

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV092820\  
 Data File : VV018504.D  
 Acq On : 28 Sep 2020 19:28  
 Operator : SY/MD  
 Sample : L4109-15  
 Misc : 5.87g/10.0mL/100uL/5.0mL/MSVOA\_V/MEOH  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 BG3X4

Manual Integrations  
 APPROVED

MMDadoda  
 10/2/2020 11:43:26 AM

Quant Time: Sep 29 03:52:53 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM090920WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Sep 29 00:50:40 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.64  | 114  | 321973   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.88  | 117  | 319079   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.28 | 152  | 167587   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |          |
|--------------------------------|---------|-------|----------|----------|------|----------|
| 4) Vinyl Chloride-d3           | 1.31    | 65    | 132187   | 50.38    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 100.76%  |
| 7) Chloroethane-d5             | 1.58    | 69    | 108873   | 50.71    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 101.42%  |
| 11) 1,1-Dichloroethene-d2      | 2.10    | 63    | 176901   | 36.75    | ug/L | -0.02    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 73.50%   |
| 21) 2-Butanone-d5              | 3.94    | 46    | 198572   | 123.64   | ug/L | 0.03     |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 123.64%  |
| 24) Chloroform-d               | 4.37    | 84    | 259714   | 57.05    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 114.10%  |
| 26) 1,2-Dichloroethane-d4      | 5.06    | 65    | 174556   | 59.81    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 119.62%  |
| 32) Benzene-d6                 | 5.07    | 84    | 538443m  | 58.95    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 117.90%  |
| 36) 1,2-Dichloropropane-d6     | 6.09    | 67    | 176703   | 60.88    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 121.76%# |
| 41) Toluene-d8                 | 7.34    | 98    | 502974   | 60.42    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 120.84%# |
| 43) trans-1,3-Dichloropropene- | 7.65    | 79    | 88092    | 59.73    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 119.46%  |
| 47) 2-Hexanone-d5              | 8.15    | 63    | 158559   | 144.23   | ug/L | 0.04     |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 144.23%# |
| 57) 1,1,2,2-Tetrachloroethane- | 10.25   | 84    | 244581   | 67.14    | ug/L | 0.02     |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 134.28%# |
| 64) 1,2-Dichlorobenzene-d4     | 11.65   | 152   | 227056   | 65.97    | ug/L | 0.00     |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 131.94%# |

## Target Compounds

| Target Compounds           | R.T.  | QIon | Response | Conc     | Units  | Ovalue |
|----------------------------|-------|------|----------|----------|--------|--------|
| 19) 1,1-Dichloroethane     | 3.21  | 63   | 3224     | 0.783    | ug/L   | 97     |
| 20) cis-1,2-Dichloroethene | 3.94  | 96   | 15020    | 6.449    | ug/L   | 96     |
| 29) Cyclohexane            | 4.69  | 56   | 81011    | 21.987   | ug/L   | 99     |
| 30) 1,1,1-Trichloroethane  | 4.63  | 97   | 321746   | 86.887   | ug/L   | 100    |
| 34) Trichloroethene        | 5.95  | 95   | 2965     | 1.193    | ug/L   | 97     |
| 35) Methylcyclohexane      | 6.15  | 83   | 9458m    | 2.528    | ug/L   |        |
| 42) Toluene                | 7.41  | 91   | 7705949  | 798.178  | ug/L   | 95     |
| 46) Tetrachloroethene      | 8.00  | 164  | 2394     | 1.229    | ug/L   | 96     |
| 51) Chlorobenzene          | 8.91  | 112  | 9757     | 1.556    | ug/L   | 96     |
| 52) Ethylbenzene           | 9.04  | 91   | 2430414  | 230.583  | ug/L   | 99     |
| 53) m,p-Xylene             | 9.16  | 106  | 3999974  | 1016.718 | ug/L   | 88     |
| 54) o-xylene               | 9.57  | 106  | 1946039  | 513.444  | ug/L   | 96     |
| 56) Isopropylbenzene       | 9.95  | 105  | 2253322  | 220.593  | ug/L   | 99     |
| 62) 1,3-Dichlorobenzene    | 11.21 | 146  | 3763     | 0.755    | ug/L # | 1      |
| 63) 1,4-Dichlorobenzene    | 11.30 | 146  | 10219    | 1.995    | ug/L # | 61     |
| 65) 1,2-Dichlorobenzene    | 11.67 | 146  | 85005    | 16.876   | ug/L   | 94     |
| 68) 1,2,4-trichlorobenzene | 13.29 | 180  | 16378    | 4.682    | ug/L # | 65     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV092820\  
Data File : VV018504.D  
Acq On : 28 Sep 2020 19:28  
Operator : SY/MD  
Sample : L4109-15  
Misc : 5.87g/10.0mL/100uL/5.0mL/MSVOA\_V/MEOH  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
BG3X4

Manual Integrations  
APPROVED

MMDadoda  
10/2/2020 11:43:26 AM

Quant Time: Sep 29 03:52:53 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM090920WMA.M  
Quant Title : VOC Analysis  
QLast Update : Tue Sep 29 00:50:40 2020  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

|       |  |  |  |  |  |  |
|-------|--|--|--|--|--|--|
| ----- |  |  |  |  |  |  |
| ----- |  |  |  |  |  |  |

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

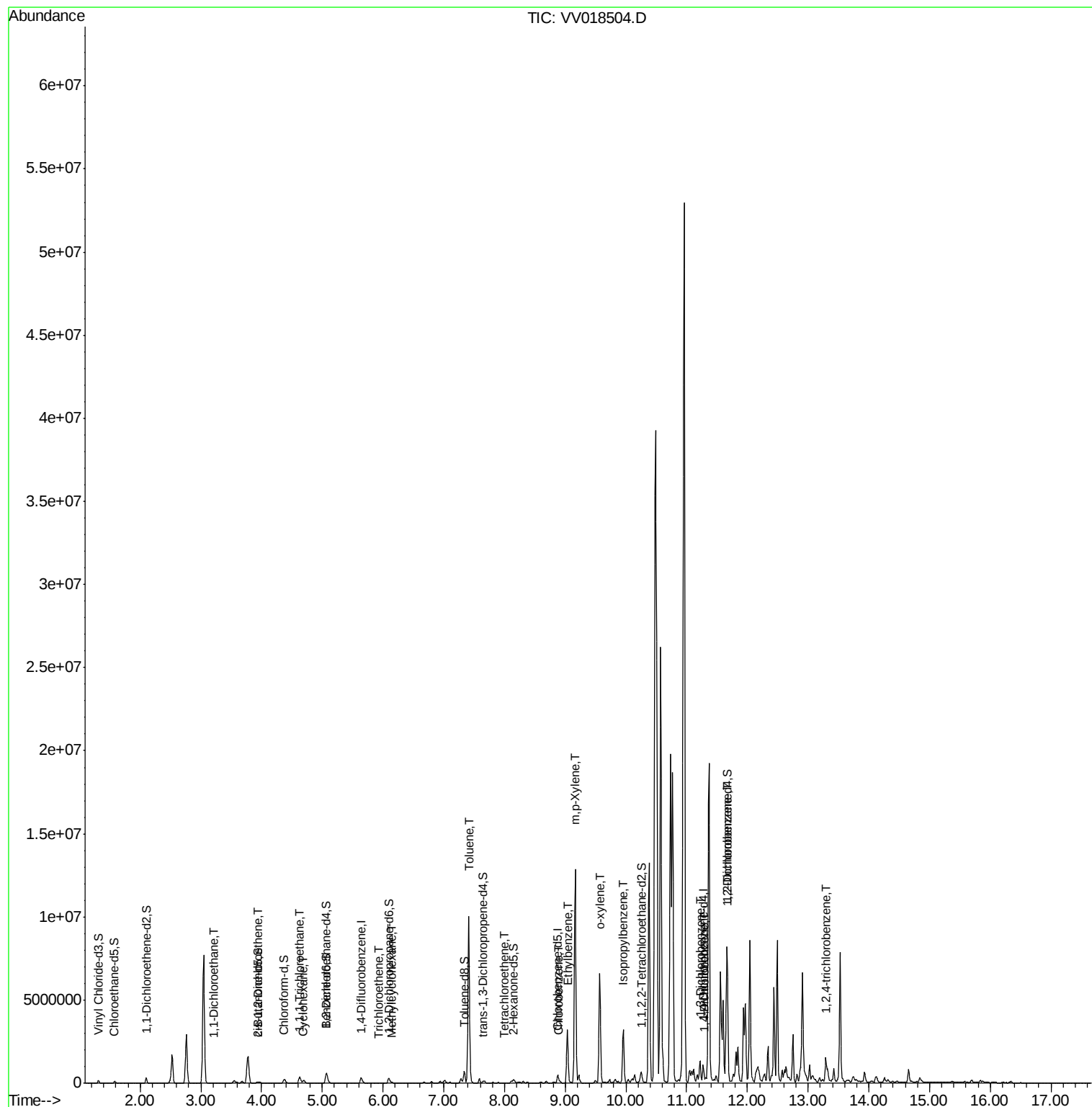
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Data File : VV018504.D  
Acq On : 28 Sep 2020 19:28  
Operator : SY/MD  
Sample : L4109-15  
Misc : 5.87g/10.0mL/100uL/5.0mL/MSVOA\_V/MEOH  
ALS Vial : 25 Sample Multiplier: 1

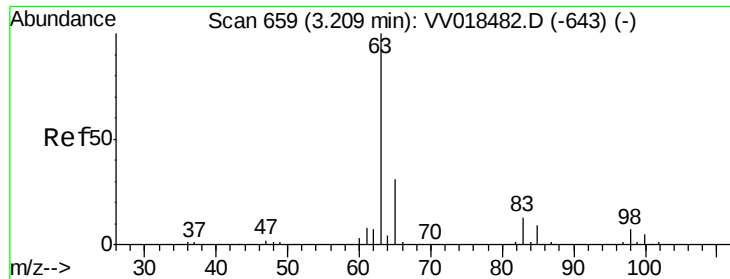
Instrument :  
MSVOA\_V  
ClientSampleId :  
BG3X4

Manual Integrations  
APPROVED

MMDadoda  
10/2/2020 11:43:26 AM

Quant Time: Sep 29 03:52:53 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM090920WMA.M  
Quant Title : VOC Analysis  
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Response via : Initial Calibration





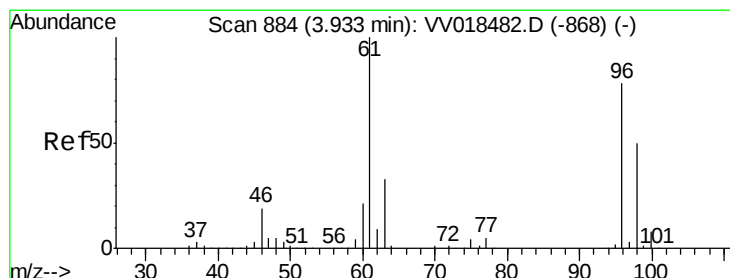
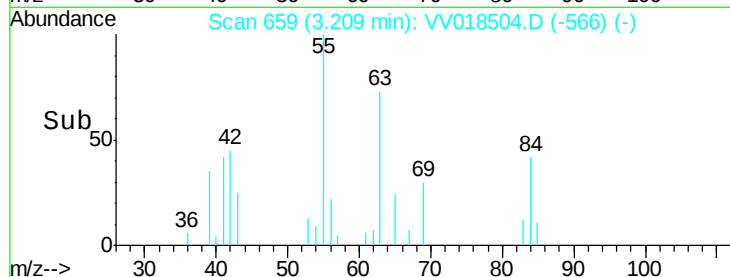
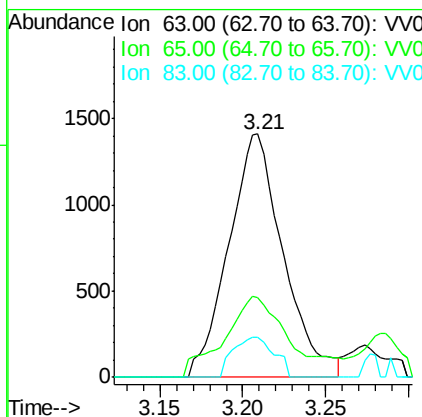
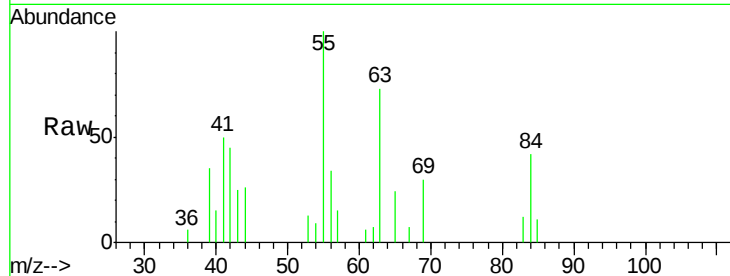
#19  
 1,1-Dichloroethane  
 Concen: 0.783 ug/L  
 RT: 3.21 min Scan# 659  
 Delta R.T. -0.00 min  
 Lab File: VV018504.D  
 Acq: 28 Sep 2020 19:28

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 BG3X4

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 63    | Resp: | 3224  |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 65       | 32.9  | 22.5  | 41.7  |
| 83       | 16.6  | 9.3   | 17.3  |

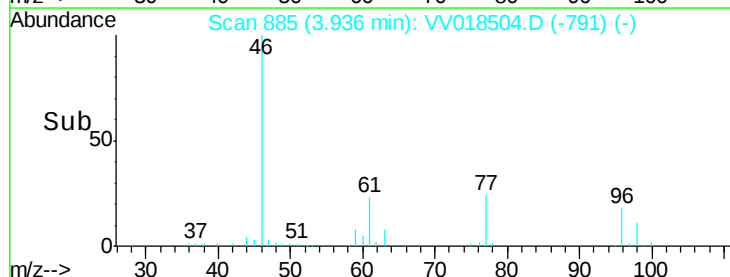
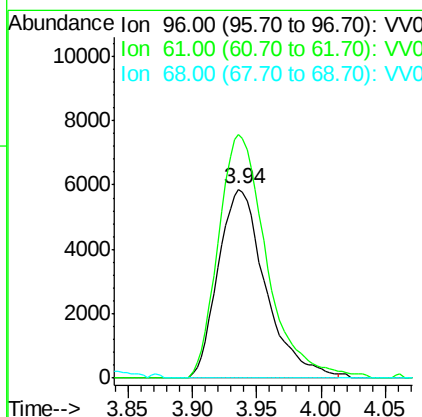
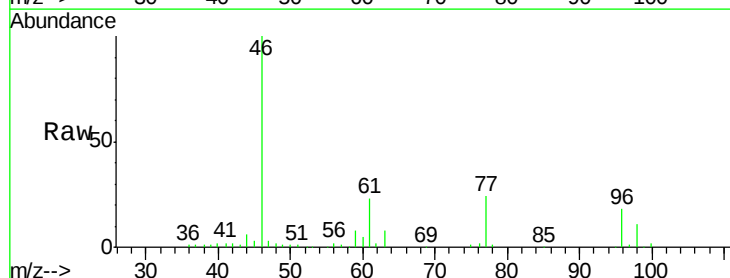
Manual Integrations  
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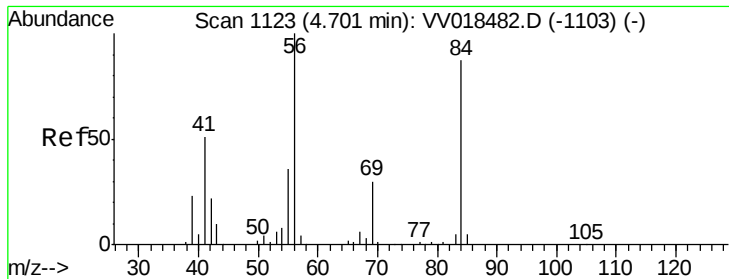
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#20  
 cis-1,2-Dichloroethene  
 Concen: 6.449 ug/L  
 RT: 3.94 min Scan# 885  
 Delta R.T. 0.00 min  
 Lab File: VV018504.D  
 Acq: 28 Sep 2020 19:28

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 15020 |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 129.1 | 93.6  | 173.8 |
| 68       | 0.0   | 0.0   | 0.0   |





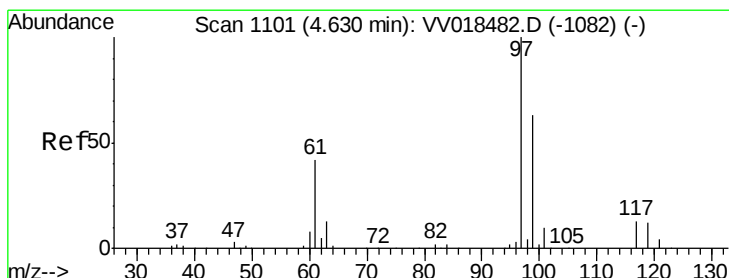
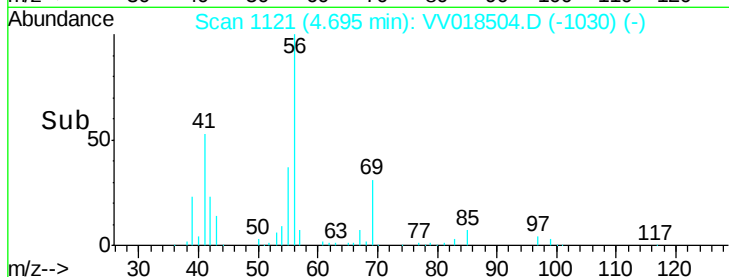
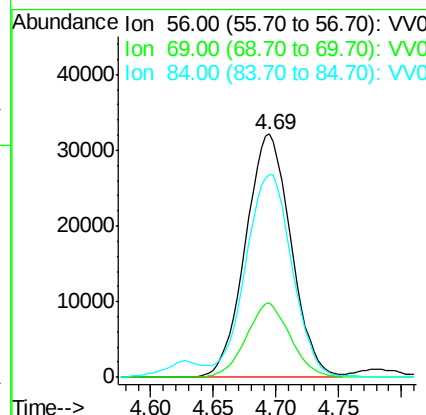
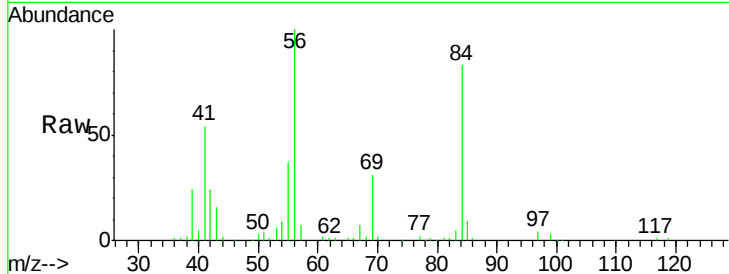
#29  
Cyclohexane  
Concen: 21.987 ug/L  
RT: 4.69 min Scan# 1121  
Delta R.T. -0.01 min  
Lab File: VV018504.D  
Acq: 28 Sep 2020 19:28

Instrument :  
MSVOA\_V  
ClientSampleId :  
BG3X4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 29.6  | 24.2  | 36.2  |
| 84      | 83.9  | 68.3  | 102.5 |

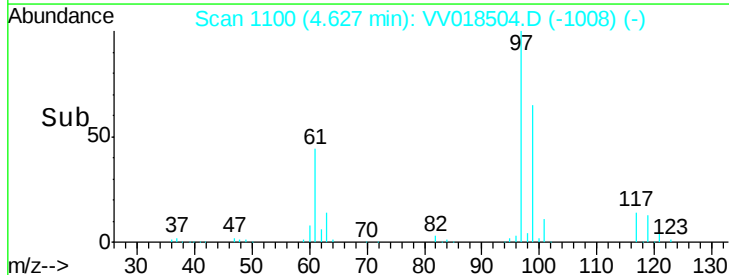
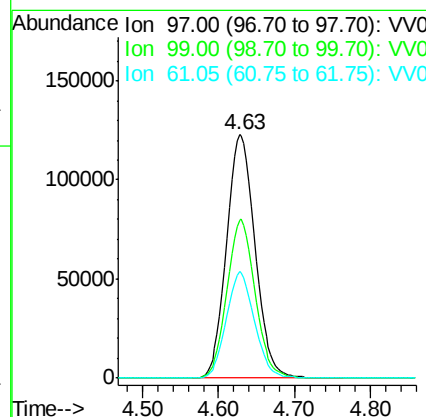
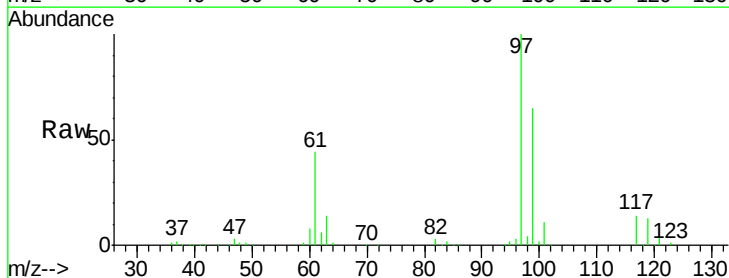
Manual Integrations  
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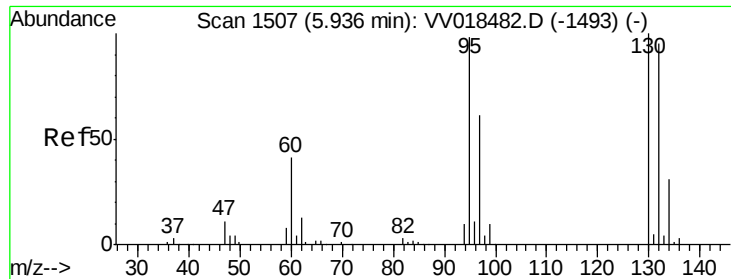
MMDadoda  
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#30  
1,1,1-Trichloroethane  
Concen: 86.887 ug/L  
RT: 4.63 min Scan# 1100  
Delta R.T. -0.00 min  
Lab File: VV018504.D  
Acq: 28 Sep 2020 19:28

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.4  | 51.6  | 77.4  |
| 61      | 43.1  | 34.9  | 52.3  |





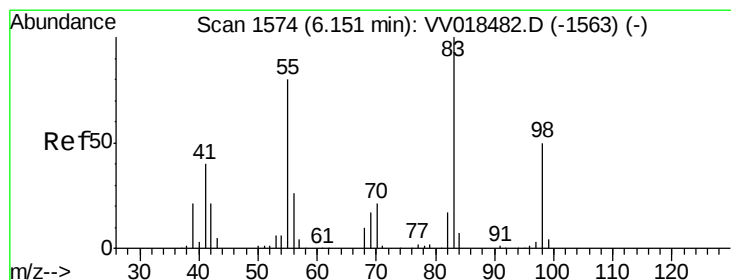
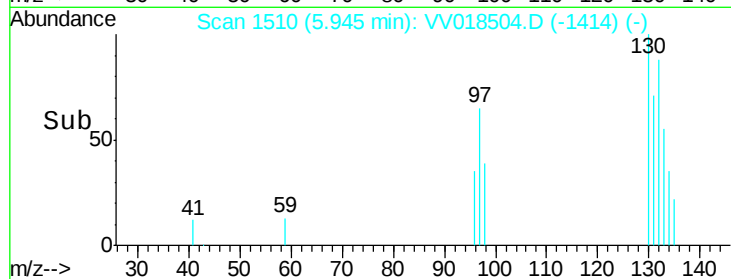
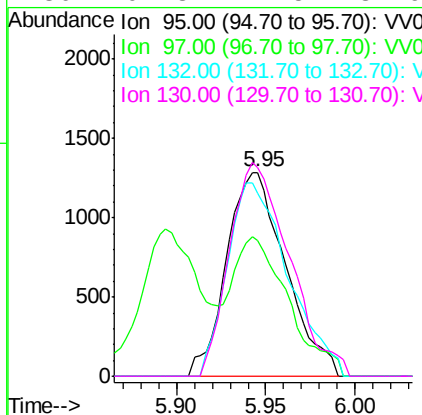
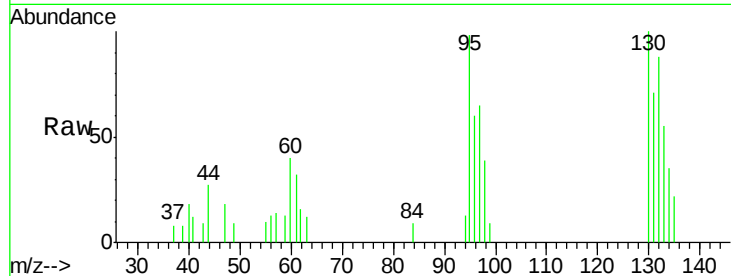
#34  
 Trichloroethene  
 Concen: 1.193 ug/L  
 RT: 5.95 min Scan# 1510  
 Delta R.T. 0.01 min  
 Lab File: VV018504.D  
 Acq: 28 Sep 2020 19:28

Instrument :  
 MSVOA\_V  
 ClientSampled :  
 BG3X4

| Tot Ion | 95    | Resp  | 2965  |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 95      | 100   |       |       |
| 97      | 66.4  | 46.3  | 85.9  |
| 132     | 89.7  | 68.1  | 126.5 |
| 130     | 102.3 | 71.5  | 132.9 |

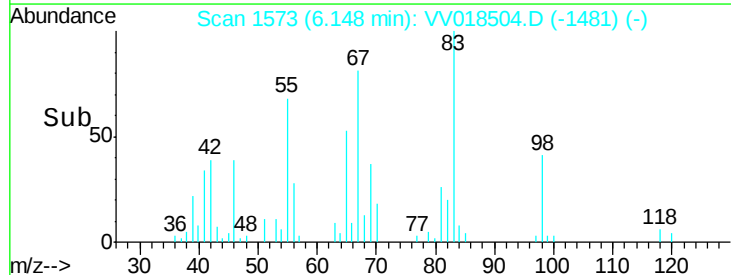
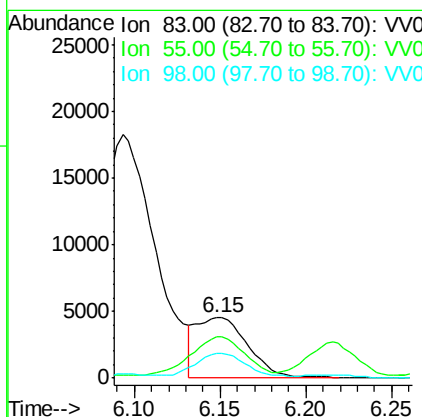
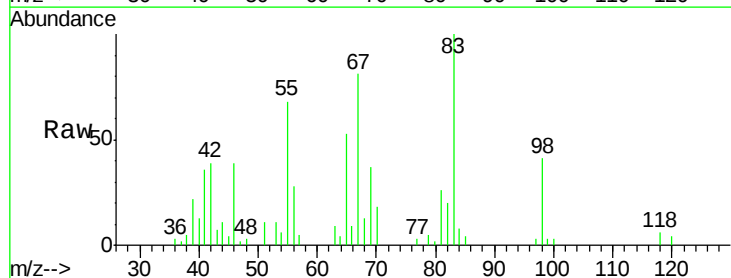
Manual Integrations  
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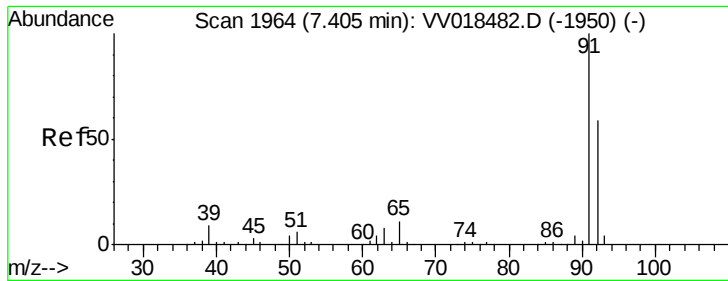
MMDadoda  
 10/2/2020 11:43:26 AM



#35  
 Methylcyclohexane  
 Concen: 2.528 ug/L m  
 RT: 6.15 min Scan# 1573  
 Delta R.T. -0.00 min  
 Lab File: VV018504.D  
 Acq: 28 Sep 2020 19:28

| Tgt Ion | 83    | Resp  | 9458  |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 83      | 100   |       |       |
| 55      | 2.2   | 63.4  | 95.2# |
| 98      | 6.6   | 38.8  | 58.2# |





#42

Toluene

Concen: 798.178 ug/L

RT: 7.41 min Scan# 1966

Delta R.T. 0.01 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

Instrument :

MSVOA\_V

ClientSampleId :

BG3X4

Tot Ion: 91 Resp: 7705949

Ion Ratio Lower Upper

91 100

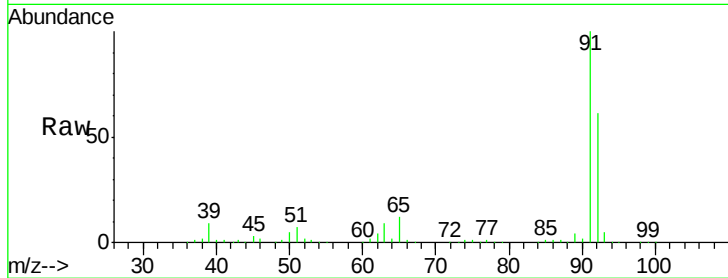
92 61.5 40.7 75.5

Manual Integrations

APPROVED

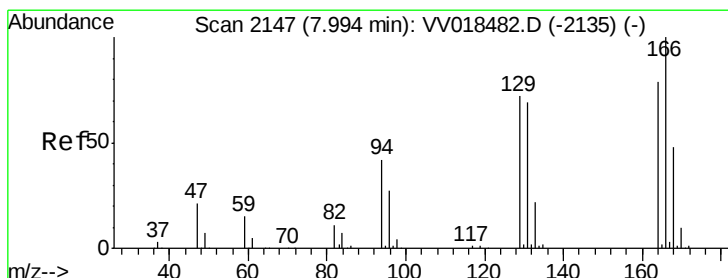
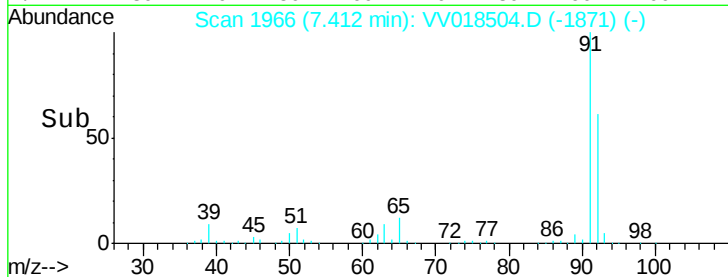
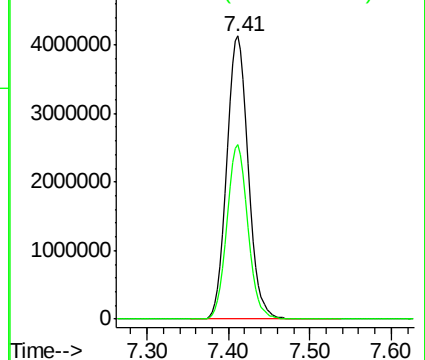
MMDadoda

10/2/2020 11:43:26 AM



Abundance Ion 91.00 (90.70 to 91.70): VV018482.D (-1950) (-)

Ion 92.00 (91.70 to 92.70): VV018482.D (-1950) (-)



#46

Tetrachloroethene

Concen: 1.229 ug/L

RT: 8.00 min Scan# 2148

Delta R.T. 0.00 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

Tgt Ion: 164 Resp: 2394

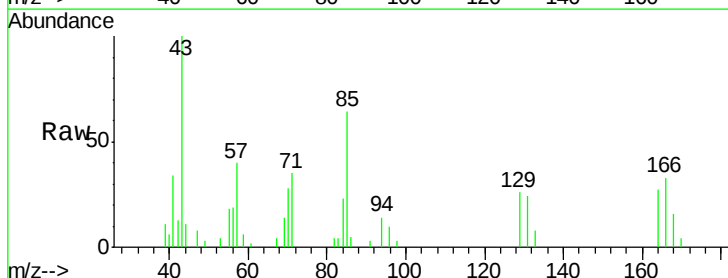
Ion Ratio Lower Upper

164 100

129 99.5 64.5 119.7

131 89.5 61.8 114.8

166 124.8 90.6 168.2

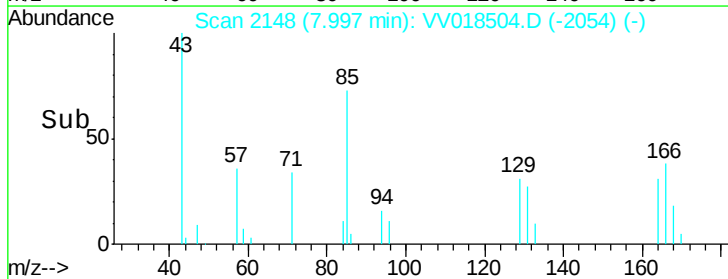
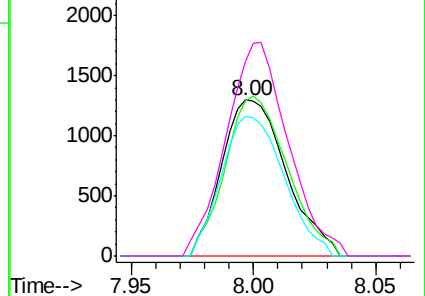


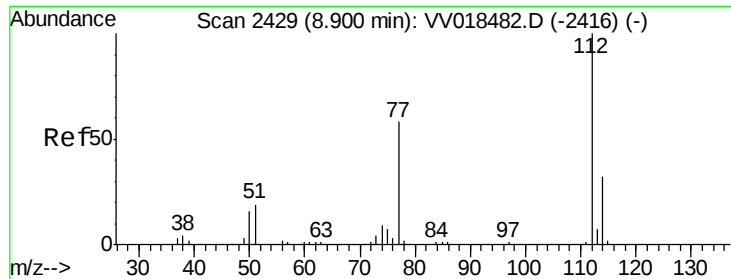
Abundance Ion 164.00 (163.70 to 164.70): VV018482.D (-2135) (-)

Ion 129.00 (128.70 to 129.70): VV018482.D (-2135) (-)

Ion 131.00 (130.70 to 131.70): VV018482.D (-2135) (-)

Ion 166.00 (165.70 to 166.70): VV018482.D (-2135) (-)





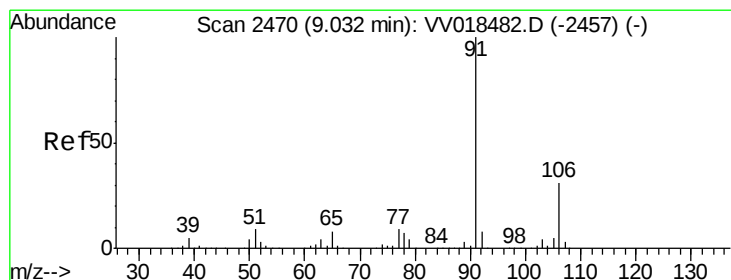
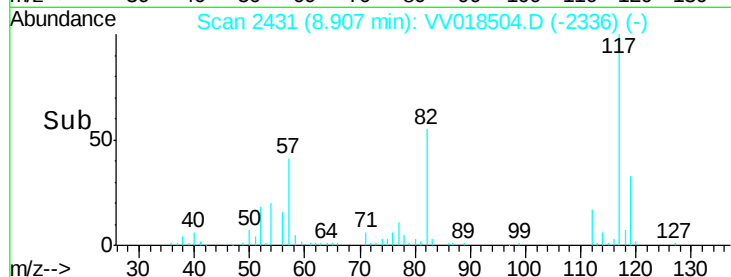
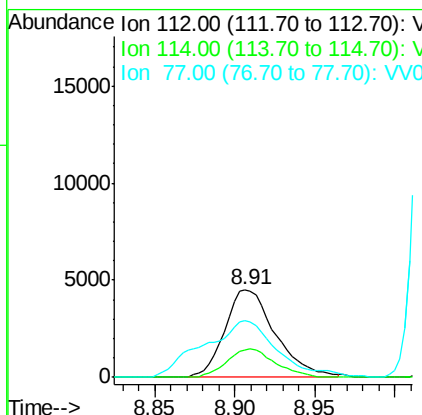
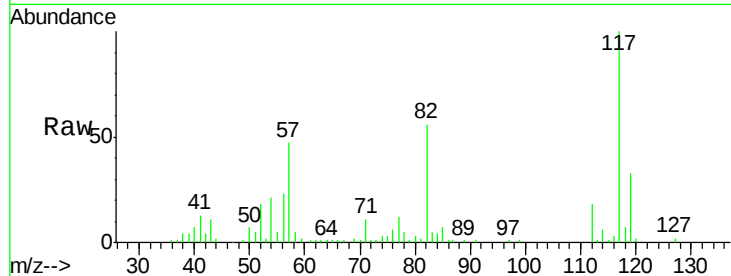
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Chlorobenzene  
Concen: 1.556 ug/L  
RT: 8.91 min Scan# 2431  
Delta R.T. 0.01 min  
Lab File: VV018504.D  
Acq: 28 Sep 2020 19:28

Instrument :  
MSVOA\_V  
ClientSampleId :  
BG3X4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.3  | 22.6  | 42.0  |
| 77      | 64.3  | 48.0  | 72.0  |

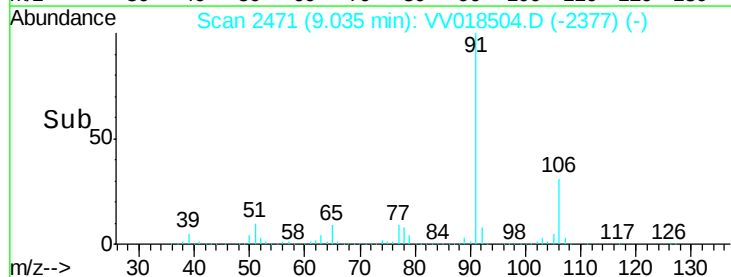
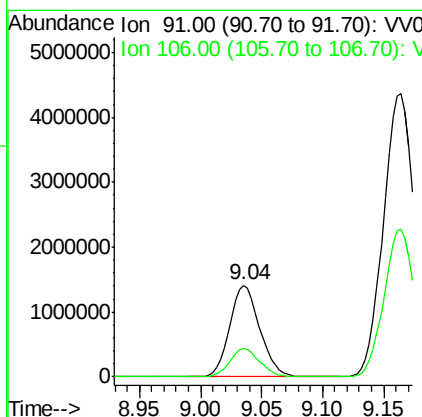
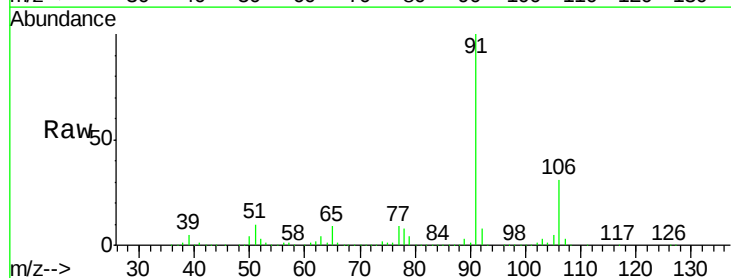
Manual Integrations  
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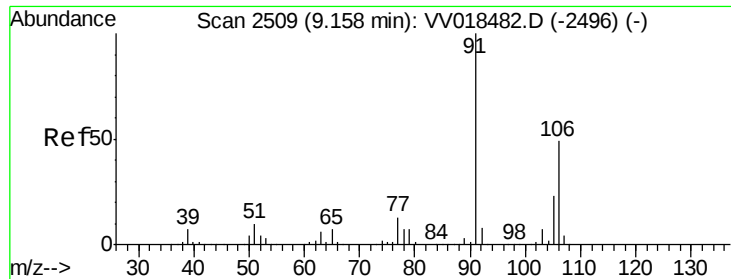
MMDadoda  
10/2/2020 11:43:26 AM



#52  
Ethylbenzene  
Concen: 230.583 ug/L  
RT: 9.04 min Scan# 2471  
Delta R.T. 0.00 min  
Lab File: VV018504.D  
Acq: 28 Sep 2020 19:28

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 30.9  | 21.3  | 39.5  |





#53

m,p-Xylene

Concen: 1016.718 ug/L

RT: 9.16 min Scan# 2511

Delta R.T. 0.01 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

Instrument :

MSVOA\_V

ClientSampled :

BG3X4

Tot Ion:106 Resp: 3999974

Ion Ratio Lower Upper

106 100

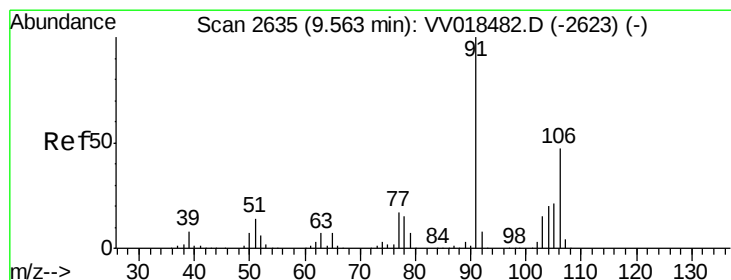
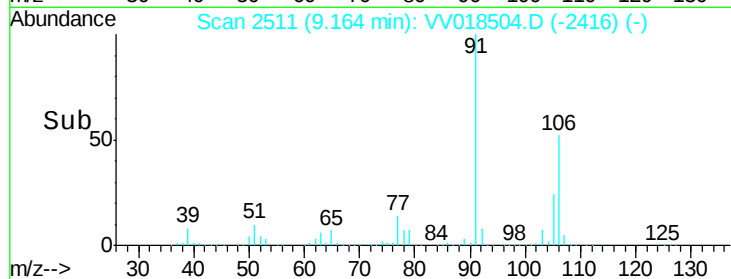
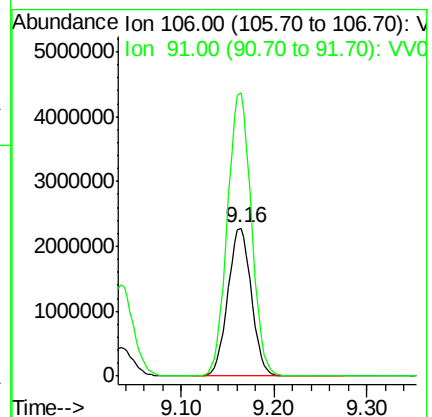
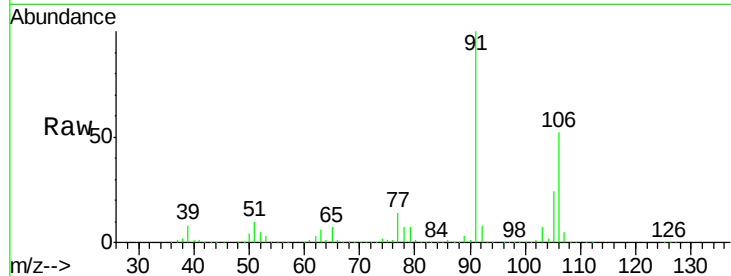
91 191.3 146.7 272.5

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#54

o-xylene

Concen: 513.444 ug/L

RT: 9.57 min Scan# 2637

Delta R.T. 0.01 min

Lab File: VV018504.D

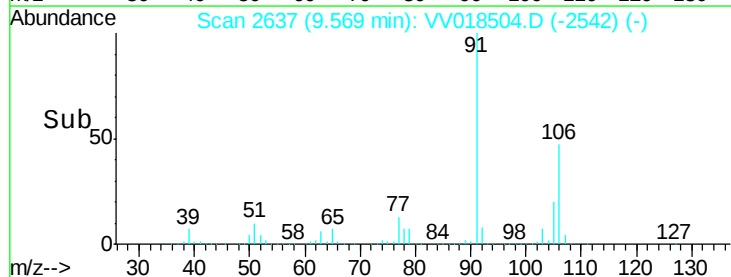
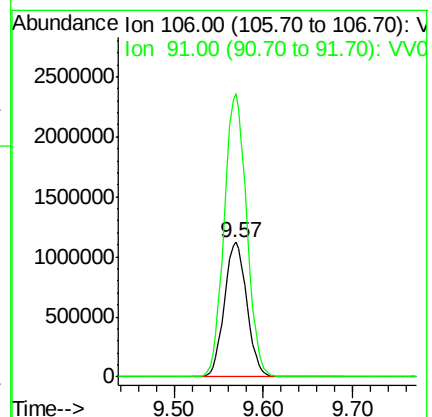
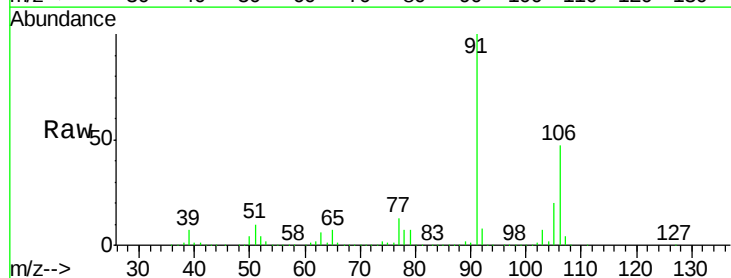
Acq: 28 Sep 2020 19:28

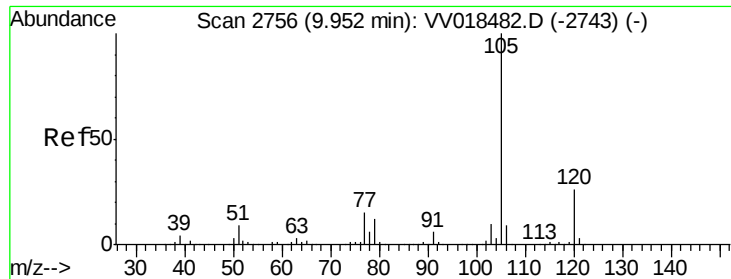
Tgt Ion:106 Resp: 1946039

Ion Ratio Lower Upper

106 100

91 210.7 152.2 282.6





#56

Isopropylbenzene

Concen: 220.593 ug/L

RT: 9.95 min Scan# 2757

Delta R.T. 0.00 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

Instrument :

MSVOA\_V

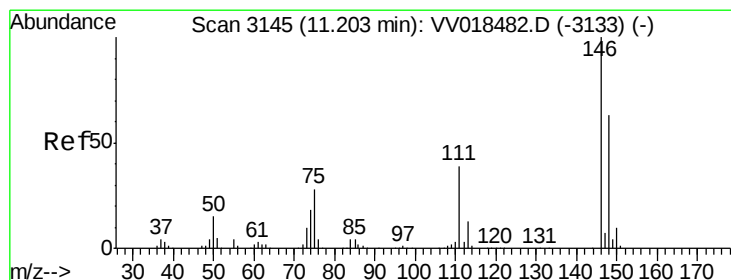
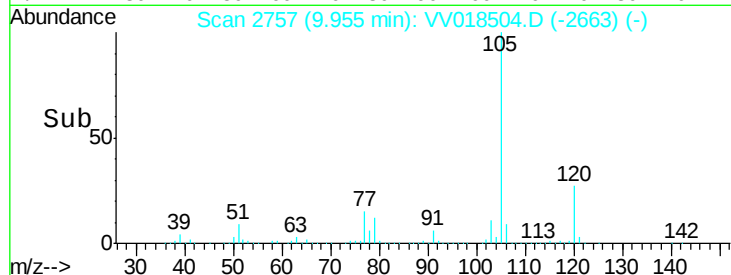
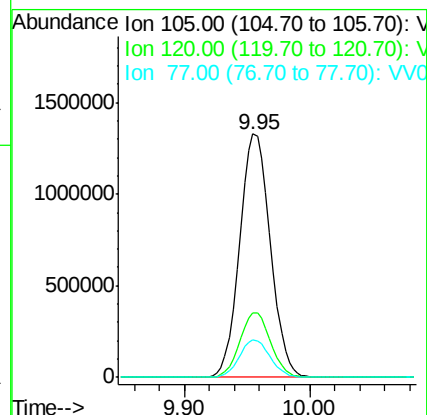
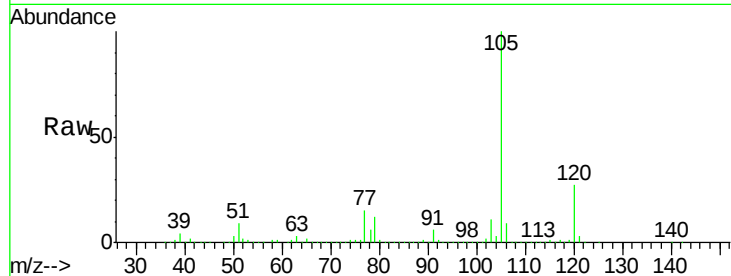
ClientSampleId :

BG3X4

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 105   | Resp: | 2253322 |
| Ion      | Ratio | Lower | Upper   |
| 105      | 100   |       |         |
| 120      | 26.5  | 20.9  | 31.3    |
| 77       | 15.4  | 12.5  | 18.7    |

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#62

1,3-Dichlorobenzene

Concen: 0.755 ug/L

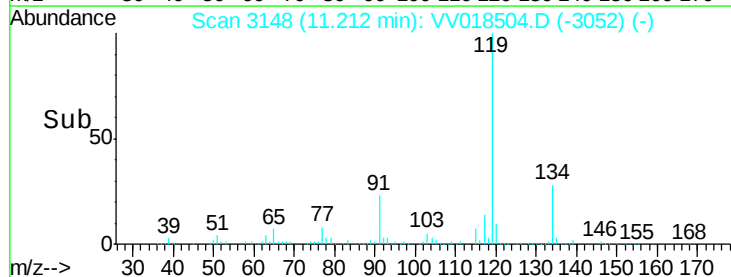
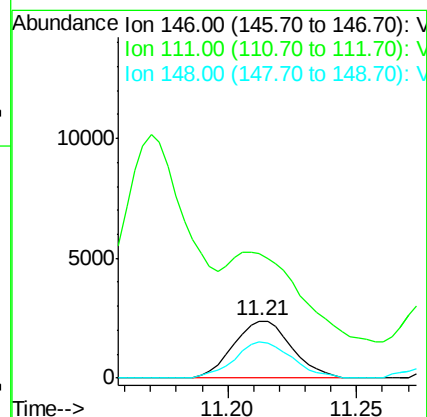
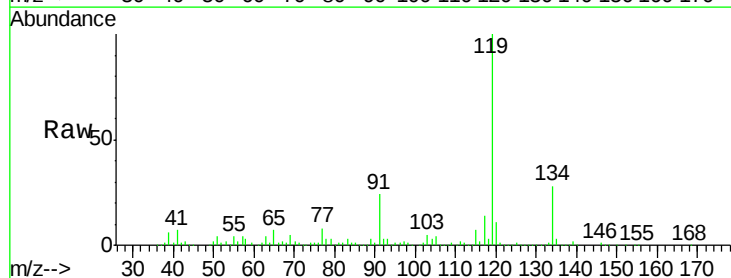
RT: 11.21 min Scan# 3148

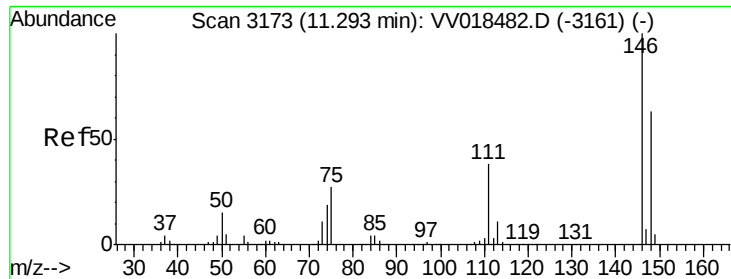
Delta R.T. 0.01 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 3763  |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 218.4 | 27.6  | 51.2# |
| 148      | 64.1  | 45.4  | 84.2  |





#63

1,4-Dichlorobenzene

Concen: 1.995 ug/L

RT: 11.30 min Scan# 3176

Delta R.T. 0.01 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

Instrument :

MSVOA\_V

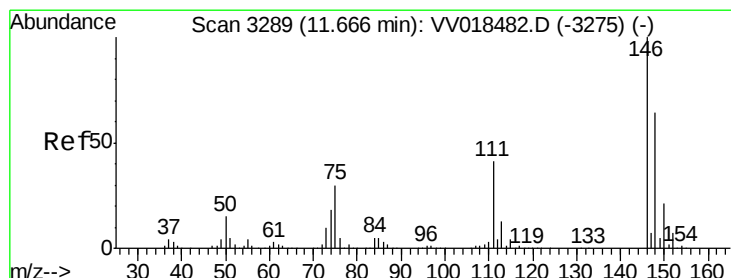
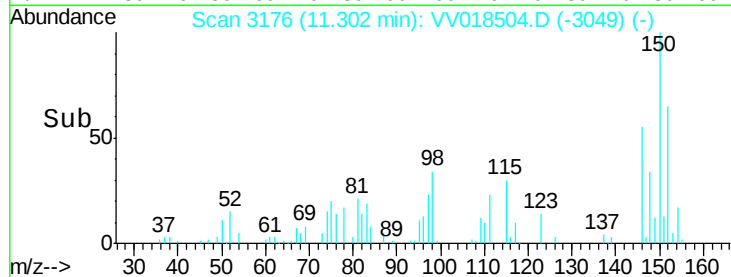
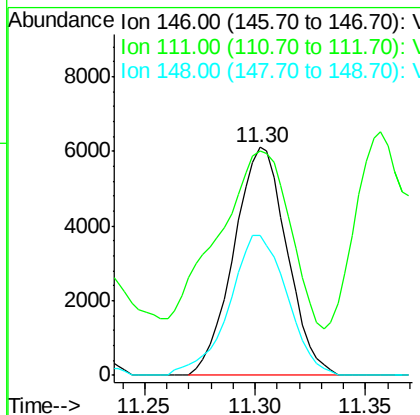
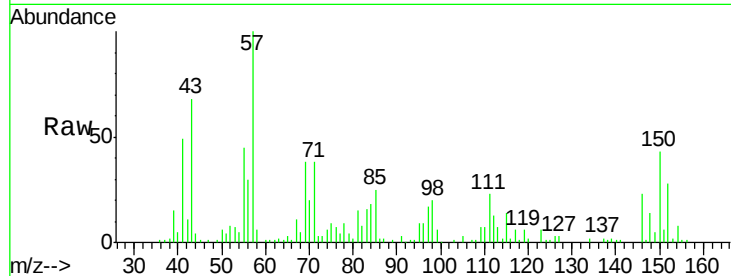
ClientSampled :

BG3X4

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 146   | Resp: | 10219 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 98.6  | 27.1  | 50.3# |
| 148       | 61.7  | 45.4  | 84.2  |

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#65

1,2-Dichlorobenzene

Concen: 16.876 ug/L

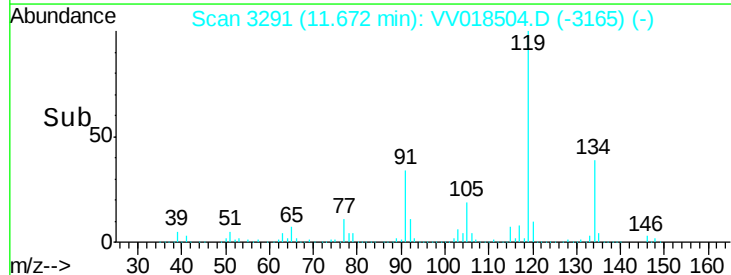
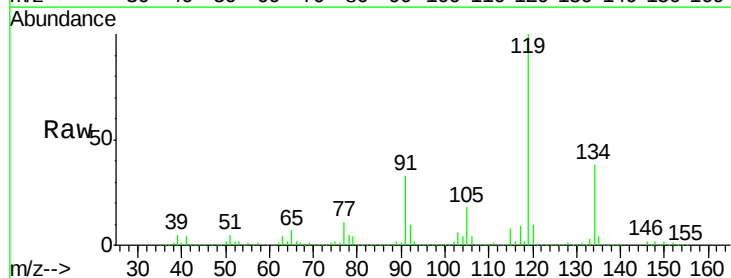
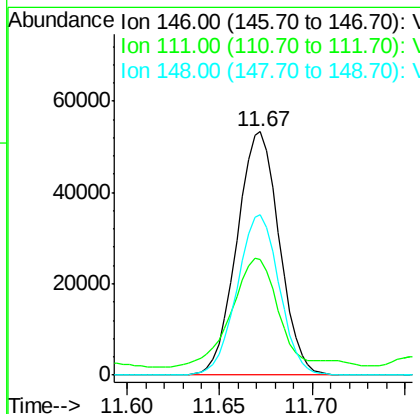
RT: 11.67 min Scan# 3291

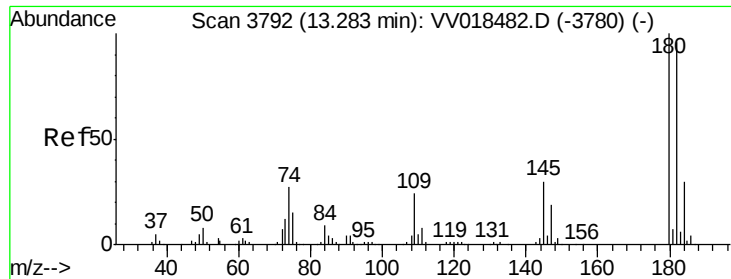
Delta R.T. 0.01 min

Lab File: VV018504.D

Acq: 28 Sep 2020 19:28

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 85005 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 47.5  | 32.8  | 49.2  |
| 148       | 65.8  | 50.7  | 76.1  |





#68  
 1,2,4-trichlorobenzene  
 Concen: 4.682 ug/L  
 RT: 13.29 min Scan# 3793  
 Delta R.T. 0.00 min  
 Lab File: VV018504.D  
 Acq: 28 Sep 2020 19:28

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 BG3X4

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 97.1  | 77.4  | 116.2 |
| 145     | 108.8 | 23.2  | 34.8# |

Manual Integrations  
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