

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN102418\  
 Data File : VN051994.D  
 Acq On : 24 Oct 2018 18:00  
 Operator : MD\SY  
 Sample : PB114120ZHE#10  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 22 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Oct 25 01:48:32 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N102318W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 24 10:12:55 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 1069217  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1559967  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1474906  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 679083   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 552765   | 58.05 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 116.10% |          |
| 35) Dibromofluoromethane    | 7.59  | 113  | 577320   | 58.00 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 116.00% |          |
| 50) Toluene-d8              | 10.09 | 98   | 2154531  | 59.90 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 119.80% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 682887   | 55.23 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 110.46% |          |

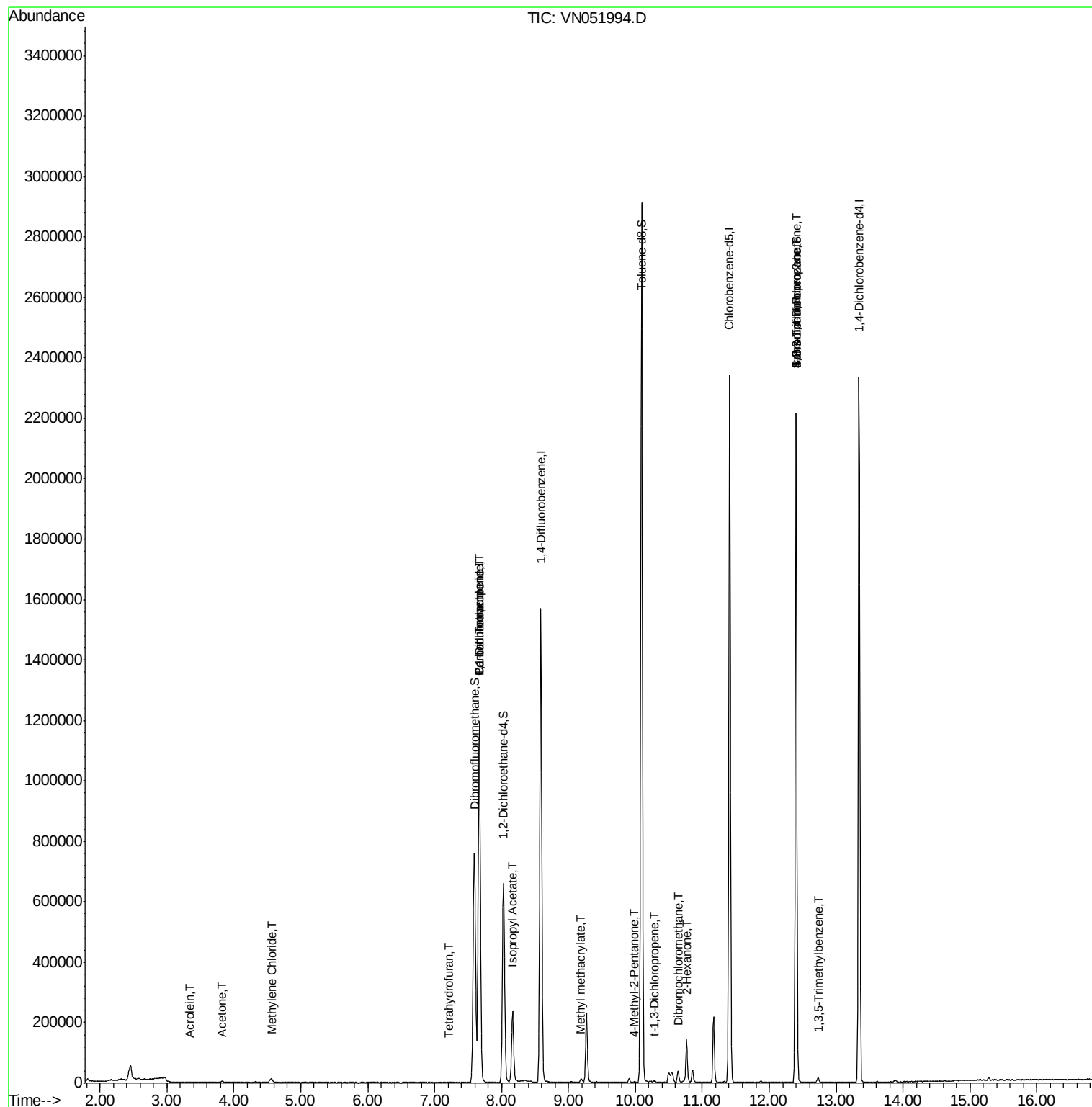
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 13) Acrolein                   | 3.34  | 56   | 33       | 37.371    | ug/l # | 14     |
| 16) Acetone                    | 3.82  | 43   | 7114     | 4.534     | ug/l # | 79     |
| 18) Methyl Acetate             | 4.32  | 43   | 5974     | Below Cal | #      | 73     |
| 20) Methylene Chloride         | 4.56  | 84   | 8668     | 0.942     | ug/l   | 94     |
| 29) Tetrahydrofuran            | 7.21  | 42   | 340      | 0.224     | ug/l # | 67     |
| 31) Cyclohexane                | 7.67  | 56   | 16700    | Below Cal | #      | 24     |
| 36) 1,1-Dichloropropene        | 7.67  | 75   | 63698    | 5.323     | ug/l # | 47     |
| 37) Ethyl Acetate              | 6.91  | 43   | 192      | Below Cal | #      | 64     |
| 38) Carbon Tetrachloride       | 7.66  | 117  | 93680    | 6.819     | ug/l # | 15     |
| 43) Isopropyl Acetate          | 8.16  | 43   | 263296   | 26.273    | ug/l   | 99     |
| 48) Methyl methacrylate        | 9.18  | 41   | 5678     | 1.172     | ug/l # | 5      |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 1375     | 0.249     | ug/l # | 32     |
| 53) t-1,3-Dichloropropene      | 10.30 | 75   | 36       | 1.247     | ug/l   | 90     |
| 59) 2-Hexanone                 | 10.76 | 43   | 18462    | 4.985     | ug/l # | 52     |
| 60) Dibromochloromethane       | 10.63 | 129  | 58       | 1.983     | ug/l # | 11     |
| 71) Bromoform                  | 12.40 | 173  | 5866     | 4.379     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 334781   | 47.727    | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 7140     | 0.207     | ug/l   | 90     |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 334781   | 150.103   | ug/l # | 12     |

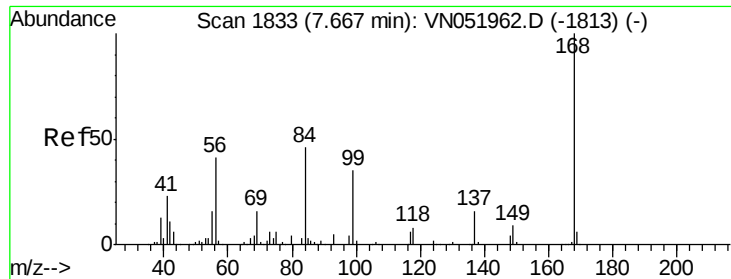
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Wed Oct 24 10:12:55 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

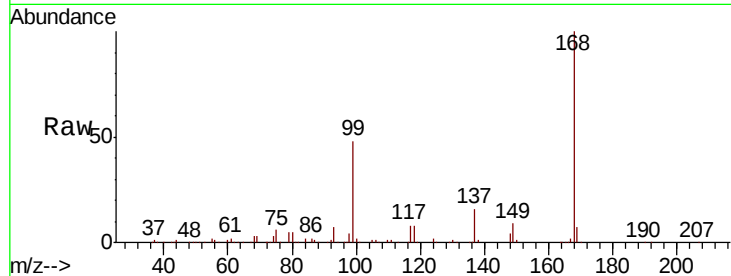
ClientSampled :

Tot Ion:168 Resp: 1069217

Ion Ratio Lower Upper

168 100

99 47.9 37.8 56.6



Abundance Ion 167.90 (167.60 to 168.60): VN051962.D (-1813) (-)

Ion 98.90 (98.60 to 99.60): VN051962.D (-1813) (-)

7.67

500000

400000

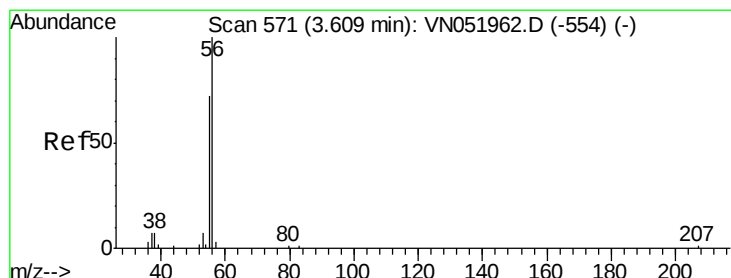
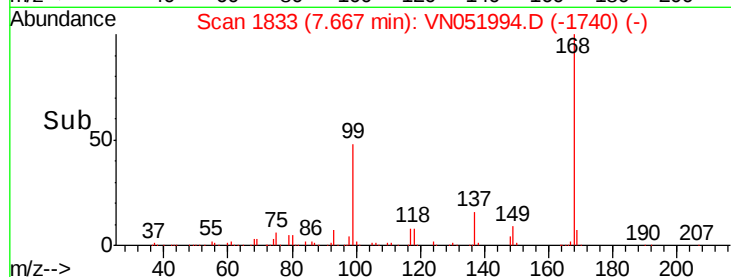
300000

200000

100000

0

Time-->



#13

Acrolein

Concen: 37.371 ug/l

RT: 3.34 min Scan# 488

Delta R.T. -0.27 min

Lab File: VN051994.D

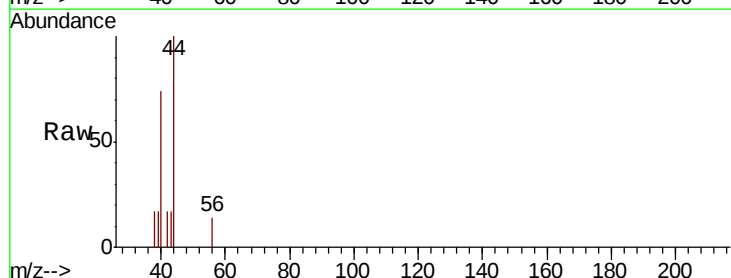
Acq: 24 Oct 2018 18:00

Tgt Ion: 56 Resp: 33

Ion Ratio Lower Upper

56 100

55 0.0 56.6 84.8#



Abundance Ion 56.00 (55.70 to 56.70): VN051962.D (-554) (-)

Ion 55.00 (54.70 to 55.70): VN051962.D (-554) (-)

3.34

200

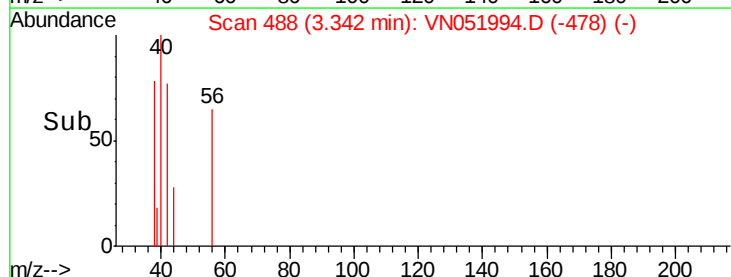
150

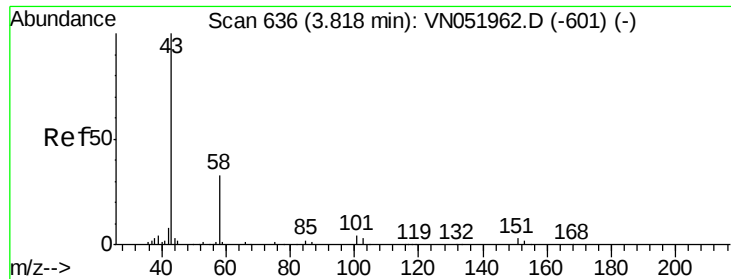
100

50

0

Time-->

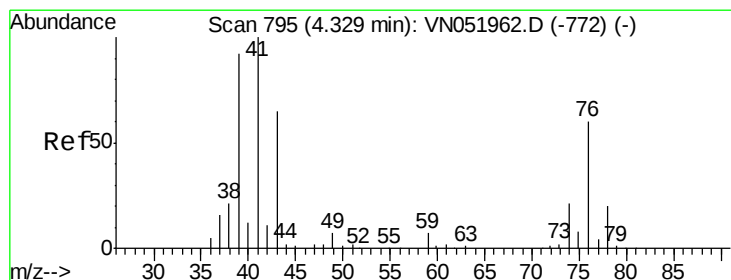
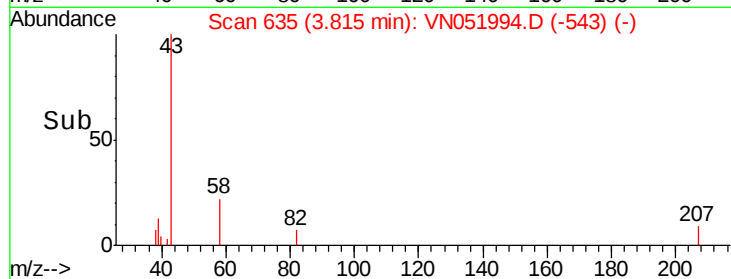
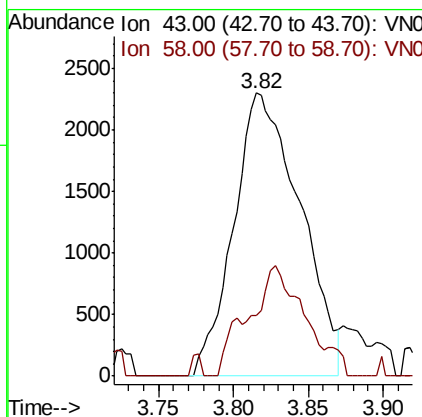
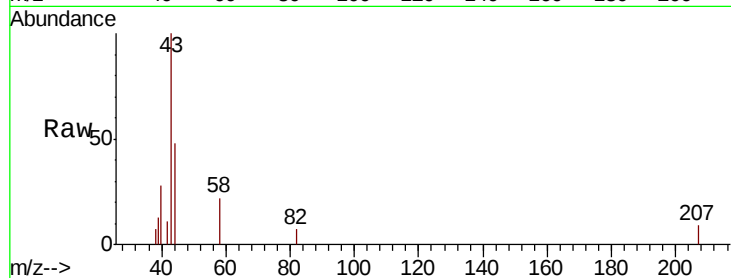




#16  
Acetone  
Concen: 4.534 ug/l  
RT: 3.82 min Scan# 635  
Delta R.T. -0.00 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

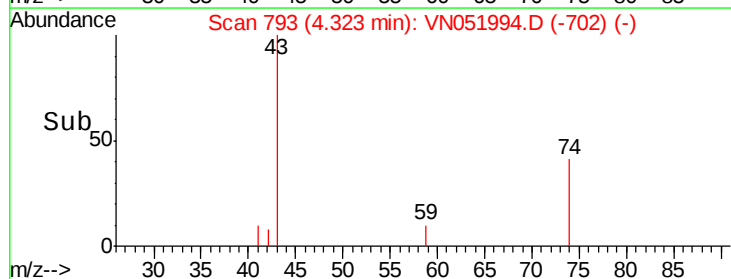
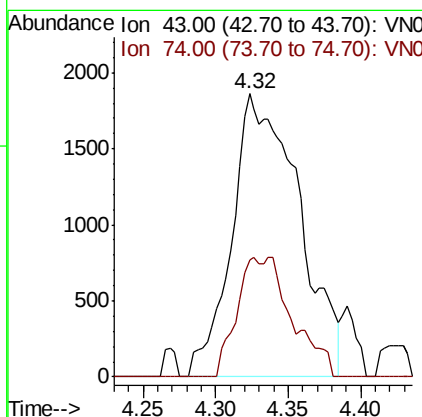
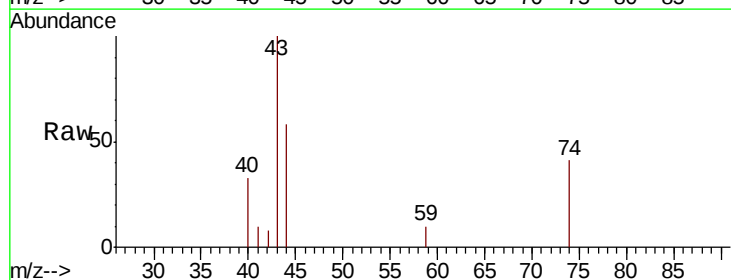
Instrument :  
MSVOA\_N  
ClientSampled :

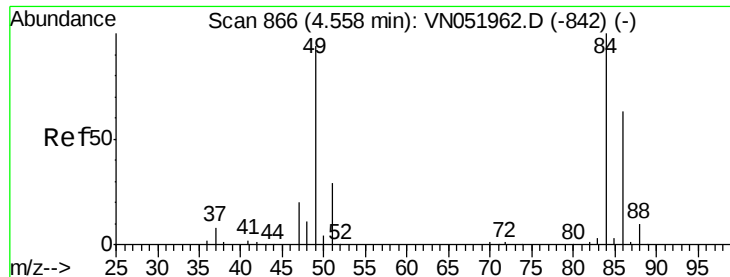
Tot Ion: 43 Resp: 7114  
Ion Ratio Lower Upper  
43 100  
58 21.5 26.7 40.1#



#18  
Methyl Acetate  
Concen: Below Cal  
RT: 4.32 min Scan# 793  
Delta R.T. -0.01 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

Tgt Ion: 43 Resp: 5974  
Ion Ratio Lower Upper  
43 100  
74 17.2 25.7 38.5#

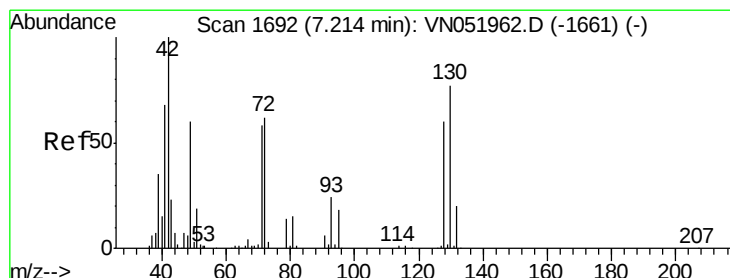
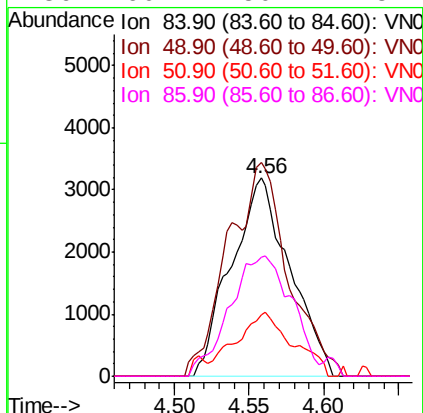
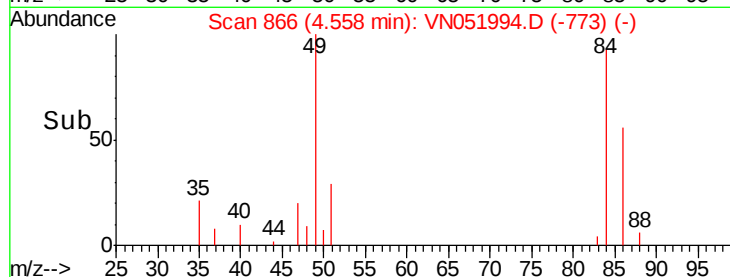
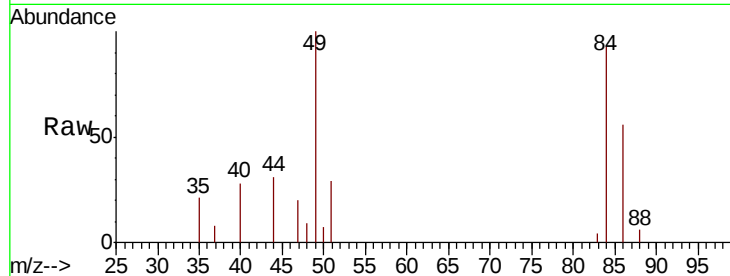




#20  
Methvlene Chloride  
Concen: 0.942 ug/l  
RT: 4.56 min Scan# 866  
Delta R.T. 0.00 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

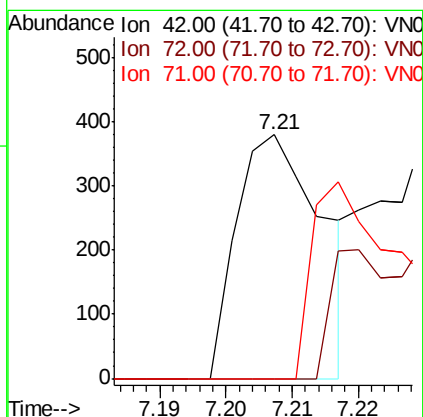
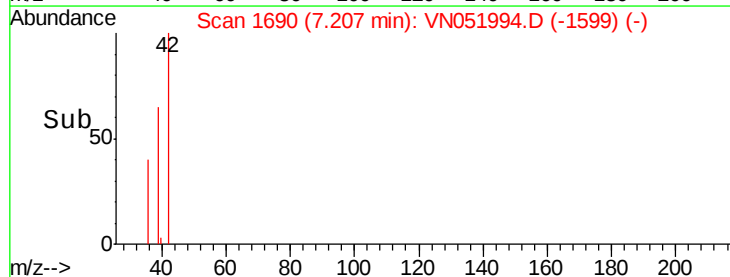
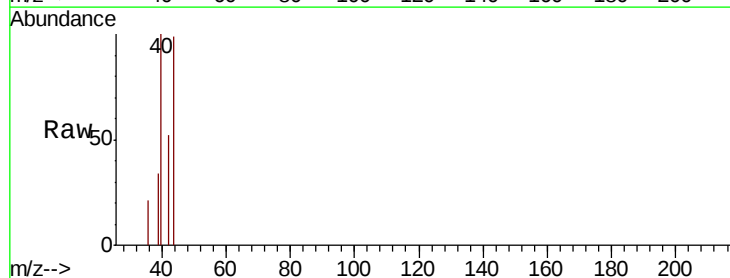
Instrument :  
MSVOA\_N  
ClientSampled :

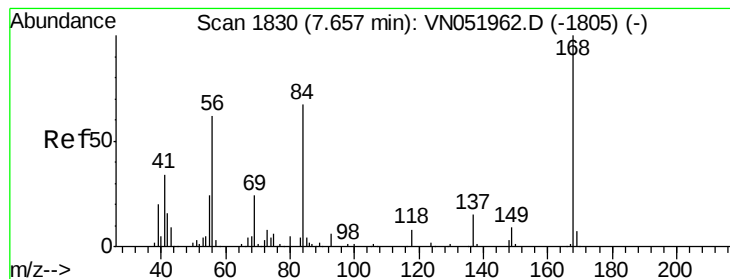
Tot Ion: 84 Resp: 8668  
Ion Ratio Lower Upper  
84 100  
49 102.2 75.4 113.0  
51 31.1 23.1 34.7  
86 60.2 50.2 75.4



#29  
Tetrahydrofuran  
Concen: 0.224 ug/l  
RT: 7.21 min Scan# 1690  
Delta R.T. -0.01 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

Tgt Ion: 42 Resp: 340  
Ion Ratio Lower Upper  
42 100  
72 31.5 47.5 71.3#  
71 78.5 45.4 68.2#





#31

Cyclohexane

Concen: Below Cal

RT: 7.67 min Scan# 1833

Delta R.T. 0.01 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

ClientSampleId :

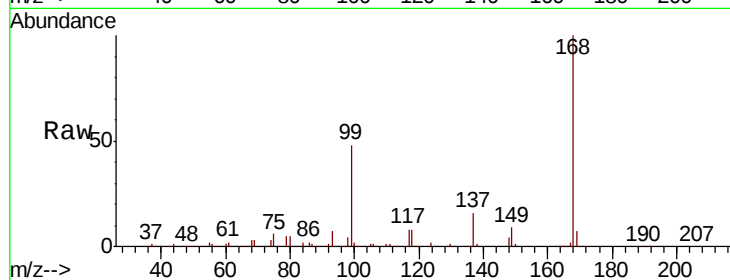
Tot Ion: 56 Resp: 16700

Ion Ratio Lower Upper

56 100

69 177.4 31.2 46.8#

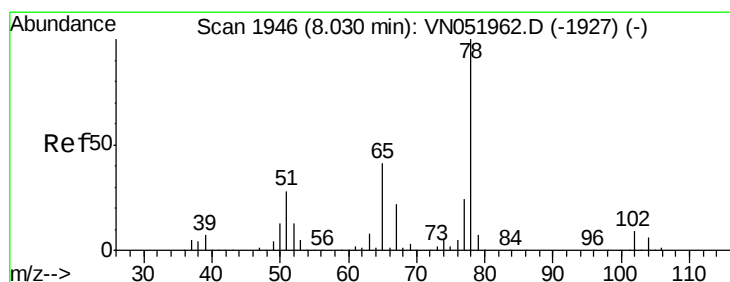
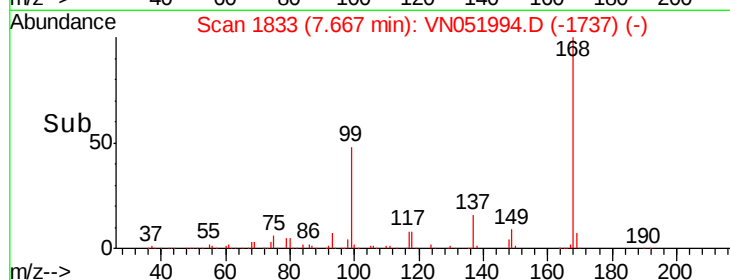
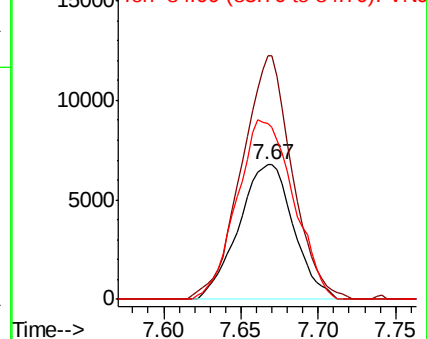
84 130.5 86.3 129.5#



Abundance Ion 56.00 (55.70 to 56.70): VN051962.D (-1805) (-)

Ion 69.00 (68.70 to 69.70): VN051962.D (-1805) (-)

Ion 84.00 (83.70 to 84.70): VN051962.D (-1805) (-)



#33

1,2-Dichloroethane-d4

Concen: Below ug/l

RT: 8.03 min Scan# 1945

Delta R.T. -0.00 min

Lab File: VN051994.D

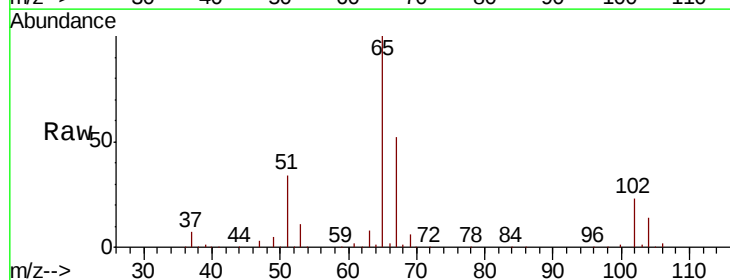
Acq: 24 Oct 2018 18:00

Tgt Ion: 65 Resp: 552765

Ion Ratio Lower Upper

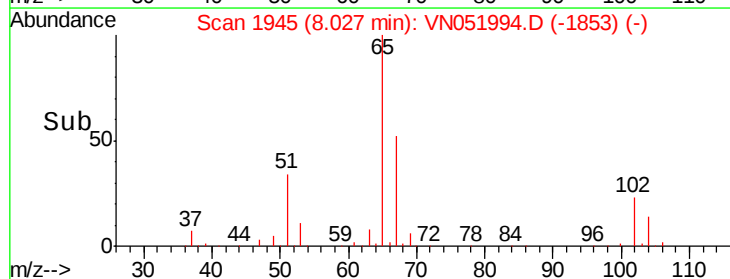
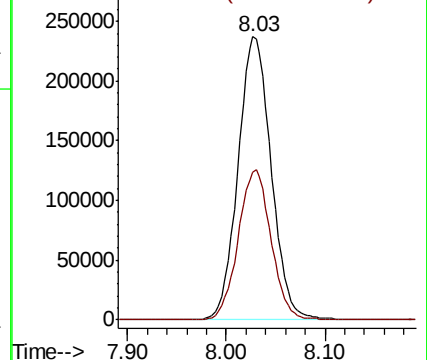
65 100

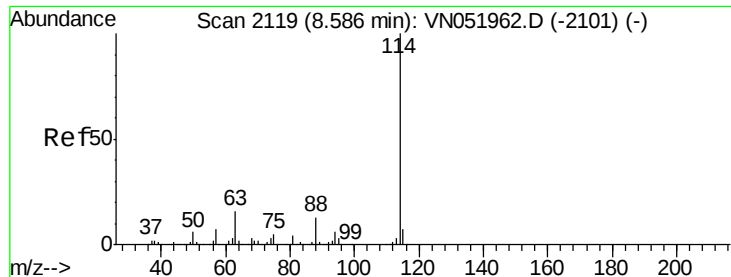
67 52.6 0.0 105.8



Abundance Ion 64.90 (64.60 to 65.60): VN051962.D (-1927) (-)

Ion 66.90 (66.60 to 67.60): VN051962.D (-1927) (-)



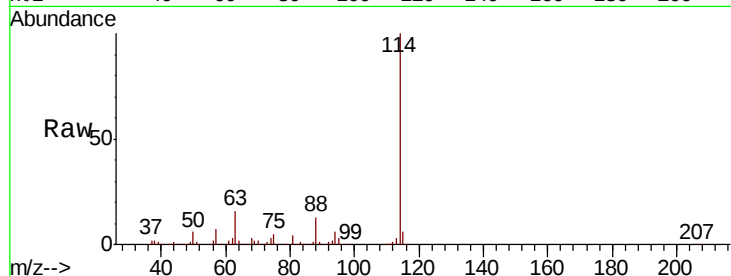


#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN051994.D  
 Acq: 24 Oct 2018 18:00

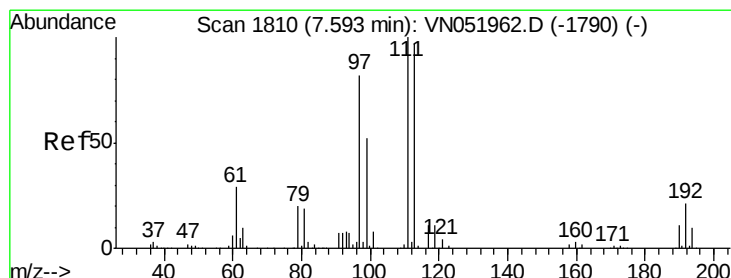
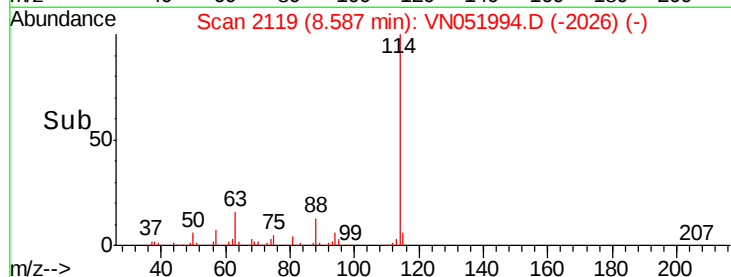
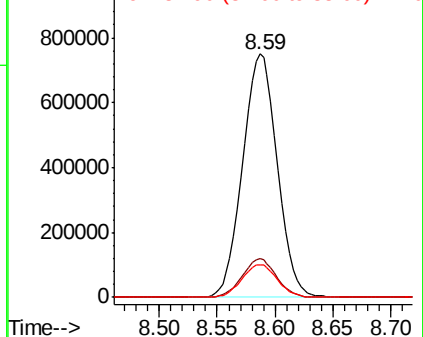
Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion:114 Resp: 1559967  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 114 | 100   |       |       |
| 63  | 16.0  | 0.0   | 31.2  |
| 88  | 13.5  | 0.0   | 27.0  |



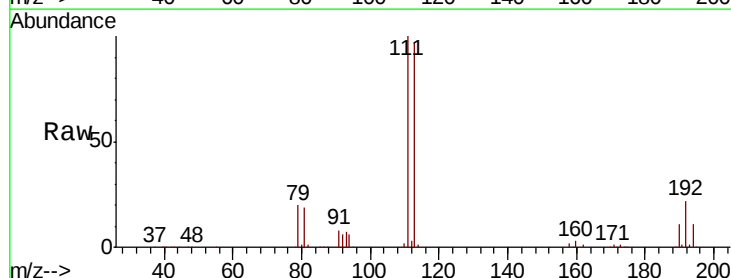
Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN



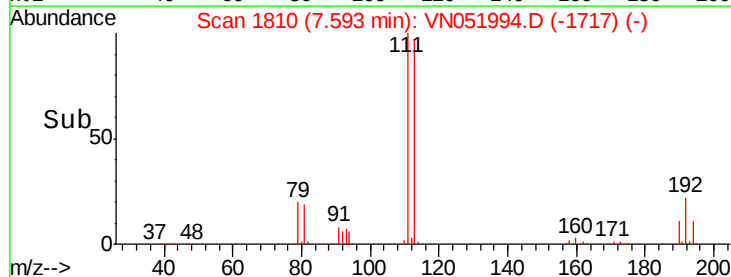
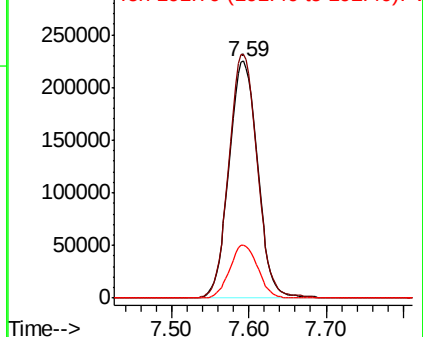
#35  
 Dibromofluoromethane  
 Concen: 50.000 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. 0.00 min  
 Lab File: VN051994.D  
 Acq: 24 Oct 2018 18:00

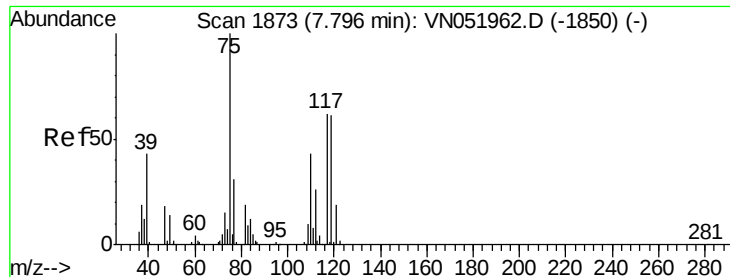
Tgt Ion:113 Resp: 577320  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 113 | 100   |       |       |
| 111 | 102.0 | 80.7  | 121.1 |
| 192 | 21.8  | 17.2  | 25.8  |



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: 5.323 ug/l

RT: 7.67 min Scan# 1834

Delta R.T. -0.13 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

ClientSampleId :

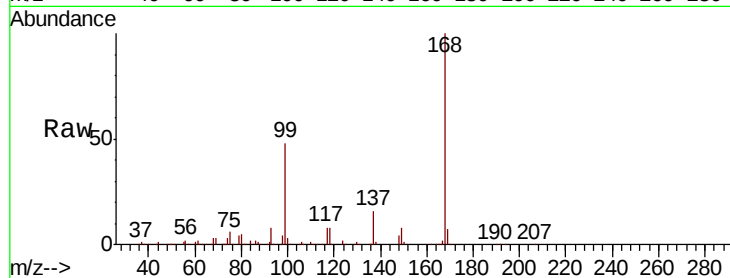
Tot Ion: 75 Resp: 63698

Ion Ratio Lower Upper

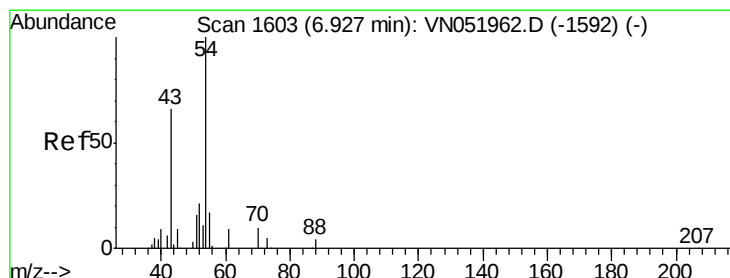
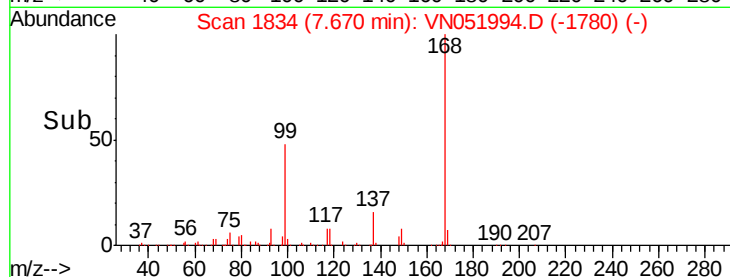
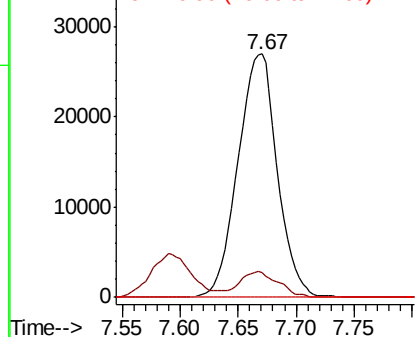
75 100

110 10.1 20.9 62.8#

77 0.0 24.9 37.3#



Abundance Ion 74.90 (74.60 to 75.60): VNC  
Ion 109.90 (109.60 to 110.60): VNC  
Ion 76.90 (76.60 to 77.60): VNC



#37

Ethyl Acetate

Concen: Below Cal

RT: 6.91 min Scan# 1598

Delta R.T. -0.02 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

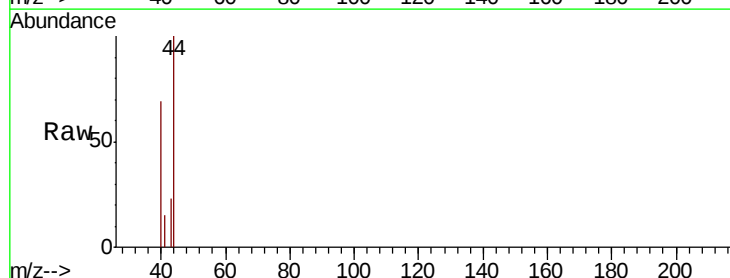
Tgt Ion: 43 Resp: 192

Ion Ratio Lower Upper

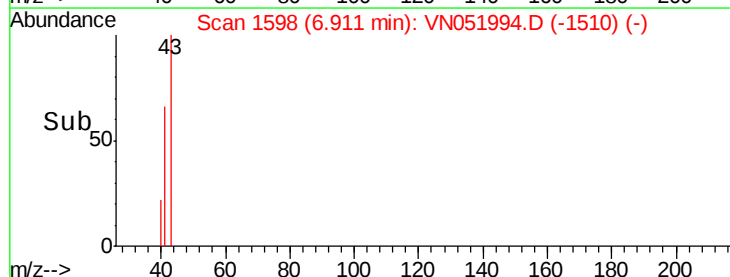
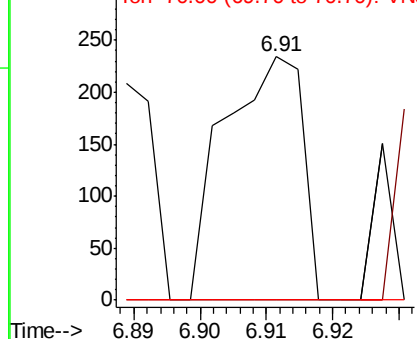
43 100

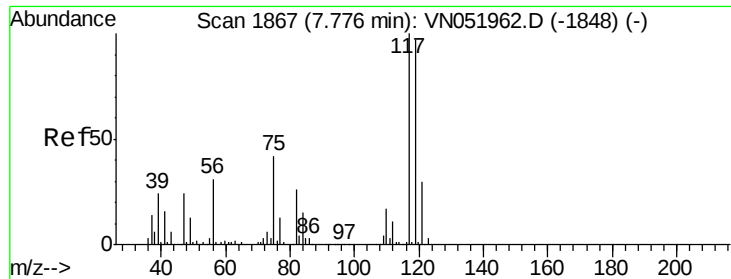
61 33.9 13.5 20.3#

70 0.0 9.8 14.6#



Abundance Ion 43.00 (42.70 to 43.70): VNC  
Ion 60.90 (60.60 to 61.60): VNC  
Ion 70.00 (69.70 to 70.70): VNC

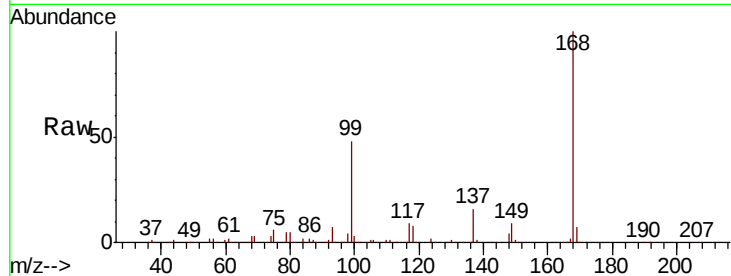




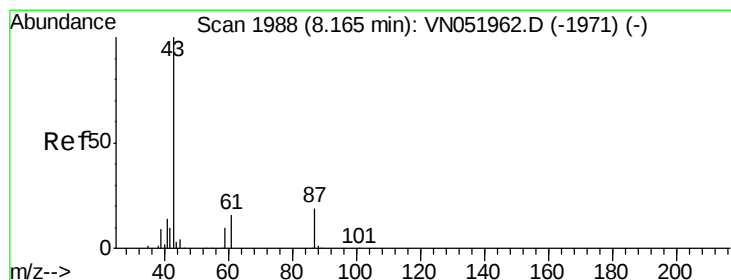
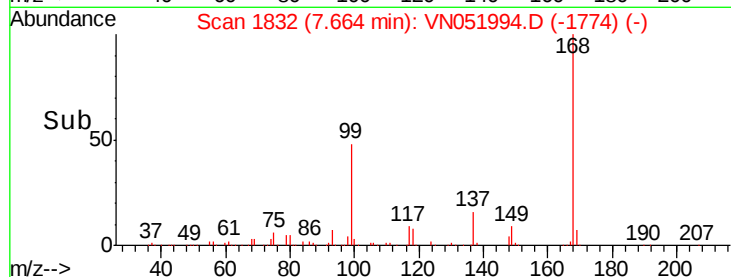
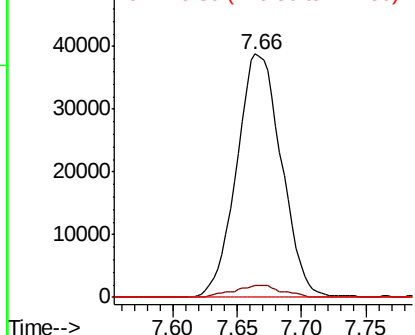
#38  
Carbon Tetrachloride  
Concen: 6.819 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. -0.11 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:117 Resp: 93680  
Ion Ratio Lower Upper  
117 100  
119 4.7 77.4 116.0#  
121 0.0 24.2 36.4#

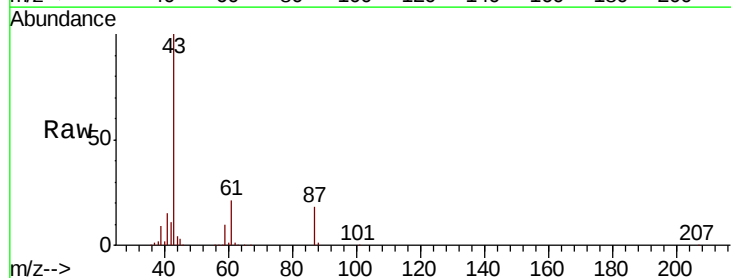


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

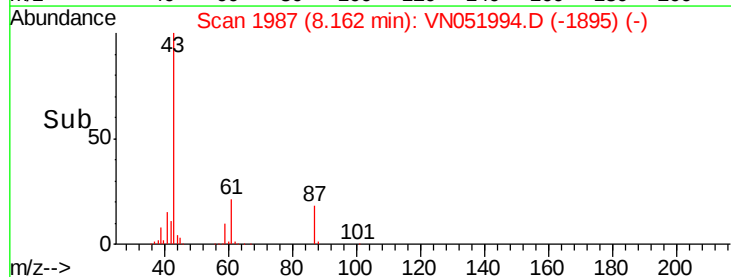
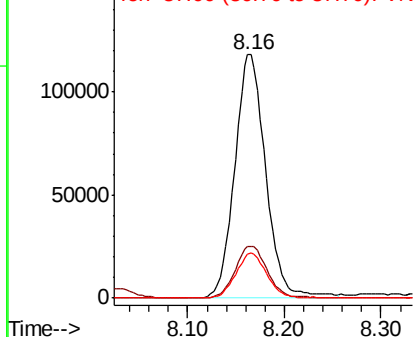


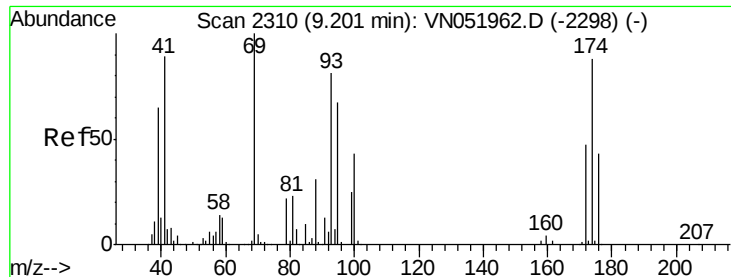
#43  
Isopropyl Acetate  
Concen: 26.273 ug/l  
RT: 8.16 min Scan# 1987  
Delta R.T. -0.00 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

Tgt Ion: 43 Resp: 263296  
Ion Ratio Lower Upper  
43 100  
61 21.8 17.2 25.8  
87 18.2 15.2 22.8



Abundance Ion 43.00 (42.70 to 43.70): V  
Ion 61.00 (60.70 to 61.70): V  
Ion 87.00 (86.70 to 87.70): V

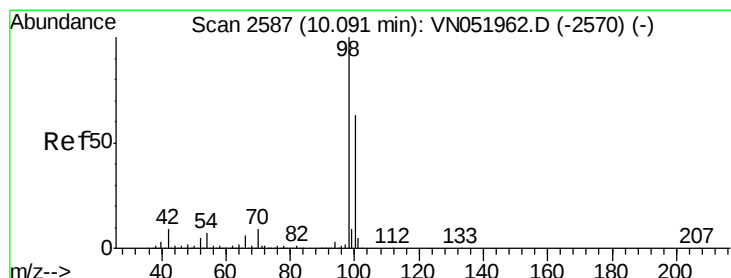
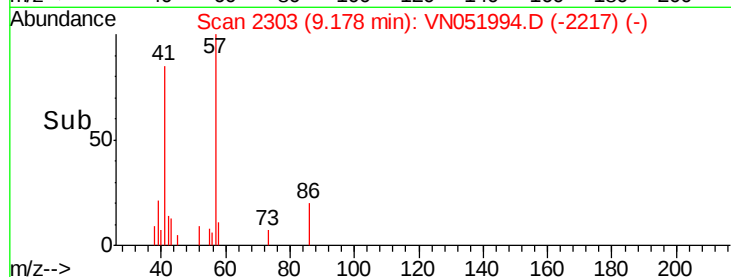
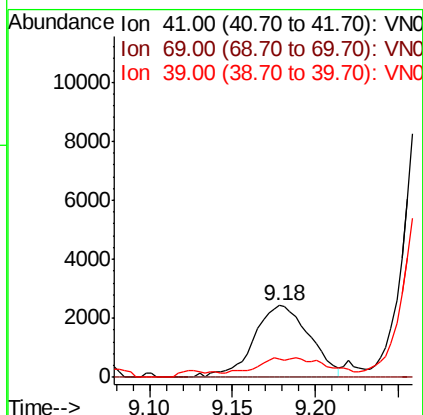
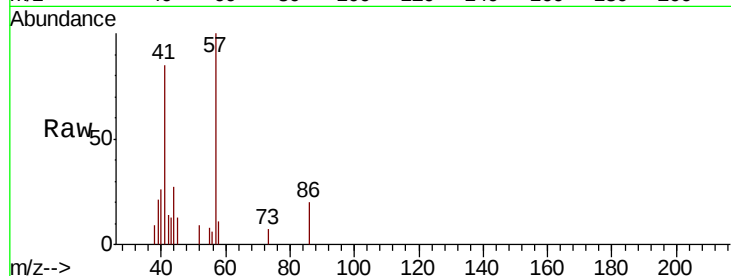




#48  
Methvl methacrylate  
Concen: 1.172 ug/l  
RT: 9.18 min Scan# 2303  
Delta R.T. -0.02 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

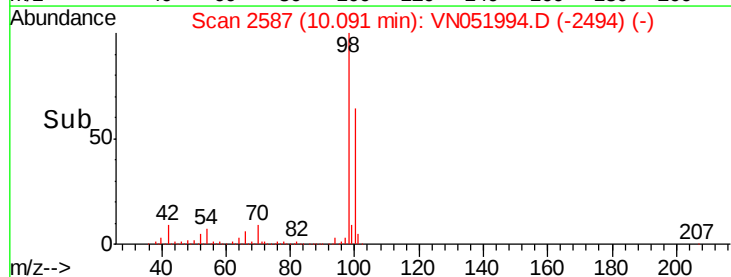
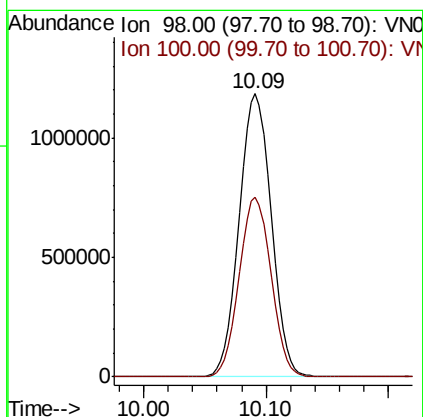
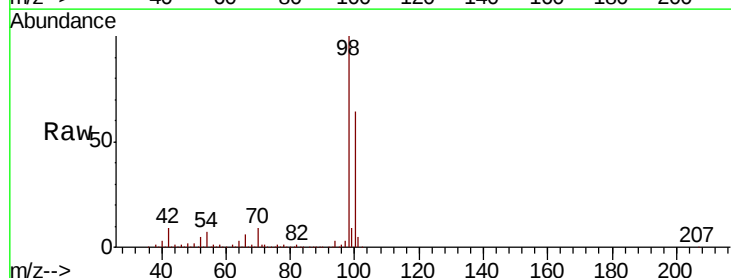
Instrument :  
MSVOA\_N  
ClientSampled :

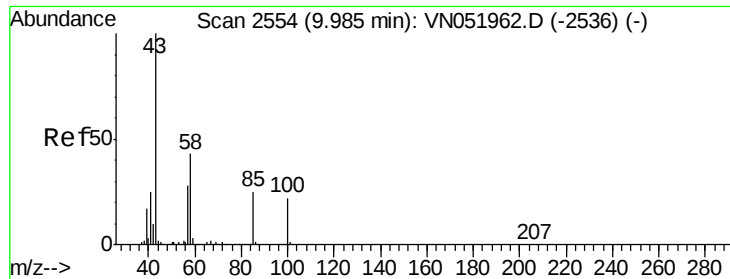
Tot Ion: 41 Resp: 5678  
Ion Ratio Lower Upper  
41 100  
69 0.0 92.2 138.4#  
39 9.3 60.2 90.4#



#50  
Toluene-d8  
Concen: N.D. ug/l  
RT: 10.09 min Scan# 2587  
Delta R.T. 0.00 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

Tgt Ion: 98 Resp: 2154531  
Ion Ratio Lower Upper  
98 100  
100 63.2 50.7 76.1





#51

4-Methyl-2-Pentanone

Concen: 0.249 ug/l

RT: 9.98 min Scan# 2553

Delta R.T. -0.00 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

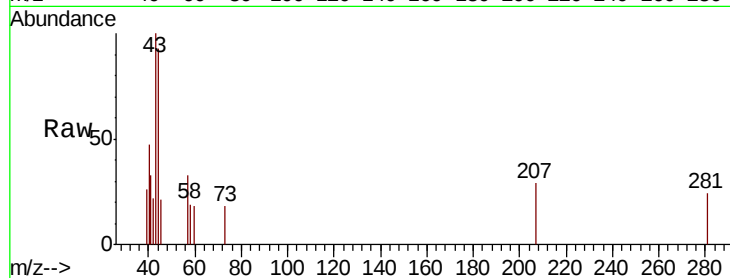
ClientSampled :

Tot Ion: 43 Resp: 1375

Ion Ratio Lower Upper

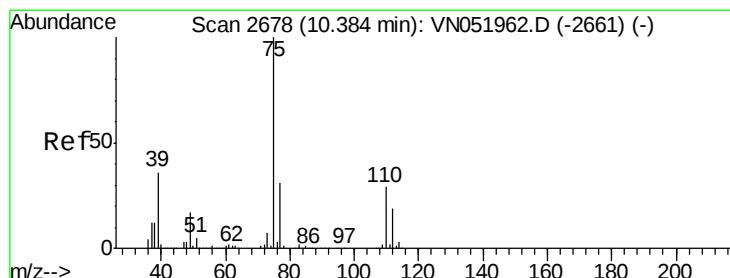
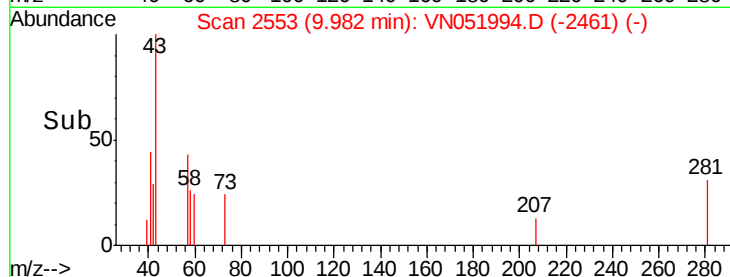
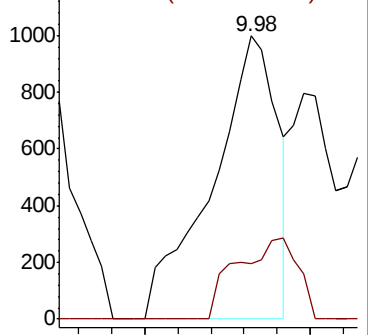
43 100

58 0.0 34.8 52.2#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#53

t-1,3-Dichloropropene

Concen: 1.247 ug/l

RT: 10.30 min Scan# 2652

Delta R.T. -0.08 min

Lab File: VN051994.D

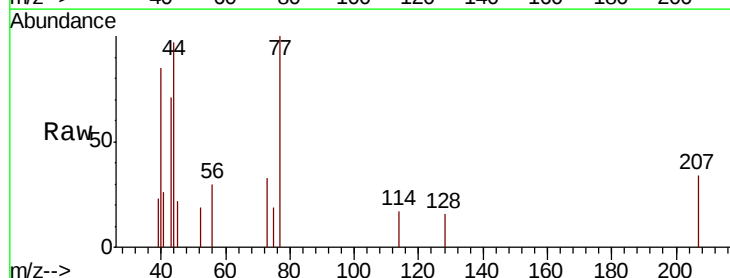
Acq: 24 Oct 2018 18:00

Tgt Ion: 75 Resp: 36

Ion Ratio Lower Upper

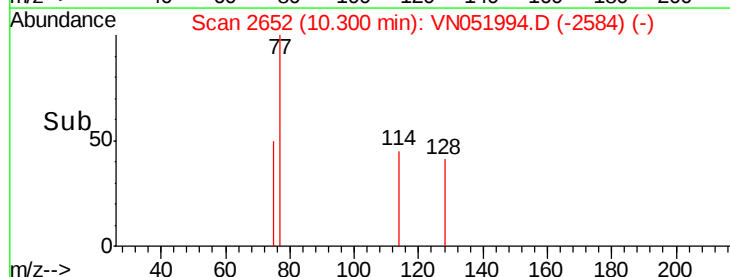
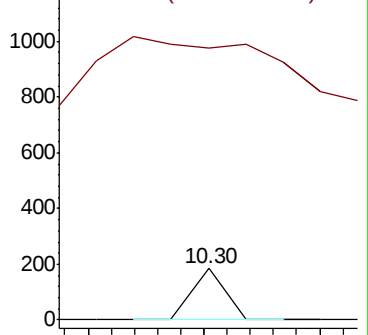
75 100

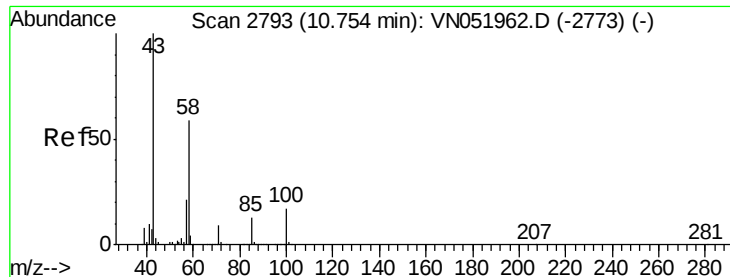
77 25.9 25.0 37.4



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 76.90 (76.60 to 77.60): VN0





#59

2-Hexanone

Concen: 4.985 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.01 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

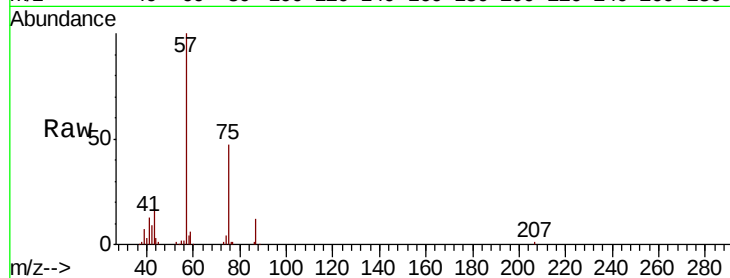
ClientSampleId :

Tot Ion: 43 Resp: 18462

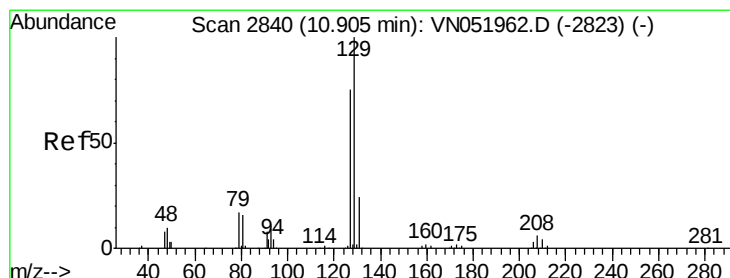
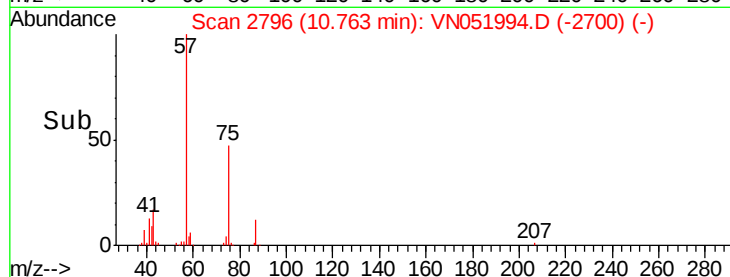
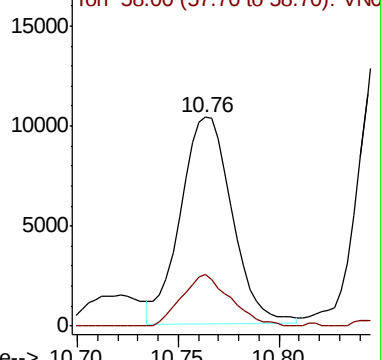
Ion Ratio Lower Upper

43 100

58 23.6 29.9 89.8#



Abundance Ion 43.00 (42.70 to 43.70): VN051962.D (-2773) (-)



#60

Dibromochloromethane

Concen: 1.983 ug/l

RT: 10.63 min Scan# 2755

Delta R.T. -0.27 min

Lab File: VN051994.D

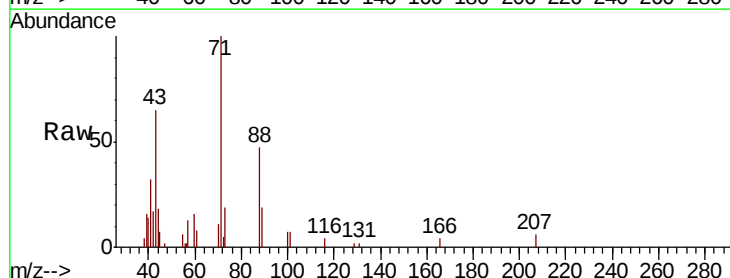
Acq: 24 Oct 2018 18:00

Tgt Ion: 129 Resp: 58

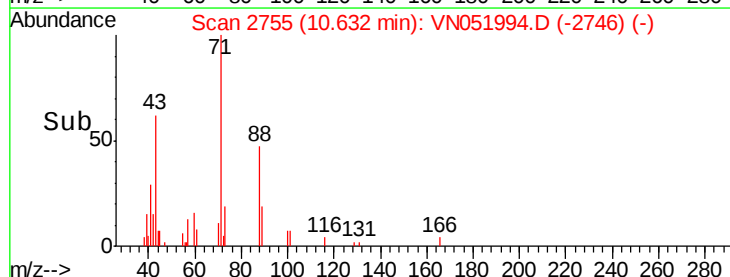
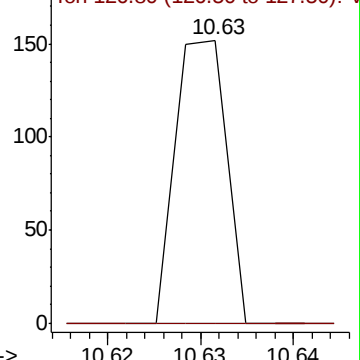
Ion Ratio Lower Upper

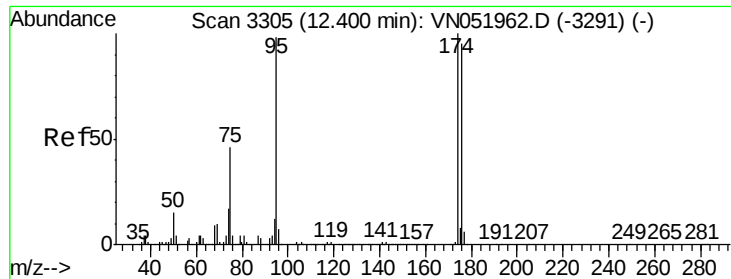
129 100

127 0.0 38.0 114.0#



Abundance Ion 128.80 (128.50 to 129.50): VN051962.D (-2823) (-)





#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.00 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

ClientSampled :

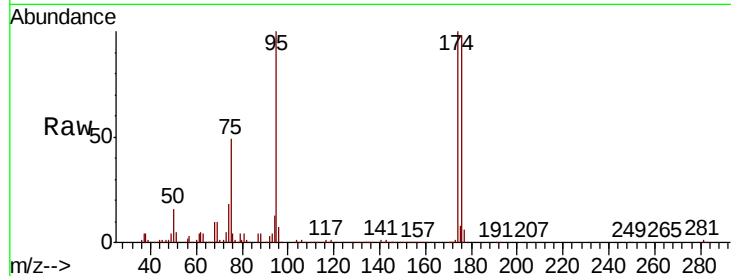
Tot Ion: 95 Resp: 682887

Ion Ratio Lower Upper

95 100

174 100.1 0.0 206.0

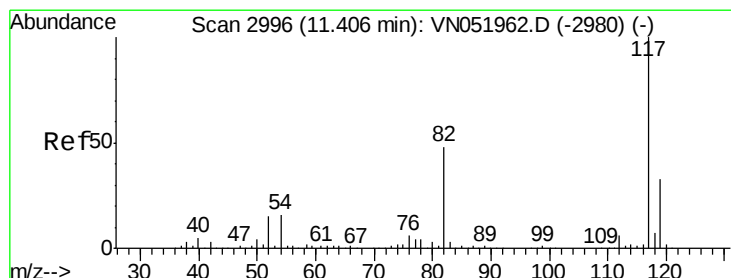
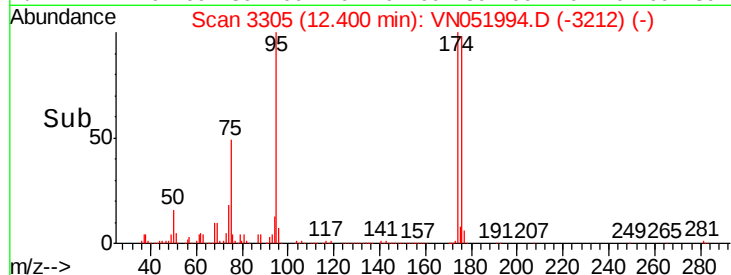
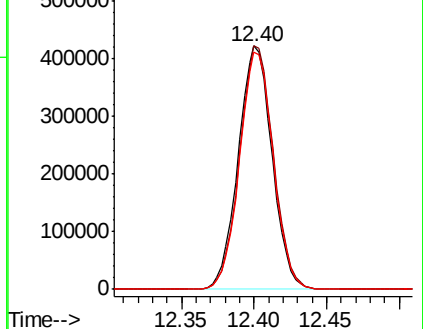
176 97.3 0.0 198.0



Abundance Ion 94.90 (94.60 to 95.60): VN051994.D (-2903) (-)

Ion 173.80 (173.50 to 174.50): VN051994.D (-2903) (-)

Ion 175.80 (175.50 to 176.50): VN051994.D (-2903) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

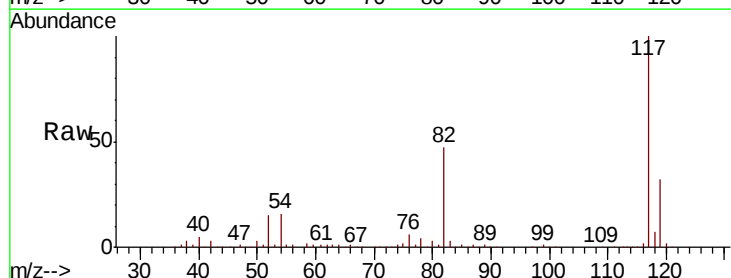
Tgt Ion: 117 Resp: 1474906

Ion Ratio Lower Upper

117 100

82 47.1 38.1 57.1

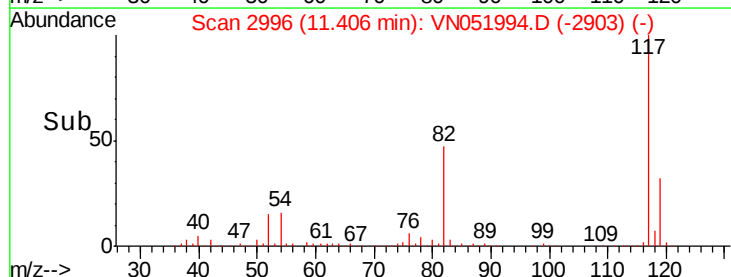
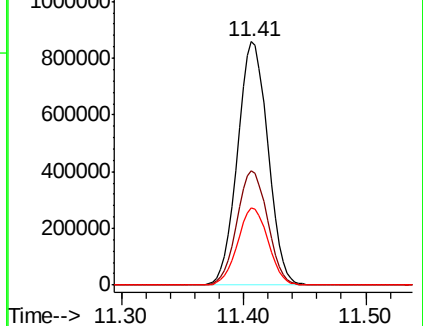
119 31.8 26.4 39.6

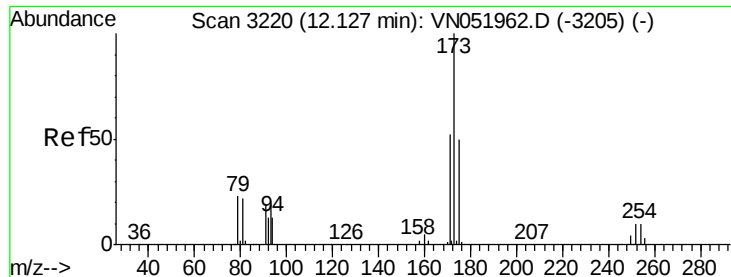


Abundance Ion 116.90 (116.60 to 117.60): VN051994.D (-2903) (-)

Ion 82.00 (81.70 to 82.70): VN051994.D (-2903) (-)

Ion 118.90 (118.60 to 119.60): VN051994.D (-2903) (-)

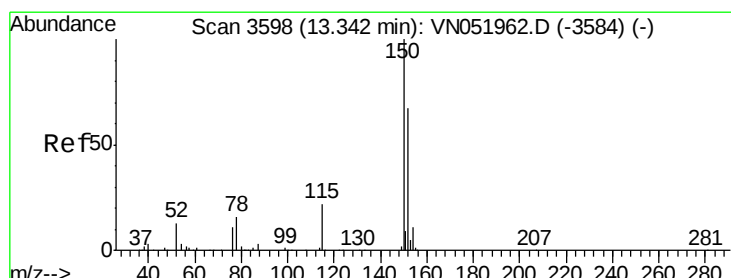
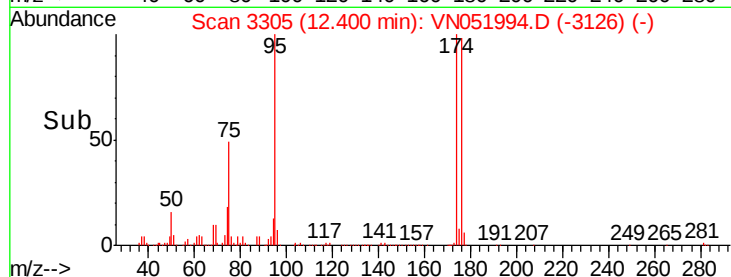
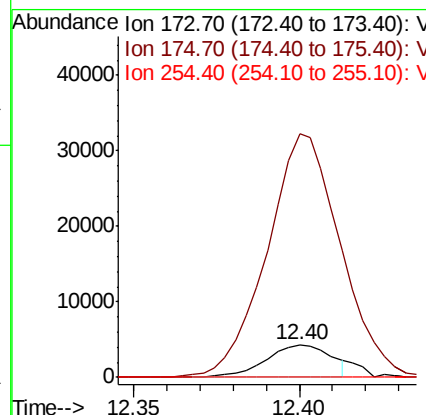
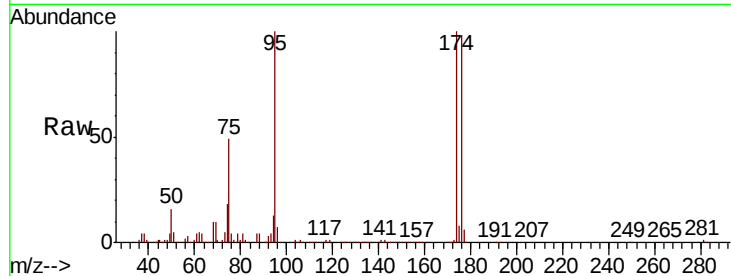




#71  
Bromoform  
Concen: 4.379 ug/l  
RT: 12.40 min Scan# 3305  
Delta R.T. 0.27 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

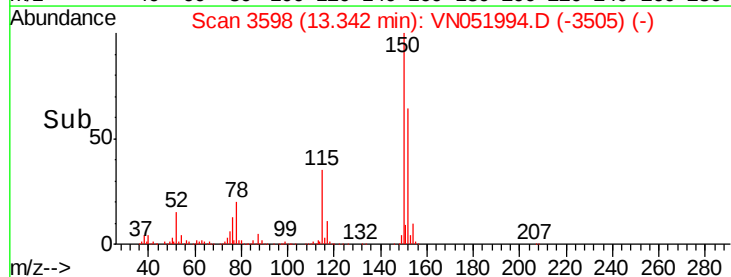
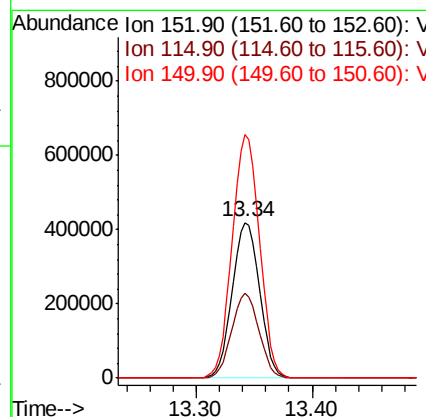
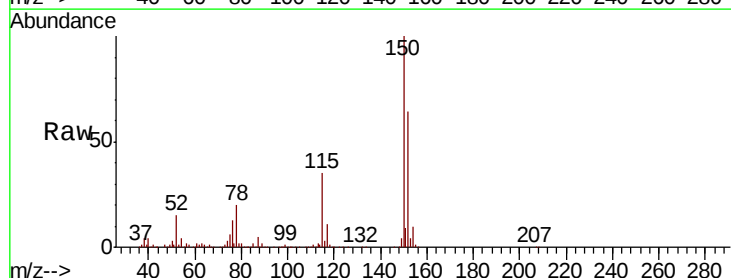
Instrument :  
MSVOA\_N  
ClientSampleId :

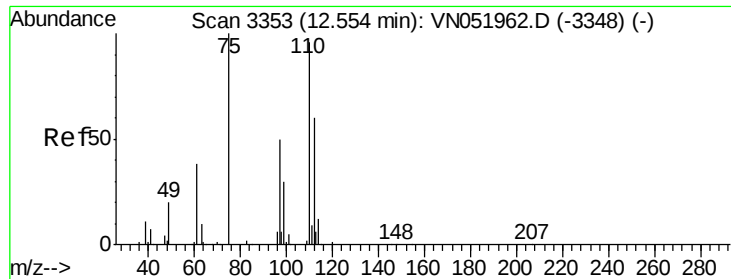
Tot Ion:173 Resp: 5866  
Ion Ratio Lower Upper  
173 100  
175 755.2 24.6 74.0#  
254 0.0 0.1 0.1#



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.34 min Scan# 3598  
Delta R.T. 0.00 min  
Lab File: VN051994.D  
Acq: 24 Oct 2018 18:00

Tgt Ion:152 Resp: 679083  
Ion Ratio Lower Upper  
152 100  
115 54.4 25.8 77.3  
150 156.7 0.0 344.4





#76

1,2,3-Trichloropropane

Concen: 47.727 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.15 min

Lab File: VN051994.D

Acq: 24 Oct 2018 18:00

Instrument :

MSVOA\_N

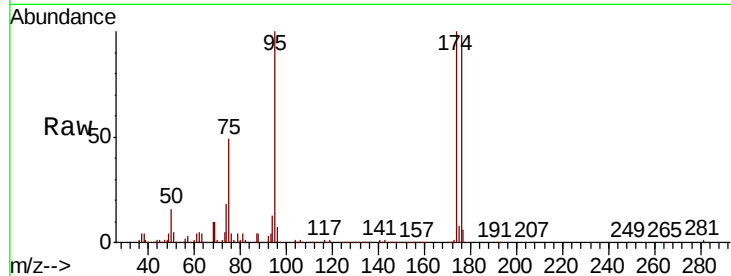
ClientSampleId :

Tot Ion: 75 Resp: 334781

Ion Ratio Lower Upper

75 100

77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN051962.D (-3348) (-)

Ion 77.00 (76.70 to 77.70): VN051962.D (-3348) (-)

12.40

200000

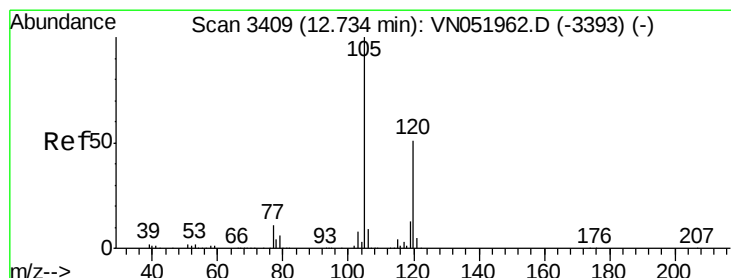
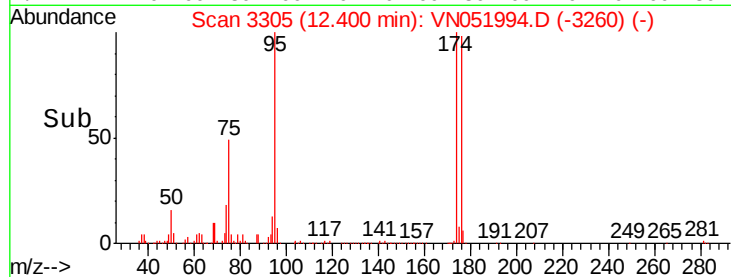
150000

100000

50000

0

Time-->



#80

1,3,5-Trimethylbenzene

Concen: 0.207 ug/l

RT: 12.73 min Scan# 3408

Delta R.T. -0.00 min

Lab File: VN051994.D

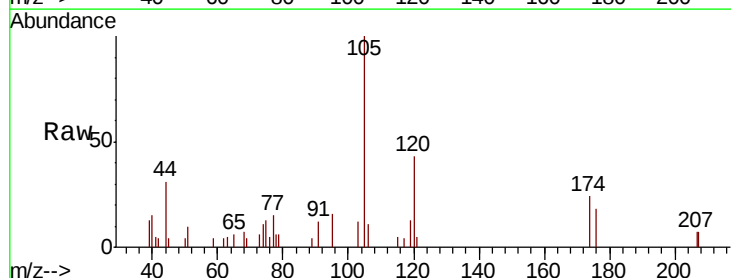
Acq: 24 Oct 2018 18:00

Tgt Ion: 105 Resp: 7140

Ion Ratio Lower Upper

105 100

120 44.6 25.7 77.1



Abundance Ion 105.00 (104.70 to 105.70): VN051962.D (-3393) (-)

Ion 120.00 (119.70 to 120.70): VN051962.D (-3393) (-)

12.73

5000

4000

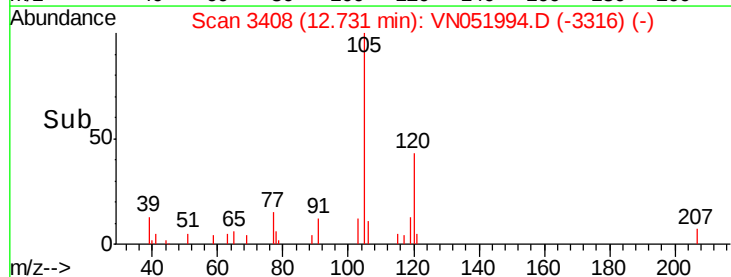
3000

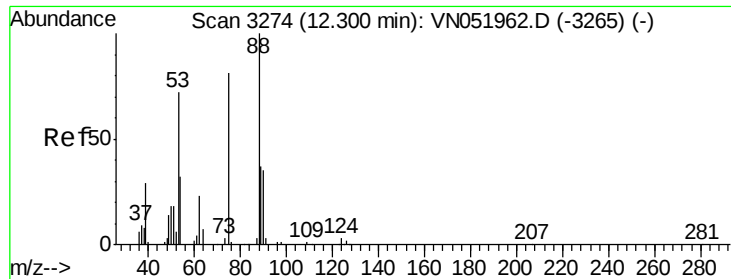
2000

1000

0

Time-->





#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 150.103 ug/l  
 RT: 12.40 min Scan# 3305  
 Delta R.T. 0.10 min  
 Lab File: VN051994.D  
 Acq: 24 Oct 2018 18:00

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion: 75 Resp: 334781  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 73.5 110.3#  
 89 0.0 41.6 62.4#

