

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060821\
 Data File : VL037140.D
 Acq On : 8 Jun 2021 20:19
 Operator : SY/AP
 Sample : M2614-06
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

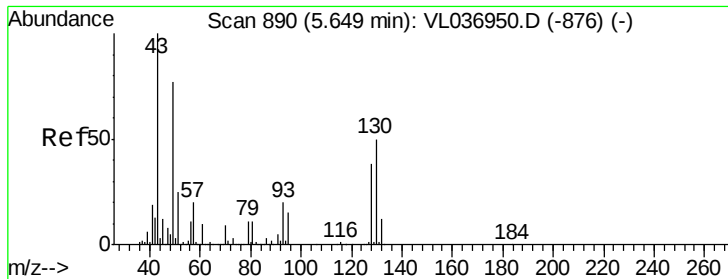
Quant Time: Jun 09 01:21:37 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1288727	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.17	114	3841039	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.08	117	3455660	10.00	ppbv	0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	2517491	9.70	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.00%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	74961	0.343	ppbv 92
4) Chloromethane	3.14	50	47039	0.585	ppbv 93
9) Propene	3.01	41	29322	0.347	ppbv # 37
10) Heptane	8.12	43	6652	0.032	ppbv # 1
11) Trichlorofluoromethane	3.95	101	52479	0.259	ppbv # 83
13) Ethanol	3.60	45	2149015	190.515	ppbv 96
15) Acetone	3.85	43	1135463	8.602	ppbv 97
17) tert-Butyl alcohol	4.30	59	4952	0.041	ppbv # 72
19) Isopropyl Alcohol	3.97	45	824869	11.625	ppbv # 35
20) Methylene Chloride	4.34	84	705222	9.967	ppbv 97
23) Vinyl Acetate	5.06	43	35023	0.167	ppbv # 53
25) Ethyl Acetate	5.69	43	404706	1.276	ppbv # 81
26) Hexane	5.68	57	539216	3.328	ppbv # 48
29) Chloroform	5.75	83	7104	0.031	ppbv 89
30) Cyclohexane	7.13	84	7539	0.055	ppbv # 4
34) 2-Butanone	5.25	43	116241	0.831	ppbv # 90
35) Carbon Tetrachloride	7.02	117	8219	0.032	ppbv 92
36) Benzene	6.89	78	47674	0.144	ppbv 94
39) 1,2-Dichloropropane	7.18	63	922410	7.237	ppbv # 25
41) Tetrahydrofuran	5.69	42	209928	2.635	ppbv # 50
44) 2,2,4-Trimethylpentane	7.87	57	45073	0.079	ppbv # 25
50) 4-Methyl-2-Pentanone	8.76	43	11482	0.050	ppbv # 38
53) Toluene	9.80	91	443314	1.126	ppbv 95
58) Ethyl Benzene	12.71	91	16747	0.034	ppbv 93
60) o-Xylene	13.69	91	20076	0.052	ppbv # 34

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

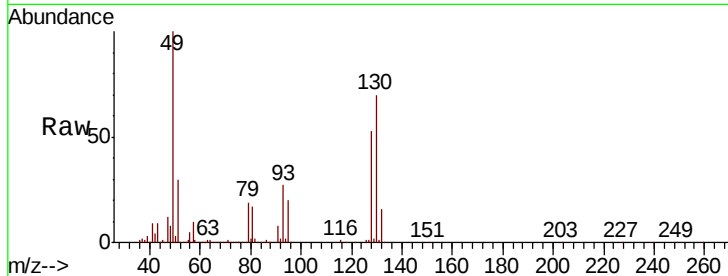
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 49 Resp: 1288727

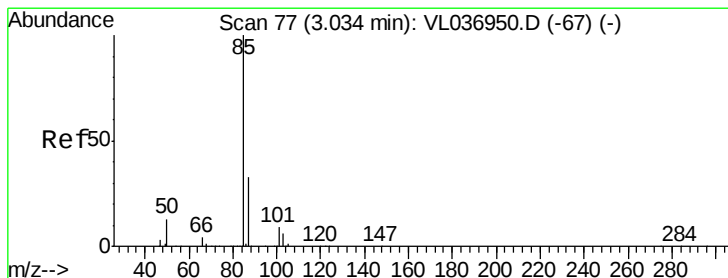
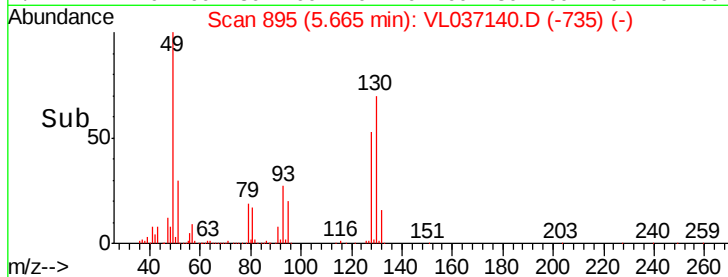
Ion	Ratio	Lower	Upper
49	100		
128	58.1	26.9	80.7
130	74.3	33.8	101.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.343 ppbv

RT: 3.05 min Scan# 81

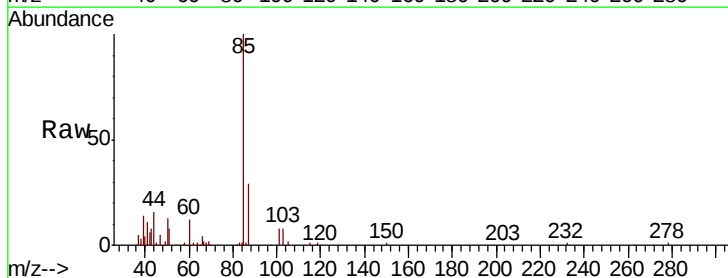
Delta R.T. 0.01 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

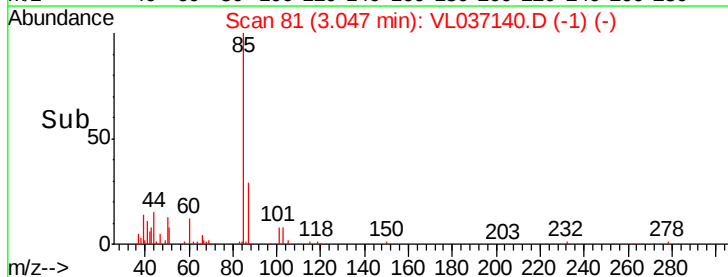
Tgt Ion: 85 Resp: 74961

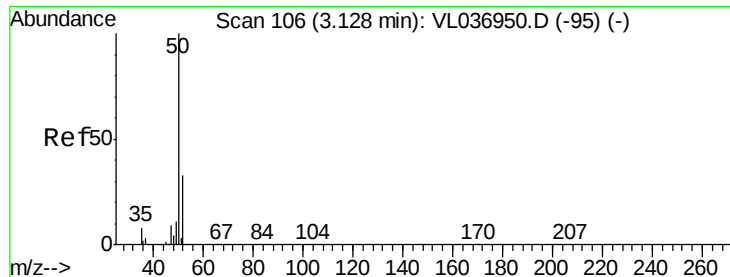
Ion	Ratio	Lower	Upper
85	100		
87	28.6	26.6	39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.585 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.01 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

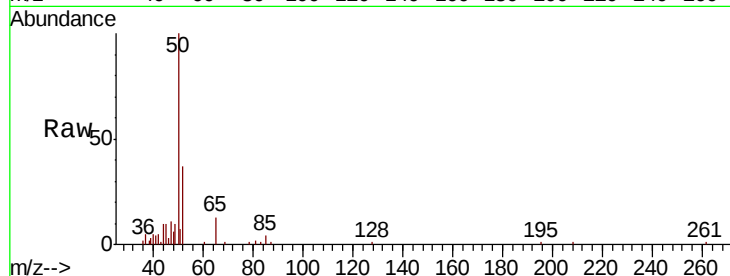
ClientSampleId :

Tot Ion: 50 Resp: 47039

Ion Ratio Lower Upper

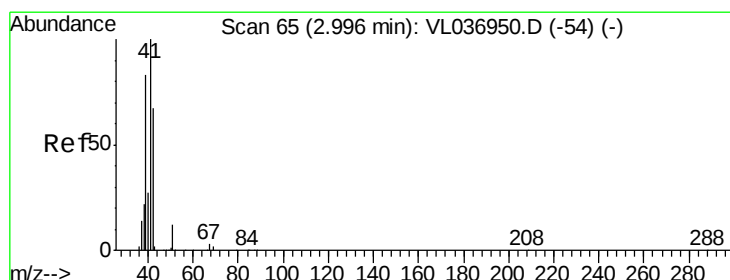
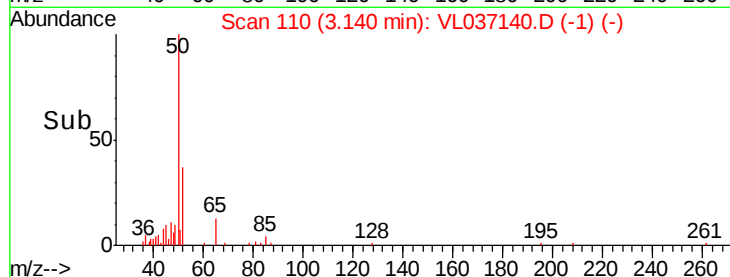
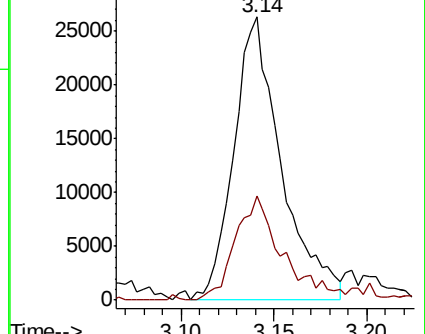
50 100

52 36.8 26.1 39.1



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 0.347 ppbv

RT: 3.01 min Scan# 70

Delta R.T. 0.02 min

Lab File: VL037140.D

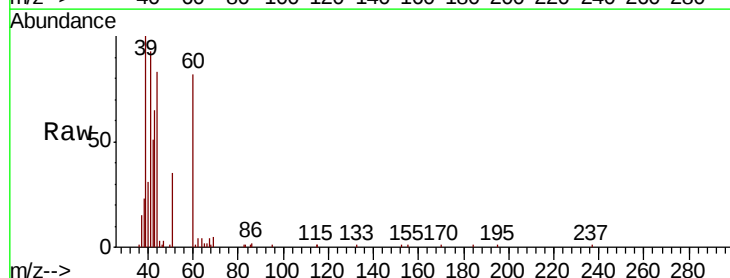
Acq: 8 Jun 2021 20:19

Tgt Ion: 41 Resp: 29322

Ion Ratio Lower Upper

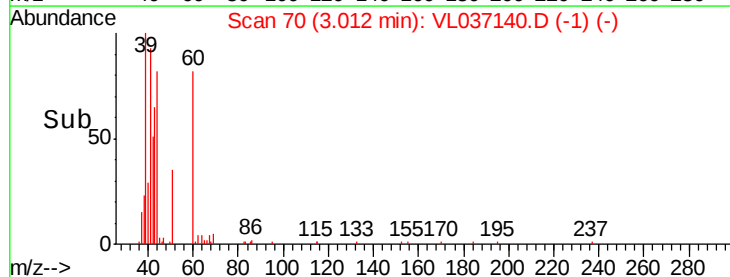
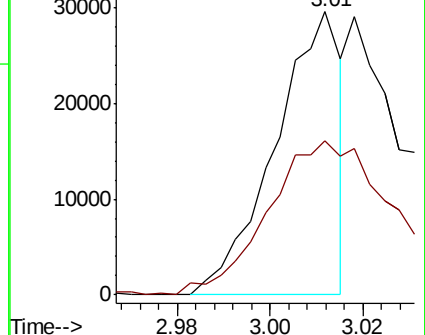
41 100

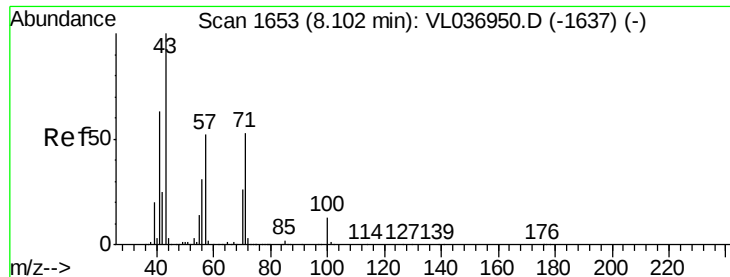
42 118.4 53.9 80.9#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.032 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

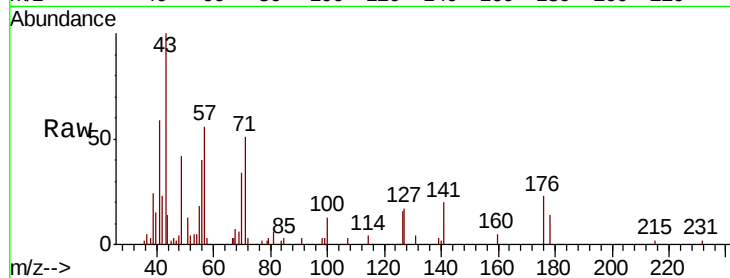
ClientSampleId :

Tot Ion: 43 Resp: 6652

Ion Ratio Lower Upper

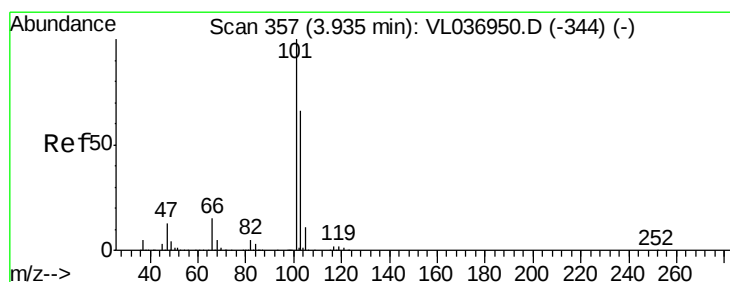
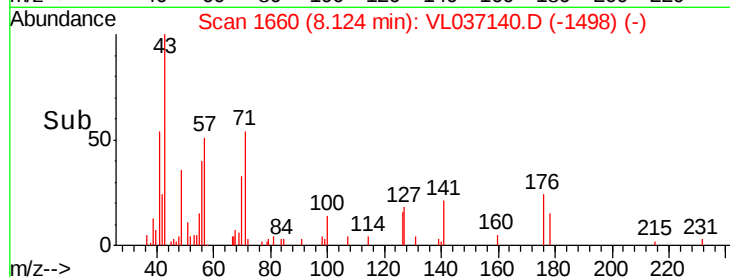
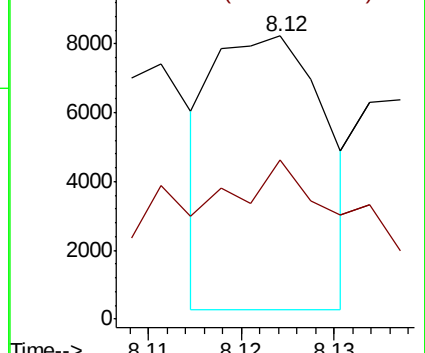
43 100

57 150.6 41.0 61.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.259 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.01 min

Lab File: VL037140.D

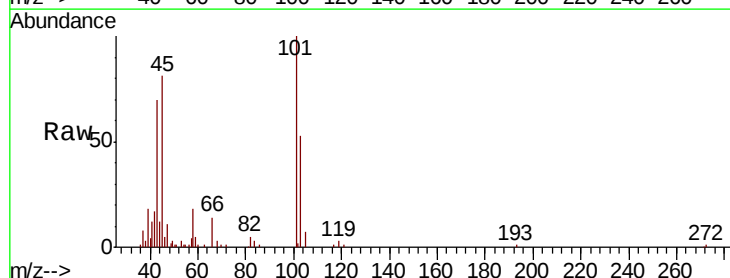
Acq: 8 Jun 2021 20:19

Tgt Ion: 101 Resp: 52479

Ion Ratio Lower Upper

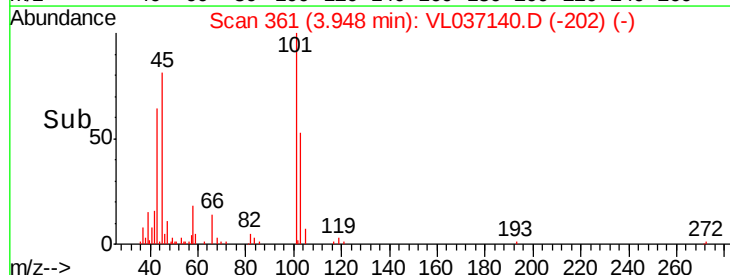
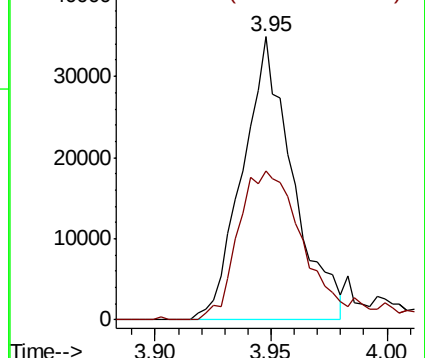
101 100

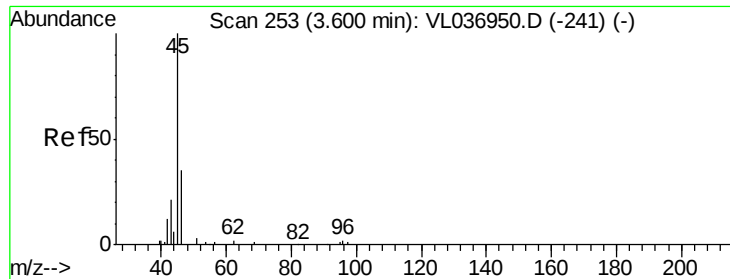
103 52.6 52.6 79.0#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 190.515 ppbv

RT: 3.60 min Scan# 254

Delta R.T. 0.00 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

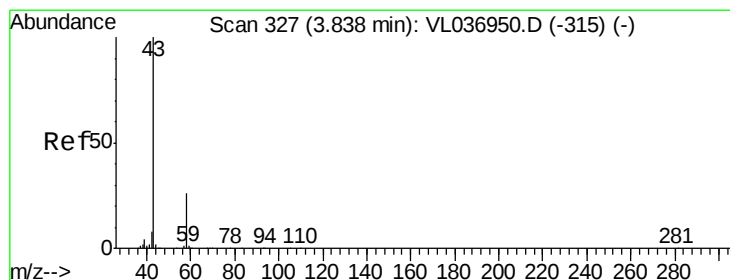
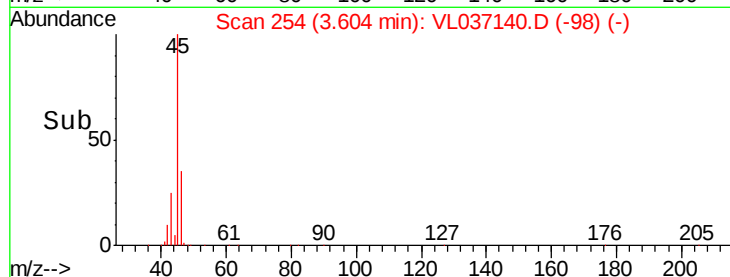
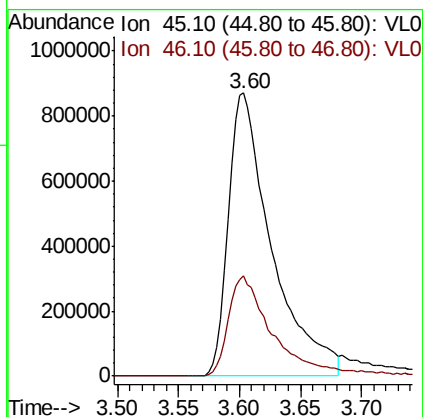
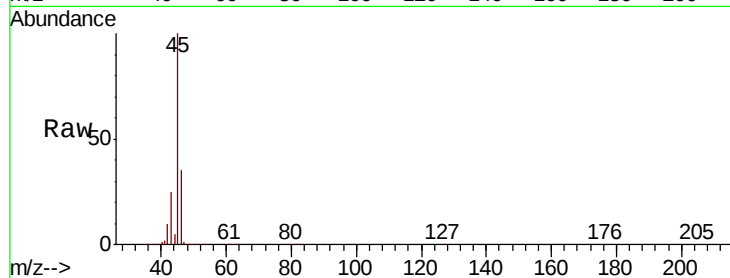
ClientSampleId :

Tot Ion: 45 Resp: 2149015

Ion Ratio Lower Upper

45 100

46 38.1 16.3 65.3



#15

Acetone

Concen: 8.602 ppbv

RT: 3.85 min Scan# 331

Delta R.T. 0.01 min

Lab File: VL037140.D

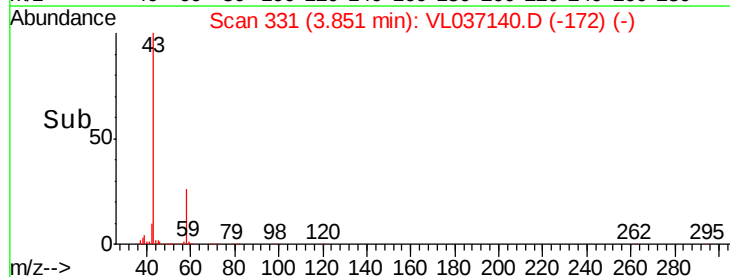
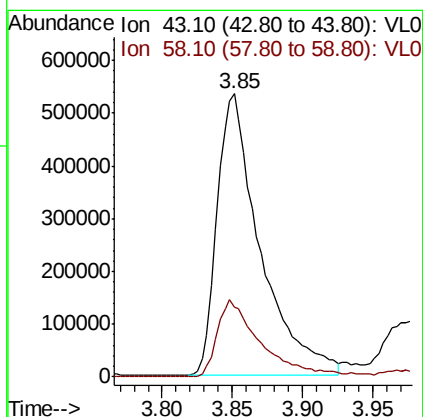
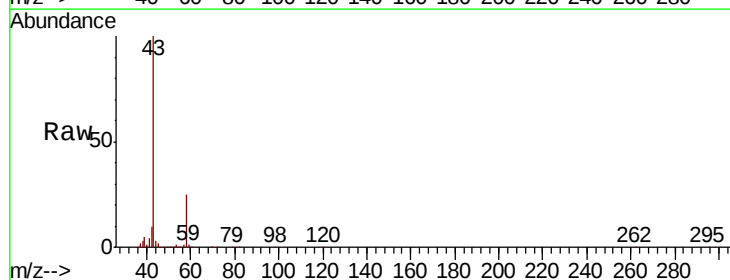
Acq: 8 Jun 2021 20:19

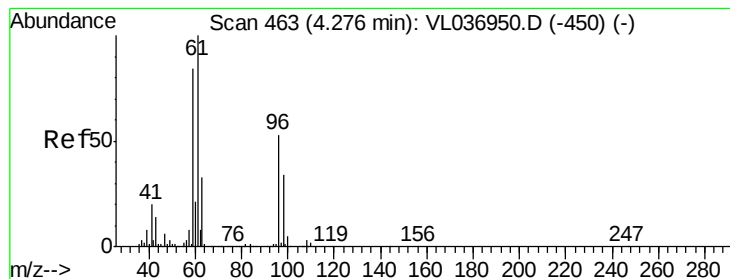
Tgt Ion: 43 Resp: 1135463

Ion Ratio Lower Upper

43 100

58 28.2 24.0 36.0



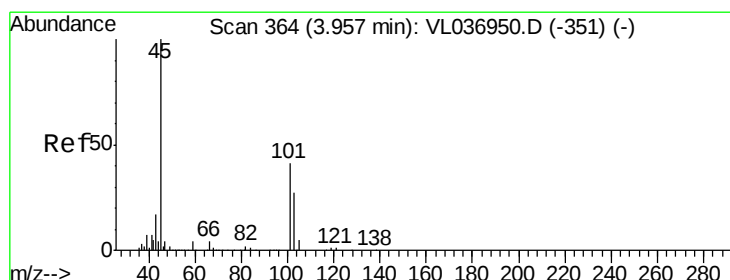
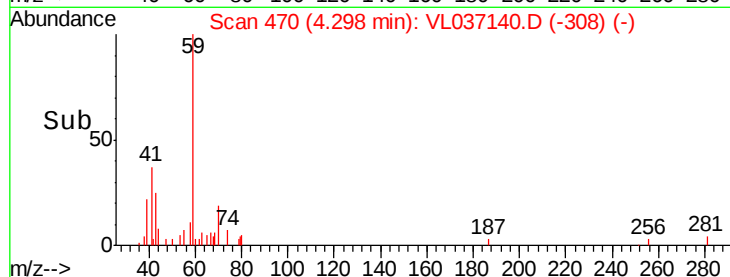
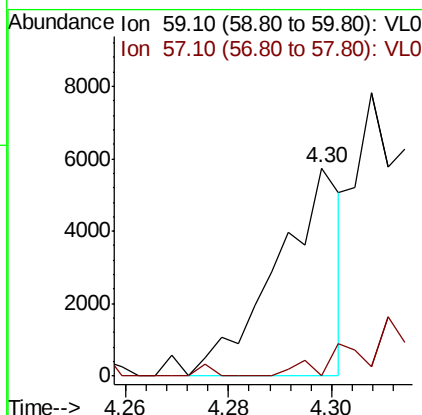
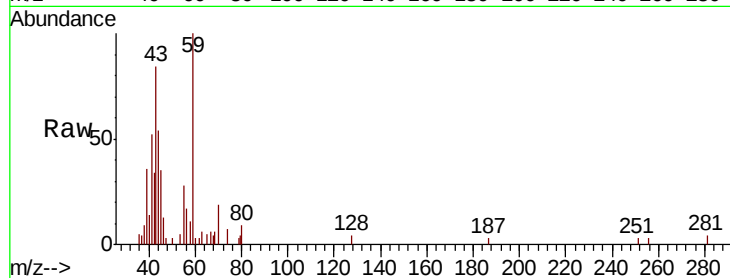


#17

tert-Butyl alcohol
 Concen: 0.041 ppbv
 RT: 4.30 min Scan# 470
 Delta R.T. 0.02 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

Instrument :
 MSVOA_L
 ClientSampled :

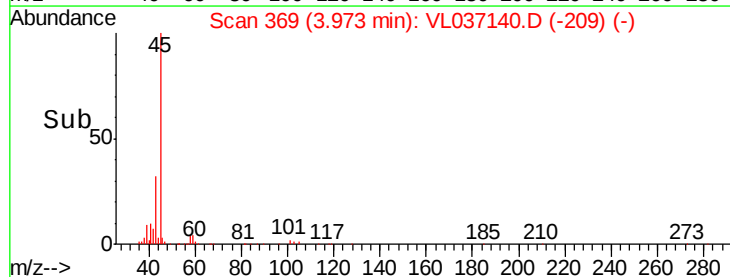
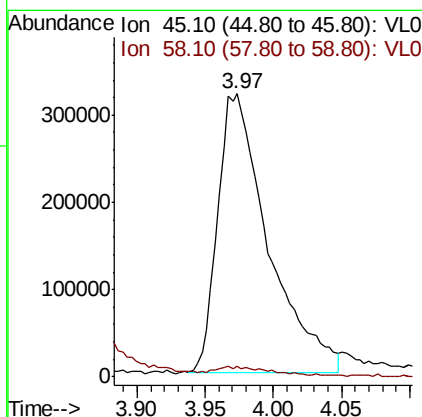
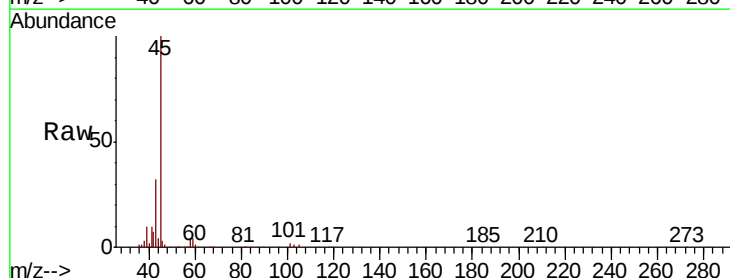
Tot Ion: 59 Resp: 4952
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.3 12.5#

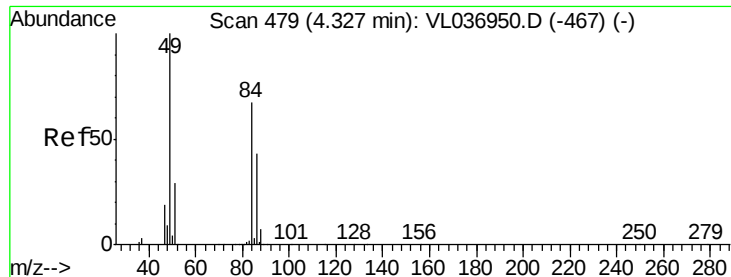


#19

Isopropyl Alcohol
 Concen: 11.625 ppbv
 RT: 3.97 min Scan# 369
 Delta R.T. 0.02 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

Tgt Ion: 45 Resp: 824869
 Ion Ratio Lower Upper
 45 100
 58 3.4 37.2 55.8#





#20

Methvlene Chloride

Concen: 9.967 ppbv

RT: 4.34 min Scan# 484

Delta R.T. 0.02 min

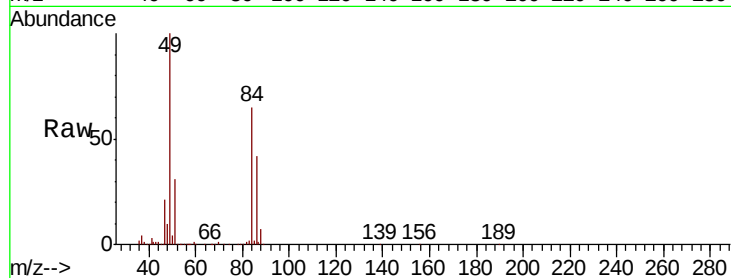
Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 84 Resp: 705222

Ion	Ratio	Lower	Upper
84	100		
49	154.0	119.8	179.6
51	47.1	35.1	52.7
86	64.6	50.9	76.3



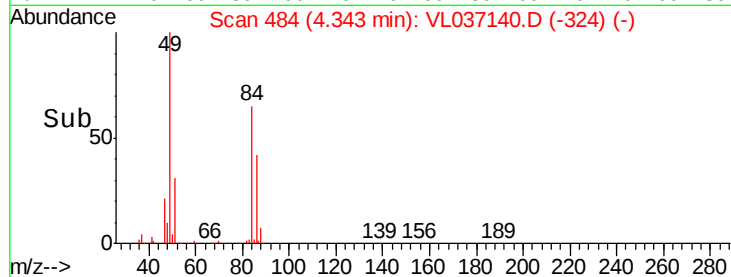
Abundance

Ion 84.00 (83.70 to 84.70): VL0

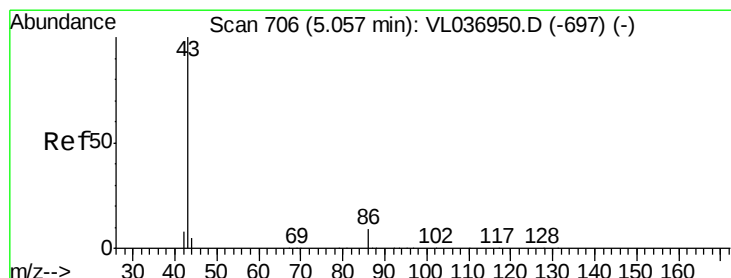
Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



Time-->



#23

Vinyl Acetate

Concen: 0.167 ppbv

RT: 5.06 min Scan# 707

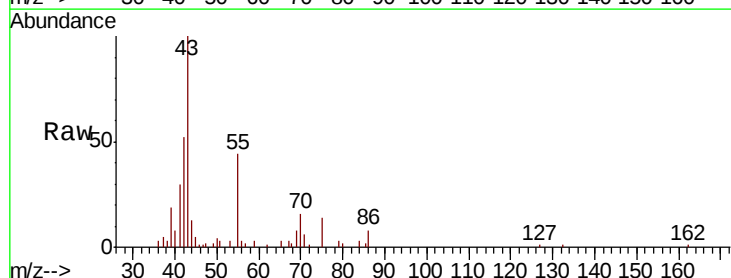
Delta R.T. 0.00 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Tgt Ion: 43 Resp: 35023

Ion	Ratio	Lower	Upper
43	100		
86	6.9	5.8	8.8
42	46.8	7.4	11.2#
44	3.2	3.3	4.9#



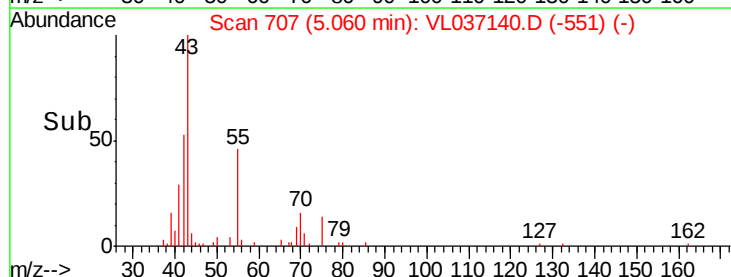
Abundance

Ion 43.10 (42.80 to 43.80): VL0

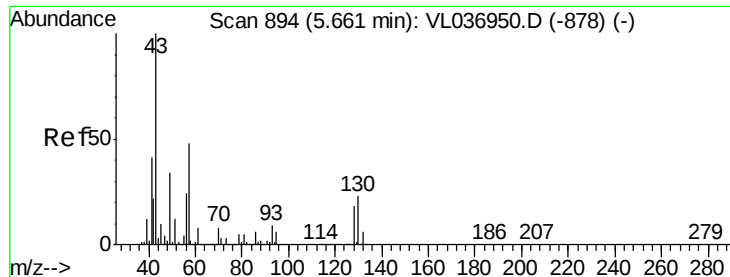
Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



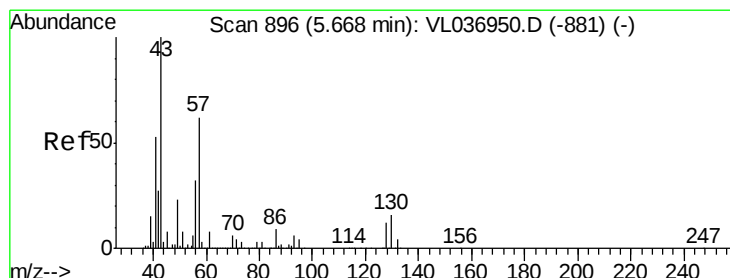
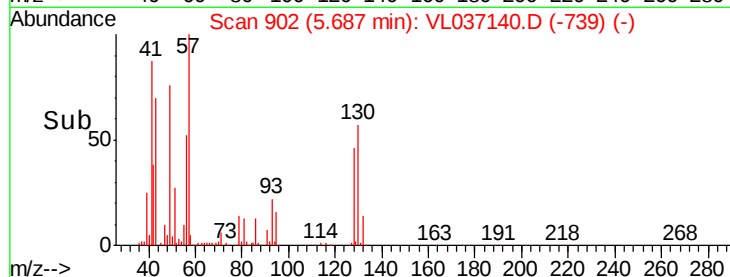
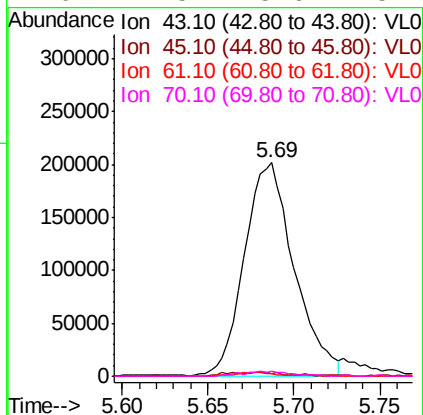
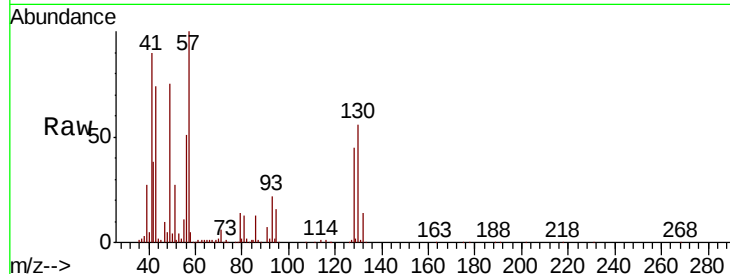
Time-->



#25
Ethyl Acetate
Concen: 1.276 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.03 min
Lab File: VL037140.D
Acq: 8 Jun 2021 20:19

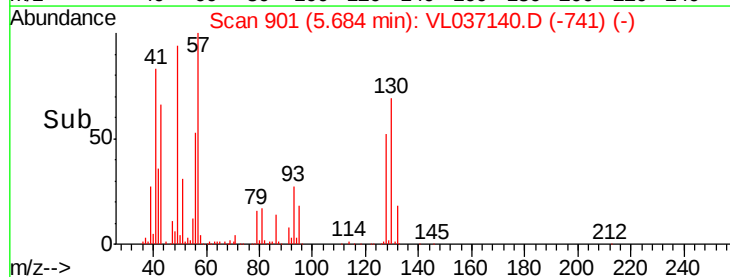
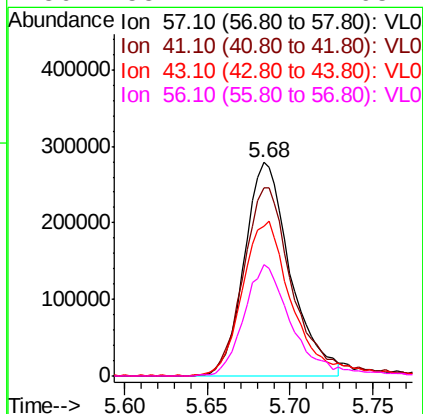
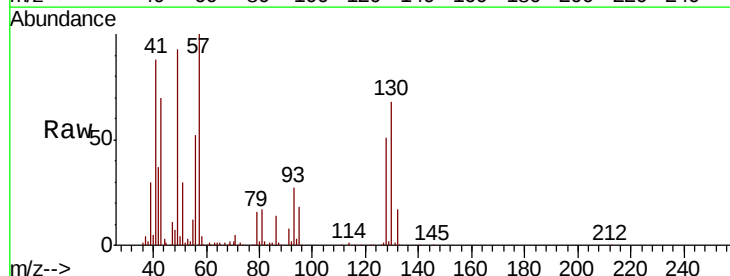
Instrument :
MSVOA_L
ClientSampleId :

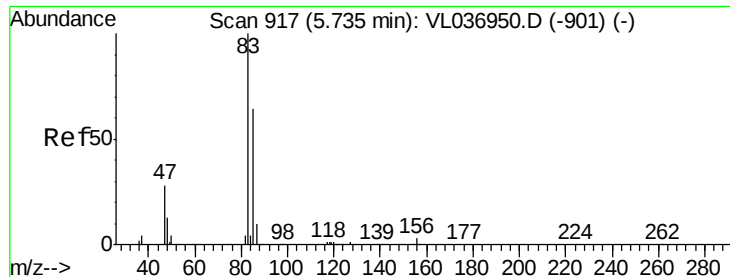
Tot Ion:	43	Resp:	404706
Ion	Ratio	Lower	Upper
43	100		
45	2.5	7.8	11.8#
61	1.7	7.8	11.8#
70	2.5	5.6	8.4#



#26
Hexane
Concen: 3.328 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.02 min
Lab File: VL037140.D
Acq: 8 Jun 2021 20:19

Tgt Ion:	57	Resp:	539216
Ion	Ratio	Lower	Upper
57	100		
41	96.6	70.5	105.7
43	79.1	165.8	248.8#
56	55.4	42.2	63.4





#29

Chloroform

Concen: 0.031 ppbv

RT: 5.75 min Scan# 922

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

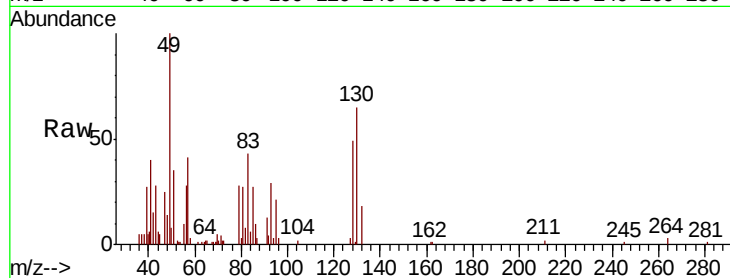
ClientSampleId :

Tot Ion: 83 Resp: 7104

Ion Ratio Lower Upper

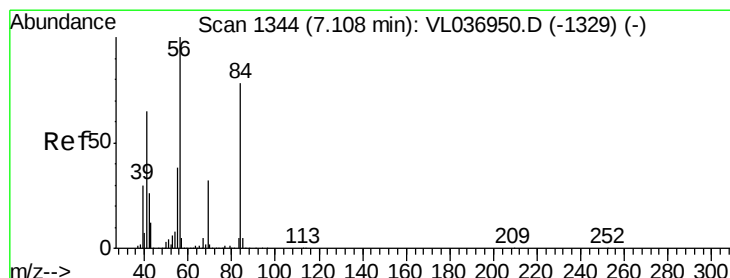
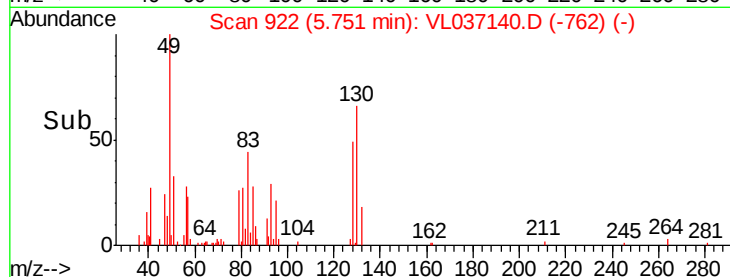
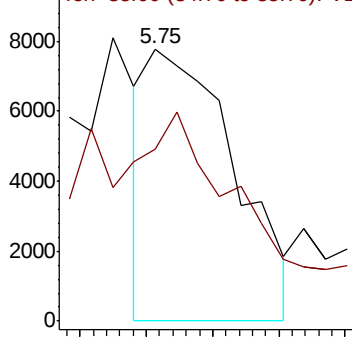
83 100

85 54.9 51.1 76.7



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 0.055 ppbv

RT: 7.13 min Scan# 1351

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

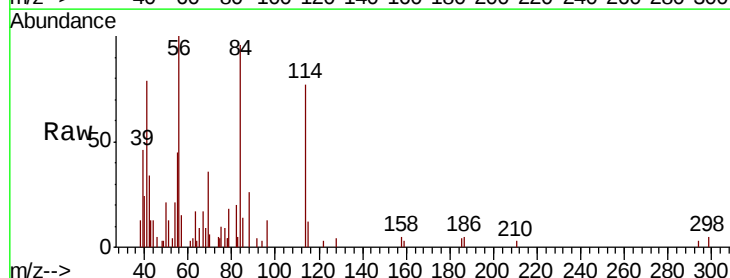
Tgt Ion: 84 Resp: 7539

Ion Ratio Lower Upper

84 100

56 0.0 107.9 161.9#

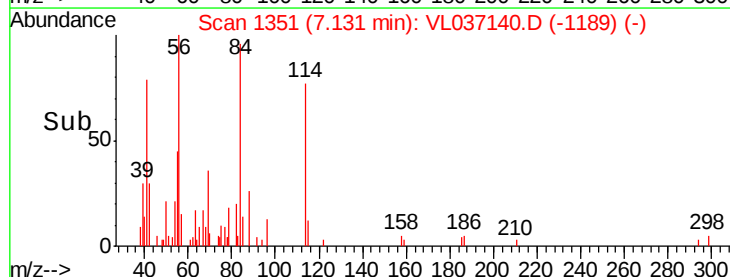
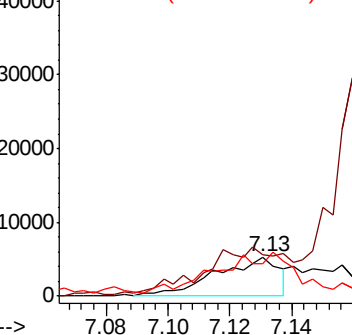
41 142.4 65.5 98.3#

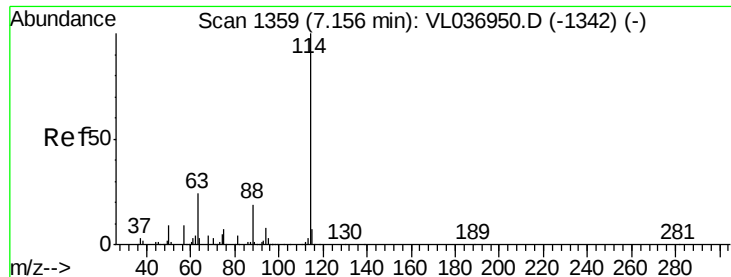


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

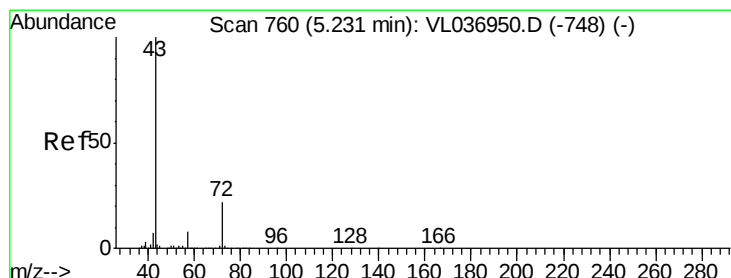
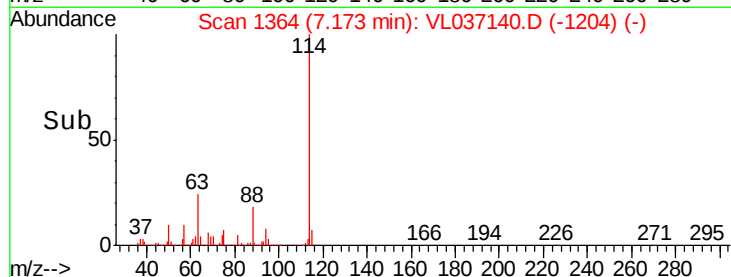
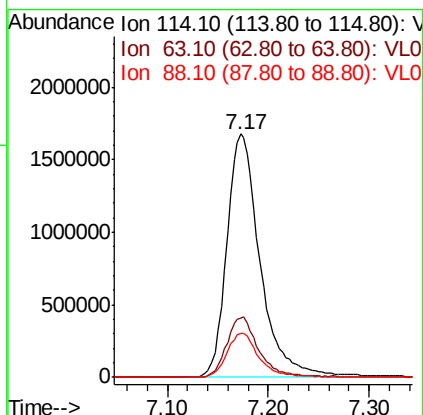
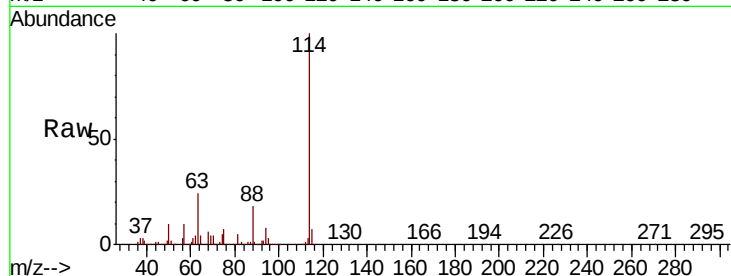




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. 0.02 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

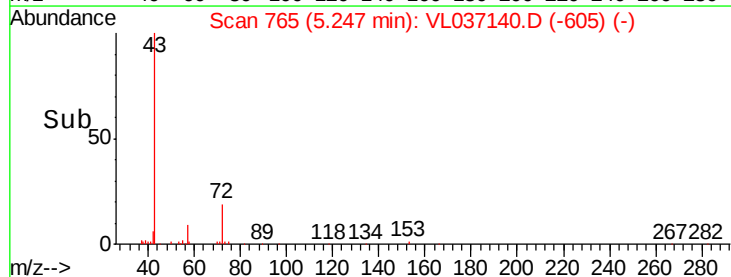
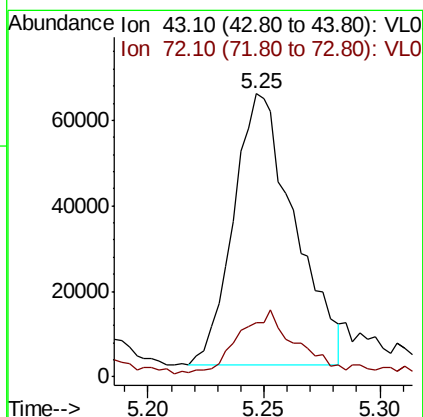
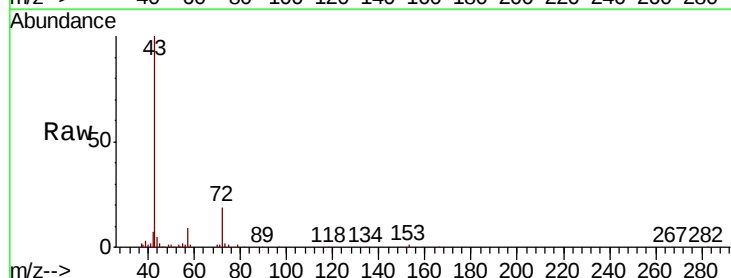
Instrument :
 MSVOA_L
 ClientSampleId :

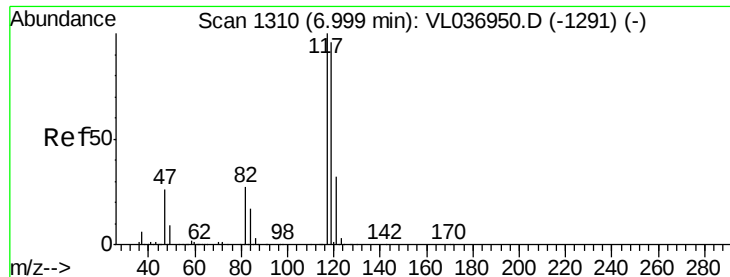
Tot Ion:114 Resp: 3841039
 Ion Ratio Lower Upper
 114 100
 63 24.6 19.6 29.4
 88 18.0 14.6 21.8



#34
 2-Butanone
 Concen: 0.831 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. 0.02 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

Tgt Ion: 43 Resp: 116241
 Ion Ratio Lower Upper
 43 100
 72 28.7 19.0 28.4#





#35

Carbon Tetrachloride

Concen: 0.032 ppbv

RT: 7.02 min Scan# 1316

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

ClientSampleId :

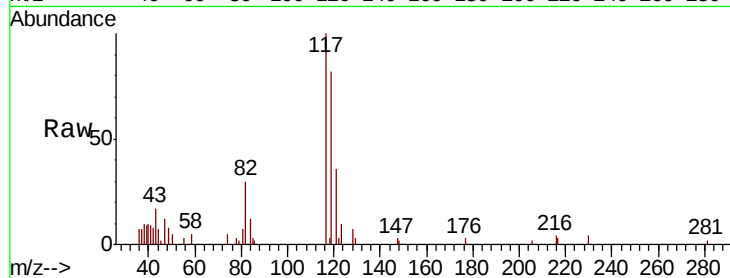
Tot Ion:117 Resp: 8219

Ion Ratio Lower Upper

117 100

119 85.7 76.6 114.8

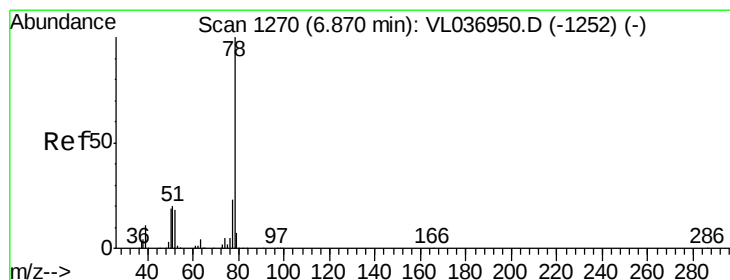
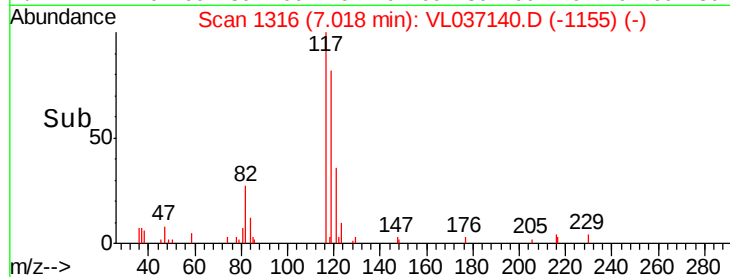
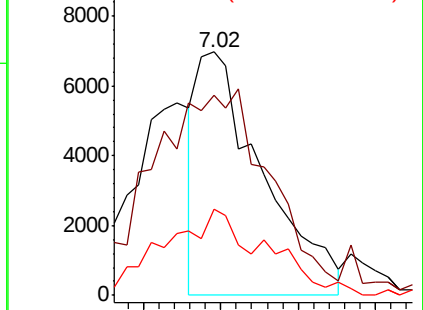
121 33.7 25.8 38.6



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.144 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

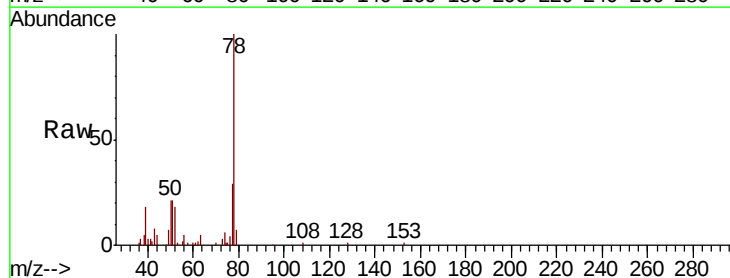
Tgt Ion: 78 Resp: 47674

Ion Ratio Lower Upper

78 100

77 27.9 18.6 28.0

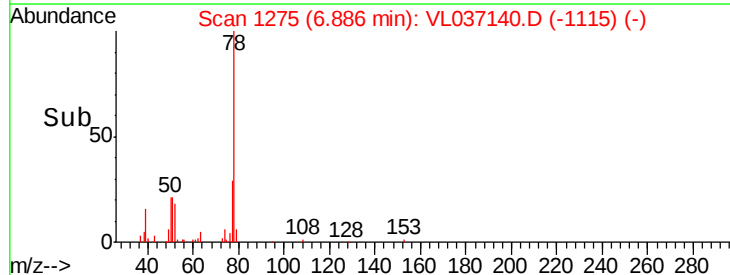
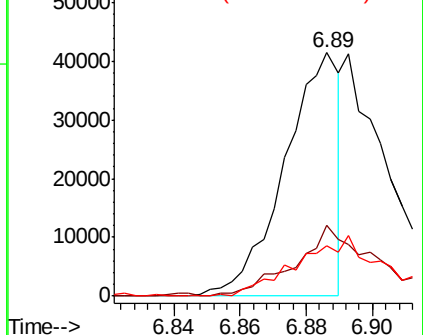
50 19.5 15.0 22.4

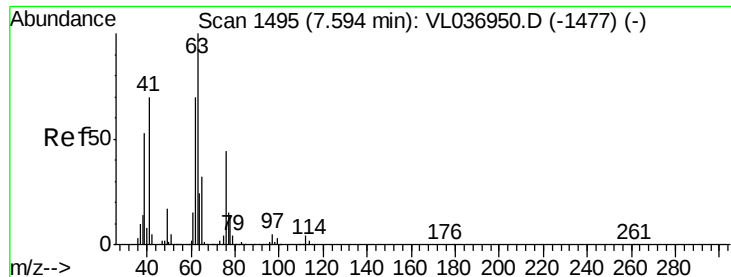


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

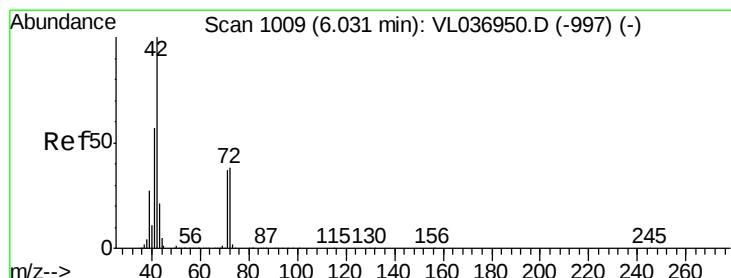
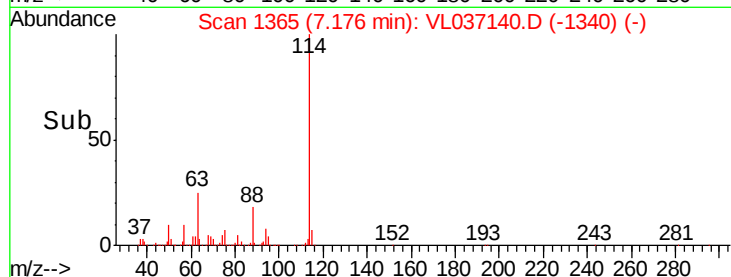
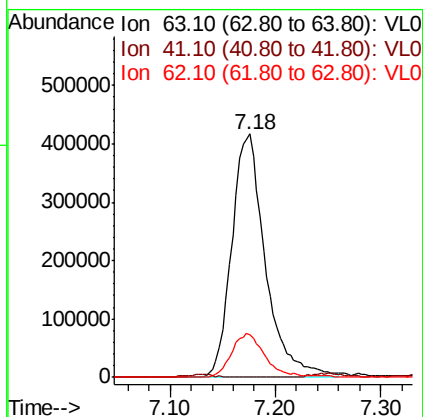
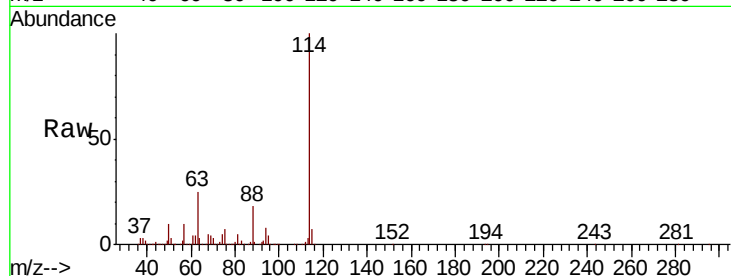




#39
 1,2-Dichloropropane
 Concen: 7.237 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. -0.42 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

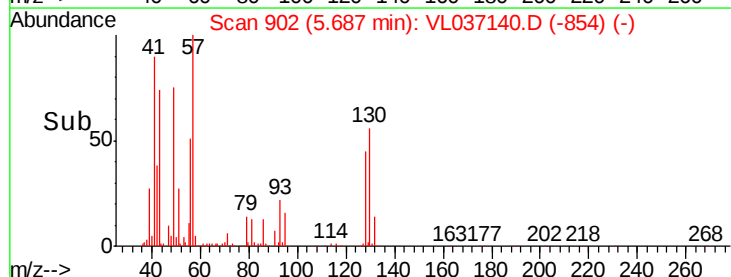
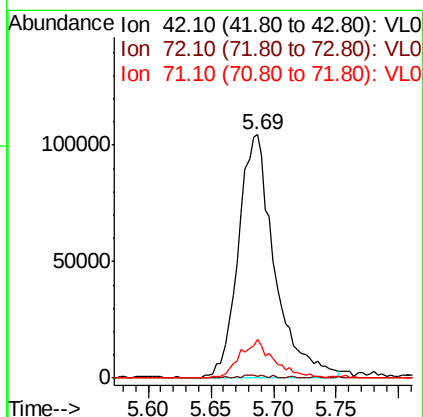
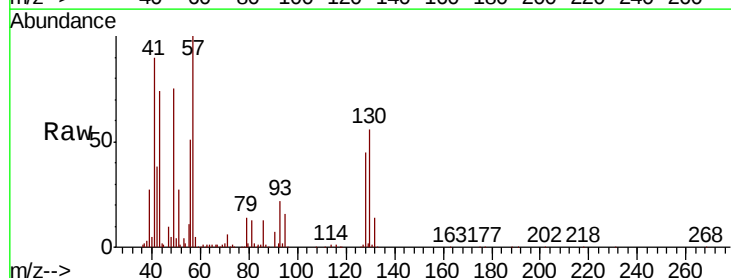
Instrument :
 MSVOA_L
 ClientSampleId :

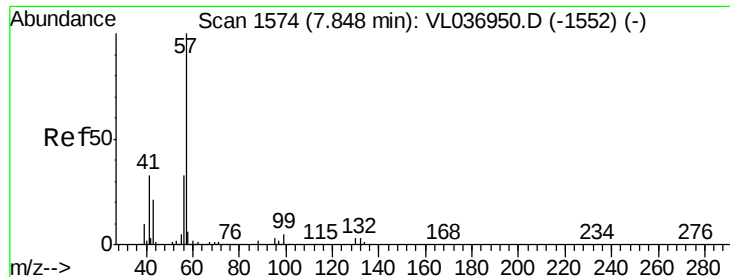
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.7	83.5#
62	17.3	56.2	84.4#



#41
 Tetrahydrofuran
 Concen: 2.635 ppbv
 RT: 5.69 min Scan# 902
 Delta R.T. -0.34 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

Tgt Ion	Ratio	Lower	Upper
42	100		
72	1.0	31.4	47.2#
71	15.7	30.4	45.6#

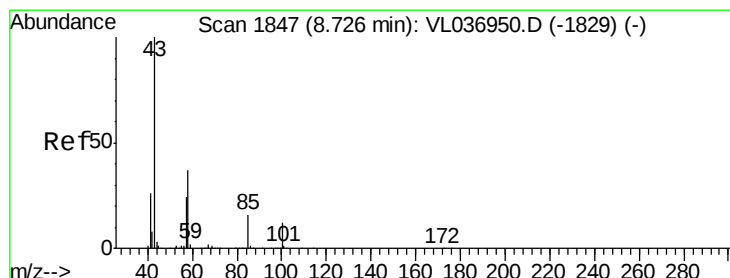
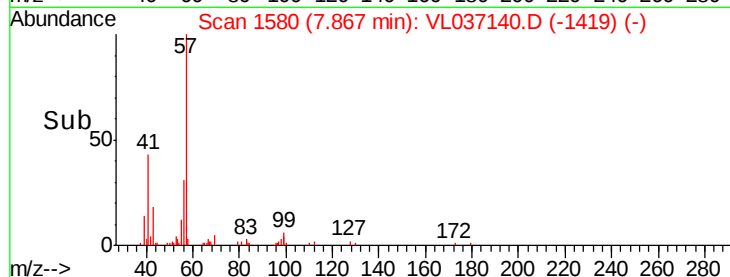
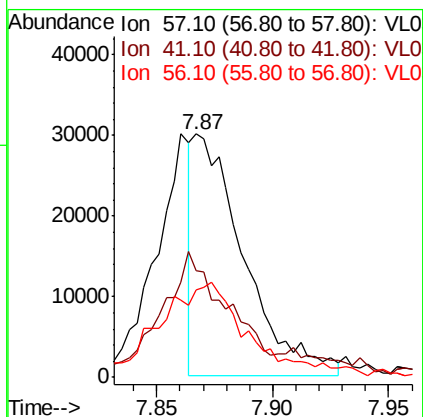
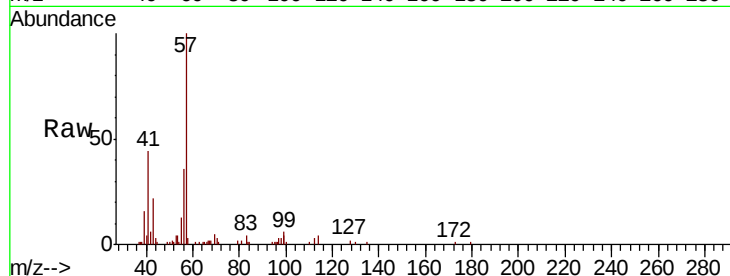




#44
 2,2,4-Trimethylpentane
 Concen: 0.079 ppbv
 RT: 7.87 min Scan# 1580
 Delta R.T. 0.02 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

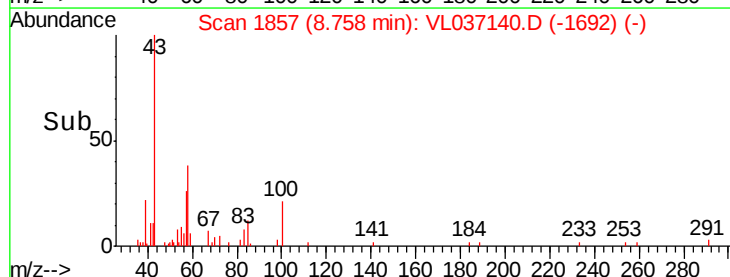
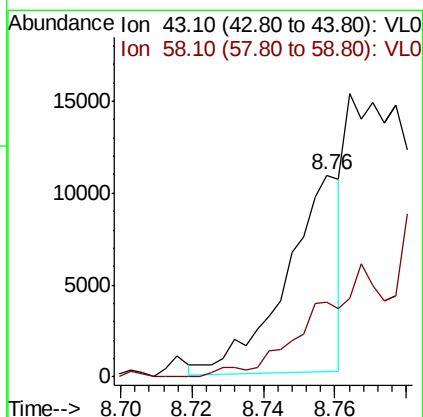
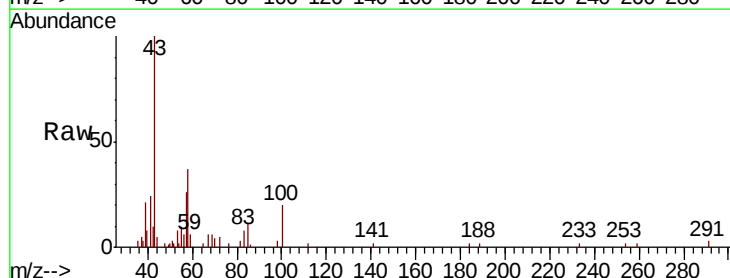
Instrument :
 MSVOA_L
 ClientSampleId :

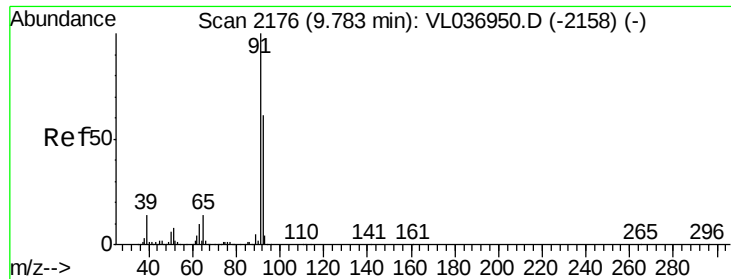
Tot Ion: 57 Resp: 45073
 Ion Ratio Lower Upper
 57 100
 41 75.7 27.0 40.4#
 56 73.8 25.4 38.2#



#50
 4-Methyl-2-Pentanone
 Concen: 0.050 ppbv
 RT: 8.76 min Scan# 1857
 Delta R.T. 0.03 min
 Lab File: VL037140.D
 Acq: 8 Jun 2021 20:19

Tgt Ion: 43 Resp: 11482
 Ion Ratio Lower Upper
 43 100
 58 0.0 29.4 44.2#





#53

Toluene

Concen: 1.126 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

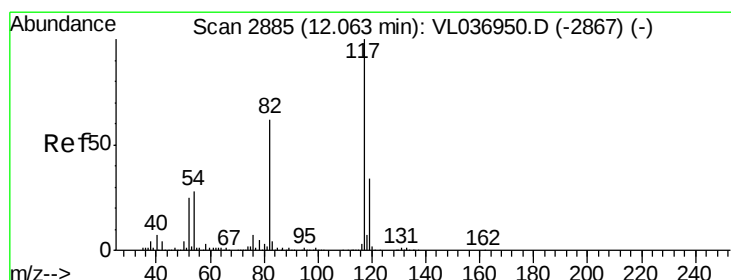
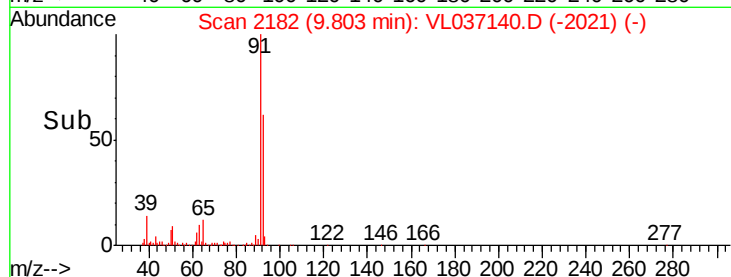
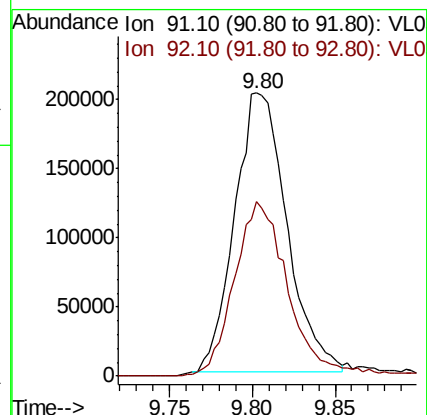
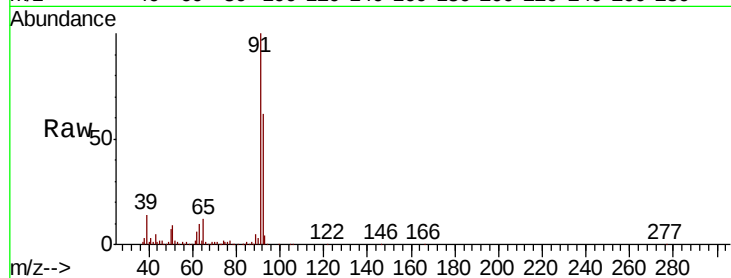
ClientSampleId :

Tot Ion: 91 Resp: 443314

Ion Ratio Lower Upper

91 100

92 65.7 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2891

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

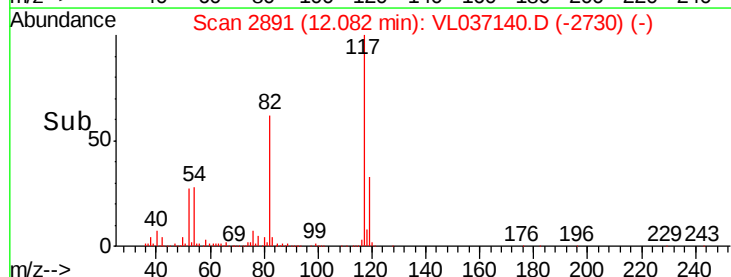
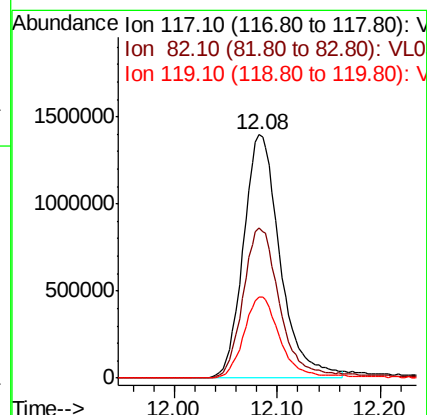
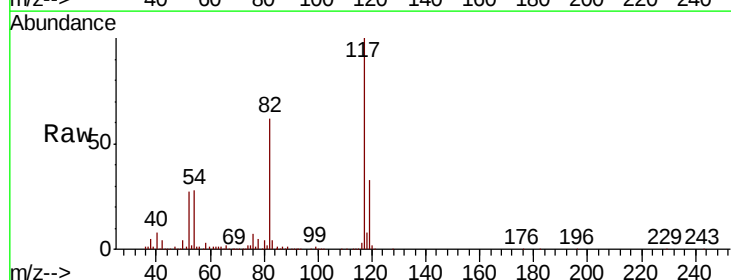
Tgt Ion: 117 Resp: 3455660

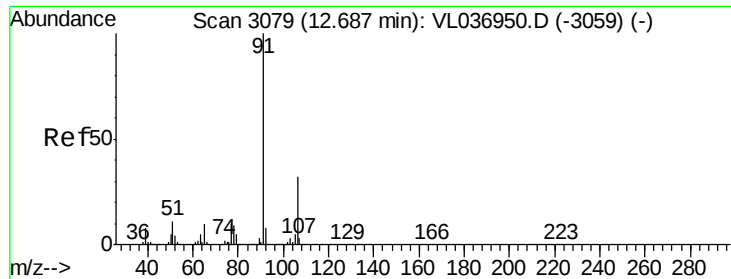
Ion Ratio Lower Upper

117 100

82 63.9 52.6 79.0

119 34.4 46.6 70.0#





#58

Ethyl Benzene

Concen: 0.034 ppbv

RT: 12.71 min Scan# 3086

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

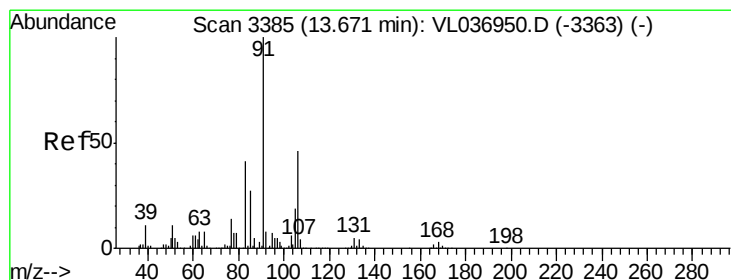
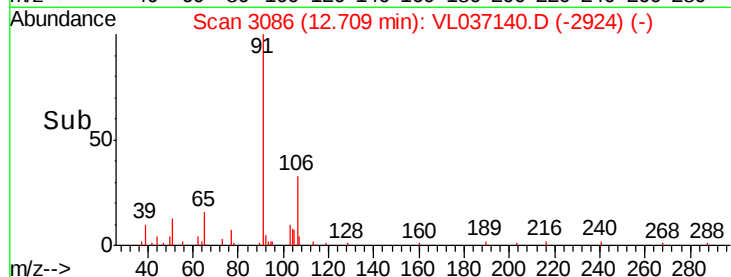
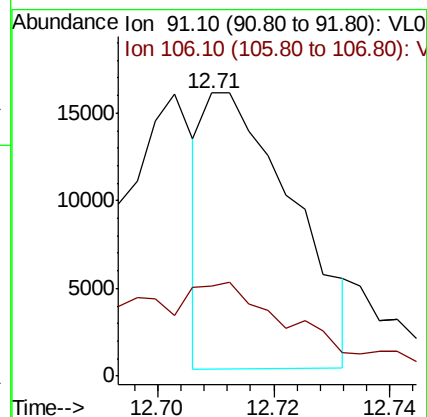
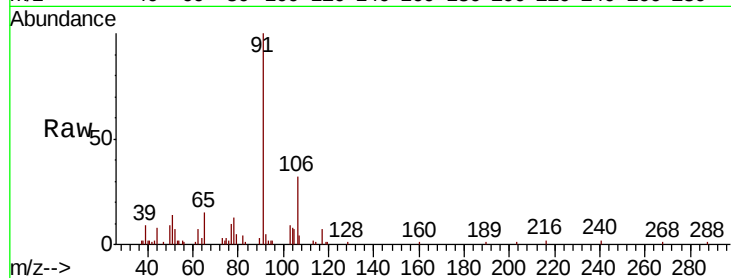
ClientSampleId :

Tot Ion: 91 Resp: 16747

Ion Ratio Lower Upper

91 100

106 35.7 25.6 38.4



#60

o-Xylene

Concen: 0.052 ppbv

RT: 13.69 min Scan# 3391

Delta R.T. 0.02 min

Lab File: VL037140.D

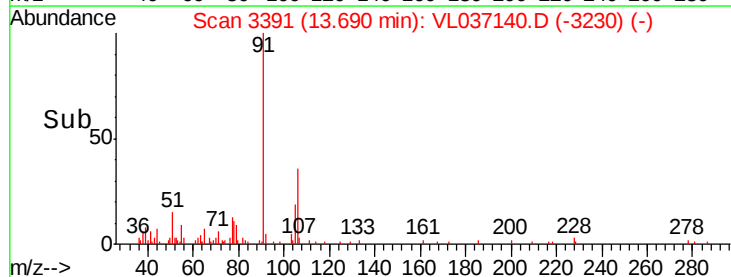
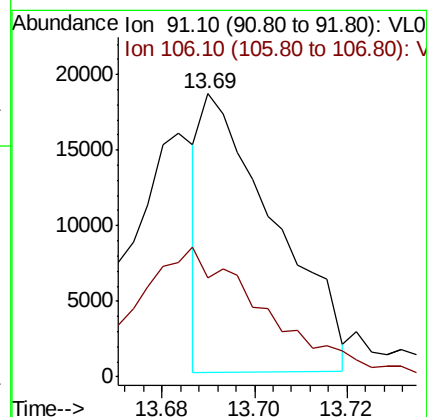
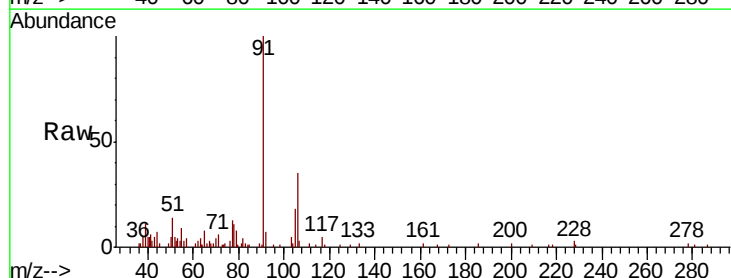
Acq: 8 Jun 2021 20:19

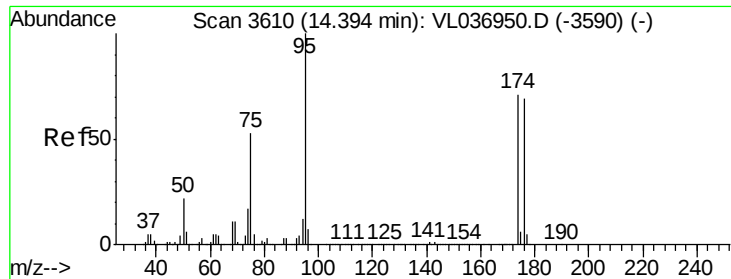
Tgt Ion: 91 Resp: 20076

Ion Ratio Lower Upper

91 100

106 90.8 23.4 70.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.698 ppbv

RT: 14.41 min Scan# 3616

Delta R.T. 0.02 min

Lab File: VL037140.D

Acq: 8 Jun 2021 20:19

Instrument :

MSVOA_L

ClientSampleId :

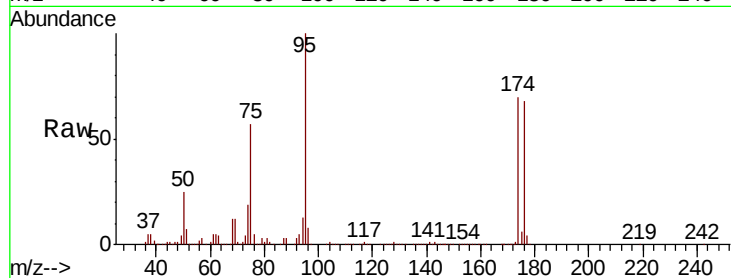
Tot Ion: 95 Resp: 2517491

Ion Ratio Lower Upper

95 100

174 75.4 58.4 87.6

175 5.7 4.4 6.6



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

