

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU091318\  
 Data File : VU026697.D  
 Acq On : 12 Sep 2018 12:58  
 Operator : MD/SY  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

Quant Time: Sep 13 03:35:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Sep 12 00:46:21 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 246050   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 228772   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 116093   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 71301    | 38.89    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 77.78%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 61837    | 41.85    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 83.70%  |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 141147   | 43.01    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 86.02%  |
| 21) 2-Butanone-d5              | 4.18    | 46    | 122351   | 107.23   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 107.23% |
| 24) Chloroform-d               | 4.65    | 84    | 142137   | 46.62    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 93.24%  |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 90326    | 45.27    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 90.54%  |
| 32) Benzene-d6                 | 5.34    | 84    | 280978   | 47.45    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.90%  |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 94440    | 47.53    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 95.06%  |
| 41) Toluene-d8                 | 7.57    | 98    | 264817   | 47.67    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 95.34%  |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 44484    | 48.16    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 96.32%  |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 92673    | 114.31   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 114.31% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 134555   | 49.46    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 98.92%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 109590   | 47.35    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 94.70%  |

## Target Compounds

|                                |      |     |        |              | Qvalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.21 | 85  | 79084  | 51.061 ug/L  | 99     |
| 3) Chloromethane               | 1.33 | 50  | 102321 | 50.257 ug/L  | 100    |
| 5) Vinyl chloride              | 1.40 | 62  | 108479 | 51.564 ug/L  | 100    |
| 6) Bromomethane                | 1.62 | 94  | 57387  | 46.809 ug/L  | 97     |
| 8) Chloroethane                | 1.69 | 64  | 66263  | 50.786 ug/L  | 100    |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 139111 | 52.439 ug/L  | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 83483  | 55.260 ug/L  | 99     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 77455  | 53.387 ug/L  | 95     |
| 13) Acetone                    | 2.32 | 43  | 135586 | 104.330 ug/L | 100    |
| 14) Carbon disulfide           | 2.48 | 76  | 237428 | 50.387 ug/L  | 100    |
| 15) Methyl Acetate             | 2.61 | 43  | 105101 | 56.689 ug/L  | 100    |
| 16) Methylene chloride         | 2.70 | 84  | 92151  | 53.821 ug/L  | 99     |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 82644  | 53.760 ug/L  | 99     |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 268160 | 56.611 ug/L  | 99     |
| 19) 1,1-Dichloroethane         | 3.45 | 63  | 160759 | 53.921 ug/L  | 99     |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 94997  | 54.863 ug/L  | 98     |
| 22) 2-Butanone                 | 4.26 | 43  | 165729 | 111.379 ug/L | 99     |

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 Operator : MD/SY  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

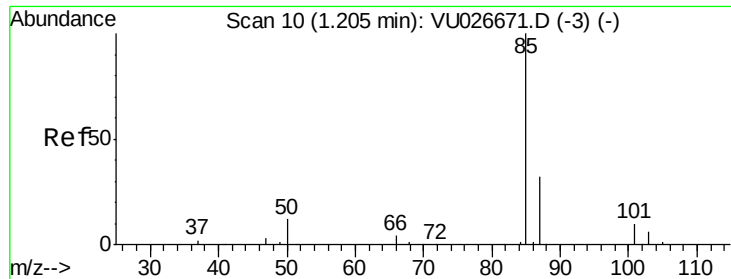
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

Quant Time: Sep 13 03:35:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Sep 12 00:46:21 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.55  | 128  | 48123    | 54.338  | ug/L  | 99       |
| 25) Chloroform                 | 4.67  | 83   | 161612   | 53.931  | ug/L  | 100      |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 127315   | 53.505  | ug/L  | 99       |
| 29) Cyclohexane                | 5.00  | 56   | 145929   | 58.234  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane      | 4.92  | 97   | 135085   | 55.738  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 5.13  | 117  | 121294   | 55.369  | ug/L  | 99       |
| 33) Benzene                    | 5.39  | 78   | 358231   | 55.917  | ug/L  | 100      |
| 34) Trichloroethene            | 6.19  | 95   | 89539    | 56.231  | ug/L  | 99       |
| 35) Methylcyclohexane          | 6.42  | 83   | 152657   | 59.893  | ug/L  | 98       |
| 37) 1,2-Dichloropropane        | 6.43  | 63   | 101199   | 56.545  | ug/L  | 99       |
| 38) Bromodichloromethane       | 6.76  | 83   | 122934   | 56.050  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.27  | 75   | 149895   | 56.600  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 281449   | 123.283 | ug/L  | 99       |
| 42) Toluene                    | 7.64  | 91   | 382335   | 57.579  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 137588   | 55.844  | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.07  | 97   | 90148    | 56.785  | ug/L  | 97       |
| 46) Tetrachloroethene          | 8.23  | 164  | 76382    | 57.076  | ug/L  | 99       |
| 48) 2-Hexanone                 | 8.36  | 43   | 232404   | 120.576 | ug/L  | 98       |
| 49) Dibromochloromethane       | 8.48  | 129  | 103487   | 56.397  | ug/L  | 97       |
| 50) 1,2-Dibromoethane          | 8.59  | 107  | 97382    | 57.343  | ug/L  | 99       |
| 51) Chlorobenzene              | 9.12  | 112  | 245774   | 56.371  | ug/L  | 99       |
| 52) Ethylbenzene               | 9.25  | 91   | 415608   | 57.875  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.38  | 106  | 158211   | 58.429  | ug/L  | 100      |
| 54) o-xylene                   | 9.78  | 106  | 158046   | 58.812  | ug/L  | 100      |
| 55) Styrene                    | 9.79  | 104  | 268249   | 59.010  | ug/L  | 99       |
| 56) Isopropylbenzene           | 10.17 | 105  | 409517   | 59.821  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 154818   | 56.293  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 121203   | 57.237  | ug/L  | 100      |
| 61) Bromoform                  | 9.96  | 173  | 79005    | 55.244  | ug/L  | 98       |
| 62) 1,3-Dichlorobenzene        | 11.42 | 146  | 191270   | 57.379  | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene        | 11.51 | 146  | 195011   | 55.224  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.88 | 146  | 200399   | 56.883  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.66 | 75   | 33261    | 58.439  | ug/L  | 97       |
| 67) 1,3,5-Trichlorobenzene     | 12.89 | 180  | 156423   | 59.159  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 134236   | 58.410  | ug/L  | 98       |
| 69) Naphthalene                | 13.75 | 128  | 432285   | 61.384  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.99 | 180  | 144482   | 58.039  | ug/L  | 99       |

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





#2

Dichlorodifluoromethane

Concen: 51.061 ug/L

RT: 1.21 min Scan# 10

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

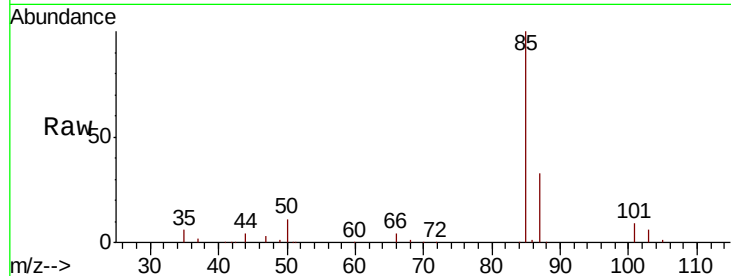
BFB

Tgt Ion: 85 Resp: 79084

Ion Ratio Lower Upper

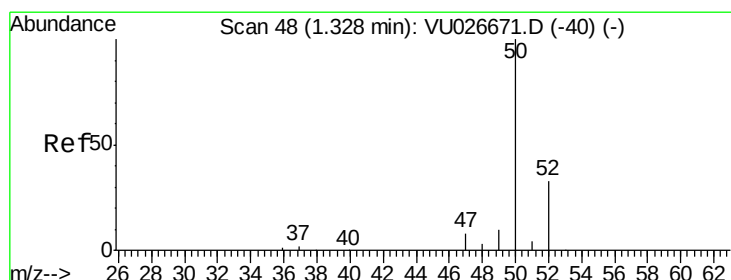
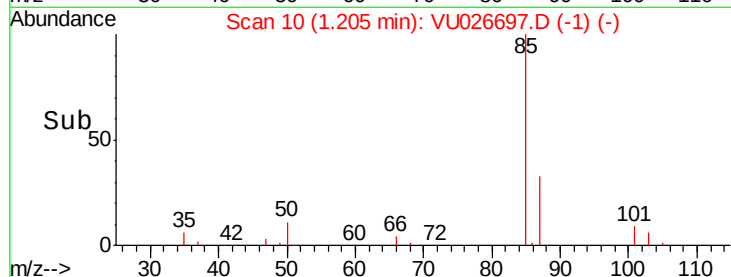
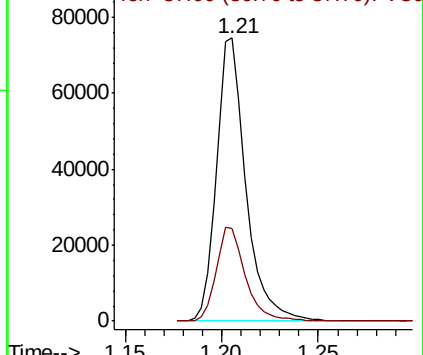
85 100

87 32.9 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VU0

Ion 87.00 (86.70 to 87.70): VU0



#3

Chloromethane

Concen: 50.257 ug/L

RT: 1.33 min Scan# 48

Delta R.T. -0.00 min

Lab File: VU026697.D

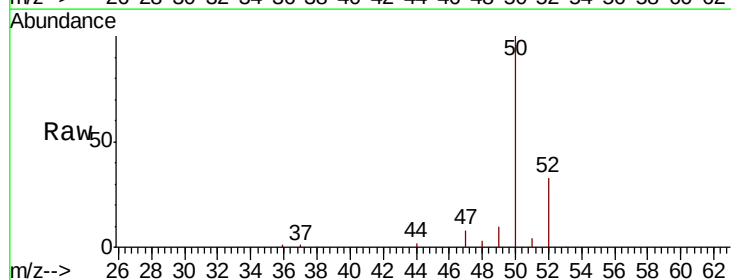
Acq: 12 Sep 2018 12:58

Tgt Ion: 50 Resp: 102321

Ion Ratio Lower Upper

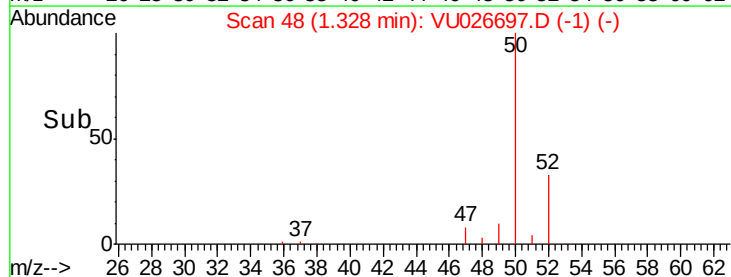
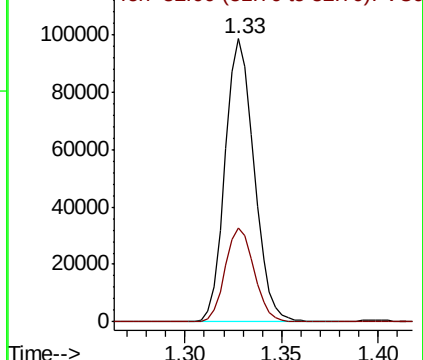
50 100

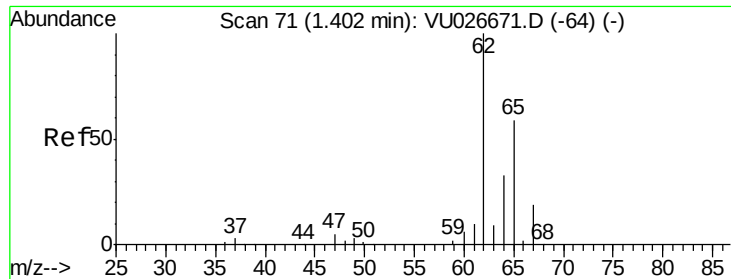
52 33.1 23.2 43.2



Abundance Ion 50.00 (49.70 to 50.70): VU0

Ion 52.00 (51.70 to 52.70): VU0





#5

Vinyl chloride

Concen: 51.564 ug/L

RT: 1.40 min Scan# 71

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampled :

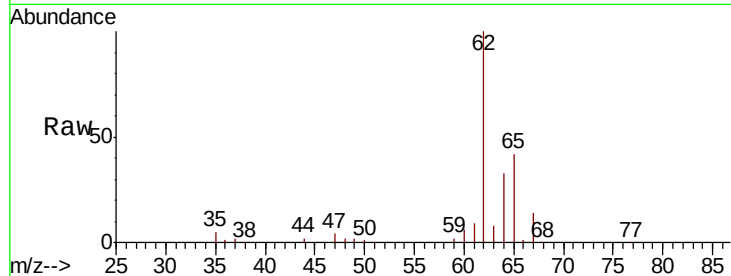
BFB

Tgt Ion: 62 Resp: 108479

Ion Ratio Lower Upper

62 100

64 32.9 22.9 42.5



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.00 (63.70 to 64.70): VU0

120000

100000

80000

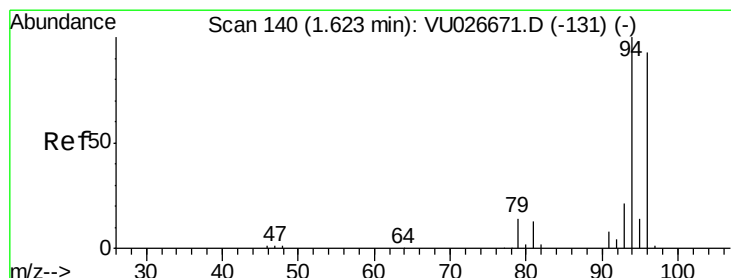
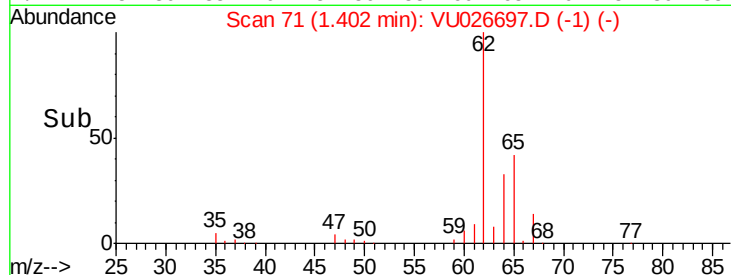
60000

40000

20000

0

Time-->



#6

Bromomethane

Concen: 46.809 ug/L

RT: 1.62 min Scan# 138

Delta R.T. -0.01 min

Lab File: VU026697.D

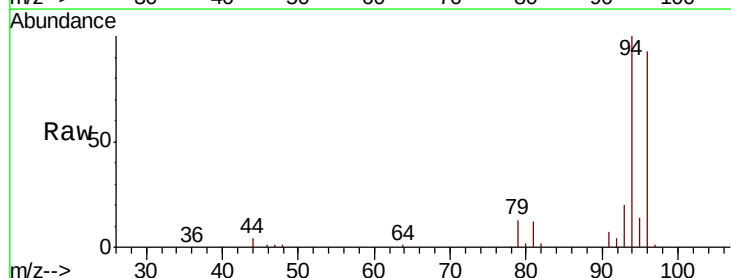
Acq: 12 Sep 2018 12:58

Tgt Ion: 94 Resp: 57387

Ion Ratio Lower Upper

94 100

96 93.3 63.6 118.0



Abundance Ion 94.00 (93.70 to 94.70): VU0

Ion 96.00 (95.70 to 96.70): VU0

50000

40000

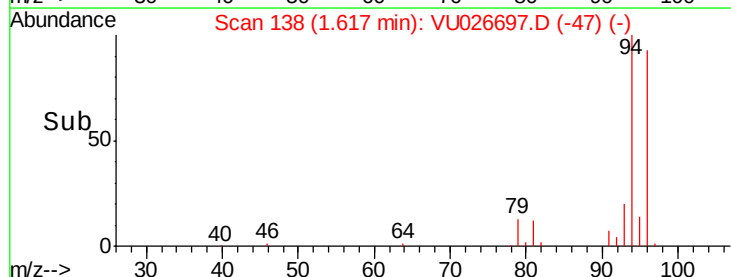
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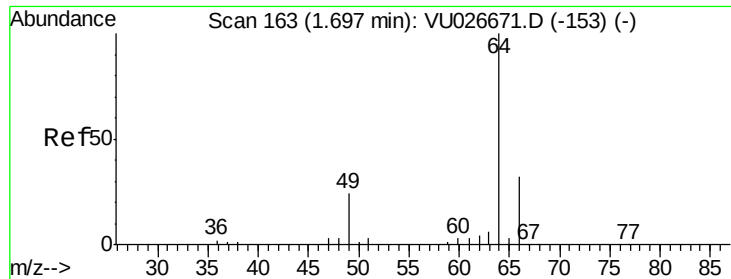
20000

10000

0

Time-->

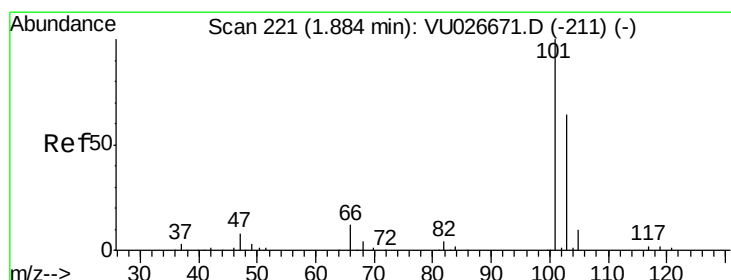
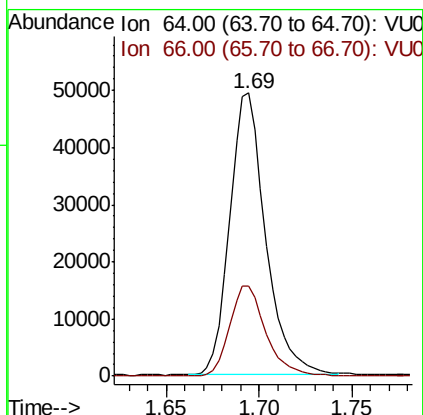
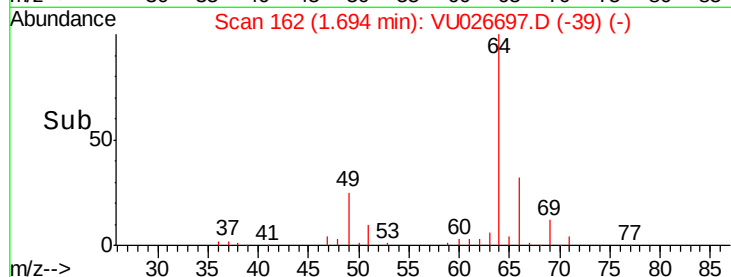
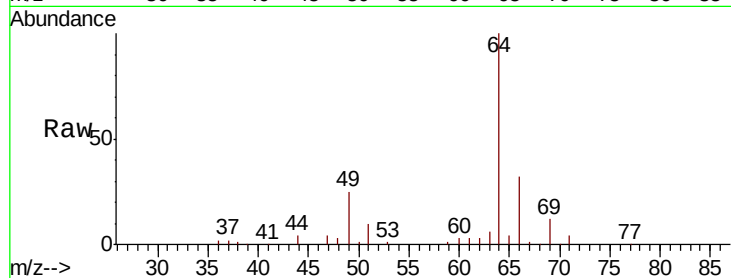




#8  
Chloroethane  
Concen: 50.786 ug/L  
RT: 1.69 min Scan# 162  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

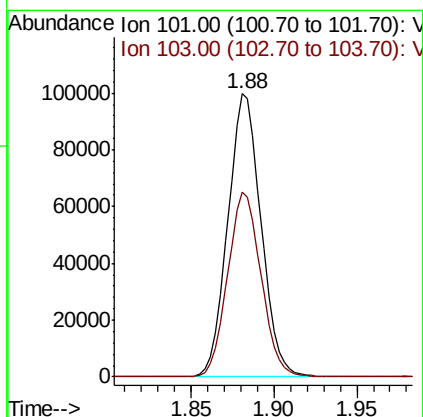
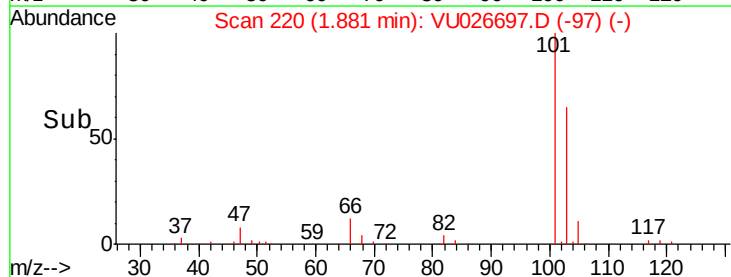
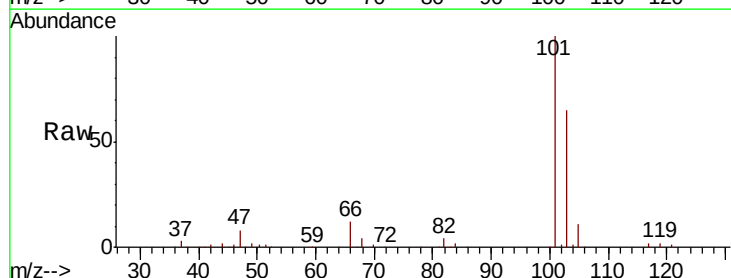
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFB

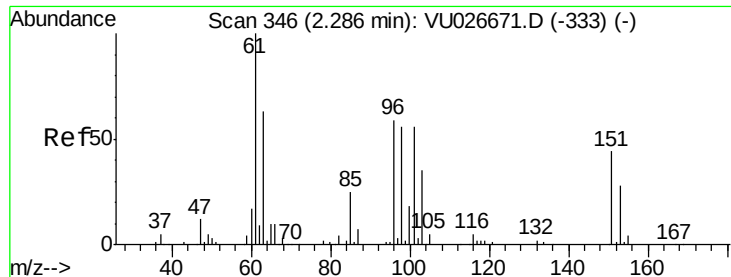
Tgt Ion: 64 Resp: 66263  
Ion Ratio Lower Upper  
64 100  
66 32.0 22.4 41.6



#9  
Trichlorofluoromethane  
Concen: 52.439 ug/L  
RT: 1.88 min Scan# 220  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

Tgt Ion: 101 Resp: 139111  
Ion Ratio Lower Upper  
101 100  
103 65.4 51.8 77.6





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 55.260 ug/L

RT: 2.28 min Scan# 345

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

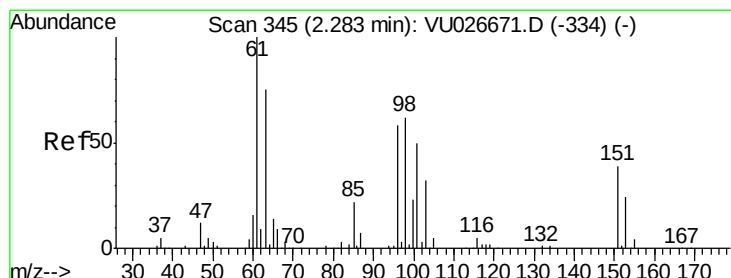
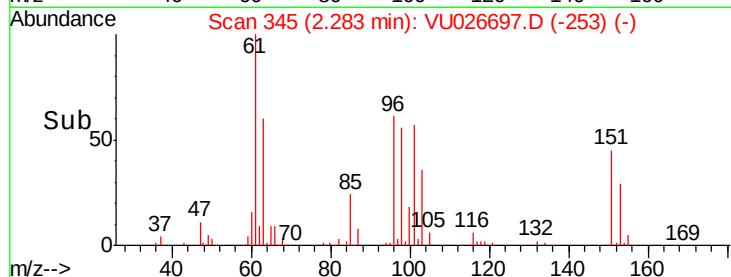
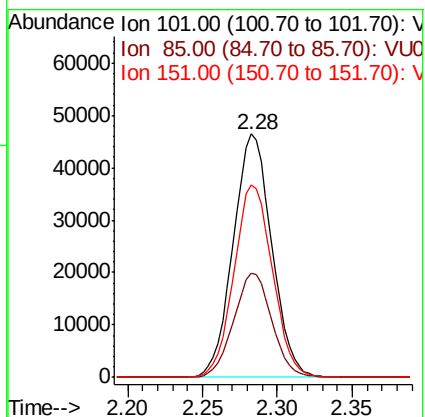
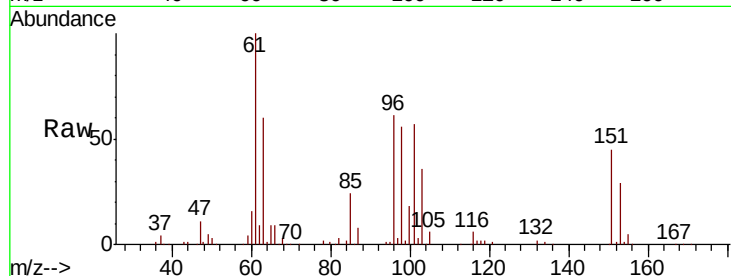
Tgt Ion: 101 Resp: 83483

Ion Ratio Lower Upper

101 100

85 42.3 34.1 51.1

151 78.9 62.6 94.0



#12

1,1-Dichloroethene

Concen: 53.387 ug/L

RT: 2.28 min Scan# 344

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

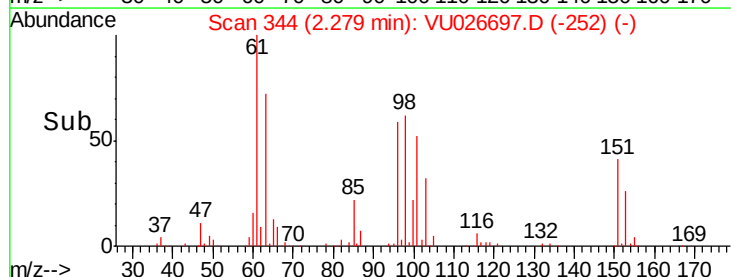
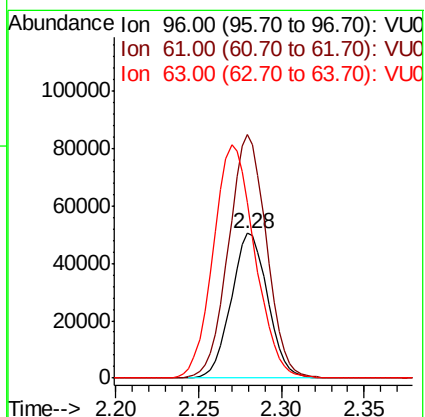
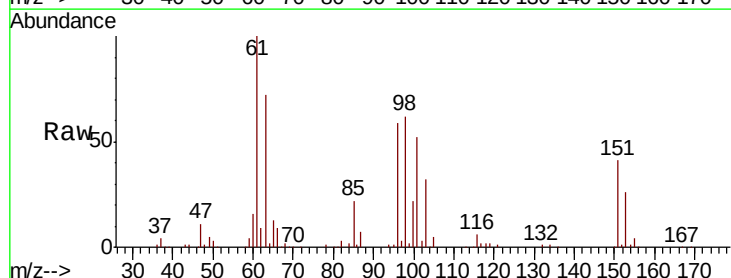
Tgt Ion: 96 Resp: 77455

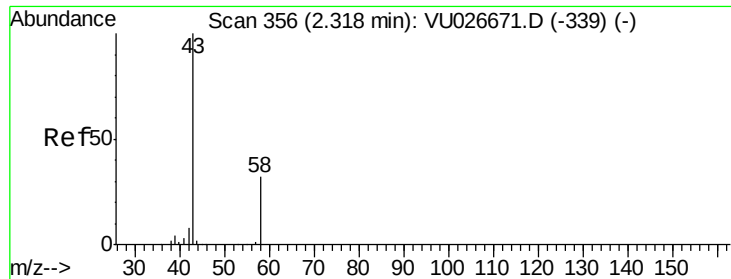
Ion Ratio Lower Upper

96 100

61 168.1 121.0 224.8

63 121.0 89.9 166.9





#13

Acetone

Concen: 104.330 ug/L

RT: 2.32 min Scan# 357

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

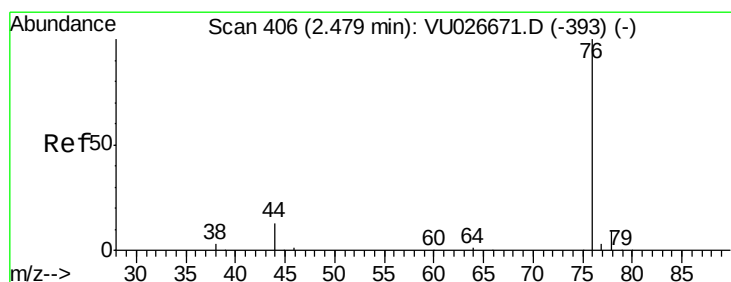
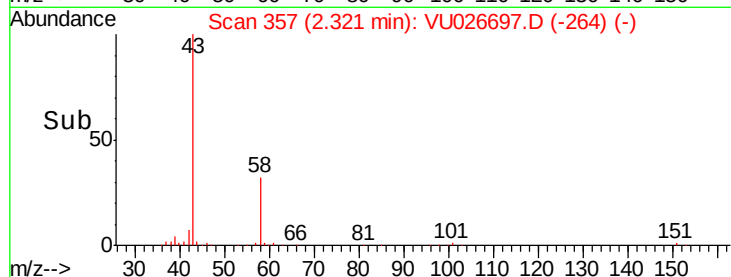
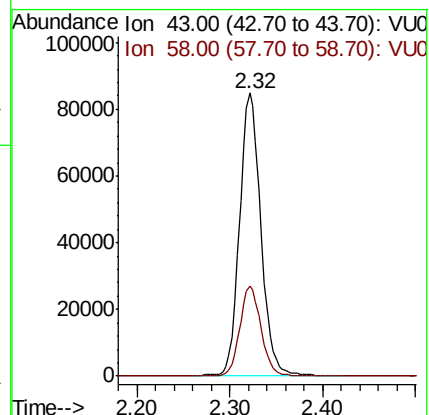
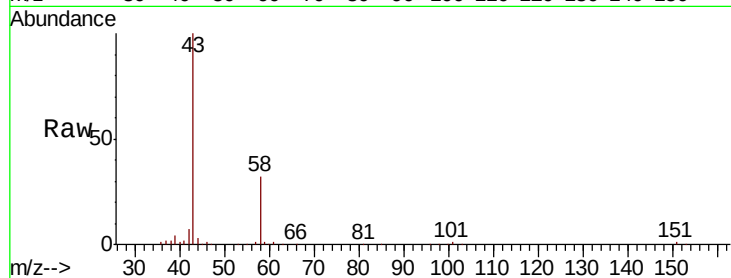
BFB

Tgt Ion: 43 Resp: 135586

Ion Ratio Lower Upper

43 100

58 31.4 0.0 62.8



#14

Carbon disulfide

Concen: 50.387 ug/L

RT: 2.48 min Scan# 405

Delta R.T. -0.00 min

Lab File: VU026697.D

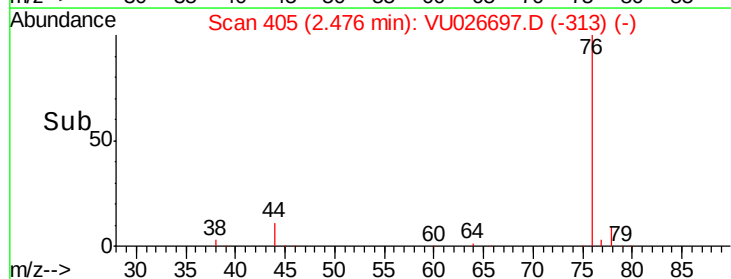
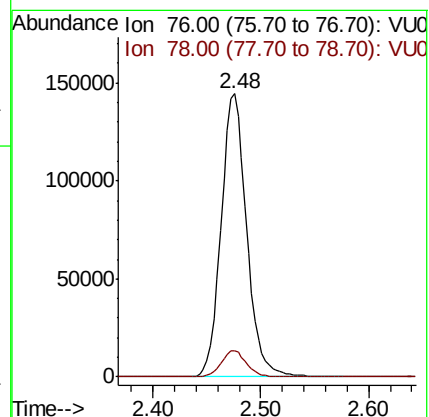
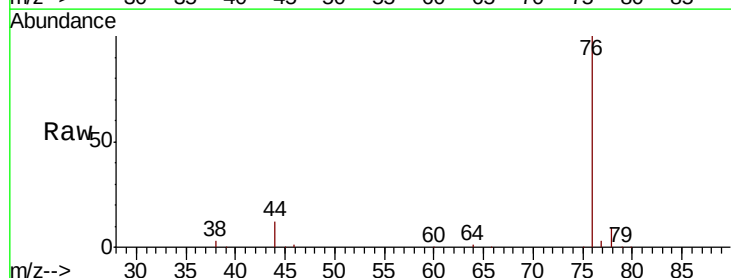
Acq: 12 Sep 2018 12:58

Tgt Ion: 76 Resp: 237428

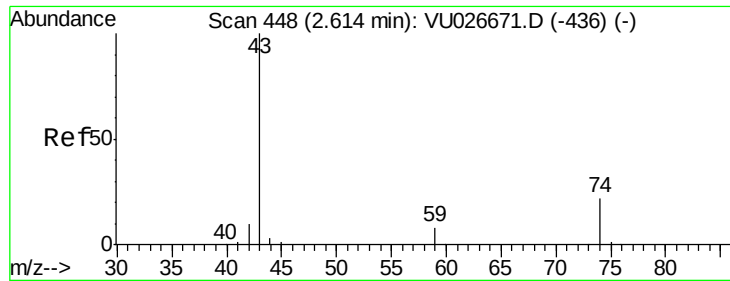
Ion Ratio Lower Upper

76 100

78 9.4 7.4 11.2







#15

Methyl Acetate

Concen: 56.689 ug/L

RT: 2.61 min Scan# 448

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

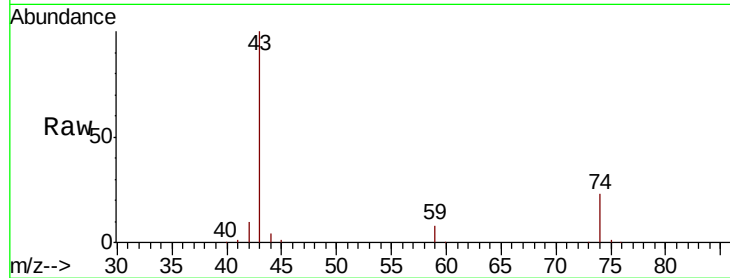
BFB

Tgt Ion: 43 Resp: 105101

Ion Ratio Lower Upper

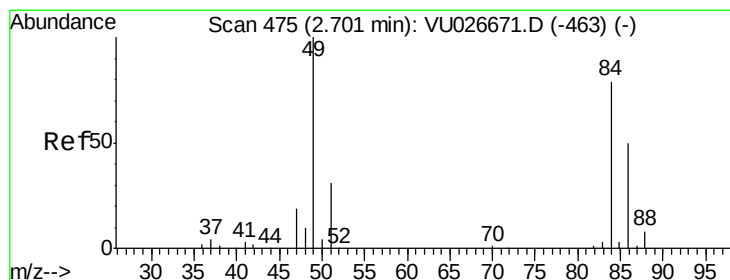
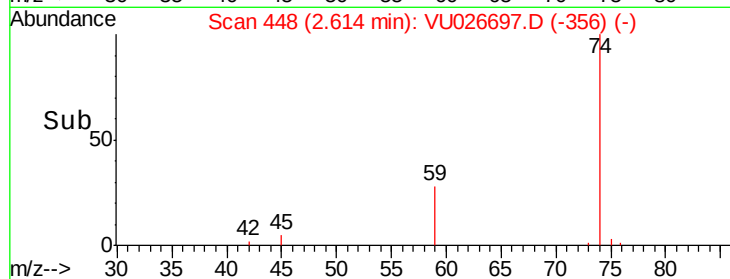
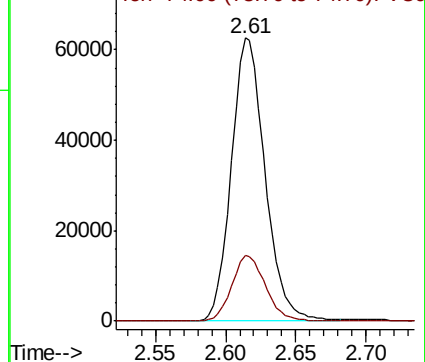
43 100

74 23.0 18.5 27.7



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 74.00 (73.70 to 74.70): VU0



#16

Methylene chloride

Concen: 53.821 ug/L

RT: 2.70 min Scan# 475

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

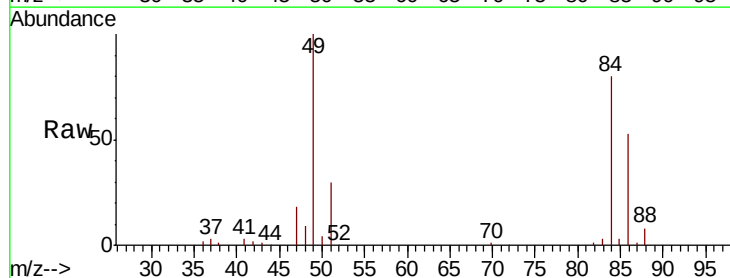
Tgt Ion: 84 Resp: 92151

Ion Ratio Lower Upper

84 100

86 65.6 44.1 81.9

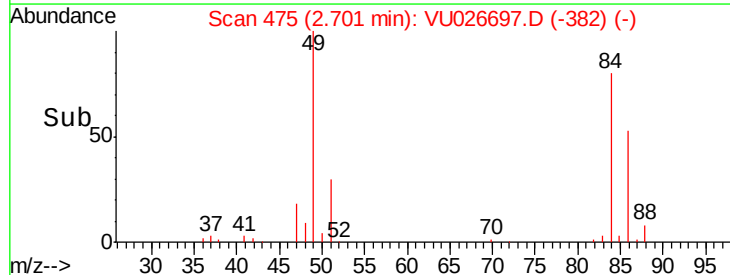
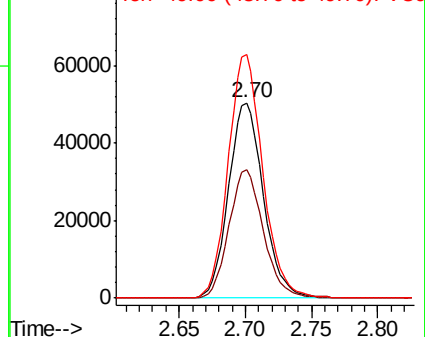
49 124.6 87.2 161.9

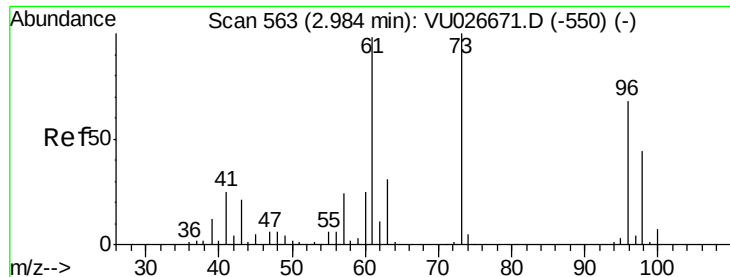


Abundance Ion 84.00 (83.70 to 84.70): VU0

Ion 86.00 (85.70 to 86.70): VU0

Ion 49.00 (48.70 to 49.70): VU0





#17

trans-1,2-Dichloroethene

Concen: 53.760 ug/L

RT: 2.98 min Scan# 562

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampled :

BFB

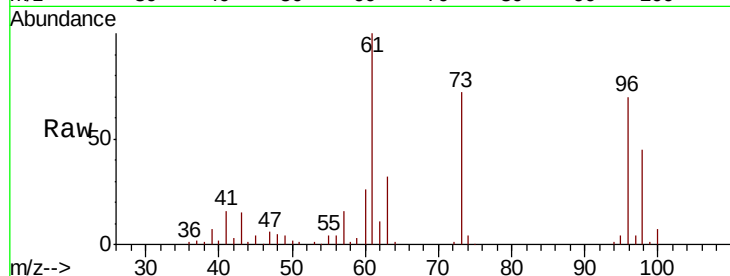
Tgt Ion: 96 Resp: 82644

Ion Ratio Lower Upper

96 100

61 143.5 99.7 185.1

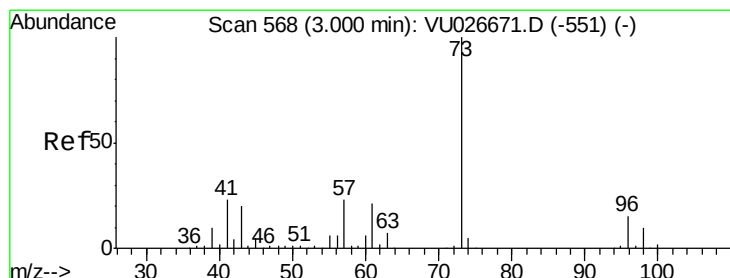
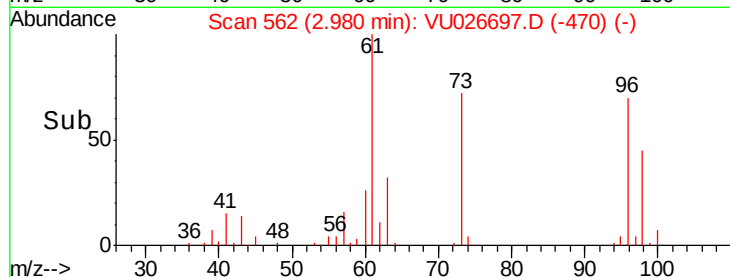
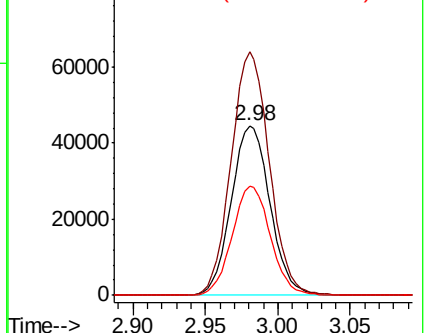
98 64.5 45.1 83.7



Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 98.00 (97.70 to 98.70): VU0



#18

Methyl tert-butyl Ether

Concen: 56.611 ug/L

RT: 3.00 min Scan# 568

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

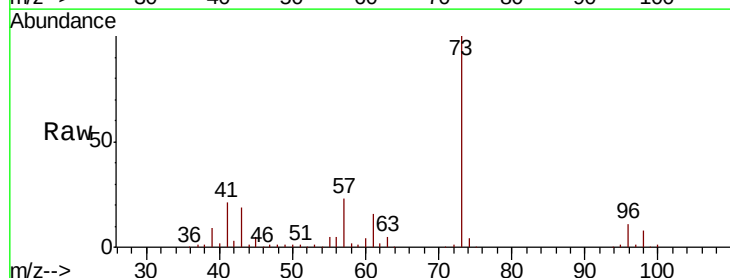
Tgt Ion: 73 Resp: 268160

Ion Ratio Lower Upper

73 100

43 19.5 16.0 24.0

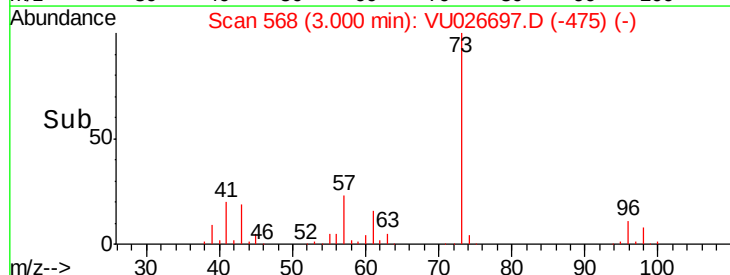
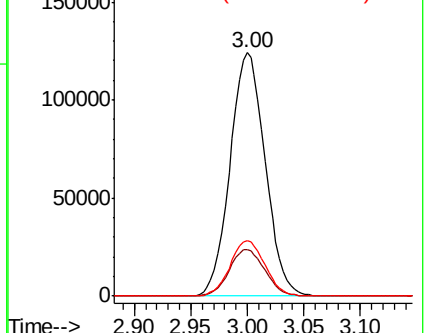
57 22.7 18.6 27.8

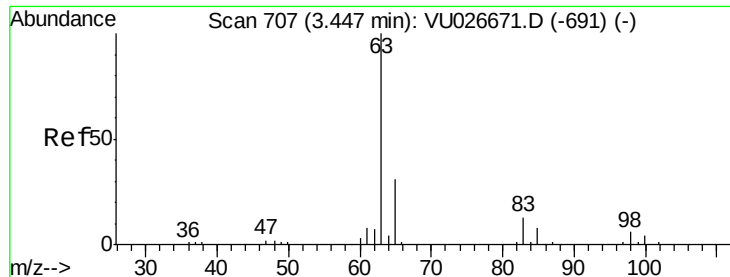


Abundance Ion 73.00 (72.70 to 73.70): VU0

Ion 43.00 (42.70 to 43.70): VU0

Ion 57.00 (56.70 to 57.70): VU0

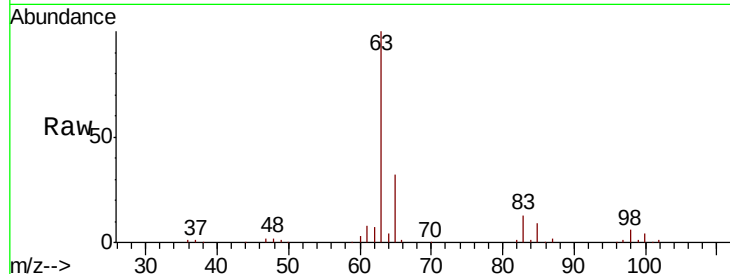




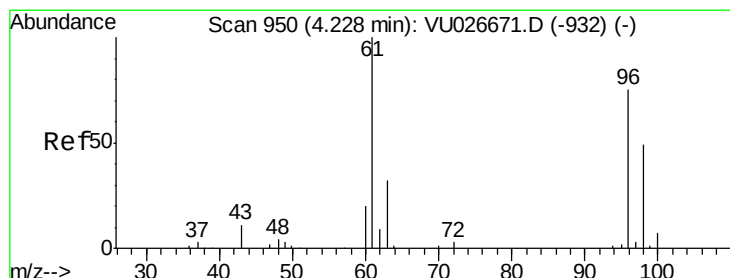
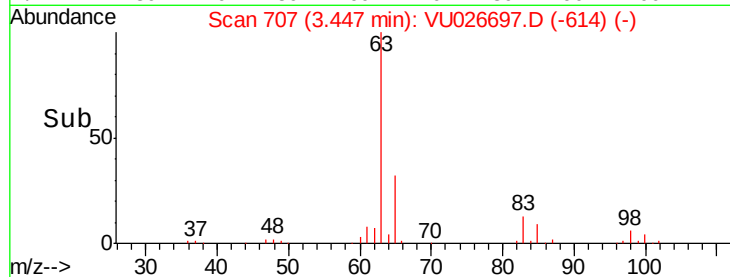
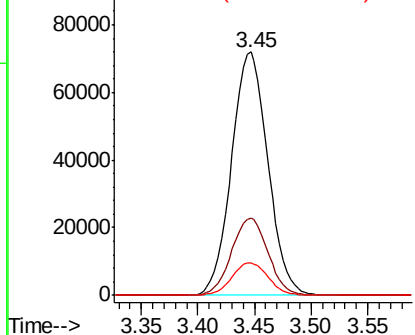
#19  
 1,1-Dichloroethane  
 Concen: 53.921 ug/L  
 RT: 3.45 min Scan# 707  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

Tgt Ion: 63 Resp: 160759  
 Ion Ratio Lower Upper  
 63 100  
 65 31.8 21.9 40.7  
 83 13.2 9.2 17.2

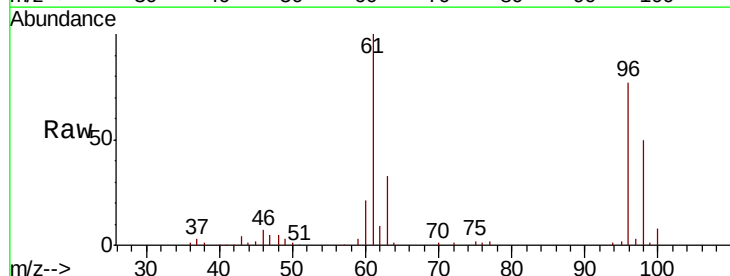


Abundance Ion 63.00 (62.70 to 63.70): VU0  
 Ion 65.00 (64.70 to 65.70): VU0  
 Ion 83.00 (82.70 to 83.70): VU0

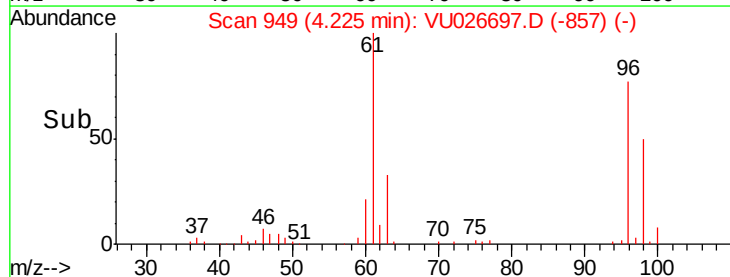
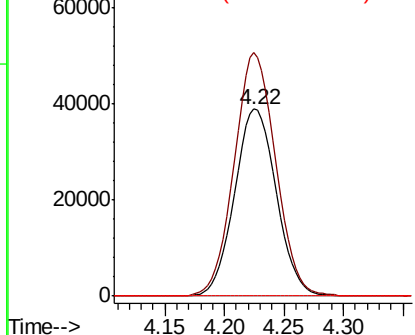


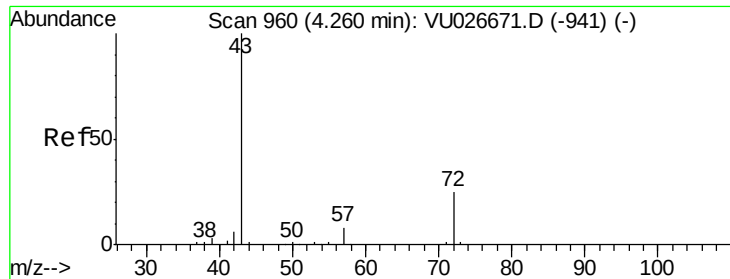
#20  
 cis-1,2-Dichloroethene  
 Concen: 54.863 ug/L  
 RT: 4.22 min Scan# 949  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Tgt Ion: 96 Resp: 94997  
 Ion Ratio Lower Upper  
 96 100  
 61 130.1 92.9 172.5  
 68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU0  
 Ion 61.00 (60.70 to 61.70): VU0  
 Ion 68.00 (67.70 to 68.70): VU0





#22

2-Butanone

Concen: 111.379 ug/L

RT: 4.26 min Scan# 961

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

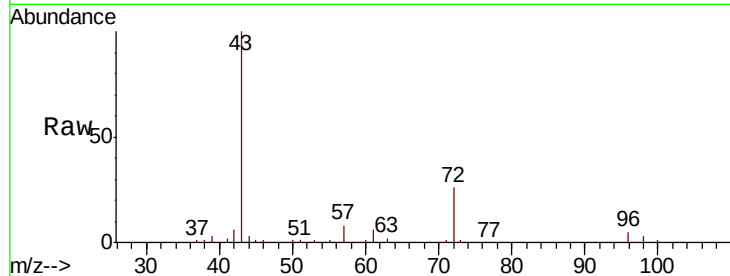
BFB

Tgt Ion: 43 Resp: 165729

Ion Ratio Lower Upper

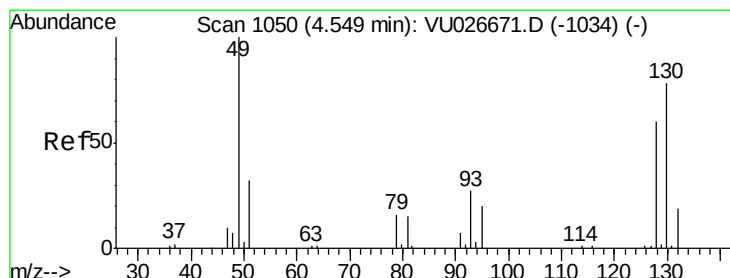
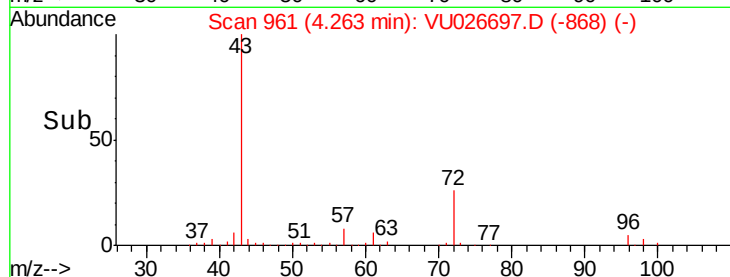
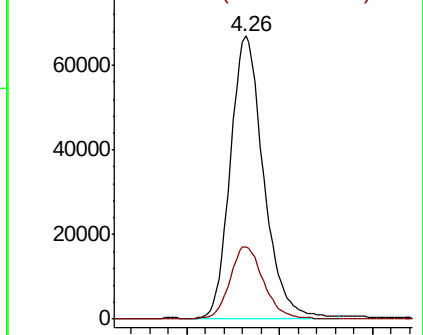
43 100

72 26.2 12.9 38.6



Abundance Ion 43.00 (42.70 to 43.70): VU026697.D (-961) (-)

Ion 72.00 (71.70 to 72.70): VU026697.D (-961) (-)



#23

Bromochloromethane

Concen: 54.338 ug/L

RT: 4.55 min Scan# 1050

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Tgt Ion: 128 Resp: 48123

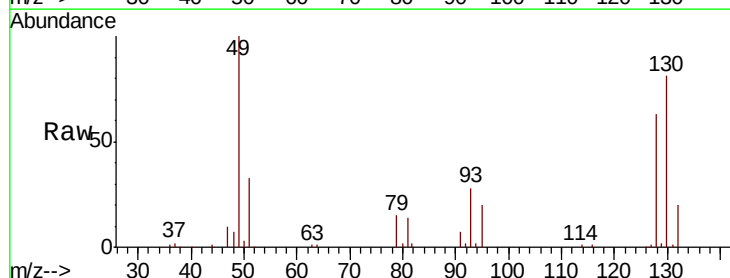
Ion Ratio Lower Upper

128 100

49 159.1 111.7 207.5

130 129.2 89.0 165.2

51 52.2 42.0 63.0

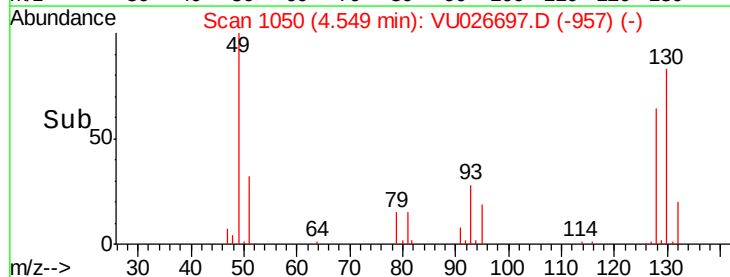
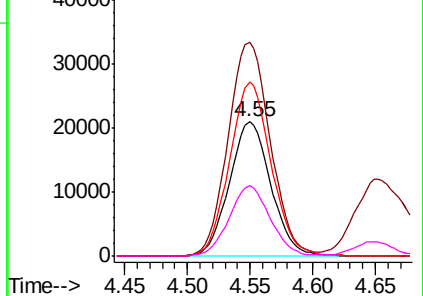


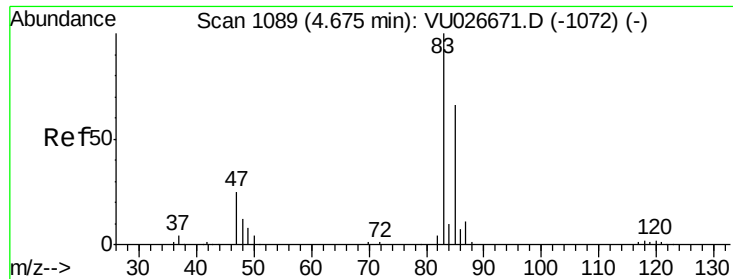
Abundance Ion 128.00 (127.70 to 128.70): VU026697.D (-1050) (-)

Ion 49.00 (48.70 to 49.70): VU026697.D (-1050) (-)

Ion 130.00 (129.70 to 130.70): VU026697.D (-1050) (-)

Ion 51.00 (50.70 to 51.70): VU026697.D (-1050) (-)

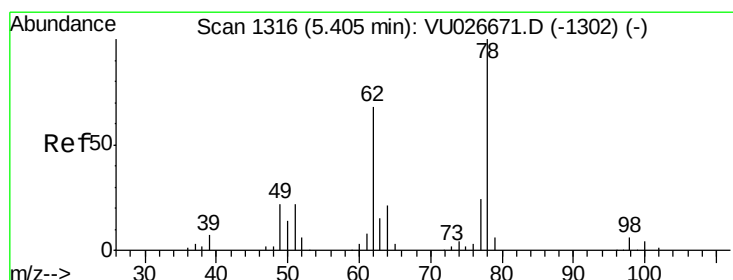
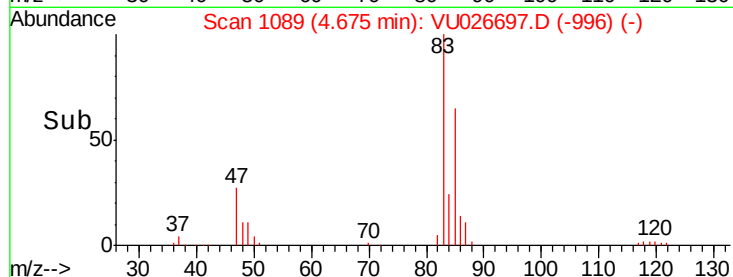
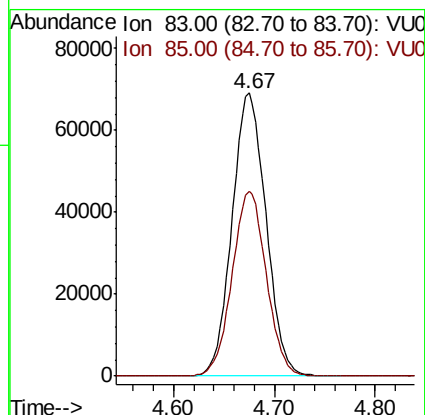
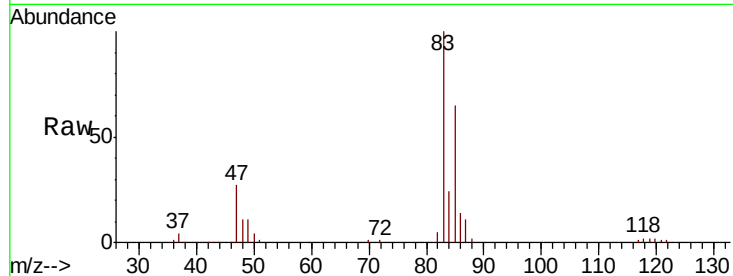




#25  
Chloroform  
Concen: 53.931 ug/L  
RT: 4.67 min Scan# 1089  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

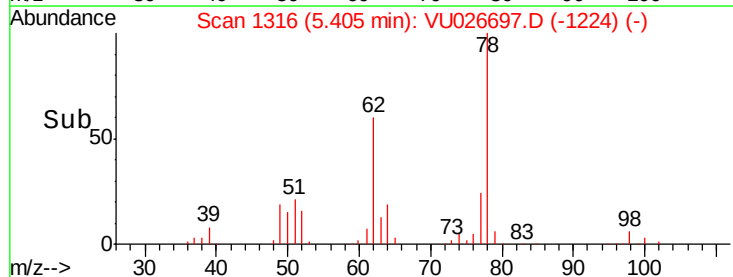
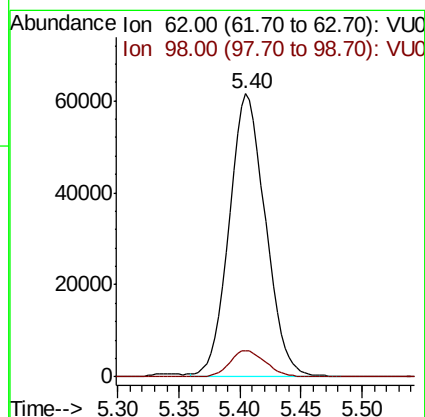
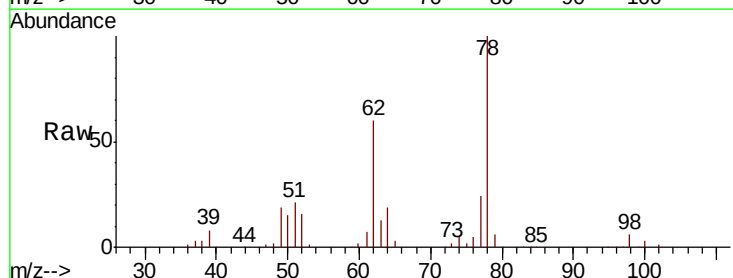
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFB

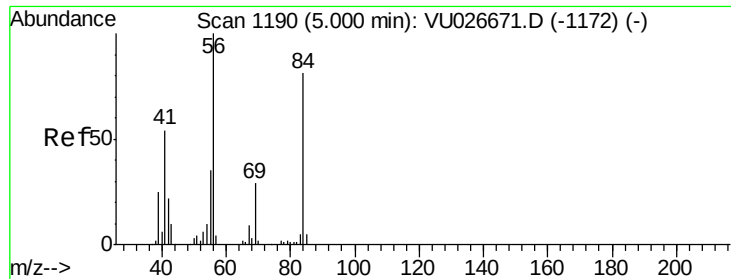
Tgt Ion: 83 Resp: 161612  
Ion Ratio Lower Upper  
83 100  
85 65.5 45.6 84.6



#27  
1,2-Dichloroethane  
Concen: 53.505 ug/L  
RT: 5.40 min Scan# 1316  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

Tgt Ion: 62 Resp: 127315  
Ion Ratio Lower Upper  
62 100  
98 9.4 7.4 11.0

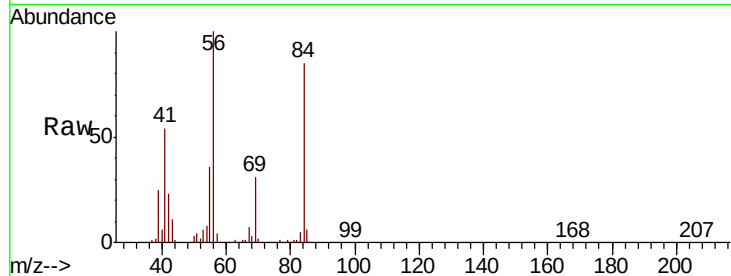




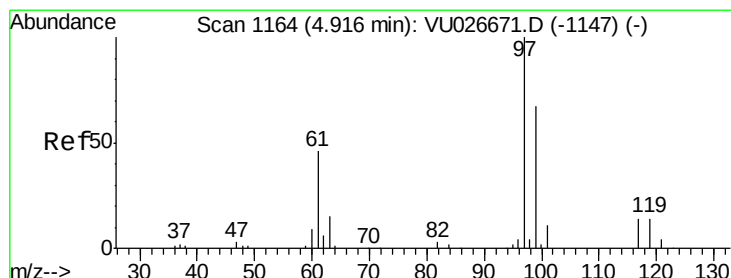
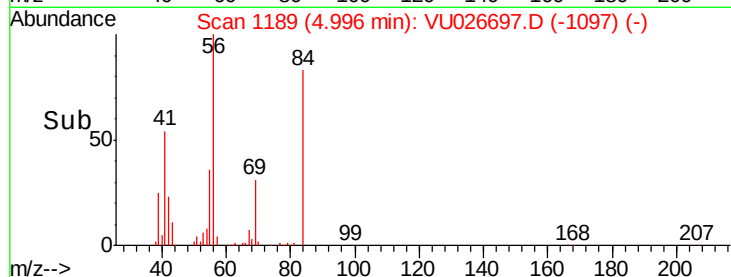
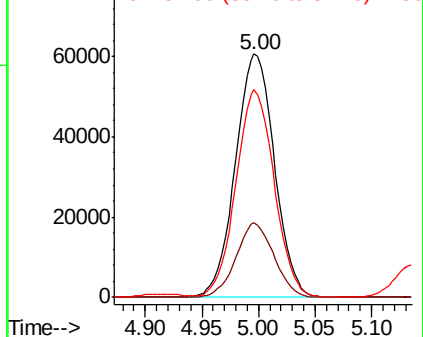
#29  
Cyclohexane  
Concen: 58.234 ug/L  
RT: 5.00 min Scan# 1189  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

Instrument :  
MSVOA\_U  
ClientSampleId :  
BFB

Tgt Ion: 56 Resp: 145929  
Ion Ratio Lower Upper  
56 100  
69 29.6 23.0 34.6  
84 83.6 66.5 99.7

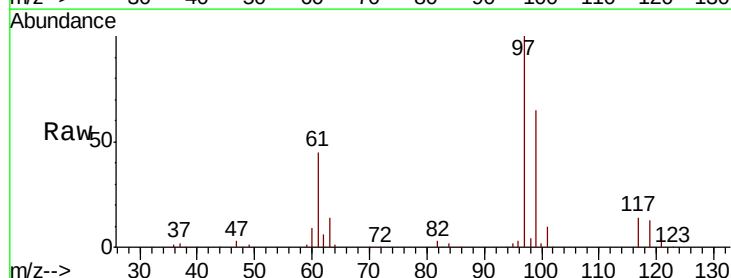


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

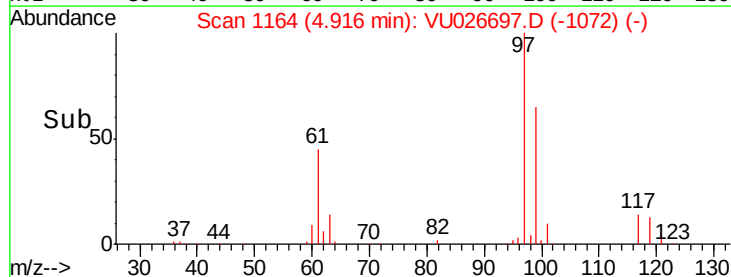
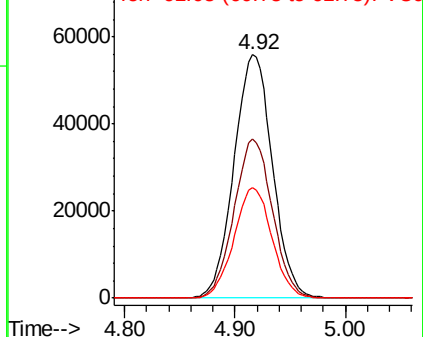


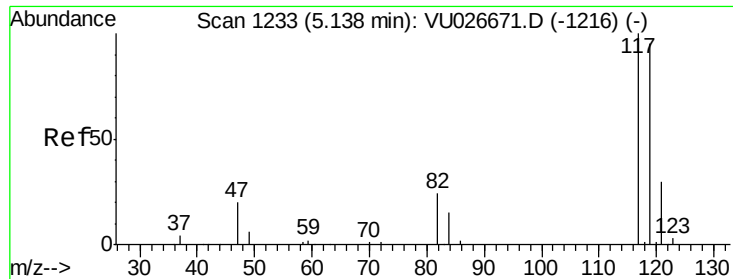
#30  
1,1,1-Trichloroethane  
Concen: 55.738 ug/L  
RT: 4.92 min Scan# 1164  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

Tgt Ion: 97 Resp: 135085  
Ion Ratio Lower Upper  
97 100  
99 65.0 51.5 77.3  
61 44.8 36.2 54.2



Abundance Ion 97.00 (96.70 to 97.70): VU0  
Ion 99.00 (98.70 to 99.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0





#31

Carbon tetrachloride

Concen: 55.369 ug/L

RT: 5.13 min Scan# 1232

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

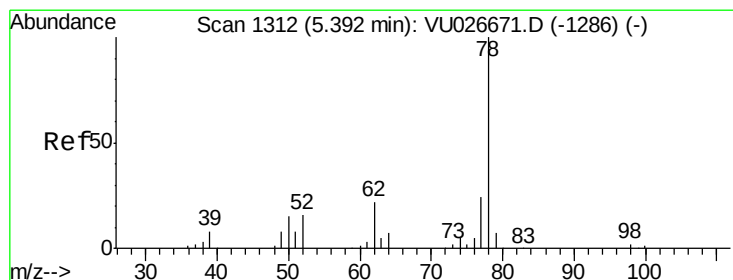
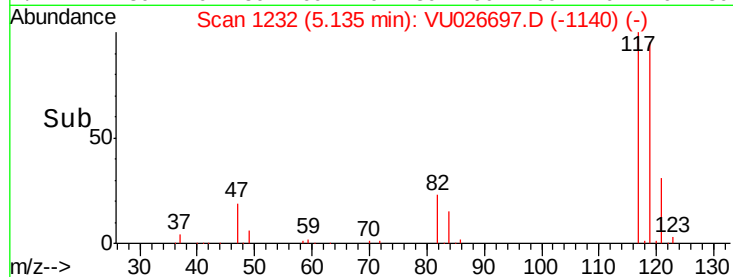
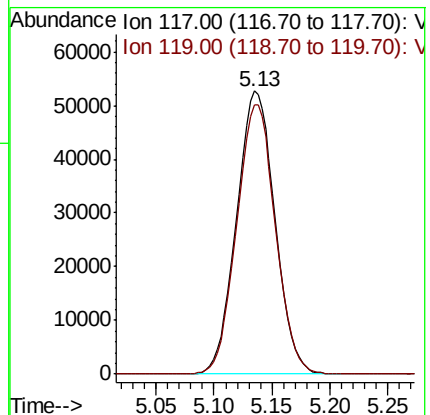
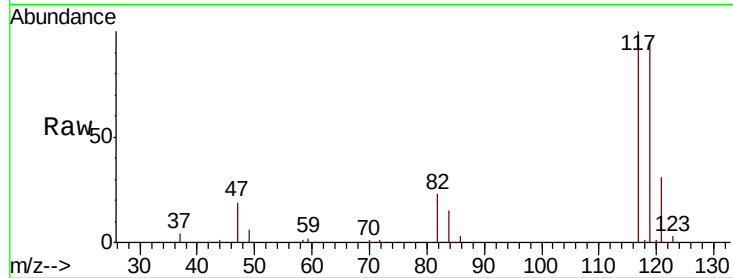
BFB

Tgt Ion:117 Resp: 121294

Ion Ratio Lower Upper

117 100

119 95.9 77.6 116.4



#33

Benzene

Concen: 55.917 ug/L

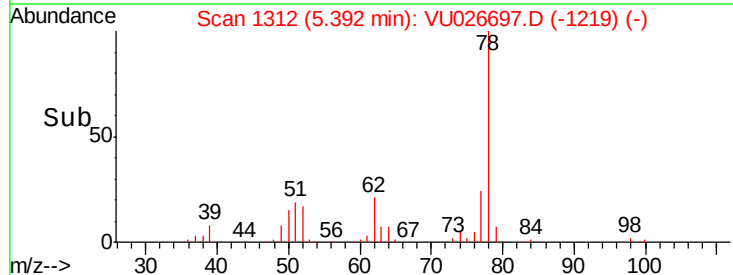
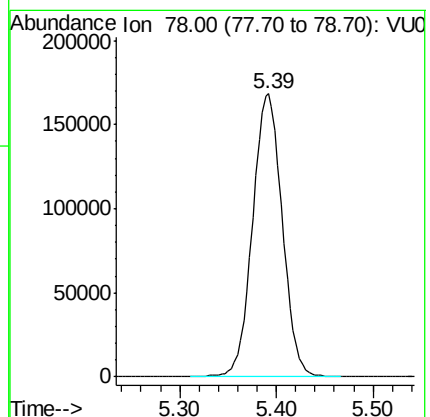
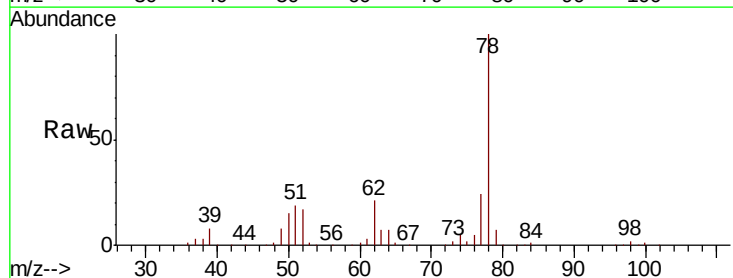
RT: 5.39 min Scan# 1312

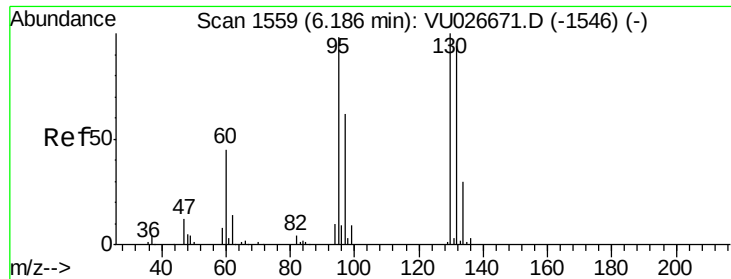
Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Tgt Ion: 78 Resp: 358231





#34

Trichloroethene

Concen: 56.231 ug/L

RT: 6.19 min Scan# 1559

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

Tgt Ion: 95 Resp: 89539

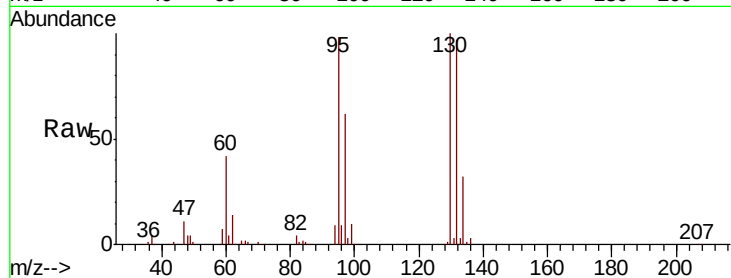
Ion Ratio Lower Upper

95 100

97 63.5 44.9 83.5

132 98.4 69.7 129.5

130 101.9 72.4 134.4

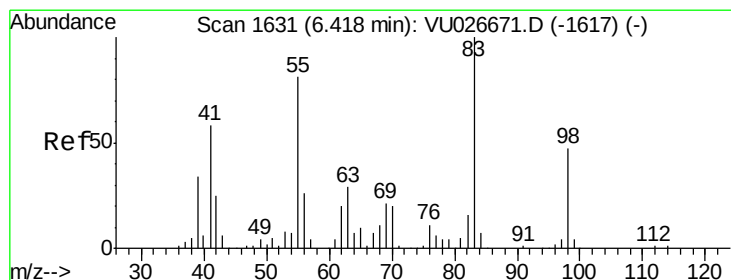
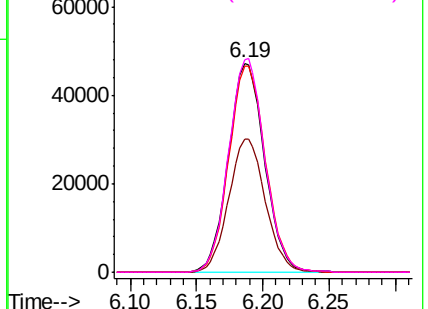
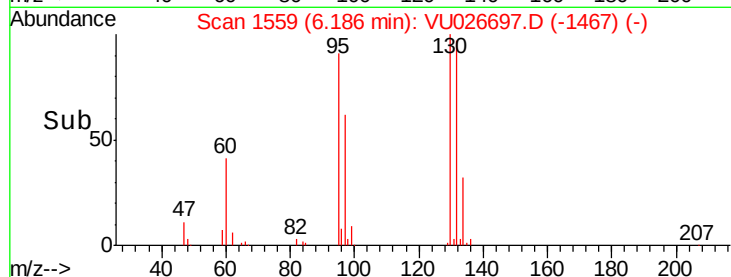


Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 97.00 (96.70 to 97.70): VU0

Ion 132.00 (131.70 to 132.70): V

Ion 130.00 (129.70 to 130.70): V



#35

Methylcyclohexane

Concen: 59.893 ug/L

RT: 6.42 min Scan# 1631

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

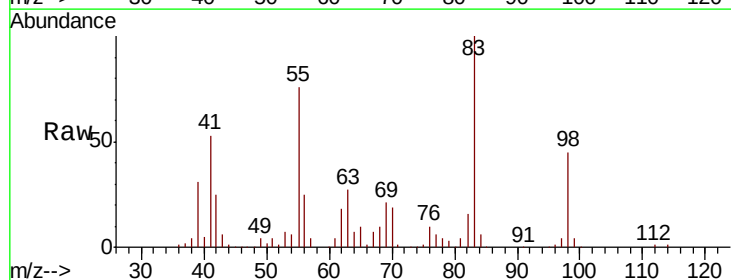
Tgt Ion: 83 Resp: 152657

Ion Ratio Lower Upper

83 100

55 76.6 62.9 94.3

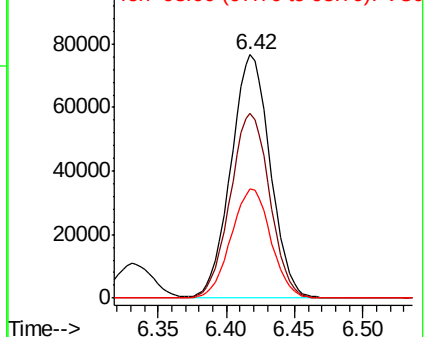
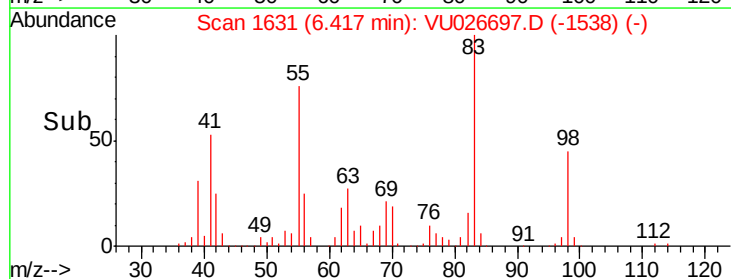
98 45.5 37.0 55.4



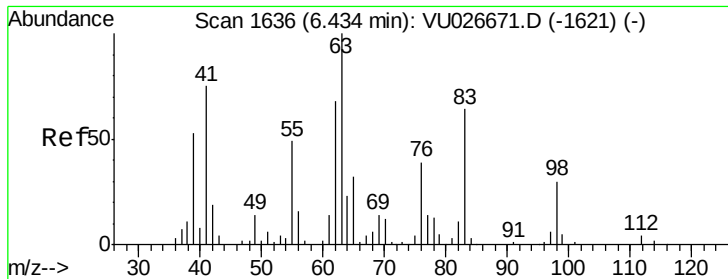
Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0



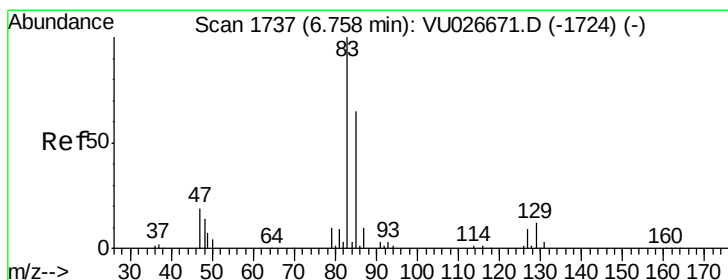
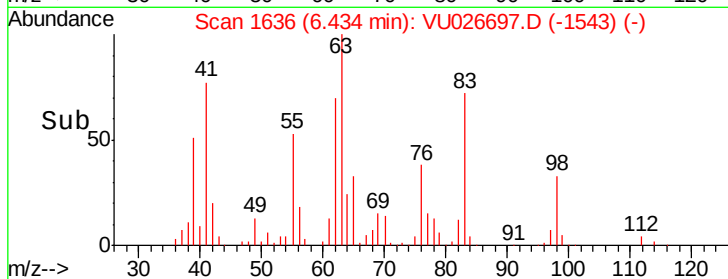
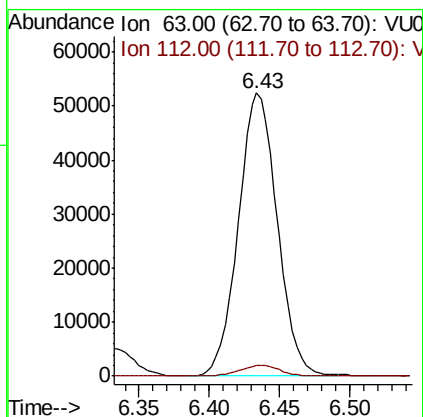
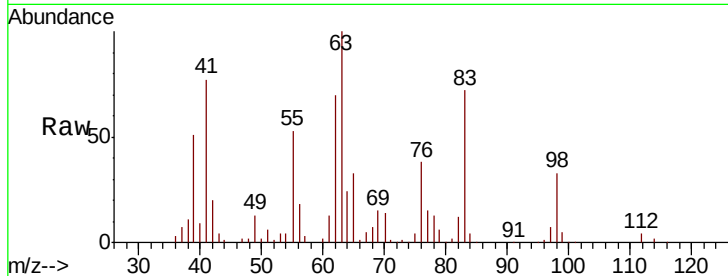




#37  
 1,2-Dichloropropane  
 Concen: 56.545 ug/L  
 RT: 6.43 min Scan# 1636  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

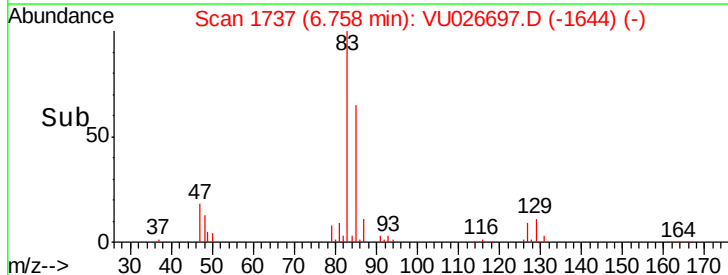
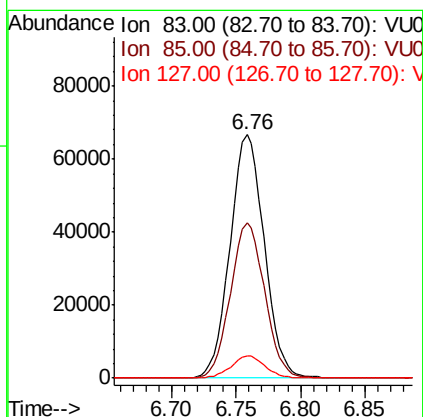
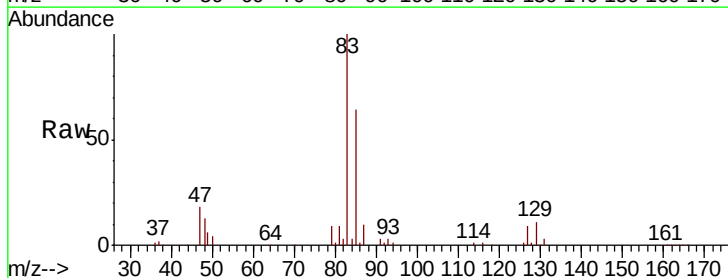
Instrument :  
 MSVOA\_U  
 ClientSampled :  
 BFB

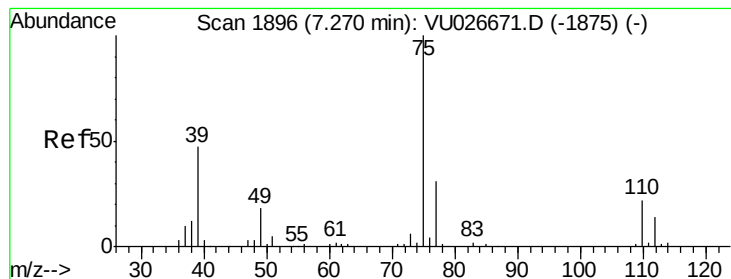
Tgt Ion: 63 Resp: 101199  
 Ion Ratio Lower Upper  
 63 100  
 112 3.8 2.9 4.3



#38  
 Bromodichloromethane  
 Concen: 56.050 ug/L  
 RT: 6.76 min Scan# 1737  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Tgt Ion: 83 Resp: 122934  
 Ion Ratio Lower Upper  
 83 100  
 85 63.8 45.1 83.9  
 127 9.2 7.2 10.8



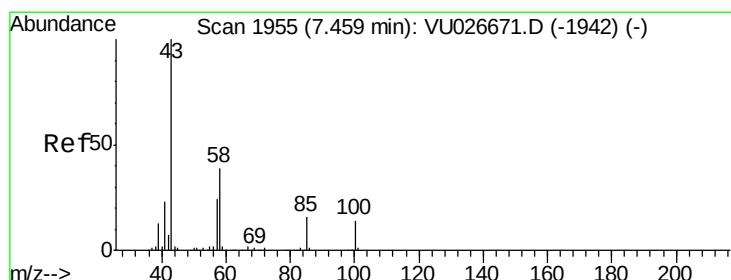
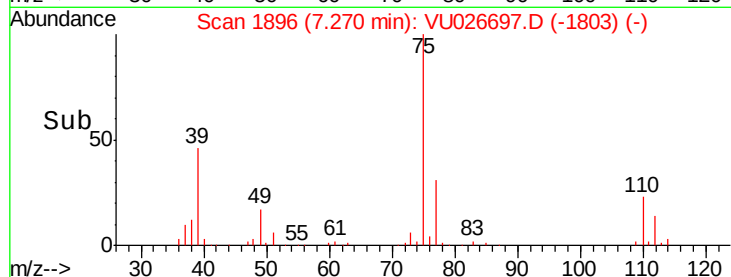
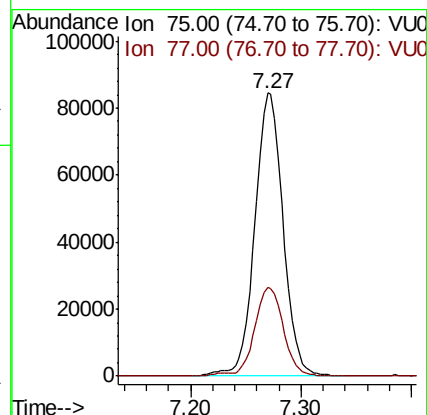
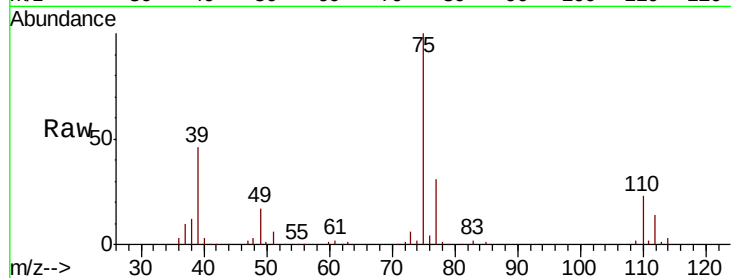


#39

cis-1,3-Dichloropropene  
 Concen: 56.600 ug/L  
 RT: 7.27 min Scan# 1896  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

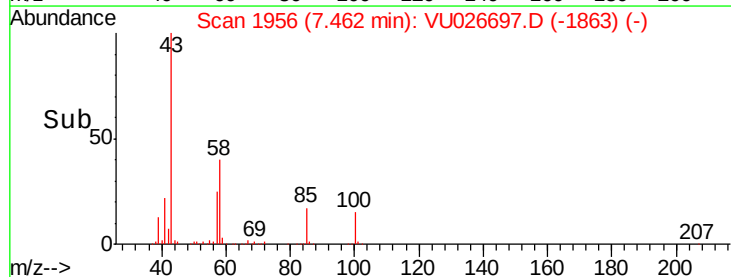
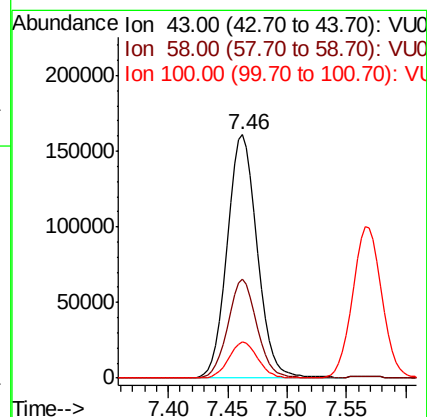
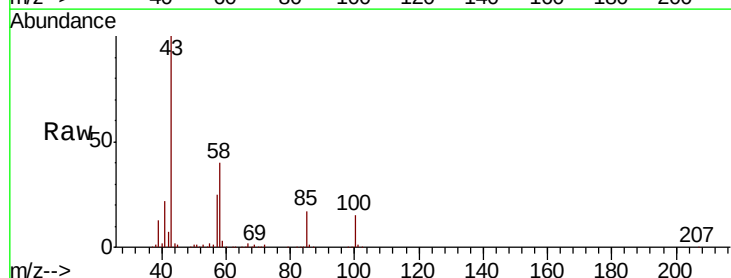
Tgt Ion: 75 Resp: 149895  
 Ion Ratio Lower Upper  
 75 100  
 77 31.3 22.3 41.3

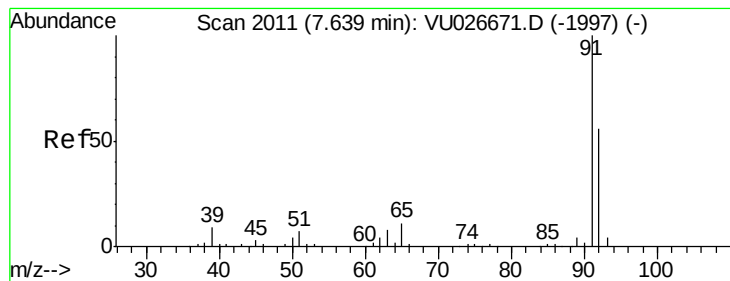


#40

4-Methyl-2-pentanone  
 Concen: 123.283 ug/L  
 RT: 7.46 min Scan# 1956  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Tgt Ion: 43 Resp: 281449  
 Ion Ratio Lower Upper  
 43 100  
 58 39.3 31.1 46.7  
 100 14.3 11.3 16.9





#42

Toluene

Concen: 57.579 ug/L

RT: 7.64 min Scan# 2011

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampled :

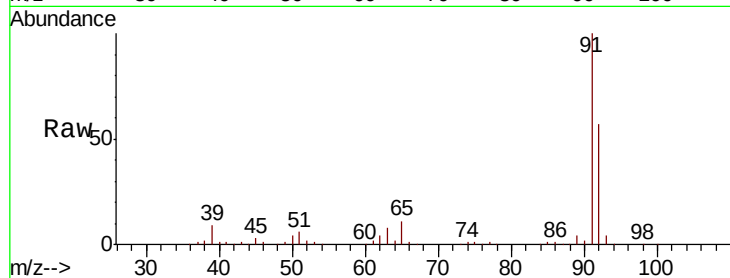
BFB

Tgt Ion: 91 Resp: 382335

Ion Ratio Lower Upper

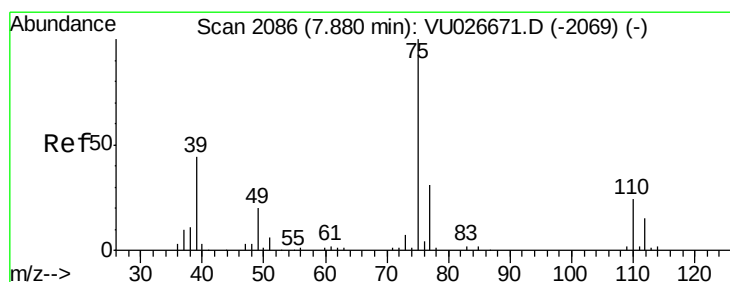
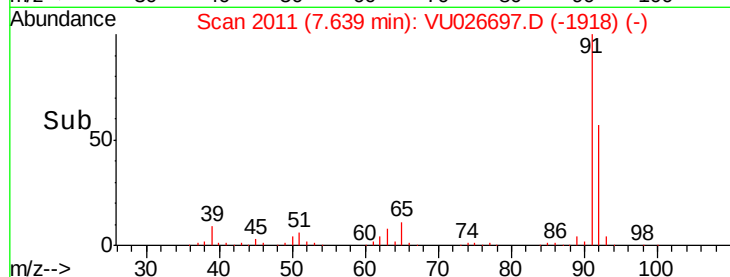
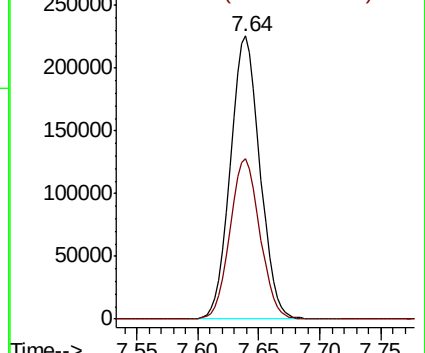
91 100

92 56.5 40.3 74.9



Abundance Ion 91.00 (90.70 to 91.70): VU0

Ion 92.00 (91.70 to 92.70): VU0



#44

trans-1,3-Dichloropropene

Concen: 55.844 ug/L

RT: 7.88 min Scan# 2086

Delta R.T. -0.00 min

Lab File: VU026697.D

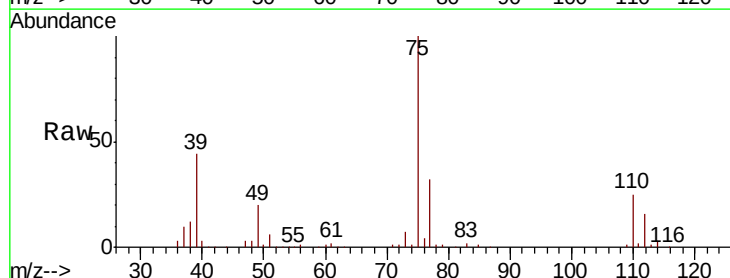
Acq: 12 Sep 2018 12:58

Tgt Ion: 75 Resp: 137588

Ion Ratio Lower Upper

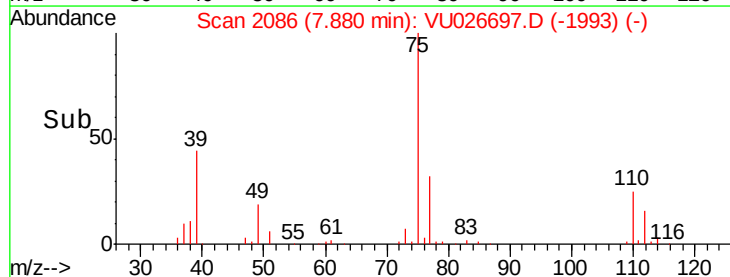
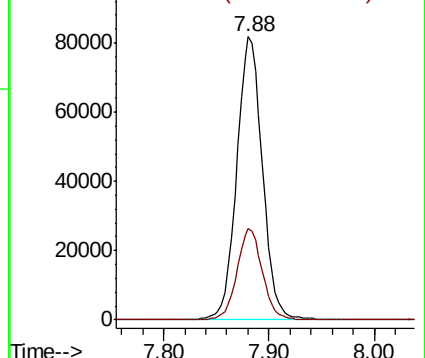
75 100

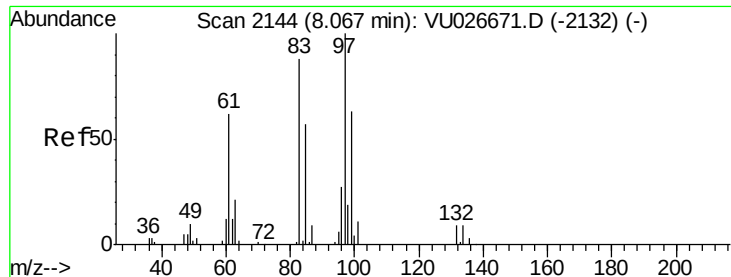
77 32.3 22.4 41.6



Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 77.00 (76.70 to 77.70): VU0

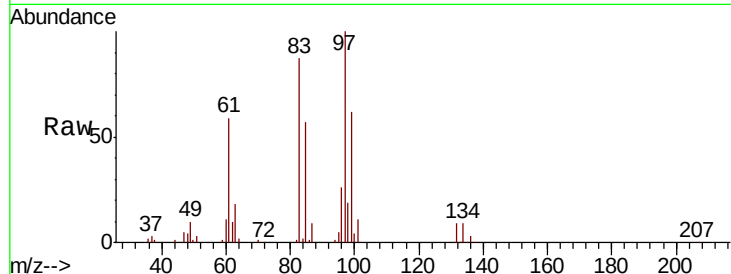




#45  
 1,1,2-Trichloroethane  
 Concen: 56.785 ug/L  
 RT: 8.07 min Scan# 2145  
 Delta R.T. 0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 90148 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 62.0  | 44.2  | 82.2  |
| 83       | 87.1  | 63.8  | 118.6 |
| 85       | 56.8  | 39.4  | 73.2  |



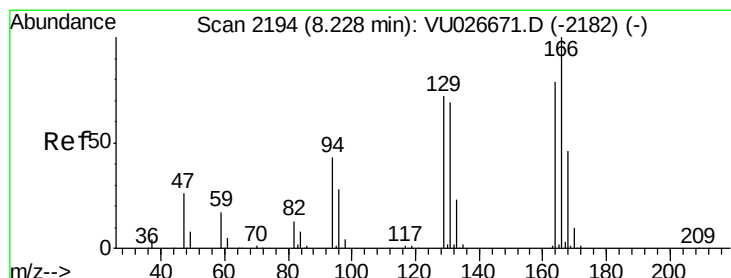
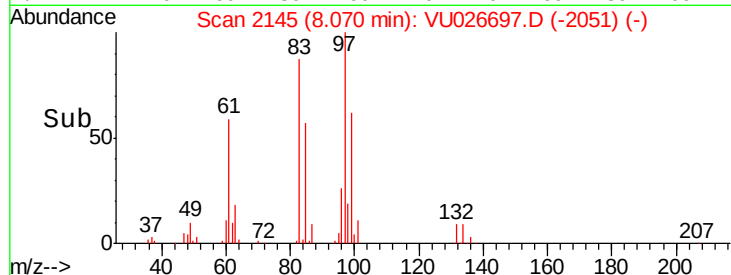
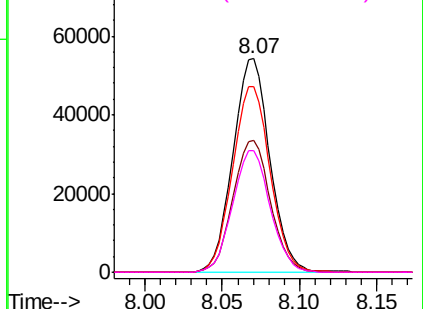
Abundance

Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

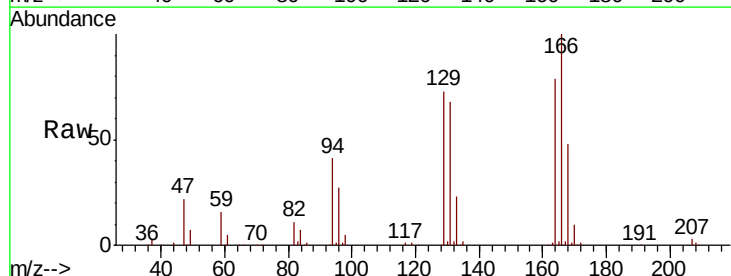
Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46  
 Tetrachloroethene  
 Concen: 57.076 ug/L  
 RT: 8.23 min Scan# 2195  
 Delta R.T. 0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 76382 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 92.7  | 65.0  | 120.8 |
| 131      | 86.9  | 62.5  | 116.1 |
| 166      | 127.1 | 89.0  | 165.2 |



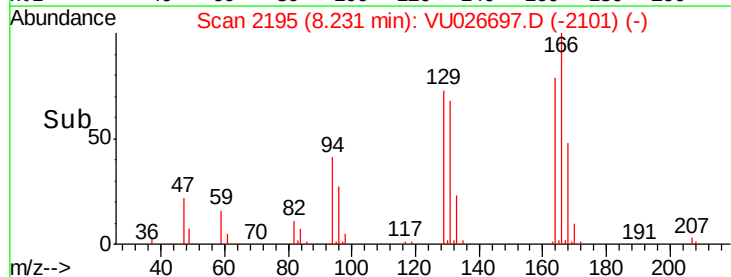
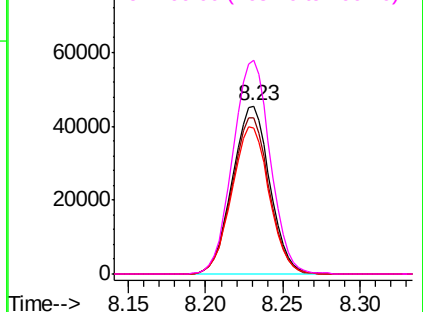
Abundance

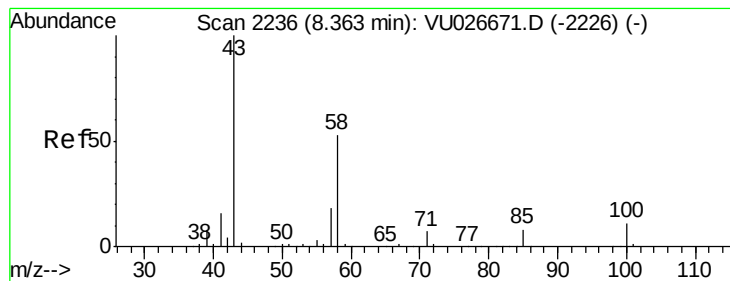
Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V





#48

2-Hexanone

Concen: 120.576 ug/L

RT: 8.36 min Scan# 2236

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

Tgt Ion: 43 Resp: 232404

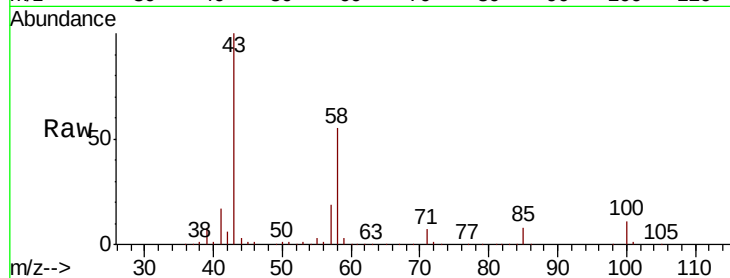
Ion Ratio Lower Upper

43 100

58 55.1 42.2 63.4

57 18.6 14.4 21.6

100 11.2 8.7 13.1

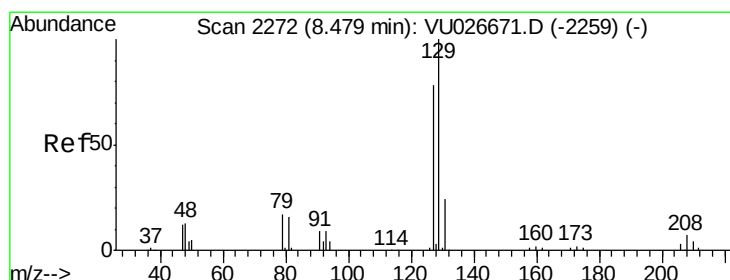
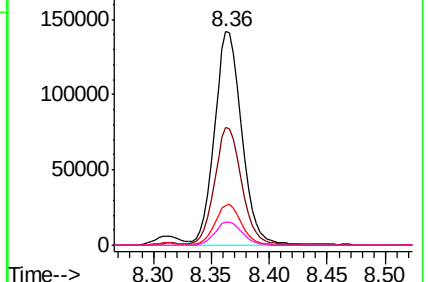
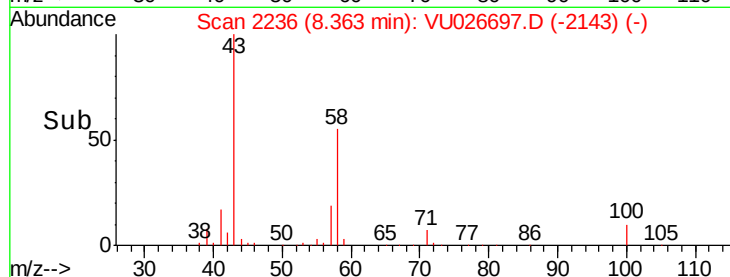


Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0

Ion 57.00 (56.70 to 57.70): VU0

Ion 100.00 (99.70 to 100.70): VU0



#49

Dibromochloromethane

Concen: 56.397 ug/L

RT: 8.48 min Scan# 2272

Delta R.T. -0.00 min

Lab File: VU026697.D

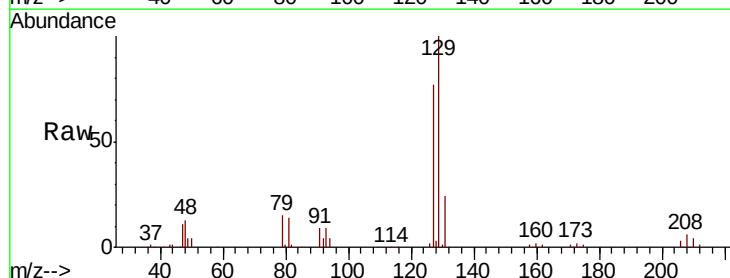
Acq: 12 Sep 2018 12:58

Tgt Ion: 129 Resp: 103487

Ion Ratio Lower Upper

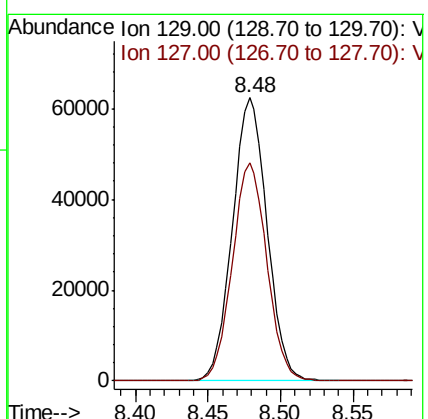
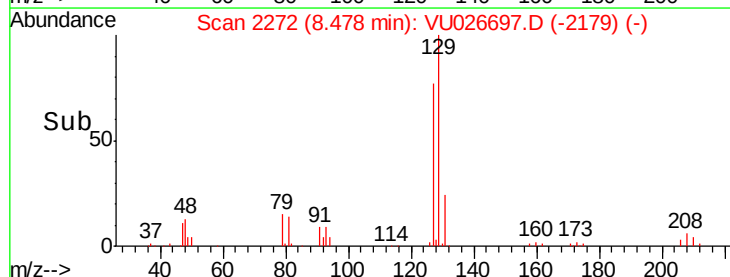
129 100

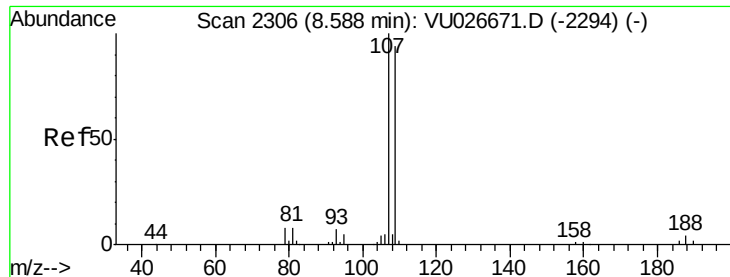
127 77.0 55.8 103.6



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

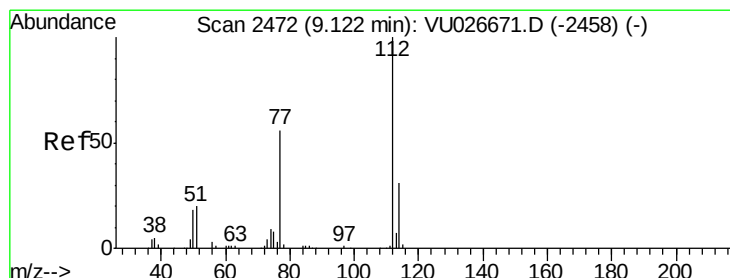
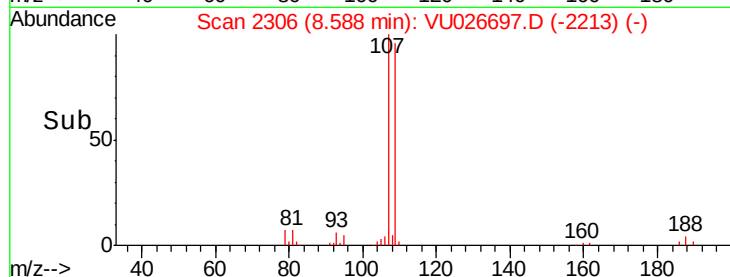
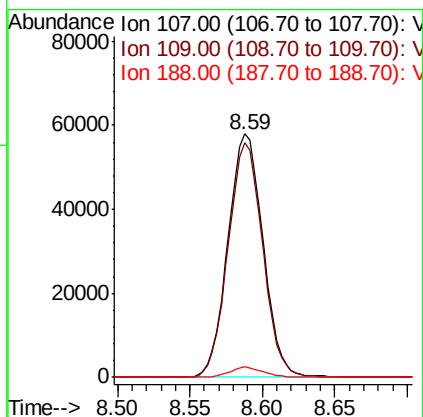
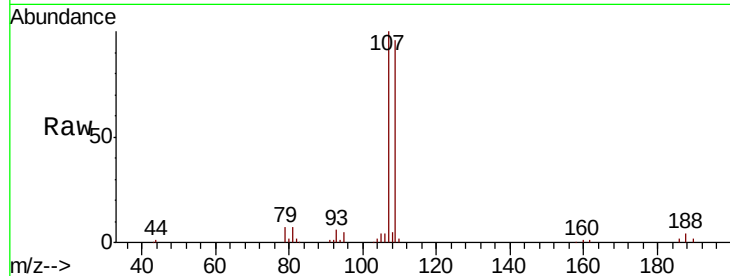




#50  
1,2-Dibromoethane  
Concen: 57.343 ug/L  
RT: 8.59 min Scan# 2306  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

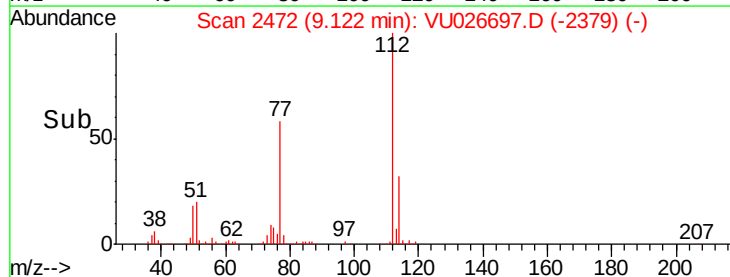
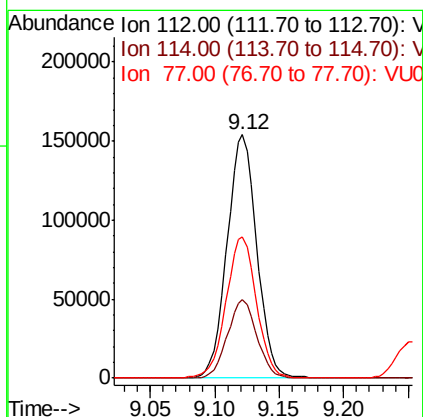
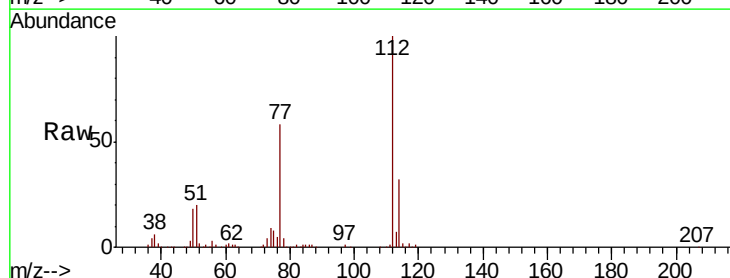
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFB

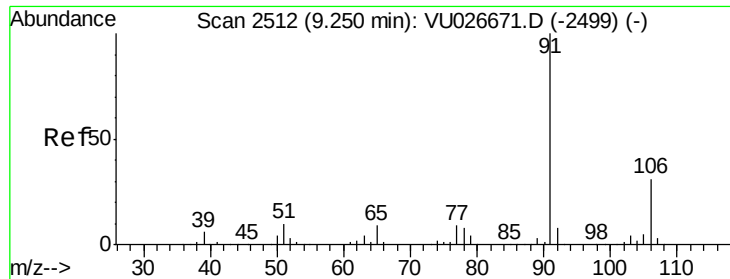
Tgt Ion:107 Resp: 97382  
Ion Ratio Lower Upper  
107 100  
109 96.2 66.4 123.4  
188 4.2 3.0 4.4



#51  
Chlorobenzene  
Concen: 56.371 ug/L  
RT: 9.12 min Scan# 2472  
Delta R.T. -0.00 min  
Lab File: VU026697.D  
Acq: 12 Sep 2018 12:58

Tgt Ion:112 Resp: 245774  
Ion Ratio Lower Upper  
112 100  
114 32.4 22.9 42.5  
77 58.0 47.2 70.8





#52

Ethylbenzene

Concen: 57.875 ug/L

RT: 9.25 min Scan# 2512

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

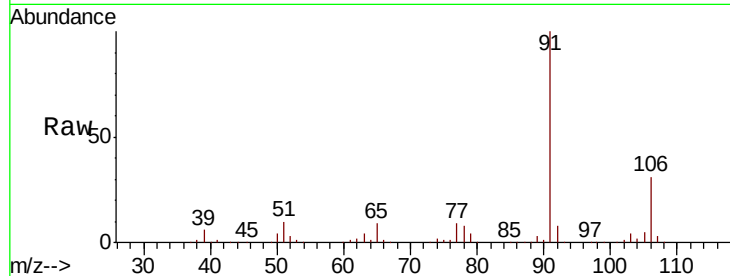
BFB

Tgt Ion: 91 Resp: 415608

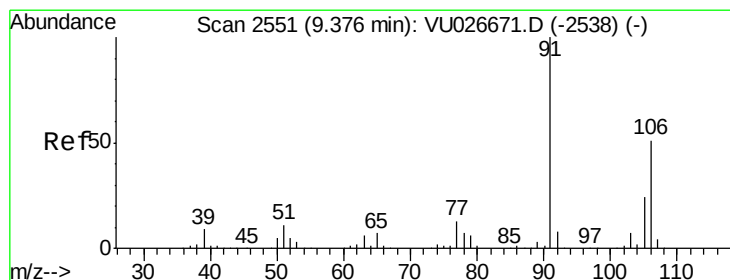
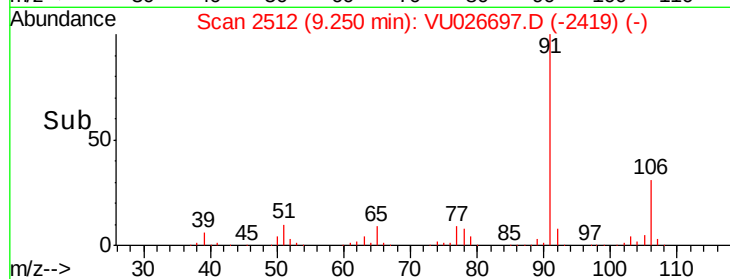
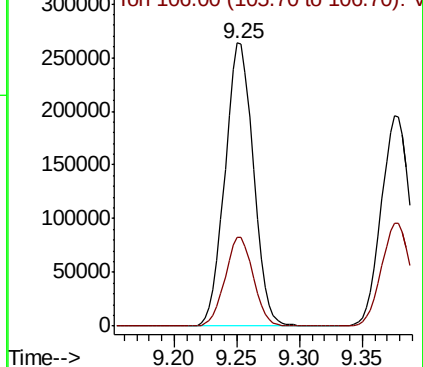
Ion Ratio Lower Upper

91 100

106 31.5 22.1 41.1



Abundance Ion 91.00 (90.70 to 91.70): VU026697.D (-2419) (-)



#53

m,p-Xylene

Concen: 58.429 ug/L

RT: 9.38 min Scan# 2551

Delta R.T. -0.00 min

Lab File: VU026697.D

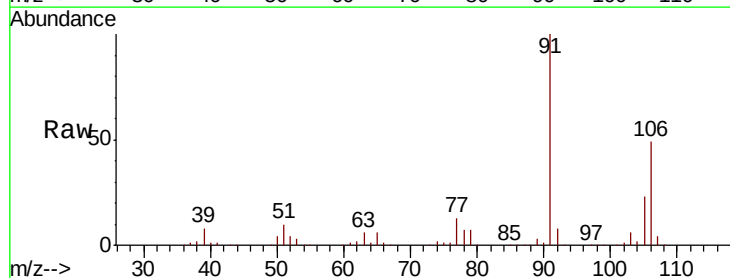
Acq: 12 Sep 2018 12:58

Tgt Ion: 106 Resp: 158211

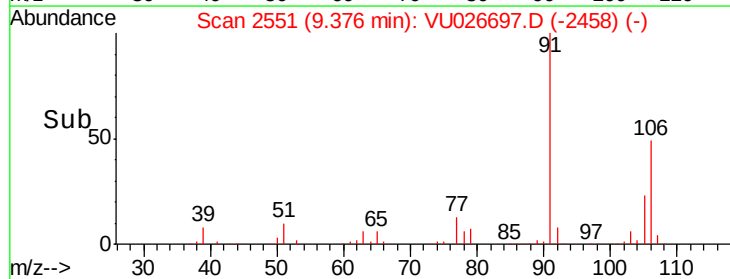
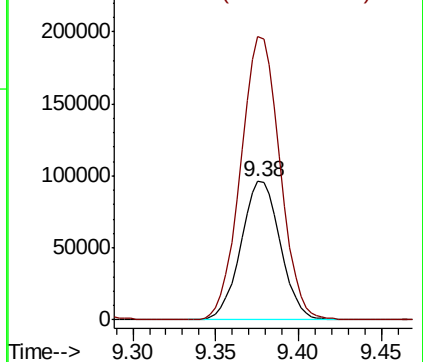
Ion Ratio Lower Upper

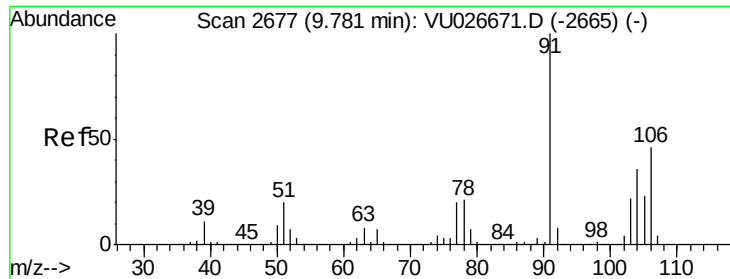
106 100

91 204.7 142.9 265.5



Abundance Ion 106.00 (105.70 to 106.70): VU026697.D (-2458) (-)





#54

o-xylene

Concen: 58.812 ug/L

RT: 9.78 min Scan# 2677

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

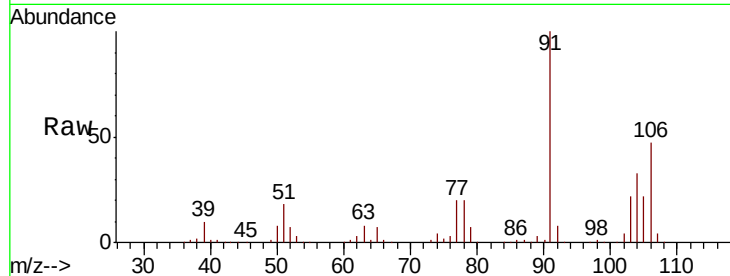
BFB

Tgt Ion:106 Resp: 158046

Ion Ratio Lower Upper

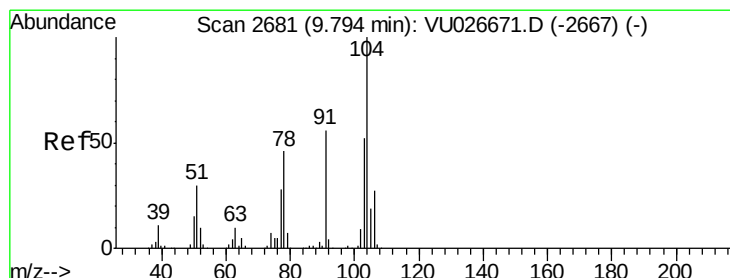
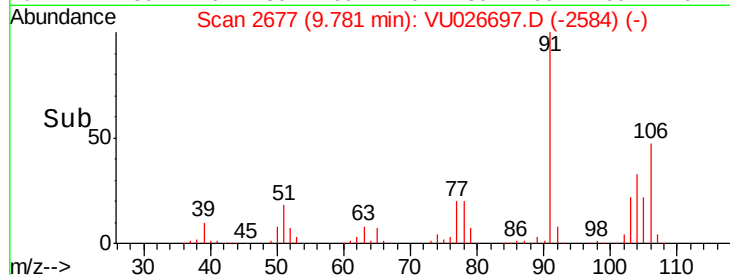
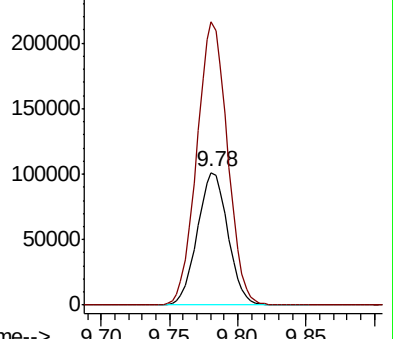
106 100

91 213.8 149.4 277.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 59.010 ug/L

RT: 9.79 min Scan# 2681

Delta R.T. -0.00 min

Lab File: VU026697.D

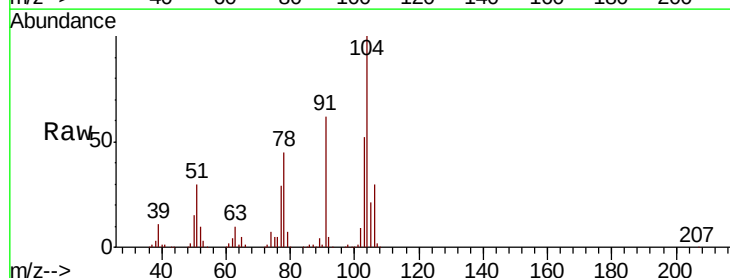
Acq: 12 Sep 2018 12:58

Tgt Ion:104 Resp: 268249

Ion Ratio Lower Upper

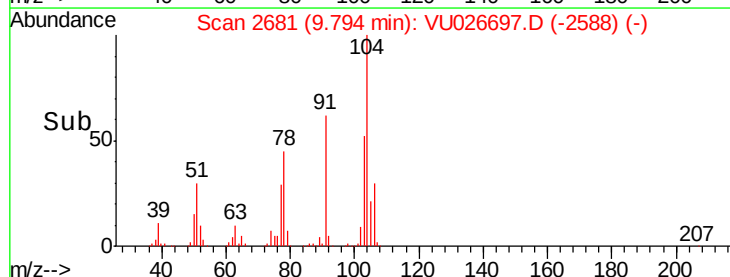
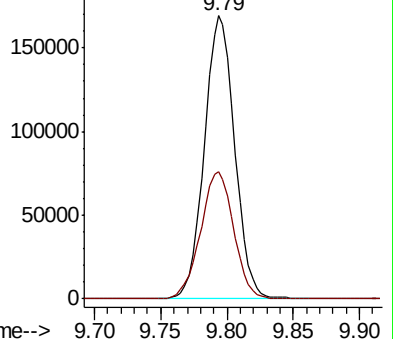
104 100

78 44.9 31.7 58.9

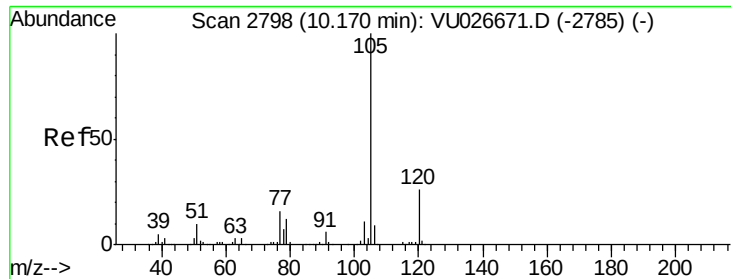


Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0







#56

Isopropylbenzene

Concen: 59.821 ug/L

RT: 10.17 min Scan# 2798

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

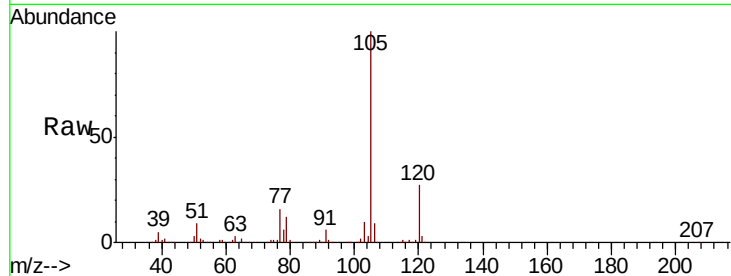
Tgt Ion: 105 Resp: 409517

Ion Ratio Lower Upper

105 100

120 26.6 21.5 32.3

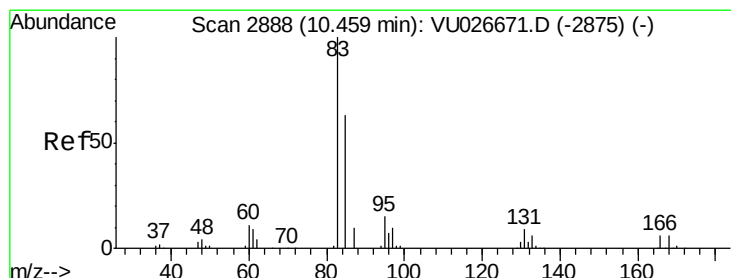
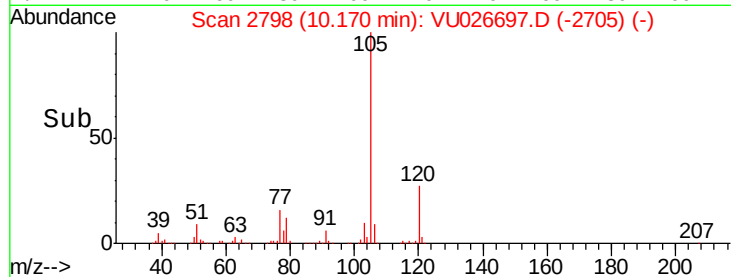
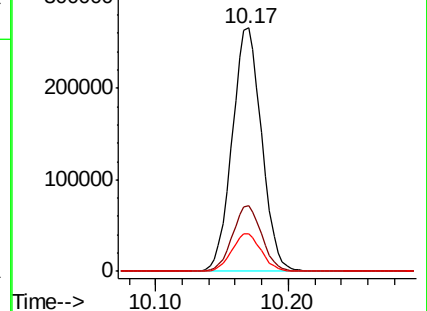
77 15.6 12.6 18.8



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 56.293 ug/L

RT: 10.46 min Scan# 2888

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

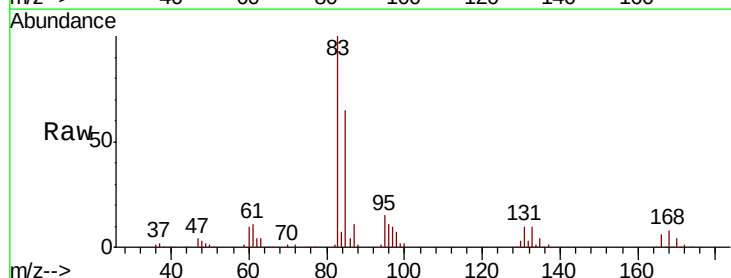
Tgt Ion: 83 Resp: 154818

Ion Ratio Lower Upper

83 100

85 65.0 45.4 84.2

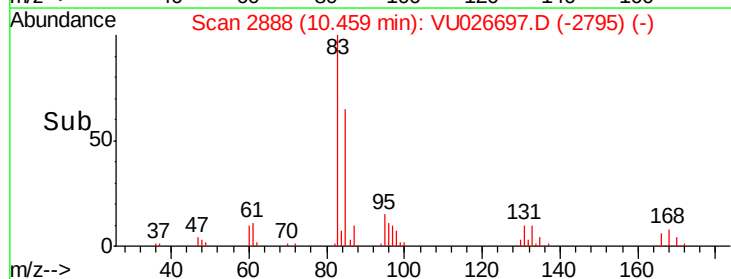
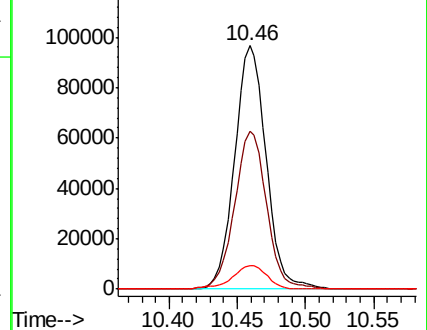
131 9.8 8.0 12.0

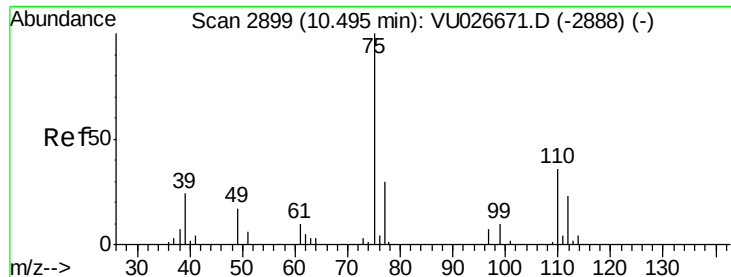


Abundance Ion 83.00 (82.70 to 83.70): VU

Ion 85.00 (84.70 to 85.70): VU

Ion 131.00 (130.70 to 131.70): V

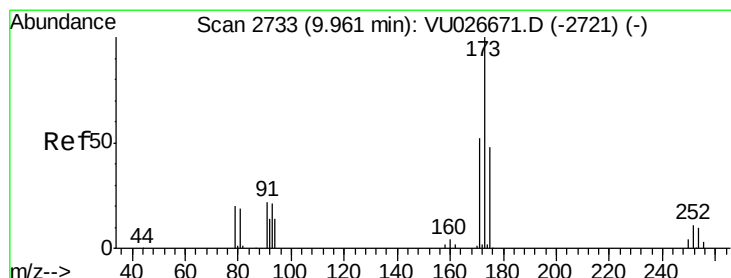
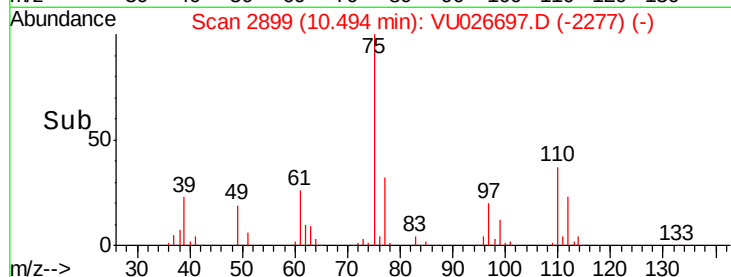
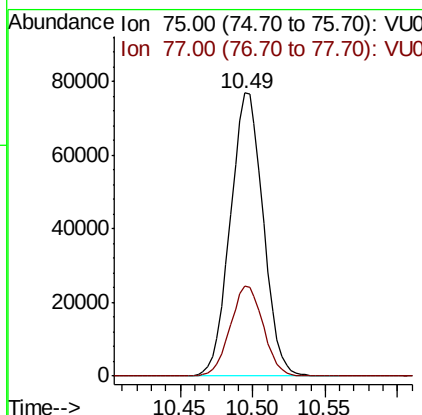
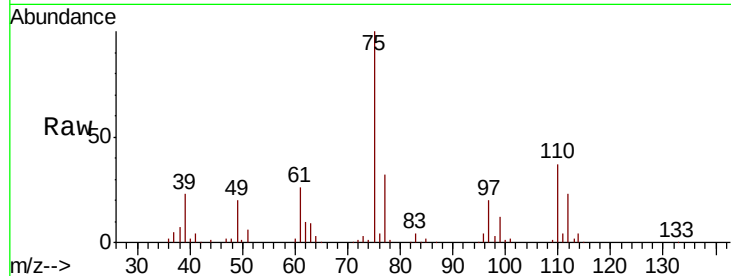




#59  
 1,2,3-Trichloropropane  
 Concen: 57.237 ug/L  
 RT: 10.49 min Scan# 2899  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

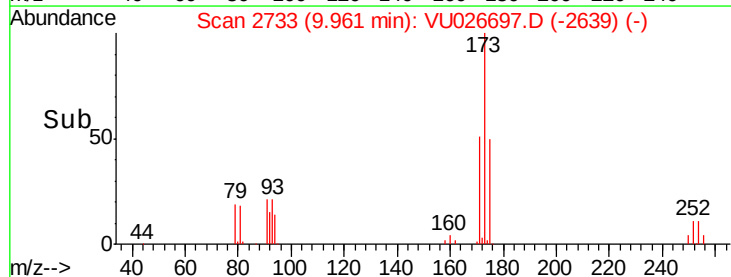
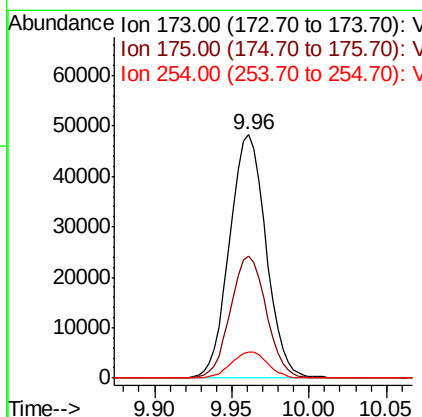
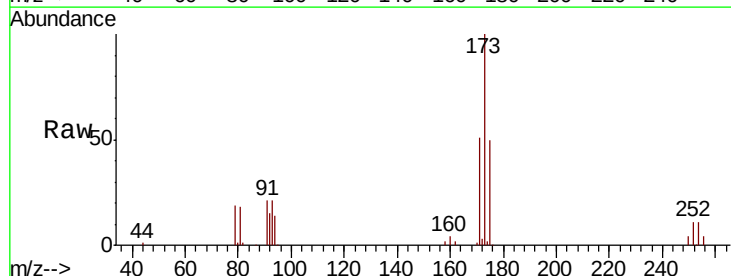
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

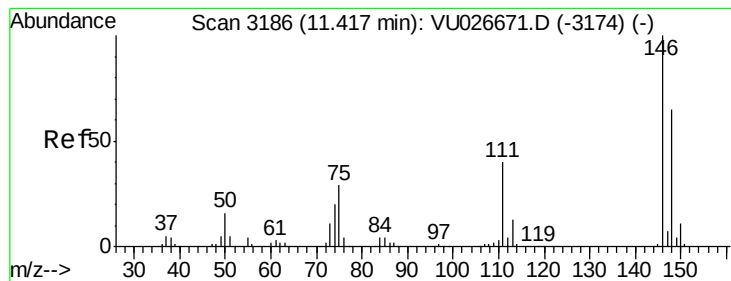
Tgt Ion: 75 Resp: 121203  
 Ion Ratio Lower Upper  
 75 100  
 77 32.0 25.8 38.6



#61  
 Bromoform  
 Concen: 55.244 ug/L  
 RT: 9.96 min Scan# 2733  
 Delta R.T. 0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Tgt Ion: 173 Resp: 79005  
 Ion Ratio Lower Upper  
 173 100  
 175 49.3 38.2 57.4  
 254 10.8 8.2 12.4





#62

1,3-Dichlorobenzene

Concen: 57.379 ug/L

RT: 11.42 min Scan# 3187

Delta R.T. 0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

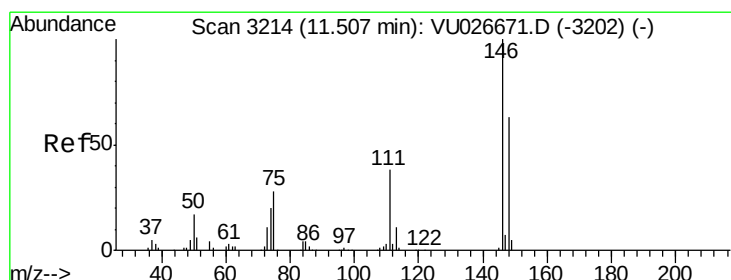
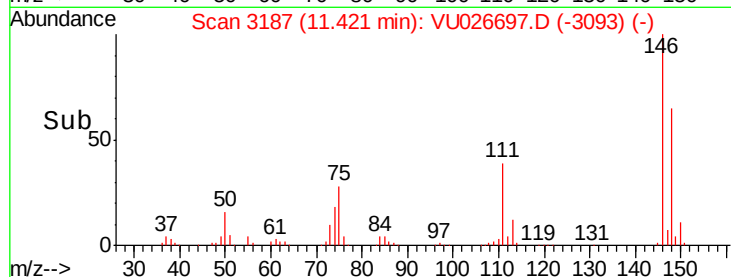
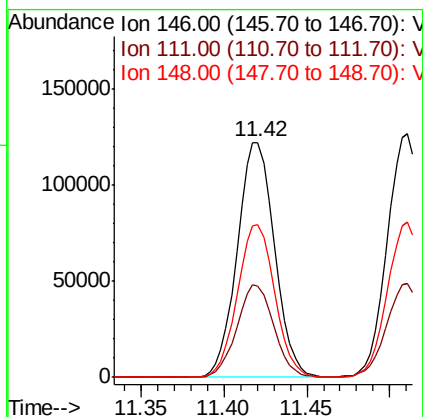
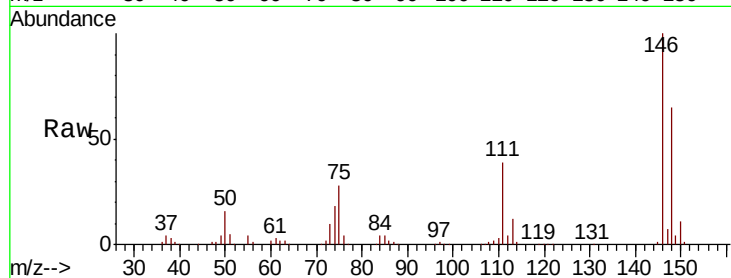
Tgt Ion:146 Resp: 191270

Ion Ratio Lower Upper

146 100

111 39.1 26.7 49.5

148 65.0 44.2 82.2



#63

1,4-Dichlorobenzene

Concen: 55.224 ug/L

RT: 11.51 min Scan# 3215

Delta R.T. 0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

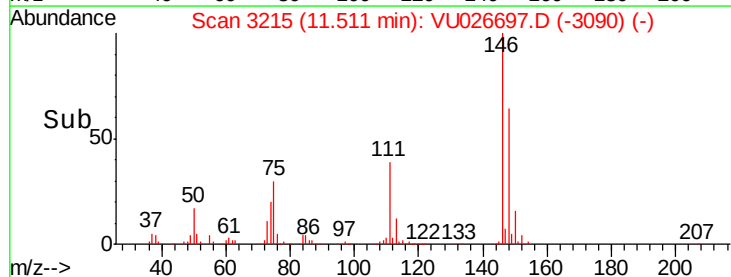
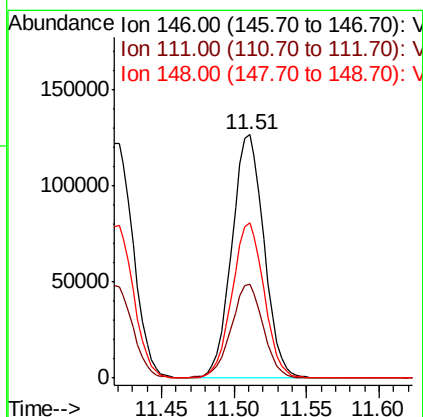
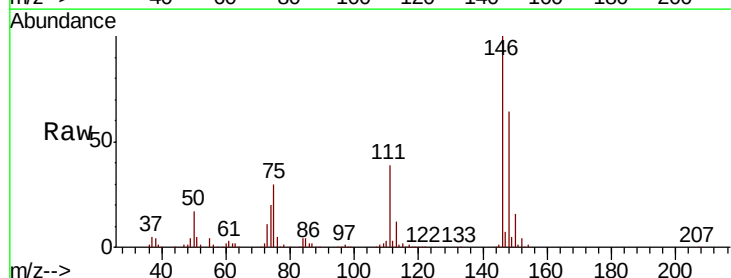
Tgt Ion:146 Resp: 195011

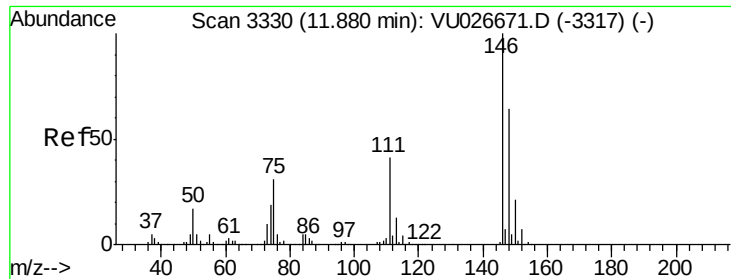
Ion Ratio Lower Upper

146 100

111 38.7 26.5 49.3

148 63.7 45.2 84.0





#65

1,2-Dichlorobenzene

Concen: 56.883 ug/L

RT: 11.88 min Scan# 3330

Delta R.T. -0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

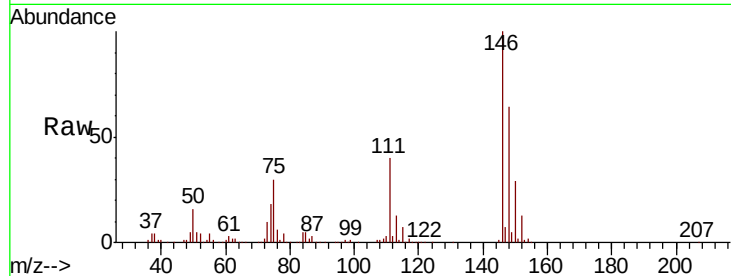
Tgt Ion:146 Resp: 200399

Ion Ratio Lower Upper

146 100

111 40.2 32.8 49.2

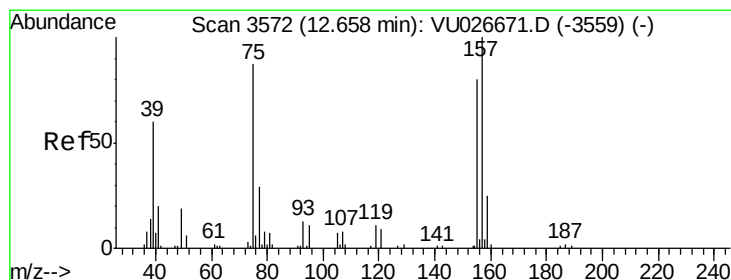
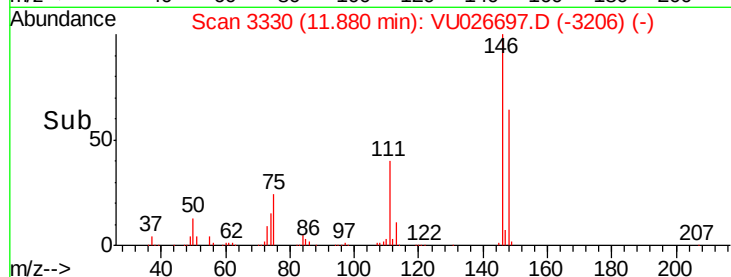
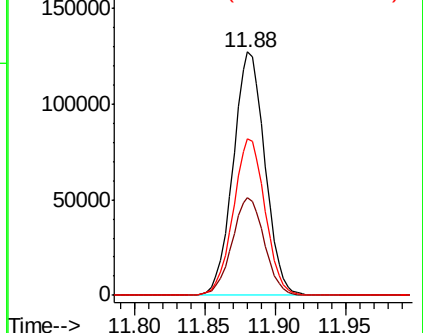
148 64.2 52.2 78.4



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 58.439 ug/L

RT: 12.66 min Scan# 3572

Delta R.T. 0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

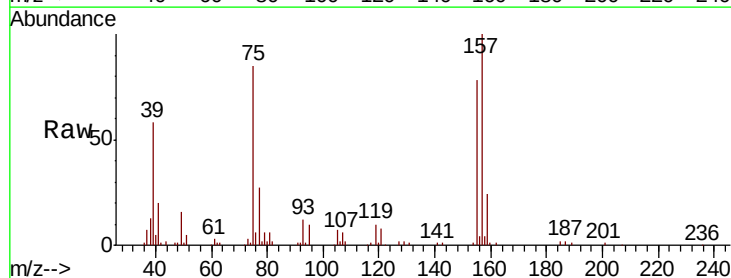
Tgt Ion: 75 Resp: 33261

Ion Ratio Lower Upper

75 100

155 91.8 69.3 103.9

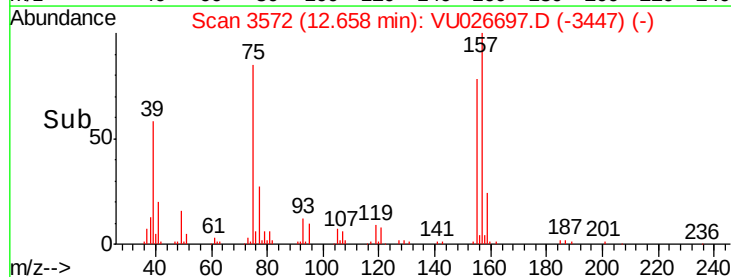
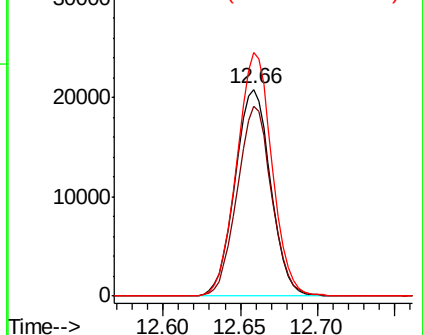
157 117.6 93.4 140.0

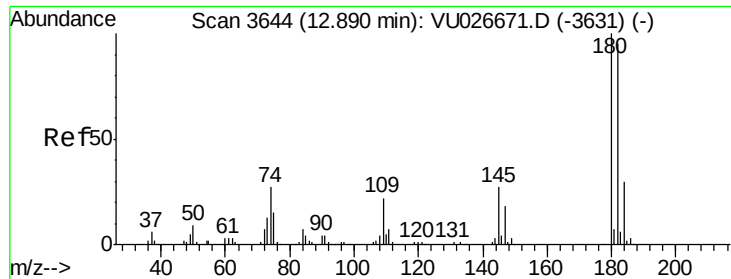


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

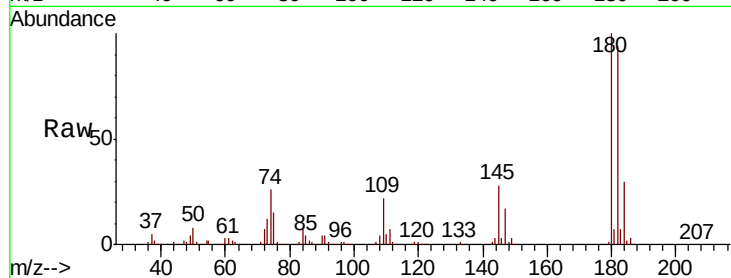




#67  
 1,3,5-Trichlorobenzene  
 Concen: 59.159 ug/L  
 RT: 12.89 min Scan# 3644  
 Delta R.T. 0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFB

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.1  | 76.8  | 115.2 |
| 184     | 29.9  | 24.2  | 36.2  |
| 145     | 27.2  | 21.4  | 32.2  |



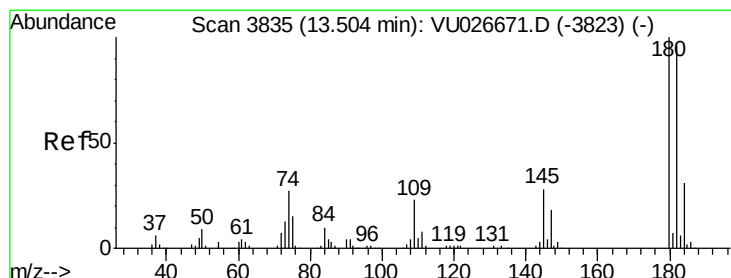
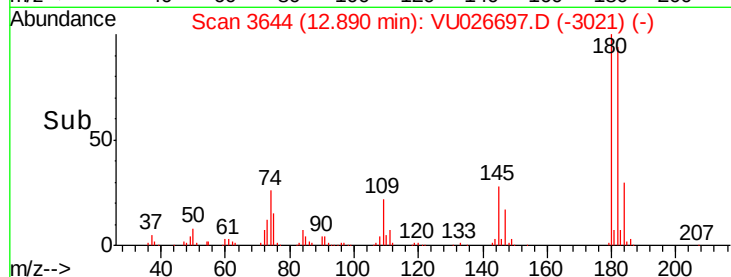
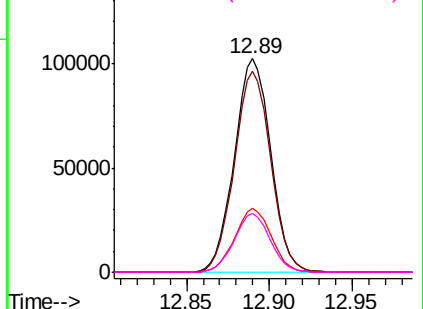
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

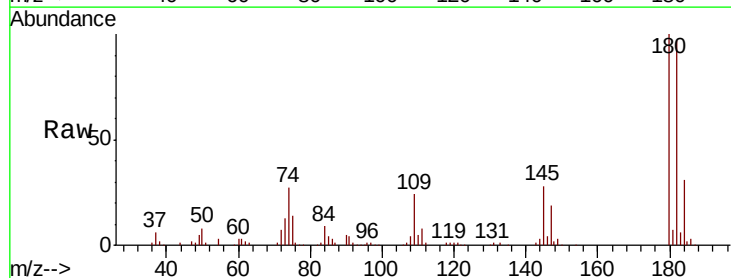
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 58.410 ug/L  
 RT: 13.50 min Scan# 3835  
 Delta R.T. -0.00 min  
 Lab File: VU026697.D  
 Acq: 12 Sep 2018 12:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.6  | 76.0  | 114.0 |
| 145     | 28.0  | 23.4  | 35.0  |

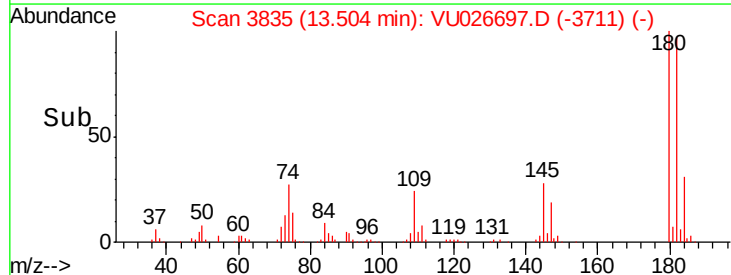
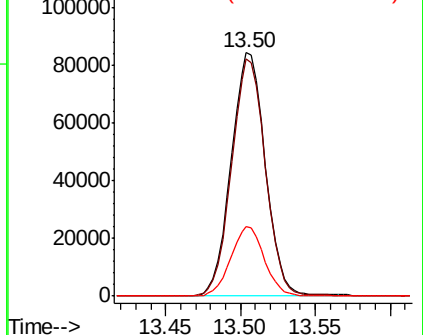


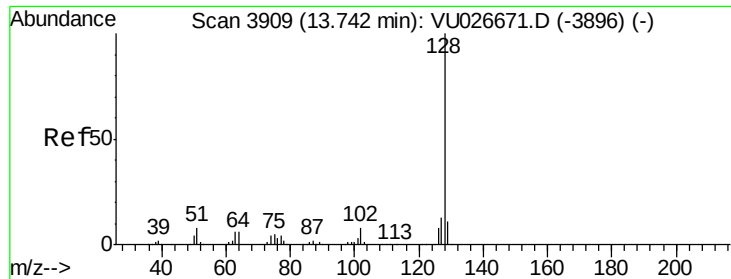
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 61.384 ug/L

RT: 13.75 min Scan# 3910

Delta R.T. 0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

Instrument :

MSVOA\_U

ClientSampleId :

BFB

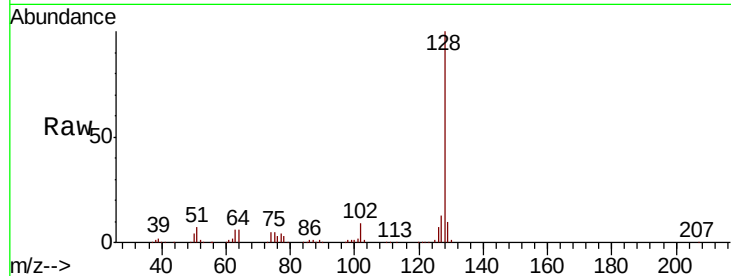
Tgt Ion:128 Resp: 432285

Ion Ratio Lower Upper

128 100

127 13.0 10.3 15.5

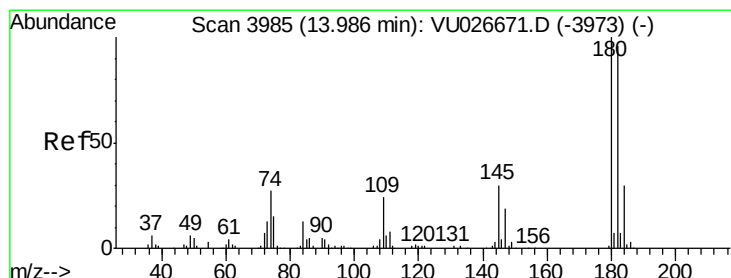
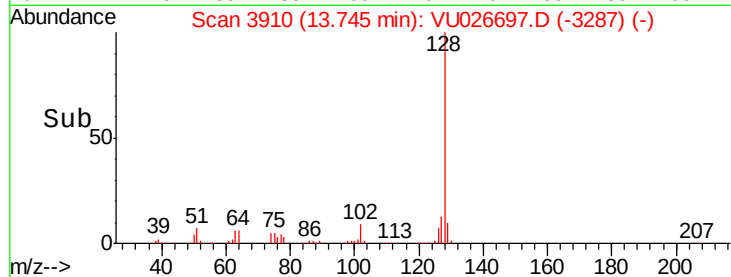
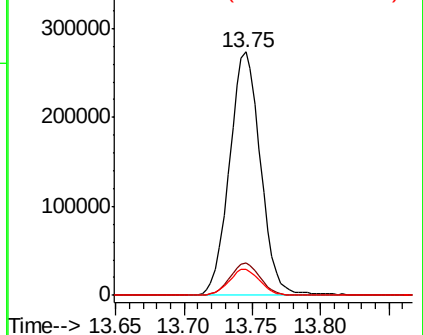
129 10.8 8.6 13.0



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 58.039 ug/L

RT: 13.99 min Scan# 3986

Delta R.T. 0.00 min

Lab File: VU026697.D

Acq: 12 Sep 2018 12:58

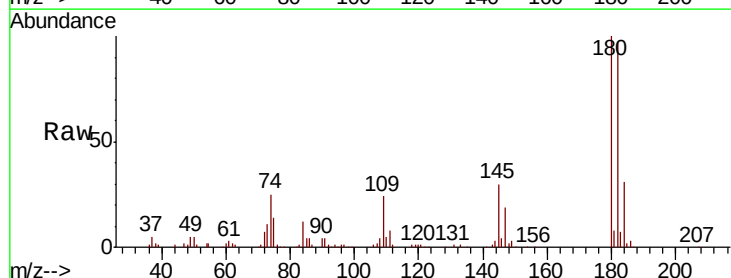
Tgt Ion:180 Resp: 144482

Ion Ratio Lower Upper

180 100

182 97.0 76.7 115.1

145 30.1 23.0 34.6



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

