

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110420\
 Data File : VL035844.D
 Acq On : 4 Nov 2020 22:42
 Operator : SY/AP
 Sample : L4220-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 05 02:58:26 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	838459	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.14	114	3853445	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.05	117	3465233	10.00	ppbv	-0.04

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.38	95	2433279	9.88	ppbv	-0.05
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.80%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.02	85	48620	0.308 ppbv	94
3) Chlorodifluoromethane	2.97	51	48942	0.487 ppbv #	88
4) Chloromethane	3.11	50	24027	0.493 ppbv	100
9) Propene	2.99	41	65486	1.782 ppbv	86
11) Trichlorofluoromethane	3.92	101	49384	0.249 ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.46	101	10771	0.073 ppbv	94
13) Ethanol	3.59	45	135941	17.051 ppbv	95
15) Acetone	3.83	43	409165	4.565 ppbv	96
16) 1,3-Butadiene	3.28	39	1936	0.050 ppbv #	1
19) Isopropyl Alcohol	3.96	45	12466	0.226 ppbv #	90
20) Methylene Chloride	4.31	84	1155926	18.318 ppbv	99
23) Vinyl Acetate	5.03	43	13773	0.110 ppbv #	45
25) Ethyl Acetate	5.65	43	366151	2.073 ppbv #	73
26) Hexane	5.65	57	663750	6.816 ppbv #	45
30) Cyclohexane	7.10	84	6773	0.064 ppbv #	16
34) 2-Butanone	5.22	43	19940	0.159 ppbv #	80
35) Carbon Tetrachloride	6.99	117	11138	0.054 ppbv	88
36) Benzene	6.86	78	91643	0.320 ppbv	94
39) 1,2-Dichloropropane	7.14	63	692404	7.179 ppbv #	30
41) Tetrahydrofuran	5.65	42	184091	2.591 ppbv #	41
44) 2,2,4-Trimethylpentane	7.84	57	49639	0.131 ppbv #	79
53) Toluene	9.77	91	211964	0.613 ppbv	99
58) Ethyl Benzene	12.68	91	17485	0.041 ppbv	93
59) m/p-Xylene	12.95	91	30501	0.085 ppbv #	28
60) o-Xylene	13.65	91	18572	0.053 ppbv #	51
74) 1,2,4-Trimethylbenzene	16.73	105	43266	0.105 ppbv #	66

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 886

Delta R.T. -0.03 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

ClientSampleId :

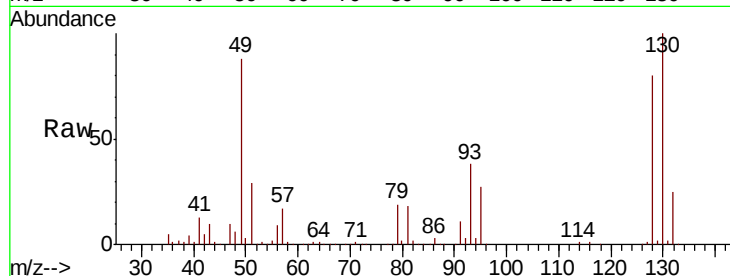
Tot Ion: 49 Resp: 838459

Ion Ratio Lower Upper

49 100

128 93.7 41.5 124.6

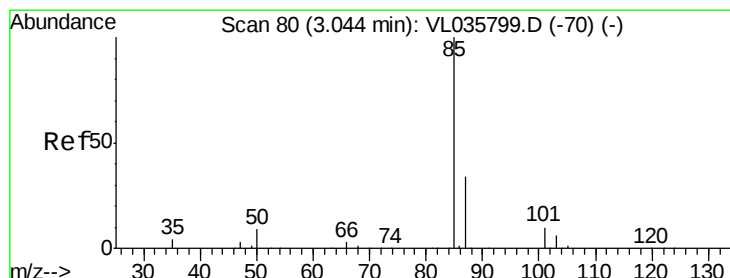
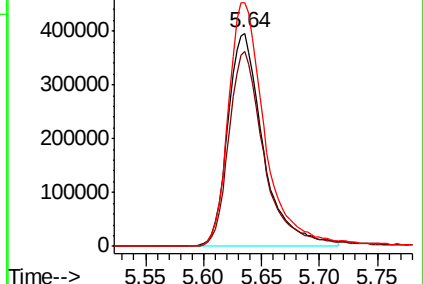
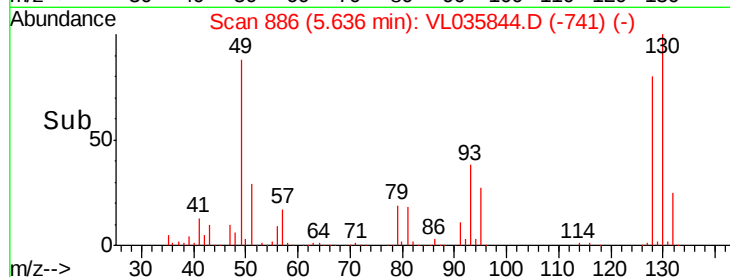
130 120.3 53.7 161.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.308 ppbv

RT: 3.02 min Scan# 73

Delta R.T. -0.02 min

Lab File: VL035844.D

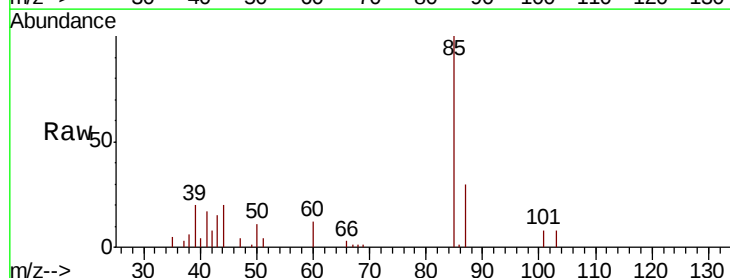
Acq: 4 Nov 2020 22:42

Tgt Ion: 85 Resp: 48620

Ion Ratio Lower Upper

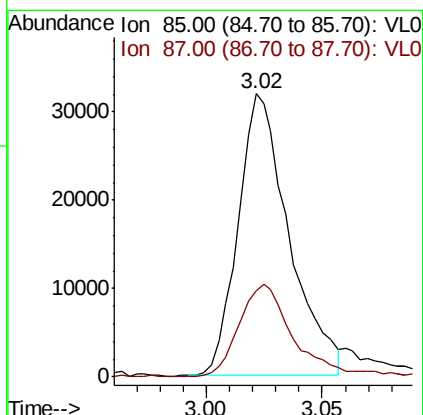
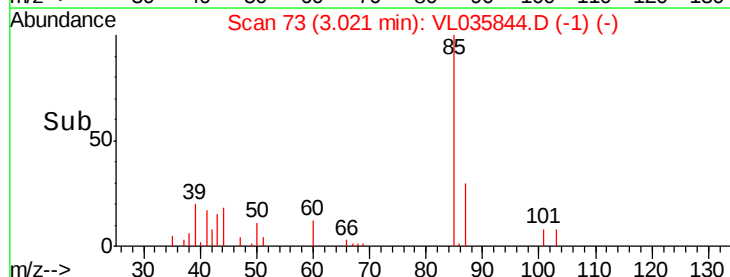
85 100

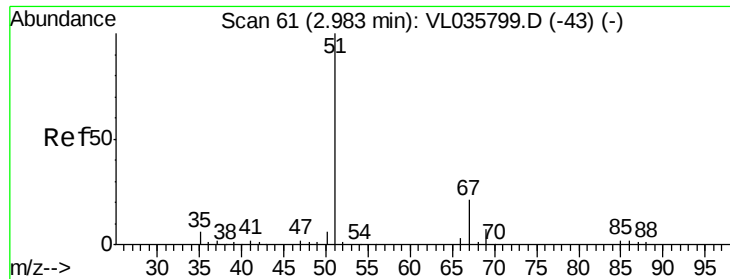
87 30.5 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.487 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.02 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

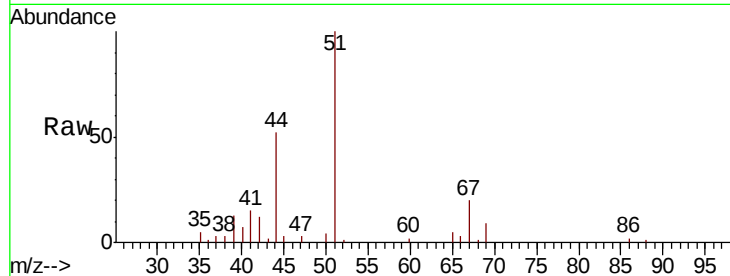
ClientSampled :

Tot Ion: 51 Resp: 48942

Ion Ratio Lower Upper

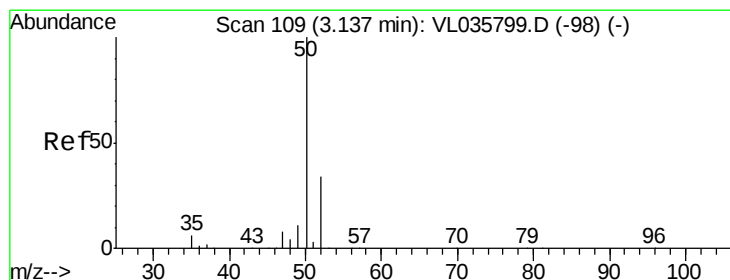
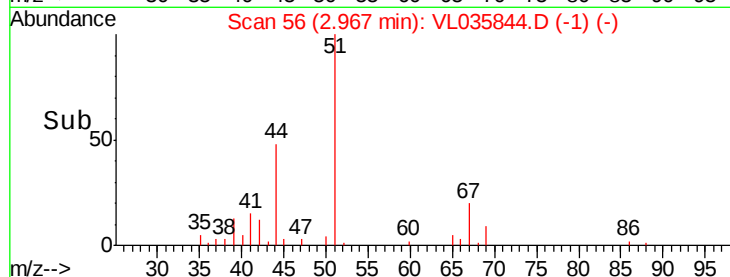
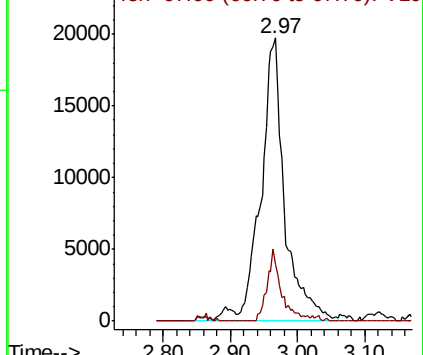
51 100

67 15.6 17.0 25.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.493 ppbv

RT: 3.11 min Scan# 102

Delta R.T. -0.02 min

Lab File: VL035844.D

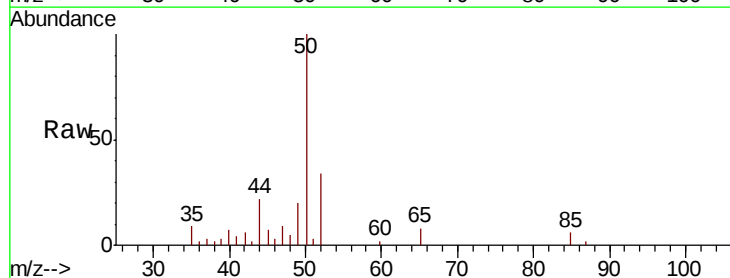
Acq: 4 Nov 2020 22:42

Tgt Ion: 50 Resp: 24027

Ion Ratio Lower Upper

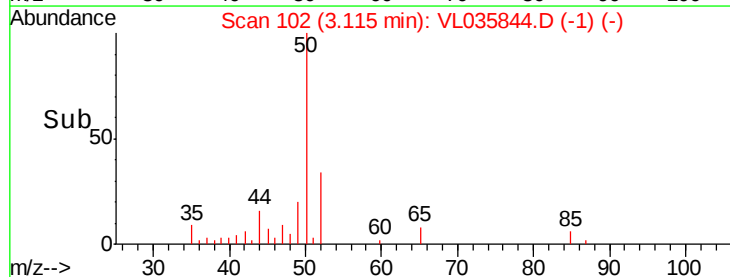
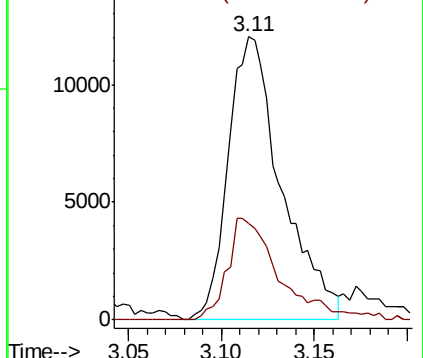
50 100

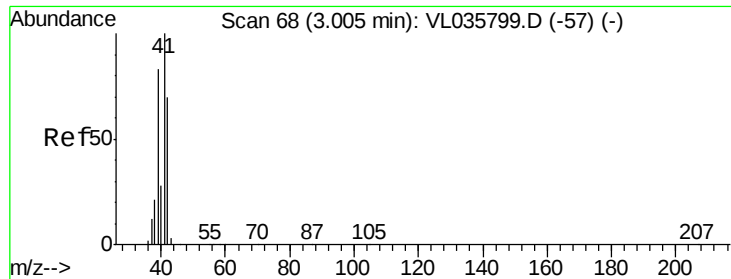
52 34.1 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.782 ppbv

RT: 2.99 min Scan# 62

Delta R.T. -0.02 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

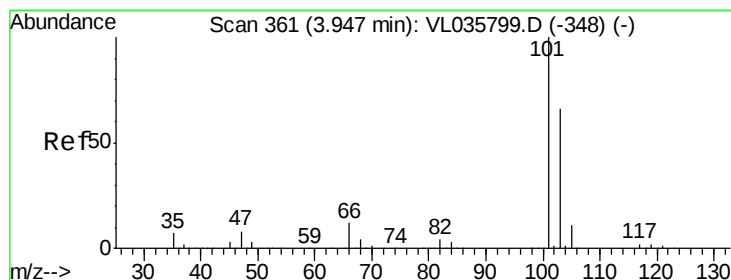
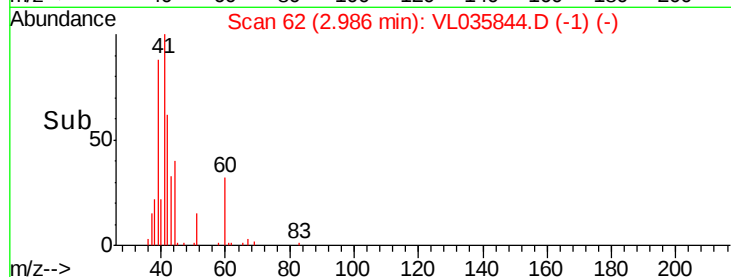
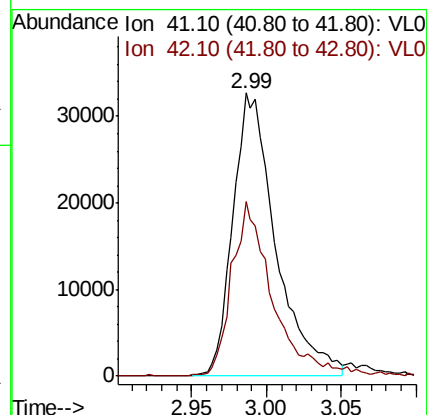
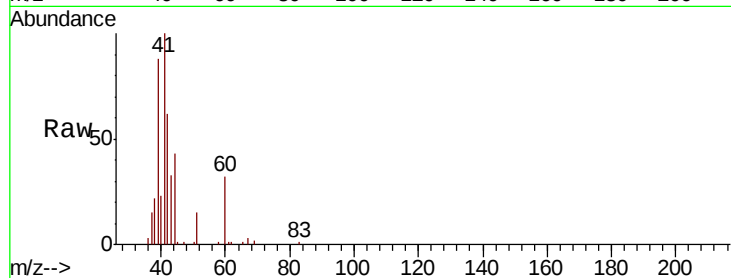
ClientSampleId :

Tot Ion: 41 Resp: 65486

Ion Ratio Lower Upper

41 100

42 59.1 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.249 ppbv

RT: 3.92 min Scan# 353

Delta R.T. -0.03 min

Lab File: VL035844.D

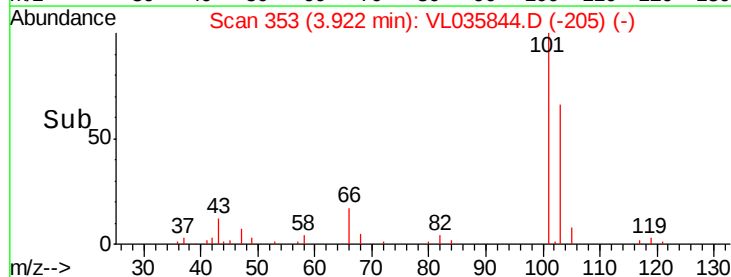
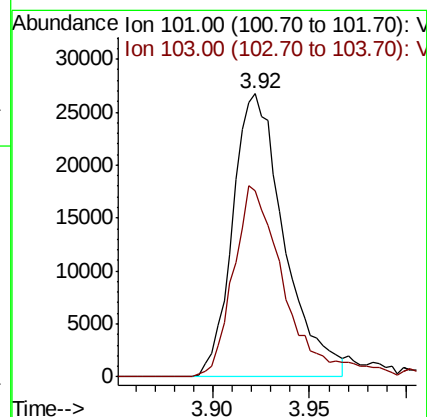
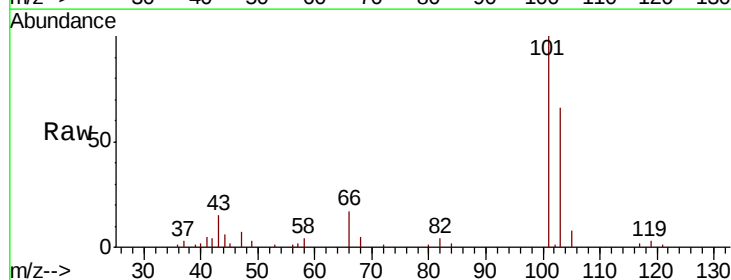
Acq: 4 Nov 2020 22:42

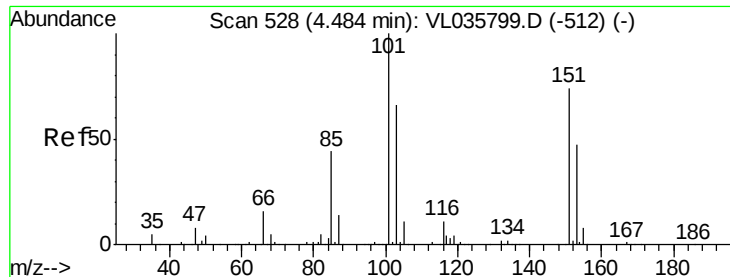
Tgt Ion: 101 Resp: 49384

Ion Ratio Lower Upper

101 100

103 65.9 53.0 79.4

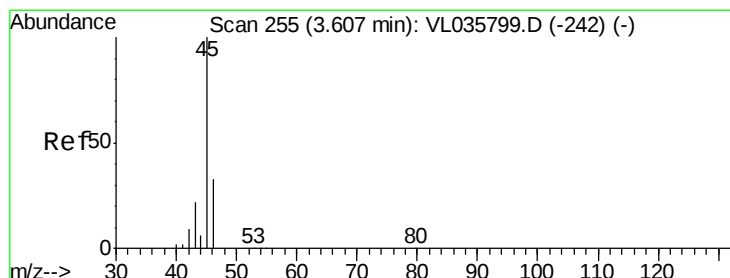
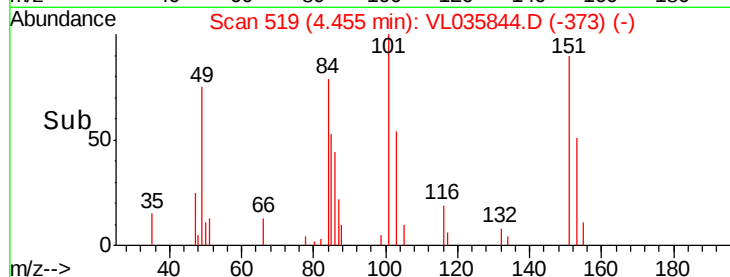
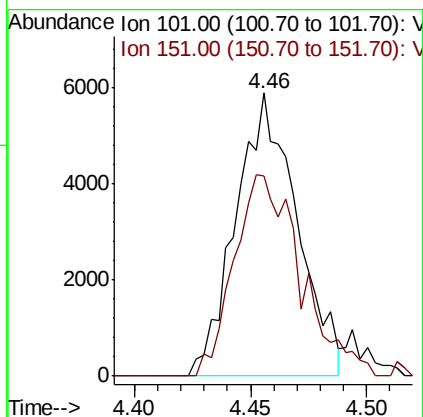
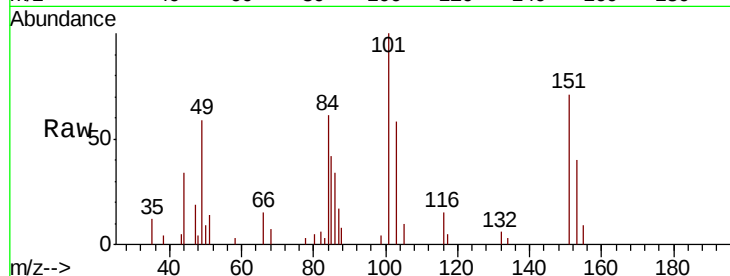




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.073 ppbv
 RT: 4.46 min Scan# 519
 Delta R.T. -0.03 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

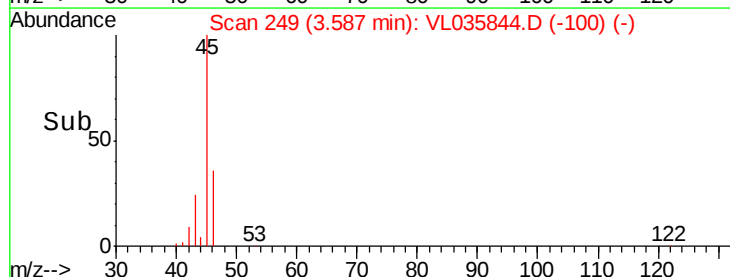
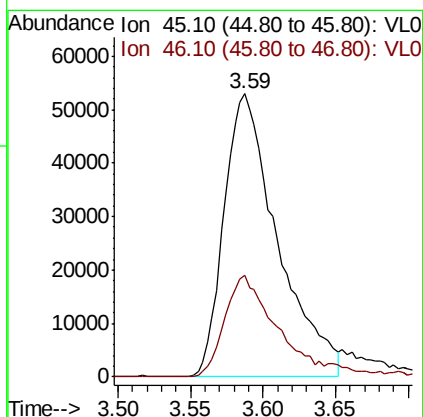
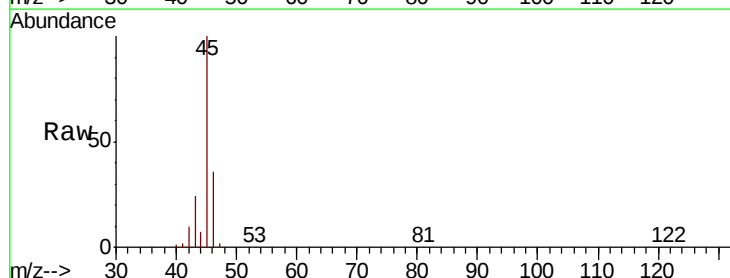
Instrument :
 MSVOA_L
 ClientSampleId :

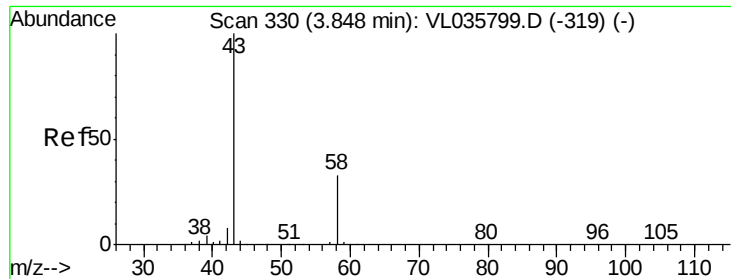
Tot Ion:101 Resp: 10771
 Ion Ratio Lower Upper
 101 100
 151 78.7 58.9 88.3



#13
 Ethanol
 Concen: 17.051 ppbv
 RT: 3.59 min Scan# 249
 Delta R.T. -0.02 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

Tgt Ion: 45 Resp: 135941
 Ion Ratio Lower Upper
 45 100
 46 37.4 16.1 64.5





#15

Acetone

Concen: 4.565 ppbv

RT: 3.83 min Scan# 323

Delta R.T. -0.02 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

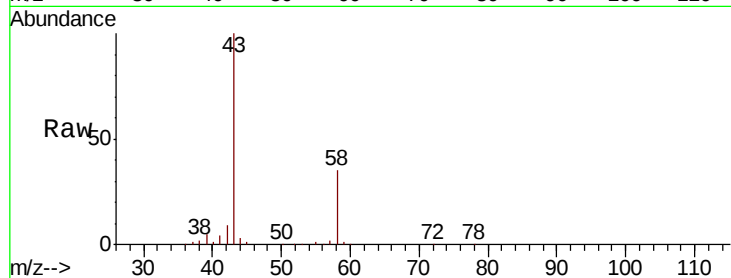
ClientSampleId :

Tot Ion: 43 Resp: 409165

Ion Ratio Lower Upper

43 100

58 32.0 27.5 41.3



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.83

200000

150000

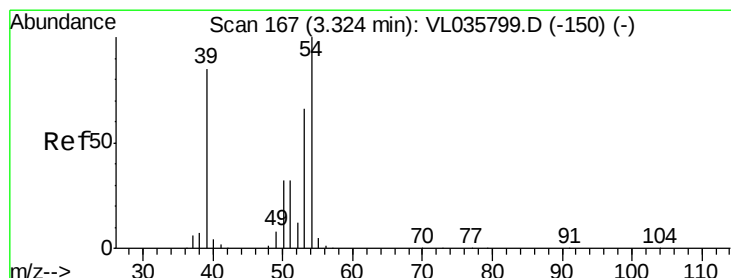
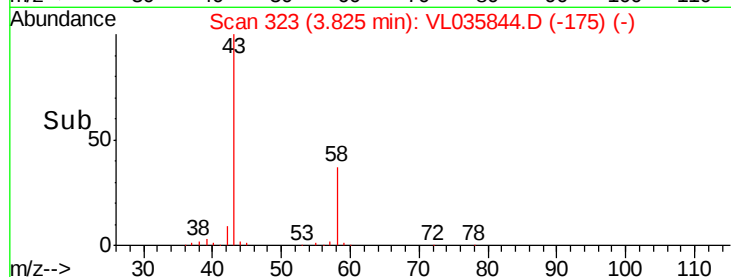
100000

50000

0

Time-->

3.80 3.90



#16

1,3-Butadiene

Concen: 0.050 ppbv

RT: 3.28 min Scan# 154

Delta R.T. -0.04 min

Lab File: VL035844.D

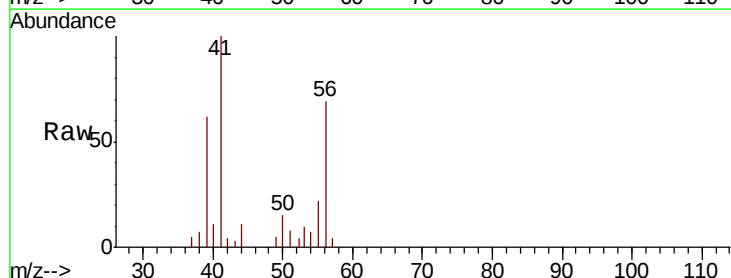
Acq: 4 Nov 2020 22:42

Tgt Ion: 39 Resp: 1936

Ion Ratio Lower Upper

39 100

54 342.5 87.1 130.7#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.28

8000

6000

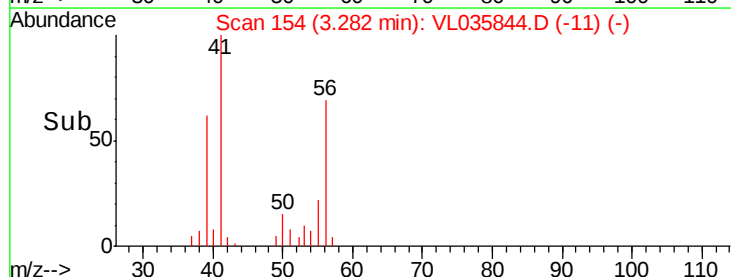
4000

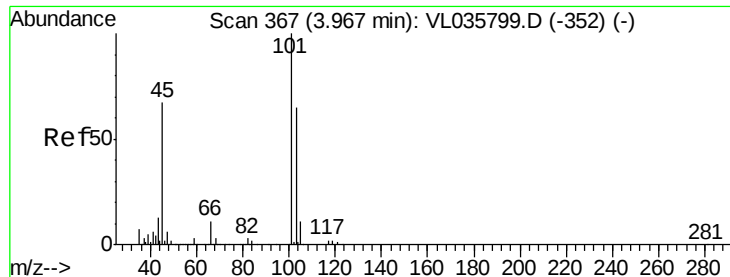
2000

0

Time-->

3.27 3.28 3.29 3.30 3.31





#19

Isopropyl Alcohol

Concen: 0.226 ppbv

RT: 3.96 min Scan# 366

Delta R.T. -0.00 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

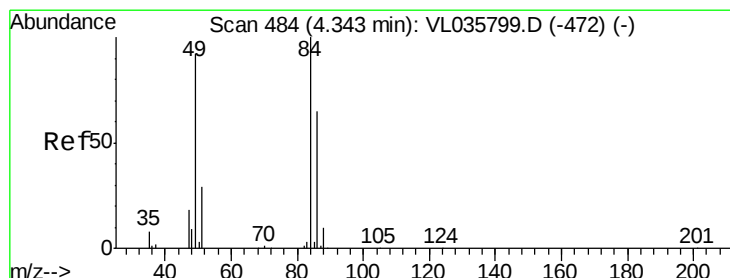
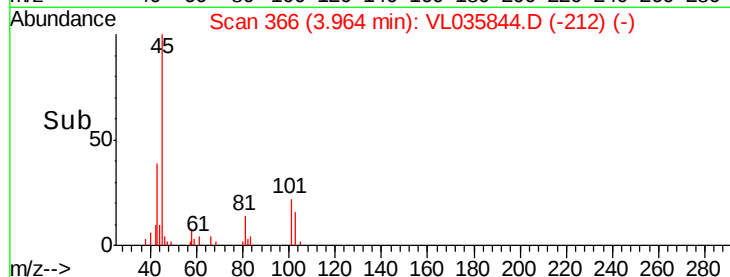
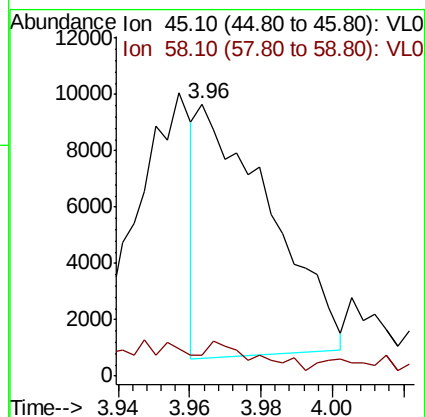
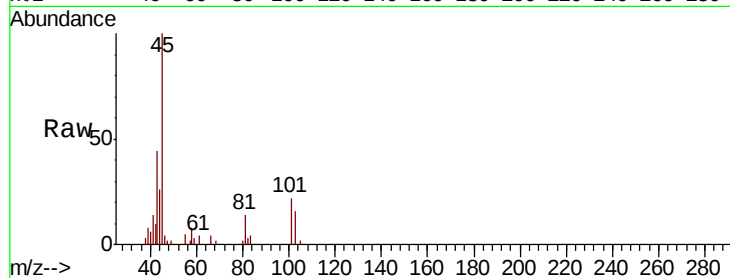
ClientSampled :

Tot Ion: 45 Resp: 12466

Ion Ratio Lower Upper

45 100

58 0.0 2.6 3.8#



#20

Methylene Chloride

Concen: 18.318 ppbv

RT: 4.31 min Scan# 475

Delta R.T. -0.03 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Tgt Ion: 84 Resp: 1155926

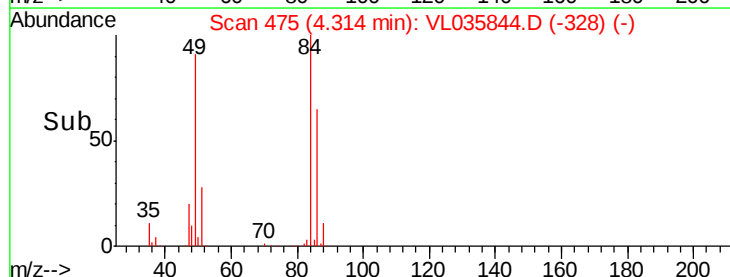
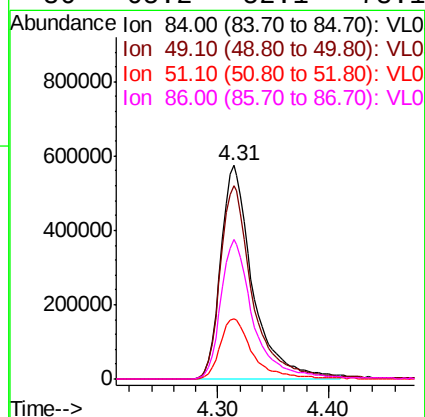
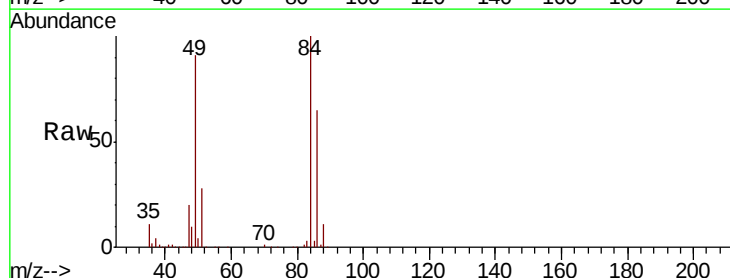
Ion Ratio Lower Upper

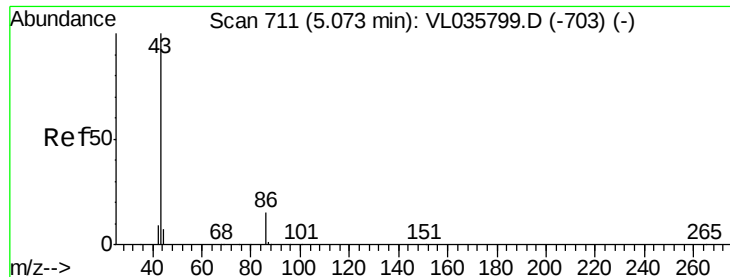
84 100

49 90.5 73.8 110.8

51 28.4 23.0 34.4

86 65.2 52.1 78.1

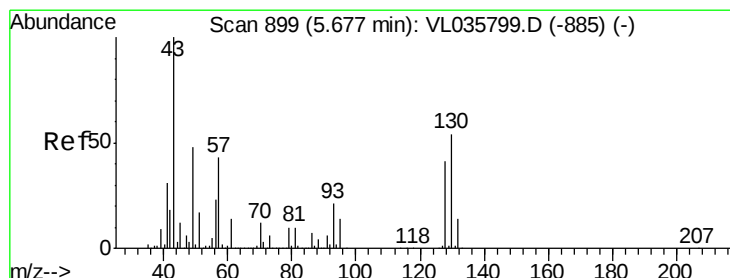
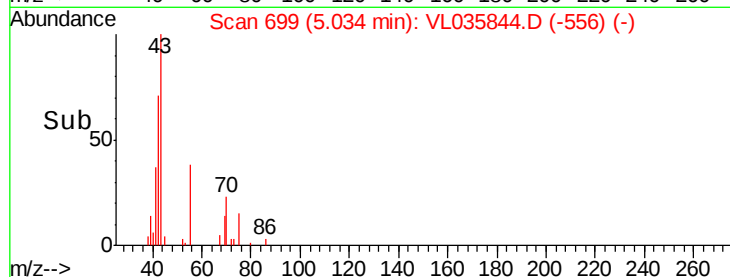
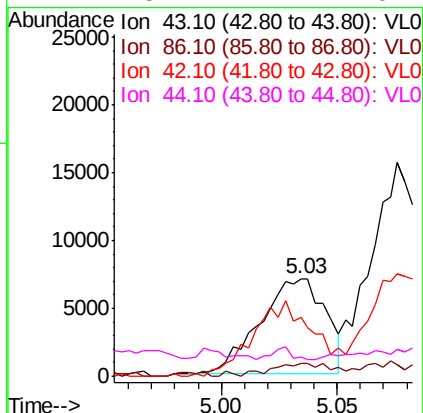
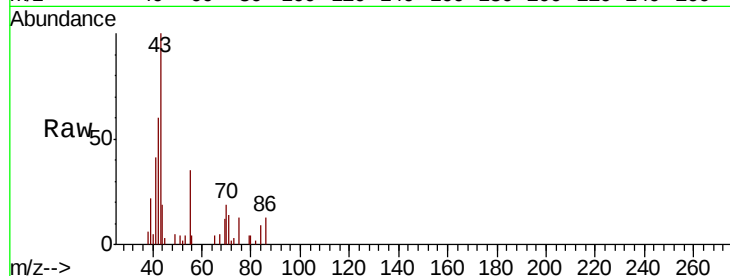




#23
 Vinyl Acetate
 Concen: 0.110 ppbv
 RT: 5.03 min Scan# 699
 Delta R.T. -0.04 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

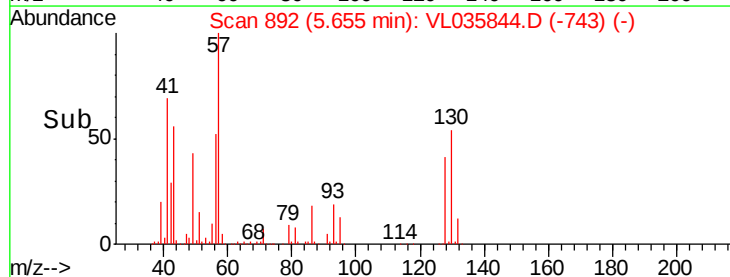
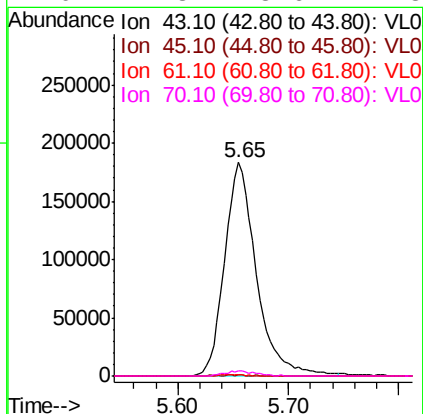
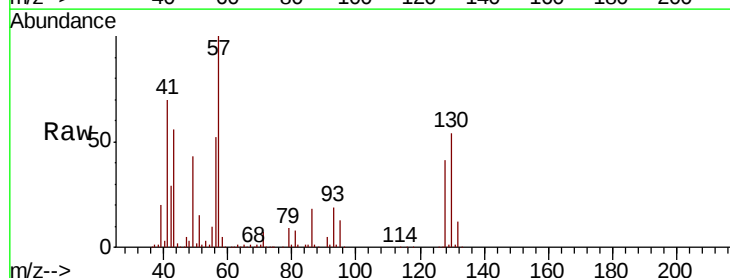
Instrument :
 MSVOA_L
 ClientSampled :

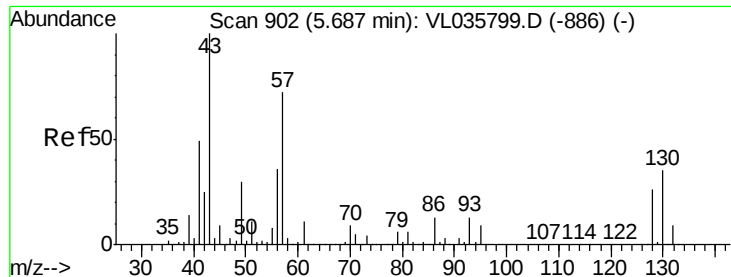
Tot Ion:	43	Resp:	13773
Ion	Ratio	Lower	Upper
43	100		
86	9.4	9.8	14.6#
42	61.5	8.1	12.1#
44	3.7	4.2	6.4#



#25
 Ethyl Acetate
 Concen: 2.073 ppbv
 RT: 5.65 min Scan# 892
 Delta R.T. -0.02 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

Tgt Ion:	43	Resp:	366151
Ion	Ratio	Lower	Upper
43	100		
45	0.5	8.5	12.7#
61	0.5	10.7	16.1#
70	2.3	8.6	12.8#

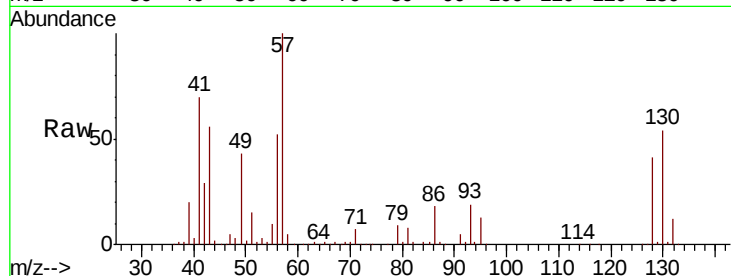




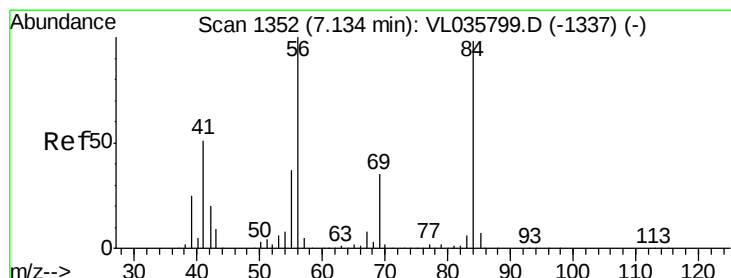
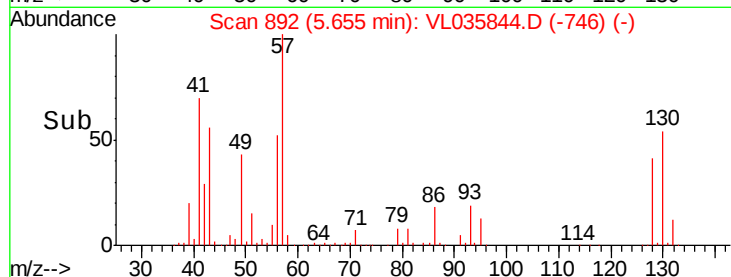
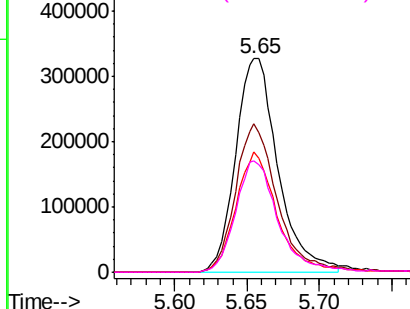
#26
Hexane
Concen: 6.816 ppbv
RT: 5.65 min Scan# 892
Delta R.T. -0.03 min
Lab File: VL035844.D
Acq: 4 Nov 2020 22:42

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 663750
Ion Ratio Lower Upper
57 100
41 69.9 58.9 88.3
43 55.7 150.2 225.2#
56 53.2 42.4 63.6

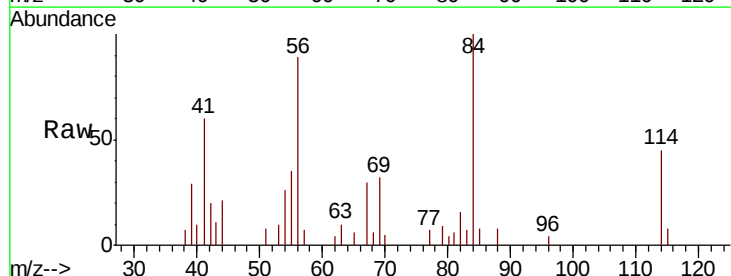


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

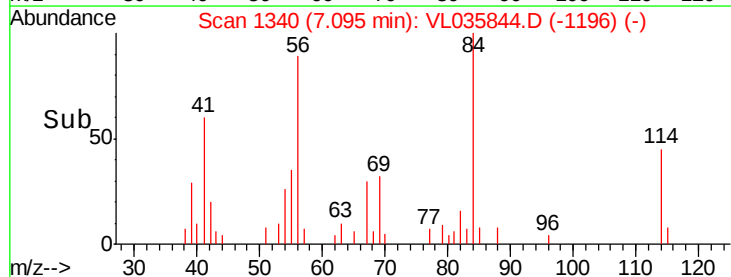
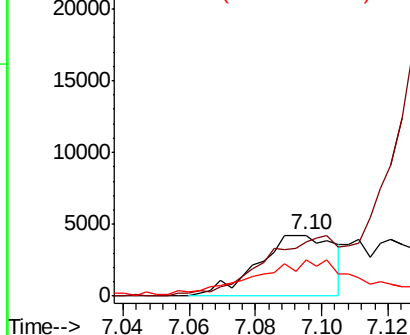


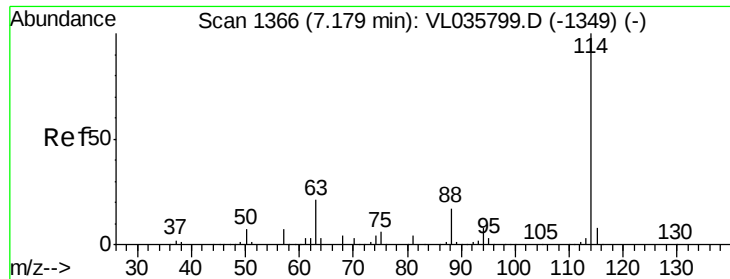
#30
Cyclohexane
Concen: 0.064 ppbv
RT: 7.10 min Scan# 1340
Delta R.T. -0.04 min
Lab File: VL035844.D
Acq: 4 Nov 2020 22:42

Tgt Ion: 84 Resp: 6773
Ion Ratio Lower Upper
84 100
56 0.0 86.4 129.6#
41 83.2 42.1 63.1#



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

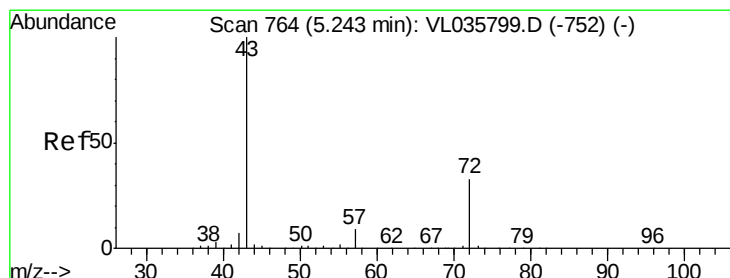
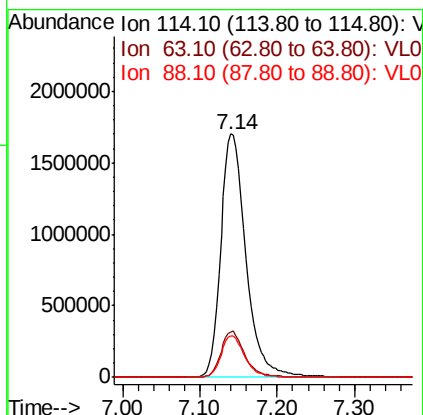
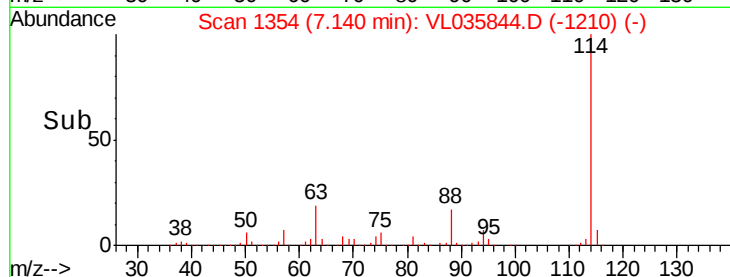
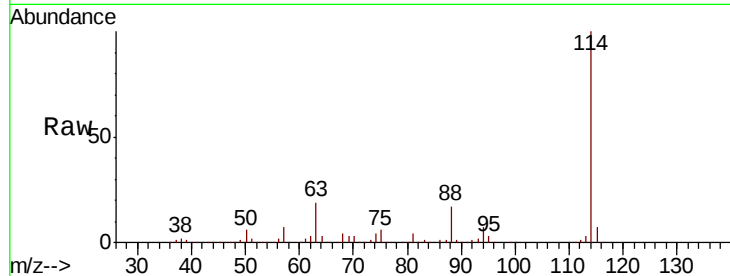




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.14 min Scan# 1354
 Delta R.T. -0.04 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

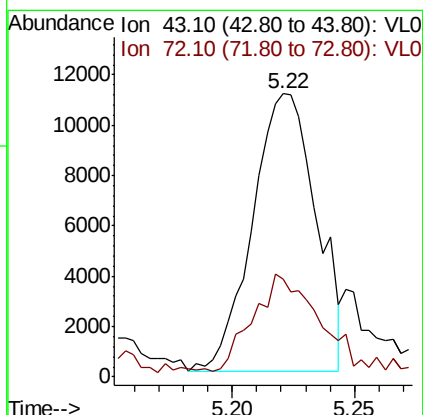
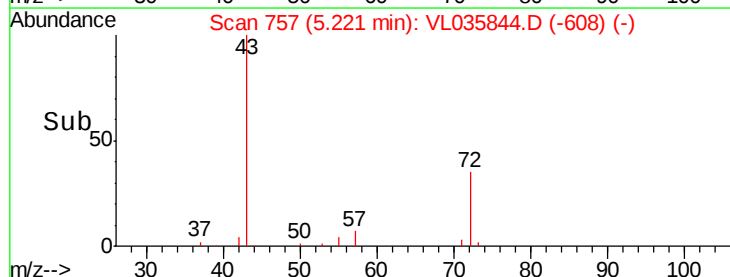
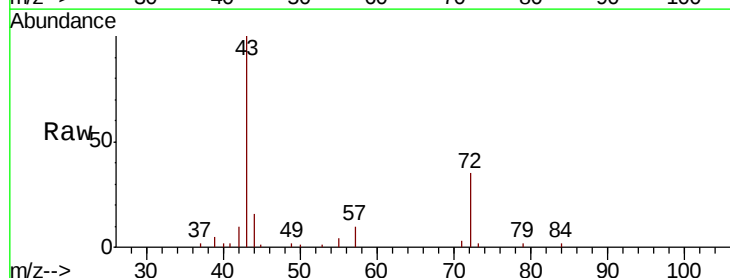
Instrument :
 MSVOA_L
 ClientSampleId :

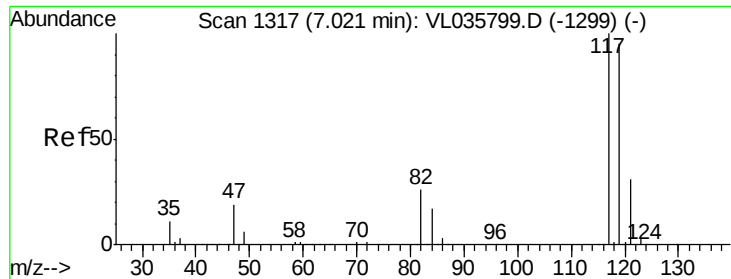
Tot Ion:114 Resp: 3853445
 Ion Ratio Lower Upper
 114 100
 63 18.1 16.1 24.1
 88 16.4 13.7 20.5



#34
 2-Butanone
 Concen: 0.159 ppbv
 RT: 5.22 min Scan# 757
 Delta R.T. -0.02 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

Tgt Ion: 43 Resp: 19940
 Ion Ratio Lower Upper
 43 100
 72 44.3 26.5 39.7#





#35

Carbon Tetrachloride

Concen: 0.054 ppbv

RT: 6.99 min Scan# 1306

Delta R.T. -0.04 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

ClientSampleId :

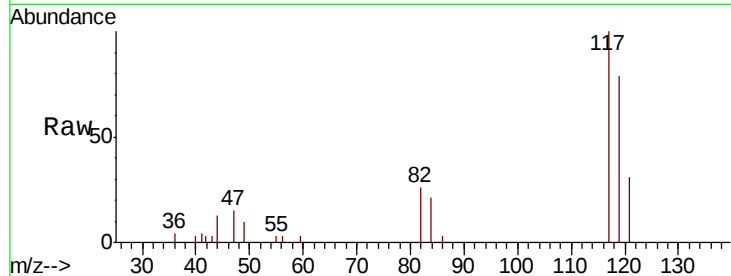
Tot Ion:117 Resp: 11138

Ion Ratio Lower Upper

117 100

119 79.1 75.6 113.4

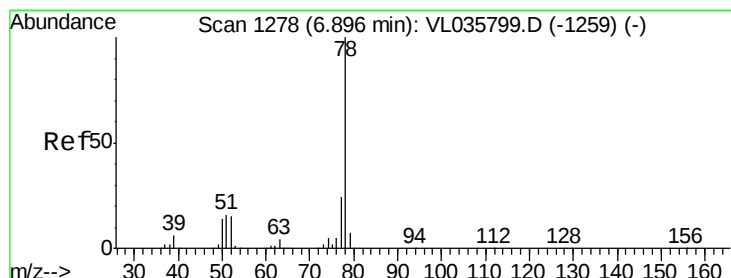
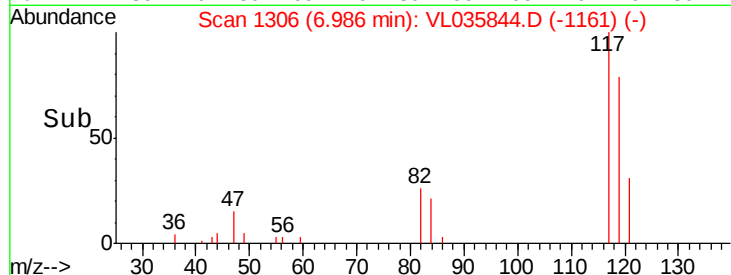
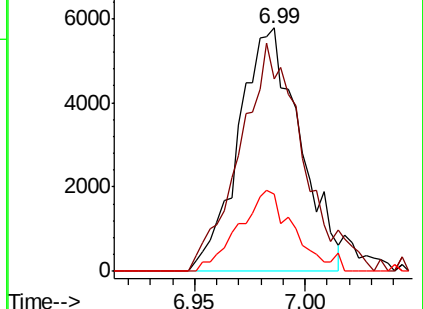
121 31.5 25.1 37.7



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.320 ppbv

RT: 6.86 min Scan# 1267

Delta R.T. -0.04 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

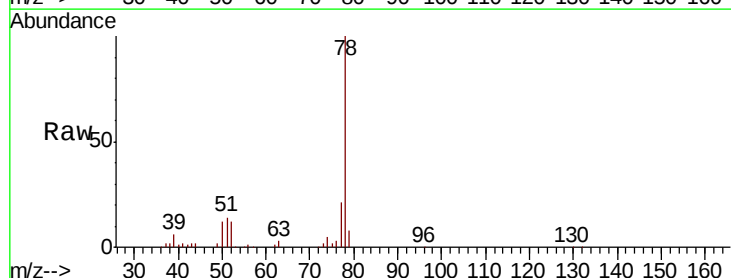
Tgt Ion: 78 Resp: 91643

Ion Ratio Lower Upper

78 100

77 21.2 19.3 28.9

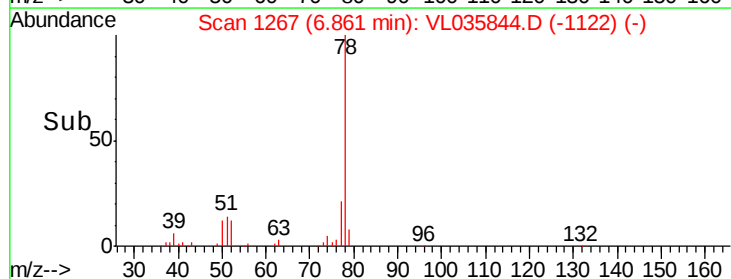
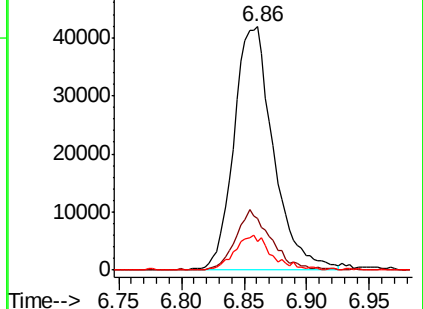
50 11.9 11.4 17.2

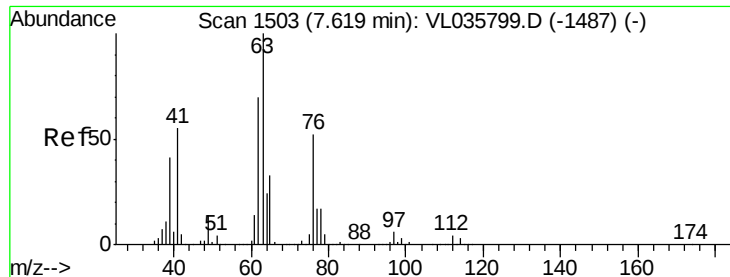


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.179 ppbv

RT: 7.14 min Scan# 1355

Delta R.T. -0.48 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

ClientSampleId :

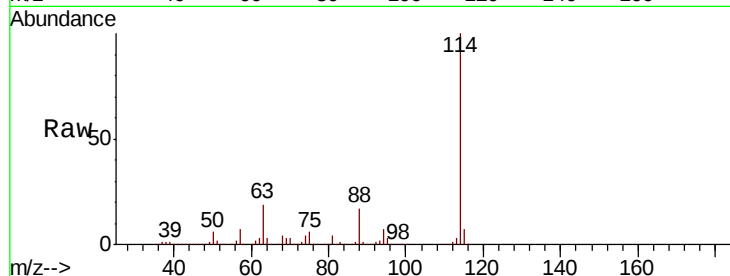
Tot Ion: 63 Resp: 692404

Ion Ratio Lower Upper

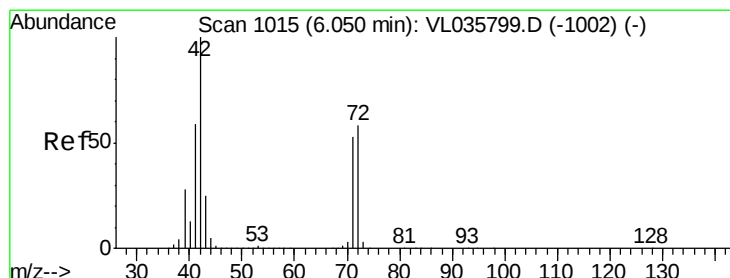
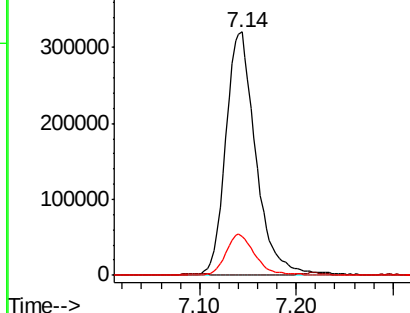
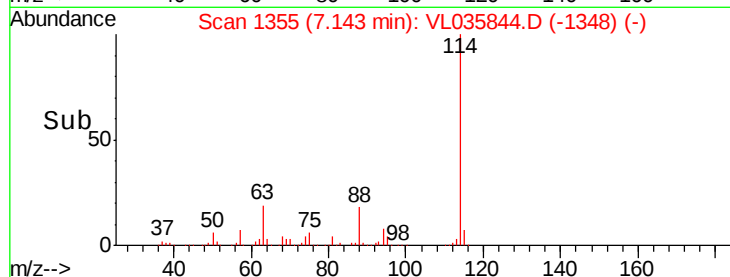
63 100

41 0.0 43.8 65.6#

62 15.8 56.2 84.2#



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: 2.591 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.40 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

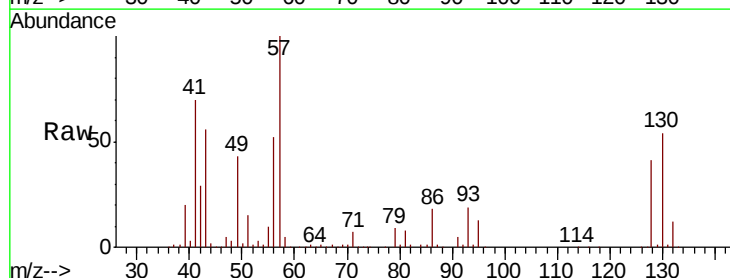
Tgt Ion: 42 Resp: 184091

Ion Ratio Lower Upper

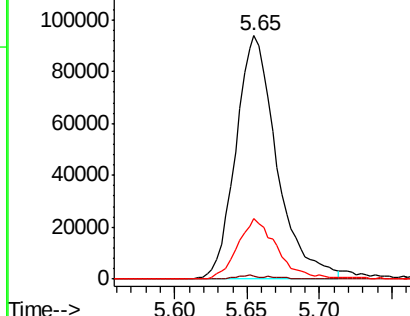
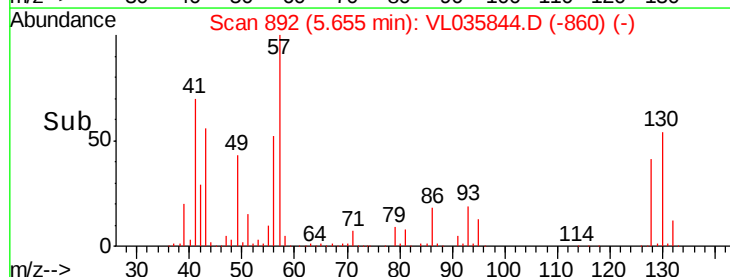
42 100

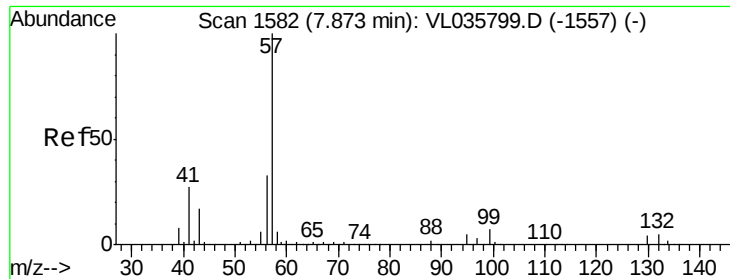
72 1.4 45.4 68.0#

71 24.3 43.4 65.2#



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

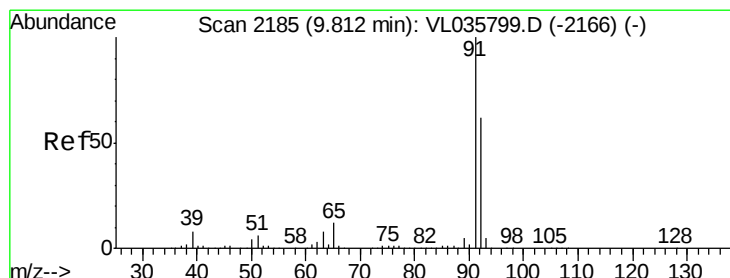
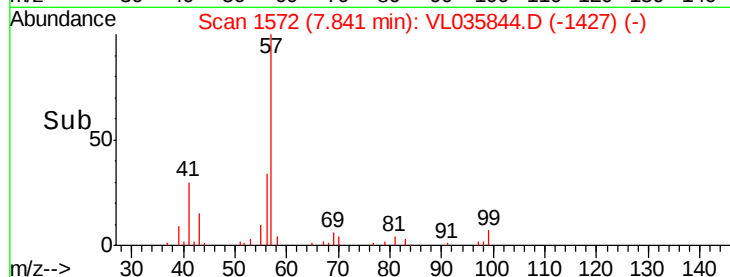
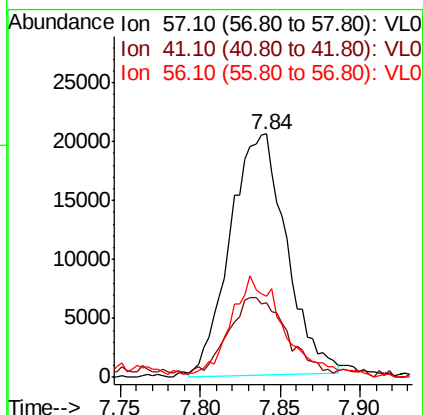
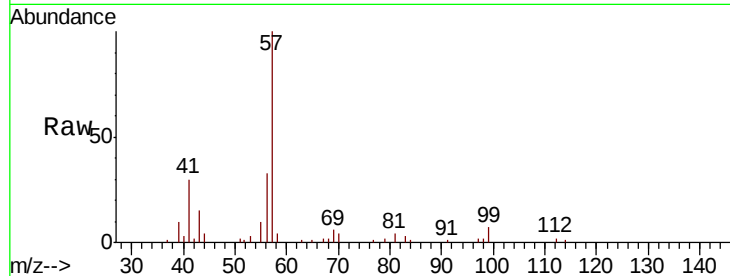




#44
 2,2,4-Trimethylpentane
 Concen: 0.131 ppbv
 RT: 7.84 min Scan# 1572
 Delta R.T. -0.03 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

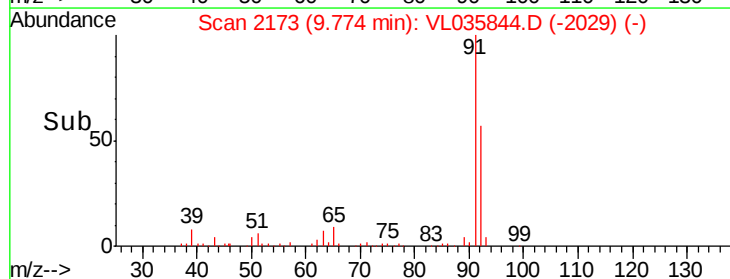
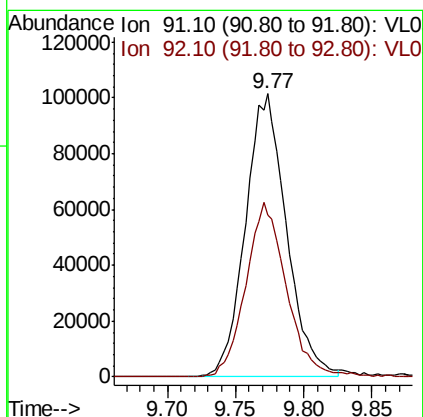
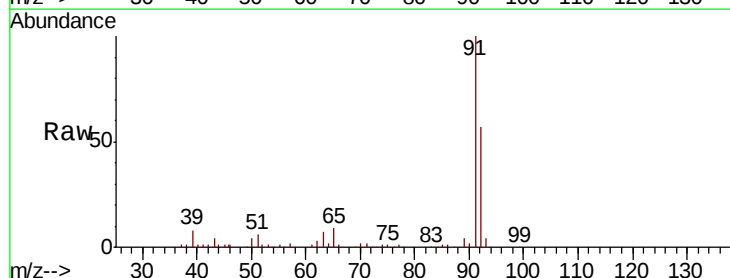
Instrument :
 MSVOA_L
 ClientSampled :

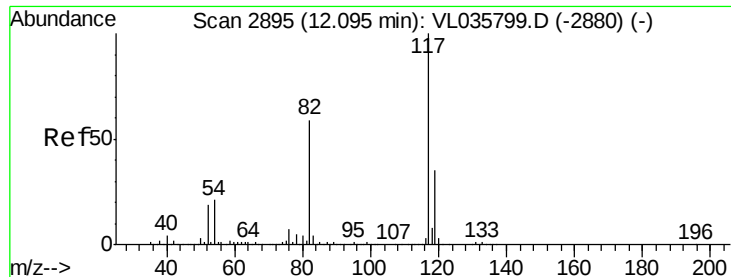
Tot Ion: 57 Resp: 49639
 Ion Ratio Lower Upper
 57 100
 41 40.8 21.0 31.4#
 56 39.9 25.4 38.0#



#53
 Toluene
 Concen: 0.613 ppbv
 RT: 9.77 min Scan# 2173
 Delta R.T. -0.04 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

Tgt Ion: 91 Resp: 211964
 Ion Ratio Lower Upper
 91 100
 92 61.5 49.8 74.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.05 min Scan# 2882

Delta R.T. -0.04 min

Lab File: VL035844.D

Acq: 4 Nov 2020 22:42

Instrument :

MSVOA_L

ClientSampleId :

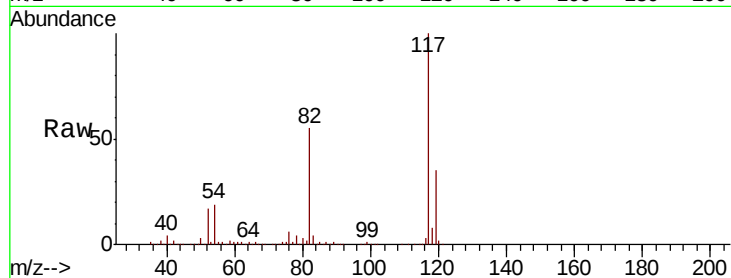
Tot Ion:117 Resp: 3465233

Ion Ratio Lower Upper

117 100

82 56.4 50.6 76.0

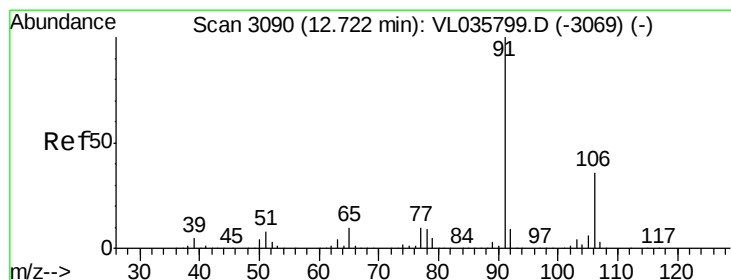
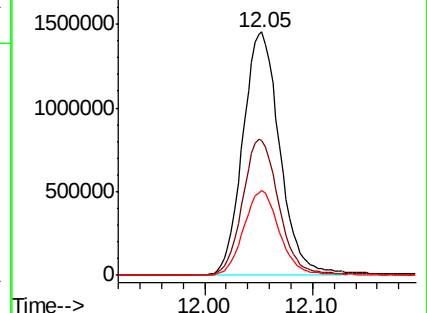
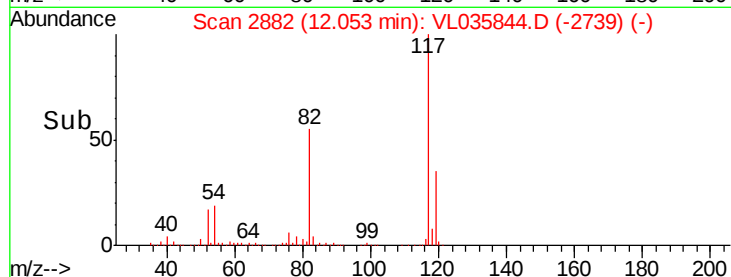
119 34.3 52.6 78.8#



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.041 ppbv

RT: 12.68 min Scan# 3076

Delta R.T. -0.05 min

Lab File: VL035844.D

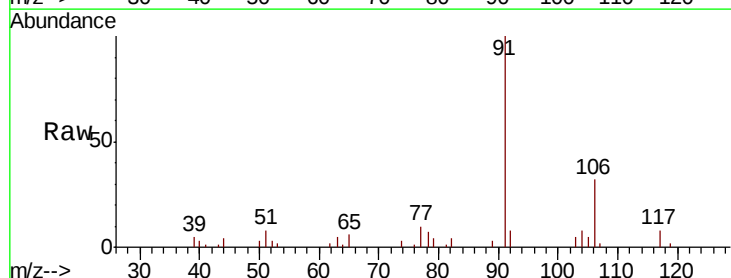
Acq: 4 Nov 2020 22:42

Tgt Ion: 91 Resp: 17485

Ion Ratio Lower Upper

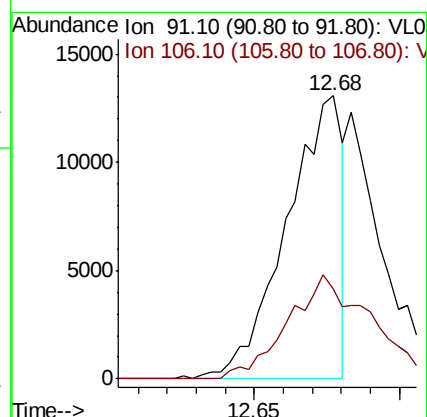
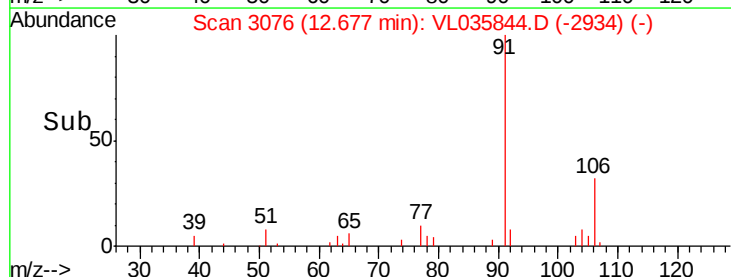
91 100

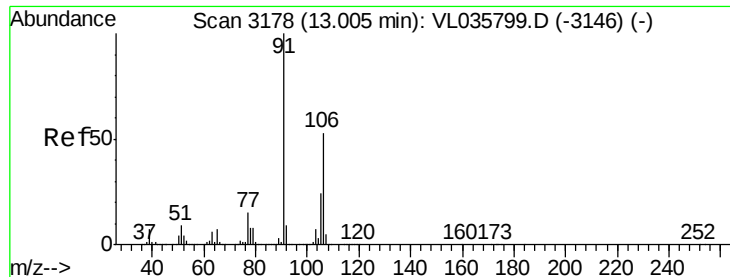
106 31.9 28.6 43.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

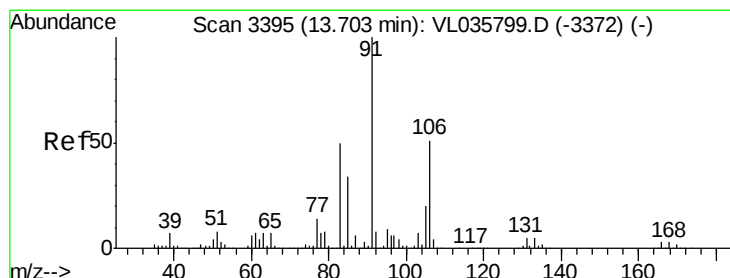
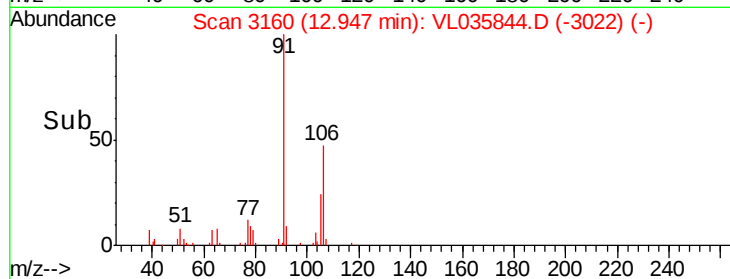
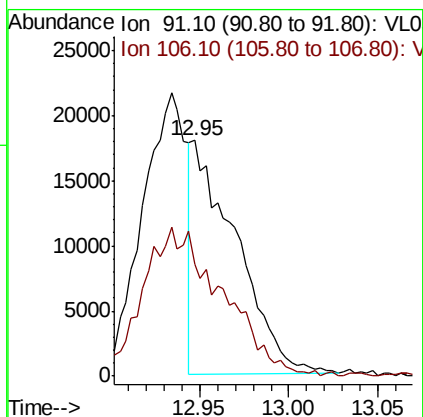
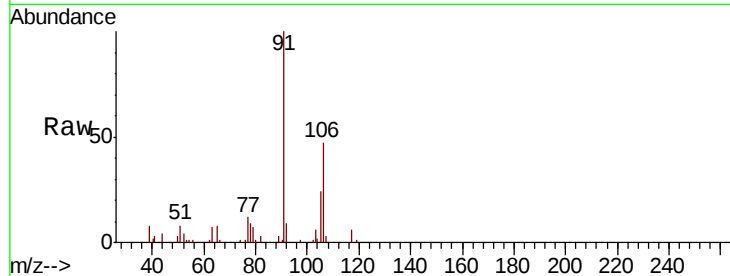




#59
m/p-Xylene
Concen: 0.085 ppbv
RT: 12.95 min Scan# 3160
Delta R.T. -0.06 min
Lab File: VL035844.D
Acq: 4 Nov 2020 22:42

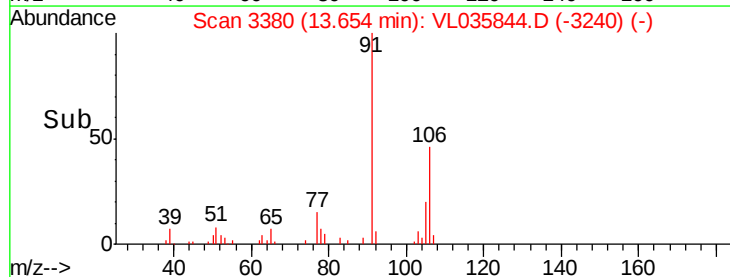
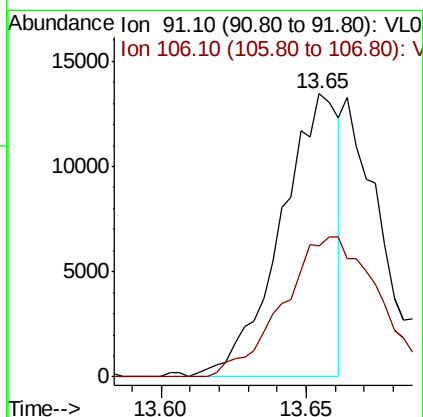
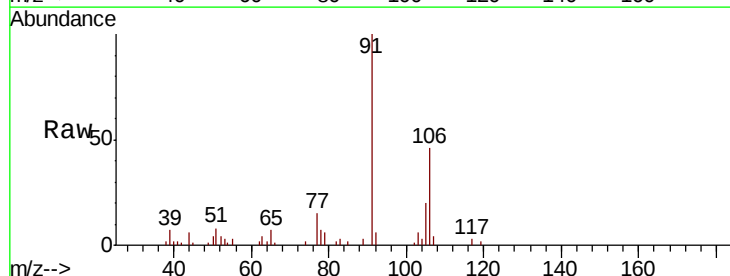
Instrument :
MSVOA_L
ClientSampled :

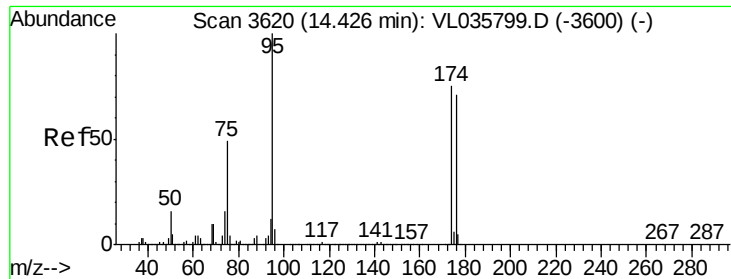
Tot Ion: 91 Resp: 30501
Ion Ratio Lower Upper
91 100
106 0.0 39.5 59.3#



#60
o-Xylene
Concen: 0.053 ppbv
RT: 13.65 min Scan# 3380
Delta R.T. -0.05 min
Lab File: VL035844.D
Acq: 4 Nov 2020 22:42

Tgt Ion: 91 Resp: 18572
Ion Ratio Lower Upper
91 100
106 83.1 24.8 74.4#

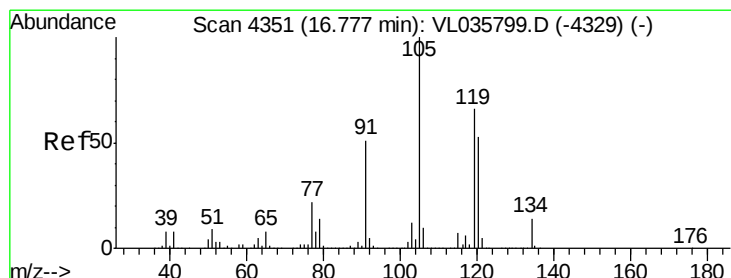
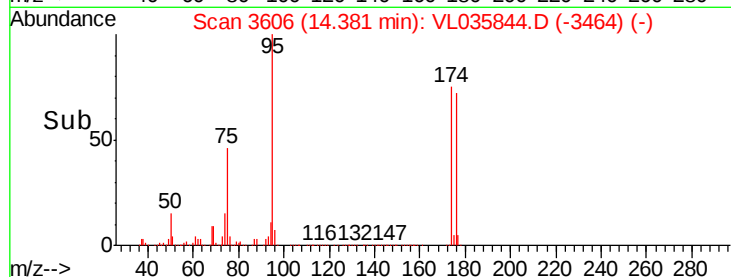
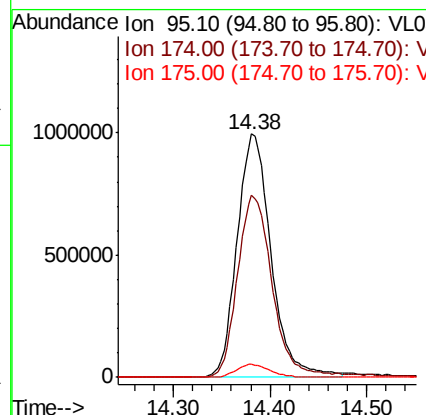
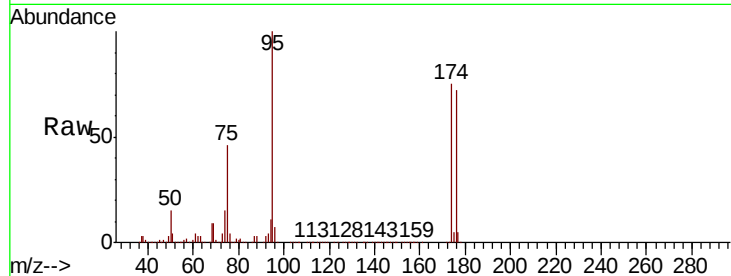




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.883 ppbv
 RT: 14.38 min Scan# 3606
 Delta R.T. -0.05 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 2433279
 Ion Ratio Lower Upper
 95 100
 174 77.0 59.8 89.6
 175 5.5 4.3 6.5



#74
 1,2,4-Trimethylbenzene
 Concen: 0.105 ppbv
 RT: 16.73 min Scan# 4337
 Delta R.T. -0.05 min
 Lab File: VL035844.D
 Acq: 4 Nov 2020 22:42

Tgt Ion:105 Resp: 43266
 Ion Ratio Lower Upper
 105 100
 120 43.2 42.0 63.0
 91 7.8 41.0 61.6#
 77 12.9 17.3 25.9#

