

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN092618\  
 Data File : VN051495.D  
 Acq On : 25 Sep 2018 20:22  
 Operator : MD\SY  
 Sample : PB113167TB  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB113167TB

Quant Time: Sep 26 04:10:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N092318W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Sep 24 06:41:32 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 644960   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1009465  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 866938   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 305158   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 452048   | 55.95 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 111.90% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 392522   | 48.63 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.26%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 1422362  | 46.79 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.58%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 385779   | 39.23 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 78.46%  |      |

## Target Compounds

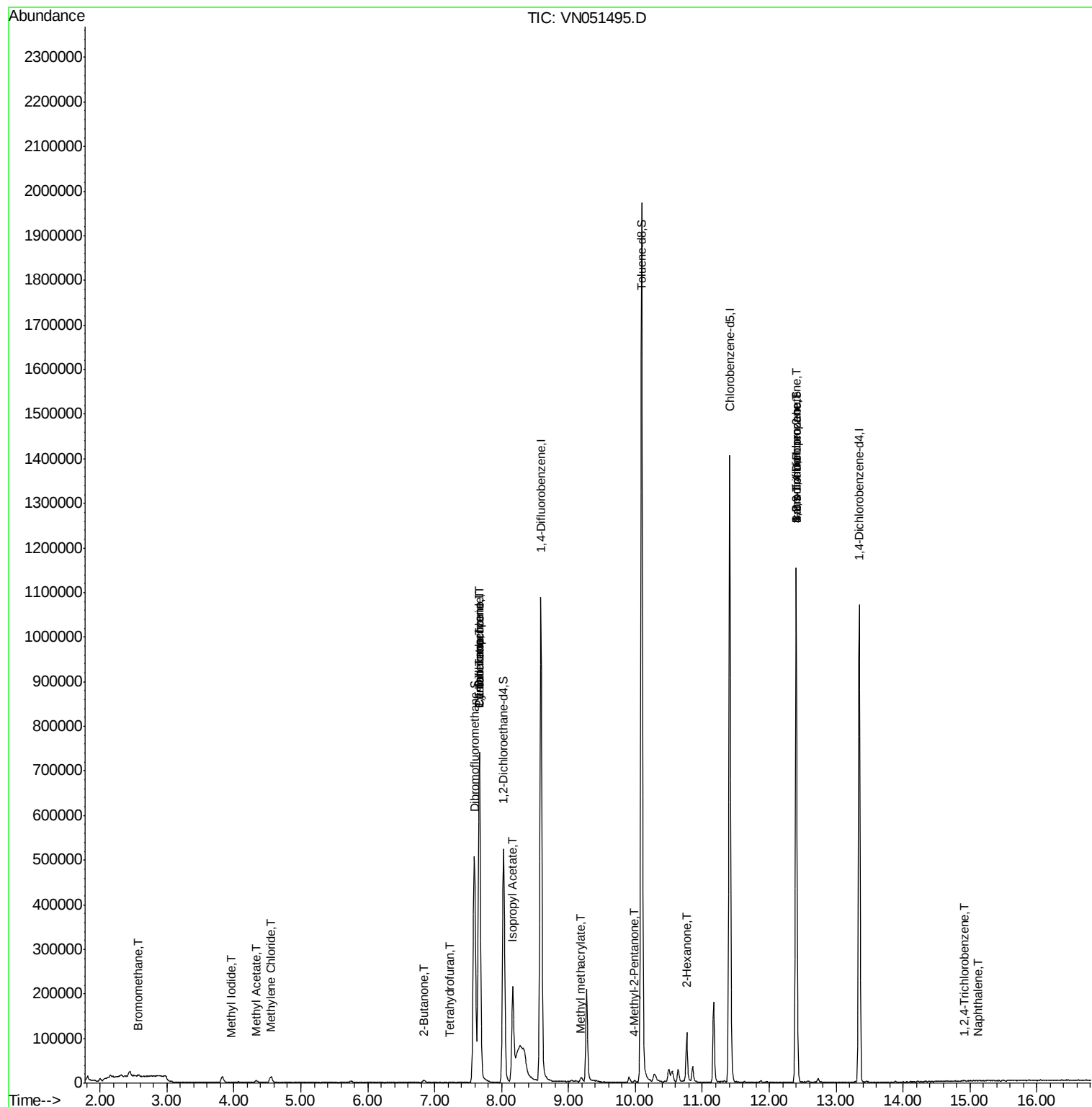
|                                |       |     |        |           | Qvalue |     |
|--------------------------------|-------|-----|--------|-----------|--------|-----|
| 5) Bromomethane                | 2.56  | 94  | 1521   | 0.299     | ug/l   | 93  |
| 10) Methyl Iodide              | 3.95  | 142 | 67     | 0.283     | ug/l # | 42  |
| 16) Acetone                    | 3.82  | 43  | 21433  | Below Cal |        | 94  |
| 18) Methyl Acetate             | 4.34  | 43  | 8135   | 1.322     | ug/l   | 91  |
| 20) Methylene Chloride         | 4.55  | 84  | 9769   | 1.222     | ug/l   | 85  |
| 25) 2-Butanone                 | 6.85  | 43  | 2083   | 0.753     | ug/l # | 79  |
| 29) Tetrahydrofuran            | 7.22  | 42  | 1087   | 0.620     | ug/l # | 43  |
| 31) Cyclohexane                | 7.67  | 56  | 11960  | 0.940     | ug/l # | 1   |
| 36) 1,1-Dichloropropene        | 7.67  | 75  | 45310  | 3.876     | ug/l # | 48  |
| 38) Carbon Tetrachloride       | 7.67  | 117 | 58853  | 4.813     | ug/l # | 17  |
| 43) Isopropyl Acetate          | 8.17  | 43  | 263959 | 21.718    | ug/l   | 97  |
| 48) Methyl methacrylate        | 9.18  | 41  | 6613   | 1.091     | ug/l # | 20  |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43  | 2454   | 0.367     | ug/l # | 72  |
| 59) 2-Hexanone                 | 10.77 | 43  | 17031  | 3.930     | ug/l # | 55  |
| 71) Bromoform                  | 12.40 | 173 | 2166   | 0.377     | ug/l # | 1   |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75  | 189416 | 37.391    | ug/l # | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75  | 189416 | 114.975   | ug/l # | 12  |
| 93) 1,2,4-Trichlorobenzene     | 14.91 | 180 | 477    | 6.053     | ug/l # | 75  |
| 95) Naphthalene                | 15.13 | 128 | 1071   | 8.123     | ug/l # | 69  |

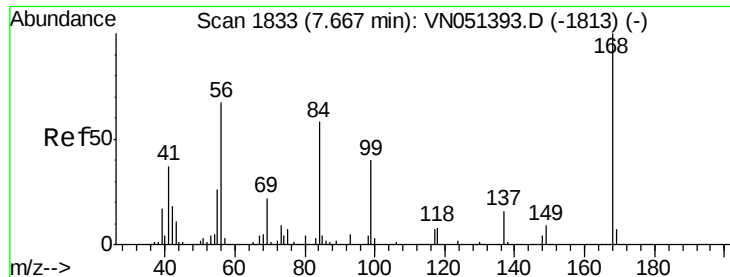
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN092618\  
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Sample : PB113167TB  
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Quant Time: Sep 26 04:10:01 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N092318W.M  
Quant Title : SW846 8260  
QLast Update : Mon Sep 24 06:41:32 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: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampleId :

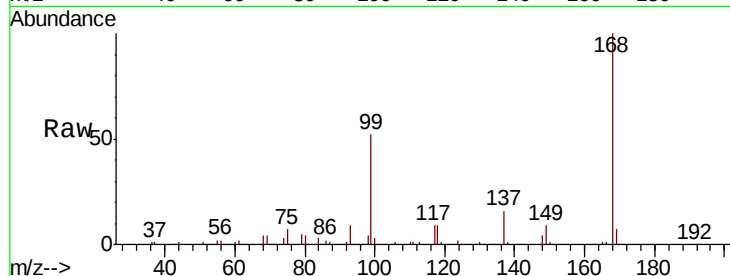
PB113167TB

Tot Ion:168 Resp: 644960

Ion Ratio Lower Upper

168 100

99 51.7 40.2 60.2



Abundance Ion 167.90 (167.60 to 168.60): VN051393.D

Ion 98.90 (98.60 to 99.60): VN051393.D

7.67

250000

200000

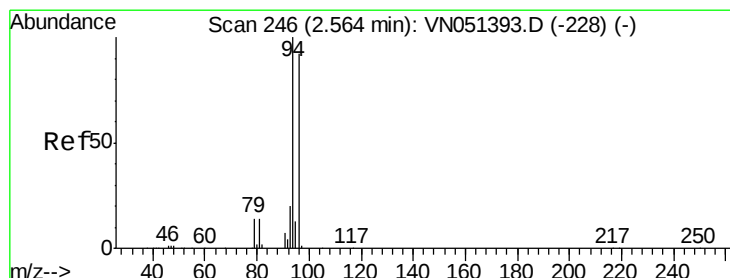
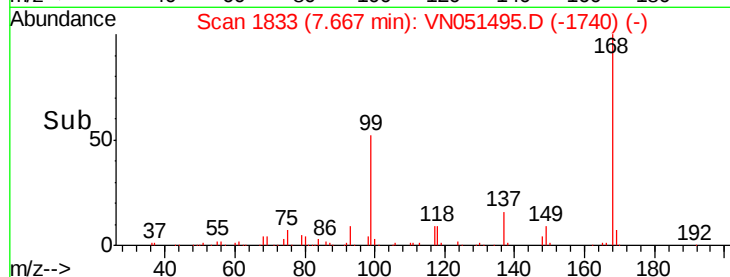
150000

100000

50000

0

Time-->



#5

Bromomethane

Concen: 0.299 ug/l

RT: 2.56 min Scan# 246

Delta R.T. 0.00 min

Lab File: VN051495.D

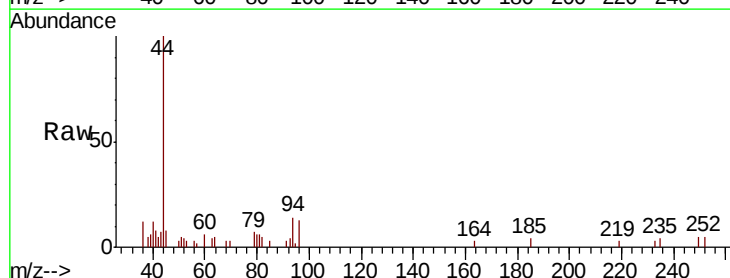
Acq: 25 Sep 2018 20:22

Tgt Ion: 94 Resp: 1521

Ion Ratio Lower Upper

94 100

96 98.3 73.6 110.4



Abundance Ion 93.90 (93.60 to 94.60): VN051393.D

Ion 95.90 (95.60 to 96.60): VN051393.D

2.56

1000

800

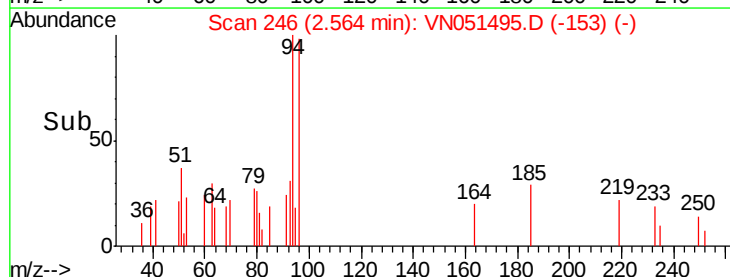
600

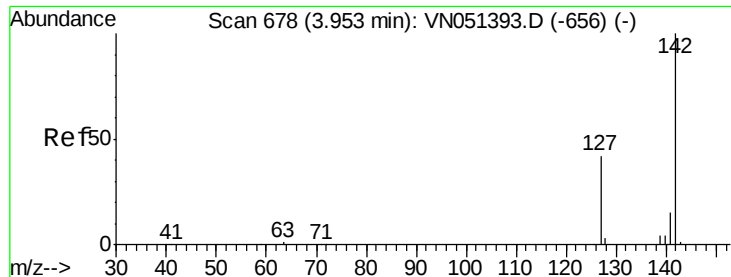
400

200

0

Time-->

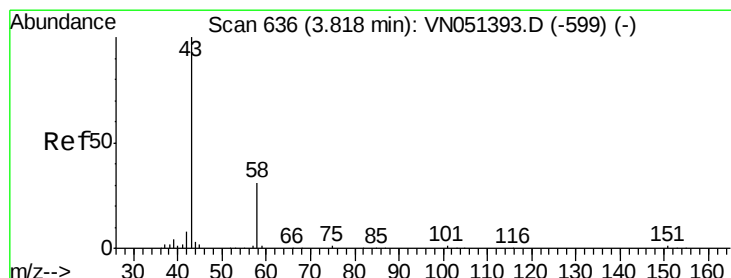
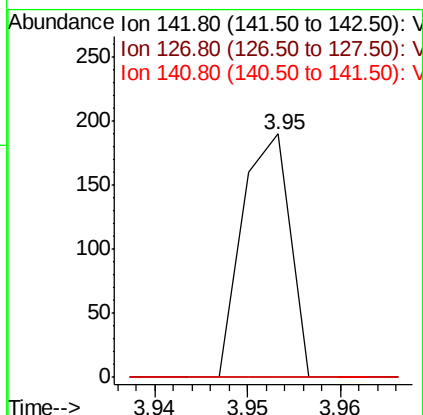
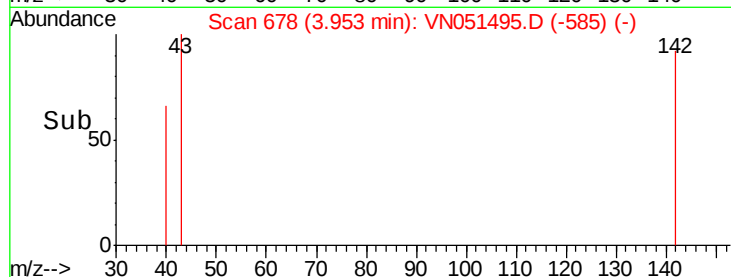
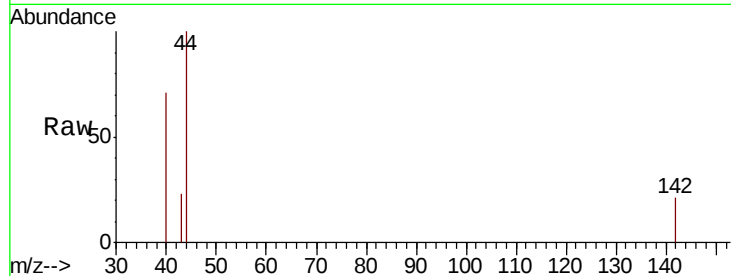




#10  
Methvl Iodide  
Concen: 0.283 ug/l  
RT: 3.95 min Scan# 678  
Delta R.T. 0.00 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

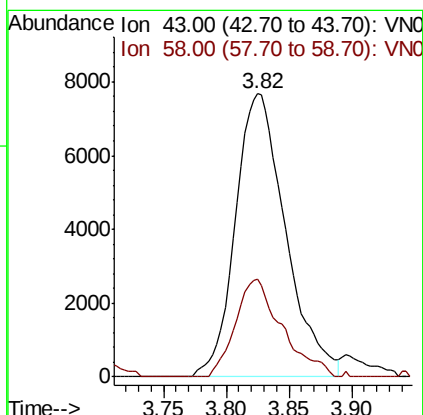
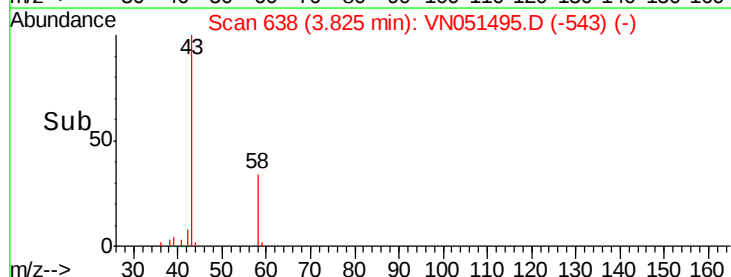
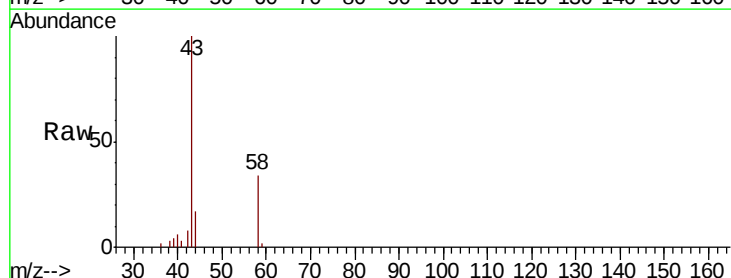
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB113167TB

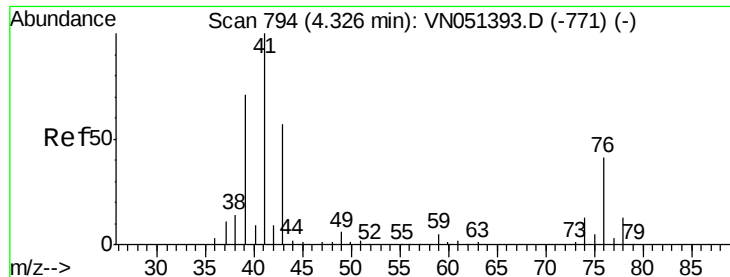
Tot Ion:142 Resp: 67  
Ion Ratio Lower Upper  
142 100  
127 0.0 33.2 49.8#  
141 0.0 11.5 17.3#



#16  
Acetone  
Concen: Below Cal  
RT: 3.82 min Scan# 638  
Delta R.T. 0.01 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

Tgt Ion: 43 Resp: 21433  
Ion Ratio Lower Upper  
43 100  
58 34.4 25.0 37.4

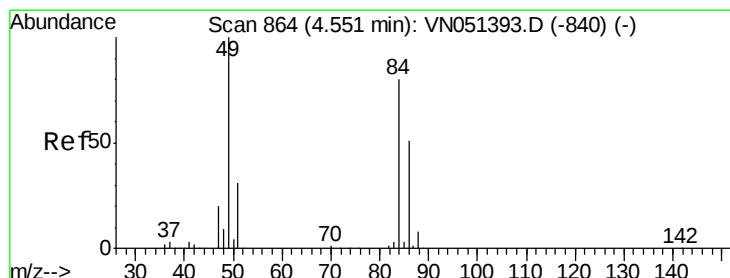
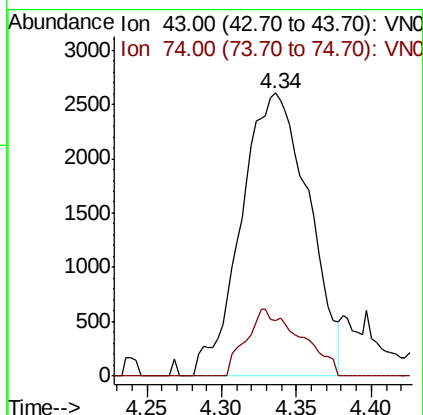
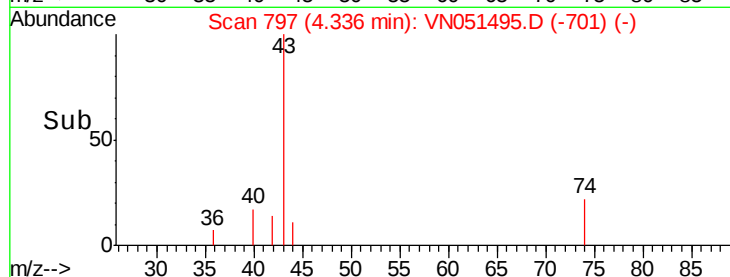
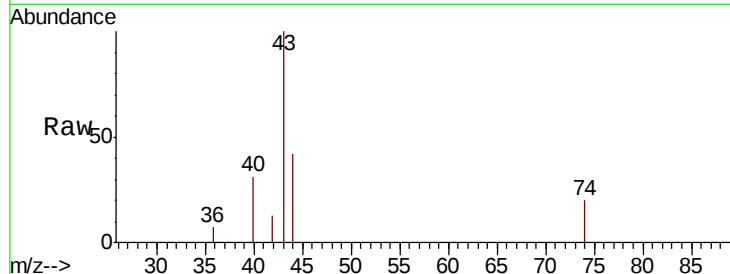




#18  
Methyl Acetate  
Concen: 1.322 ug/l  
RT: 4.34 min Scan# 797  
Delta R.T. 0.01 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

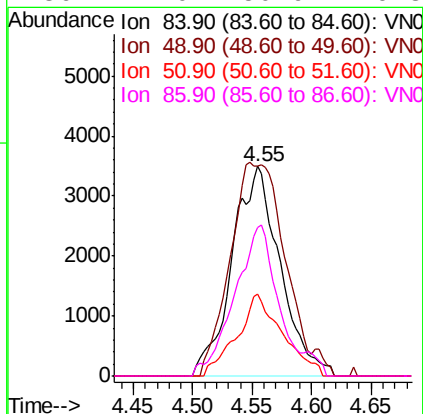
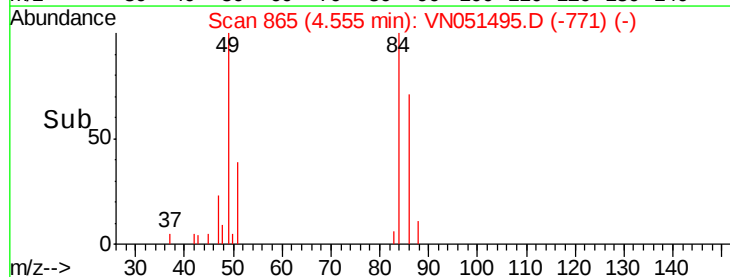
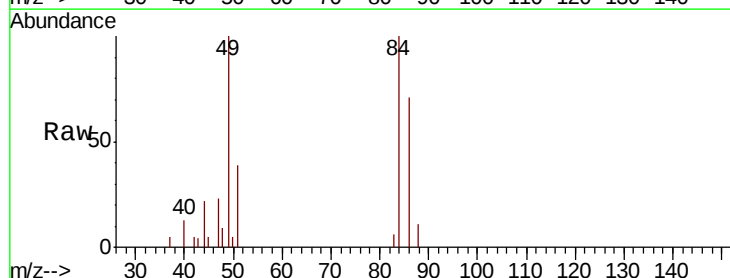
Instrument :  
MSVOA\_N  
ClientSampled :  
PB113167TB

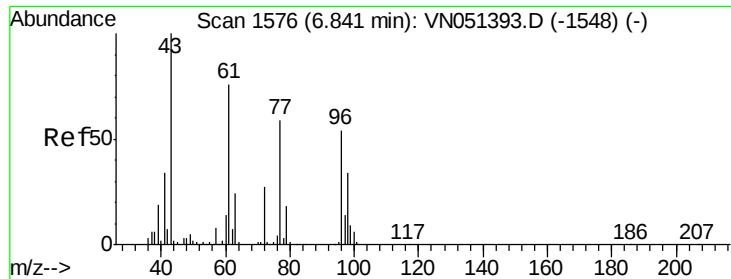
Tot Ion: 43 Resp: 8135  
Ion Ratio Lower Upper  
43 100  
74 19.3 18.8 28.2



#20  
Methylene Chloride  
Concen: 1.222 ug/l  
RT: 4.55 min Scan# 865  
Delta R.T. 0.00 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

Tgt Ion: 84 Resp: 9769  
Ion Ratio Lower Upper  
84 100  
49 100.1 99.9 149.9  
51 38.9 31.4 47.2  
86 71.0 50.9 76.3





#25

2-Butanone

Concen: 0.753 ug/l

RT: 6.85 min Scan# 1578

Delta R.T. 0.01 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampleId :

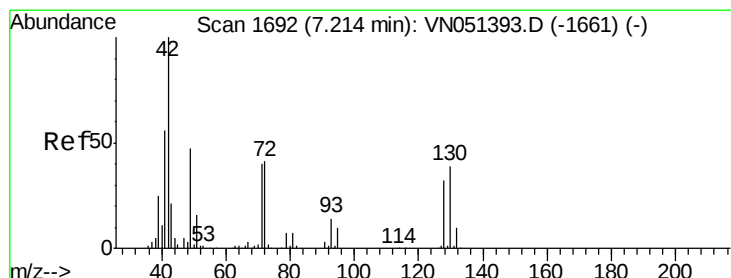
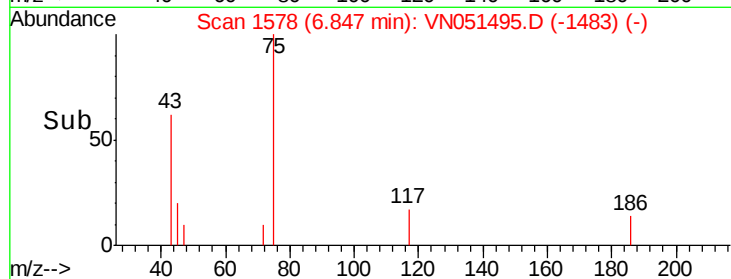
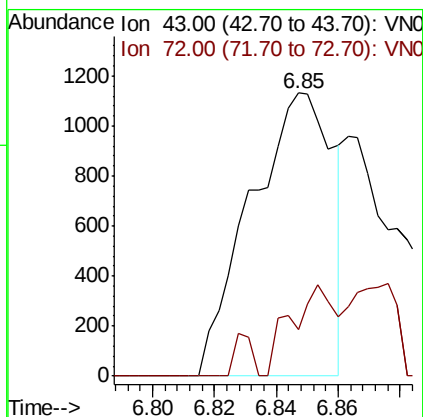
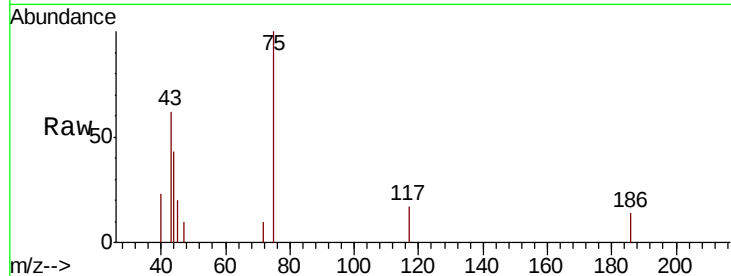
PB113167TB

Tot Ion: 43 Resp: 2083

Ion Ratio Lower Upper

43 100

72 16.3 21.8 32.6#



#29

Tetrahydrofuran

Concen: 0.620 ug/l

RT: 7.22 min Scan# 1694

Delta R.T. 0.01 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

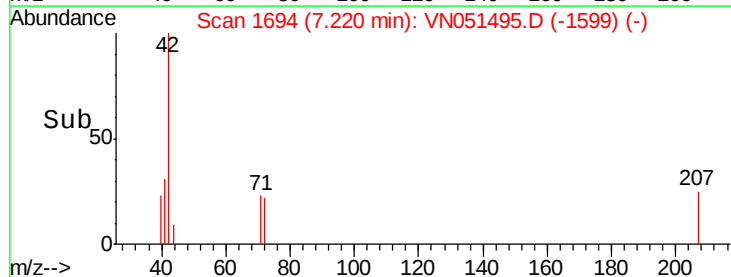
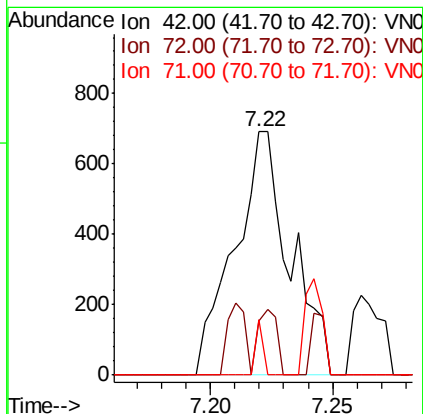
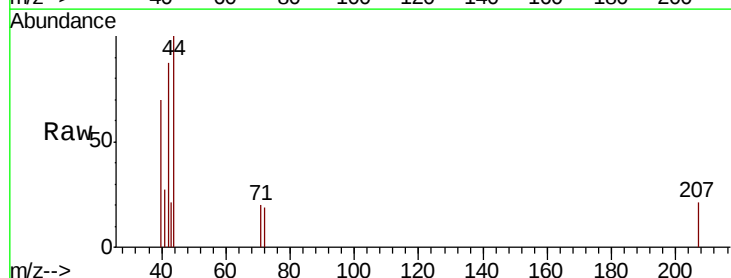
Tgt Ion: 42 Resp: 1087

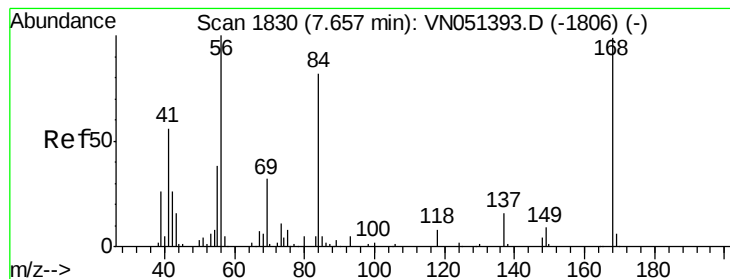
Ion Ratio Lower Upper

42 100

72 9.0 34.3 51.5#

71 2.8 32.2 48.4#





#31

Cyclohexane

Concen: 0.940 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.01 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampleId :

PB113167TB

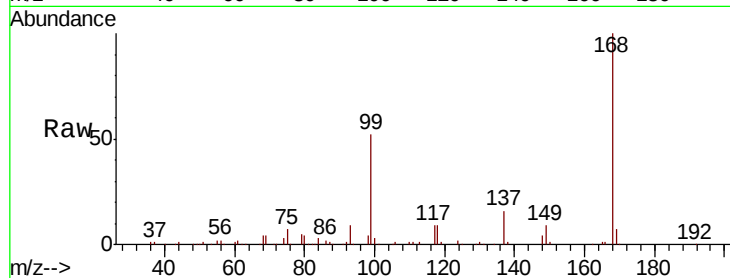
Tot Ion: 56 Resp: 11960

Ion Ratio Lower Upper

56 100

69 183.7 25.8 38.6#

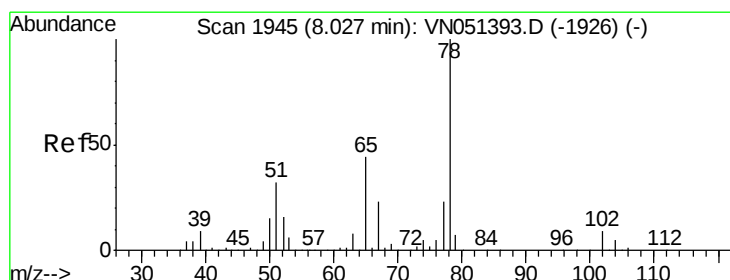
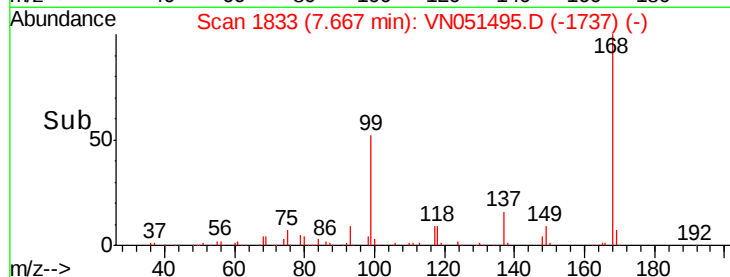
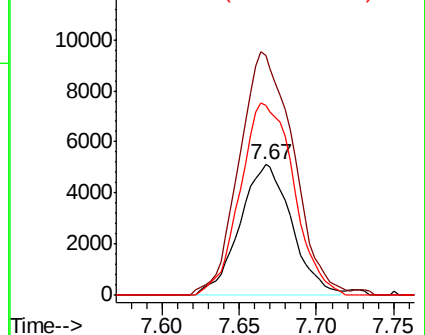
84 144.9 66.0 99.0#



Abundance Ion 56.00 (55.70 to 56.70): VN051393.D (-1806) (-)

Ion 69.00 (68.70 to 69.70): VN051393.D (-1806) (-)

Ion 84.00 (83.70 to 84.70): VN051393.D (-1806) (-)



#33

1,2-Dichloroethane-d4

Concen: 55.951 ug/l

RT: 8.03 min Scan# 1946

Delta R.T. 0.00 min

Lab File: VN051495.D

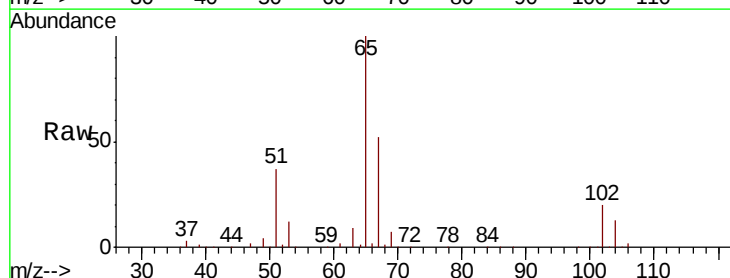
Acq: 25 Sep 2018 20:22

Tgt Ion: 65 Resp: 452048

Ion Ratio Lower Upper

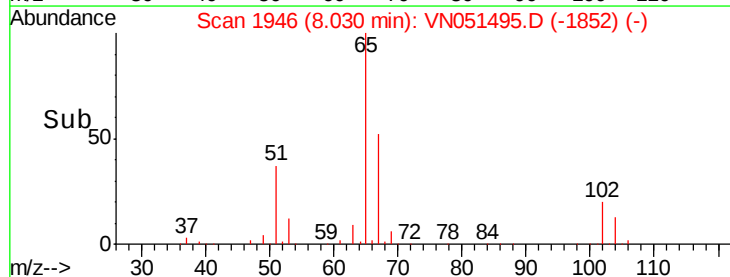
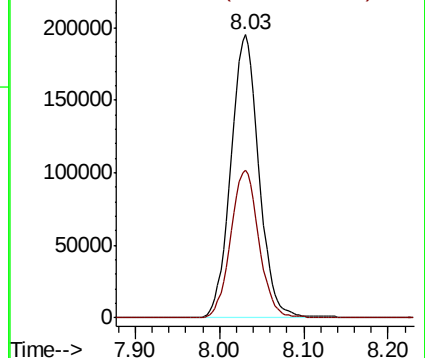
65 100

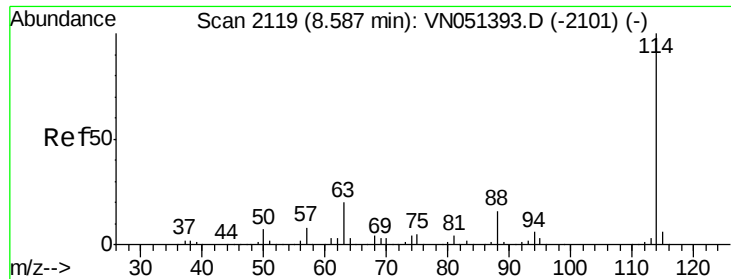
67 52.5 0.0 107.8



Abundance Ion 64.90 (64.60 to 65.60): VN051393.D (-1926) (-)

Ion 66.90 (66.60 to 67.60): VN051393.D (-1926) (-)

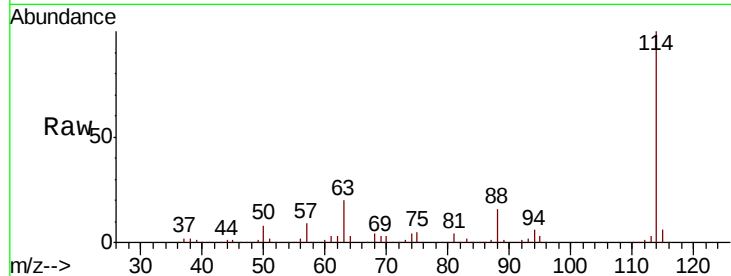




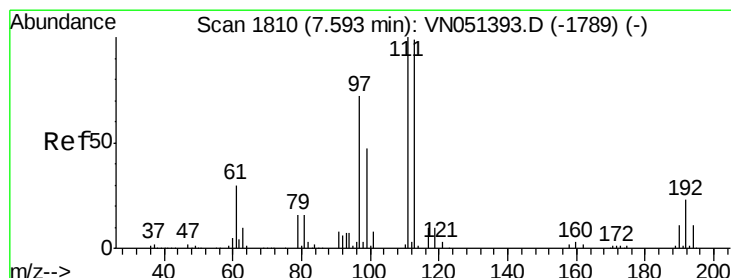
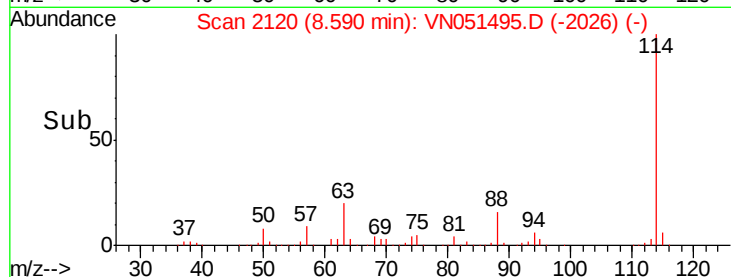
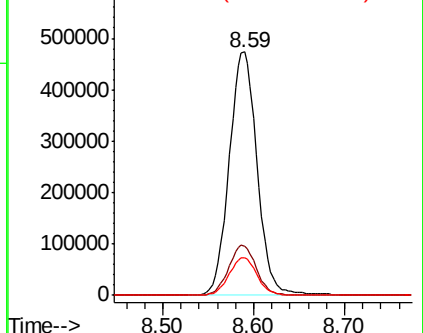
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2120  
 Delta R.T. 0.00 min  
 Lab File: VN051495.D  
 Acq: 25 Sep 2018 20:22

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB113167TB

Tot Ion:114 Resp: 1009465  
 Ion Ratio Lower Upper  
 114 100  
 63 20.4 0.0 40.2  
 88 15.6 0.0 31.4

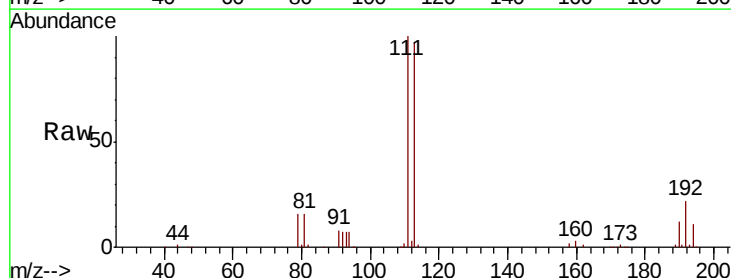


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN

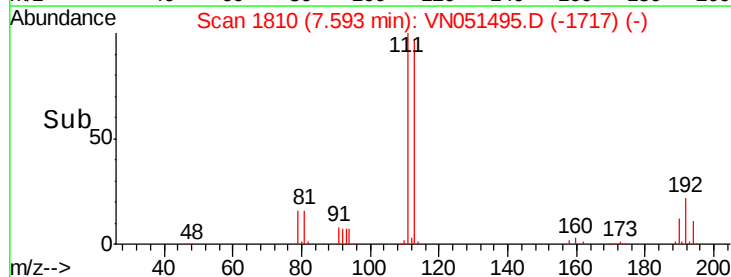
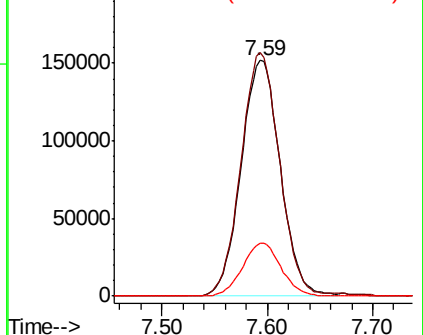


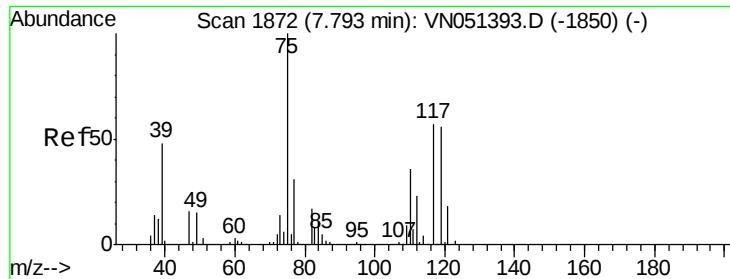
#35  
 Dibromofluoromethane  
 Concen: 48.626 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. -0.00 min  
 Lab File: VN051495.D  
 Acq: 25 Sep 2018 20:22

Tgt Ion:113 Resp: 392522  
 Ion Ratio Lower Upper  
 113 100  
 111 101.3 82.6 123.8  
 192 22.2 18.0 27.0



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

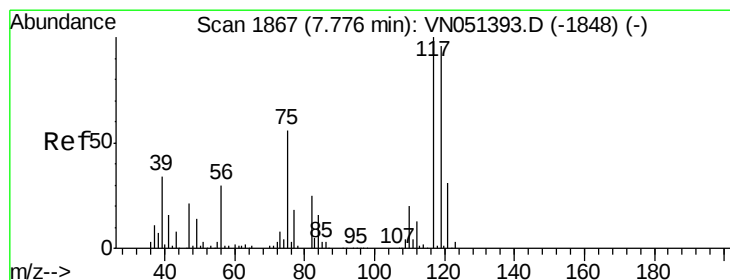
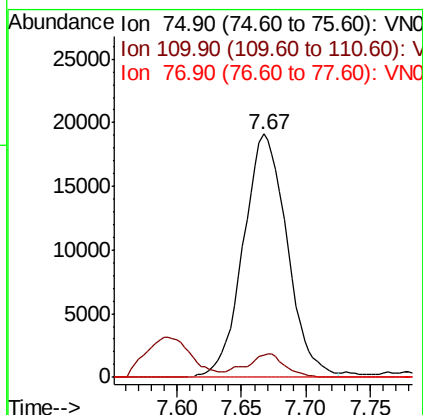
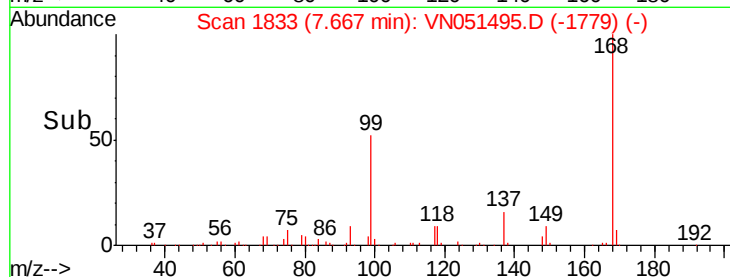
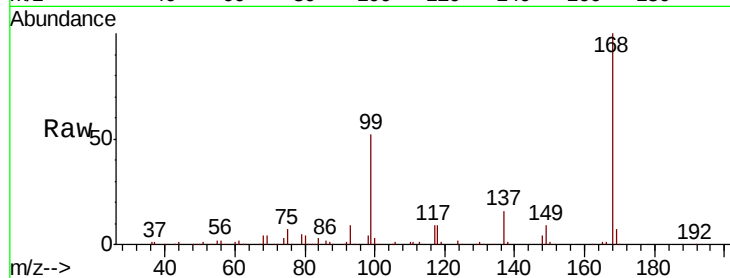




#36  
 1,1-Dichloropropene  
 Concen: 3.876 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.13 min  
 Lab File: VN051495.D  
 Acq: 25 Sep 2018 20:22

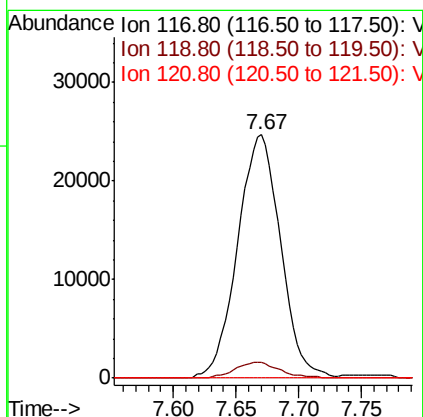
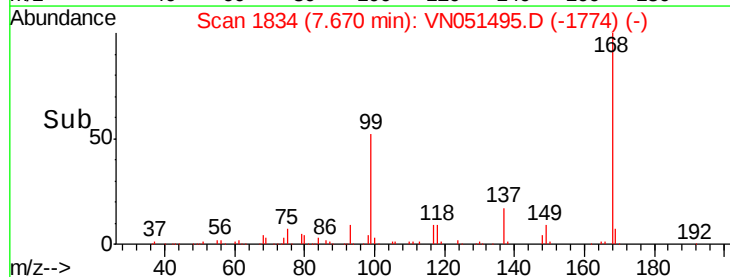
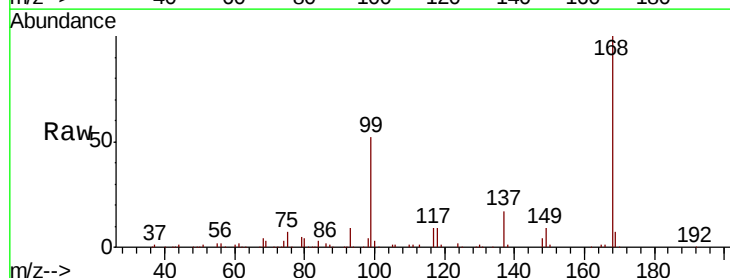
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB113167TB

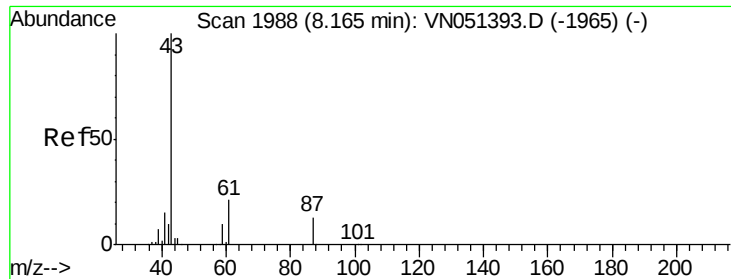
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.7   | 18.1  | 54.3# |
| 77      | 0.0   | 25.6  | 38.4# |



#38  
 Carbon Tetrachloride  
 Concen: 4.813 ug/l  
 RT: 7.67 min Scan# 1834  
 Delta R.T. -0.11 min  
 Lab File: VN051495.D  
 Acq: 25 Sep 2018 20:22

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 6.4   | 76.9  | 115.3# |
| 121     | 0.0   | 24.6  | 37.0#  |





#43

Isopropyl Acetate

Concen: 21.718 ug/l

RT: 8.17 min Scan# 1989

Delta R.T. 0.00 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampled :

PB113167TB

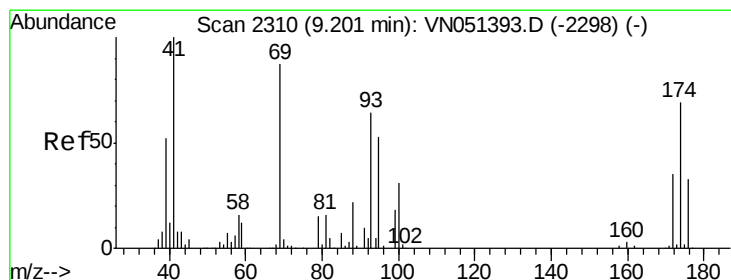
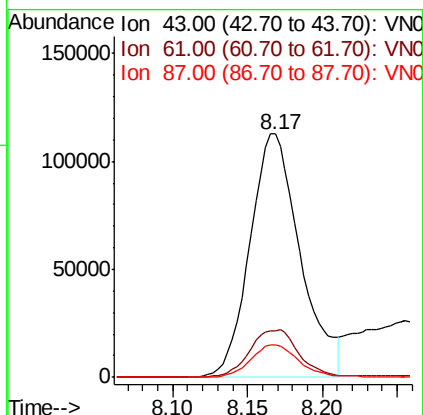
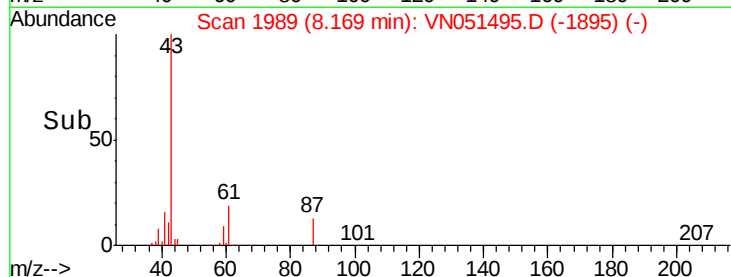
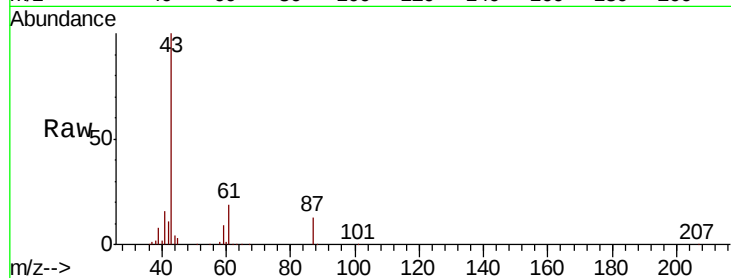
Tot Ion: 43 Resp: 263959

Ion Ratio Lower Upper

43 100

61 19.5 16.8 25.2

87 12.7 10.7 16.1



#48

Methyl methacrylate

Concen: 1.091 ug/l

RT: 9.18 min Scan# 2303

Delta R.T. -0.02 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

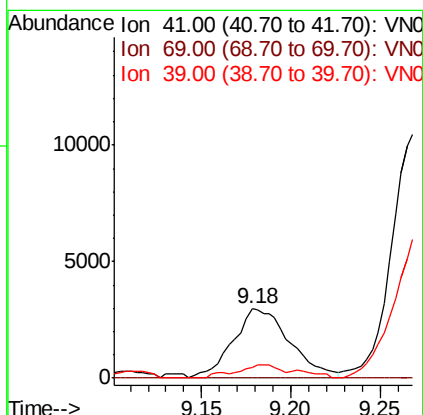
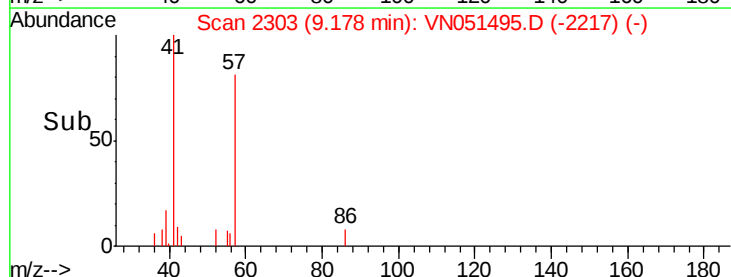
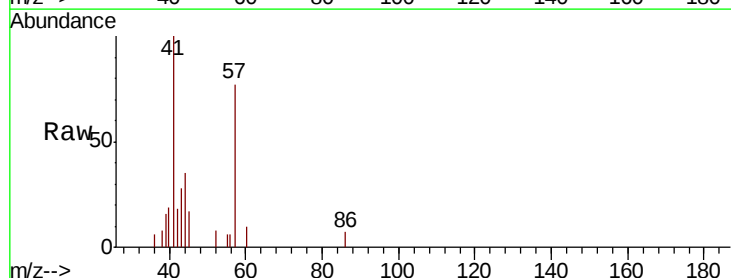
Tgt Ion: 41 Resp: 6613

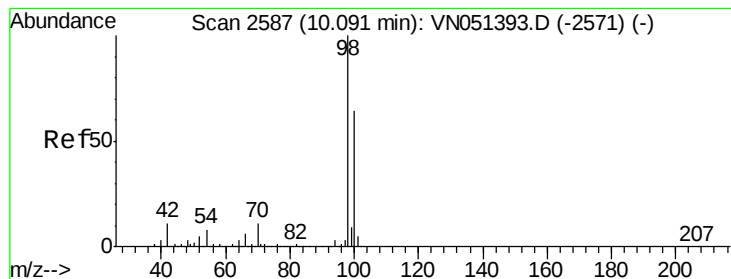
Ion Ratio Lower Upper

41 100

69 0.0 70.4 105.6#

39 14.7 43.8 65.8#





#50

Toluene-d8

Concen: 46.793 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. -0.00 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampleId :

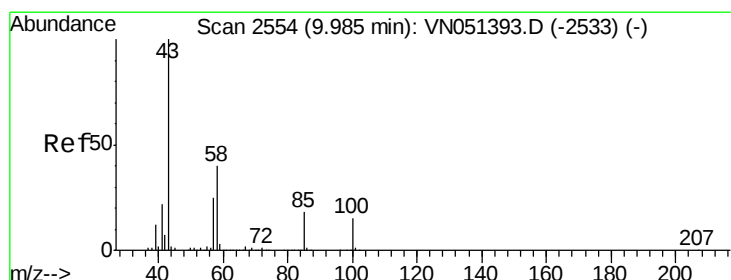
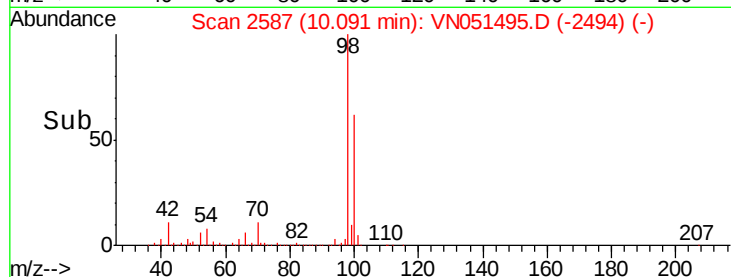
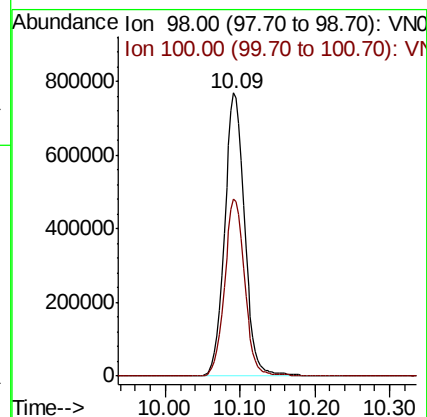
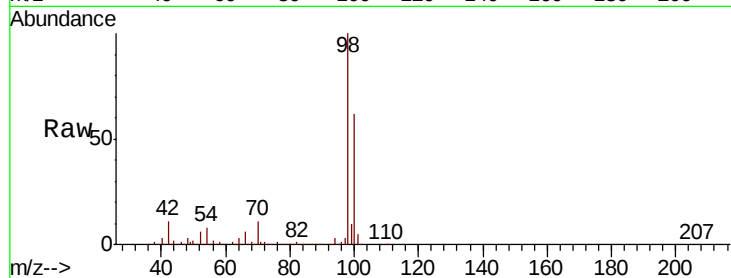
PB113167TB

Tot Ion: 98 Resp: 1422362

Ion Ratio Lower Upper

98 100

100 62.7 50.6 75.8



#51

4-Methyl-2-Pentanone

Concen: 0.367 ug/l

RT: 9.99 min Scan# 2554

Delta R.T. -0.00 min

Lab File: VN051495.D

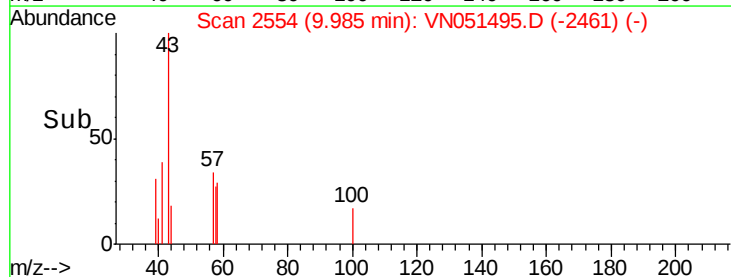
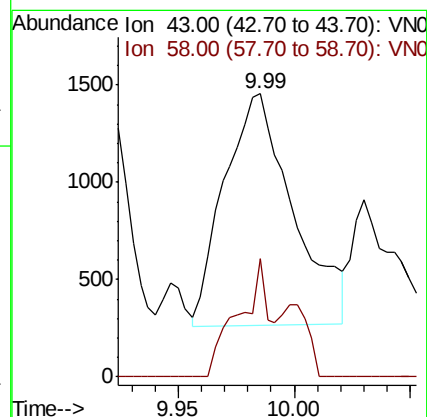
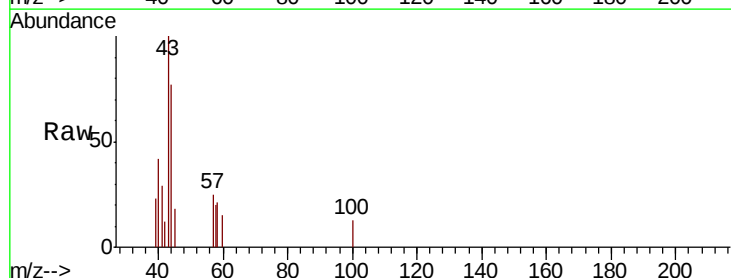
Acq: 25 Sep 2018 20:22

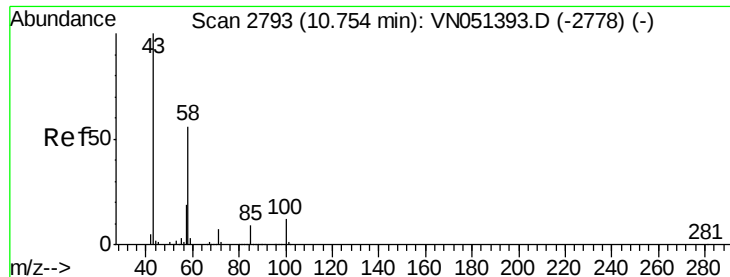
Tgt Ion: 43 Resp: 2454

Ion Ratio Lower Upper

43 100

58 22.5 31.5 47.3#





#59

2-Hexanone

Concen: 3.930 ug/l

RT: 10.77 min Scan# 2797

Delta R.T. 0.01 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampled :

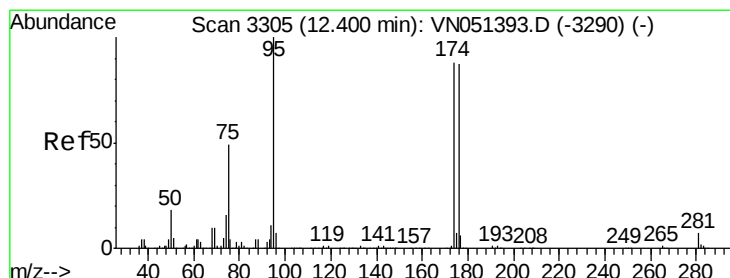
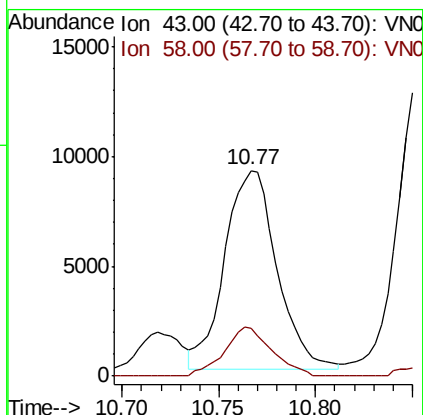
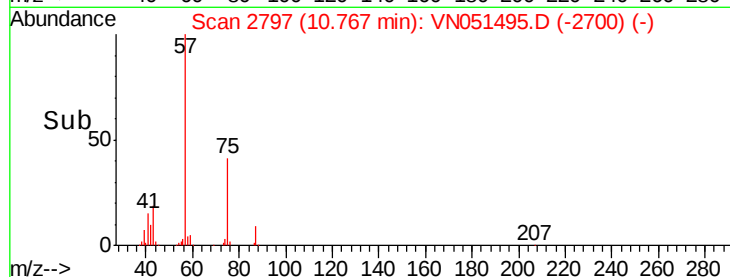
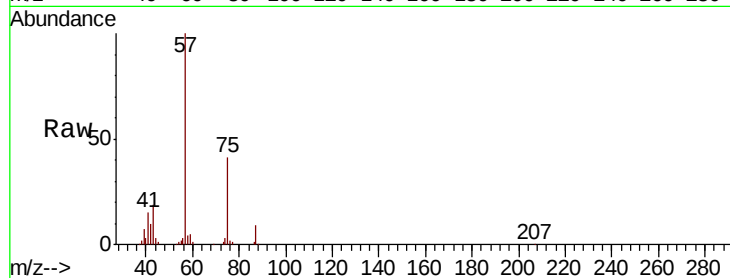
PB113167TB

Tot Ion: 43 Resp: 17031

Ion Ratio Lower Upper

43 100

58 22.4 27.7 83.0#



#62

4-Bromofluorobenzene

Concen: 39.231 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.00 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

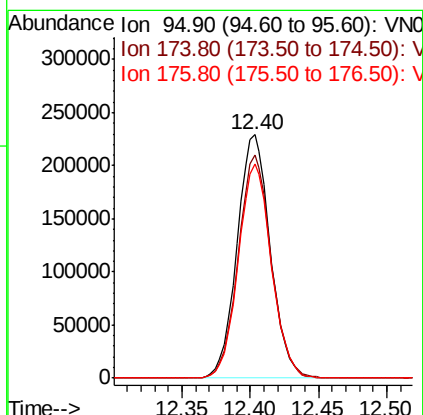
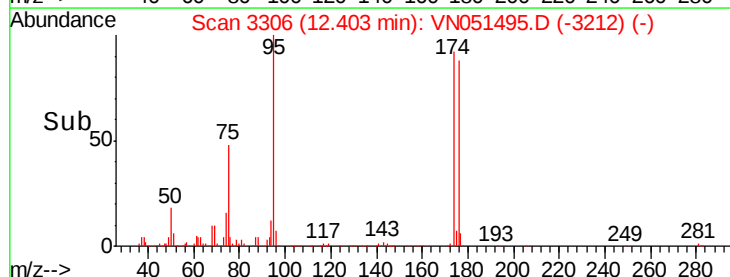
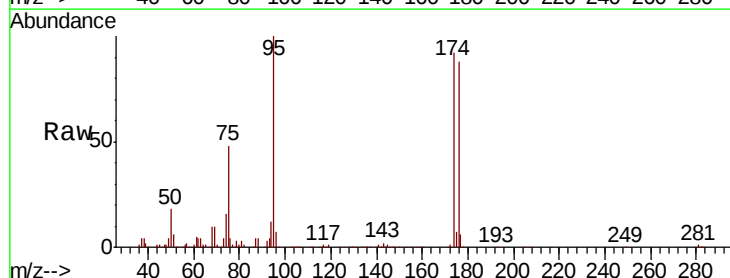
Tgt Ion: 95 Resp: 385779

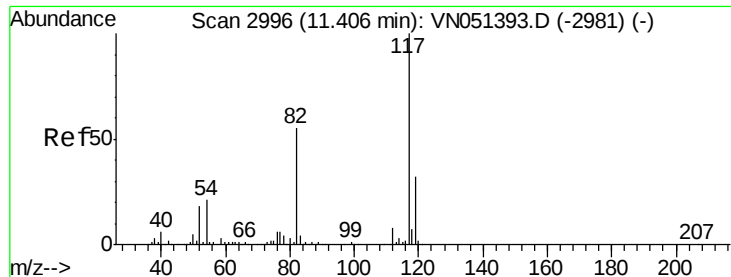
Ion Ratio Lower Upper

95 100

174 91.4 0.0 181.6

176 87.9 0.0 176.4

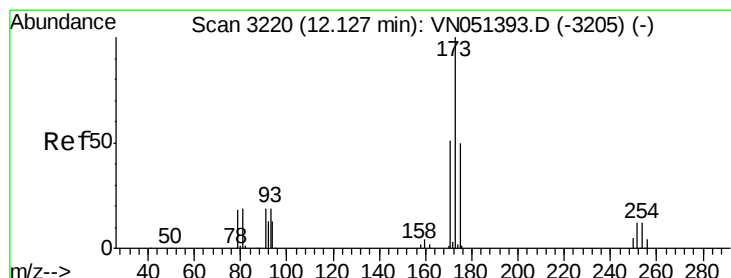
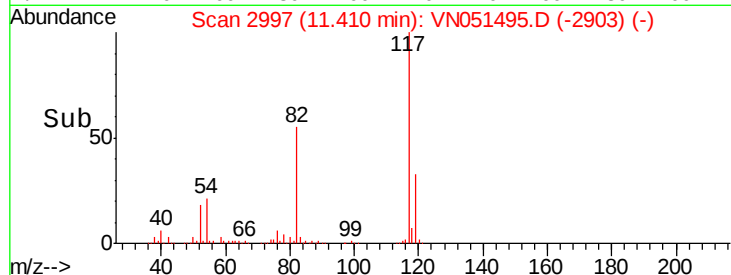
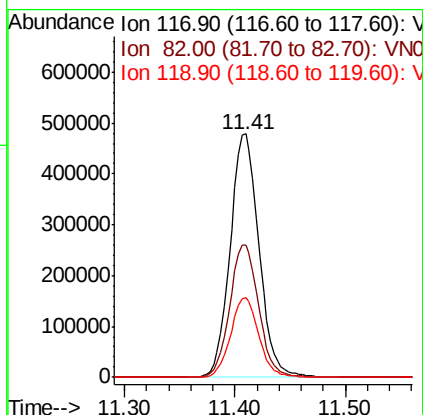
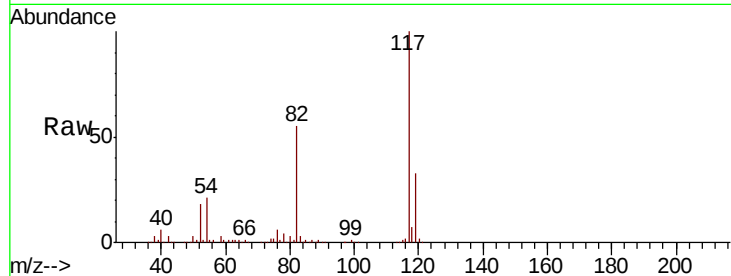




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2997  
Delta R.T. 0.00 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

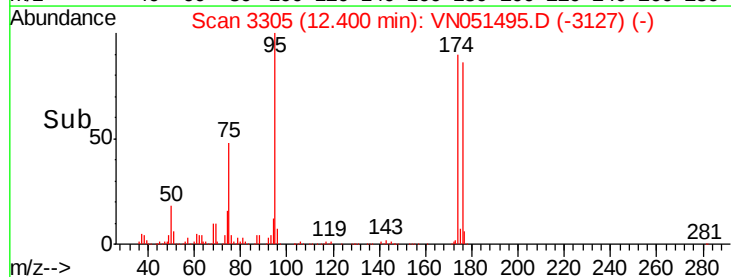
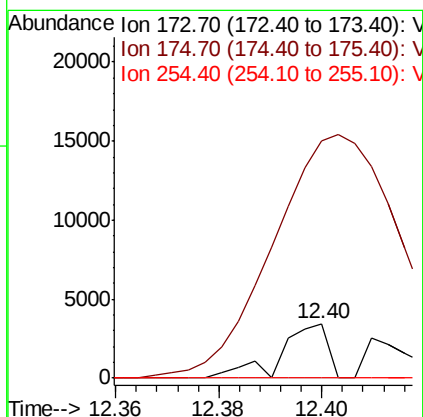
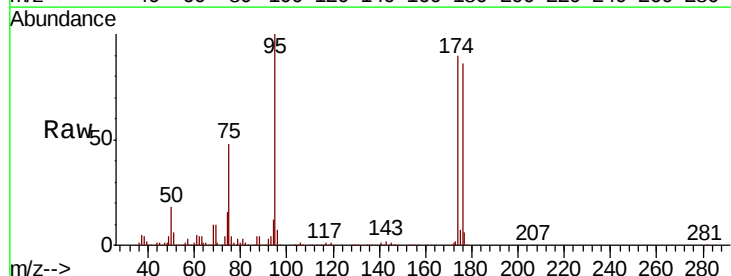
Instrument :  
MSVOA\_N  
ClientSampled :  
PB113167TB

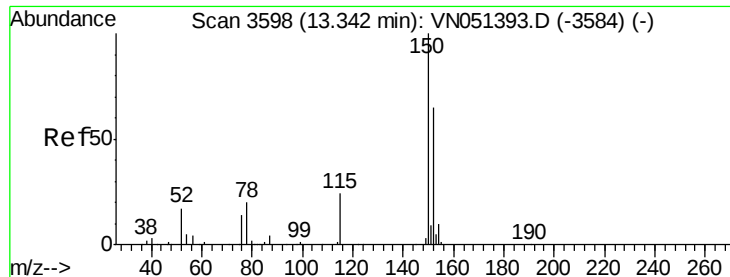
Tot Ion:117 Resp: 866938  
Ion Ratio Lower Upper  
117 100  
82 54.5 44.2 66.2  
119 33.0 25.9 38.9



#71  
Bromoform  
Concen: 0.377 ug/l  
RT: 12.40 min Scan# 3305  
Delta R.T. 0.27 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

Tgt Ion:173 Resp: 2166  
Ion Ratio Lower Upper  
173 100  
175 1029.7 24.8 74.3#  
254 0.0 0.2 0.2#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3599

Delta R.T. 0.00 min

Lab File: VN051495.D

Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampleId :

PB113167TB

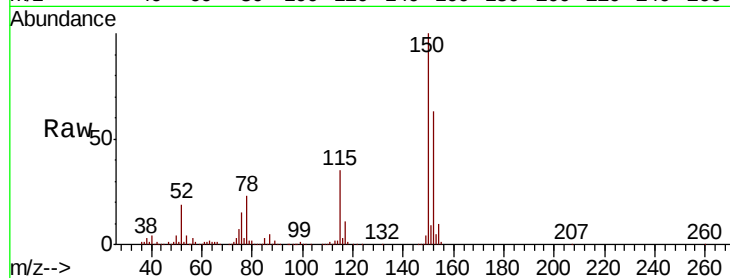
Tot Ion:152 Resp: 305158

Ion Ratio Lower Upper

152 100

115 55.9 28.3 84.9

150 158.9 0.0 353.6

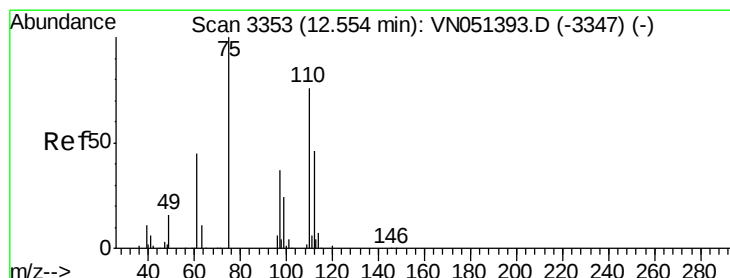
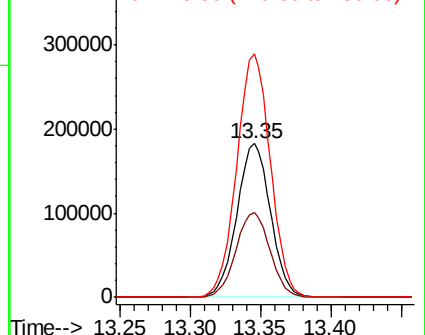
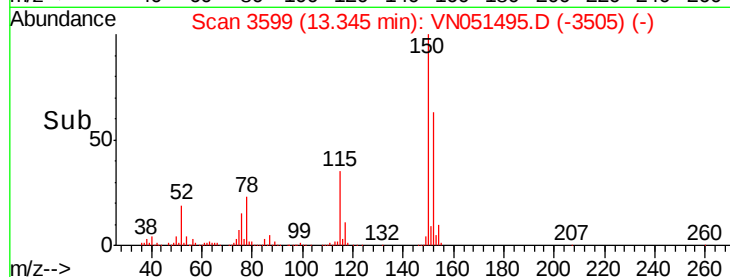


Abundance

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

1,2,3-Trichloropropane

Concen: 37.391 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN051495.D

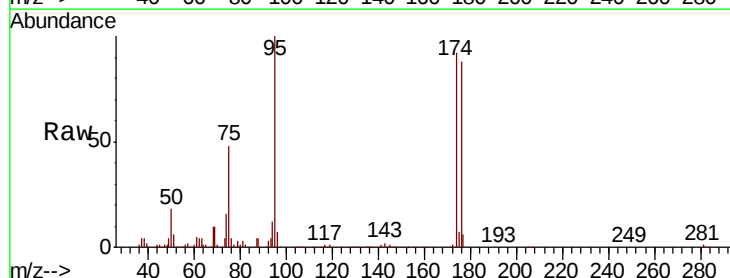
Acq: 25 Sep 2018 20:22

Tgt Ion: 75 Resp: 189416

Ion Ratio Lower Upper

75 100

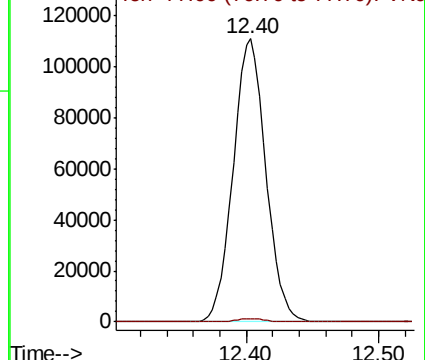
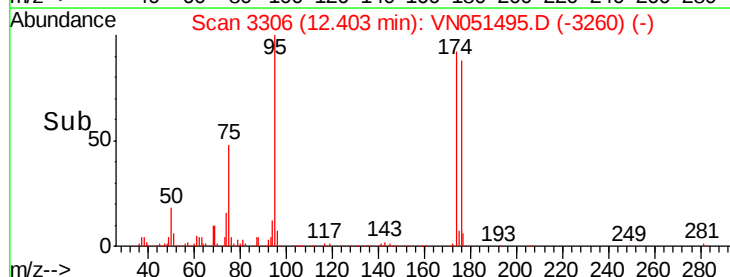
77 1.1 0.0 0.0#

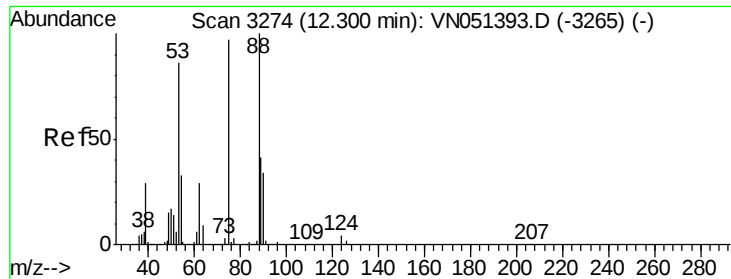


Abundance

Ion 74.90 (74.60 to 75.60): V

Ion 77.00 (76.70 to 77.70): V

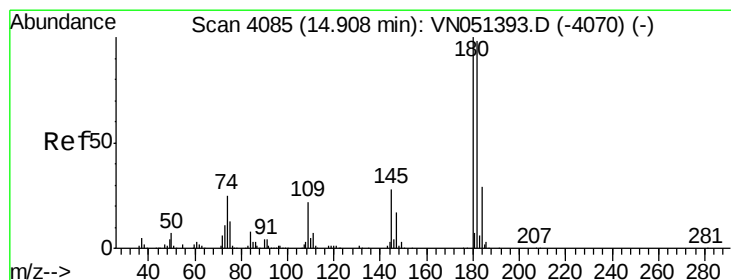
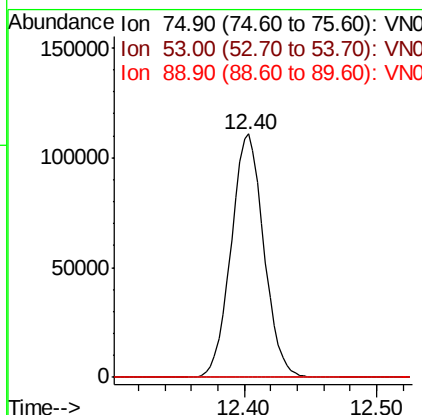
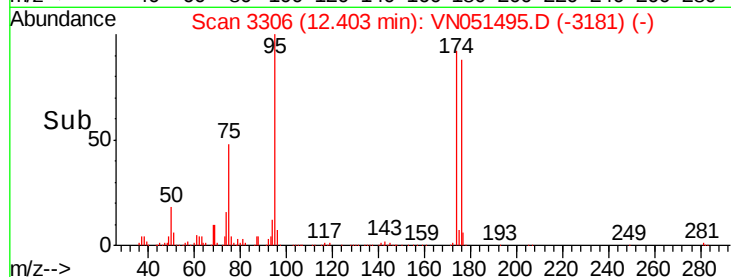
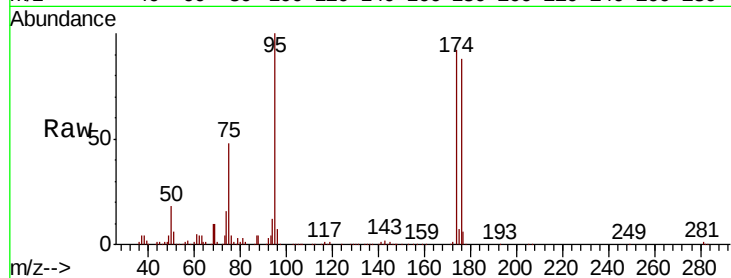




#81  
trans-1,4-Dichloro-2-butene  
Concen: 114.975 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.10 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

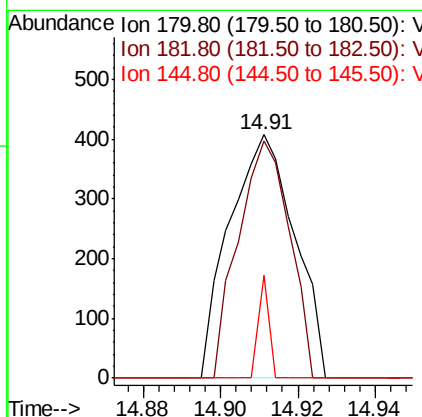
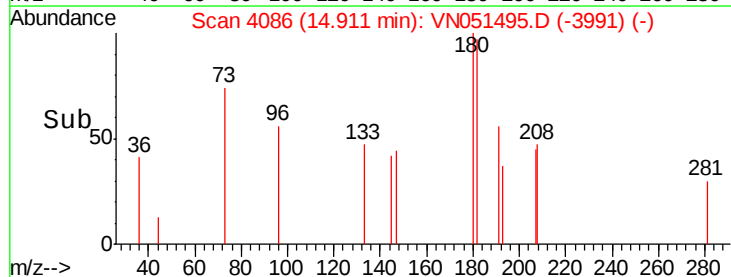
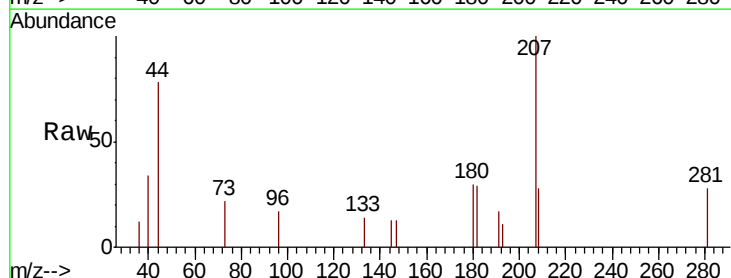
Instrument :  
MSVOA\_N  
ClientSampled :  
PB113167TB

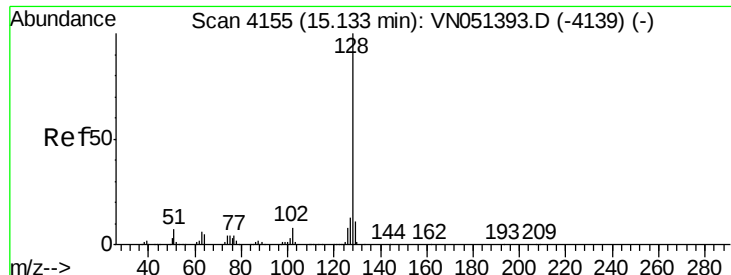
Tot Ion: 75 Resp: 189416  
Ion Ratio Lower Upper  
75 100  
53 0.1 73.9 110.9#  
89 0.0 36.7 55.1#



#93  
1,2,4-Trichlorobenzene  
Concen: 6.053 ug/l  
RT: 14.91 min Scan# 4086  
Delta R.T. 0.00 min  
Lab File: VN051495.D  
Acq: 25 Sep 2018 20:22

Tgt Ion: 180 Resp: 477  
Ion Ratio Lower Upper  
180 100  
182 76.5 48.5 145.6  
145 6.9 14.1 42.4#





#95

Naphthalene

Concen: 8.123 ug/l

RT: 15.13 min Scan# 4155

Delta R.T. -0.00 min

Lab File: VN051495.D

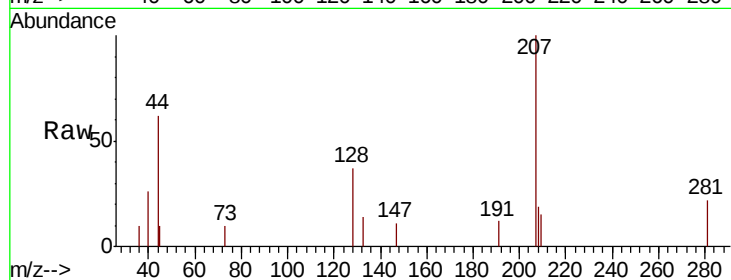
Acq: 25 Sep 2018 20:22

Instrument :

MSVOA\_N

ClientSampleId :

PB113167TB



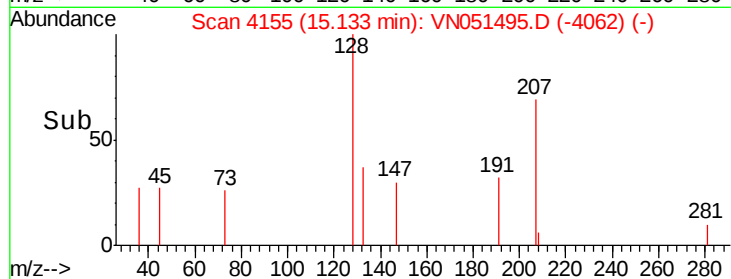
Tot Ion:128 Resp: 1071

Ion Ratio Lower Upper

128 100

127 0.0 10.5 15.7#

129 0.0 8.6 12.8#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

