

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062921\
 Data File : VL037256.D
 Acq On : 29 Jun 2021 19:33
 Operator : SY/AP
 Sample : M2887-04DUP 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 30 05:22:24 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

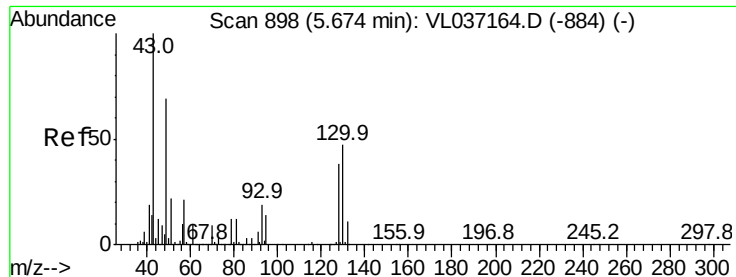
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1701117	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	4861870	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.08	117	4433266	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	3365786	10.02	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.20%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	12894	0.044	ppbv 95
9) Propene	3.01	41	2179770	20.610	ppbv 92
10) Heptane	8.11	43	165056	0.644	ppbv 99
13) Ethanol	3.61	45	40530	2.477	ppbv 93
15) Acetone	3.85	43	2404824	12.536	ppbv 100
16) 1,3-Butadiene	3.30	39	1072328	9.456	ppbv # 33
17) tert-Butyl alcohol	4.31	59	46954	0.265	ppbv # 85
20) Methylene Chloride	4.34	84	901577	7.850	ppbv 97
21) Allyl Chloride	4.39	41	35271	0.244	ppbv # 1
23) Vinyl Acetate	5.05	43	21512	0.078	ppbv # 8
25) Ethyl Acetate	5.68	43	496603	1.196	ppbv # 78
26) Hexane	5.68	57	705329	3.360	ppbv # 45
30) Cyclohexane	7.12	84	28104	0.161	ppbv # 27
34) 2-Butanone	5.24	43	1392896	7.367	ppbv 100
36) Benzene	6.88	78	220426	0.561	ppbv 98
39) 1,2-Dichloropropane	7.17	63	1186238	8.120	ppbv # 24
41) Tetrahydrofuran	5.98	42	4403	0.050	ppbv # 41
51) 2-Hexanone	10.14	43	160375	1.269	ppbv # 82
53) Toluene	9.80	91	274625	0.585	ppbv 98
58) Ethyl Benzene	12.71	91	20187	0.033	ppbv 96
59) m/p-Xylene	12.98	91	35903	0.069	ppbv # 30
60) o-Xylene	13.68	91	45888	0.093	ppbv 95
67) sec-Butylbenzene	17.28	105	30064	0.036	ppbv # 90
69) p-Isopropyltoluene	17.64	119	91532	0.131	ppbv # 83
73) 1,3,5-Trimethylbenzene	15.99	105	25493	0.047	ppbv 97
74) 1,2,4-Trimethylbenzene	16.75	105	76554	0.137	ppbv # 82

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

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MSVOA_L
ClientSampleId :

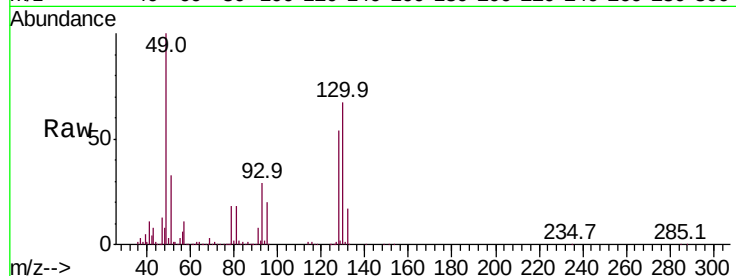
Tot Ion: 49 Resp: 1701117

Ion Ratio Lower Upper

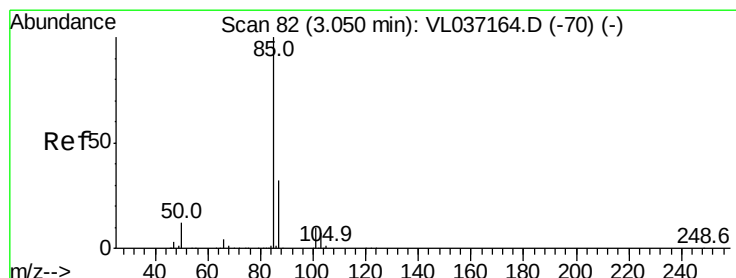
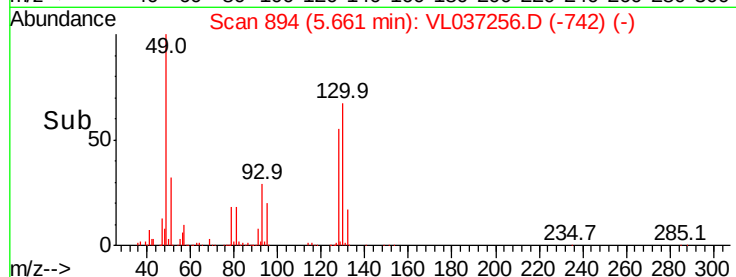
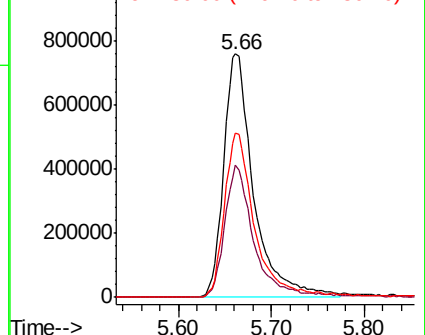
49 100

128 54.3 29.3 88.0

130 69.4 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: 0.044 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL037256.D

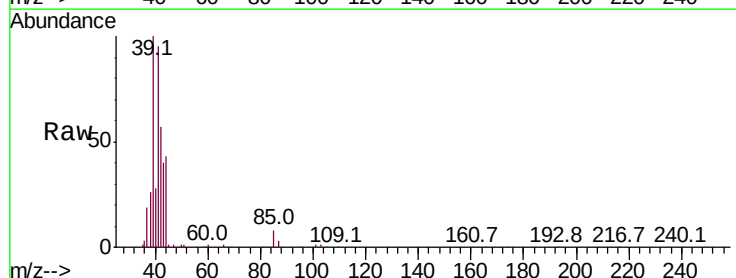
Acq: 29 Jun 2021 19:33

Tgt Ion: 85 Resp: 12894

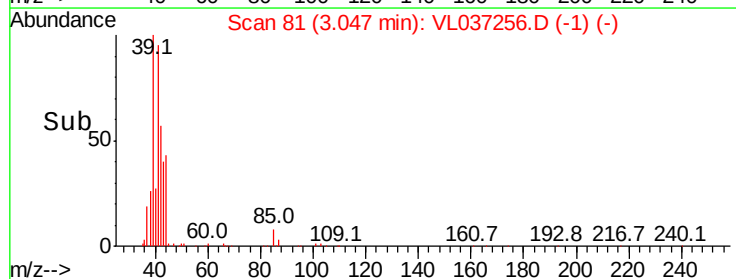
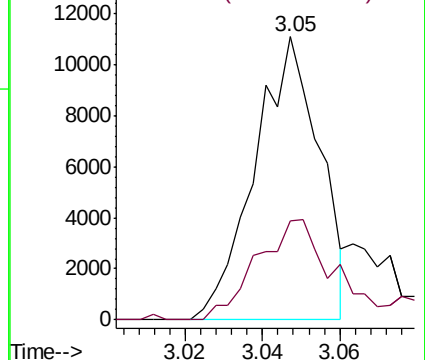
Ion Ratio Lower Upper

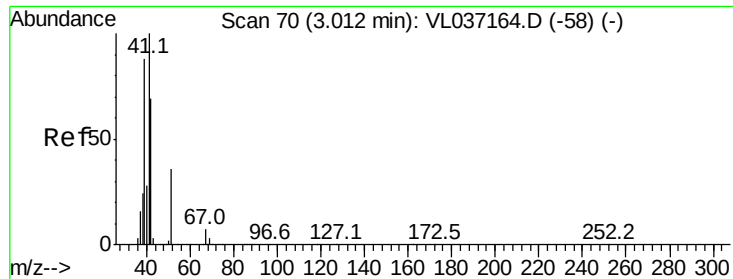
85 100

87 35.0 25.8 38.6



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





#9

Propene

Concen: 20.610 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Instrument :

MSVOA_L

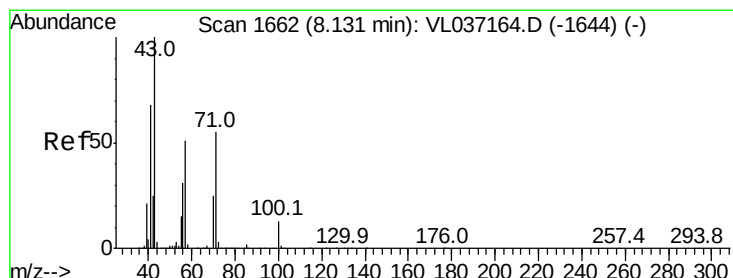
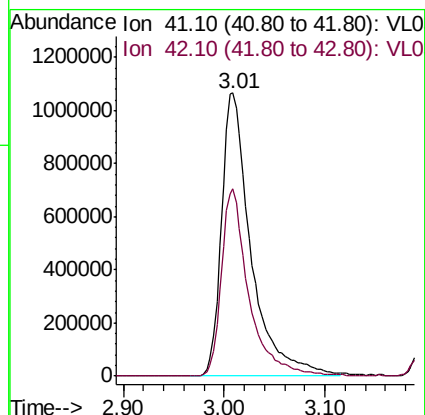
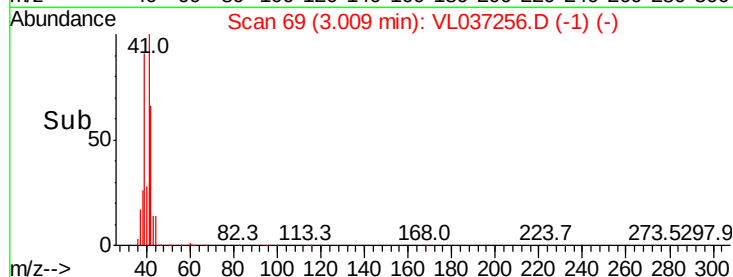
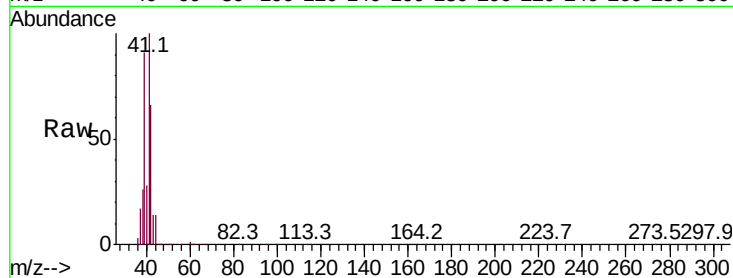
ClientSampleId :

Tot Ion: 41 Resp: 2179770

Ion Ratio Lower Upper

41 100

42 62.0 54.5 81.7



#10

Heptane

Concen: 0.644 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.02 min

Lab File: VL037256.D

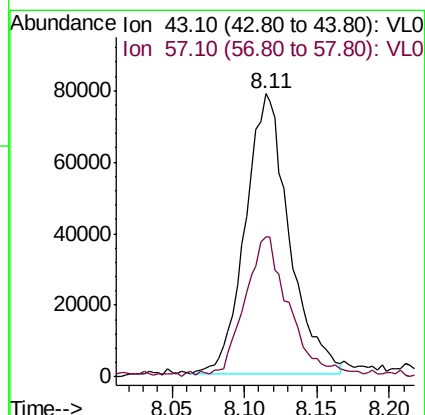
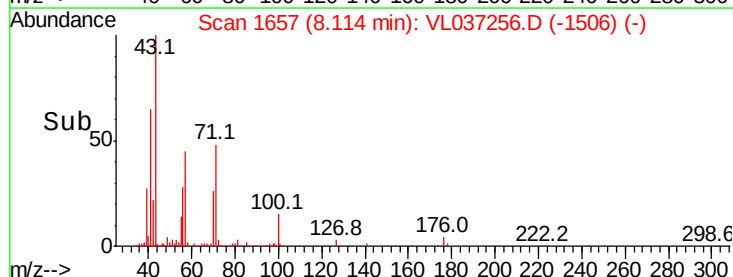
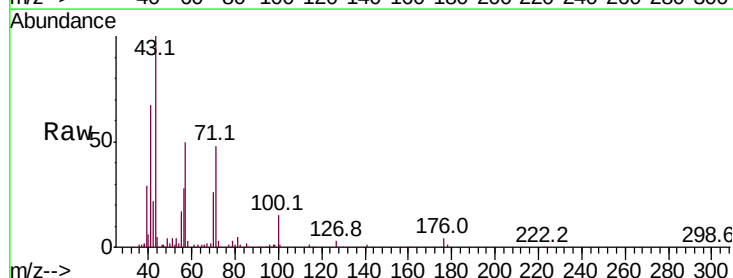
Acq: 29 Jun 2021 19:33

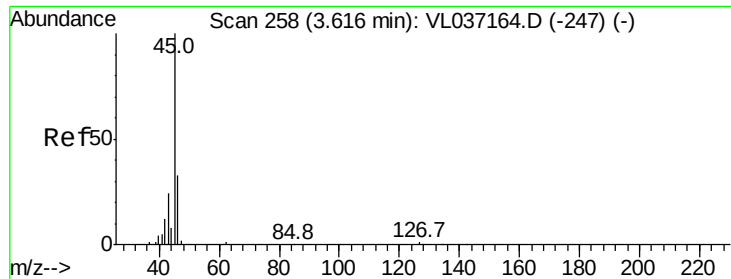
Tgt Ion: 43 Resp: 165056

Ion Ratio Lower Upper

43 100

57 51.2 40.6 61.0

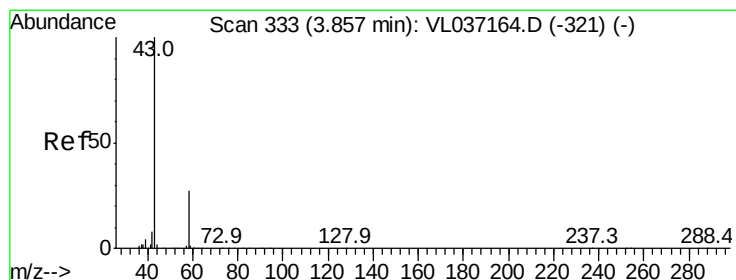
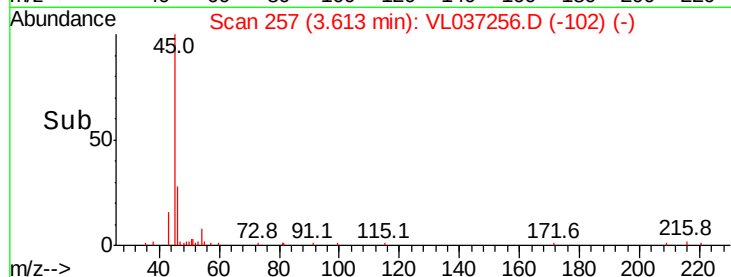
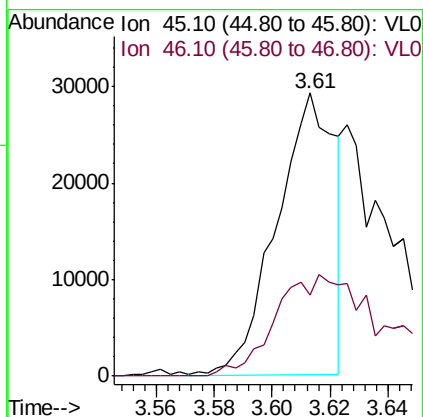
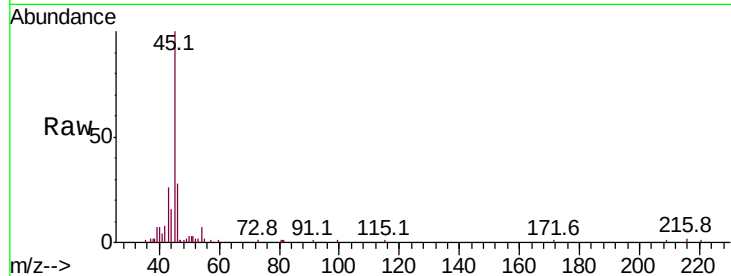




#13
Ethanol
Concen: 2.477 ppbv
RT: 3.61 min Scan# 257
Delta R.T. -0.00 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

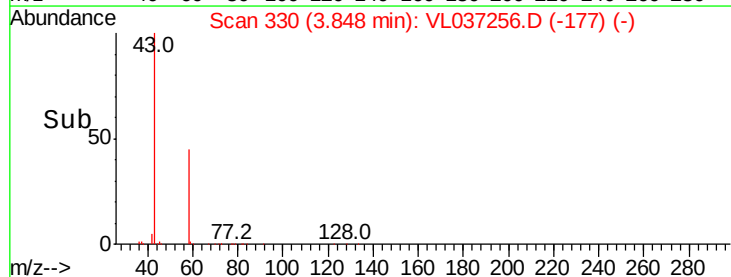
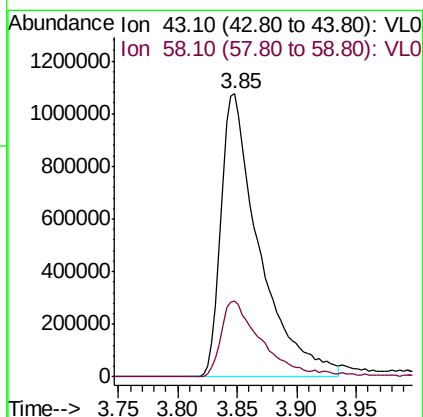
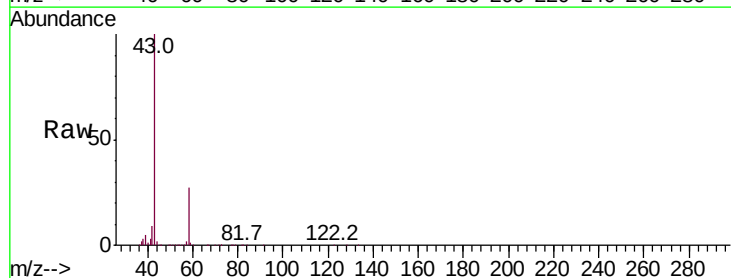
Instrument :
MSVOA_L
ClientSampleId :

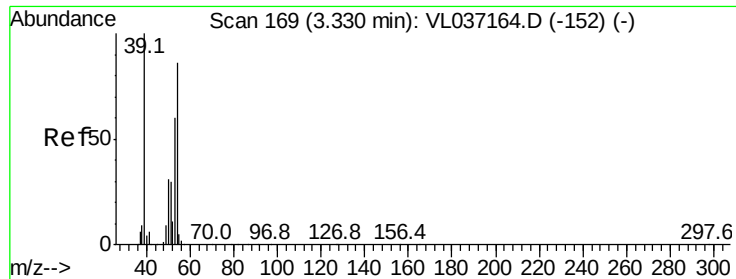
Tot Ion: 45 Resp: 40530
Ion Ratio Lower Upper
45 100
46 79.0 34.2 137.0



#15
Acetone
Concen: 12.536 ppbv
RT: 3.85 min Scan# 330
Delta R.T. -0.01 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Tgt Ion: 43 Resp: 2404824
Ion Ratio Lower Upper
43 100
58 29.4 23.7 35.5

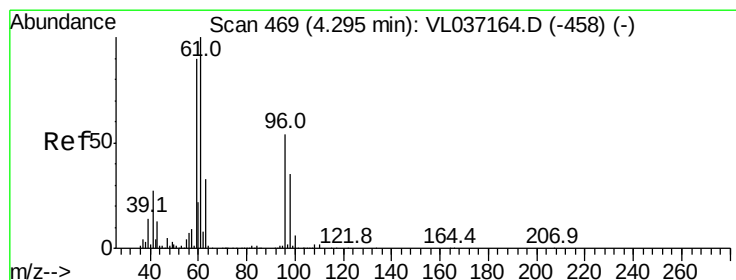
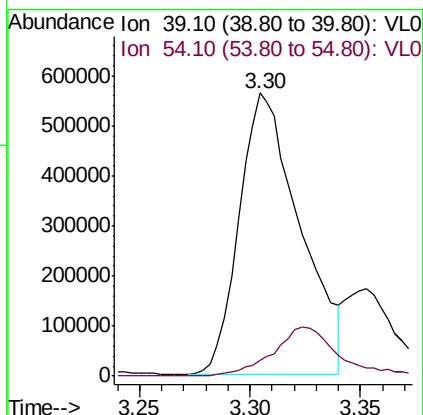
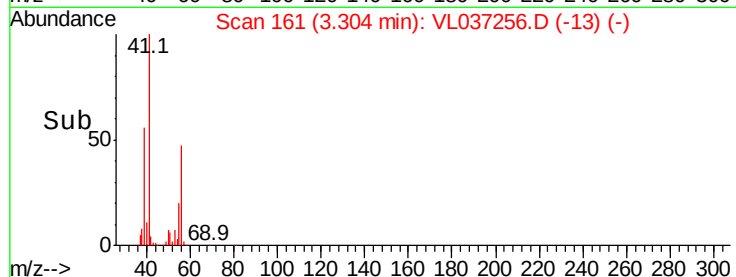
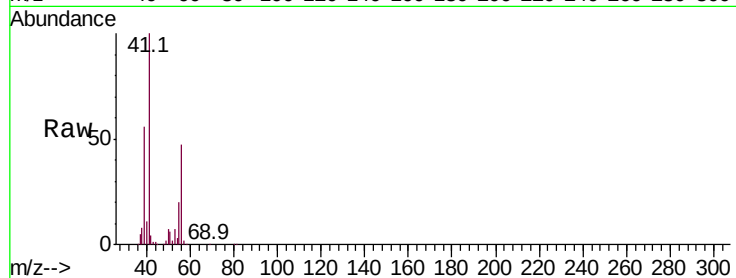




#16
1,3-Butadiene
Concen: 9.456 ppbv
RT: 3.30 min Scan# 161
Delta R.T. -0.03 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

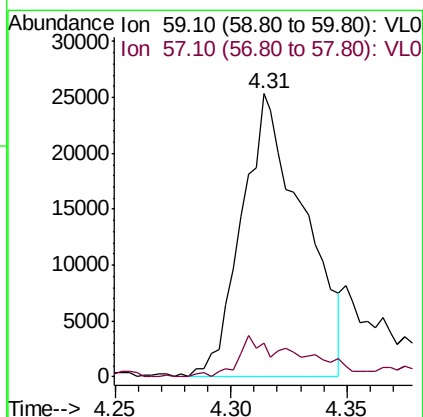
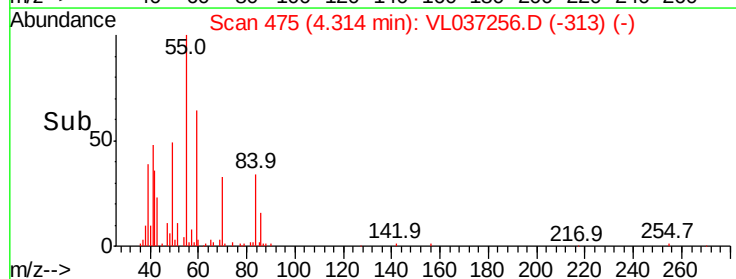
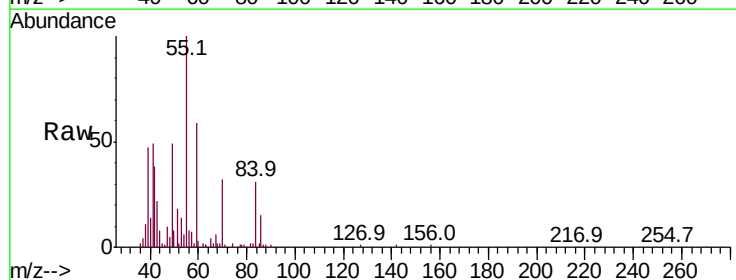
Instrument :
MSVOA_L
ClientSampleId :

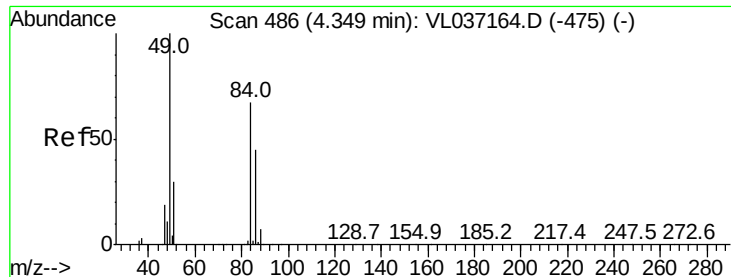
Tot Ion: 39 Resp: 1072328
Ion Ratio Lower Upper
39 100
54 18.8 61.2 91.8#



#17
tert-Butyl alcohol
Concen: 0.265 ppbv
RT: 4.31 min Scan# 475
Delta R.T. 0.02 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Tgt Ion: 59 Resp: 46954
Ion Ratio Lower Upper
59 100
57 16.9 8.8 13.2#

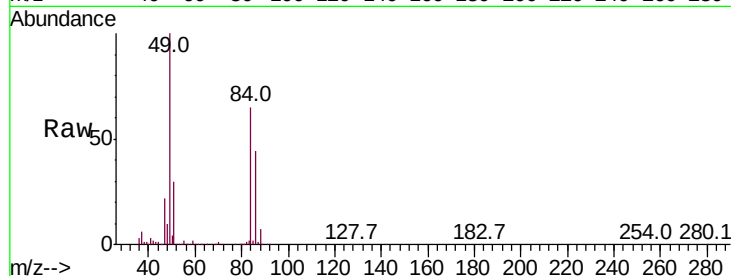




#20
Methylene Chloride
Concen: 7.850 ppbv
RT: 4.34 min Scan# 483
Delta R.T. -0.01 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	84	Resp:	901577
Ion	Ratio	Lower	Upper
84	100		
49	154.8	119.7	179.5
51	45.4	36.1	54.1
86	68.8	53.7	80.5



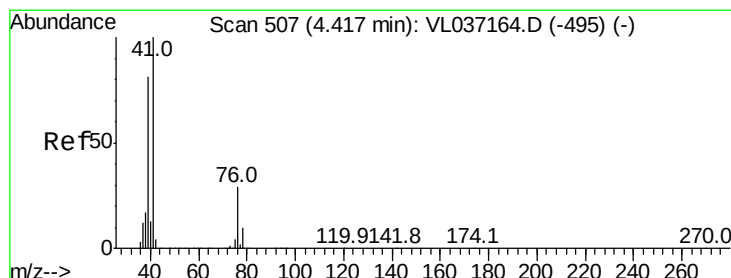
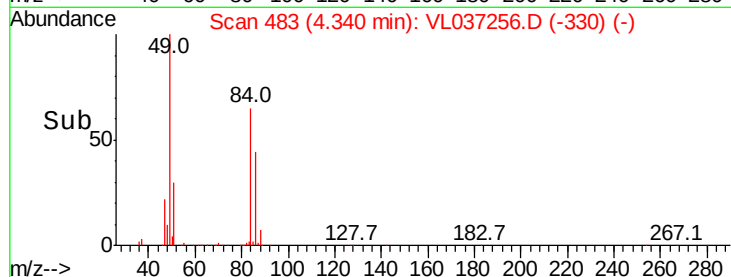
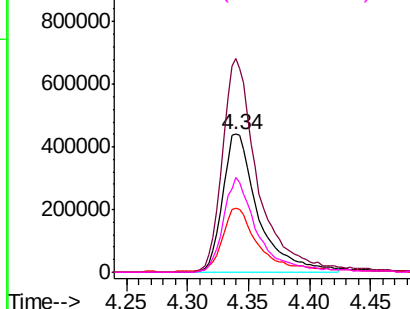
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

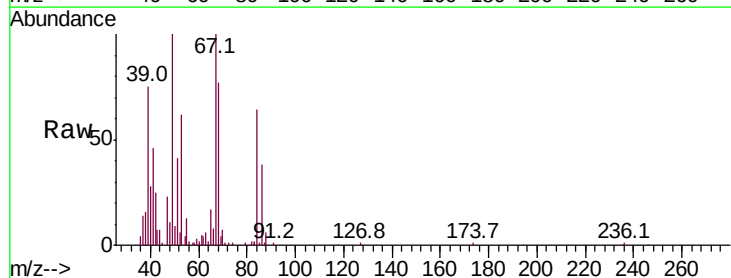
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.244 ppbv
RT: 4.39 min Scan# 499
Delta R.T. -0.03 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Tgt Ion:	41	Resp:	35271
Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.6	37.0#
39	281.8	65.4	98.0#

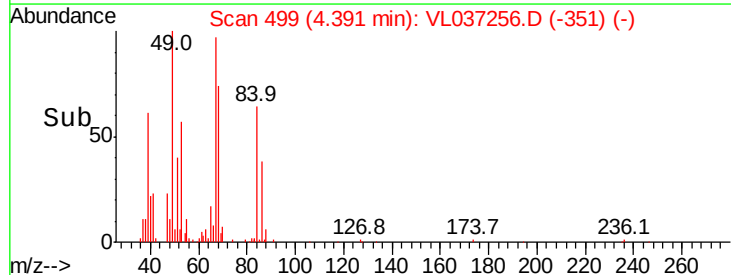
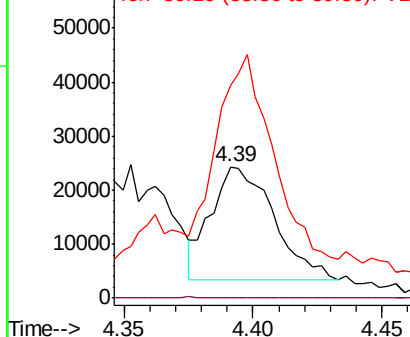


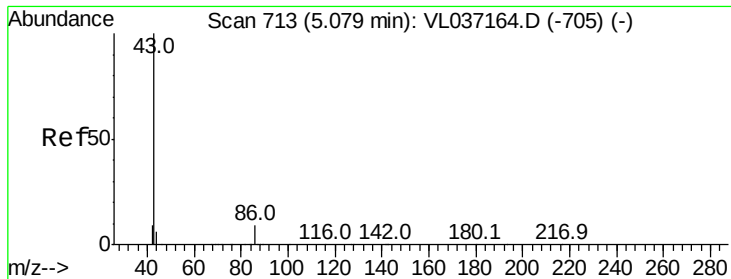
Abundance

Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.078 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.03 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 21512

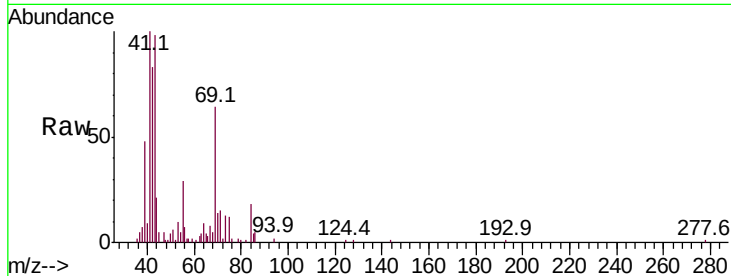
Ion Ratio Lower Upper

43 100

86 5.8 5.8 8.8#

42 81.7 8.2 12.2#

44 12.0 4.2 6.4#

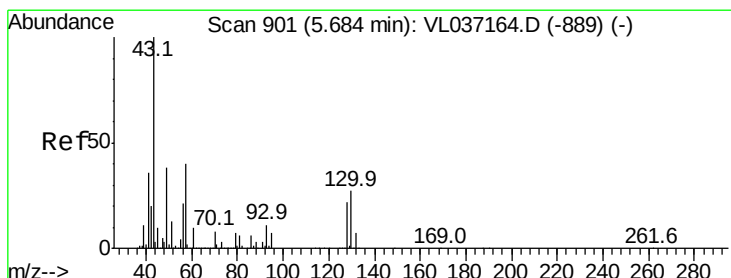
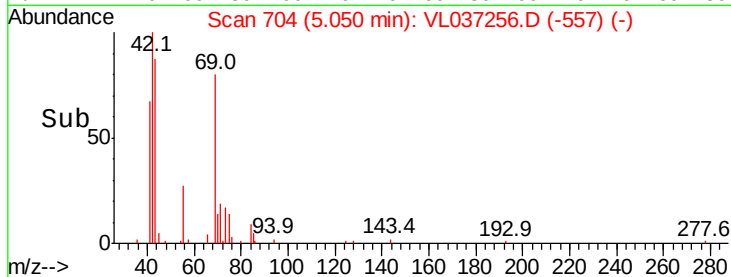
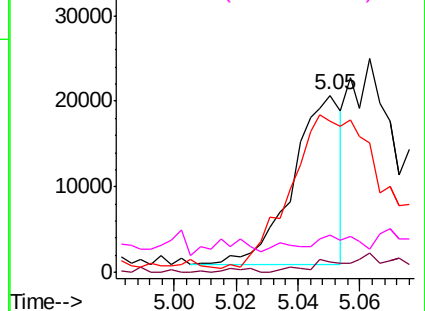


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.196 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.00 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Tgt Ion: 43 Resp: 496603

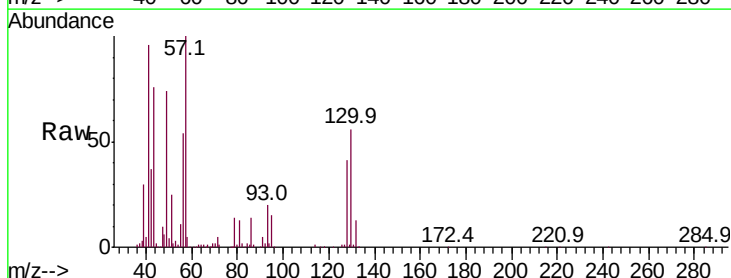
Ion Ratio Lower Upper

43 100

45 1.0 8.0 12.0#

61 0.5 8.1 12.1#

70 2.6 5.5 8.3#

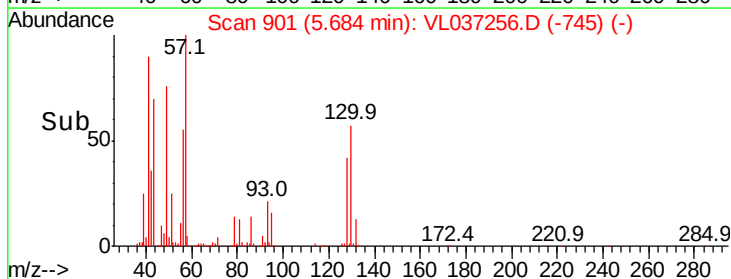
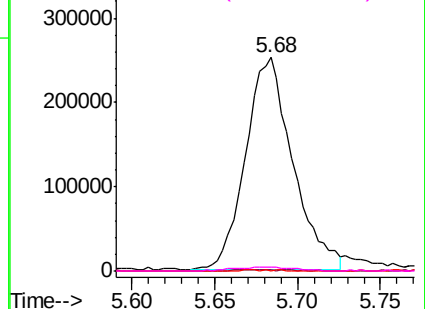


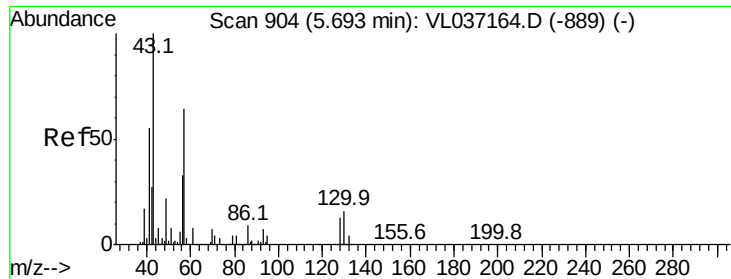
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

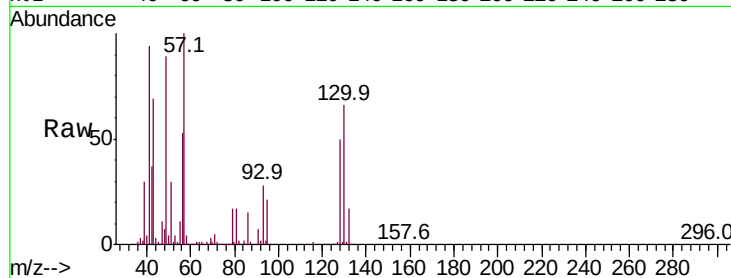




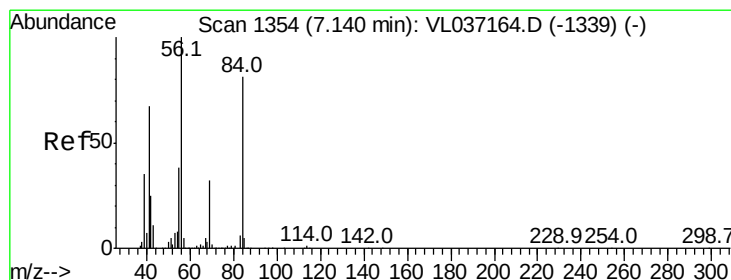
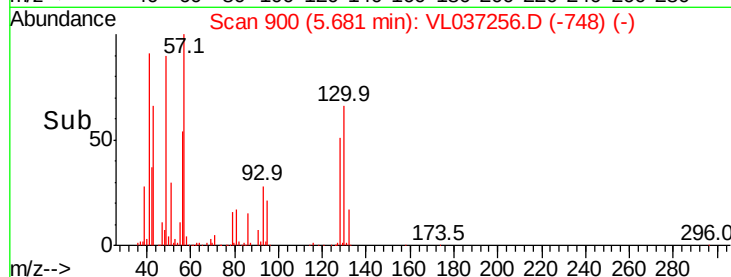
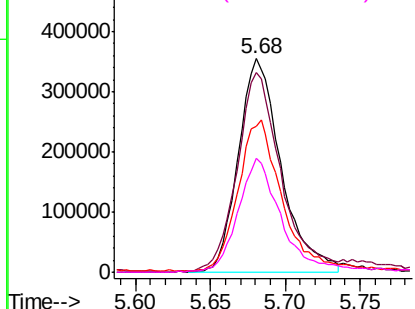
#26
Hexane
Concen: 3.360 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.01 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 57 Resp: 705329
Ion Ratio Lower Upper
57 100
41 101.2 73.5 110.3
43 74.7 170.7 256.1#
56 55.6 42.4 63.6

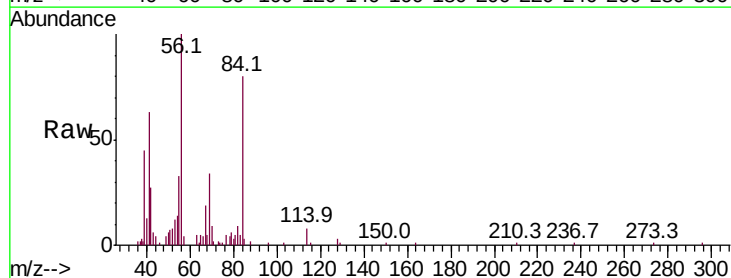


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

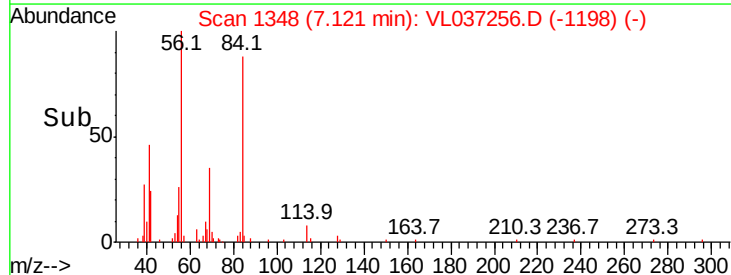
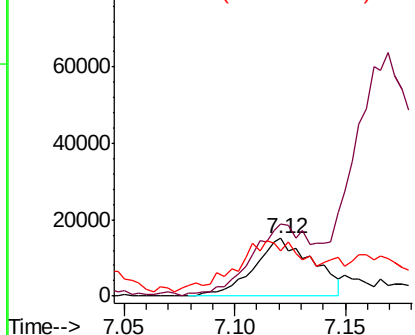


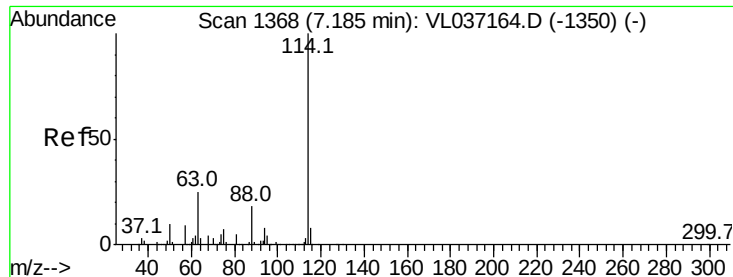
#30
Cyclohexane
Concen: 0.161 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.02 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Tgt Ion: 84 Resp: 28104
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 95.3 69.0 103.6



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

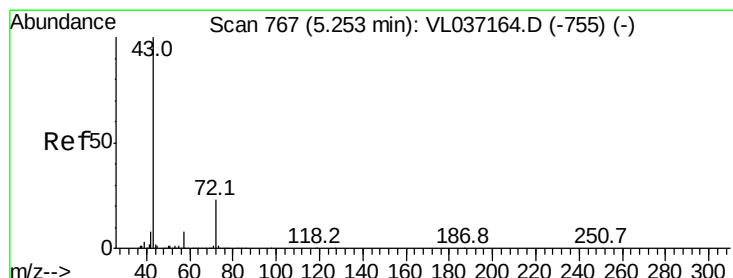
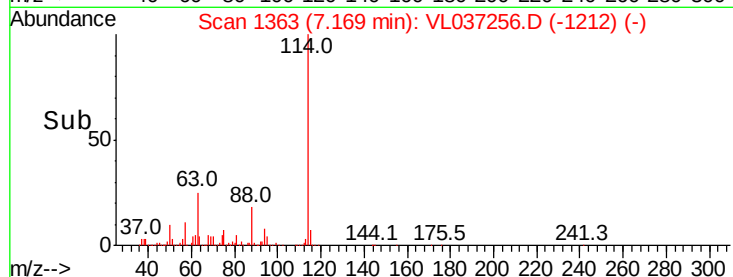
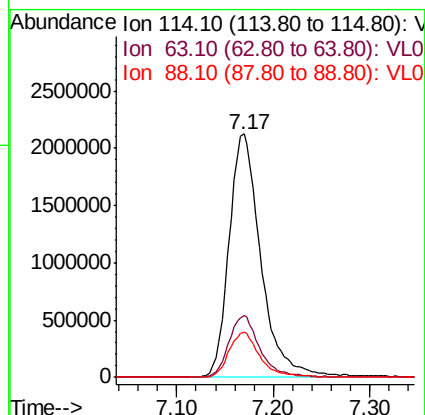
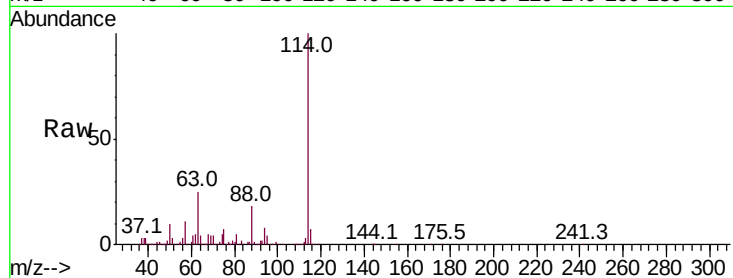




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.02 min
 Lab File: VL037256.D
 Acq: 29 Jun 2021 19:33

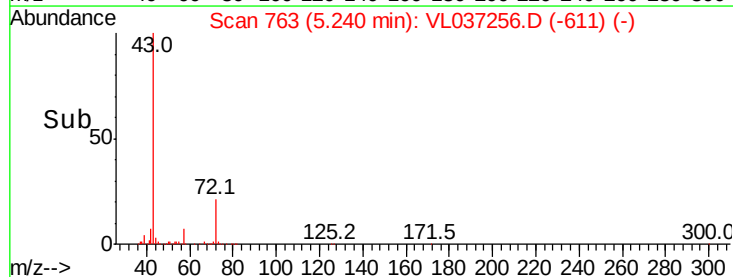
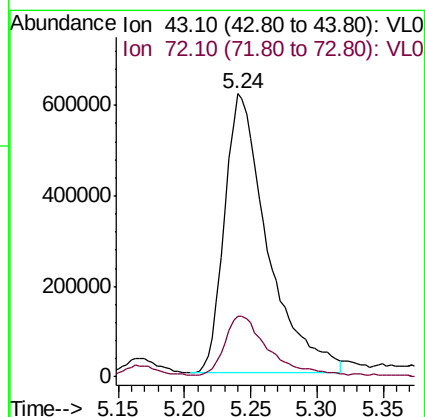
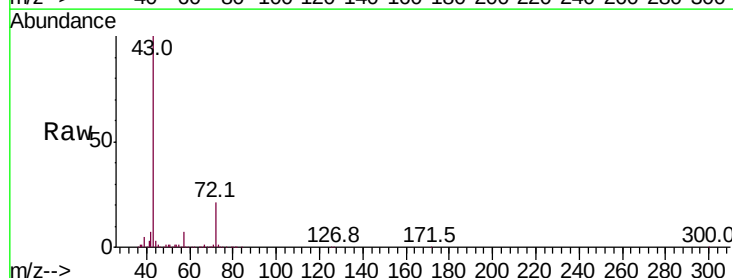
Instrument :
 MSVOA_L
 ClientSampleId :

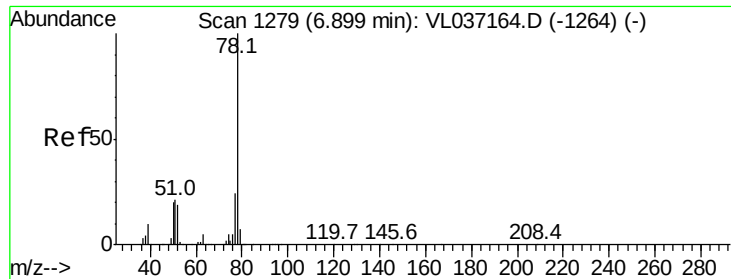
Tot Ion:114 Resp: 4861870
 Ion Ratio Lower Upper
 114 100
 63 25.1 19.6 29.4
 88 18.2 14.2 21.2



#34
 2-Butanone
 Concen: 7.367 ppbv
 RT: 5.24 min Scan# 763
 Delta R.T. -0.01 min
 Lab File: VL037256.D
 Acq: 29 Jun 2021 19:33

Tgt Ion: 43 Resp: 1392896
 Ion Ratio Lower Upper
 43 100
 72 23.4 18.9 28.3

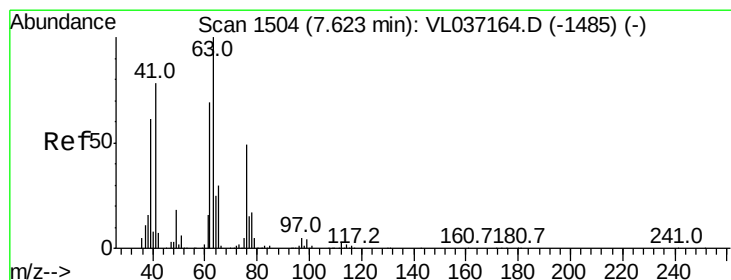
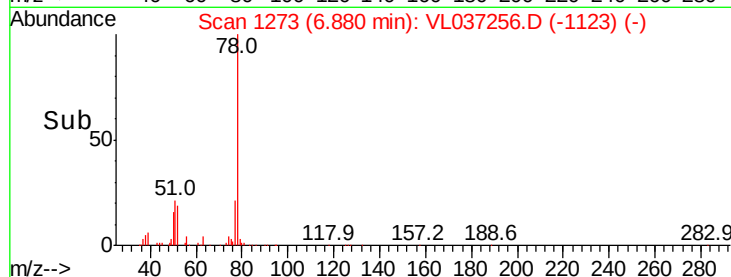
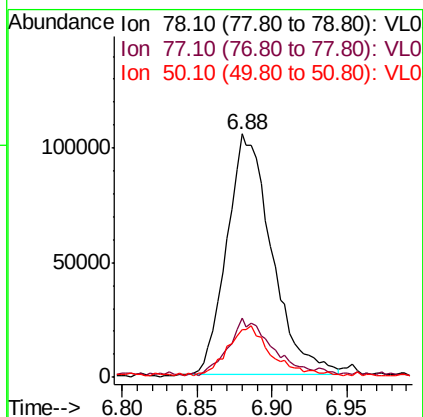
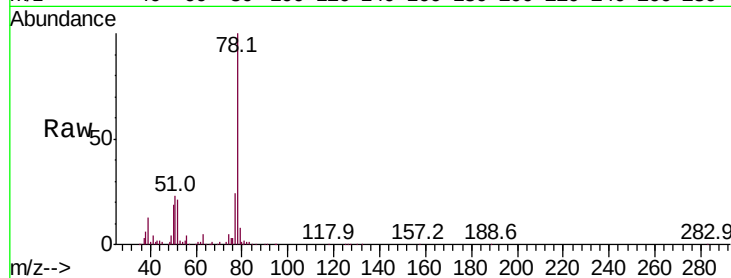




#36
Benzene
Concen: 0.561 ppbv
RT: 6.88 min Scan# 1273
Delta R.T. -0.02 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

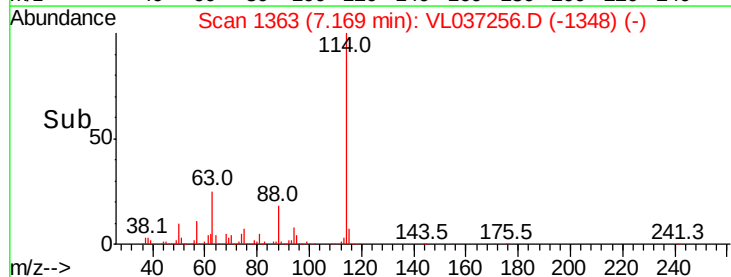
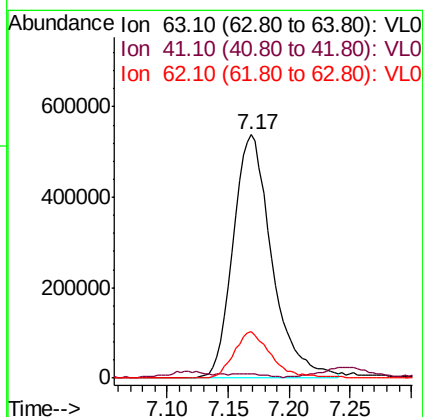
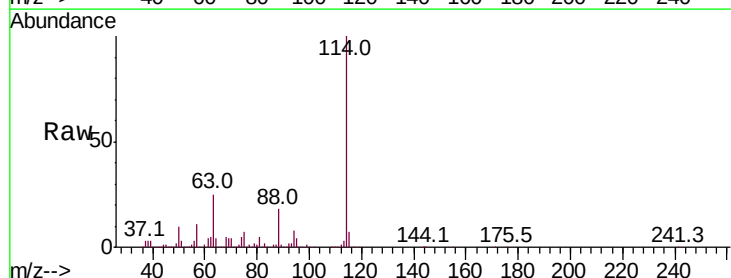
Instrument :
MSVOA_L
ClientSampled :

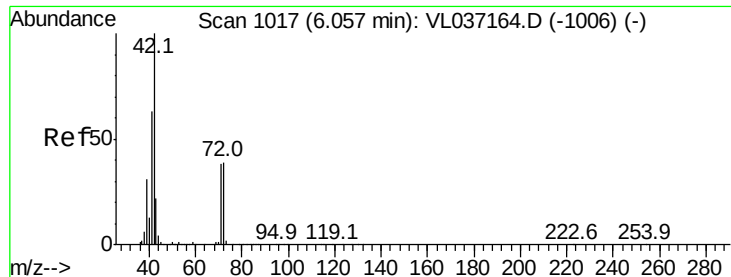
Tot Ion: 78 Resp: 220426
Ion Ratio Lower Upper
78 100
77 23.2 19.0 28.6
50 18.5 15.7 23.5



#39
1,2-Dichloropropane
Concen: 8.120 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.45 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Tgt Ion: 63 Resp: 1186238
Ion Ratio Lower Upper
63 100
41 0.0 62.0 93.0#
62 19.0 54.9 82.3#





#41

Tetrahydrofuran

Concen: 0.050 ppbv

RT: 5.98 min Scan# 994

Delta R.T. -0.07 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Instrument :

MSVOA_L

ClientSampleId :

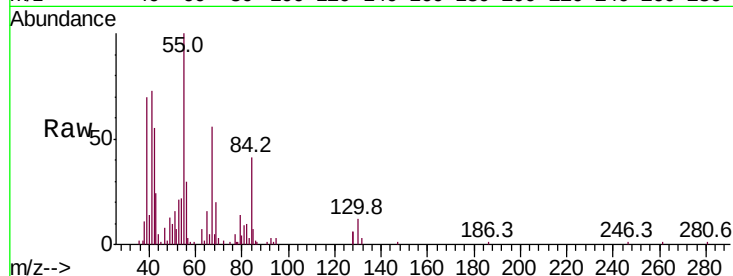
Tot Ion: 42 Resp: 4403

Ion Ratio Lower Upper

42 100

72 7.6 33.0 49.4#

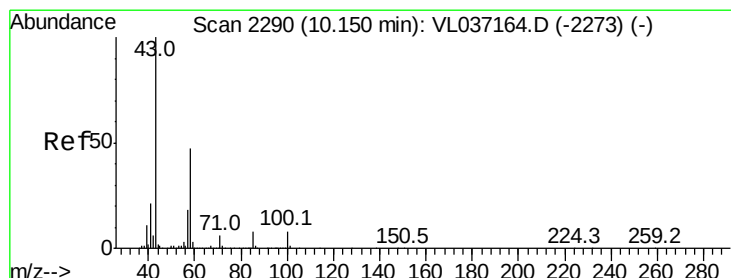
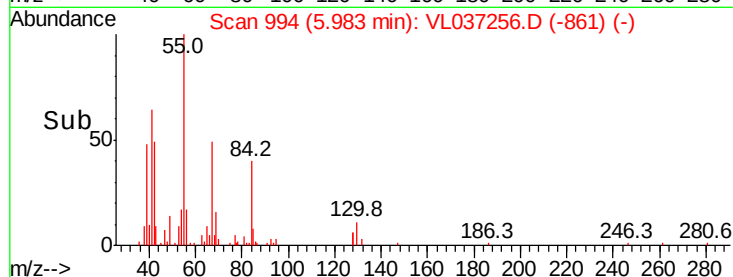
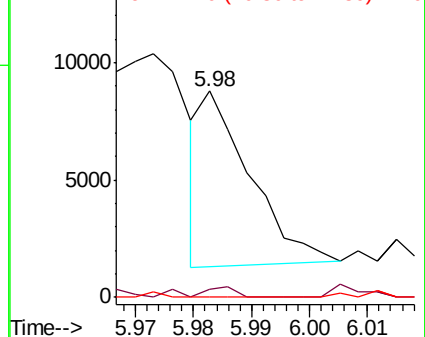
71 0.0 31.0 46.6#



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



#51

2-Hexanone

Concen: 1.269 ppbv

RT: 10.14 min Scan# 2288

Delta R.T. -0.01 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

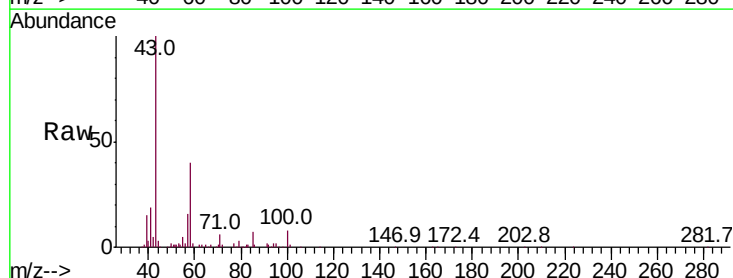
Tgt Ion: 43 Resp: 160375

Ion Ratio Lower Upper

43 100

58 59.9 38.4 57.6#

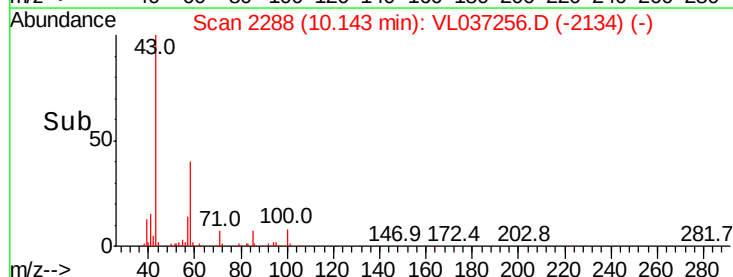
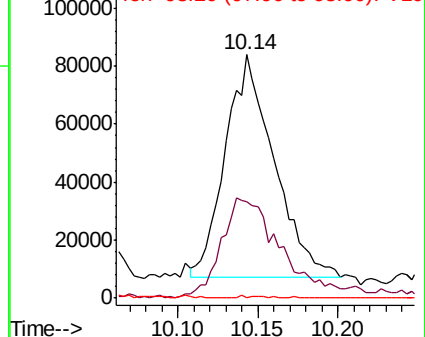
98 0.5 0.3 0.5#

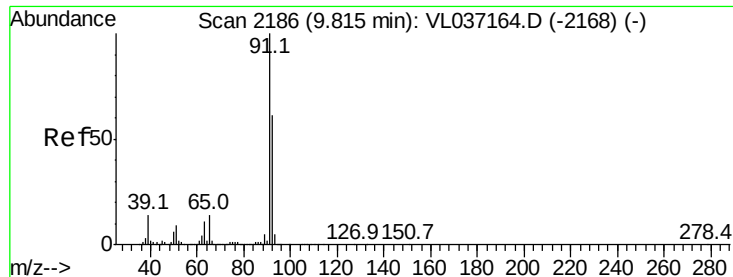


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0





#53

Toluene

Concen: 0.585 ppbv

RT: 9.80 min Scan# 2180

Delta R.T. -0.02 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Instrument :

MSVOA_L

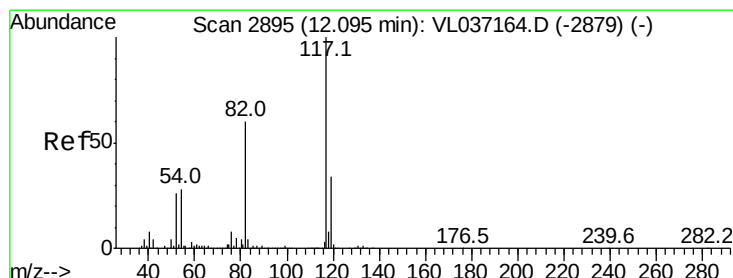
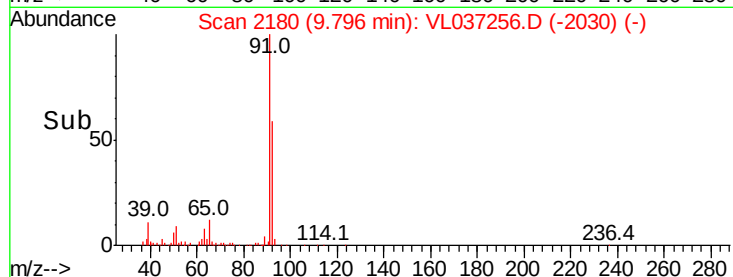
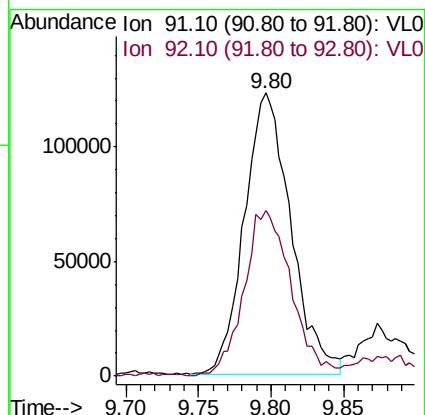
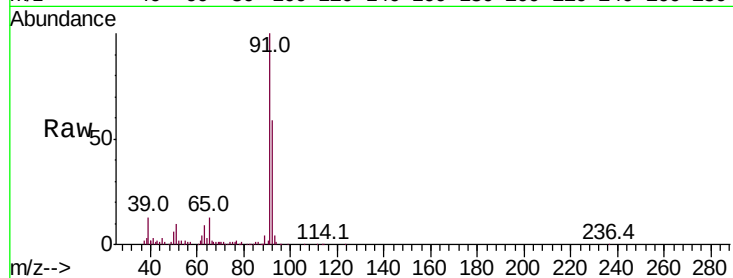
ClientSampleId :

Tot Ion: 91 Resp: 274625

Ion Ratio Lower Upper

91 100

92 59.2 48.3 72.5



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. -0.02 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

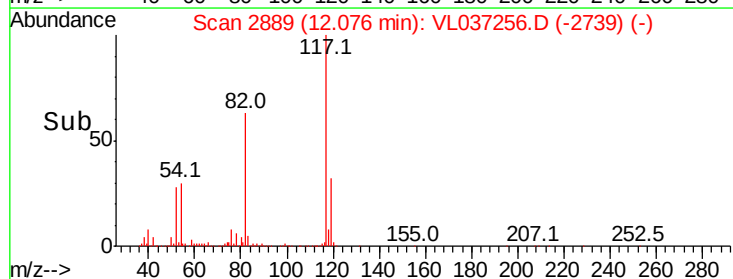
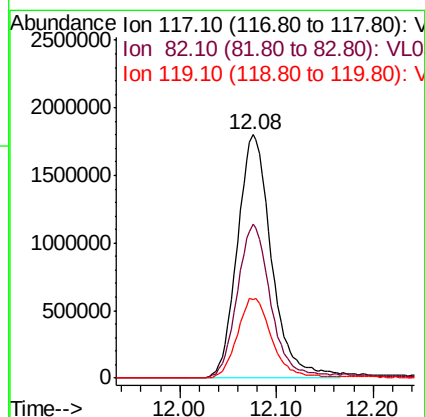
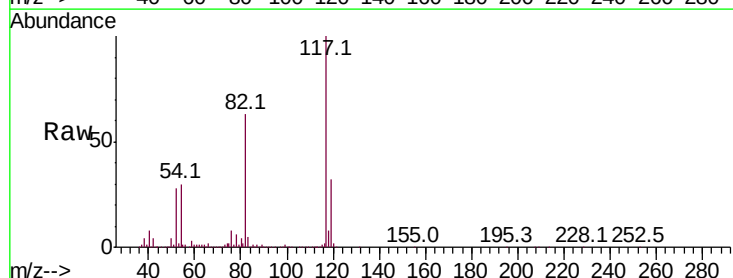
Tgt Ion: 117 Resp: 4433266

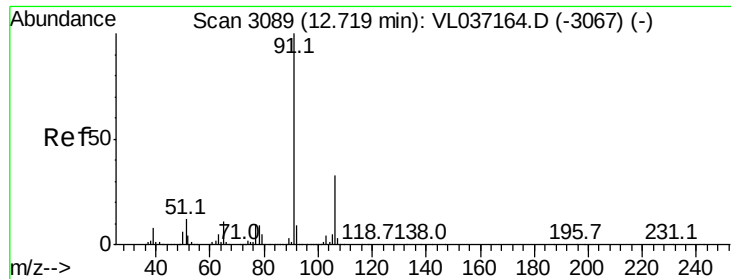
Ion Ratio Lower Upper

117 100

82 65.1 51.7 77.5

119 34.1 47.6 71.4#





#58

Ethyl Benzene

Concen: 0.033 ppbv

RT: 12.71 min Scan# 3086

Delta R.T. -0.01 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Instrument :

MSVOA_L

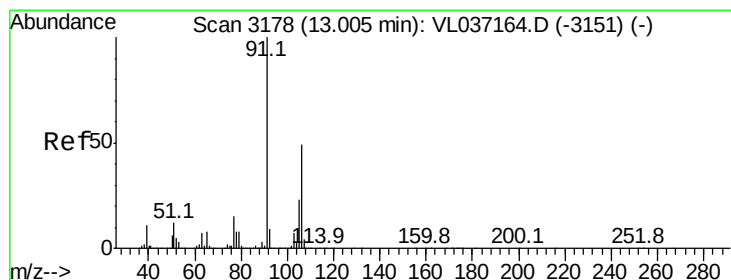
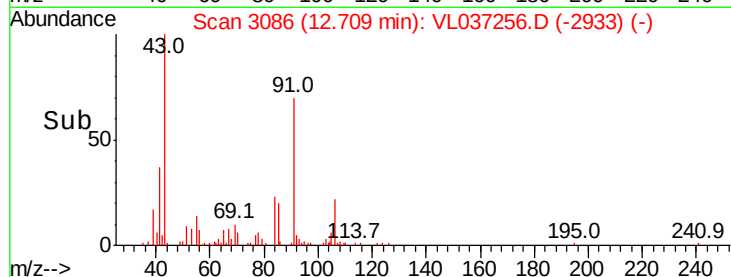
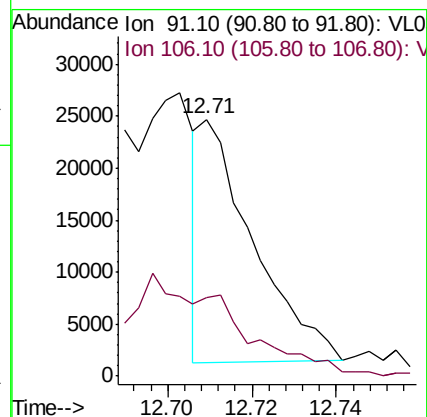
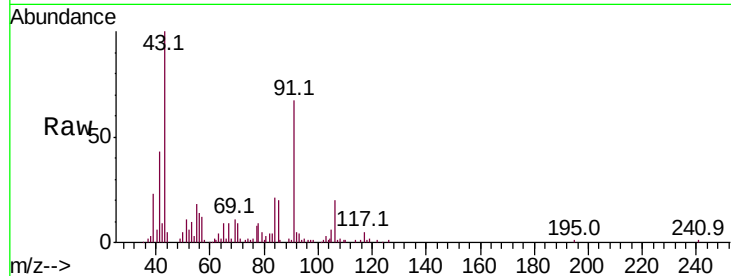
ClientSampleId :

Tot Ion: 91 Resp: 20187

Ion Ratio Lower Upper

91 100

106 30.4 26.3 39.5



#59

m/p-Xylene

Concen: 0.069 ppbv

RT: 12.98 min Scan# 3171

Delta R.T. -0.02 min

Lab File: VL037256.D

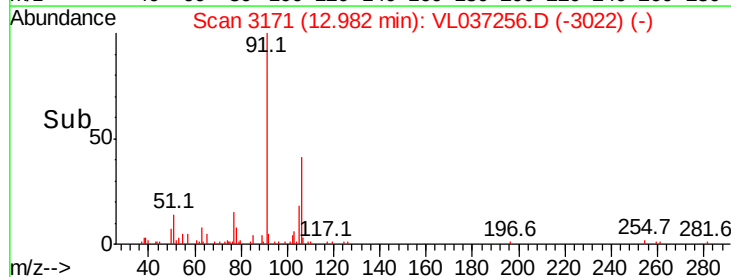
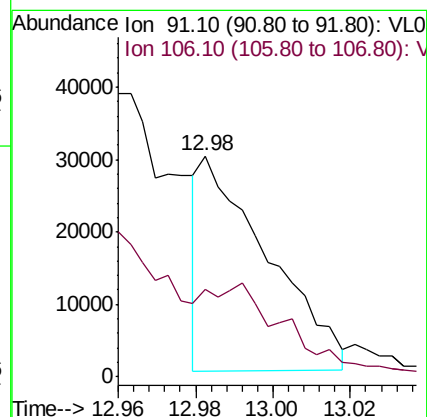
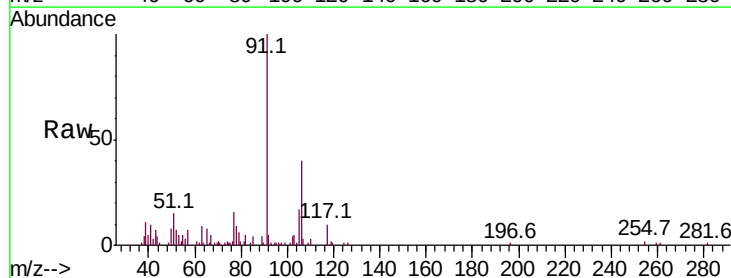
Acq: 29 Jun 2021 19:33

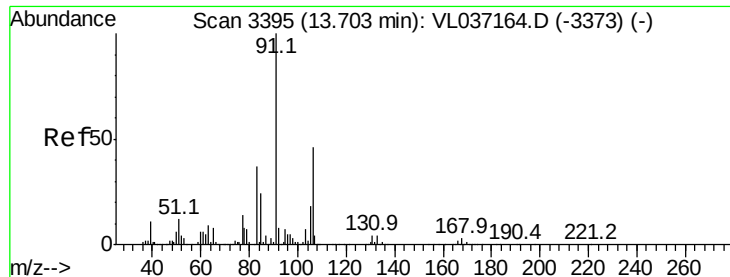
Tgt Ion: 91 Resp: 35903

Ion Ratio Lower Upper

91 100

106 0.0 37.0 55.4#

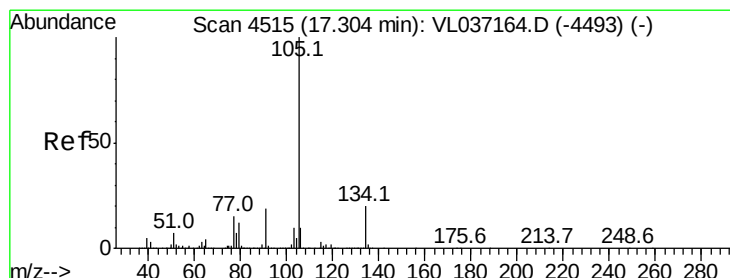
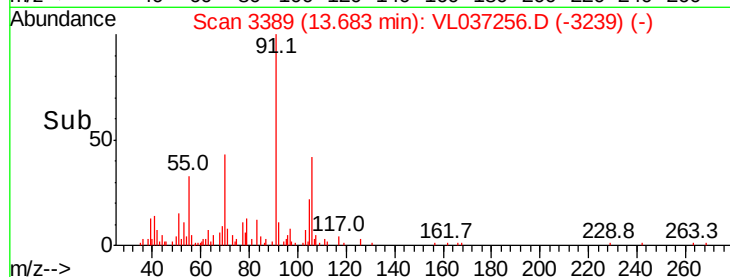
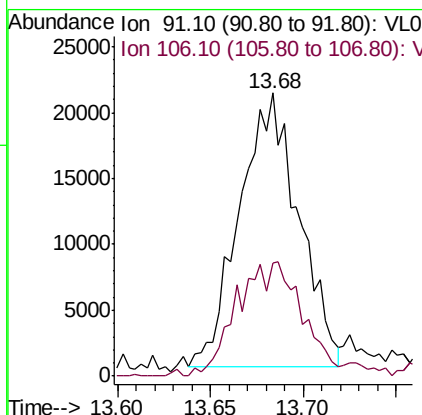
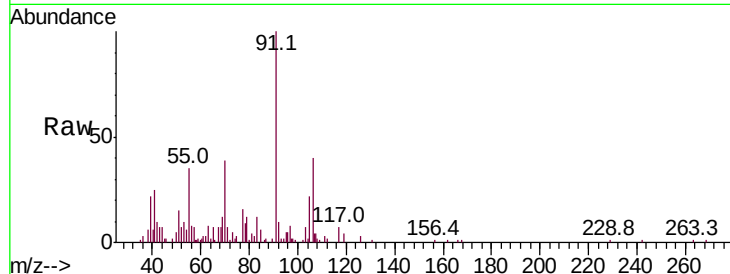




#60
o-Xylene
Concen: 0.093 ppbv
RT: 13.68 min Scan# 3389
Delta R.T. -0.02 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

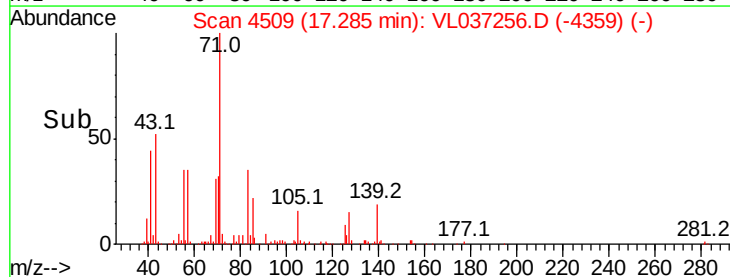
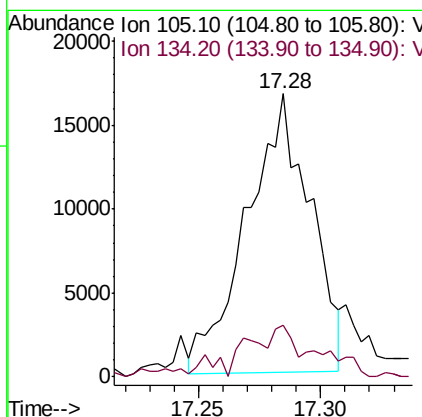
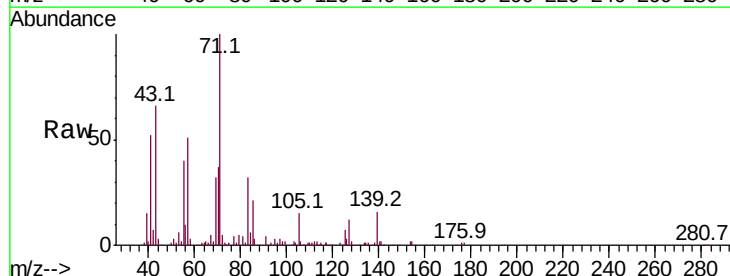
Instrument :
MSVOA_L
ClientSampled :

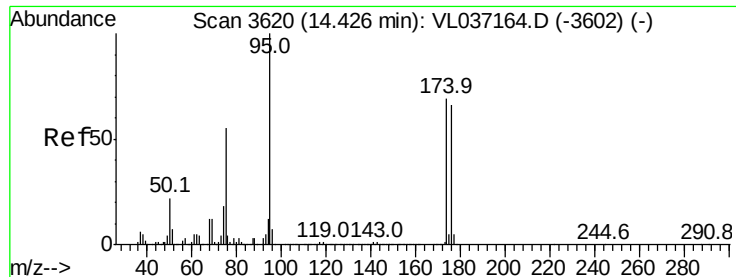
Tot Ion: 91 Resp: 45888
Ion Ratio Lower Upper
91 100
106 49.1 23.0 69.0



#67
sec-Butylbenzene
Concen: 0.036 ppbv
RT: 17.28 min Scan# 4509
Delta R.T. -0.02 min
Lab File: VL037256.D
Acq: 29 Jun 2021 19:33

Tgt Ion: 105 Resp: 30064
Ion Ratio Lower Upper
105 100
134 24.1 15.8 23.6#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.019 ppbv

RT: 14.41 min Scan# 3614

Delta R.T. -0.02 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

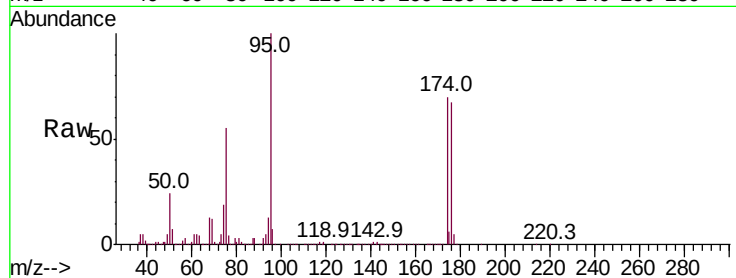
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 95 Resp: 3365786

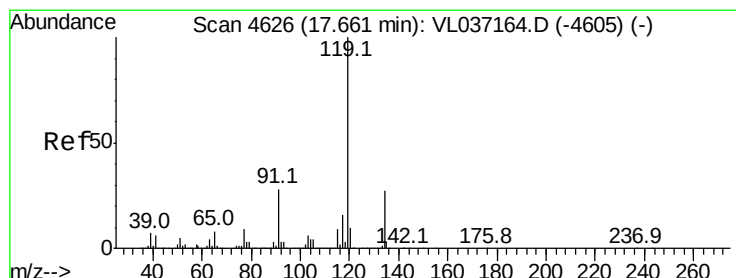
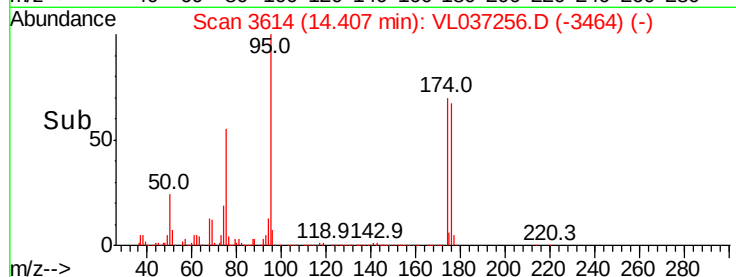
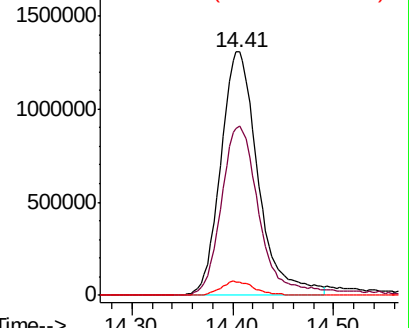
Ion	Ratio	Lower	Upper
95	100		
174	73.6	57.0	85.4
175	5.6	4.4	6.6



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



#69

p-Isopropyltoluene

Concen: 0.131 ppbv

RT: 17.64 min Scan# 4620

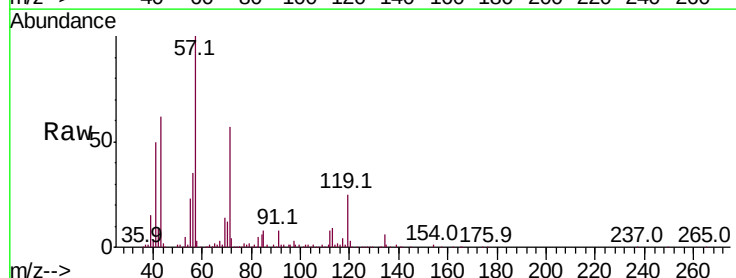
Delta R.T. -0.02 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Tgt Ion: 119 Resp: 91532

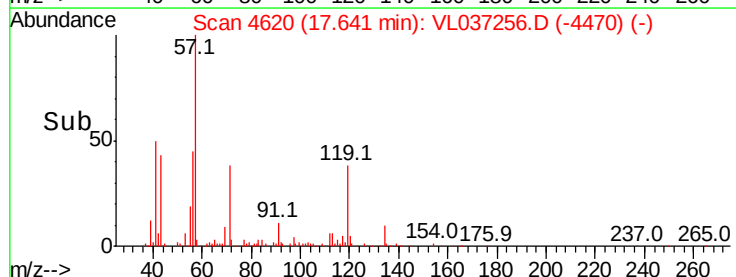
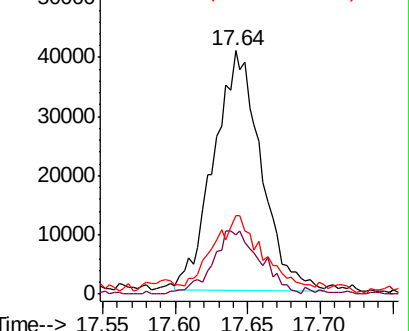
Ion	Ratio	Lower	Upper
119	100		
134	27.9	20.9	31.3
91	43.6	22.6	34.0

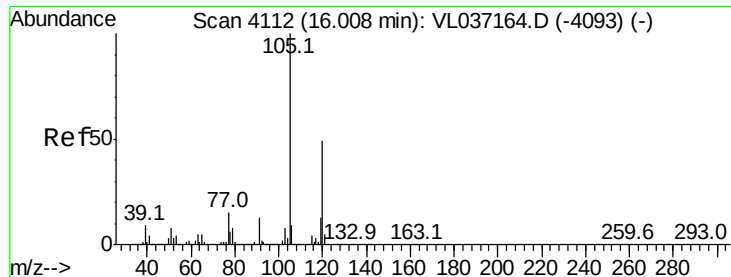


Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): VL0





#73

1,3,5-Trimethylbenzene

Concen: 0.047 ppbv

RT: 15.99 min Scan# 4105

Delta R.T. -0.02 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Instrument :

MSVOA_L

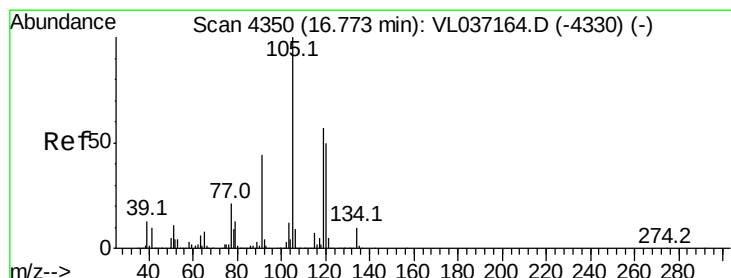
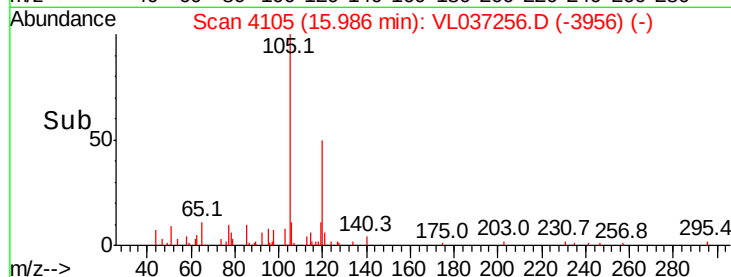
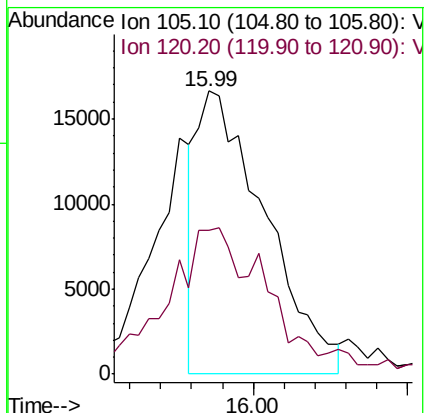
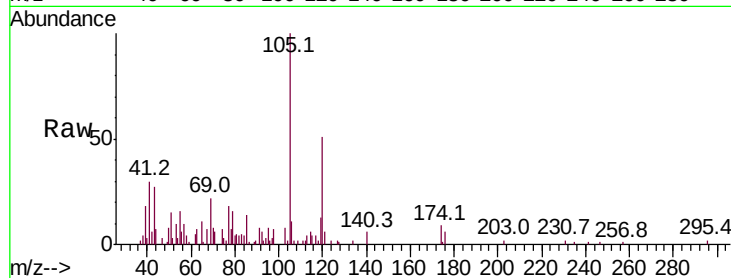
ClientSampleId :

Tot Ion:105 Resp: 25493

Ion Ratio Lower Upper

105 100

120 47.4 39.4 59.2



#74

1,2,4-Trimethylbenzene

Concen: 0.137 ppbv

RT: 16.75 min Scan# 4342

Delta R.T. -0.03 min

Lab File: VL037256.D

Acq: 29 Jun 2021 19:33

Tgt Ion:105 Resp: 76554

Ion Ratio Lower Upper

105 100

120 54.2 39.8 59.8

91 24.5 37.0 55.4#

77 13.8 17.0 25.4#

