

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX071219\  
 Data File : VX010826.D  
 Acq On : 12 Jul 2019 11:22  
 Operator : JC/SP  
 Sample : K3749-06DL 4X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 MW-3DL

Manual Integrations  
 APPROVED

MMDadoda  
 7/15/2019 11:00:24 AM

Quant Time: Jul 13 02:03:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061919W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 03:31:56 2019  
 Response via : Initial Calibration

| Internal Standards          | R.T.   | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|--------|------|----------|--------|---------|----------|
| 1) Pentafluorobenzene       | 5.66   | 168  | 220867   | 50.00  | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.86   | 114  | 344134   | 50.00  | ug/l    | 0.00     |
| 63) Chlorobenzene-d5        | 10.11  | 117  | 316327   | 50.00  | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.08  | 152  | 149652   | 50.00  | ug/l    | 0.00     |
| System Monitoring Compounds |        |      |          |        |         |          |
| 33) 1,2-Dichloroethane-d4   | 6.06   | 65   | 111807   | 53.99  | ug/l    | 0.00     |
| Spiked Amount               | 50.000 |      | Recovery | =      | 107.98% |          |
| 35) Dibromofluoromethane    | 5.49   | 113  | 107688   | 51.15  | ug/l    | 0.00     |
| Spiked Amount               | 50.000 |      | Recovery | =      | 102.30% |          |
| 50) Toluene-d8              | 8.71   | 98   | 415059   | 51.53  | ug/l    | 0.00     |
| Spiked Amount               | 50.000 |      | Recovery | =      | 103.06% |          |
| 62) 4-Bromofluorobenzene    | 11.13  | 95   | 144273   | 49.61  | ug/l    | 0.00     |
| Spiked Amount               | 50.000 |      | Recovery | =      | 99.22%  |          |
| Target Compounds            |        |      |          |        |         |          |
|                             |        |      |          |        | Qvalue  |          |
| 16) Acetone                 | 2.44   | 43   | 9797     | 9.440  | ug/l    | 94       |
| 25) 2-Butanone              | 4.68   | 43   | 5336     | 3.505  | ug/l    | 92       |
| 31) Cyclohexane             | 5.59   | 56   | 24892    | 8.322  | ug/l #  | 88       |
| 39) Methylcyclohexane       | 7.46   | 83   | 24538    | 6.826  | ug/l #  | 89       |
| 40) Benzene                 | 6.14   | 78   | 383590   | 45.023 | ug/l    | 99       |
| 52) Toluene                 | 8.78   | 92   | 49697    | 8.858  | ug/l    | 97       |
| 67) Ethyl Benzene           | 10.25  | 91   | 155893   | 14.379 | ug/l    | 100      |
| 68) m/p-Xylenes             | 10.35  | 106  | 92662    | 22.057 | ug/l    | 98       |
| 69) o-Xylene                | 10.69  | 106  | 8804     | 2.131  | ug/l    | 99       |
| 73) Isopropylbenzene        | 11.02  | 105  | 229113   | 22.585 | ug/l    | 99       |
| 78) n-propylbenzene         | 11.36  | 91   | 193014   | 17.312 | ug/l    | 98       |
| 80) 1,3,5-Trimethylbenzene  | 11.51  | 105  | 44991    | 5.380  | ug/l    | 99       |
| 83) tert-Butylbenzene       | 11.77  | 119  | 5170     | 0.616  | ug/l    | 90       |
| 84) 1,2,4-Trimethylbenzene  | 11.80  | 105  | 13085    | 1.557  | ug/l    | 91       |
| 85) sec-Butylbenzene        | 11.94  | 105  | 14798    | 1.502  | ug/l    | 98       |
| 89) n-Butylbenzene          | 12.38  | 91   | 12165m   | 1.570  | ug/l    |          |
| 95) Naphthalene             | 13.83  | 128  | 68054    | 6.498  | ug/l    | 99       |

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

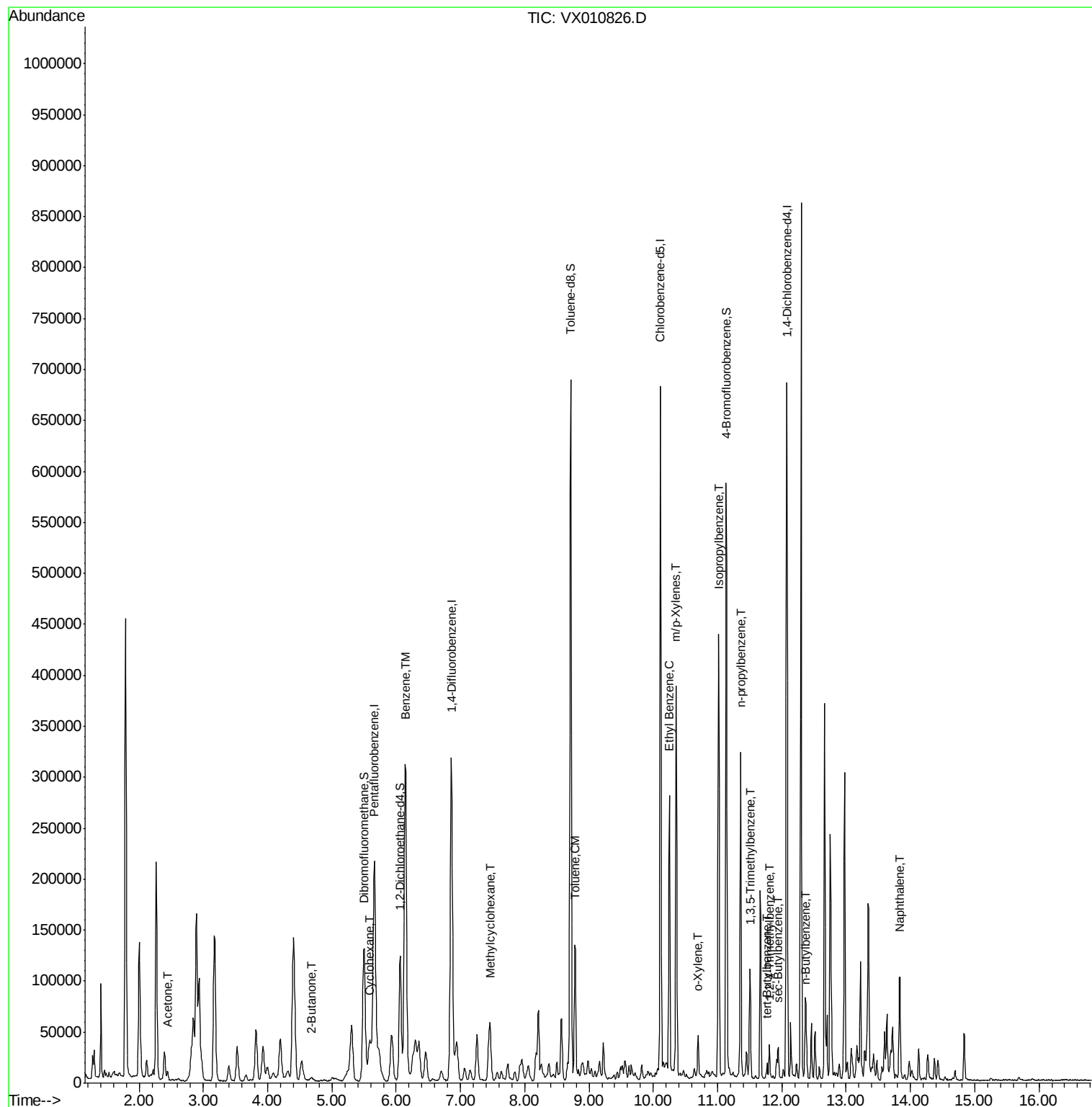
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX071219\  
Data File : VX010826.D  
Acq On : 12 Jul 2019 11:22  
Operator : JC/SP  
Sample : K3749-06DL 4X  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 5 Sample Multiplier: 1

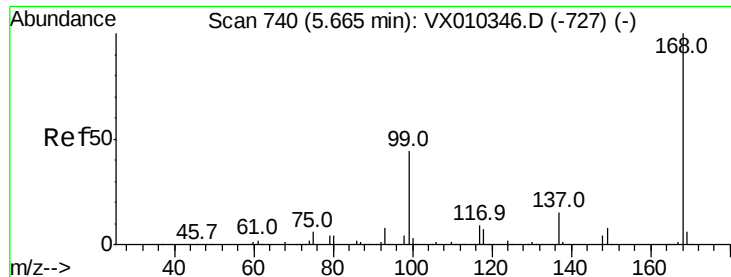
Instrument :  
MSVOA\_X  
ClientSampleId :  
MW-3DL

Manual Integrations  
APPROVED

MMDadoda  
7/15/2019 11:00:24 AM

Quant Time: Jul 13 02:03:21 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X061919W.M  
Quant Title : SW846 8260  
QLast Update : Thu Jun 20 03:31:56 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.01 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampled :

MW-3DL

Tot Ion:168 Resp: 220867

Ion Ratio Lower Upper

168 100

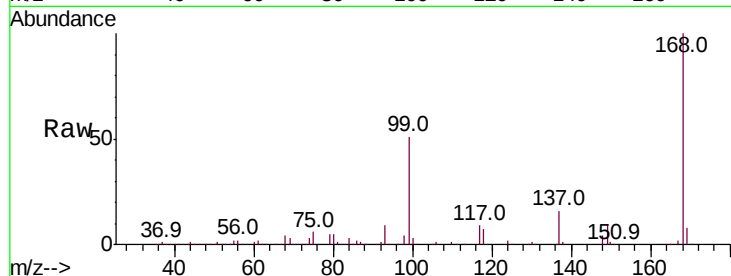
99 51.5 35.5 53.3

Manual Integrations

APPROVED

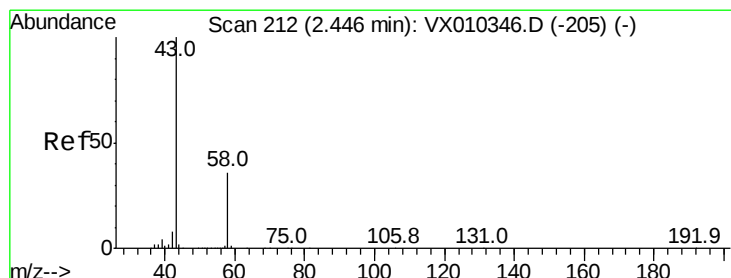
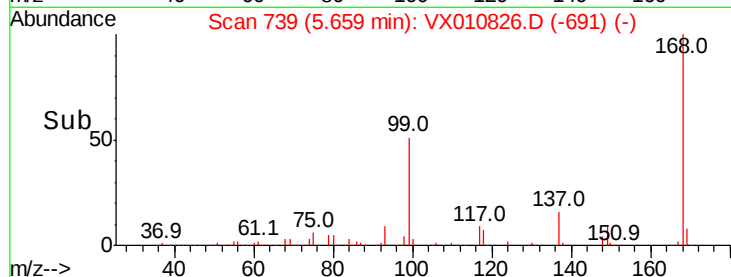
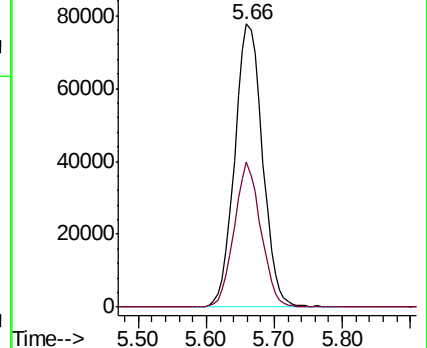
MMDadoda

7/15/2019 11:00:24 AM



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#16

Acetone

Concen: 9.440 ug/l

RT: 2.44 min Scan# 211

Delta R.T. -0.01 min

Lab File: VX010826.D

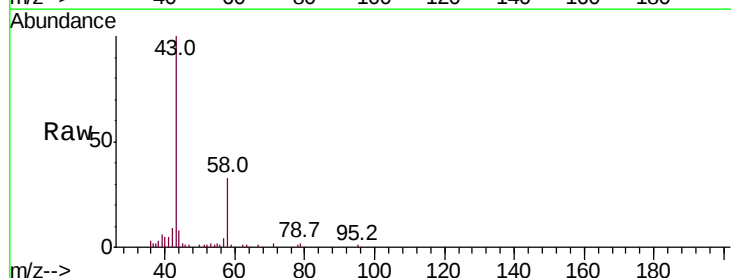
Acq: 12 Jul 2019 11:22

Tgt Ion: 43 Resp: 9797

Ion Ratio Lower Upper

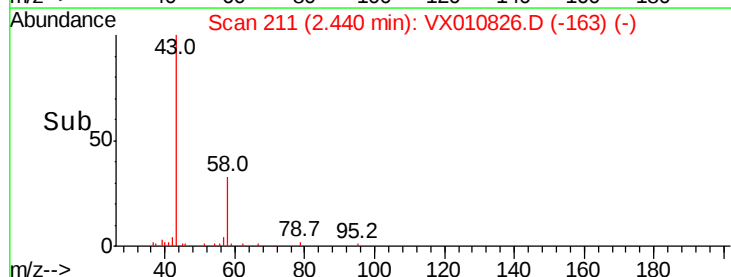
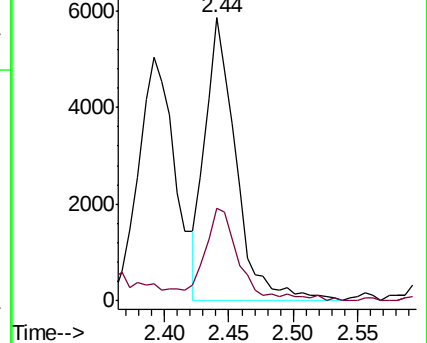
43 100

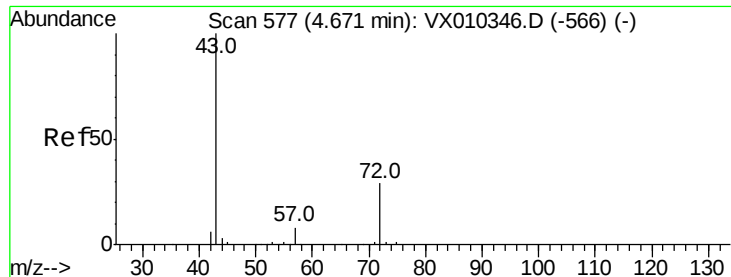
58 32.5 28.9 43.3



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#25

2-Butanone

Concen: 3.505 ug/l

RT: 4.68 min Scan# 579

Delta R.T. 0.01 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampleId :

MW-3DL

Tot Ion: 43 Resp: 5336

Ion Ratio Lower Upper

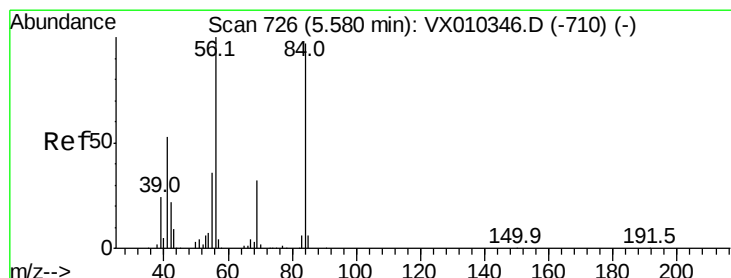
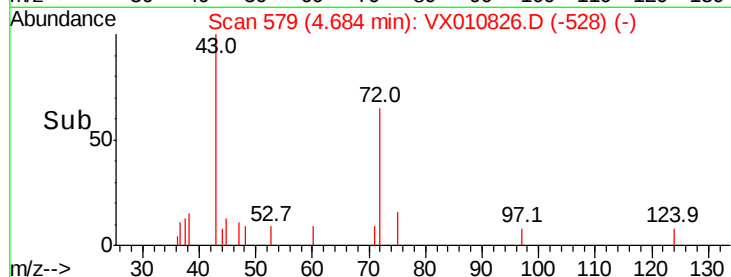
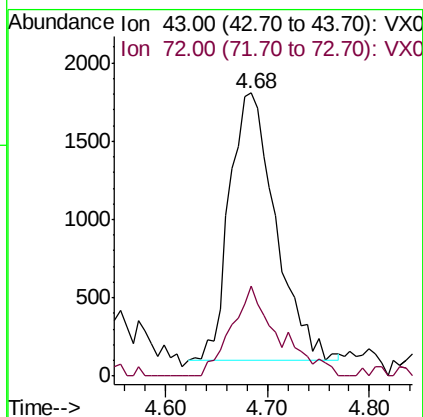
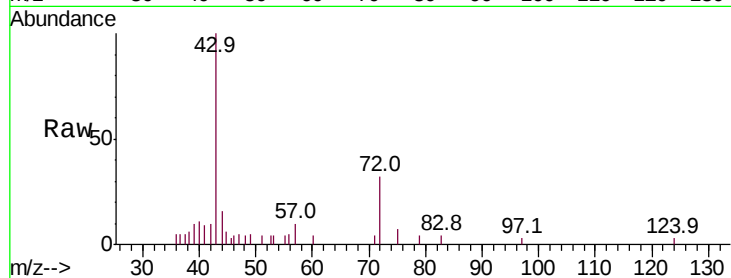
43 100

72 33.6 23.3 34.9

Manual Integrations  
APPROVED

MMDadoda

7/15/2019 11:00:24 AM



#31

Cyclohexane

Concen: 8.322 ug/l

RT: 5.59 min Scan# 727

Delta R.T. 0.01 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

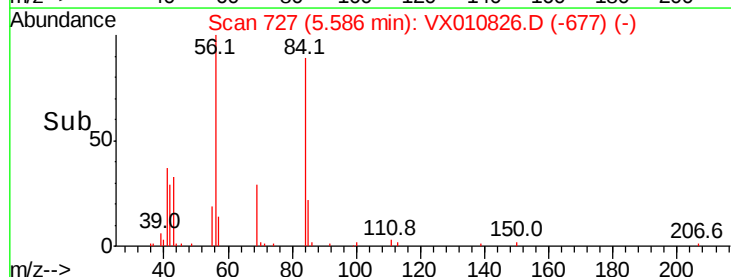
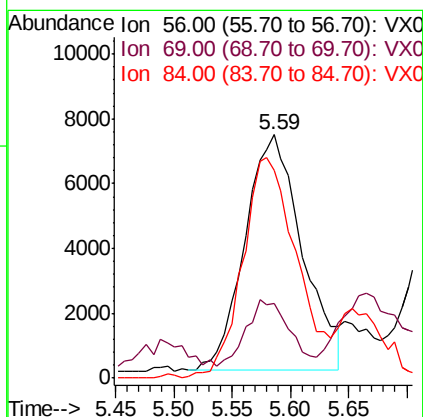
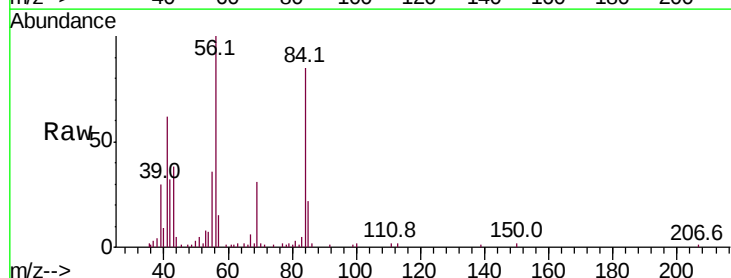
Tgt Ion: 56 Resp: 24892

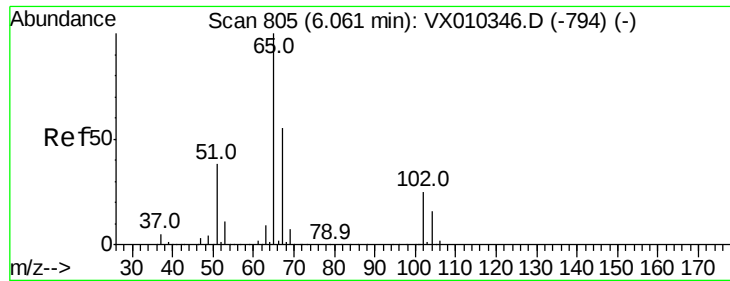
Ion Ratio Lower Upper

56 100

69 22.9 25.9 38.9#

84 87.3 78.0 117.0





#33

1,2-Dichloroethane-d4

Concen: 53.991 ug/l

RT: 6.06 min Scan# 805

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampleId :

MW-3DL

Tot Ion: 65 Resp: 111807

Ion Ratio Lower Upper

65 100

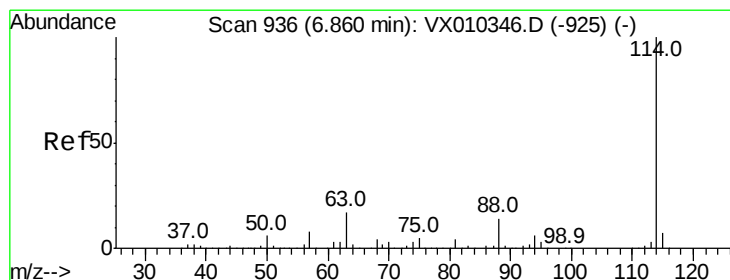
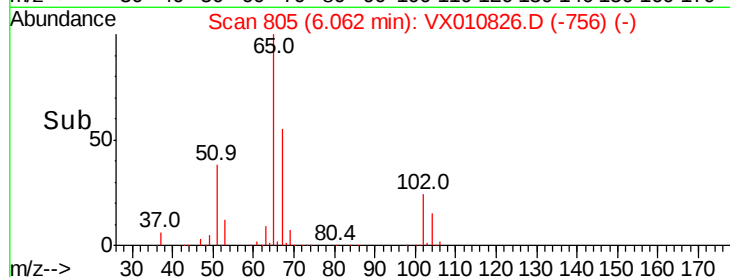
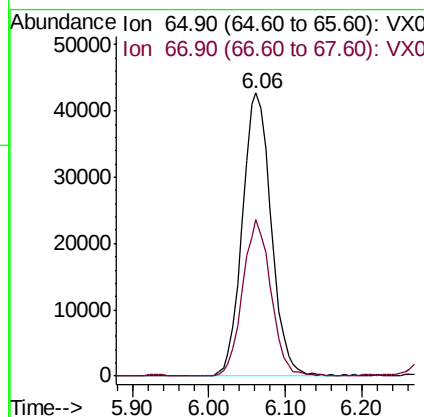
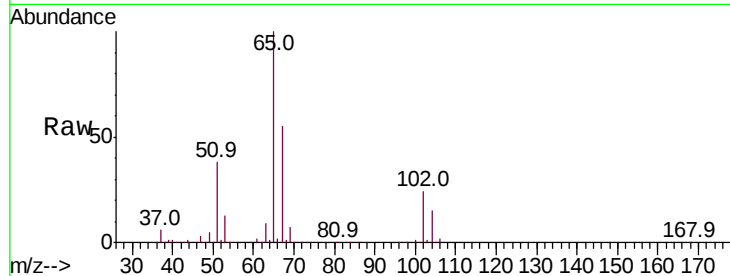
67 54.1 0.0 110.2

Manual Integrations

APPROVED

MMDadoda

7/15/2019 11:00:24 AM



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

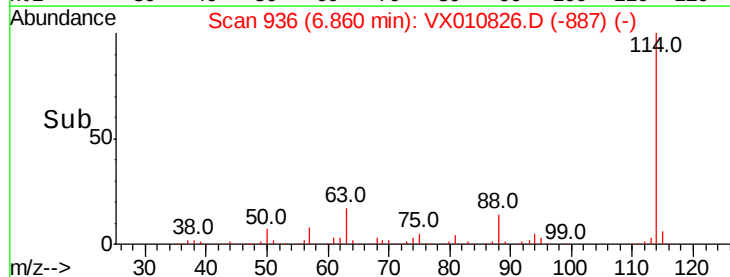
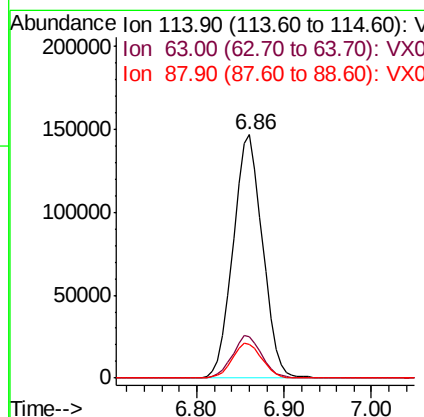
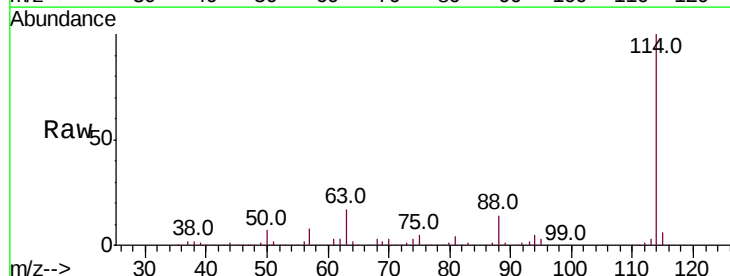
Tgt Ion: 114 Resp: 344134

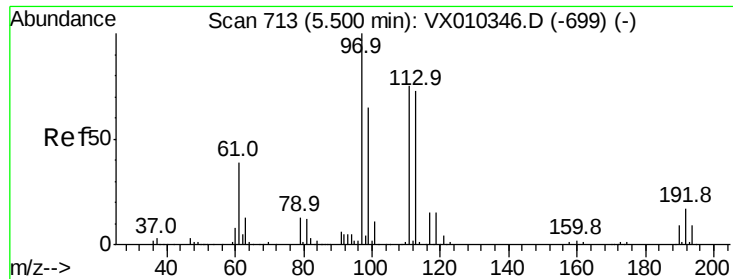
Ion Ratio Lower Upper

114 100

63 16.9 0.0 33.8

88 14.0 0.0 27.6





#35

Dibromofluoromethane

Concen: 51.145 ug/l

RT: 5.49 min Scan# 712

Delta R.T. -0.01 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

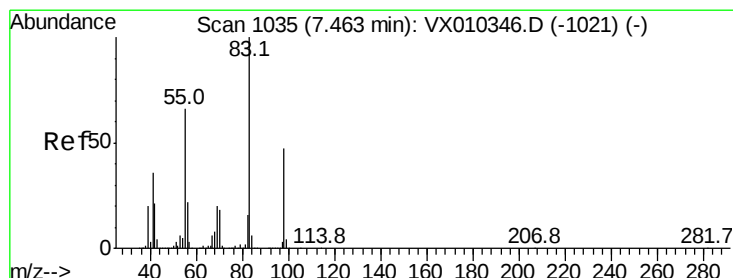
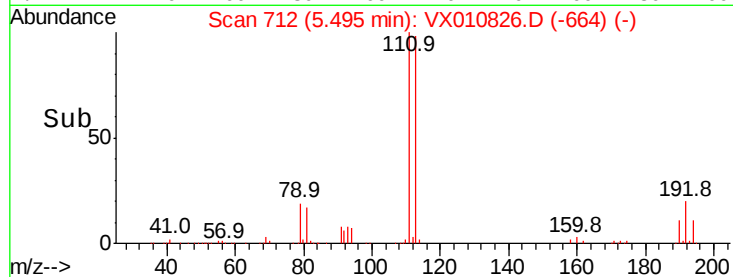
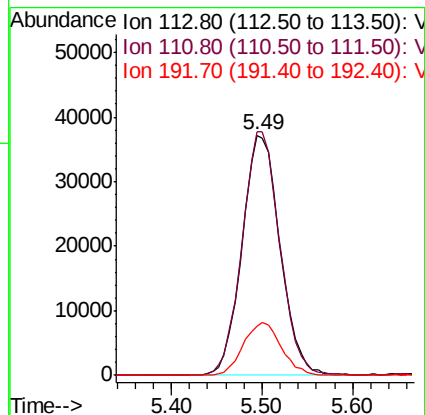
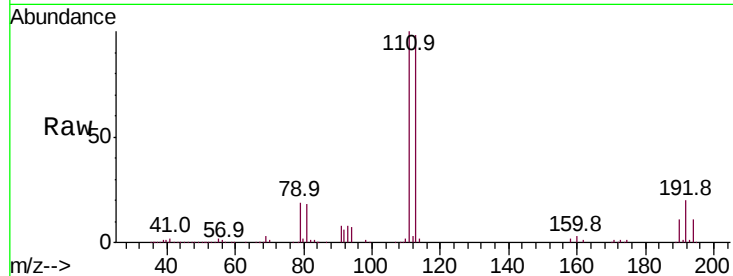
ClientSampled :

MW-3DL

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 113   | Resp: | 107688 |
| Ion Ratio | Lower | Upper |        |
| 113       | 100   |       |        |
| 111       | 100.9 | 81.2  | 121.8  |
| 192       | 21.9  | 18.6  | 27.8   |

Manual Integrations  
APPROVED

MMDadoda  
7/15/2019 11:00:24 AM



#39

Methylcyclohexane

Concen: 6.826 ug/l

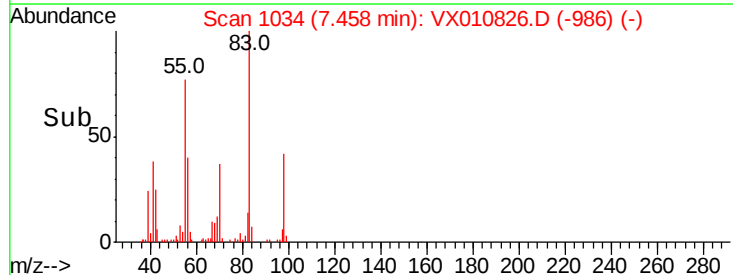
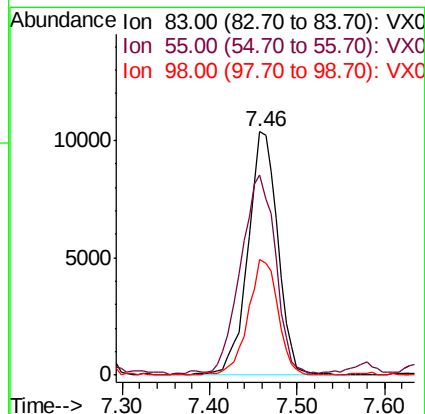
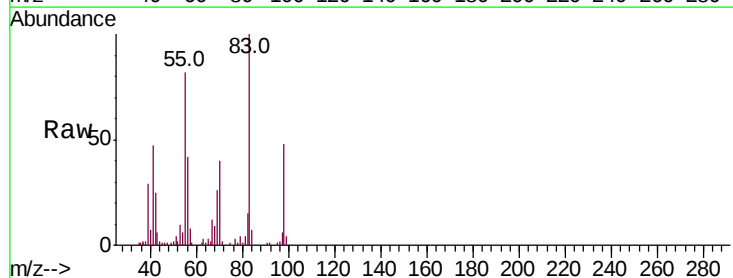
RT: 7.46 min Scan# 1034

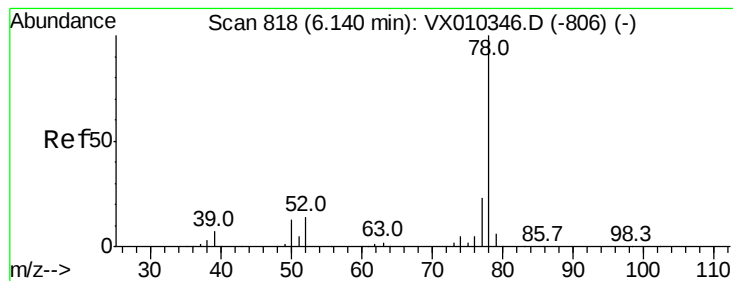
Delta R.T. -0.01 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 83    | Resp: | 24538 |
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 55        | 80.7  | 53.0  | 79.6# |
| 98        | 47.7  | 37.8  | 56.8  |





#40

Benzene

Concen: 45.023 ug/l

RT: 6.14 min Scan# 818

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampleId :

MW-3DL

Tot Ion: 78 Resp: 383590

Ion Ratio Lower Upper

78 100

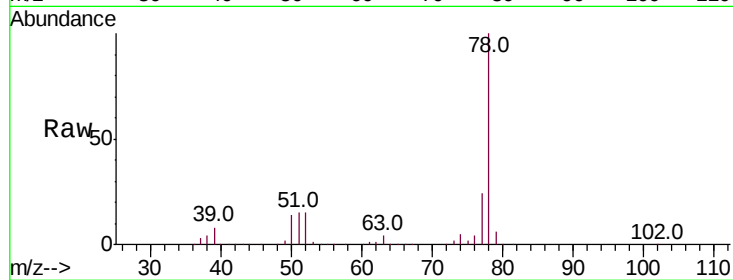
77 24.0 18.6 28.0

Manual Integrations

APPROVED

MMDadoda

7/15/2019 11:00:24 AM



Abundance Ion 78.00 (77.70 to 78.70): VX0

Ion 77.00 (76.70 to 77.70): VX0

6.14

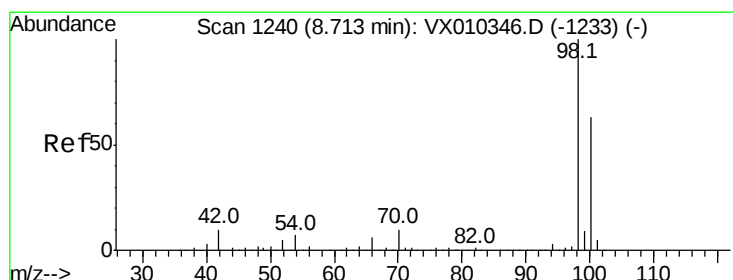
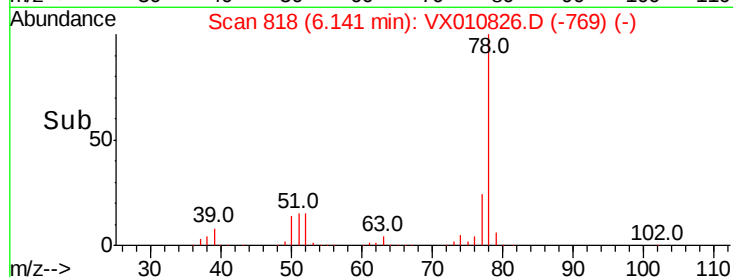
150000

100000

50000

0

Time-->



#50

Toluene-d8

Concen: 51.526 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX010826.D

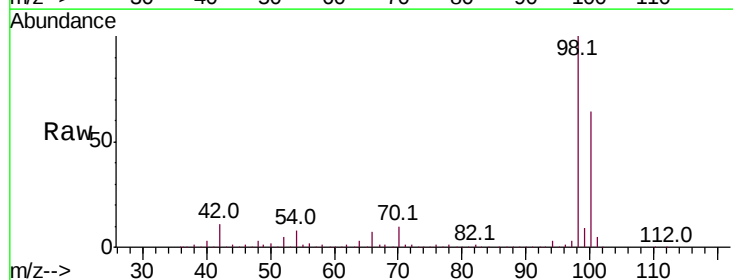
Acq: 12 Jul 2019 11:22

Tgt Ion: 98 Resp: 415059

Ion Ratio Lower Upper

98 100

100 63.9 51.6 77.4



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V

8.71

300000

250000

200000

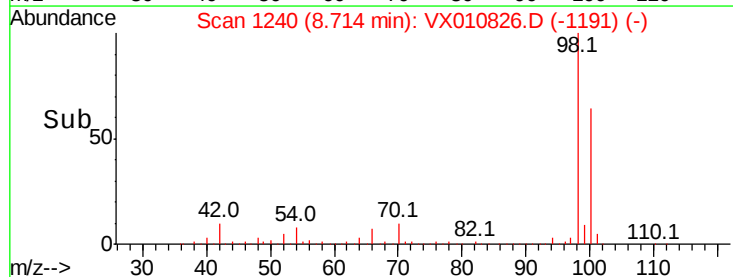
150000

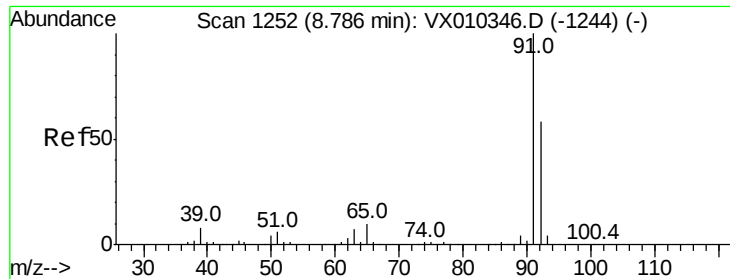
100000

50000

0

Time-->





#52

Toluene

Concen: 8.858 ug/l

RT: 8.78 min Scan# 1251

Delta R.T. -0.01 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampleId :

MW-3DL

Tot Ion: 92 Resp: 49697

Ion Ratio Lower Upper

92 100

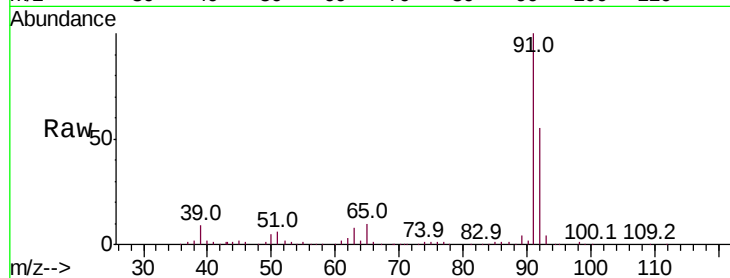
91 179.0 139.8 209.6

Manual Integrations

APPROVED

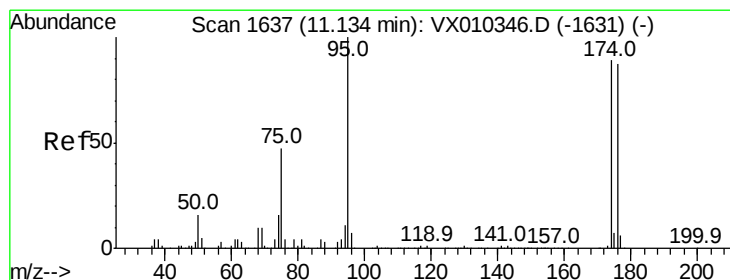
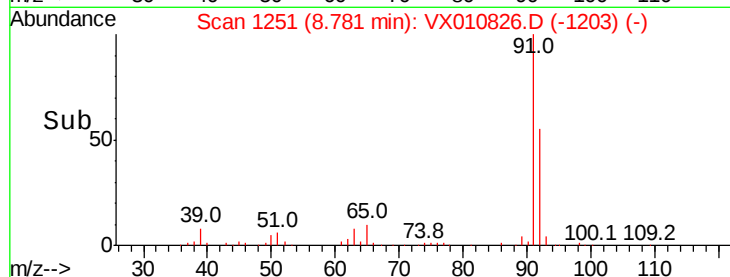
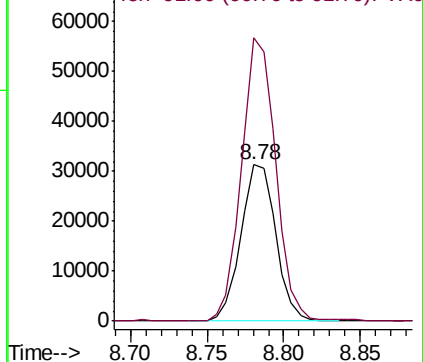
MMDadoda

7/15/2019 11:00:24 AM



Abundance Ion 92.00 (91.70 to 92.70): VX0

Ion 91.00 (90.70 to 91.70): VX0



#62

4-Bromofluorobenzene

Concen: 49.609 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

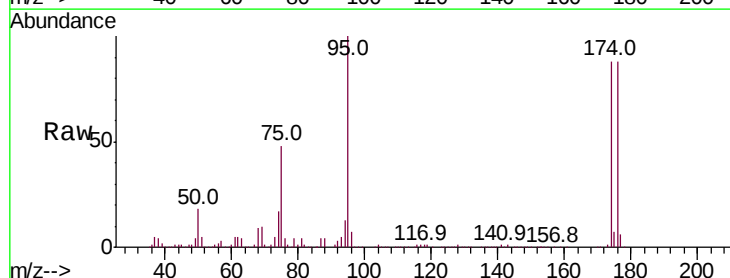
Tgt Ion: 95 Resp: 144273

Ion Ratio Lower Upper

95 100

174 91.2 0.0 187.6

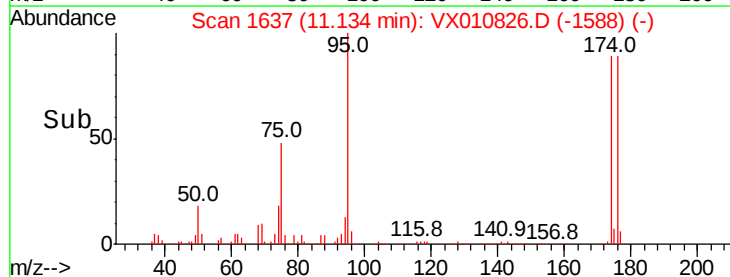
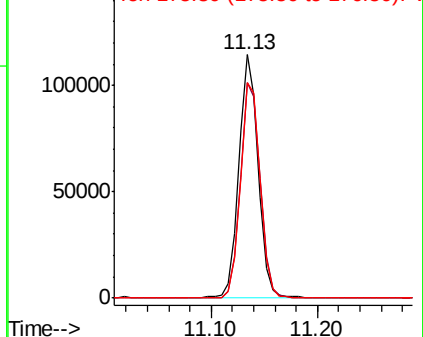
176 90.8 0.0 184.0

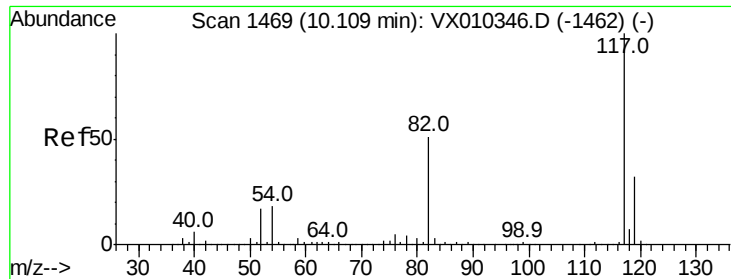


Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V





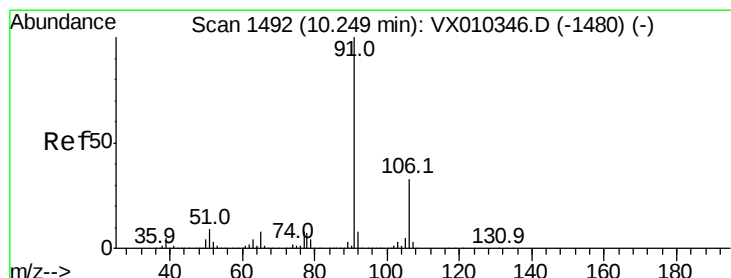
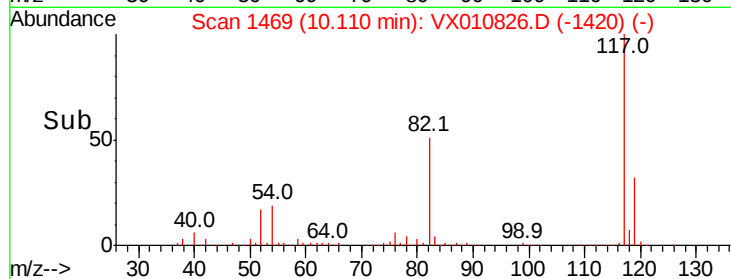
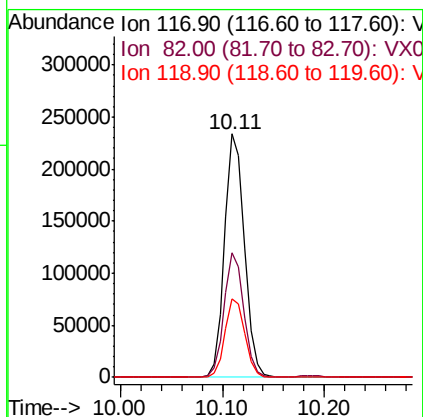
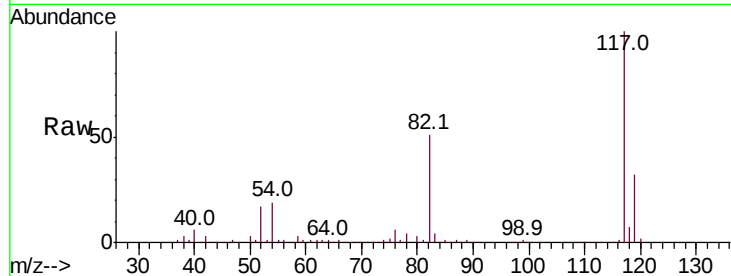
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. 0.00 min  
Lab File: VX010826.D  
Acq: 12 Jul 2019 11:22

Instrument :  
MSVOA\_X  
ClientSampleId :  
MW-3DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 51.3  | 41.2  | 61.8  |
| 119     | 32.5  | 25.5  | 38.3  |

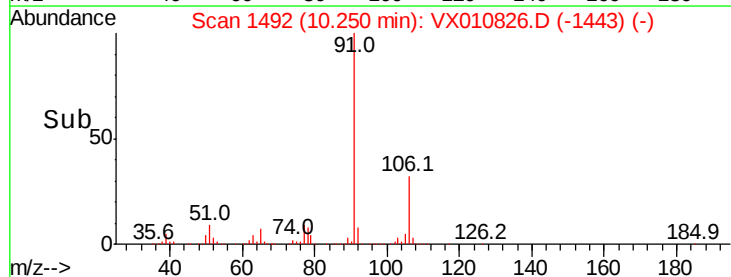
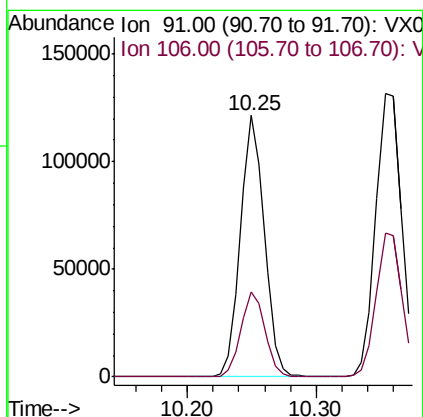
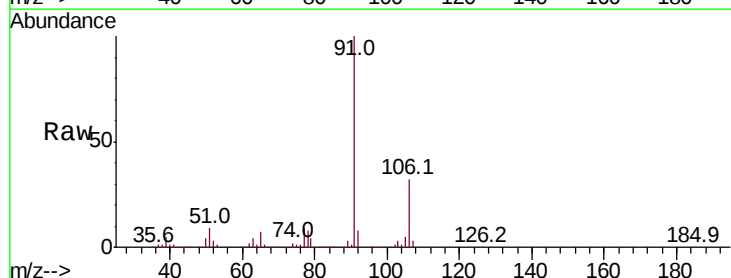
Manual Integrations  
APPROVED

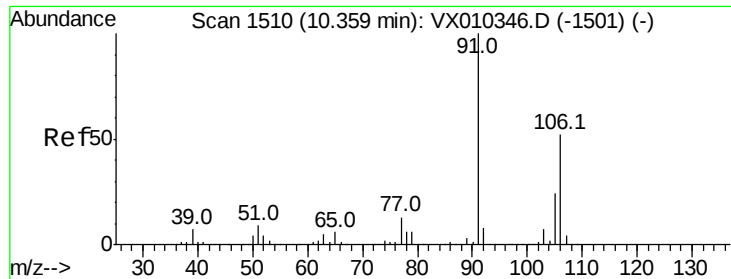
MMDadoda  
7/15/2019 11:00:24 AM



#67  
Ethyl Benzene  
Concen: 14.379 ug/l  
RT: 10.25 min Scan# 1492  
Delta R.T. 0.00 min  
Lab File: VX010826.D  
Acq: 12 Jul 2019 11:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 32.5  | 26.2  | 39.2  |





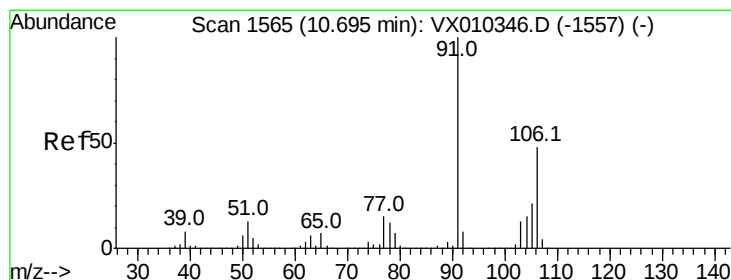
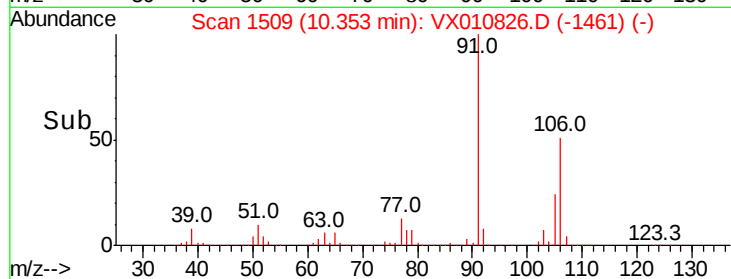
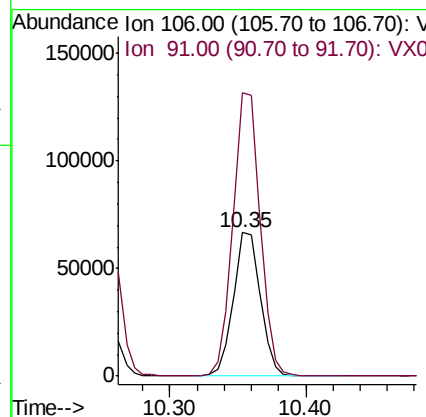
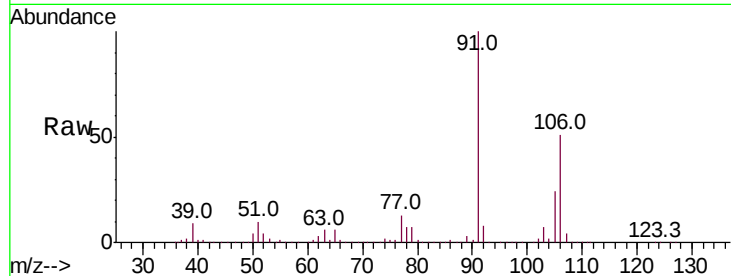
#68  
m/p-Xvlenes  
Concen: 22.057 ug/l  
RT: 10.35 min Scan# 1509  
Delta R.T. -0.01 min  
Lab File: VX010826.D  
Acq: 12 Jul 2019 11:22

Instrument :  
MSVOA\_X  
ClientSampleId :  
MW-3DL

Tot Ion:106 Resp: 92662  
Ion Ratio Lower Upper  
106 100  
91 196.9 155.3 232.9

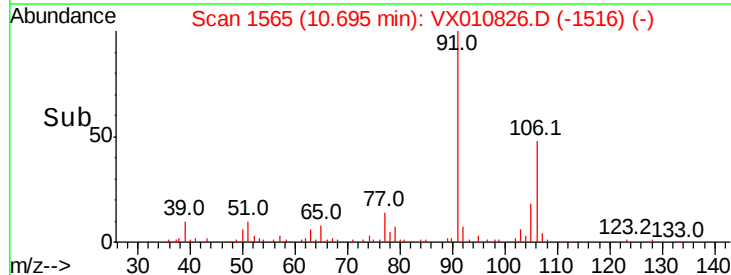
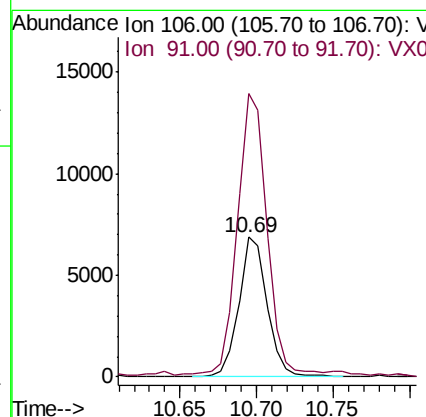
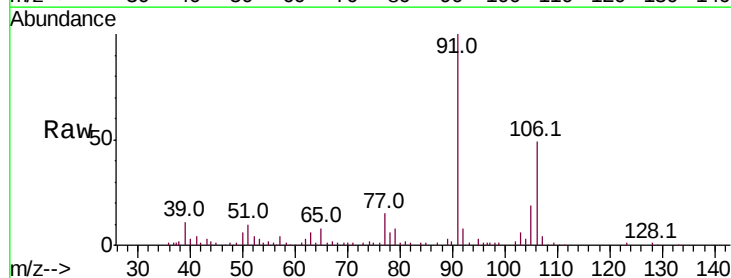
Manual Integrations  
APPROVED

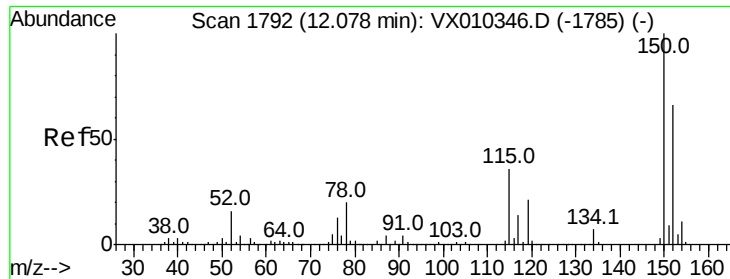
MMDadoda  
7/15/2019 11:00:24 AM



#69  
o-Xylene  
Concen: 2.131 ug/l  
RT: 10.69 min Scan# 1565  
Delta R.T. 0.00 min  
Lab File: VX010826.D  
Acq: 12 Jul 2019 11:22

Tgt Ion:106 Resp: 8804  
Ion Ratio Lower Upper  
106 100  
91 206.8 102.7 308.1





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampled :

MW-3DL

Tot Ion:152 Resp: 149652

Ion Ratio Lower Upper

152 100

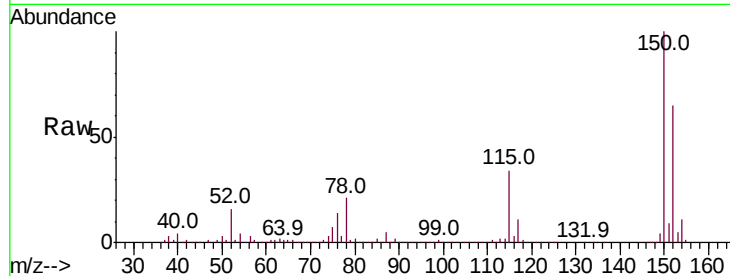
115 54.9 38.6 115.7

150 157.7 0.0 347.4

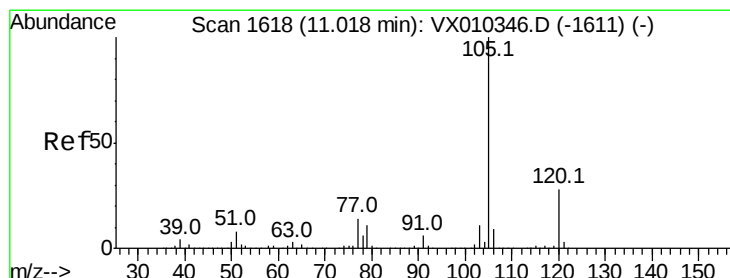
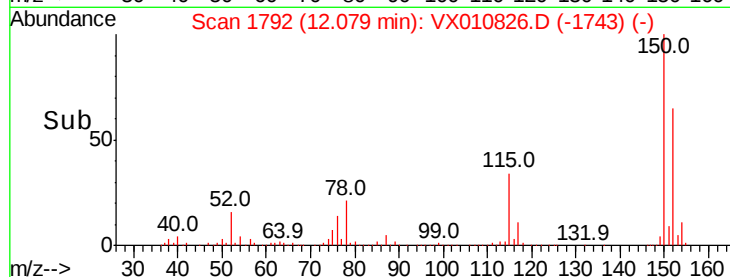
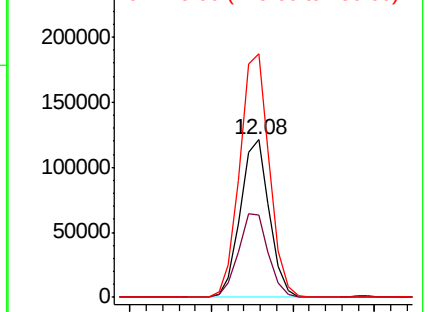
Manual Integrations  
APPROVED

MMDadoda

7/15/2019 11:00:24 AM



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



#73

Isopropylbenzene

Concen: 22.585 ug/l

RT: 11.02 min Scan# 1618

Delta R.T. 0.00 min

Lab File: VX010826.D

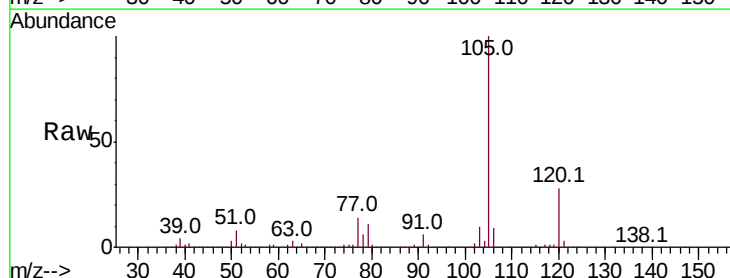
Acq: 12 Jul 2019 11:22

Tgt Ion:105 Resp: 229113

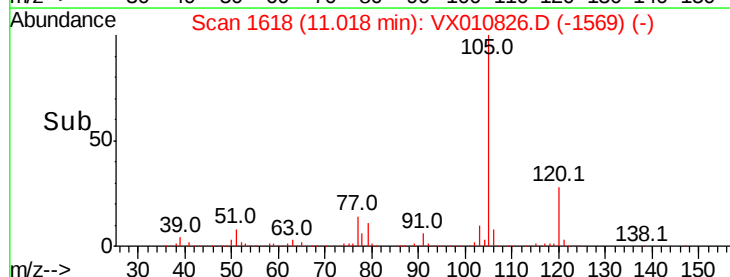
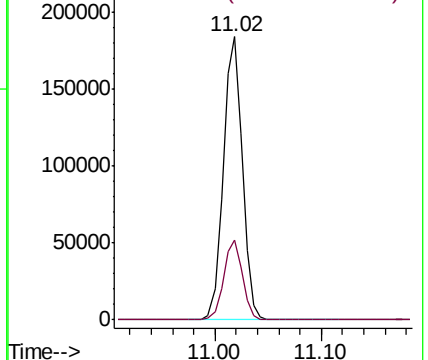
Ion Ratio Lower Upper

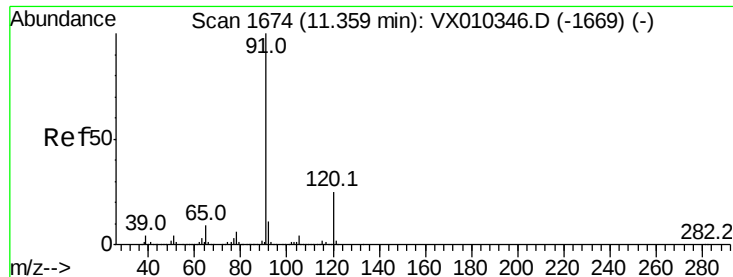
105 100

120 27.7 14.1 42.4



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





#78

n-propylbenzene

Concen: 17.312 ug/l

RT: 11.36 min Scan# 1674

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampleId :

MW-3DL

Tot Ion: 91 Resp: 193014

Ion Ratio Lower Upper

91 100

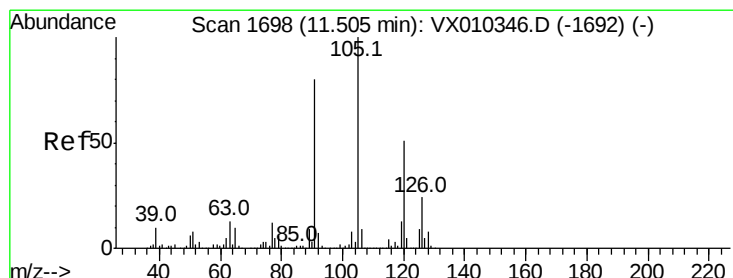
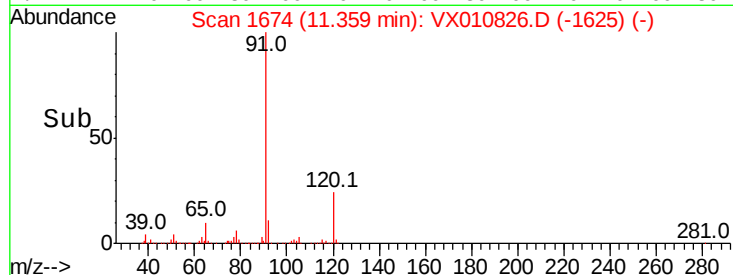
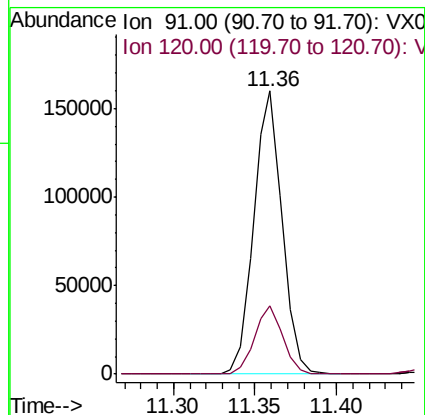
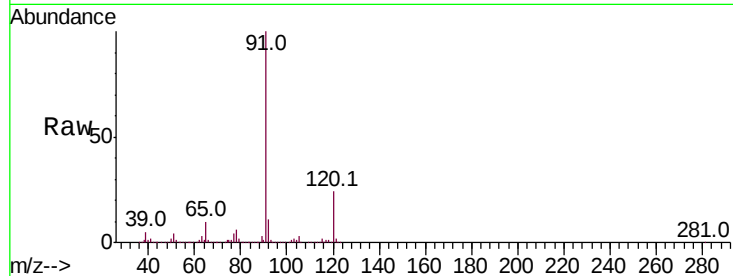
120 23.9 12.4 37.4

Manual Integrations

APPROVED

MMDadoda

7/15/2019 11:00:24 AM



#80

1,3,5-Trimethylbenzene

Concen: 5.380 ug/l

RT: 11.51 min Scan# 1698

Delta R.T. 0.00 min

Lab File: VX010826.D

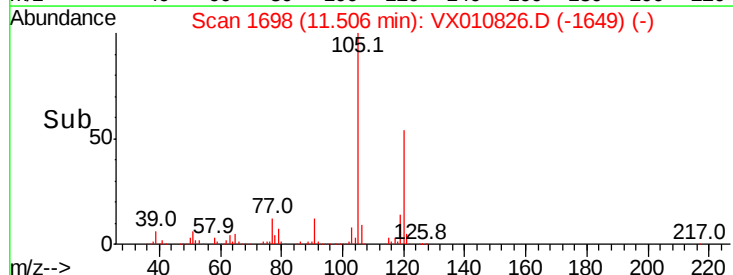
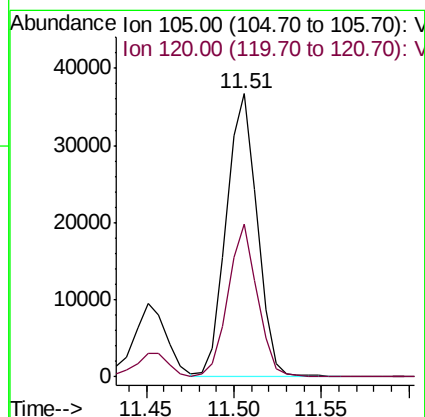
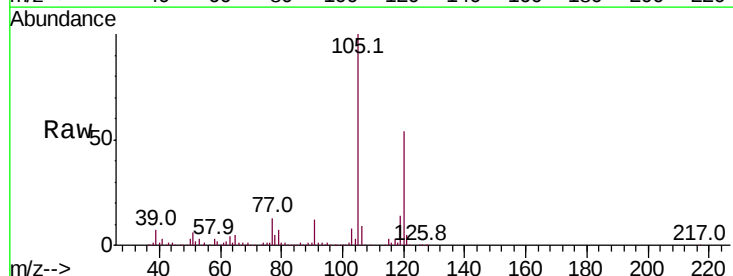
Acq: 12 Jul 2019 11:22

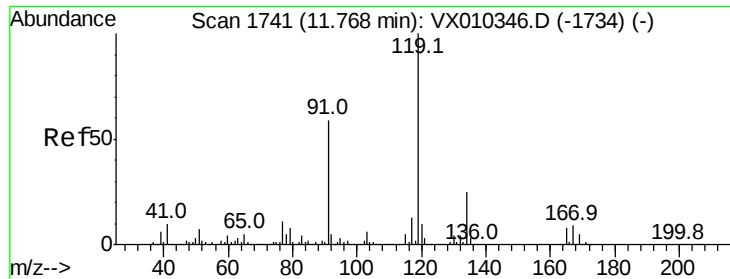
Tgt Ion: 105 Resp: 44991

Ion Ratio Lower Upper

105 100

120 51.4 25.2 75.6





#83

tert-Butylbenzene

Concen: 0.616 ug/l

RT: 11.77 min Scan# 1741

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

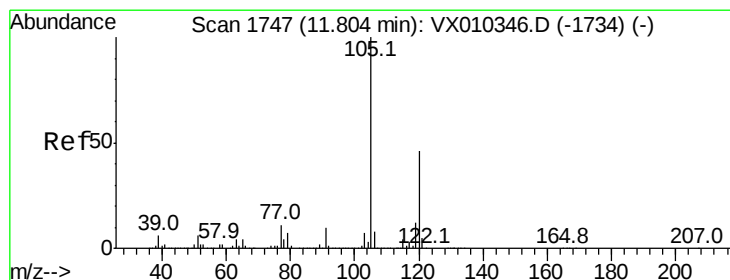
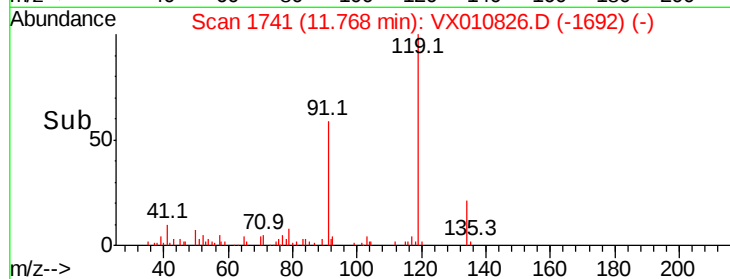
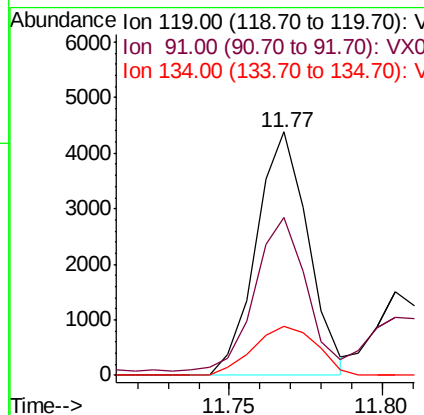
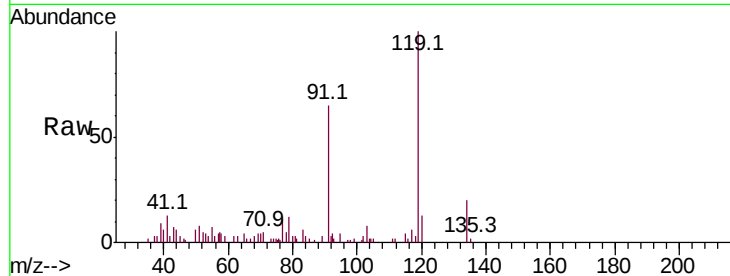
ClientSampled :

MW-3DL

|           |       |       |      |
|-----------|-------|-------|------|
| Tot Ion:  | 119   | Resp: | 5170 |
| Ion Ratio | Lower | Upper |      |
| 119       | 100   |       |      |
| 91        | 64.5  | 27.6  | 82.7 |
| 134       | 24.8  | 11.8  | 35.4 |

Manual Integrations  
APPROVED

MMDadoda  
7/15/2019 11:00:24 AM



#84

1,2,4-Trimethylbenzene

Concen: 1.557 ug/l

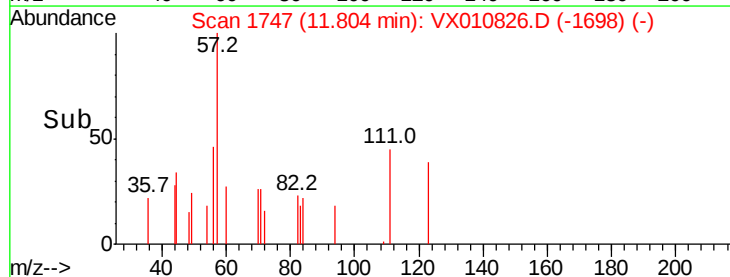
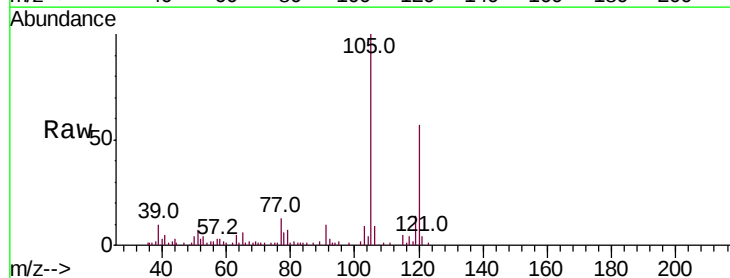
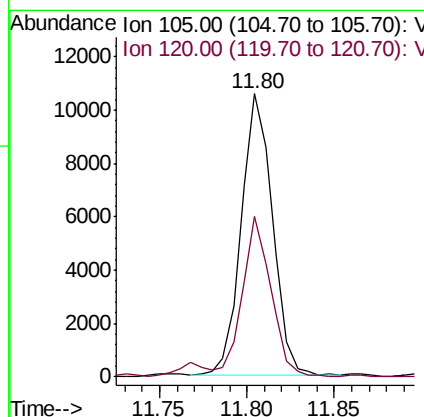
RT: 11.80 min Scan# 1747

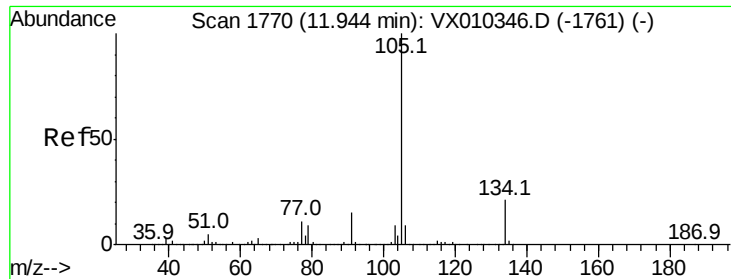
Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 105   | Resp: | 13085 |
| Ion Ratio | Lower | Upper |       |
| 105       | 100   |       |       |
| 120       | 52.3  | 23.1  | 69.2  |





#85

sec-Butylbenzene

Concen: 1.502 ug/l

RT: 11.94 min Scan# 1770

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

Instrument :

MSVOA\_X

ClientSampled :

MW-3DL

Tot Ion:105 Resp: 14798

Ion Ratio Lower Upper

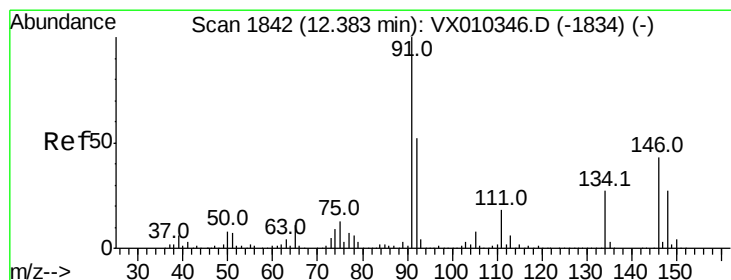
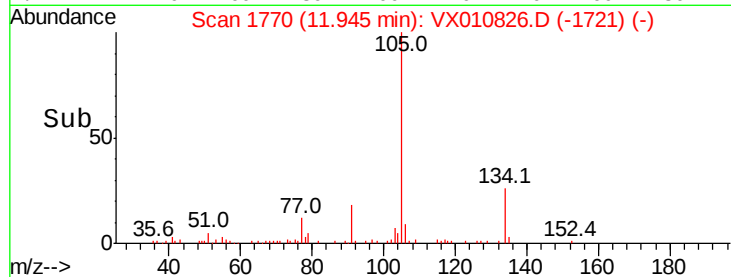
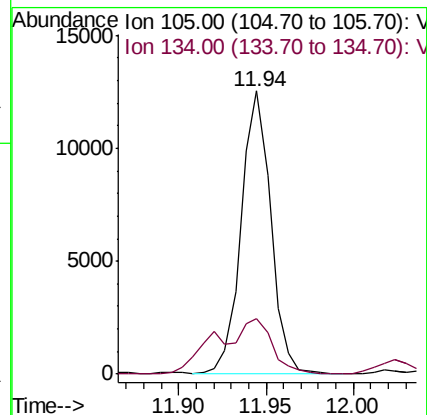
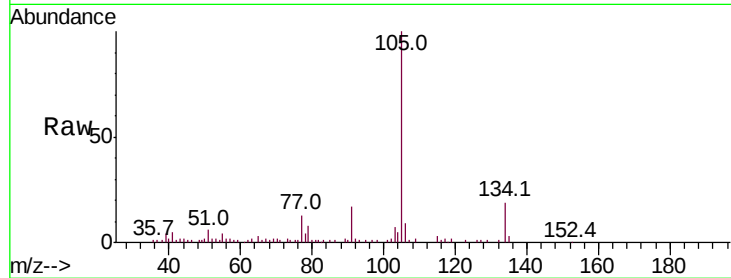
105 100

134 22.4 10.7 31.9

Manual Integrations  
APPROVED

MMDadoda

7/15/2019 11:00:24 AM



#89

n-Butylbenzene

Concen: 1.570 ug/l m

RT: 12.38 min Scan# 1842

Delta R.T. 0.00 min

Lab File: VX010826.D

Acq: 12 Jul 2019 11:22

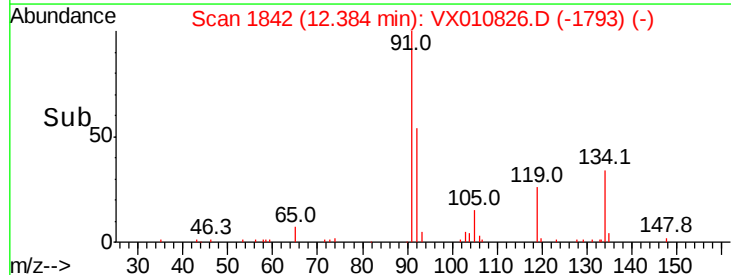
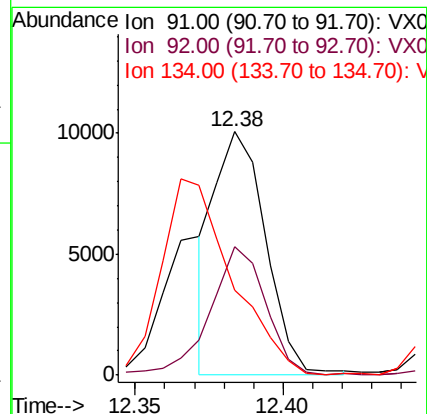
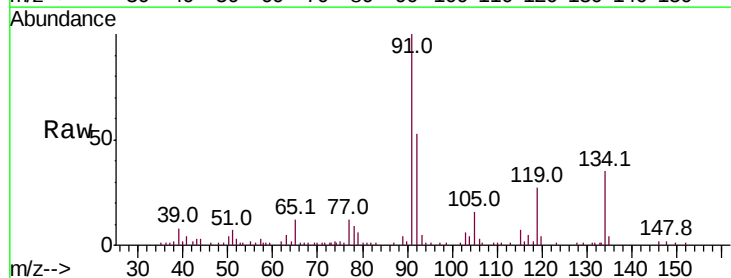
Tgt Ion: 91 Resp: 12165

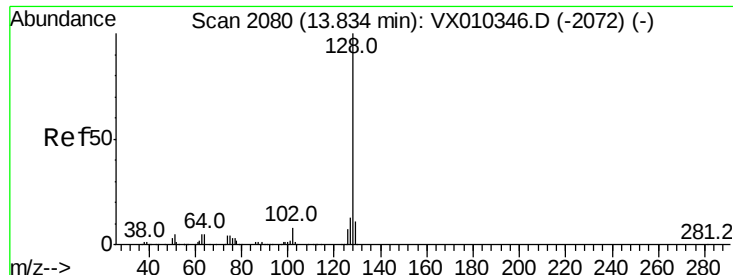
Ion Ratio Lower Upper

91 100

92 58.0 26.2 78.5

134 111.1 14.1 42.4#





#95  
Naphthalene  
Concen: 6.498 ug/l  
RT: 13.83 min Scan# 2080  
Delta R.T. 0.00 min  
Lab File: VX010826.D  
Acq: 12 Jul 2019 11:22

Instrument :  
MSVOA\_X  
ClientSampleId :  
MW-3DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 13.2  | 10.2  | 15.4  |
| 129     | 11.6  | 8.9   | 13.3  |

Manual Integrations  
APPROVED

MMDadoda  
7/15/2019 11:00:24 AM

