

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080620\
 Data File : VL035357.D
 Acq On : 6 Aug 2020 19:50
 Operator : SY/AP
 Sample : L3554-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Aug 07 06:29:19 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL080520AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Aug 05 13:04:46 2020
 QLast Update : Wed Aug 05 13:04:46 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1369148	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3443806	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	3213593	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	2698700	10.07	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

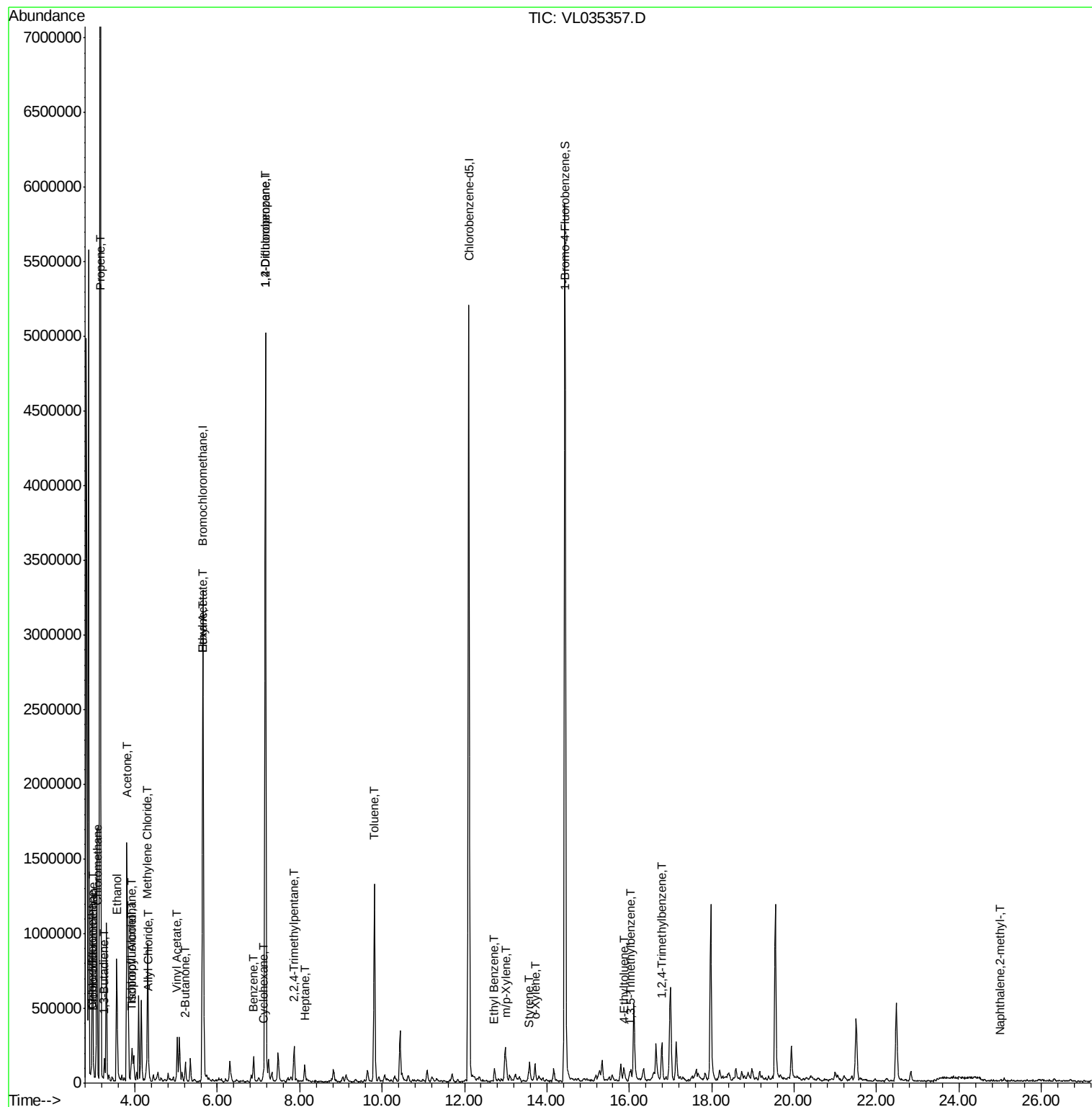
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.00	85	52306	0.287 ppbv #	84
3) Chlorodifluoromethane	2.94	51	73003	0.467 ppbv #	85
4) Chloromethane	3.09	50	49239	0.556 ppbv	95
9) Propene	3.16	41	3549034	63.726 ppbv	97
10) Heptane	8.12	43	6083	0.043 ppbv #	1
11) Trichlorofluoromethane	3.91	101	51025	0.216 ppbv	87
13) Ethanol	3.56	45	849895	44.247 ppbv	96
15) Acetone	3.81	43	1734646	8.922 ppbv	97
16) 1,3-Butadiene	3.26	39	45084	0.602 ppbv #	51
19) Isopropyl Alcohol	3.93	45	200604	1.628 ppbv #	87
20) Methylene Chloride	4.31	84	283239	3.572 ppbv	90
21) Allyl Chloride	4.33	41	7310	0.066 ppbv #	20
23) Vinyl Acetate	5.03	43	126205	0.677 ppbv #	33
25) Ethyl Acetate	5.66	43	148834	0.504 ppbv #	85
26) Hexane	5.66	57	176541	1.378 ppbv #	45
30) Cyclohexane	7.12	84	4465	0.046 ppbv #	1
34) 2-Butanone	5.21	43	52395	0.309 ppbv #	52
36) Benzene	6.88	78	127899	0.550 ppbv #	93
39) 1,2-Dichloropropane	7.17	63	903250	9.595 ppbv #	21
44) 2,2,4-Trimethylpentane	7.86	57	97326	0.236 ppbv #	23
53) Toluene	9.81	91	940633	3.718 ppbv	98
58) Ethyl Benzene	12.72	91	18624	0.056 ppbv #	85
59) m/p-Xylene	13.02	91	20054	0.064 ppbv #	29
60) o-Xylene	13.71	91	80810	0.262 ppbv	94
61) Styrene	13.55	104	9109	0.048 ppbv #	53
72) 4-Ethyltoluene	15.85	105	12059	0.034 ppbv #	29
73) 1,3,5-Trimethylbenzene	16.02	105	19220	0.057 ppbv	100
74) 1,2,4-Trimethylbenzene	16.79	105	107343	0.278 ppbv #	71
80) Naphthalene,2-methyl-	25.00	142	3111	0.046 ppbv #	36

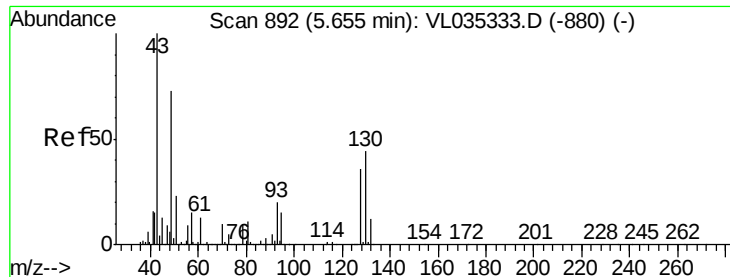
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ClientSampled :

Quant Time: Aug 07 06:29:19 2020
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QLast Update : Wed Aug 05 13:04:46 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.01 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :
MSVOA_L
ClientSampled :

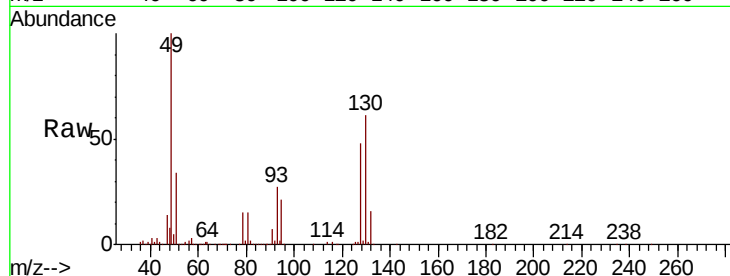
Tot Ion: 49 Resp: 1369148

Ion Ratio Lower Upper

49 100

128 50.3 25.4 76.0

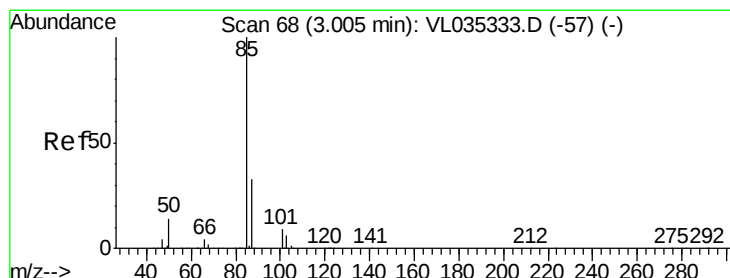
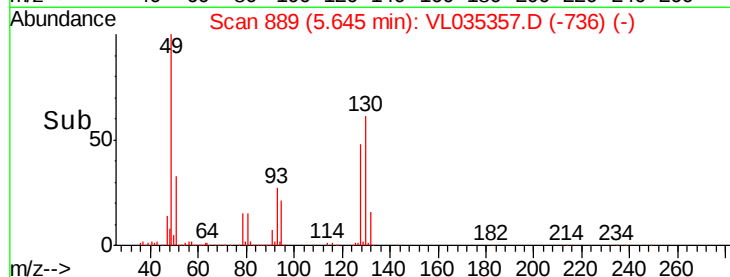
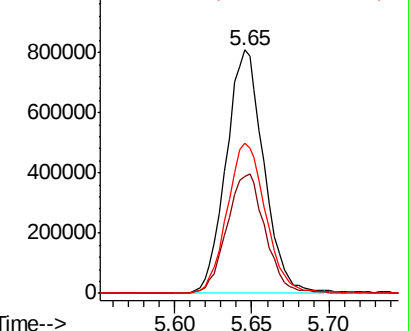
130 63.8 32.1 96.3



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: 0.287 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.01 min

Lab File: VL035357.D

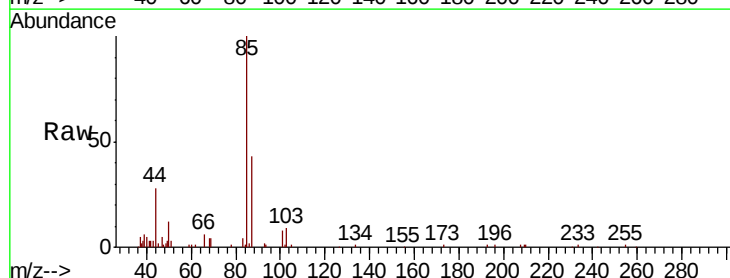
Acq: 6 Aug 2020 19:50

Tgt Ion: 85 Resp: 52306

Ion Ratio Lower Upper

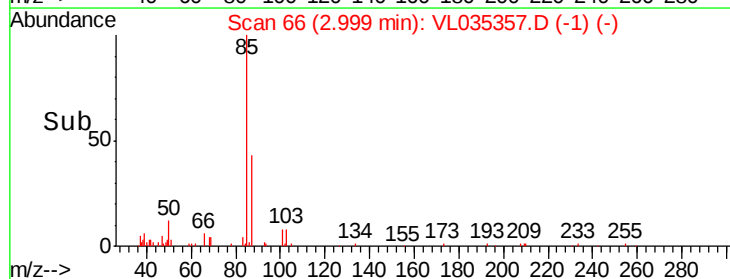
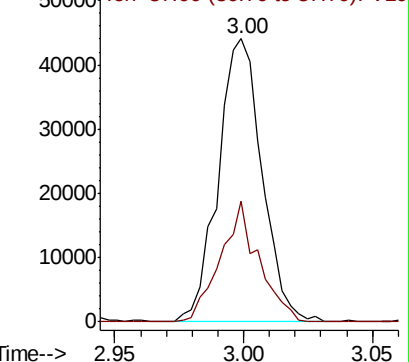
85 100

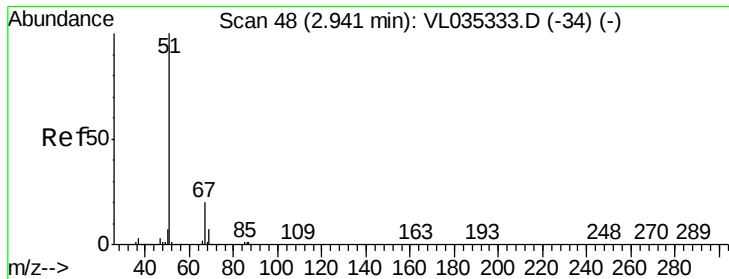
87 42.7 26.7 40.1#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

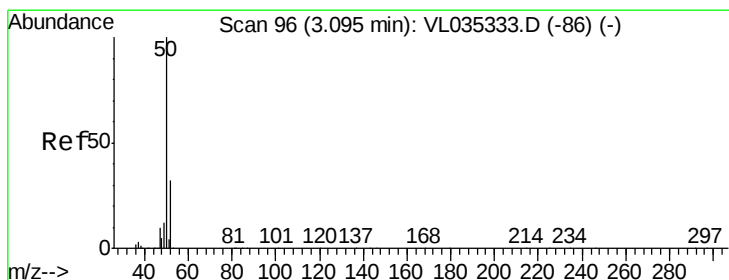
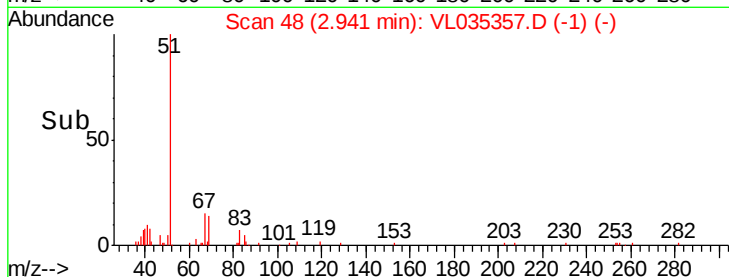
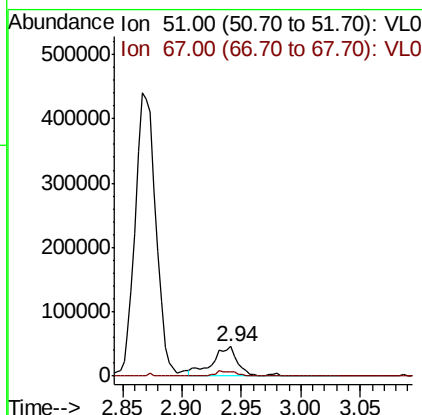
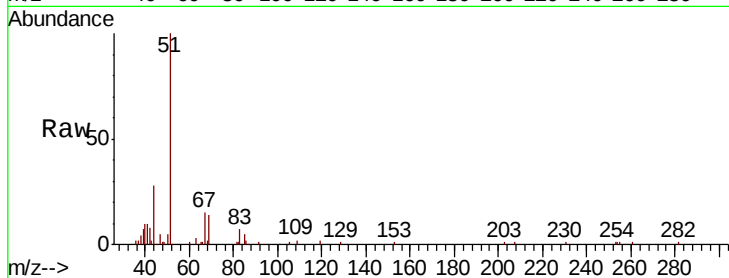




#3
Chlorodifluoromethane
Concen: 0.467 ppbv
RT: 2.94 min Scan# 48
Delta R.T. 0.00 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

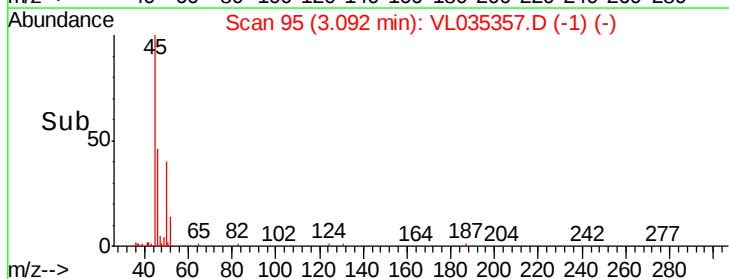
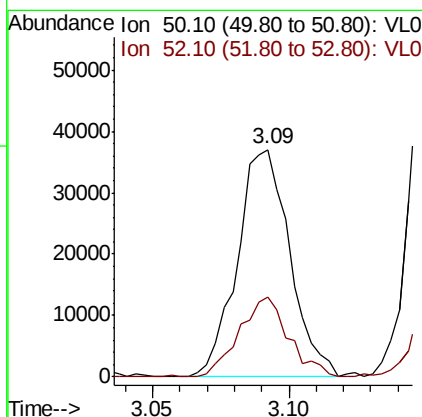
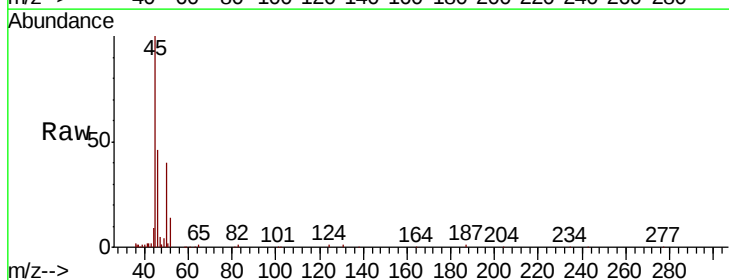
Instrument :
MSVOA_L
ClientSampleId :

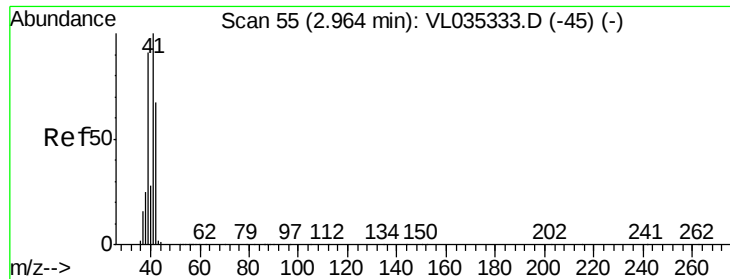
Tot Ion: 51 Resp: 73003
Ion Ratio Lower Upper
51 100
67 13.8 16.6 25.0#



#4
Chloromethane
Concen: 0.556 ppbv
RT: 3.09 min Scan# 95
Delta R.T. -0.00 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

Tgt Ion: 50 Resp: 49239
Ion Ratio Lower Upper
50 100
52 35.2 26.0 39.0





#9

Propene

Concen: 63.726 ppbv

RT: 3.16 min Scan# 115

Delta R.T. 0.19 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

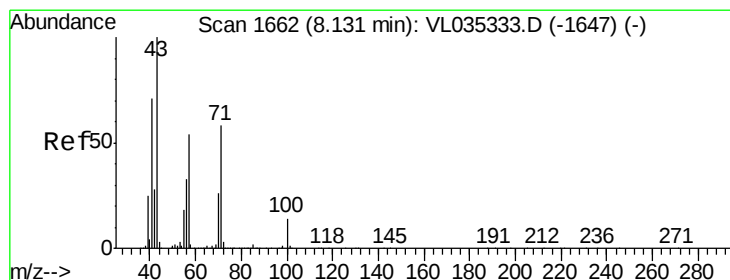
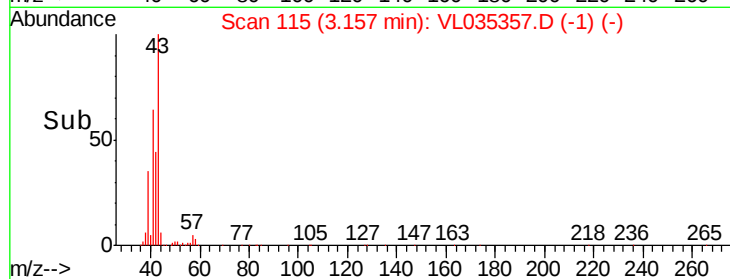
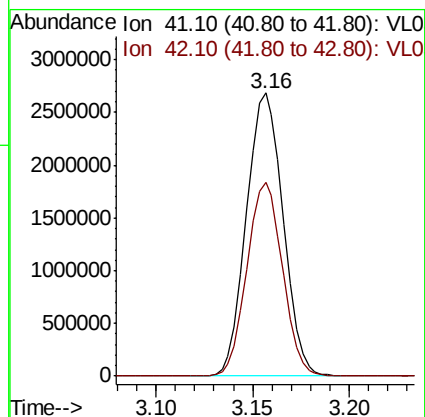
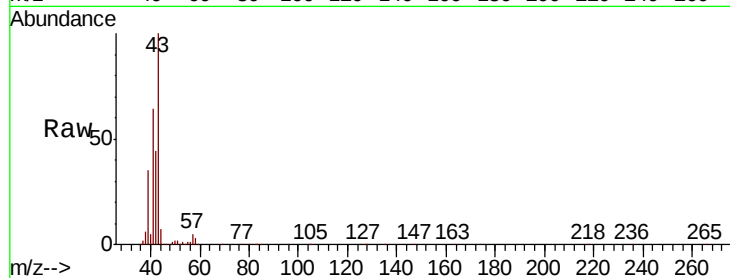
ClientSampleId :

Tot Ion: 41 Resp: 3549034

Ion Ratio Lower Upper

41 100

42 66.4 55.3 82.9



#10

Heptane

Concen: 0.043 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL035357.D

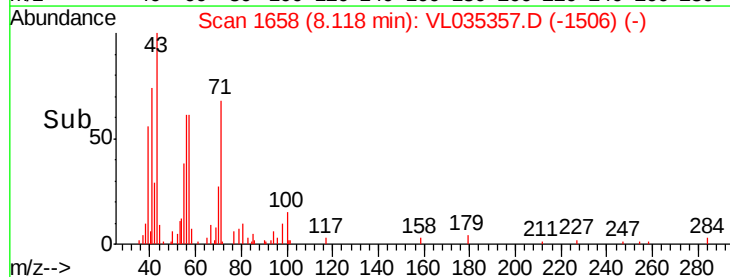
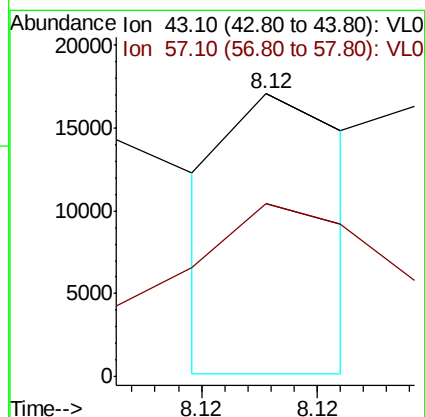
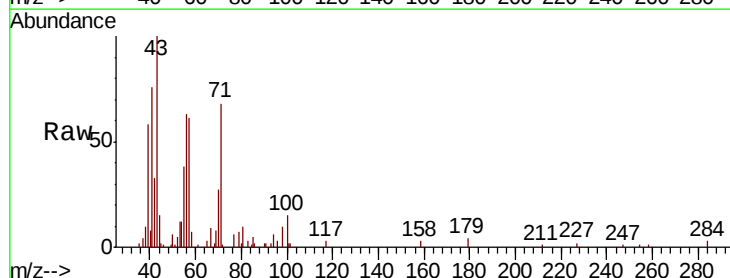
Acq: 6 Aug 2020 19:50

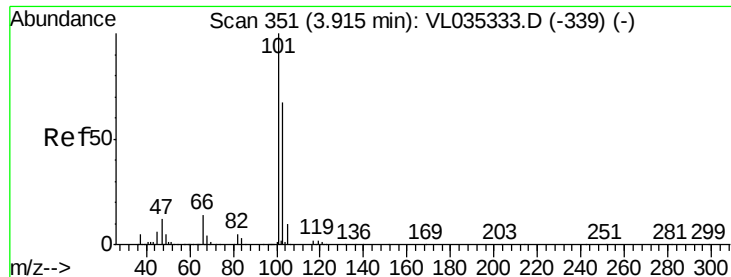
Tgt Ion: 43 Resp: 6083

Ion Ratio Lower Upper

43 100

57 316.0 43.0 64.6#

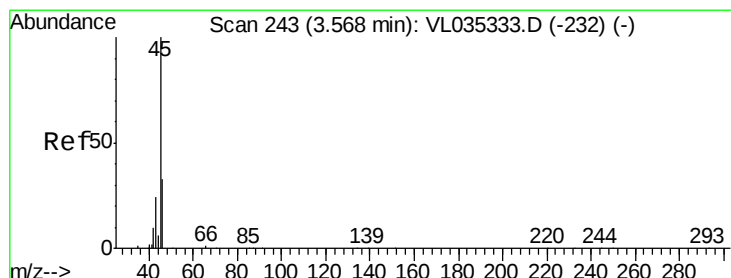
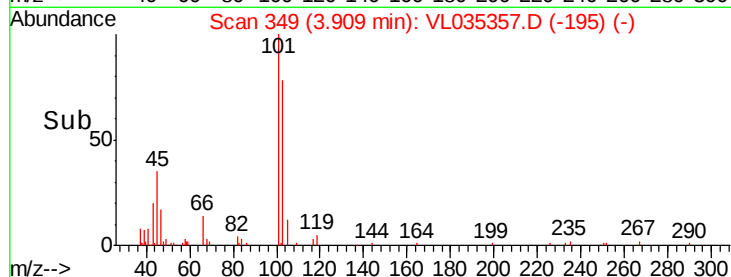
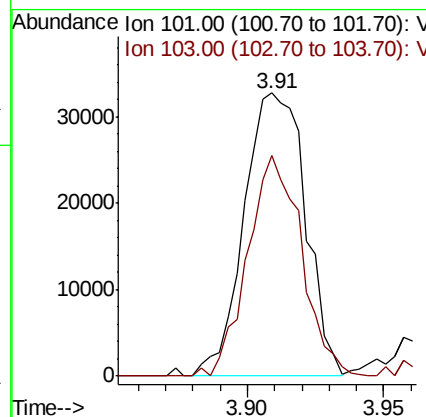
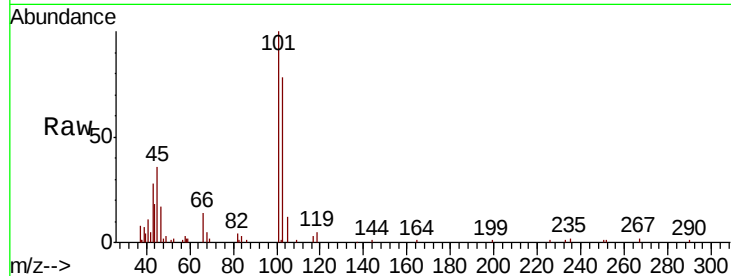




#11
 Trichlorofluoromethane
 Concen: 0.216 ppbv
 RT: 3.91 min Scan# 349
 Delta R.T. -0.01 min
 Lab File: VL035357.D
 Acq: 6 Aug 2020 19:50

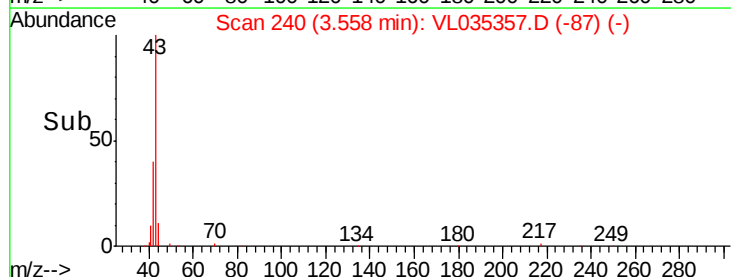
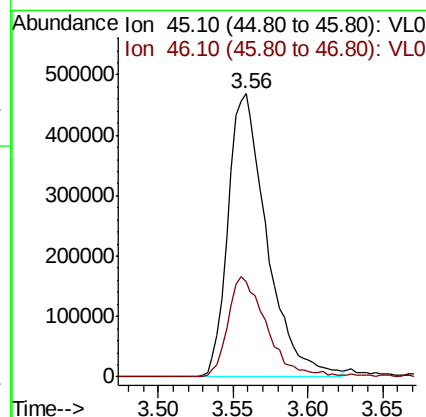
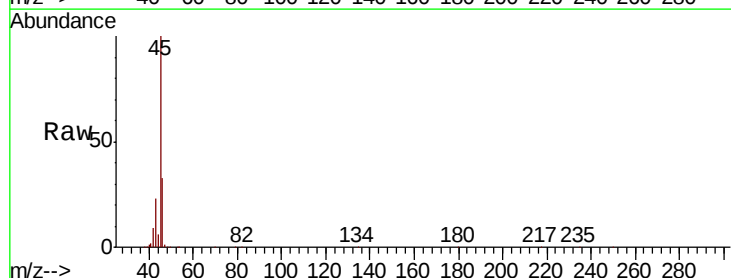
Instrument :
 MSVOA_L
 ClientSampleId :

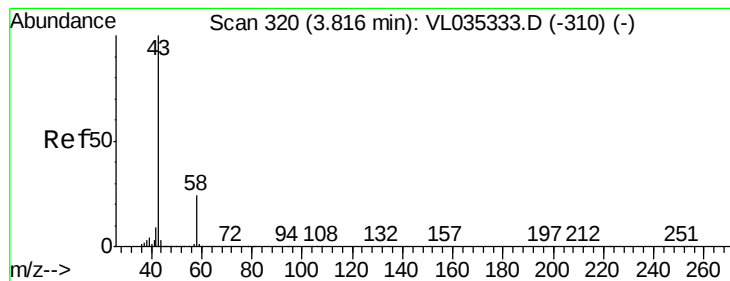
Tot Ion:101 Resp: 51025
 Ion Ratio Lower Upper
 101 100
 103 77.8 53.8 80.8



#13
 Ethanol
 Concen: 44.247 ppbv
 RT: 3.56 min Scan# 240
 Delta R.T. -0.01 min
 Lab File: VL035357.D
 Acq: 6 Aug 2020 19:50

Tgt Ion: 45 Resp: 849895
 Ion Ratio Lower Upper
 45 100
 46 35.9 15.2 61.0





#15

Acetone

Concen: 8.922 ppbv

RT: 3.81 min Scan# 317

Delta R.T. -0.01 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

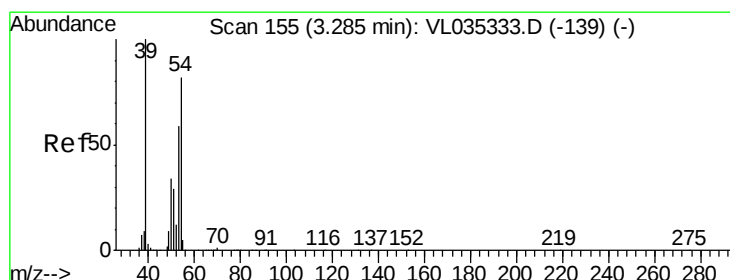
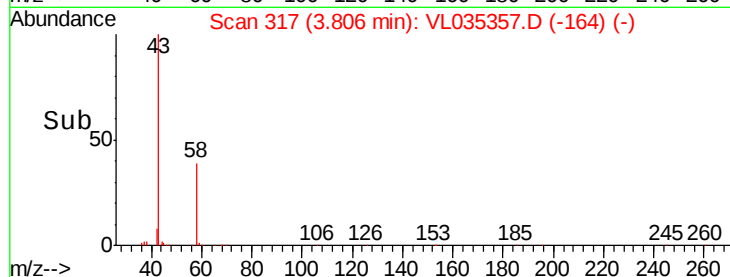
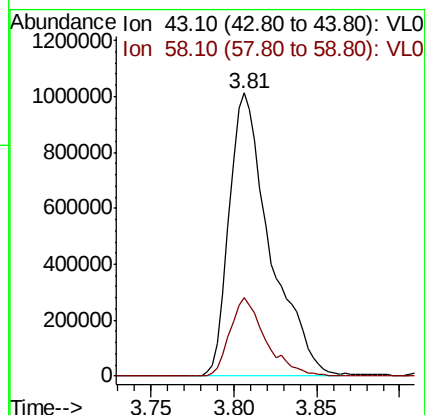
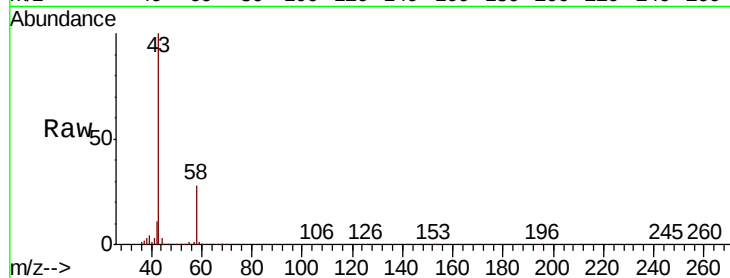
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 1734646

Ion Ratio Lower Upper

43 100

58 24.4 21.0 31.4



#16

1,3-Butadiene

Concen: 0.602 ppbv

RT: 3.26 min Scan# 147

Delta R.T. -0.03 min

Lab File: VL035357.D

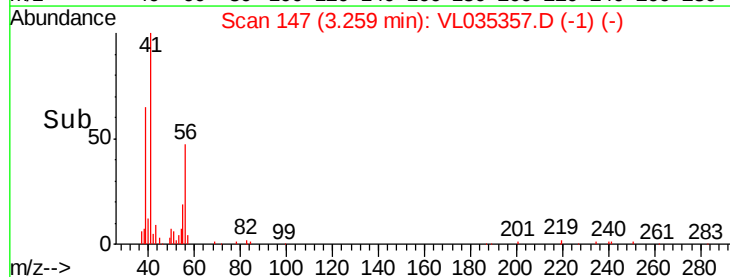
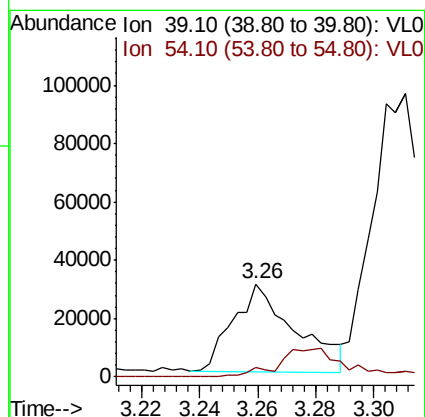
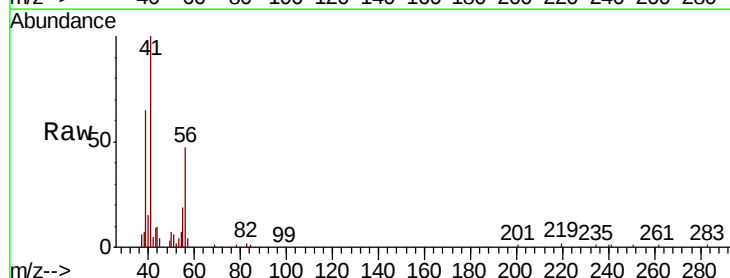
Acq: 6 Aug 2020 19:50

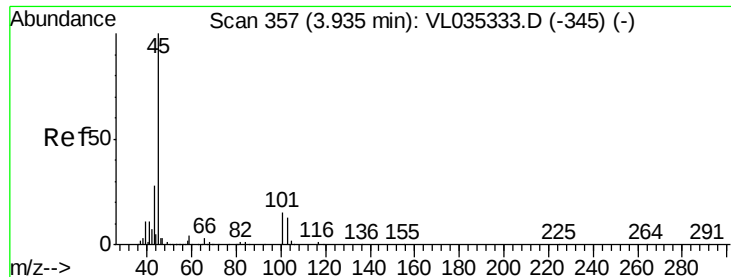
Tgt Ion: 39 Resp: 45084

Ion Ratio Lower Upper

39 100

54 37.3 64.4 96.6#





#19

Isopropyl Alcohol

Concen: 1.628 ppbv

RT: 3.93 min Scan# 355

Delta R.T. -0.01 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

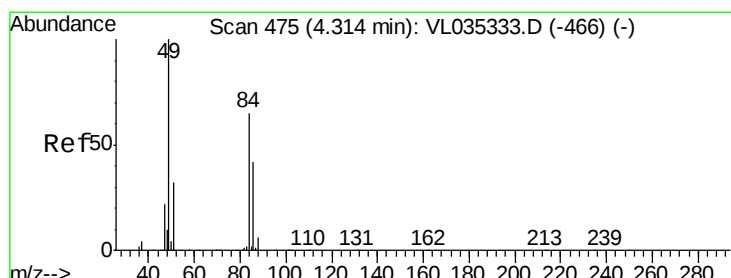
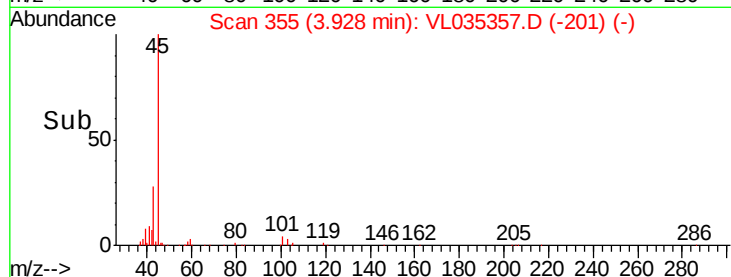
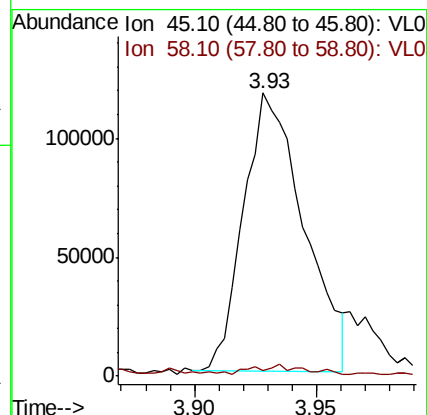
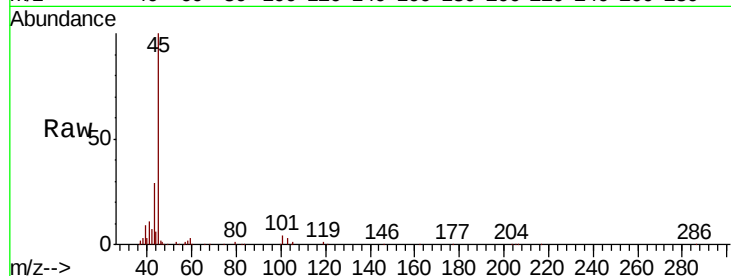
ClientSampled :

Tot Ion: 45 Resp: 200604

Ion Ratio Lower Upper

45 100

58 6.9 1.9 2.9#



#20

Methylene Chloride

Concen: 3.572 ppbv

RT: 4.31 min Scan# 473

Delta R.T. -0.01 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Tgt Ion: 84 Resp: 283239

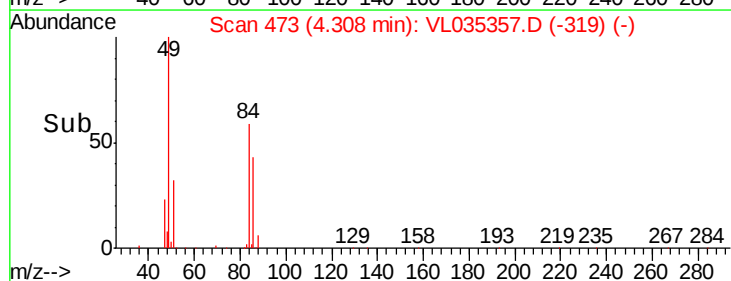
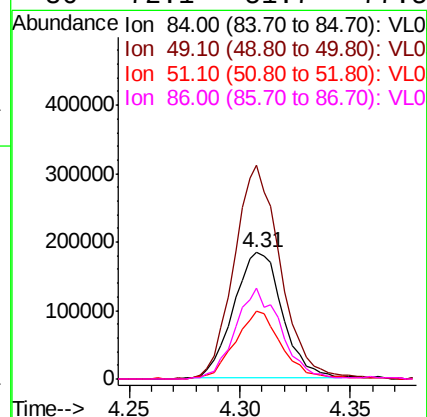
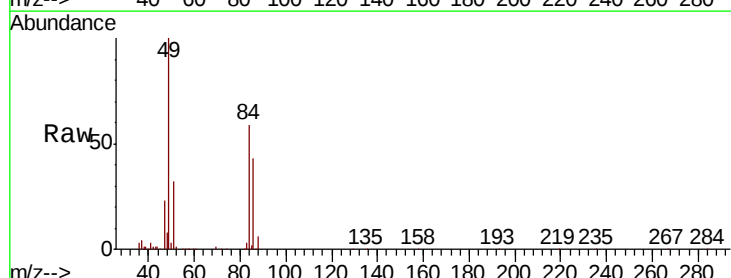
Ion Ratio Lower Upper

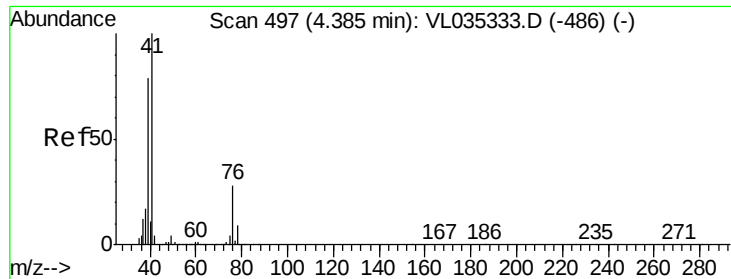
84 100

49 169.2 122.8 184.2

51 53.4 40.1 60.1

86 72.1 51.7 77.5





#21

Allvl Chloride

Concen: 0.066 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.05 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

ClientSampled :

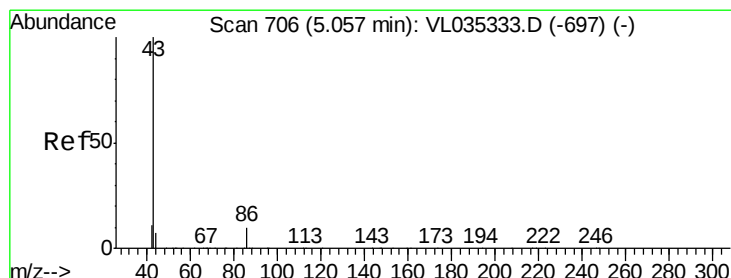
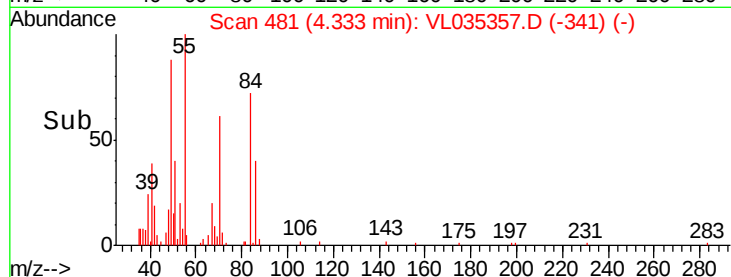
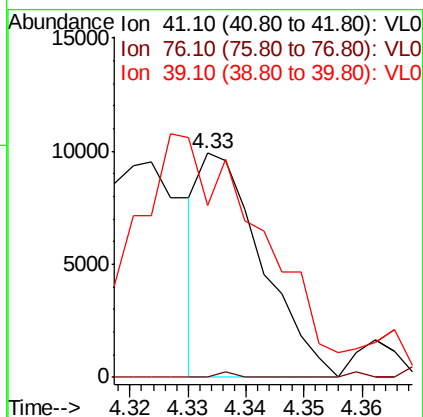
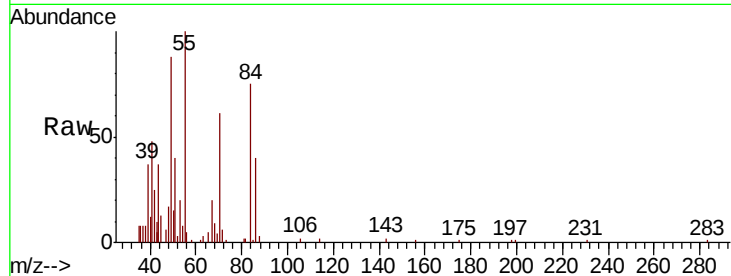
Tot Ion: 41 Resp: 7310

Ion Ratio Lower Upper

41 100

76 3.2 23.8 35.6#

39 0.0 65.0 97.6#



#23

Vinyl Acetate

Concen: 0.677 ppbv

RT: 5.03 min Scan# 698

Delta R.T. -0.03 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Tgt Ion: 43 Resp: 126205

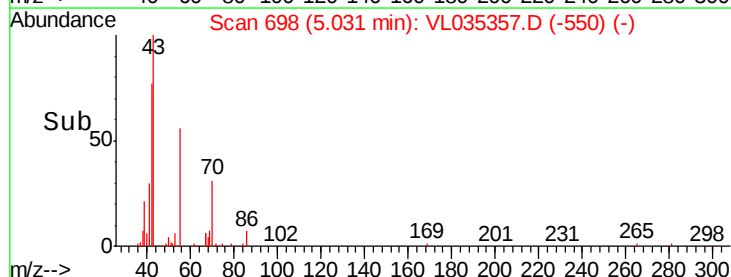
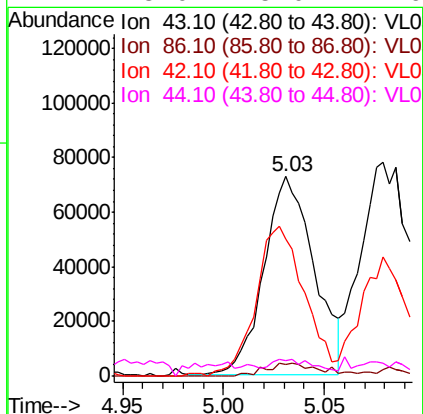
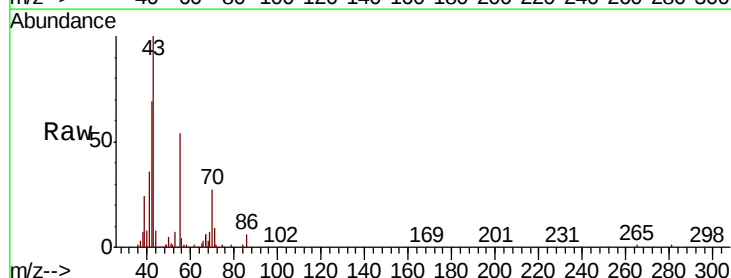
Ion Ratio Lower Upper

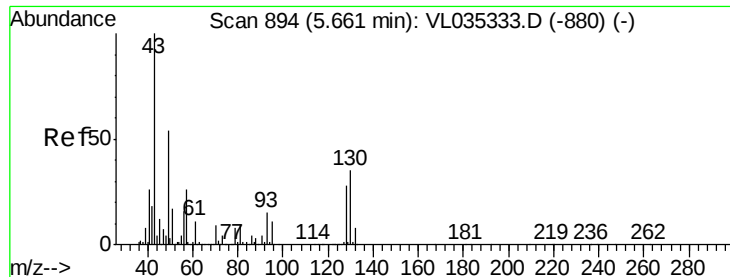
43 100

86 5.9 6.9 10.3#

42 68.2 8.8 13.2#

44 5.0 5.0 7.6#

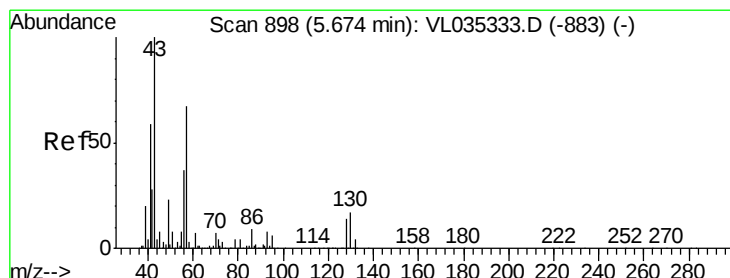
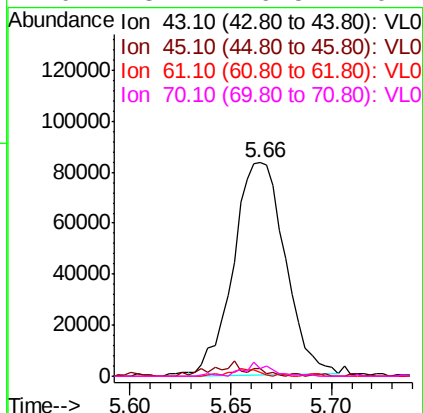
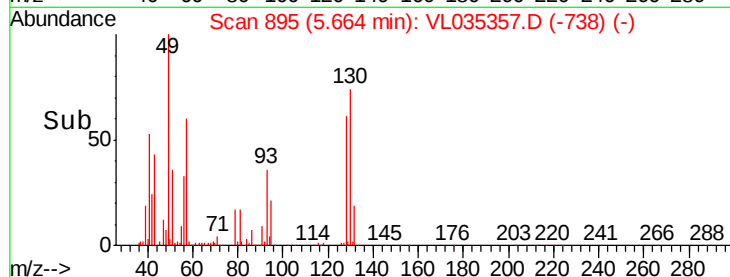
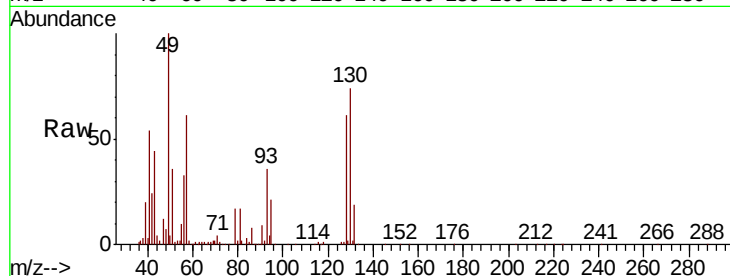




#25
Ethyl Acetate
Concen: 0.504 ppbv
RT: 5.66 min Scan# 895
Delta R.T. 0.00 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

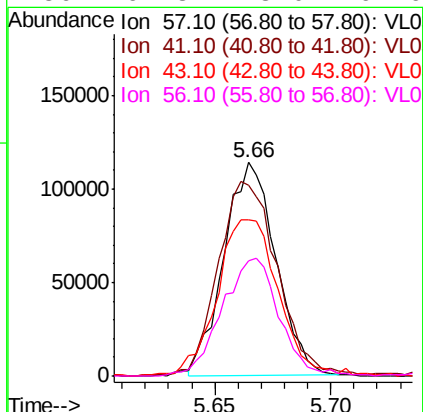
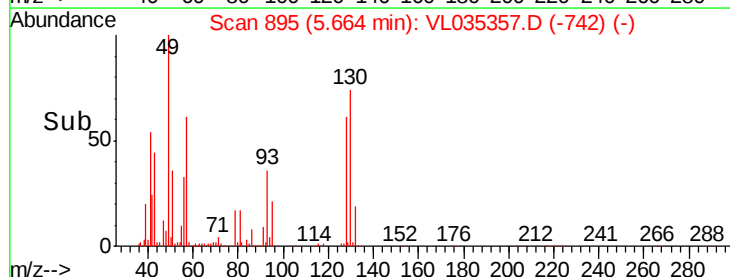
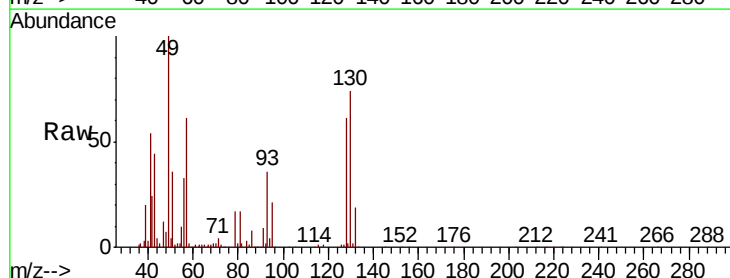
Instrument :
MSVOA_L
ClientSampleId :

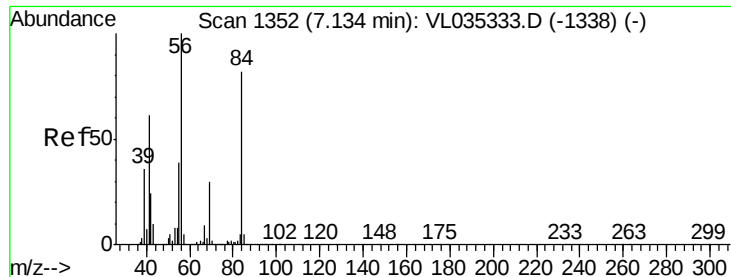
Tot Ion:	43	Resp:	148834
Ion	Ratio	Lower	Upper
43	100		
45	5.7	8.5	12.7#
61	2.6	8.1	12.1#
70	3.7	6.5	9.7#



#26
Hexane
Concen: 1.378 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.01 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

Tgt Ion:	57	Resp:	176541
Ion	Ratio	Lower	Upper
57	100		
41	104.6	75.2	112.8
43	88.0	180.6	270.8#
56	61.3	43.0	64.6

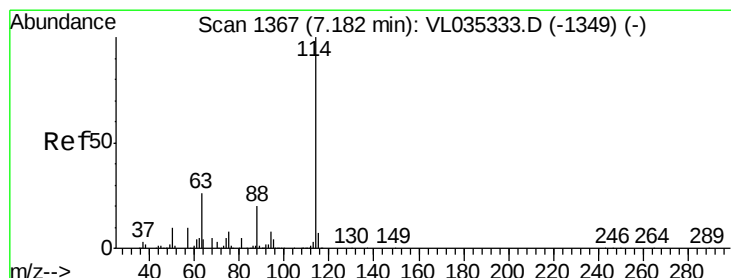
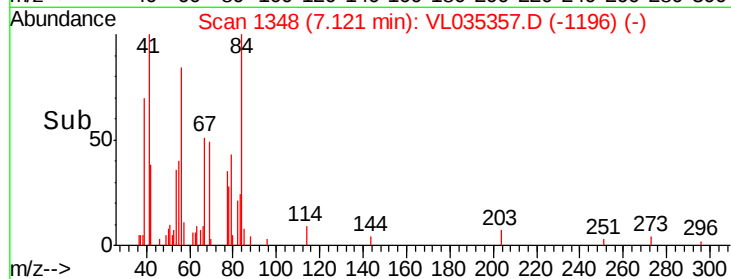
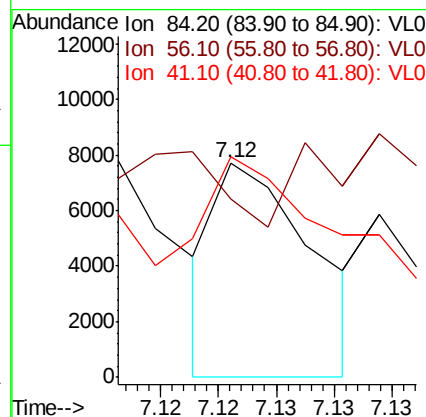
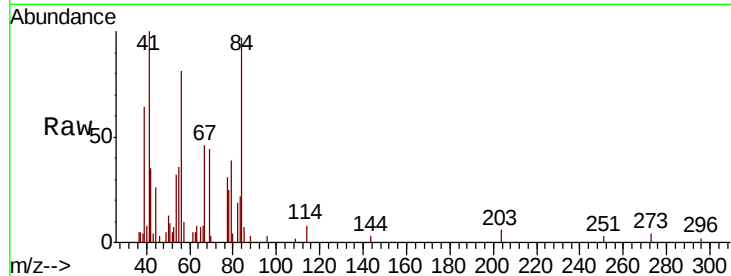




#30
Cvclohexane
Concen: 0.046 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.01 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

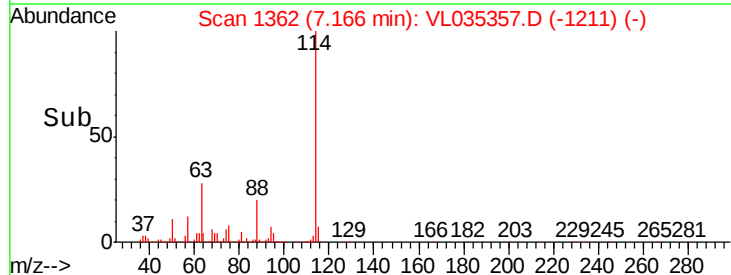
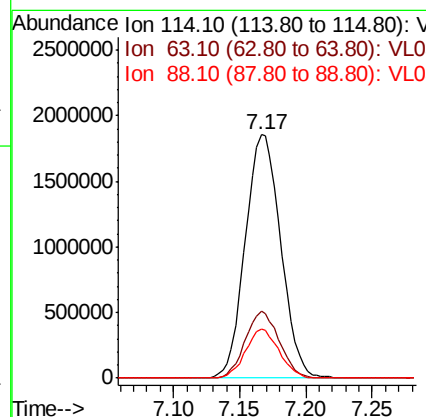
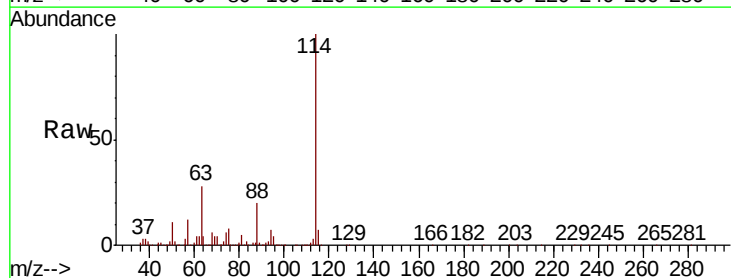
Instrument :
MSVOA_L
ClientSampled :

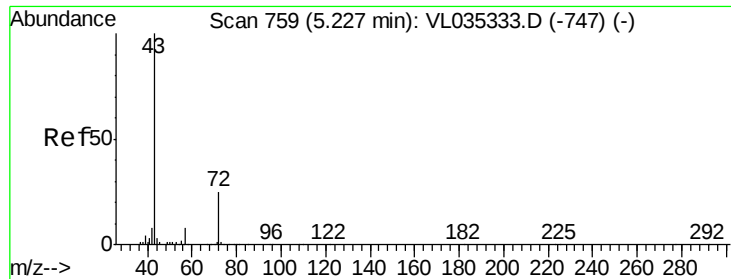
Tot Ion: 84 Resp: 4465
Ion Ratio Lower Upper
84 100
56 0.0 104.7 157.1#
41 379.7 64.2 96.2#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1362
Delta R.T. -0.02 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

Tgt Ion: 114 Resp: 3443806
Ion Ratio Lower Upper
114 100
63 26.5 21.3 31.9
88 19.1 15.3 22.9

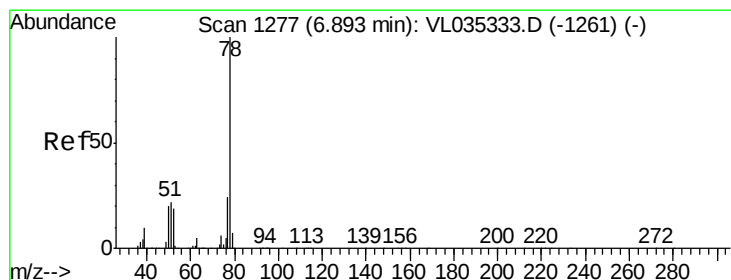
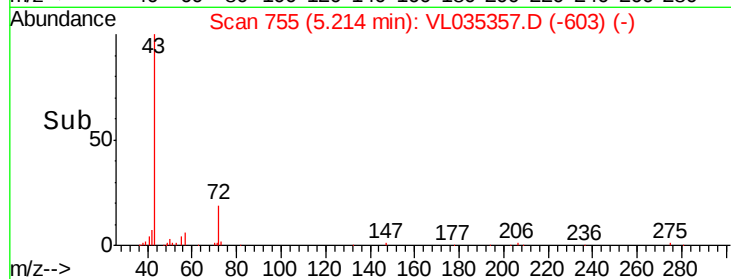
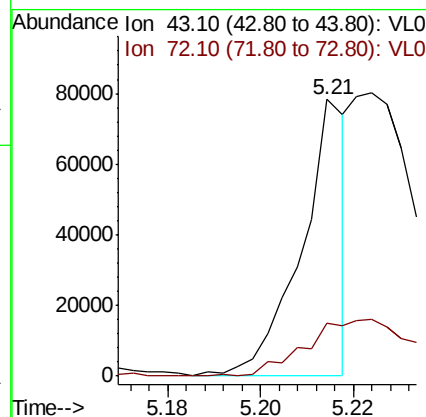
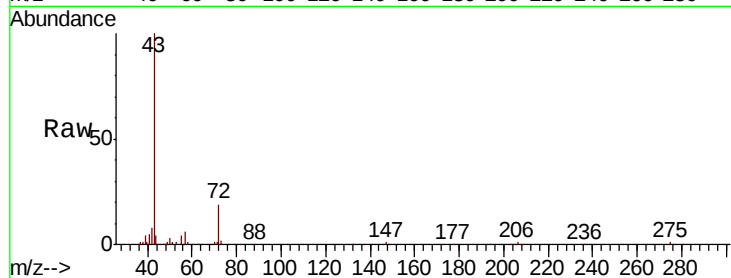




#34
2-Butanone
Concen: 0.309 ppbv
RT: 5.21 min Scan# 755
Delta R.T. -0.01 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

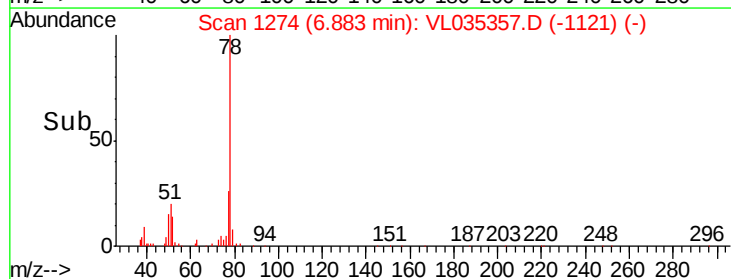
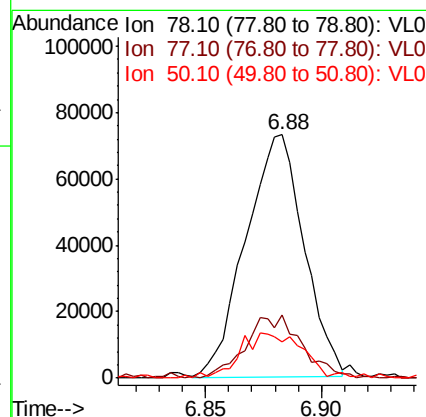
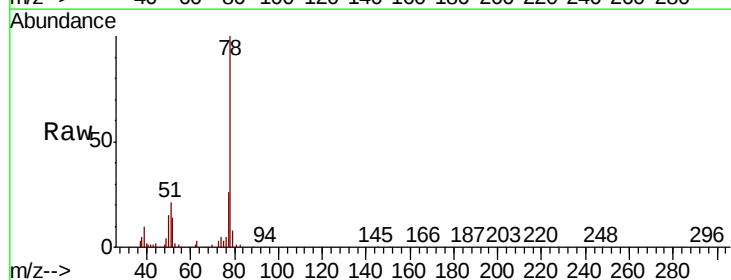
Instrument :
MSVOA_L
ClientSampleId :

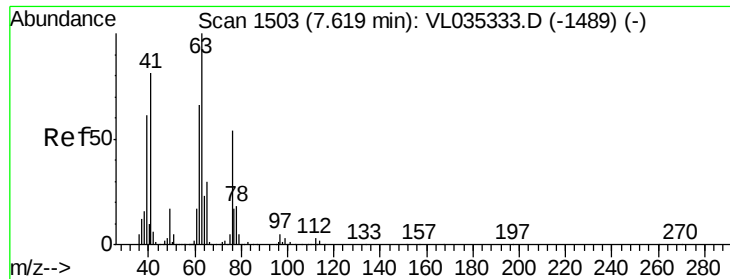
Tot Ion: 43 Resp: 52395
Ion Ratio Lower Upper
43 100
72 0.0 18.9 28.3#



#36
Benzene
Concen: 0.550 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.01 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

Tgt Ion: 78 Resp: 127899
Ion Ratio Lower Upper
78 100
77 25.1 19.3 28.9
50 14.8 16.3 24.5#





#39

1,2-Dichloropropane

Concen: 9.595 ppbv

RT: 7.17 min Scan# 1362

Delta R.T. -0.45 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

ClientSampleId :

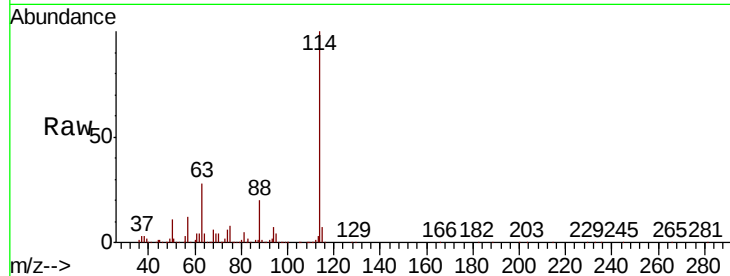
Tot Ion: 63 Resp: 903250

Ion Ratio Lower Upper

63 100

41 0.0 64.4 96.6#

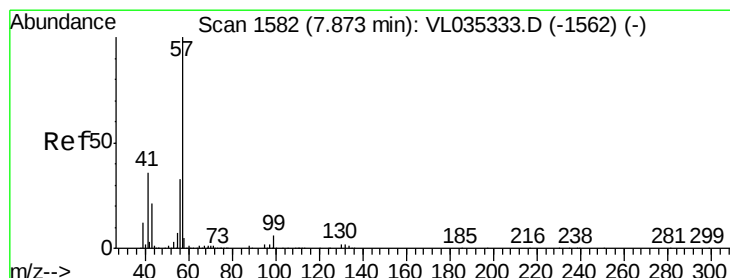
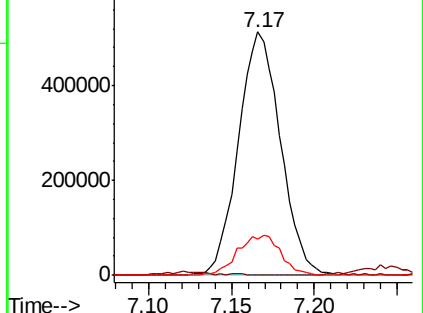
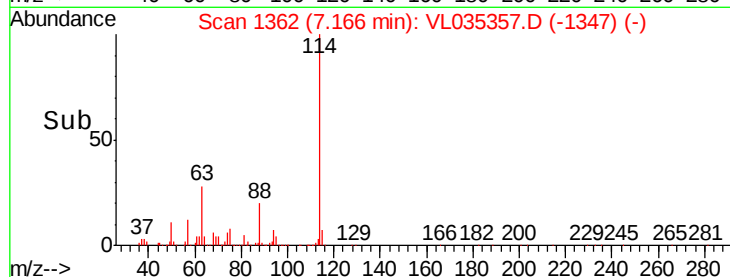
62 15.0 52.6 78.8#



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: 0.236 ppbv

RT: 7.86 min Scan# 1579

Delta R.T. -0.01 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

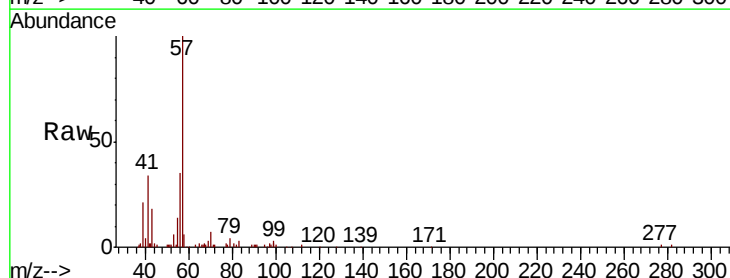
Tgt Ion: 57 Resp: 97326

Ion Ratio Lower Upper

57 100

41 81.8 27.9 41.9#

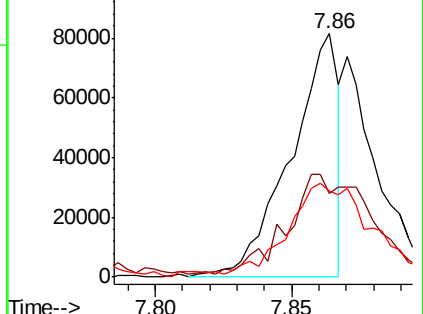
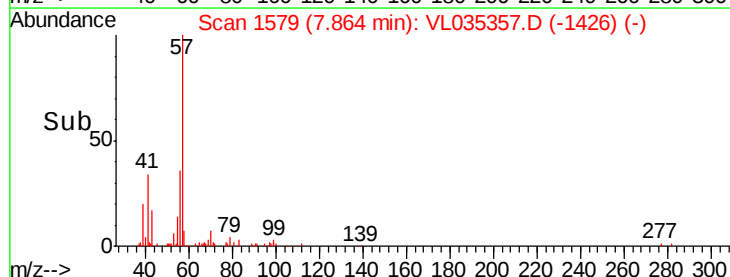
56 71.9 25.4 38.0#

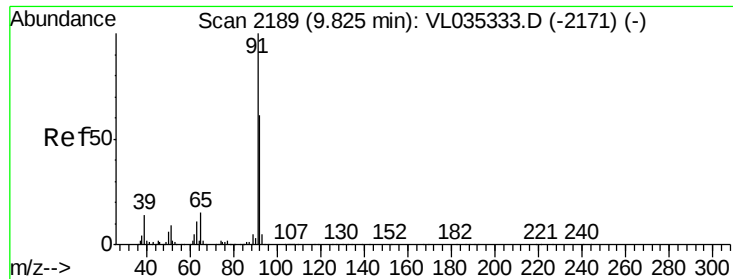


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 3.718 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.02 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

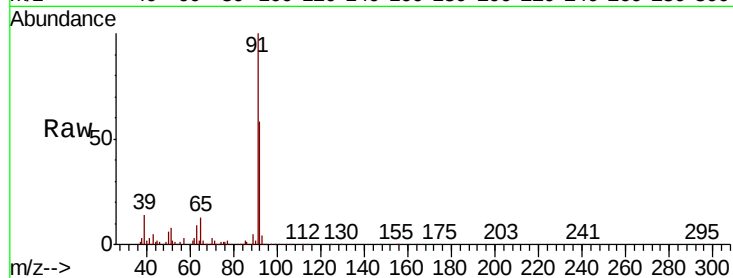
ClientSampleId :

Tot Ion: 91 Resp: 940633

Ion Ratio Lower Upper

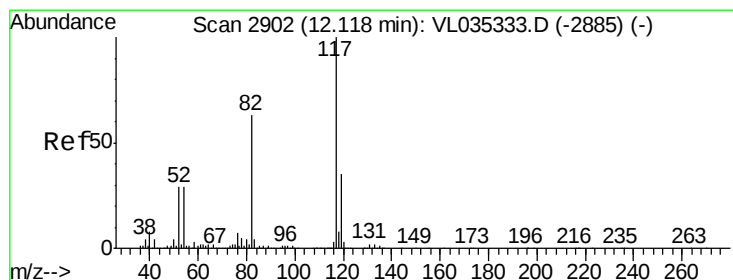
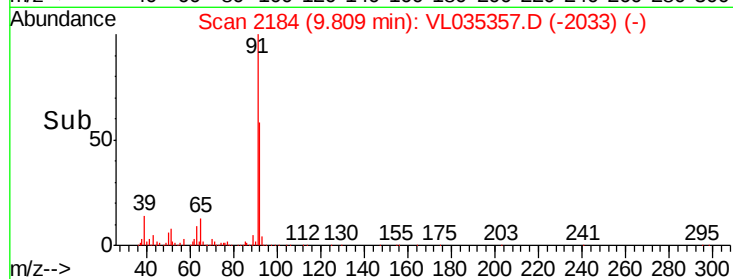
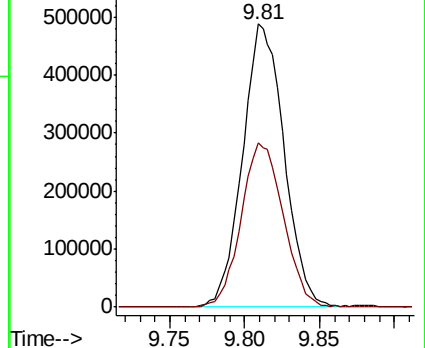
91 100

92 59.4 48.5 72.7



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: 12.10 min Scan# 2897

Delta R.T. -0.02 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

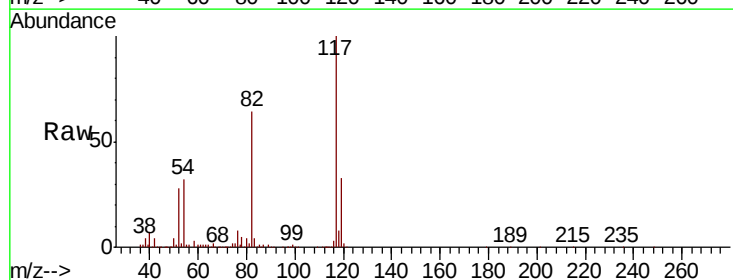
Tgt Ion: 117 Resp: 3213593

Ion Ratio Lower Upper

117 100

82 66.7 51.0 76.4

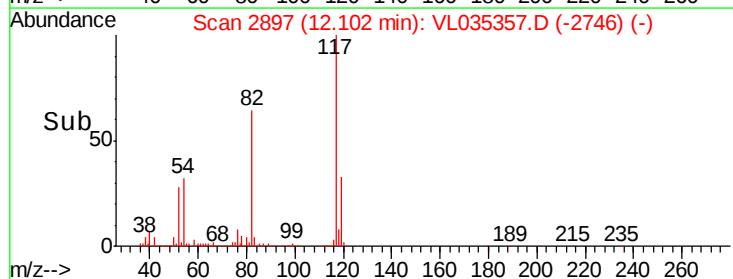
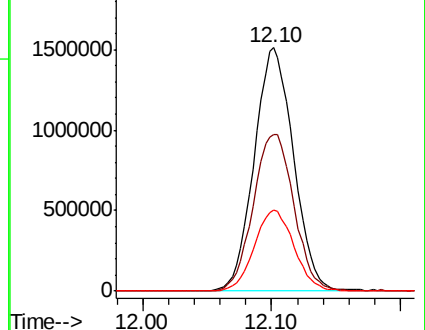
119 33.7 24.7 37.1

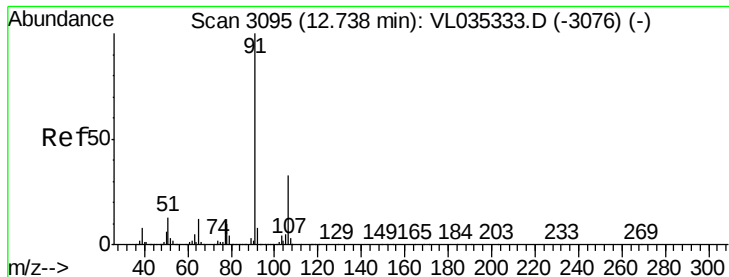


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.056 ppbv

RT: 12.72 min Scan# 3088

Delta R.T. -0.02 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

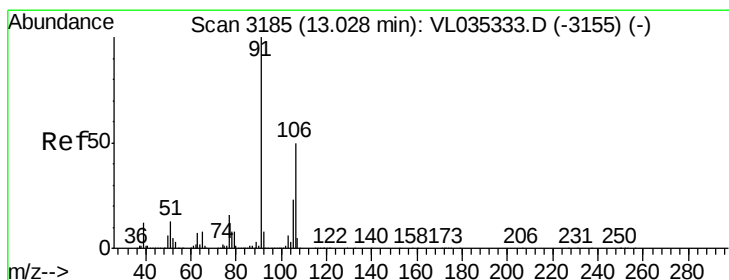
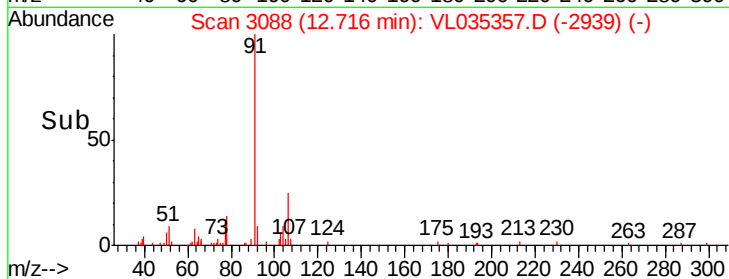
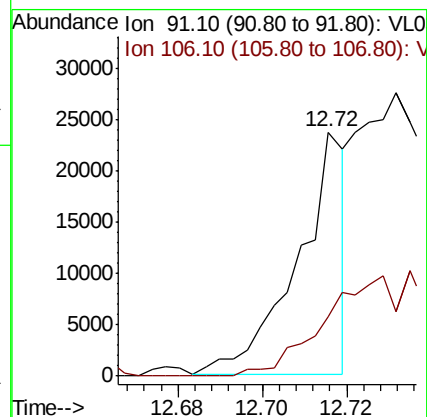
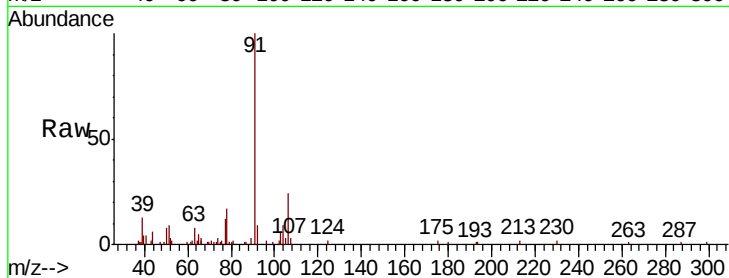
ClientSampleId :

Tot Ion: 91 Resp: 18624

Ion Ratio Lower Upper

91 100

106 24.7 26.8 40.2#



#59

m/p-Xylene

Concen: 0.064 ppbv

RT: 13.02 min Scan# 3184

Delta R.T. -0.00 min

Lab File: VL035357.D

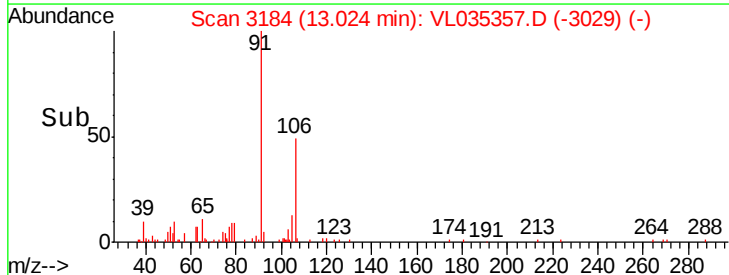
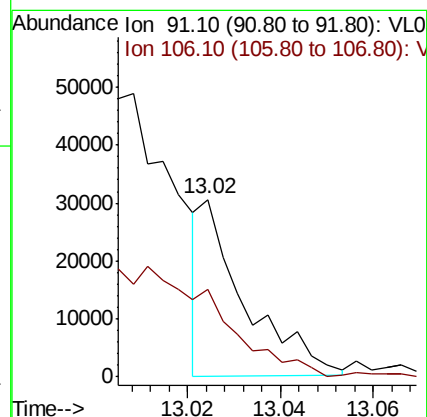
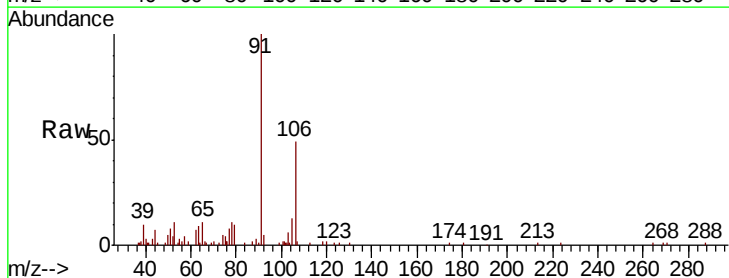
Acq: 6 Aug 2020 19:50

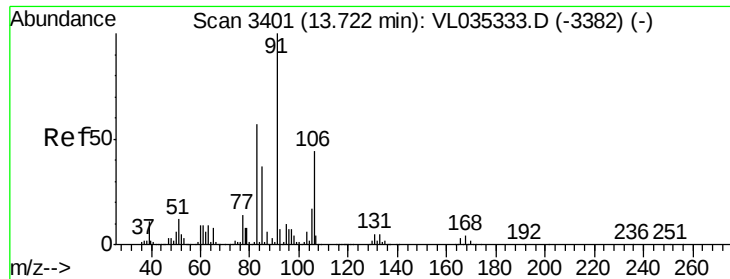
Tgt Ion: 91 Resp: 20054

Ion Ratio Lower Upper

91 100

106 0.0 37.8 56.8#

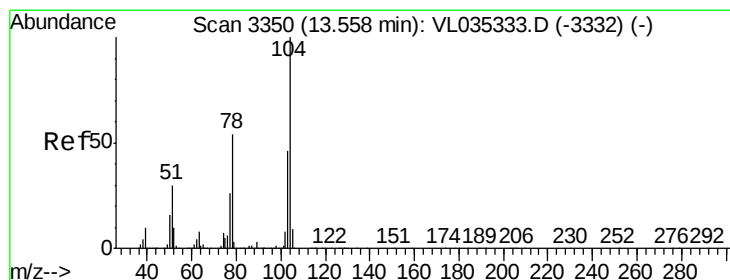
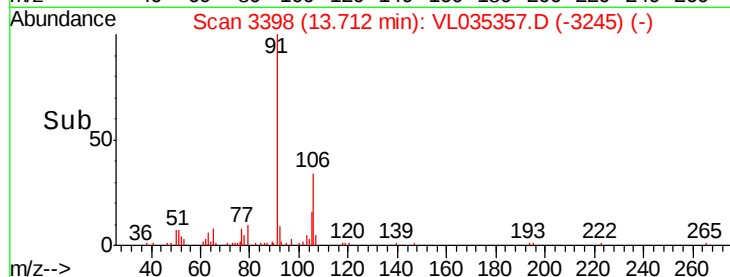
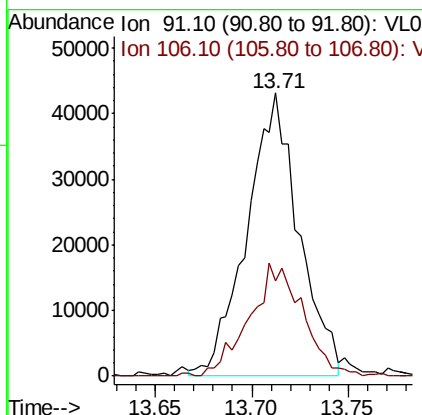
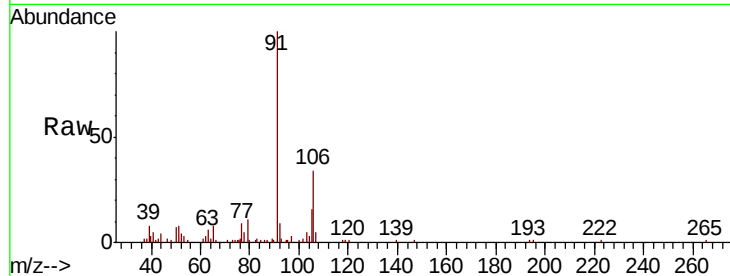




#60
o-Xylene
Concen: 0.262 ppbv
RT: 13.71 min Scan# 3398
Delta R.T. -0.01 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

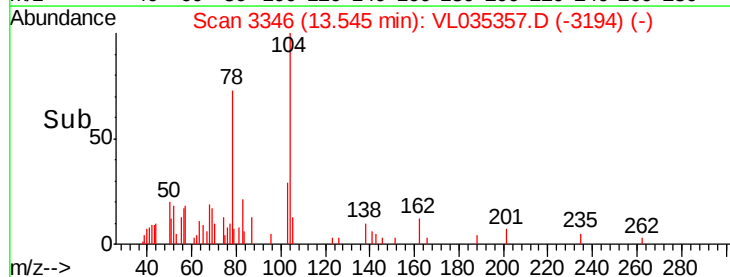
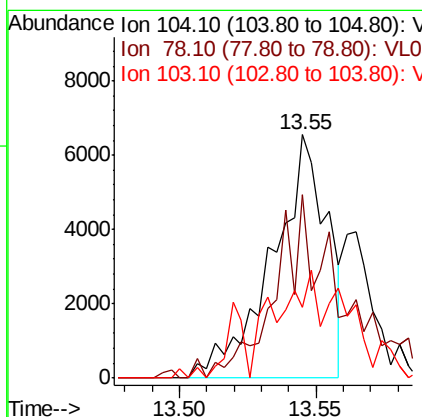
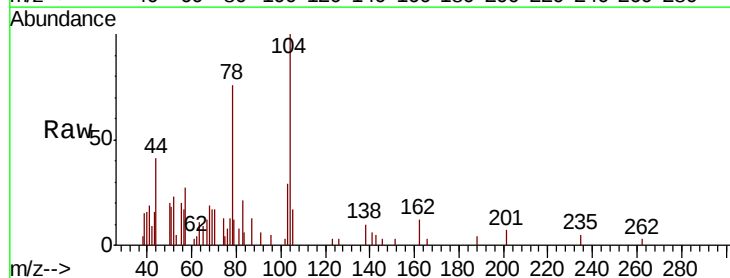
Instrument :
MSVOA_L
ClientSampled :

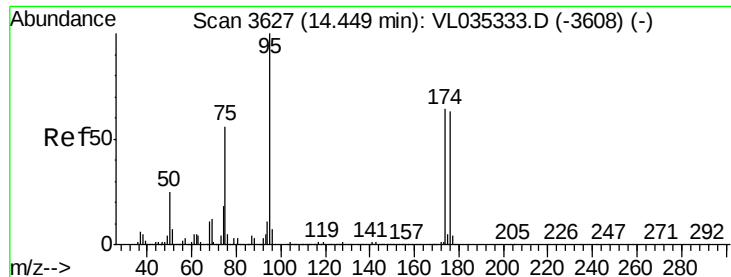
Tot Ion: 91 Resp: 80810
Ion Ratio Lower Upper
91 100
106 41.1 22.7 68.0



#61
Styrene
Concen: 0.048 ppbv
RT: 13.55 min Scan# 3346
Delta R.T. -0.01 min
Lab File: VL035357.D
Acq: 6 Aug 2020 19:50

Tgt Ion: 104 Resp: 9109
Ion Ratio Lower Upper
104 100
78 96.1 42.6 63.8#
103 68.6 38.1 57.1#

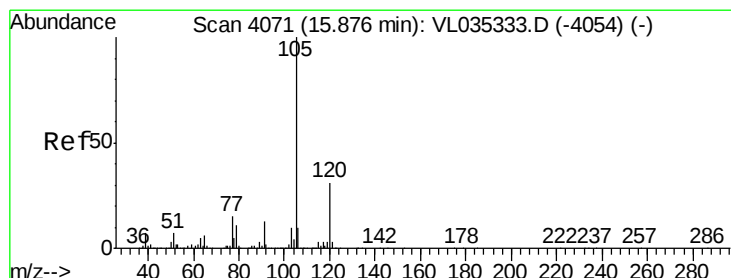
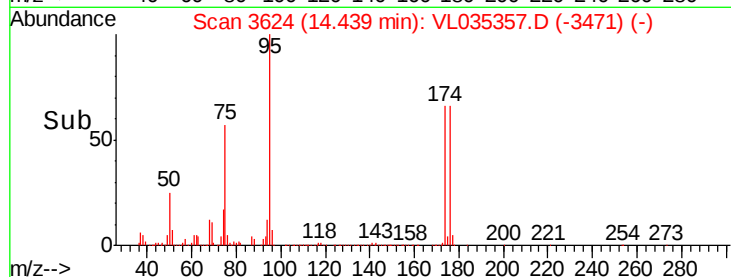
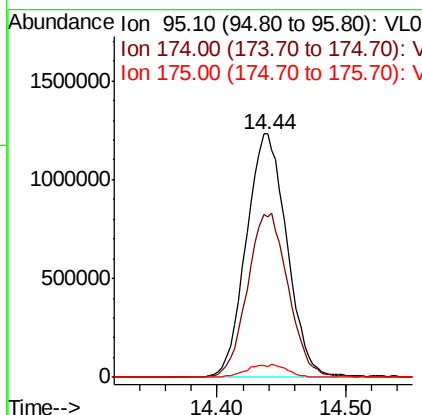
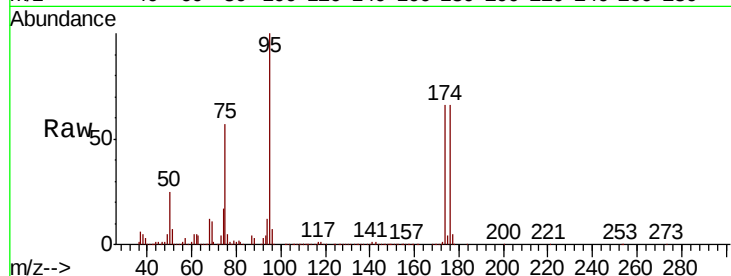




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.070 ppbv
 RT: 14.44 min Scan# 3624
 Delta R.T. -0.01 min
 Lab File: VL035357.D
 Acq: 6 Aug 2020 19:50

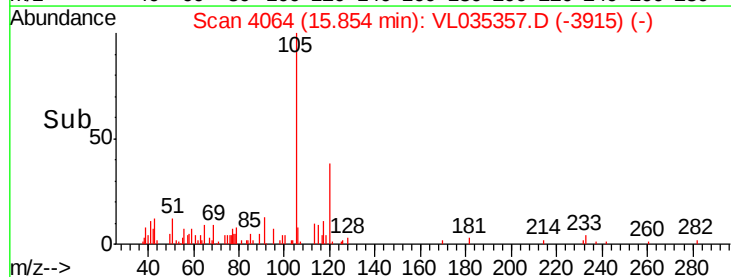
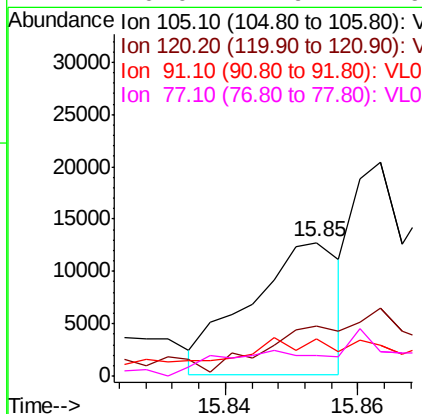
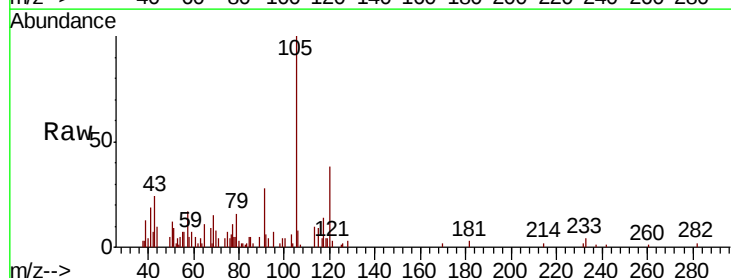
Instrument :
 MSVOA_L
 ClientSampleId :

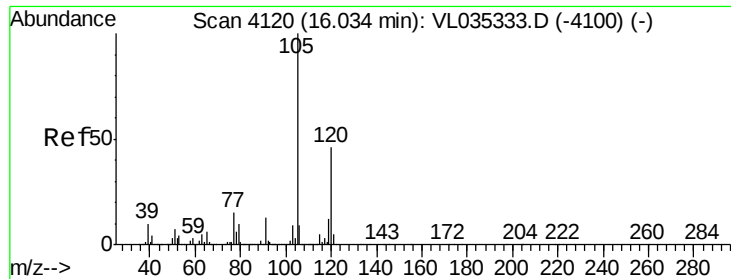
Tot Ion: 95 Resp: 2698700
 Ion Ratio Lower Upper
 95 100
 174 68.4 53.5 80.3
 175 5.3 4.2 6.2



#72
 4-Ethyltoluene
 Concen: 0.034 ppbv
 RT: 15.85 min Scan# 4064
 Delta R.T. -0.02 min
 Lab File: VL035357.D
 Acq: 6 Aug 2020 19:50

Tgt Ion:105 Resp: 12059
 Ion Ratio Lower Upper
 105 100
 120 0.0 24.0 36.0#
 91 72.0 10.8 16.2#
 77 0.0 11.9 17.9#





#73

1,3,5-Trimethylbenzene

Concen: 0.057 ppbv

RT: 16.02 min Scan# 4115

Delta R.T. -0.02 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Instrument :

MSVOA_L

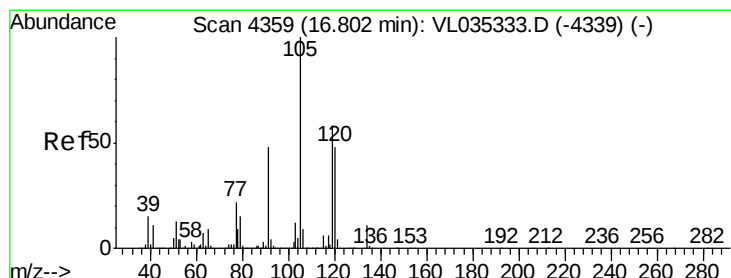
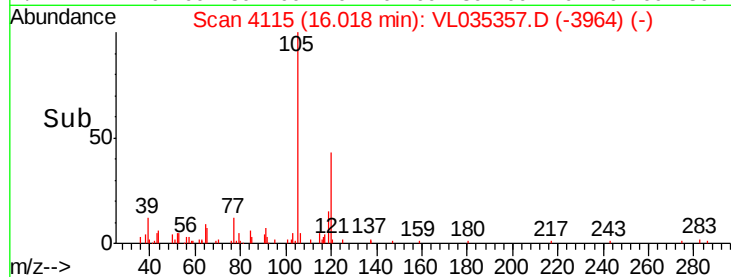
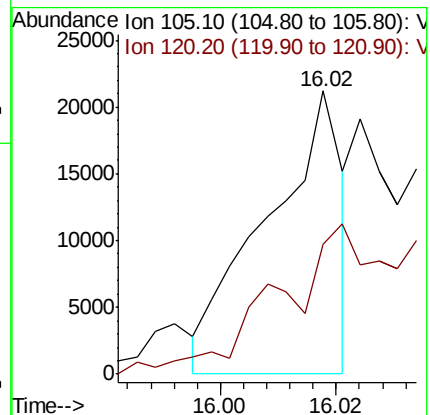
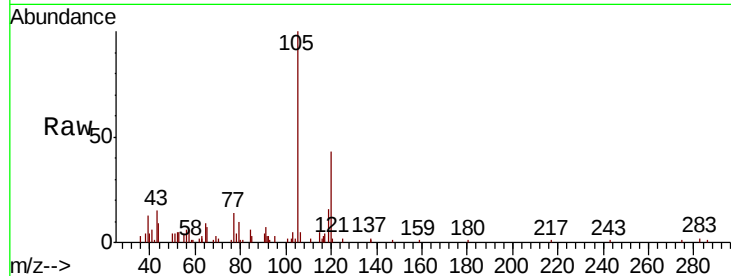
ClientSampleId :

Tot Ion:105 Resp: 19220

Ion Ratio Lower Upper

105 100

120 45.9 36.9 55.3



#74

1,2,4-Trimethylbenzene

Concen: 0.278 ppbv

RT: 16.79 min Scan# 4355

Delta R.T. -0.01 min

Lab File: VL035357.D

Acq: 6 Aug 2020 19:50

Tgt Ion:105 Resp: 107343

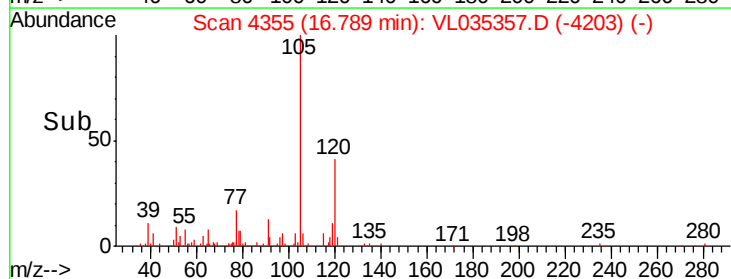
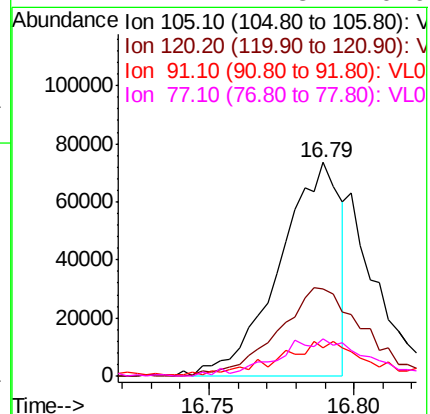
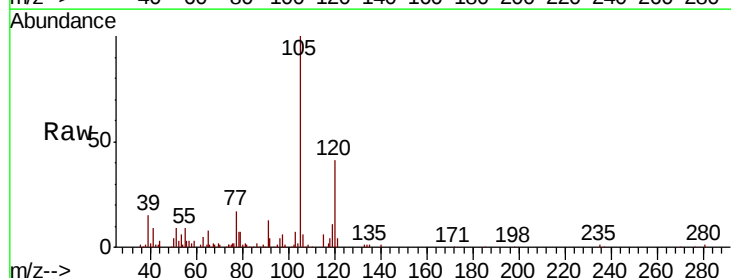
Ion Ratio Lower Upper

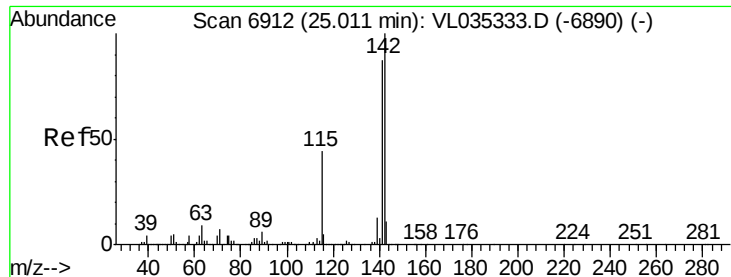
105 100

120 39.9 38.5 57.7

91 11.9 39.0 58.6#

77 17.4 17.8 26.6#

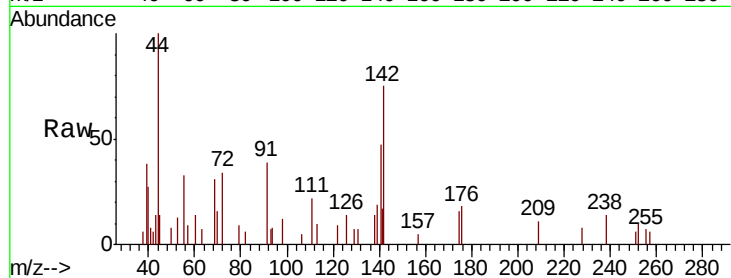




#80
 Naphthalene, 2-methyl-
 Concen: 0.046 ppbv
 RT: 25.00 min Scan# 6908
 Delta R.T. -0.01 min
 Lab File: VL035357.D
 Acq: 6 Aug 2020 19:50

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion	Ratio	Lower	Upper
142	100		
141	30.1	69.0	103.6#
115	0.0	35.5	53.3#



Abundance

Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

