

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL092821\
 Data File : VL037716.D
 Acq On : 28 Sep 2021 23:48
 Operator : SY/AP
 Sample : M3948-04DL2 80X
 Misc : 400mL/MSVOA L
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 29 03:42:54 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 16 13:42:46 2021
 QLast Update : Thu Sep 16 13:42:46 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1380239	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.18	114	4092535	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.09	117	3510722	10.00	ppbv	0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	2684686	10.58	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.80%

Target Compounds

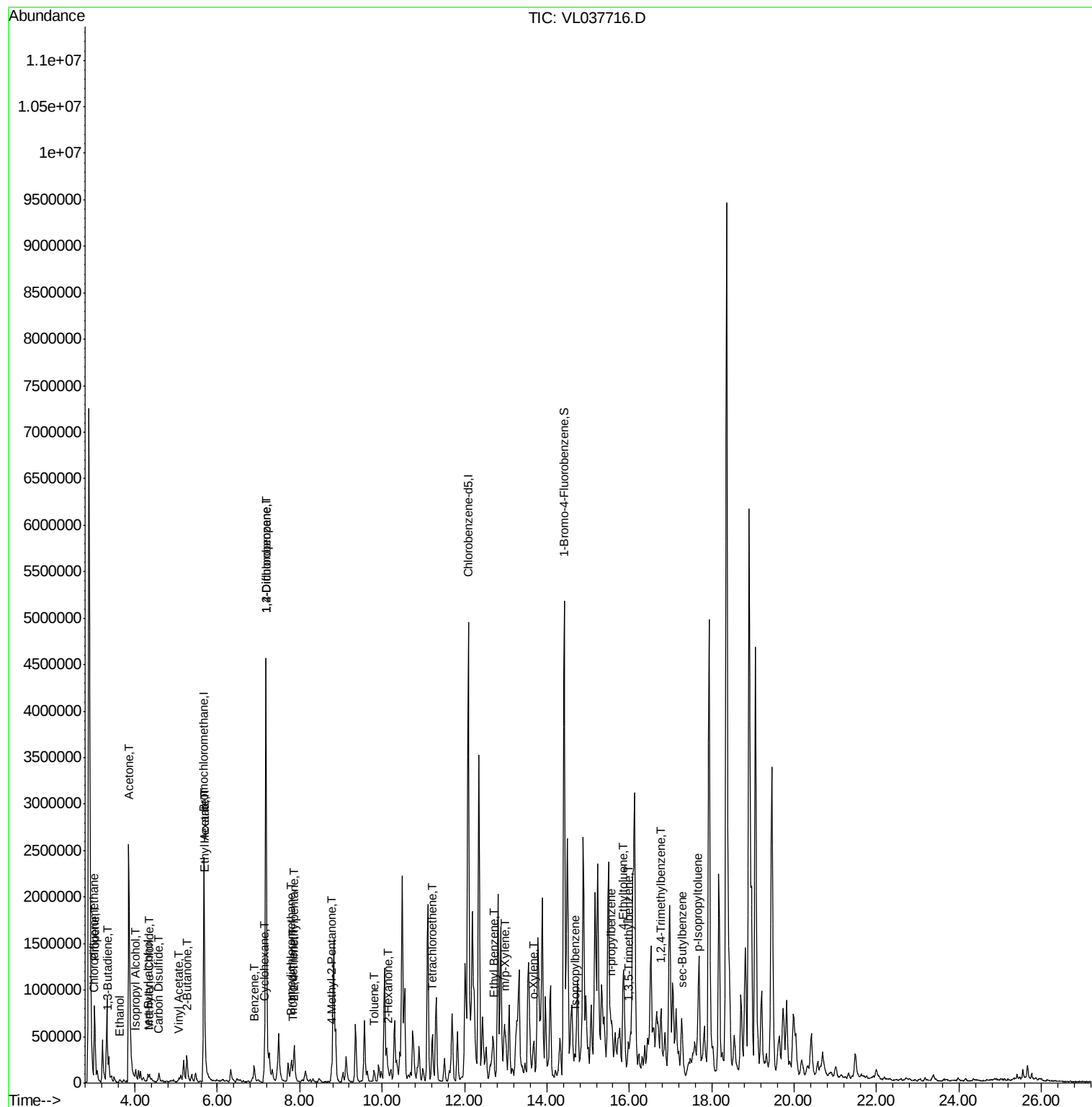
					Ovalue
3) Chlorodifluoromethane	3.00	51	10371	0.040 ppbv	94
9) Propene	3.02	41	425317	4.631 ppbv	95
13) Ethanol	3.62	45	5712	0.636 ppbv #	33
15) Acetone	3.85	43	3740544	26.084 ppbv	100
16) 1,3-Butadiene	3.35	39	16764	0.187 ppbv #	1
17) tert-Butyl alcohol	4.32	59	39587	0.326 ppbv #	72
19) Isopropyl Alcohol	3.99	45	9180	0.118 ppbv #	89
20) Methylene Chloride	4.35	84	4207	0.061 ppbv #	66
23) Vinyl Acetate	5.07	43	12149	0.061 ppbv #	55
25) Ethyl Acetate	5.69	43	20118	0.058 ppbv #	89
26) Hexane	5.69	57	26710	0.162 ppbv #	32
27) Carbon Disulfide	4.56	76	9010	0.060 ppbv #	65
30) Cyclohexane	7.14	84	17521	0.124 ppbv #	1
34) 2-Butanone	5.26	43	402385	2.419 ppbv	96
36) Benzene	6.90	78	80389	0.236 ppbv #	91
38) Trichloroethene	7.83	130	11941	0.084 ppbv	94
39) 1,2-Dichloropropane	7.18	63	951389	7.279 ppbv #	28
42) Bromodichloromethane	7.79	83	16498	0.069 ppbv #	26
44) 2,2,4-Trimethylpentane	7.87	57	23877	0.042 ppbv #	1
50) 4-Methyl-2-Pentanone	8.76	43	11313	0.054 ppbv #	38
51) 2-Hexanone	10.15	43	78797	0.846 ppbv #	82
52) Tetrachloroethene	11.22	164	10110	0.077 ppbv	95
53) Toluene	9.81	91	47463	0.125 ppbv #	70
58) Ethyl Benzene	12.72	91	76795	0.165 ppbv	95
59) m/p-Xylene	13.00	91	100298	0.247 ppbv #	31
60) o-Xylene	13.69	91	197854	0.512 ppbv	99
62) Isopropylbenzene	14.67	105	112508	0.208 ppbv	97
64) n-propylbenzene	15.56	120	5563	0.040 ppbv #	1
67) sec-Butylbenzene	17.30	105	27430	0.042 ppbv #	64
69) p-Isopropyltoluene	17.66	119	27304	0.051 ppbv #	1
72) 4-Ethyltoluene	15.84	105	52579	0.118 ppbv #	72
73) 1,3,5-Trimethylbenzene	16.00	105	66972	0.162 ppbv	88
74) 1,2,4-Trimethylbenzene	16.76	105	139274	0.320 ppbv #	77

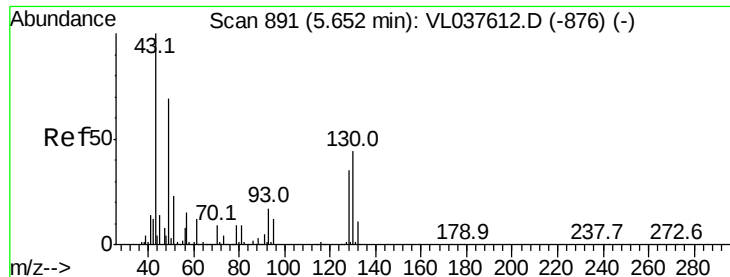
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL092821\
Data File : VL037716.D
Acq On : 28 Sep 2021 23:48
Operator : SY/AP
Sample : M3948-04DL2 80X
Misc : 400mL/MSVOA L
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :

Quant Time: Sep 29 03:42:54 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 16 13:42:46 2021
QLast Update : Thu Sep 16 13:42:46 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67

Delta R.T. MSVOA_L

Lab File:

Acq: 28 Sep 2021 23:48

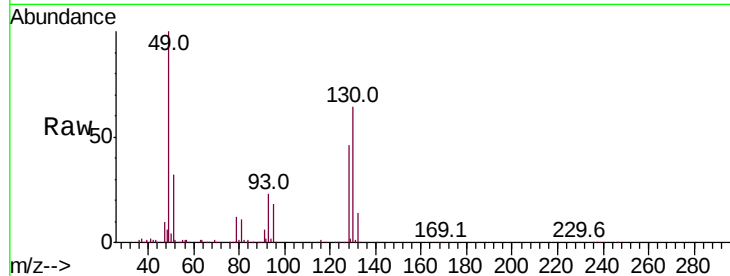
Tot Ion: 49 Resp: 1380239

Ion Ratio Lower Upper

49 100

128 50.8 27.9 83.6

130 68.2 33.9 101.7



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

5.67

800000

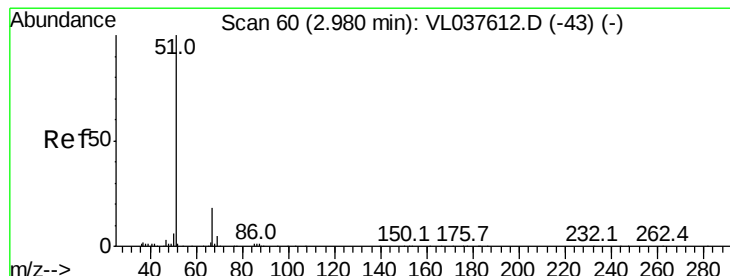
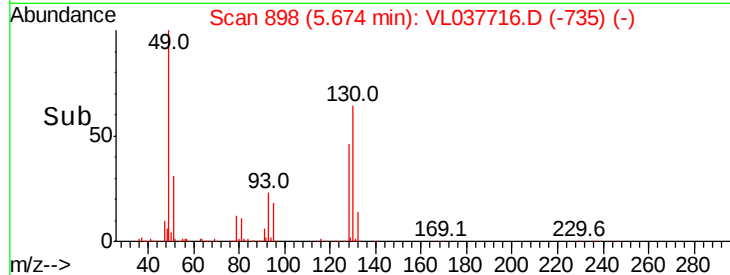
600000

400000

200000

0

Time-->



#3

Chlorodifluoromethane

Concen: 0.040 ppbv

RT: 3.00 min Scan# 66

Delta R.T. 0.02 min

Lab File: VL037716.D

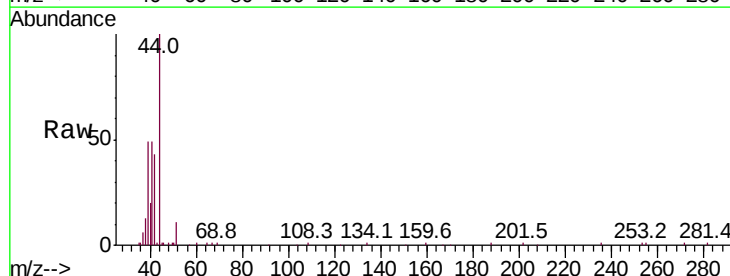
Acq: 28 Sep 2021 23:48

Tgt Ion: 51 Resp: 10371

Ion Ratio Lower Upper

51 100

67 14.9 14.0 21.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3.00

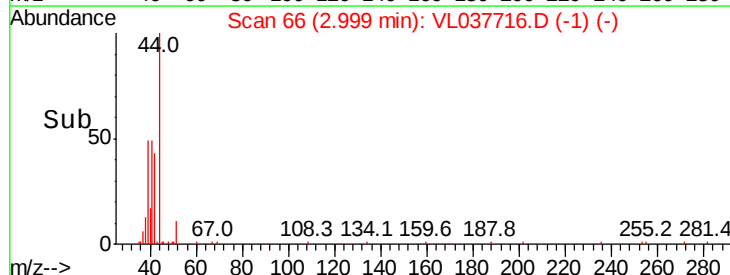
6000

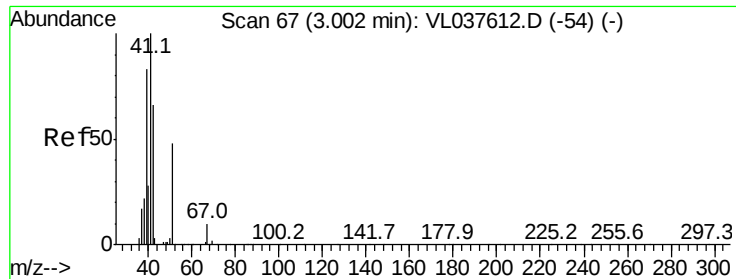
4000

2000

0

Time-->





#9

Propene

Concen: 4.631 ppbv

RT: 3.02 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File:

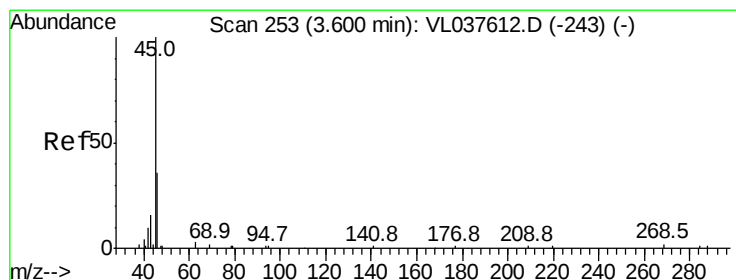
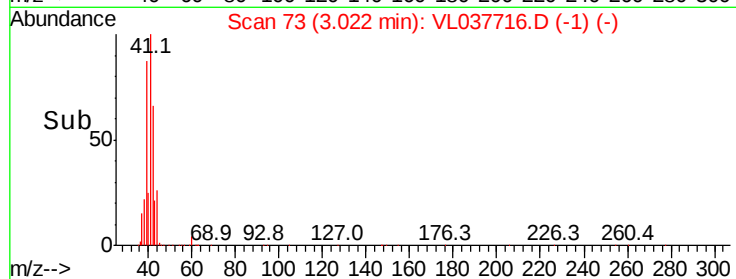
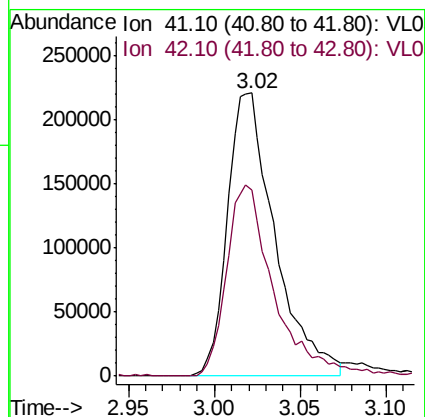
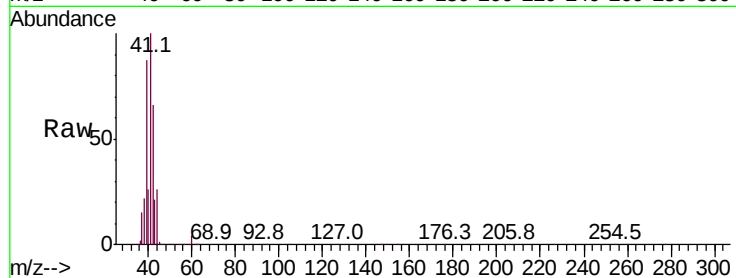
Acq: 28 Sep 2021 23:48

Tot Ion: 41 Resp: 425317

Ion Ratio Lower Upper

41 100

42 67.3 57.2 85.8



#13

Ethanol

Concen: 0.636 ppbv

RT: 3.62 min Scan# 258

Delta R.T. 0.02 min

Lab File: VL037716.D

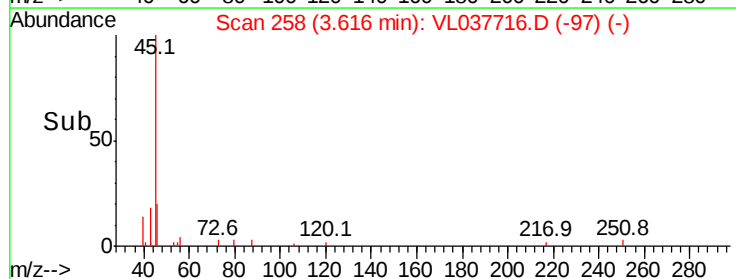
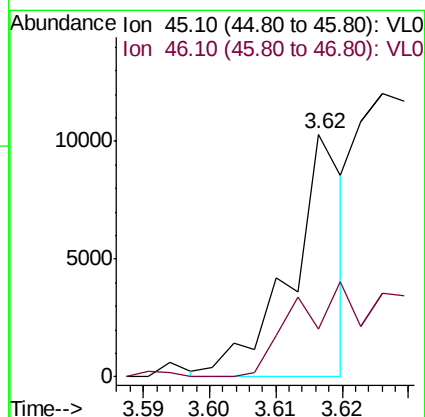
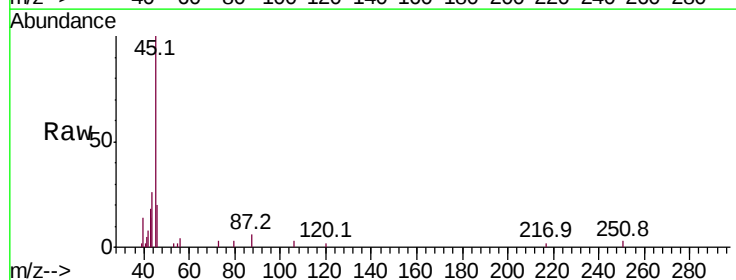
Acq: 28 Sep 2021 23:48

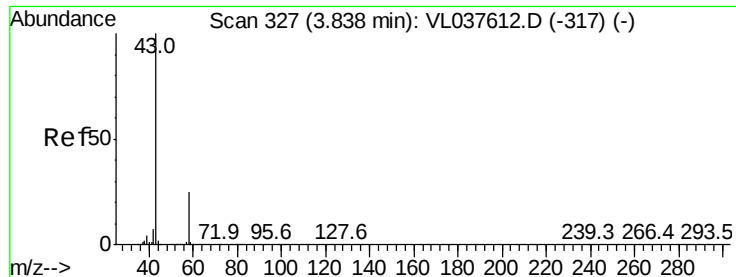
Tgt Ion: 45 Resp: 5712

Ion Ratio Lower Upper

45 100

46 0.0 17.2 68.8#





#15

Acetone

Concen: 26.084 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_L

Lab File:

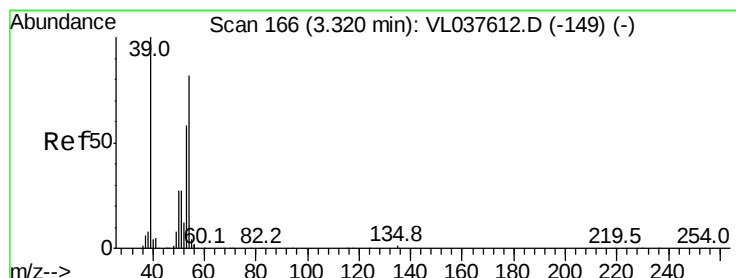
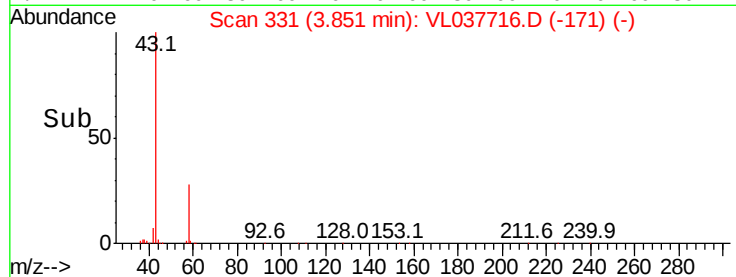
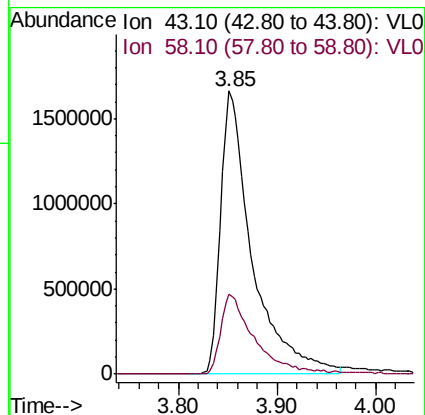
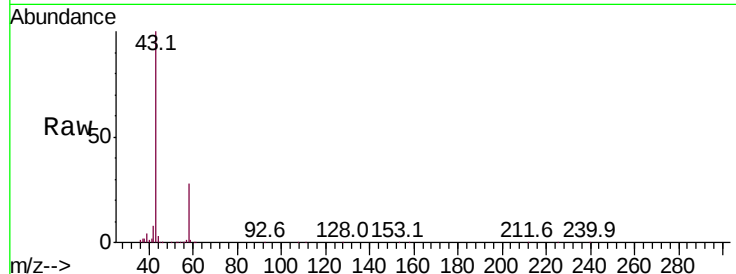
Acq: 28 Sep 2021 23:48

Tot Ion: 43 Resp: 3740544

Ion Ratio Lower Upper

43 100

58 31.0 24.9 37.3



#16

1,3-Butadiene

Concen: 0.187 ppbv

RT: 3.35 min Scan# 174

Delta R.T. 0.03 min

Lab File: VL037716.D

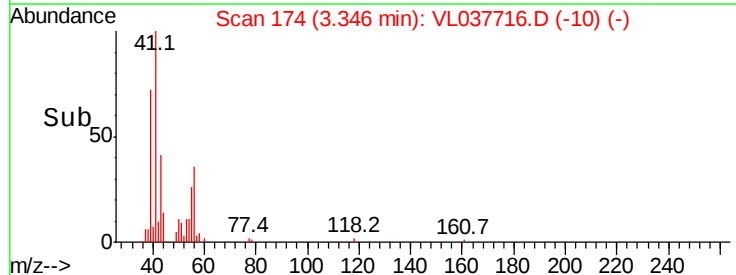
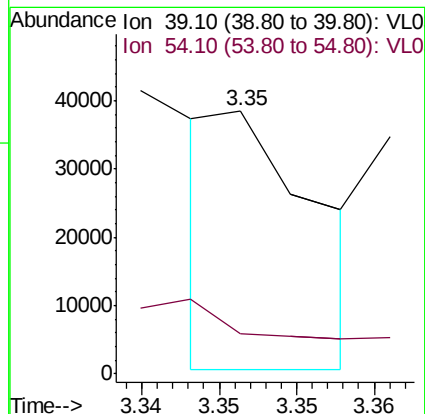
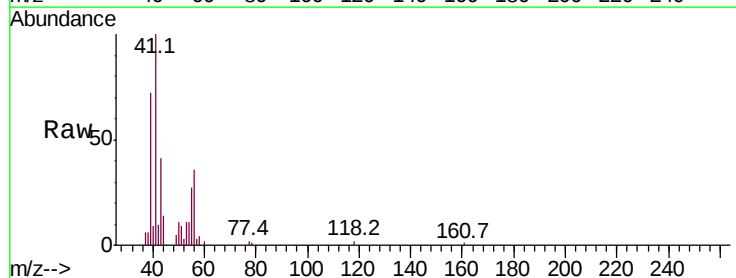
Acq: 28 Sep 2021 23:48

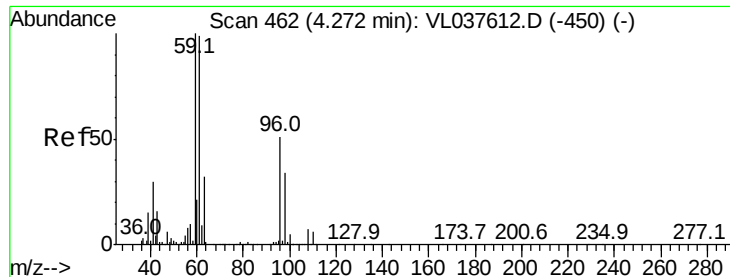
Tgt Ion: 39 Resp: 16764

Ion Ratio Lower Upper

39 100

54 205.3 62.6 93.8#





#17

tert-Butyl alcohol

Concen: 0.326 ppbv

RT: 4.32 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

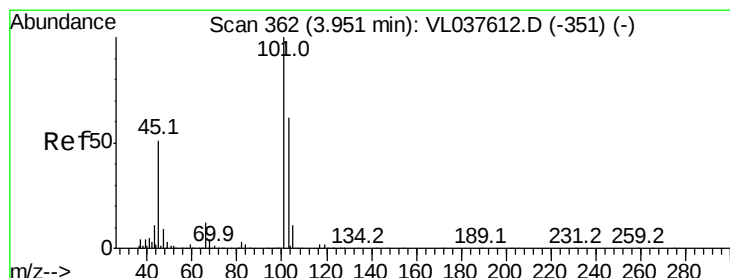
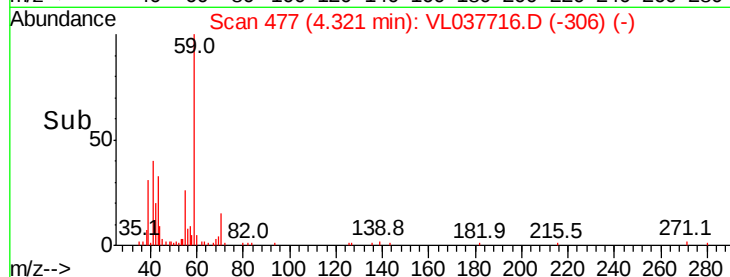
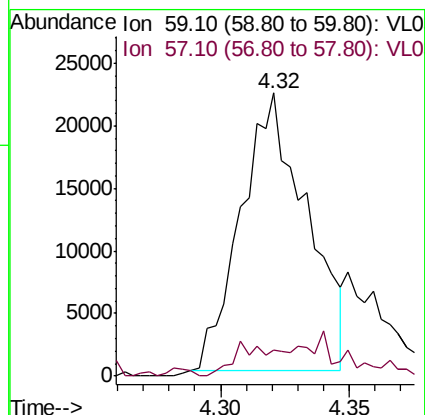
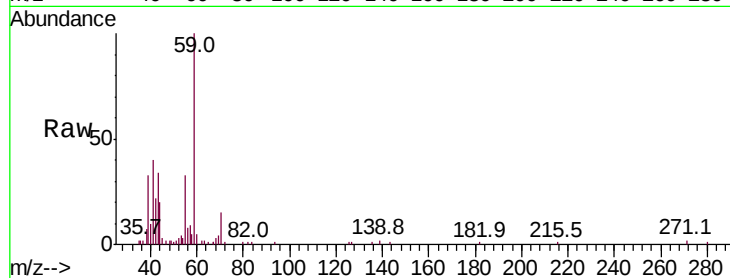
Acq: 28 Sep 2021 23:48

Tot Ion: 59 Resp: 39587

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#



#19

Isopropyl Alcohol

Concen: 0.118 ppbv

RT: 3.99 min Scan# 374

Delta R.T. 0.04 min

Lab File: VL037716.D

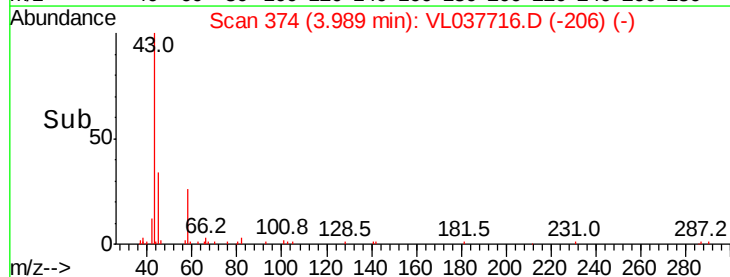
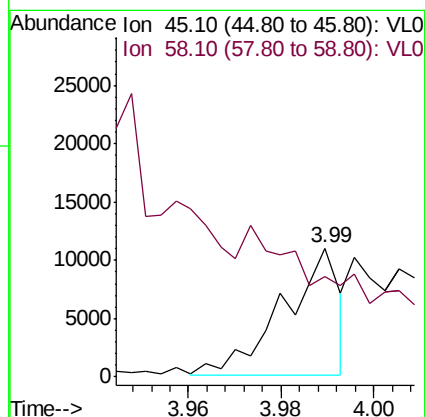
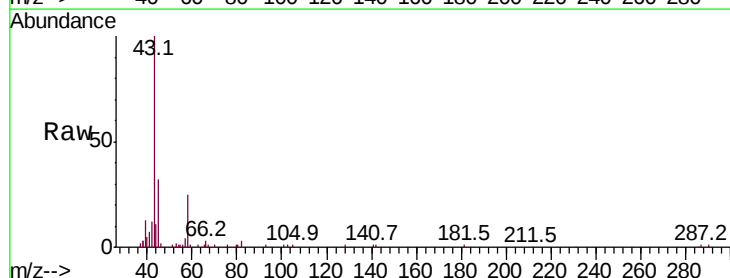
Acq: 28 Sep 2021 23:48

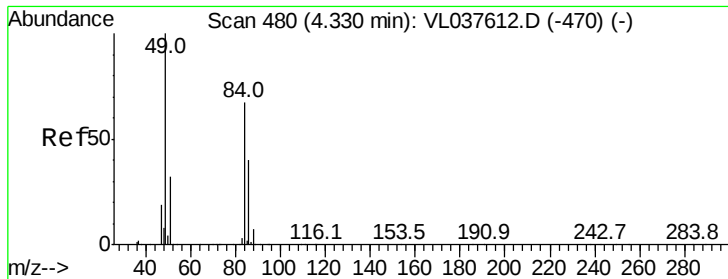
Tgt Ion: 45 Resp: 9180

Ion Ratio Lower Upper

45 100

58 0.0 2.9 4.3#





#20

Methylene Chloride

Concen: 0.061 ppbv

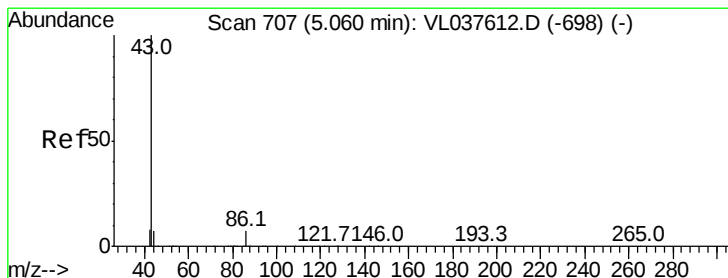
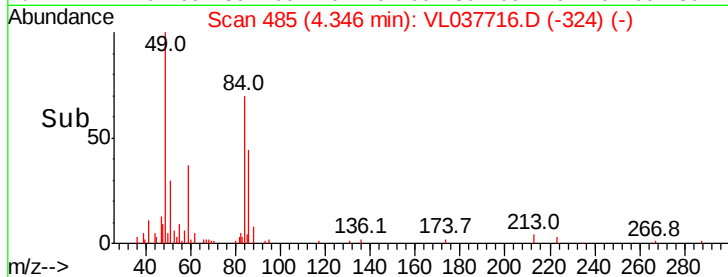
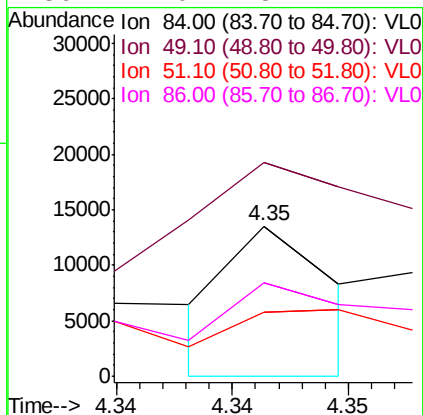
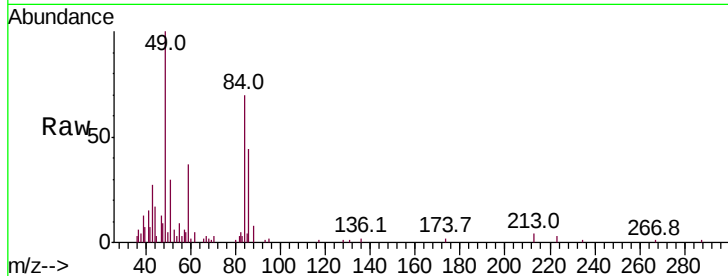
RT: 4.35 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Sep 2021 23:48

Tot Ion:	84	Resp:	4207
Ion	Ratio	Lower	Upper
84	100		
49	87.6	120.0	180.0#
51	44.4	38.0	57.0
86	74.0	48.2	72.2#



#23

Vinyl Acetate

Concen: 0.061 ppbv

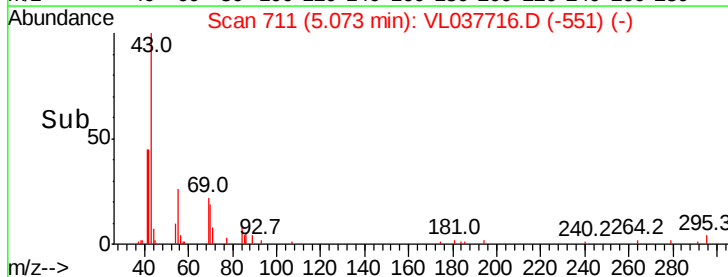
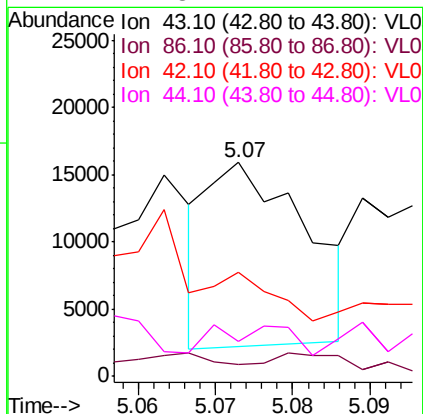
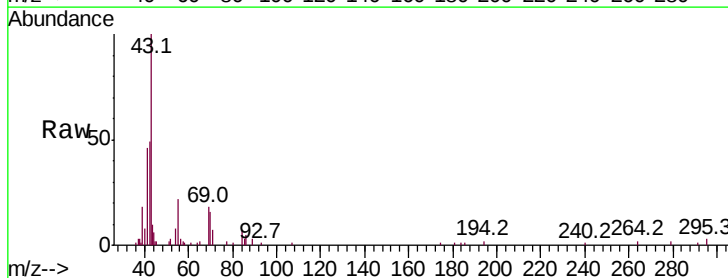
RT: 5.07 min Scan# 711

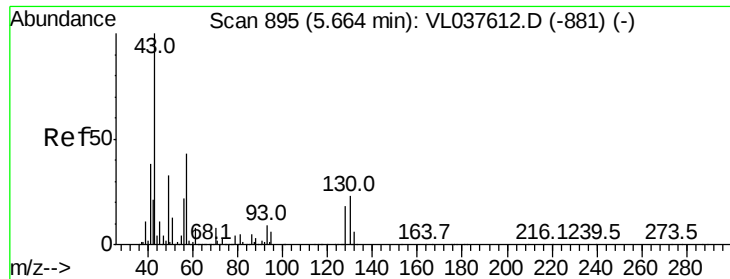
Delta R.T. 0.01 min

Lab File: VL037716.D

Acq: 28 Sep 2021 23:48

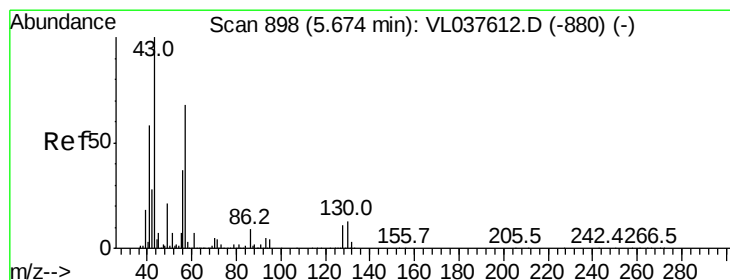
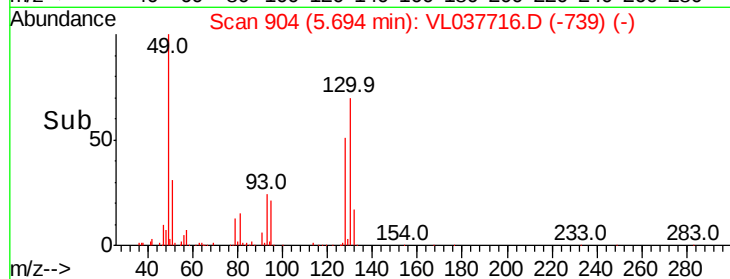
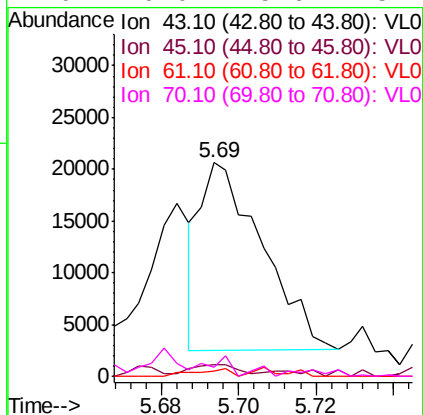
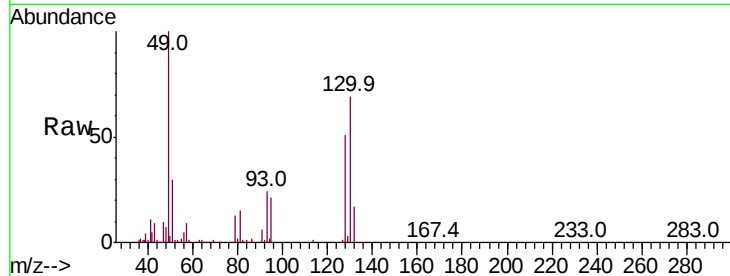
Tgt Ion:	43	Resp:	12149
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.0	7.6#
42	38.3	7.5	11.3#
44	11.8	4.7	7.1#





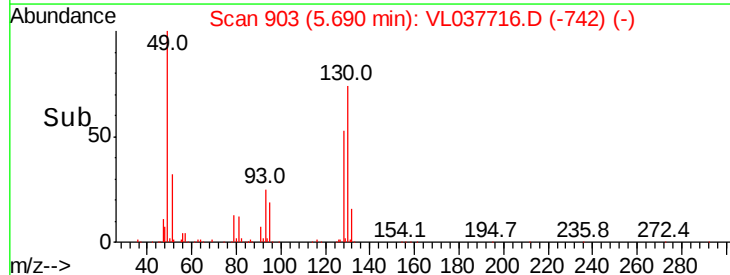
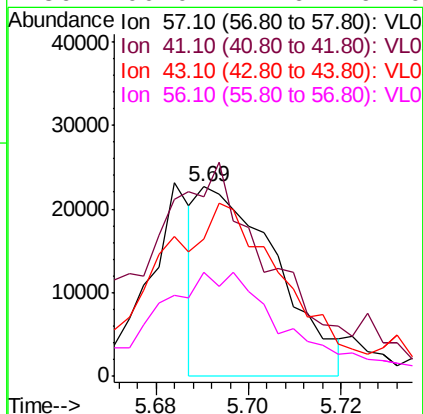
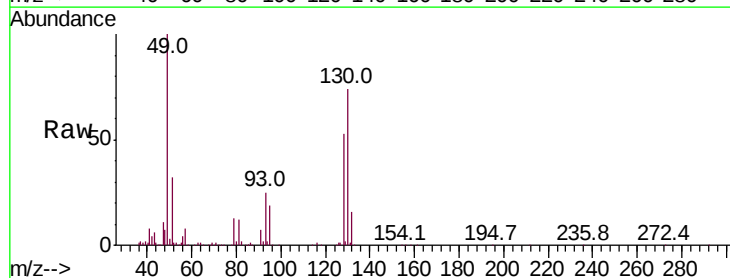
#25
Ethyl Acetate
Concen: 0.058 ppbv
RT: 5.69
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 28 Sep 2021 23:48

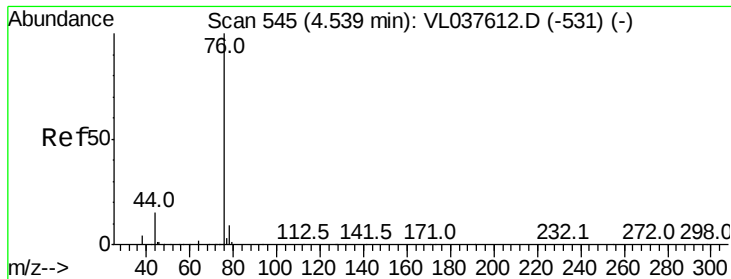
Tot Ion:	43	Resp:	20118
Ion	Ratio	Lower	Upper
43	100		
45	8.9	8.0	12.0
61	4.6	7.5	11.3#
70	0.0	5.6	8.4#



#26
Hexane
Concen: 0.162 ppbv
RT: 5.69 min Scan# 903
Delta R.T.: 0.02 min
Lab File: VL037716.D
Acq: 28 Sep 2021 23:48

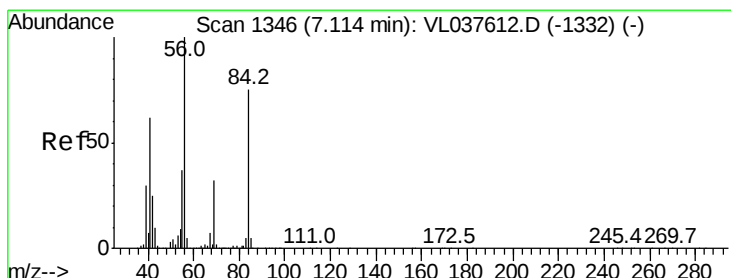
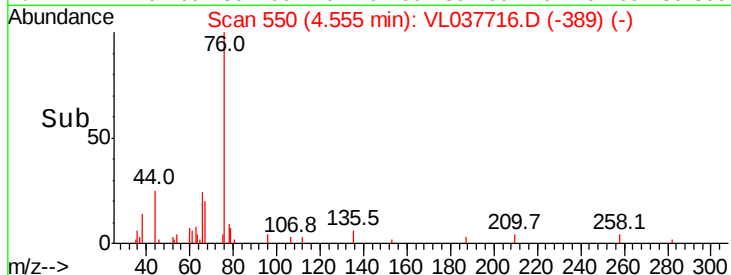
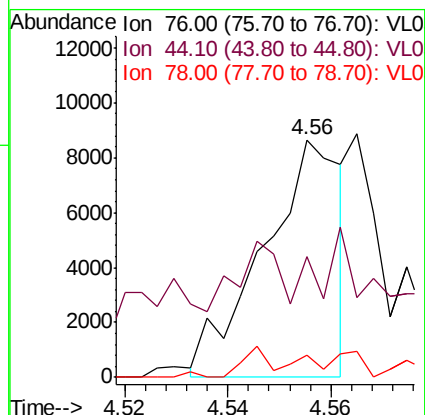
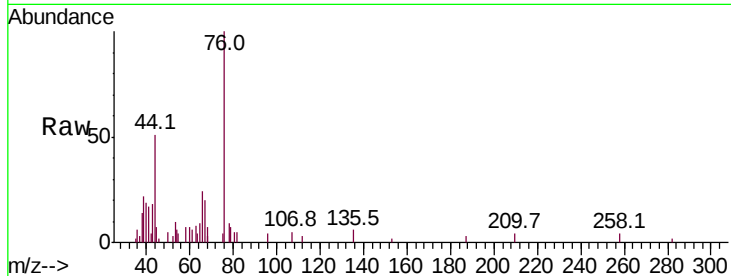
Tgt Ion:	57	Resp:	26710
Ion	Ratio	Lower	Upper
57	100		
41	213.4	70.9	106.3#
43	148.6	170.4	255.6#
56	100.0	42.6	64.0#





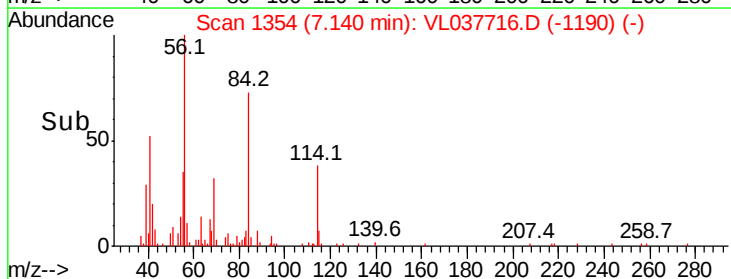
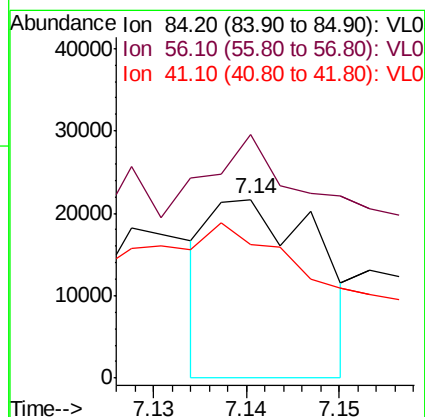
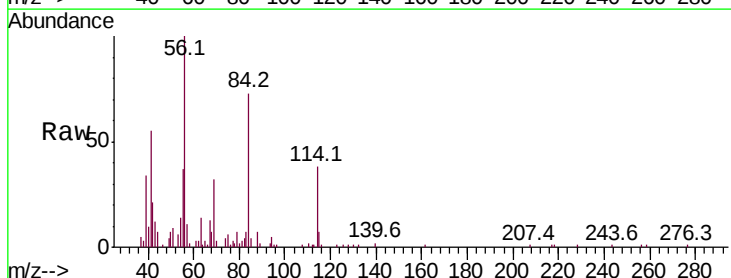
#27
Carbon Disulfide
Concen: 0.060 ppbv
RT: 4.56 Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 28 Sep 2021 23:48

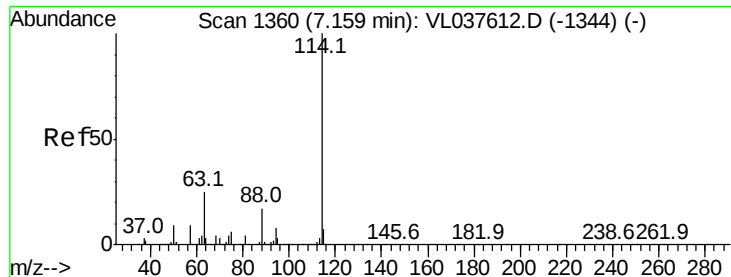
Tot Ion	Ratio	Lower	Upper
76	100		
44	0.0	14.2	21.2#
78	0.0	7.4	11.0#



#30
Cyclohexane
Concen: 0.124 ppbv
RT: 7.14 min Scan# 1354
Delta R.T.: 0.03 min
Lab File: VL037716.D
Acq: 28 Sep 2021 23:48

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	113.6	170.4#
41	253.5	67.9	101.9#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min

Instrument: MSVOA_1

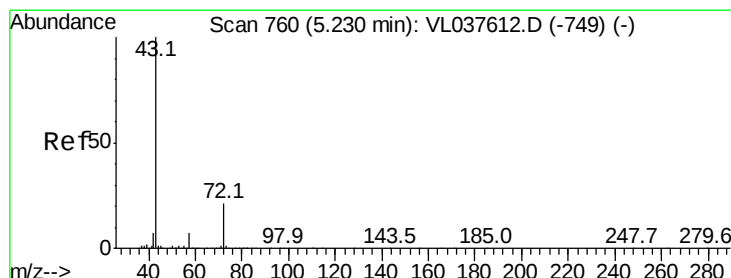
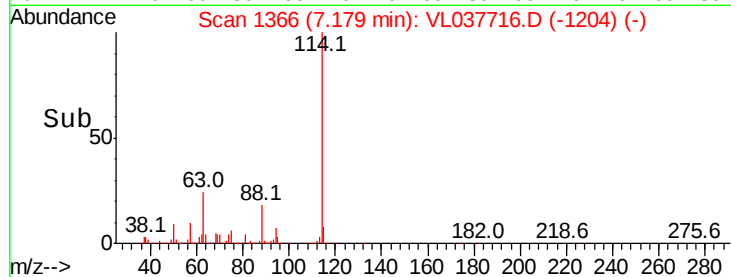
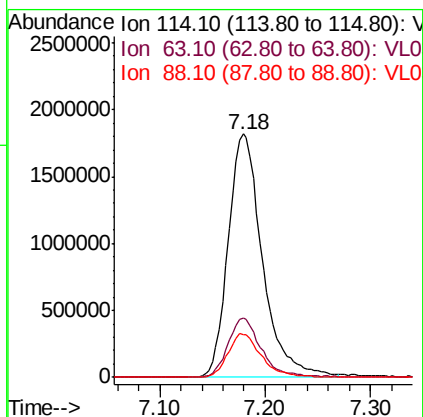
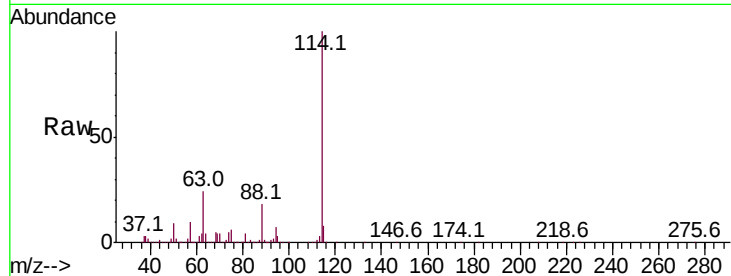
Delta R.T.:

Lab File: ClientSampleId:

Acq: 28 Sep 2021 23:48

Tot Ion: 114 Resp: 4092535

Ion	Ratio	Lower	Upper
114	100		
63	23.9	19.6	29.4
88	17.5	14.2	21.4



#34

2-Butanone

Concen: 2.419 ppbv

RT: 5.26 min Scan# 768

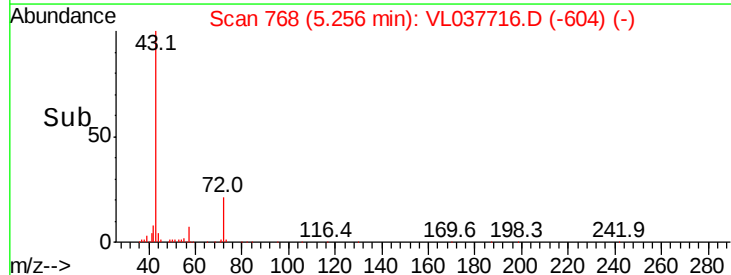
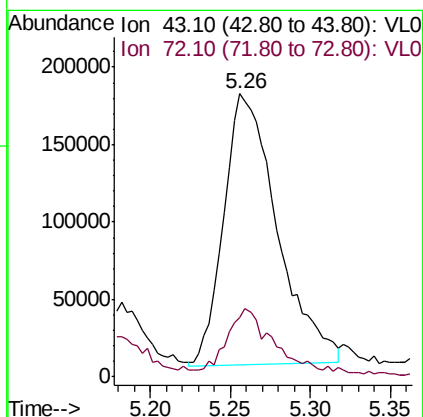
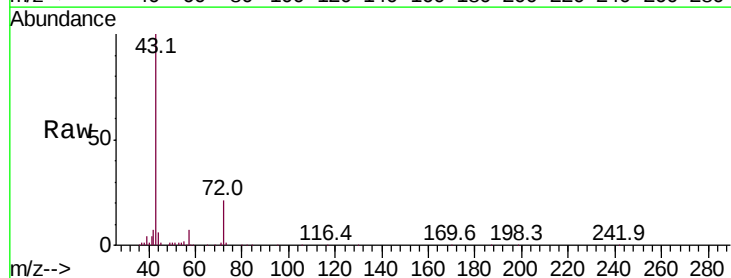
Delta R.T. 0.03 min

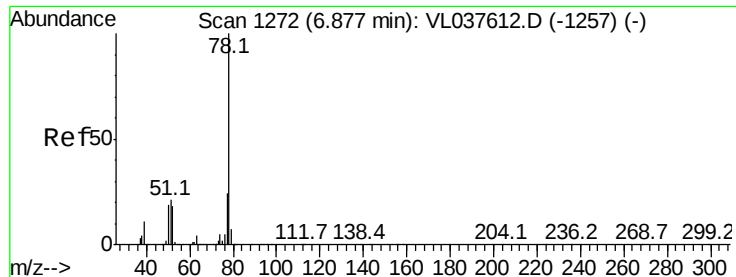
Lab File: VL037716.D

Acq: 28 Sep 2021 23:48

Tgt Ion: 43 Resp: 402385

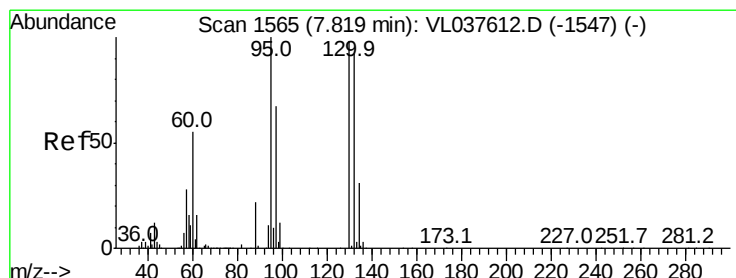
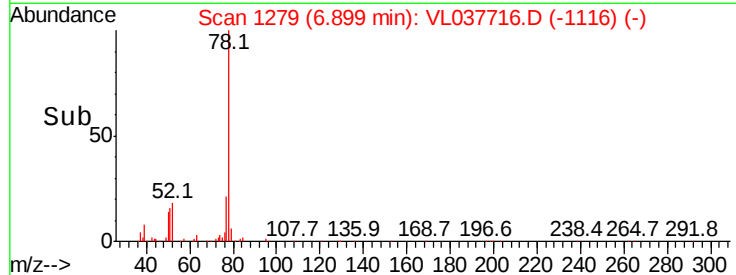
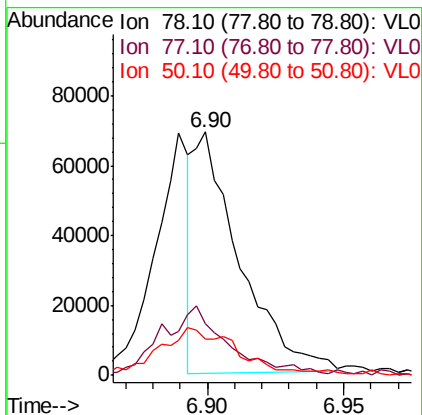
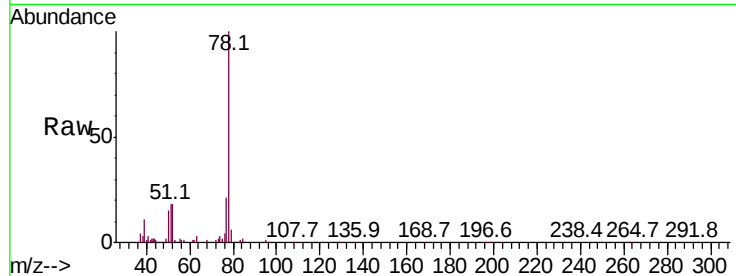
Ion	Ratio	Lower	Upper
43	100		
72	25.1	18.4	27.6





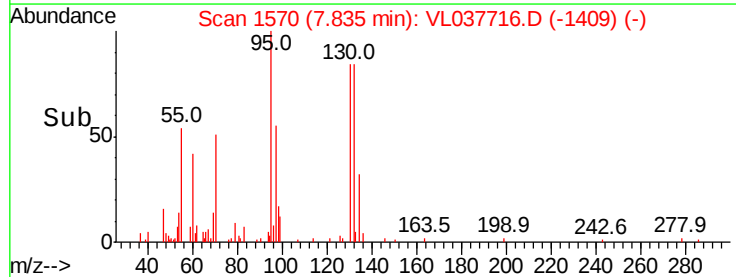
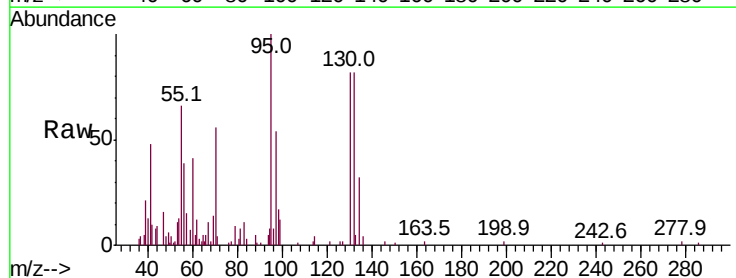
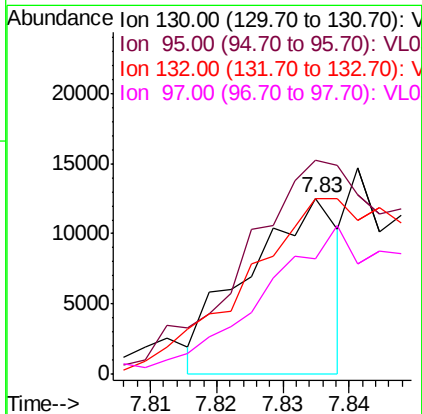
#36
Benzene
Concen: 0.236 ppbv
RT: 6.90
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Sep 2021 23:48

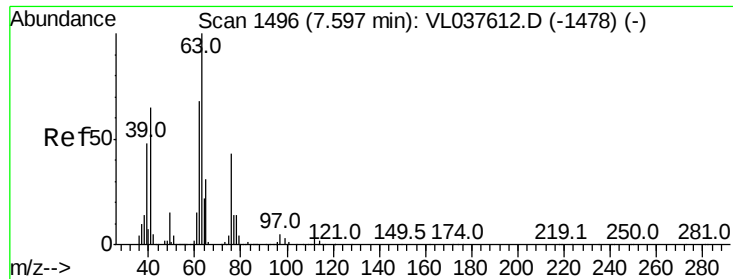
Tot Ion	Ratio	Lower	Upper
78	100		
77	19.5	19.0	28.4
50	14.2	14.8	22.2#



#38
Trichloroethene
Concen: 0.084 ppbv
RT: 7.83 min Scan# 1570
Delta R.T. 0.02 min
Lab File: VL037716.D
Acq: 28 Sep 2021 23:48

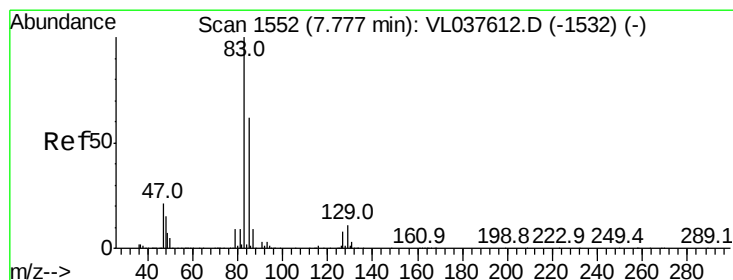
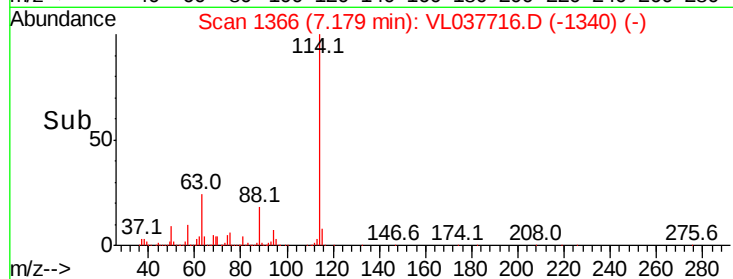
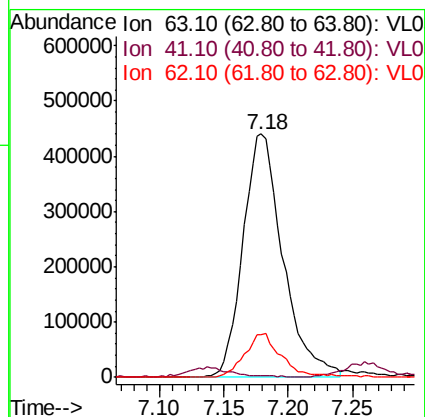
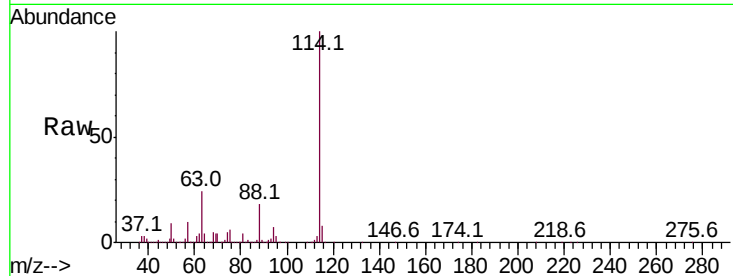
Tgt Ion	Ratio	Lower	Upper
130	100		
95	112.6	81.8	122.6
132	94.1	75.3	112.9
97	63.6	54.7	82.1





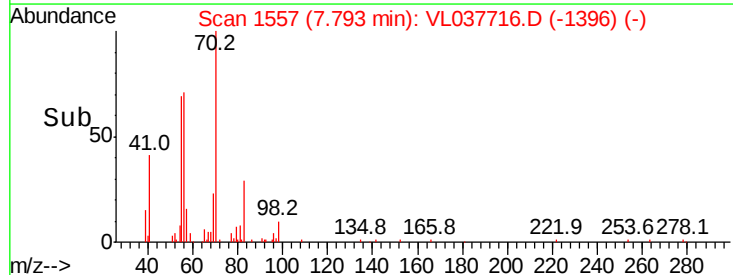
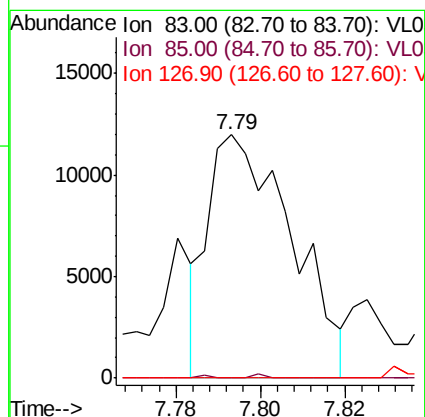
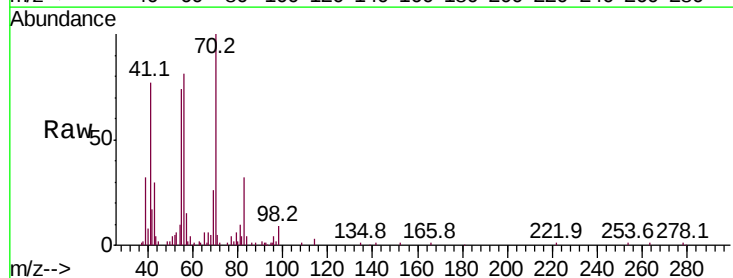
#39
 1,2-Dichloropropane
 Concen: 7.279 ppbv
 RT: 7.18
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 28 Sep 2021 23:48

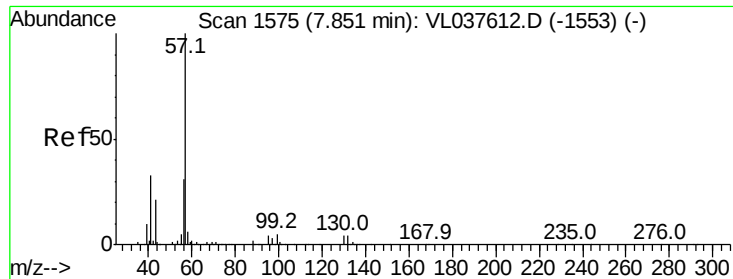
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	51.6	77.4#
62	17.7	54.6	81.8#



#42
 Bromodichloromethane
 Concen: 0.069 ppbv
 RT: 7.79 min Scan# 1557
 Delta R.T.: 0.02 min
 Lab File: VL037716.D
 Acq: 28 Sep 2021 23:48

Tgt Ion	Ratio	Lower	Upper
83	100		
85	0.0	49.8	74.6#
127	0.0	6.4	9.6#





#44

2,2,4-Trimethylpentane

Concen: 0.042 ppbv

RT: 7.87 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 28 Sep 2021 23:48

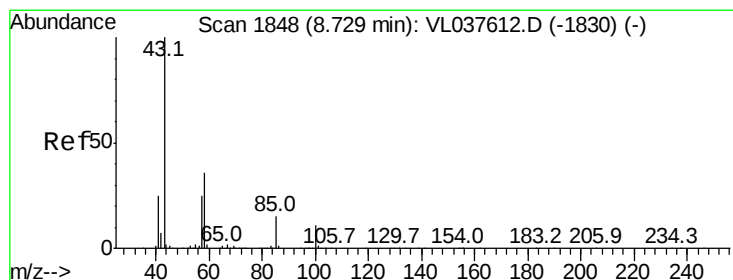
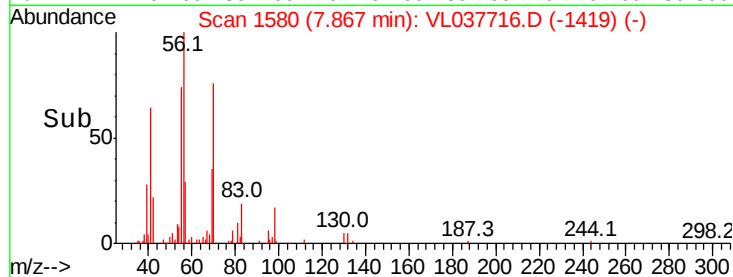
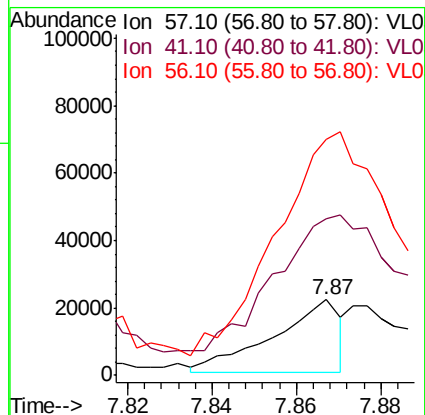
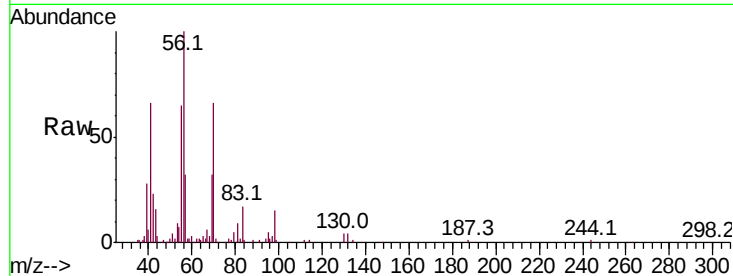
Tot Ion: 57 Resp: 23877

Ion Ratio Lower Upper

57 100

41 480.9 26.1 39.1#

56 674.3 25.7 38.5#



#50

4-Methyl-2-Pentanone

Concen: 0.054 ppbv

RT: 8.76 min Scan# 1858

Delta R.T. 0.03 min

Lab File: VL037716.D

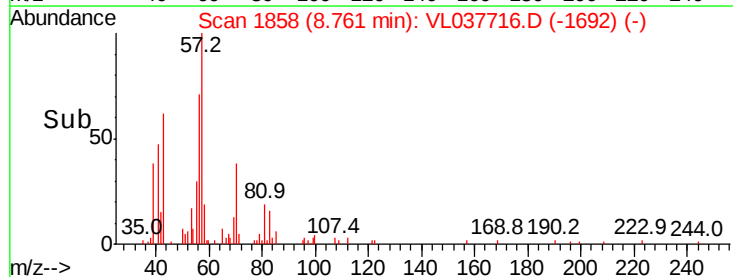
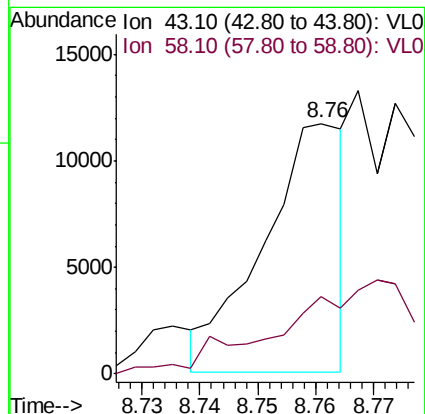
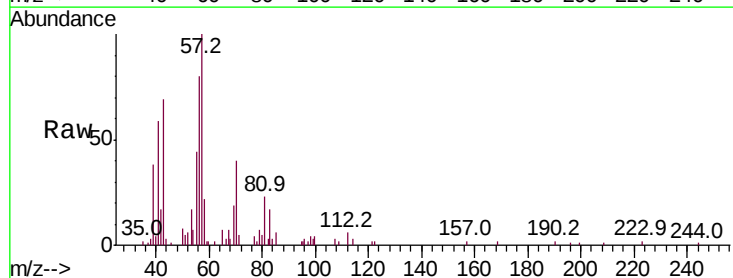
Acq: 28 Sep 2021 23:48

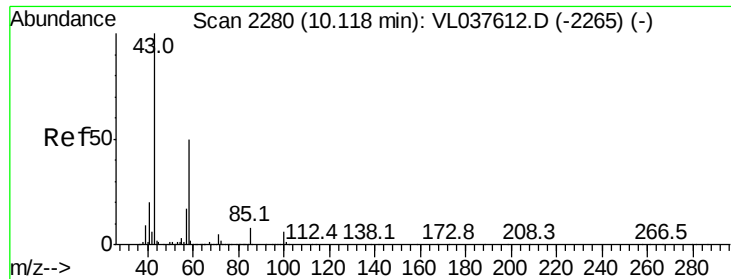
Tgt Ion: 43 Resp: 11313

Ion Ratio Lower Upper

43 100

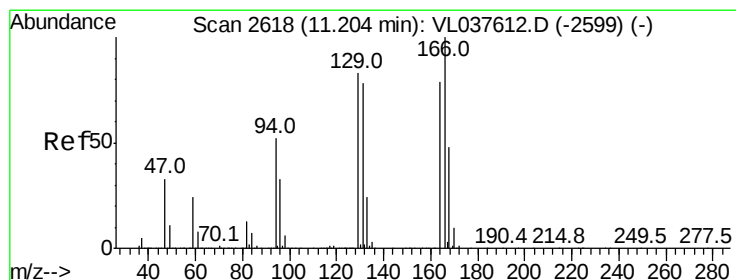
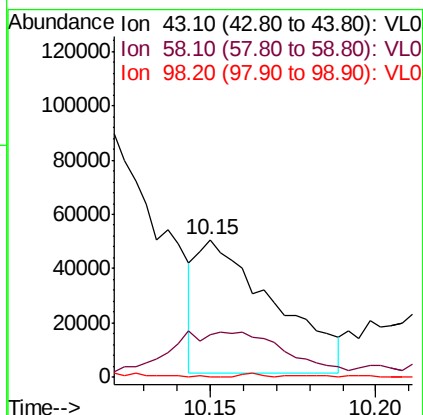
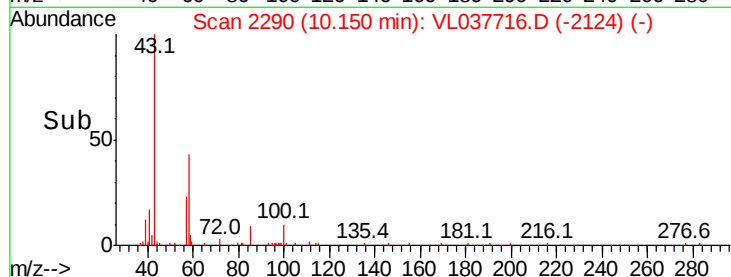
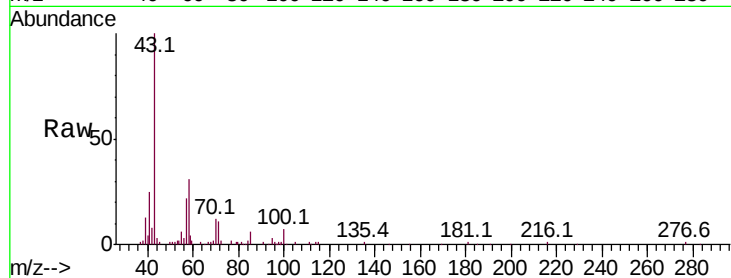
58 0.0 29.4 44.2#





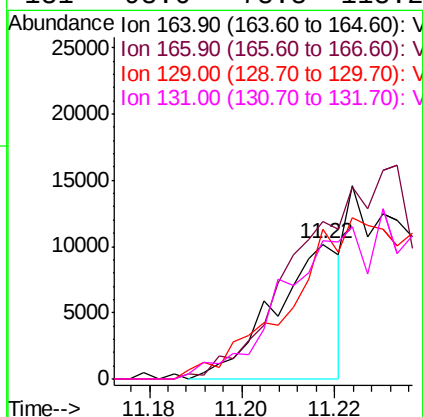
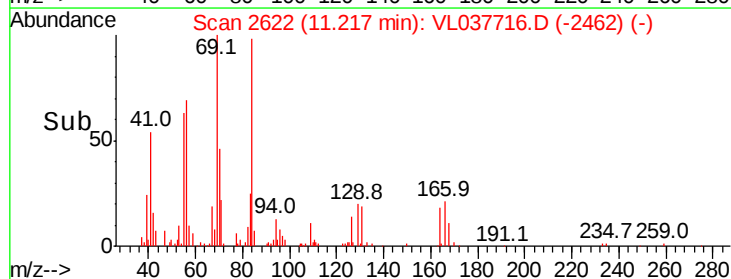
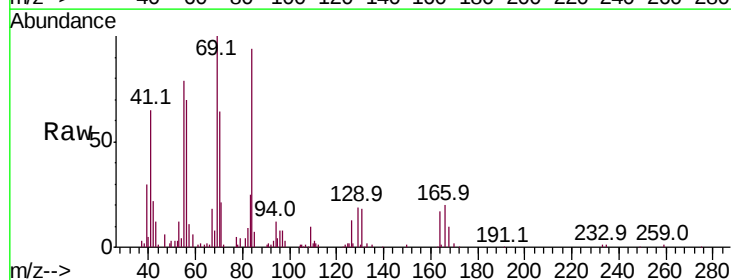
#51
2-Hexanone
Concen: 0.846 ppbv
RT: 10.15
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Sep 2021 23:48

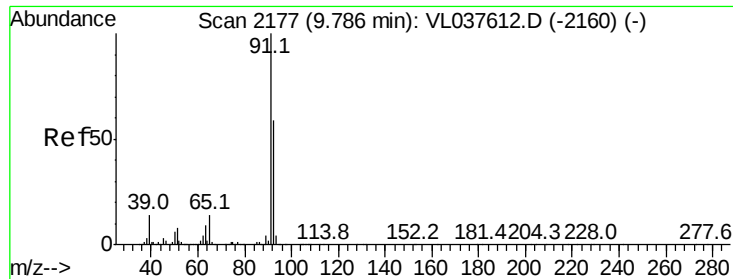
Tot Ion: 43 Resp: 78797
Ion Ratio Lower Upper
43 100
58 61.5 39.3 58.9#
98 0.0 0.4 0.6#



#52
Tetrachloroethene
Concen: 0.077 ppbv
RT: 11.22 min Scan# 2622
Delta R.T. 0.01 min
Lab File: VL037716.D
Acq: 28 Sep 2021 23:48

Tgt Ion: 164 Resp: 10110
Ion Ratio Lower Upper
164 100
166 112.3 101.2 151.8
129 103.8 84.0 126.0
131 98.6 78.8 118.2





#53

Toluene

Concen: 0.125 ppbv

RT: 9.81 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

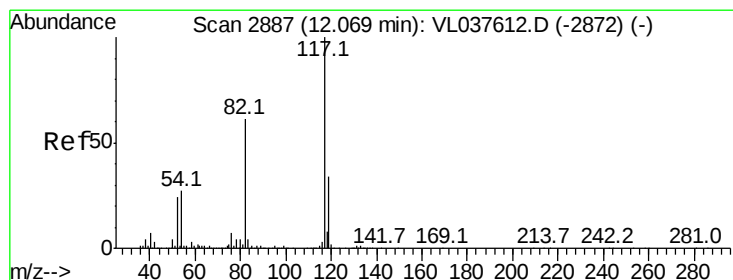
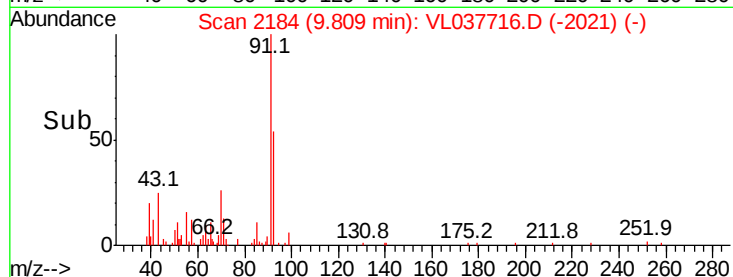
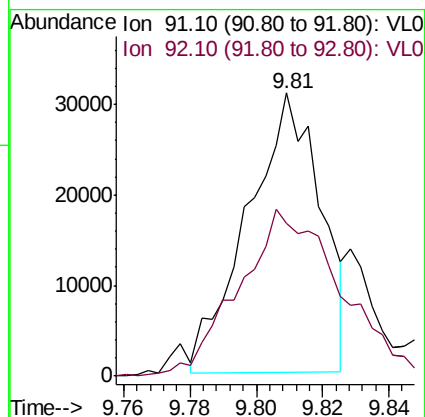
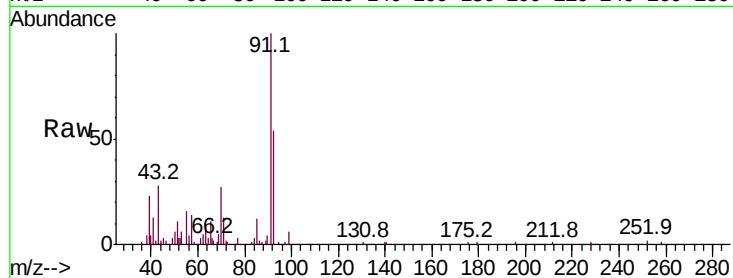
Acq: 28 Sep 2021 23:48

Tot Ion: 91 Resp: 47463

Ion Ratio Lower Upper

91 100

92 84.3 48.9 73.3#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. 0.02 min

Lab File: VL037716.D

Acq: 28 Sep 2021 23:48

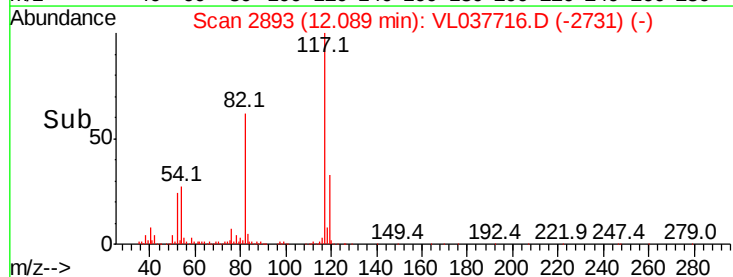
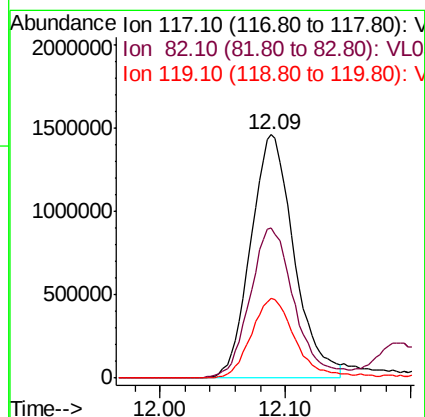
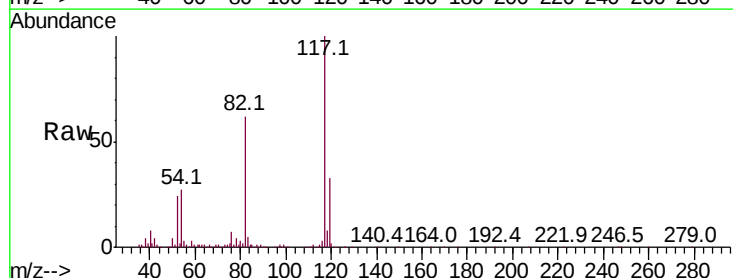
Tgt Ion: 117 Resp: 3510722

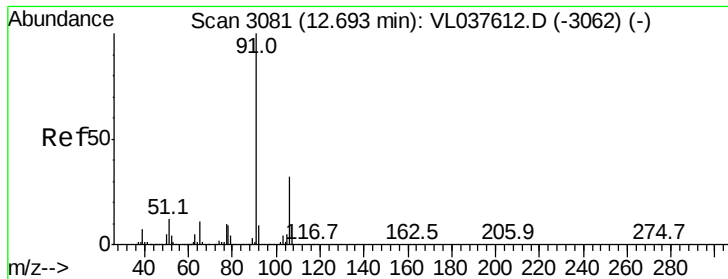
Ion Ratio Lower Upper

117 100

82 62.9 50.6 75.8

119 35.2 26.2 39.2





#58

Ethyl Benzene

Concen: 0.165 ppbv

RT: 12.72

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

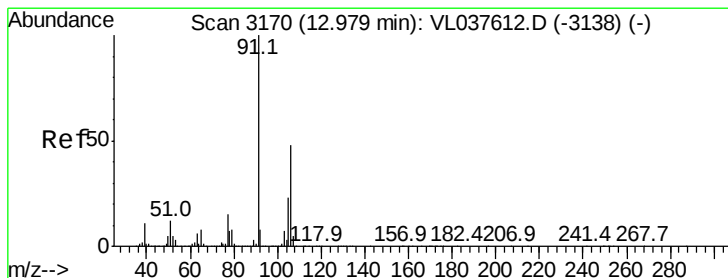
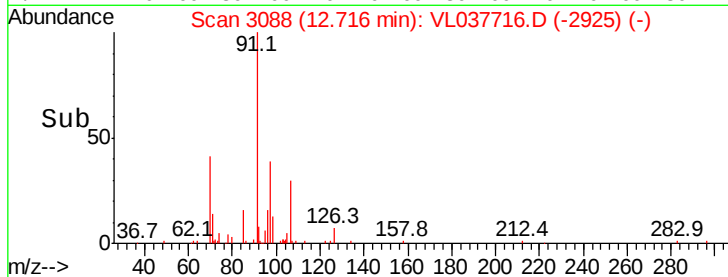
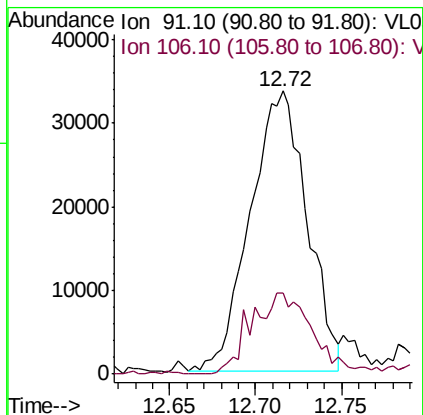
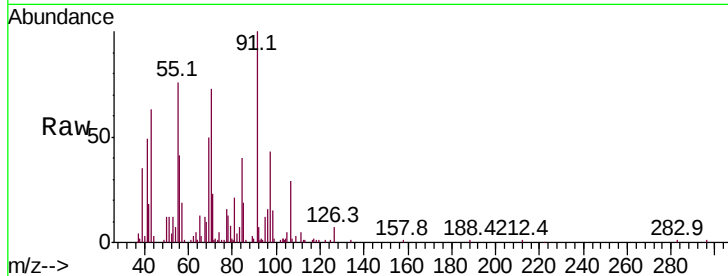
Acq: 28 Sep 2021 23:48

Tot Ion: 91 Resp: 76795

Ion Ratio Lower Upper

91 100

106 29.1 25.3 37.9



#59

m/p-Xylene

Concen: 0.247 ppbv

RT: 13.00 min Scan# 3177

Delta R.T. 0.02 min

Lab File: VL037716.D

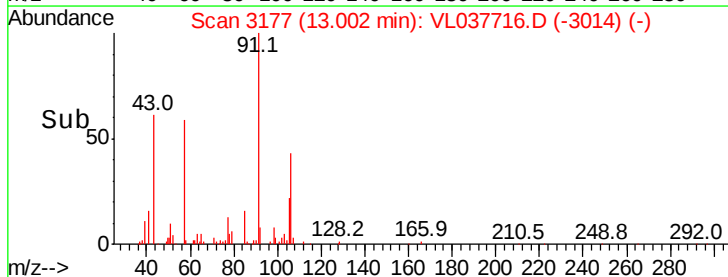
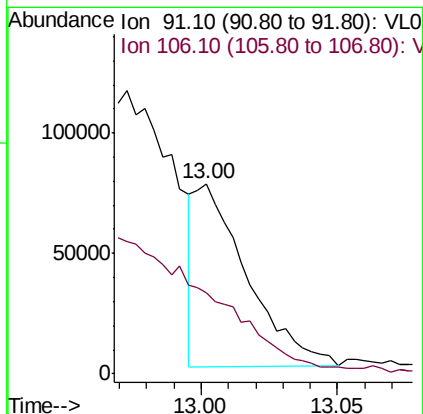
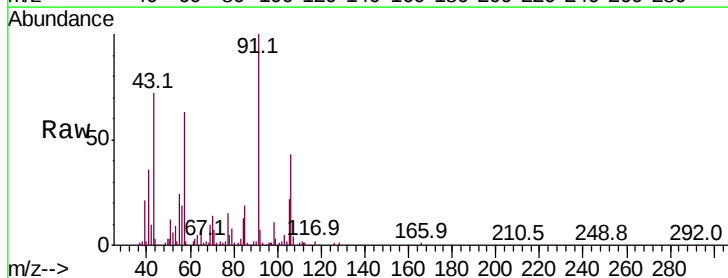
Acq: 28 Sep 2021 23:48

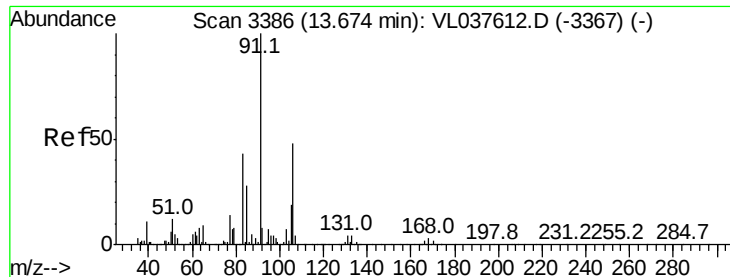
Tgt Ion: 91 Resp: 100298

Ion Ratio Lower Upper

91 100

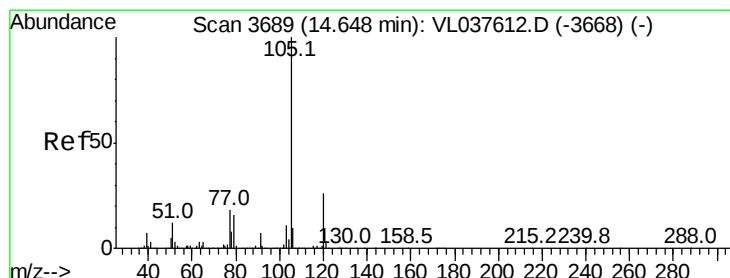
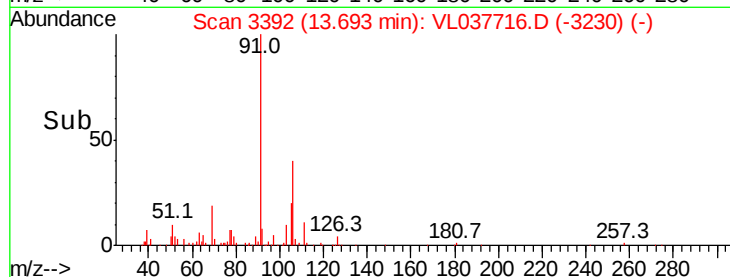
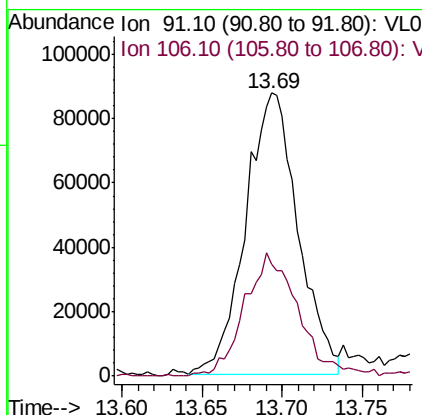
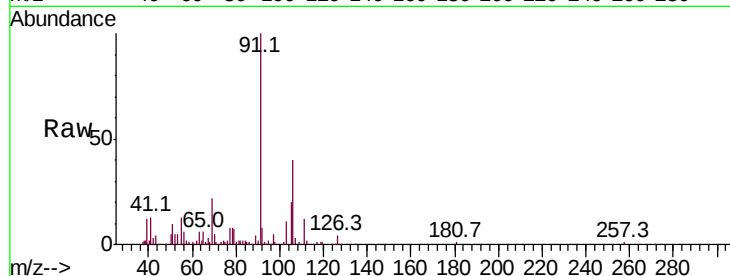
106 0.0 36.6 55.0#





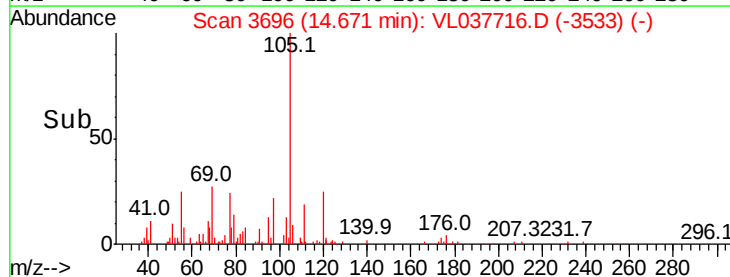
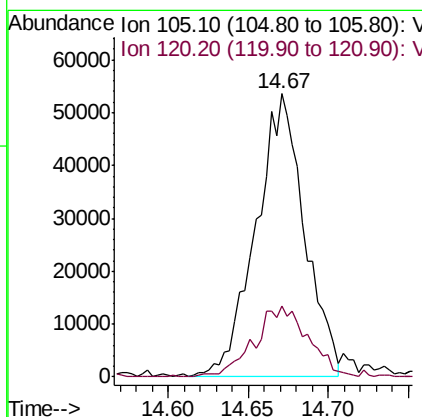
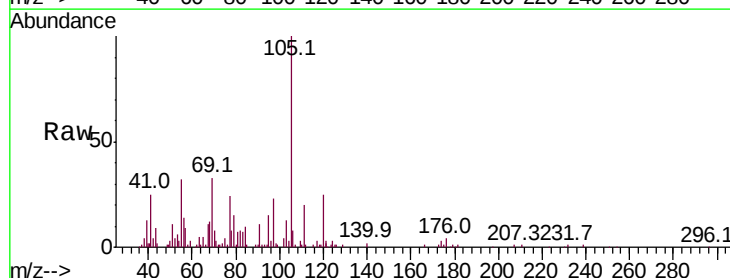
#60
o-Xylene
Concen: 0.512 ppbv
RT: 13.69 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 28 Sep 2021 23:48

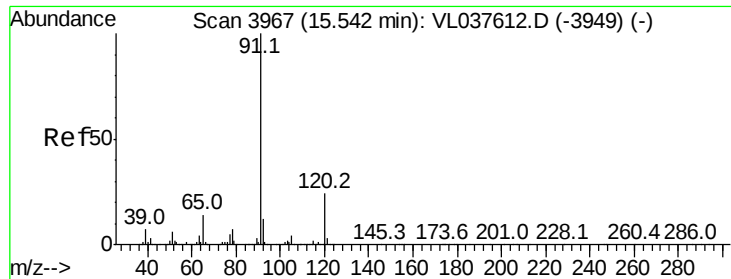
Tot Ion: 91 Resp: 197854
Ion Ratio Lower Upper
91 100
106 46.7 23.0 69.0



#62
Isopropylbenzene
Concen: 0.208 ppbv
RT: 14.67 min Scan# 3696
Delta R.T. 0.02 min
Lab File: VL037716.D
Acq: 28 Sep 2021 23:48

Tgt Ion:105 Resp: 112508
Ion Ratio Lower Upper
105 100
120 28.0 21.4 32.0





#64

n-propylbenzene

Concen: 0.040 ppbv

RT: 15.56

Delta R.T. MSVOA_L

Lab File:

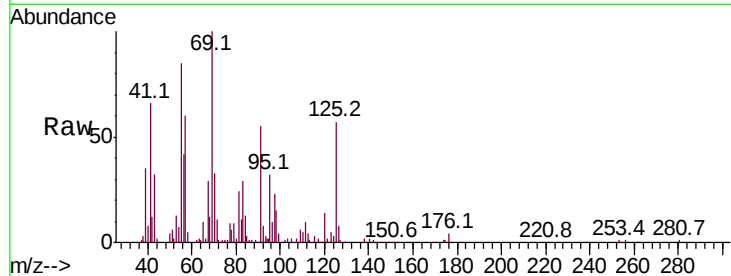
Acq: 28 Sep 2021 23:48

Tot Ion:120 Resp: 5563

Ion Ratio Lower Upper

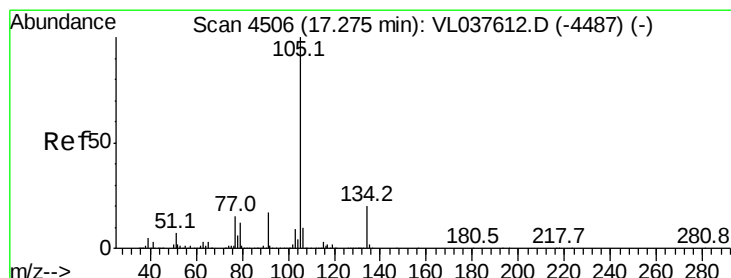
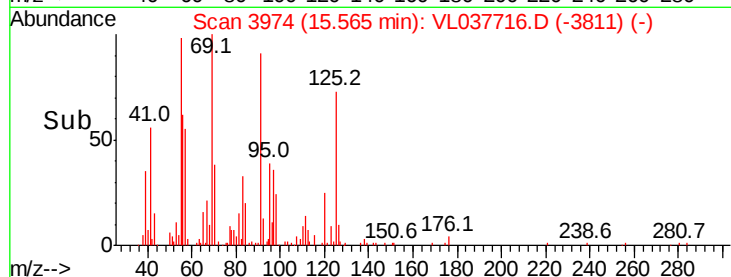
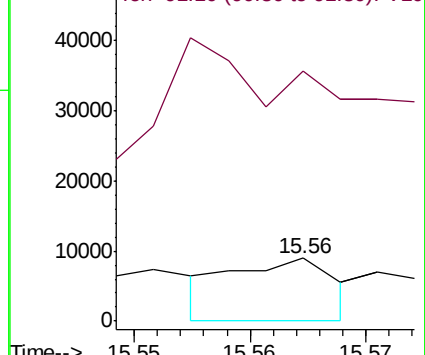
120 100

91 0.0 345.0 517.4#



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#67

sec-Butylbenzene

Concen: 0.042 ppbv

RT: 17.30 min Scan# 4513

Delta R.T. 0.02 min

Lab File: VL037716.D

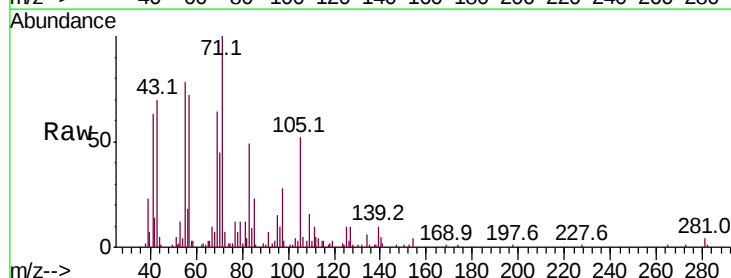
Acq: 28 Sep 2021 23:48

Tgt Ion:105 Resp: 27430

Ion Ratio Lower Upper

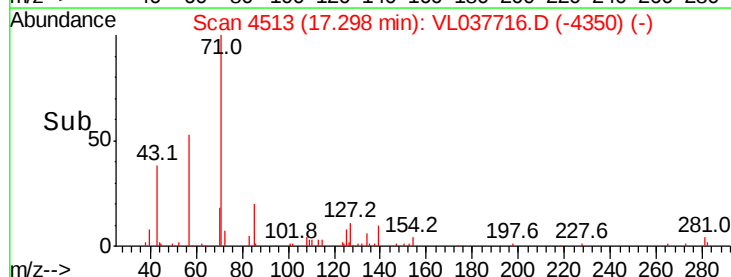
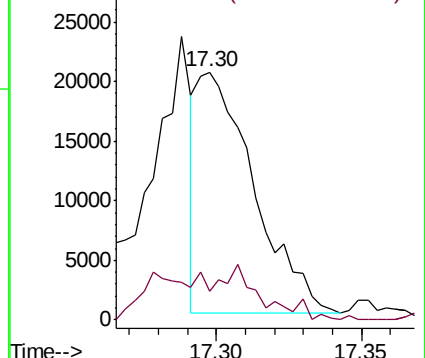
105 100

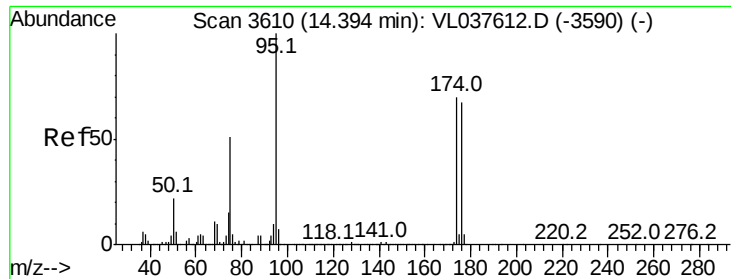
134 36.1 15.7 23.5#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.581 ppbv

RT: 14.42

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 28 Sep 2021 23:48

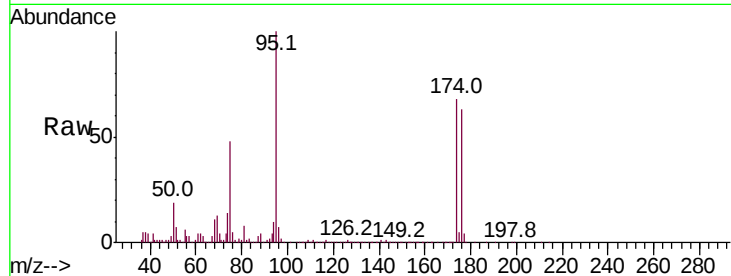
Tot Ion: 95 Resp: 2684686

Ion Ratio Lower Upper

95 100

174 73.9 56.3 84.5

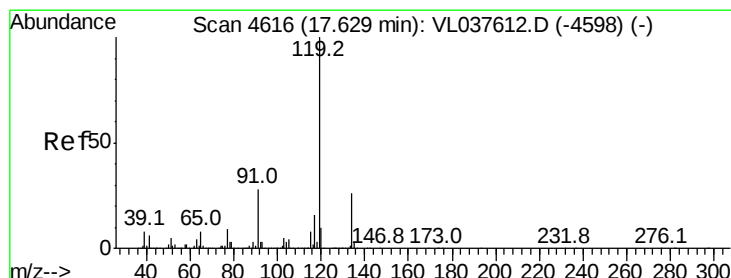
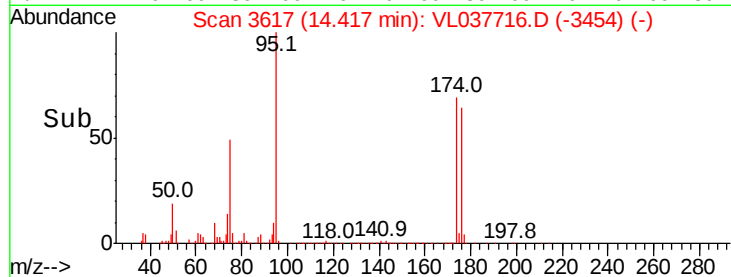
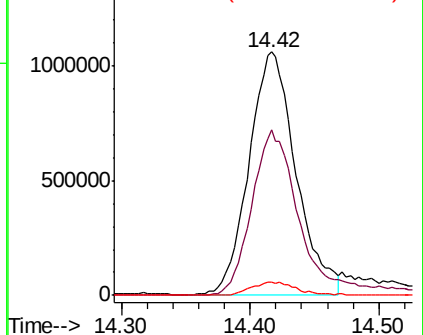
175 5.6 4.4 6.6



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



#69

p-Isopropyltoluene

Concen: 0.051 ppbv

RT: 17.66 min Scan# 4626

Delta R.T. 0.03 min

Lab File: VL037716.D

Acq: 28 Sep 2021 23:48

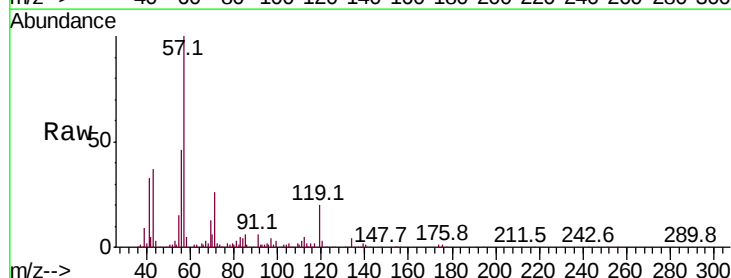
Tgt Ion: 119 Resp: 27304

Ion Ratio Lower Upper

119 100

134 85.8 21.2 31.8#

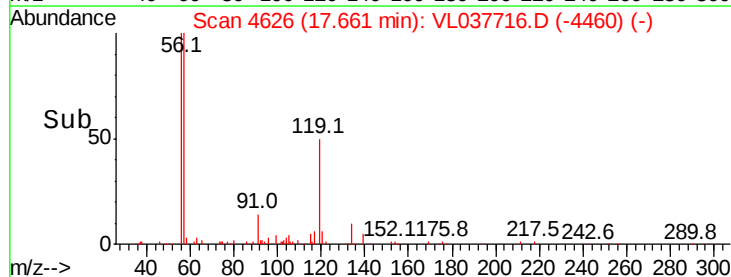
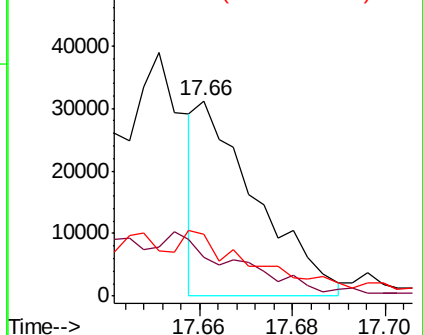
91 100.5 22.2 33.2#

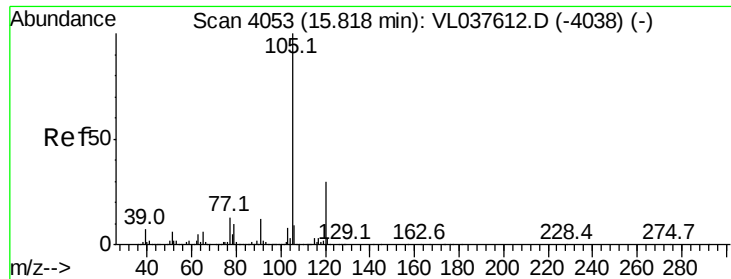


Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): VL0





#72

4-Ethyltoluene

Concen: 0.118 ppbv

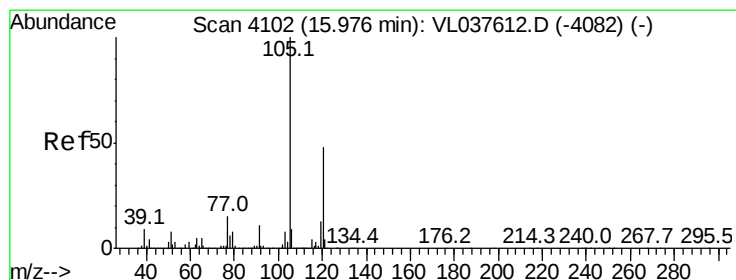
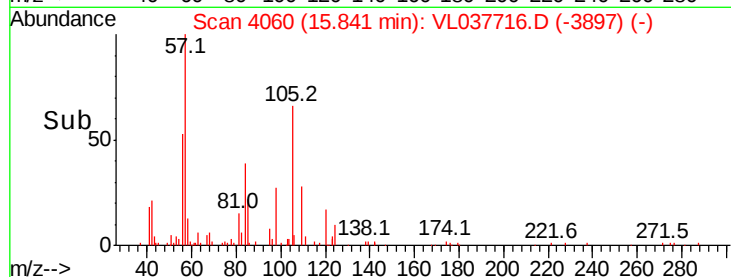
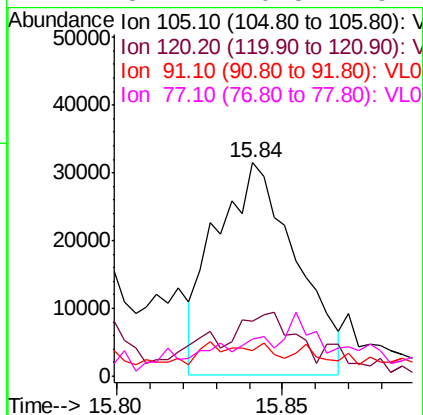
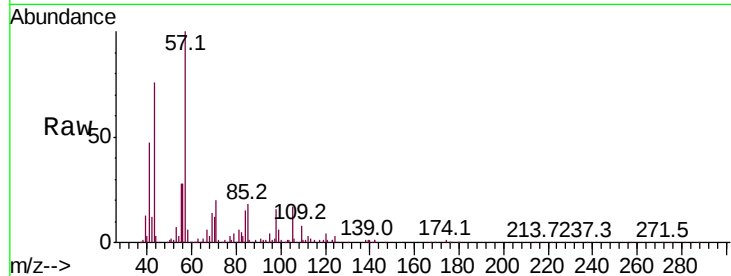
RT: 15.84

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 28 Sep 2021 23:48

Tot Ion:	105	Resp:	52579
Ion	Ratio	Lower	Upper
105	100		
120	40.5	24.7	37.1#
91	0.0	9.9	14.9#
77	32.7	10.5	15.7#



#73

1,3,5-Trimethylbenzene

Concen: 0.162 ppbv

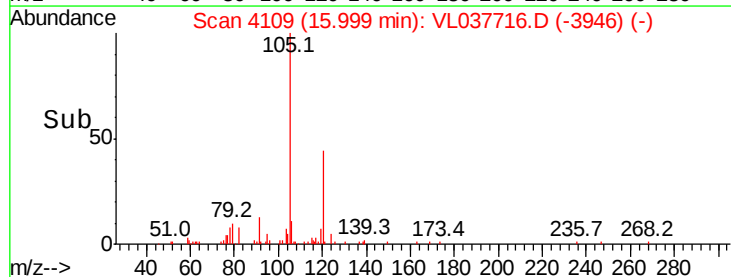
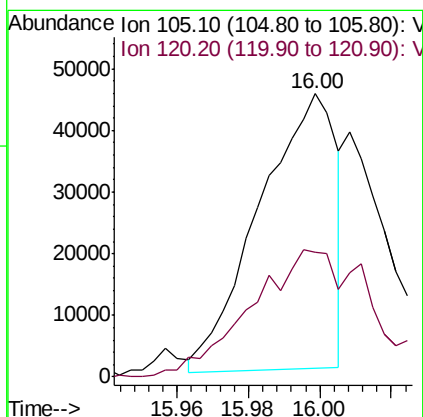
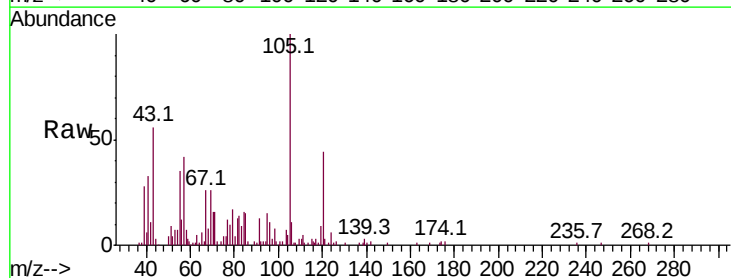
RT: 16.00 min Scan# 4109

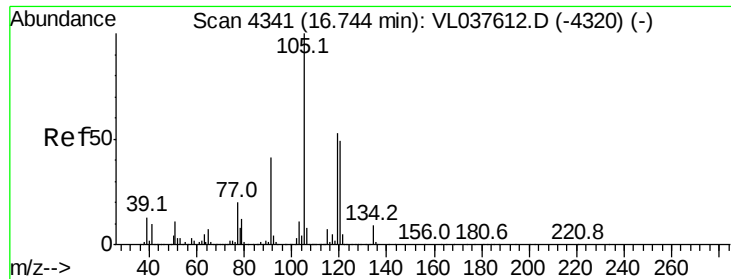
Delta R.T. 0.02 min

Lab File: VL037716.D

Acq: 28 Sep 2021 23:48

Tgt Ion:	105	Resp:	66972
Ion	Ratio	Lower	Upper
105	100		
120	39.6	38.3	57.5





#74
 1,2,4-Trimethylbenzene
 Concen: 0.320 ppbv
 RT: 16.76
 Delta R.T: MSVOA_1
 Lab File: ClientSampleId :
 Acq: 28 Sep 2021 23:48

Tot Ion:	105	Resp:	139274
Ion	Ratio	Lower	Upper
105	100		
120	53.8	39.4	59.0
91	14.0	33.3	49.9#
77	10.8	15.7	23.5#

