

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN100518\  
 Data File : VN051684.D  
 Acq On : 5 Oct 2018 14:03  
 Operator : MD\SY  
 Sample : J5239-01 5X  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 13 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 001-WILLETS-PT-BLVD(AUG)

Quant Time: Oct 05 14:54:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N100518W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Oct 05 11:11:26 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.20  | 128  | 95723    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.59  | 114  | 530024   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.41 | 117  | 440559   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 8.03   | 65    | 195808   | 29.47    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 98.23%  |
| 60) 4-Bromofluorobenzene  | 12.40  | 95    | 150611   | 22.40    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 74.67%  |
| 63) Toluene-d8            | 10.09  | 98    | 624517   | 31.93    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 106.43% |

## Target Compounds

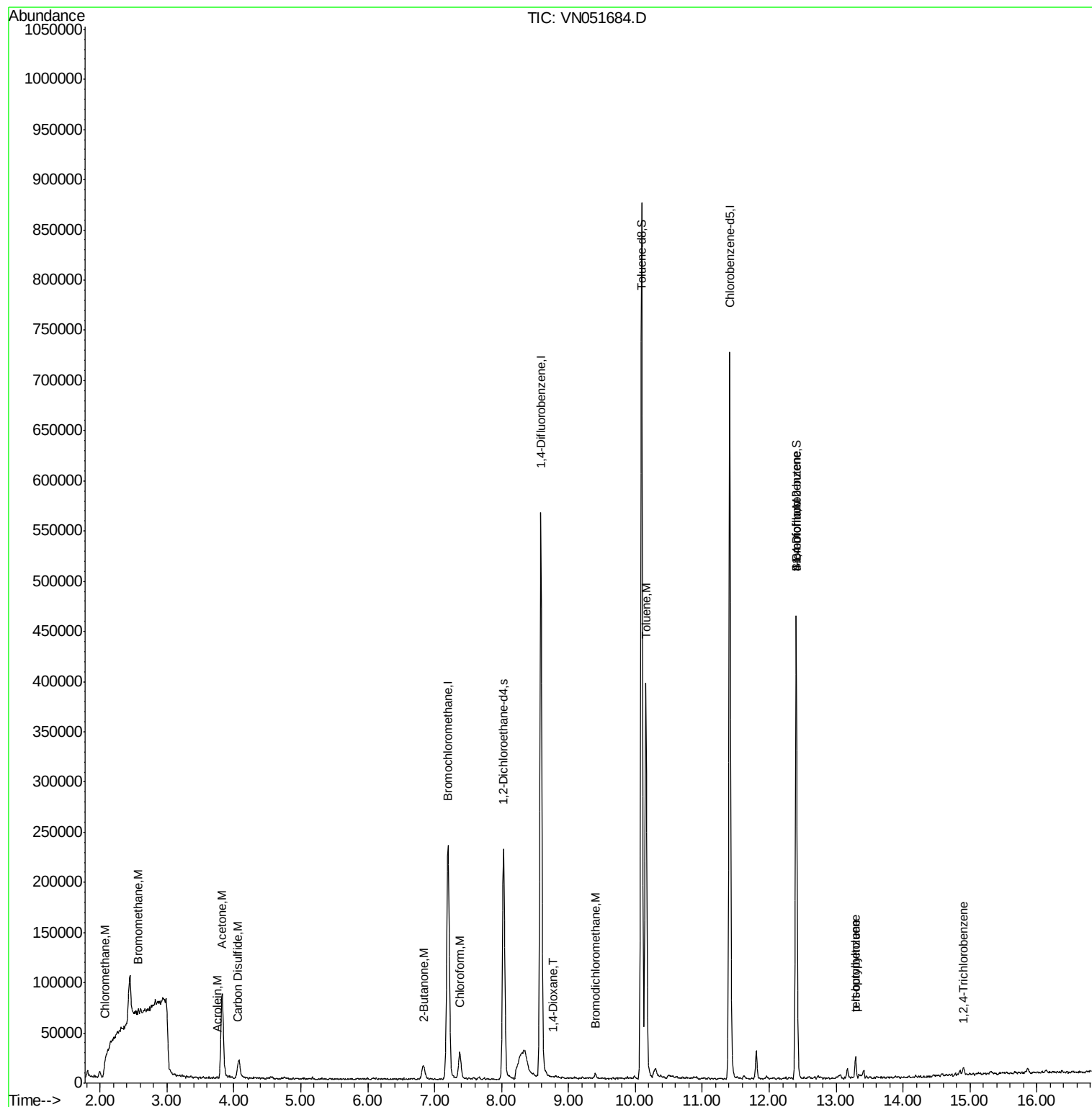
|                             |       |     |        |               | Ovalue |
|-----------------------------|-------|-----|--------|---------------|--------|
| 3) Chloromethane            | 2.06  | 50  | 1342   | 0.245 ug/l    | 97     |
| 5) Bromomethane             | 2.57  | 94  | 1858   | 0.287 ug/l    | 88     |
| 13) Acrolein                | 3.75  | 56  | 200    | 0.772 ug/l    | 92     |
| 15) Acetone                 | 3.82  | 58  | 44868  | 130.407 ug/l  | 80     |
| 16) Carbon Disulfide        | 4.05  | 76  | 3212   | 0.251 ug/l #  | 87     |
| 25) Chloroform              | 7.37  | 83  | 27127  | 2.626 ug/l #  | 81     |
| 30) 2-Butanone              | 6.84  | 43  | 561    | 0.327 ug/l #  | 51     |
| 41) Bromodichloromethane    | 9.40  | 83  | 2780   | 0.345 ug/l #  | 85     |
| 45) 1,4-Dioxane             | 8.76  | 88  | 68     | 1.348 ug/l #  | 1      |
| 56) Bromoform               | 12.41 | 173 | 1793   | 0.374 ug/l #  | 1      |
| 62) Toluene                 | 10.16 | 91  | 306504 | 13.734 ug/l   | 98     |
| 77) t-1,4-Dichloro-2-butene | 12.40 | 75  | 82273  | 49.775 ug/l # | 12     |
| 79) tert-butylbenzene       | 13.29 | 119 | 11183  | 0.551 ug/l    | 59     |
| 82) p-Isopropyltoluene      | 13.29 | 119 | 11183  | 0.467 ug/l    | 97     |
| 89) 1,2,4-Trichlorobenzene  | 14.91 | 180 | 531    | 6.909 ug/l #  | 87     |

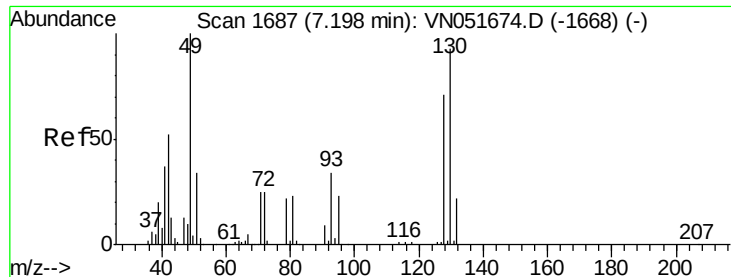
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Oct 05 11:11:26 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.20 min Scan# 1688

Delta R.T. 0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

001-WILLETS-PT-BLVD(AUG)

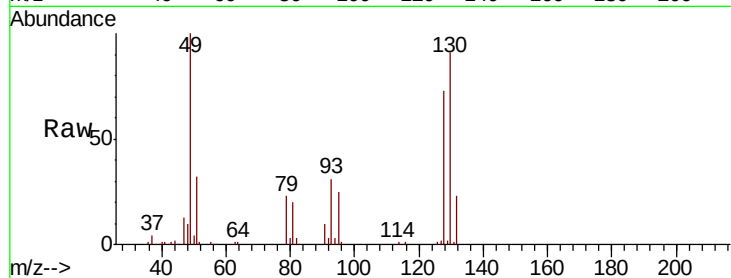
Tot Ion:128 Resp: 95723

Ion Ratio Lower Upper

128 100

49 139.4 0.0 403.3

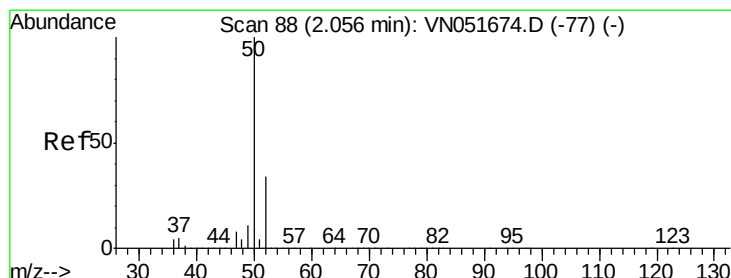
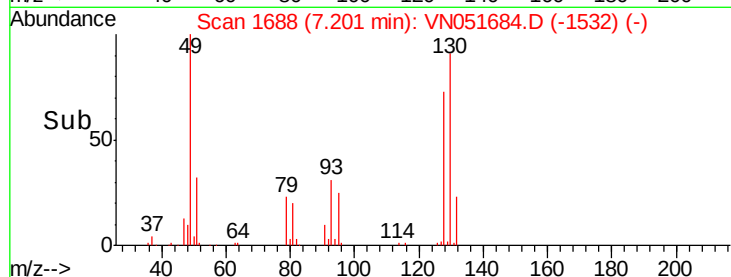
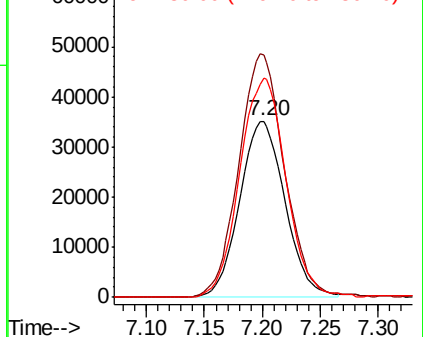
130 127.2 0.0 326.0



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VN

Ion 130.00 (129.70 to 130.70): V



#3

Chloromethane

Concen: 0.245 ug/l

RT: 2.06 min Scan# 89

Delta R.T. 0.00 min

Lab File: VN051684.D

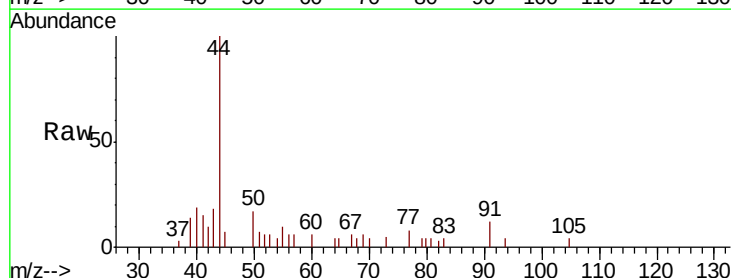
Acq: 5 Oct 2018 14:03

Tgt Ion: 50 Resp: 1342

Ion Ratio Lower Upper

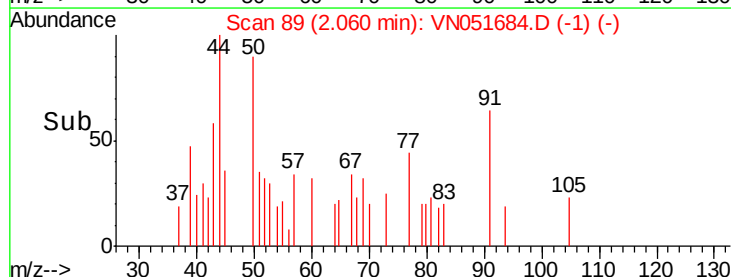
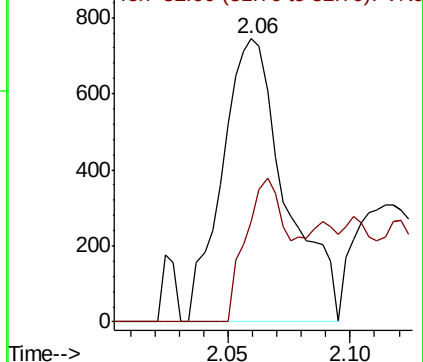
50 100

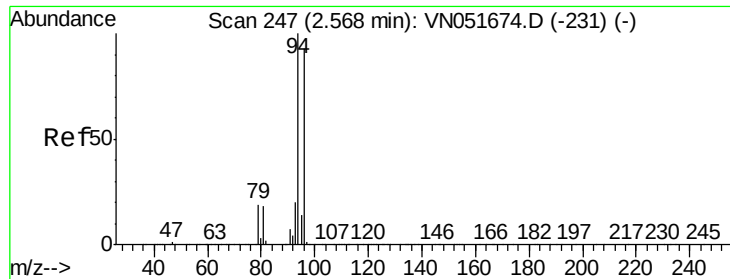
52 35.5 27.2 40.8



Abundance Ion 50.00 (49.70 to 50.70): VN

Ion 52.00 (51.70 to 52.70): VN





#5

Bromomethane

Concen: 0.287 ug/l

RT: 2.57 min Scan# 247

Delta R.T. -0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

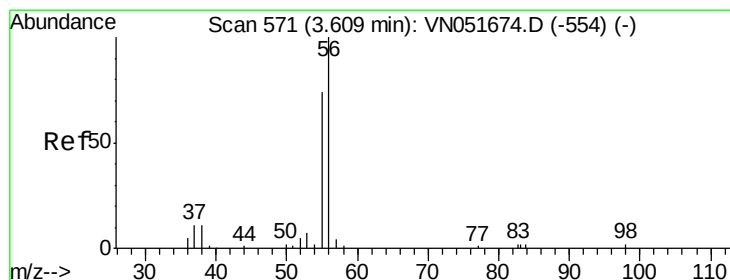
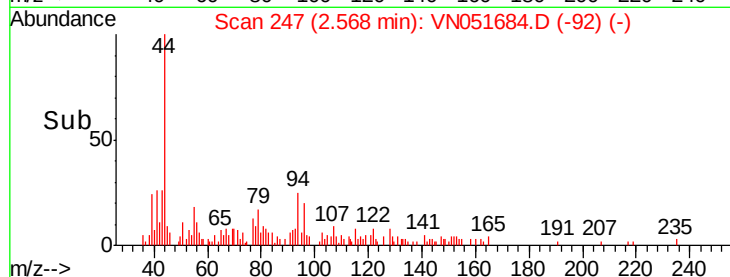
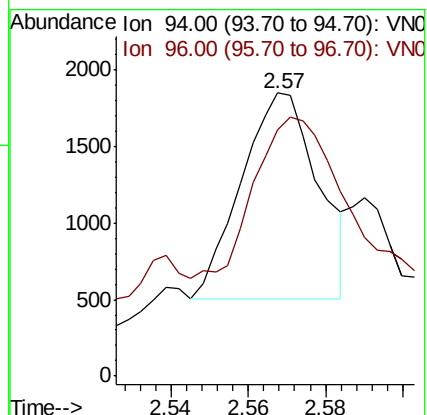
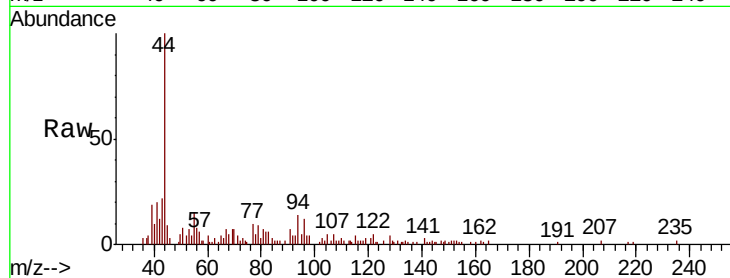
001-WILLETS-PT-BLVD(AUG)

Tot Ion: 94 Resp: 1858

Ion Ratio Lower Upper

94 100

96 72.6 66.4 99.6



#13

Acrolein

Concen: 0.772 ug/l

RT: 3.75 min Scan# 615

Delta R.T. 0.14 min

Lab File: VN051684.D

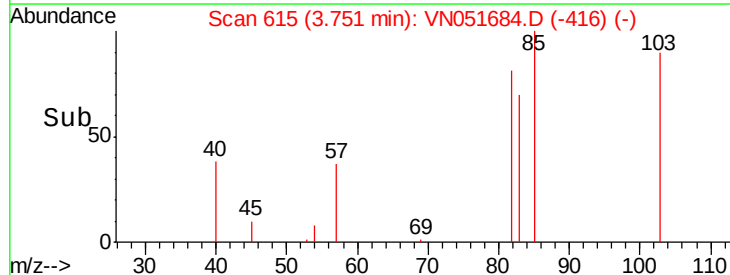
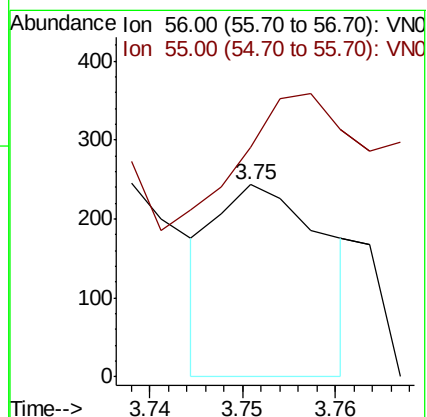
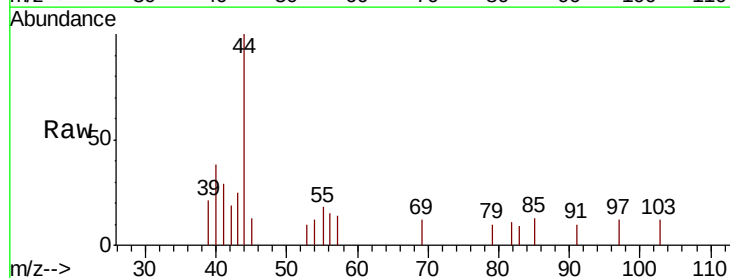
Acq: 5 Oct 2018 14:03

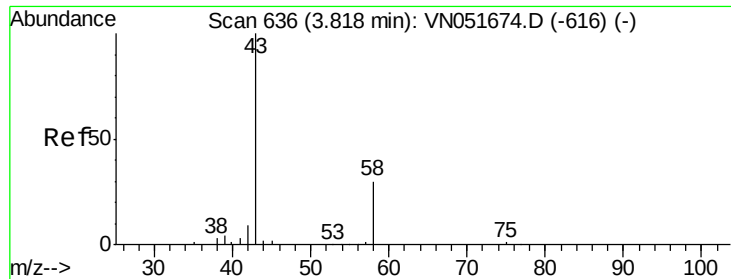
Tgt Ion: 56 Resp: 200

Ion Ratio Lower Upper

56 100

55 73.0 64.0 96.0





#15

Acetone

Concen: 130.407 ug/l

RT: 3.82 min Scan# 638

Delta R.T. 0.01 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

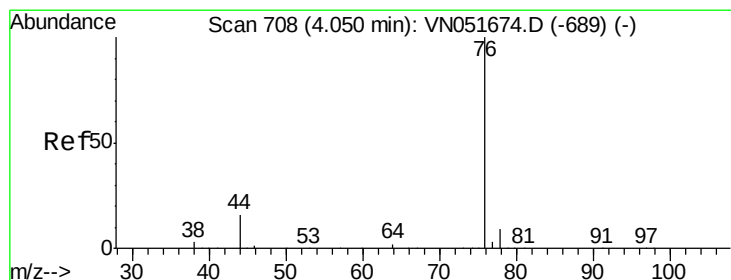
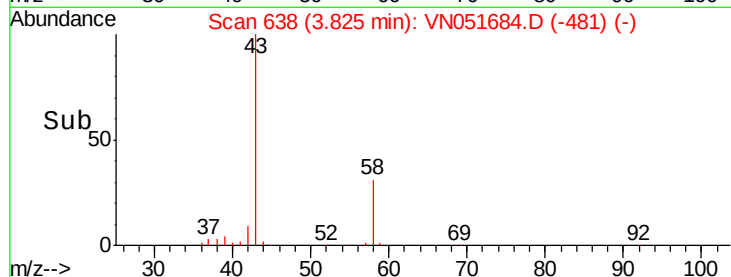
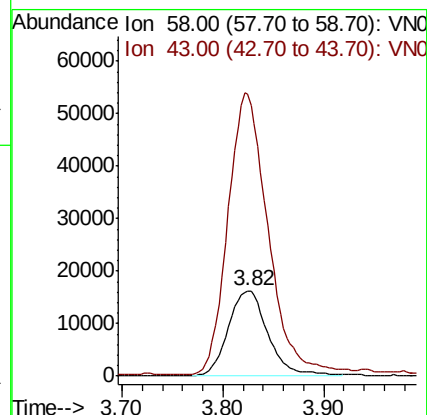
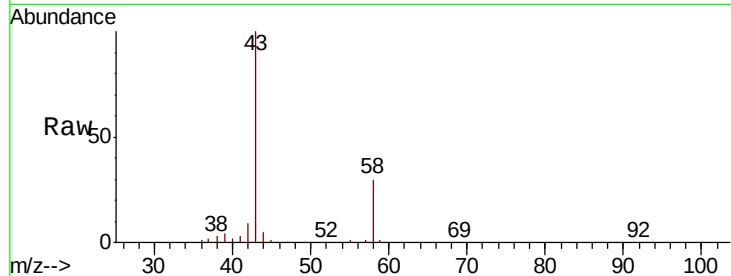
001-WILLETS-PT-BLVD(AUG)

Tot Ion: 58 Resp: 44868

Ion Ratio Lower Upper

58 100

43 328.6 232.2 348.2



#16

Carbon Disulfide

Concen: 0.251 ug/l

RT: 4.05 min Scan# 707

Delta R.T. -0.00 min

Lab File: VN051684.D

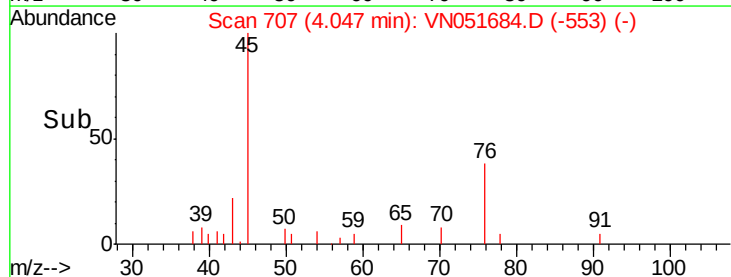
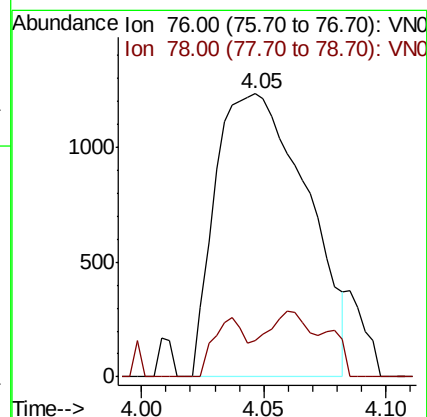
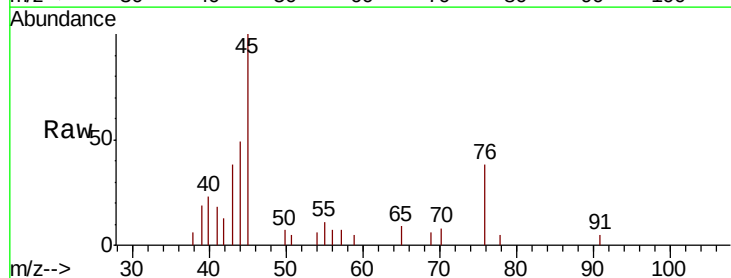
Acq: 5 Oct 2018 14:03

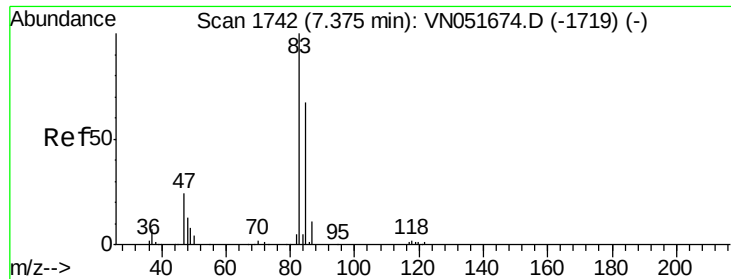
Tgt Ion: 76 Resp: 3212

Ion Ratio Lower Upper

76 100

78 12.9 6.7 10.1#

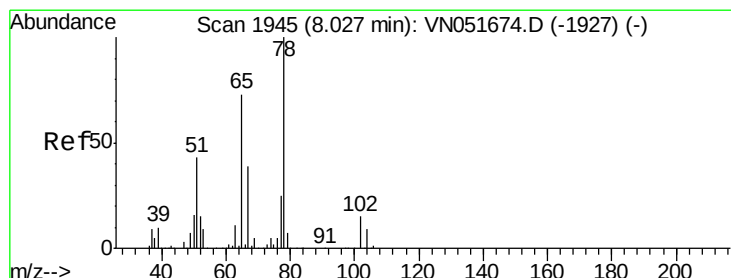
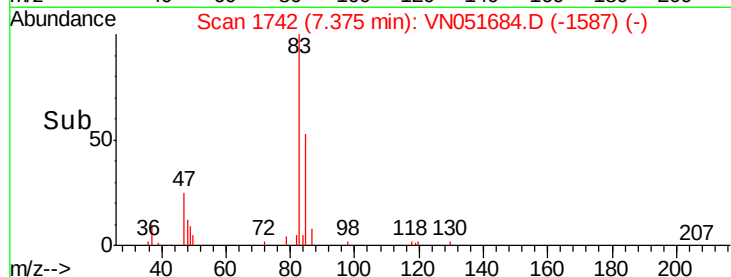
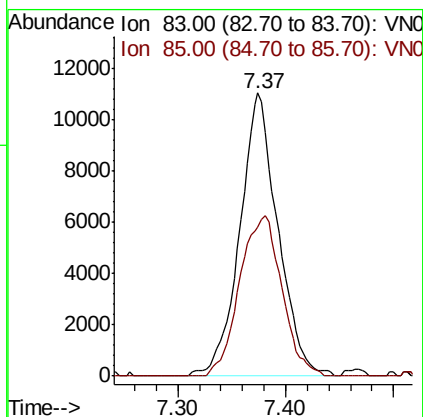
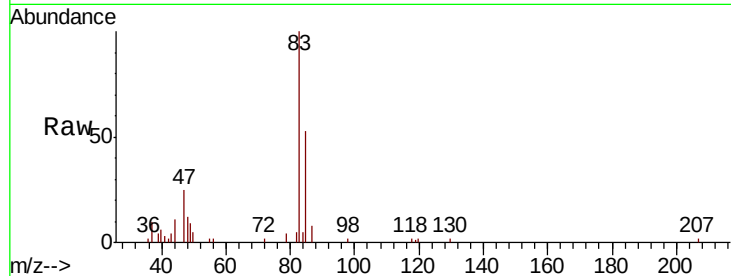




#25  
Chloroform  
Concen: 2.626 ug/l  
RT: 7.37 min Scan# 1742  
Delta R.T. -0.00 min  
Lab File: VN051684.D  
Acq: 5 Oct 2018 14:03

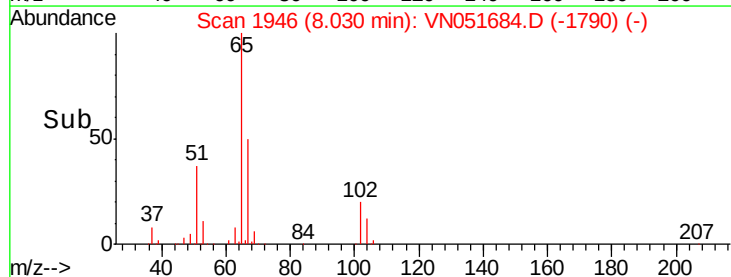
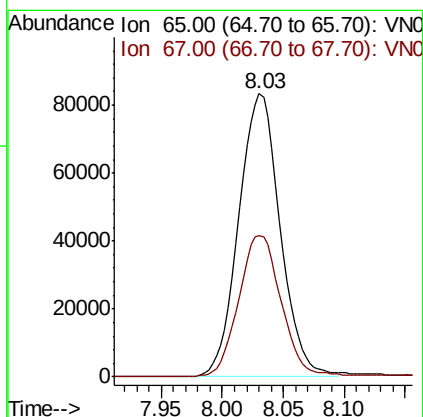
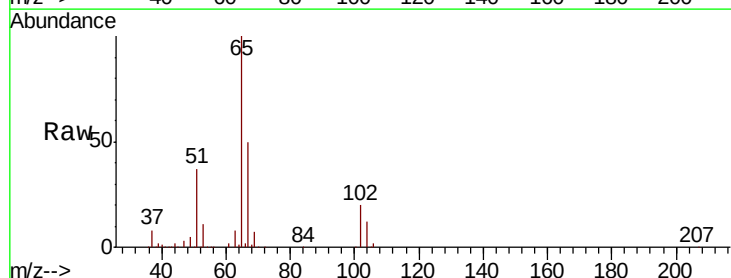
Instrument :  
MSVOA\_N  
ClientSampleId :  
001-WILLETS-PT-BLVD(AUG)

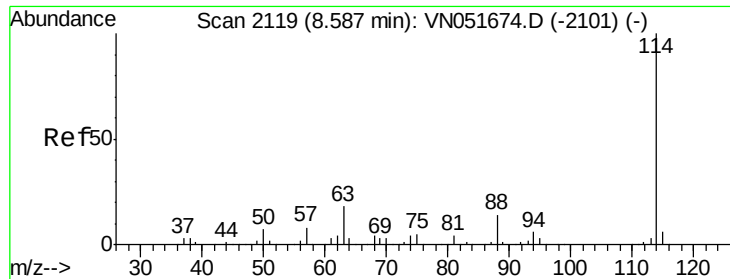
Tot Ion: 83 Resp: 27127  
Ion Ratio Lower Upper  
83 100  
85 52.6 54.6 82.0#



#27  
1,2-Dichloroethane-d4  
Concen: Below ug/l  
RT: 8.03 min Scan# 1946  
Delta R.T. 0.00 min  
Lab File: VN051684.D  
Acq: 5 Oct 2018 14:03

Tgt Ion: 65 Resp: 195808  
Ion Ratio Lower Upper  
65 100  
67 51.4 41.8 62.8

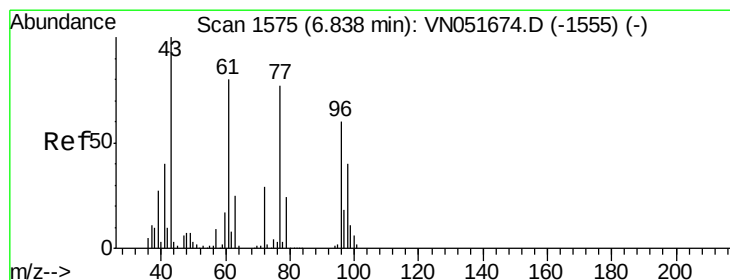
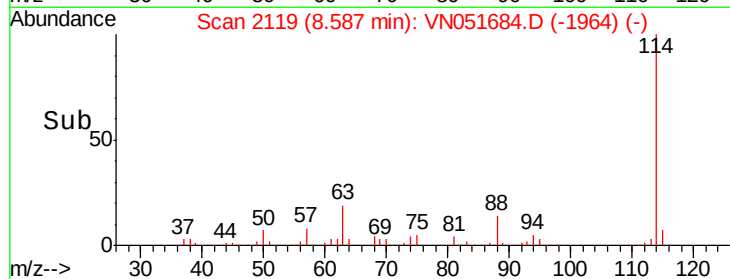
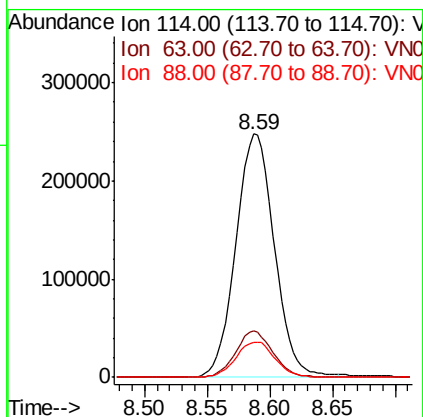
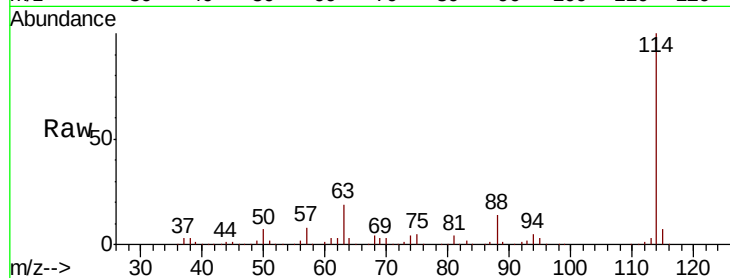




#28  
 1,4-Difluorobenzene  
 Concen: 30.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. -0.00 min  
 Lab File: VN051684.D  
 Acq: 5 Oct 2018 14:03

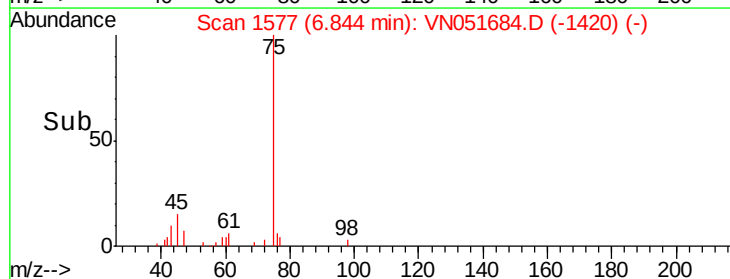
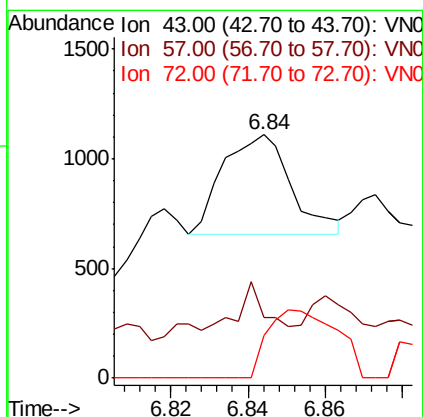
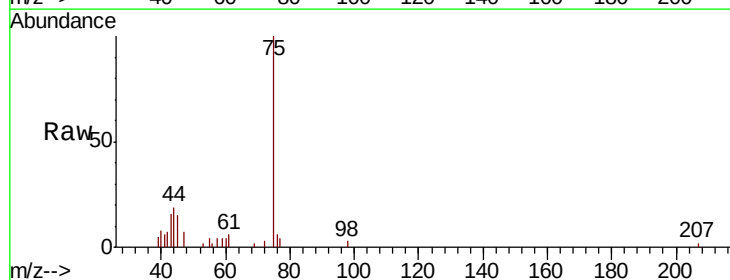
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 001-WILLETS-PT-BLVD(AUG)

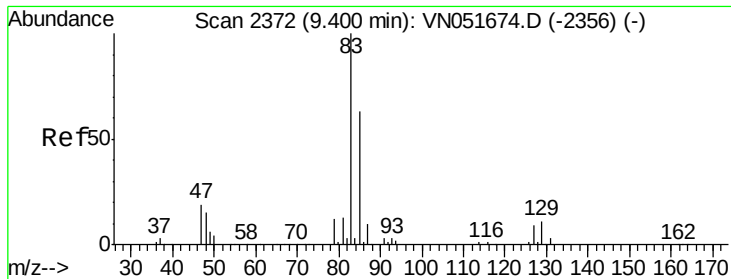
Tot Ion:114 Resp: 530024  
 Ion Ratio Lower Upper  
 114 100  
 63 18.3 16.2 24.2  
 88 14.7 12.2 18.4



#30  
 2-Butanone  
 Concen: 0.327 ug/l  
 RT: 6.84 min Scan# 1577  
 Delta R.T. 0.01 min  
 Lab File: VN051684.D  
 Acq: 5 Oct 2018 14:03

Tgt Ion: 43 Resp: 561  
 Ion Ratio Lower Upper  
 43 100  
 57 17.1 4.5 6.7#  
 72 0.0 21.5 32.3#





#41

Bromodichloromethane

Concen: 0.345 ug/l

RT: 9.40 min Scan# 2373

Delta R.T. 0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

001-WILLETS-PT-BLVD(AUG)

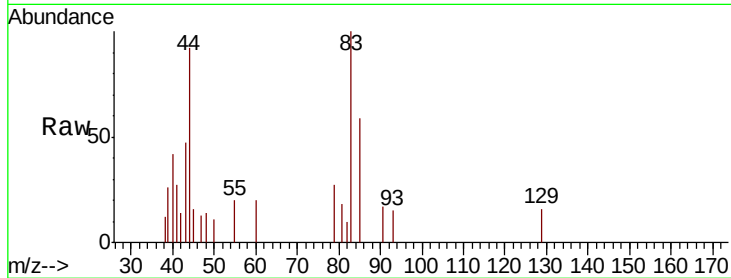
Tot Ion: 83 Resp: 2780

Ion Ratio Lower Upper

83 100

85 58.9 55.7 83.5

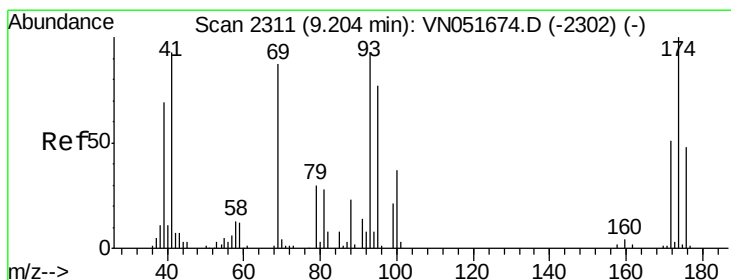
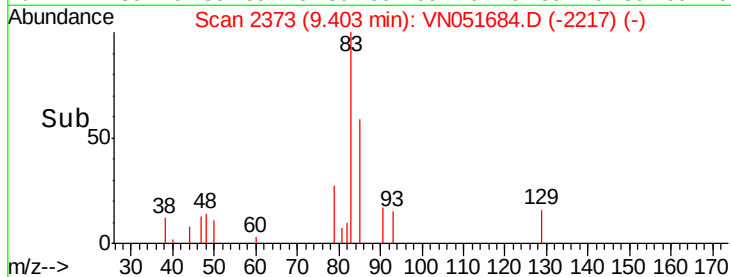
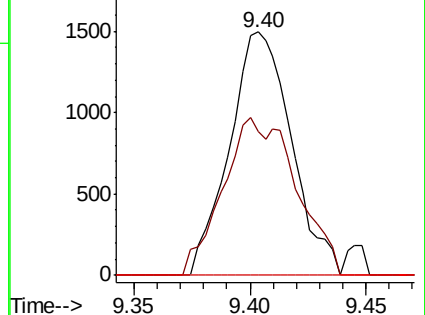
127 0.0 8.2 12.4#



Abundance Ion 83.00 (82.70 to 83.70): VN0

Ion 85.00 (84.70 to 85.70): VN0

Ion 127.00 (126.70 to 127.70): VN0



#45

1,4-Dioxane

Concen: 1.348 ug/l

RT: 8.76 min Scan# 2173

Delta R.T. -0.44 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

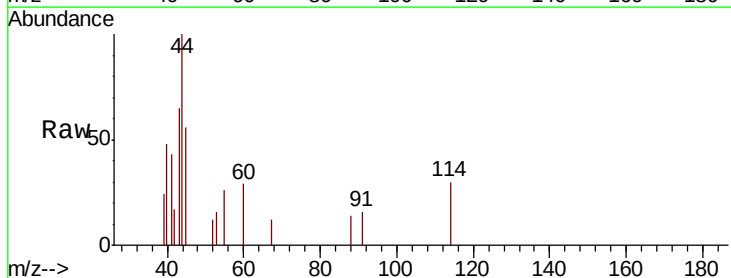
Tgt Ion: 88 Resp: 68

Ion Ratio Lower Upper

88 100

43 283.8 26.2 39.2#

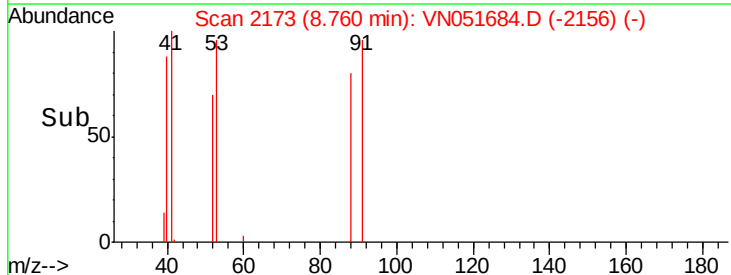
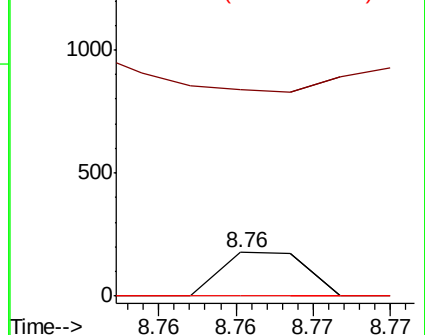
58 0.0 65.6 98.4#



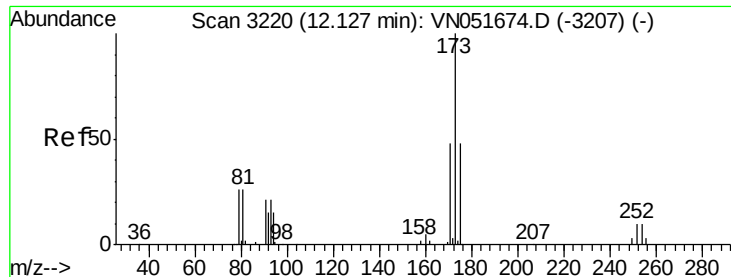
Abundance Ion 88.00 (87.70 to 88.70): VN0

Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0







#56

Bromoform

Concen: 0.374 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. 0.28 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

001-WILLETS-PT-BLVD(AUG)

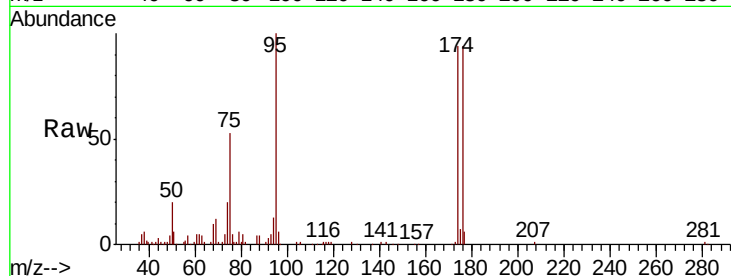
Tot Ion:173 Resp: 1793

Ion Ratio Lower Upper

173 100

175 615.1 35.8 53.8#

254 0.0 8.6 13.0#

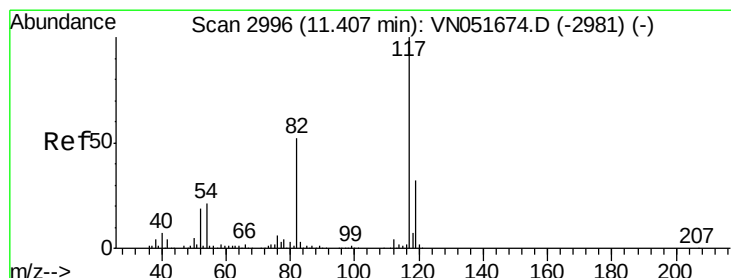
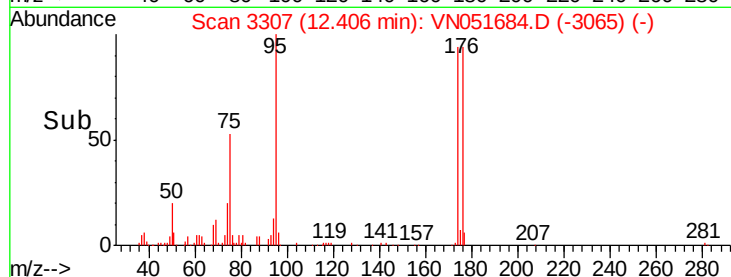
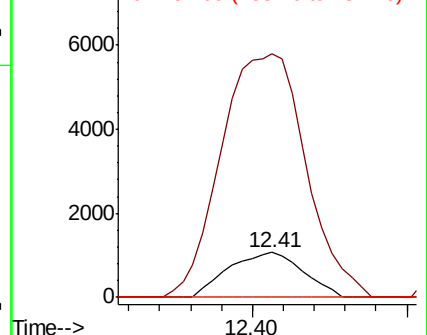


Abundance

Ion 173.00 (172.70 to 173.70): V

Ion 175.00 (174.70 to 175.70): V

Ion 254.00 (253.70 to 254.70): V



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.41 min Scan# 2997

Delta R.T. 0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

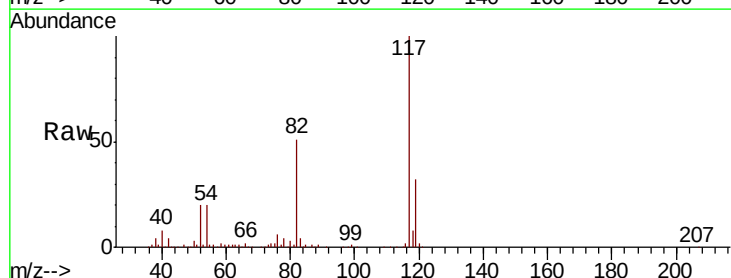
Tgt Ion:117 Resp: 440559

Ion Ratio Lower Upper

117 100

82 51.0 44.1 66.1

119 31.6 25.8 38.8

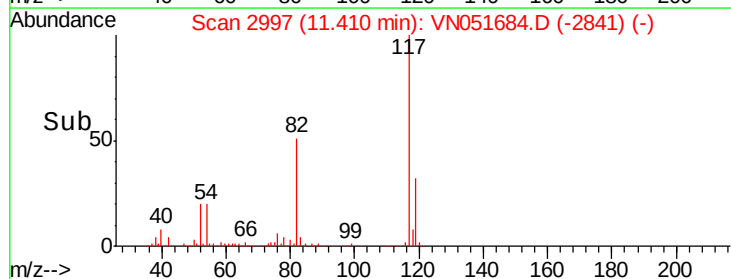
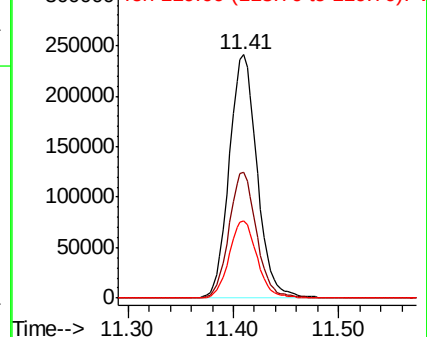


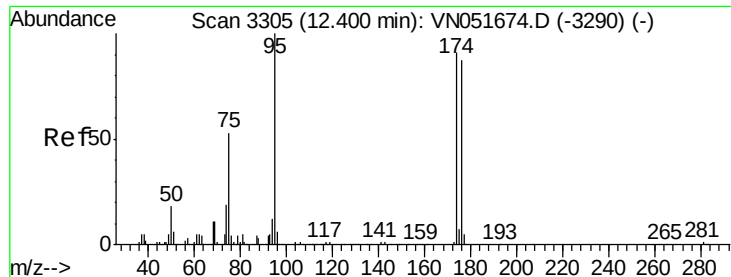
Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): V

Ion 119.00 (118.70 to 119.70): V





#60

4-Bromofluorobenzene

Concen: Below ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

001-WILLETS-PT-BLVD(AUG)

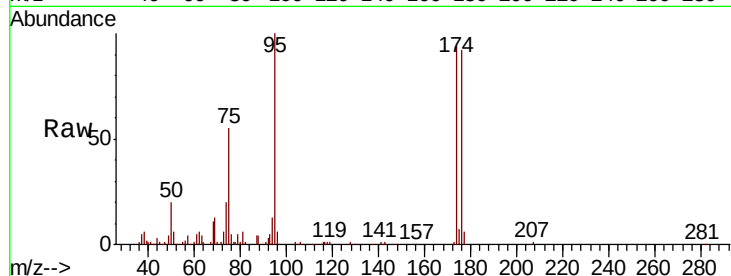
Tot Ion: 95 Resp: 150611

Ion Ratio Lower Upper

95 100

174 95.2 73.5 110.3

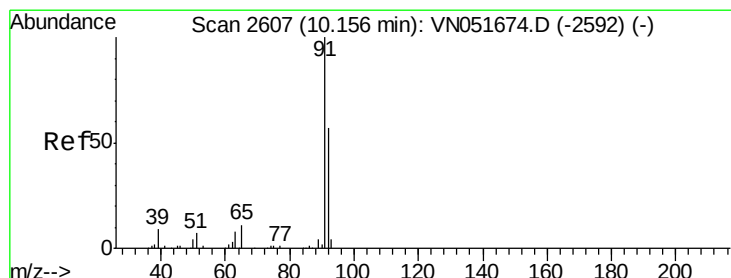
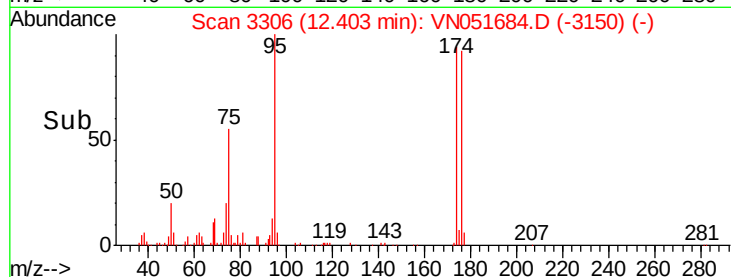
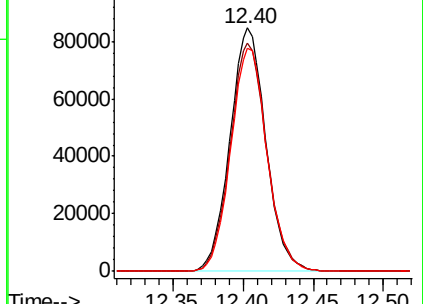
176 92.7 70.2 105.2



Abundance Ion 95.00 (94.70 to 95.70): VN0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V



#62

Toluene

Concen: 13.734 ug/l

RT: 10.16 min Scan# 2607

Delta R.T. -0.00 min

Lab File: VN051684.D

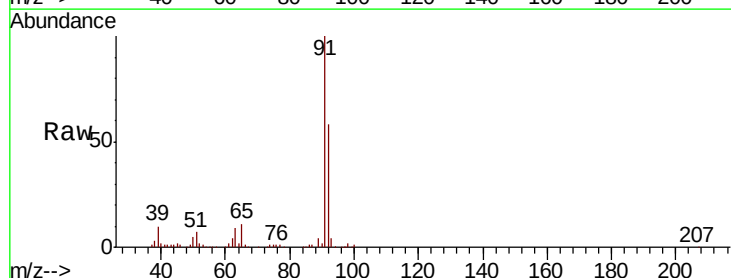
Acq: 5 Oct 2018 14:03

Tgt Ion: 91 Resp: 306504

Ion Ratio Lower Upper

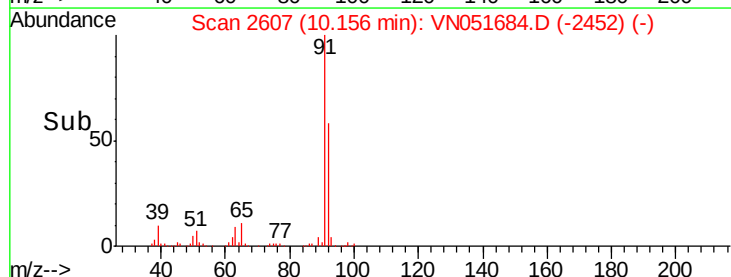
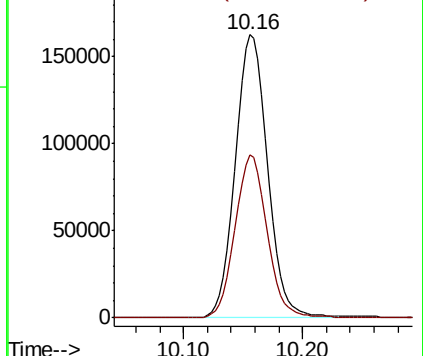
91 100

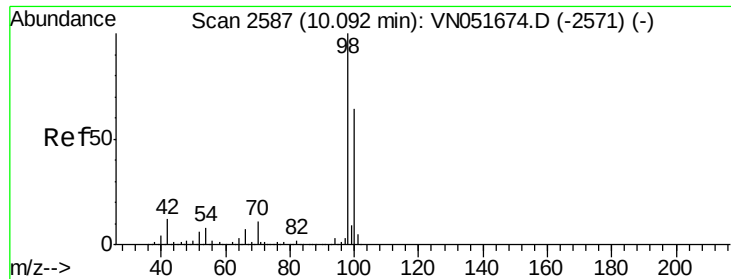
92 57.1 44.6 66.8



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 92.00 (91.70 to 92.70): VN0





#63

Toluene-d8

Concen: 13.734 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. -0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

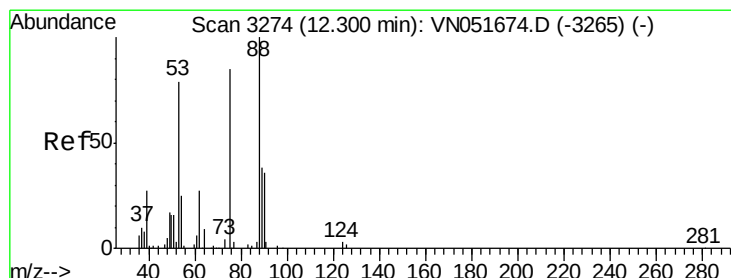
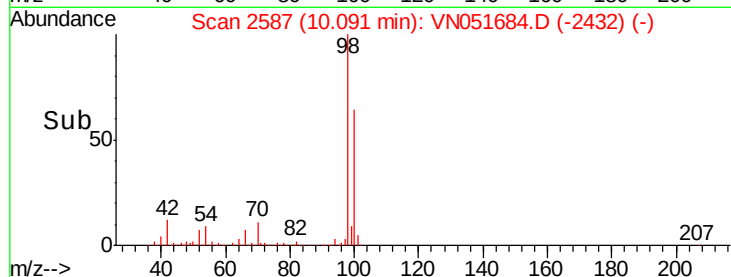
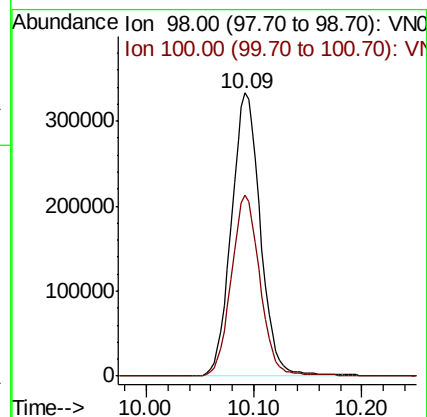
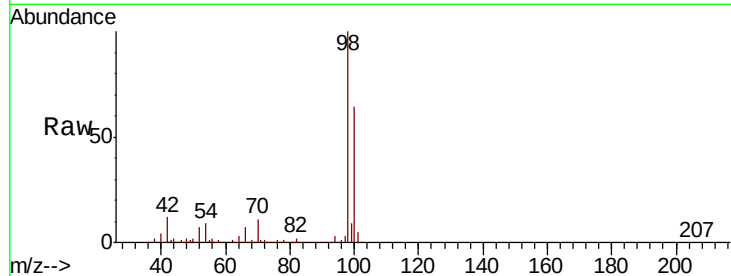
001-WILLETS-PT-BLVD(AUG)

Tot Ion: 98 Resp: 624517

Ion Ratio Lower Upper

98 100

100 63.1 50.8 76.2



#77

t-1,4-Dichloro-2-butene

Concen: 49.775 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

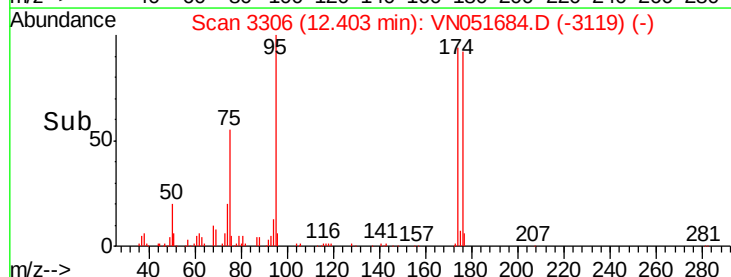
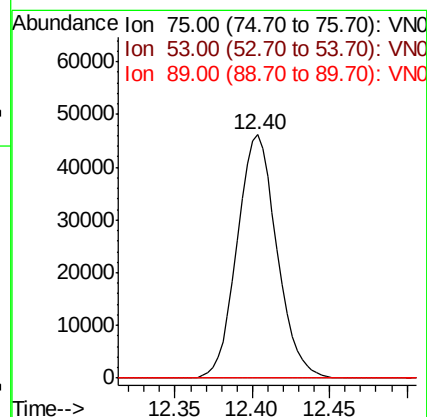
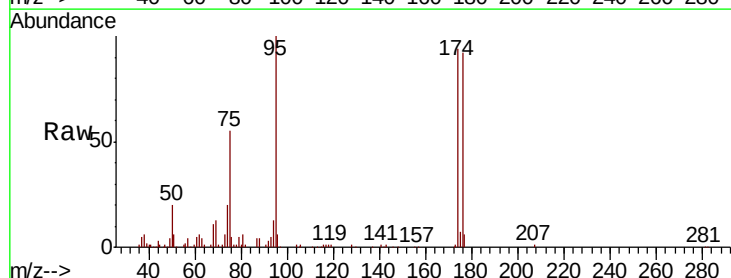
Tgt Ion: 75 Resp: 82273

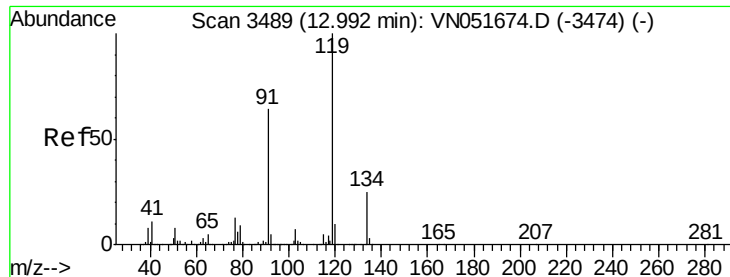
Ion Ratio Lower Upper

75 100

53 0.0 46.3 138.9#

89 0.0 24.6 73.8#





#79

tert-butylbenzene

Concen: 0.551 ug/l

RT: 13.29 min Scan# 3582

Delta R.T. 0.30 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

001-WILLETS-PT-BLVD(AUG)

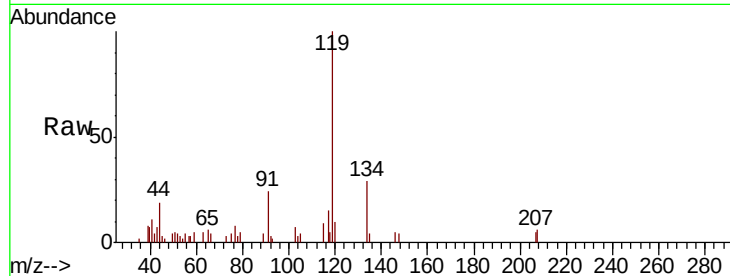
Tot Ion:119 Resp: 11183

Ion Ratio Lower Upper

119 100

91 25.3 0.0 131.6

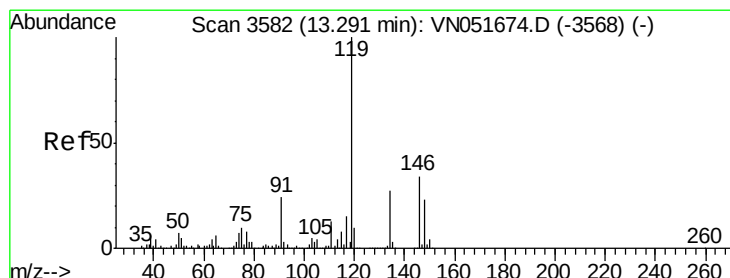
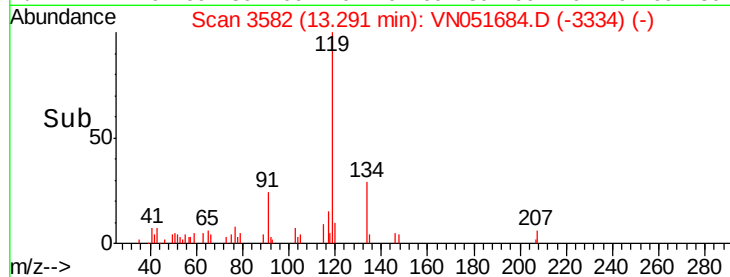
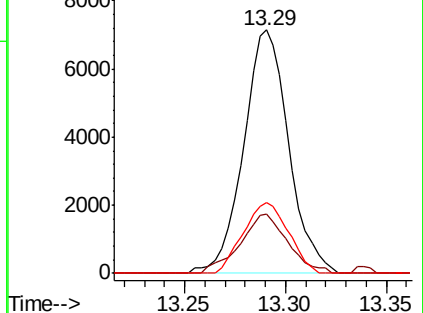
134 29.2 0.0 46.2



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 91.00 (90.70 to 91.70): V

Ion 134.00 (133.70 to 134.70): V



#82

p-Isopropyltoluene

Concen: 0.467 ug/l

RT: 13.29 min Scan# 3582

Delta R.T. -0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

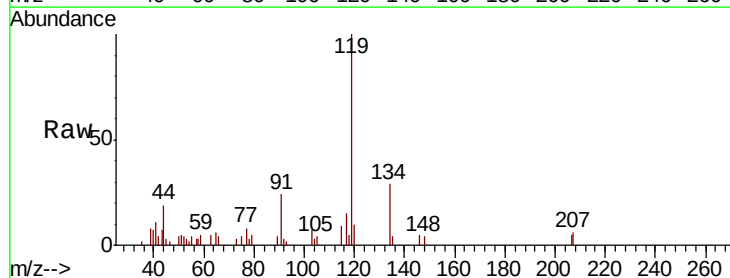
Tgt Ion:119 Resp: 11183

Ion Ratio Lower Upper

119 100

134 29.2 0.0 53.6

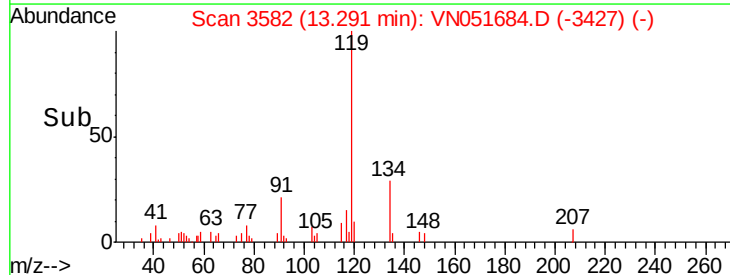
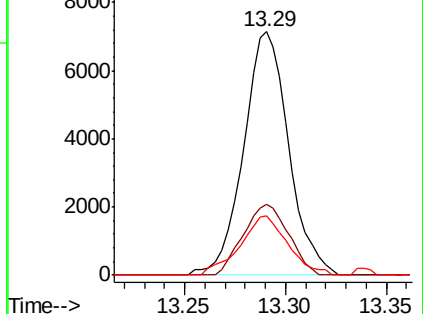
91 25.3 0.0 52.0

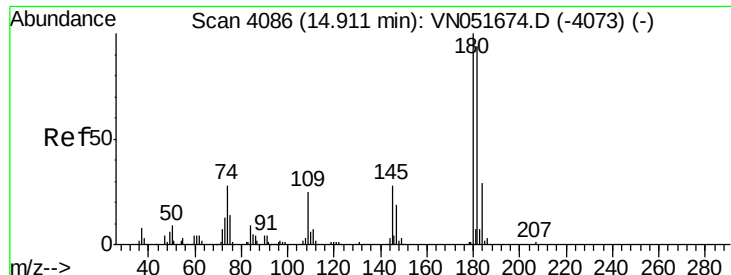


Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): V





#89

1,2,4-Trichlorobenzene

Concen: 6.909 ug/l

RT: 14.91 min Scan# 4086

Delta R.T. 0.00 min

Lab File: VN051684.D

Acq: 5 Oct 2018 14:03

Instrument :

MSVOA\_N

ClientSampleId :

001-WILLETS-PT-BLVD(AUG)

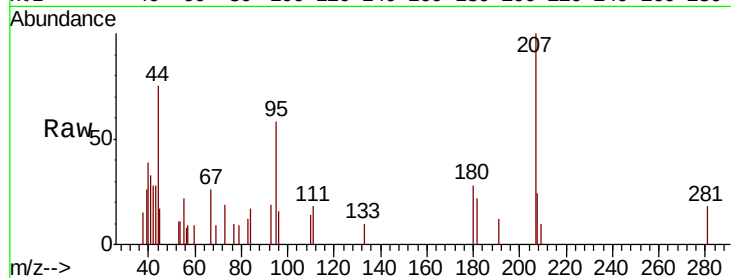
Tot Ion:180 Resp: 531

Ion Ratio Lower Upper

180 100

182 96.4 77.7 116.5

145 0.0 23.4 35.2#



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

