

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW090519\  
 Data File : VW012652.D  
 Acq On : 05 Sep 2019 20:11  
 Operator : SY/VA  
 Sample : K4579-03  
 Misc : 5.55G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 PAR-12-A3-(0)

Quant Time: Sep 06 07:55:11 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W082319S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Aug 26 07:18:31 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 243197   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 398555   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 318584   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.55 | 152  | 116546   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.31   | 65  | 154838   | 53.56 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 107.12% |      |
| 35) Dibromofluoromethane    | 7.88   | 113 | 121857   | 51.22 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 102.44% |      |
| 50) Toluene-d8              | 10.32  | 98  | 476798   | 49.43 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 98.86%  |      |
| 62) 4-Bromofluorobenzene    | 12.62  | 95  | 133588   | 39.29 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 78.58%  |      |

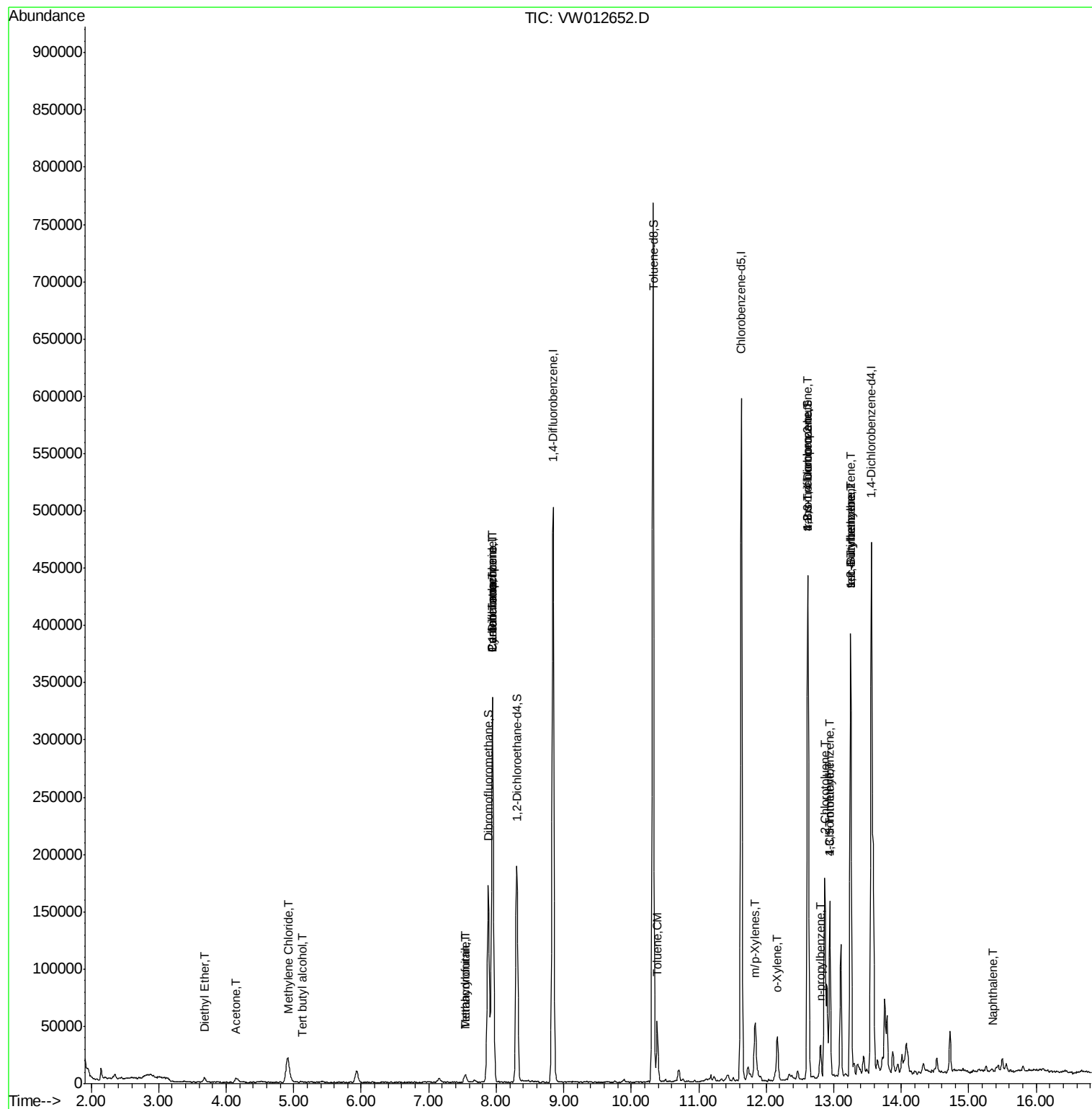
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 8) Diethyl Ether               | 3.68  | 74   | 2142     | 1.583   | ug/l   | 81     |
| 11) Tert butyl alcohol         | 5.12  | 59   | 186      | 1.069   | ug/l # | 71     |
| 16) Acetone                    | 4.15  | 43   | 8416     | 11.388  | ug/l # | 79     |
| 20) Methylene Chloride         | 4.92  | 84   | 16944    | 6.065   | ug/l   | 88     |
| 29) Tetrahydrofuran            | 7.54  | 42   | 6648     | 11.034  | ug/l   | 99     |
| 31) Cyclohexane                | 7.94  | 56   | 6105     | 1.172   | ug/l # | 24     |
| 36) 1,1-Dichloropropene        | 7.94  | 75   | 20188    | 4.902   | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 24149    | 6.774   | ug/l # | 16     |
| 41) Methacrylonitrile          | 7.54  | 41   | 3999     | 3.015   | ug/l # | 55     |
| 52) Toluene                    | 10.39 | 92   | 21506    | 3.183   | ug/l   | 100    |
| 68) m/p-Xylenes                | 11.84 | 106  | 12761    | 2.932   | ug/l   | 93     |
| 69) o-Xylene                   | 12.16 | 106  | 8848     | 2.196   | ug/l   | 93     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 73210    | 64.498  | ug/l # | 100    |
| 78) n-propylbenzene            | 12.80 | 91   | 20696    | 1.941   | ug/l   | 97     |
| 79) 2-Chlorotoluene            | 12.87 | 91   | 12863    | 2.125   | ug/l # | 43     |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 76848    | 10.531  | ug/l   | 96     |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 73210    | 141.414 | ug/l # | 6      |
| 82) 4-Chlorotoluene            | 12.94 | 91   | 8331     | 1.315   | ug/l # | 44     |
| 83) tert-Butylbenzene          | 13.25 | 119  | 23574    | 3.814   | ug/l # | 64     |
| 84) 1,2,4-Trimethylbenzene     | 13.25 | 105  | 198422   | 27.069  | ug/l   | 99     |
| 85) sec-Butylbenzene           | 13.25 | 105  | 198422   | 22.406  | ug/l # | 57     |
| 95) Naphthalene                | 15.36 | 128  | 924      | 4.513   | ug/l # | 77     |

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

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Quant Title : SW846 8260  
QLast Update : Mon Aug 26 07:18:31 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.00 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

Instrument :

MSVOA\_W

ClientSampleId :

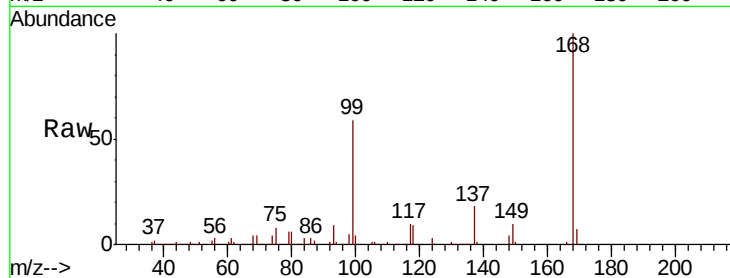
PAR-12-A3-(0)

Tgt Ion:168 Resp: 243197

Ion Ratio Lower Upper

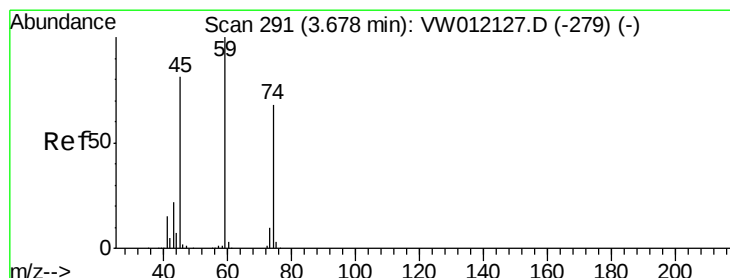
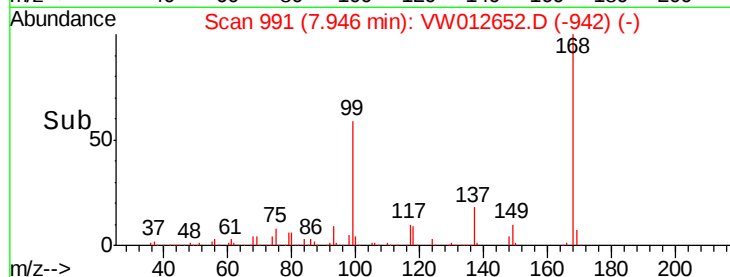
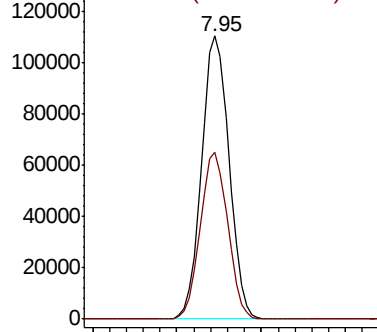
168 100

99 59.1 49.2 73.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#8

Diethyl Ether

Concen: 1.583 ug/l

RT: 3.68 min Scan# 291

Delta R.T. -0.00 min

Lab File: VW012652.D

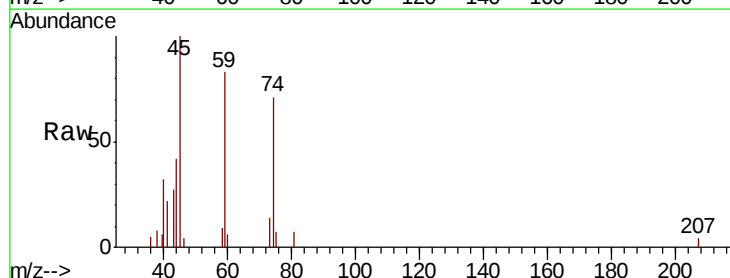
Acq: 05 Sep 2019 20:11

Tgt Ion: 74 Resp: 2142

Ion Ratio Lower Upper

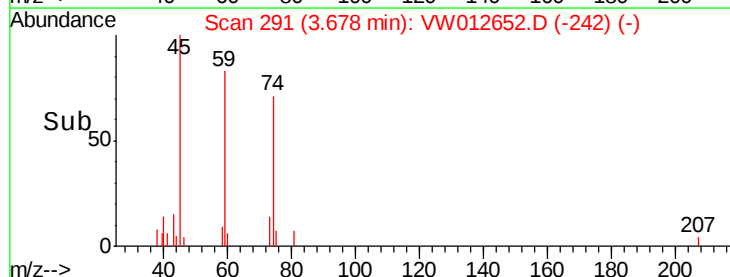
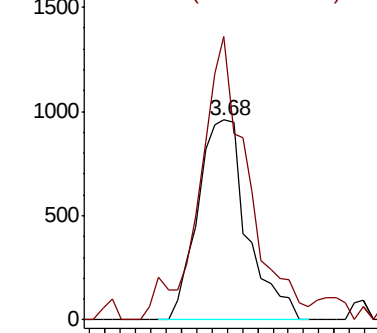
74 100

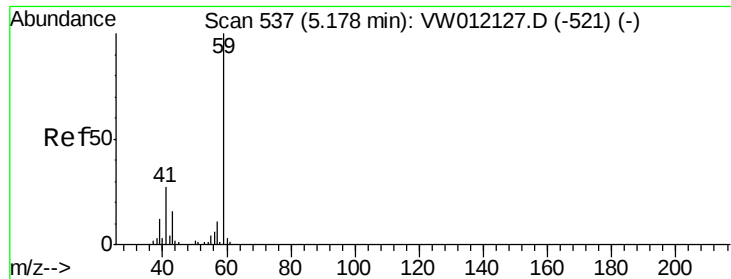
45 139.1 59.2 177.6



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW

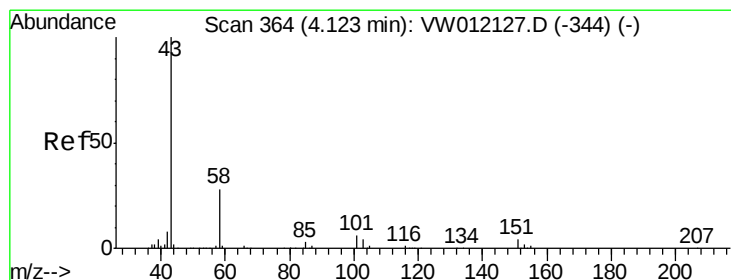
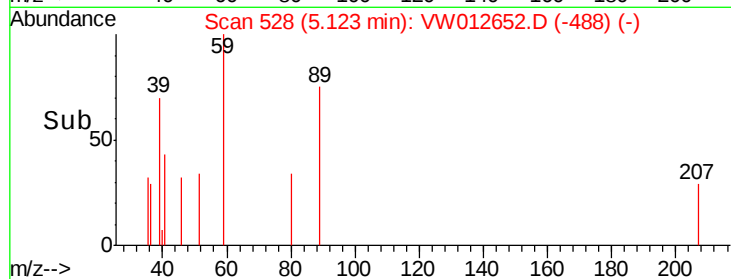
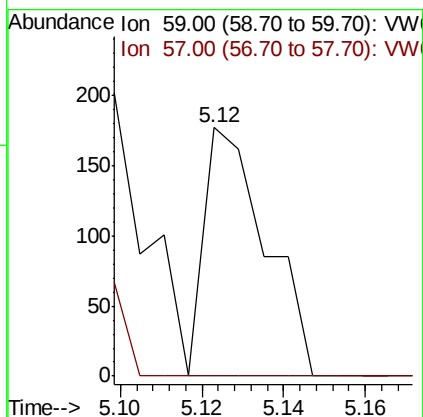
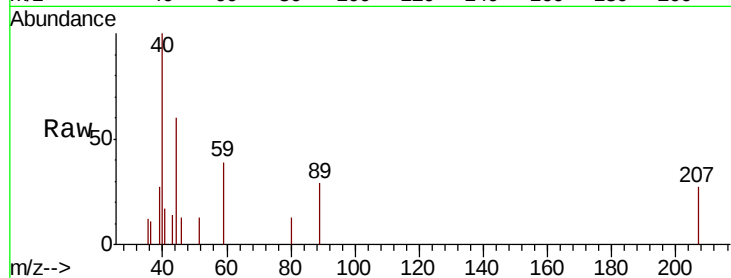




#11  
Tert butyl alcohol  
Concen: 1.069 ug/l  
RT: 5.12 min Scan# 528  
Delta R.T. -0.05 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

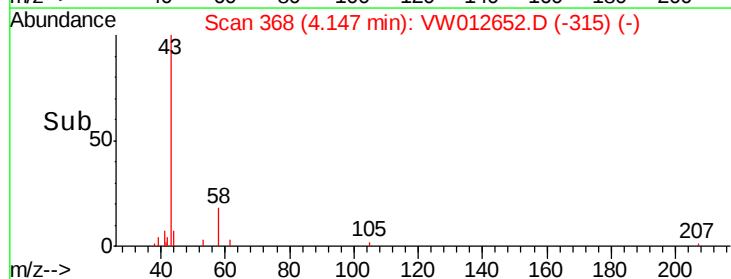
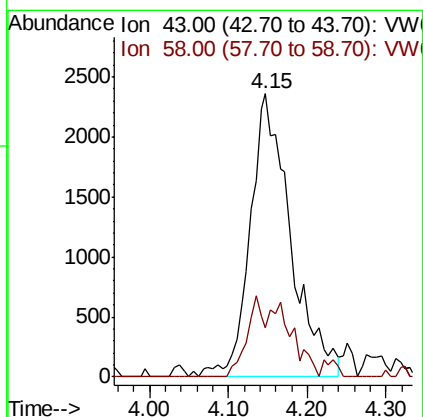
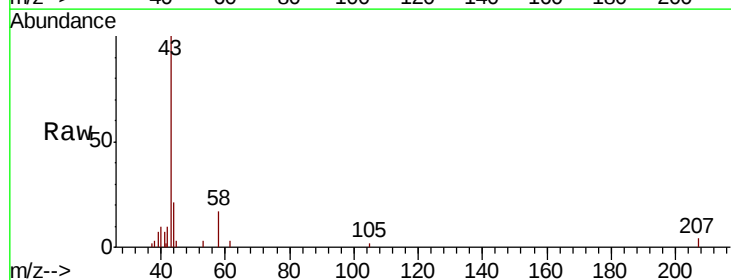
Instrument :  
MSVOA\_W  
ClientSampleId :  
PAR-12-A3-(0)

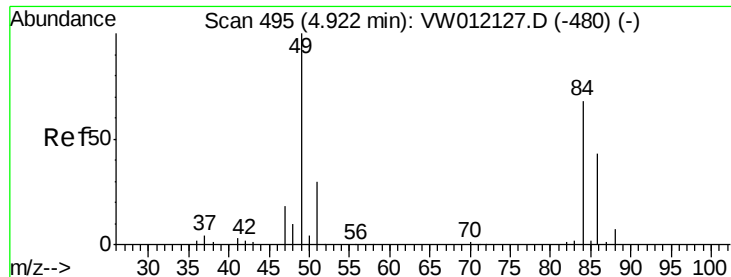
Tgt Ion: 59 Resp: 186  
Ion Ratio Lower Upper  
59 100  
57 0.0 9.0 13.4#



#16  
Acetone  
Concen: 11.388 ug/l  
RT: 4.15 min Scan# 368  
Delta R.T. 0.02 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

Tgt Ion: 43 Resp: 8416  
Ion Ratio Lower Upper  
43 100  
58 17.2 22.4 33.6#

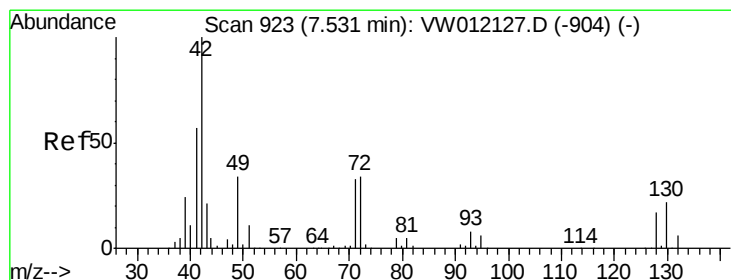
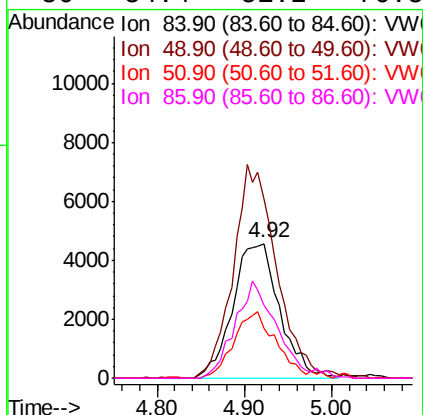
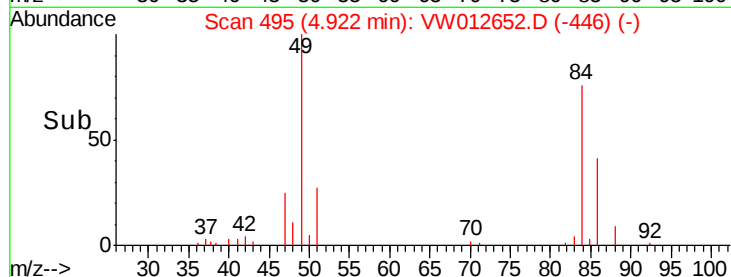
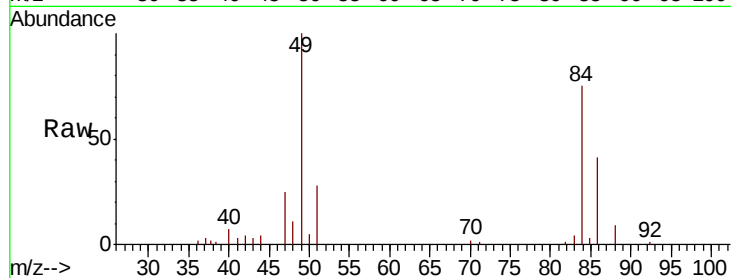




#20  
Methylene Chloride  
Concen: 6.065 ug/l  
RT: 4.92 min Scan# 495  
Delta R.T. -0.00 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

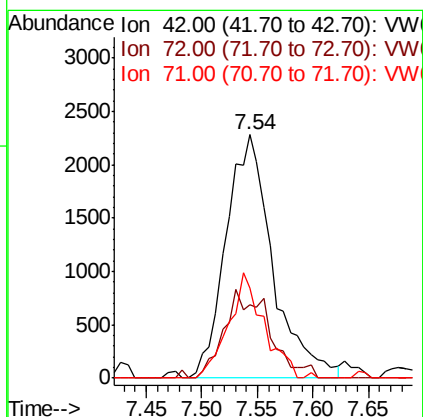
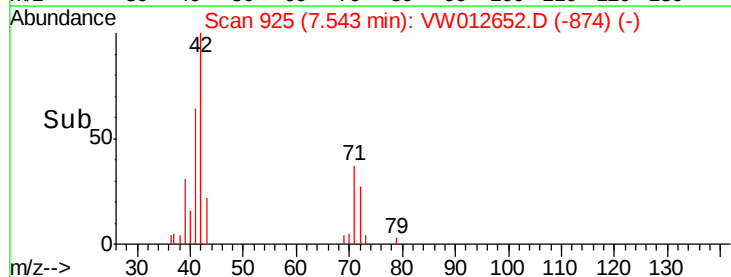
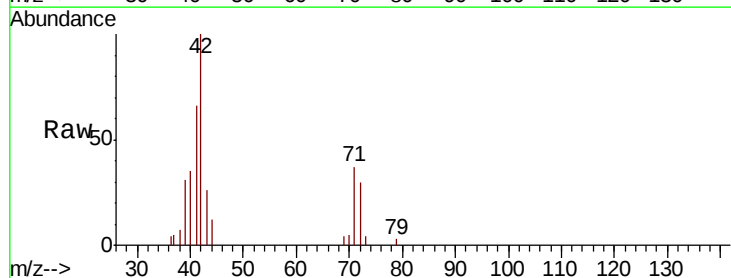
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PAR-12-A3-(0)

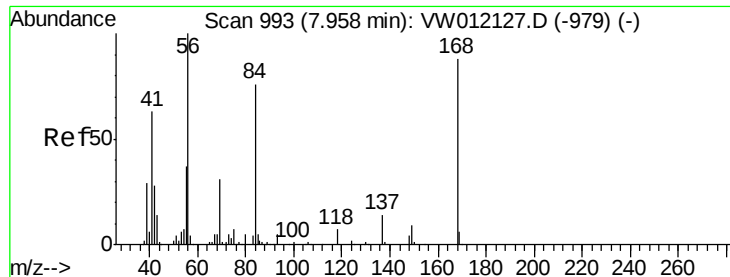
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 16944 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 133.3 | 117.8 | 176.8 |
| 51       | 37.0  | 35.6  | 53.4  |
| 86       | 54.4  | 51.2  | 76.8  |



#29  
Tetrahydrofuran  
Concen: 11.034 ug/l  
RT: 7.54 min Scan# 925  
Delta R.T. 0.01 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 6648  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 34.9  | 27.3  | 40.9  |
| 71       | 32.5  | 25.5  | 38.3  |

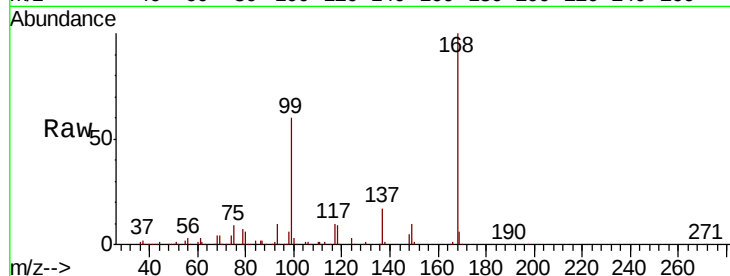




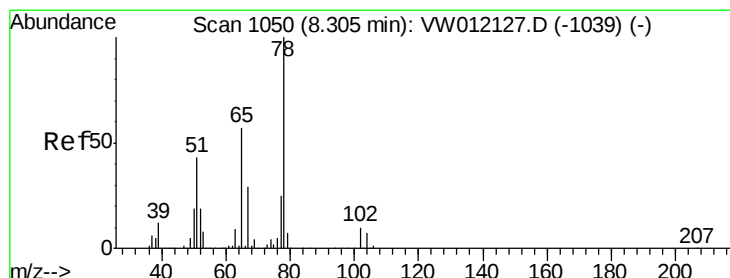
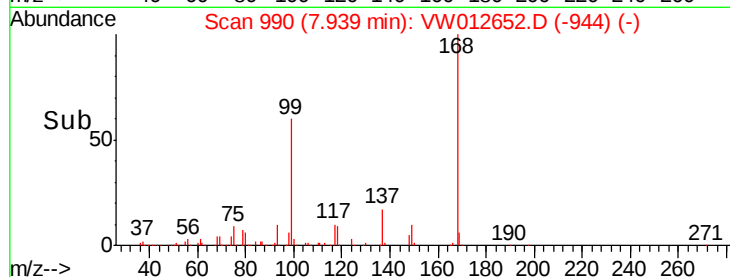
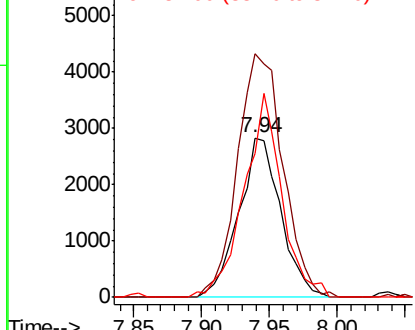
#31  
Cyclohexane  
Concen: 1.172 ug/l  
RT: 7.94 min Scan# 990  
Delta R.T. -0.02 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

Instrument :  
MSVOA\_W  
ClientSampleId :  
PAR-12-A3-(0)

Tgt Ion: 56 Resp: 6105  
Ion Ratio Lower Upper  
56 100  
69 152.7 24.9 37.3#  
84 90.1 60.6 90.8

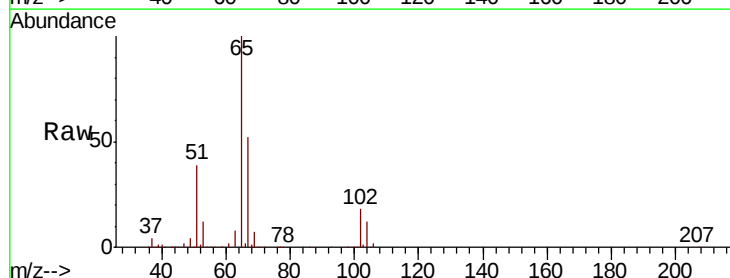


Abundance Ion 56.00 (55.70 to 56.70): VW  
Ion 69.00 (68.70 to 69.70): VW  
Ion 84.00 (83.70 to 84.70): VW

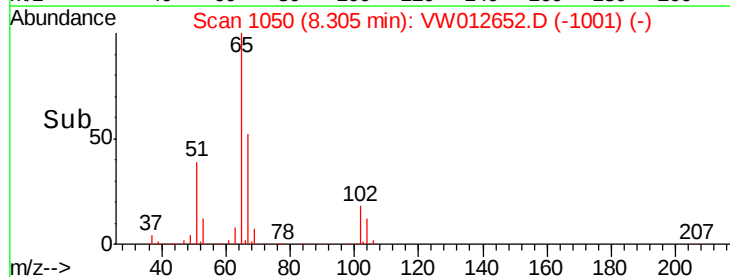
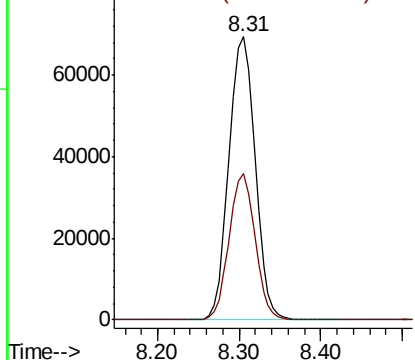


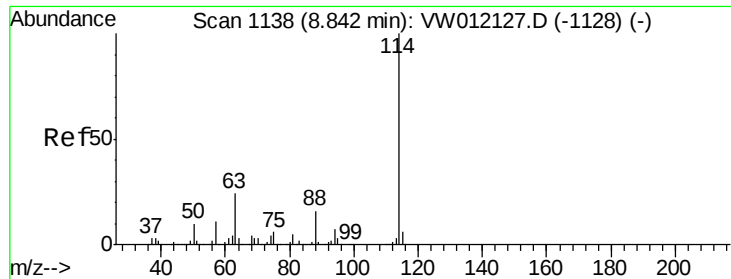
#33  
1,2-Dichloroethane-d4  
Concen: 53.558 ug/l  
RT: 8.31 min Scan# 1050  
Delta R.T. -0.00 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

Tgt Ion: 65 Resp: 154838  
Ion Ratio Lower Upper  
65 100  
67 50.8 0.0 102.6



Abundance Ion 64.90 (64.60 to 65.60): VW  
Ion 66.90 (66.60 to 67.60): VW





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.84 min Scan# 1138

Delta R.T. -0.00 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

Instrument :

MSVOA\_W

ClientSampleId :

PAR-12-A3-(0)

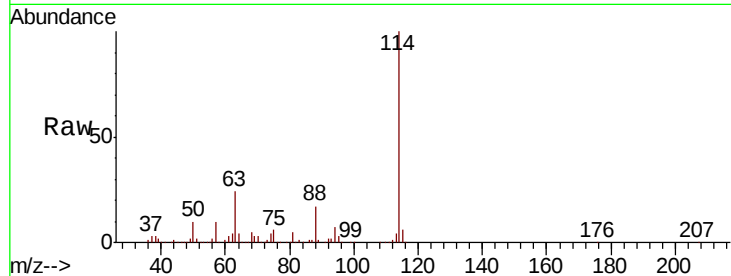
Tgt Ion:114 Resp: 398555

Ion Ratio Lower Upper

114 100

63 23.8 0.0 48.6

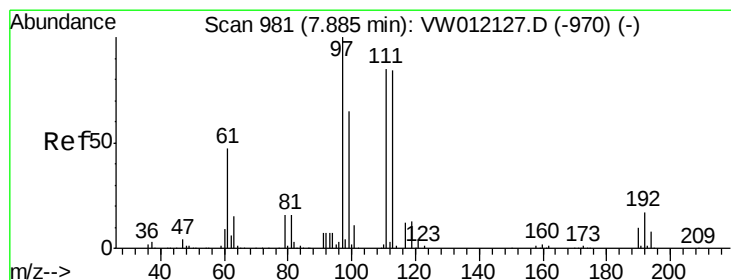
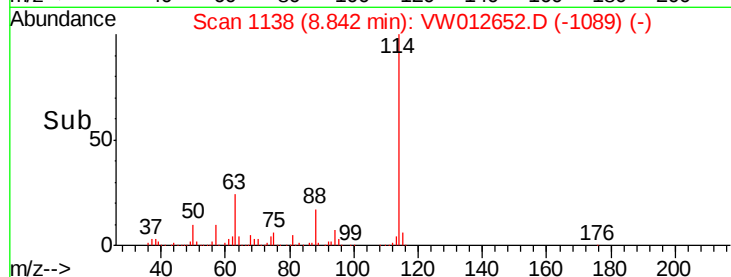
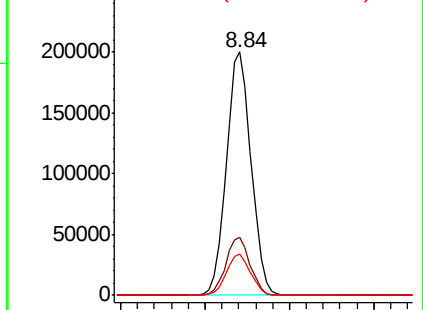
88 17.0 0.0 32.2



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VW

Ion 87.90 (87.60 to 88.60): VW



#35

Dibromofluoromethane

Concen: 51.222 ug/l

RT: 7.88 min Scan# 981

Delta R.T. -0.00 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

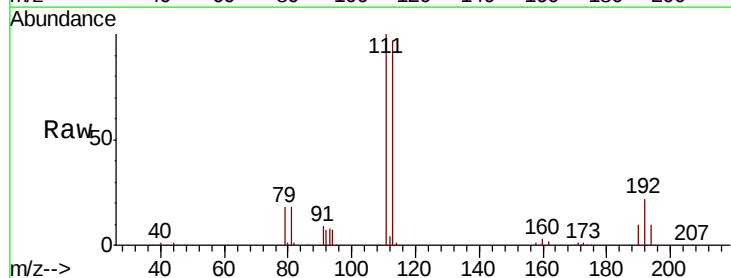
Tgt Ion:113 Resp: 121857

Ion Ratio Lower Upper

113 100

111 103.0 82.7 124.1

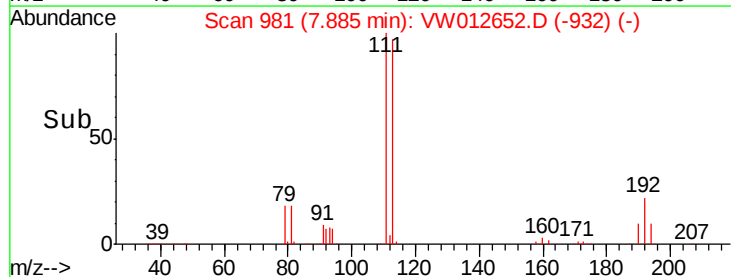
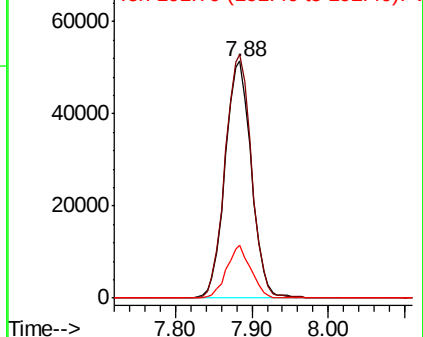
192 20.6 16.2 24.2

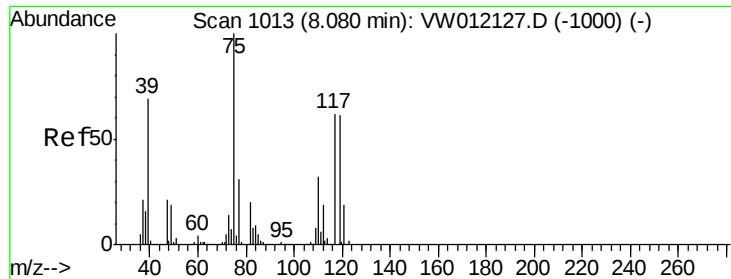


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

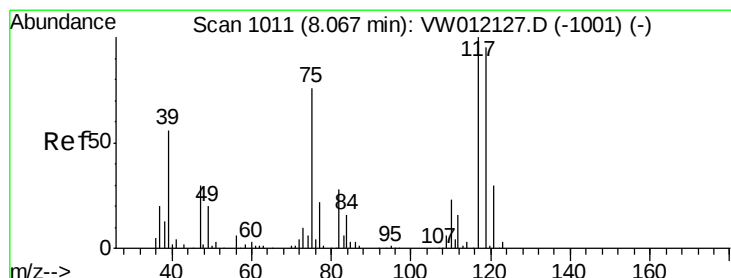
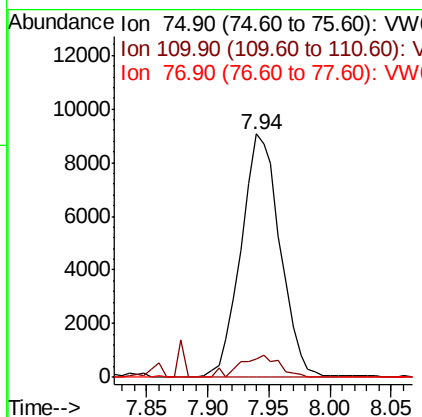
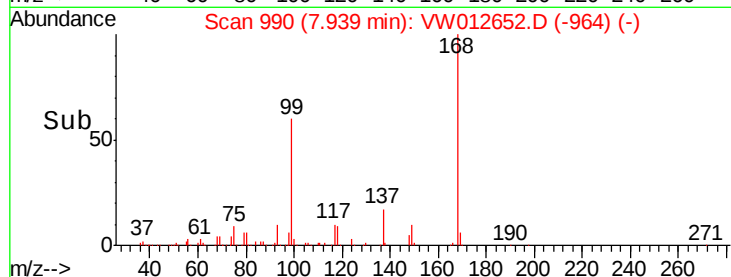
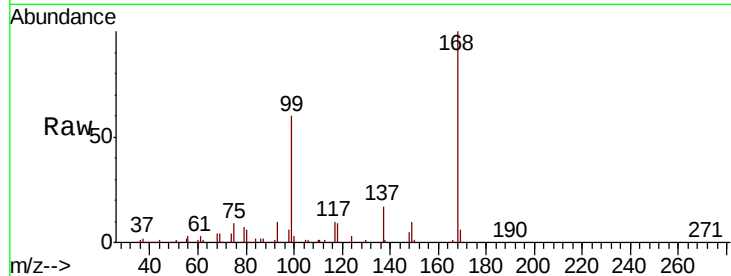




#36  
 1,1-Dichloropropene  
 Concen: 4.902 ug/l  
 RT: 7.94 min Scan# 990  
 Delta R.T. -0.14 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

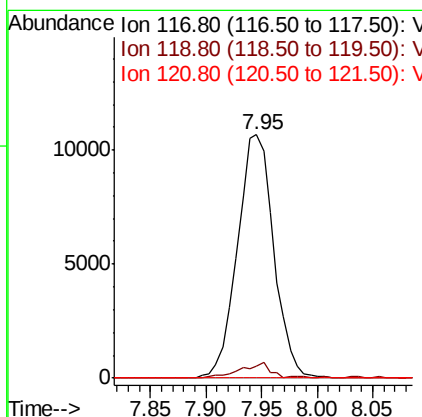
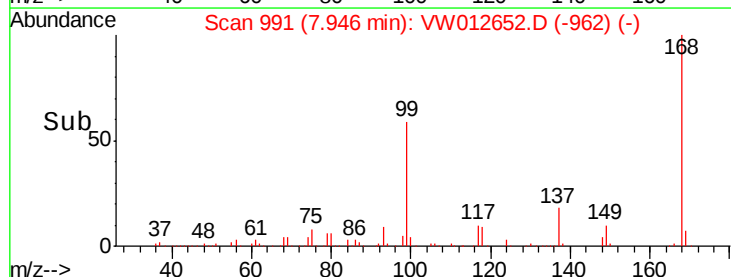
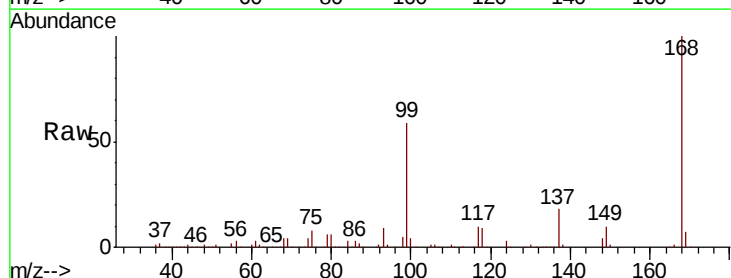
Instrument :  
 MSVOA\_W  
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 PAR-12-A3-(0)

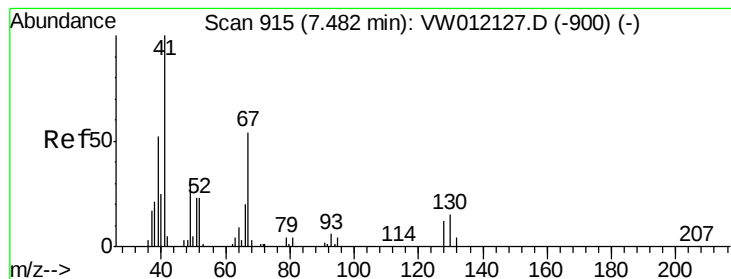
Tgt Ion: 75 Resp: 20188  
 Ion Ratio Lower Upper  
 75 100  
 110 9.2 15.6 46.8#  
 77 0.0 24.6 36.8#



#38  
 Carbon Tetrachloride  
 Concen: 6.774 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.12 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

Tgt Ion: 117 Resp: 24149  
 Ion Ratio Lower Upper  
 117 100  
 119 5.0 76.2 114.2#  
 121 0.0 23.8 35.8#





#41

Methacrylonitrile

Concen: 3.015 ug/l

RT: 7.54 min Scan# 925

Delta R.T. 0.06 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

Instrument :

MSVOA\_W

ClientSampleId :

PAR-12-A3-(0)

Tgt Ion: 41 Resp: 3999

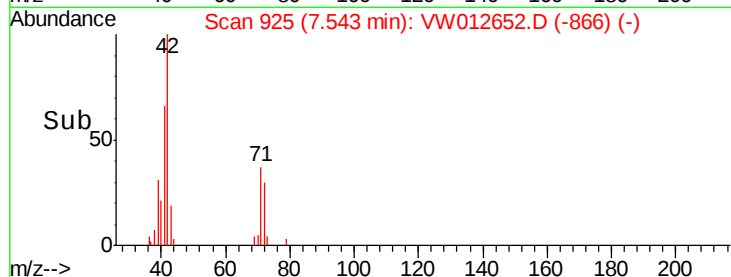
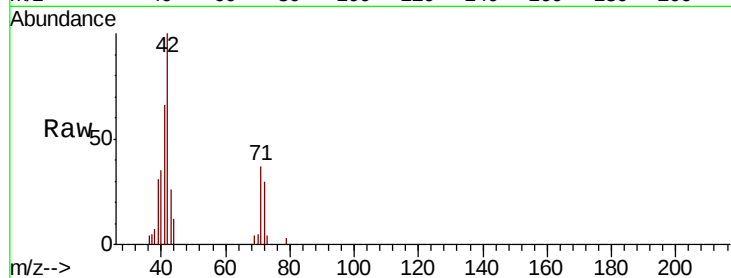
Ion Ratio Lower Upper

41 100

39 49.2 45.8 68.8

67 0.0 46.2 69.4#

52 1.7 21.0 31.6#

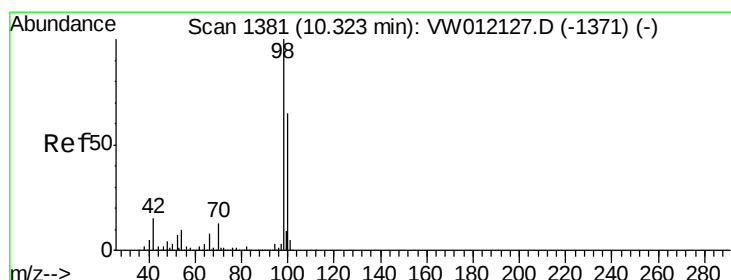
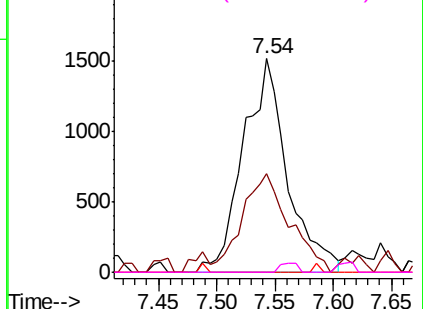


Abundance Ion 41.00 (40.70 to 41.70): VW

Ion 39.00 (38.70 to 39.70): VW

Ion 67.00 (66.70 to 67.70): VW

Ion 52.00 (51.70 to 52.70): VW



#50

Toluene-d8

Concen: 49.429 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. -0.00 min

Lab File: VW012652.D

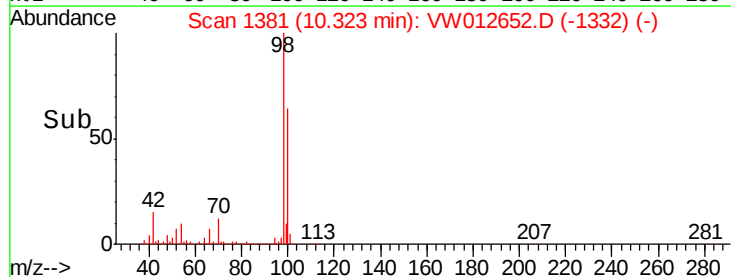
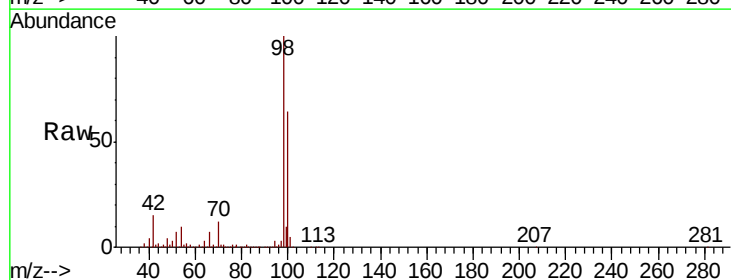
Acq: 05 Sep 2019 20:11

Tgt Ion: 98 Resp: 476798

Ion Ratio Lower Upper

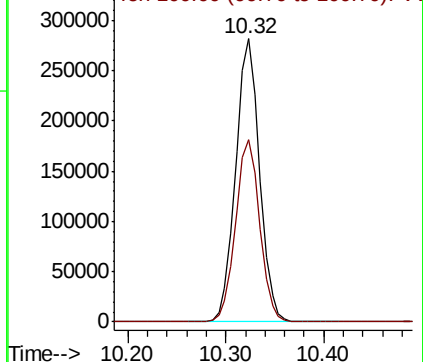
98 100

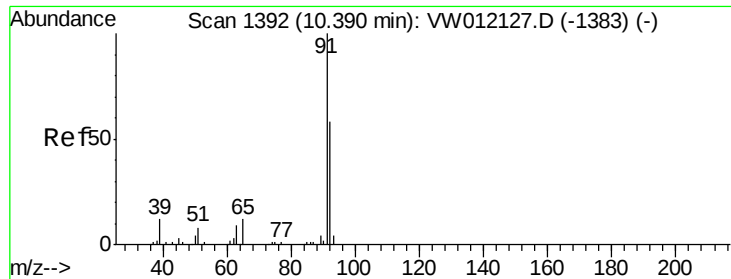
100 65.2 52.4 78.6



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW





#52

Toluene

Concen: 3.183 ug/l

RT: 10.39 min Scan# 1392

Delta R.T. -0.00 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

Instrument :

MSVOA\_W

ClientSampleId :

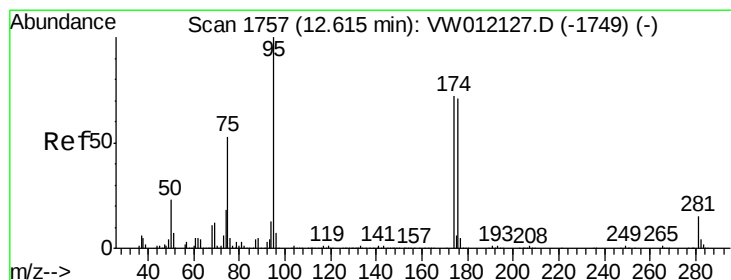
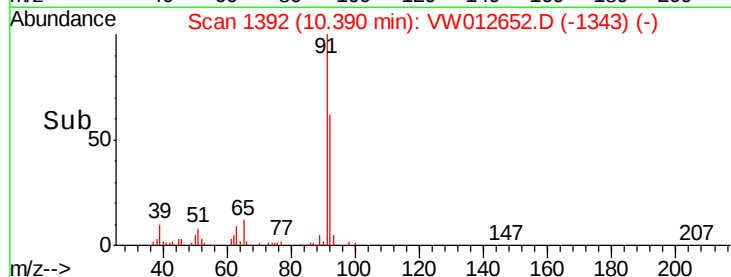
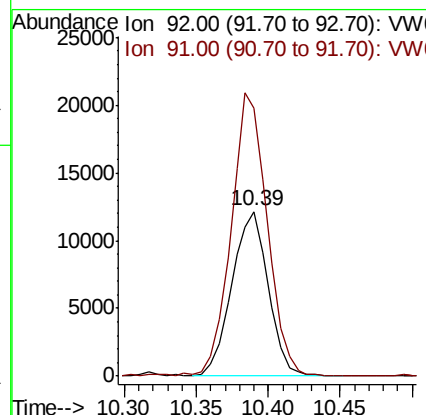
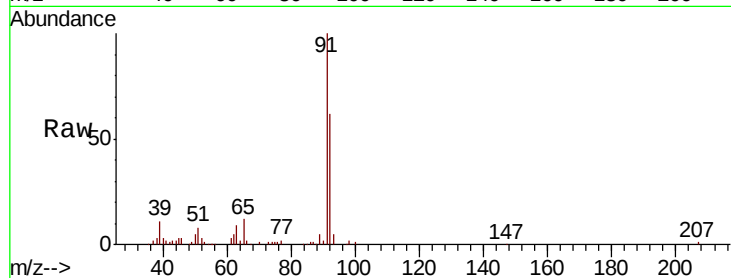
PAR-12-A3-(0)

Tgt Ion: 92 Resp: 21506

Ion Ratio Lower Upper

92 100

91 170.2 136.6 204.8



#62

4-Bromofluorobenzene

Concen: 39.288 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.00 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

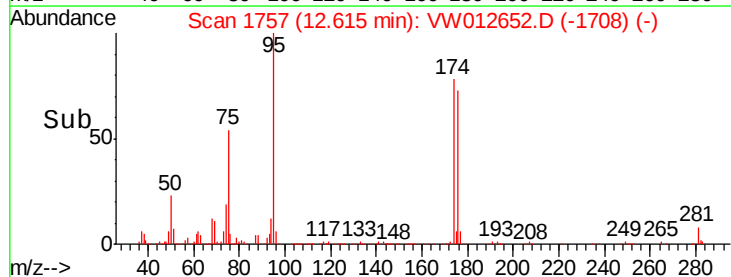
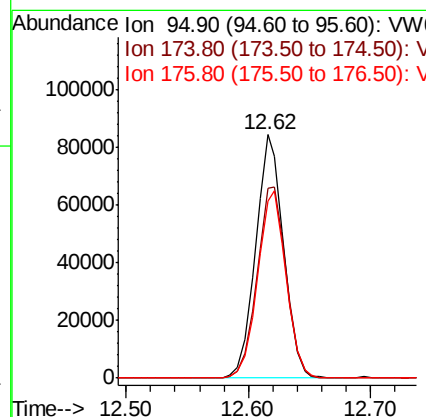
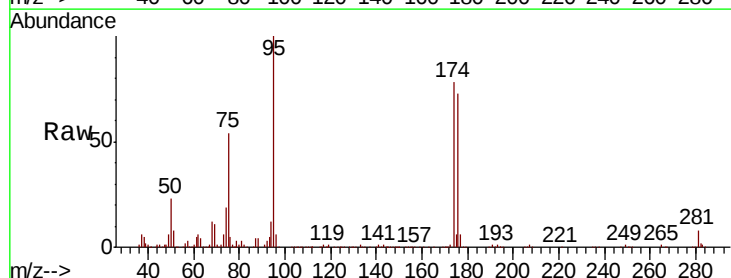
Tgt Ion: 95 Resp: 133588

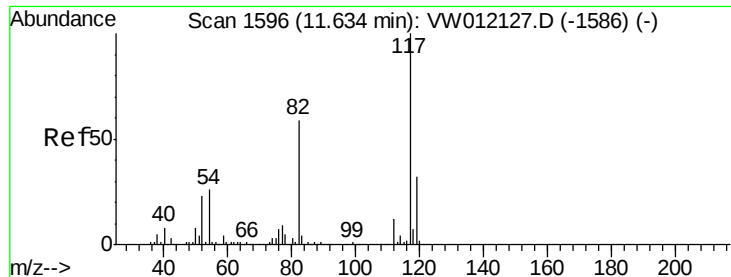
Ion Ratio Lower Upper

95 100

174 82.2 0.0 150.8

176 78.6 0.0 148.6

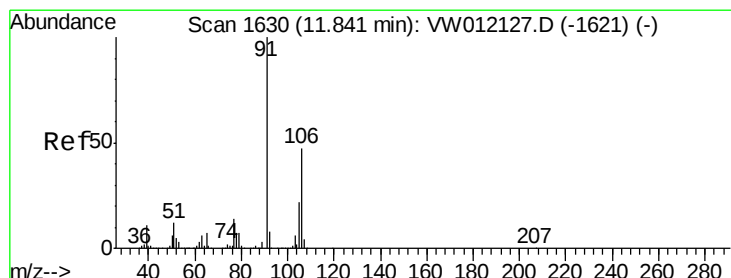
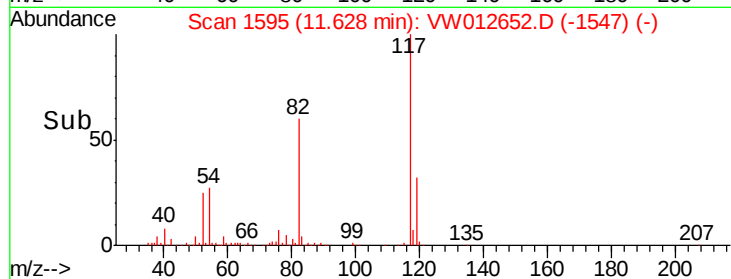
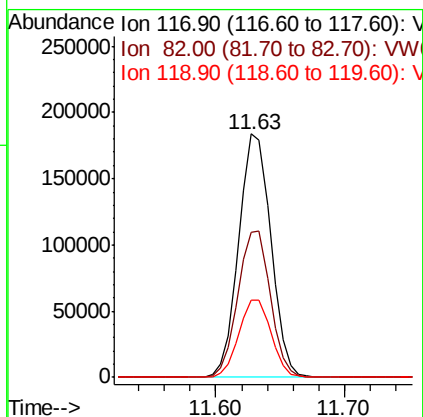
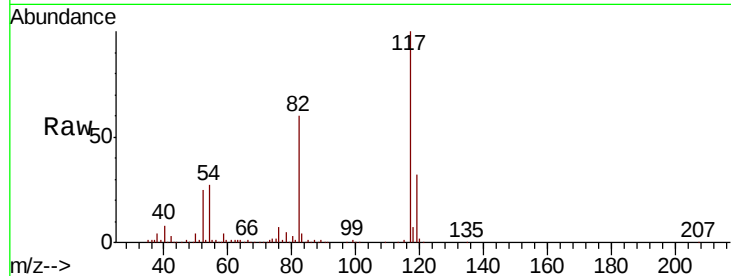




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1595  
Delta R.T. -0.01 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

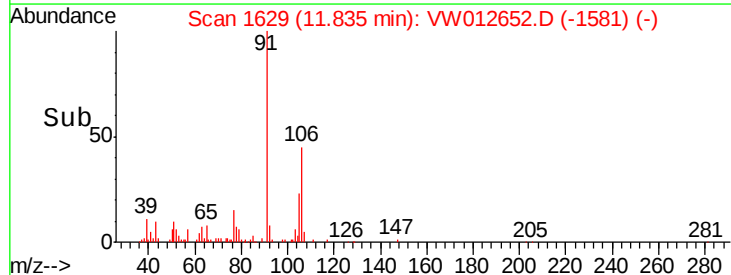
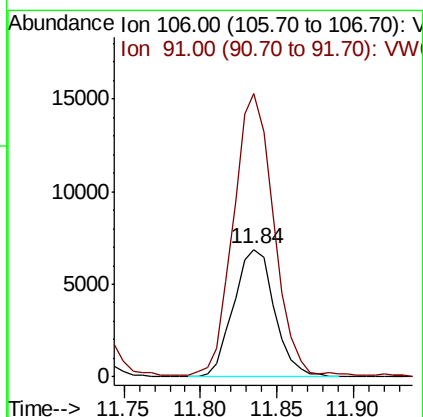
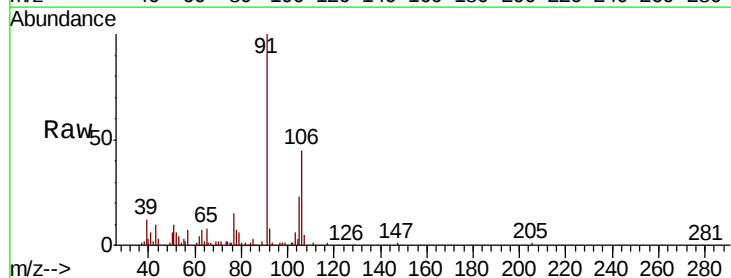
Instrument :  
MSVOA\_W  
ClientSampleId :  
PAR-12-A3-(0)

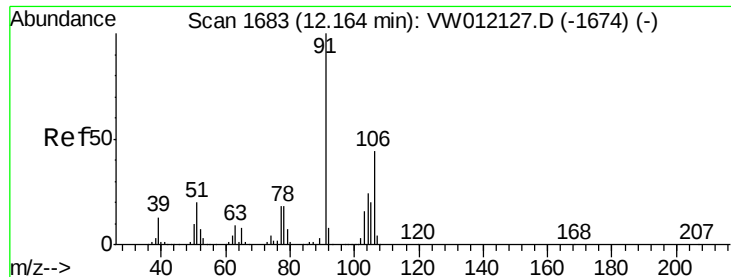
Tgt Ion:117 Resp: 318584  
Ion Ratio Lower Upper  
117 100  
82 59.6 47.4 71.2  
119 31.9 25.4 38.2



#68  
m/p-Xylenes  
Concen: 2.932 ug/l  
RT: 11.84 min Scan# 1629  
Delta R.T. -0.01 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

Tgt Ion:106 Resp: 12761  
Ion Ratio Lower Upper  
106 100  
91 222.7 169.5 254.3

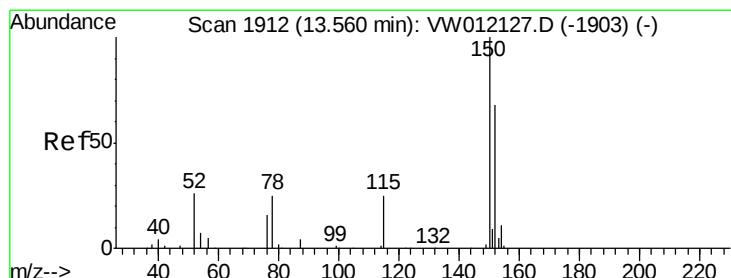
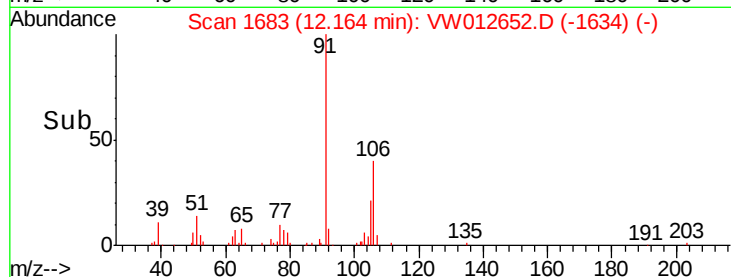
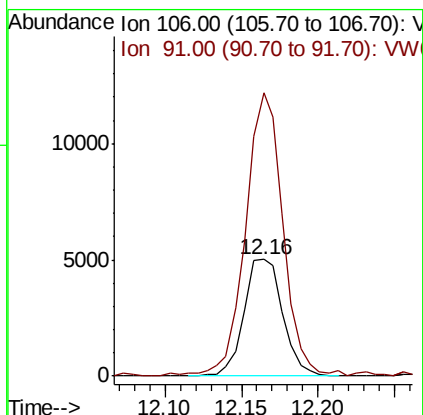
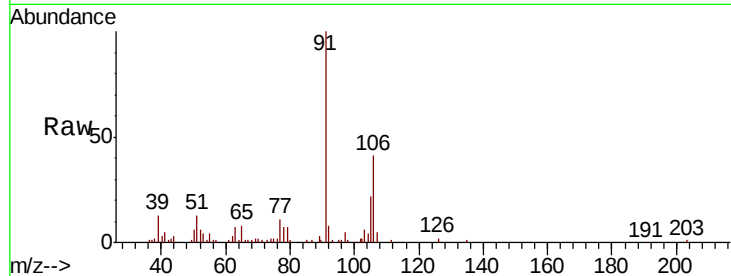




#69  
o-Xylene  
Concen: 2.196 ug/l  
RT: 12.16 min Scan# 1683  
Delta R.T. -0.00 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

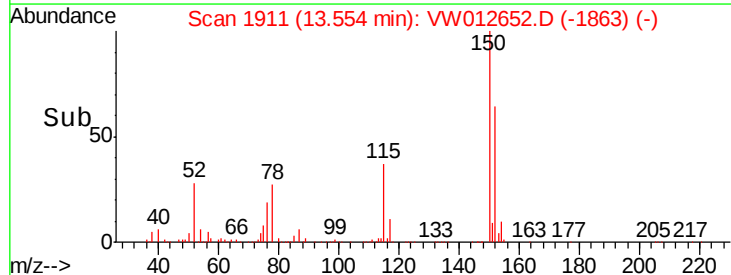
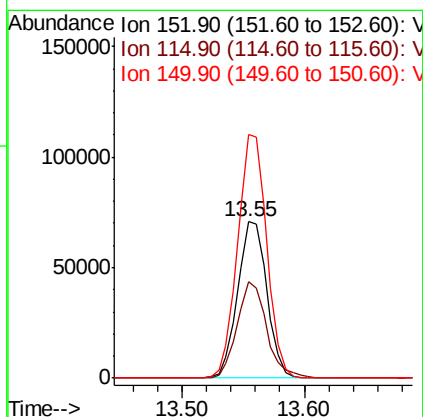
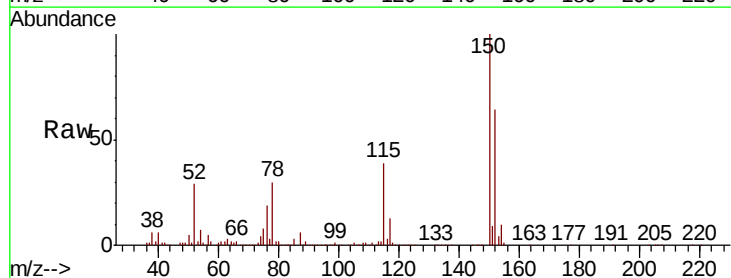
Instrument :  
MSVOA\_W  
ClientSampleId :  
PAR-12-A3-(0)

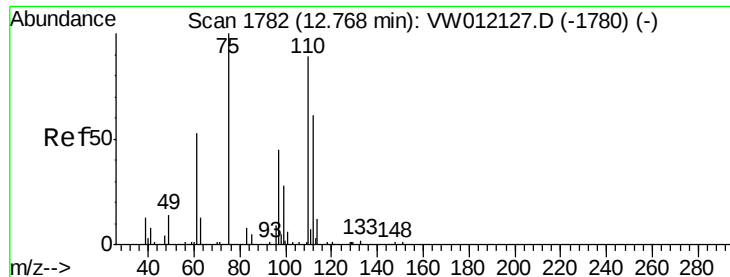
Tgt Ion:106 Resp: 8848  
Ion Ratio Lower Upper  
106 100  
91 235.0 111.6 334.6



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.55 min Scan# 1911  
Delta R.T. -0.01 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

Tgt Ion:152 Resp: 116546  
Ion Ratio Lower Upper  
152 100  
115 62.5 30.1 90.3  
150 155.2 0.0 345.8

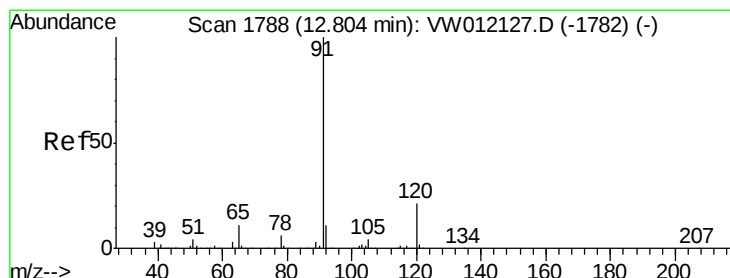
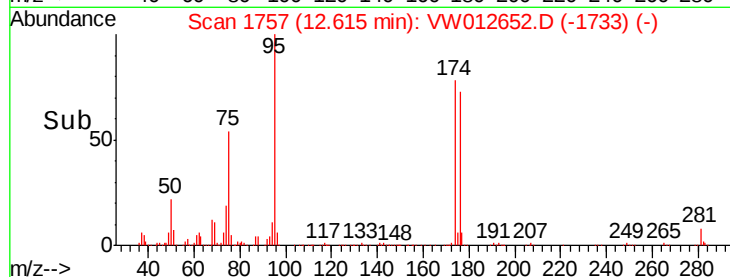
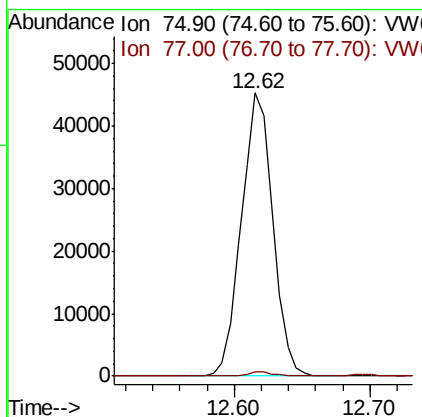
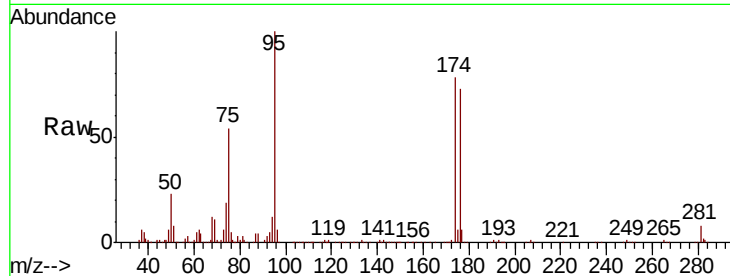




#76  
 1,2,3-Trichloropropane  
 Concen: 64.498 ug/l  
 RT: 12.62 min Scan# 1757  
 Delta R.T. -0.15 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

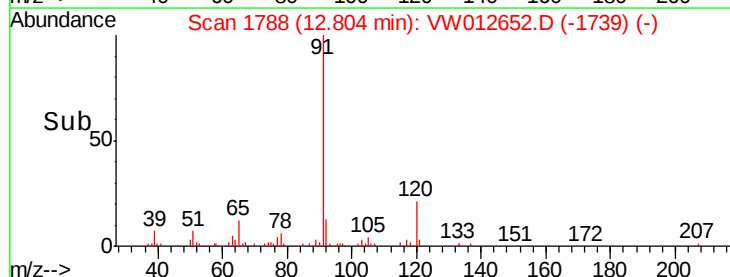
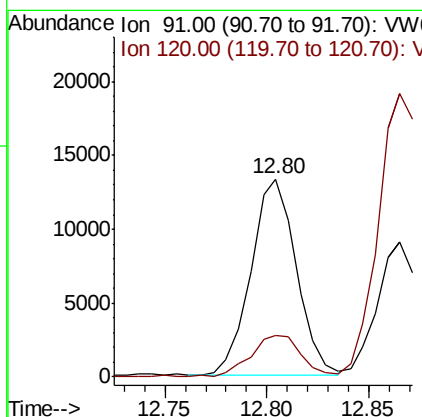
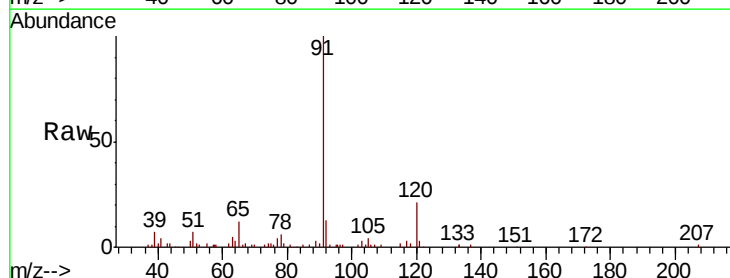
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 PAR-12-A3-(0)

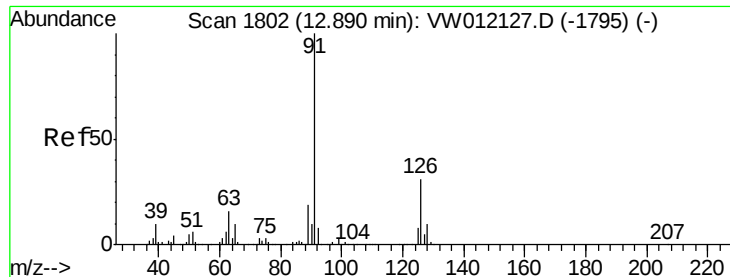
Tgt Ion: 75 Resp: 73210  
 Ion Ratio Lower Upper  
 75 100  
 77 1.4 0.0 0.0#



#78  
 n-propylbenzene  
 Concen: 1.941 ug/l  
 RT: 12.80 min Scan# 1788  
 Delta R.T. -0.00 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

Tgt Ion: 91 Resp: 20696  
 Ion Ratio Lower Upper  
 91 100  
 120 22.3 10.5 31.6





#79

2-Chlorotoluene

Concen: 2.125 ug/l

RT: 12.87 min Scan# 1798

Delta R.T. -0.02 min

Lab File: VW012652.D

Acq: 05 Sep 2019 20:11

Instrument :

MSVOA\_W

ClientSampleId :

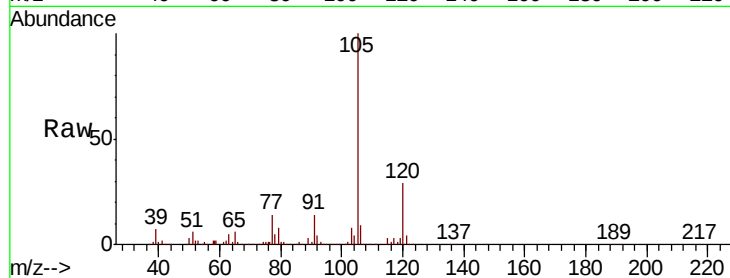
PAR-12-A3-(0)

Tgt Ion: 91 Resp: 12863

Ion Ratio Lower Upper

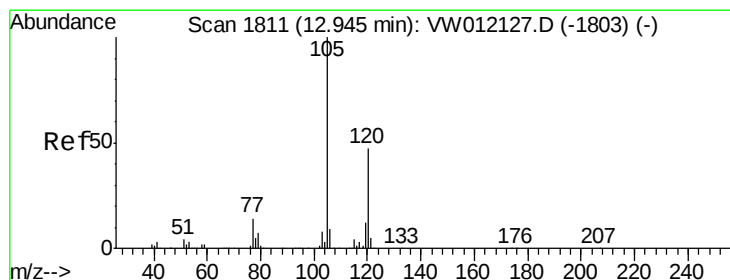
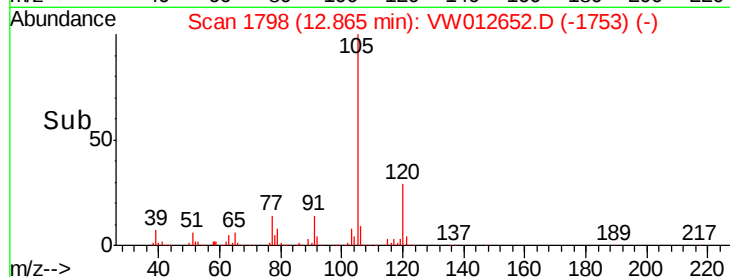
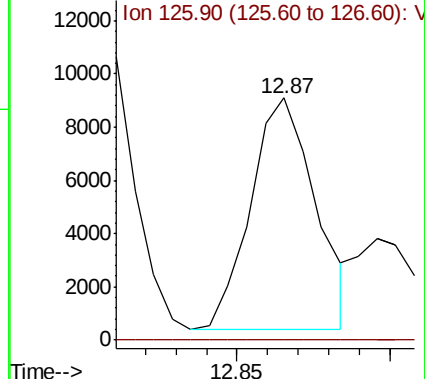
91 100

126 0.0 15.7 47.0#



Abundance Ion 91.00 (90.70 to 91.70): VW

Ion 125.90 (125.60 to 126.60): V



#80

1,3,5-Trimethylbenzene

Concen: 10.531 ug/l

RT: 12.94 min Scan# 1811

Delta R.T. -0.00 min

Lab File: VW012652.D

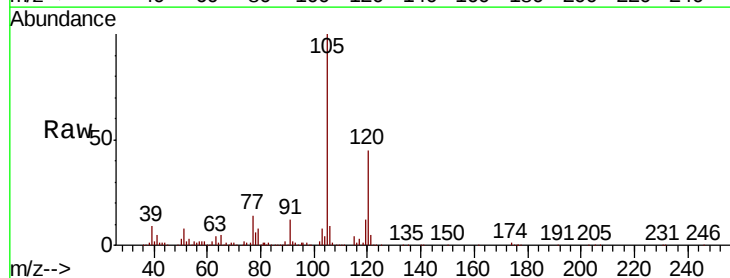
Acq: 05 Sep 2019 20:11

Tgt Ion: 105 Resp: 76848

Ion Ratio Lower Upper

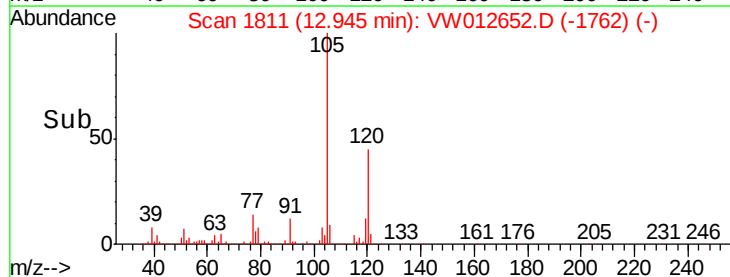
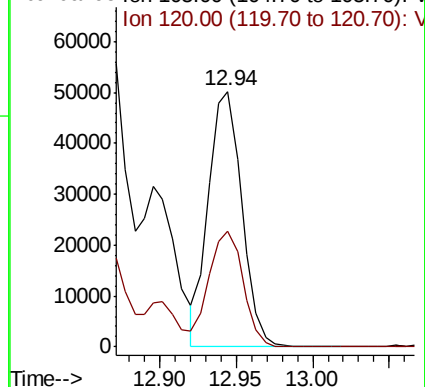
105 100

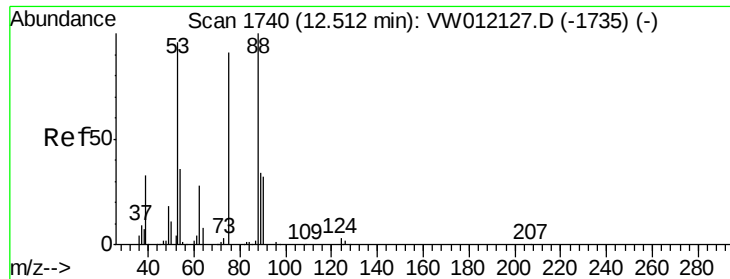
120 45.5 24.0 72.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

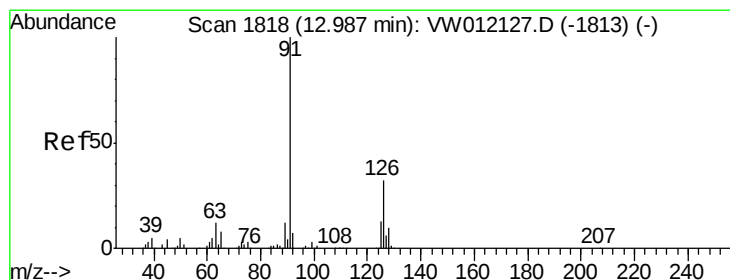
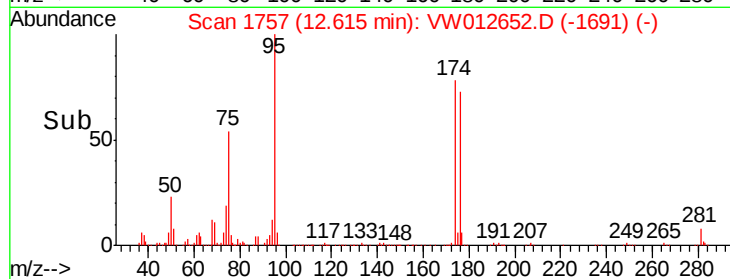
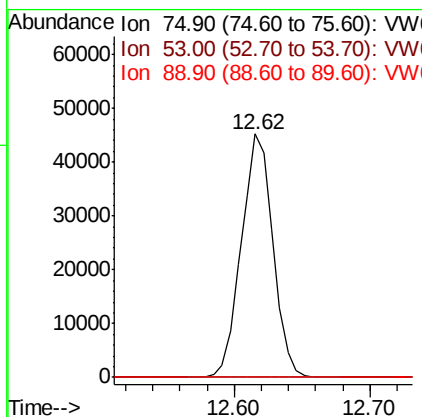
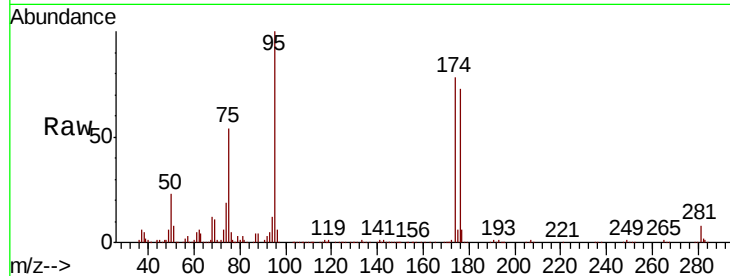




#81  
trans-1,4-Dichloro-2-butene  
Concen: 141.414 ug/l  
RT: 12.62 min Scan# 1757  
Delta R.T. 0.10 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

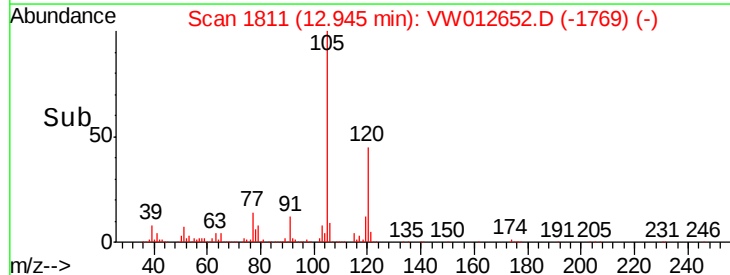
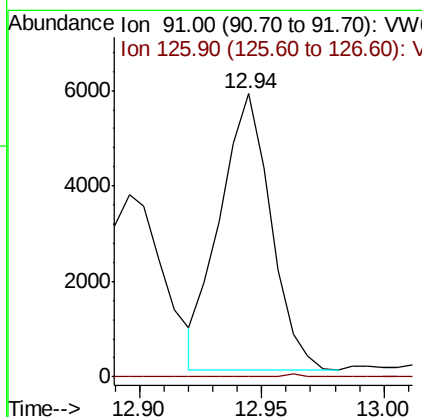
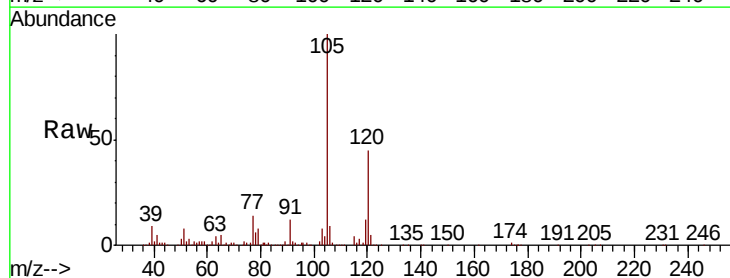
Instrument :  
MSVOA\_W  
ClientSampleId :  
PAR-12-A3-(0)

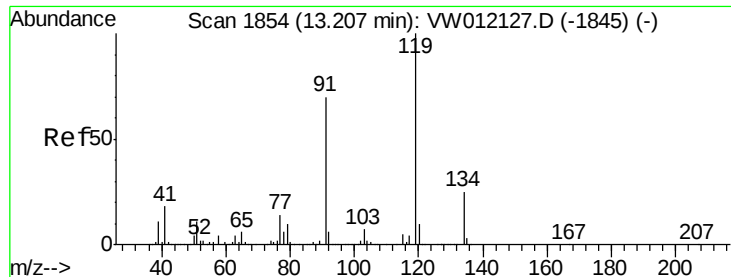
Tgt Ion: 75 Resp: 73210  
Ion Ratio Lower Upper  
75 100  
53 0.4 89.4 134.0#  
89 0.1 34.5 51.7#



#82  
4-Chlorotoluene  
Concen: 1.315 ug/l  
RT: 12.94 min Scan# 1811  
Delta R.T. -0.04 min  
Lab File: VW012652.D  
Acq: 05 Sep 2019 20:11

Tgt Ion: 91 Resp: 8331  
Ion Ratio Lower Upper  
91 100  
126 0.2 15.6 46.8#

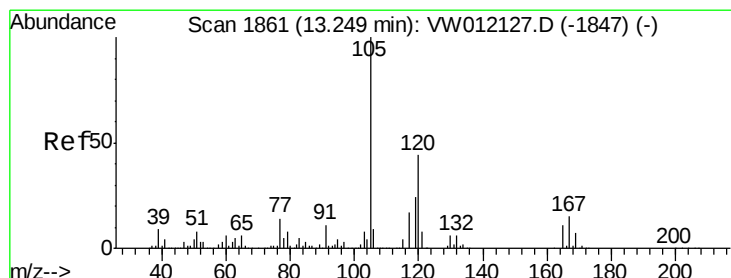
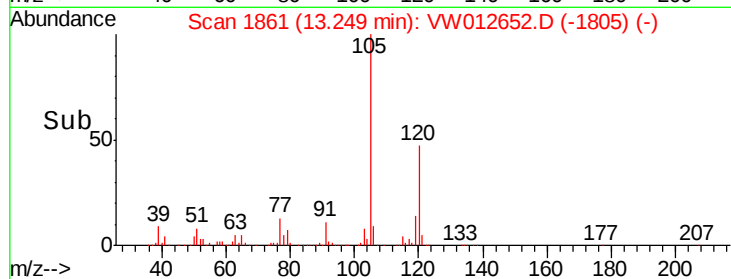
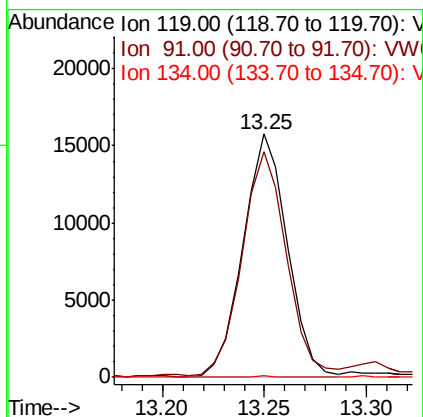
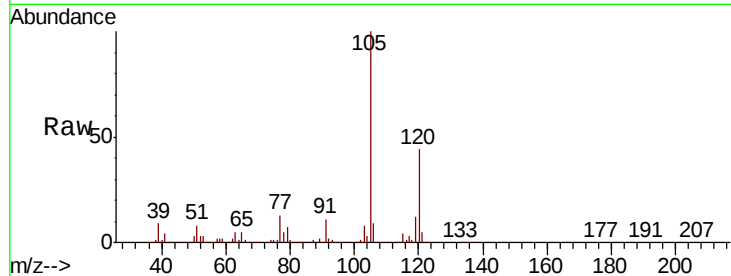




#83  
 tert-Butylbenzene  
 Concen: 3.814 ug/l  
 RT: 13.25 min Scan# 1861  
 Delta R.T. 0.04 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

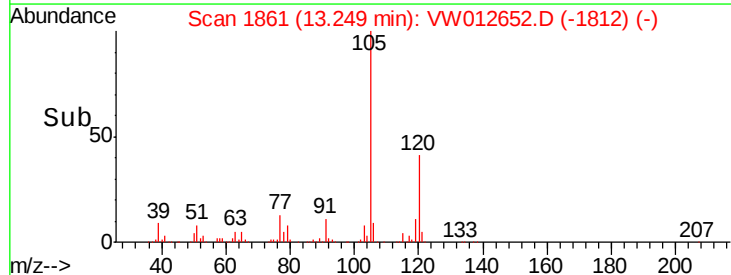
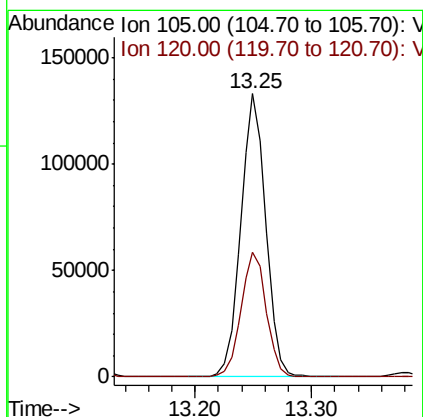
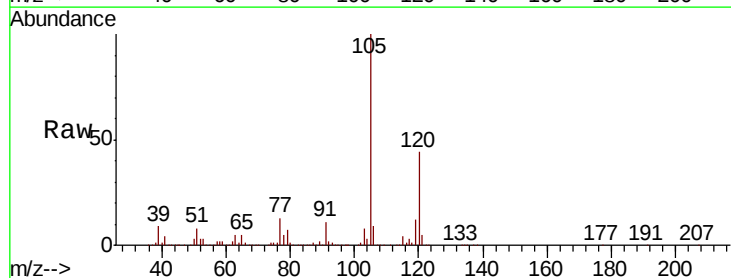
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 PAR-12-A3-(0)

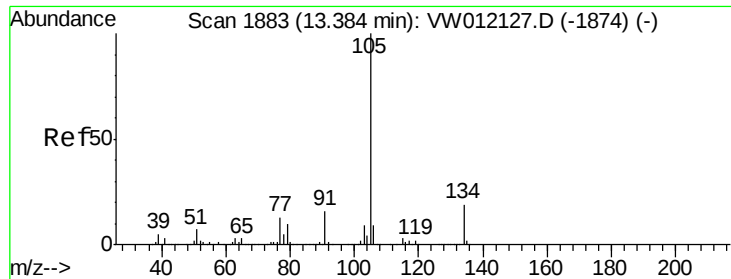
Tgt Ion:119 Resp: 23574  
 Ion Ratio Lower Upper  
 119 100  
 91 94.6 34.8 104.3  
 134 0.0 13.3 39.8#



#84  
 1,2,4-Trimethylbenzene  
 Concen: 27.069 ug/l  
 RT: 13.25 min Scan# 1861  
 Delta R.T. -0.00 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

Tgt Ion:105 Resp: 198422  
 Ion Ratio Lower Upper  
 105 100  
 120 44.5 21.9 65.7

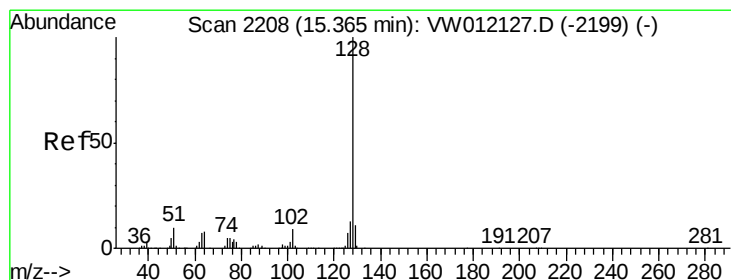
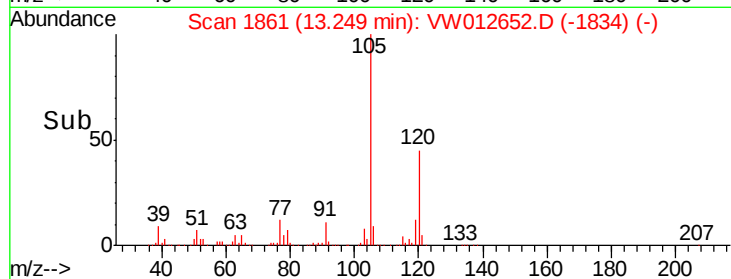
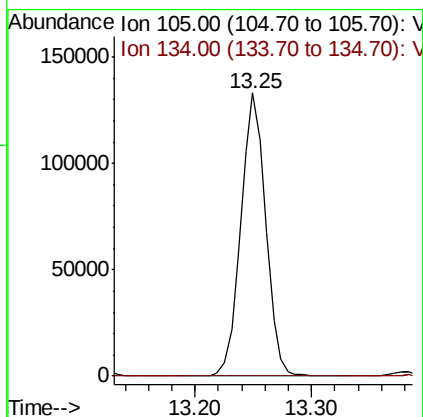
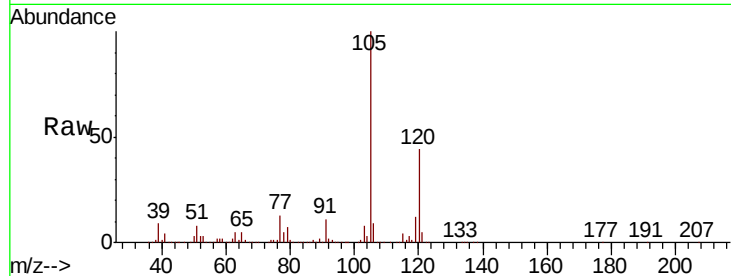




#85  
 sec-Butylbenzene  
 Concen: 22.406 ug/l  
 RT: 13.25 min Scan# 1861  
 Delta R.T. -0.13 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 PAR-12-A3-(0)

Tgt Ion:105 Resp: 198422  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 9.8 29.4#



#95  
 Naphthalene  
 Concen: 4.513 ug/l  
 RT: 15.36 min Scan# 2208  
 Delta R.T. 0.00 min  
 Lab File: VW012652.D  
 Acq: 05 Sep 2019 20:11

Tgt Ion:128 Resp: 924  
 Ion Ratio Lower Upper  
 128 100  
 127 5.8 10.7 16.1#  
 129 0.0 8.7 13.1#

