

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX061920\  
 Data File : VX016910.D  
 Acq On : 20 Jun 2020 05:53  
 Operator : JC/SP  
 Sample : L3063-09  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 43 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TW-9

Manual Integrations  
 APPROVED

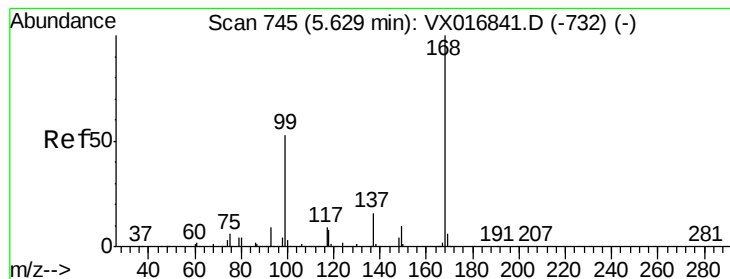
MMDadoda  
 6/22/2020 12:22:24 PM

Quant Time: Jun 22 07:30:42 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061820W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 19 12:07:48 2020  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|--------|---------|----------|
| 1) Pentafluorobenzene       | 5.64  | 168  | 326325   | 50.00  | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.83  | 114  | 493254   | 50.00  | ug/l    | 0.00     |
| 63) Chlorobenzene-d5        | 10.10 | 117  | 559394   | 50.00  | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.06 | 152  | 282755   | 50.00  | ug/l    | 0.00     |
| System Monitoring Compounds |       |      |          |        |         |          |
| 33) 1,2-Dichloroethane-d4   | 6.04  | 65   | 185570   | 47.28  | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 94.56%  |          |
| 35) Dibromofluoromethane    | 5.47  | 113  | 167763   | 53.17  | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 106.34% |          |
| 50) Toluene-d8              | 8.70  | 98   | 575699   | 45.60  | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 91.20%  |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 273134   | 56.47  | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =      | 112.94% |          |
| Target Compounds            |       |      |          |        |         |          |
|                             |       |      |          |        | Qvalue  |          |
| 8) Diethyl Ether            | 2.17  | 74   | 1165     | 0.468  | ug/l    | 80       |
| 11) Tert butyl alcohol      | 3.01  | 59   | 5796     | 8.736  | ug/l #  | 72       |
| 16) Acetone                 | 2.42  | 43   | 14558    | 10.218 | ug/l    | 94       |
| 17) Carbon Disulfide        | 2.56  | 76   | 6618     | 0.734  | ug/l #  | 84       |
| 19) Methyl tert-butyl Ether | 3.17  | 73   | 53605    | 5.394  | ug/l #  | 23       |
| 31) Cyclohexane             | 5.56  | 56   | 17973    | 3.703  | ug/l #  | 92       |
| 39) Methylcyclohexane       | 7.44  | 83   | 18951    | 3.579  | ug/l #  | 86       |
| 40) Benzene                 | 6.12  | 78   | 78968    | 5.779  | ug/l    | 100      |
| 52) Toluene                 | 8.77  | 92   | 4341     | 0.479  | ug/l    | 100      |
| 67) Ethyl Benzene           | 10.23 | 91   | 36098    | 1.889  | ug/l    | 97       |
| 68) m/p-Xylenes             | 10.35 | 106  | 43920    | 5.905  | ug/l    | 95       |
| 69) o-Xylene                | 10.68 | 106  | 1698     | 0.247  | ug/l    | 83       |
| 73) Isopropylbenzene        | 11.00 | 105  | 227249   | 12.483 | ug/l    | 99       |
| 78) n-propylbenzene         | 11.34 | 91   | 268486   | 13.215 | ug/l    | 98       |
| 80) 1,3,5-Trimethylbenzene  | 11.49 | 105  | 105106   | 6.691  | ug/l    | 99       |
| 84) 1,2,4-Trimethylbenzene  | 11.79 | 105  | 637609   | 39.406 | ug/l    | 99       |
| 85) sec-Butylbenzene        | 11.93 | 105  | 22454    | 1.244  | ug/l    | 91       |
| 86) p-Isopropyltoluene      | 12.05 | 119  | 7422     | 0.449  | ug/l    | 87       |
| 89) n-Butylbenzene          | 12.36 | 91   | 12969m   | 0.915  | ug/l    |          |
| 95) Naphthalene             | 13.82 | 128  | 33349    | 1.932  | ug/l #  | 96       |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.64 min Scan# 746

Delta R.T. 0.01 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

Instrument :

MSVOA\_X

ClientSampled :

TW-9

Tot Ion:168 Resp: 326325

Ion Ratio Lower Upper

168 100

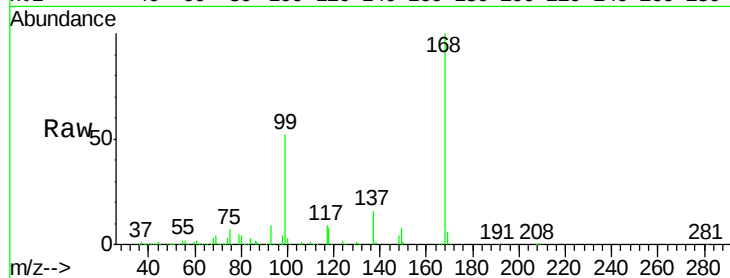
99 51.6 42.2 63.2

Manual Integrations

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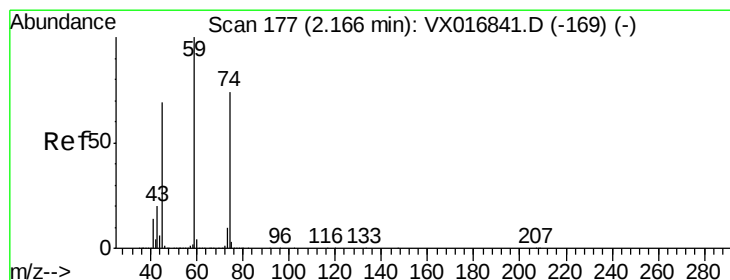
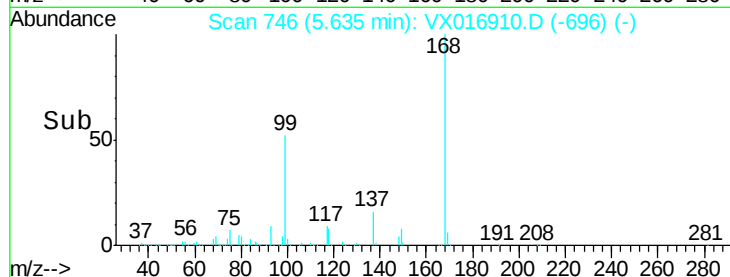
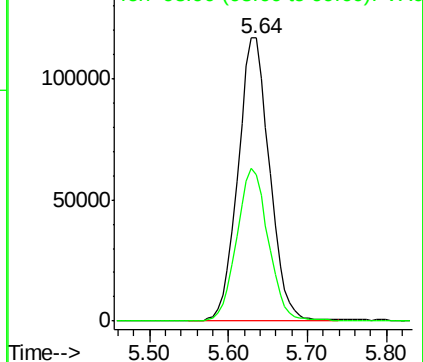
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Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#8

Diethyl Ether

Concen: 0.468 ug/l

RT: 2.17 min Scan# 177

Delta R.T. -0.00 min

Lab File: VX016910.D

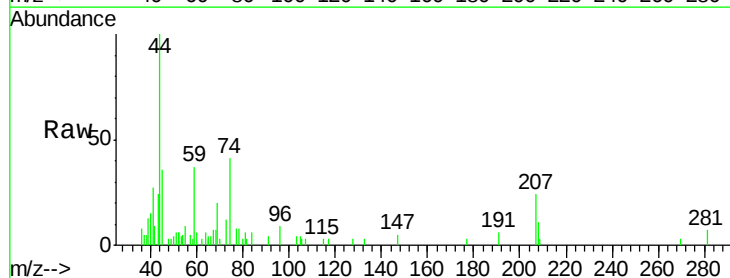
Acq: 20 Jun 2020 05:53

Tgt Ion: 74 Resp: 1165

Ion Ratio Lower Upper

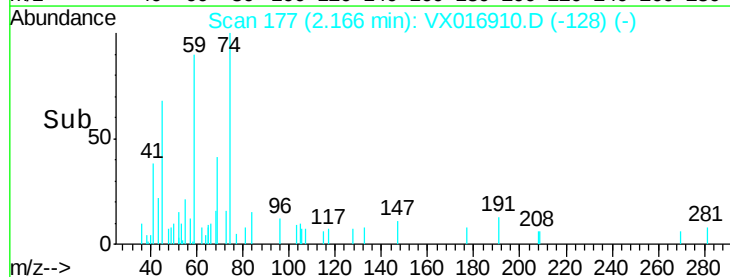
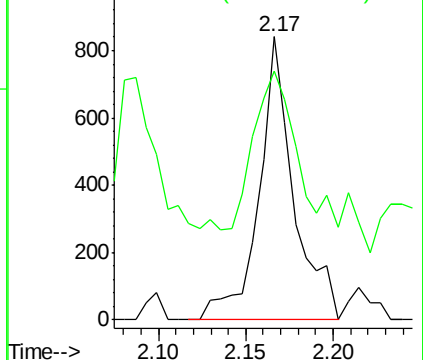
74 100

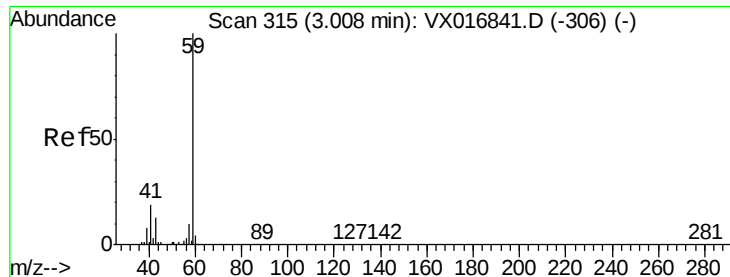
45 109.9 45.3 135.8



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0





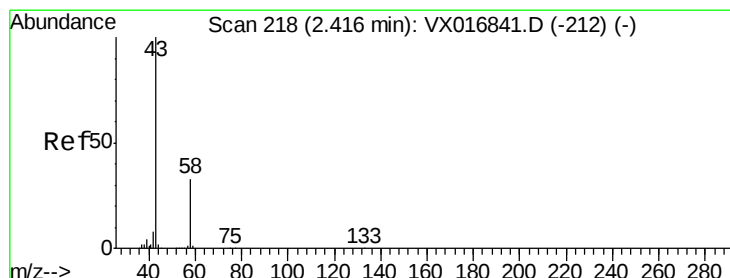
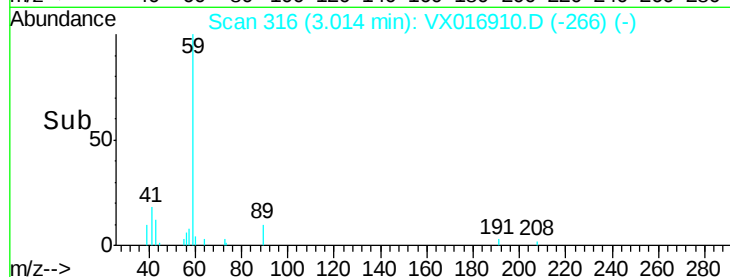
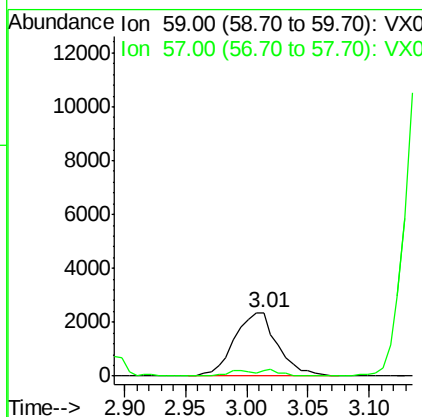
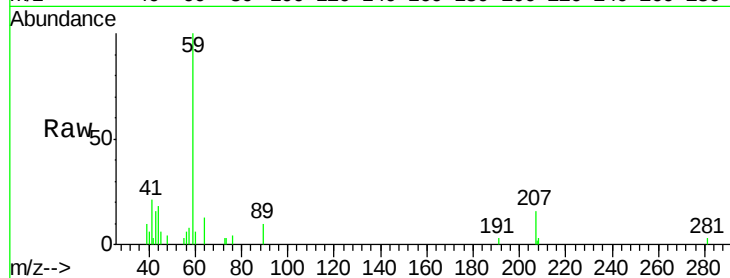
#11  
Tert butyl alcohol  
Concen: 8.736 ug/l  
RT: 3.01 min Scan# 316  
Delta R.T. 0.01 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Instrument :  
MSVOA\_X  
ClientSampled :  
TW-9

Tot Ion: 59 Resp: 5796  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.4 12.6#

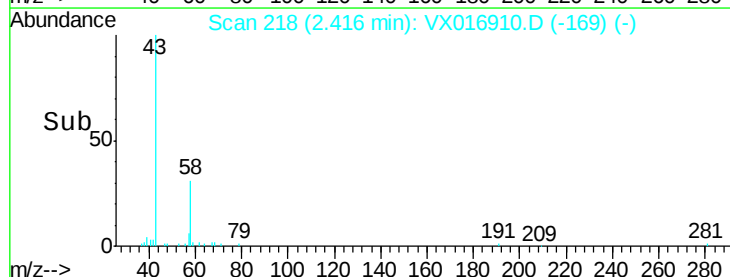
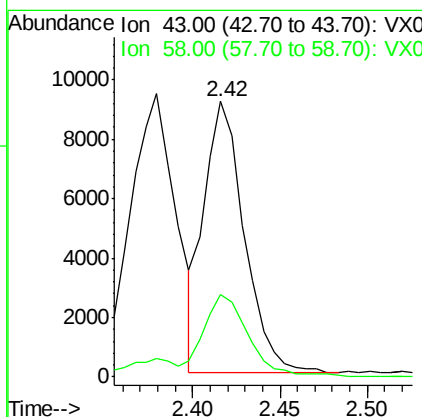
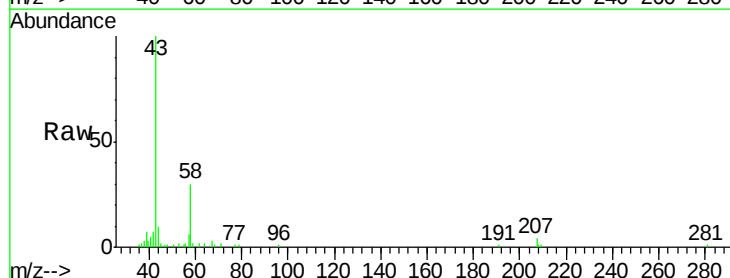
Manual Integrations  
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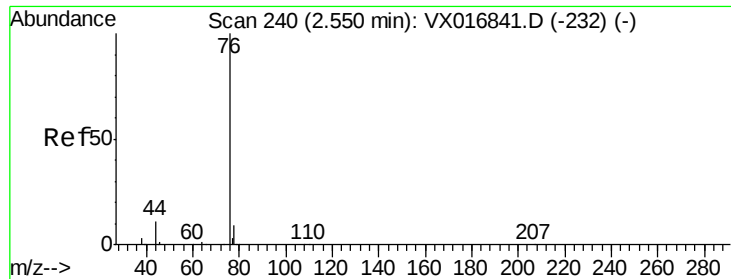
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#16  
Acetone  
Concen: 10.218 ug/l  
RT: 2.42 min Scan# 218  
Delta R.T. 0.00 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Tgt Ion: 43 Resp: 14558  
Ion Ratio Lower Upper  
43 100  
58 29.5 26.6 39.8





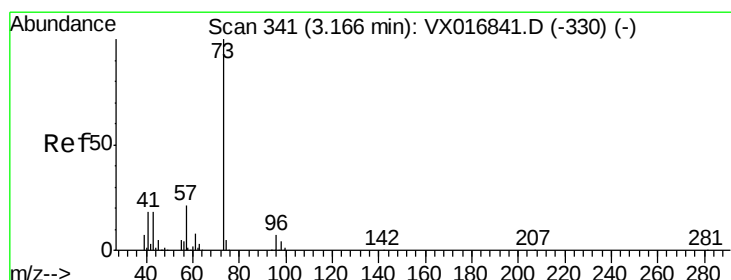
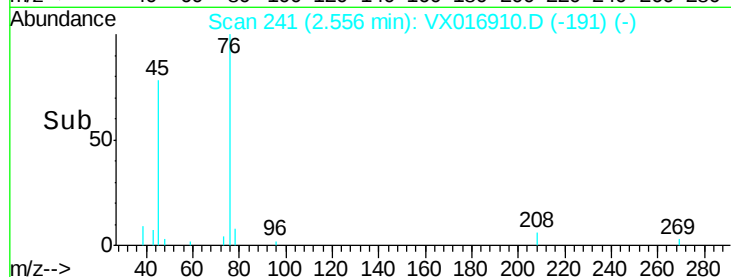
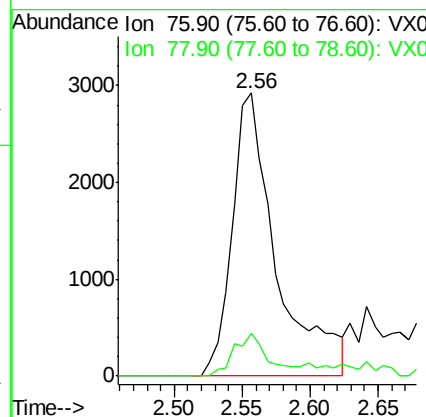
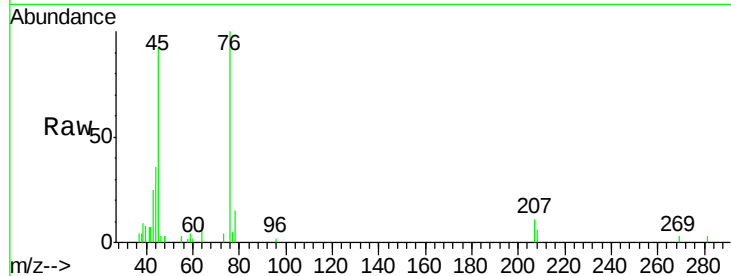
#17  
Carbon Disulfide  
Concen: 0.734 ug/l  
RT: 2.56 min Scan# 241  
Delta R.T. 0.01 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 78      | 15.1  | 7.5   | 11.3# |

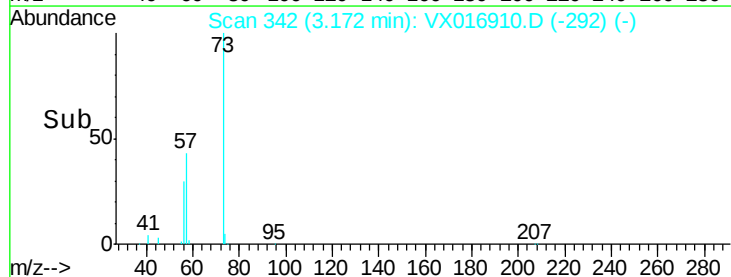
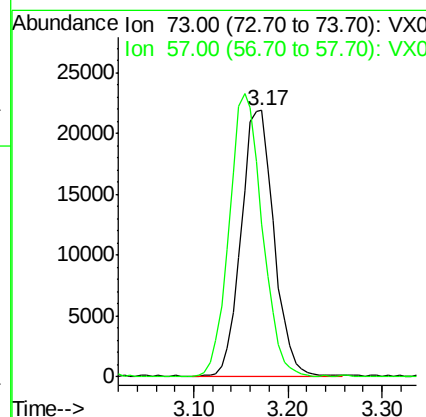
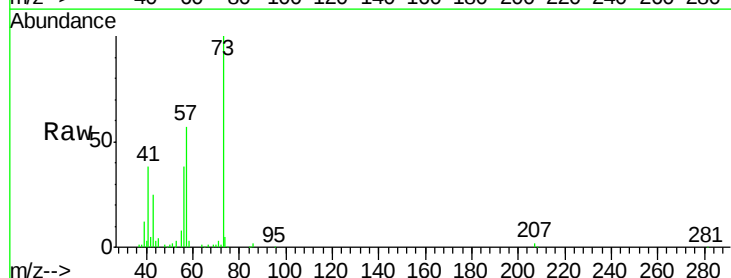
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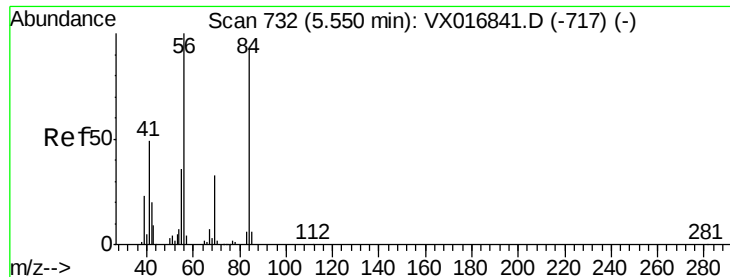
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#19  
Methyl tert-butyl Ether  
Concen: 5.394 ug/l  
RT: 3.17 min Scan# 342  
Delta R.T. 0.01 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 73      | 100   |       |       |
| 57      | 57.0  | 16.9  | 25.3# |





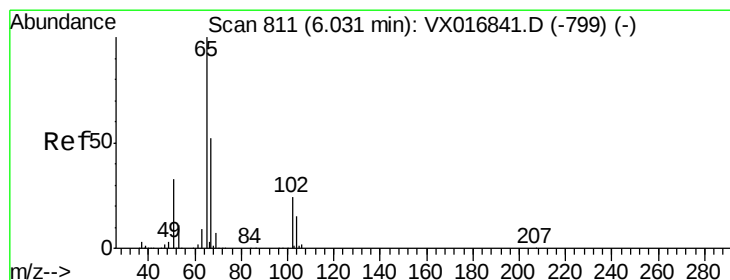
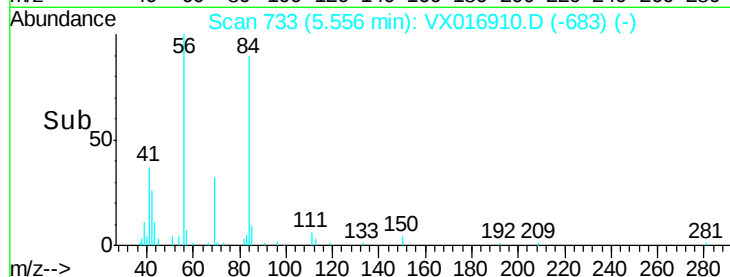
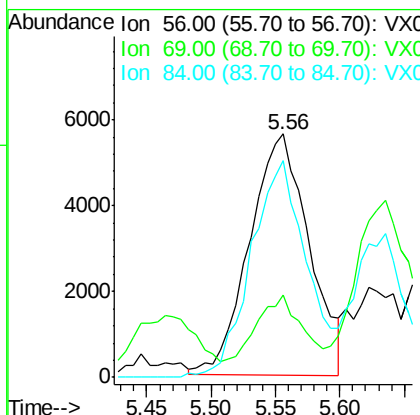
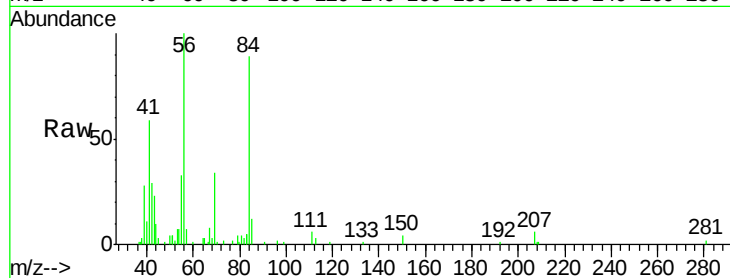
#31  
Cyclohexane  
Concen: 3.703 ug/l  
RT: 5.56 min Scan# 733  
Delta R.T. 0.01 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Instrument :  
MSVOA\_X  
ClientSampled :  
TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 17.4  | 26.1  | 39.1# |
| 84      | 90.4  | 73.0  | 109.6 |

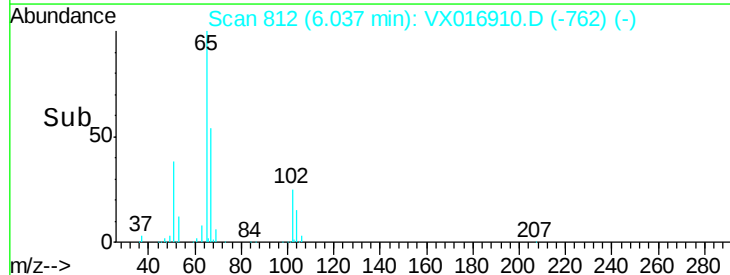
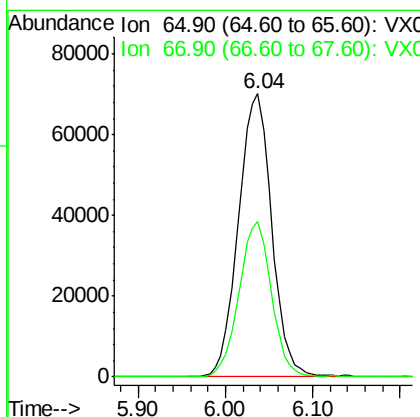
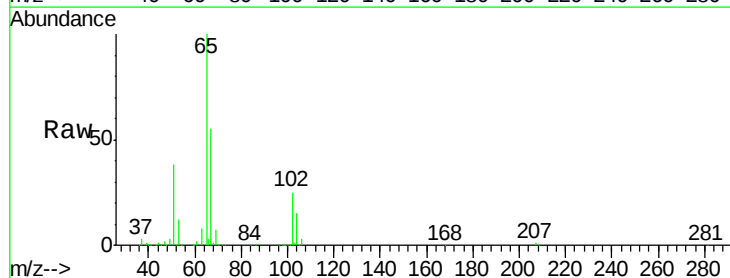
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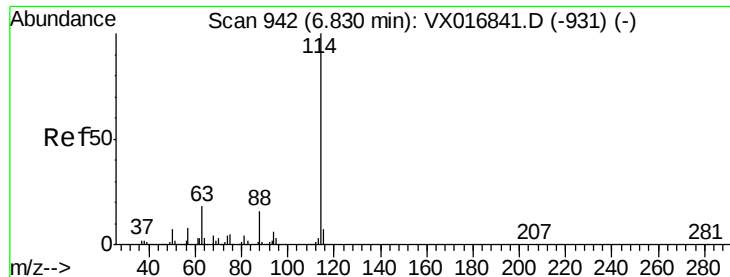
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#33  
1,2-Dichloroethane-d4  
Concen: 47.283 ug/l  
RT: 6.04 min Scan# 812  
Delta R.T. 0.01 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 65      | 100   |       |       |
| 67      | 53.4  | 0.0   | 102.6 |





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. -0.00 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

Instrument :

MSVOA\_X

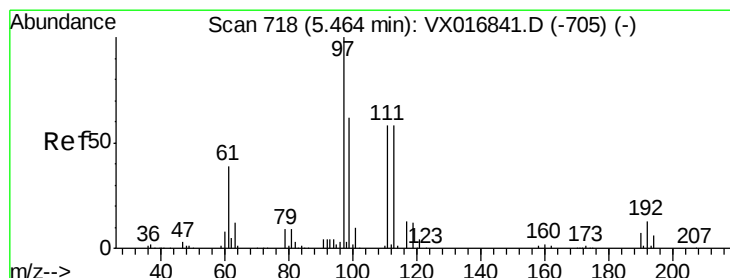
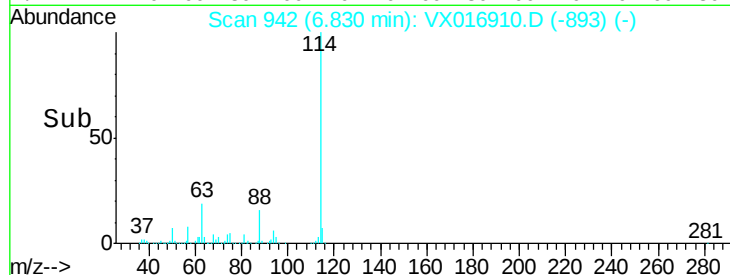
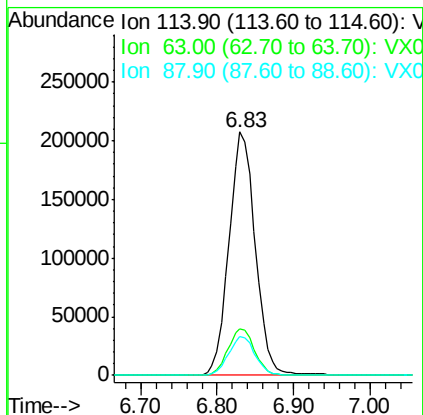
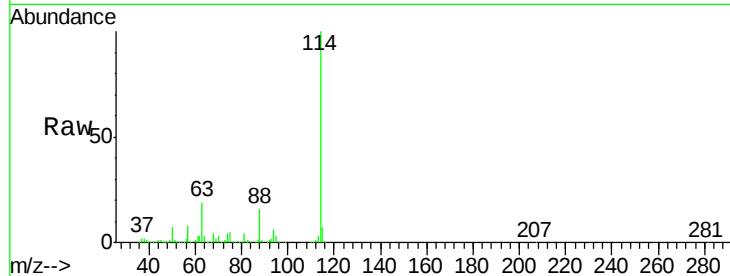
ClientSampled :

TW-9

|           |      |       |        |
|-----------|------|-------|--------|
| Tot Ion:  | 114  | Resp: | 493254 |
| Ion Ratio |      | Lower | Upper  |
| 114       | 100  |       |        |
| 63        | 18.8 | 0.0   | 37.0   |
| 88        | 16.0 | 0.0   | 32.0   |

Manual Integrations  
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#35

Dibromofluoromethane

Concen: 53.168 ug/l

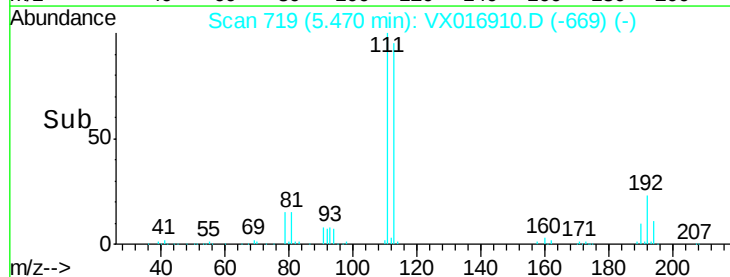
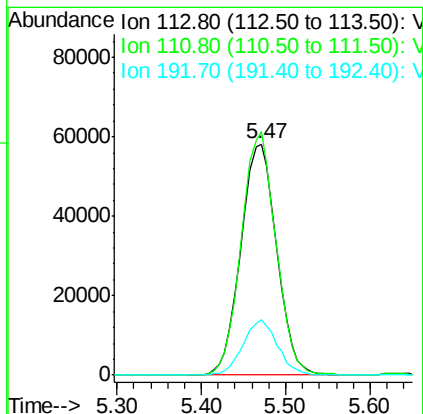
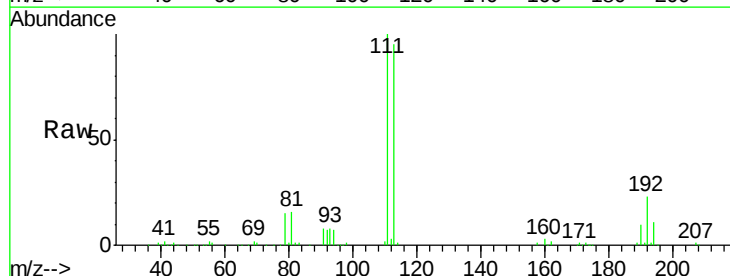
RT: 5.47 min Scan# 719

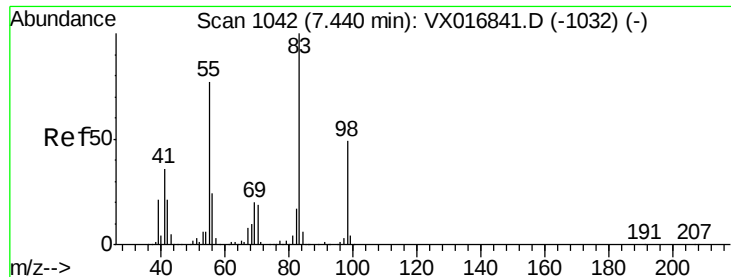
Delta R.T. 0.01 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 113   | Resp: | 167763 |
| Ion Ratio |       | Lower | Upper  |
| 113       | 100   |       |        |
| 111       | 101.7 | 81.0  | 121.4  |
| 192       | 23.1  | 18.5  | 27.7   |





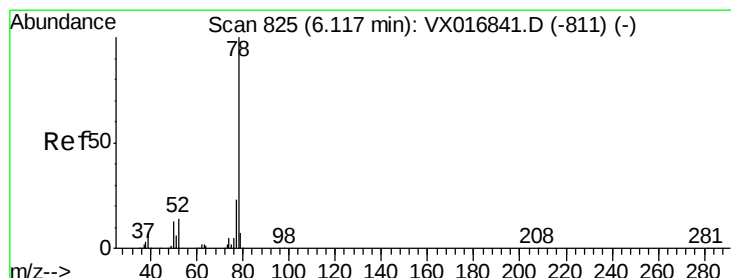
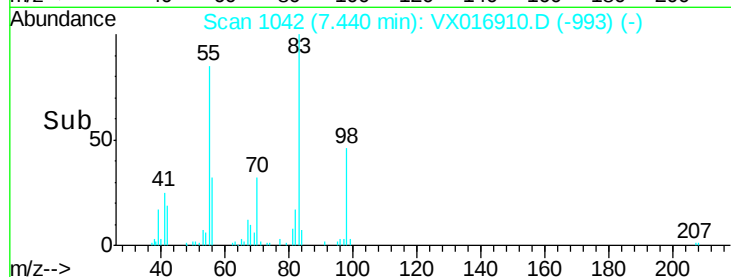
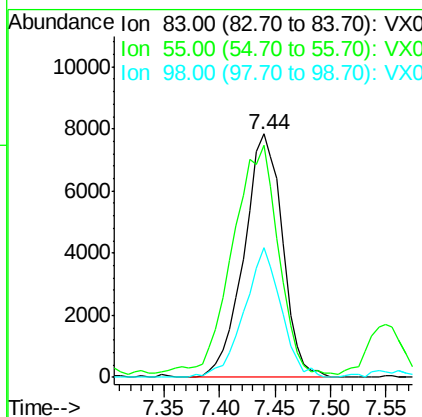
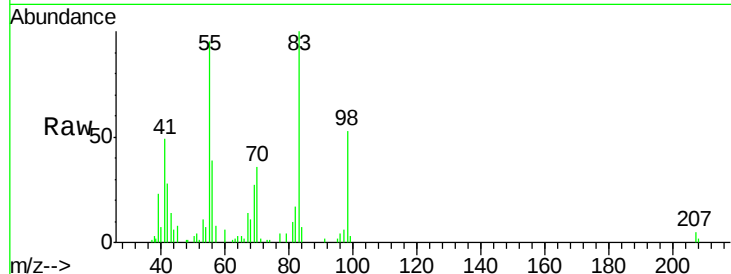
#39  
Methvlcvclohexane  
Concen: 3.579 ug/l  
RT: 7.44 min Scan# 1042  
Delta R.T. -0.00 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Instrument :  
MSVOA\_X  
ClientSampled :  
TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 93.9  | 61.7  | 92.5# |
| 98      | 53.1  | 39.0  | 58.6  |

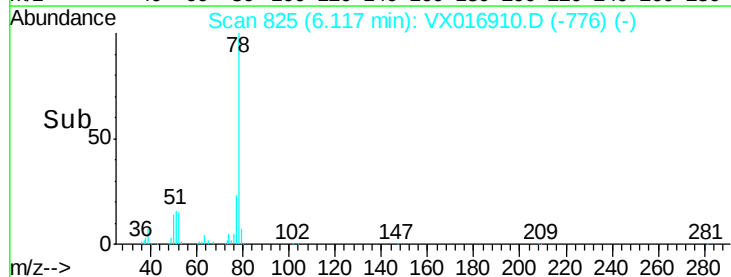
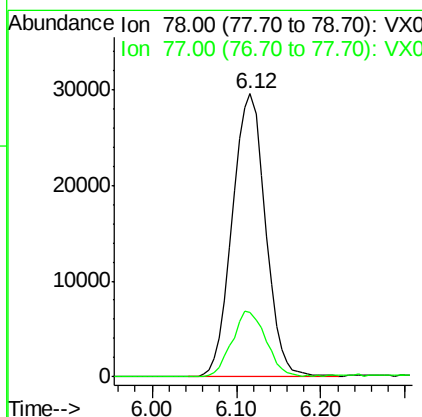
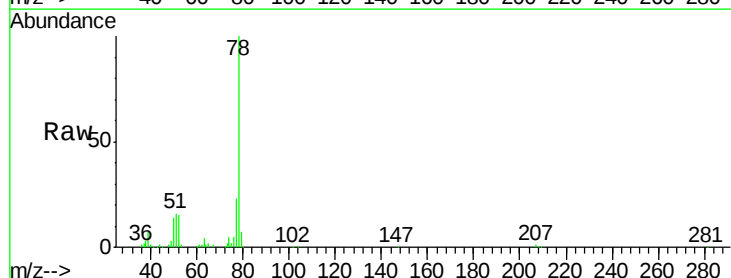
Manual Integrations  
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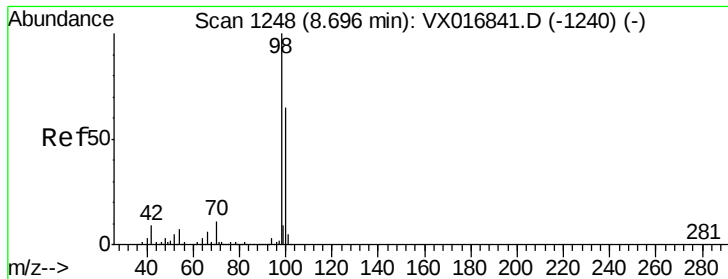
MMDadoda  
6/22/2020 12:22:24 PM



#40  
Benzene  
Concen: 5.779 ug/l  
RT: 6.12 min Scan# 825  
Delta R.T. -0.00 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 23.0  | 18.6  | 27.8  |





#50

Toluene-d8

Concen: 45.603 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

Instrument :

MSVOA\_X

ClientSampled :

TW-9

Tot Ion: 98 Resp: 575699

Ion Ratio Lower Upper

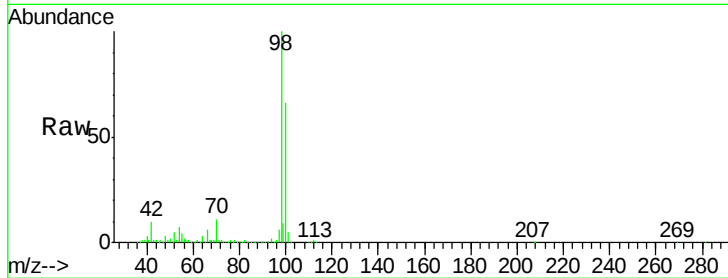
98 100

100 66.5 54.0 81.0

Manual Integrations  
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Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX

8.70

400000

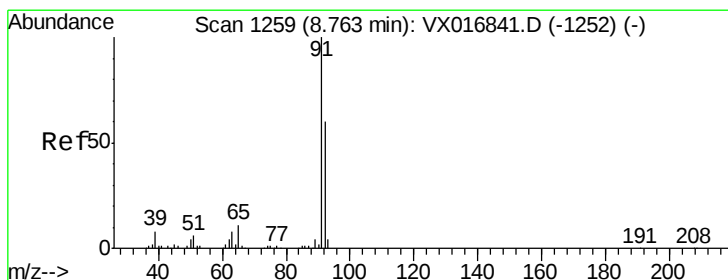
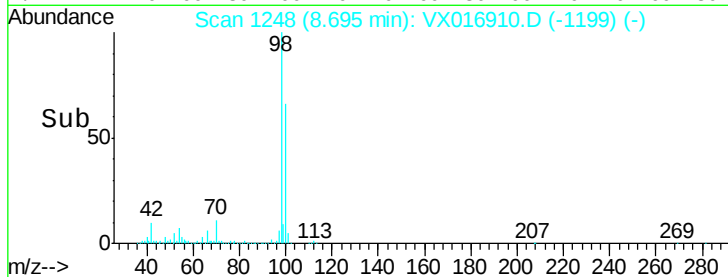
300000

200000

100000

0

Time-->



#52

Toluene

Concen: 0.479 ug/l

RT: 8.77 min Scan# 1260

Delta R.T. 0.01 min

Lab File: VX016910.D

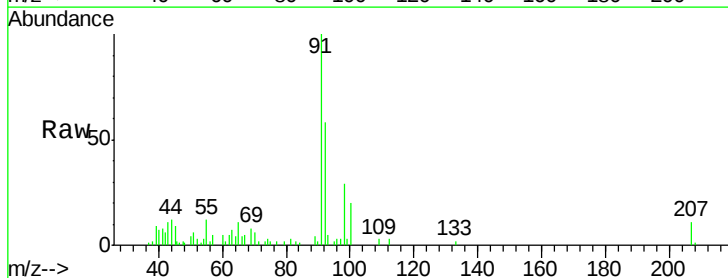
Acq: 20 Jun 2020 05:53

Tgt Ion: 92 Resp: 4341

Ion Ratio Lower Upper

92 100

91 167.9 134.2 201.2



Abundance Ion 92.00 (91.70 to 92.70): VX0

Ion 91.00 (90.70 to 91.70): VX0

5000

4000

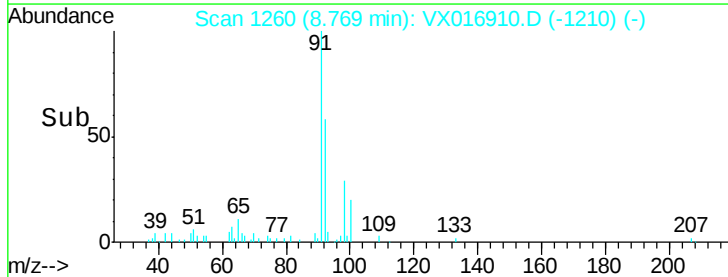
3000

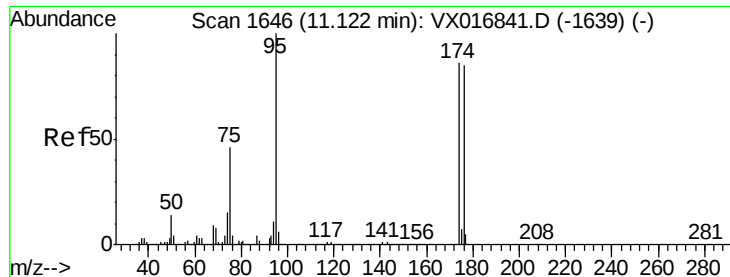
2000

1000

0

Time-->





#62

4-Bromofluorobenzene

Concen: 56.470 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

Instrument :

MSVOA\_X

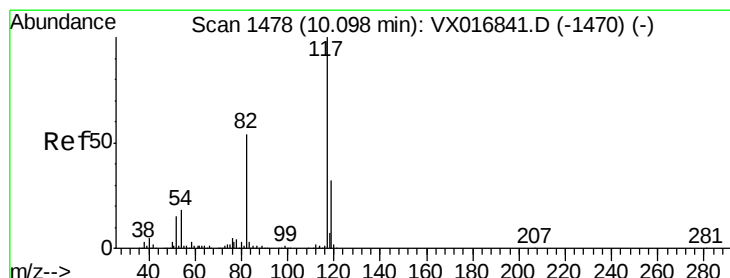
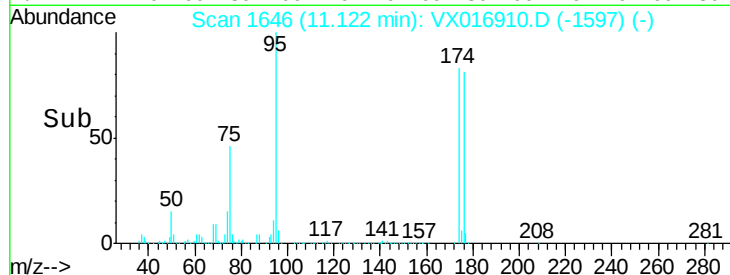
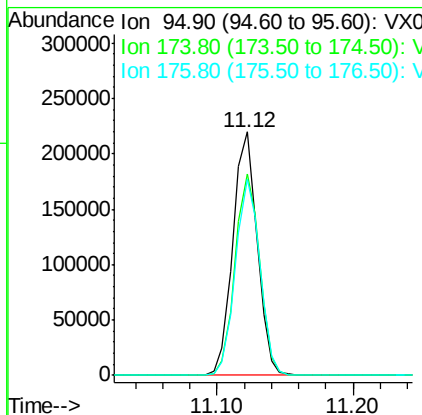
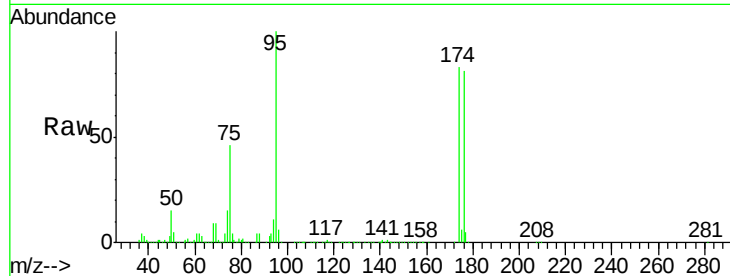
ClientSampled :

TW-9

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 95    | Resp: | 273134 |
| Ion Ratio | Lower | Upper |        |
| 95        | 100   |       |        |
| 174       | 83.8  | 0.0   | 174.2  |
| 176       | 81.3  | 0.0   | 170.0  |

Manual Integrations  
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#63

Chlorobenzene-d5

Concen: 50.000 ug/l

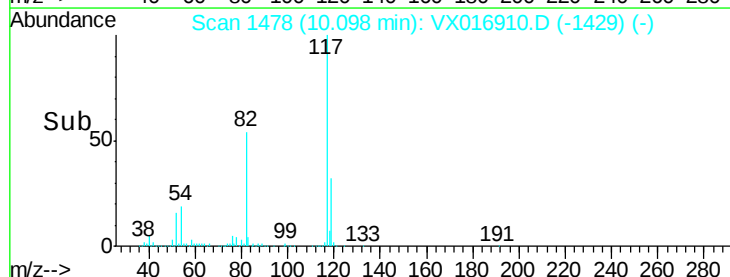
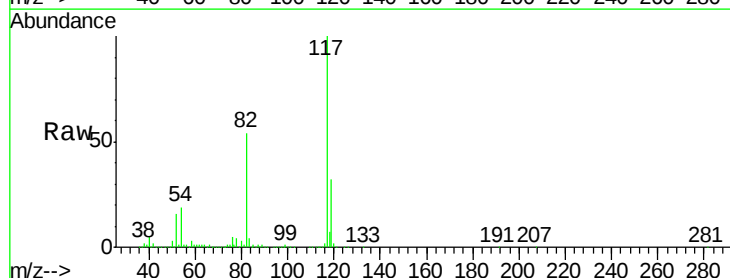
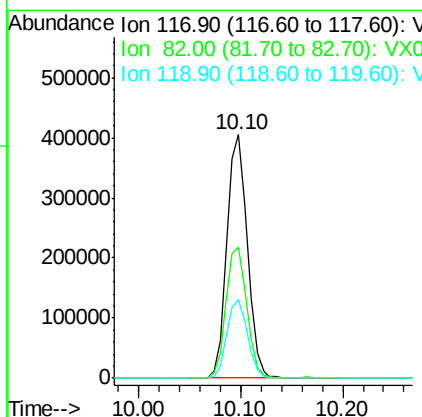
RT: 10.10 min Scan# 1478

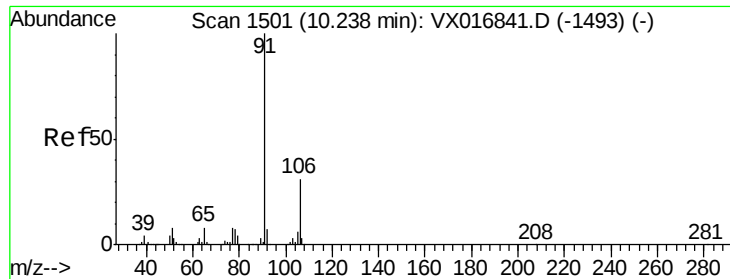
Delta R.T. -0.00 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 117   | Resp: | 559394 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 82        | 53.7  | 43.4  | 65.0   |
| 119       | 32.4  | 25.7  | 38.5   |





#67

Ethyl Benzene

Concen: 1.889 ug/l

RT: 10.23 min Scan# 1500

Delta R.T. -0.01 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

Instrument :

MSVOA\_X

ClientSampled :

TW-9

Tot Ion: 91 Resp: 36098

Ion Ratio Lower Upper

91 100

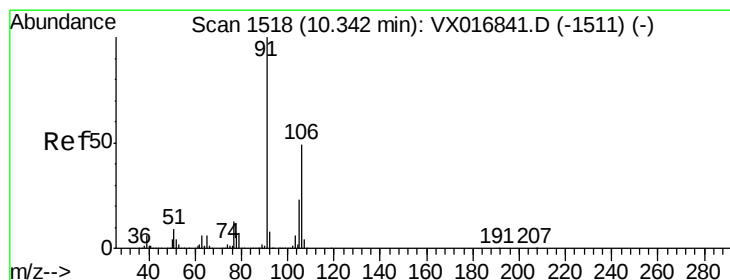
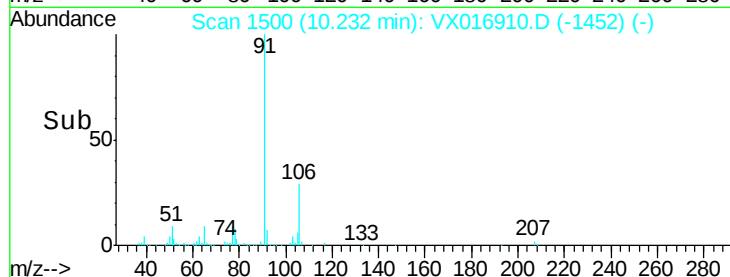
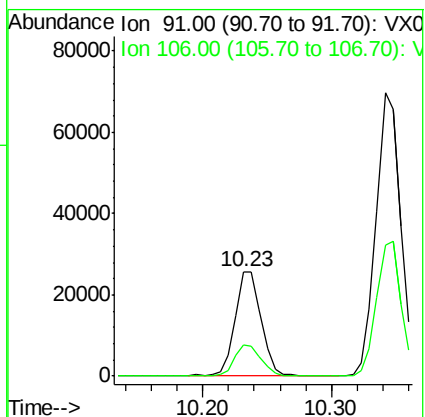
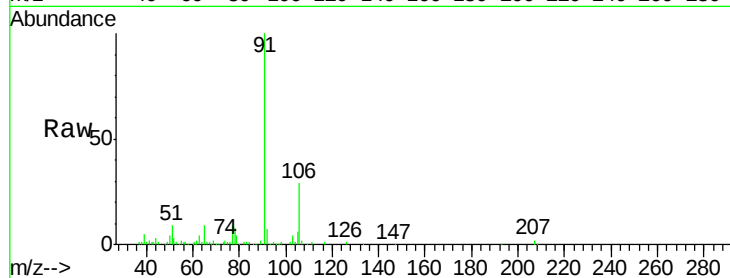
106 29.5 25.1 37.7

Manual Integrations

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#68

m/p-Xylenes

Concen: 5.905 ug/l

RT: 10.35 min Scan# 1519

Delta R.T. 0.01 min

Lab File: VX016910.D

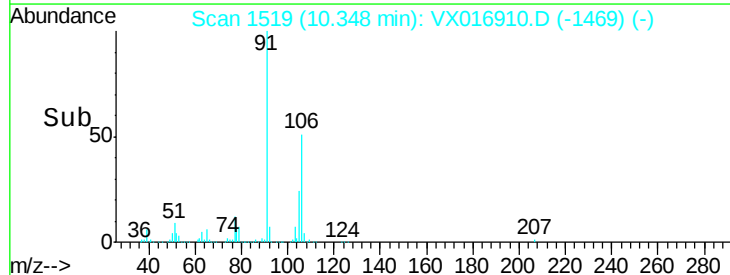
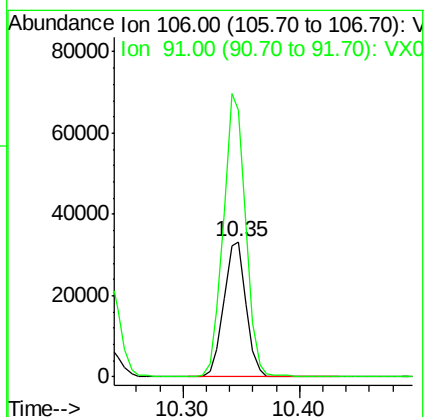
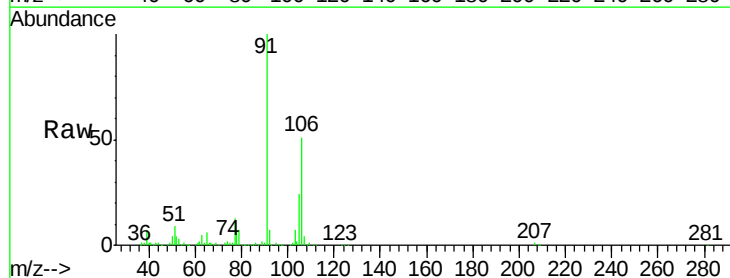
Acq: 20 Jun 2020 05:53

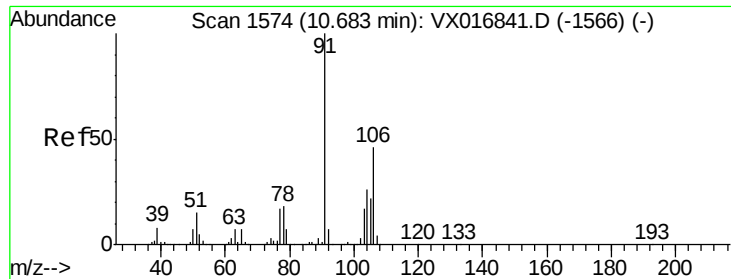
Tgt Ion: 106 Resp: 43920

Ion Ratio Lower Upper

106 100

91 209.2 161.5 242.3





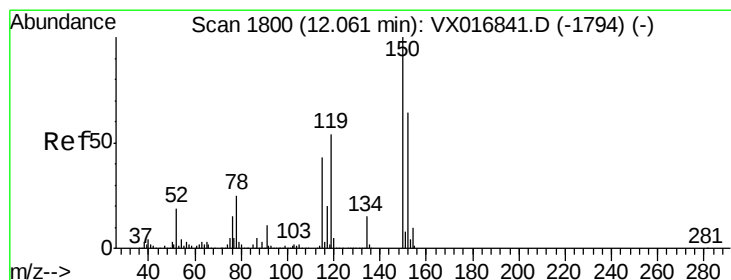
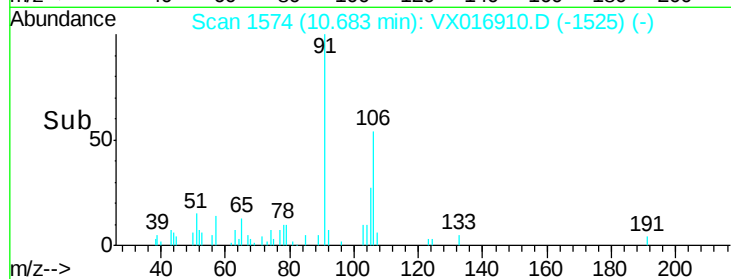
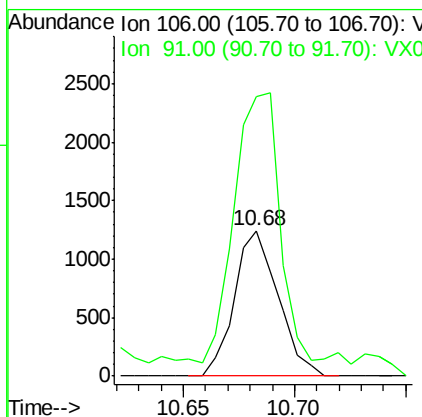
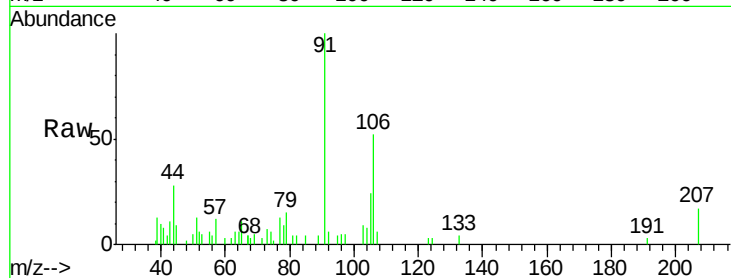
#69  
o-Xylene  
Concen: 0.247 ug/l  
RT: 10.68 min Scan# 1574  
Delta R.T. -0.00 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Instrument :  
MSVOA\_X  
ClientSampled :  
TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 100   |       |       |
| 91      | 189.6 | 107.9 | 323.7 |

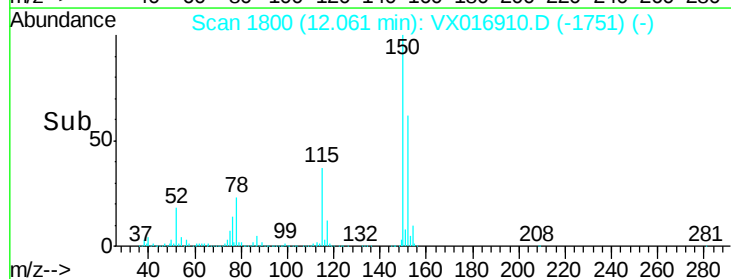
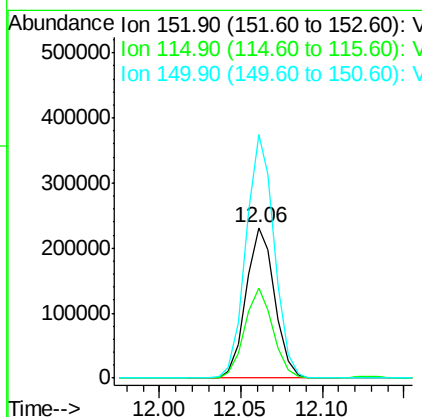
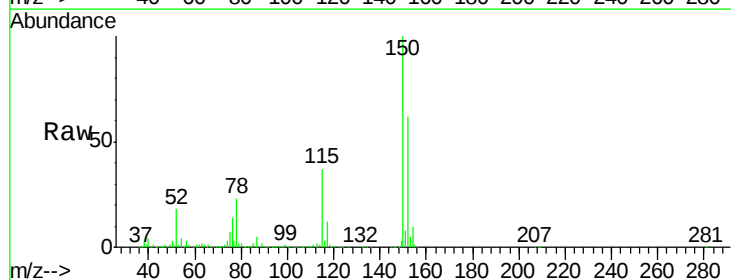
Manual Integrations  
APPROVED

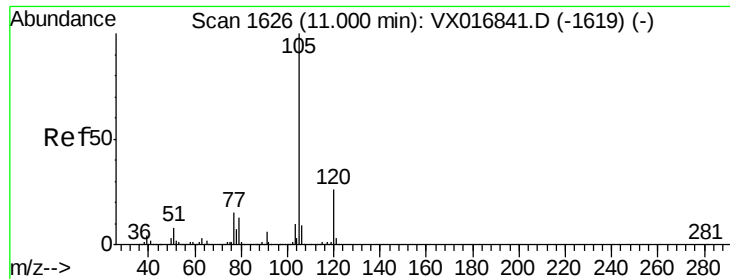
MMDadoda  
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#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. -0.00 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 58.4  | 40.9  | 122.8 |
| 150     | 160.0 | 0.0   | 344.2 |





#73

Isopropylbenzene

Concen: 12.483 ug/l

RT: 11.00 min Scan# 1626

Delta R.T. -0.00 min

Lab File: VX016910.D

Acq: 20 Jun 2020 05:53

Instrument :

MSVOA\_X

ClientSampled :

TW-9

Tot Ion:105 Resp: 227249

Ion Ratio Lower Upper

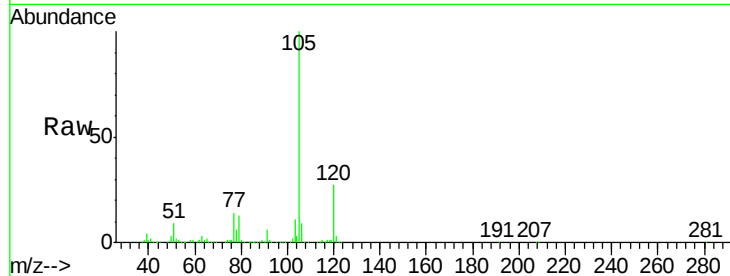
105 100

120 26.9 13.2 39.6

Manual Integrations  
APPROVED

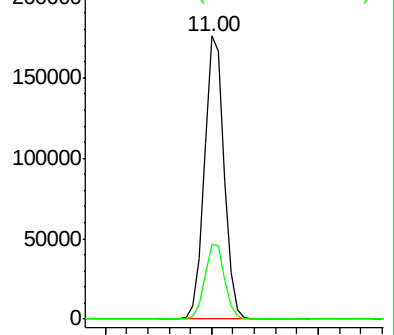
MMDadoda

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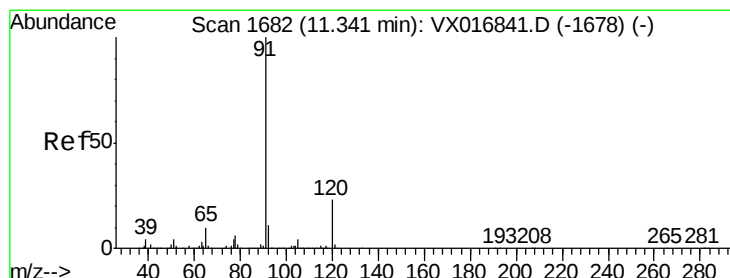
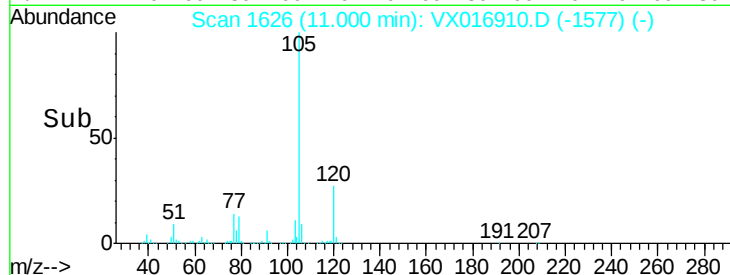


Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



Time--> 10.90 11.00 11.10



#78

n-propylbenzene

Concen: 13.215 ug/l

RT: 11.34 min Scan# 1682

Delta R.T. -0.00 min

Lab File: VX016910.D

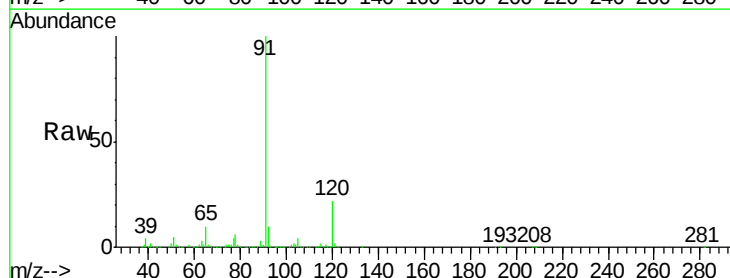
Acq: 20 Jun 2020 05:53

Tgt Ion: 91 Resp: 268486

Ion Ratio Lower Upper

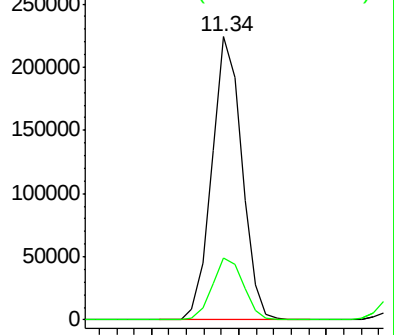
91 100

120 22.7 11.9 35.5

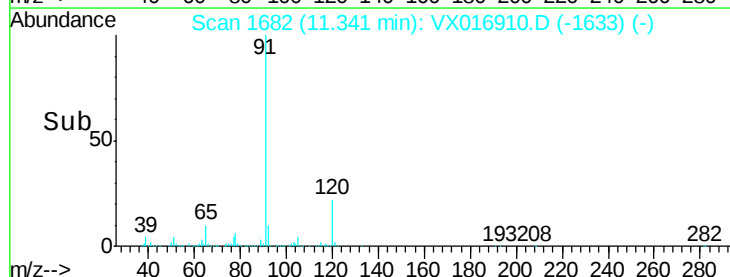


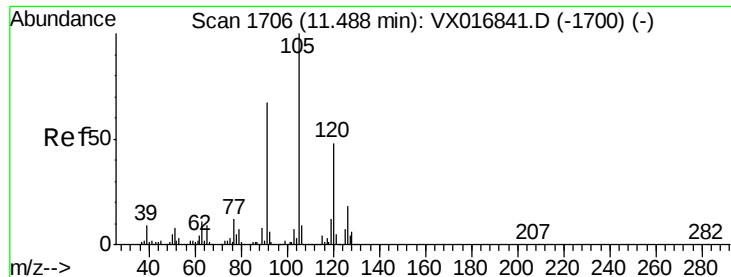
Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 120.00 (119.70 to 120.70): V



Time--> 11.30 11.35 11.40





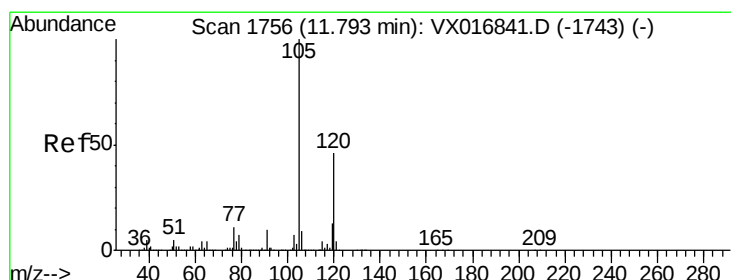
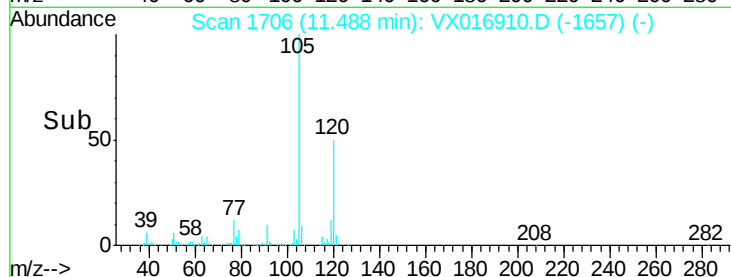
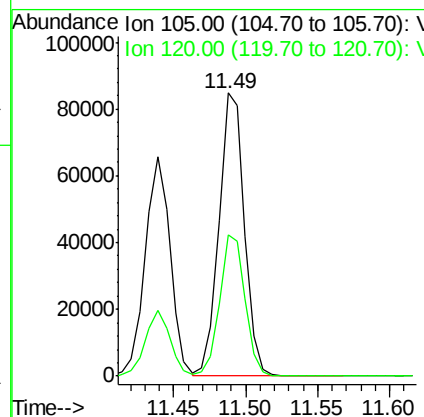
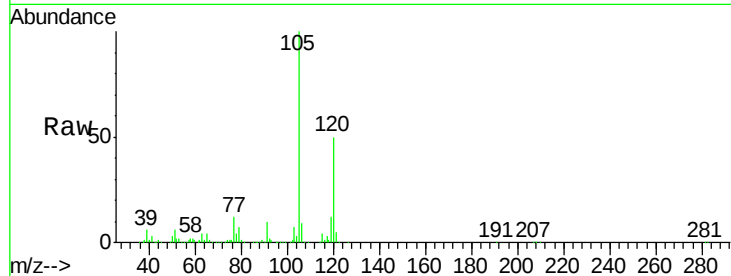
#80  
 1,3,5-Trimethylbenzene  
 Concen: 6.691 ug/l  
 RT: 11.49 min Scan# 1706  
 Delta R.T. 0.00 min  
 Lab File: VX016910.D  
 Acq: 20 Jun 2020 05:53

Instrument :  
 MSVOA\_X  
 ClientSampled :  
 TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 50.0  | 24.6  | 74.0  |

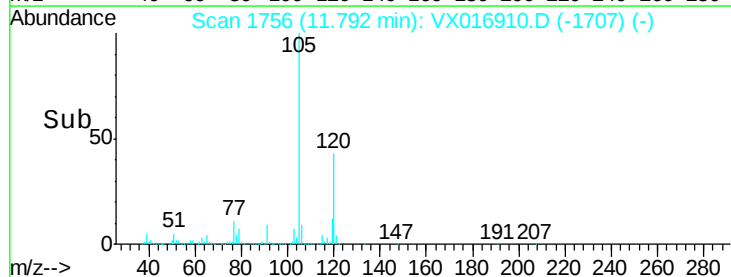
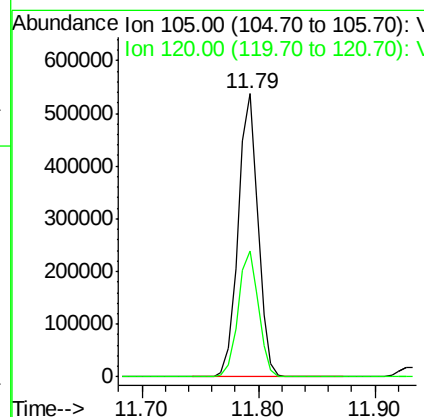
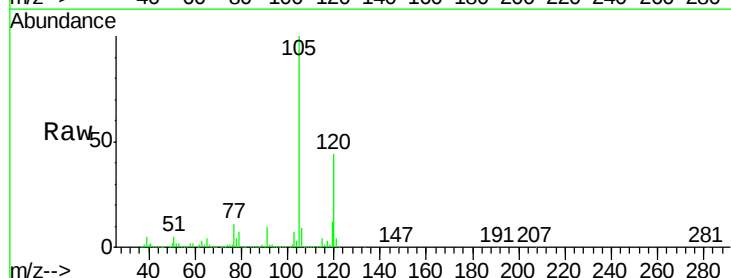
Manual Integrations  
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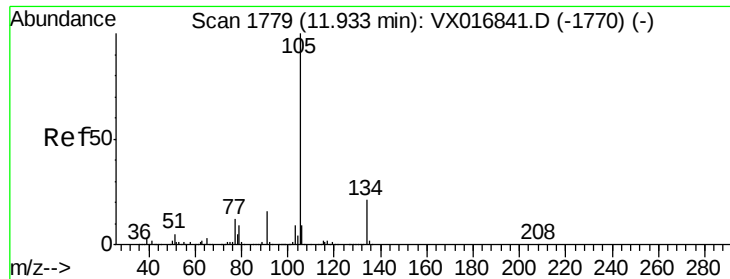
MMDadoda  
 6/22/2020 12:22:24 PM



#84  
 1,2,4-Trimethylbenzene  
 Concen: 39.406 ug/l  
 RT: 11.79 min Scan# 1756  
 Delta R.T. -0.00 min  
 Lab File: VX016910.D  
 Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 45.5  | 22.3  | 66.9  |





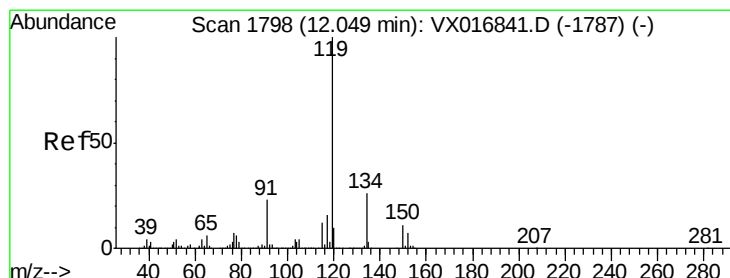
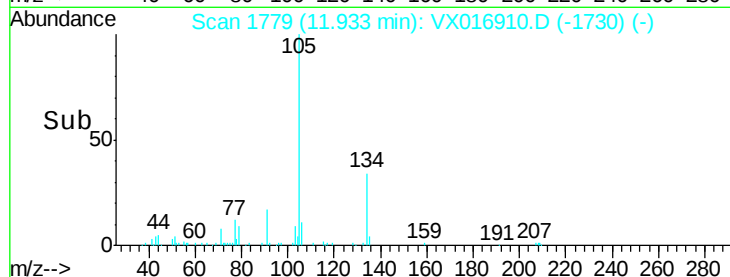
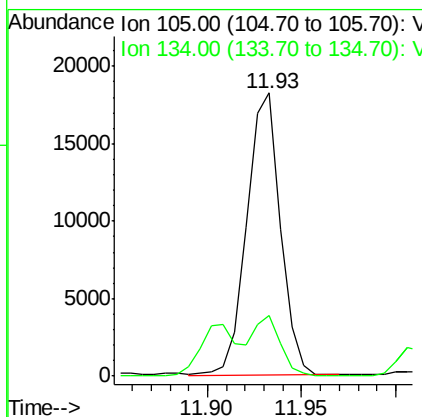
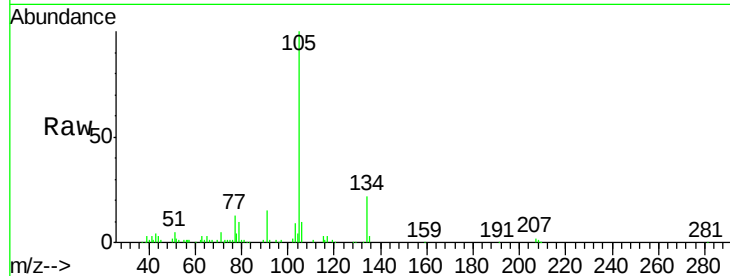
#85  
 sec-Butylbenzene  
 Concen: 1.244 ug/l  
 RT: 11.93 min Scan# 1779  
 Delta R.T. -0.00 min  
 Lab File: VX016910.D  
 Acq: 20 Jun 2020 05:53

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 134     | 16.7  | 10.4  | 31.2  |

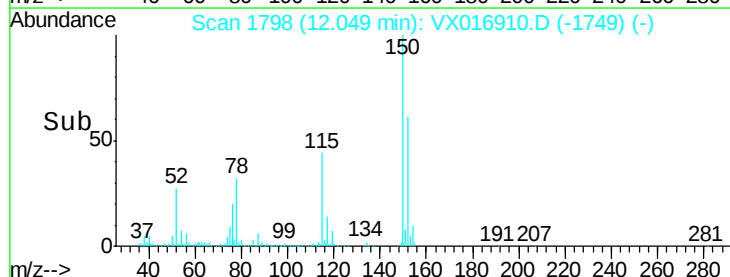
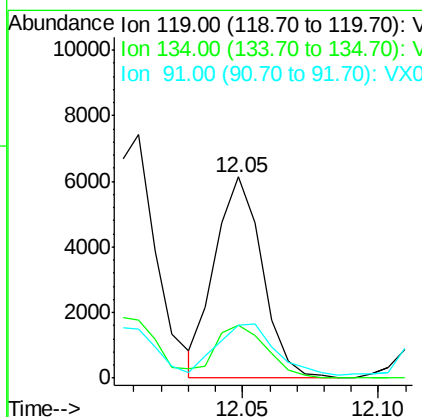
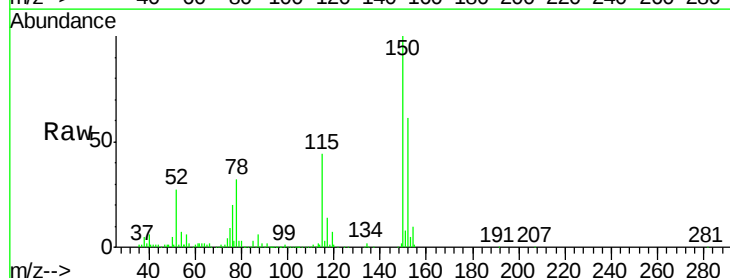
Manual Integrations  
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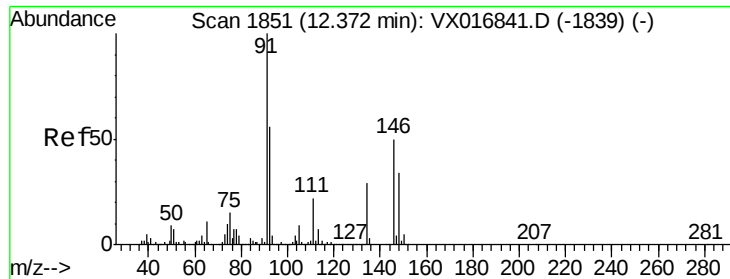
MMDadoda  
 6/22/2020 12:22:24 PM



#86  
 p-Isopropyltoluene  
 Concen: 0.449 ug/l  
 RT: 12.05 min Scan# 1798  
 Delta R.T. -0.00 min  
 Lab File: VX016910.D  
 Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 28.2  | 12.9  | 38.7  |
| 91      | 33.8  | 11.6  | 34.8  |





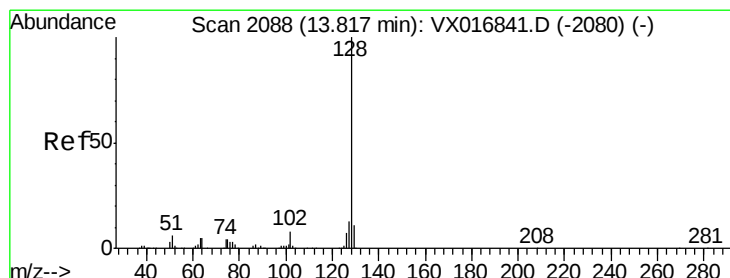
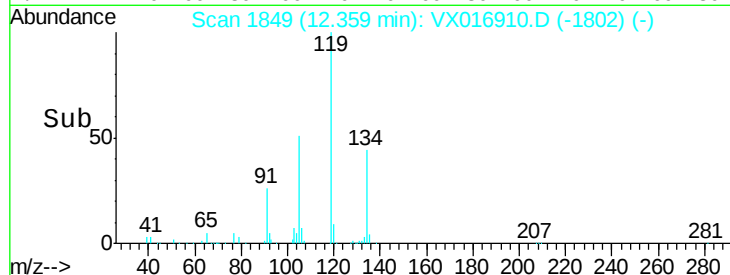
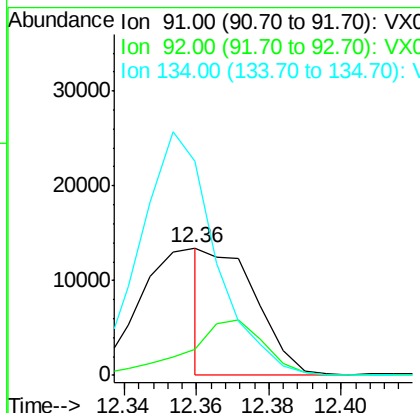
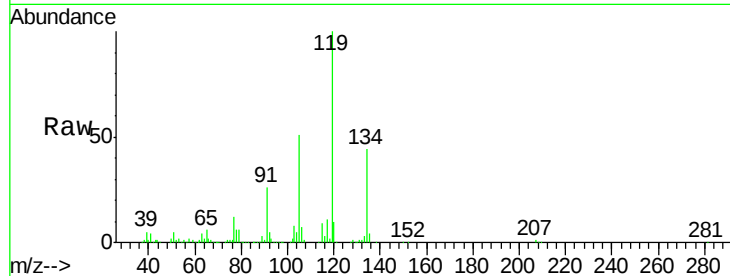
#89  
n-Butylbenzene  
Concen: 0.915 ug/l m  
RT: 12.36 min Scan# 1849  
Delta R.T. -0.01 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

Instrument :  
MSVOA\_X  
ClientSampled :  
TW-9

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 67.5  | 27.4  | 82.2  |
| 134     | 284.8 | 13.9  | 41.6# |

Manual Integrations  
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#95  
Naphthalene  
Concen: 1.932 ug/l  
RT: 13.82 min Scan# 2088  
Delta R.T. -0.00 min  
Lab File: VX016910.D  
Acq: 20 Jun 2020 05:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 13.5  | 10.4  | 15.6  |
| 129     | 13.9  | 8.6   | 13.0# |

