

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040621\
 Data File : VL036708.D
 Acq On : 6 Apr 2021 21:46
 Operator : SY/AP
 Sample : M1977-11 2X
 Misc : 400mL/MSVOA L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 UP-SG-8(2021)

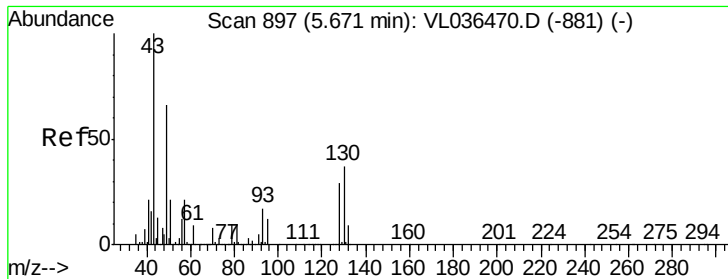
Quant Time: Apr 07 04:28:36 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1292326	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3181106	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2944403	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2234664	9.52	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.20%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	38846	0.184	ppbv 98
3) Chlorodifluoromethane	2.96	51	1420334	5.882	ppbv # 60
4) Chloromethane	3.14	50	9627	0.113	ppbv # 83
9) Propene	3.20	41	233670	3.036	ppbv 84
11) Trichlorofluoromethane	3.95	101	40131	0.187	ppbv 93
13) Ethanol	3.61	45	3074363	335.395	ppbv 92
15) Acetone	3.84	43	6757184	53.125	ppbv 100
16) 1,3-Butadiene	3.31	39	2932	0.033	ppbv # 30
17) tert-Butyl alcohol	3.98	59	192400	1.738	ppbv 97
19) Isopropyl Alcohol	3.98	45	5843784	83.519	ppbv # 93
20) Methylene Chloride	4.34	84	713411	11.979	ppbv 95
21) Allyl Chloride	4.35	41	18471	0.182	ppbv # 29
25) Ethyl Acetate	5.69	43	262174	0.867	ppbv # 79
26) Hexane	5.69	57	347497	2.476	ppbv # 47
34) 2-Butanone	5.25	43	46058	0.297	ppbv # 43
36) Benzene	6.89	78	45605	0.155	ppbv # 90
39) 1,2-Dichloropropane	7.18	63	838262	7.044	ppbv # 24
41) Tetrahydrofuran	6.06	42	2807	0.039	ppbv # 5
50) 4-Methyl-2-Pentanone	8.74	43	6811	0.030	ppbv # 40
51) 2-Hexanone	10.47	43	2436965	21.493	ppbv # 30
53) Toluene	9.81	91	61967	0.198	ppbv # 20
58) Ethyl Benzene	12.71	91	87433	0.204	ppbv 94
59) m/p-Xylene	12.97	91	161484	0.432	ppbv # 32
60) o-Xylene	13.69	91	128994	0.357	ppbv 98
69) p-Isopropyltoluene	17.66	119	57005	0.123	ppbv # 77
74) 1,2,4-Trimethylbenzene	16.76	105	51018	0.129	ppbv # 63

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.00 min

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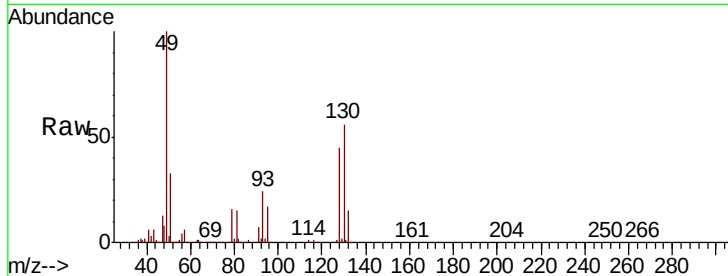
Tot Ion: 49 Resp: 1292326

Ion Ratio Lower Upper

49 100

128 46.8 23.5 70.6

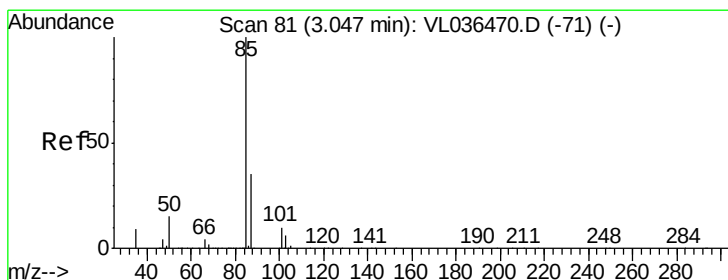
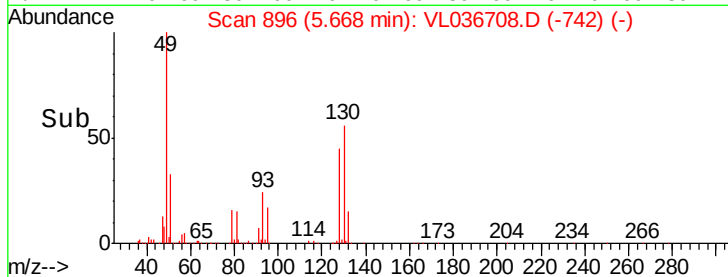
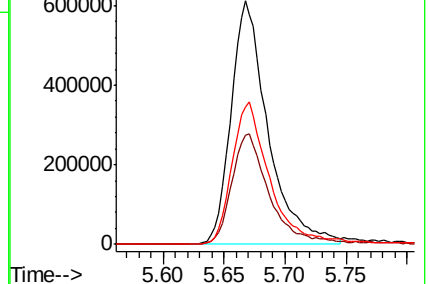
130 60.4 29.1 87.4



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: 0.184 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.00 min

Lab File: VL036708.D

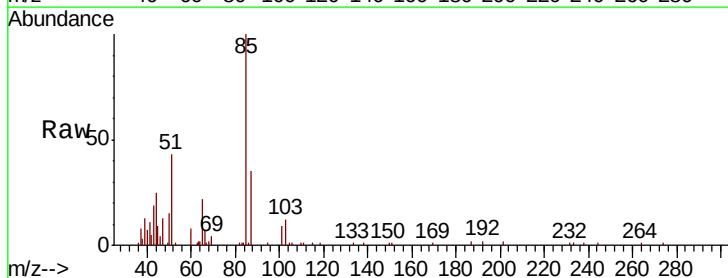
Acq: 6 Apr 2021 21:46

Tgt Ion: 85 Resp: 38846

Ion Ratio Lower Upper

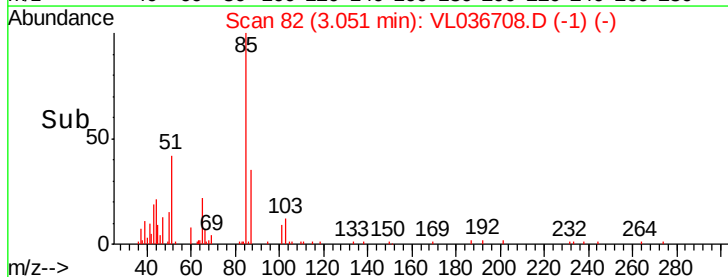
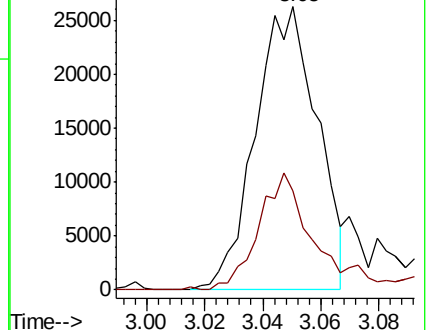
85 100

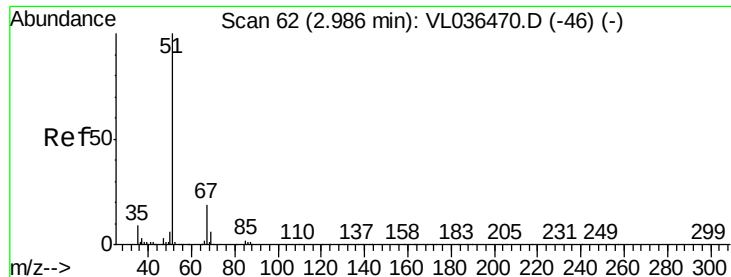
87 33.9 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

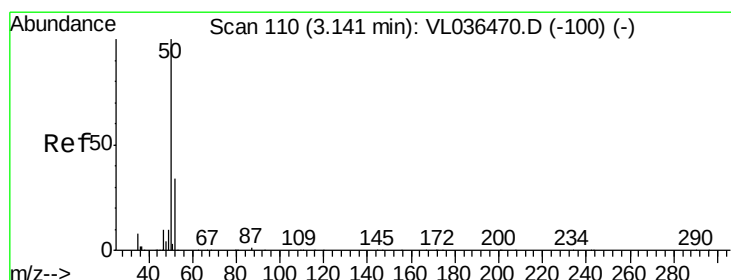
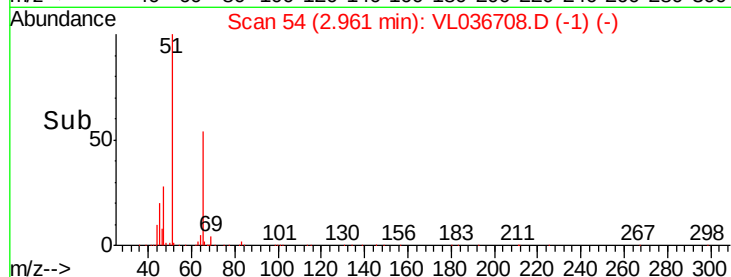
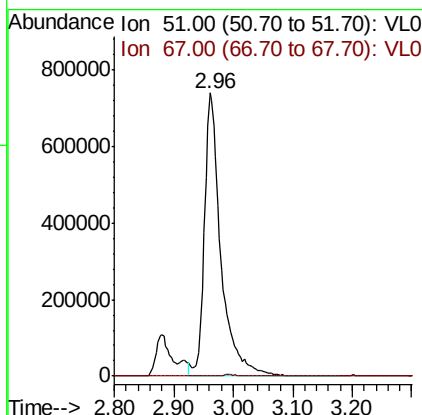
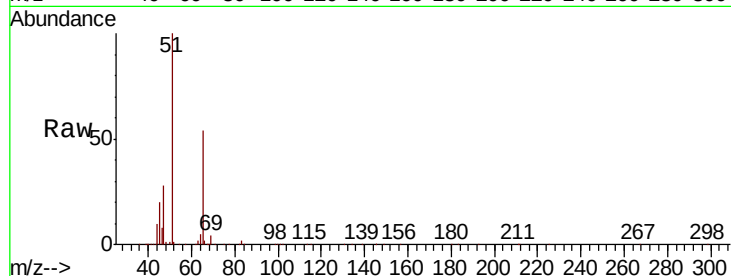




#3
Chlorodifluoromethane
Concen: 5.882 ppbv
RT: 2.96 min Scan# 54
Delta R.T. -0.03 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

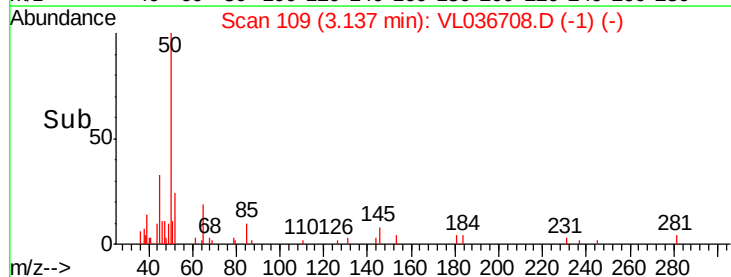
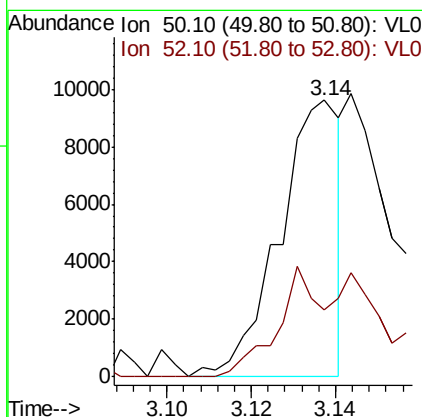
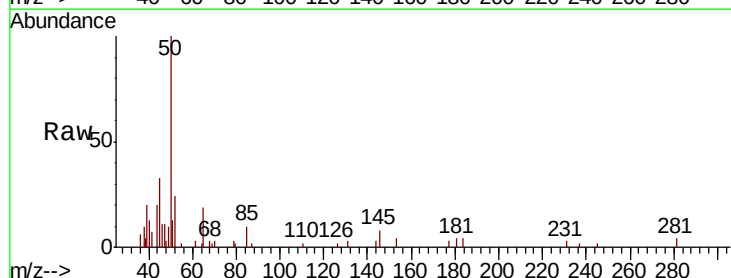
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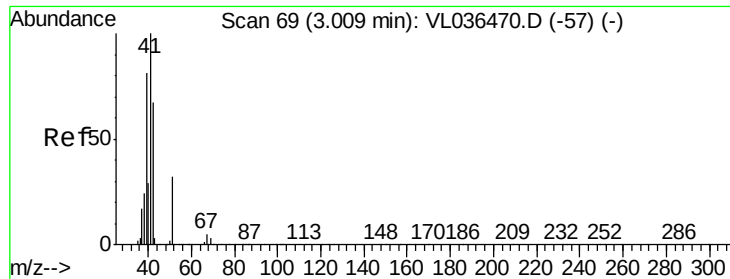
Tot Ion: 51 Resp: 1420334
Ion Ratio Lower Upper
51 100
67 0.5 14.7 22.1#



#4
Chloromethane
Concen: 0.113 ppbv
RT: 3.14 min Scan# 109
Delta R.T. -0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

Tgt Ion: 50 Resp: 9627
Ion Ratio Lower Upper
50 100
52 24.1 27.0 40.6#





#9

Propene

Concen: 3.036 ppbv

RT: 3.20 min Scan# 129

Delta R.T. 0.19 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

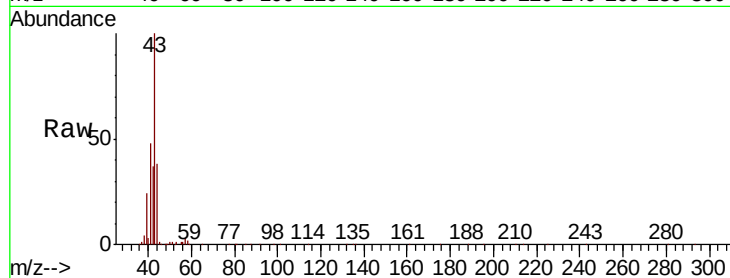
UP-SG-8(2021)

Tot Ion: 41 Resp: 233670

Ion Ratio Lower Upper

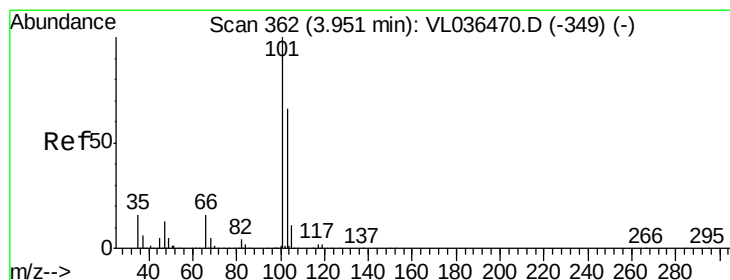
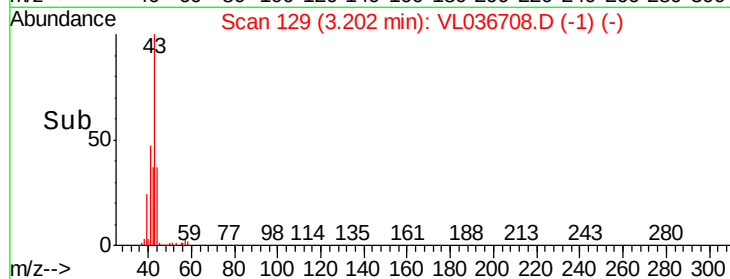
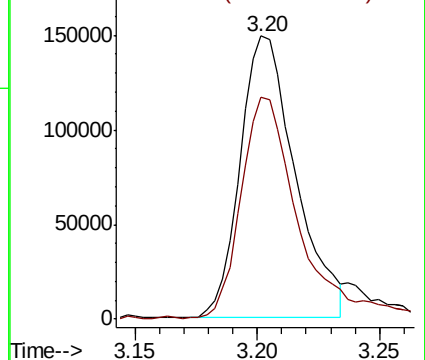
41 100

42 84.8 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.187 ppbv

RT: 3.95 min Scan# 362

Delta R.T. -0.00 min

Lab File: VL036708.D

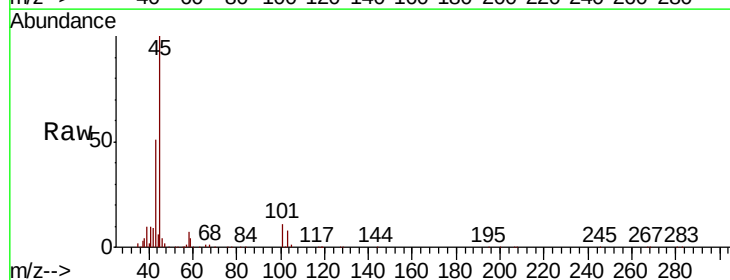
Acq: 6 Apr 2021 21:46

Tgt Ion: 101 Resp: 40131

Ion Ratio Lower Upper

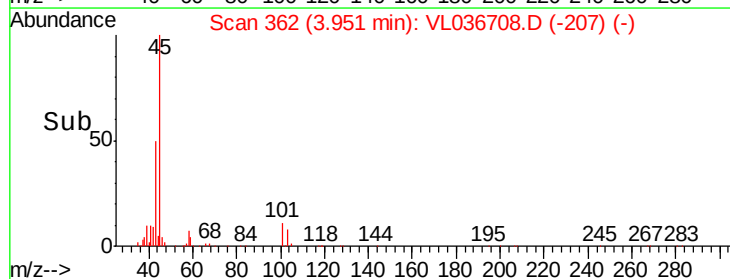
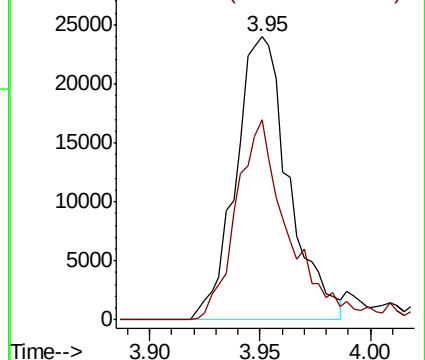
101 100

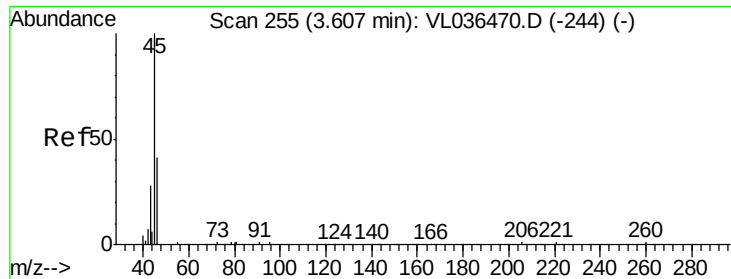
103 70.9 52.5 78.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

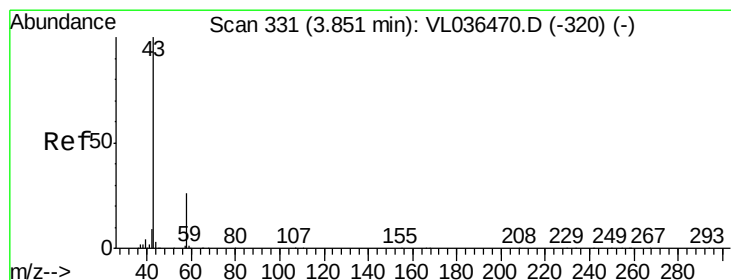
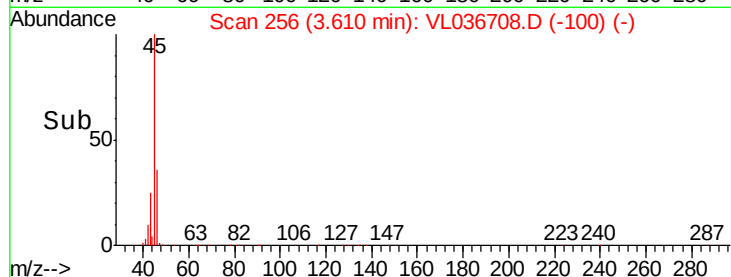
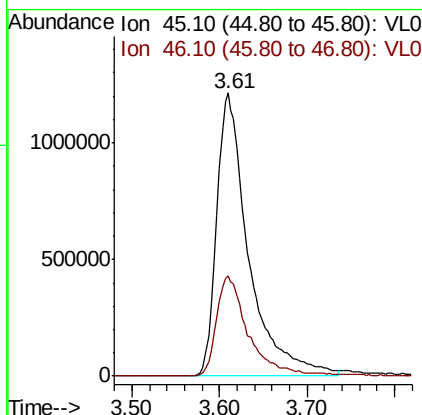
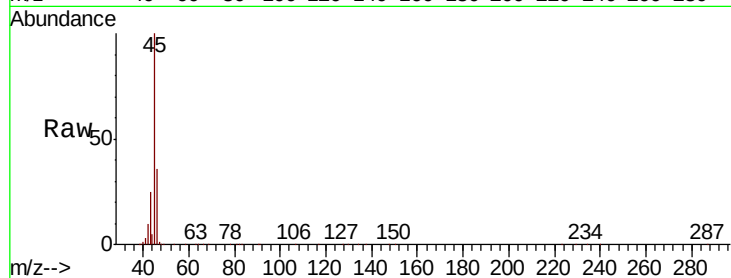




#13
Ethanol
Concen: 335.395 ppbv
RT: 3.61 min Scan# 256
Delta R.T. 0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

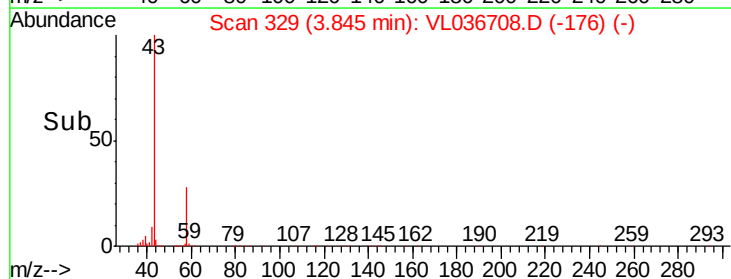
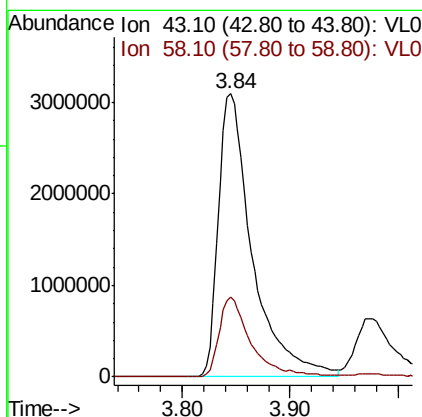
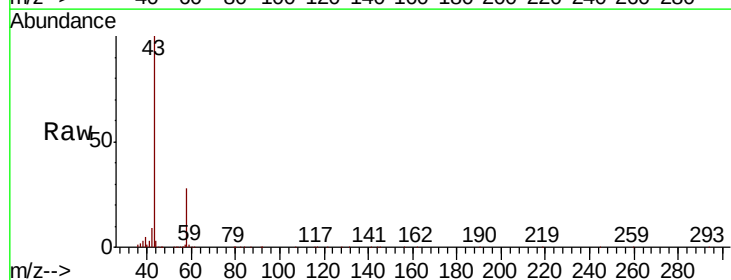
Instrument :
MSVOA_L
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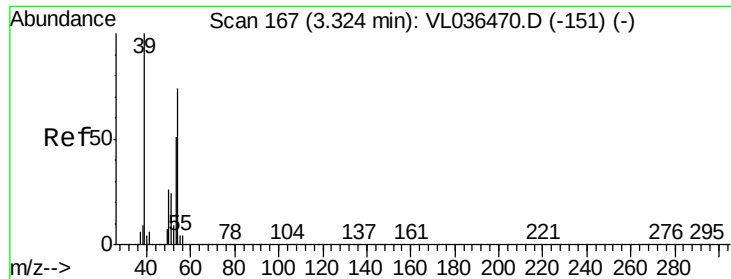
Tot Ion: 45 Resp: 3074363
Ion Ratio Lower Upper
45 100
46 36.6 16.6 66.2



#15
Acetone
Concen: 53.125 ppbv
RT: 3.84 min Scan# 329
Delta R.T. -0.01 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

Tgt Ion: 43 Resp: 6757184
Ion Ratio Lower Upper
43 100
58 26.5 21.2 31.8

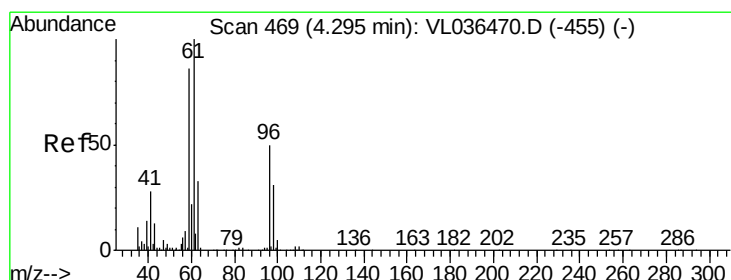
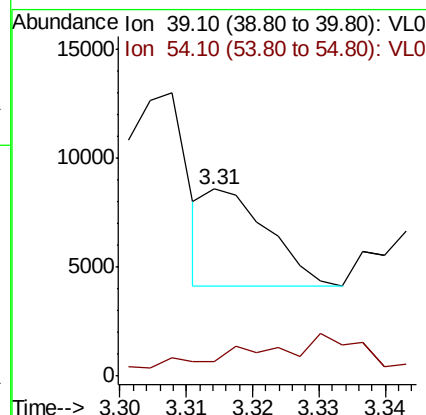
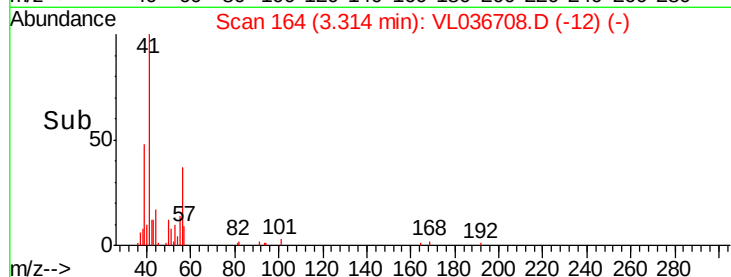
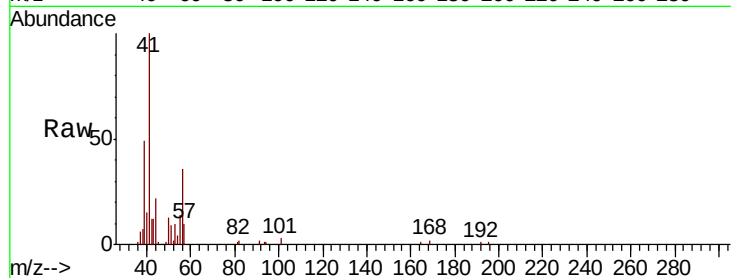




#16
 1,3-Butadiene
 Concen: 0.033 ppbv
 RT: 3.31 min Scan# 164
 Delta R.T. -0.01 min
 Lab File: VL036708.D
 Acq: 6 Apr 2021 21:46

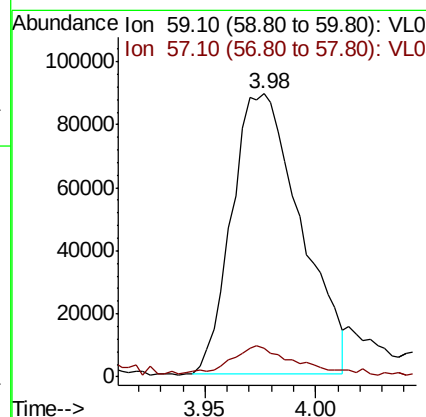
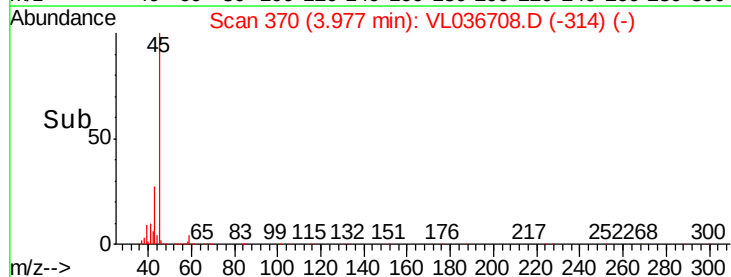
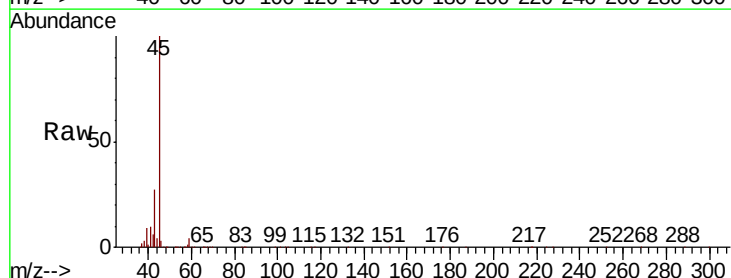
Instrument :
 MSVOA_L
 ClientSampleId :
 UP-SG-8(2021)

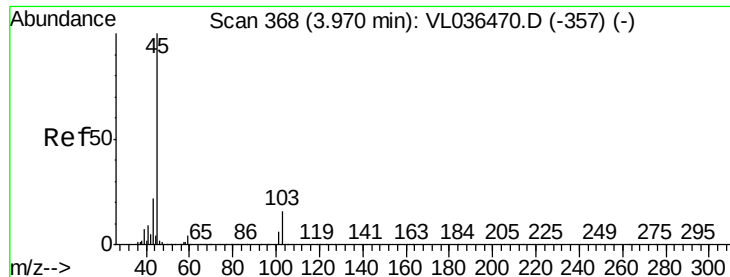
Tot Ion: 39 Resp: 2932
 Ion Ratio Lower Upper
 39 100
 54 132.4 58.8 88.2#



#17
 tert-Butyl alcohol
 Concen: 1.738 ppbv
 RT: 3.98 min Scan# 370
 Delta R.T. -0.32 min
 Lab File: VL036708.D
 Acq: 6 Apr 2021 21:46

Tgt Ion: 59 Resp: 192400
 Ion Ratio Lower Upper
 59 100
 57 9.7 8.6 12.8





#19

Isopropyl Alcohol

Concen: 83.519 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.01 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

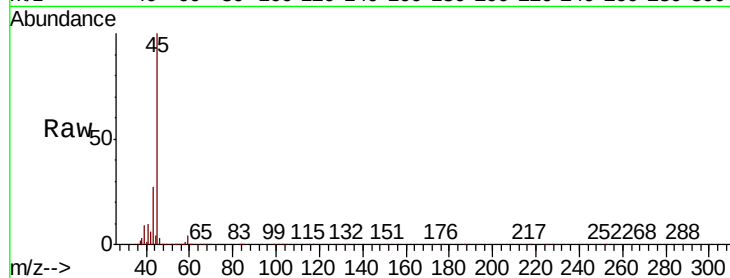
UP-SG-8(2021)

Tot Ion: 45 Resp: 5843784

Ion Ratio Lower Upper

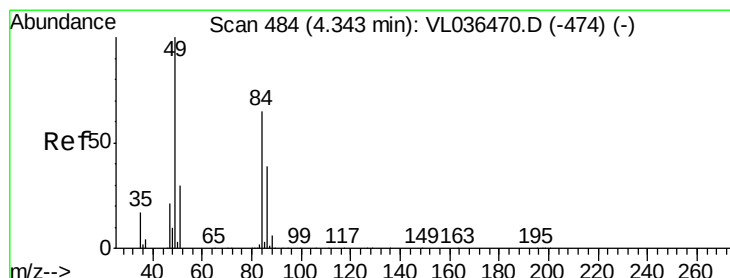
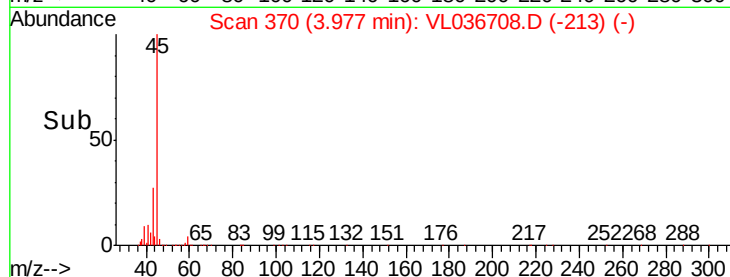
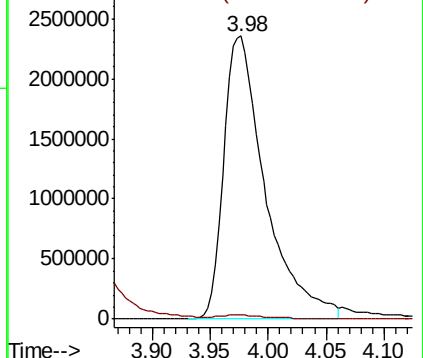
45 100

58 1.4 2.9 4.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 11.979 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.00 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Tgt Ion: 84 Resp: 713411

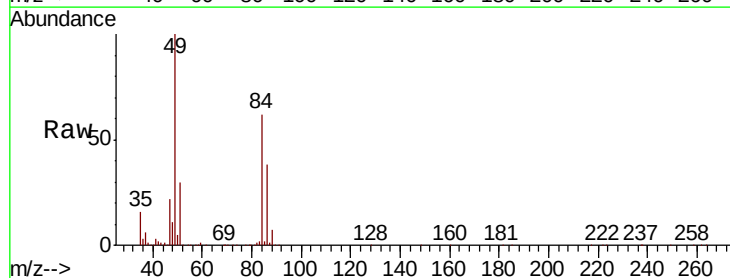
Ion Ratio Lower Upper

84 100

49 162.2 122.9 184.3

51 49.1 36.9 55.3

86 61.2 48.2 72.4

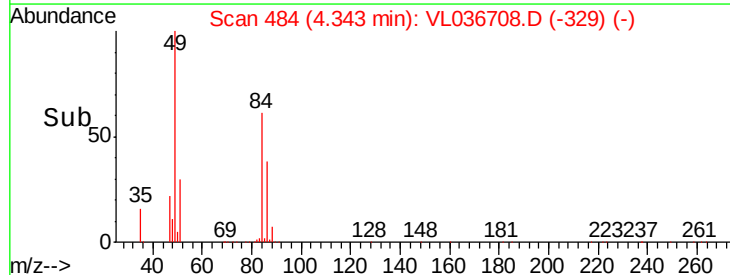
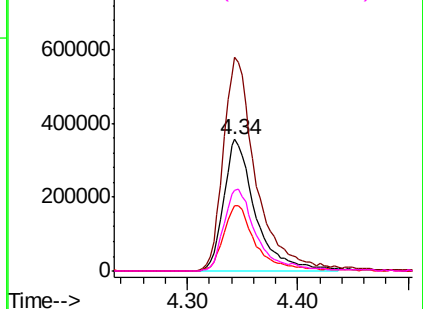


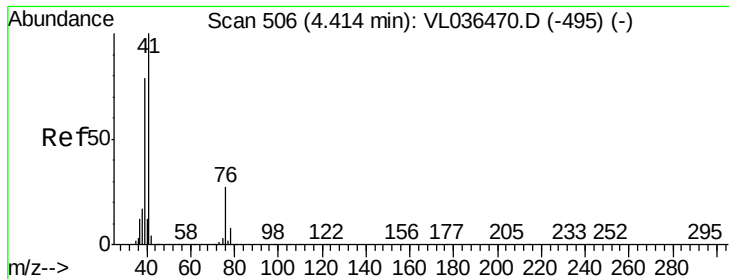
Abundance Ion 84.00 (83.70 to 84.70): VL0

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

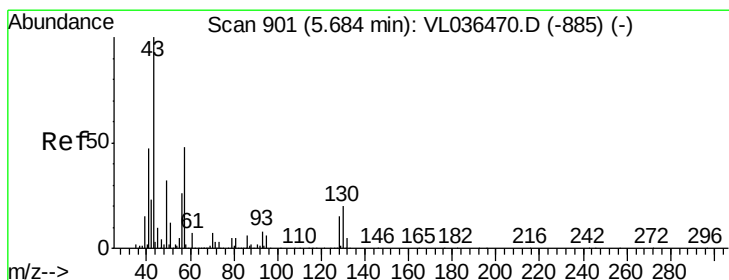
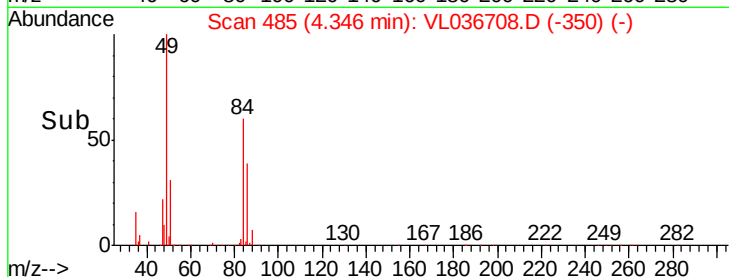
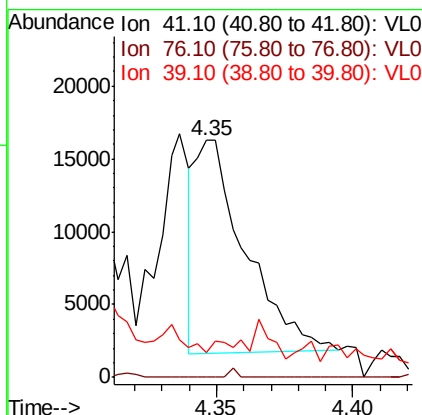
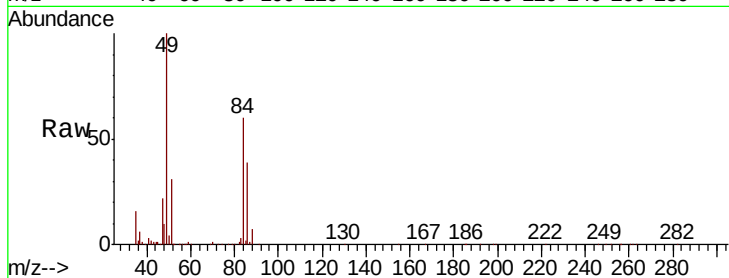




#21
Allvl Chloride
Concen: 0.182 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.07 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

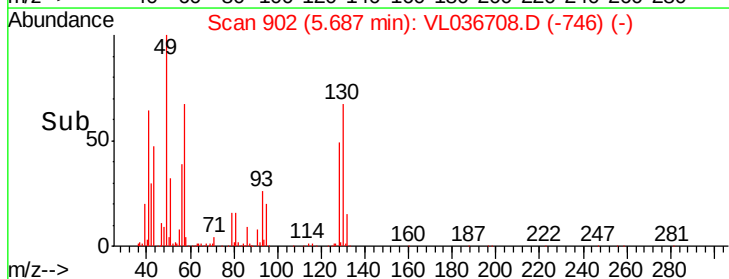
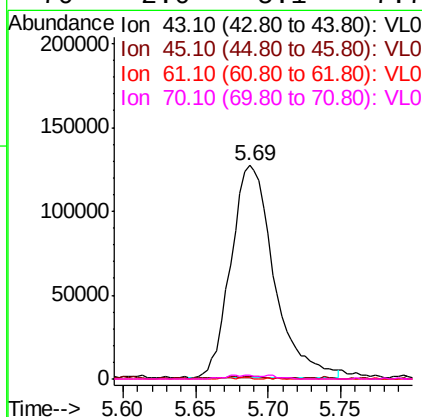
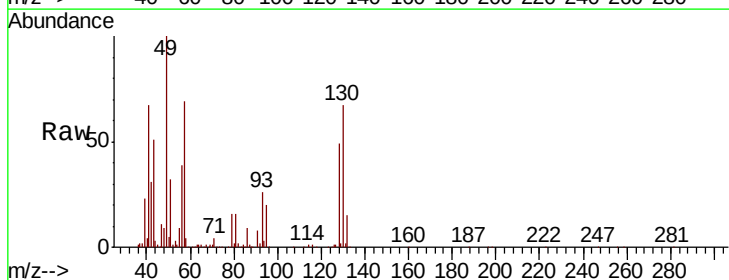
Instrument :
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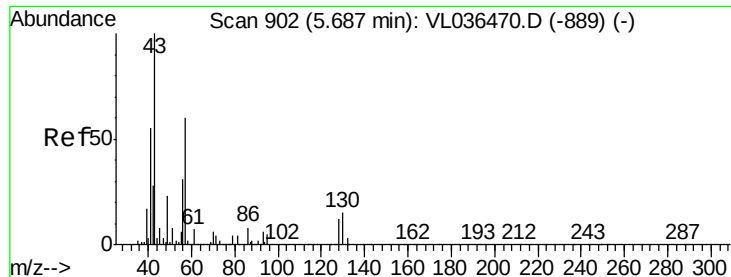
Tot Ion: 41 Resp: 18471
Ion Ratio Lower Upper
41 100
76 32.0 22.9 34.3
39 0.0 67.3 100.9#



#25
Ethyl Acetate
Concen: 0.867 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

Tgt Ion: 43 Resp: 262174
Ion Ratio Lower Upper
43 100
45 0.9 7.9 11.9#
61 0.6 7.4 11.2#
70 2.0 5.1 7.7#

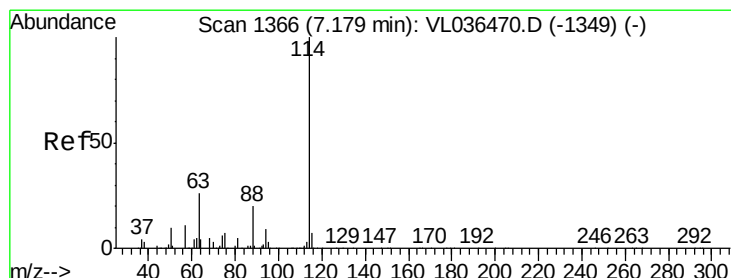
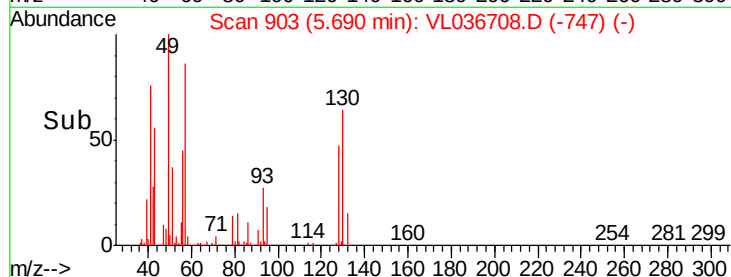
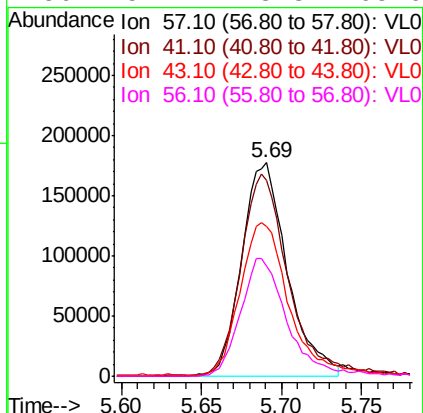
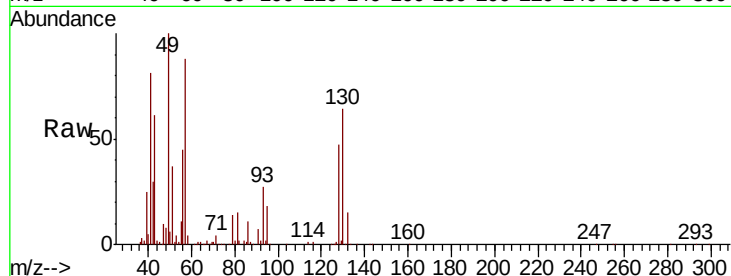




#26
Hexane
Concen: 2.476 ppbv
RT: 5.69 min Scan# 903
Delta R.T. 0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

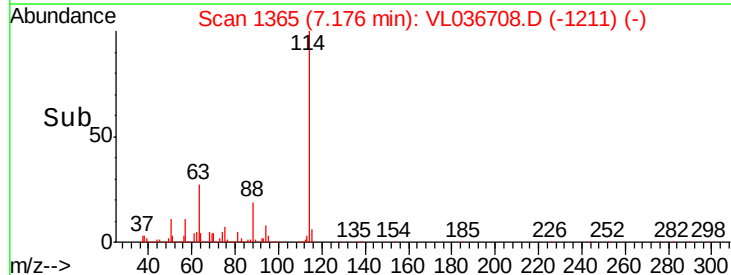
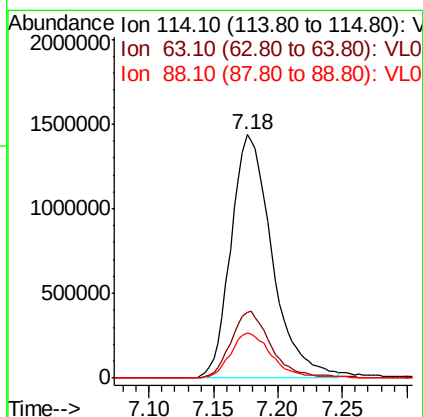
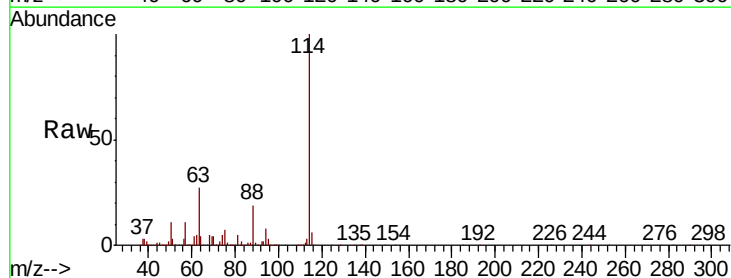
Instrument :
MSVOA_L
ClientSampleId :
UP-SG-8(2021)

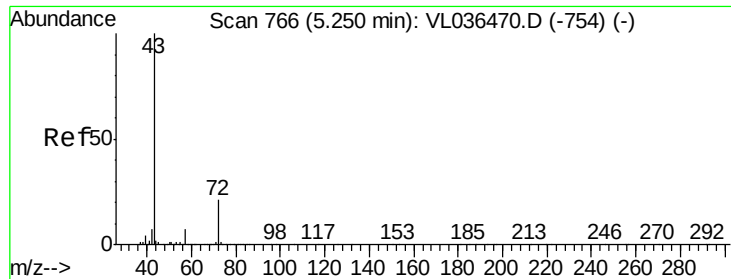
Tot Ion: 57 Resp: 347497
Ion Ratio Lower Upper
57 100
41 100.5 77.2 115.8
43 77.1 173.8 260.6#
56 57.2 43.8 65.6



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

Tgt Ion: 114 Resp: 3181106
Ion Ratio Lower Upper
114 100
63 27.3 22.4 33.6
88 18.9 15.4 23.0





#34

2-Butanone

Concen: 0.297 ppbv

RT: 5.25 min Scan# 765

Delta R.T. -0.00 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

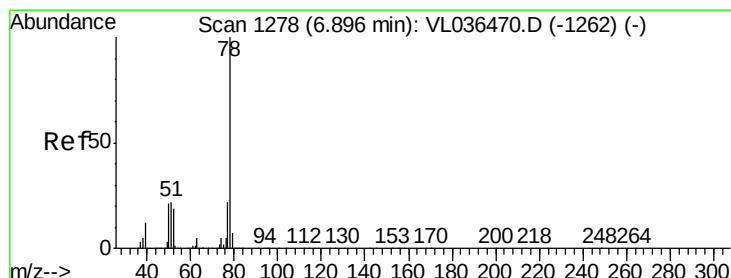
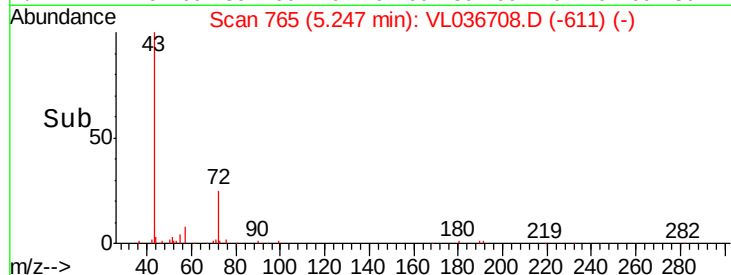
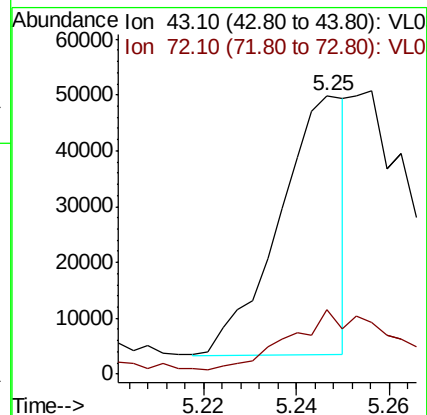
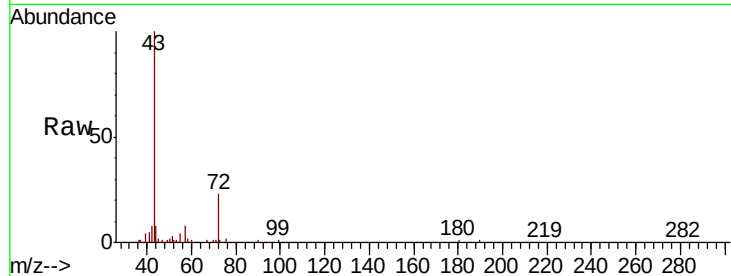
UP-SG-8(2021)

Tot Ion: 43 Resp: 46058

Ion Ratio Lower Upper

43 100

72 47.9 17.0 25.6#



#36

Benzene

Concen: 0.155 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

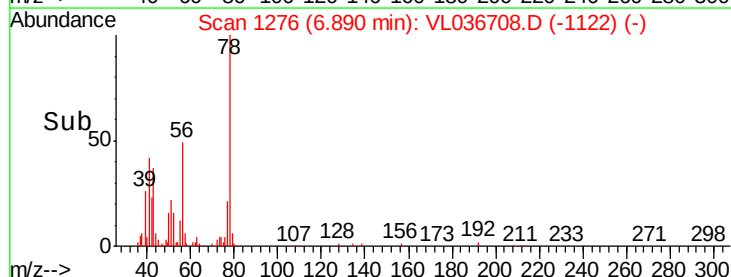
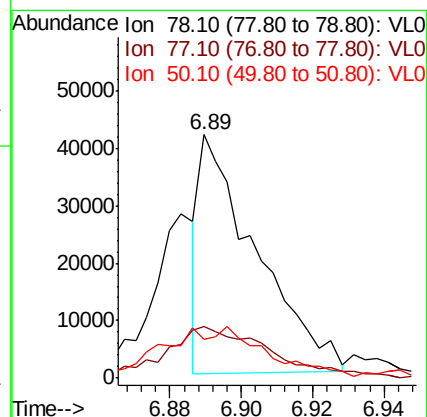
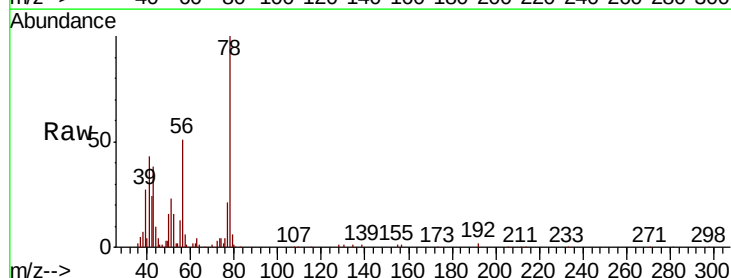
Tgt Ion: 78 Resp: 45605

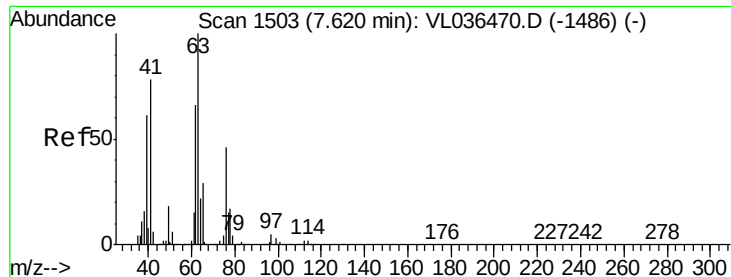
Ion Ratio Lower Upper

78 100

77 19.8 18.0 27.0

50 14.0 16.5 24.7#





#39

1,2-Dichloropropane

Concen: 7.044 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.44 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-8(2021)

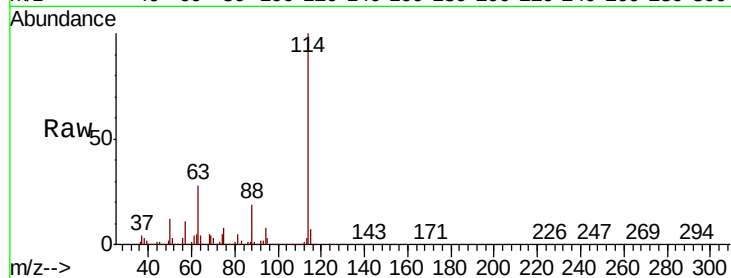
Tot Ion: 63 Resp: 838262

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

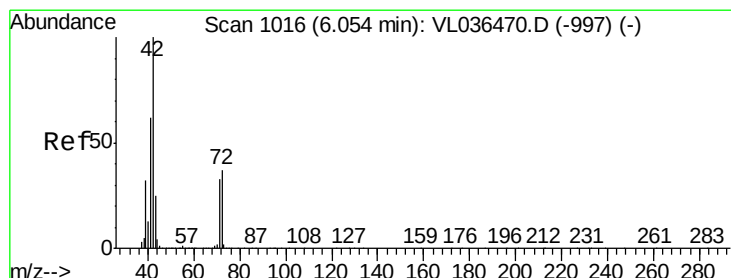
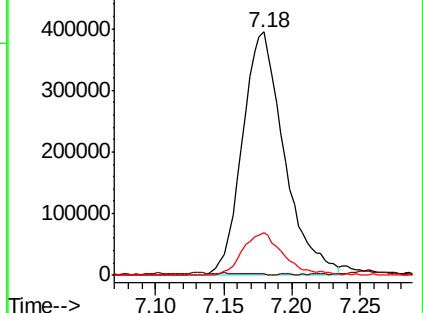
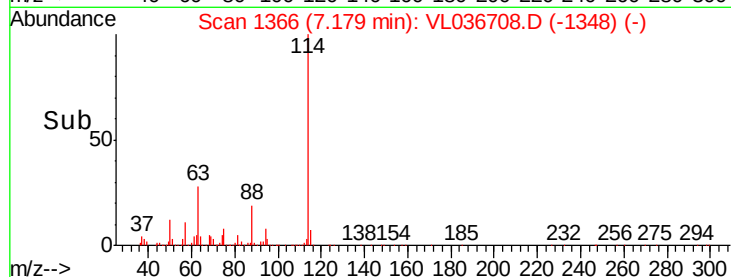
62 17.6 52.8 79.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.039 ppbv

RT: 6.06 min Scan# 1017

Delta R.T. 0.00 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

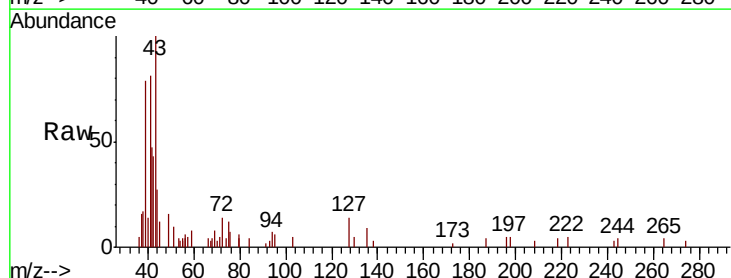
Tgt Ion: 42 Resp: 2807

Ion Ratio Lower Upper

42 100

72 109.7 27.6 41.4#

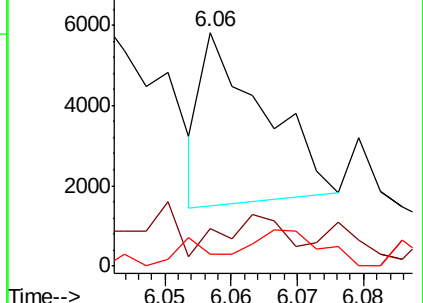
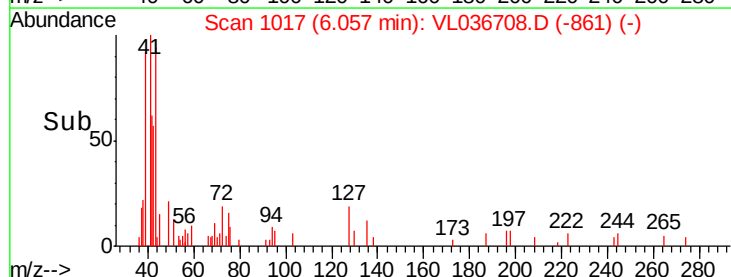
71 0.0 27.0 40.4#

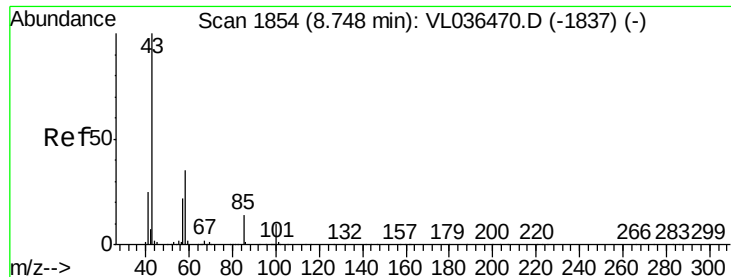


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0

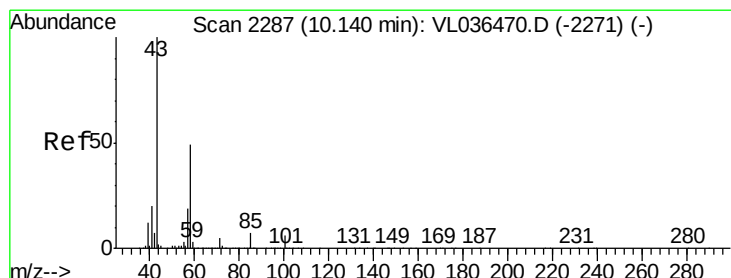
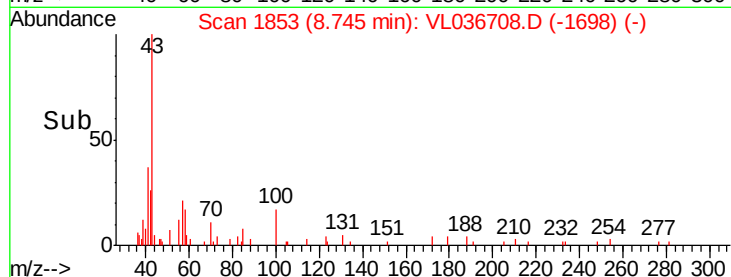
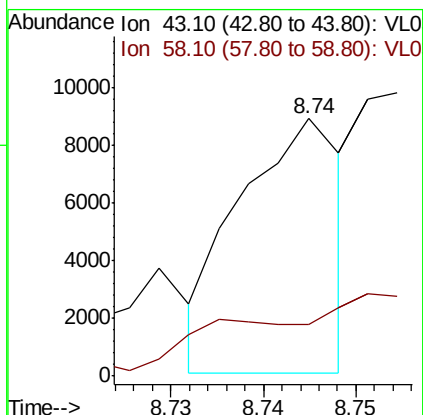
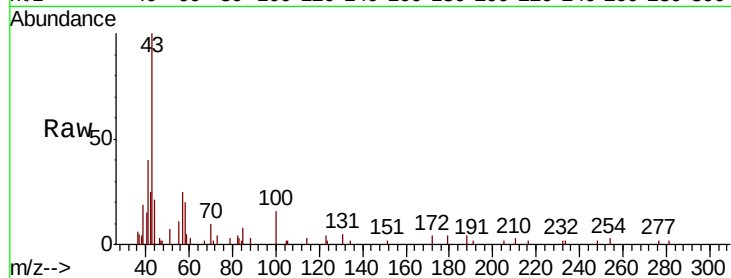




#50
4-Methyl-2-Pentanone
Concen: 0.030 ppbv
RT: 8.74 min Scan# 1853
Delta R.T. -0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

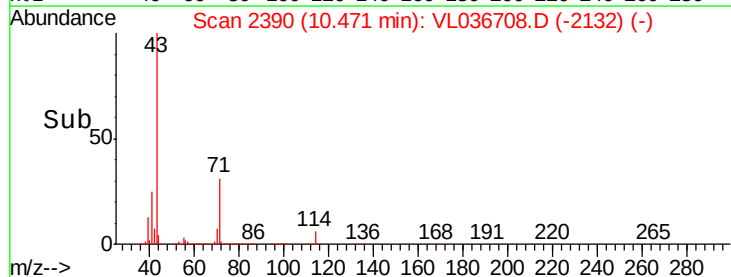
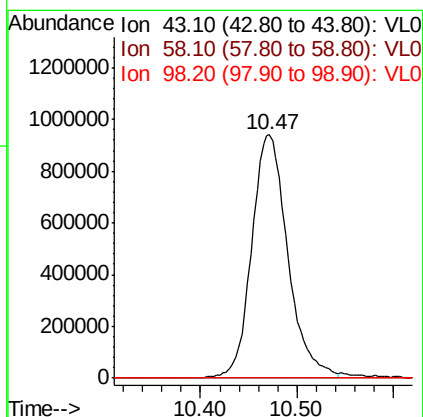
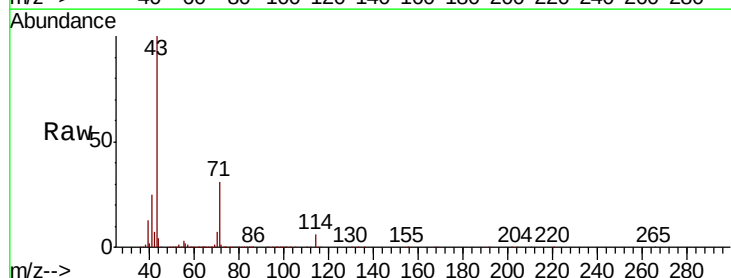
Instrument :
MSVOA_L
ClientSampleId :
UP-SG-8(2021)

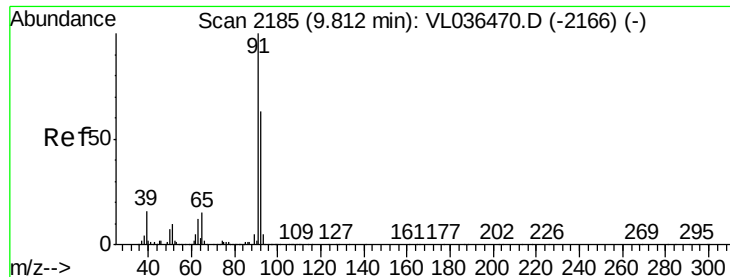
Tot Ion: 43 Resp: 6811
Ion Ratio Lower Upper
43 100
58 0.0 28.2 42.2#



#51
2-Hexanone
Concen: 21.493 ppbv
RT: 10.47 min Scan# 2390
Delta R.T. 0.33 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

Tgt Ion: 43 Resp: 2436965
Ion Ratio Lower Upper
43 100
58 0.0 37.7 56.5#
98 0.2 0.2 0.2#





#53

Toluene

Concen: 0.198 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.01 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

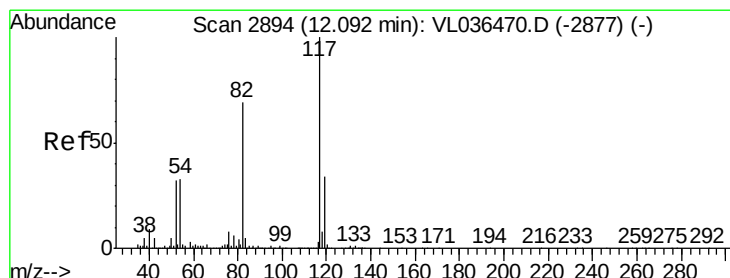
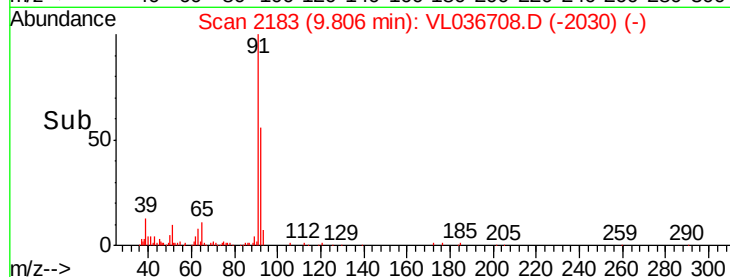
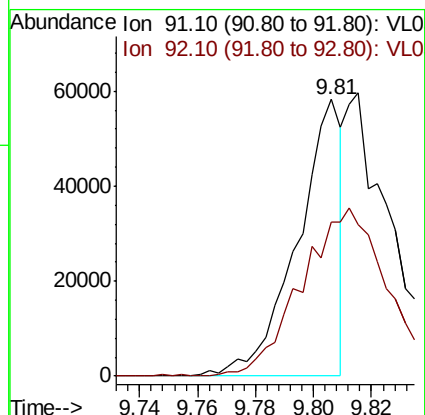
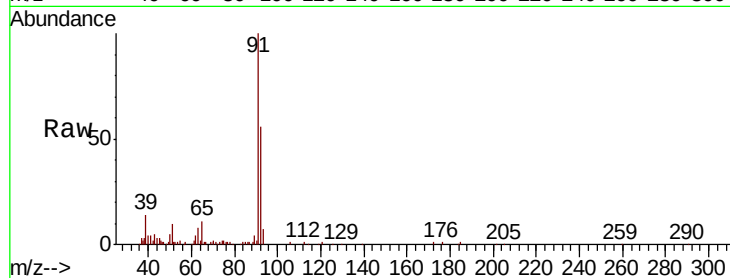
UP-SG-8(2021)

Tot Ion: 91 Resp: 61967

Ion Ratio Lower Upper

91 100

92 0.0 48.8 73.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

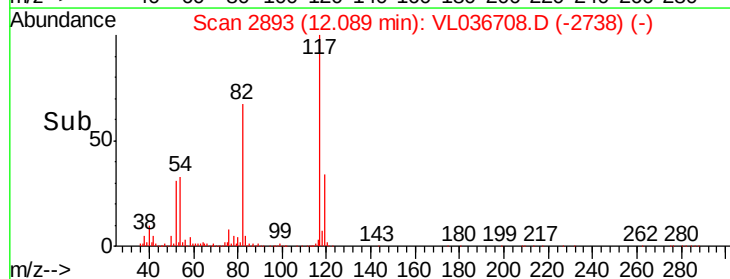
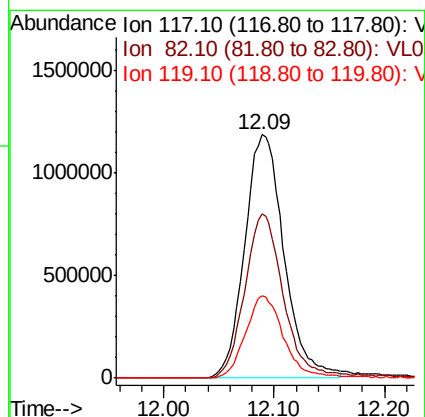
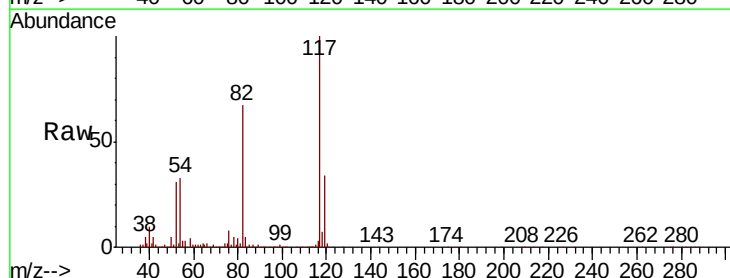
Tgt Ion: 117 Resp: 2944403

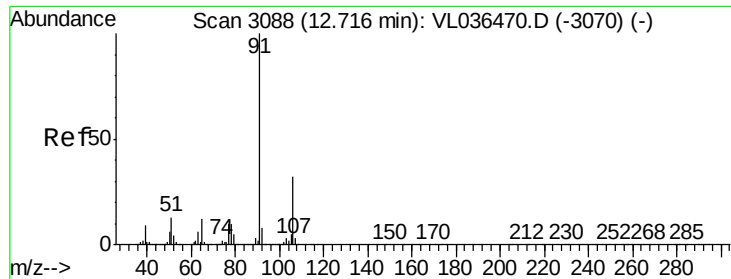
Ion Ratio Lower Upper

117 100

82 68.2 57.4 86.0

119 33.6 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.204 ppbv

RT: 12.71 min Scan# 3087

Delta R.T. -0.00 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

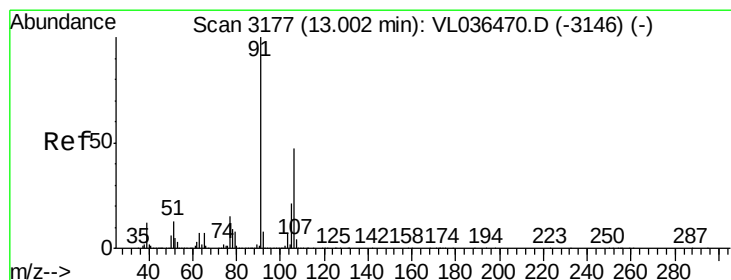
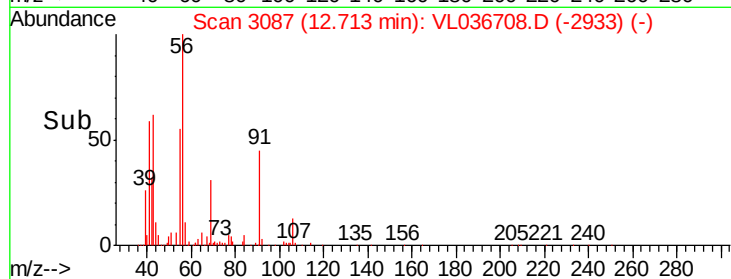
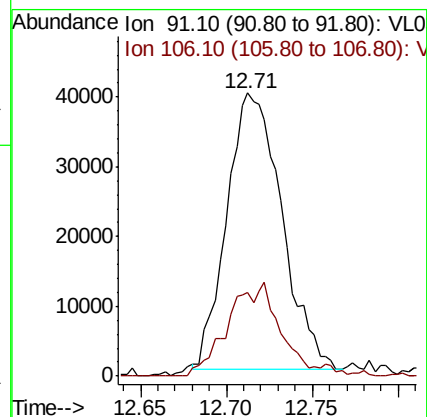
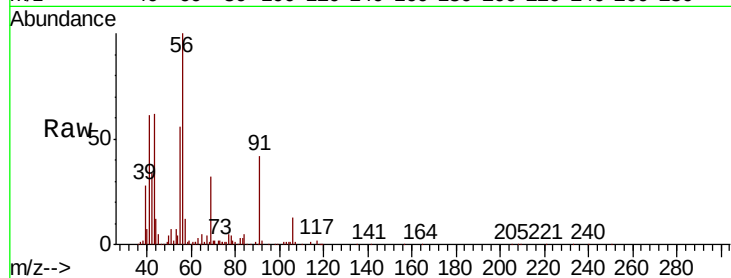
UP-SG-8(2021)

Tot Ion: 91 Resp: 87433

Ion Ratio Lower Upper

91 100

106 28.2 25.3 37.9



#59

m/p-Xylene

Concen: 0.432 ppbv

RT: 12.97 min Scan# 3168

Delta R.T. -0.03 min

Lab File: VL036708.D

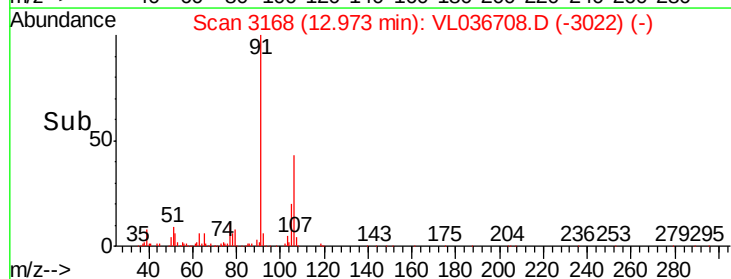
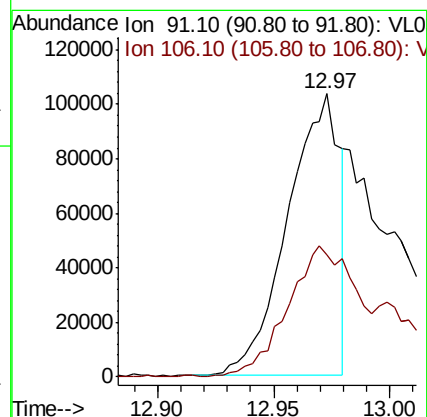
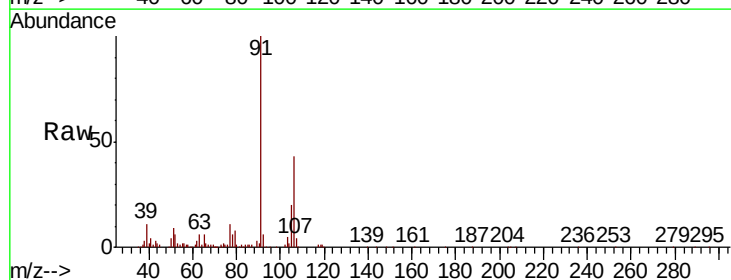
Acq: 6 Apr 2021 21:46

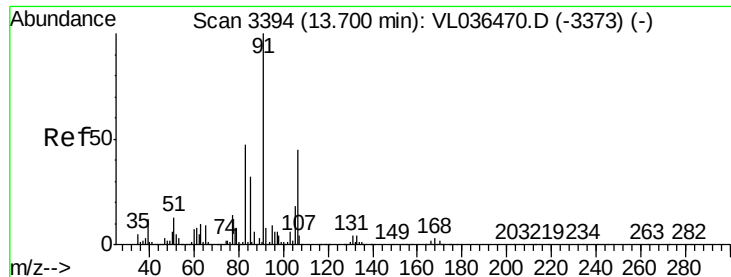
Tgt Ion: 91 Resp: 161484

Ion Ratio Lower Upper

91 100

106 88.0 35.3 52.9#

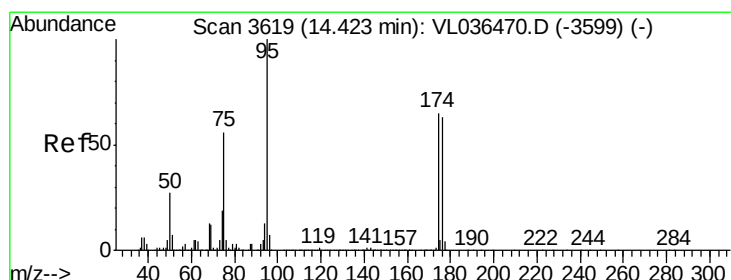
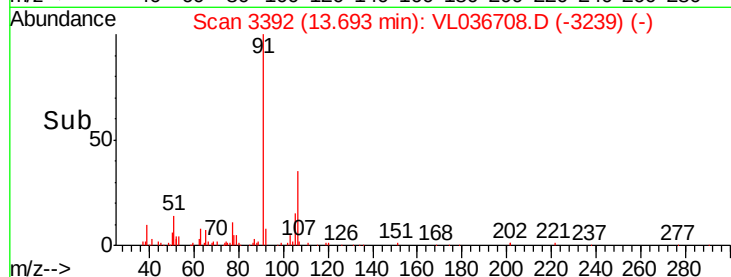
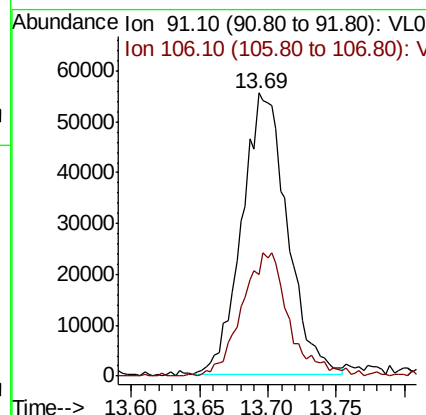
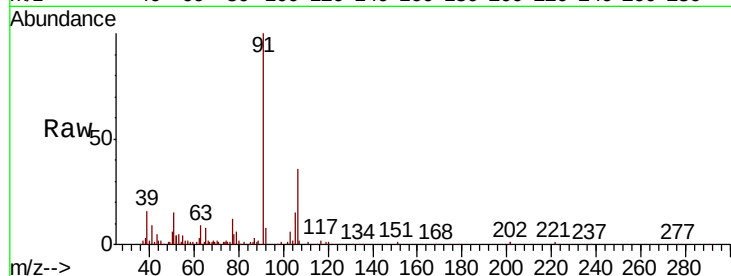




#60
o-Xylene
Concen: 0.357 ppbv
RT: 13.69 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

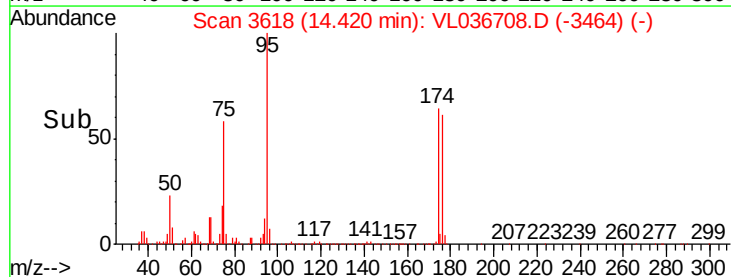
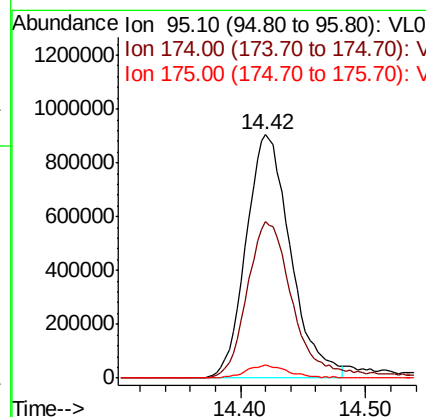
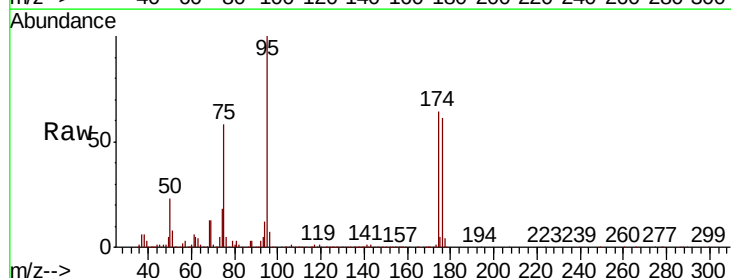
Instrument :
MSVOA_L
ClientSampleId :
UP-SG-8(2021)

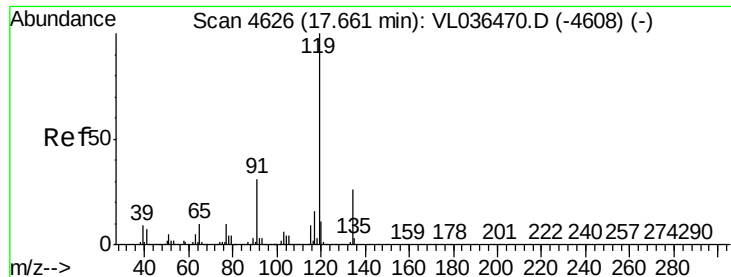
Tot Ion: 91 Resp: 128994
Ion Ratio Lower Upper
91 100
106 45.7 22.3 66.9



#68
1-Bromo-4-Fluorobenzene
Concen: 9.523 ppbv
RT: 14.42 min Scan# 3618
Delta R.T. -0.00 min
Lab File: VL036708.D
Acq: 6 Apr 2021 21:46

Tgt Ion: 95 Resp: 2234664
Ion Ratio Lower Upper
95 100
174 67.7 51.0 76.6
175 5.1 3.9 5.9





#69

p-Isopropyltoluene

Concen: 0.123 ppbv

RT: 17.66 min Scan# 4627

Delta R.T. 0.00 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-8(2021)

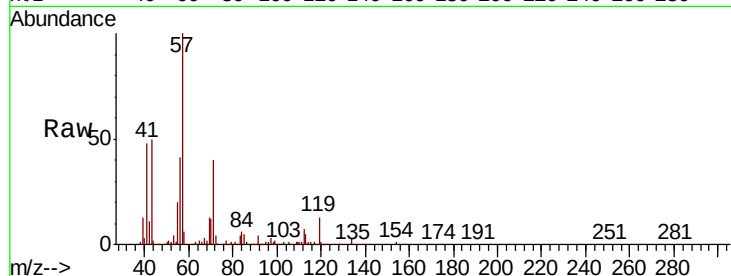
Tot Ion:119 Resp: 57005

Ion Ratio Lower Upper

119 100

134 26.0 20.6 30.8

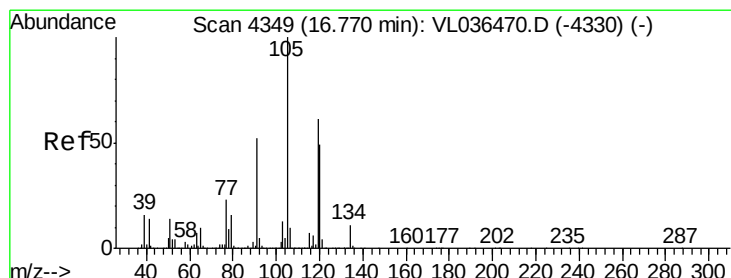
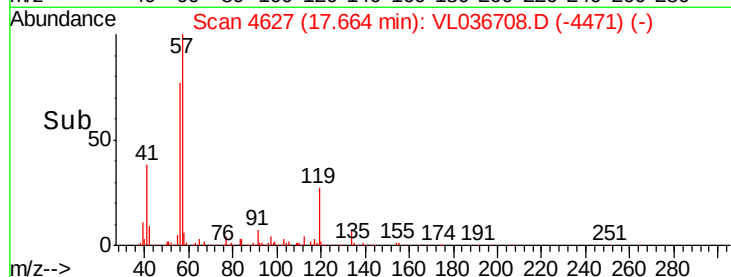
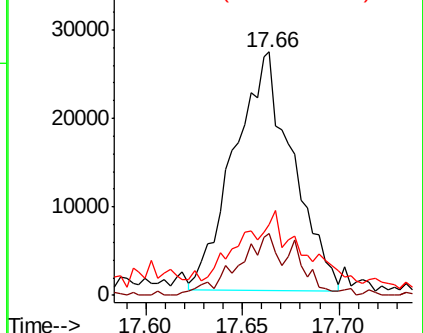
91 54.2 25.0 37.6#



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



#74

1,2,4-Trimethylbenzene

Concen: 0.129 ppbv

RT: 16.76 min Scan# 4347

Delta R.T. -0.01 min

Lab File: VL036708.D

Acq: 6 Apr 2021 21:46

Tgt Ion:105 Resp: 51018

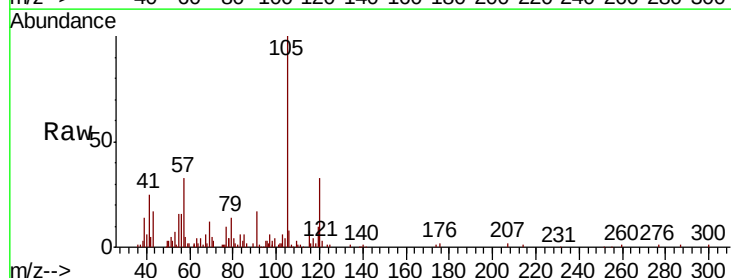
Ion Ratio Lower Upper

105 100

120 33.3 39.2 58.8#

91 15.3 42.6 64.0#

77 9.2 18.6 28.0#



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

