

Data Path : W:\HPCHEM1\MSVOA\_N\DATA\VN091715\  
 Data File : VN027282.D  
 Acq On : 18 Sep 2015 4:33  
 Operator : MD\FY  
 Sample : G3706-05  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 41 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-6

Quant Time: Sep 18 06:46:01 2015  
 Quant Method : W:\HPCHEM1\MSVOA\_N\METHODS\82N091515W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 15 21:12:09 2015  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.75  | 168  | 718214   | 50.00 | ug/l  | 0.00     |
| 35) 1,4-Difluorobenzene    | 8.68  | 114  | 1293755  | 50.00 | ug/l  | 0.00     |
| 64) Chlorobenzene-d5       | 11.52 | 117  | 1078047  | 50.00 | ug/l  | 0.00     |
| 73) 1,4-Dichlorobenzene-d4 | 13.47 | 152  | 370975   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 34) 1,2-Dichloroethane-d4   | 8.12  | 65   | 717340   | 48.75 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.50%  |          |
| 36) Dibromofluoromethane    | 7.68  | 113  | 463606   | 51.69 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.38% |          |
| 51) Toluene-d8              | 10.19 | 98   | 1892239  | 53.89 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.78% |          |
| 63) 4-Bromofluorobenzene    | 12.52 | 95   | 622133   | 49.92 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.84%  |          |

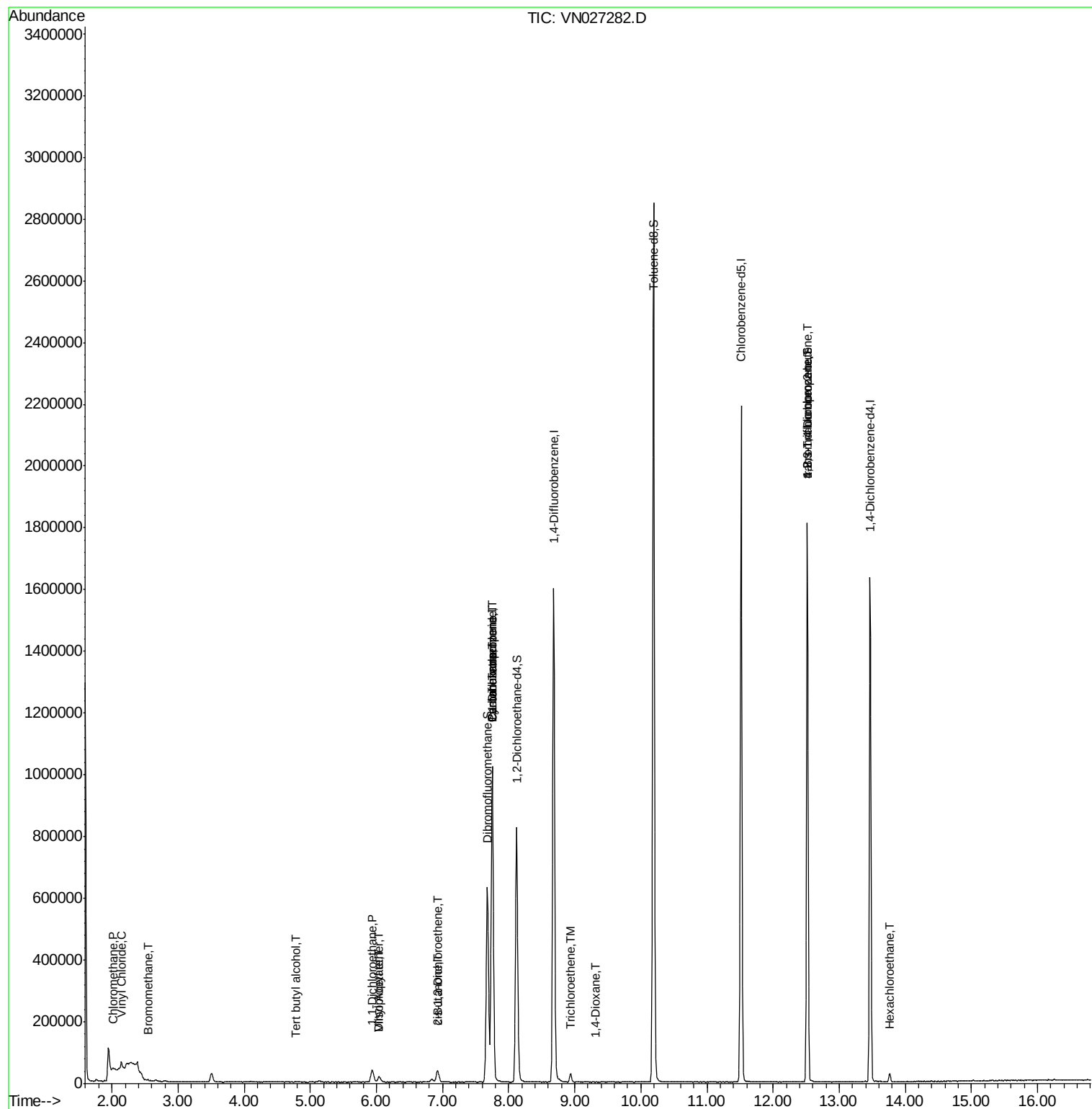
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 4) Chloromethane               | 2.00  | 50   | 2003     | 1.31      | ug/l # | 74     |
| 5) Vinyl Chloride              | 2.14  | 62   | 16256    | 1.60      | ug/l   | 88     |
| 6) Bromomethane                | 2.55  | 94   | 626      | 1.72      | ug/l # | 61     |
| 12) Tert butyl alcohol         | 4.79  | 59   | 583      | 0.41      | ug/l # | 51     |
| 23) Diisopropyl ether          | 6.04  | 45   | 23107    | 0.59      | ug/l # | 93     |
| 24) Vinyl Acetate              | 6.04  | 43   | 7230     | 0.56      | ug/l # | 76     |
| 25) 1,1-Dichloroethane         | 5.94  | 63   | 61200    | 2.70      | ug/l   | 99     |
| 26) 2-Butanone                 | 6.93  | 43   | 1223     | 0.20      | ug/l # | 52     |
| 28) cis-1,2-Dichloroethene     | 6.92  | 96   | 22346    | 1.95      | ug/l   | 91     |
| 32) Cyclohexane                | 7.75  | 56   | 23035    | 0.22      | ug/l # | 10     |
| 37) 1,1-Dichloropropene        | 7.75  | 75   | 75013    | 4.95      | ug/l # | 51     |
| 38) Ethyl Acetate              | 7.03  | 43   | 276      | Below Cal | #      | 71     |
| 39) Carbon Tetrachloride       | 7.75  | 117  | 82226    | 5.78      | ug/l # | 16     |
| 45) Trichloroethene            | 8.93  | 130  | 8654     | 0.98      | ug/l   | 97     |
| 50) 1,4-Dioxane                | 9.31  | 88   | 73       | 0.52      | ug/l # | 11     |
| 76) 1,1,2,2-Tetrachloroethane  | 12.55 | 83   | 30       | Below Cal | #      | 25     |
| 77) 1,2,3-Trichloropropane     | 12.52 | 75   | 363042   | 32.38     | ug/l # | 1      |
| 82) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 363042   | 79.54     | ug/l # | 4      |
| 91) Hexachloroethane           | 13.76 | 117  | 1676     | 0.25      | ug/l # | 15     |

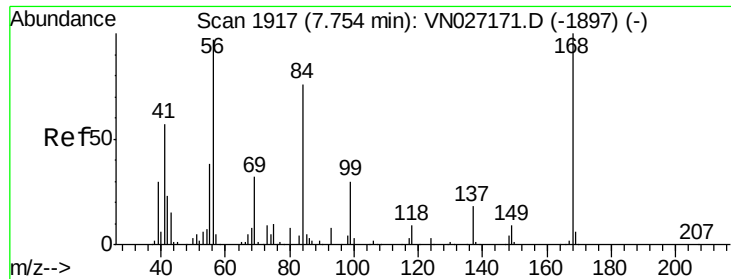
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Tue Sep 15 21:12:09 2015  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 7.75 min Scan# 1917

Delta R.T. 0.00 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampled :

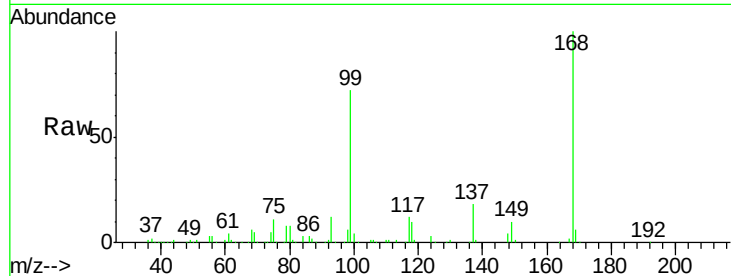
MW-6

Tgt Ion:168 Resp: 718214

Ion Ratio Lower Upper

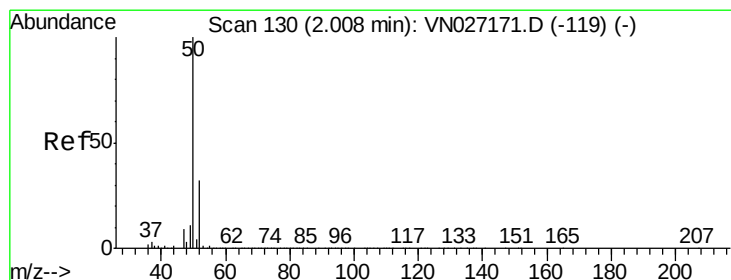
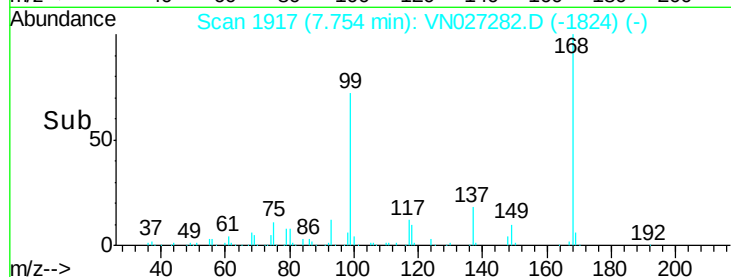
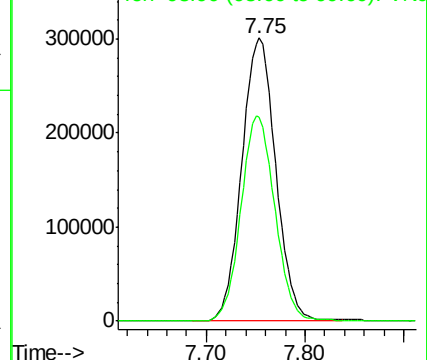
168 100

99 72.0 50.4 75.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO



#4

Chloromethane

Concen: 1.31 ug/l

RT: 2.00 min Scan# 129

Delta R.T. -0.00 min

Lab File: VN027282.D

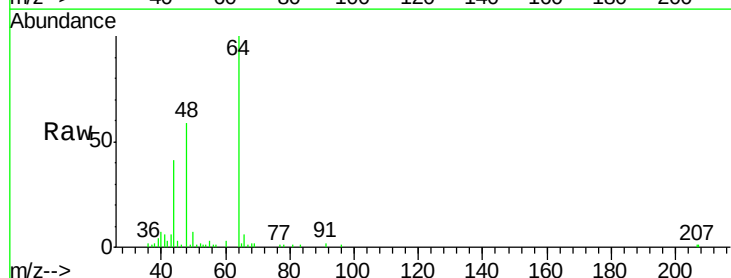
Acq: 18 Sep 2015 4:33

Tgt Ion: 50 Resp: 2003

Ion Ratio Lower Upper

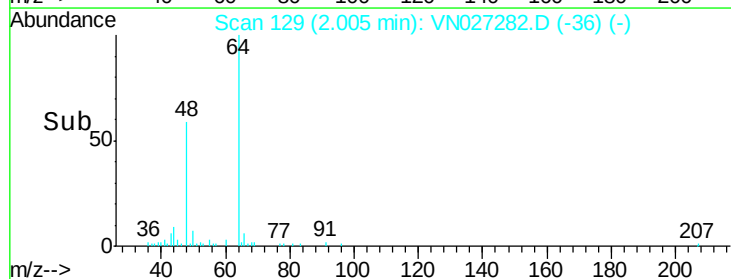
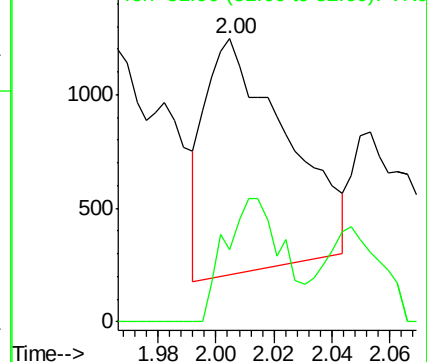
50 100

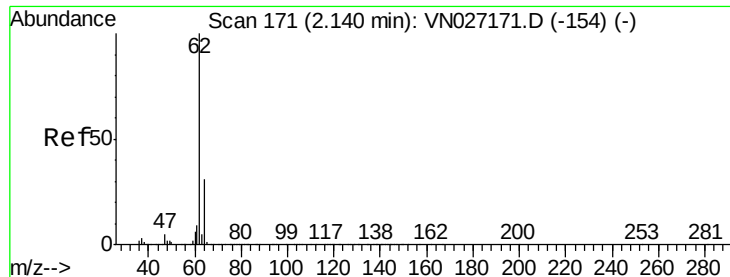
52 47.0 25.9 38.9#



Abundance Ion 49.90 (49.60 to 50.60): VNO

Ion 51.90 (51.60 to 52.60): VNO





#5

Vinyl Chloride

Concen: 1.60 ug/l

RT: 2.14 min Scan# 171

Delta R.T. 0.00 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampled :

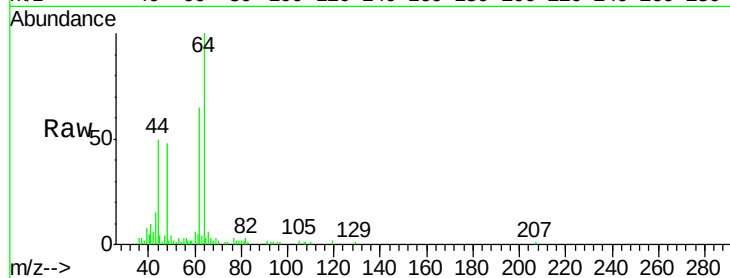
MW-6

Tgt Ion: 62 Resp: 16256

Ion Ratio Lower Upper

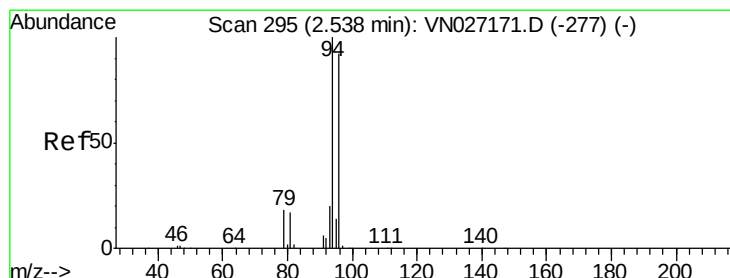
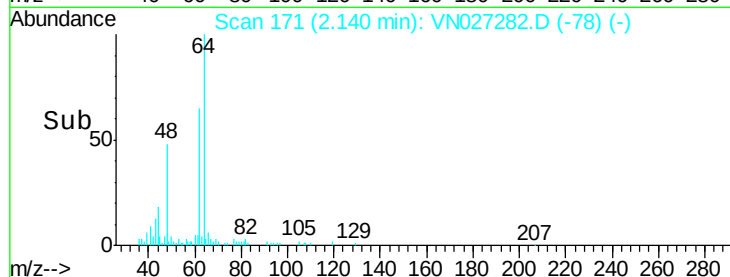
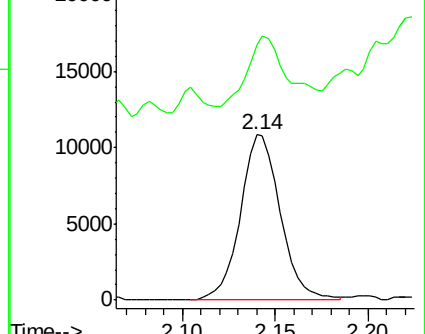
62 100

64 25.9 25.9 38.9



Abundance Ion 61.90 (61.60 to 62.60): VN0

Ion 63.90 (63.60 to 64.60): VN0



#6

Bromomethane

Concen: 1.72 ug/l

RT: 2.55 min Scan# 300

Delta R.T. 0.02 min

Lab File: VN027282.D

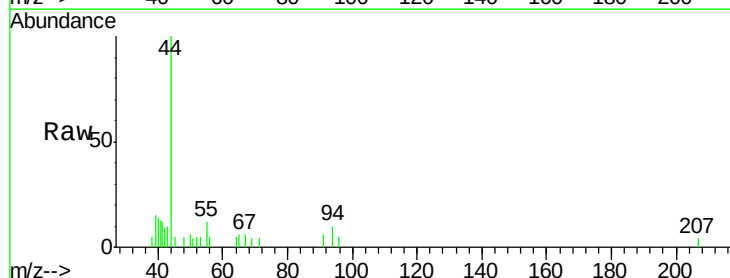
Acq: 18 Sep 2015 4:33

Tgt Ion: 94 Resp: 626

Ion Ratio Lower Upper

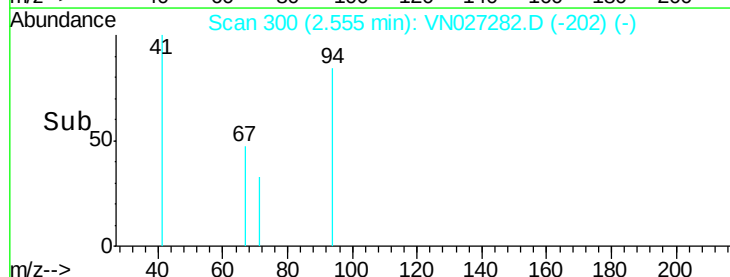
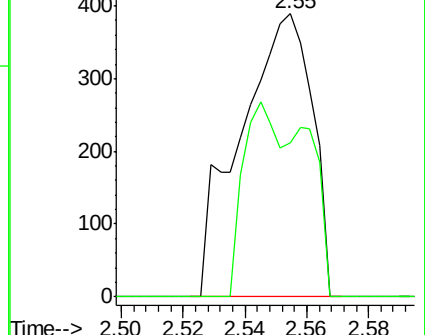
94 100

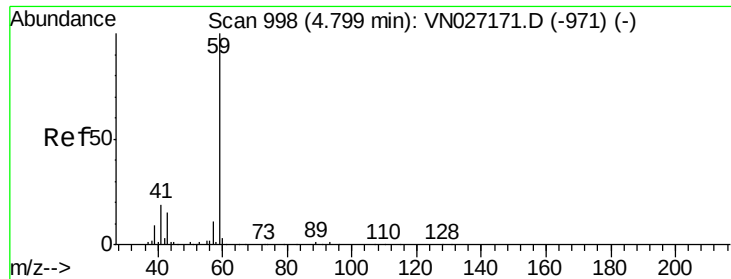
96 54.5 73.4 110.2#



Abundance Ion 93.90 (93.60 to 94.60): VN0

Ion 95.90 (95.60 to 96.60): VN0



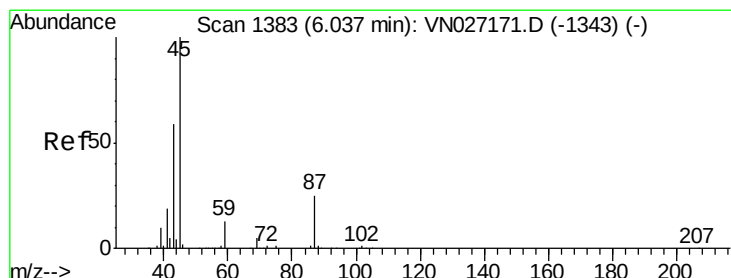
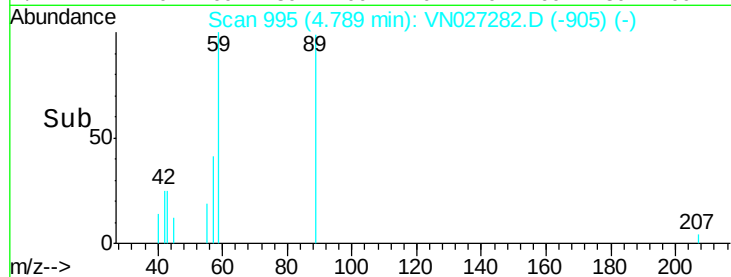
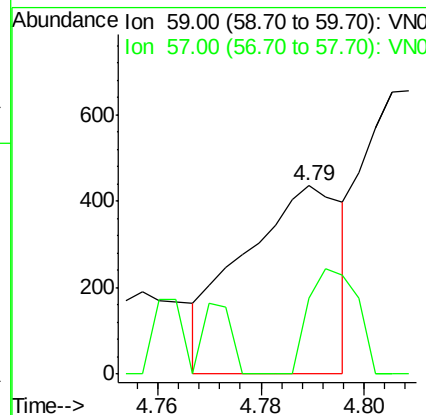
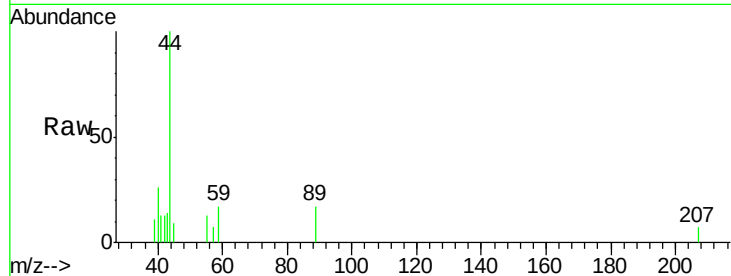


#12

Tert butyl alcohol  
 Concen: 0.41 ug/l  
 RT: 4.79 min Scan# 995  
 Delta R.T. -0.01 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-6

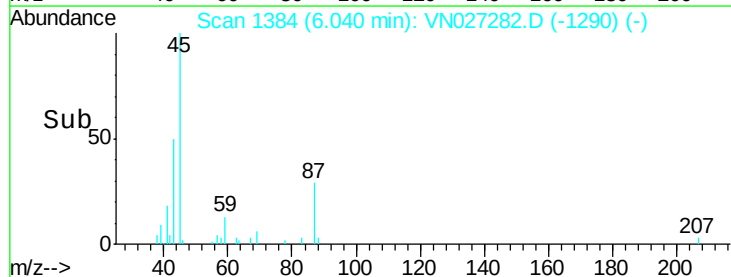
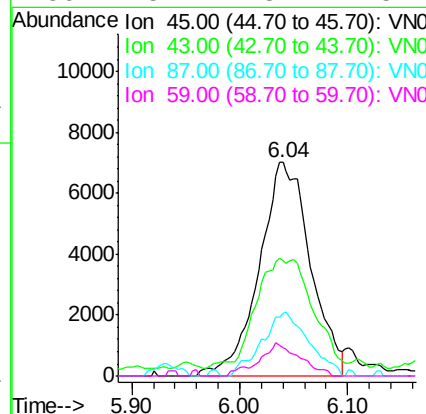
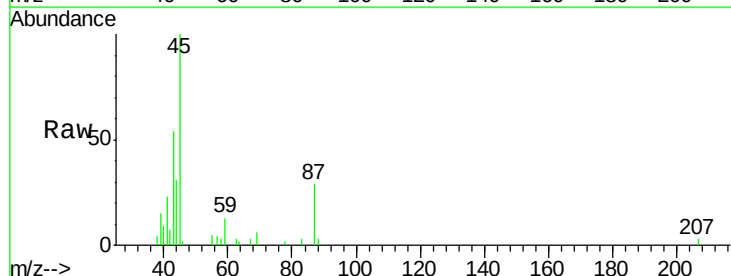
Tgt Ion: 59 Resp: 583  
 Ion Ratio Lower Upper  
 59 100  
 57 27.4 7.6 11.4#

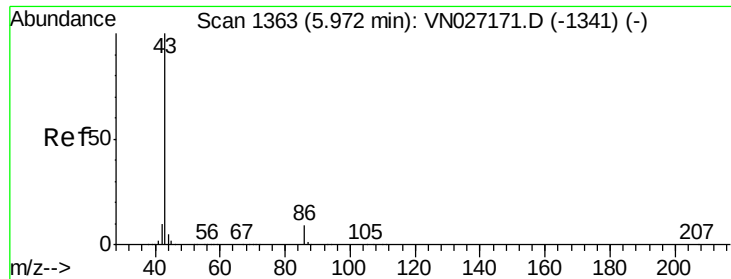


#23

Diisopropyl ether  
 Concen: 0.59 ug/l  
 RT: 6.04 min Scan# 1384  
 Delta R.T. 0.00 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

Tgt Ion: 45 Resp: 23107  
 Ion Ratio Lower Upper  
 45 100  
 43 48.8 41.0 61.6  
 87 29.2 17.5 26.3#  
 59 13.4 8.7 13.1#

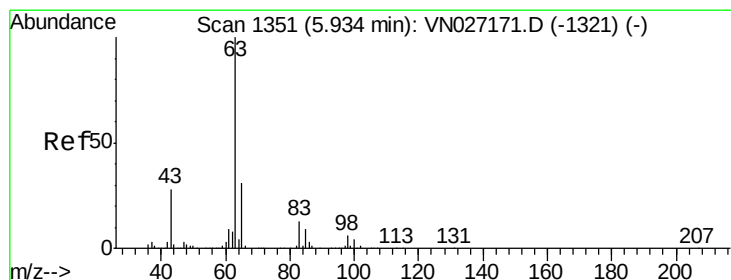
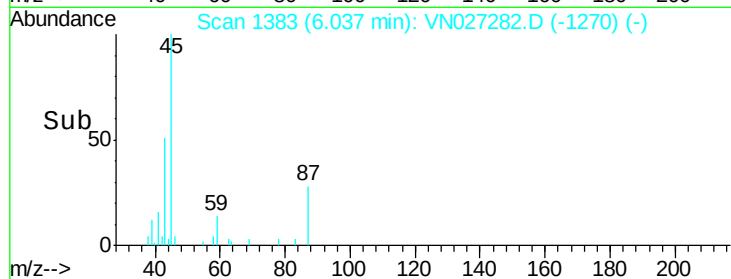
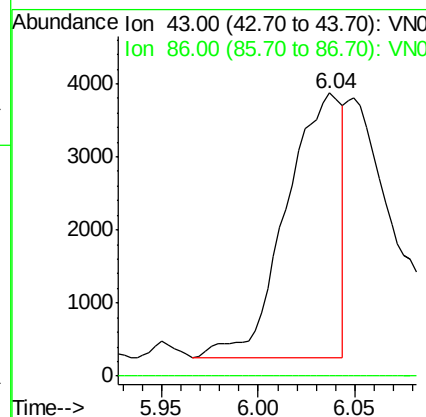
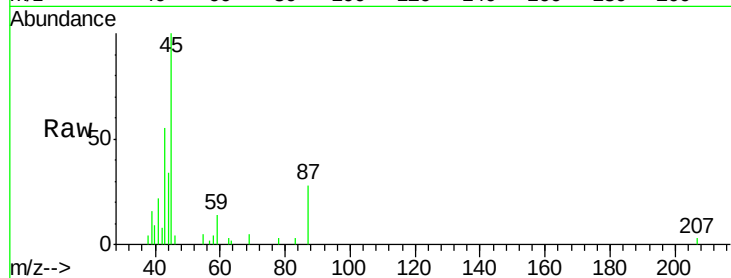




#24  
 Vinyl Acetate  
 Concen: 0.56 ug/l  
 RT: 6.04 min Scan# 1383  
 Delta R.T. 0.06 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

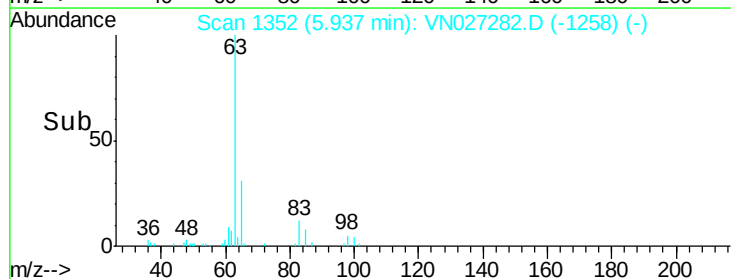
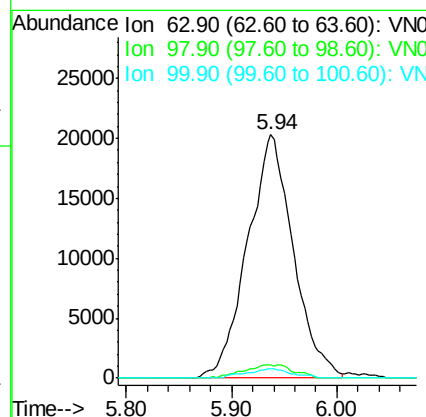
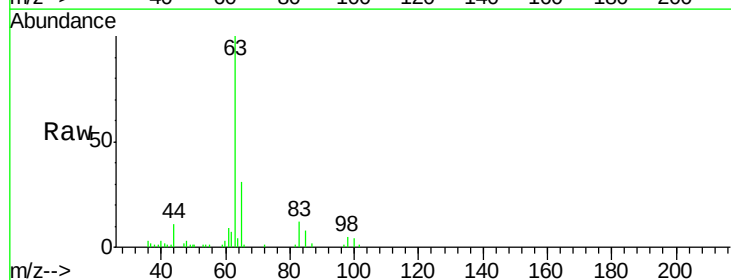
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-6

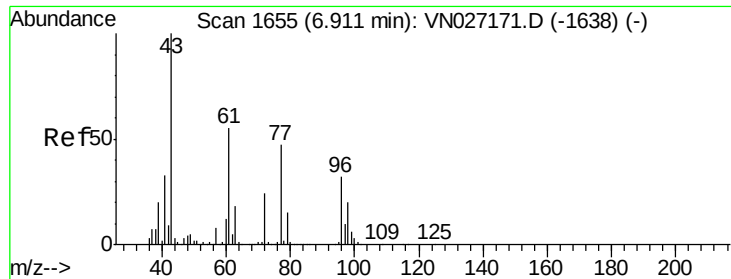
Tgt Ion: 43 Resp: 7230  
 Ion Ratio Lower Upper  
 43 100  
 86 0.0 6.9 10.3#



#25  
 1,1-Dichloroethane  
 Concen: 2.70 ug/l  
 RT: 5.94 min Scan# 1352  
 Delta R.T. 0.00 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

Tgt Ion: 63 Resp: 61200  
 Ion Ratio Lower Upper  
 63 100  
 98 5.3 2.8 8.3  
 100 3.9 1.7 5.0





#26

2-Butanone

Concen: 0.20 ug/l

RT: 6.93 min Scan# 1661

Delta R.T. 0.02 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampled :

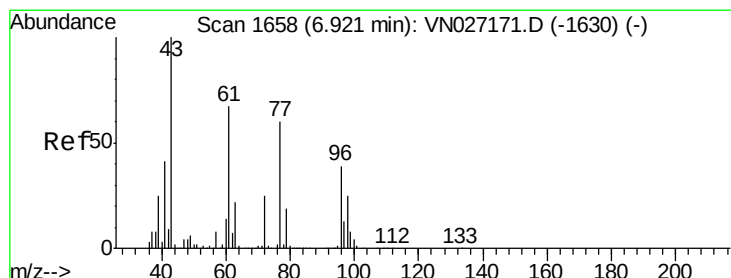
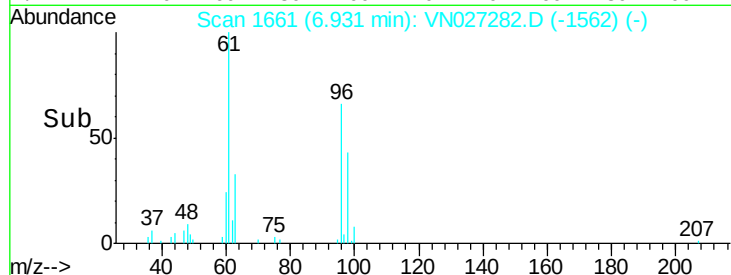
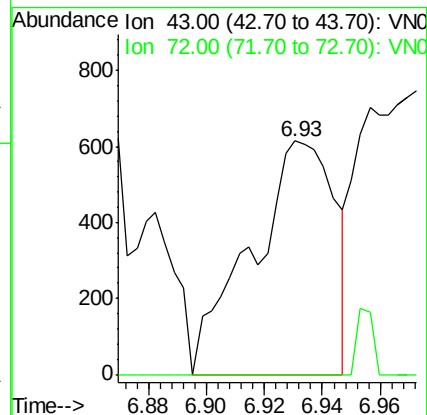
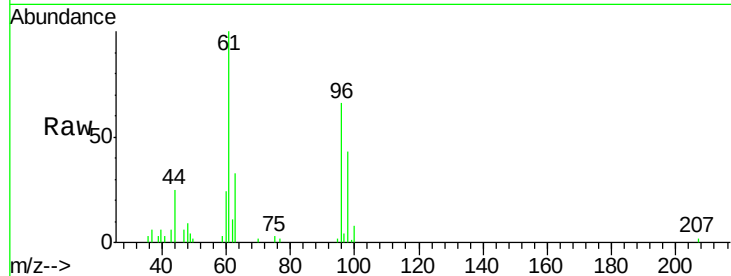
MW-6

Tgt Ion: 43 Resp: 1223

Ion Ratio Lower Upper

43 100

72 0.0 18.8 28.2#



#28

cis-1,2-Dichloroethene

Concen: 1.95 ug/l

RT: 6.92 min Scan# 1658

Delta R.T. 0.00 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

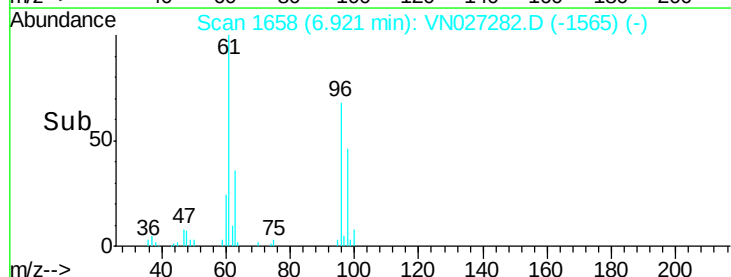
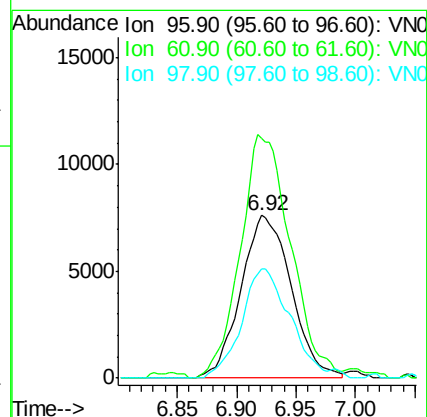
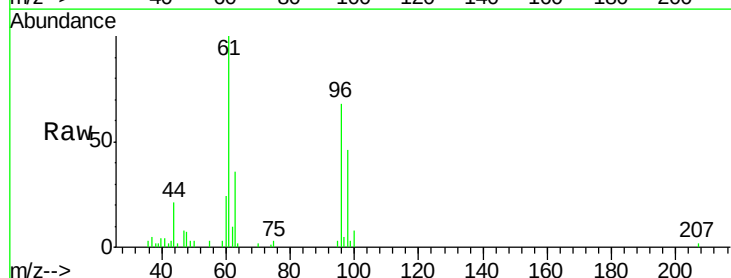
Tgt Ion: 96 Resp: 22346

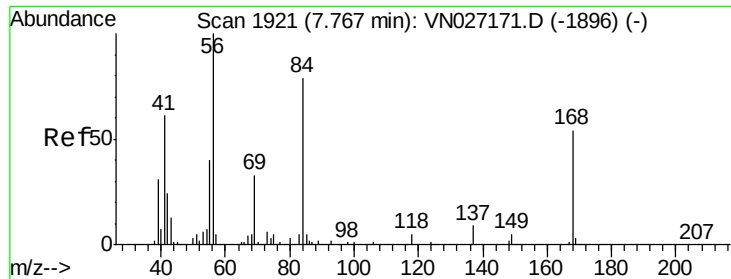
Ion Ratio Lower Upper

96 100

61 149.4 0.0 329.2

98 64.1 0.0 126.0

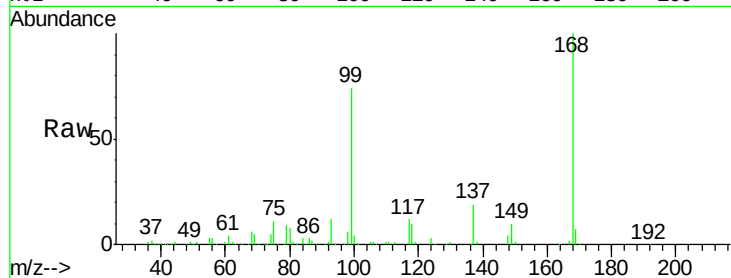




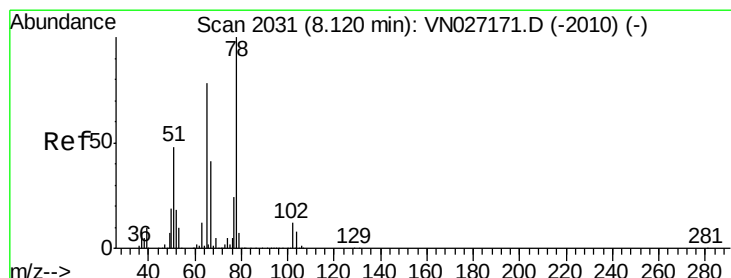
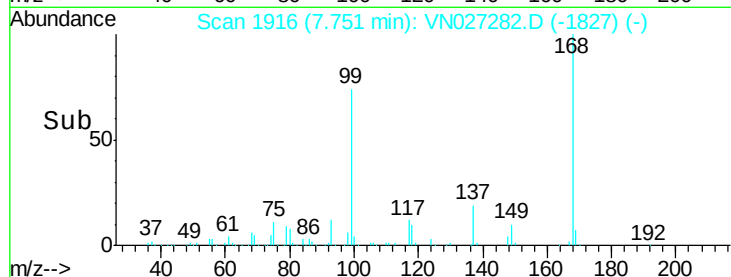
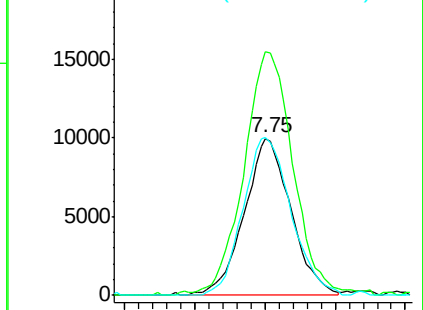
#32  
Cyclohexane  
Concen: 0.22 ug/l  
RT: 7.75 min Scan# 1916  
Delta R.T. -0.02 min  
Lab File: VN027282.D  
Acq: 18 Sep 2015 4:33

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-6

Tgt Ion: 56 Resp: 23035  
Ion Ratio Lower Upper  
56 100  
69 153.0 23.0 34.4#  
84 100.4 57.8 86.8#

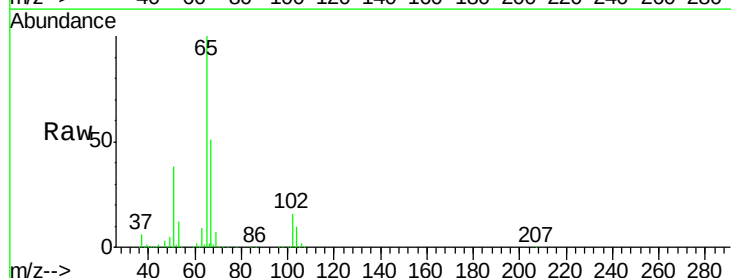


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

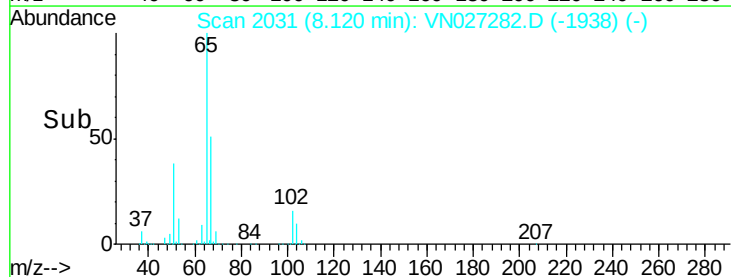
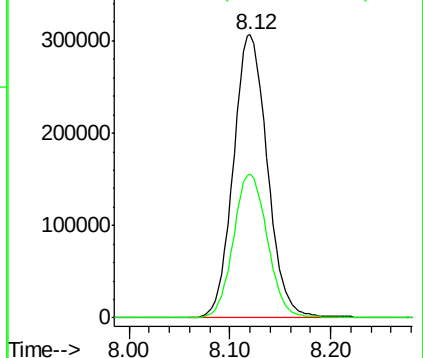


#34  
1,2-Dichloroethane-d4  
Concen: 48.75 ug/l  
RT: 8.12 min Scan# 2031  
Delta R.T. 0.00 min  
Lab File: VN027282.D  
Acq: 18 Sep 2015 4:33

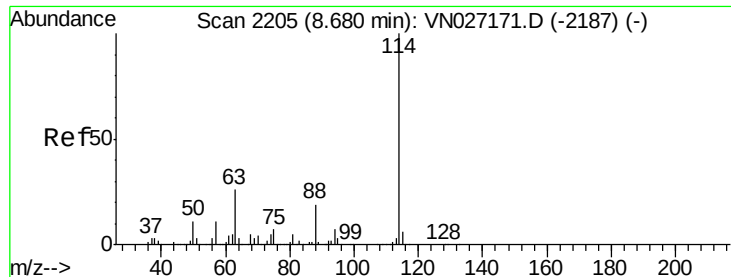
Tgt Ion: 65 Resp: 717340  
Ion Ratio Lower Upper  
65 100  
67 51.0 0.0 110.6



Abundance Ion 64.90 (64.60 to 65.60): VN0  
Ion 66.90 (66.60 to 67.60): VN0



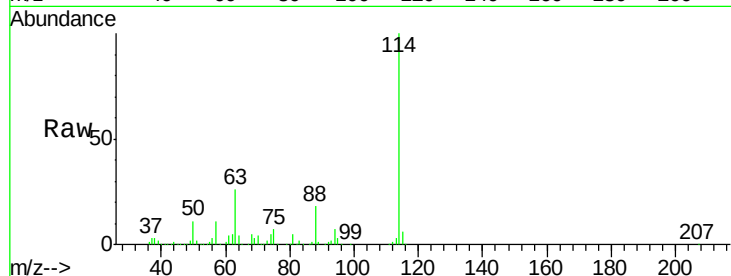




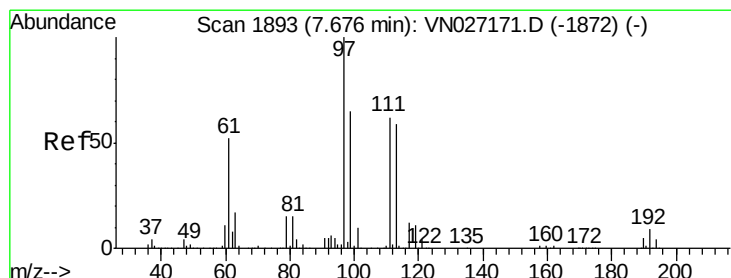
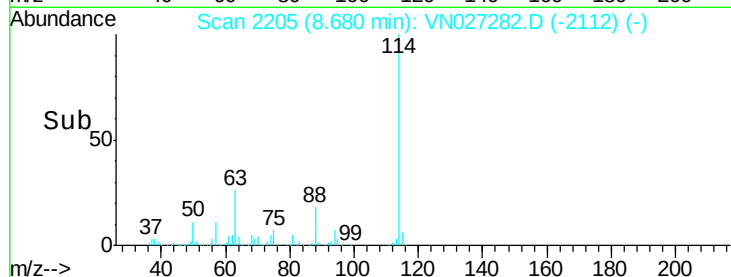
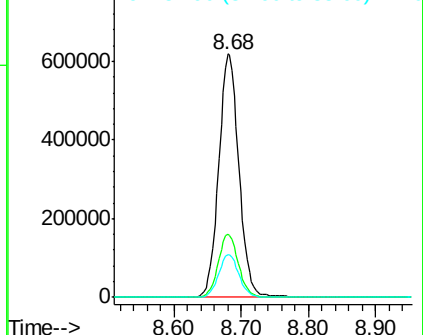
#35  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 8.68 min Scan# 2205  
 Delta R.T. 0.00 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-6

Tgt Ion:114 Resp: 1293755  
 Ion Ratio Lower Upper  
 114 100  
 63 26.1 0.0 48.8  
 88 17.7 0.0 32.2

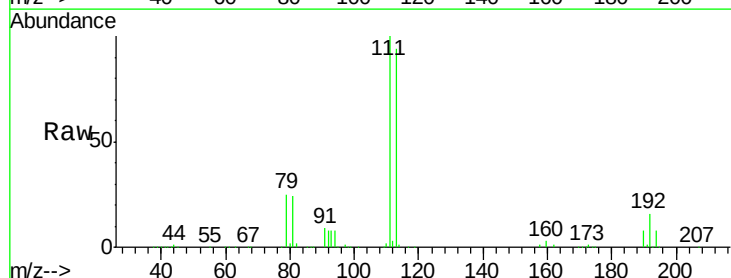


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN

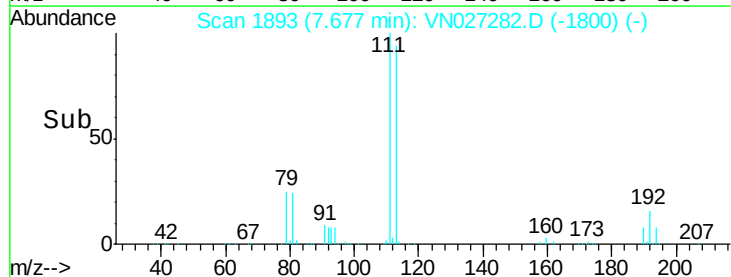
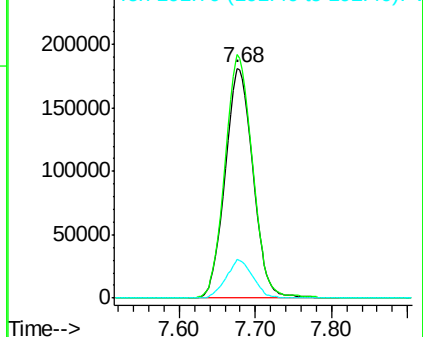


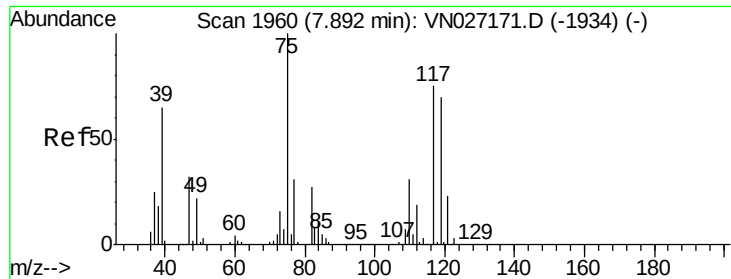
#36  
 Dibromofluoromethane  
 Concen: 51.69 ug/l  
 RT: 7.68 min Scan# 1893  
 Delta R.T. 0.00 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

Tgt Ion:113 Resp: 463606  
 Ion Ratio Lower Upper  
 113 100  
 111 104.9 83.0 124.4  
 192 16.2 14.1 21.1



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

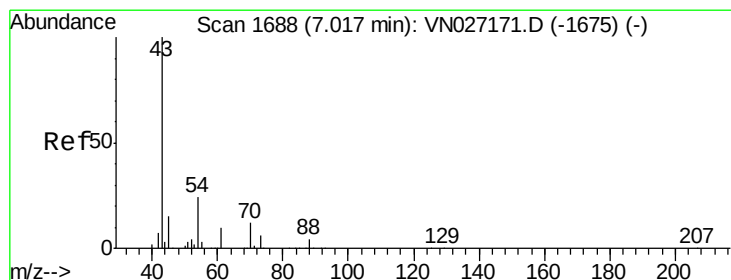
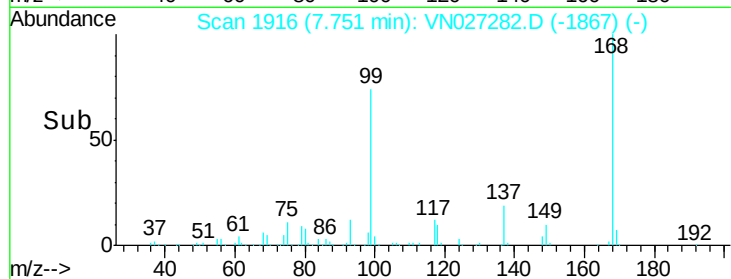
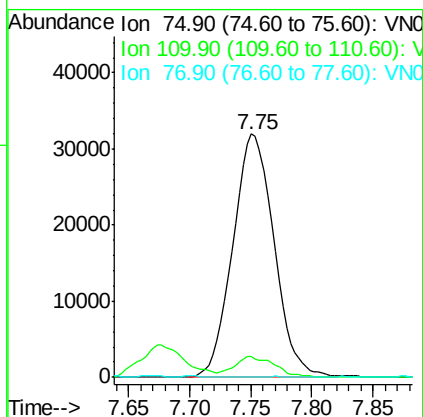
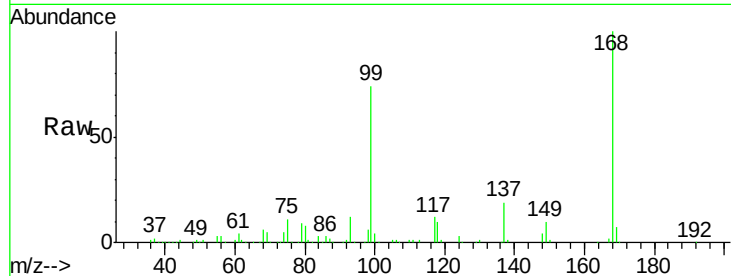




#37  
 1,1-Dichloropropene  
 Concen: 4.95 ug/l  
 RT: 7.75 min Scan# 1916  
 Delta R.T. -0.14 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

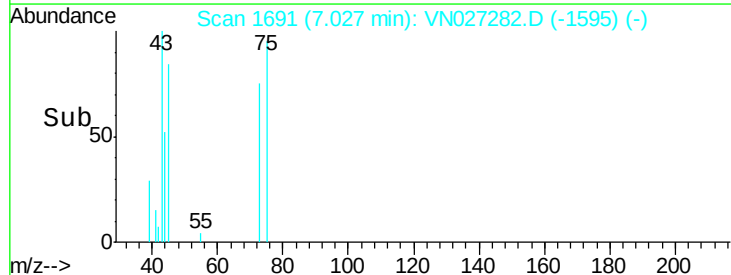
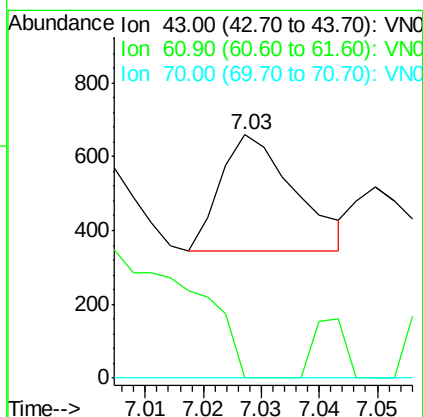
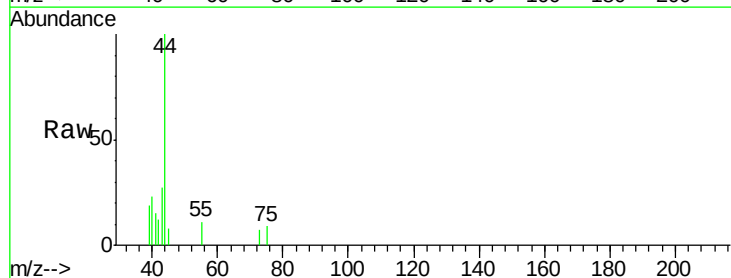
Instrument :  
 MSVOA\_N  
 ClientSampled :  
 MW-6

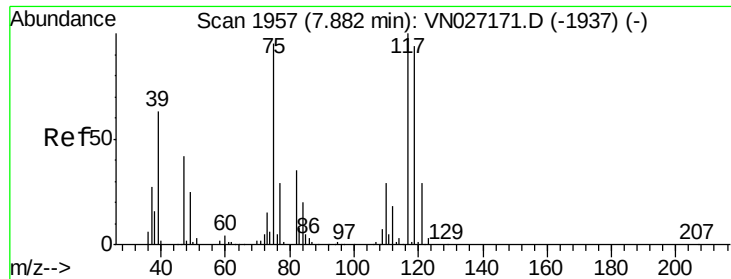
Tgt Ion: 75 Resp: 75013  
 Ion Ratio Lower Upper  
 75 100  
 110 8.4 15.9 47.7#  
 77 0.0 24.9 37.3#



#38  
 Ethyl Acetate  
 Concen: Below Cal  
 RT: 7.03 min Scan# 1691  
 Delta R.T. 0.01 min  
 Lab File: VN027282.D  
 Acq: 18 Sep 2015 4:33

Tgt Ion: 43 Resp: 276  
 Ion Ratio Lower Upper  
 43 100  
 61 0.0 10.2 15.4#  
 70 0.0 7.4 11.0#

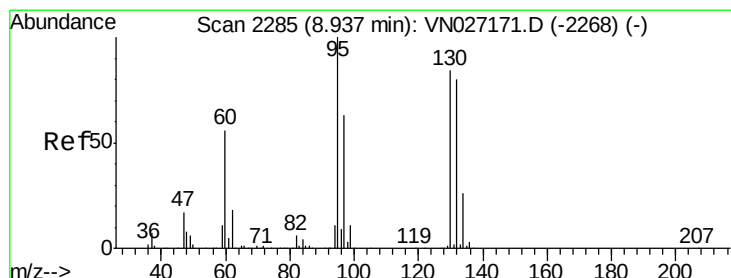
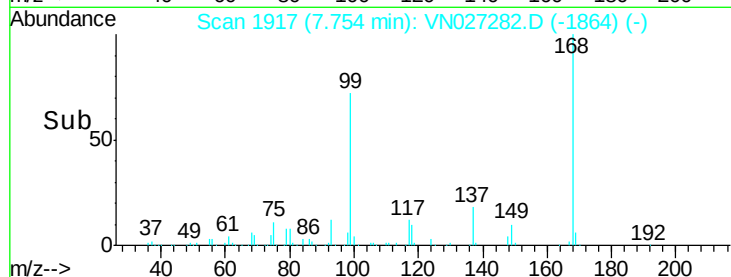
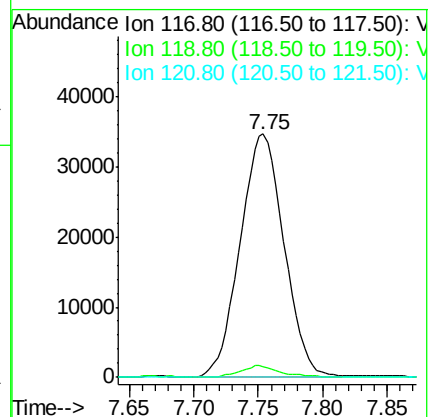
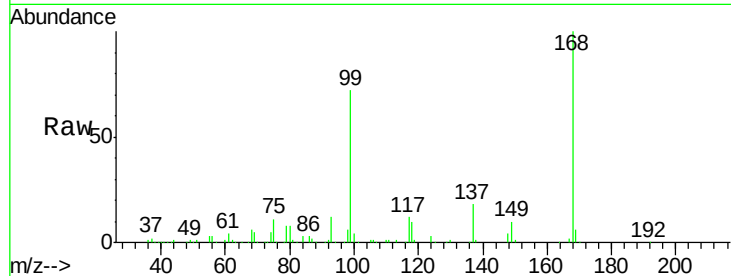




#39  
Carbon Tetrachloride  
Concen: 5.78 ug/l  
RT: 7.75 min Scan# 1917  
Delta R.T. -0.13 min  
Lab File: VN027282.D  
Acq: 18 Sep 2015 4:33

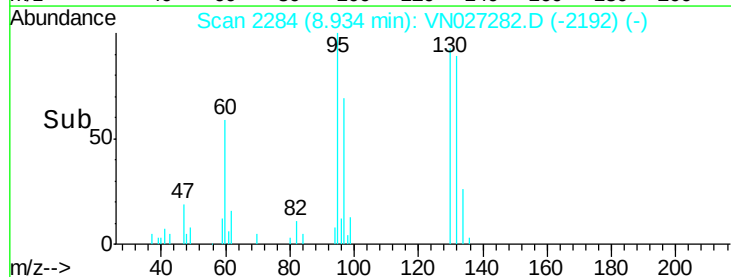
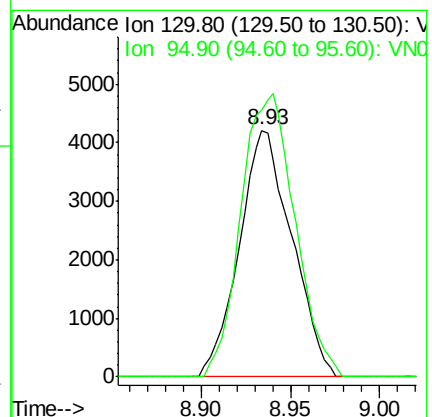
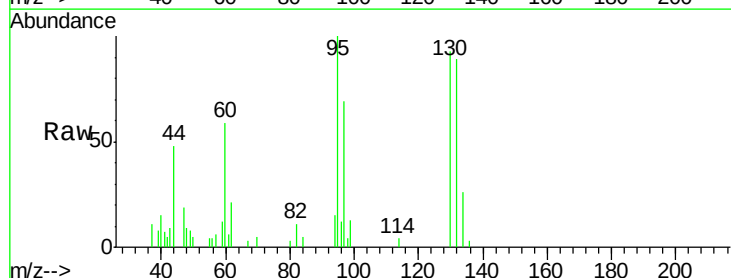
Instrument :  
MSVOA\_N  
ClientSampled :  
MW-6

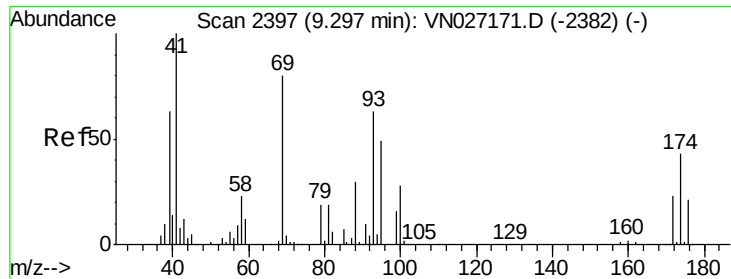
Tgt Ion:117 Resp: 82226  
Ion Ratio Lower Upper  
117 100  
119 4.3 75.3 112.9#  
121 0.0 23.8 35.8#



#45  
Trichloroethene  
Concen: 0.98 ug/l  
RT: 8.93 min Scan# 2284  
Delta R.T. -0.00 min  
Lab File: VN027282.D  
Acq: 18 Sep 2015 4:33

Tgt Ion:130 Resp: 8654  
Ion Ratio Lower Upper  
130 100  
95 108.1 0.0 222.2





#50

1,4-Dioxane

Concen: 0.52 ug/l

RT: 9.31 min Scan# 2400

Delta R.T. 0.01 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampled :

MW-6

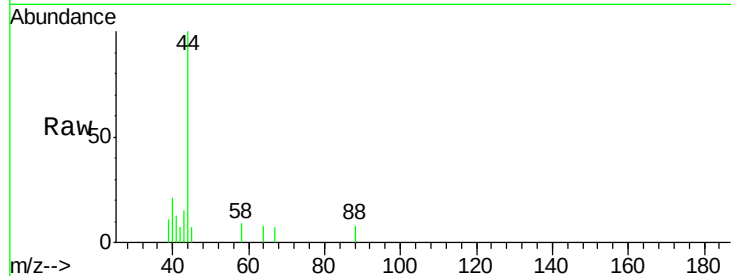
Tgt Ion: 88 Resp: 73

Ion Ratio Lower Upper

88 100

43 0.0 27.6 41.4#

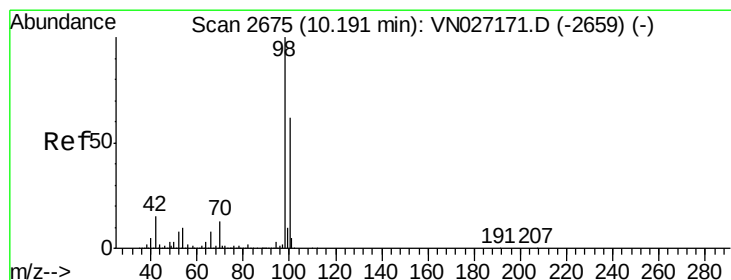
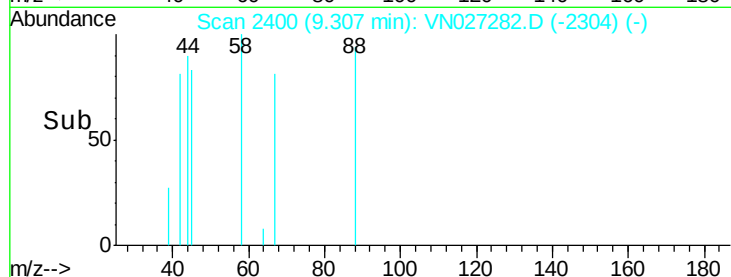
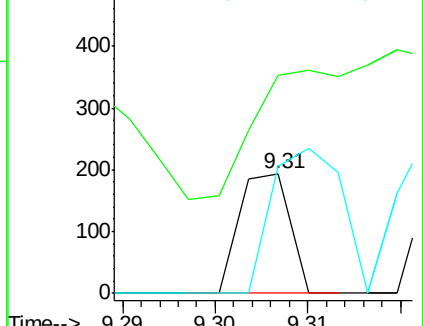
58 168.5 63.1 94.7#



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



#51

Toluene-d8

Concen: 53.89 ug/l

RT: 10.19 min Scan# 2675

Delta R.T. 0.00 min

Lab File: VN027282.D

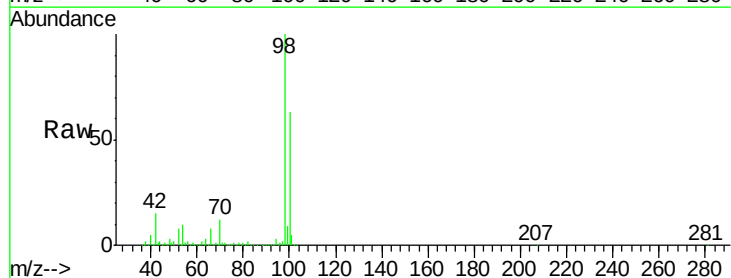
Acq: 18 Sep 2015 4:33

Tgt Ion: 98 Resp: 1892239

Ion Ratio Lower Upper

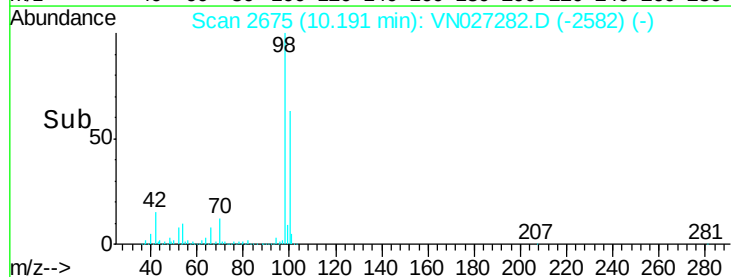
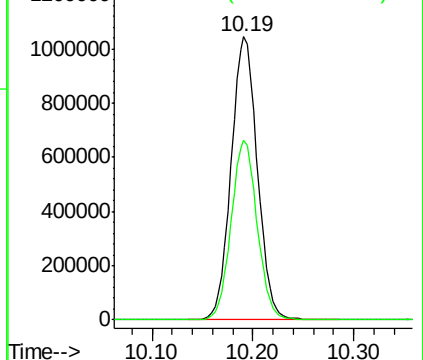
98 100

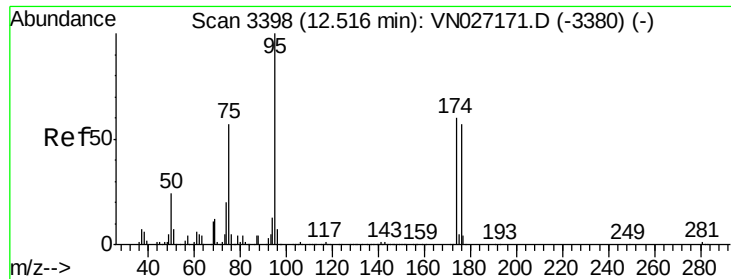
100 62.9 50.5 75.7



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN0

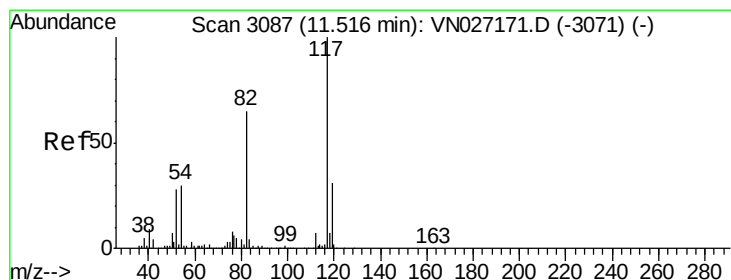
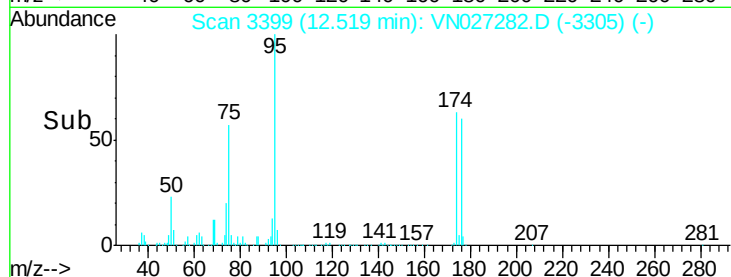
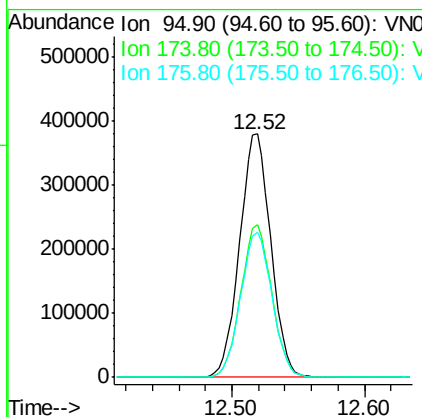
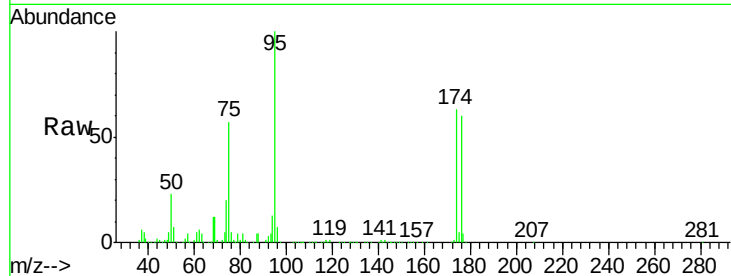




#63  
4-Bromofluorobenzene  
Concen: 49.92 ug/l  
RT: 12.52 min Scan# 3399  
Delta R.T. 0.00 min  
Lab File: VN027282.D  
Acq: 18 Sep 2015 4:33

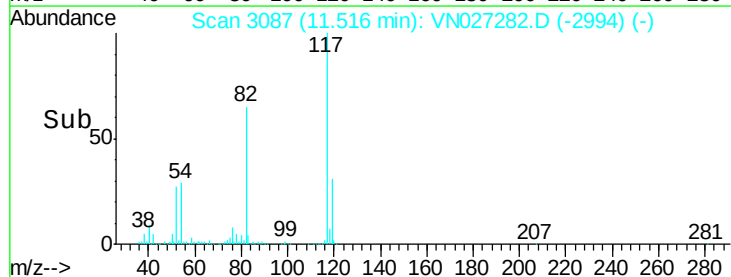
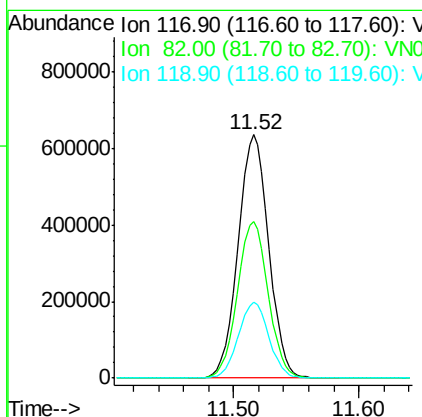
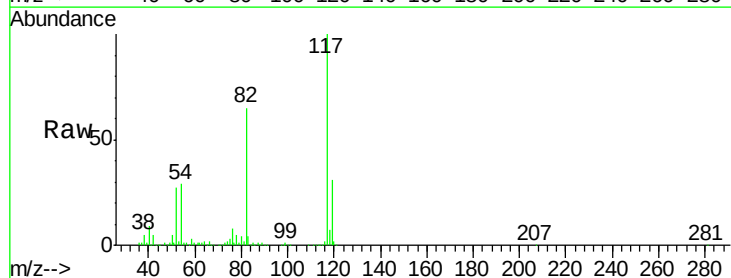
Instrument :  
MSVOA\_N  
ClientSampled :  
MW-6

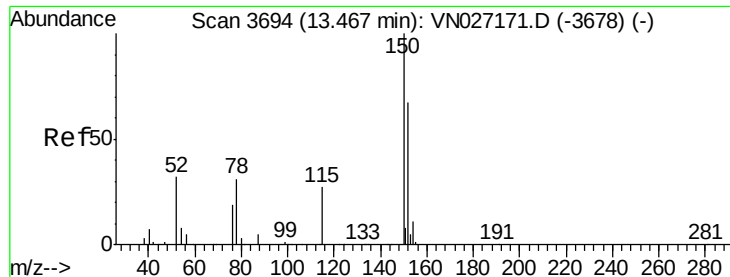
Tgt Ion: 95 Resp: 622133  
Ion Ratio Lower Upper  
95 100  
174 62.3 0.0 137.0  
176 59.9 0.0 130.8



#64  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 11.52 min Scan# 3087  
Delta R.T. 0.00 min  
Lab File: VN027282.D  
Acq: 18 Sep 2015 4:33

Tgt Ion: 117 Resp: 1078047  
Ion Ratio Lower Upper  
117 100  
82 64.5 49.6 74.4  
119 31.2 24.6 36.8





#73

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 13.47 min Scan# 3694

Delta R.T. 0.00 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampled :

MW-6

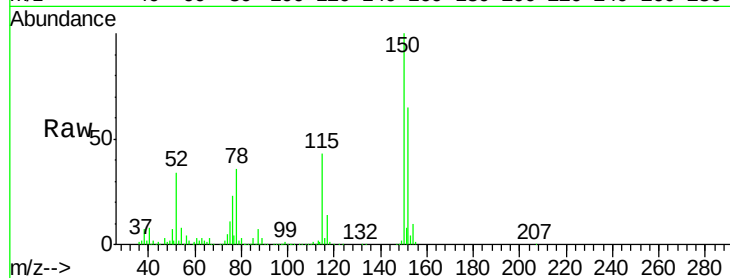
Tgt Ion:152 Resp: 370975

Ion Ratio Lower Upper

152 100

115 67.6 30.8 92.3

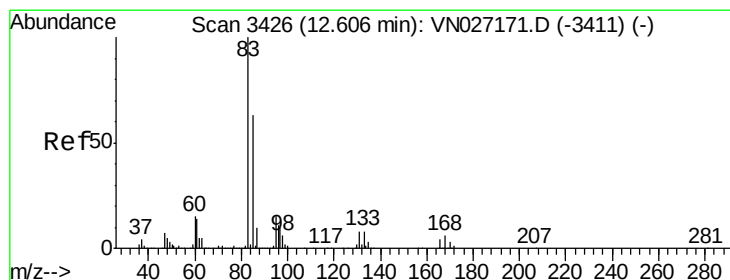
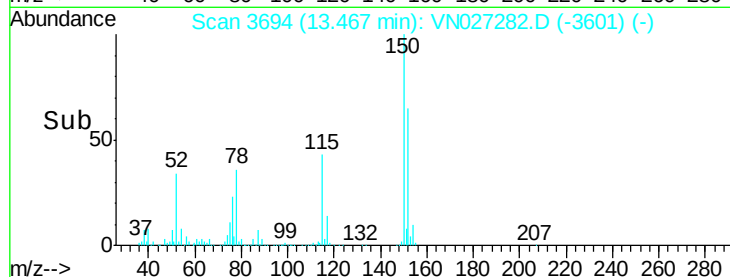
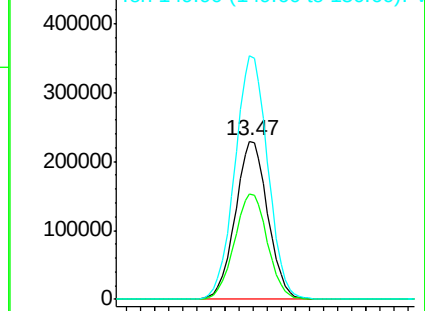
150 156.0 0.0 345.0



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



#76

1,1,2,2-Tetrachloroethane

Concen: Below Cal

RT: 12.55 min Scan# 3410

Delta R.T. -0.05 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

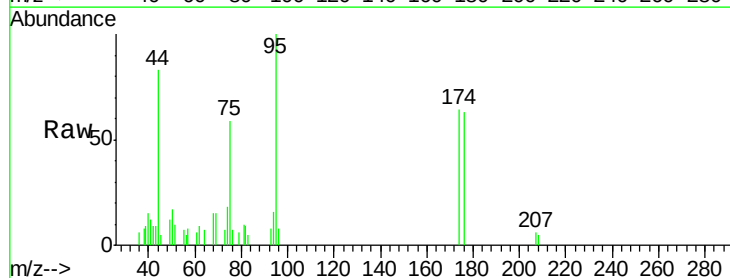
Tgt Ion: 83 Resp: 30

Ion Ratio Lower Upper

83 100

131 0.0 4.1 12.3#

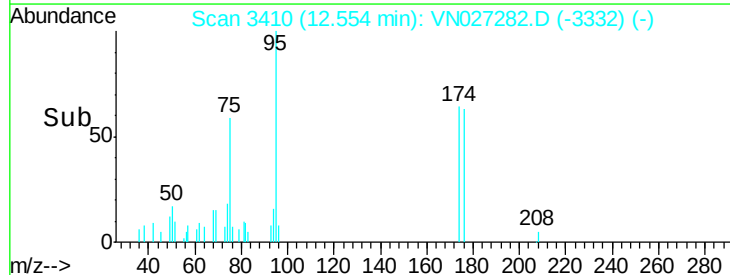
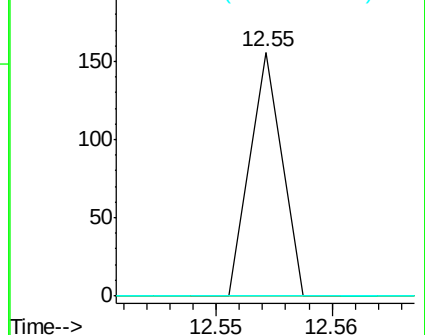
85 0.0 31.9 95.7#

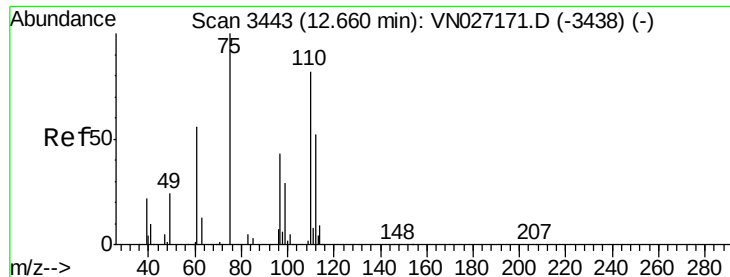


Abundance Ion 82.90 (82.60 to 83.60): VNO

Ion 130.80 (130.50 to 131.50): V

Ion 84.90 (84.60 to 85.60): VNO





#77

1,2,3-Trichloropropane

Concen: 32.38 ug/l

RT: 12.52 min Scan# 3398

Delta R.T. -0.14 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampleId :

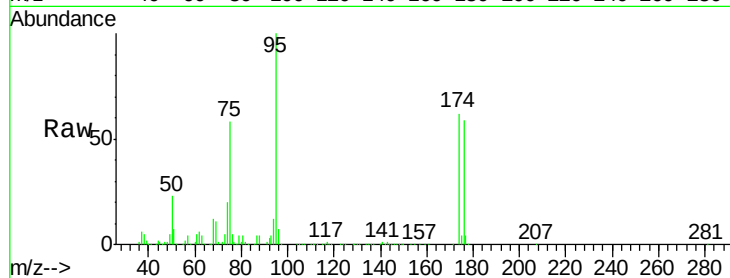
MW-6

Tgt Ion: 75 Resp: 363042

Ion Ratio Lower Upper

75 100

77 0.9 103.1 309.3#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0

12.52

250000

200000

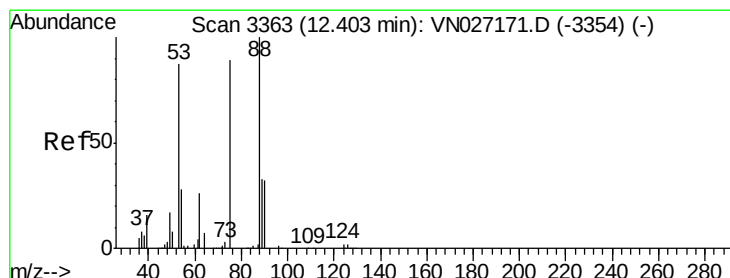
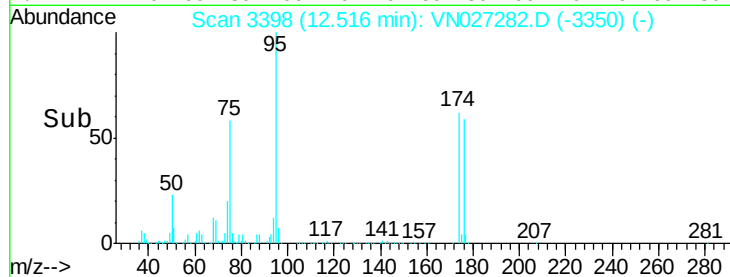
150000

100000

50000

0

Time-->



#82

trans-1,4-Dichloro-2-butene

Concen: 79.54 ug/l

RT: 12.52 min Scan# 3398

Delta R.T. 0.11 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

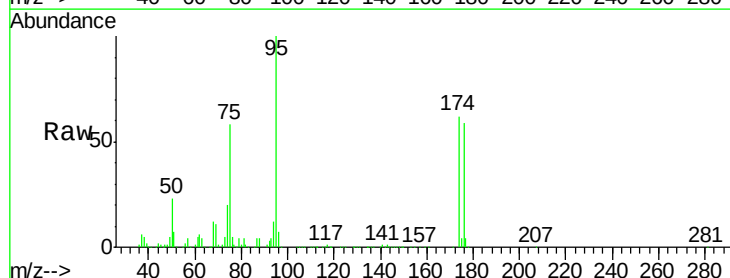
Tgt Ion: 75 Resp: 363042

Ion Ratio Lower Upper

75 100

53 0.0 92.9 139.3#

89 0.0 34.2 51.4#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0

300000

250000

200000

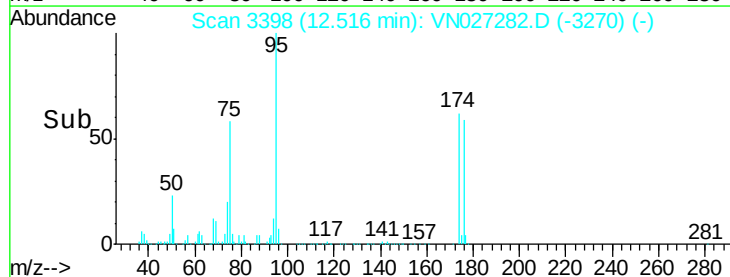
150000

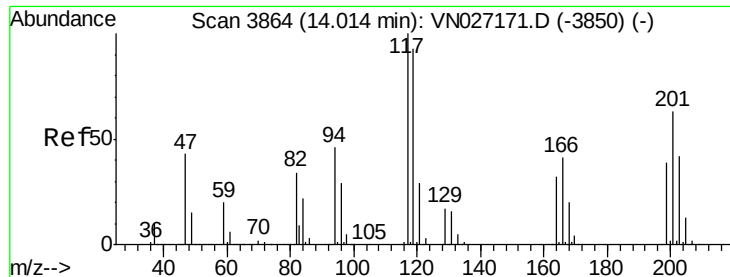
100000

50000

0

Time-->





#91

Hexachloroethane

Concen: 0.25 ug/l

RT: 13.76 min Scan# 3785

Delta R.T. -0.25 min

Lab File: VN027282.D

Acq: 18 Sep 2015 4:33

Instrument :

MSVOA\_N

ClientSampleId :

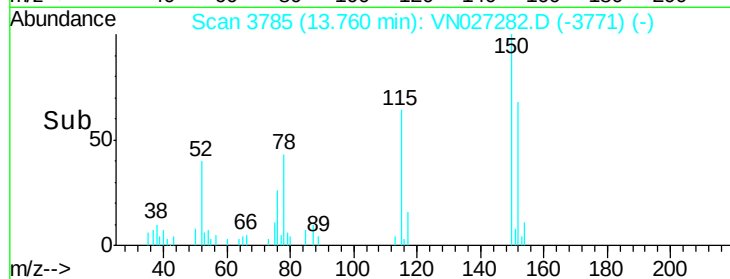
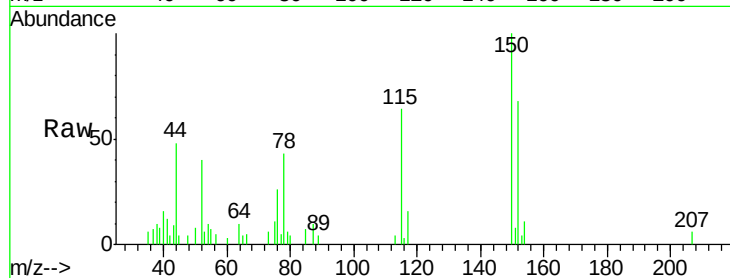
MW-6

Tgt Ion:117 Resp: 1676

Ion Ratio Lower Upper

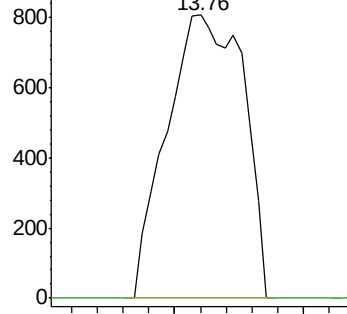
117 100

201 0.0 34.9 104.7#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V



Time-->