

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090821\
 Data File : VL037582.D
 Acq On : 8 Sep 2021 21:55
 Operator : SY/AP
 Sample : M3663-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA-1

Quant Time: Sep 09 09:14:03 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Aug 17 02:13:47 2021
 QLast Update : Tue Aug 17 02:13:47 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1505405	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	4478416	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	3737560	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2681219	10.10	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

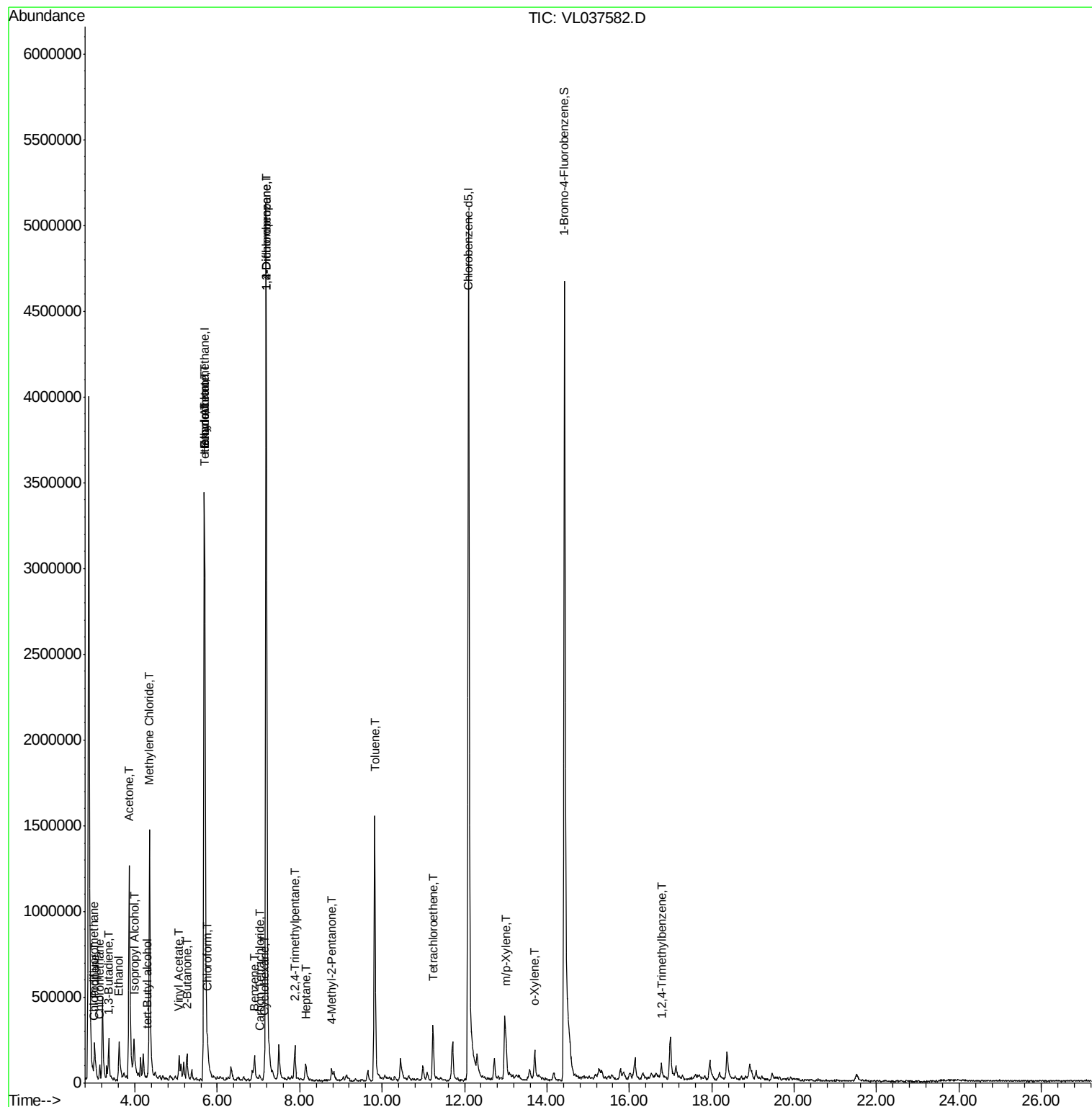
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.99	51	93067	0.323	ppbv #	84
4) Chloromethane	3.15	50	104577	1.015	ppbv	91
9) Propene	3.02	41	80556	0.781	ppbv	95
10) Heptane	8.14	43	9930	0.042	ppbv #	1
13) Ethanol	3.61	45	306644	30.553	ppbv	87
15) Acetone	3.86	43	1715812	11.199	ppbv	96
16) 1,3-Butadiene	3.34	39	4188	0.043	ppbv #	1
17) tert-Butyl alcohol	4.31	59	5277	0.038	ppbv #	72
19) Isopropyl Alcohol	3.98	45	222219	2.532	ppbv #	95
20) Methylene Chloride	4.35	84	605783	7.897	ppbv	95
23) Vinyl Acetate	5.07	43	147414	0.653	ppbv #	76
25) Ethyl Acetate	5.69	43	643231	1.654	ppbv #	75
26) Hexane	5.70	57	764583	4.021	ppbv #	50
29) Chloroform	5.76	83	49811	0.185	ppbv	96
30) Cyclohexane	7.14	84	15592	0.098	ppbv #	1
34) 2-Butanone	5.25	43	88878	0.486	ppbv #	54
35) Carbon Tetrachloride	7.03	117	12805	0.048	ppbv #	90
36) Benzene	6.90	78	54282	0.144	ppbv	96
39) 1,2-Dichloropropane	7.19	63	1041829	7.202	ppbv #	28
41) Tetrahydrofuran	5.70	42	312661	3.549	ppbv #	49
44) 2,2,4-Trimethylpentane	7.88	57	165074	0.261	ppbv #	88
50) 4-Methyl-2-Pentanone	8.77	43	23083	0.097	ppbv #	38
52) Tetrachloroethene	11.23	164	76964	0.499	ppbv	93
53) Toluene	9.82	91	1310014	3.047	ppbv	100
59) m/p-Xylene	13.01	91	102319	0.228	ppbv #	30
60) o-Xylene	13.71	91	120205	0.286	ppbv	96
74) 1,2,4-Trimethylbenzene	16.78	105	16965	0.034	ppbv #	39

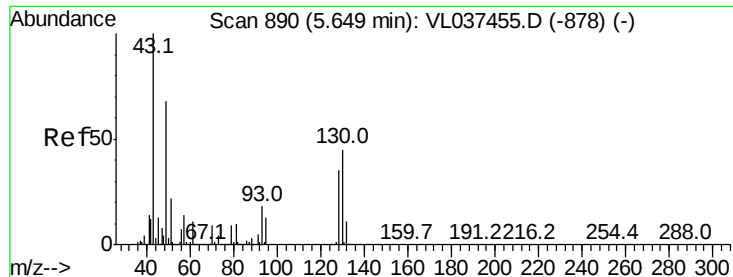
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Aug 17 02:13:47 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.03 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

OA-1

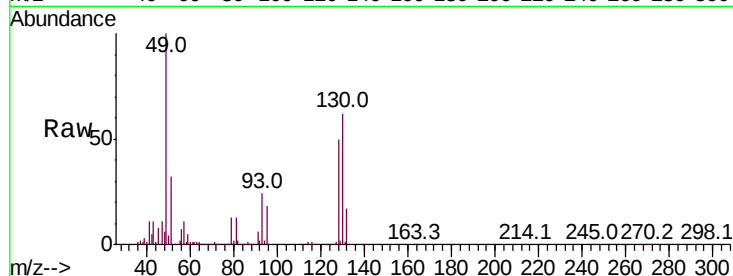
Tot Ion: 49 Resp: 1505405

Ion Ratio Lower Upper

49 100

128 55.0 27.5 82.4

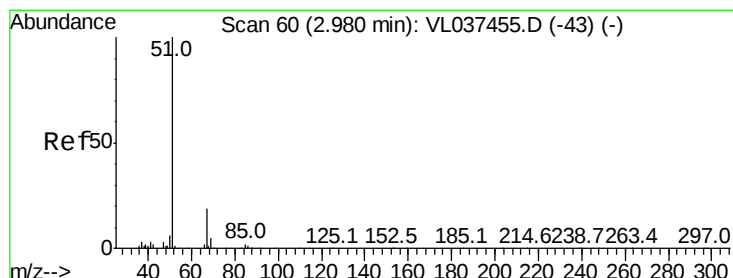
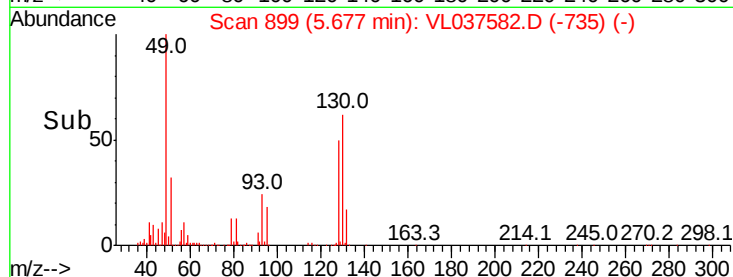
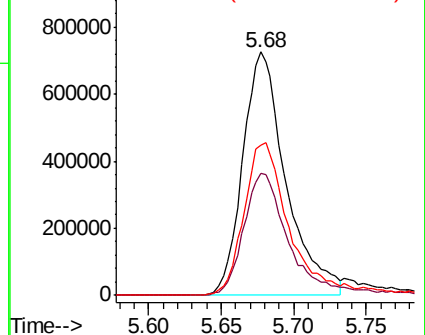
130 68.8 34.0 101.8



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: 0.323 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.01 min

Lab File: VL037582.D

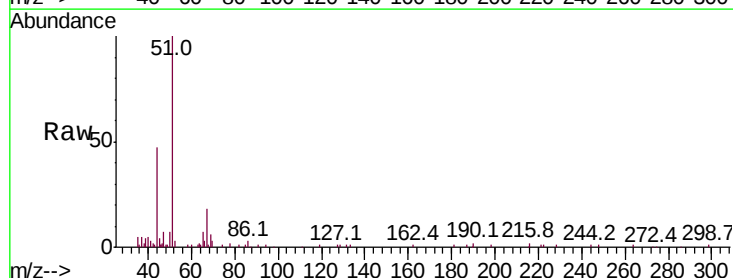
Acq: 8 Sep 2021 21:55

Tgt Ion: 51 Resp: 93067

Ion Ratio Lower Upper

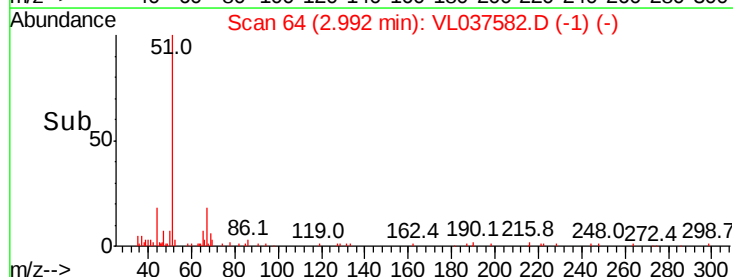
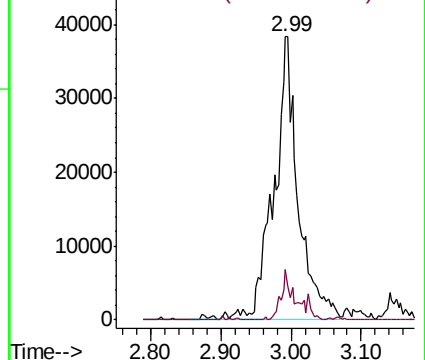
51 100

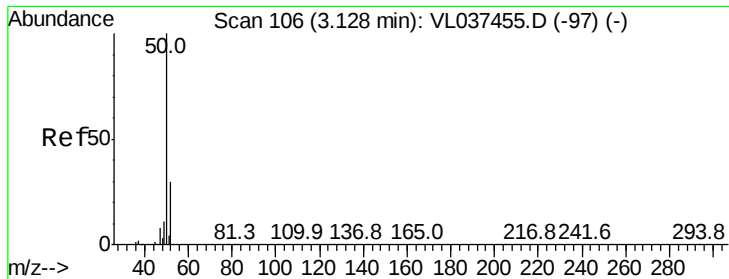
67 10.7 14.2 21.2#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 1.015 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.02 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

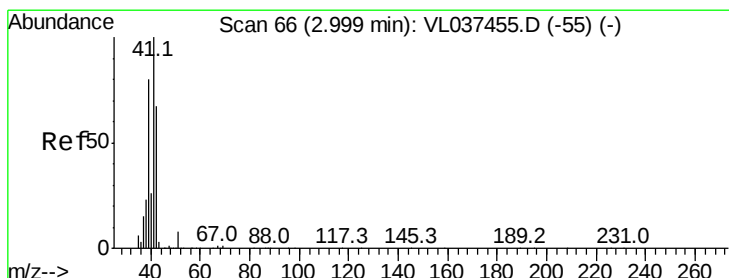
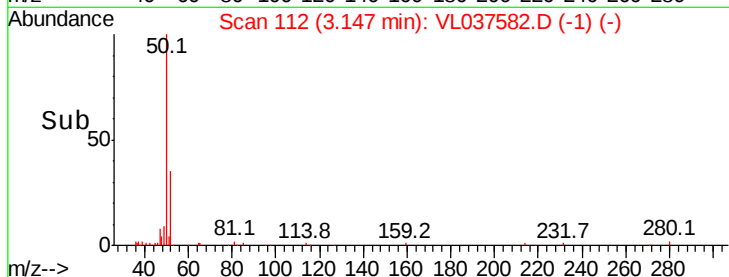
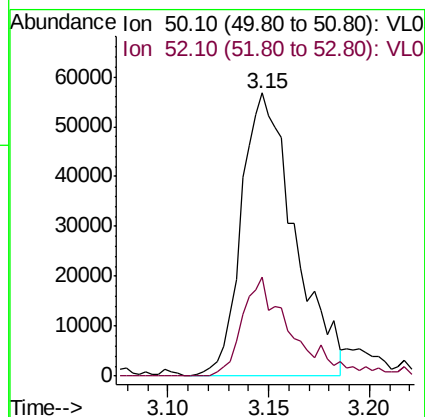
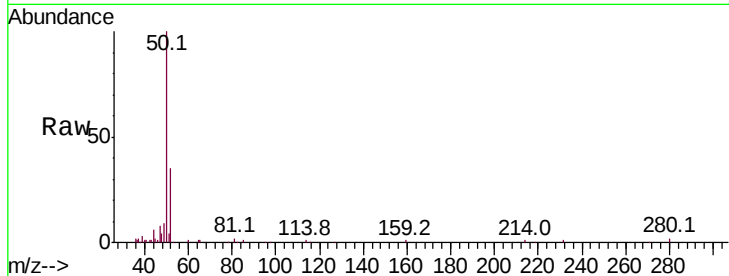
OA-1

Tot Ion: 50 Resp: 104577

Ion Ratio Lower Upper

50 100

52 35.1 24.0 36.0



#9

Propene

Concen: 0.781 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.02 min

Lab File: VL037582.D

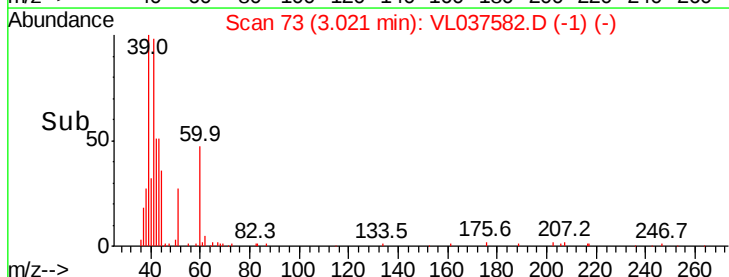
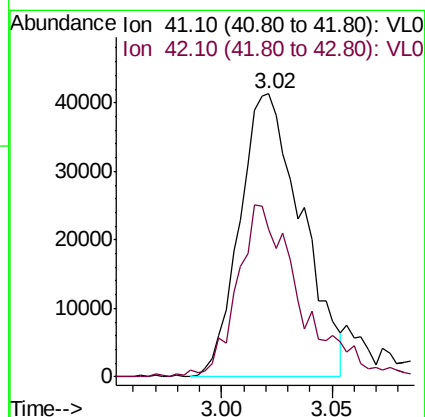
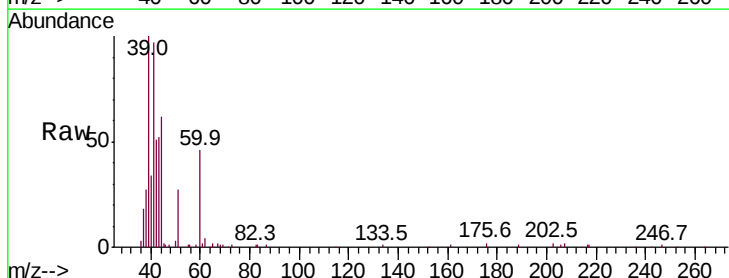
Acq: 8 Sep 2021 21:55

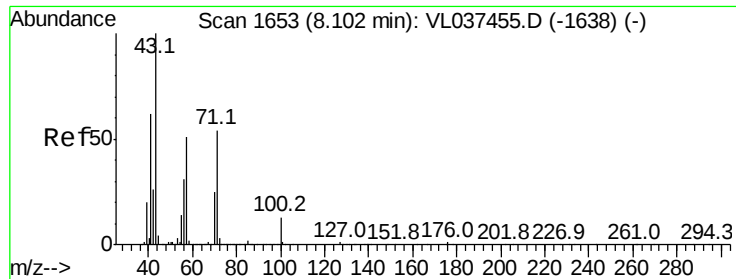
Tgt Ion: 41 Resp: 80556

Ion Ratio Lower Upper

41 100

42 63.3 53.7 80.5

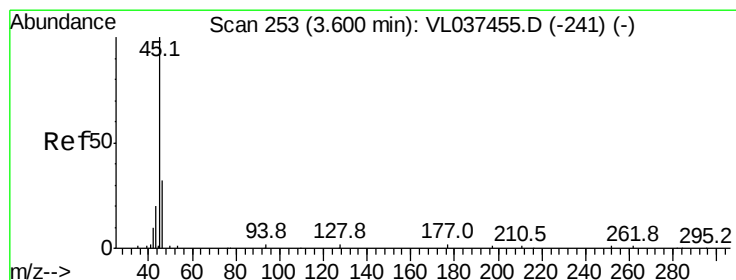
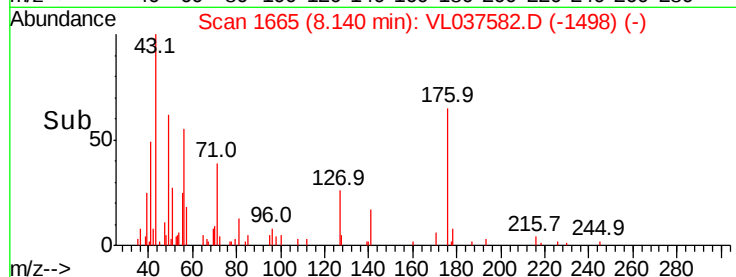
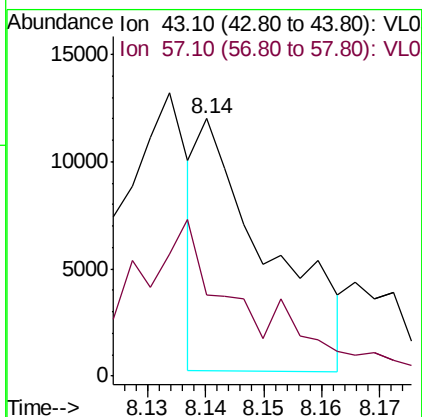
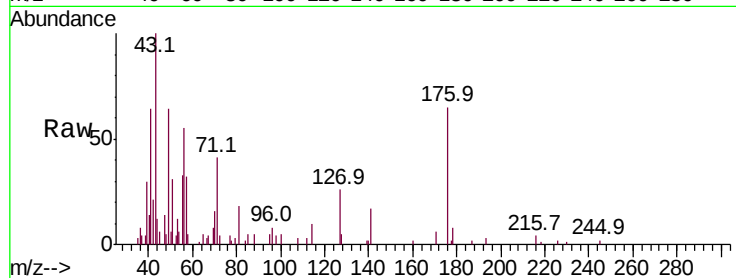




#10
Heptane
Concen: 0.042 ppbv
RT: 8.14 min Scan# 1665
Delta R.T. 0.04 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

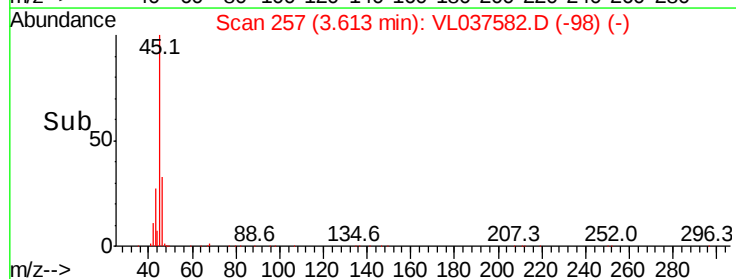
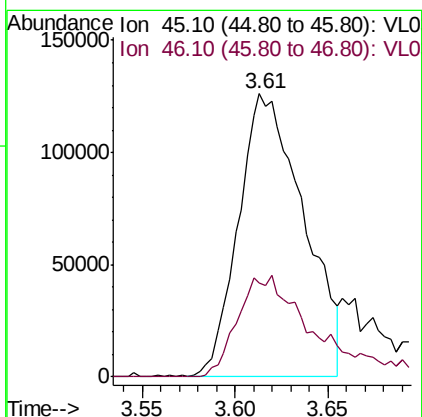
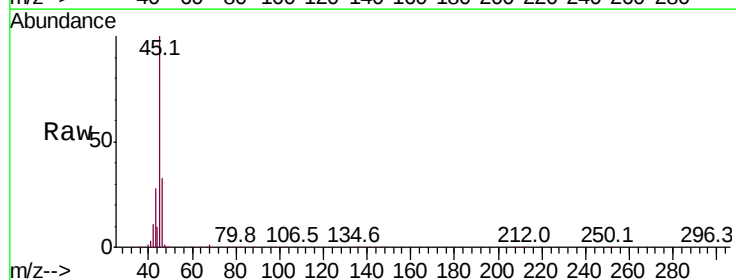
Instrument :
MSVOA_L
ClientSampled :
OA-1

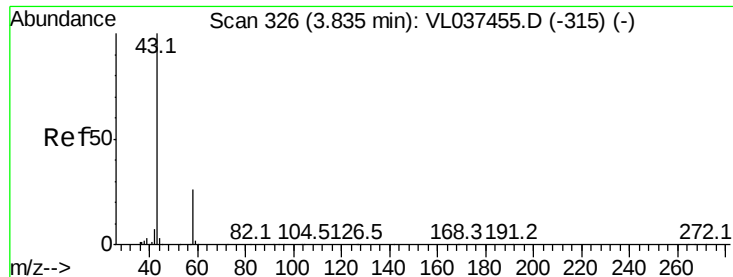
Tot Ion: 43 Resp: 9930
Ion Ratio Lower Upper
43 100
57 122.4 41.0 61.6#



#13
Ethanol
Concen: 30.553 ppbv
RT: 3.61 min Scan# 257
Delta R.T. 0.01 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 45 Resp: 306644
Ion Ratio Lower Upper
45 100
46 42.8 14.1 56.5

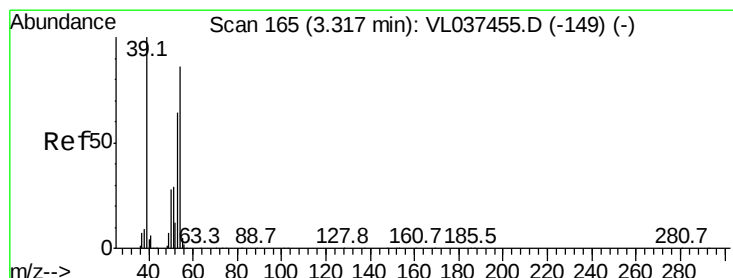
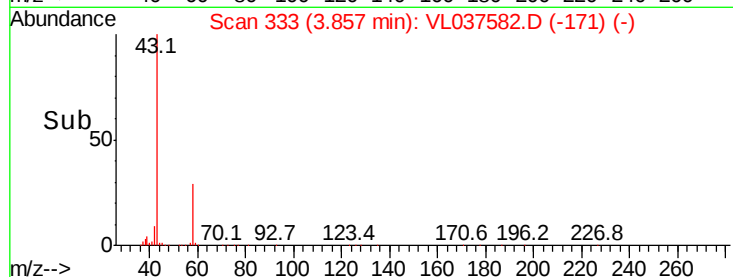
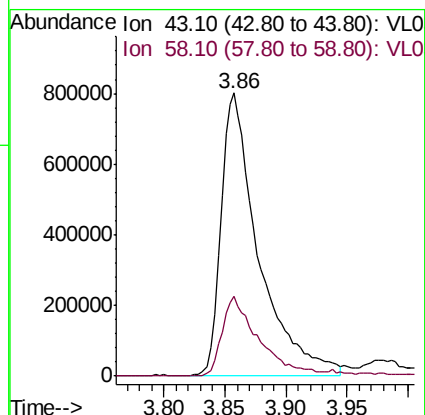
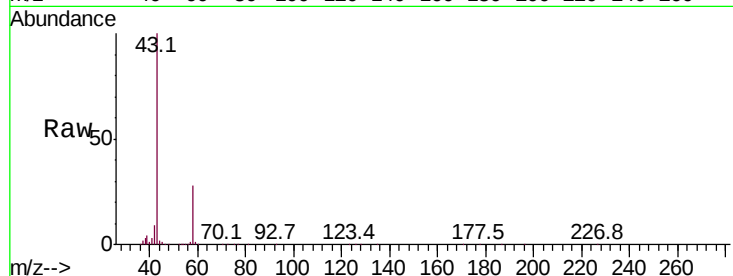




#15
Acetone
Concen: 11.199 ppbv
RT: 3.86 min Scan# 333
Delta R.T. 0.02 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

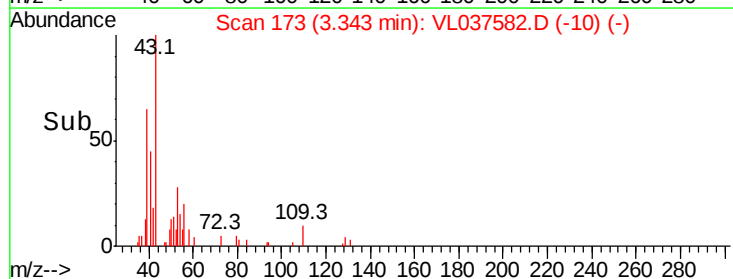
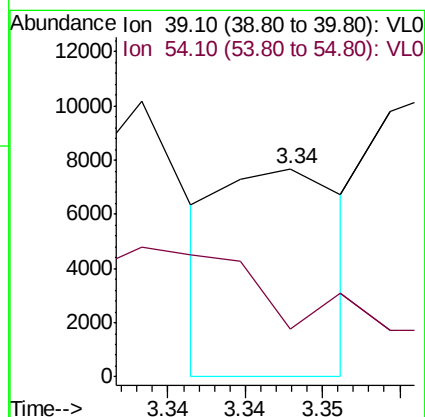
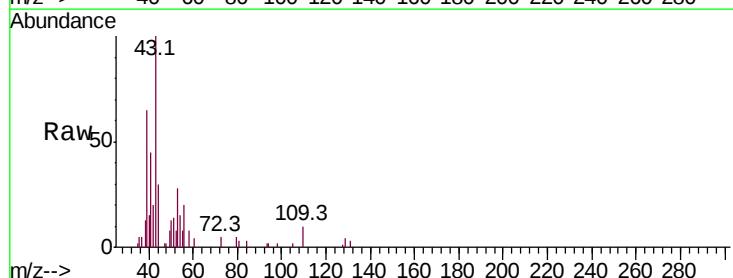
Instrument :
MSVOA_L
ClientSampled :
OA-1

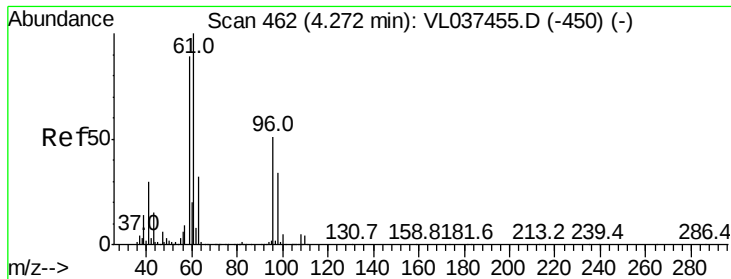
Tot Ion: 43 Resp: 1715812
Ion Ratio Lower Upper
43 100
58 28.6 24.8 37.2



#16
1,3-Butadiene
Concen: 0.043 ppbv
RT: 3.34 min Scan# 173
Delta R.T. 0.03 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 39 Resp: 4188
Ion Ratio Lower Upper
39 100
54 217.9 63.7 95.5#



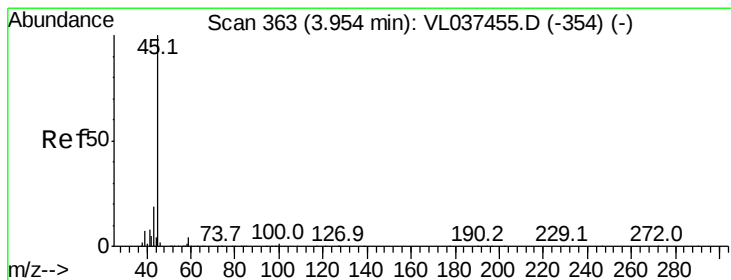
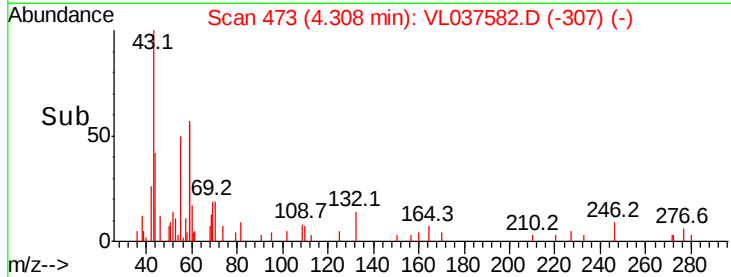
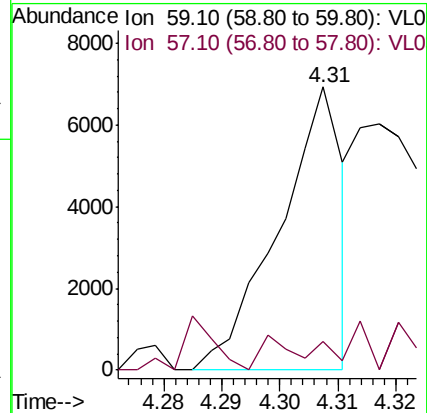
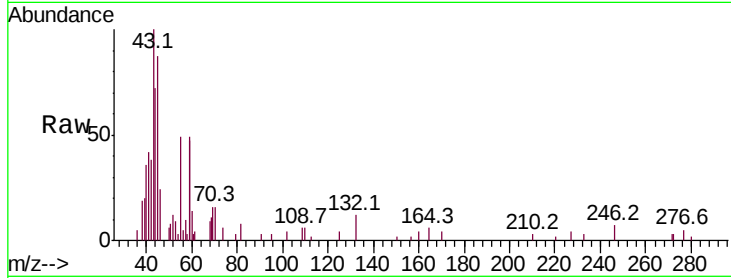


#17

tert-Butyl alcohol
Concen: 0.038 ppbv
RT: 4.31 min Scan# 473
Delta R.T. 0.04 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Instrument :
MSVOA_L
ClientSampled :
OA-1

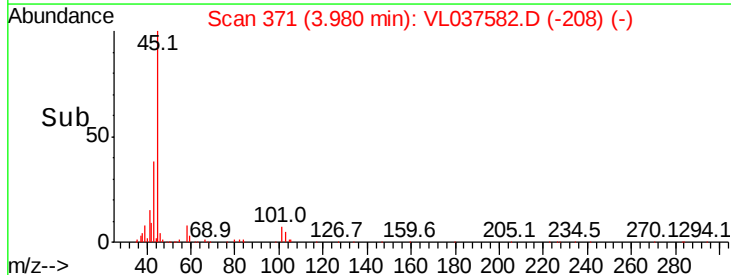
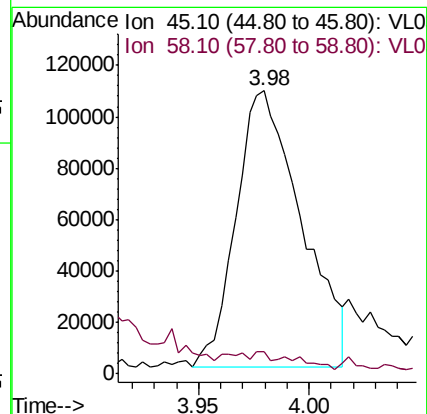
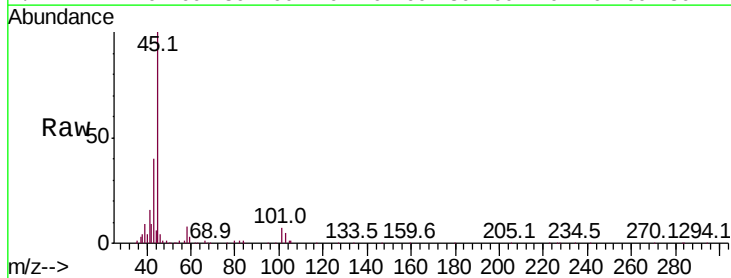
Tot Ion: 59 Resp: 5277
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#

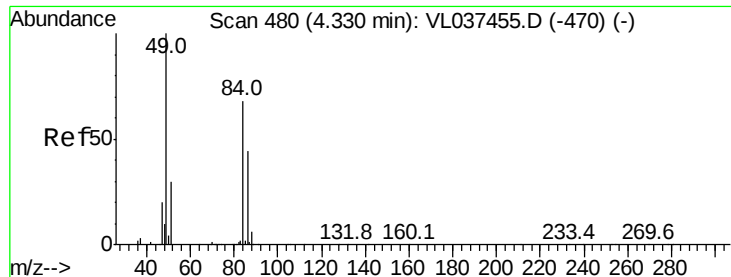


#19

Isopropyl Alcohol
Concen: 2.532 ppbv
RT: 3.98 min Scan# 371
Delta R.T. 0.03 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 45 Resp: 222219
Ion Ratio Lower Upper
45 100
58 0.0 1.4 2.2#

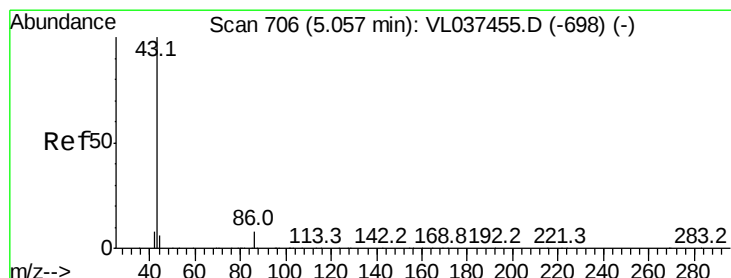
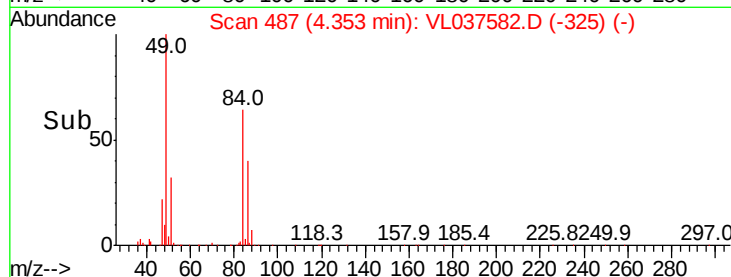
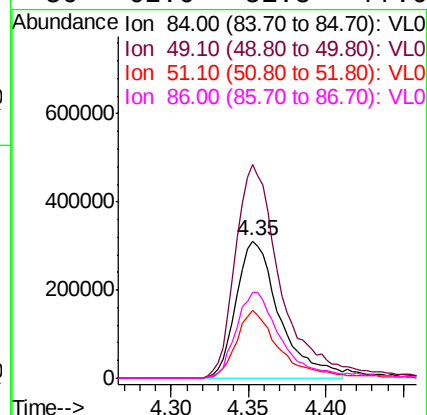
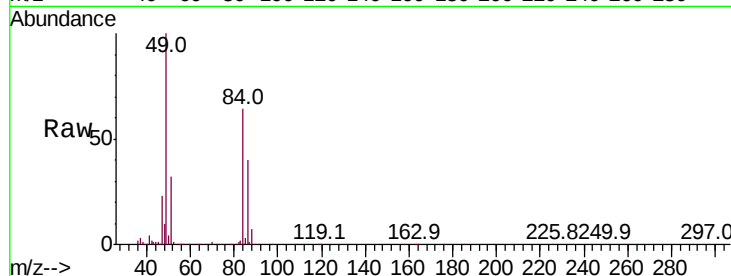




#20
Methvlene Chloride
Concen: 7.897 ppbv
RT: 4.35 min Scan# 487
Delta R.T. 0.02 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

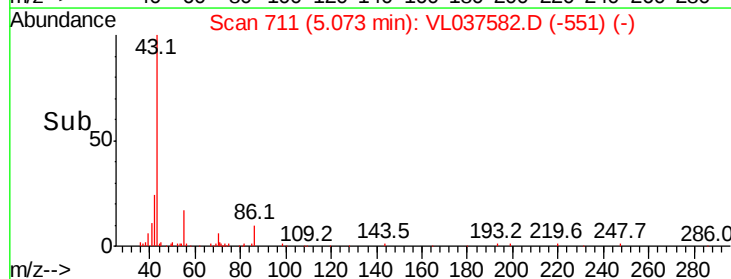
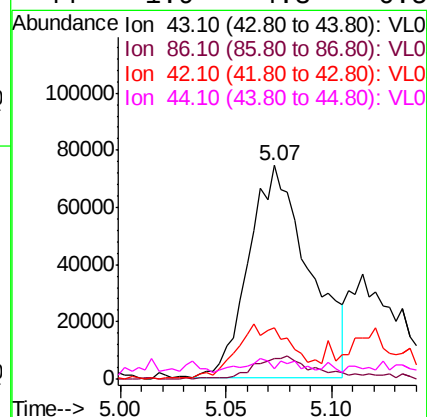
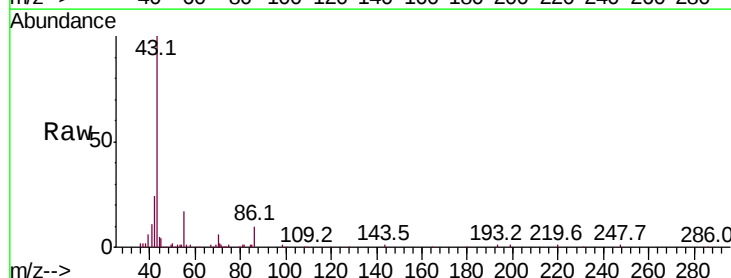
Instrument :
MSVOA_L
ClientSampleId :
OA-1

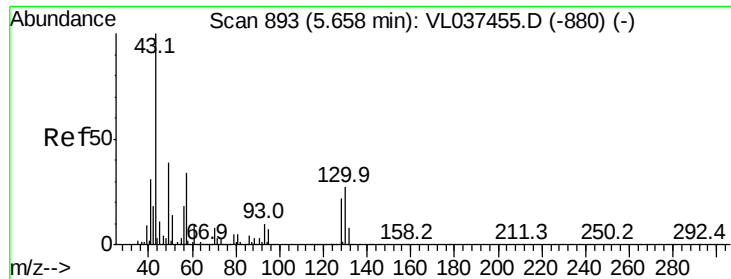
Tot Ion: 84 Resp: 605783
Ion Ratio Lower Upper
84 100
49 156.0 118.2 177.2
51 49.3 36.6 55.0
86 62.6 51.8 77.6



#23
Vinyl Acetate
Concen: 0.653 ppbv
RT: 5.07 min Scan# 711
Delta R.T. 0.02 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 43 Resp: 147414
Ion Ratio Lower Upper
43 100
86 10.3 5.7 8.5#
42 24.9 7.4 11.2#
44 1.9 4.3 6.5#





#25

Ethyl Acetate

Concen: 1.654 ppbv

RT: 5.69 min Scan# 904

Delta R.T. 0.04 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

OA-1

Tot Ion: 43 Resp: 643231

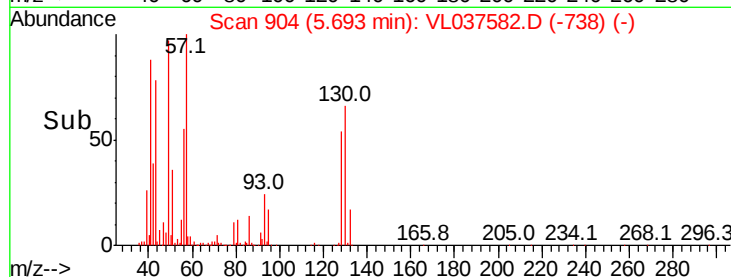
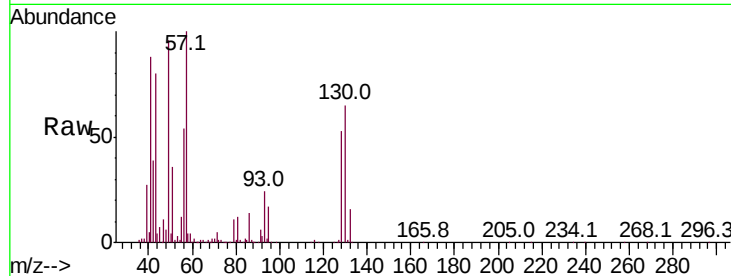
Ion Ratio Lower Upper

43 100

45 24.7 8.0 12.0#

61 3.0 8.0 12.0#

70 3.0 5.6 8.4#

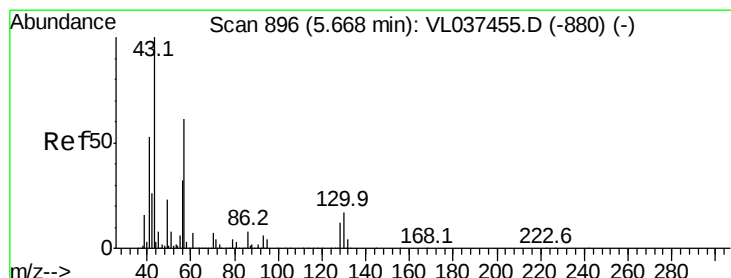
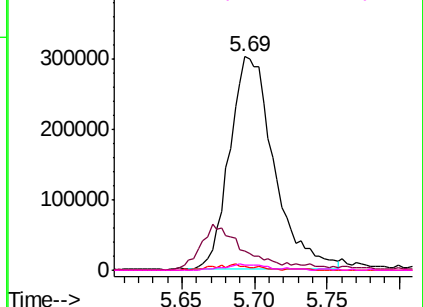


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 4.021 ppbv

RT: 5.70 min Scan# 905

Delta R.T. 0.03 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Tgt Ion: 57 Resp: 764583

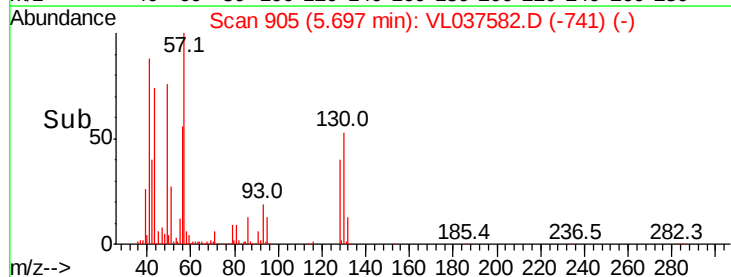
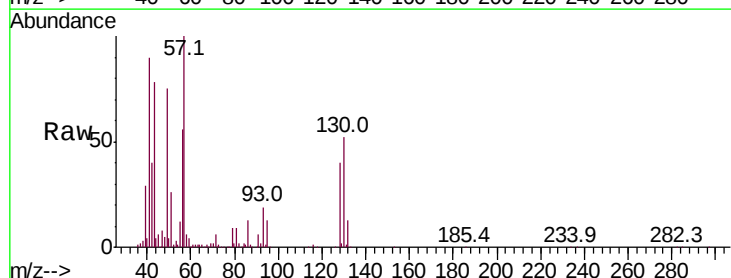
Ion Ratio Lower Upper

57 100

41 94.2 72.3 108.5

43 88.2 172.3 258.5#

56 58.4 42.8 64.2

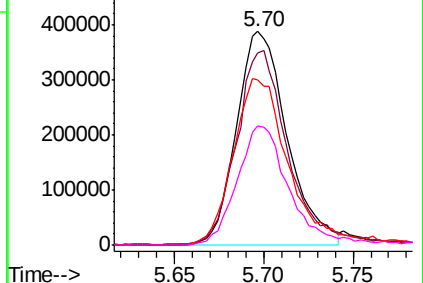


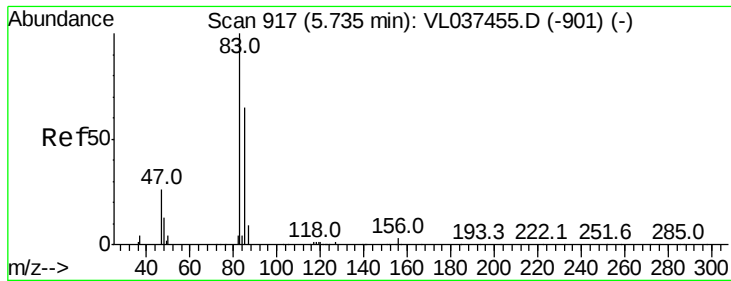
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

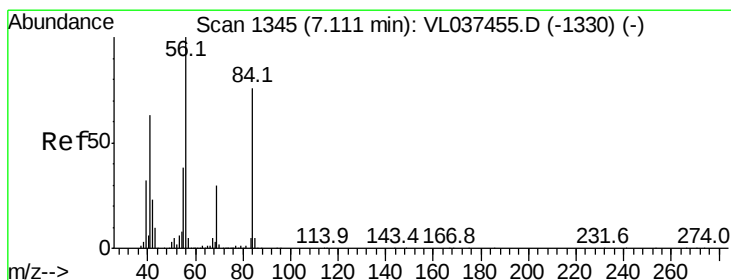
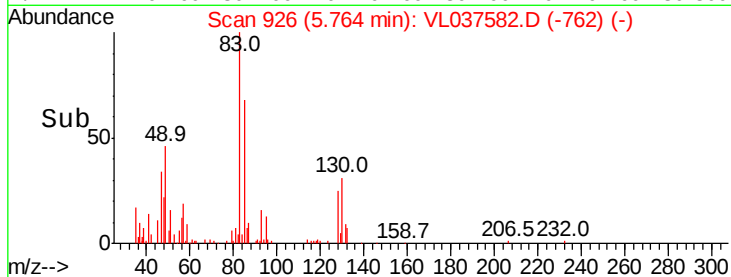
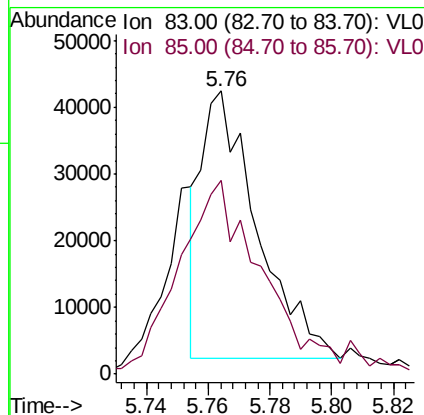
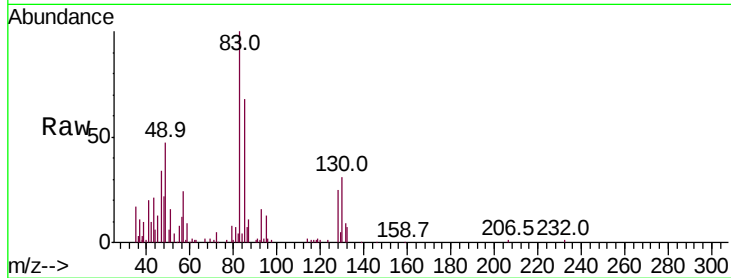




#29
Chloroform
Concen: 0.185 ppbv
RT: 5.76 min Scan# 926
Delta R.T. 0.03 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

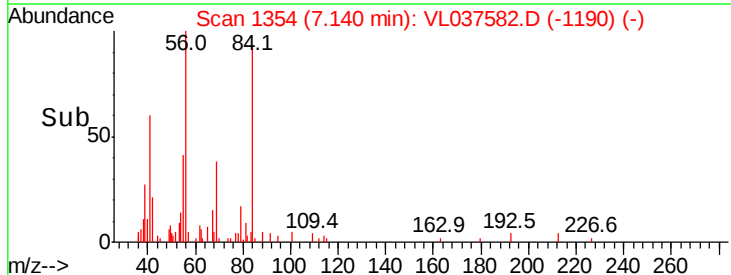
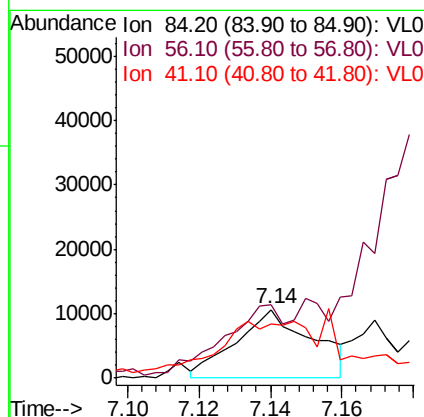
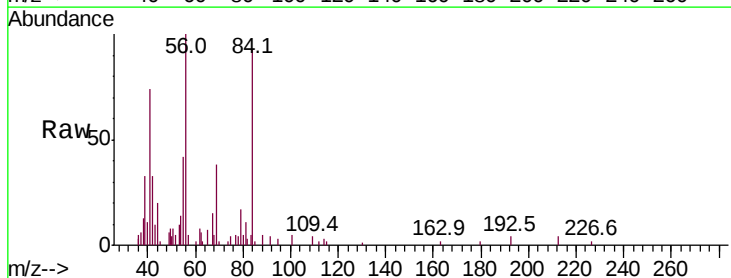
Instrument :
MSVOA_L
ClientSampleId :
OA-1

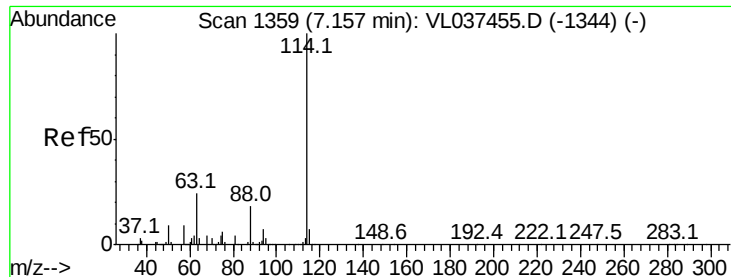
Tot Ion: 83 Resp: 49811
Ion Ratio Lower Upper
83 100
85 68.3 52.3 78.5



#30
Cyclohexane
Concen: 0.098 ppbv
RT: 7.14 min Scan# 1354
Delta R.T. 0.03 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 84 Resp: 15592
Ion Ratio Lower Upper
84 100
56 0.0 110.6 165.8#
41 0.0 67.0 100.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1369

Delta R.T. 0.03 min

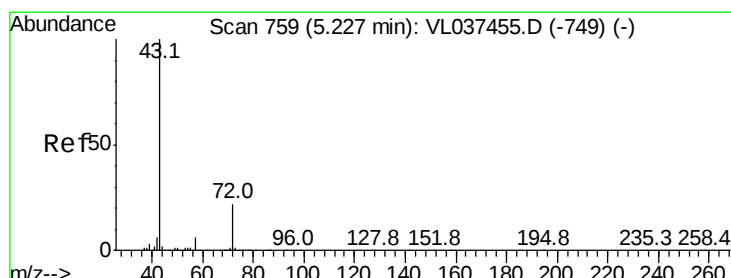
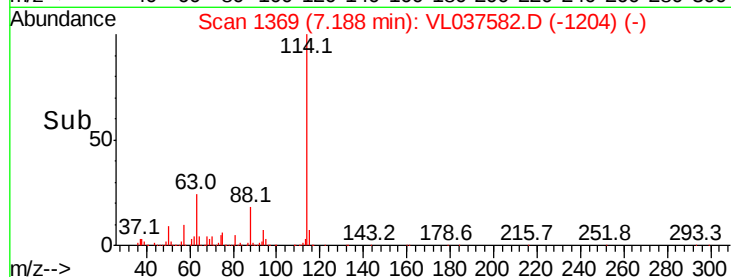
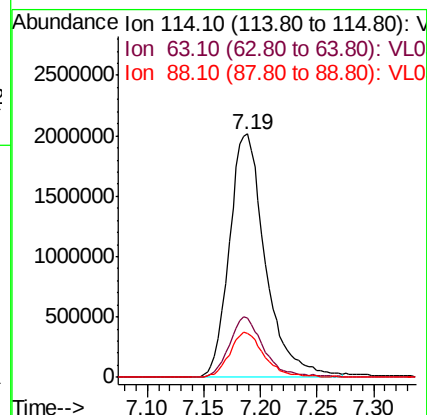
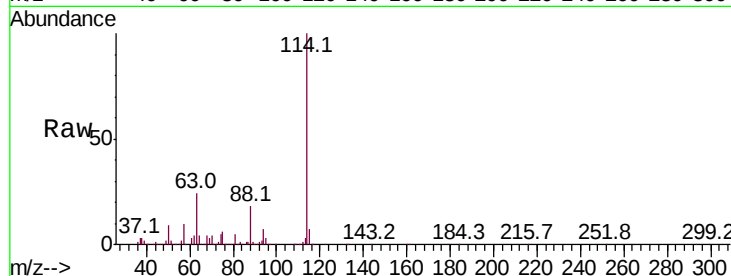
Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :
MSVOA_L
ClientSampled :
OA-1

Tot Ion:114 Resp: 4478416

Ion	Ratio	Lower	Upper
114	100		
63	24.1	19.3	28.9
88	17.9	14.2	21.4



#34

2-Butanone

Concen: 0.486 ppbv

RT: 5.25 min Scan# 767

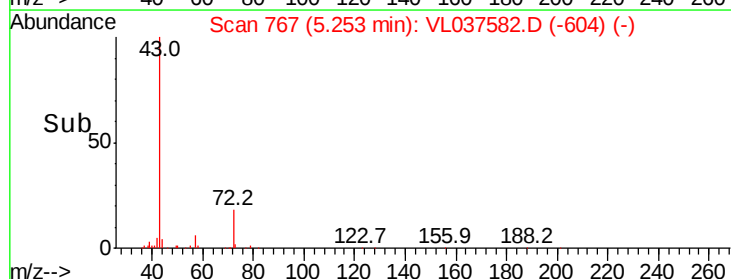
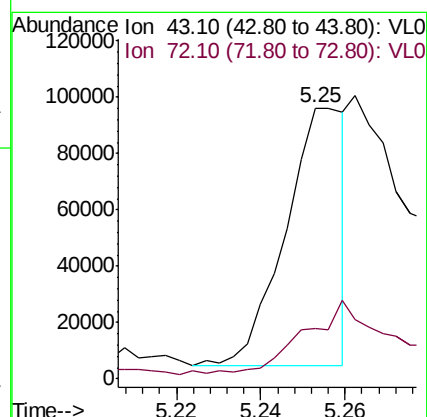
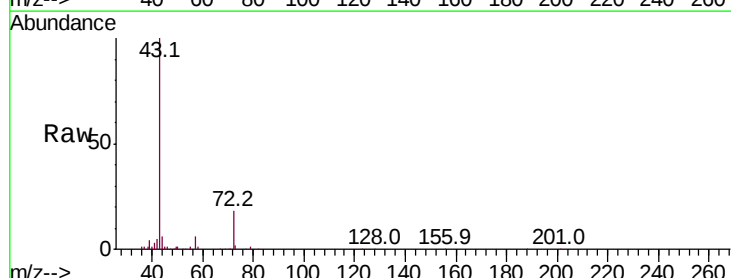
Delta R.T. 0.03 min

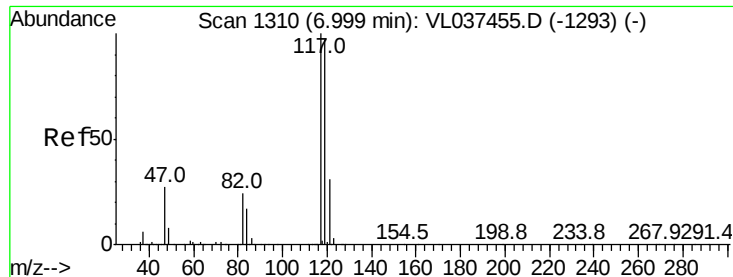
Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Tgt Ion: 43 Resp: 88878

Ion	Ratio	Lower	Upper
43	100		
72	0.0	17.4	26.0#





#35

Carbon Tetrachloride

Concen: 0.048 ppbv

RT: 7.03 min Scan# 1320

Delta R.T. 0.03 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

OA-1

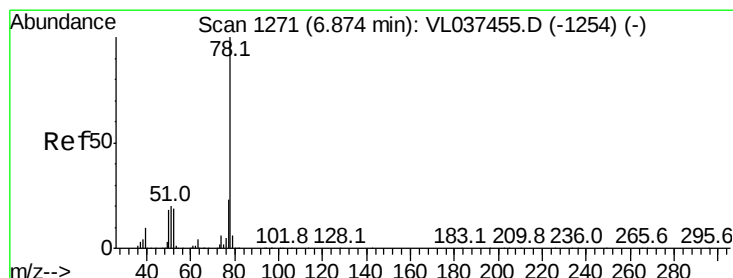
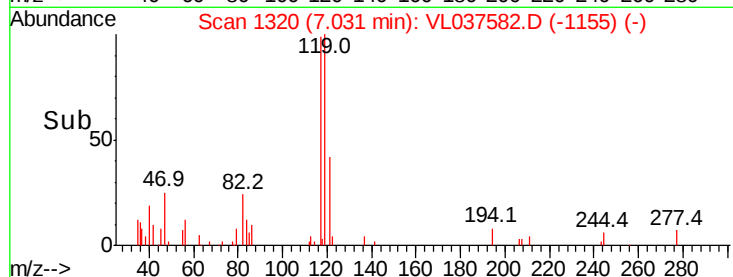
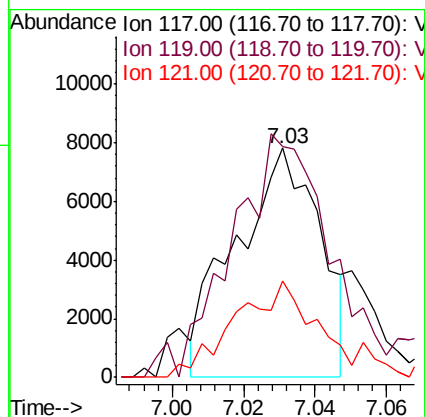
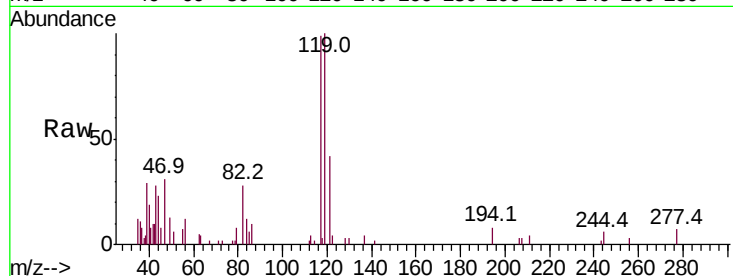
Tot Ion:117 Resp: 12805

Ion Ratio Lower Upper

117 100

119 92.0 77.3 115.9

121 45.4 25.2 37.8#



#36

Benzene

Concen: 0.144 ppbv

RT: 6.90 min Scan# 1279

Delta R.T. 0.03 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

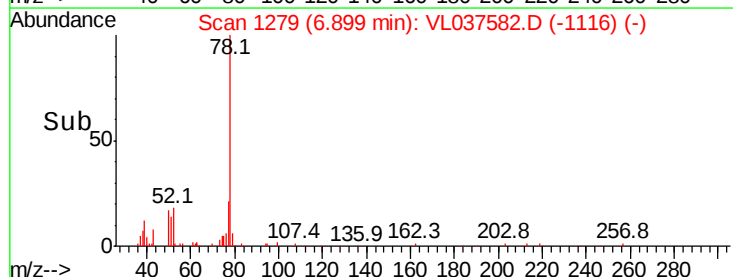
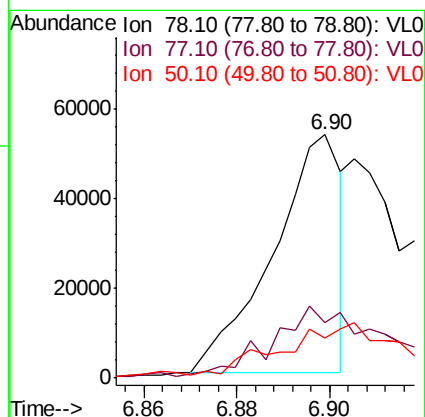
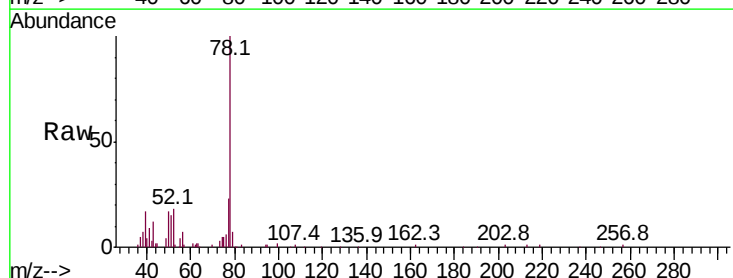
Tgt Ion: 78 Resp: 54282

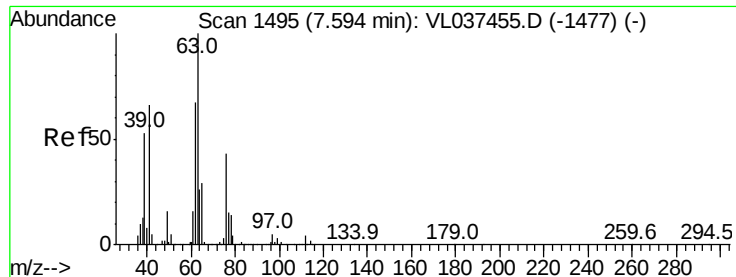
Ion Ratio Lower Upper

78 100

77 21.4 18.2 27.4

50 15.9 14.6 21.8





#39

1,2-Dichloropropane

Concen: 7.202 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.41 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

OA-1

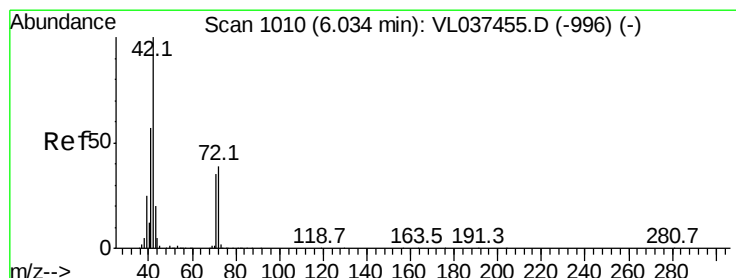
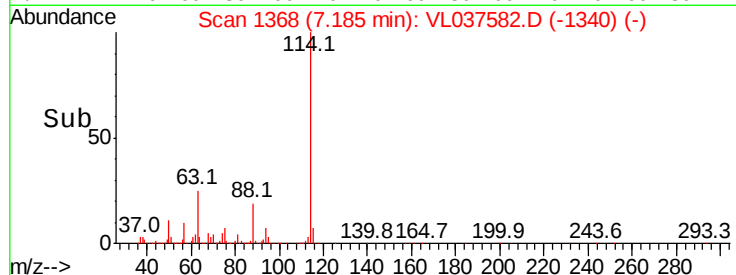
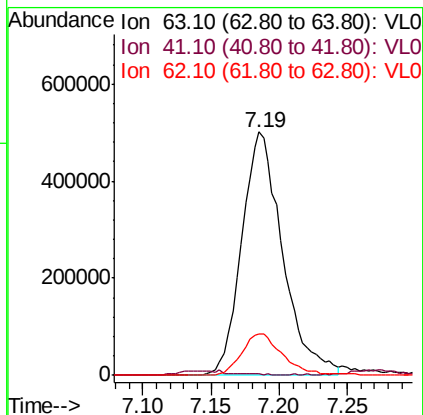
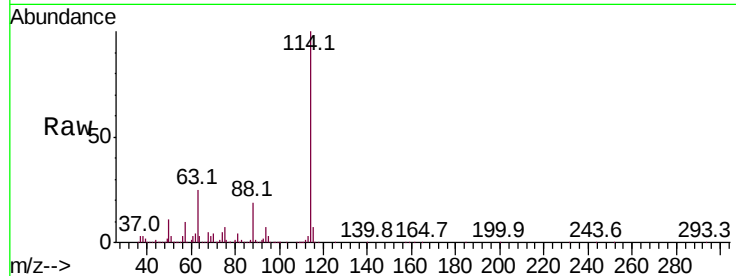
Tot Ion: 63 Resp: 1041829

Ion Ratio Lower Upper

63 100

41 0.0 52.4 78.6#

62 17.0 53.6 80.4#



#41

Tetrahydrofuran

Concen: 3.549 ppbv

RT: 5.70 min Scan# 906

Delta R.T. -0.33 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

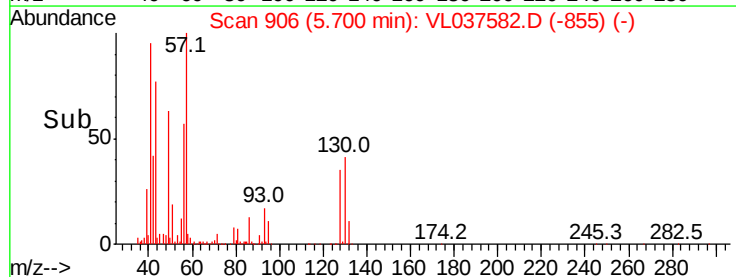
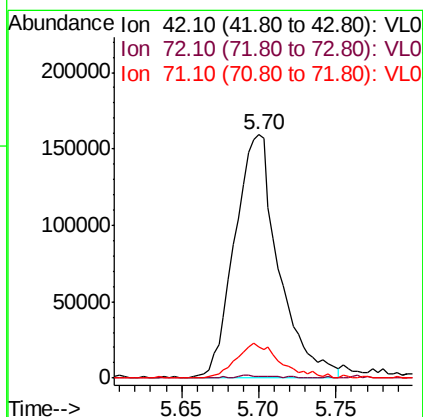
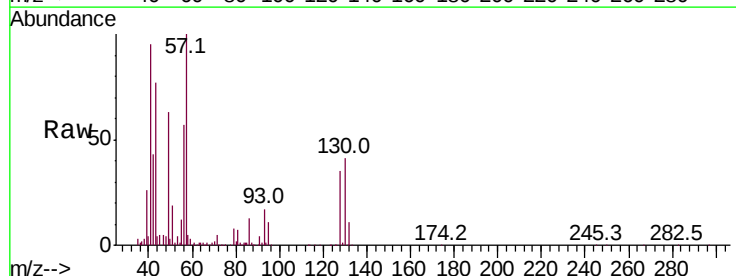
Tgt Ion: 42 Resp: 312661

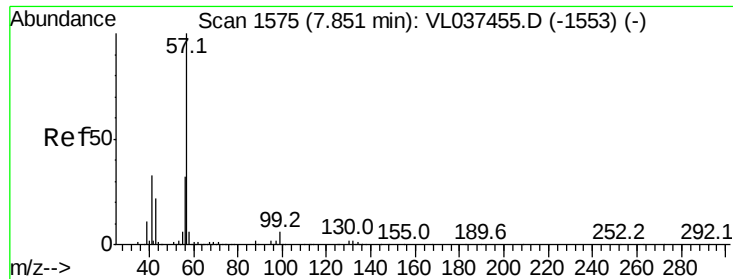
Ion Ratio Lower Upper

42 100

72 1.2 32.2 48.4#

71 14.6 30.5 45.7#

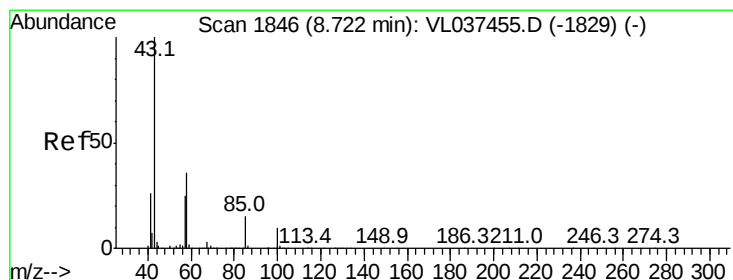
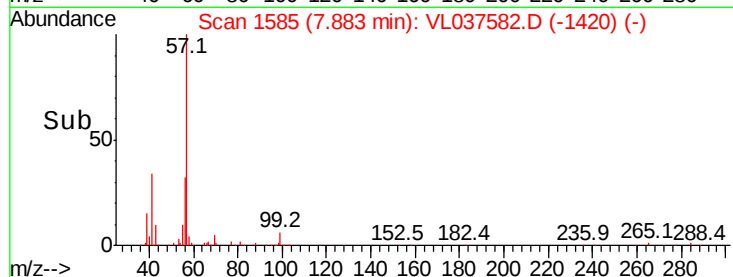
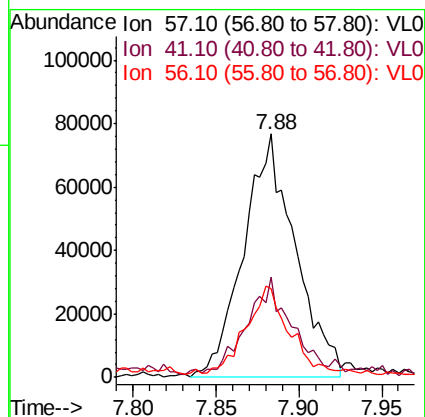
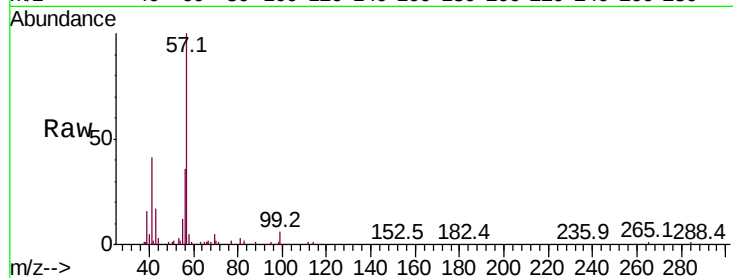




#44
 2,2,4-Trimethylpentane
 Concen: 0.261 ppbv
 RT: 7.88 min Scan# 1585
 Delta R.T. 0.03 min
 Lab File: VL037582.D
 Acq: 8 Sep 2021 21:55

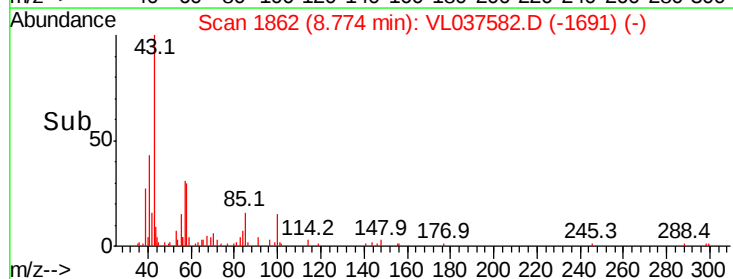
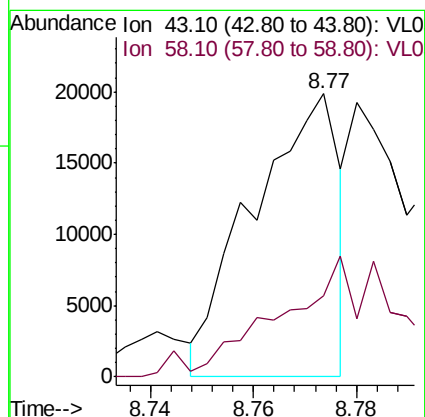
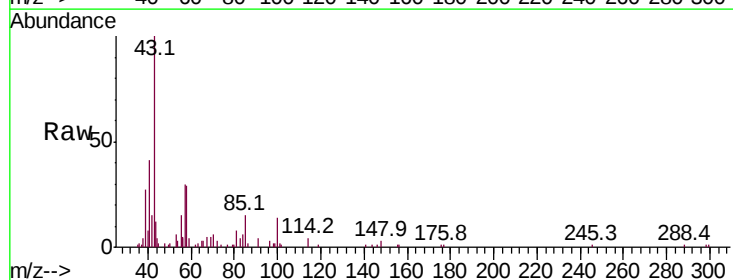
Instrument :
 MSVOA_L
 ClientSampleId :
 OA-1

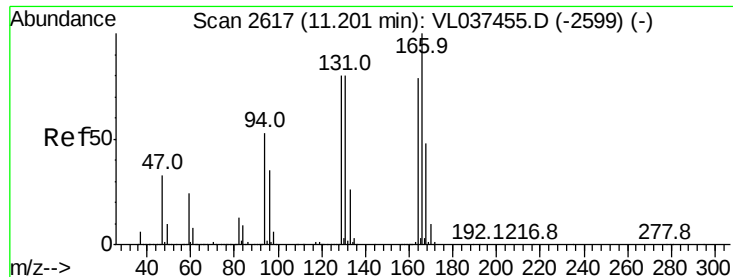
Tot Ion: 57 Resp: 165074
 Ion Ratio Lower Upper
 57 100
 41 40.4 26.2 39.4#
 56 37.9 25.4 38.2



#50
 4-Methyl-2-Pentanone
 Concen: 0.097 ppbv
 RT: 8.77 min Scan# 1862
 Delta R.T. 0.05 min
 Lab File: VL037582.D
 Acq: 8 Sep 2021 21:55

Tgt Ion: 43 Resp: 23083
 Ion Ratio Lower Upper
 43 100
 58 0.0 29.9 44.9#





#52

Tetrachloroethene

Concen: 0.499 ppbv

RT: 11.23 min Scan# 2627

Delta R.T. 0.03 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

OA-1

Tot Ion:164 Resp: 76964

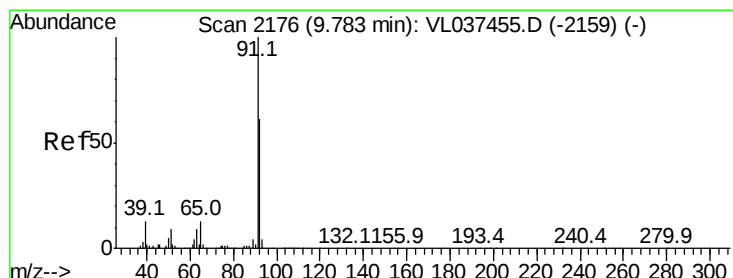
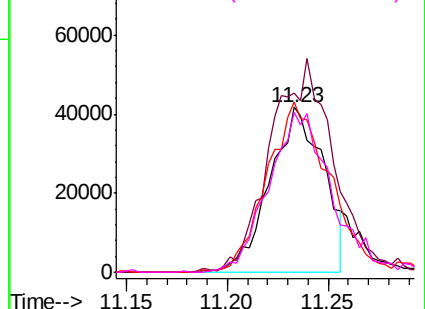
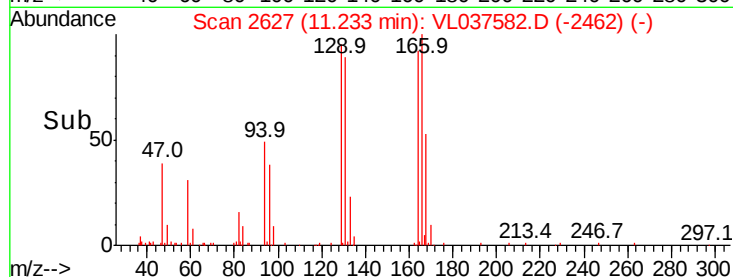
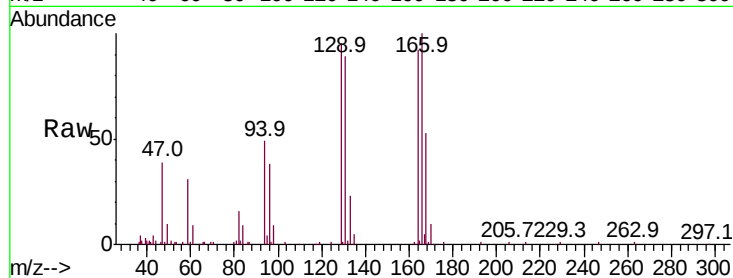
Ion Ratio Lower Upper

164 100

166 108.8 100.7 151.1

129 103.3 80.9 121.3

131 97.3 80.2 120.4



#53

Toluene

Concen: 3.047 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. 0.03 min

Lab File: VL037582.D

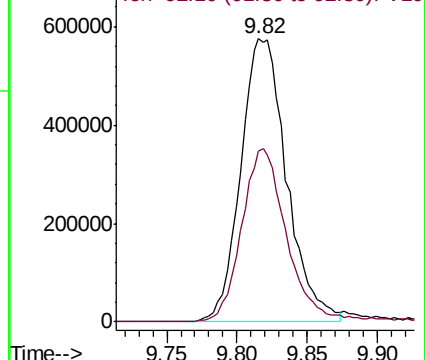
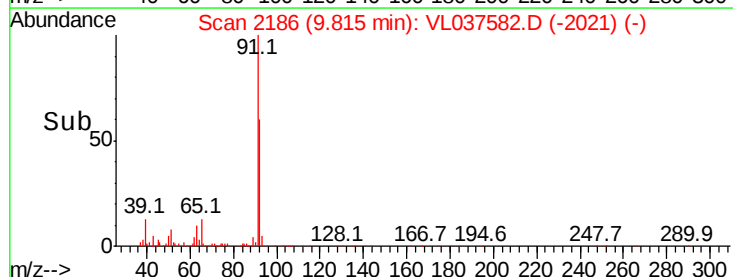
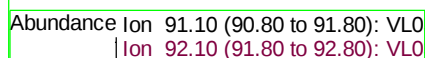
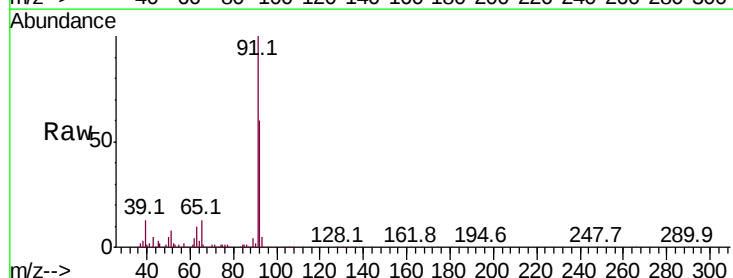
Acq: 8 Sep 2021 21:55

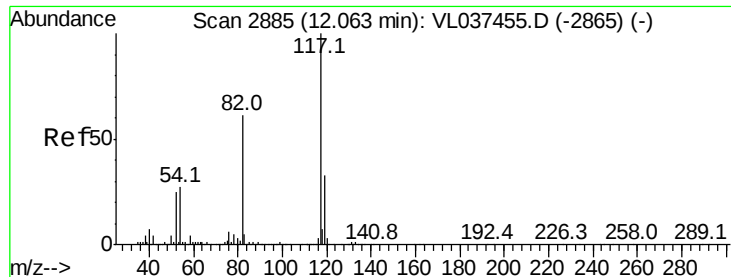
Tgt Ion: 91 Resp: 1310014

Ion Ratio Lower Upper

91 100

92 61.2 48.8 73.2

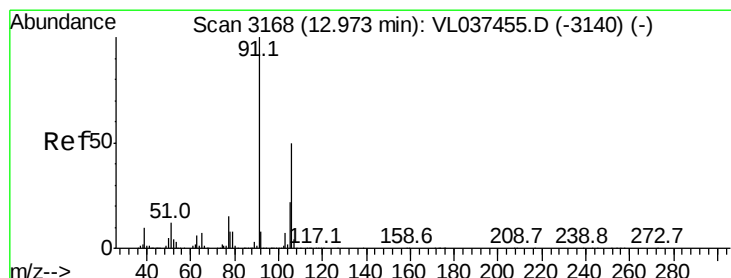
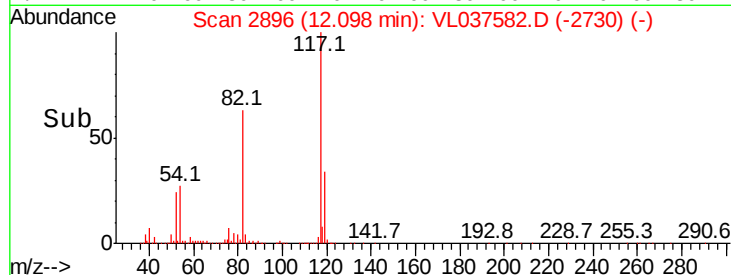
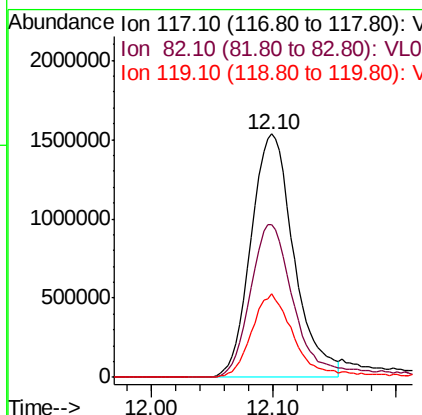
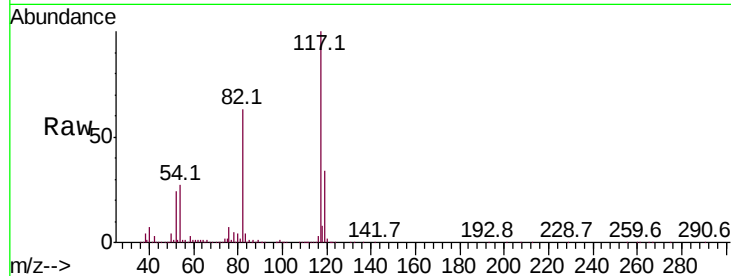




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2896
Delta R.T. 0.04 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

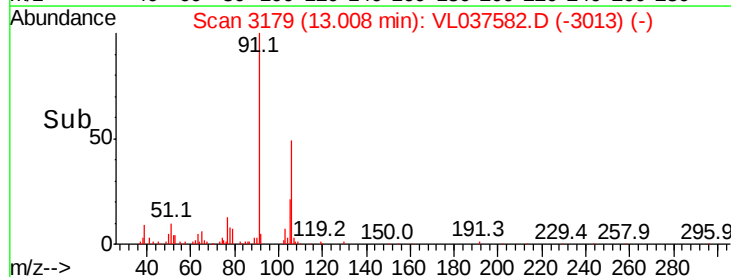
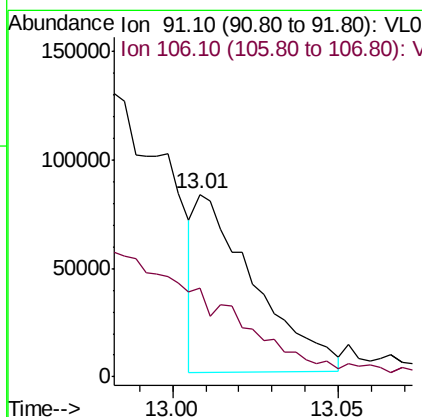
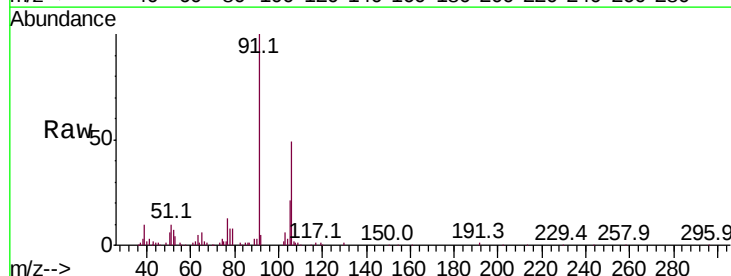
Instrument :
MSVOA_L
ClientSampled :
OA-1

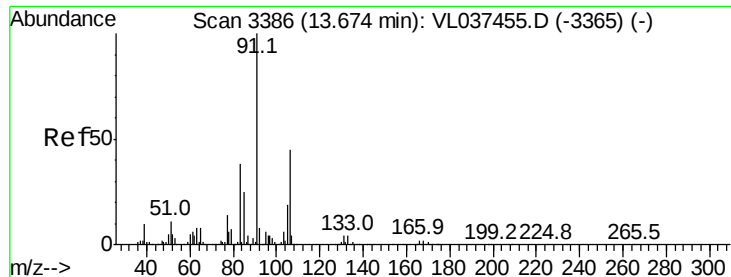
Tot Ion:117 Resp: 3737560
Ion Ratio Lower Upper
117 100
82 69.4 52.9 79.3
119 36.0 24.8 37.2



#59
m/p-Xylene
Concen: 0.228 ppbv
RT: 13.01 min Scan# 3179
Delta R.T. 0.04 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 91 Resp: 102319
Ion Ratio Lower Upper
91 100
106 0.0 36.9 55.3#

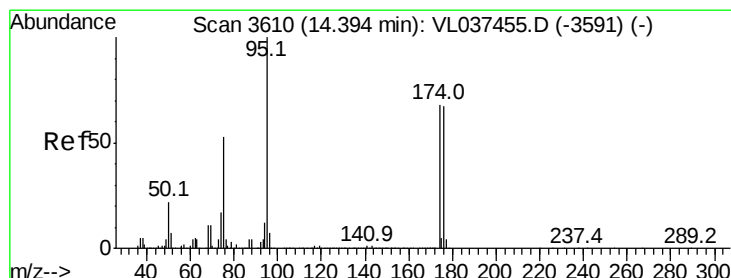
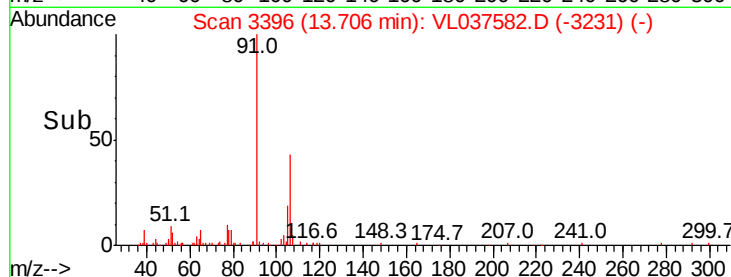
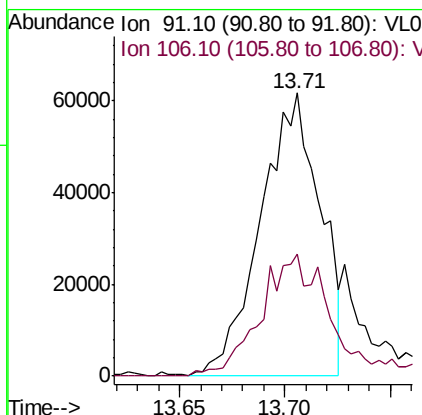
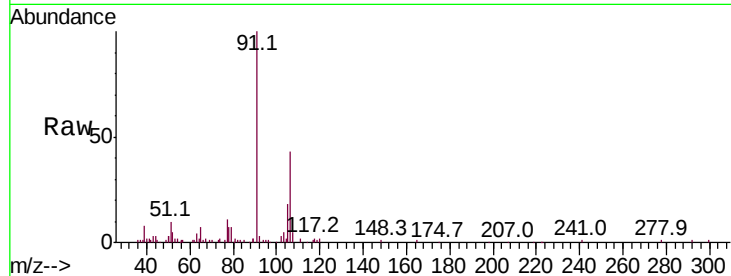




#60
o-Xylene
Concen: 0.286 ppbv
RT: 13.71 min Scan# 3396
Delta R.T. 0.03 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

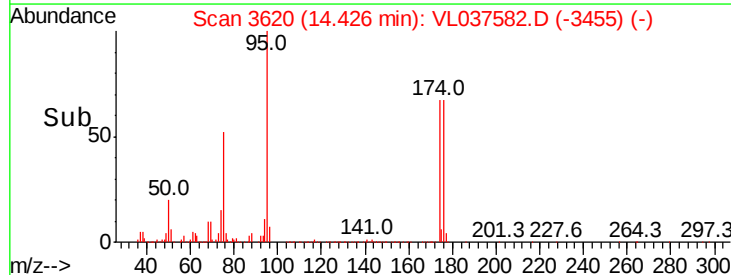
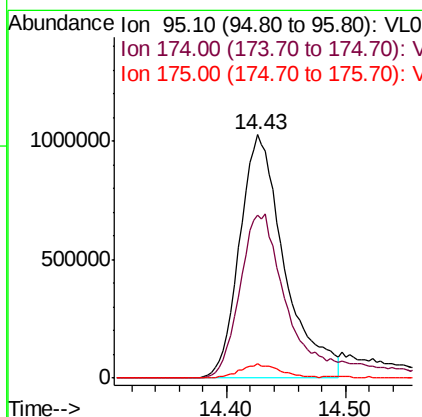
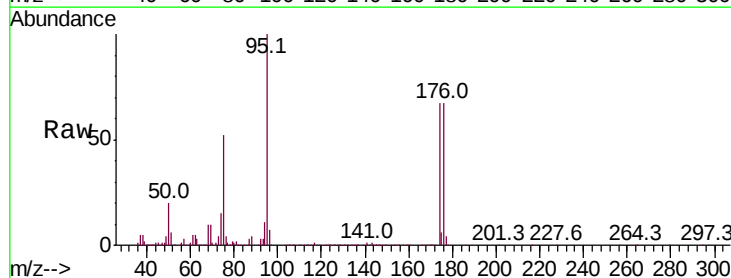
Instrument :
MSVOA_L
ClientSampleId :
OA-1

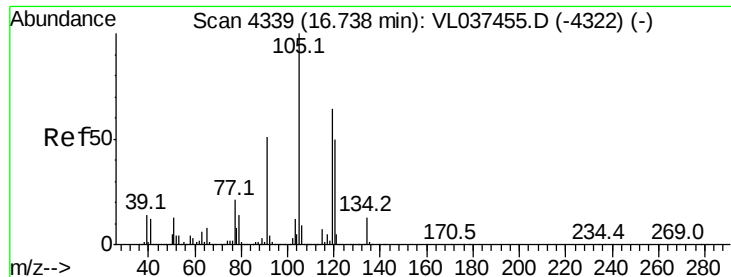
Tot Ion: 91 Resp: 120205
Ion Ratio Lower Upper
91 100
106 50.2 23.7 71.1



#68
1-Bromo-4-Fluorobenzene
Concen: 10.097 ppbv
RT: 14.43 min Scan# 3620
Delta R.T. 0.03 min
Lab File: VL037582.D
Acq: 8 Sep 2021 21:55

Tgt Ion: 95 Resp: 2681219
Ion Ratio Lower Upper
95 100
174 78.9 59.6 89.4
175 5.7 4.6 7.0





#74

1,2,4-Trimethylbenzene

Concen: 0.034 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. 0.04 min

Lab File: VL037582.D

Acq: 8 Sep 2021 21:55

Instrument :

MSVOA_L

ClientSampleId :

OA-1

Tot Ion:105 Resp: 16965

Ion Ratio Lower Upper

105 100

120 14.1 40.4 60.6#

91 0.0 44.6 67.0#

77 3.6 17.8 26.6#

