

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032222\  
 Data File : VL038711.D  
 Acq On : 23 Mar 2022 9:51  
 Operator : SY/AP  
 Sample : N1961-14DL2 20X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 C0P77DL2

Quant Time: Mar 24 02:53:15 2022  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Mar 21 17:09:26 2022  
 QLast Update : Mon Mar 21 17:09:26 2022  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.65  | 49   | 671545   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.15  | 114  | 1783972  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 12.06 | 117  | 1542921  | 10.00 | ppbv  | -0.02    |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.39  | 95    | 1142806  | 9.66     | ppbv | -0.02  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.60% |

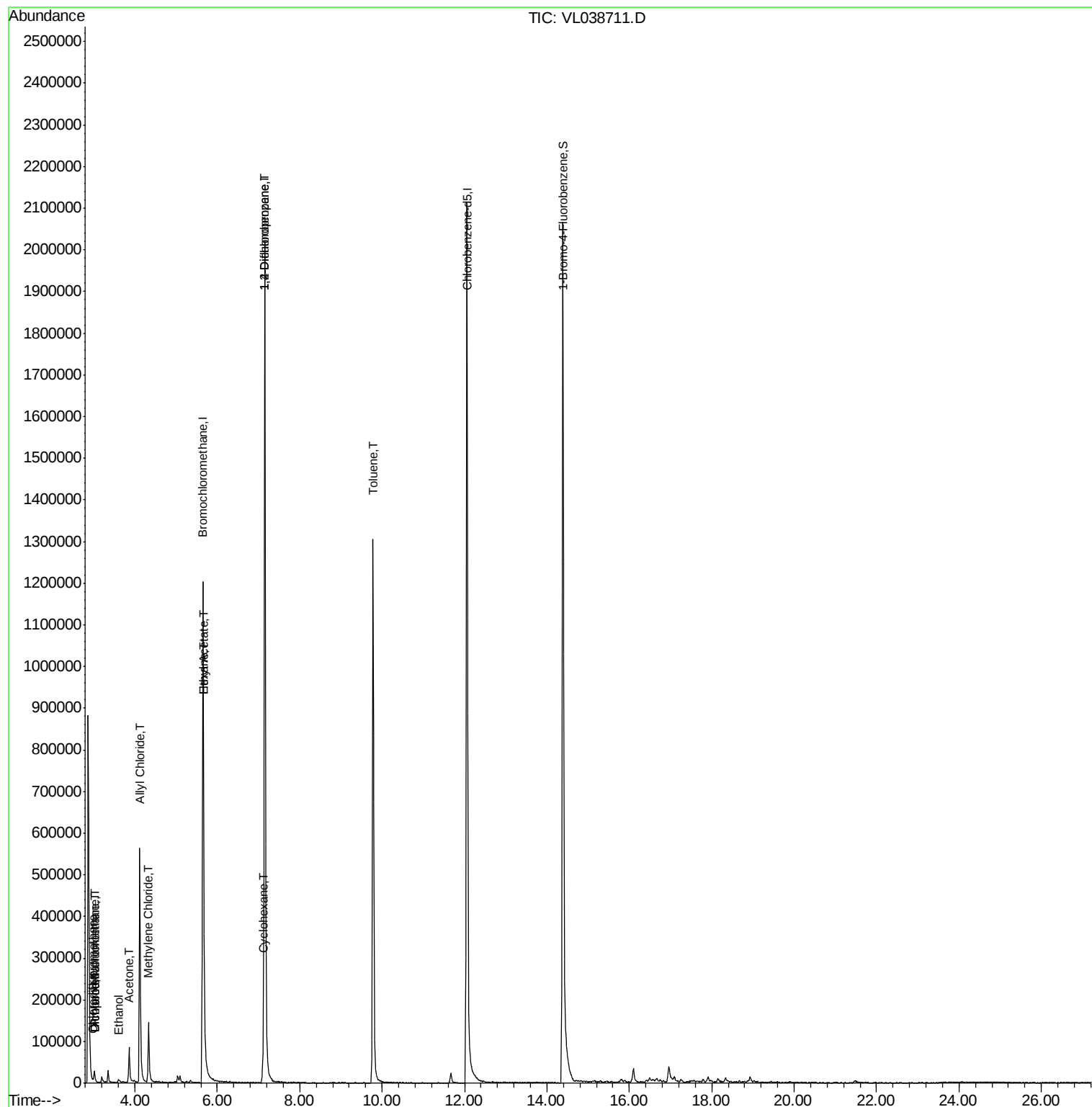
| Target Compounds             |      |    |         |              | Ovalue |
|------------------------------|------|----|---------|--------------|--------|
| 2) Dichlorodifluoromethane   | 3.04 | 85 | 3744    | 0.041 ppbv   | 93     |
| 3) Chlorodifluoromethane     | 2.98 | 51 | 10319   | 0.145 ppbv   | 95     |
| 8) Dichlorotetrafluoroethane | 3.04 | 85 | 3744    | 0.042 ppbv # | 13     |
| 9) Propene                   | 3.01 | 41 | 7888    | 0.230 ppbv   | 84     |
| 13) Ethanol                  | 3.60 | 45 | 3277    | 0.868 ppbv # | 1      |
| 15) Acetone                  | 3.86 | 43 | 46346   | 0.800 ppbv # | 72     |
| 20) Methylene Chloride       | 4.33 | 84 | 62753   | 2.571 ppbv   | 96     |
| 21) Allyl Chloride           | 4.12 | 41 | 196794  | 4.719 ppbv # | 54     |
| 25) Ethyl Acetate            | 5.67 | 43 | 49707   | 0.341 ppbv # | 91     |
| 26) Hexane                   | 5.67 | 57 | 44639   | 0.684 ppbv # | 54     |
| 30) Cyclohexane              | 7.11 | 84 | 8793    | 0.155 ppbv # | 1      |
| 39) 1,2-Dichloropropane      | 7.15 | 63 | 416528  | 7.738 ppbv # | 29     |
| 53) Toluene                  | 9.78 | 91 | 1142149 | 7.720 ppbv   | 100    |

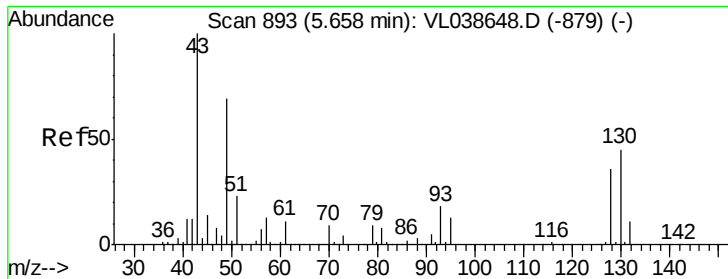
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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C0P77DL2

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QLast Update : Mon Mar 21 17:09:26 2022  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA\_1

Delta R.T. ClientSampleId:

Lab File: C0P77DL2

Acq: 23 Mar 2022 9:51

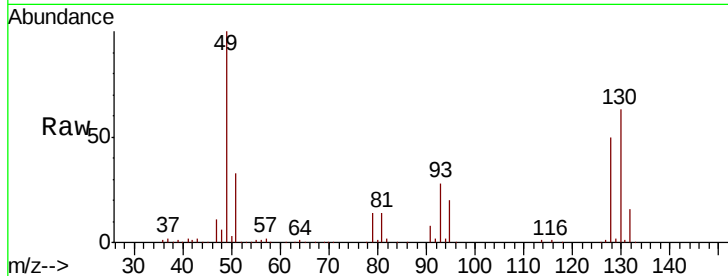
Tot Ion: 49 Resp: 671545

Ion Ratio Lower Upper

49 100

128 54.2 26.2 78.6

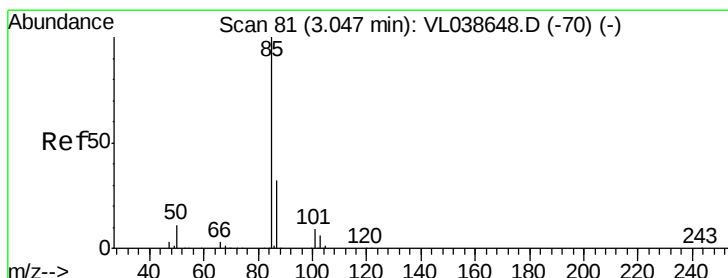
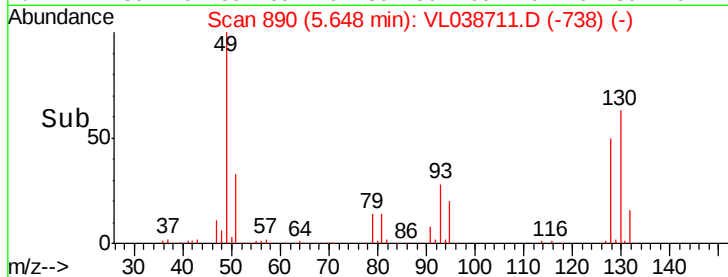
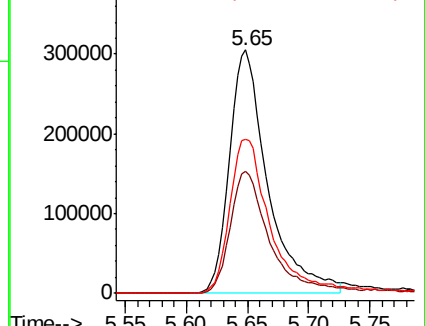
130 70.1 33.7 101.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.041 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL038711.D

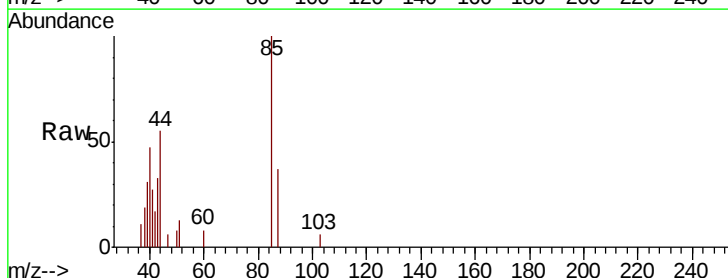
Acq: 23 Mar 2022 9:51

Tgt Ion: 85 Resp: 3744

Ion Ratio Lower Upper

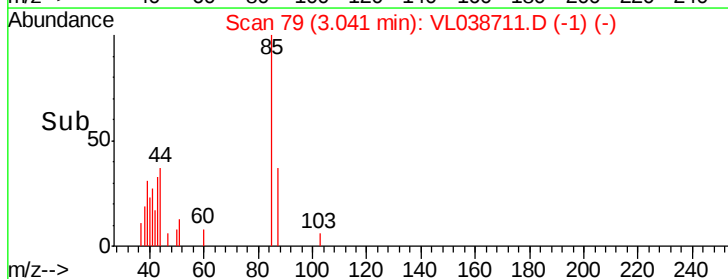
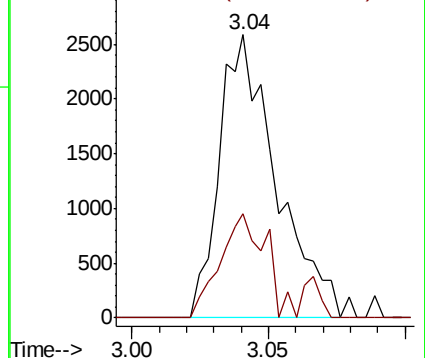
85 100

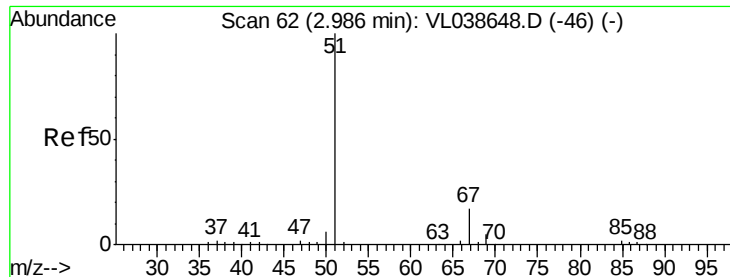
87 36.6 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.145 ppbv

RT: 2.98 Instrument: MSVOA\_1

Delta R.T.

Lab File: ClientSampleId:

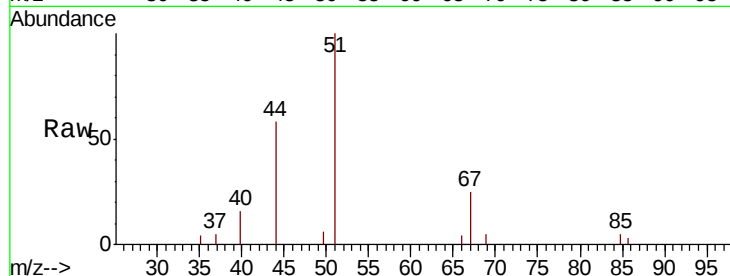
Acq: 23 Mar 2022 9:51

Tot Ion: 51 Resp: 10319

Ion Ratio Lower Upper

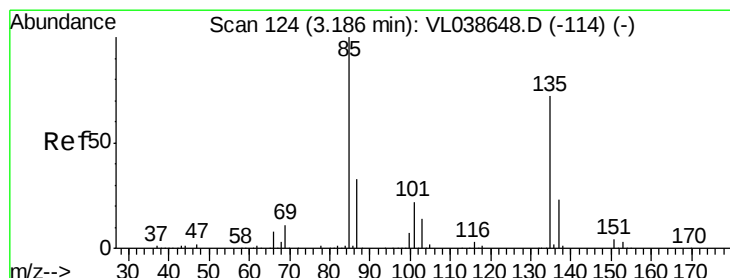
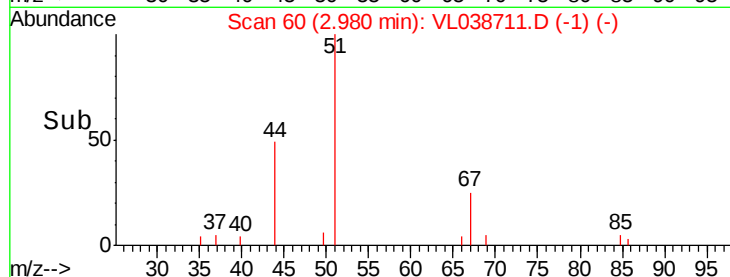
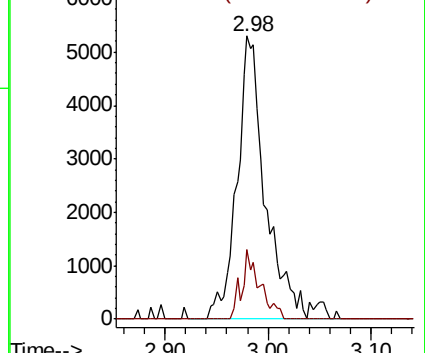
51 100

67 15.6 14.1 21.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.042 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.14 min

Lab File: VL038711.D

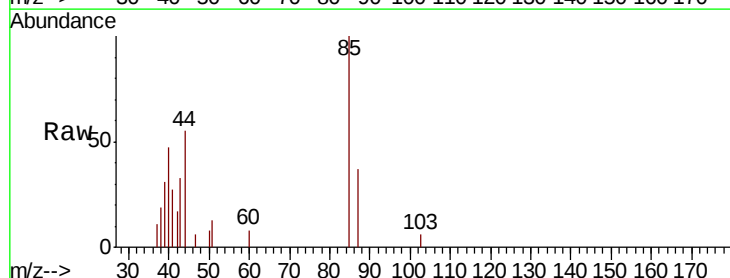
Acq: 23 Mar 2022 9:51

Tgt Ion: 85 Resp: 3744

Ion Ratio Lower Upper

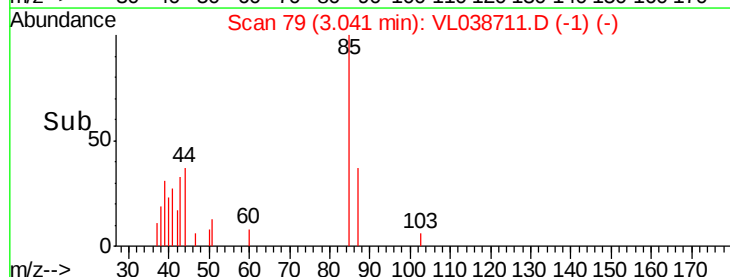
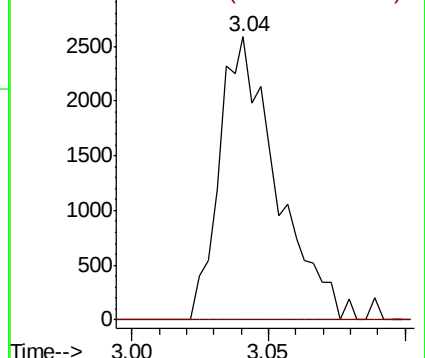
85 100

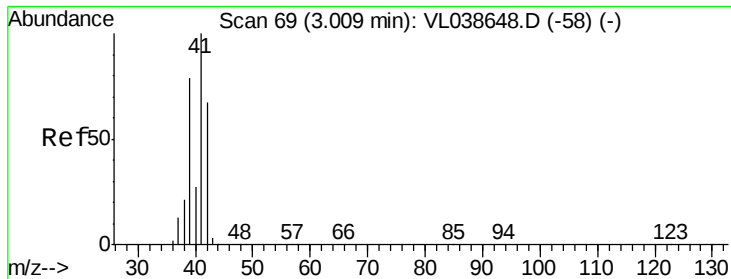
135 0.0 57.8 86.6#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.230 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

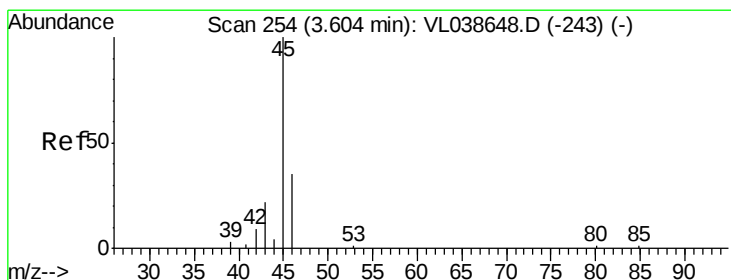
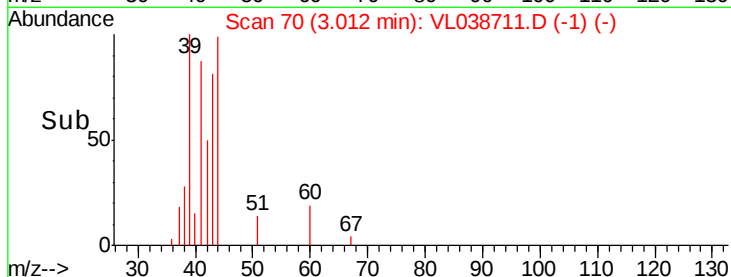
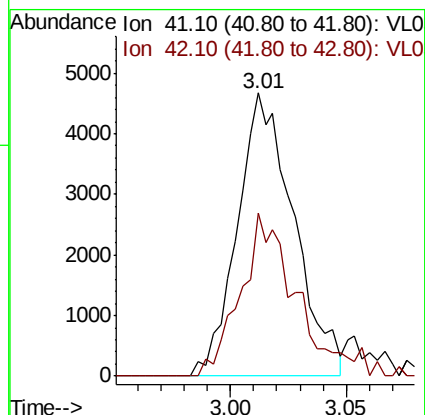
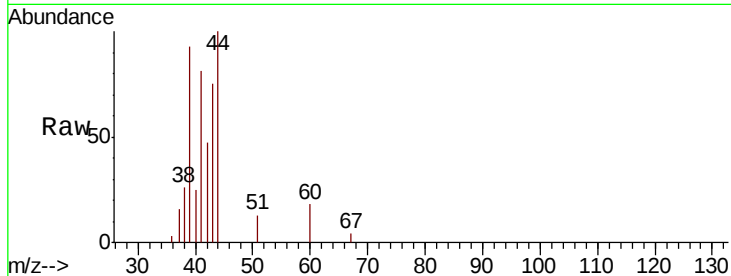
Acq: 23 Mar 2022 9:51

Tot Ion: 41 Resp: 7888

Ion Ratio Lower Upper

41 100

42 57.3 56.2 84.4



#13

Ethanol

Concen: 0.868 ppbv

RT: 3.60 min Scan# 254

Delta R.T. -0.00 min

Lab File: VL038711.D

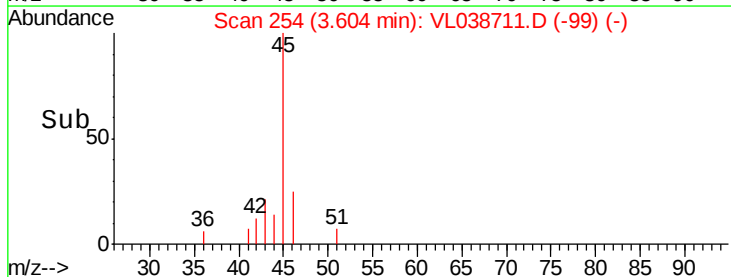
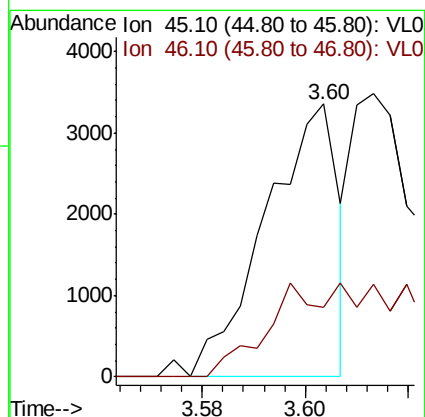
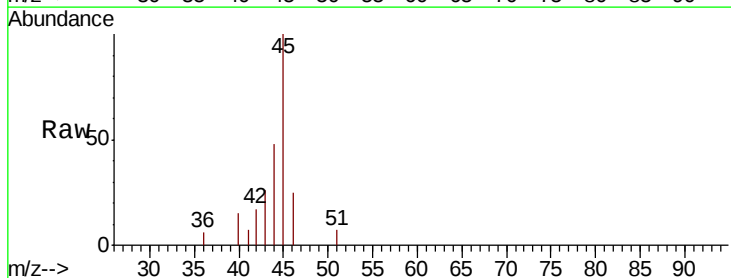
Acq: 23 Mar 2022 9:51

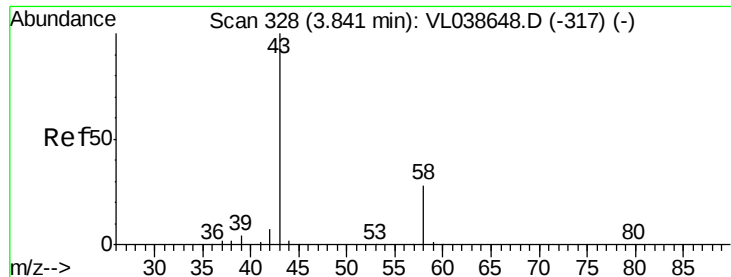
Tgt Ion: 45 Resp: 3277

Ion Ratio Lower Upper

45 100

46 97.1 15.1 60.5#





#15

Acetone

Concen: 0.800 ppbv

RT: 3.86 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

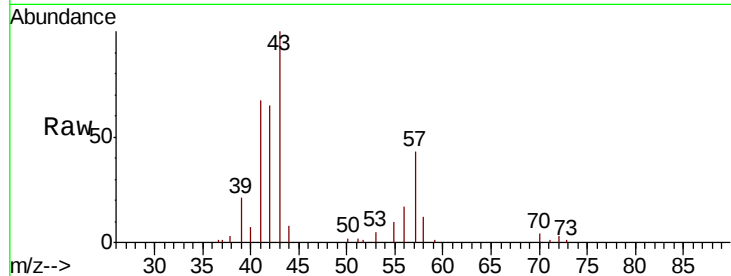
Acq: 23 Mar 2022 9:51

Tot Ion: 43 Resp: 46346

Ion Ratio Lower Upper

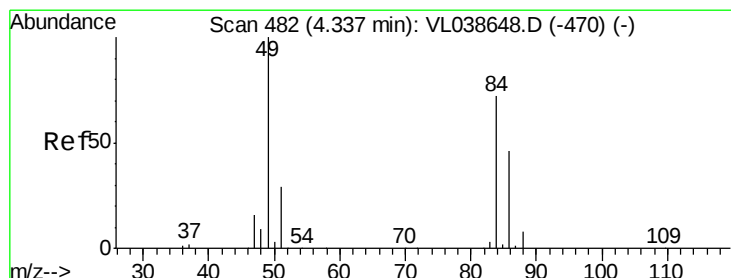
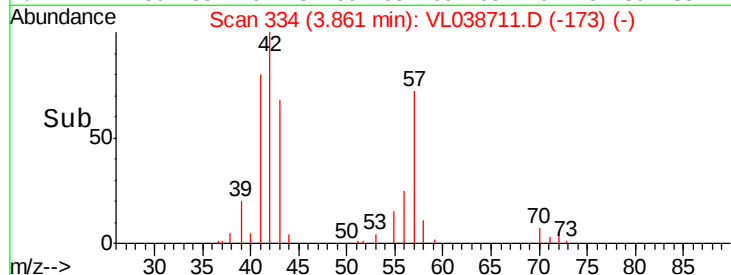
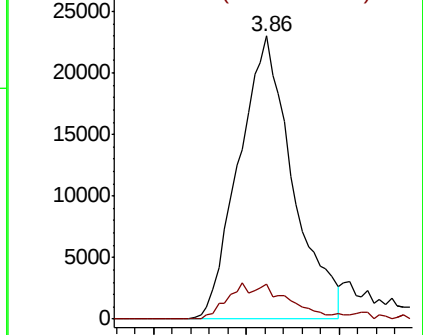
43 100

58 14.0 23.3 34.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 2.571 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.01 min

Lab File: VL038711.D

Acq: 23 Mar 2022 9:51

Tgt Ion: 84 Resp: 62753

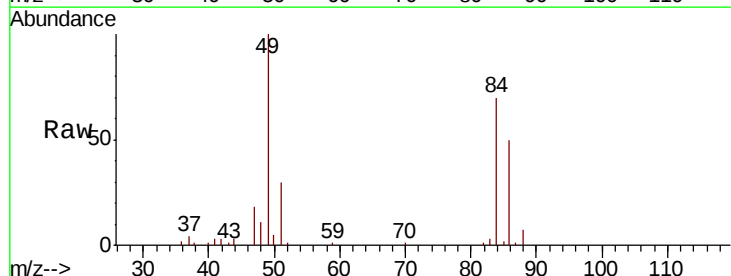
Ion Ratio Lower Upper

84 100

49 142.0 111.2 166.8

51 42.4 32.8 49.2

86 71.0 51.4 77.0

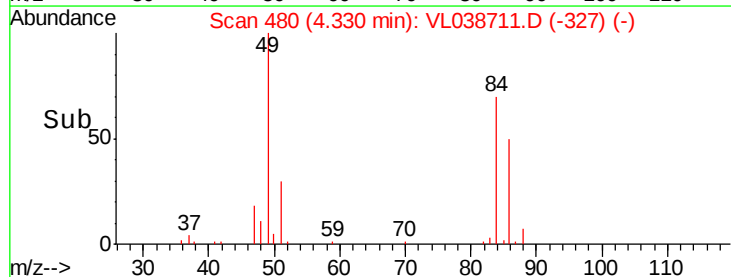
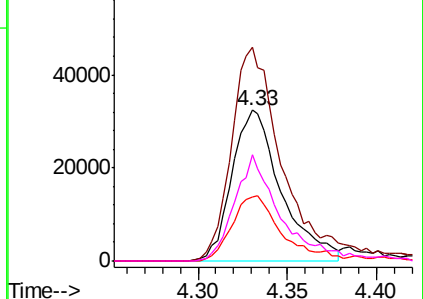


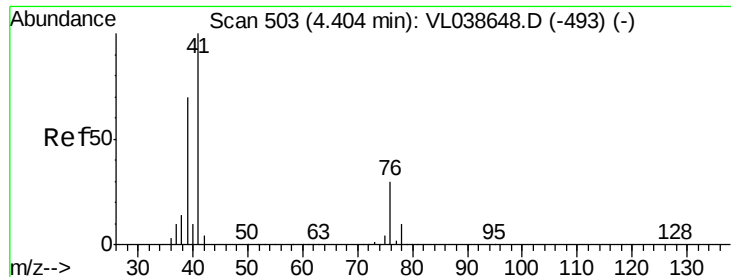
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

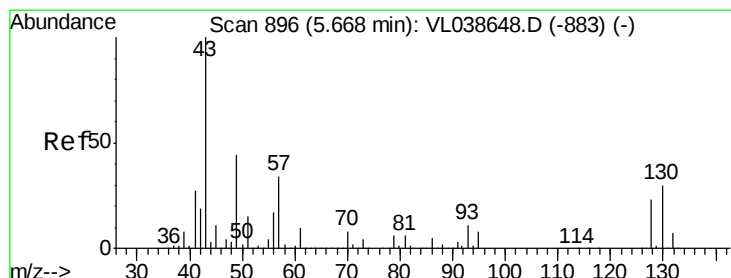
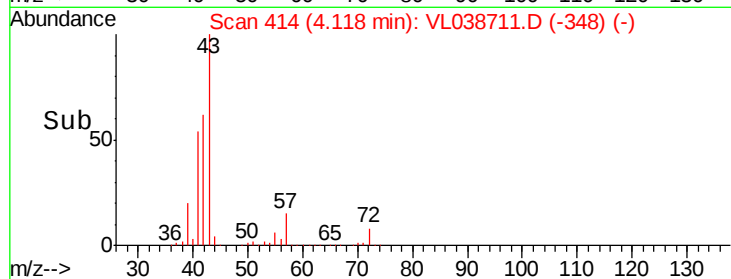
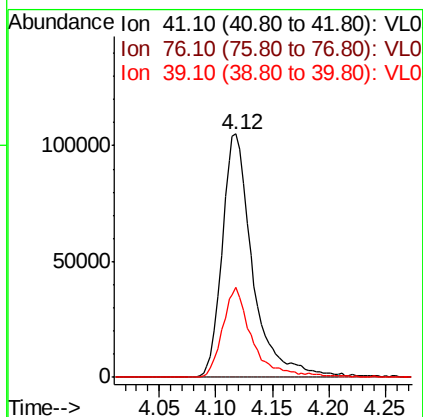
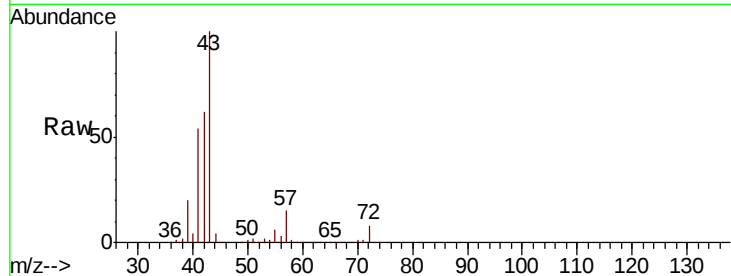
Ion 86.00 (85.70 to 86.70): VL0





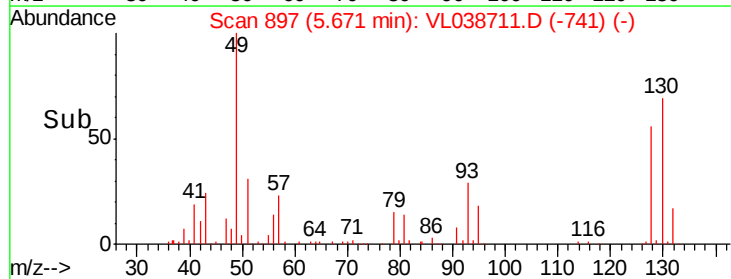
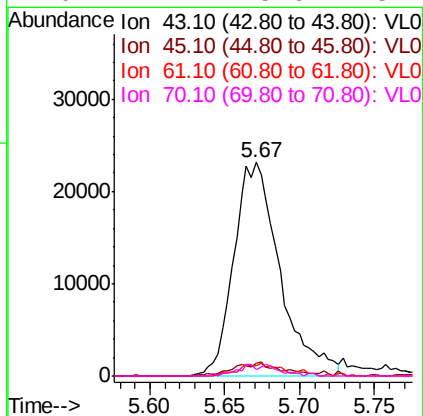
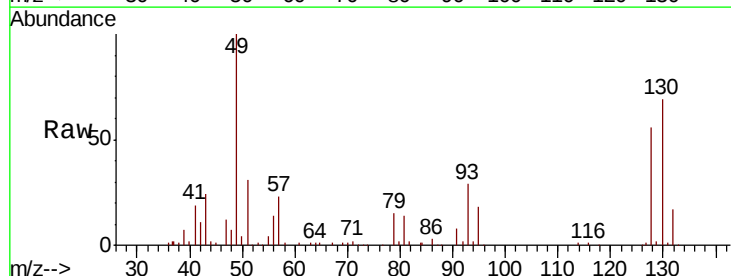
#21  
 Allvl Chloride  
 Concen: 4.719 ppbv  
 RT: 4.12  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 C0P77DL2  
 Acq: 23 Mar 2022 9:51

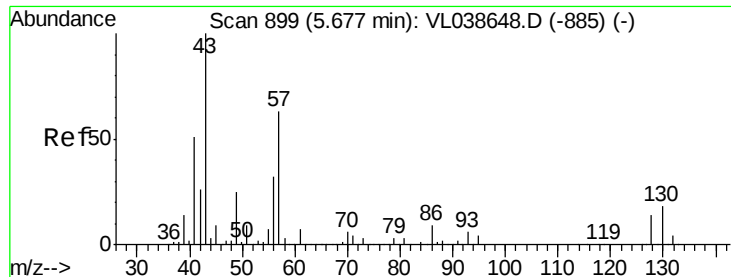
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 0.0   | 25.0  | 37.6# |
| 39      | 36.7  | 56.6  | 85.0# |



#25  
 Ethyl Acetate  
 Concen: 0.341 ppbv  
 RT: 5.67 min Scan# 897  
 Delta R.T. 0.00 min  
 Lab File: VL038711.D  
 Acq: 23 Mar 2022 9:51

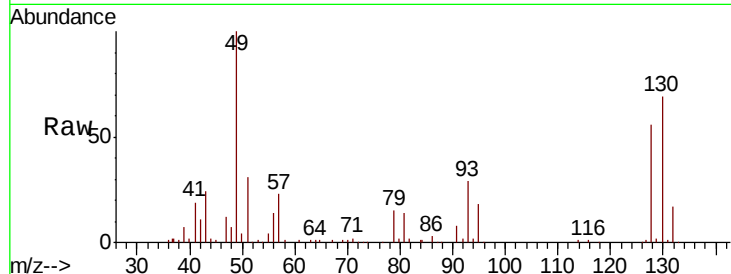
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 45      | 7.3   | 8.2   | 12.4# |
| 61      | 6.0   | 8.3   | 12.5# |
| 70      | 4.7   | 5.6   | 8.4#  |



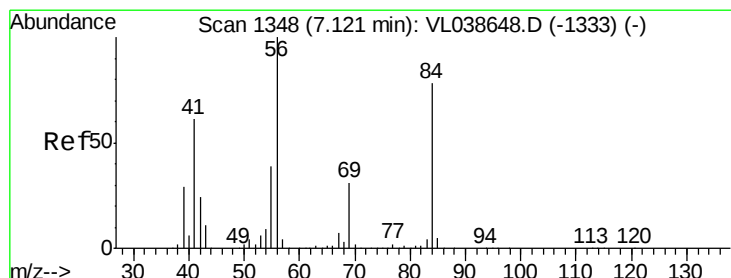
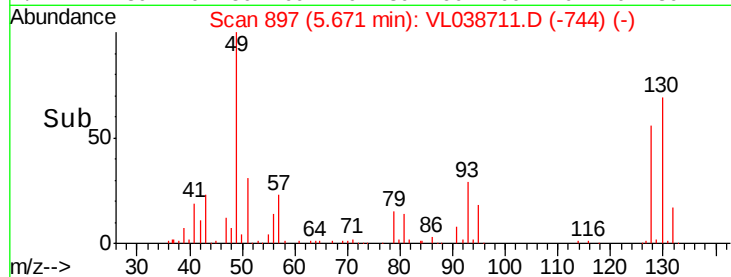
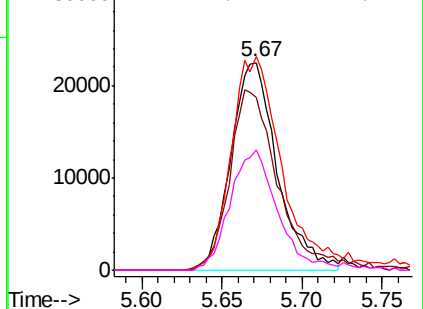


#26  
Hexane  
Concen: 0.684 ppbv  
RT: 5.67  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 23 Mar 2022 9:51

Tot Ion: 57 Resp: 44639  
Ion Ratio Lower Upper  
57 100  
41 93.0 67.0 100.4  
43 117.8 184.2 276.2#  
56 60.4 42.6 64.0

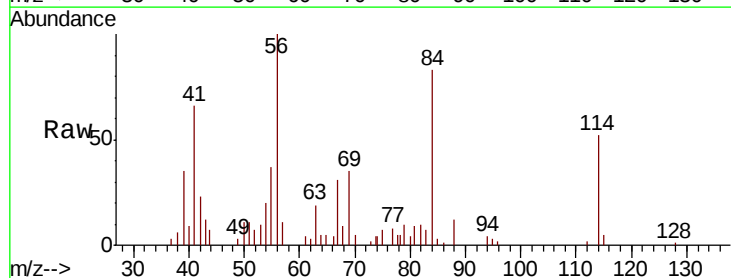


Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0

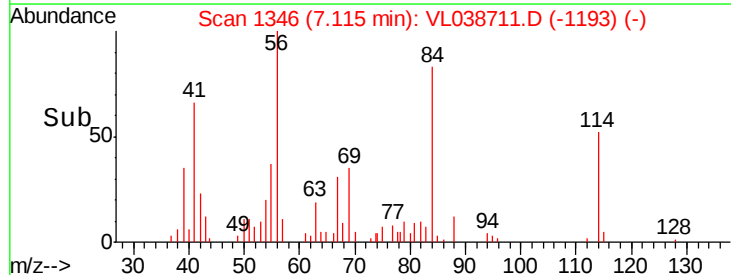
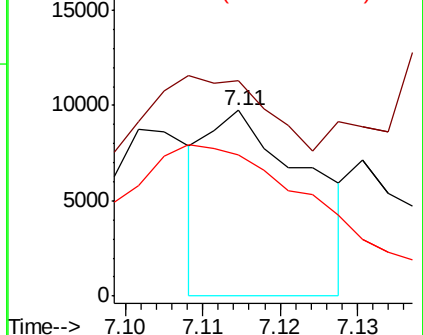


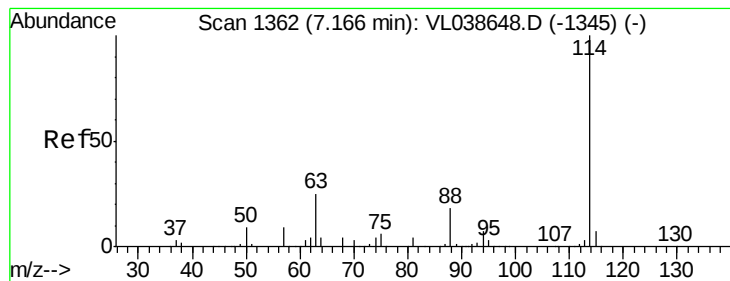
#30  
Cyclohexane  
Concen: 0.155 ppbv  
RT: 7.11 min Scan# 1346  
Delta R.T. -0.01 min  
Lab File: VL038711.D  
Acq: 23 Mar 2022 9:51

Tgt Ion: 84 Resp: 8793  
Ion Ratio Lower Upper  
84 100  
56 279.5 108.2 162.4#  
41 210.3 61.8 92.6#



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





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.15 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 23 Mar 2022 9:51 C0P77DL2

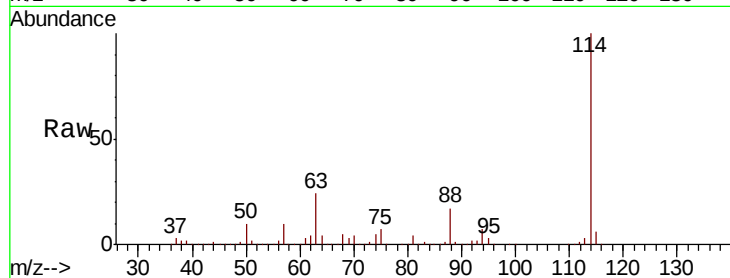
Tot Ion:114 Resp: 1783972

Ion Ratio Lower Upper

114 100

63 24.1 19.4 29.0

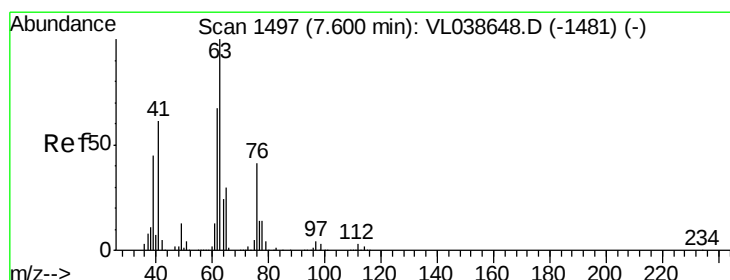
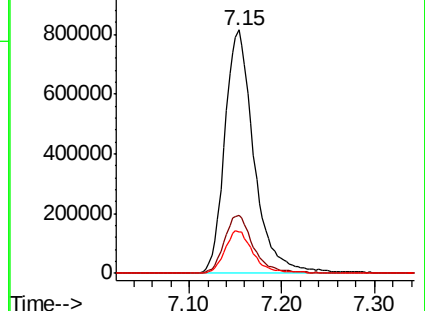
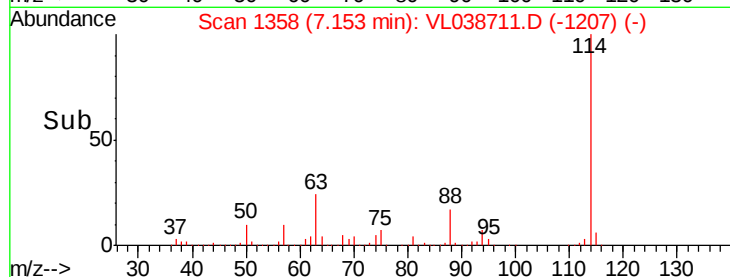
88 17.3 13.9 20.9



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#39

1,2-Dichloropropane

Concen: 7.738 ppbv

RT: 7.15 min Scan# 1358

Delta R.T. -0.45 min

Lab File: VL038711.D

Acq: 23 Mar 2022 9:51

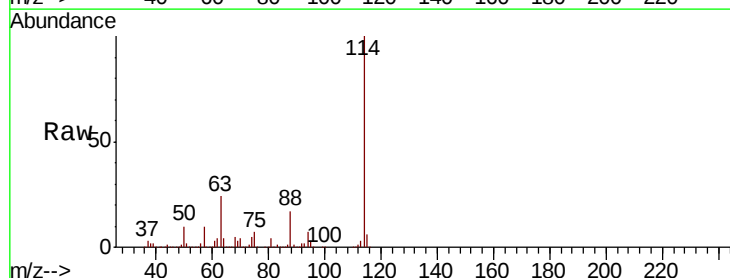
Tgt Ion: 63 Resp: 416528

Ion Ratio Lower Upper

63 100

41 0.4 49.0 73.6#

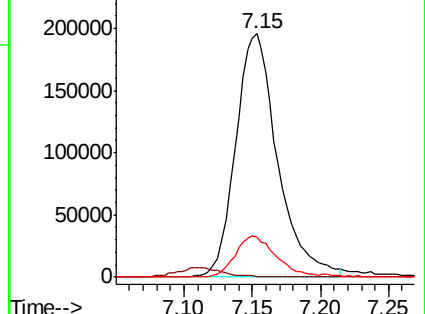
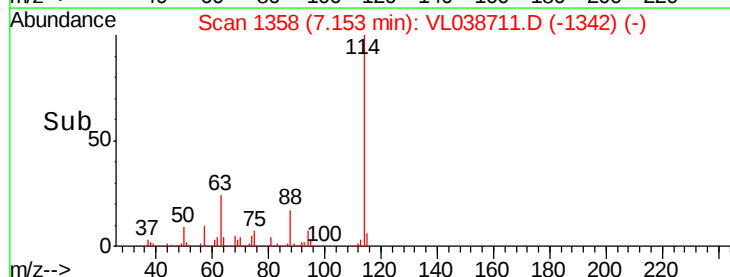
62 16.4 53.9 80.9#

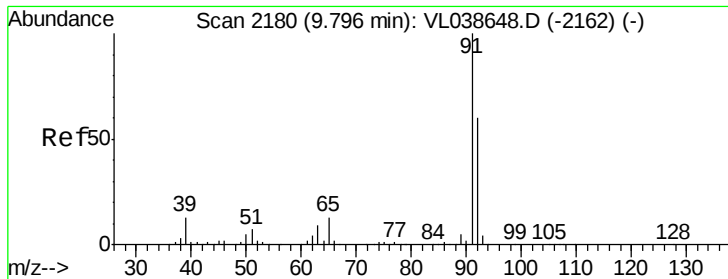


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#53

Toluene

Concen: 7.720 ppbv

RT: 9.78 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

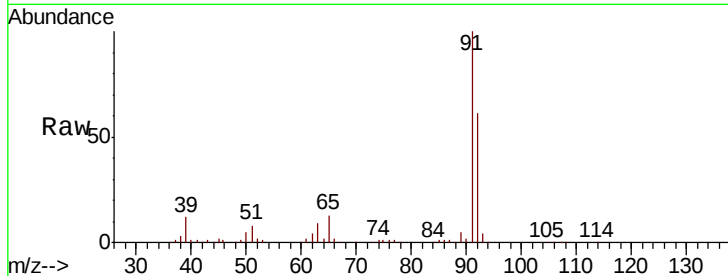
Acq: 23 Mar 2022 9:51

Tot Ion: 91 Resp: 1142149

Ion Ratio Lower Upper

91 100

92 60.6 48.7 73.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.78

500000

400000

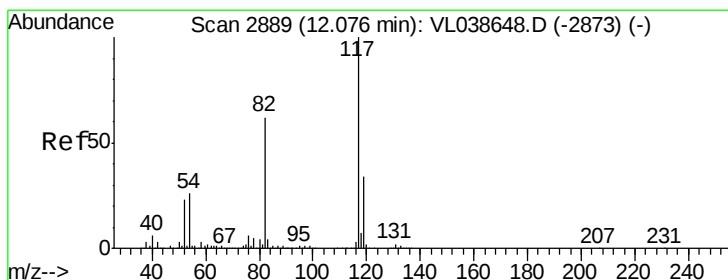
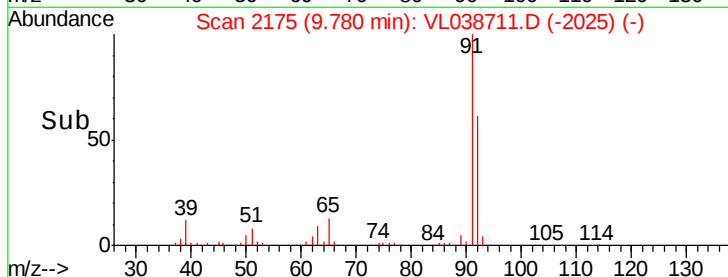
300000

200000

100000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2883

Delta R.T. -0.02 min

Lab File: VL038711.D

Acq: 23 Mar 2022 9:51

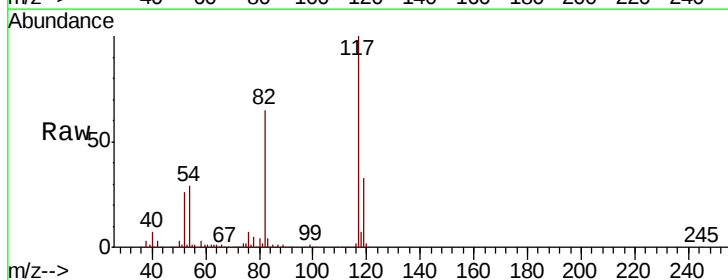
Tgt Ion: 117 Resp: 1542921

Ion Ratio Lower Upper

117 100

82 65.2 51.6 77.4

119 34.1 26.9 40.3



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

800000

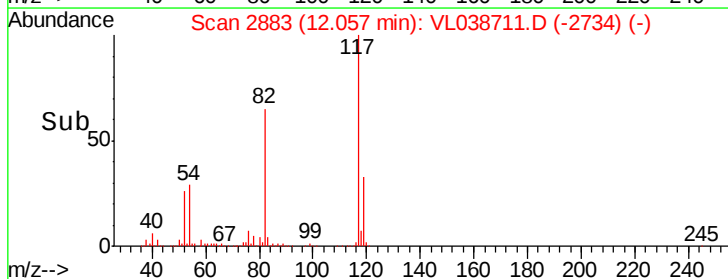
600000

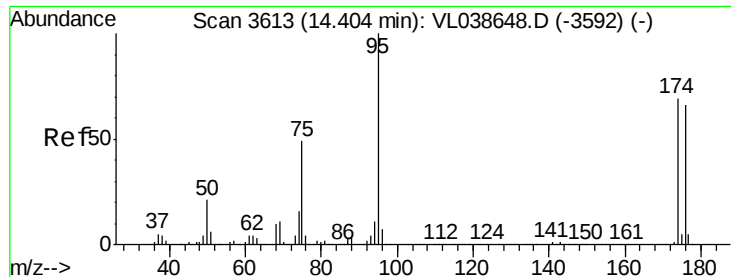
400000

200000

0

Time-->





#68

1-Bromo-4-Fluorobenzene

Concen: 9.661 ppbv

RT: 14.39

Delta R.T: MSVOA\_L

Lab File: ClientSampleId :

Acq: 23 Mar 2022 9:51

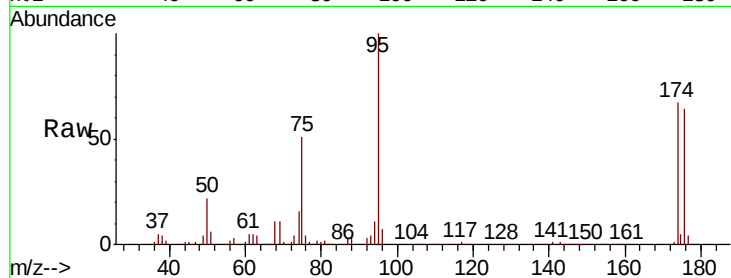
Tot Ion: 95 Resp: 1142806

Ion Ratio Lower Upper

95 100

174 71.3 56.1 84.1

175 5.0 4.2 6.2



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

