

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111020\
 Data File : VL035903.D
 Acq On : 11 Nov 2020 00:34
 Operator : SY/AP
 Sample : L4618-05DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 11 01:25:02 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	5.66	49	1138705	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3956417	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3589977	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	2699878	10.59	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.90%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	53201	0.248 ppbv	96
3) Chlorodifluoromethane	2.97	51	43795	0.321 ppbv	94
4) Chloromethane	3.13	50	30528	0.461 ppbv	98
9) Propene	3.19	41	276971	5.549 ppbv	97
10) Heptane	8.11	43	7785	0.056 ppbv #	19
11) Trichlorofluoromethane	3.94	101	61566	0.229 ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.48	101	13289	0.066 ppbv	94
13) Ethanol	3.64	45	21131453	1951.585 ppbv	94
15) Acetone	3.83	43	3221147	26.460 ppbv	100
16) 1,3-Butadiene	3.34	39	2689920	51.322 ppbv #	1
17) tert-Butyl alcohol	4.34	59	110226	0.683 ppbv	96
19) Isopropyl Alcohol	3.64	45	21131453	282.461 ppbv #	94
20) Methylene Chloride	4.33	84	495232	5.779 ppbv	95
25) Ethyl Acetate	5.67	43	133993	0.559 ppbv #	78
26) Hexane	5.68	57	205755	1.556 ppbv #	48
29) Chloroform	5.74	83	58831	0.226 ppbv	90
34) 2-Butanone	5.24	43	31710	0.247 ppbv	99
35) Carbon Tetrachloride	7.01	117	11180	0.053 ppbv #	91
36) Benzene	6.88	78	36248	0.123 ppbv #	88
39) 1,2-Dichloropropane	7.17	63	808342	8.163 ppbv #	30
44) 2,2,4-Trimethylpentane	7.86	57	23846	0.061 ppbv #	52
50) 4-Methyl-2-Pentanone	8.75	43	30224	0.154 ppbv #	31
52) Tetrachloroethene	11.21	164	61045	0.438 ppbv	97
53) Toluene	9.80	91	691563	1.949 ppbv	96
58) Ethyl Benzene	12.71	91	48381	0.111 ppbv	91
59) m/p-Xylene	12.99	91	60919	0.165 ppbv #	28
60) o-Xylene	13.69	91	72326	0.201 ppbv	96
72) 4-Ethyltoluene	15.84	105	13744	0.031 ppbv #	84
74) 1,2,4-Trimethylbenzene	16.76	105	44368	0.104 ppbv #	70

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

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ALS Vial : 1 Sample Multiplier: 1



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.01 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

ClientSampleId :

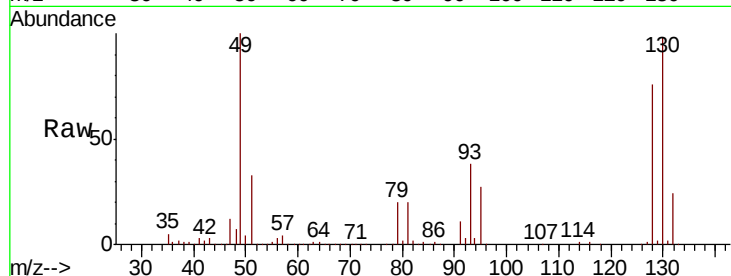
Tot Ion: 49 Resp: 1138705

Ion Ratio Lower Upper

49 100

128 76.1 41.5 124.6

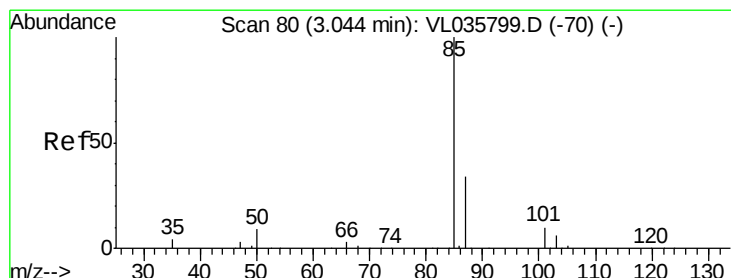
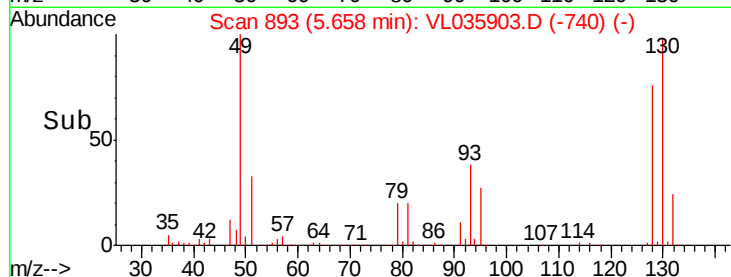
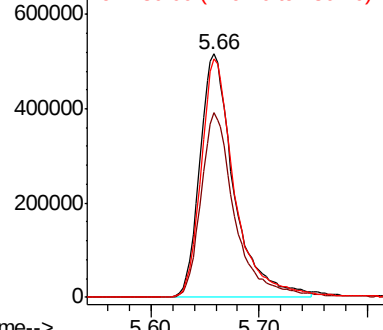
130 97.8 53.7 161.1



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: 0.248 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.01 min

Lab File: VL035903.D

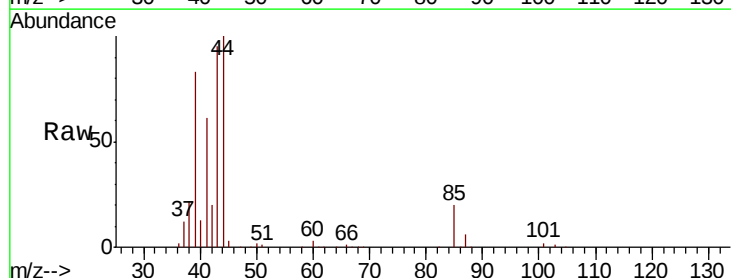
Acq: 11 Nov 2020 00:34

Tgt Ion: 85 Resp: 53201

Ion Ratio Lower Upper

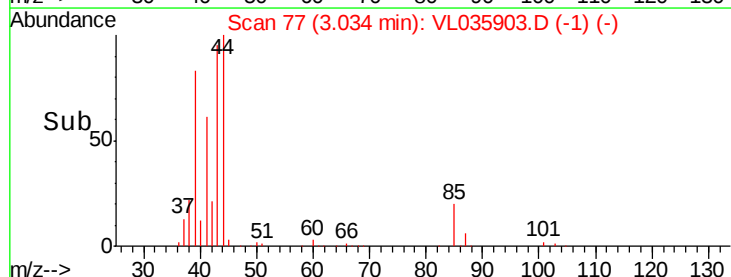
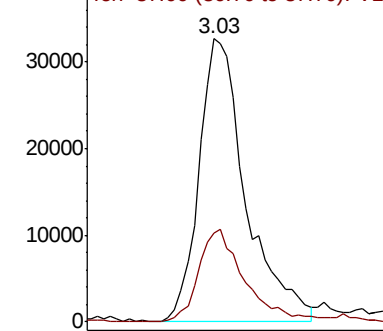
85 100

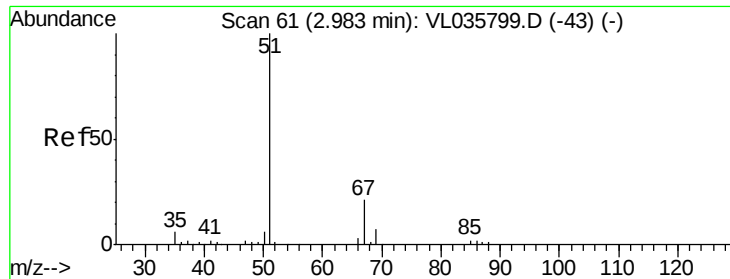
87 31.4 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.321 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.01 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

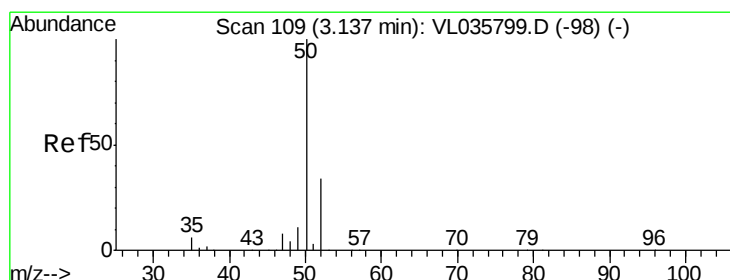
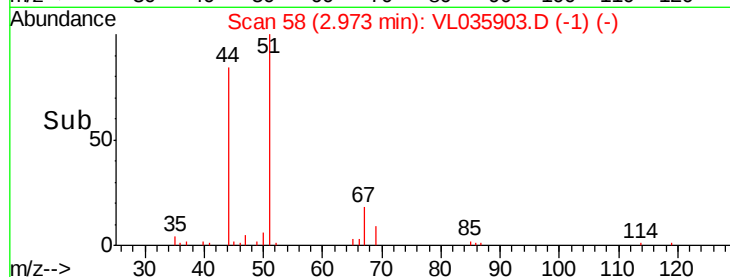
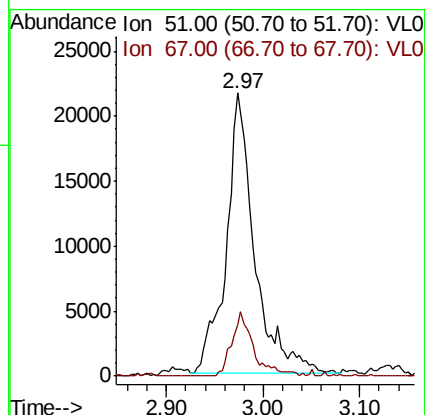
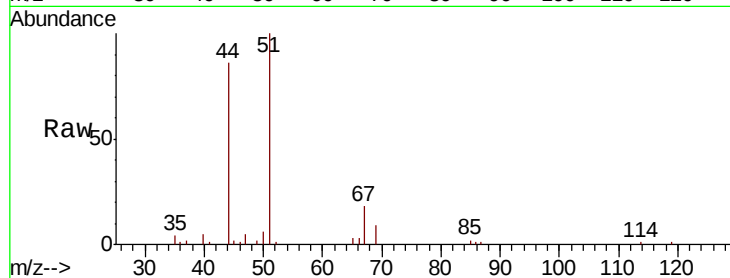
ClientSampleId :

Tot Ion: 51 Resp: 43795

Ion Ratio Lower Upper

51 100

67 18.2 17.0 25.4



#4

Chloromethane

Concen: 0.461 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.01 min

Lab File: VL035903.D

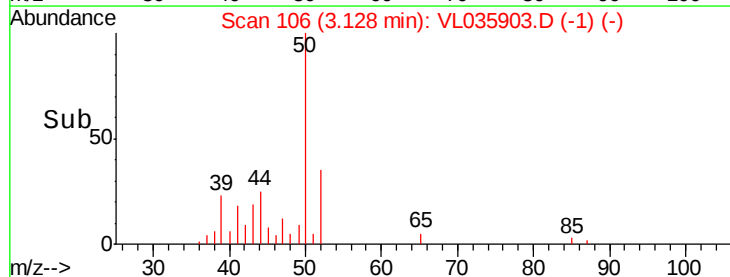
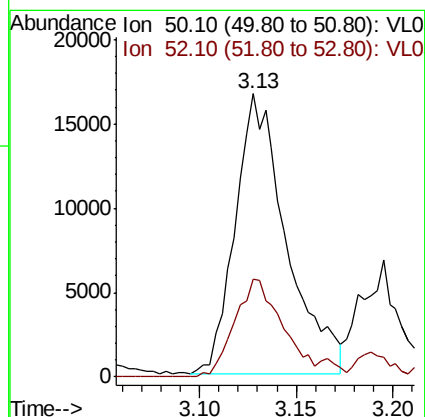
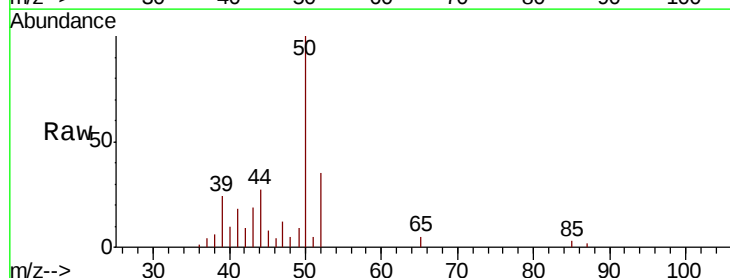
Acq: 11 Nov 2020 00:34

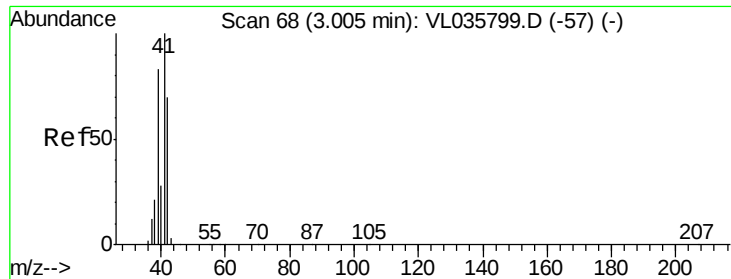
Tgt Ion: 50 Resp: 30528

Ion Ratio Lower Upper

50 100

52 34.9 27.1 40.7





#9

Propene

Concen: 5.549 ppbv

RT: 3.19 min Scan# 126

Delta R.T. 0.19 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

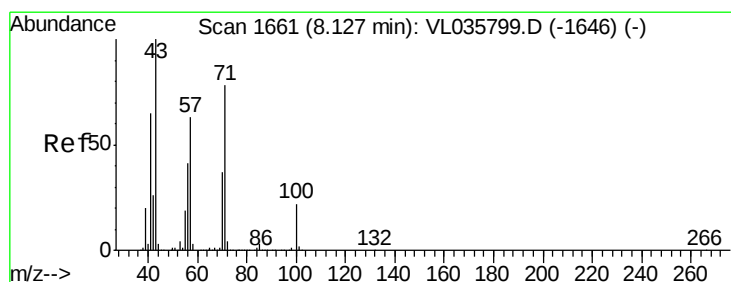
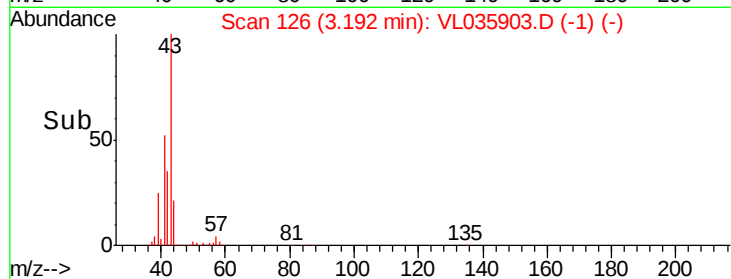
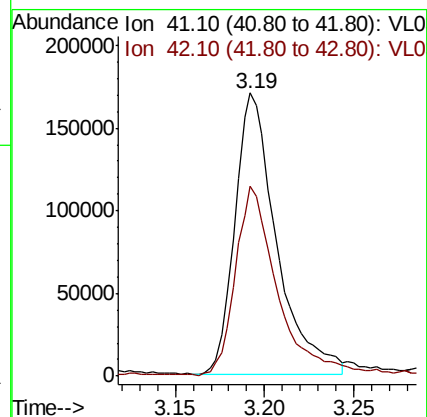
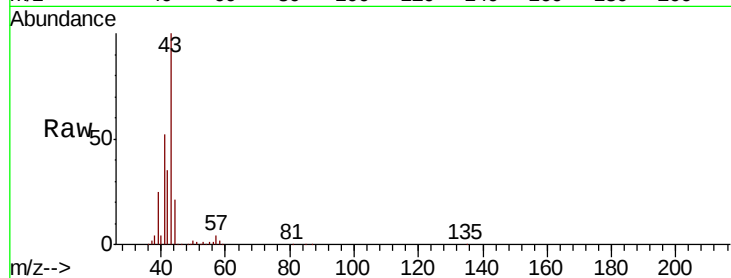
ClientSampleId :

Tot Ion: 41 Resp: 276971

Ion Ratio Lower Upper

41 100

42 67.9 56.2 84.4



#10

Heptane

Concen: 0.056 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.01 min

Lab File: VL035903.D

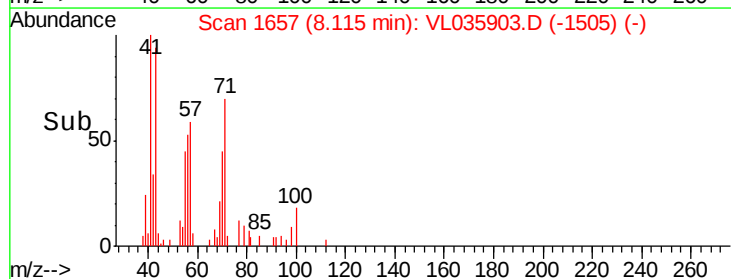
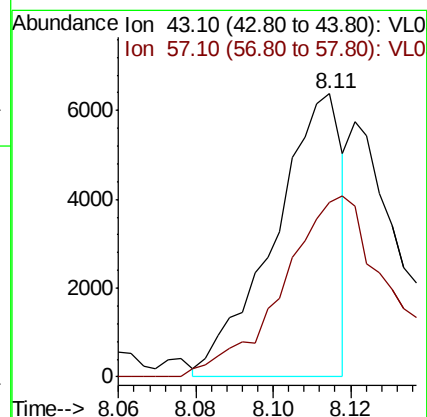
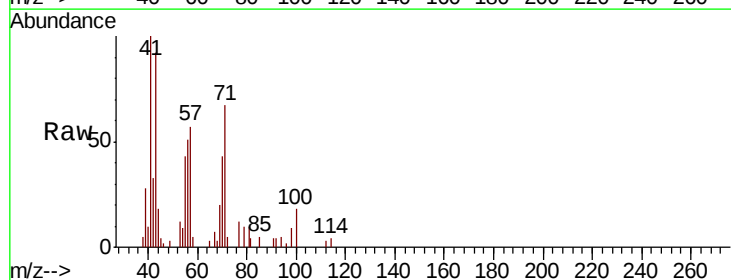
Acq: 11 Nov 2020 00:34

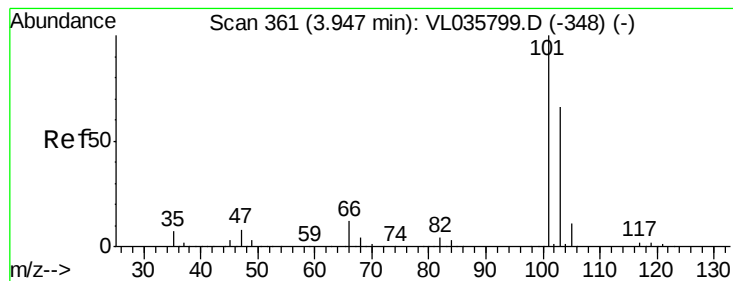
Tgt Ion: 43 Resp: 7785

Ion Ratio Lower Upper

43 100

57 0.0 50.0 75.0#





#11

Trichlorofluoromethane

Concen: 0.229 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

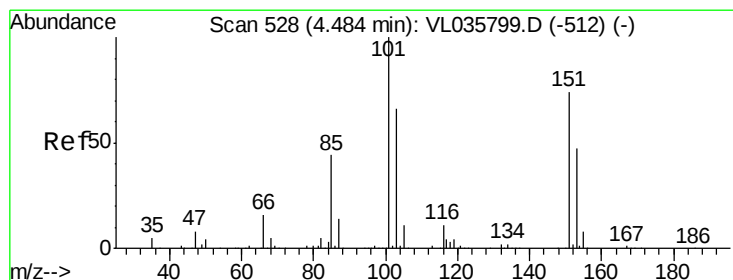
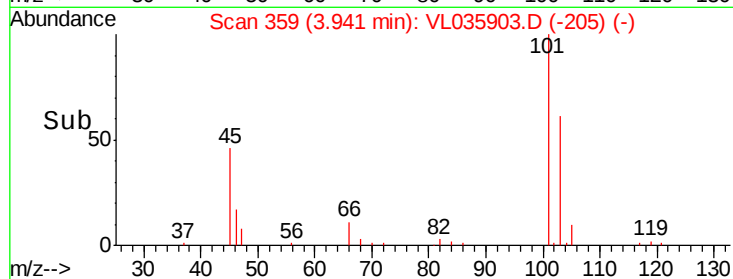
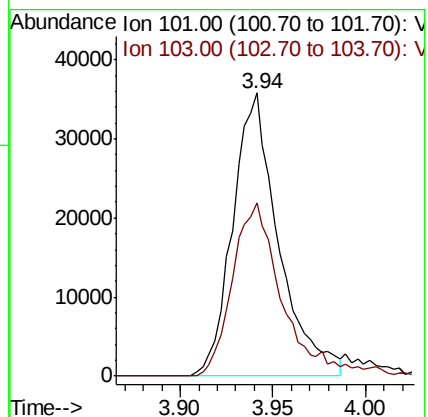
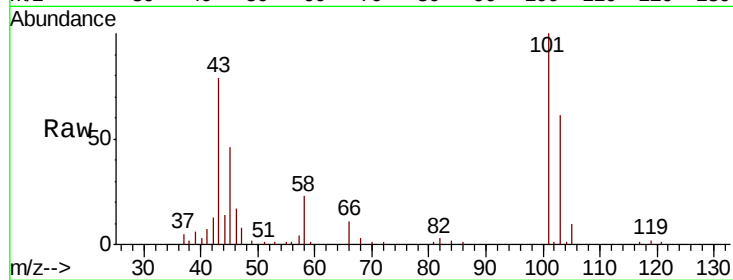
ClientSampleId :

Tot Ion:101 Resp: 61566

Ion Ratio Lower Upper

101 100

103 61.4 53.0 79.4



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.066 ppbv

RT: 4.48 min Scan# 526

Delta R.T. -0.01 min

Lab File: VL035903.D

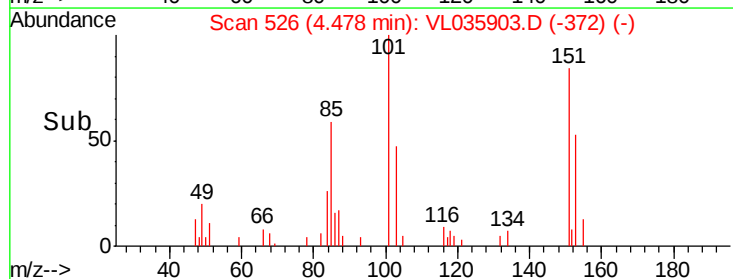
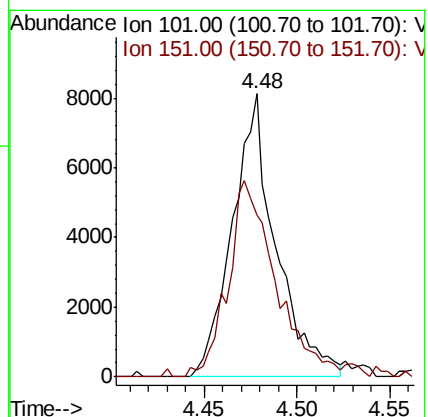
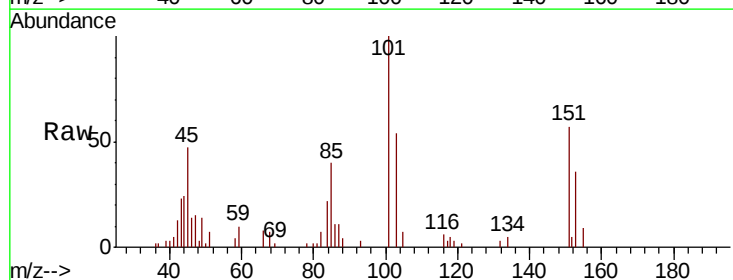
Acq: 11 Nov 2020 00:34

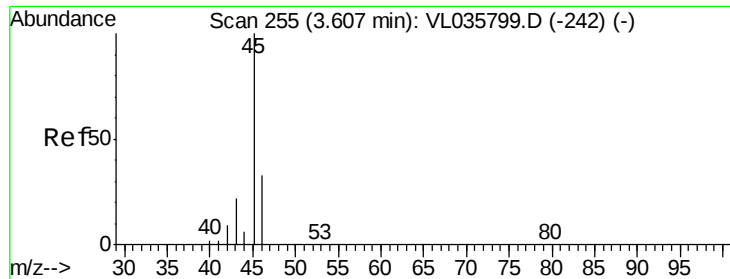
Tgt Ion:101 Resp: 13289

Ion Ratio Lower Upper

101 100

151 79.0 58.9 88.3

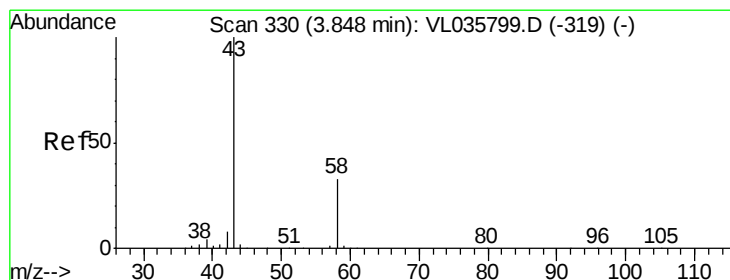
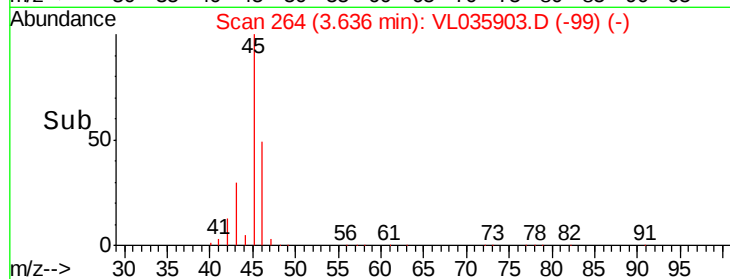
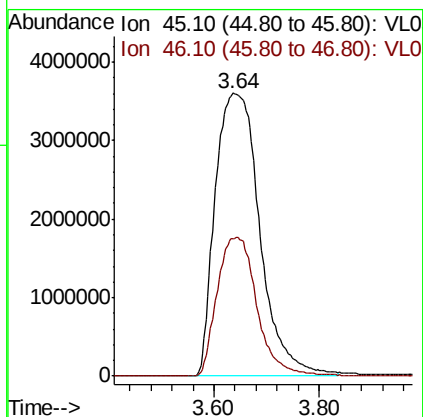
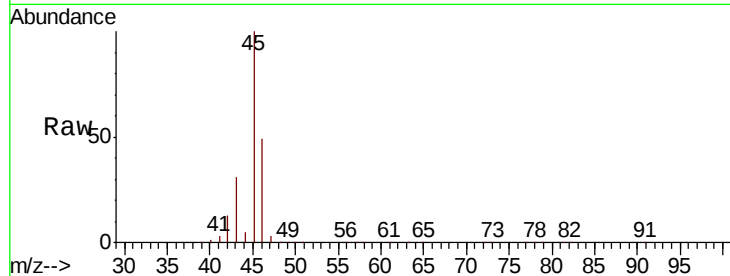




#13
Ethanol
Concen: 1951.585 ppbv
RT: 3.64 min Scan# 264
Delta R.T. 0.03 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

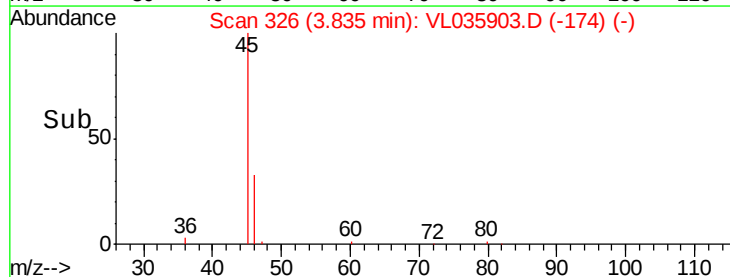
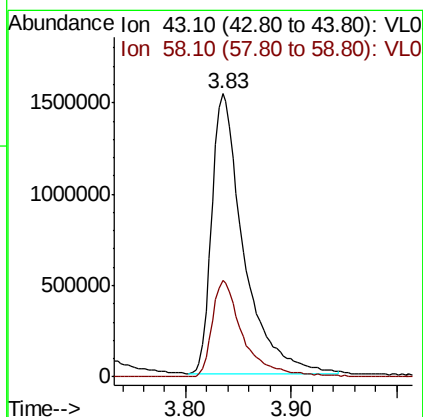
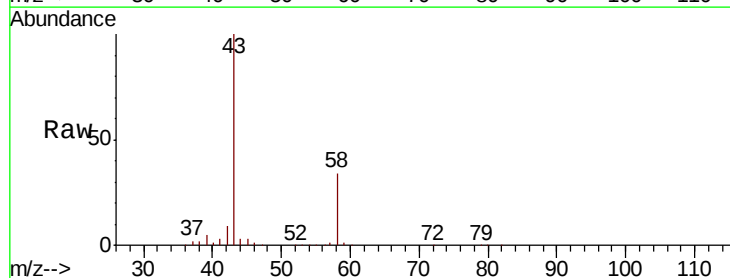
Instrument :
MSVOA_L
ClientSampleId :

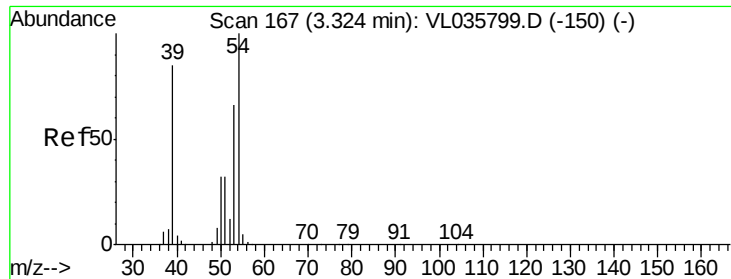
Tot Ion: 45 Resp: 21131453
Ion Ratio Lower Upper
45 100
46 44.1 16.1 64.5



#15
Acetone
Concen: 26.460 ppbv
RT: 3.83 min Scan# 326
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

Tgt Ion: 43 Resp: 3221147
Ion Ratio Lower Upper
43 100
58 34.3 27.5 41.3

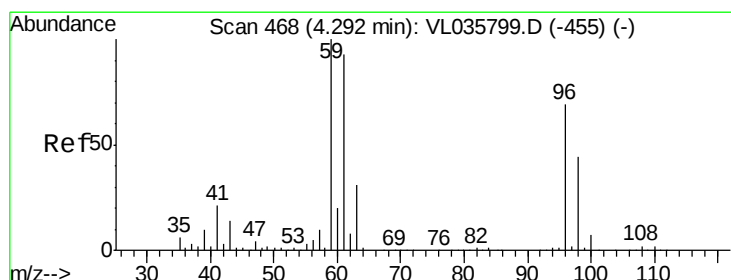
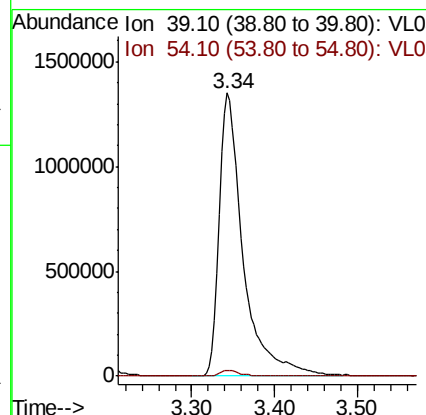
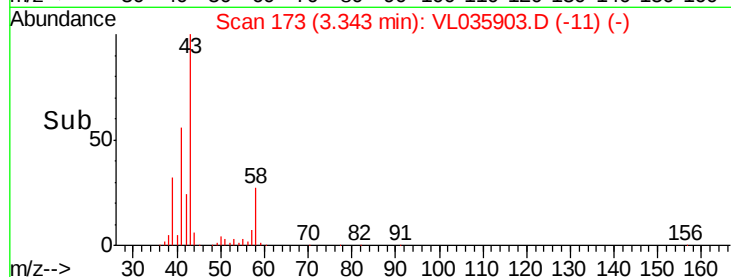
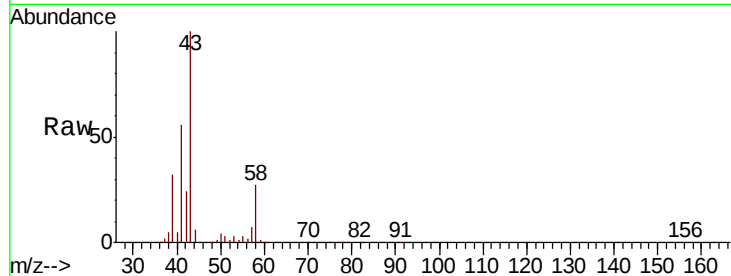




#16
1,3-Butadiene
Concen: 51.322 ppbv
RT: 3.34 min Scan# 173
Delta R.T. 0.02 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

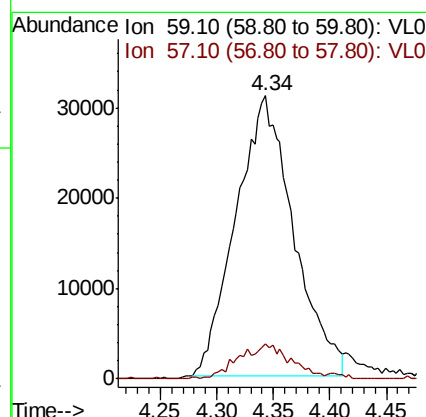
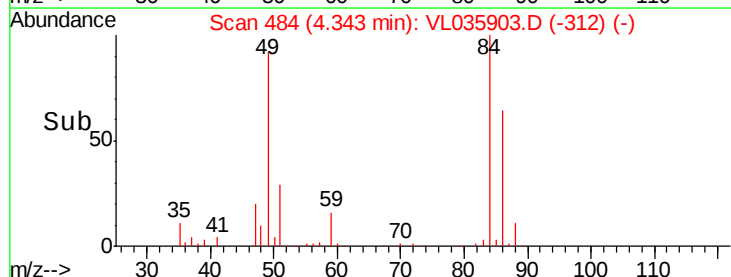
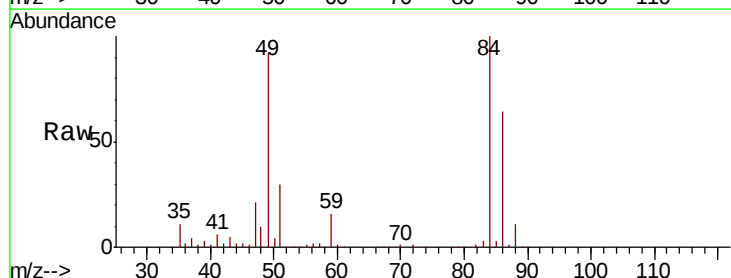
Instrument :
MSVOA_L
ClientSampleId :

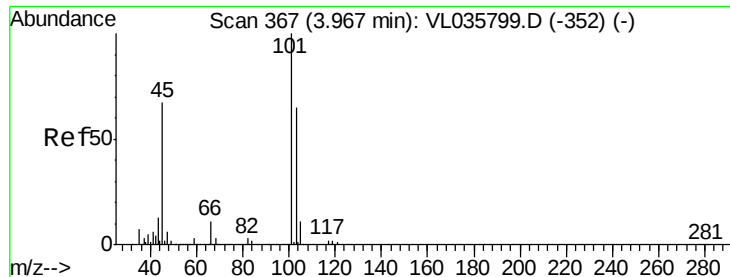
Tot Ion: 39 Resp: 2689920
Ion Ratio Lower Upper
39 100
54 2.0 87.1 130.7#



#17
tert-Butyl alcohol
Concen: 0.683 ppbv
RT: 4.34 min Scan# 484
Delta R.T. 0.05 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

Tgt Ion: 59 Resp: 110226
Ion Ratio Lower Upper
59 100
57 11.7 8.2 12.4



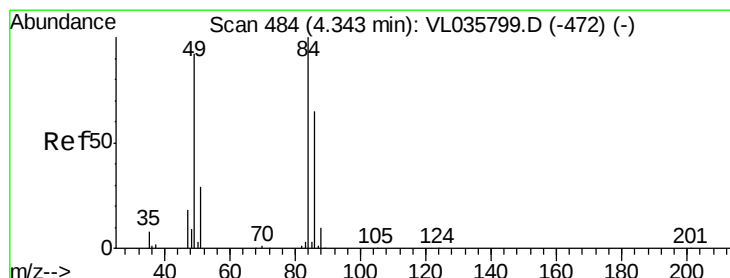
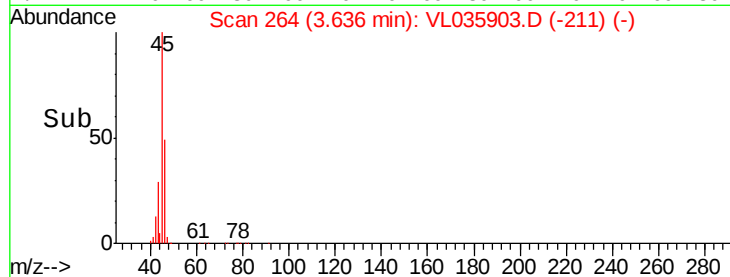
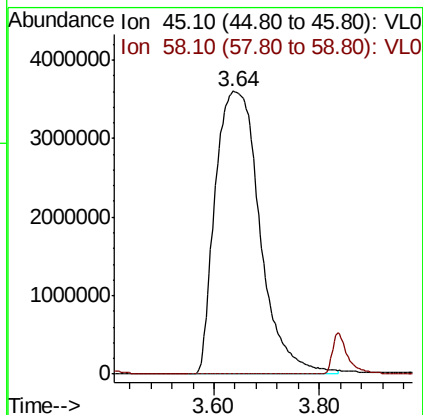
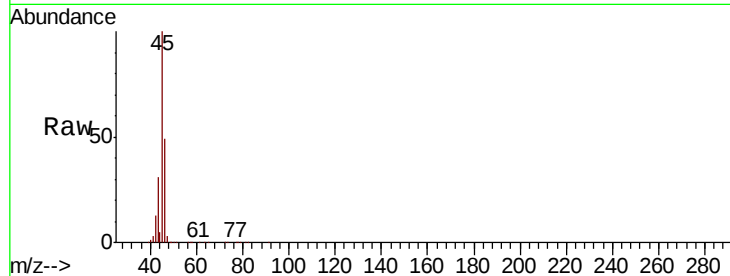


#19

Isopropyl Alcohol
 Concen: 282.461 ppbv
 RT: 3.64 min Scan# 264
 Delta R.T. -0.33 min
 Lab File: VL035903.D
 Acq: 11 Nov 2020 00:34

Instrument :
 MSVOA_L
 ClientSampled :

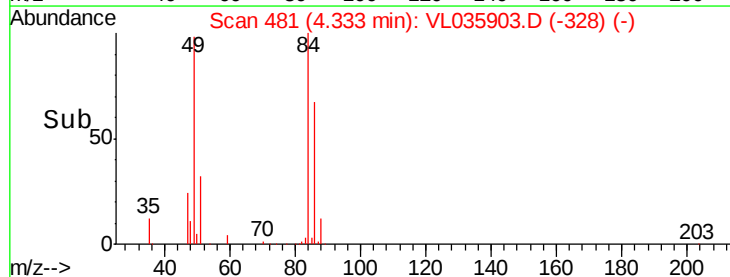
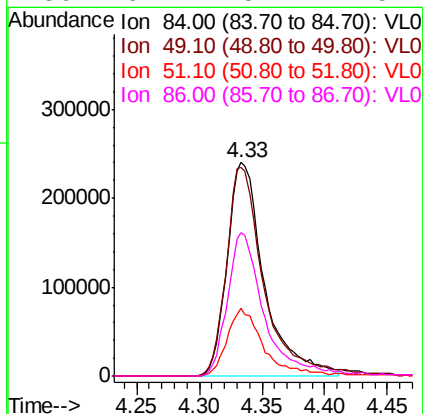
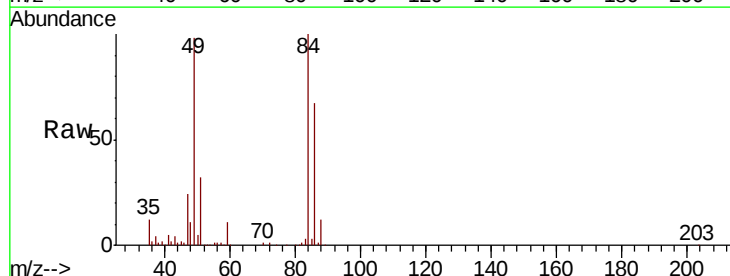
Tot Ion: 45 Resp: 21131453
 Ion Ratio Lower Upper
 45 100
 58 5.2 2.6 3.8#

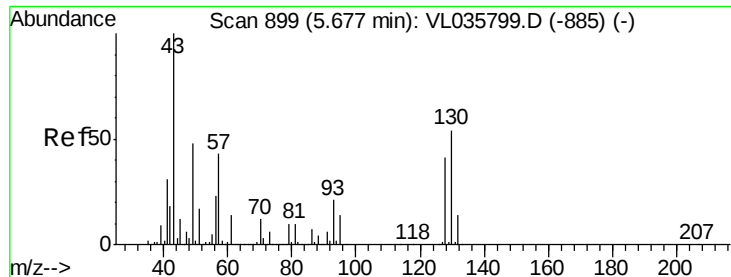


#20

Methylene Chloride
 Concen: 5.779 ppbv
 RT: 4.33 min Scan# 481
 Delta R.T. -0.01 min
 Lab File: VL035903.D
 Acq: 11 Nov 2020 00:34

Tgt Ion: 84 Resp: 495232
 Ion Ratio Lower Upper
 84 100
 49 97.7 73.8 110.8
 51 31.6 23.0 34.4
 86 67.2 52.1 78.1





#25

Ethyl Acetate

Concen: 0.559 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.00 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 43 Resp: 133993

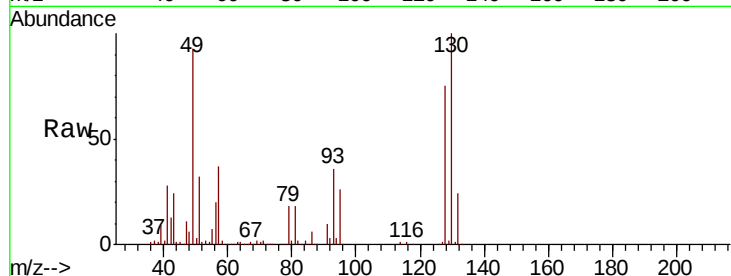
Ion Ratio Lower Upper

43 100

45 3.5 8.5 12.7#

61 2.0 10.7 16.1#

70 3.7 8.6 12.8#

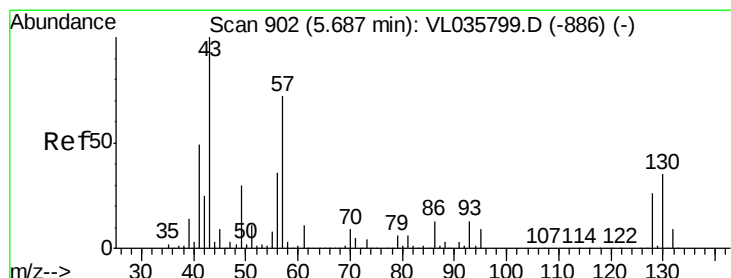
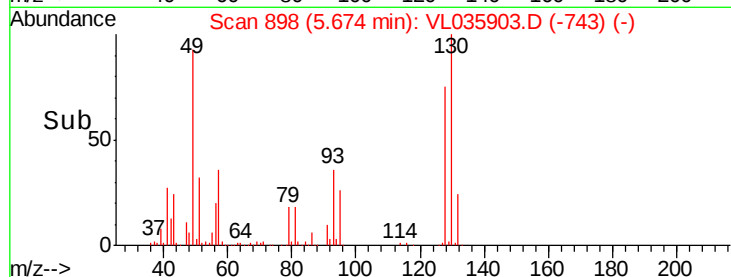
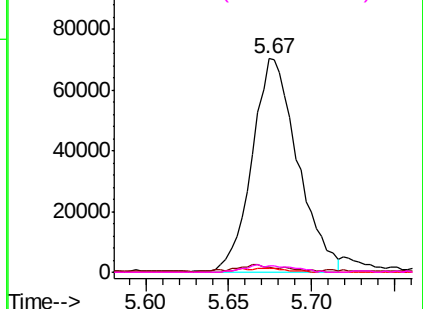


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.556 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Tgt Ion: 57 Resp: 205755

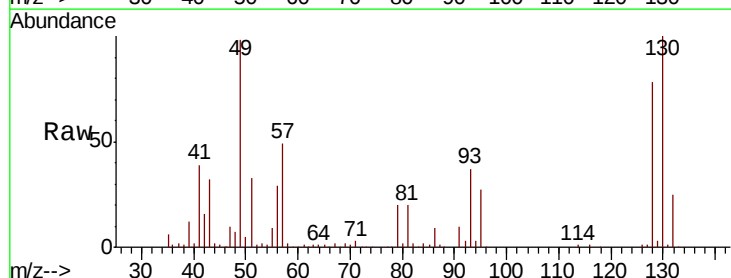
Ion Ratio Lower Upper

57 100

41 81.2 58.9 88.3

43 68.4 150.2 225.2#

56 59.0 42.4 63.6

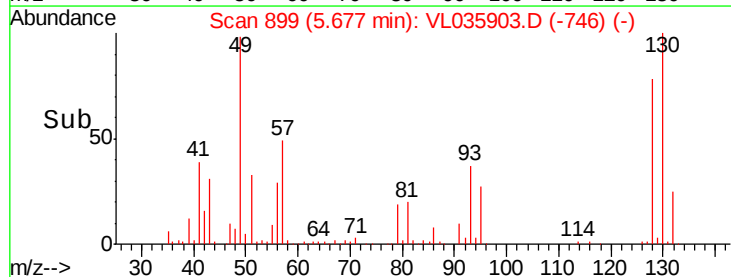
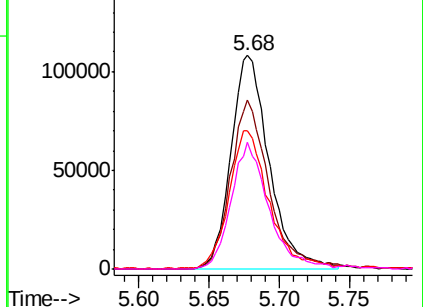


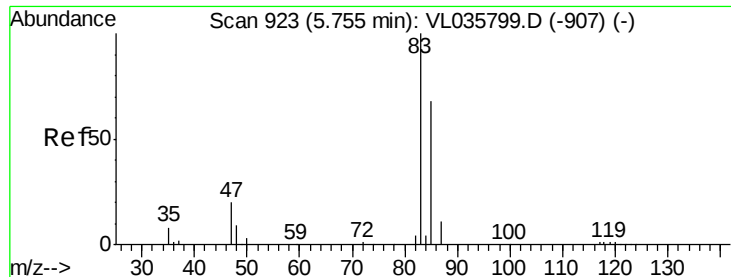
Abundance Ion 57.10 (56.80 to 57.80): VL0

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

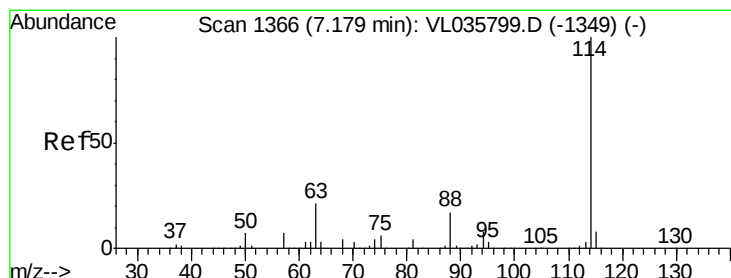
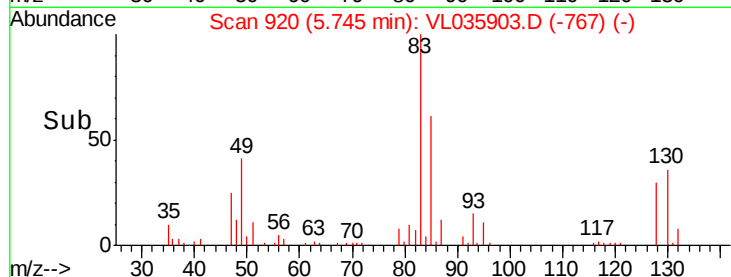
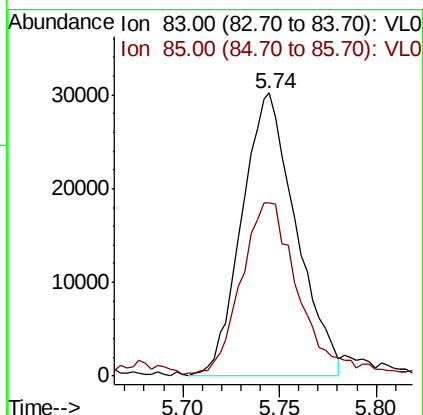
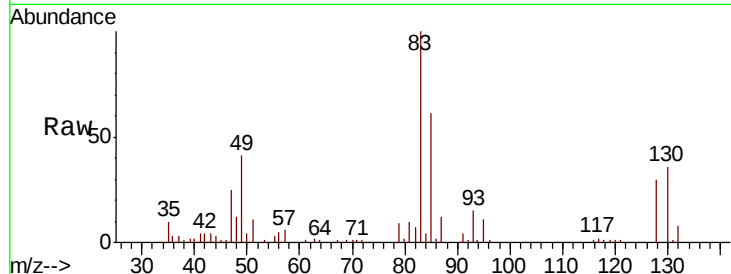




#29
Chloroform
Concen: 0.226 ppbv
RT: 5.74 min Scan# 920
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

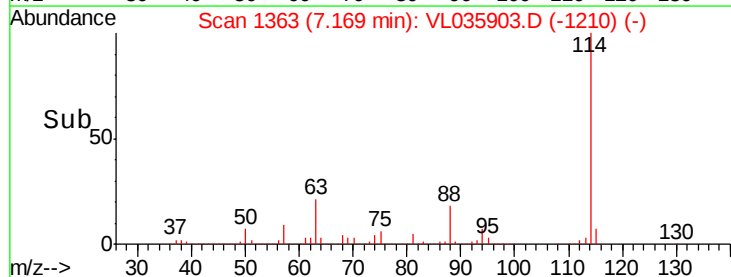
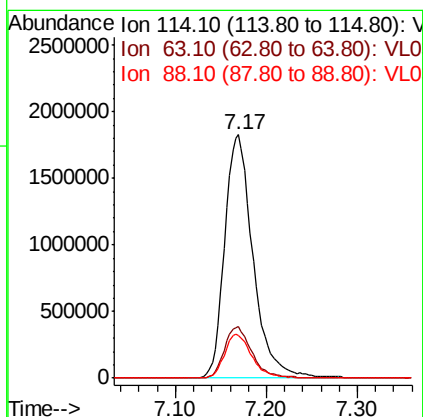
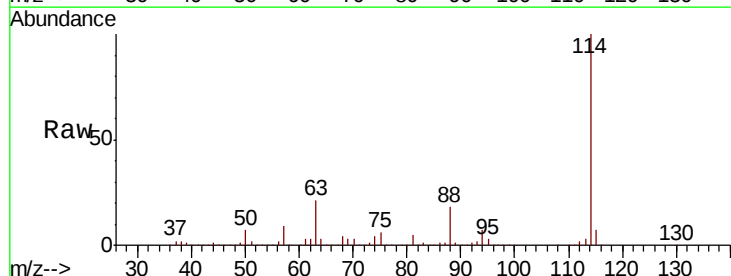
Instrument :
MSVOA_L
ClientSampleId :

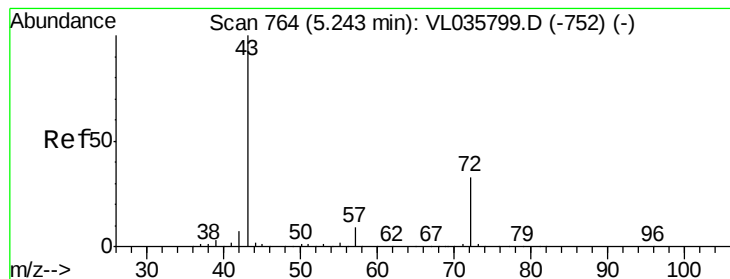
Tot Ion: 83 Resp: 58831
Ion Ratio Lower Upper
83 100
85 60.2 54.6 81.8



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

Tgt Ion: 114 Resp: 3956417
Ion Ratio Lower Upper
114 100
63 20.7 16.1 24.1
88 17.5 13.7 20.5





#34

2-Butanone

Concen: 0.247 ppbv

RT: 5.24 min Scan# 763

Delta R.T. -0.00 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

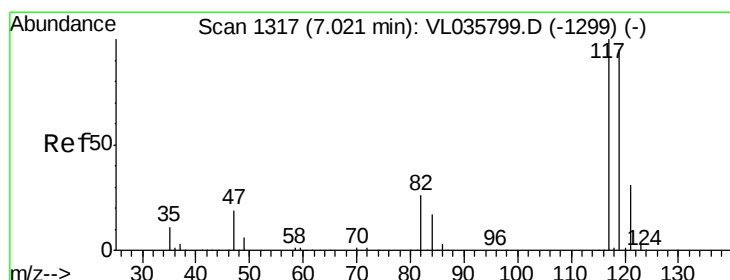
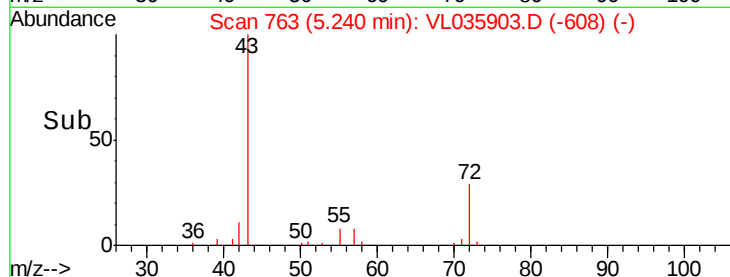
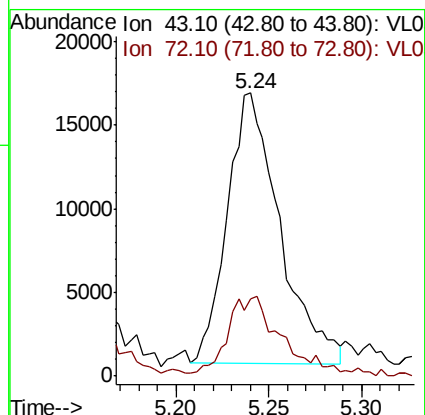
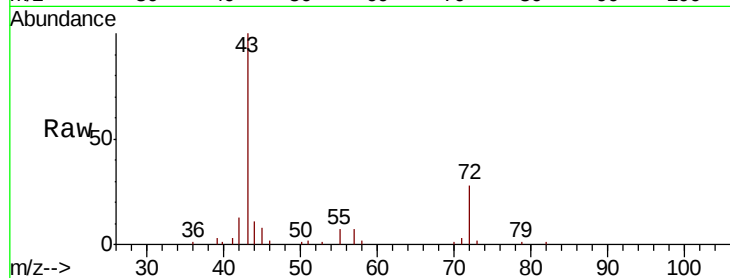
ClientSampleId :

Tot Ion: 43 Resp: 31710

Ion Ratio Lower Upper

43 100

72 32.3 26.5 39.7



#35

Carbon Tetrachloride

Concen: 0.053 ppbv

RT: 7.01 min Scan# 1312

Delta R.T. -0.02 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

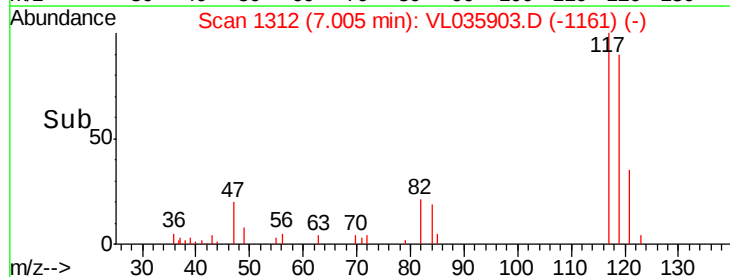
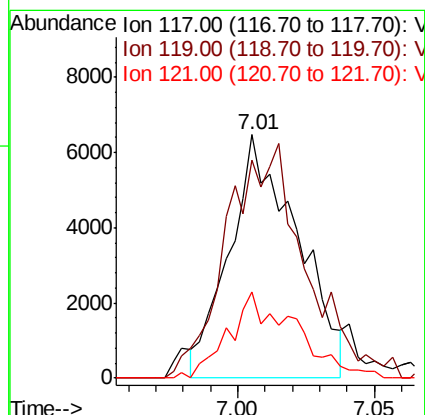
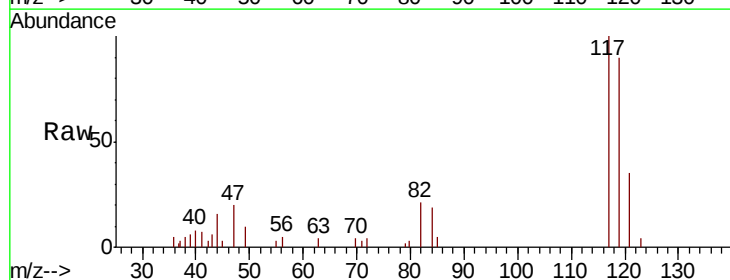
Tgt Ion: 117 Resp: 11180

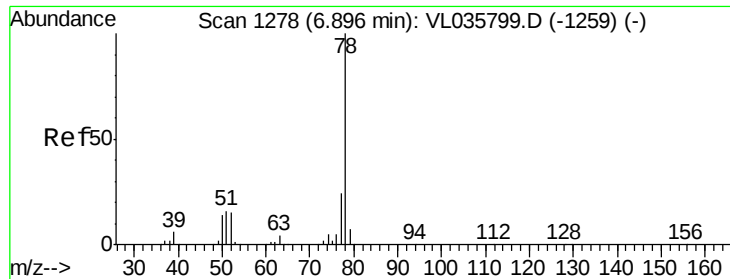
Ion Ratio Lower Upper

117 100

119 87.6 75.6 113.4

121 39.9 25.1 37.7#





#36

Benzene

Concen: 0.123 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.01 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

ClientSampleId :

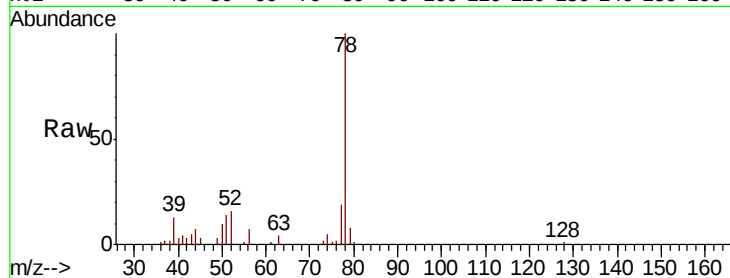
Tot Ion: 78 Resp: 36248

Ion Ratio Lower Upper

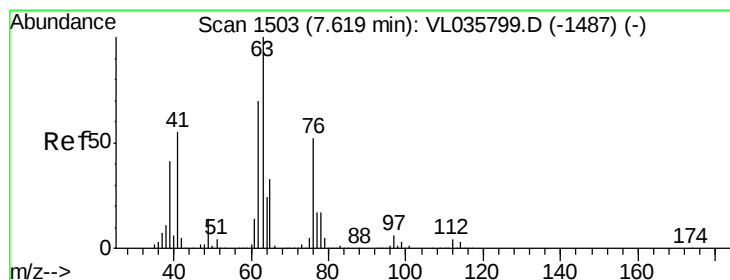
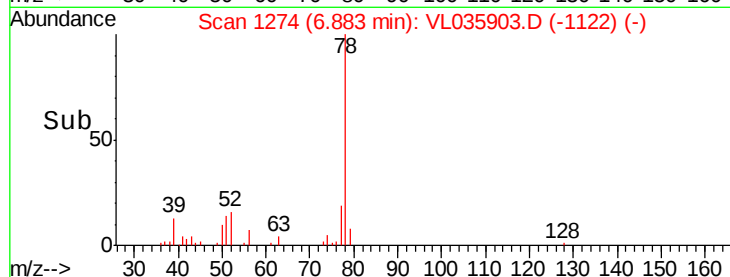
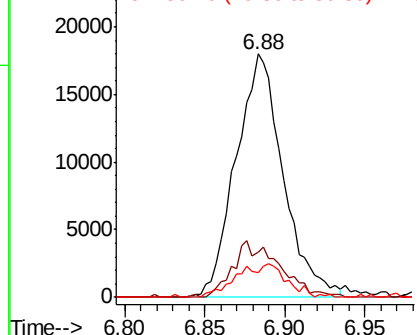
78 100

77 17.7 19.3 28.9#

50 10.2 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: 8.163 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.45 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

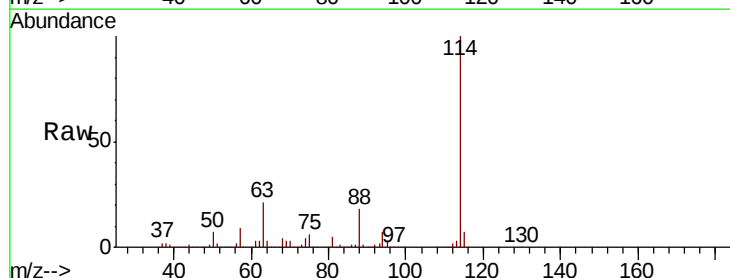
Tgt Ion: 63 Resp: 808342

Ion Ratio Lower Upper

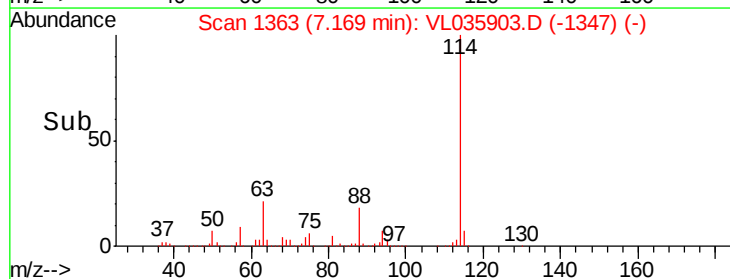
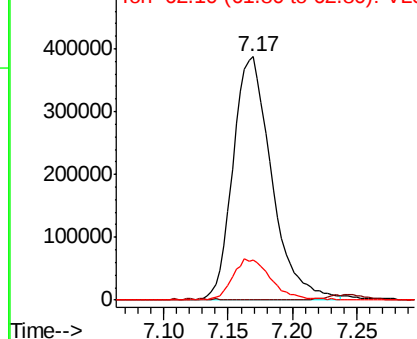
63 100

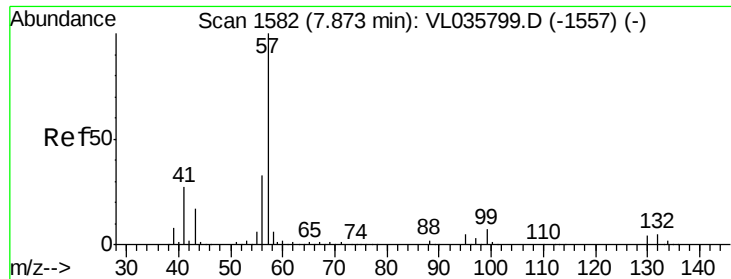
41 0.0 43.8 65.6#

62 16.4 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





#44

2,2,4-Trimethylpentane

Concen: 0.061 ppbv

RT: 7.86 min Scan# 1578

Delta R.T. -0.01 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

ClientSampleId :

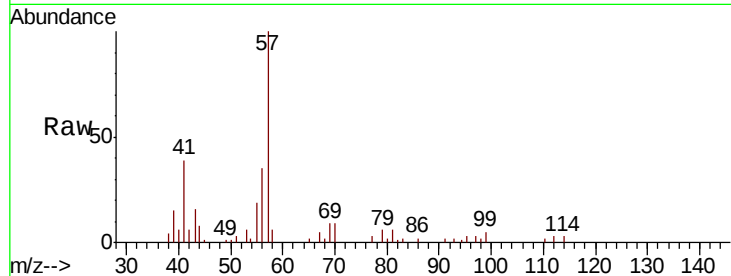
Tot Ion: 57 Resp: 23846

Ion Ratio Lower Upper

57 100

41 51.7 21.0 31.4#

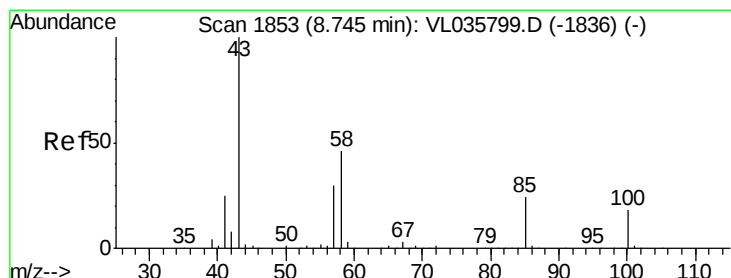
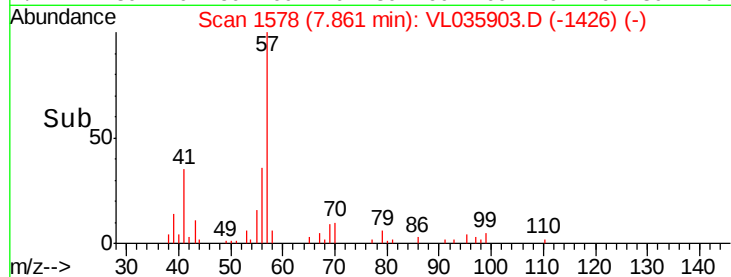
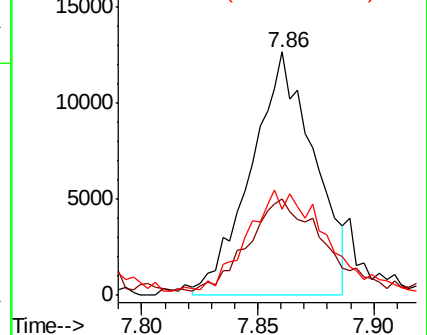
56 57.2 25.4 38.0#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#50

4-Methyl-2-Pentanone

Concen: 0.154 ppbv

RT: 8.75 min Scan# 1854

Delta R.T. 0.00 min

Lab File: VL035903.D

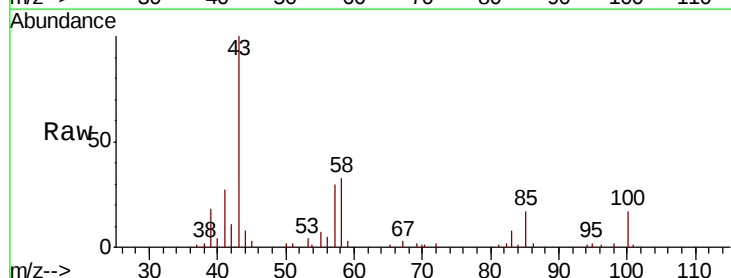
Acq: 11 Nov 2020 00:34

Tgt Ion: 43 Resp: 30224

Ion Ratio Lower Upper

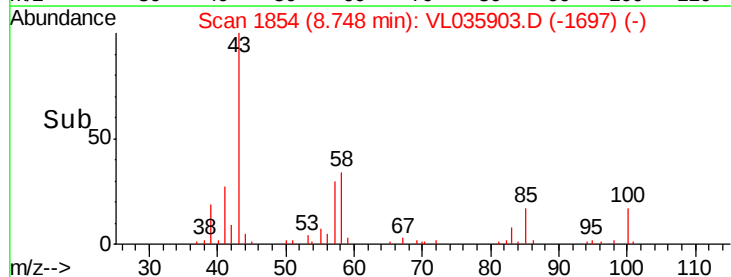
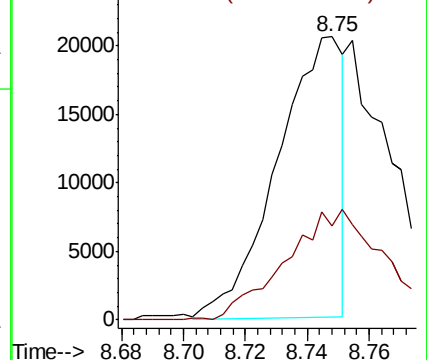
43 100

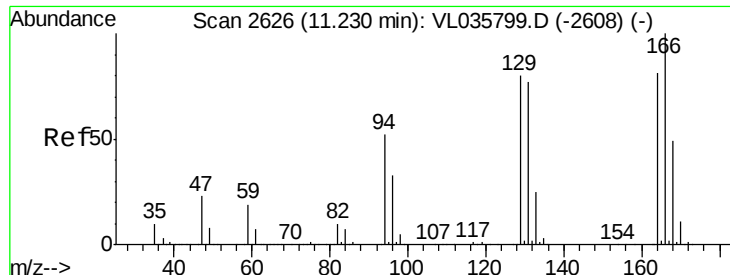
58 0.0 36.0 54.0#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#52

Tetrachloroethene

Concen: 0.438 ppbv

RT: 11.21 min Scan# 2621

Delta R.T. -0.02 min

Lab File: VL035903.D

Acq: 11 Nov 2020 00:34

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 61045

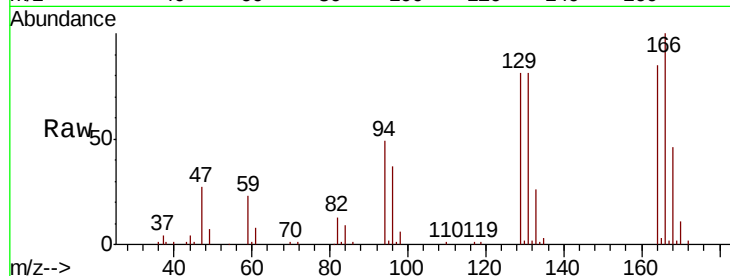
Ion Ratio Lower Upper

164 100

166 117.5 99.3 148.9

129 95.4 79.3 118.9

131 95.7 76.5 114.7

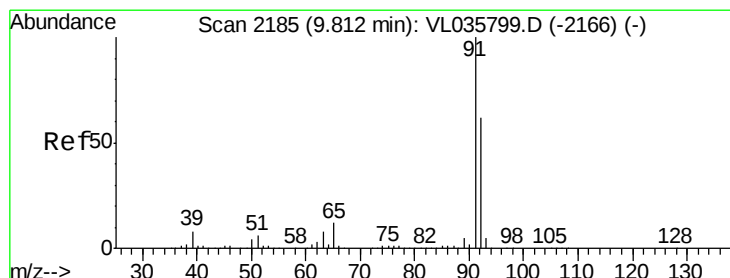
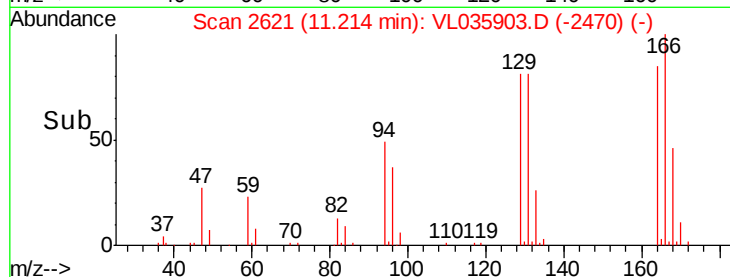
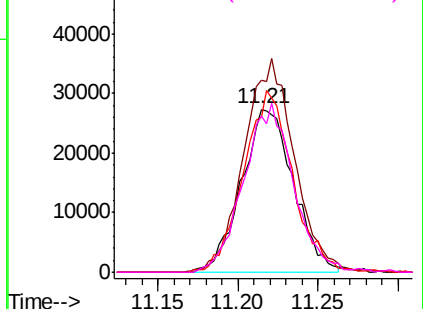


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 1.949 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL035903.D

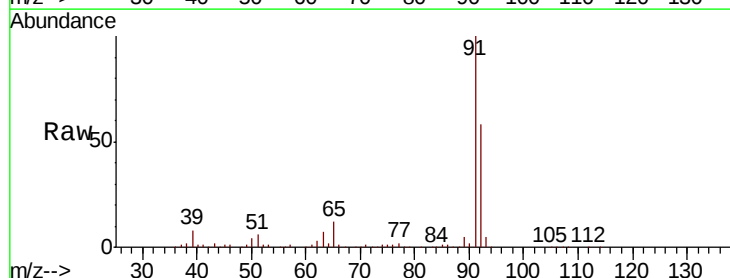
Acq: 11 Nov 2020 00:34

Tgt Ion: 91 Resp: 691563

Ion Ratio Lower Upper

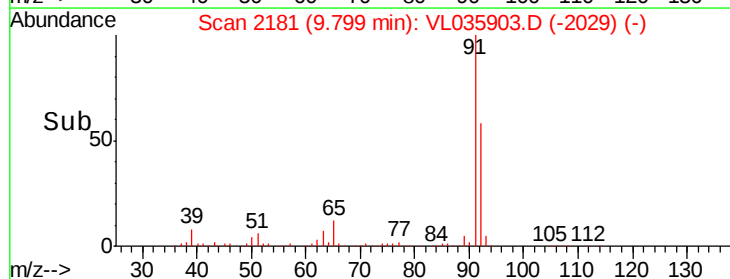
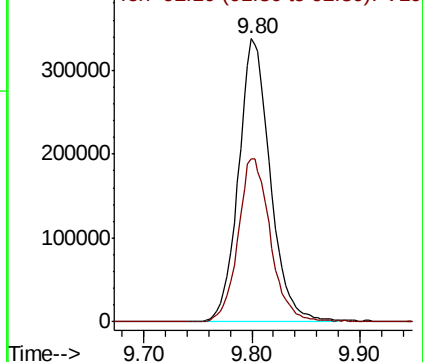
91 100

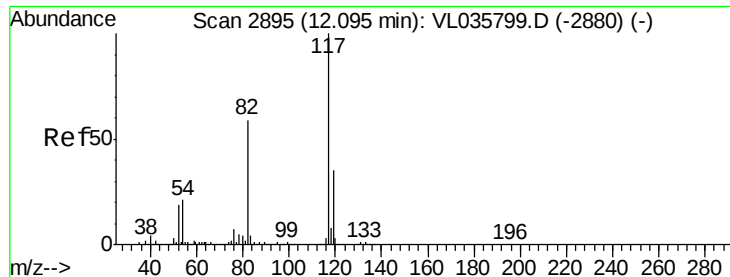
92 59.1 49.8 74.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

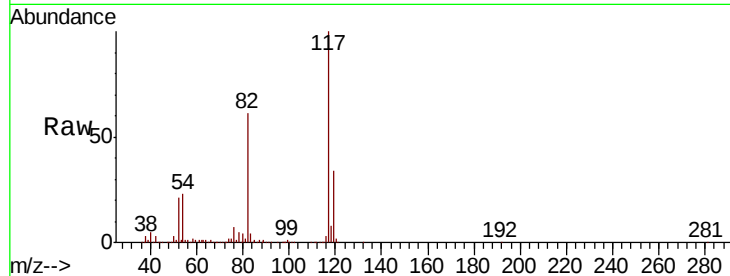




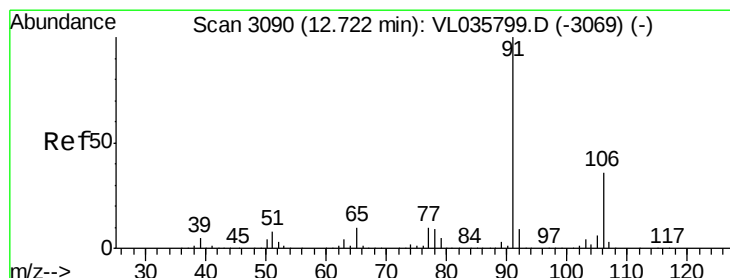
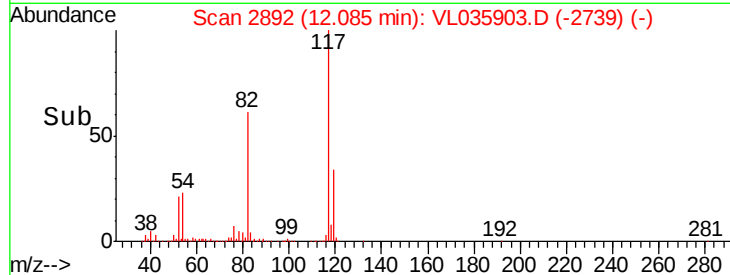
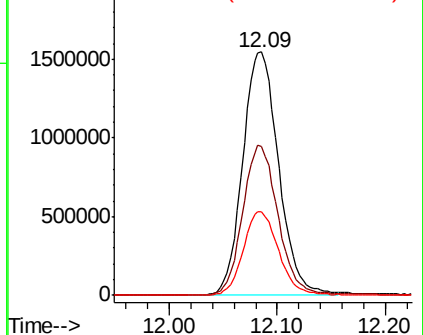
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2892
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 3589977
Ion Ratio Lower Upper
117 100
82 61.6 50.6 76.0
119 34.1 52.6 78.8#

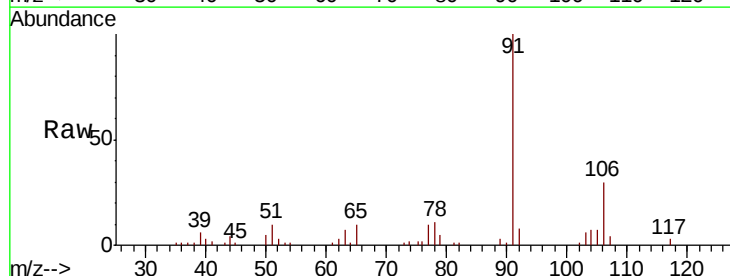


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

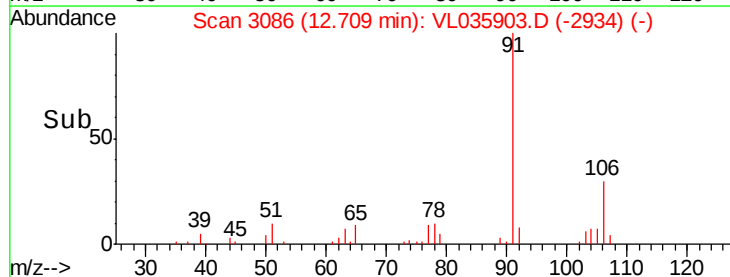
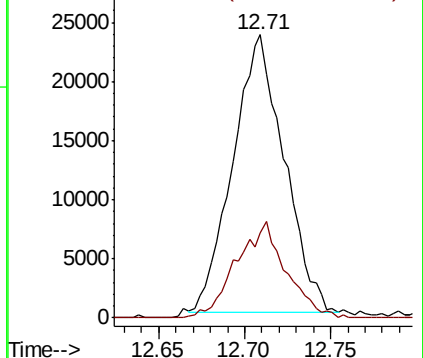


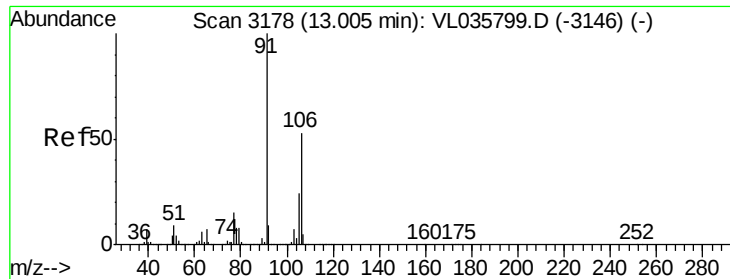
#58
Ethyl Benzene
Concen: 0.111 ppbv
RT: 12.71 min Scan# 3086
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

Tgt Ion: 91 Resp: 48381
Ion Ratio Lower Upper
91 100
106 30.5 28.6 43.0



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

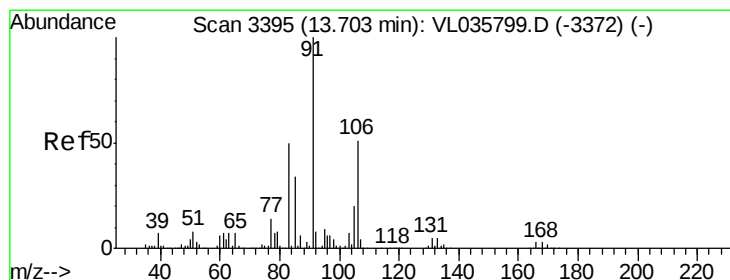
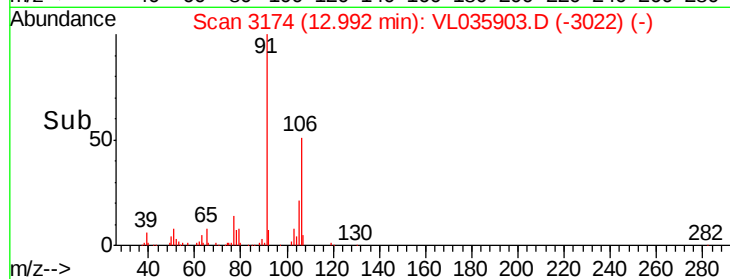
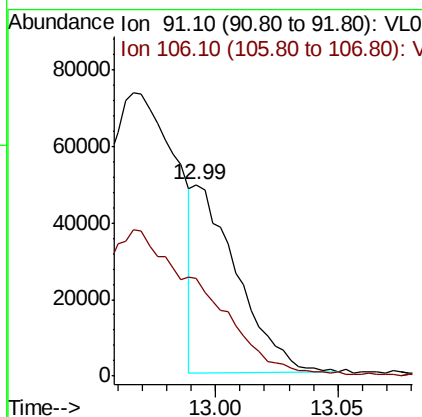
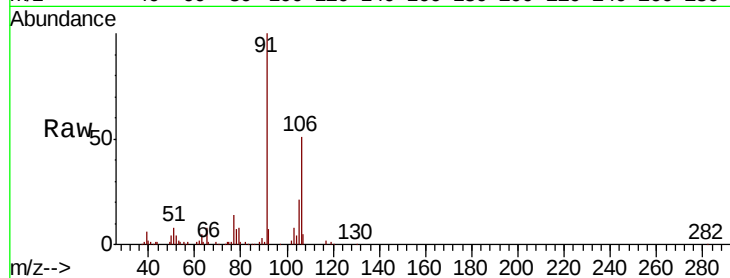




#59
m/p-Xylene
Concen: 0.165 ppbv
RT: 12.99 min Scan# 3174
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

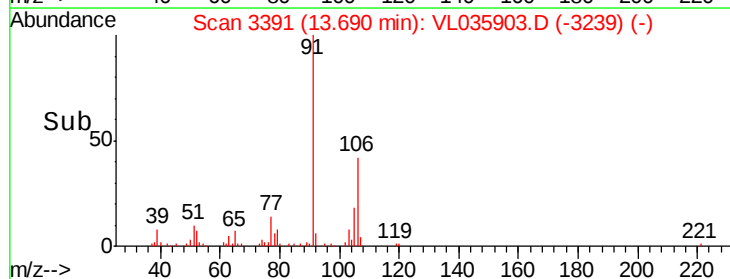
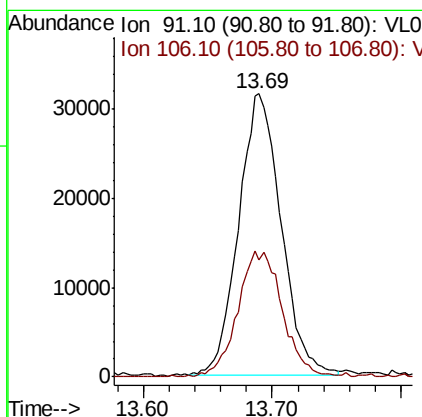
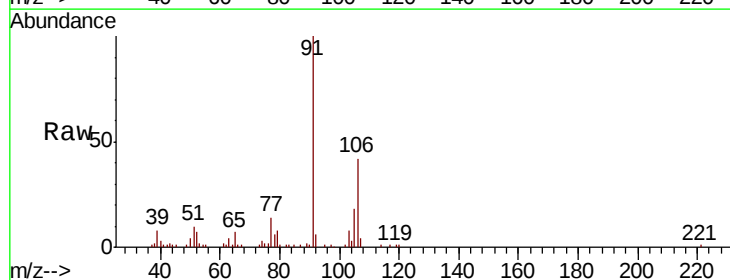
Instrument :
MSVOA_L
ClientSampled :

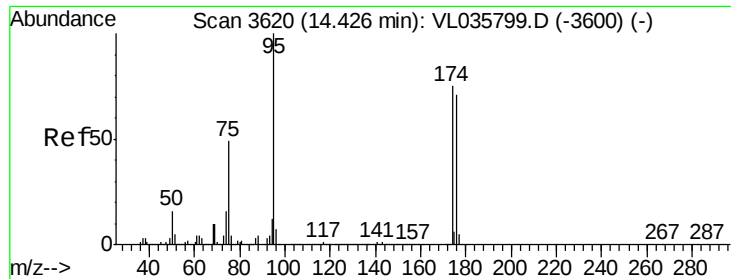
Tot Ion: 91 Resp: 60919
Ion Ratio Lower Upper
91 100
106 0.0 39.5 59.3#



#60
o-Xylene
Concen: 0.201 ppbv
RT: 13.69 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL035903.D
Acq: 11 Nov 2020 00:34

Tgt Ion: 91 Resp: 72326
Ion Ratio Lower Upper
91 100
106 47.1 24.8 74.4

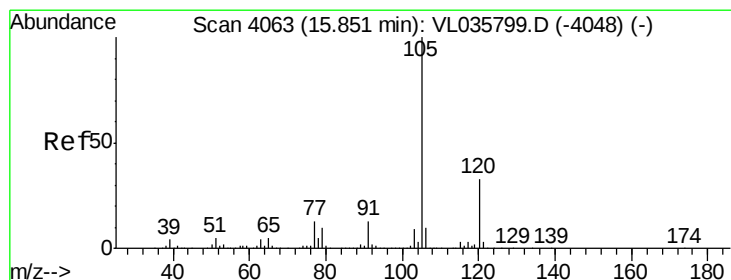
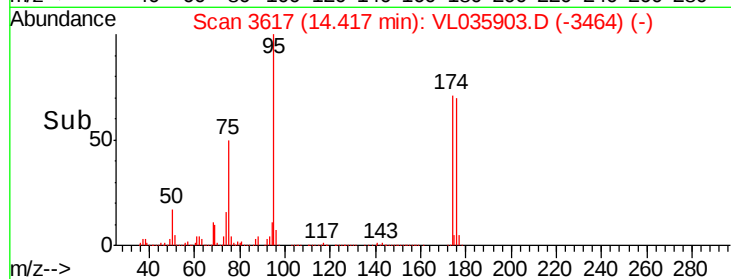
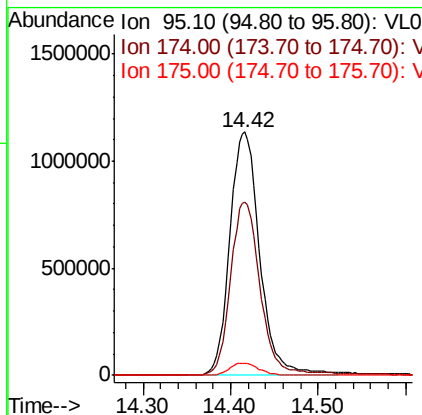
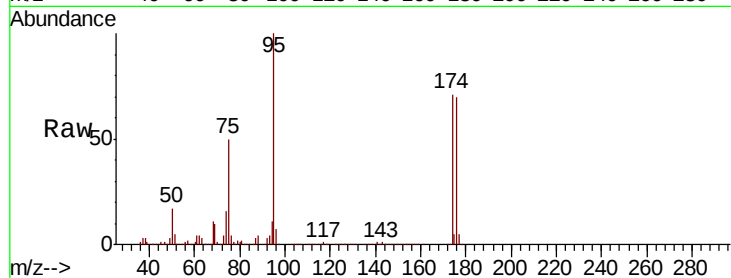




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.585 ppbv
 RT: 14.42 min Scan# 3617
 Delta R.T. -0.01 min
 Lab File: VL035903.D
 Acq: 11 Nov 2020 00:34

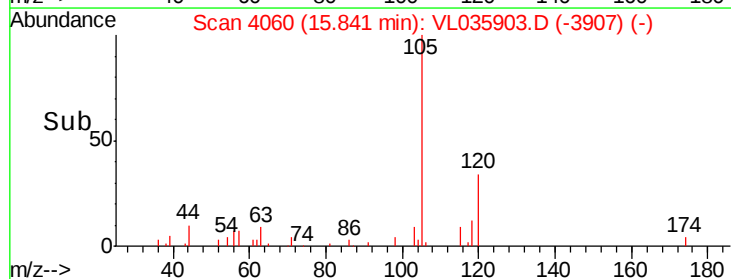
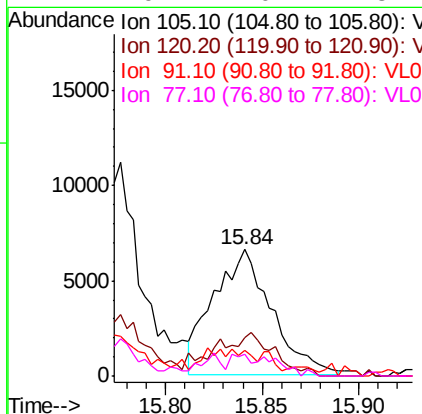
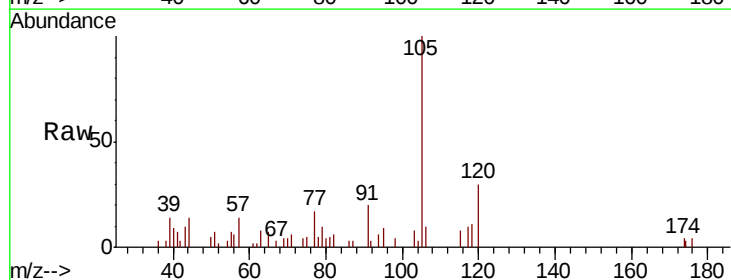
Instrument :
 MSVOA_L
 ClientSampleId :

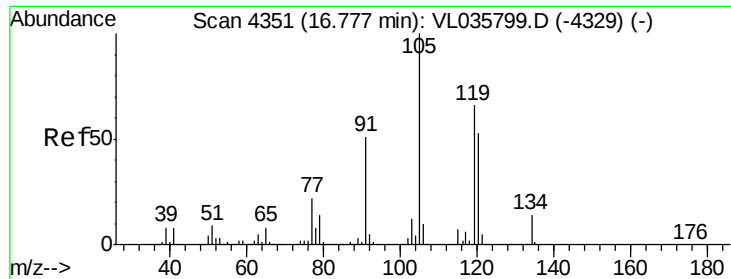
Tot Ion: 95 Resp: 2699878
 Ion Ratio Lower Upper
 95 100
 174 72.1 59.8 89.6
 175 5.1 4.3 6.5



#72
 4-Ethyltoluene
 Concen: 0.031 ppbv
 RT: 15.84 min Scan# 4060
 Delta R.T. -0.01 min
 Lab File: VL035903.D
 Acq: 11 Nov 2020 00:34

Tgt Ion: 105 Resp: 13744
 Ion Ratio Lower Upper
 105 100
 120 36.8 25.9 38.9
 91 26.3 9.9 14.9#
 77 19.1 10.2 15.2#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.104 ppbv
 RT: 16.76 min Scan# 4347
 Delta R.T. -0.01 min
 Lab File: VL035903.D
 Acq: 11 Nov 2020 00:34

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	44368
Ion	Ratio	Lower	Upper
105	100		
120	47.5	42.0	63.0
91	10.4	41.0	61.6#
77	11.8	17.3	25.9#

