

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040721\
 Data File : VL036740.D
 Acq On : 7 Apr 2021 23:59
 Operator : SY/AP
 Sample : M1929-08DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 FS-SV02DL

Quant Time: Apr 08 02:44:16 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Apr 08 01:58:43 2021
 QLast Update : Thu Apr 08 01:58:43 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1246080	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3091407	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.08	117	2680953	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	2054313	9.61	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.10%

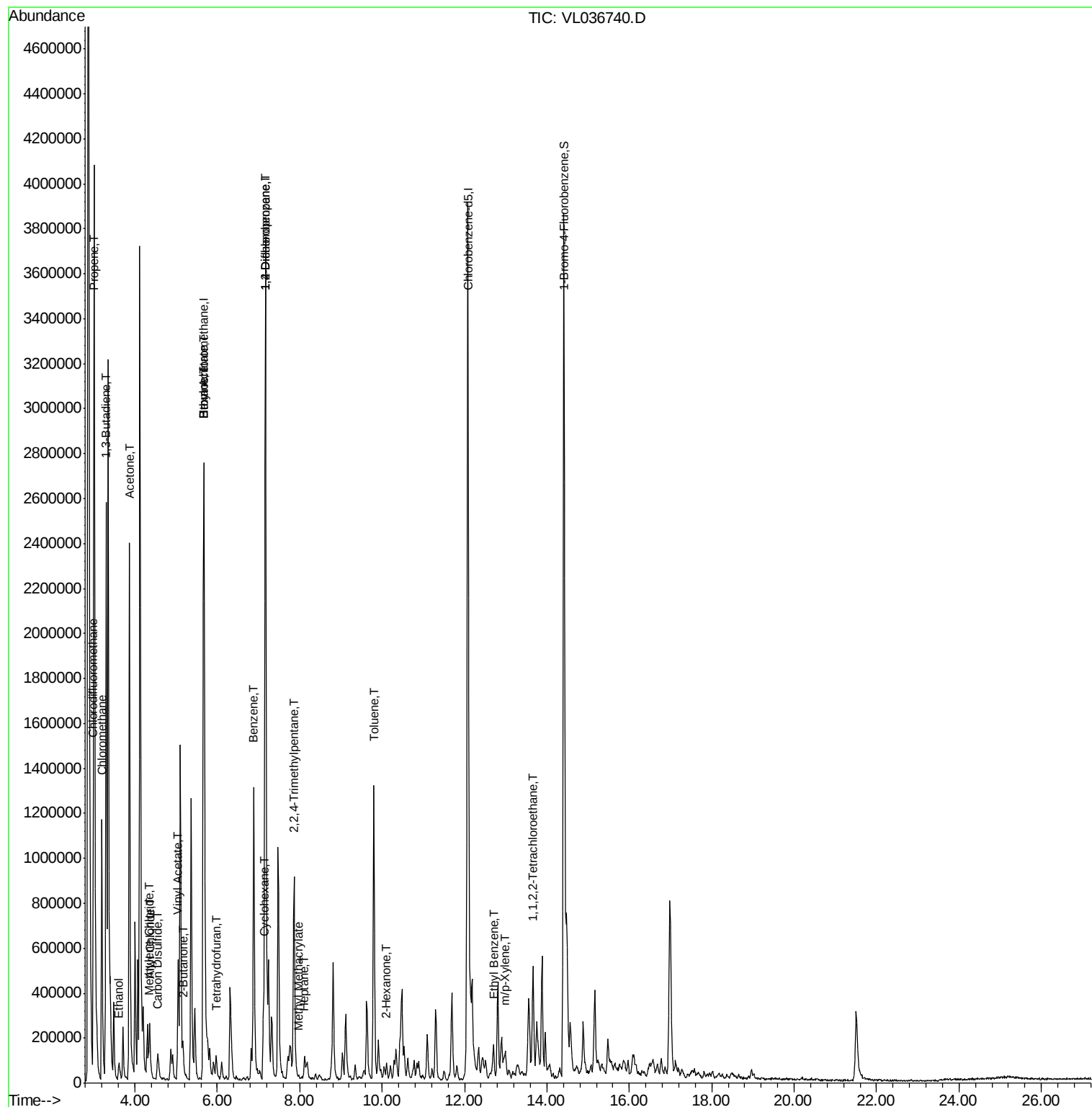
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.98	51	8483	0.036	ppbv #	87
4) Chloromethane	3.20	50	8642	0.105	ppbv #	70
9) Propene	3.00	41	2297229	30.952	ppbv	90
10) Heptane	8.11	43	31210	0.165	ppbv #	28
13) Ethanol	3.60	45	40070	4.534	ppbv #	34
15) Acetone	3.87	43	997971	8.137	ppbv #	60
16) 1,3-Butadiene	3.30	39	813746	9.530	ppbv #	23
20) Methylene Chloride	4.34	84	15642	0.272	ppbv #	76
21) Allyl Chloride	4.36	41	30582	0.313	ppbv #	1
23) Vinyl Acetate	5.05	43	136087	0.649	ppbv #	1
25) Ethyl Acetate	5.68	43	526420	1.805	ppbv #	78
26) Hexane	5.68	57	736678	5.444	ppbv #	45
27) Carbon Disulfide	4.54	76	137249	1.030	ppbv	94
30) Cyclohexane	7.13	84	122821	1.119	ppbv	92
34) 2-Butanone	5.18	43	11521	0.076	ppbv #	1
36) Benzene	6.88	78	1198147	4.202	ppbv	99
39) 1,2-Dichloropropane	7.17	63	800967	6.925	ppbv #	24
41) Tetrahydrofuran	5.98	42	6203	0.089	ppbv #	42
43) Methyl Methacrylate	7.99	69	2957	0.031	ppbv #	1
44) 2,2,4-Trimethylpentane	7.86	57	798061	1.590	ppbv #	88
51) 2-Hexanone	10.12	43	3905	0.035	ppbv #	30
53) Toluene	9.80	91	802061	2.642	ppbv	99
58) Ethyl Benzene	12.71	91	103015	0.264	ppbv	92
59) m/p-Xylene	12.99	91	27952	0.082	ppbv #	32
63) 1,1,2,2-Tetrachloroethane	13.66	83	7566	0.030	ppbv #	24

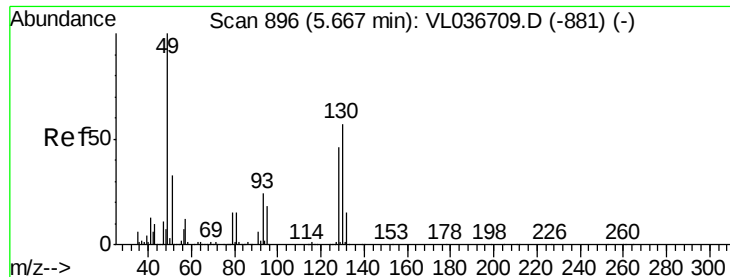
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleId :

FS-SV02DL

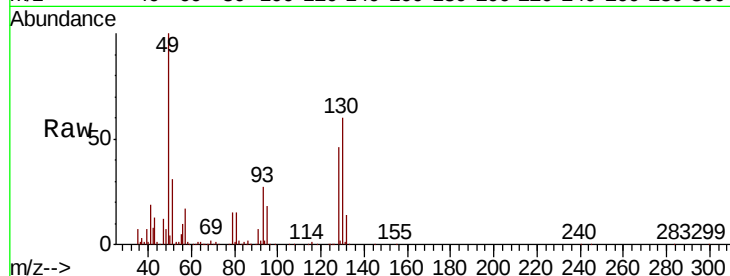
Tot Ion: 49 Resp: 1246080

Ion Ratio Lower Upper

49 100

128 46.8 23.5 70.6

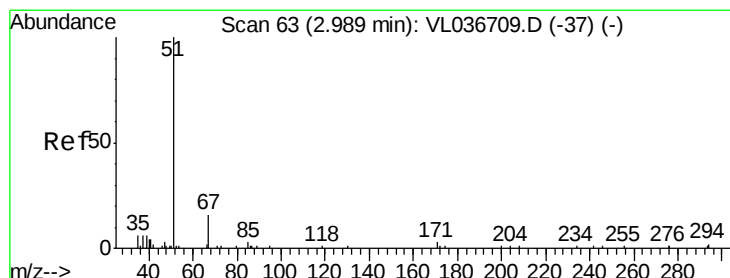
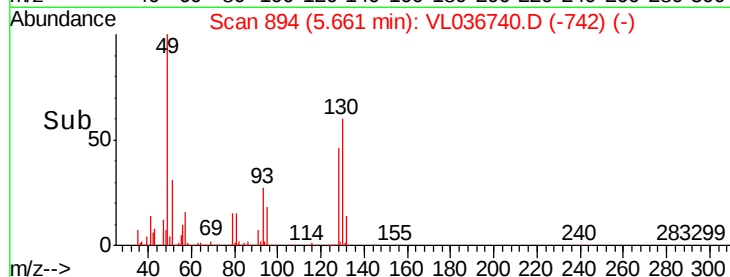
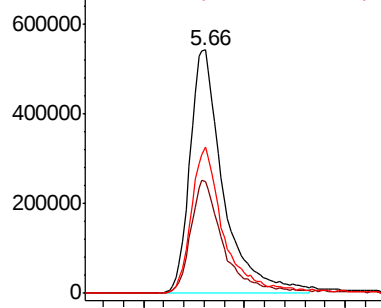
130 59.9 29.1 87.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.036 ppbv

RT: 2.98 min Scan# 60

Delta R.T. -0.01 min

Lab File: VL036740.D

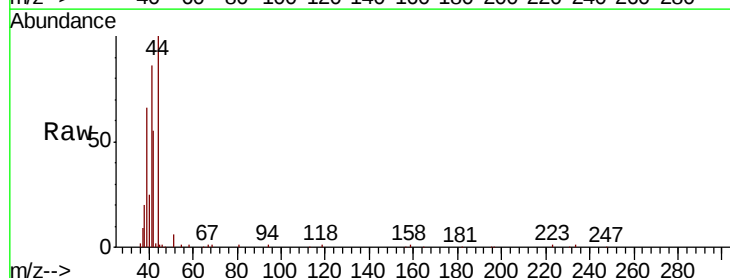
Acq: 7 Apr 2021 23:59

Tgt Ion: 51 Resp: 8483

Ion Ratio Lower Upper

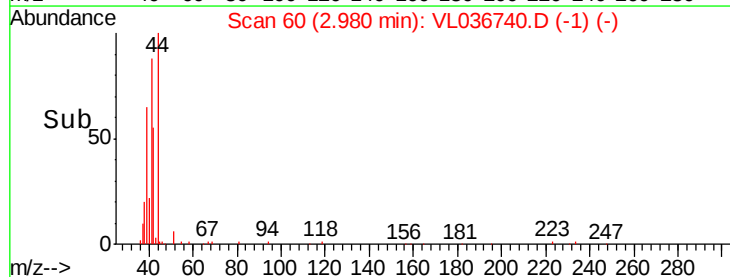
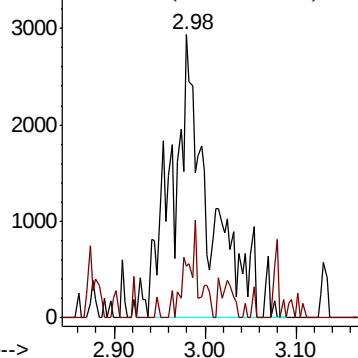
51 100

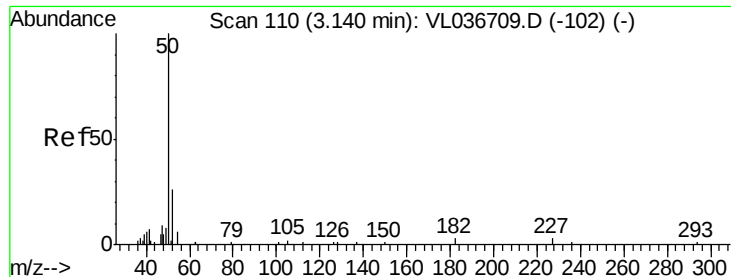
67 12.4 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.105 ppbv

RT: 3.20 min Scan# 129

Delta R.T. 0.06 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleId :

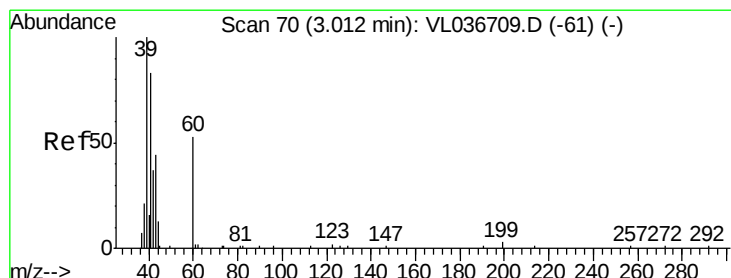
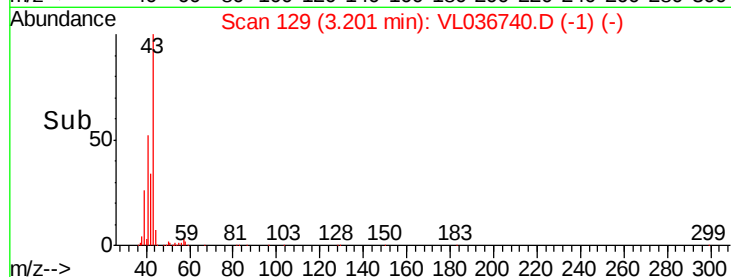
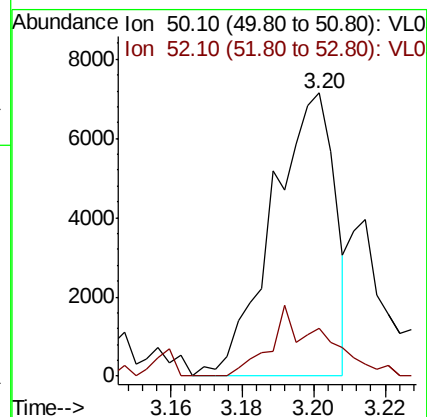
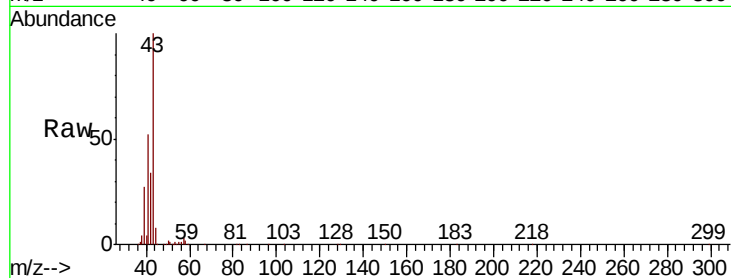
FS-SV02DL

Tot Ion: 50 Resp: 8642

Ion Ratio Lower Upper

50 100

52 16.9 27.0 40.6#



#9

Propene

Concen: 30.952 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.01 min

Lab File: VL036740.D

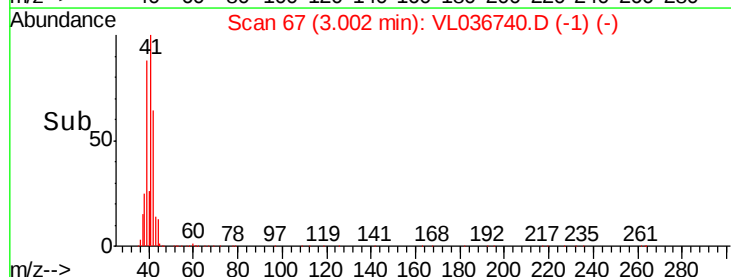
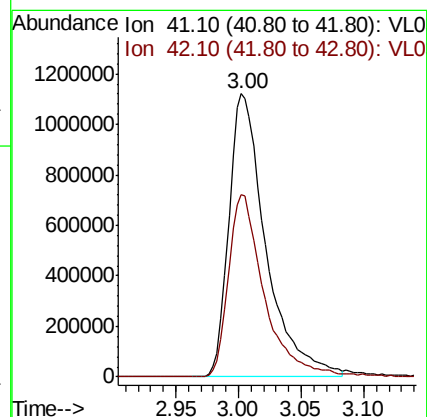
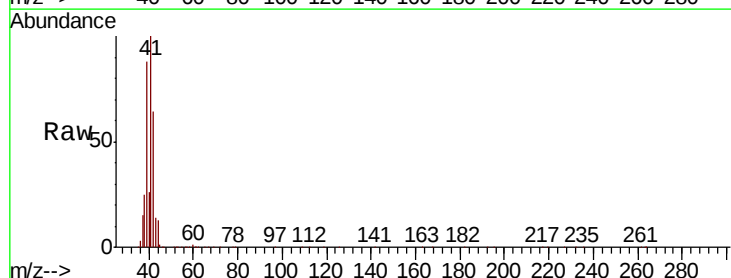
Acq: 7 Apr 2021 23:59

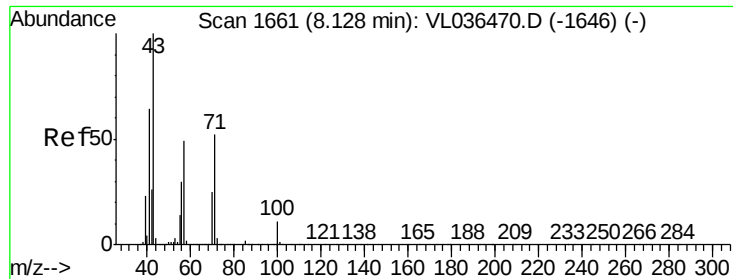
Tgt Ion: 41 Resp: 2297229

Ion Ratio Lower Upper

41 100

42 62.9 57.0 85.4

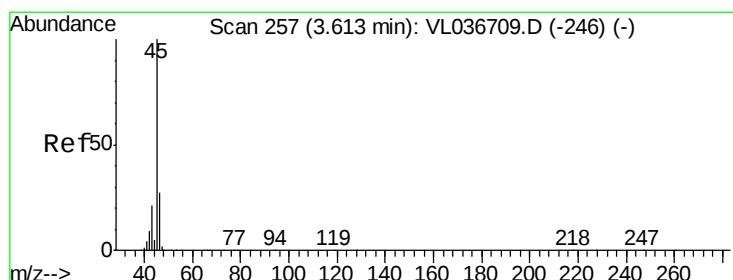
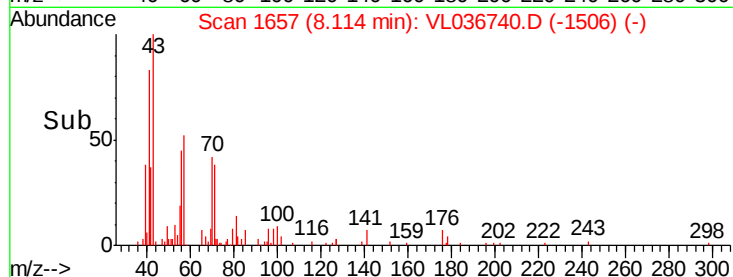
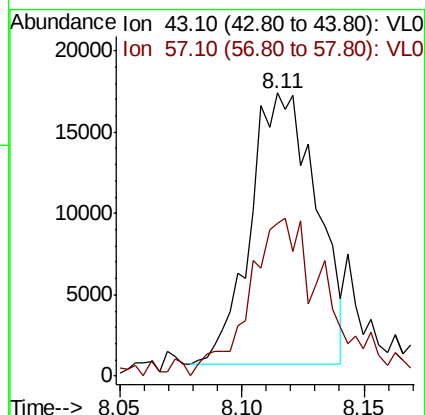
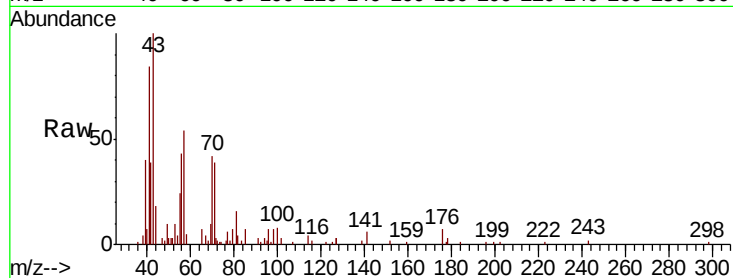




#10
Heptane
Concen: 0.165 ppbv
RT: 8.11 min Scan# 1657
Delta R.T. -0.01 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

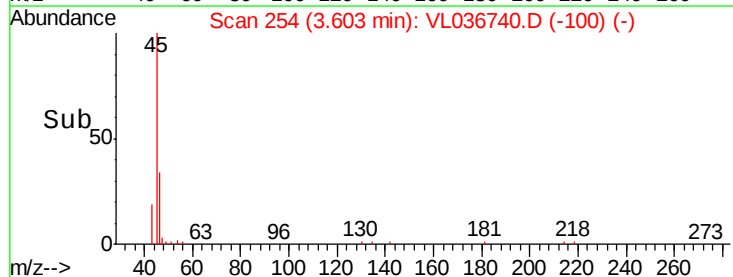
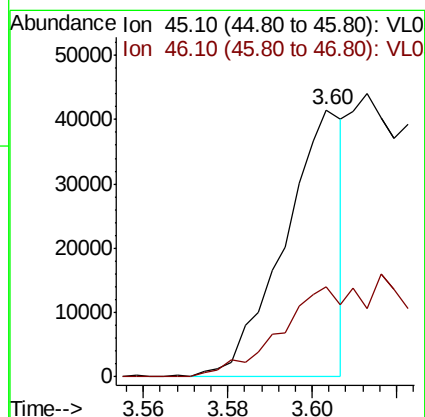
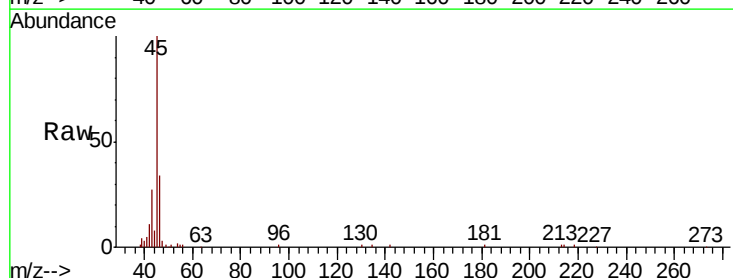
Instrument :
MSVOA_L
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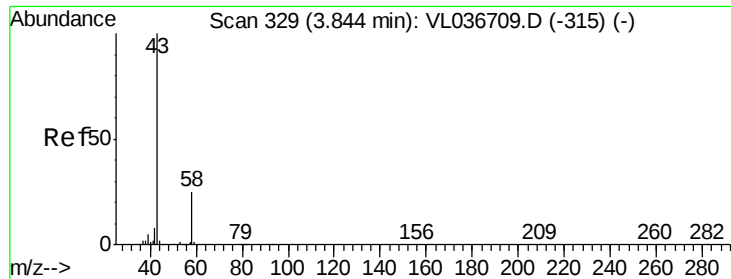
Tot Ion: 43 Resp: 31210
Ion Ratio Lower Upper
43 100
57 0.0 39.0 58.6#



#13
Ethanol
Concen: 4.534 ppbv
RT: 3.60 min Scan# 254
Delta R.T. -0.00 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

Tgt Ion: 45 Resp: 40070
Ion Ratio Lower Upper
45 100
46 0.0 16.6 66.2#





#15

Acetone

Concen: 8.137 ppbv

RT: 3.87 min Scan# 336

Delta R.T. 0.02 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleId :

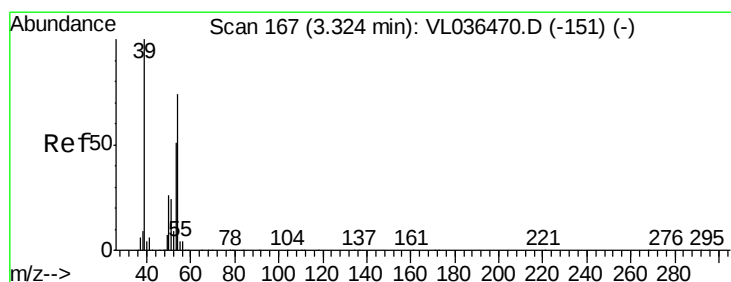
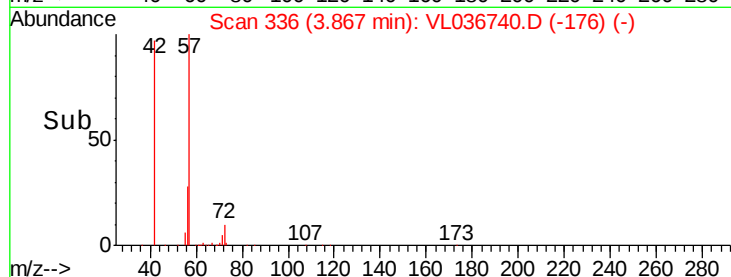
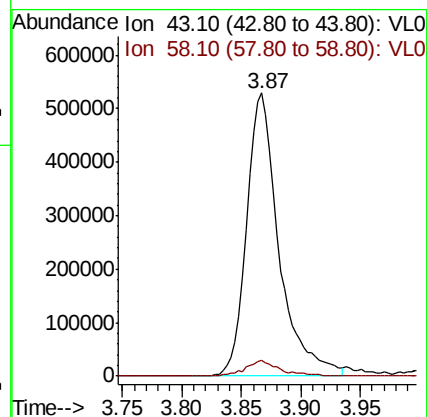
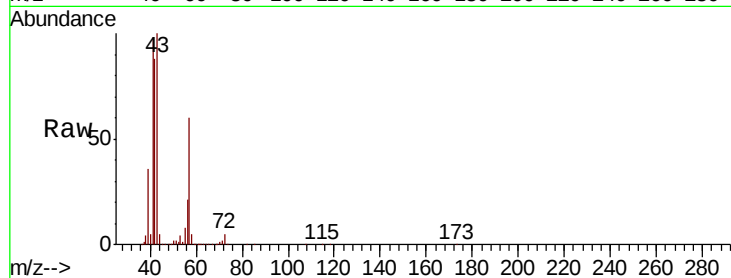
FS-SV02DL

Tot Ion: 43 Resp: 997971

Ion Ratio Lower Upper

43 100

58 6.2 21.2 31.8#



#16

1,3-Butadiene

Concen: 9.530 ppbv

RT: 3.30 min Scan# 160

Delta R.T. -0.02 min

Lab File: VL036740.D

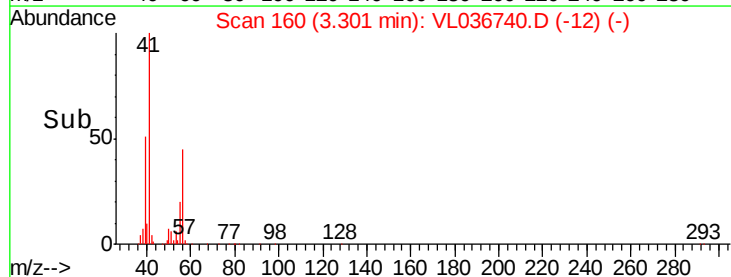
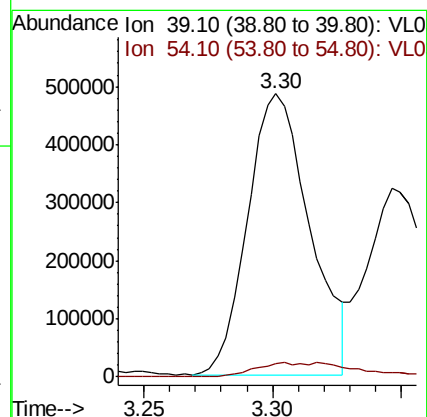
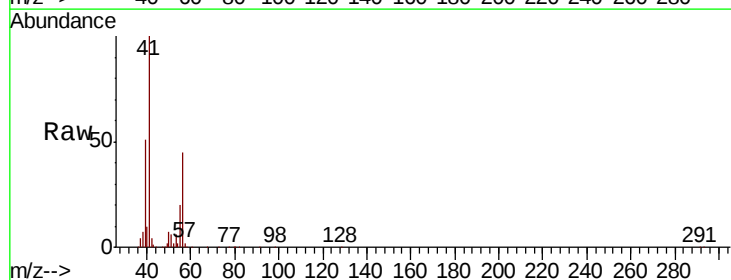
Acq: 7 Apr 2021 23:59

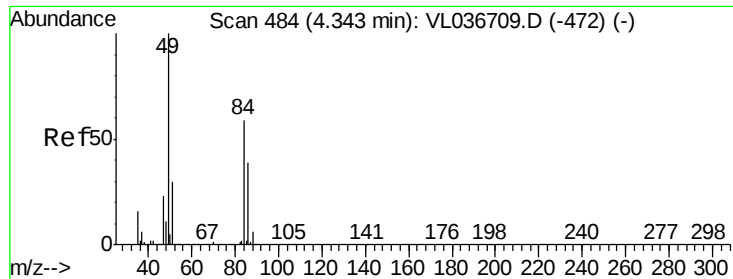
Tgt Ion: 39 Resp: 813746

Ion Ratio Lower Upper

39 100

54 8.7 58.8 88.2#

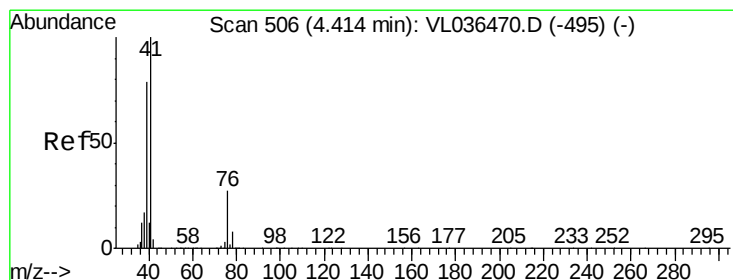
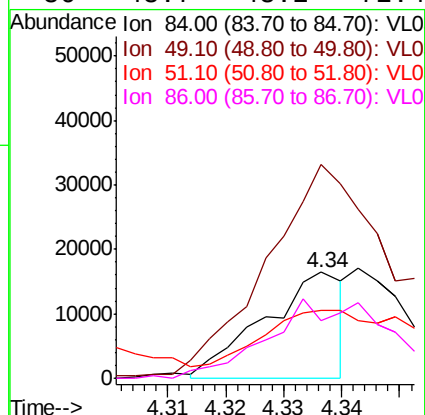
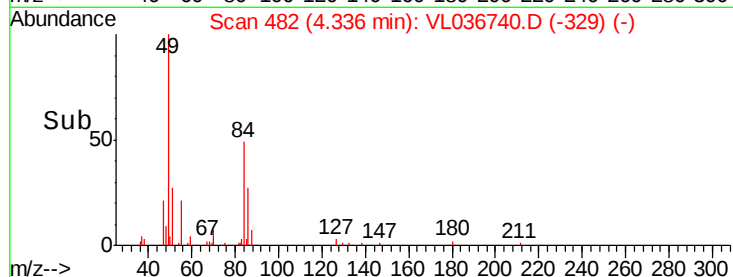
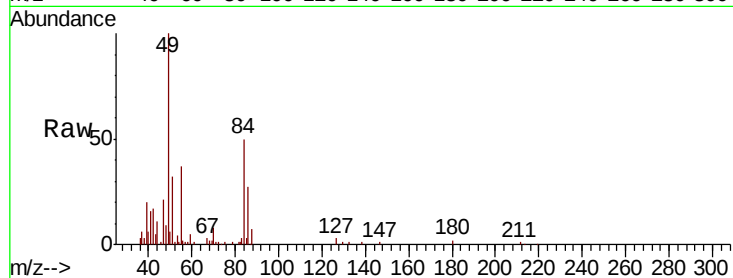




#20
Methylene Chloride
Concen: 0.272 ppbv
RT: 4.34 min Scan# 482
Delta R.T. -0.01 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

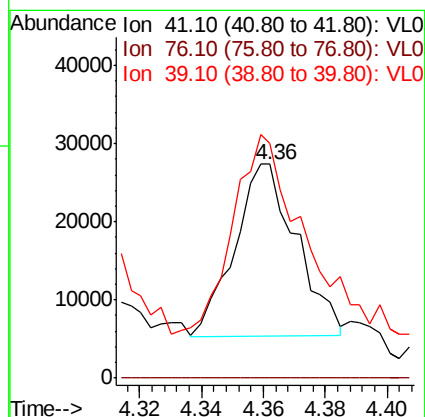
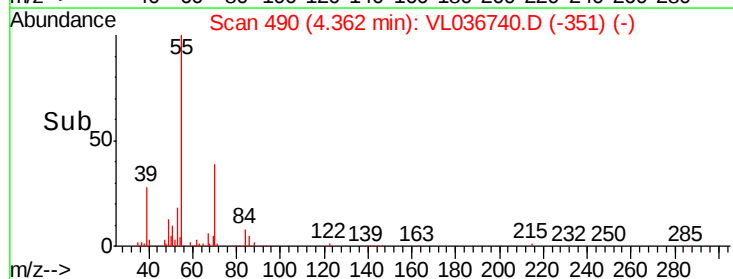
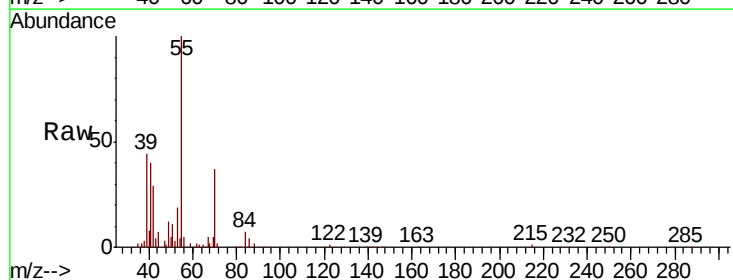
Instrument :
MSVOA_L
ClientSampleId :
FS-SV02DL

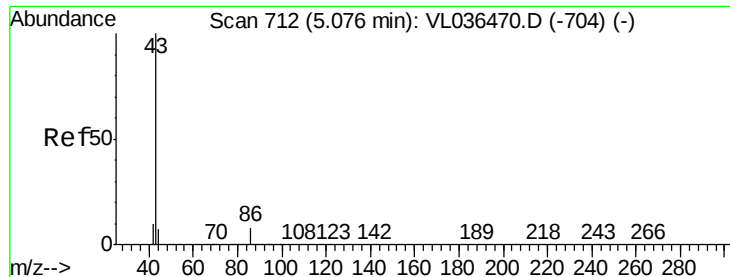
Tot Ion: 84 Resp: 15642
Ion Ratio Lower Upper
84 100
49 191.9 122.9 184.3#
51 55.3 36.9 55.3
86 48.7 48.2 72.4



#21
Allyl Chloride
Concen: 0.313 ppbv
RT: 4.36 min Scan# 490
Delta R.T. -0.05 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

Tgt Ion: 41 Resp: 30582
Ion Ratio Lower Upper
41 100
76 0.0 22.9 34.3#
39 211.7 67.3 100.9#





#23

Vinyl Acetate

Concen: 0.649 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.03 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleId :

FS-SV02DL

Tot Ion: 43 Resp: 136087

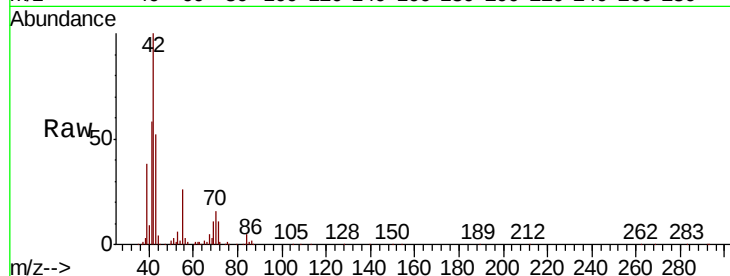
Ion Ratio Lower Upper

43 100

86 3.6 5.4 8.0#

42 191.2 8.5 12.7#

44 1.6 4.6 7.0#

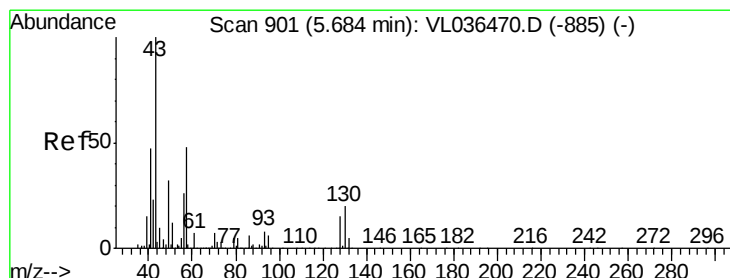
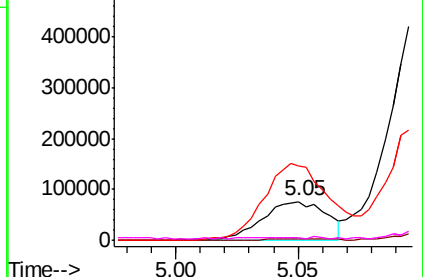
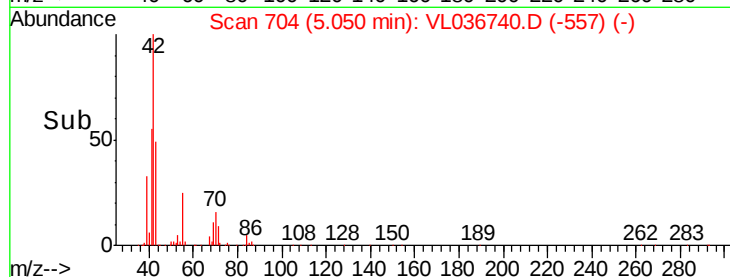


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 1.805 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.00 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Tgt Ion: 43 Resp: 526420

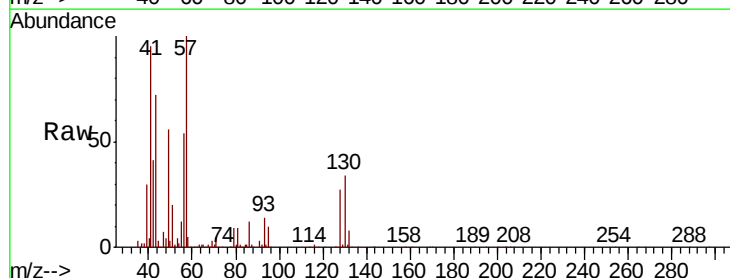
Ion Ratio Lower Upper

43 100

45 0.4 7.9 11.9#

61 0.4 7.4 11.2#

70 1.8 5.1 7.7#

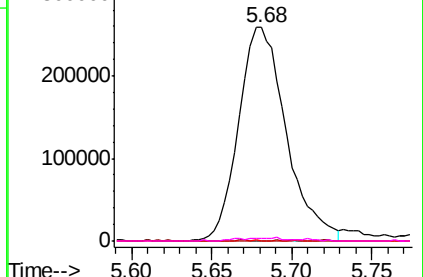
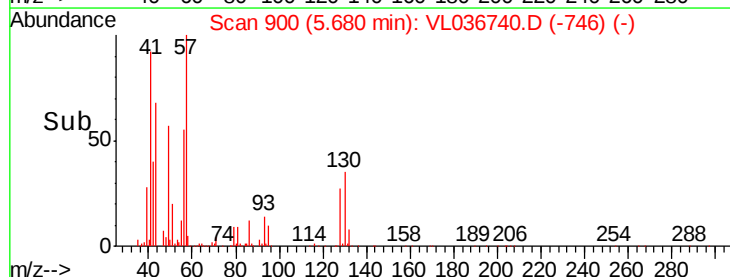


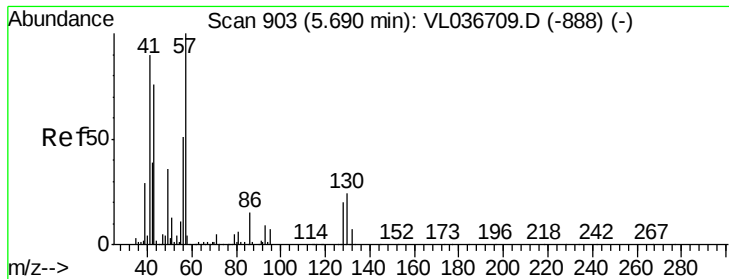
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 5.444 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampled :

FS-SV02DL

Tot Ion: 57 Resp: 736678

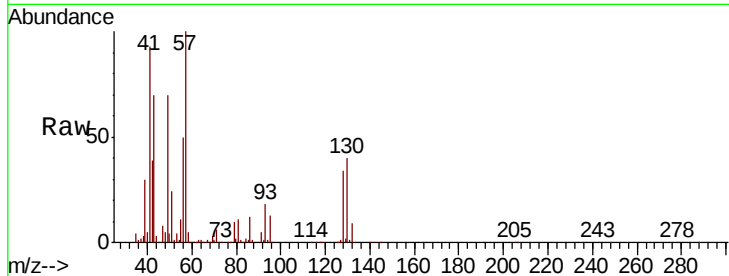
Ion Ratio Lower Upper

57 100

41 104.2 77.2 115.8

43 76.4 173.8 260.6#

56 58.4 43.8 65.6

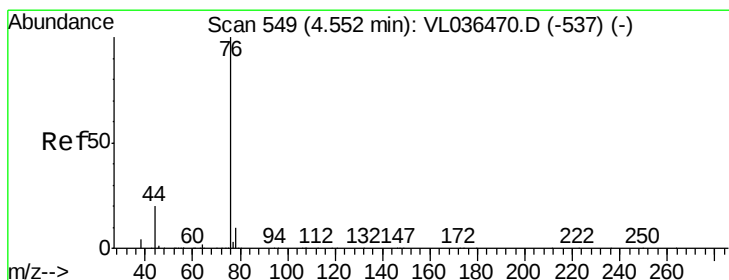
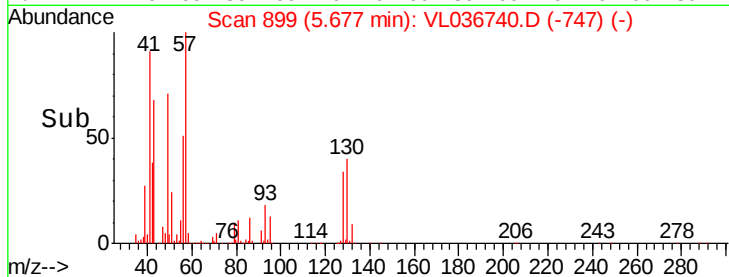
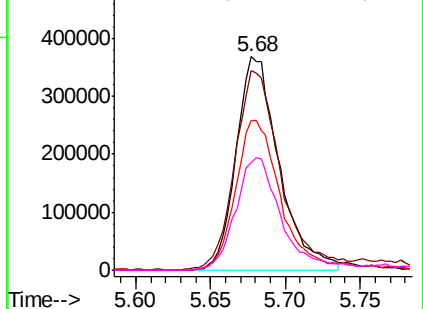


Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 1.030 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.01 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

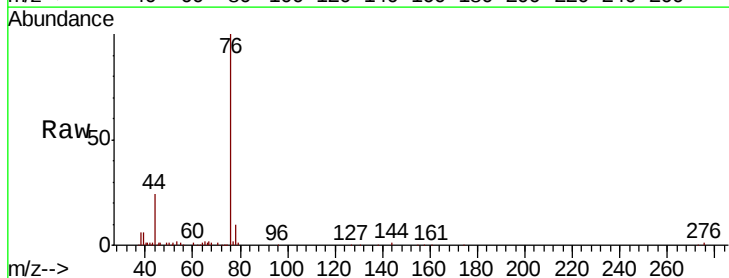
Tgt Ion: 76 Resp: 137249

Ion Ratio Lower Upper

76 100

44 26.1 17.5 26.3

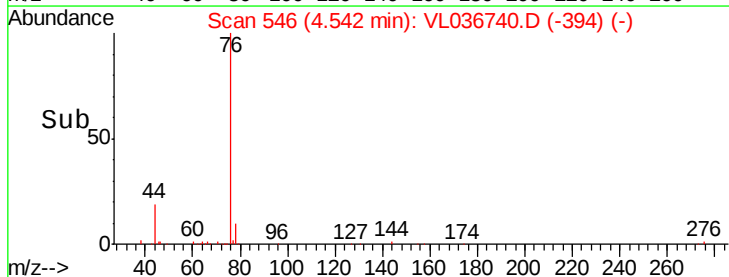
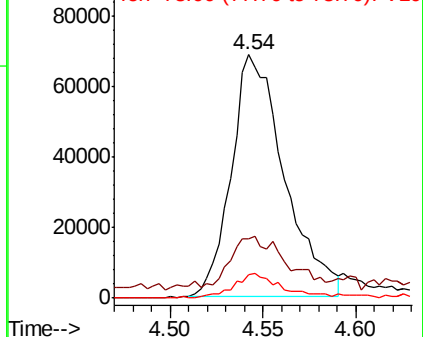
78 10.8 8.6 13.0

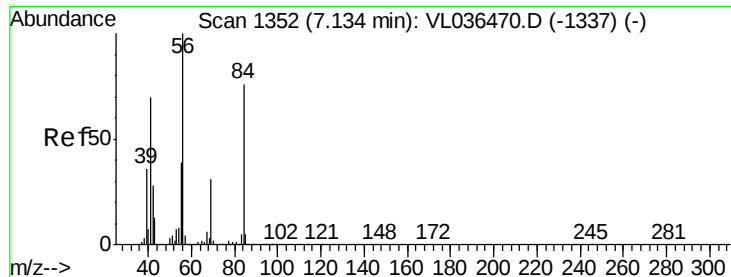


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

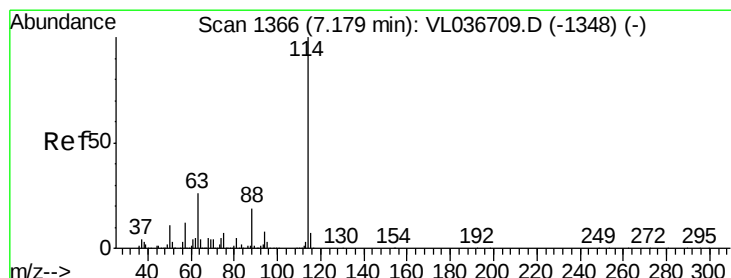
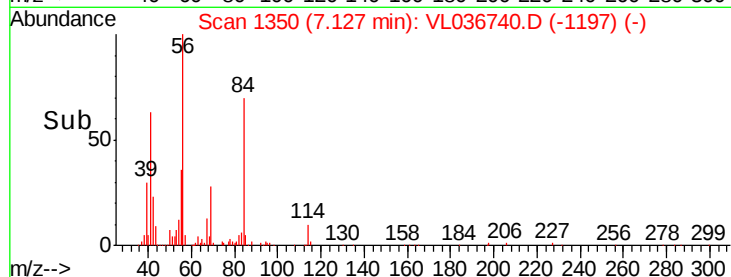
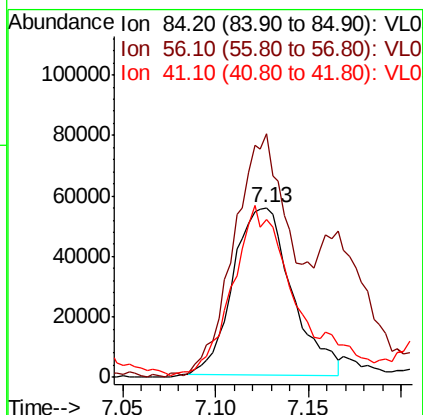
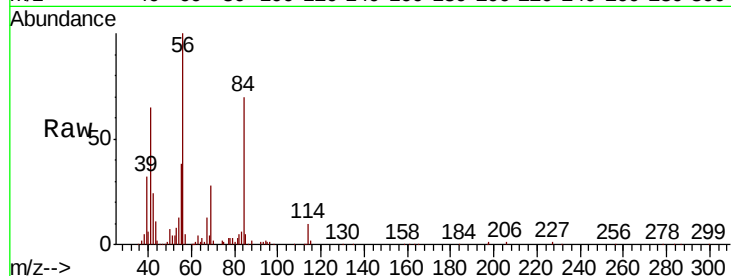




#30
Cyclohexane
Concen: 1.119 ppbv
RT: 7.13 min Scan# 1350
Delta R.T. -0.01 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

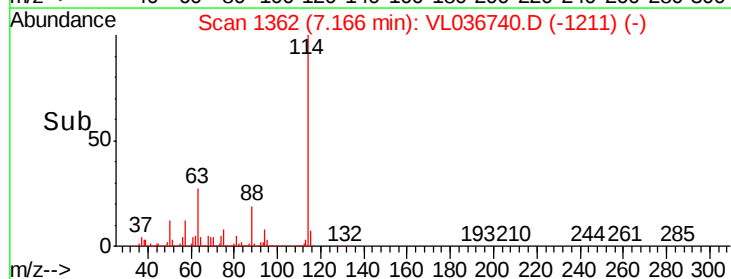
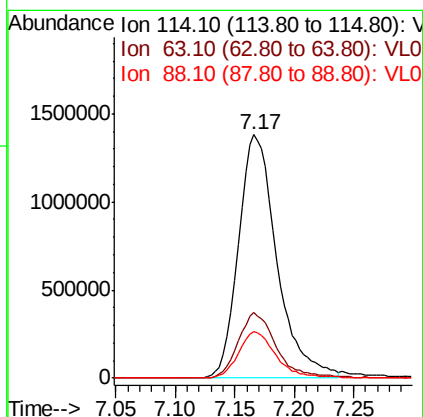
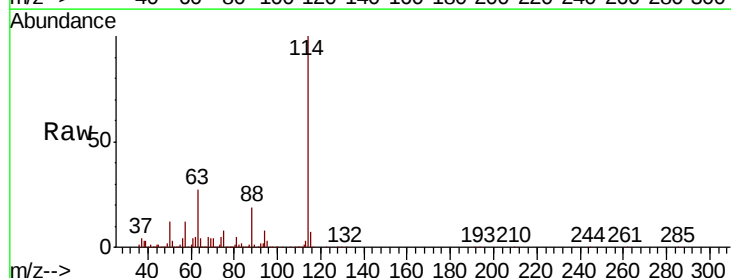
Instrument :
MSVOA_L
ClientSampleId :
FS-SV02DL

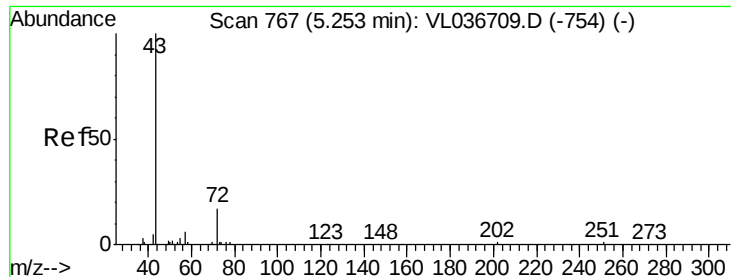
Tot Ion	Ratio	Lower	Upper
84	100		
56	141.3	114.6	171.8
41	110.3	75.3	112.9



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1362
Delta R.T. -0.01 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.1	22.4	33.6
88	18.9	15.4	23.0





#34

2-Butanone

Concen: 0.076 ppbv

RT: 5.18 min Scan# 743

Delta R.T. -0.07 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleId :

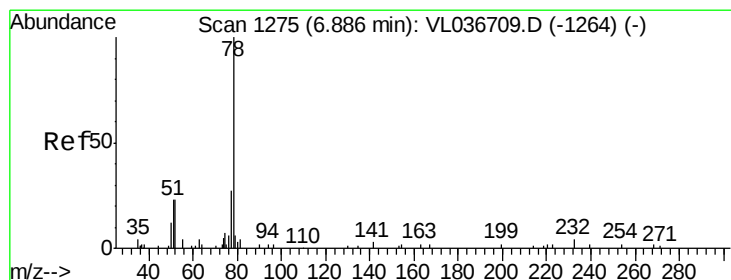
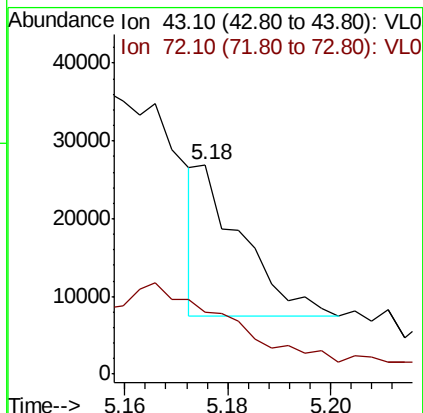
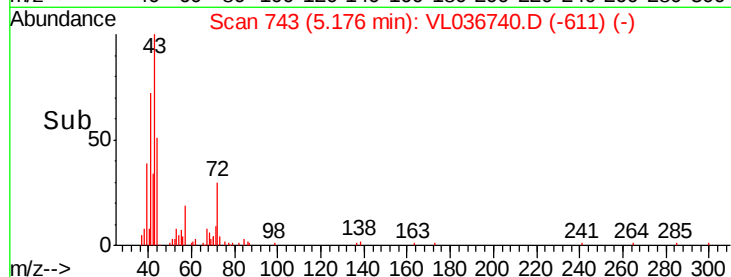
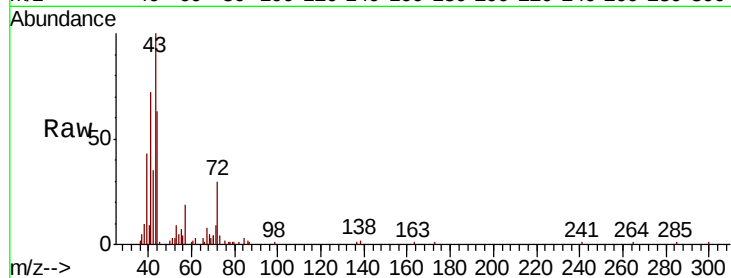
FS-SV02DL

Tot Ion: 43 Resp: 11521

Ion Ratio Lower Upper

43 100

72 213.0 17.0 25.6#



#36

Benzene

Concen: 4.202 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.01 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

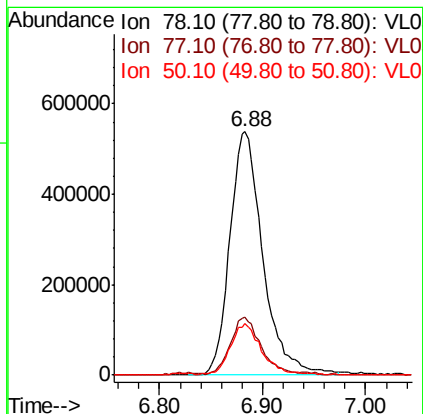
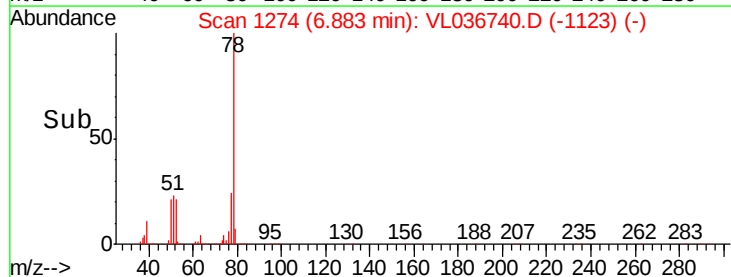
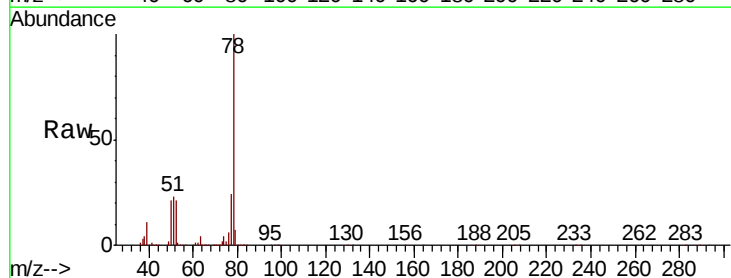
Tgt Ion: 78 Resp: 1198147

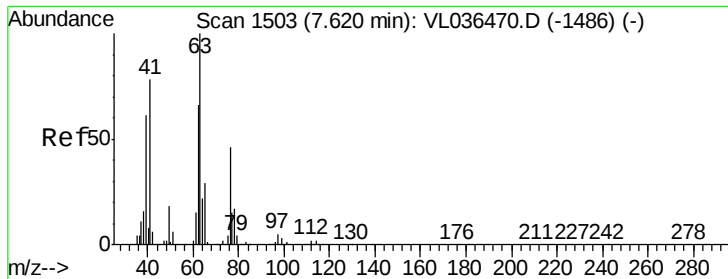
Ion Ratio Lower Upper

78 100

77 23.4 18.0 27.0

50 21.0 16.5 24.7

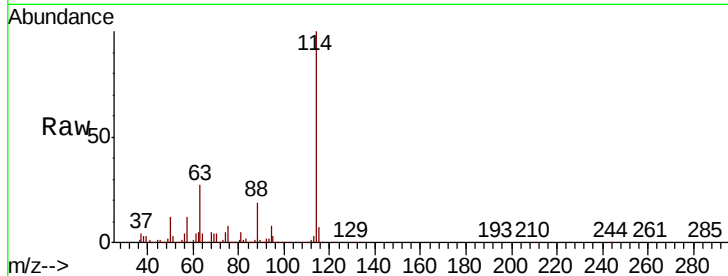




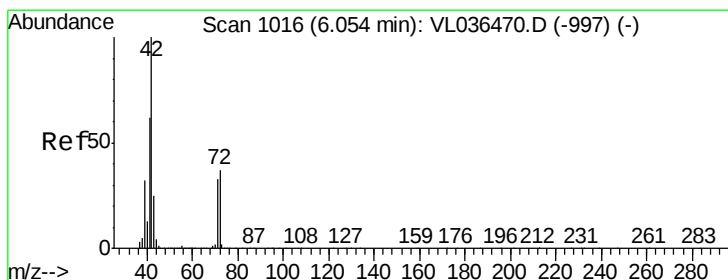
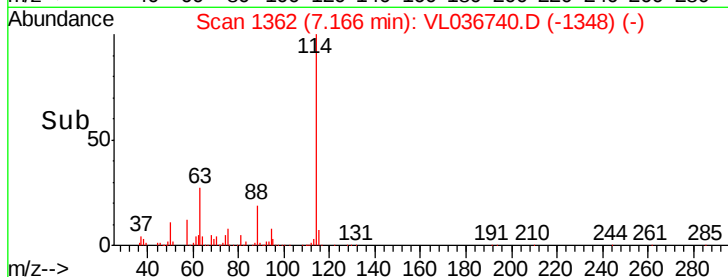
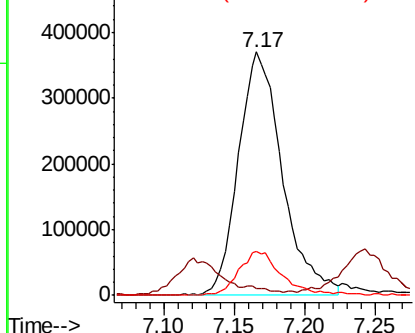
#39
 1,2-Dichloropropane
 Concen: 6.925 ppbv
 RT: 7.17 min Scan# 1362
 Delta R.T. -0.45 min
 Lab File: VL036740.D
 Acq: 7 Apr 2021 23:59

Instrument :
 MSVOA_L
 ClientSampleID :
 FS-SV02DL

Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	62.4	93.6#
62	17.8	52.8	79.2#

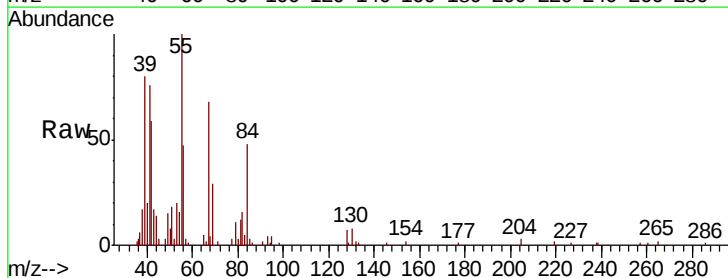


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

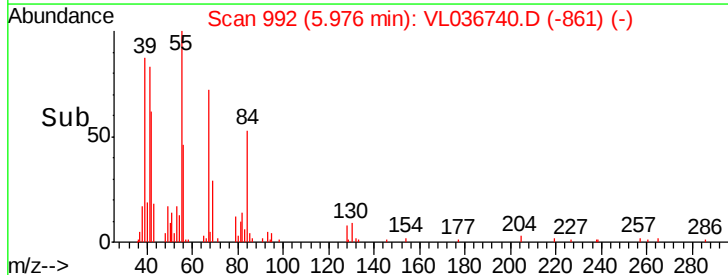
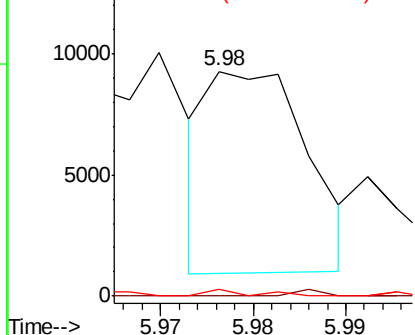


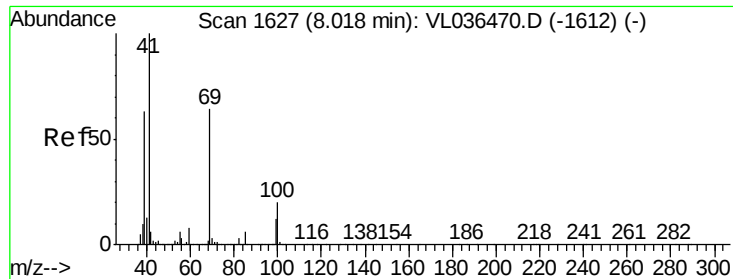
#41
 Tetrahydrofuran
 Concen: 0.089 ppbv
 RT: 5.98 min Scan# 992
 Delta R.T. -0.08 min
 Lab File: VL036740.D
 Acq: 7 Apr 2021 23:59

Tgt Ion	Ratio	Lower	Upper
42	100		
72	1.6	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





#43

Methyl Methacrylate

Concen: 0.031 ppbv

RT: 7.99 min Scan# 1618

Delta R.T. -0.03 min

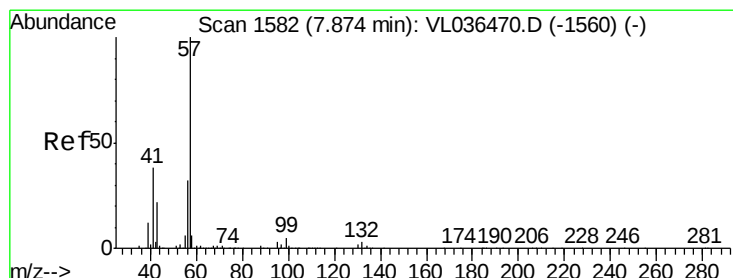
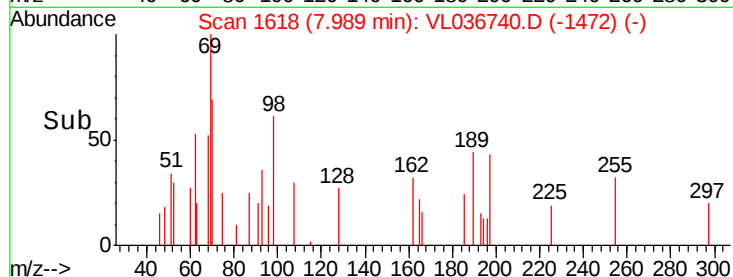
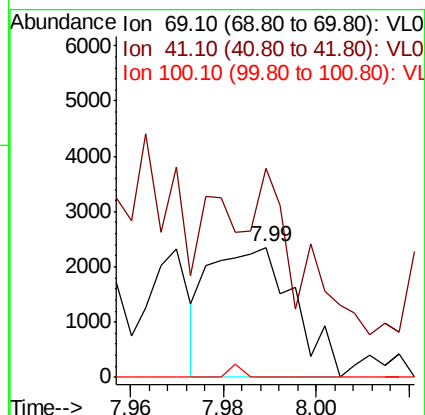
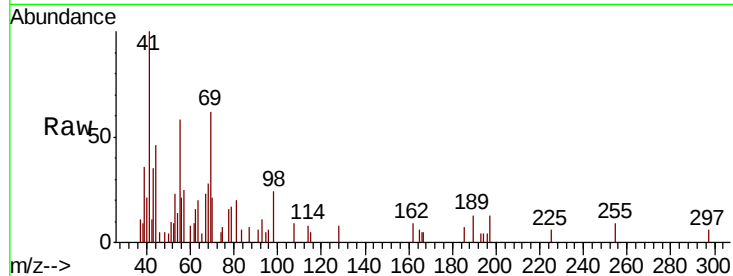
Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :
MSVOA_L
ClientSampleId :
FS-SV02DL

Tot Ion: 69 Resp: 2957

Ion	Ratio	Lower	Upper
69	100		
41	0.0	126.8	190.2#
100	0.0	24.9	37.3#



#44

2,2,4-Trimethylpentane

Concen: 1.590 ppbv

RT: 7.86 min Scan# 1578

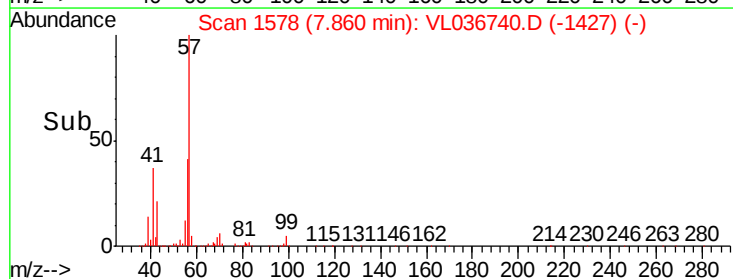
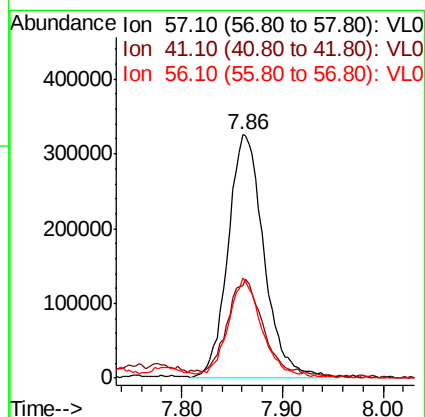
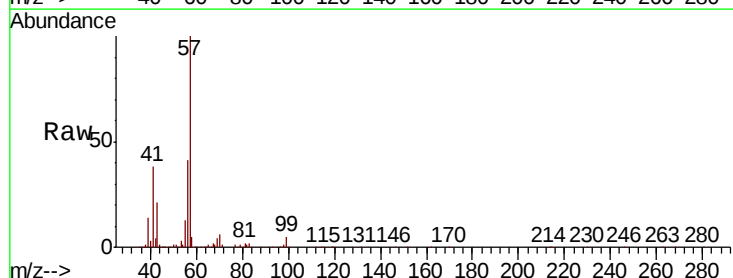
Delta R.T. -0.01 min

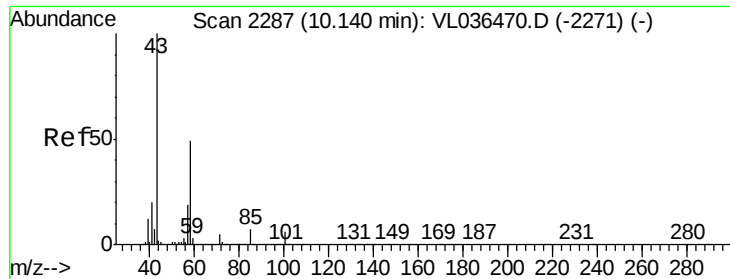
Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Tgt Ion: 57 Resp: 798061

Ion	Ratio	Lower	Upper
57	100		
41	43.5	28.8	43.2#
56	38.8	26.1	39.1

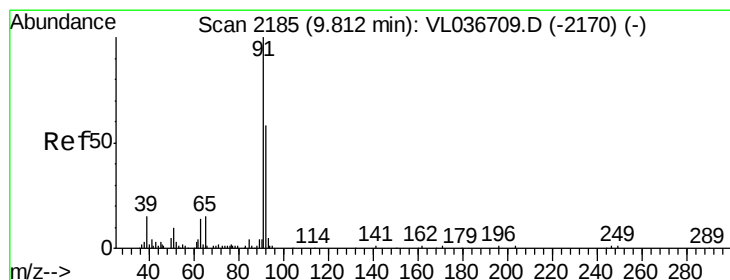
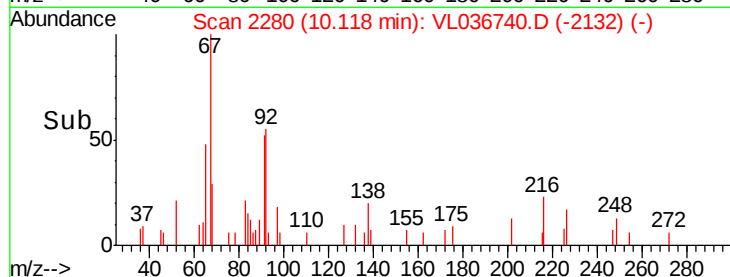
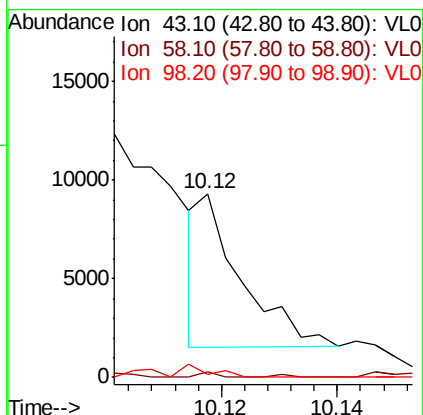
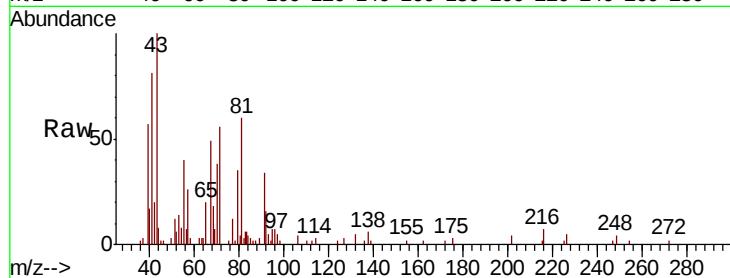




#51
2-Hexanone
Concen: 0.035 ppbv
RT: 10.12 min Scan# 2280
Delta R.T. -0.02 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

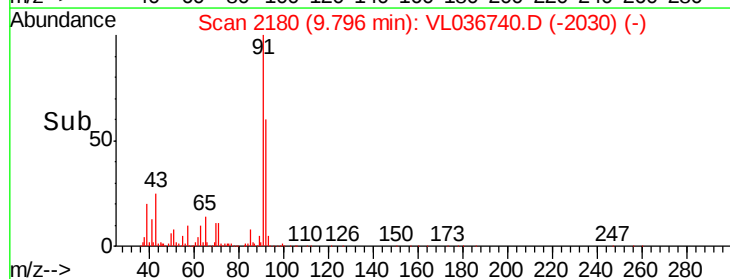
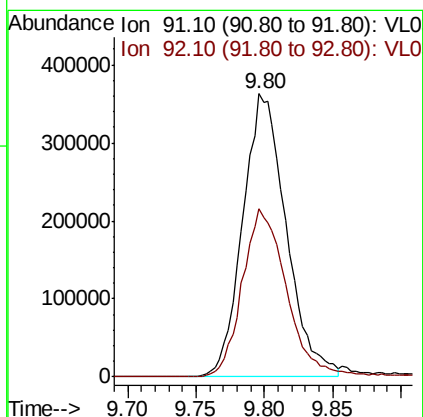
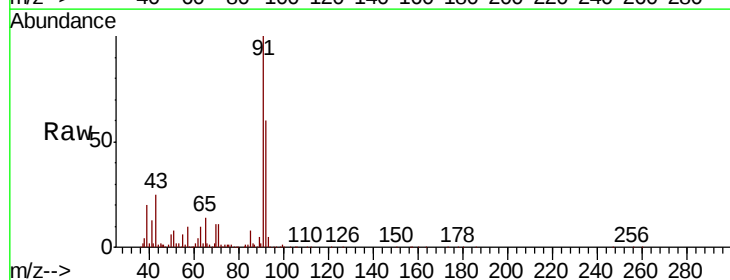
Instrument :
MSVOA_L
ClientSampleId :
FS-SV02DL

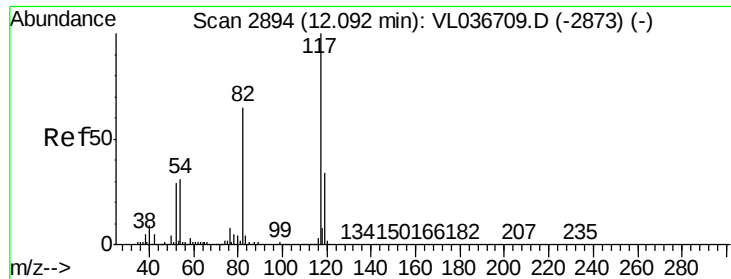
Tot Ion: 43 Resp: 3905
Ion Ratio Lower Upper
43 100
58 0.0 37.7 56.5#
98 22.4 0.2 0.2#



#53
Toluene
Concen: 2.642 ppbv
RT: 9.80 min Scan# 2180
Delta R.T. -0.02 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

Tgt Ion: 91 Resp: 802061
Ion Ratio Lower Upper
91 100
92 61.5 48.8 73.2

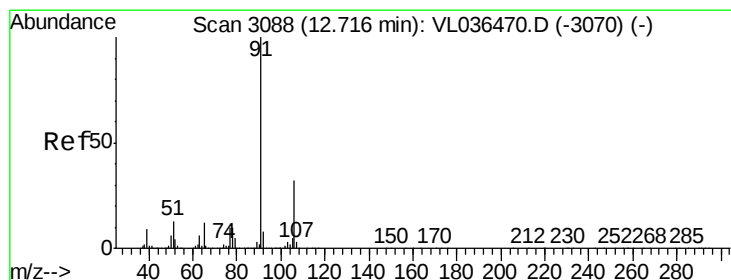
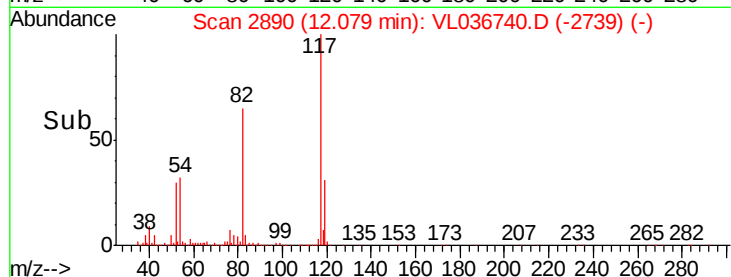
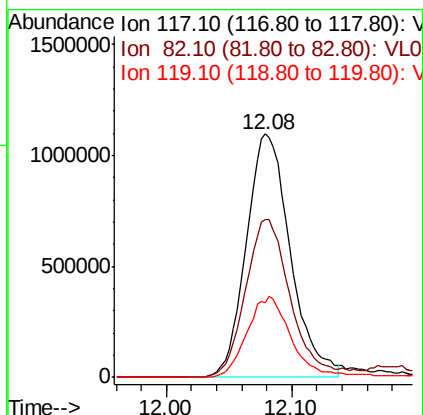
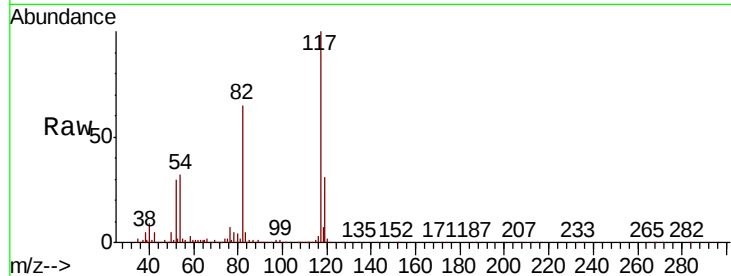




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min Scan# 2890
Delta R.T. -0.01 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

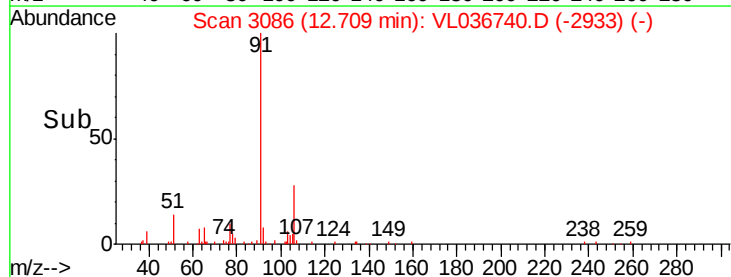
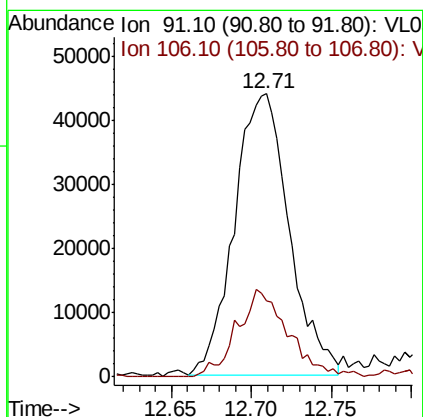
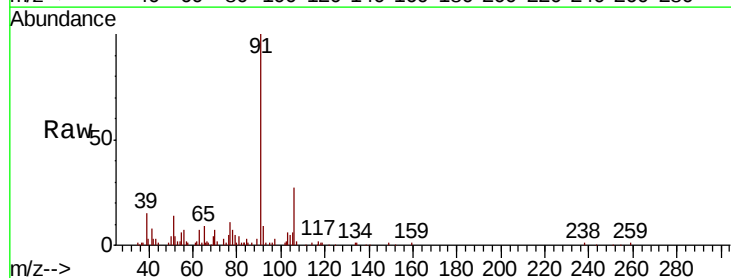
Instrument :
MSVOA_L
ClientSampleId :
FS-SV02DL

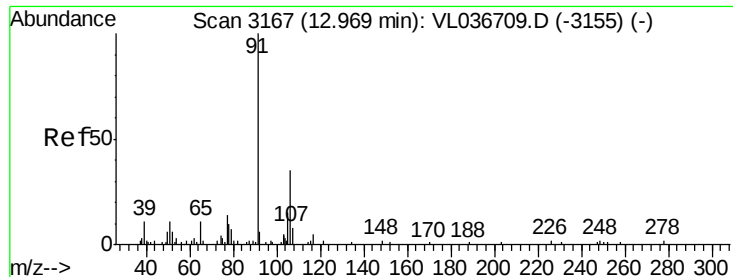
Tot Ion:117 Resp: 2680953
Ion Ratio Lower Upper
117 100
82 67.3 57.4 86.0
119 34.1 47.4 71.0#



#58
Ethyl Benzene
Concen: 0.264 ppbv
RT: 12.71 min Scan# 3086
Delta R.T. -0.01 min
Lab File: VL036740.D
Acq: 7 Apr 2021 23:59

Tgt Ion: 91 Resp: 103015
Ion Ratio Lower Upper
91 100
106 27.2 25.3 37.9





#59

m/p-Xylene

Concen: 0.082 ppbv

RT: 12.99 min Scan# 3174

Delta R.T. -0.01 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleID :

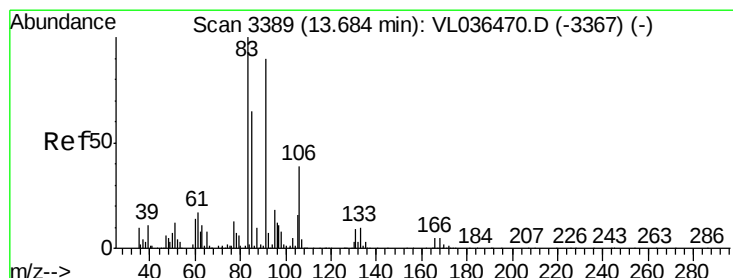
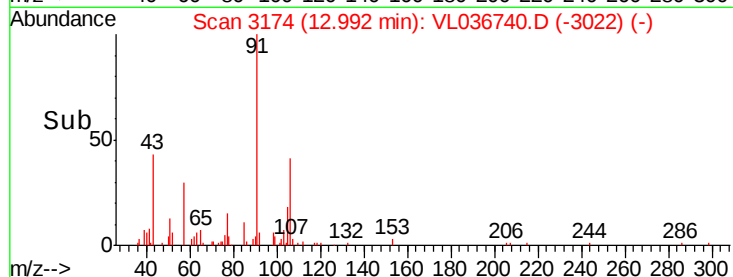
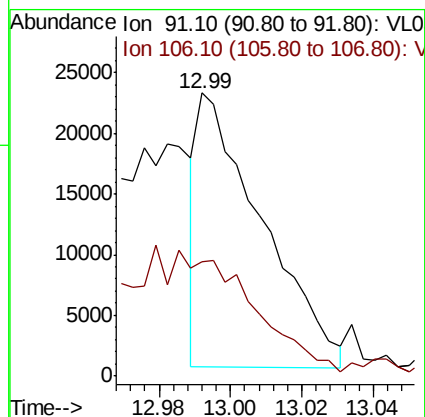
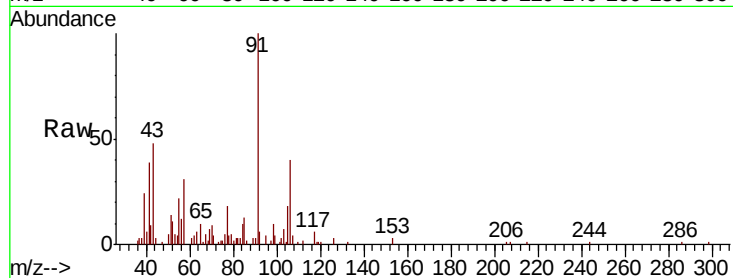
FS-SV02DL

Tot Ion: 91 Resp: 27952

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#



#63

1,1,2,2-Tetrachloroethane

Concen: 0.030 ppbv

RT: 13.66 min Scan# 3382

Delta R.T. -0.02 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

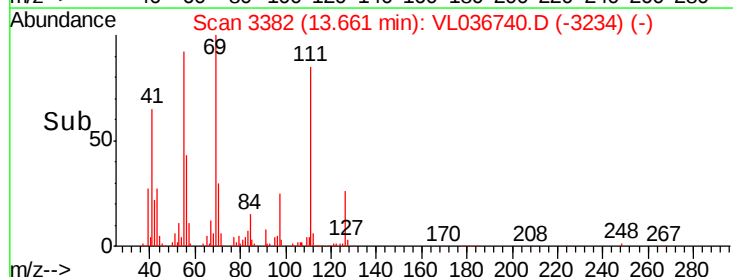
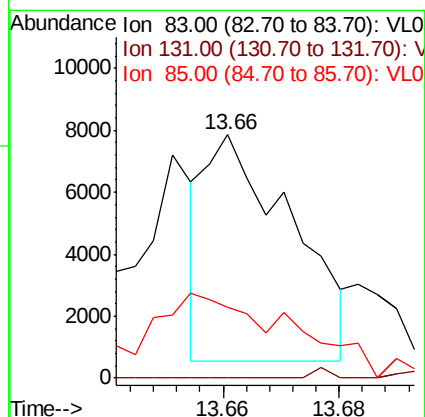
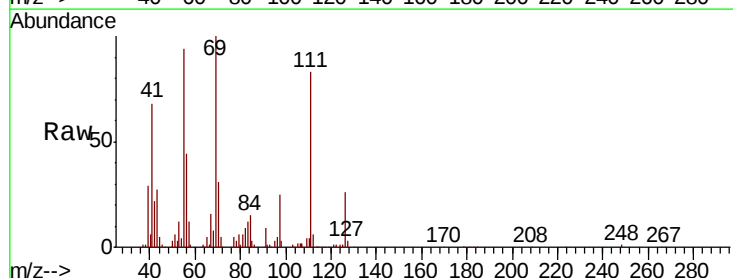
Tgt Ion: 83 Resp: 7566

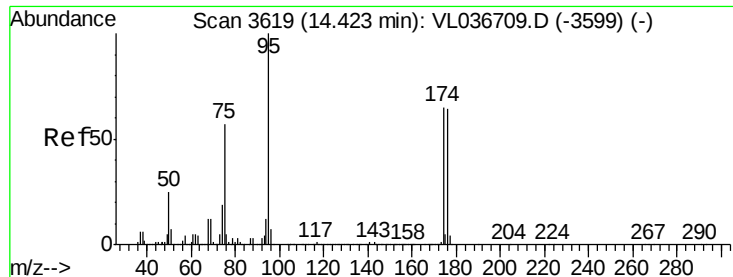
Ion Ratio Lower Upper

83 100

131 0.0 4.7 14.0#

85 0.0 33.1 99.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.614 ppbv

RT: 14.41 min Scan# 3615

Delta R.T. -0.01 min

Lab File: VL036740.D

Acq: 7 Apr 2021 23:59

Instrument :

MSVOA_L

ClientSampleId :

FS-SV02DL

Tot Ion: 95 Resp: 2054313

Ion Ratio Lower Upper

95 100

174 69.0 51.0 76.6

175 4.5 3.9 5.9

