

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041719\  
 Data File : VL033607.D  
 Acq On : 17 Apr 2019 18:09  
 Operator : SY/AP  
 Sample : K2241-15 0.03 PPB  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-MDL-AIR-03-QT2-2019

Quant Time: Apr 18 06:35:20 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   | 5.76  | 49   | 719621   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 1874783  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 1957509  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1558767  | 10.16    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.60% |

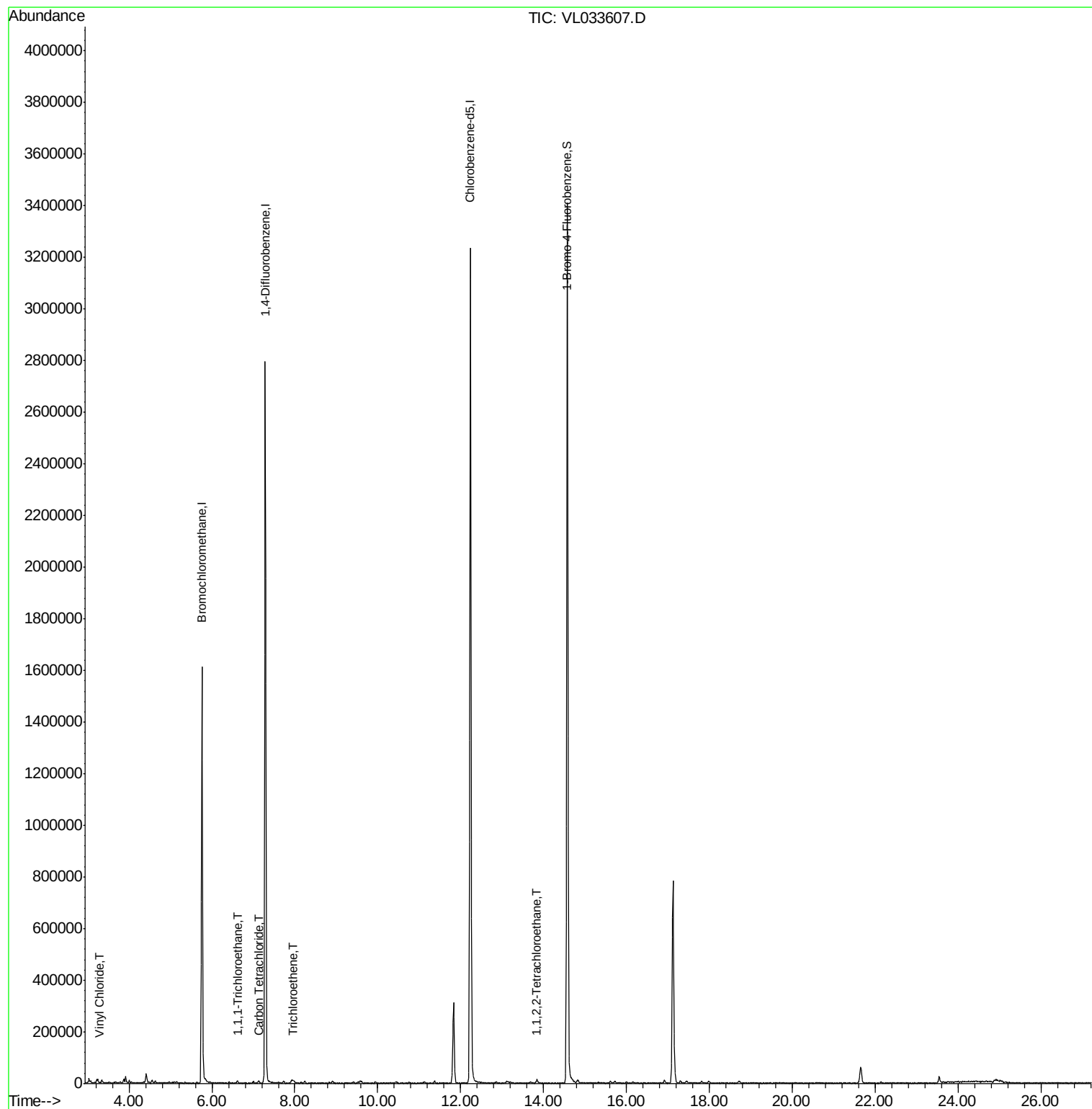
| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Ovalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 5) Vinyl Chloride             | 3.29  | 62   | 2180m    | 0.051 | ppbv  |        |
| 32) 1,1,1-Trichloroethane     | 6.62  | 97   | 4869m    | 0.042 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.14  | 117  | 5538m    | 0.042 | ppbv  |        |
| 38) Trichloroethene           | 7.95  | 130  | 1941m    | 0.033 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.82 | 83   | 5424m    | 0.033 | ppbv  |        |

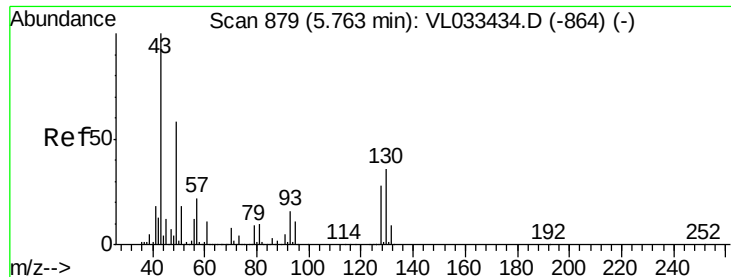
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL041719\  
Data File : VL033607.D  
Acq On : 17 Apr 2019 18:09  
Operator : SY/AP  
Sample : K2241-15 0.03 PPB  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-MDL-AIR-03-QT2-2019

Quant Time: Apr 18 06:35:20 2019  
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: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033607.D

Acq: 17 Apr 2019 18:09

Instrument :

MSVOA\_L

ClientSampleId :

MDL-MDL-AIR-03-QT2-2019

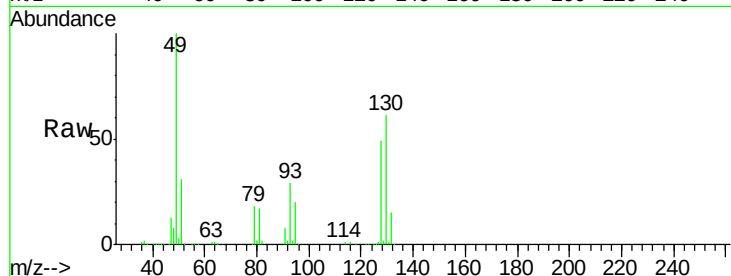
Tot Ion: 49 Resp: 719621

Ion Ratio Lower Upper

49 100

128 49.5 24.0 72.0

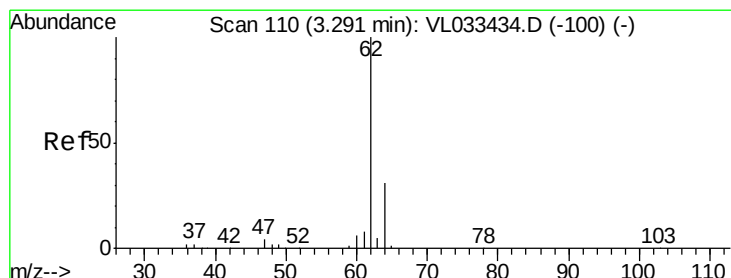
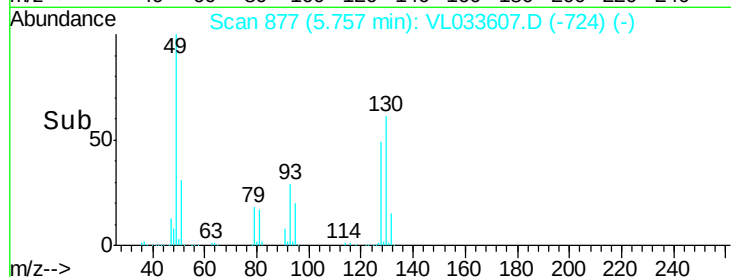
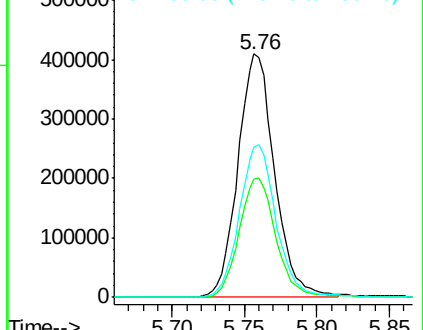
130 63.1 31.2 93.6



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



#5

Vinyl Chloride

Concen: 0.051 ppbv m

RT: 3.29 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL033607.D

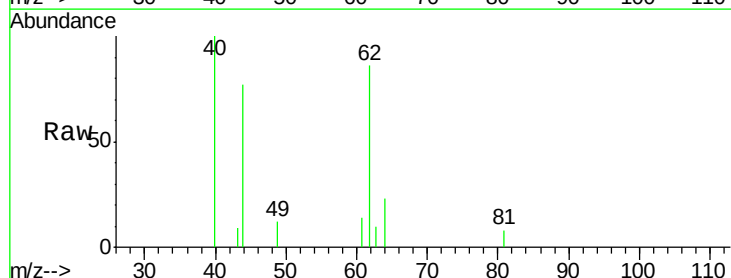
Acq: 17 Apr 2019 18:09

Tgt Ion: 62 Resp: 2180

Ion Ratio Lower Upper

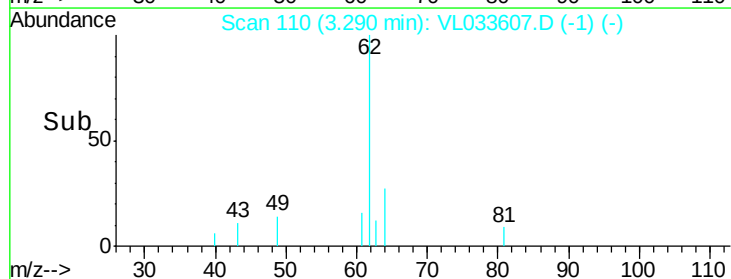
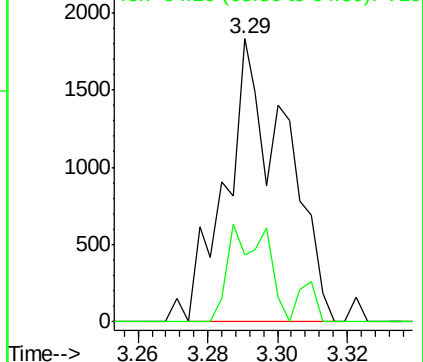
62 100

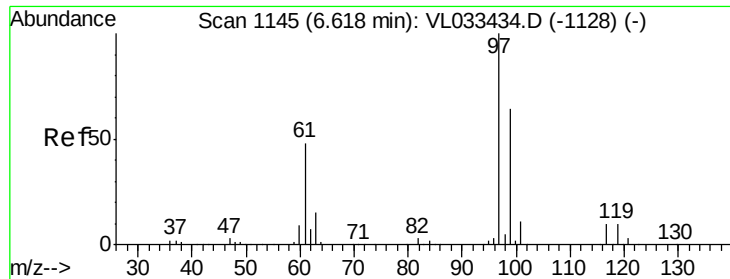
64 26.7 24.9 37.3



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





#32

1,1,1-Trichloroethane

Concen: 0.042 ppbv m

RT: 6.62 min Scan# 1144

Delta R.T. -0.00 min

Lab File: VL033607.D

Acq: 17 Apr 2019 18:09

Instrument :

MSVOA\_L

ClientSampleId :

MDL-MDL-AIR-03-QT2-2019

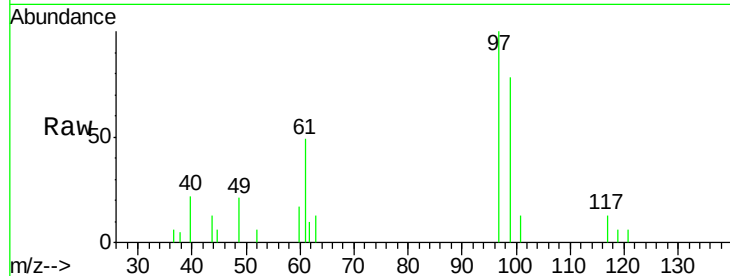
Tot Ion: 97 Resp: 4869

Ion Ratio Lower Upper

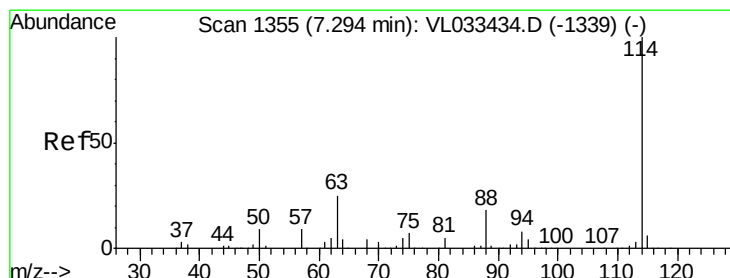
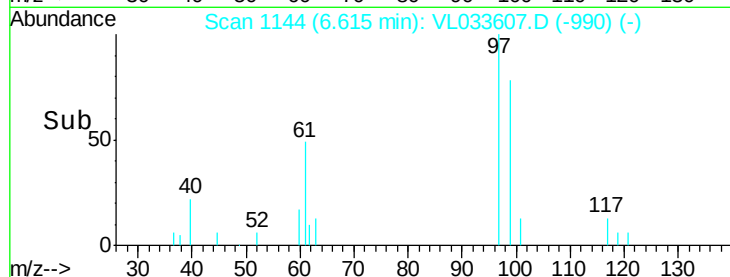
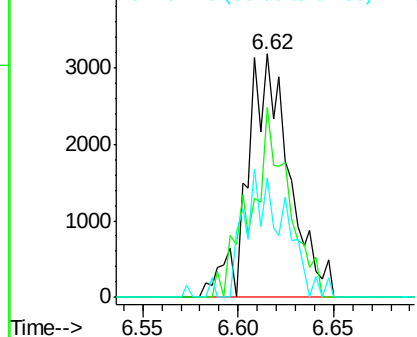
97 100

99 0.0 51.5 77.3#

61 50.6 38.8 58.2



Abundance Ion 97.00 (96.70 to 97.70): VL0  
Ion 99.00 (98.70 to 99.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.01 min

Lab File: VL033607.D

Acq: 17 Apr 2019 18:09

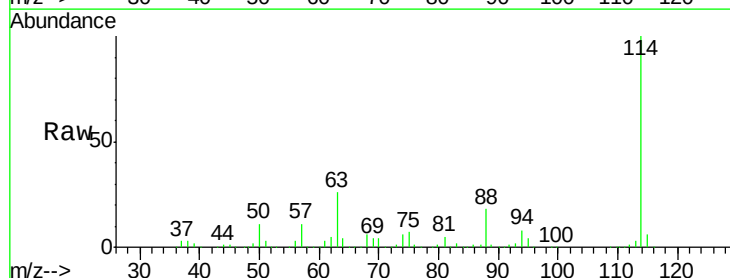
Tgt Ion: 114 Resp: 1874783

Ion Ratio Lower Upper

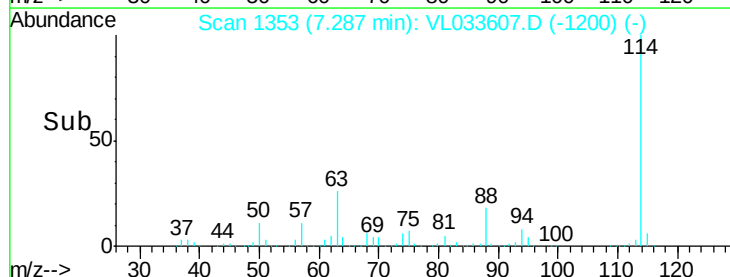
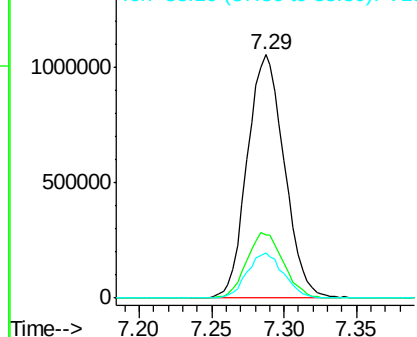
114 100

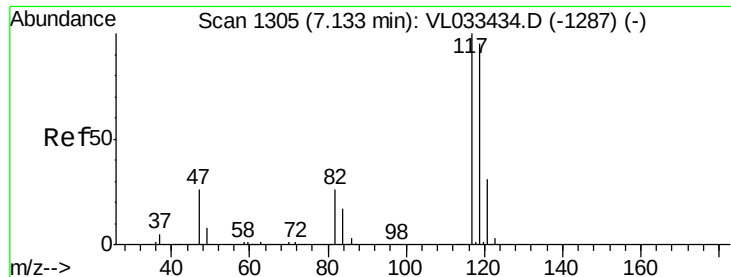
63 26.9 21.5 32.3

88 18.3 14.5 21.7



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

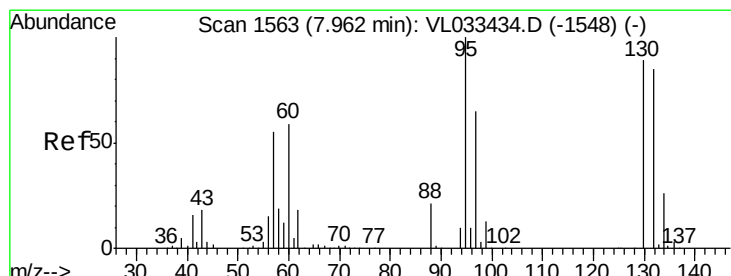
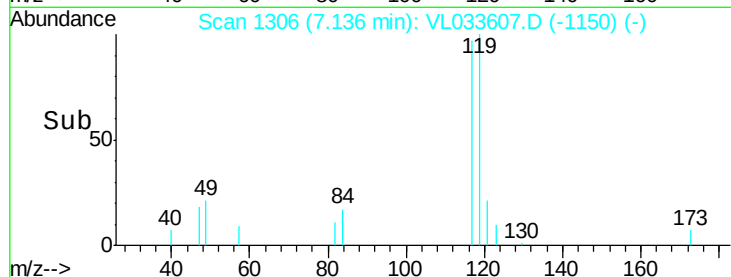
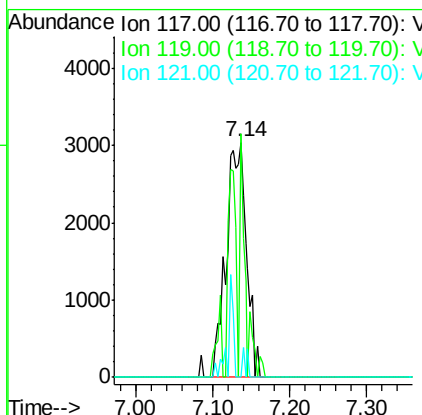
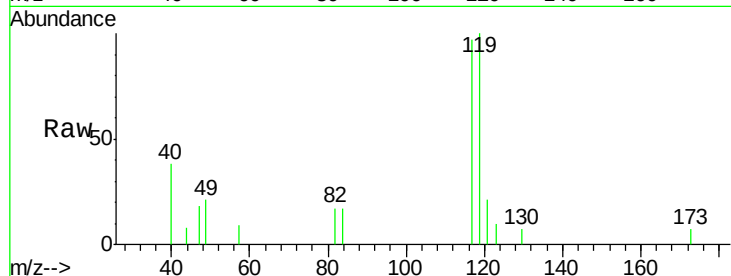




#35  
Carbon Tetrachloride  
Concen: 0.042 ppbv m  
RT: 7.14 min Scan# 1306  
Delta R.T. 0.00 min  
Lab File: VL033607.D  
Acq: 17 Apr 2019 18:09

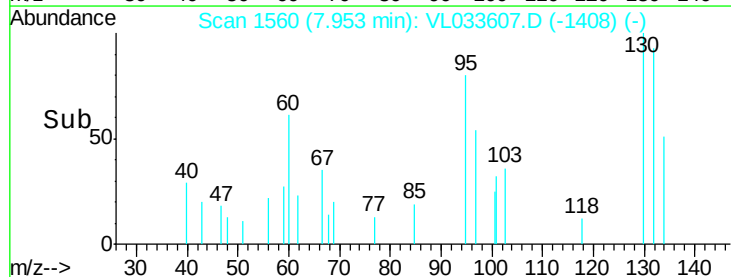
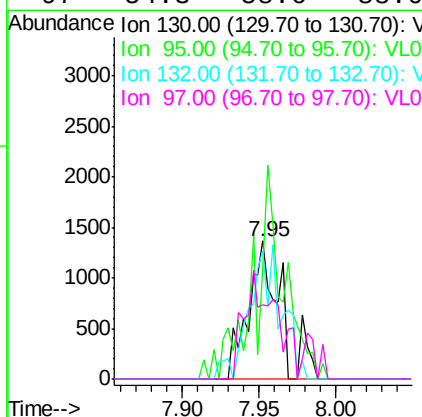
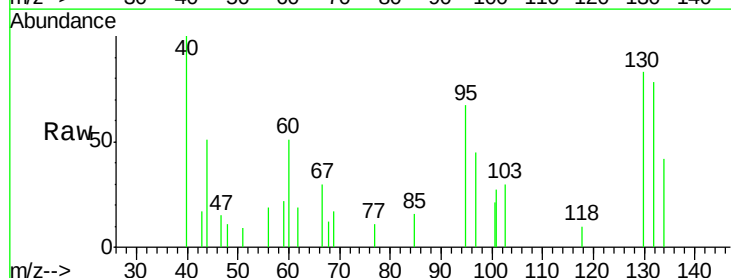
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-MDL-AIR-03-QT2-2019

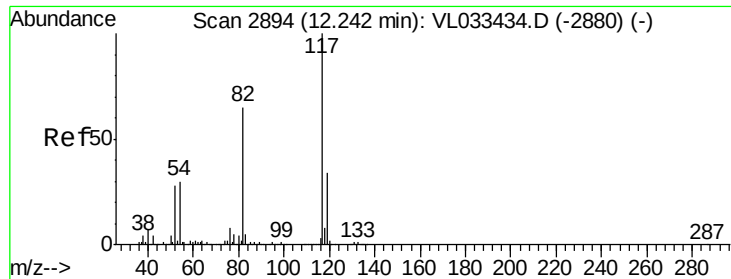
Tot Ion:117 Resp: 5538  
Ion Ratio Lower Upper  
117 100  
119 103.6 75.8 113.8  
121 0.0 24.7 37.1#



#38  
Trichloroethene  
Concen: 0.033 ppbv m  
RT: 7.95 min Scan# 1560  
Delta R.T. -0.01 min  
Lab File: VL033607.D  
Acq: 17 Apr 2019 18:09

Tgt Ion:130 Resp: 1941  
Ion Ratio Lower Upper  
130 100  
95 80.0 89.8 134.8#  
132 93.3 76.6 115.0  
97 54.3 58.6 88.0#

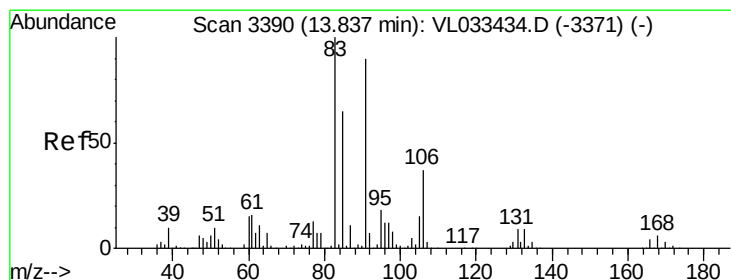
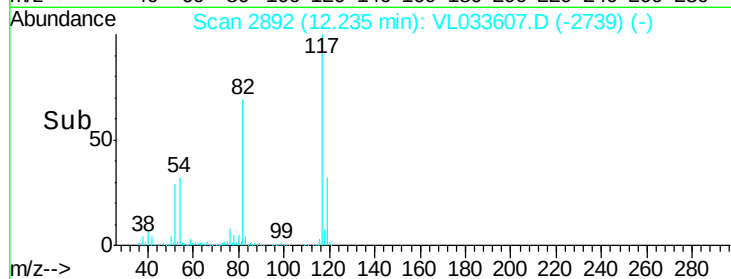
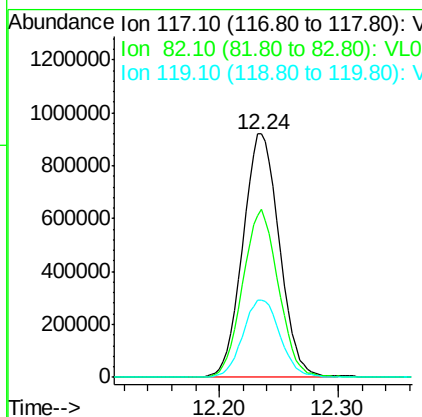
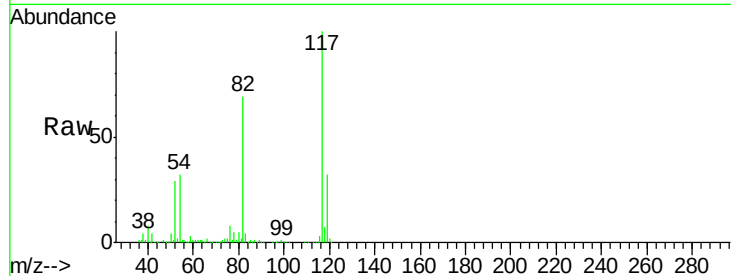




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.24 min Scan# 2892  
Delta R.T. -0.01 min  
Lab File: VL033607.D  
Acq: 17 Apr 2019 18:09

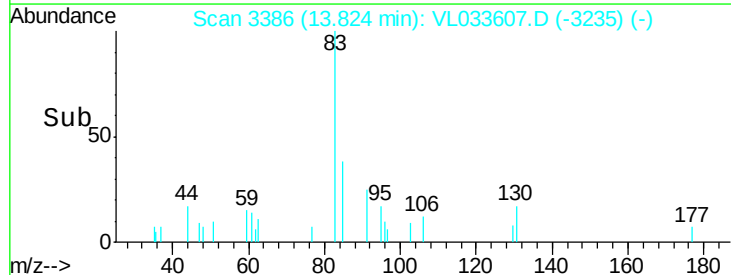
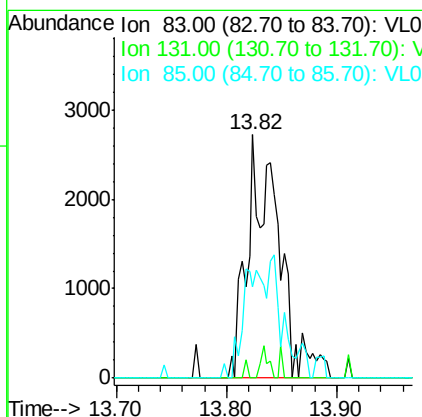
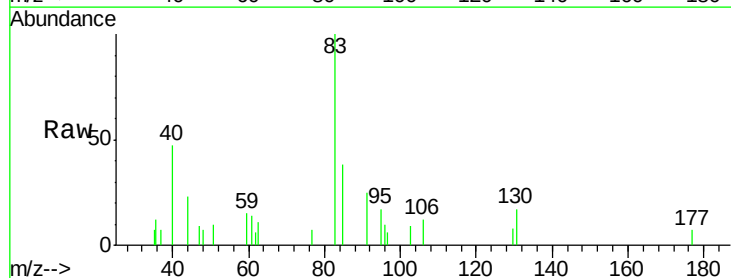
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-MDL-AIR-03-QT2-2019

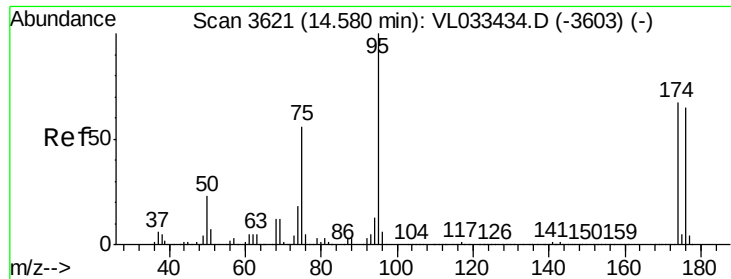
Tot Ion:117 Resp: 1957509  
Ion Ratio Lower Upper  
117 100  
82 67.7 51.5 77.3  
119 32.6 25.5 38.3



#63  
1,1,2,2-Tetrachloroethane  
Concen: 0.033 ppbv m  
RT: 13.82 min Scan# 3386  
Delta R.T. -0.01 min  
Lab File: VL033607.D  
Acq: 17 Apr 2019 18:09

Tgt Ion: 83 Resp: 5424  
Ion Ratio Lower Upper  
83 100  
131 0.0 4.7 14.0#  
85 0.0 32.7 98.1#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.157 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. -0.01 min

Lab File: VL033607.D

Acq: 17 Apr 2019 18:09

Instrument :

MSVOA\_L

ClientSampleId :

MDL-MDL-AIR-03-QT2-2019

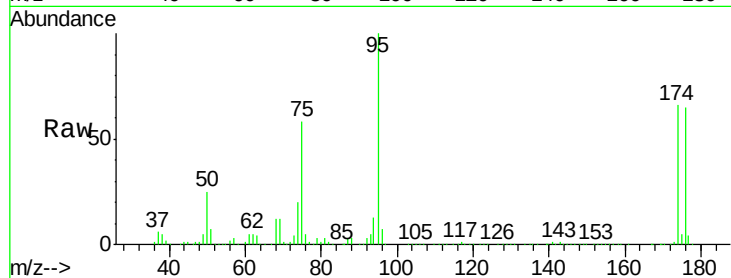
Tot Ion: 95 Resp: 1558767

Ion Ratio Lower Upper

95 100

174 66.5 52.9 79.3

175 4.8 3.8 5.6



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

