

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN012020\  
 Data File : VN059794.D  
 Acq On : 20 Jan 2020 18:04  
 Operator : JC/MD  
 Sample : PB126173ZHE#14  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Jan 21 01:20:12 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011320W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jan 18 03:09:32 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 217149   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 325857   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 290437   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 122994   | 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   | 112537   | 46.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.34%  |          |
| 35) Dibromofluoromethane    | 7.57  | 113  | 98263    | 50.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.14% |          |
| 50) Toluene-d8              | 10.08 | 98   | 383987   | 51.00 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.00% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 128708   | 47.42 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.84%  |          |

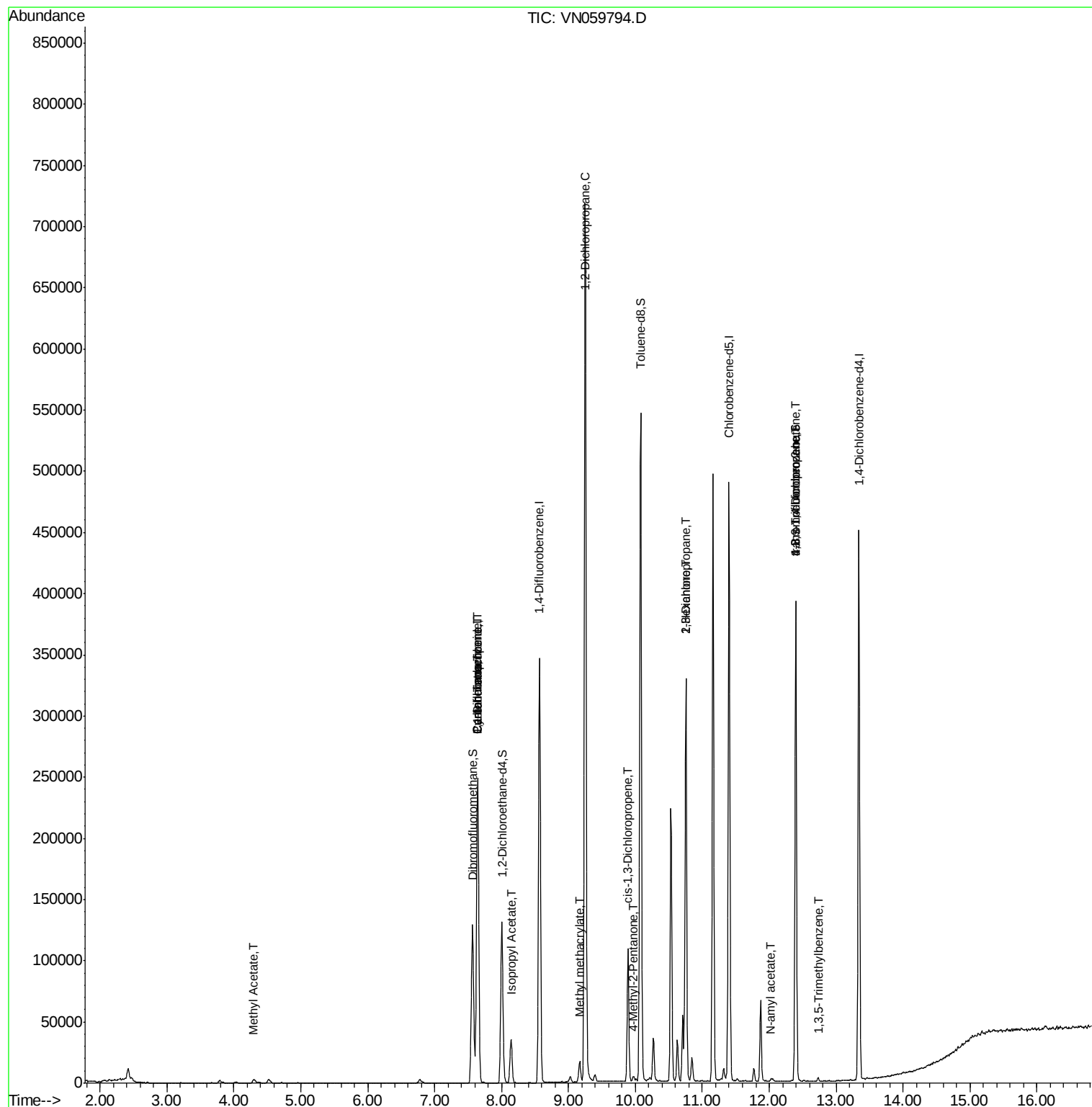
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 3.80  | 43   | 4128     | Below Cal |        | 98     |
| 18) Methyl Acetate             | 4.30  | 43   | 5821     | 2.067     | ug/l   | 95     |
| 20) Methylene Chloride         | 4.52  | 84   | 2354     | Below Cal | #      | 83     |
| 31) Cyclohexane                | 7.64  | 56   | 3995     | 1.120     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.64  | 75   | 14769    | 5.205     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 7.64  | 117  | 20322    | 6.584     | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.14  | 43   | 42384    | 9.258     | ug/l # | 91     |
| 45) 1,2-Dichloropropane        | 9.26  | 63   | 841      | 0.402     | ug/l # | 44     |
| 48) Methyl methacrylate        | 9.17  | 41   | 2504     | 1.223     | ug/l # | 13     |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 2826     | 1.068     | ug/l   | 93     |
| 54) cis-1,3-Dichloropropene    | 9.89  | 75   | 20753    | 5.934     | ug/l # | 55     |
| 57) 1,3-Dichloropropane        | 10.75 | 76   | 3513     | 1.045     | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.75 | 43   | 44855    | 23.008    | ug/l # | 55     |
| 74) N-amyl acetate             | 12.02 | 43   | 2221     | 0.635     | ug/l # | 45     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 65527    | 31.658    | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1910     | 0.252     | ug/l   | 97     |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 65527    | 67.985    | ug/l # | 11     |
| 92) 1,2-Dibromo-3-Chloropropan | 14.35 | 75   | 89       | Below Cal | #      | 6      |

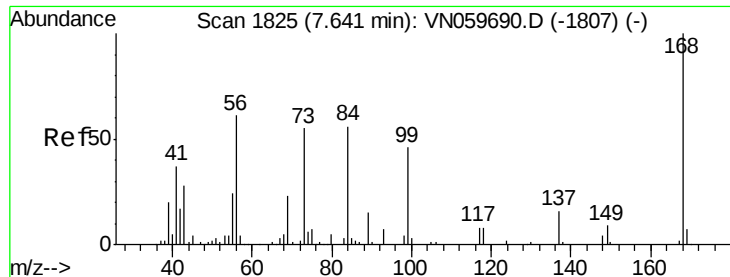
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN012020\  
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Sample : PB126173ZHE#14  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :

Quant Time: Jan 21 01:20:12 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N011320W.M  
Quant Title : SW846 8260  
QLast Update : Sat Jan 18 03:09:32 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.64 min Scan# 1826

Delta R.T. 0.00 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

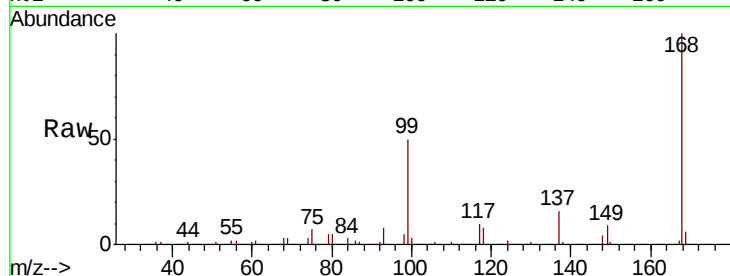
Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:168 Resp: 217149

Ion Ratio Lower Upper

168 100

99 50.2 48.2 72.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.64

100000

80000

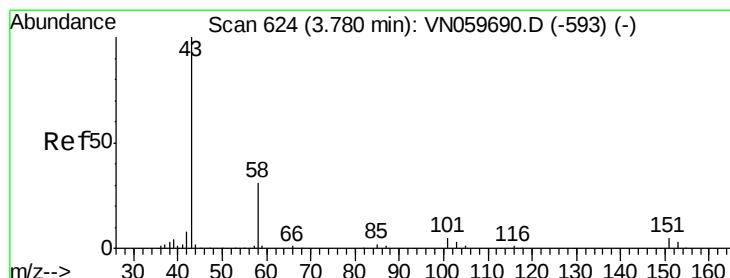
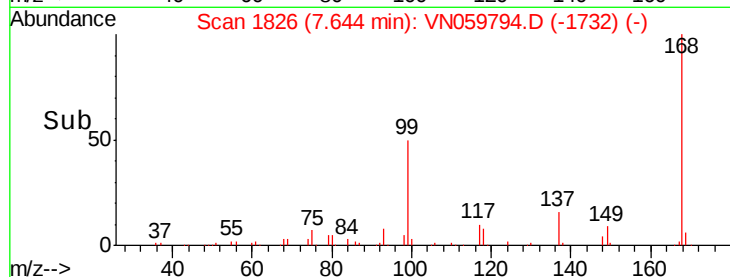
60000

40000

20000

0

Time--> 7.50 7.60 7.70 7.80



#16

Acetone

Concen: Below Cal

RT: 3.80 min Scan# 630

Delta R.T. 0.02 min

Lab File: VN059794.D

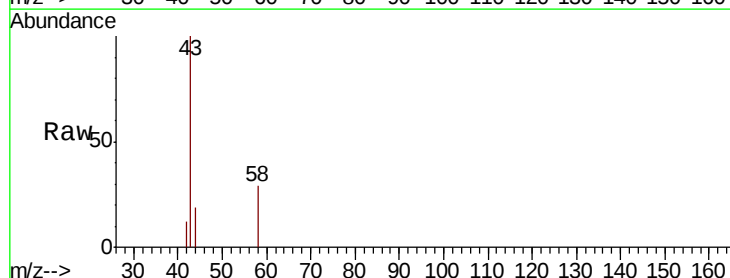
Acq: 20 Jan 2020 18:04

Tgt Ion: 43 Resp: 4128

Ion Ratio Lower Upper

43 100

58 28.5 23.6 35.4



Abundance Ion 43.00 (42.70 to 43.70): VN

Ion 58.00 (57.70 to 58.70): VN

3.80

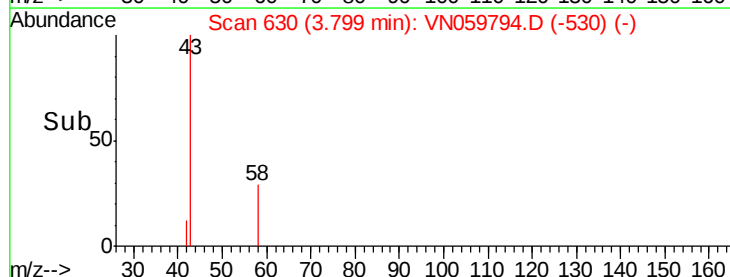
1500

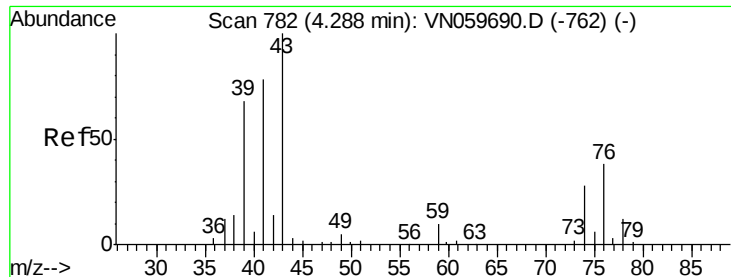
1000

500

0

Time--> 3.70 3.75 3.80 3.85

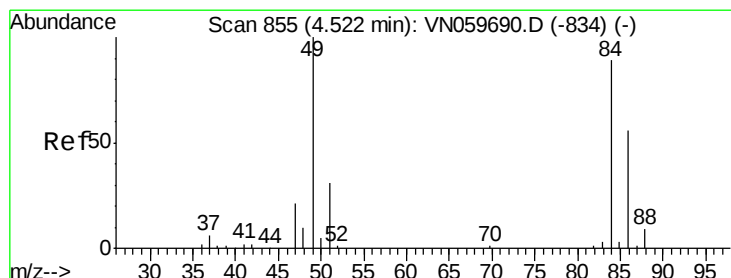
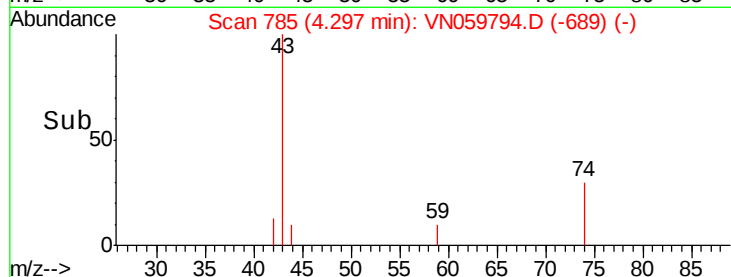
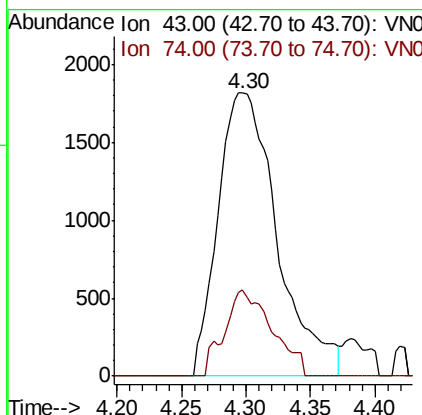
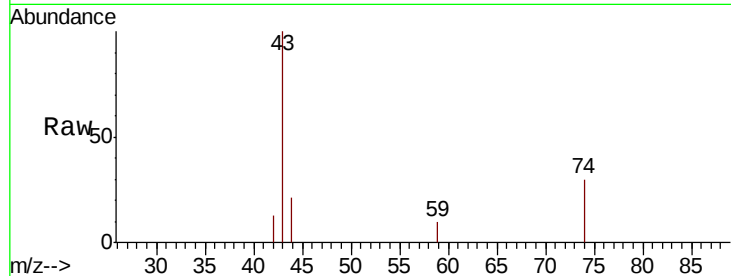




#18  
Methyl Acetate  
Concen: 2.067 ug/l  
RT: 4.30 min Scan# 785  
Delta R.T. 0.01 min  
Lab File: VN059794.D  
Acq: 20 Jan 2020 18:04

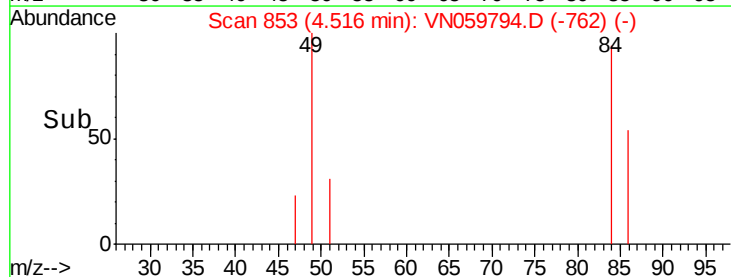
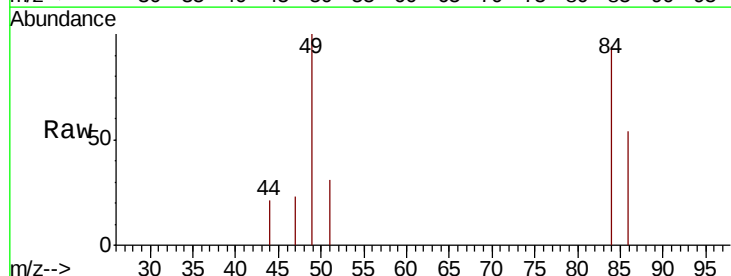
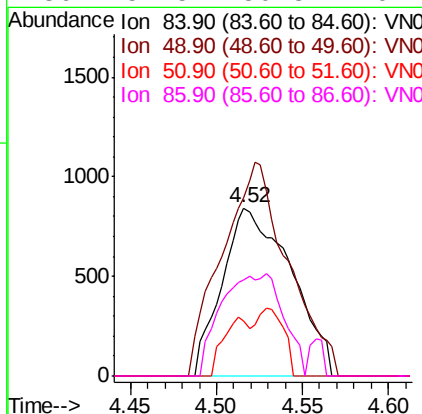
Instrument :  
MSVOA\_N  
ClientSampleId :

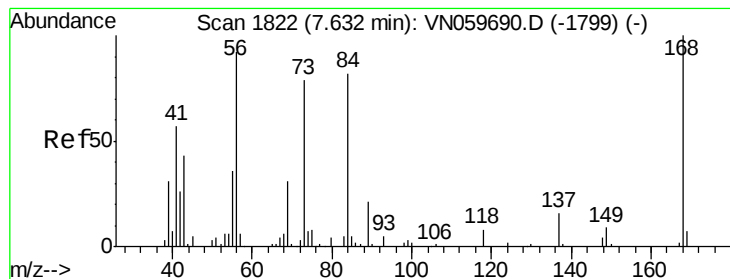
Tot Ion: 43 Resp: 5821  
Ion Ratio Lower Upper  
43 100  
74 24.4 17.5 26.3



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 4.52 min Scan# 853  
Delta R.T. -0.01 min  
Lab File: VN059794.D  
Acq: 20 Jan 2020 18:04

Tgt Ion: 84 Resp: 2354  
Ion Ratio Lower Upper  
84 100  
49 106.3 106.6 160.0#  
51 32.5 31.9 47.9  
86 57.5 50.8 76.2





#31

Cyclohexane

Concen: 1.120 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. 0.01 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Instrument :

MSVOA\_N

ClientSampled :

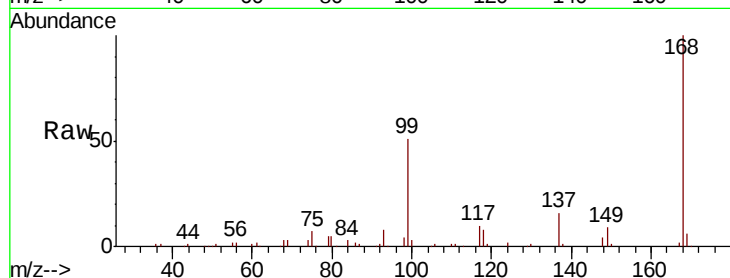
Tot Ion: 56 Resp: 3995

Ion Ratio Lower Upper

56 100

69 169.9 26.5 39.7#

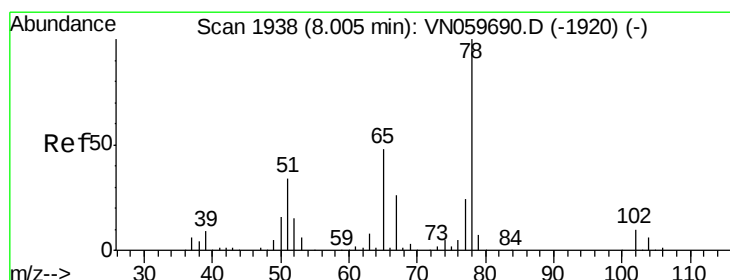
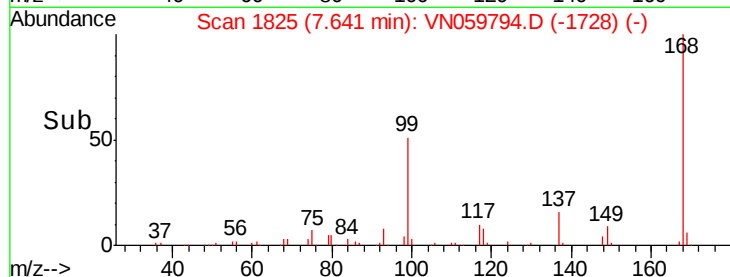
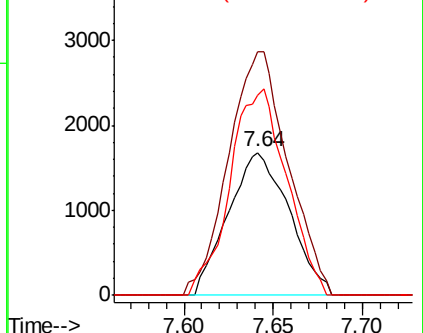
84 139.5 65.3 97.9#



Abundance Ion 56.00 (55.70 to 56.70): VN059794.D (-1728) (-)

Ion 69.00 (68.70 to 69.70): VN059794.D (-1728) (-)

Ion 84.00 (83.70 to 84.70): VN059794.D (-1728) (-)



#33

1,2-Dichloroethane-d4

Concen: 46.667 ug/l

RT: 8.00 min Scan# 1938

Delta R.T. 0.00 min

Lab File: VN059794.D

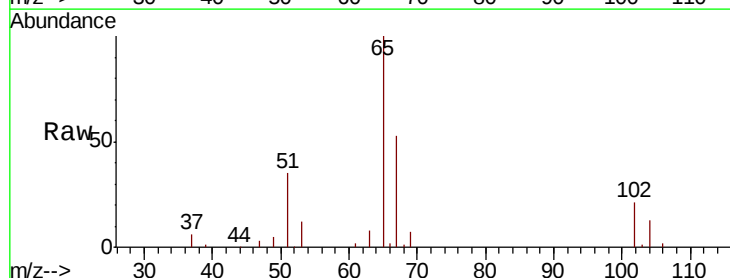
Acq: 20 Jan 2020 18:04

Tgt Ion: 65 Resp: 112537

Ion Ratio Lower Upper

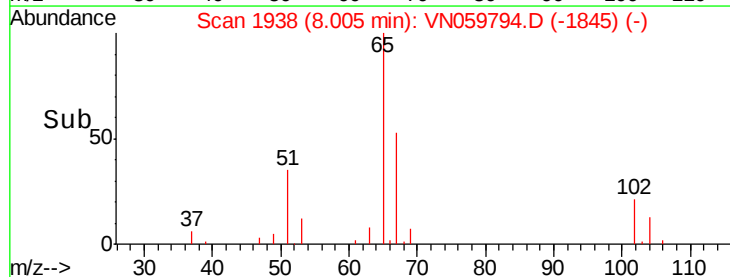
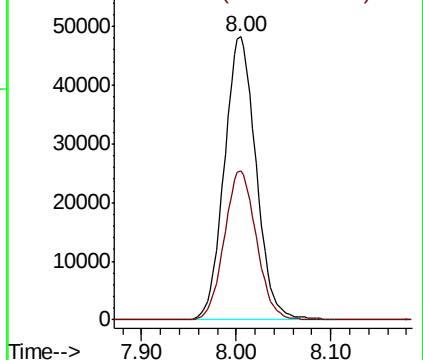
65 100

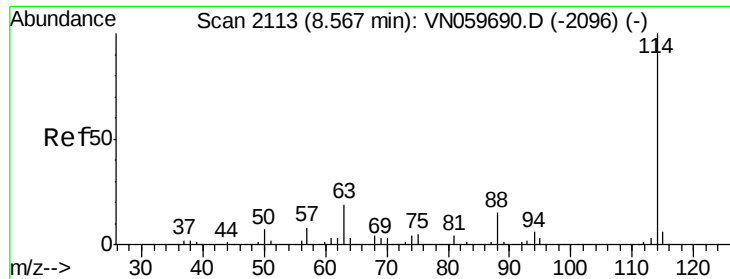
67 53.0 0.0 103.0



Abundance Ion 64.90 (64.60 to 65.60): VN059794.D (-1845) (-)

Ion 66.90 (66.60 to 67.60): VN059794.D (-1845) (-)

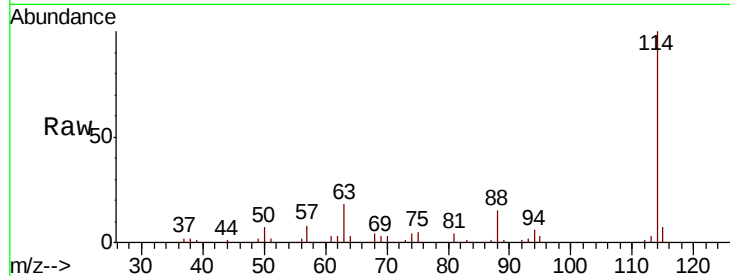




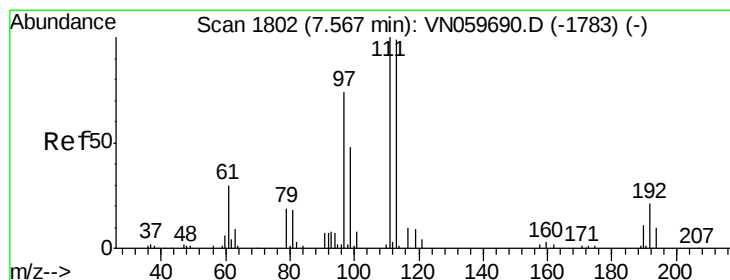
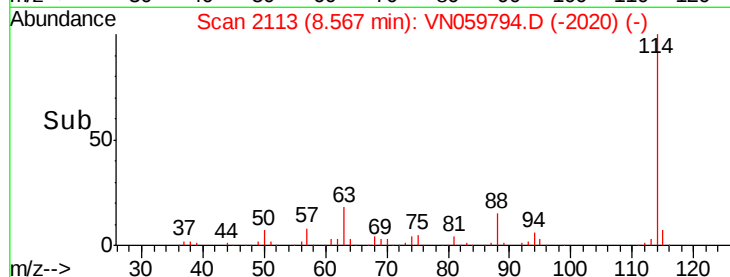
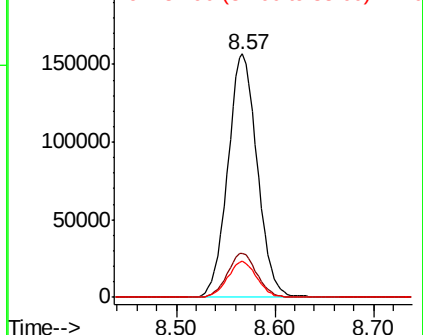
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.57 min Scan# 2113  
 Delta R.T. 0.00 min  
 Lab File: VN059794.D  
 Acq: 20 Jan 2020 18:04

Instrument :  
 MSVOA\_N  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 18.2  | 0.0   | 43.6  |
| 88      | 14.8  | 0.0   | 31.4  |

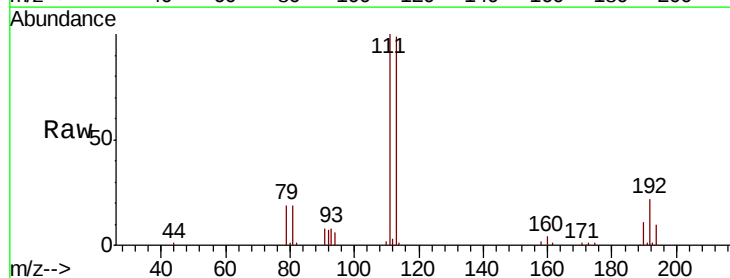


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN

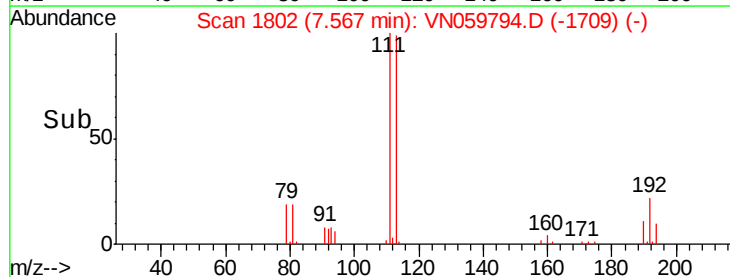
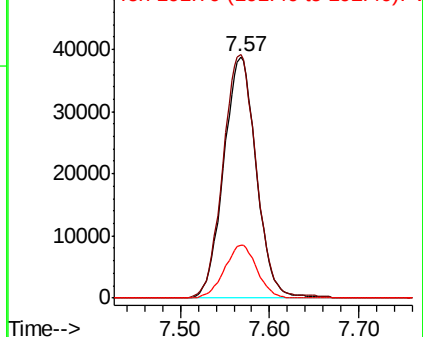


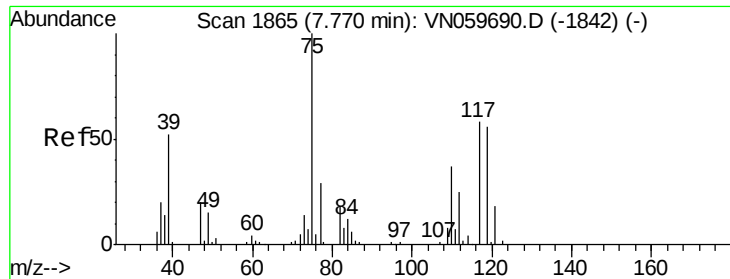
#35  
 Dibromofluoromethane  
 Concen: 50.567 ug/l  
 RT: 7.57 min Scan# 1802  
 Delta R.T. 0.00 min  
 Lab File: VN059794.D  
 Acq: 20 Jan 2020 18:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.7 | 83.5  | 125.3 |
| 192     | 21.7  | 15.4  | 23.2  |



Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

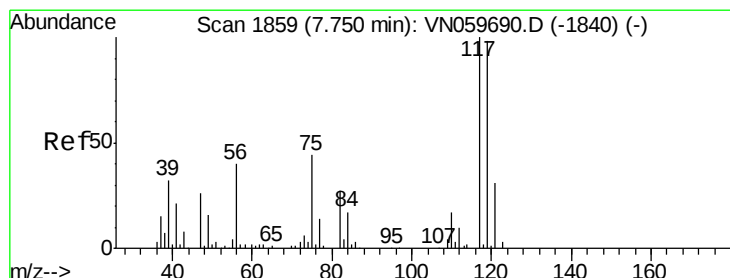
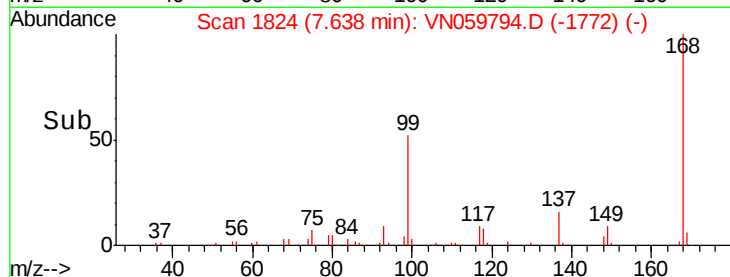
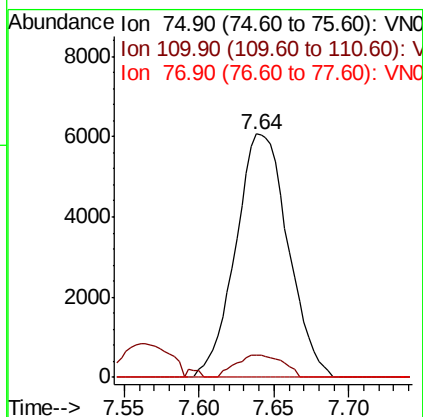
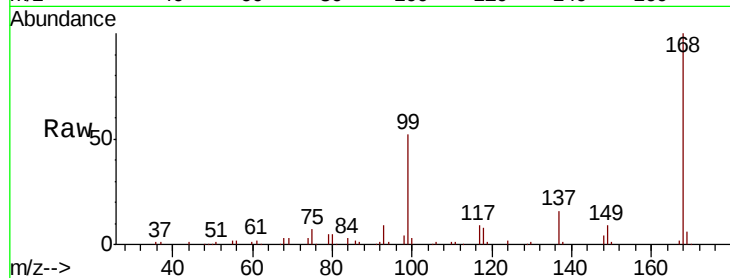




#36  
 1,1-Dichloropropene  
 Concen: 5.205 ug/l  
 RT: 7.64 min Scan# 1824  
 Delta R.T. -0.13 min  
 Lab File: VN059794.D  
 Acq: 20 Jan 2020 18:04

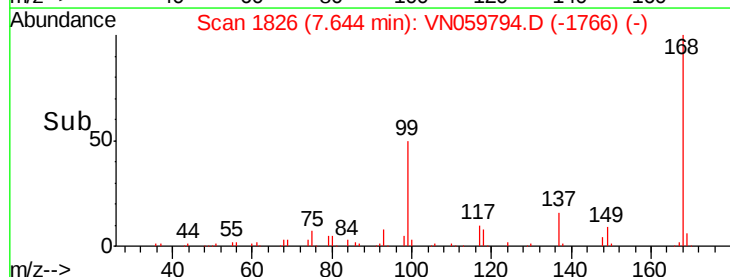
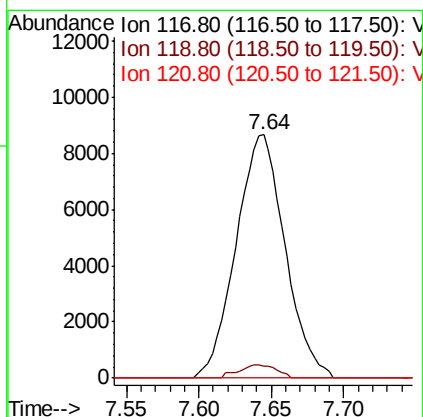
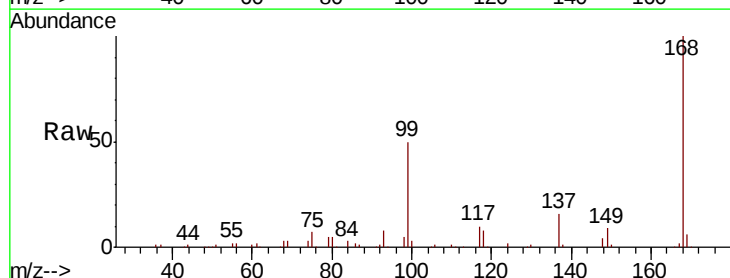
Instrument :  
 MSVOA\_N  
 ClientSampleId :

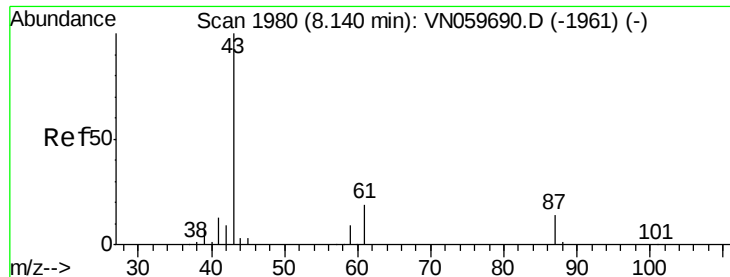
| Tot Ion   | 75    | Resp  | 14769 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 110       | 8.2   | 16.6  | 49.7# |
| 77        | 0.0   | 25.1  | 37.7# |



#38  
 Carbon Tetrachloride  
 Concen: 6.584 ug/l  
 RT: 7.64 min Scan# 1826  
 Delta R.T. -0.11 min  
 Lab File: VN059794.D  
 Acq: 20 Jan 2020 18:04

| Tgt Ion   | 117   | Resp  | 20322  |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 5.1   | 76.5  | 114.7# |
| 121       | 0.0   | 25.1  | 37.7#  |





#43

Isopropyl Acetate

Concen: 9.258 ug/l

RT: 8.14 min Scan# 1981

Delta R.T. 0.00 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Instrument :

MSVOA\_N

ClientSampleId :

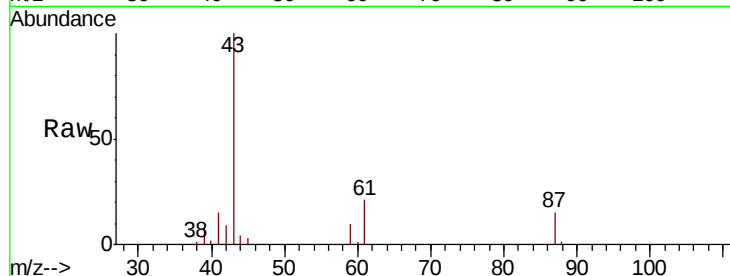
Tot Ion: 43 Resp: 42384

Ion Ratio Lower Upper

43 100

61 19.7 20.2 30.2#

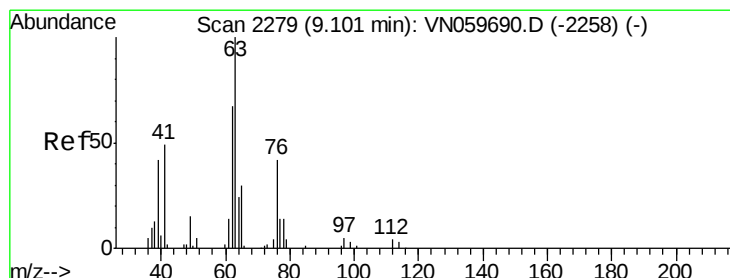
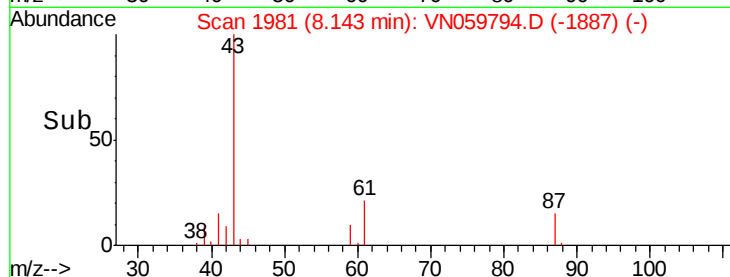
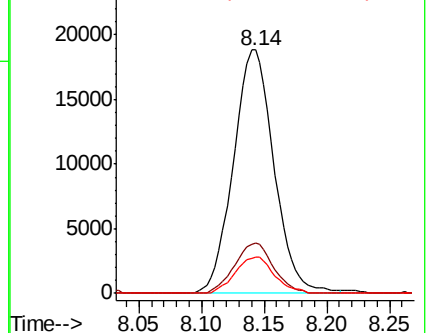
87 14.3 9.5 14.3



Abundance Ion 43.00 (42.70 to 43.70): VN059794.D (-1961) (-)

Ion 61.00 (60.70 to 61.70): VN059794.D (-1961) (-)

Ion 87.00 (86.70 to 87.70): VN059794.D (-1961) (-)



#45

1,2-Dichloropropane

Concen: 0.402 ug/l

RT: 9.26 min Scan# 2327

Delta R.T. 0.15 min

Lab File: VN059794.D

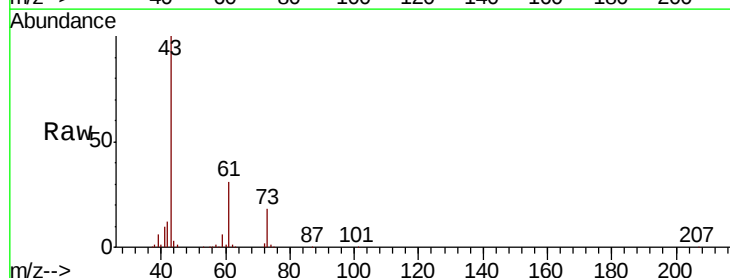
Acq: 20 Jan 2020 18:04

Tgt Ion: 63 Resp: 841

Ion Ratio Lower Upper

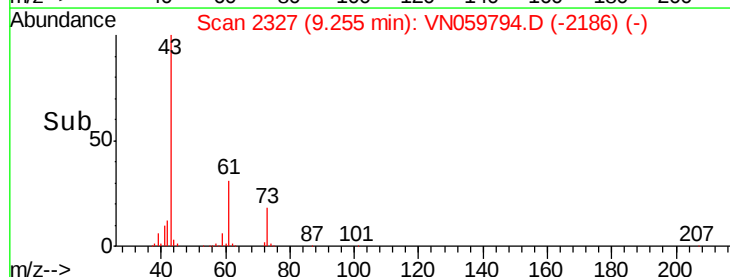
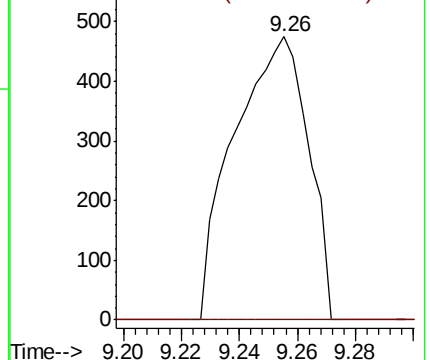
63 100

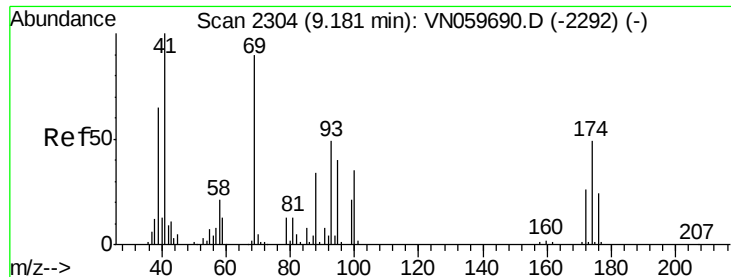
65 0.0 24.9 37.3#



Abundance Ion 62.90 (62.60 to 63.60): VN059794.D (-2186) (-)

Ion 64.90 (64.60 to 65.60): VN059794.D (-2186) (-)

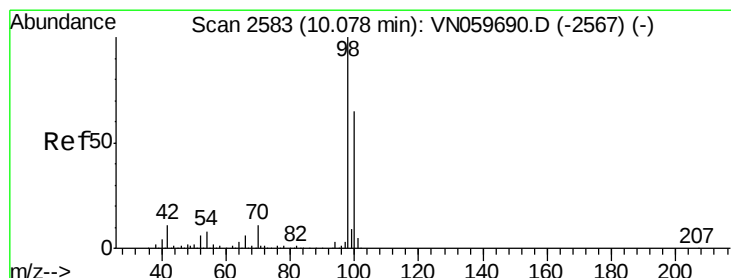
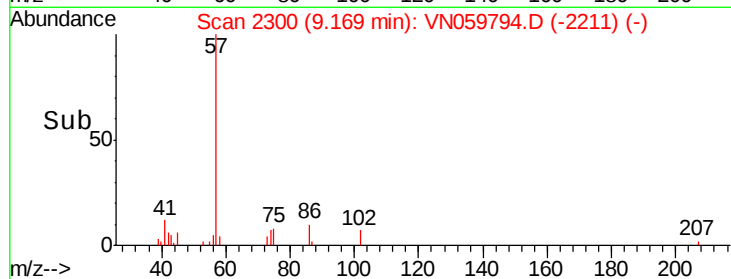
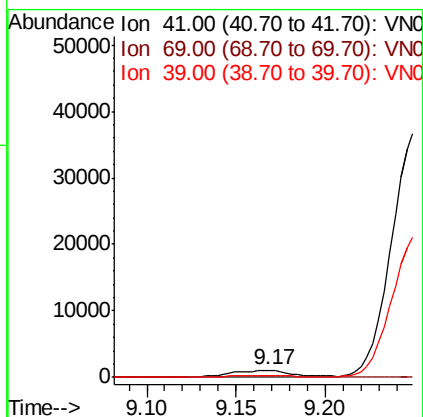
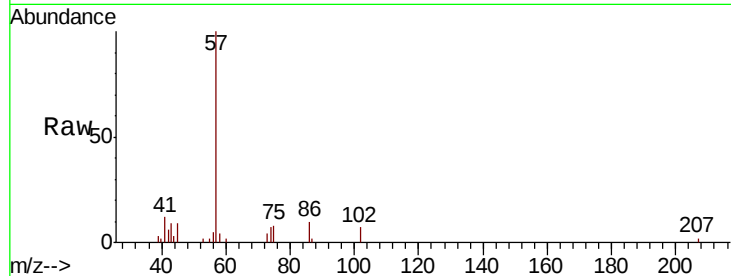




#48  
Methvl methacrylate  
Concen: 1.223 ug/l  
RT: 9.17 min Scan# 2300  
Delta R.T. -0.01 min  
Lab File: VN059794.D  
Acq: 20 Jan 2020 18:04

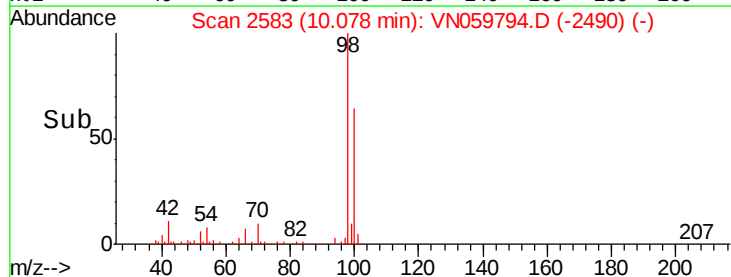
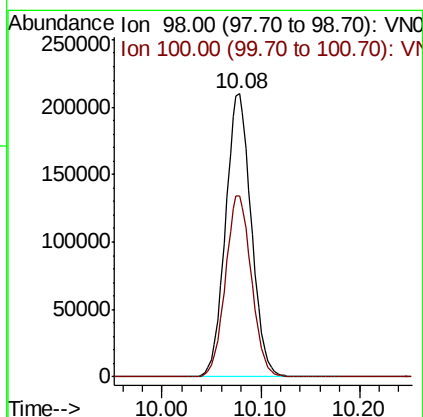
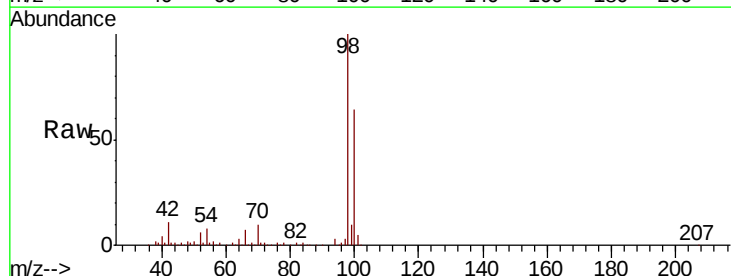
Instrument :  
MSVOA\_N  
ClientSampled :

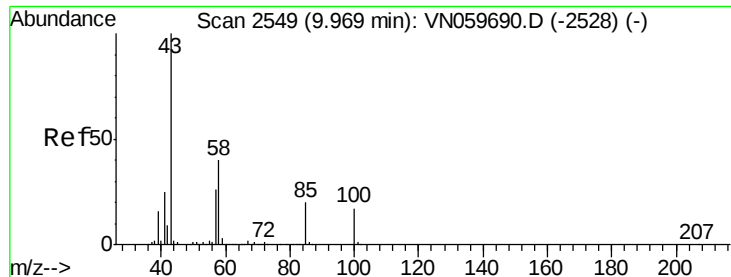
Tot Ion: 41 Resp: 2504  
Ion Ratio Lower Upper  
41 100  
69 0.0 64.4 96.6#  
39 0.0 51.3 76.9#



#50  
Toluene-d8  
Concen: 51.001 ug/l  
RT: 10.08 min Scan# 2583  
Delta R.T. 0.00 min  
Lab File: VN059794.D  
Acq: 20 Jan 2020 18:04

Tgt Ion: 98 Resp: 383987  
Ion Ratio Lower Upper  
98 100  
100 64.5 51.2 76.8





#51

4-Methyl-2-Pentanone

Concen: 1.068 ug/l

RT: 9.97 min Scan# 2550

Delta R.T. 0.00 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Instrument :

MSVOA\_N

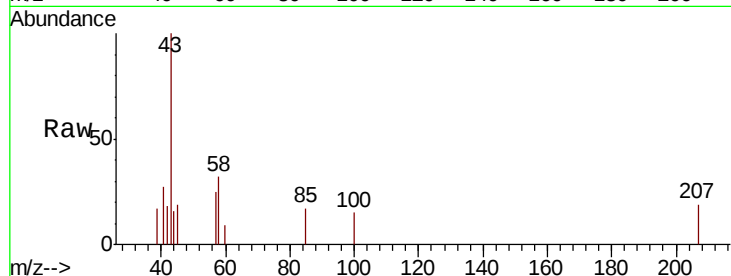
ClientSampled :

Tot Ion: 43 Resp: 2826

Ion Ratio Lower Upper

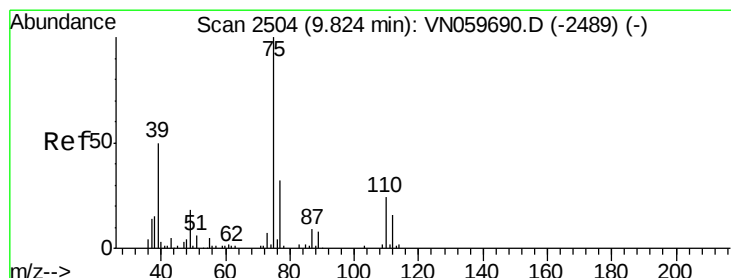
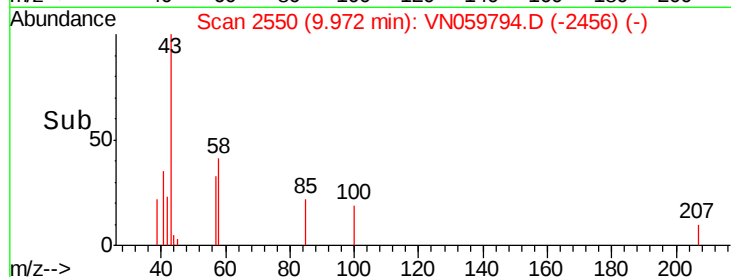
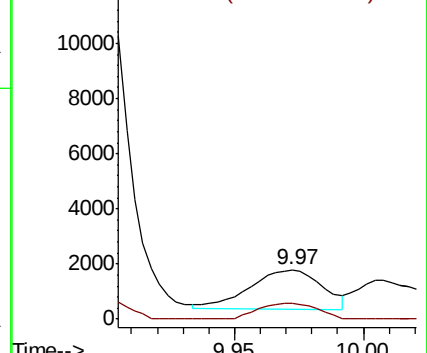
43 100

58 33.0 29.8 44.8



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: 5.934 ug/l

RT: 9.89 min Scan# 2524

Delta R.T. 0.06 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

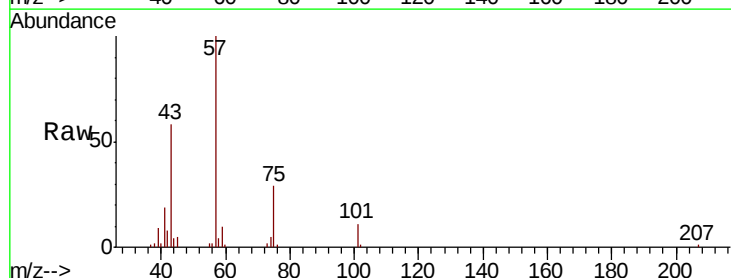
Tgt Ion: 75 Resp: 20753

Ion Ratio Lower Upper

75 100

77 0.0 25.1 37.7#

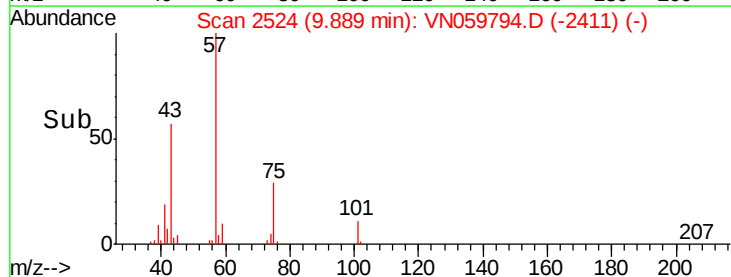
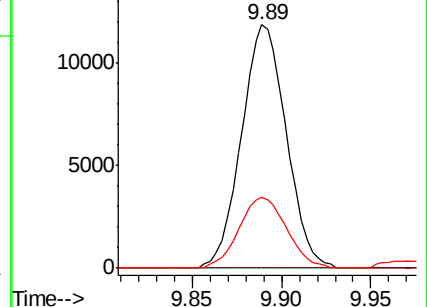
39 28.9 46.1 69.1#

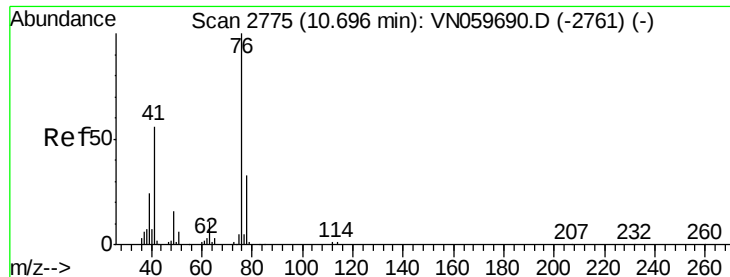


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 76.90 (76.60 to 77.60): VN0

Ion 39.00 (38.70 to 39.70): VN0

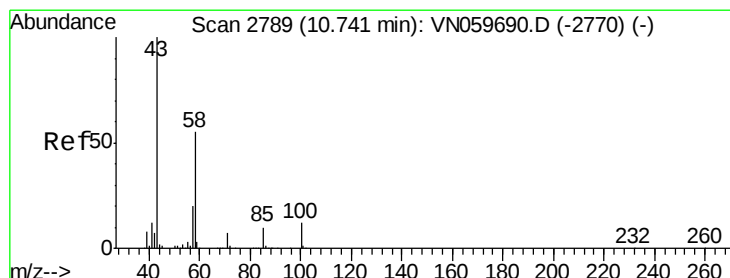
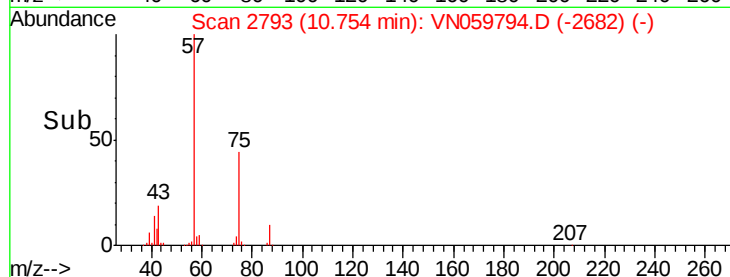
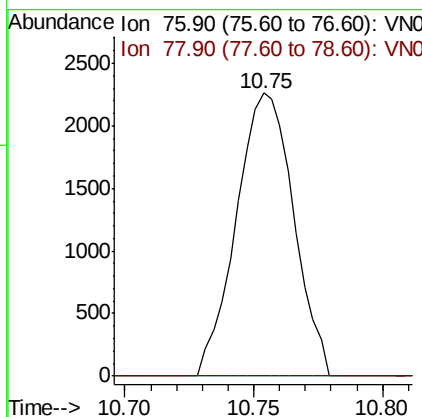
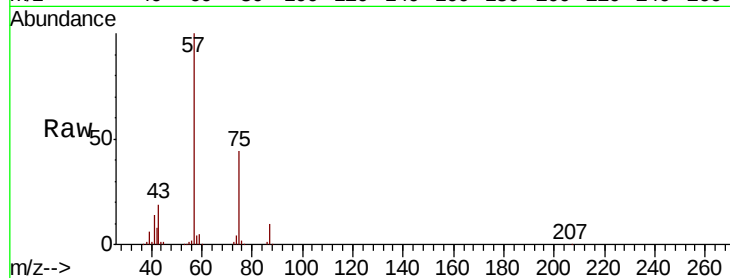




#57  
 1,3-Dichloropropane  
 Concen: 1.045 ug/l  
 RT: 10.75 min Scan# 2793  
 Delta R.T. 0.06 min  
 Lab File: VN059794.D  
 Acq: 20 Jan 2020 18:04

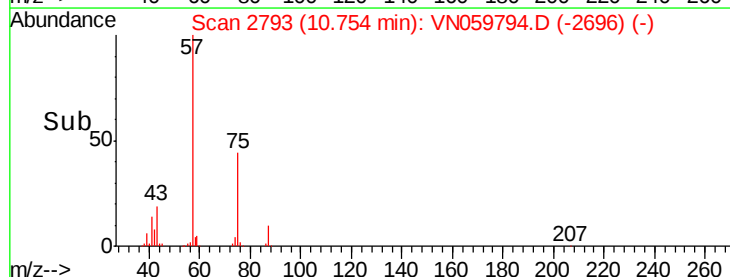
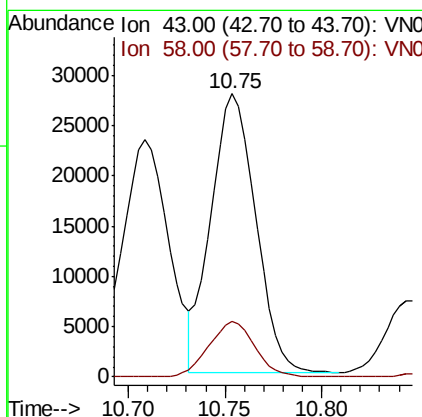
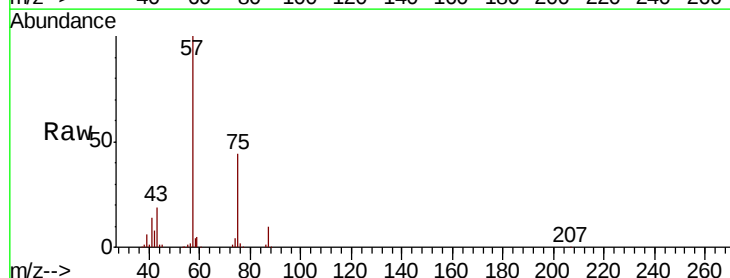
Instrument :  
 MSVOA\_N  
 ClientSampled :

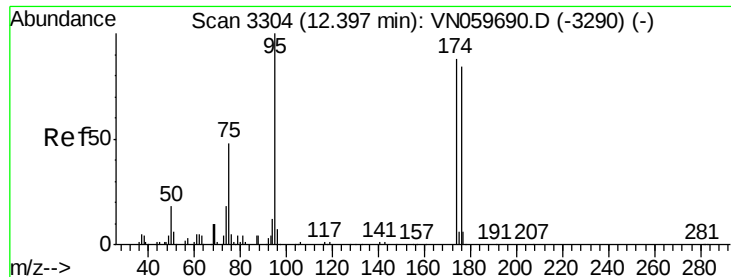
Tot Ion: 76 Resp: 3513  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 25.8 38.8#



#59  
 2-Hexanone  
 Concen: 23.008 ug/l  
 RT: 10.75 min Scan# 2793  
 Delta R.T. 0.01 min  
 Lab File: VN059794.D  
 Acq: 20 Jan 2020 18:04

Tgt Ion: 43 Resp: 44855  
 Ion Ratio Lower Upper  
 43 100  
 58 20.1 25.8 77.3#





#62

4-Bromofluorobenzene

Concen: 47.420 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. 0.00 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Instrument :

MSVOA\_N

ClientSampled :

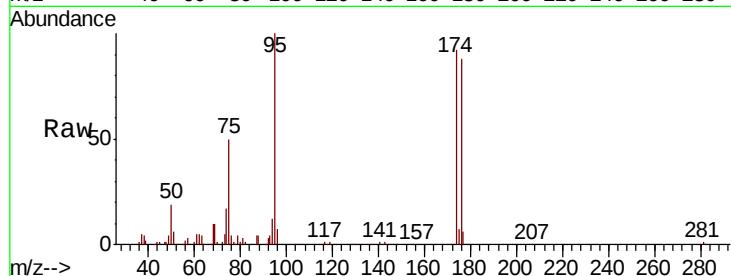
Tot Ion: 95 Resp: 128708

Ion Ratio Lower Upper

95 100

174 90.3 0.0 151.4

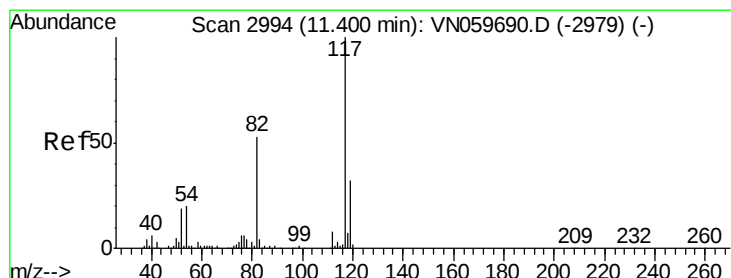
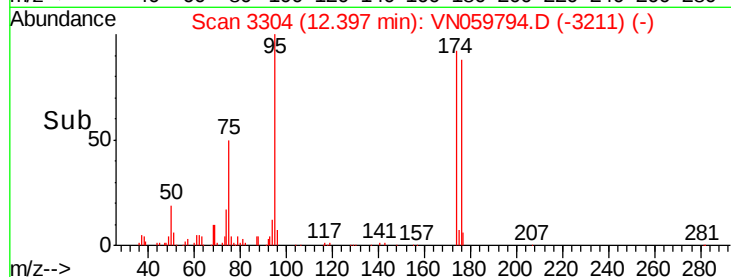
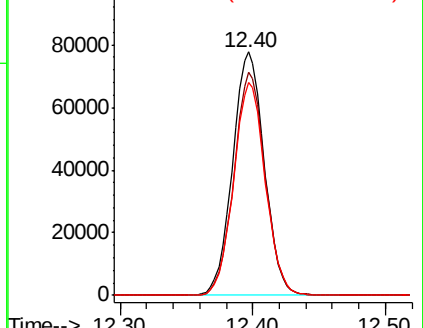
176 87.6 0.0 146.0



Abundance Ion 94.90 (94.60 to 95.60): VN059690.D (-3290) (-)

Ion 173.80 (173.50 to 174.50): VN059690.D (-3290) (-)

Ion 175.80 (175.50 to 176.50): VN059690.D (-3290) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.40 min Scan# 2994

Delta R.T. 0.00 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

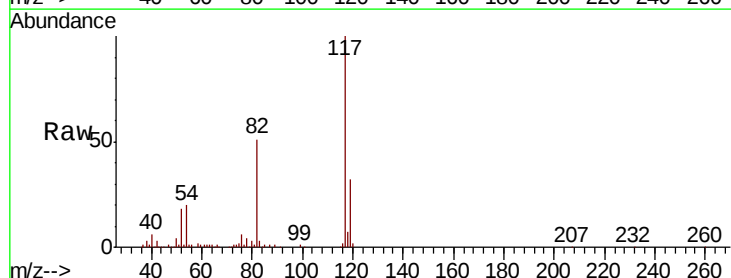
Tgt Ion: 117 Resp: 290437

Ion Ratio Lower Upper

117 100

82 51.3 45.9 68.9

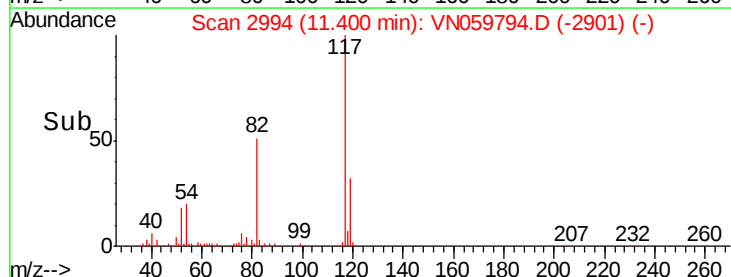
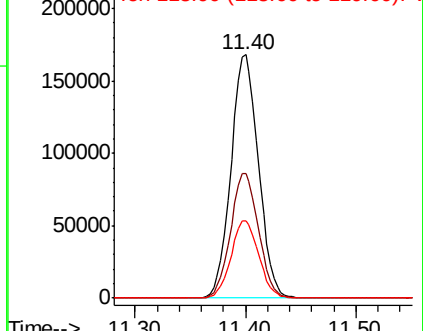
119 32.0 25.5 38.3

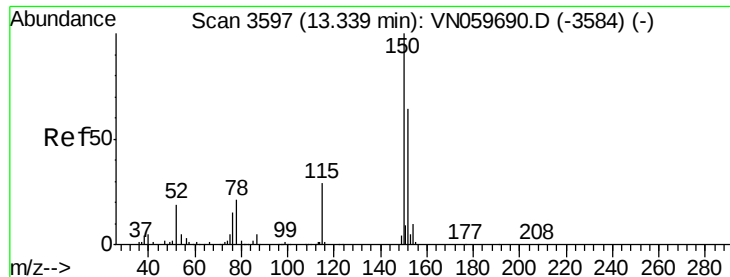


Abundance Ion 116.90 (116.60 to 117.60): VN059690.D (-2979) (-)

Ion 82.00 (81.70 to 82.70): VN059690.D (-2979) (-)

Ion 118.90 (118.60 to 119.60): VN059690.D (-2979) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3597

Delta R.T. 0.00 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Instrument :

MSVOA\_N

ClientSampled :

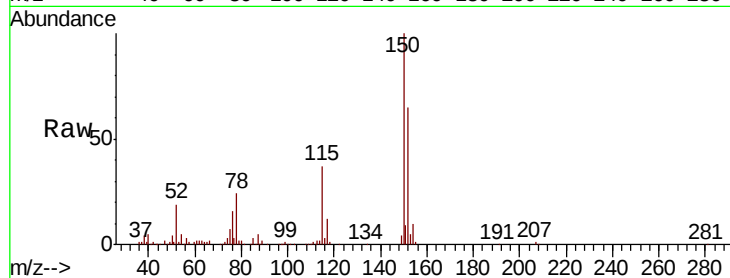
Tot Ion:152 Resp: 122994

Ion Ratio Lower Upper

152 100

115 57.6 30.3 90.9

150 156.8 0.0 345.2

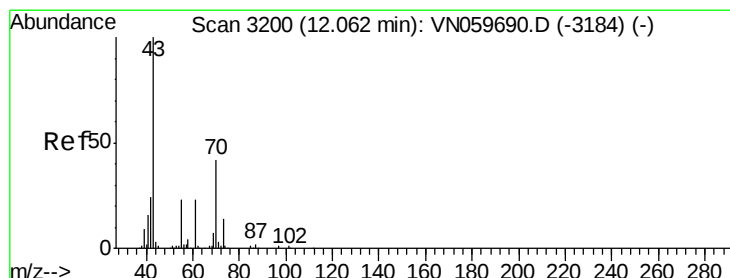
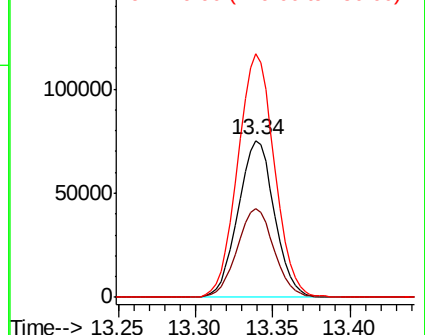
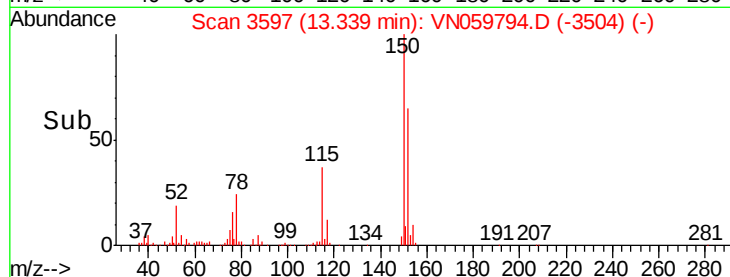


Abundance

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-amil acetate

Concen: 0.635 ug/l

RT: 12.02 min Scan# 3188

Delta R.T. -0.04 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Tgt Ion: 43 Resp: 2221

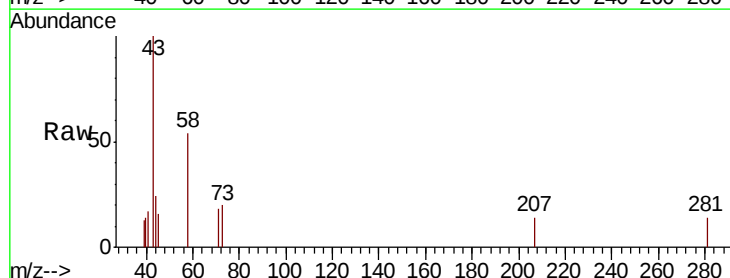
Ion Ratio Lower Upper

43 100

70 0.0 31.3 46.9#

55 0.0 19.8 29.6#

61 0.0 18.3 27.5#



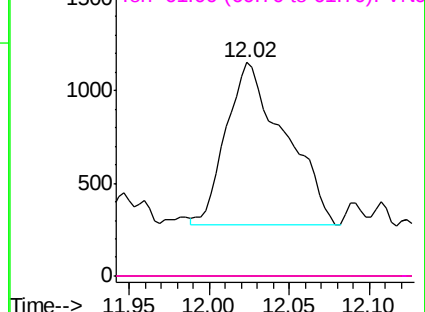
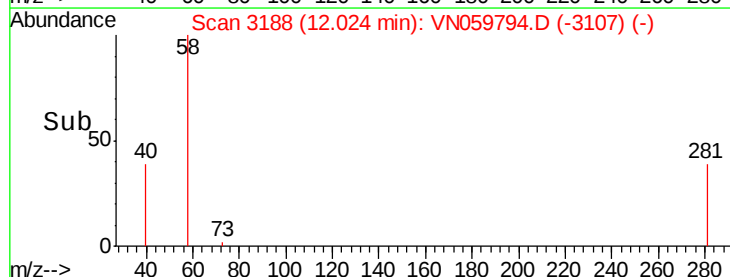
Abundance

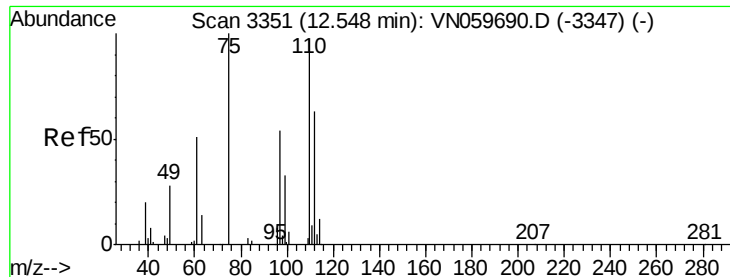
Ion 43.00 (42.70 to 43.70): VNO

Ion 70.00 (69.70 to 70.70): VNO

Ion 55.00 (54.70 to 55.70): VNO

Ion 61.00 (60.70 to 61.70): VNO





#76

1,2,3-Trichloropropane

Concen: 31.658 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.15 min

Lab File: VN059794.D

Acq: 20 Jan 2020 18:04

Instrument :

MSVOA\_N

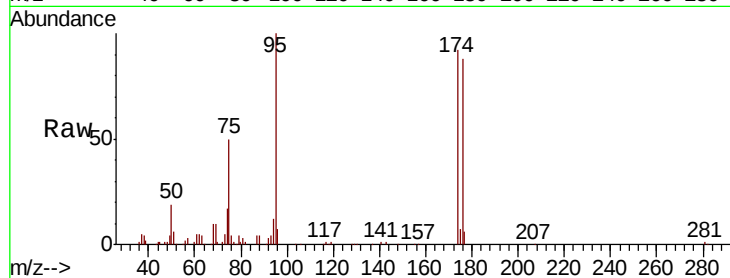
ClientSampled :

Tot Ion: 75 Resp: 65527

Ion Ratio Lower Upper

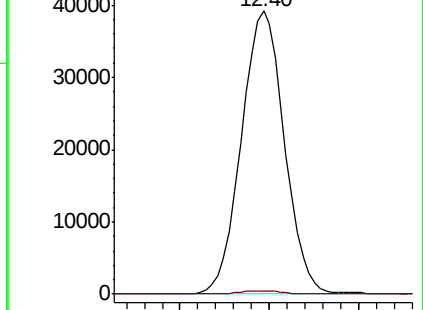
75 100

77 1.1 0.0 0.0#

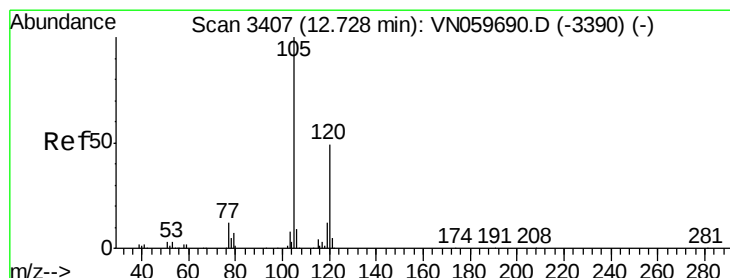
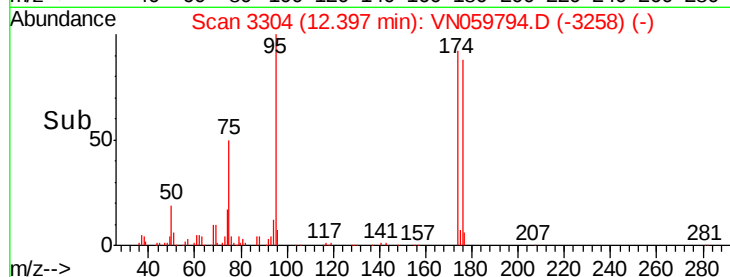


Abundance Ion 74.90 (74.60 to 75.60): VN059690.D (-3347) (-)

Ion 77.00 (76.70 to 77.70): VN059690.D (-3347) (-)



Time-->



#80

1,3,5-Trimethylbenzene

Concen: 0.252 ug/l

RT: 12.73 min Scan# 3407

Delta R.T. 0.00 min

Lab File: VN059794.D

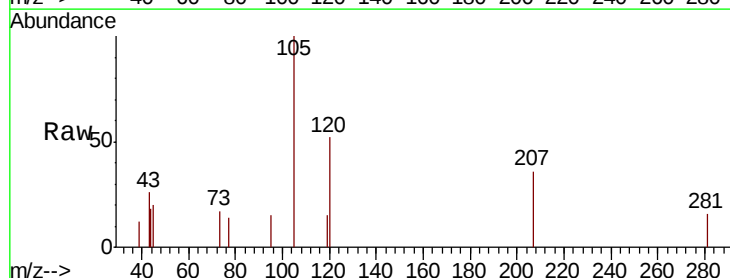
Acq: 20 Jan 2020 18:04

Tgt Ion: 105 Resp: 1910

Ion Ratio Lower Upper

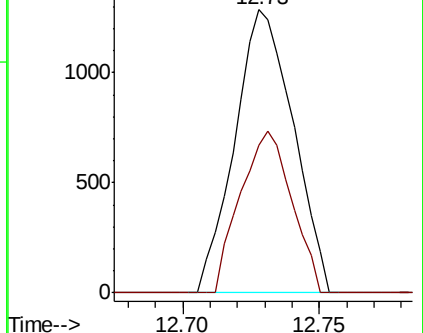
105 100

120 50.4 24.1 72.4

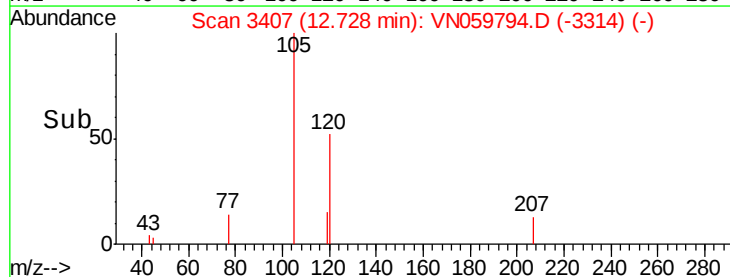


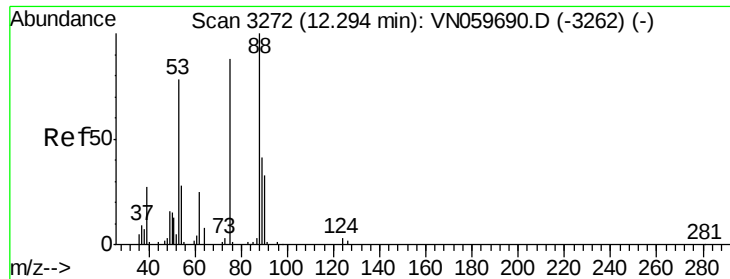
Abundance Ion 105.00 (104.70 to 105.70): VN059690.D (-3390) (-)

Ion 120.00 (119.70 to 120.70): VN059690.D (-3390) (-)



Time-->

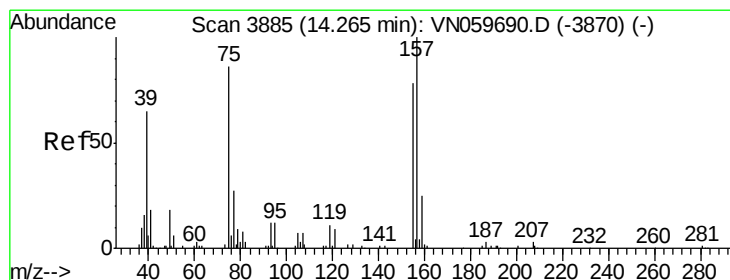
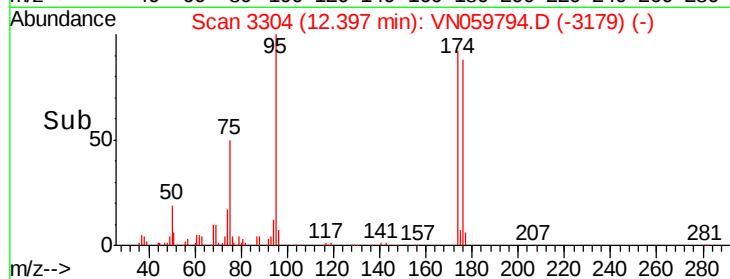
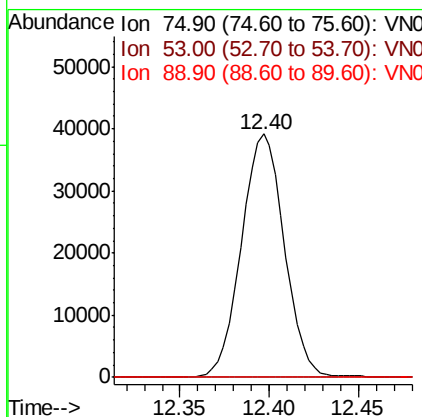
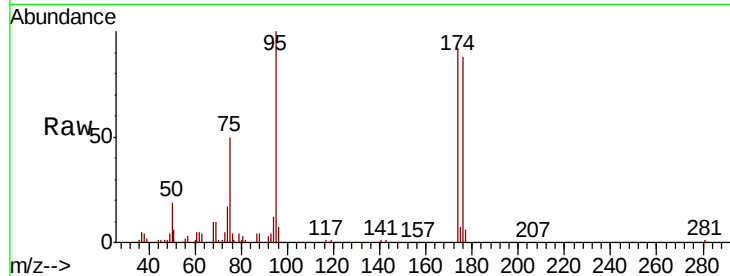




#81  
trans-1,4-Dichloro-2-butene  
Concen: 67.985 ug/l  
RT: 12.40 min Scan# 3304  
Delta R.T. 0.10 min  
Lab File: VN059794.D  
Acq: 20 Jan 2020 18:04

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 75 Resp: 65527  
Ion Ratio Lower Upper  
75 100  
53 0.0 78.1 117.1#  
89 0.0 35.4 53.2#



#92  
1,2-Dibromo-3-Chloropropane  
Concen: Below Cal  
RT: 14.35 min Scan# 3912  
Delta R.T. 0.09 min  
Lab File: VN059794.D  
Acq: 20 Jan 2020 18:04

Tgt Ion: 75 Resp: 89  
Ion Ratio Lower Upper  
75 100  
155 0.0 37.0 110.9#  
157 0.0 48.4 145.2#

