

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN051719\  
 Data File : VN055643.D  
 Acq On : 18 May 2019 5:20  
 Operator : JC/SP  
 Sample : K2903-07  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 51 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: May 18 06:08:26 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N051719W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 17 23:54:12 2019  
 Response via : Initial Calibration

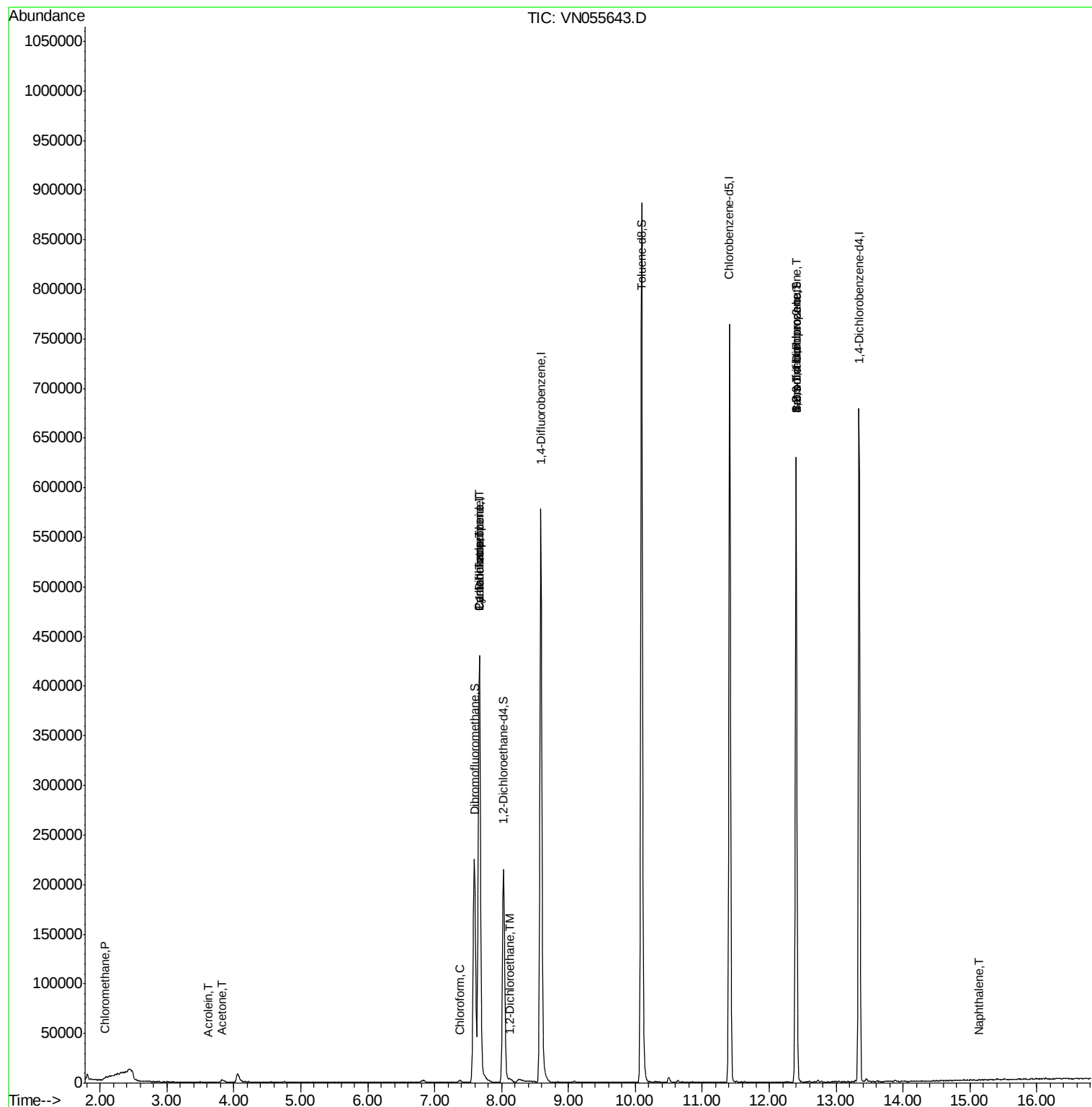
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|--------|----------|
| 1) Pentafluorobenzene          | 7.67   | 168  | 416502   | 50.00     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene        | 8.59   | 114  | 585071   | 50.00     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5           | 11.41  | 117  | 494078   | 50.00     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 13.34  | 152  | 199702   | 50.00     | ug/l   | 0.00     |
| System Monitoring Compounds    |        |      |          |           |        |          |
| 33) 1,2-Dichloroethane-d4      | 8.03   | 65   | 192870   | 42.24     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 84.48% |          |
| 35) Dibromofluoromethane       | 7.59   | 113  | 180106   | 48.46     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 96.92% |          |
| 50) Toluene-d8                 | 10.09  | 98   | 671910   | 47.81     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 95.62% |          |
| 62) 4-Bromofluorobenzene       | 12.40  | 95   | 219736   | 45.28     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 90.56% |          |
| Target Compounds               |        |      |          |           |        |          |
|                                |        |      |          |           | Qvalue |          |
| 3) Chloromethane               | 2.06   | 50   | 1123     | 0.263     | ug/l   | 91       |
| 13) Acrolein                   | 3.62   | 56   | 125      | 1.648     | ug/l # | 65       |
| 16) Acetone                    | 3.83   | 43   | 4326     | 2.322     | ug/l   | 96       |
| 30) Chloroform                 | 7.38   | 83   | 2688     | 0.367     | ug/l   | 96       |
| 31) Cyclohexane                | 7.66   | 56   | 6441     | 0.951     | ug/l # | 1        |
| 36) 1,1-Dichloropropene        | 7.67   | 75   | 24140    | 4.628     | ug/l # | 49       |
| 38) Carbon Tetrachloride       | 7.67   | 117  | 34260    | 6.146     | ug/l # | 15       |
| 42) 1,2-Dichloroethane         | 8.13   | 62   | 1907     | 0.384     | ug/l # | 73       |
| 71) Bromoform                  | 12.40  | 173  | 1448     | 0.425     | ug/l # | 1        |
| 73) Isopropylbenzene           | 12.25  | 105  | 292      | Below Cal | #      | 48       |
| 76) 1,2,3-Trichloropropane     | 12.40  | 75   | 101872   | 25.000    | ug/l # | 100      |
| 79) 2-Chlorotoluene            | 12.67  | 91   | 236      | Below Cal | #      | 39       |
| 80) 1,3,5-Trimethylbenzene     | 12.73  | 105  | 264      | Below Cal | #      | 28       |
| 81) trans-1,4-Dichloro-2-buten | 12.40  | 75   | 101872   | 64.263    | ug/l # | 17       |
| 83) tert-Butylbenzene          | 12.99  | 119  | 348      | Below Cal | #      | 83       |
| 84) 1,2,4-Trimethylbenzene     | 13.04  | 105  | 416      | Below Cal | #      | 30       |
| 85) sec-Butylbenzene           | 13.17  | 105  | 609      | Below Cal | #      | 56       |
| 86) p-Isopropyltoluene         | 13.29  | 119  | 537      | Below Cal | #      | 51       |
| 95) Naphthalene                | 15.14  | 128  | 686      | 1.828     | ug/l # | 69       |

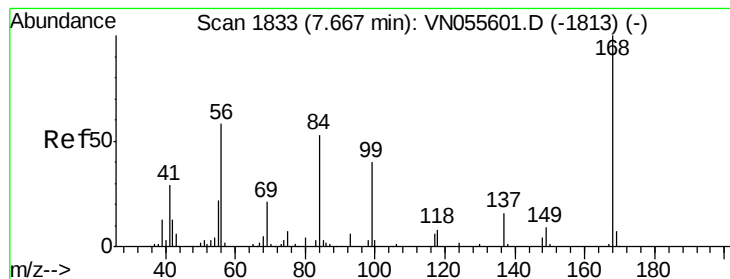
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN051719\  
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Sample : K2903-07  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 51 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :

Quant Time: May 18 06:08:26 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N051719W.M  
Quant Title : SW846 8260  
QLast Update : Fri May 17 23:54:12 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1834

Delta R.T. 0.00 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

Instrument :

MSVOA\_N

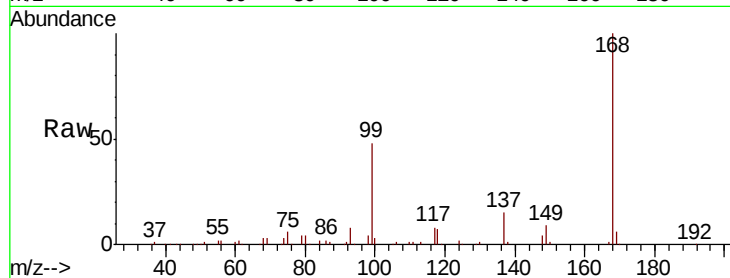
ClientSampled :

Tot Ion:168 Resp: 416502

Ion Ratio Lower Upper

168 100

99 48.0 40.2 60.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.67

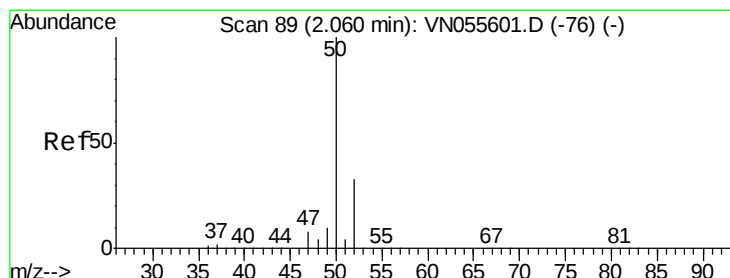
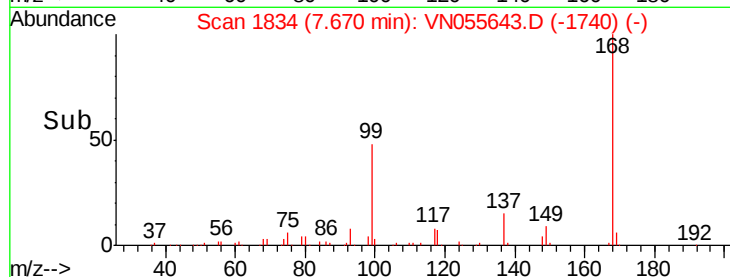
150000

100000

50000

0

Time--> 7.50 7.60 7.70 7.80 7.90



#3

Chloromethane

Concen: 0.263 ug/l

RT: 2.06 min Scan# 90

Delta R.T. 0.00 min

Lab File: VN055643.D

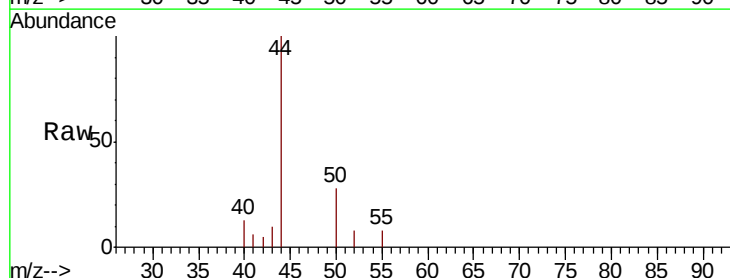
Acq: 18 May 2019 5:20

Tgt Ion: 50 Resp: 1123

Ion Ratio Lower Upper

50 100

52 28.2 26.7 40.1



Abundance Ion 49.90 (49.60 to 50.60): VNO

Ion 51.90 (51.60 to 52.60): VNO

2.06

800

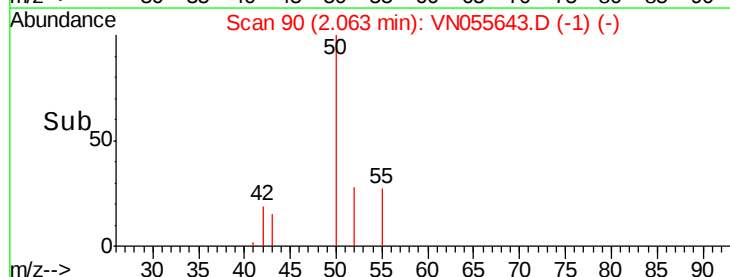
600

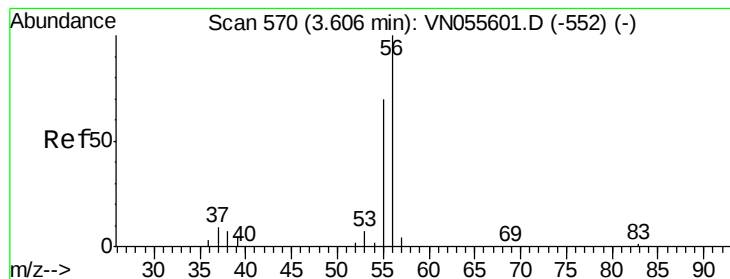
400

200

0

Time--> 2.02 2.04 2.06 2.08





#13

Acrolein

Concen: 1.648 ug/l

RT: 3.62 min Scan# 574

Delta R.T. 0.01 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

Instrument :

MSVOA\_N

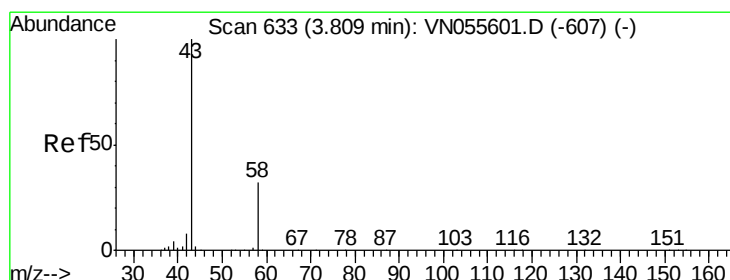
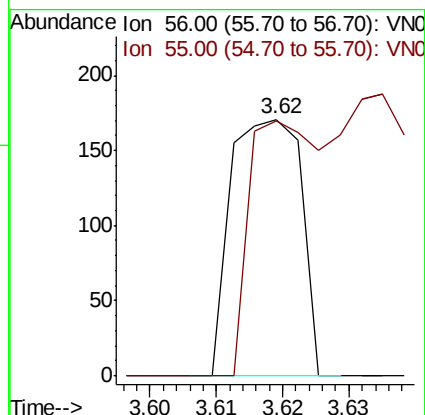
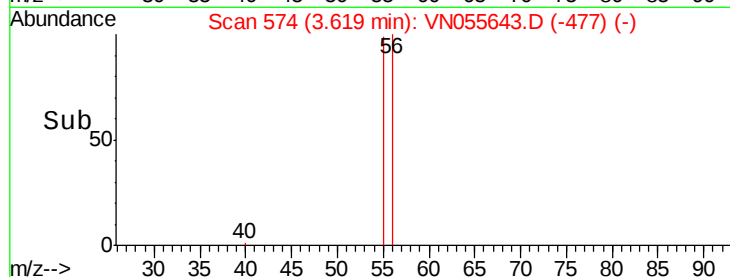
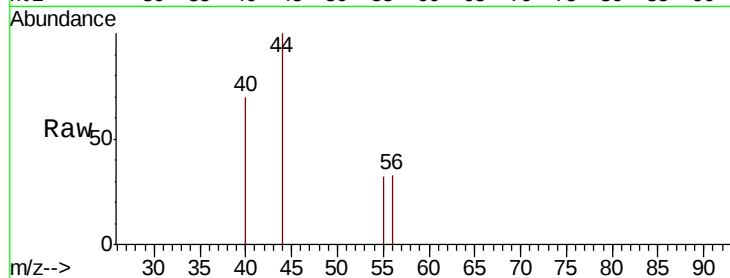
ClientSampleId :

Tot Ion: 56 Resp: 125

Ion Ratio Lower Upper

56 100

55 99.2 56.5 84.7#



#16

Acetone

Concen: 2.322 ug/l

RT: 3.83 min Scan# 639

Delta R.T. 0.02 min

Lab File: VN055643.D

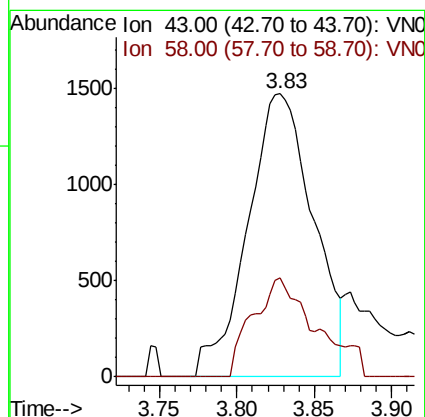
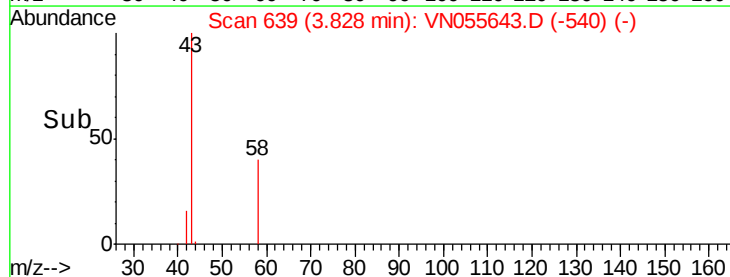
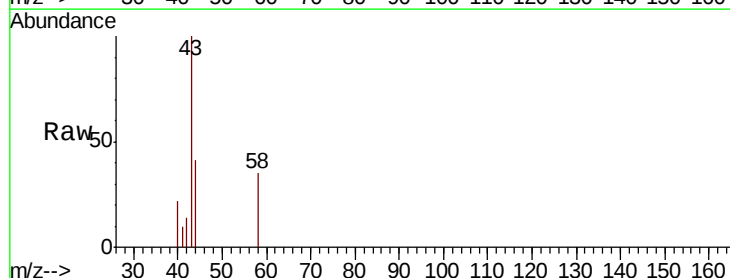
Acq: 18 May 2019 5:20

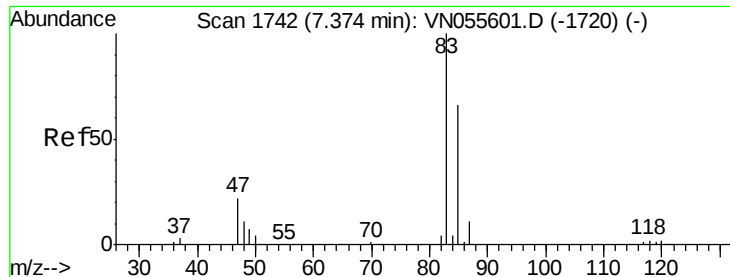
Tgt Ion: 43 Resp: 4326

Ion Ratio Lower Upper

43 100

58 34.9 26.0 39.0

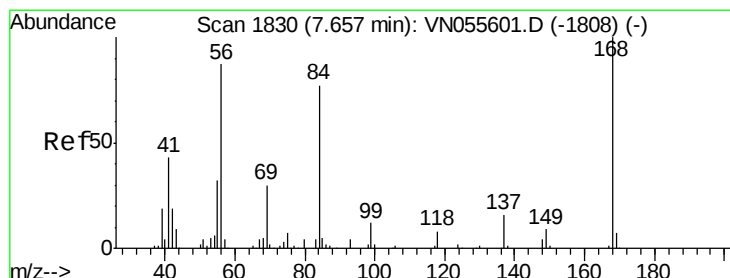
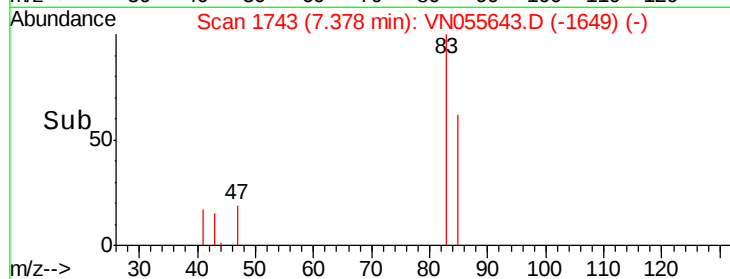
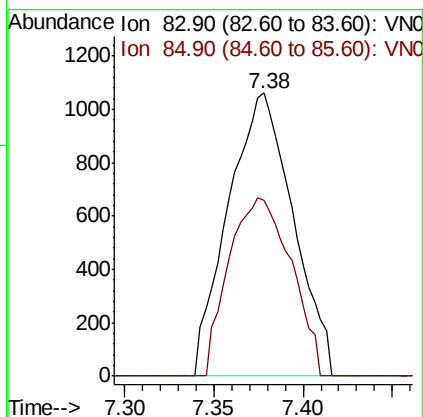
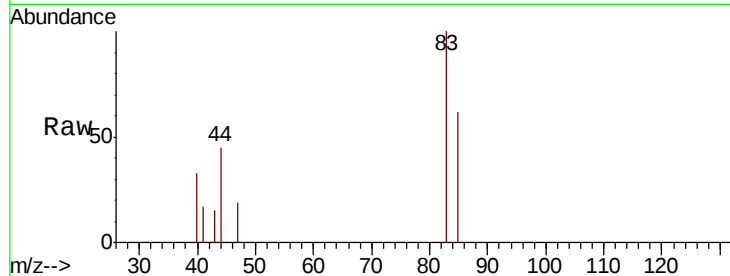




#30  
Chloroform  
Concen: 0.367 ug/l  
RT: 7.38 min Scan# 1743  
Delta R.T. 0.00 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

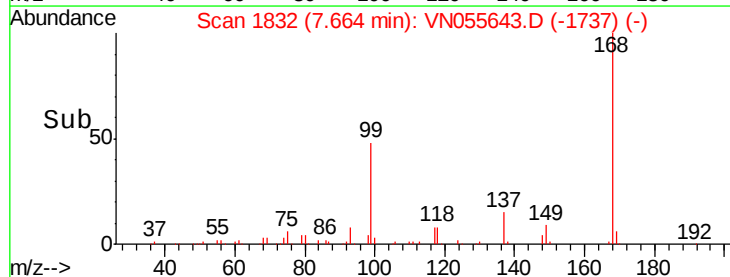
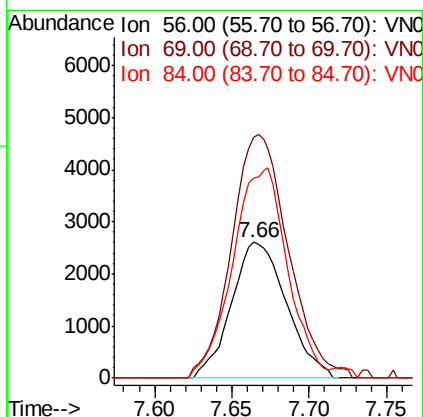
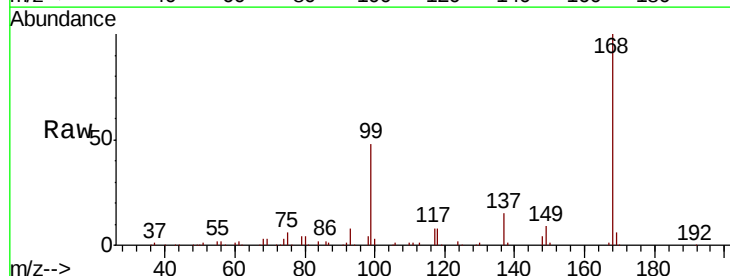
Instrument :  
MSVOA\_N  
ClientSampled :

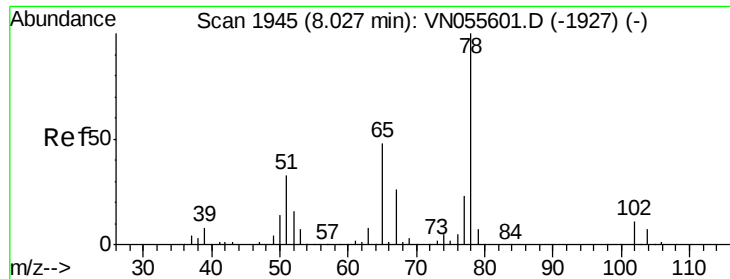
Tot Ion: 83 Resp: 2688  
Ion Ratio Lower Upper  
83 100  
85 62.2 52.6 78.8



#31  
Cyclohexane  
Concen: 0.951 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. 0.01 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Tgt Ion: 56 Resp: 6441  
Ion Ratio Lower Upper  
56 100  
69 177.5 27.2 40.8#  
84 147.7 71.3 106.9#

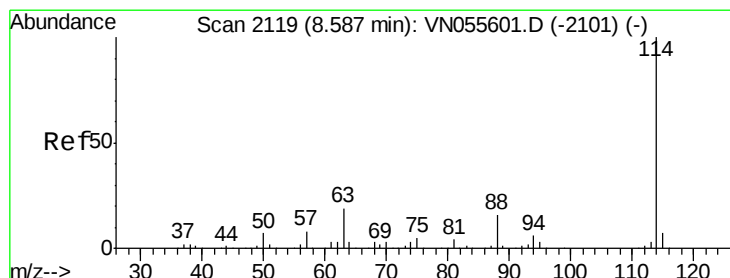
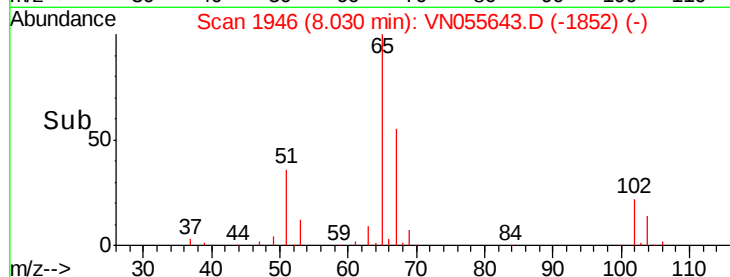
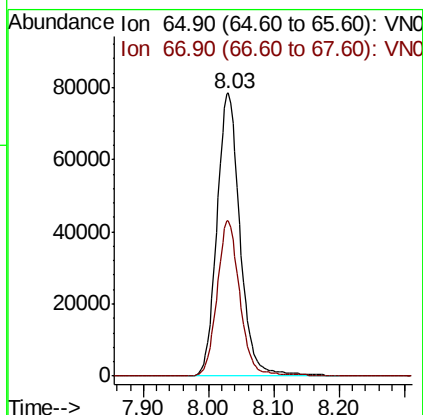
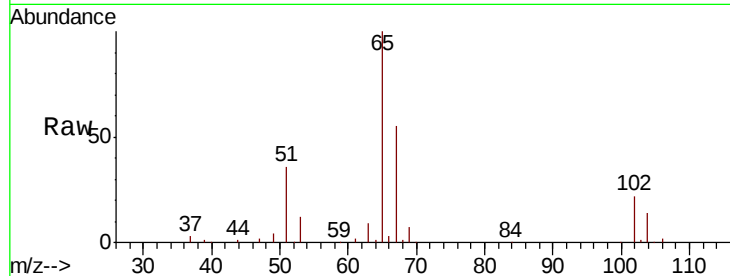




#33  
 1,2-Dichloroethane-d4  
 Concen: 42.243 ug/l  
 RT: 8.03 min Scan# 1946  
 Delta R.T. 0.00 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

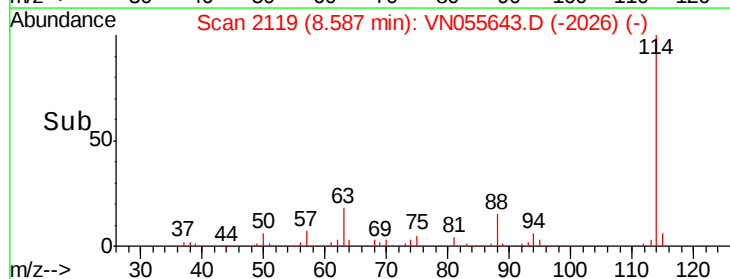
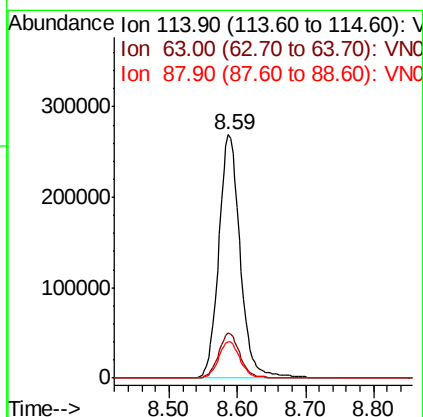
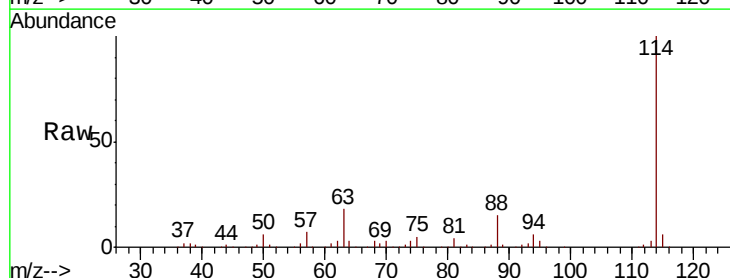
Instrument :  
 MSVOA\_N  
 ClientSampleId :

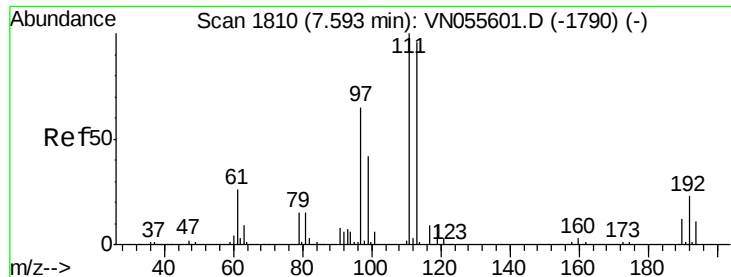
Tot Ion: 65 Resp: 192870  
 Ion Ratio Lower Upper  
 65 100  
 67 54.2 0.0 108.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

Tgt Ion: 114 Resp: 585071  
 Ion Ratio Lower Upper  
 114 100  
 63 18.4 0.0 38.2  
 88 15.0 0.0 31.0

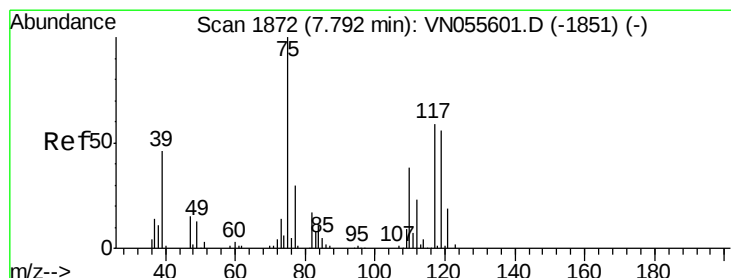
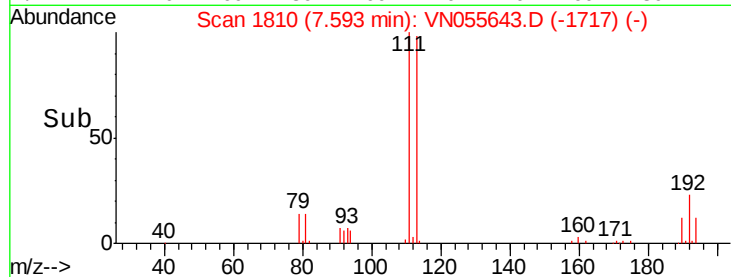
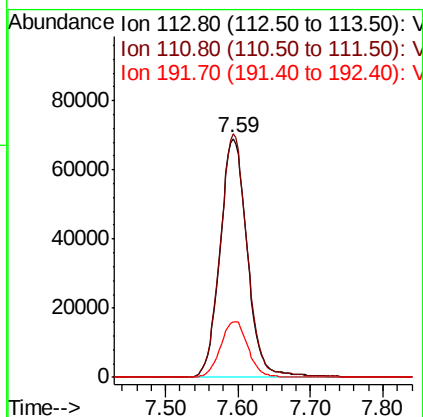
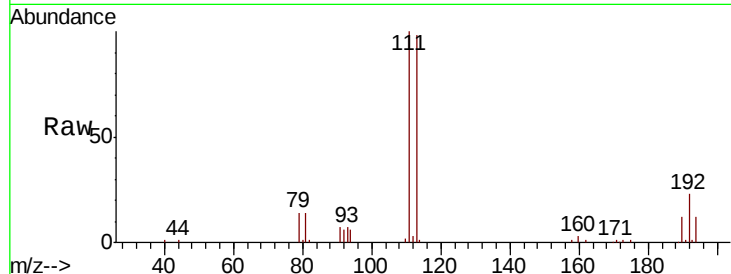




#35  
 Dibromofluoromethane  
 Concen: 48.459 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. 0.00 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

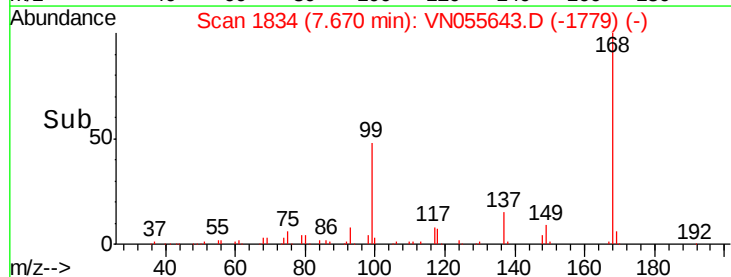
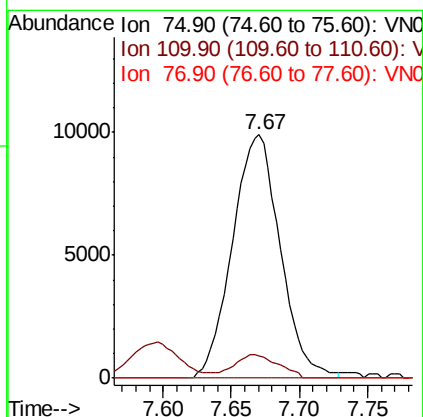
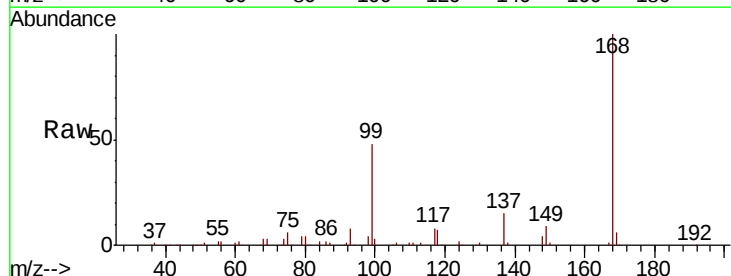
Instrument :  
 MSVOA\_N  
 ClientSampleId :

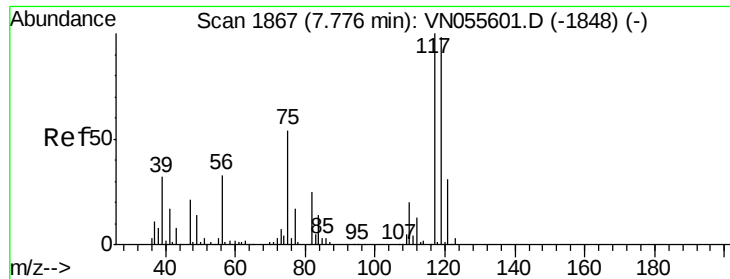
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.2 | 82.5  | 123.7 |
| 192     | 23.7  | 18.7  | 28.1  |



#36  
 1,1-Dichloropropene  
 Concen: 4.628 ug/l  
 RT: 7.67 min Scan# 1834  
 Delta R.T. -0.12 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 9.1   | 18.6  | 55.6# |
| 77      | 0.0   | 24.9  | 37.3# |

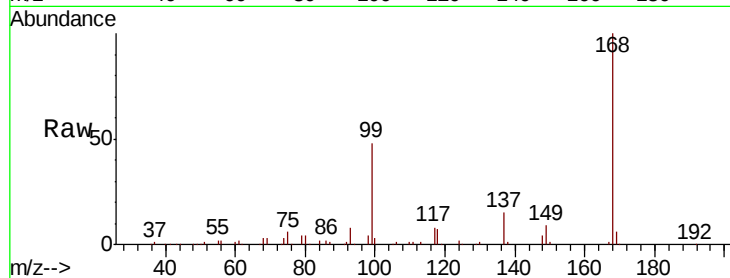




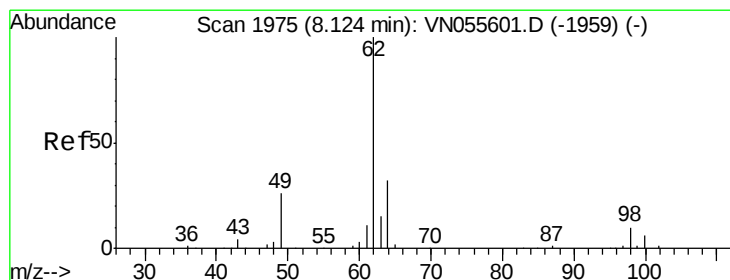
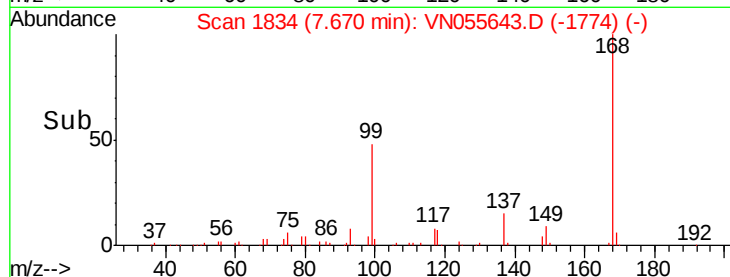
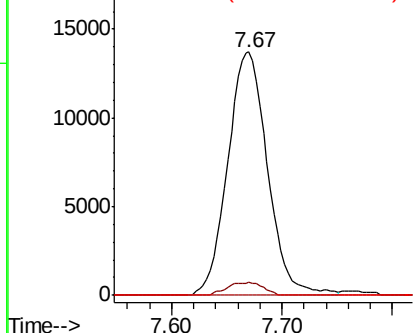
#38  
Carbon Tetrachloride  
Concen: 6.146 ug/l  
RT: 7.67 min Scan# 1834  
Delta R.T. -0.11 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion:117 Resp: 34260  
Ion Ratio Lower Upper  
117 100  
119 5.2 77.8 116.8#  
121 0.0 24.6 37.0#

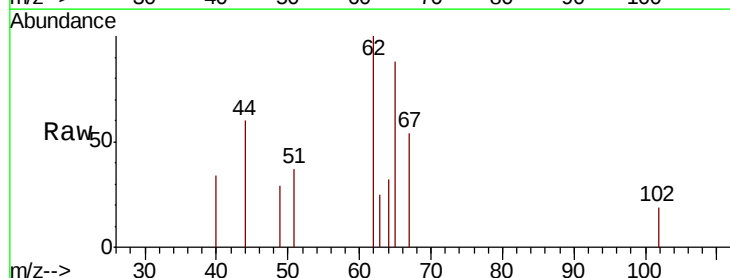


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

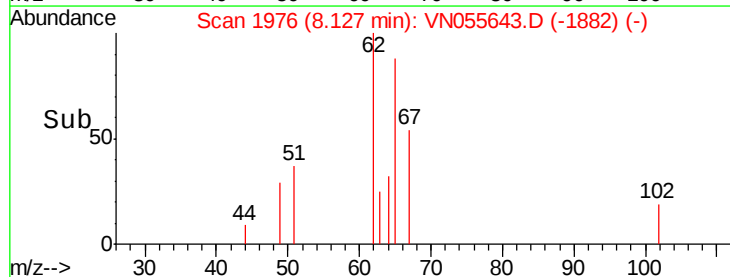
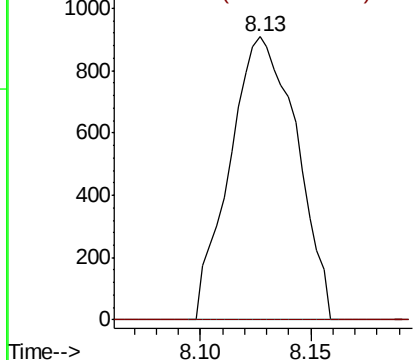


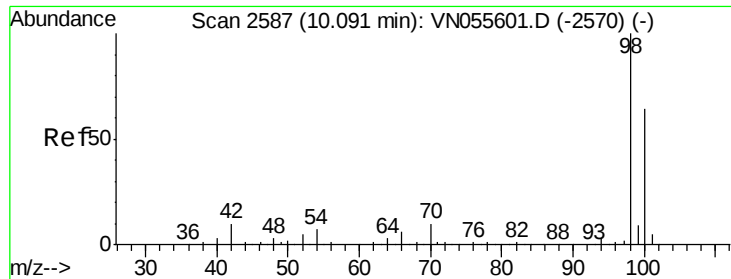
#42  
1,2-Dichloroethane  
Concen: 0.384 ug/l  
RT: 8.13 min Scan# 1976  
Delta R.T. 0.00 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Tgt Ion: 62 Resp: 1907  
Ion Ratio Lower Upper  
62 100  
98 0.0 0.0 20.2



Abundance Ion 61.90 (61.60 to 62.60): V  
Ion 97.90 (97.60 to 98.60): V





#50

Toluene-d8

Concen: 47.812 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

Instrument :

MSVOA\_N

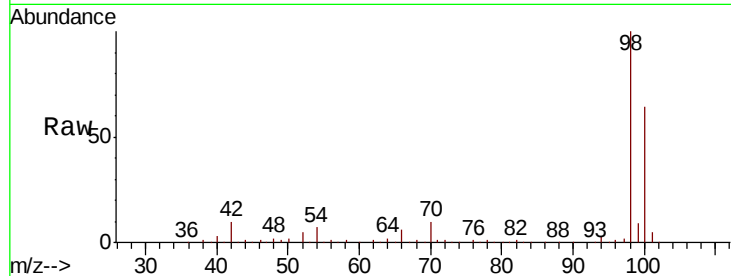
ClientSampleId :

Tot Ion: 98 Resp: 671910

Ion Ratio Lower Upper

98 100

100 64.8 51.9 77.9



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN

10.09

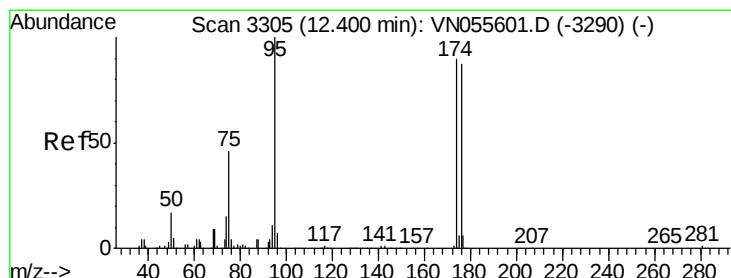
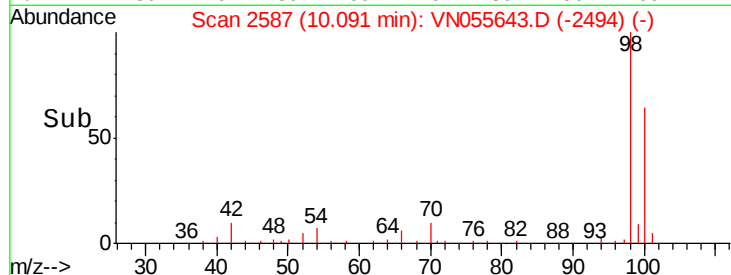
300000

200000

100000

0

Time-->



#62

4-Bromofluorobenzene

Concen: 45.281 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.00 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

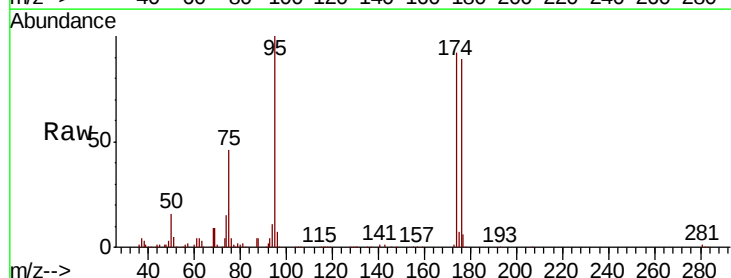
Tgt Ion: 95 Resp: 219736

Ion Ratio Lower Upper

95 100

174 93.1 0.0 180.6

176 91.0 0.0 177.4



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

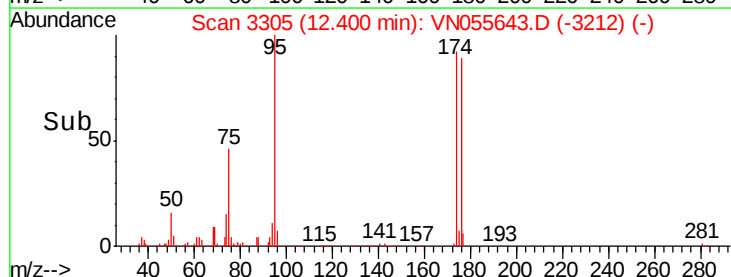
150000

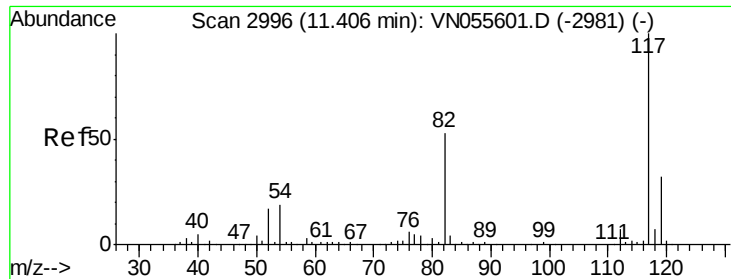
100000

50000

0

Time-->

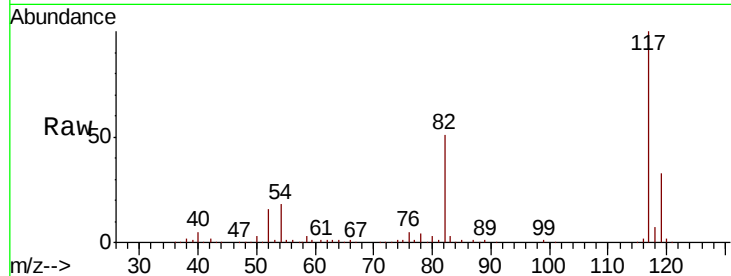




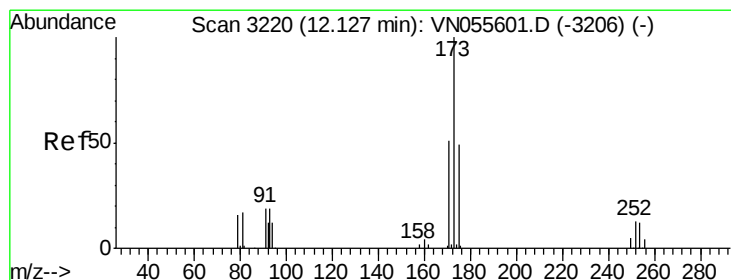
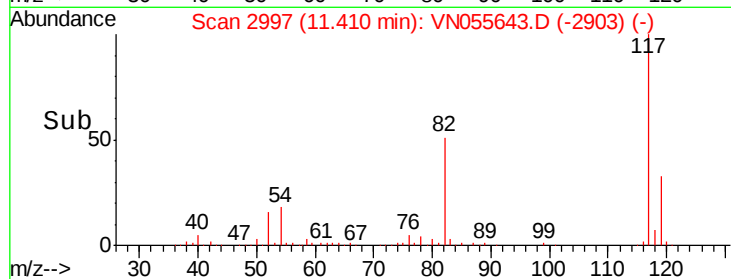
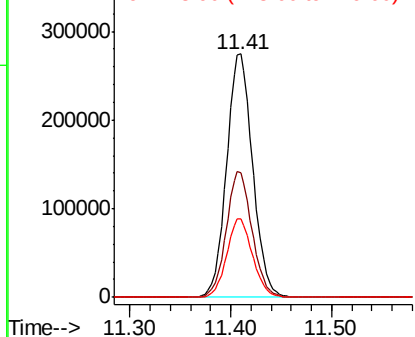
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2997  
Delta R.T. 0.00 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion:117 Resp: 494078  
Ion Ratio Lower Upper  
117 100  
82 51.3 42.3 63.5  
119 32.5 25.4 38.2

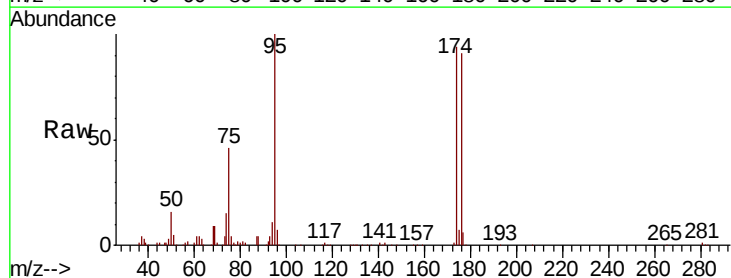


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

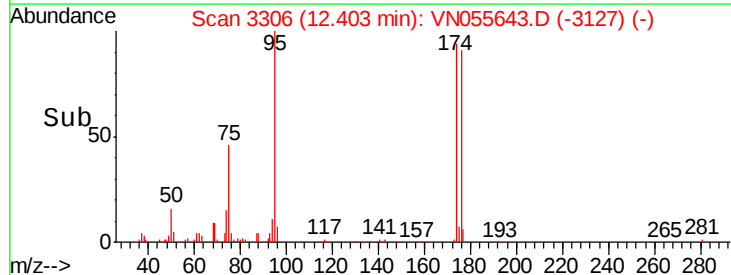
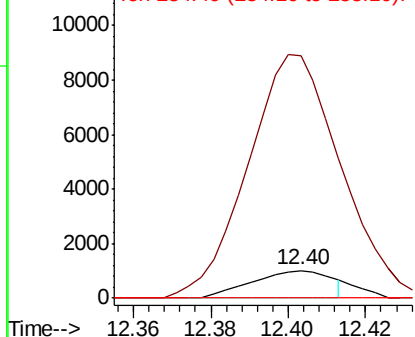


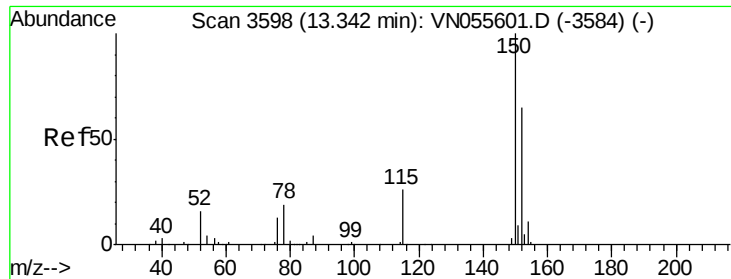
#71  
Bromoform  
Concen: 0.425 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.28 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Tgt Ion:173 Resp: 1448  
Ion Ratio Lower Upper  
173 100  
175 891.4 24.3 72.9#  
254 0.0 0.1 0.1#



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



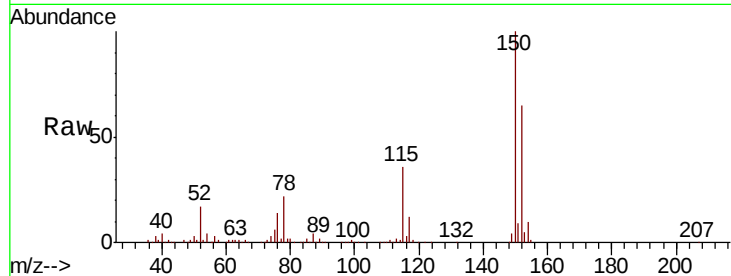


#72

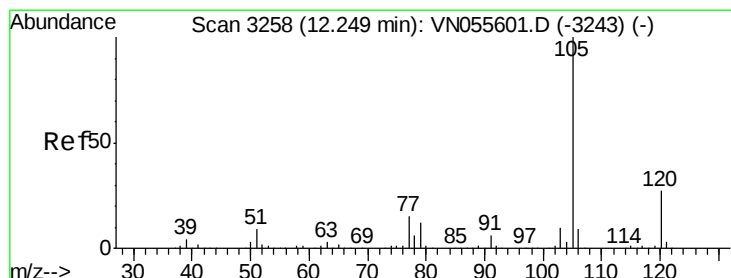
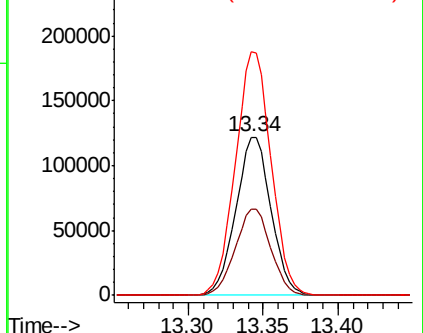
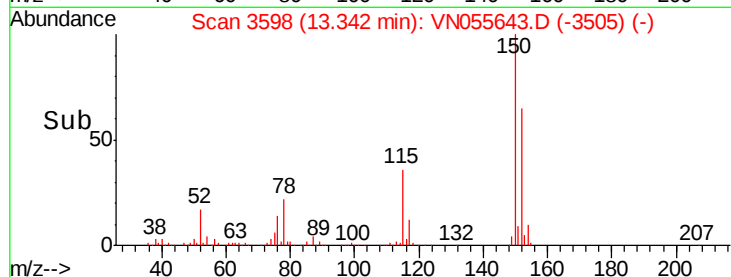
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.34 min Scan# 3598  
Delta R.T. 0.00 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:152 Resp: 199702  
Ion Ratio Lower Upper  
152 100  
115 55.2 28.1 84.2  
150 155.9 0.0 348.0



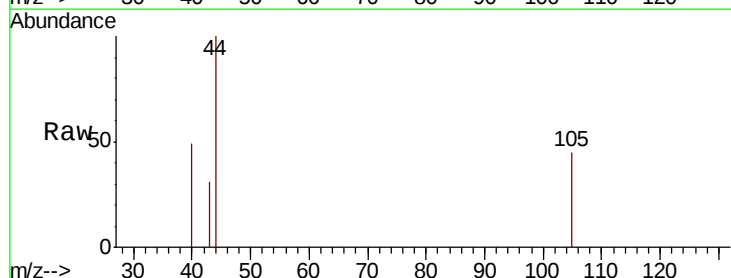
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



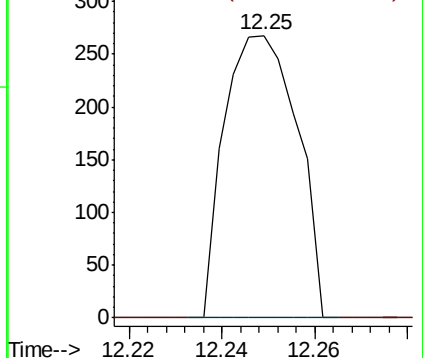
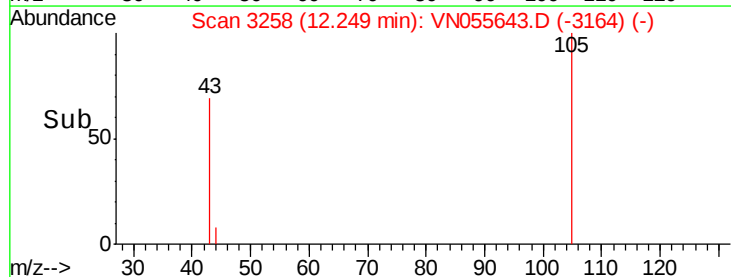
#73

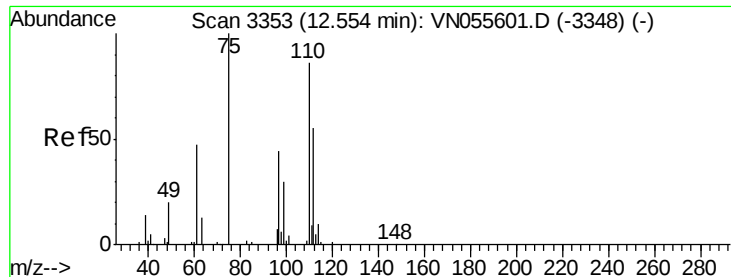
Isopropylbenzene  
Concen: Below Cal  
RT: 12.25 min Scan# 3258  
Delta R.T. 0.00 min  
Lab File: VN055643.D  
Acq: 18 May 2019 5:20

Tgt Ion:105 Resp: 292  
Ion Ratio Lower Upper  
105 100  
120 0.0 13.4 40.2#



Abundance Ion 105.00 (104.70 to 105.70): V  
Ion 120.00 (119.70 to 120.70): V





#76

1,2,3-Trichloropropane

Concen: 25.000 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

Instrument :

MSVOA\_N

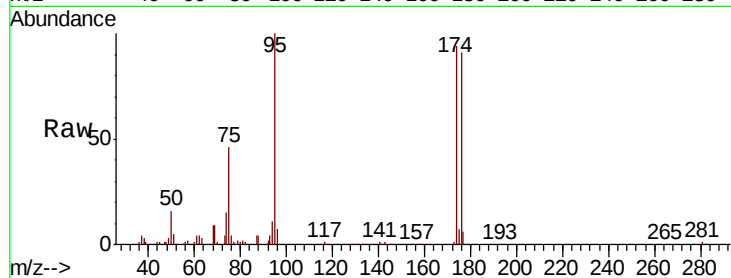
ClientSampleId :

Tot Ion: 75 Resp: 101872

Ion Ratio Lower Upper

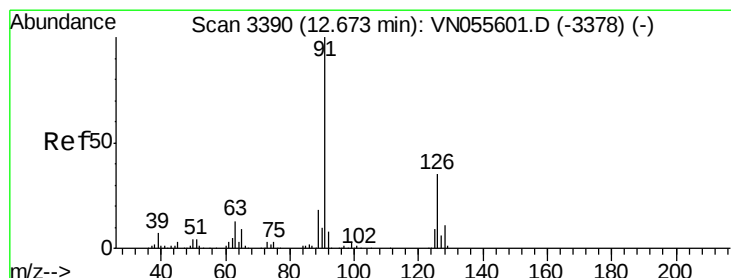
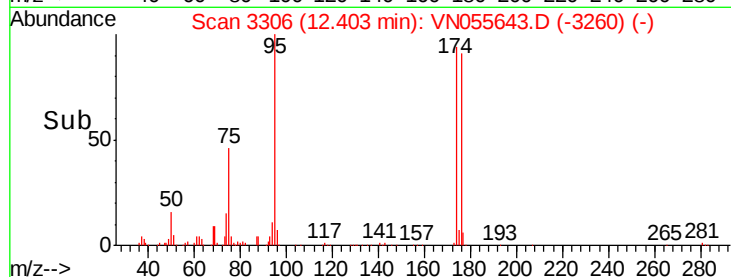
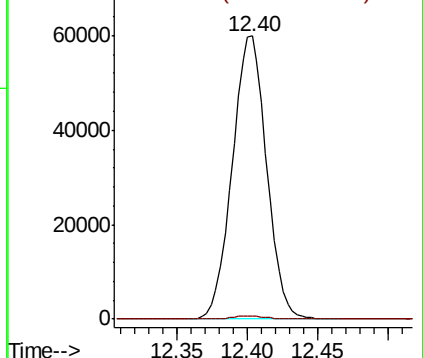
75 100

77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0



#79

2-Chlorotoluene

Concen: Below Cal

RT: 12.67 min Scan# 3390

Delta R.T. 0.00 min

Lab File: VN055643.D

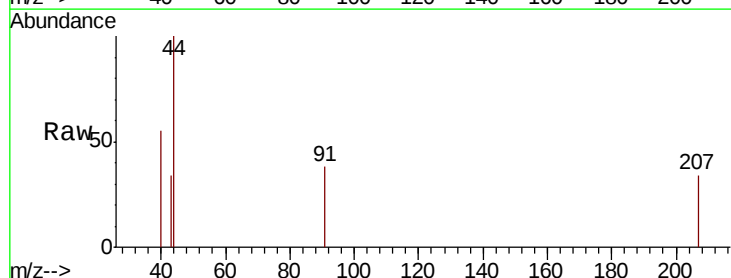
Acq: 18 May 2019 5:20

Tgt Ion: 91 Resp: 236

Ion Ratio Lower Upper

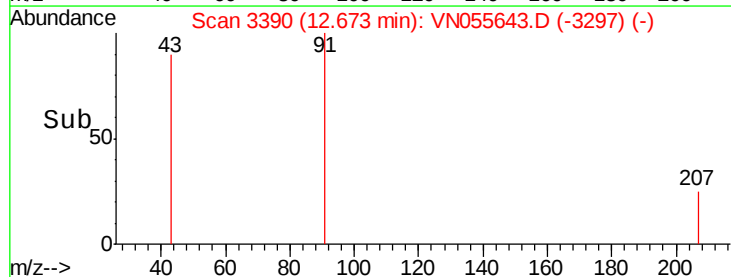
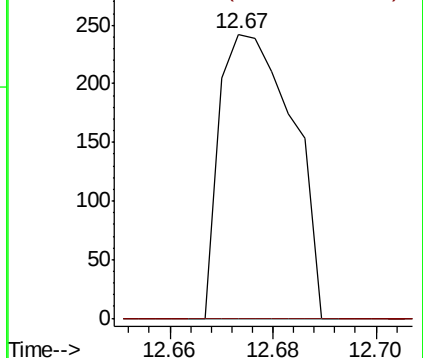
91 100

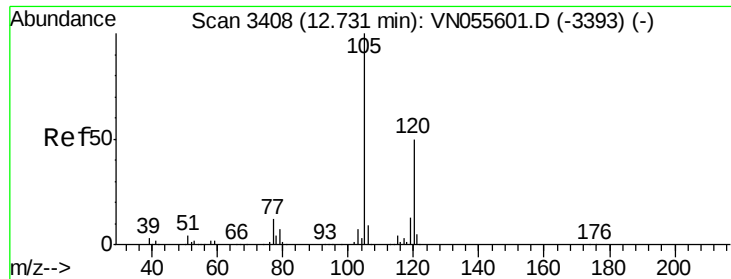
126 0.0 17.8 53.4#



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 125.90 (125.60 to 126.60): V

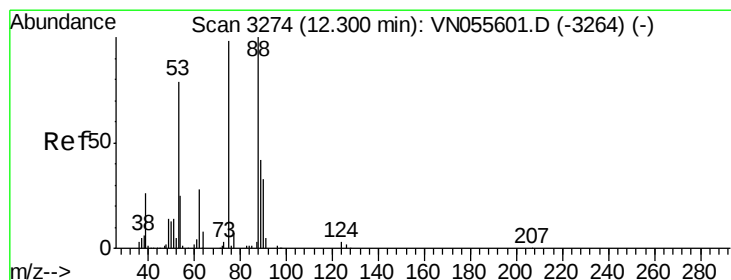
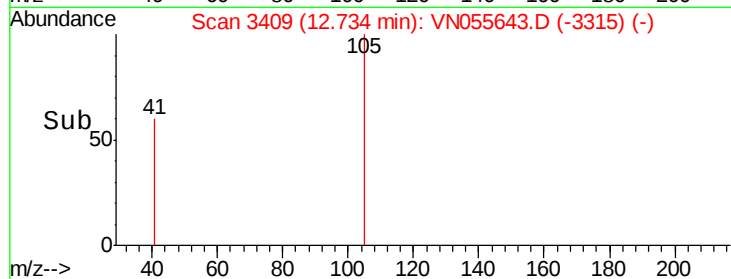
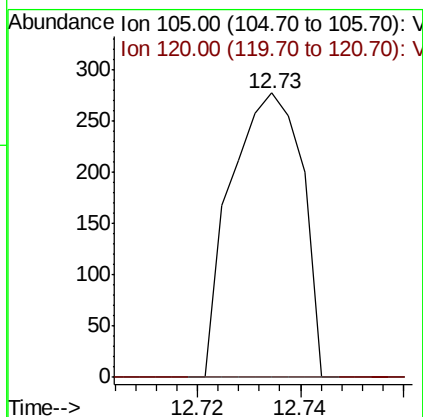
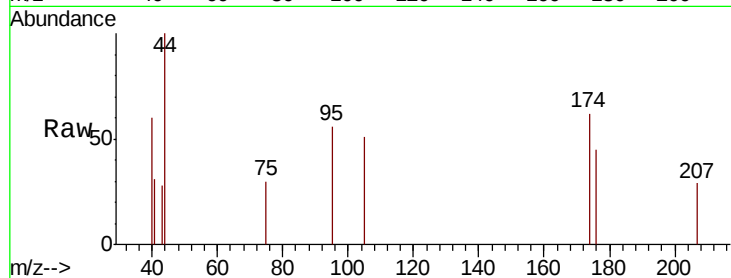




#80  
 1,3,5-Trimethylbenzene  
 Concen: Below Cal  
 RT: 12.73 min Scan# 3409  
 Delta R.T. 0.00 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

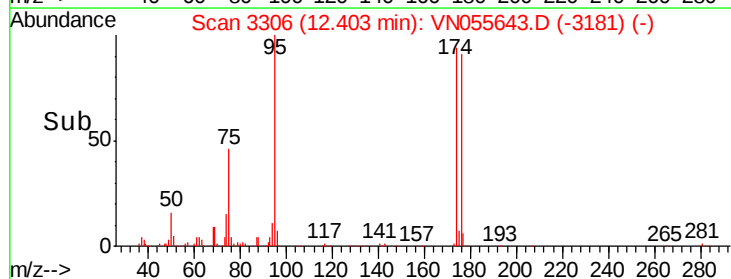
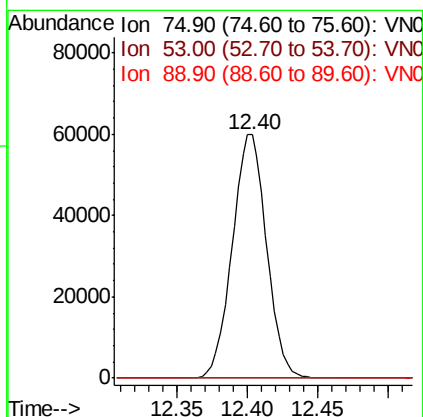
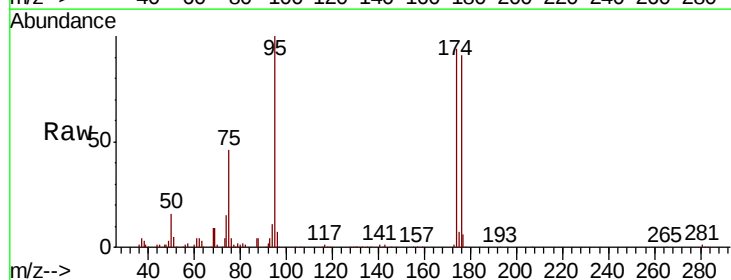
Instrument :  
 MSVOA\_N  
 ClientSampleId :

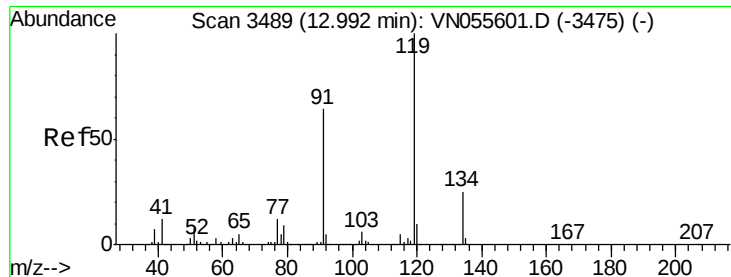
Tot Ion: 105 Resp: 264  
 Ion Ratio Lower Upper  
 105 100  
 120 0.0 24.6 74.0#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 64.263 ug/l  
 RT: 12.40 min Scan# 3306  
 Delta R.T. 0.10 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

Tgt Ion: 75 Resp: 101872  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 65.1 97.7#  
 89 0.0 36.4 54.6#

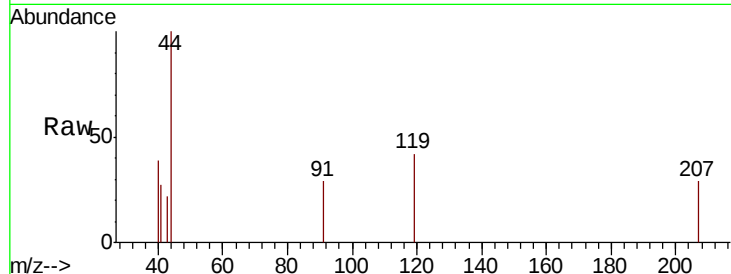




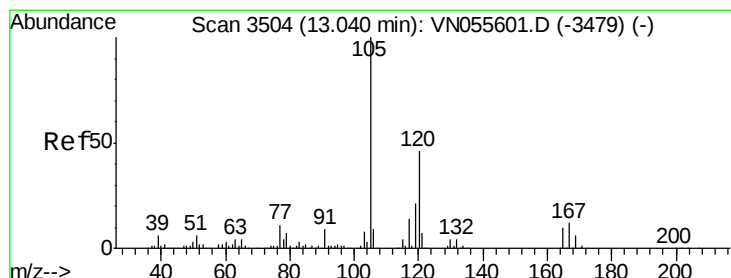
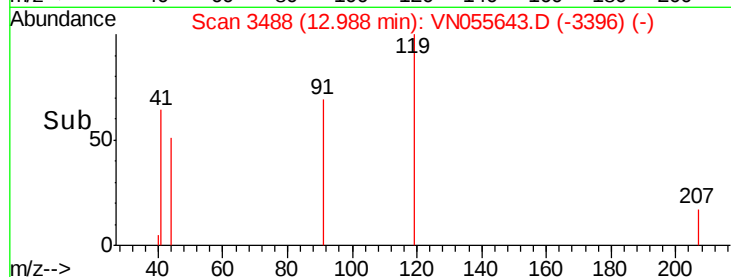
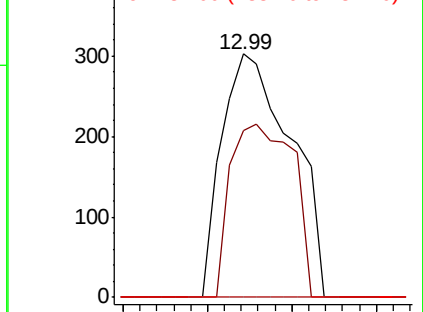
#83  
 tert-Butylbenzene  
 Concen: Below Cal  
 RT: 12.99 min Scan# 3488  
 Delta R.T. -0.00 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

Instrument :  
 MSVOA\_N  
 ClientSampled :

Tot Ion:119 Resp: 348  
 Ion Ratio Lower Upper  
 119 100  
 91 64.1 31.3 93.8  
 134 0.0 13.2 39.6#

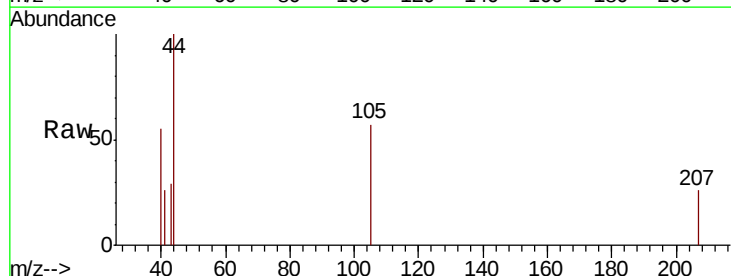


Abundance Ion 119.00 (118.70 to 119.70): V  
 Ion 91.00 (90.70 to 91.70): V  
 Ion 134.00 (133.70 to 134.70): V

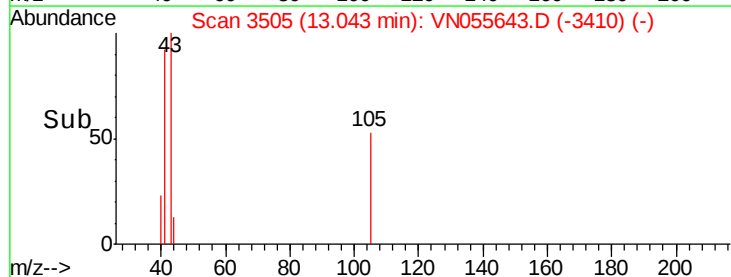
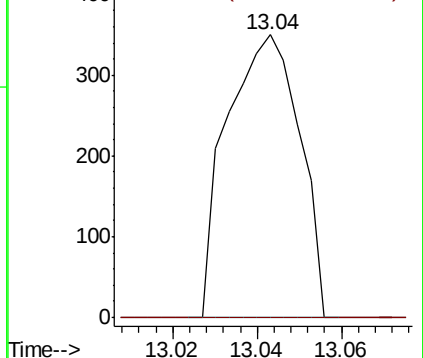


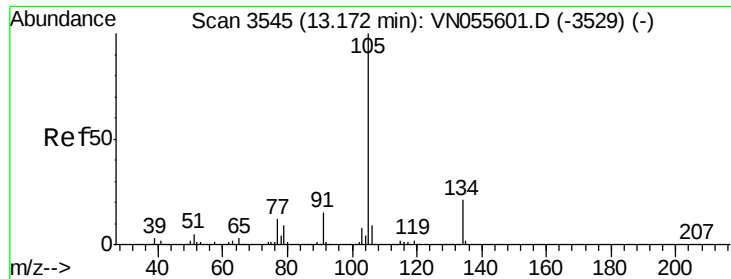
#84  
 1,2,4-Trimethylbenzene  
 Concen: Below Cal  
 RT: 13.04 min Scan# 3505  
 Delta R.T. 0.00 min  
 Lab File: VN055643.D  
 Acq: 18 May 2019 5:20

Tgt Ion:105 Resp: 416  
 Ion Ratio Lower Upper  
 105 100  
 120 0.0 23.1 69.2#



Abundance Ion 105.00 (104.70 to 105.70): V  
 Ion 120.00 (119.70 to 120.70): V





#85

sec-Butylbenzene

Concen: Below Cal

RT: 13.17 min Scan# 3546

Delta R.T. 0.00 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

Instrument :

MSVOA\_N

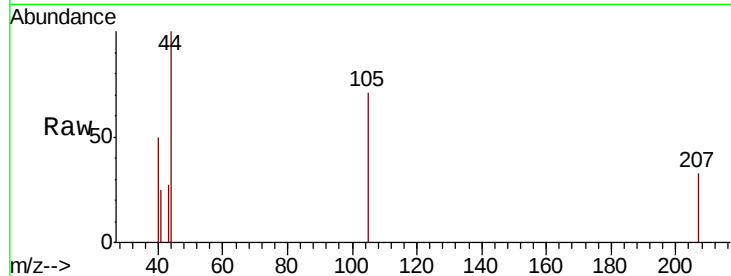
ClientSampled :

Tot Ion:105 Resp: 609

Ion Ratio Lower Upper

105 100

134 0.0 10.3 30.9#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V

13.17

400

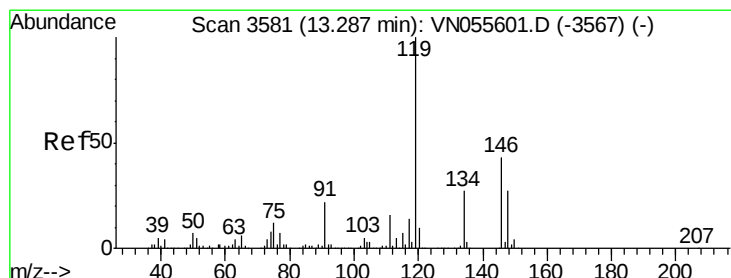
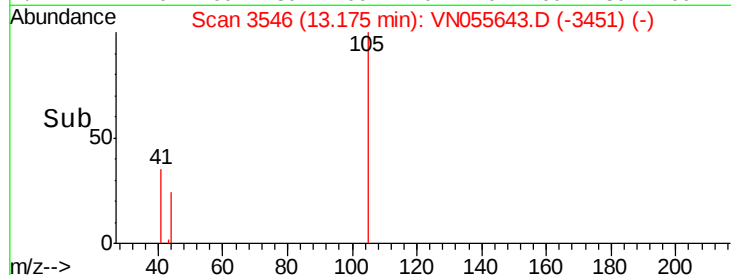
300

200

100

0

Time-->



#86

p-Isopropyltoluene

Concen: Below Cal

RT: 13.29 min Scan# 3581

Delta R.T. 0.00 min

Lab File: VN055643.D

Acq: 18 May 2019 5:20

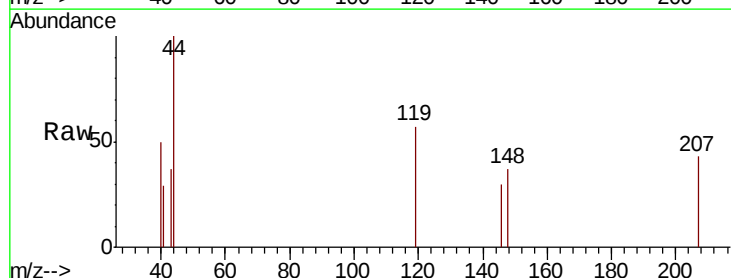
Tgt Ion:119 Resp: 537

Ion Ratio Lower Upper

119 100

134 0.0 13.4 40.2#

91 0.0 11.0 33.0#



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): V

13.29

400

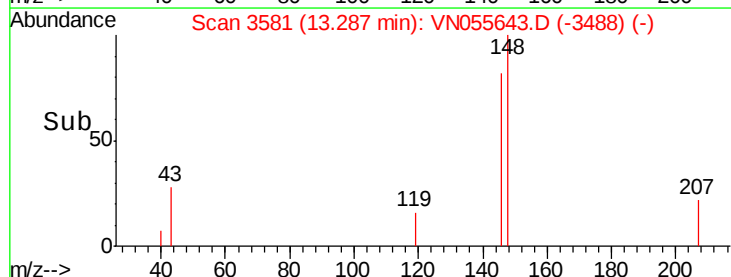
300

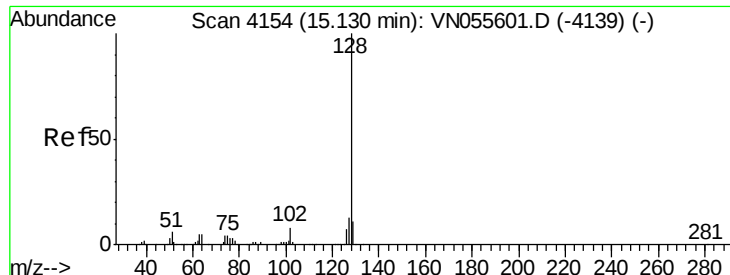
200

100

0

Time-->





#95

Naphthalene

Concen: 1.828 ug/l

RT: 15.14 min Scan# 4157

Delta R.T. 0.01 min

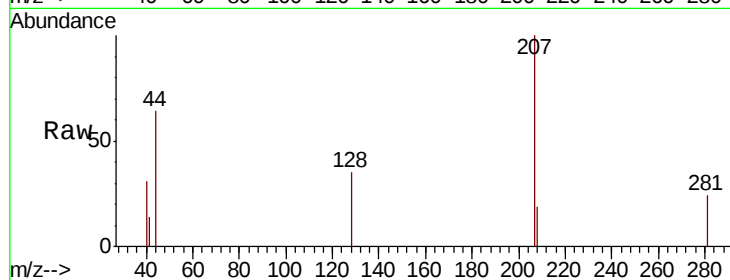
Lab File: VN055643.D

Acq: 18 May 2019 5:20

Instrument :

MSVOA\_N

ClientSampleId :



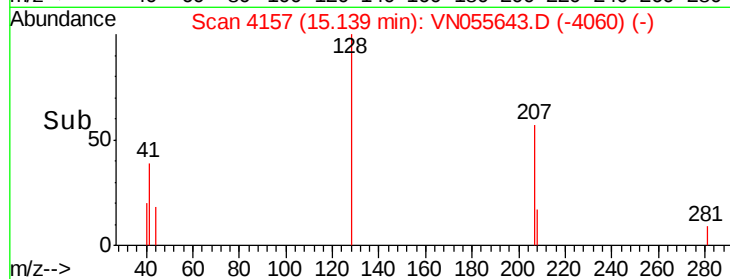
Tot Ion:128 Resp: 686

Ion Ratio Lower Upper

128 100

127 0.0 10.2 15.4#

129 0.0 8.6 12.8#



Abundance Ion 128.00 (127.70 to 128.70): V

600 Ion 127.00 (126.70 to 127.70): V

500 Ion 129.00 (128.70 to 129.70): V

400

300

200

100

0

15.10 15.15

Time-->