

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN032420\  
 Data File : VN060674.D  
 Acq On : 24 Mar 2020 15:59  
 Operator : JC/MD  
 Sample : PB127723ZHE#02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Mar 25 03:54:10 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031820W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 18 08:49:09 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 190131   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 315397   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 292940   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 132830   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.00  | 65   | 124287   | 47.62 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.24% |          |
| 35) Dibromofluoromethane    | 7.56  | 113  | 92870    | 48.70 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.40% |          |
| 50) Toluene-d8              | 10.08 | 98   | 388215   | 49.84 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.68% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 142033   | 49.75 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.50% |          |

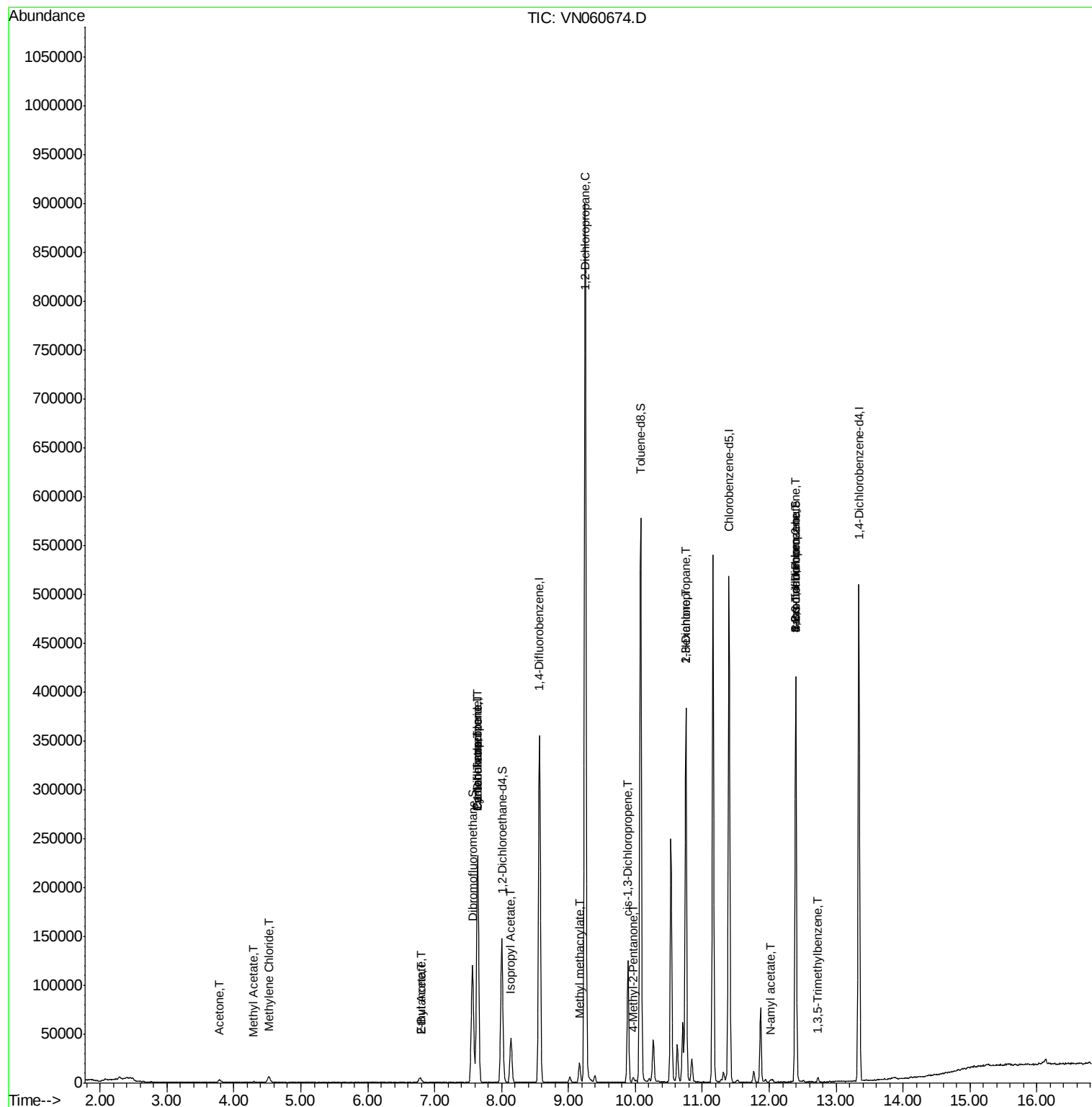
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 3.78  | 43   | 4869     | 5.266     | ug/l   | 99     |
| 18) Methyl Acetate             | 4.29  | 43   | 1112     | 0.427     | ug/l # | 66     |
| 20) Methylene Chloride         | 4.52  | 84   | 5095     | 2.240     | ug/l   | 95     |
| 25) 2-Butanone                 | 6.80  | 43   | 2225     | 1.487     | ug/l   | 93     |
| 31) Cyclohexane                | 7.64  | 56   | 4213     | 1.002     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.64  | 75   | 14360    | 4.702     | ug/l # | 50     |
| 37) Ethyl Acetate              | 6.80  | 43   | 2225     | 0.674     | ug/l # | 70     |
| 38) Carbon Tetrachloride       | 7.64  | 117  | 18459    | 6.744     | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.14  | 43   | 53734    | 9.874     | ug/l # | 92     |
| 45) 1,2-Dichloropropane        | 9.25  | 63   | 851      | 0.350     | ug/l # | 43     |
| 48) Methyl methacrylate        | 9.16  | 41   | 3056     | 1.261     | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 4100     | 1.324     | ug/l # | 87     |
| 54) cis-1,3-Dichloropropene    | 9.89  | 75   | 22033    | 5.721     | ug/l # | 62     |
| 57) 1,3-Dichloropropane        | 10.75 | 76   | 3752     | 1.009     | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.75 | 43   | 56377    | 25.272    | ug/l # | 52     |
| 71) Bromoform                  | 12.39 | 173  | 421      | 1.913     | ug/l # | 1      |
| 74) N-amyl acetate             | 12.02 | 43   | 2519     | 0.547     | ug/l # | 45     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 72214    | 25.195    | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.72 | 105  | 2825     | 0.334     | ug/l   | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 72214    | 64.708    | ug/l # | 13     |
| 92) 1,2-Dibromo-3-Chloropropan | 14.48 | 75   | 61       | Below Cal | #      | 3      |

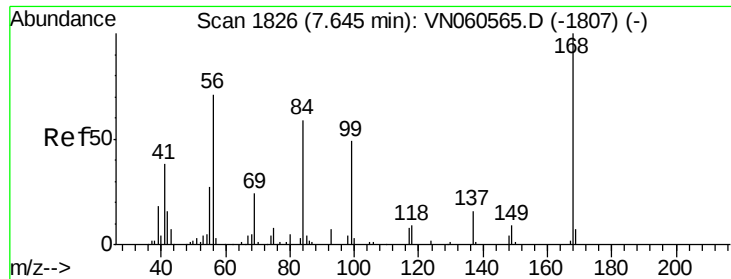
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Wed Mar 18 08:49:09 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. -0.00 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

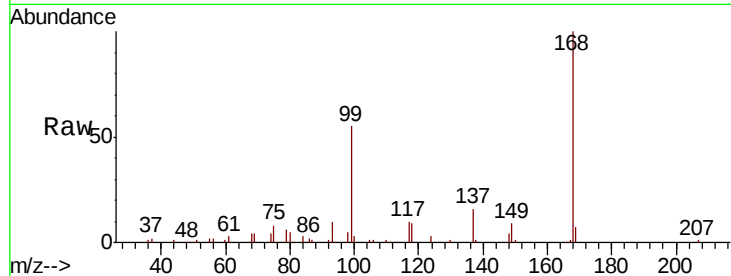
Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:168 Resp: 190131

Ion Ratio Lower Upper

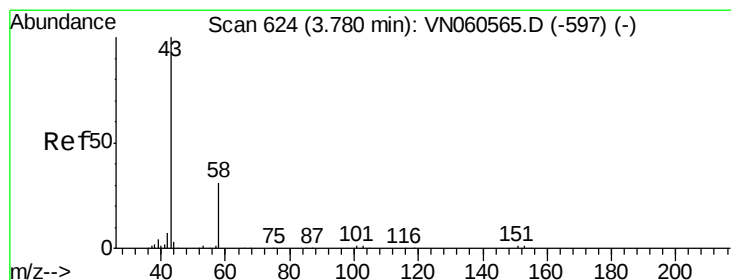
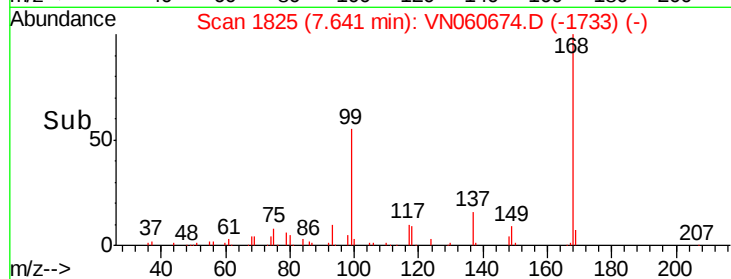
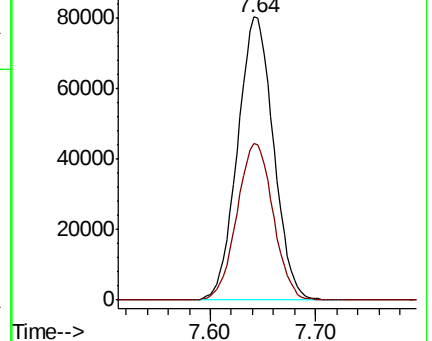
168 100

99 55.2 44.0 66.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN



#16

Acetone

Concen: 5.266 ug/l

RT: 3.78 min Scan# 625

Delta R.T. 0.00 min

Lab File: VN060674.D

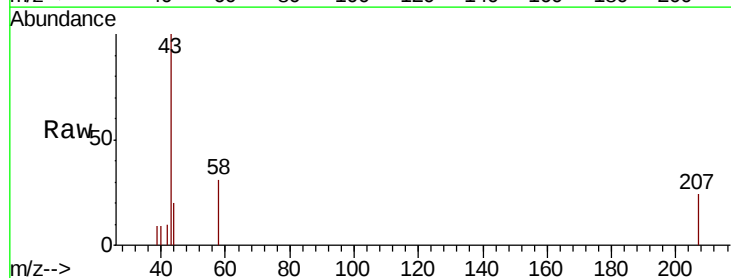
Acq: 24 Mar 2020 15:59

Tgt Ion: 43 Resp: 4869

Ion Ratio Lower Upper

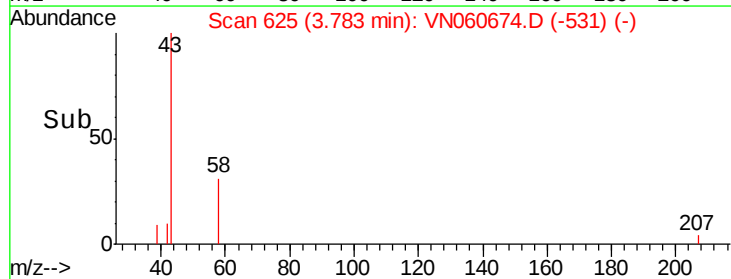
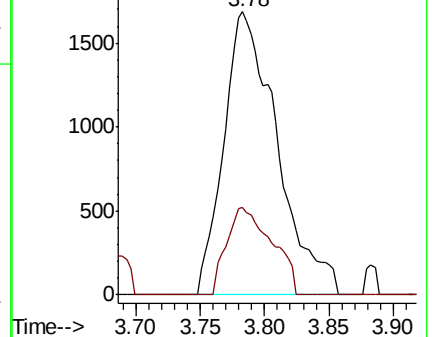
43 100

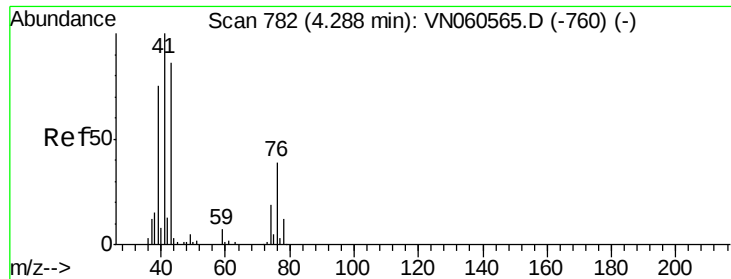
58 30.8 25.1 37.7



Abundance Ion 43.00 (42.70 to 43.70): VN

Ion 58.00 (57.70 to 58.70): VN

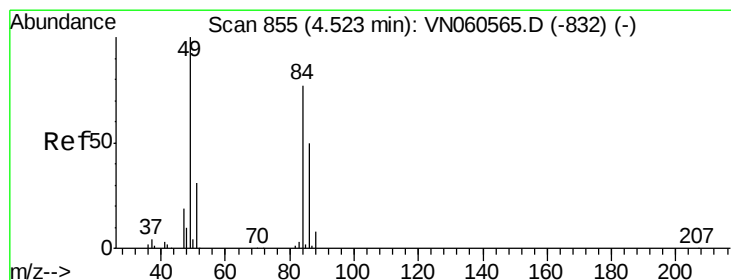
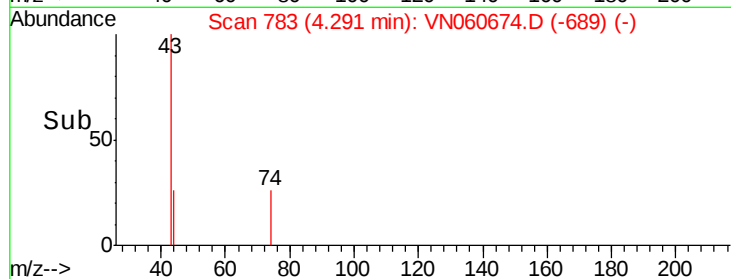
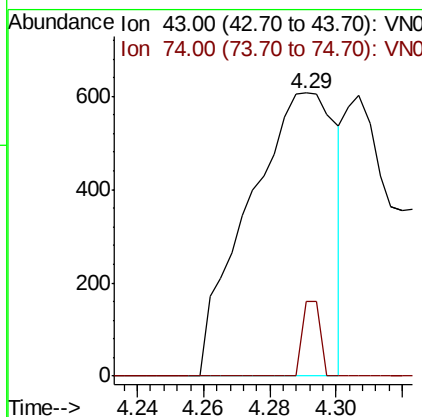
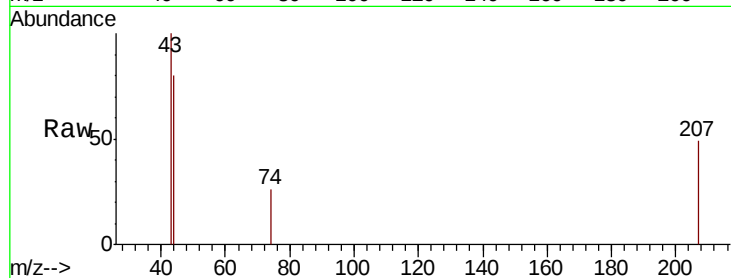




#18  
Methyl Acetate  
Concen: 0.427 ug/l  
RT: 4.29 min Scan# 783  
Delta R.T. 0.00 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

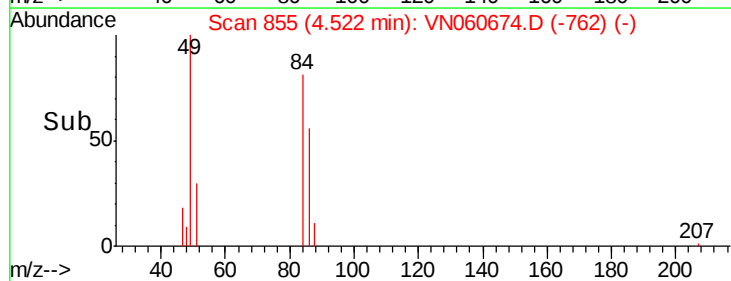
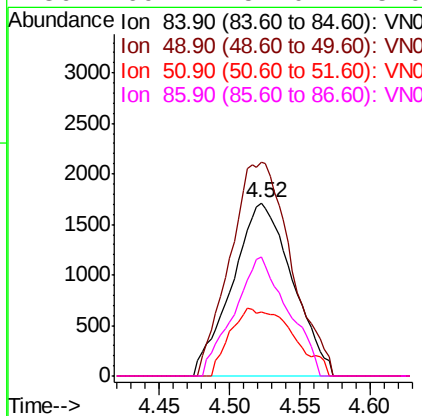
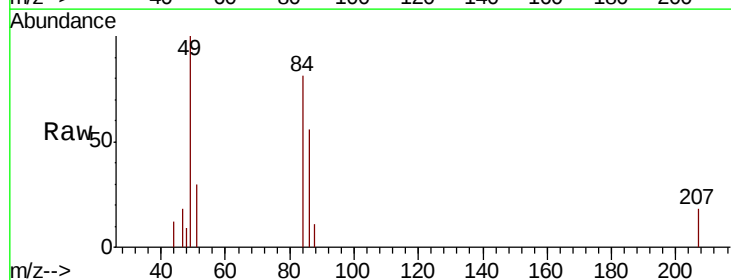
Instrument :  
MSVOA\_N  
ClientSampleId :

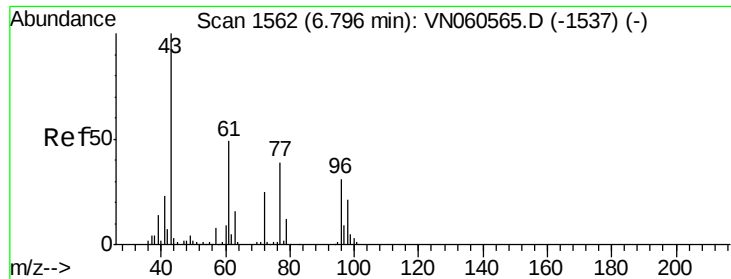
Tot Ion: 43 Resp: 1112  
Ion Ratio Lower Upper  
43 100  
74 5.6 17.5 26.3#



#20  
Methylene Chloride  
Concen: 2.240 ug/l  
RT: 4.52 min Scan# 855  
Delta R.T. -0.00 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Tgt Ion: 84 Resp: 5095  
Ion Ratio Lower Upper  
84 100  
49 123.4 103.3 154.9  
51 37.3 31.6 47.4  
86 69.1 52.0 78.0

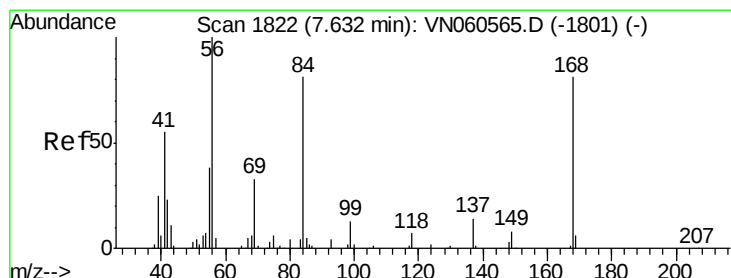
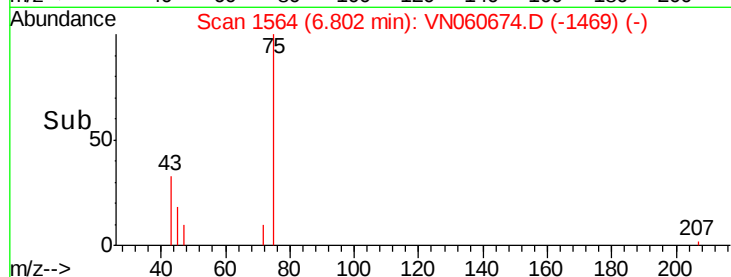
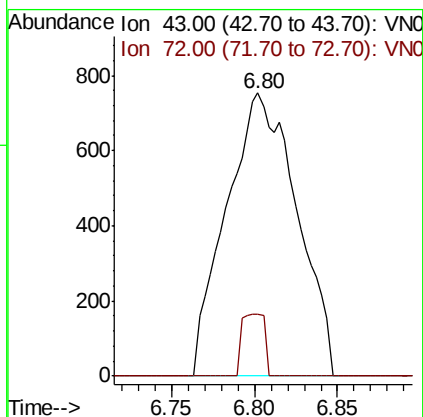
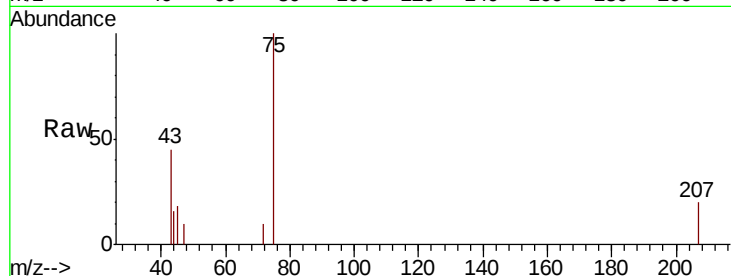




#25  
2-Butanone  
Concen: 1.487 ug/l  
RT: 6.80 min Scan# 1564  
Delta R.T. 0.01 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

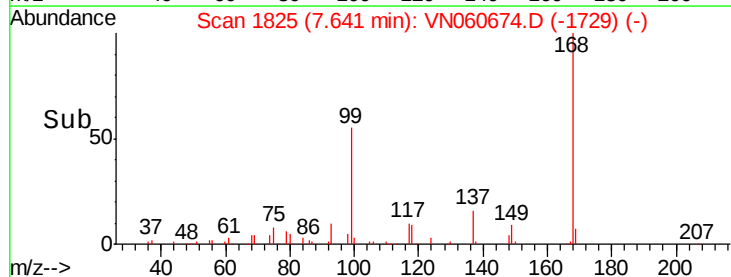
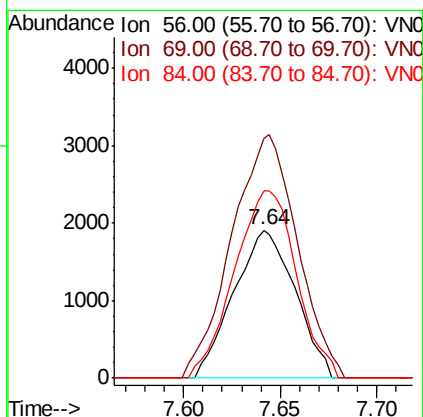
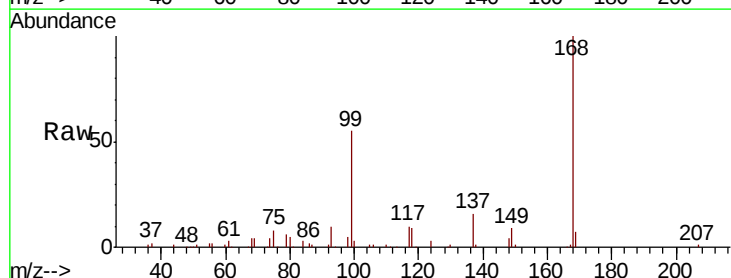
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MSVOA\_N  
ClientSampleId :

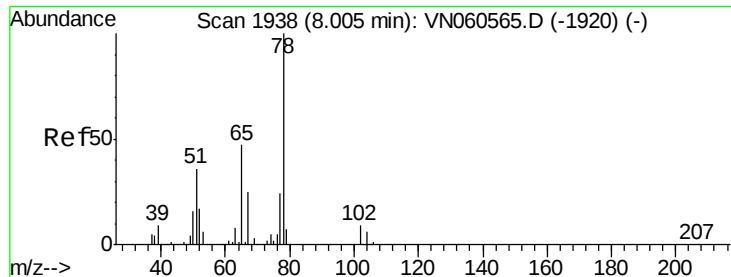
Tot Ion: 43 Resp: 2225  
Ion Ratio Lower Upper  
43 100  
72 22.0 20.4 30.6



#31  
Cyclohexane  
Concen: 1.002 ug/l  
RT: 7.64 min Scan# 1825  
Delta R.T. 0.01 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Tgt Ion: 56 Resp: 4213  
Ion Ratio Lower Upper  
56 100  
69 152.9 26.6 40.0#  
84 126.6 64.3 96.5#

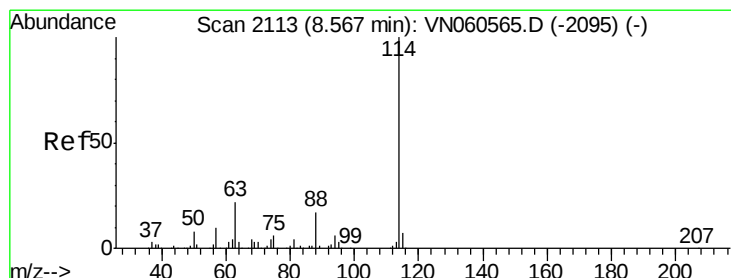
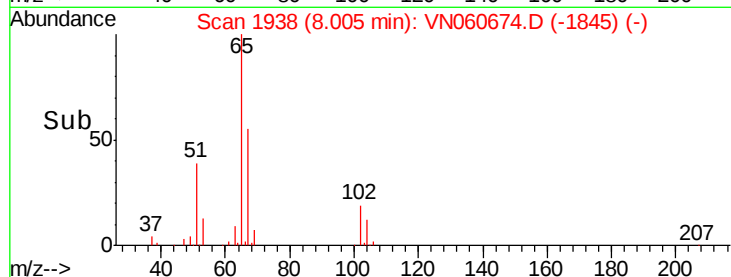
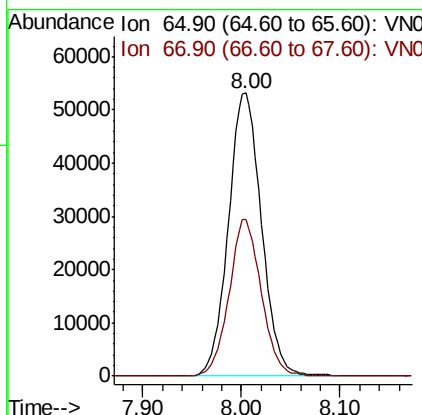
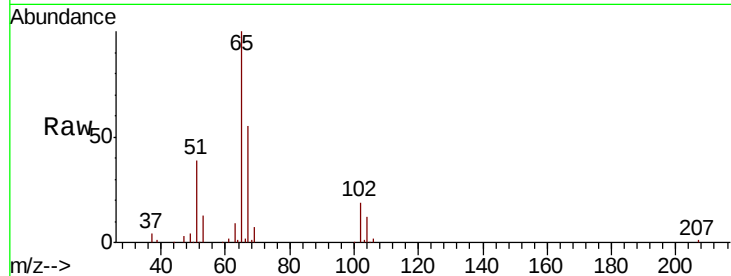




#33  
 1,2-Dichloroethane-d4  
 Concen: 47.618 ug/l  
 RT: 8.00 min Scan# 1938  
 Delta R.T. -0.00 min  
 Lab File: VN060674.D  
 Acq: 24 Mar 2020 15:59

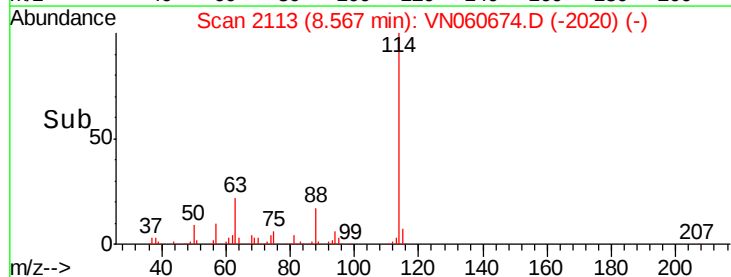
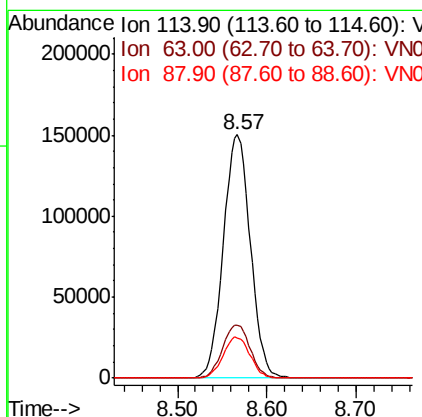
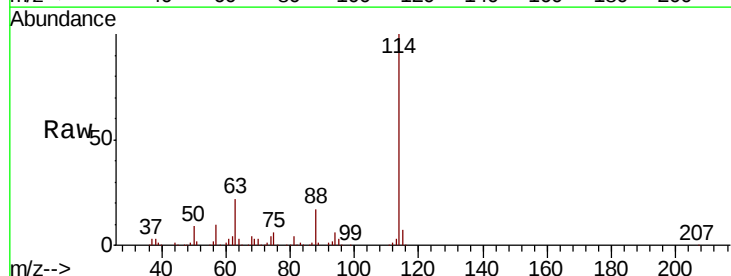
Instrument :  
 MSVOA\_N  
 ClientSampleId :

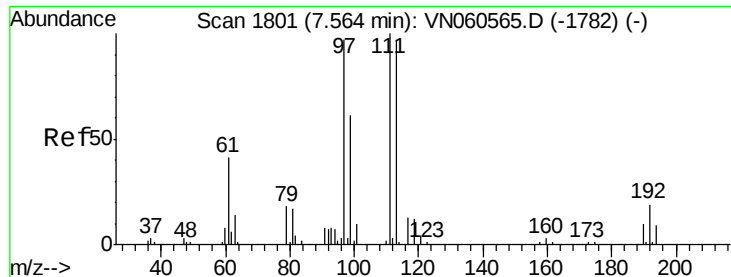
Tot Ion: 65 Resp: 124287  
 Ion Ratio Lower Upper  
 65 100  
 67 53.7 0.0 107.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.57 min Scan# 2113  
 Delta R.T. -0.00 min  
 Lab File: VN060674.D  
 Acq: 24 Mar 2020 15:59

Tgt Ion: 114 Resp: 315397  
 Ion Ratio Lower Upper  
 114 100  
 63 22.0 0.0 43.8  
 88 16.6 0.0 33.0





#35

Dibromofluoromethane

Concen: 48.697 ug/l

RT: 7.56 min Scan# 1801

Delta R.T. -0.00 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

Instrument :  
MSVOA\_N  
ClientSampled :

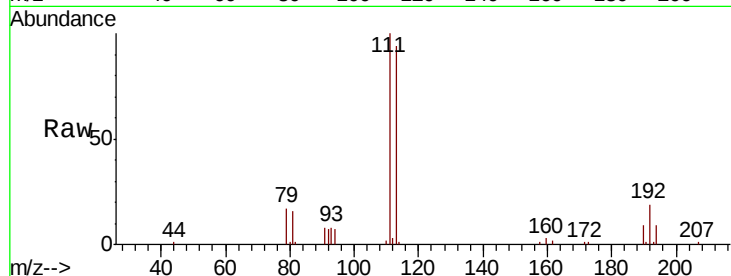
Tot Ion:113 Resp: 92870

Ion Ratio Lower Upper

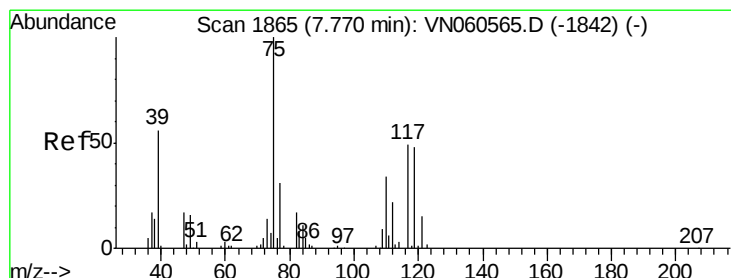
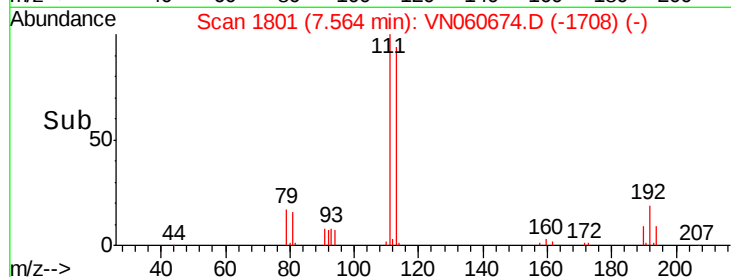
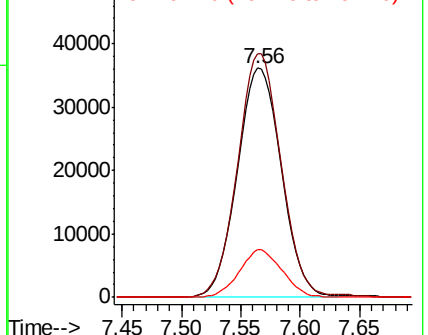
113 100

111 104.6 82.9 124.3

192 20.0 15.8 23.8



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: 4.702 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. -0.13 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

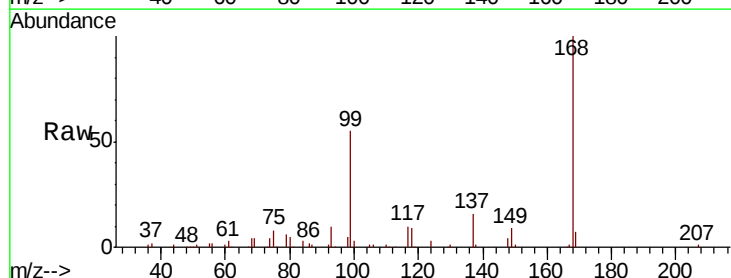
Tgt Ion: 75 Resp: 14360

Ion Ratio Lower Upper

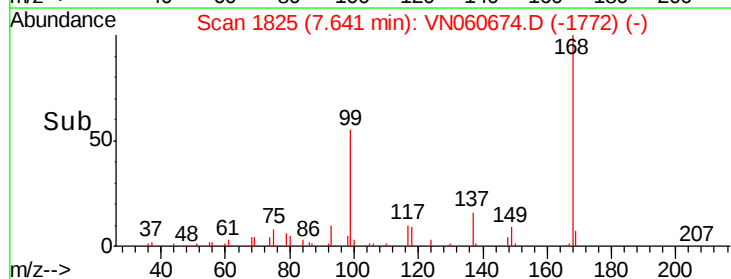
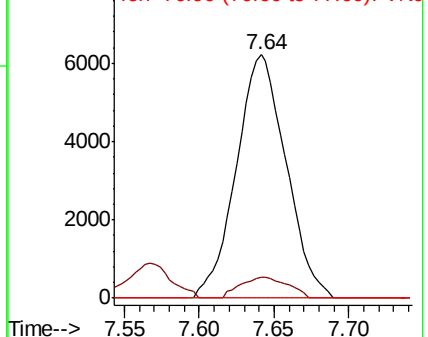
75 100

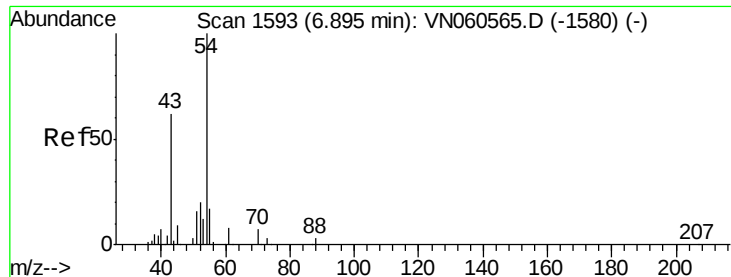
110 8.3 16.9 50.6#

77 0.0 24.6 36.8#



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

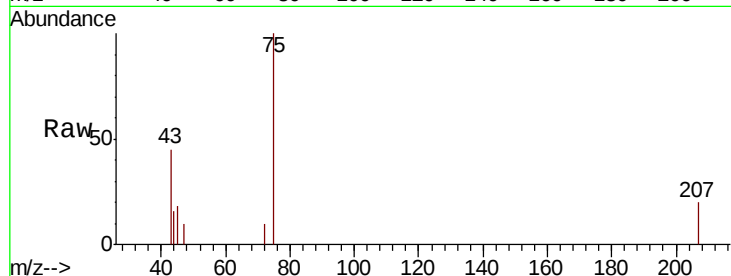




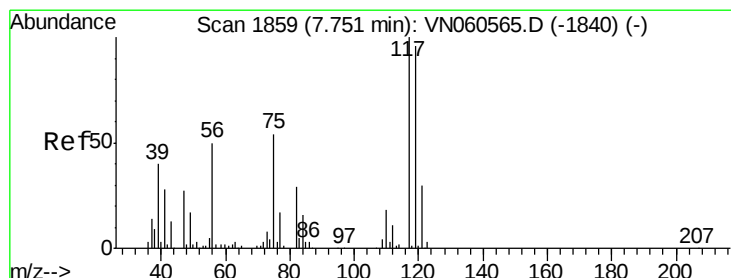
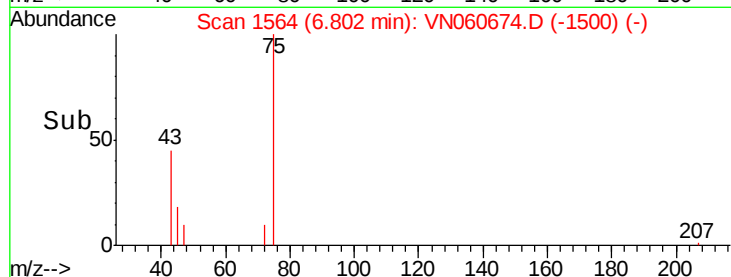
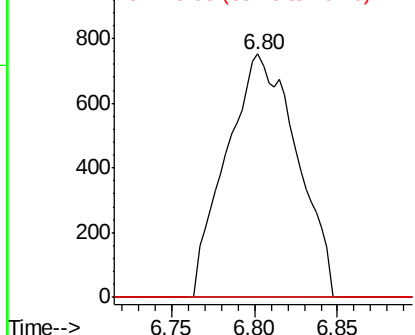
#37  
Ethyl Acetate  
Concen: 0.674 ug/l  
RT: 6.80 min Scan# 1564  
Delta R.T. -0.09 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 43 Resp: 2225  
Ion Ratio Lower Upper  
43 100  
61 0.0 10.6 15.8#  
70 0.0 7.9 11.9#

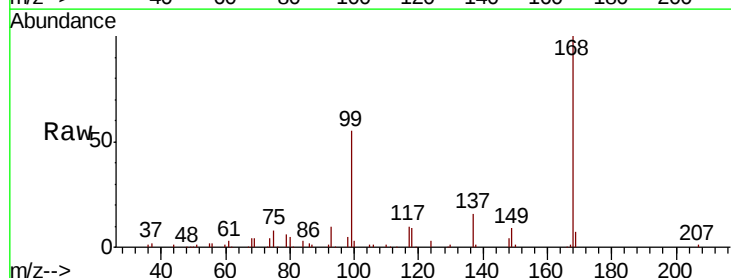


Abundance Ion 43.00 (42.70 to 43.70): VN0  
Ion 60.90 (60.60 to 61.60): VN0  
Ion 70.00 (69.70 to 70.70): VN0

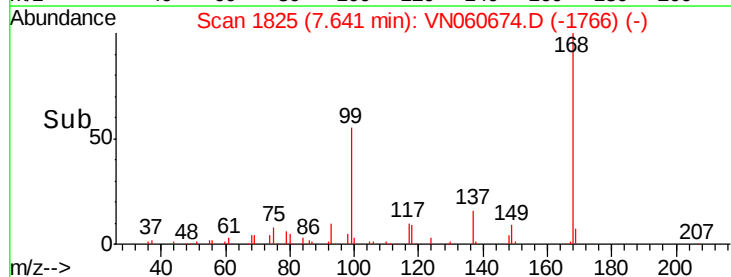
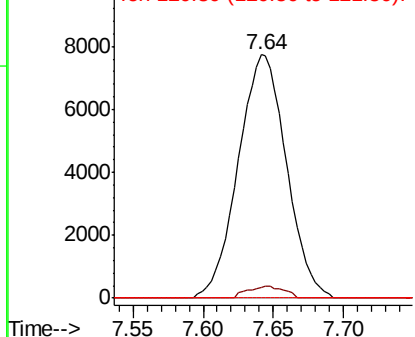


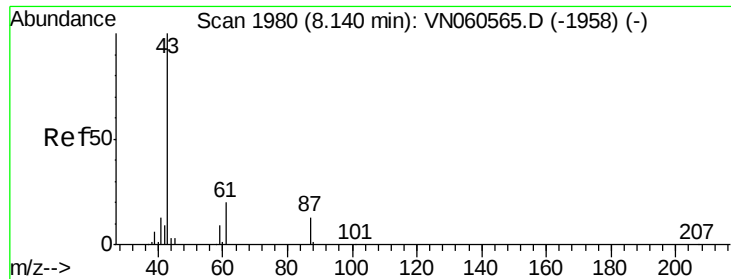
#38  
Carbon Tetrachloride  
Concen: 6.744 ug/l  
RT: 7.64 min Scan# 1825  
Delta R.T. -0.11 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Tgt Ion: 117 Resp: 18459  
Ion Ratio Lower Upper  
117 100  
119 4.4 76.2 114.2#  
121 0.0 23.7 35.5#



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: 9.874 ug/l

RT: 8.14 min Scan# 1980

Delta R.T. -0.00 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

Instrument :

MSVOA\_N

ClientSampleId :

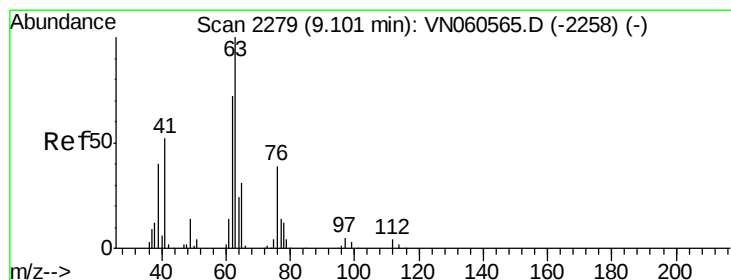
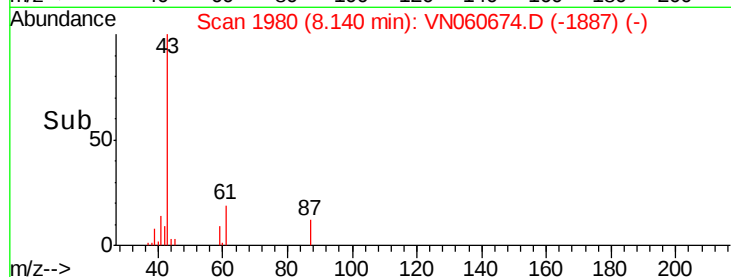
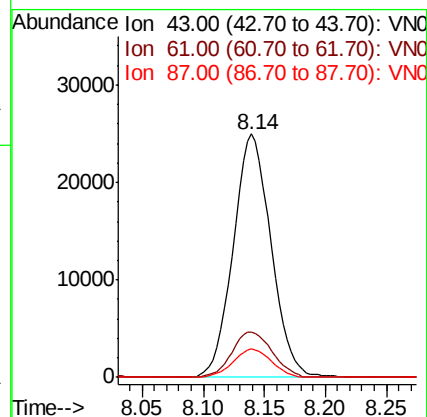
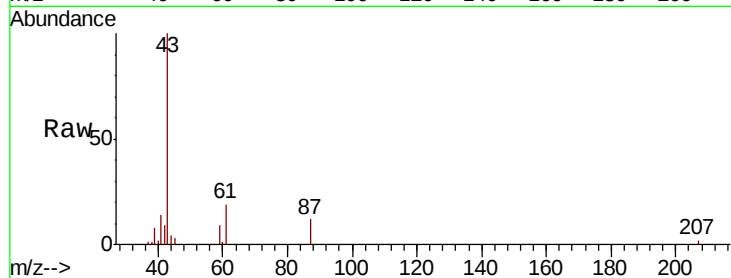
Tot Ion: 43 Resp: 53734

Ion Ratio Lower Upper

43 100

61 19.9 20.7 31.1#

87 11.7 9.8 14.8



#45

1,2-Dichloropropane

Concen: 0.350 ug/l

RT: 9.25 min Scan# 2326

Delta R.T. 0.15 min

Lab File: VN060674.D

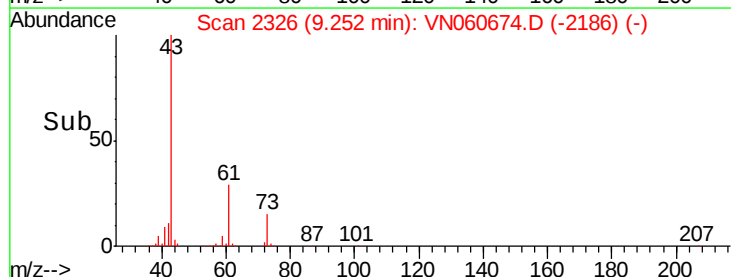
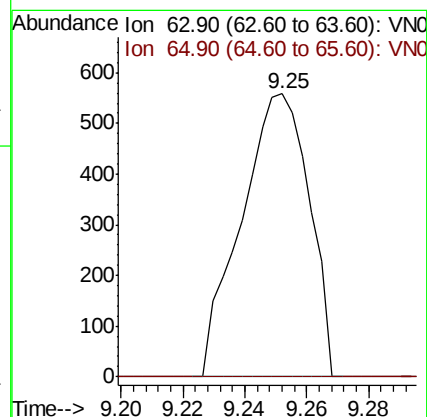
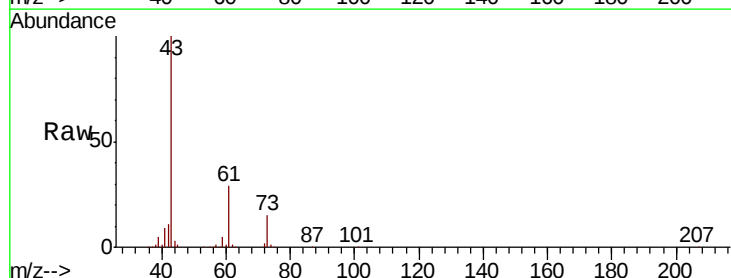
Acq: 24 Mar 2020 15:59

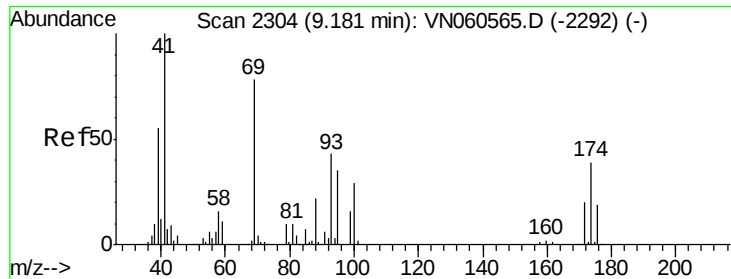
Tgt Ion: 63 Resp: 851

Ion Ratio Lower Upper

63 100

65 0.0 25.4 38.0#

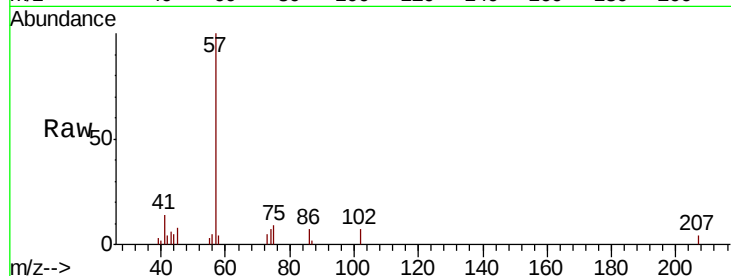




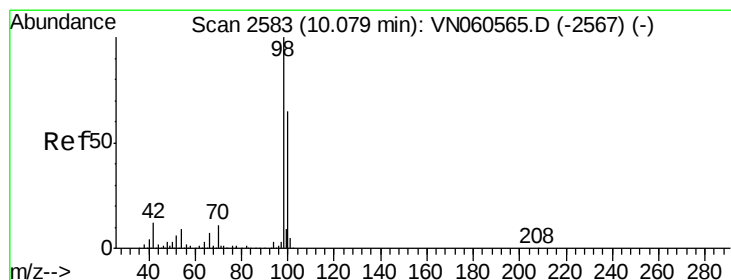
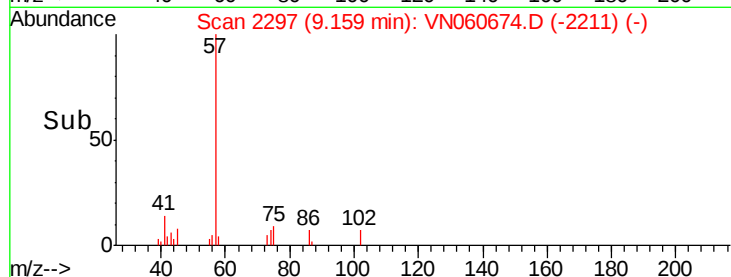
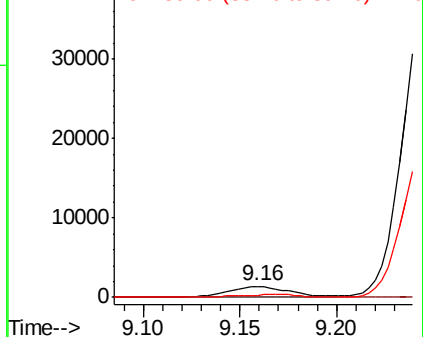
#48  
Methvl methacrylate  
Concen: 1.261 ug/l  
RT: 9.16 min Scan# 2297  
Delta R.T. -0.02 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 41 Resp: 3056  
Ion Ratio Lower Upper  
41 100  
69 0.0 65.4 98.0#  
39 0.0 44.0 66.0#

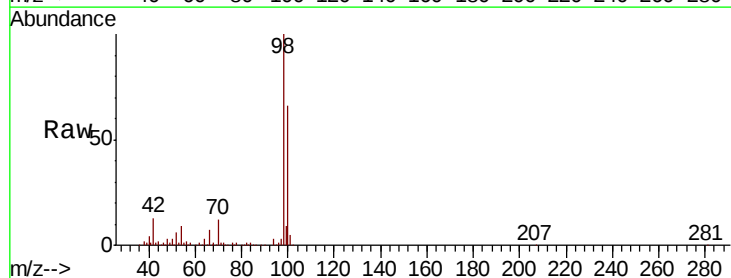


Abundance Ion 41.00 (40.70 to 41.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 39.00 (38.70 to 39.70): VN0

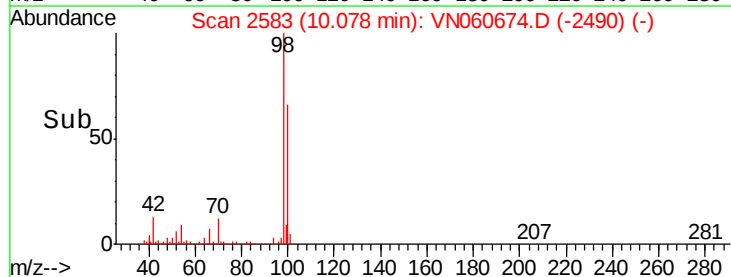
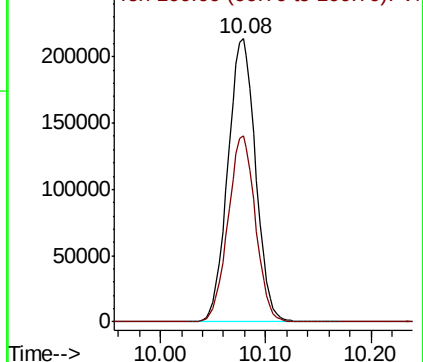


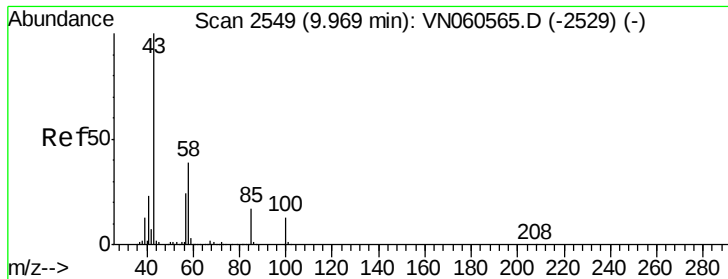
#50  
Toluene-d8  
Concen: 49.836 ug/l  
RT: 10.08 min Scan# 2583  
Delta R.T. -0.00 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Tgt Ion: 98 Resp: 388215  
Ion Ratio Lower Upper  
98 100  
100 64.9 51.8 77.8



Abundance Ion 98.00 (97.70 to 98.70): VN0  
Ion 100.00 (99.70 to 100.70): VN0





#51

4-Methyl-2-Pentanone

Concen: 1.324 ug/l

RT: 9.97 min Scan# 2549

Delta R.T. -0.00 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

Instrument :

MSVOA\_N

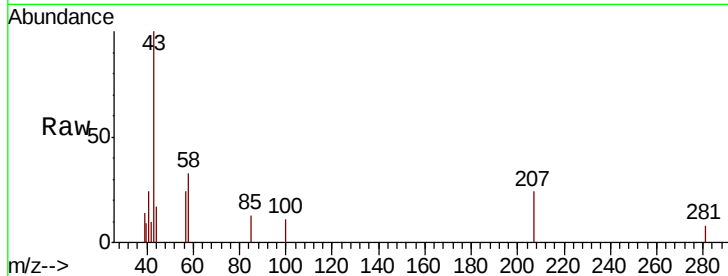
ClientSampled :

Tot Ion: 43 Resp: 4100

Ion Ratio Lower Upper

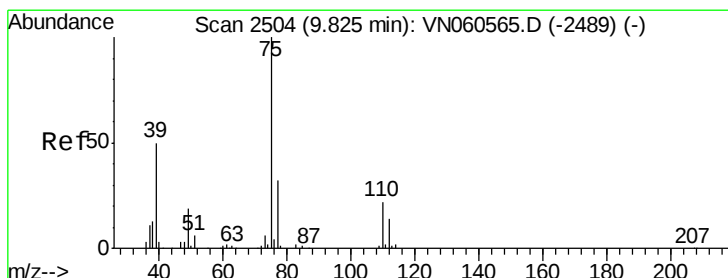
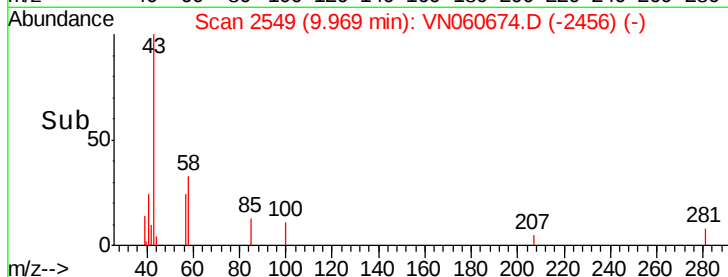
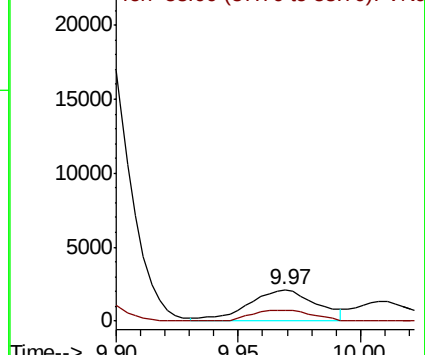
43 100

58 30.7 30.8 46.2#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#54

cis-1,3-Dichloropropene

Concen: 5.721 ug/l

RT: 9.89 min Scan# 2524

Delta R.T. 0.06 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

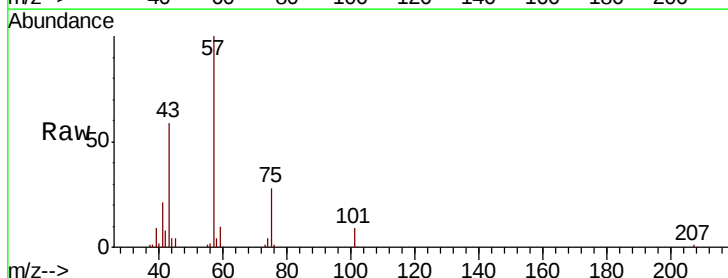
Tgt Ion: 75 Resp: 22033

Ion Ratio Lower Upper

75 100

77 0.0 25.4 38.0#

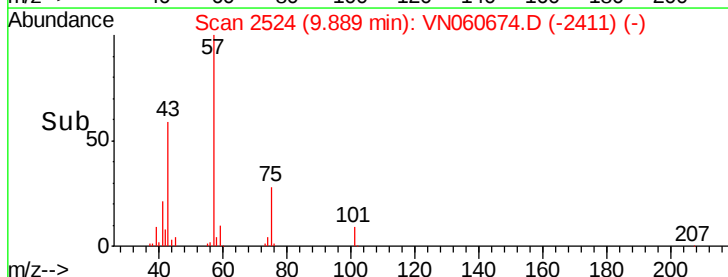
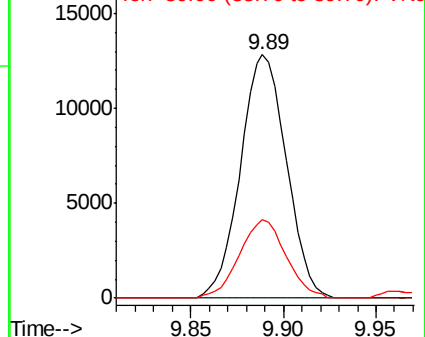
39 32.1 40.2 60.4#

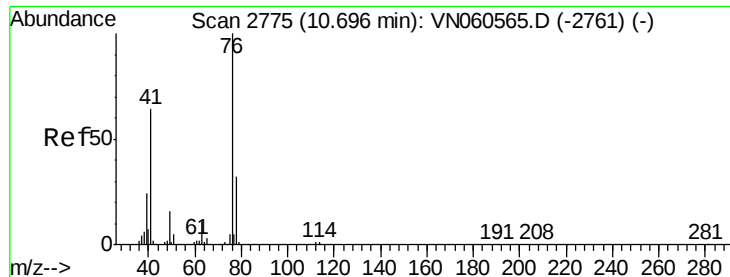


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 76.90 (76.60 to 77.60): VN0

Ion 39.00 (38.70 to 39.70): VN0

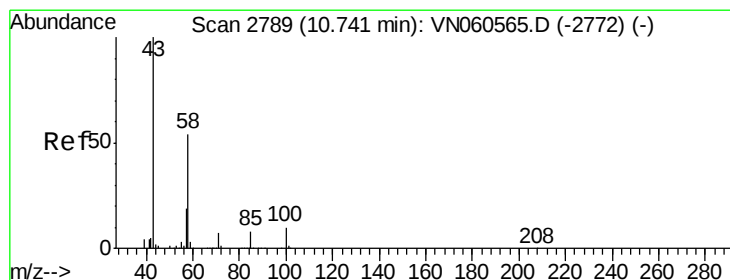
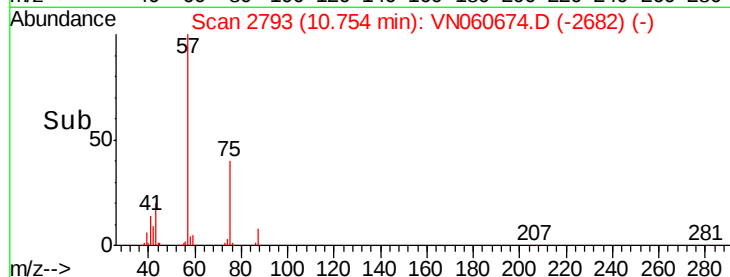
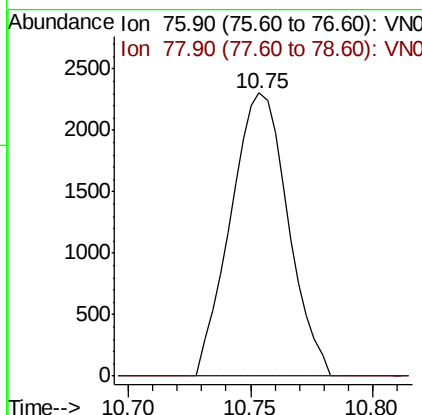
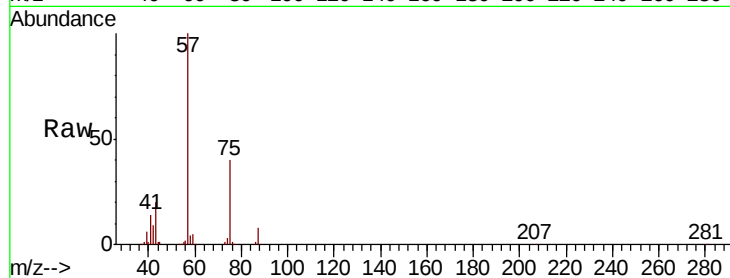




#57  
 1,3-Dichloropropane  
 Concen: 1.009 ug/l  
 RT: 10.75 min Scan# 2793  
 Delta R.T. 0.06 min  
 Lab File: VN060674.D  
 Acq: 24 Mar 2020 15:59

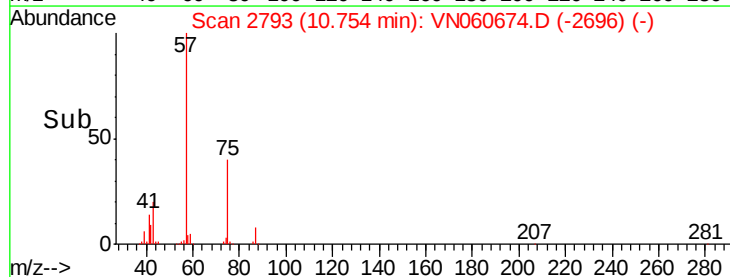
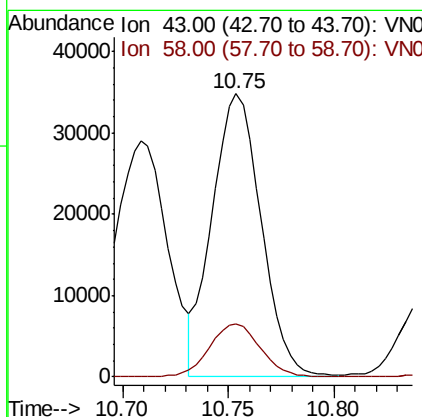
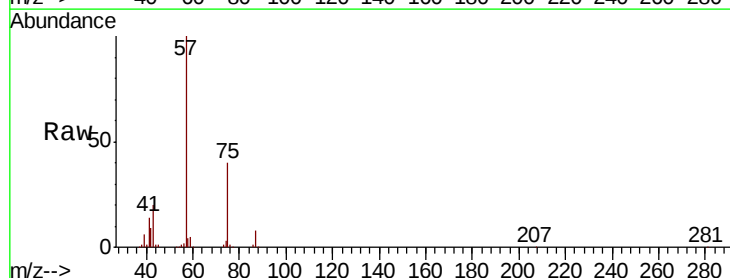
Instrument :  
 MSVOA\_N  
 ClientSampled :

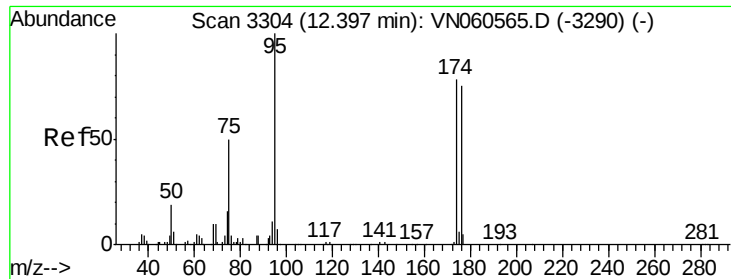
Tot Ion: 76 Resp: 3752  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 25.8 38.6#



#59  
 2-Hexanone  
 Concen: 25.272 ug/l  
 RT: 10.75 min Scan# 2793  
 Delta R.T. 0.01 min  
 Lab File: VN060674.D  
 Acq: 24 Mar 2020 15:59

Tgt Ion: 43 Resp: 56377  
 Ion Ratio Lower Upper  
 43 100  
 58 19.3 26.7 80.1#

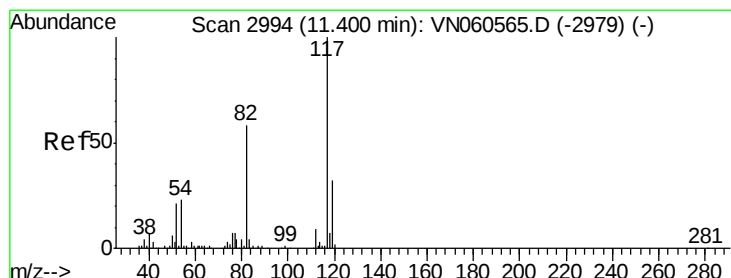
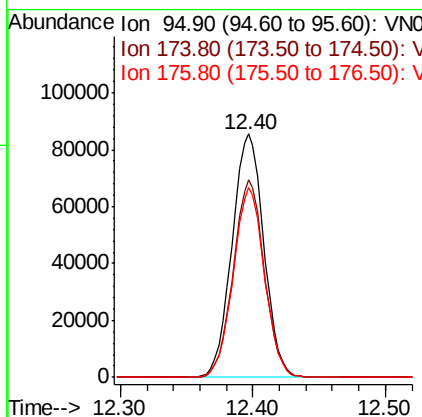
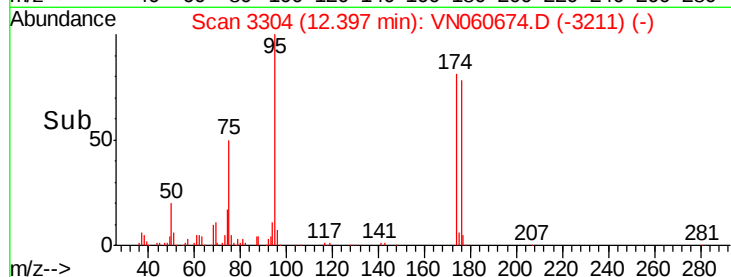
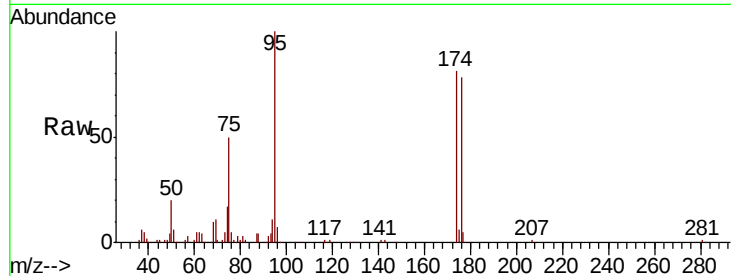




#62  
4-Bromofluorobenzene  
Concen: 49.752 ug/l  
RT: 12.40 min Scan# 3304  
Delta R.T. -0.00 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

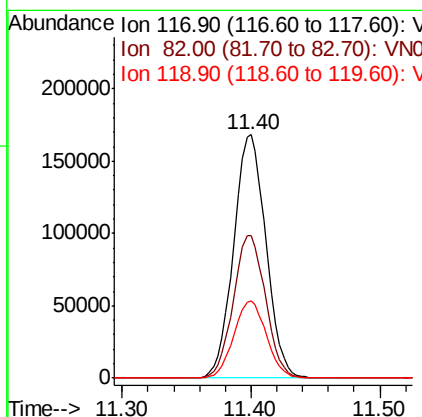
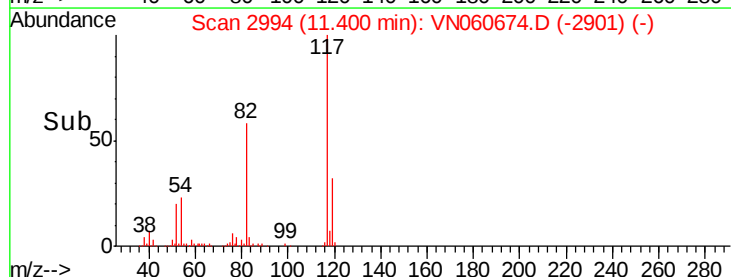
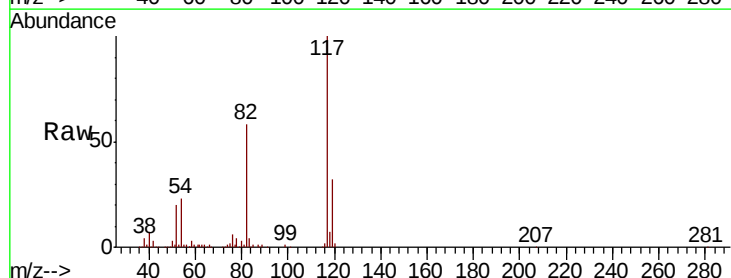
Instrument :  
MSVOA\_N  
ClientSampled :

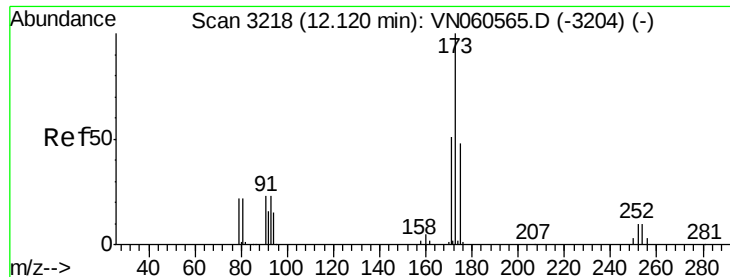
Tot Ion: 95 Resp: 142033  
Ion Ratio Lower Upper  
95 100  
174 79.3 0.0 157.6  
176 76.4 0.0 150.6



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.40 min Scan# 2994  
Delta R.T. -0.00 min  
Lab File: VN060674.D  
Acq: 24 Mar 2020 15:59

Tgt Ion: 117 Resp: 292940  
Ion Ratio Lower Upper  
117 100  
82 58.5 46.7 70.1  
119 31.9 25.5 38.3





#71

Bromoform

Concen: 1.913 ug/l

RT: 12.39 min Scan# 3303

Delta R.T. 0.27 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

Instrument :

MSVOA\_N

ClientSampleId :

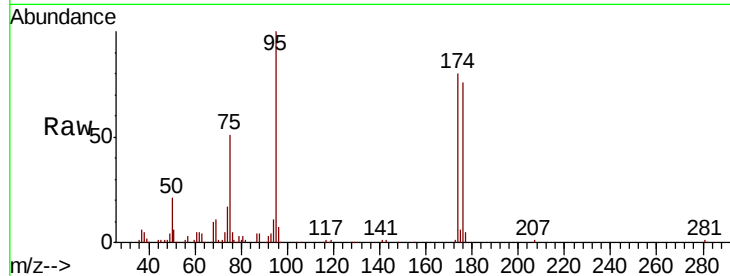
Tot Ion:173 Resp: 421

Ion Ratio Lower Upper

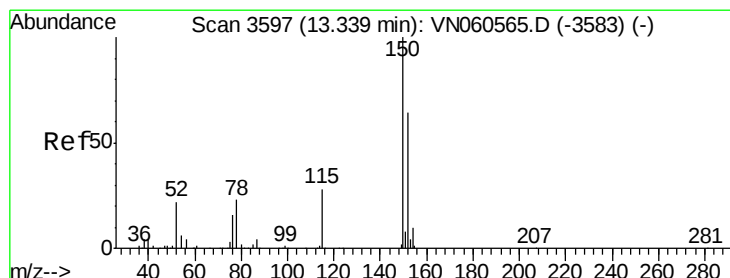
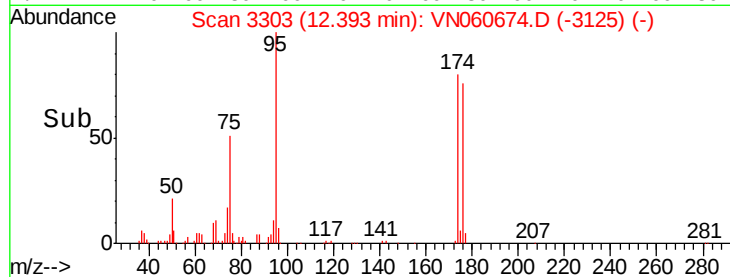
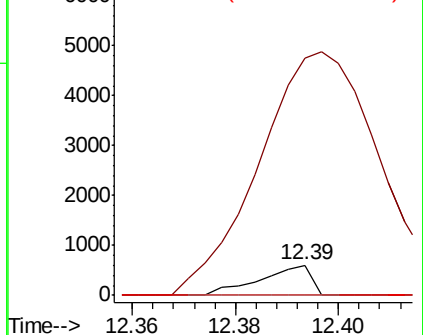
173 100

175 1614.7 24.1 72.4#

254 0.0 0.0 0.0



Abundance Ion 172.70 (172.40 to 173.40): V  
Ion 174.70 (174.40 to 175.40): V  
Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3597

Delta R.T. -0.00 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

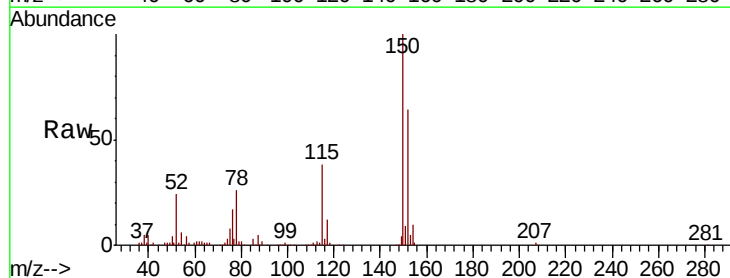
Tgt Ion:152 Resp: 132830

Ion Ratio Lower Upper

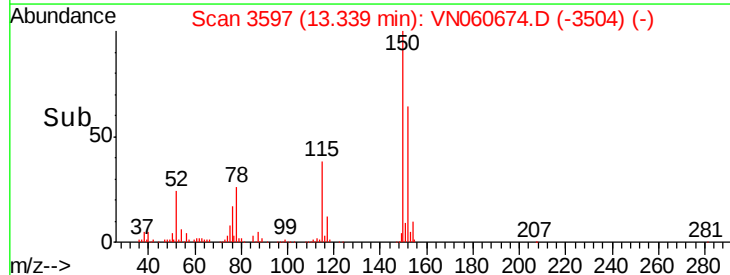
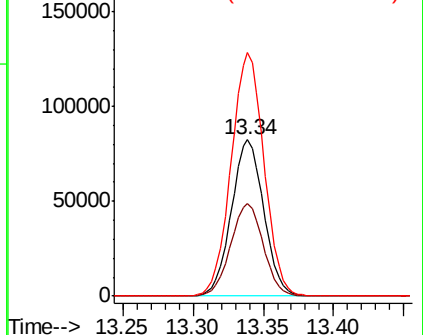
152 100

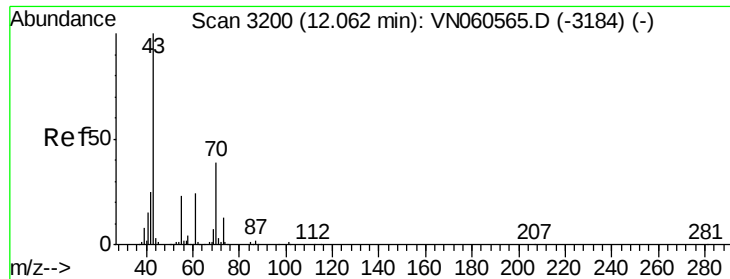
115 59.6 30.2 90.6

150 157.7 0.0 350.2



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





#74

N-amvl acetate

Concen: 0.547 ug/l

RT: 12.02 min Scan# 3187

Delta R.T. -0.04 min

Lab File: VN060674.D

Acq: 24 Mar 2020 15:59

Instrument :

MSVOA\_N

ClientSampleId :

Tot Ion: 43 Resp: 2519

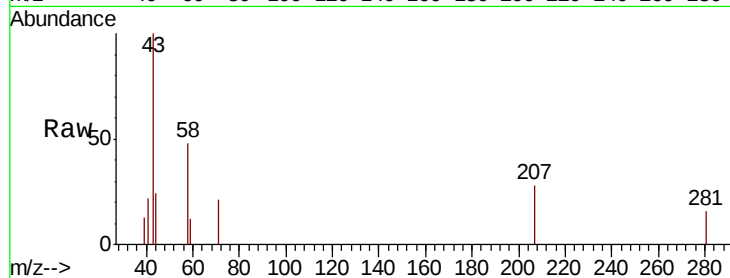
Ion Ratio Lower Upper

43 100

70 0.0 31.1 46.7#

55 0.0 18.6 27.8#

61 0.0 18.9 28.3#

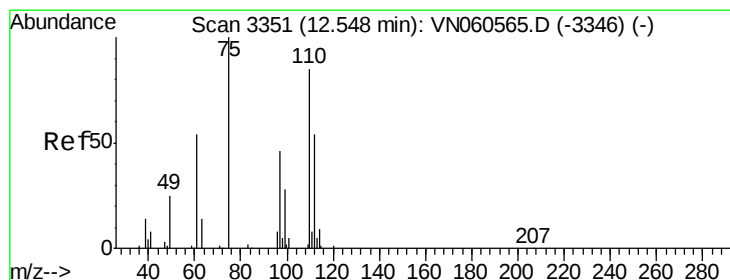
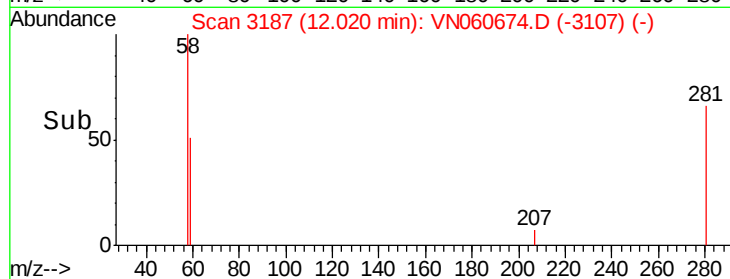
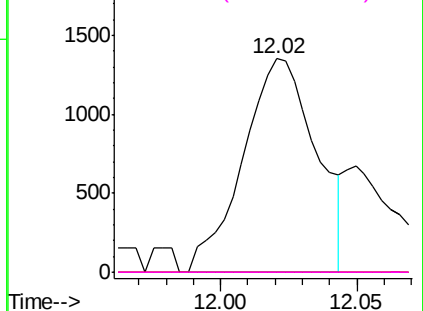


Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 70.00 (69.70 to 70.70): VN0

Ion 55.00 (54.70 to 55.70): VN0

Ion 61.00 (60.70 to 61.70): VN0



#76

1,2,3-Trichloropropane

Concen: 25.195 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.15 min

Lab File: VN060674.D

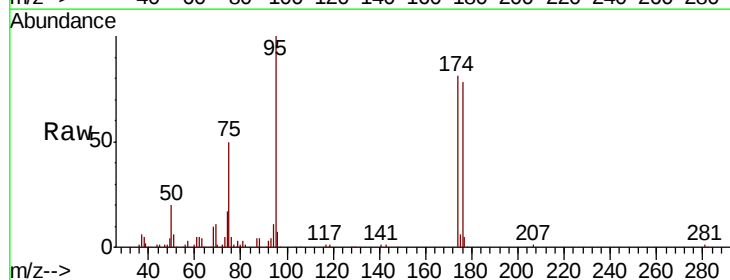
Acq: 24 Mar 2020 15:59

Tgt Ion: 75 Resp: 72214

Ion Ratio Lower Upper

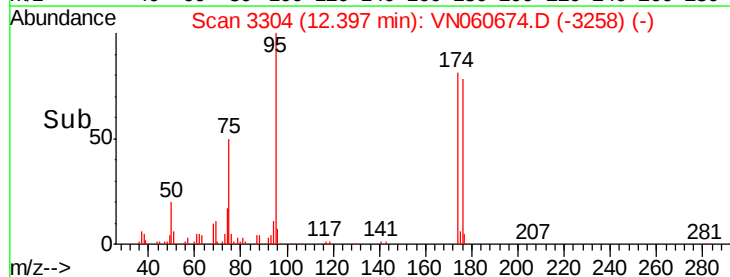
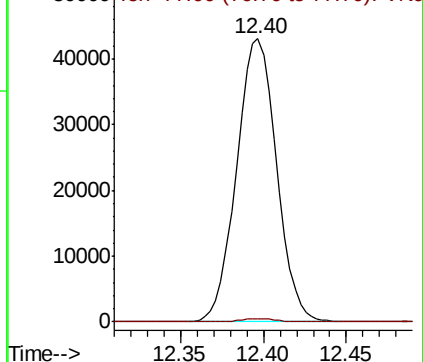
75 100

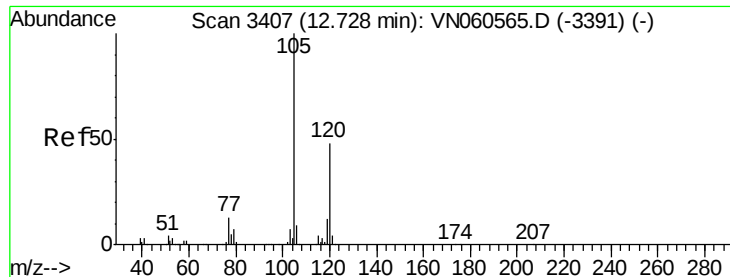
77 1.0 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0

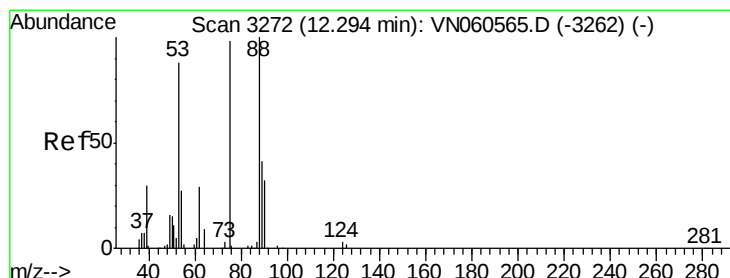
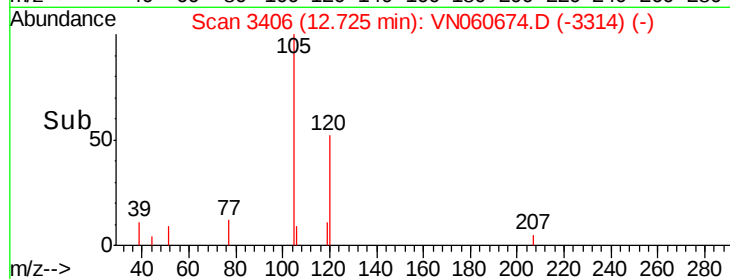
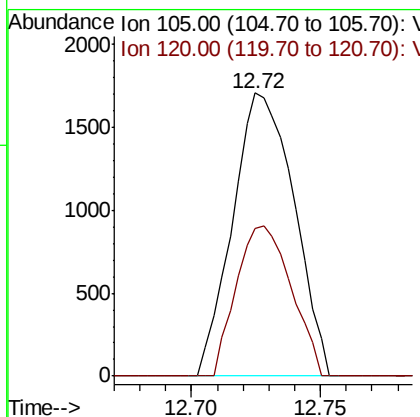
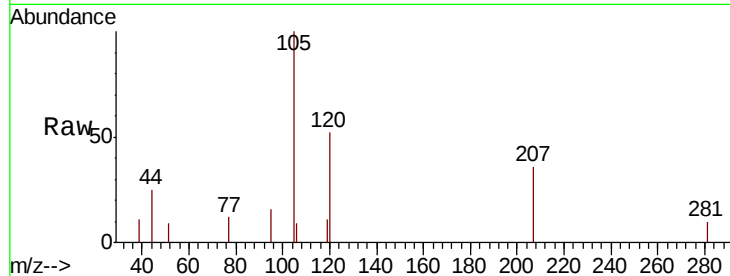




#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.334 ug/l  
 RT: 12.72 min Scan# 3406  
 Delta R.T. -0.00 min  
 Lab File: VN060674.D  
 Acq: 24 Mar 2020 15:59

Instrument :  
 MSVOA\_N  
 ClientSampled :

Tot Ion:105 Resp: 2825  
 Ion Ratio Lower Upper  
 105 100  
 120 47.5 23.9 71.7



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 64.708 ug/l  
 RT: 12.40 min Scan# 3304  
 Delta R.T. 0.10 min  
 Lab File: VN060674.D  
 Acq: 24 Mar 2020 15:59

Tgt Ion: 75 Resp: 72214  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 73.0 109.4#  
 89 0.0 34.8 52.2#

