

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU070318\  
 Data File : VU025192.D  
 Acq On : 03 Jul 2018 15:41  
 Operator : MD/SY  
 Sample : J3790-02  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Jul 04 04:58:49 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U061318W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 13 13:55:26 2018  
 Response via : Initial Calibration

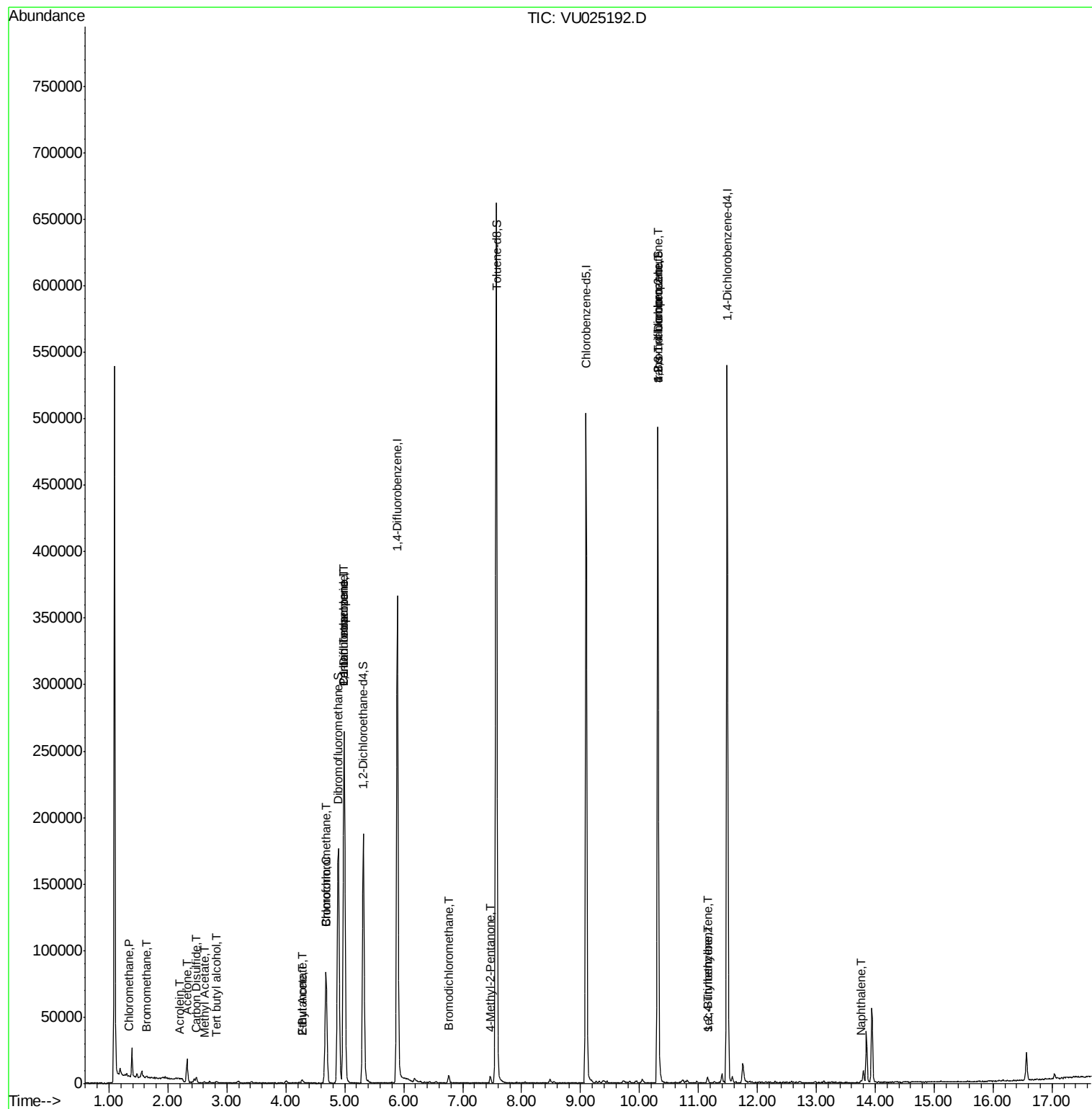
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|--------|----------|
| 1) Pentafluorobenzene          | 4.99   | 168  | 206321   | 50.00     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene        | 5.89   | 114  | 306868   | 50.00     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5           | 9.09   | 117  | 277995   | 50.00     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 11.49  | 152  | 145448   | 50.00     | ug/l   | 0.00     |
| System Monitoring Compounds    |        |      |          |           |        |          |
| 33) 1,2-Dichloroethane-d4      | 5.31   | 65   | 155639   | 46.21     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 92.42% |          |
| 35) Dibromofluoromethane       | 4.89   | 113  | 120553   | 47.34     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 94.68% |          |
| 50) Toluene-d8                 | 7.57   | 98   | 435143   | 46.84     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 93.68% |          |
| 62) 4-Bromofluorobenzene       | 10.31  | 95   | 161735   | 43.85     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 87.70% |          |
| Target Compounds               |        |      |          |           |        |          |
|                                |        |      |          |           | Qvalue |          |
| 3) Chloromethane               | 1.33   | 50   | 703      | 0.266     | ug/l   | 98       |
| 5) Bromomethane                | 1.64   | 94   | 364      | 0.277     | ug/l # | 72       |
| 6) Chloroethane                | 1.70   | 64   | 142      | Below Cal | #      | 43       |
| 11) Tert butyl alcohol         | 2.82   | 59   | 1109     | 1.354     | ug/l # | 72       |
| 13) Acrolein                   | 2.20   | 56   | 199      | 0.463     | ug/l # | 1        |
| 16) Acetone                    | 2.32   | 43   | 18212    | 10.063    | ug/l   | 97       |
| 17) Carbon Disulfide           | 2.48   | 76   | 4794     | 0.637     | ug/l   | 95       |
| 18) Methyl Acetate             | 2.62   | 43   | 870      | 0.224     | ug/l # | 53       |
| 25) 2-Butanone                 | 4.27   | 43   | 4308     | 1.772     | ug/l   | 96       |
| 28) Bromochloromethane         | 4.68   | 49   | 6665     | 3.042     | ug/l # | 16       |
| 30) Chloroform                 | 4.68   | 83   | 79217    | 15.734    | ug/l   | 97       |
| 31) Cyclohexane                | 4.99   | 56   | 4306     | Below Cal | #      | 6        |
| 36) 1,1-Dichloropropene        | 4.99   | 75   | 14752    | 4.091     | ug/l # | 50       |
| 37) Ethyl Acetate              | 4.27   | 43   | 4308     | 1.096     | ug/l # | 70       |
| 38) Carbon Tetrachloride       | 4.99   | 117  | 19860    | 5.008     | ug/l # | 16       |
| 47) Bromodichloromethane       | 6.76   | 83   | 4330     | 1.129     | ug/l # | 87       |
| 51) 4-Methyl-2-Pentanone       | 7.47   | 43   | 3856     | 0.903     | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 10.31  | 75   | 84286    | 26.321    | ug/l # | 35       |
| 81) trans-1,4-Dichloro-2-buten | 10.31  | 75   | 84286    | 60.918    | ug/l # | 100      |
| 84) 1,2,4-Trimethylbenzene     | 11.16  | 105  | 3093     | 0.314     | ug/l   | 88       |
| 85) sec-Butylbenzene           | 11.16  | 105  | 3093     | 0.265     | ug/l # | 57       |
| 95) Naphthalene                | 13.75  | 128  | 2104     | 0.873     | ug/l # | 81       |

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

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ClientSampleId :

Quant Time: Jul 04 04:58:49 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U061318W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jun 13 13:55:26 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.99 min Scan# 1368

Delta R.T. -0.00 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

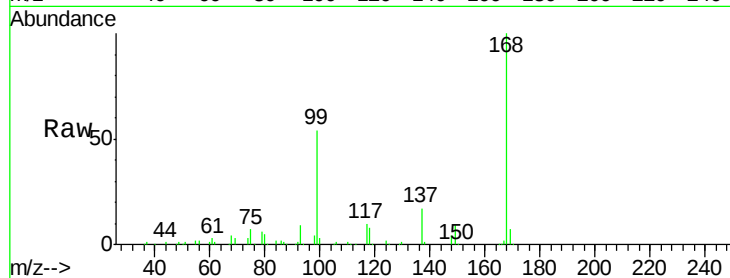
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:168 Resp: 206321

Ion Ratio Lower Upper

168 100

99 53.7 43.2 64.8



Abundance Ion 167.90 (167.60 to 168.60): VU025192.D (-1275) (-)

Ion 98.90 (98.60 to 99.60): VU025192.D (-1275) (-)

4.99

100000

80000

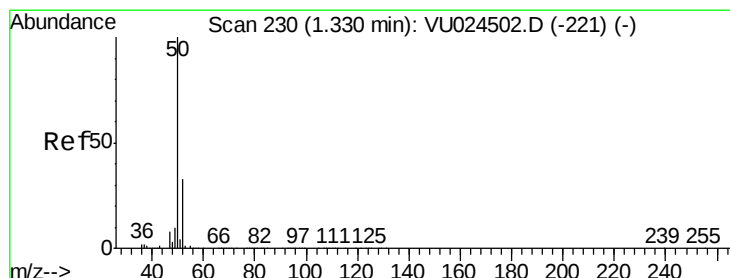
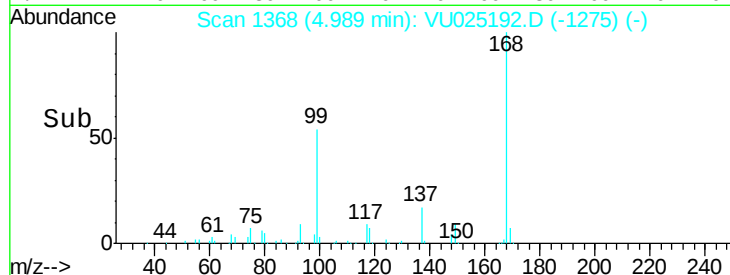
60000

40000

20000

0

Time-->



#3

Chloromethane

Concen: 0.266 ug/l

RT: 1.33 min Scan# 231

Delta R.T. 0.00 min

Lab File: VU025192.D

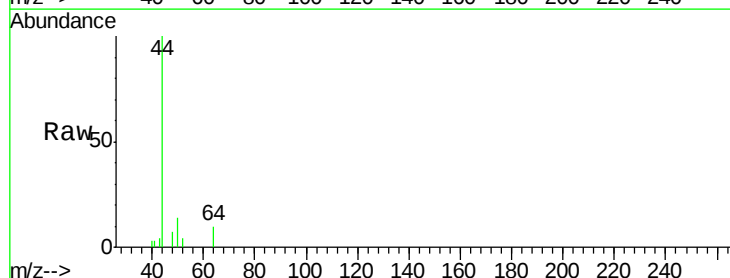
Acq: 03 Jul 2018 15:41

Tgt Ion: 50 Resp: 703

Ion Ratio Lower Upper

50 100

52 31.7 26.4 39.6



Abundance Ion 49.90 (49.60 to 50.60): VU025192.D (-137) (-)

Ion 51.90 (51.60 to 52.60): VU025192.D (-137) (-)

1.33

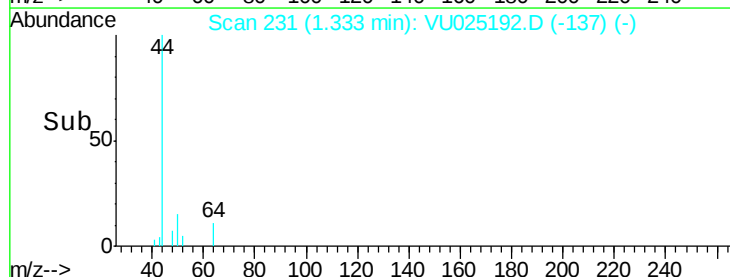
600

400

200

0

Time-->





#5

Bromomethane

Concen: 0.277 ug/l

RT: 1.64 min Scan# 328

Delta R.T. 0.02 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

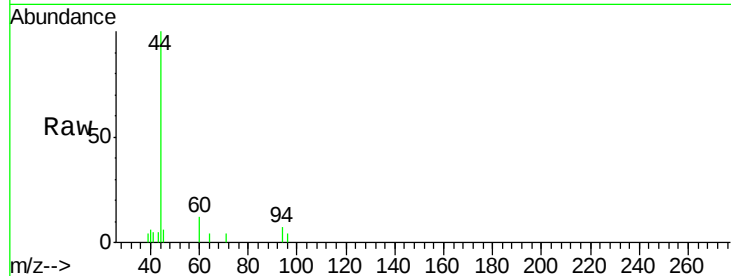
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 94 Resp: 364

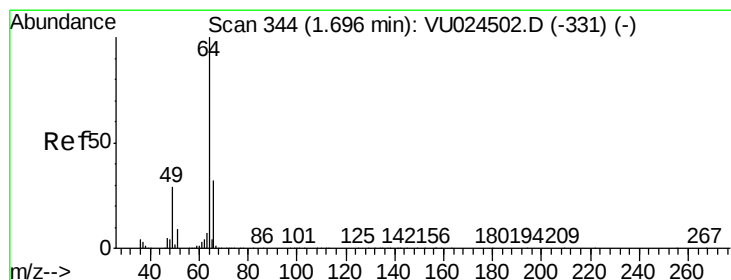
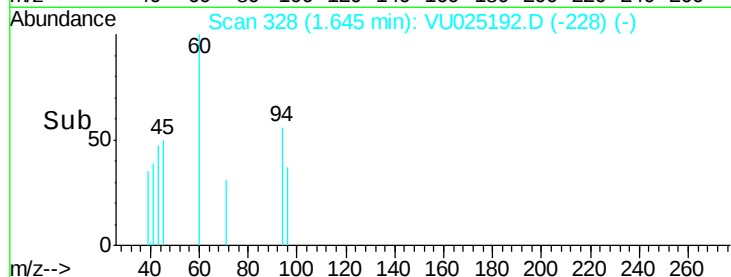
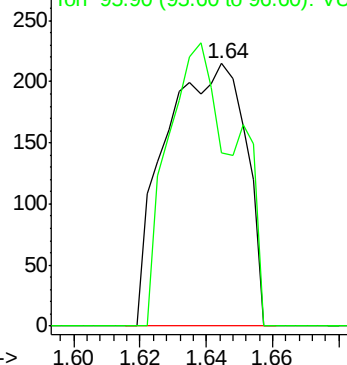
Ion Ratio Lower Upper

94 100

96 66.0 74.5 111.7#



Abundance Ion 93.90 (93.60 to 94.60): VU0  
Ion 95.90 (95.60 to 96.60): VU0



#6

Chloroethane

Concen: Below Cal

RT: 1.70 min Scan# 345

Delta R.T. 0.00 min

Lab File: VU025192.D

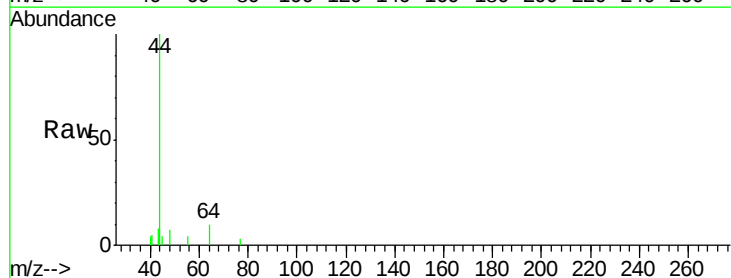
Acq: 03 Jul 2018 15:41

Tgt Ion: 64 Resp: 142

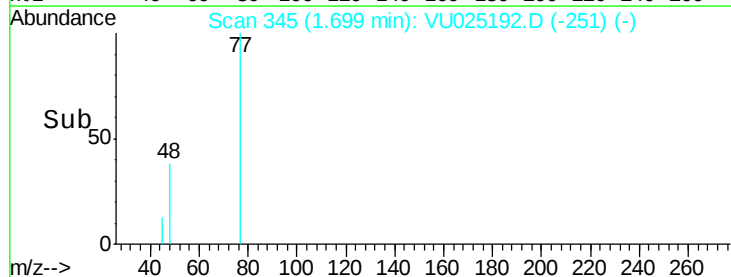
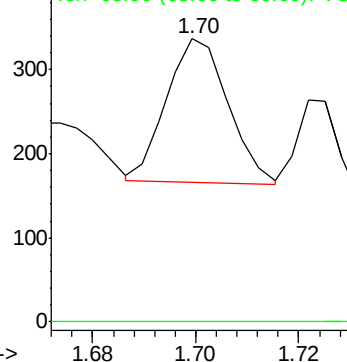
Ion Ratio Lower Upper

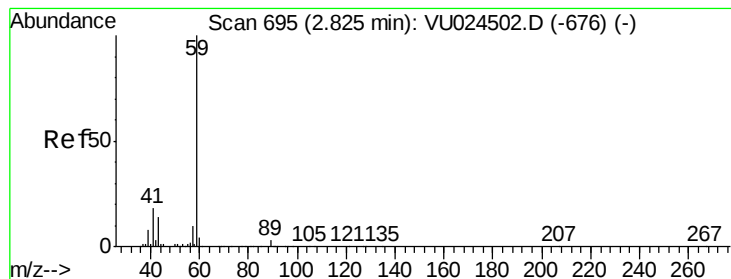
64 100

66 0.0 25.5 38.3#



Abundance Ion 63.90 (63.60 to 64.60): VU0  
Ion 65.90 (65.60 to 66.60): VU0



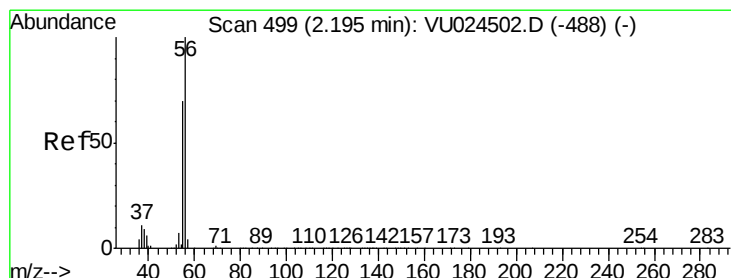
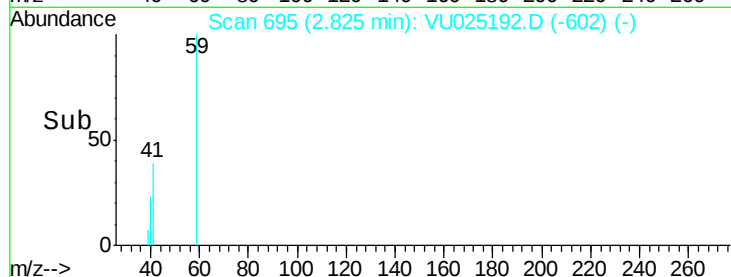
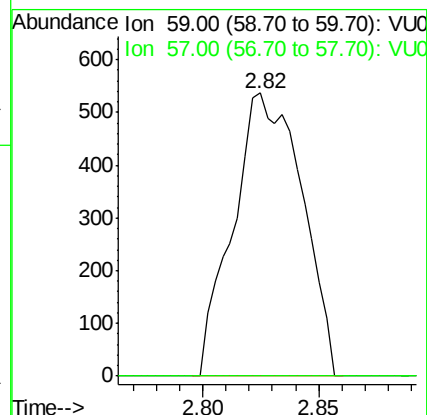
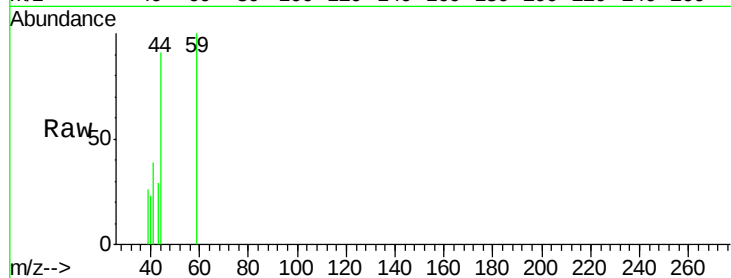


#11

Tert butyl alcohol  
 Concen: 1.354 ug/l  
 RT: 2.82 min Scan# 695  
 Delta R.T. -0.00 min  
 Lab File: VU025192.D  
 Acq: 03 Jul 2018 15:41

Instrument :  
 MSVOA\_U  
 ClientSampleId :

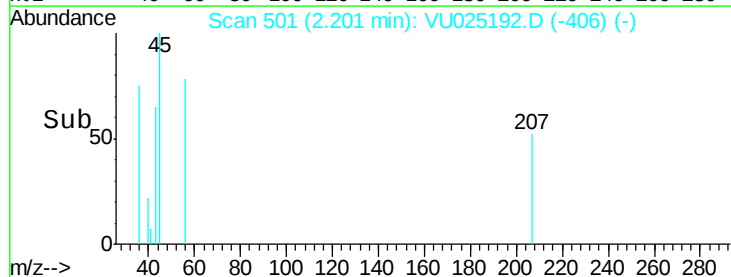
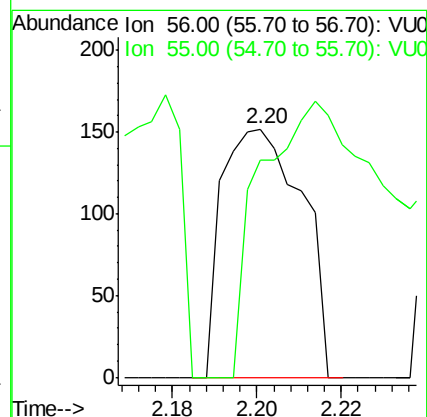
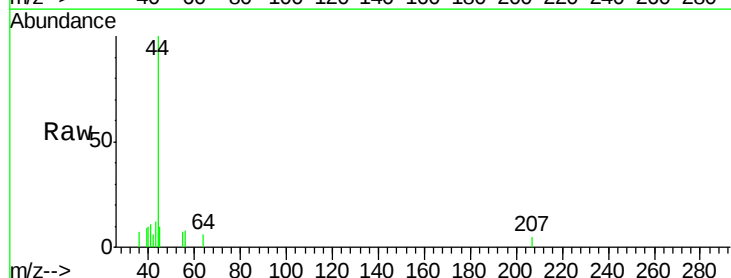
Tot Ion: 59 Resp: 1109  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.5 12.7#

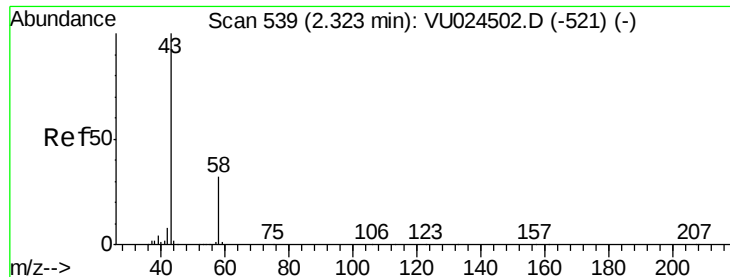


#13

Acrolein  
 Concen: 0.463 ug/l  
 RT: 2.20 min Scan# 501  
 Delta R.T. 0.01 min  
 Lab File: VU025192.D  
 Acq: 03 Jul 2018 15:41

Tgt Ion: 56 Resp: 199  
 Ion Ratio Lower Upper  
 56 100  
 55 189.9 58.4 87.6#





#16

Acetone

Concen: 10.063 ug/l

RT: 2.32 min Scan# 539

Delta R.T. -0.00 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

Instrument :

MSVOA\_U

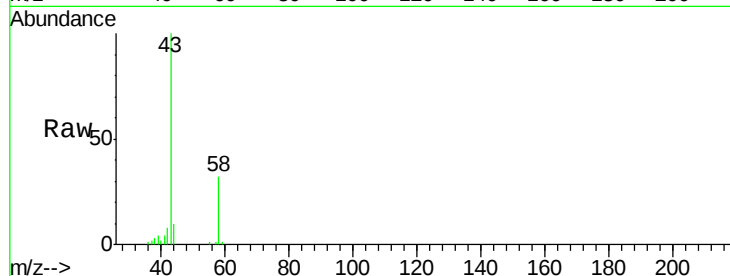
ClientSampled :

Tot Ion: 43 Resp: 18212

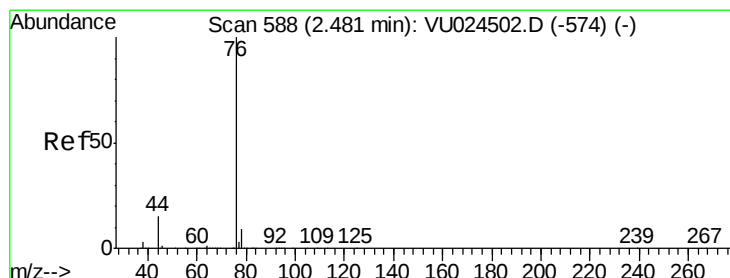
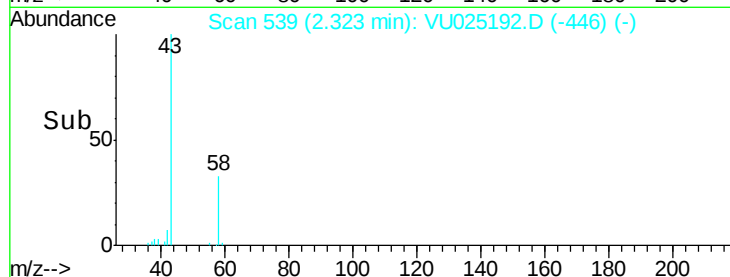
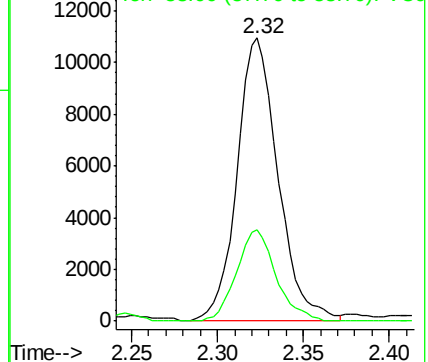
Ion Ratio Lower Upper

43 100

58 32.1 24.4 36.6



Abundance Ion 43.00 (42.70 to 43.70): VU025192.D (-446) (-)



#17

Carbon Disulfide

Concen: 0.637 ug/l

RT: 2.48 min Scan# 588

Delta R.T. -0.00 min

Lab File: VU025192.D

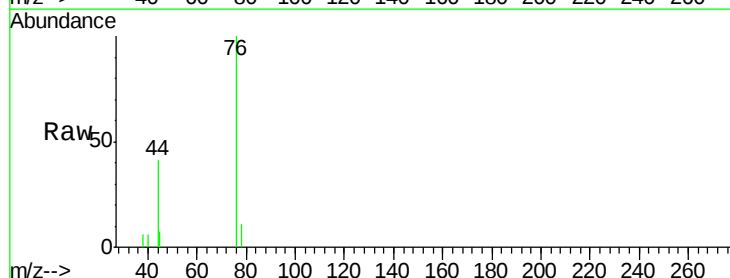
Acq: 03 Jul 2018 15:41

Tgt Ion: 76 Resp: 4794

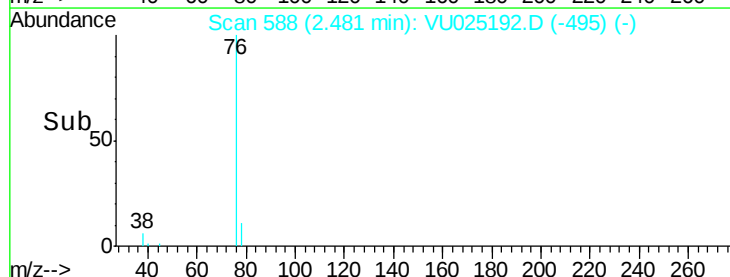
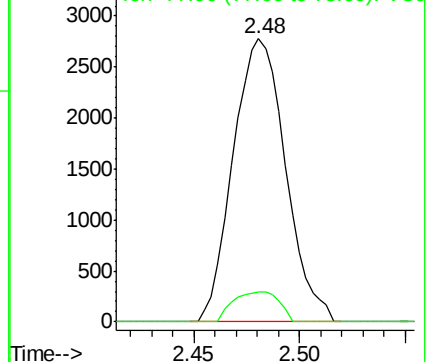
Ion Ratio Lower Upper

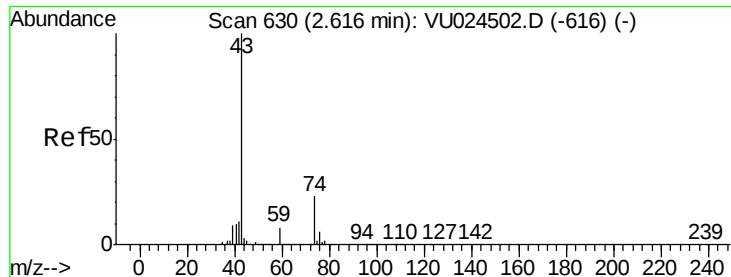
76 100

78 10.6 7.1 10.7



Abundance Ion 75.90 (75.60 to 76.60): VU025192.D (-495) (-)

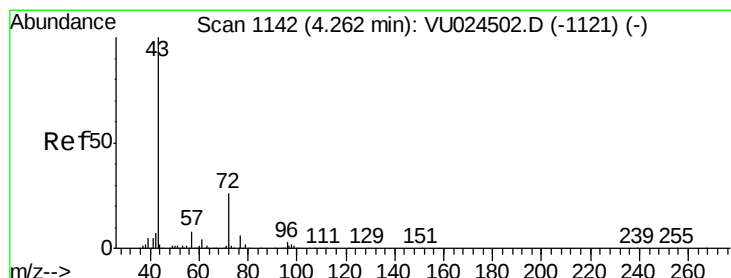
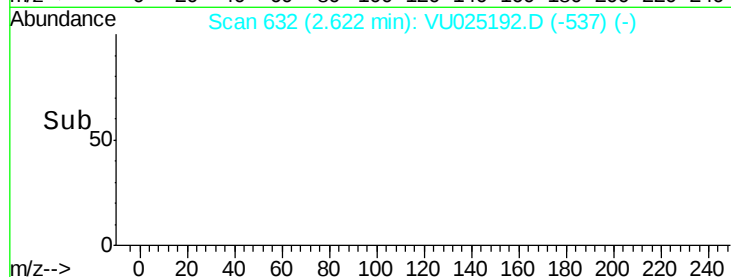
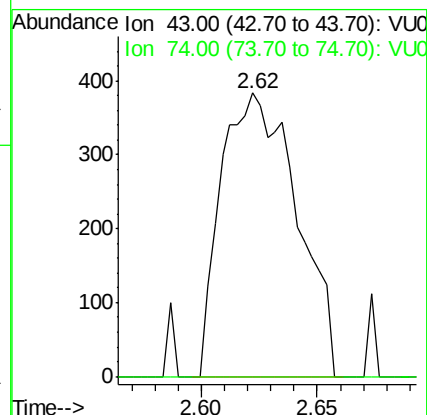
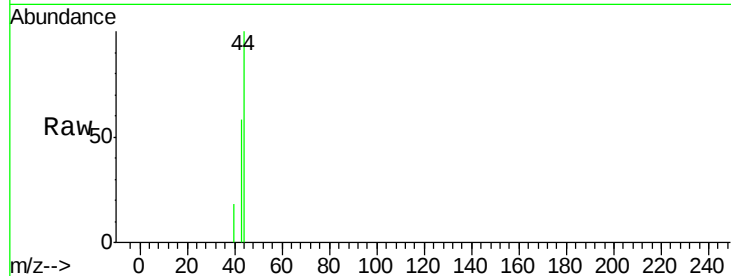




#18  
Methyl Acetate  
Concen: 0.224 ug/l  
RT: 2.62 min Scan# 632  
Delta R.T. 0.01 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

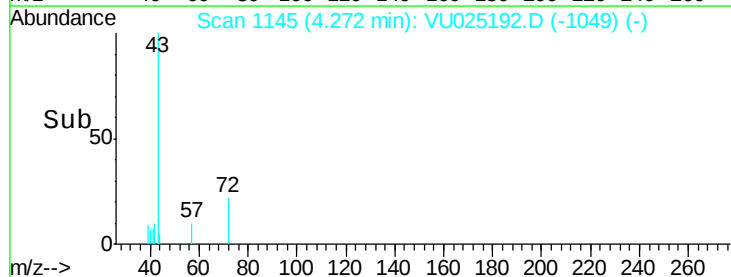
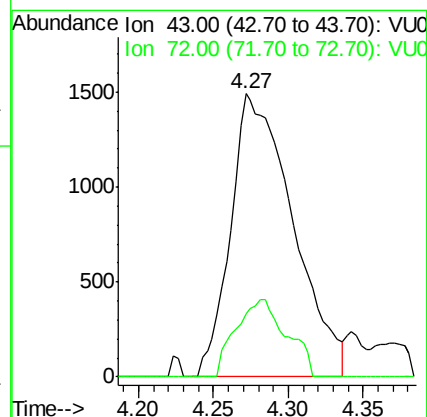
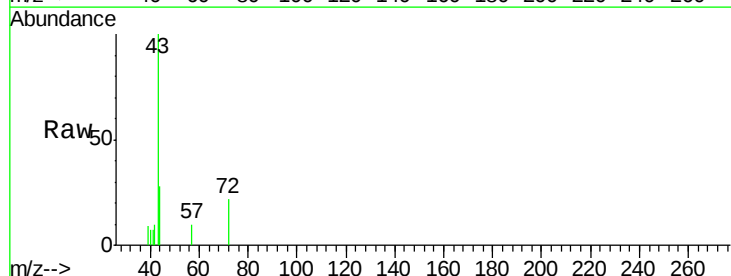
Instrument :  
MSVOA\_U  
ClientSampled :

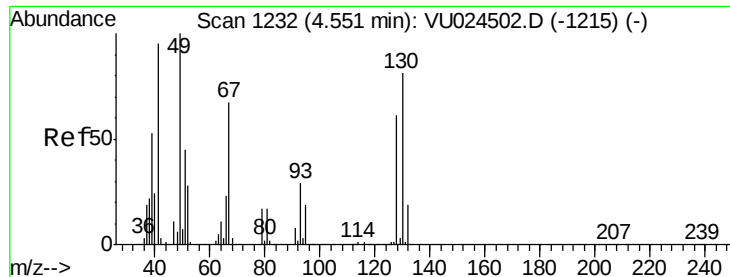
Tot Ion: 43 Resp: 870  
Ion Ratio Lower Upper  
43 100  
74 0.0 18.0 27.0#



#25  
2-Butanone  
Concen: 1.772 ug/l  
RT: 4.27 min Scan# 1145  
Delta R.T. 0.01 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Tgt Ion: 43 Resp: 4308  
Ion Ratio Lower Upper  
43 100  
72 22.3 19.6 29.4

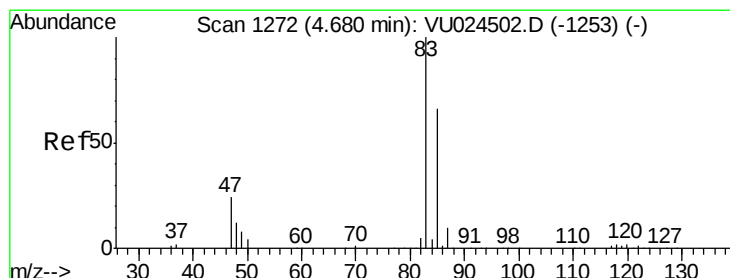
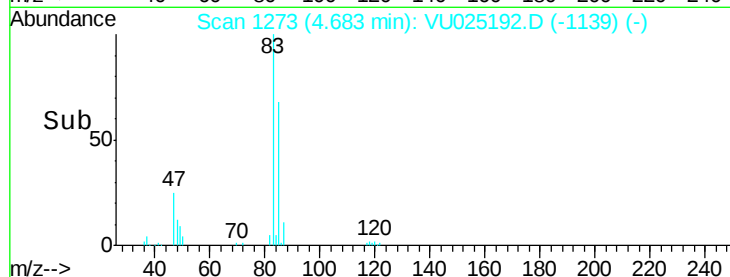
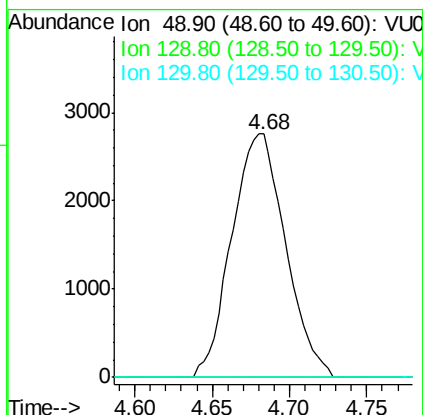
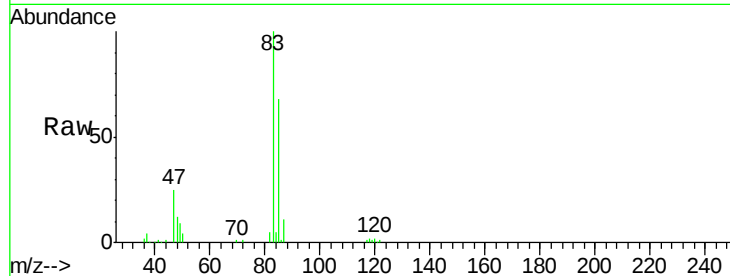




#28  
Bromochloromethane  
Concen: 3.042 ug/l  
RT: 4.68 min Scan# 1273  
Delta R.T. 0.13 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

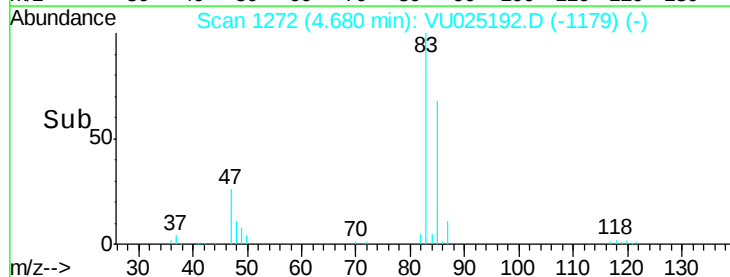
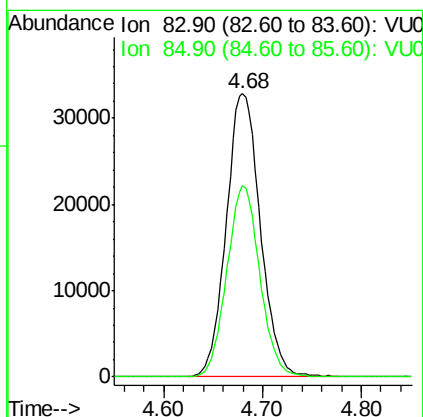
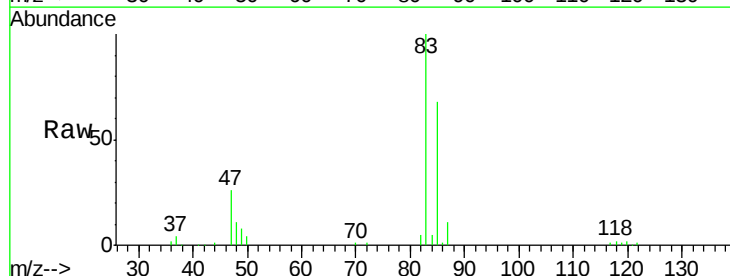
Instrument :  
MSVOA\_U  
ClientSampled :

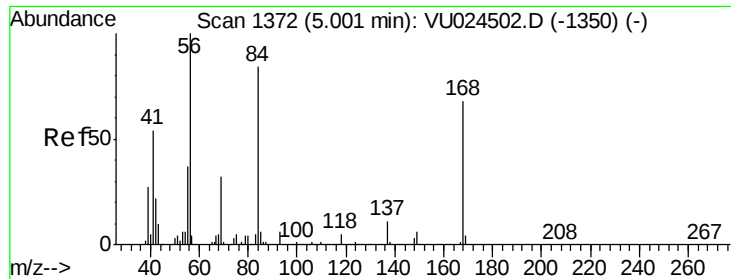
Tot Ion: 49 Resp: 6665  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 3.8  
130 0.0 57.8 86.6#



#30  
Chloroform  
Concen: 15.734 ug/l  
RT: 4.68 min Scan# 1272  
Delta R.T. -0.00 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Tgt Ion: 83 Resp: 79217  
Ion Ratio Lower Upper  
83 100  
85 67.5 52.4 78.6

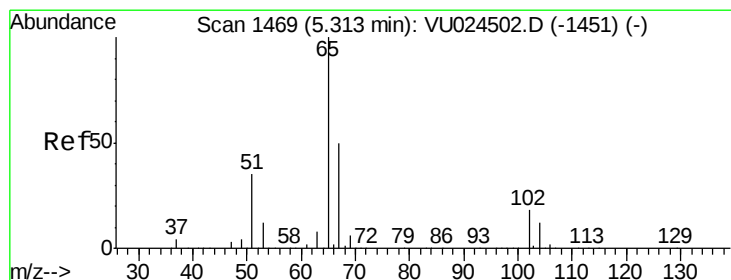
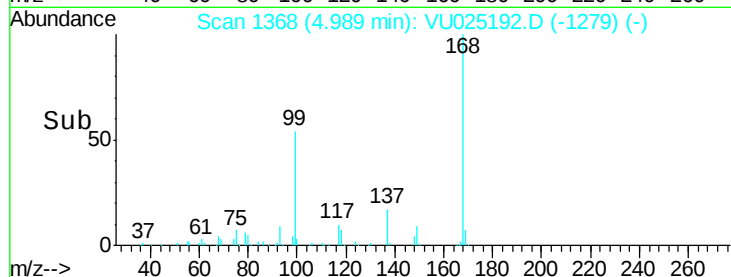
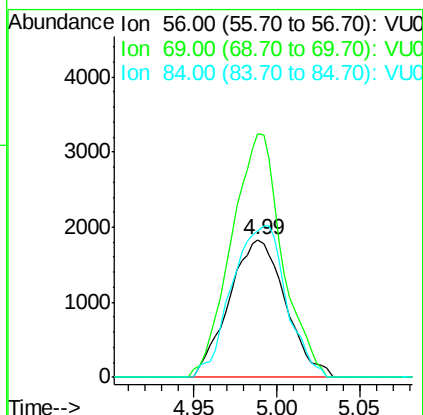
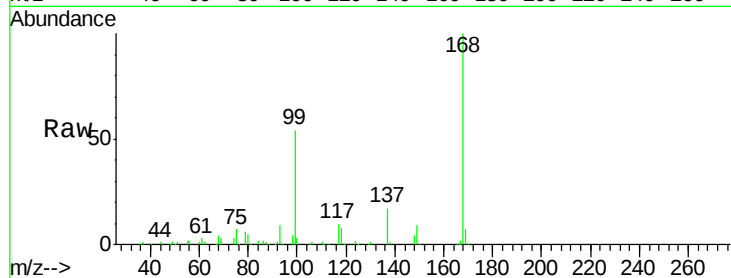




#31  
Cyclohexane  
Concen: Below Cal  
RT: 4.99 min Scan# 1368  
Delta R.T. -0.01 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

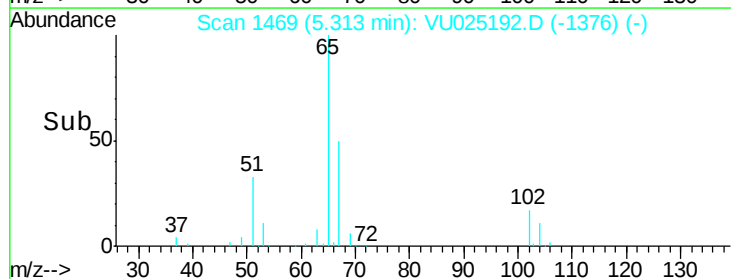
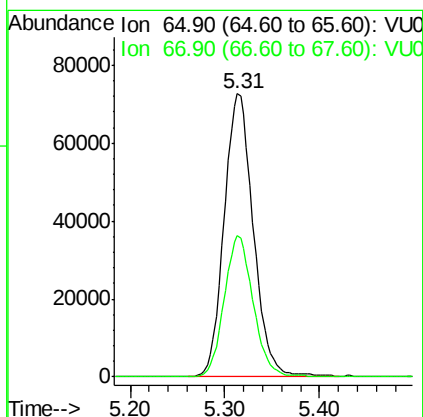
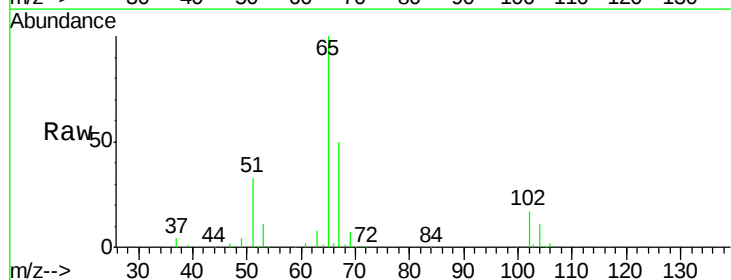
Instrument :  
MSVOA\_U  
ClientSampleId :

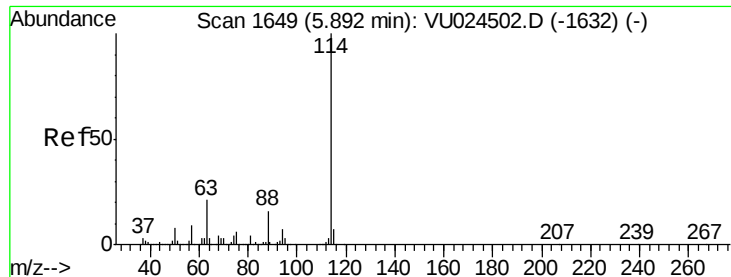
Tot Ion: 56 Resp: 4306  
Ion Ratio Lower Upper  
56 100  
69 177.1 24.8 37.2#  
84 106.9 65.2 97.8#



#33  
1,2-Dichloroethane-d4  
Concen: 46.208 ug/l  
RT: 5.31 min Scan# 1469  
Delta R.T. -0.00 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Tgt Ion: 65 Resp: 155639  
Ion Ratio Lower Upper  
65 100  
67 49.4 0.0 107.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.89 min Scan# 1649

Delta R.T. -0.00 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

Instrument :

MSVOA\_U

ClientSampleId :

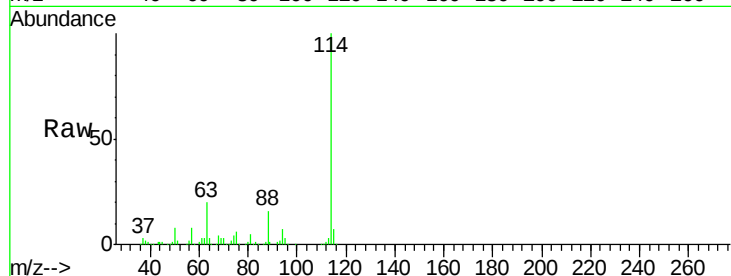
Tot Ion:114 Resp: 306868

Ion Ratio Lower Upper

114 100

63 20.3 0.0 45.4

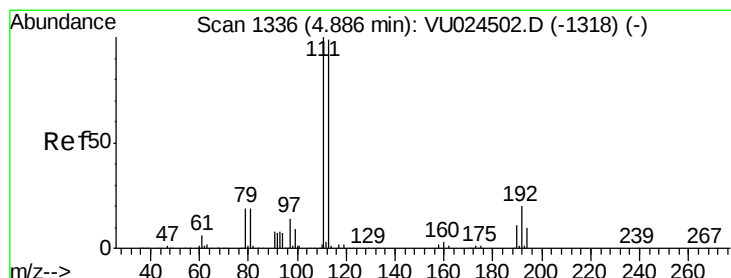
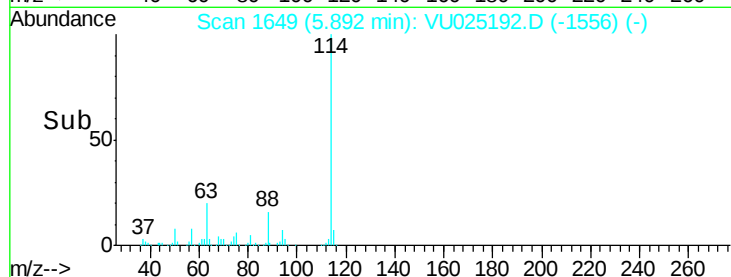
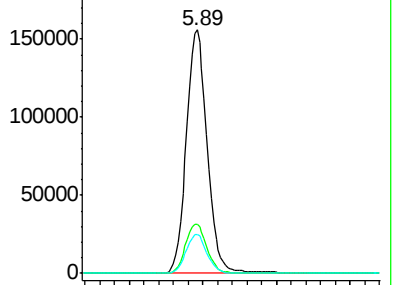
88 16.2 0.0 31.0



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VU0

Ion 87.90 (87.60 to 88.60): VU0



#35

Dibromofluoromethane

Concen: 47.336 ug/l

RT: 4.89 min Scan# 1337

Delta R.T. 0.00 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

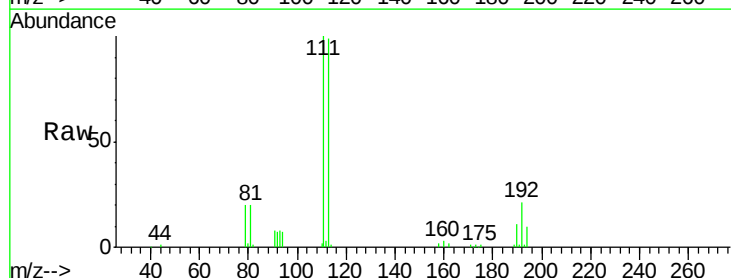
Tgt Ion:113 Resp: 120553

Ion Ratio Lower Upper

113 100

111 102.1 82.2 123.4

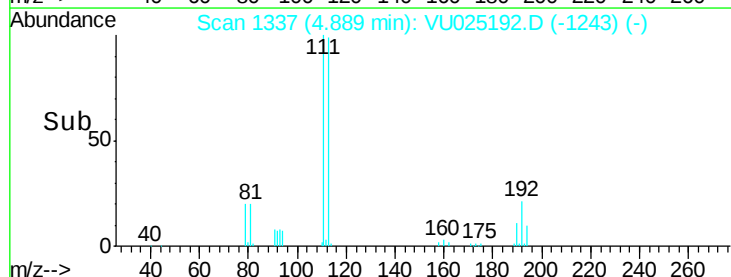
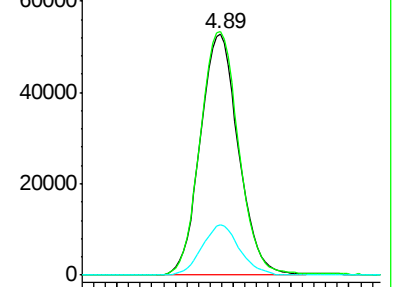
192 20.5 16.2 24.4

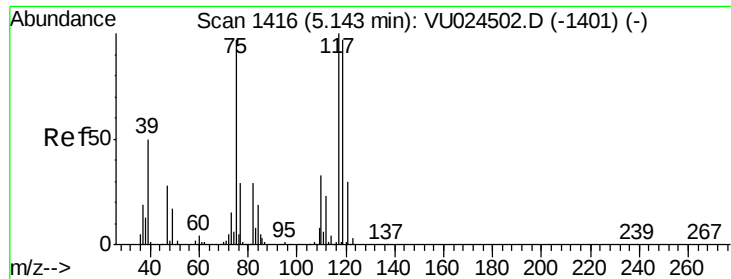


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.091 ug/l

RT: 4.99 min Scan# 1367

Delta R.T. -0.16 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

Instrument :  
MSVOA\_U  
ClientSampled :

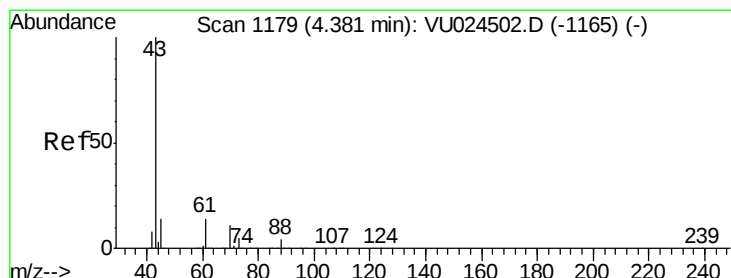
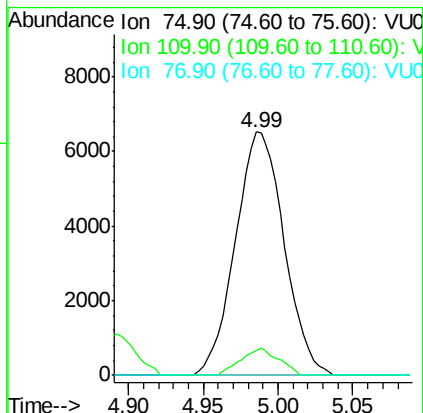
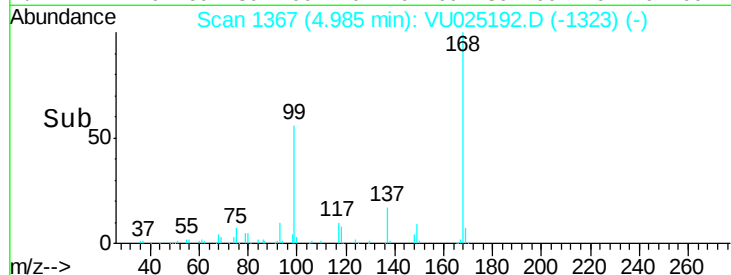
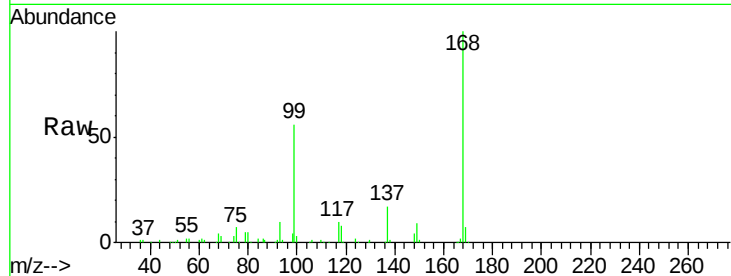
Tot Ion: 75 Resp: 14752

Ion Ratio Lower Upper

75 100

110 8.7 17.0 50.9#

77 0.0 24.2 36.4#



#37

Ethyl Acetate

Concen: 1.096 ug/l

RT: 4.27 min Scan# 1145

Delta R.T. -0.11 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

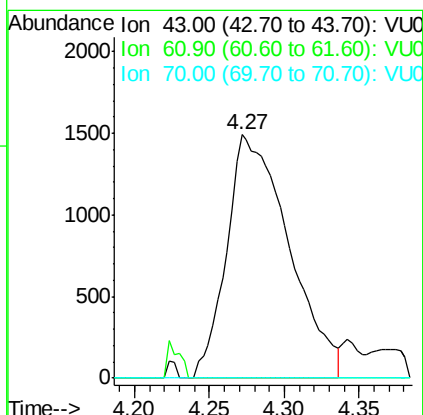
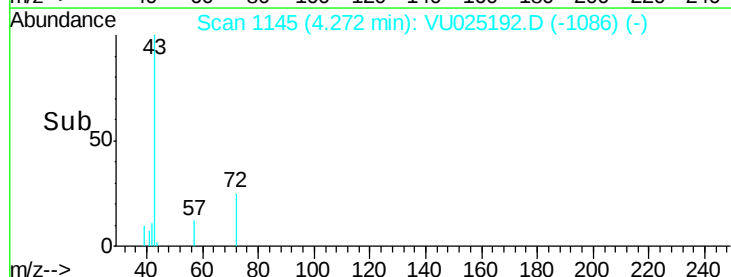
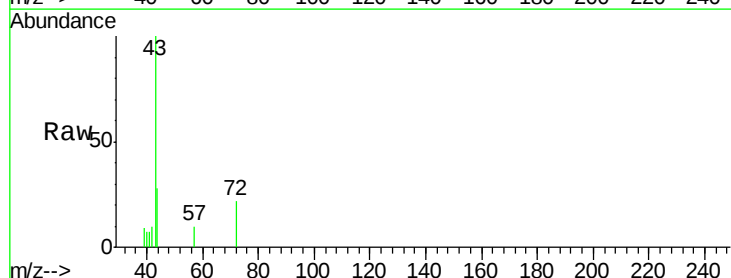
Tgt Ion: 43 Resp: 4308

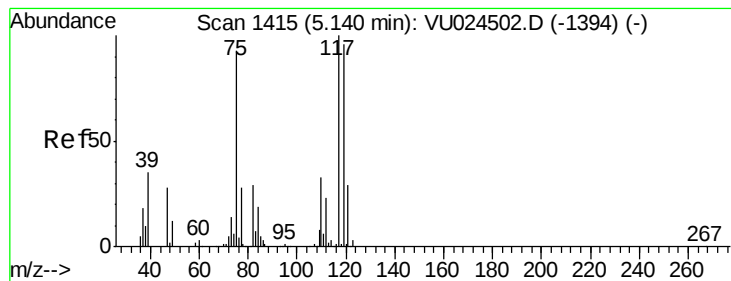
Ion Ratio Lower Upper

43 100

61 0.0 10.5 15.7#

70 0.0 7.4 11.2#





#38

Carbon Tetrachloride

Concen: 5.008 ug/l

RT: 4.99 min Scan# 1368

Delta R.T. -0.15 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

Instrument :

MSVOA\_U

ClientSampleId :

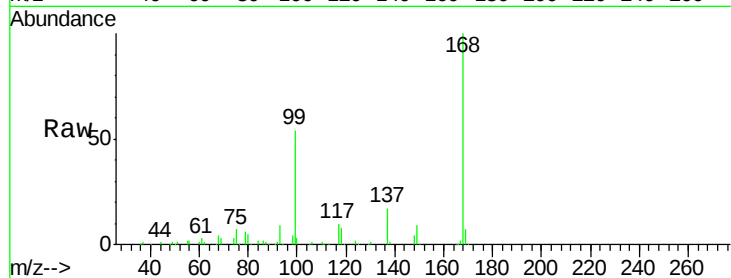
Tot Ion:117 Resp: 19860

Ion Ratio Lower Upper

117 100

119 4.6 76.1 114.1#

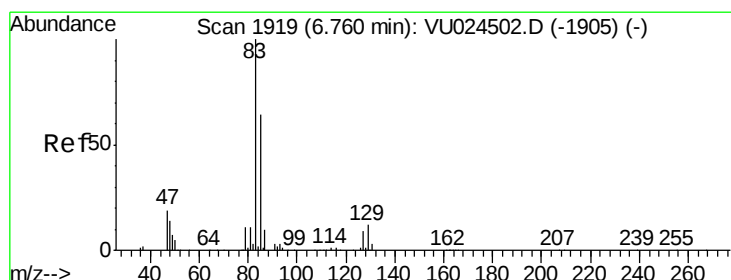
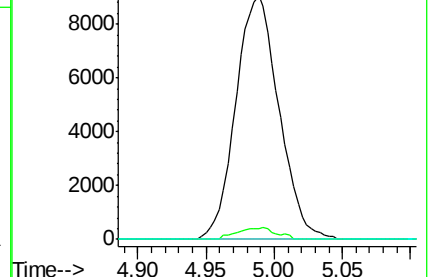
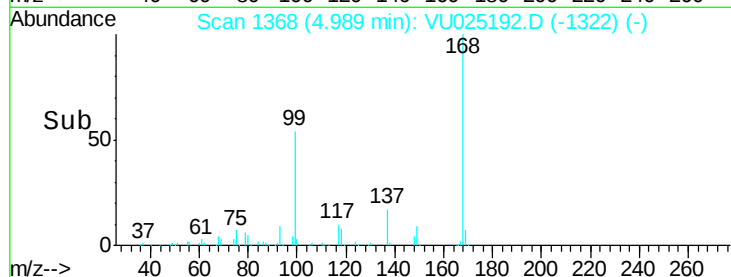
121 0.0 23.7 35.5#



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



#47

Bromodichloromethane

Concen: 1.129 ug/l

RT: 6.76 min Scan# 1919

Delta R.T. -0.00 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

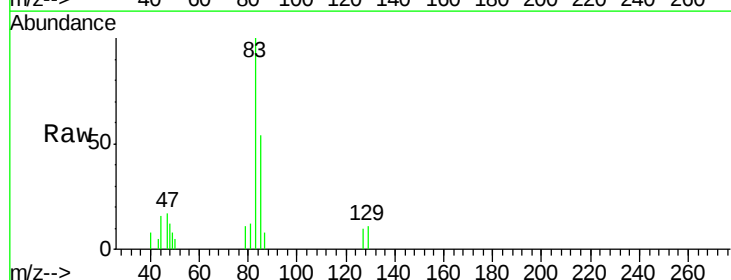
Tgt Ion: 83 Resp: 4330

Ion Ratio Lower Upper

83 100

85 54.3 51.9 77.9

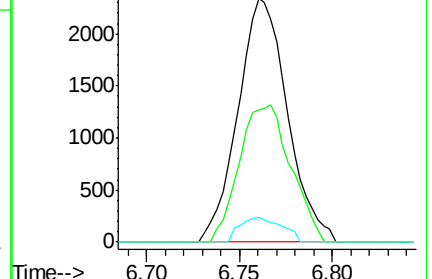
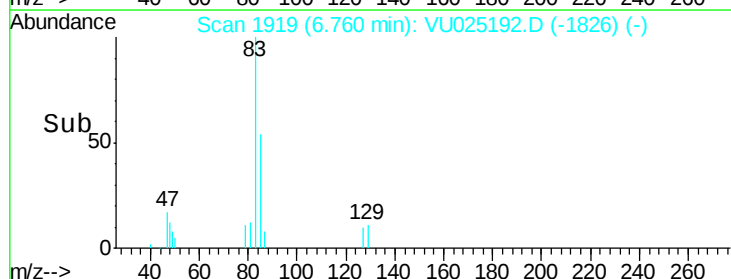
127 10.0 6.6 9.8#

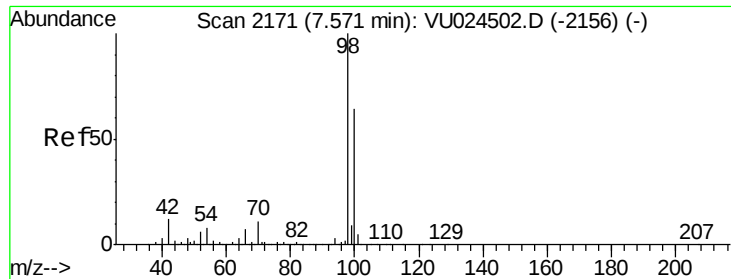


Abundance Ion 82.90 (82.60 to 83.60): VU0

Ion 84.90 (84.60 to 85.60): VU0

Ion 126.80 (126.50 to 127.50): V

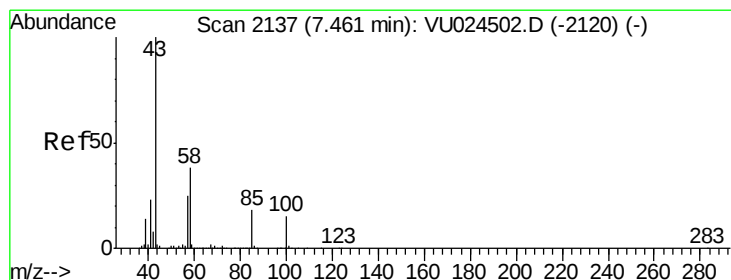
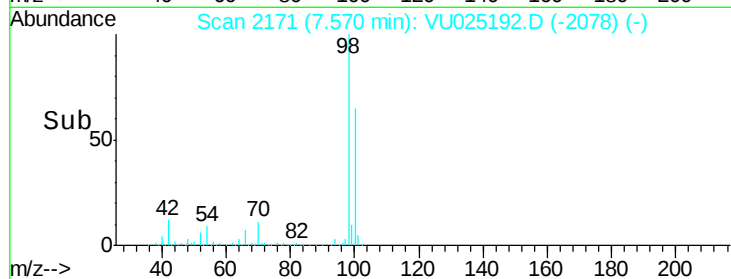
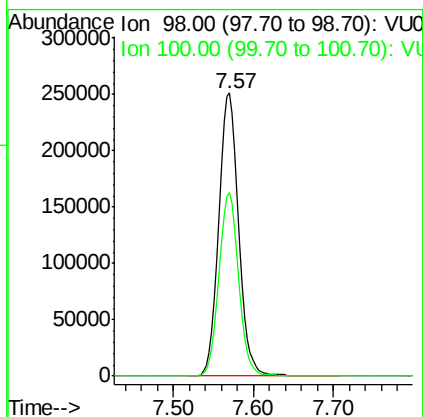
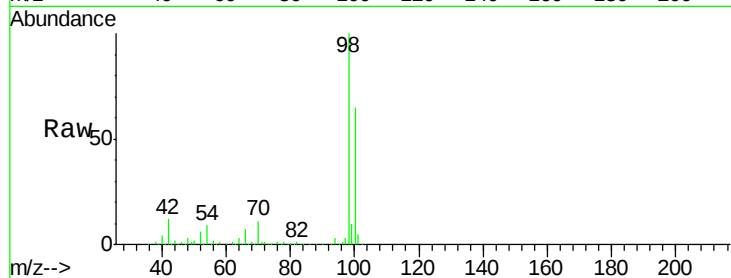




#50  
Toluene-d8  
Concen: 46.842 ug/l  
RT: 7.57 min Scan# 2171  
Delta R.T. -0.00 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

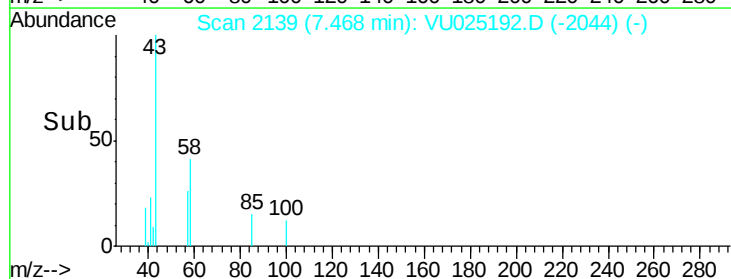
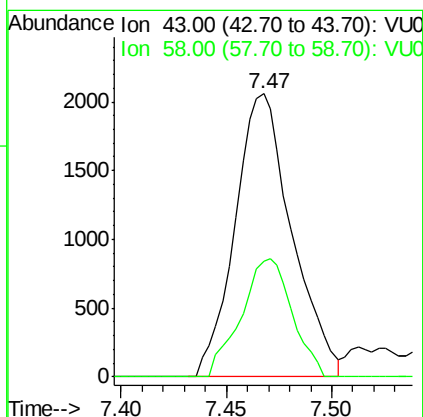
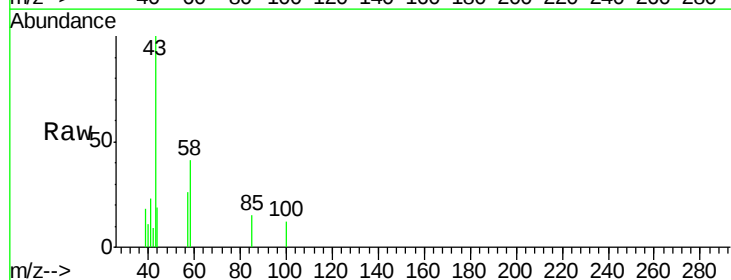
Instrument :  
MSVOA\_U  
ClientSampled :

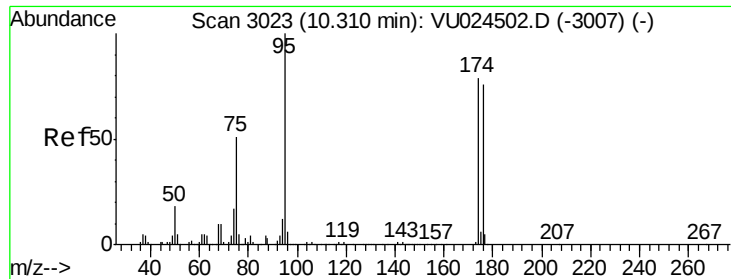
Tot Ion: 98 Resp: 435143  
Ion Ratio Lower Upper  
98 100  
100 64.3 51.1 76.7



#51  
4-Methyl-2-Pentanone  
Concen: 0.903 ug/l  
RT: 7.47 min Scan# 2139  
Delta R.T. 0.01 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Tgt Ion: 43 Resp: 3856  
Ion Ratio Lower Upper  
43 100  
58 37.3 30.0 45.0

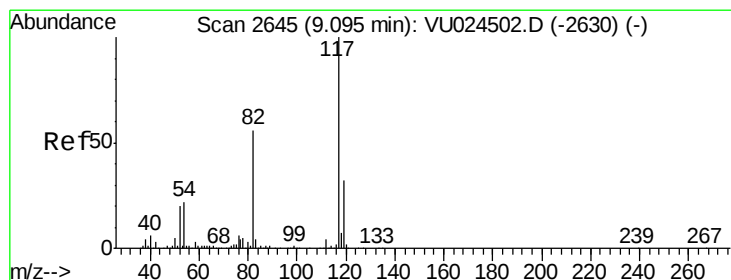
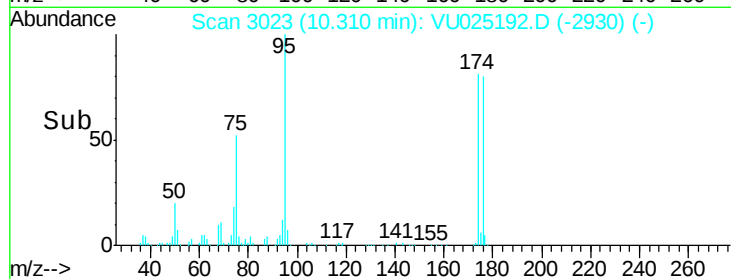
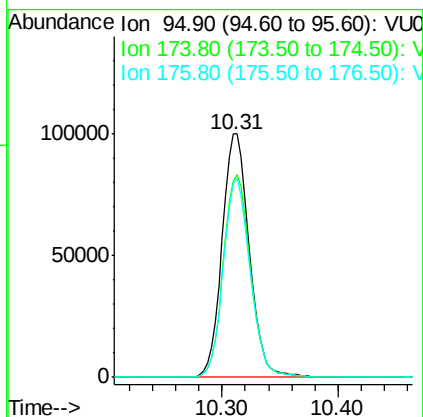
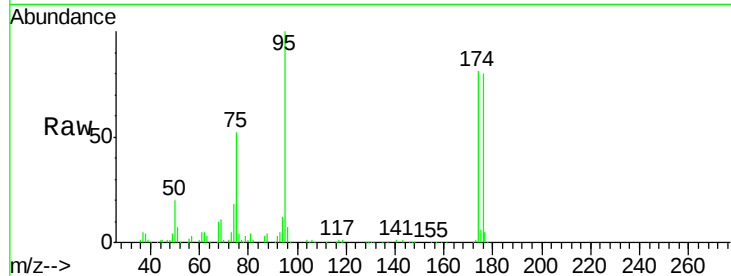




#62  
4-Bromofluorobenzene  
Concen: 43.850 ug/l  
RT: 10.31 min Scan# 3023  
Delta R.T. -0.00 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

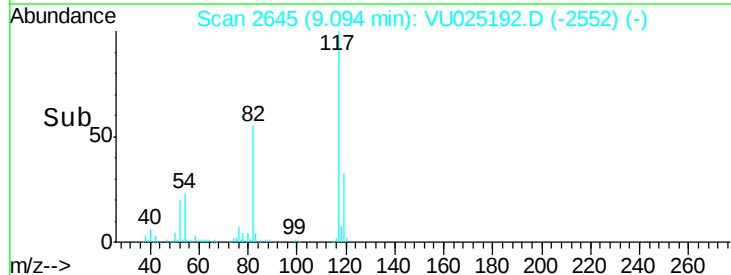
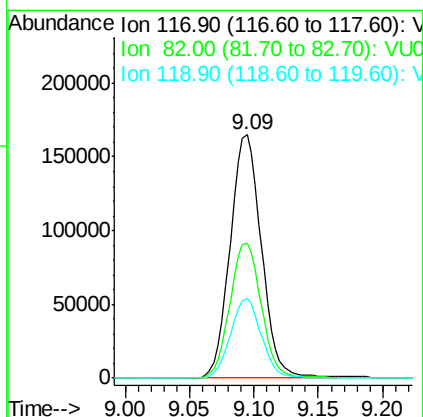
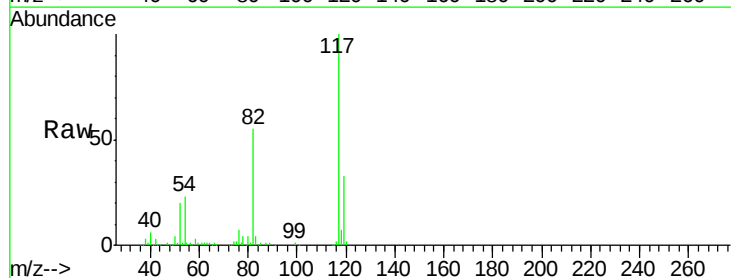
Instrument :  
MSVOA\_U  
ClientSampleId :

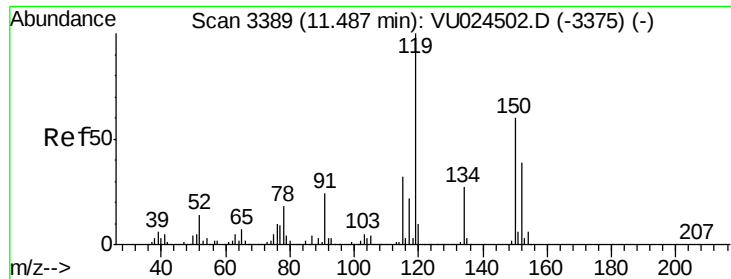
Tot Ion: 95 Resp: 161735  
Ion Ratio Lower Upper  
95 100  
174 83.5 0.0 165.8  
176 80.9 0.0 159.4



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.09 min Scan# 2645  
Delta R.T. -0.00 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Tgt Ion: 117 Resp: 277995  
Ion Ratio Lower Upper  
117 100  
82 55.5 44.3 66.5  
119 32.8 25.4 38.2





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 11.49 min Scan# 3389

Delta R.T. -0.00 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

Instrument :

MSVOA\_U

ClientSampleId :

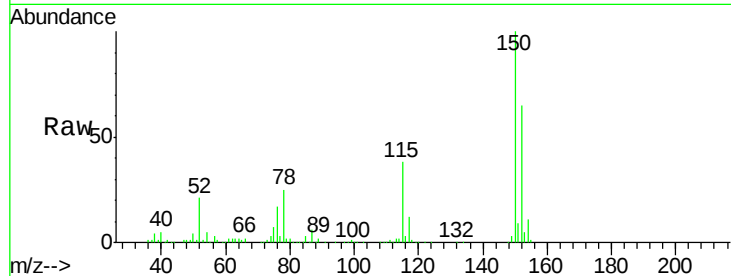
Tot Ion:152 Resp: 145448

Ion Ratio Lower Upper

152 100

115 57.5 43.0 129.0

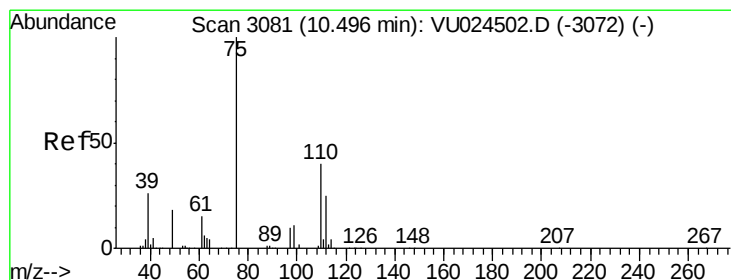
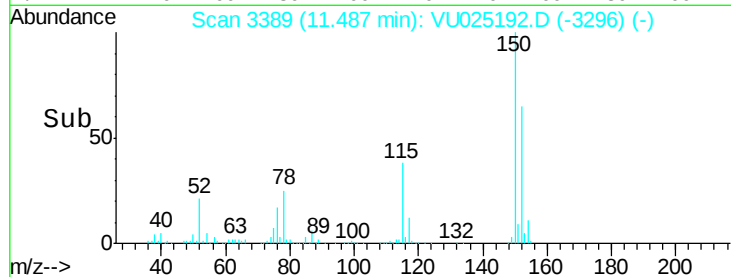
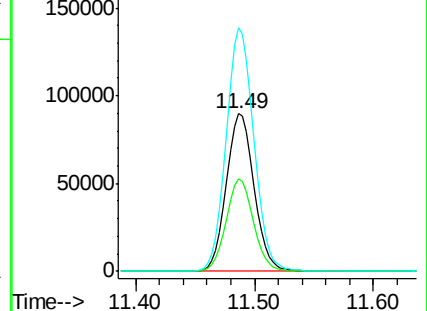
150 154.0 0.0 354.0



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



#76

1,2,3-Trichloropropane

Concen: 26.321 ug/l

RT: 10.31 min Scan# 3023

Delta R.T. -0.19 min

Lab File: VU025192.D

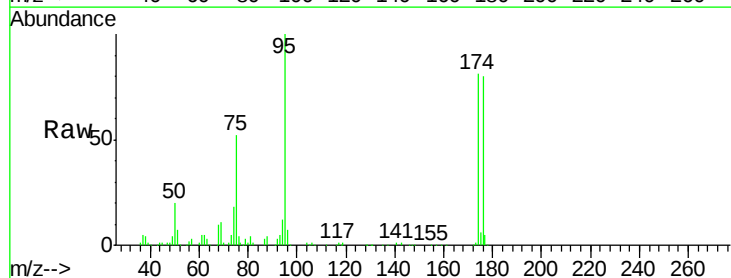
Acq: 03 Jul 2018 15:41

Tgt Ion: 75 Resp: 84286

Ion Ratio Lower Upper

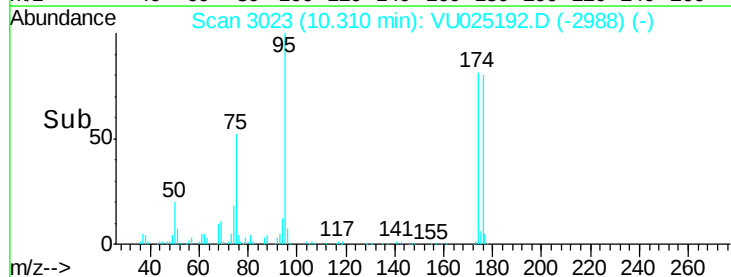
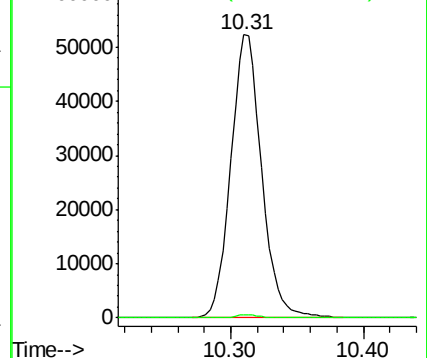
75 100

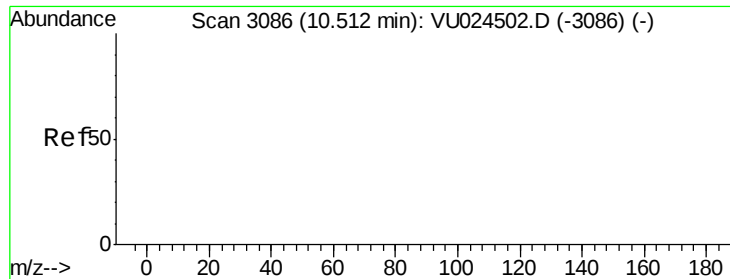
77 0.9 20.9 62.7#



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 77.00 (76.70 to 77.70): VU0

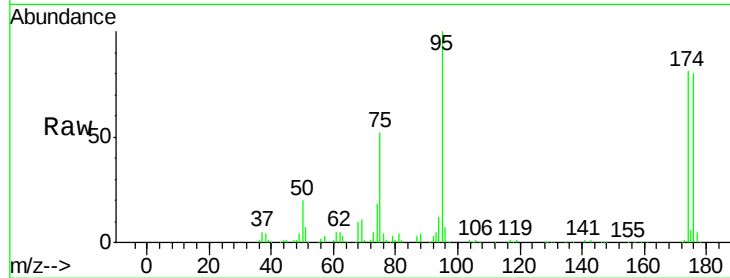




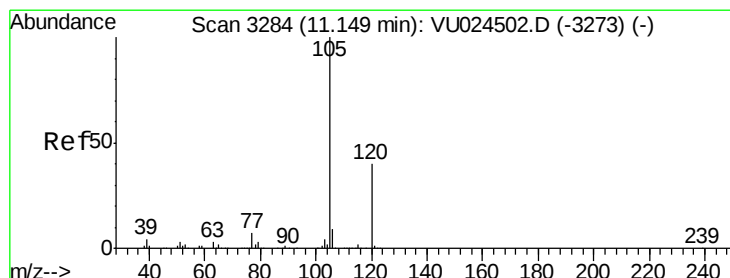
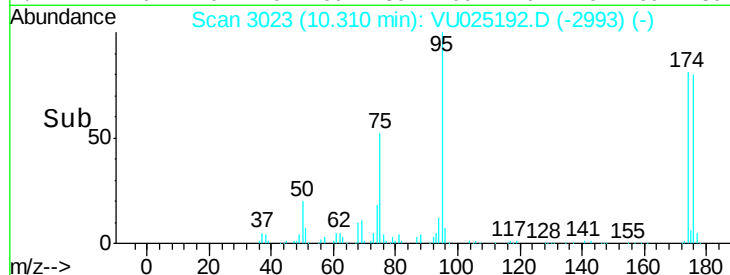
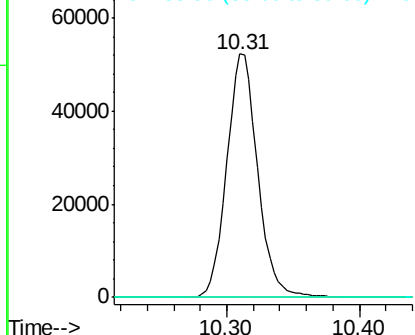
#81  
trans-1,4-Dichloro-2-butene  
Concen: 60.918 ug/l  
RT: 10.31 min Scan# 3023  
Delta R.T. -0.20 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 75 Resp: 84286  
Ion Ratio Lower Upper  
75 100  
53 0.0 0.0 0.0  
89 0.0 0.0 0.0

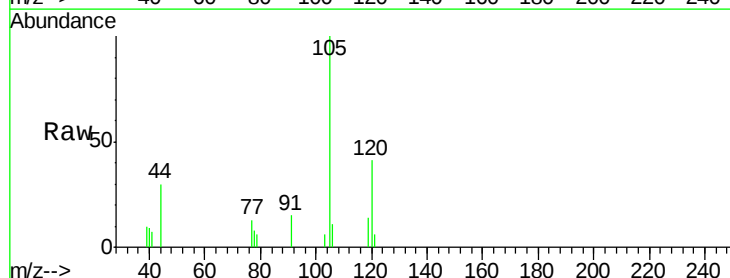


Abundance Ion 74.90 (74.60 to 75.60): VU0  
Ion 53.00 (52.70 to 53.70): VU0  
Ion 88.90 (88.60 to 89.60): VU0

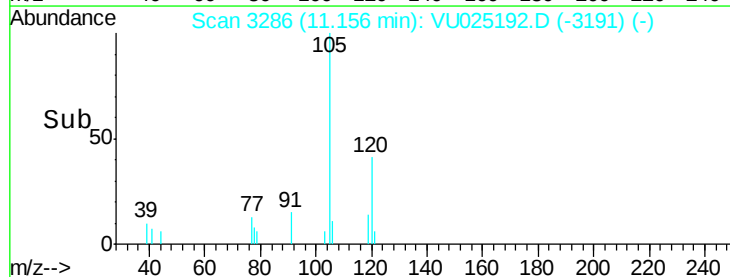
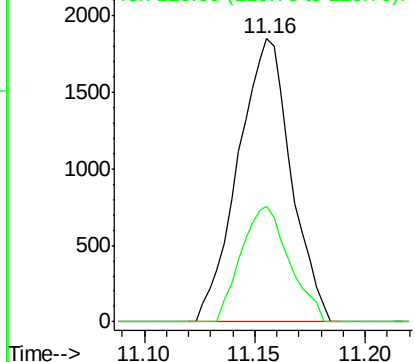


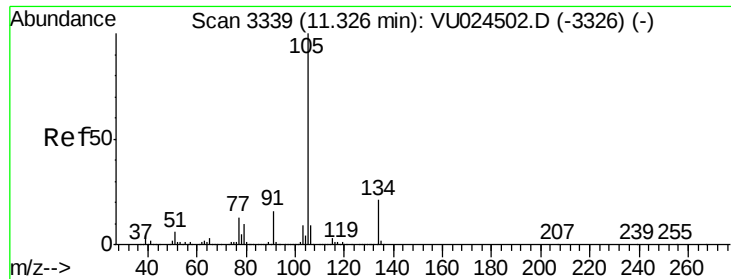
#84  
1,2,4-Trimethylbenzene  
Concen: 0.314 ug/l  
RT: 11.16 min Scan# 3286  
Delta R.T. 0.01 min  
Lab File: VU025192.D  
Acq: 03 Jul 2018 15:41

Tgt Ion: 105 Resp: 3093  
Ion Ratio Lower Upper  
105 100  
120 37.1 22.6 67.8



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





#85

sec-Butylbenzene

Concen: 0.265 ug/l

RT: 11.16 min Scan# 3286

Delta R.T. -0.17 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

Instrument :

MSVOA\_U

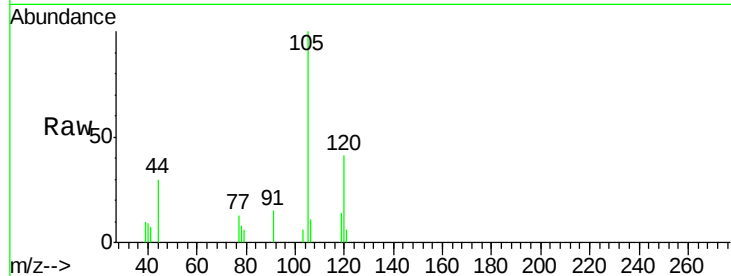
ClientSampleId :

Tot Ion:105 Resp: 3093

Ion Ratio Lower Upper

105 100

134 0.0 9.7 29.1#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V

11.16

2000

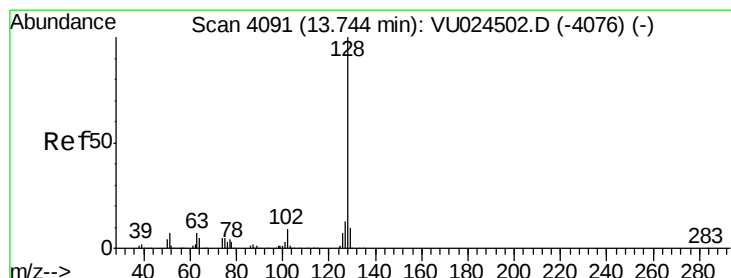
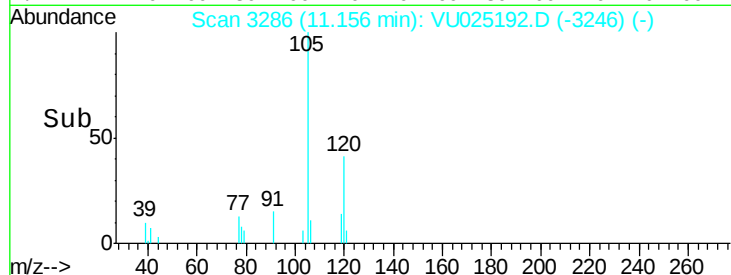
1500

1000

500

0

Time-->



#95

Naphthalene

Concen: 0.873 ug/l

RT: 13.75 min Scan# 4094

Delta R.T. 0.01 min

Lab File: VU025192.D

Acq: 03 Jul 2018 15:41

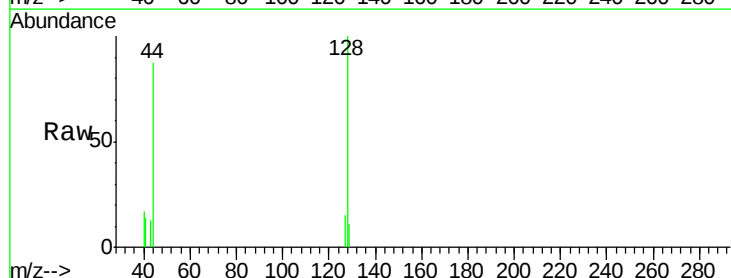
Tgt Ion:128 Resp: 2104

Ion Ratio Lower Upper

128 100

127 5.1 10.6 16.0#

129 3.8 8.6 12.8#



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

13.75

1200

1000

800

600

400

200

0

Time-->

