

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
 Data File : VL034941.D  
 Acq On : 6 May 2020 13:20  
 Operator : SY/AP  
 Sample : VSTDIC0.03  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:29:44 PM

Quant Time: May 06 13:58:09 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 12:36:21 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1172336  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 2666582  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 2492525  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.46  | 95    | 2041236  | 10.50    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 105.00% |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Ovalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 5) Vinyl Chloride             | 3.22  | 62   | 2682     | 0.038 | ppbv  | 96     |
| 32) 1,1,1-Trichloroethane     | 6.52  | 97   | 4783m    | 0.028 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.03  | 117  | 5127m    | 0.031 | ppbv  |        |
| 38) Trichloroethene           | 7.84  | 130  | 3014m    | 0.033 | ppbv  |        |
| 52) Tetrachloroethene         | 11.25 | 164  | 2717m    | 0.029 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.72 | 83   | 7221m    | 0.039 | ppbv  |        |

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

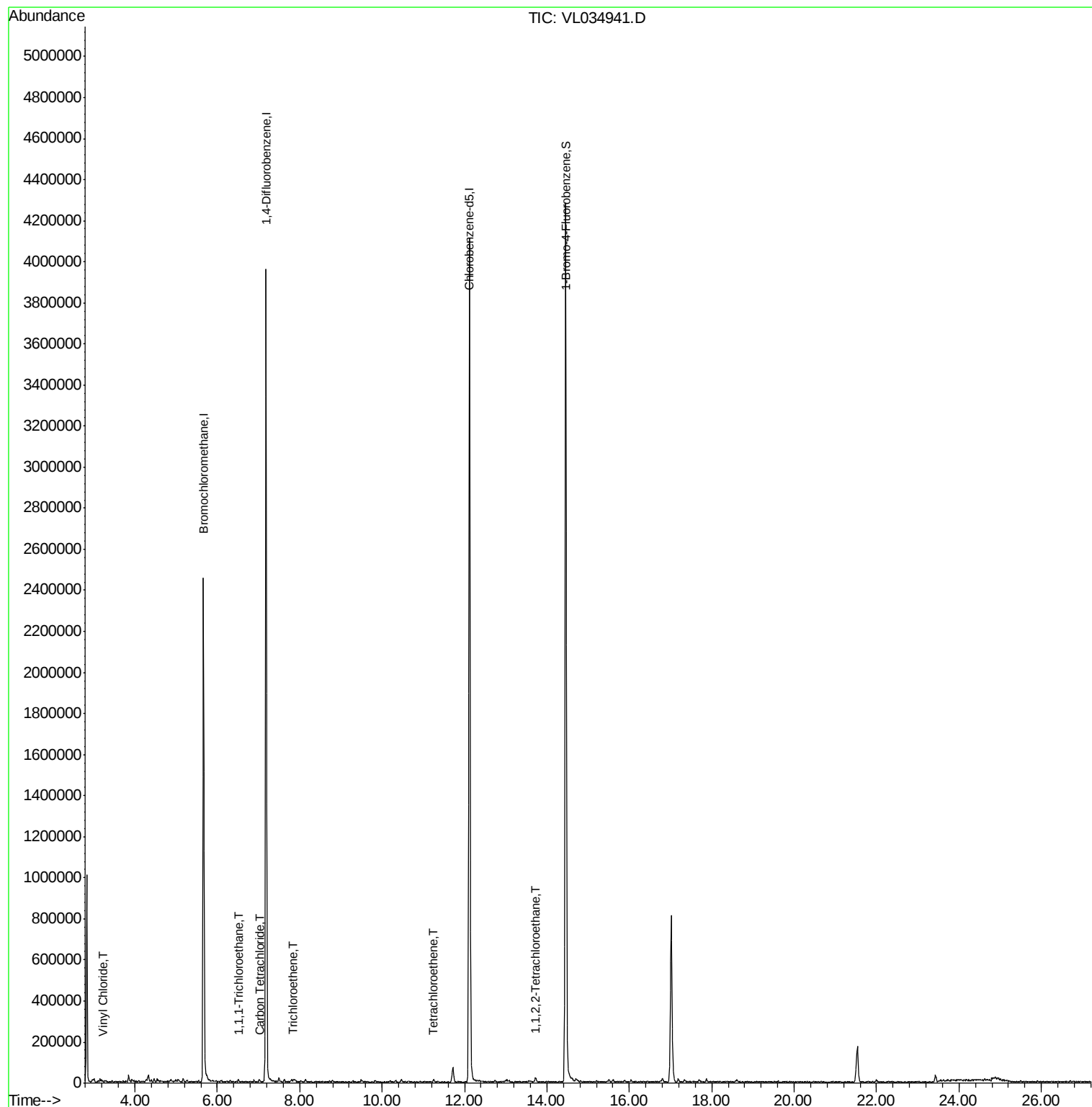
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
Data File : VL034941.D  
Acq On : 6 May 2020 13:20  
Operator : SY/AP  
Sample : VSTDIC0.03  
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ALS Vial : 1 Sample Multiplier: 1

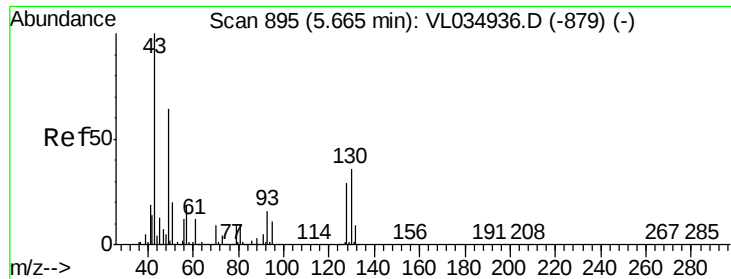
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.03

Manual Integrations  
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Quant Time: May 06 13:58:09 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed May  
QLast Update : Wed May 06 12:36:21 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

Tot Ion: 49 Resp: 1172336

Ion Ratio Lower Upper

49 100

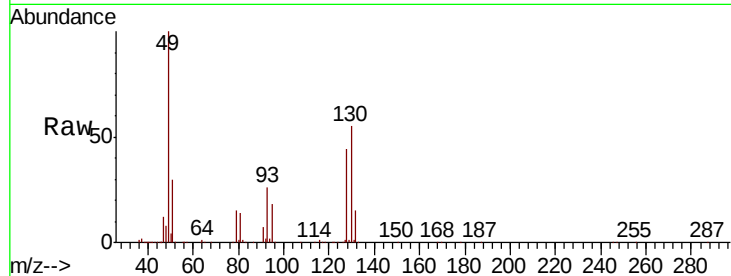
128 45.2 22.1 66.5

130 57.5 29.1 87.3

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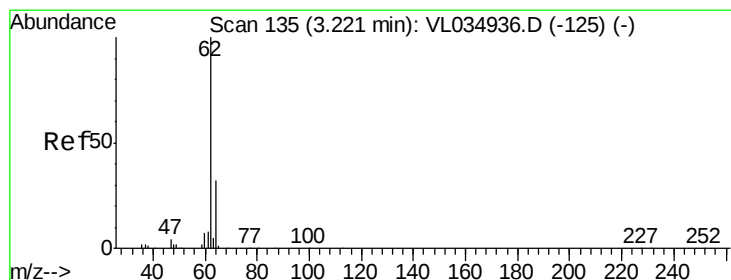
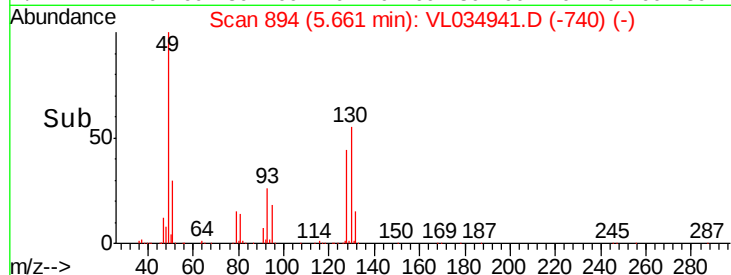
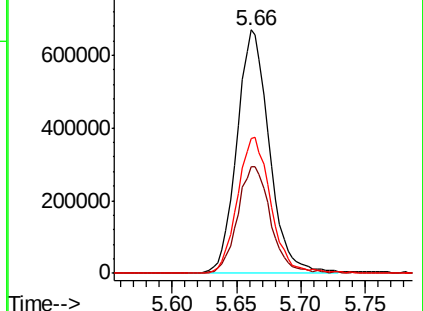
5/7/2020 2:29:44 PM



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: 0.038 ppbv

RT: 3.22 min Scan# 136

Delta R.T. 0.00 min

Lab File: VL034941.D

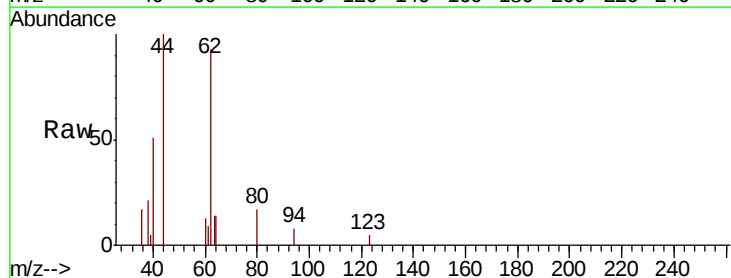
Acq: 6 May 2020 13:20

Tgt Ion: 62 Resp: 2682

Ion Ratio Lower Upper

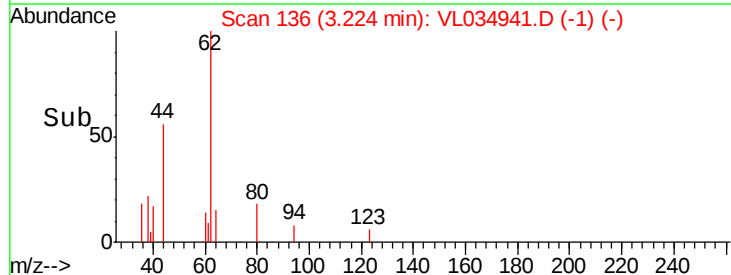
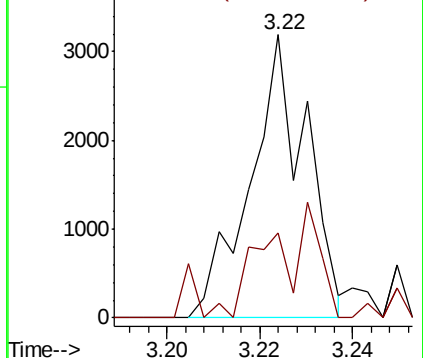
62 100

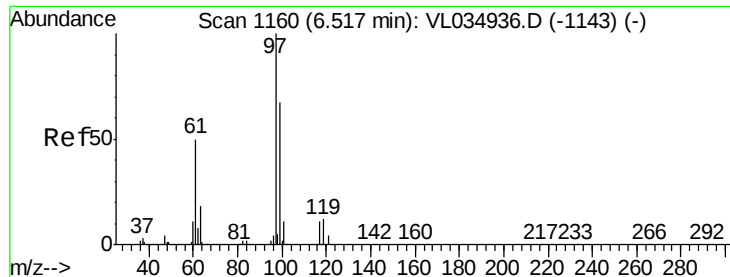
64 29.8 25.7 38.5



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: 0.028 ppbv m

RT: 6.52 min Scan# 1160

Delta R.T. -0.00 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

Instrument :

MSVOA\_L

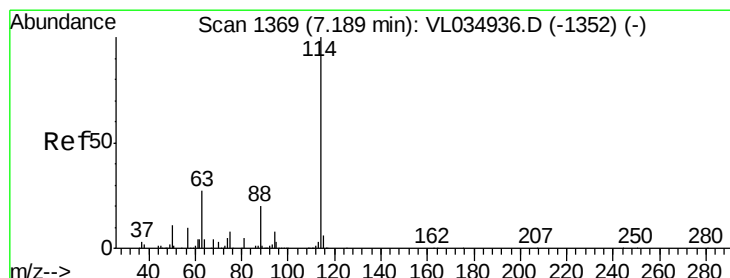
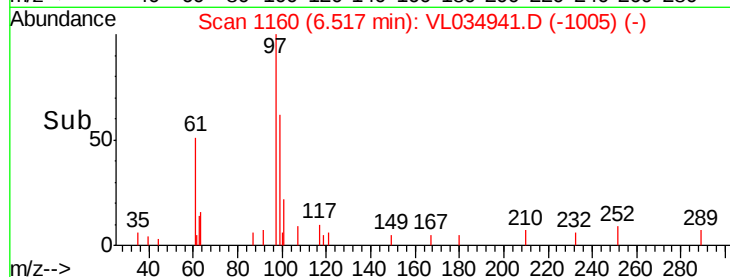
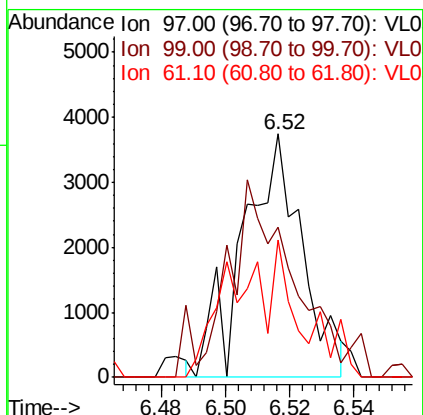
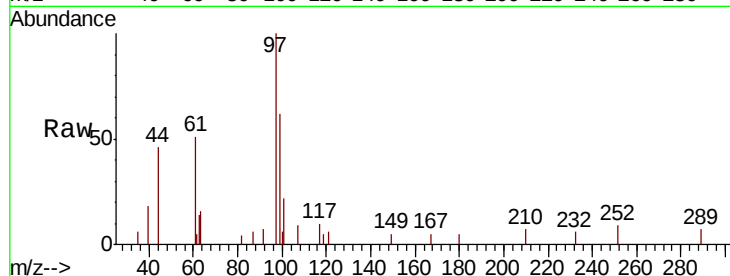
ClientSampleId :

VSTDIC0.03

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 97    | Resp: | 4783  |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 0.0   | 52.1  | 78.1# |
| 61        | 64.9  | 41.8  | 62.8# |

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

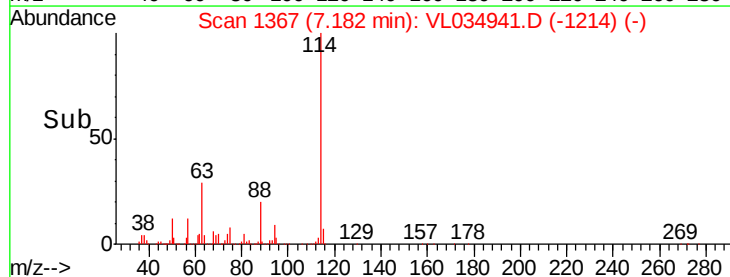
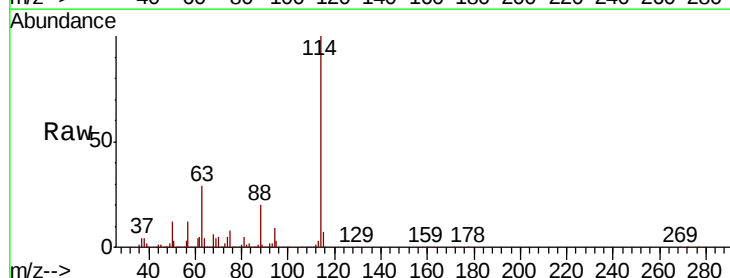
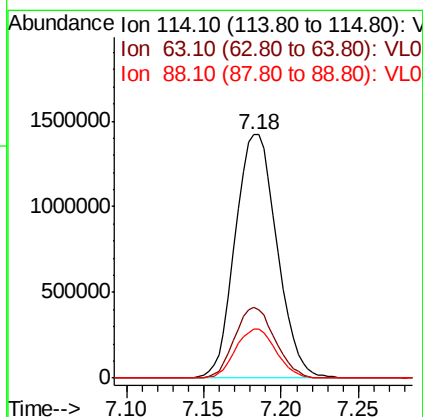
RT: 7.18 min Scan# 1367

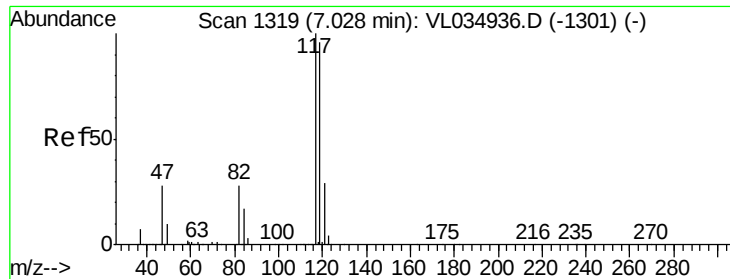
Delta R.T. -0.01 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 114   | Resp: | 2666582 |
| Ion Ratio | Lower | Upper |         |
| 114       | 100   |       |         |
| 63        | 28.2  | 22.2  | 33.4    |
| 88        | 19.5  | 15.5  | 23.3    |





#35

Carbon Tetrachloride

Concen: 0.031 ppbv m

RT: 7.03 min Scan# 1319

Delta R.T. -0.00 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

Instrument :

MSVOA\_L

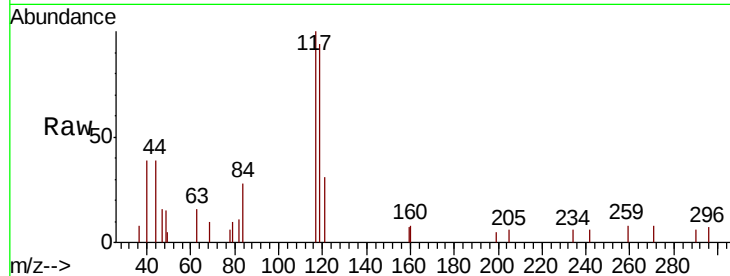
ClientSampleId :

VSTDIC0.03

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 117   | Resp: | 5127  |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 93.7  | 77.0  | 115.6 |
| 121      | 30.5  | 23.0  | 34.6  |

Manual Integrations  
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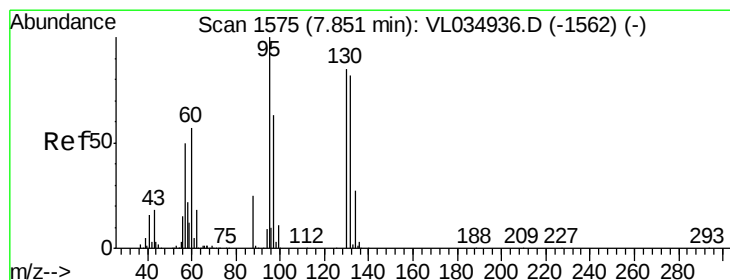
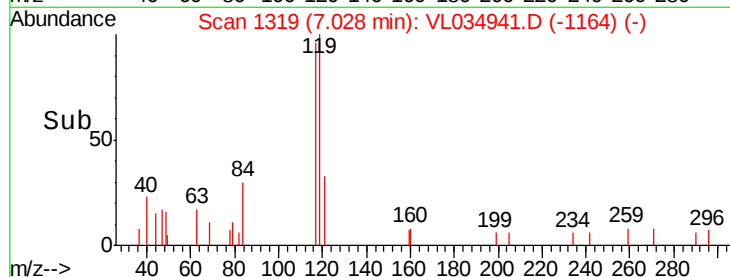
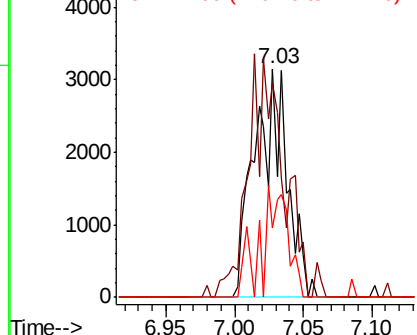


Abundance

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: 0.033 ppbv m

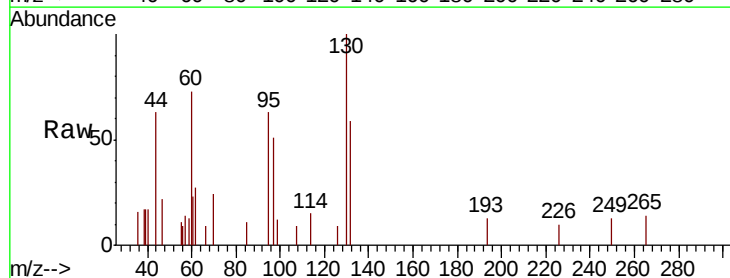
RT: 7.84 min Scan# 1573

Delta R.T. -0.01 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 130   | Resp: | 3014   |
| Ion      | Ratio | Lower | Upper  |
| 130      | 100   |       |        |
| 95       | 62.7  | 93.4  | 140.0# |
| 132      | 0.0   | 76.4  | 114.6# |
| 97       | 51.3  | 58.5  | 87.7#  |



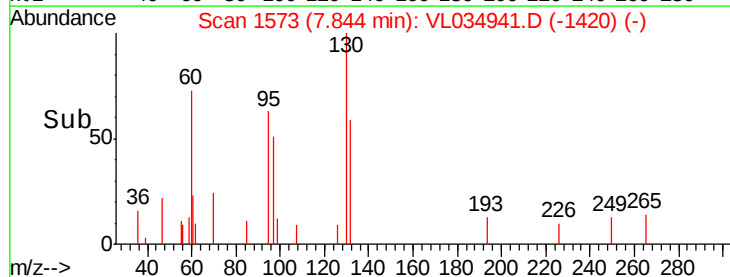
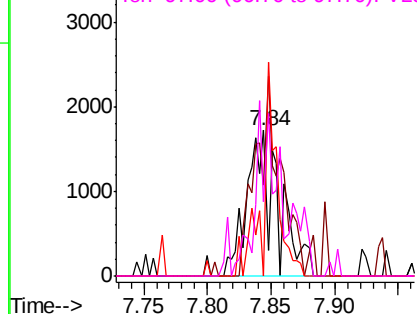
Abundance

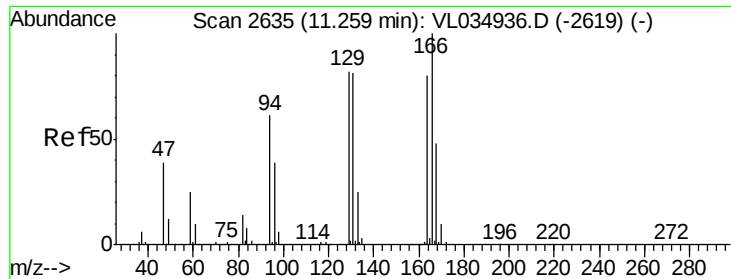
Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0





#52

Tetrachloroethene

Concen: 0.029 ppbv m

RT: 11.25 min Scan# 2632

Delta R.T. -0.01 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

Tot Ion:164 Resp: 2717

Ion Ratio Lower Upper

164 100

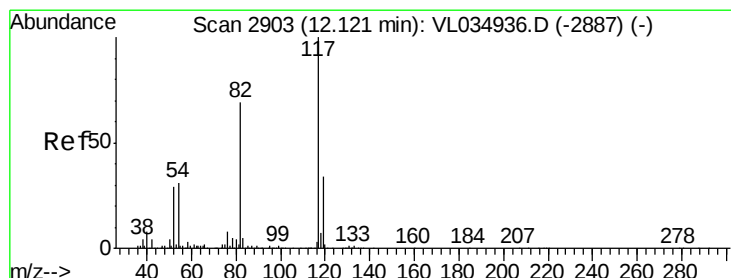
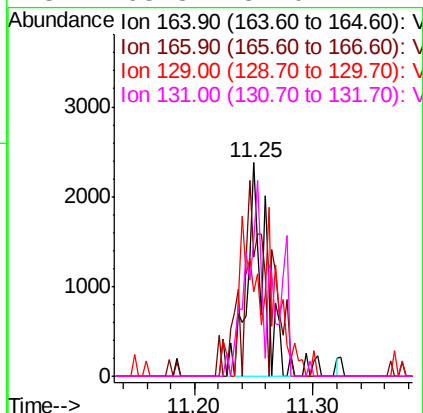
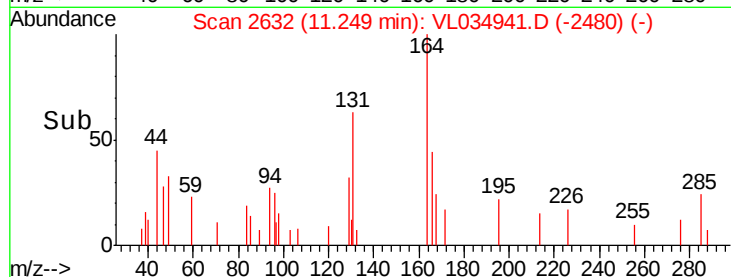
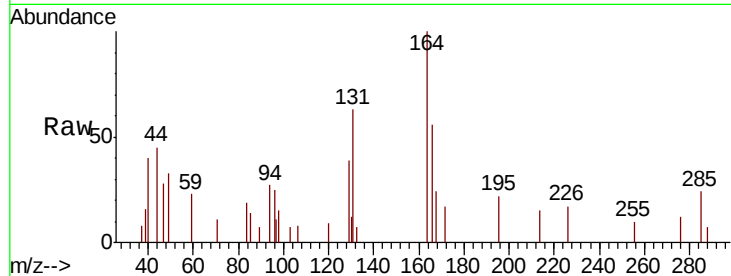
166 55.6 100.7 151.1#

129 39.4 83.0 124.4#

131 63.3 81.0 121.4#

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.12 min Scan# 2902

Delta R.T. -0.00 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

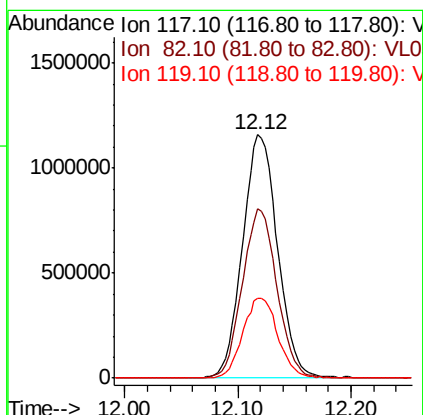
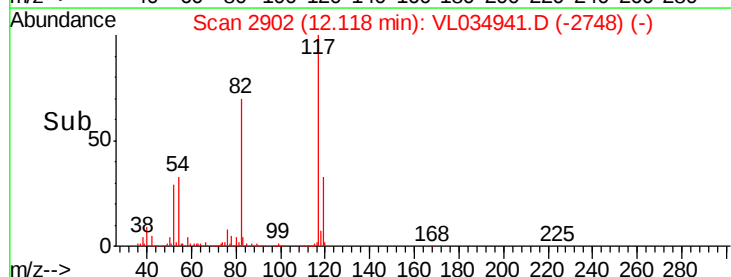
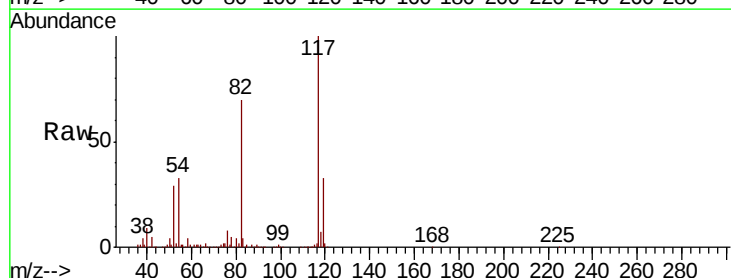
Tgt Ion:117 Resp: 2492525

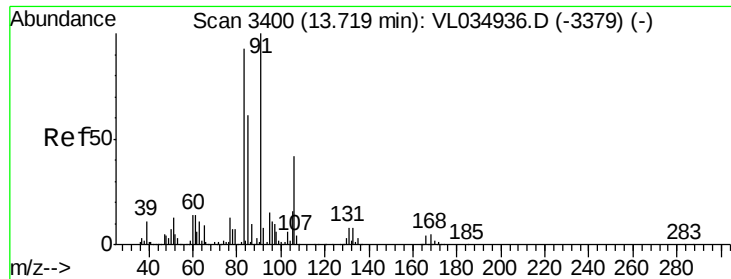
Ion Ratio Lower Upper

117 100

82 69.2 53.1 79.7

119 33.2 26.7 40.1





#63

1,1,2,2-Tetrachloroethane

Concen: 0.039 ppbv m

RT: 13.72 min Scan# 3399

Delta R.T. -0.00 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

Instrument :

MSVOA\_L

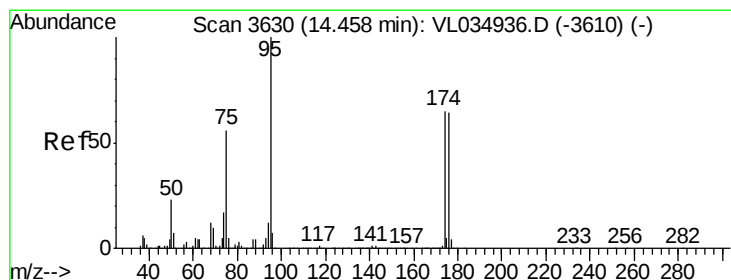
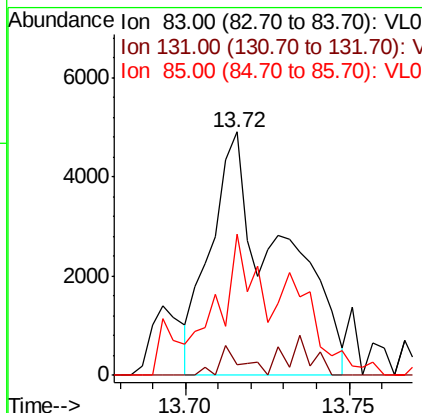
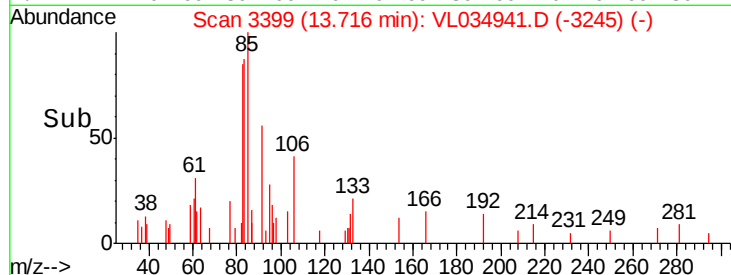
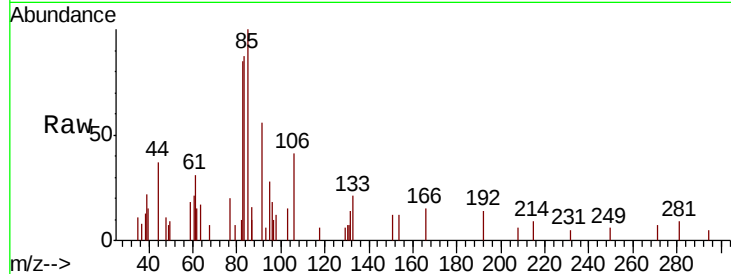
ClientSampleId :

VSTDIC0.03

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 83    | Resp: | 7221  |
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 131       | 0.0   | 4.7   | 14.0# |
| 85        | 63.8  | 32.5  | 97.4  |

Manual Integrations  
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#68

1-Bromo-4-Fluorobenzene

Concen: 10.501 ppbv

RT: 14.46 min Scan# 3629

Delta R.T. -0.00 min

Lab File: VL034941.D

Acq: 6 May 2020 13:20

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 95    | Resp: | 2041236 |
| Ion Ratio | Lower | Upper |         |
| 95        | 100   |       |         |
| 174       | 65.5  | 51.5  | 77.3    |
| 175       | 4.8   | 3.8   | 5.8     |

