

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL020519\  
 Data File : VL033174.D  
 Acq On : 6 Feb 2019 5:02  
 Operator : SY/AP  
 Sample : VSTDICC0.03  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDICC0.03

Manual Integrations  
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 2/20/2019 12:21:53 PM

Quant Time: Feb 20 05:59:46 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL020519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Feb 20 05:59:46 2019  
 QLast Update : Wed Feb 20 05:04:48 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 965834   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2585426  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2576827  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 2055279  | 10.23    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.30% |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 5) Vinyl Chloride             | 3.29  | 62   | 2468m    | 0.038 | ppbv   |        |
| 32) 1,1,1-Trichloroethane     | 6.62  | 97   | 8147m    | 0.042 | ppbv   |        |
| 35) Carbon Tetrachloride      | 7.13  | 117  | 7794m    | 0.039 | ppbv   |        |
| 38) Trichloroethene           | 7.96  | 130  | 4963m    | 0.044 | ppbv   |        |
| 52) Tetrachloroethene         | 11.37 | 164  | 3681     | 0.037 | ppbv # | 66     |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 12056m   | 0.045 | ppbv   |        |

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

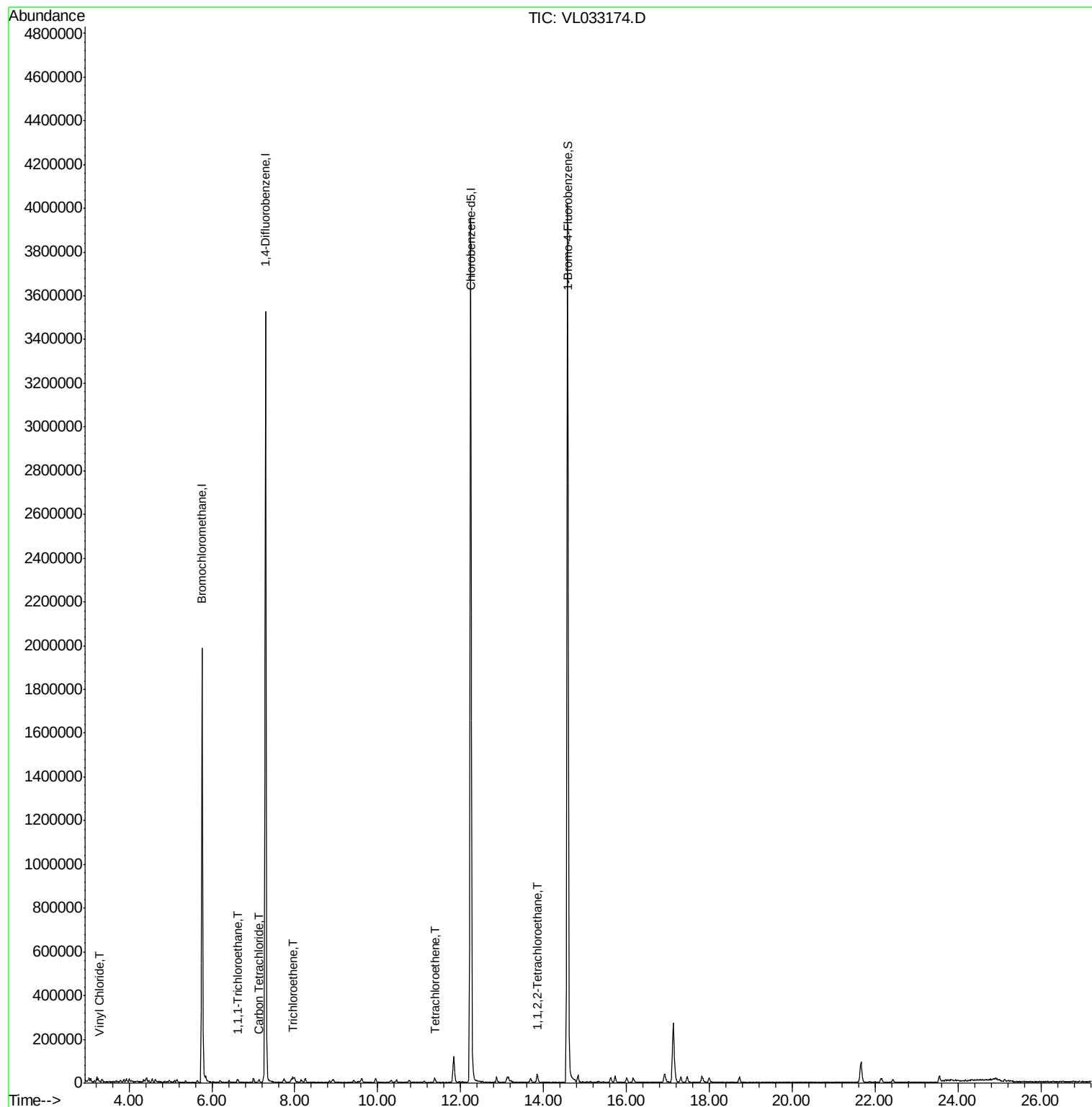
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_L\DATA\VL020519\  
Data File : VL033174.D  
Acq On : 6 Feb 2019 5:02  
Operator : SY/AP  
Sample : VSTDIC0.03  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

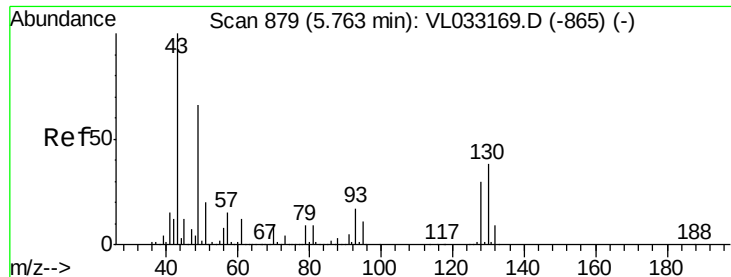
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.03

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Quant Time: Feb 20 05:59:46 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_L\METHODS\VL020519AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Feb  
QLast Update : Wed Feb 20 05:04:48 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA\_L

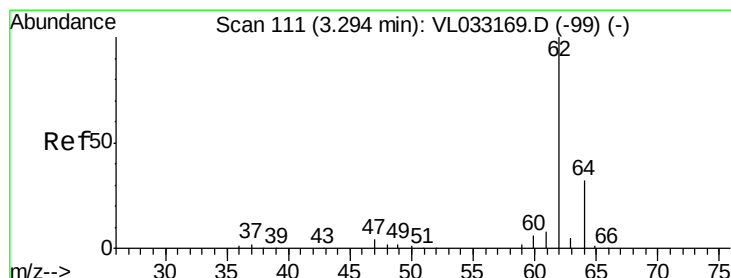
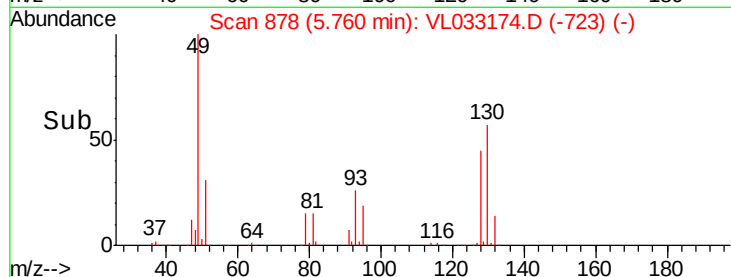
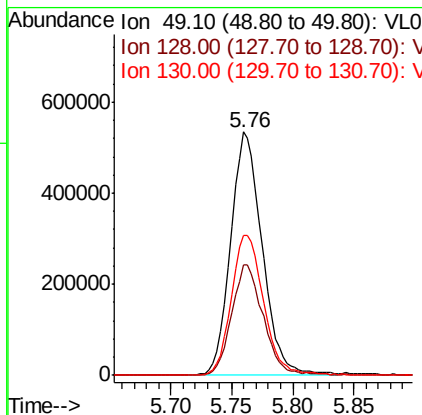
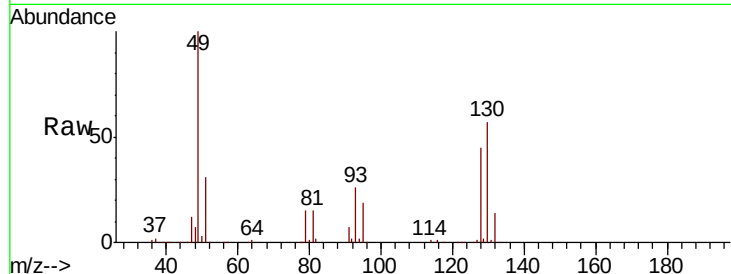
ClientSampleId :

VSTDIC0.03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49      | 100   |       |       |
| 128     | 45.9  | 23.6  | 71.0  |
| 130     | 59.4  | 30.3  | 91.0  |

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#5

Vinyl Chloride

Concen: 0.038 ppbv m

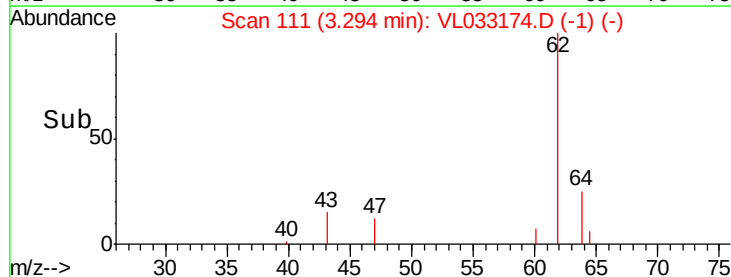
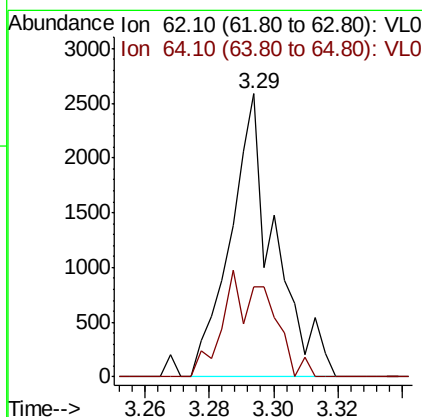
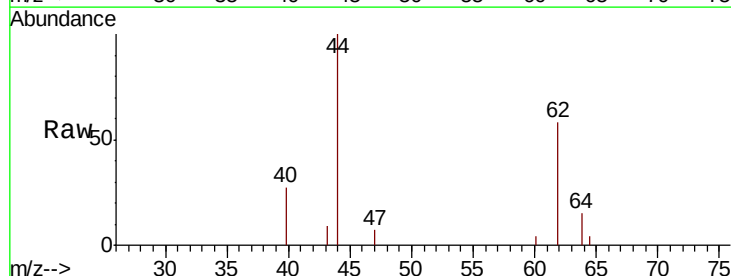
RT: 3.29 min Scan# 111

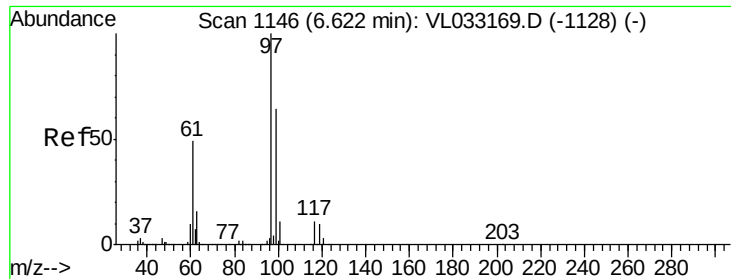
Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 64      | 25.2  | 25.6  | 38.4# |





#32

1,1,1-Trichloroethane

Concen: 0.042 ppbv m

RT: 6.62 min Scan# 1144

Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA\_L

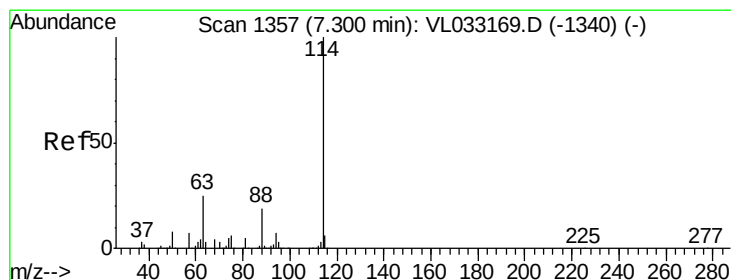
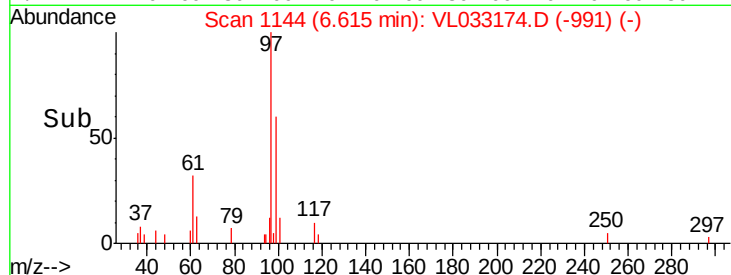
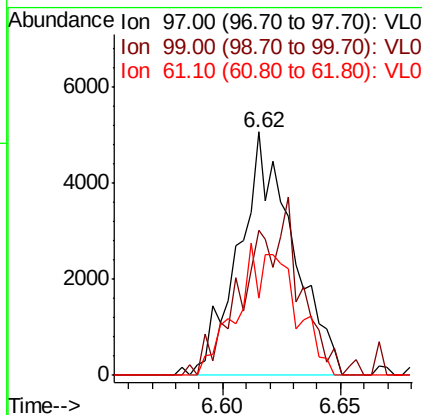
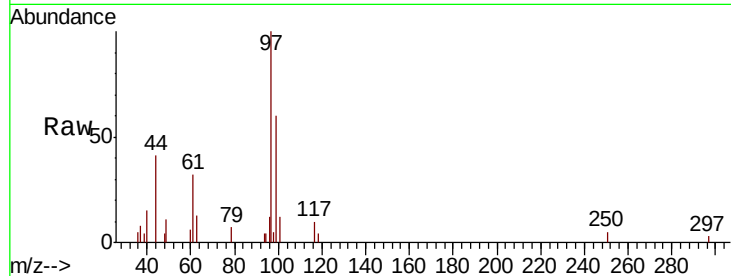
ClientSampleId :

VSTDIC0.03

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 97    | Resp: | 8147  |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 0.0   | 51.4  | 77.2# |
| 61        | 55.9  | 38.8  | 58.2  |

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

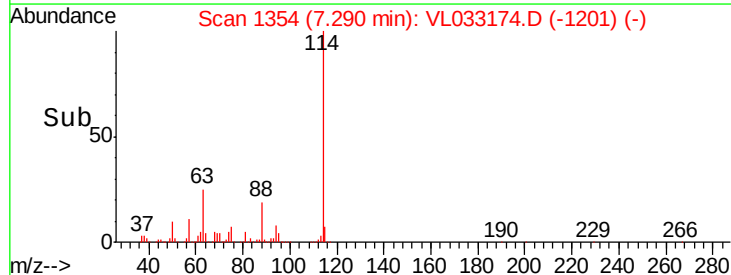
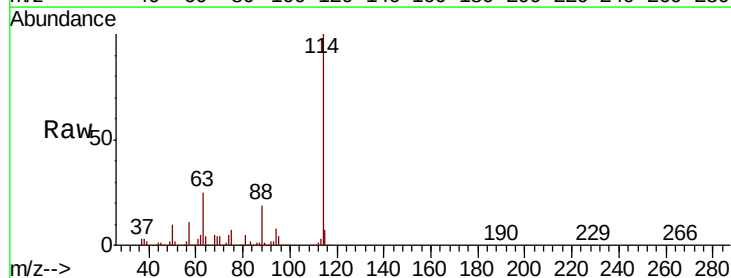
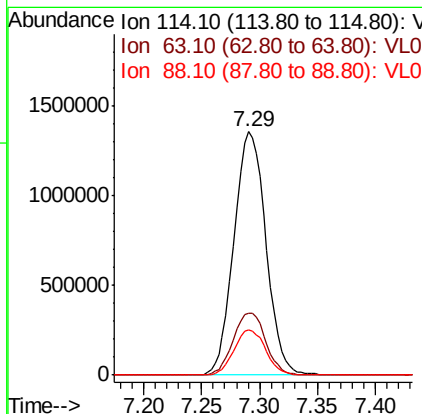
RT: 7.29 min Scan# 1354

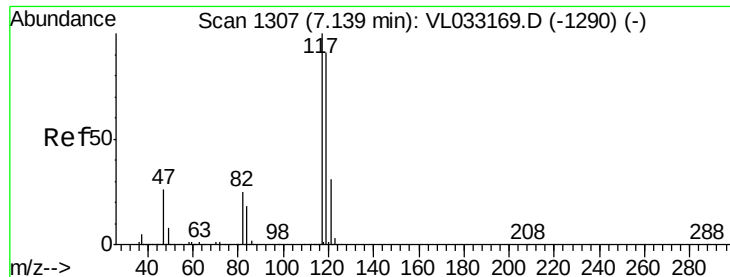
Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 114   | Resp: | 2585426 |
| Ion Ratio | Lower | Upper |         |
| 114       | 100   |       |         |
| 63        | 26.0  | 20.8  | 31.2    |
| 88        | 18.6  | 14.6  | 22.0    |





#35

Carbon Tetrachloride

Concen: 0.039 ppbv m

RT: 7.13 min Scan# 1304

Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA\_L

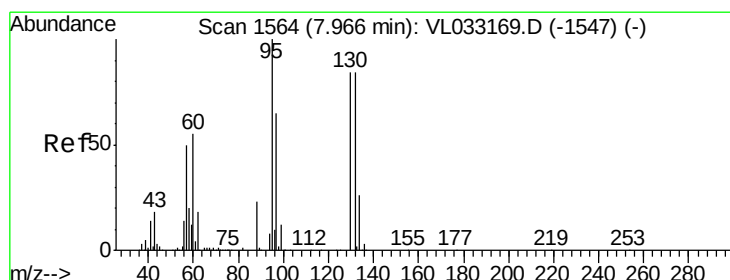
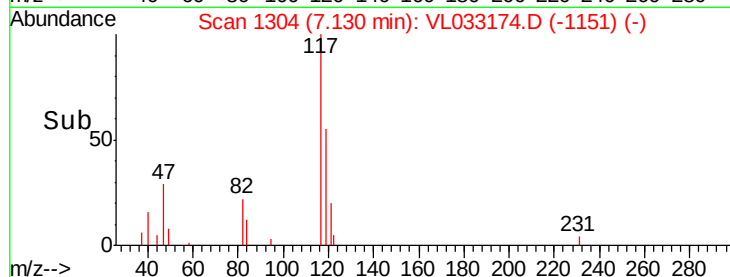
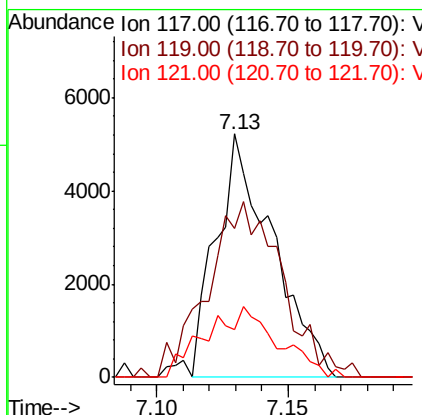
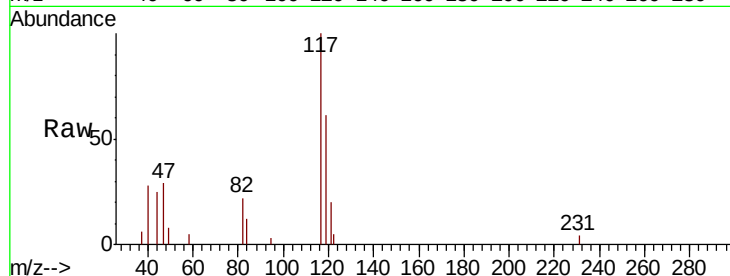
ClientSampleId :

VSTDIC0.03

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 117   | Resp: | 7794   |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 61.4  | 73.0  | 109.6# |
| 121       | 19.7  | 25.1  | 37.7#  |

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#38

Trichloroethene

Concen: 0.044 ppbv m

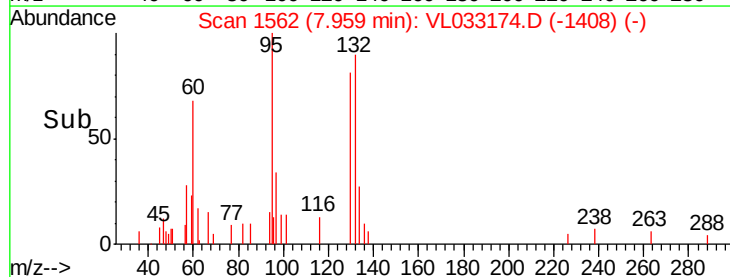
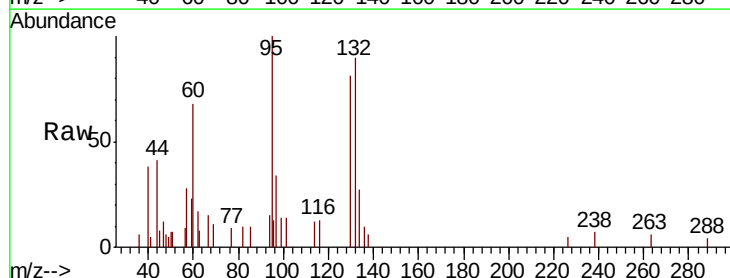
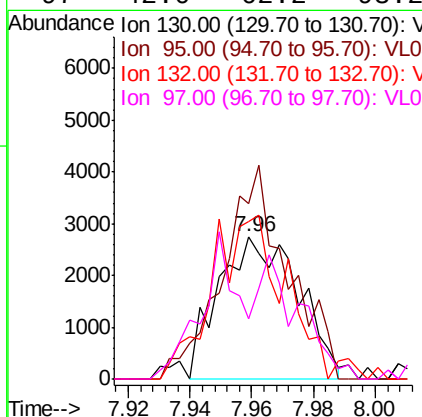
RT: 7.96 min Scan# 1562

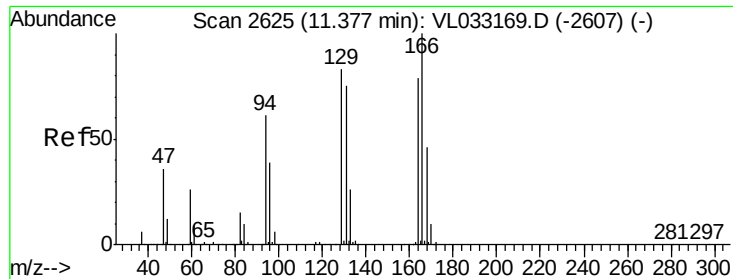
Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 130   | Resp: | 4963  |
| Ion Ratio | Lower | Upper |       |
| 130       | 100   |       |       |
| 95        | 123.1 | 95.5  | 143.3 |
| 132       | 110.8 | 80.0  | 120.0 |
| 97        | 42.0  | 62.2  | 93.2# |





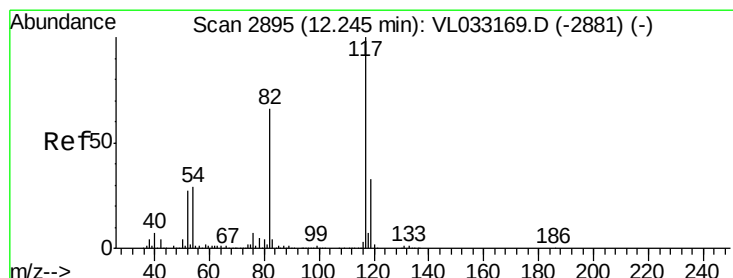
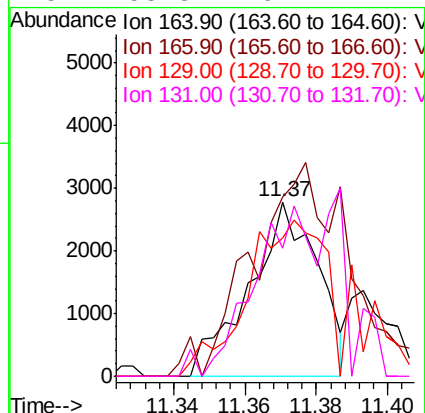
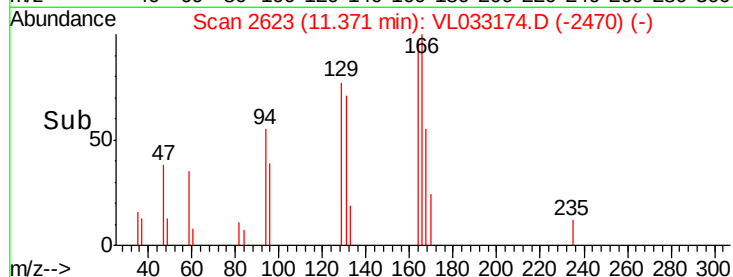
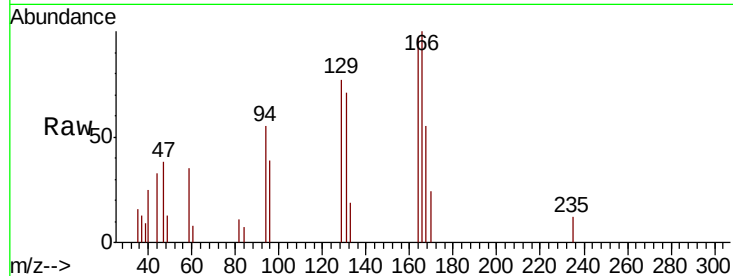
#52  
Tetrachloroethene  
Concen: 0.037 ppbv  
RT: 11.37 min Scan# 2623  
Delta R.T. -0.01 min  
Lab File: VL033174.D  
Acq: 6 Feb 2019 5:02

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.03

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 164     | 100   |       |        |
| 166     | 80.6  | 100.9 | 151.3# |
| 129     | 79.2  | 83.9  | 125.9# |
| 131     | 58.3  | 76.2  | 114.2# |

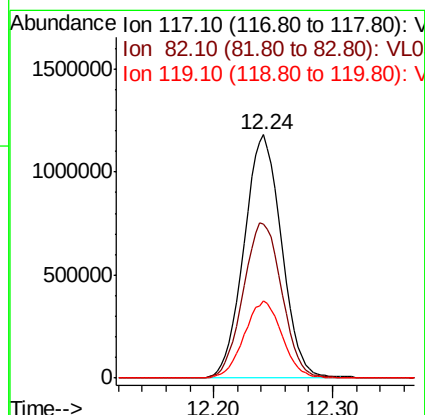
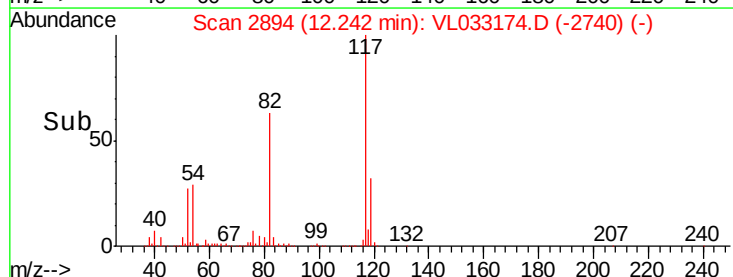
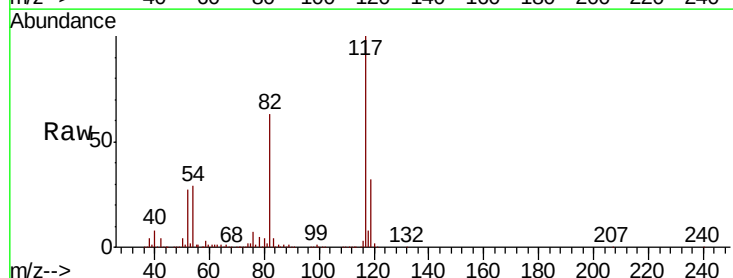
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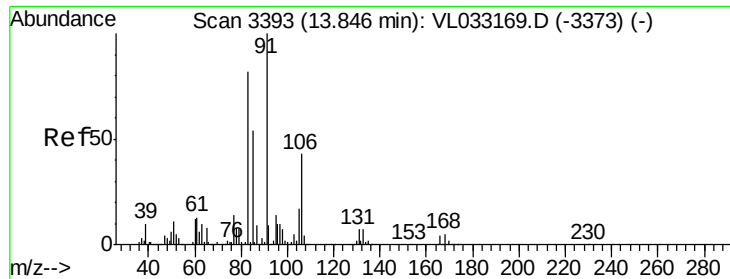
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#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.24 min Scan# 2894  
Delta R.T. -0.00 min  
Lab File: VL033174.D  
Acq: 6 Feb 2019 5:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 66.3  | 53.8  | 80.8  |
| 119     | 32.2  | 46.9  | 70.3# |





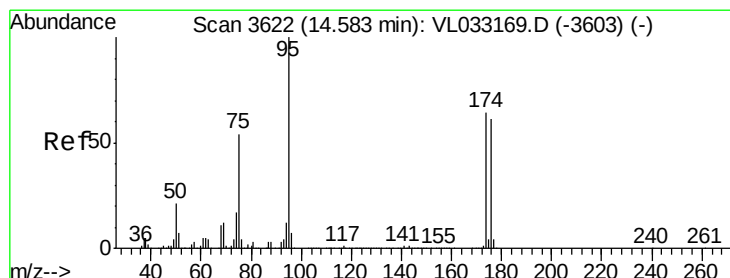
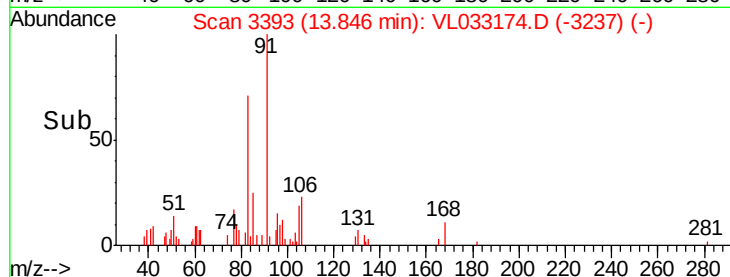
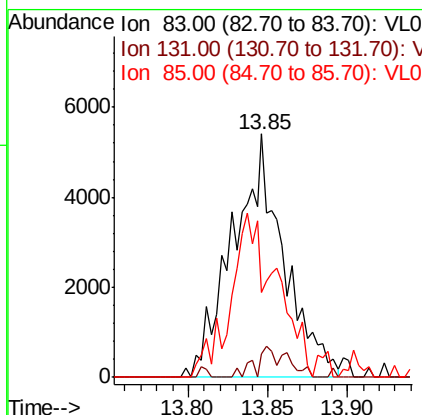
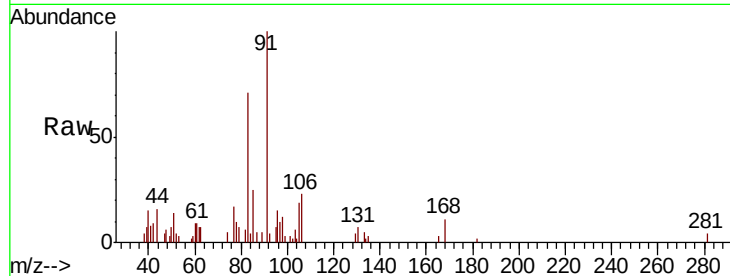
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.045 ppbv m  
 RT: 13.85 min Scan# 3393  
 Delta R.T. -0.00 min  
 Lab File: VL033174.D  
 Acq: 6 Feb 2019 5:02

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 83      | 100   |            |       |
| 131     | 0.0   | 4.8        | 14.3# |
| 85      | 0.0   | 32.8       | 98.3# |

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#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.233 ppbv  
 RT: 14.58 min Scan# 3620  
 Delta R.T. -0.01 min  
 Lab File: VL033174.D  
 Acq: 6 Feb 2019 5:02

| Tgt Ion | Ratio | Resp Lower | Upper |
|---------|-------|------------|-------|
| 95      | 100   |            |       |
| 174     | 63.7  | 51.1       | 76.7  |
| 175     | 4.5   | 3.8        | 5.6   |

