

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060221\  
 Data File : VL037119.D  
 Acq On : 3 Jun 2021 2:51  
 Operator : SY/AP  
 Sample : M2548-16DL 10X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Jun 03 07:40:14 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue May 18 12:00:15 2021  
 QLast Update : Tue May 18 12:00:15 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1383247  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 4073613  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.07 | 117  | 3597522  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.40  | 95    | 2652263  | 9.81     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.10% |

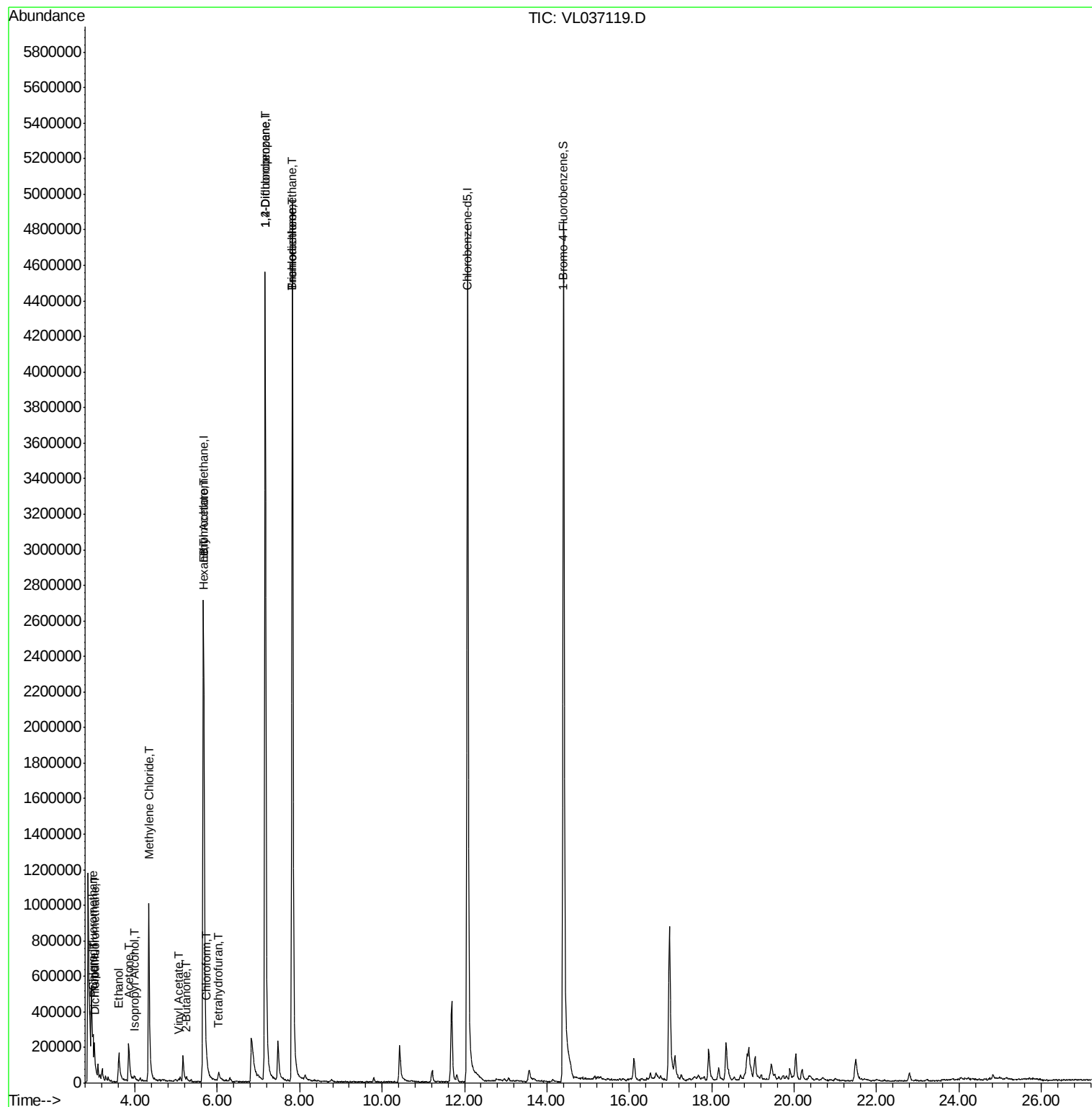
| Target Compounds           |      |     |         |              | Ovalue |
|----------------------------|------|-----|---------|--------------|--------|
| 2) Dichlorodifluoromethane | 3.04 | 85  | 11917   | 0.051 ppbv   | 96     |
| 3) Chlorodifluoromethane   | 2.98 | 51  | 41278   | 0.163 ppbv # | 71     |
| 9) Propene                 | 3.01 | 41  | 8407    | 0.093 ppbv   | 86     |
| 13) Ethanol                | 3.61 | 45  | 241321  | 19.932 ppbv  | 95     |
| 15) Acetone                | 3.85 | 43  | 304675  | 2.150 ppbv # | 84     |
| 19) Isopropyl Alcohol      | 3.99 | 45  | 13726   | 0.180 ppbv # | 30     |
| 20) Methylene Chloride     | 4.34 | 84  | 428769  | 5.646 ppbv   | 98     |
| 23) Vinyl Acetate          | 5.06 | 43  | 11894   | 0.053 ppbv # | 76     |
| 25) Ethyl Acetate          | 5.67 | 43  | 288860  | 0.848 ppbv # | 77     |
| 26) Hexane                 | 5.68 | 57  | 435647  | 2.505 ppbv # | 46     |
| 29) Chloroform             | 5.74 | 83  | 9895    | 0.040 ppbv   | 88     |
| 34) 2-Butanone             | 5.24 | 43  | 11160   | 0.075 ppbv # | 52     |
| 38) Trichloroethene        | 7.83 | 130 | 1910765 | 12.730 ppbv  | 98     |
| 39) 1,2-Dichloropropane    | 7.16 | 63  | 967112  | 7.155 ppbv # | 26     |
| 41) Tetrahydrofuran        | 6.03 | 42  | 4615    | 0.055 ppbv # | 29     |
| 42) Bromodichloromethane   | 7.83 | 83  | 19919   | 0.076 ppbv # | 92     |

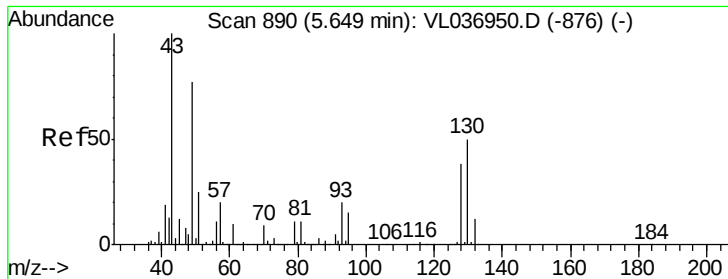
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060221\  
Data File : VL037119.D  
Acq On : 3 Jun 2021 2:51  
Operator : SY/AP  
Sample : M2548-16DL 10X  
Misc : 400mL/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

Quant Time: Jun 03 07:40:14 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue May 18 12:00:15 2021  
QLast Update : Tue May 18 12:00:15 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. 0.01 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Instrument :  
MSVOA\_L  
ClientSampleId :

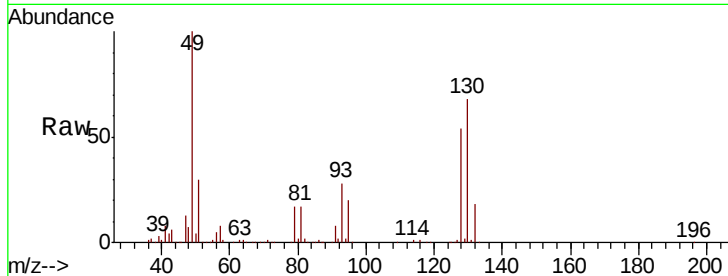
Tot Ion: 49 Resp: 1383247

Ion Ratio Lower Upper

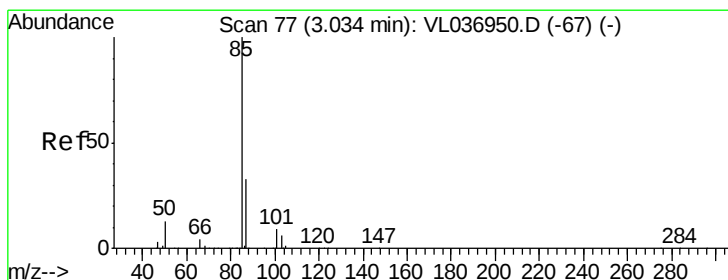
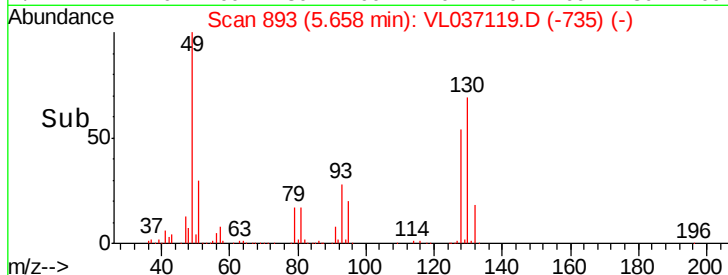
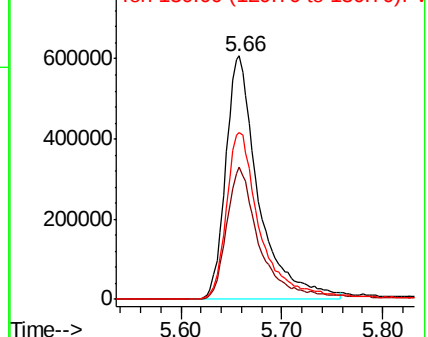
49 100

128 56.5 26.9 80.7

130 72.9 33.8 101.4



Abundance Ion 49.10 (48.80 to 49.80): VL0  
Ion 128.00 (127.70 to 128.70): V  
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.051 ppbv

RT: 3.04 min Scan# 78

Delta R.T. 0.00 min

Lab File: VL037119.D

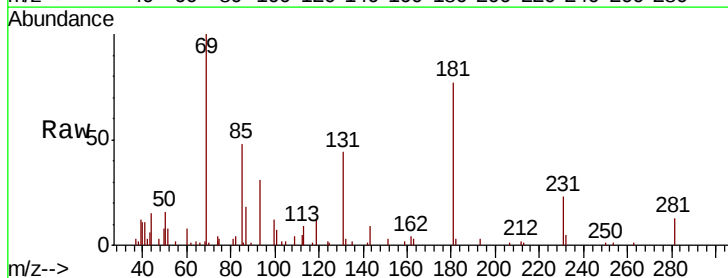
Acq: 3 Jun 2021 2:51

Tgt Ion: 85 Resp: 11917

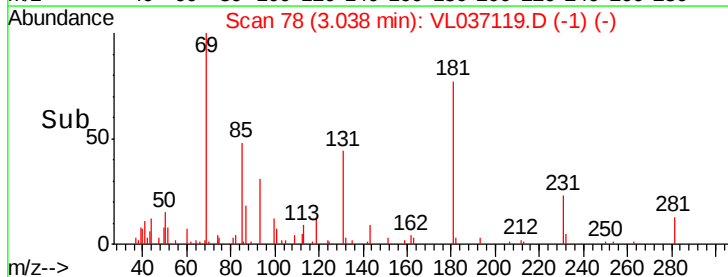
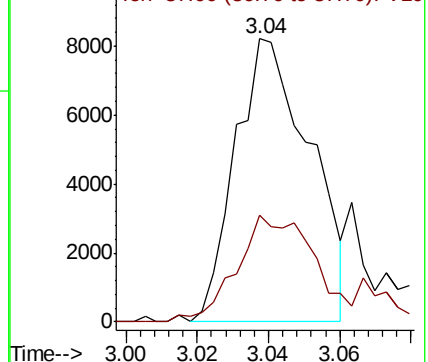
Ion Ratio Lower Upper

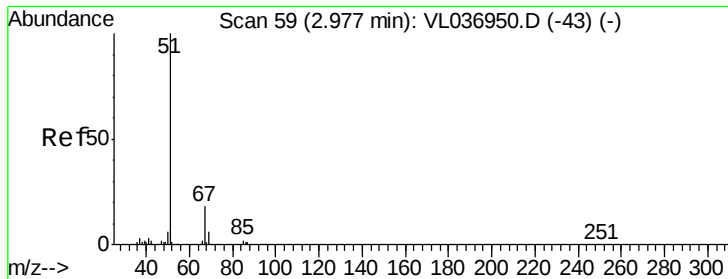
85 100

87 35.5 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0  
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.163 ppbv

RT: 2.98 min Scan# 61

Delta R.T. 0.01 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Instrument :

MSVOA\_L

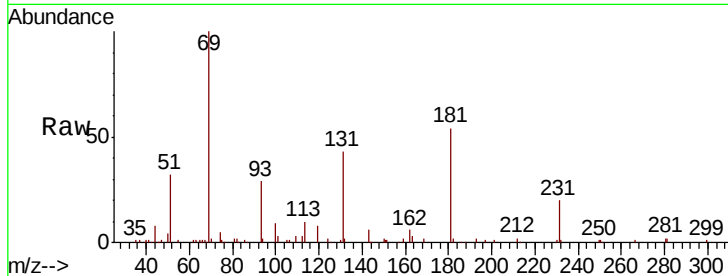
ClientSampleId :

Tot Ion: 51 Resp: 41278

Ion Ratio Lower Upper

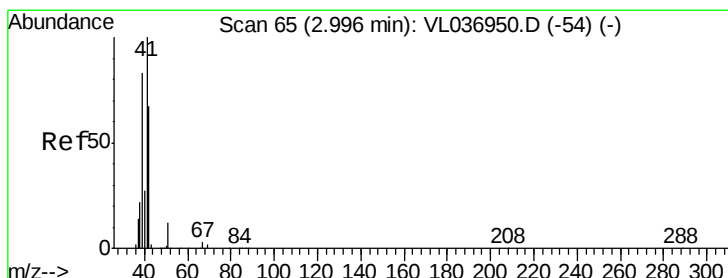
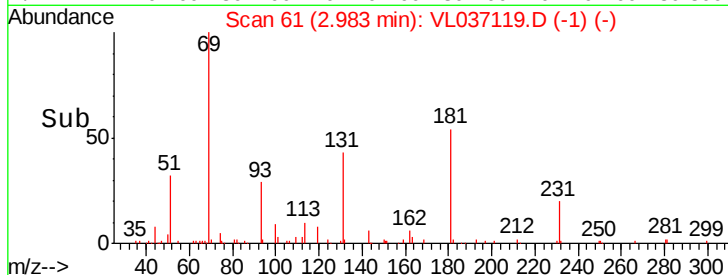
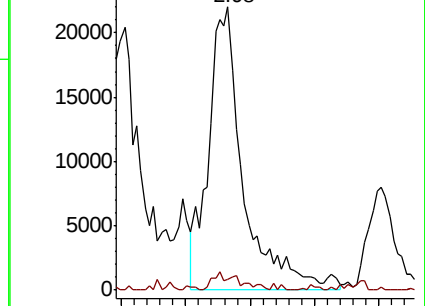
51 100

67 5.3 14.6 21.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 0.093 ppbv

RT: 3.01 min Scan# 69

Delta R.T. 0.01 min

Lab File: VL037119.D

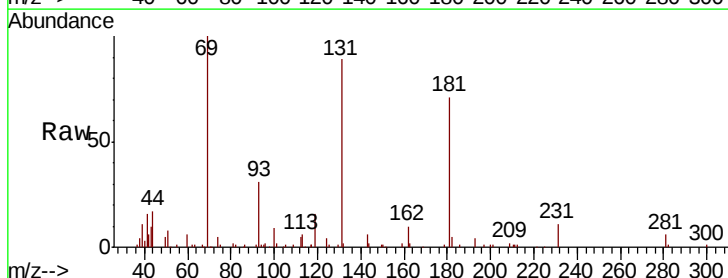
Acq: 3 Jun 2021 2:51

Tgt Ion: 41 Resp: 8407

Ion Ratio Lower Upper

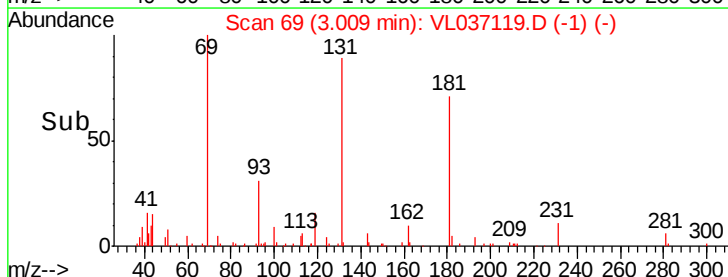
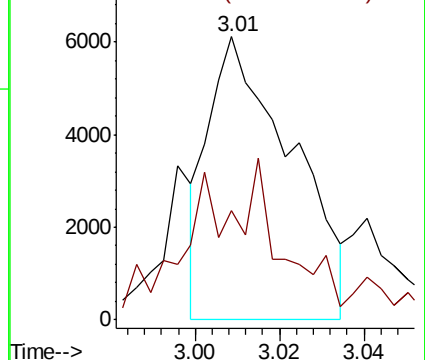
41 100

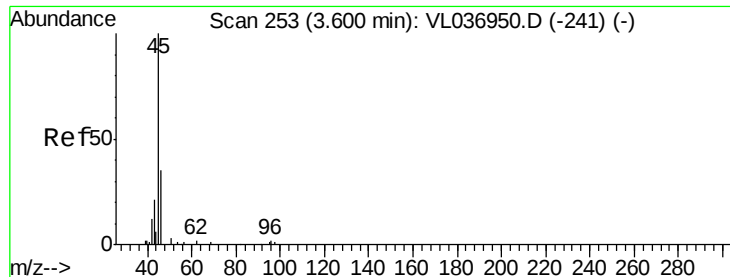
42 78.6 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

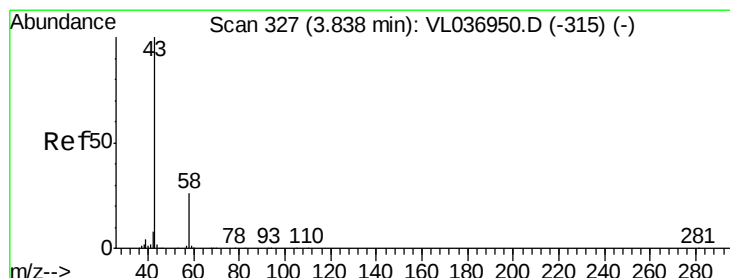
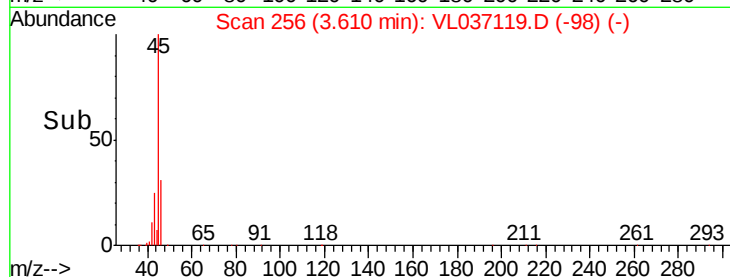
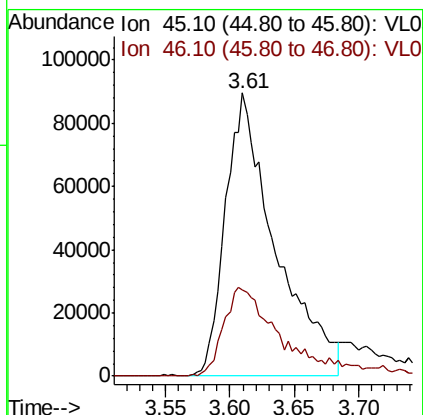
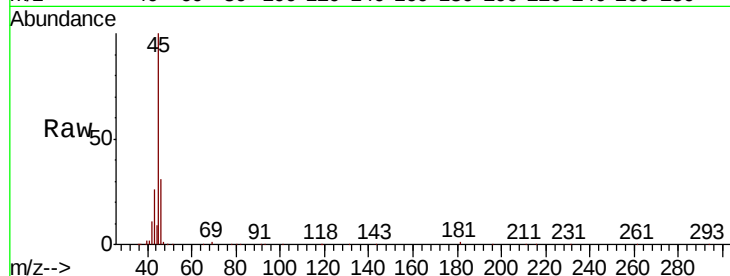




#13  
Ethanol  
Concen: 19.932 ppbv  
RT: 3.61 min Scan# 256  
Delta R.T. 0.01 min  
Lab File: VL037119.D  
Acq: 3 Jun 2021 2:51

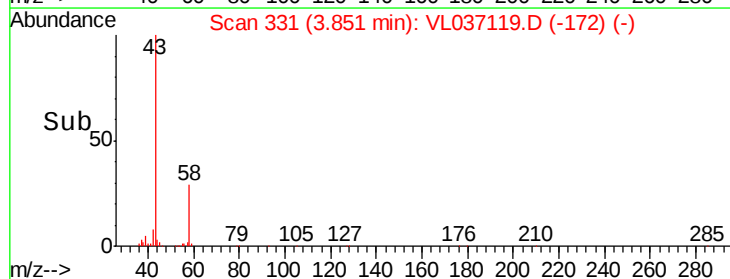
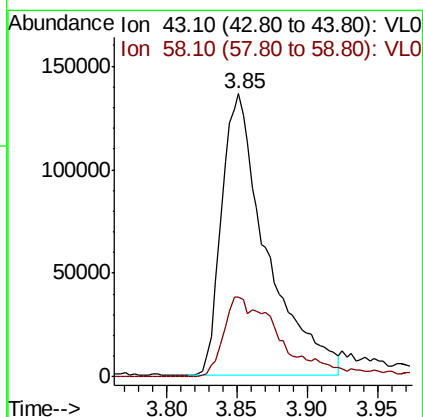
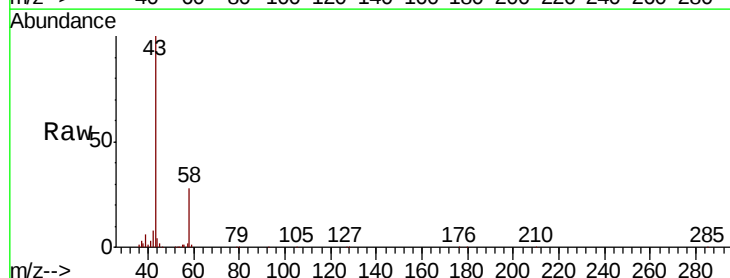
Instrument :  
MSVOA\_L  
ClientSampleId :

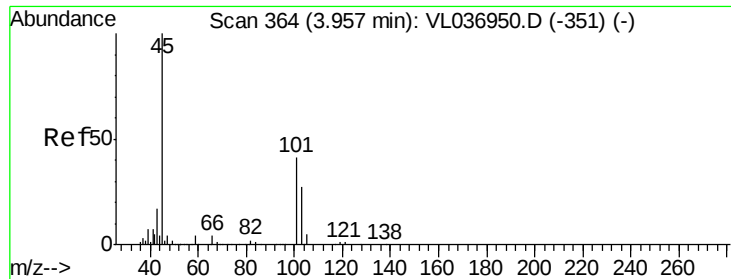
Tot Ion: 45 Resp: 241321  
Ion Ratio Lower Upper  
45 100  
46 37.6 16.3 65.3



#15  
Acetone  
Concen: 2.150 ppbv  
RT: 3.85 min Scan# 331  
Delta R.T. 0.01 min  
Lab File: VL037119.D  
Acq: 3 Jun 2021 2:51

Tgt Ion: 43 Resp: 304675  
Ion Ratio Lower Upper  
43 100  
58 38.7 24.0 36.0#





#19

Isopropyl Alcohol

Concen: 0.180 ppbv

RT: 3.99 min Scan# 373

Delta R.T. 0.03 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Instrument :

MSVOA\_L

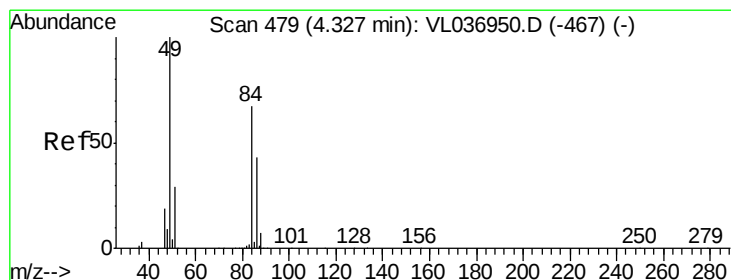
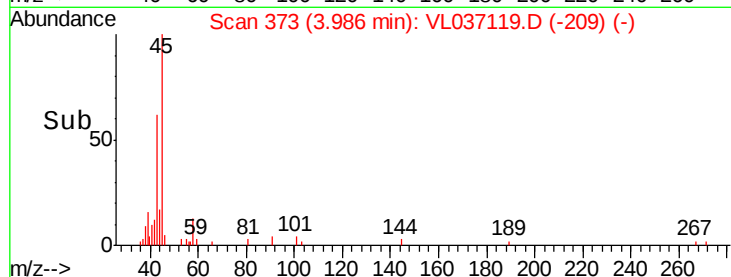
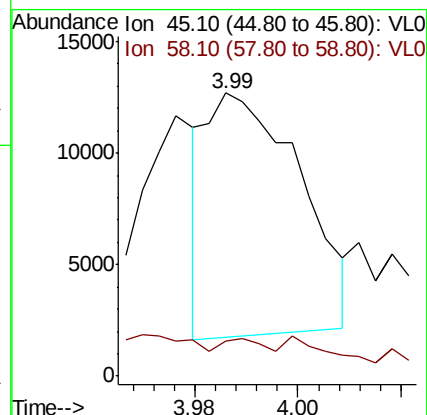
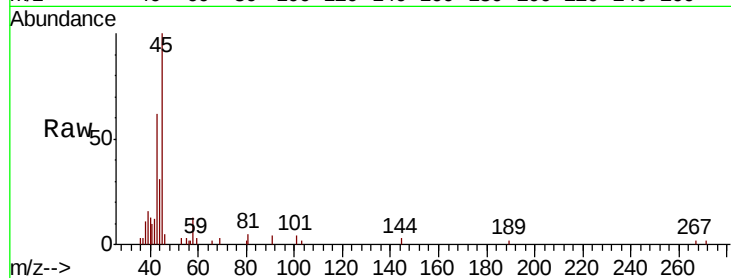
ClientSampleId :

Tot Ion: 45 Resp: 13726

Ion Ratio Lower Upper

45 100

58 0.0 37.2 55.8#



#20

Methylene Chloride

Concen: 5.646 ppbv

RT: 4.34 min Scan# 482

Delta R.T. 0.01 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Tgt Ion: 84 Resp: 428769

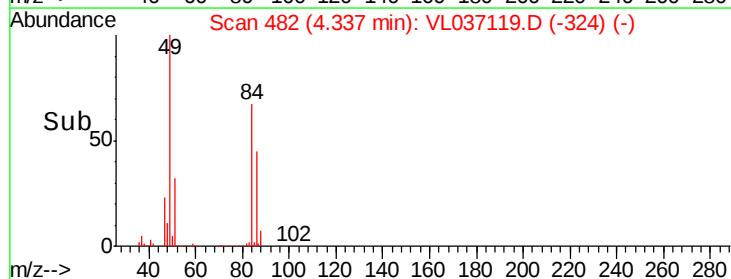
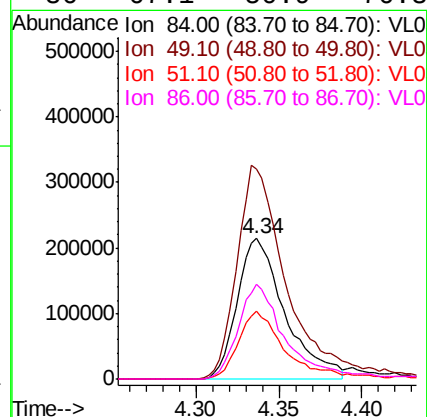
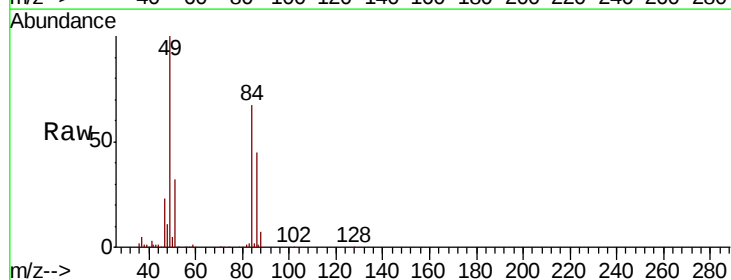
Ion Ratio Lower Upper

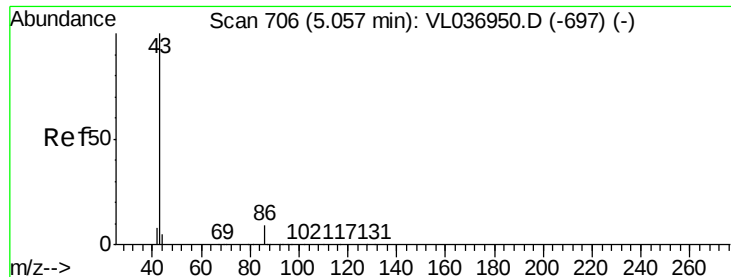
84 100

49 149.5 119.8 179.6

51 48.2 35.1 52.7

86 67.1 50.9 76.3





#23

Vinyl Acetate

Concen: 0.053 ppbv

RT: 5.06 min Scan# 708

Delta R.T. 0.01 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Instrument :

MSVOA\_L

ClientSampled :

Tot Ion: 43 Resp: 11894

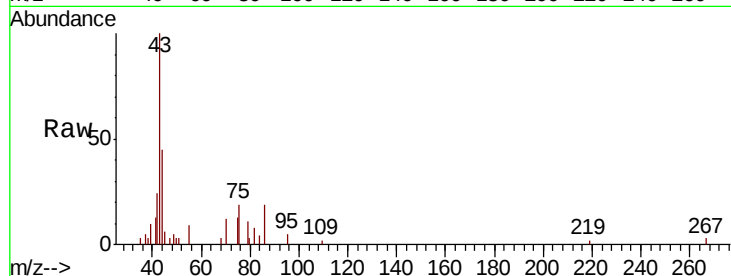
Ion Ratio Lower Upper

43 100

86 18.1 5.8 8.8#

42 8.5 7.4 11.2

44 24.0 3.3 4.9#

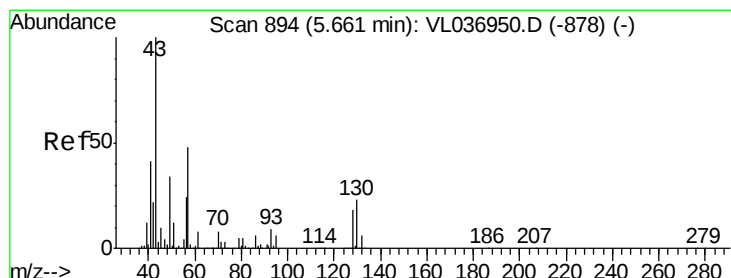
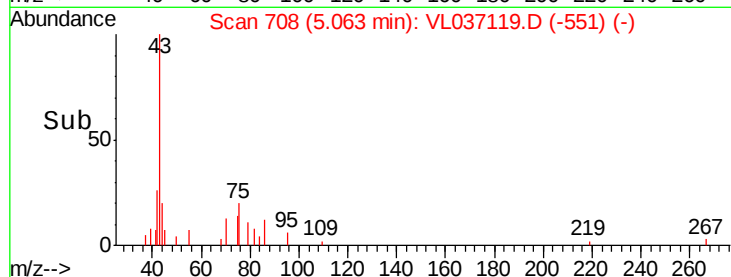
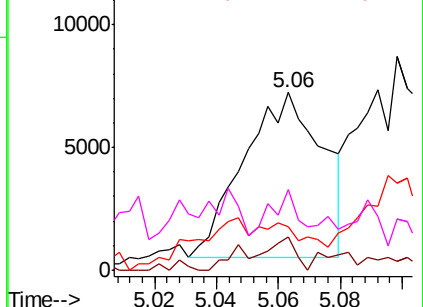


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.848 ppbv

RT: 5.67 min Scan# 898

Delta R.T. 0.01 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Tgt Ion: 43 Resp: 288860

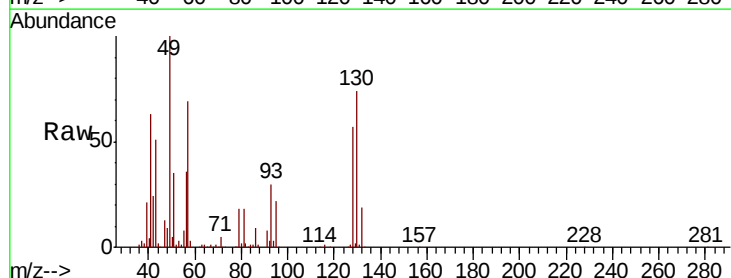
Ion Ratio Lower Upper

43 100

45 0.5 7.8 11.8#

61 0.3 7.8 11.8#

70 1.5 5.6 8.4#

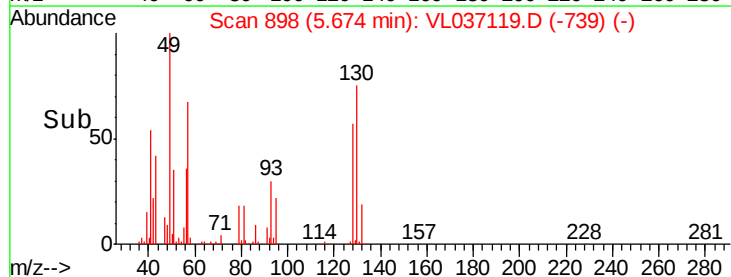
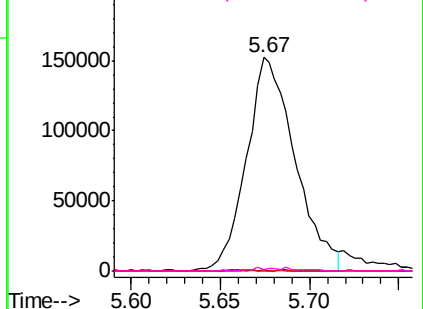


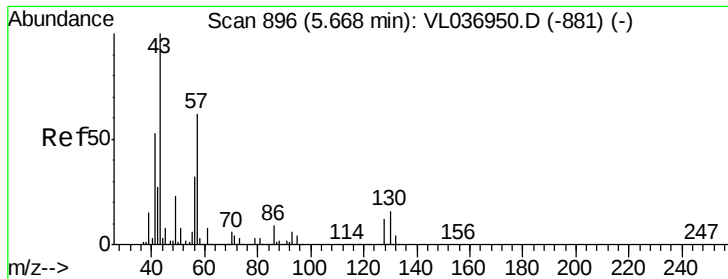
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 2.505 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.01 min

Lab File: VL037119.D

Acq: 3 Jun 2021 2:51

Instrument :

MSVOA\_L

ClientSampled :

Tot Ion: 57 Resp: 435647

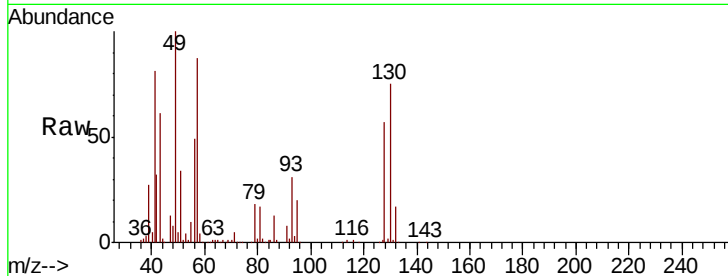
Ion Ratio Lower Upper

57 100

41 93.7 70.5 105.7

43 71.4 165.8 248.8#

56 56.1 42.2 63.4

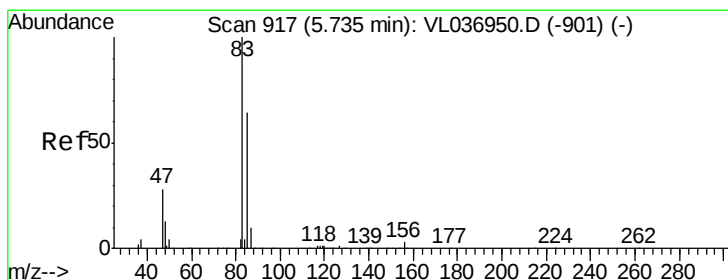
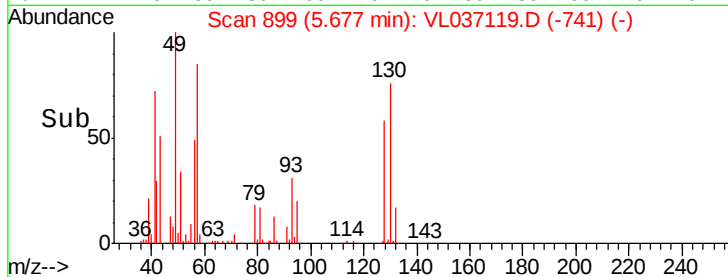
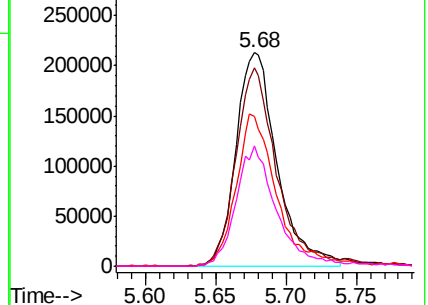


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#29

Chloroform

Concen: 0.040 ppbv

RT: 5.74 min Scan# 917

Delta R.T. -0.00 min

Lab File: VL037119.D

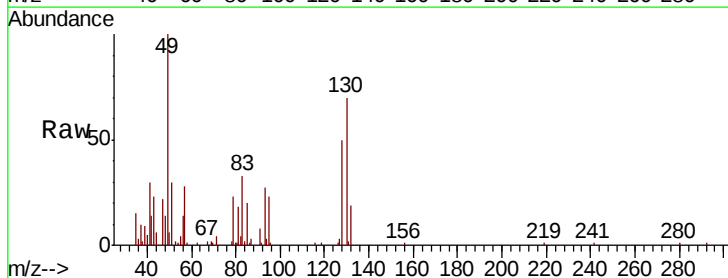
Acq: 3 Jun 2021 2:51

Tgt Ion: 83 Resp: 9895

Ion Ratio Lower Upper

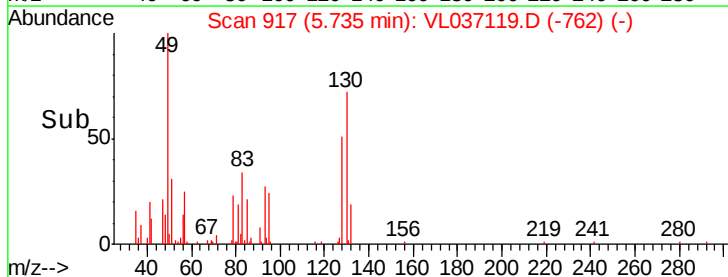
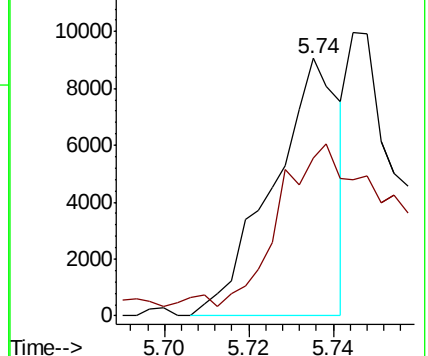
83 100

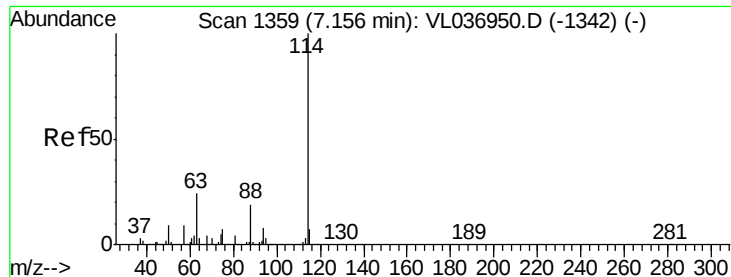
85 54.3 51.1 76.7



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

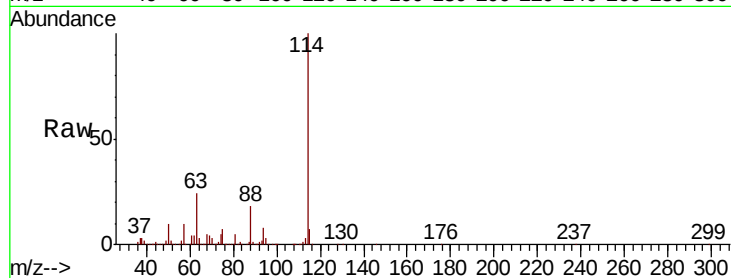




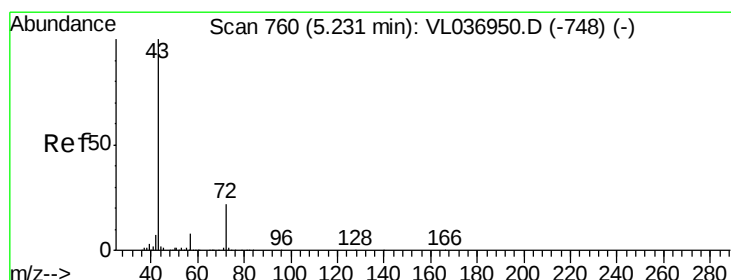
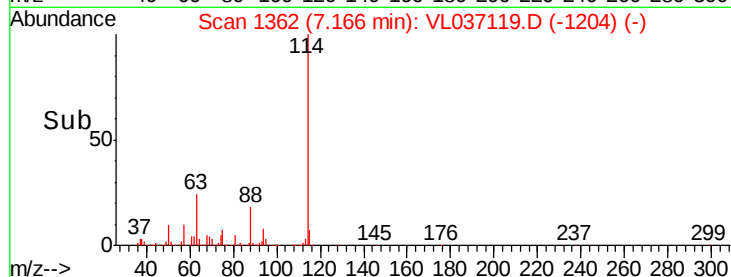
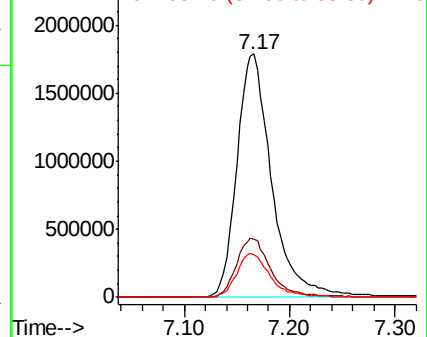
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.17 min Scan# 1362  
 Delta R.T. 0.01 min  
 Lab File: VL037119.D  
 Acq: 3 Jun 2021 2:51

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:114 Resp: 4073613  
 Ion Ratio Lower Upper  
 114 100  
 63 24.6 19.6 29.4  
 88 17.9 14.6 21.8

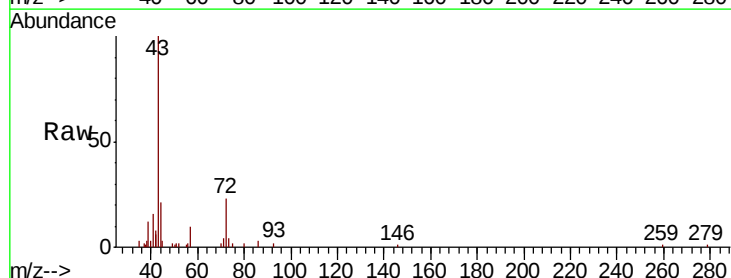


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

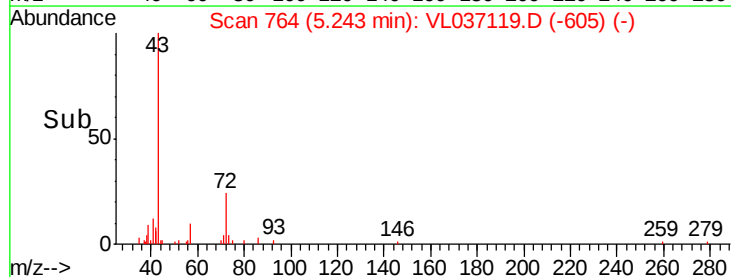
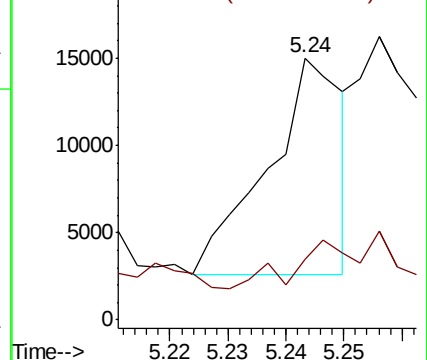


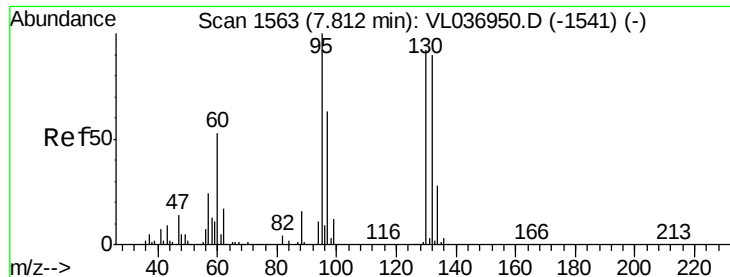
#34  
 2-Butanone  
 Concen: 0.075 ppbv  
 RT: 5.24 min Scan# 764  
 Delta R.T. 0.01 min  
 Lab File: VL037119.D  
 Acq: 3 Jun 2021 2:51

Tgt Ion: 43 Resp: 11160  
 Ion Ratio Lower Upper  
 43 100  
 72 0.0 19.0 28.4#



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0

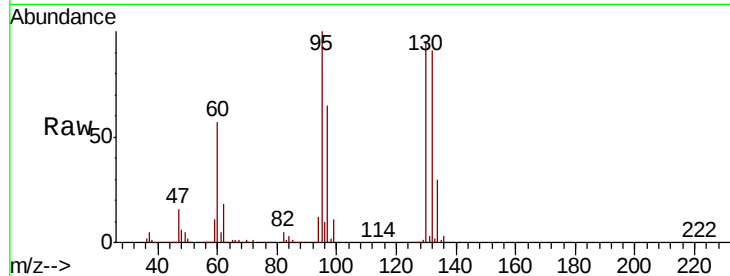




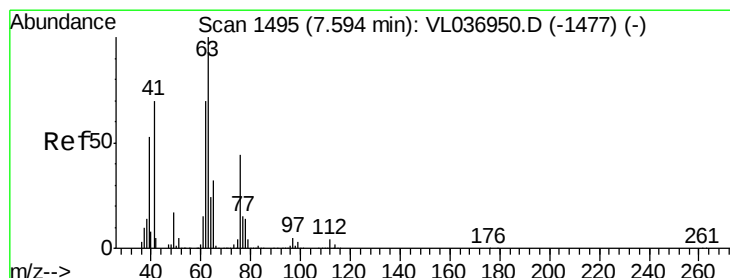
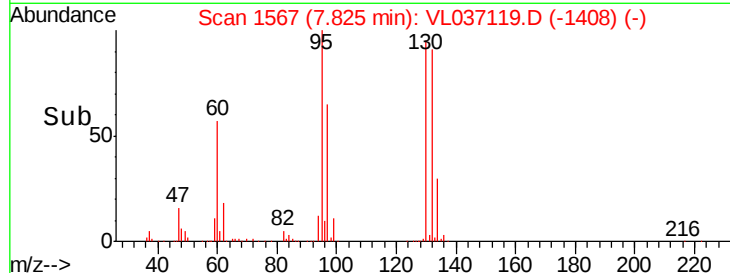
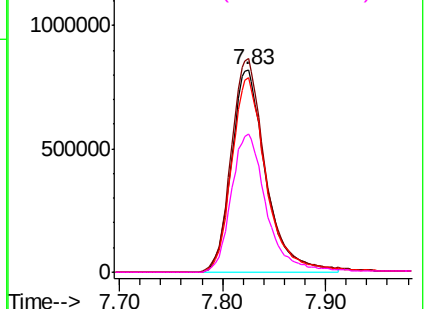
#38  
 Trichloroethene  
 Concen: 12.730 ppbv  
 RT: 7.83 min Scan# 1567  
 Delta R.T. 0.01 min  
 Lab File: VL037119.D  
 Acq: 3 Jun 2021 2:51

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Tot Ion:130 Resp: 1910765  
 Ion Ratio Lower Upper  
 130 100  
 95 105.6 86.9 130.3  
 132 96.1 78.4 117.6  
 97 68.4 55.0 82.6

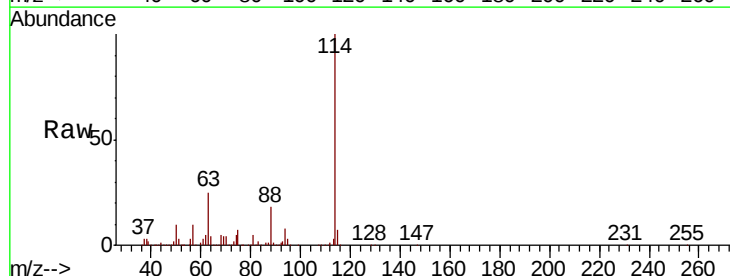


Abundance Ion 130.00 (129.70 to 130.70): V  
 Ion 95.00 (94.70 to 95.70): VL0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 97.00 (96.70 to 97.70): VL0

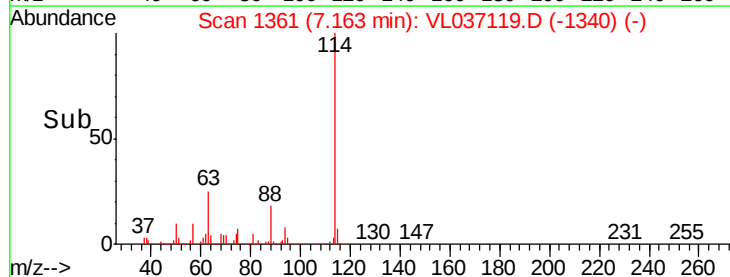
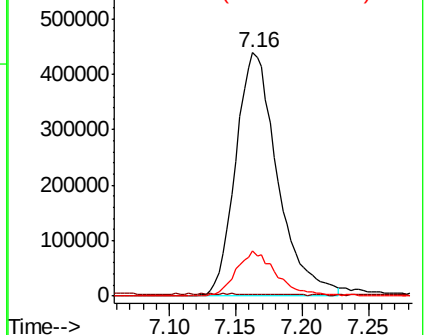


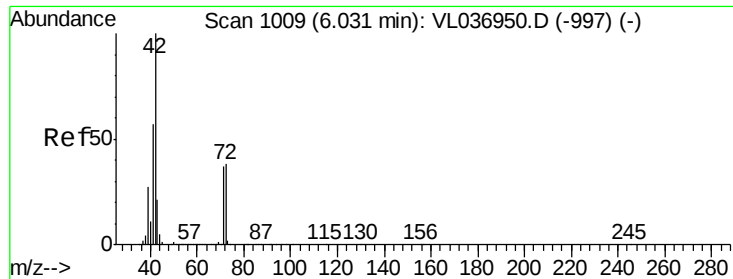
#39  
 1,2-Dichloropropane  
 Concen: 7.155 ppbv  
 RT: 7.16 min Scan# 1361  
 Delta R.T. -0.43 min  
 Lab File: VL037119.D  
 Acq: 3 Jun 2021 2:51

Tgt Ion: 63 Resp: 967112  
 Ion Ratio Lower Upper  
 63 100  
 41 0.0 55.7 83.5#  
 62 18.4 56.2 84.4#



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

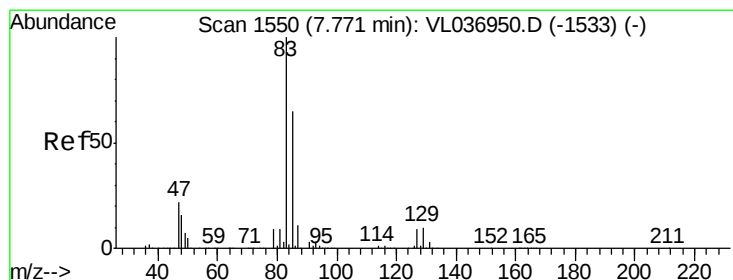
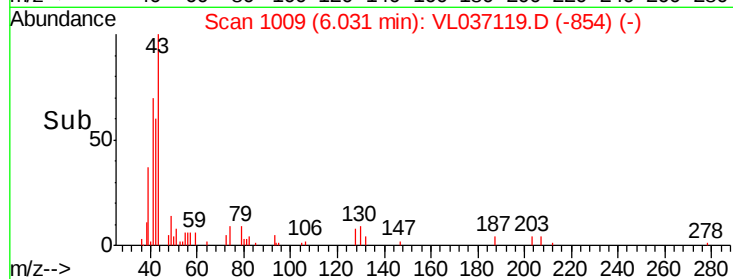
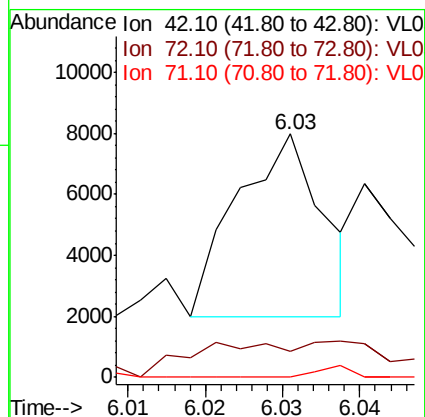
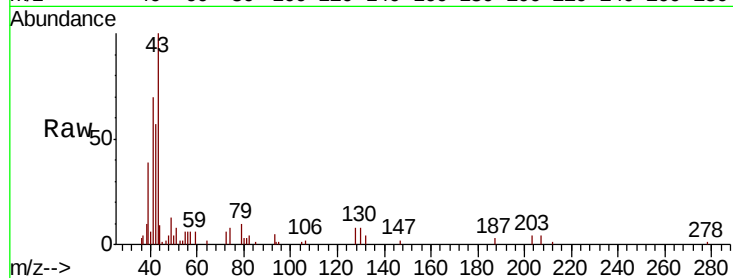




#41  
Tetrahydrofuran  
Concen: 0.055 ppbv  
RT: 6.03 min Scan# 1009  
Delta R.T. -0.00 min  
Lab File: VL037119.D  
Acq: 3 Jun 2021 2:51

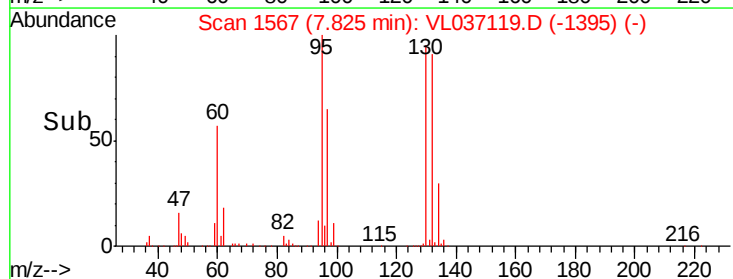
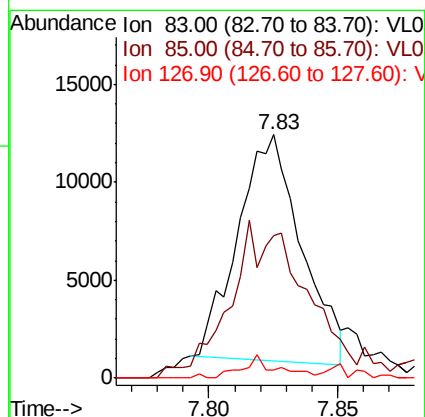
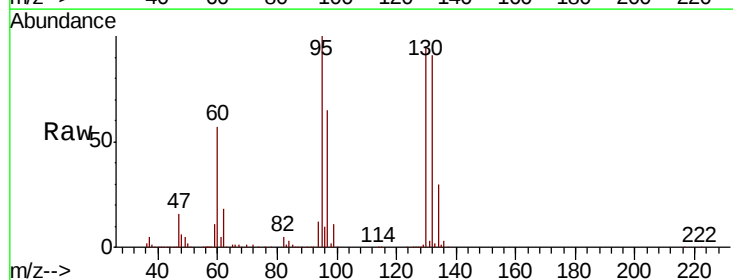
Instrument :  
MSVOA\_L  
ClientSampleId :

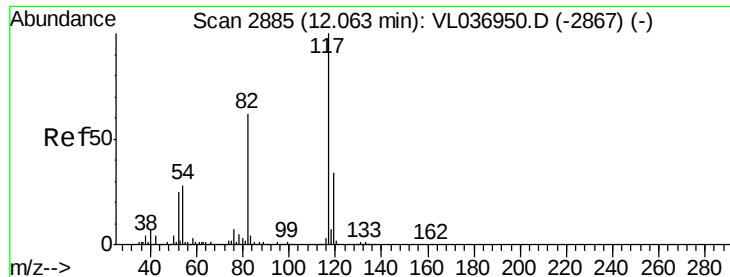
Tot Ion: 42 Resp: 4615  
Ion Ratio Lower Upper  
42 100  
72 87.5 31.4 47.2#  
71 0.0 30.4 45.6#



#42  
Bromodichloromethane  
Concen: 0.076 ppbv  
RT: 7.83 min Scan# 1567  
Delta R.T. 0.05 min  
Lab File: VL037119.D  
Acq: 3 Jun 2021 2:51

Tgt Ion: 83 Resp: 19919  
Ion Ratio Lower Upper  
83 100  
85 58.9 51.7 77.5  
127 3.5 6.9 10.3#

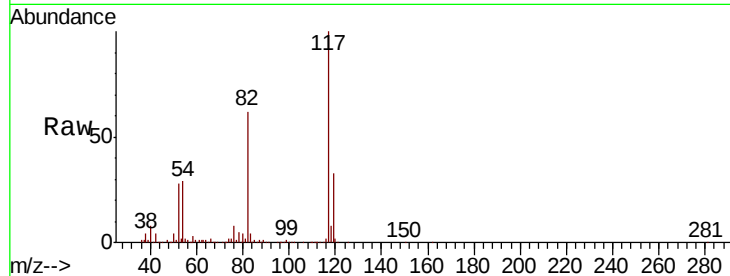




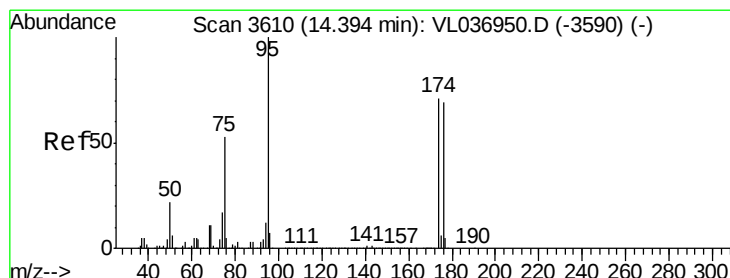
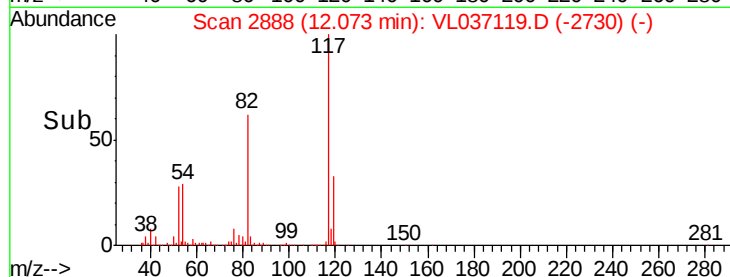
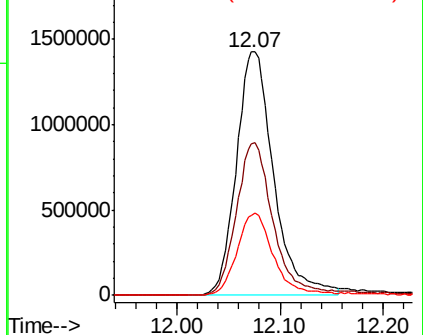
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.07 min Scan# 2888  
Delta R.T. 0.01 min  
Lab File: VL037119.D  
Acq: 3 Jun 2021 2:51

Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion:117 Resp: 3597522  
Ion Ratio Lower Upper  
117 100  
82 64.2 52.6 79.0  
119 34.3 46.6 70.0#

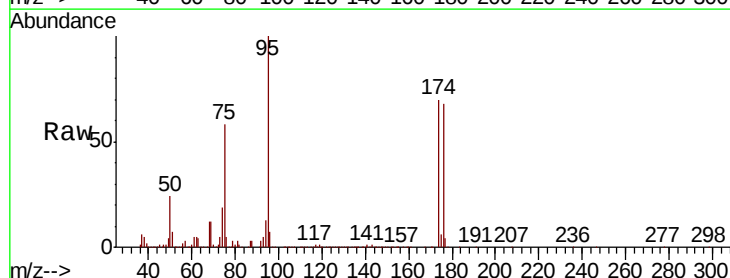


Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.814 ppbv  
RT: 14.40 min Scan# 3613  
Delta R.T. 0.01 min  
Lab File: VL037119.D  
Acq: 3 Jun 2021 2:51

Tgt Ion: 95 Resp: 2652263  
Ion Ratio Lower Upper  
95 100  
174 74.9 58.4 87.6  
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

