

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081621\  
 Data File : VL037479.D  
 Acq On : 17 Aug 2021 2:32  
 Operator : SY/AP  
 Sample : M2940-13 0.03 LOD  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Aug 17 03:39:51 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081621AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Aug 17 02:13:47 2021  
 QLast Update : Tue Aug 17 02:13:47 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 1335130  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.16  | 114  | 4037744  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.07 | 117  | 3523361  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.40  | 95    | 2522744  | 10.08    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.80% |

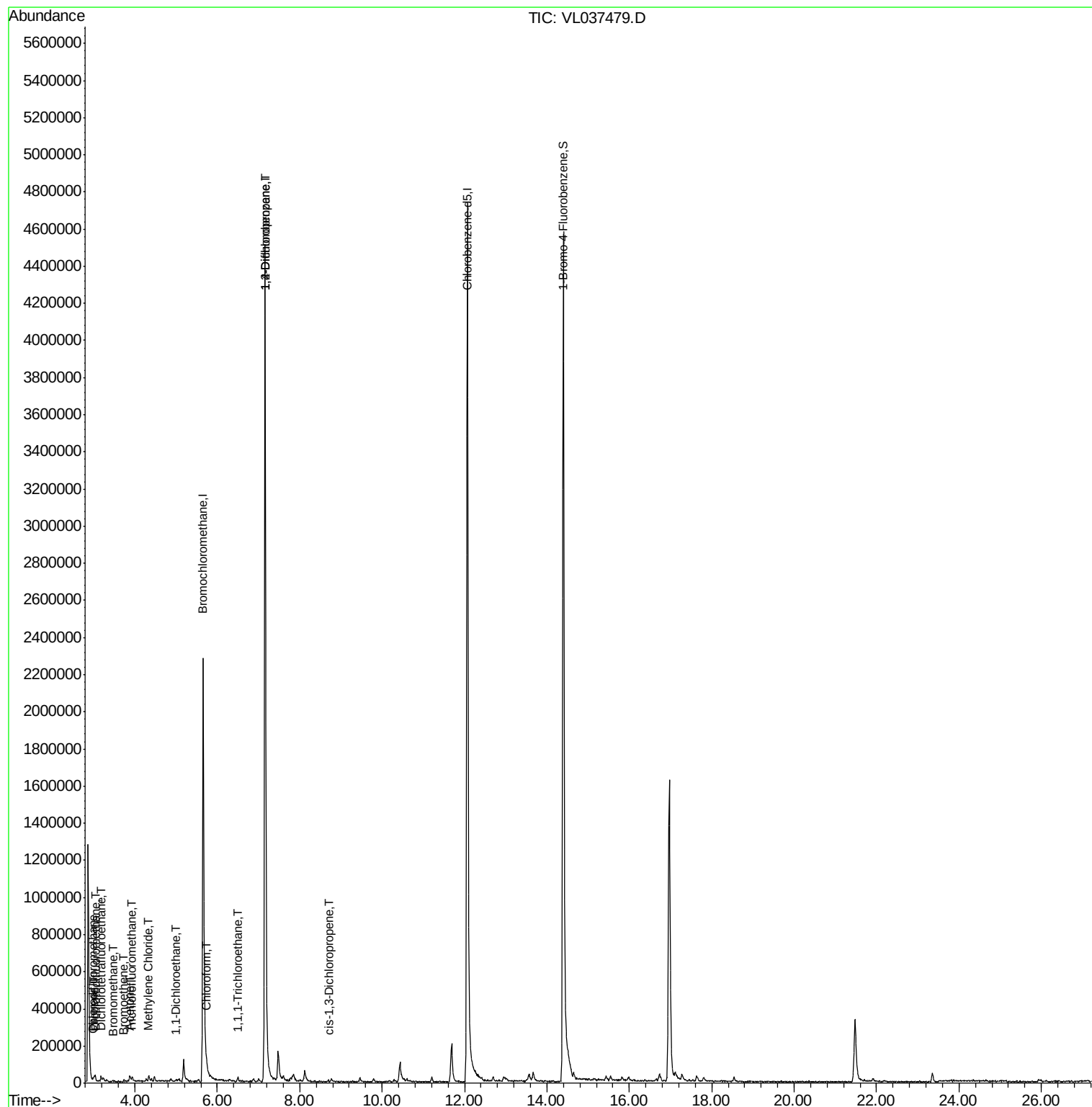
| Target Compounds             |      |     |        |       | Ovalue    |
|------------------------------|------|-----|--------|-------|-----------|
| 2) Dichlorodifluoromethane   | 3.04 | 85  | 13886  | 0.065 | ppbv 100  |
| 3) Chlorodifluoromethane     | 2.98 | 51  | 15341  | 0.060 | ppbv # 89 |
| 6) Bromomethane              | 3.46 | 94  | 1591   | 0.031 | ppbv 87   |
| 8) Dichlorotetrafluoroethane | 3.18 | 85  | 9614   | 0.043 | ppbv # 73 |
| 9) Propene                   | 3.00 | 41  | 4733   | 0.052 | ppbv # 1  |
| 11) Trichlorofluoromethane   | 3.94 | 101 | 6805   | 0.034 | ppbv # 78 |
| 14) Bromoethene              | 3.73 | 108 | 2325   | 0.035 | ppbv # 30 |
| 15) Acetone                  | 3.87 | 43  | 24585  | 0.181 | ppbv # 44 |
| 20) Methylene Chloride       | 4.33 | 84  | 5333   | 0.078 | ppbv # 60 |
| 24) 1,1-Dichloroethane       | 4.99 | 63  | 5172   | 0.036 | ppbv # 89 |
| 29) Chloroform               | 5.74 | 83  | 11750  | 0.049 | ppbv # 64 |
| 32) 1,1,1-Trichloroethane    | 6.49 | 97  | 7508   | 0.032 | ppbv # 55 |
| 39) 1,2-Dichloropropane      | 7.16 | 63  | 954956 | 7.322 | ppbv # 27 |
| 46) cis-1,3-Dichloropropene  | 8.69 | 75  | 3857   | 0.031 | ppbv # 73 |

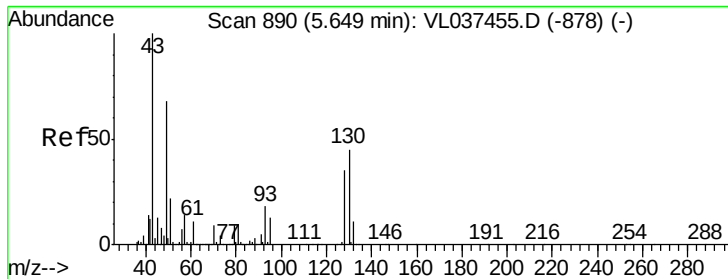
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Aug 17 02:13:47 2021  
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. 0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :  
MSVOA\_L  
ClientSampleId :

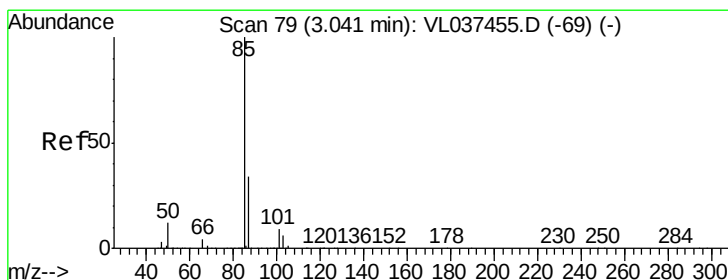
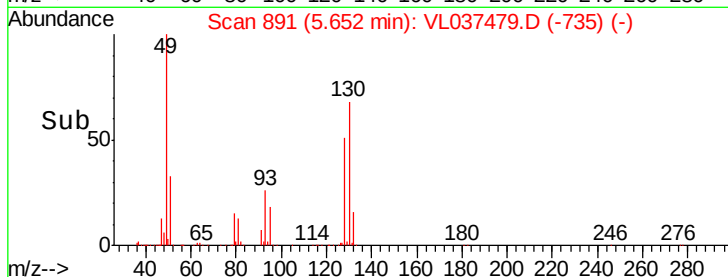
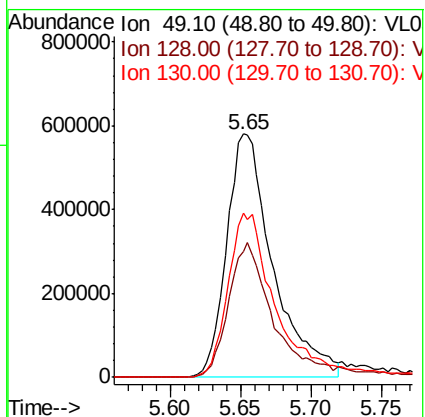
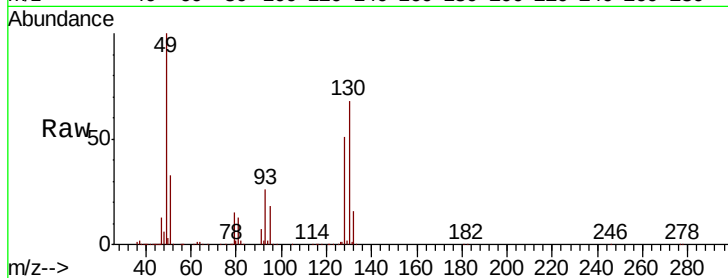
Tot Ion: 49 Resp: 1335130

Ion Ratio Lower Upper

49 100

128 57.1 27.5 82.4

130 71.8 34.0 101.8



#2

Dichlorodifluoromethane

Concen: 0.065 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.00 min

Lab File: VL037479.D

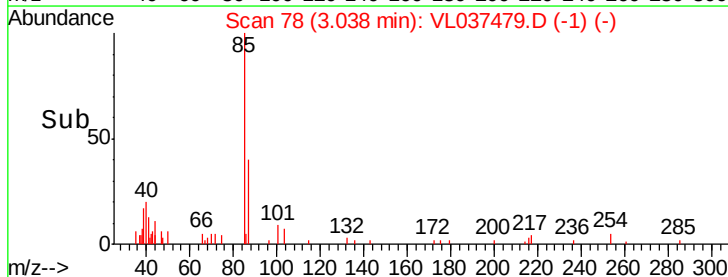
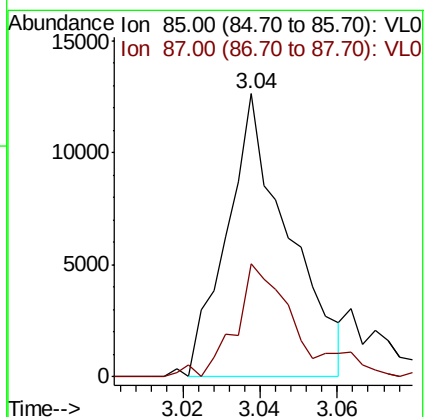
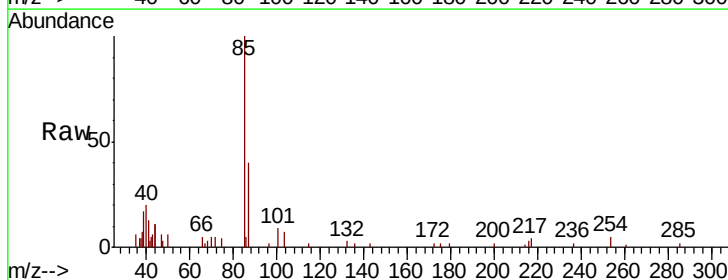
Acq: 17 Aug 2021 2:32

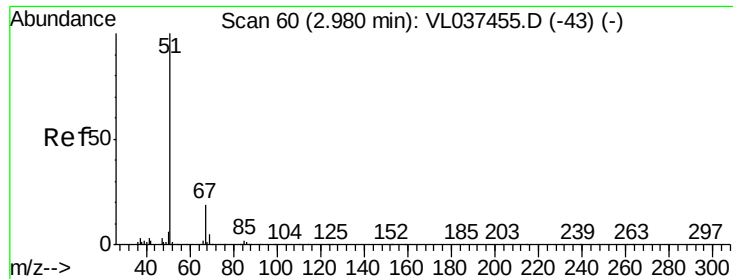
Tgt Ion: 85 Resp: 13886

Ion Ratio Lower Upper

85 100

87 34.4 27.6 41.4

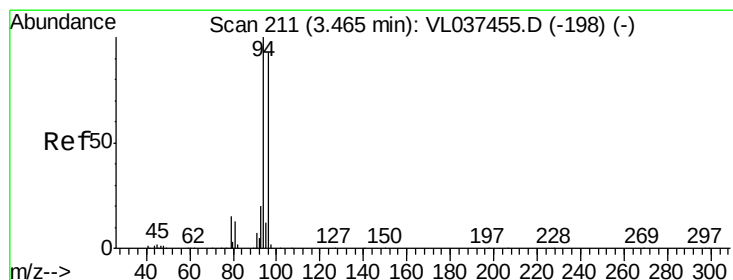
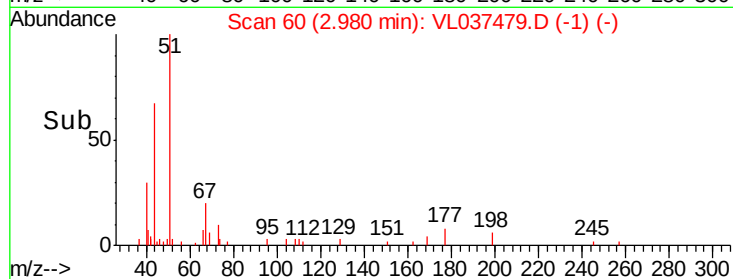
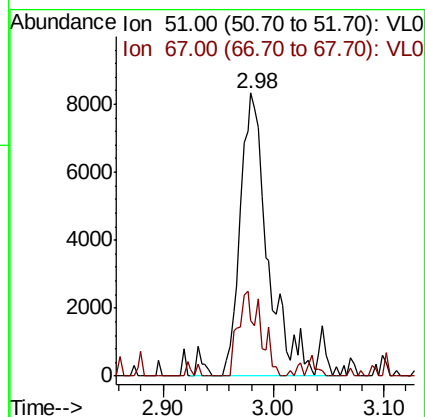
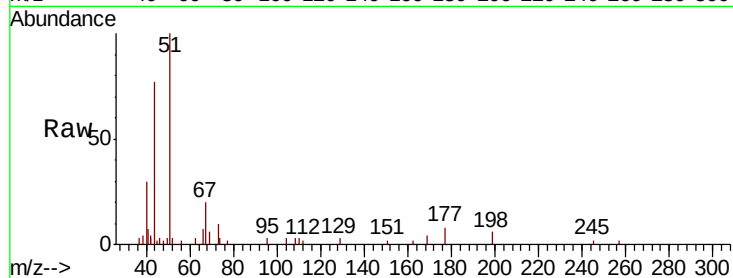




#3  
Chlorodifluoromethane  
Concen: 0.060 ppbv  
RT: 2.98 min Scan# 60  
Delta R.T. -0.00 min  
Lab File: VL037479.D  
Acq: 17 Aug 2021 2:32

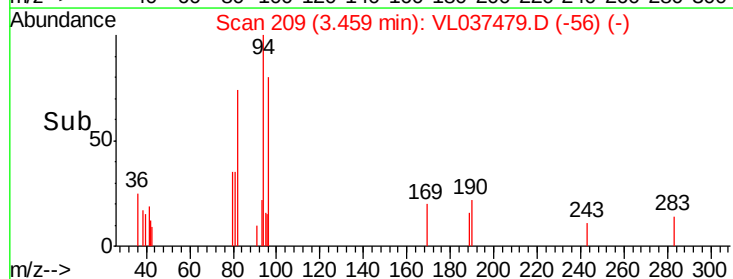
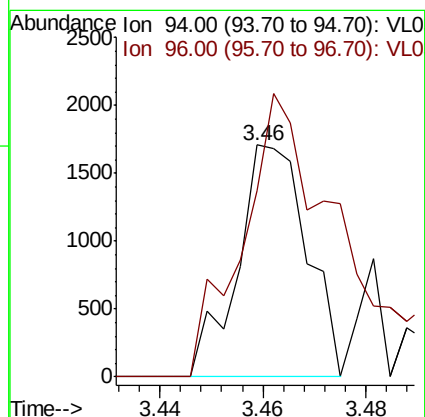
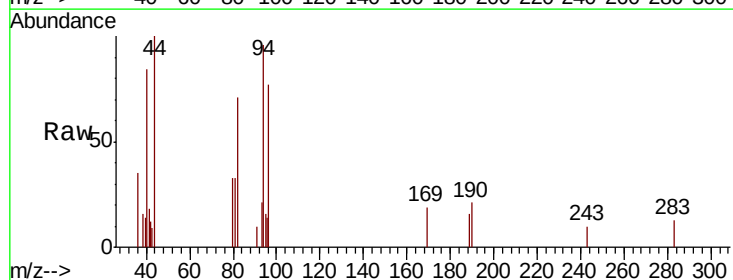
Instrument :  
MSVOA\_L  
ClientSampleId :

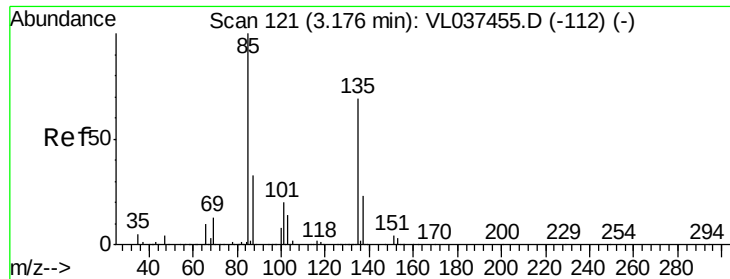
Tot Ion: 51 Resp: 15341  
Ion Ratio Lower Upper  
51 100  
67 22.7 14.2 21.2#



#6  
Bromomethane  
Concen: 0.031 ppbv  
RT: 3.46 min Scan# 209  
Delta R.T. -0.01 min  
Lab File: VL037479.D  
Acq: 17 Aug 2021 2:32

Tgt Ion: 94 Resp: 1591  
Ion Ratio Lower Upper  
94 100  
96 80.5 74.5 111.7





#8

Dichlorotetrafluoroethane

Concen: 0.043 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

MSVOA\_L

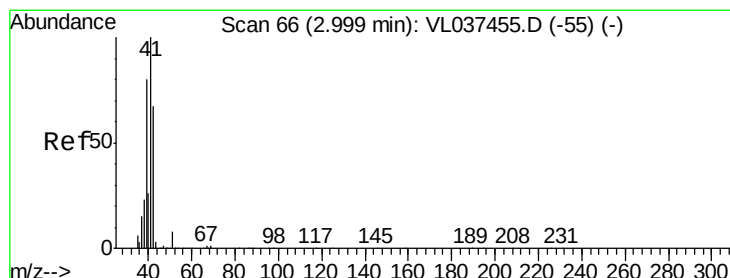
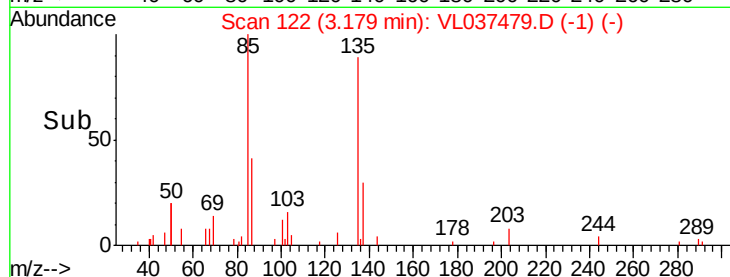
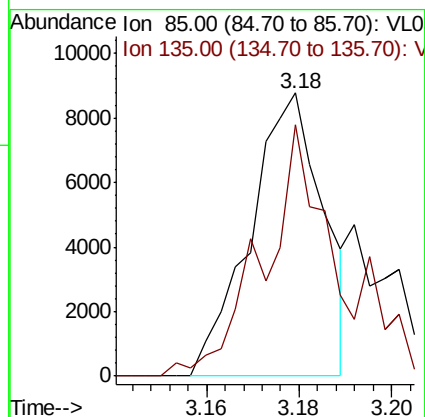
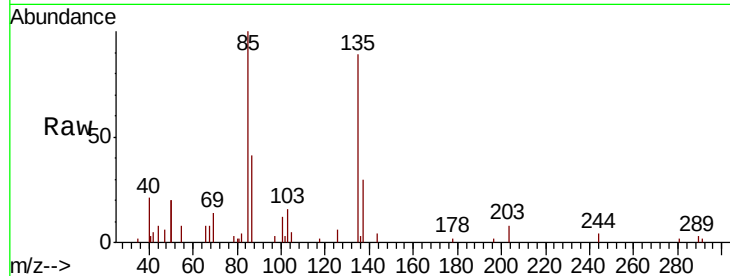
ClientSampleId :

Tot Ion: 85 Resp: 9614

Ion Ratio Lower Upper

85 100

135 96.6 58.8 88.2#



#9

Propene

Concen: 0.052 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.00 min

Lab File: VL037479.D

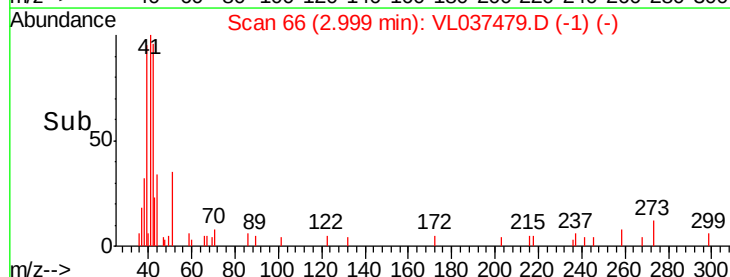
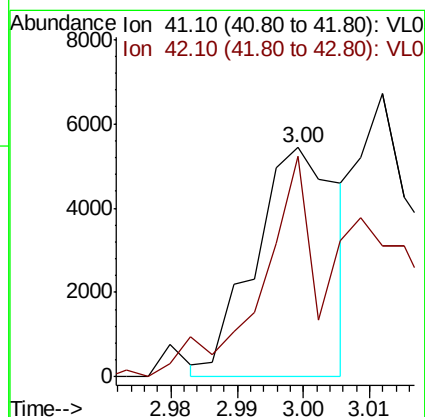
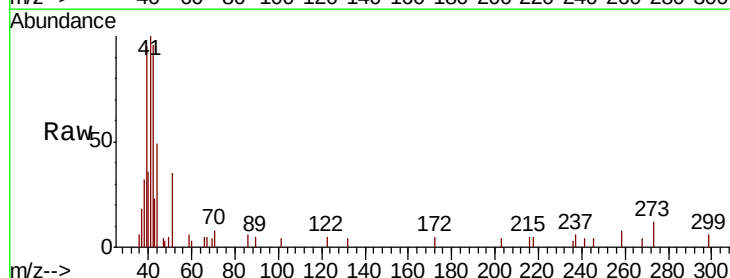
Acq: 17 Aug 2021 2:32

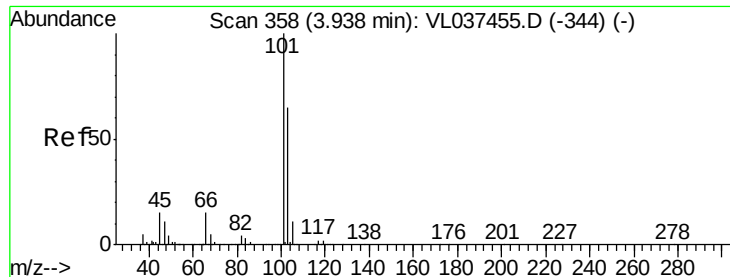
Tgt Ion: 41 Resp: 4733

Ion Ratio Lower Upper

41 100

42 200.5 53.7 80.5#





#11

Trichlorofluoromethane

Concen: 0.034 ppbv

RT: 3.94 min Scan# 359

Delta R.T. 0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

MSVOA\_L

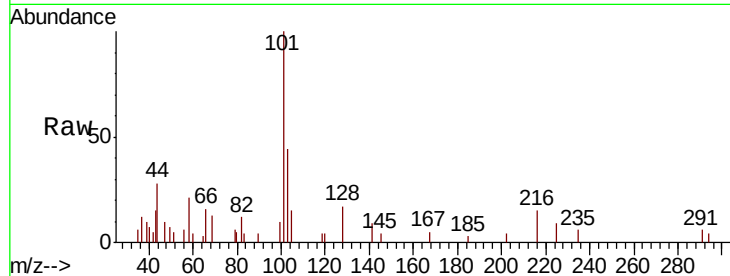
ClientSampleId :

Tot Ion:101 Resp: 6805

Ion Ratio Lower Upper

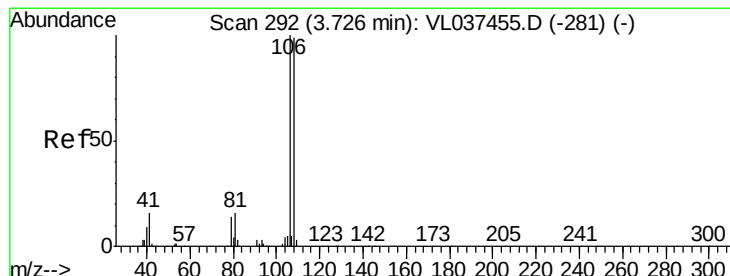
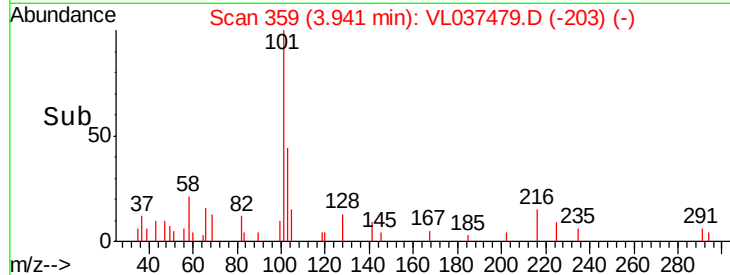
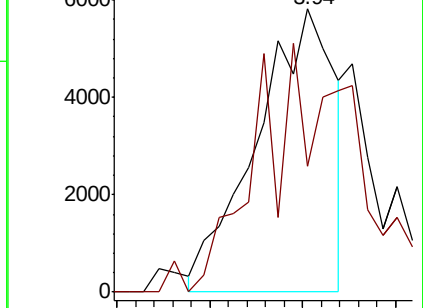
101 100

103 47.1 51.8 77.6#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#14

Bromoethene

Concen: 0.035 ppbv

RT: 3.73 min Scan# 293

Delta R.T. 0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

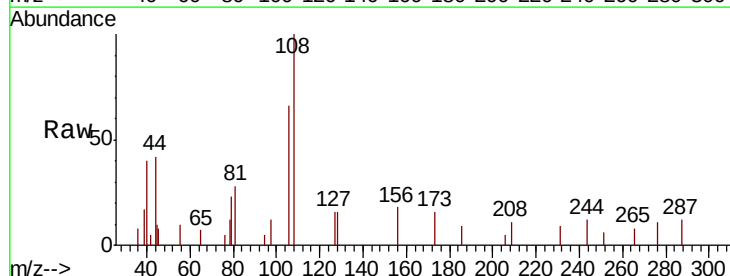
Tgt Ion:108 Resp: 2325

Ion Ratio Lower Upper

108 100

106 174.4 85.8 128.8#

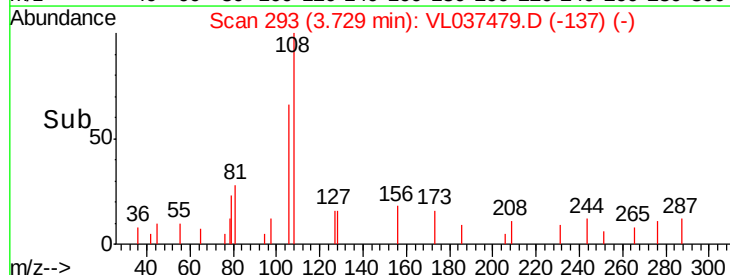
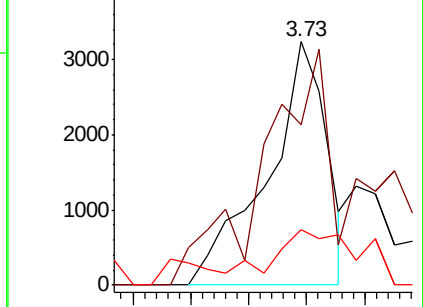
79 60.2 12.6 18.8#

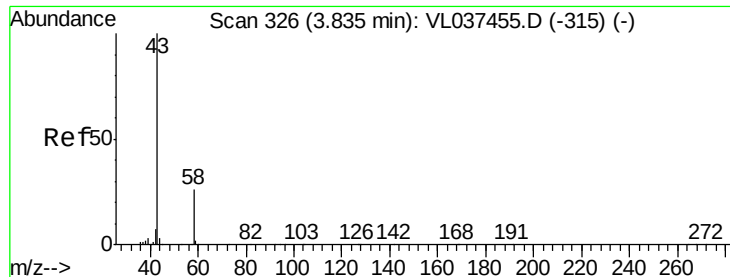


Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VLO





#15

Acetone

Concen: 0.181 ppbv

RT: 3.87 min Scan# 338

Delta R.T. 0.04 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

MSVOA\_L

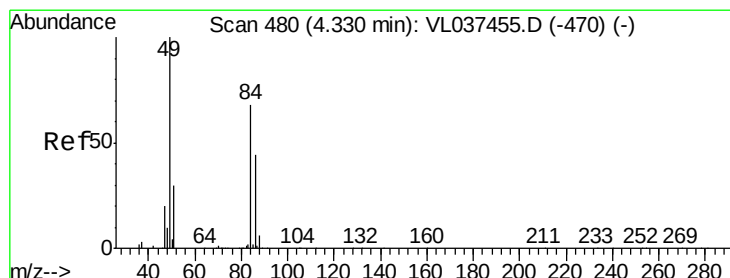
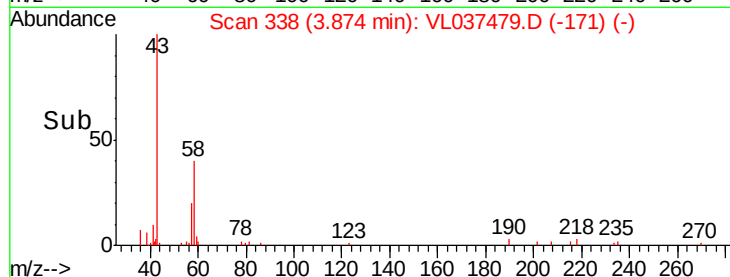
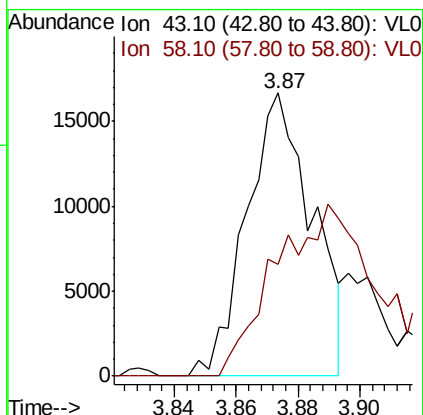
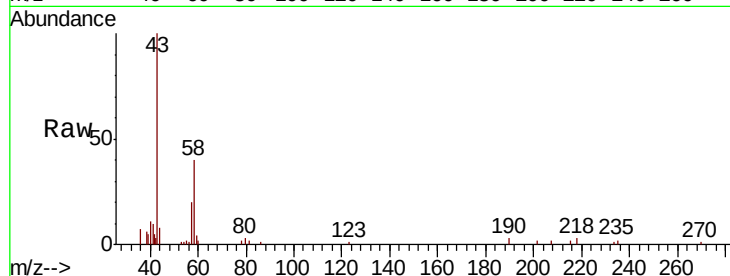
ClientSampleId :

Tot Ion: 43 Resp: 24585

Ion Ratio Lower Upper

43 100

58 0.0 24.8 37.2#



#20

Methylene Chloride

Concen: 0.078 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Tgt Ion: 84 Resp: 5333

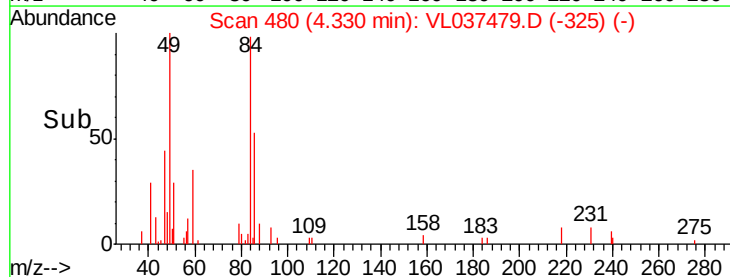
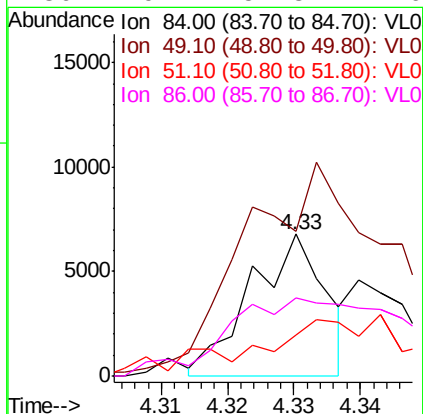
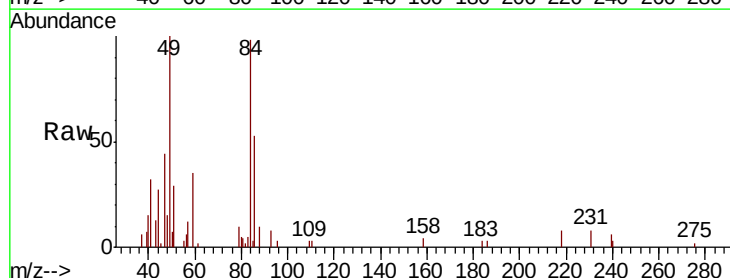
Ion Ratio Lower Upper

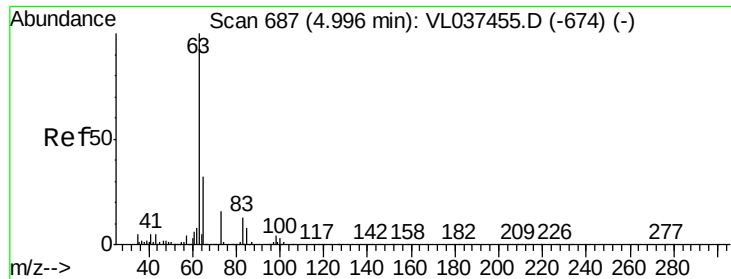
84 100

49 91.2 118.2 177.2#

51 11.2 36.6 55.0#

86 49.7 51.8 77.6#





#24

1,1-Dichloroethane

Concen: 0.036 ppbv

RT: 4.99 min Scan# 686

Delta R.T. -0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

MSVOA\_L

ClientSampleId :

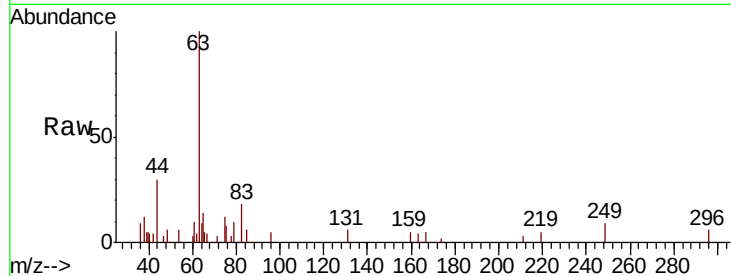
Tot Ion: 63 Resp: 5172

Ion Ratio Lower Upper

63 100

98 0.0 2.1 6.3#

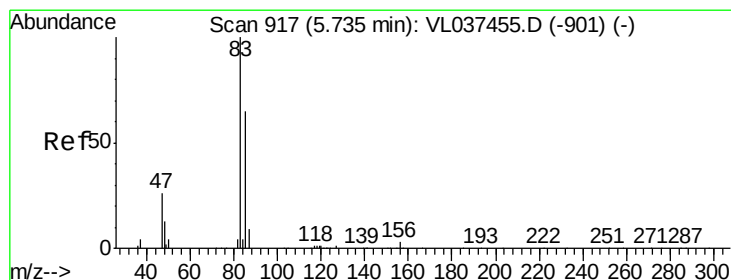
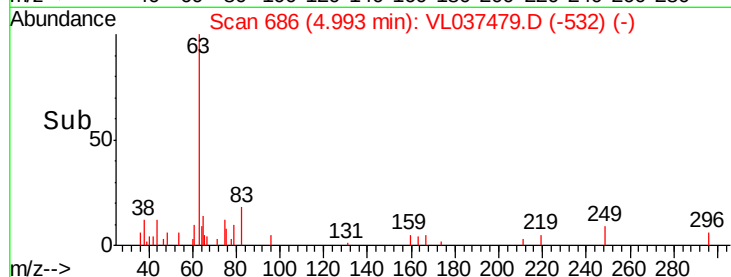
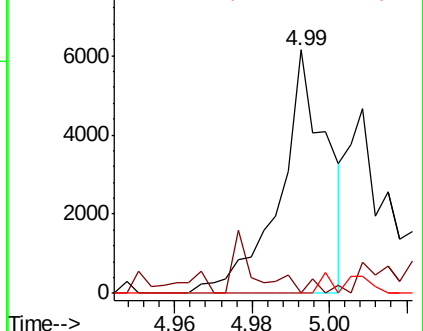
100 0.0 1.6 4.7#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#29

Chloroform

Concen: 0.049 ppbv

RT: 5.74 min Scan# 917

Delta R.T. -0.00 min

Lab File: VL037479.D

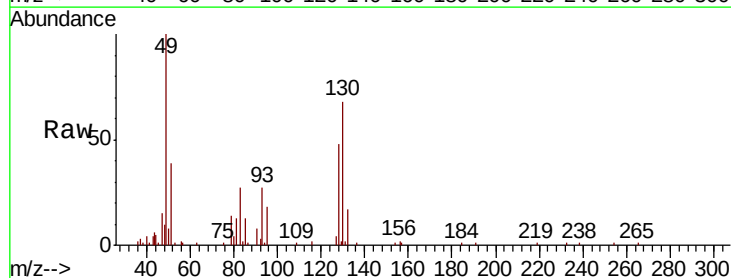
Acq: 17 Aug 2021 2:32

Tgt Ion: 83 Resp: 11750

Ion Ratio Lower Upper

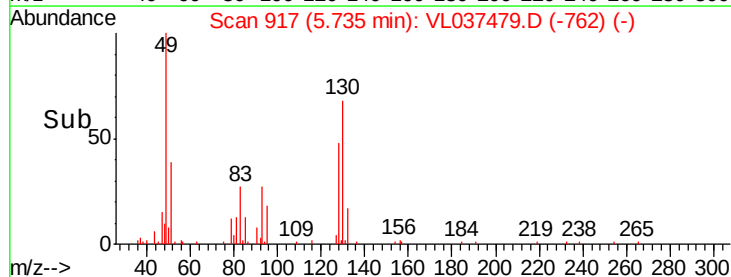
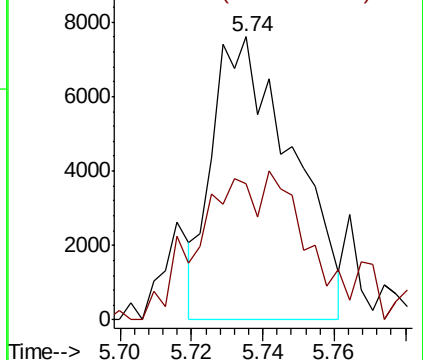
83 100

85 36.8 52.3 78.5#

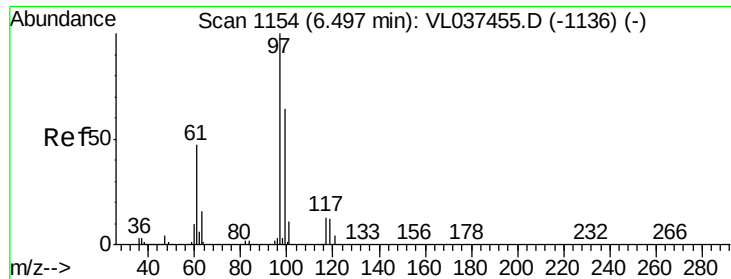


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0







#32

1,1,1-Trichloroethane

Concen: 0.032 ppbv

RT: 6.49 min Scan# 1153

Delta R.T. -0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

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ClientSampleId :

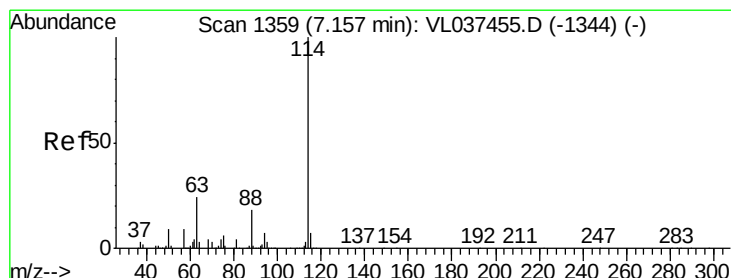
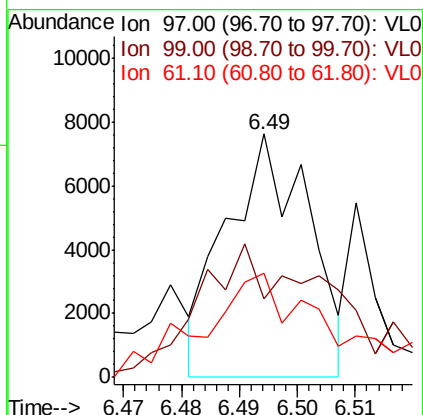
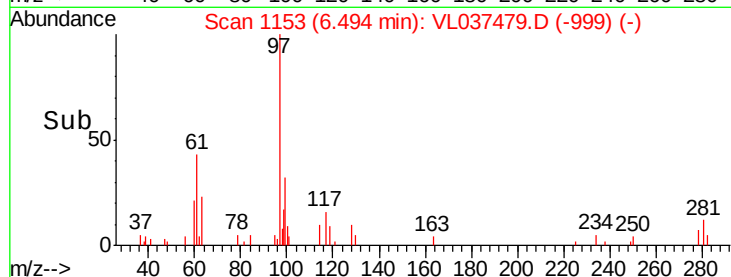
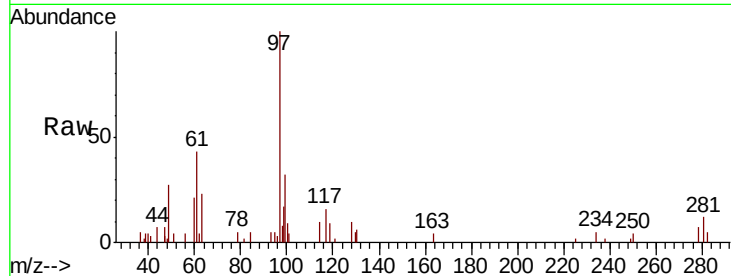
Tot Ion: 97 Resp: 7508

Ion Ratio Lower Upper

97 100

99 100.1 51.8 77.6#

61 81.0 39.6 59.4#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. 0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

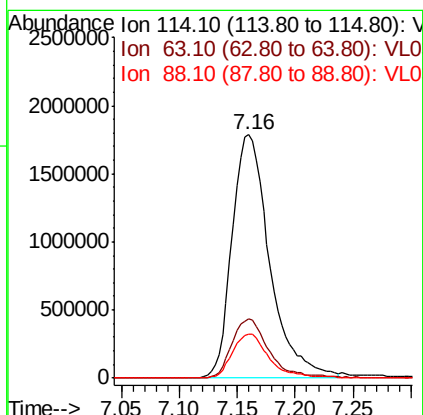
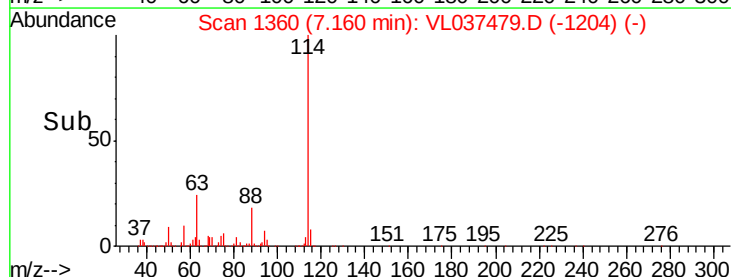
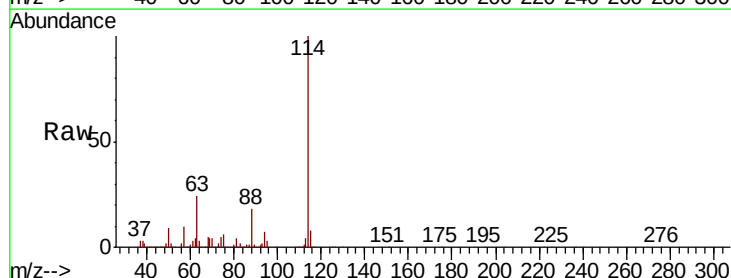
Tgt Ion: 114 Resp: 4037744

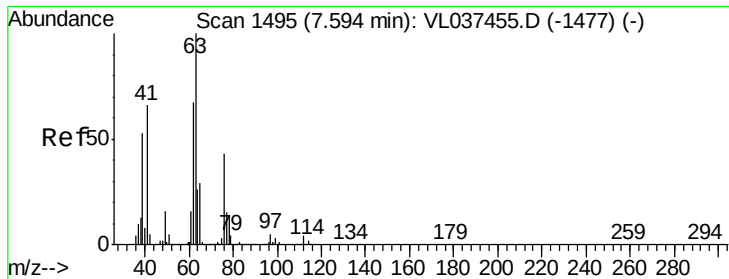
Ion Ratio Lower Upper

114 100

63 24.4 19.3 28.9

88 18.0 14.2 21.4





#39

1,2-Dichloropropane

Concen: 7.322 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.43 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

MSVOA\_L

ClientSampleId :

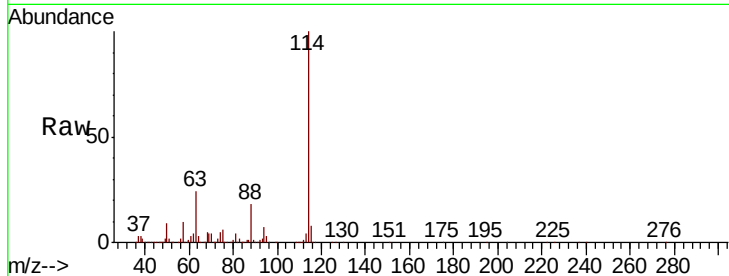
Tot Ion: 63 Resp: 954956

Ion Ratio Lower Upper

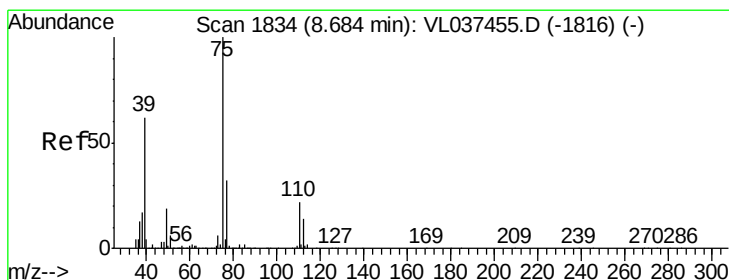
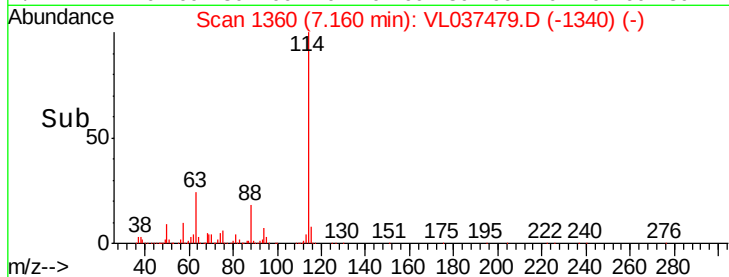
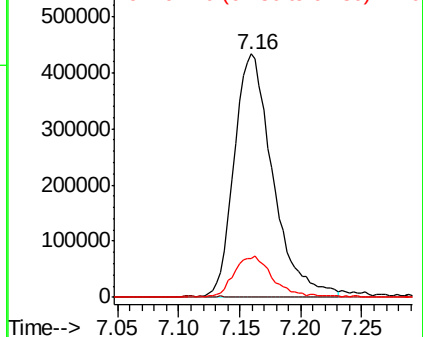
63 100

41 0.1 52.4 78.6#

62 16.0 53.6 80.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 62.10 (61.80 to 62.80): VL0



#46

cis-1,3-Dichloropropene

Concen: 0.031 ppbv

RT: 8.69 min Scan# 1836

Delta R.T. 0.01 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

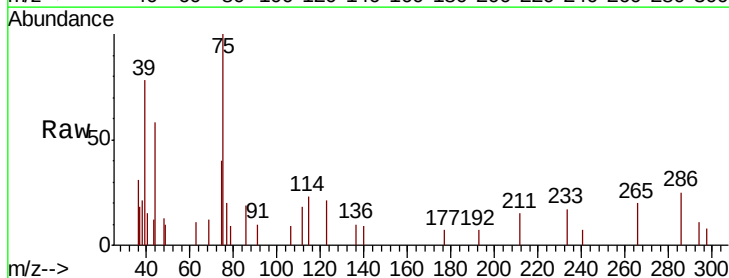
Tgt Ion: 75 Resp: 3857

Ion Ratio Lower Upper

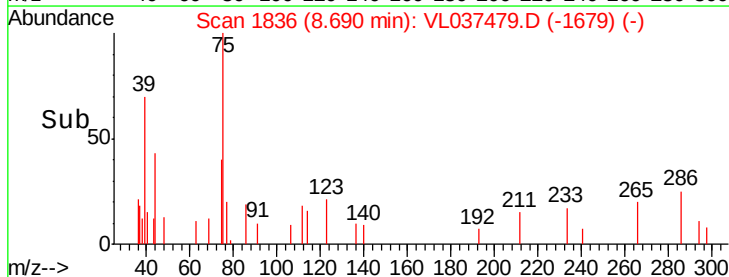
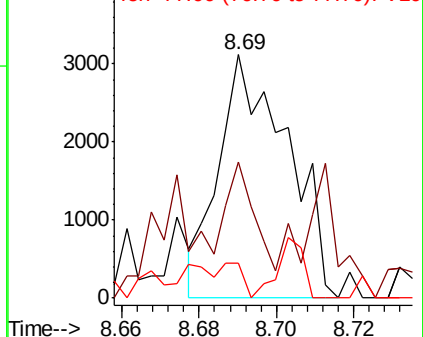
75 100

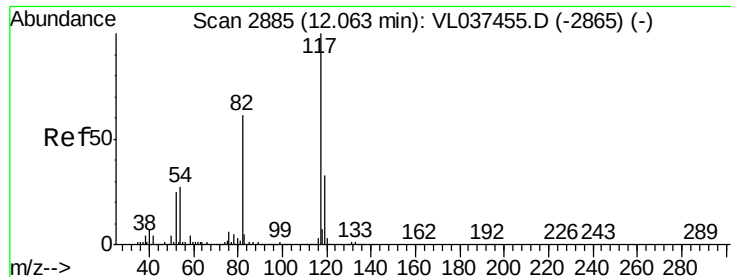
39 43.0 49.7 74.5#

77 14.4 25.4 38.0#



Abundance Ion 75.00 (74.70 to 75.70): VL0  
Ion 39.00 (38.70 to 39.70): VL0  
Ion 77.00 (76.70 to 77.70): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. 0.01 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

Instrument :

MSVOA\_L

ClientSampleId :

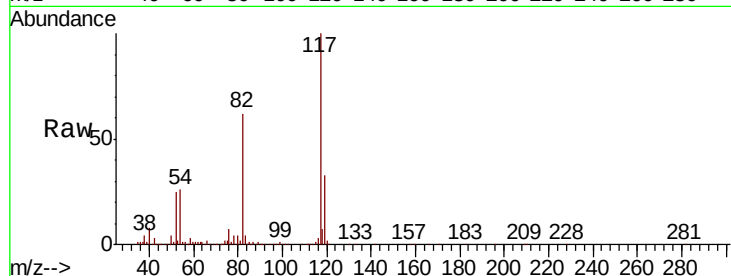
Tot Ion:117 Resp: 3523361

Ion Ratio Lower Upper

117 100

82 64.5 52.9 79.3

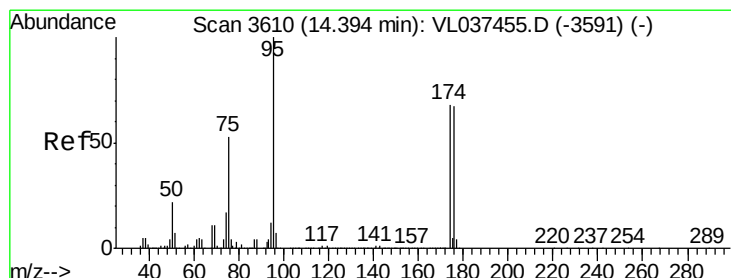
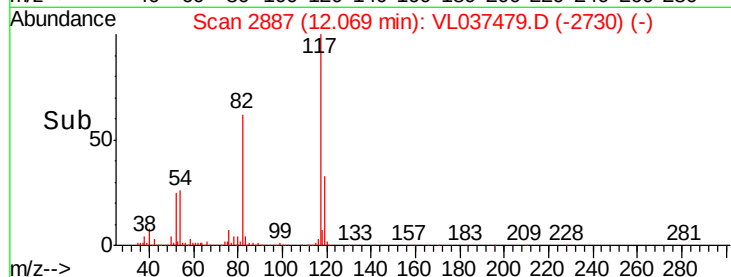
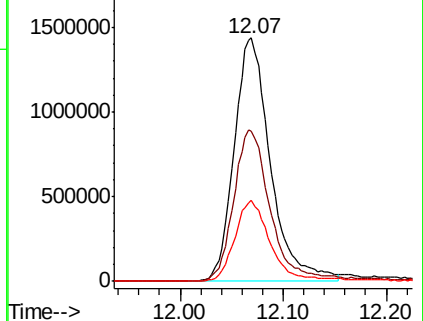
119 33.4 24.8 37.2



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.078 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. 0.00 min

Lab File: VL037479.D

Acq: 17 Aug 2021 2:32

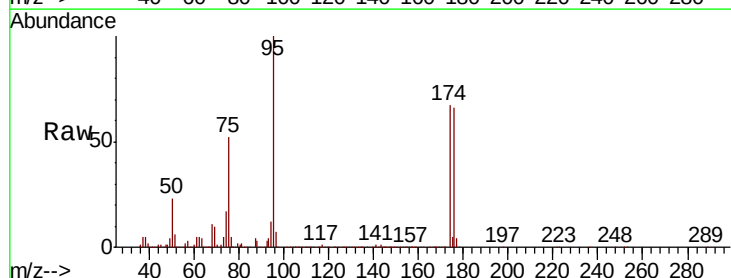
Tgt Ion: 95 Resp: 2522744

Ion Ratio Lower Upper

95 100

174 71.3 59.6 89.4

175 5.1 4.6 7.0



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

