

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY020525\  
 Data File : VY021091.D  
 Acq On : 05 Feb 2025 16:11  
 Operator : SY/MD  
 Sample : Q1288-05  
 Misc : 5.02g/5.0mL/MSVOA\_Y/SOIL/A  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :

Quant Time: Feb 06 00:56:00 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y020325S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Feb 03 13:08:38 2025  
 Response via : Initial Calibration

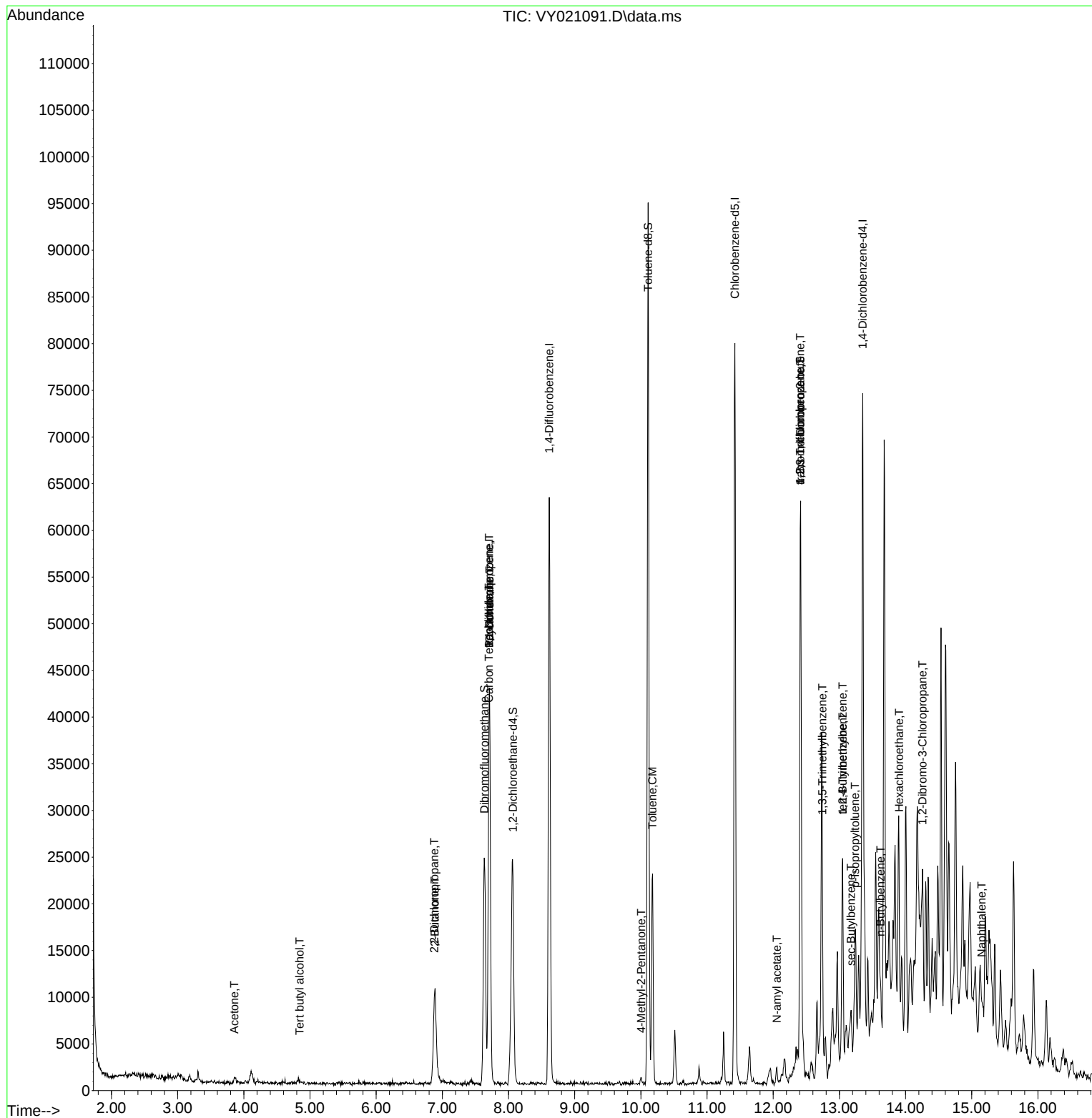
| Compound                      | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|-------------------------------|----------------|------|---------------------|---------|--------|----------|
| -----                         |                |      |                     |         |        |          |
| Internal Standards            |                |      |                     |         |        |          |
| 1) Pentafluorobenzene         | 7.707          | 168  | 32499               | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 8.616          | 114  | 51608               | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.420         | 117  | 42042               | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.353         | 152  | 16182               | 50.000  | ug/l   | 0.00     |
|                               |                |      |                     |         |        |          |
| System Monitoring Compounds   |                |      |                     |         |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.067          | 65   | 17320               | 52.015  | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 50 - 163 |      | Recovery = 104.040% |         |        |          |
| 35) Dibromofluoromethane      | 7.634          | 113  | 17399               | 52.606  | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 54 - 147 |      | Recovery = 105.220% |         |        |          |
| 50) Toluene-d8                | 10.109         | 98   | 60182               | 47.796  | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 58 - 134 |      | Recovery = 95.600%  |         |        |          |
| 62) 4-Bromofluorobenzene      | 12.408         | 95   | 16578               | 40.301  | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 30 - 143 |      | Recovery = 80.600%  |         |        |          |
|                               |                |      |                     |         |        |          |
| Target Compounds              |                |      |                     |         |        | Qvalue   |
| 11) Tert butyl alcohol        | 4.842          | 59   | 185                 | 8.199   | ug/l # | 75       |
| 16) Acetone                   | 3.854          | 43   | 1046                | 20.144  | ug/l # | 86       |
| 25) 2-Butanone                | 6.884          | 43   | 770                 | 9.024   | ug/l # | 48       |
| 26) 2,2-Dichloropropane       | 6.878          | 77   | 824                 | 1.412   | ug/l # | 52       |
| 31) Cyclohexane               | 7.713          | 56   | 710                 | 1.250   | ug/l # | 39       |
| 36) 1,1-Dichloropropene       | 7.707          | 75   | 2754                | 5.622   | ug/l # | 46       |
| 38) Carbon Tetrachloride      | 7.701          | 117  | 3446                | 6.020   | ug/l # | 19       |
| 51) 4-Methyl-2-Pentanone      | 10.006         | 43   | 686                 | 3.195   | ug/l   | 89       |
| 52) Toluene                   | 10.176         | 92   | 8882                | 9.839   | ug/l   | 94       |
| 74) N-amyl acetate            | 12.054         | 43   | 428                 | 1.549   | ug/l # | 54       |
| 76) 1,2,3-Trichloropropane    | 12.408         | 75   | 8958                | 61.026  | ug/l # | 100      |
| 80) 1,3,5-Trimethylbenzene    | 12.743         | 105  | 2549                | 2.487   | ug/l   | 88       |
| 81) trans-1,4-Dichloro-2-b... | 12.408         | 75   | 8958                | 124.522 | ug/l # | 12       |
| 83) tert-Butylbenzene         | 13.048         | 119  | 1418                | 1.522   | ug/l # | 53       |
| 84) 1,2,4-Trimethylbenzene    | 13.048         | 105  | 10737               | 10.715  | ug/l   | 97       |
| 85) sec-Butylbenzene          | 13.176         | 105  | 1856                | 1.384   | ug/l   | 94       |
| 86) p-Isopropyltoluene        | 13.237         | 119  | 2523                | 2.265   | ug/l   | 99       |
| 89) n-Butylbenzene            | 13.621         | 91   | 2228                | 2.193   | ug/l # | 79       |
| 90) Hexachloroethane          | 13.901         | 117  | 920                 | 3.959   | ug/l # | 17       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.255         | 75   | 79                  | 2.515   | ug/l # | 27       |
| 95) Naphthalene               | 15.151         | 128  | 1727                | 3.967   | ug/l # | 86       |
| -----                         |                |      |                     |         |        |          |

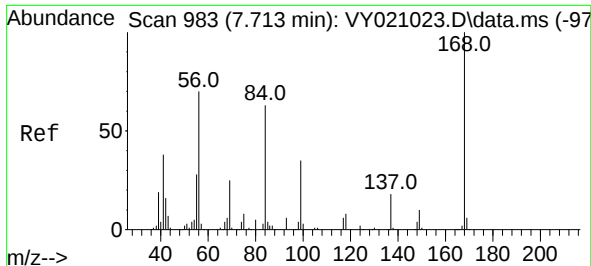
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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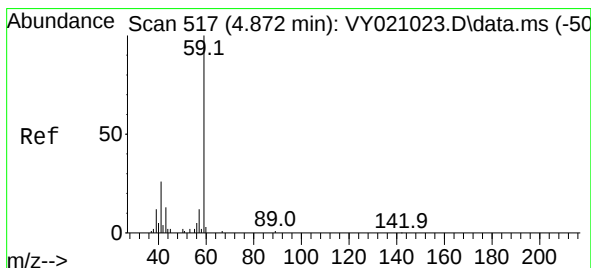
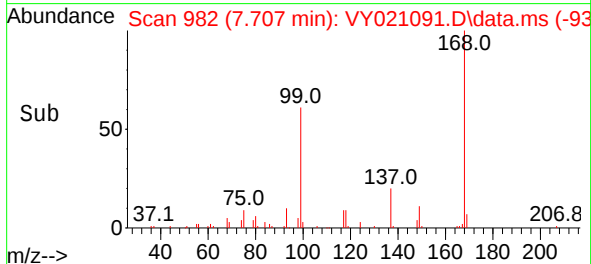
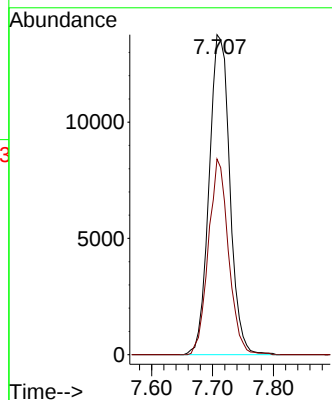
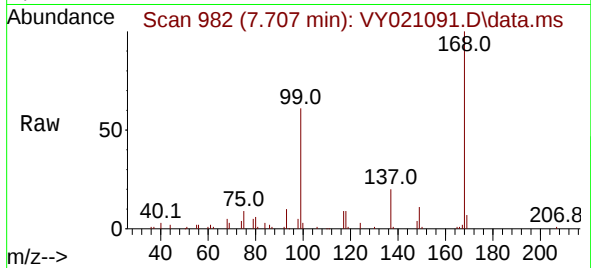




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 7.707 min Scan# 91  
Delta R.T. -0.006 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

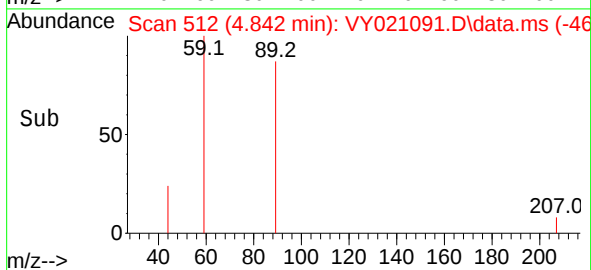
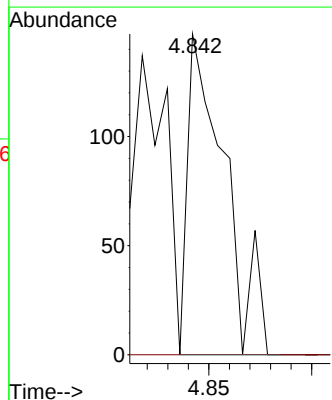
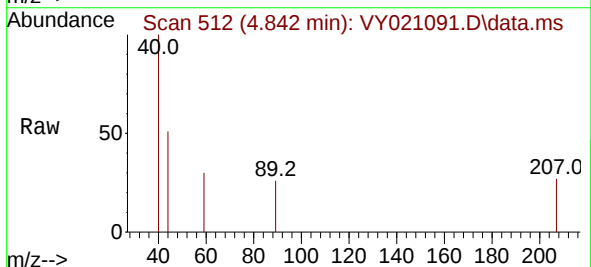
Instrument :  
MSVOA\_Y  
ClientSampleId :

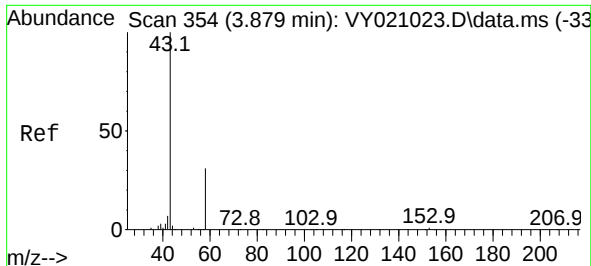
Tgt Ion:168 Resp: 32499  
Ion Ratio Lower Upper  
168 100  
99 61.2 44.2 66.4



#11  
Tert butyl alcohol  
Concen: 8.199 ug/l  
RT: 4.842 min Scan# 512  
Delta R.T. -0.031 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

Tgt Ion: 59 Resp: 185  
Ion Ratio Lower Upper  
59 100  
57 0.0 7.4 11.0#





#16

Acetone

Concen: 20.144 ug/l

RT: 3.854 min Scan# 354

Delta R.T. -0.024 min

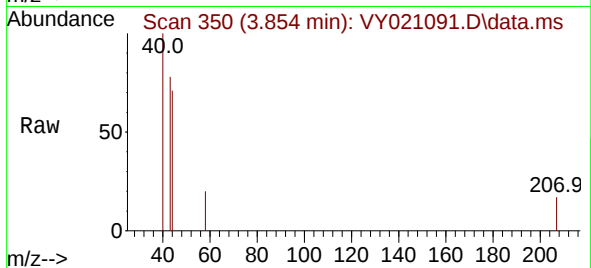
Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Instrument :

MSVOA\_Y

ClientSampleId :

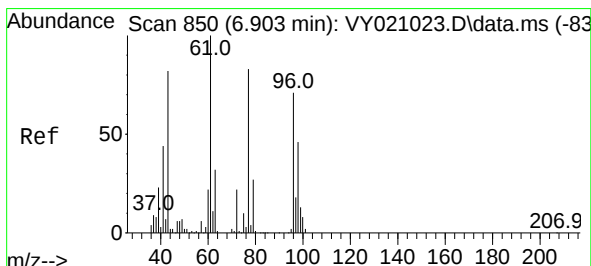
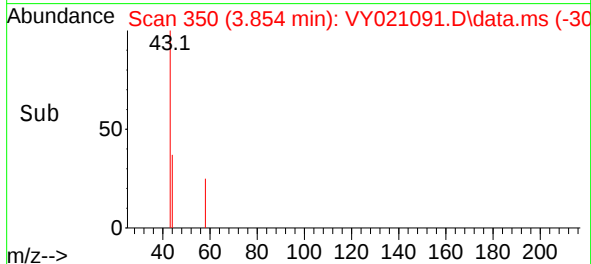
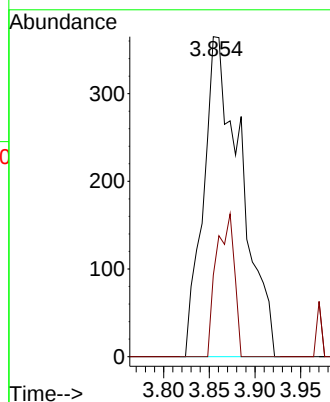


Tgt Ion: 43 Resp: 1046

Ion Ratio Lower Upper

43 100

58 25.5 26.6 39.8#



#25

2-Butanone

Concen: 9.024 ug/l

RT: 6.884 min Scan# 847

Delta R.T. -0.018 min

Lab File: VY021091.D

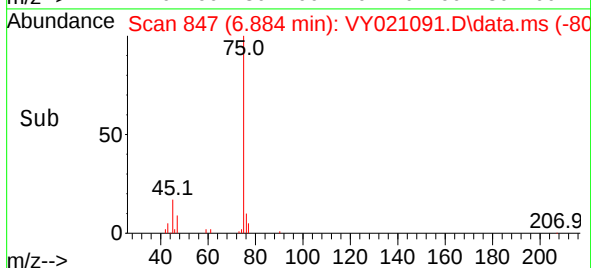
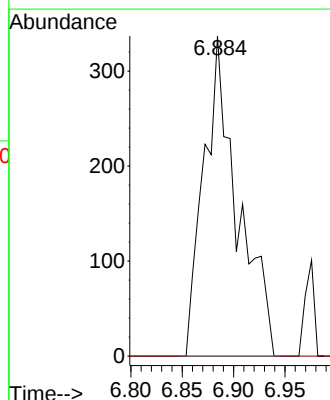
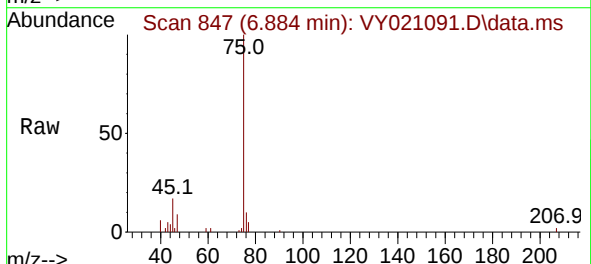
Acq: 05 Feb 2025 16:11

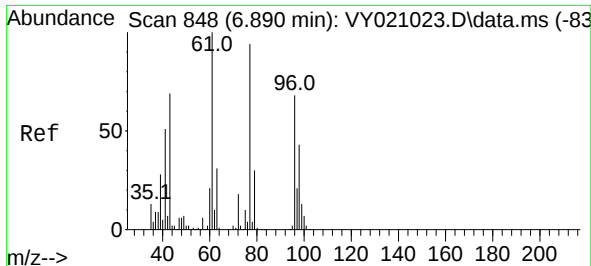
Tgt Ion: 43 Resp: 770

Ion Ratio Lower Upper

43 100

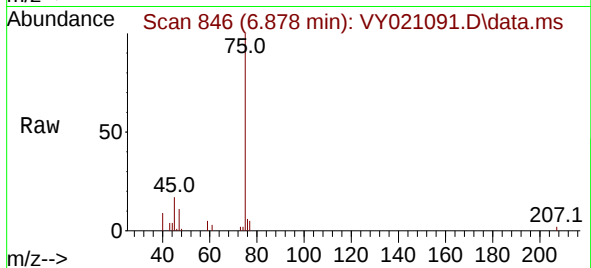
72 0.0 21.4 32.2#



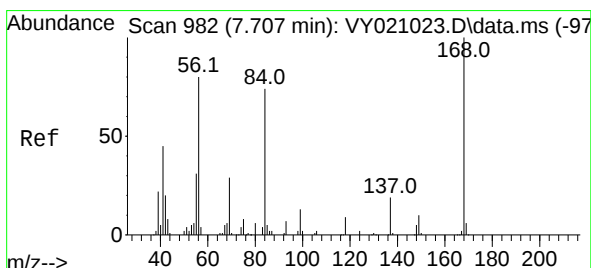
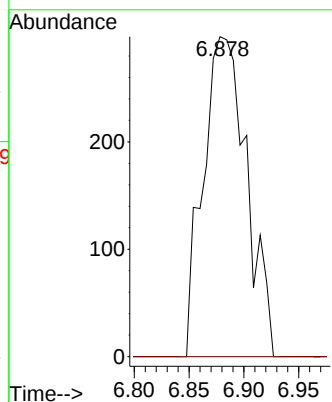
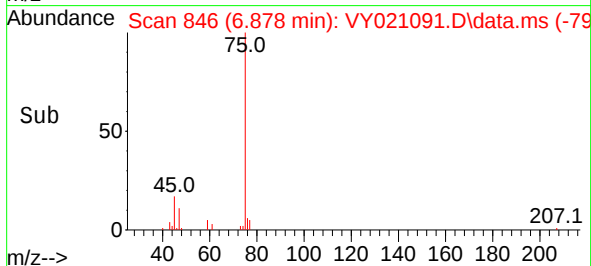


#26  
2,2-Dichloropropane  
Concen: 1.412 ug/l  
RT: 6.878 min Scan# 84  
Delta R.T. -0.012 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

Instrument :  
MSVOA\_Y  
ClientSampleId :

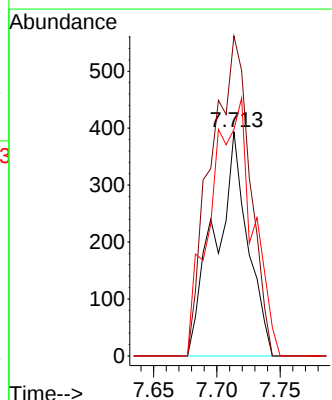
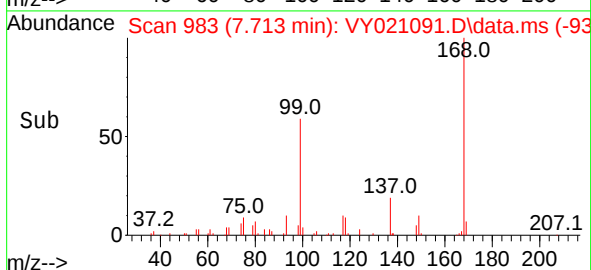
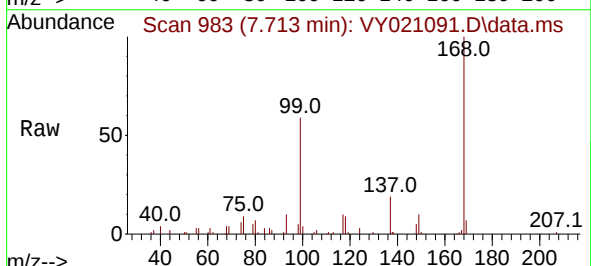


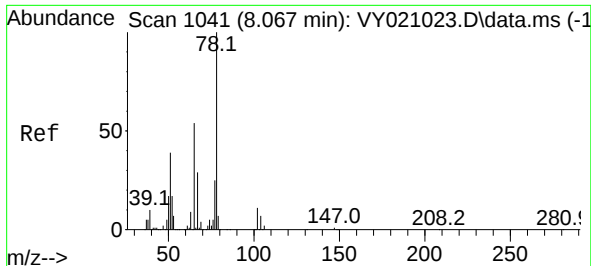
Tgt Ion: 77 Resp: 824  
Ion Ratio Lower Upper  
77 100  
97 0.0 11.7 35.0#



#31  
Cyclohexane  
Concen: 1.250 ug/l  
RT: 7.713 min Scan# 983  
Delta R.T. 0.006 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

Tgt Ion: 56 Resp: 710  
Ion Ratio Lower Upper  
56 100  
69 142.6 27.0 40.6#  
84 101.0 71.8 107.6





#33

1,2-Dichloroethane-d4

Concen: 52.015 ug/l

RT: 8.067 min Scan# 110

Delta R.T. -0.000 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Instrument :

MSVOA\_Y

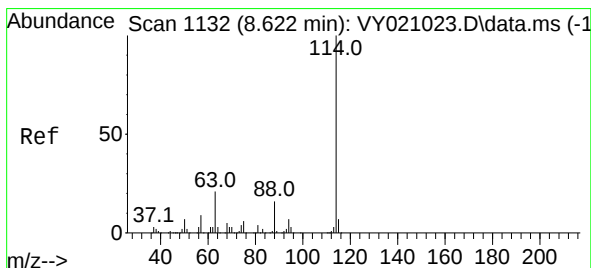
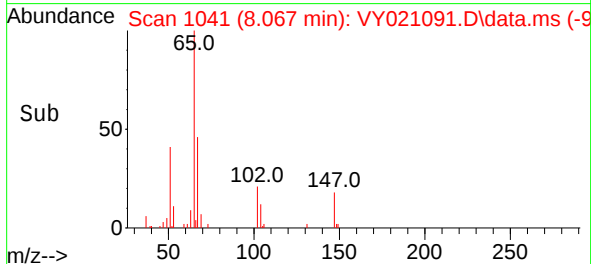
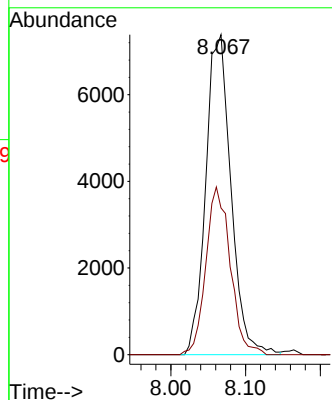
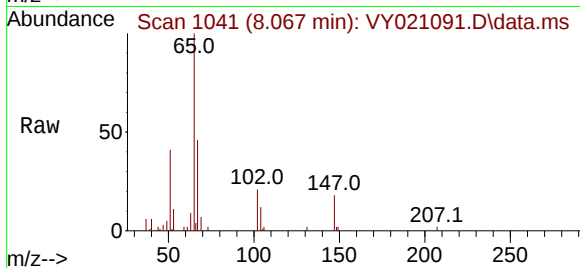
ClientSampleId :

Tgt Ion: 65 Resp: 17320

Ion Ratio Lower Upper

65 100

67 50.7 0.0 109.0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. -0.006 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

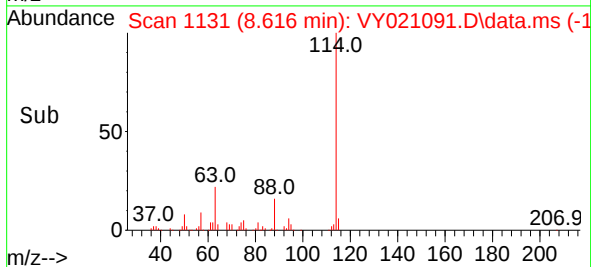
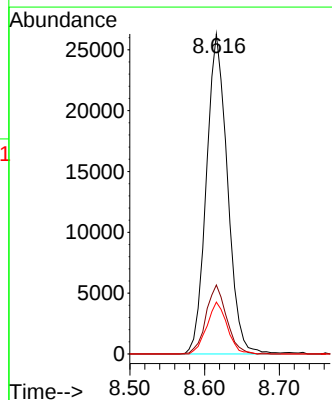
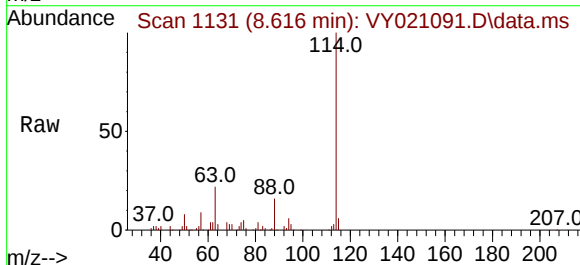
Tgt Ion: 114 Resp: 51608

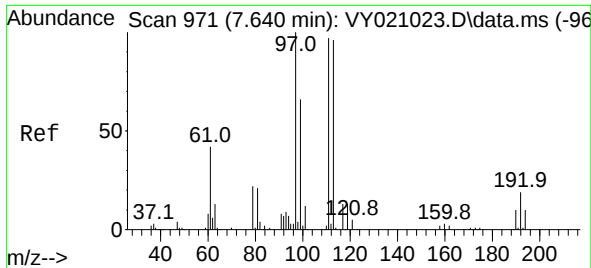
Ion Ratio Lower Upper

114 100

63 21.6 0.0 37.4

88 16.2 0.0 29.0





#35

Dibromofluoromethane

Concen: 52.606 ug/l

RT: 7.634 min Scan# 91

Delta R.T. -0.006 min

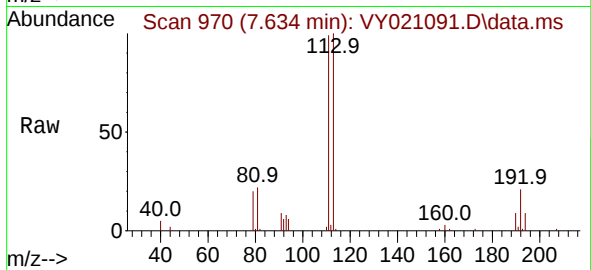
Lab File: VY021091.D

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MSVOA\_Y

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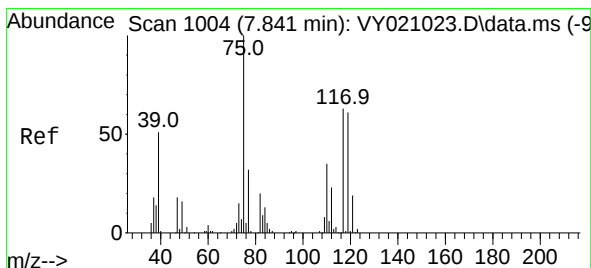
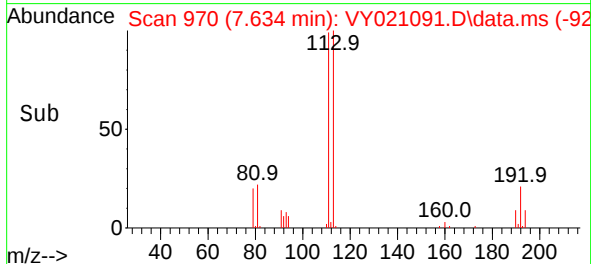
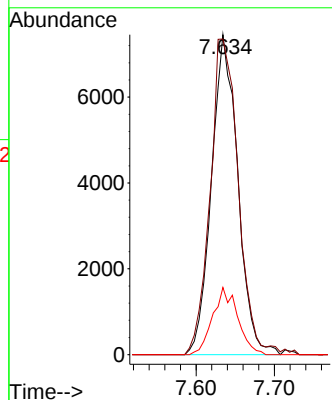
Tgt Ion:113 Resp: 17399

Ion Ratio Lower Upper

113 100

111 105.9 83.8 125.6

192 20.0 14.5 21.7



#36

1,1-Dichloropropene

Concen: 5.622 ug/l

RT: 7.707 min Scan# 982

Delta R.T. -0.134 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

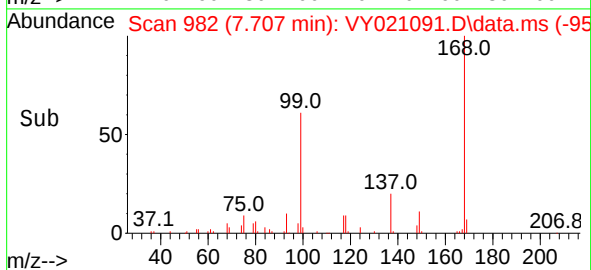
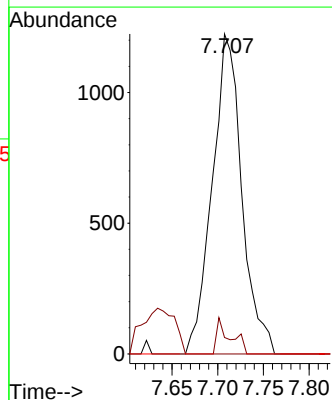
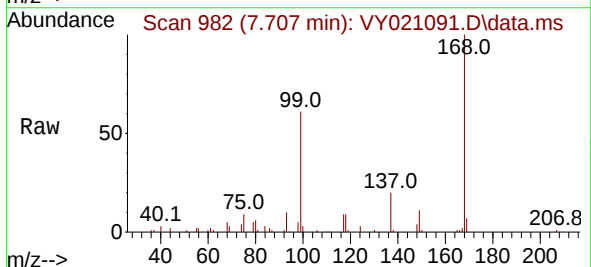
Tgt Ion: 75 Resp: 2754

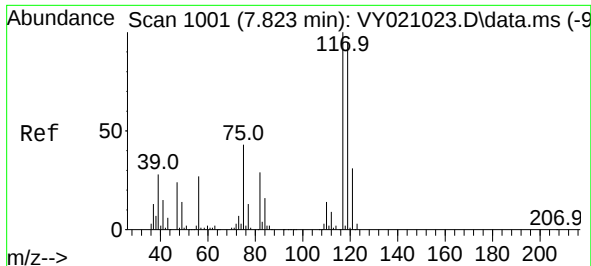
Ion Ratio Lower Upper

75 100

110 5.2 17.4 52.3#

77 0.0 24.7 37.1#





#38

Carbon Tetrachloride

Concen: 6.020 ug/l

RT: 7.701 min Scan# 981

Delta R.T. -0.122 min

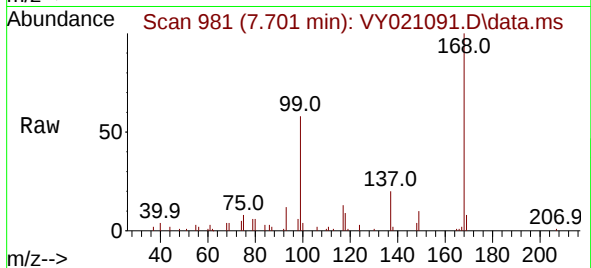
Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

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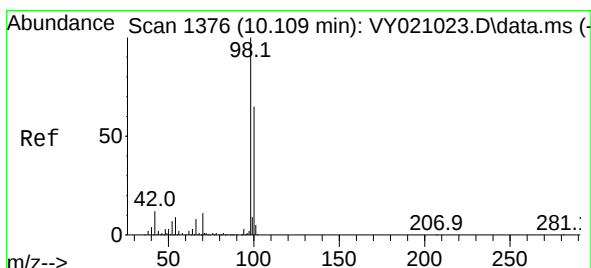
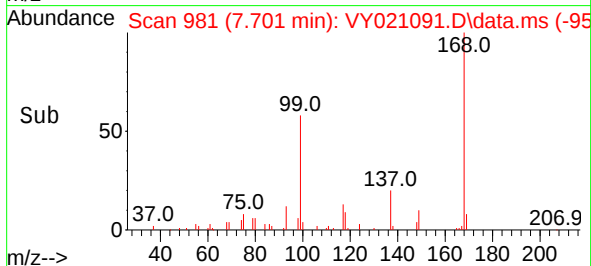
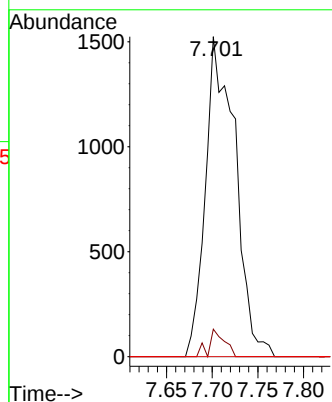
Tgt Ion:117 Resp: 3446

Ion Ratio Lower Upper

117 100

119 8.6 76.0 114.0#

121 0.0 24.2 36.2#



#50

Toluene-d8

Concen: 47.796 ug/l

RT: 10.109 min Scan# 1376

Delta R.T. -0.000 min

Lab File: VY021091.D

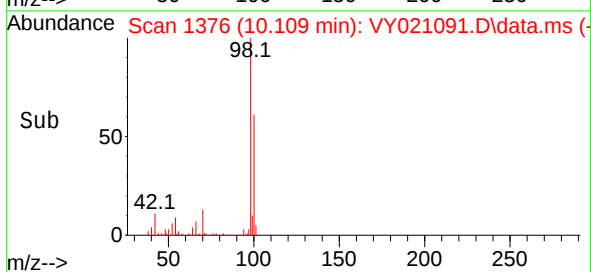
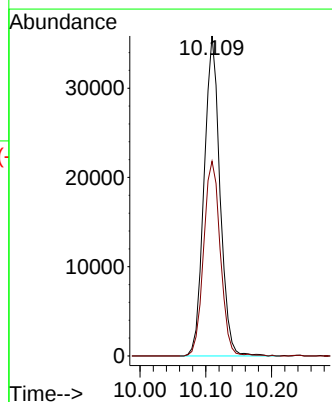
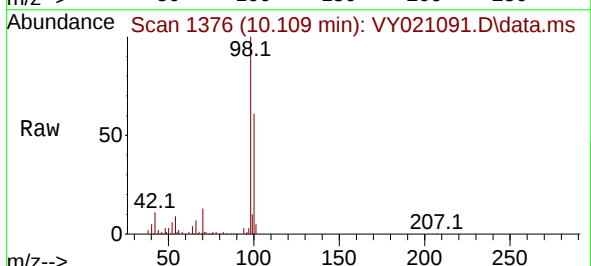
Acq: 05 Feb 2025 16:11

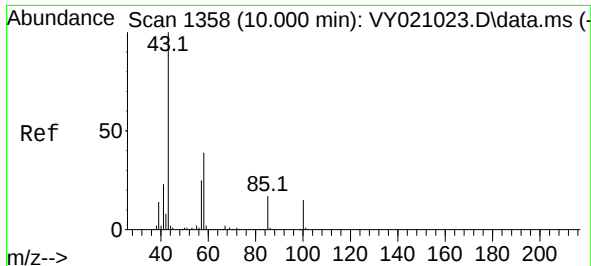
Tgt Ion: 98 Resp: 60182

Ion Ratio Lower Upper

98 100

100 64.0 52.3 78.5





#51

4-Methyl-2-Pentanone

Concen: 3.195 ug/l

RT: 10.006 min Scan# 1359

Delta R.T. 0.006 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Instrument :

MSVOA\_Y

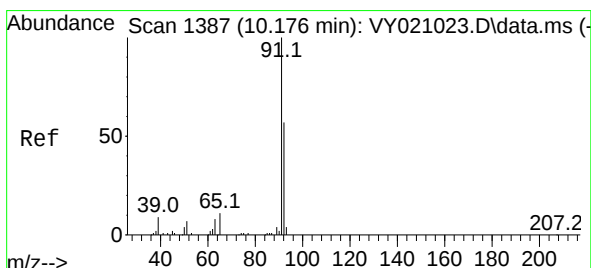
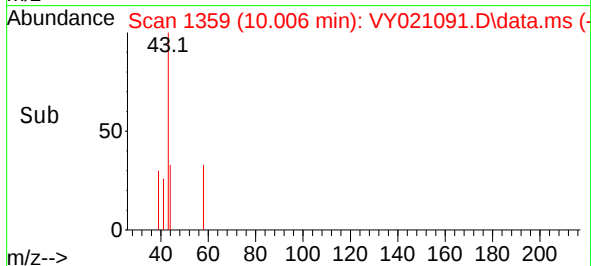
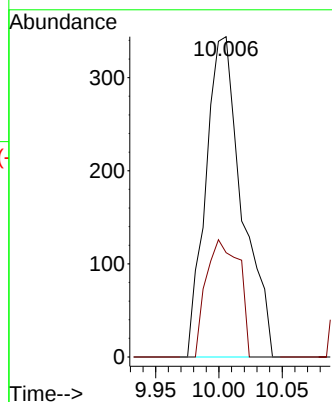
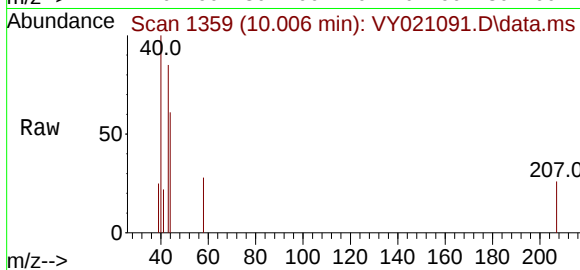
ClientSampleId :

Tgt Ion: 43 Resp: 686

Ion Ratio Lower Upper

43 100

58 33.4 32.2 48.2



#52

Toluene

Concen: 9.839 ug/l

RT: 10.176 min Scan# 1387

Delta R.T. -0.000 min

Lab File: VY021091.D

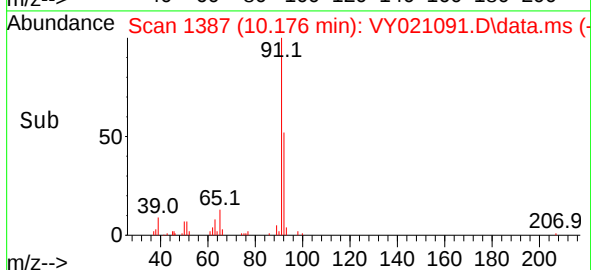
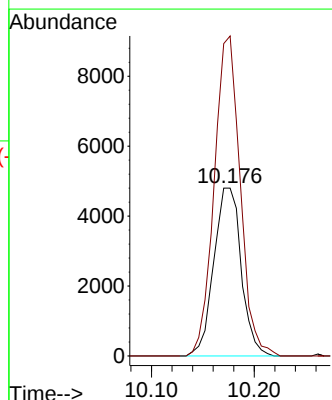
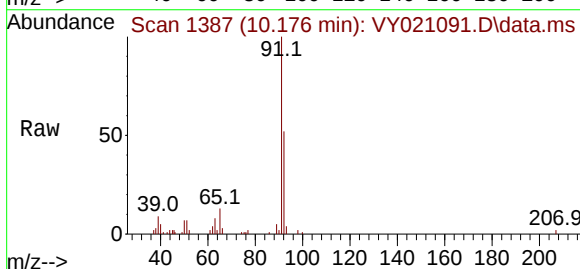
Acq: 05 Feb 2025 16:11

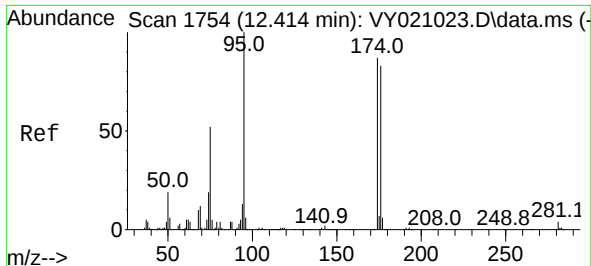
Tgt Ion: 92 Resp: 8882

Ion Ratio Lower Upper

92 100

91 180.9 137.6 206.4

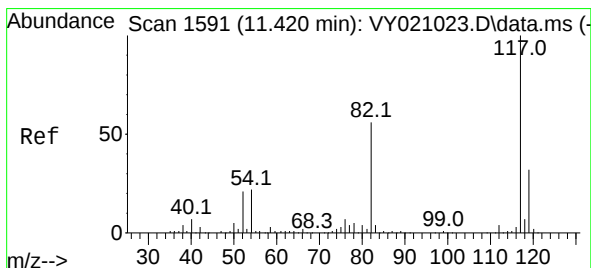
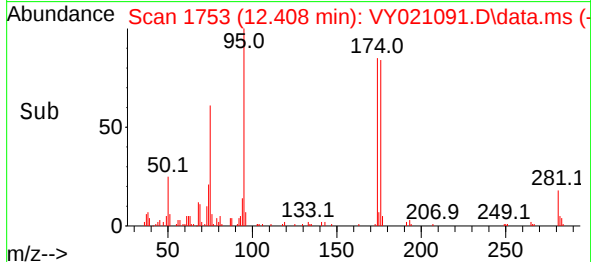
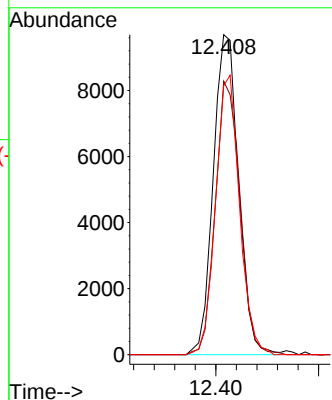
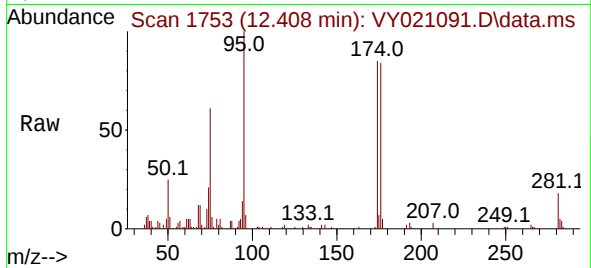




#62  
4-Bromofluorobenzene  
Concen: 40.301 ug/l  
RT: 12.408 min Scan# 1753  
Delta R.T. -0.006 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

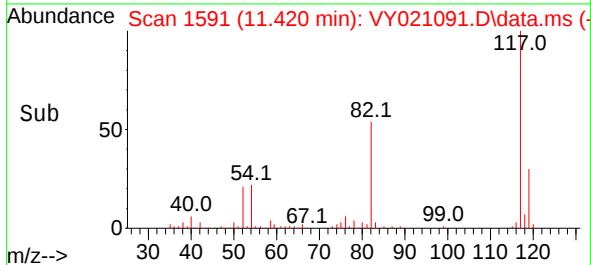
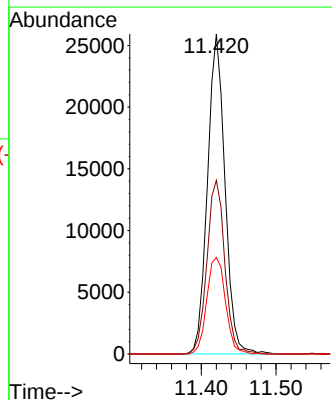
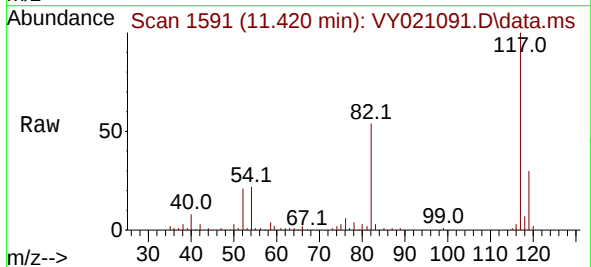
Instrument :  
MSVOA\_Y  
ClientSampleId :

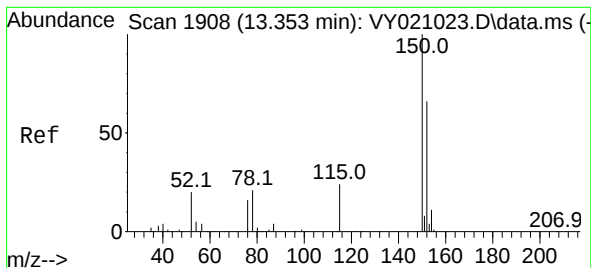
Tgt Ion: 95 Resp: 16578  
Ion Ratio Lower Upper  
95 100  
174 83.5 0.0 160.0  
176 82.3 0.0 151.8



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.420 min Scan# 1591  
Delta R.T. -0.000 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

Tgt Ion: 117 Resp: 42042  
Ion Ratio Lower Upper  
117 100  
82 54.3 43.8 65.8  
119 30.1 26.5 39.7





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.353 min Scan# 1908

Delta R.T. -0.000 min

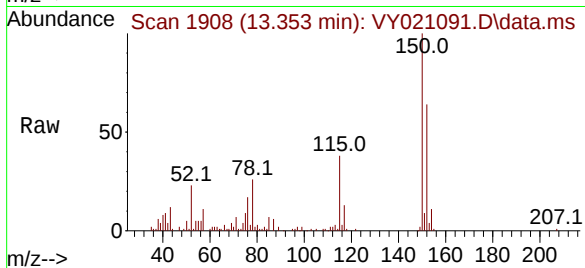
Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Instrument :

MSVOA\_Y

ClientSampleId :



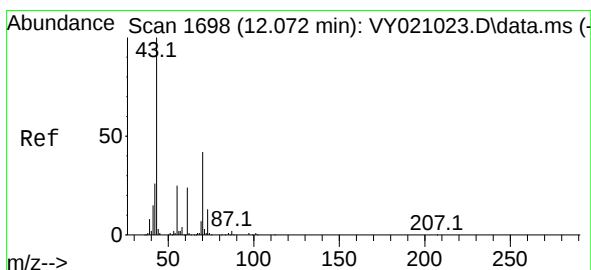
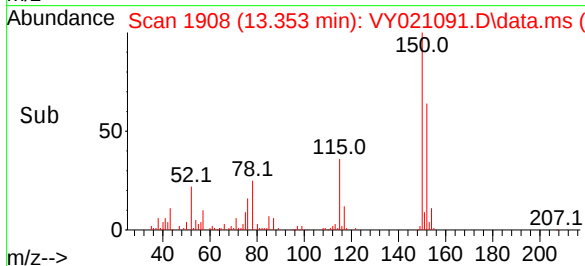
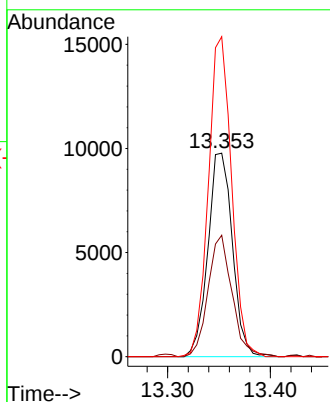
Tgt Ion:152 Resp: 16182

Ion Ratio Lower Upper

152 100

115 58.3 30.0 90.0

150 148.7 0.0 344.6



#74

N-ethyl acetate

Concen: 1.549 ug/l

RT: 12.054 min Scan# 1695

Delta R.T. -0.018 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Tgt Ion: 43 Resp: 428

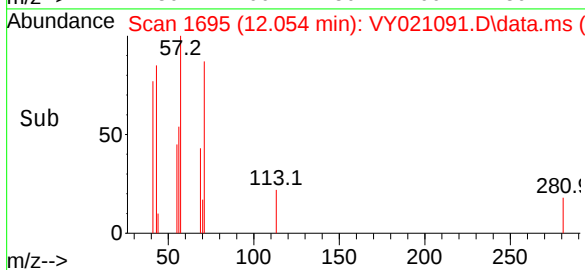
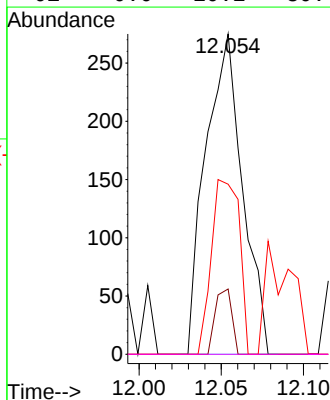
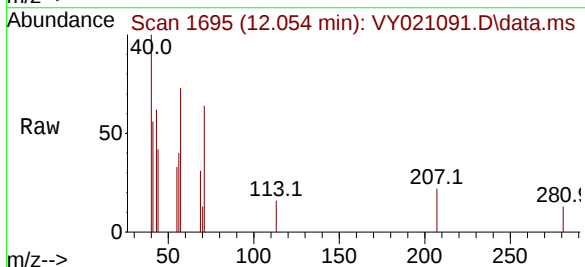
Ion Ratio Lower Upper

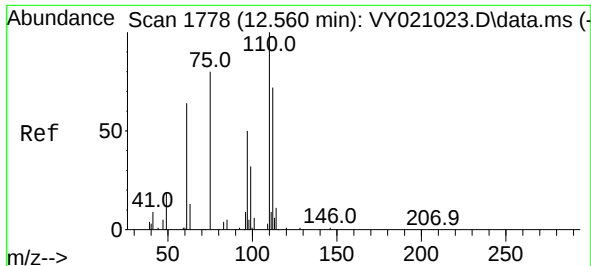
43 100

70 9.1 36.6 55.0#

55 41.4 22.2 33.4#

61 0.0 20.2 30.4#

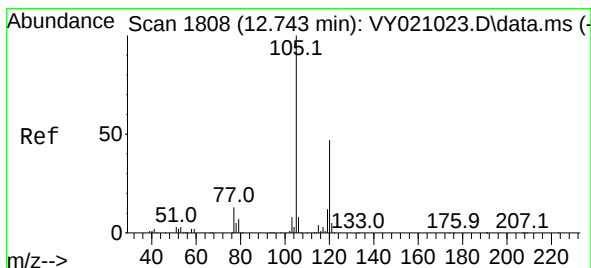
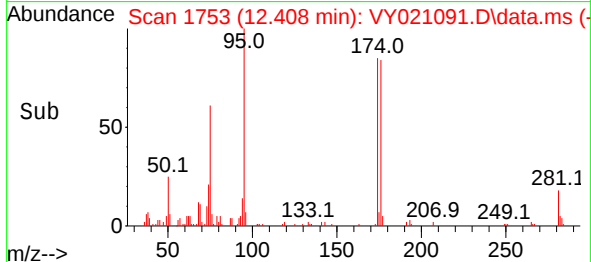
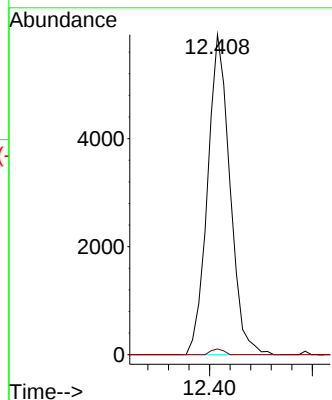
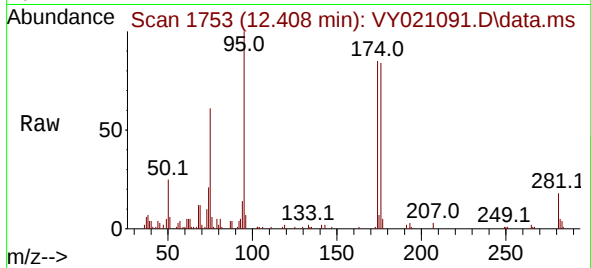




#76  
1,2,3-Trichloropropane  
Concen: 61.026 ug/l  
RT: 12.408 min Scan# 1753  
Delta R.T. -0.152 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

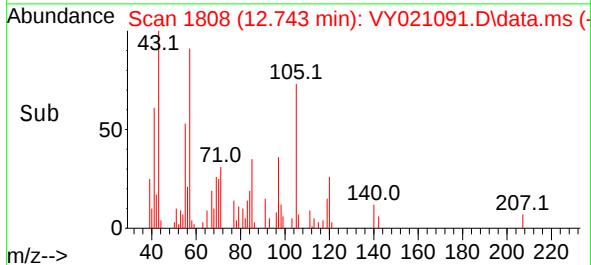
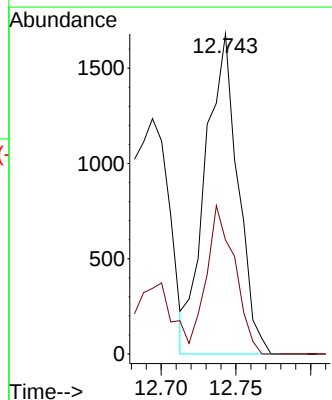
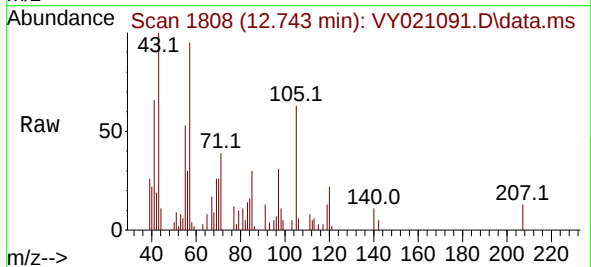
Instrument :  
MSVOA\_Y  
ClientSampleId :

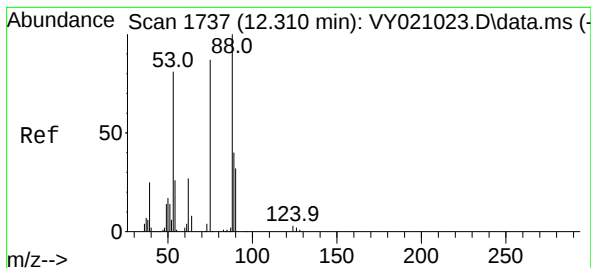
Tgt Ion: 75 Resp: 8958  
Ion Ratio Lower Upper  
75 100  
77 1.0 0.0 0.0#



#80  
1,3,5-Trimethylbenzene  
Concen: 2.487 ug/l  
RT: 12.743 min Scan# 1808  
Delta R.T. -0.000 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

Tgt Ion:105 Resp: 2549  
Ion Ratio Lower Upper  
105 100  
120 40.2 24.3 72.8

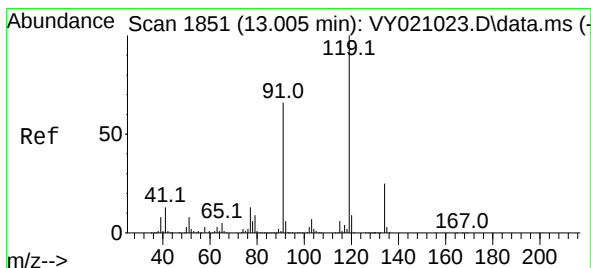
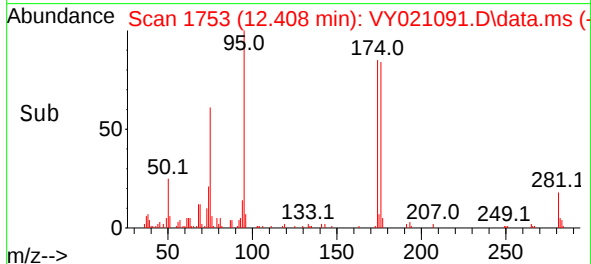
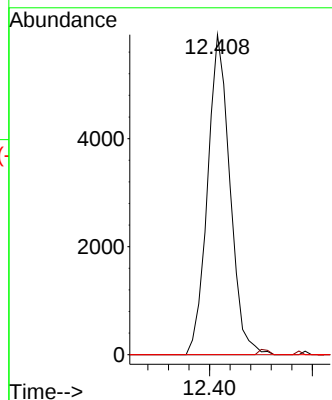
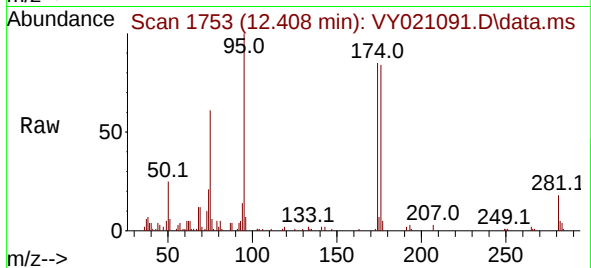




#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 124.522 ug/l  
 RT: 12.408 min Scan# 1753  
 Delta R.T. 0.098 min  
 Lab File: VY021091.D  
 Acq: 05 Feb 2025 16:11

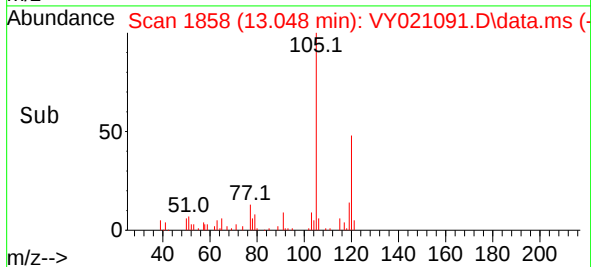
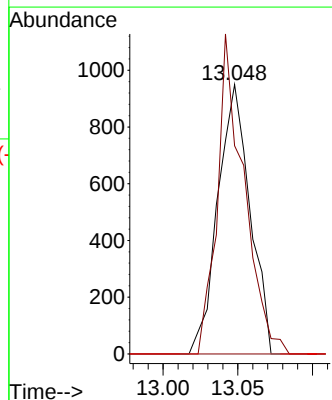
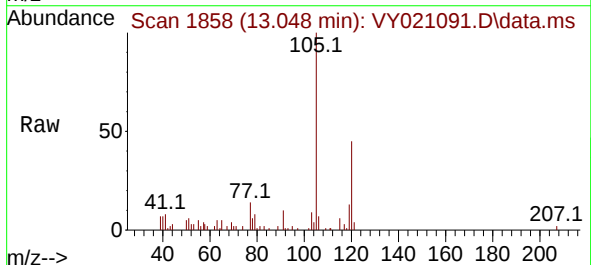
Instrument :  
 MSVOA\_Y  
 ClientSampleId :

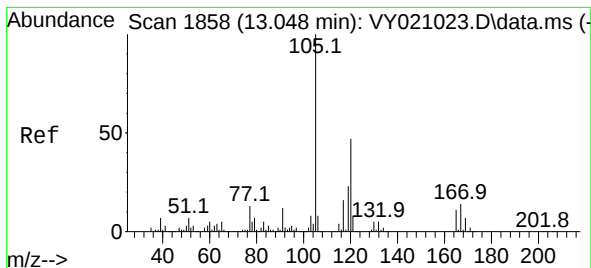
Tgt Ion: 75 Resp: 8958  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 74.0 111.0#  
 89 0.0 36.5 54.7#



#83  
 tert-Butylbenzene  
 Concen: 1.522 ug/l  
 RT: 13.048 min Scan# 1858  
 Delta R.T. 0.043 min  
 Lab File: VY021091.D  
 Acq: 05 Feb 2025 16:11

Tgt Ion: 119 Resp: 1418  
 Ion Ratio Lower Upper  
 119 100  
 91 98.3 31.5 94.5#  
 134 0.0 13.1 39.3#





#84

1,2,4-Trimethylbenzene

Concen: 10.715 ug/l

RT: 13.048 min Scan# 1858

Delta R.T. -0.000 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Instrument :

MSVOA\_Y

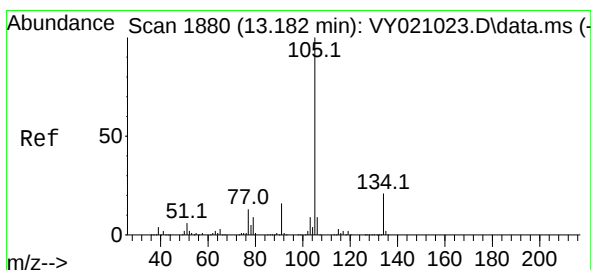
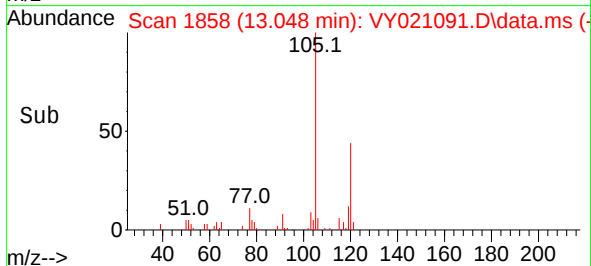
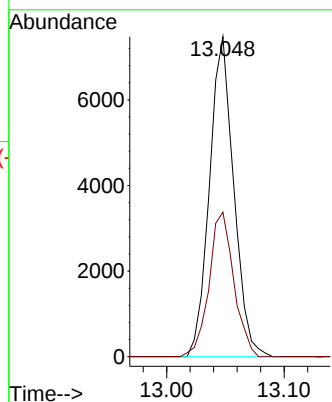
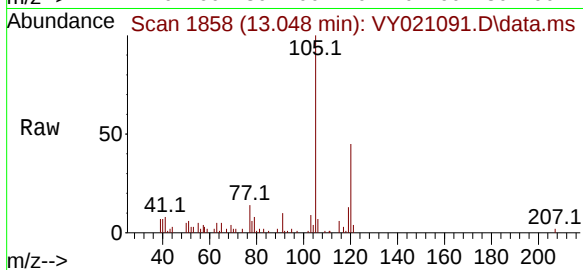
ClientSampleId :

Tgt Ion:105 Resp: 10737

Ion Ratio Lower Upper

105 100

120 46.0 22.1 66.3



#85

sec-Butylbenzene

Concen: 1.384 ug/l

RT: 13.176 min Scan# 1879

Delta R.T. -0.006 min

Lab File: VY021091.D

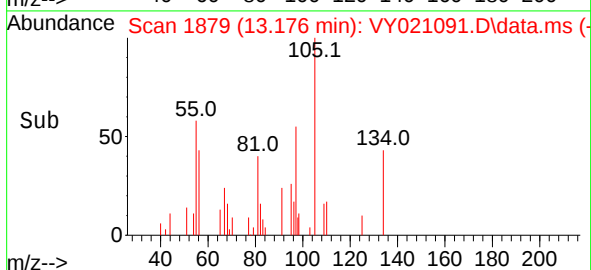
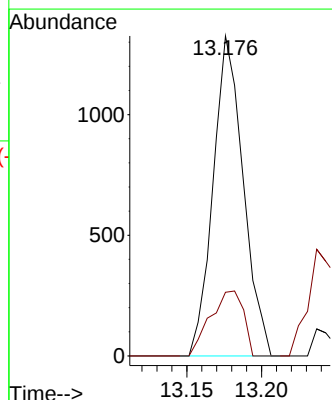
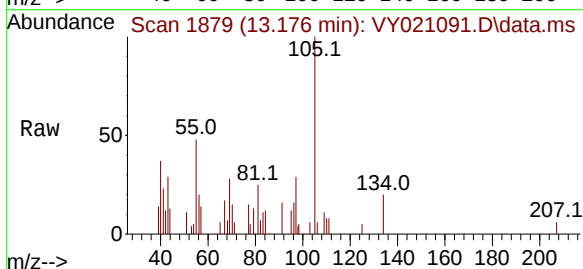
Acq: 05 Feb 2025 16:11

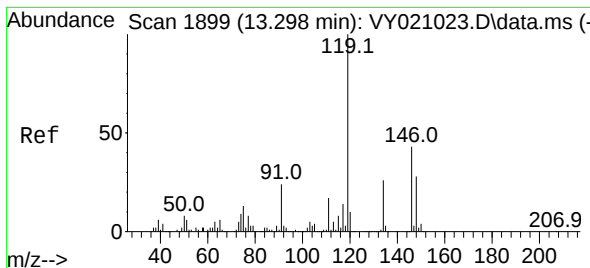
Tgt Ion:105 Resp: 1856

Ion Ratio Lower Upper

105 100

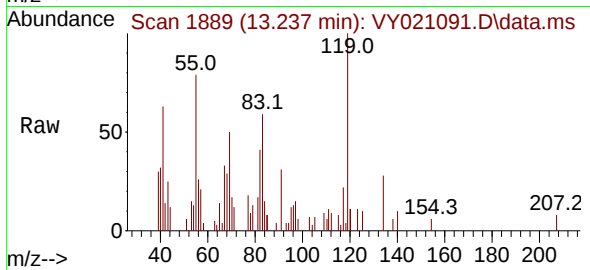
134 22.2 9.7 28.9



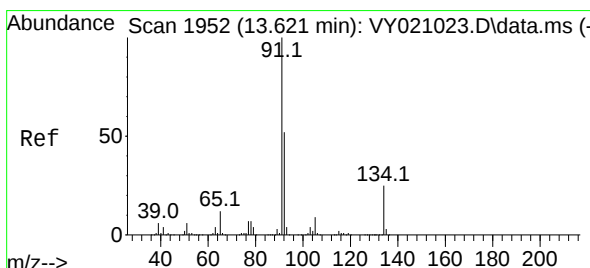
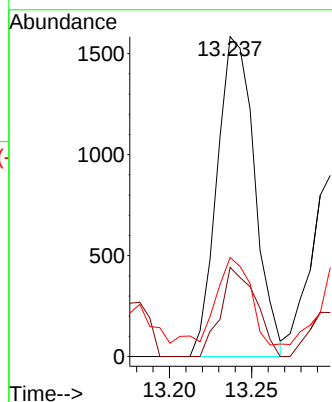
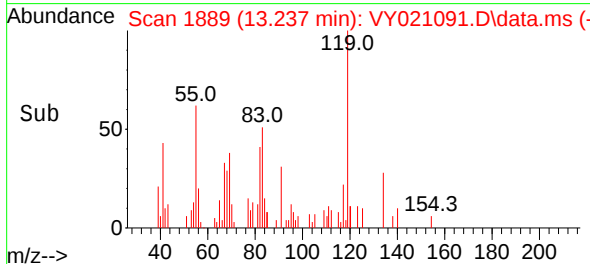


#86  
p-Isopropyltoluene  
Concen: 2.265 ug/l  
RT: 13.237 min Scan# 1889  
Delta R.T. -0.061 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11

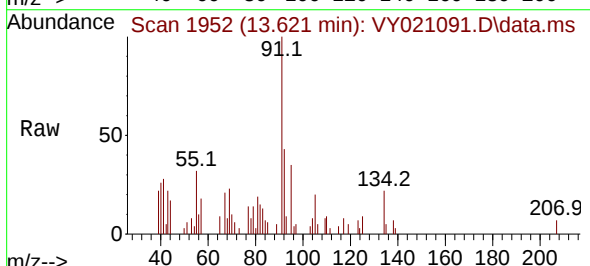
Instrument :  
MSVOA\_Y  
ClientSampleId :



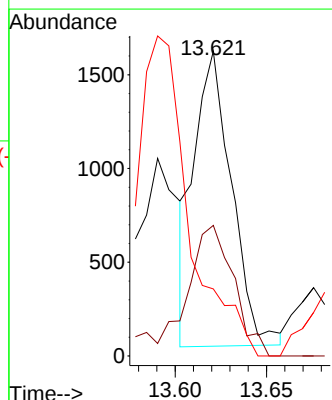
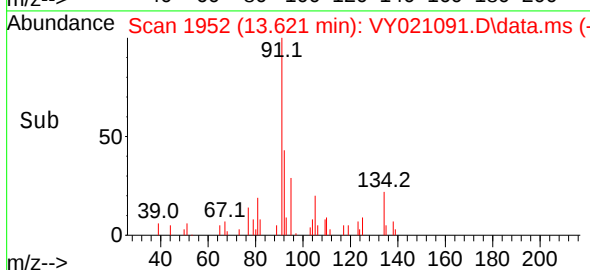
Tgt Ion:119 Resp: 2523  
Ion Ratio Lower Upper  
119 100  
134 26.3 13.1 39.1  
91 24.2 11.7 35.0

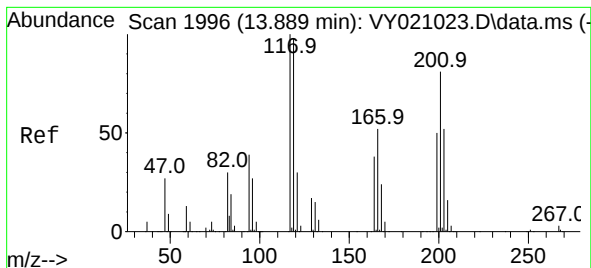


#89  
n-Butylbenzene  
Concen: 2.193 ug/l  
RT: 13.621 min Scan# 1952  
Delta R.T. -0.000 min  
Lab File: VY021091.D  
Acq: 05 Feb 2025 16:11



Tgt Ion: 91 Resp: 2228  
Ion Ratio Lower Upper  
91 100  
92 58.6 26.4 79.2  
134 0.0 12.3 36.8#





#90

Hexachloroethane

Concen: 3.959 ug/l

RT: 13.901 min Scan# 1998

Delta R.T. 0.012 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

Instrument :

MSVOA\_Y

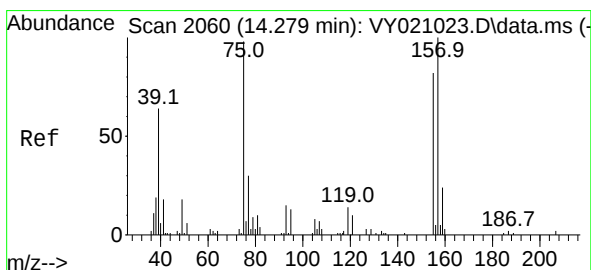
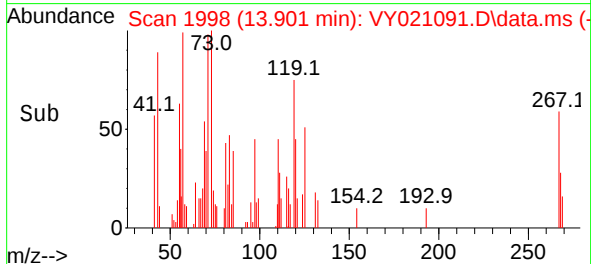
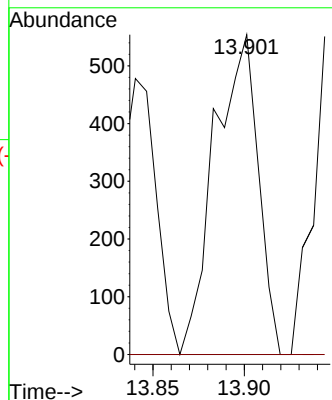
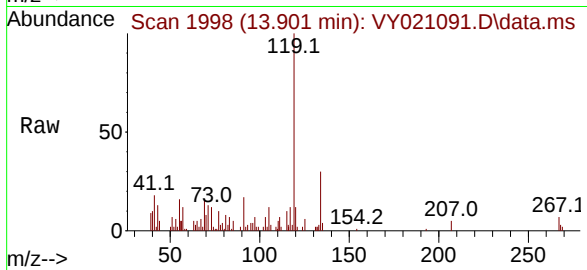
ClientSampleId :

Tgt Ion:117 Resp: 920

Ion Ratio Lower Upper

117 100

201 0.0 33.4 100.1#



#92

1,2-Dibromo-3-Chloropropane

Concen: 2.515 ug/l

RT: 14.255 min Scan# 2056

Delta R.T. -0.024 min

Lab File: VY021091.D

Acq: 05 Feb 2025 16:11

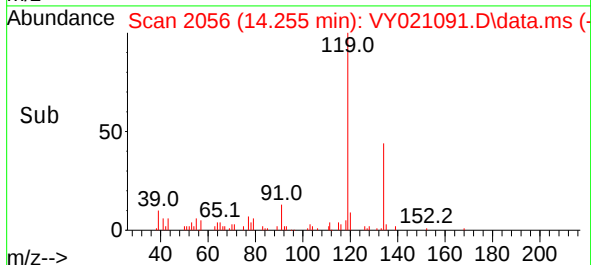
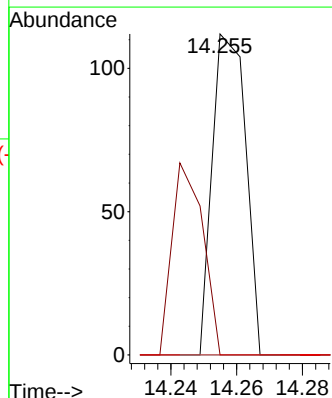
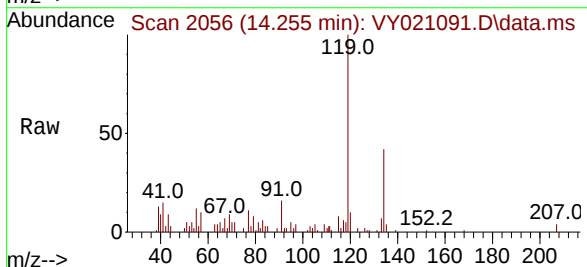
Tgt Ion: 75 Resp: 79

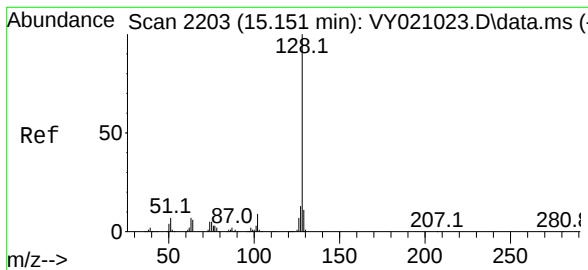
Ion Ratio Lower Upper

75 100

155 55.7 42.1 126.3

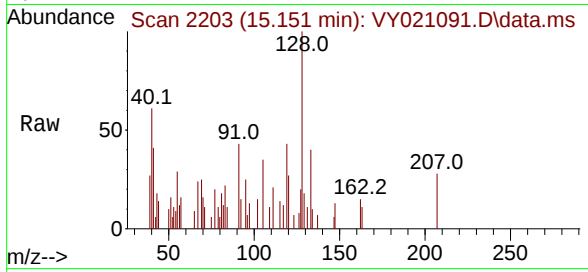
157 0.0 55.8 167.4#





#95  
 Naphthalene  
 Concen: 3.967 ug/l  
 RT: 15.151 min Scan# 21  
 Delta R.T. -0.000 min  
 Lab File: VY021091.D  
 Acq: 05 Feb 2025 16:11

Instrument :  
 MSVOA\_Y  
 ClientSampleId :



Tgt Ion:128 Resp: 1727

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 127 | 18.3  | 10.2  | 15.4# |
| 129 | 15.9  | 8.6   | 12.8# |

