

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY101123\  
 Data File : VY015935.D  
 Acq On : 11 Oct 2023 19:39  
 Operator : SY/MD  
 Sample : 04841-01  
 Misc : 11.50g/5.0mL/MSVOA\_Y/SOIL  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :

Quant Time: Oct 12 02:01:11 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y100923S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Oct 10 07:06:18 2023  
 Response via : Initial Calibration

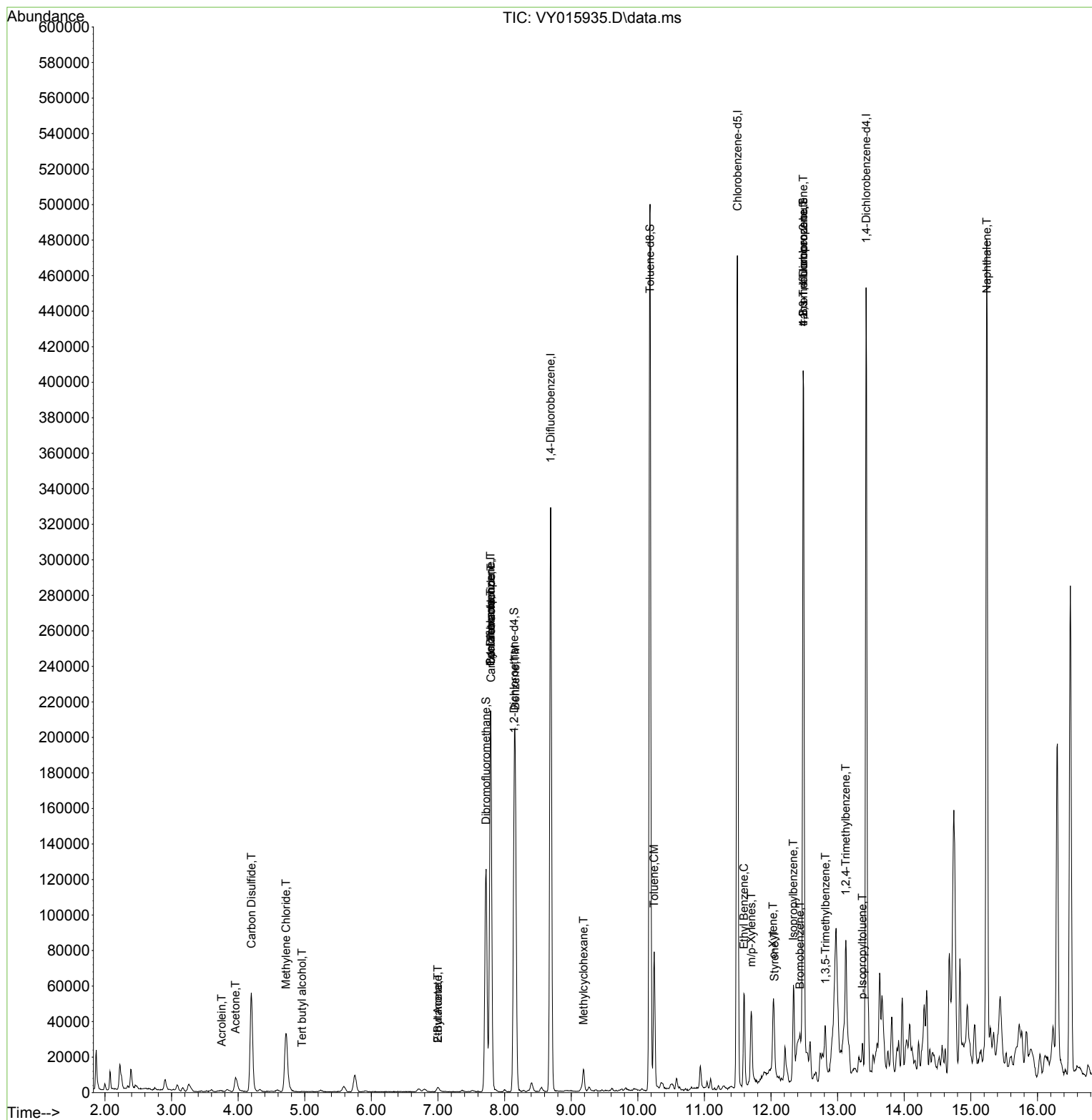
| Compound                      | R.T.   | QIon  | Response | Conc     | Units      | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|------------|----------|
| -----                         |        |       |          |          |            |          |
| Internal Standards            |        |       |          |          |            |          |
| 1) Pentafluorobenzene         | 7.789  | 168   | 166881   | 50.000   | ug/l       | 0.00     |
| 34) 1,4-Difluorobenzene       | 8.691  | 114   | 285842   | 50.000   | ug/l       | 0.00     |
| 63) Chlorobenzene-d5          | 11.496 | 117   | 259621   | 50.000   | ug/l       | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.428 | 152   | 114983   | 50.000   | ug/l       | 0.00     |
| System Monitoring Compounds   |        |       |          |          |            |          |
| 33) 1,2-Dichloroethane-d4     | 8.143  | 65    | 98824    | 65.813   | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 50 - 163 | Recovery | = 131.620% |          |
| 35) Dibromofluoromethane      | 7.722  | 113   | 90288    | 56.630   | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 54 - 147 | Recovery | = 113.260% |          |
| 50) Toluene-d8                | 10.185 | 98    | 337961   | 64.318   | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 58 - 134 | Recovery | = 128.640% |          |
| 62) 4-Bromofluorobenzene      | 12.483 | 95    | 115456   | 54.096   | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 30 - 143 | Recovery | = 108.200% |          |
| Target Compounds              |        |       |          |          |            |          |
|                               |        |       |          |          | Qvalue     |          |
| 11) Tert butyl alcohol        | 4.960  | 59    | 189      | 11.278   | ug/l #     | 89       |
| 13) Acrolein                  | 3.753  | 56    | 799      | 8.706    | ug/l #     | 14       |
| 16) Acetone                   | 3.960  | 43    | 16352    | 27.543   | ug/l       | 94       |
| 17) Carbon Disulfide          | 4.198  | 76    | 113539   | 77.181   | ug/l       | 98       |
| 20) Methylene Chloride        | 4.716  | 84    | 25771    | 8.712    | ug/l       | 93       |
| 25) 2-Butanone                | 6.996  | 43    | 4777     | 5.799    | ug/l       | 97       |
| 31) Cyclohexane               | 7.789  | 56    | 4874     | 3.031    | ug/l #     | 7        |
| 36) 1,1-Dichloropropene       | 7.789  | 75    | 12412    | 7.029    | ug/l #     | 50       |
| 37) Ethyl Acetate             | 6.996  | 43    | 4777     | 3.150    | ug/l #     | 71       |
| 38) Carbon Tetrachloride      | 7.795  | 117   | 16611    | 7.833    | ug/l #     | 16       |
| 39) Methylcyclohexane         | 9.185  | 83    | 4968     | 2.770    | ug/l #     | 93       |
| 40) Benzene                   | 8.161  | 78    | 130840   | 23.578   | ug/l       | 100      |
| 52) Toluene                   | 10.246 | 92    | 32238    | 8.752    | ug/l       | 96       |
| 67) Ethyl Benzene             | 11.593 | 91    | 36664    | 4.719    | ug/l       | 99       |
| 68) m/p-Xylenes               | 11.703 | 106   | 12745    | 4.354    | ug/l       | 96       |
| 69) o-Xylene                  | 12.032 | 106   | 8866     | 3.027    | ug/l       | 100      |
| 70) Styrene                   | 12.050 | 104   | 10070    | 1.970    | ug/l       | 96       |
| 73) Isopropylbenzene          | 12.337 | 105   | 7629     | 1.052    | ug/l       | 92       |
| 76) 1,2,3-Trichloropropane    | 12.483 | 75    | 60354    | 44.964   | ug/l #     | 100      |
| 77) Bromobenzene              | 12.434 | 156   | 28573    | 16.066   | ug/l #     | 1        |
| 80) 1,3,5-Trimethylbenzene    | 12.819 | 105   | 9690     | 1.621    | ug/l       | 96       |
| 81) trans-1,4-Dichloro-2-b... | 12.483 | 75    | 60354    | 99.707   | ug/l #     | 11       |
| 84) 1,2,4-Trimethylbenzene    | 13.123 | 105   | 25586    | 4.250    | ug/l       | 99       |
| 86) p-Isopropyltoluene        | 13.373 | 119   | 8784     | 1.298    | ug/l       | 99       |
| 95) Naphthalene               | 15.239 | 128   | 378430   | 76.688   | ug/l       | 99       |
| -----                         |        |       |          |          |            |          |

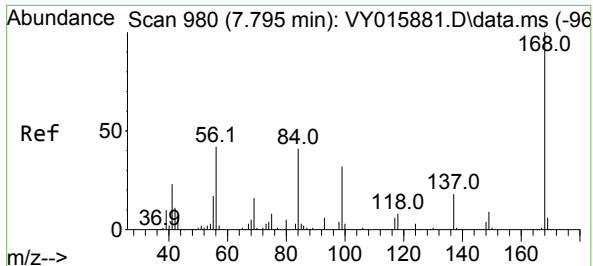
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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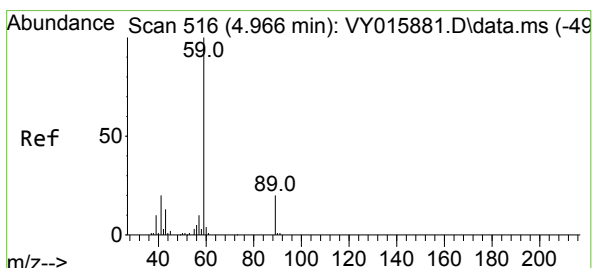
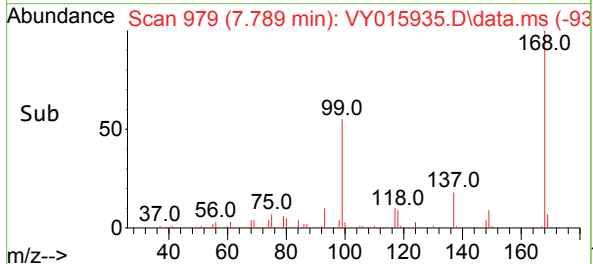
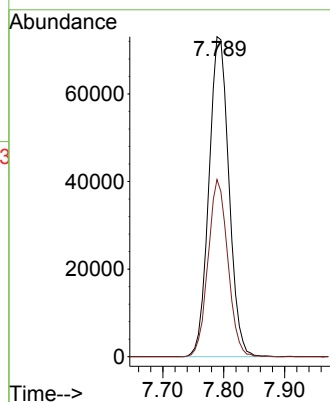
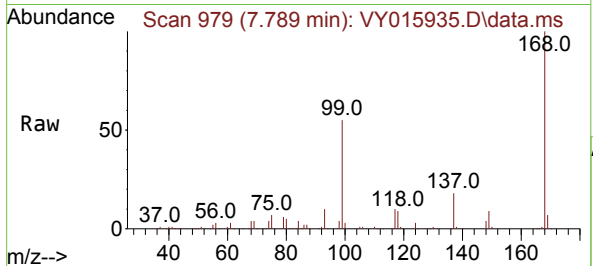




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 7.789 min Scan# 91  
Delta R.T. -0.006 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

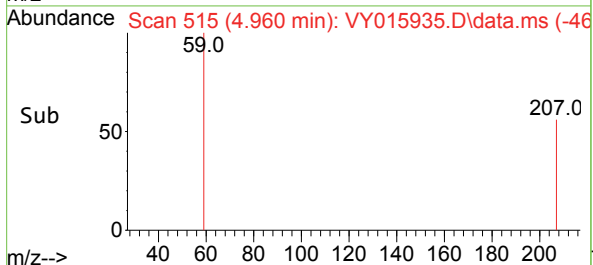
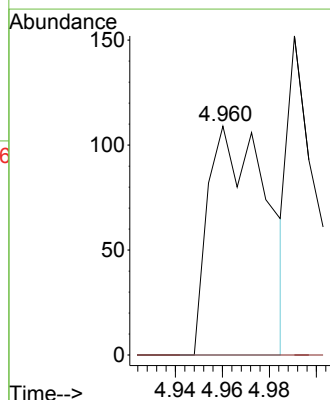
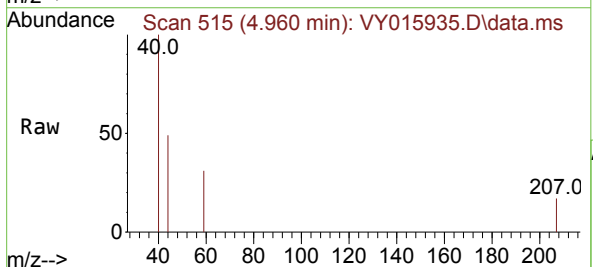
Instrument :  
MSVOA\_Y  
ClientSampleId :

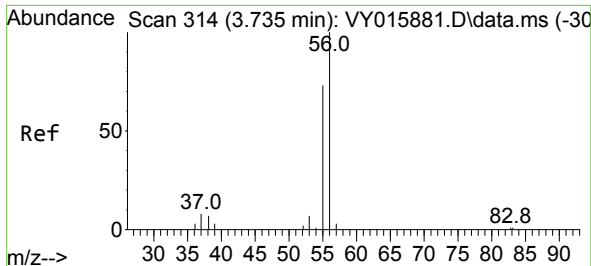
Tgt Ion:168 Resp: 166881  
Ion Ratio Lower Upper  
168 100  
99 55.4 43.4 65.0



#11  
Tert butyl alcohol  
Concen: 11.278 ug/l  
RT: 4.960 min Scan# 515  
Delta R.T. -0.006 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

Tgt Ion: 59 Resp: 189  
Ion Ratio Lower Upper  
59 100  
57 0.0 3.0 4.4#





#13

Acrolein

Concen: 8.706 ug/l

RT: 3.753 min Scan# 31

Delta R.T. 0.018 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

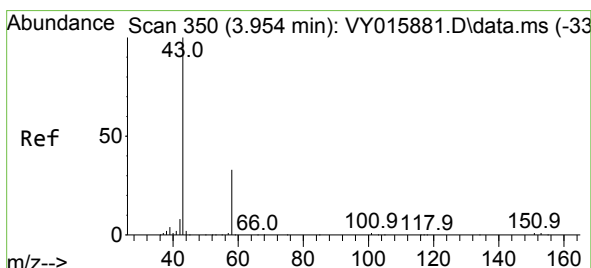
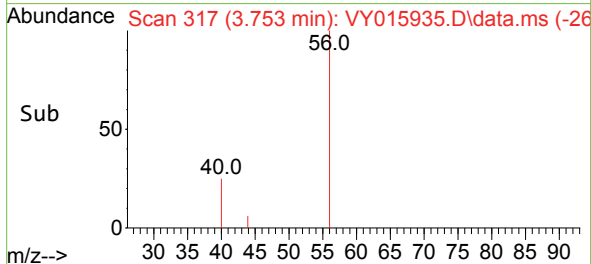
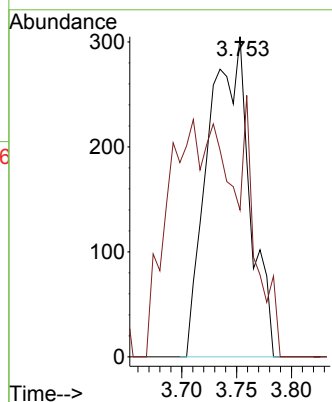
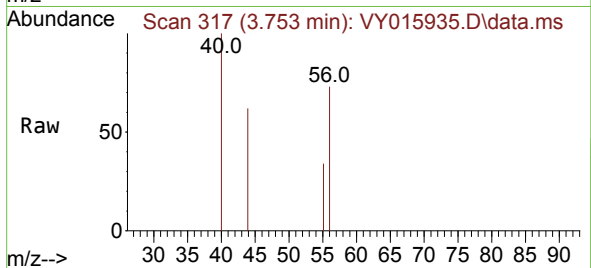
ClientSampleId :

Tgt Ion: 56 Resp: 799

Ion Ratio Lower Upper

56 100

55 0.0 57.0 85.4#



#16

Acetone

Concen: 27.543 ug/l

RT: 3.960 min Scan# 351

Delta R.T. 0.006 min

Lab File: VY015935.D

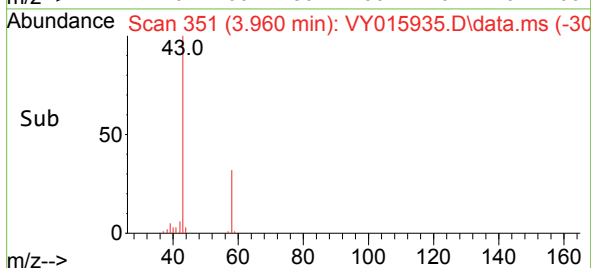
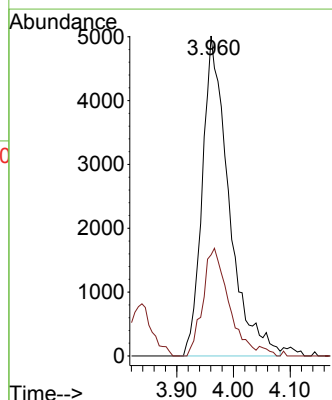
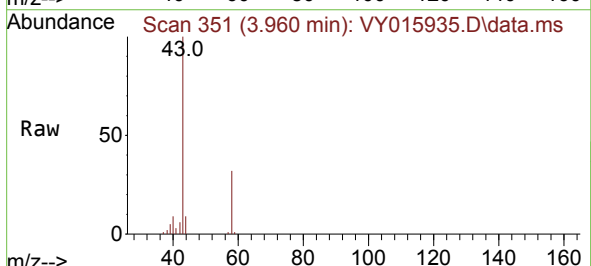
Acq: 11 Oct 2023 19:39

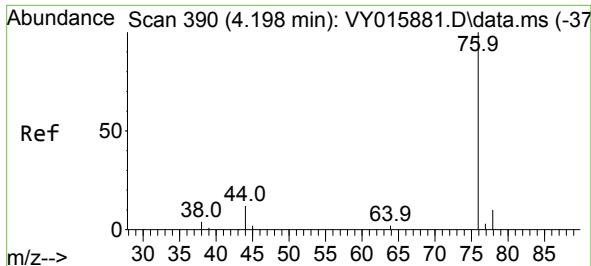
Tgt Ion: 43 Resp: 16352

Ion Ratio Lower Upper

43 100

58 31.6 22.7 34.1





#17

Carbon Disulfide

Concen: 77.181 ug/l

RT: 4.198 min Scan# 390

Delta R.T. 0.000 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

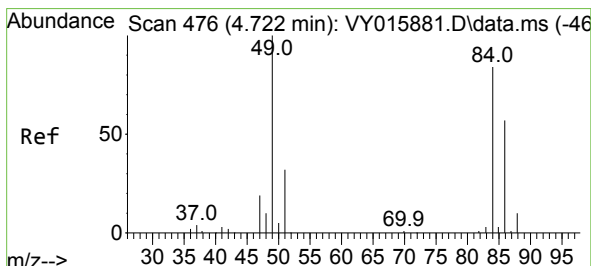
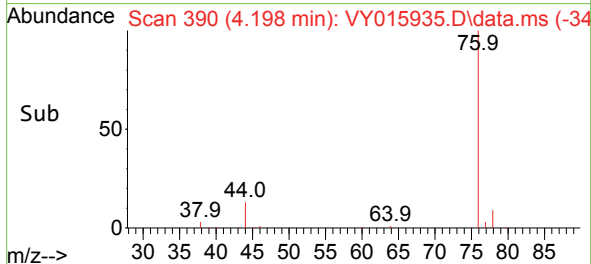
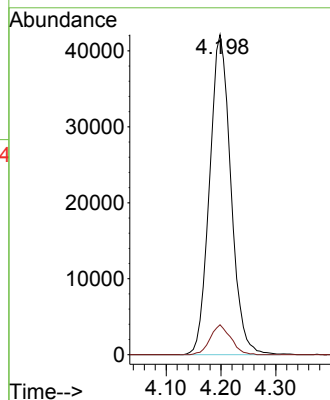
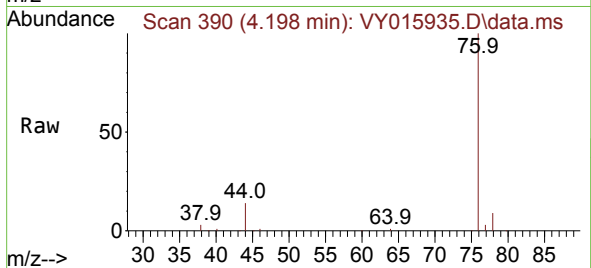
ClientSampleId :

Tgt Ion: 76 Resp: 113539

Ion Ratio Lower Upper

76 100

78 9.3 7.0 10.4



#20

Methylene Chloride

Concen: 8.712 ug/l

RT: 4.716 min Scan# 475

Delta R.T. -0.006 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Tgt Ion: 84 Resp: 25771

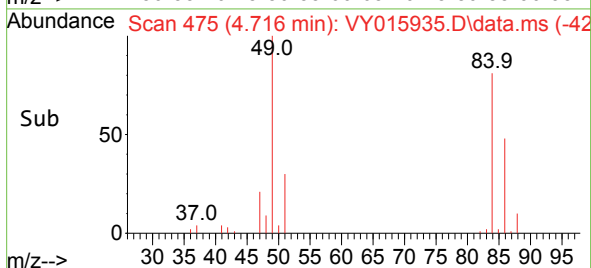
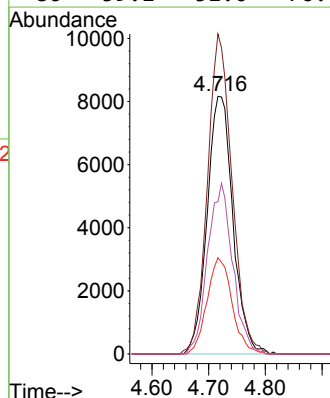
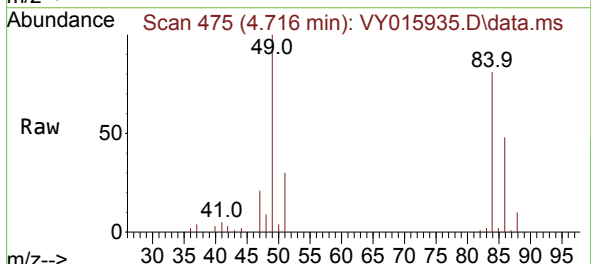
Ion Ratio Lower Upper

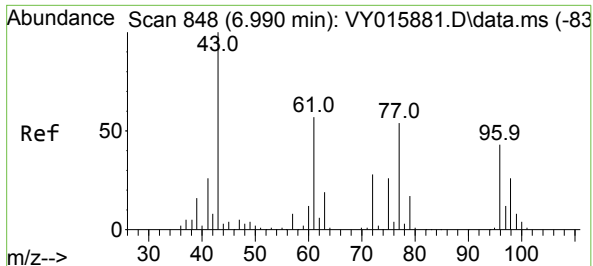
84 100

49 124.2 106.9 160.3

51 37.3 33.2 49.8

86 59.1 51.0 76.6





#25

2-Butanone

Concen: 5.799 ug/l

RT: 6.996 min Scan# 848

Delta R.T. 0.006 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

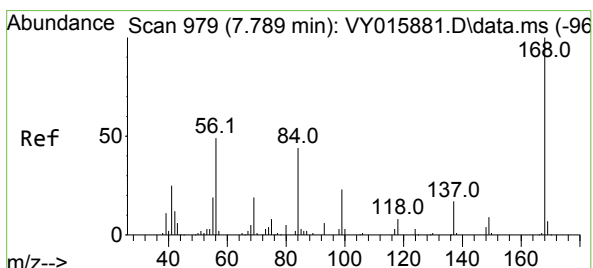
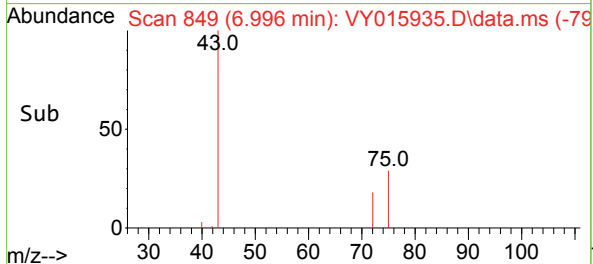
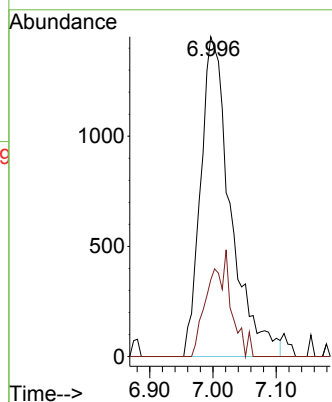
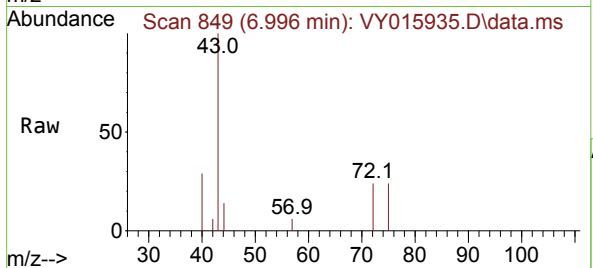
ClientSampleId :

Tgt Ion: 43 Resp: 4777

Ion Ratio Lower Upper

43 100

72 24.0 20.5 30.7



#31

Cyclohexane

Concen: 3.031 ug/l

RT: 7.789 min Scan# 979

Delta R.T. 0.000 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

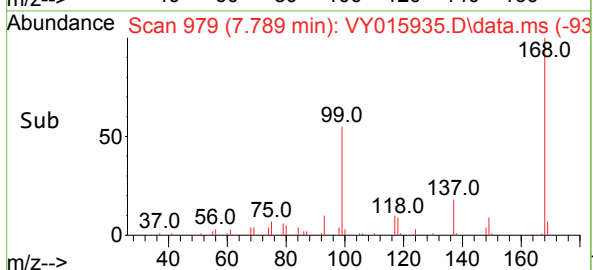
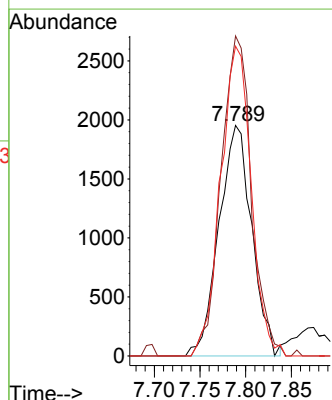
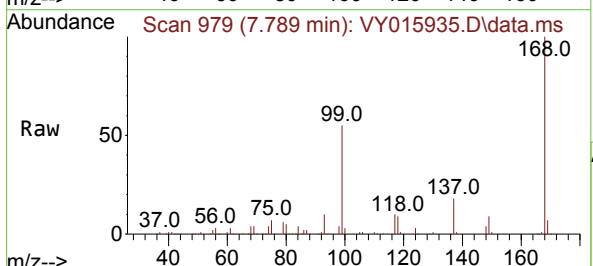
Tgt Ion: 56 Resp: 4874

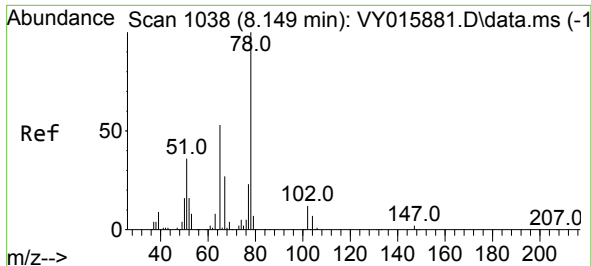
Ion Ratio Lower Upper

56 100

69 138.8 27.8 41.6#

84 134.4 66.4 99.6#

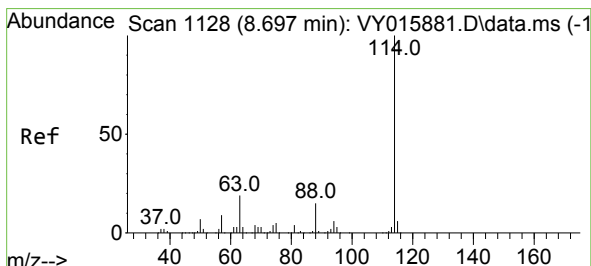
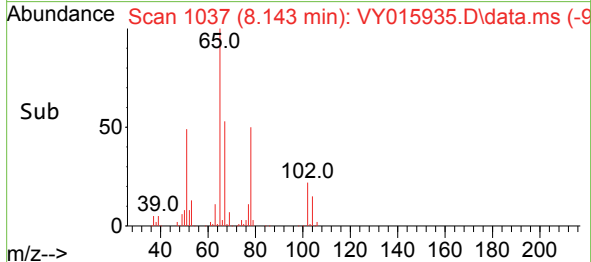
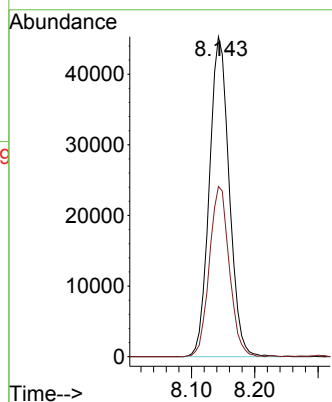
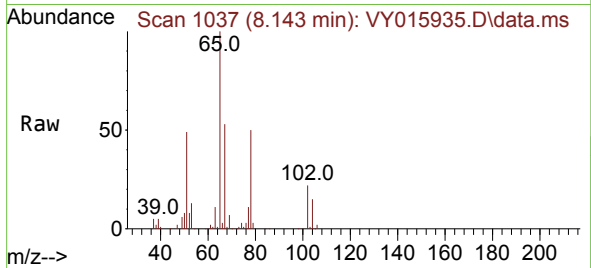




#33  
 1,2-Dichloroethane-d4  
 Concen: 65.813 ug/l  
 RT: 8.143 min Scan# 1103  
 Delta R.T. -0.006 min  
 Lab File: VY015935.D  
 Acq: 11 Oct 2023 19:39

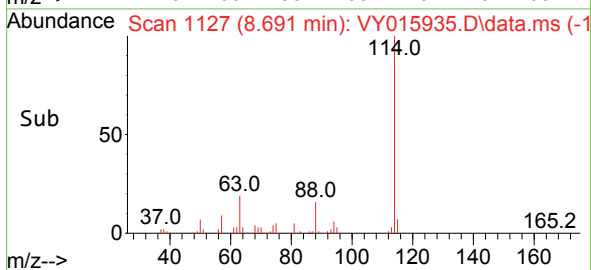
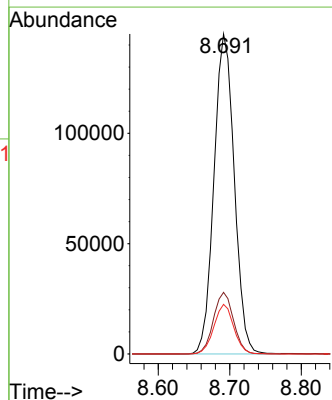
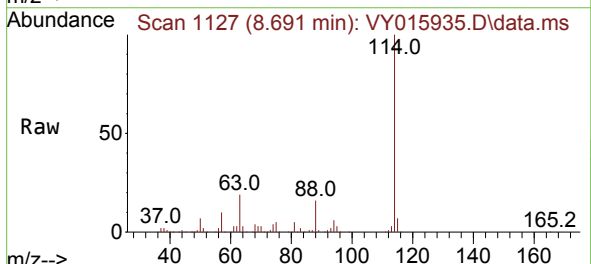
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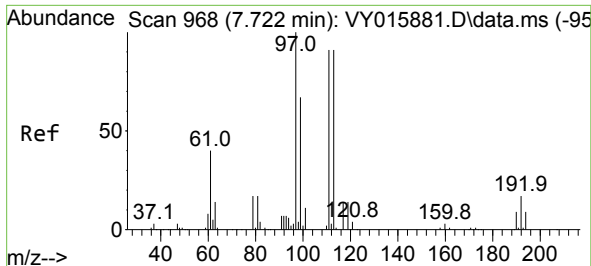
Tgt Ion: 65 Resp: 98824  
 Ion Ratio Lower Upper  
 65 100  
 67 53.4 0.0 101.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.691 min Scan# 1127  
 Delta R.T. -0.006 min  
 Lab File: VY015935.D  
 Acq: 11 Oct 2023 19:39

Tgt Ion: 114 Resp: 285842  
 Ion Ratio Lower Upper  
 114 100  
 63 19.3 0.0 42.4  
 88 15.5 0.0 30.6

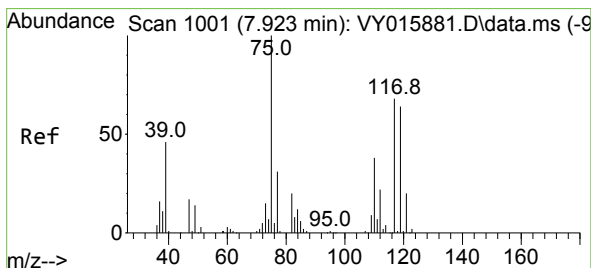
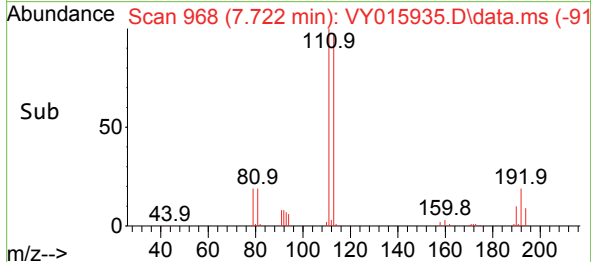
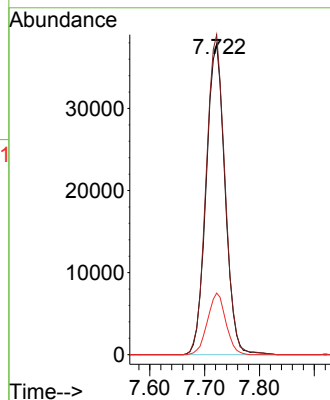
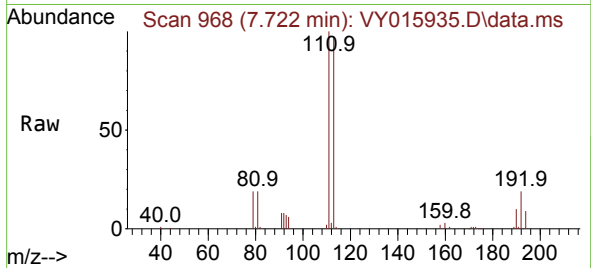




#35  
Dibromofluoromethane  
Concen: 56.630 ug/l  
RT: 7.722 min Scan# 90  
Delta R.T. 0.000 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

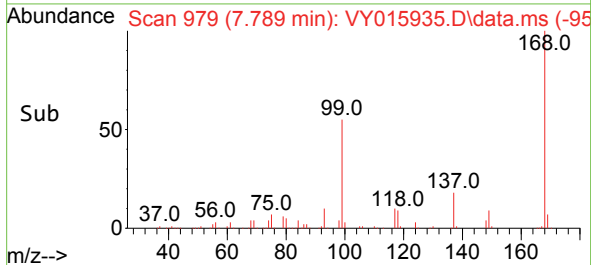
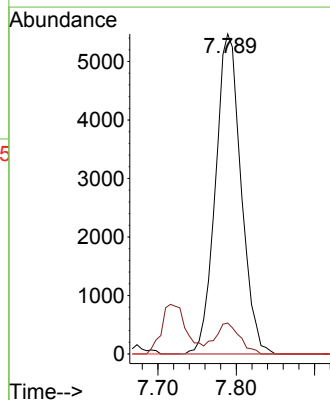
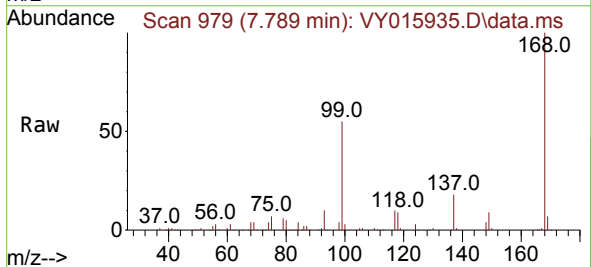
Instrument :  
MSVOA\_Y  
ClientSampleId :

Tgt Ion:113 Resp: 90288  
Ion Ratio Lower Upper  
113 100  
111 102.9 81.3 121.9  
192 19.3 16.9 25.3

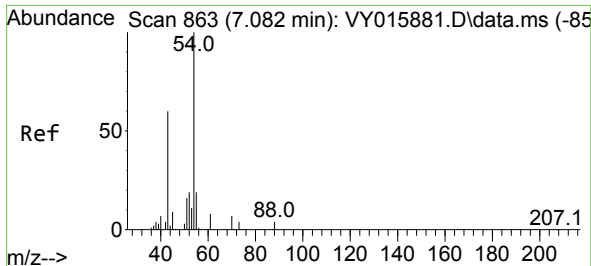


#36  
1,1-Dichloropropene  
Concen: 7.029 ug/l  
RT: 7.789 min Scan# 979  
Delta R.T. -0.134 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

Tgt Ion: 75 Resp: 12412  
Ion Ratio Lower Upper  
75 100  
110 9.2 17.8 53.5#  
77 0.0 24.4 36.6#







#37

Ethyl Acetate

Concen: 3.150 ug/l

RT: 6.996 min Scan# 84

Delta R.T. -0.085 min

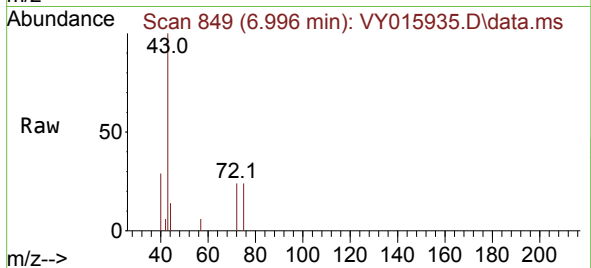
Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

ClientSampleId :



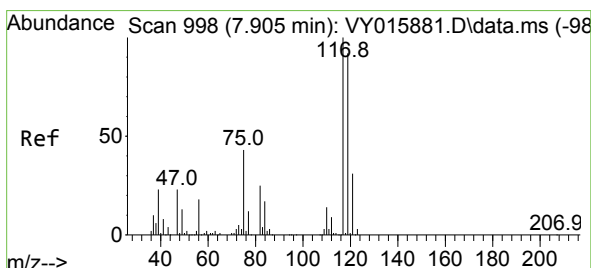
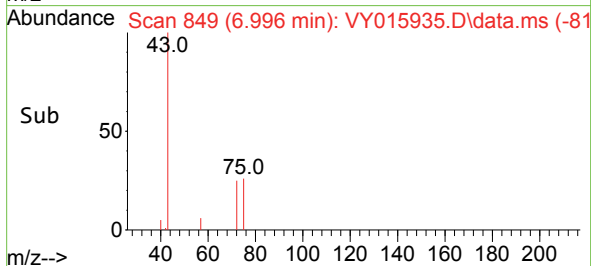
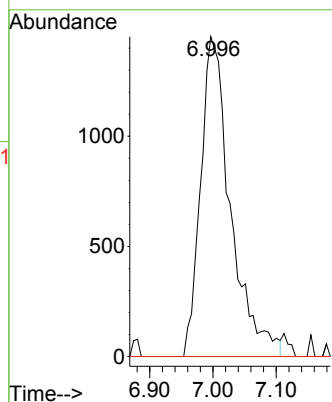
Tgt Ion: 43 Resp: 4777

Ion Ratio Lower Upper

43 100

61 0.0 10.1 15.1#

70 0.0 7.1 10.7#



#38

Carbon Tetrachloride

Concen: 7.833 ug/l

RT: 7.795 min Scan# 980

Delta R.T. -0.110 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

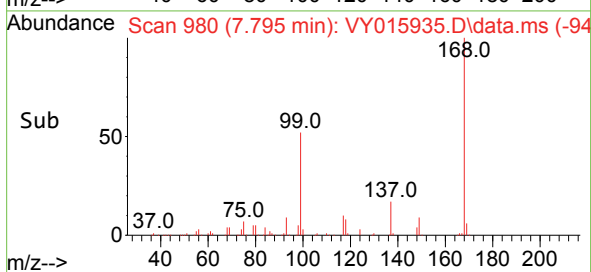
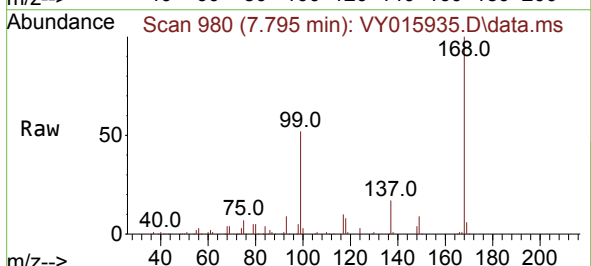
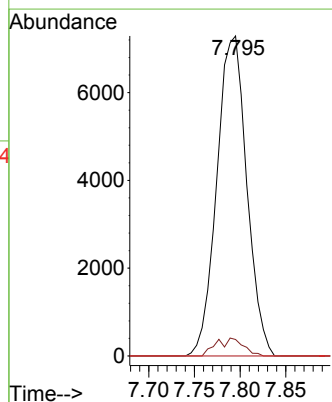
Tgt Ion: 117 Resp: 16611

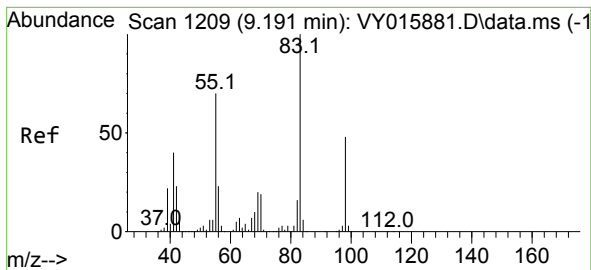
Ion Ratio Lower Upper

117 100

119 5.2 76.4 114.6#

121 0.0 25.8 38.6#





#39

Methylcyclohexane

Concen: 2.770 ug/l

RT: 9.185 min Scan# 11

Delta R.T. -0.006 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

ClientSampleId :

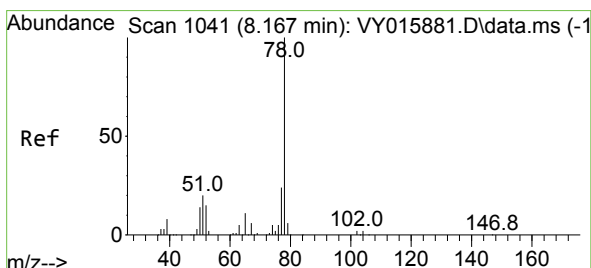
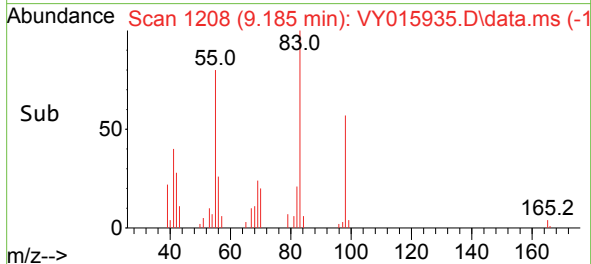
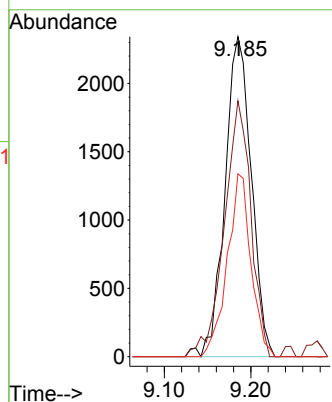
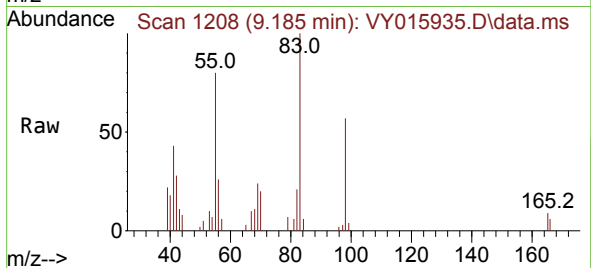
Tgt Ion: 83 Resp: 4968

Ion Ratio Lower Upper

83 100

55 79.9 63.0 94.4

98 57.2 37.4 56.2#



#40

Benzene

Concen: 23.578 ug/l

RT: 8.161 min Scan# 1040

Delta R.T. -0.006 min

Lab File: VY015935.D

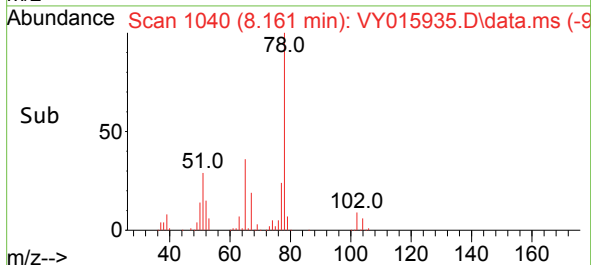
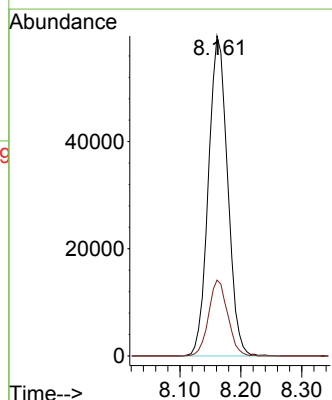
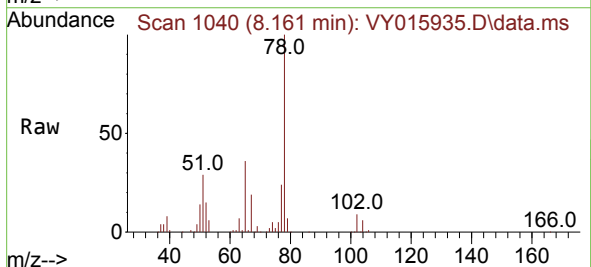
Acq: 11 Oct 2023 19:39

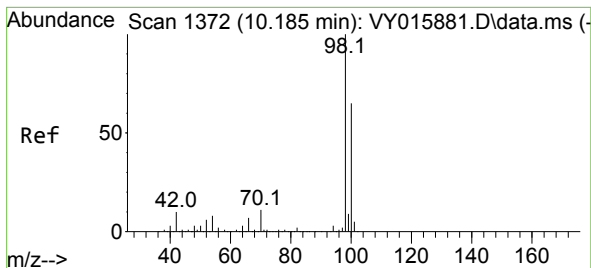
Tgt Ion: 78 Resp: 130840

Ion Ratio Lower Upper

78 100

77 23.7 19.0 28.6





#50

Toluene-d8

Concen: 64.318 ug/l

RT: 10.185 min Scan# 1372

Delta R.T. 0.000 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

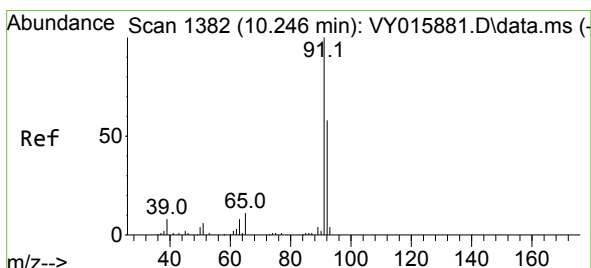
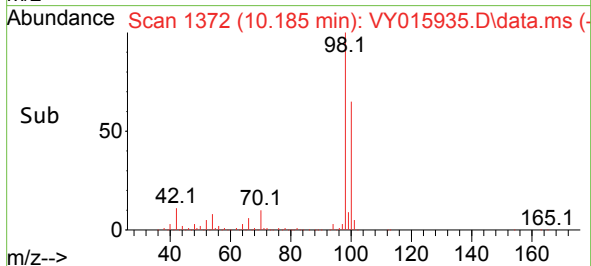
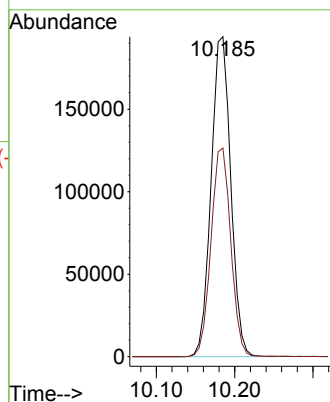
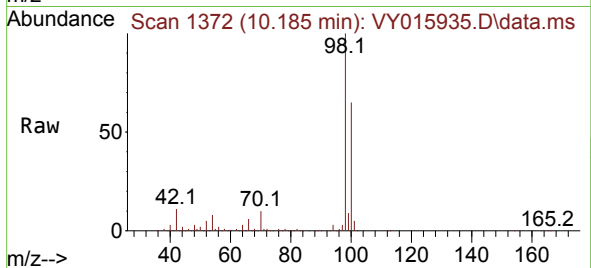
ClientSampleId :

Tgt Ion: 98 Resp: 337961

Ion Ratio Lower Upper

98 100

100 65.7 50.1 75.1



#52

Toluene

Concen: 8.752 ug/l

RT: 10.246 min Scan# 1382

Delta R.T. 0.000 min

Lab File: VY015935.D

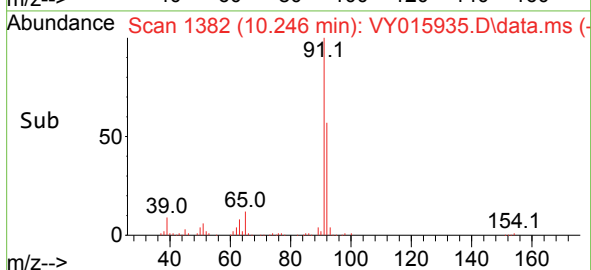
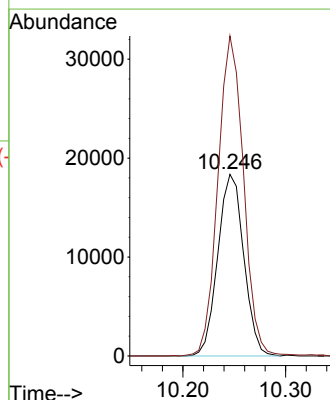
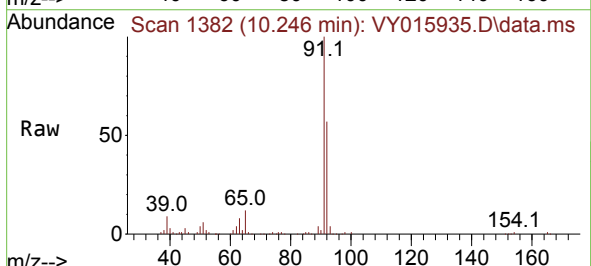
Acq: 11 Oct 2023 19:39

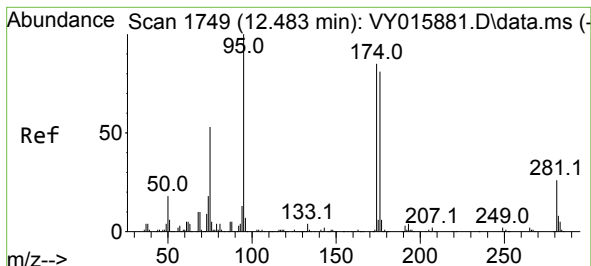
Tgt Ion: 92 Resp: 32238

Ion Ratio Lower Upper

92 100

91 173.5 143.8 215.6

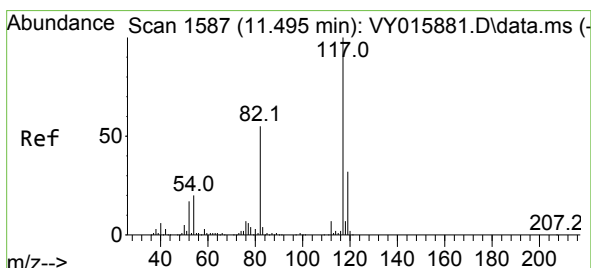
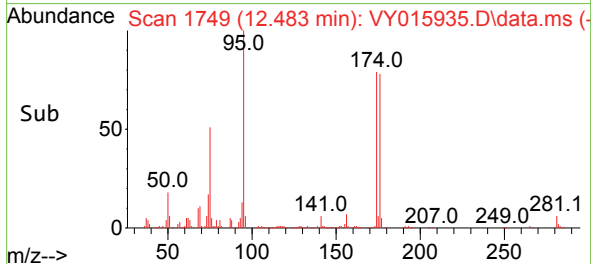
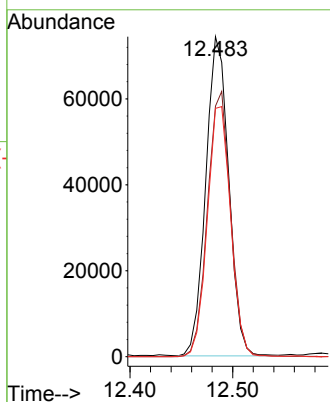
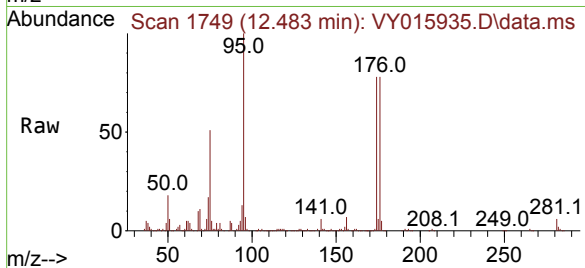




#62  
4-Bromofluorobenzene  
Concen: 54.096 ug/l  
RT: 12.483 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

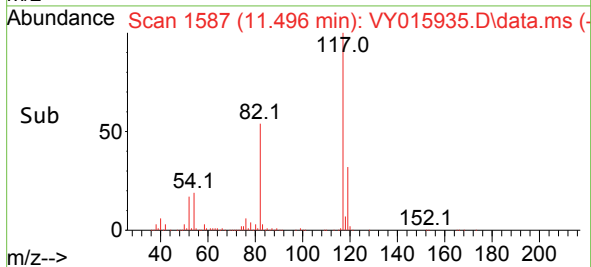
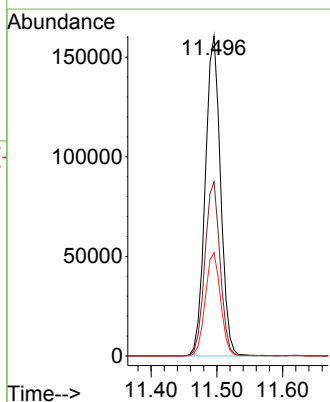
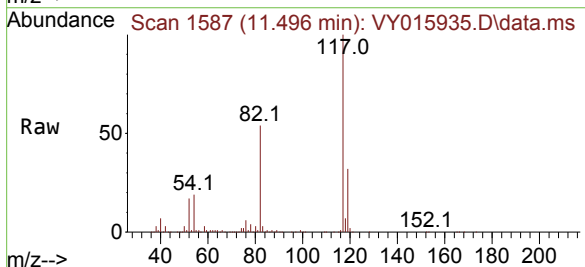
Instrument :  
MSVOA\_Y  
ClientSampleId :

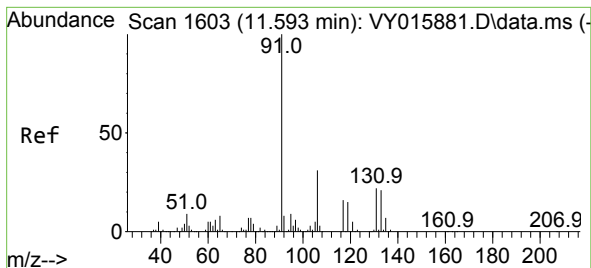
Tgt Ion: 95 Resp: 115456  
Ion Ratio Lower Upper  
95 100  
174 83.8 0.0 178.2  
176 79.9 0.0 173.8



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.496 min Scan# 1587  
Delta R.T. 0.000 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

Tgt Ion: 117 Resp: 259621  
Ion Ratio Lower Upper  
117 100  
82 54.4 43.4 65.0  
119 32.3 26.3 39.5

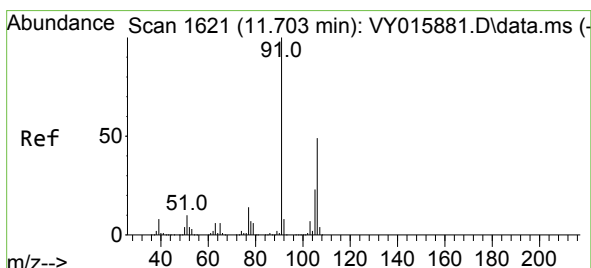
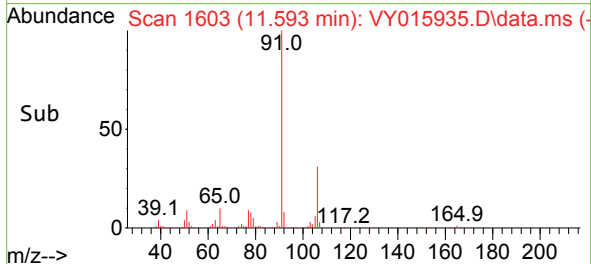
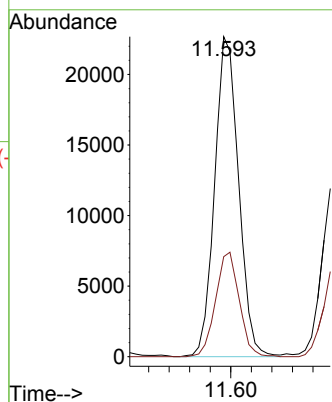
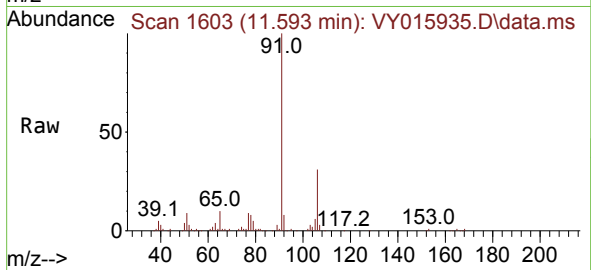




#67  
Ethyl Benzene  
Concen: 4.719 ug/l  
RT: 11.593 min Scan# 1603  
Delta R.T. 0.000 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

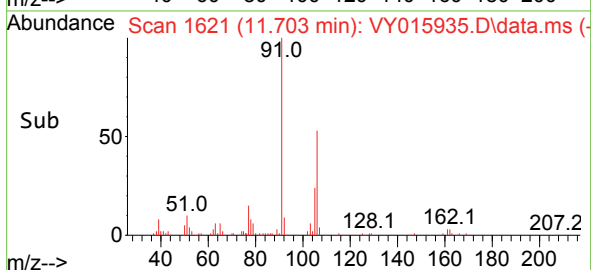
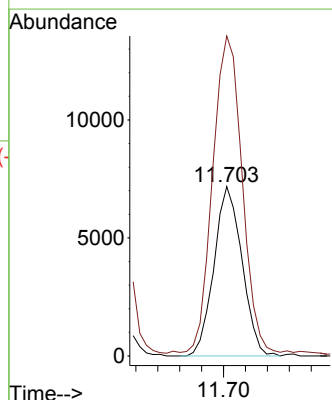
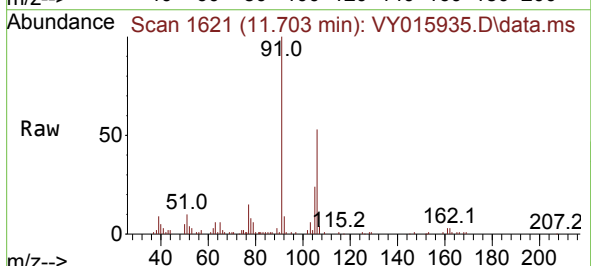
Instrument :  
MSVOA\_Y  
ClientSampleId :

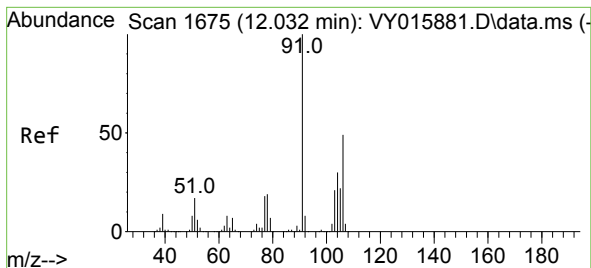
Tgt Ion: 91 Resp: 36664  
Ion Ratio Lower Upper  
91 100  
106 31.2 24.6 36.8



#68  
m/p-Xylenes  
Concen: 4.354 ug/l  
RT: 11.703 min Scan# 1621  
Delta R.T. 0.000 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

Tgt Ion:106 Resp: 12745  
Ion Ratio Lower Upper  
106 100  
91 200.9 166.1 249.1





#69

o-Xylene

Concen: 3.027 ug/l

RT: 12.032 min Scan# 1

Delta R.T. 0.000 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

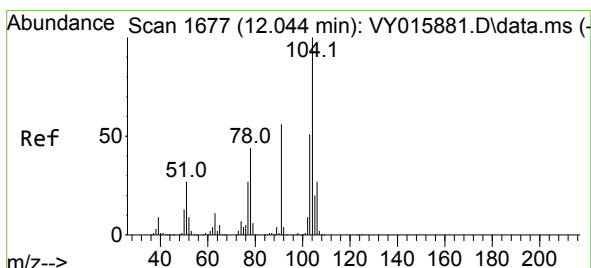
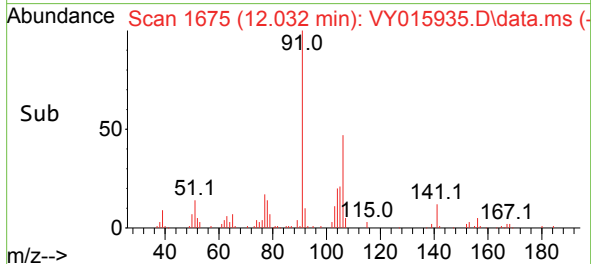
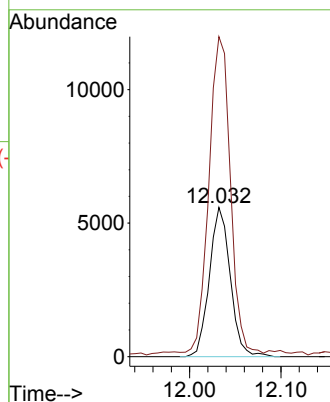
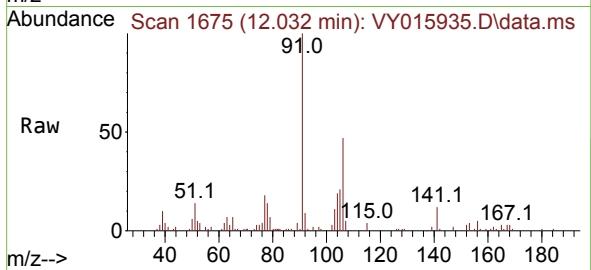
ClientSampleId :

Tgt Ion:106 Resp: 8866

Ion Ratio Lower Upper

106 100

91 216.3 108.1 324.3



#70

Styrene

Concen: 1.970 ug/l

RT: 12.050 min Scan# 1678

Delta R.T. 0.006 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

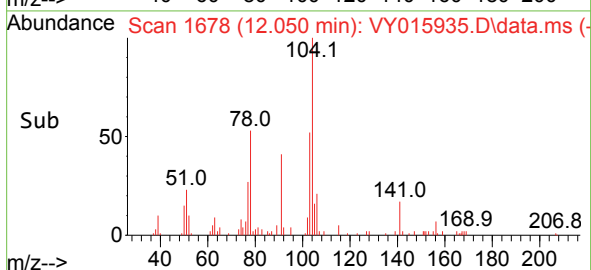
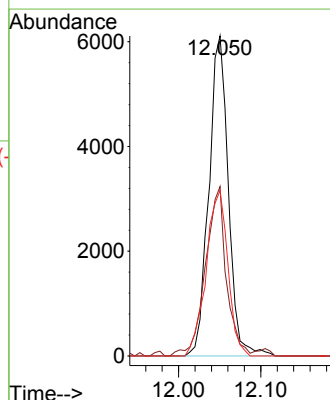
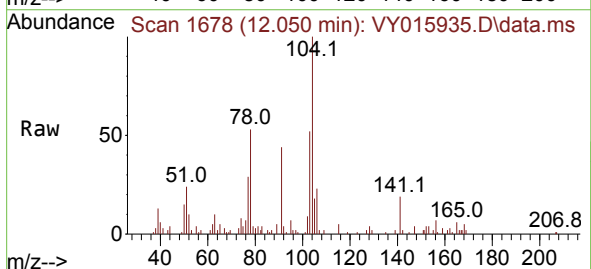
Tgt Ion:104 Resp: 10070

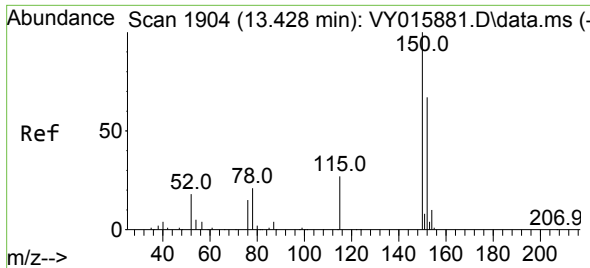
Ion Ratio Lower Upper

104 100

78 56.6 41.5 62.3

103 57.6 44.6 67.0

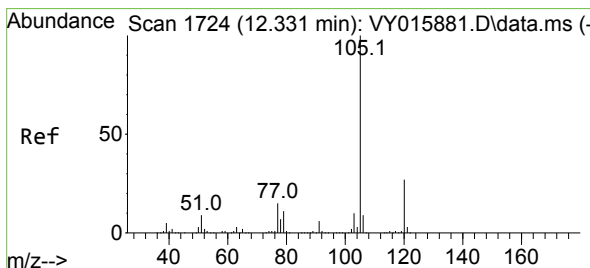
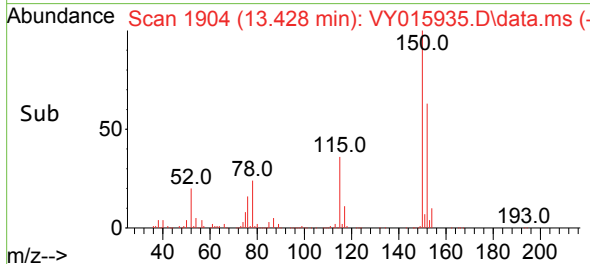
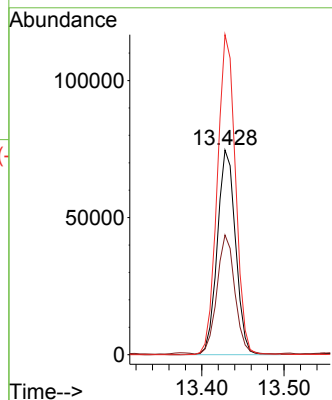
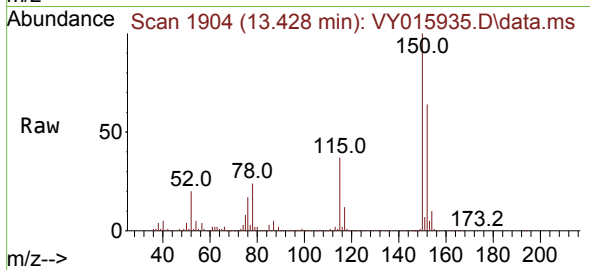




#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.428 min Scan# 1904  
Delta R.T. 0.000 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

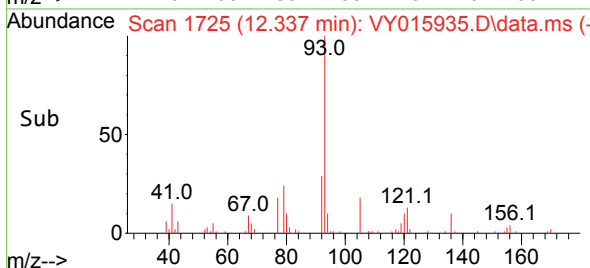
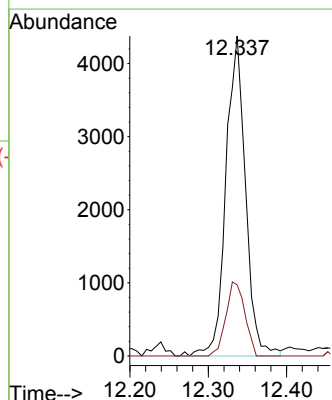
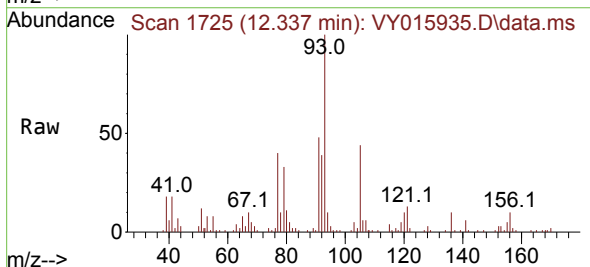
Instrument :  
MSVOA\_Y  
ClientSampleId :

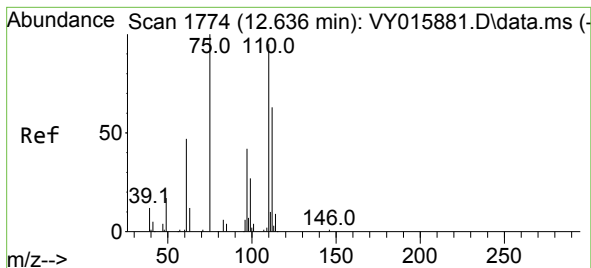
Tgt Ion:152 Resp: 114983  
Ion Ratio Lower Upper  
152 100  
115 57.1 28.8 86.5  
150 155.9 0.0 348.8



#73  
Isopropylbenzene  
Concen: 1.052 ug/l  
RT: 12.337 min Scan# 1725  
Delta R.T. 0.006 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

Tgt Ion:105 Resp: 7629  
Ion Ratio Lower Upper  
105 100  
120 22.3 13.3 39.9





#76

1,2,3-Trichloropropane

Concen: 44.964 ug/l

RT: 12.483 min Scan# 1741

Delta R.T. -0.152 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

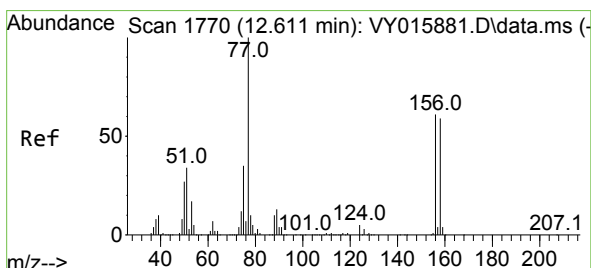
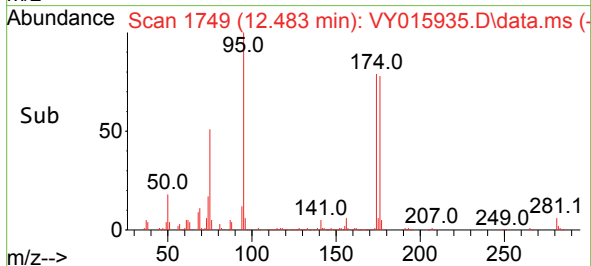
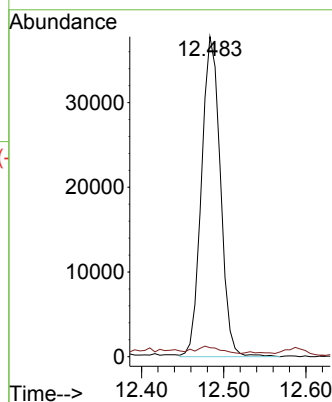
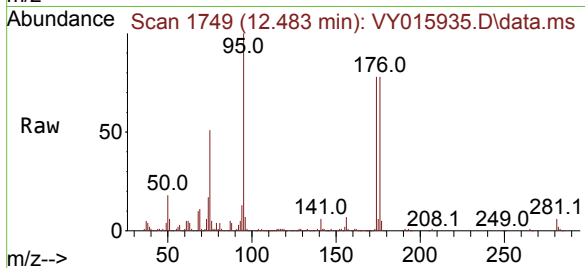
ClientSampleId :

Tgt Ion: 75 Resp: 60354

Ion Ratio Lower Upper

75 100

77 2.8 0.0 0.0#



#77

Bromobenzene

Concen: 16.066 ug/l

RT: 12.434 min Scan# 1741

Delta R.T. -0.177 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

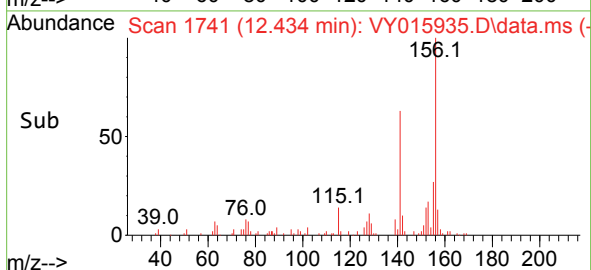
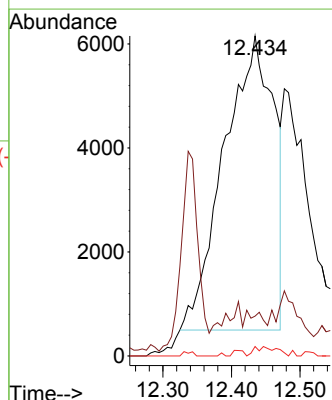
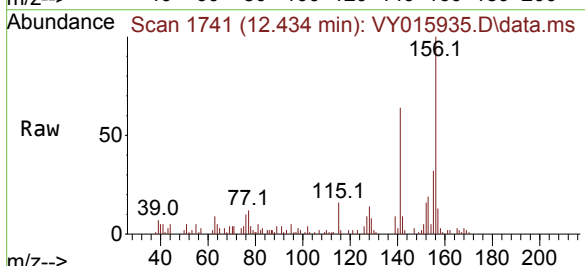
Tgt Ion: 156 Resp: 28573

Ion Ratio Lower Upper

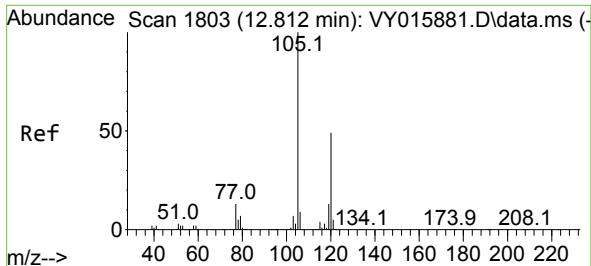
156 100

77 0.0 92.8 278.6#

158 1.4 48.4 145.3#



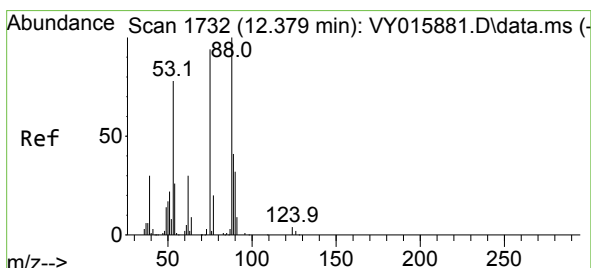
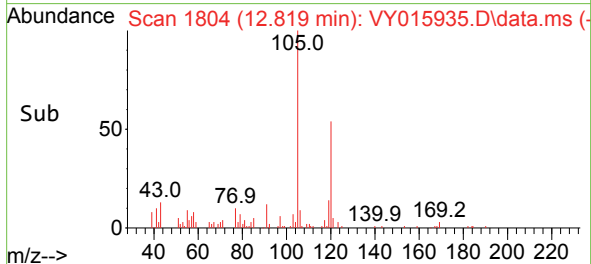
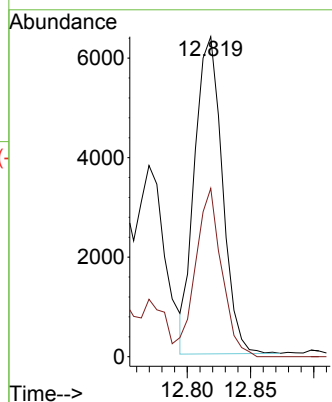
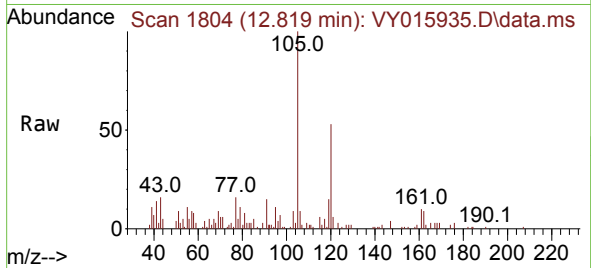




#80  
1,3,5-Trimethylbenzene  
Concen: 1.621 ug/l  
RT: 12.819 min Scan# 1749  
Delta R.T. 0.006 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

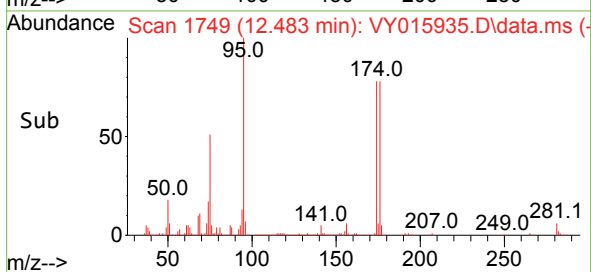
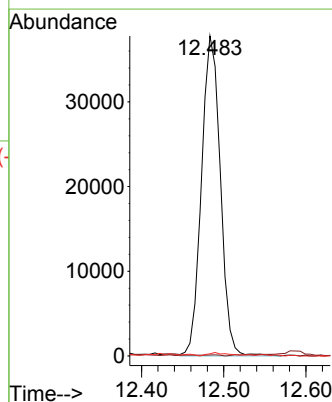
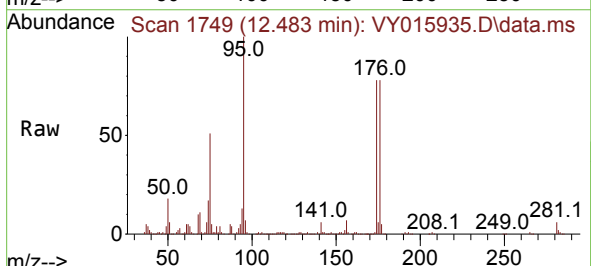
Instrument :  
MSVOA\_Y  
ClientSampleId :

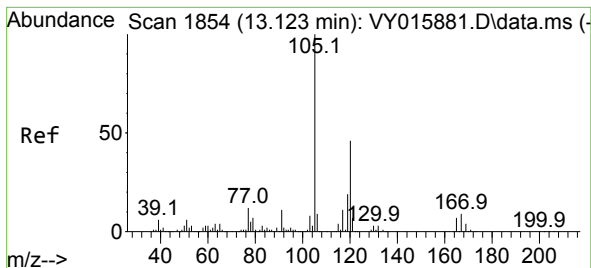
Tgt Ion:105 Resp: 9690  
Ion Ratio Lower Upper  
105 100  
120 50.6 23.9 71.7



#81  
trans-1,4-Dichloro-2-butene  
Concen: 99.707 ug/l  
RT: 12.483 min Scan# 1749  
Delta R.T. 0.104 min  
Lab File: VY015935.D  
Acq: 11 Oct 2023 19:39

Tgt Ion: 75 Resp: 60354  
Ion Ratio Lower Upper  
75 100  
53 0.2 77.8 116.8#  
89 1.2 37.4 56.0#





#84

1,2,4-Trimethylbenzene

Concen: 4.250 ug/l

RT: 13.123 min Scan# 1854

Delta R.T. 0.000 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

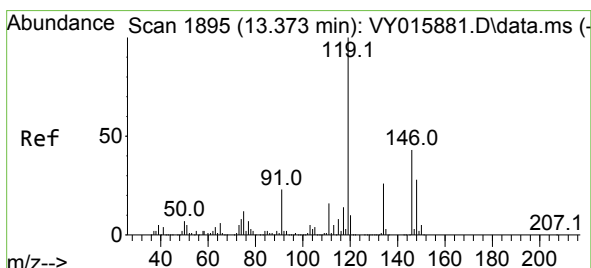
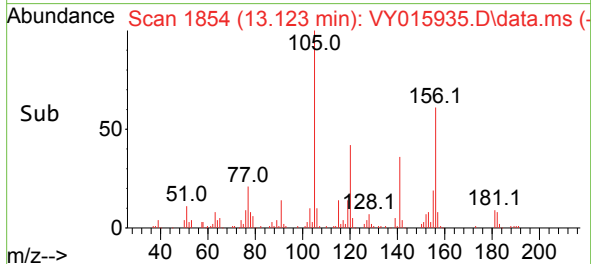
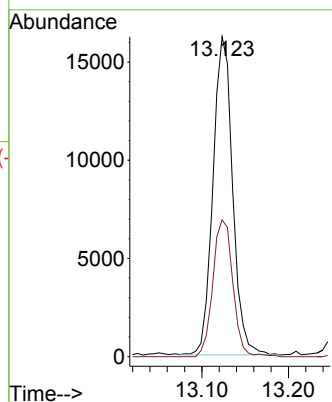
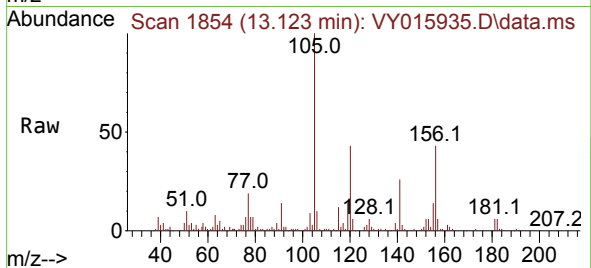
ClientSampleId :

Tgt Ion:105 Resp: 25586

Ion Ratio Lower Upper

105 100

120 43.7 22.2 66.6



#86

p-Isopropyltoluene

Concen: 1.298 ug/l

RT: 13.373 min Scan# 1895

Delta R.T. 0.000 min

Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

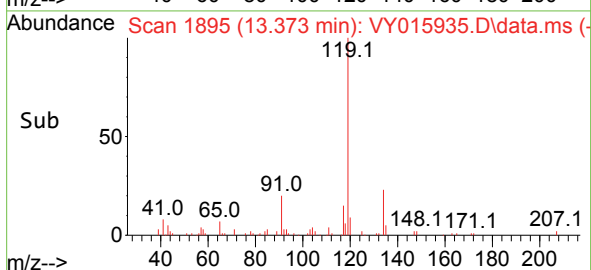
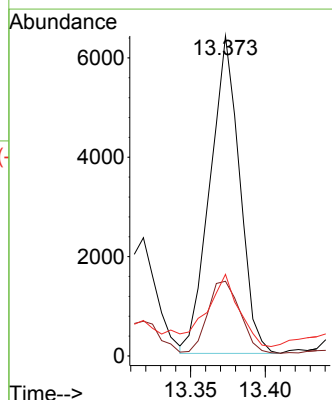
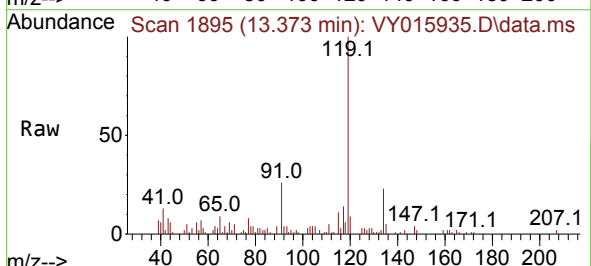
Tgt Ion:119 Resp: 8784

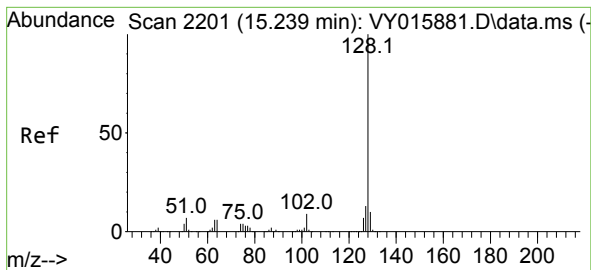
Ion Ratio Lower Upper

119 100

134 27.4 13.3 39.8

91 24.4 12.4 37.4





#95

Naphthalene

Concen: 76.688 ug/l

RT: 15.239 min Scan# 21

Delta R.T. 0.000 min

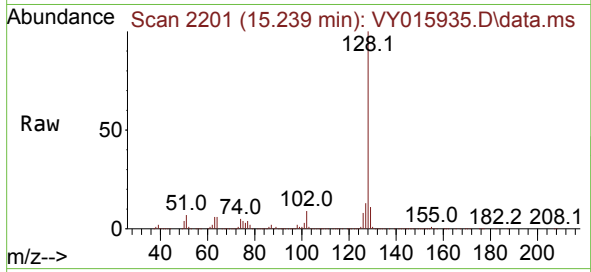
Lab File: VY015935.D

Acq: 11 Oct 2023 19:39

Instrument :

MSVOA\_Y

ClientSampleId :



Tgt Ion:128 Resp: 378430

Ion Ratio Lower Upper

128 100

127 12.9 10.8 16.2

129 11.1 8.6 13.0

