

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032719\  
 Data File : VL033480.D  
 Acq On : 27 Mar 2019 22:48  
 Operator : SY/AP  
 Sample : K2042-14DL 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Mar 28 07:30:48 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Mar 26 16:00:50 2019  
 QLast Update : Tue Mar 26 16:00:50 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.75  | 49   | 740268   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.28  | 114  | 1697389  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 1694404  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1339753  | 10.09    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.90% |

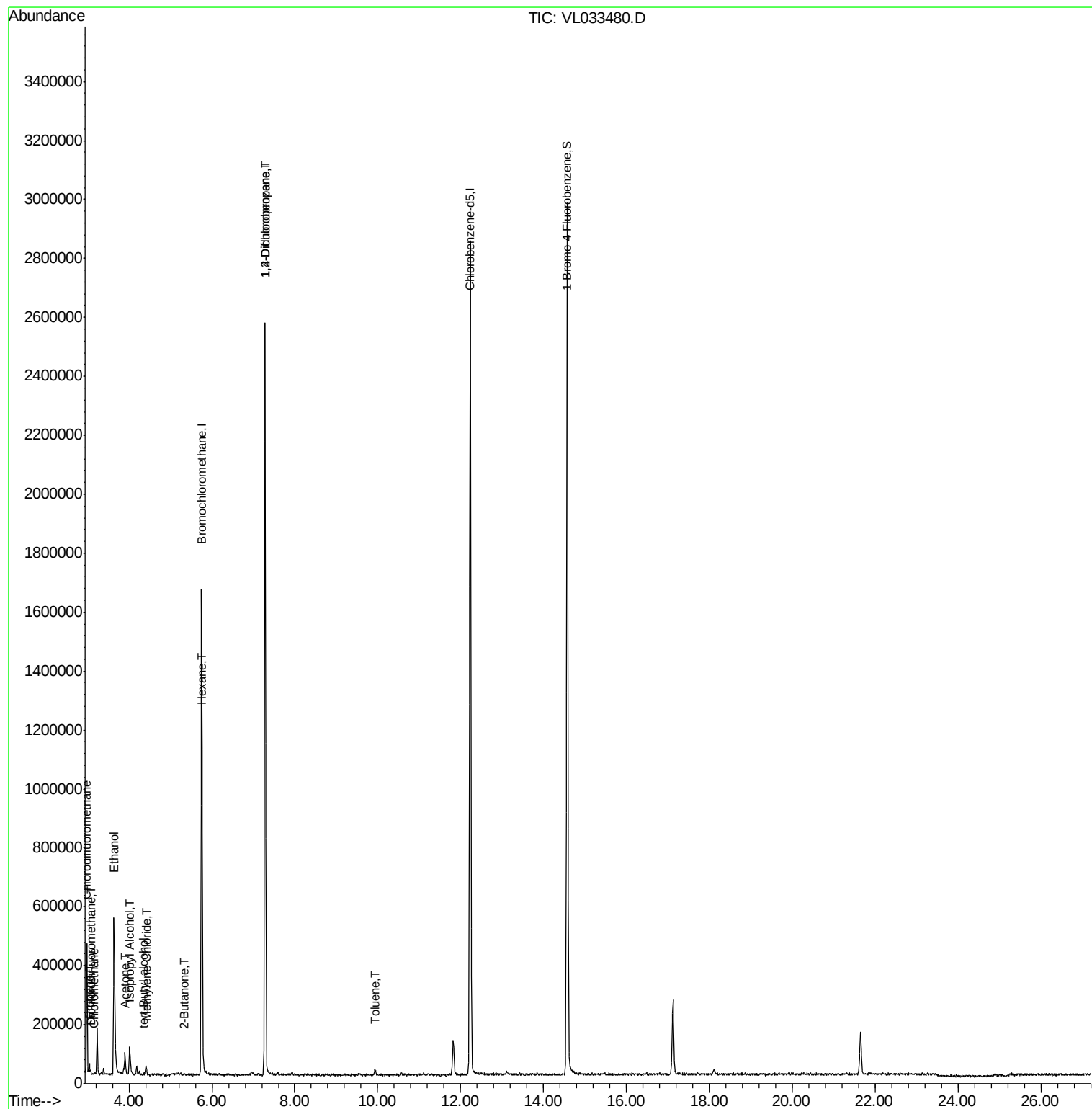
| Target Compounds           |      |    |        |              | Ovalue |
|----------------------------|------|----|--------|--------------|--------|
| 2) Dichlorodifluoromethane | 3.07 | 85 | 6397   | 0.059 ppbv   | 91     |
| 3) Chlorodifluoromethane   | 2.98 | 51 | 247915 | 2.909 ppbv # | 58     |
| 4) Chloromethane           | 3.16 | 50 | 2428   | 0.054 ppbv # | 87     |
| 9) Propene                 | 3.04 | 41 | 5604   | 0.157 ppbv   | 99     |
| 13) Ethanol                | 3.64 | 45 | 613382 | 66.229 ppbv  | 64     |
| 15) Acetone                | 3.90 | 43 | 64704  | 0.727 ppbv   | 98     |
| 17) tert-Butyl alcohol     | 4.36 | 59 | 1613   | 0.099 ppbv # | 73     |
| 19) Isopropyl Alcohol      | 4.02 | 45 | 84826  | 1.507 ppbv # | 91     |
| 20) Methylene Chloride     | 4.41 | 84 | 8861   | 0.235 ppbv # | 70     |
| 26) Hexane                 | 5.77 | 57 | 3694   | 0.050 ppbv # | 51     |
| 34) 2-Butanone             | 5.33 | 43 | 2521   | 0.025 ppbv # | 89     |
| 39) 1,2-Dichloropropane    | 7.28 | 63 | 457526 | 8.201 ppbv # | 23     |
| 53) Toluene                | 9.94 | 91 | 14581  | 0.088 ppbv   | 97     |

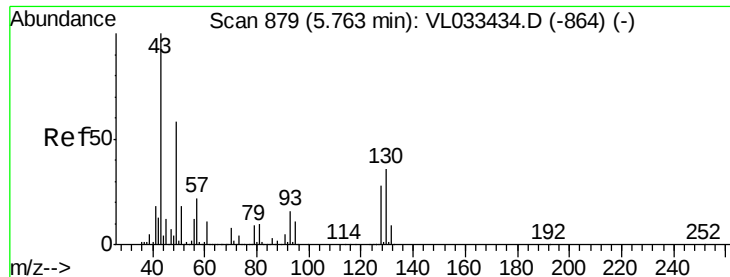
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL032719\  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Mar 26 16:00:50 2019  
QLast Update : Tue Mar 26 16:00:50 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

Instrument :  
MSVOA\_L  
ClientSampled :

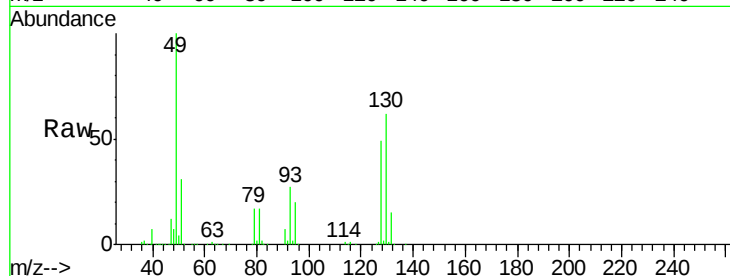
Tot Ion: 49 Resp: 740268

Ion Ratio Lower Upper

49 100

128 47.7 24.0 72.0

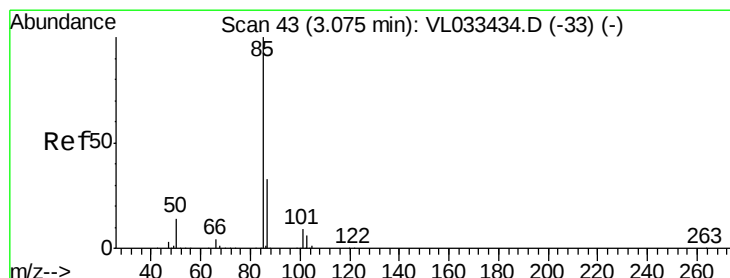
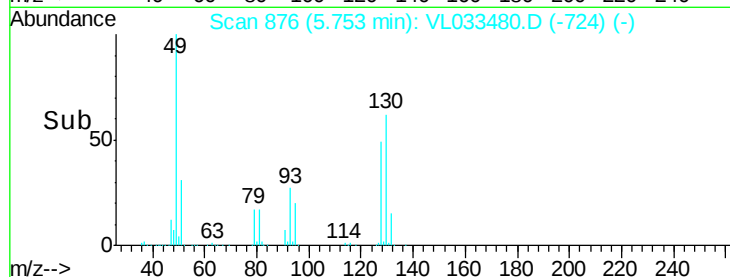
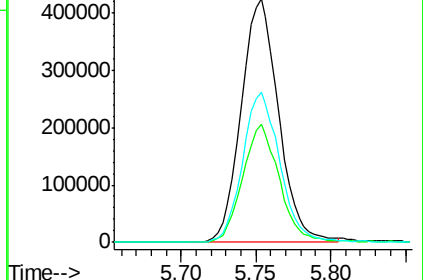
130 61.9 31.2 93.6



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



#2

Dichlorodifluoromethane

Concen: 0.059 ppbv

RT: 3.07 min Scan# 41

Delta R.T. -0.01 min

Lab File: VL033480.D

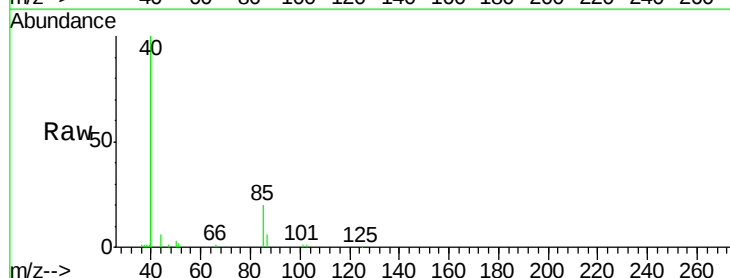
Acq: 27 Mar 2019 22:48

Tgt Ion: 85 Resp: 6397

Ion Ratio Lower Upper

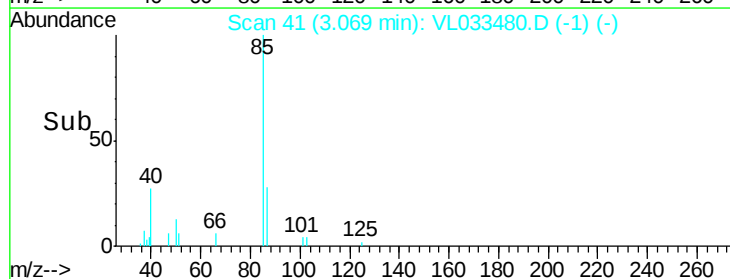
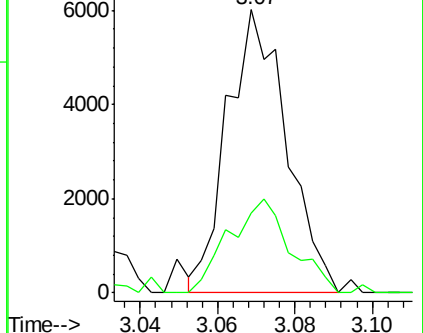
85 100

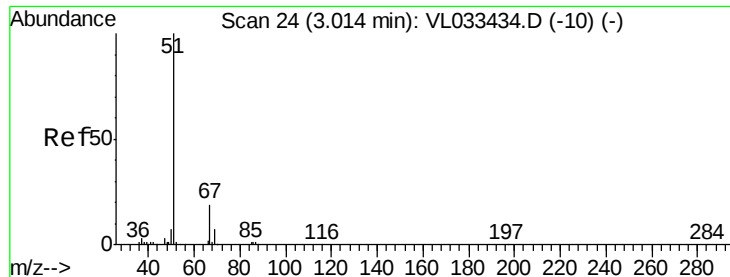
87 28.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

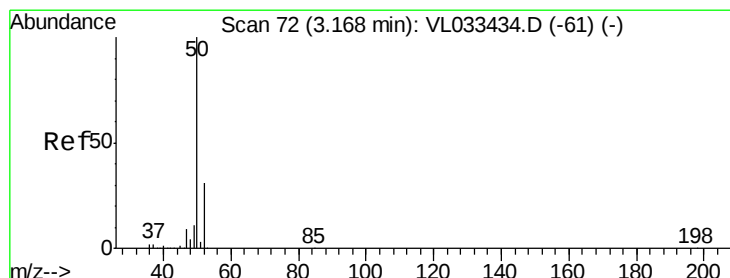
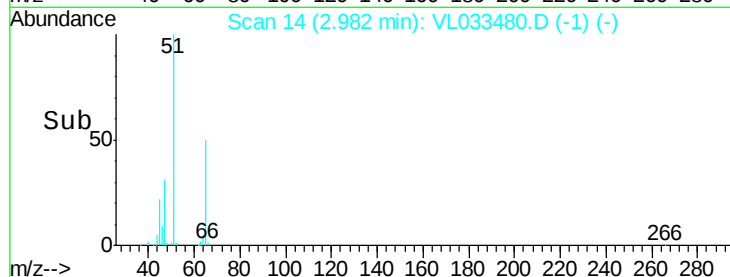
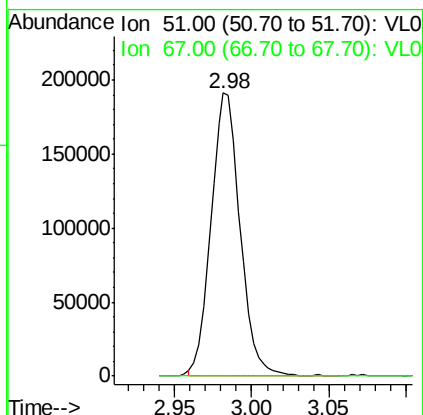
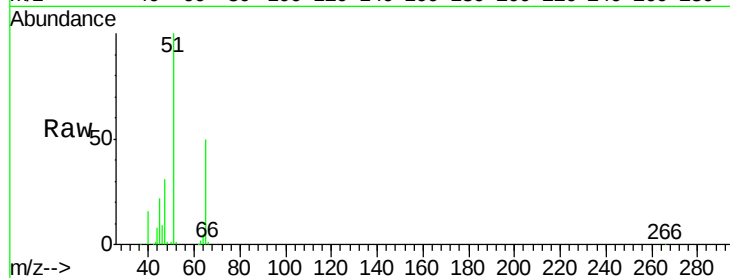




#3  
 Chlorodifluoromethane  
 Concen: 2.909 ppbv  
 RT: 2.98 min Scan# 14  
 Delta R.T. -0.03 min  
 Lab File: VL033480.D  
 Acq: 27 Mar 2019 22:48

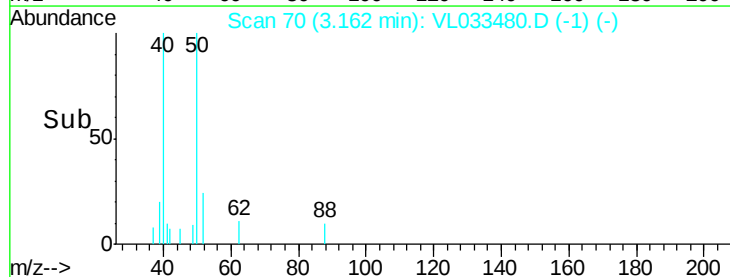
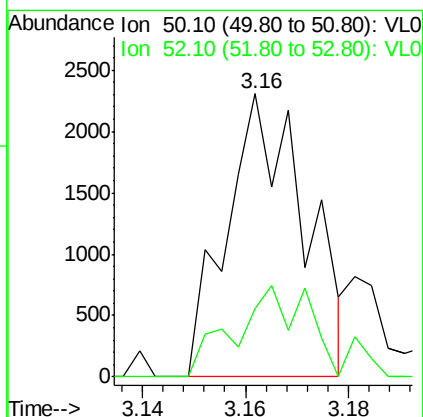
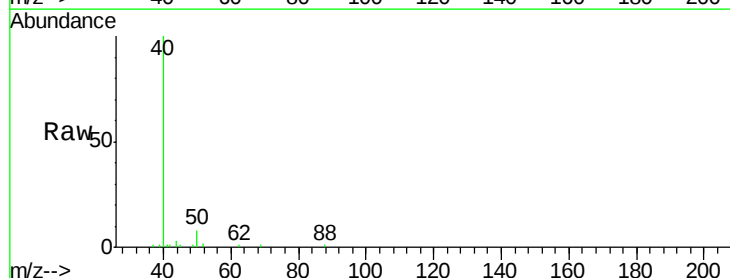
Instrument :  
 MSVOA\_L  
 ClientSampleId :

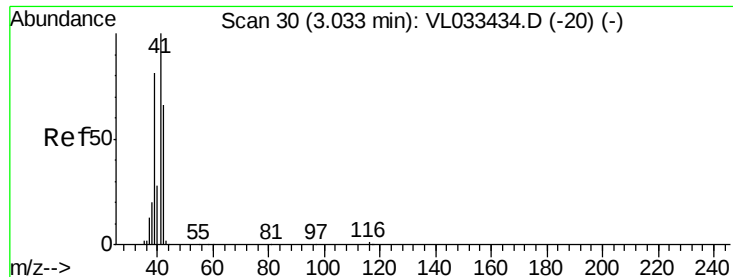
Tot Ion: 51 Resp: 247915  
 Ion Ratio Lower Upper  
 51 100  
 67 0.3 15.7 23.5#



#4  
 Chloromethane  
 Concen: 0.054 ppbv  
 RT: 3.16 min Scan# 70  
 Delta R.T. -0.01 min  
 Lab File: VL033480.D  
 Acq: 27 Mar 2019 22:48

Tgt Ion: 50 Resp: 2428  
 Ion Ratio Lower Upper  
 50 100  
 52 24.1 25.0 37.6#

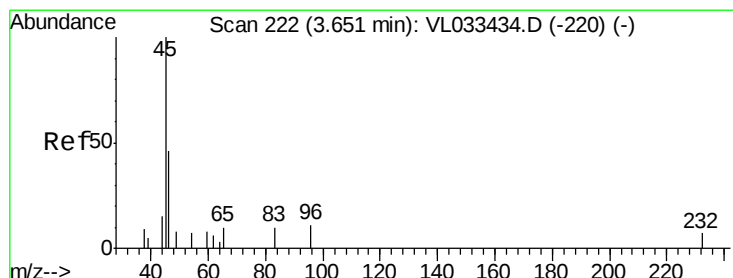
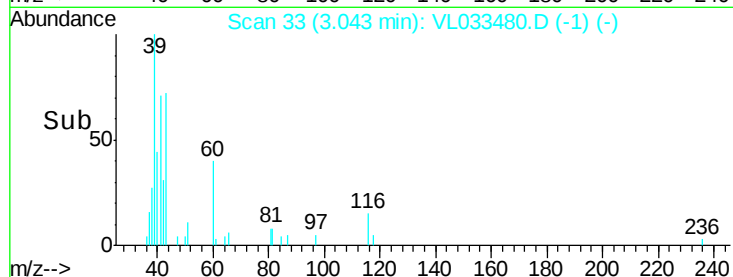
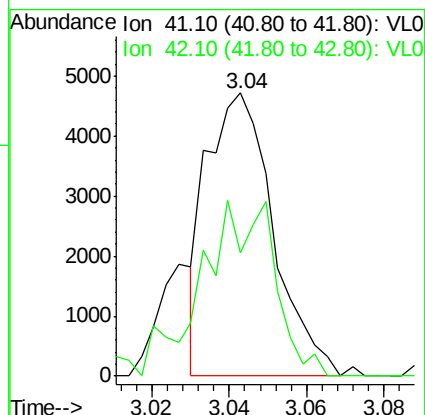
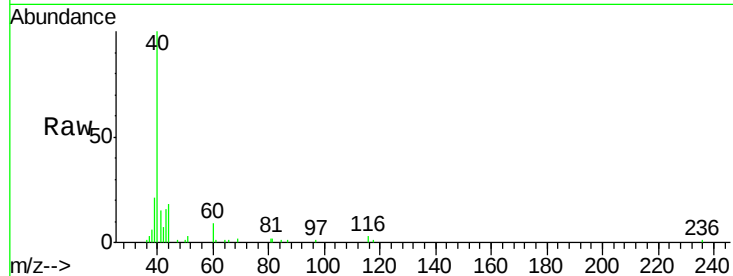




#9  
 Propene  
 Concen: 0.157 ppbv  
 RT: 3.04 min Scan# 33  
 Delta R.T. 0.01 min  
 Lab File: VL033480.D  
 Acq: 27 Mar 2019 22:48

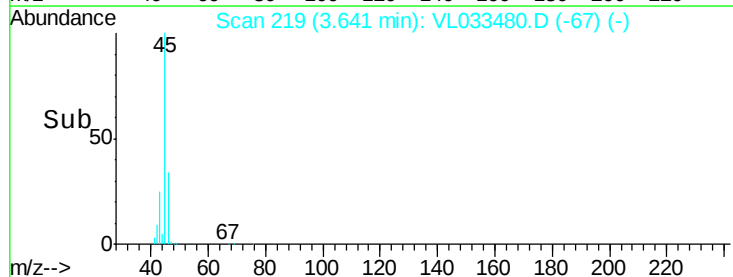
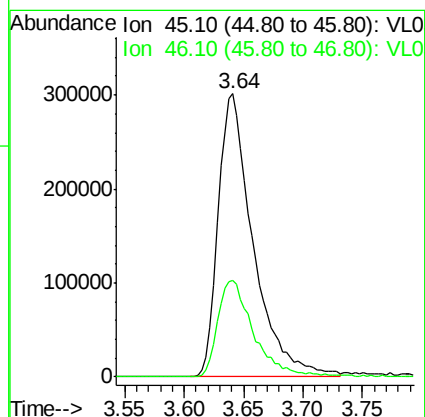
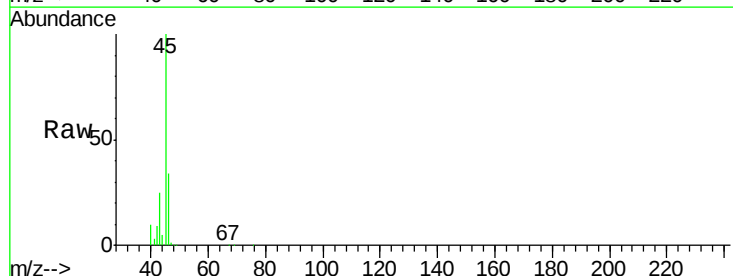
Instrument :  
 MSVOA\_L  
 ClientSampleId :

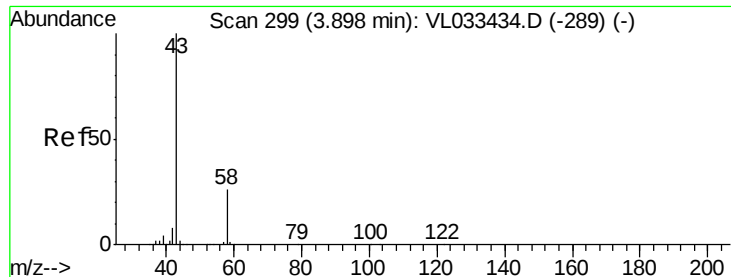
Tot Ion: 41 Resp: 5604  
 Ion Ratio Lower Upper  
 41 100  
 42 68.1 53.9 80.9



#13  
 Ethanol  
 Concen: 66.229 ppbv  
 RT: 3.64 min Scan# 219  
 Delta R.T. -0.01 min  
 Lab File: VL033480.D  
 Acq: 27 Mar 2019 22:48

Tgt Ion: 45 Resp: 613382  
 Ion Ratio Lower Upper  
 45 100  
 46 35.3 25.4 101.8

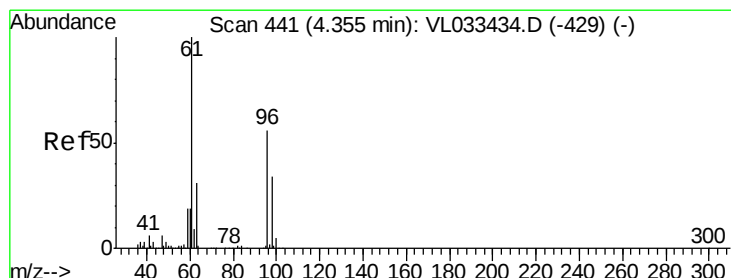
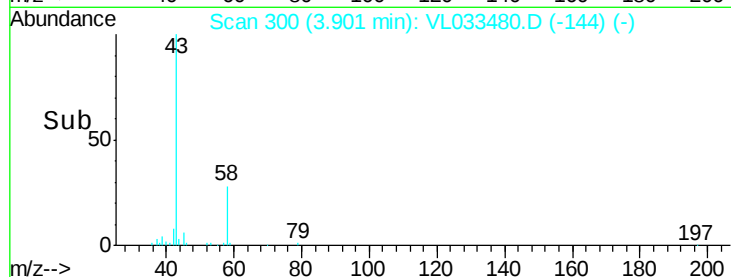
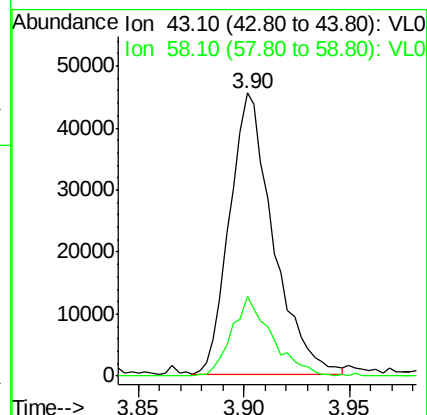
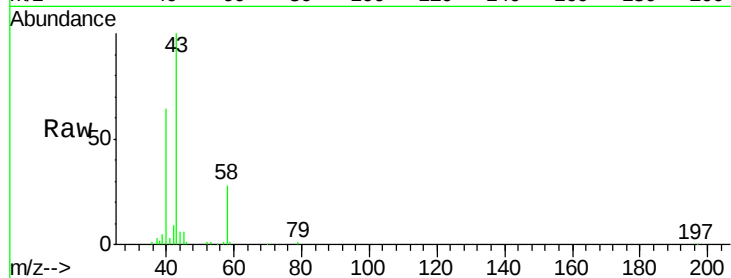




#15  
Acetone  
Concen: 0.727 ppbv  
RT: 3.90 min Scan# 300  
Delta R.T. 0.00 min  
Lab File: VL033480.D  
Acq: 27 Mar 2019 22:48

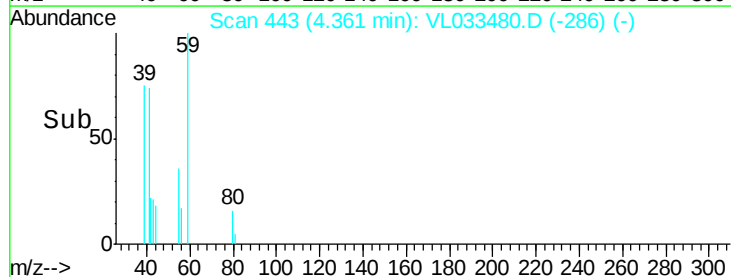
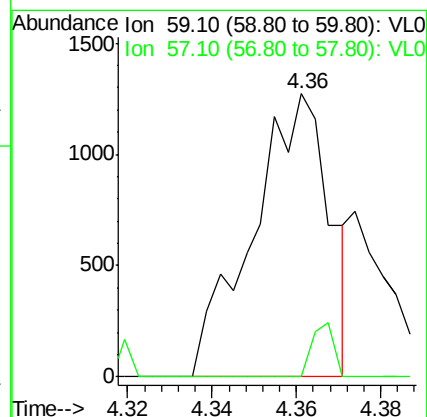
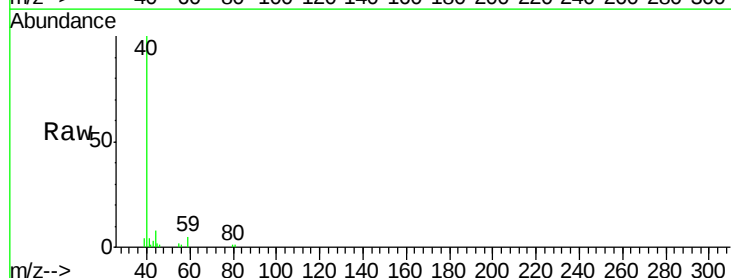
Instrument :  
MSVOA\_L  
ClientSampled :

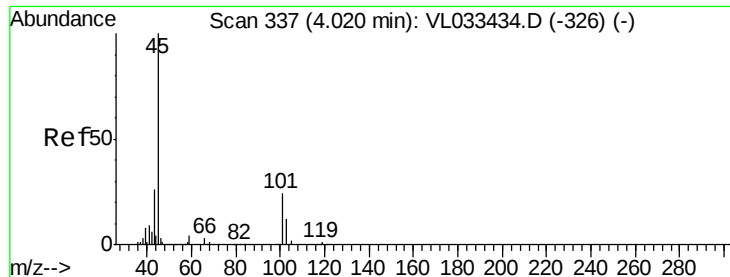
Tot Ion: 43 Resp: 64704  
Ion Ratio Lower Upper  
43 100  
58 26.4 20.5 30.7



#17  
tert-Butyl alcohol  
Concen: 0.099 ppbv  
RT: 4.36 min Scan# 443  
Delta R.T. 0.01 min  
Lab File: VL033480.D  
Acq: 27 Mar 2019 22:48

Tgt Ion: 59 Resp: 1613  
Ion Ratio Lower Upper  
59 100  
57 0.0 7.8 11.8#





#19

Isopropyl Alcohol

Concen: 1.507 ppbv

RT: 4.02 min Scan# 336

Delta R.T. -0.00 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

Instrument :

MSVOA\_L

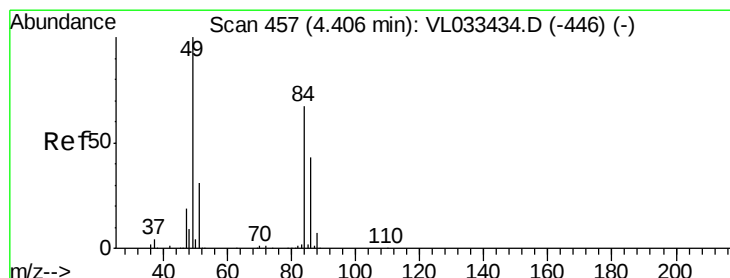
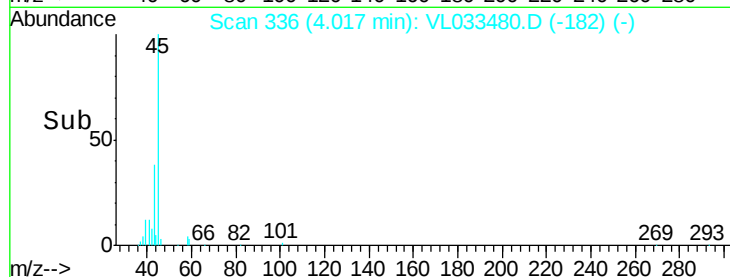
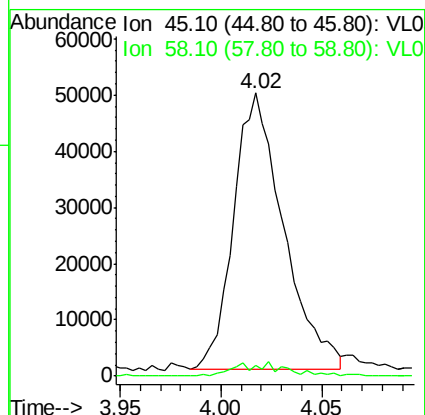
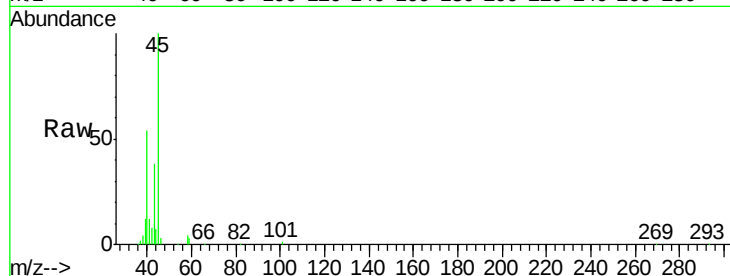
ClientSampled :

Tot Ion: 45 Resp: 84826

Ion Ratio Lower Upper

45 100

58 5.1 1.4 2.2#



#20

Methylene Chloride

Concen: 0.235 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

Tgt Ion: 84 Resp: 8861

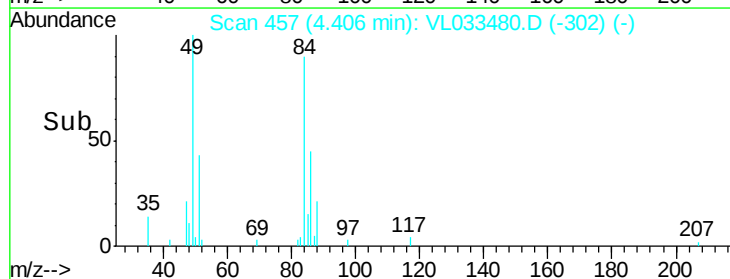
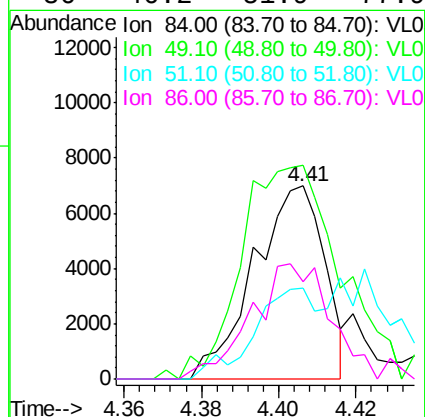
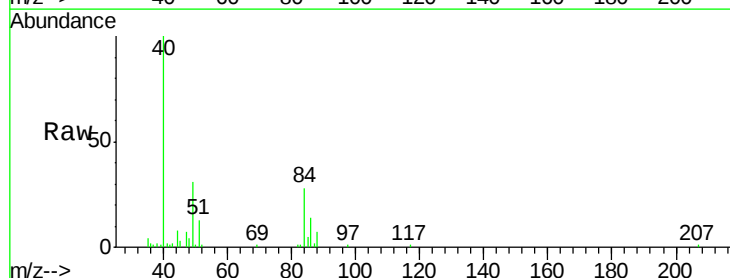
Ion Ratio Lower Upper

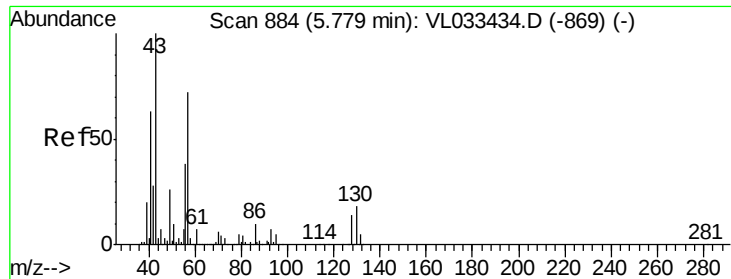
84 100

49 98.7 120.0 180.0#

51 50.7 36.7 55.1

86 46.2 51.9 77.9#

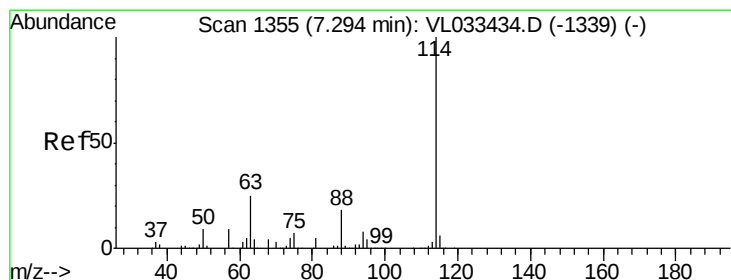
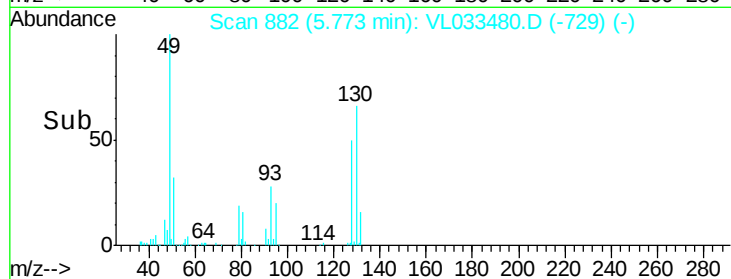
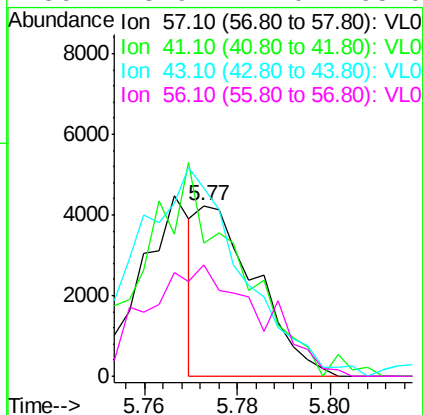
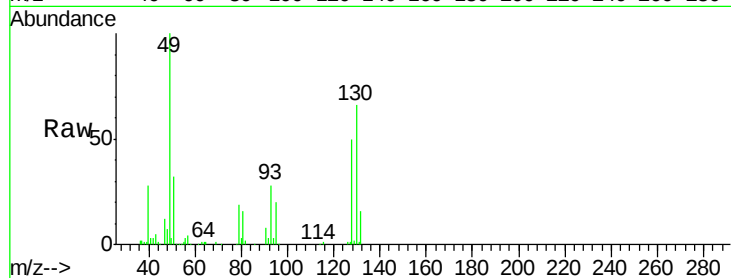




#26  
Hexane  
Concen: 0.050 ppbv  
RT: 5.77 min Scan# 882  
Delta R.T. -0.01 min  
Lab File: VL033480.D  
Acq: 27 Mar 2019 22:48

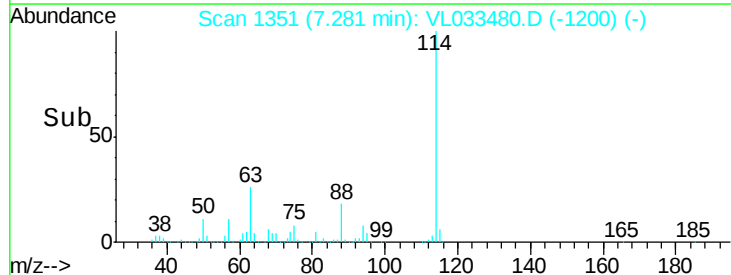
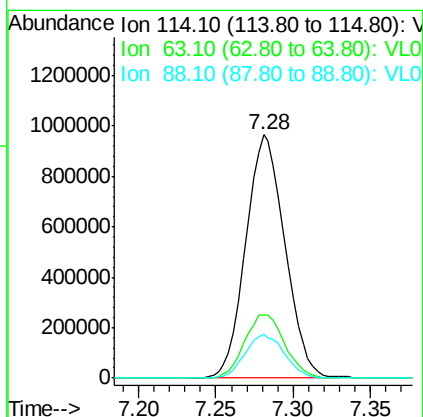
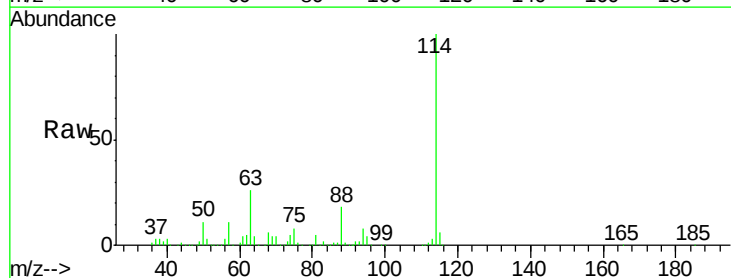
Instrument :  
MSVOA\_L  
ClientSampleId :

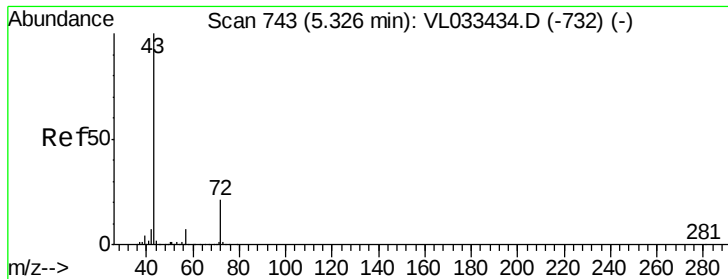
Tot Ion: 57 Resp: 3694  
Ion Ratio Lower Upper  
57 100  
41 206.1 70.7 106.1#  
43 237.0 182.6 274.0  
56 128.9 42.0 63.0#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.28 min Scan# 1351  
Delta R.T. -0.01 min  
Lab File: VL033480.D  
Acq: 27 Mar 2019 22:48

Tgt Ion:114 Resp: 1697389  
Ion Ratio Lower Upper  
114 100  
63 27.1 21.5 32.3  
88 18.3 14.5 21.7





#34

2-Butanone

Concen: 0.025 ppbv

RT: 5.33 min Scan# 744

Delta R.T. 0.00 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

Instrument :

MSVOA\_L

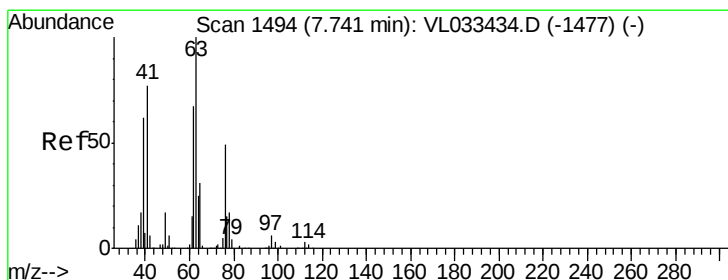
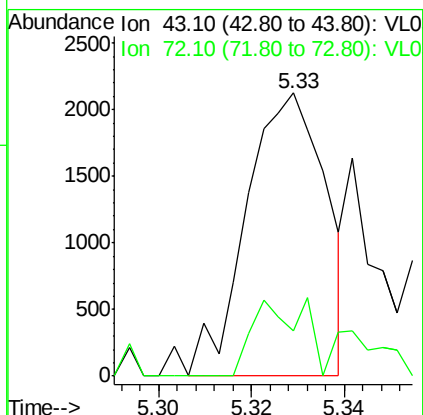
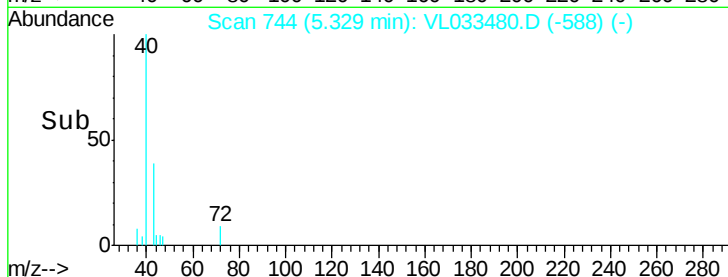
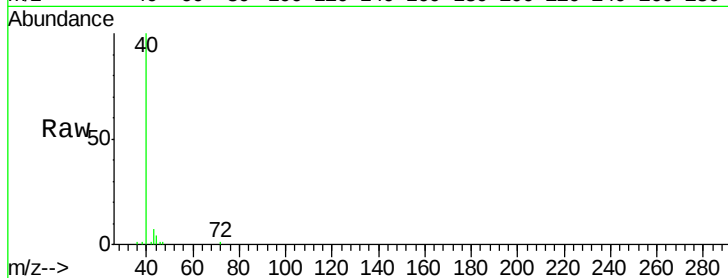
ClientSampleId :

Tot Ion: 43 Resp: 2521

Ion Ratio Lower Upper

43 100

72 27.0 17.4 26.2#



#39

1,2-Dichloropropane

Concen: 8.201 ppbv

RT: 7.28 min Scan# 1350

Delta R.T. -0.46 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

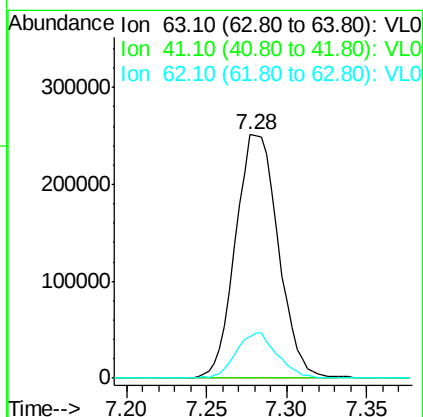
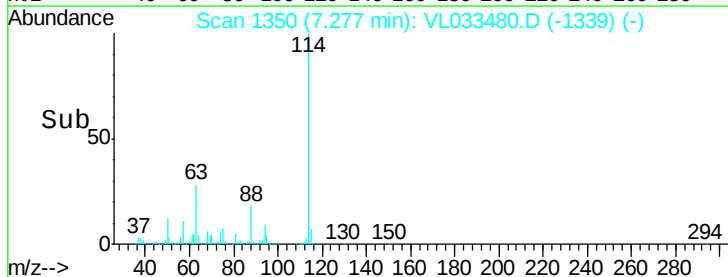
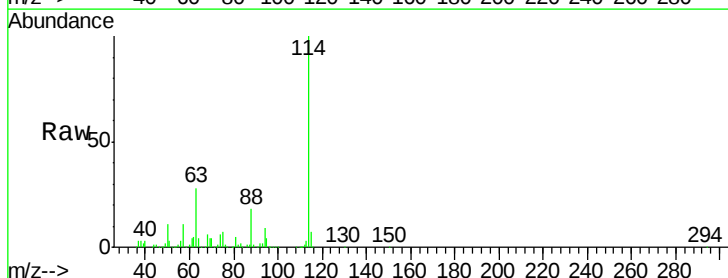
Tgt Ion: 63 Resp: 457526

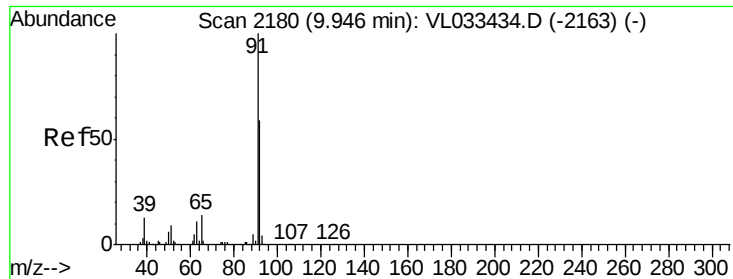
Ion Ratio Lower Upper

63 100

41 0.0 61.2 91.8#

62 17.0 54.0 81.0#





#53

Toluene

Concen: 0.088 ppbv

RT: 9.94 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

Instrument :

MSVOA\_L

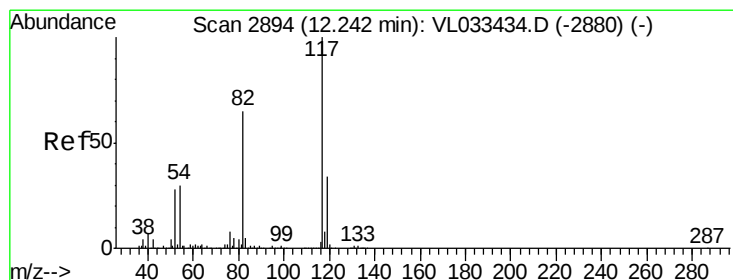
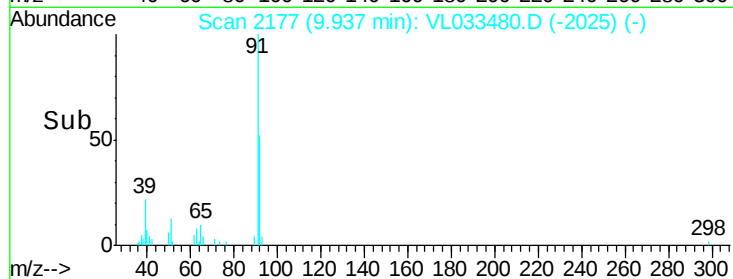
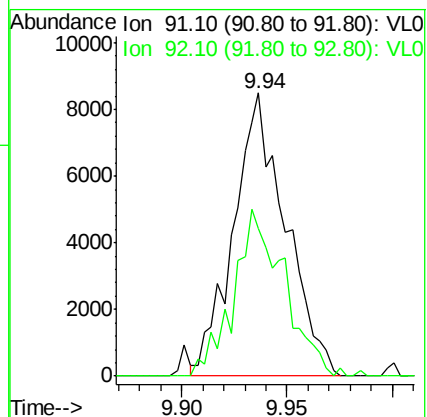
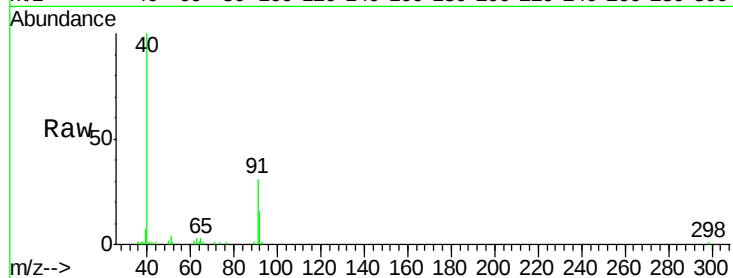
ClientSampleId :

Tot Ion: 91 Resp: 14581

Ion Ratio Lower Upper

91 100

92 57.2 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2891

Delta R.T. -0.01 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

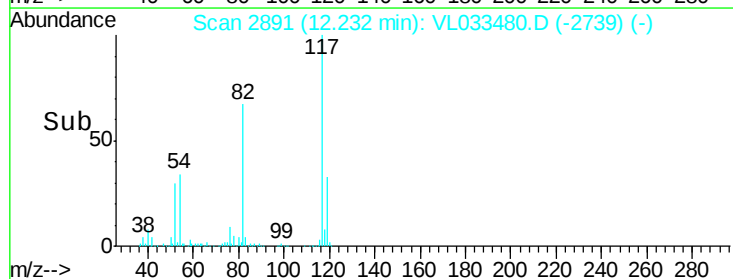
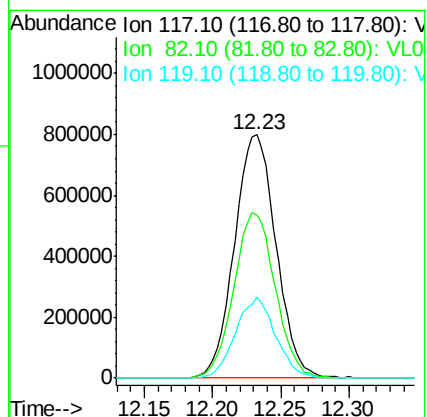
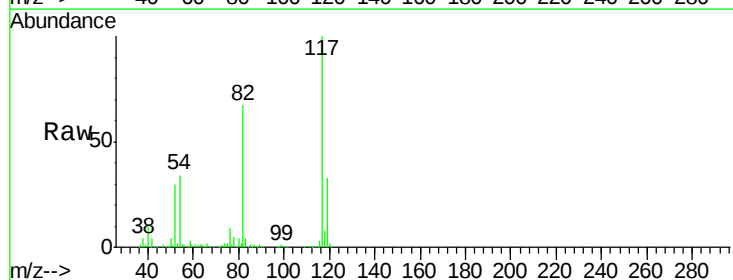
Tgt Ion: 117 Resp: 1694404

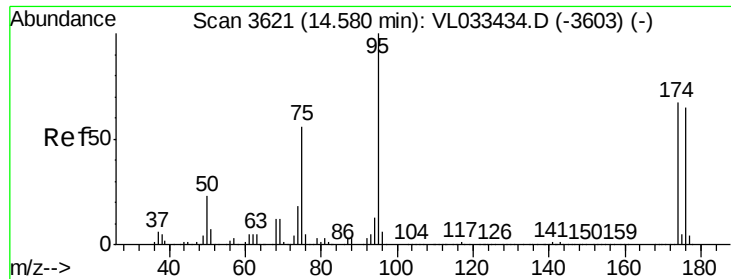
Ion Ratio Lower Upper

117 100

82 67.8 51.5 77.3

119 32.0 25.5 38.3





#68

1-Bromo-4-Fluorobenzene

Concen: 10.086 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. -0.01 min

Lab File: VL033480.D

Acq: 27 Mar 2019 22:48

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 95 Resp: 1339753

Ion Ratio Lower Upper

95 100

174 65.3 52.9 79.3

175 4.8 3.8 5.6

