

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL012218\  
 Data File : VL031435.D  
 Acq On : 23 Jan 2018 3:16  
 Operator : SY/AP  
 Sample : J1089-10  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-3

Manual Integrations  
 APPROVED

MMDadoda  
 1/24/2018 5:10:35 PM

Quant Time: Jan 23 07:18:36 2018  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL012218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Jan 22 17:52:32 2018  
 QLast Update : Mon Jan 22 17:52:32 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.91  | 49   | 1206973  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.45  | 114  | 2669530  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.41 | 117  | 2610236  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.75  | 95    | 2132378  | 10.20    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.00% |

| Target Compounds              | R.T.  | QIon | Response | Conc | Units | Ovalue |
|-------------------------------|-------|------|----------|------|-------|--------|
| 5) Vinyl Chloride             | 3.40  | 62   | 2237m    | 0.03 | ppbv  |        |
| 32) 1,1,1-Trichloroethane     | 6.77  | 97   | 7267m    | 0.03 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.29  | 117  | 7103m    | 0.03 | ppbv  |        |
| 38) Trichloroethene           | 8.12  | 130  | 3294m    | 0.04 | ppbv  |        |
| 52) Tetrachloroethene         | 11.55 | 164  | 2797m    | 0.03 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 14.01 | 83   | 7325m    | 0.03 | ppbv  |        |

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

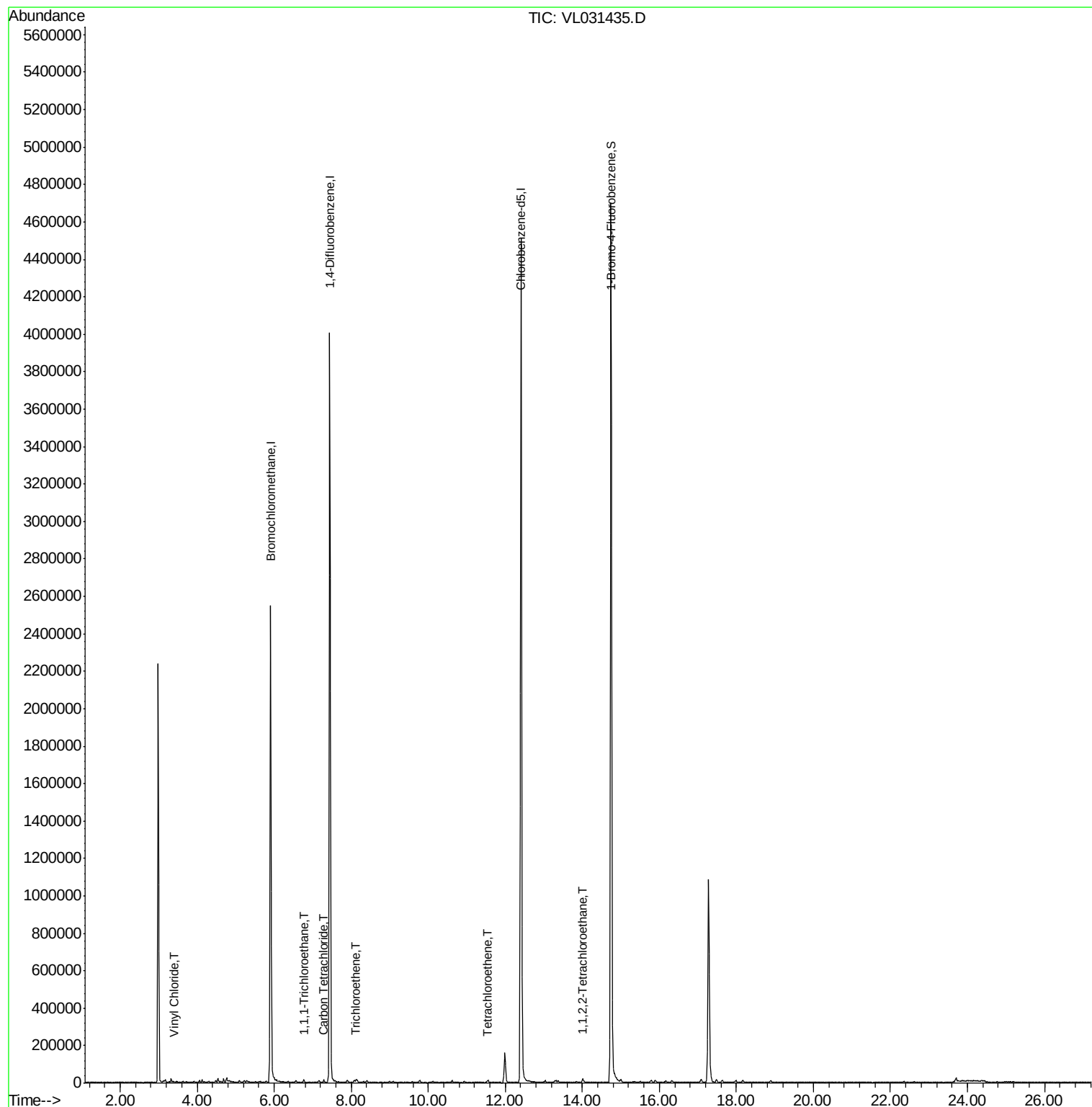
Data Path : W:\HPCHEM1\MSVOA L\DATA\VL012218\  
Data File : VL031435.D  
Acq On : 23 Jan 2018 3:16  
Operator : SY/AP  
Sample : J1089-10  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

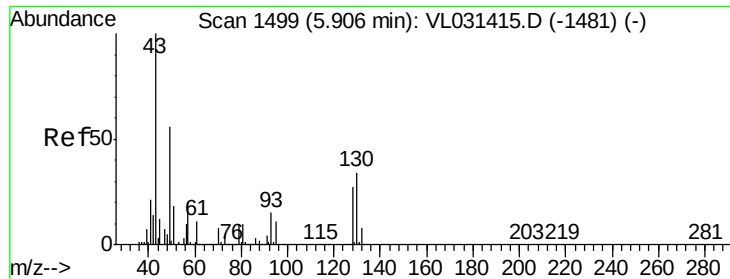
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-3

Manual Integrations  
APPROVED

MMDadoda  
1/24/2018 5:10:35 PM

Quant Time: Jan 23 07:18:36 2018  
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL012218AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Jan  
QLast Update : Mon Jan 22 17:52:32 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.91 min Scan# 1499

Delta R.T. -0.00 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

Instrument :

MSVOA\_L

ClientSampled :

MDL-AIR-3

Tot Ion: 49 Resp: 1206973

Ion Ratio Lower Upper

49 100

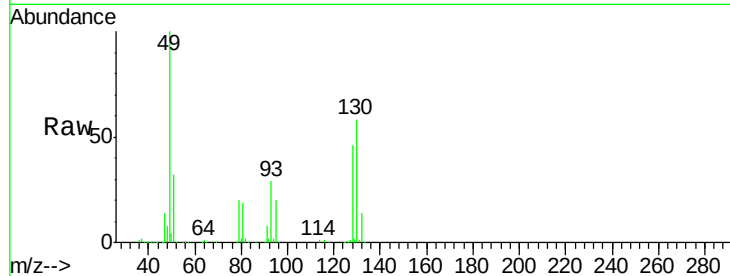
128 45.1 23.5 70.6

130 58.7 29.9 89.7

Manual Integrations  
APPROVED

MMDadoda

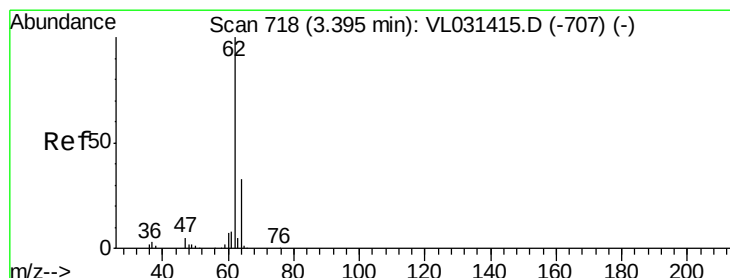
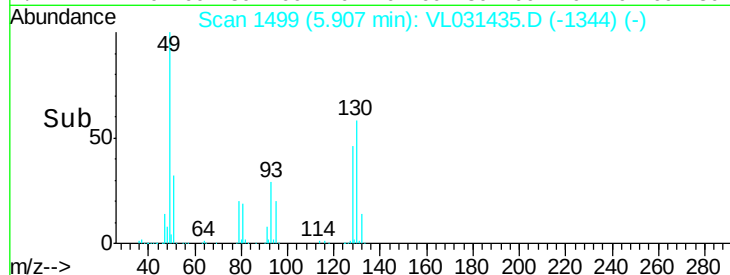
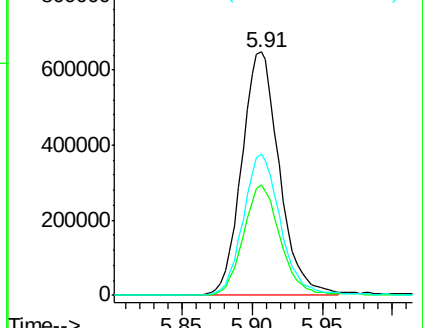
1/24/2018 5:10:35 PM



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



#5

Vinyl Chloride

Concen: 0.03 ppbv m

RT: 3.40 min Scan# 720

Delta R.T. 0.00 min

Lab File: VL031435.D

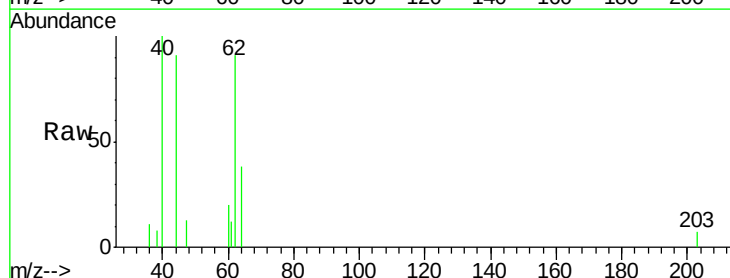
Acq: 23 Jan 2018 3:16

Tgt Ion: 62 Resp: 2237

Ion Ratio Lower Upper

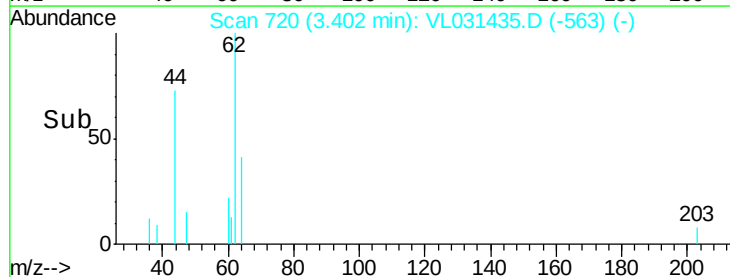
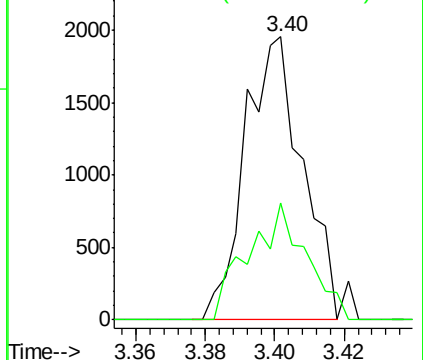
62 100

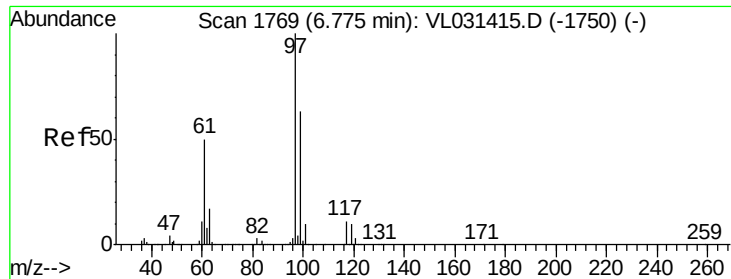
64 41.3 25.4 38.0#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





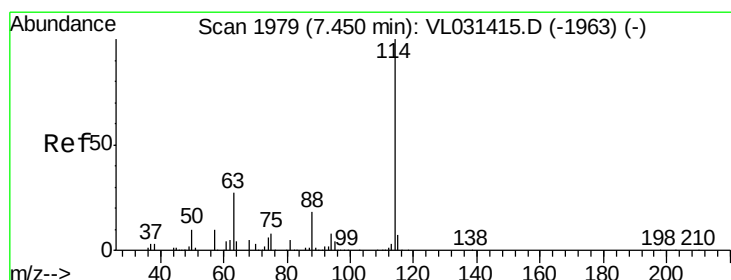
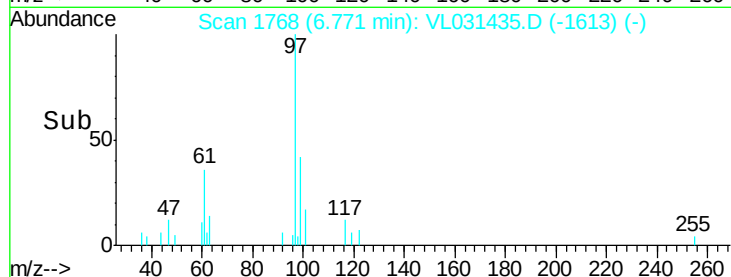
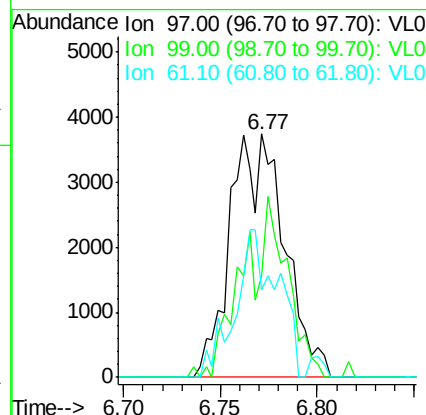
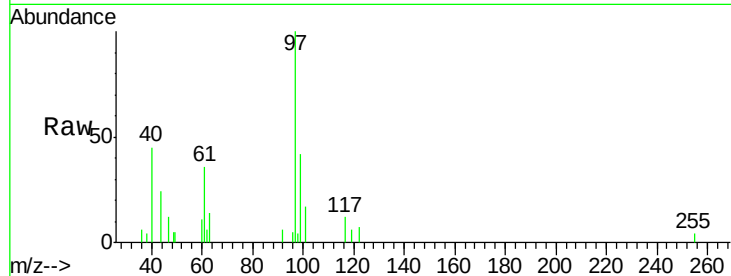
#32  
 1,1,1-Trichloroethane  
 Concen: 0.03 ppbv m  
 RT: 6.77 min Scan# 1768  
 Delta R.T. -0.00 min  
 Lab File: VL031435.D  
 Acq: 23 Jan 2018 3:16

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-3

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 60.5  | 51.9  | 77.9  |
| 61      | 0.0   | 40.6  | 61.0# |

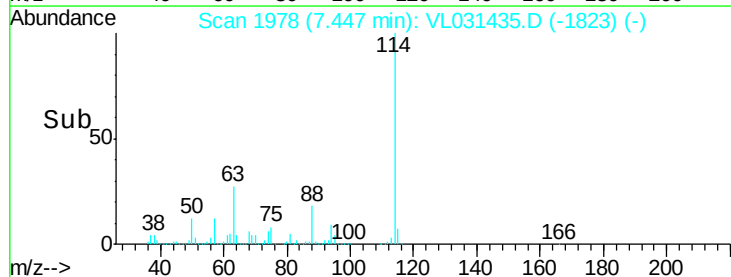
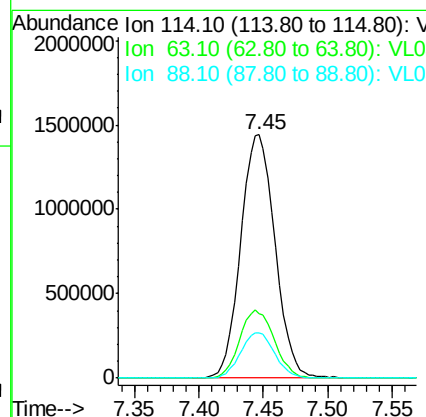
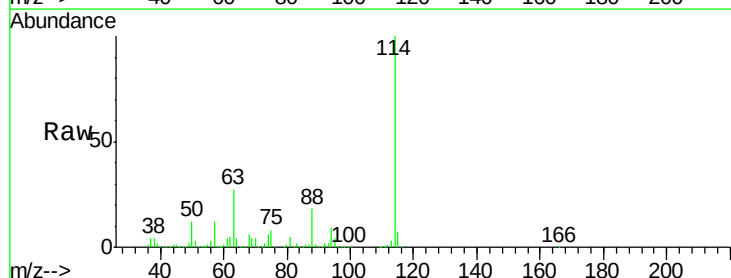
Manual Integrations  
 APPROVED

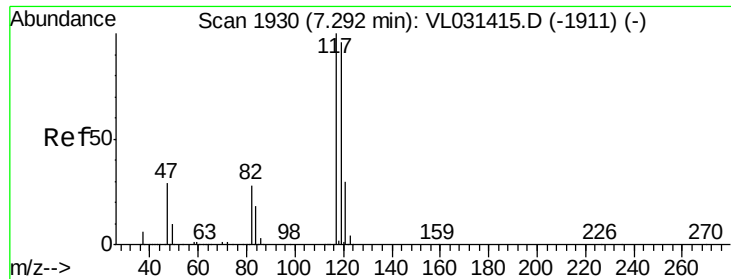
MMDadoda  
 1/24/2018 5:10:35 PM



#33  
 1,4-Difluorobenzene  
 Concen: 10.00 ppbv  
 RT: 7.45 min Scan# 1978  
 Delta R.T. -0.00 min  
 Lab File: VL031435.D  
 Acq: 23 Jan 2018 3:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 28.5  | 22.5  | 33.7  |
| 88      | 18.6  | 14.6  | 22.0  |





#35

Carbon Tetrachloride

Concen: 0.03 ppbv m

RT: 7.29 min Scan# 1928

Delta R.T. -0.01 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

Instrument :

MSVOA\_L

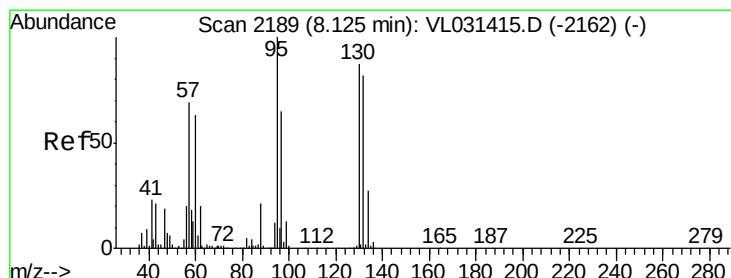
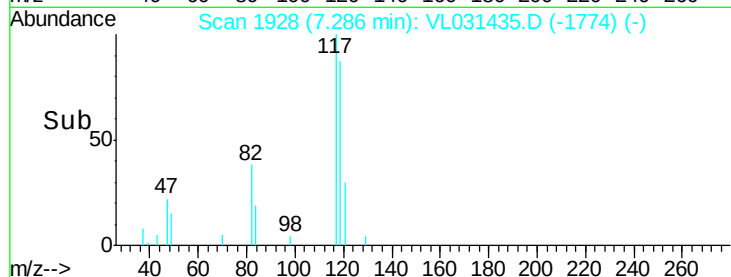
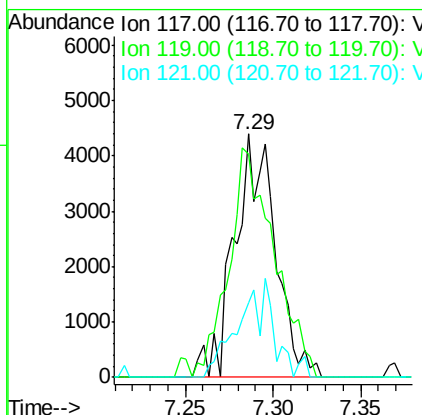
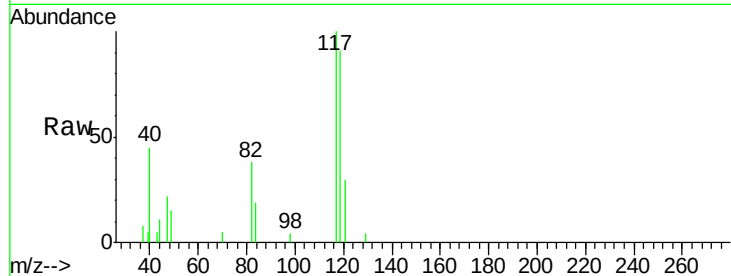
ClientSampleId :

MDL-AIR-3

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 117   | Resp: | 7103  |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 119       | 91.5  | 74.2  | 111.4 |
| 121       | 30.4  | 24.2  | 36.4  |

Manual Integrations  
APPROVED

MMDadoda  
1/24/2018 5:10:35 PM



#38

Trichloroethene

Concen: 0.04 ppbv m

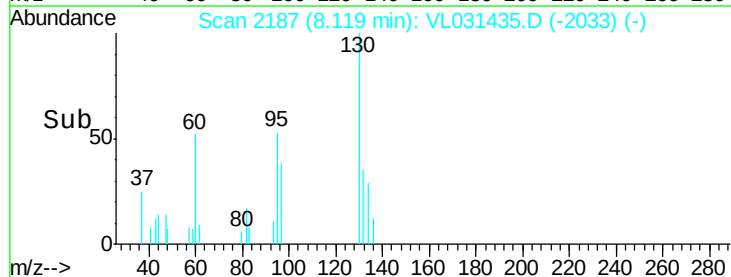
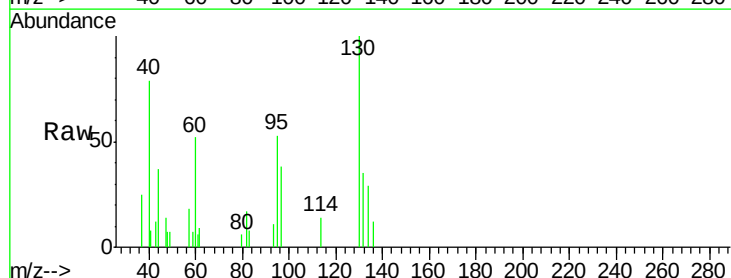
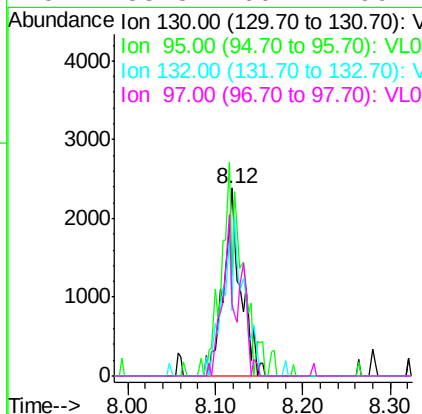
RT: 8.12 min Scan# 2187

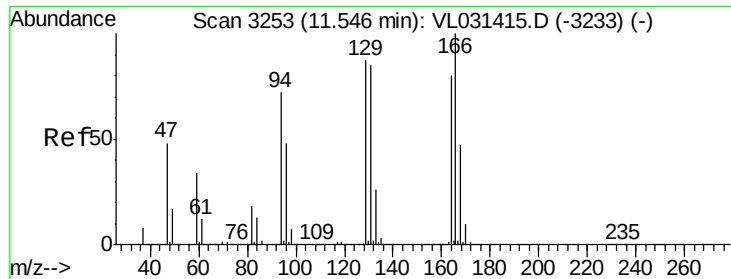
Delta R.T. -0.01 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 130   | Resp: | 3294   |
| Ion Ratio | Lower | Upper |        |
| 130       | 100   |       |        |
| 95        | 53.1  | 92.9  | 139.3# |
| 132       | 34.8  | 74.9  | 112.3# |
| 97        | 38.3  | 60.2  | 90.4#  |





#52

Tetrachloroethene

Concen: 0.03 ppbv m

RT: 11.55 min Scan# 3253

Delta R.T. 0.00 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-3

Tot Ion:164 Resp: 2797

Ion Ratio Lower Upper

164 100

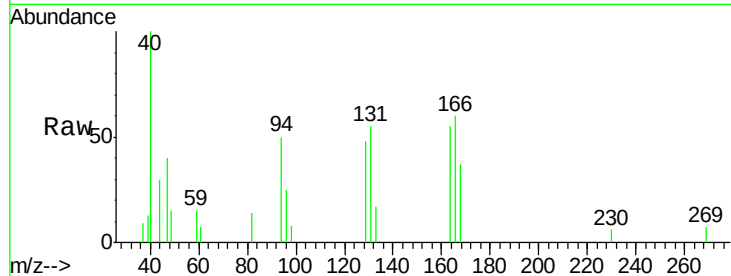
166 109.4 100.2 150.2

129 88.3 91.4 137.0#

131 99.9 87.4 131.0

Manual Integrations  
APPROVED

MMDadoda  
1/24/2018 5:10:35 PM

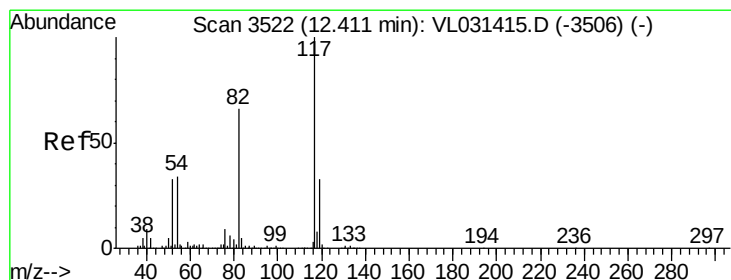
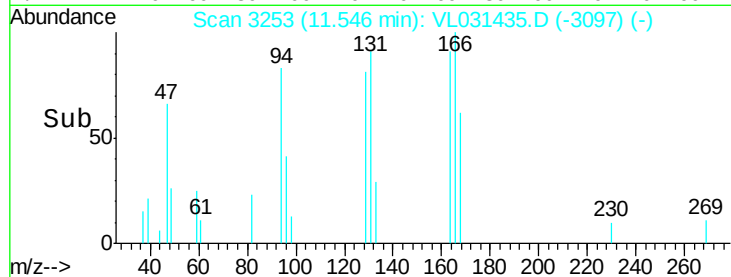
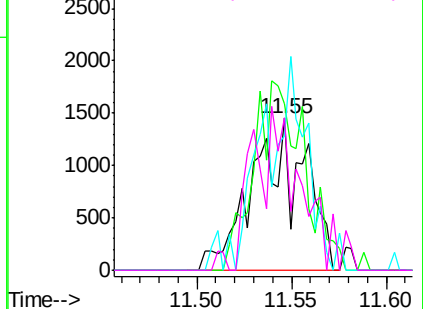


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.41 min Scan# 3522

Delta R.T. -0.00 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

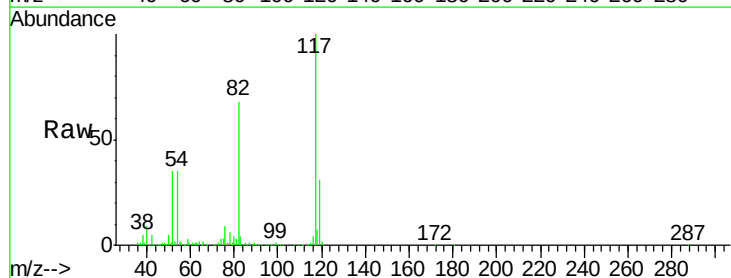
Tgt Ion:117 Resp: 2610236

Ion Ratio Lower Upper

117 100

82 69.1 51.8 77.6

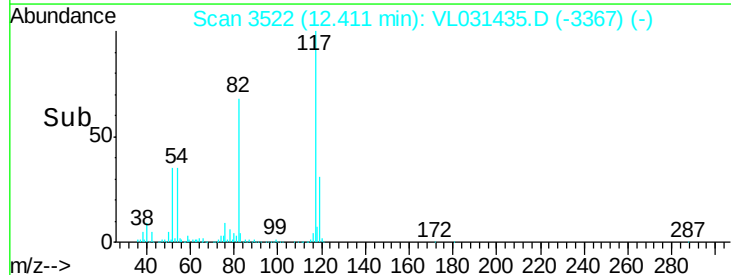
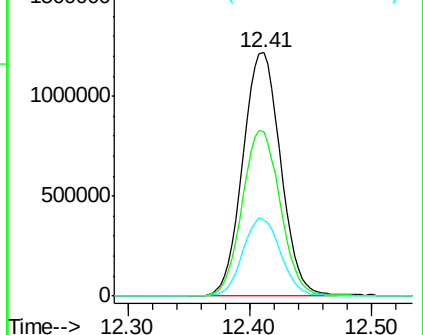
119 32.3 24.2 36.2

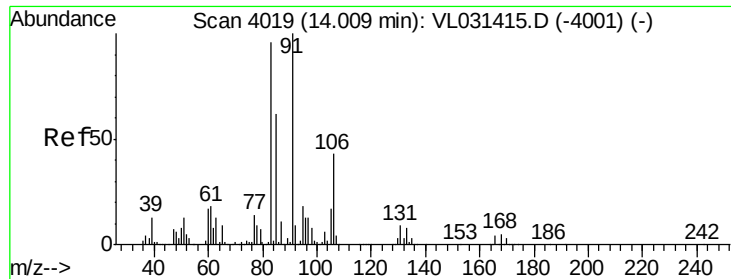


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#63

1,1,2,2-Tetrachloroethane

Concen: 0.03 ppbv m

RT: 14.01 min Scan# 4018

Delta R.T. -0.00 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

Instrument :

MSVOA\_L

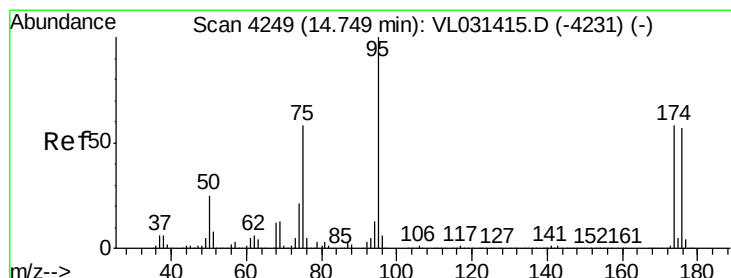
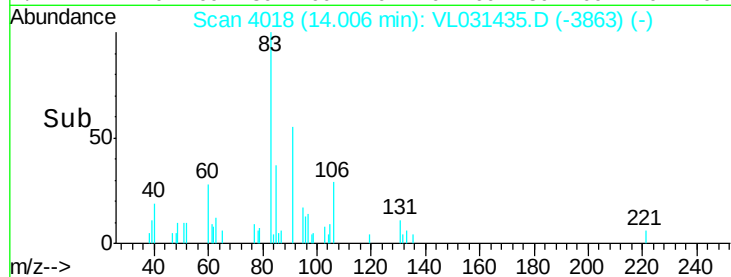
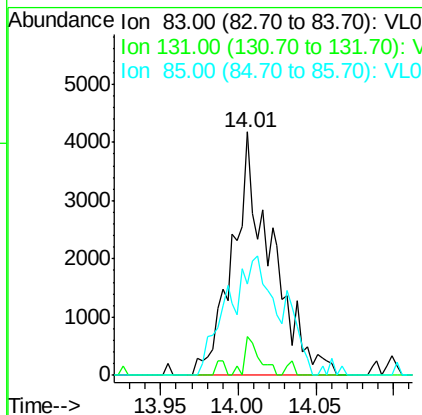
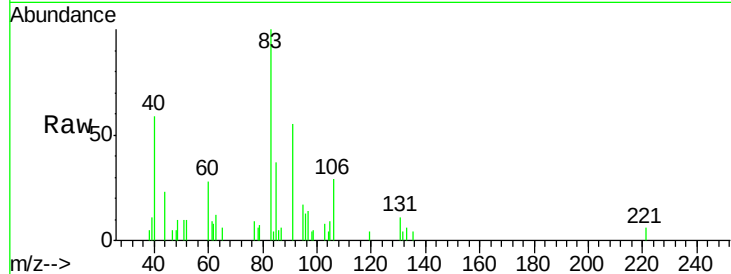
ClientSampled :

MDL-AIR-3

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 7.2   | 4.8   | 14.3  |
| 85      | 0.0   | 32.4  | 97.0# |

Manual Integrations  
APPROVED

MMDadoda  
1/24/2018 5:10:35 PM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.20 ppbv

RT: 14.75 min Scan# 4248

Delta R.T. -0.00 min

Lab File: VL031435.D

Acq: 23 Jan 2018 3:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 61.0  | 48.2  | 72.4  |
| 175     | 4.5   | 3.6   | 5.4   |

