

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL101022\  
 Data File : VL039703.D  
 Acq On : 10 Oct 2022 19:37  
 Operator : SY/AP  
 Sample : N5065-02  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1

Quant Time: Oct 11 07:20:31 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL091922AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Mon Sep 19 14:26:28 2022  
 Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 5.195  | 49   | 1060227  | 10.000 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 6.651  | 114  | 2703580  | 10.000 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 11.455 | 117  | 2462269  | 10.000 | ppbv  | -0.02    |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.764 | 95    | 1874019  | 10.196   | ppbv | -0.01    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.000% |

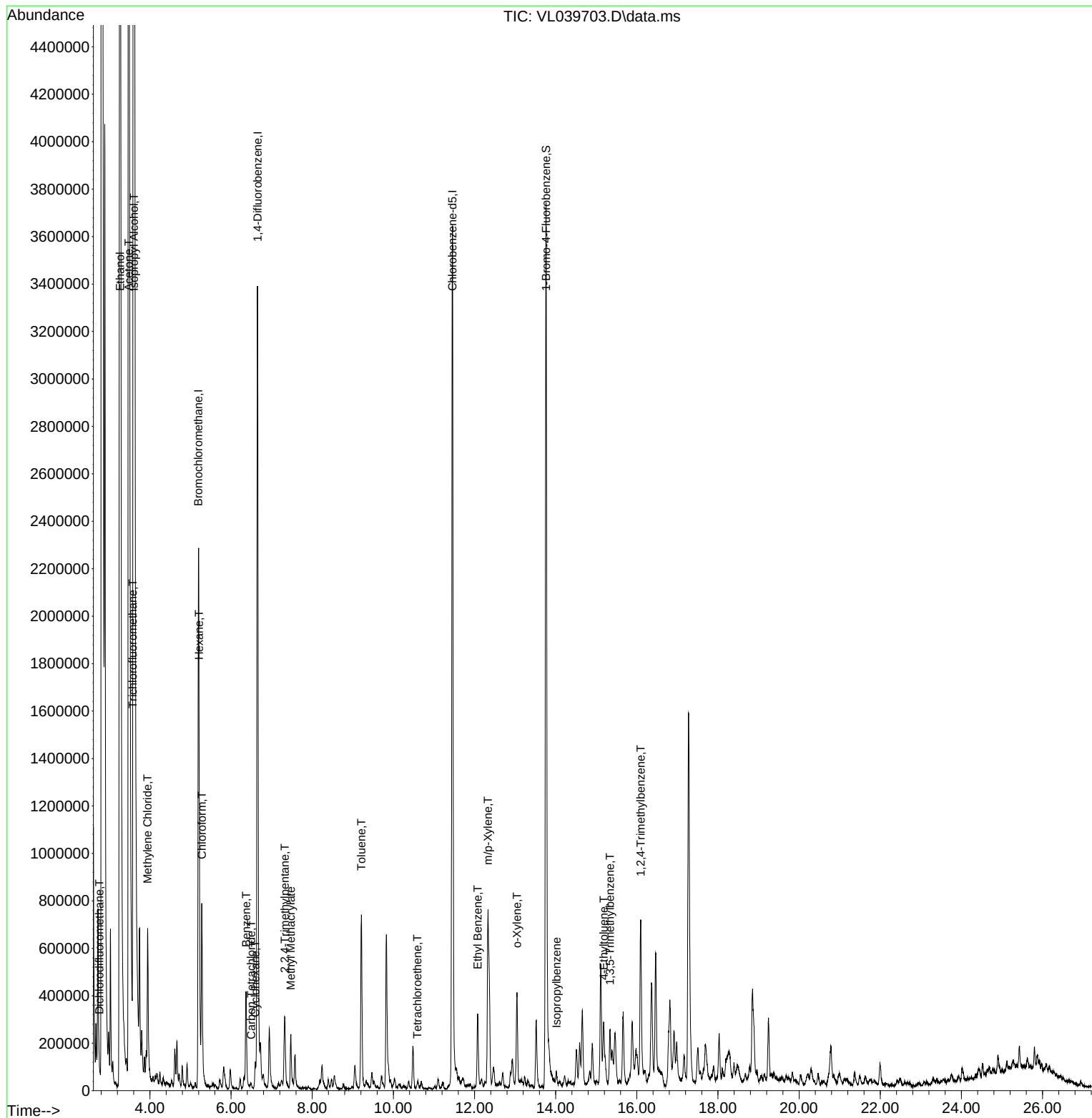
| Target Compounds           |        |     |           |          |        | Qvalue |
|----------------------------|--------|-----|-----------|----------|--------|--------|
| 2) Dichlorodifluoromethane | 2.751  | 85  | 29609m    | 0.241    | ppbv   |        |
| 11) Trichlorofluoromethane | 3.574  | 101 | 34402     | 0.226    | ppbv   | 96     |
| 13) Ethanol                | 3.266  | 45  | 11738323  | 2680.979 | ppbv   | 73     |
| 15) Acetone                | 3.475  | 43  | 14095669  | 119.478  | ppbv # | 85     |
| 19) Isopropyl Alcohol      | 3.603  | 45  | 18189301m | 302.463  | ppbv   |        |
| 20) Methylene Chloride     | 3.944  | 84  | 213076    | 3.906    | ppbv   | 92     |
| 26) Hexane                 | 5.211  | 57  | 226726m   | 2.077    | ppbv   |        |
| 29) Chloroform             | 5.278  | 83  | 518986    | 3.293    | ppbv   | 95     |
| 30) Cyclohexane            | 6.600  | 84  | 39367m    | 0.466    | ppbv   |        |
| 35) Carbon Tetrachloride   | 6.497  | 117 | 10731m    | 0.075    | ppbv   |        |
| 36) Benzene                | 6.372  | 78  | 358983    | 1.737    | ppbv   | 92     |
| 43) Methyl Methacrylate    | 7.475  | 69  | 81615     | 1.083    | ppbv   | 83     |
| 44) 2,2,4-Trimethylpentane | 7.323  | 57  | 287876    | 0.808    | ppbv # | 88     |
| 52) Tetrachloroethene      | 10.593 | 164 | 5476m     | 0.069    | ppbv   |        |
| 53) Toluene                | 9.211  | 91  | 523740    | 2.278    | ppbv   | 100    |
| 58) Ethyl Benzene          | 12.076 | 91  | 246543    | 0.868    | ppbv   | 93     |
| 59) m/p-Xylene             | 12.333 | 91  | 834940    | 3.305    | ppbv   | 93     |
| 60) o-Xylene               | 13.047 | 91  | 300805    | 1.247    | ppbv   | 100    |
| 62) Isopropylbenzene       | 14.021 | 105 | 50341     | 0.139    | ppbv   | 96     |
| 72) 4-Ethyltoluene         | 15.185 | 105 | 194972    | 0.708    | ppbv   | 94     |
| 73) 1,3,5-Trimethylbenzene | 15.342 | 105 | 163786m   | 0.650    | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.095 | 105 | 521536    | 1.846    | ppbv # | 71     |

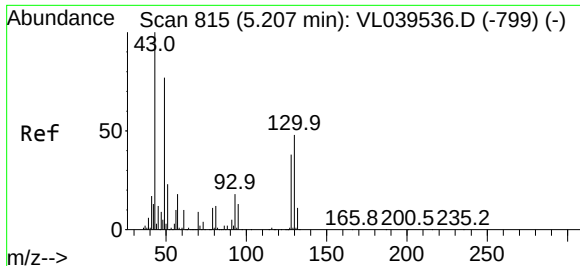
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL101022\  
Data File : VL039703.D  
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MSVOA\_L  
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Quant Time: Oct 11 07:20:31 2022  
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Mon Sep 19 14:26:28 2022  
Response via : Initial Calibration

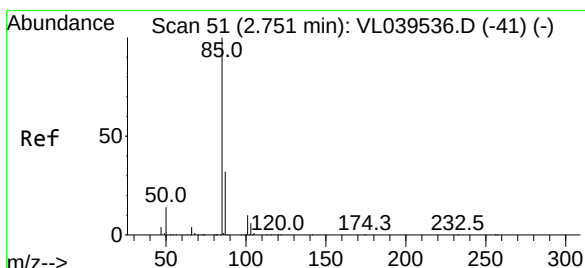
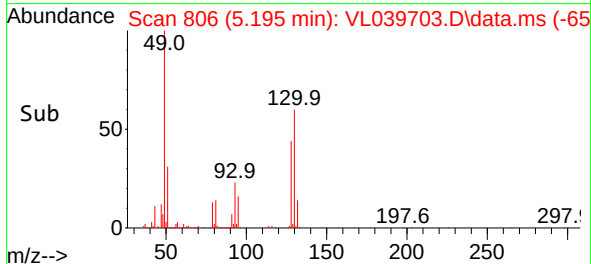
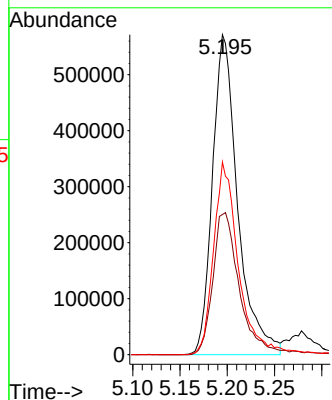
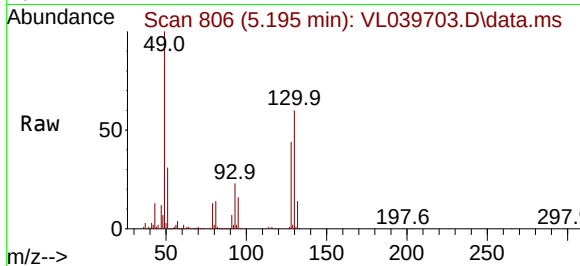




#1  
 Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.195 min Scan# 80  
 Delta R.T. -0.012 min  
 Lab File: VL039703.D  
 Acq: 10 Oct 2022 19:37

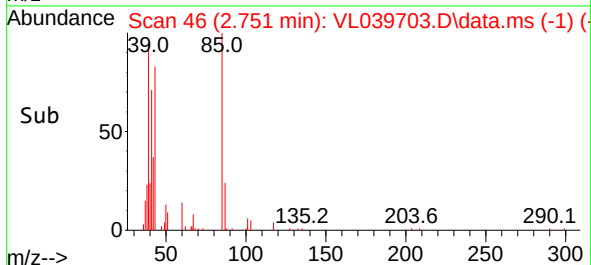
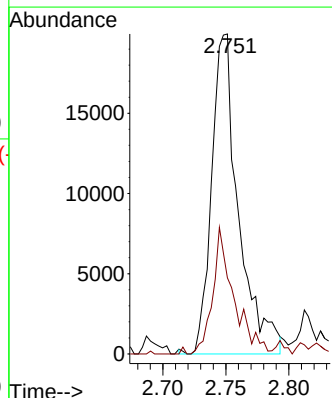
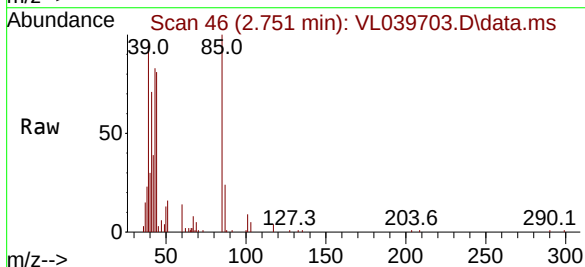
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1

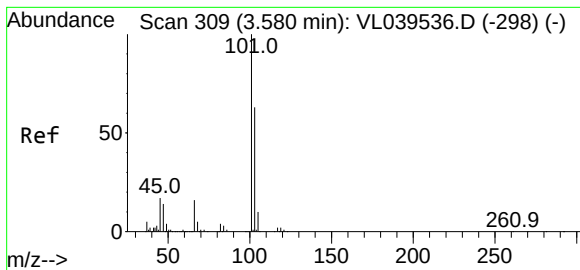
Tgt Ion: 49 Resp: 1060227  
 Ion Ratio Lower Upper  
 49 100  
 128 47.7 26.7 80.0  
 130 60.5 34.3 102.8



#2  
 Dichlorodifluoromethane  
 Concen: 0.241 ppbv m  
 RT: 2.751 min Scan# 46  
 Delta R.T. 0.001 min  
 Lab File: VL039703.D  
 Acq: 10 Oct 2022 19:37

Tgt Ion: 85 Resp: 29609  
 Ion Ratio Lower Upper  
 85 100  
 87 23.8 26.7 40.1#

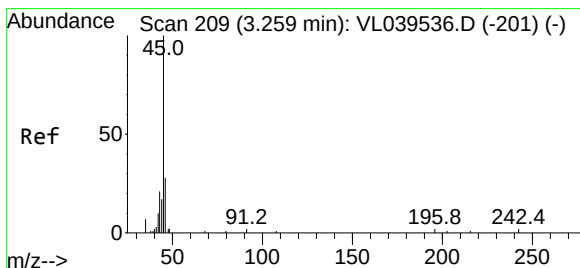
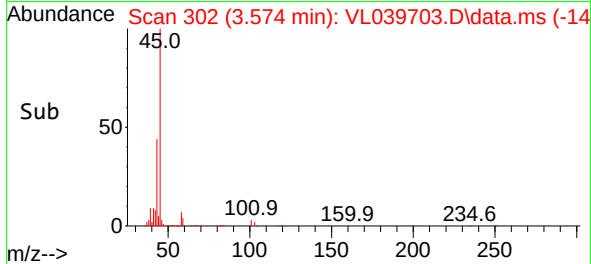
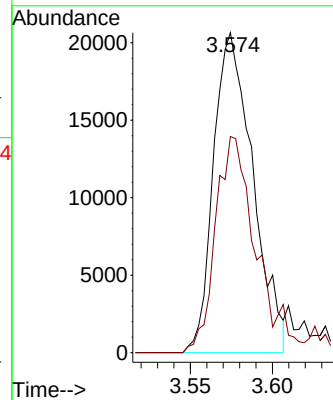
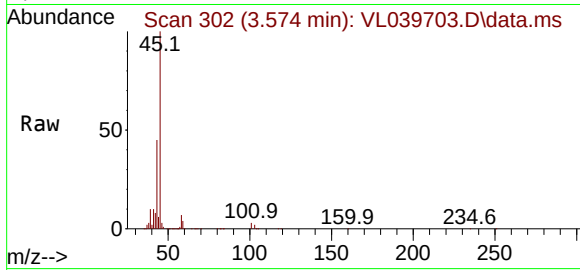




#11  
Trichlorofluoromethane  
Concen: 0.226 ppbv  
RT: 3.574 min Scan# 309  
Delta R.T. -0.006 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

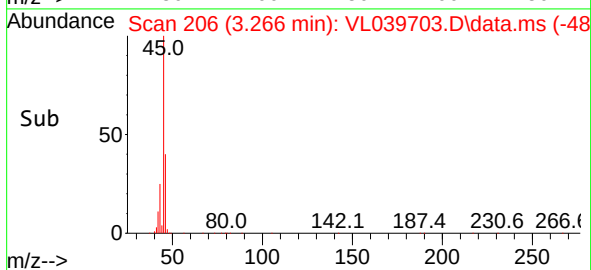
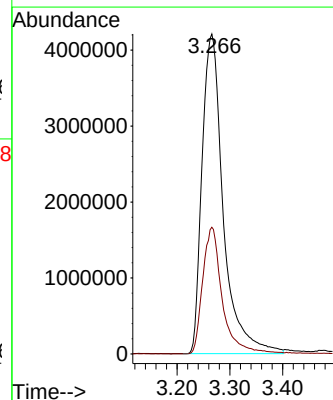
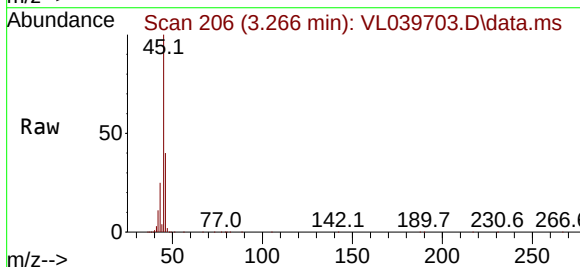
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

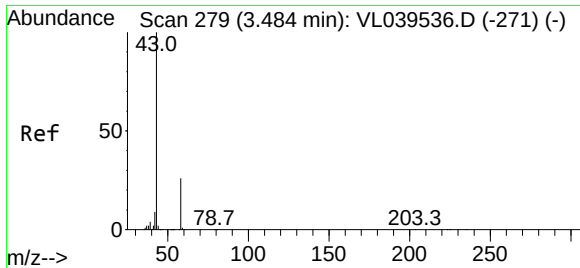
Tgt Ion:101 Resp: 34402  
Ion Ratio Lower Upper  
101 100  
103 67.6 51.8 77.8



#13  
Ethanol  
Concen: 2680.979 ppbv  
RT: 3.266 min Scan# 206  
Delta R.T. 0.007 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 45 Resp:11738323  
Ion Ratio Lower Upper  
45 100  
46 37.1 22.8 91.2

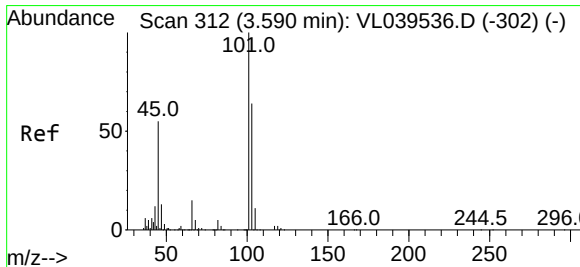
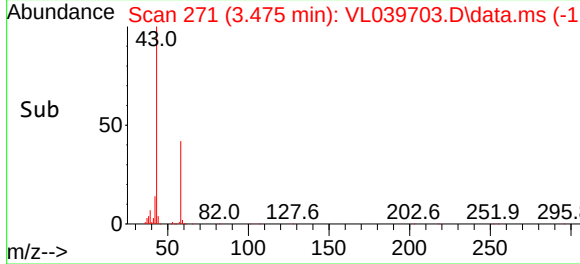
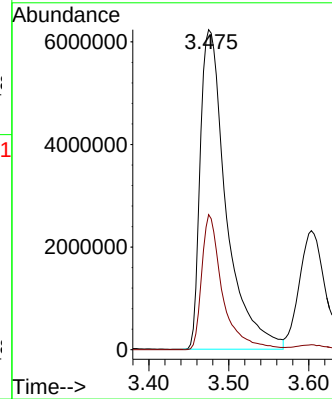
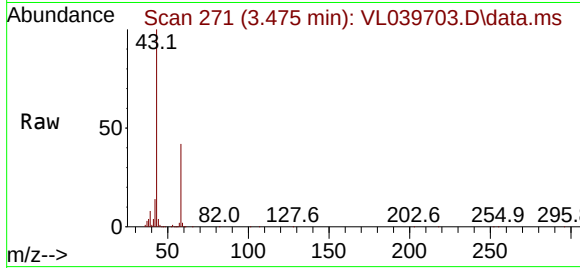




#15  
Acetone  
Concen: 119.478 ppbv  
RT: 3.475 min Scan# 21  
Delta R.T. -0.009 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

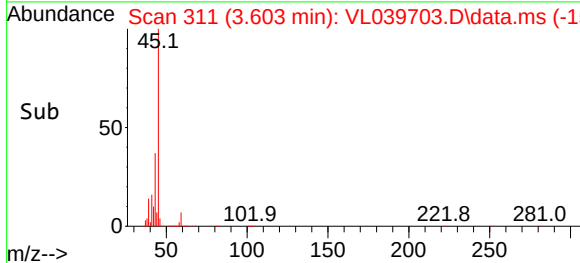
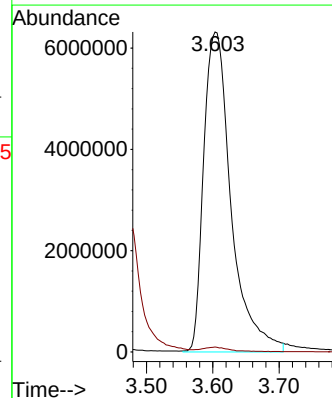
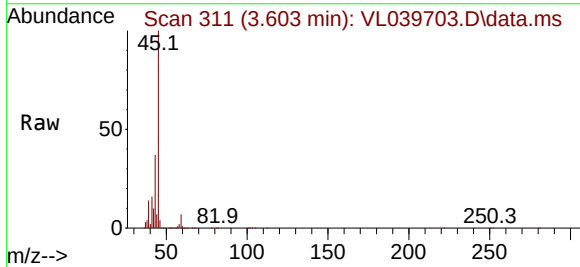
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

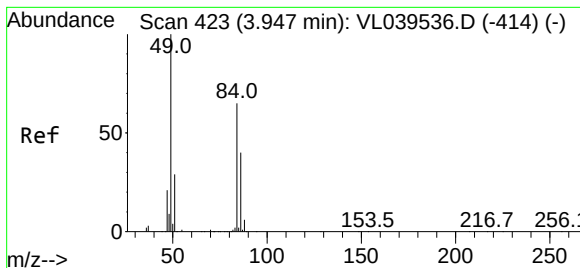
Tgt Ion: 43 Resp:14095669  
Ion Ratio Lower Upper  
43 100  
58 33.8 21.0 31.6#



#19  
Isopropyl Alcohol  
Concen: 302.463 ppbv m  
RT: 3.603 min Scan# 311  
Delta R.T. 0.013 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 45 Resp:18189301  
Ion Ratio Lower Upper  
45 100  
58 0.0 3.2 4.8#



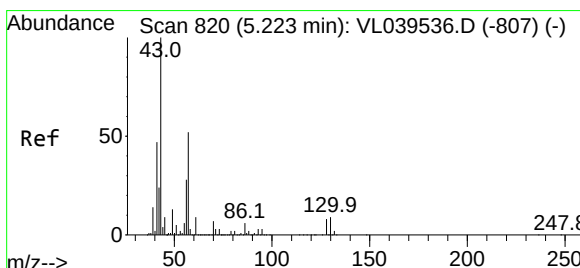
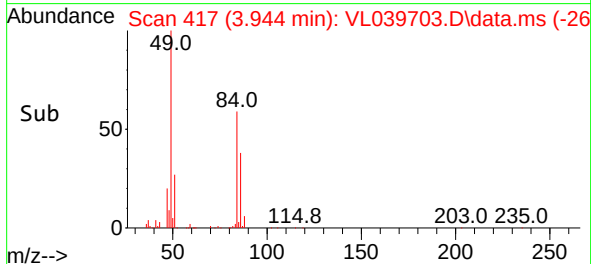
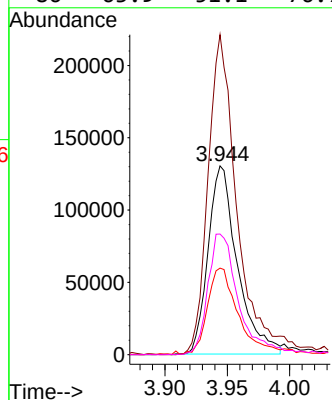
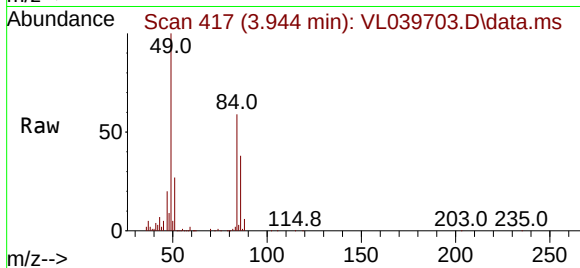


#20  
Methylene Chloride  
Concen: 3.906 ppbv  
RT: 3.944 min Scan# 417  
Delta R.T. -0.003 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

Tgt Ion: 84 Resp: 213076

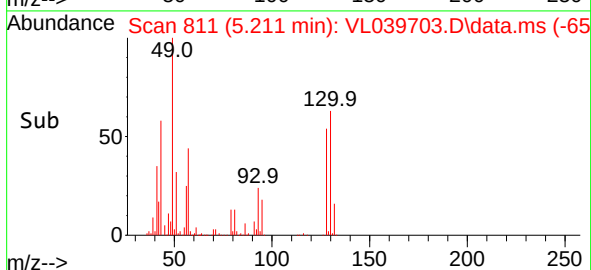
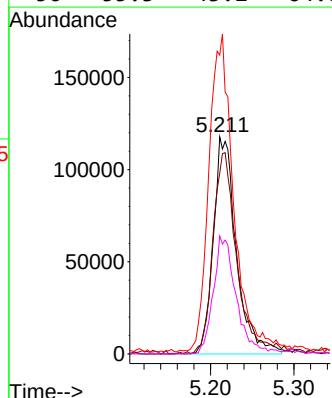
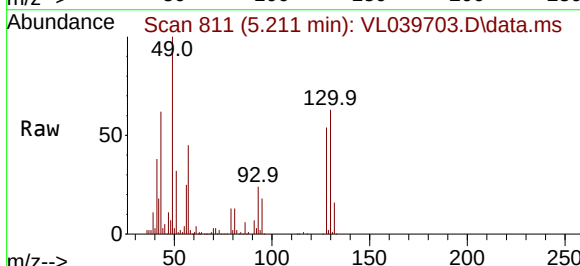
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 84  | 100   |       |       |
| 49  | 169.6 | 123.1 | 184.7 |
| 51  | 45.9  | 34.4  | 51.6  |
| 86  | 63.9  | 51.1  | 76.7  |

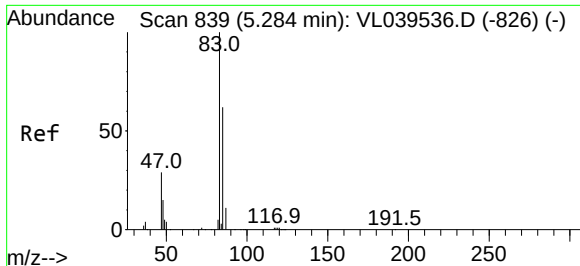


#26  
Hexane  
Concen: 2.077 ppbv m  
RT: 5.211 min Scan# 811  
Delta R.T. -0.012 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 57 Resp: 226726

| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 57  | 100   |       |        |
| 41  | 0.0   | 76.9  | 115.3# |
| 43  | 0.0   | 191.0 | 286.6# |
| 56  | 55.3  | 43.2  | 64.8   |





#29

Chloroform

Concen: 3.293 ppbv

RT: 5.278 min Scan# 81

Delta R.T. -0.006 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

Instrument :

MSVOA\_L

ClientSampleId :

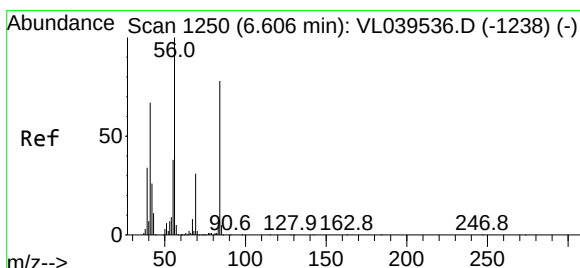
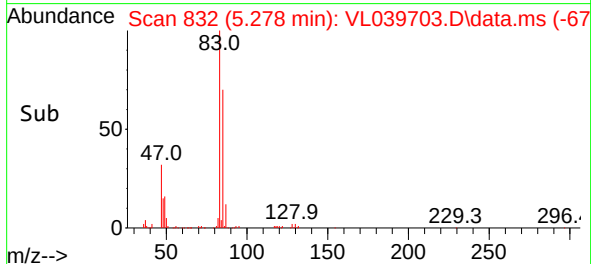
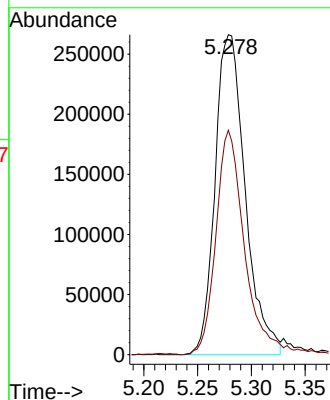
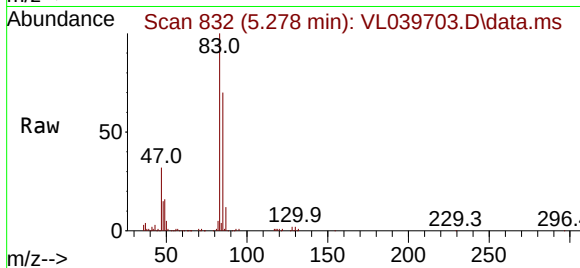
IA1

Tgt Ion: 83 Resp: 518986

Ion Ratio Lower Upper

83 100

85 70.1 52.8 79.2



#30

Cyclohexane

Concen: 0.466 ppbv m

RT: 6.600 min Scan# 1243

Delta R.T. -0.006 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

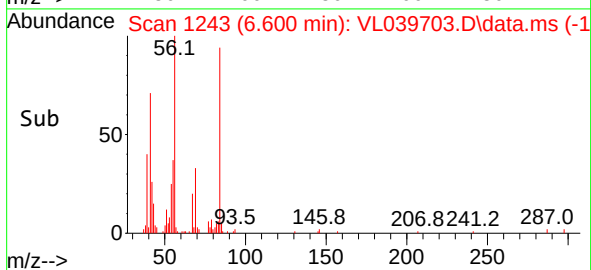
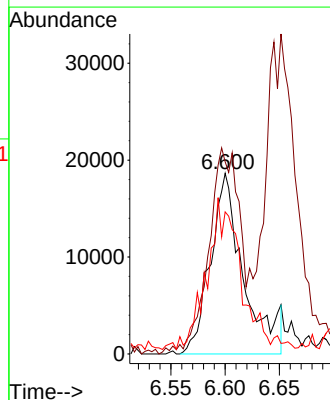
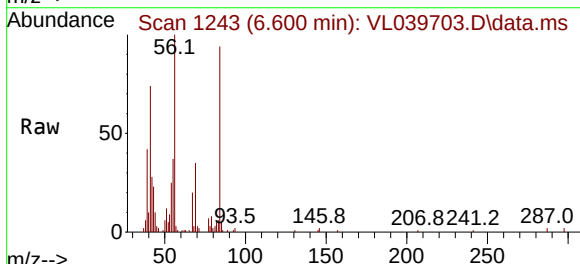
Tgt Ion: 84 Resp: 39367

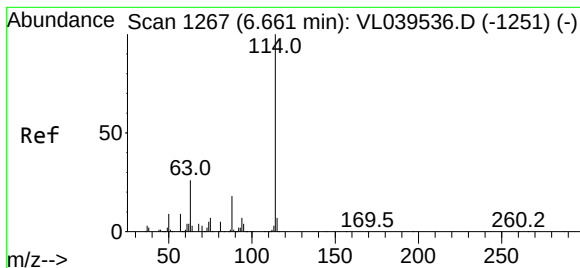
Ion Ratio Lower Upper

84 100

56 0.0 107.7 161.5#

41 0.0 67.7 101.5#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.651 min Scan# 11

Delta R.T. -0.009 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

Instrument :

MSVOA\_L

ClientSampleId :

IA1

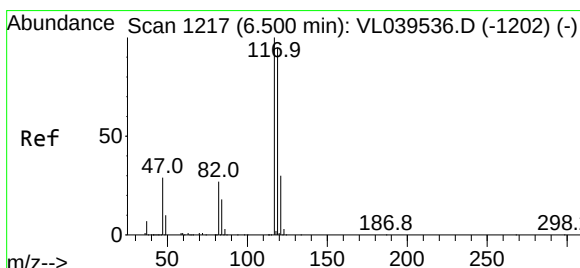
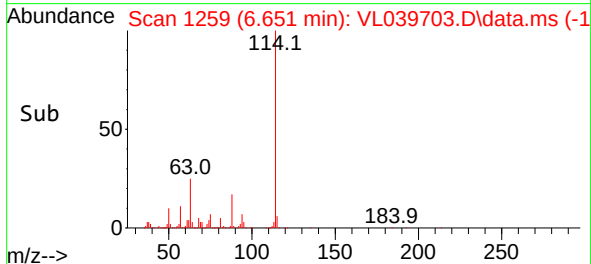
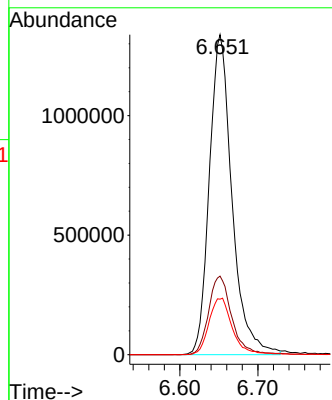
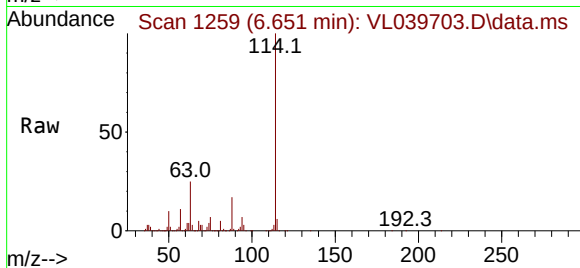
Tgt Ion:114 Resp: 2703580

Ion Ratio Lower Upper

114 100

63 25.3 20.2 30.4

88 18.3 14.5 21.7



#35

Carbon Tetrachloride

Concen: 0.075 ppbv m

RT: 6.497 min Scan# 1211

Delta R.T. -0.003 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

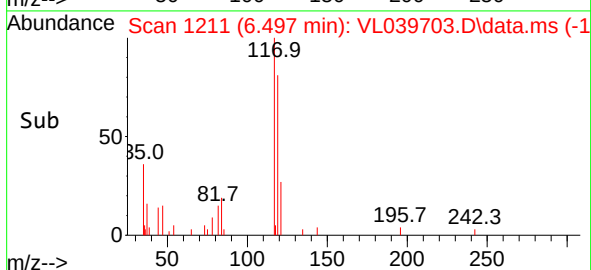
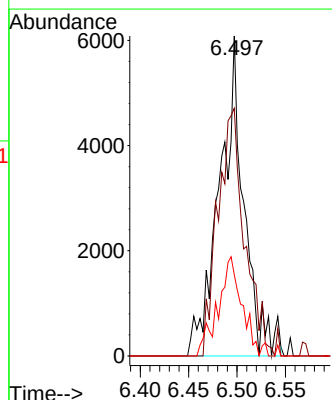
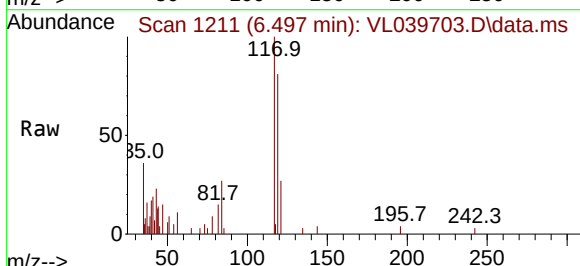
Tgt Ion:117 Resp: 10731

Ion Ratio Lower Upper

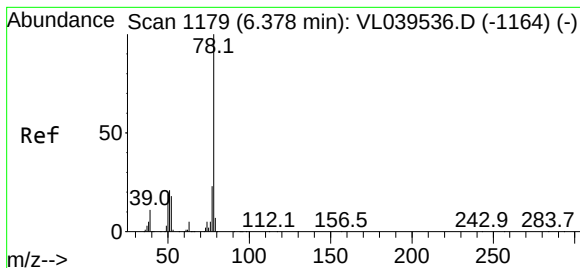
117 100

119 81.0 75.4 113.2

121 26.6 24.2 36.2







#36

Benzene

Concen: 1.737 ppbv

RT: 6.372 min Scan# 1179

Delta R.T. -0.006 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

Instrument :

MSVOA\_L

ClientSampleId :

IA1

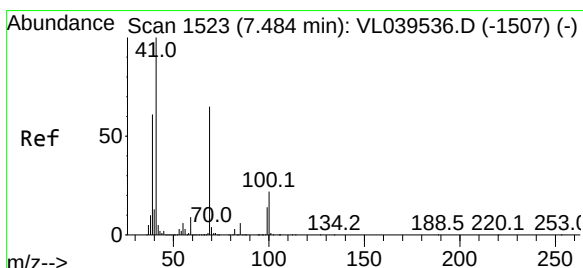
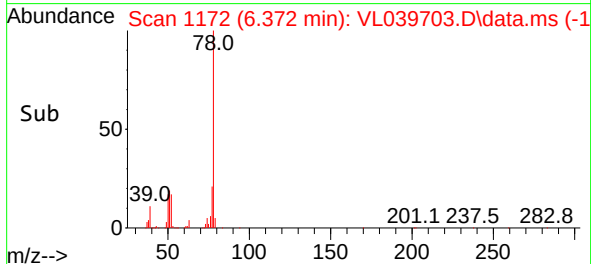
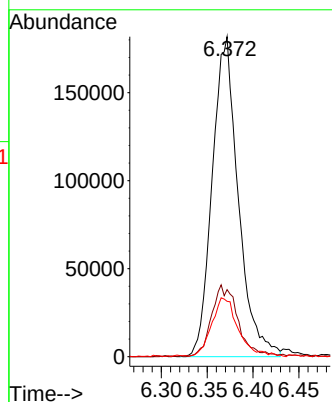
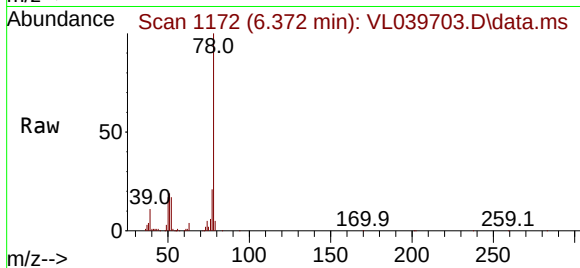
Tgt Ion: 78 Resp: 358983

Ion Ratio Lower Upper

78 100

77 20.7 20.3 30.5

50 16.9 15.5 23.3



#43

Methyl Methacrylate

Concen: 1.083 ppbv

RT: 7.475 min Scan# 1515

Delta R.T. -0.009 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

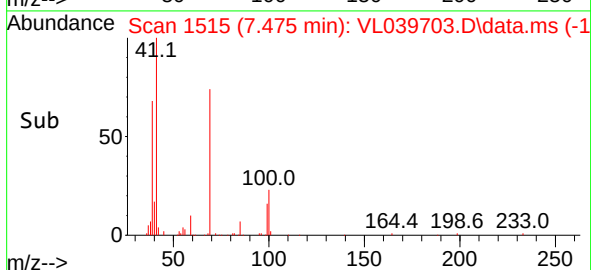
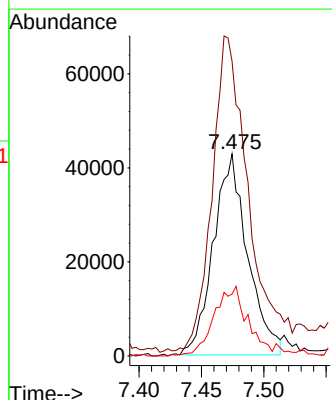
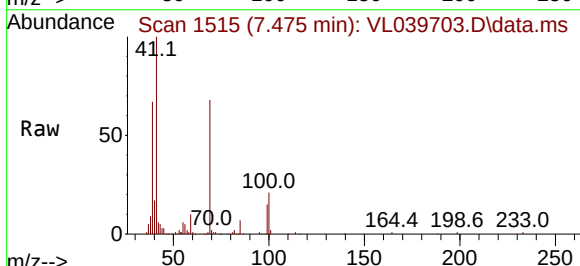
Tgt Ion: 69 Resp: 81615

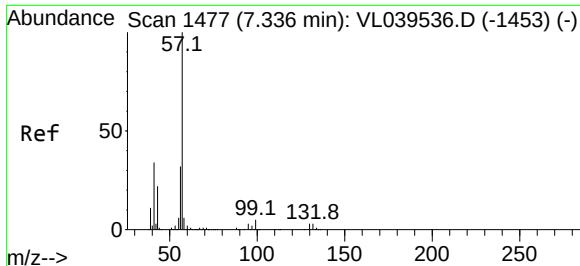
Ion Ratio Lower Upper

69 100

41 177.1 120.8 181.2

100 36.5 27.8 41.6

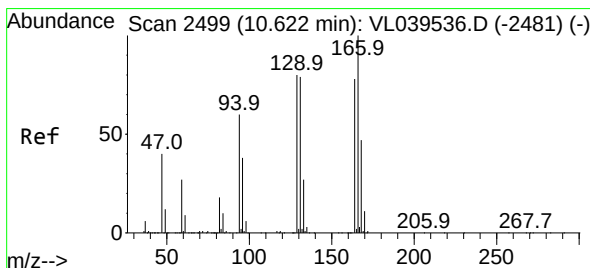
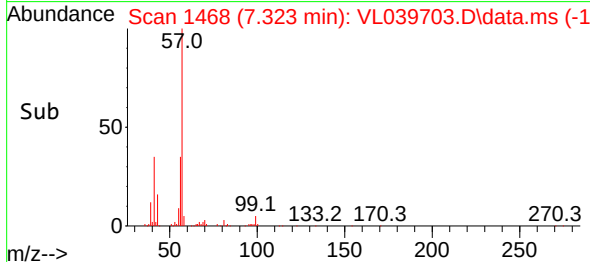
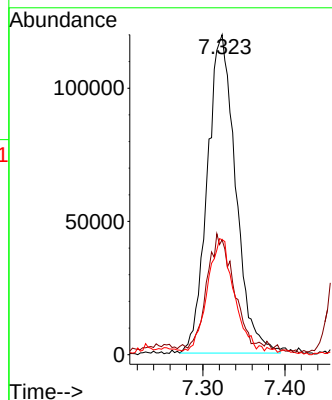
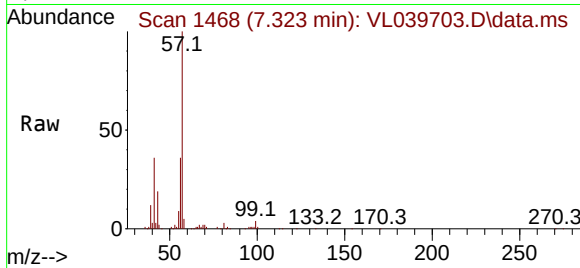




#44  
2,2,4-Trimethylpentane  
Concen: 0.808 ppbv  
RT: 7.323 min Scan# 1477  
Delta R.T. -0.012 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

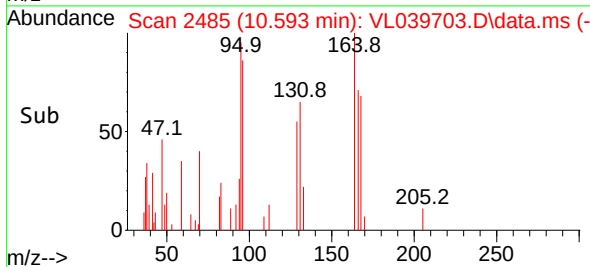
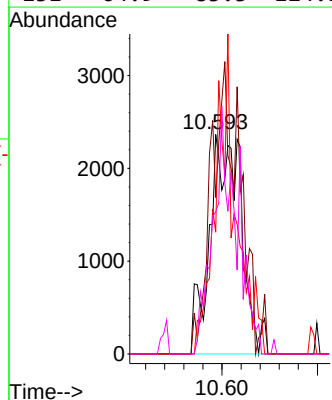
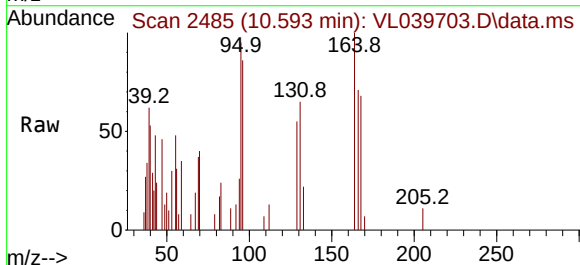
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

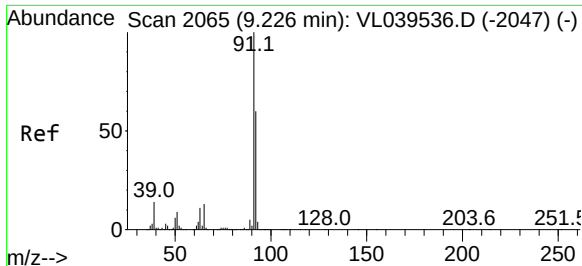
Tgt Ion: 57 Resp: 287876  
Ion Ratio Lower Upper  
57 100  
41 40.6 27.4 41.2  
56 38.2 24.5 36.7#



#52  
Tetrachloroethene  
Concen: 0.069 ppbv m  
RT: 10.593 min Scan# 2485  
Delta R.T. -0.028 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion:164 Resp: 5476  
Ion Ratio Lower Upper  
164 100  
166 71.2 102.2 153.2#  
129 55.5 85.8 128.8#  
131 64.9 83.3 124.9#

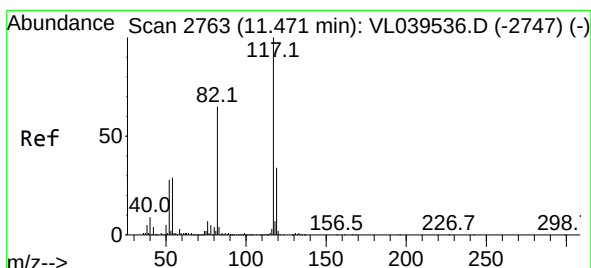
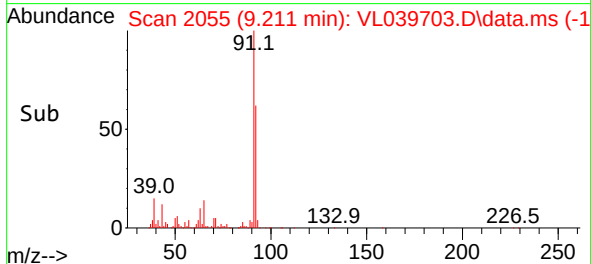
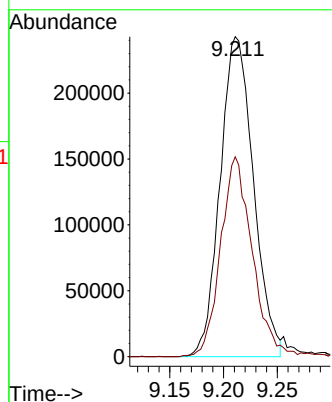
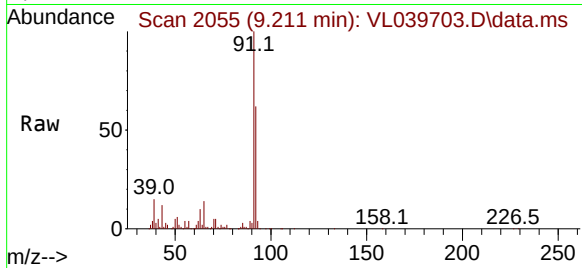




#53  
Toluene  
Concen: 2.278 ppbv  
RT: 9.211 min Scan# 2065  
Delta R.T. -0.016 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

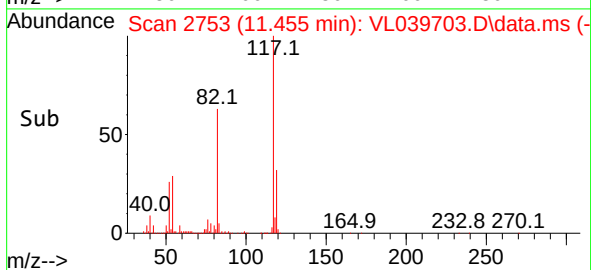
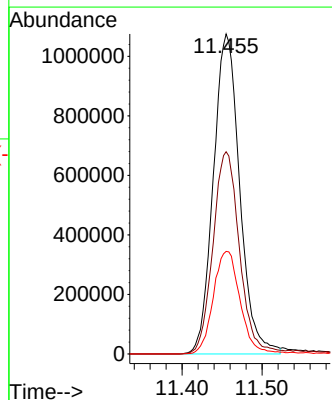
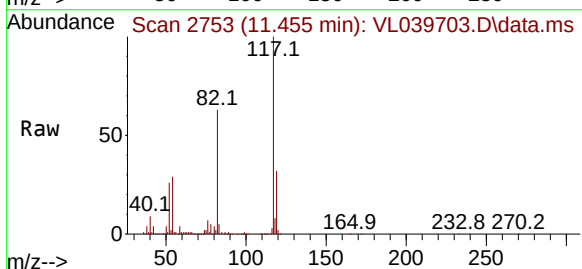
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

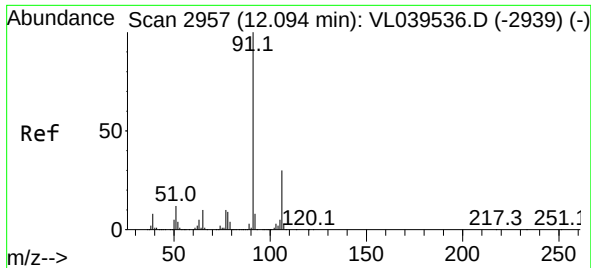
Tgt Ion: 91 Resp: 523740  
Ion Ratio Lower Upper  
91 100  
92 60.1 48.2 72.2



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.455 min Scan# 2753  
Delta R.T. -0.016 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 117 Resp: 2462269  
Ion Ratio Lower Upper  
117 100  
82 65.0 50.8 76.2  
119 33.4 24.1 36.1

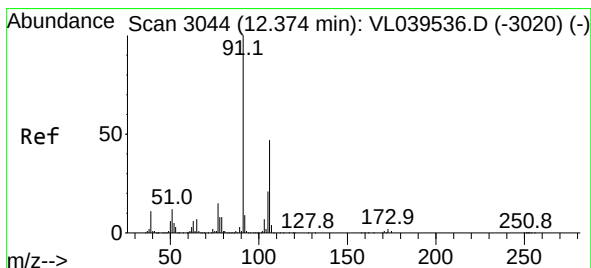
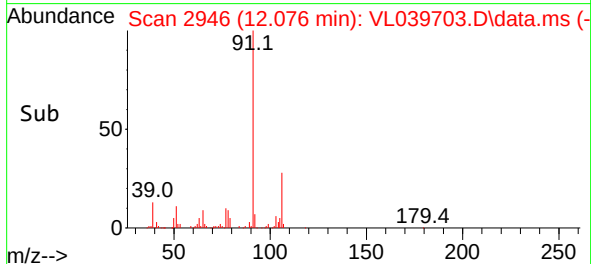
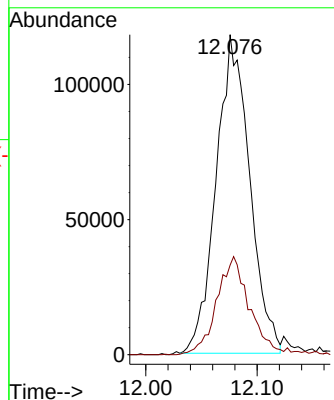
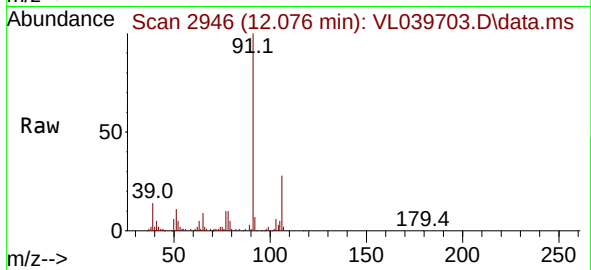




#58  
Ethyl Benzene  
Concen: 0.868 ppbv  
RT: 12.076 min Scan# 2957  
Delta R.T. -0.019 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

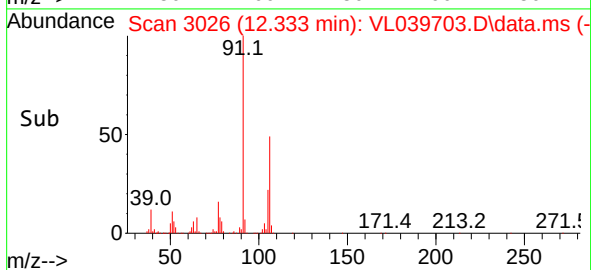
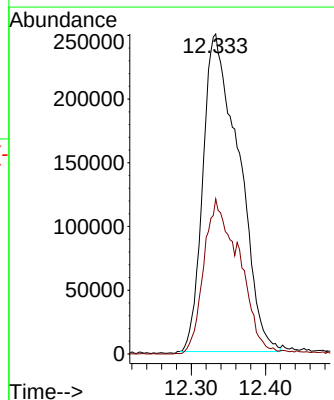
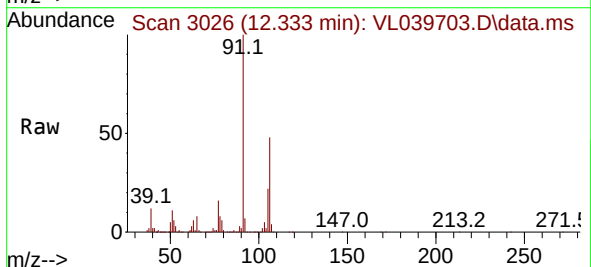
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

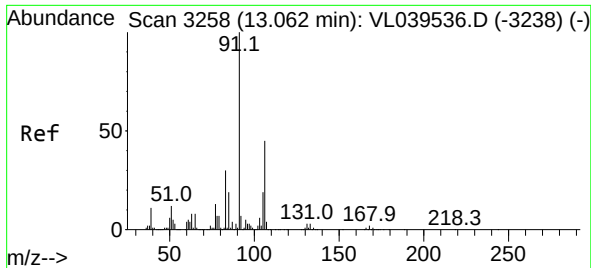
Tgt Ion: 91 Resp: 246543  
Ion Ratio Lower Upper  
91 100  
106 28.0 25.4 38.0



#59  
m/p-Xylene  
Concen: 3.305 ppbv  
RT: 12.333 min Scan# 3026  
Delta R.T. -0.041 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 91 Resp: 834940  
Ion Ratio Lower Upper  
91 100  
106 49.1 35.4 53.2

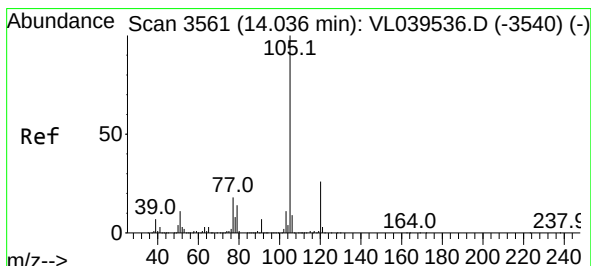
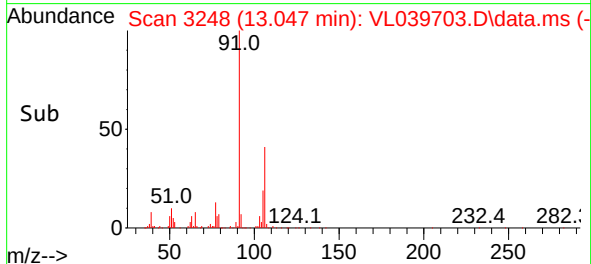
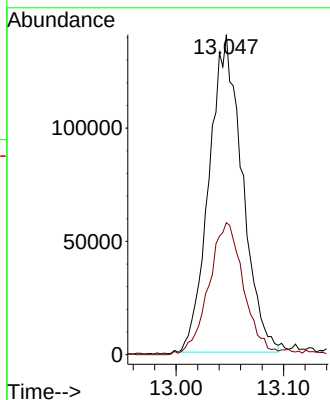
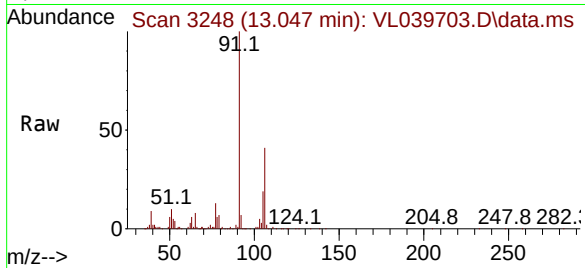




#60  
o-Xylene  
Concen: 1.247 ppbv  
RT: 13.047 min Scan# 31  
Delta R.T. -0.016 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

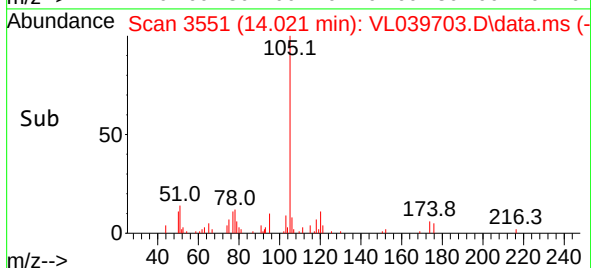
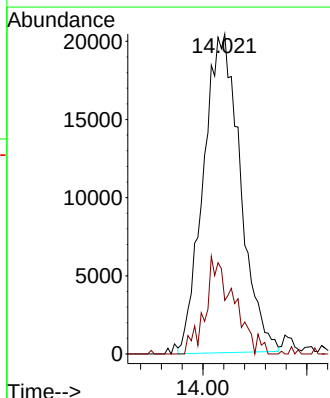
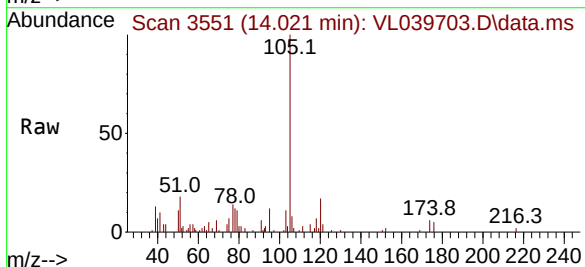
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

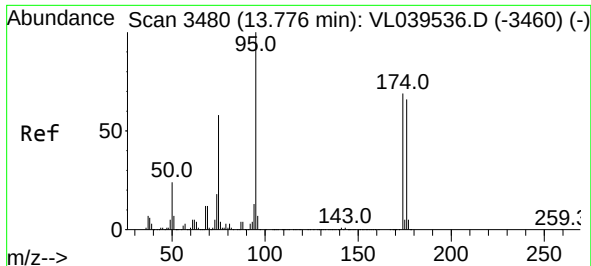
Tgt Ion: 91 Resp: 300805  
Ion Ratio Lower Upper  
91 100  
106 44.9 22.4 67.3



#62  
Isopropylbenzene  
Concen: 0.139 ppbv  
RT: 14.021 min Scan# 3551  
Delta R.T. -0.016 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 105 Resp: 50341  
Ion Ratio Lower Upper  
105 100  
120 23.8 20.7 31.1

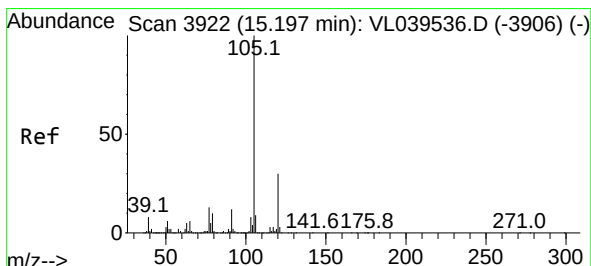
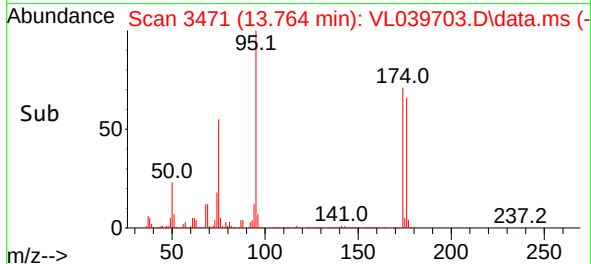
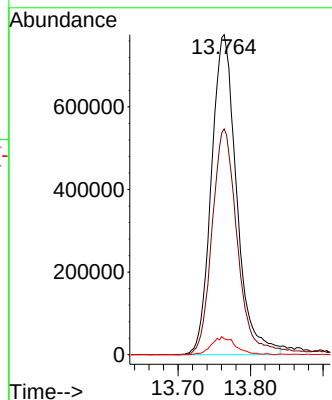
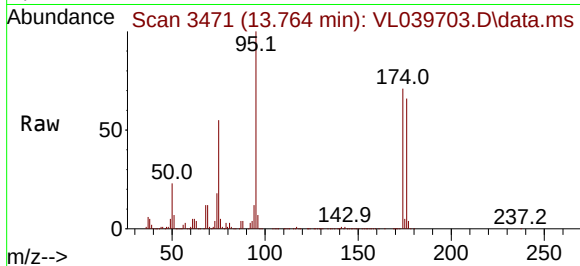




#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.196 ppbv  
RT: 13.764 min Scan# 3480  
Delta R.T. -0.012 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

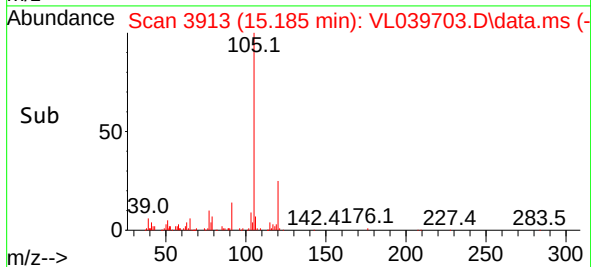
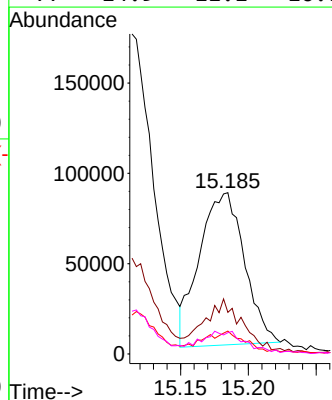
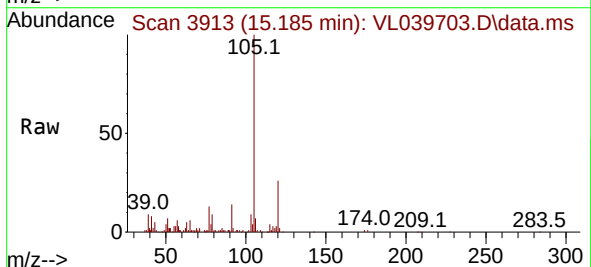
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

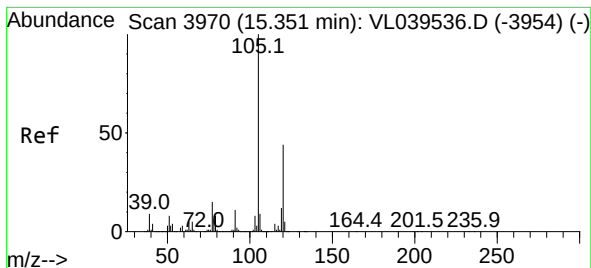
Tgt Ion: 95 Resp: 1874019  
Ion Ratio Lower Upper  
95 100  
174 72.8 55.9 83.9  
175 5.4 4.2 6.4



#72  
4-Ethyltoluene  
Concen: 0.708 ppbv  
RT: 15.185 min Scan# 3913  
Delta R.T. -0.012 min  
Lab File: VL039703.D  
Acq: 10 Oct 2022 19:37

Tgt Ion: 105 Resp: 194972  
Ion Ratio Lower Upper  
105 100  
120 34.7 24.2 36.2  
91 14.8 10.2 15.4  
77 14.9 11.1 16.7





#73

1,3,5-Trimethylbenzene

Concen: 0.650 ppbv

RT: 15.342 min Scan# 3962

Delta R.T. -0.009 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

Instrument :

MSVOA\_L

ClientSampleId :

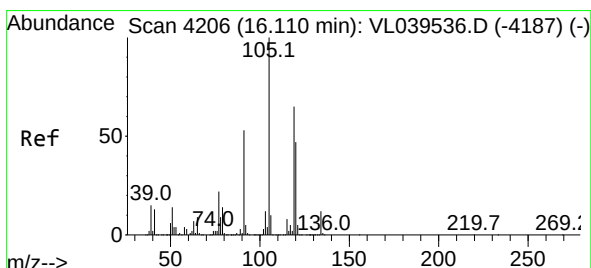
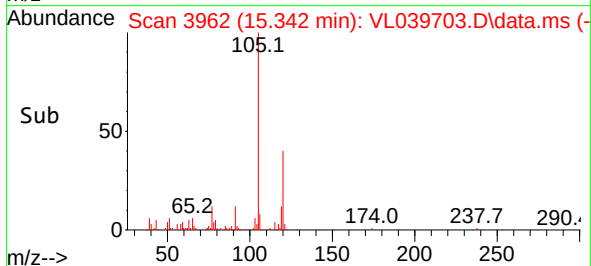
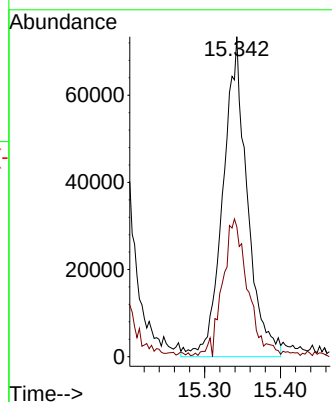
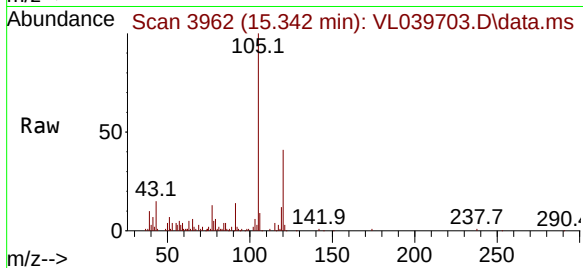
IA1

Tgt Ion:105 Resp: 163786

Ion Ratio Lower Upper

105 100

120 40.6 38.2 57.4



#74

1,2,4-Trimethylbenzene

Concen: 1.846 ppbv

RT: 16.095 min Scan# 4196

Delta R.T. -0.016 min

Lab File: VL039703.D

Acq: 10 Oct 2022 19:37

Tgt Ion:105 Resp: 521536

Ion Ratio Lower Upper

105 100

120 44.1 39.5 59.3

91 11.0 39.2 58.8#

77 13.6 17.2 25.8#

