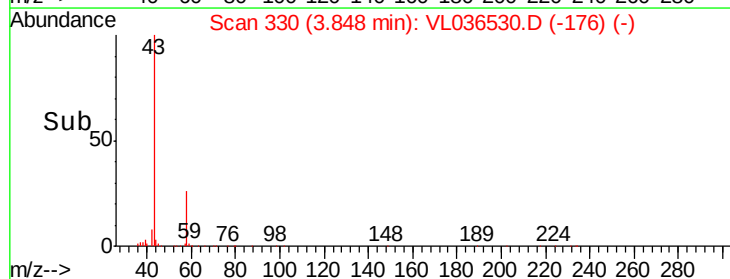
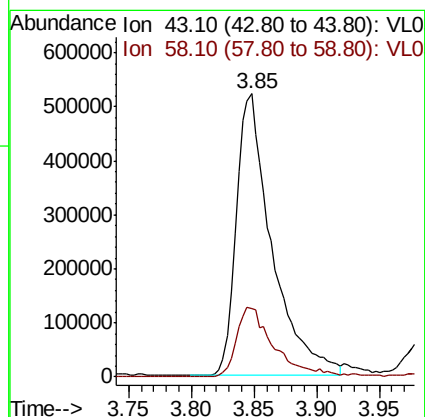
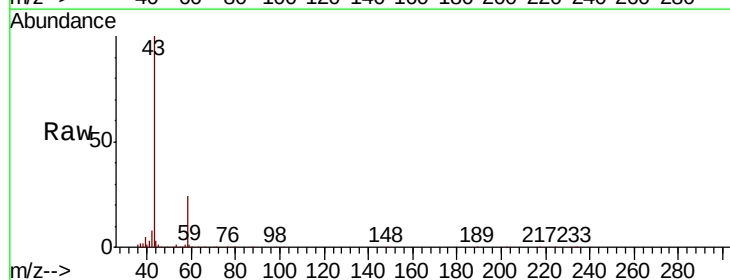
Acq: 27 Mar 2021 1:49

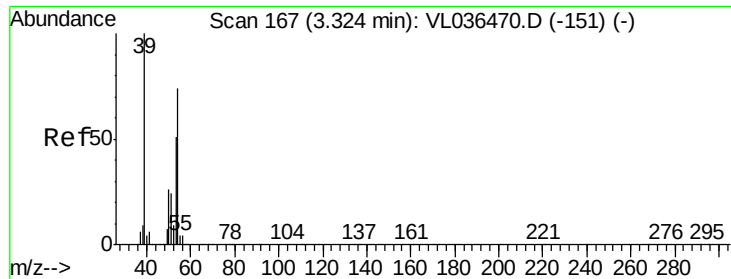
Tgt Ion: 43 Resp: 1028259

Ion Ratio Lower Upper

43 100

58 26.6 21.2 31.8

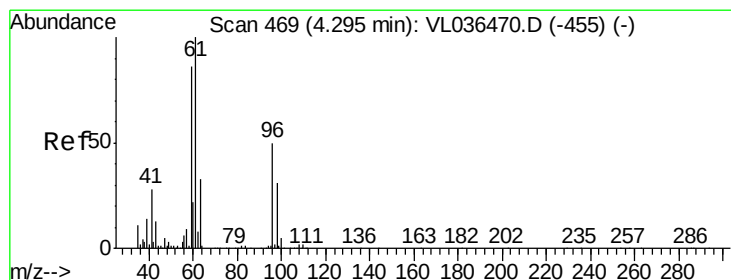
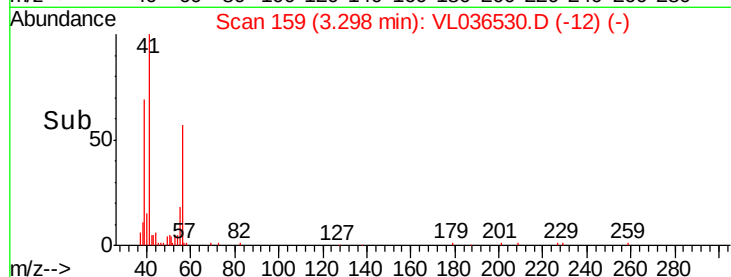
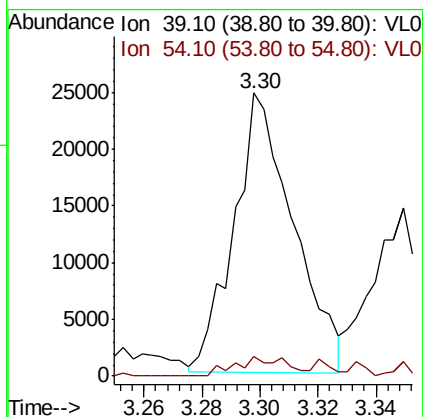
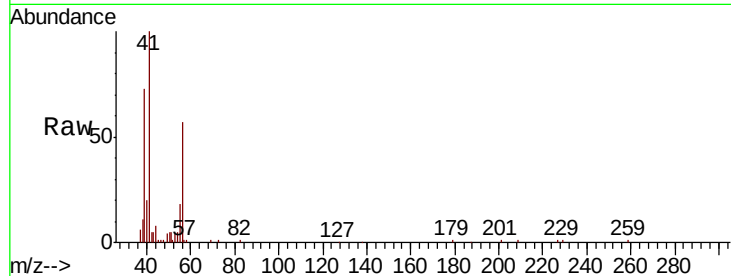




#16
1,3-Butadiene
Concen: 0.370 ppbv
RT: 3.30 min Scan# 159
Delta R.T. -0.03 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

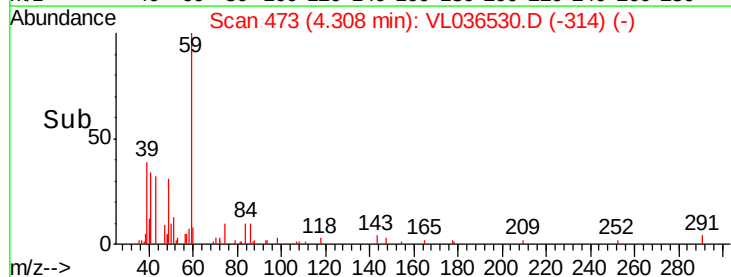
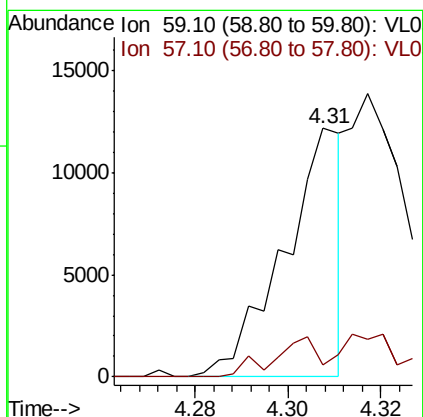
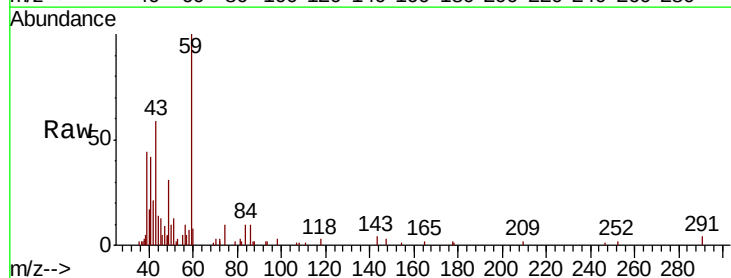
Instrument :
MSVOA_L
ClientSampleId :

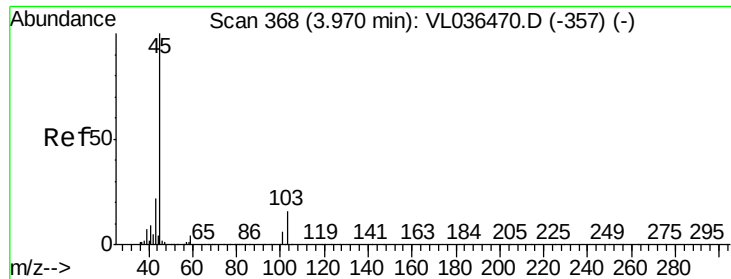
Tot Ion: 39 Resp: 35003
Ion Ratio Lower Upper
39 100
54 8.8 58.8 88.2#



#17
tert-Butyl alcohol
Concen: 0.089 ppbv
RT: 4.31 min Scan# 473
Delta R.T. 0.01 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

Tgt Ion: 59 Resp: 10559
Ion Ratio Lower Upper
59 100
57 0.0 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 6.296 ppbv

RT: 3.99 min Scan# 373

Delta R.T. 0.02 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

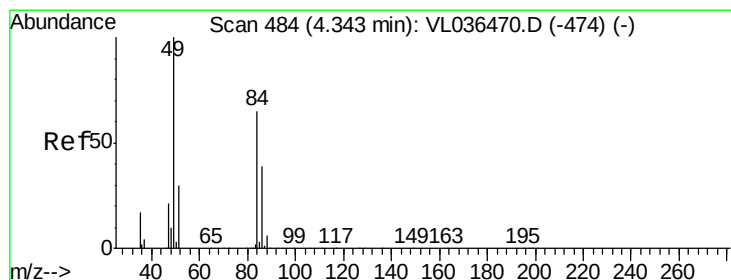
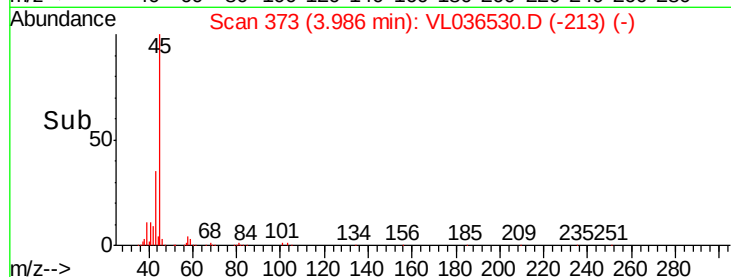
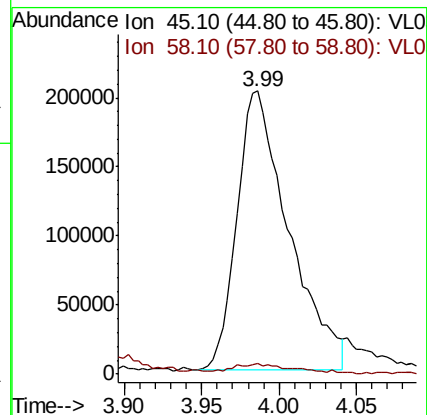
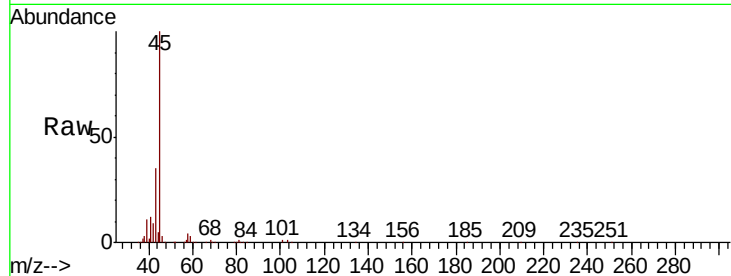
ClientSampleId :

Tot Ion: 45 Resp: 470624

Ion Ratio Lower Upper

45 100

58 4.1 2.9 4.3



#20

Methylene Chloride

Concen: 11.911 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Tgt Ion: 84 Resp: 757820

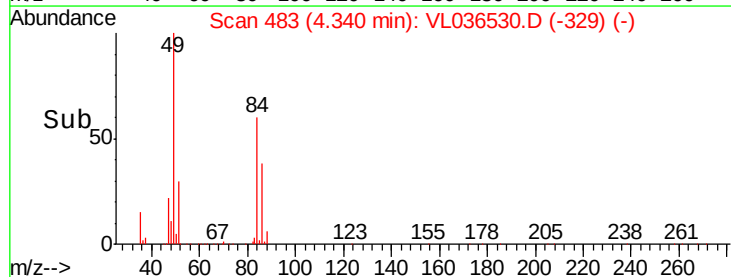
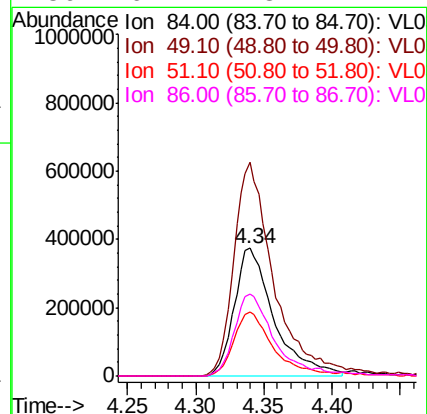
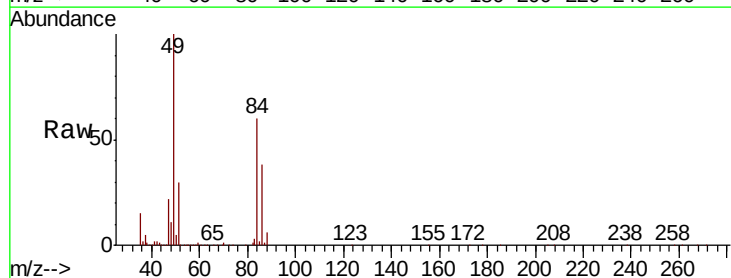
Ion Ratio Lower Upper

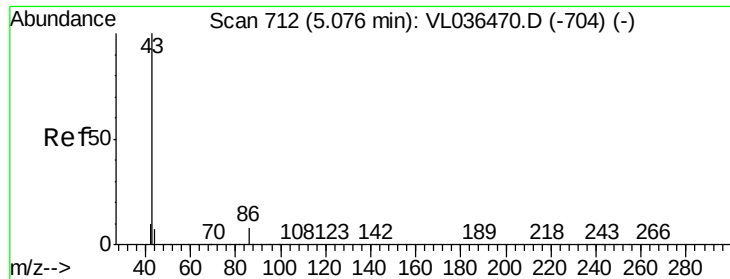
84 100

49 167.4 122.9 184.3

51 50.0 36.9 55.3

86 64.4 48.2 72.4

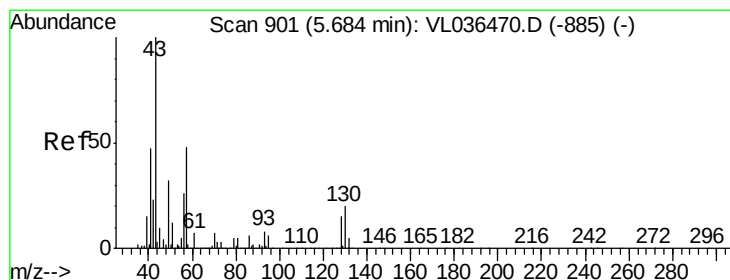
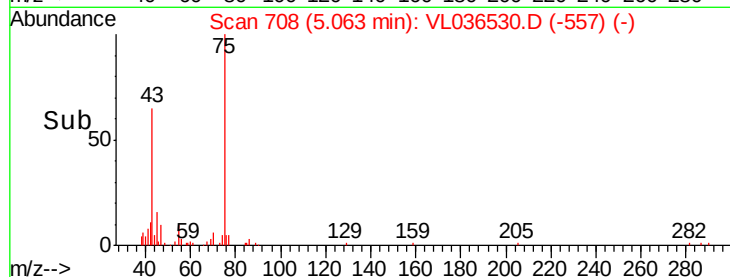
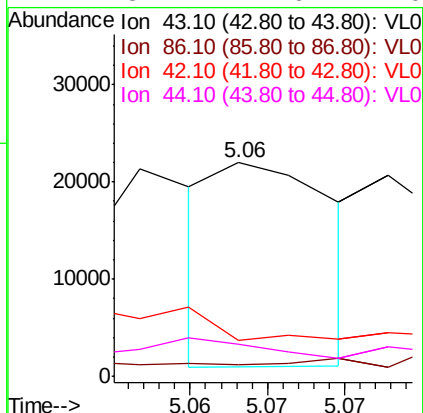
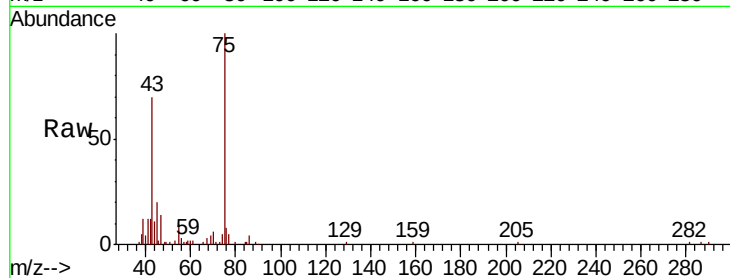




#23
 Vinyl Acetate
 Concen: 0.048 ppbv
 RT: 5.06 min Scan# 708
 Delta R.T. -0.01 min
 Lab File: VL036530.D
 Acq: 27 Mar 2021 1:49

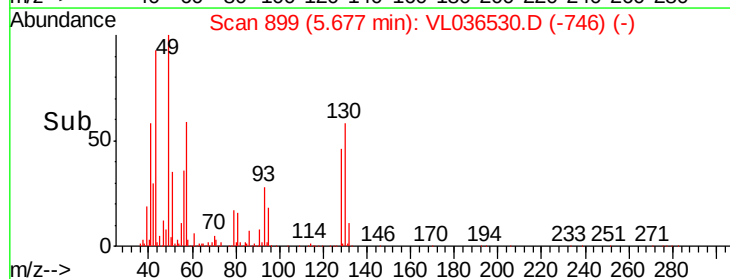
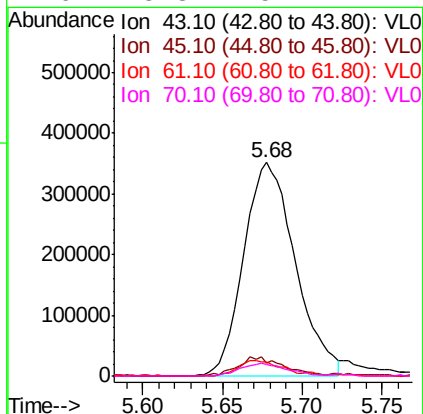
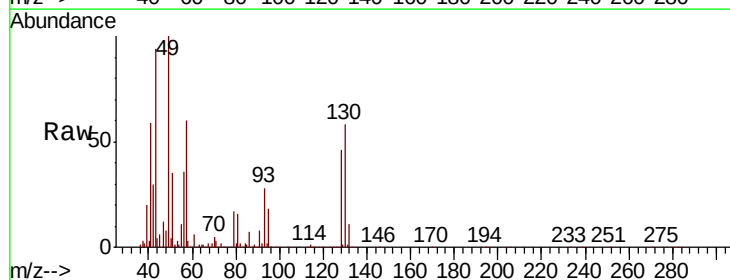
Instrument :
 MSVOA_L
 ClientSampleId :

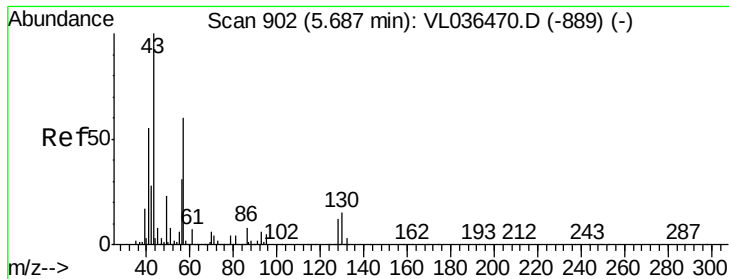
Tot Ion:	43	Resp:	11134
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.4	8.0#
42	0.0	8.5	12.7#
44	37.4	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 2.402 ppbv
 RT: 5.68 min Scan# 899
 Delta R.T. -0.01 min
 Lab File: VL036530.D
 Acq: 27 Mar 2021 1:49

Tgt Ion:	43	Resp:	775953
Ion	Ratio	Lower	Upper
43	100		
45	8.7	7.9	11.9
61	6.9	7.4	11.2#
70	5.8	5.1	7.7

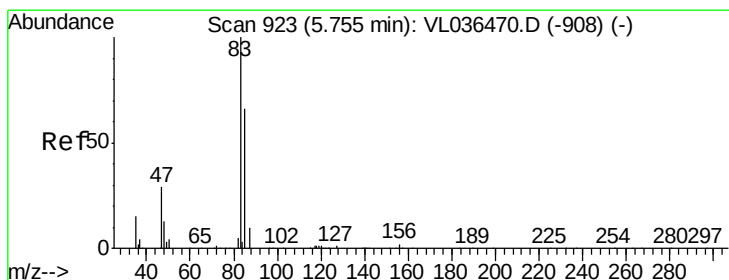
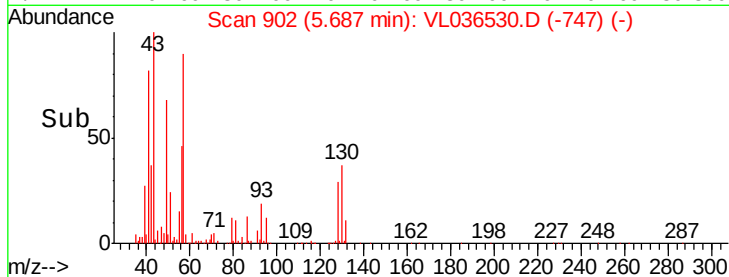
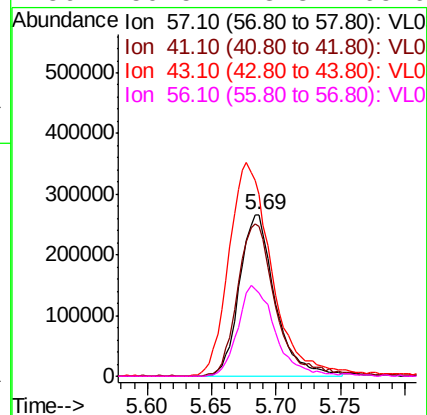
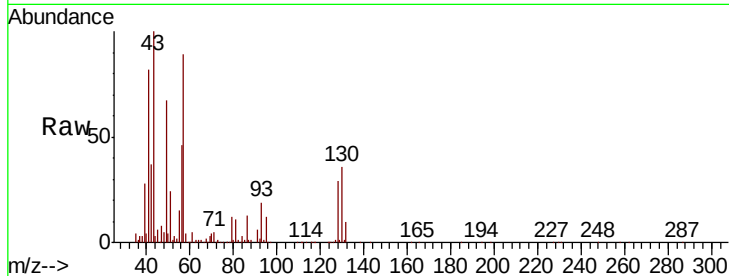




#26
Hexane
Concen: 3.414 ppbv
RT: 5.69 min Scan# 902
Delta R.T. -0.00 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

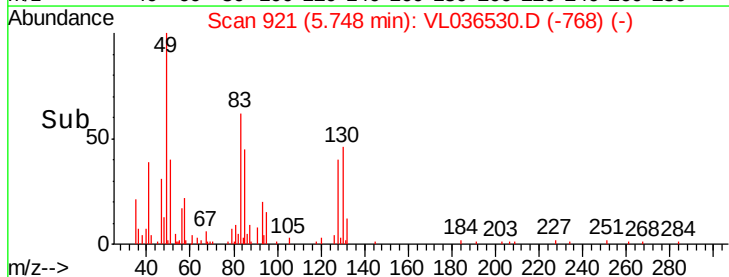
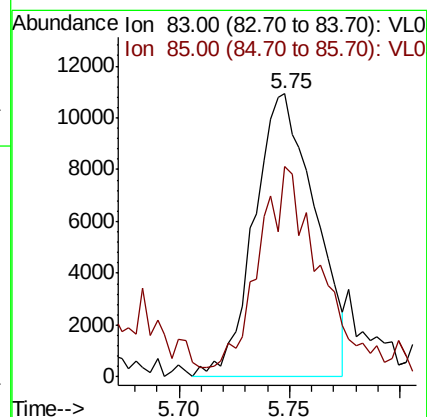
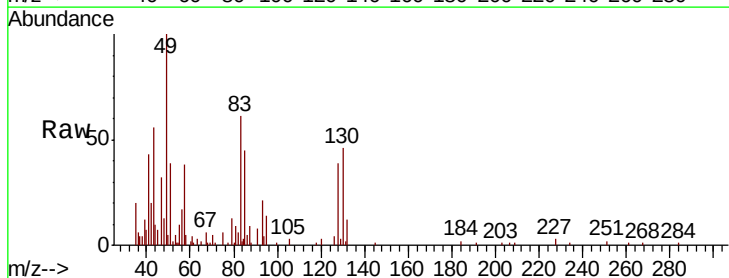
Instrument :
MSVOA_L
ClientSampleId :

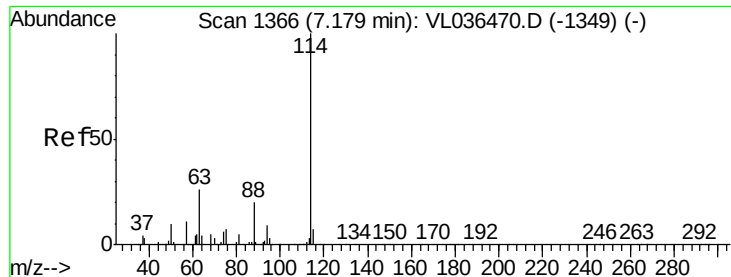
Tot Ion	57	Resp	511860
Ion Ratio	Lower	Upper	
57	100		
41	101.5	77.2	115.8
43	161.8	173.8	260.6#
56	59.5	43.8	65.6



#29
Chloroform
Concen: 0.087 ppbv
RT: 5.75 min Scan# 921
Delta R.T. -0.01 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

Tgt Ion	83	Resp	20963
Ion Ratio	Lower	Upper	
83	100		
85	66.6	52.6	78.8

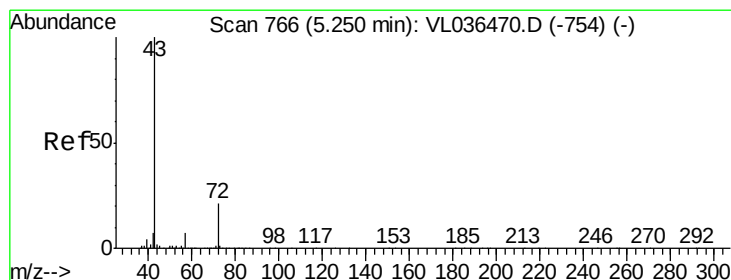
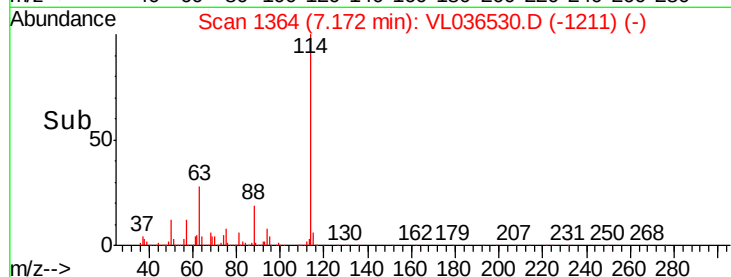
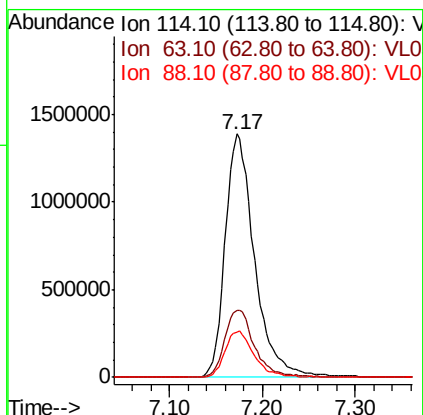
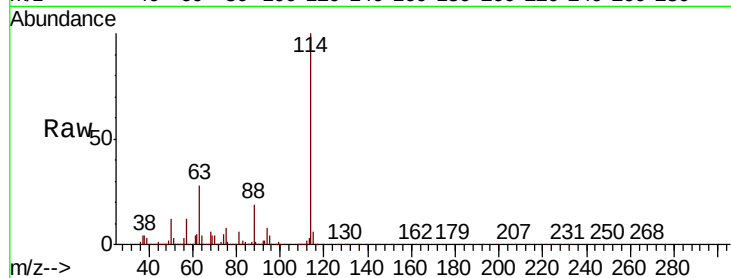




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.01 min
 Lab File: VL036530.D
 Acq: 27 Mar 2021 1:49

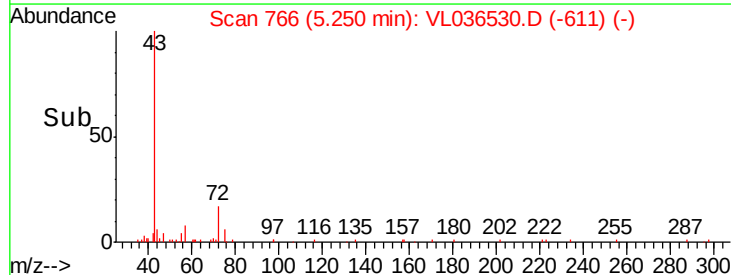
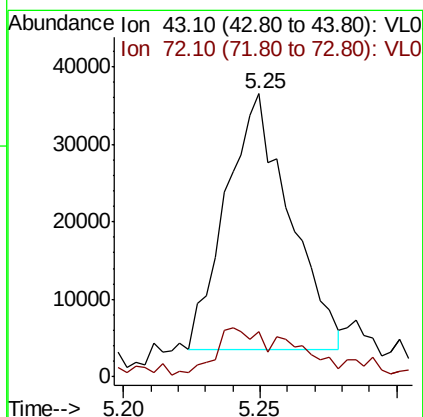
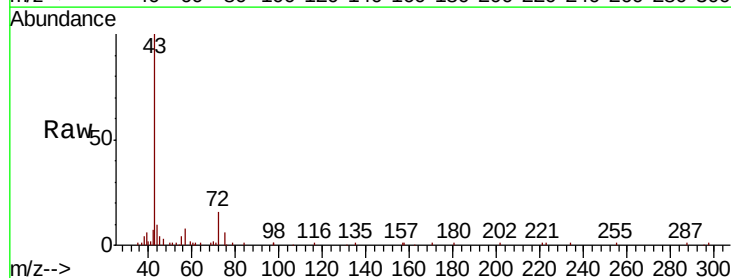
Instrument :
 MSVOA_L
 ClientSampleId :

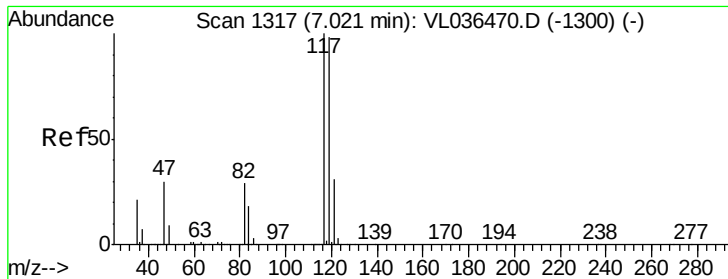
Tot Ion:114 Resp: 3051633
 Ion Ratio Lower Upper
 114 100
 63 28.4 22.4 33.6
 88 19.1 15.4 23.0



#34
 2-Butanone
 Concen: 0.360 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T. -0.00 min
 Lab File: VL036530.D
 Acq: 27 Mar 2021 1:49

Tgt Ion: 43 Resp: 53553
 Ion Ratio Lower Upper
 43 100
 72 30.8 17.0 25.6#





#35

Carbon Tetrachloride

Concen: 0.029 ppbv

RT: 7.02 min Scan# 1316

Delta R.T. -0.00 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

ClientSampled :

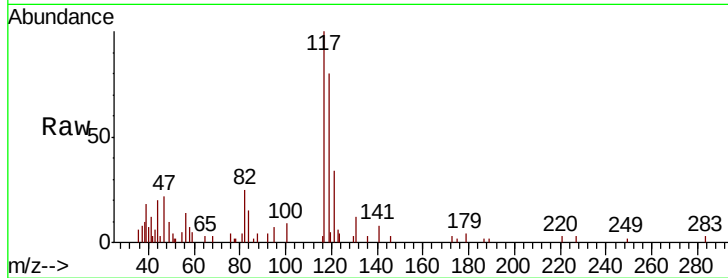
Tot Ion:117 Resp: 6857

Ion Ratio Lower Upper

117 100

119 89.0 78.2 117.2

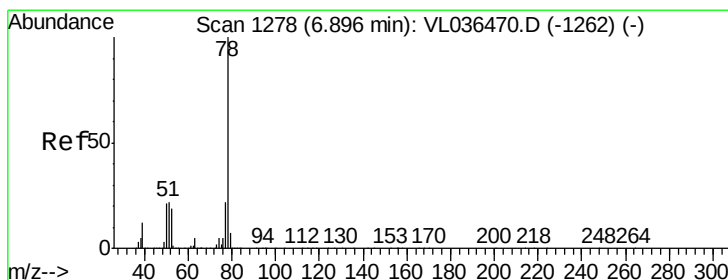
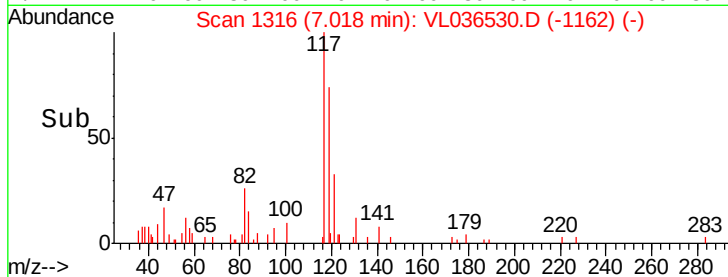
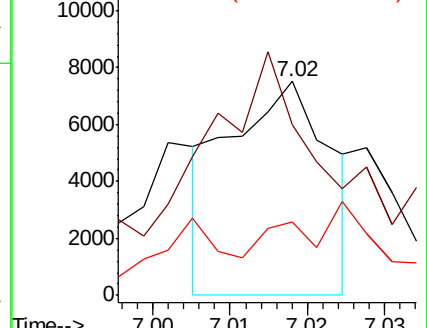
121 0.0 24.5 36.7#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.054 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

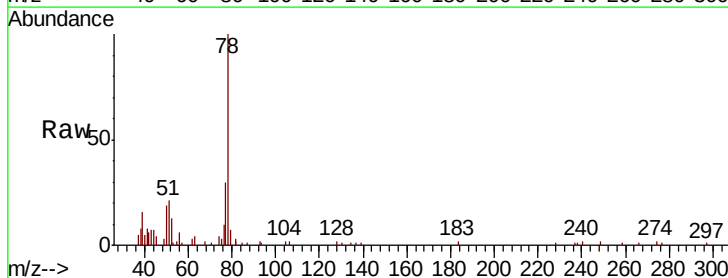
Tgt Ion: 78 Resp: 15194

Ion Ratio Lower Upper

78 100

77 30.0 18.0 27.0#

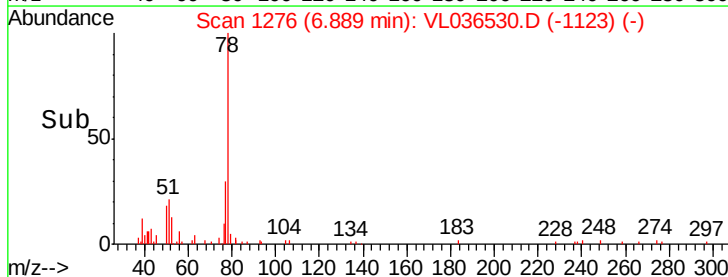
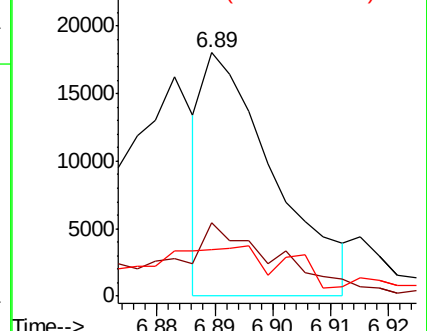
50 19.6 16.5 24.7

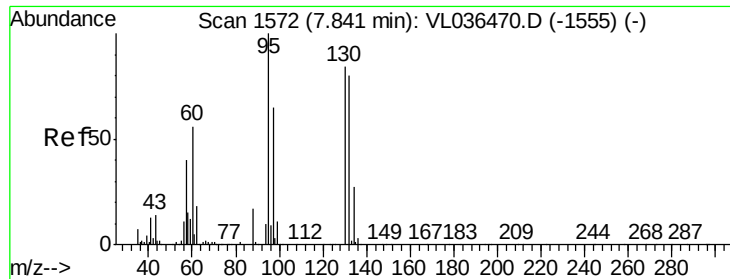


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#38

Trichloroethene

Concen: 1.644 ppbv

RT: 7.83 min Scan# 1570

Delta R.T. -0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:130 Resp: 180108

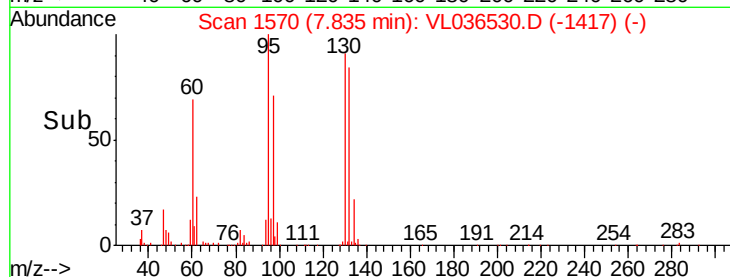
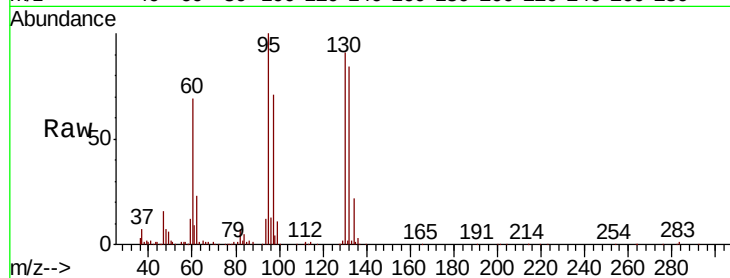
Ion Ratio Lower Upper

130 100

95 105.6 95.7 143.5

132 89.5 76.2 114.4

97 75.5 61.8 92.6

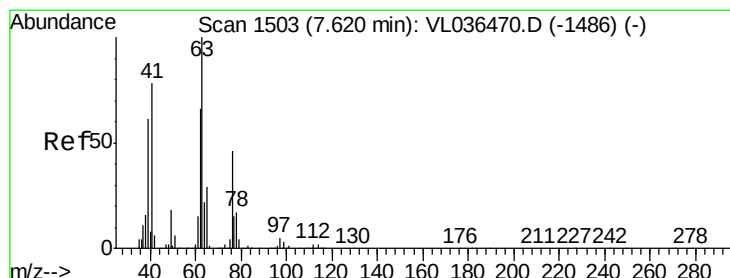
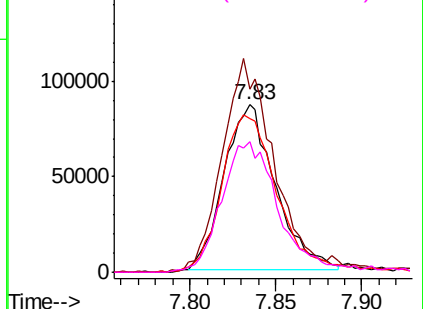


Abundance Ion 130.00 (129.70 to 130.70): V

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: 7.365 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.45 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

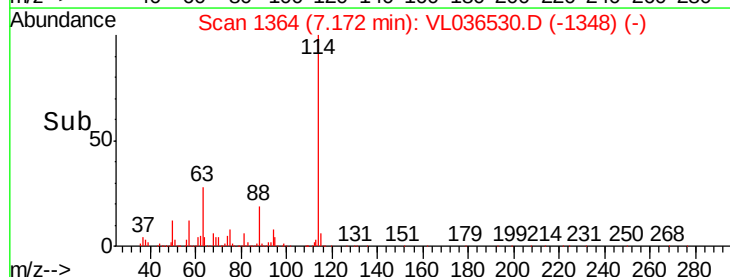
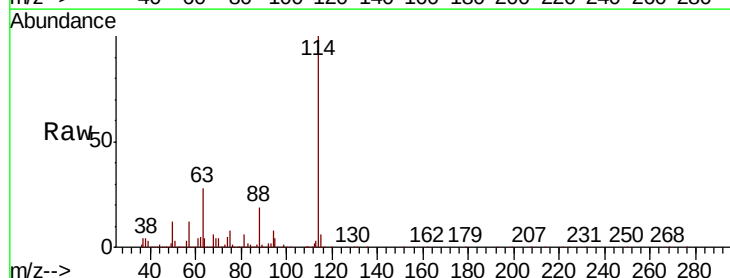
Tgt Ion: 63 Resp: 840825

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

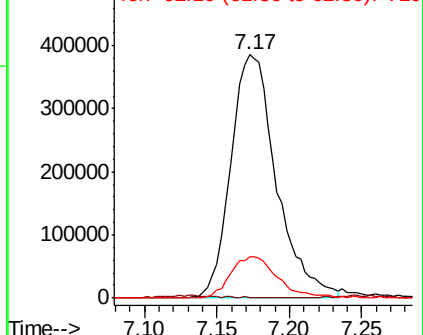
62 17.0 52.8 79.2#

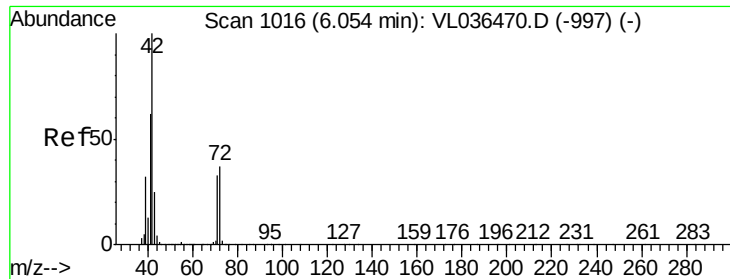


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 0.089 ppbv

RT: 5.72 min Scan# 913

Delta R.T. -0.33 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

ClientSampleId :

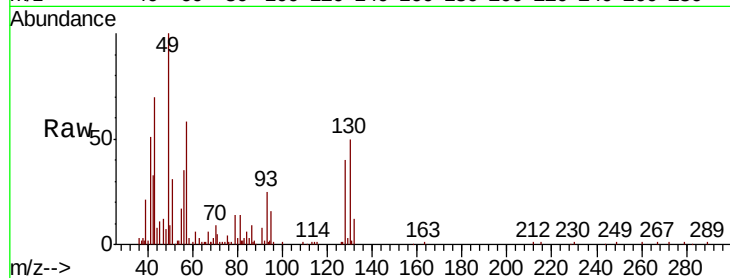
Tot Ion: 42 Resp: 6120

Ion Ratio Lower Upper

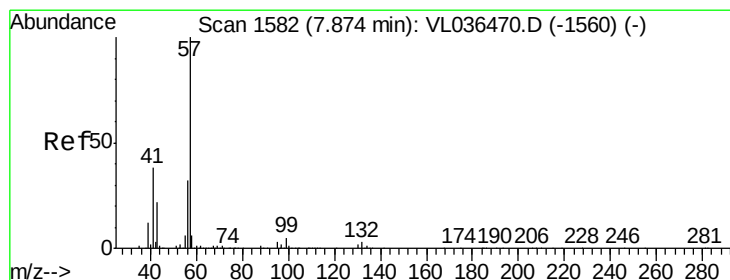
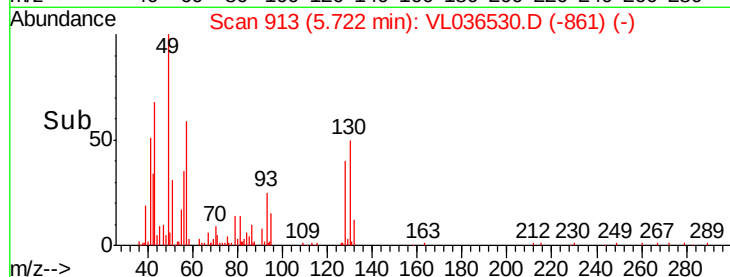
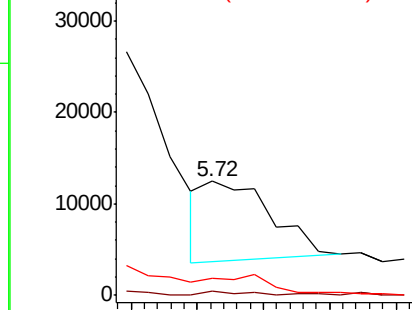
42 100

72 1.7 27.6 41.4#

71 0.0 27.0 40.4#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.022 ppbv

RT: 7.88 min Scan# 1583

Delta R.T. 0.00 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

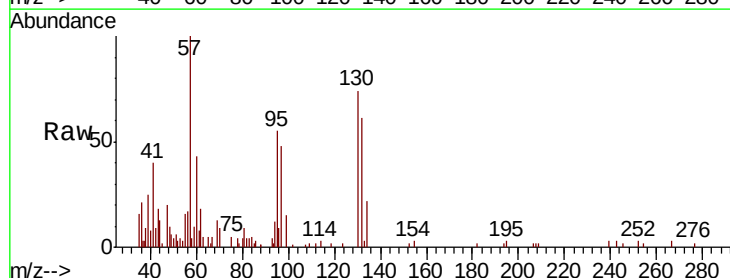
Tgt Ion: 57 Resp: 11087

Ion Ratio Lower Upper

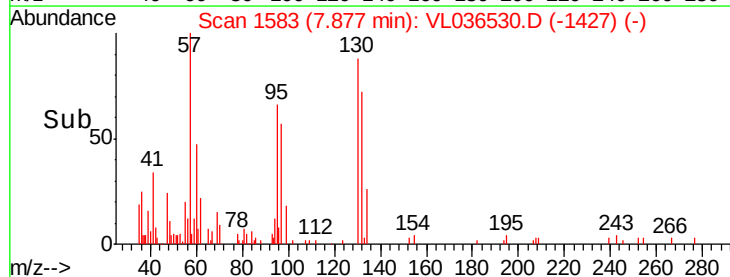
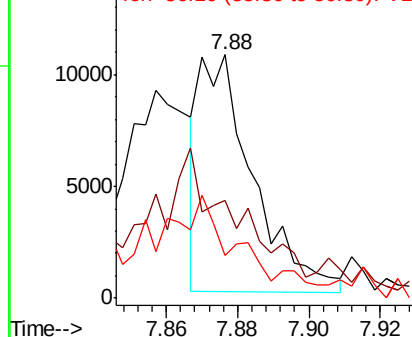
57 100

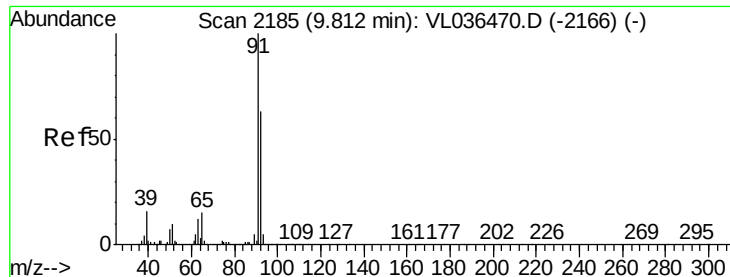
41 121.5 28.8 43.2#

56 80.0 26.1 39.1#



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





#53

Toluene

Concen: 0.349 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. -0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

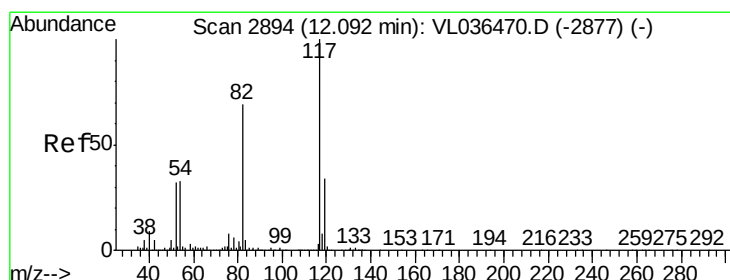
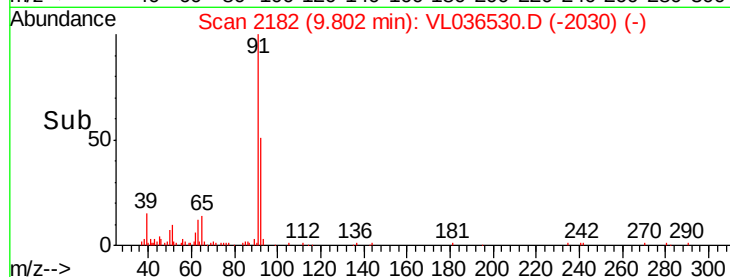
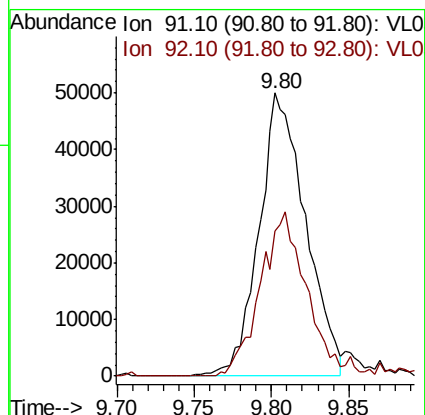
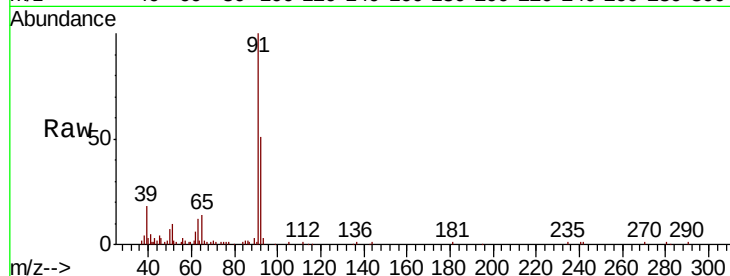
ClientSampled :

Tot Ion: 91 Resp: 104611

Ion Ratio Lower Upper

91 100

92 58.8 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

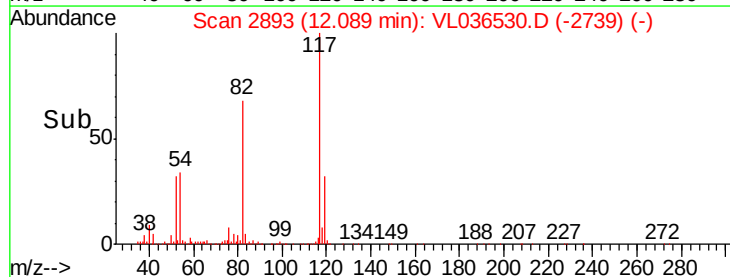
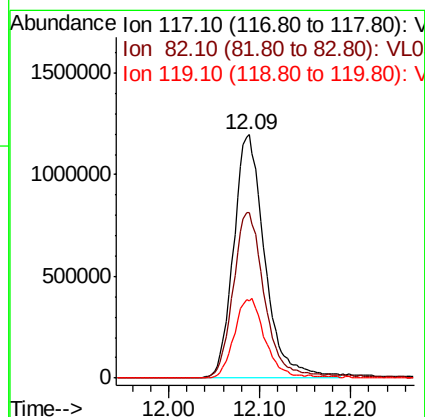
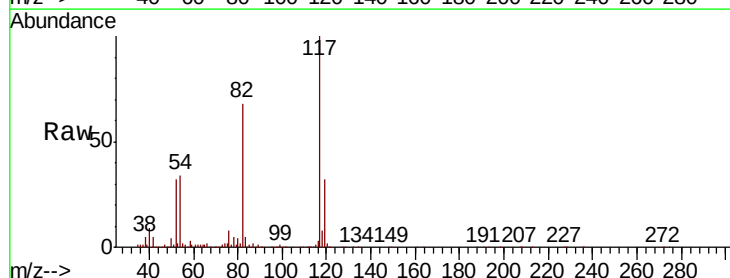
Tgt Ion: 117 Resp: 2867203

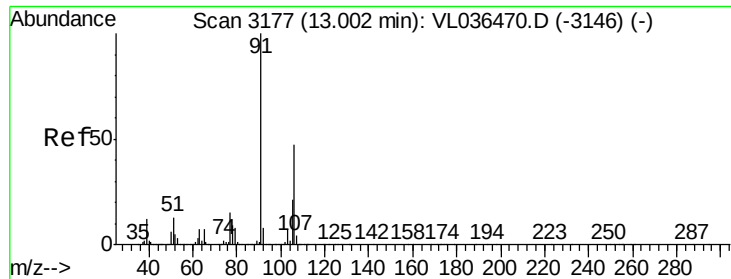
Ion Ratio Lower Upper

117 100

82 70.0 57.4 86.0

119 33.2 47.4 71.0#

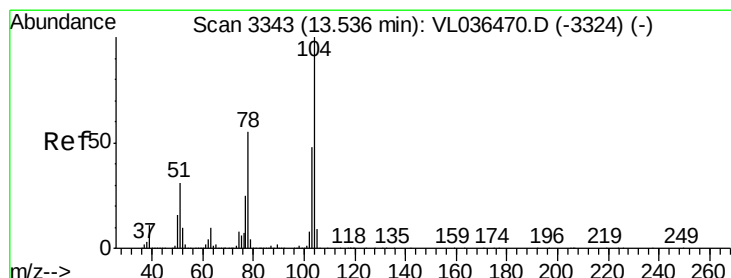
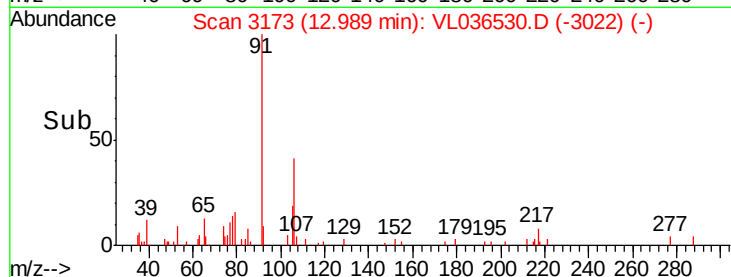
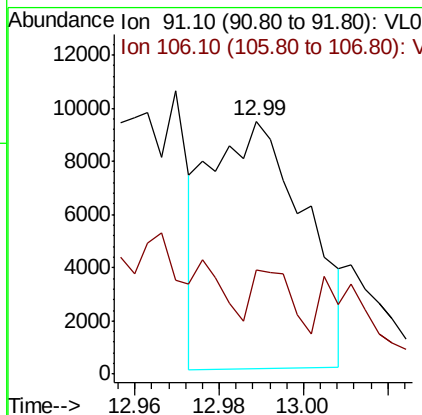
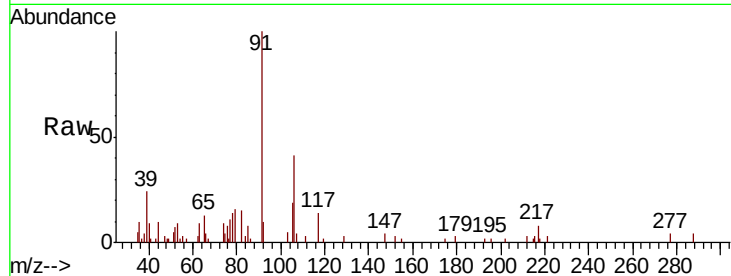




#59
m/p-Xylene
Concen: 0.040 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. -0.01 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

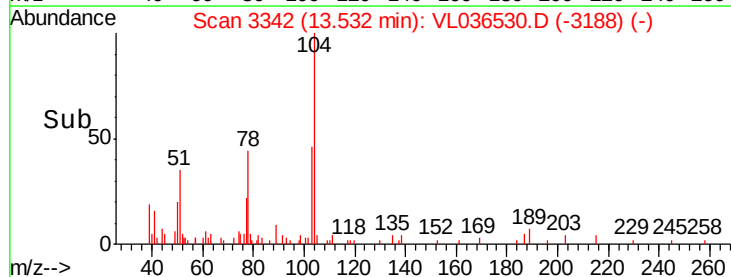
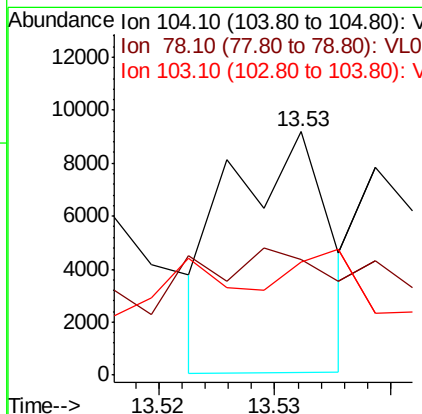
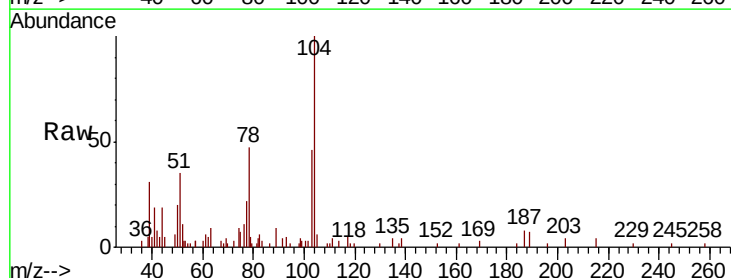
Instrument :
MSVOA_L
ClientSampled :

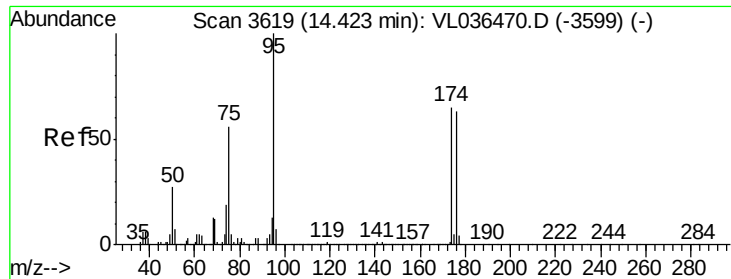
Tot Ion: 91 Resp: 14731
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#



#61
Styrene
Concen: 0.030 ppbv
RT: 13.53 min Scan# 3342
Delta R.T. -0.00 min
Lab File: VL036530.D
Acq: 27 Mar 2021 1:49

Tgt Ion: 104 Resp: 5381
Ion Ratio Lower Upper
104 100
78 258.5 43.8 65.8#
103 0.0 38.3 57.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.613 ppbv

RT: 14.42 min Scan# 3617

Delta R.T. -0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

ClientSampleId :

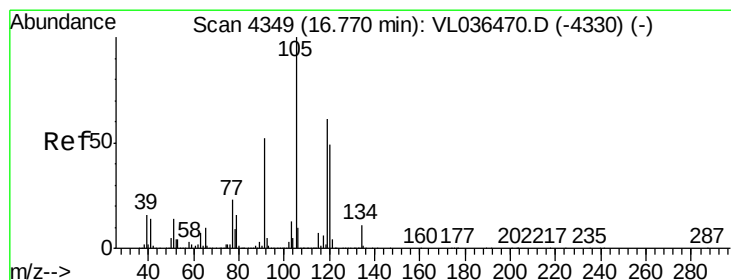
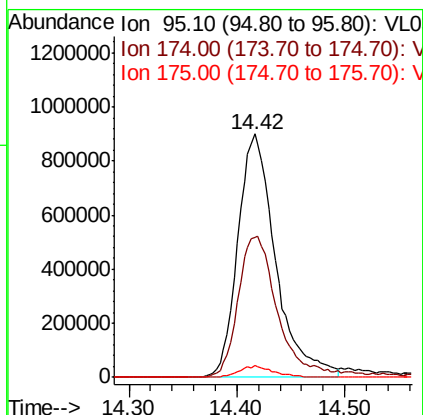
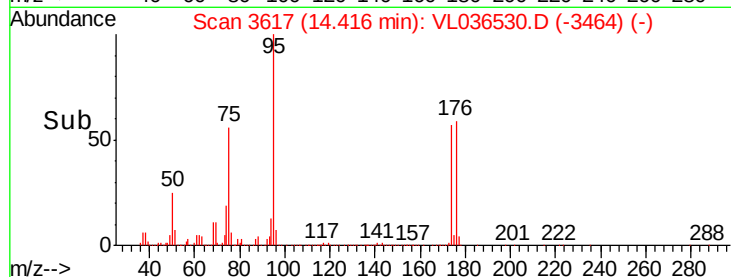
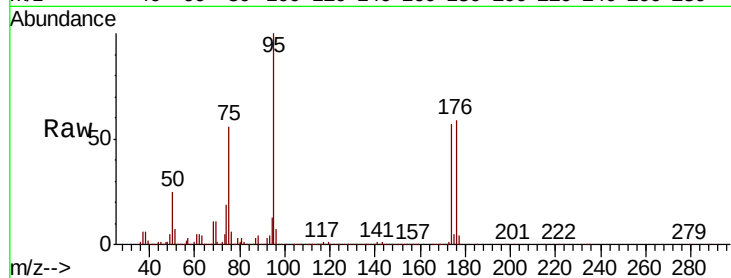
Tot Ion: 95 Resp: 2196815

Ion Ratio Lower Upper

95 100

174 63.0 51.0 76.6

175 4.7 3.9 5.9



#74

1,2,4-Trimethylbenzene

Concen: 0.043 ppbv

RT: 16.76 min Scan# 4346

Delta R.T. -0.01 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Tgt Ion: 105 Resp: 16698

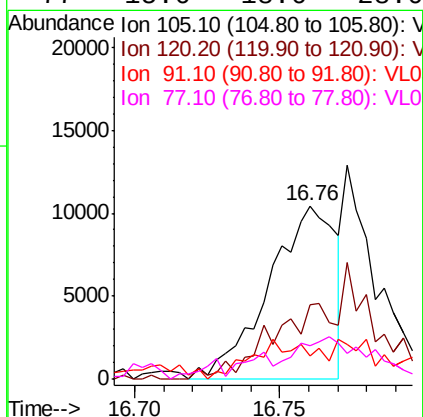
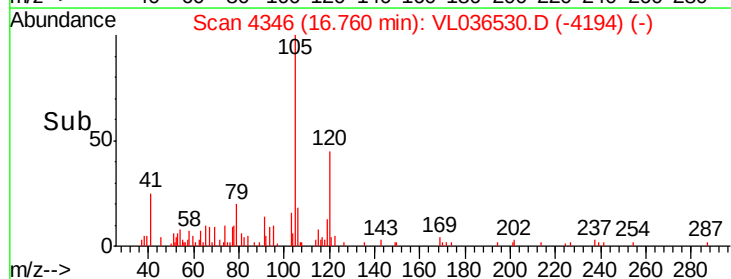
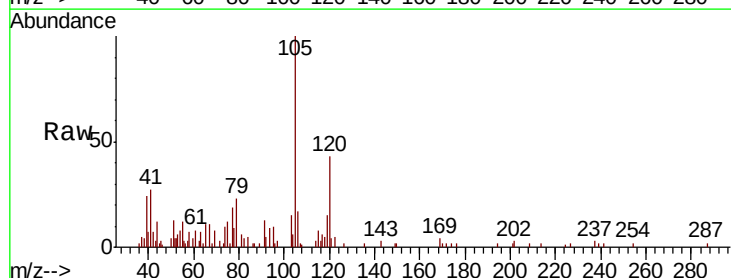
Ion Ratio Lower Upper

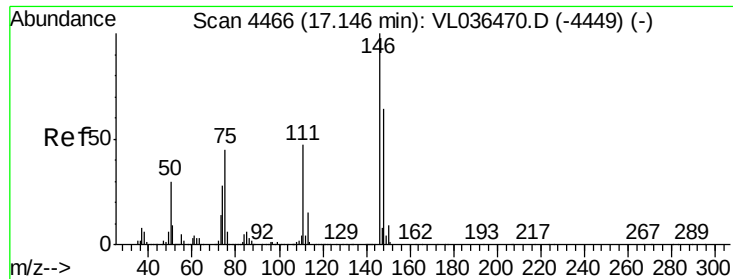
105 100

120 46.8 39.2 58.8

91 11.1 42.6 64.0#

77 15.6 18.6 28.0#





#76

1,4-Dichlorobenzene

Concen: 0.036 ppbv

RT: 17.15 min Scan# 4466

Delta R.T. -0.00 min

Lab File: VL036530.D

Acq: 27 Mar 2021 1:49

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:146 Resp: 7736

Ion Ratio Lower Upper

146 100

111 0.0 24.3 72.8#

148 380.6 33.0 98.9#

