

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN082020\  
 Data File : VN063043.D  
 Acq On : 20 Aug 2020 18:01  
 Operator : JC/MD  
 Sample : L3723-01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MANHOLE

Quant Time: Aug 21 05:44:02 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N082020W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Aug 20 14:01:17 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 30244    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 144566   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 134652   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 66720    | 31.14    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 103.80% |
| 60) 4-Bromofluorobenzene  | 12.38  | 95    | 50759    | 23.86    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 79.53%  |
| 63) Toluene-d8            | 10.06  | 98    | 179005   | 28.97    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 96.57%  |

## Target Compounds

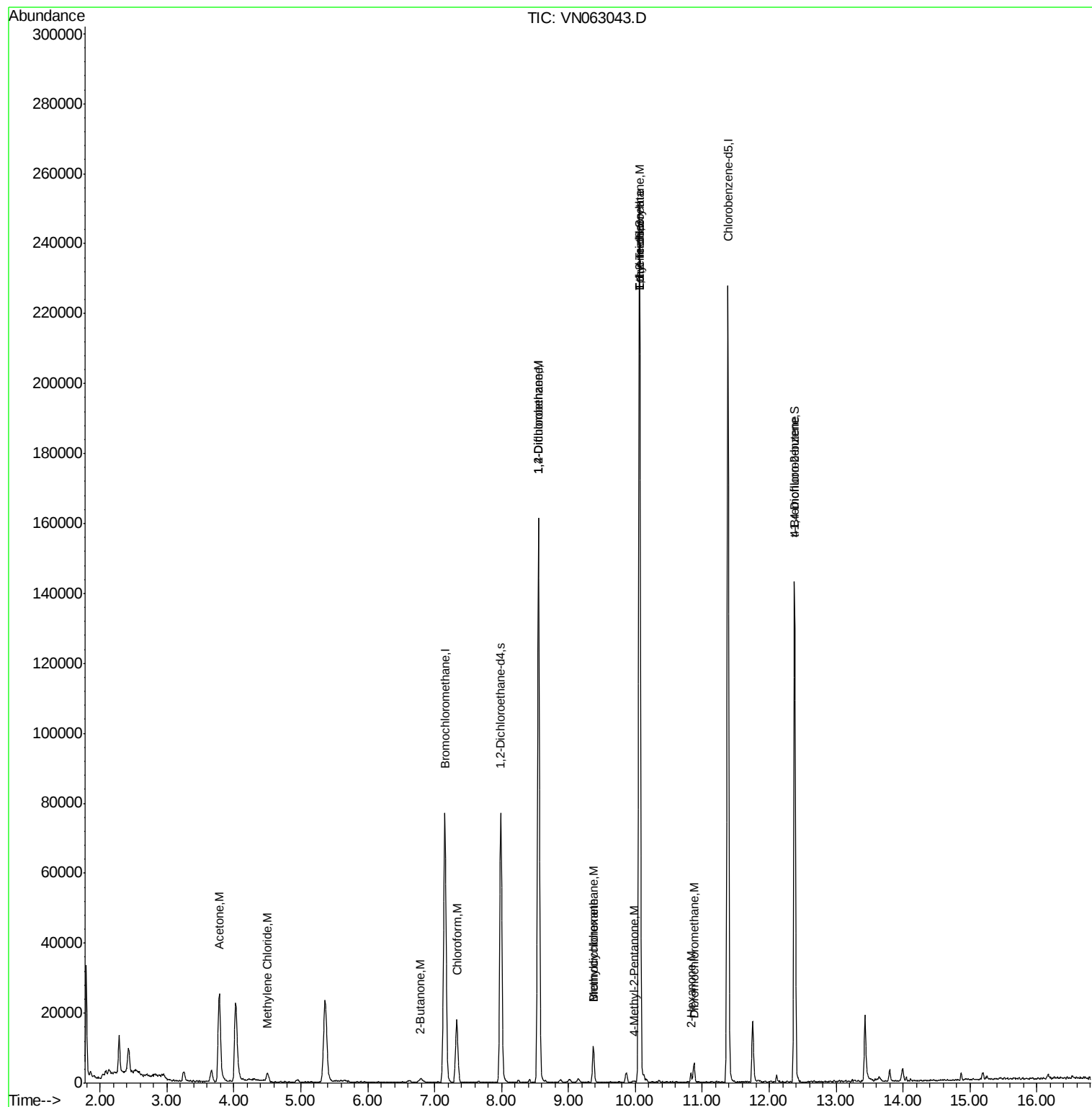
|                             |       |     |       |               | Ovalue |
|-----------------------------|-------|-----|-------|---------------|--------|
| 15) Acetone                 | 3.78  | 58  | 13989 | 58.678 ug/l   | 98     |
| 18) Methylene Chloride      | 4.50  | 84  | 963   | 0.488 ug/l #  | 70     |
| 25) Chloroform              | 7.33  | 83  | 19592 | 5.910 ug/l    | 97     |
| 30) 2-Butanone              | 6.80  | 43  | 1552  | 1.586 ug/l #  | 55     |
| 36) 1,2-Dichloroethane      | 8.55  | 62  | 4567  | 1.990 ug/l #  | 74     |
| 38) Methylcyclohexane       | 9.37  | 83  | 7954  | 3.021 ug/l #  | 16     |
| 41) Bromodichloromethane    | 9.37  | 83  | 7954  | 3.157 ug/l    | 94     |
| 50) 1,1,2-Trichloroethane   | 10.07 | 97  | 7317  | 4.174 ug/l #  | 1      |
| 51) Ethyl methacrylate      | 10.07 | 69  | 613   | 0.257 ug/l #  | 72     |
| 53) Dibromochloromethane    | 10.88 | 129 | 3578  | 1.860 ug/l    | 97     |
| 58) 4-Methyl-2-Pentanone    | 9.98  | 43  | 516   | 0.266 ug/l #  | 43     |
| 59) 2-Hexanone              | 10.83 | 43  | 655   | 0.474 ug/l #  | 18     |
| 77) t-1,4-Dichloro-2-butene | 12.38 | 75  | 24917 | 32.535 ug/l # | 12     |

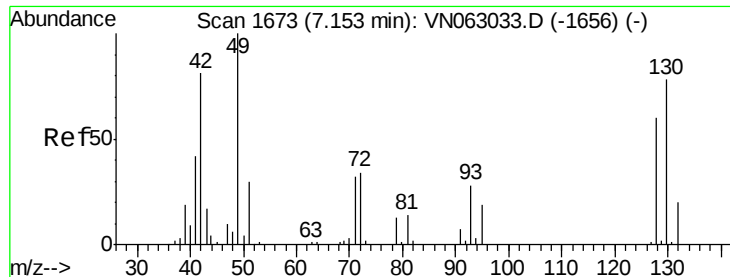
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Sample : L3723-01  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 20 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampled :  
MANHOLE

Quant Time: Aug 21 05:44:02 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA N\METHODS\624N082020W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Thu Aug 20 14:01:17 2020  
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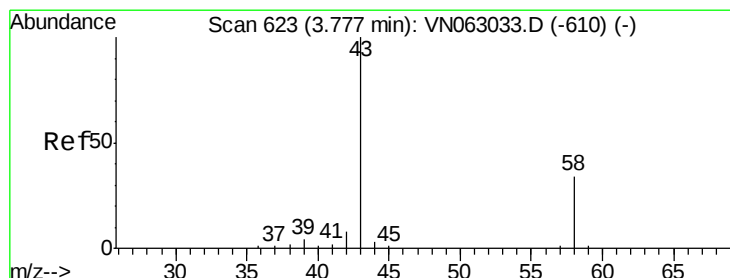
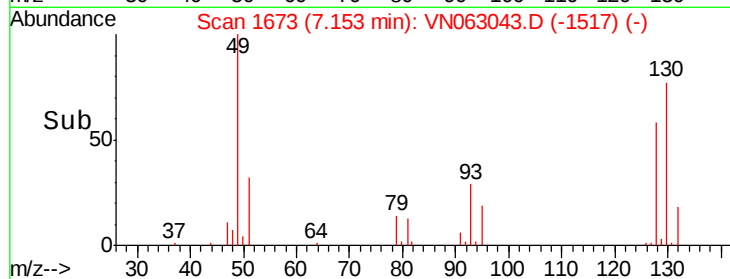
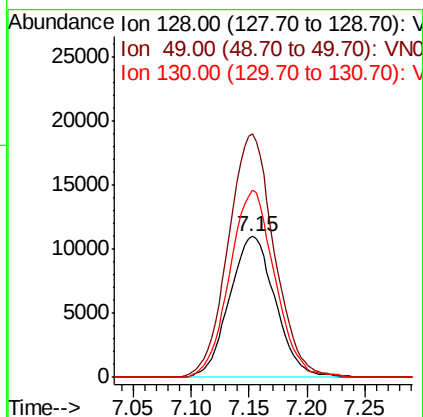
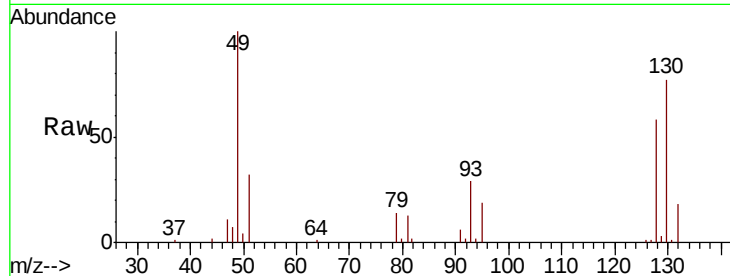




#1  
 Bromochloromethane  
 Concen: 30.000 ug/l  
 RT: 7.15 min Scan# 1673  
 Delta R.T. 0.00 min  
 Lab File: VN063043.D  
 Acq: 20 Aug 2020 18:01

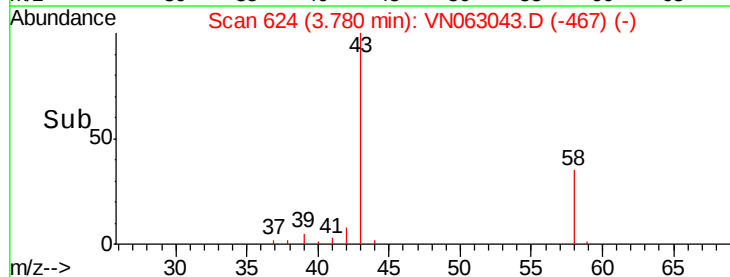
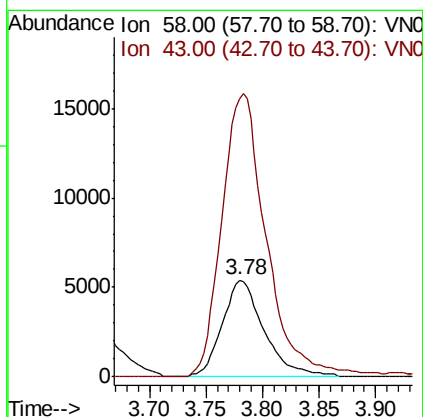
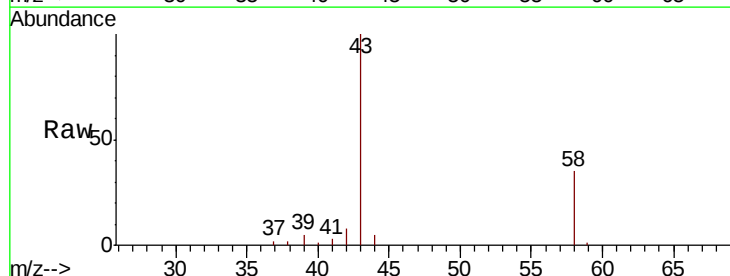
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MANHOLE

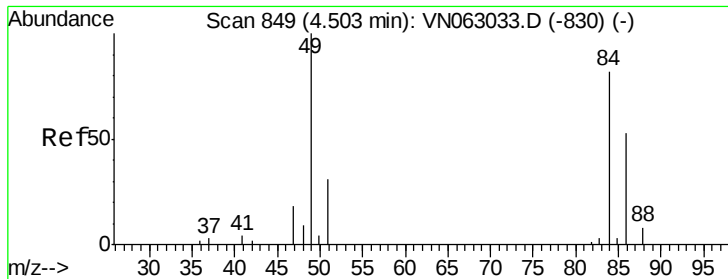
Tot Ion:128 Resp: 30244  
 Ion Ratio Lower Upper  
 128 100  
 49 173.2 0.0 437.5  
 130 130.5 0.0 327.3



#15  
 Acetone  
 Concen: 58.678 ug/l  
 RT: 3.78 min Scan# 624  
 Delta R.T. 0.00 min  
 Lab File: VN063043.D  
 Acq: 20 Aug 2020 18:01

Tgt Ion: 58 Resp: 13989  
 Ion Ratio Lower Upper  
 58 100  
 43 288.5 233.2 349.8

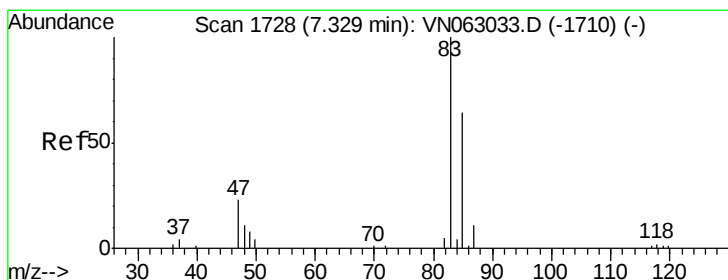
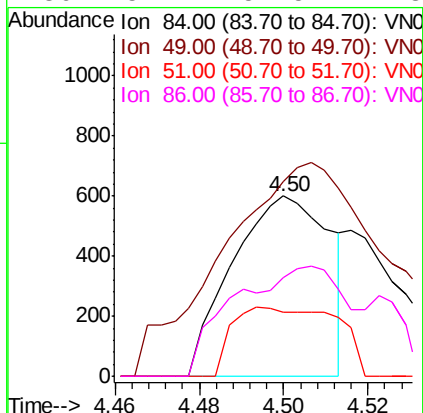
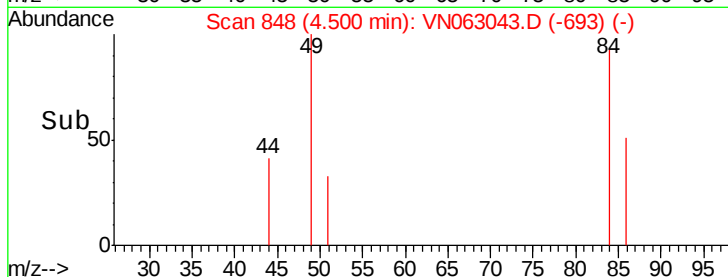
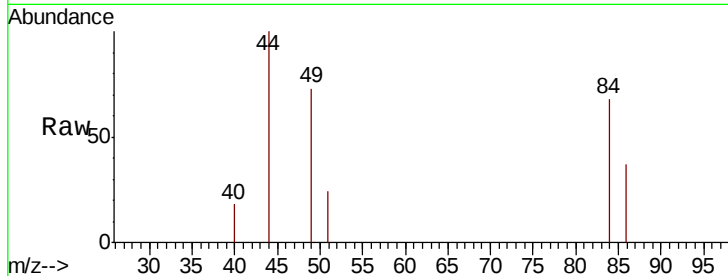




#18  
Methvlene Chloride  
Concen: 0.488 ug/l  
RT: 4.50 min Scan# 848  
Delta R.T. -0.00 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

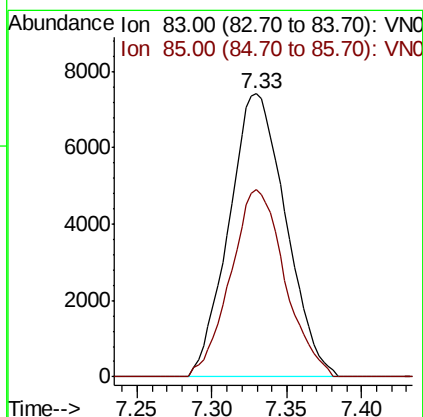
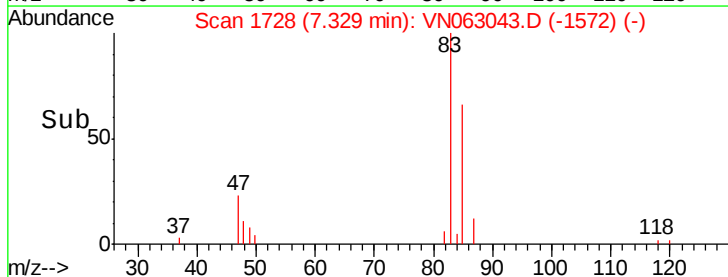
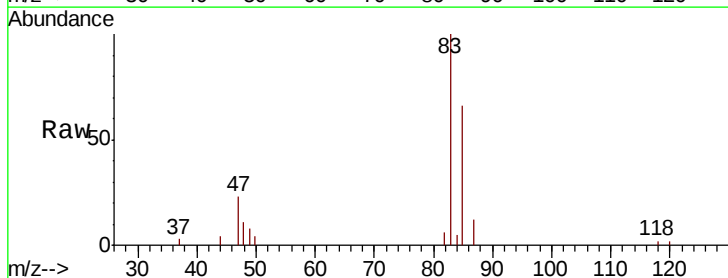
Instrument :  
MSVOA\_N  
ClientSampleId :  
MANHOLE

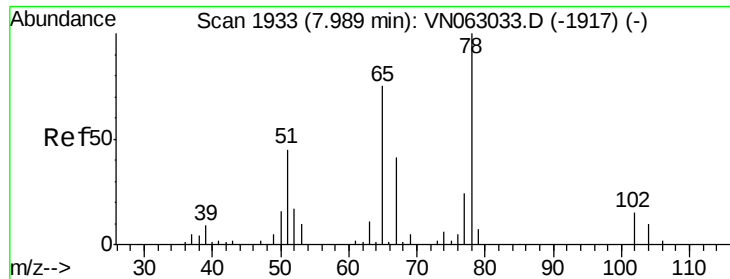
Tot Ion: 84 Resp: 963  
Ion Ratio Lower Upper  
84 100  
49 70.0 97.8 146.8#  
51 35.8 30.7 46.1  
86 54.7 51.5 77.3



#25  
Chloroform  
Concen: 5.910 ug/l  
RT: 7.33 min Scan# 1728  
Delta R.T. -0.00 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

Tgt Ion: 83 Resp: 19592  
Ion Ratio Lower Upper  
83 100  
85 66.0 51.0 76.4





#27

1,2-Dichloroethane-d4

Concen: 31.136 ug/l

RT: 7.99 min Scan# 1933

Delta R.T. -0.00 min

Lab File: VN063043.D

Acq: 20 Aug 2020 18:01

Instrument :

MSVOA\_N

ClientSampleId :

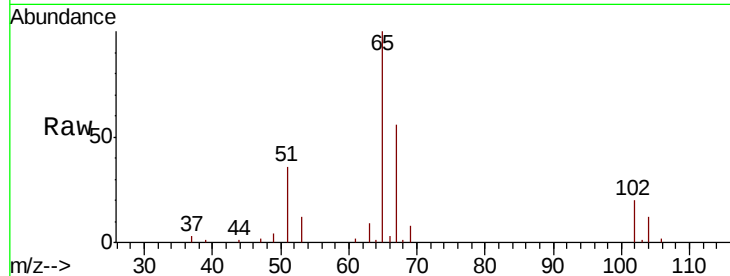
MANHOLE

Tot Ion: 65 Resp: 66720

Ion Ratio Lower Upper

65 100

67 54.4 43.8 65.6



Abundance Ion 65.00 (64.70 to 65.70): VN063033.D (-1917) (-)

Ion 67.00 (66.70 to 67.70): VN063033.D (-1917) (-)

7.99

30000

25000

20000

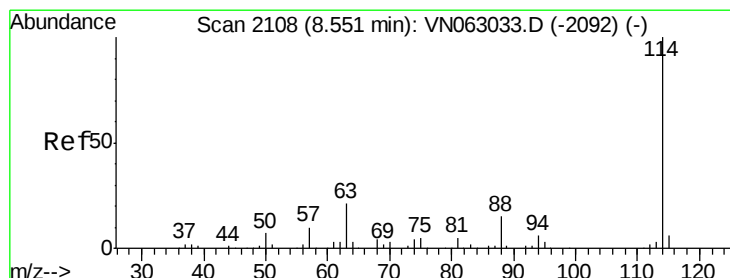
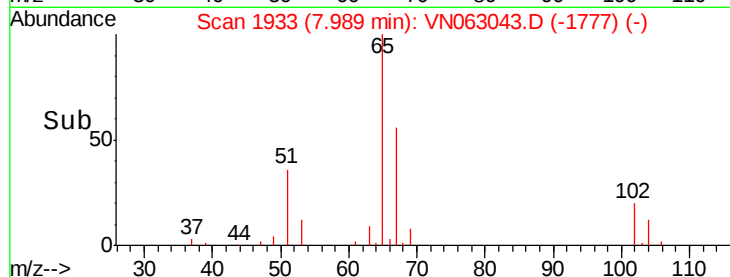
15000

10000

5000

0

Time-->



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 8.55 min Scan# 2108

Delta R.T. -0.00 min

Lab File: VN063043.D

Acq: 20 Aug 2020 18:01

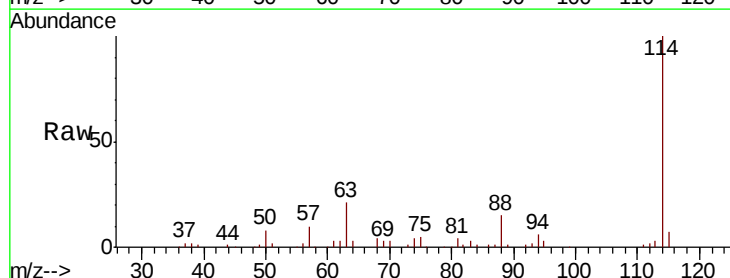
Tgt Ion: 114 Resp: 144566

Ion Ratio Lower Upper

114 100

63 21.0 17.0 25.6

88 15.3 12.6 18.8



Abundance Ion 114.00 (113.70 to 114.70): VN063033.D (-2092) (-)

Ion 63.00 (62.70 to 63.70): VN063033.D (-2092) (-)

Ion 88.00 (87.70 to 88.70): VN063033.D (-2092) (-)

8.55

80000

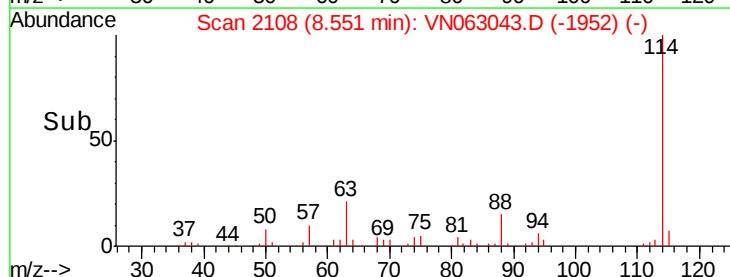
60000

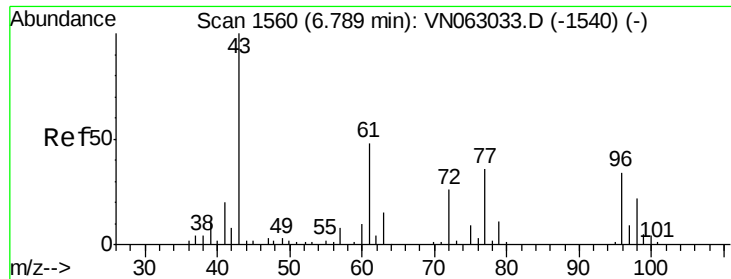
40000

20000

0

Time-->

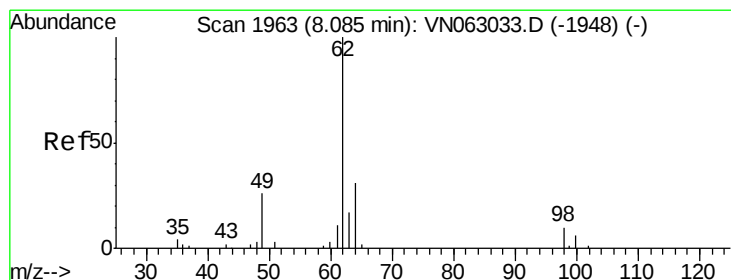
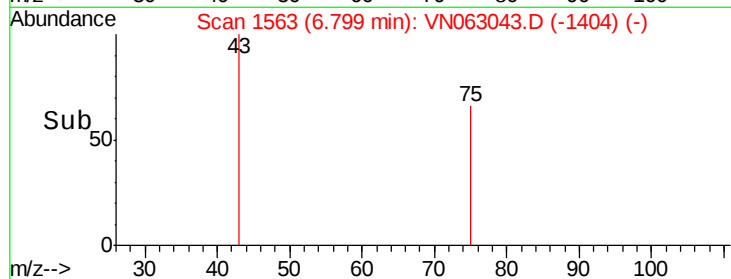
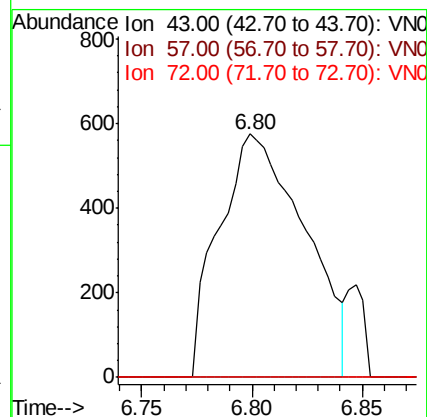
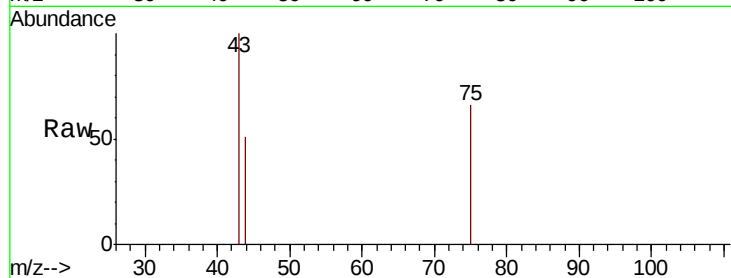




#30  
2-Butanone  
Concen: 1.586 ug/l  
RT: 6.80 min Scan# 1563  
Delta R.T. 0.01 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

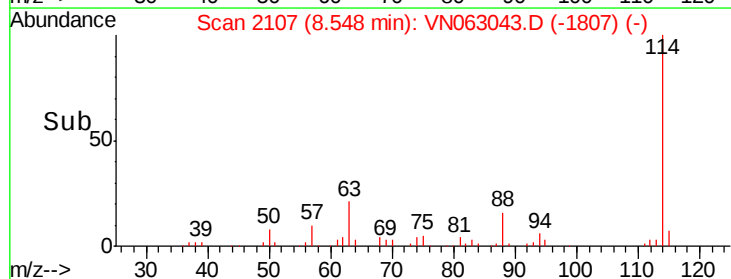
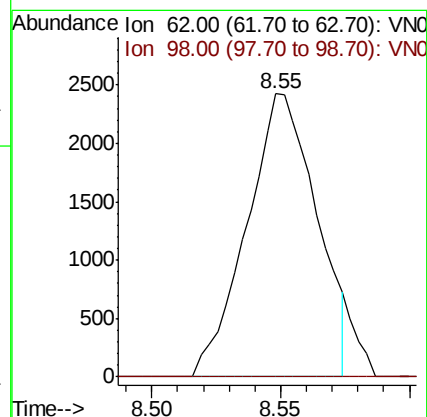
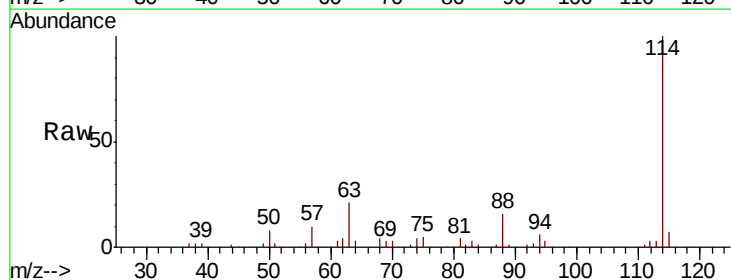
Instrument :  
MSVOA\_N  
ClientSampleId :  
MANHOLE

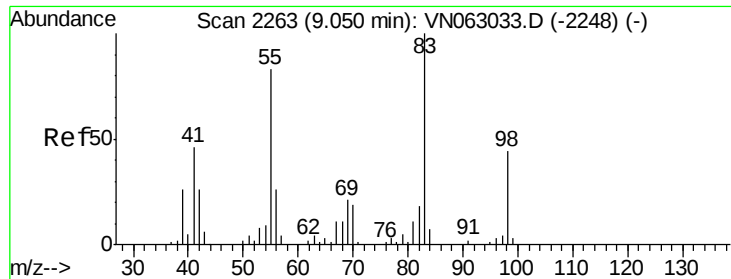
Tot Ion: 43 Resp: 1552  
Ion Ratio Lower Upper  
43 100  
57 0.0 6.6 9.8#  
72 0.0 21.3 31.9#



#36  
1,2-Dichloroethane  
Concen: 1.990 ug/l  
RT: 8.55 min Scan# 2107  
Delta R.T. 0.46 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

Tgt Ion: 62 Resp: 4567  
Ion Ratio Lower Upper  
62 100  
98 0.0 7.6 11.4#

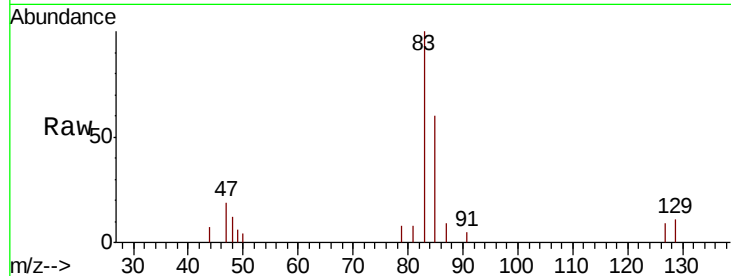




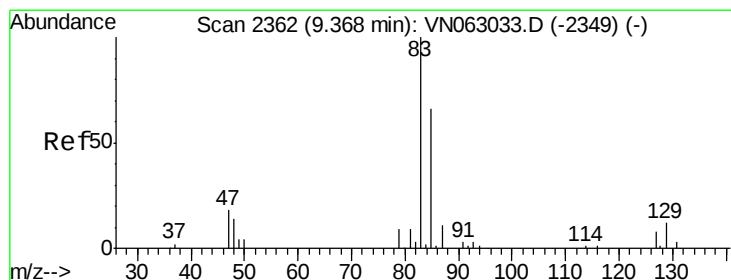
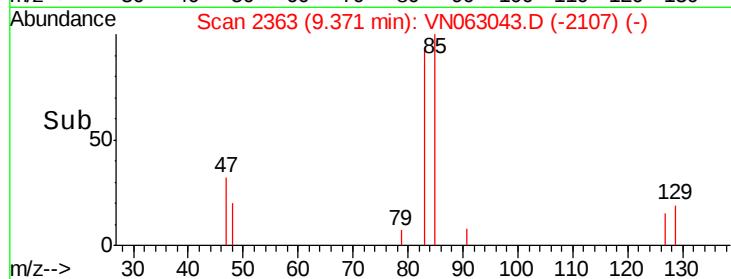
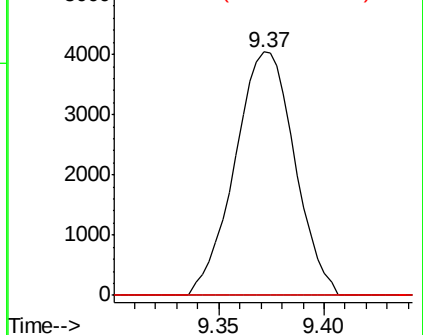
#38  
Methvlcvclohexane  
Concen: 3.021 ug/l  
RT: 9.37 min Scan# 2363  
Delta R.T. 0.32 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

Instrument :  
MSVOA\_N  
ClientSampleId :  
MANHOLE

Tot Ion: 83 Resp: 7954  
Ion Ratio Lower Upper  
83 100  
55 0.0 41.9 125.7#  
98 0.0 22.2 66.6#

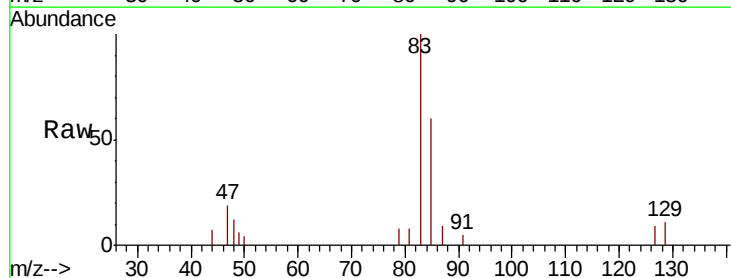


Abundance Ion 83.00 (82.70 to 83.70): VN0  
Ion 55.00 (54.70 to 55.70): VN0  
Ion 98.00 (97.70 to 98.70): VN0

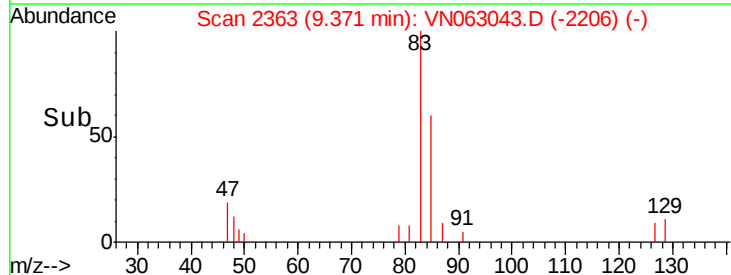
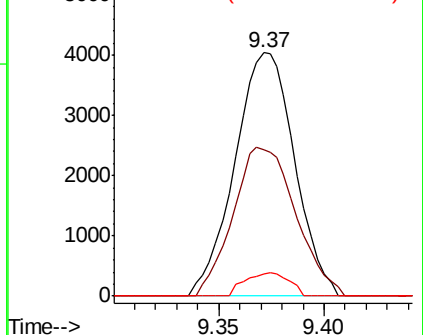


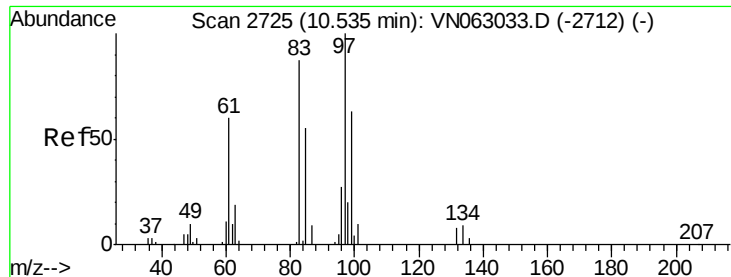
#41  
Bromodichloromethane  
Concen: 3.157 ug/l  
RT: 9.37 min Scan# 2363  
Delta R.T. 0.00 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

Tgt Ion: 83 Resp: 7954  
Ion Ratio Lower Upper  
83 100  
85 60.2 52.6 79.0  
127 9.3 7.4 11.0



Abundance Ion 83.00 (82.70 to 83.70): VN0  
Ion 85.00 (84.70 to 85.70): VN0  
Ion 127.00 (126.70 to 127.70): V

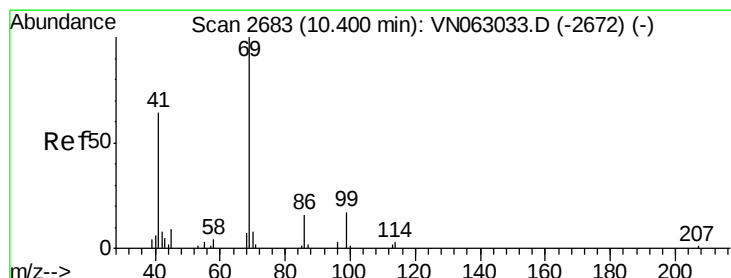
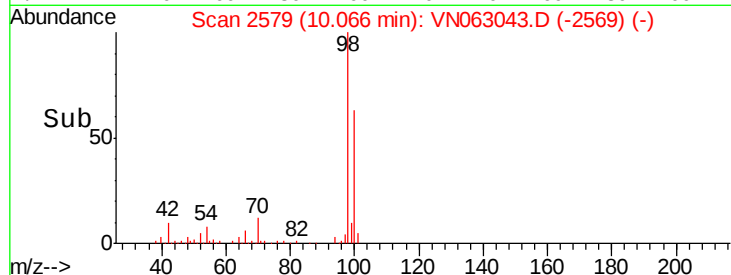
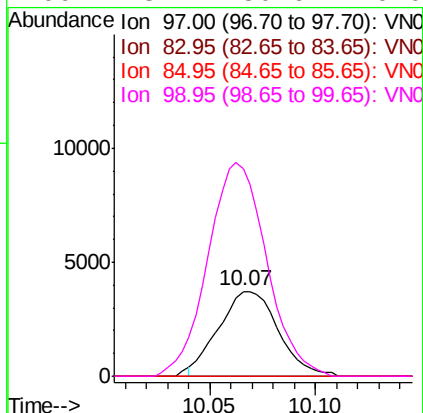
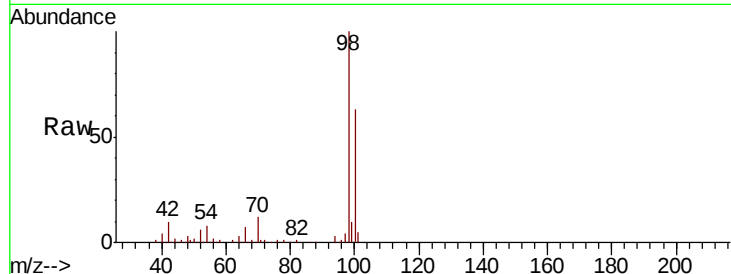




#50  
 1,1,2-Trichloroethane  
 Concen: 4.174 ug/l  
 RT: 10.07 min Scan# 2579  
 Delta R.T. -0.47 min  
 Lab File: VN063043.D  
 Acq: 20 Aug 2020 18:01

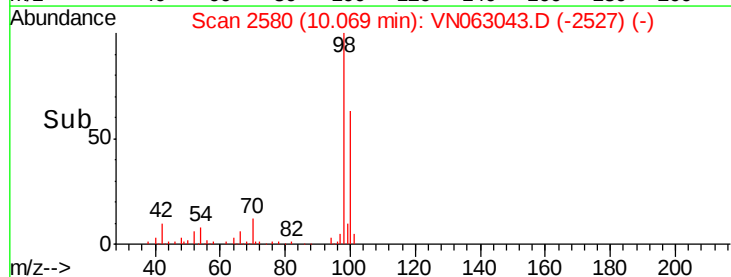
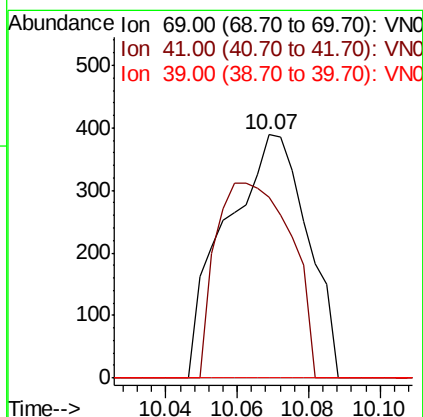
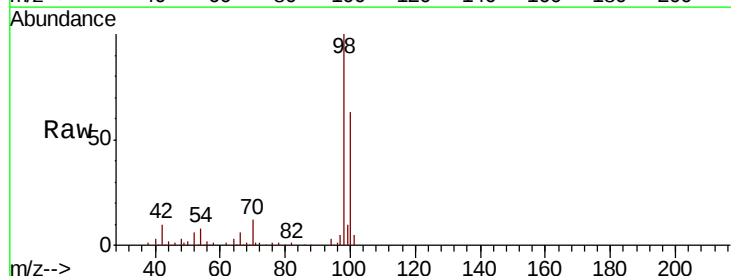
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MANHOLE

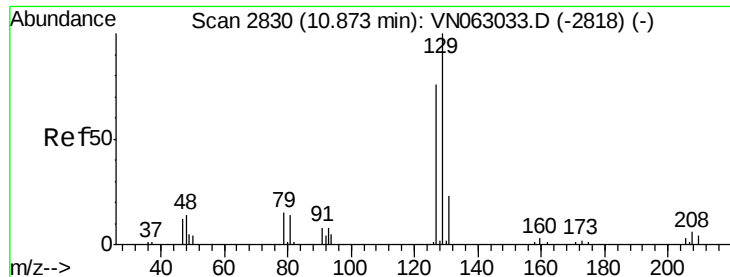
| Tot Ion | Ion   | Ratio | Lower  | Upper |
|---------|-------|-------|--------|-------|
| 97      | 100   |       |        |       |
| 83      | 0.0   | 69.9  | 104.9# |       |
| 85      | 0.0   | 44.0  | 66.0#  |       |
| 99      | 243.2 | 50.6  | 76.0#  |       |



#51  
 Ethyl methacrylate  
 Concen: 0.257 ug/l  
 RT: 10.07 min Scan# 2580  
 Delta R.T. -0.33 min  
 Lab File: VN063043.D  
 Acq: 20 Aug 2020 18:01

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 69      | 100  |       |       |       |
| 41      | 74.3 | 32.1  | 96.5  |       |
| 39      | 0.0  | 16.1  | 48.3# |       |





#53

Dibromochloromethane

Concen: 1.860 ug/l

RT: 10.88 min Scan# 2832

Delta R.T. 0.01 min

Lab File: VN063043.D

Acq: 20 Aug 2020 18:01

Instrument :

MSVOA\_N

ClientSampleId :

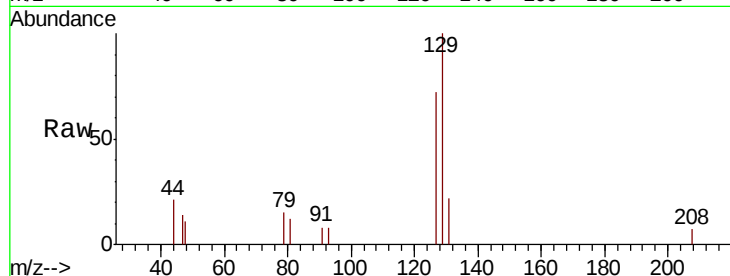
MANHOLE

Tot Ion:129 Resp: 3578

Ion Ratio Lower Upper

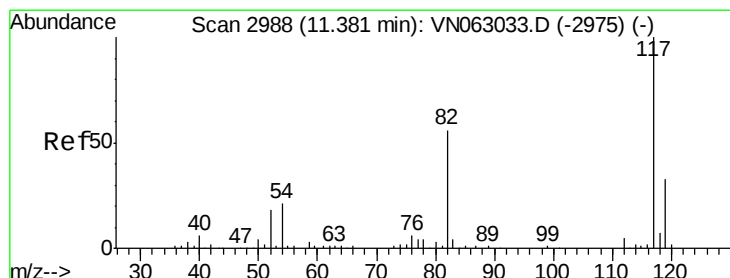
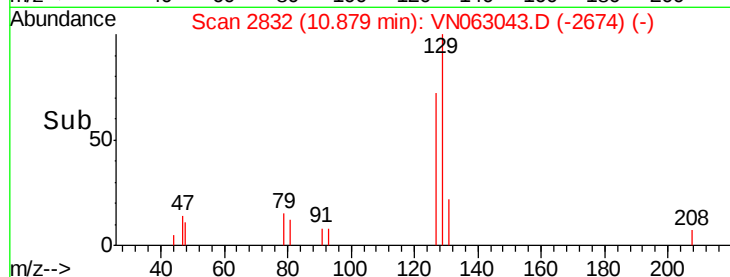
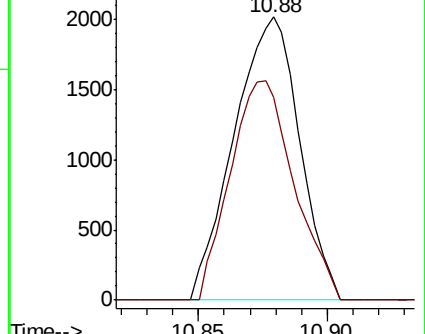
129 100

127 75.1 38.7 116.1



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.38 min Scan# 2988

Delta R.T. -0.00 min

Lab File: VN063043.D

Acq: 20 Aug 2020 18:01

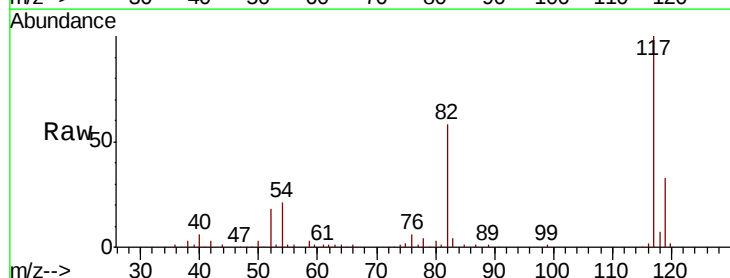
Tgt Ion:117 Resp: 134652

Ion Ratio Lower Upper

117 100

82 56.9 44.9 67.3

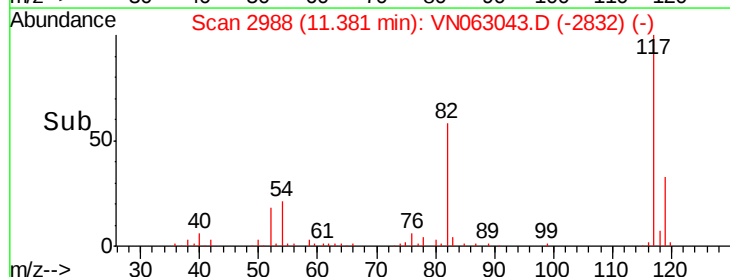
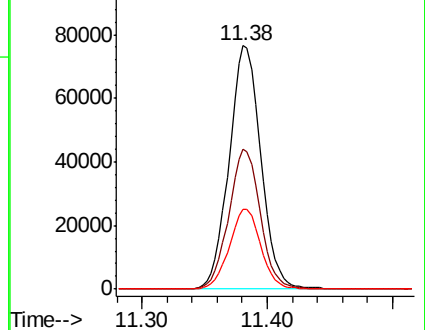
119 32.4 26.0 39.0

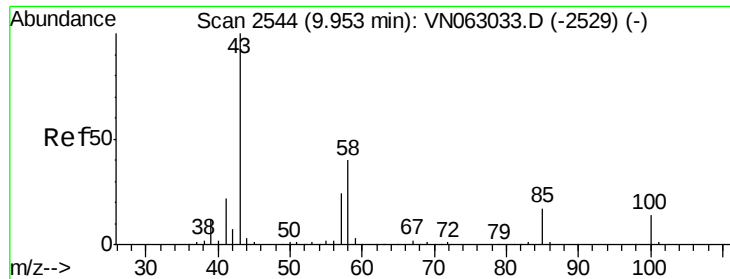


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): V

Ion 119.00 (118.70 to 119.70): V

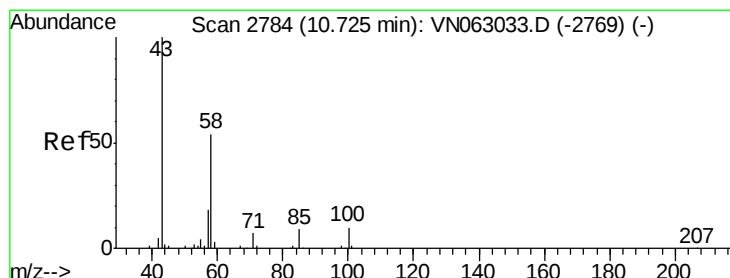
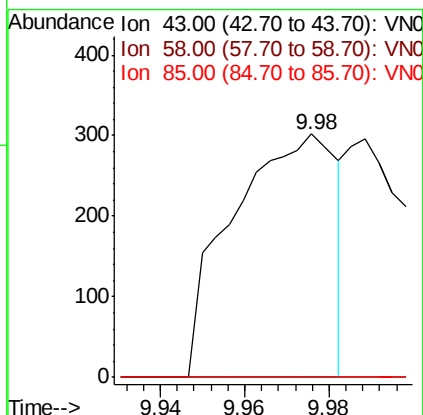
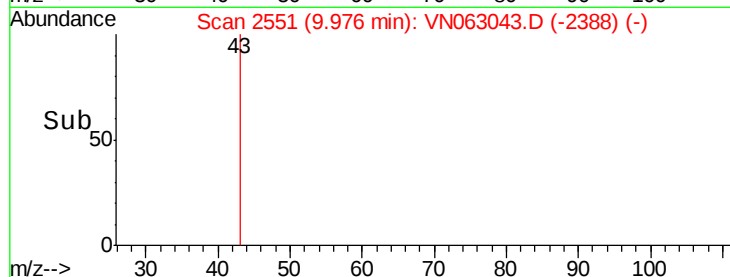
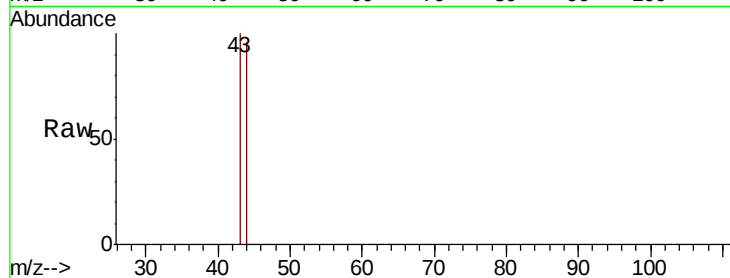




#58  
4-Methyl-2-Pentanone  
Concen: 0.266 ug/l  
RT: 9.98 min Scan# 2551  
Delta R.T. 0.02 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

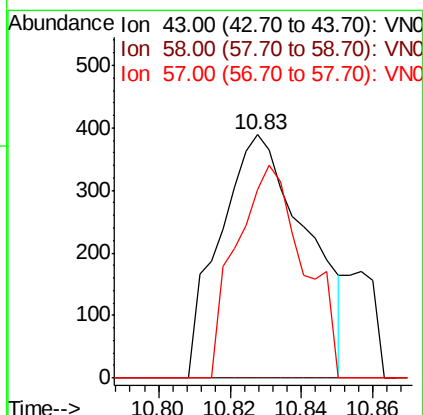
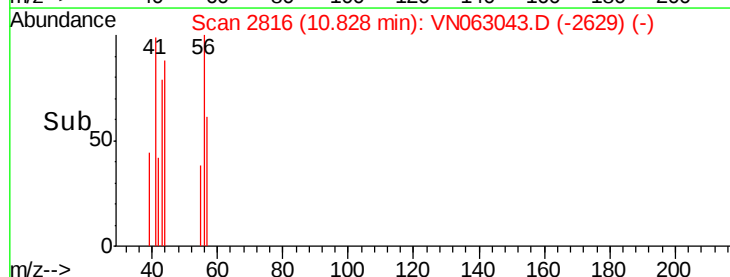
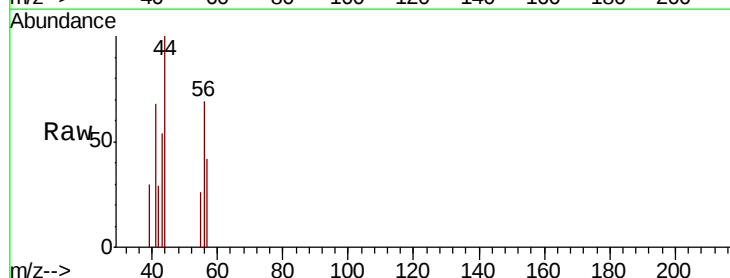
Instrument :  
MSVOA\_N  
ClientSampleId :  
MANHOLE

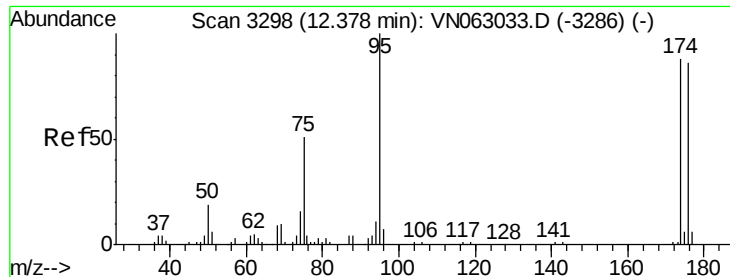
Tot Ion: 43 Resp: 516  
Ion Ratio Lower Upper  
43 100  
58 0.0 31.4 47.0#  
85 0.0 13.4 20.2#



#59  
2-Hexanone  
Concen: 0.474 ug/l  
RT: 10.83 min Scan# 2816  
Delta R.T. 0.10 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

Tgt Ion: 43 Resp: 655  
Ion Ratio Lower Upper  
43 100  
58 0.0 42.6 64.0#  
57 63.1 14.6 21.8#

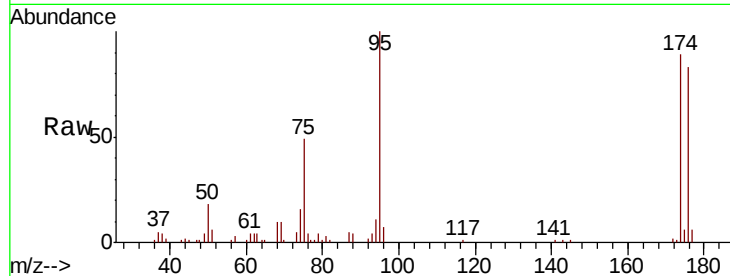




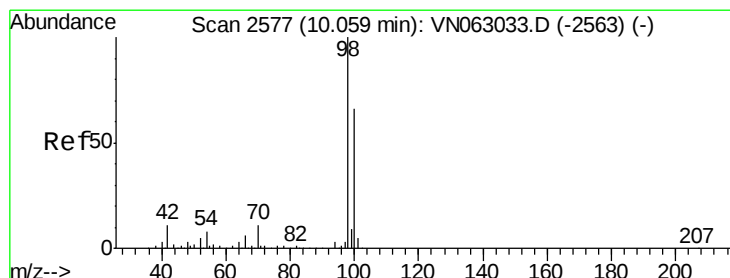
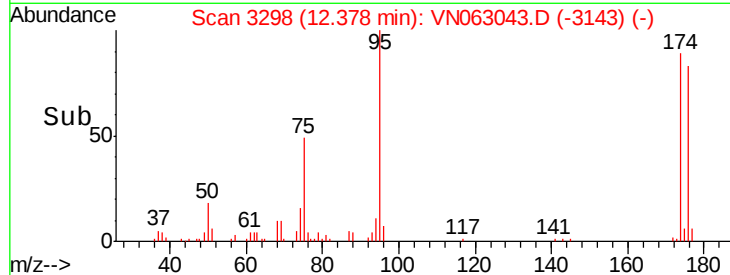
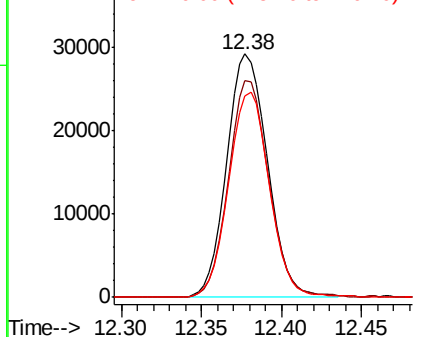
#60  
4-Bromofluorobenzene  
Concen: 23.856 ug/l  
RT: 12.38 min Scan# 3298  
Delta R.T. -0.00 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

Instrument :  
MSVOA\_N  
ClientSampleId :  
MANHOLE

| Tot Ion | 95    | Resp  | 50759 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 95      | 100   |       |       |
| 174     | 88.0  | 70.1  | 105.1 |
| 176     | 84.0  | 66.8  | 100.2 |

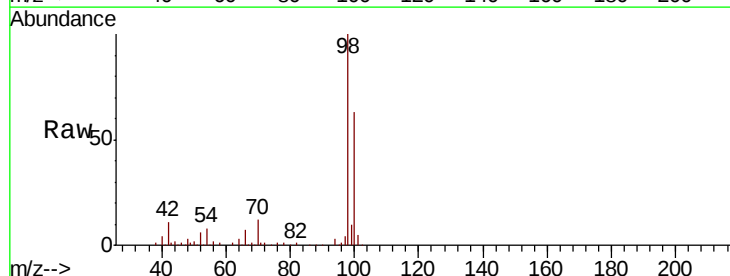


Abundance Ion 95.00 (94.70 to 95.70): VN063033.D (-3286) (-)

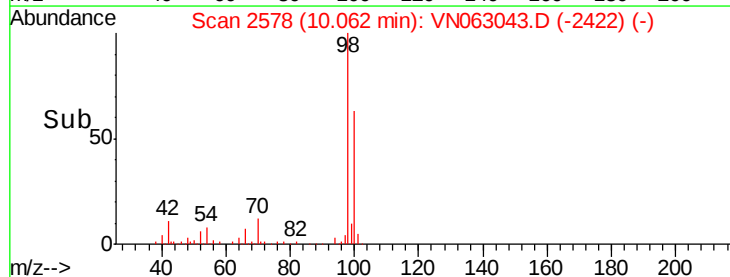
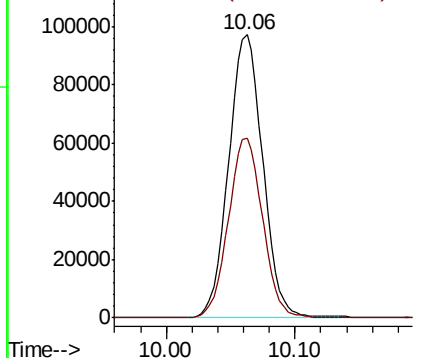


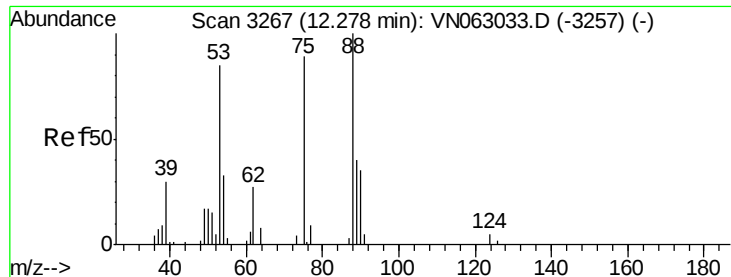
#63  
Toluene-d8  
Concen: 28.967 ug/l  
RT: 10.06 min Scan# 2578  
Delta R.T. 0.00 min  
Lab File: VN063043.D  
Acq: 20 Aug 2020 18:01

| Tgt Ion | 98    | Resp  | 179005 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 98      | 100   |       |        |
| 100     | 63.6  | 51.4  | 77.2   |



Abundance Ion 98.00 (97.70 to 98.70): VN063033.D (-2563) (-)

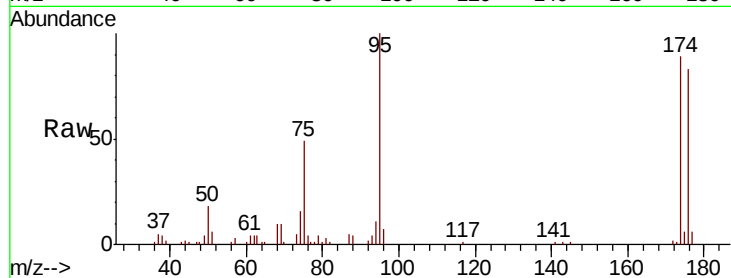




#77  
 t-1,4-Dichloro-2-butene  
 Concen: 32.535 ug/l  
 RT: 12.38 min Scan# 3298  
 Delta R.T. 0.10 min  
 Lab File: VN063043.D  
 Acq: 20 Aug 2020 18:01

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MANHOLE

Tot Ion: 75 Resp: 24917  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 47.0 141.0#  
 89 0.0 22.9 68.7#



Abundance Ion 75.00 (74.70 to 75.70): VNO  
 Ion 53.00 (52.70 to 53.70): VNO  
 Ion 89.00 (88.70 to 89.70): VNO

