

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051821\
 Data File : VL036955.D
 Acq On : 18 May 2021 5:06
 Operator : SY/AP
 Sample : VSTDIC0.03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

Quant Time: May 18 07:10:03 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 07:06:50 2021
 QLast Update : Tue May 18 07:06:50 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1350309	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	3949199	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	3559200	10.00	ppbv	0.00

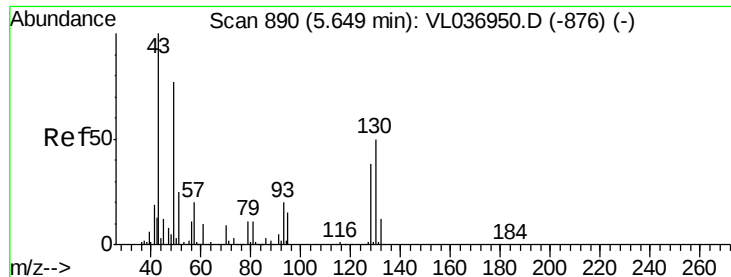
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2593128	9.34	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	10120	0.044	ppbv	96
3) Chlorodifluoromethane	2.98	51	11928	0.045	ppbv	97
5) Vinyl Chloride	3.24	62	3261	0.035	ppbv #	71
6) Bromomethane	3.46	94	1813	0.038	ppbv #	25
8) Dichlorotetrafluoroethane	3.17	85	8311	0.038	ppbv #	83
9) Propene	2.99	41	10533	0.139	ppbv	92
10) Heptane	8.10	43	5937	0.033	ppbv #	1
11) Trichlorofluoromethane	3.93	101	9108	0.044	ppbv #	73
20) Methylene Chloride	4.33	84	10756	0.104	ppbv #	84
24) 1,1-Dichloroethane	4.99	63	5797	0.042	ppbv #	83
30) Cyclohexane	7.11	84	3833	0.031	ppbv #	1
32) 1,1,1-Trichloroethane	6.48	97	8851	0.034	ppbv #	84
36) Benzene	6.87	78	10184	0.032	ppbv #	86
39) 1,2-Dichloropropane	7.15	63	916073	7.049	ppbv #	25
43) Methyl Methacrylate	8.00	69	3170	0.034	ppbv #	28
53) Toluene	9.78	91	9887	0.031	ppbv #	42
62) Isopropylbenzene	14.65	105	24344	0.046	ppbv	94
71) 2-Chlorotoluene	15.43	91	13882	0.037	ppbv	77
80) Naphthalene,2-methyl-	25.19	142	1615	0.057	ppbv	94

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.00 min

Lab File: VL036955.D

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Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

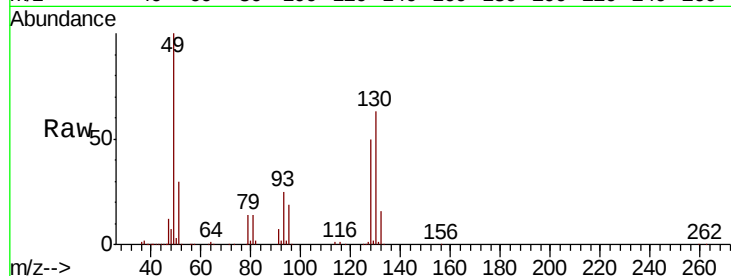
Tot Ion: 49 Resp: 1350309

Ion Ratio Lower Upper

49 100

128 54.6 26.9 80.7

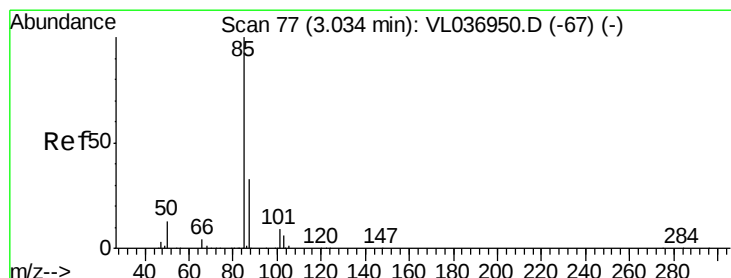
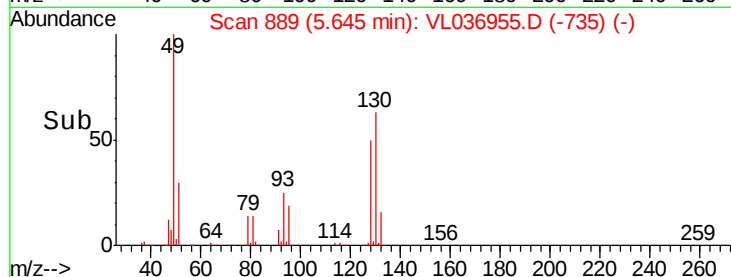
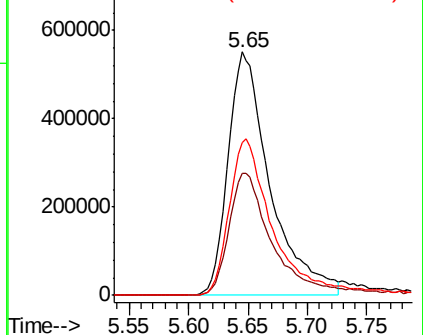
130 69.7 33.8 101.4



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



#2

Dichlorodifluoromethane

Concen: 0.044 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.00 min

Lab File: VL036955.D

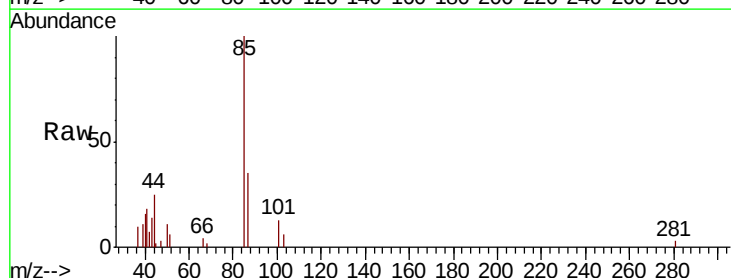
Acq: 18 May 2021 5:06

Tgt Ion: 85 Resp: 10120

Ion Ratio Lower Upper

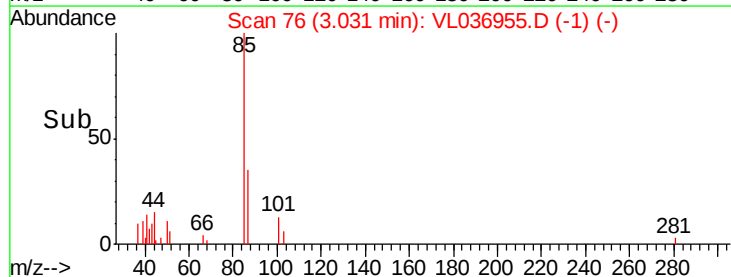
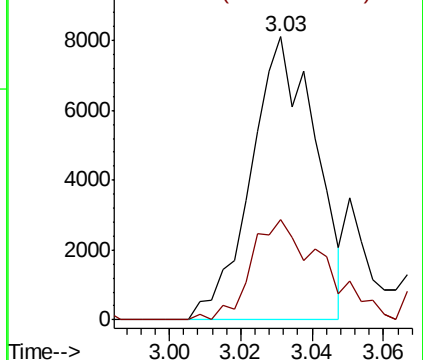
85 100

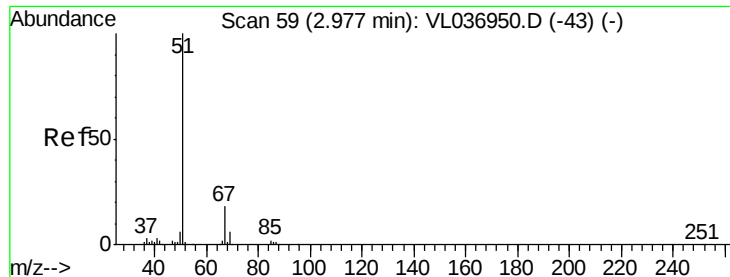
87 35.4 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.045 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

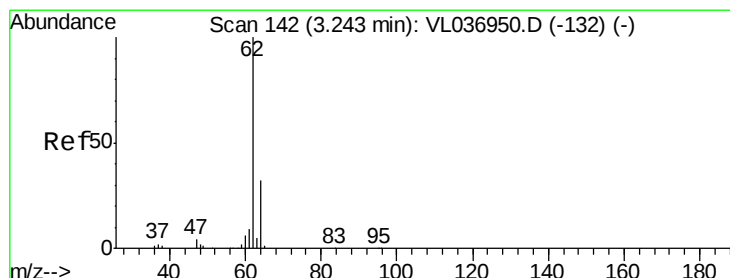
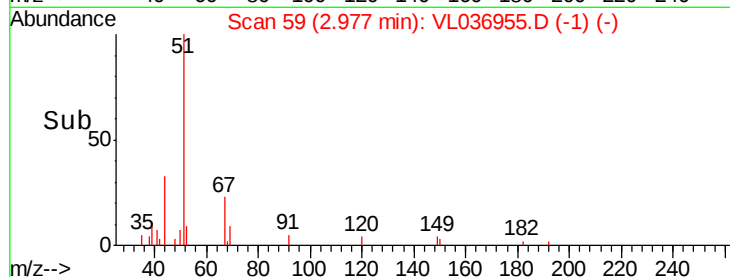
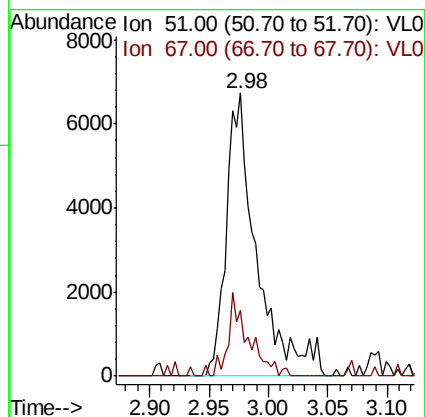
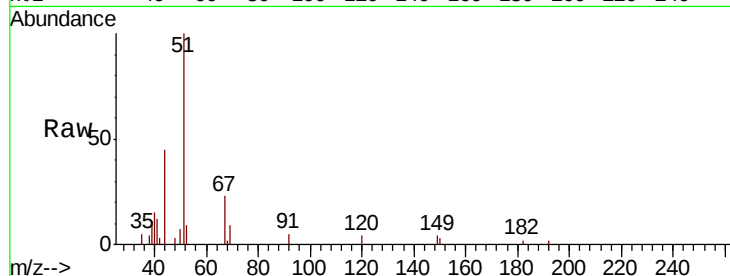
VSTDIC0.03

Tot Ion: 51 Resp: 11928

Ion Ratio Lower Upper

51 100

67 19.7 14.6 21.8



#5

Vinyl Chloride

Concen: 0.035 ppbv

RT: 3.24 min Scan# 142

Delta R.T. -0.00 min

Lab File: VL036955.D

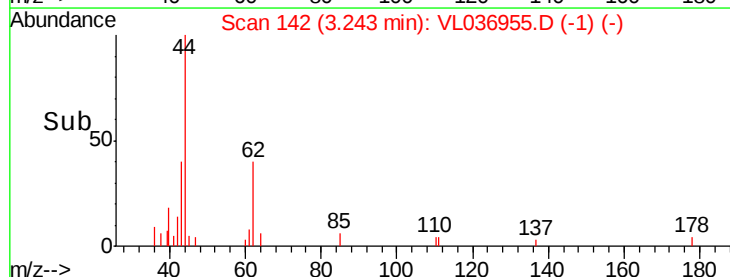
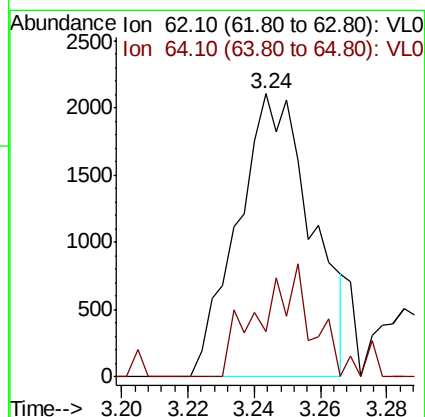
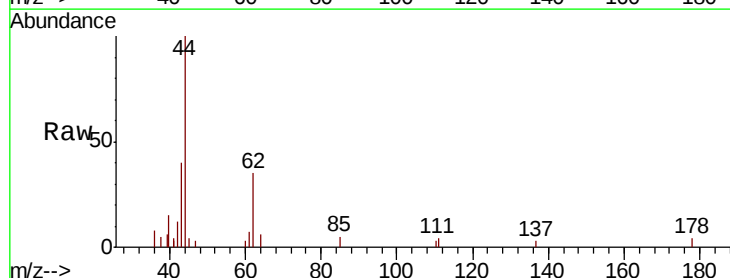
Acq: 18 May 2021 5:06

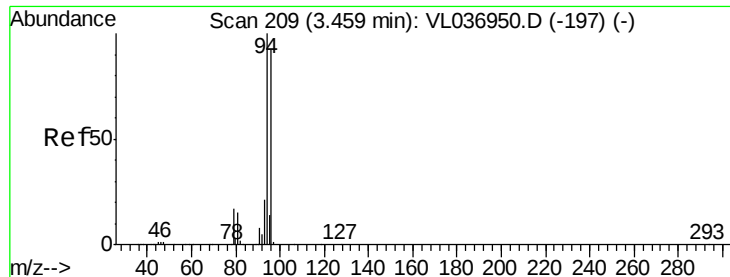
Tgt Ion: 62 Resp: 3261

Ion Ratio Lower Upper

62 100

64 16.1 25.9 38.9#





#6

Bromomethane

Concen: 0.038 ppbv

RT: 3.46 min Scan# 208

Delta R.T. -0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

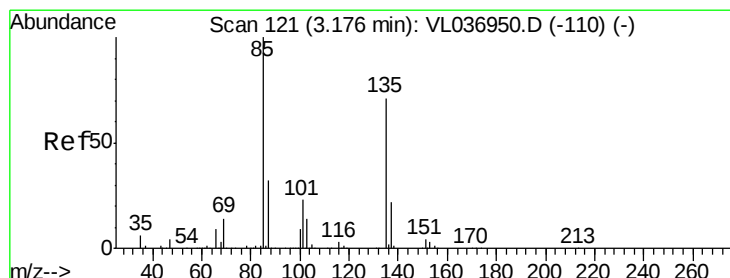
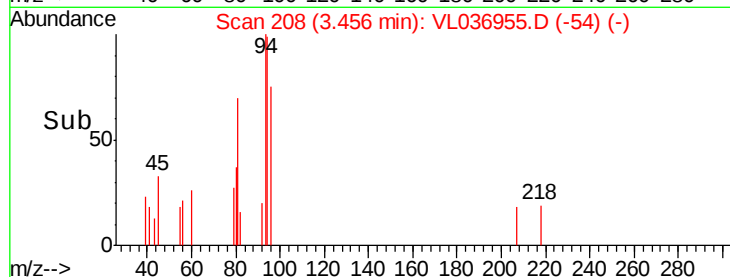
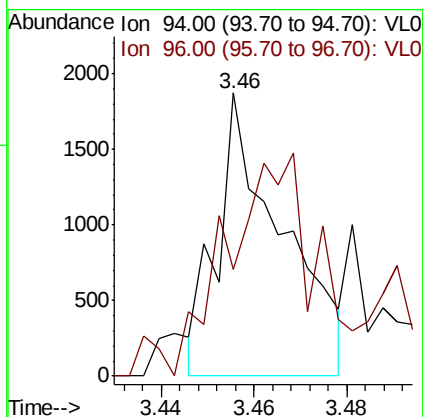
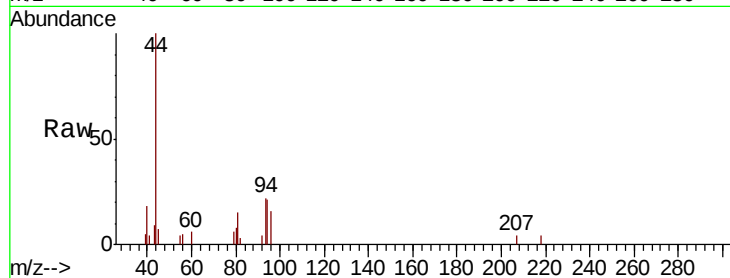
VSTDIC0.03

Tot Ion: 94 Resp: 1813

Ion Ratio Lower Upper

94 100

96 20.6 74.0 111.0#



#8

Dichlorotetrafluoroethane

Concen: 0.038 ppbv

RT: 3.17 min Scan# 119

Delta R.T. -0.01 min

Lab File: VL036955.D

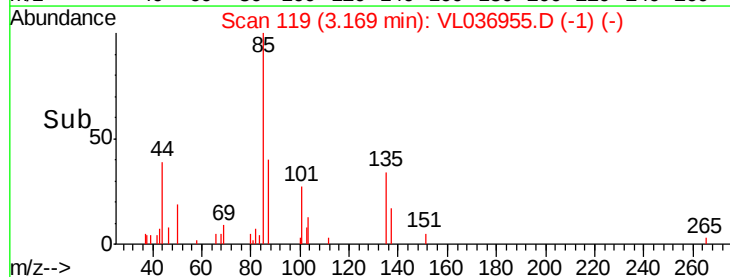
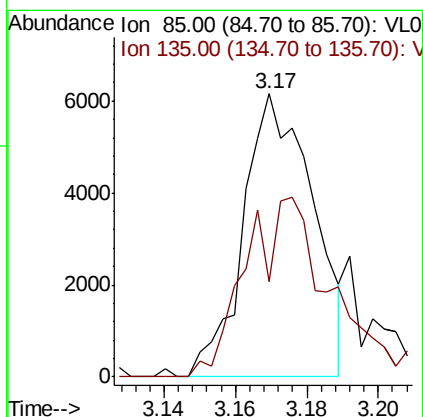
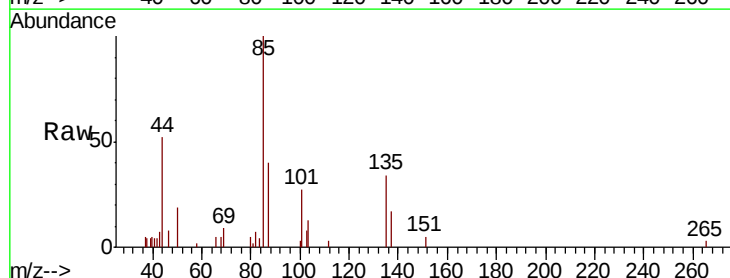
Acq: 18 May 2021 5:06

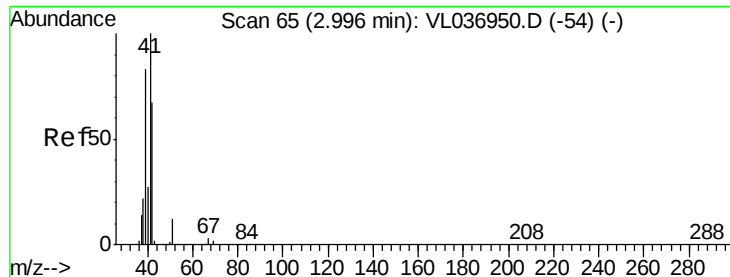
Tgt Ion: 85 Resp: 8311

Ion Ratio Lower Upper

85 100

135 86.6 57.7 86.5#





#9

Propene

Concen: 0.139 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

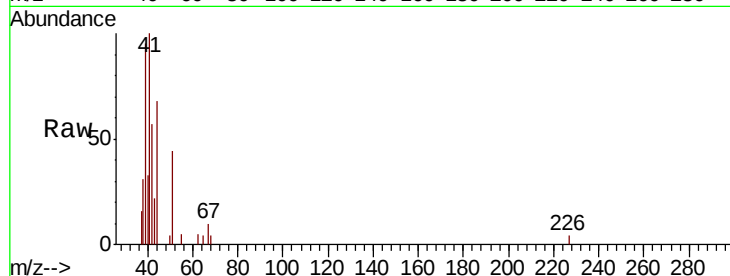
VSTDIC0.03

Tot Ion: 41 Resp: 10533

Ion Ratio Lower Upper

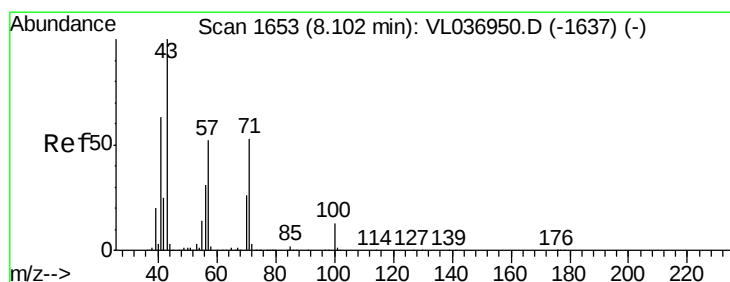
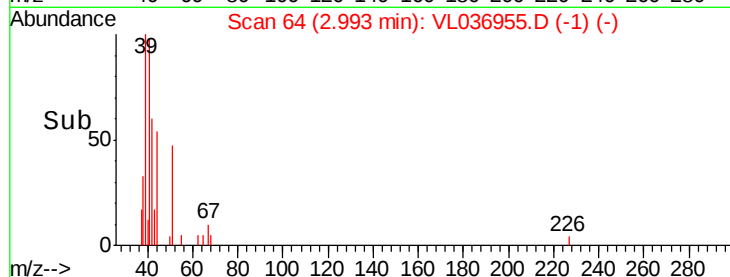
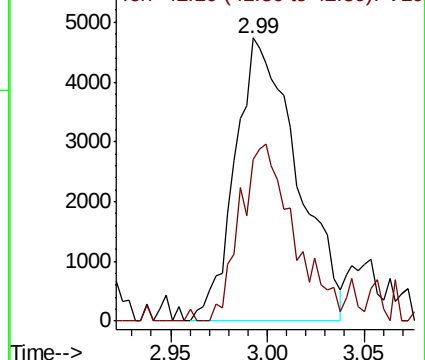
41 100

42 61.3 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.033 ppbv

RT: 8.10 min Scan# 1653

Delta R.T. -0.00 min

Lab File: VL036955.D

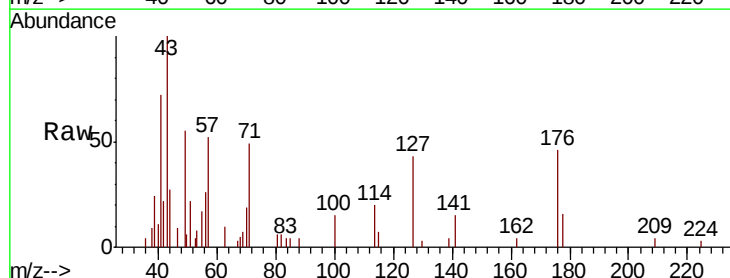
Acq: 18 May 2021 5:06

Tgt Ion: 43 Resp: 5937

Ion Ratio Lower Upper

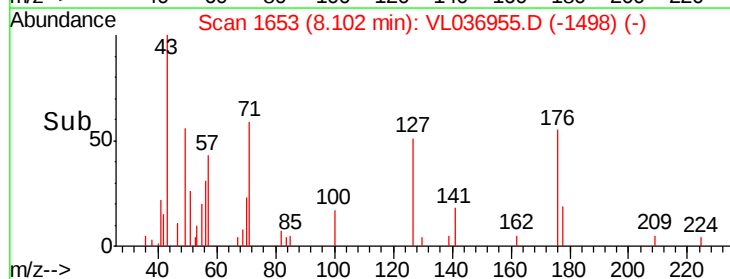
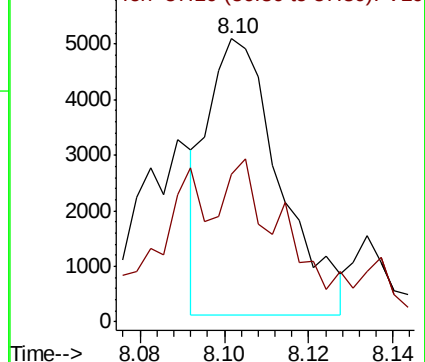
43 100

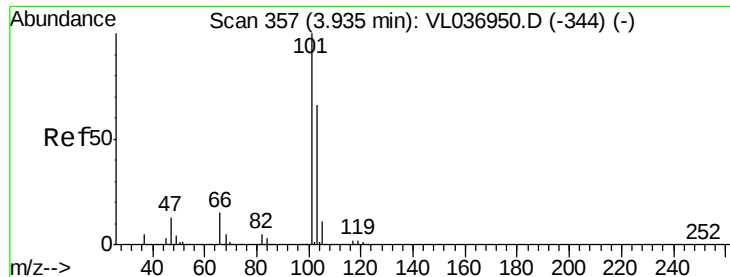
57 121.1 41.0 61.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

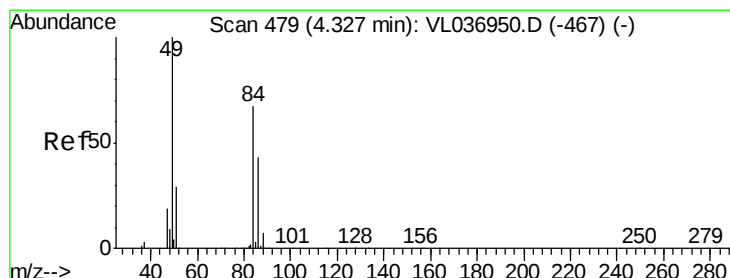
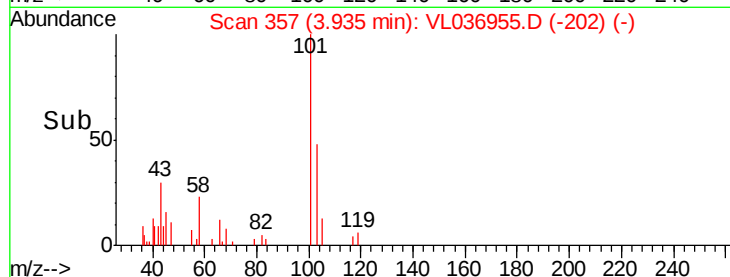
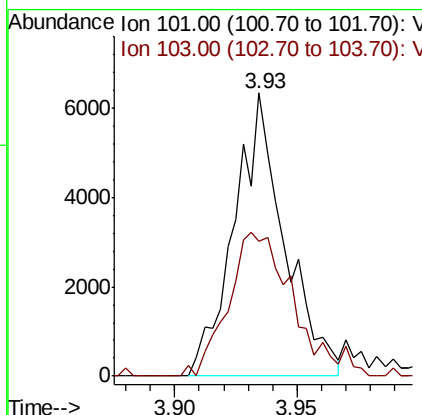
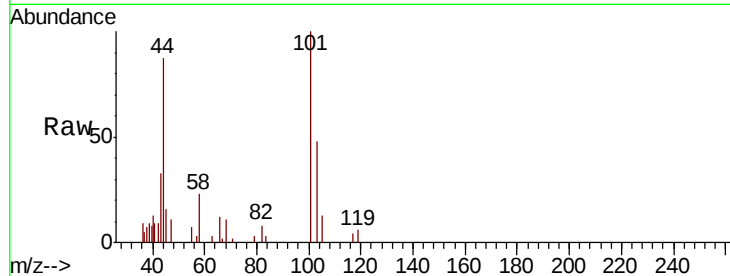




#11
 Trichlorofluoromethane
 Concen: 0.044 ppbv
 RT: 3.93 min Scan# 357
 Delta R.T. -0.00 min
 Lab File: VL036955.D
 Acq: 18 May 2021 5:06

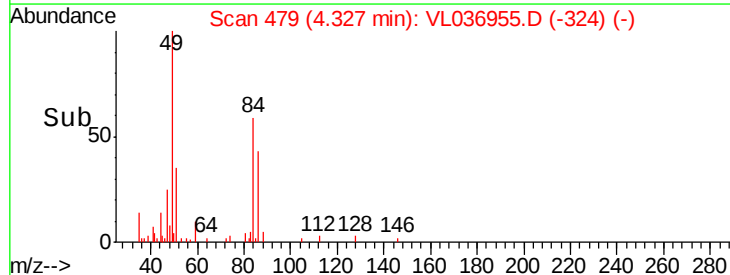
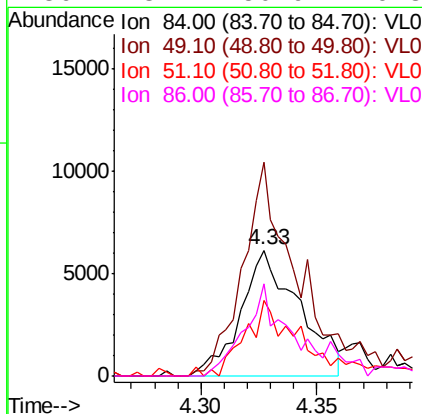
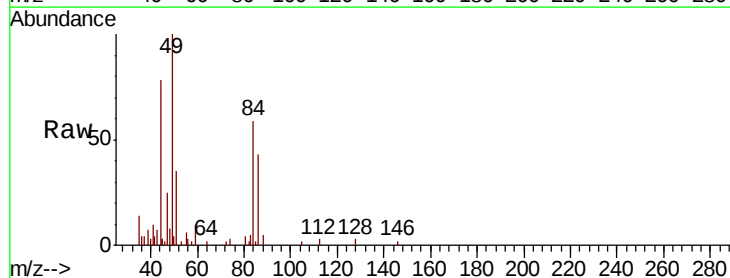
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

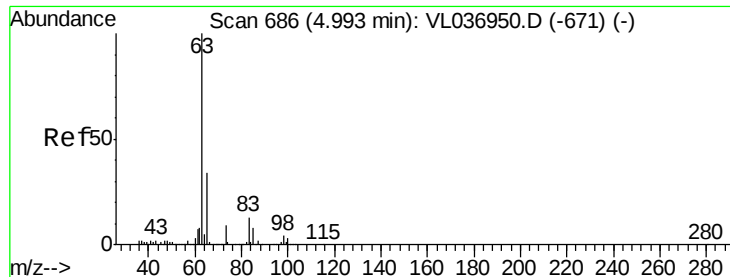
Tot Ion:101 Resp: 9108
 Ion Ratio Lower Upper
 101 100
 103 44.0 52.6 79.0#



#20
 Methylene Chloride
 Concen: 0.104 ppbv
 RT: 4.33 min Scan# 479
 Delta R.T. -0.00 min
 Lab File: VL036955.D
 Acq: 18 May 2021 5:06

Tgt Ion: 84 Resp: 10756
 Ion Ratio Lower Upper
 84 100
 49 169.8 119.8 179.6
 51 59.6 35.1 52.7#
 86 73.4 50.9 76.3





#24

1,1-Dichloroethane

Concen: 0.042 ppbv

RT: 4.99 min Scan# 686

Delta R.T. -0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

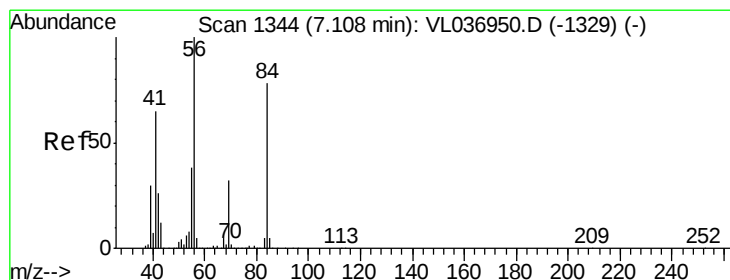
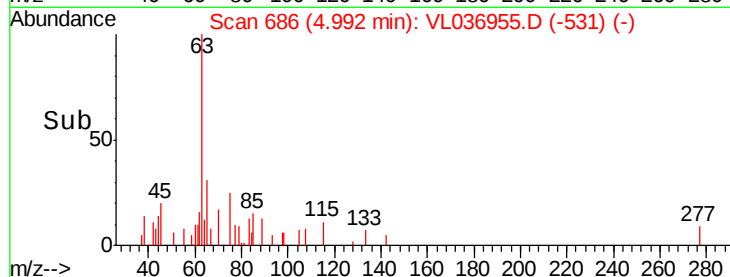
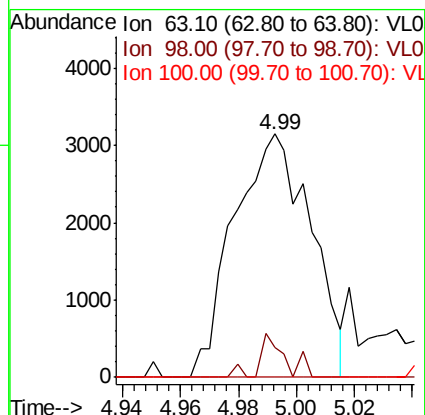
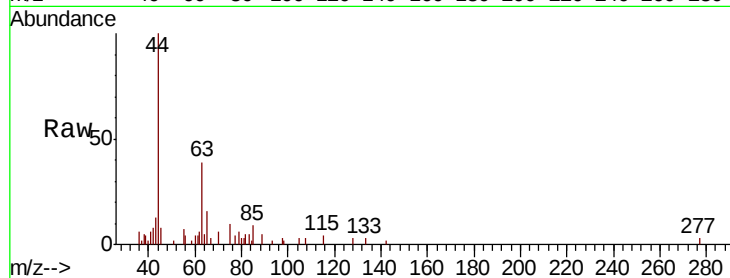
Tot Ion: 63 Resp: 5797

Ion Ratio Lower Upper

63 100

98 12.1 2.3 6.9#

100 0.0 1.4 4.0#



#30

Cyclohexane

Concen: 0.031 ppbv

RT: 7.11 min Scan# 1345

Delta R.T. 0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

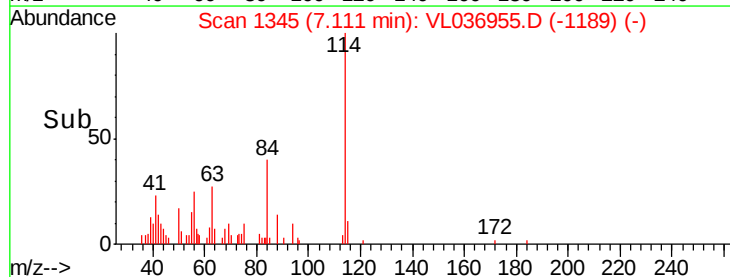
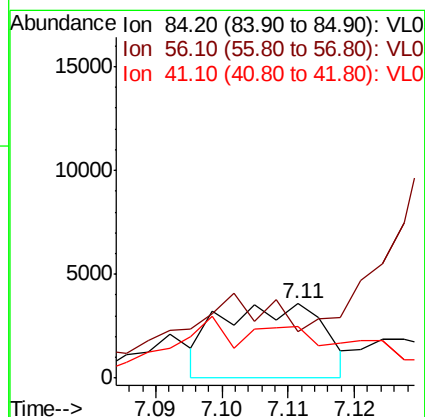
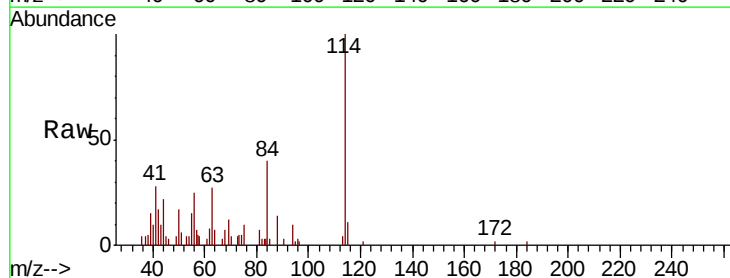
Tgt Ion: 84 Resp: 3833

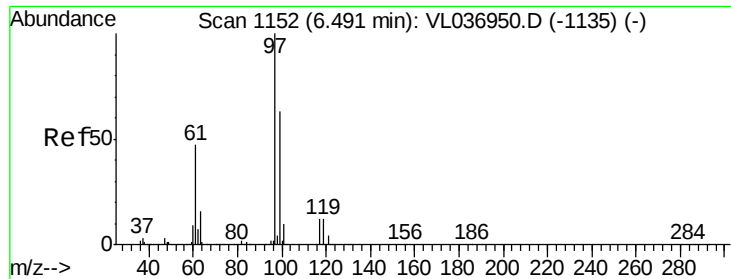
Ion Ratio Lower Upper

84 100

56 0.0 107.9 161.9#

41 0.0 65.5 98.3#





#32

1,1,1-Trichloroethane

Concen: 0.034 ppbv

RT: 6.48 min Scan# 1150

Delta R.T. -0.01 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

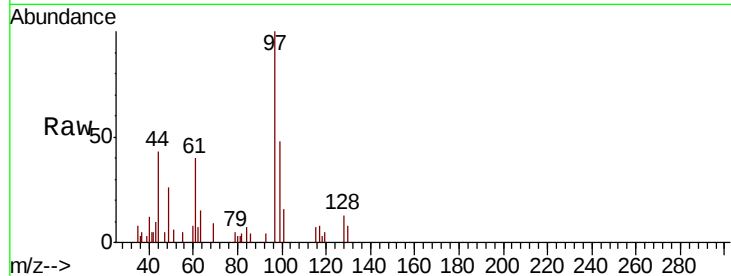
Tot Ion: 97 Resp: 8851

Ion Ratio Lower Upper

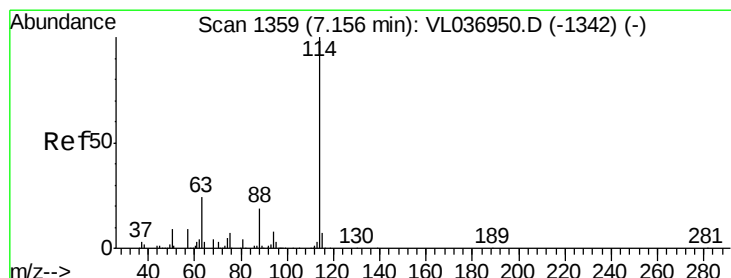
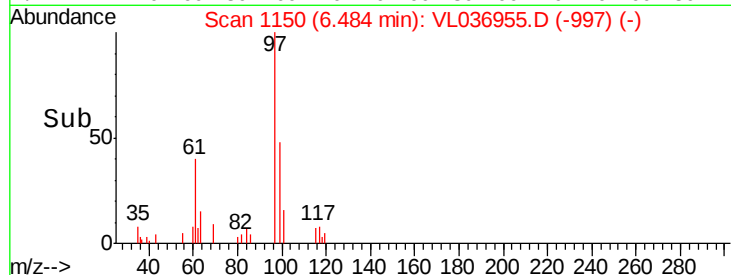
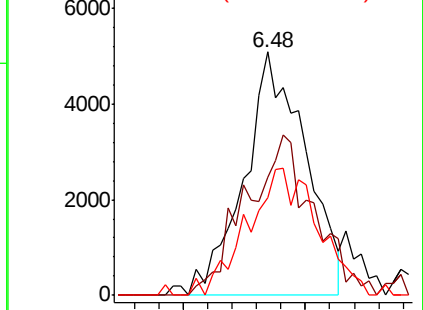
97 100

99 75.4 51.9 77.9

61 60.9 37.6 56.4#



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.15 min Scan# 1357

Delta R.T. -0.01 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

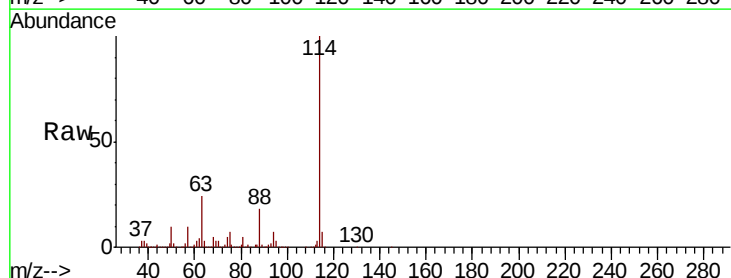
Tgt Ion: 114 Resp: 3949199

Ion Ratio Lower Upper

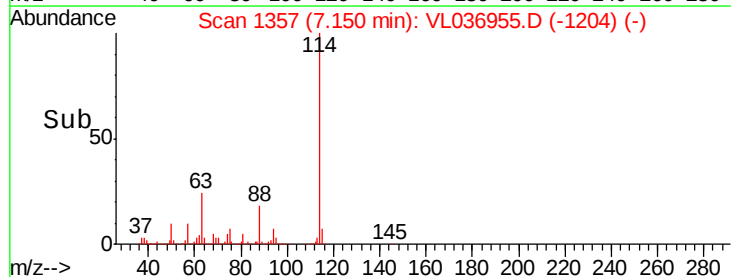
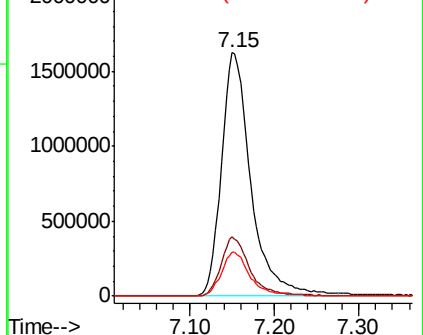
114 100

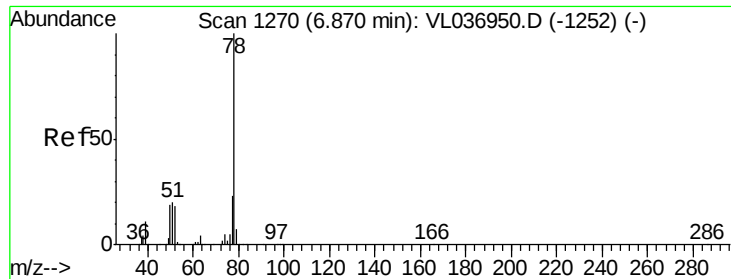
63 23.8 19.6 29.4

88 17.8 14.6 21.8



Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





#36

Benzene

Concen: 0.032 ppbv

RT: 6.87 min Scan# 1270

Delta R.T. -0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

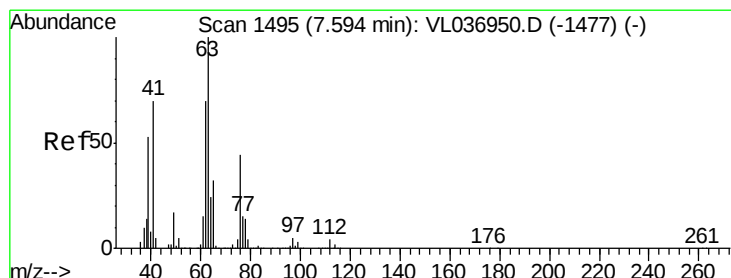
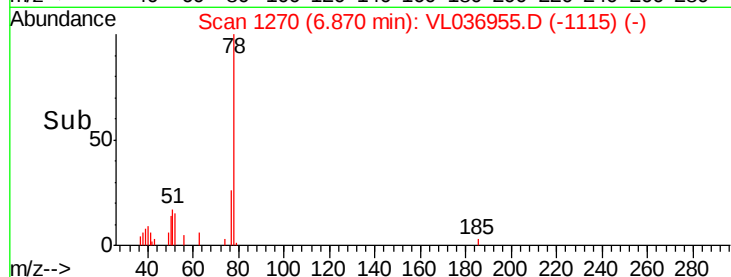
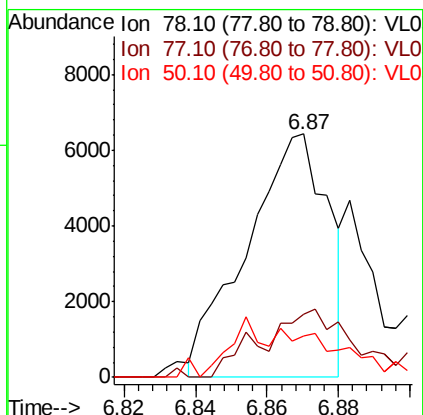
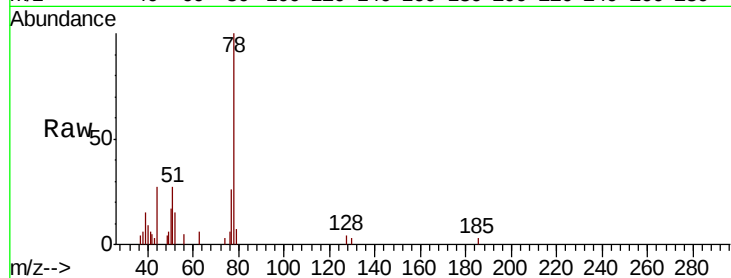
MSVOA_L

ClientSampleId :

VSTDIC0.03

Tot Ion: 78 Resp: 10184

Ion	Ratio	Lower	Upper
78	100		
77	27.8	18.6	28.0
50	9.2	15.0	22.4#



#39

1,2-Dichloropropane

Concen: 7.049 ppbv

RT: 7.15 min Scan# 1357

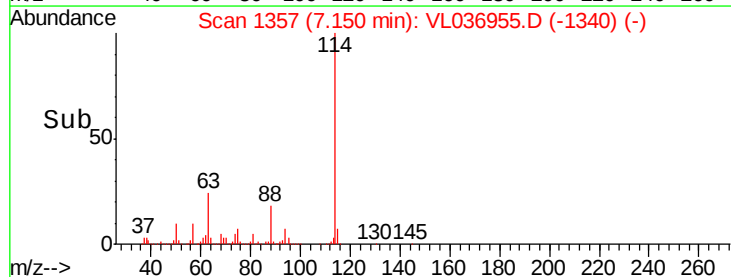
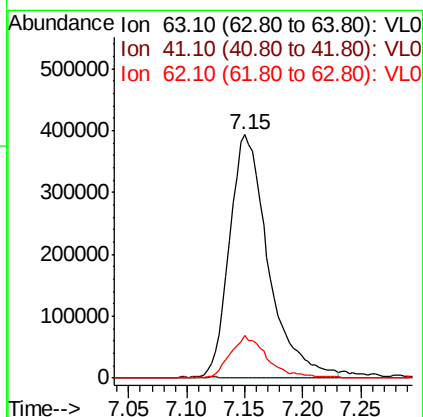
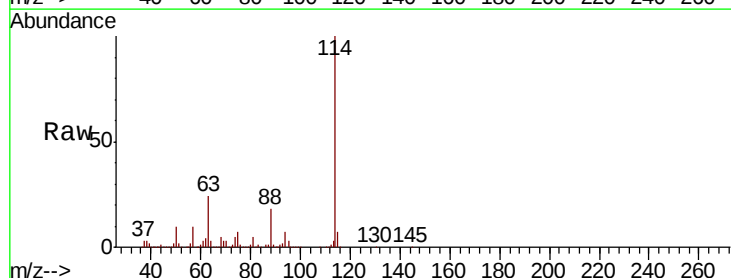
Delta R.T. -0.44 min

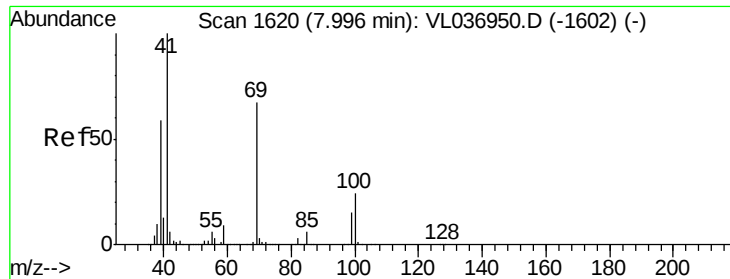
Lab File: VL036955.D

Acq: 18 May 2021 5:06

Tgt Ion: 63 Resp: 916073

Ion	Ratio	Lower	Upper
63	100		
41	0.2	55.7	83.5#
62	17.3	56.2	84.4#

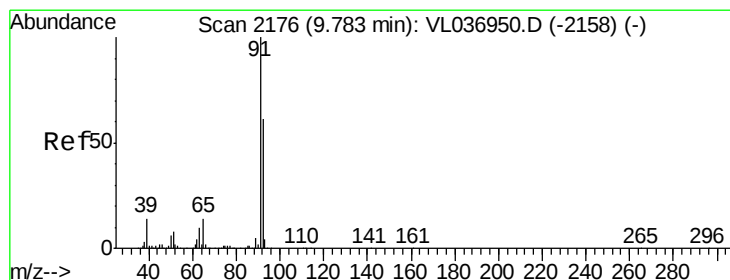
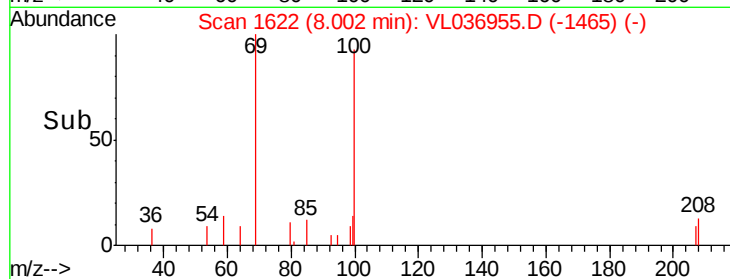
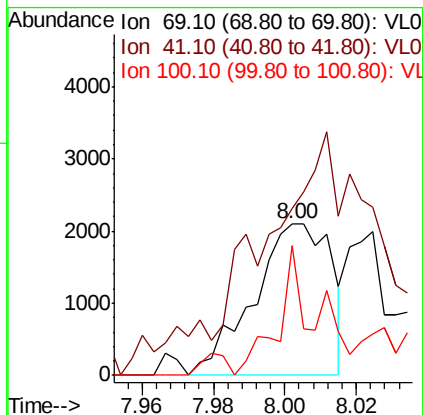
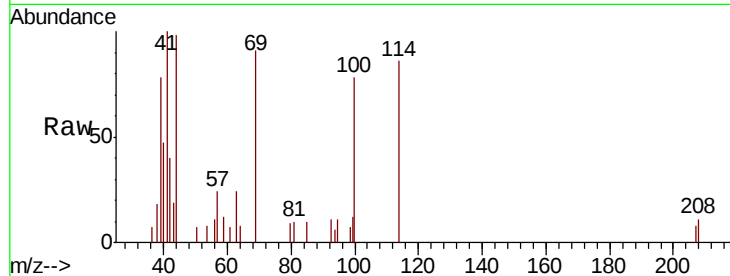




#43
Methvl Methacrylate
Concen: 0.034 ppbv
RT: 8.00 min Scan# 1622
Delta R.T. 0.01 min
Lab File: VL036955.D
Acq: 18 May 2021 5:06

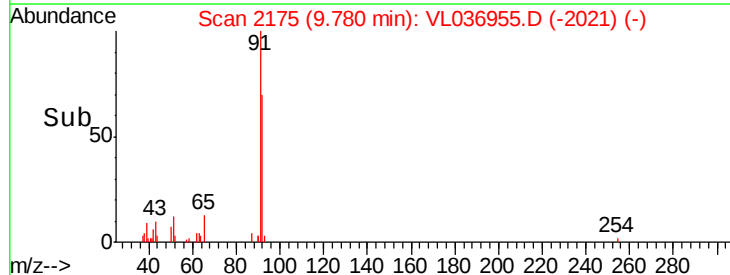
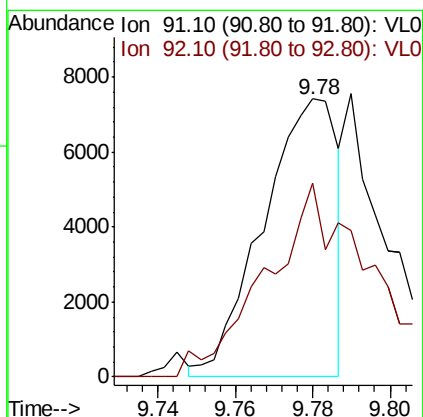
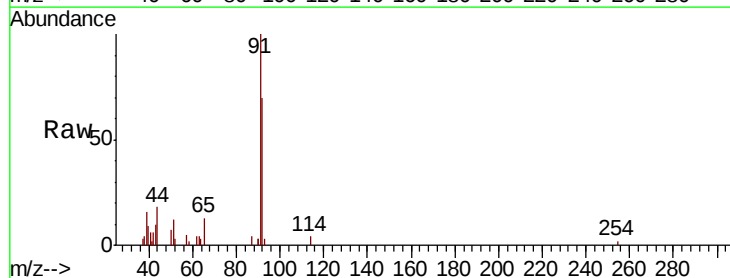
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

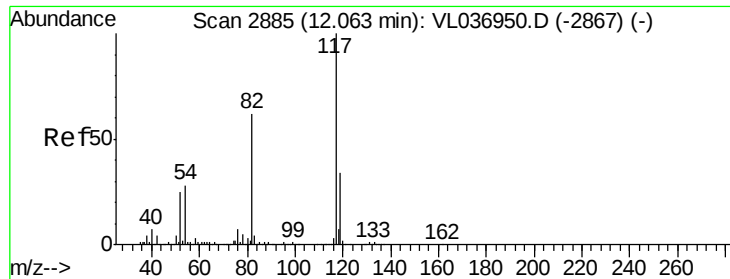
Tot Ion: 69 Resp: 3170
Ion Ratio Lower Upper
69 100
41 244.4 118.6 178.0#
100 66.3 28.2 42.4#



#53
Toluene
Concen: 0.031 ppbv
RT: 9.78 min Scan# 2175
Delta R.T. -0.00 min
Lab File: VL036955.D
Acq: 18 May 2021 5:06

Tgt Ion: 91 Resp: 9887
Ion Ratio Lower Upper
91 100
92 106.6 49.5 74.3#

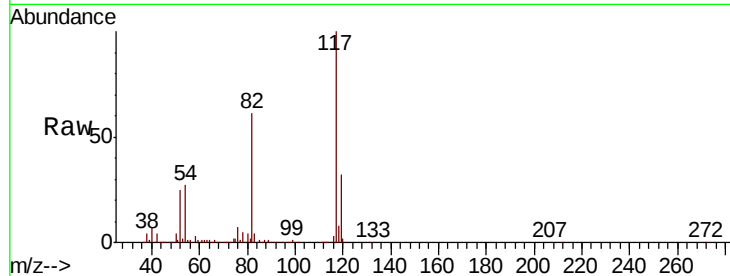




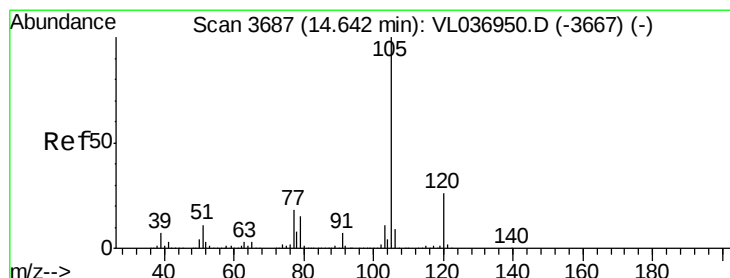
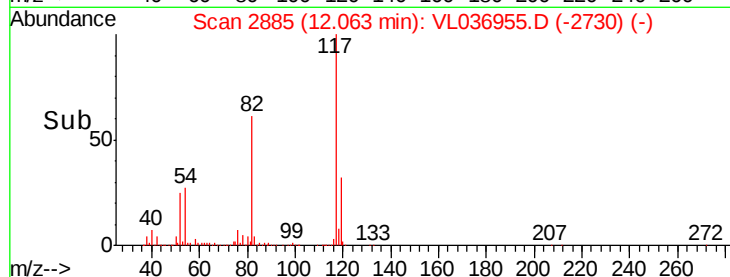
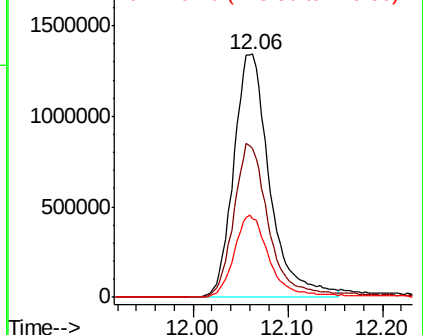
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min Scan# 2885
Delta R.T. -0.00 min
Lab File: VL036955.D
Acq: 18 May 2021 5:06

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

Tot Ion:117 Resp: 3559200
Ion Ratio Lower Upper
117 100
82 63.8 52.6 79.0
119 33.6 46.6 70.0#

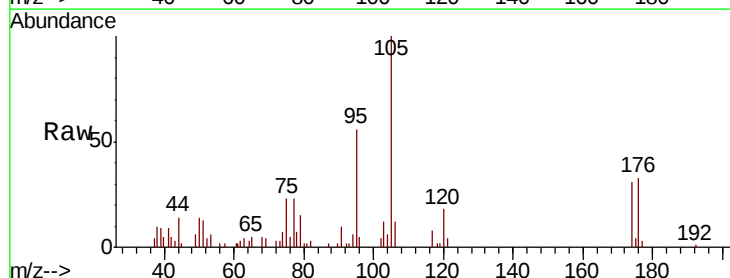


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

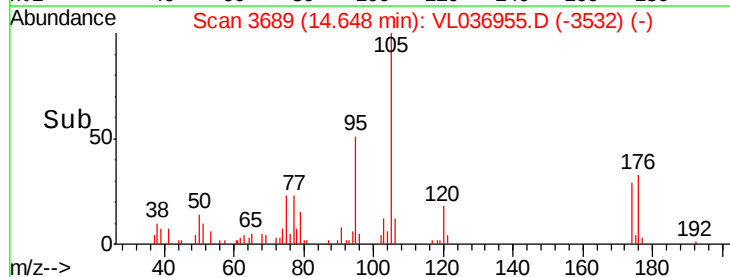
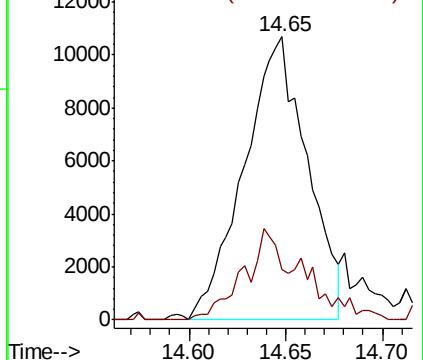


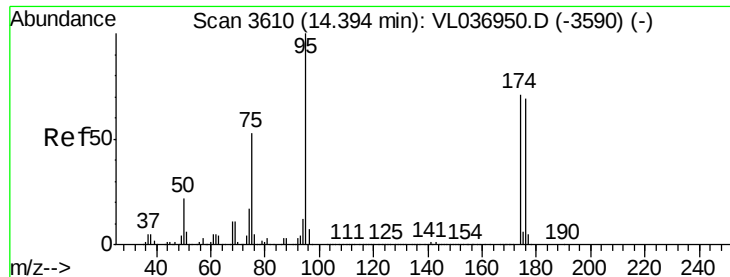
#62
Isopropylbenzene
Concen: 0.046 ppbv
RT: 14.65 min Scan# 3689
Delta R.T. 0.01 min
Lab File: VL036955.D
Acq: 18 May 2021 5:06

Tgt Ion:105 Resp: 24344
Ion Ratio Lower Upper
105 100
120 30.1 21.7 32.5



Abundance Ion 105.10 (104.80 to 105.80): V
Ion 120.20 (119.90 to 120.90): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.343 ppbv

RT: 14.39 min Scan# 3609

Delta R.T. -0.00 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

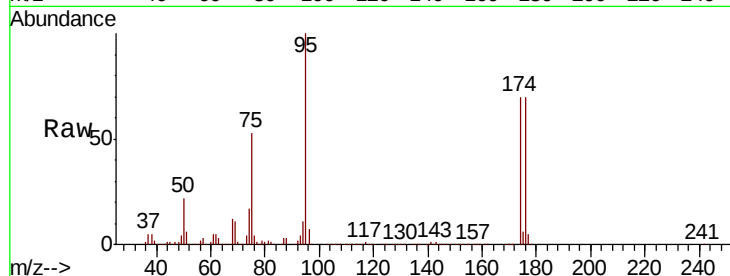
Tot Ion: 95 Resp: 2593128

Ion Ratio Lower Upper

95 100

174 78.9 58.4 87.6

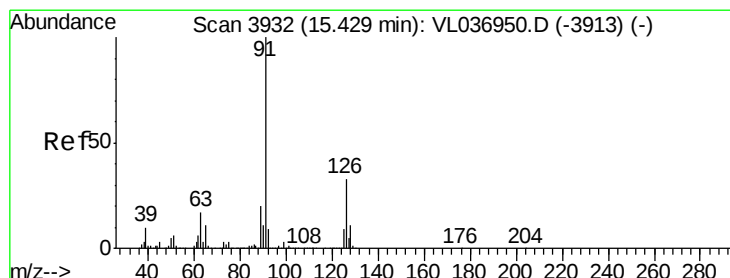
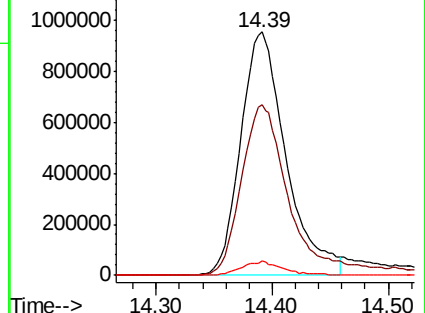
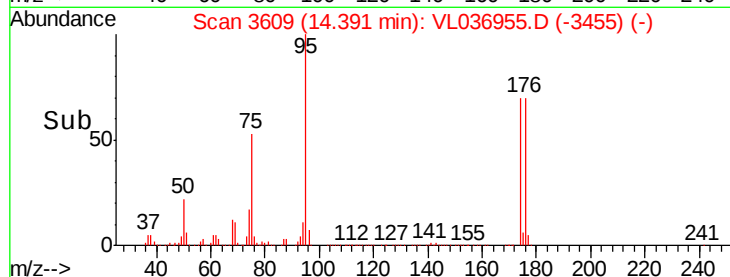
175 5.9 4.4 6.6



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



#71

2-Chlorotoluene

Concen: 0.037 ppbv

RT: 15.43 min Scan# 3933

Delta R.T. 0.00 min

Lab File: VL036955.D

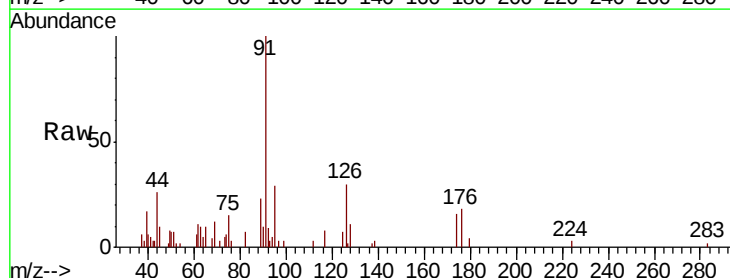
Acq: 18 May 2021 5:06

Tgt Ion: 91 Resp: 13882

Ion Ratio Lower Upper

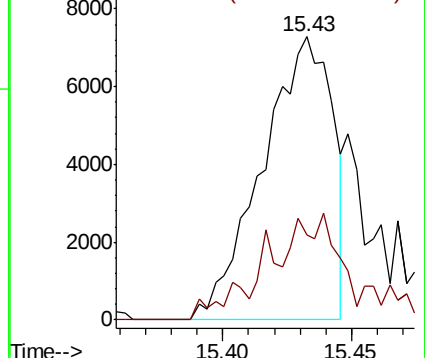
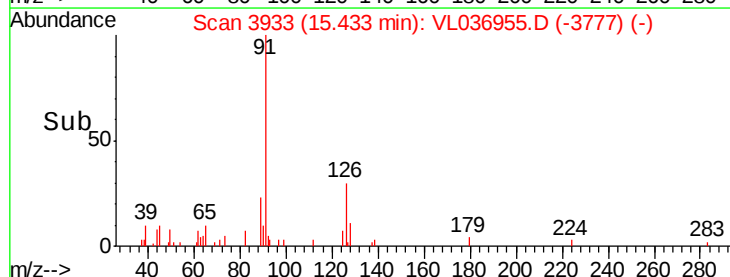
91 100

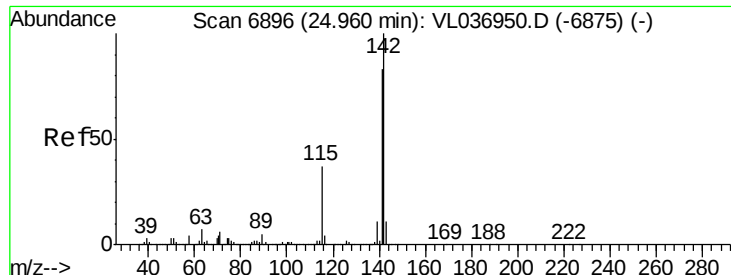
126 45.6 13.1 52.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V





#80

Naphthalene, 2-methyl-

Concen: 0.057 ppbv

RT: 25.19 min Scan# 6968

Delta R.T. 0.23 min

Lab File: VL036955.D

Acq: 18 May 2021 5:06

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

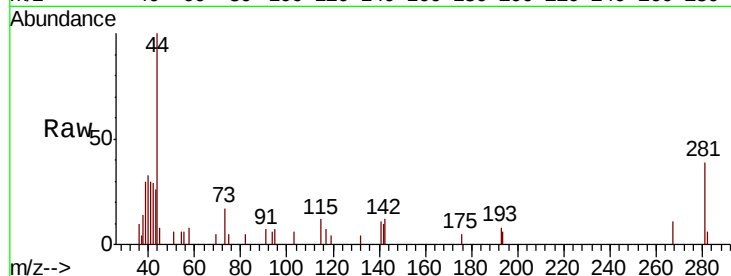
Tot Ion:142 Resp: 1615

Ion Ratio Lower Upper

142 100

141 91.8 69.3 103.9

115 32.2 29.1 43.7



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

