

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN072618\  
 Data File : VN050118.D  
 Acq On : 27 Jul 2018 6:58  
 Operator : MD\SY  
 Sample : J4184-07  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 49 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-2B

Manual Integrations  
 APPROVED

MMDadoda  
 7/27/2018 12:16:53 PM

Quant Time: Jul 27 08:33:46 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N072418W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jul 26 18:10:10 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 853167   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1256758  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1137979  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 607285   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 514175   | 43.19 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 86.38%  |          |
| 35) Dibromofluoromethane    | 7.59  | 113  | 458678   | 44.70 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 89.40%  |          |
| 50) Toluene-d8              | 10.09 | 98   | 1807854  | 47.92 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 95.84%  |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 623262   | 50.18 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 100.36% |          |

| Target Compounds           | R.T.  | QIon | Response  | Conc    | Units  | Qvalue |
|----------------------------|-------|------|-----------|---------|--------|--------|
| 16) Acetone                | 3.82  | 43   | 122853    | 40.17   | ug/l   | 99     |
| 17) Carbon Disulfide       | 4.05  | 76   | 54787     | 1.82    | ug/l   | 98     |
| 25) 2-Butanone             | 6.84  | 43   | 21799     | 4.80    | ug/l   | 95     |
| 31) Cyclohexane            | 7.66  | 56   | 255290    | 15.52   | ug/l   | 93     |
| 39) Methylcyclohexane      | 9.08  | 83   | 537891    | 36.93   | ug/l   | 97     |
| 40) Benzene                | 8.05  | 78   | 17006566  | 394.72  | ug/l   | 99     |
| 52) Toluene                | 10.15 | 92   | 20012250m | 786.86  | ug/l   |        |
| 67) Ethyl Benzene          | 11.50 | 91   | 23832086m | 516.12  | ug/l   |        |
| 68) m/p-Xylenes            | 11.61 | 106  | 20756744m | 1188.44 | ug/l   |        |
| 69) o-Xylene               | 11.95 | 106  | 8434803   | 506.60  | ug/l # | 1      |
| 70) Styrene                | 11.97 | 104  | 5128313   | 170.91  | ug/l # | 83     |
| 73) Isopropylbenzene       | 12.25 | 105  | 3298239   | 70.03   | ug/l   | 99     |
| 78) n-propylbenzene        | 12.59 | 91   | 2505471   | 47.59   | ug/l   | 100    |
| 80) 1,3,5-Trimethylbenzene | 12.73 | 105  | 5746653   | 155.12  | ug/l   | 99     |
| 84) 1,2,4-Trimethylbenzene | 13.04 | 105  | 13744795  | 368.09  | ug/l   | 98     |
| 85) sec-Butylbenzene       | 13.17 | 105  | 100646m   | 2.33    | ug/l   |        |
| 86) p-Isopropyltoluene     | 13.29 | 119  | 2586826   | 71.07   | ug/l   | 99     |
| 89) n-Butylbenzene         | 13.62 | 91   | 107127m   | 3.58    | ug/l   |        |
| 95) Naphthalene            | 15.12 | 128  | 33625820m | 1109.79 | ug/l   |        |

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

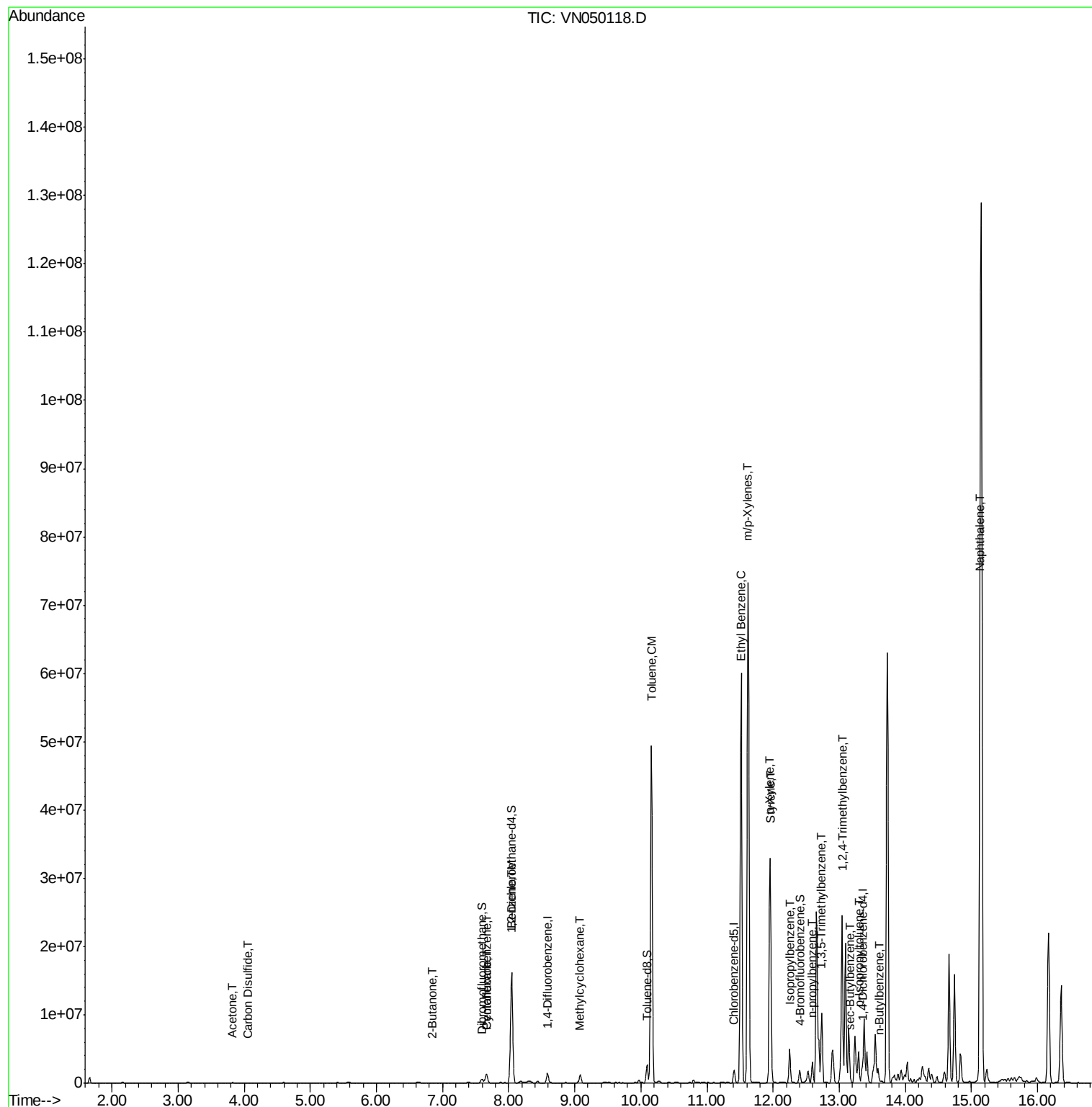
Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN072618\  
Data File : VN050118.D  
Acq On : 27 Jul 2018 6:58  
Operator : MD\SY  
Sample : J4184-07  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 49 Sample Multiplier: 1

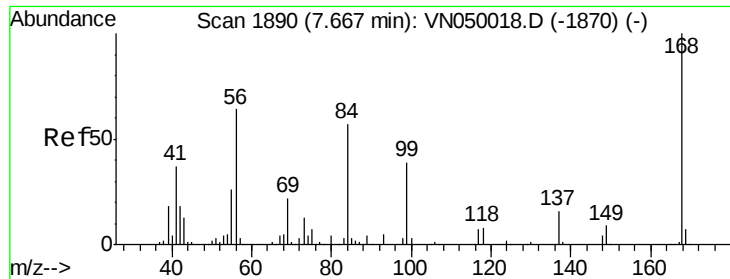
Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-2B

Manual Integrations  
APPROVED

MMDadoda  
7/27/2018 12:16:53 PM

Quant Time: Jul 27 08:33:46 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N072418W.M  
Quant Title : SW846 8260  
QLast Update : Thu Jul 26 18:10:10 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 7.67 min Scan# 1891

Delta R.T. -0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

ClientSampled :

MW-2B

Tot Ion:168 Resp: 853167

Ion Ratio Lower Upper

168 100

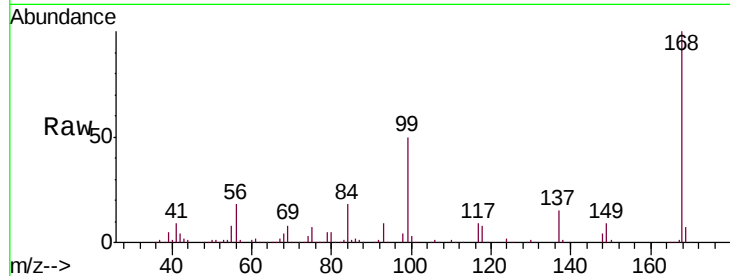
99 49.8 40.0 60.0

Manual Integrations

APPROVED

MMDadoda

7/27/2018 12:16:53 PM



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.67

400000

300000

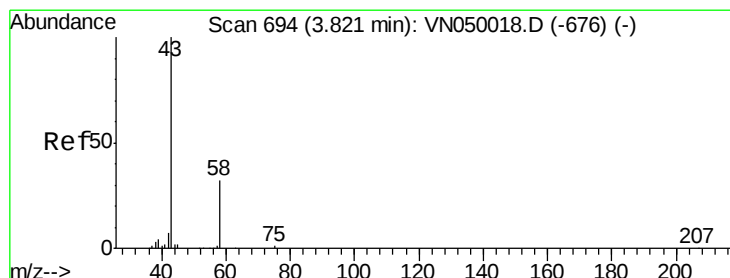
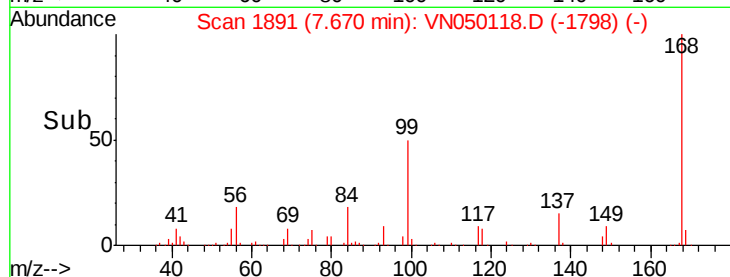
200000

100000

0

7.60 7.70 7.80

Time-->



#16

Acetone

Concen: 40.17 ug/l

RT: 3.82 min Scan# 695

Delta R.T. 0.00 min

Lab File: VN050118.D

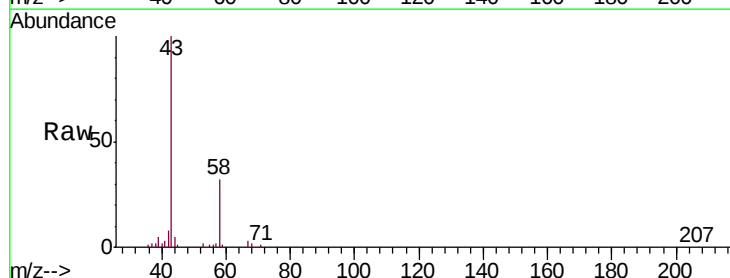
Acq: 27 Jul 2018 6:58

Tgt Ion: 43 Resp: 122853

Ion Ratio Lower Upper

43 100

58 31.9 25.8 38.8



Abundance Ion 43.00 (42.70 to 43.70): VN

Ion 58.00 (57.70 to 58.70): VN

3.82

50000

40000

30000

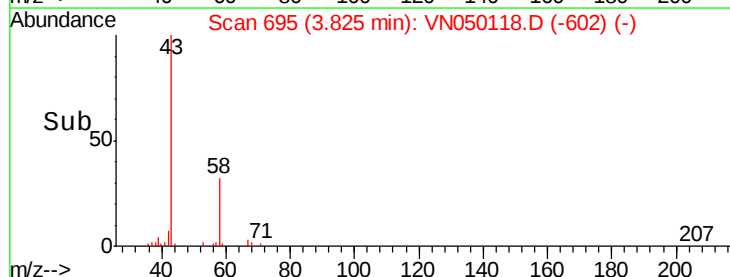
20000

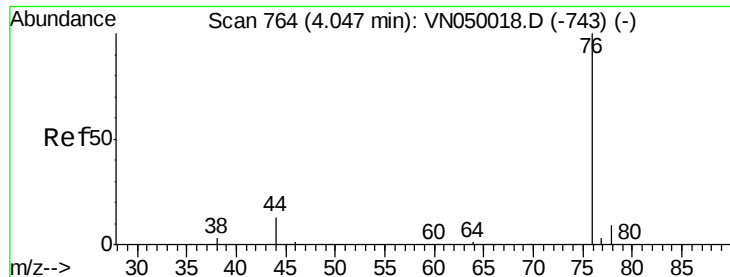
10000

0

3.70 3.80 3.90

Time-->





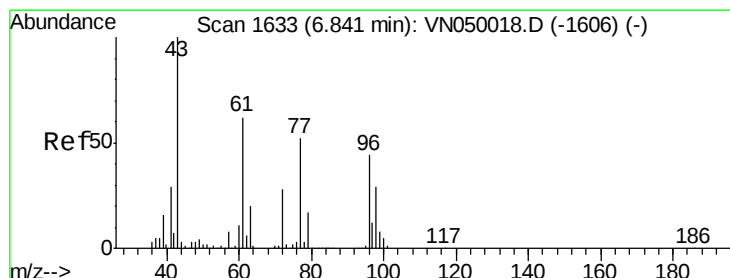
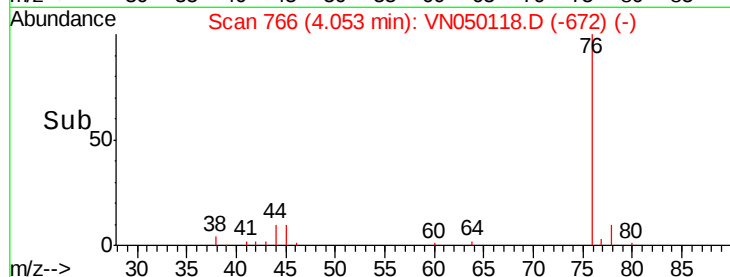
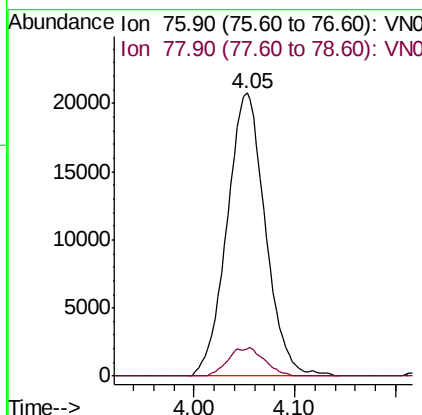
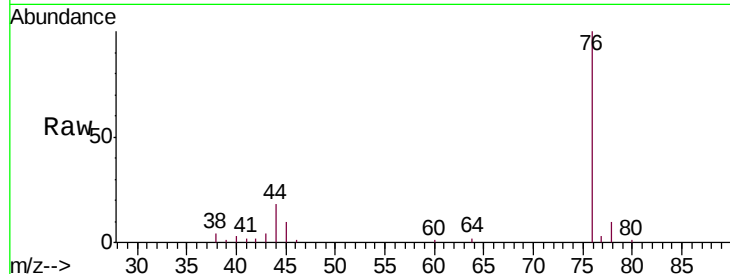
#17  
Carbon Disulfide  
Concen: 1.82 ug/l  
RT: 4.05 min Scan# 766  
Delta R.T. 0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-2B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 78      | 9.9   | 7.3   | 10.9  |

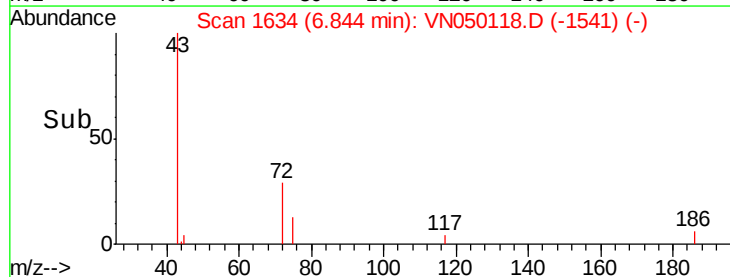
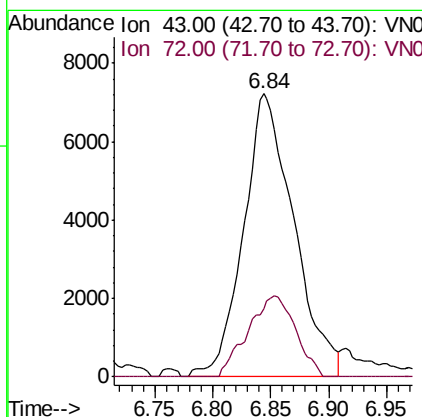
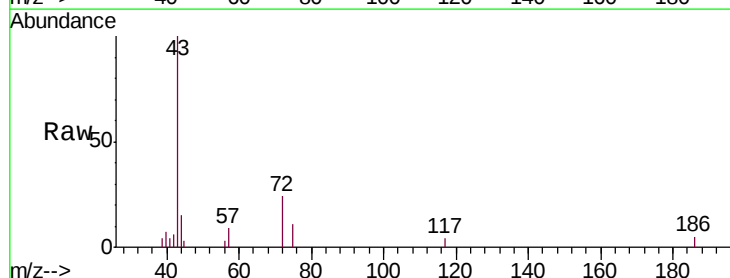
Manual Integrations  
APPROVED

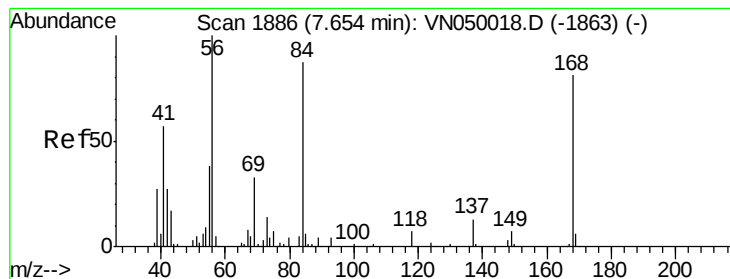
MMDadoda  
7/27/2018 12:16:53 PM



#25  
2-Butanone  
Concen: 4.80 ug/l  
RT: 6.84 min Scan# 1634  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 24.2  | 21.5  | 32.3  |





#31

Cyclohexane

Concen: 15.52 ug/l

RT: 7.66 min Scan# 1887

Delta R.T. 0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

ClientSampleId :

MW-2B

Tot Ion: 56 Resp: 255290

Ion Ratio Lower Upper

56 100

69 38.7 26.2 39.4

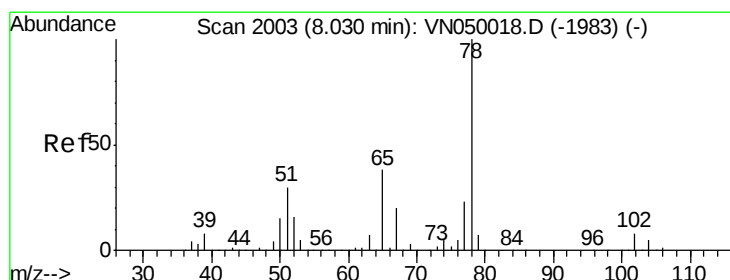
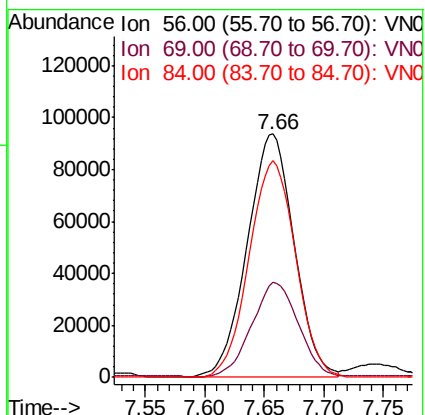
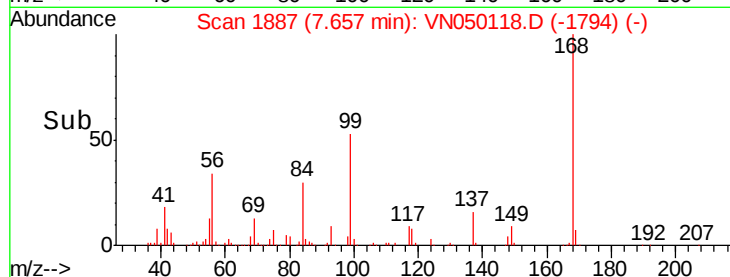
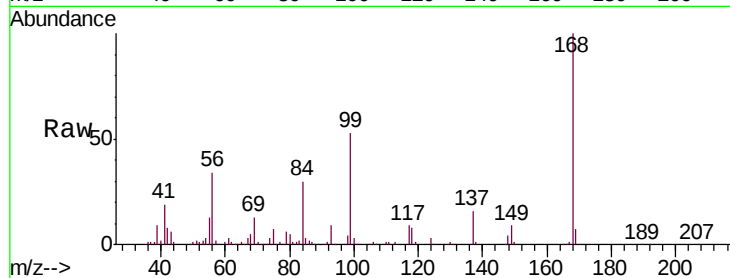
84 89.0 67.4 101.0

Manual Integrations

APPROVED

MMDadoda

7/27/2018 12:16:53 PM



#33

1,2-Dichloroethane-d4

Concen: 43.19 ug/l

RT: 8.03 min Scan# 2003

Delta R.T. -0.00 min

Lab File: VN050118.D

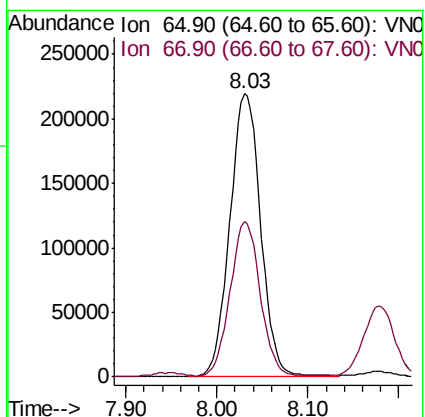
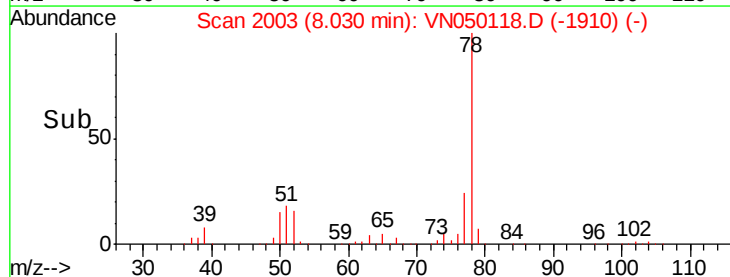
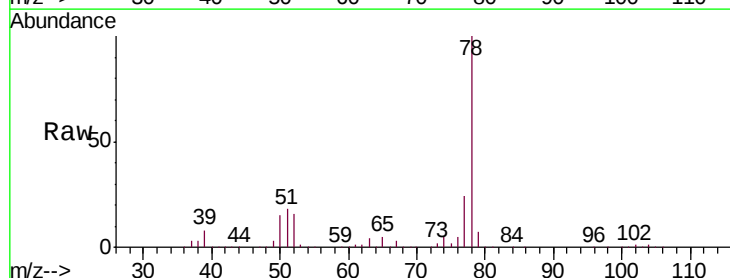
Acq: 27 Jul 2018 6:58

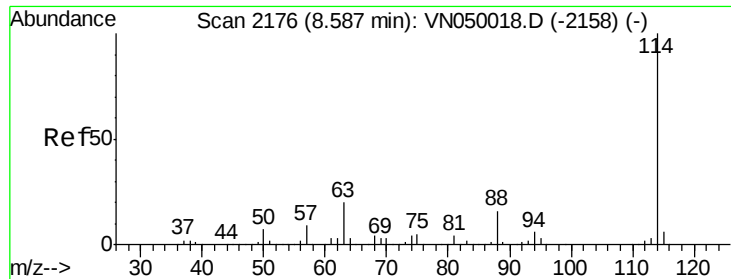
Tgt Ion: 65 Resp: 514175

Ion Ratio Lower Upper

65 100

67 53.2 0.0 108.4





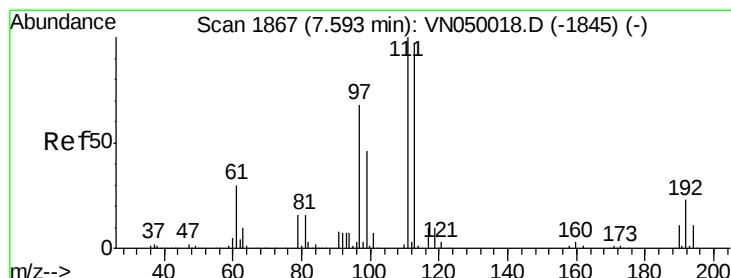
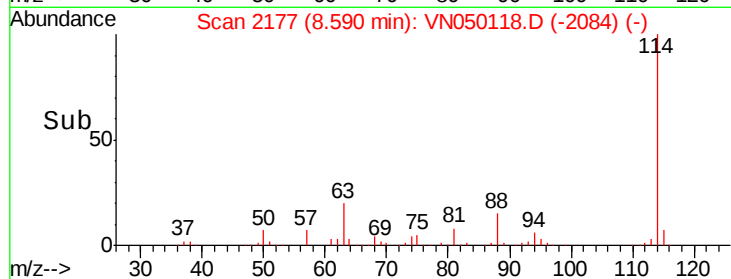
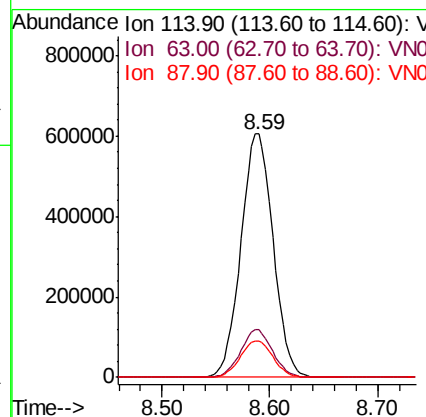
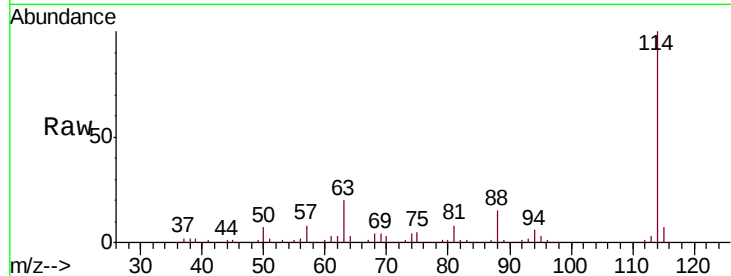
#34  
1,4-Difluorobenzene  
Concen: 50.00 ug/l  
RT: 8.59 min Scan# 2177  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-2B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 19.6  | 0.0   | 40.0  |
| 88      | 15.1  | 0.0   | 31.2  |

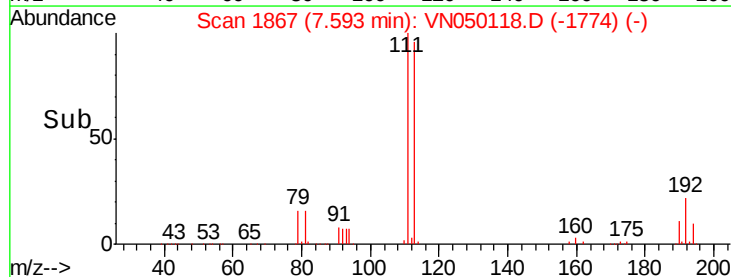
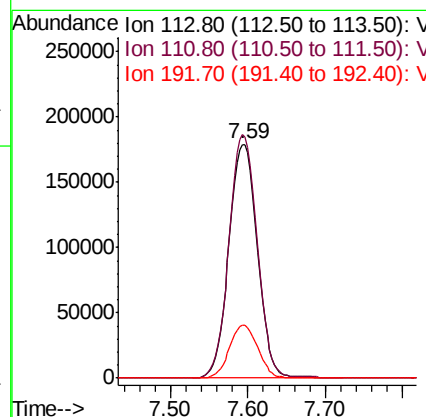
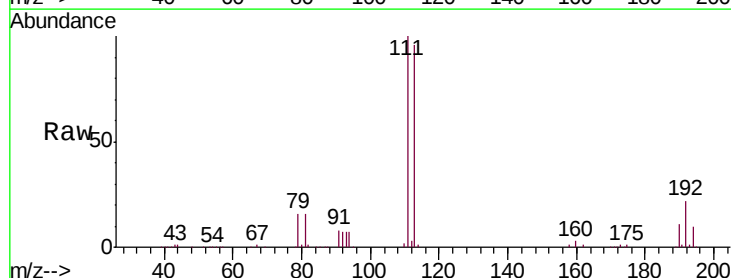
Manual Integrations  
APPROVED

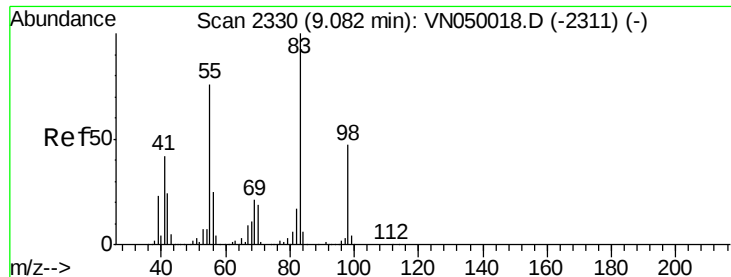
MMDadoda  
7/27/2018 12:16:53 PM



#35  
Dibromofluoromethane  
Concen: 44.70 ug/l  
RT: 7.59 min Scan# 1867  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.4 | 80.7  | 121.1 |
| 192     | 22.5  | 17.8  | 26.6  |





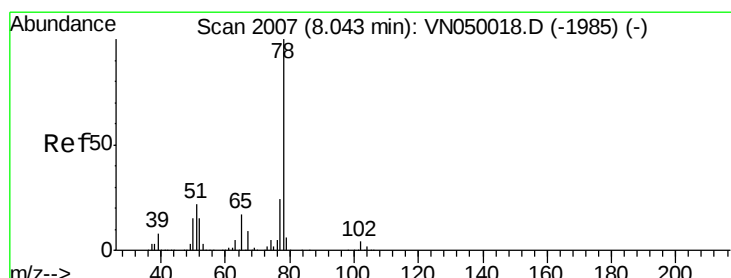
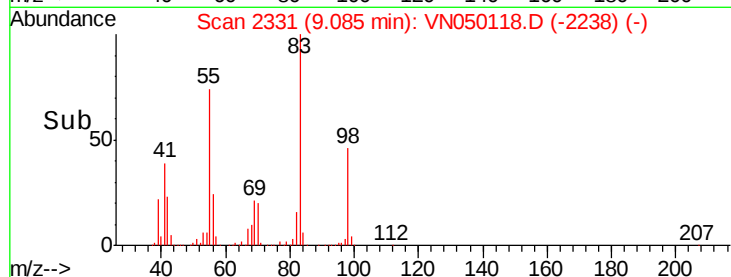
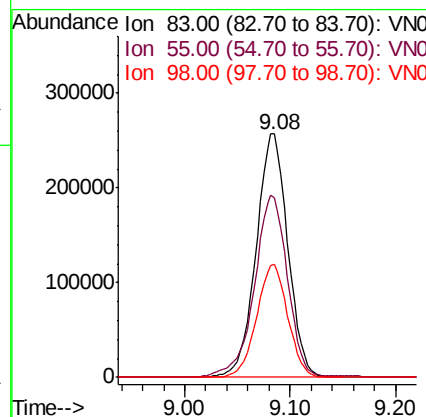
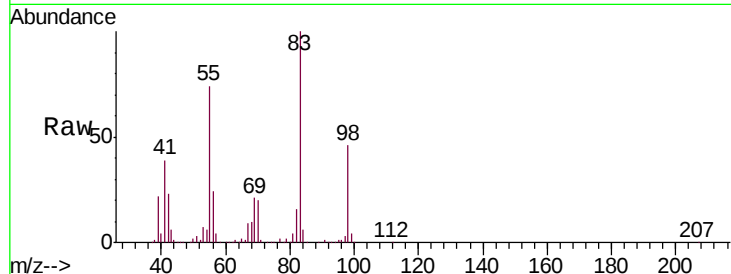
#39  
Methvlcvclohexane  
Concen: 36.93 ug/l  
RT: 9.08 min Scan# 2331  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-2B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 73.7  | 61.8  | 92.8  |
| 98      | 46.2  | 36.5  | 54.7  |

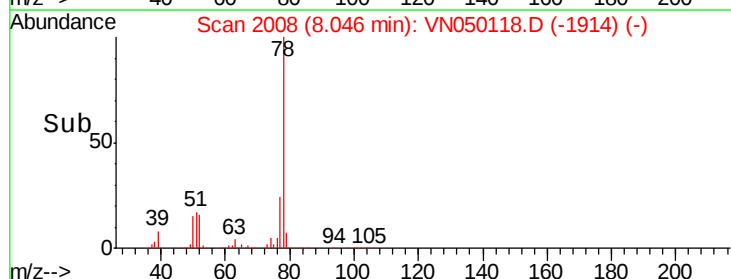
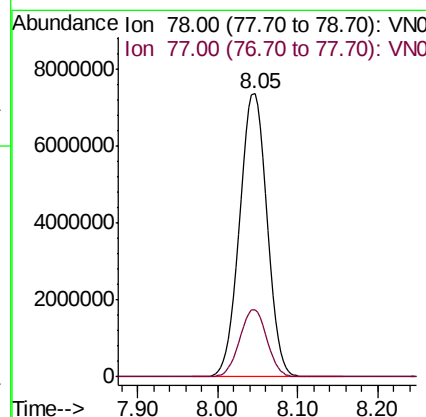
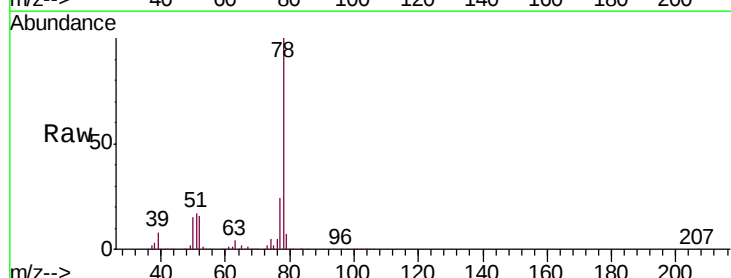
Manual Integrations  
APPROVED

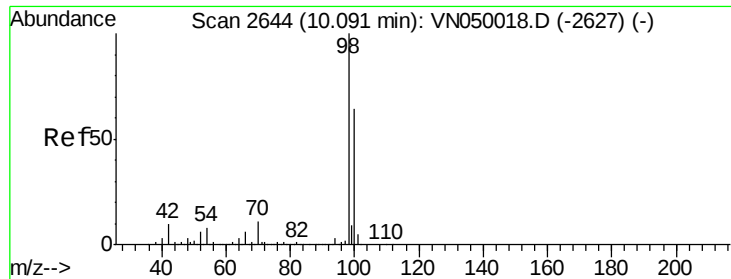
MMDadoda  
7/27/2018 12:16:53 PM



#40  
Benzene  
Concen: 394.72 ug/l  
RT: 8.05 min Scan# 2008  
Delta R.T. 0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 23.8  | 18.7  | 28.1  |





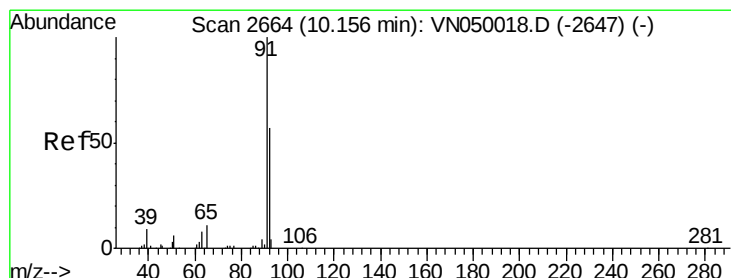
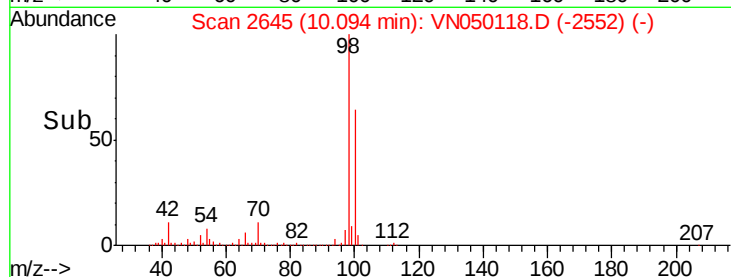
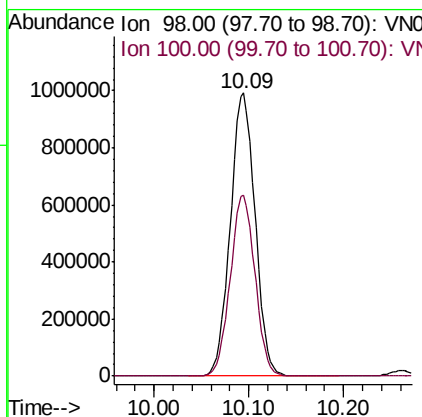
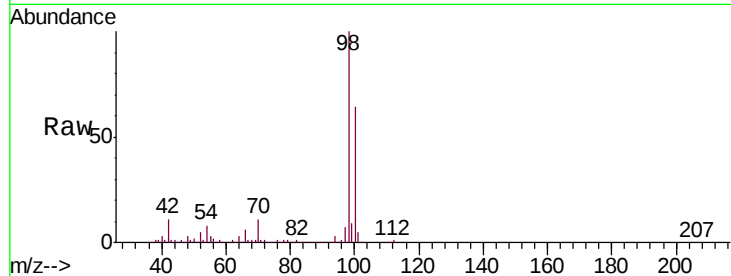
#50  
Toluene-d8  
Concen: 47.92 ug/l  
RT: 10.09 min Scan# 2645  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-2B

Tot Ion: 98 Resp: 1807854  
Ion Ratio Lower Upper  
98 100  
100 63.6 50.7 76.1

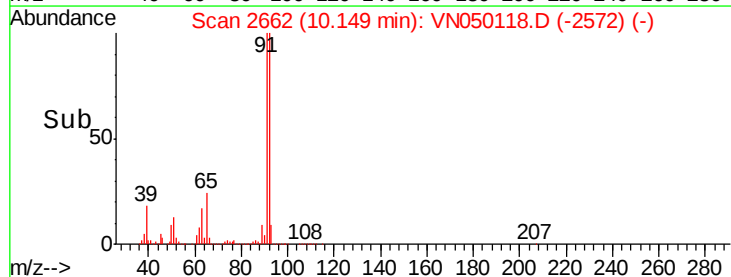
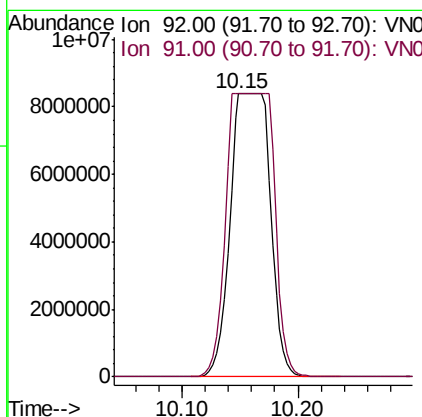
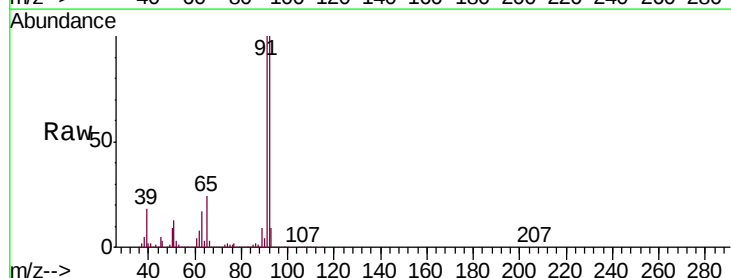
Manual Integrations  
APPROVED

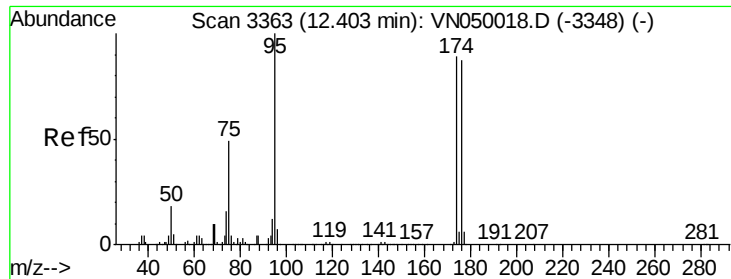
MMDadoda  
7/27/2018 12:16:53 PM



#52  
Toluene  
Concen: 786.86 ug/l m  
RT: 10.15 min Scan# 2662  
Delta R.T. -0.01 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Tgt Ion: 92 Resp: 20012250  
Ion Ratio Lower Upper  
92 100  
91 0.0 140.3 210.5#





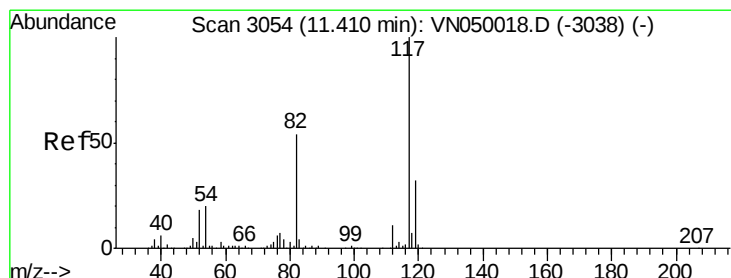
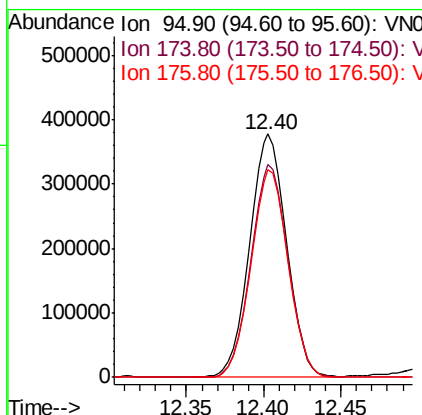
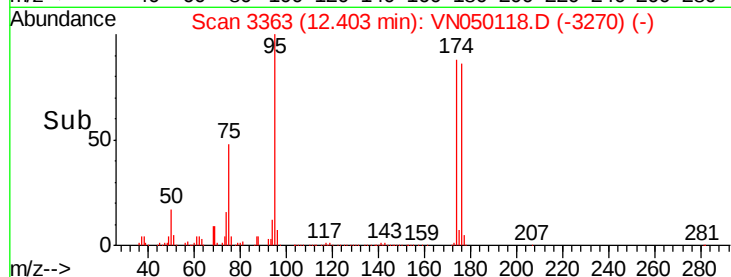
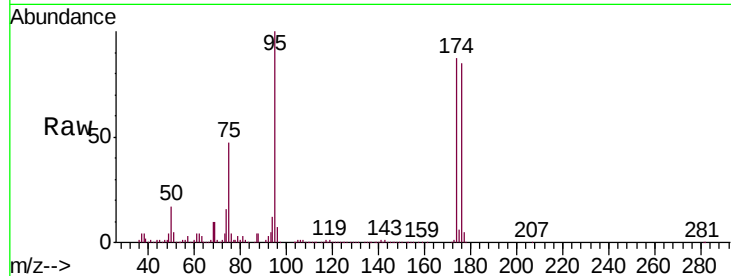
#62  
4-Bromofluorobenzene  
Concen: 50.18 ug/l  
RT: 12.40 min Scan# 3363  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-2B

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 88.4  | 0.0   | 178.2 |
| 176     | 86.3  | 0.0   | 173.4 |

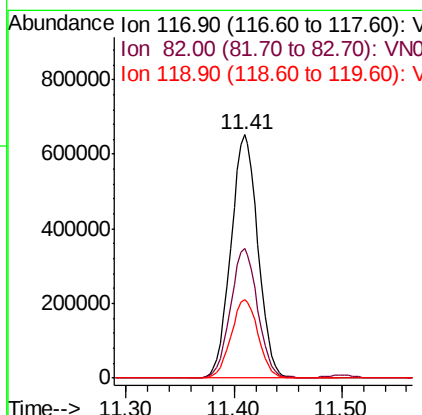
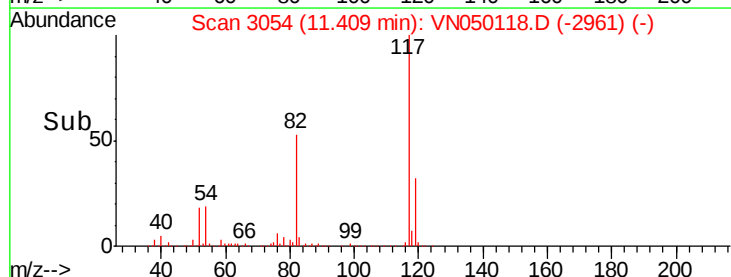
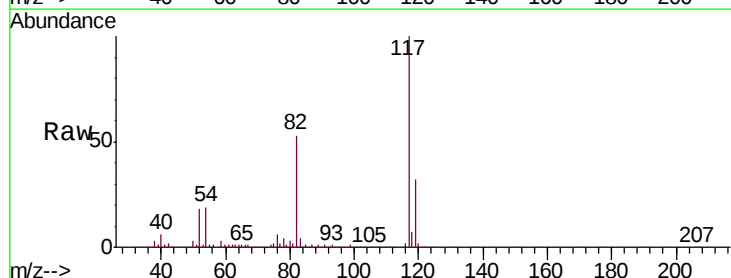
Manual Integrations  
APPROVED

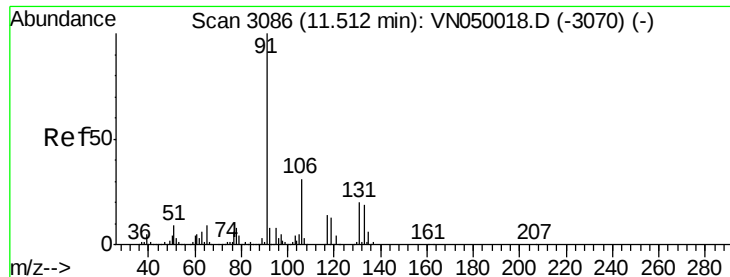
MMDadoda  
7/27/2018 12:16:53 PM



#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 11.41 min Scan# 3054  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 53.0  | 43.7  | 65.5  |
| 119     | 32.4  | 26.1  | 39.1  |





#67

Ethyl Benzene

Concen: 516.12 ug/l m

RT: 11.50 min Scan# 3082

Delta R.T. -0.01 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

ClientSampleId :

MW-2B

Tot Ion: 91 Resp:23832086

Ion Ratio Lower Upper

91 100

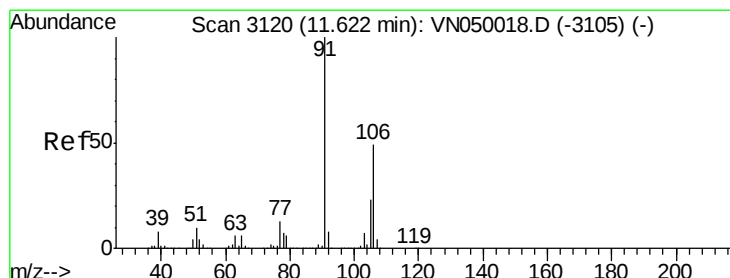
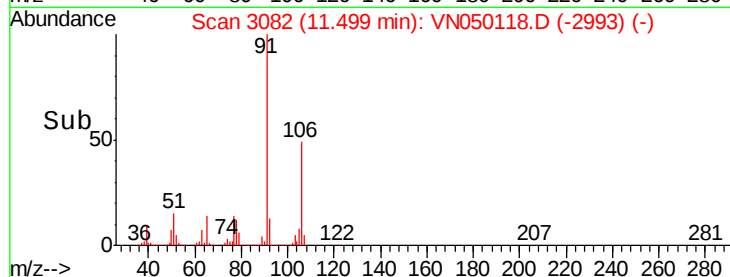
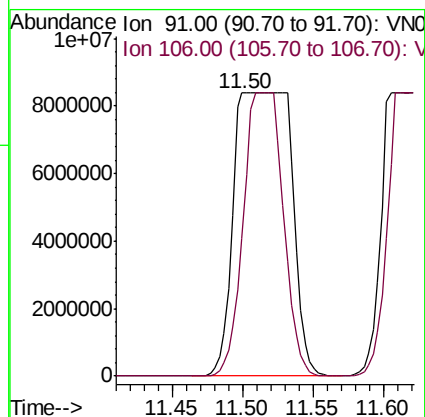
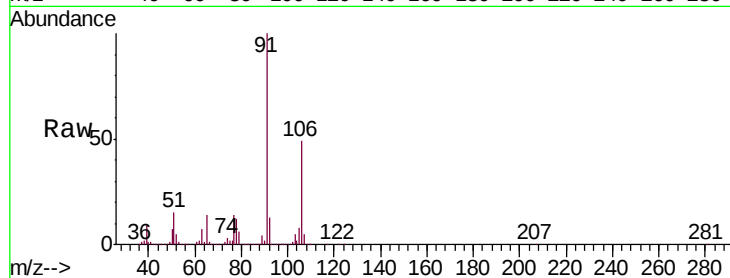
106 48.6 25.0 37.4#

Manual Integrations

APPROVED

MMDadoda

7/27/2018 12:16:53 PM



#68

m/p-Xylenes

Concen: 1188.44 ug/l m

RT: 11.61 min Scan# 3116

Delta R.T. -0.02 min

Lab File: VN050118.D

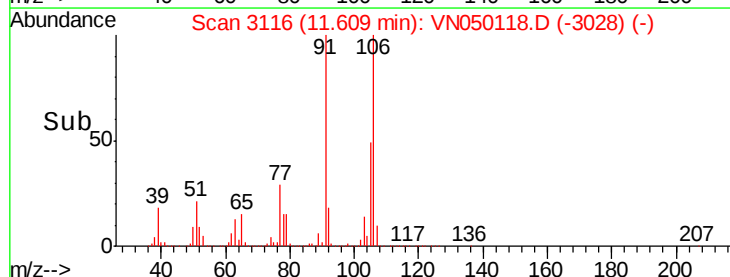
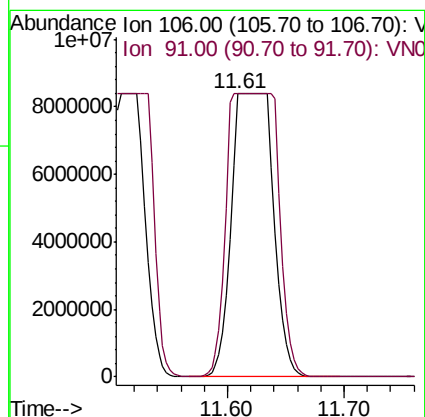
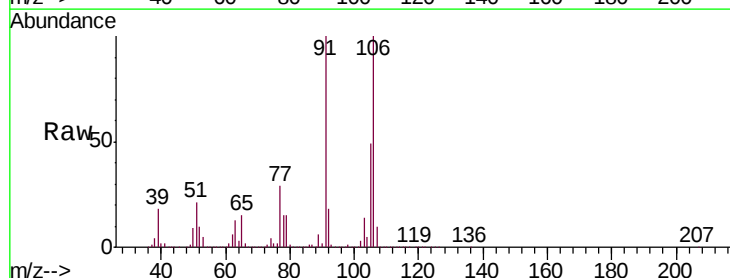
Acq: 27 Jul 2018 6:58

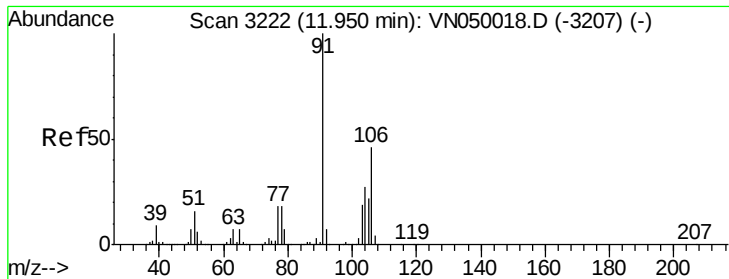
Tgt Ion:106 Resp:20756744

Ion Ratio Lower Upper

106 100

91 0.0 162.2 243.2#





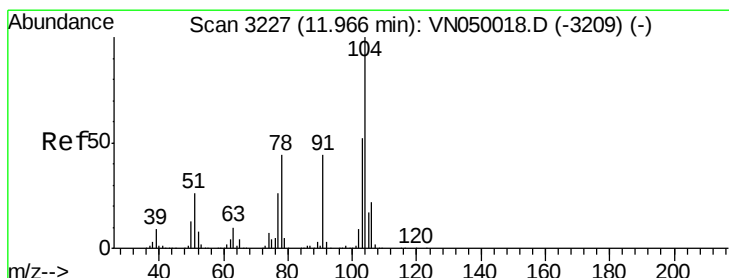
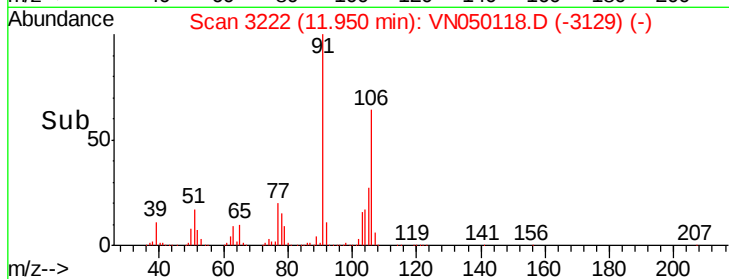
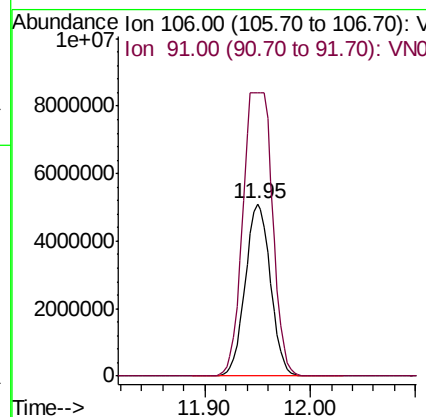
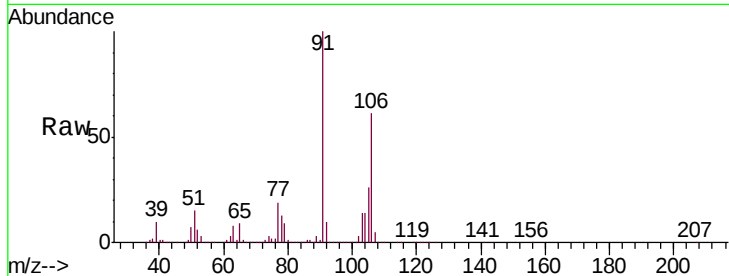
#69  
o-Xylene  
Concen: 506.60 ug/l  
RT: 11.95 min Scan# 3222  
Delta R.T. -0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-2B

Tot Ion:106 Resp: 8434803  
Ion Ratio Lower Upper  
106 100  
91 0.0 107.7 323.1#

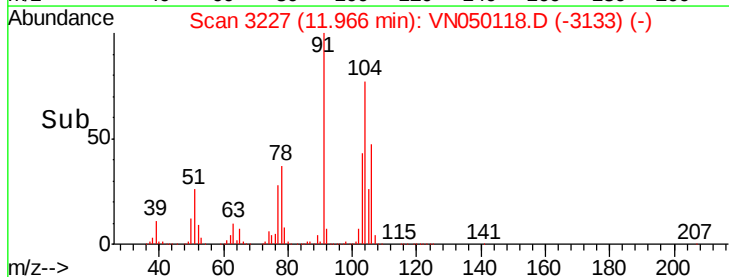
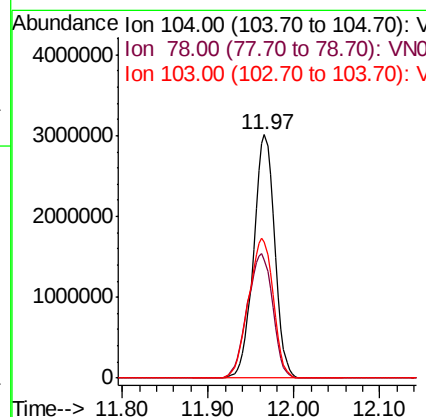
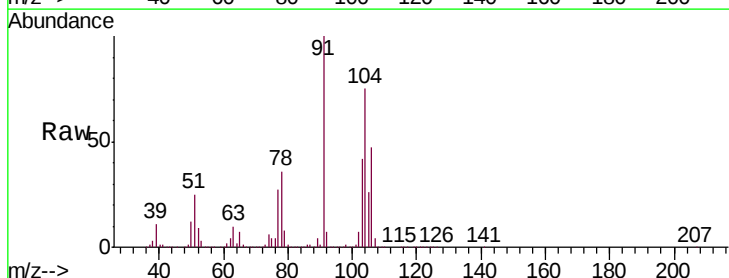
Manual Integrations  
APPROVED

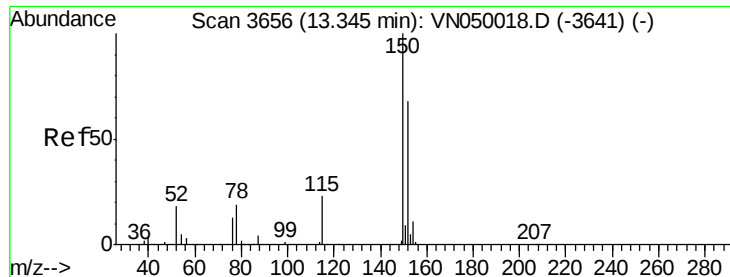
MMDadoda  
7/27/2018 12:16:53 PM



#70  
Styrene  
Concen: 170.91 ug/l  
RT: 11.97 min Scan# 3227  
Delta R.T. 0.00 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Tgt Ion:104 Resp: 5128313  
Ion Ratio Lower Upper  
104 100  
78 61.6 39.3 58.9#  
103 67.4 45.0 67.6





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 13.35 min Scan# 3656

Delta R.T. -0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

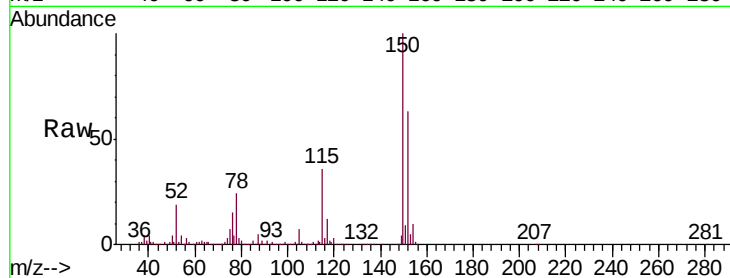
ClientSampleId :

MW-2B

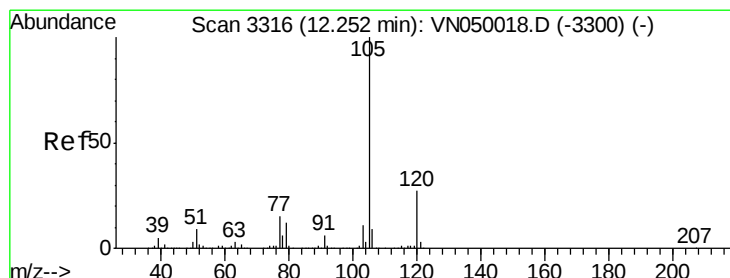
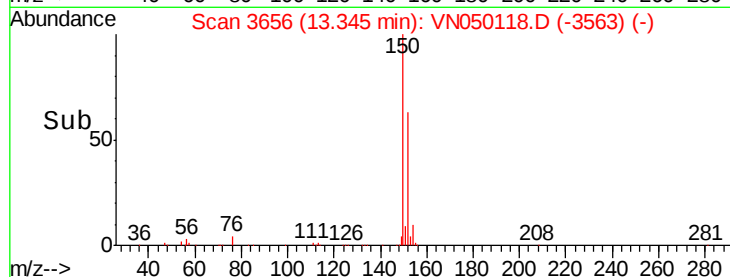
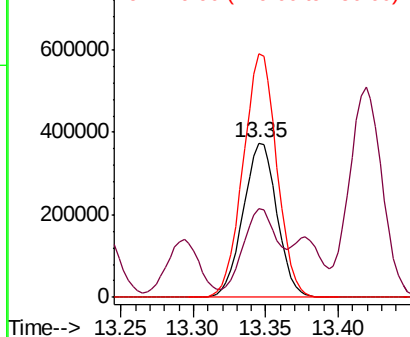
|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 152   | Resp: | 607285 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 52.2  | 27.8  | 83.3   |
| 150       | 157.2 | 0.0   | 348.6  |

Manual Integrations  
APPROVED

MMDadoda  
7/27/2018 12:16:53 PM



Abundance Ion 151.90 (151.60 to 152.60): V  
800000  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



#73

Isopropylbenzene

Concen: 70.03 ug/l

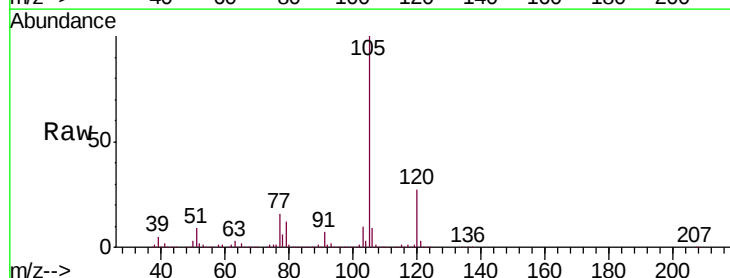
RT: 12.25 min Scan# 3316

Delta R.T. -0.00 min

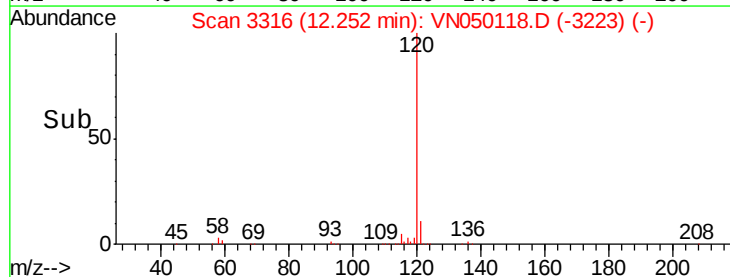
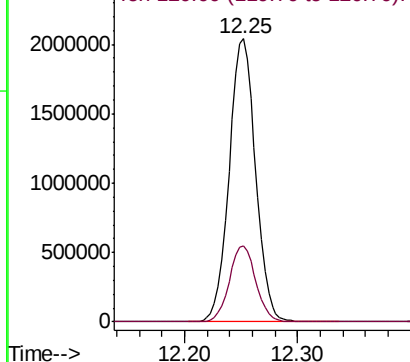
Lab File: VN050118.D

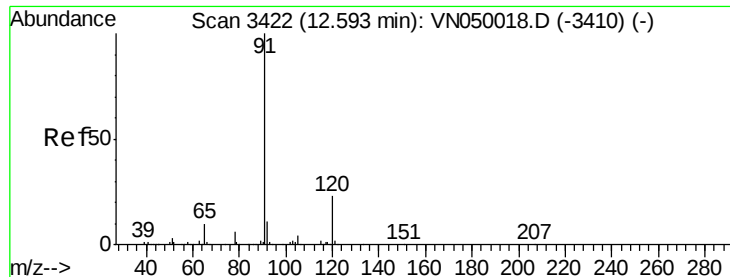
Acq: 27 Jul 2018 6:58

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 105   | Resp: | 3298239 |
| Ion Ratio | Lower | Upper |         |
| 105       | 100   |       |         |
| 120       | 27.0  | 13.3  | 39.8    |



Abundance Ion 105.00 (104.70 to 105.70): V  
2000000  
Ion 120.00 (119.70 to 120.70): V





#78

n-propylbenzene

Concen: 47.59 ug/l

RT: 12.59 min Scan# 3422

Delta R.T. -0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

ClientSampled :

MW-2B

Tot Ion: 91 Resp: 2505471

Ion Ratio Lower Upper

91 100

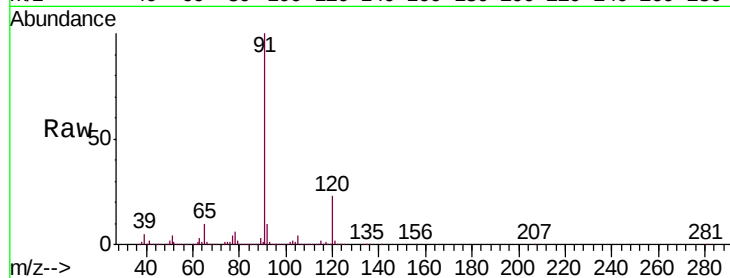
120 22.9 11.6 34.7

Manual Integrations

APPROVED

MMDadoda

7/27/2018 12:16:53 PM



Abundance Ion 91.00 (90.70 to 91.70): VN050018.D (-3410) (-)

Ion 120.00 (119.70 to 120.70): VN050018.D (-3410) (-)

3000000

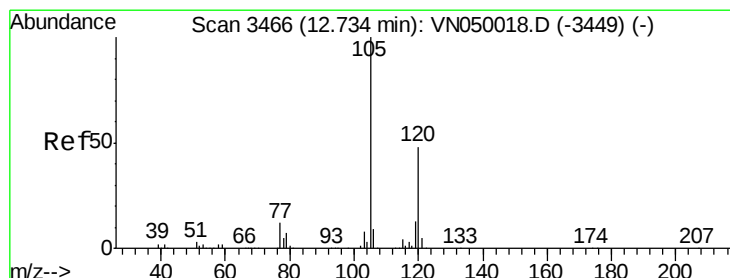
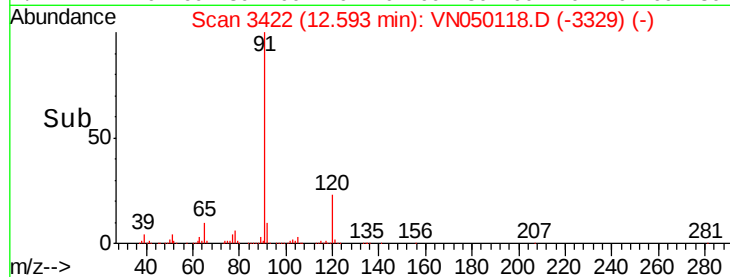
2000000

1000000

0

12.55 12.60

Time-->



#80

1,3,5-Trimethylbenzene

Concen: 155.12 ug/l

RT: 12.73 min Scan# 3466

Delta R.T. -0.00 min

Lab File: VN050118.D

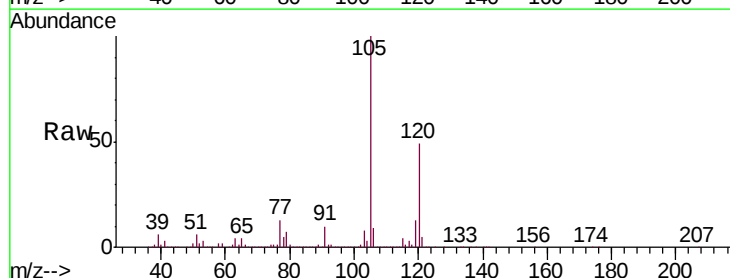
Acq: 27 Jul 2018 6:58

Tgt Ion:105 Resp: 5746653

Ion Ratio Lower Upper

105 100

120 49.1 24.4 73.2



Abundance Ion 105.00 (104.70 to 105.70): VN050018.D (-3449) (-)

Ion 120.00 (119.70 to 120.70): VN050018.D (-3449) (-)

4000000

3000000

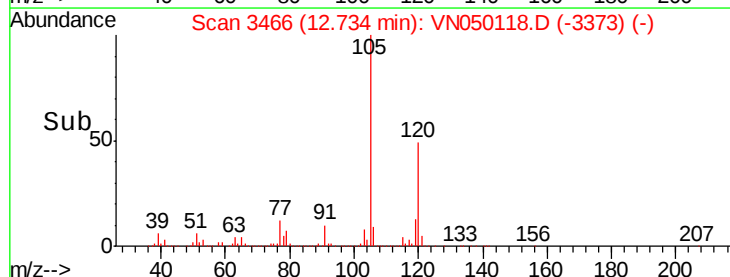
2000000

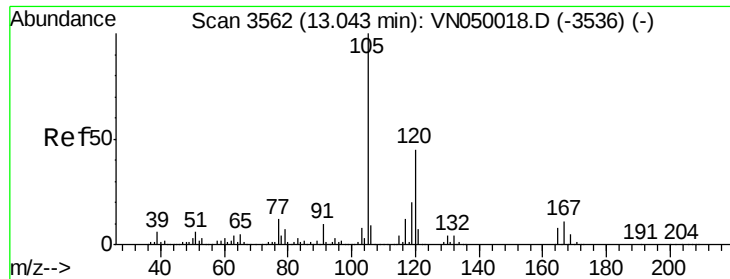
1000000

0

12.70 12.75 12.80

Time-->





#84

1,2,4-Trimethylbenzene

Concen: 368.09 ug/l

RT: 13.04 min Scan# 3561

Delta R.T. -0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

ClientSampleId :

MW-2B

Tot Ion:105 Resp:13744795

Ion Ratio Lower Upper

105 100

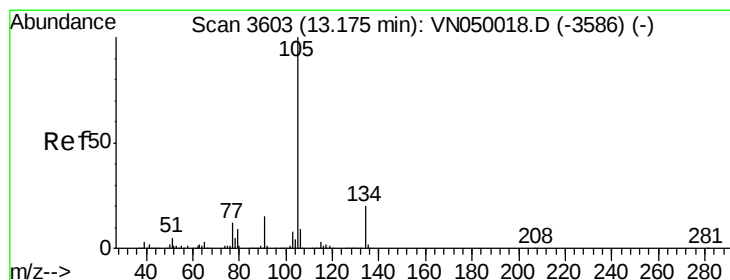
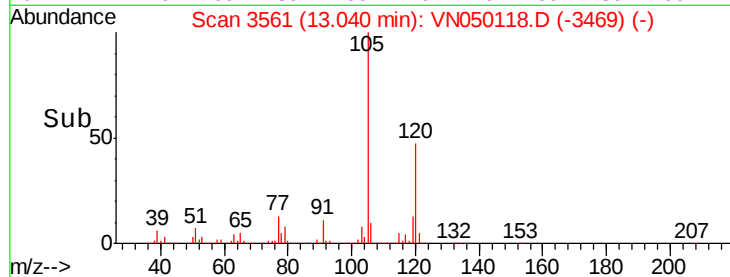
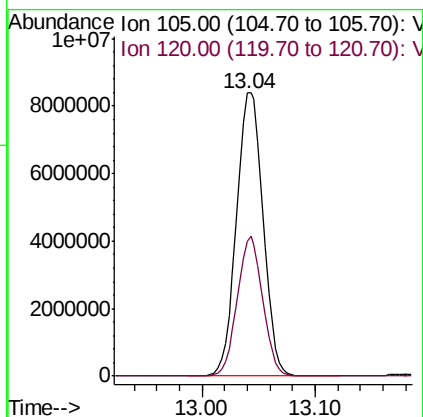
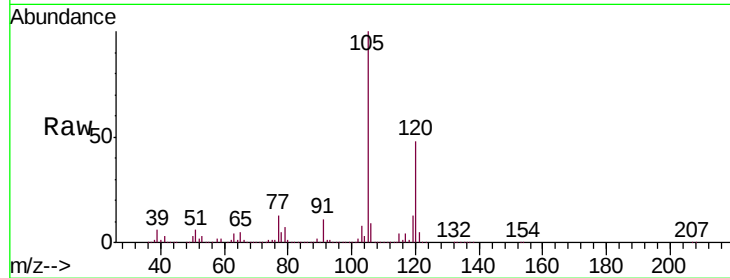
120 47.1 22.9 68.7

Manual Integrations

APPROVED

MMDadoda

7/27/2018 12:16:53 PM



#85

sec-Butylbenzene

Concen: 2.33 ug/l m

RT: 13.17 min Scan# 3603

Delta R.T. -0.00 min

Lab File: VN050118.D

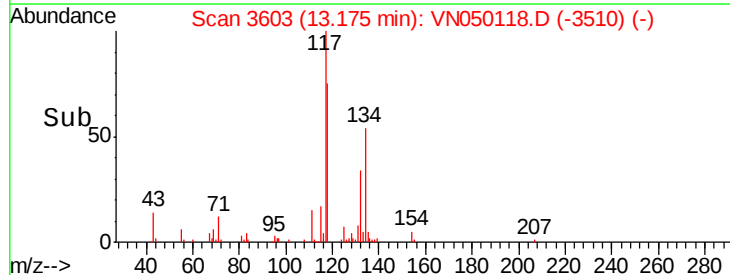
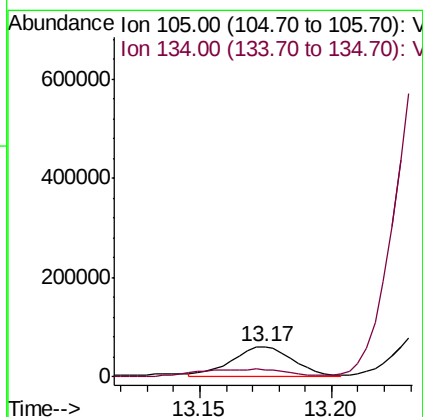
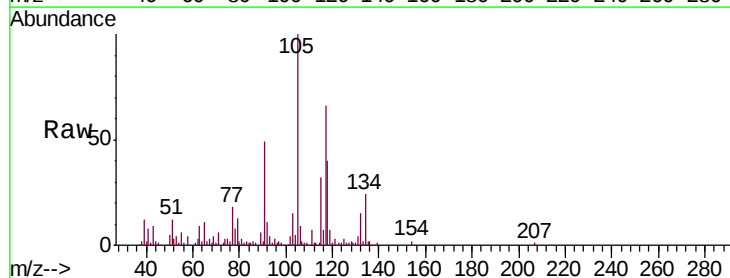
Acq: 27 Jul 2018 6:58

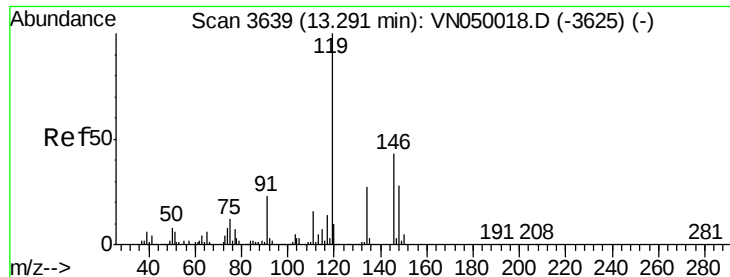
Tgt Ion:105 Resp: 100646

Ion Ratio Lower Upper

105 100

134 0.0 10.1 30.1#





#86

p-Isopropyltoluene

Concen: 71.07 ug/l

RT: 13.29 min Scan# 3640

Delta R.T. 0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

Instrument :

MSVOA\_N

ClientSampleId :

MW-2B

Tot Ion:119 Resp: 2586826

Ion Ratio Lower Upper

119 100

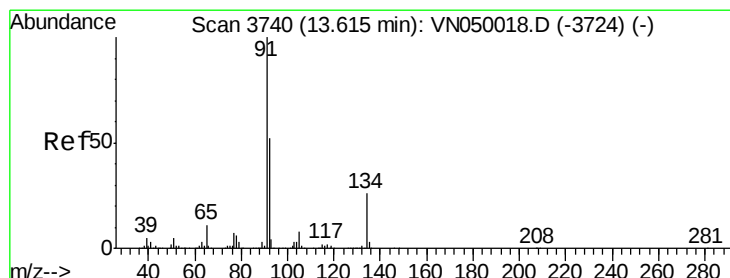
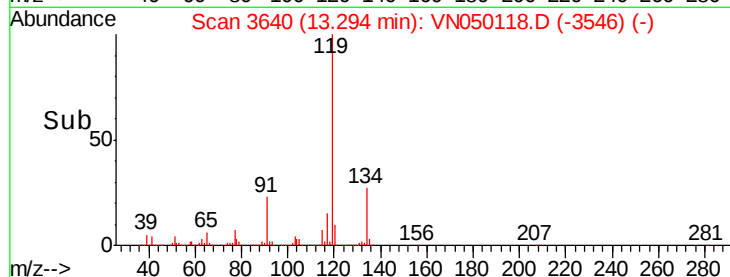
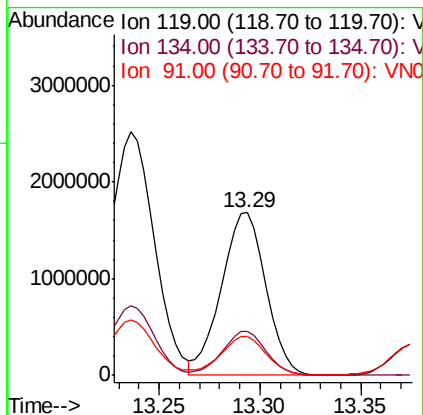
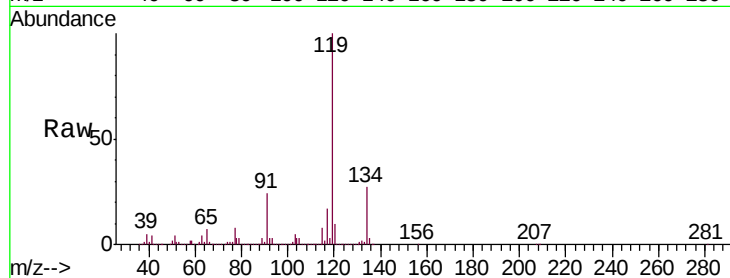
134 26.7 13.3 39.8

91 24.1 11.4 34.2

Manual Integrations  
APPROVED

MMDadoda

7/27/2018 12:16:53 PM



#89

n-Butylbenzene

Concen: 3.58 ug/l m

RT: 13.62 min Scan# 3741

Delta R.T. -0.00 min

Lab File: VN050118.D

Acq: 27 Jul 2018 6:58

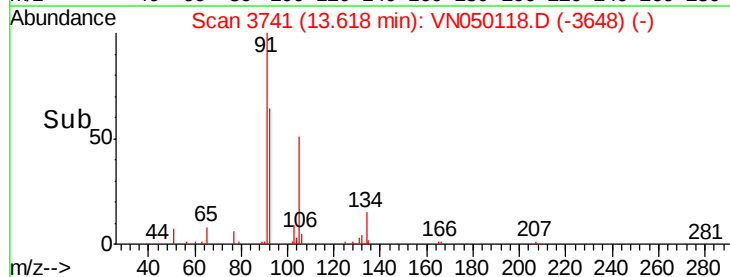
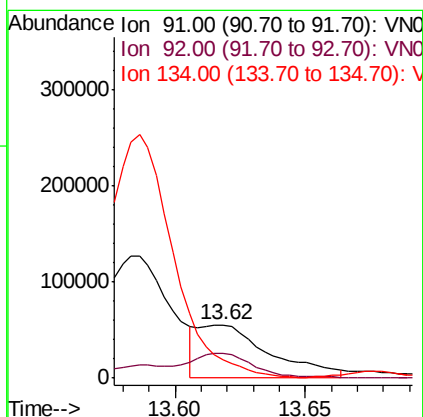
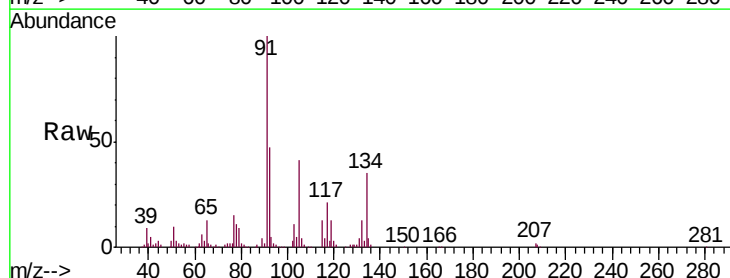
Tgt Ion: 91 Resp: 107127

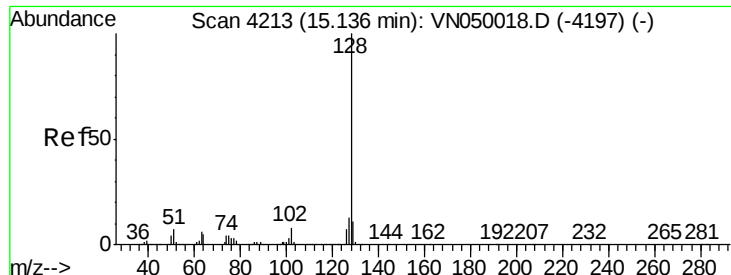
Ion Ratio Lower Upper

91 100

92 12.8 25.8 77.4#

134 409.6 12.8 38.4#





#95  
Naphthalene  
Concen: 1109.79 ug/l m  
RT: 15.12 min Scan# 4207  
Delta R.T. -0.02 min  
Lab File: VN050118.D  
Acq: 27 Jul 2018 6:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-2B

Tot Ion:128 Resp:33625820  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.4 15.6#  
129 0.0 8.8 13.2#

Manual Integrations  
APPROVED

MMDadoda  
7/27/2018 12:16:53 PM

