

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL092418\  
 Data File : VL032518.D  
 Acq On : 24 Sep 2018 19:02  
 Operator : SY/AP  
 Sample : VSTDIC0.1  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.1

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Quant Time: Sep 24 19:35:08 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Sep 24 2018  
 QLast Update : Mon Sep 24 18:32:13 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.79  | 49   | 1624603  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.32  | 114  | 3592953  | 10.00 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 12.27 | 117  | 3546057  | 10.00 | ppbv  | -0.03    |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.61  | 95    | 2708465  | 10.29    | ppbv | -0.03   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.90% |

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Ovalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 5) Vinyl Chloride             | 3.31  | 62   | 8637m    | 0.098 | ppbv  |        |
| 32) 1,1,1-Trichloroethane     | 6.64  | 97   | 25055m   | 0.114 | ppbv  |        |
| 35) Carbon Tetrachloride      | 7.16  | 117  | 26772    | 0.111 | ppbv  | # 79   |
| 38) Trichloroethene           | 7.99  | 130  | 10004m   | 0.086 | ppbv  |        |
| 52) Tetrachloroethene         | 11.40 | 164  | 9975m    | 0.105 | ppbv  |        |
| 63) 1,1,2,2-Tetrachloroethane | 13.87 | 83   | 33720m   | 0.101 | ppbv  |        |

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

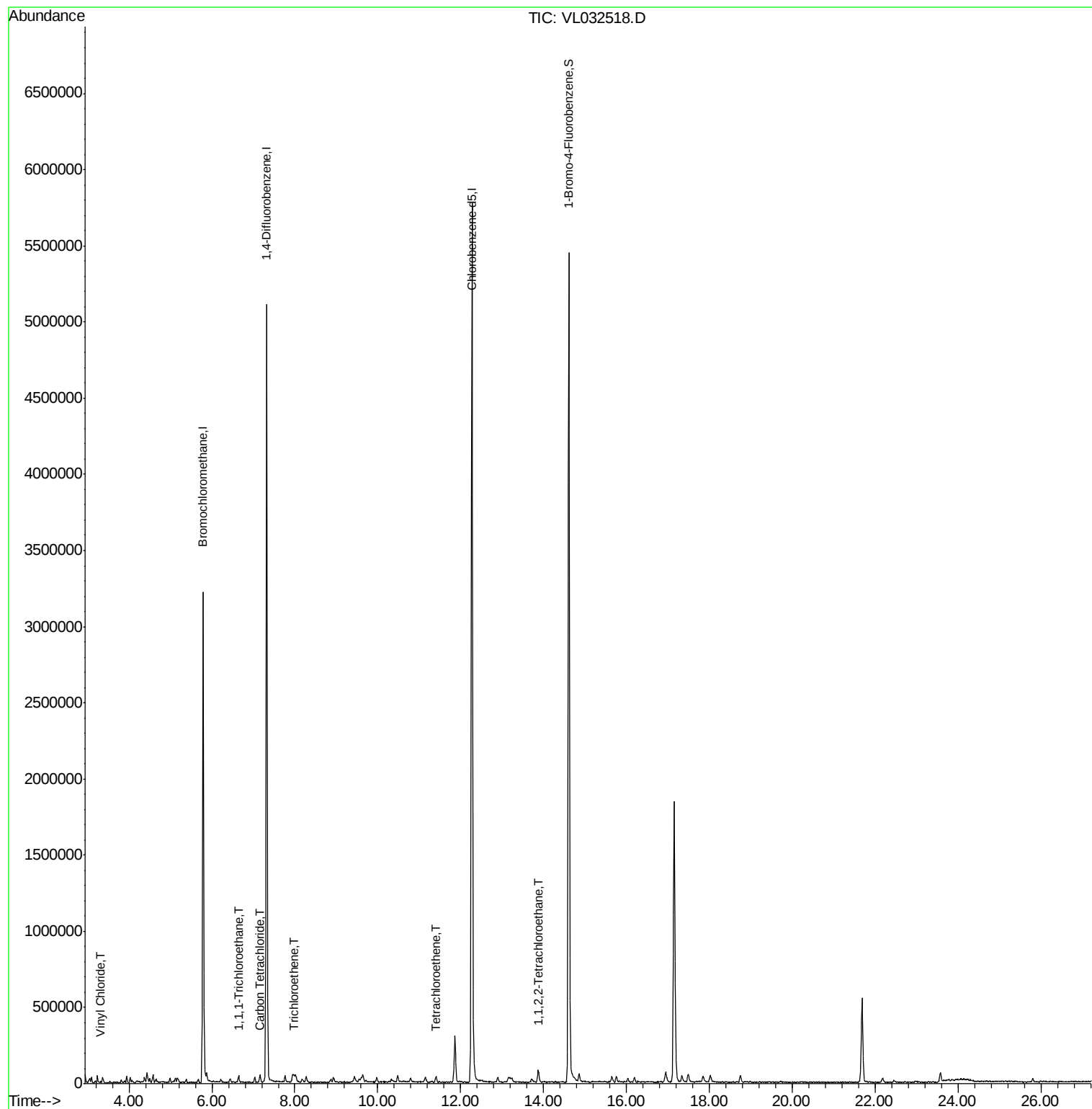
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL092418\  
Data File : VL032518.D  
Acq On : 24 Sep 2018 19:02  
Operator : SY/AP  
Sample : VSTDIC0.1  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

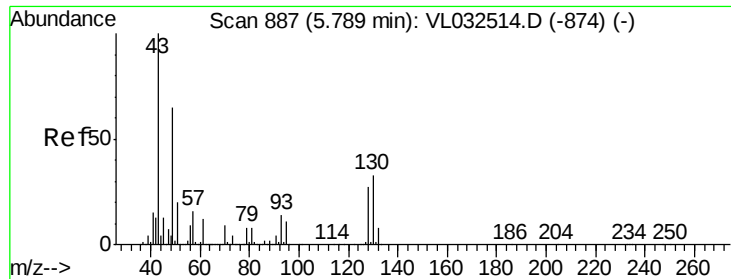
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.1

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Quant Time: Sep 24 19:35:08 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Sep  
QLast Update : Mon Sep 24 18:32:13 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 886

Delta R.T. -0.02 min

Lab File: VL032518.D

Acq: 24 Sep 2018 19:02

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.1

Tot Ion: 49 Resp: 1624603

Ion Ratio Lower Upper

49 100

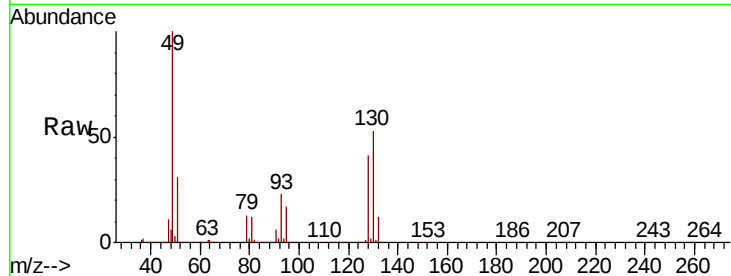
128 43.1 20.7 62.1

130 54.3 26.6 79.7

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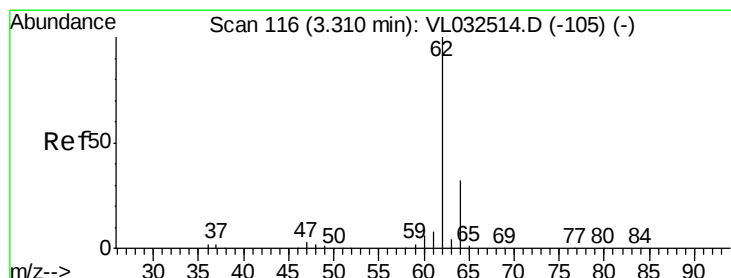
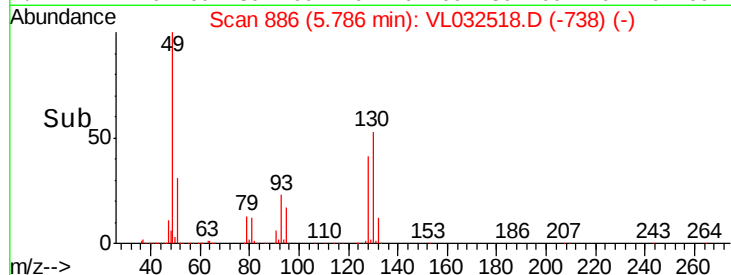
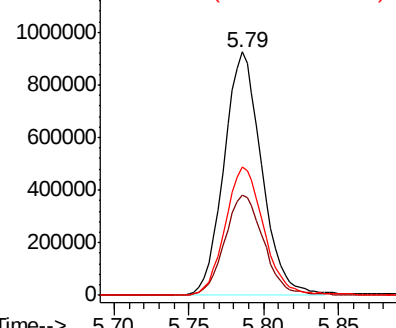
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#5

Vinyl Chloride

Concen: 0.098 ppbv m

RT: 3.31 min Scan# 116

Delta R.T. -0.01 min

Lab File: VL032518.D

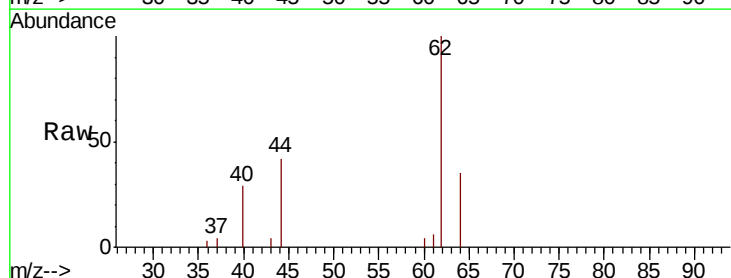
Acq: 24 Sep 2018 19:02

Tgt Ion: 62 Resp: 8637

Ion Ratio Lower Upper

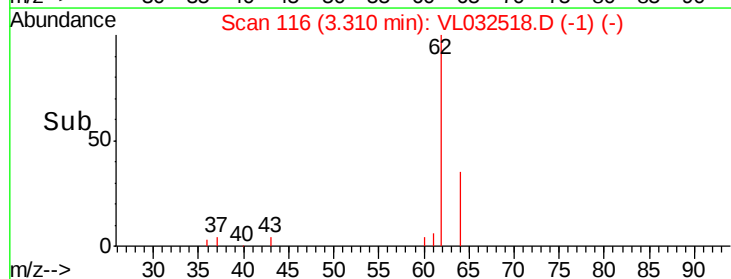
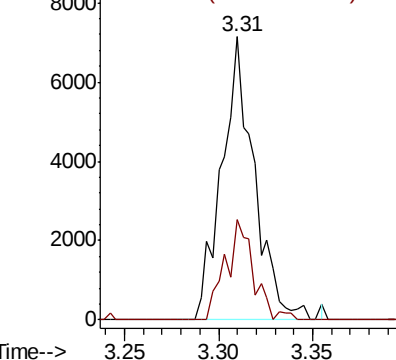
62 100

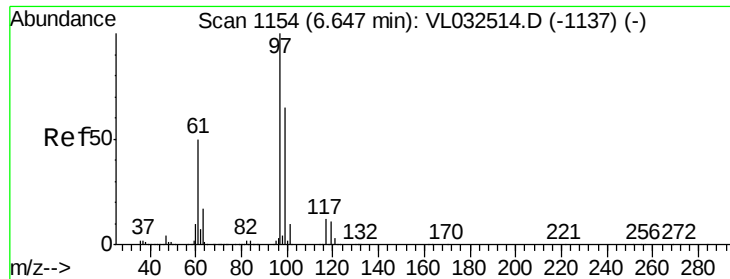
64 35.4 25.0 37.6



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





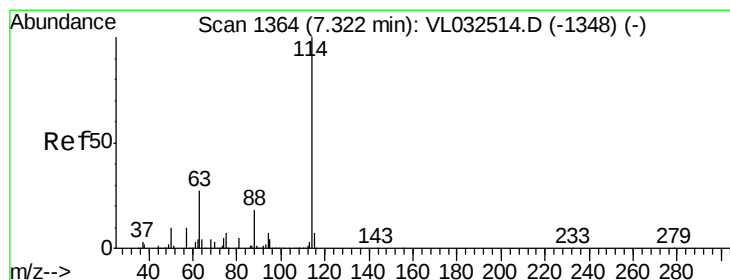
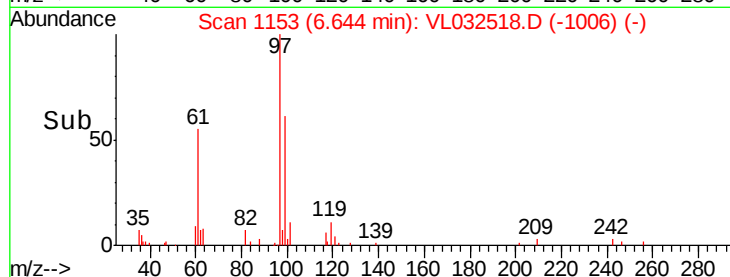
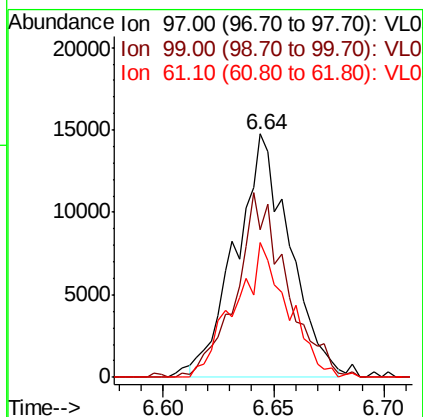
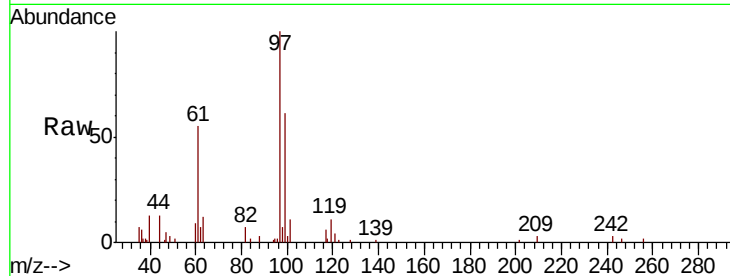
#32  
 1,1,1-Trichloroethane  
 Concen: 0.114 ppbv m  
 RT: 6.64 min Scan# 1153  
 Delta R.T. -0.03 min  
 Lab File: VL032518.D  
 Acq: 24 Sep 2018 19:02

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.1

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 97      | 100   | 25055 |       |       |
| 99      | 71.3  |       | 52.1  | 78.1  |
| 61      | 54.4  |       | 42.5  | 63.7  |

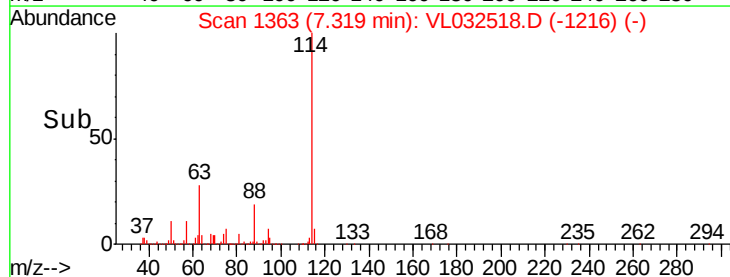
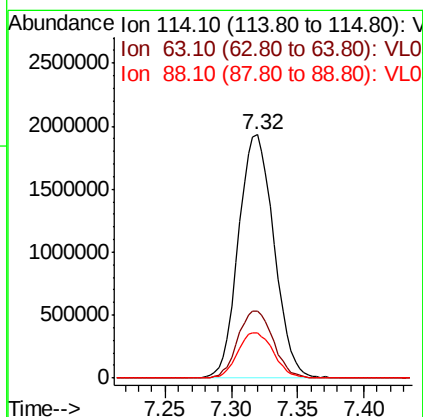
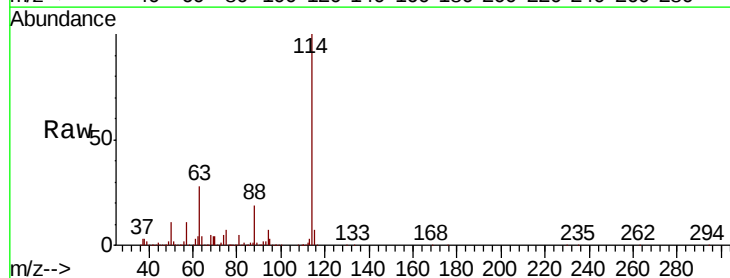
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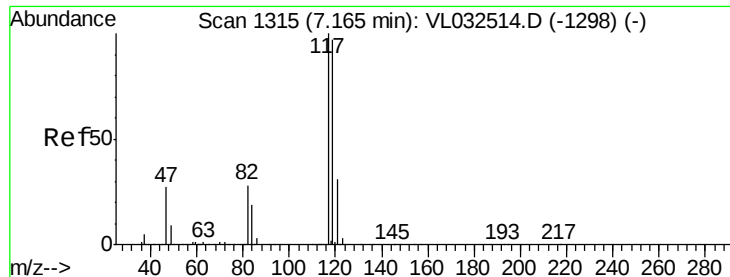
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#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.32 min Scan# 1363  
 Delta R.T. -0.03 min  
 Lab File: VL032518.D  
 Acq: 24 Sep 2018 19:02

| Tgt Ion | Ratio | Resp    | Lower | Upper |
|---------|-------|---------|-------|-------|
| 114     | 100   | 3592953 |       |       |
| 63      | 27.7  |         | 22.2  | 33.4  |
| 88      | 18.8  |         | 15.0  | 22.4  |





#35

Carbon Tetrachloride

Concen: 0.111 ppbv

RT: 7.16 min Scan# 1313

Delta R.T. -0.03 min

Lab File: VL032518.D

Acq: 24 Sep 2018 19:02

Instrument :

MSVOA\_L

ClientSampleId :

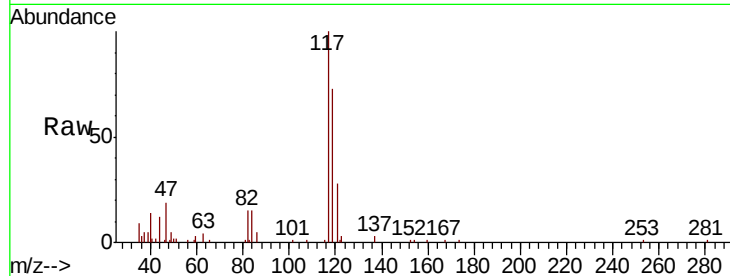
VSTDIC0.1

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 117   | Resp: | 26772  |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 70.7  | 76.6  | 115.0# |
| 121       | 28.3  | 24.6  | 36.8   |

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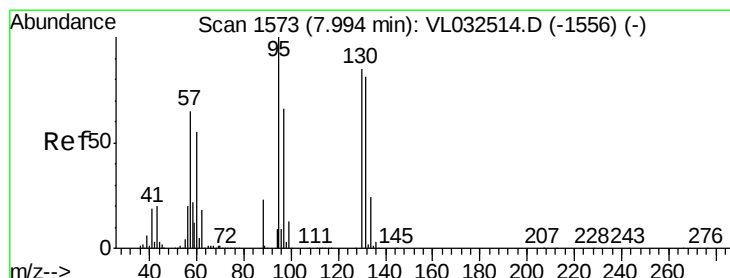
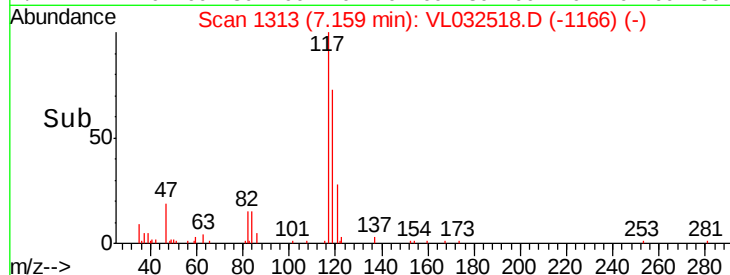
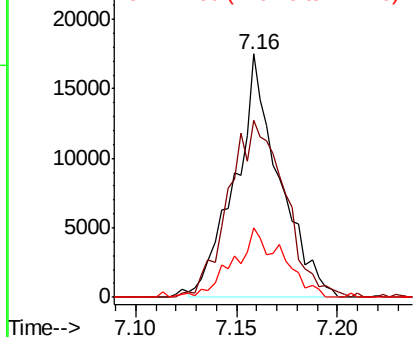


Abundance

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: 0.086 ppbv m

RT: 7.99 min Scan# 1571

Delta R.T. -0.03 min

Lab File: VL032518.D

Acq: 24 Sep 2018 19:02

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 130   | Resp: | 10004 |
| Ion Ratio | Lower | Upper |       |
| 130       | 100   |       |       |
| 95        | 96.8  | 94.2  | 141.4 |
| 132       | 78.0  | 76.2  | 114.4 |
| 97        | 61.2  | 60.8  | 91.2  |

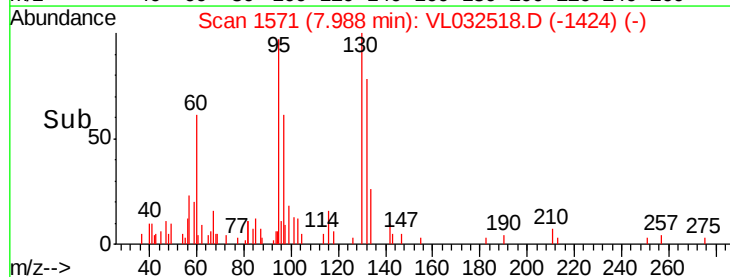
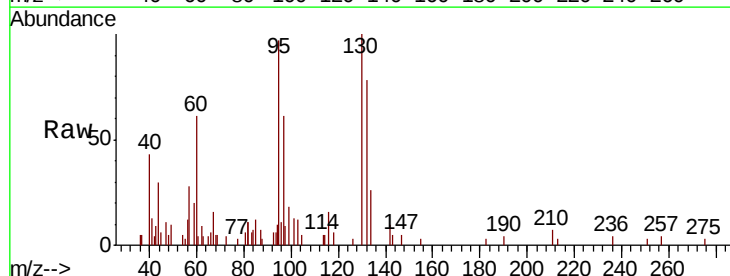
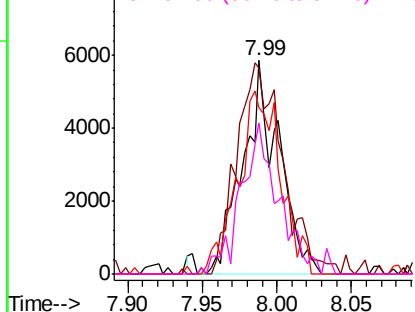
Abundance

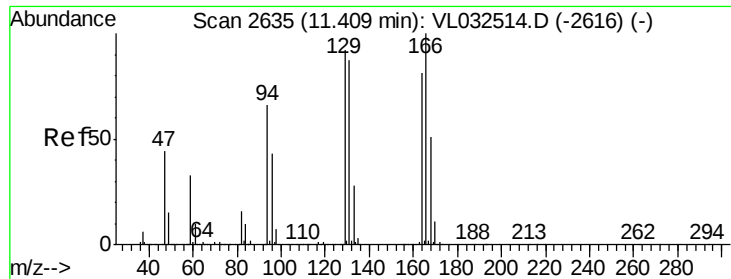
Ion 130.00 (129.70 to 130.70): V

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





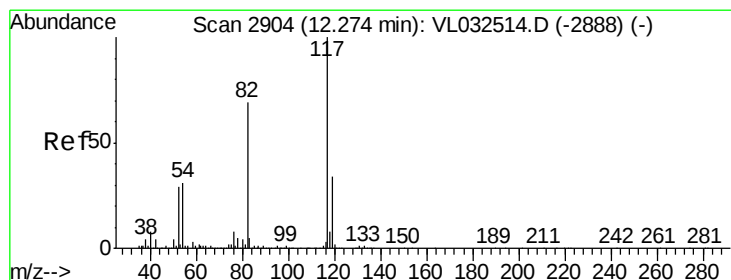
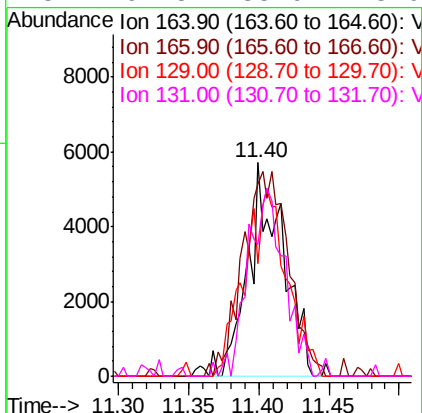
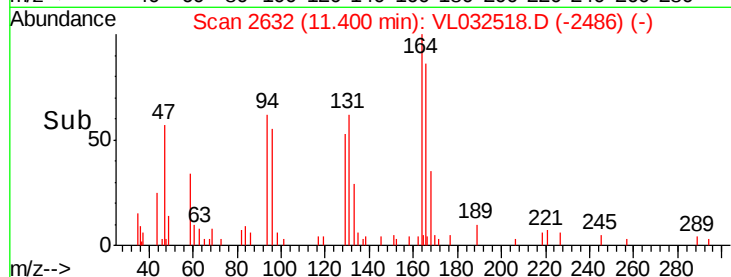
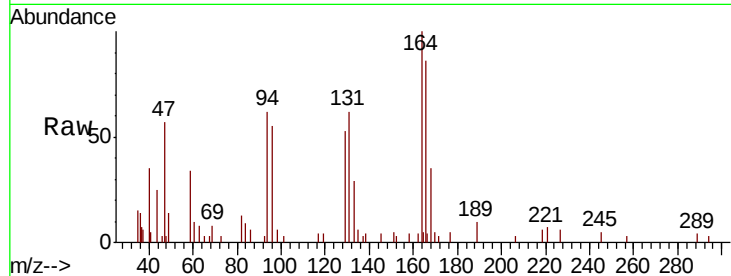
#52  
Tetrachloroethene  
Concen: 0.105 ppbv m  
RT: 11.40 min Scan# 2632  
Delta R.T. -0.03 min  
Lab File: VL032518.D  
Acq: 24 Sep 2018 19:02

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.1

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 164     | 100   |       |        |
| 166     | 86.1  | 100.6 | 150.8# |
| 129     | 52.5  | 89.9  | 134.9# |
| 131     | 61.8  | 85.9  | 128.9# |

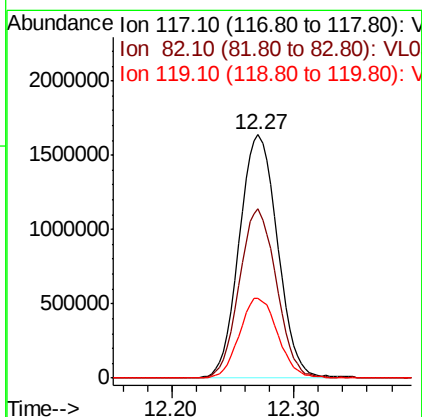
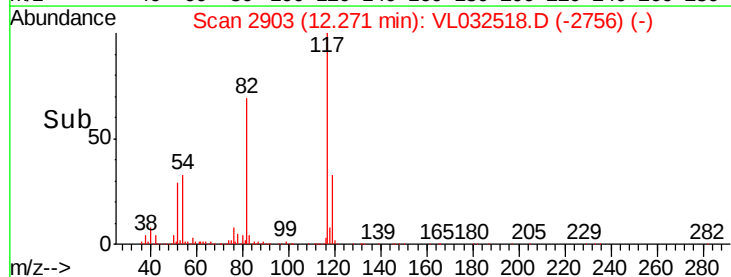
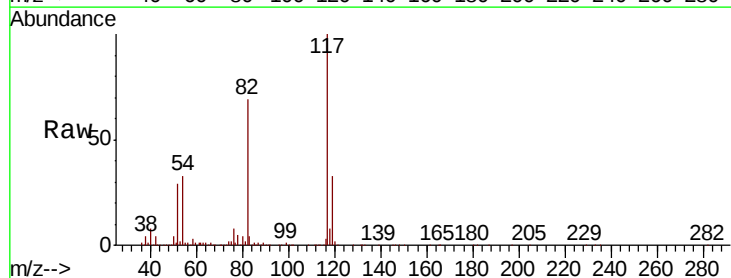
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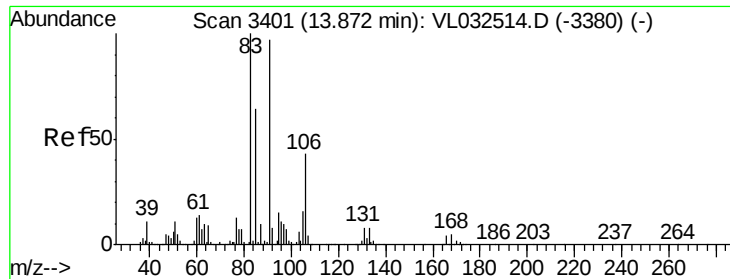
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#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.27 min Scan# 2903  
Delta R.T. -0.03 min  
Lab File: VL032518.D  
Acq: 24 Sep 2018 19:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 67.9  | 53.0  | 79.6  |
| 119     | 33.1  | 45.9  | 68.9# |





#63

1,1,2,2-Tetrachloroethane

Concen: 0.101 ppbv m

RT: 13.87 min Scan# 3400

Delta R.T. -0.03 min

Lab File: VL032518.D

Acq: 24 Sep 2018 19:02

Instrument :

MSVOA\_L

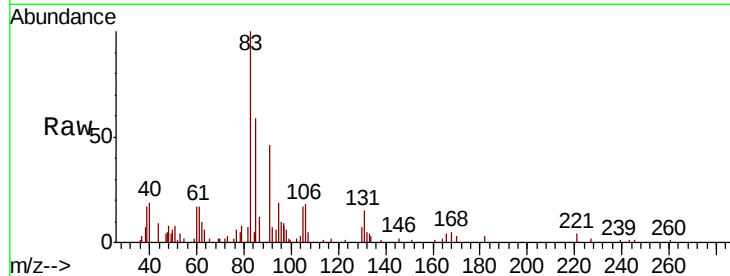
ClientSampleId :

VSTDIC0.1

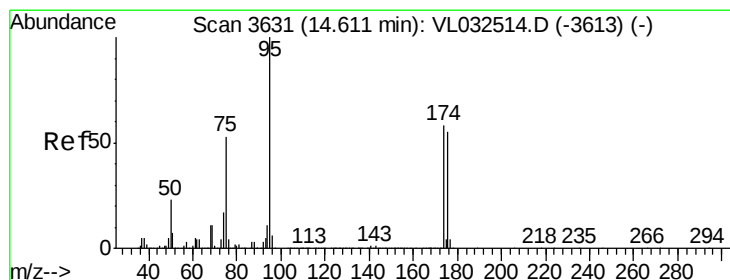
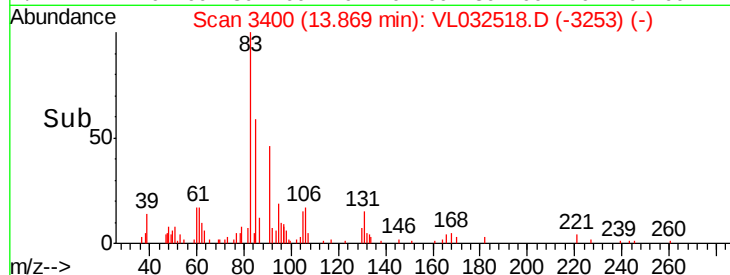
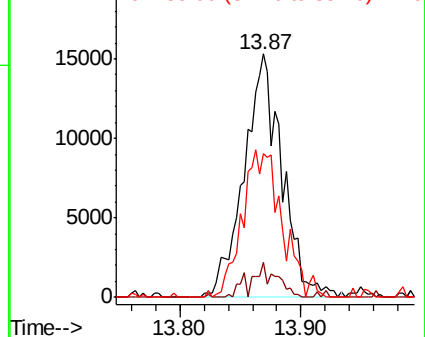
|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 83    | Resp: | 33720 |
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 131       | 10.0  | 4.3   | 12.8  |
| 85        | 63.5  | 32.3  | 96.8  |

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Abundance Ion 83.00 (82.70 to 83.70): VL0  
Ion 131.00 (130.70 to 131.70): V  
Ion 85.00 (84.70 to 85.70): VL0



#68

1-Bromo-4-Fluorobenzene

Concen: 10.288 ppbv

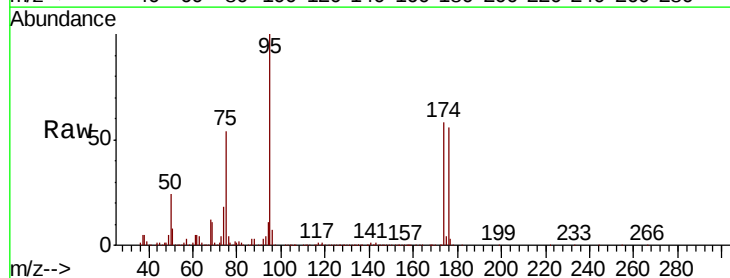
RT: 14.61 min Scan# 3630

Delta R.T. -0.03 min

Lab File: VL032518.D

Acq: 24 Sep 2018 19:02

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 95    | Resp: | 2708465 |
| Ion Ratio | Lower | Upper |         |
| 95        | 100   |       |         |
| 174       | 58.4  | 46.3  | 69.5    |
| 175       | 4.2   | 3.4   | 5.0     |



Abundance Ion 95.10 (94.80 to 95.80): VL0  
Ion 174.00 (173.70 to 174.70): V  
Ion 175.00 (174.70 to 175.70): V

