

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041321\
 Data File : VL036802.D
 Acq On : 13 Apr 2021 14:23
 Operator : SY/AP
 Sample : M2018-02 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 14 04:39:48 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1405395	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3480215	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2837343	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	1876848	8.30	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	83.00%

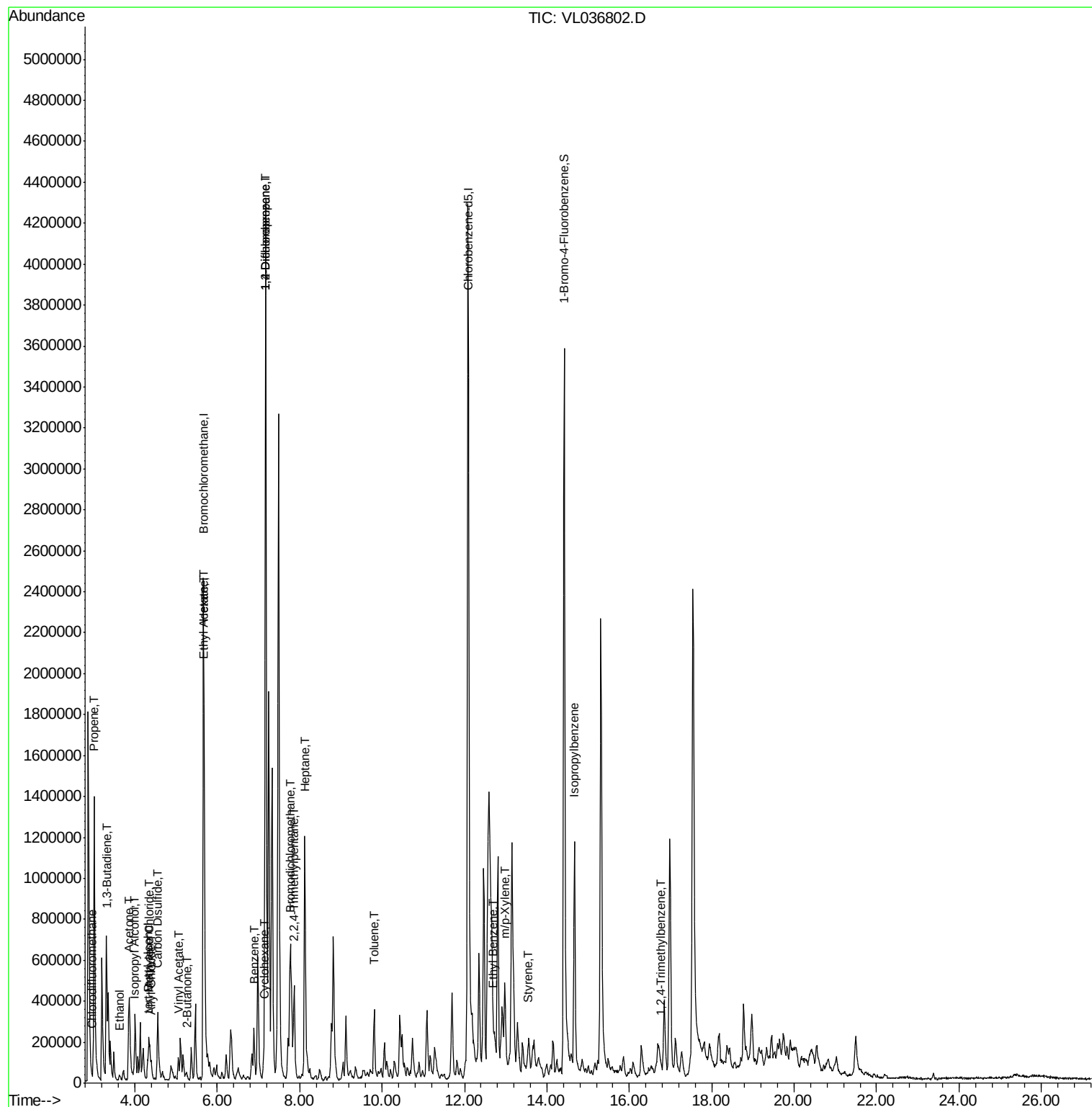
Target Compounds					Ovalue
3) Chlorodifluoromethane	2.96	51	20357	0.078 ppbv	# 75
9) Propene	3.01	41	685530	8.189 ppbv	95
10) Heptane	8.12	43	520457	2.441 ppbv	97
13) Ethanol	3.61	45	14296	1.434 ppbv	# 34
15) Acetone	3.85	43	521973	3.774 ppbv	# 77
16) 1,3-Butadiene	3.32	39	95389	0.991 ppbv	# 46
17) tert-Butyl alcohol	4.31	59	24839	0.206 ppbv	# 35
19) Isopropyl Alcohol	3.98	45	64708	0.850 ppbv	# 89
20) Methylene Chloride	4.34	84	68903	1.064 ppbv	98
21) Allyl Chloride	4.39	41	6565	0.060 ppbv	# 1
23) Vinyl Acetate	5.06	43	17780	0.075 ppbv	# 1
25) Ethyl Acetate	5.69	43	130981	0.398 ppbv	# 83
26) Hexane	5.68	57	161948	1.061 ppbv	# 47
27) Carbon Disulfide	4.55	76	405674	2.698 ppbv	96
30) Cyclohexane	7.12	84	17056	0.138 ppbv	# 1
34) 2-Butanone	5.26	43	30266	0.178 ppbv	# 71
36) Benzene	6.89	78	211081	0.658 ppbv	97
39) 1,2-Dichloropropane	7.17	63	884999	6.797 ppbv	# 24
42) Bromodichloromethane	7.79	83	13582	0.053 ppbv	# 36
44) 2,2,4-Trimethylpentane	7.87	57	54843	0.097 ppbv	# 1
53) Toluene	9.81	91	268117	0.784 ppbv	96
58) Ethyl Benzene	12.71	91	23728	0.057 ppbv	91
59) m/p-Xylene	12.99	91	28040	0.078 ppbv	# 32
61) Styrene	13.53	104	16432	0.094 ppbv	# 22
62) Isopropylbenzene	14.67	105	999622	2.132 ppbv	99
74) 1,2,4-Trimethylbenzene	16.76	105	17649	0.046 ppbv	# 71

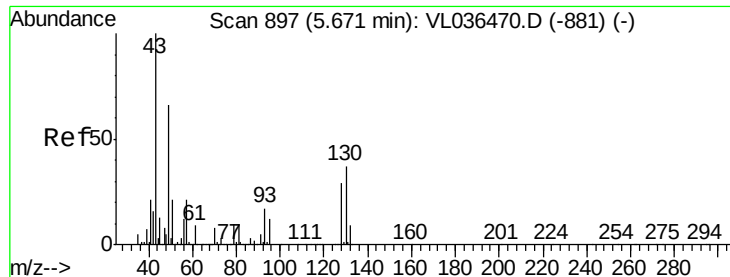
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 Apr 2021 14:23

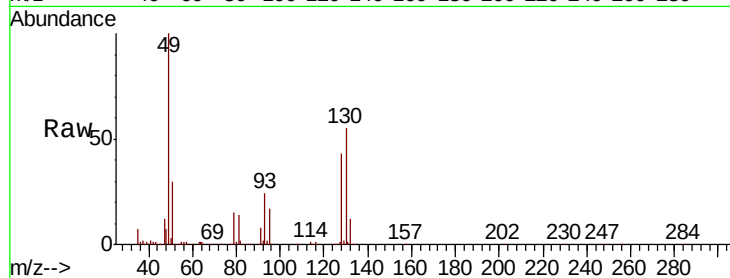
Tot Ion: 49 Resp: 1405395

Ion Ratio Lower Upper

49 100

128 46.5 23.5 70.6

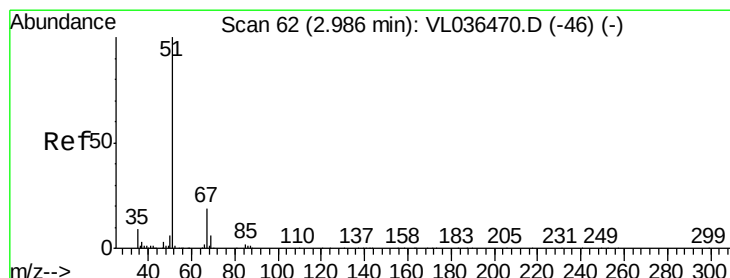
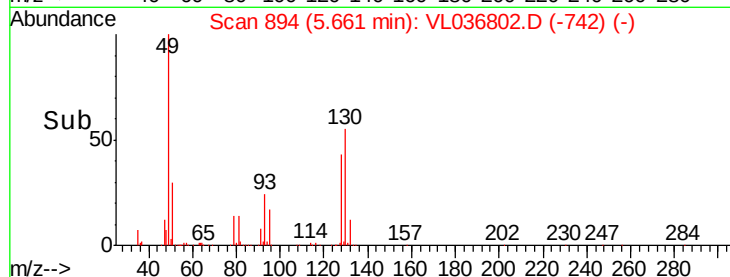
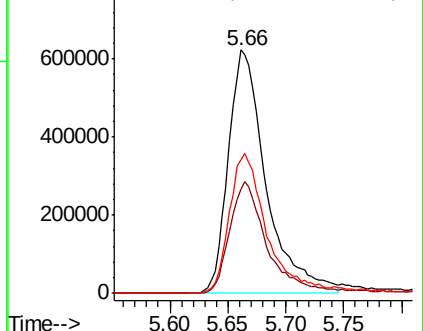
130 59.6 29.1 87.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 0.078 ppbv

RT: 2.96 min Scan# 53

Delta R.T. -0.03 min

Lab File: VL036802.D

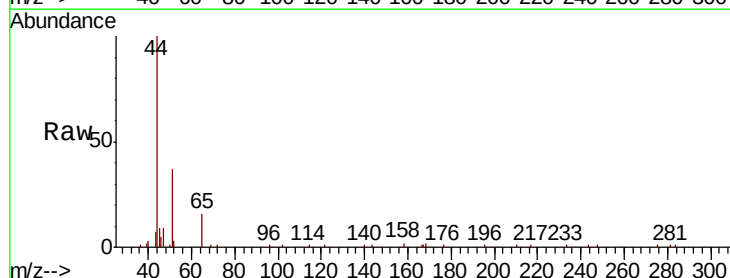
Acq: 13 Apr 2021 14:23

Tgt Ion: 51 Resp: 20357

Ion Ratio Lower Upper

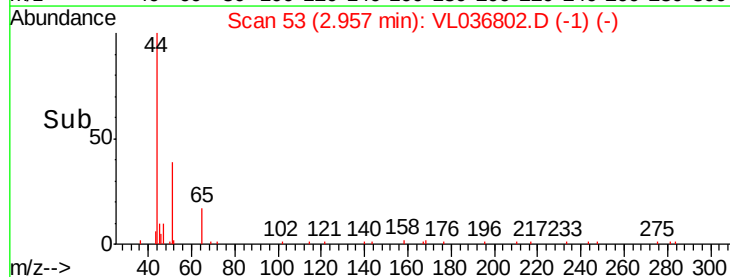
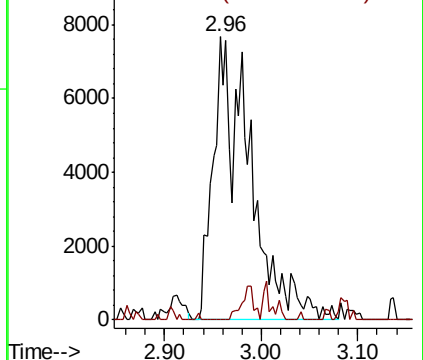
51 100

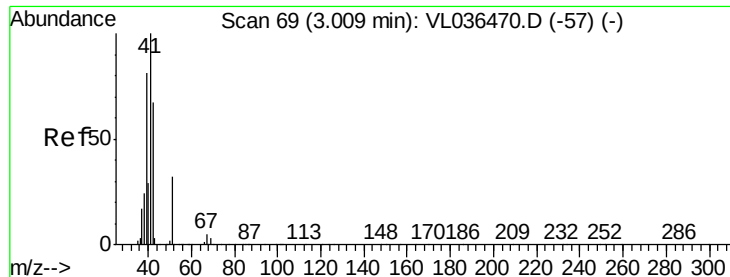
67 7.3 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 8.189 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

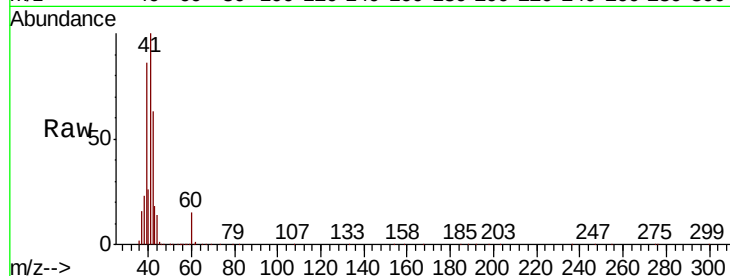
Acq: 13 Apr 2021 14:23

Tot Ion: 41 Resp: 685530

Ion Ratio Lower Upper

41 100

42 67.0 57.0 85.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.01

400000

300000

200000

100000

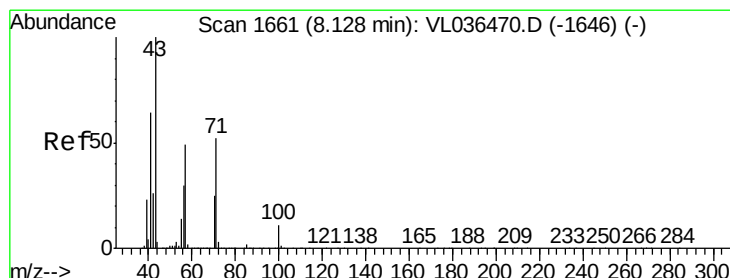
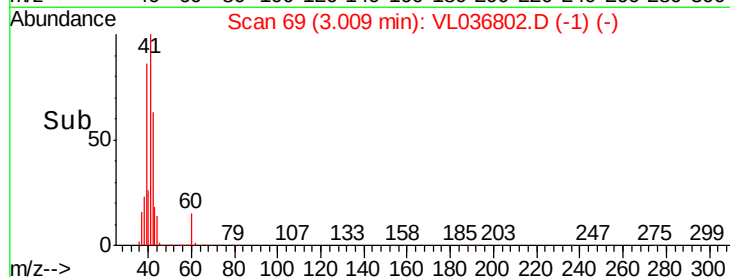
0

Time-->

2.95

3.00

3.05



#10

Heptane

Concen: 2.441 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. -0.00 min

Lab File: VL036802.D

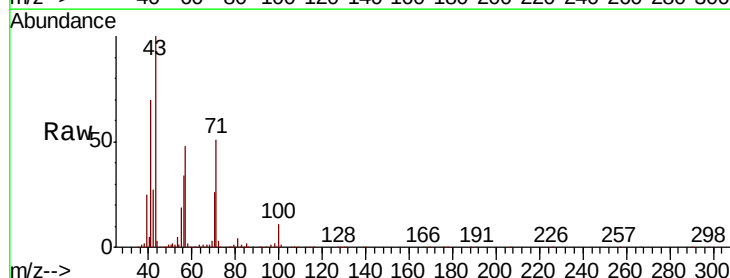
Acq: 13 Apr 2021 14:23

Tgt Ion: 43 Resp: 520457

Ion Ratio Lower Upper

43 100

57 51.0 39.0 58.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

8.12

300000

250000

200000

150000

100000

50000

0

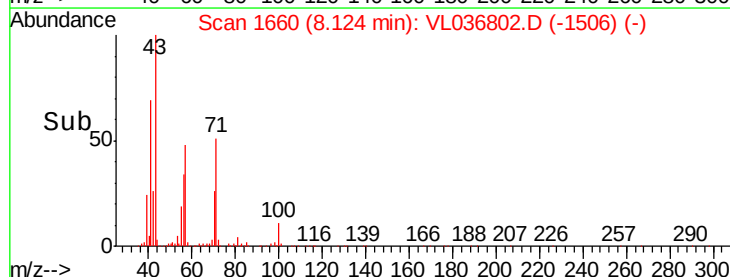
Time-->

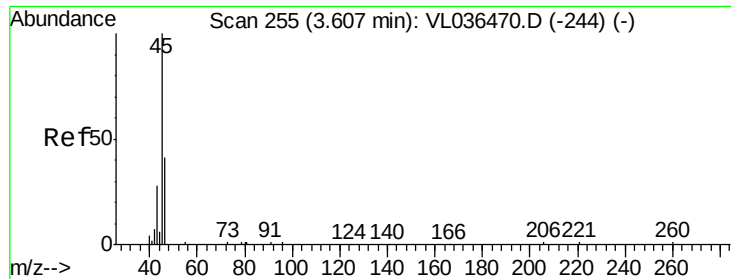
8.05

8.10

8.15

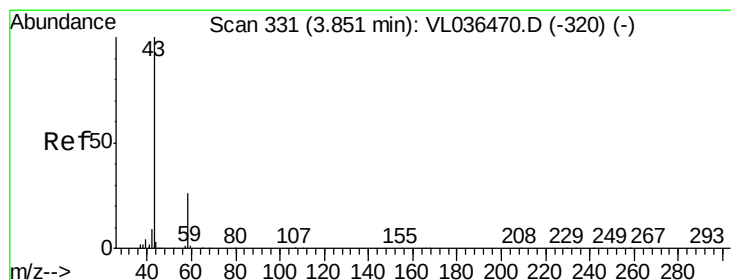
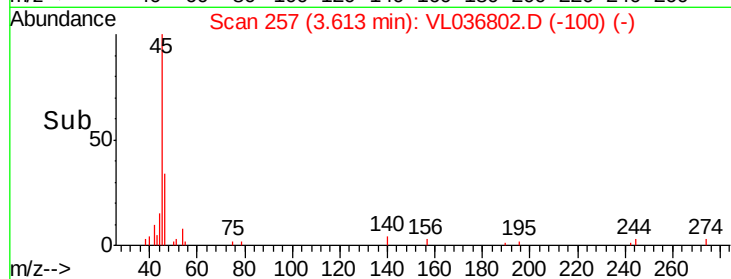
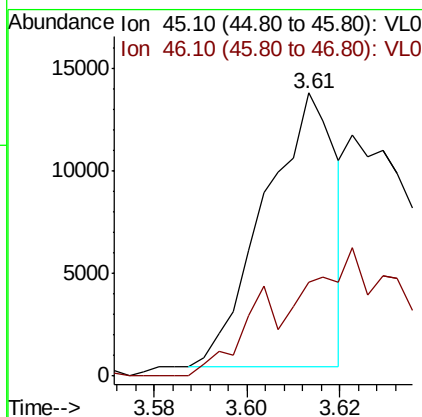
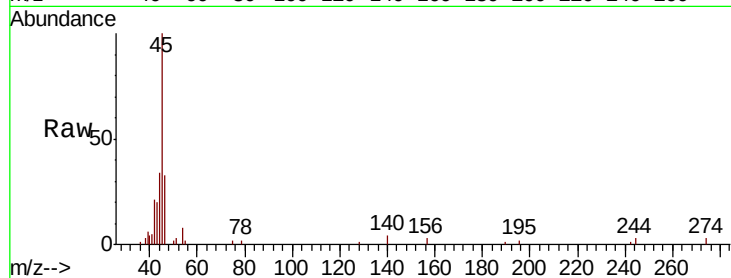
8.20





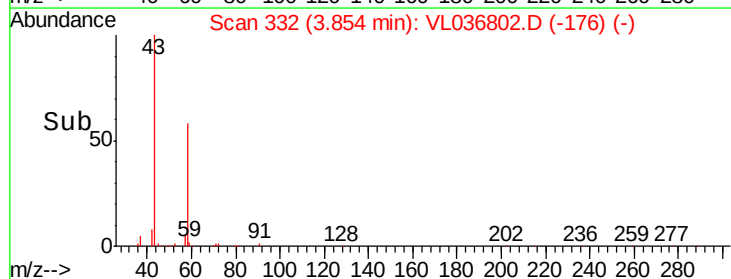
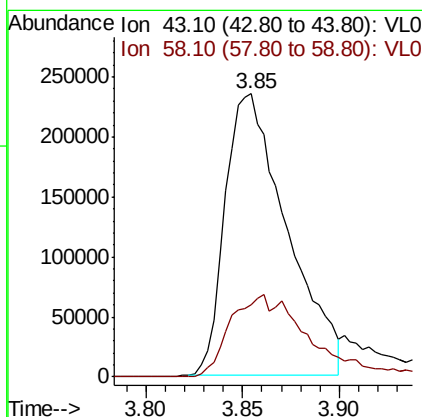
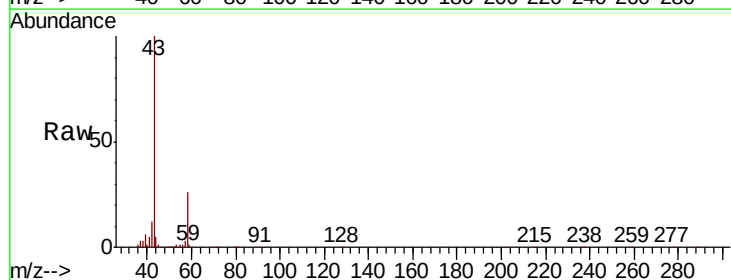
#13
 Ethanol
 Concen: 1.434 ppbv
 RT: 3.61
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 Apr 2021 14:23

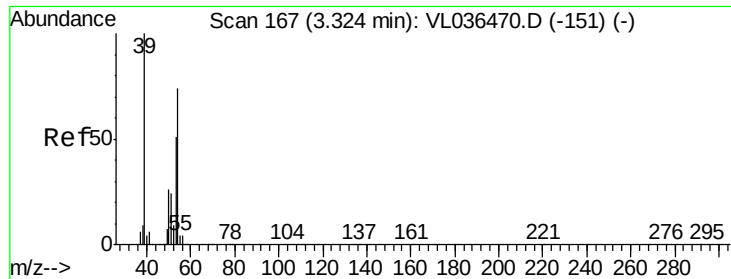
Tot Ion: 45 Resp: 14296
 Ion Ratio Lower Upper
 45 100
 46 0.0 16.6 66.2#



#15
 Acetone
 Concen: 3.774 ppbv
 RT: 3.85 min Scan# 332
 Delta R.T. 0.00 min
 Lab File: VL036802.D
 Acq: 13 Apr 2021 14:23

Tgt Ion: 43 Resp: 521973
 Ion Ratio Lower Upper
 43 100
 58 38.3 21.2 31.8#





#16

1,3-Butadiene

Concen: 0.991 ppbv

RT: 3.32 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

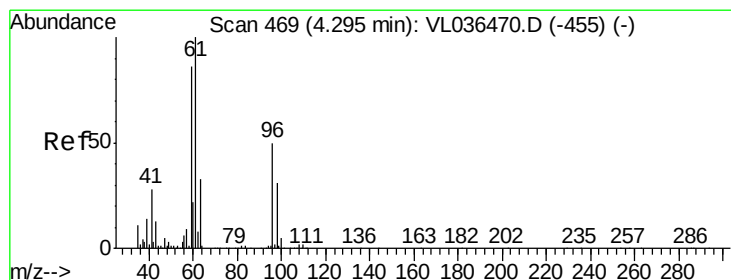
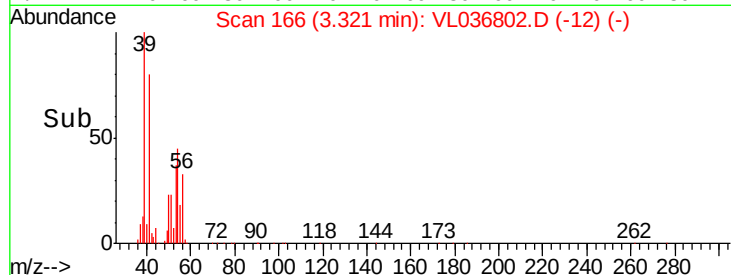
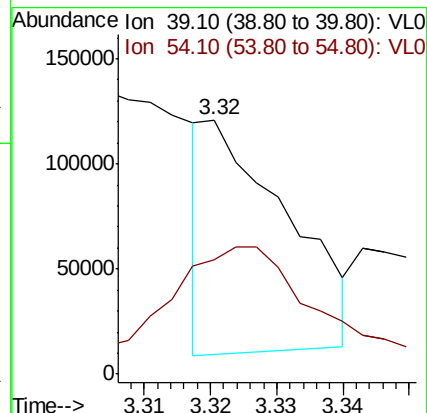
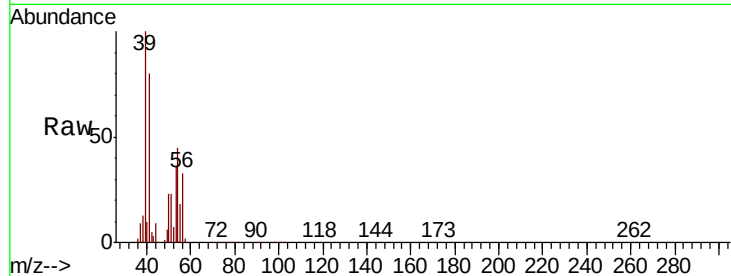
Acq: 13 Apr 2021 14:23

Tot Ion: 39 Resp: 95389

Ion Ratio Lower Upper

39 100

54 118.6 58.8 88.2#



#17

tert-Butyl alcohol

Concen: 0.206 ppbv

RT: 4.31 min Scan# 475

Delta R.T. 0.02 min

Lab File: VL036802.D

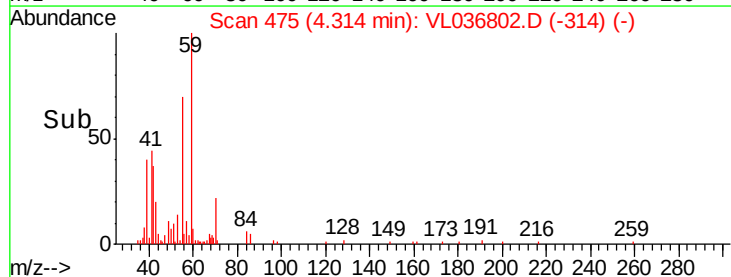
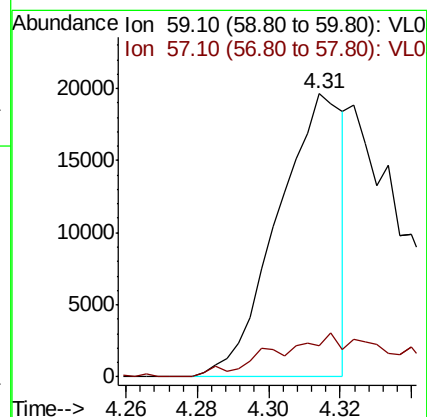
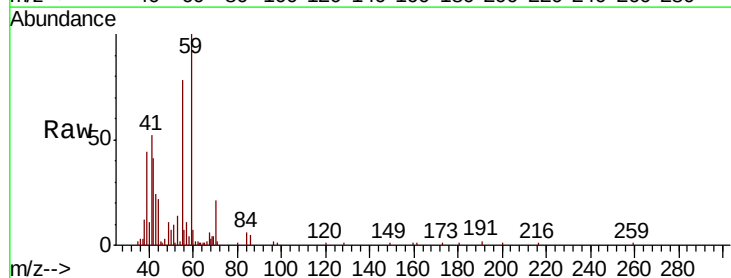
Acq: 13 Apr 2021 14:23

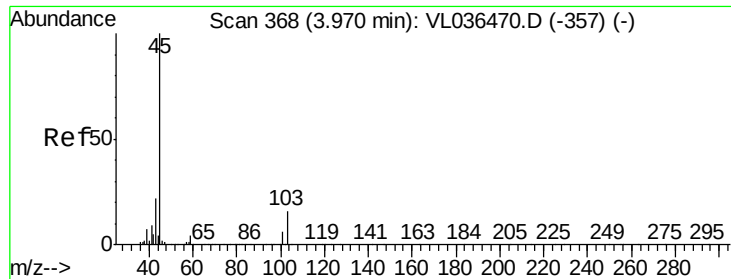
Tgt Ion: 59 Resp: 24839

Ion Ratio Lower Upper

59 100

57 35.3 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 0.850 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

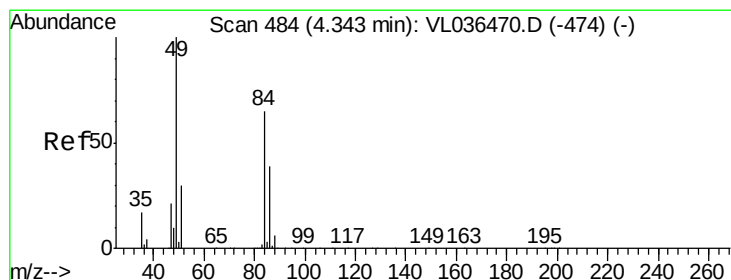
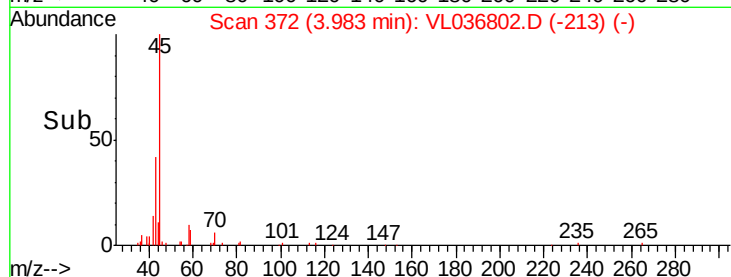
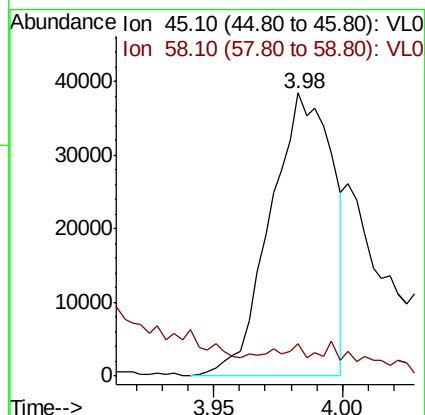
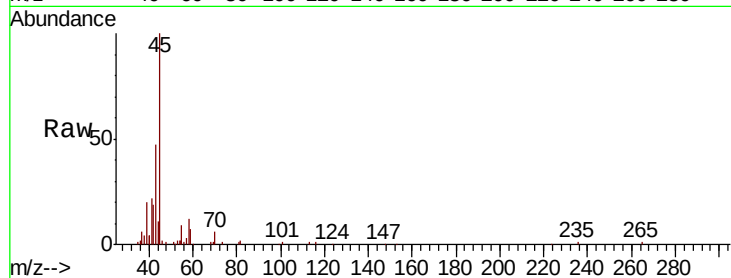
Acq: 13 Apr 2021 14:23

Tot Ion: 45 Resp: 64708

Ion Ratio Lower Upper

45 100

58 0.0 2.9 4.3#



#20

Methylene Chloride

Concen: 1.064 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL036802.D

Acq: 13 Apr 2021 14:23

Tgt Ion: 84 Resp: 68903

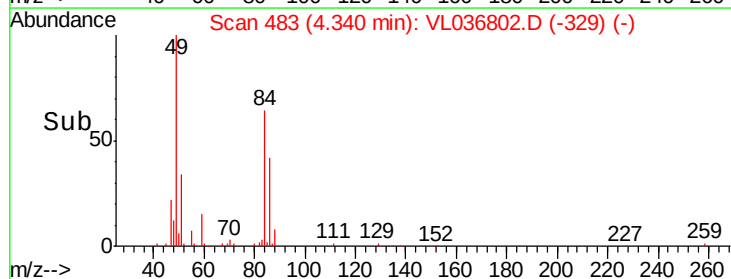
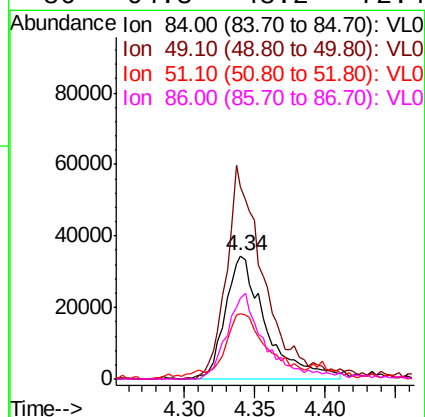
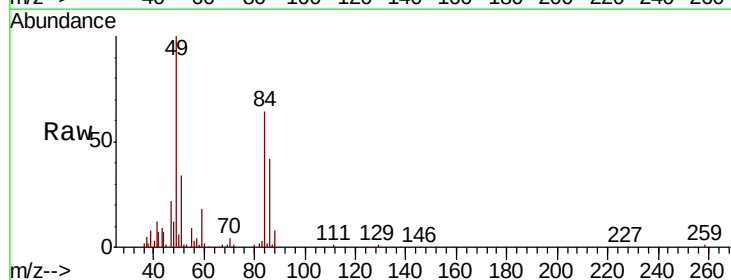
Ion Ratio Lower Upper

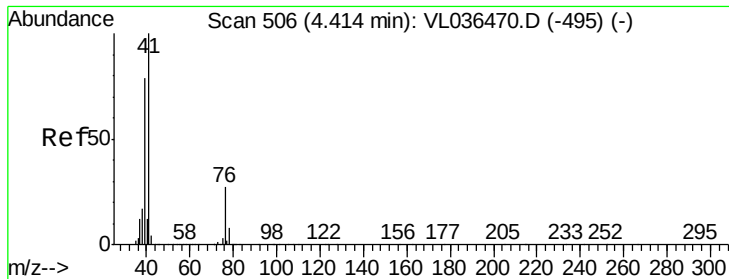
84 100

49 154.1 122.9 184.3

51 49.1 36.9 55.3

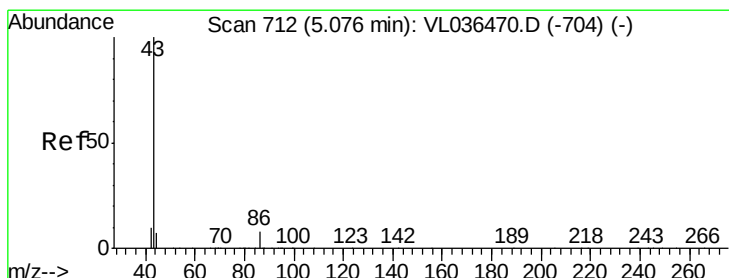
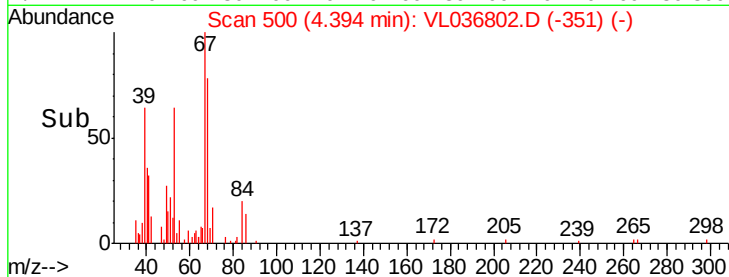
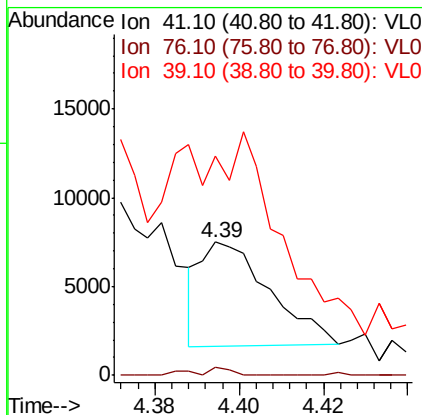
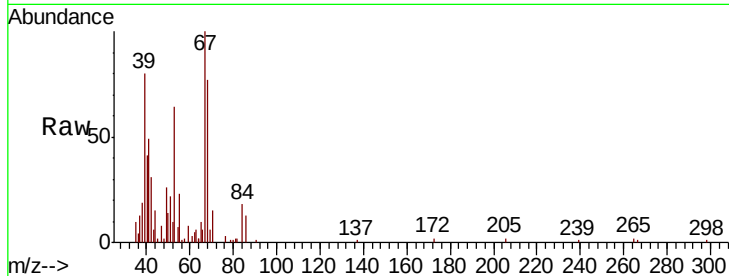
86 64.3 48.2 72.4





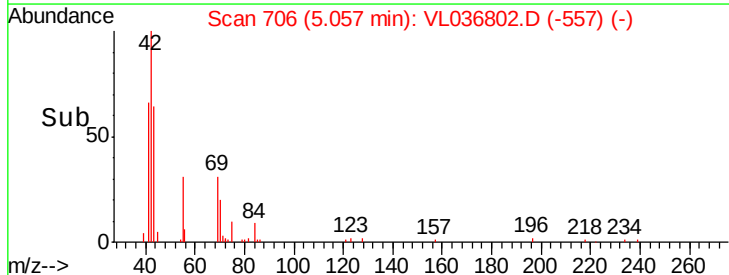
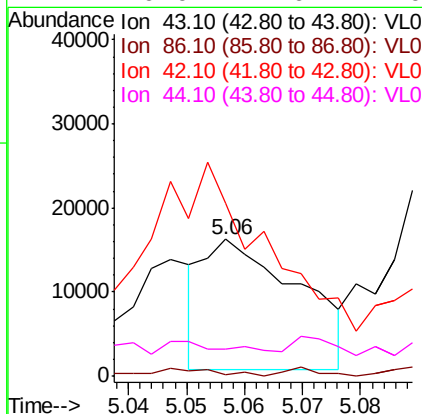
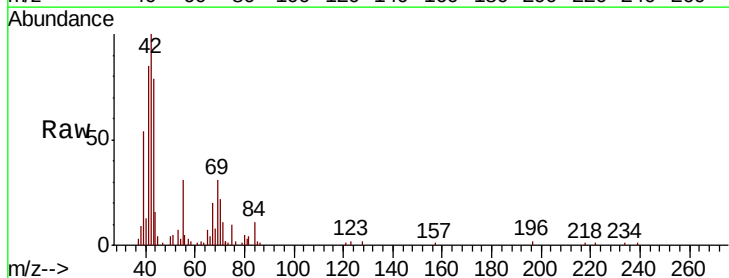
#21
 Allvl Chloride
 Concen: 0.060 ppbv
 RT: 4.39
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 13 Apr 2021 14:23

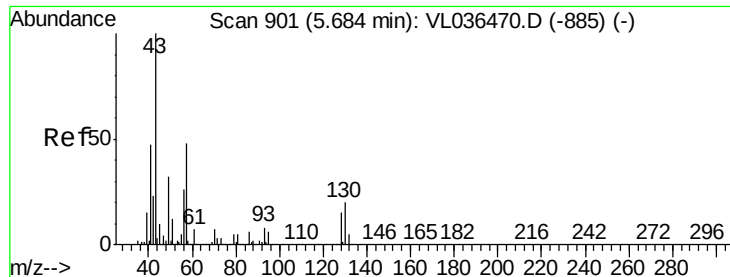
Tot Ion: 41 Resp: 6565
 Ion Ratio Lower Upper
 41 100
 76 0.0 22.9 34.3#
 39 361.5 67.3 100.9#



#23
 Vinyl Acetate
 Concen: 0.075 ppbv
 RT: 5.06 min Scan# 706
 Delta R.T. -0.02 min
 Lab File: VL036802.D
 Acq: 13 Apr 2021 14:23

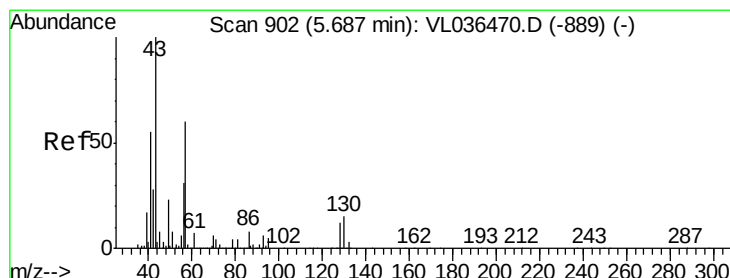
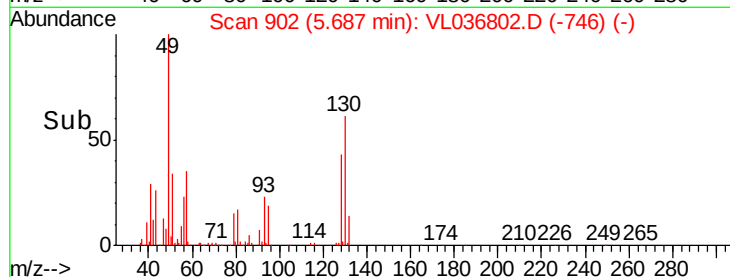
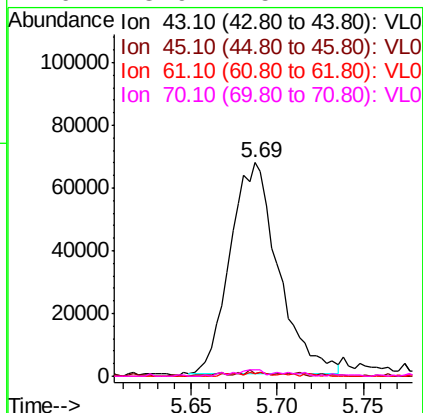
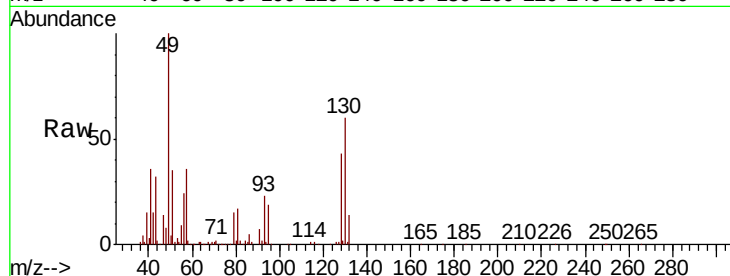
Tgt Ion: 43 Resp: 17780
 Ion Ratio Lower Upper
 43 100
 86 0.0 5.4 8.0#
 42 136.5 8.5 12.7#
 44 0.0 4.6 7.0#





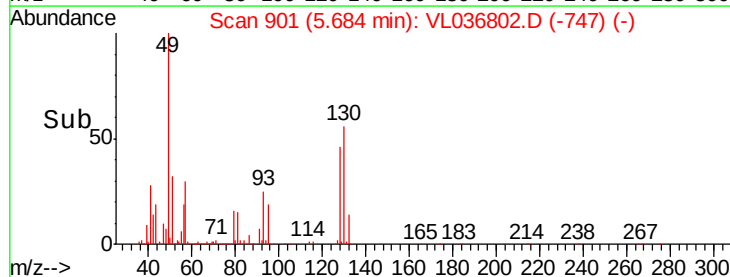
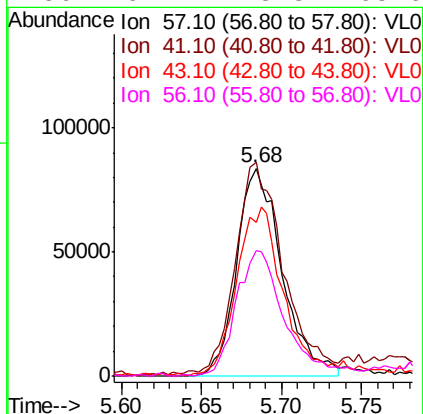
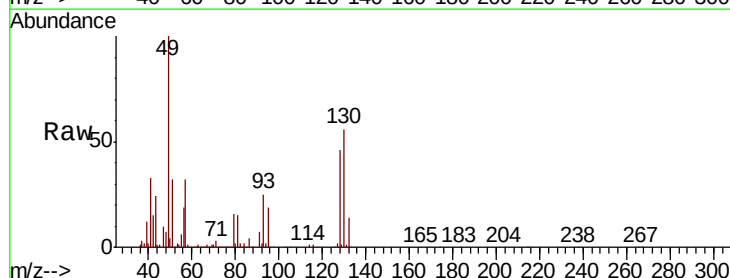
#25
Ethyl Acetate
Concen: 0.398 ppbv
RT: 5.69 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 13 Apr 2021 14:23

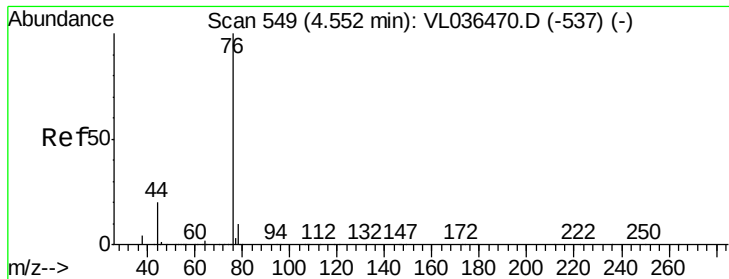
Tot Ion:	43	Resp:	130981
Ion	Ratio	Lower	Upper
43	100		
45	2.8	7.9	11.9#
61	2.0	7.4	11.2#
70	3.9	5.1	7.7#



#26
Hexane
Concen: 1.061 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.00 min
Lab File: VL036802.D
Acq: 13 Apr 2021 14:23

Tgt Ion:	57	Resp:	161948
Ion	Ratio	Lower	Upper
57	100		
41	109.5	77.2	115.8
43	88.5	173.8	260.6#
56	64.4	43.8	65.6





#27

Carbon Disulfide

Concen: 2.698 ppbv

RT: 4.55 Instrument: MSVOA_1

Delta R.T.:

Lab File: ClientSampleId:

Acq: 13 Apr 2021 14:23

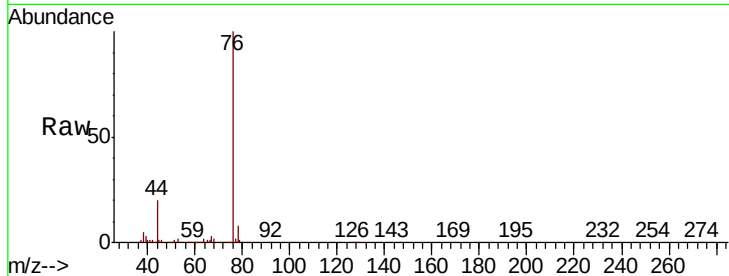
Tot Ion: 76 Resp: 405674

Ion Ratio Lower Upper

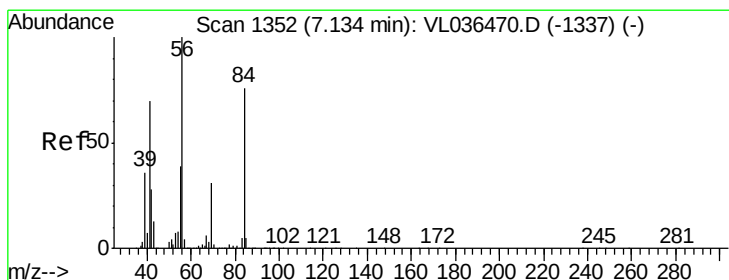
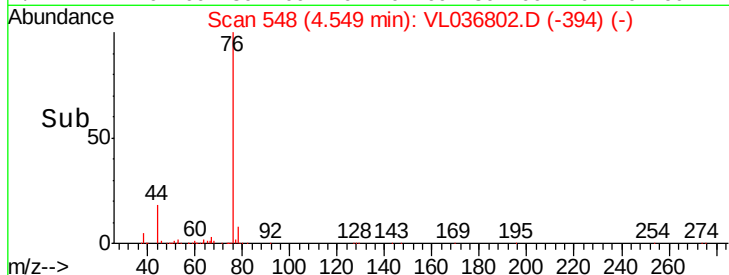
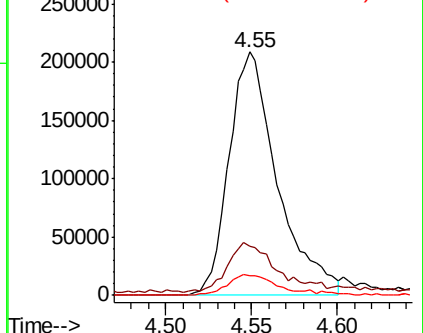
76 100

44 23.7 17.5 26.3

78 9.7 8.6 13.0



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#30

Cyclohexane

Concen: 0.138 ppbv

RT: 7.12 min Scan# 1349

Delta R.T. -0.01 min

Lab File: VL036802.D

Acq: 13 Apr 2021 14:23

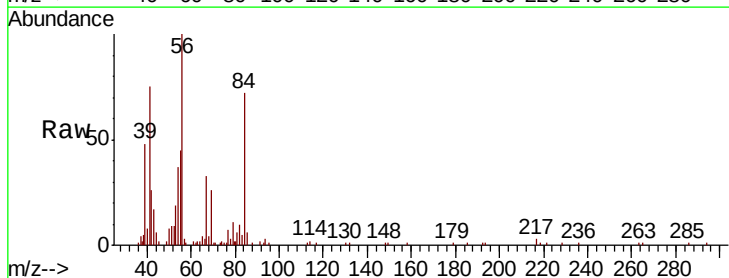
Tgt Ion: 84 Resp: 17056

Ion Ratio Lower Upper

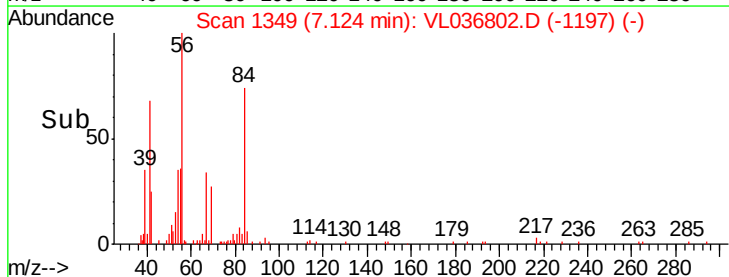
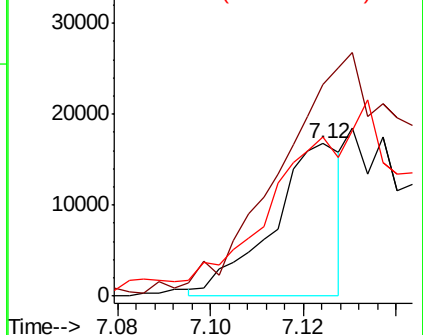
84 100

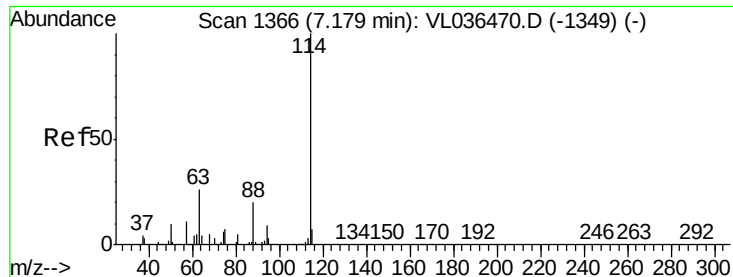
56 0.0 114.6 171.8#

41 0.0 75.3 112.9#



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





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

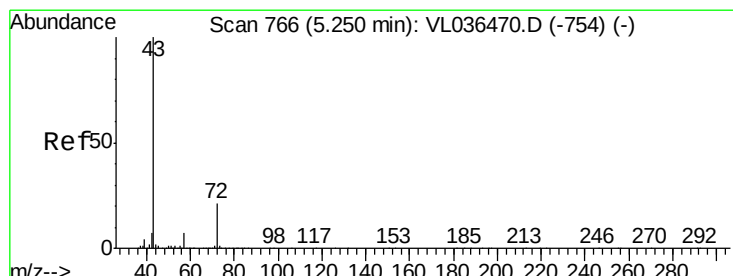
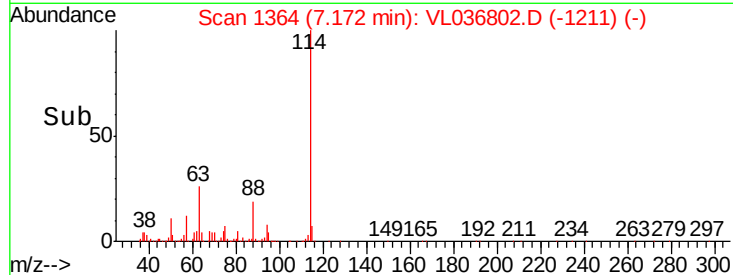
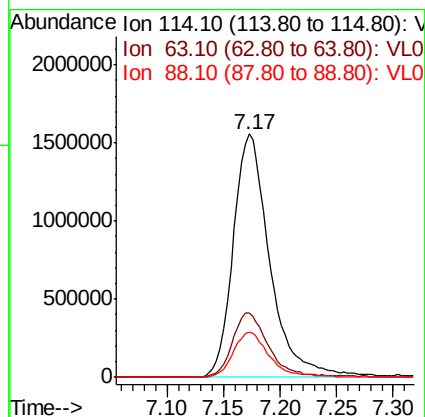
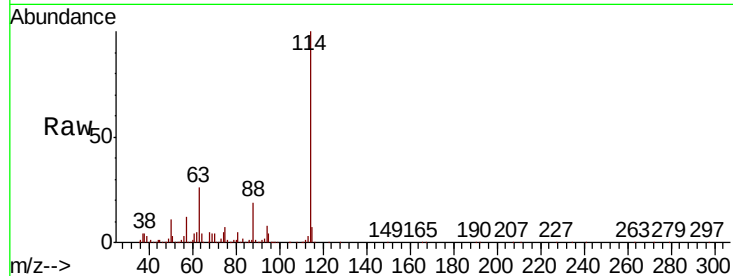
RT: 7.17

Delta R.T. MSVOLA

Lab File: ClientSampleId :

Acq: 13 Apr 2021 14:23

Tot Ion:	114	Resp:	3480215
Ion	Ratio	Lower	Upper
114	100		
63	26.9	22.4	33.6
88	18.7	15.4	23.0



#34

2-Butanone

Concen: 0.178 ppbv

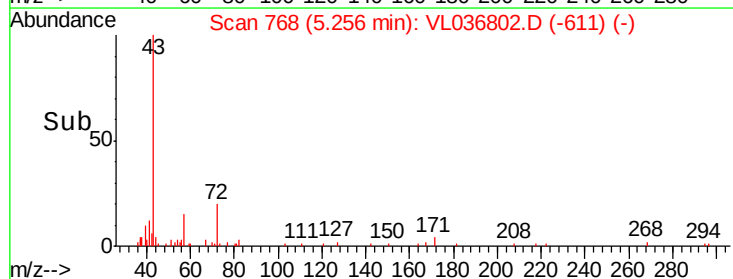
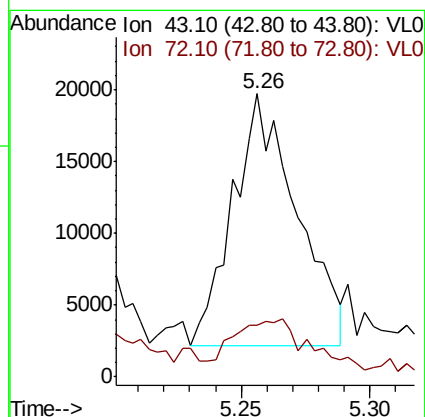
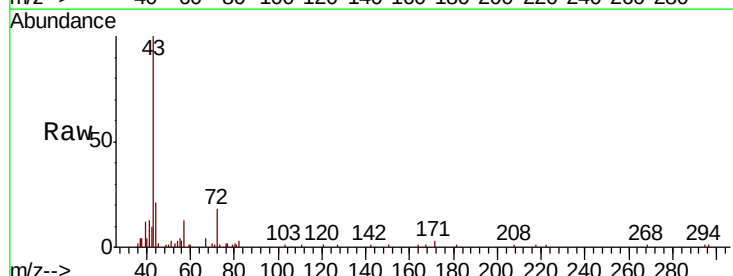
RT: 5.26 min Scan# 768

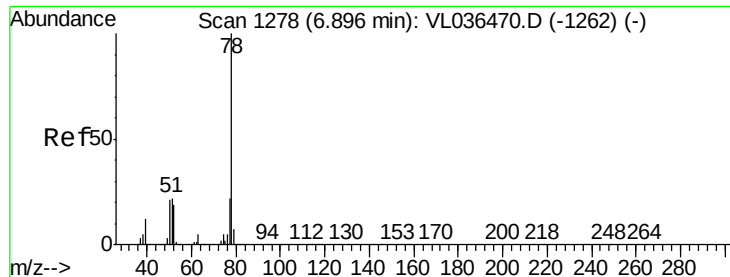
Delta R.T. 0.01 min

Lab File: VL036802.D

Acq: 13 Apr 2021 14:23

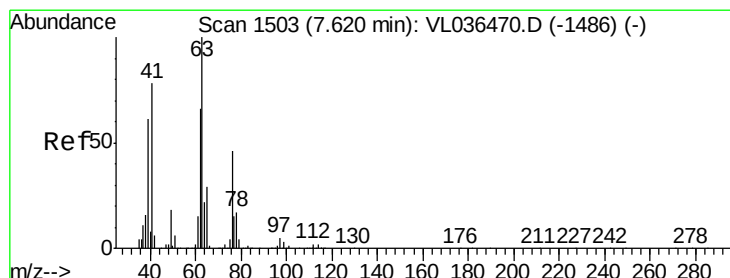
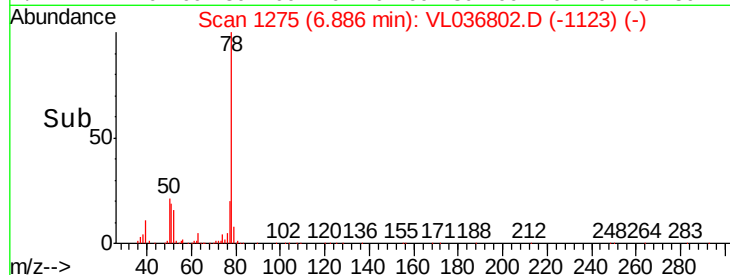
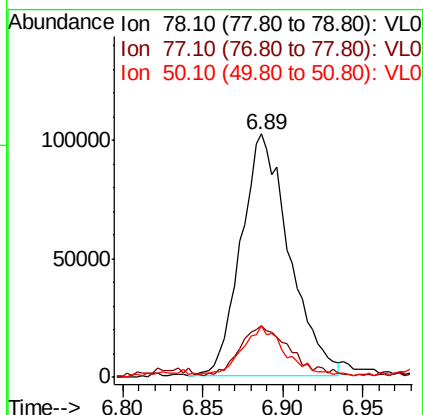
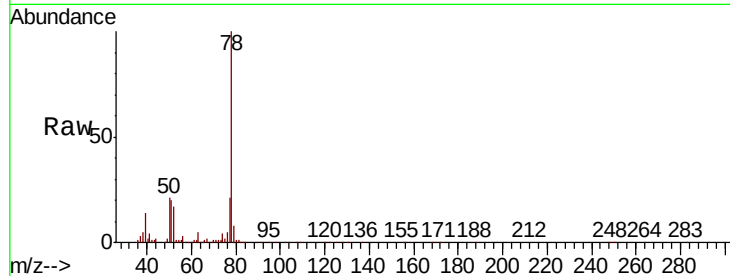
Tgt Ion:	43	Resp:	30266
Ion	Ratio	Lower	Upper
43	100		
72	34.9	17.0	25.6#





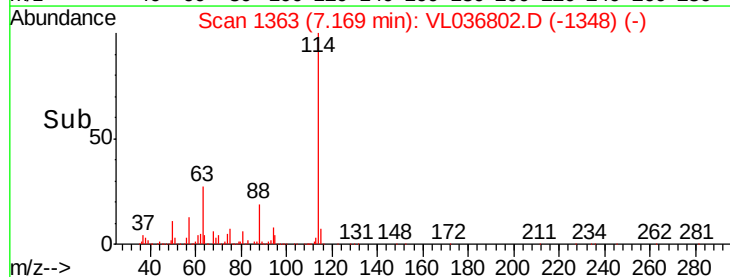
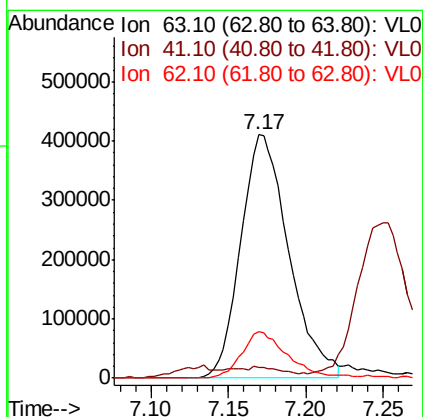
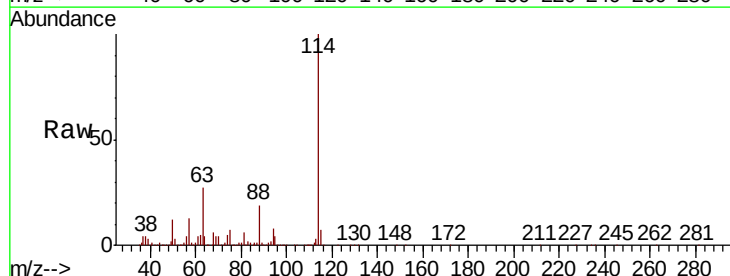
#36
Benzene
Concen: 0.658 ppbv
RT: 6.89
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 13 Apr 2021 14:23

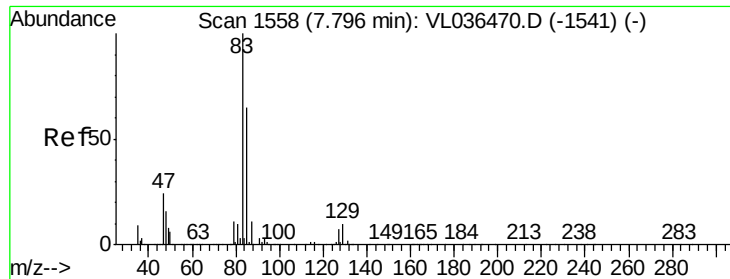
Tot Ion	Ratio	Lower	Upper
78	100		
77	19.6	18.0	27.0
50	20.3	16.5	24.7



#39
1,2-Dichloropropane
Concen: 6.797 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.45 min
Lab File: VL036802.D
Acq: 13 Apr 2021 14:23

Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.1	62.4	93.6#
62	19.1	52.8	79.2#





#42

Bromodichloromethane

Concen: 0.053 ppbv

RT: 7.79 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 Apr 2021 14:23

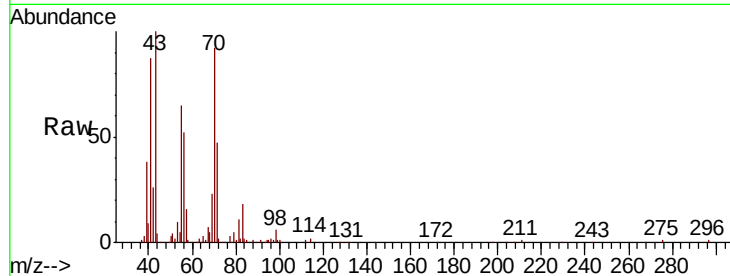
Tot Ion: 83 Resp: 13582

Ion Ratio Lower Upper

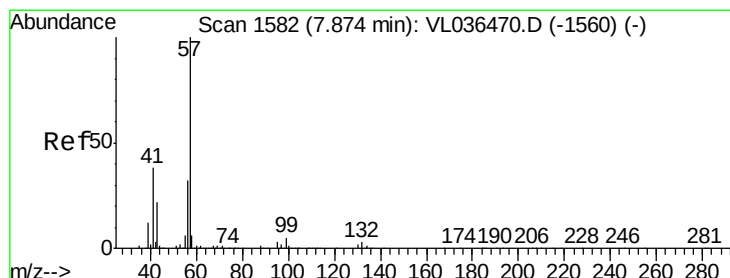
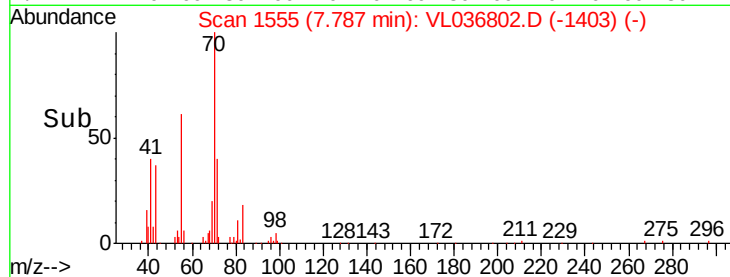
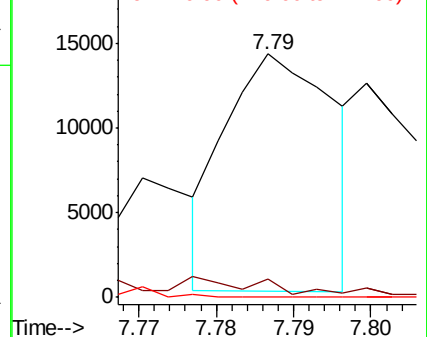
83 100

85 10.4 51.8 77.6#

127 0.0 5.8 8.8#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 126.90 (126.60 to 127.60): V



#44

2,2,4-Trimethylpentane

Concen: 0.097 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.01 min

Lab File: VL036802.D

Acq: 13 Apr 2021 14:23

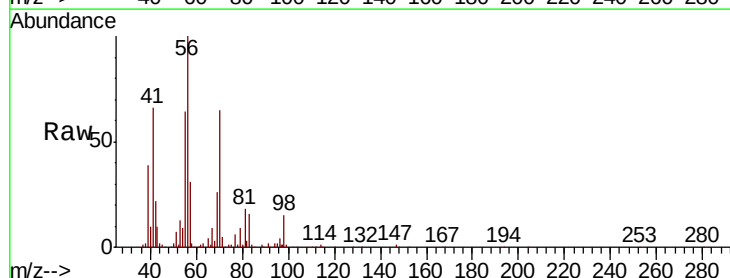
Tgt Ion: 57 Resp: 54843

Ion Ratio Lower Upper

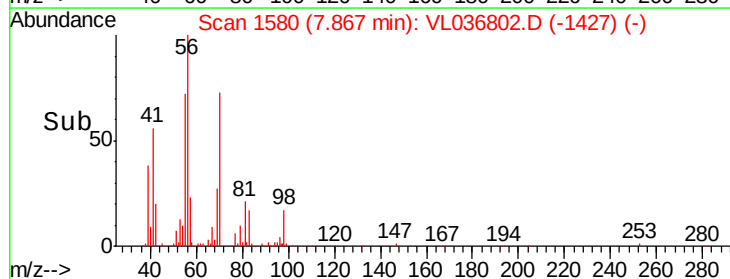
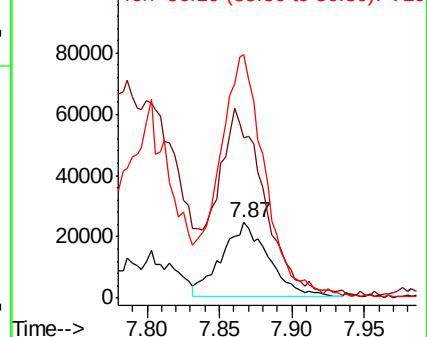
57 100

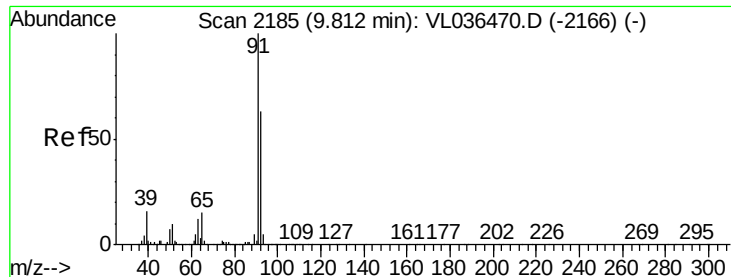
41 244.4 28.8 43.2#

56 329.3 26.1 39.1#



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: 0.784 ppbv

RT: 9.81 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

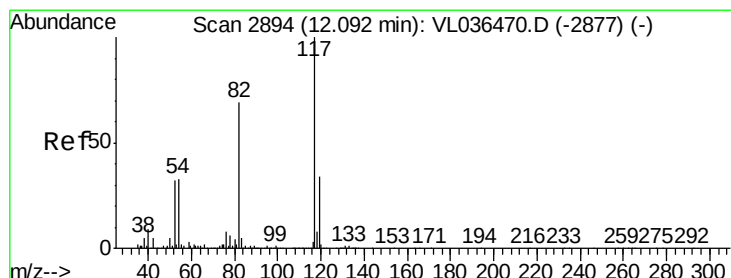
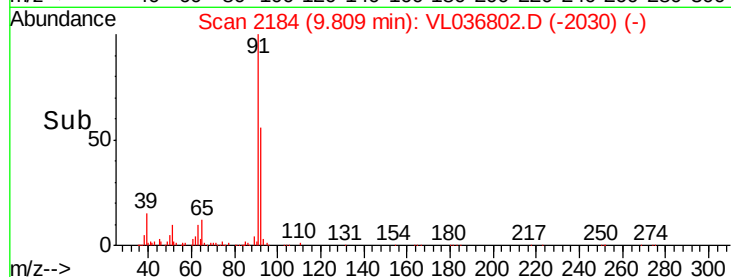
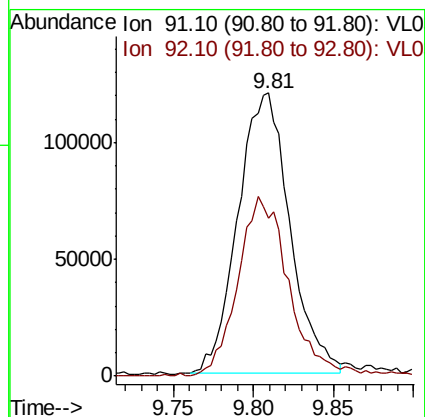
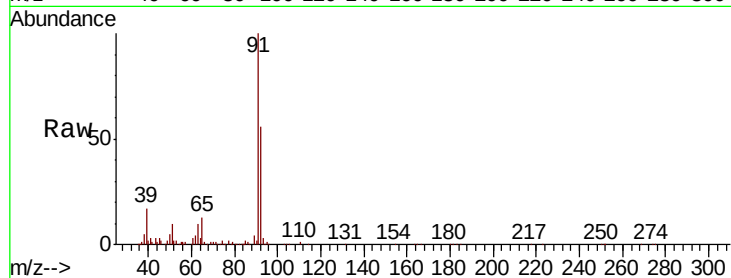
Acq: 13 Apr 2021 14:23

Tot Ion: 91 Resp: 268117

Ion Ratio Lower Upper

91 100

92 63.9 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL036802.D

Acq: 13 Apr 2021 14:23

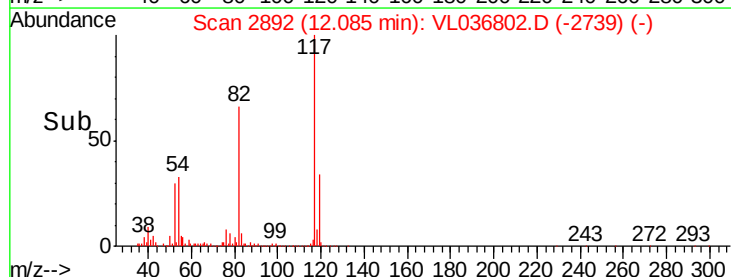
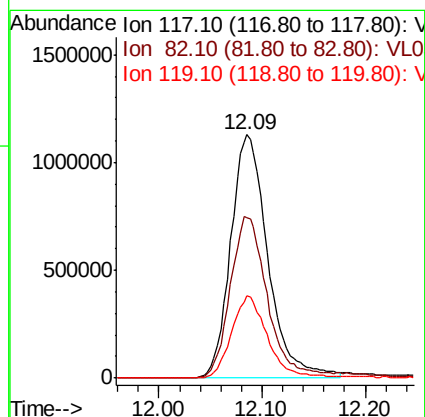
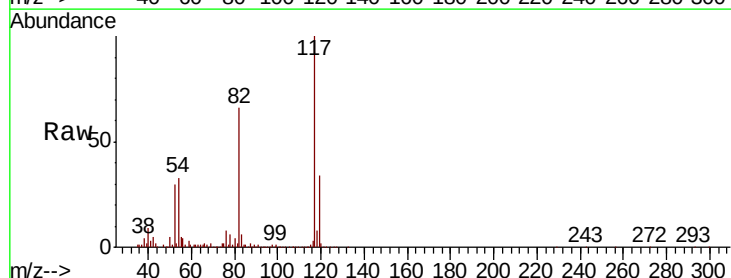
Tgt Ion: 117 Resp: 2837343

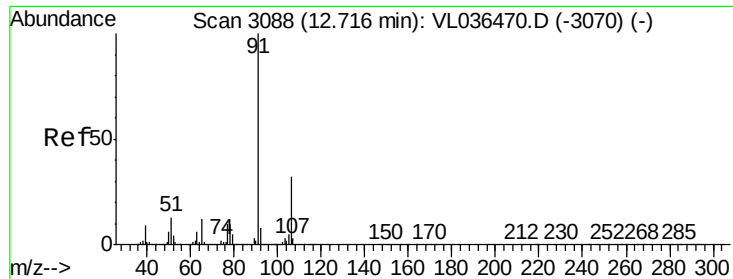
Ion Ratio Lower Upper

117 100

82 69.3 57.4 86.0

119 33.6 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.057 ppbv

RT: 12.71 min

Delta R.T. MSVOA_L

Lab File:

Acq: 13 Apr 2021 14:23

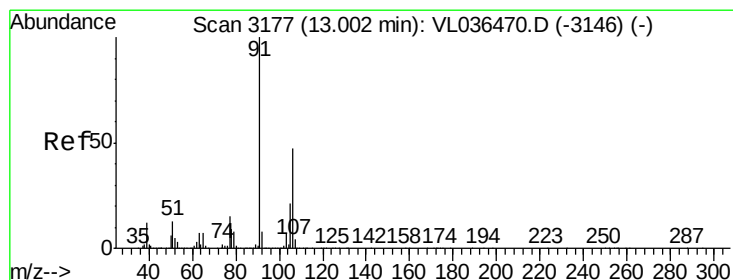
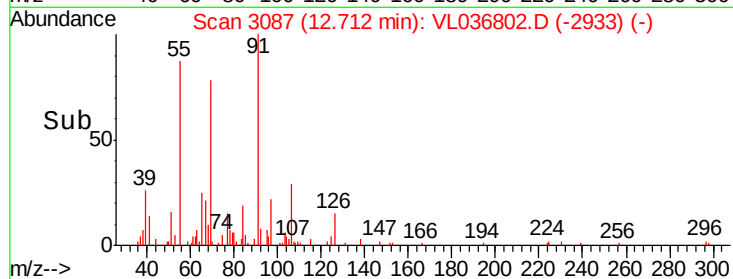
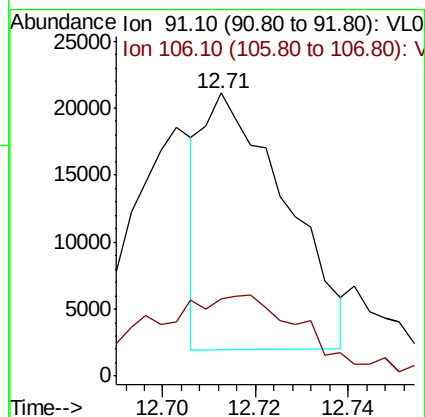
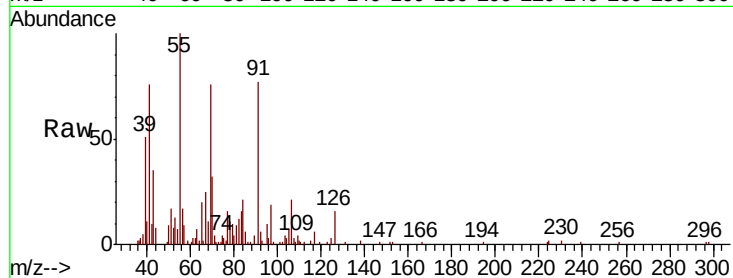
ClientSampleId:

Tot Ion: 91 Resp: 23728

Ion Ratio Lower Upper

91 100

106 26.3 25.3 37.9



#59

m/p-Xylene

Concen: 0.078 ppbv

RT: 12.99 min Scan# 3174

Delta R.T. -0.01 min

Lab File: VL036802.D

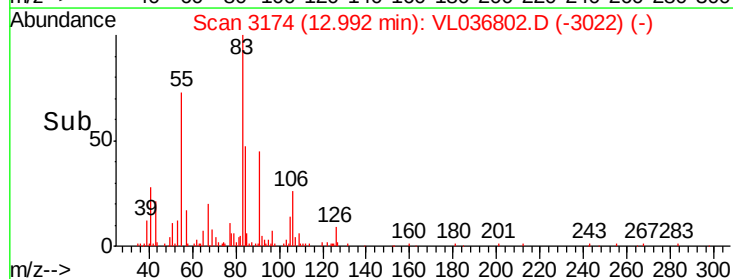
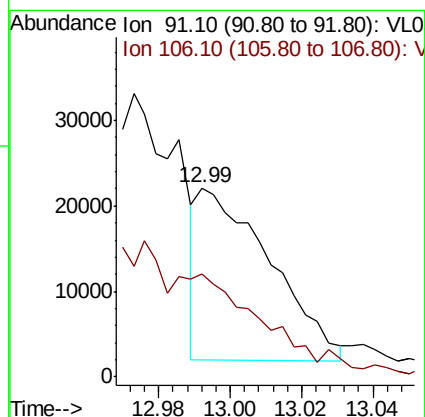
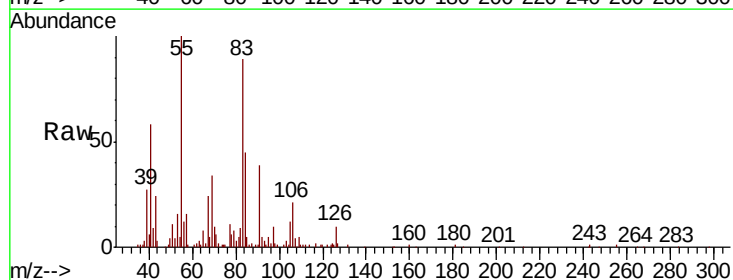
Acq: 13 Apr 2021 14:23

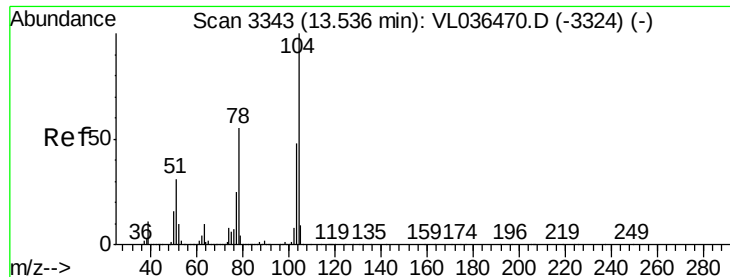
Tgt Ion: 91 Resp: 28040

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#





#61

Stvrene

Concen: 0.094 ppbv

RT: 13.53

Delta R.T. MSVOA_L

Lab File:

Acq: 13 Apr 2021 14:23

ClientSampleId :

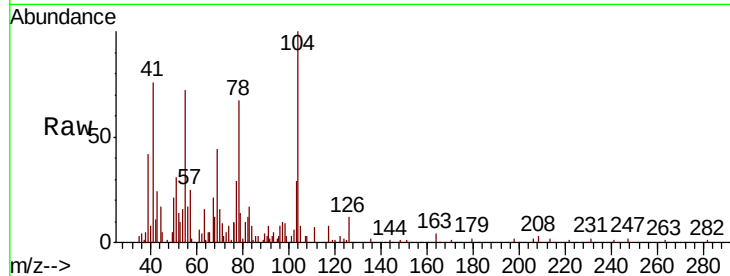
Tot Ion:104 Resp: 16432

Ion Ratio Lower Upper

104 100

78 0.0 43.8 65.8#

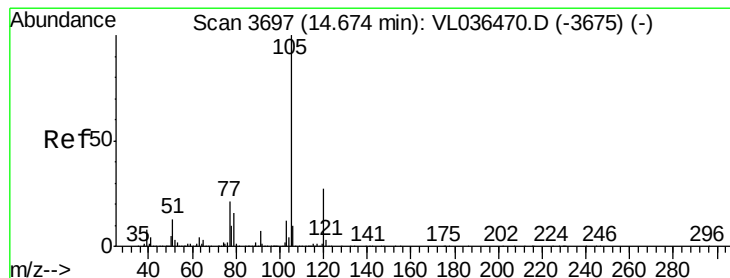
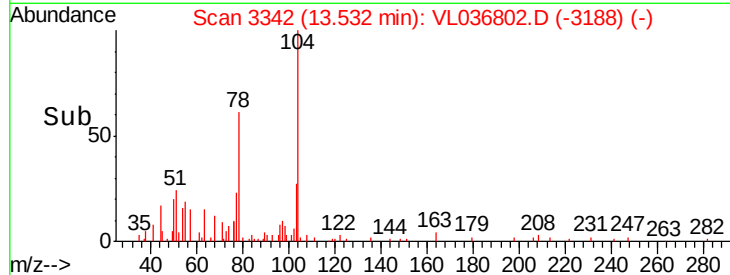
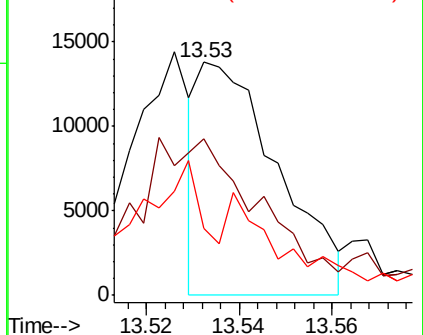
103 102.5 38.3 57.5#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 2.132 ppbv

RT: 14.67 min Scan# 3695

Delta R.T. -0.01 min

Lab File: VL036802.D

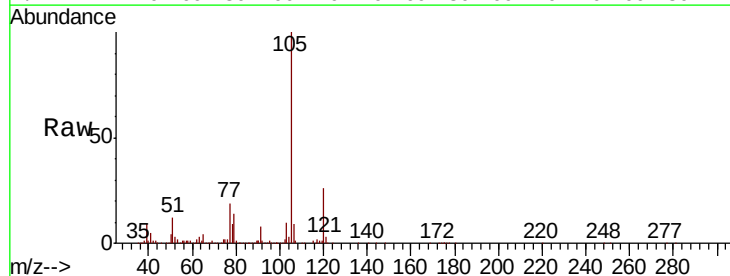
Acq: 13 Apr 2021 14:23

Tgt Ion:105 Resp: 999622

Ion Ratio Lower Upper

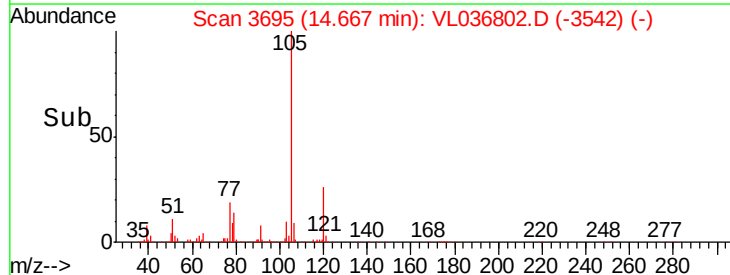
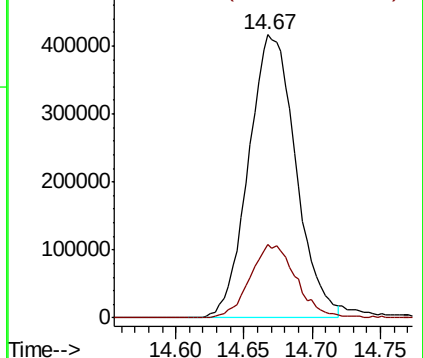
105 100

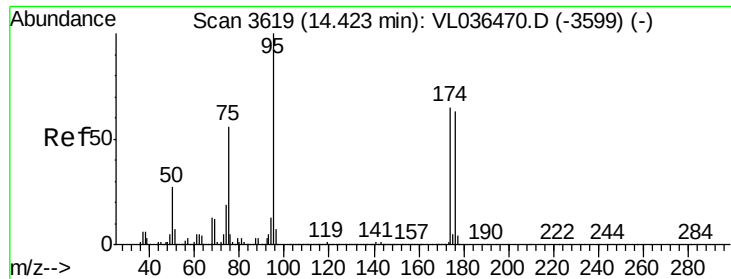
120 26.1 20.6 31.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#68

1-Bromo-4-Fluorobenzene

Concen: 8.300 ppbv

RT: 14.42

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 13 Apr 2021 14:23

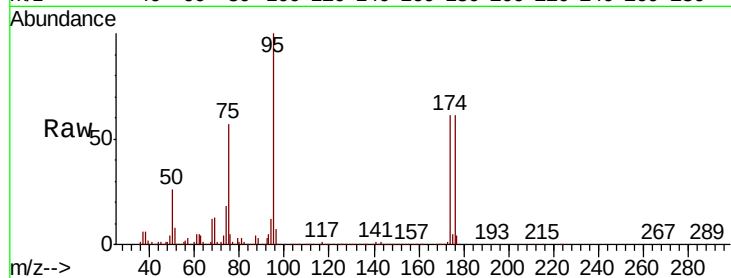
Tot Ion: 95 Resp: 1876848

Ion Ratio Lower Upper

95 100

174 66.5 51.0 76.6

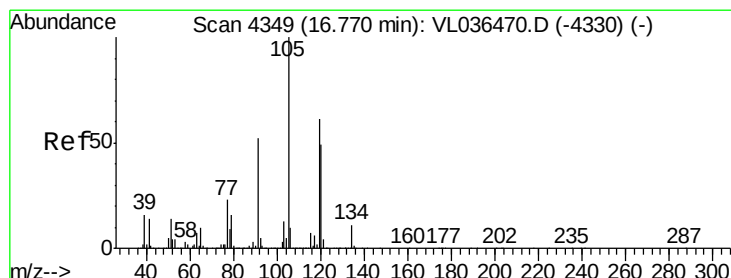
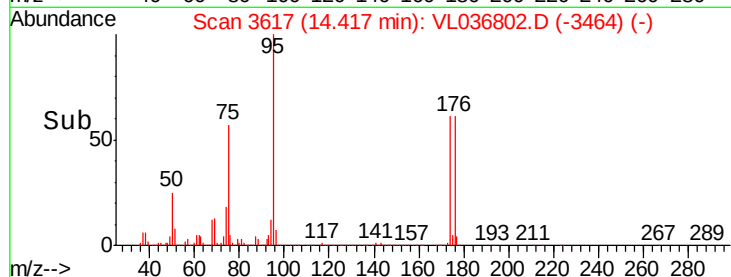
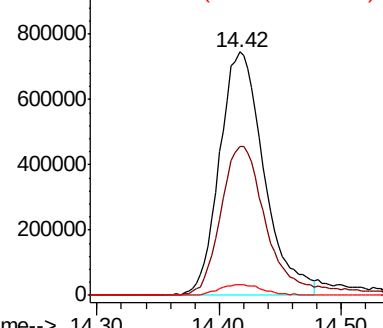
175 4.6 3.9 5.9



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.046 ppbv

RT: 16.76 min Scan# 4347

Delta R.T. -0.01 min

Lab File: VL036802.D

Acq: 13 Apr 2021 14:23

Tgt Ion:105 Resp: 17649

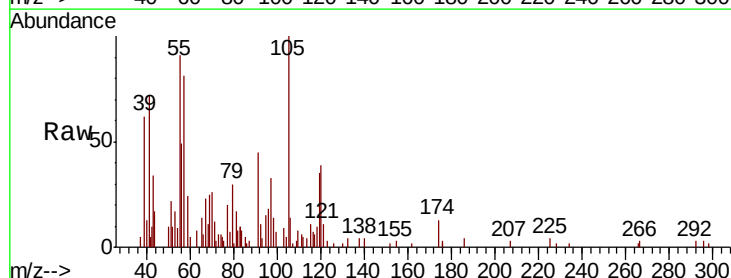
Ion Ratio Lower Upper

105 100

120 37.6 39.2 58.8#

91 26.5 42.6 64.0#

77 7.1 18.6 28.0#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

