

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU080819\  
 Data File : VU033629.D  
 Acq On : 08 Aug 2019 11:40  
 Operator : JC/SP  
 Sample : VSTD01032  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Aug 08 15:27:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080819WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Thu Aug 08 15:24:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 279074   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 283587   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 141592   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |      |      |
|--------------------------------|-------|-----|--------|-------|------|------|
| 4) Vinyl Chloride-d3           | 1.39  | 65  | 31114  | 15.09 | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.67  | 69  | 26875  | 12.13 | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.26  | 63  | 50658  | 13.28 | ug/L | 0.00 |
| 21) 2-Butanone-d5              | 4.15  | 46  | 42814  | 26.16 | ug/L | 0.00 |
| 24) Chloroform-d               | 4.62  | 84  | 52854  | 14.00 | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.29  | 65  | 33662  | 13.96 | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.32  | 84  | 102945 | 13.21 | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.31  | 67  | 33205  | 13.42 | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.55  | 98  | 92374  | 12.76 | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 7.84  | 79  | 14933  | 12.07 | ug/L | 0.00 |
| 47) 2-Hexanone-d5              | 8.30  | 63  | 27159  | 22.29 | ug/L | 0.00 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41 | 84  | 49327  | 13.03 | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 11.85 | 152 | 38453  | 13.61 | ug/L | 0.00 |

## Target Compounds

|                                |      |     |       |             | Qvalue |
|--------------------------------|------|-----|-------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 25946 | 10.782 ug/L | 98     |
| 3) Chloromethane               | 1.32 | 50  | 28493 | 10.925 ug/L | 99     |
| 5) Vinyl chloride              | 1.40 | 62  | 30983 | 10.791 ug/L | 100    |
| 6) Bromomethane                | 1.62 | 94  | 19589 | 9.063 ug/L  | 89     |
| 8) Chloroethane                | 1.69 | 64  | 19702 | 8.768 ug/L  | 97     |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 41775 | 11.189 ug/L | 97     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 21385 | 11.234 ug/L | 98     |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 20226 | 11.003 ug/L | 85     |
| 13) Acetone                    | 2.31 | 43  | 33990 | 22.923 ug/L | 99     |
| 14) Carbon disulfide           | 2.46 | 76  | 60695 | 10.674 ug/L | 100    |
| 15) Methyl Acetate             | 2.60 | 43  | 26145 | 10.915 ug/L | 100    |
| 16) Methylene chloride         | 2.68 | 84  | 24580 | 11.427 ug/L | 99     |
| 17) trans-1,2-Dichloroethene   | 2.97 | 96  | 20752 | 10.563 ug/L | 98     |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 62856 | 10.323 ug/L | 100    |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 41084 | 11.043 ug/L | 99     |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 23617 | 10.874 ug/L | 92     |
| 22) 2-Butanone                 | 4.24 | 43  | 37626 | 20.424 ug/L | 98     |
| 23) Bromochloromethane         | 4.53 | 128 | 12356 | 10.873 ug/L | 97     |
| 25) Chloroform                 | 4.65 | 83  | 43792 | 11.347 ug/L | 98     |
| 27) 1,2-Dichloroethane         | 5.39 | 62  | 33608 | 11.198 ug/L | 97     |
| 29) Cyclohexane                | 4.97 | 56  | 29837 | 9.215 ug/L  | 98     |
| 30) 1,1,1-Trichloroethane      | 4.89 | 97  | 36244 | 10.732 ug/L | 99     |
| 31) Carbon tetrachloride       | 5.11 | 117 | 31216 | 10.511 ug/L | 100    |
| 33) Benzene                    | 5.37 | 78  | 90115 | 10.547 ug/L | 100    |
| 34) Trichloroethene            | 6.17 | 95  | 22707 | 10.313 ug/L | 98     |
| 35) Methylcyclohexane          | 6.40 | 83  | 32052 | 9.285 ug/L  | 97     |
| 37) 1,2-Dichloropropane        | 6.41 | 63  | 24307 | 10.406 ug/L | 99     |
| 38) Bromodichloromethane       | 6.74 | 83  | 31759 | 10.773 ug/L | 99     |
| 39) cis-1,3-Dichloropropene    | 7.25 | 75  | 31066 | 8.728 ug/L  | 98     |
| 40) 4-Methyl-2-pentanone       | 7.44 | 43  | 63651 | 18.979 ug/L | 99     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU080819\  
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 Acq On : 08 Aug 2019 11:40  
 Operator : JC/SP  
 Sample : VSTD01032  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 4 Sample Multiplier: 1

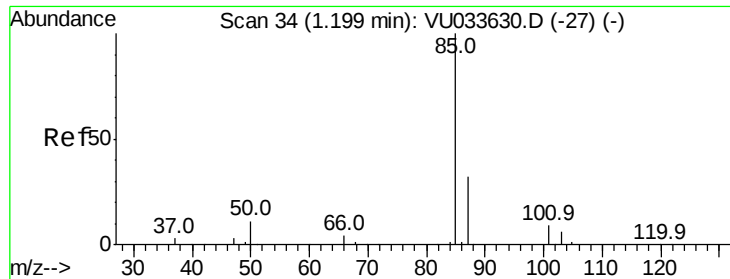
Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Aug 08 15:27:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080819WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Thu Aug 08 15:24:56 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| -----                          |       |      |          |        |        |          |
| 42) Toluene                    | 7.62  | 91   | 93596    | 10.253 | ug/L   | 99       |
| 44) trans-1,3-Dichloropropene  | 7.86  | 75   | 31804    | 9.896  | ug/L   | 100      |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 23224    | 10.593 | ug/L   | 98       |
| 46) Tetrachloroethene          | 8.21  | 164  | 18289    | 10.160 | ug/L   | 98       |
| 48) 2-Hexanone                 | 8.35  | 43   | 53052    | 19.704 | ug/L   | 98       |
| 49) Dibromochloromethane       | 8.46  | 129  | 26075    | 10.573 | ug/L   | 99       |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 24833    | 10.334 | ug/L # | 95       |
| 51) Chlorobenzene              | 9.10  | 112  | 62061    | 10.407 | ug/L   | 99       |
| 52) Ethylbenzene               | 9.23  | 91   | 96029    | 9.704  | ug/L   | 99       |
| 53) m,p-Xylene                 | 9.36  | 106  | 35074    | 9.306  | ug/L   | 95       |
| 54) o-xylene                   | 9.76  | 106  | 35749    | 9.701  | ug/L   | 97       |
| 55) Styrene                    | 9.78  | 104  | 59555    | 9.474  | ug/L   | 99       |
| 56) Isopropylbenzene           | 10.15 | 105  | 89157    | 9.360  | ug/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 41946    | 10.738 | ug/L   | 100      |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 32157    | 10.469 | ug/L   | 100      |
| 61) Bromoform                  | 9.94  | 173  | 18761    | 10.510 | ug/L   | 98       |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 47904    | 10.663 | ug/L   | 98       |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 49884    | 10.864 | ug/L   | 98       |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 48002    | 10.664 | ug/L   | 98       |
| 66) 1,2-Dibromo-3-chloropropan | 12.64 | 75   | 8634     | 10.228 | ug/L   | 97       |
| 67) 1,3,5-Trichlorobenzene     | 12.87 | 180  | 34754    | 10.094 | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 26374    | 8.987  | ug/L   | 95       |
| 69) Naphthalene                | 13.73 | 128  | 66920    | 7.835  | ug/L   | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 27377    | 8.756  | ug/L   | 98       |
| -----                          |       |      |          |        |        |          |

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





#2

Dichlorodifluoromethane

Concen: 10.782 ug/L

RT: 1.20 min Scan# 34

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

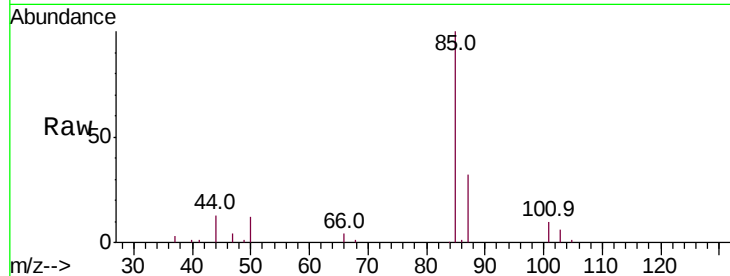
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 85 Resp: 25946

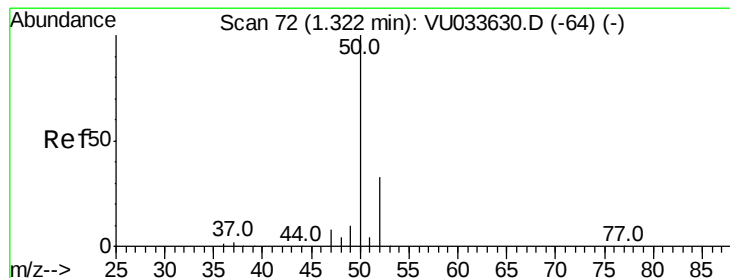
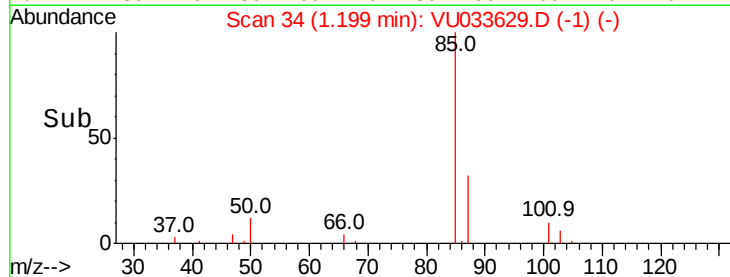
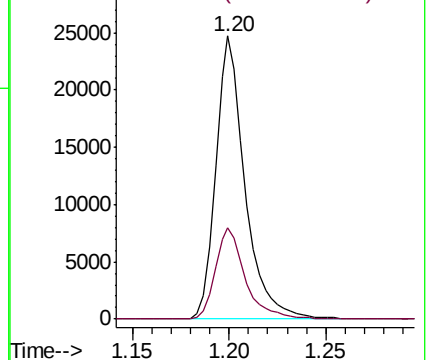
Ion Ratio Lower Upper

85 100

87 33.0 25.4 38.2



Abundance Ion 85.00 (84.70 to 85.70): VU033630.D (-27) (-)



#3

Chloromethane

Concen: 10.925 ug/L

RT: 1.32 min Scan# 73

Delta R.T. 0.00 min

Lab File: VU033629.D

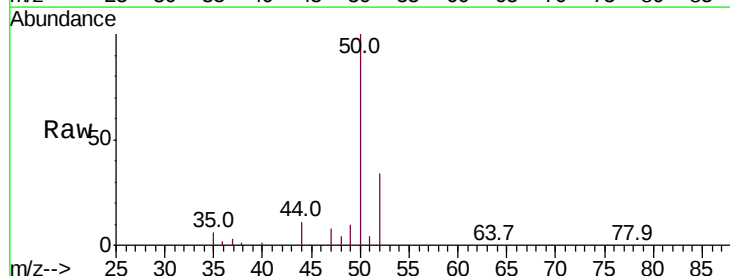
Acq: 08 Aug 2019 11:40

Tgt Ion: 50 Resp: 28493

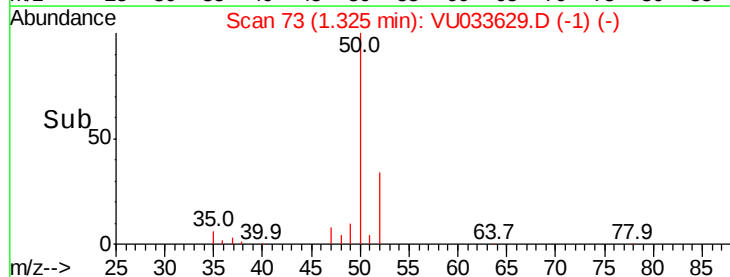
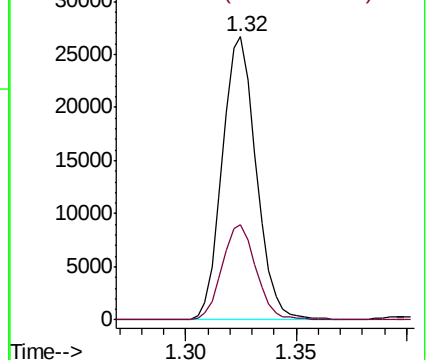
Ion Ratio Lower Upper

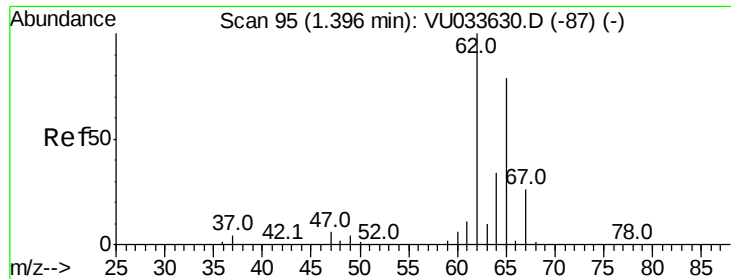
50 100

52 33.6 23.3 43.3



Abundance Ion 50.00 (49.70 to 50.70): VU033630.D (-64) (-)





#5

Vinyl chloride

Concen: 10.791 ug/L

RT: 1.40 min Scan# 95

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

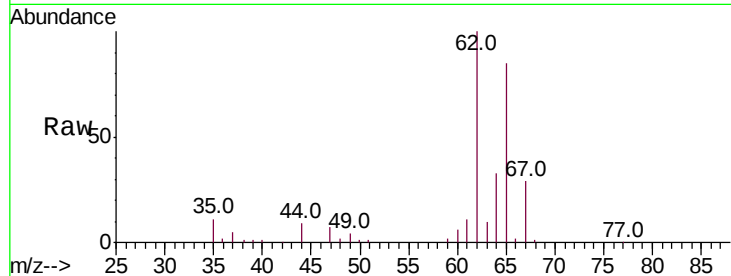
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 62 Resp: 30983

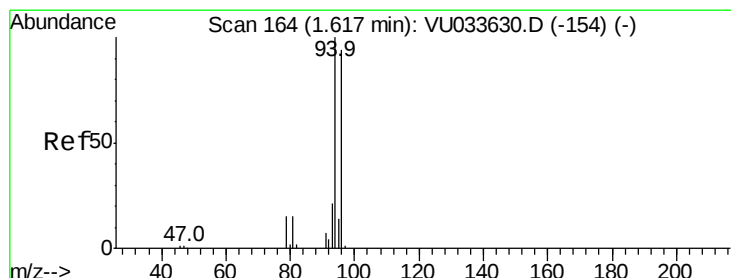
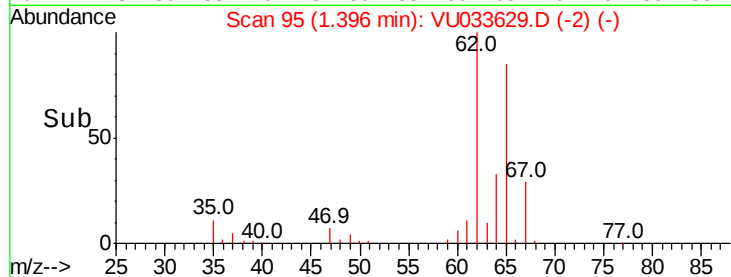
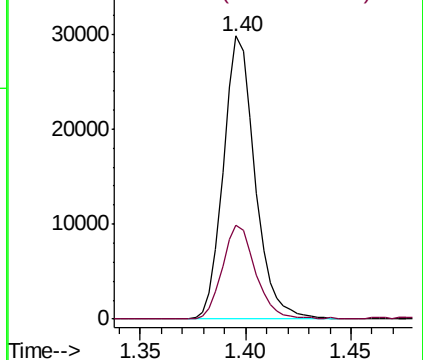
Ion Ratio Lower Upper

62 100

64 33.4 23.6 43.8



Abundance Ion 62.00 (61.70 to 62.70): VU0  
Ion 64.00 (63.70 to 64.70): VU0



#6

Bromomethane

Concen: 9.063 ug/L

RT: 1.62 min Scan# 166

Delta R.T. 0.01 min

Lab File: VU033629.D

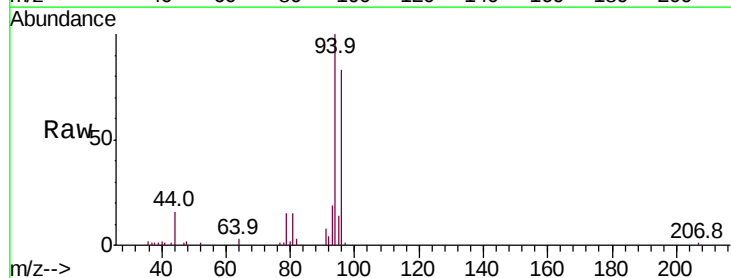
Acq: 08 Aug 2019 11:40

Tgt Ion: 94 Resp: 19589

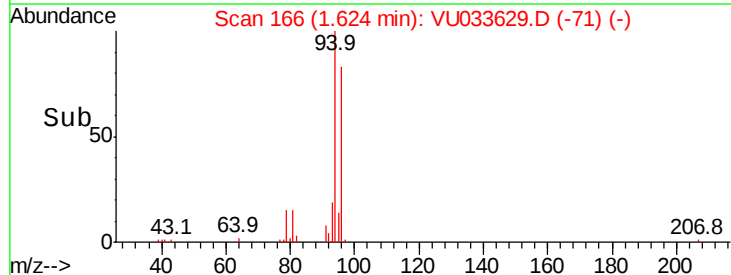
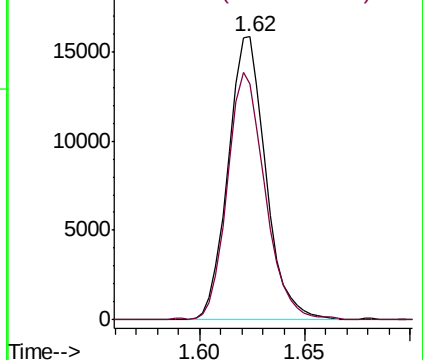
Ion Ratio Lower Upper

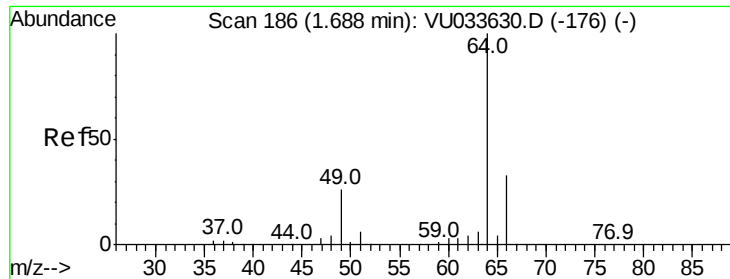
94 100

96 83.4 65.8 122.2



Abundance Ion 94.00 (93.70 to 94.70): VU0  
Ion 96.00 (95.70 to 96.70): VU0





#8

Chloroethane

Concen: 8.768 ug/L

RT: 1.69 min Scan# 187

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

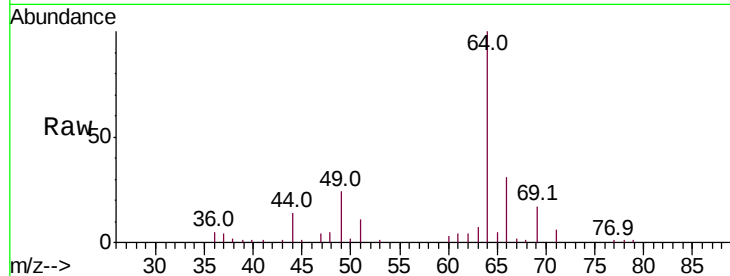
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 64 Resp: 19702

Ion Ratio Lower Upper

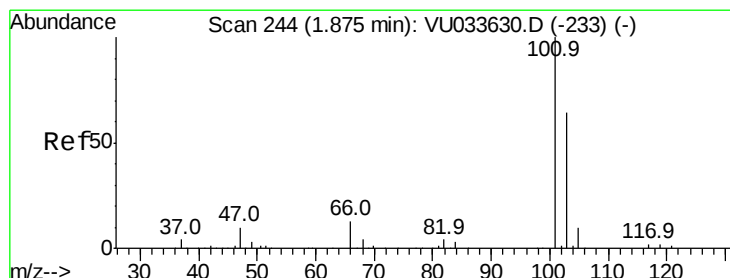
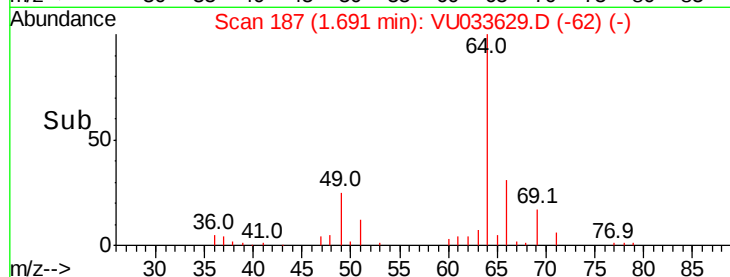
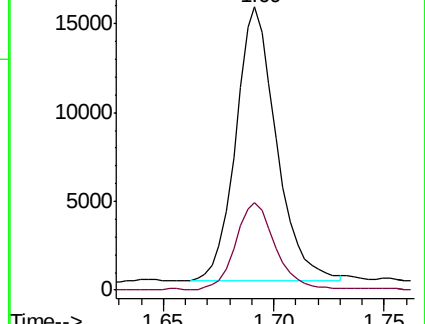
64 100

66 31.0 23.0 42.8



Abundance Ion 64.00 (63.70 to 64.70): VU033630.D (-176) (-)

Ion 66.00 (65.70 to 66.70): VU033630.D (-176) (-)



#9

Trichlorofluoromethane

Concen: 11.189 ug/L

RT: 1.88 min Scan# 245

Delta R.T. 0.00 min

Lab File: VU033629.D

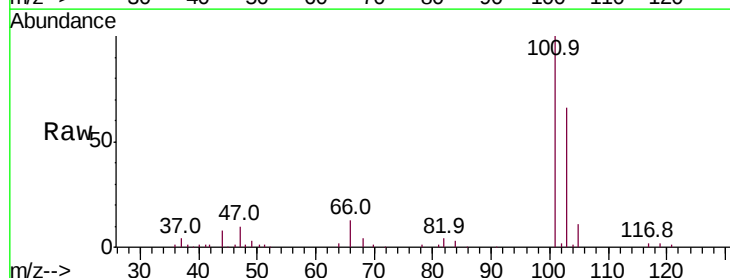
Acq: 08 Aug 2019 11:40

Tgt Ion:101 Resp: 41775

Ion Ratio Lower Upper

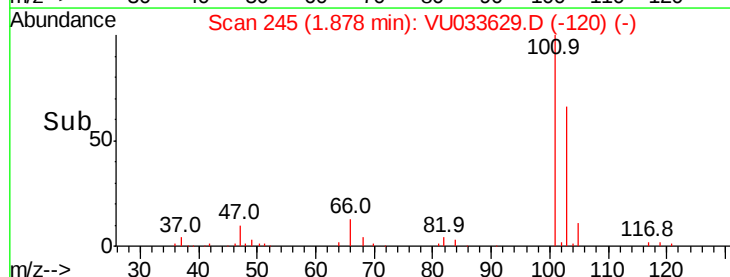
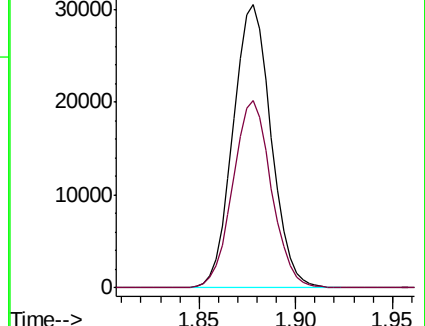
101 100

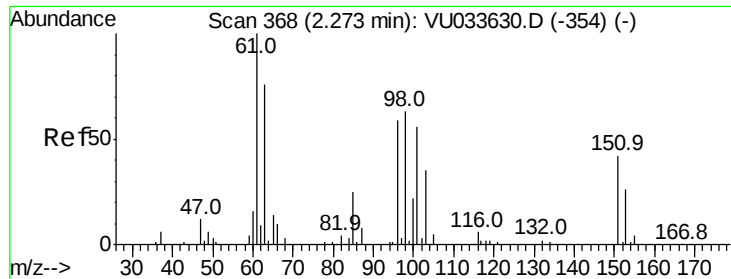
103 66.8 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): VU033630.D (-233) (-)

Ion 103.00 (102.70 to 103.70): VU033630.D (-233) (-)





#10

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

Concen: 11.234 ug/L

RT: 2.28 min Scan# 369

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

ClientSampled :

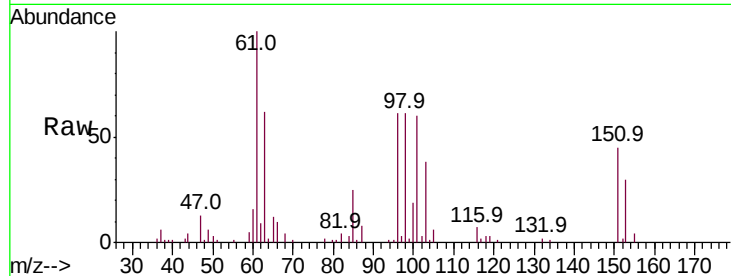
Tot Ion:101 Resp: 21385

Ion Ratio Lower Upper

101 100

85 42.8 34.8 52.2

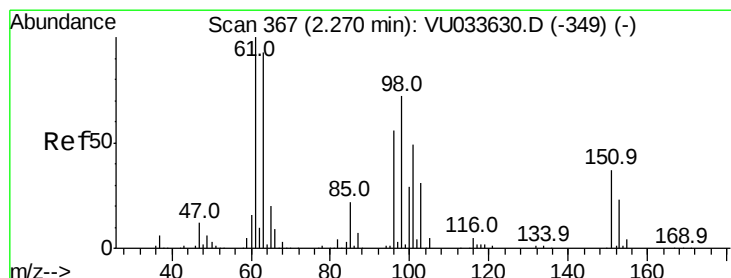
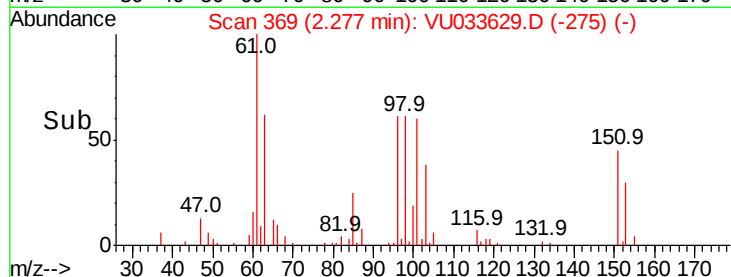
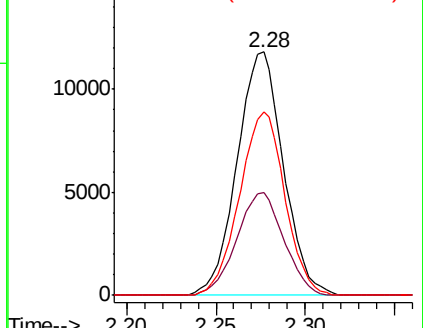
151 73.9 60.4 90.6



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 11.003 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

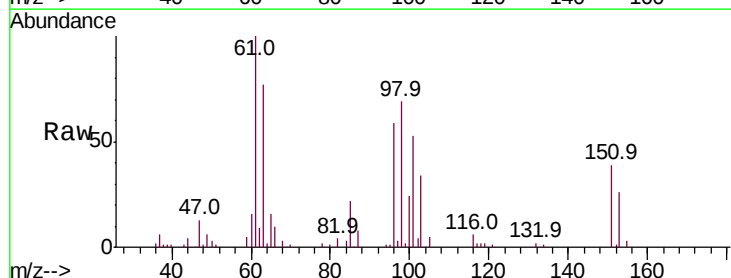
Tgt Ion: 96 Resp: 20226

Ion Ratio Lower Upper

96 100

61 169.3 124.0 230.2

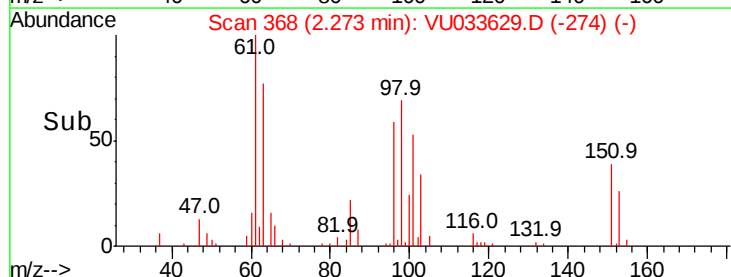
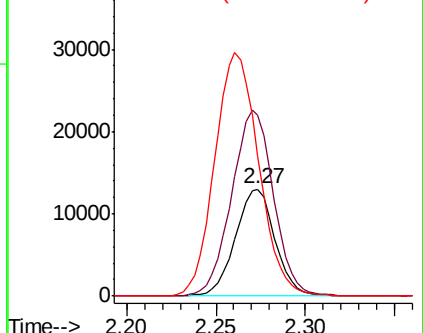
63 130.9 114.9 213.5

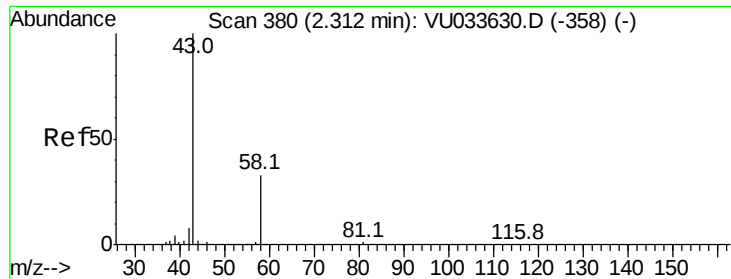


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 22.923 ug/L

RT: 2.31 min Scan# 378

Delta R.T. -0.01 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

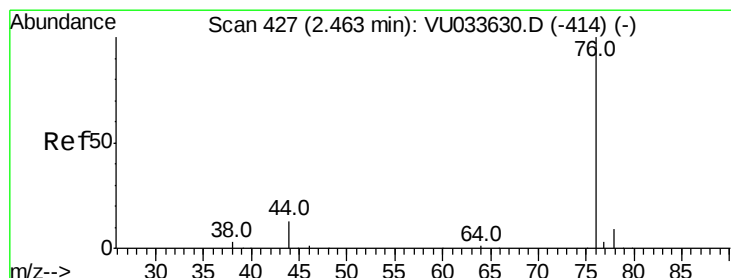
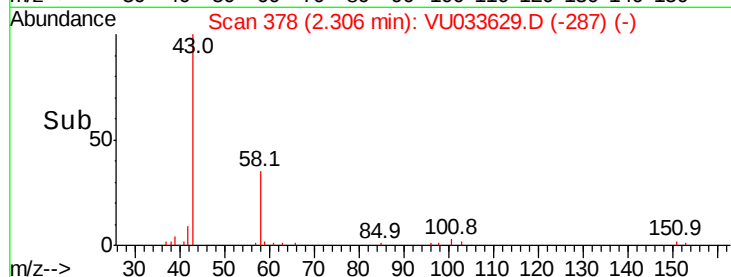
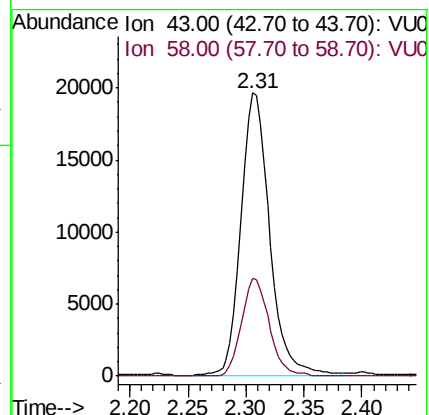
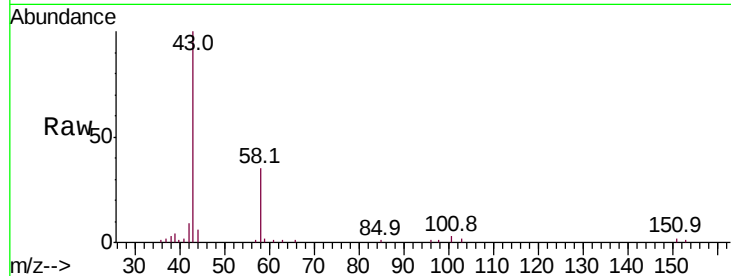
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 33990

Ion Ratio Lower Upper

43 100

58 33.0 0.0 65.0



#14

Carbon disulfide

Concen: 10.674 ug/L

RT: 2.46 min Scan# 427

Delta R.T. 0.00 min

Lab File: VU033629.D

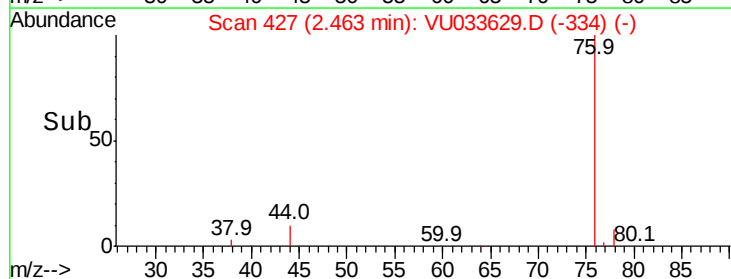
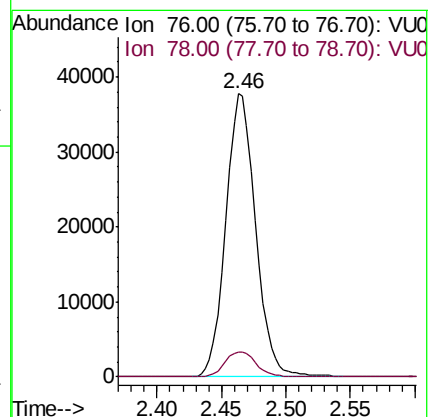
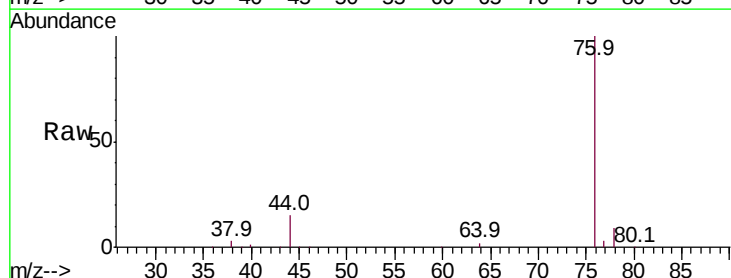
Acq: 08 Aug 2019 11:40

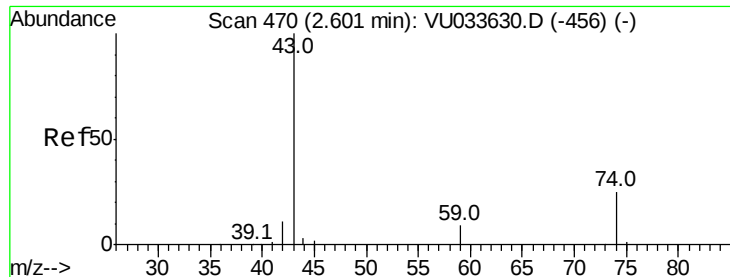
Tgt Ion: 76 Resp: 60695

Ion Ratio Lower Upper

76 100

78 8.9 7.1 10.7





#15

Methyl Acetate

Concen: 10.915 ug/L

RT: 2.60 min Scan# 470

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

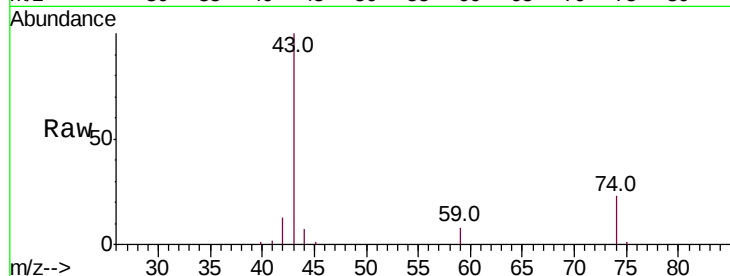
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 26145

Ion Ratio Lower Upper

43 100

74 24.3 19.5 29.3



Abundance Ion 43.00 (42.70 to 43.70): VU033629.D (-377) (-)

Ion 74.00 (73.70 to 74.70): VU033629.D (-377) (-)

2.60

15000

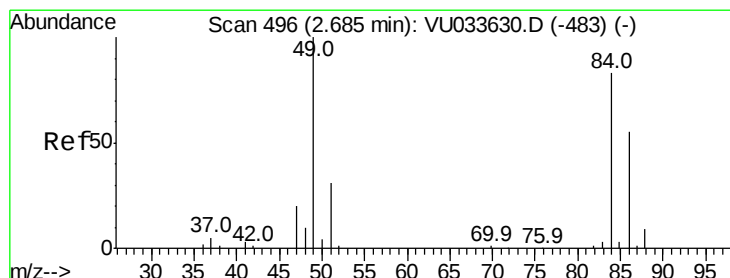
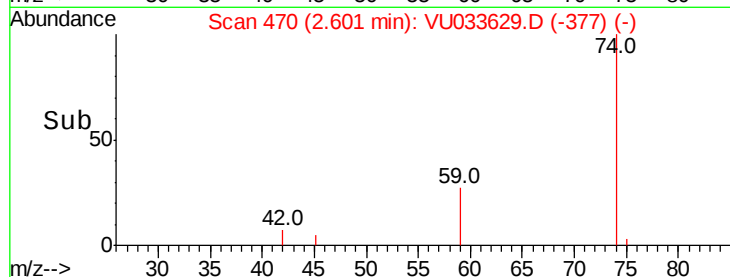
10000

5000

0

2.55 2.60 2.65 2.70

Time-->



#16

Methylene chloride

Concen: 11.427 ug/L

RT: 2.68 min Scan# 496

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

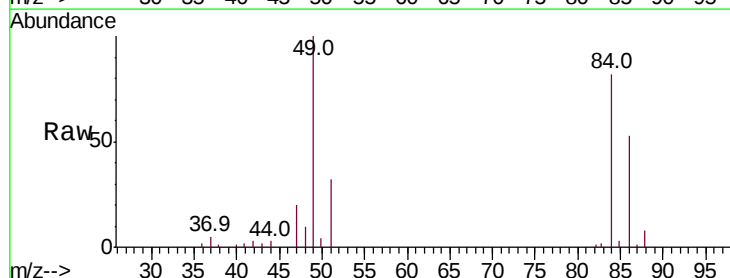
Tgt Ion: 84 Resp: 24580

Ion Ratio Lower Upper

84 100

86 64.7 46.0 85.4

49 122.3 84.4 156.8



Abundance Ion 84.00 (83.70 to 84.70): VU033629.D (-403) (-)

Ion 86.00 (85.70 to 86.70): VU033629.D (-403) (-)

Ion 49.00 (48.70 to 49.70): VU033629.D (-403) (-)

2.68

20000

15000

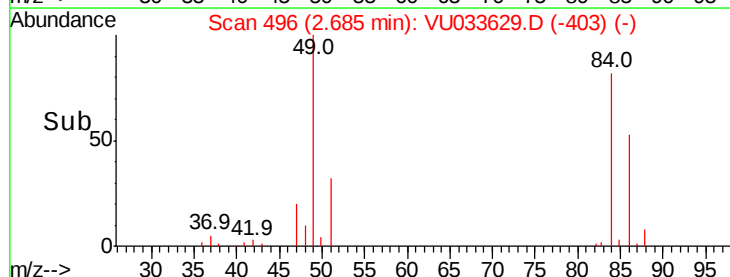
10000

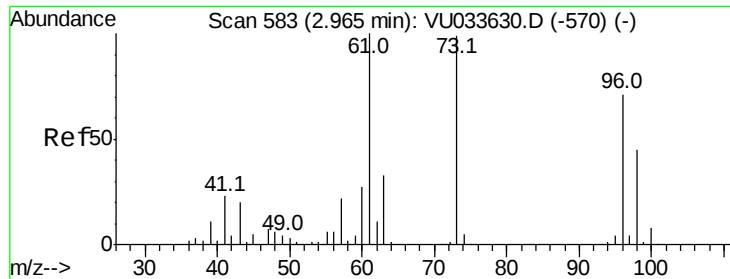
5000

0

2.60 2.65 2.70 2.75

Time-->

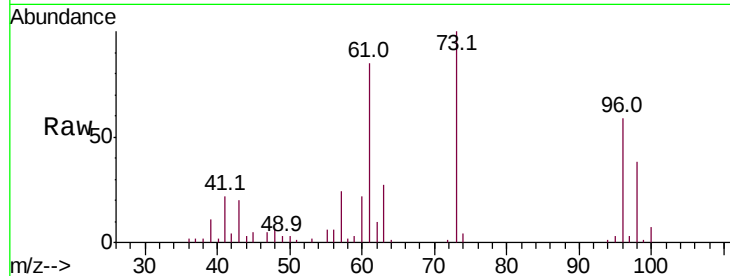




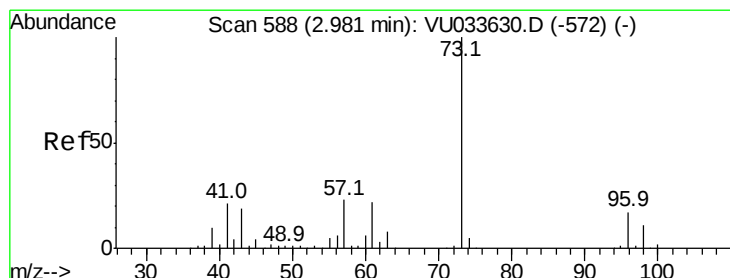
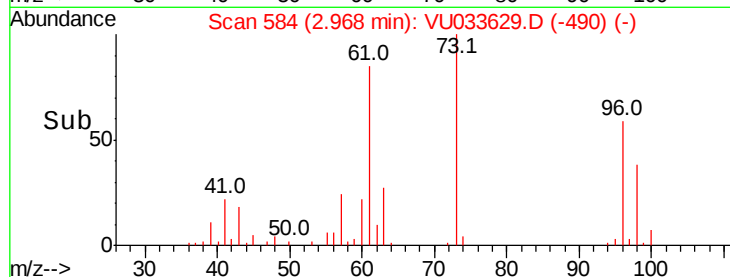
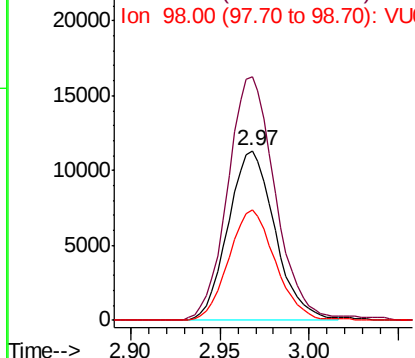
#17  
trans-1,2-Dichloroethene  
Concen: 10.563 ug/L  
RT: 2.97 min Scan# 584  
Delta R.T. 0.00 min  
Lab File: VU033629.D  
Acq: 08 Aug 2019 11:40

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 96 Resp: 20752  
Ion Ratio Lower Upper  
96 100  
61 143.2 98.7 183.3  
98 64.7 44.6 82.8

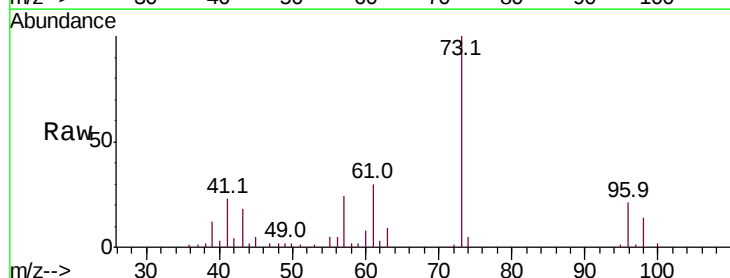


Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.00 (60.70 to 61.70): VU0  
Ion 98.00 (97.70 to 98.70): VU0

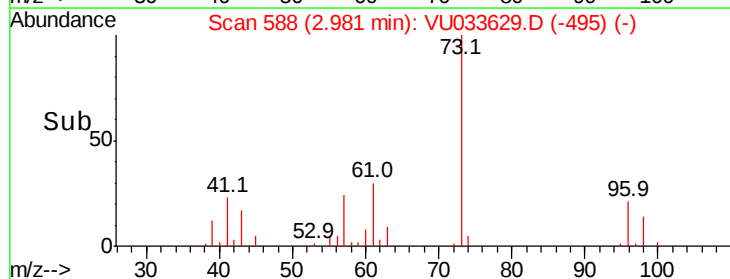
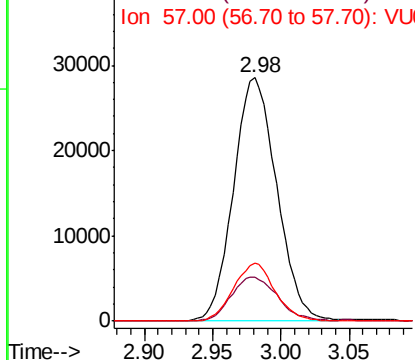


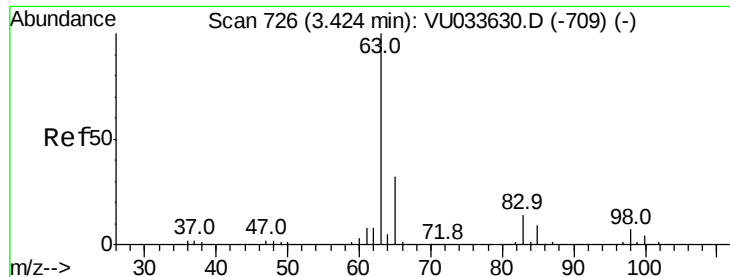
#18  
Methyl tert-butyl Ether  
Concen: 10.323 ug/L  
RT: 2.98 min Scan# 588  
Delta R.T. 0.00 min  
Lab File: VU033629.D  
Acq: 08 Aug 2019 11:40

Tgt Ion: 73 Resp: 62856  
Ion Ratio Lower Upper  
73 100  
43 19.5 15.5 23.3  
57 22.8 18.0 27.0



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: 11.043 ug/L

RT: 3.42 min Scan# 726

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

ClientSampleId :

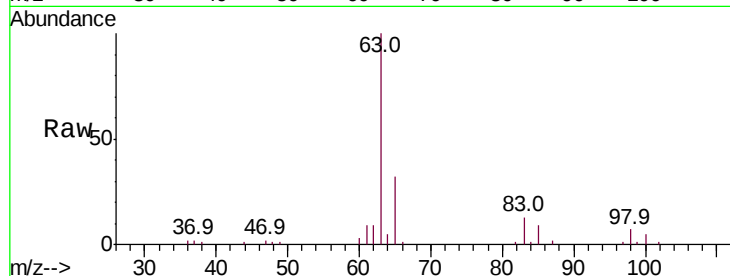
Tot Ion: 63 Resp: 41084

Ion Ratio Lower Upper

63 100

65 31.6 22.5 41.9

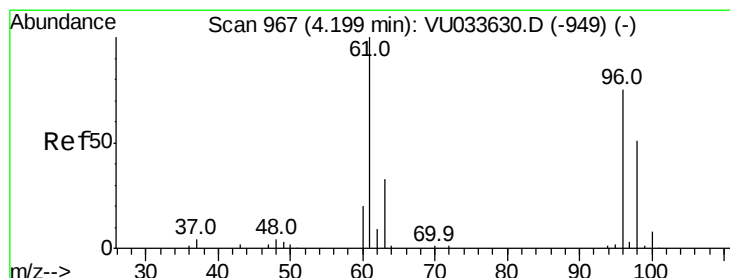
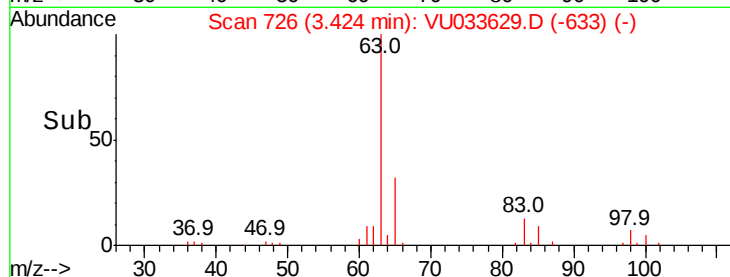
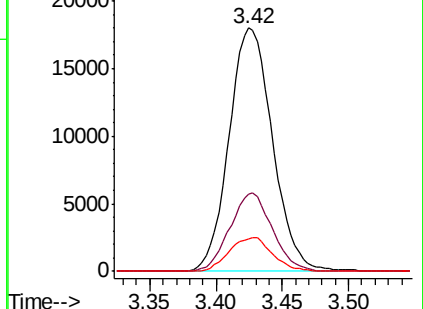
83 13.3 9.4 17.6



Abundance Ion 63.00 (62.70 to 63.70): VU033630.D (-709) (-)

Ion 65.00 (64.70 to 65.70): VU033630.D (-709) (-)

Ion 83.00 (82.70 to 83.70): VU033630.D (-709) (-)



#20

cis-1,2-Dichloroethene

Concen: 10.874 ug/L

RT: 4.20 min Scan# 968

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

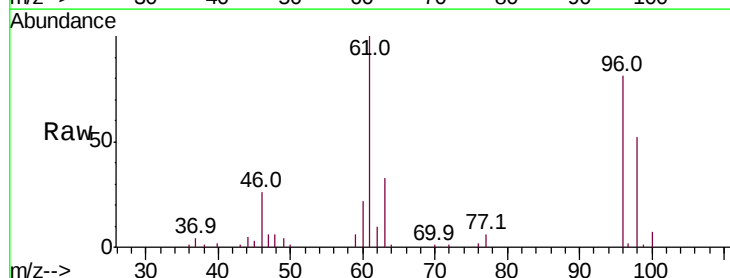
Tgt Ion: 96 Resp: 23617

Ion Ratio Lower Upper

96 100

61 124.0 93.0 172.8

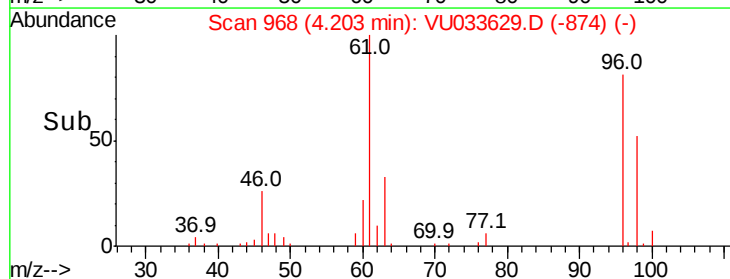
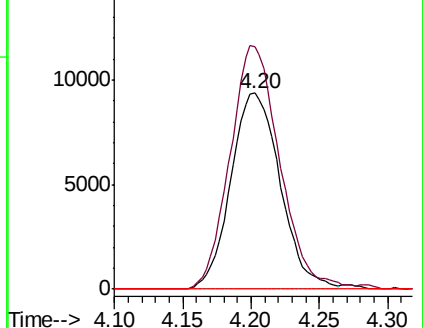
68 0.0 0.0 0.0

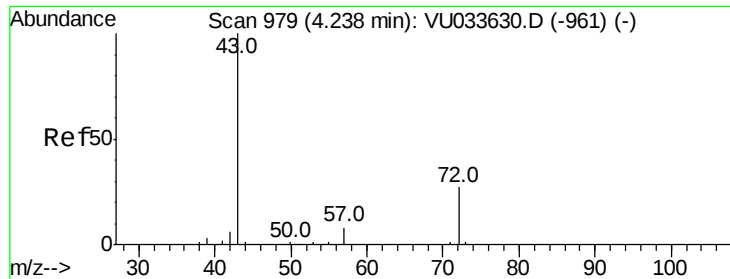


Abundance Ion 96.00 (95.70 to 96.70): VU033630.D (-949) (-)

Ion 61.00 (60.70 to 61.70): VU033630.D (-949) (-)

Ion 68.00 (67.70 to 68.70): VU033630.D (-949) (-)





#22

2-Butanone

Concen: 20.424 ug/L

RT: 4.24 min Scan# 981

Delta R.T. 0.01 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

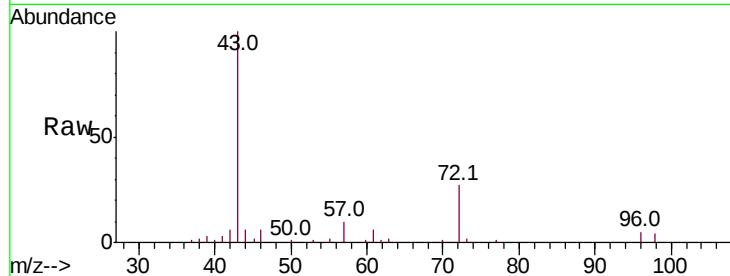
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 37626

Ion Ratio Lower Upper

43 100

72 27.8 14.4 43.4



Abundance Ion 43.00 (42.70 to 43.70): VU033630.D (-961) (-)

Ion 72.00 (71.70 to 72.70): VU033630.D (-961) (-)

4.24

15000

10000

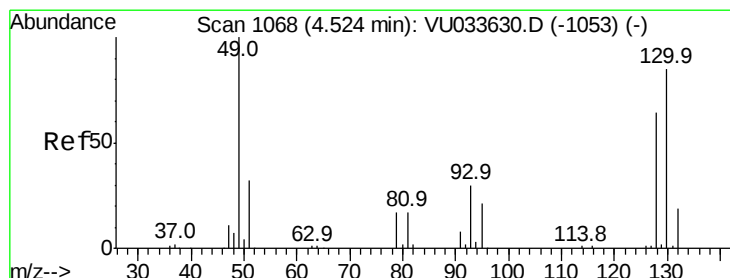
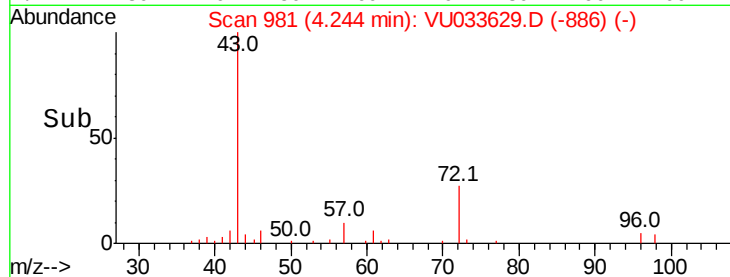
5000

0

4.20

4.30

Time-->



#23

Bromochloromethane

Concen: 10.873 ug/L

RT: 4.53 min Scan# 1070

Delta R.T. 0.01 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Tgt Ion: 128 Resp: 12356

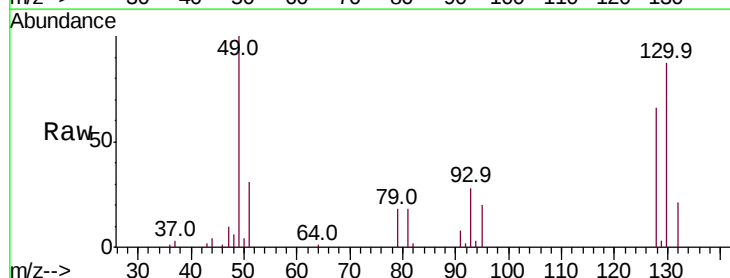
Ion Ratio Lower Upper

128 100

49 151.2 109.8 204.0

130 131.2 93.0 172.8

51 46.2 39.8 59.8



Abundance Ion 128.00 (127.70 to 128.70): VU033630.D (-1053) (-)

Ion 49.00 (48.70 to 49.70): VU033630.D (-1053) (-)

Ion 130.00 (129.70 to 130.70): VU033630.D (-1053) (-)

Ion 51.00 (50.70 to 51.70): VU033630.D (-1053) (-)

12000

10000

8000

6000

4000

2000

0

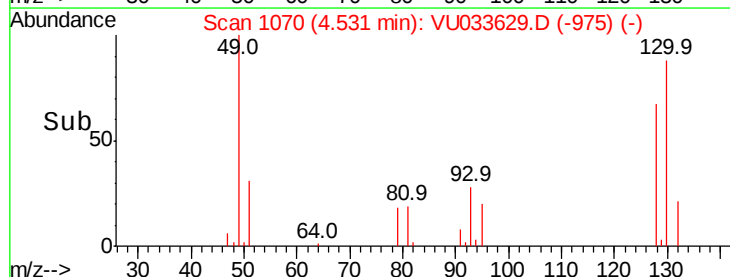
4.45

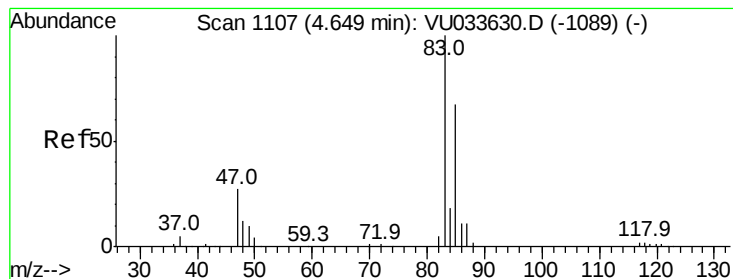
4.50

4.55

4.60

Time-->





#25

Chloroform

Concen: 11.347 ug/L

RT: 4.65 min Scan# 1108

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

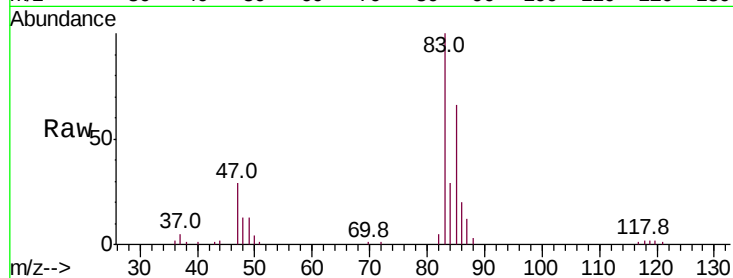
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 83 Resp: 43792

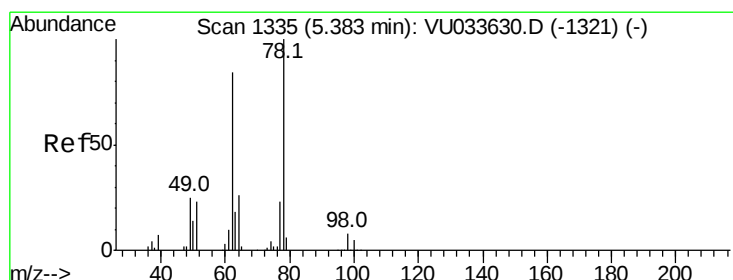
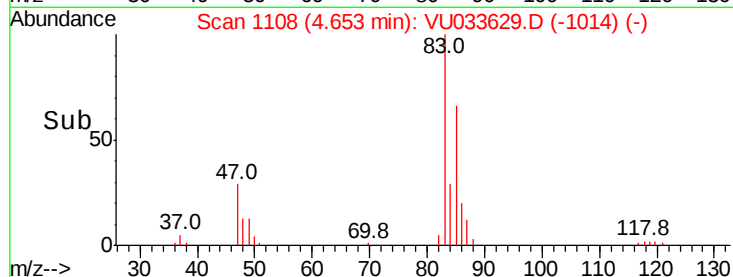
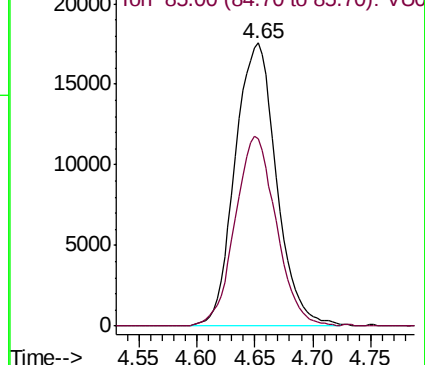
Ion Ratio Lower Upper

83 100

85 66.1 47.2 87.6



Abundance Ion 83.00 (82.70 to 83.70): VU033630.D (-1089) (-)



#27

1,2-Dichloroethane

Concen: 11.198 ug/L

RT: 5.39 min Scan# 1336

Delta R.T. 0.00 min

Lab File: VU033629.D

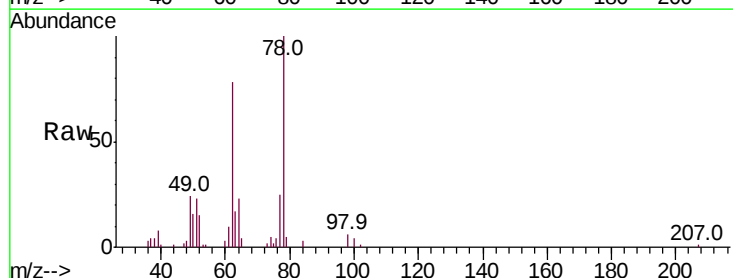
Acq: 08 Aug 2019 11:40

Tgt Ion: 62 Resp: 33608

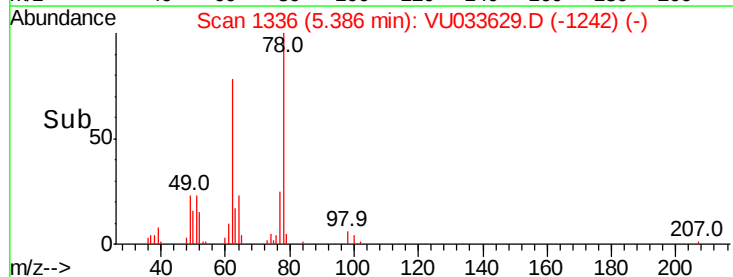
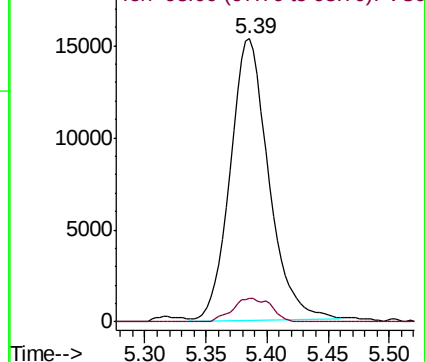
Ion Ratio Lower Upper

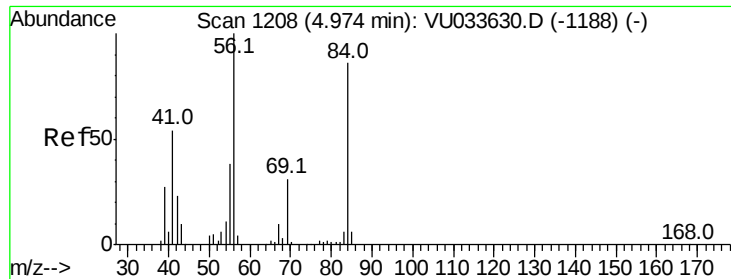
62 100

98 8.3 7.4 11.2



Abundance Ion 62.00 (61.70 to 62.70): VU033630.D (-1321) (-)

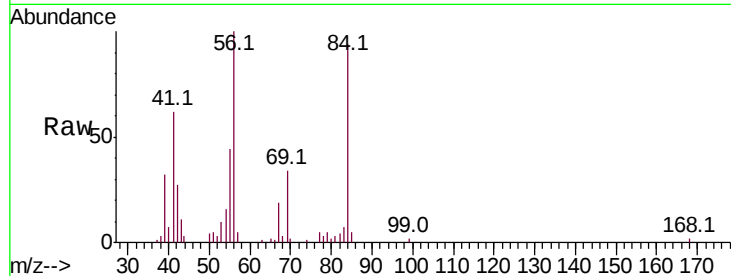




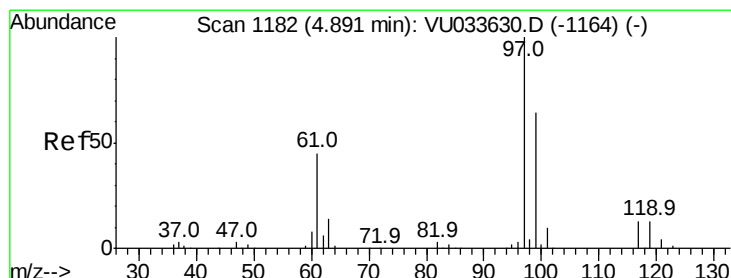
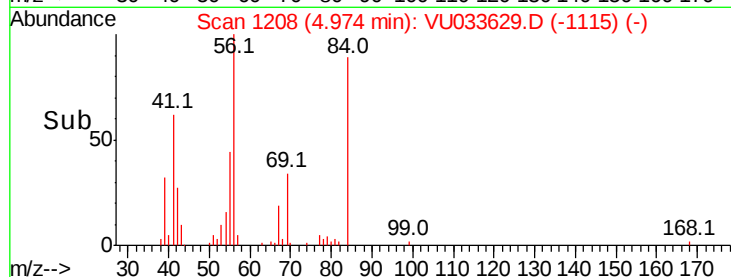
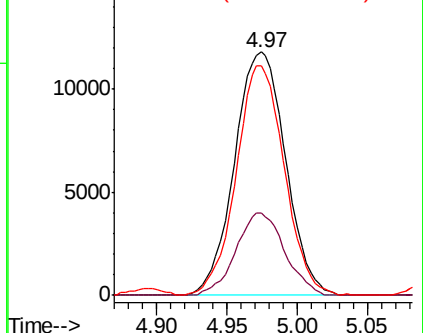
#29  
Cyclohexane  
Concen: 9.215 ug/L  
RT: 4.97 min Scan# 1208  
Delta R.T. 0.00 min  
Lab File: VU033629.D  
Acq: 08 Aug 2019 11:40

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 56 Resp: 29837  
Ion Ratio Lower Upper  
56 100  
69 32.3 25.2 37.8  
84 89.2 70.2 105.2

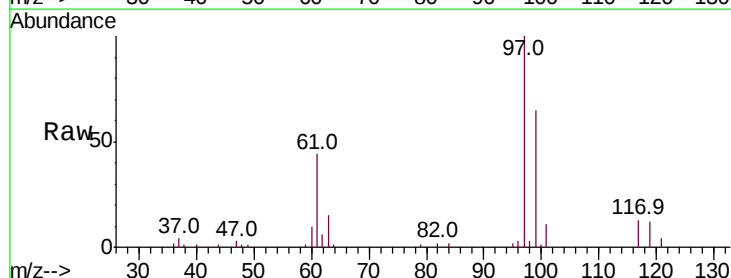


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

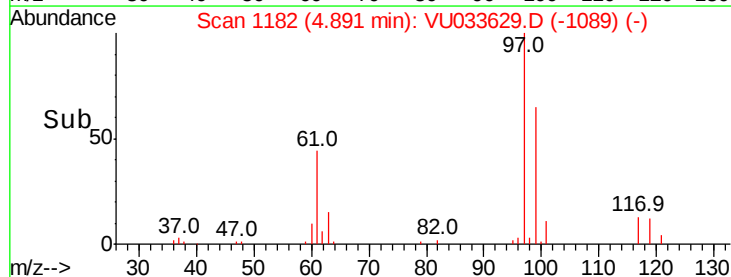
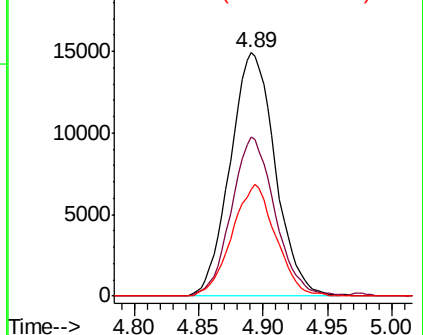


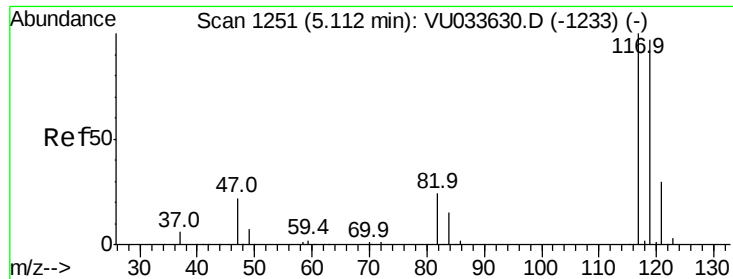
#30  
1,1,1-Trichloroethane  
Concen: 10.732 ug/L  
RT: 4.89 min Scan# 1182  
Delta R.T. 0.00 min  
Lab File: VU033629.D  
Acq: 08 Aug 2019 11:40

Tgt Ion: 97 Resp: 36244  
Ion Ratio Lower Upper  
97 100  
99 63.1 51.4 77.2  
61 44.4 36.2 54.4



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: 10.511 ug/L

RT: 5.11 min Scan# 1251

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

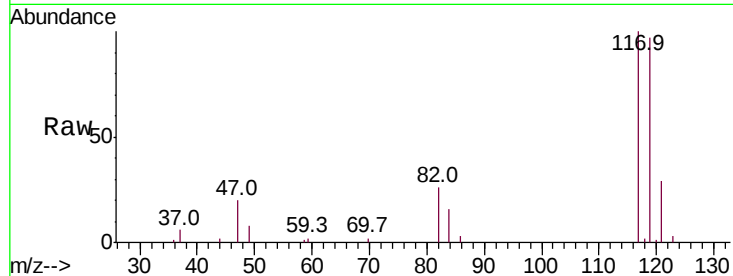
ClientSampleId :

Tot Ion:117 Resp: 31216

Ion Ratio Lower Upper

117 100

119 97.0 77.2 115.8



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

5.11

15000

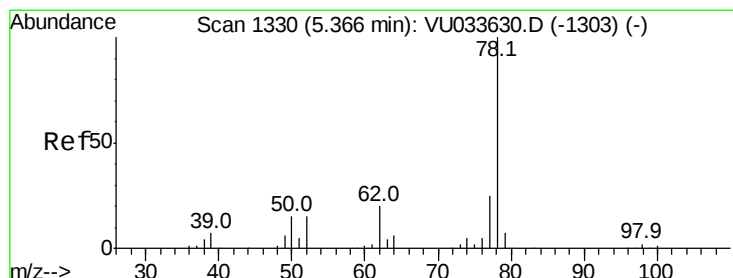
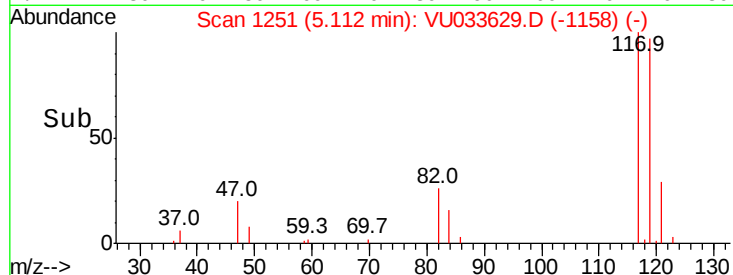
10000

5000

0

Time-->

5.05 5.10 5.15 5.20



#33

Benzene

Concen: 10.547 ug/L

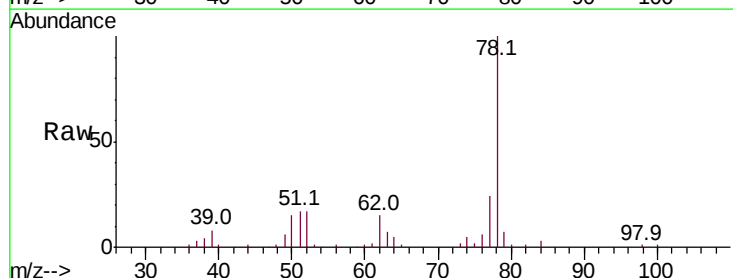
RT: 5.37 min Scan# 1330

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Tgt Ion: 78 Resp: 90115



Abundance Ion 78.00 (77.70 to 78.70): VU0

5.37

40000

30000

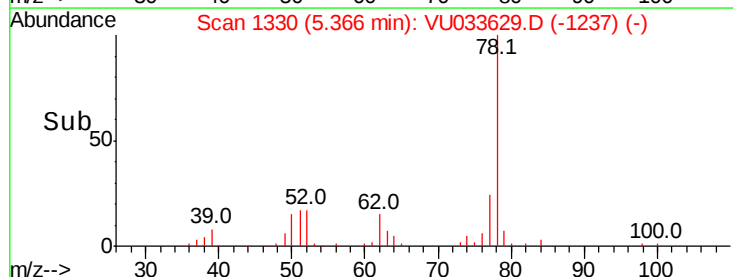
20000

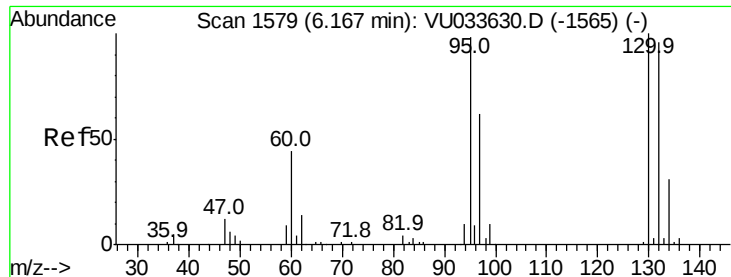
10000

0

Time-->

5.30 5.40

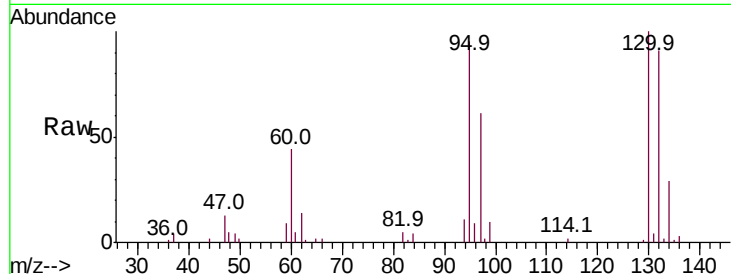




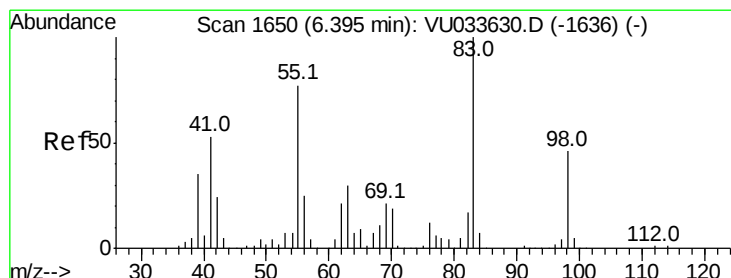
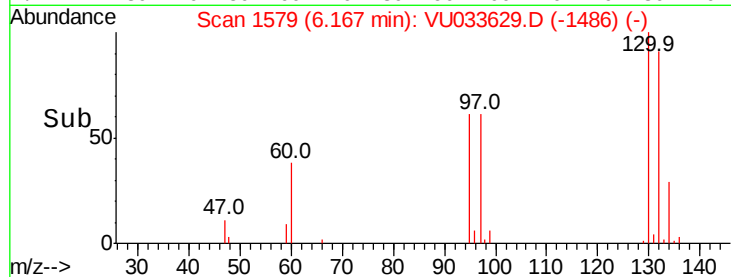
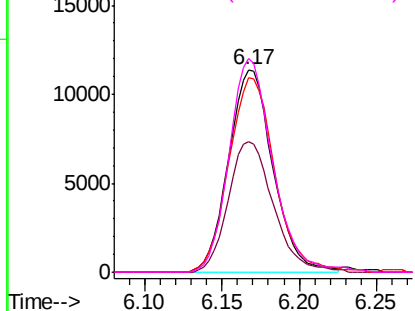
#34  
 Trichloroethene  
 Concen: 10.313 ug/L  
 RT: 6.17 min Scan# 1579  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Instrument :  
 MSVOA\_U  
 ClientSampled :

Tot Ion: 95 Resp: 22707  
 Ion Ratio Lower Upper  
 95 100  
 97 64.2 44.4 82.5  
 132 95.7 69.1 128.3  
 130 105.3 71.7 133.3

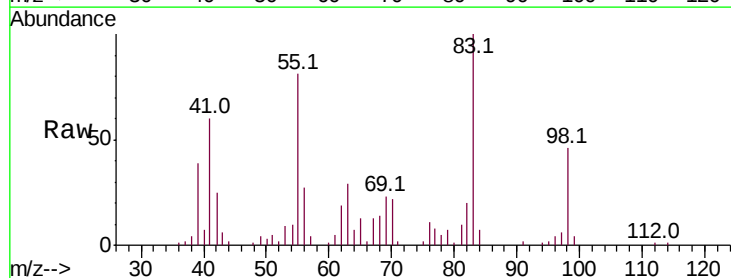


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

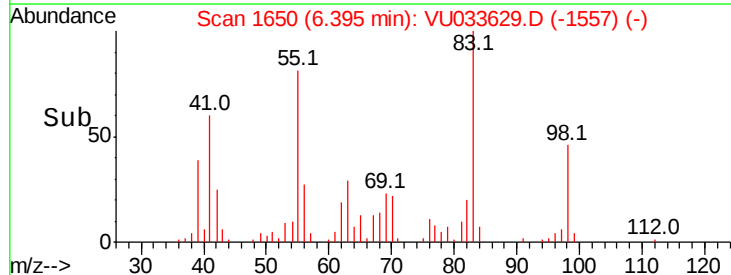
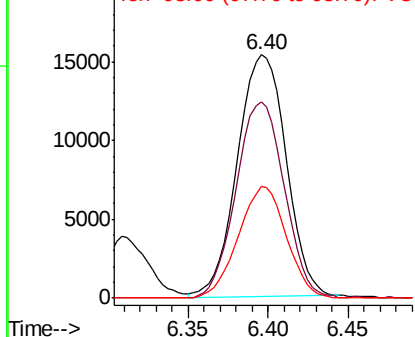


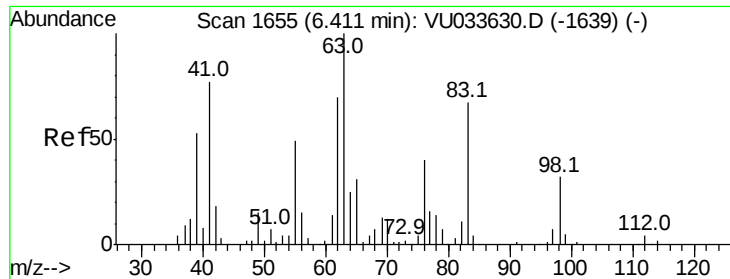
#35  
 Methylcyclohexane  
 Concen: 9.285 ug/L  
 RT: 6.40 min Scan# 1650  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Tgt Ion: 83 Resp: 32052  
 Ion Ratio Lower Upper  
 83 100  
 55 80.1 61.3 91.9  
 98 45.4 36.7 55.1



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

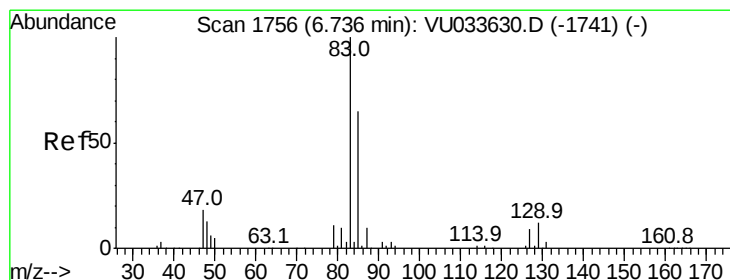
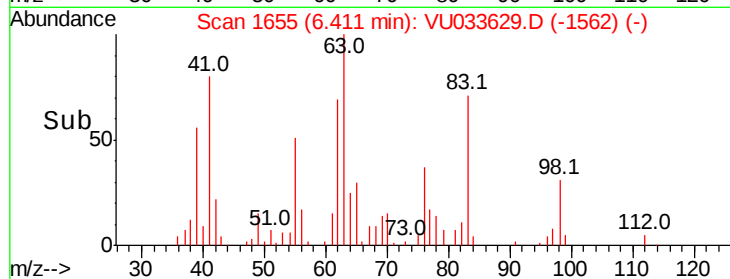
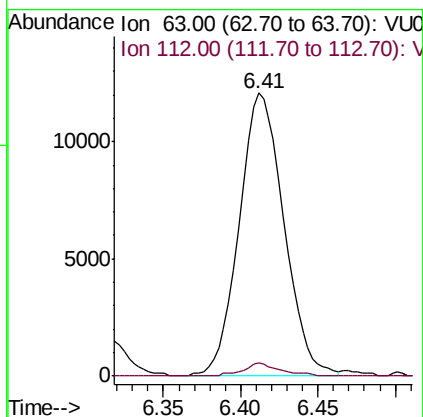
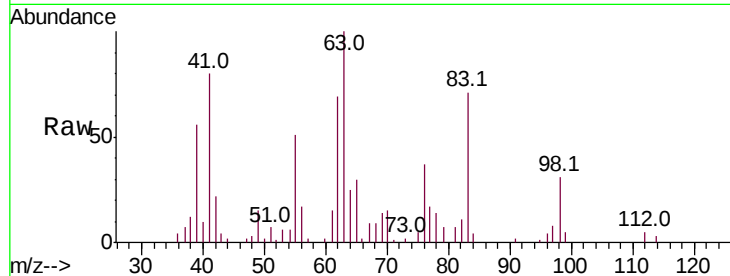




#37  
 1,2-Dichloropropane  
 Concen: 10.406 ug/L  
 RT: 6.41 min Scan# 1655  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

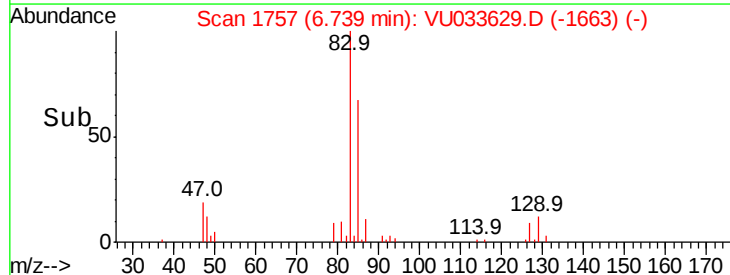
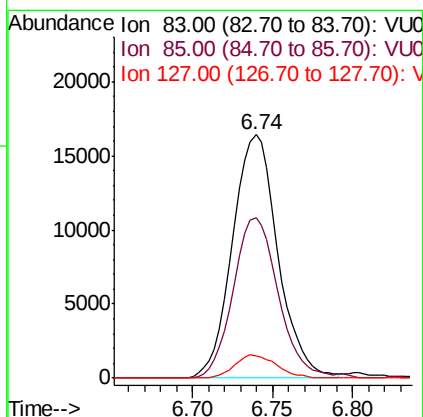
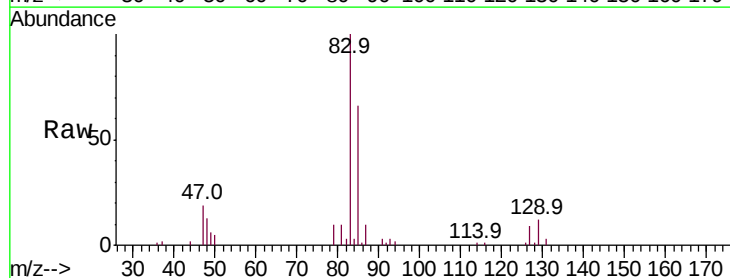
Instrument :  
 MSVOA\_U  
 ClientSampled :

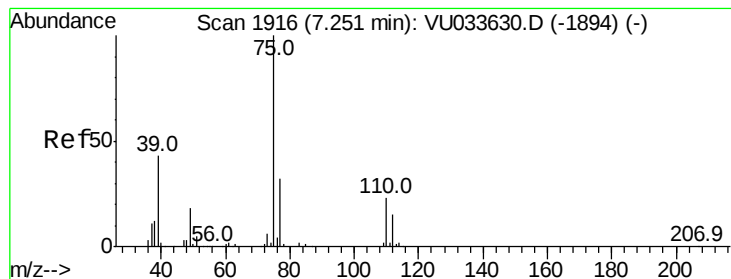
Tot Ion: 63 Resp: 24307  
 Ion Ratio Lower Upper  
 63 100  
 112 3.6 3.0 4.6



#38  
 Bromodichloromethane  
 Concen: 10.773 ug/L  
 RT: 6.74 min Scan# 1757  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Tgt Ion: 83 Resp: 31759  
 Ion Ratio Lower Upper  
 83 100  
 85 65.8 45.6 84.6  
 127 9.3 7.0 10.4



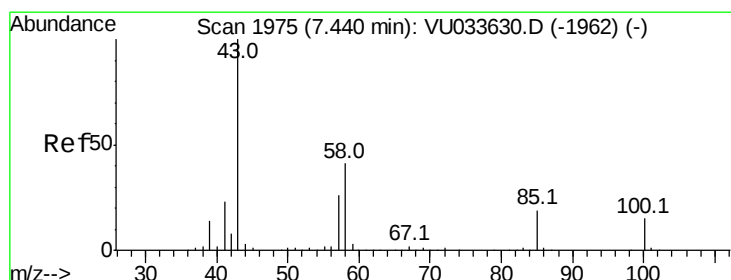
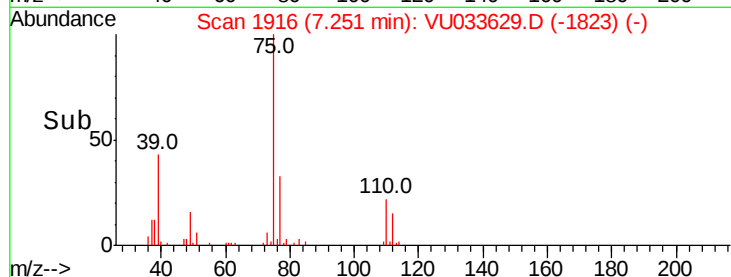
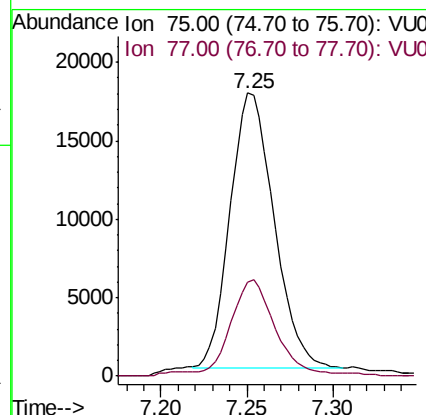
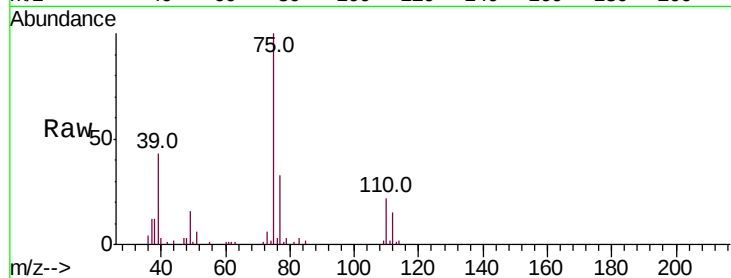


#39

cis-1,3-Dichloropropene  
 Concen: 8.728 ug/L  
 RT: 7.25 min Scan# 1916  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Instrument :  
 MSVOA\_U  
 ClientSampled :

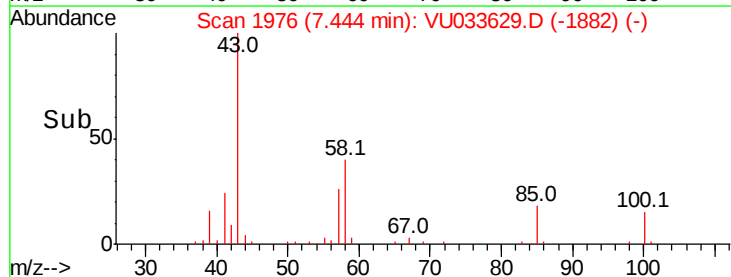
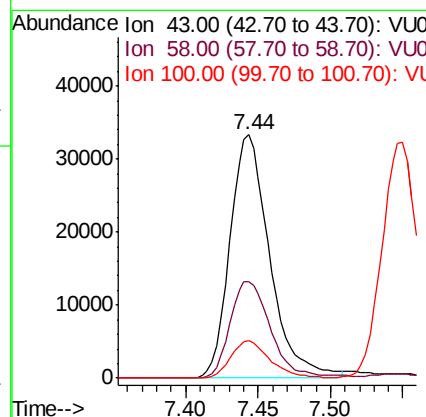
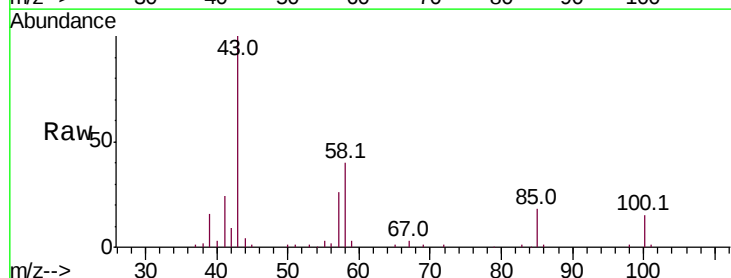
Tot Ion: 75 Resp: 31066  
 Ion Ratio Lower Upper  
 75 100  
 77 33.2 22.5 41.9

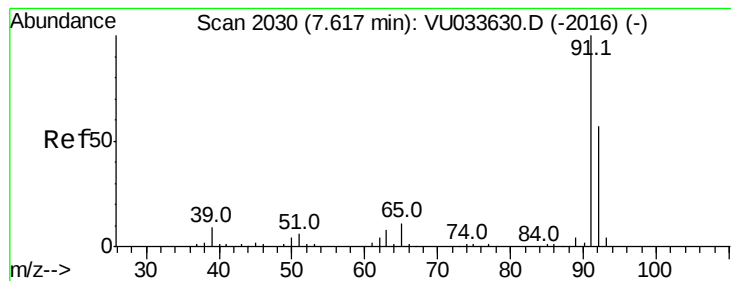


#40

4-Methyl-2-pentanone  
 Concen: 18.979 ug/L  
 RT: 7.44 min Scan# 1976  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Tgt Ion: 43 Resp: 63651  
 Ion Ratio Lower Upper  
 43 100  
 58 40.1 32.7 49.1  
 100 15.1 12.2 18.4





#42

Toluene

Concen: 10.253 ug/L

RT: 7.62 min Scan# 2031

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

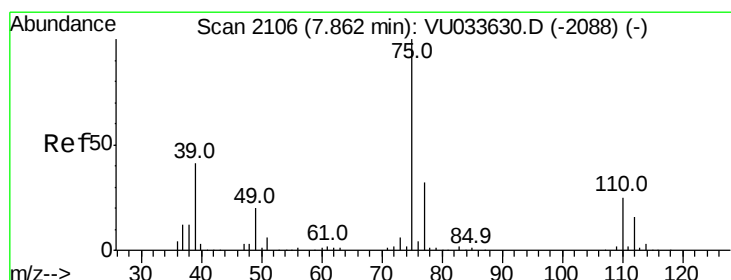
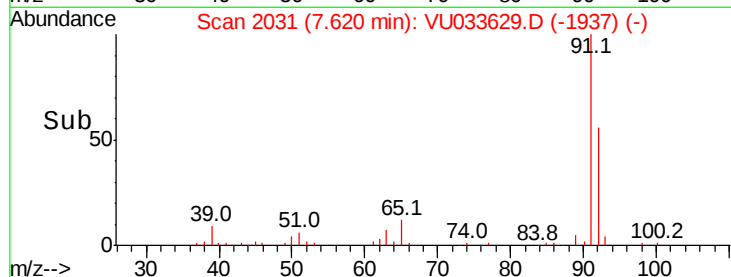
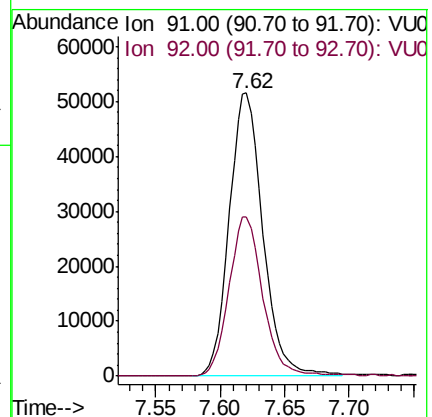
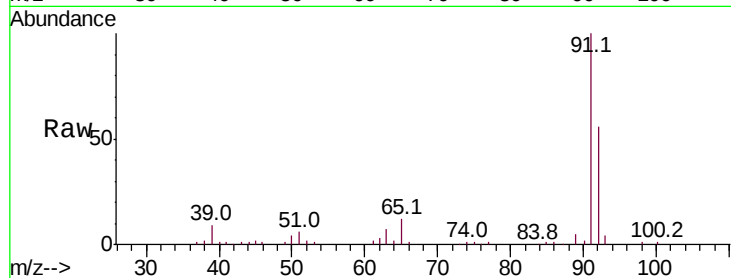
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 91 Resp: 93596

Ion Ratio Lower Upper

91 100

92 56.2 39.6 73.6



#44

trans-1,3-Dichloropropene

Concen: 9.896 ug/L

RT: 7.86 min Scan# 2107

Delta R.T. 0.00 min

Lab File: VU033629.D

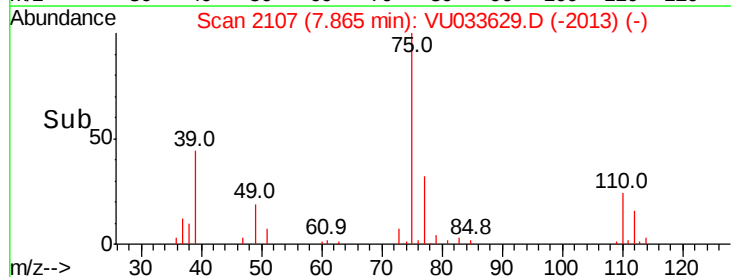
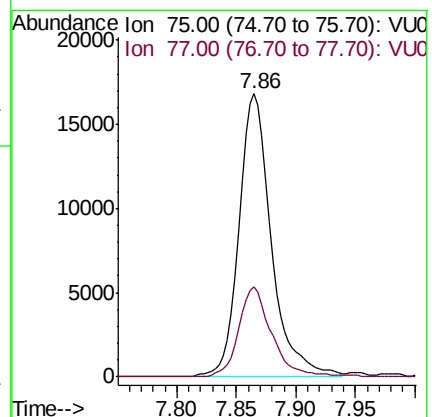
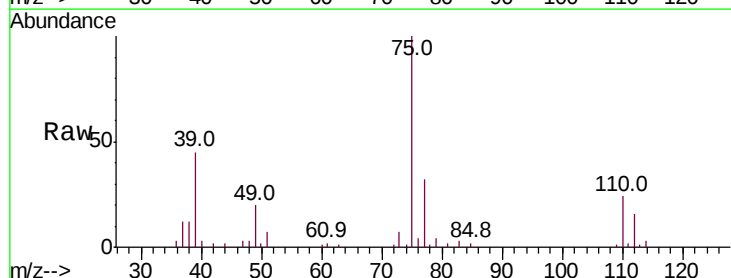
Acq: 08 Aug 2019 11:40

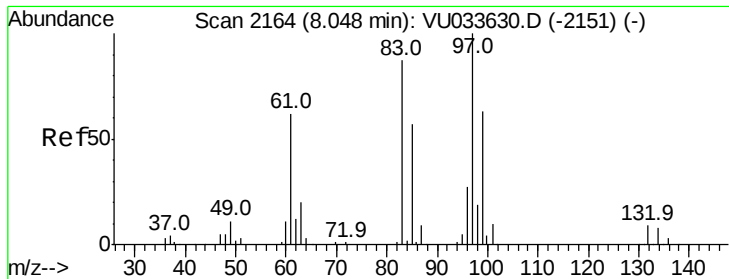
Tgt Ion: 75 Resp: 31804

Ion Ratio Lower Upper

75 100

77 31.8 22.3 41.3

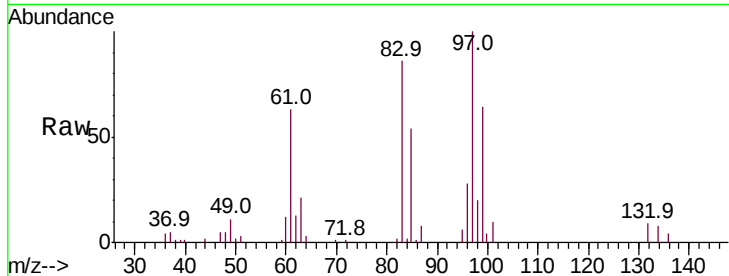




#45  
 1,1,2-Trichloroethane  
 Concen: 10.593 ug/L  
 RT: 8.05 min Scan# 2165  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Instrument :  
 MSVOA\_U  
 ClientSampleId :

| Tot Ion: | 97    | Resp: | 23224 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 64.2  | 44.0  | 81.6  |
| 83       | 86.1  | 60.6  | 112.6 |
| 85       | 54.4  | 39.9  | 74.1  |



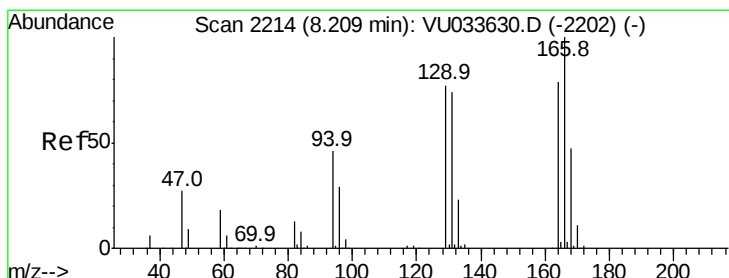
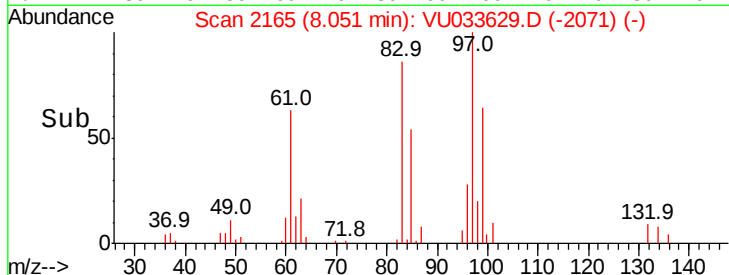
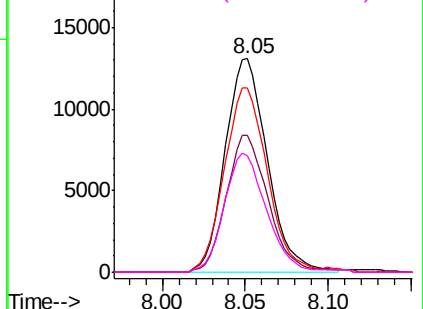
Abundance

Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

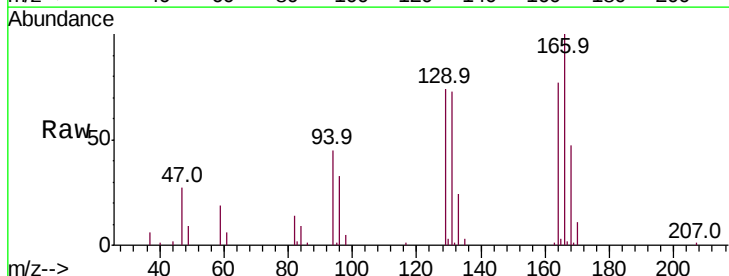
Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46  
 Tetrachloroethene  
 Concen: 10.160 ug/L  
 RT: 8.21 min Scan# 2214  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

| Tgt Ion: | 164   | Resp: | 18289 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 95.9  | 68.1  | 126.5 |
| 131      | 94.7  | 65.5  | 121.6 |
| 166      | 129.7 | 88.5  | 164.3 |



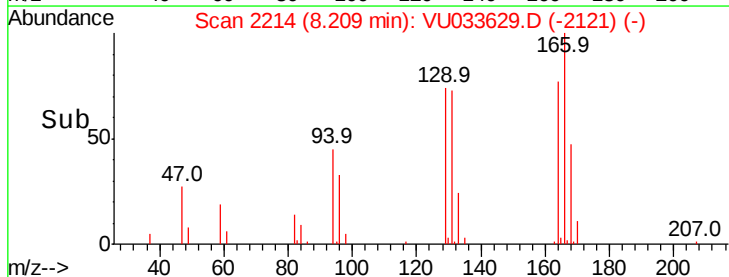
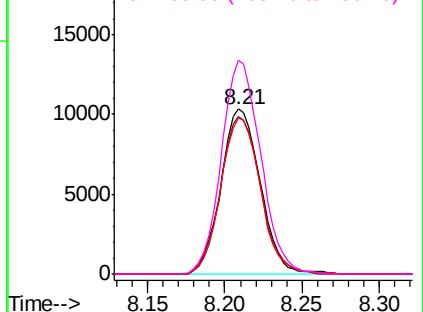
Abundance

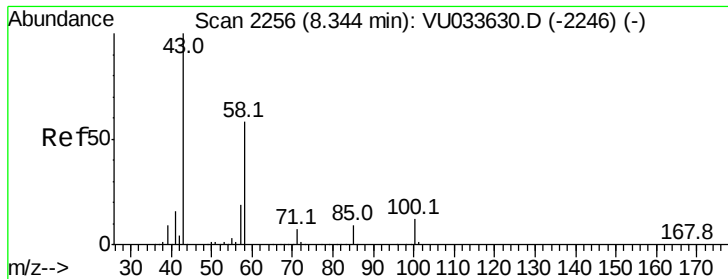
Ion 164.00 (163.70 to 164.70): V

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

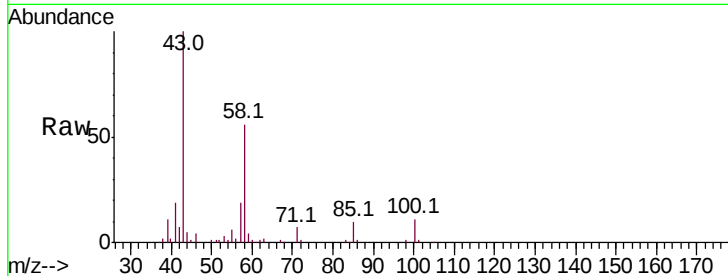




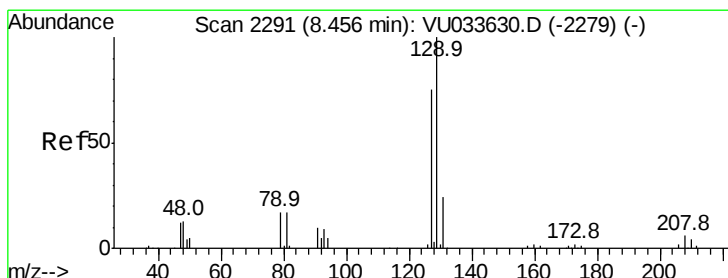
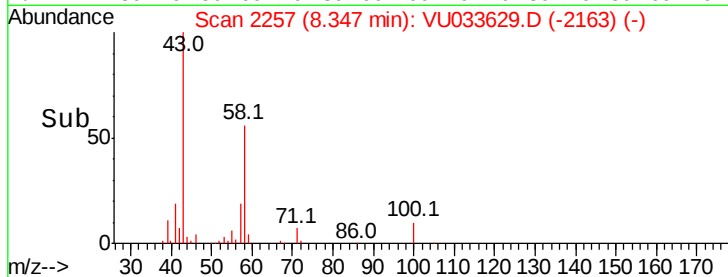
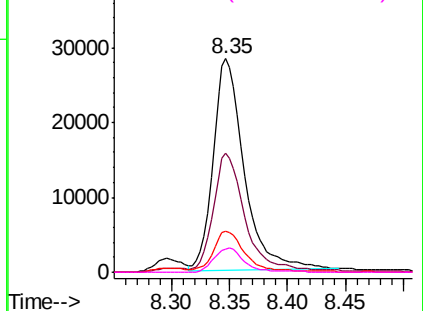
#48  
2-Hexanone  
Concen: 19.704 ug/L  
RT: 8.35 min Scan# 2257  
Delta R.T. 0.00 min  
Lab File: VU033629.D  
Acq: 08 Aug 2019 11:40

Instrument :  
MSVOA\_U  
ClientSampled :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 53052 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 55.0  | 44.8  | 67.2  |
| 57       | 18.4  | 15.5  | 23.3  |
| 100      | 11.2  | 9.4   | 14.2  |

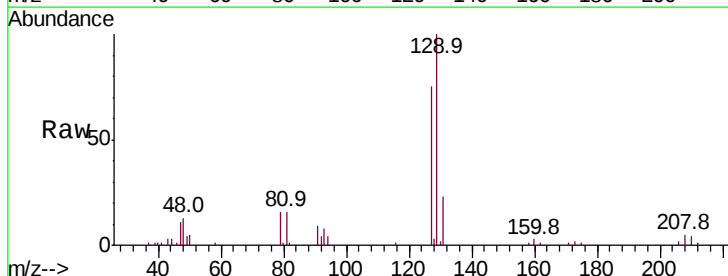


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

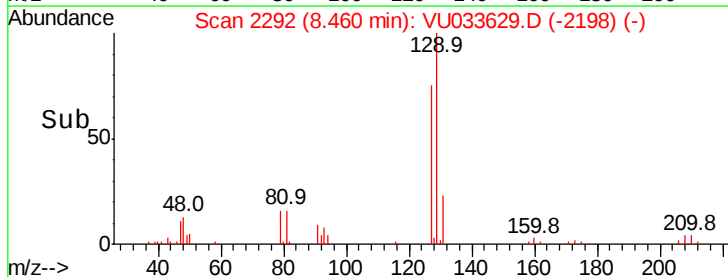
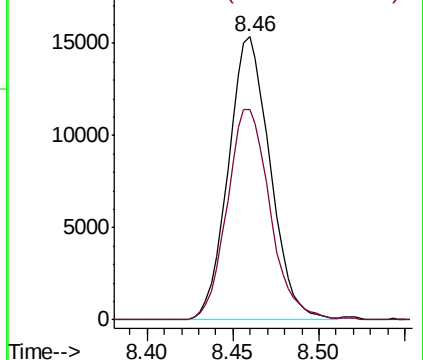


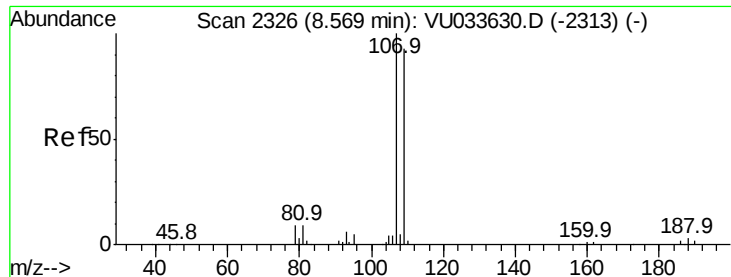
#49  
Dibromochloromethane  
Concen: 10.573 ug/L  
RT: 8.46 min Scan# 2292  
Delta R.T. 0.00 min  
Lab File: VU033629.D  
Acq: 08 Aug 2019 11:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 26075 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 74.5  | 52.5  | 97.5  |



Abundance Ion 129.00 (128.70 to 129.70): V  
Ion 127.00 (126.70 to 127.70): V

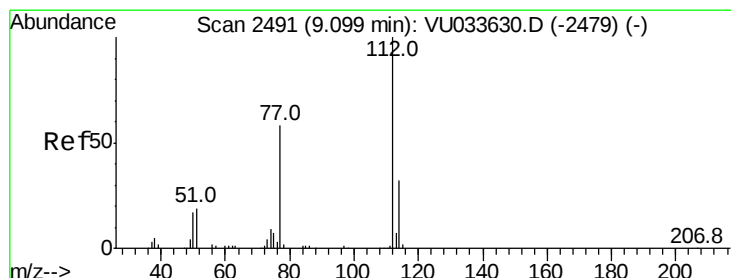
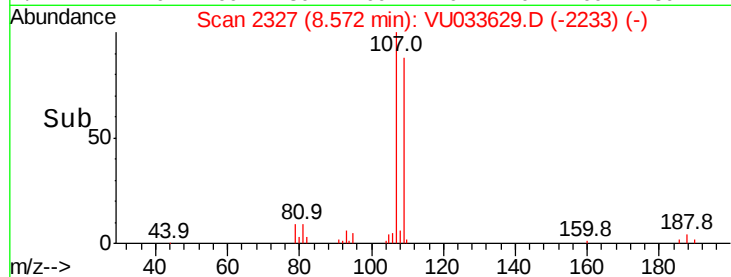
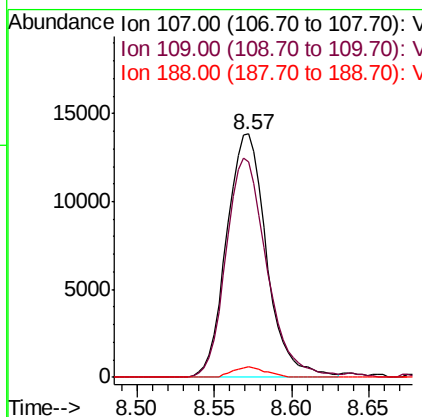
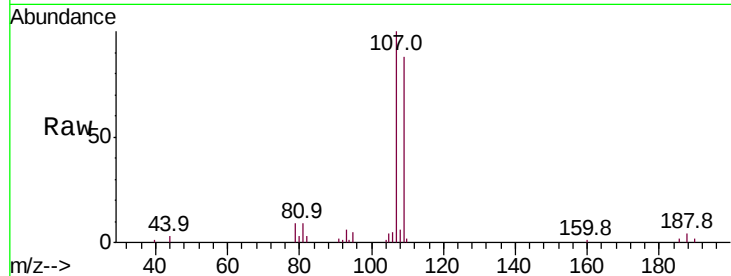




#50  
 1,2-Dibromoethane  
 Concen: 10.334 ug/L  
 RT: 8.57 min Scan# 2327  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

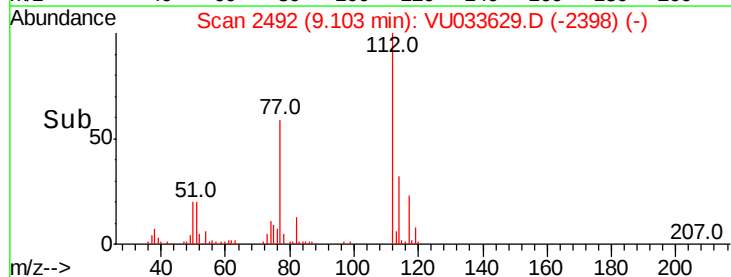
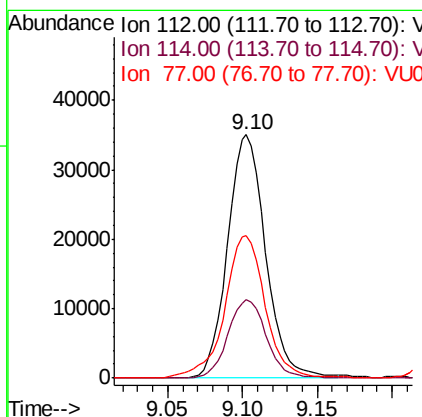
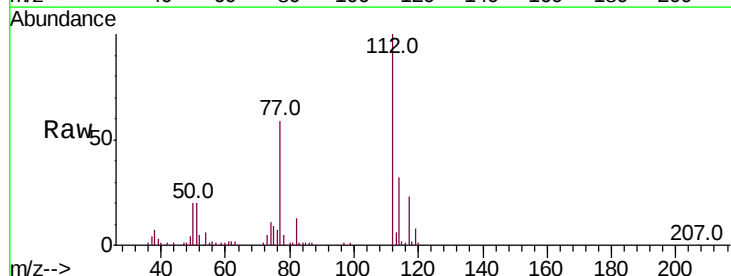
Instrument :  
 MSVOA\_U  
 ClientSampleId :

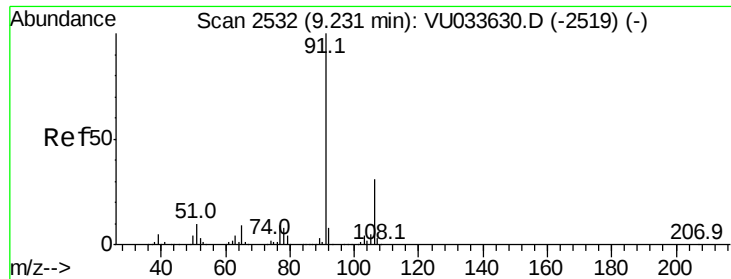
Tot Ion:107 Resp: 24833  
 Ion Ratio Lower Upper  
 107 100  
 109 88.4 65.4 121.4  
 188 4.2 2.6 4.0#



#51  
 Chlorobenzene  
 Concen: 10.407 ug/L  
 RT: 9.10 min Scan# 2492  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Tgt Ion:112 Resp: 62061  
 Ion Ratio Lower Upper  
 112 100  
 114 32.0 22.7 42.1  
 77 58.6 47.2 70.8





#52

Ethylbenzene

Concen: 9.704 ug/L

RT: 9.23 min Scan# 2533

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

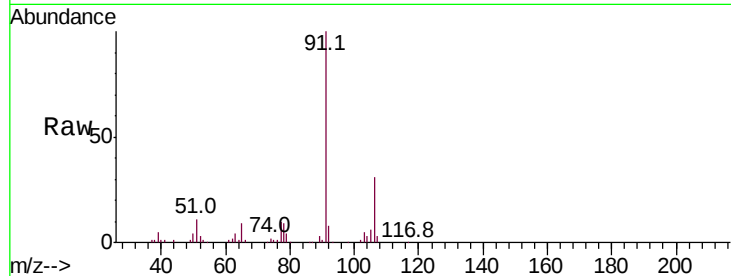
ClientSampleId :

Tot Ion: 91 Resp: 96029

Ion Ratio Lower Upper

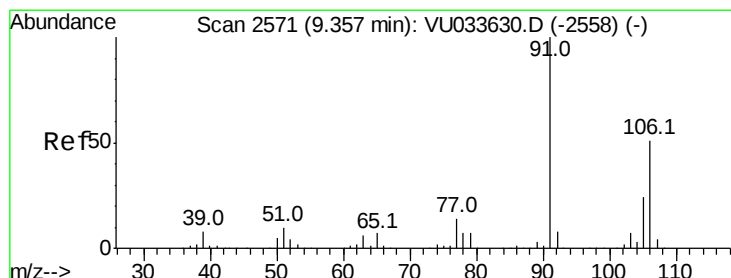
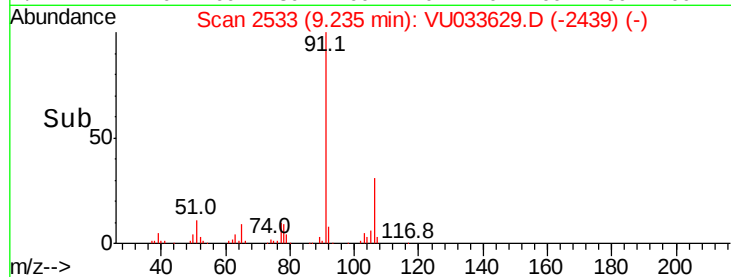
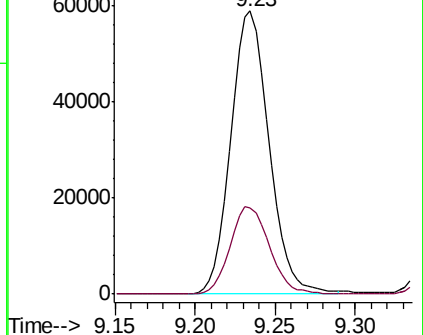
91 100

106 30.7 21.9 40.7



Abundance Ion 91.00 (90.70 to 91.70): VU033630.D (-2519) (-)

Ion 106.00 (105.70 to 106.70): VU033630.D (-2519) (-)



#53

m,p-Xylene

Concen: 9.306 ug/L

RT: 9.36 min Scan# 2572

Delta R.T. 0.00 min

Lab File: VU033629.D

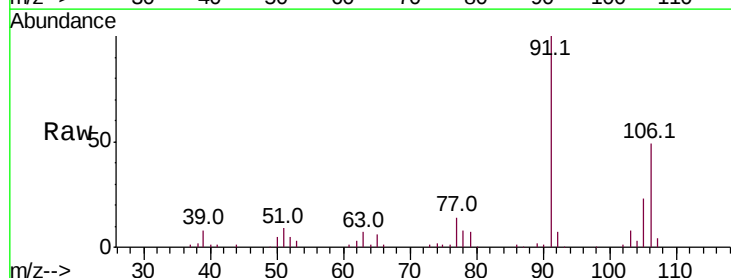
Acq: 08 Aug 2019 11:40

Tgt Ion: 106 Resp: 35074

Ion Ratio Lower Upper

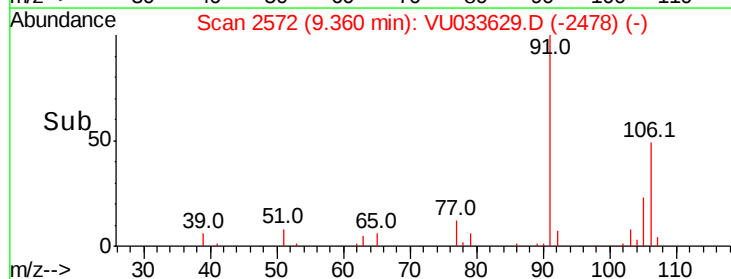
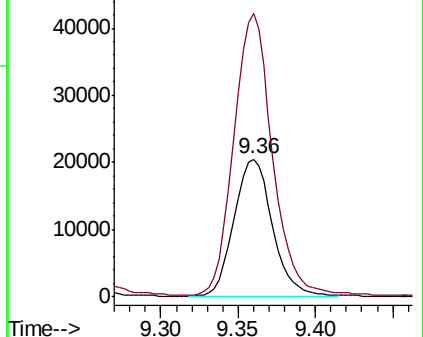
106 100

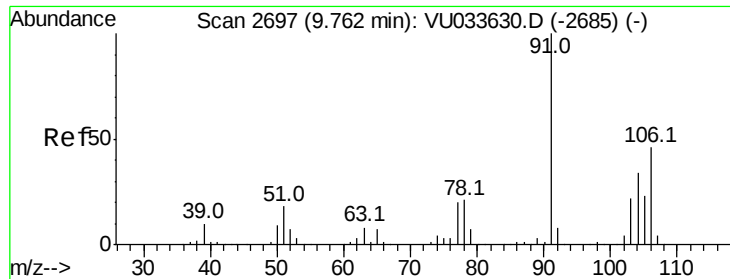
91 205.1 138.5 257.3



Abundance Ion 106.00 (105.70 to 106.70): VU033630.D (-2558) (-)

Ion 91.00 (90.70 to 91.70): VU033630.D (-2558) (-)





#54

o-xylene

Concen: 9.701 ug/L

RT: 9.76 min Scan# 2697

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

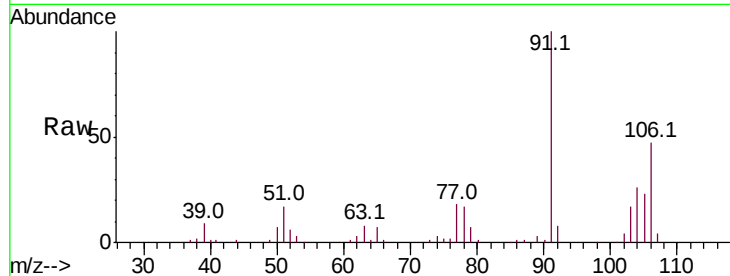
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:106 Resp: 35749

Ion Ratio Lower Upper

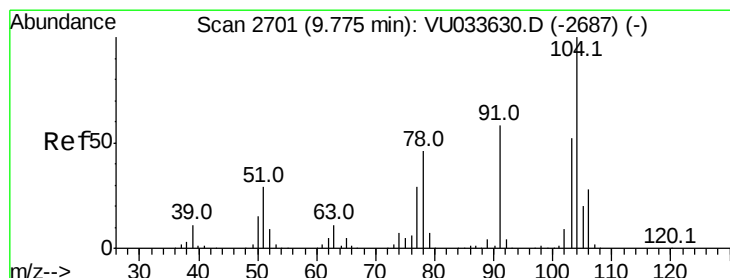
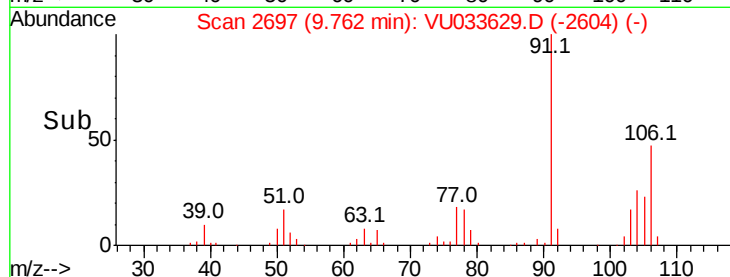
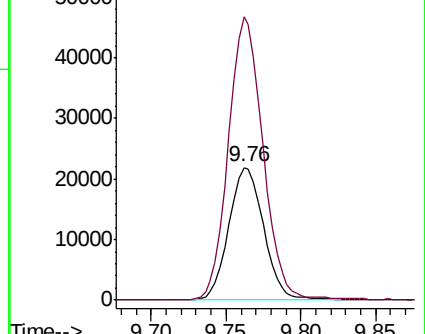
106 100

91 213.0 152.1 282.5



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 9.474 ug/L

RT: 9.78 min Scan# 2702

Delta R.T. 0.00 min

Lab File: VU033629.D

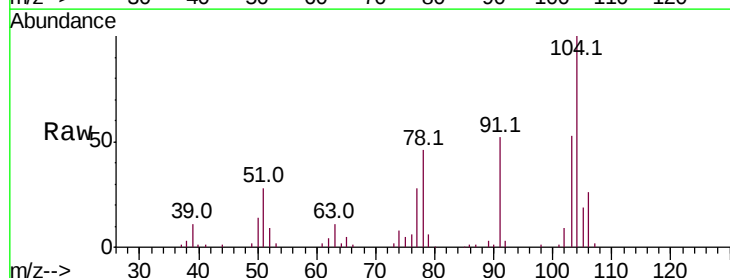
Acq: 08 Aug 2019 11:40

Tgt Ion:104 Resp: 59555

Ion Ratio Lower Upper

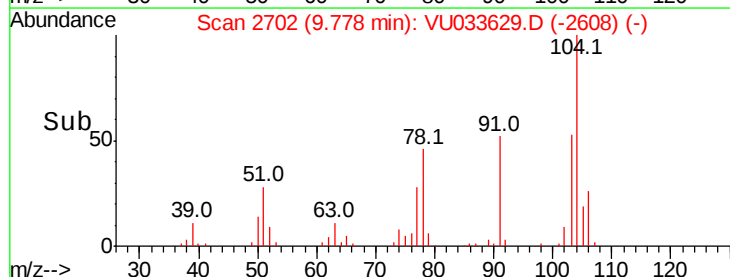
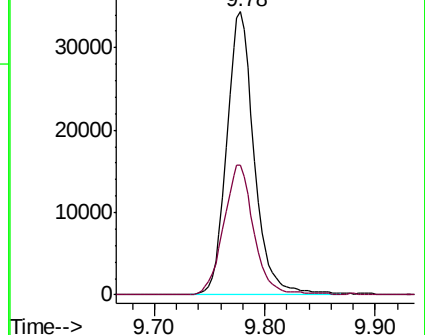
104 100

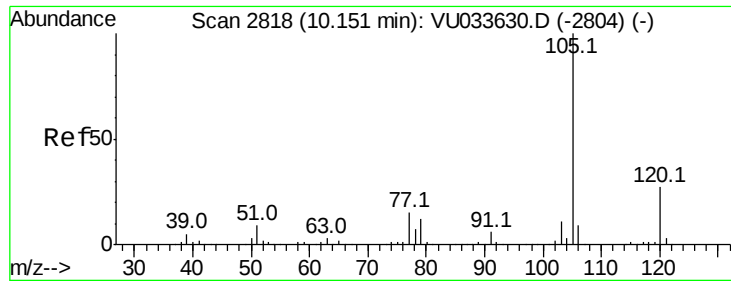
78 45.9 32.3 60.1



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 9.360 ug/L

RT: 10.15 min Scan# 2818

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

ClientSampleId :

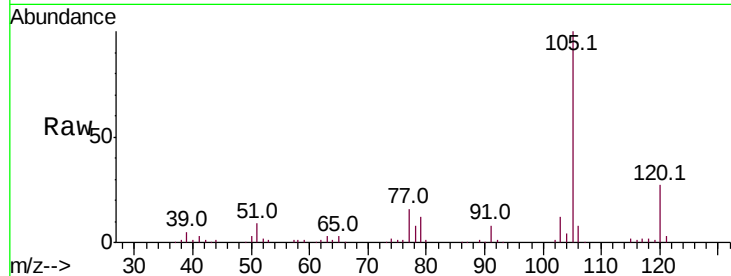
Tot Ion:105 Resp: 89157

Ion Ratio Lower Upper

105 100

120 27.3 21.5 32.3

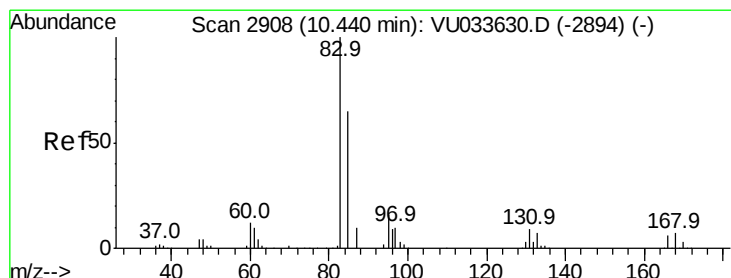
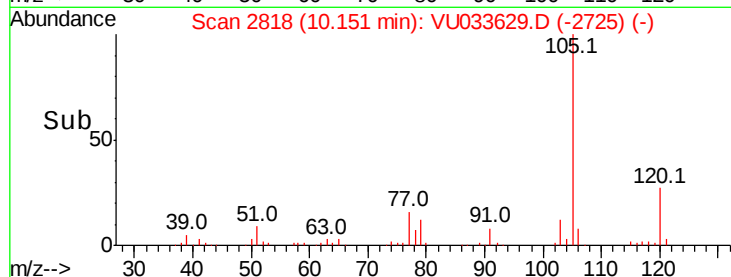
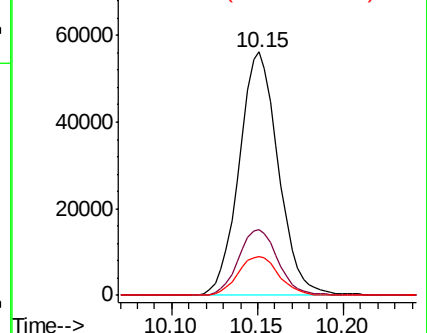
77 16.6 12.4 18.6



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: 10.738 ug/L

RT: 10.44 min Scan# 2908

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

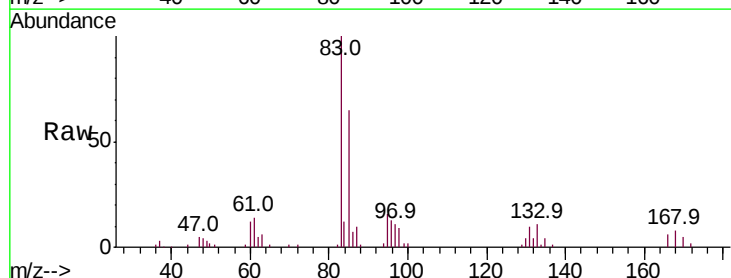
Tgt Ion: 83 Resp: 41946

Ion Ratio Lower Upper

83 100

85 65.5 45.7 84.9

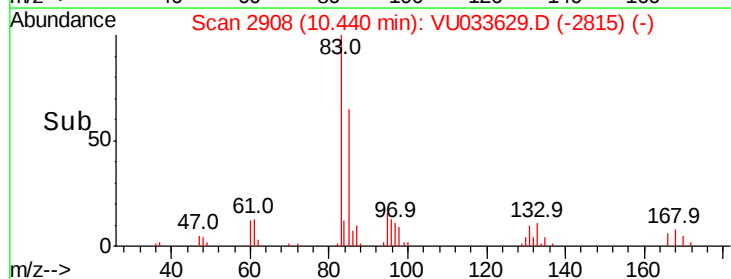
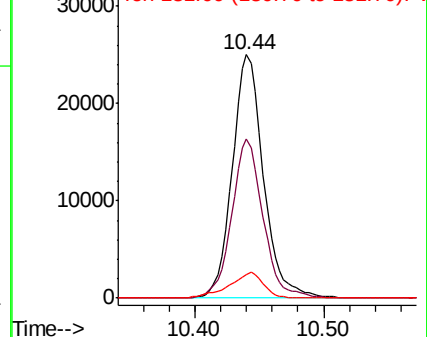
131 9.8 7.7 11.5

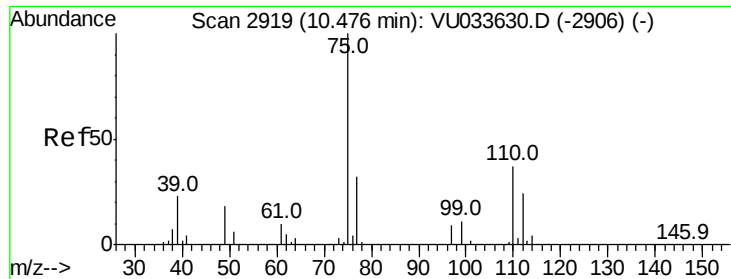


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V

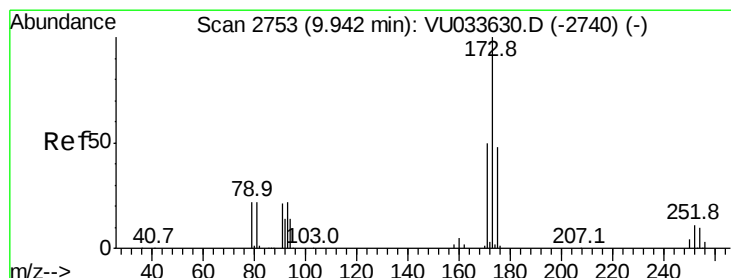
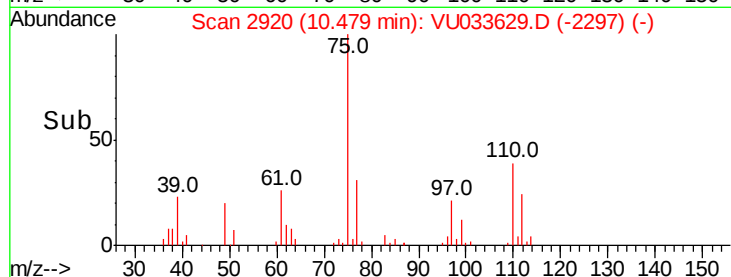
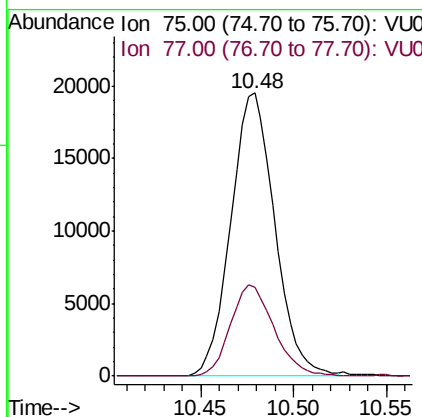
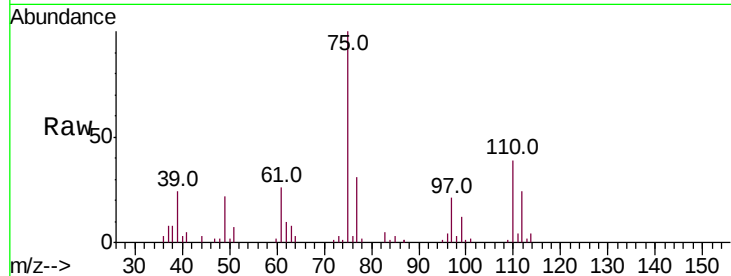




#59  
 1,2,3-Trichloropropane  
 Concen: 10.469 ug/L  
 RT: 10.48 min Scan# 2920  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

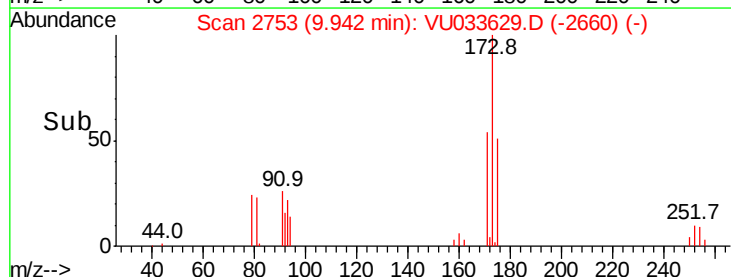
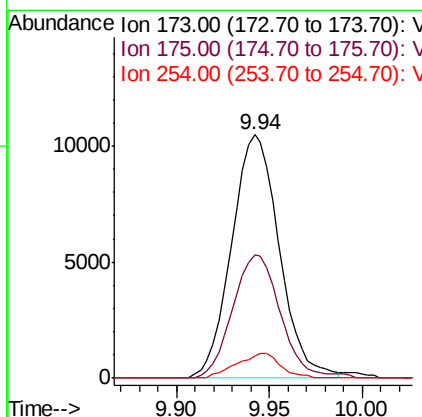
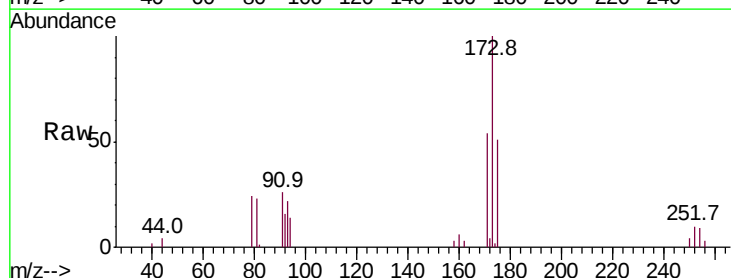
Instrument :  
 MSVOA\_U  
 ClientSampleId :

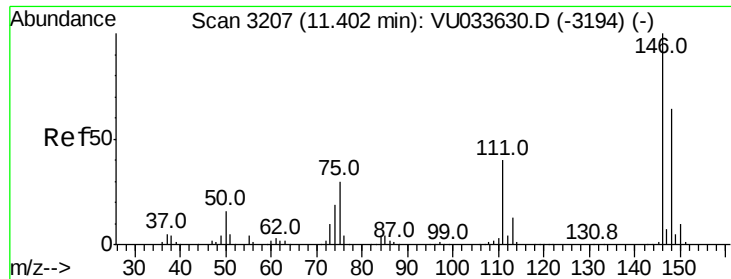
Tot Ion: 75 Resp: 32157  
 Ion Ratio Lower Upper  
 75 100  
 77 31.9 25.5 38.3



#61  
 Bromoform  
 Concen: 10.510 ug/L  
 RT: 9.94 min Scan# 2753  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Tgt Ion: 173 Resp: 18761  
 Ion Ratio Lower Upper  
 173 100  
 175 50.3 39.3 58.9  
 254 9.3 7.8 11.8

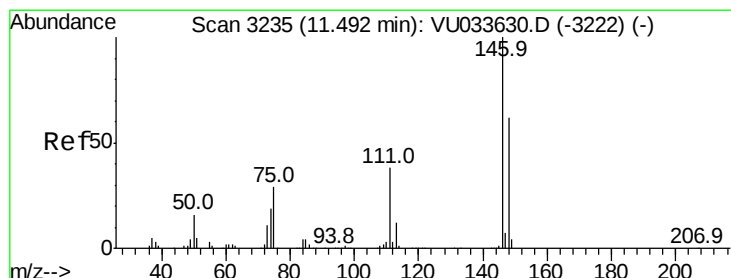
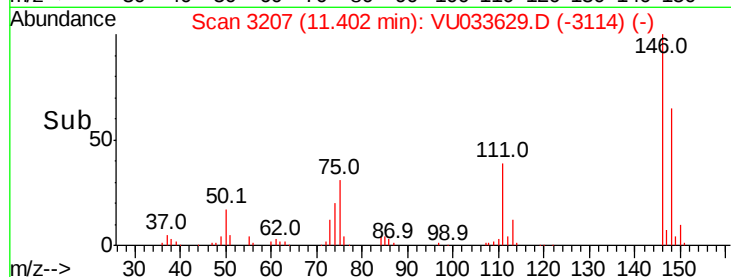
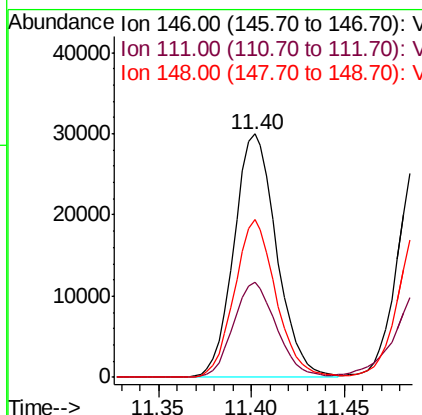
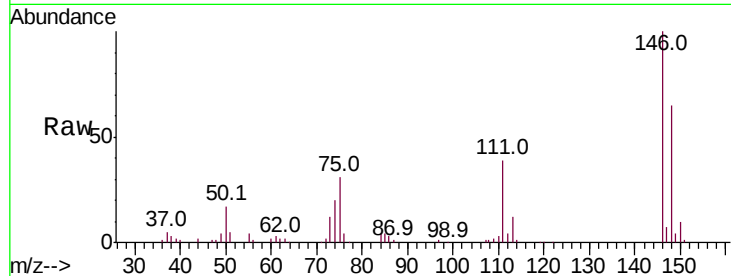




#62  
 1,3-Dichlorobenzene  
 Concen: 10.663 ug/L  
 RT: 11.40 min Scan# 3207  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

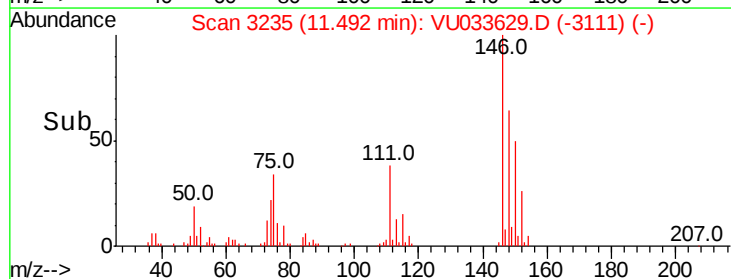
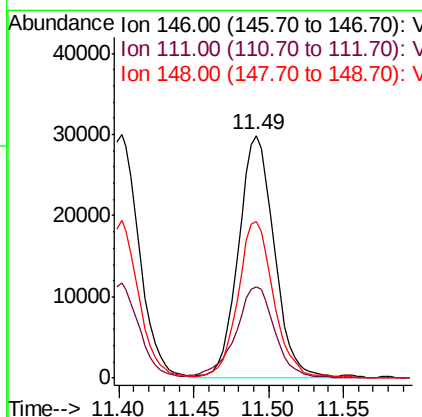
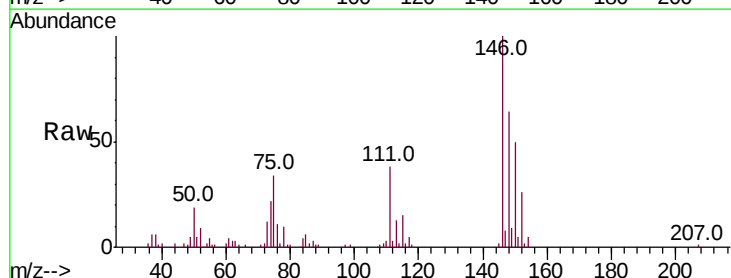
Instrument :  
 MSVOA\_U  
 ClientSampleId :

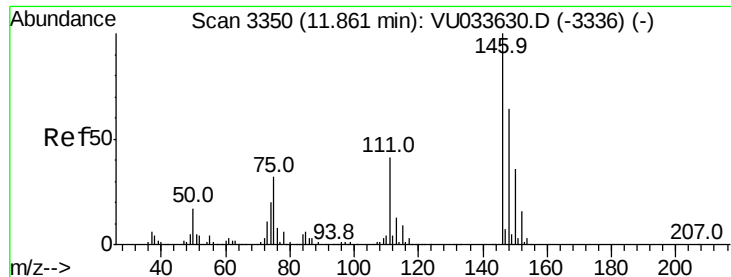
Tot Ion:146 Resp: 47904  
 Ion Ratio Lower Upper  
 146 100  
 111 38.9 27.9 51.9  
 148 65.0 44.7 82.9



#63  
 1,4-Dichlorobenzene  
 Concen: 10.864 ug/L  
 RT: 11.49 min Scan# 3235  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Tgt Ion:146 Resp: 49884  
 Ion Ratio Lower Upper  
 146 100  
 111 37.9 26.8 49.8  
 148 64.3 43.8 81.3





#65

1,2-Dichlorobenzene

Concen: 10.664 ug/L

RT: 11.86 min Scan# 3351

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

ClientSampled :

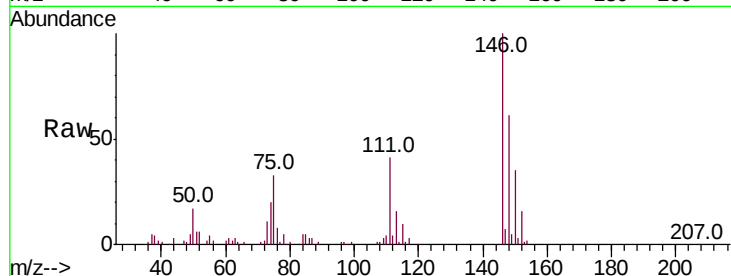
Tot Ion:146 Resp: 48002

Ion Ratio Lower Upper

146 100

111 41.4 33.0 49.4

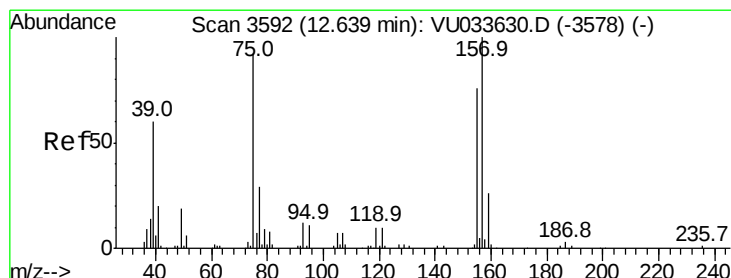
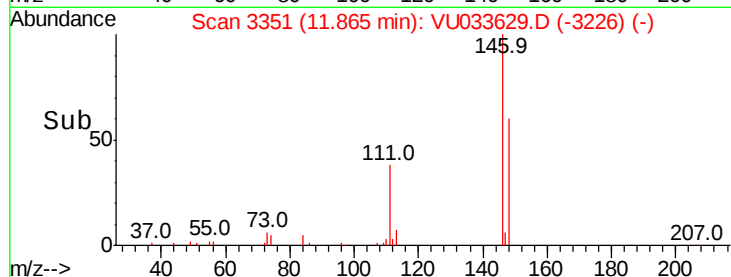
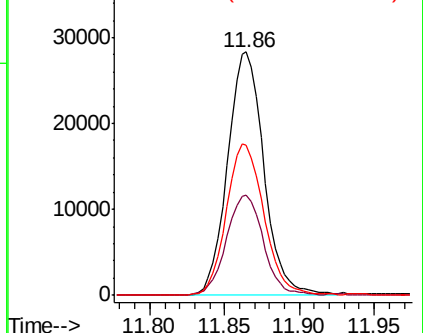
148 61.5 51.0 76.4



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: 10.228 ug/L

RT: 12.64 min Scan# 3593

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

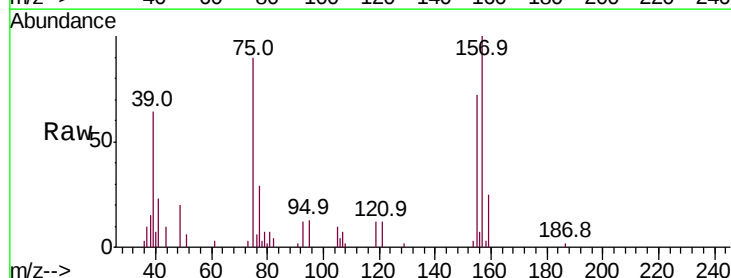
Tgt Ion: 75 Resp: 8634

Ion Ratio Lower Upper

75 100

155 80.2 65.8 98.8

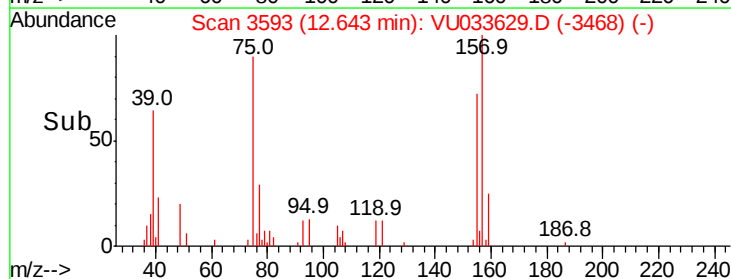
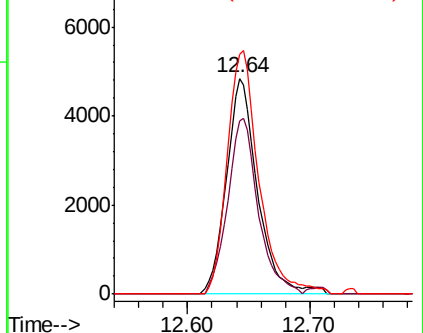
157 111.4 86.9 130.3

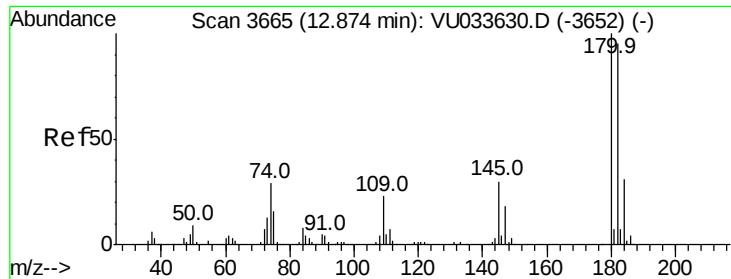


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

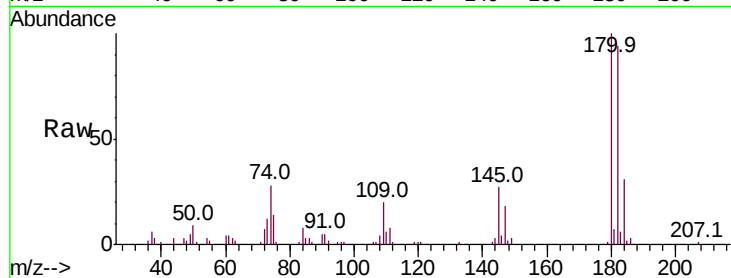




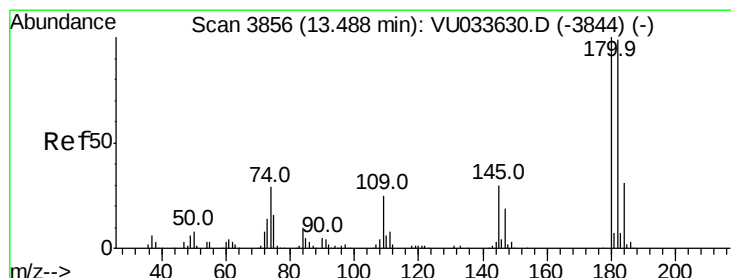
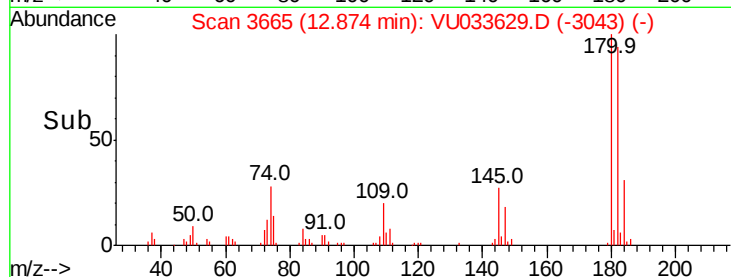
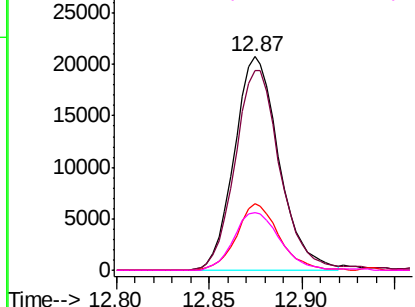
#67  
 1,3,5-Trichlorobenzene  
 Concen: 10.094 ug/L  
 RT: 12.87 min Scan# 3665  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

Instrument :  
 MSVOA\_U  
 ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 180   | Resp: | 34754 |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 95.4  | 76.3  | 114.5 |
| 184      | 29.7  | 24.2  | 36.4  |
| 145      | 27.8  | 23.5  | 35.3  |

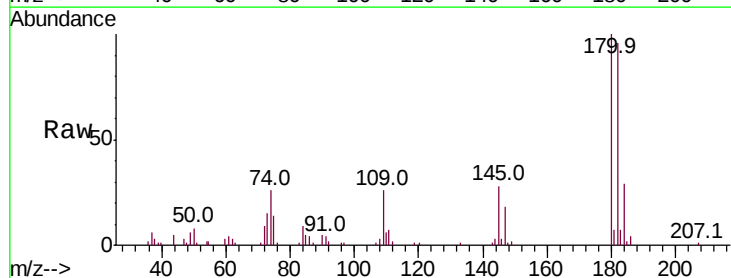


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

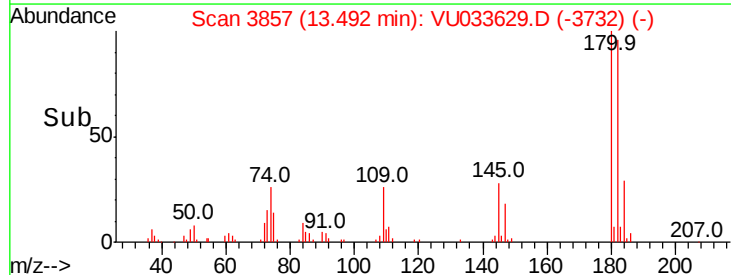
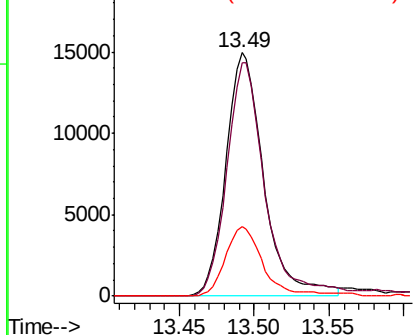


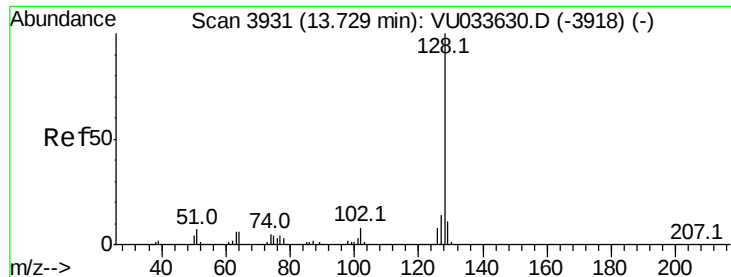
#68  
 1,2,4-trichlorobenzene  
 Concen: 8.987 ug/L  
 RT: 13.49 min Scan# 3857  
 Delta R.T. 0.00 min  
 Lab File: VU033629.D  
 Acq: 08 Aug 2019 11:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 26374 |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 93.2  | 78.5  | 117.7 |
| 145      | 26.9  | 23.6  | 35.4  |



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: 7.835 ug/L

RT: 13.73 min Scan# 3932

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

Instrument :

MSVOA\_U

ClientSampleId :

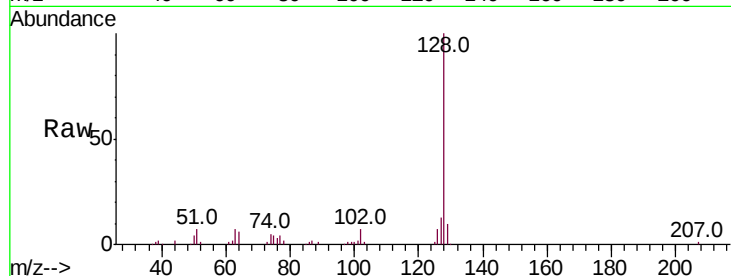
Tot Ion:128 Resp: 66920

Ion Ratio Lower Upper

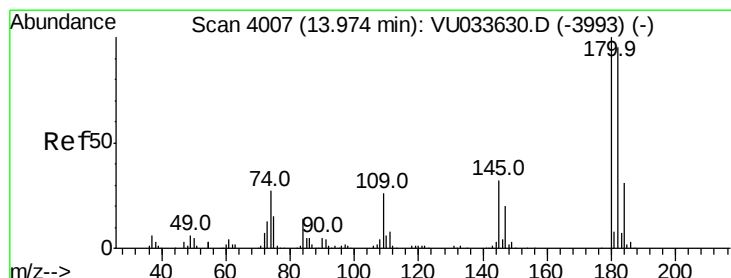
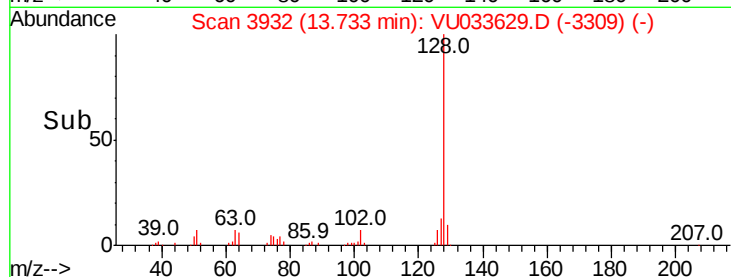
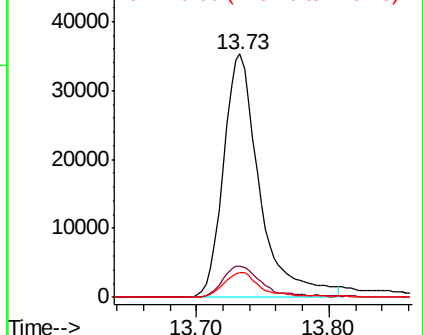
128 100

127 13.7 10.6 16.0

129 10.5 8.8 13.2



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: 8.756 ug/L

RT: 13.98 min Scan# 4008

Delta R.T. 0.00 min

Lab File: VU033629.D

Acq: 08 Aug 2019 11:40

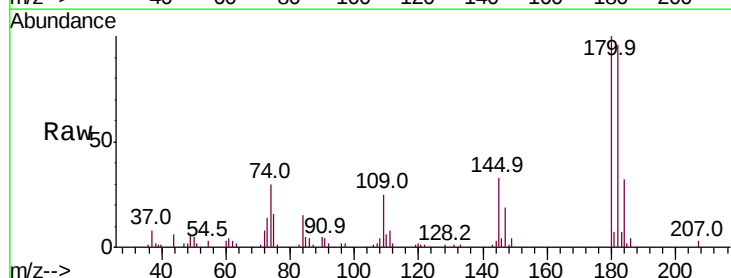
Tgt Ion:180 Resp: 27377

Ion Ratio Lower Upper

180 100

182 97.9 76.6 115.0

145 32.0 25.1 37.7



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

