

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061621\
 Data File : VL037180.D
 Acq On : 16 Jun 2021 21:22
 Operator : SY/AP
 Sample : M2713-02DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 17 01:50:26 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL061621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 16 14:06:32 2021
 QLast Update : Wed Jun 16 14:06:32 2021
 Response via : Initial Calibration

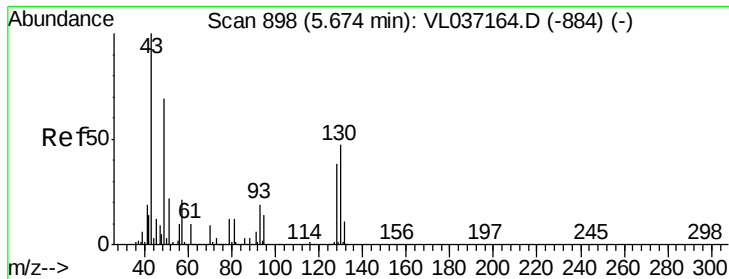
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1395195	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4153512	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3667069	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	2668970	9.60	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.00%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	13272	0.055	ppbv 89
3) Chlorodifluoromethane	2.99	51	12497	0.046	ppbv # 76
7) Chloroethane	3.56	64	924	0.026	ppbv # 49
9) Propene	3.01	41	3792	0.044	ppbv # 1
10) Heptane	8.13	43	4911	0.023	ppbv # 1
12) 1,1,2-Trichlorotrifluoroet	4.49	101	4079	0.022	ppbv # 33
13) Ethanol	3.60	45	332	0.025	ppbv # 7
15) Acetone	3.87	43	130571	0.830	ppbv # 64
18) 1,1-Dichloroethene	4.29	96	6140	0.076	ppbv # 83
19) Isopropyl Alcohol	4.00	45	31853	0.334	ppbv # 41
20) Methylene Chloride	4.35	84	96536	1.025	ppbv 95
24) 1,1-Dichloroethane	5.01	63	37819	0.208	ppbv # 90
25) Ethyl Acetate	5.69	43	41610	0.122	ppbv # 79
26) Hexane	5.69	57	49032	0.285	ppbv # 50
32) 1,1,1-Trichloroethane	6.51	97	1045643	3.675	ppbv 99
34) 2-Butanone	5.27	43	23952	0.148	ppbv # 55
37) 1,2-Dichloroethane	6.51	62	70109	0.359	ppbv # 1
39) 1,2-Dichloropropane	7.18	63	1003355	8.039	ppbv # 23
50) 4-Methyl-2-Pentanone	8.78	43	39995	0.180	ppbv # 39
53) Toluene	9.81	91	260246	0.649	ppbv 96
58) Ethyl Benzene	12.71	91	126652	0.251	ppbv # 84
59) m/p-Xylene	12.97	91	601904	1.407	ppbv 96
60) o-Xylene	13.69	91	266819	0.655	ppbv 100
74) 1,2,4-Trimethylbenzene	16.77	105	22257	0.048	ppbv # 76

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

ClientSampleId :

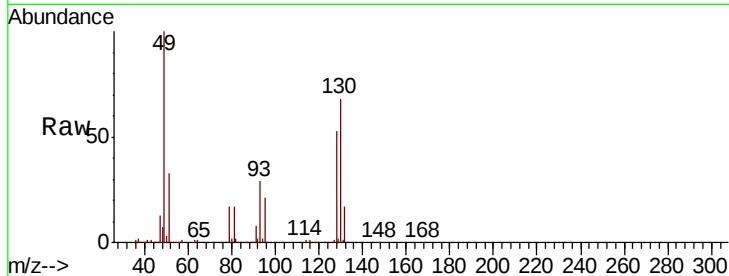
Tot Ion: 49 Resp: 1395195

Ion Ratio Lower Upper

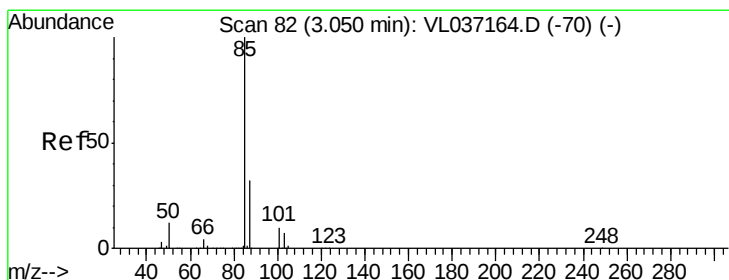
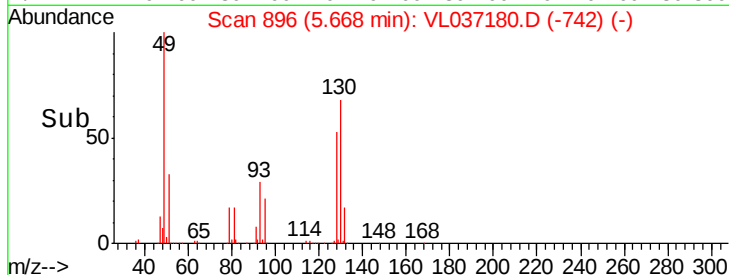
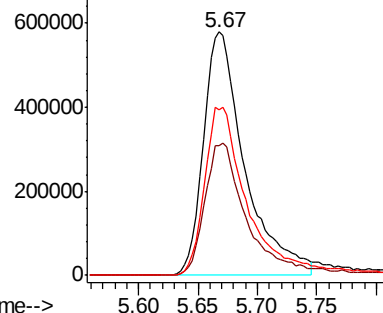
49 100

128 57.2 29.3 88.0

130 74.7 35.9 107.8



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



#2

Dichlorodifluoromethane

Concen: 0.055 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL037180.D

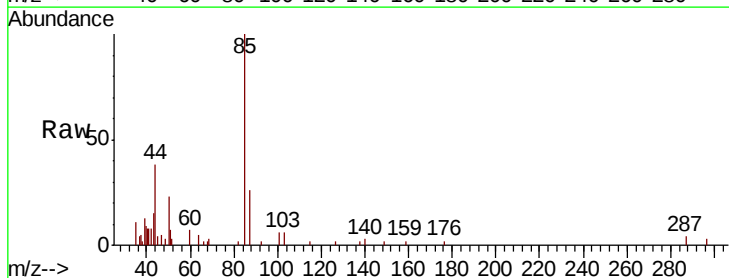
Acq: 16 Jun 2021 21:22

Tgt Ion: 85 Resp: 13272

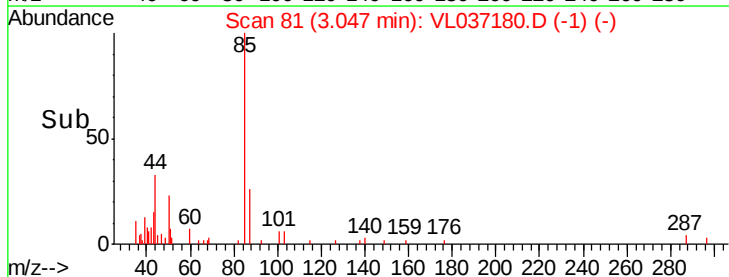
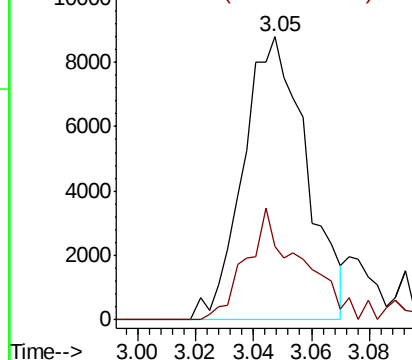
Ion Ratio Lower Upper

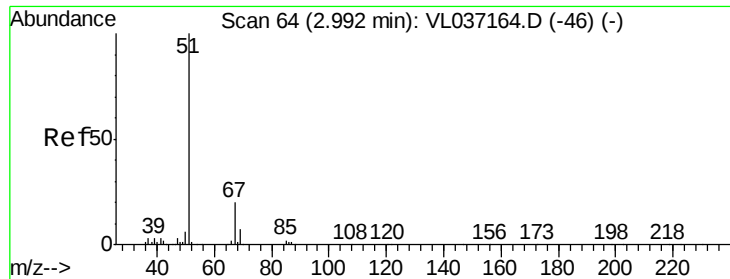
85 100

87 25.8 25.8 38.6



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.046 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

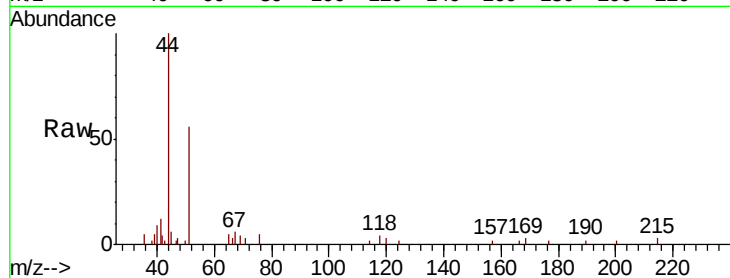
ClientSampleId :

Tot Ion: 51 Resp: 12497

Ion Ratio Lower Upper

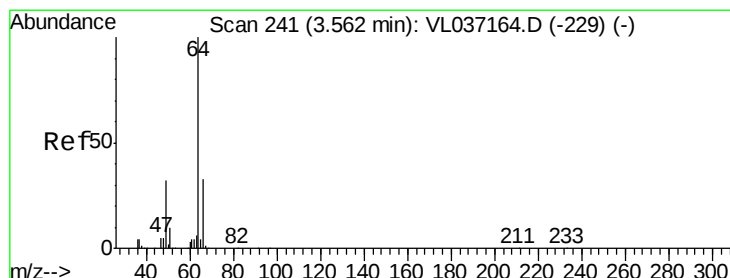
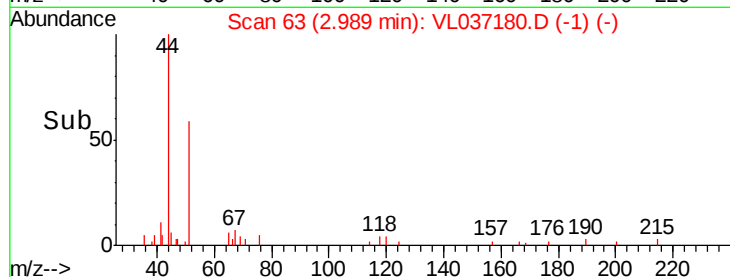
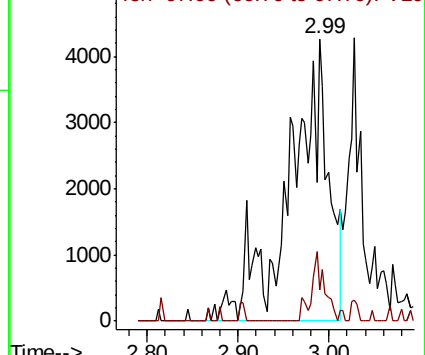
51 100

67 8.7 15.8 23.6#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#7

Chloroethane

Concen: 0.026 ppbv

RT: 3.56 min Scan# 239

Delta R.T. -0.01 min

Lab File: VL037180.D

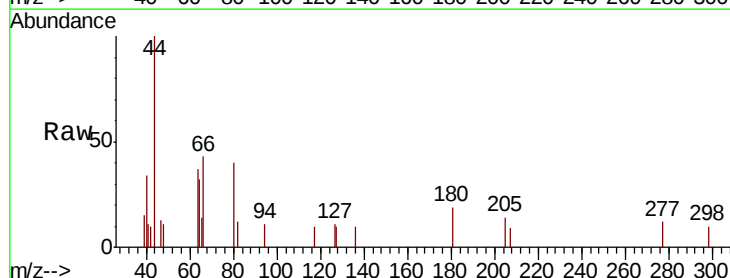
Acq: 16 Jun 2021 21:22

Tgt Ion: 64 Resp: 924

Ion Ratio Lower Upper

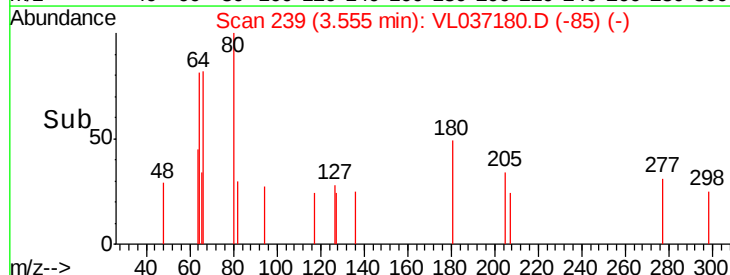
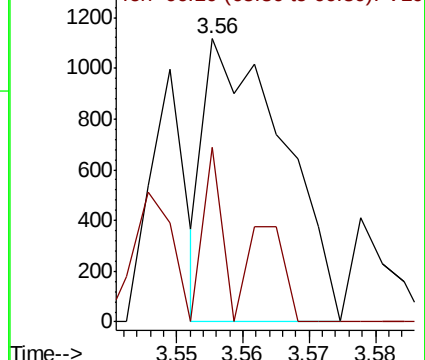
64 100

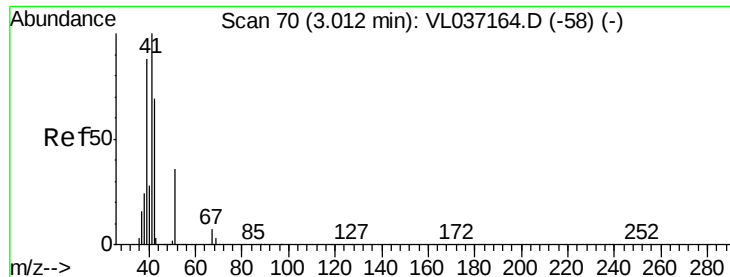
66 61.6 26.2 39.4#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 0.044 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

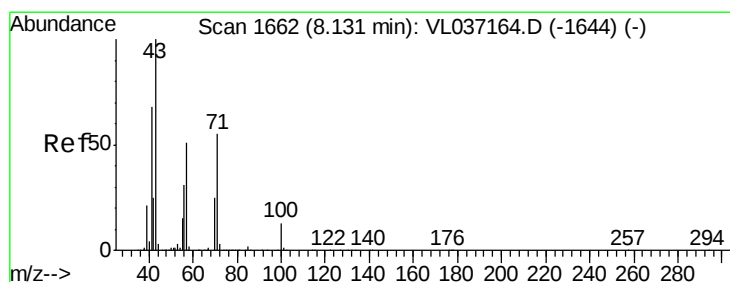
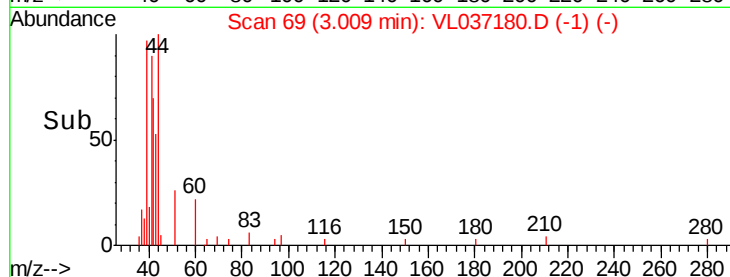
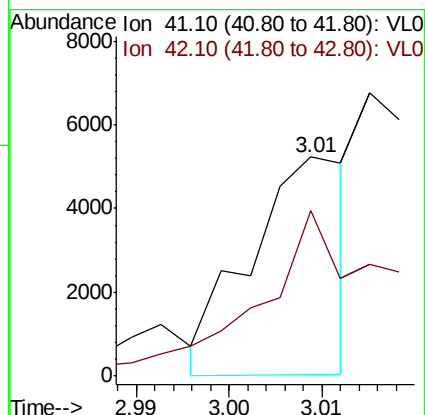
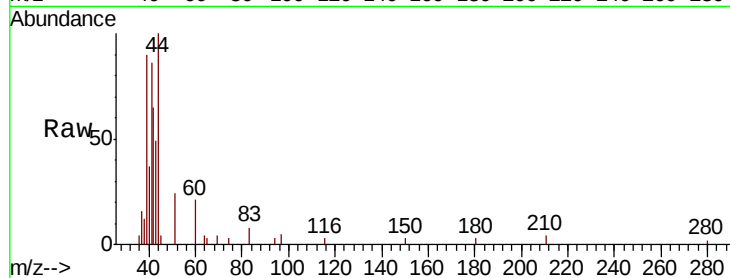
ClientSampleId :

Tot Ion: 41 Resp: 3792

Ion Ratio Lower Upper

41 100

42 159.8 54.5 81.7#



#10

Heptane

Concen: 0.023 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL037180.D

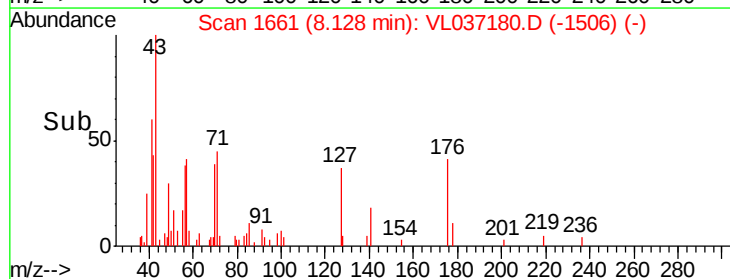
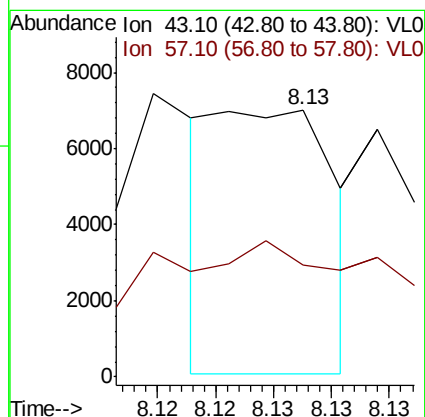
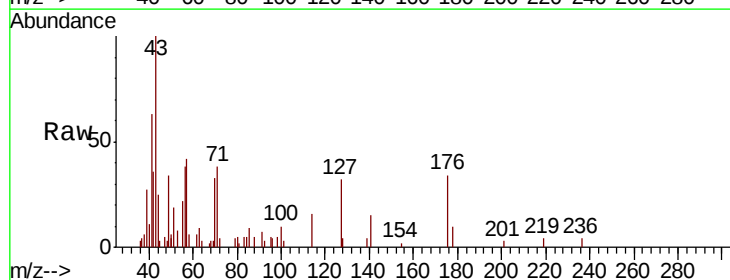
Acq: 16 Jun 2021 21:22

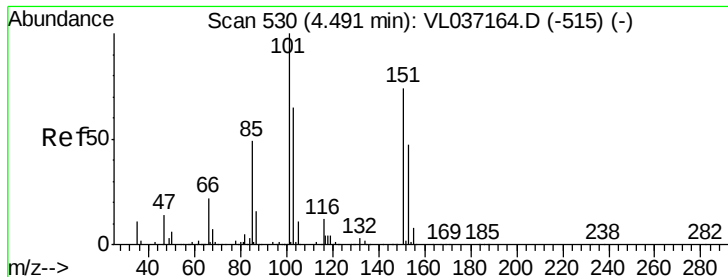
Tgt Ion: 43 Resp: 4911

Ion Ratio Lower Upper

43 100

57 175.9 40.6 61.0#





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.022 ppbv

RT: 4.49 min Scan# 529

Delta R.T. -0.00 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

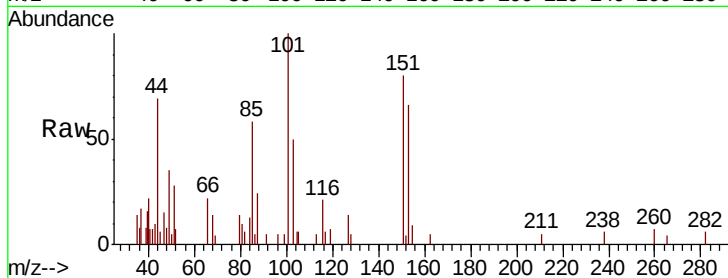
ClientSampleId :

Tot Ion:101 Resp: 4079

Ion Ratio Lower Upper

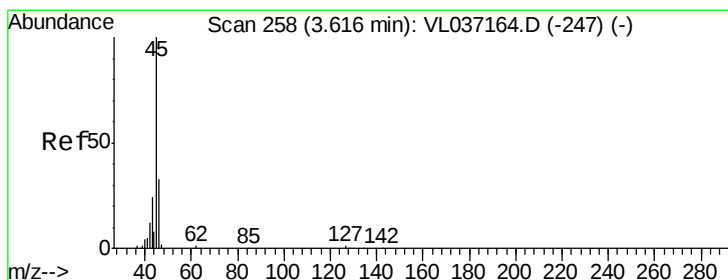
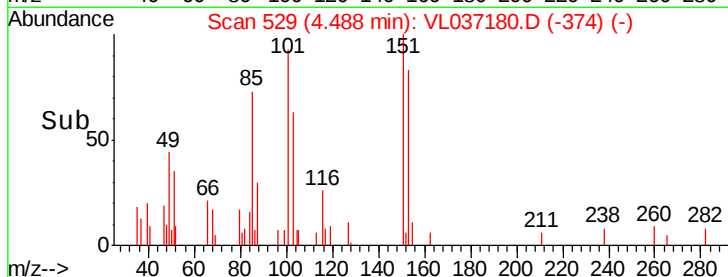
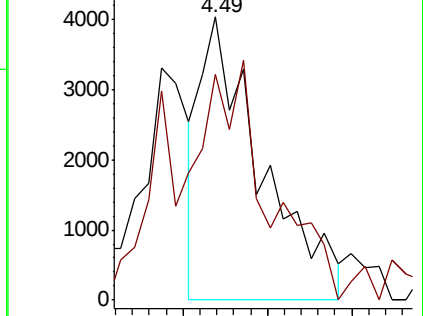
101 100

151 130.9 59.1 88.7#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 0.025 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.02 min

Lab File: VL037180.D

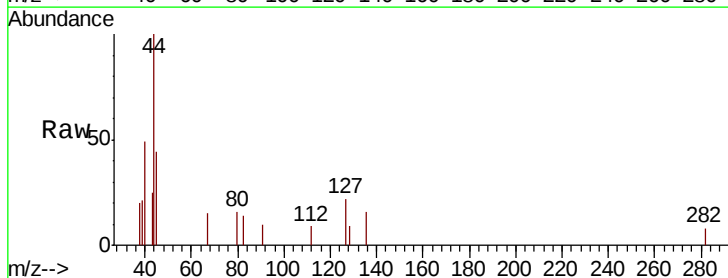
Acq: 16 Jun 2021 21:22

Tgt Ion: 45 Resp: 332

Ion Ratio Lower Upper

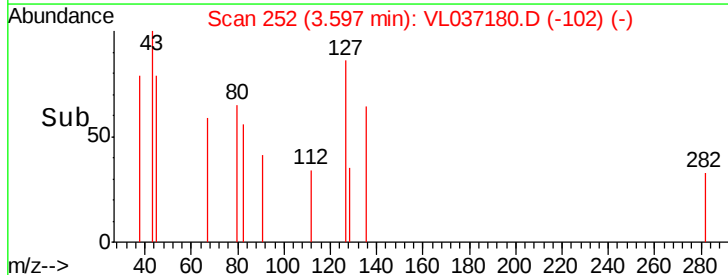
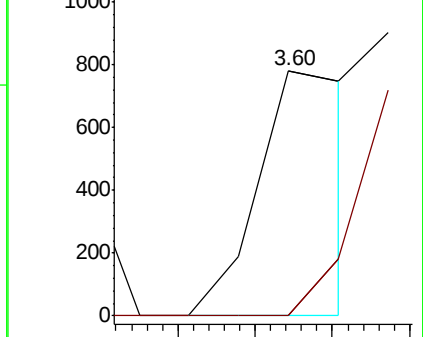
45 100

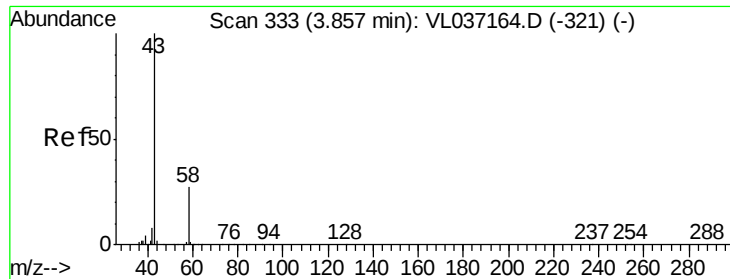
46 0.0 34.2 137.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

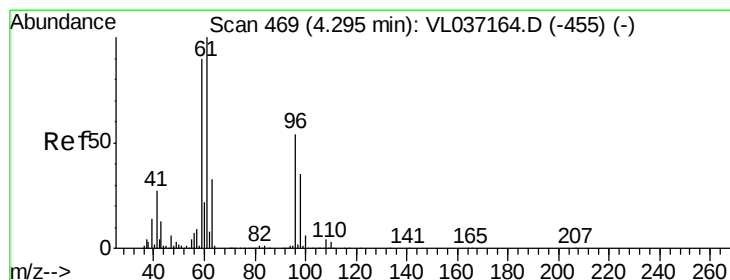
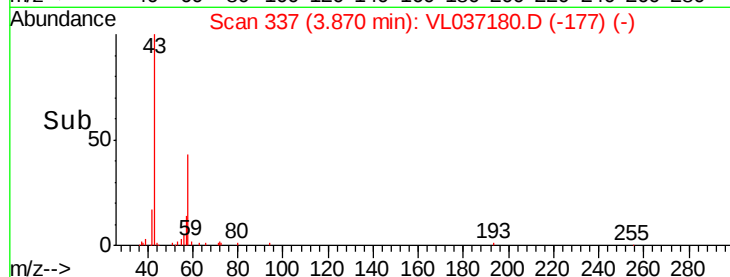
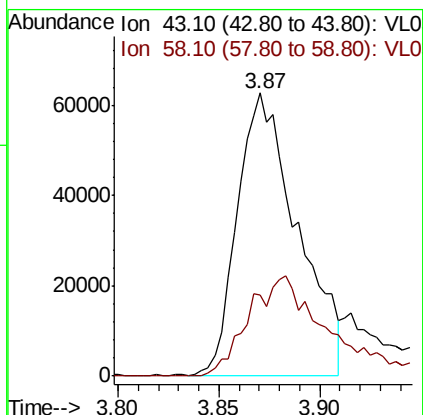
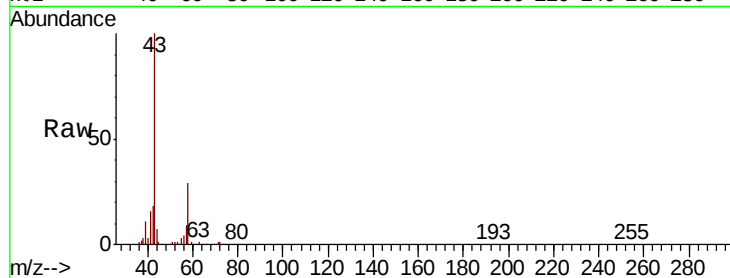




#15
Acetone
Concen: 0.830 ppbv
RT: 3.87 min Scan# 337
Delta R.T. 0.01 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

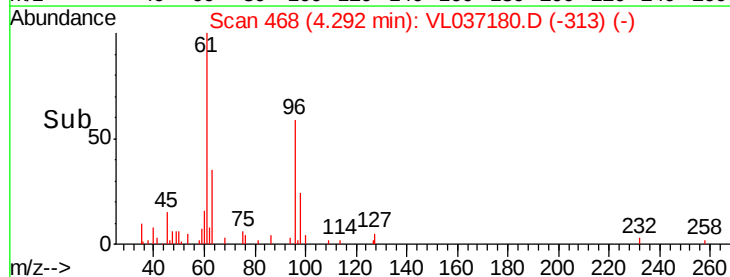
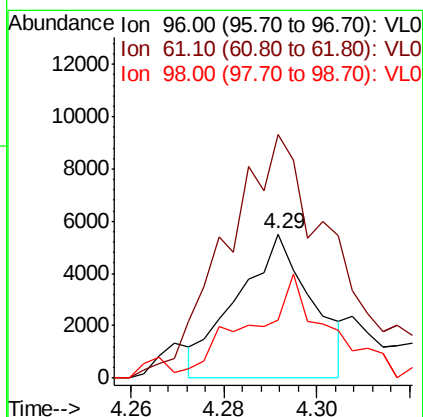
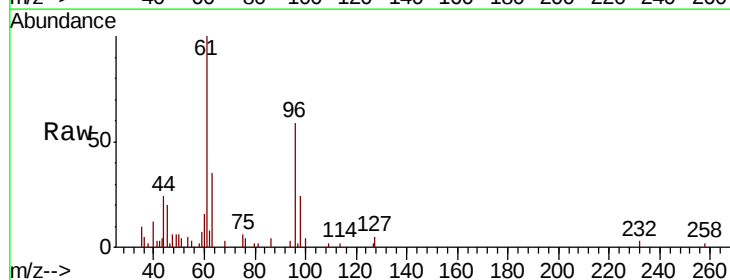
Instrument :
MSVOA_L
ClientSampleId :

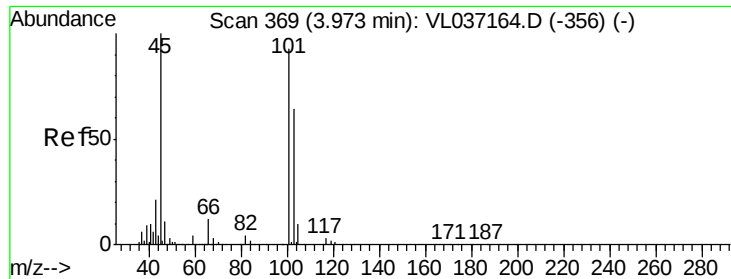
Tot Ion: 43 Resp: 130571
Ion Ratio Lower Upper
43 100
58 49.1 23.7 35.5#



#18
1,1-Dichloroethene
Concen: 0.076 ppbv
RT: 4.29 min Scan# 468
Delta R.T. -0.00 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

Tgt Ion: 96 Resp: 6140
Ion Ratio Lower Upper
96 100
61 165.9 148.6 222.8
98 42.7 51.9 77.9#





#19

Isopropyl Alcohol

Concen: 0.334 ppbv

RT: 4.00 min Scan# 376

Delta R.T. 0.02 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

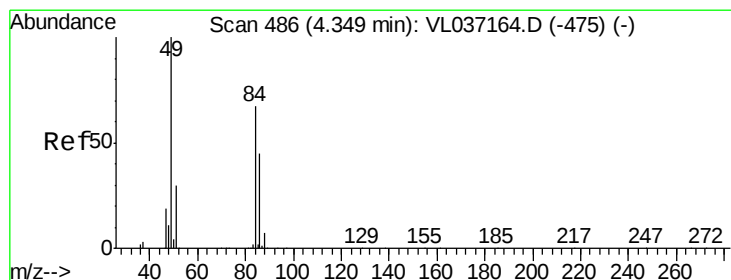
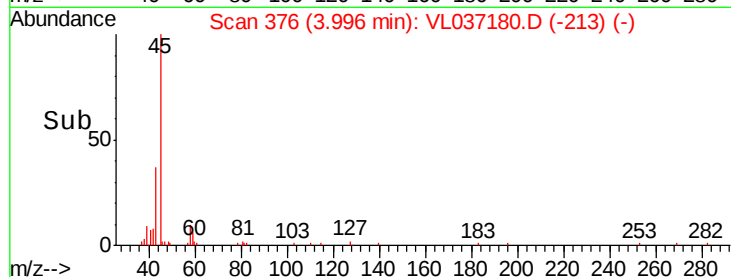
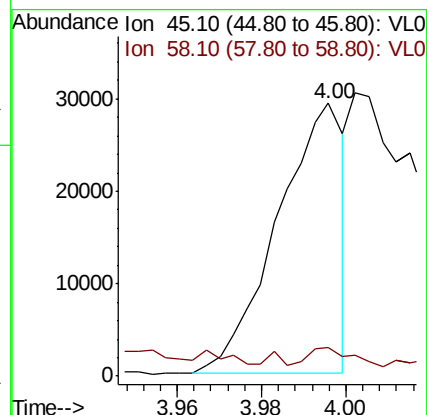
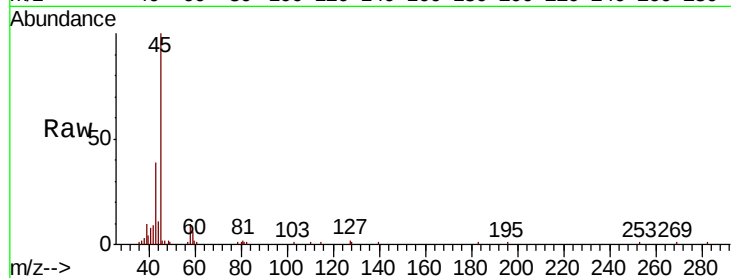
ClientSampleId :

Tot Ion: 45 Resp: 31853

Ion Ratio Lower Upper

45 100

58 22.8 2.4 3.6#



#20

Methylene Chloride

Concen: 1.025 ppbv

RT: 4.35 min Scan# 485

Delta R.T. -0.00 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Tgt Ion: 84 Resp: 96536

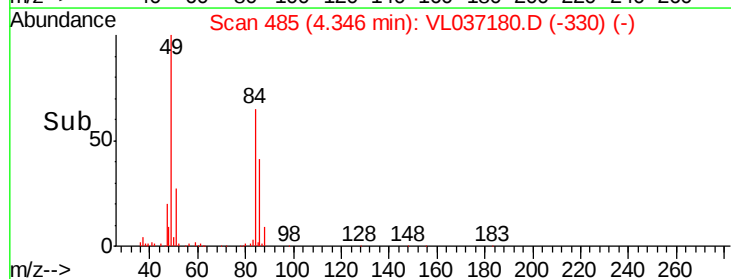
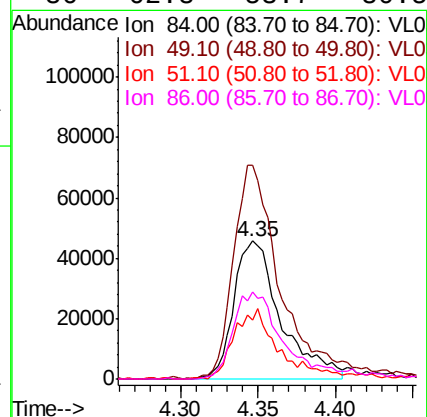
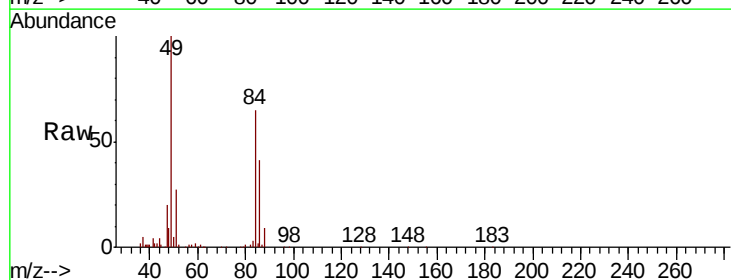
Ion Ratio Lower Upper

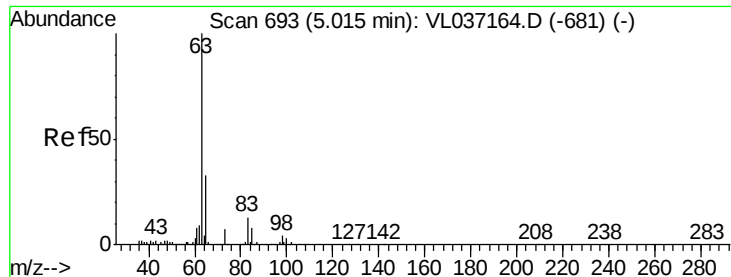
84 100

49 154.8 119.7 179.5

51 41.8 36.1 54.1

86 62.8 53.7 80.5





#24

1,1-Dichloroethane

Concen: 0.208 ppbv

RT: 5.01 min Scan# 692

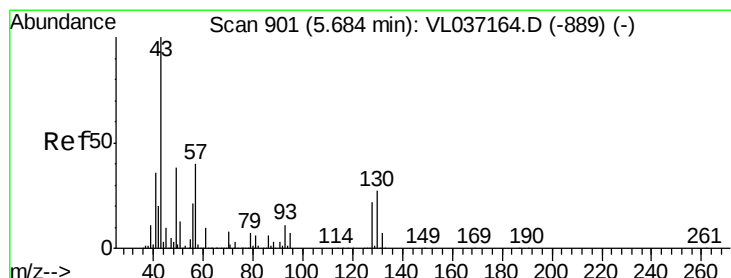
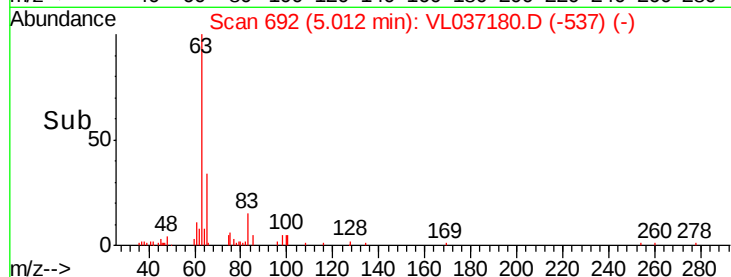
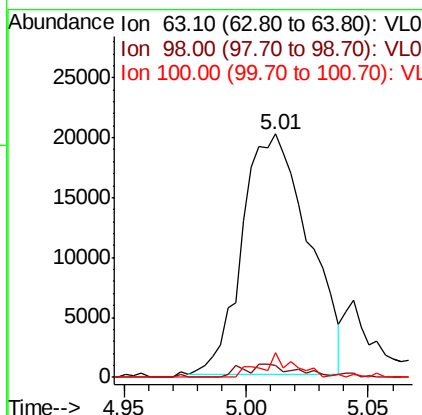
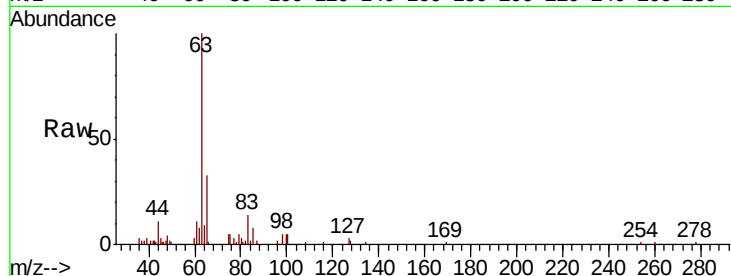
Delta R.T. -0.00 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	63	Resp:	37819
Ion	Ratio	Lower	Upper
63	100		
98	4.9	2.1	6.5
100	10.0	1.4	4.0#



#25

Ethyl Acetate

Concen: 0.122 ppbv

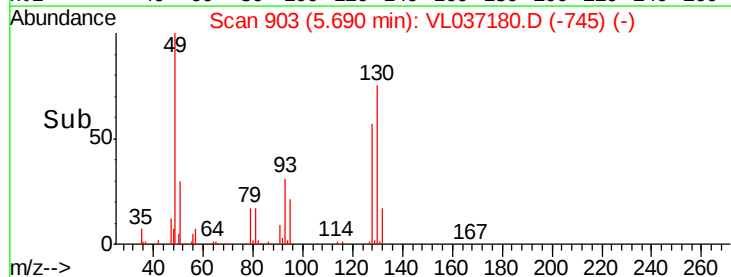
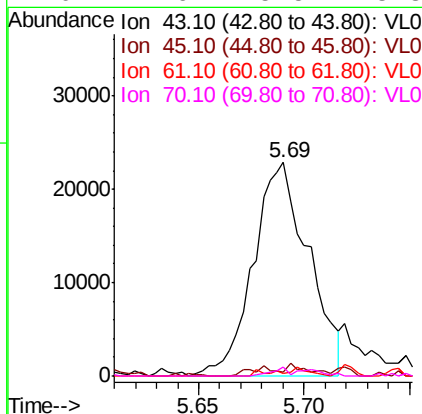
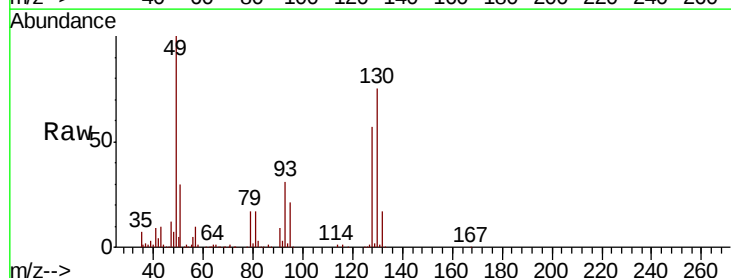
RT: 5.69 min Scan# 903

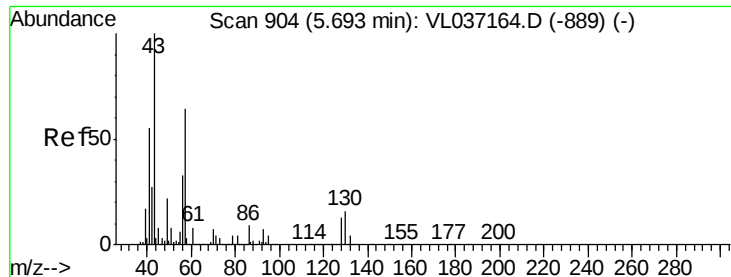
Delta R.T. 0.01 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Tgt Ion:	43	Resp:	41610
Ion	Ratio	Lower	Upper
43	100		
45	2.4	8.0	12.0#
61	0.0	8.1	12.1#
70	2.6	5.5	8.3#

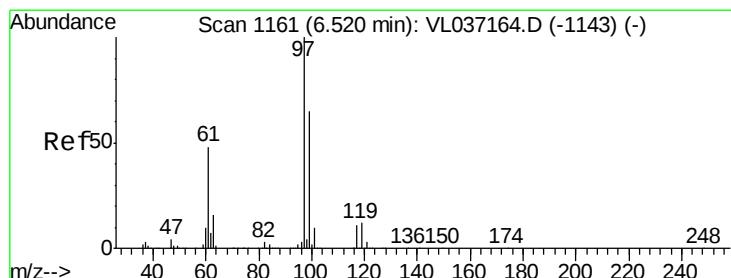
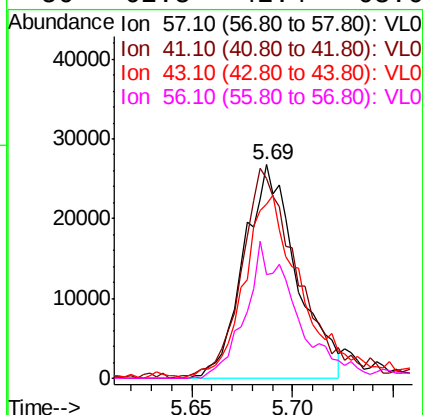
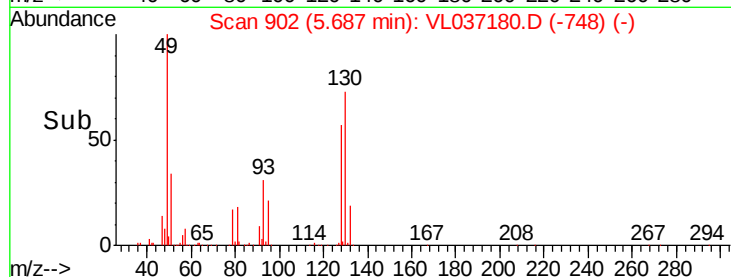
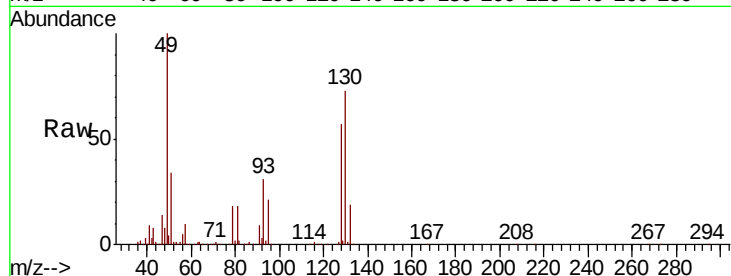




#26
Hexane
Concen: 0.285 ppbv
RT: 5.69 min Scan# 902
Delta R.T. -0.01 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

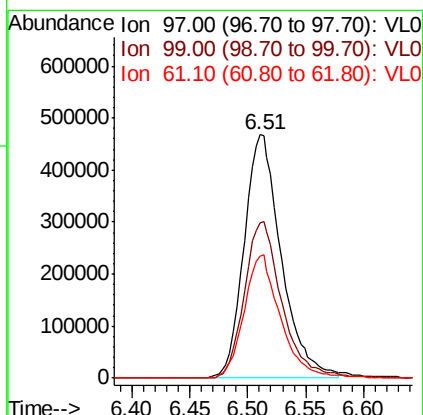
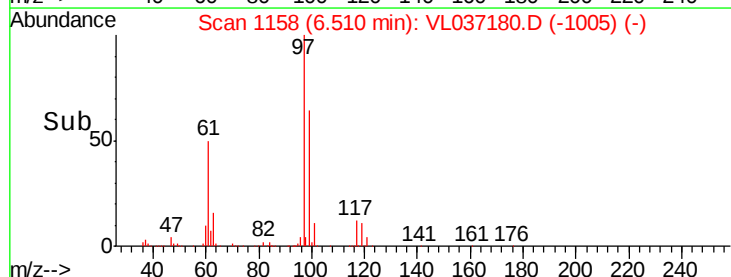
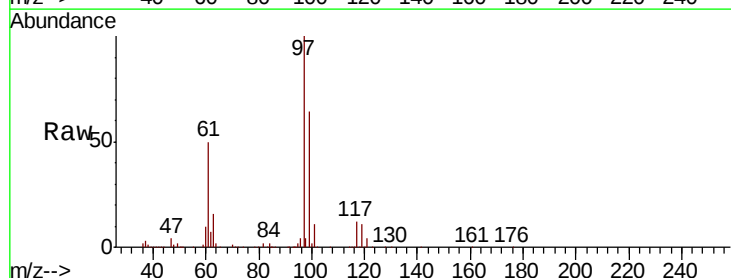
Instrument :
MSVOA_L
ClientSampleId :

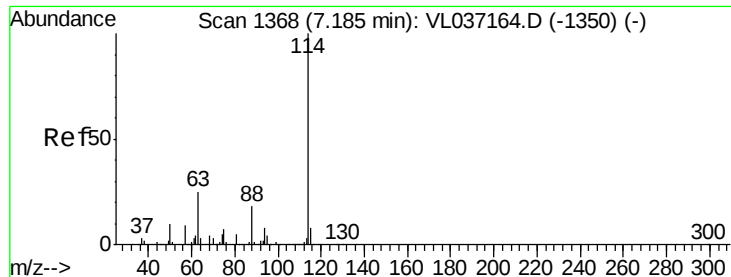
Tot Ion: 57 Resp: 49032
Ion Ratio Lower Upper
57 100
41 112.3 73.5 110.3#
43 101.6 170.7 256.1#
56 62.8 42.4 63.6



#32
1,1,1-Trichloroethane
Concen: 3.675 ppbv
RT: 6.51 min Scan# 1158
Delta R.T. -0.01 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

Tgt Ion: 97 Resp: 1045643
Ion Ratio Lower Upper
97 100
99 65.3 52.2 78.4
61 49.8 38.8 58.2

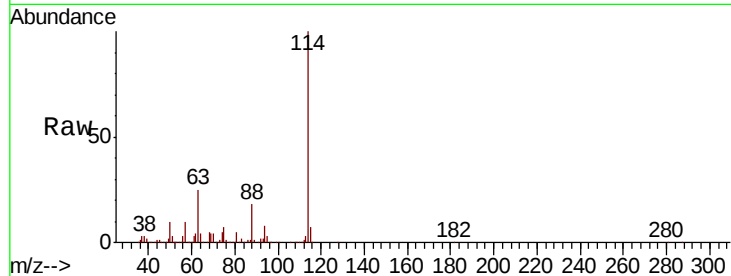




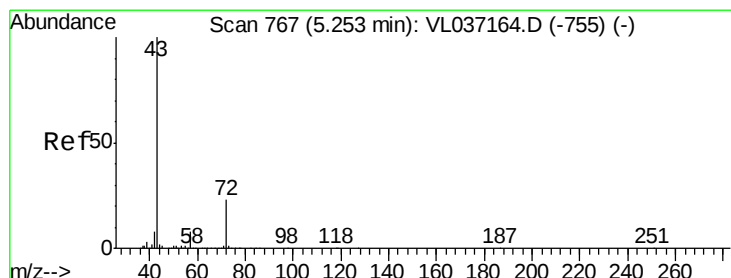
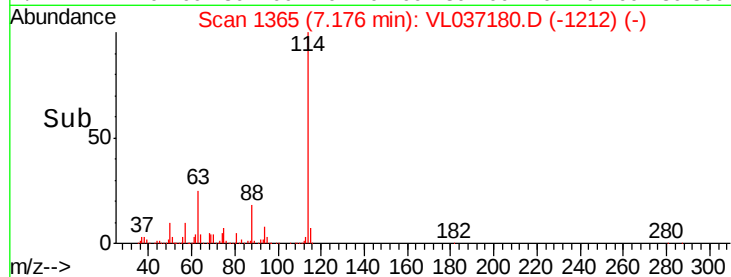
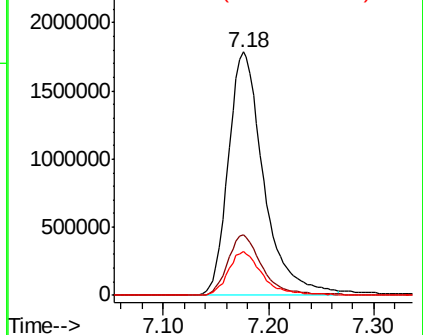
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. -0.01 min
 Lab File: VL037180.D
 Acq: 16 Jun 2021 21:22

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 4153512
 Ion Ratio Lower Upper
 114 100
 63 24.6 19.6 29.4
 88 17.7 14.2 21.2

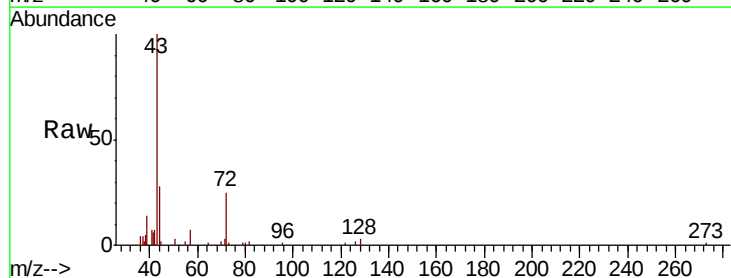


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

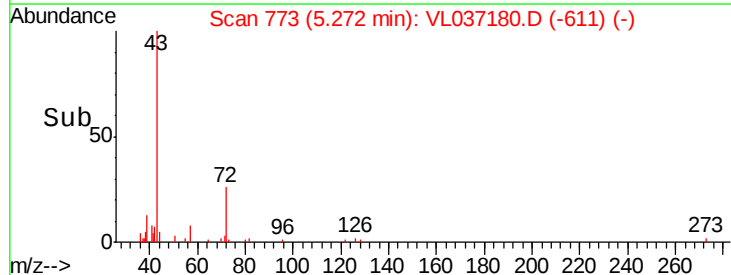
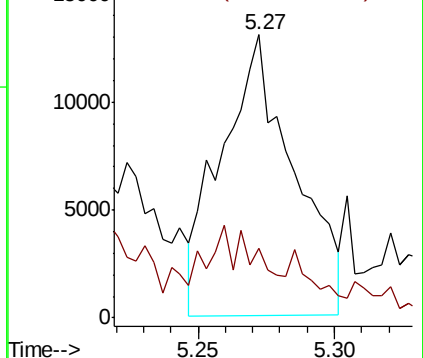


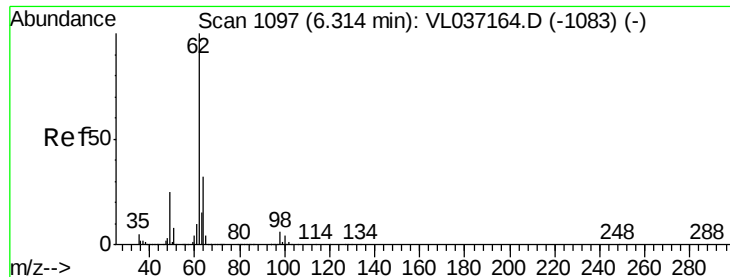
#34
 2-Butanone
 Concen: 0.148 ppbv
 RT: 5.27 min Scan# 773
 Delta R.T. 0.02 min
 Lab File: VL037180.D
 Acq: 16 Jun 2021 21:22

Tgt Ion: 43 Resp: 23952
 Ion Ratio Lower Upper
 43 100
 72 45.9 18.9 28.3#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#37

1,2-Dichloroethane

Concen: 0.359 ppbv

RT: 6.51 min Scan# 1158

Delta R.T. 0.20 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

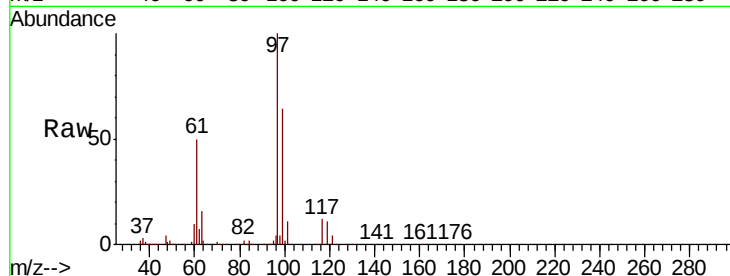
ClientSampleId :

Tot Ion: 62 Resp: 70109

Ion Ratio Lower Upper

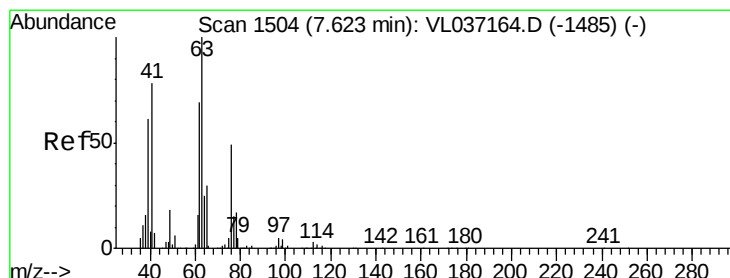
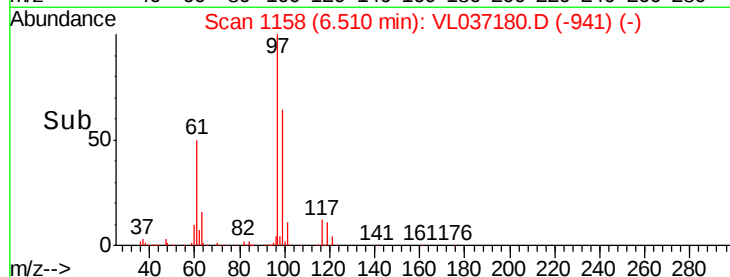
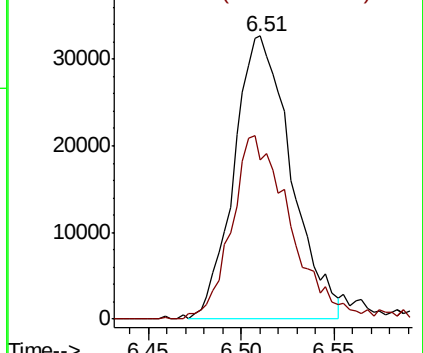
62 100

98 68.1 5.0 7.6#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#39

1,2-Dichloropropane

Concen: 8.039 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.45 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

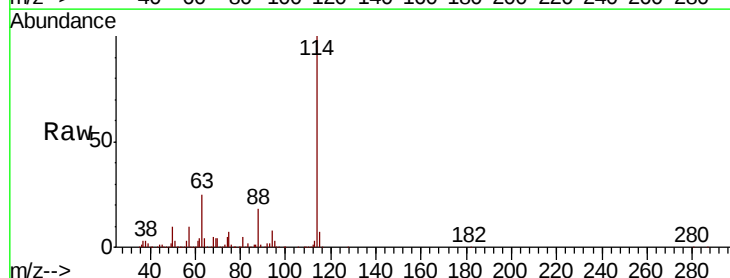
Tgt Ion: 63 Resp: 1003355

Ion Ratio Lower Upper

63 100

41 0.0 62.0 93.0#

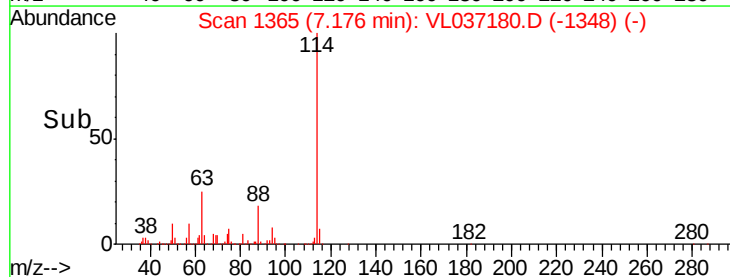
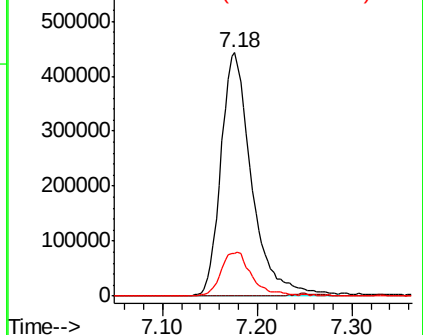
62 17.8 54.9 82.3#

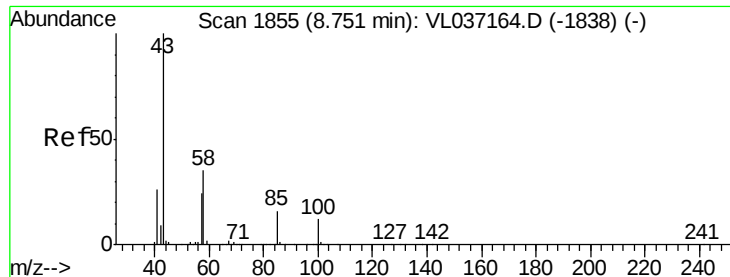


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

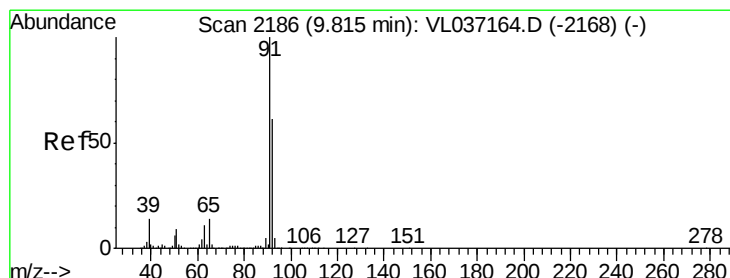
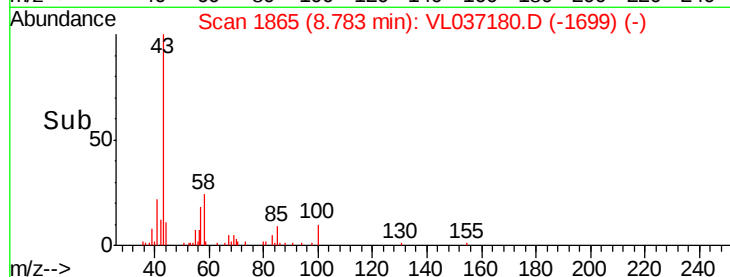
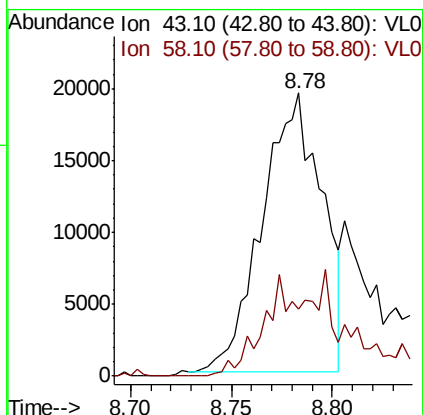
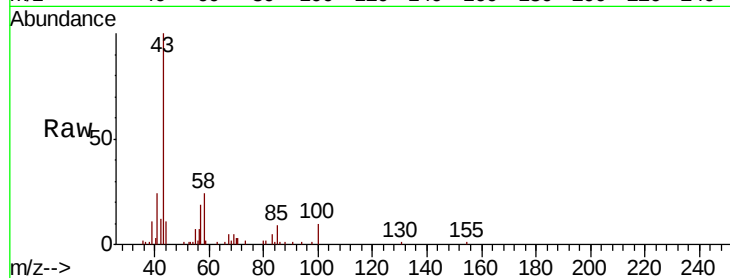




#50
4-Methyl-2-Pentanone
Concen: 0.180 ppbv
RT: 8.78 min Scan# 1865
Delta R.T. 0.03 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

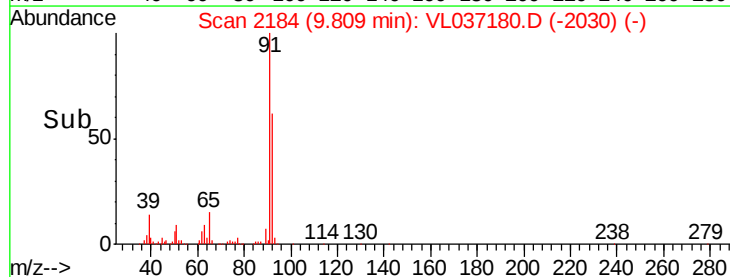
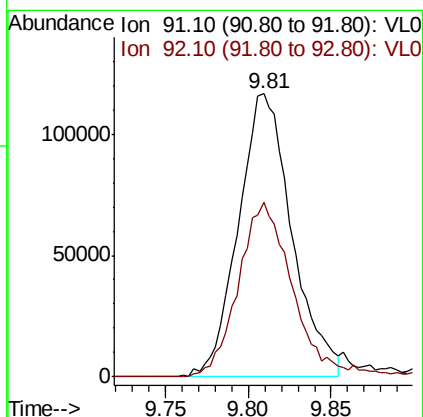
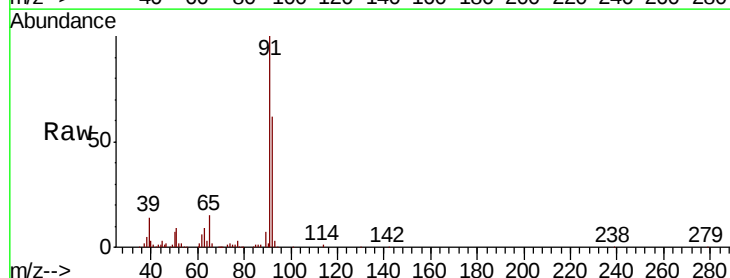
Instrument :
MSVOA_L
ClientSampled :

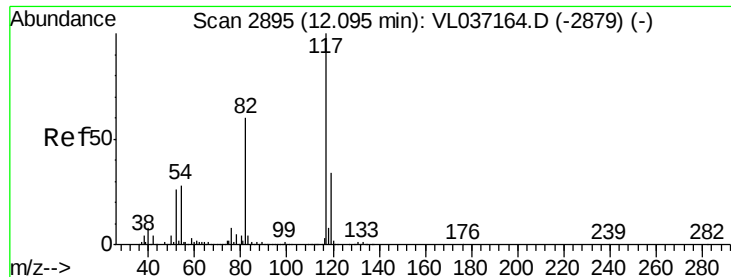
Tot Ion: 43 Resp: 39995
Ion Ratio Lower Upper
43 100
58 0.0 28.4 42.6#



#53
Toluene
Concen: 0.649 ppbv
RT: 9.81 min Scan# 2184
Delta R.T. -0.01 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

Tgt Ion: 91 Resp: 260246
Ion Ratio Lower Upper
91 100
92 63.8 48.3 72.5

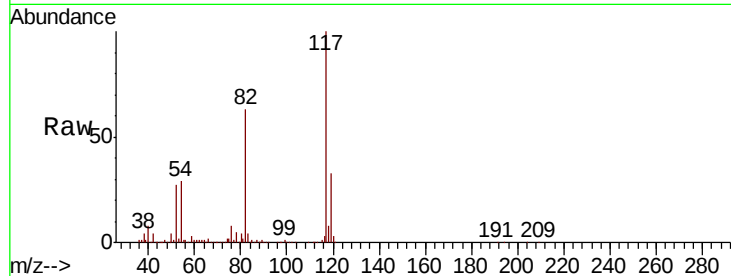




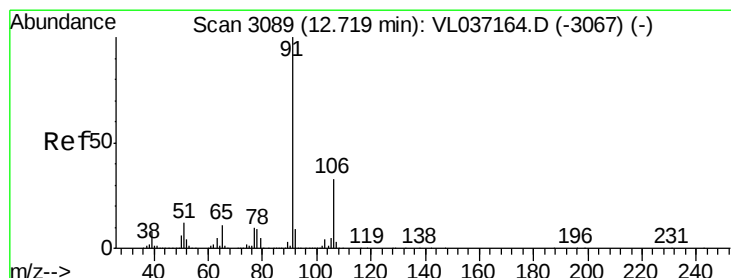
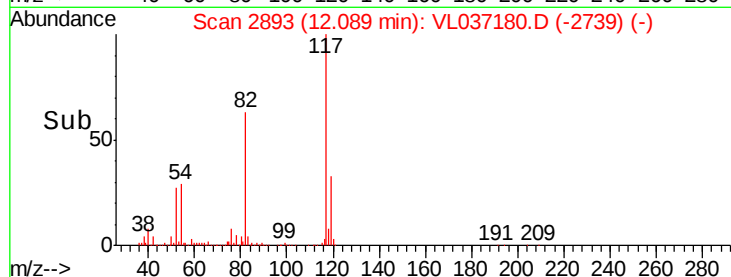
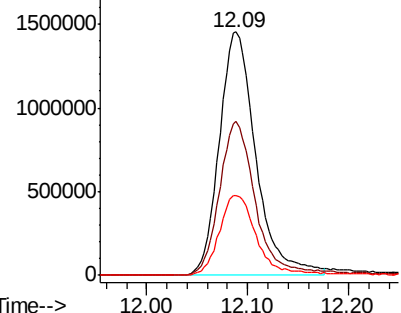
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2893
Delta R.T. -0.01 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 3667069
Ion Ratio Lower Upper
117 100
82 63.8 51.7 77.5
119 34.3 47.6 71.4#

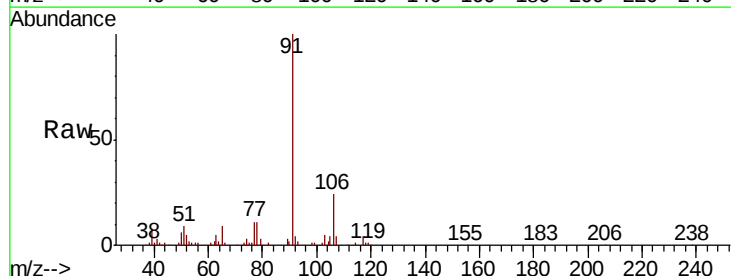


Abundance Ion 117.10 (116.80 to 117.80): V
2000000 Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

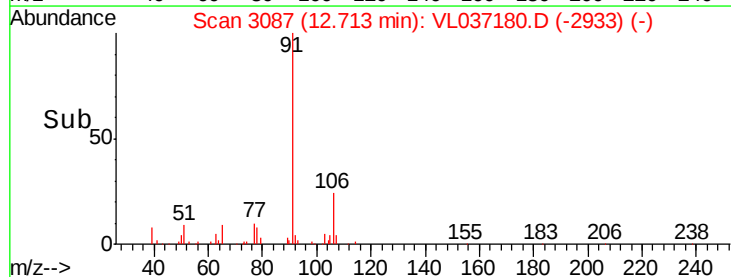
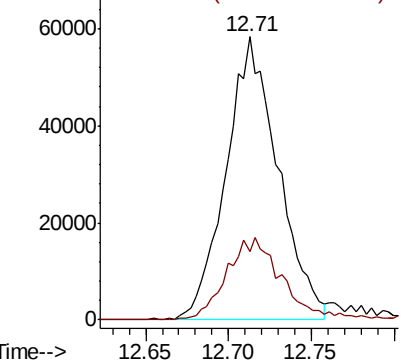


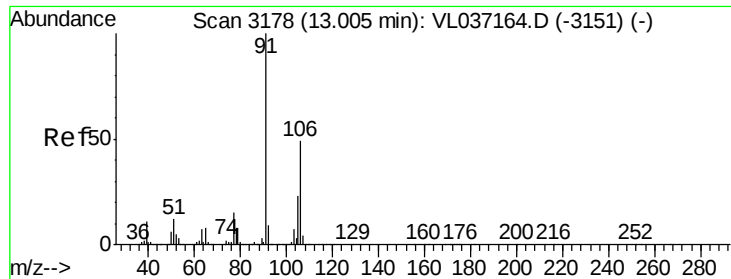
#58
Ethyl Benzene
Concen: 0.251 ppbv
RT: 12.71 min Scan# 3087
Delta R.T. -0.01 min
Lab File: VL037180.D
Acq: 16 Jun 2021 21:22

Tgt Ion: 91 Resp: 126652
Ion Ratio Lower Upper
91 100
106 23.7 26.3 39.5#



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 1.407 ppbv

RT: 12.97 min Scan# 3167

Delta R.T. -0.04 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Instrument :

MSVOA_L

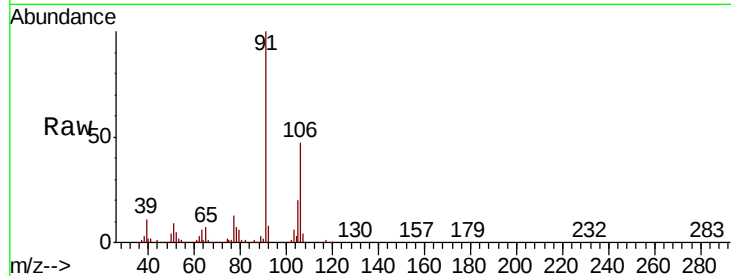
ClientSampled :

Tot Ion: 91 Resp: 601904

Ion Ratio Lower Upper

91 100

106 48.6 37.0 55.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

12.97

200000

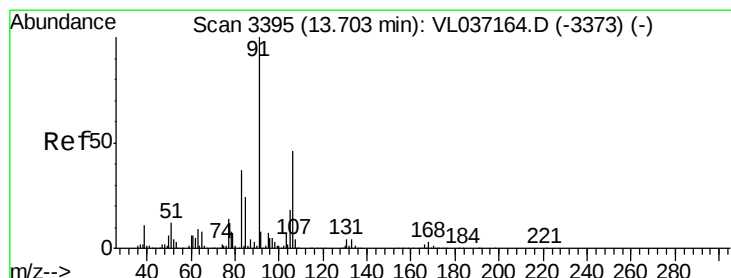
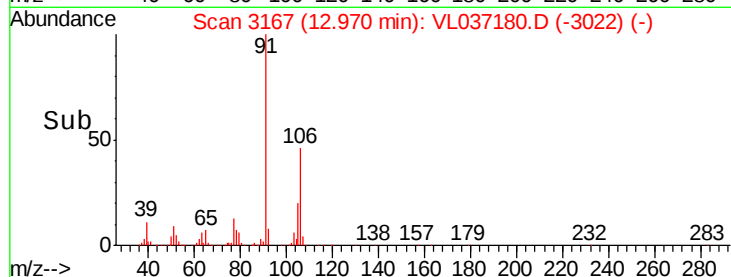
150000

100000

50000

0

Time-->



#60

o-Xylene

Concen: 0.655 ppbv

RT: 13.69 min Scan# 3392

Delta R.T. -0.01 min

Lab File: VL037180.D

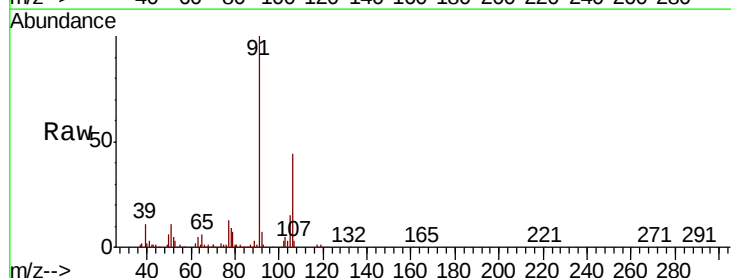
Acq: 16 Jun 2021 21:22

Tgt Ion: 91 Resp: 266819

Ion Ratio Lower Upper

91 100

106 45.7 23.0 69.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.69

120000

100000

80000

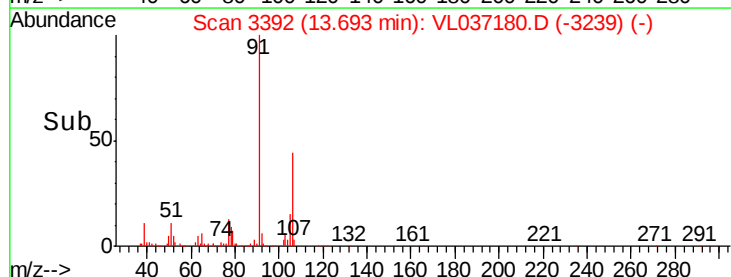
60000

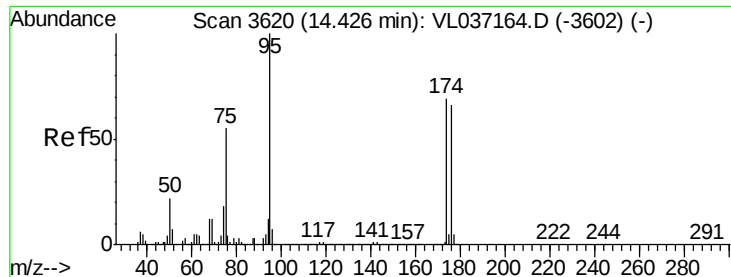
40000

20000

0

Time-->





#68

1-Bromo-4-Fluorobenzene

Concen: 9.605 ppbv

RT: 14.42 min Scan# 3618

Delta R.T. -0.01 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

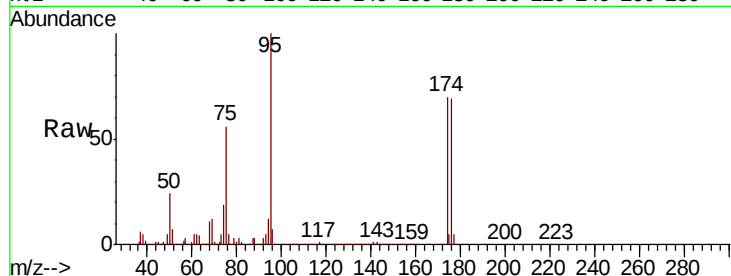
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 95 Resp: 2668970

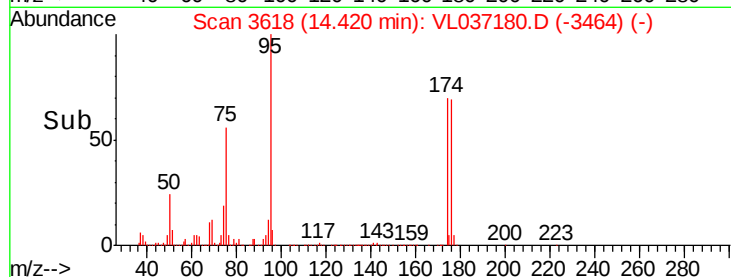
Ion	Ratio	Lower	Upper
95	100		
174	76.6	57.0	85.4
175	5.4	4.4	6.6



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



#74

1,2,4-Trimethylbenzene

Concen: 0.048 ppbv

RT: 16.77 min Scan# 4350

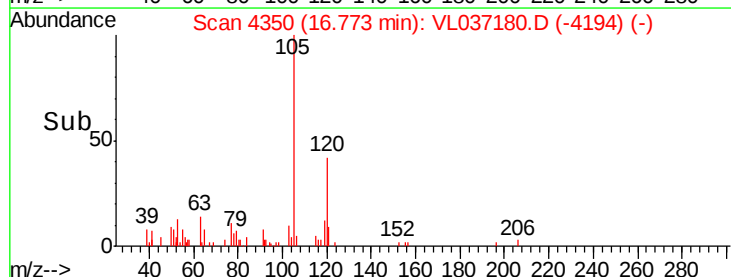
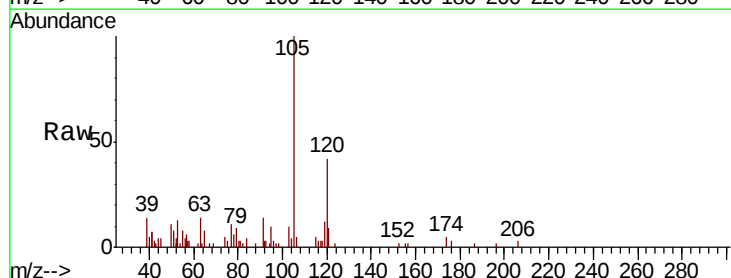
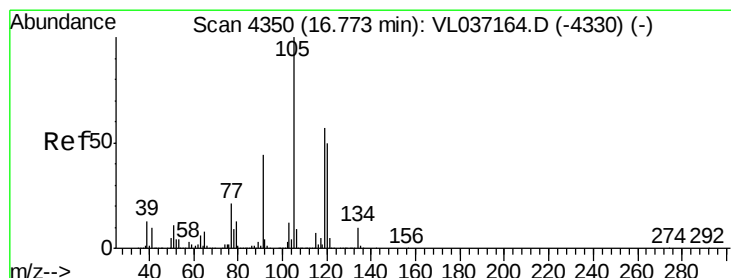
Delta R.T. 0.00 min

Lab File: VL037180.D

Acq: 16 Jun 2021 21:22

Tgt Ion:105 Resp: 22257

Ion	Ratio	Lower	Upper
105	100		
120	47.9	39.8	59.8
91	15.0	37.0	55.4#
77	9.2	17.0	25.4#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0