

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081220\  
 Data File : VL035386.D  
 Acq On : 12 Aug 2020 15:18  
 Operator : SY/AP  
 Sample : VSTDIC0.03  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

Manual Integrations  
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 8/17/2020 5:43:54 PM

Quant Time: Aug 12 16:45:04 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081220AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Aug 12 16:45:04 2020  
 QLast Update : Wed Aug 12 15:19:58 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.67  | 49   | 1464041  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 3368220  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 3172729  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.44  | 95    | 2671501  | 10.10    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.00% |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Ovalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 5) Vinyl Chloride             | 3.25  | 62   | 4038     | 0.041 | ppbv  | # 85   |
| 32) 1,1,1-Trichloroethane     | 6.52  | 97   | 11169m   | 0.045 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.02  | 117  | 8457m    | 0.036 | ppbv  |        |
| 38) Trichloroethene           | 7.85  | 130  | 5966m    | 0.057 | ppbv  |        |
| 52) Tetrachloroethene         | 11.24 | 164  | 5025m    | 0.056 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.70 | 83   | 12388m   | 0.048 | ppbv  |        |

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

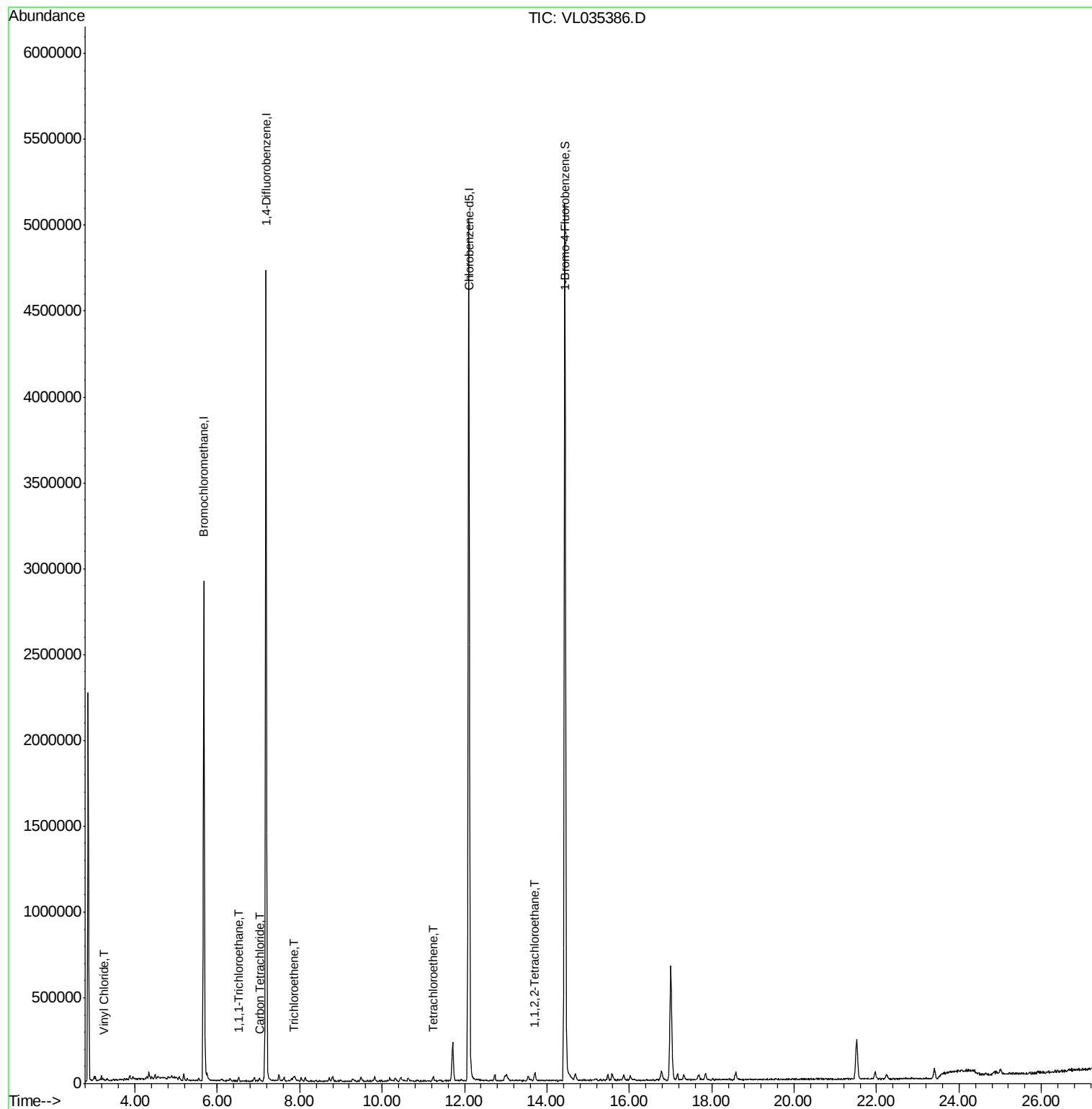
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL081220\  
Data File : VL035386.D  
Acq On : 12 Aug 2020 15:18  
Operator : SY/AP  
Sample : VSTDICC0.03  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

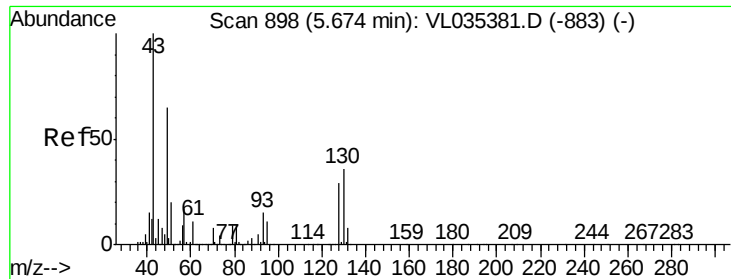
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDICC0.03

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Quant Time: Aug 12 16:45:04 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL081220AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Aug  
QLast Update : Wed Aug 12 15:19:58 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

Tot Ion: 49 Resp: 1464041

Ion Ratio Lower Upper

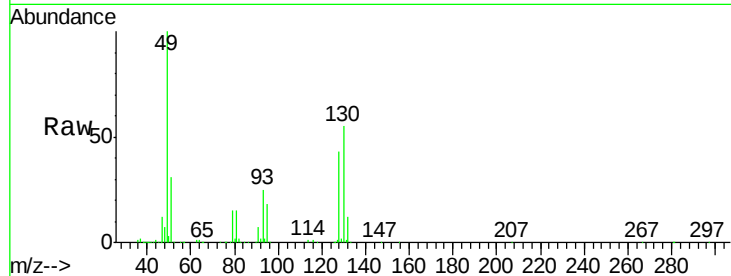
49 100

128 43.5 21.8 65.3

130 54.9 27.9 83.6

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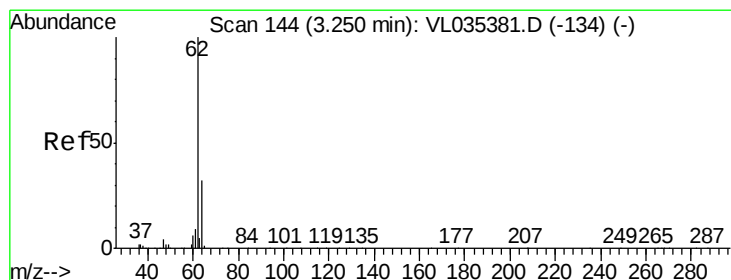
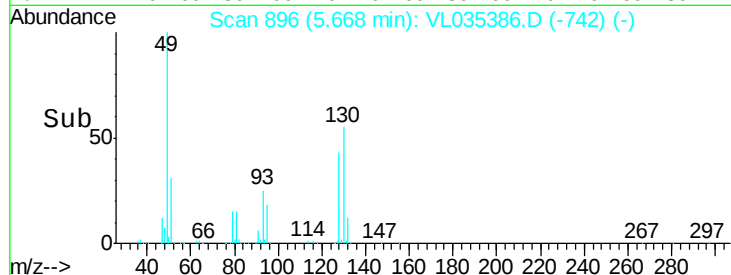
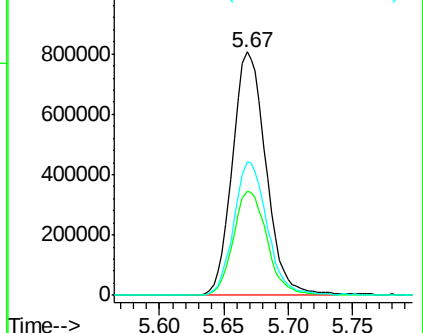
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#5

Vinyl Chloride

Concen: 0.041 ppbv

RT: 3.25 min Scan# 145

Delta R.T. 0.00 min

Lab File: VL035386.D

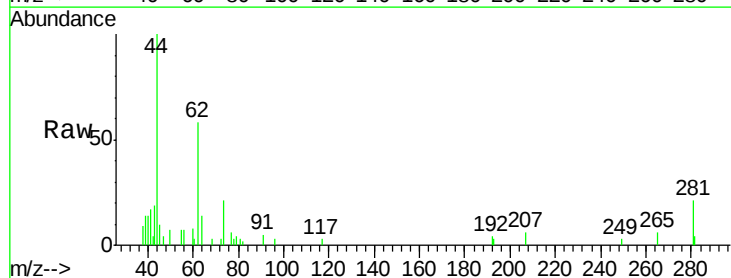
Acq: 12 Aug 2020 15:18

Tgt Ion: 62 Resp: 4038

Ion Ratio Lower Upper

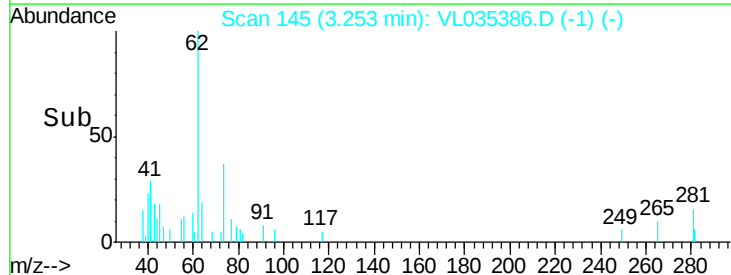
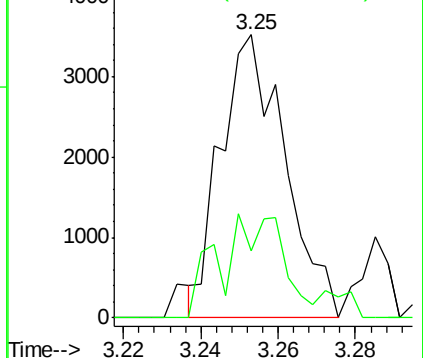
62 100

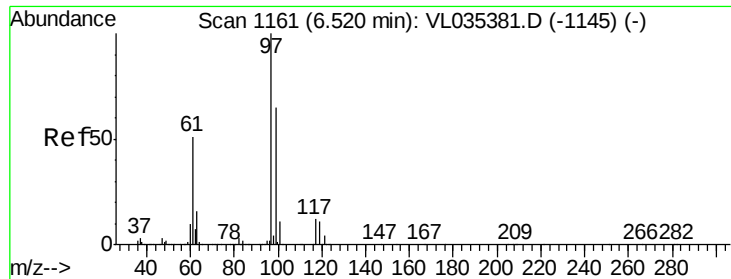
64 23.5 25.7 38.5#



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: 0.045 ppbv m

RT: 6.52 min Scan# 1161

Delta R.T. 0.00 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA\_L

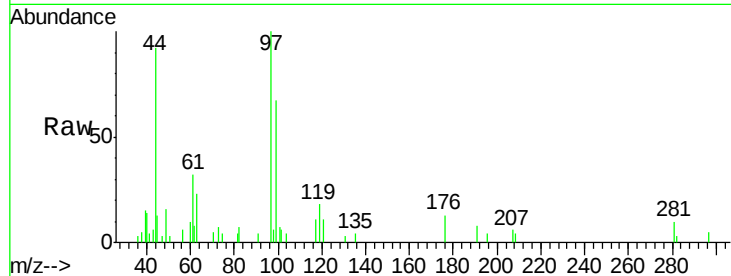
ClientSampleId :

VSTDIC0.03

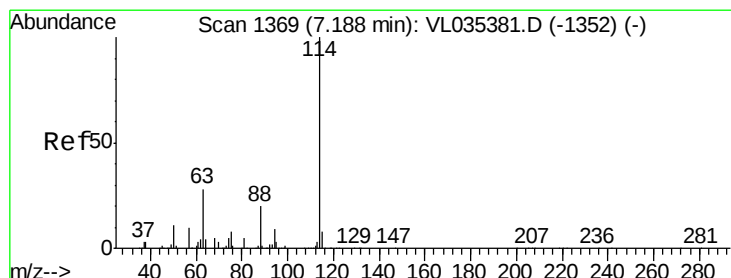
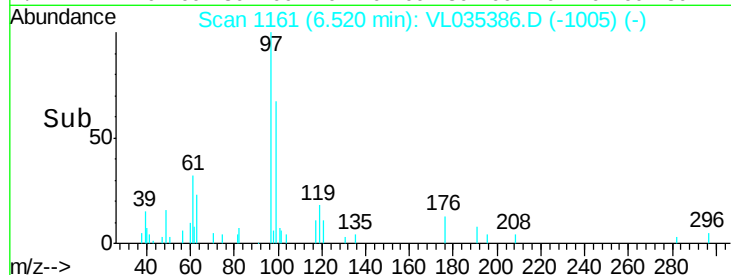
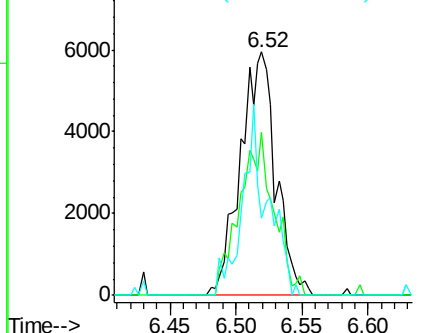
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 97    | Resp: | 11169 |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 0.0   | 51.8  | 77.8# |
| 61        | 55.5  | 39.6  | 59.4  |

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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

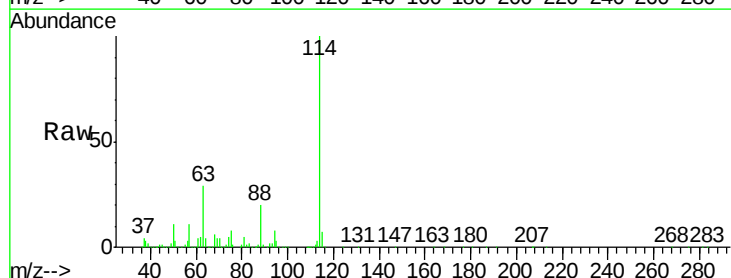
RT: 7.18 min Scan# 1367

Delta R.T. -0.01 min

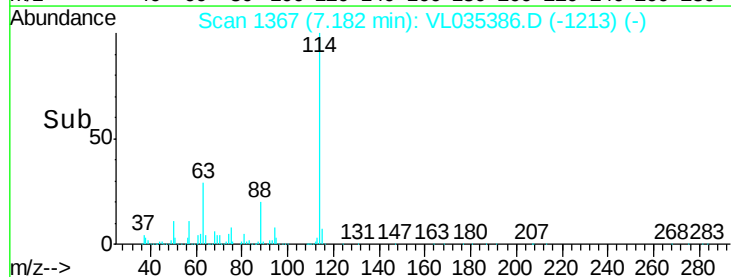
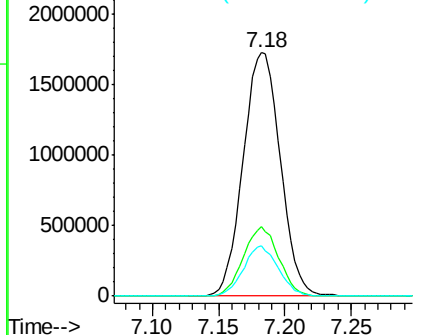
Lab File: VL035386.D

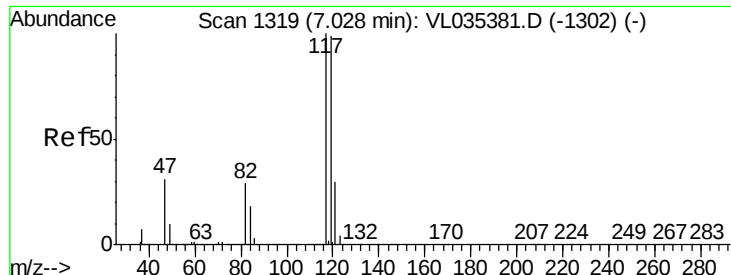
Acq: 12 Aug 2020 15:18

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 114   | Resp: | 3368220 |
| Ion Ratio | Lower | Upper |         |
| 114       | 100   |       |         |
| 63        | 27.2  | 21.5  | 32.3    |
| 88        | 19.4  | 15.6  | 23.4    |



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





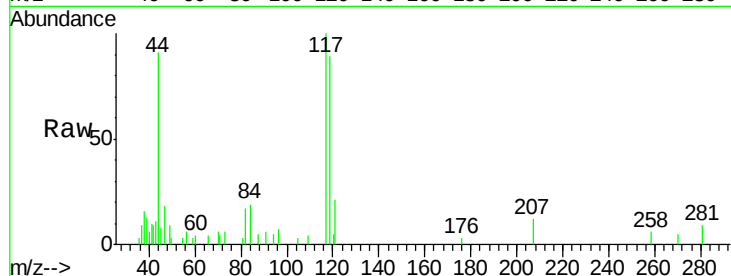
#35  
Carbon Tetrachloride  
Concen: 0.036 ppbv m  
RT: 7.02 min Scan# 1317  
Delta R.T. -0.01 min  
Lab File: VL035386.D  
Acq: 12 Aug 2020 15:18

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.03

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 89.4  | 79.4  | 119.0 |
| 121     | 21.2  | 24.3  | 36.5# |

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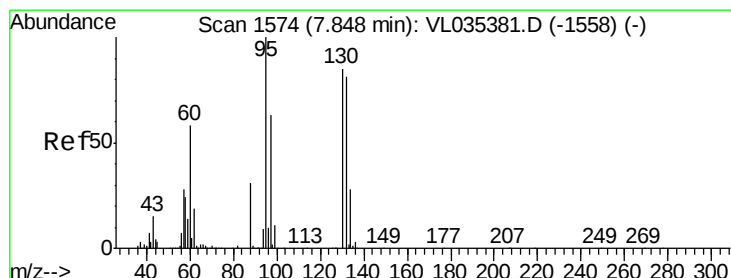
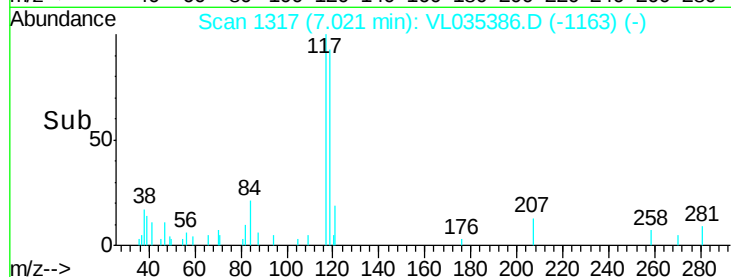
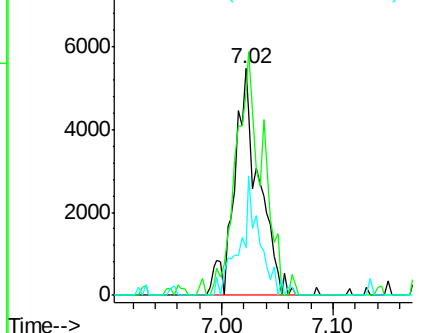


Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#38  
Trichloroethene  
Concen: 0.057 ppbv m  
RT: 7.85 min Scan# 1574  
Delta R.T. 0.00 min  
Lab File: VL035386.D  
Acq: 12 Aug 2020 15:18

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 130     | 100   |       |        |
| 95      | 77.9  | 94.2  | 141.4# |
| 132     | 94.3  | 76.6  | 114.8  |
| 97      | 45.1  | 59.3  | 88.9#  |

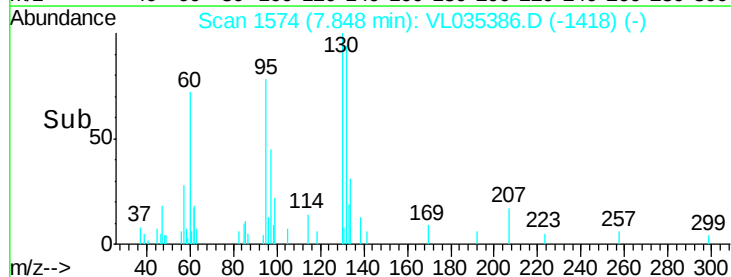
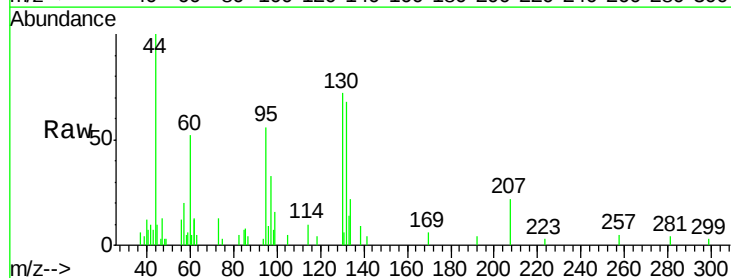
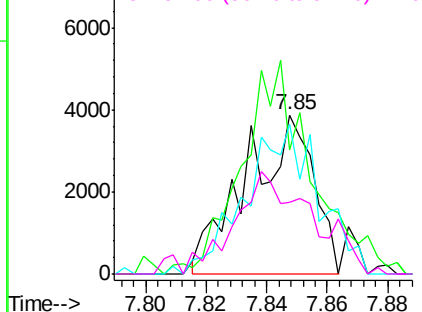
Abundance

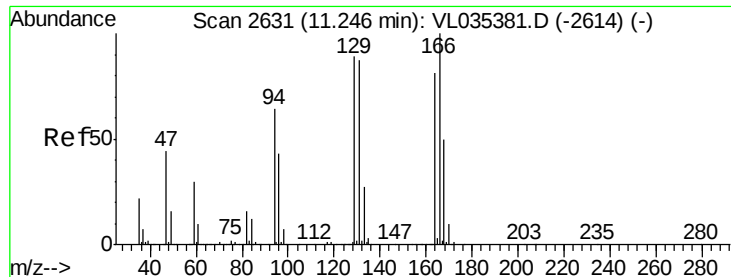
Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): V

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): V





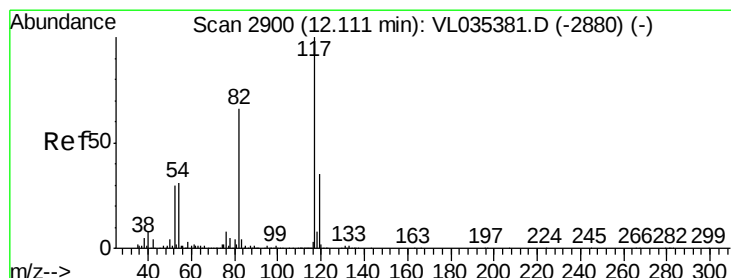
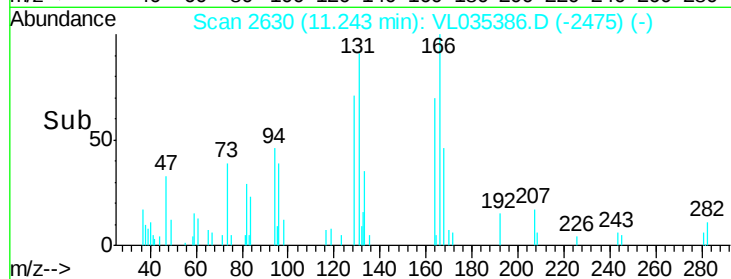
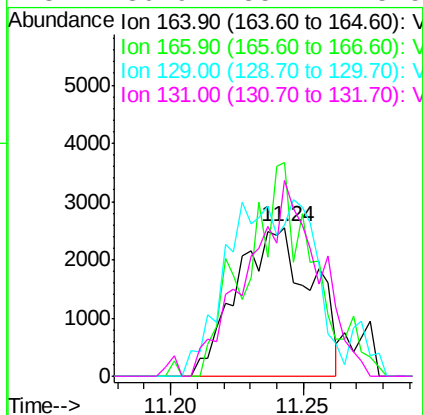
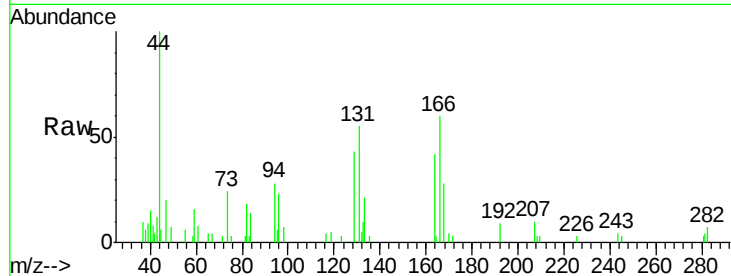
#52  
Tetrachloroethene  
Concen: 0.056 ppbv m  
RT: 11.24 min Scan# 2630  
Delta R.T. -0.00 min  
Lab File: VL035386.D  
Acq: 12 Aug 2020 15:18

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.03

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 143.2 | 98.2  | 147.2 |
| 129     | 101.2 | 87.3  | 130.9 |
| 131     | 130.9 | 85.7  | 128.5 |

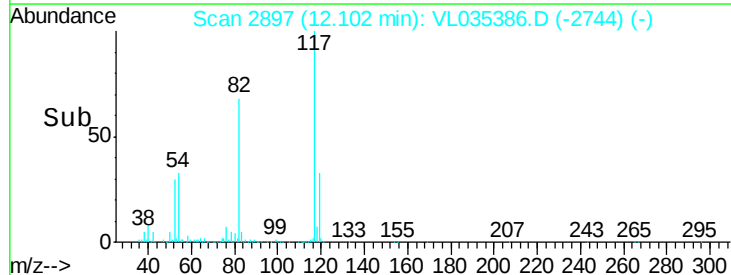
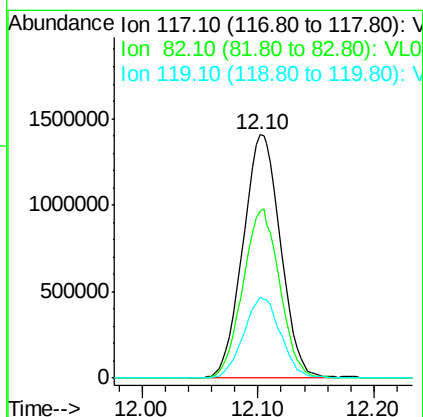
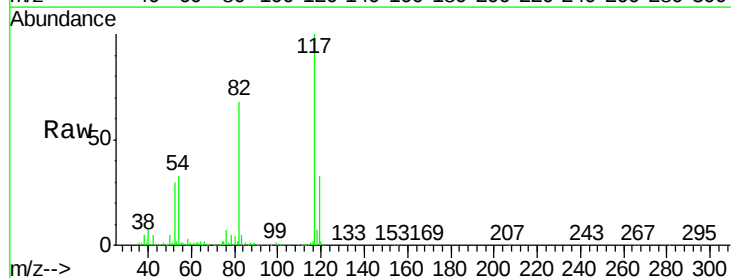
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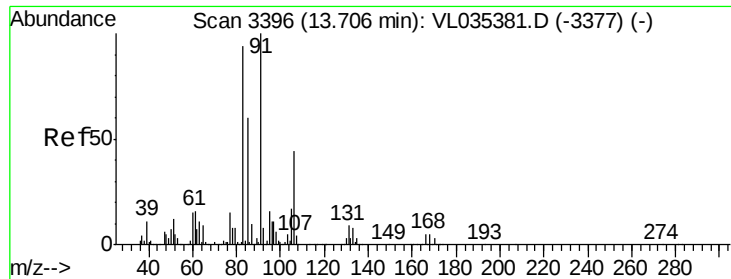
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#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.10 min Scan# 2897  
Delta R.T. -0.01 min  
Lab File: VL035386.D  
Acq: 12 Aug 2020 15:18

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 68.3  | 53.0  | 79.6  |
| 119     | 32.6  | 25.7  | 38.5  |





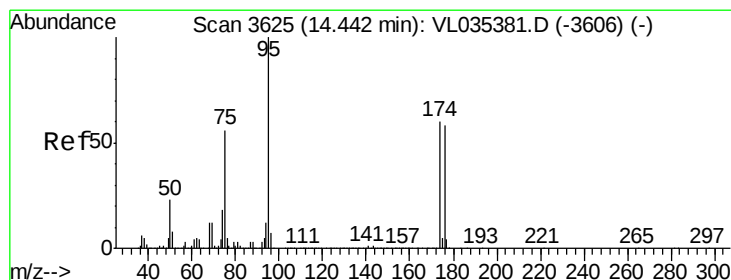
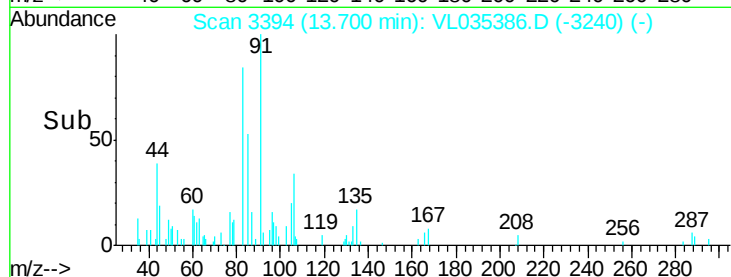
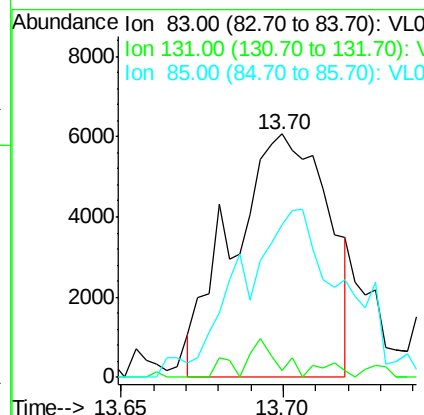
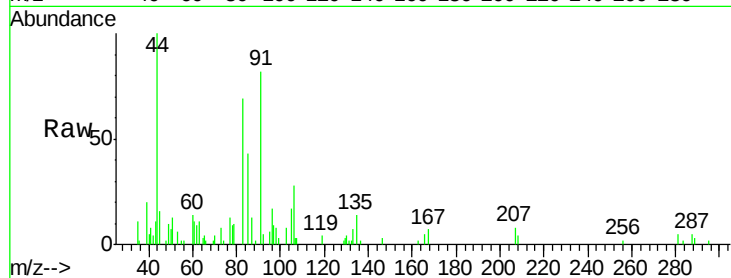
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.048 ppbv m  
 RT: 13.70 min Scan# 3394  
 Delta R.T. -0.01 min  
 Lab File: VL035386.D  
 Acq: 12 Aug 2020 15:18

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 8.5   | 4.5   | 13.7  |
| 85      | 0.0   | 32.4  | 97.0# |

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#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.097 ppbv  
 RT: 14.44 min Scan# 3623  
 Delta R.T. -0.01 min  
 Lab File: VL035386.D  
 Acq: 12 Aug 2020 15:18

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 57.8  | 48.2  | 72.2  |
| 175     | 4.4   | 3.7   | 5.5   |

