

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071218\  
 Data File : VL032233.D  
 Acq On : 12 Jul 2018 21:29  
 Operator : SY/AP  
 Sample : VSTDICC0.03  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICC0.03

Manual Integrations  
 APPROVED

MMDadoda  
 7/13/2018 5:22:14 PM

Quant Time: Jul 13 04:20:35 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jul 13 2018  
 QLast Update : Fri Jul 13 03:36:40 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.84  | 49   | 1879900  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.38  | 114  | 4057860  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.33 | 117  | 4816078  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.67  | 95    | 3848760  | 10.41    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.10% |

| Target Compounds              | R.T.  | QIon | Response | Conc | Units | Ovalue |
|-------------------------------|-------|------|----------|------|-------|--------|
| 5) Vinyl Chloride             | 3.35  | 62   | 3277m    | 0.03 | ppbv  |        |
| 32) 1,1,1-Trichloroethane     | 6.71  | 97   | 8344m    | 0.03 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.21  | 117  | 8037m    | 0.03 | ppbv  |        |
| 38) Trichloroethene           | 8.05  | 130  | 4543m    | 0.03 | ppbv  |        |
| 52) Tetrachloroethene         | 11.47 | 164  | 5800m    | 0.04 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.94 | 83   | 15305m   | 0.03 | ppbv  |        |

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

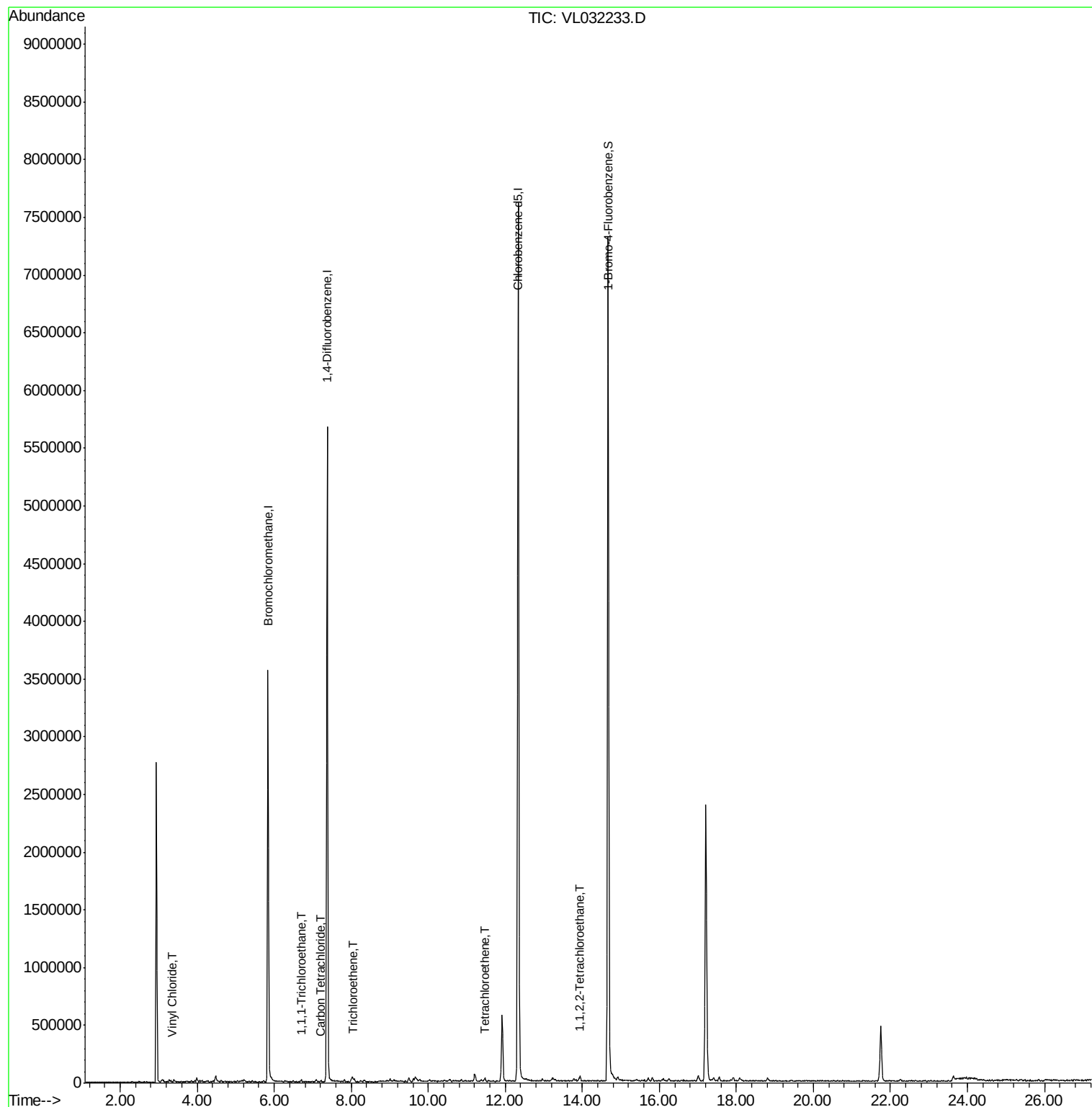
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL071218\  
Data File : VL032233.D  
Acq On : 12 Jul 2018 21:29  
Operator : SY/AP  
Sample : VSTDICC0.03  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

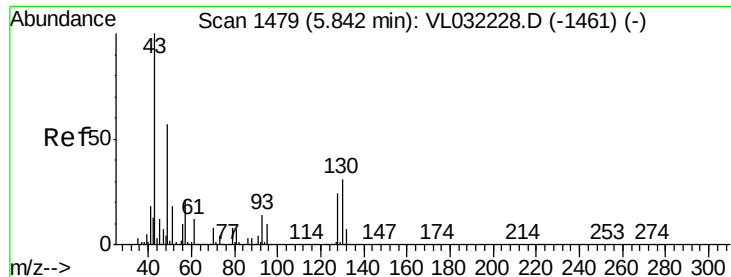
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICC0.03

Manual Integrations  
APPROVED

MMDadoda  
7/13/2018 5:22:14 PM

Quant Time: Jul 13 04:20:35 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL071218AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jul  
QLast Update : Fri Jul 13 03:36:40 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.84 min Scan# 1478

Delta R.T. -0.00 min

Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

Tot Ion: 49 Resp: 1879900

Ion Ratio Lower Upper

49 100

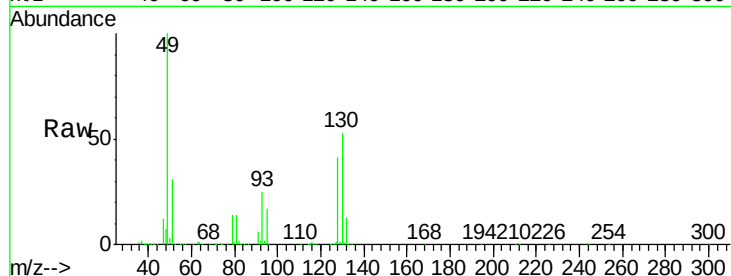
128 41.3 20.9 62.8

130 52.1 27.0 81.0

Manual Integrations  
APPROVED

MMDadoda

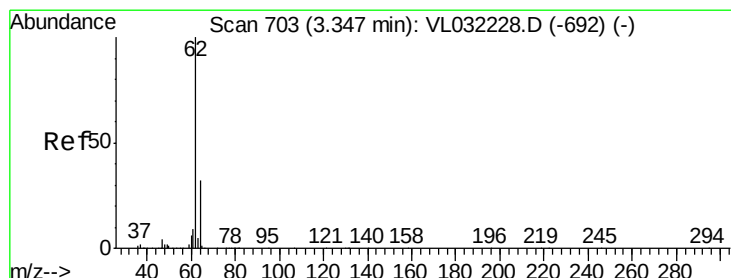
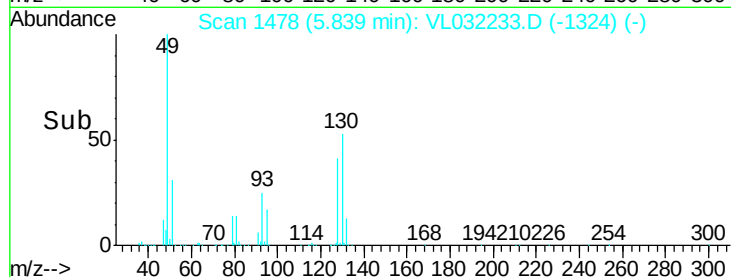
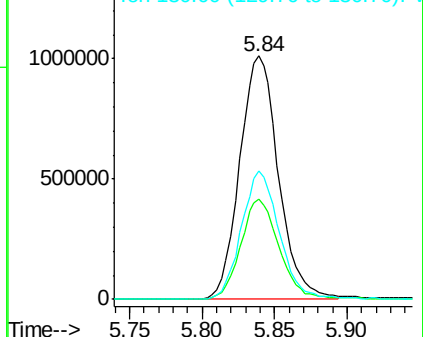
7/13/2018 5:22:14 PM



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: 3.35 min Scan# 704

Delta R.T. 0.00 min

Lab File: VL032233.D

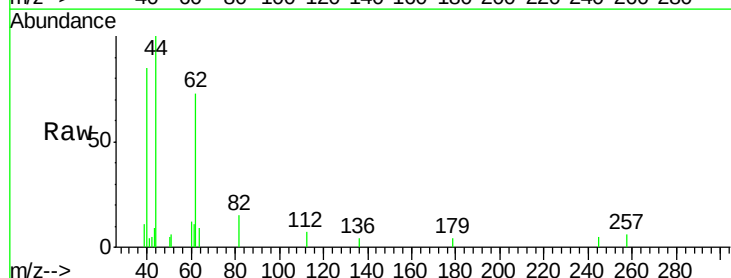
Acq: 12 Jul 2018 21:29

Tgt Ion: 62 Resp: 3277

Ion Ratio Lower Upper

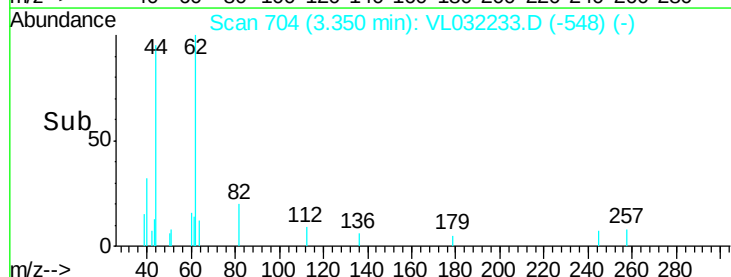
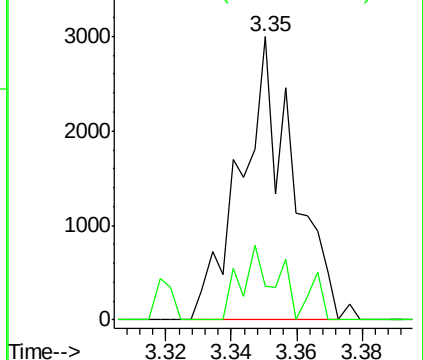
62 100

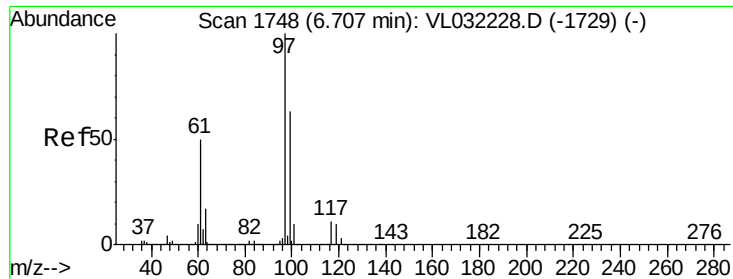
64 11.7 25.8 38.6#



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: 6.71 min Scan# 1748

Delta R.T. -0.00 min

Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

Instrument :

MSVOA\_L

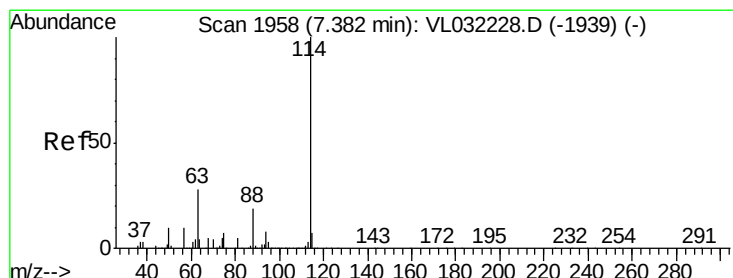
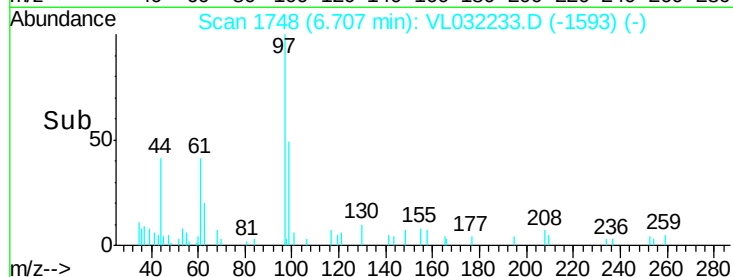
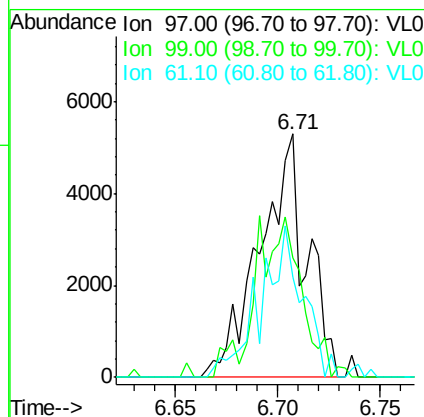
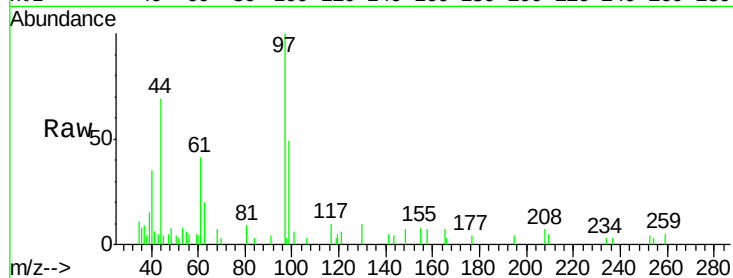
ClientSampleId :

VSTDIC0.03

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 97    | Resp: | 8344  |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 0.0   | 51.2  | 76.8# |
| 61        | 56.1  | 41.3  | 61.9  |

Manual Integrations  
APPROVED

MMDadoda  
7/13/2018 5:22:14 PM



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

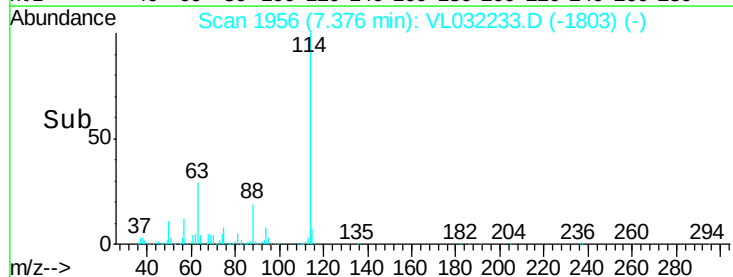
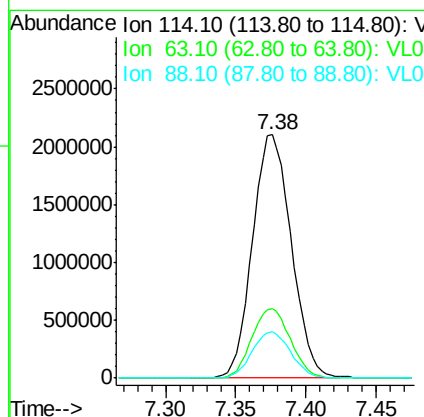
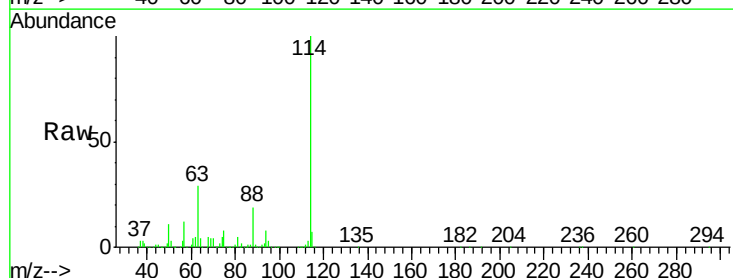
RT: 7.38 min Scan# 1956

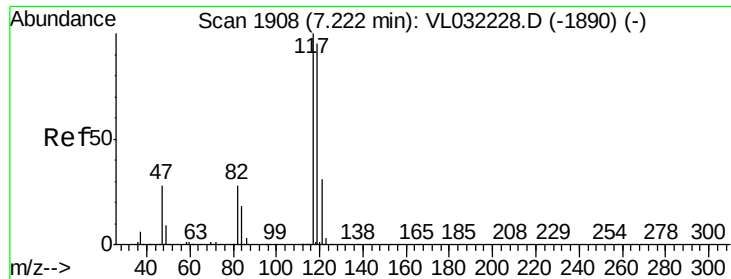
Delta R.T. -0.01 min

Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 114   | Resp: | 4057860 |
| Ion Ratio | Lower | Upper |         |
| 114       | 100   |       |         |
| 63        | 28.5  | 22.5  | 33.7    |
| 88        | 19.0  | 15.4  | 23.0    |





#35

Carbon Tetrachloride

Concen: 0.03 ppbv m

RT: 7.21 min Scan# 1905

Delta R.T. -0.01 min

Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

Instrument :

MSVOA\_L

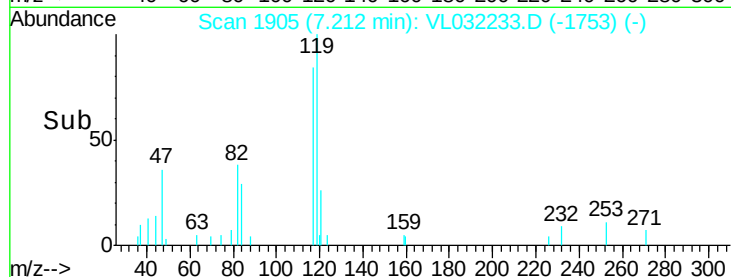
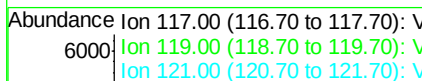
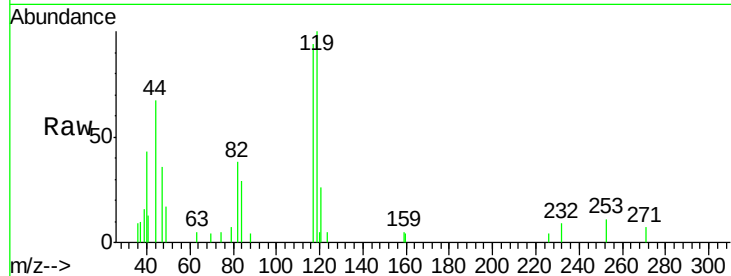
ClientSampleId :

VSTDIC0.03

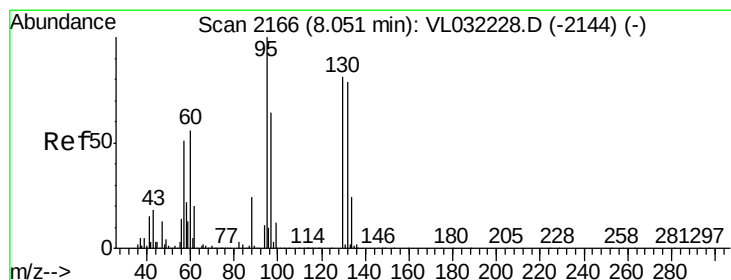
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 117   | Resp: | 8037  |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 119       | 106.9 | 75.7  | 113.5 |
| 121       | 28.2  | 24.6  | 37.0  |

Manual Integrations  
APPROVED

MMDadoda  
7/13/2018 5:22:14 PM



Time-->



#38

Trichloroethene

Concen: 0.03 ppbv m

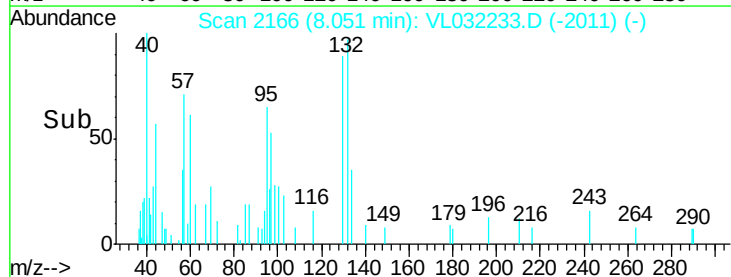
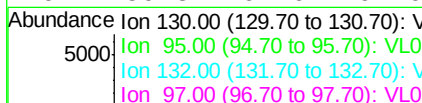
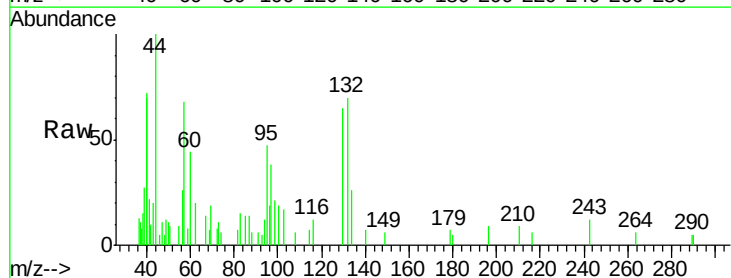
RT: 8.05 min Scan# 2166

Delta R.T. -0.00 min

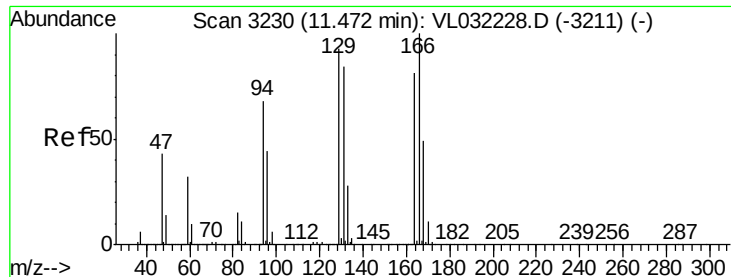
Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 130   | Resp: | 4543   |
| Ion Ratio | Lower | Upper |        |
| 130       | 100   |       |        |
| 95        | 72.3  | 98.3  | 147.5# |
| 132       | 108.4 | 78.1  | 117.1  |
| 97        | 59.3  | 62.6  | 94.0#  |



Time-->



#52

Tetrachloroethene

Concen: 0.04 ppbv m

RT: 11.47 min Scan# 3228

Delta R.T. -0.01 min

Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

Tot Ion:164 Resp: 5800

Ion Ratio Lower Upper

164 100

166 92.4 99.3 148.9#

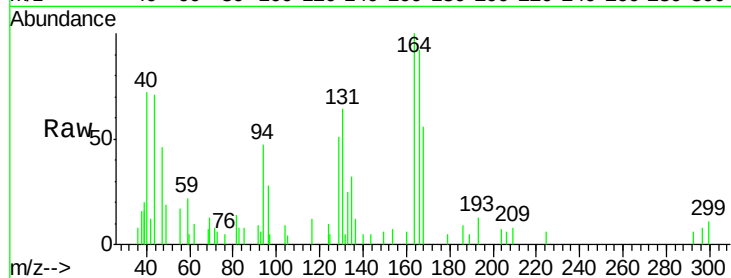
129 50.5 92.0 138.0#

131 63.7 83.8 125.8#

Manual Integrations  
APPROVED

MMDadoda

7/13/2018 5:22:14 PM

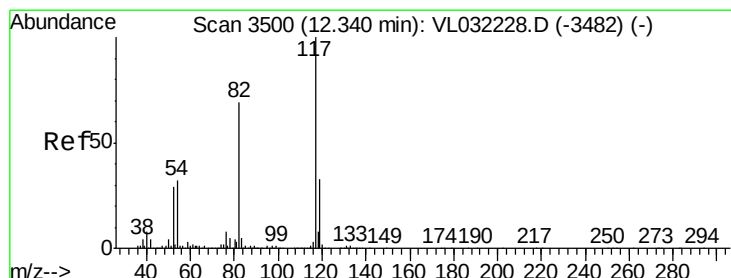
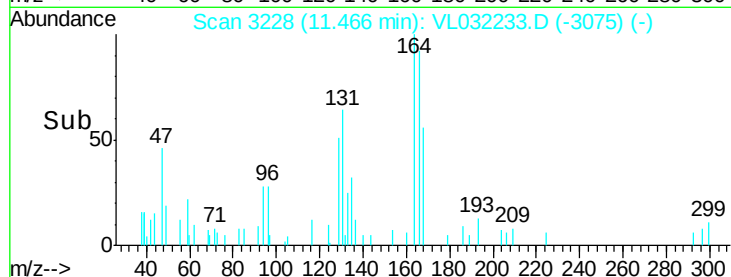
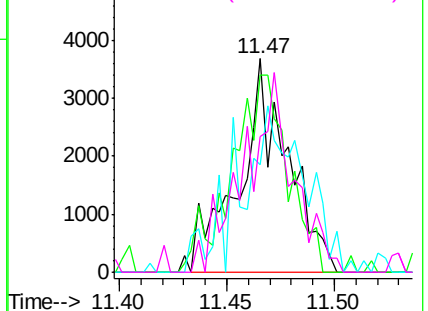


Abundance Ion 163.90 (163.60 to 164.60): V

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: 12.33 min Scan# 3498

Delta R.T. -0.01 min

Lab File: VL032233.D

Acq: 12 Jul 2018 21:29

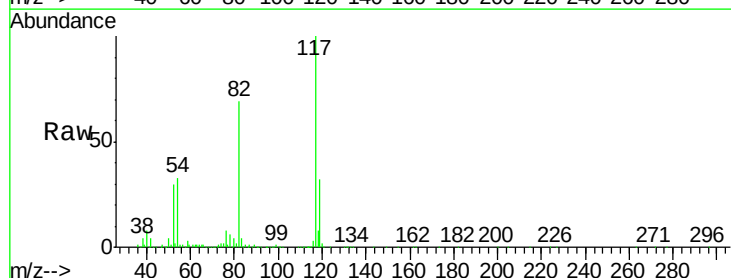
Tgt Ion:117 Resp: 4816078

Ion Ratio Lower Upper

117 100

82 70.6 53.2 79.8

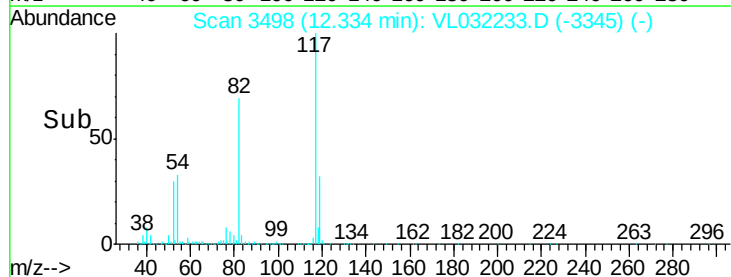
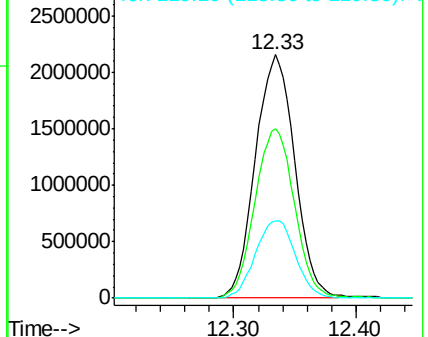
119 32.8 43.9 65.9#

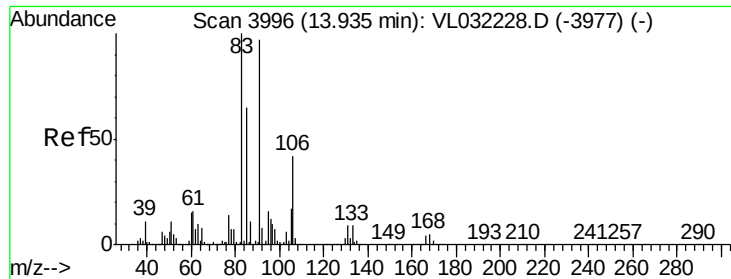


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





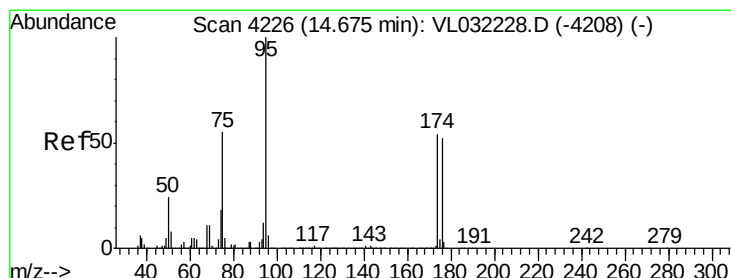
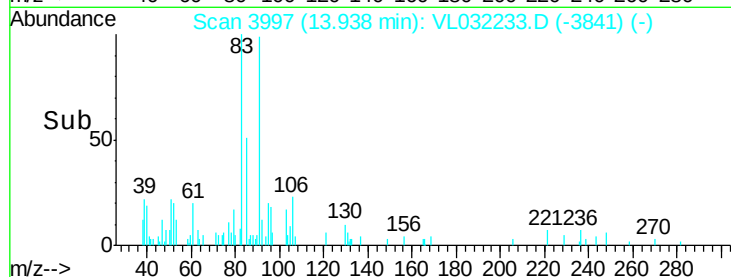
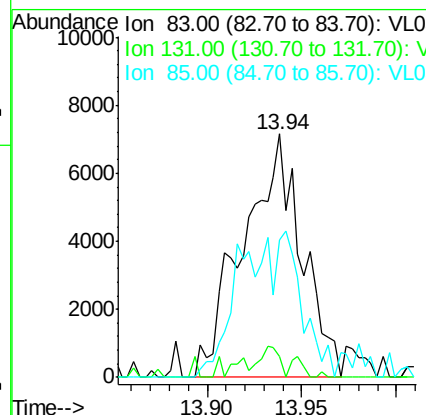
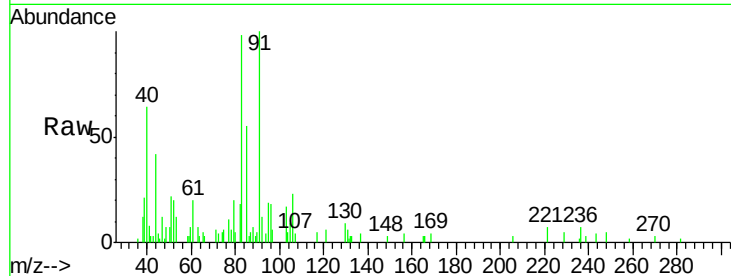
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.03 ppbv m  
 RT: 13.94 min Scan# 3997  
 Delta R.T. 0.00 min  
 Lab File: VL032233.D  
 Acq: 12 Jul 2018 21:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 8.8   | 4.3   | 12.8  |
| 85      | 0.0   | 32.5  | 97.5# |

Manual Integrations  
 APPROVED

MMDadoda  
 7/13/2018 5:22:14 PM



#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.41 ppbv  
 RT: 14.67 min Scan# 4225  
 Delta R.T. -0.00 min  
 Lab File: VL032233.D  
 Acq: 12 Jul 2018 21:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 55.6  | 44.6  | 67.0  |
| 175     | 4.0   | 3.3   | 4.9   |

