

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN021819\  
 Data File : VN053838.D  
 Acq On : 18 Feb 2019 13:01  
 Operator : JC/SP  
 Sample : PB117159ZHE#02  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB117159ZHE#02

Quant Time: Feb 19 03:00:44 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N013019W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Feb 01 09:11:52 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 663277   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1090965  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1014308  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 367123   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 341842   | 51.37 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.74% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 345307   | 50.09 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.18% |      |
| 50) Toluene-d8            | 10.09  | 98  | 1330303  | 51.40 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.80% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 423576   | 49.07 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.14%  |      |

## Target Compounds

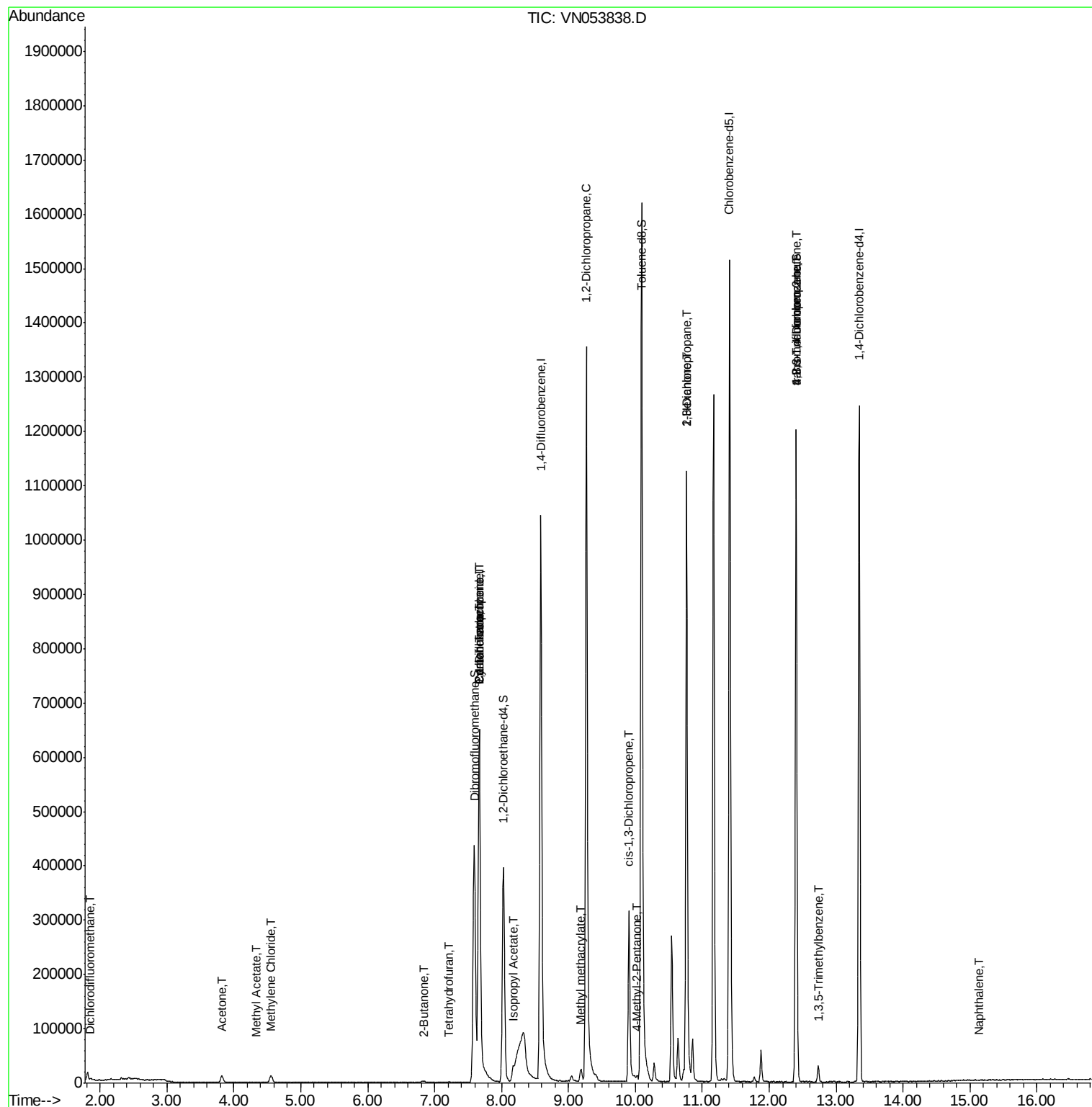
|                                |       |     |        |         | Qvalue |     |
|--------------------------------|-------|-----|--------|---------|--------|-----|
| 2) Dichlorodifluoromethane     | 1.85  | 85  | 99     | 0.351   | ug/l # | 42  |
| 16) Acetone                    | 3.82  | 43  | 21272  | 12.463  | ug/l   | 97  |
| 18) Methyl Acetate             | 4.34  | 43  | 3184   | 0.630   | ug/l # | 71  |
| 20) Methylene Chloride         | 4.55  | 84  | 10728  | 1.498   | ug/l # | 83  |
| 25) 2-Butanone                 | 6.84  | 43  | 1812   | 0.744   | ug/l # | 47  |
| 29) Tetrahydrofuran            | 7.23  | 42  | 1064   | 0.681   | ug/l # | 69  |
| 31) Cyclohexane                | 7.66  | 56  | 8848   | 0.619   | ug/l # | 1   |
| 36) 1,1-Dichloropropene        | 7.67  | 75  | 38217  | 3.886   | ug/l # | 49  |
| 38) Carbon Tetrachloride       | 7.67  | 117 | 53316  | 5.382   | ug/l # | 17  |
| 43) Isopropyl Acetate          | 8.17  | 43  | 32234  | 3.039   | ug/l # | 80  |
| 45) 1,2-Dichloropropane        | 9.27  | 63  | 2049   | 0.264   | ug/l # | 43  |
| 48) Methyl methacrylate        | 9.18  | 41  | 8981   | 1.774   | ug/l # | 12  |
| 51) 4-Methyl-2-Pentanone       | 10.02 | 43  | 7829   | 1.502   | ug/l # | 34  |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75  | 67088  | 5.815   | ug/l # | 63  |
| 57) 1,3-Dichloropropane        | 10.76 | 76  | 12668  | 1.143   | ug/l # | 43  |
| 59) 2-Hexanone                 | 10.76 | 43  | 163919 | 46.324  | ug/l # | 51  |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75  | 194809 | 41.313  | ug/l # | 100 |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105 | 16324  | 0.763   | ug/l   | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75  | 194809 | 116.168 | ug/l # | 15  |
| 95) Naphthalene                | 15.14 | 128 | 429    | 1.762   | ug/l # | 69  |

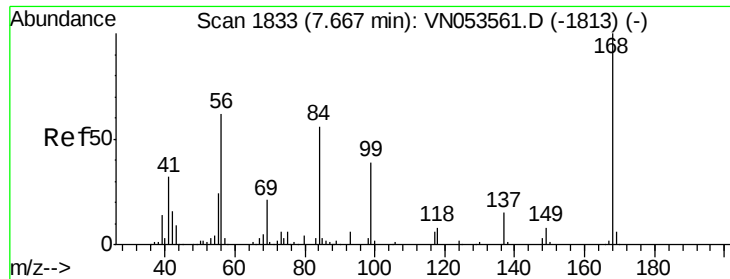
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Fri Feb 01 09:11:52 2019  
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: VN053838.D

Acq: 18 Feb 2019 13:01

Instrument :

MSVOA\_N

ClientSampleId :

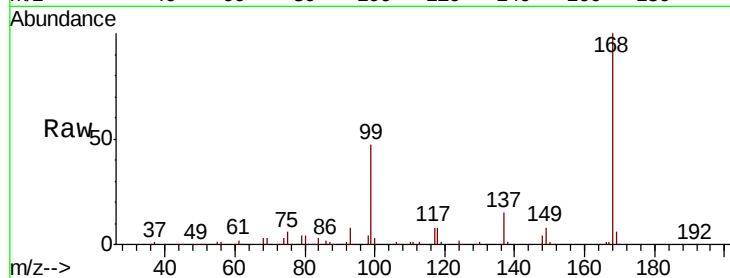
PB117159ZHE#02

Tgt Ion:168 Resp: 663277

Ion Ratio Lower Upper

168 100

99 47.4 39.1 58.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.67

250000

200000

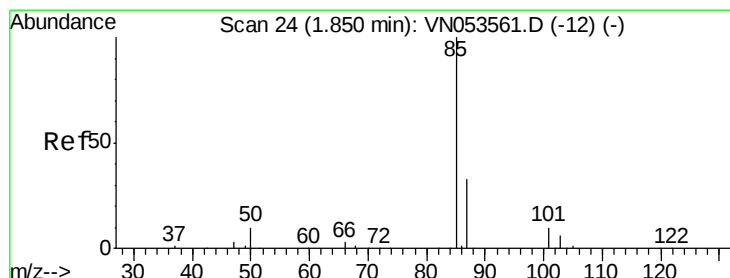
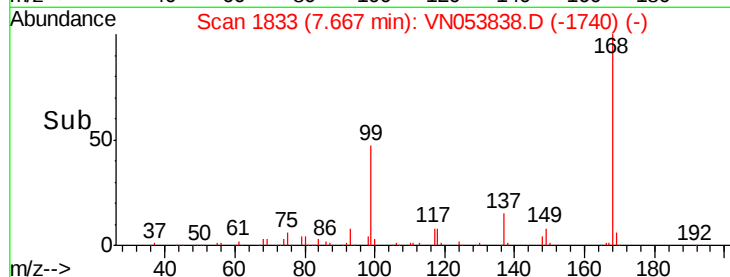
150000

100000

50000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.351 ug/l

RT: 1.85 min Scan# 24

Delta R.T. 0.00 min

Lab File: VN053838.D

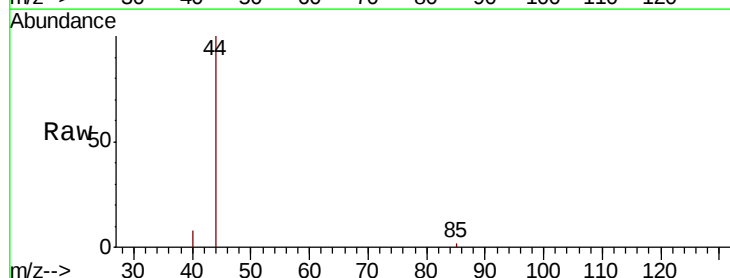
Acq: 18 Feb 2019 13:01

Tgt Ion: 85 Resp: 99

Ion Ratio Lower Upper

85 100

87 0.0 16.2 48.5#



Abundance Ion 84.90 (84.60 to 85.60): VNO

Ion 86.90 (86.60 to 87.60): VNO

1.85

200

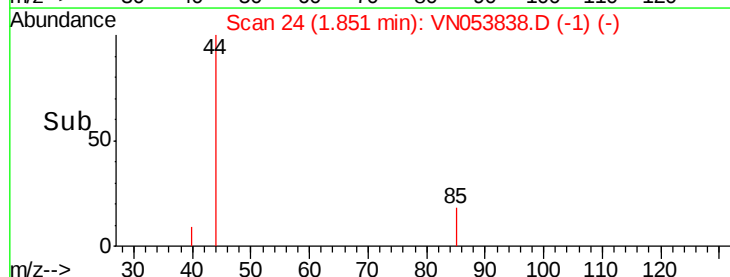
150

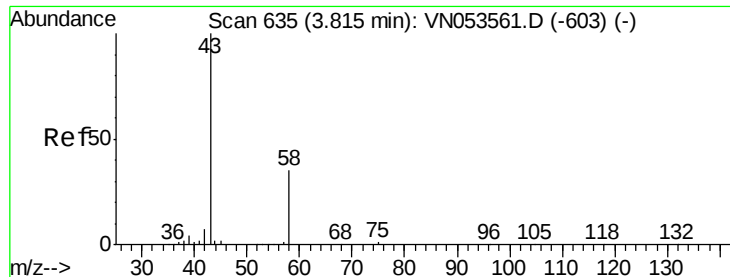
100

50

0

Time-->





#16

Acetone

Concen: 12.463 ug/l

RT: 3.82 min Scan# 636

Delta R.T. 0.00 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

Instrument :

MSVOA\_N

ClientSampleId :

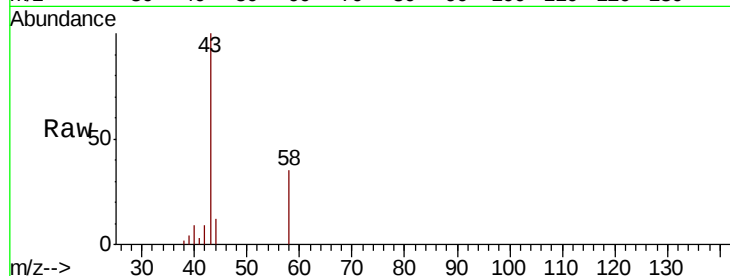
PB117159ZHE#02

Tgt Ion: 43 Resp: 21272

Ion Ratio Lower Upper

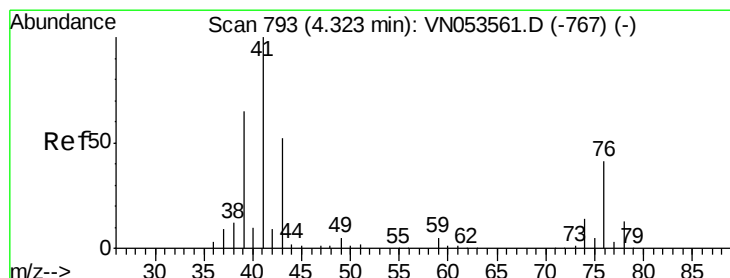
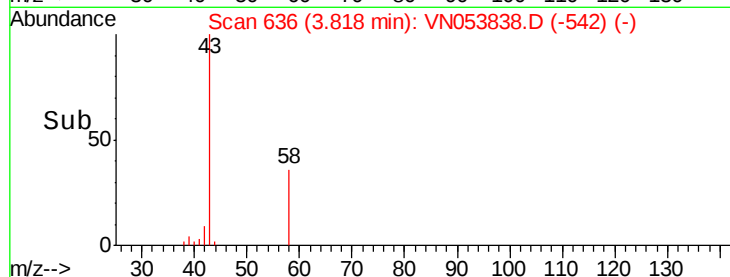
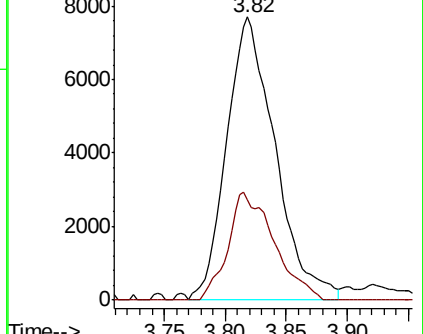
43 100

58 35.5 27.1 40.7



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#18

Methyl Acetate

Concen: 0.630 ug/l

RT: 4.34 min Scan# 797

Delta R.T. 0.01 min

Lab File: VN053838.D

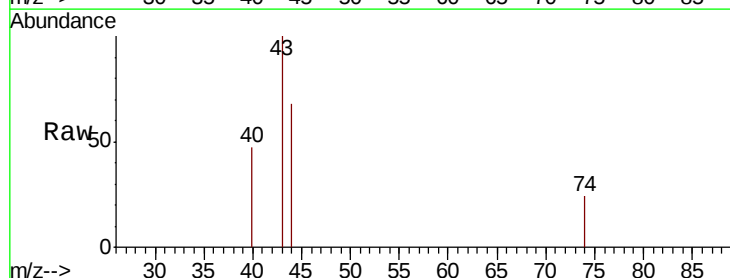
Acq: 18 Feb 2019 13:01

Tgt Ion: 43 Resp: 3184

Ion Ratio Lower Upper

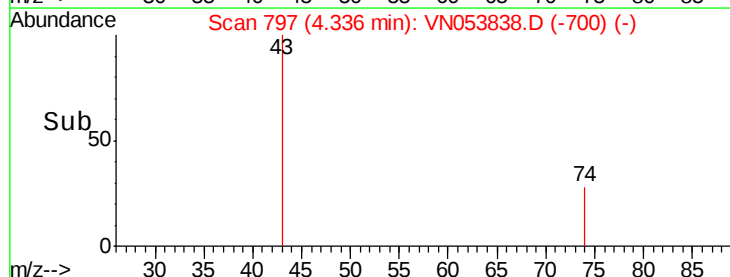
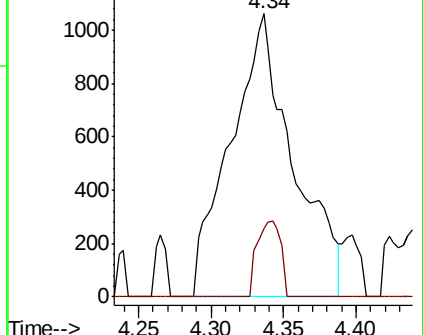
43 100

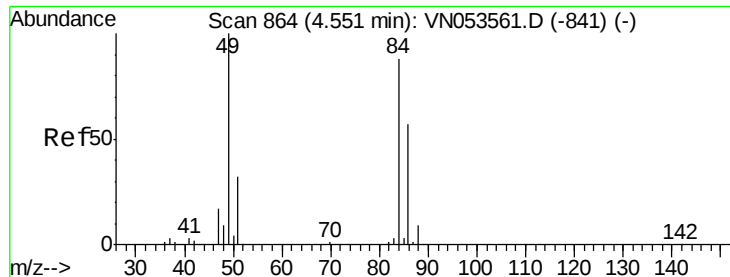
74 10.1 19.4 29.2#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 74.00 (73.70 to 74.70): VN0

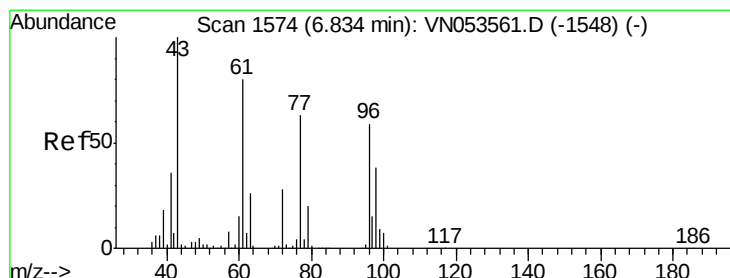
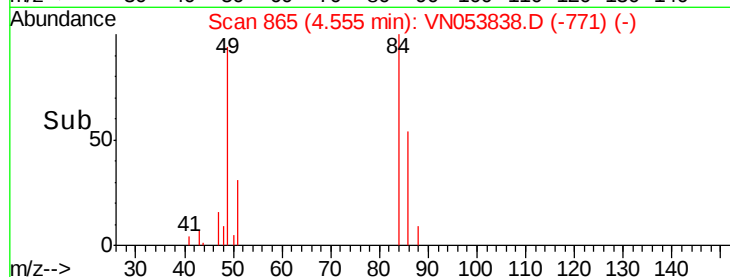
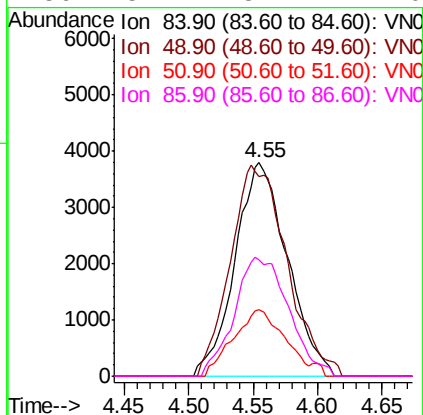
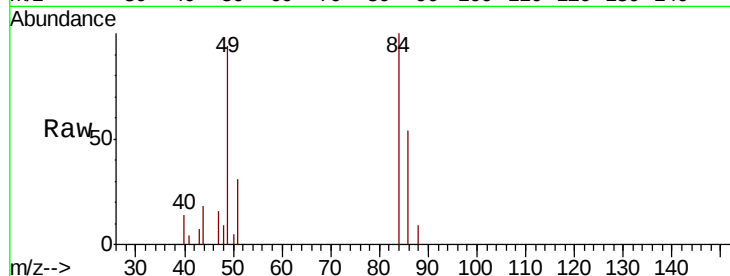




#20  
Methylene Chloride  
Concen: 1.498 ug/l  
RT: 4.55 min Scan# 865  
Delta R.T. 0.00 min  
Lab File: VN053838.D  
Acq: 18 Feb 2019 13:01

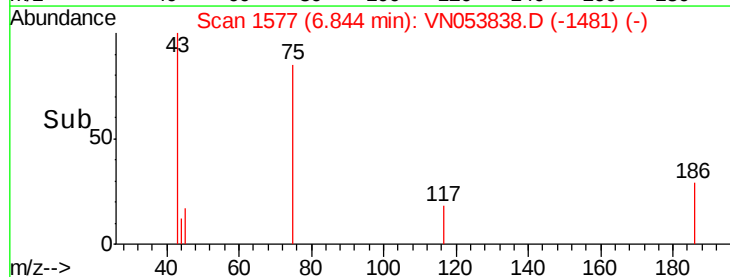
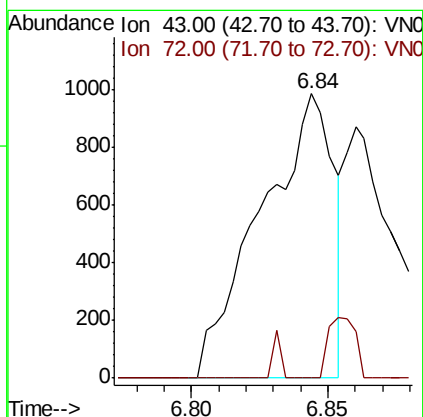
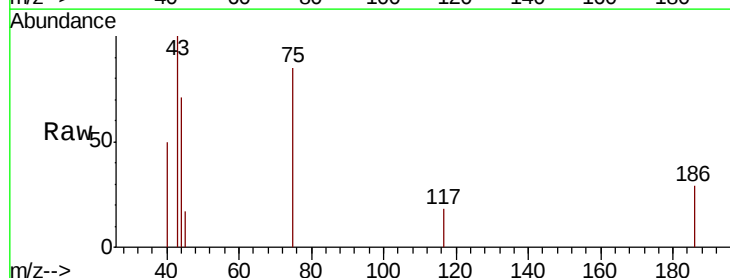
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB117159ZHE#02

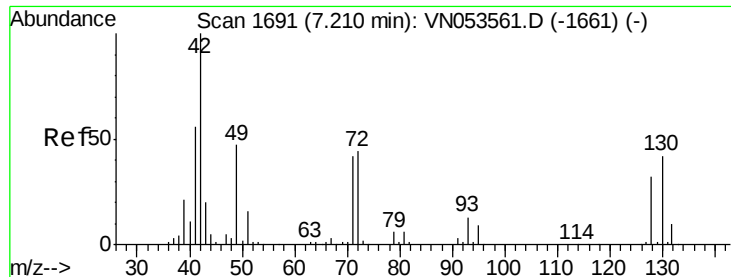
Tgt Ion: 84 Resp: 10728  
Ion Ratio Lower Upper  
84 100  
49 93.7 94.3 141.5#  
51 31.3 29.4 44.2  
86 54.4 51.4 77.0



#25  
2-Butanone  
Concen: 0.744 ug/l  
RT: 6.84 min Scan# 1577  
Delta R.T. 0.01 min  
Lab File: VN053838.D  
Acq: 18 Feb 2019 13:01

Tgt Ion: 43 Resp: 1812  
Ion Ratio Lower Upper  
43 100  
72 0.0 22.0 33.0#





#29

Tetrahydrofuran

Concen: 0.681 ug/l

RT: 7.23 min Scan# 1696

Delta R.T. 0.02 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

Instrument :

MSVOA\_N

ClientSampleId :

PB117159ZHE#02

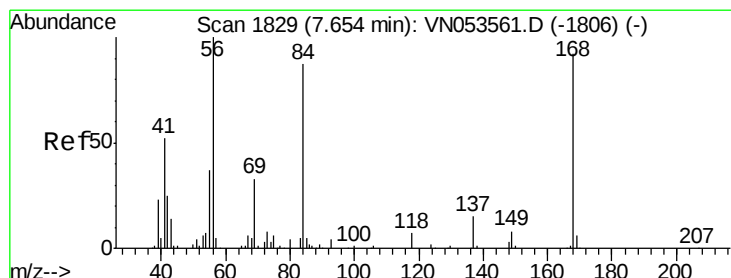
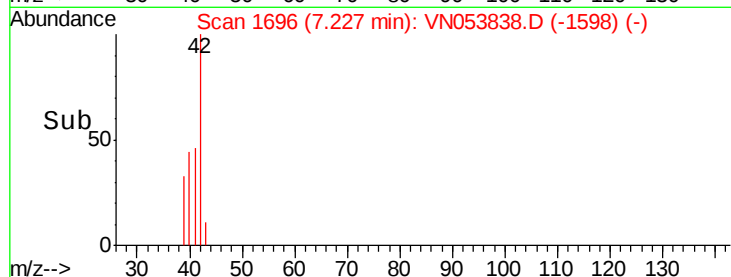
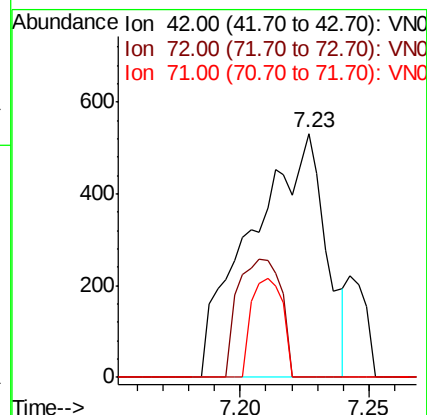
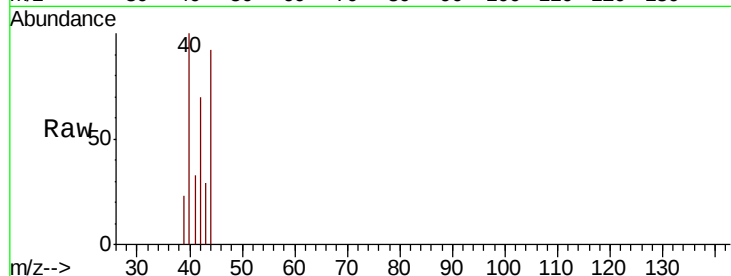
Tgt Ion: 42 Resp: 1064

Ion Ratio Lower Upper

42 100

72 28.4 35.2 52.8#

71 17.2 33.0 49.4#



#31

Cyclohexane

Concen: 0.619 ug/l

RT: 7.66 min Scan# 1832

Delta R.T. 0.01 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

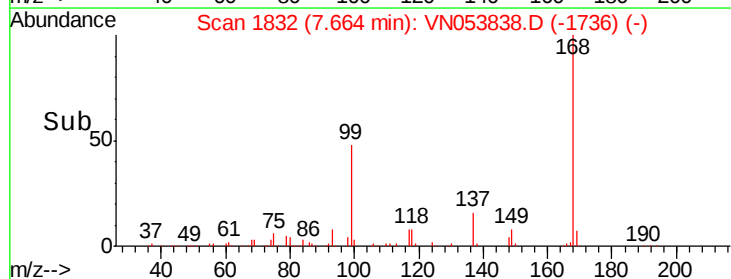
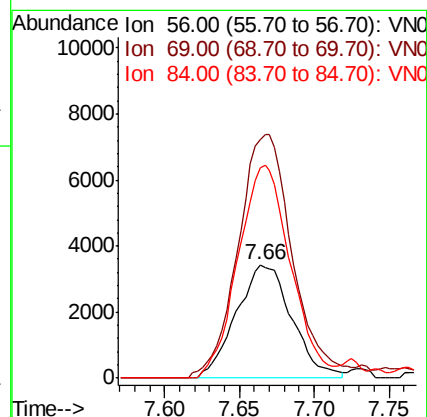
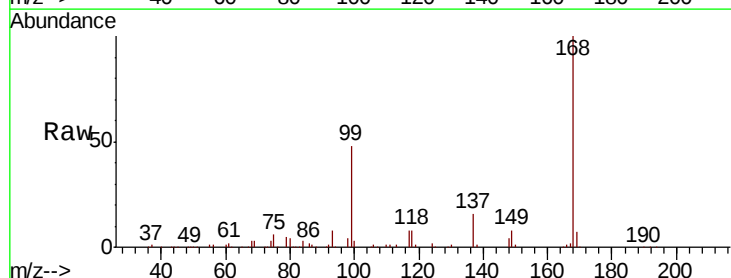
Tgt Ion: 56 Resp: 8848

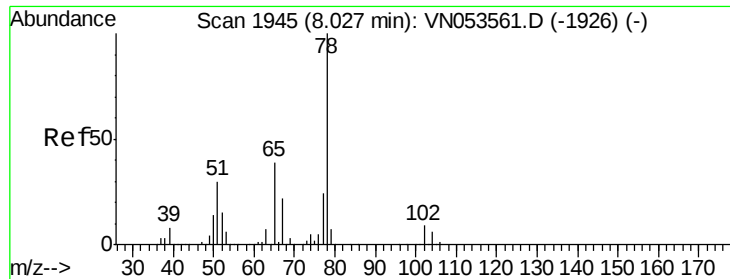
Ion Ratio Lower Upper

56 100

69 205.2 26.4 39.6#

84 184.9 67.9 101.9#

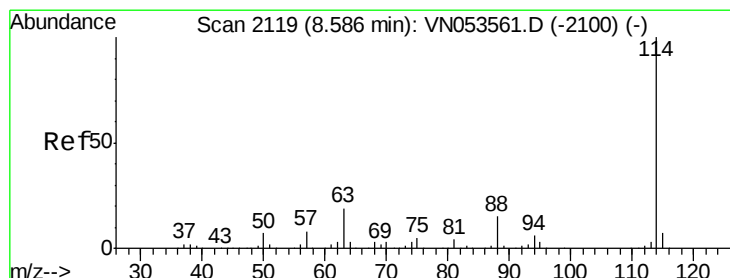
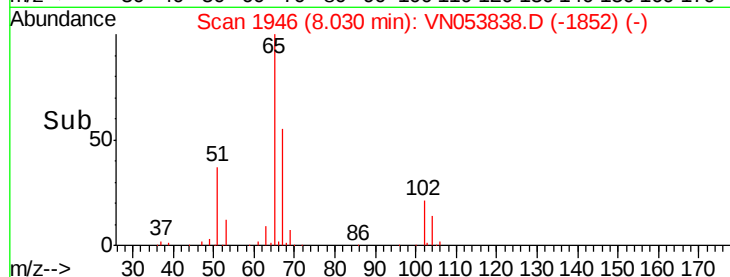
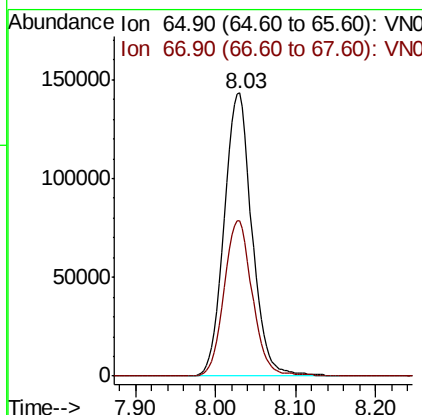
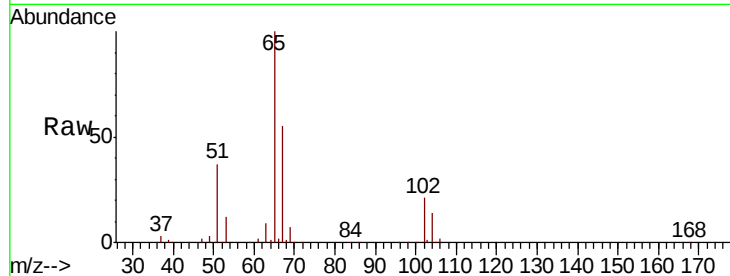




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.374 ug/l  
 RT: 8.03 min Scan# 1946  
 Delta R.T. 0.00 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

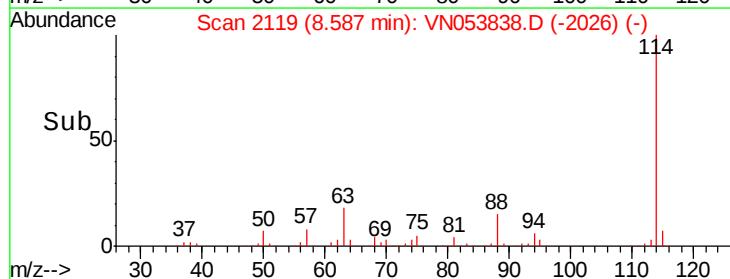
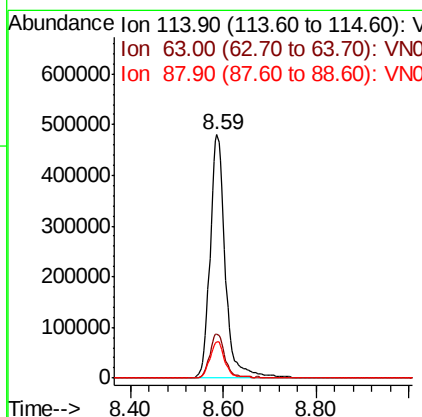
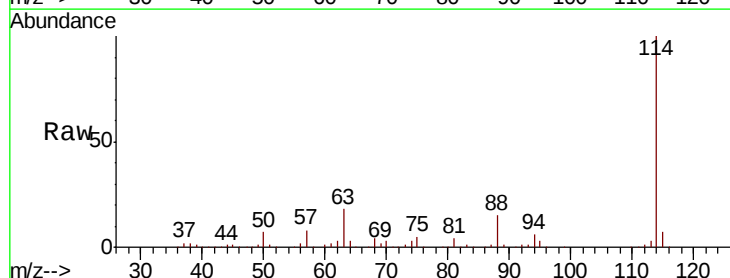
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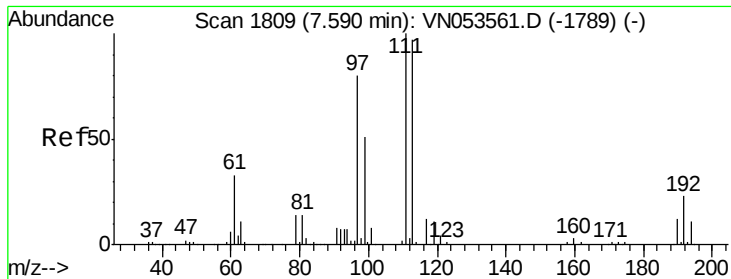
Tgt Ion: 65 Resp: 341842  
 Ion Ratio Lower Upper  
 65 100  
 67 55.8 0.0 111.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Tgt Ion: 114 Resp: 1090965  
 Ion Ratio Lower Upper  
 114 100  
 63 18.3 0.0 38.6  
 88 14.9 0.0 30.4

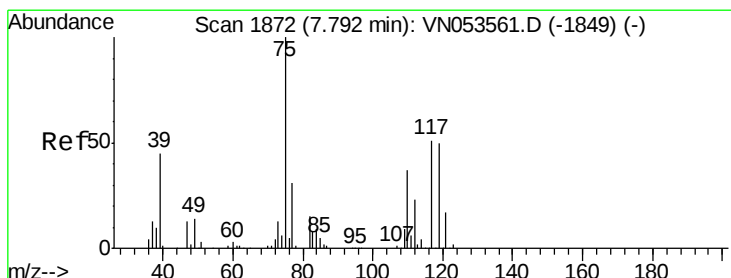
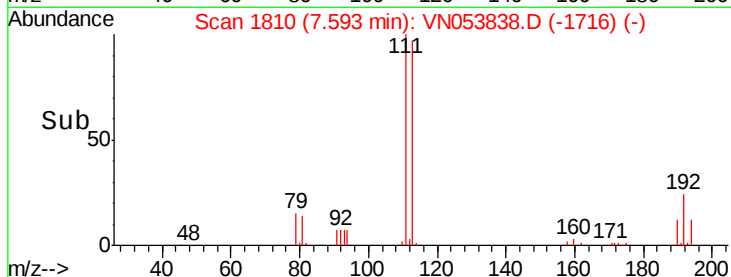
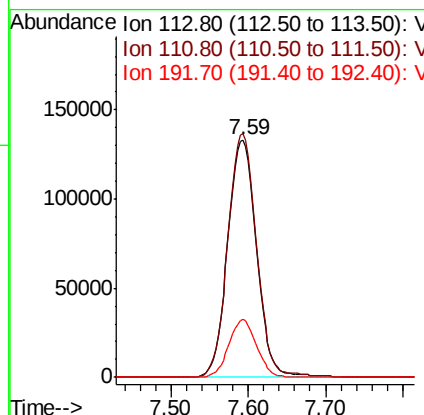
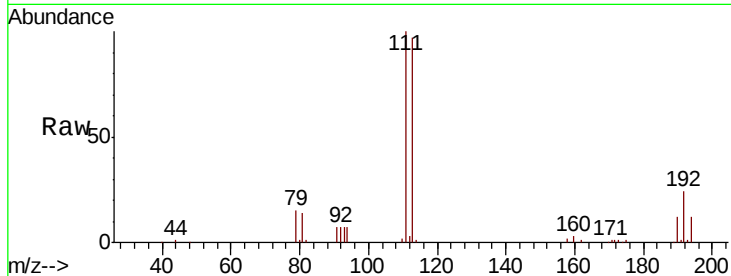




#35  
 Dibromofluoromethane  
 Concen: 50.092 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. 0.00 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

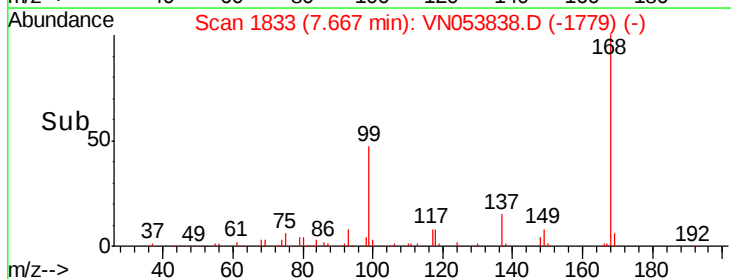
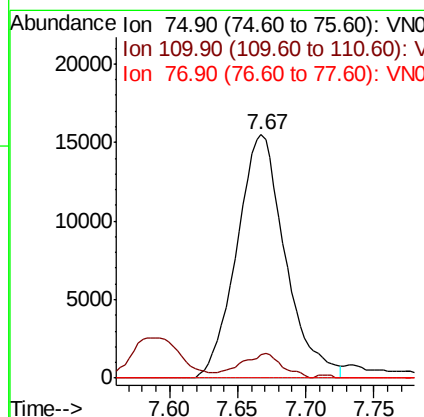
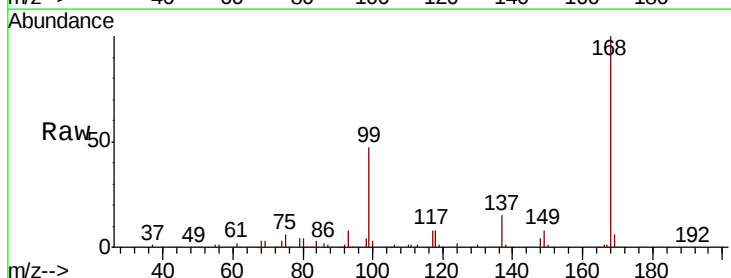
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB117159ZHE#02

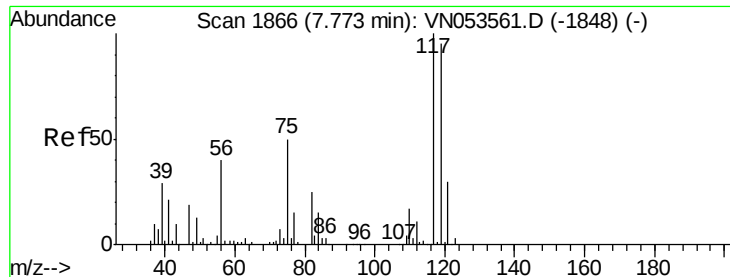
Tgt Ion: 113 Resp: 345307  
 Ion Ratio Lower Upper  
 113 100  
 111 102.0 81.1 121.7  
 192 23.4 18.2 27.2



#36  
 1,1-Dichloropropene  
 Concen: 3.886 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.13 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Tgt Ion: 75 Resp: 38217  
 Ion Ratio Lower Upper  
 75 100  
 110 8.8 18.1 54.3#  
 77 0.0 25.1 37.7#





#38

Carbon Tetrachloride

Concen: 5.382 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. -0.11 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

Instrument :

MSVOA\_N

ClientSampleId :

PB117159ZHE#02

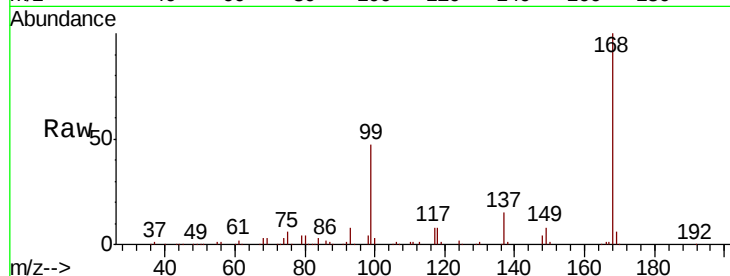
Tgt Ion:117 Resp: 53316

Ion Ratio Lower Upper

117 100

119 6.4 77.2 115.8#

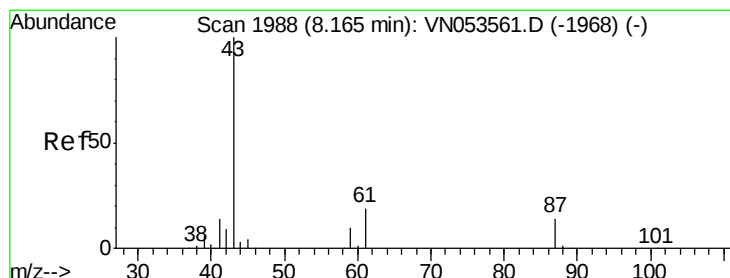
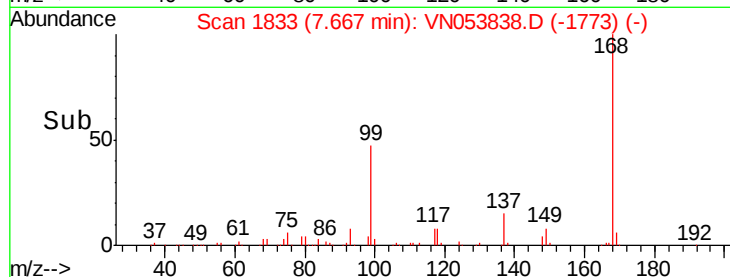
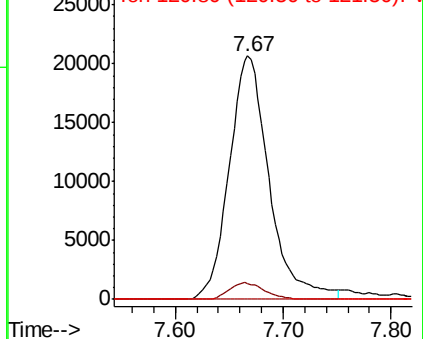
121 0.0 24.6 37.0#



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: 3.039 ug/l

RT: 8.17 min Scan# 1990

Delta R.T. 0.01 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

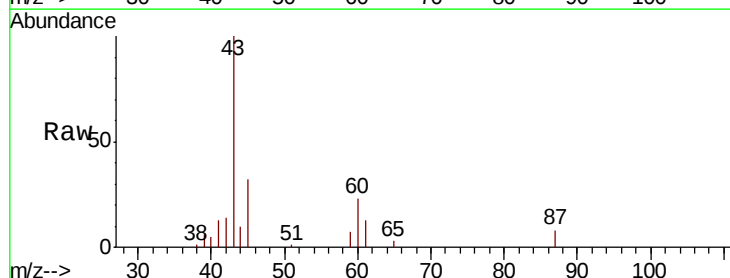
Tgt Ion: 43 Resp: 32234

Ion Ratio Lower Upper

43 100

61 16.7 23.9 35.9#

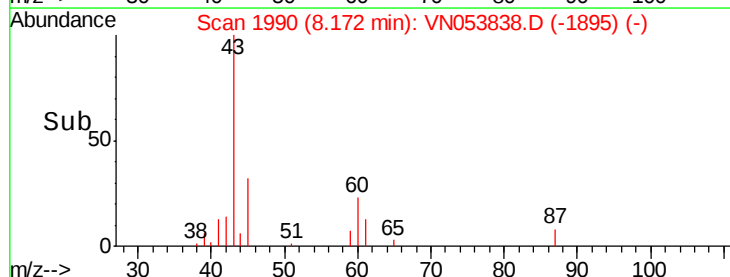
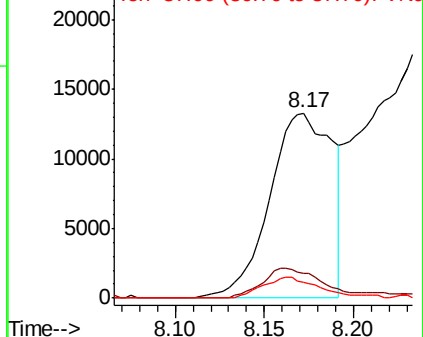
87 10.1 11.0 16.6#

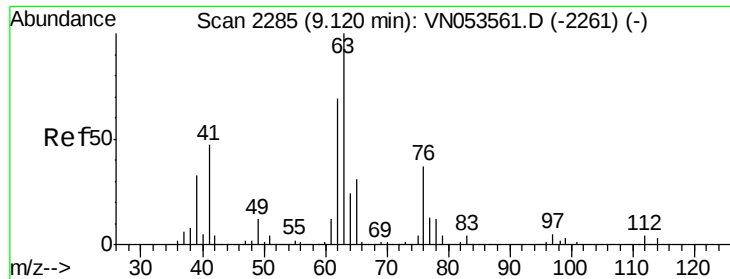


Abundance Ion 43.00 (42.70 to 43.70): V

Ion 61.00 (60.70 to 61.70): V

Ion 87.00 (86.70 to 87.70): V

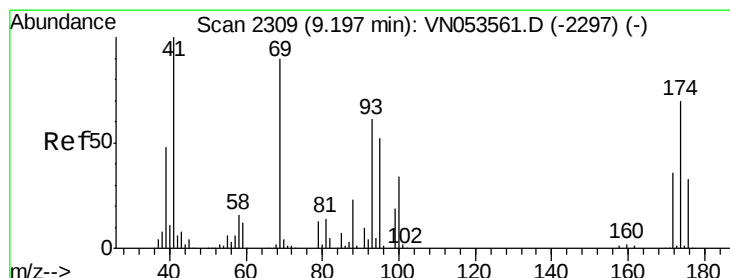
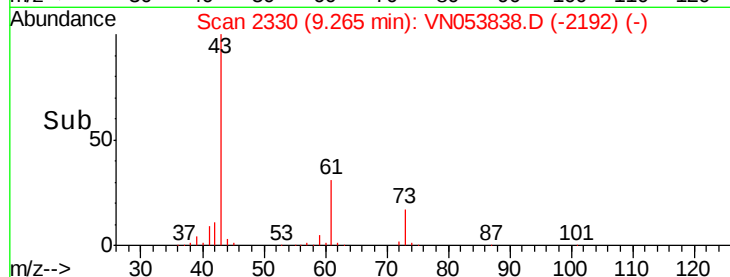
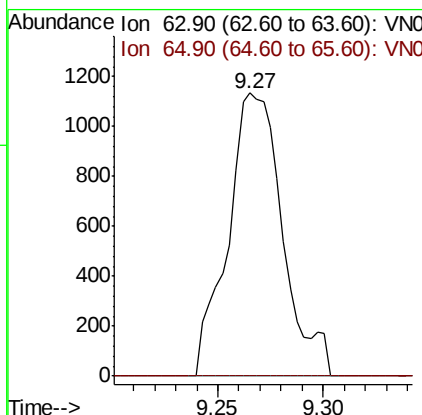
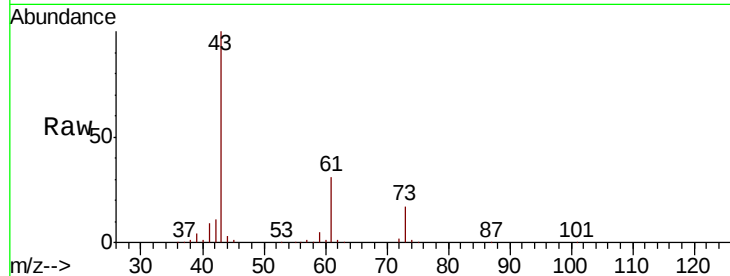




#45  
 1,2-Dichloropropane  
 Concen: 0.264 ug/l  
 RT: 9.27 min Scan# 2330  
 Delta R.T. 0.14 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

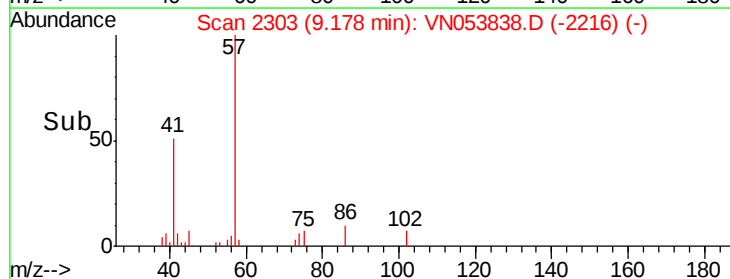
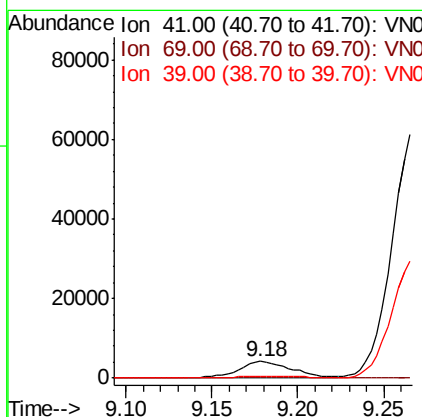
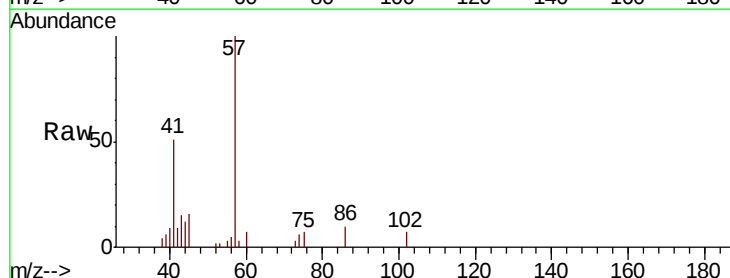
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB117159ZHE#02

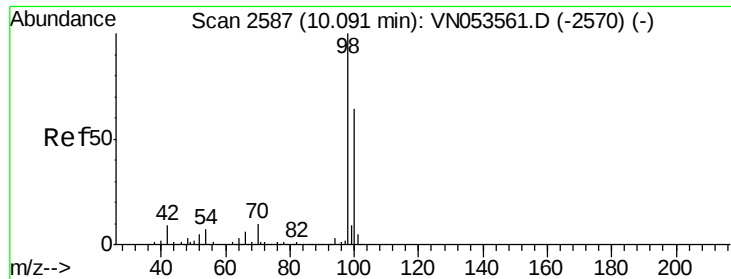
Tgt Ion: 63 Resp: 2049  
 Ion Ratio Lower Upper  
 63 100  
 65 0.0 25.0 37.4#



#48  
 Methyl methacrylate  
 Concen: 1.774 ug/l  
 RT: 9.18 min Scan# 2303  
 Delta R.T. -0.02 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Tgt Ion: 41 Resp: 8981  
 Ion Ratio Lower Upper  
 41 100  
 69 0.0 73.8 110.6#  
 39 0.0 40.0 60.0#

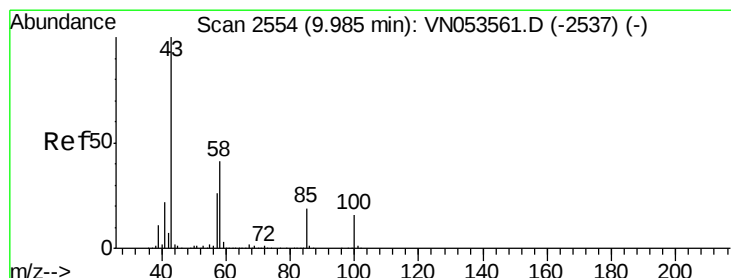
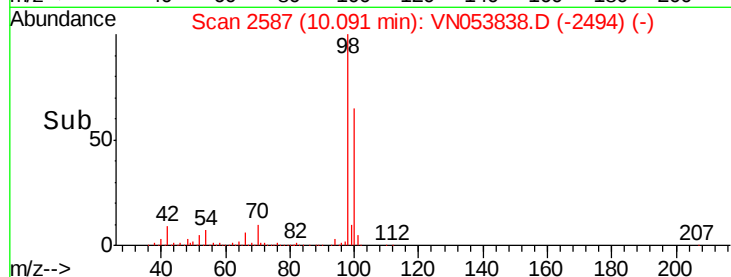
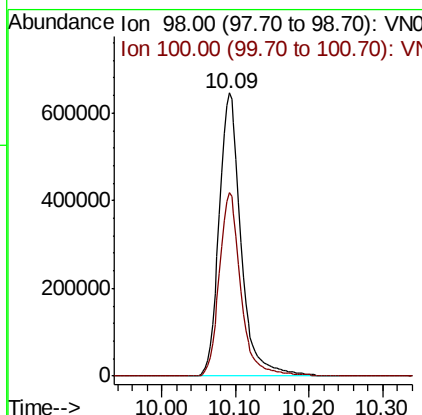
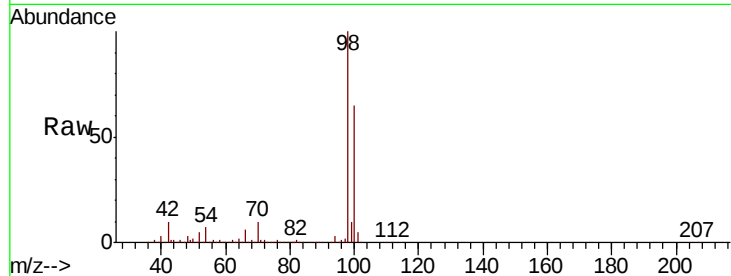




#50  
Toluene-d8  
Concen: 51.395 ug/l  
RT: 10.09 min Scan# 2587  
Delta R.T. 0.00 min  
Lab File: VN053838.D  
Acq: 18 Feb 2019 13:01

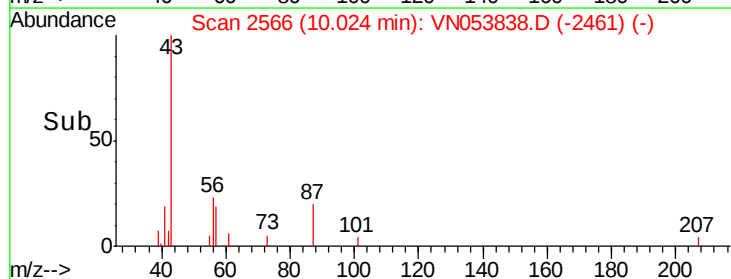
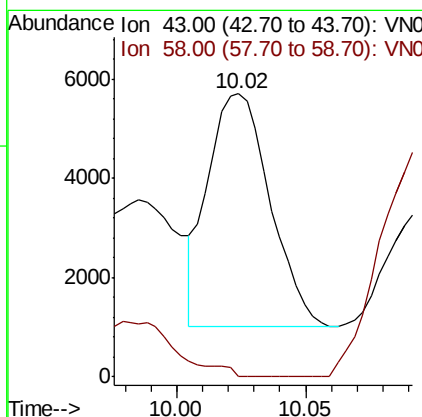
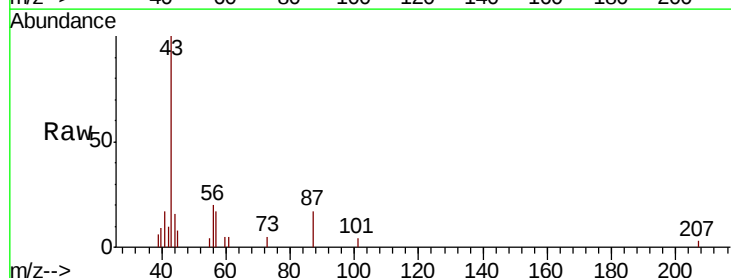
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB117159ZHE#02

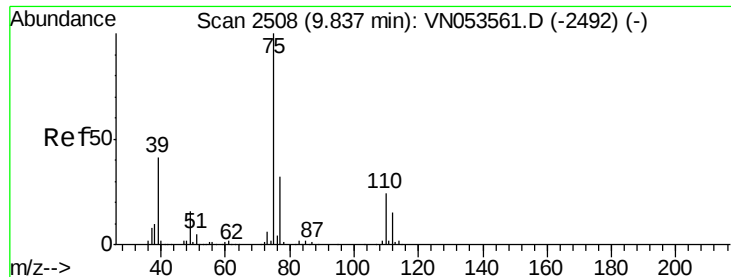
Tgt Ion: 98 Resp: 1330303  
Ion Ratio Lower Upper  
98 100  
100 64.1 51.4 77.0



#51  
4-Methyl-2-Pentanone  
Concen: 1.502 ug/l  
RT: 10.02 min Scan# 2566  
Delta R.T. 0.04 min  
Lab File: VN053838.D  
Acq: 18 Feb 2019 13:01

Tgt Ion: 43 Resp: 7829  
Ion Ratio Lower Upper  
43 100  
58 0.0 32.8 49.2#



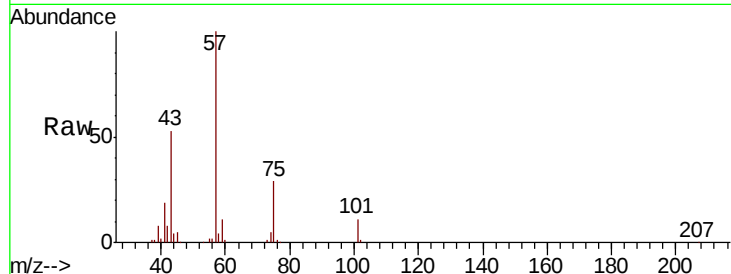


#54

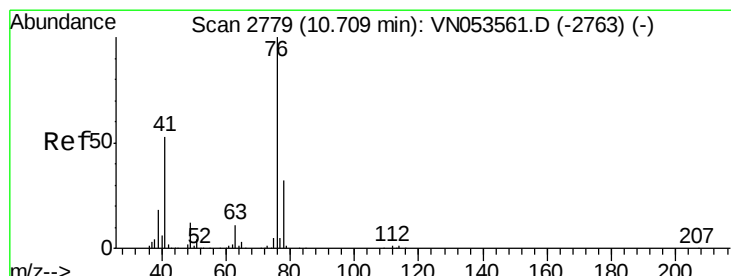
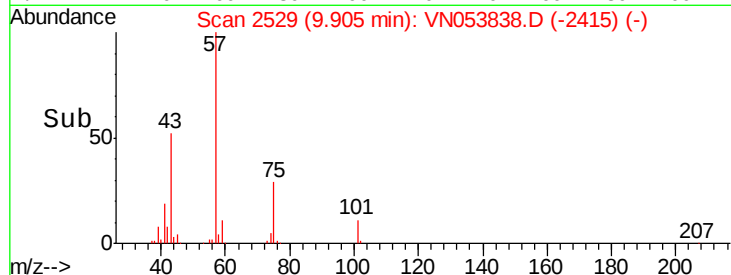
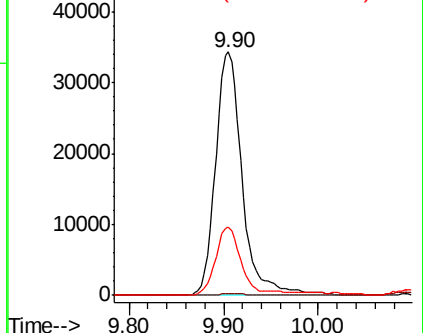
cis-1,3-Dichloropropene  
 Concen: 5.815 ug/l  
 RT: 9.90 min Scan# 2529  
 Delta R.T. 0.07 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB117159ZHE#02

Tgt Ion: 75 Resp: 67088  
 Ion Ratio Lower Upper  
 75 100  
 77 0.6 25.8 38.6#  
 39 27.8 33.4 50.0#



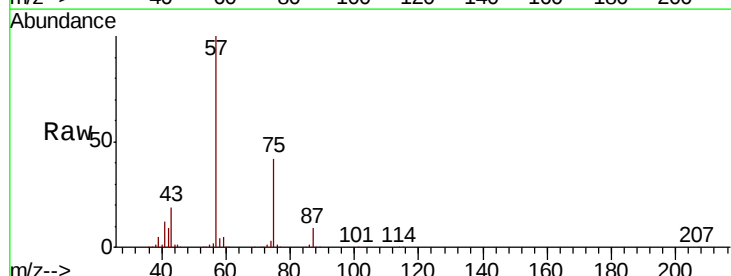
Abundance Ion 74.90 (74.60 to 75.60): VN0  
 Ion 76.90 (76.60 to 77.60): VN0  
 Ion 39.00 (38.70 to 39.70): VN0



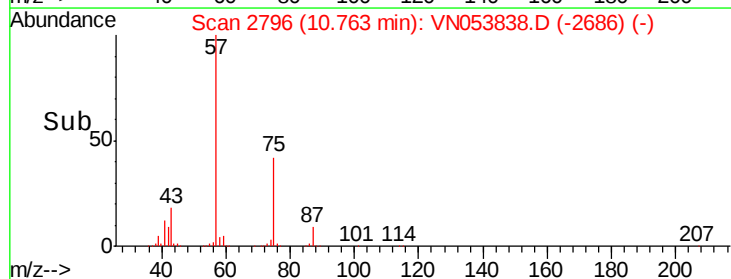
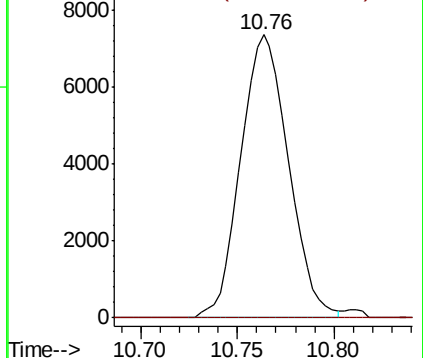
#57

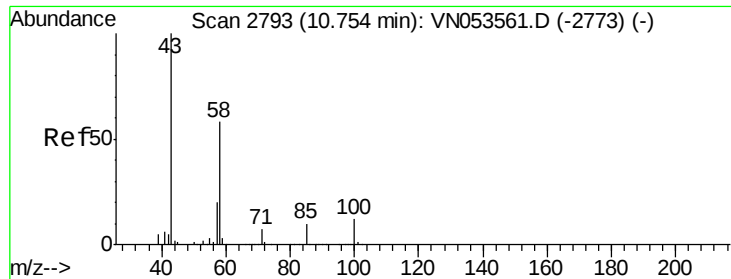
1,3-Dichloropropane  
 Concen: 1.143 ug/l  
 RT: 10.76 min Scan# 2796  
 Delta R.T. 0.05 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Tgt Ion: 76 Resp: 12668  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 25.6 38.4#



Abundance Ion 75.90 (75.60 to 76.60): VN0  
 Ion 77.90 (77.60 to 78.60): VN0

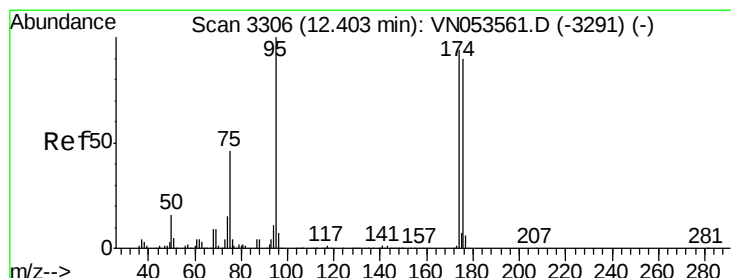
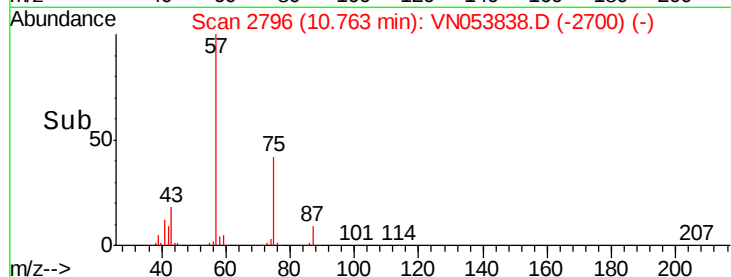
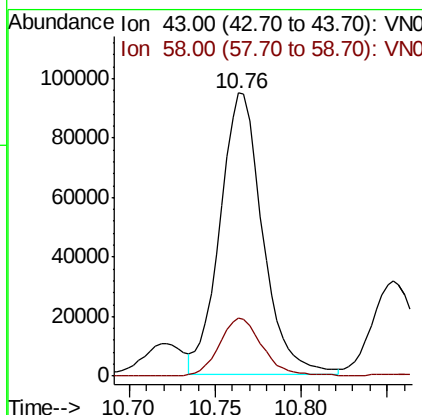
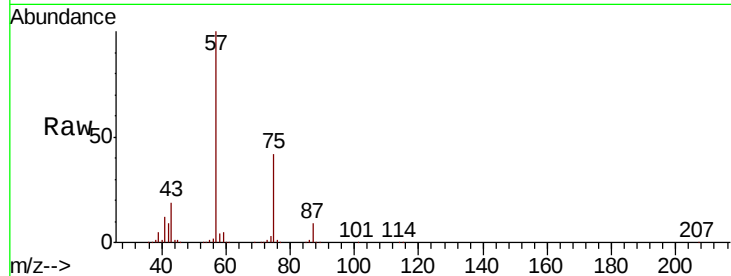




#59  
 2-Hexanone  
 Concen: 46.324 ug/l  
 RT: 10.76 min Scan# 2796  
 Delta R.T. 0.01 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

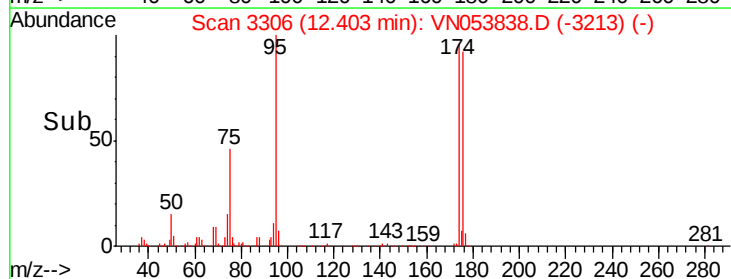
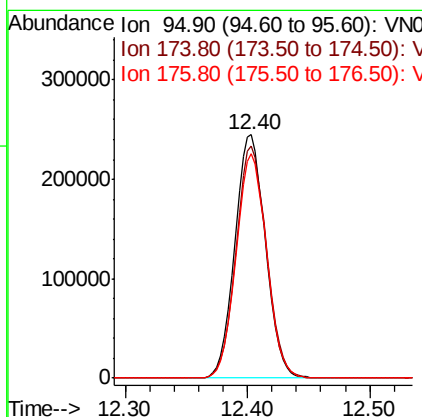
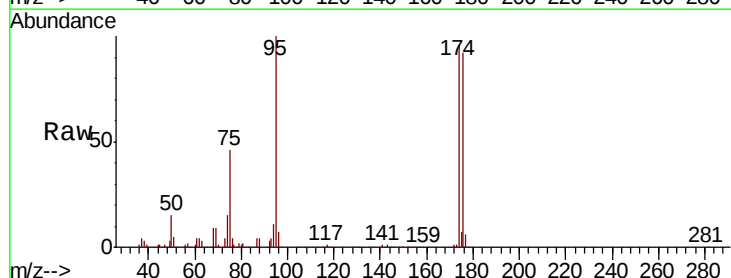
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB117159ZHE#02

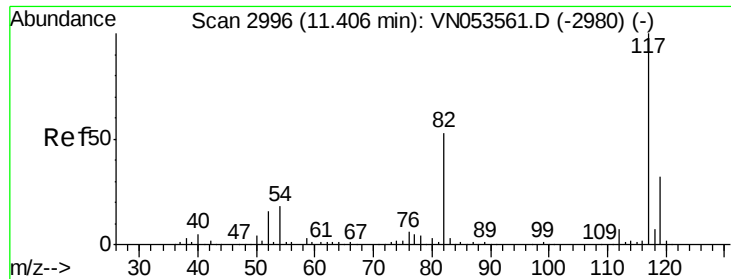
Tgt Ion: 43 Resp: 163919  
 Ion Ratio Lower Upper  
 43 100  
 58 21.0 28.6 85.8#



#62  
 4-Bromofluorobenzene  
 Concen: 49.067 ug/l  
 RT: 12.40 min Scan# 3306  
 Delta R.T. 0.00 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Tgt Ion: 95 Resp: 423576  
 Ion Ratio Lower Upper  
 95 100  
 174 95.3 0.0 183.2  
 176 91.8 0.0 177.4

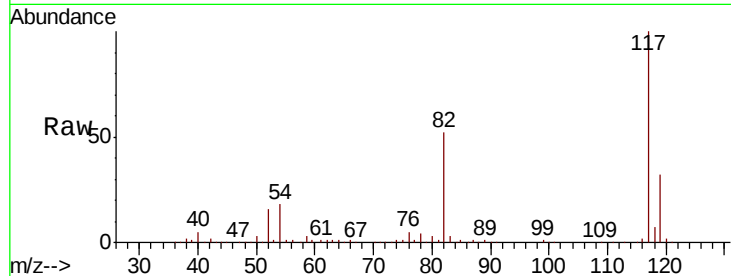




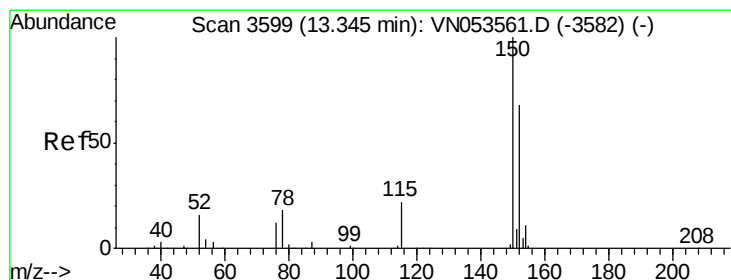
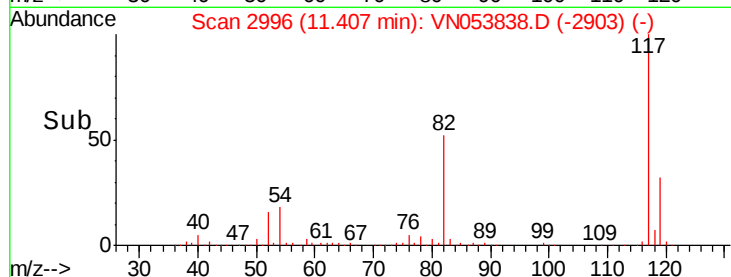
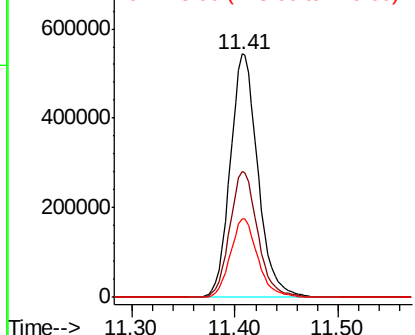
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. 0.00 min  
Lab File: VN053838.D  
Acq: 18 Feb 2019 13:01

Instrument :  
MSVOA\_N  
ClientSampleId :  
PB117159ZHE#02

Tgt Ion:117 Resp: 1014308  
Ion Ratio Lower Upper  
117 100  
82 51.8 42.9 64.3  
119 32.4 26.0 39.0

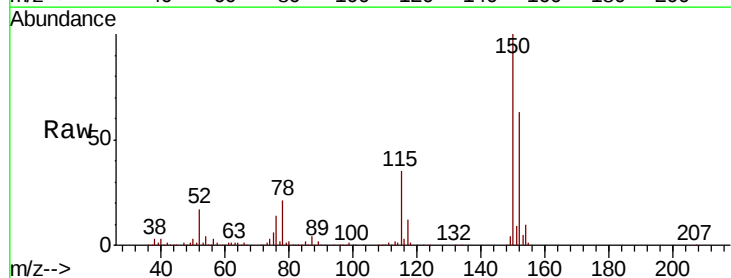


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

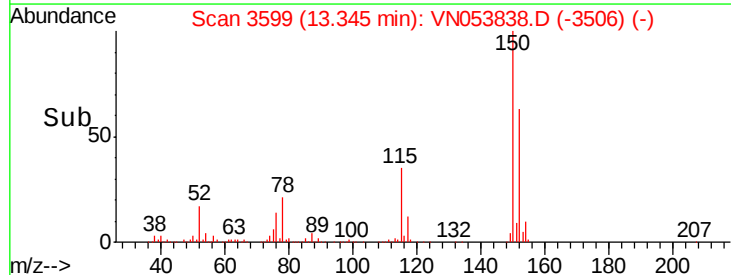
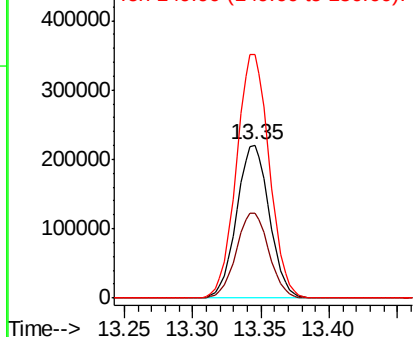


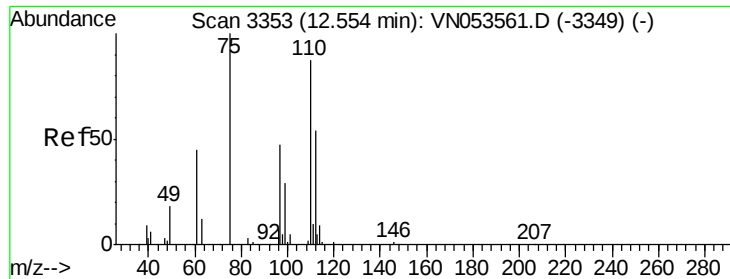
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.35 min Scan# 3599  
Delta R.T. 0.00 min  
Lab File: VN053838.D  
Acq: 18 Feb 2019 13:01

Tgt Ion:152 Resp: 367123  
Ion Ratio Lower Upper  
152 100  
115 55.4 27.8 83.4  
150 160.3 0.0 349.0



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

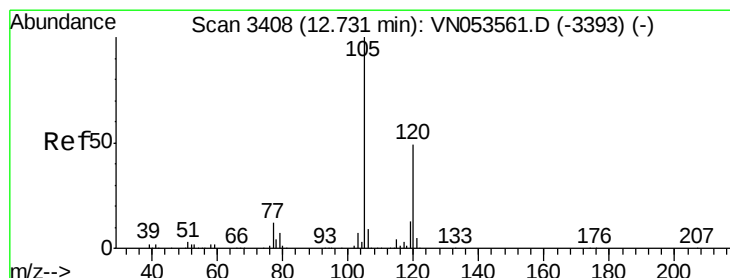
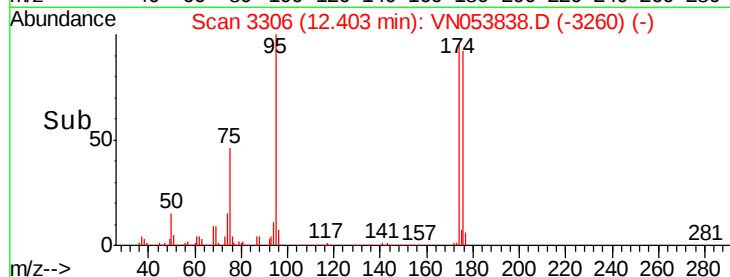
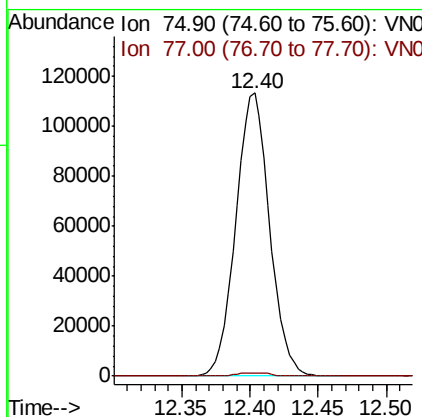
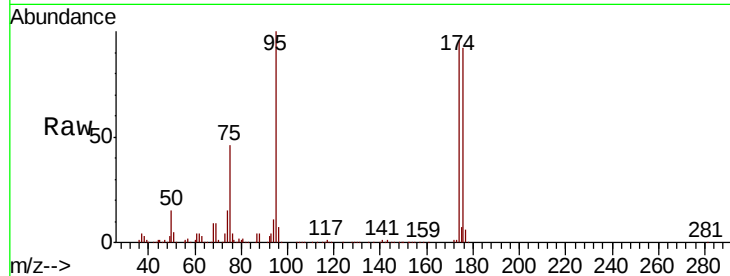




#76  
 1,2,3-Trichloropropane  
 Concen: 41.313 ug/l  
 RT: 12.40 min Scan# 3306  
 Delta R.T. -0.15 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

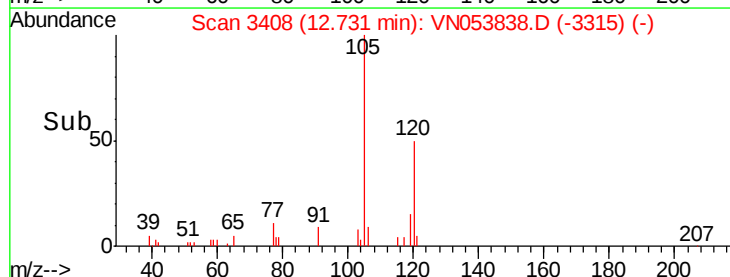
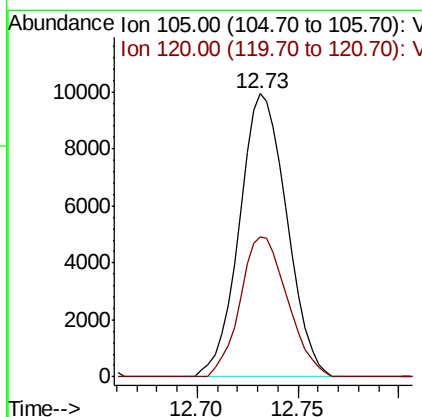
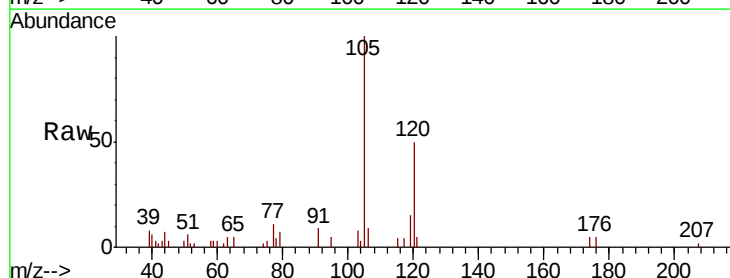
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB117159ZHE#02

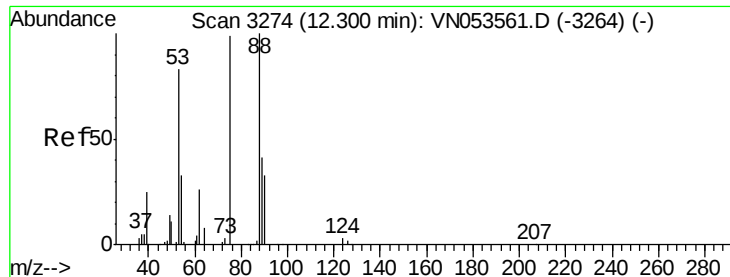
Tgt Ion: 75 Resp: 194809  
 Ion Ratio Lower Upper  
 75 100  
 77 1.2 0.0 0.0#



#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.763 ug/l  
 RT: 12.73 min Scan# 3408  
 Delta R.T. 0.00 min  
 Lab File: VN053838.D  
 Acq: 18 Feb 2019 13:01

Tgt Ion: 105 Resp: 16324  
 Ion Ratio Lower Upper  
 105 100  
 120 49.4 24.9 74.6





#81

trans-1,4-Dichloro-2-butene

Concen: 116.168 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

Instrument :

MSVOA\_N

ClientSampleId :

PB117159ZHE#02

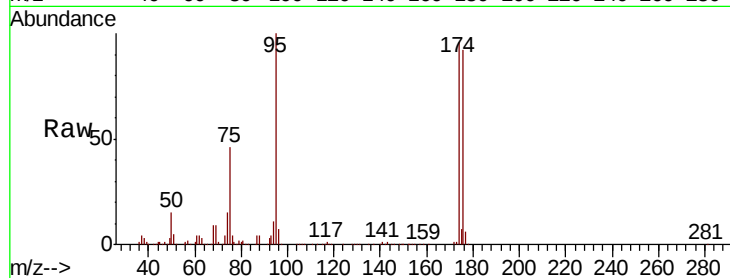
Tgt Ion: 75 Resp: 194809

Ion Ratio Lower Upper

75 100

53 0.0 69.8 104.6#

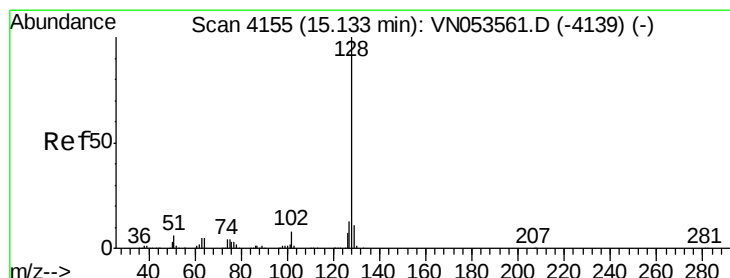
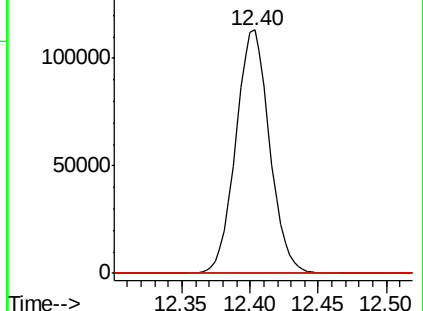
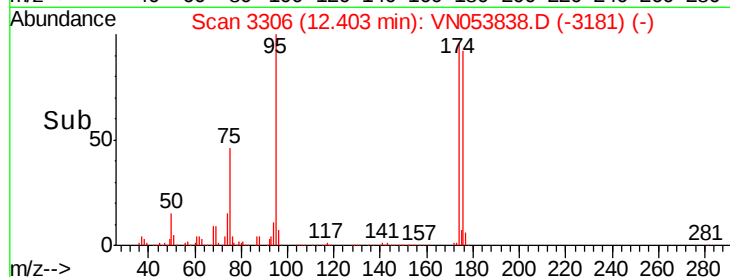
89 0.0 35.6 53.4#



Abundance Ion 74.90 (74.60 to 75.60): VN053838.D (-3181) (-)

Ion 53.00 (52.70 to 53.70): VN053838.D (-3181) (-)

Ion 88.90 (88.60 to 89.60): VN053838.D (-3181) (-)



#95

Naphthalene

Concen: 1.762 ug/l

RT: 15.14 min Scan# 4156

Delta R.T. 0.00 min

Lab File: VN053838.D

Acq: 18 Feb 2019 13:01

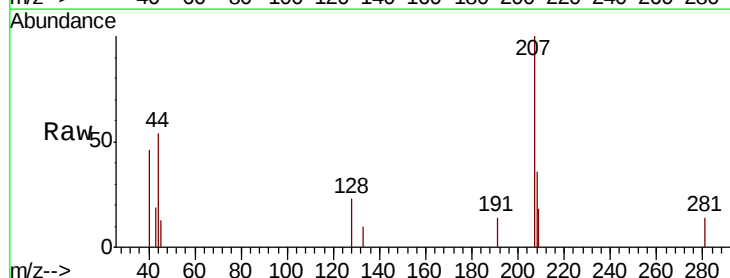
Tgt Ion: 128 Resp: 429

Ion Ratio Lower Upper

128 100

127 0.0 10.3 15.5#

129 0.0 8.6 13.0#



Abundance Ion 128.00 (127.70 to 128.70): VN053838.D (-4061) (-)

Ion 127.00 (126.70 to 127.70): VN053838.D (-4061) (-)

Ion 129.00 (128.70 to 129.70): VN053838.D (-4061) (-)

