

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN050919\  
 Data File : VN055515.D  
 Acq On : 9 May 2019 23:34  
 Operator : JC/SP  
 Sample : K2758-32  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 34 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 EQUIPMENT-BLANK-2

Quant Time: May 10 04:19:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N050819W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu May 09 04:17:44 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 858063   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1428317  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1212484  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 335096   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 580717   | 44.95 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.90% |          |
| 35) Dibromofluoromethane    | 7.59  | 113  | 456048   | 49.50 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.00% |          |
| 50) Toluene-d8              | 10.09 | 98   | 1757803  | 48.96 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.92% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 508389   | 41.99 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.98% |          |

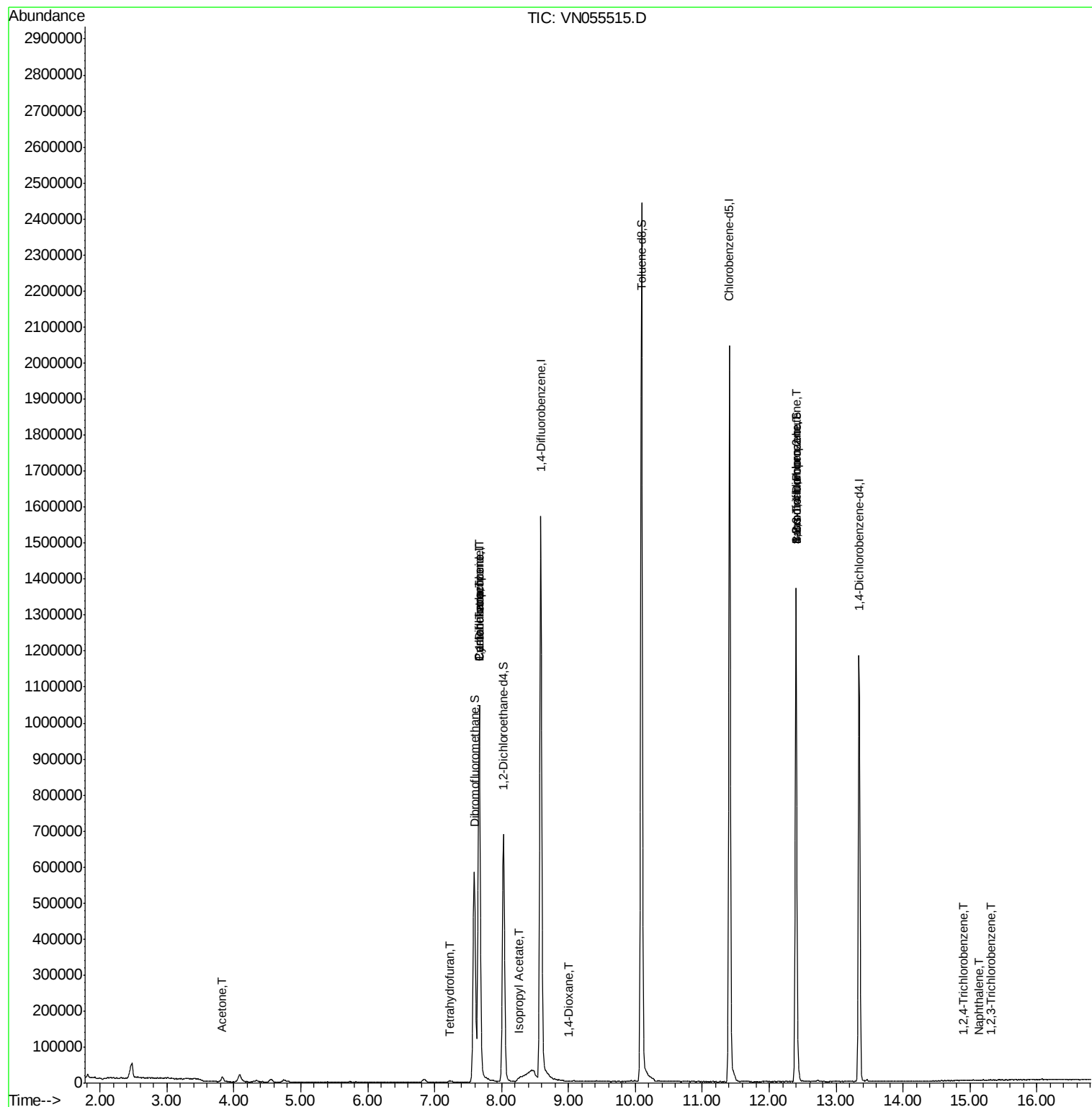
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 3.82  | 43   | 18938    | 3.166     | ug/l   | 91     |
| 18) Methyl Acetate             | 4.33  | 43   | 7005     | Below Cal | #      | 84     |
| 29) Tetrahydrofuran            | 7.22  | 42   | 3127     | 0.572     | ug/l # | 58     |
| 31) Cyclohexane                | 7.66  | 56   | 17873    | 0.857     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.66  | 75   | 68235    | 4.849     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.67  | 117  | 82435    | 6.957     | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.26  | 43   | 6509     | 0.279     | ug/l # | 63     |
| 49) 1,4-Dioxane                | 9.00  | 88   | 74       | 0.338     | ug/l # | 1      |
| 71) Bromoform                  | 12.40 | 173  | 3494     | 0.603     | ug/l # | 1      |
| 73) Isopropylbenzene           | 12.26 | 105  | 501      | Below Cal | #      | 74     |
| 75) 1,1,2,2-Tetrachloroethane  | 12.40 | 83   | 246      | Below Cal | #      | 1      |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 250991   | 27.514    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 250991   | 101.521   | ug/l # | 7      |
| 93) 1,2,4-Trichlorobenzene     | 14.91 | 180  | 556      | 3.310     | ug/l # | 79     |
| 94) Hexachlorobutadiene        | 15.01 | 225  | 193      | Below Cal |        | 82     |
| 95) Naphthalene                | 15.13 | 128  | 1042     | 3.007     | ug/l # | 74     |
| 96) 1,2,3-Trichlorobenzene     | 15.32 | 180  | 629      | 2.534     | ug/l # | 41     |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N050819W.M  
Quant Title : SW846 8260  
QLast Update : Thu May 09 04:17:44 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: VN055515.D

Acq: 9 May 2019 23:34

Instrument :

MSVOA\_N

ClientSampleId :

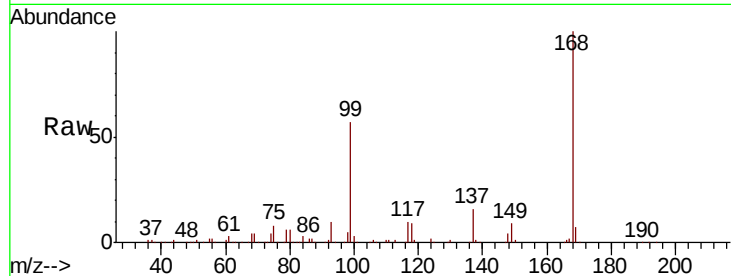
EQUIPMENT-BLANK-2

Tot Ion:168 Resp: 858063

Ion Ratio Lower Upper

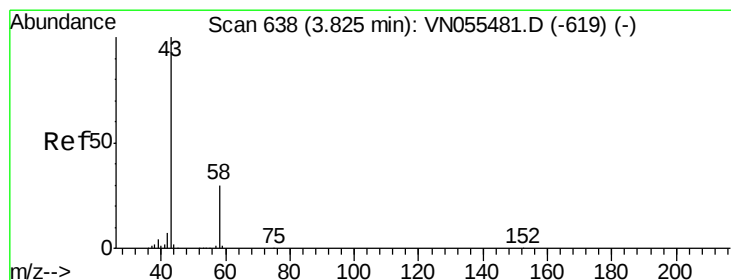
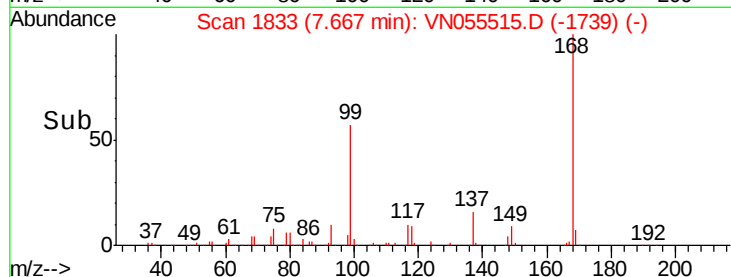
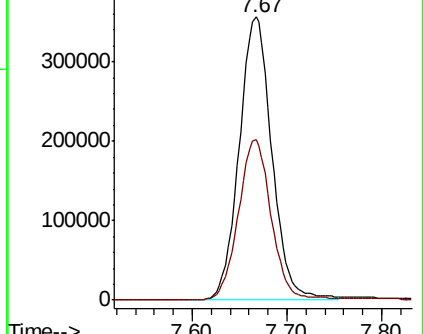
168 100

99 56.5 47.0 70.4



Abundance Ion 167.90 (167.60 to 168.60): VN055515.D (-1739) (-)

Ion 98.90 (98.60 to 99.60): VN055515.D (-1739) (-)



#16

Acetone

Concen: 3.166 ug/l

RT: 3.82 min Scan# 638

Delta R.T. -0.00 min

Lab File: VN055515.D

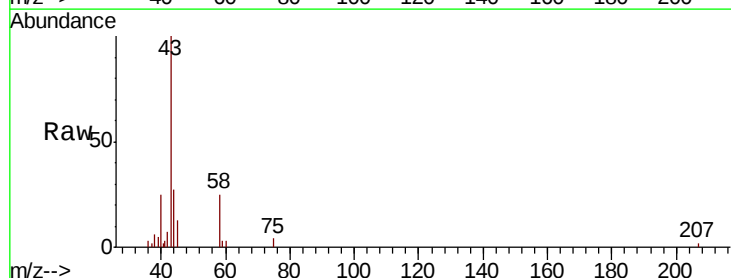
Acq: 9 May 2019 23:34

Tgt Ion: 43 Resp: 18938

Ion Ratio Lower Upper

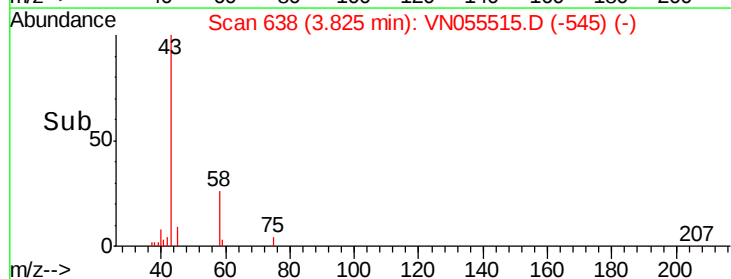
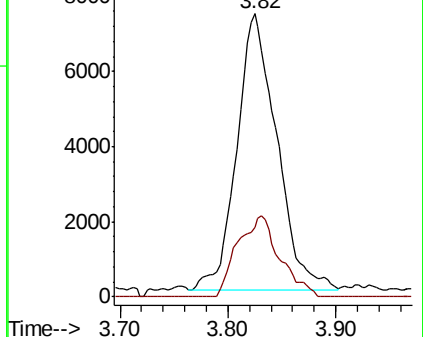
43 100

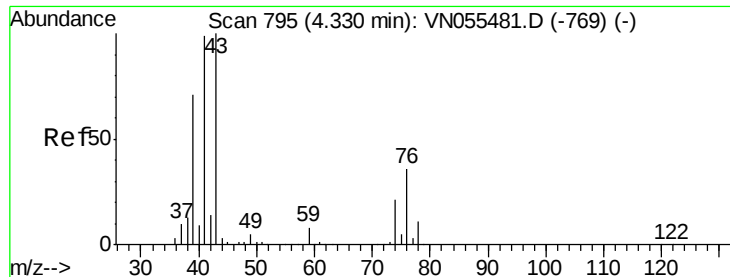
58 25.3 24.2 36.2



Abundance Ion 43.00 (42.70 to 43.70): VN055515.D (-545) (-)

Ion 58.00 (57.70 to 58.70): VN055515.D (-545) (-)

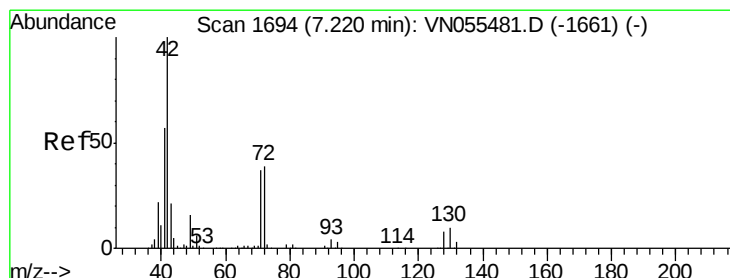
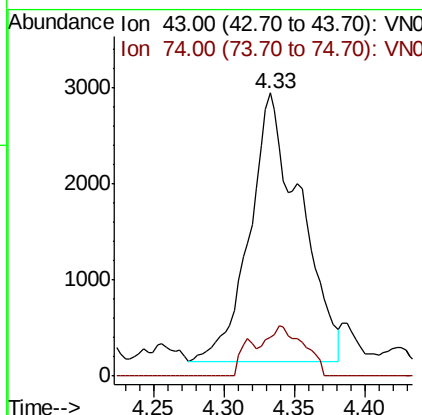
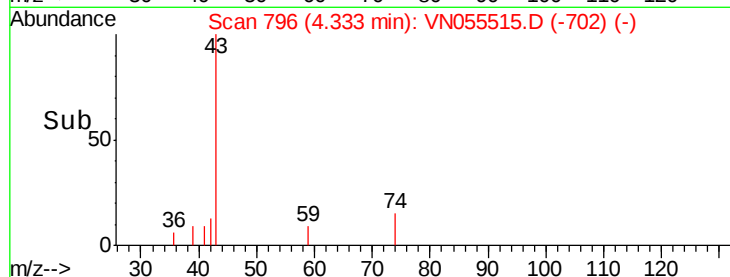
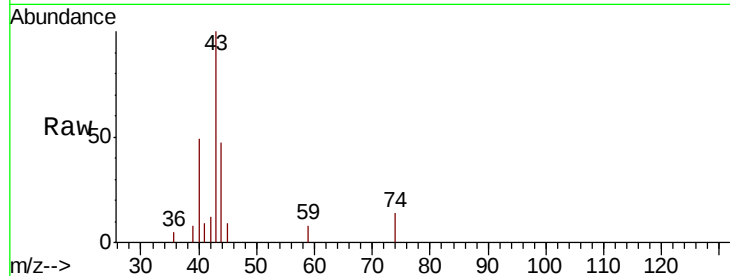




#18  
Methyl Acetate  
Concen: Below Cal  
RT: 4.33 min Scan# 796  
Delta R.T. 0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

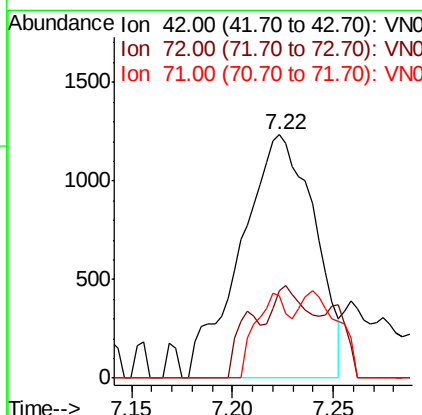
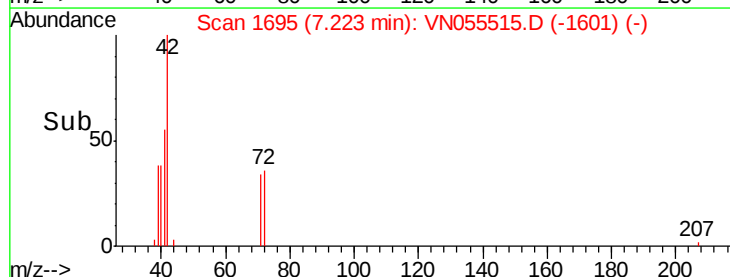
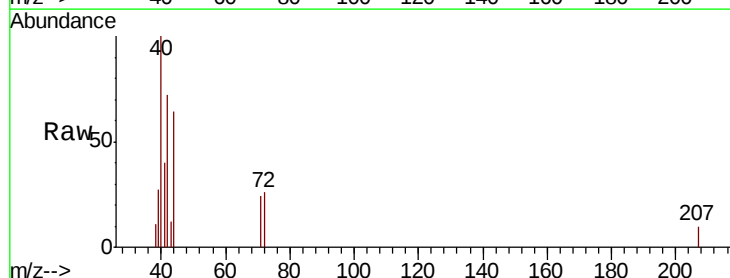
Instrument :  
MSVOA\_N  
ClientSampleId :  
EQUIPMENT-BLANK-2

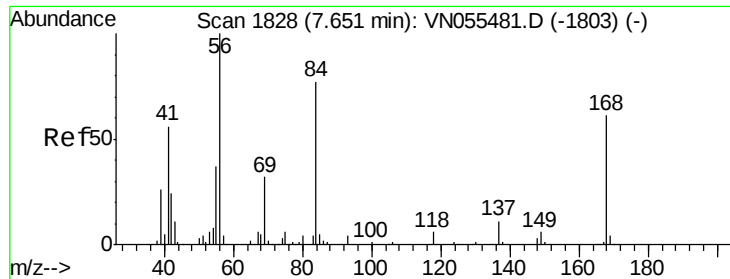
Tot Ion: 43 Resp: 7005  
Ion Ratio Lower Upper  
43 100  
74 13.1 16.3 24.5#



#29  
Tetrahydrofuran  
Concen: 0.572 ug/l  
RT: 7.22 min Scan# 1695  
Delta R.T. 0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

Tgt Ion: 42 Resp: 3127  
Ion Ratio Lower Upper  
42 100  
72 9.6 31.0 46.6#  
71 16.1 29.4 44.2#

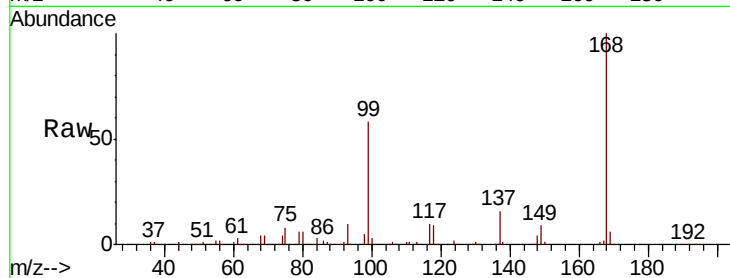




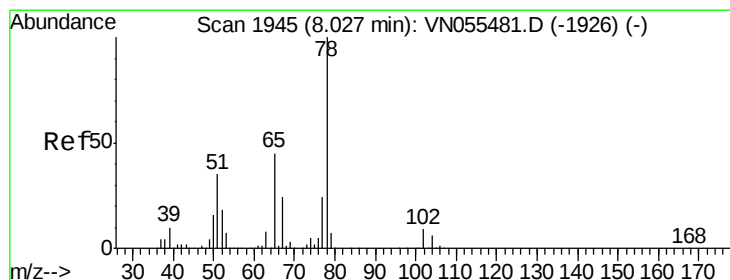
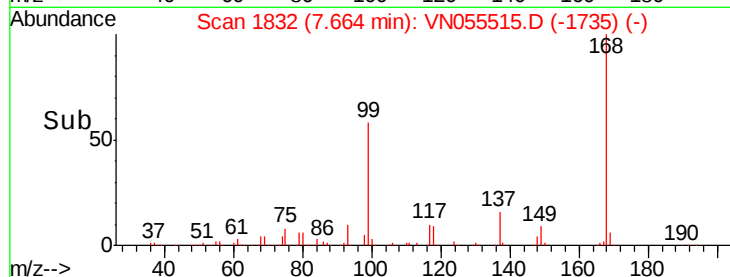
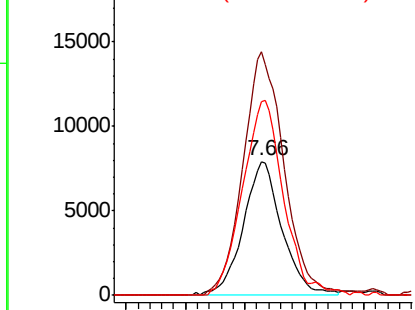
#31  
Cyclohexane  
Concen: 0.857 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. 0.01 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
EQUIPMENT-BLANK-2

Tot Ion: 56 Resp: 17873  
Ion Ratio Lower Upper  
56 100  
69 182.3 26.0 39.0#  
84 145.0 61.9 92.9#

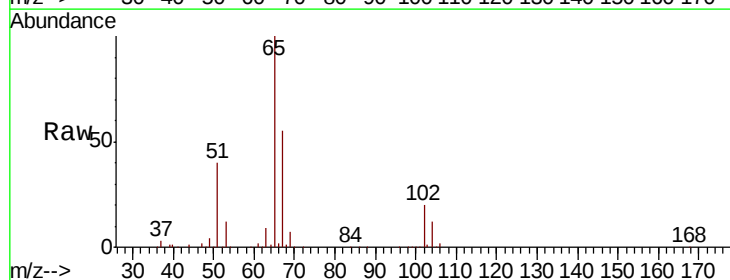


Abundance Ion 56.00 (55.70 to 56.70): VNC  
Ion 69.00 (68.70 to 69.70): VNC  
Ion 84.00 (83.70 to 84.70): VNC

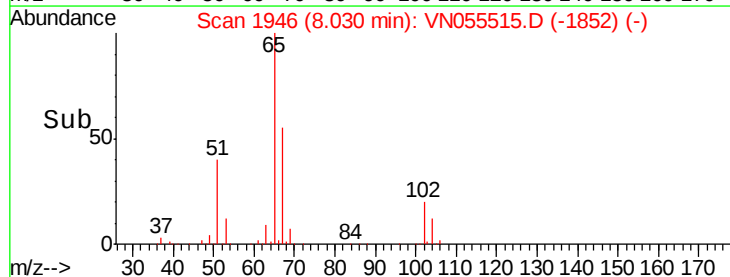
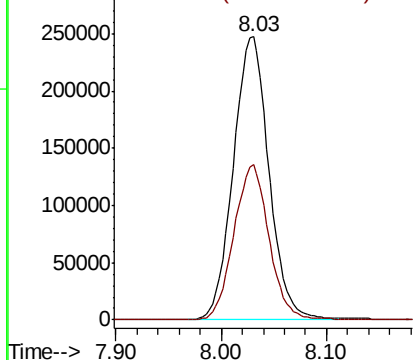


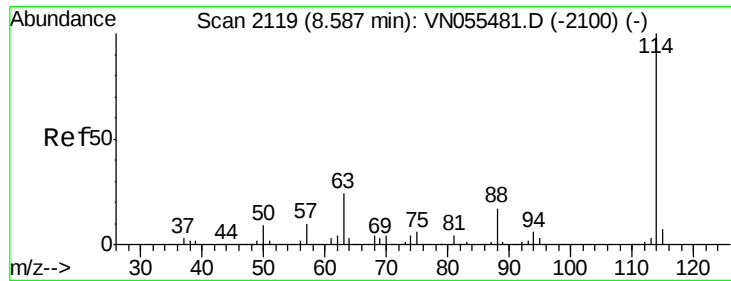
#33  
1,2-Dichloroethane-d4  
Concen: 44.949 ug/l  
RT: 8.03 min Scan# 1946  
Delta R.T. 0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

Tgt Ion: 65 Resp: 580717  
Ion Ratio Lower Upper  
65 100  
67 54.2 0.0 109.6



Abundance Ion 64.90 (64.60 to 65.60): VNC  
Ion 66.90 (66.60 to 67.60): VNC

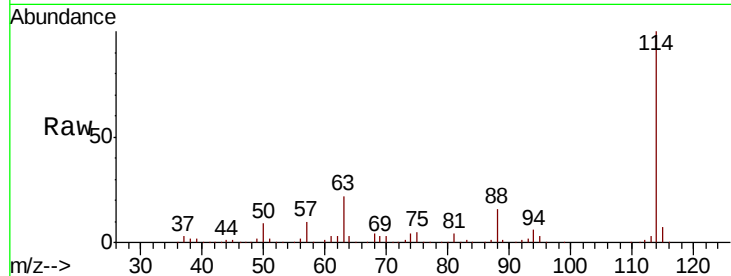




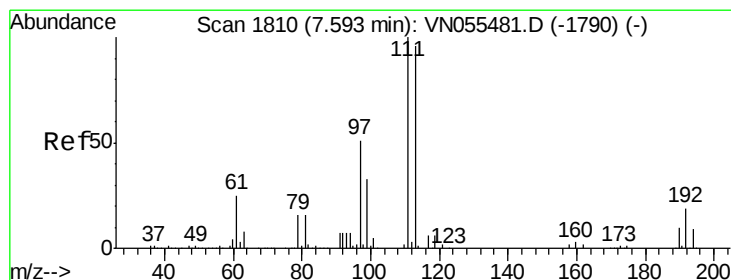
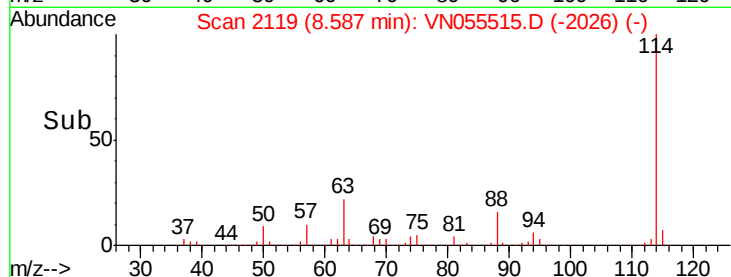
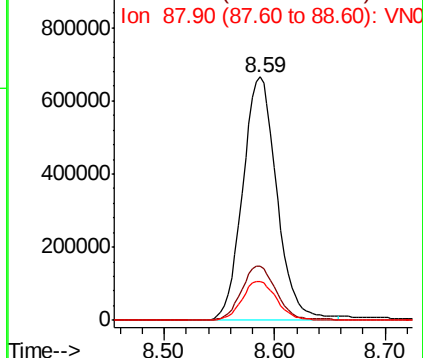
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. -0.00 min  
 Lab File: VN055515.D  
 Acq: 9 May 2019 23:34

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 EQUIPMENT-BLANK-2

Tot Ion:114 Resp: 1428317  
 Ion Ratio Lower Upper  
 114 100  
 63 22.3 0.0 47.4  
 88 16.1 0.0 34.0

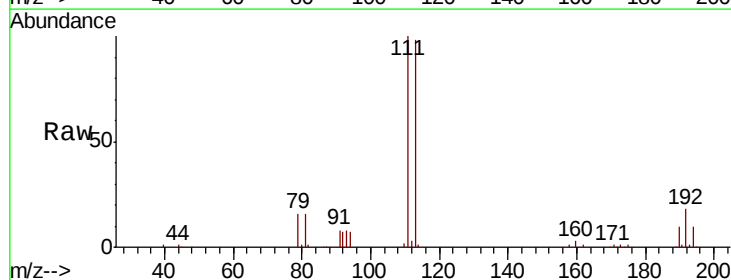


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN

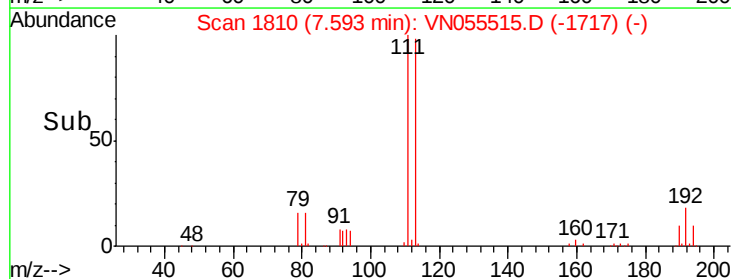
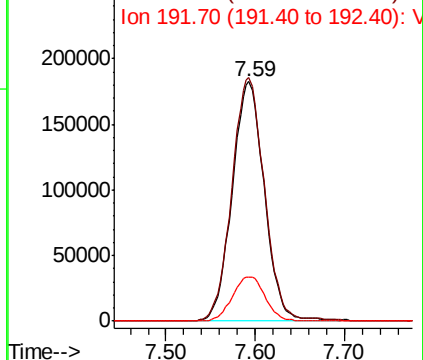


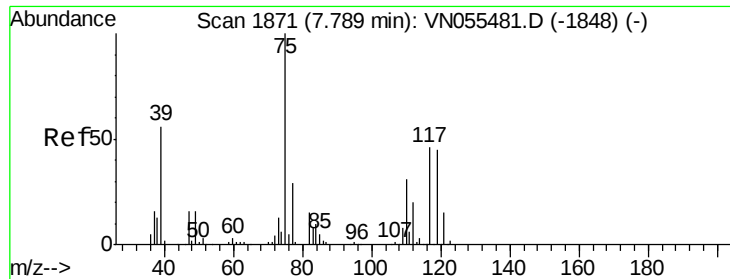
#35  
 Dibromofluoromethane  
 Concen: 49.496 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. -0.00 min  
 Lab File: VN055515.D  
 Acq: 9 May 2019 23:34

Tgt Ion:113 Resp: 456048  
 Ion Ratio Lower Upper  
 113 100  
 111 103.2 82.9 124.3  
 192 18.9 15.6 23.4



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

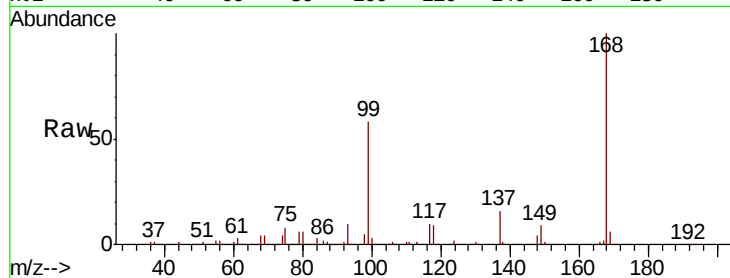




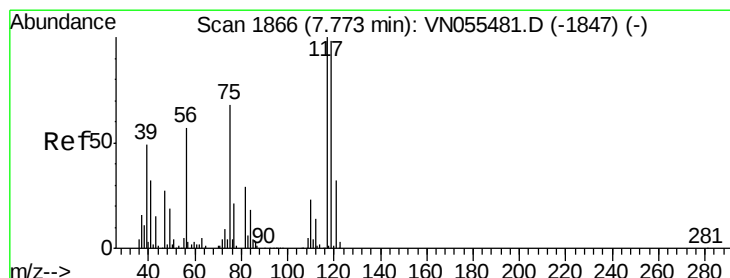
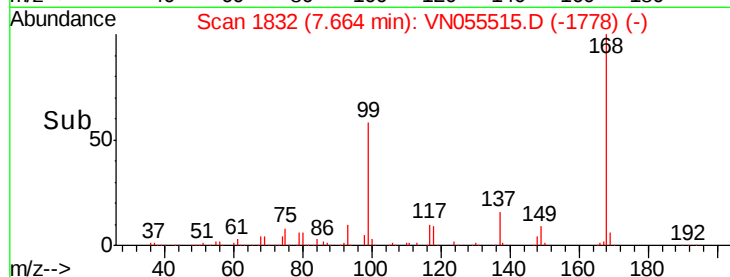
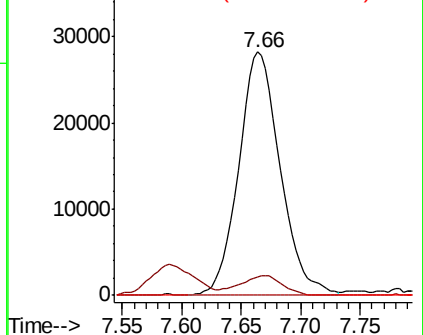
#36  
 1,1-Dichloropropene  
 Concen: 4.849 ug/l  
 RT: 7.66 min Scan# 1832  
 Delta R.T. -0.13 min  
 Lab File: VN055515.D  
 Acq: 9 May 2019 23:34

Instrument :  
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Tot Ion: 75 Resp: 68235  
 Ion Ratio Lower Upper  
 75 100  
 110 8.3 16.1 48.3#  
 77 0.0 24.6 37.0#

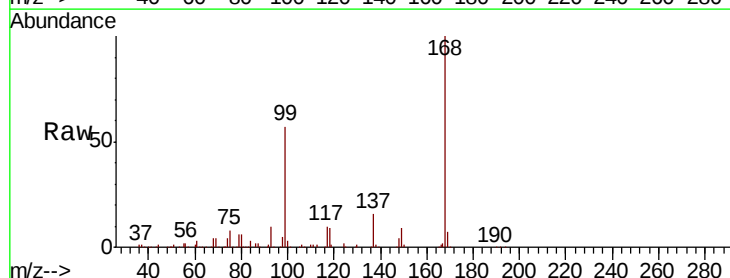


Abundance Ion 74.90 (74.60 to 75.60): VN0  
 Ion 109.90 (109.60 to 110.60): V  
 Ion 76.90 (76.60 to 77.60): VN0

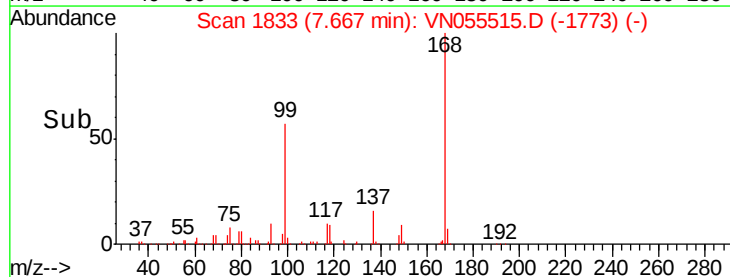
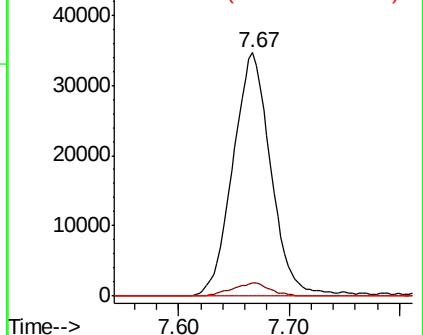


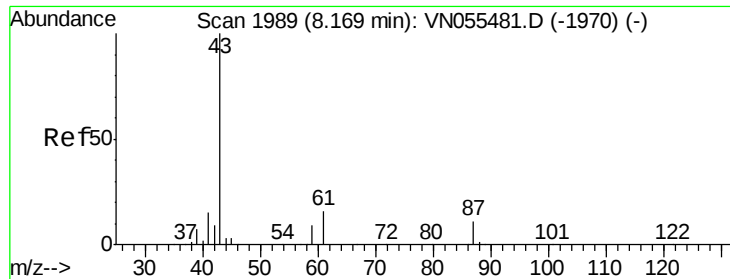
#38  
 Carbon Tetrachloride  
 Concen: 6.957 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.11 min  
 Lab File: VN055515.D  
 Acq: 9 May 2019 23:34

Tgt Ion: 117 Resp: 82435  
 Ion Ratio Lower Upper  
 117 100  
 119 5.3 77.8 116.6#  
 121 0.0 25.2 37.8#



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: 0.279 ug/l

RT: 8.26 min Scan# 2016

Delta R.T. 0.09 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

Instrument :

MSVOA\_N

ClientSampleId :

EQUIPMENT-BLANK-2

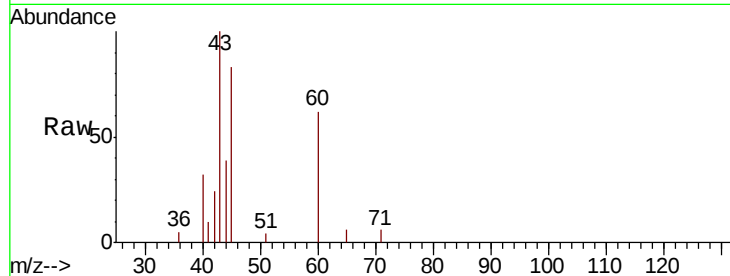
Tot Ion: 43 Resp: 6509

Ion Ratio Lower Upper

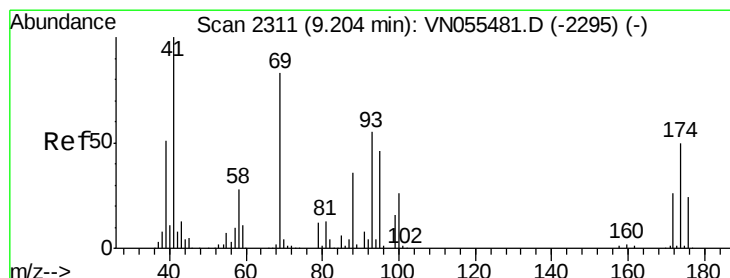
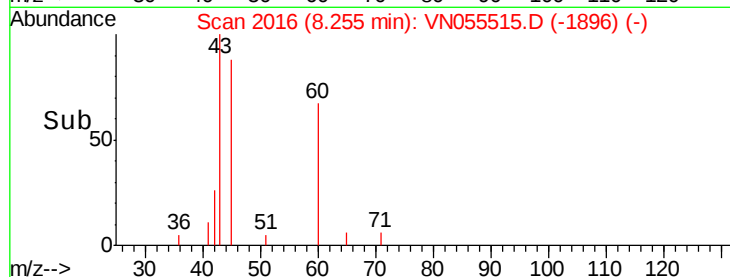
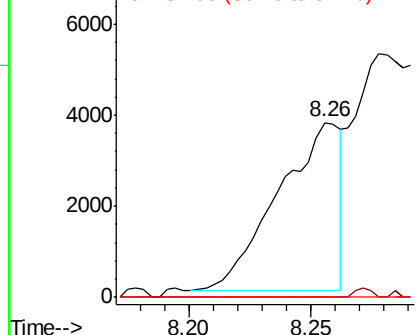
43 100

61 0.0 15.1 22.7#

87 0.0 9.0 13.6#



Abundance Ion 43.00 (42.70 to 43.70): VNO  
Ion 61.00 (60.70 to 61.70): VNO  
Ion 87.00 (86.70 to 87.70): VNO



#49

1,4-Dioxane

Concen: 0.338 ug/l

RT: 9.00 min Scan# 2248

Delta R.T. -0.20 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

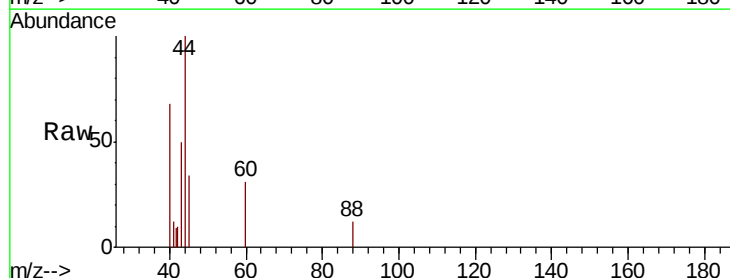
Tgt Ion: 88 Resp: 74

Ion Ratio Lower Upper

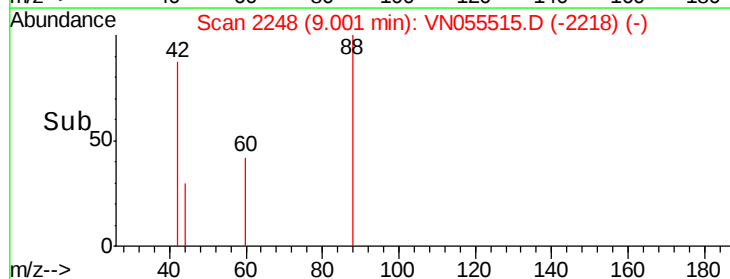
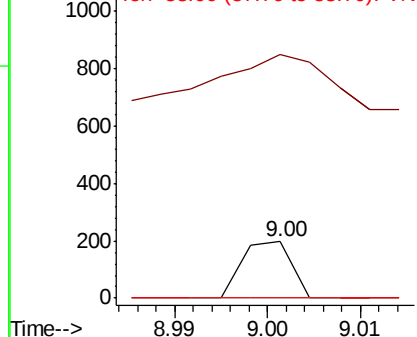
88 100

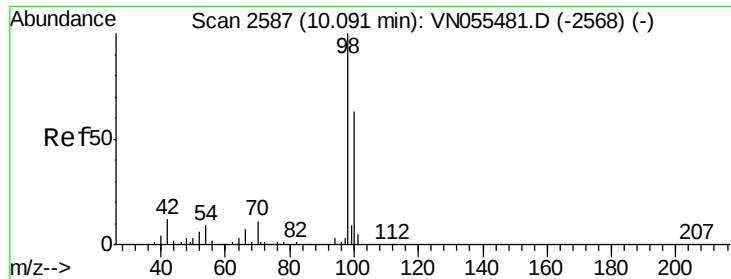
43 374.3 27.8 41.8#

58 0.0 61.8 92.6#



Abundance Ion 88.00 (87.70 to 88.70): VNO  
Ion 43.00 (42.70 to 43.70): VNO  
Ion 58.00 (57.70 to 58.70): VNO





#50

Toluene-d8

Concen: 48.957 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. -0.00 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

Instrument :

MSVOA\_N

ClientSampleId :

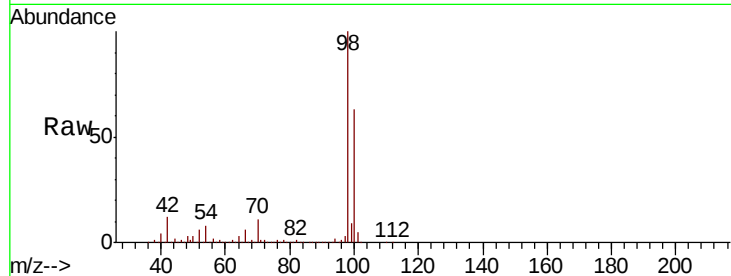
EQUIPMENT-BLANK-2

Tot Ion: 98 Resp: 1757803

Ion Ratio Lower Upper

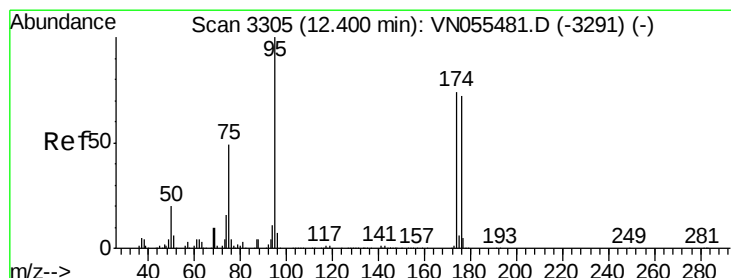
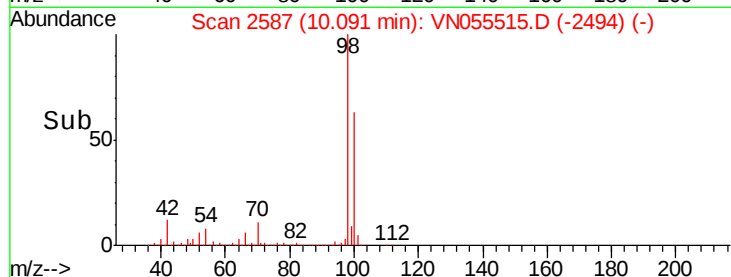
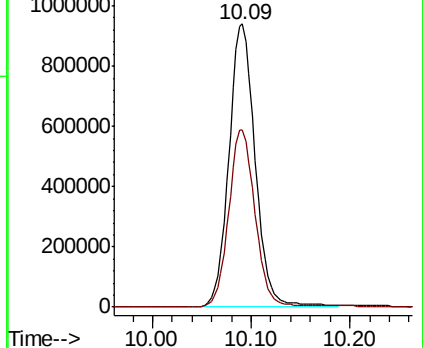
98 100

100 62.2 50.4 75.6



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN



#62

4-Bromofluorobenzene

Concen: 41.992 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.00 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

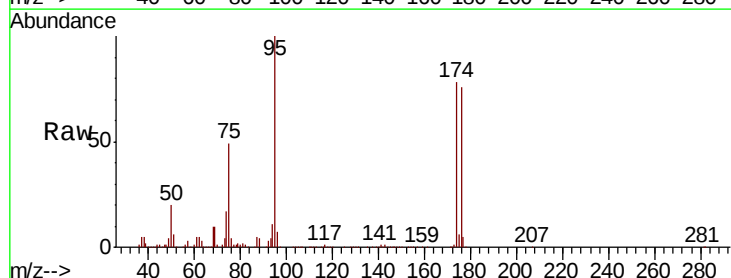
Tgt Ion: 95 Resp: 508389

Ion Ratio Lower Upper

95 100

174 77.8 0.0 152.2

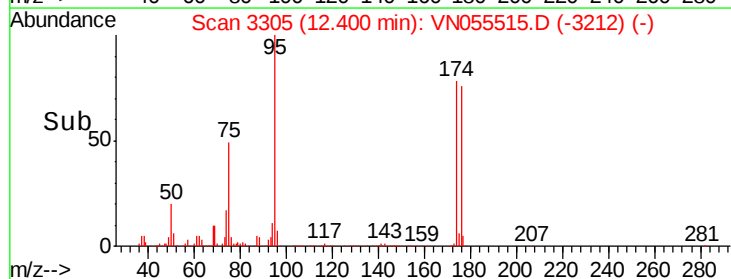
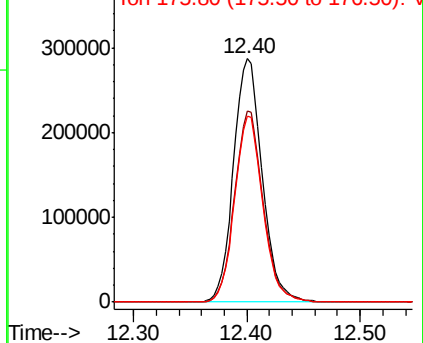
176 75.4 0.0 147.8

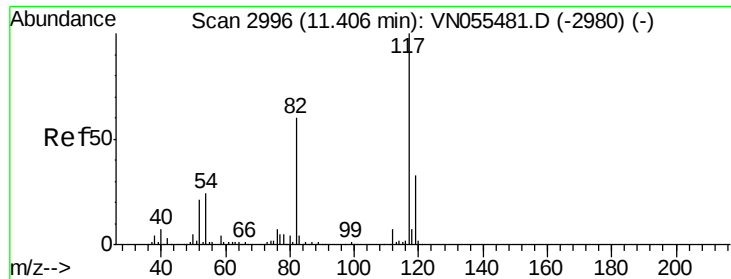


Abundance Ion 94.90 (94.60 to 95.60): VN0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

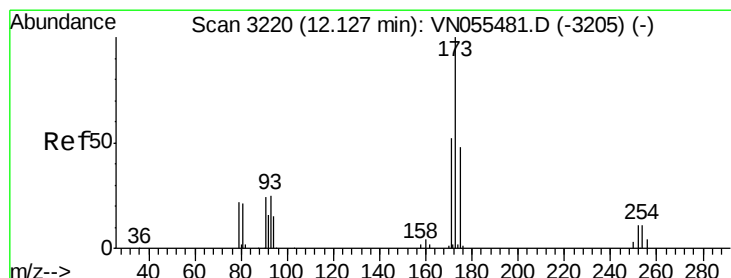
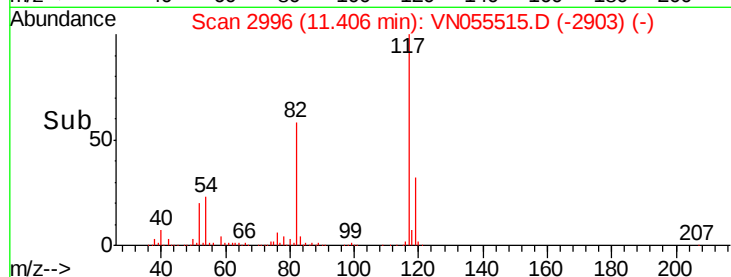
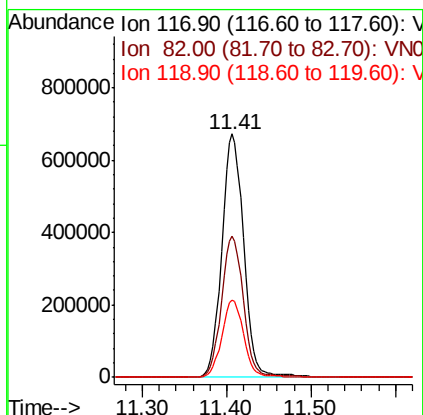
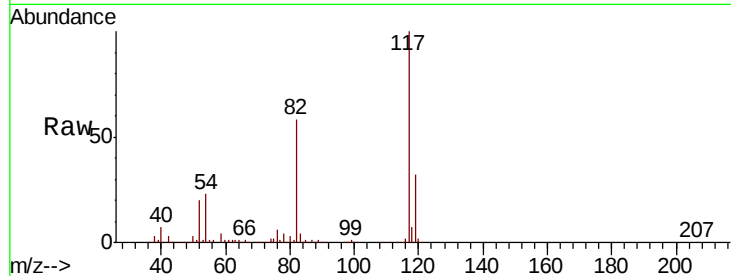




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. -0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

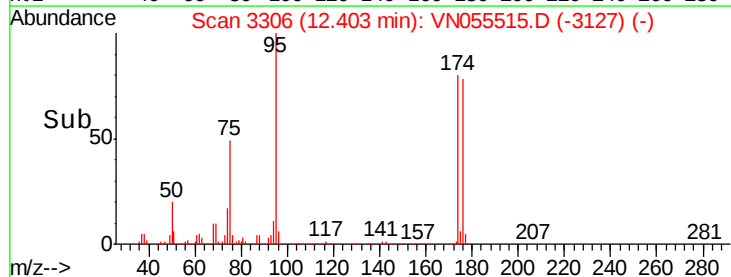
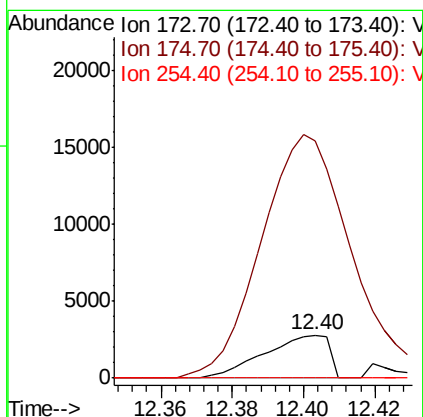
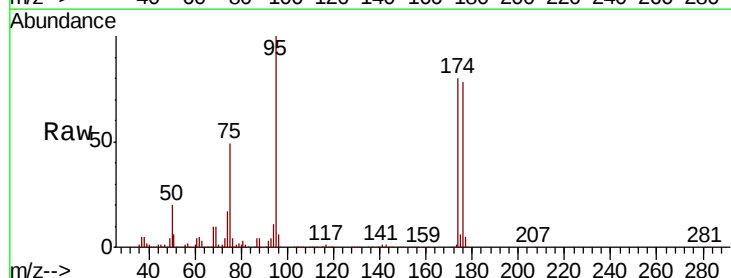
Instrument :  
MSVOA\_N  
ClientSampleId :  
EQUIPMENT-BLANK-2

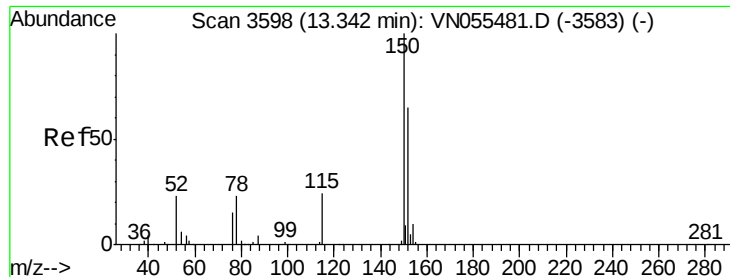
Tot Ion:117 Resp: 1212484  
Ion Ratio Lower Upper  
117 100  
82 57.9 48.0 72.0  
119 31.9 26.0 39.0



#71  
Bromoform  
Concen: 0.603 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.28 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

Tgt Ion:173 Resp: 3494  
Ion Ratio Lower Upper  
173 100  
175 685.1 24.1 72.4#  
254 0.0 0.1 0.1#



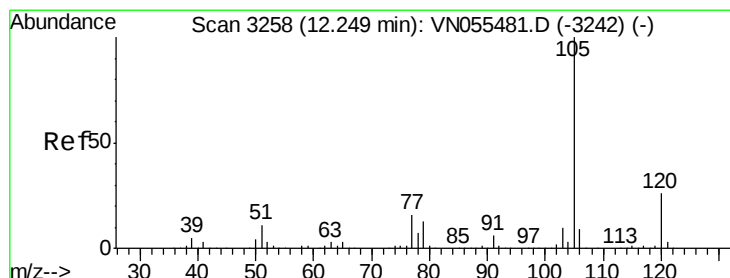
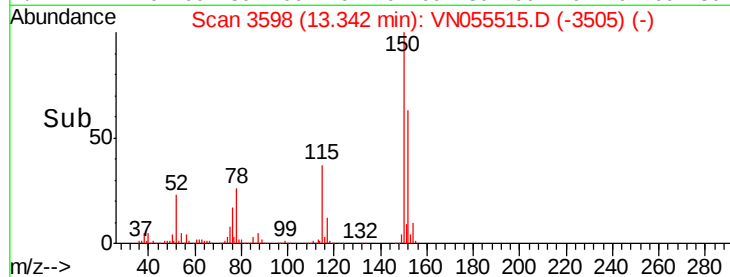
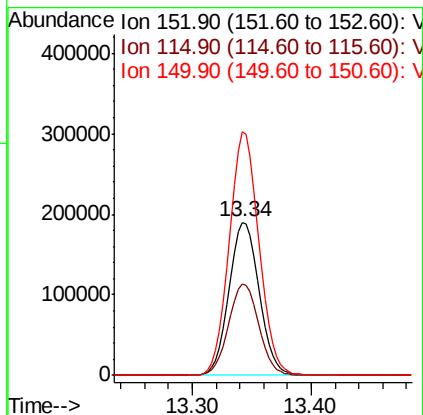
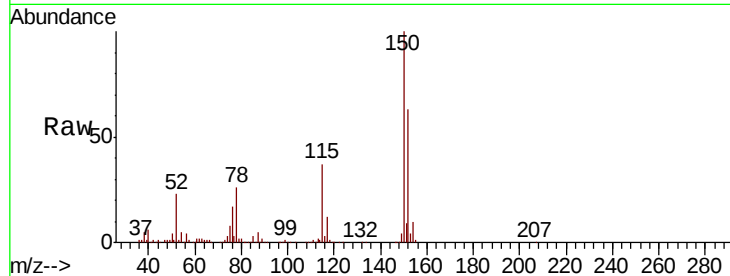


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.34 min Scan# 3598  
Delta R.T. -0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
EQUIPMENT-BLANK-2

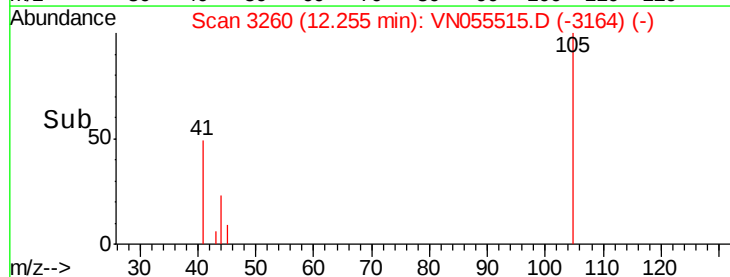
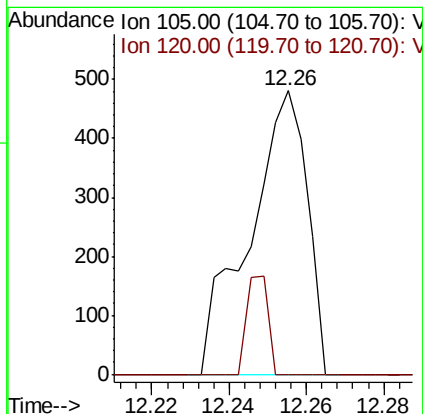
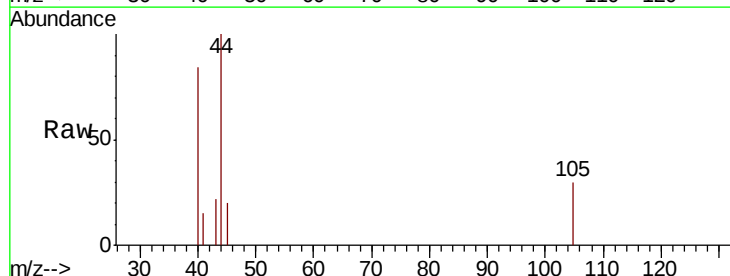
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 59.5  | 30.1  | 90.5  |
| 150     | 156.6 | 0.0   | 355.0 |

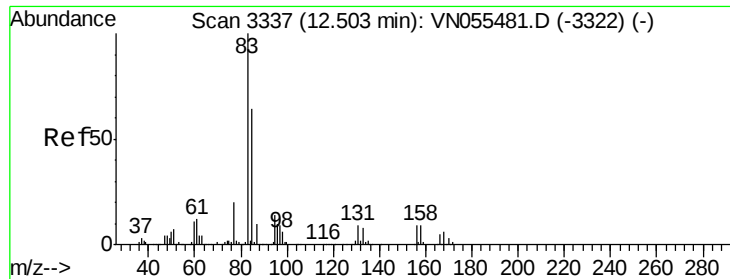


#73

Isopropylbenzene  
Concen: Below Cal  
RT: 12.26 min Scan# 3260  
Delta R.T. 0.01 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 12.8  | 13.0  | 39.0# |





#75

1,1,2,2-Tetrachloroethane

Concen: Below Cal

RT: 12.40 min Scan# 3306

Delta R.T. -0.10 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

Instrument :

MSVOA\_N

ClientSampleId :

EQUIPMENT-BLANK-2

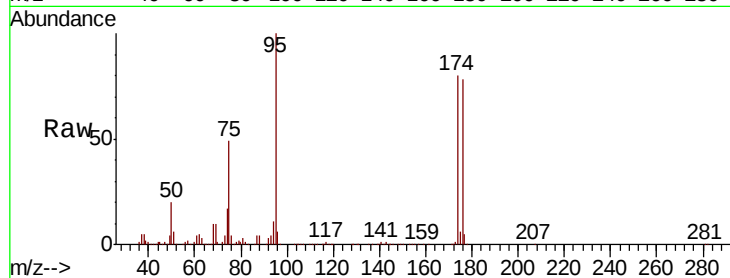
Tot Ion: 83 Resp: 246

Ion Ratio Lower Upper

83 100

131 184.1 4.5 13.5#

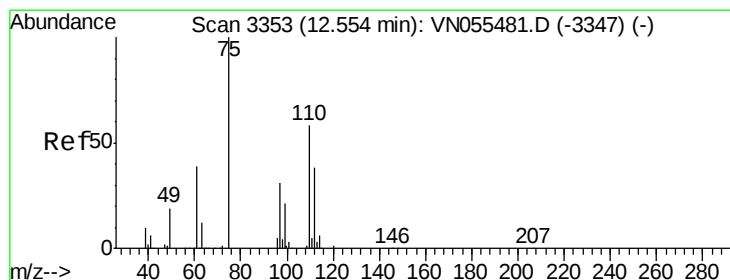
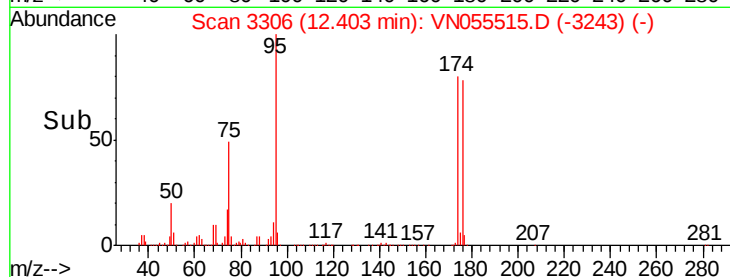
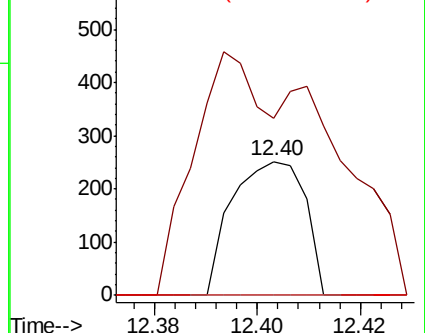
85 0.0 32.0 96.0#



Abundance Ion 82.90 (82.60 to 83.60): VN0

Ion 130.80 (130.50 to 131.50): VN0

Ion 84.90 (84.60 to 85.60): VN0



#76

1,2,3-Trichloropropane

Concen: 27.514 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.15 min

Lab File: VN055515.D

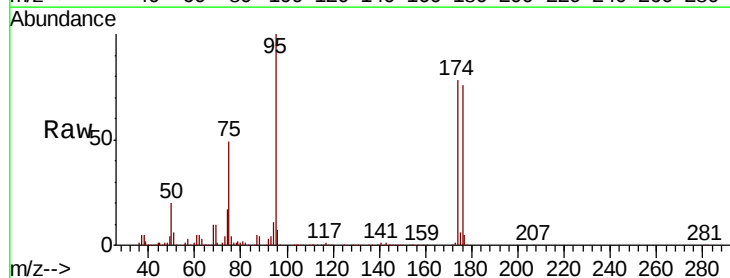
Acq: 9 May 2019 23:34

Tgt Ion: 75 Resp: 250991

Ion Ratio Lower Upper

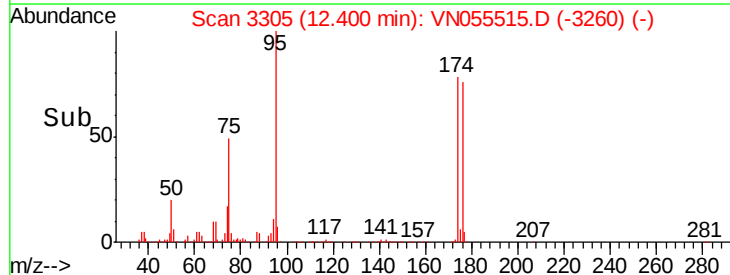
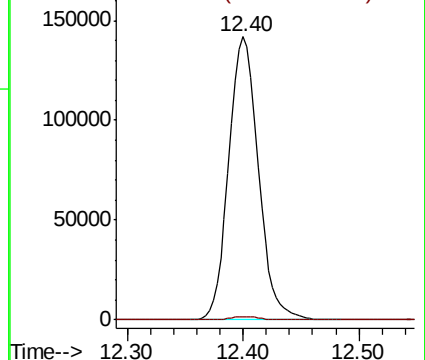
75 100

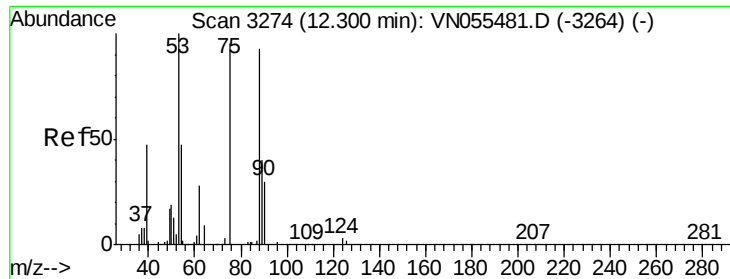
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0





#81

trans-1,4-Dichloro-2-butene

Concen: 101.521 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.10 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

Instrument :

MSVOA\_N

ClientSampleId :

EQUIPMENT-BLANK-2

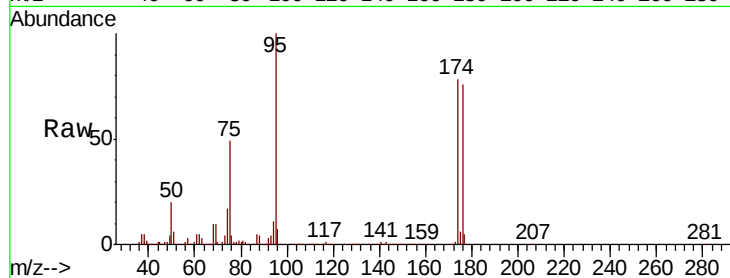
Tot Ion: 75 Resp: 250991

Ion Ratio Lower Upper

75 100

53 0.0 86.5 129.7#

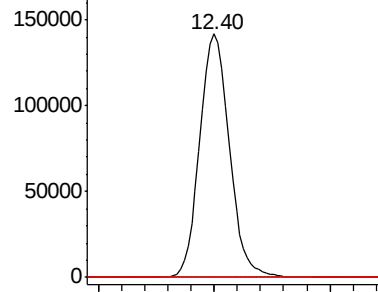
89 0.0 35.7 53.5#



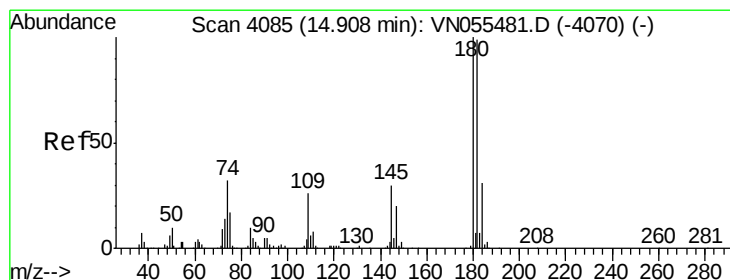
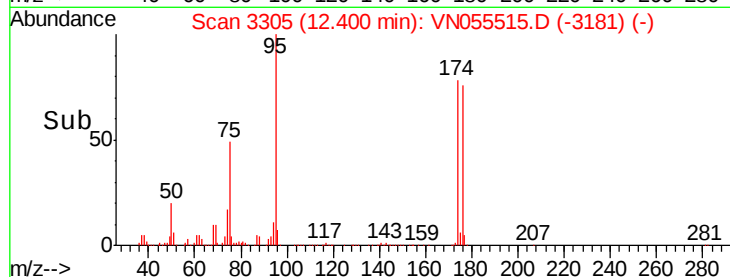
Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0



Time--> 12.30 12.40 12.50



#93

1,2,4-Trichlorobenzene

Concen: 3.310 ug/l

RT: 14.91 min Scan# 4086

Delta R.T. 0.00 min

Lab File: VN055515.D

Acq: 9 May 2019 23:34

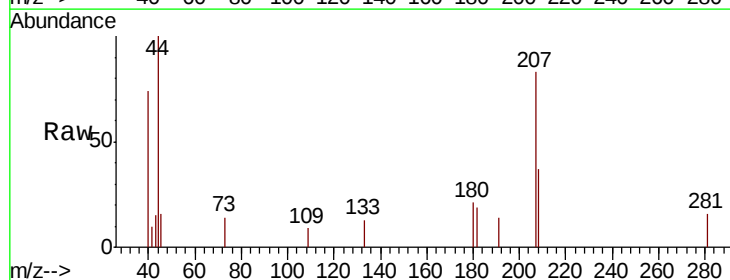
Tgt Ion:180 Resp: 556

Ion Ratio Lower Upper

180 100

182 84.2 48.7 146.1

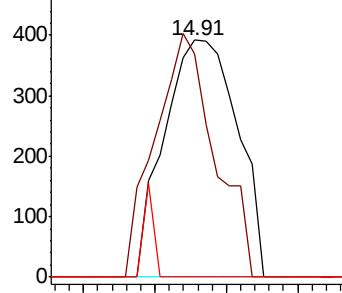
145 5.4 15.3 45.9#



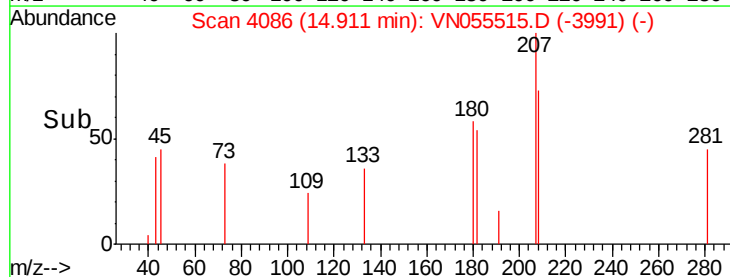
Abundance Ion 179.80 (179.50 to 180.50): V

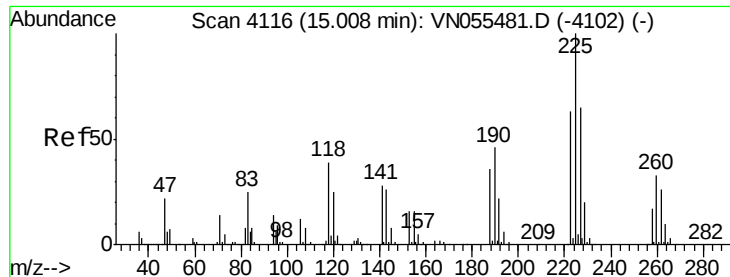
Ion 181.80 (181.50 to 182.50): V

Ion 144.80 (144.50 to 145.50): V



Time--> 14.88 14.90 14.92 14.94

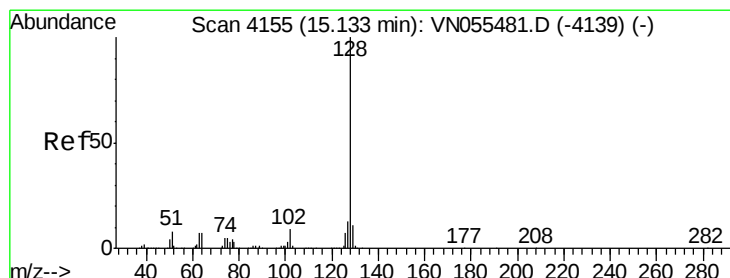
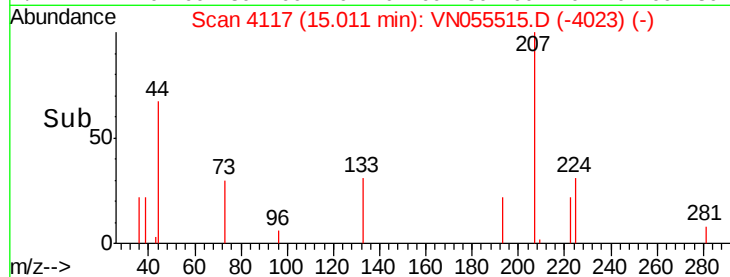
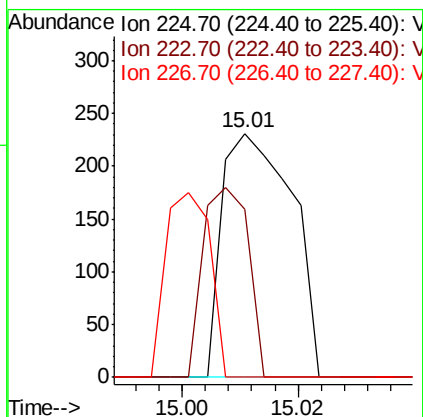
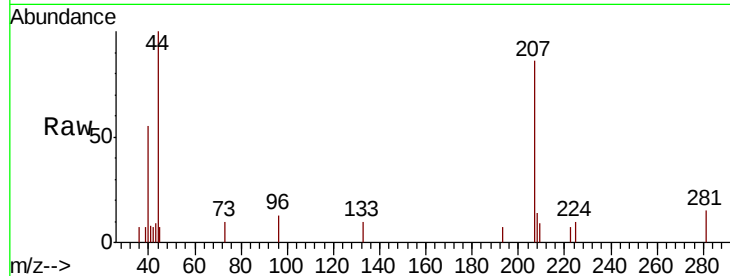




#94  
Hexachlorobutadiene  
Concen: Below Cal  
RT: 15.01 min Scan# 4117  
Delta R.T. 0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

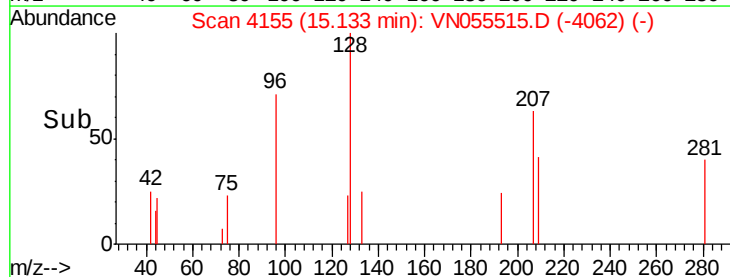
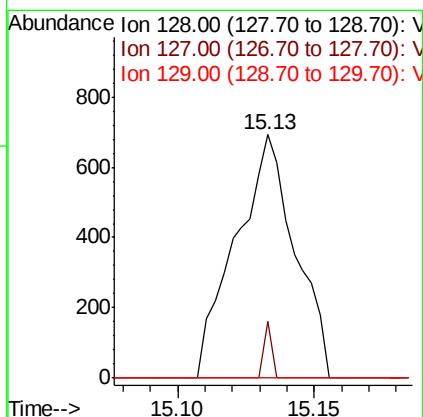
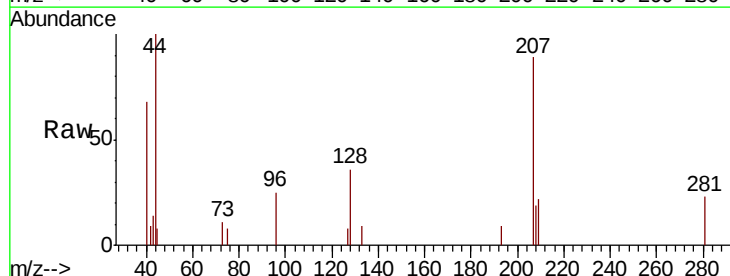
Instrument :  
MSVOA\_N  
ClientSampleId :  
EQUIPMENT-BLANK-2

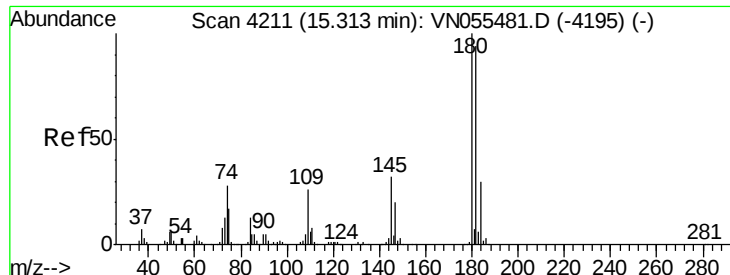
Tot Ion:225 Resp: 193  
Ion Ratio Lower Upper  
225 100  
223 50.3 31.4 94.3  
227 48.7 32.0 96.0



#95  
Naphthalene  
Concen: 3.007 ug/l  
RT: 15.13 min Scan# 4155  
Delta R.T. -0.00 min  
Lab File: VN055515.D  
Acq: 9 May 2019 23:34

Tgt Ion:128 Resp: 1042  
Ion Ratio Lower Upper  
128 100  
127 3.0 10.0 15.0#  
129 0.0 8.8 13.2#

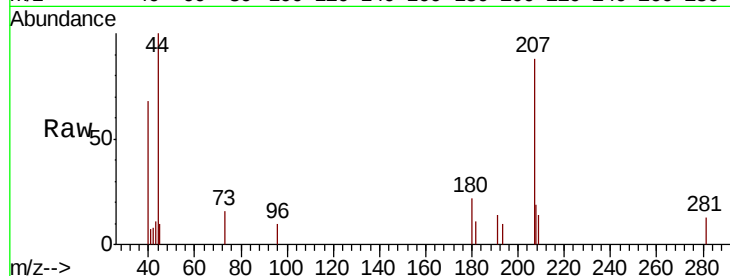




#96  
 1,2,3-Trichlorobenzene  
 Concen: 2.534 ug/l  
 RT: 15.32 min Scan# 4212  
 Delta R.T. 0.00 min  
 Lab File: VN055515.D  
 Acq: 9 May 2019 23:34

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 EQUIPMENT-BLANK-2

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 180     | 100   |       |        |
| 182     | 36.1  | 47.1  | 141.3# |
| 145     | 0.0   | 15.8  | 47.4#  |



Abundance Ion 179.80 (179.50 to 180.50): V  
 Ion 181.80 (181.50 to 182.50): V  
 Ion 144.90 (144.60 to 145.60): V

