

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL022322\
 Data File : VL038427.D
 Acq On : 24 Feb 2022 3:58
 Operator : SY/AP
 Sample : N1605-05
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 DUP-1

Quant Time: Feb 24 07:33:44 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
 QLast Update : Tue Feb 22 19:45:51 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	806892	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	1909218	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.05	117	1664275	10.00	ppbv	0.00

System Monitoring Compounds

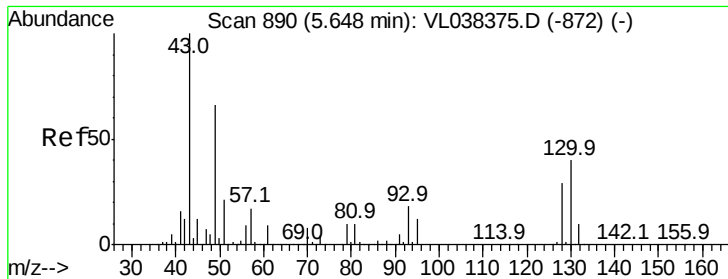
68) 1-Bromo-4-Fluorobenzene	14.38	95	1280014	9.30	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	36000	0.28	ppbv	94
3) Chlorodifluoromethane	2.98	51	44294	0.31	ppbv #	87
4) Chloromethane	3.12	50	28111	0.57	ppbv	96
9) Propene	3.01	41	119339	2.54	ppbv #	65
10) Heptane	8.09	43	17211	0.15	ppbv #	53
11) Trichlorofluoromethane	3.93	101	24132	0.20	ppbv	88
12) 1,1,2-Trichlorotrifluoroet	4.47	101	3975	0.04	ppbv #	15
13) Ethanol	3.59	45	4220003	898.84	ppbv	89
15) Acetone	3.83	43	435918	6.35	ppbv #	79
16) 1,3-Butadiene	3.29	39	16803	0.37	ppbv #	17
17) tert-Butyl alcohol	3.96	59	414701	6.06	ppbv	99
19) Isopropyl Alcohol	3.95	45	10681713	268.82	ppbv #	96
20) Methylene Chloride	4.33	84	85786	2.52	ppbv	93
21) Allyl Chloride	4.64	41	12993	0.22	ppbv #	20
23) Vinyl Acetate	5.03	43	66340	0.73	ppbv #	54
25) Ethyl Acetate	5.66	43	342828	1.86	ppbv #	83
26) Hexane	5.66	57	441190	5.28	ppbv #	46
29) Chloroform	5.72	83	43520	0.32	ppbv	100
34) 2-Butanone	5.22	43	46528	0.77	ppbv #	54
36) Benzene	6.86	78	100119	0.60	ppbv	98
39) 1,2-Dichloropropane	7.15	63	513900	7.68	ppbv #	25
41) Tetrahydrofuran	6.28	42	2157	0.05	ppbv #	43
42) Bromodichloromethane	7.75	83	7226	0.05	ppbv #	76
44) 2,2,4-Trimethylpentane	7.84	57	68462	0.24	ppbv #	77
50) 4-Methyl-2-Pentanone	8.72	43	4400	0.04	ppbv #	60
53) Toluene	9.77	91	336093	1.84	ppbv	99
58) Ethyl Benzene	12.67	91	21794	0.10	ppbv	94
59) m/p-Xylene	12.97	91	11485	0.06	ppbv #	33
60) o-Xylene	13.65	91	13817	0.07	ppbv #	32
61) Styrene	13.49	104	3210	0.04	ppbv #	80
74) 1,2,4-Trimethylbenzene	16.72	105	9011	0.05	ppbv #	61

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSV0A_L\DATA\VL022322\  
Data File : VL038427.D  
Acq On    : 24 Feb 2022    3:58  
Operator  : SY/AP  
Sample    : N1605-05  
Misc      : 400mL/MSV0A_L  
ALS Vial  : 1    Sample Multiplier: 1
```

Quant Time: Feb 24 07:33:44 2022
Quant Method : Z:\VQASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
QLast Update : Tue Feb 22 19:45:51 2022
Response via : Initial Calibration



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.64 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Feb 2022 3:58

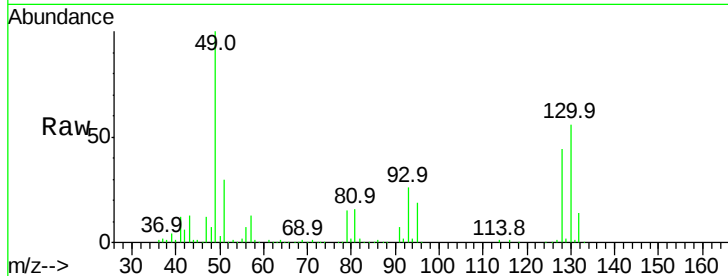
Tgt Ion: 49 Resp: 806892

Ion Ratio Lower Upper

49 100

128 45.9 24.3 72.9

130 60.1 30.1 90.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

500000

400000

300000

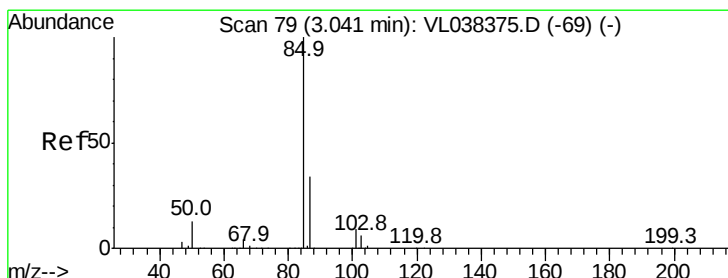
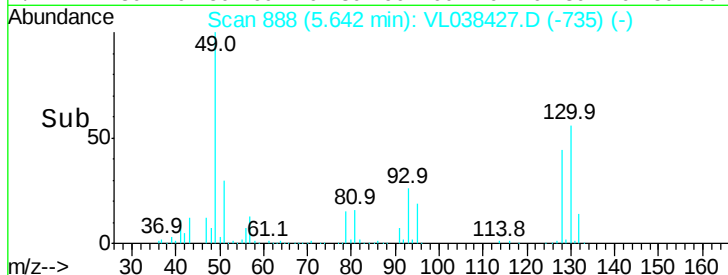
200000

100000

0

5.55 5.60 5.65 5.70 5.75

Time-->



#2

Dichlorodifluoromethane

Concen: 0.28 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.01 min

Lab File: VL038427.D

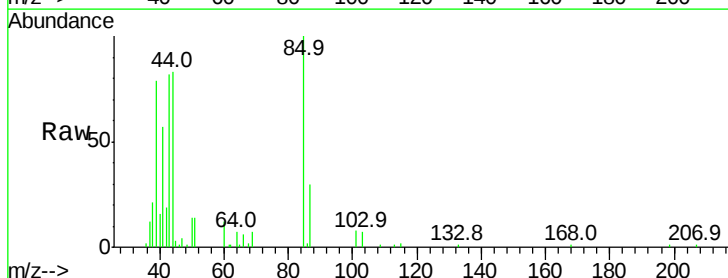
Acq: 24 Feb 2022 3:58

Tgt Ion: 85 Resp: 36000

Ion Ratio Lower Upper

85 100

87 30.8 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

25000

20000

15000

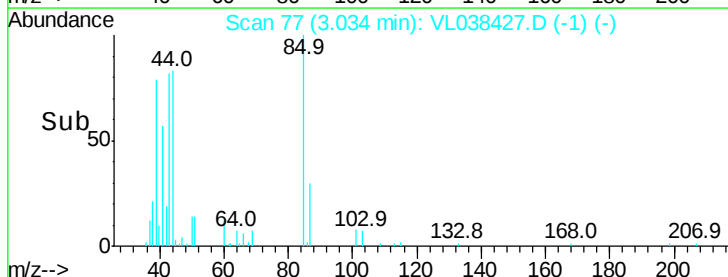
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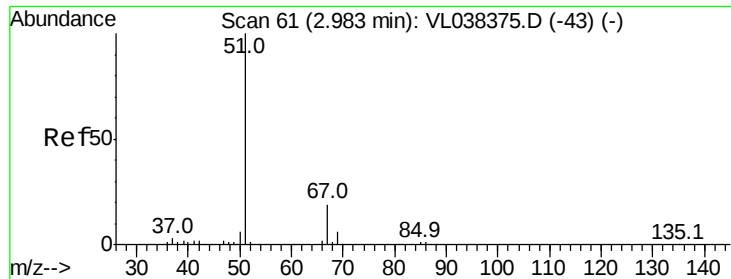
5000

0

3.00 3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 0.31 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: DUP-1

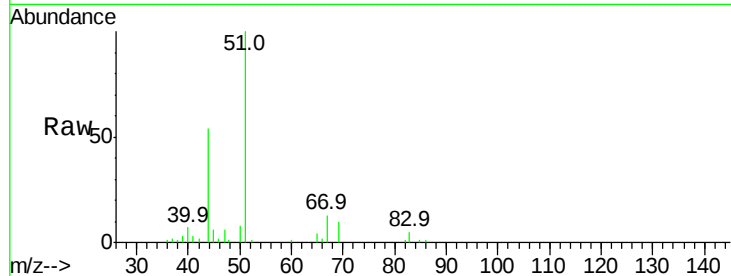
Acq: 24 Feb 2022 3:58

Tgt Ion: 51 Resp: 44294

Ion Ratio Lower Upper

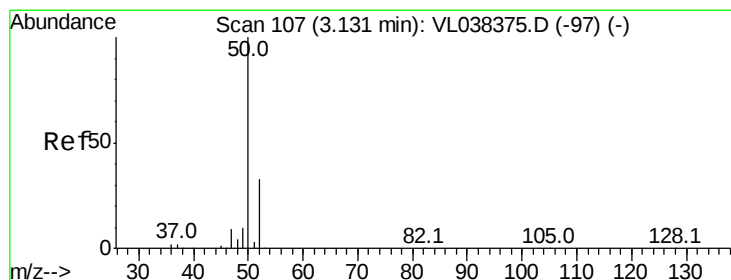
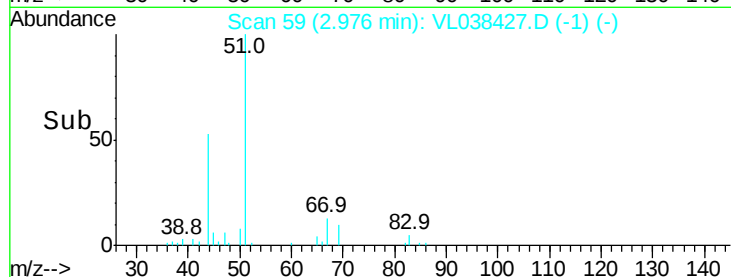
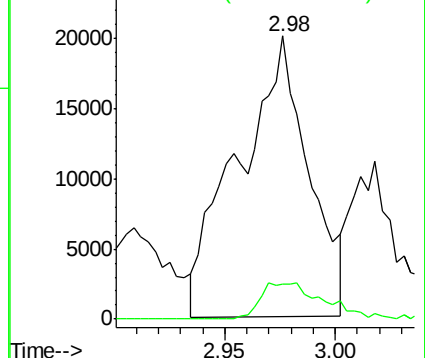
51 100

67 12.5 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.57 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.01 min

Lab File: VL038427.D

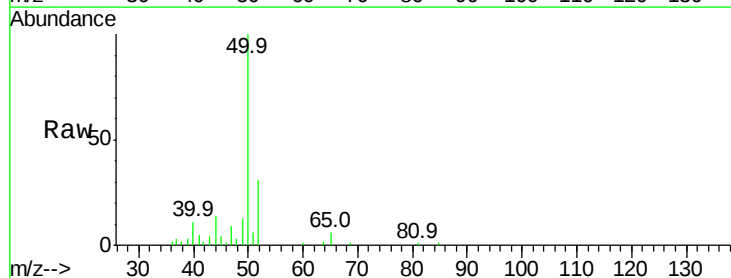
Acq: 24 Feb 2022 3:58

Tgt Ion: 50 Resp: 28111

Ion Ratio Lower Upper

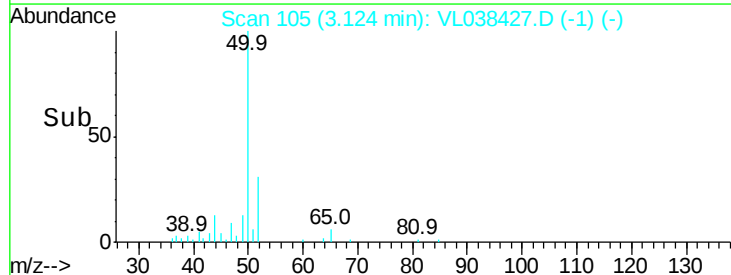
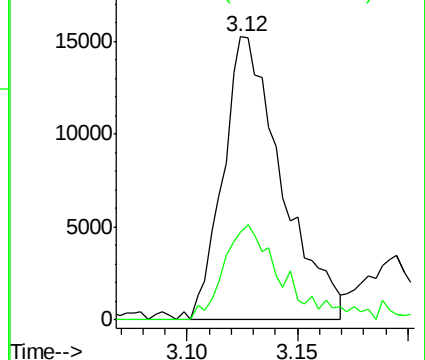
50 100

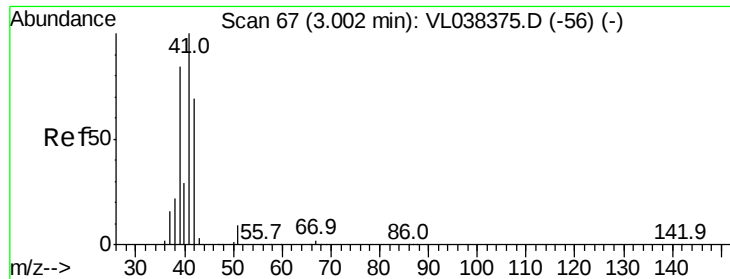
52 31.1 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.54 ppbv

RT: 3.01 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: DUP-1

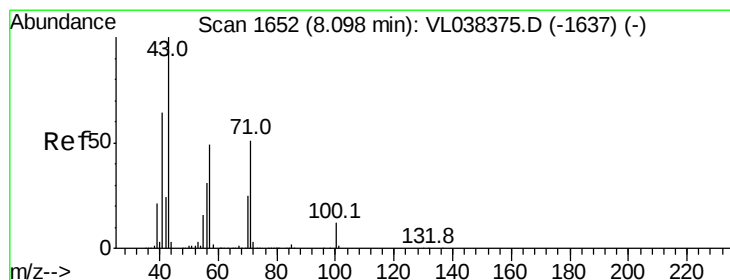
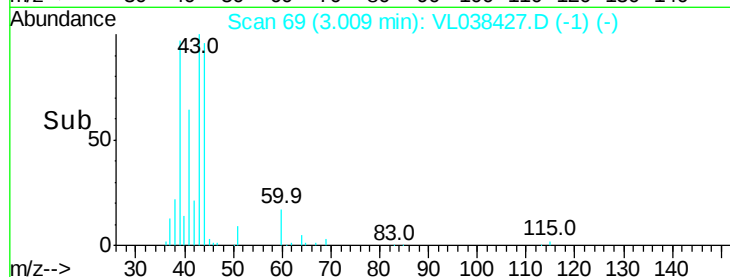
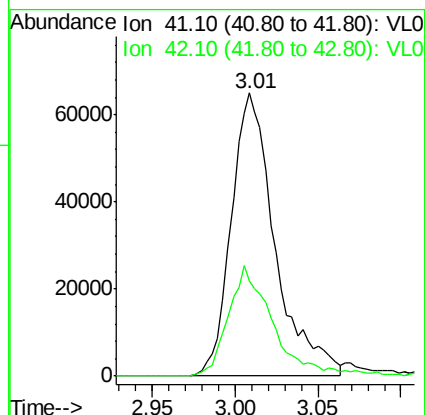
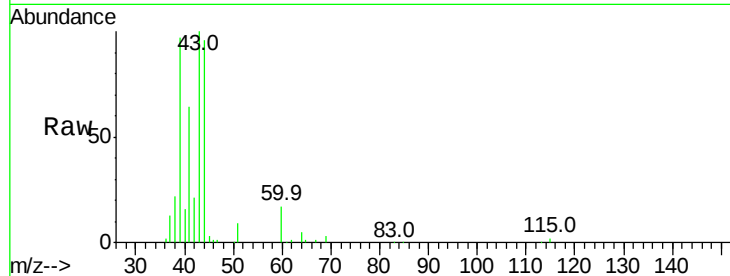
Acq: 24 Feb 2022 3:58

Tgt Ion: 41 Resp: 119339

Ion Ratio Lower Upper

41 100

42 40.3 54.6 82.0#



#10

Heptane

Concen: 0.15 ppbv

RT: 8.09 min Scan# 1650

Delta R.T. -0.01 min

Lab File: VL038427.D

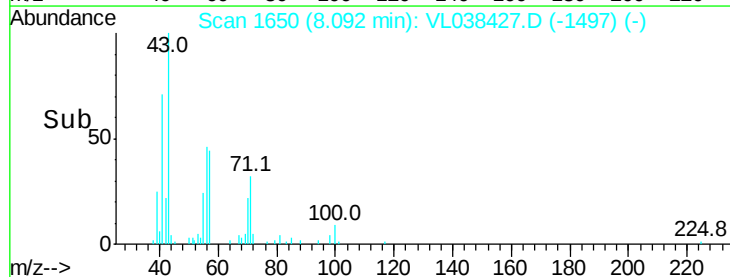
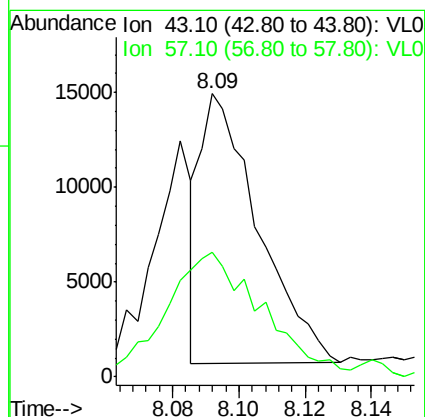
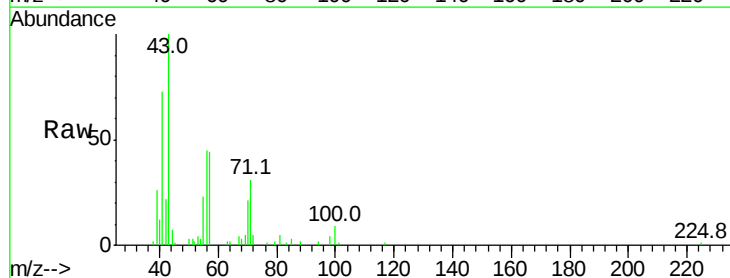
Acq: 24 Feb 2022 3:58

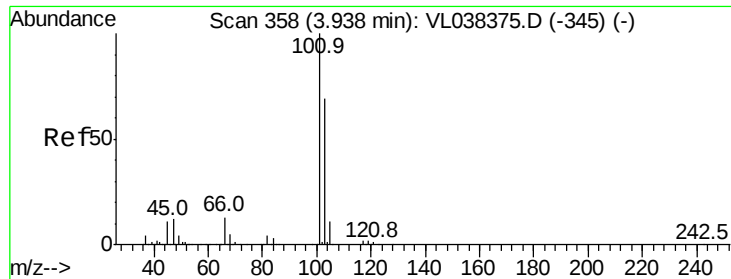
Tgt Ion: 43 Resp: 17211

Ion Ratio Lower Upper

43 100

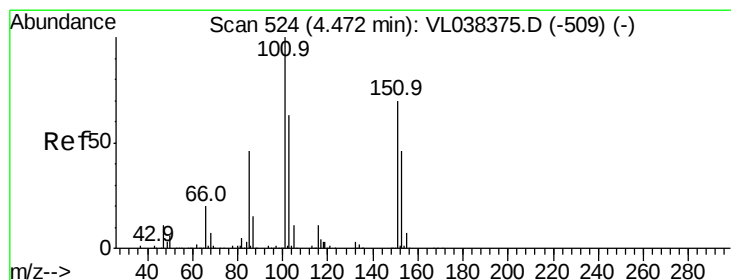
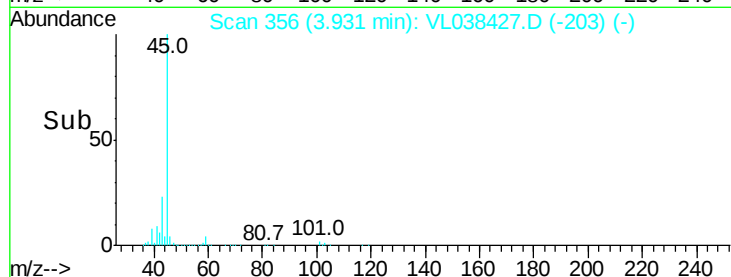
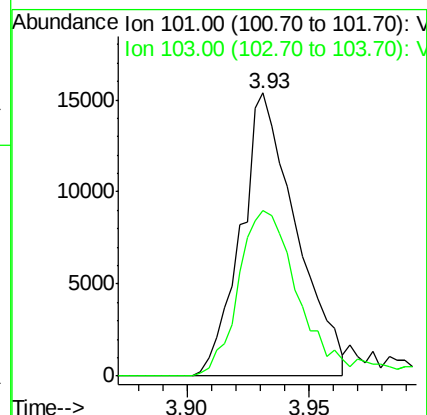
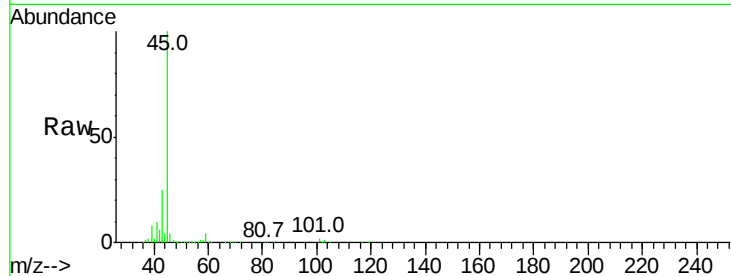
57 81.9 39.8 59.8#





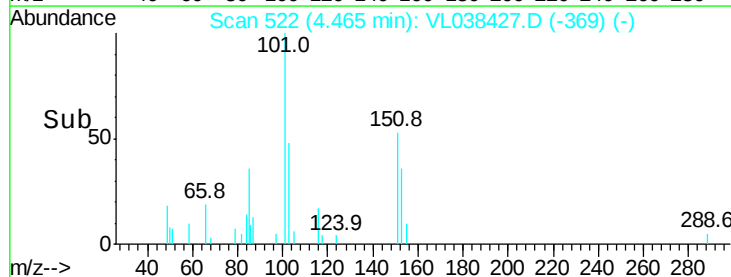
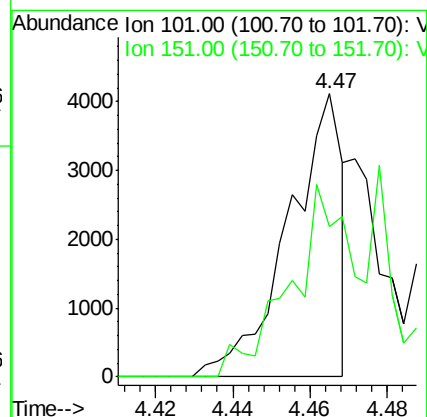
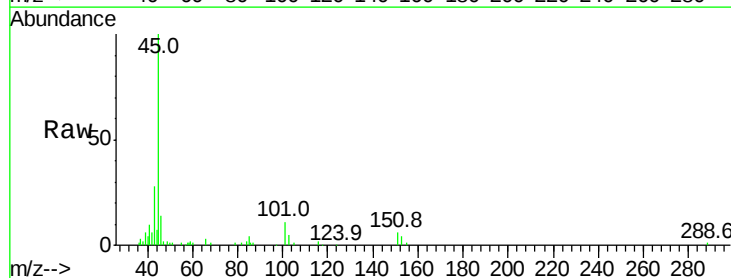
#11
 Trichlorofluoromethane
 Concen: 0.20 ppbv
 RT: 3.93
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 24 Feb 2022 3:58

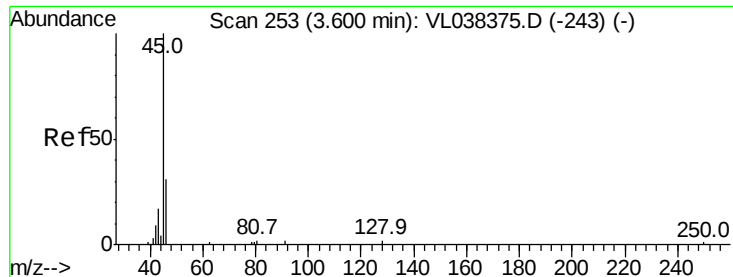
Tgt Ion:101 Resp: 24132
 Ion Ratio Lower Upper
 101 100
 103 58.7 55.0 82.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.04 ppbv
 RT: 4.47 min Scan# 522
 Delta R.T. -0.01 min
 Lab File: VL038427.D
 Acq: 24 Feb 2022 3:58

Tgt Ion:101 Resp: 3975
 Ion Ratio Lower Upper
 101 100
 151 0.0 55.9 83.9#





#13

Ethanol

Concen: 898.84 ppbv

RT: 3.59 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

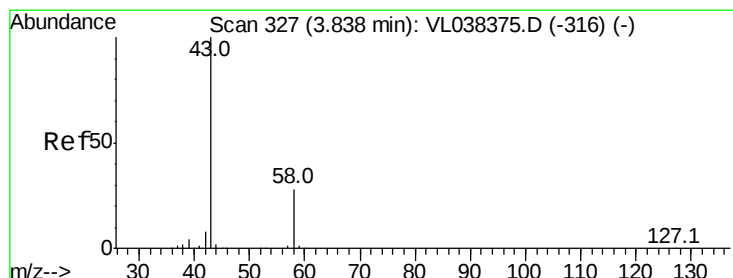
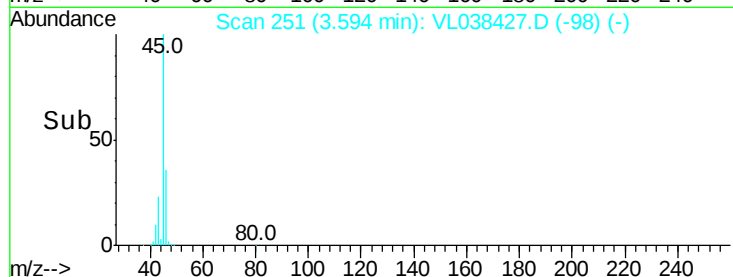
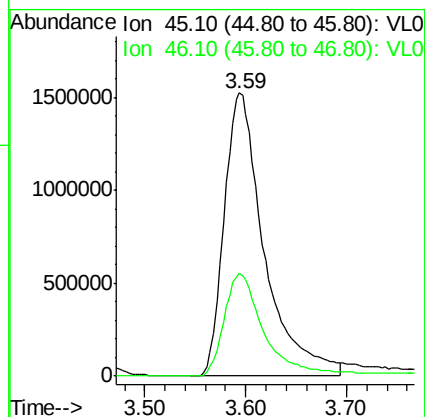
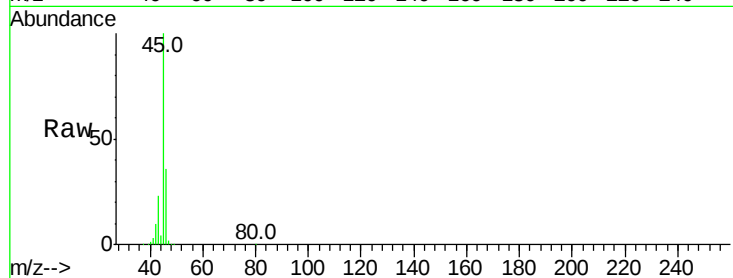
Acq: 24 Feb 2022 3:58 DUP-1

Tgt Ion: 45 Resp: 4220003

Ion Ratio Lower Upper

45 100

46 38.1 18.2 72.8



#15

Acetone

Concen: 6.35 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.01 min

Lab File: VL038427.D

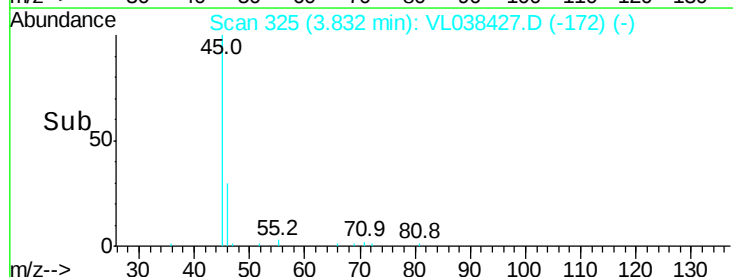
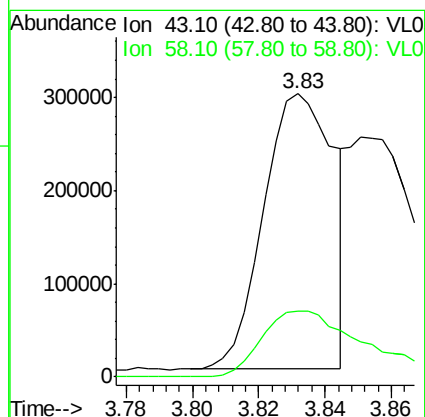
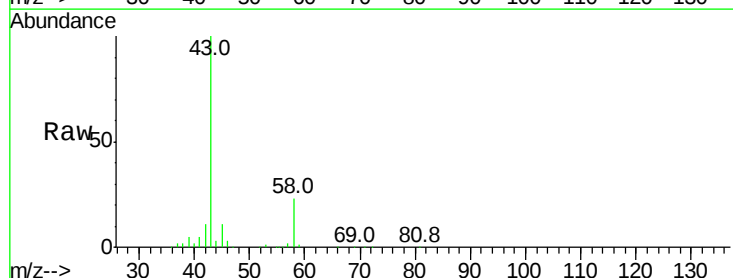
Acq: 24 Feb 2022 3:58

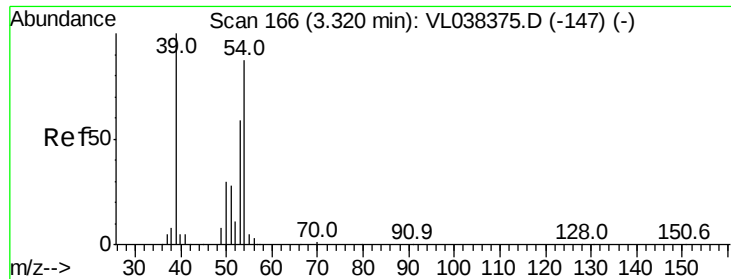
Tgt Ion: 43 Resp: 435918

Ion Ratio Lower Upper

43 100

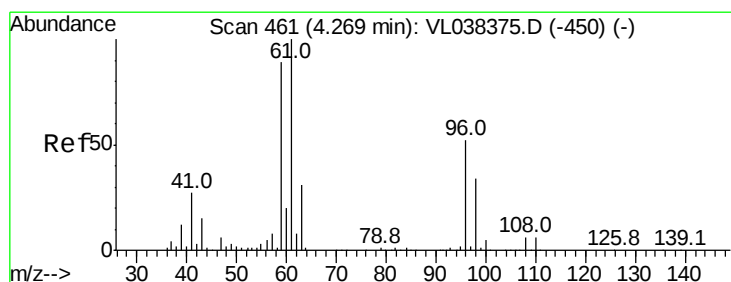
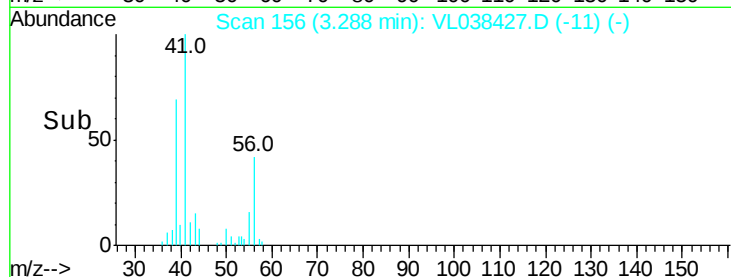
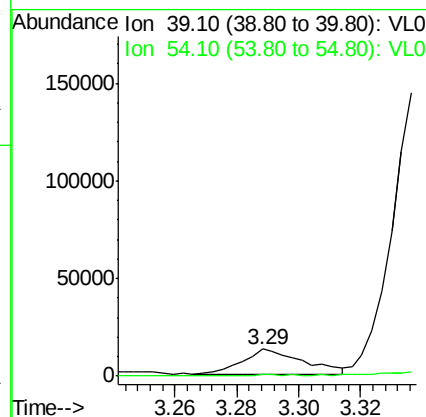
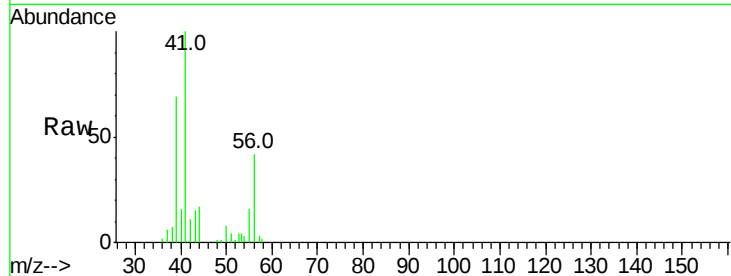
58 38.0 21.7 32.5#





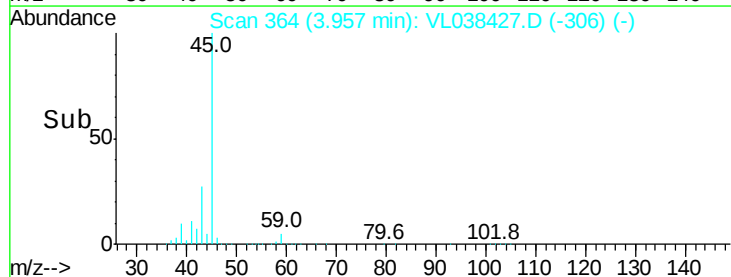
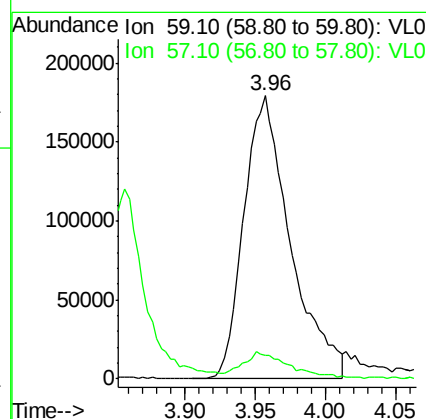
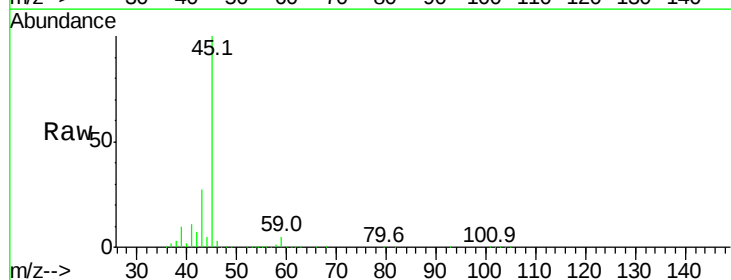
#16
 1,3-Butadiene
 Concen: 0.37 ppbv
 RT: 3.29
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 DUP-1
 Acq: 24 Feb 2022 3:58

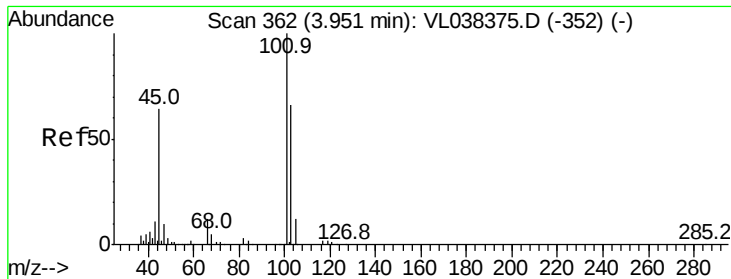
Tgt Ion: 39 Resp: 16803
 Ion Ratio Lower Upper
 39 100
 54 4.4 60.3 90.5#



#17
 tert-Butyl alcohol
 Concen: 6.06 ppbv
 RT: 3.96 min Scan# 364
 Delta R.T. -0.31 min
 Lab File: VL038427.D
 Acq: 24 Feb 2022 3:58

Tgt Ion: 59 Resp: 414701
 Ion Ratio Lower Upper
 59 100
 57 10.1 8.4 12.6





#19

Isopropyl Alcohol

Concen: 268.82 ppbv

RT: 3.95 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

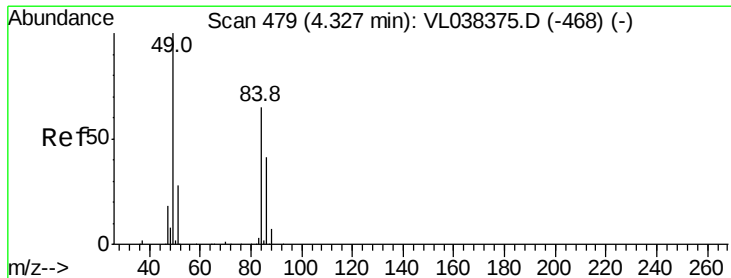
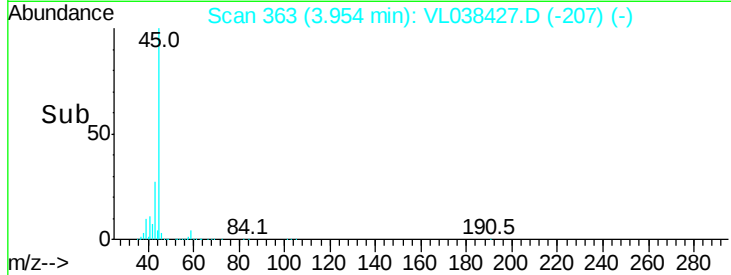
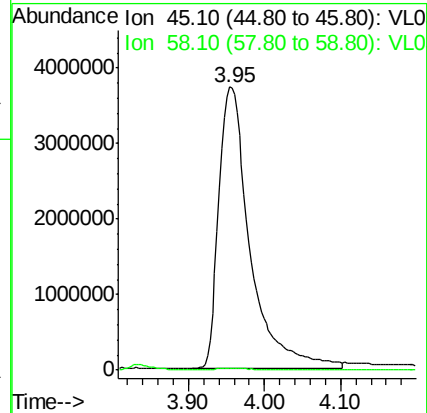
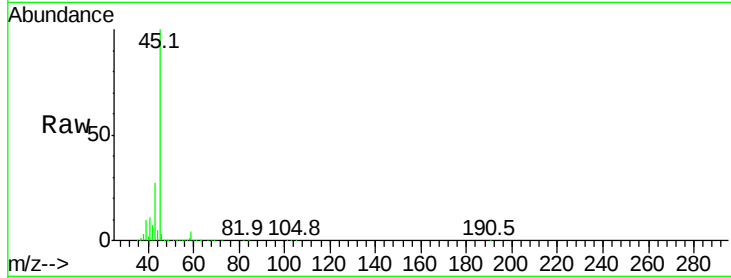
Acq: 24 Feb 2022 3:58

Tgt Ion: 45 Resp:10681713

Ion Ratio Lower Upper

45 100

58 0.9 1.8 2.8#



#20

Methylene Chloride

Concen: 2.52 ppbv

RT: 4.33 min Scan# 479

Delta R.T. -0.00 min

Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

Tgt Ion: 84 Resp: 85786

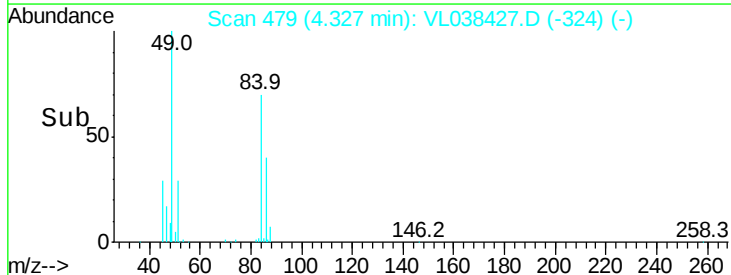
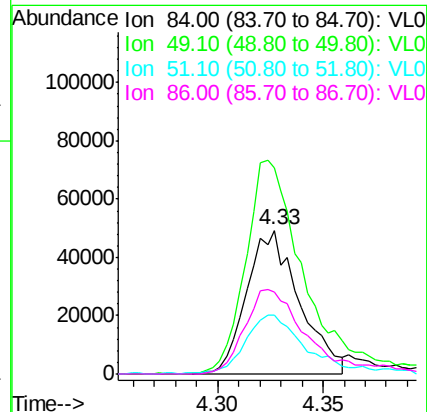
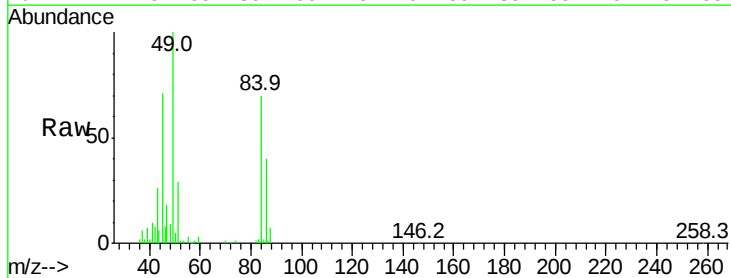
Ion Ratio Lower Upper

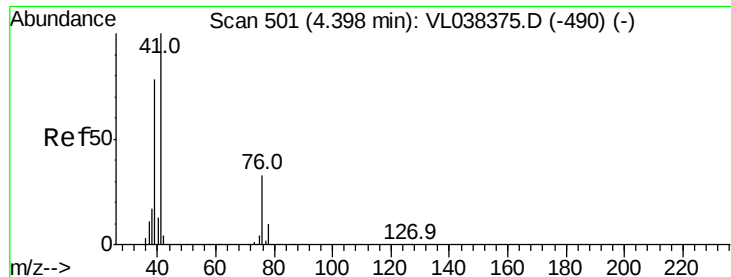
84 100

49 142.5 122.4 183.6

51 40.5 33.3 49.9

86 57.3 50.7 76.1





#21

Allyl Chloride

Concen: 0.22 ppbv

RT: 4.64 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 24 Feb 2022 3:58

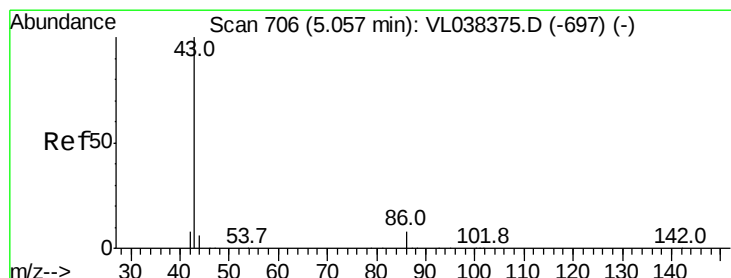
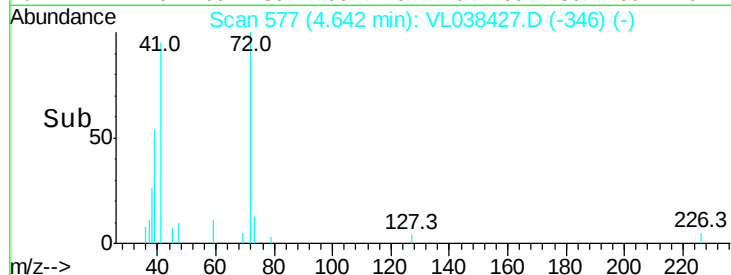
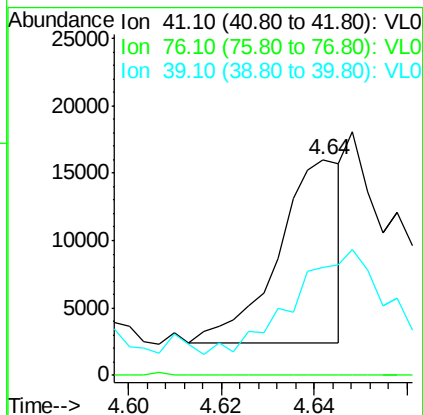
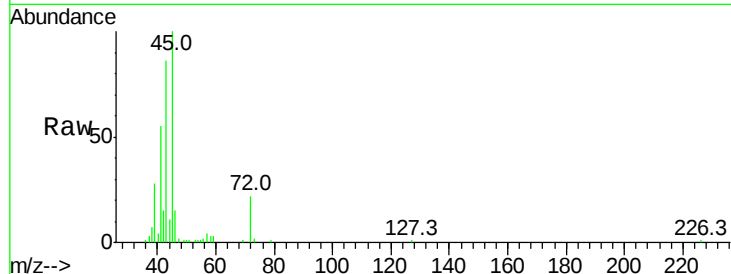
Tgt Ion: 41 Resp: 12993

Ion Ratio Lower Upper

41 100

76 0.3 25.4 38.0#

39 0.0 63.0 94.6#



#23

Vinyl Acetate

Concen: 0.73 ppbv

RT: 5.03 min Scan# 699

Delta R.T. -0.02 min

Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

Tgt Ion: 43 Resp: 66340

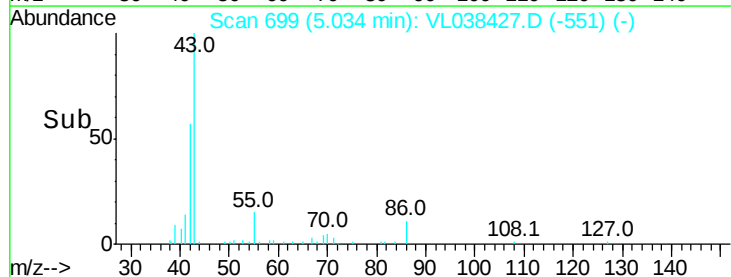
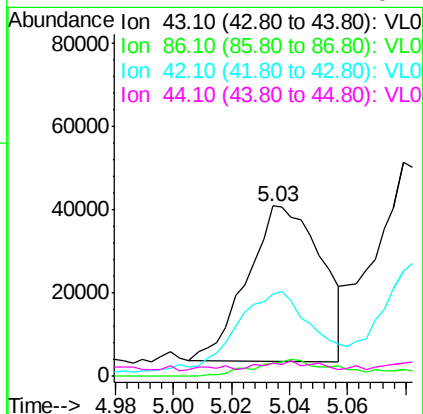
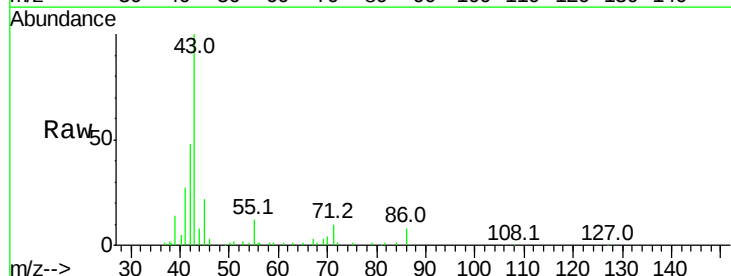
Ion Ratio Lower Upper

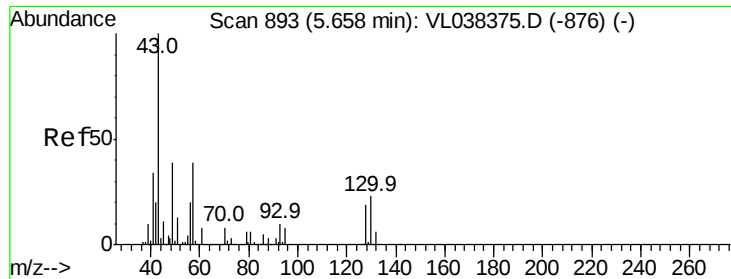
43 100

86 8.4 5.8 8.6

42 47.3 7.4 11.0#

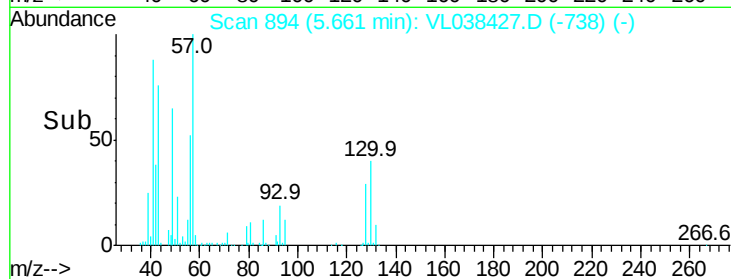
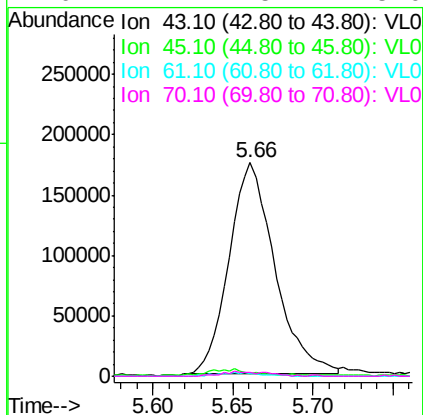
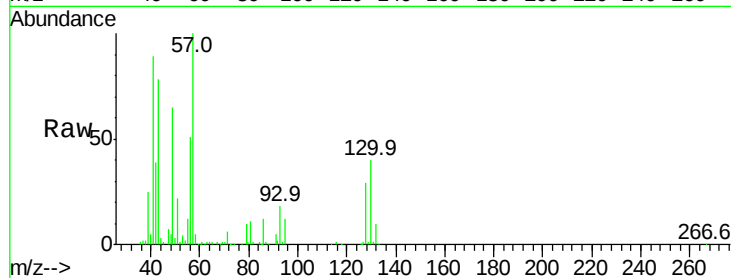
44 4.7 4.2 6.2





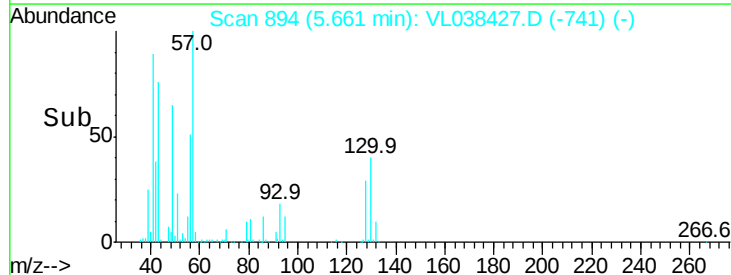
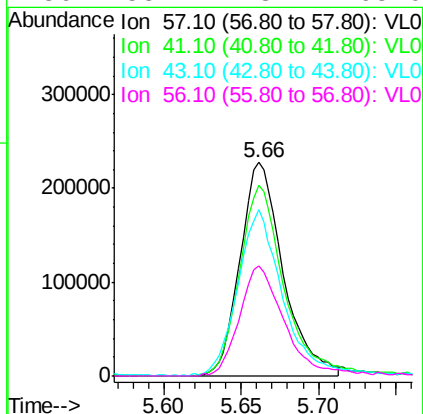
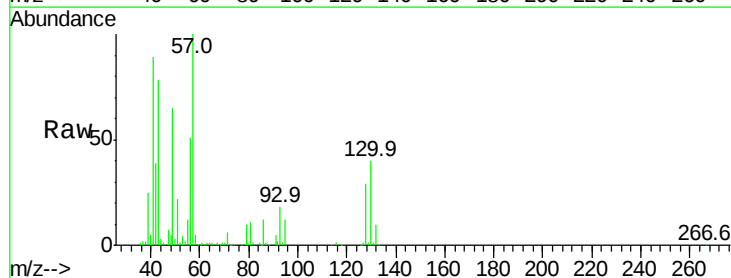
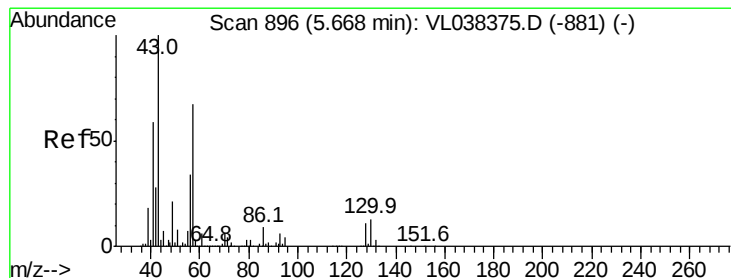
#25
Ethyl Acetate
Concen: 1.86 ppbv
RT: 5.66
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 Feb 2022 3:58
DUP-1

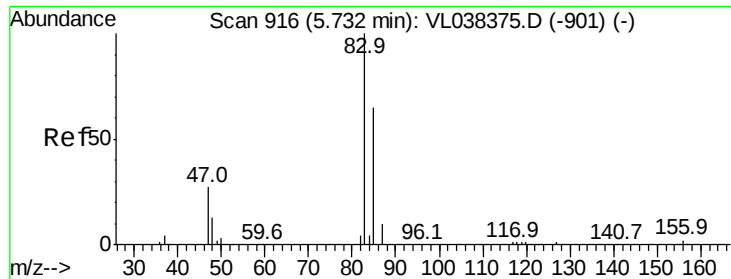
Tgt Ion:	43	Resp:	342828
Ion	Ratio	Lower	Upper
43	100		
45	3.3	7.8	11.6#
61	1.9	7.5	11.3#
70	2.4	5.4	8.0#



#26
Hexane
Concen: 5.28 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.01 min
Lab File: VL038427.D
Acq: 24 Feb 2022 3:58

Tgt Ion:	57	Resp:	441190
Ion	Ratio	Lower	Upper
57	100		
41	93.8	73.1	109.7
43	82.4	181.0	271.4#
56	55.2	43.4	65.0





#29

Chloroform

Concen: 0.32 ppbv

RT: 5.72 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: DUP-1

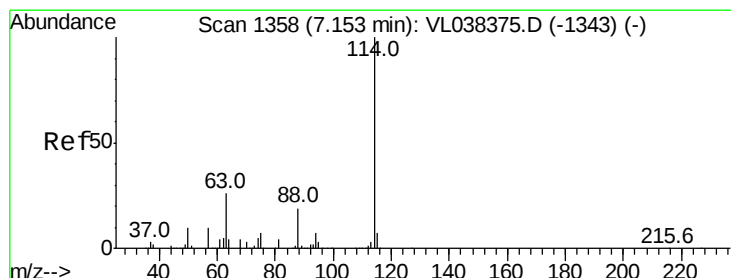
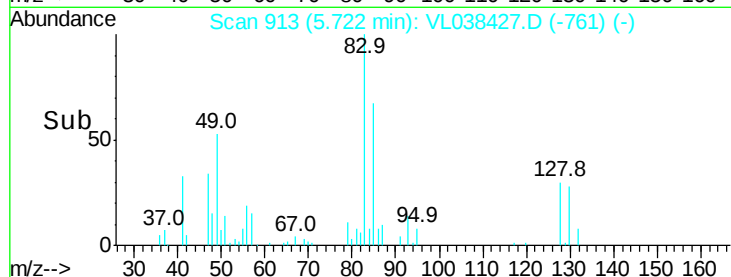
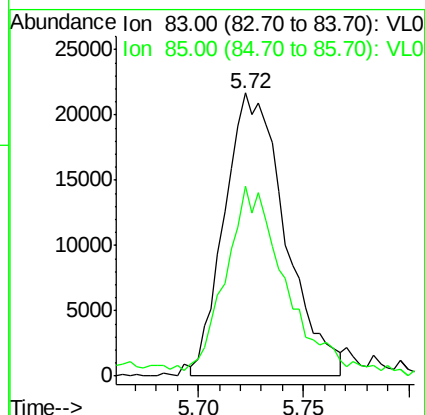
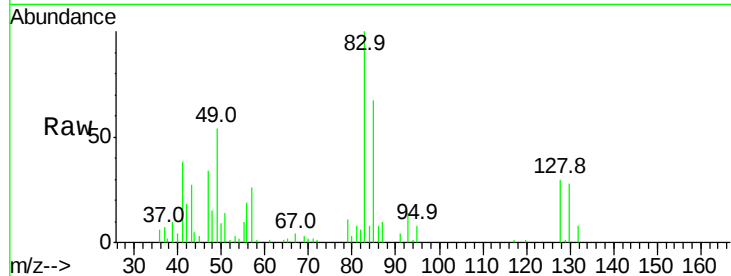
Acq: 24 Feb 2022 3:58

Tgt Ion: 83 Resp: 43520

Ion Ratio Lower Upper

83 100

85 64.8 51.6 77.4



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.15 min Scan# 1356

Delta R.T. -0.01 min

Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

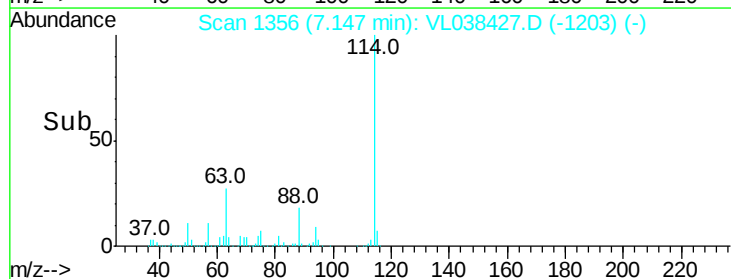
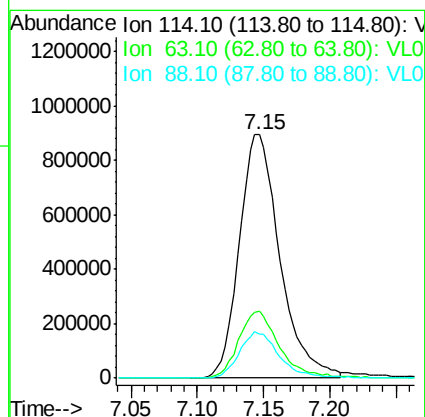
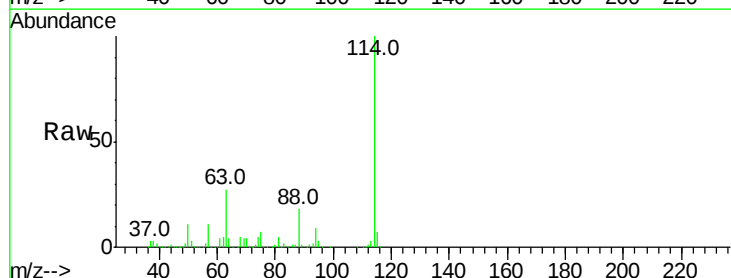
Tgt Ion: 114 Resp: 1909218

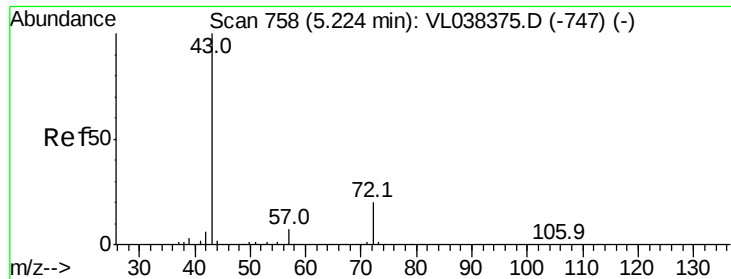
Ion Ratio Lower Upper

114 100

63 28.2 22.2 33.2

88 19.0 15.2 22.8





#34

2-Butanone

Concen: 0.77 ppbv

RT: 5.22 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: DUP-1

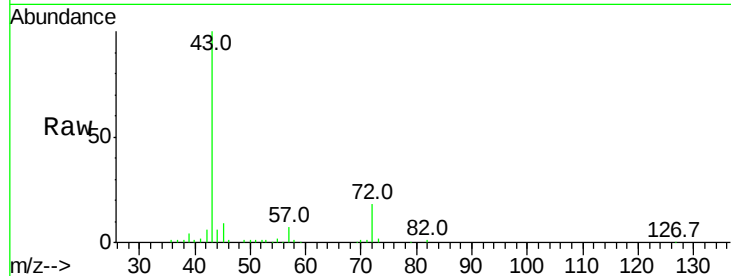
Acq: 24 Feb 2022 3:58

Tgt Ion: 43 Resp: 46528

Ion Ratio Lower Upper

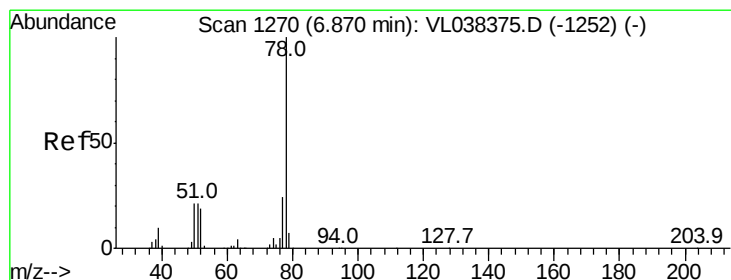
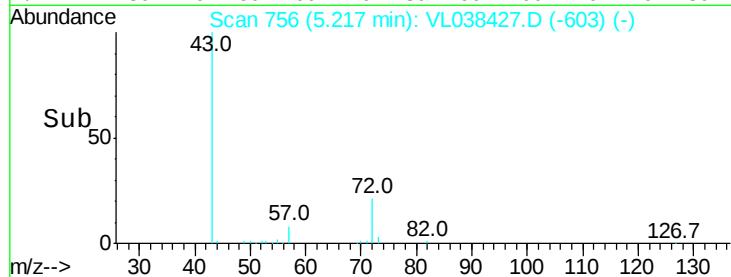
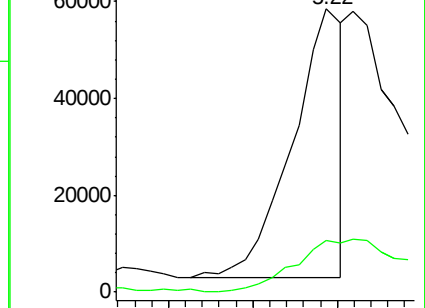
43 100

72 0.0 17.4 26.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#36

Benzene

Concen: 0.60 ppbv

RT: 6.86 min Scan# 1267

Delta R.T. -0.01 min

Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

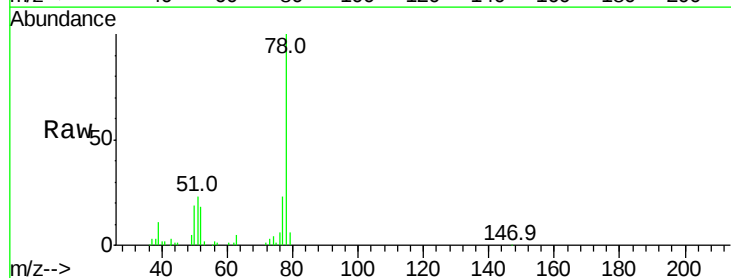
Tgt Ion: 78 Resp: 100119

Ion Ratio Lower Upper

78 100

77 23.3 19.0 28.6

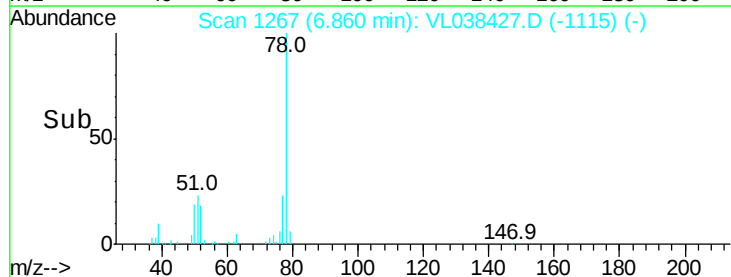
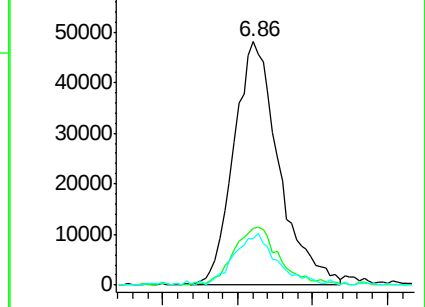
50 19.0 16.6 24.8

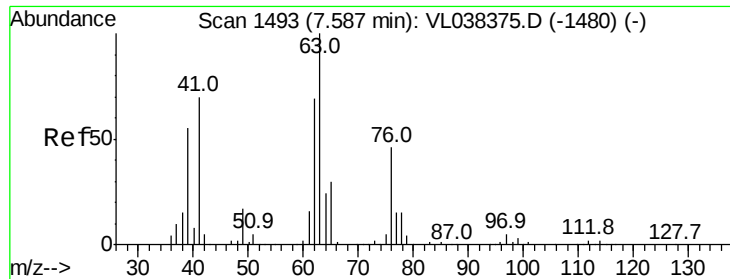


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.68 ppbv

RT: 7.15

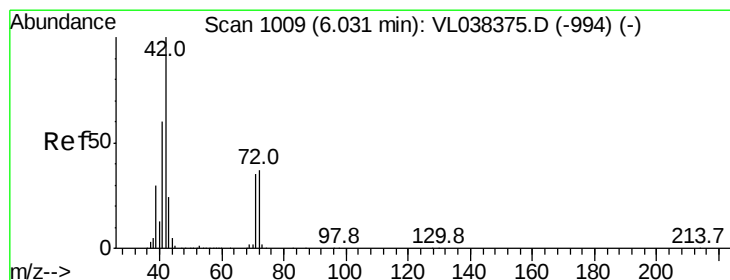
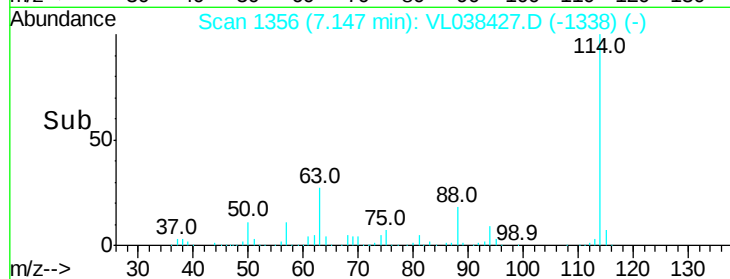
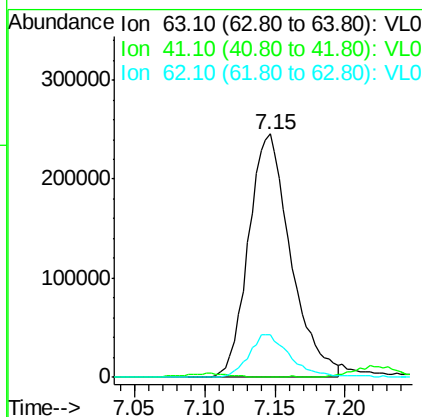
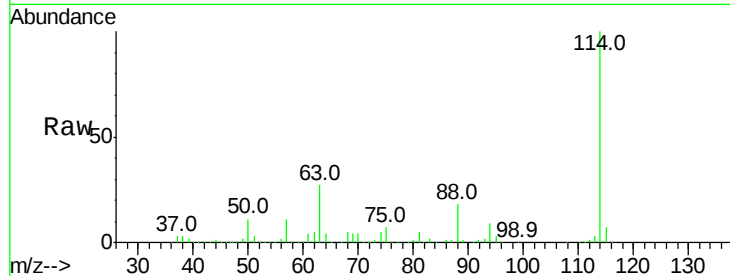
Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 24 Feb 2022 3:58

Tgt Ion: 63 Resp: 513900

Ion	Ratio	Lower	Upper
63	100		
41	0.0	56.1	84.1#
62	17.4	55.5	83.3#



#41

Tetrahydrofuran

Concen: 0.05 ppbv

RT: 6.28 min Scan# 1086

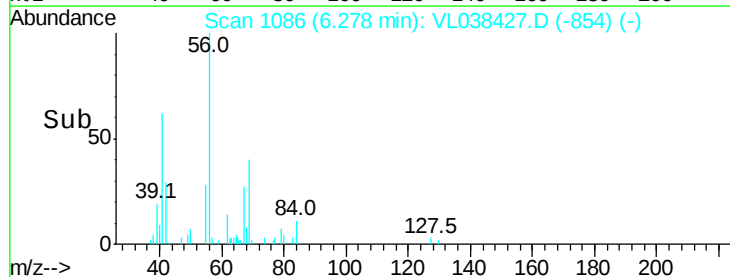
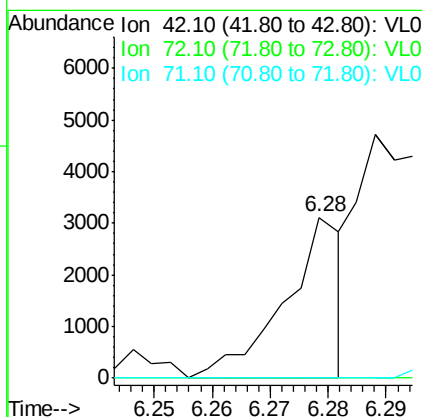
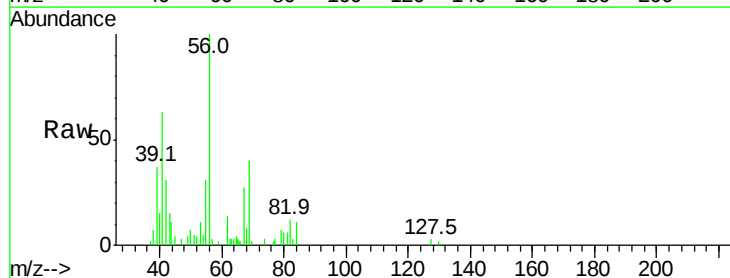
Delta R.T. 0.25 min

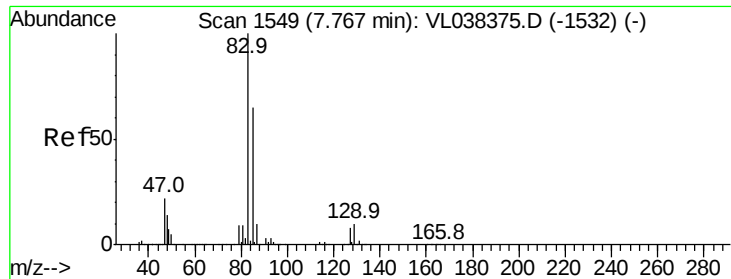
Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

Tgt Ion: 42 Resp: 2157

Ion	Ratio	Lower	Upper
42	100		
72	6.1	29.9	44.9#
71	0.0	28.6	42.8#





#42

Bromodichloromethane

Concen: 0.05 ppbv

RT: 7.75 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 24 Feb 2022 3:58

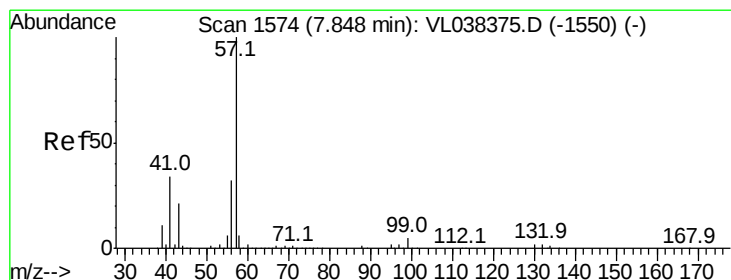
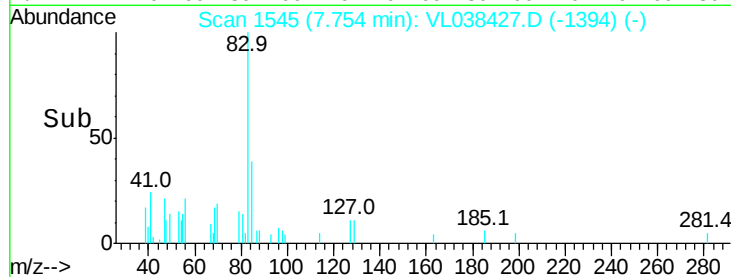
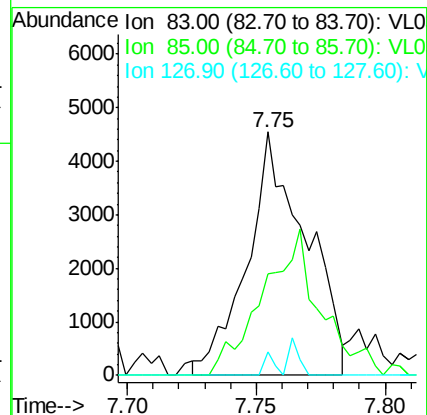
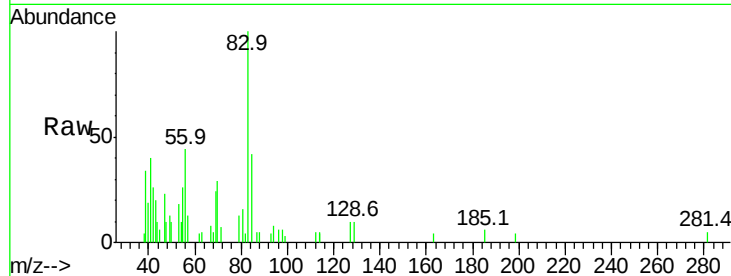
Tgt Ion: 83 Resp: 7226

Ion Ratio Lower Upper

83 100

85 44.4 52.2 78.4#

127 10.3 6.2 9.4#



#44

2,2,4-Trimethylpentane

Concen: 0.24 ppbv

RT: 7.84 min Scan# 1572

Delta R.T. -0.01 min

Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

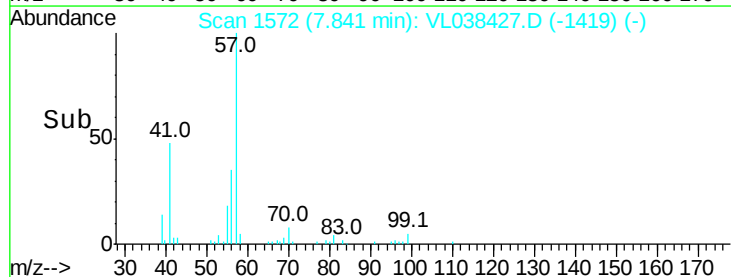
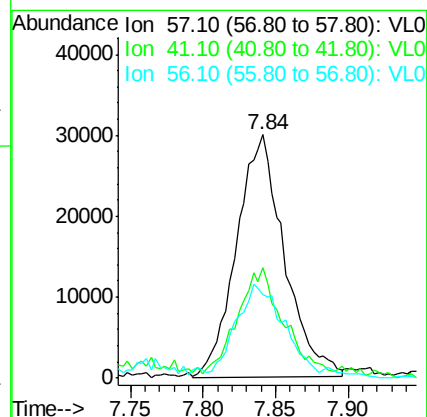
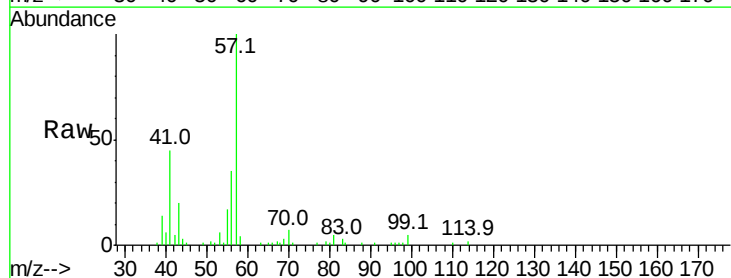
Tgt Ion: 57 Resp: 68462

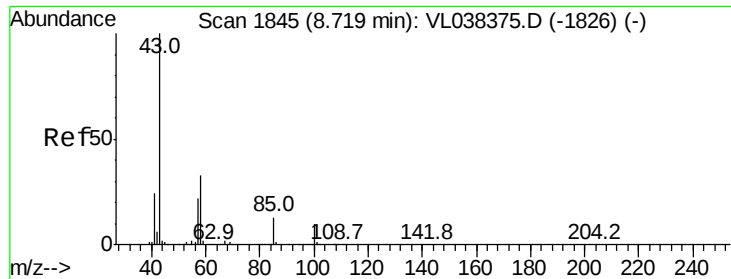
Ion Ratio Lower Upper

57 100

41 46.8 26.6 39.8#

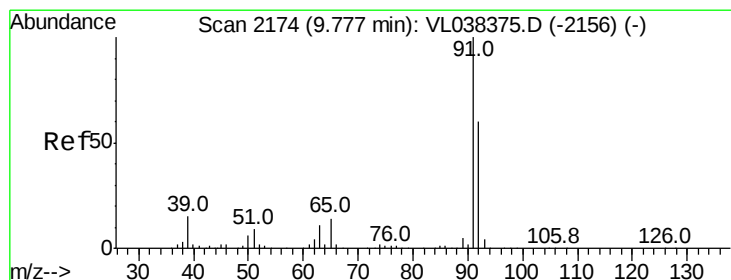
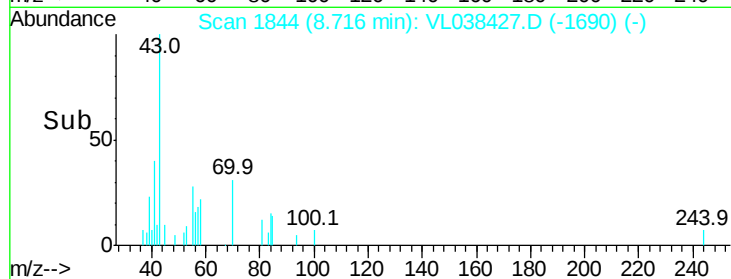
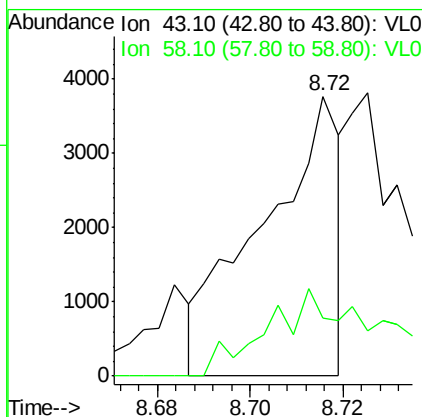
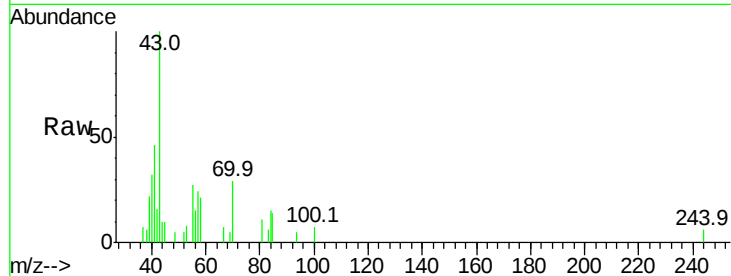
56 43.1 25.0 37.6#





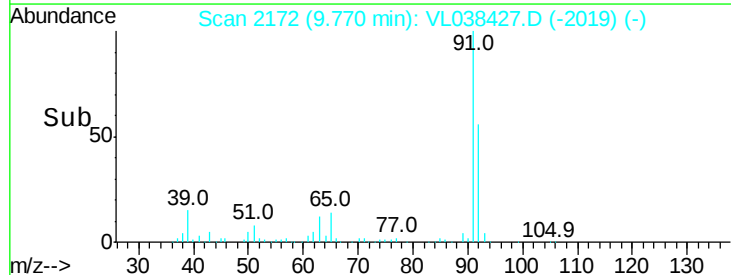
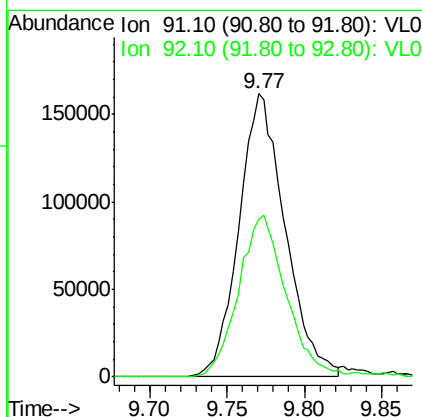
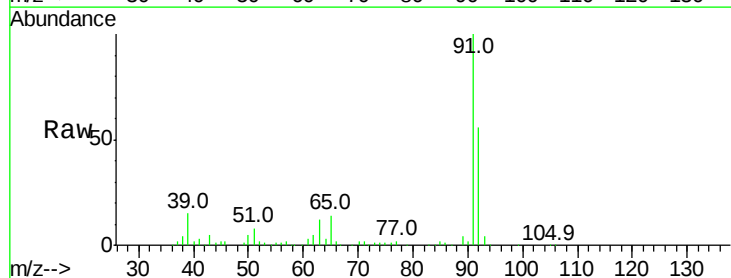
#50
 4-Methyl-2-Pentanone
 Concen: 0.04 ppbv
 RT: 8.72
 Delta R.T.: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 24 Feb 2022 3:58

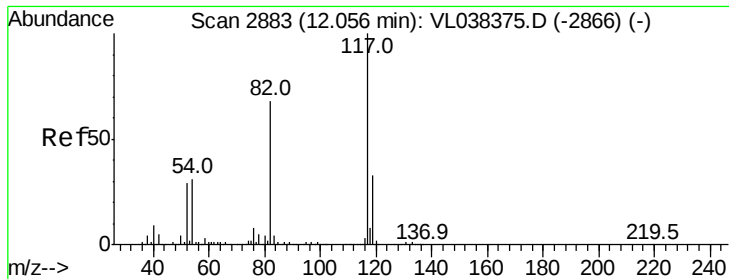
Tgt Ion: 43 Resp: 4400
 Ion Ratio Lower Upper
 43 100
 58 58.0 27.7 41.5#



#53
 Toluene
 Concen: 1.84 ppbv
 RT: 9.77 min Scan# 2172
 Delta R.T.: -0.01 min
 Lab File: VL038427.D
 Acq: 24 Feb 2022 3:58

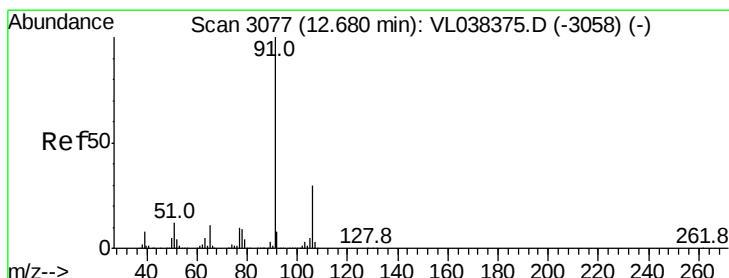
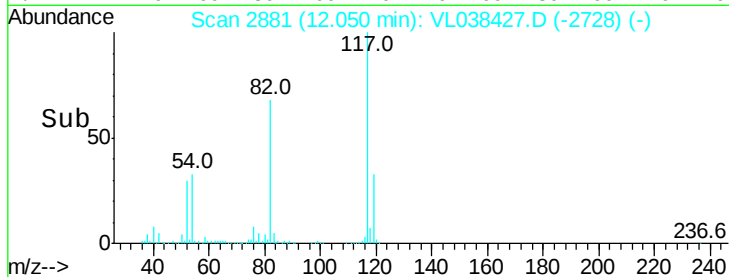
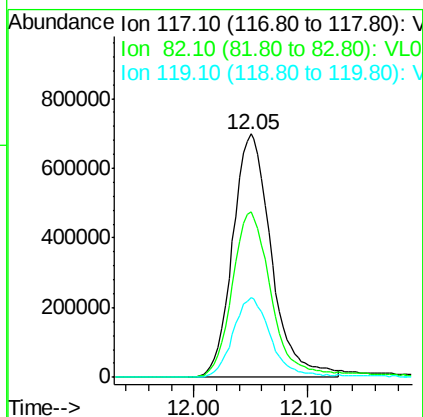
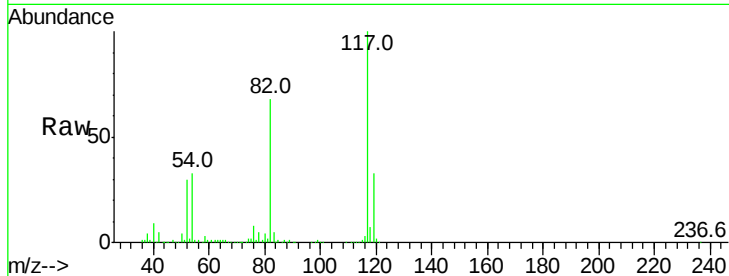
Tgt Ion: 91 Resp: 336093
 Ion Ratio Lower Upper
 91 100
 92 59.9 48.2 72.4





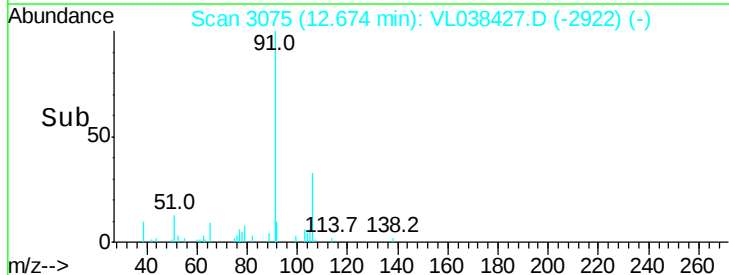
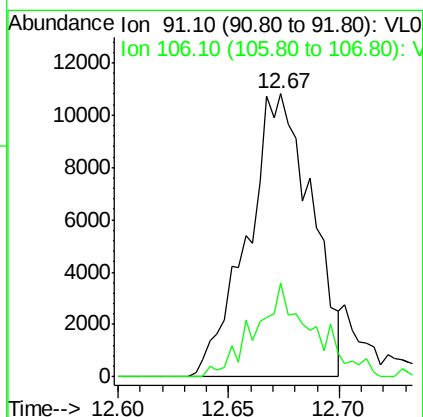
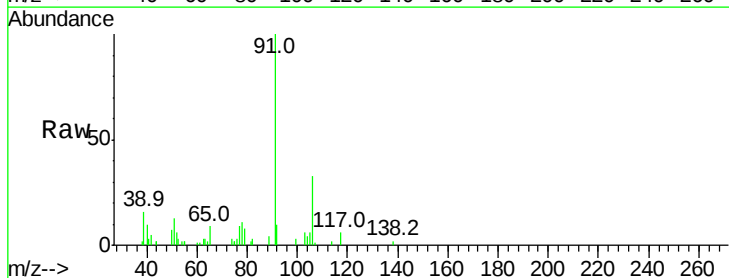
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.05
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 24 Feb 2022 3:58

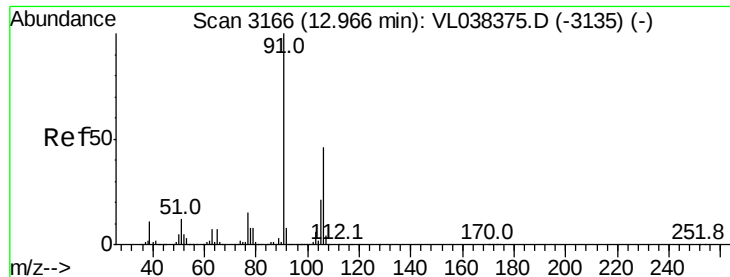
Tgt Ion: 117 Resp: 1664275
Ion Ratio Lower Upper
117 100
82 71.1 54.9 82.3
119 32.2 46.1 69.1#



#58
Ethyl Benzene
Concen: 0.10 ppbv
RT: 12.67 min Scan# 3075
Delta R.T. -0.01 min
Lab File: VL038427.D
Acq: 24 Feb 2022 3:58

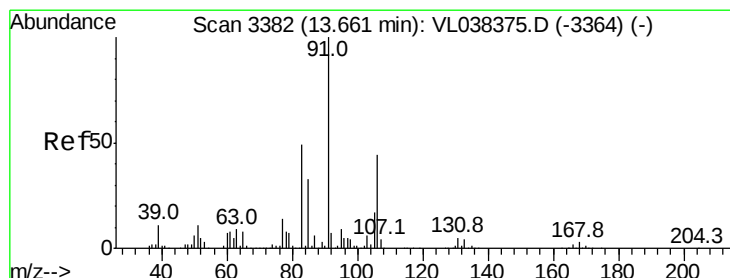
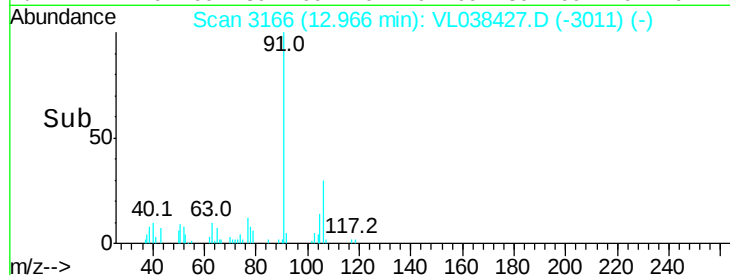
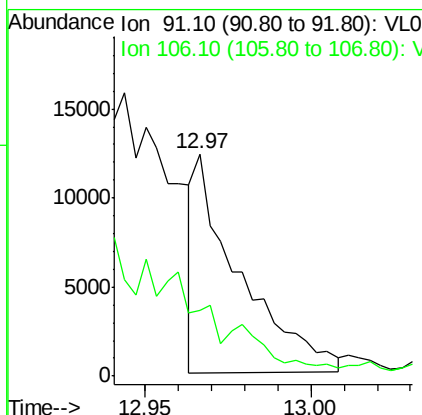
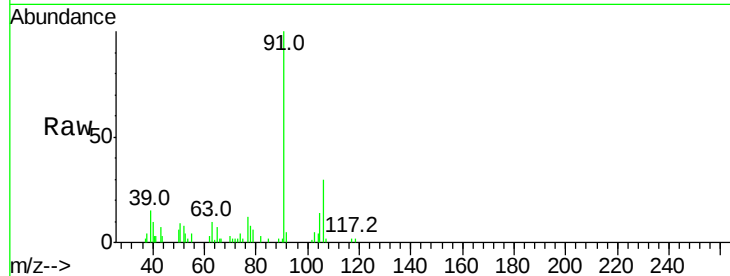
Tgt Ion: 91 Resp: 21794
Ion Ratio Lower Upper
91 100
106 33.1 24.0 36.0





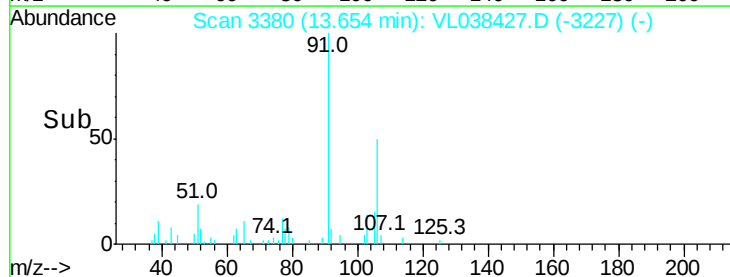
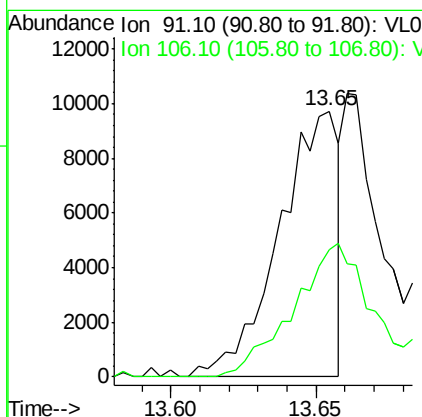
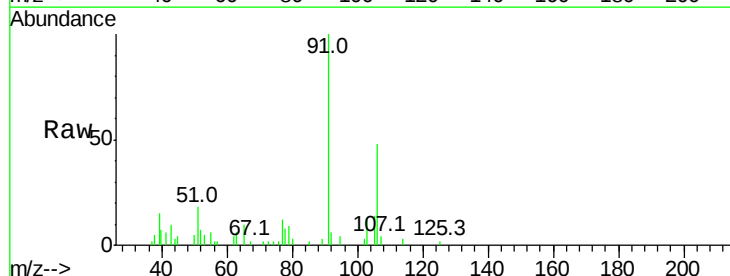
#59
m/p-Xylene
Concen: 0.06 ppbv
RT: 12.97
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 24 Feb 2022 3:58

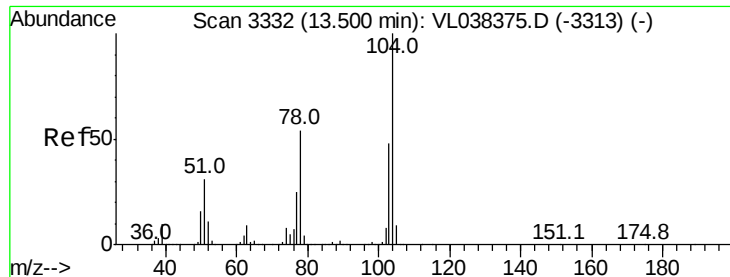
Tgt Ion: 91 Resp: 11485
Ion Ratio Lower Upper
91 100
106 0.0 34.4 51.6#



#60
o-Xylene
Concen: 0.07 ppbv
RT: 13.65 min Scan# 3380
Delta R.T. -0.01 min
Lab File: VL038427.D
Acq: 24 Feb 2022 3:58

Tgt Ion: 91 Resp: 13817
Ion Ratio Lower Upper
91 100
106 0.0 21.9 65.5#





#61

Styrene

Concen: 0.04 ppbv

RT: 13.49

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Feb 2022 3:58

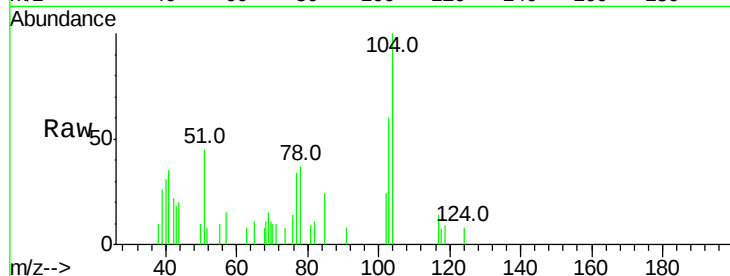
Tgt Ion: 104 Resp: 3210

Ion Ratio Lower Upper

104 100

78 79.8 44.2 66.4#

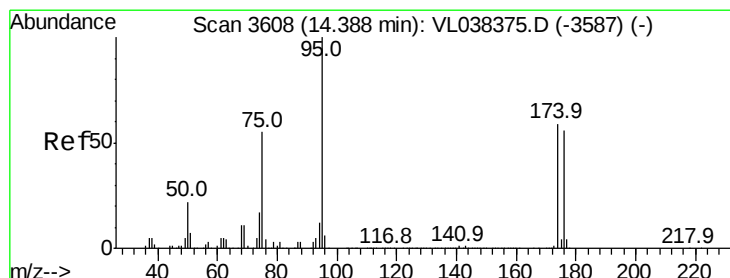
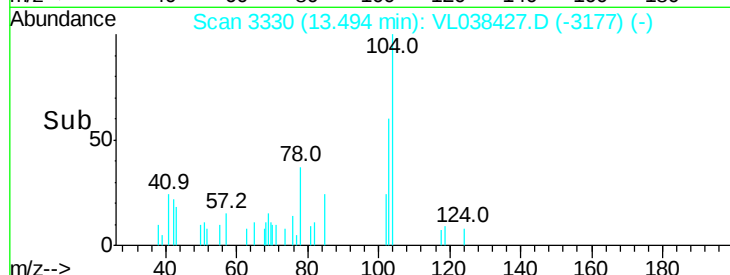
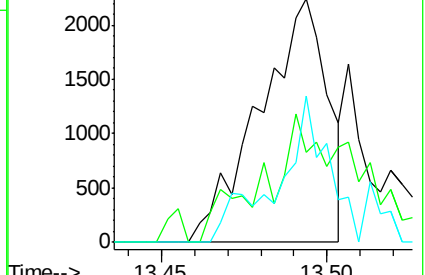
103 51.1 38.4 57.6



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



#68

1-Bromo-4-Fluorobenzene

Concen: 9.30 ppbv

RT: 14.38 min Scan# 3605

Delta R.T. -0.01 min

Lab File: VL038427.D

Acq: 24 Feb 2022 3:58

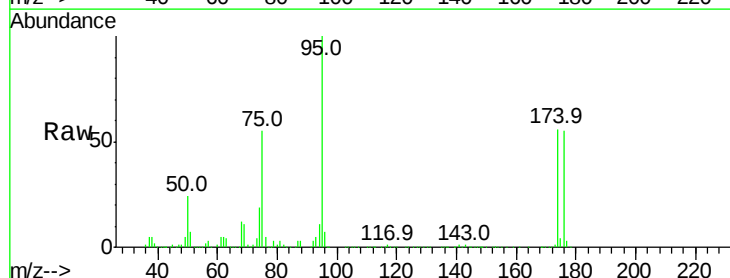
Tgt Ion: 95 Resp: 1280014

Ion Ratio Lower Upper

95 100

174 61.8 49.0 73.4

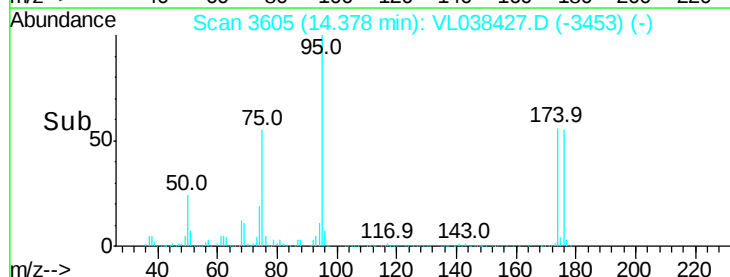
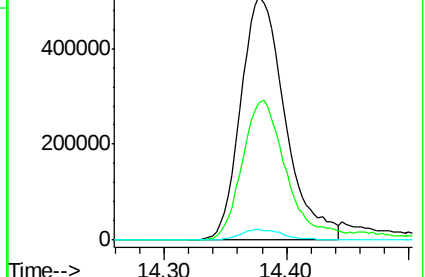
175 4.8 3.6 5.4

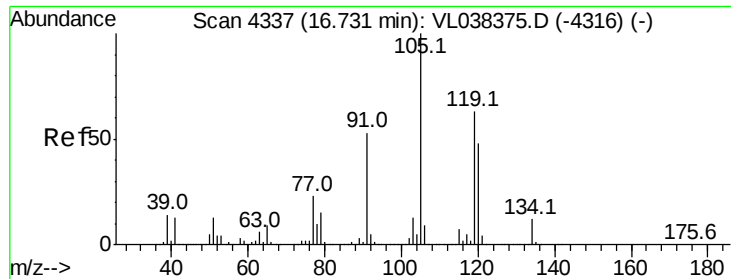


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.05 ppbv
 RT: 16.72
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 DUP-1
 Acq: 24 Feb 2022 3:58

Tgt Ion:	105	Resp:	9011
Ion Ratio	Lower	Upper	
105	100		
120	28.2	38.2	57.4#
91	15.8	42.7	64.1#
77	10.5	18.5	27.7#

