

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL110823\  
 Data File : VL040824.D  
 Acq On : 8 Nov 2023 23:56  
 Operator : SY/MD  
 Sample : 05275-02  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 NT-IA-2

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/11/2023  
 Supervised By :Mahesh Dadoda 11/13/2023

Quant Time: Nov 09 02:15:08 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LFri Aug 2

QLast Update : Thu Nov 09 00:25:02 2023

Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.211  | 49    | 1045701  | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene     | 6.661  | 114   | 2617272  | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5        | 11.462 | 117   | 2168175  | 10.000   | ppbv   | 0.00     |
|                             |        |       |          |          |        |          |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.770 | 95    | 1581551  | 9.913    | ppbv   | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 99.100%  |
|                             |        |       |          |          |        |          |
| Target Compounds            |        |       |          |          |        | Qvalue   |
| 2) Dichlorodifluoromethane  | 2.774  | 85    | 101257   | 0.550    | ppbv   | 98       |
| 3) Chlorodifluoromethane    | 2.719  | 51    | 57920m   | 0.377    | ppbv   |          |
| 4) Chloromethane            | 2.857  | 50    | 30379    | 0.501    | ppbv # | 89       |
| 9) Propene                  | 2.742  | 41    | 89761m   | 1.573    | ppbv   |          |
| 10) Heptane                 | 7.584  | 43    | 29461m   | 0.205    | ppbv   |          |
| 11) Trichlorofluoromethane  | 3.597  | 101   | 38674m   | 0.272    | ppbv   |          |
| 13) Ethanol                 | 3.275  | 45    | 772162   | 59.926   | ppbv   | 99       |
| 15) Acetone                 | 3.504  | 43    | 960835m  | 8.888    | ppbv   |          |
| 17) tert-Butyl alcohol      | 3.915  | 59    | 420670   | 3.795    | ppbv   | 99       |
| 19) Isopropyl Alcohol       | 3.616  | 45    | 167399   | 2.405    | ppbv # | 1        |
| 20) Methylene Chloride      | 3.967  | 84    | 1049616  | 23.309   | ppbv   | 99       |
| 26) Hexane                  | 5.234  | 57    | 1756024  | 16.221   | ppbv # | 41       |
| 30) Cyclohexane             | 6.613  | 84    | 11590m   | 0.126    | ppbv   |          |
| 34) 2-Butanone              | 4.809  | 43    | 98121m   | 0.828    | ppbv   |          |
| 35) Carbon Tetrachloride    | 6.507  | 117   | 12110m   | 0.082    | ppbv   |          |
| 36) Benzene                 | 6.385  | 78    | 98173    | 0.488    | ppbv # | 88       |
| 44) 2,2,4-Trimethylpentane  | 7.336  | 57    | 106956   | 0.314    | ppbv # | 77       |
| 52) Tetrachloroethene       | 10.610 | 164   | 2755m    | 0.034    | ppbv   |          |
| 53) Toluene                 | 9.221  | 91    | 221506   | 0.925    | ppbv   | 98       |
| 58) Ethyl Benzene           | 12.089 | 91    | 53390    | 0.196    | ppbv   | 95       |
| 59) m/p-Xylene              | 12.339 | 91    | 141189m  | 0.628    | ppbv   |          |
| 60) o-Xylene                | 13.056 | 91    | 63551m   | 0.297    | ppbv   |          |
| 72) 4-Ethyltoluene          | 15.179 | 105   | 25620m   | 0.102    | ppbv   |          |
| 74) 1,2,4-Trimethylbenzene  | 16.101 | 105   | 84232m   | 0.349    | ppbv   |          |
| -----                       |        |       |          |          |        |          |

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

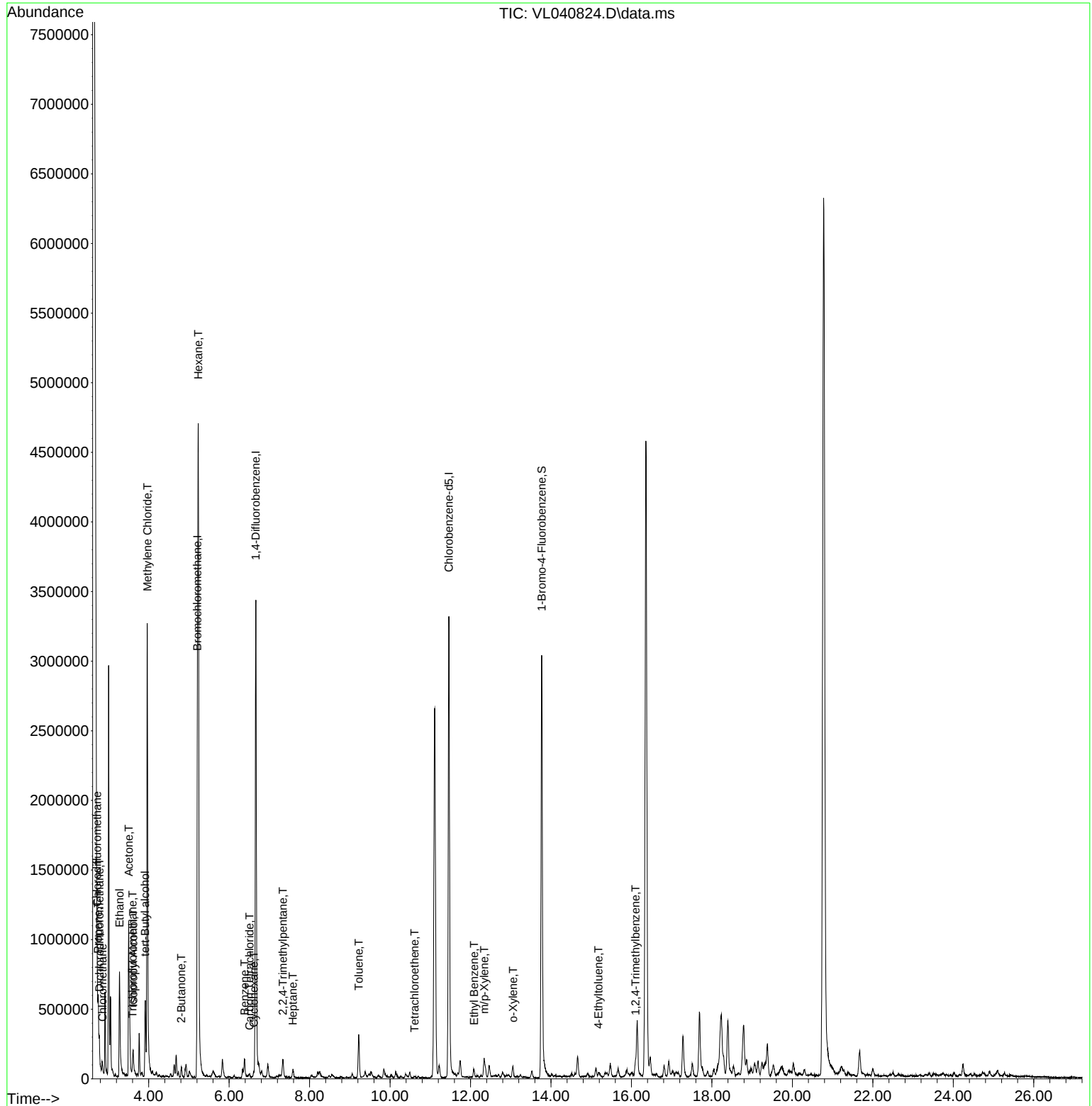
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Data File : VL040824.D  
Acq On : 8 Nov 2023 23:56  
Operator : SY/MD  
Sample : 05275-02  
Misc : 400mL/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

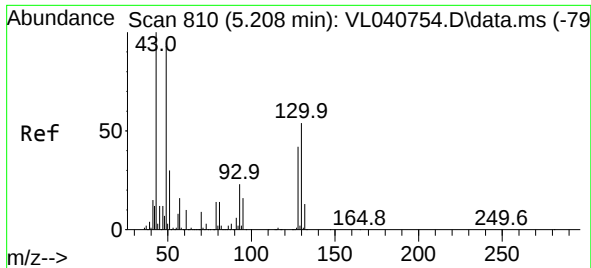
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Quant Time: Nov 09 02:15:08 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug  
QLast Update : Thu Nov 09 00:25:02 2023  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By : Semsettin Yesilyurt 11/11/2023  
Supervised By : Mahesh Dadoda 11/13/2023





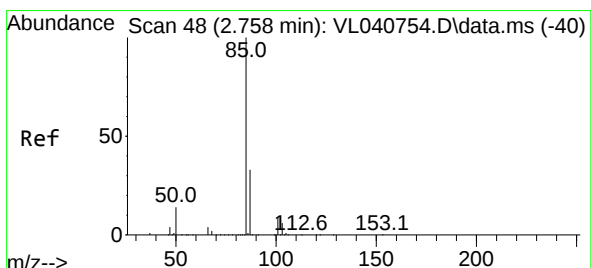
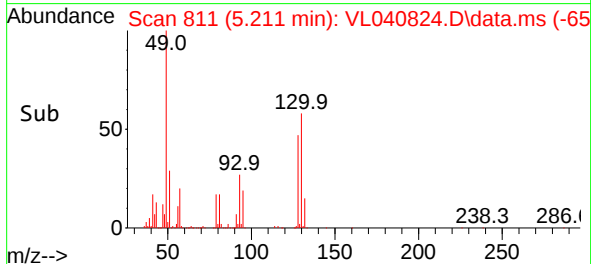
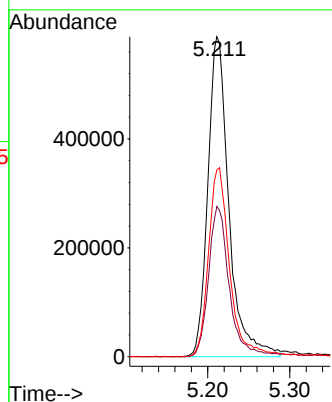
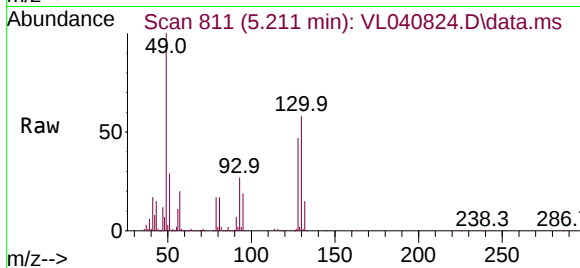
#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.211 min Scan# 81  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Tgt Ion: 49 Resp: 104570  
Ion Ratio Lower Upper  
49 100  
128 47.5 23.9 71.7  
130 59.9 30.7 92.1

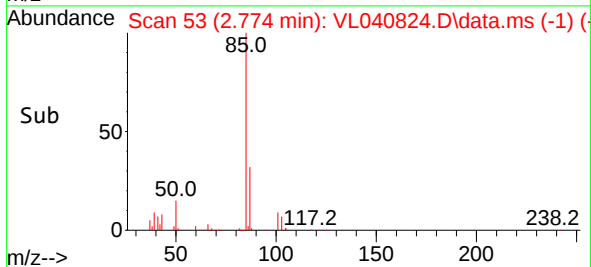
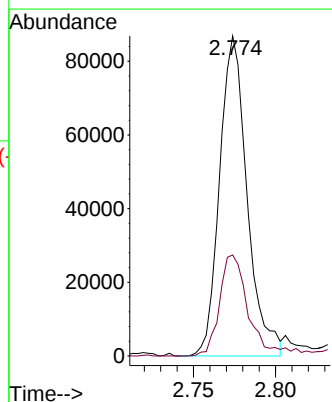
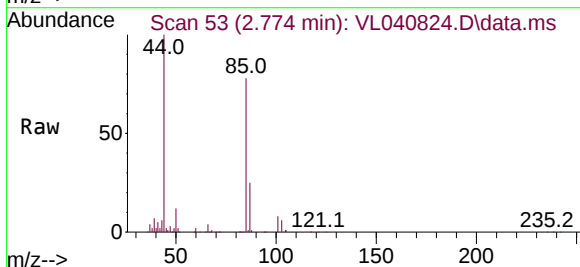
Manual Integrations  
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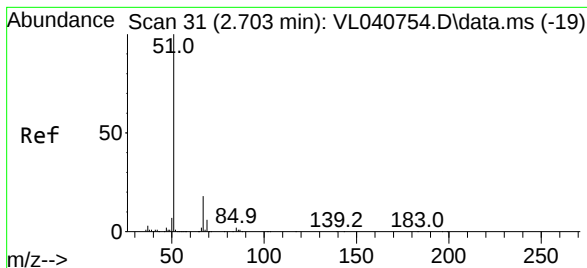
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#2  
Dichlorodifluoromethane  
Concen: 0.550 ppbv  
RT: 2.774 min Scan# 53  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Tgt Ion: 85 Resp: 101257  
Ion Ratio Lower Upper  
85 100  
87 31.6 26.0 39.0





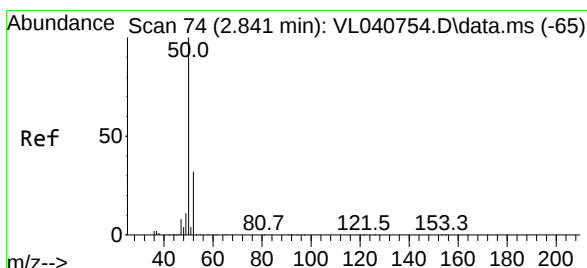
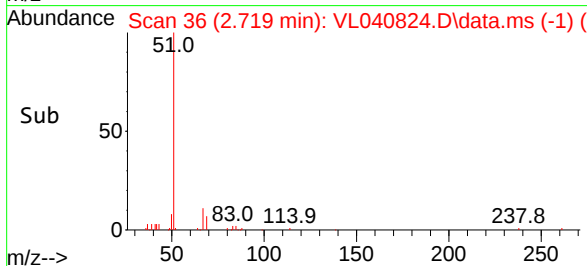
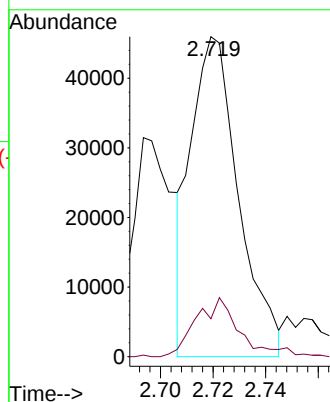
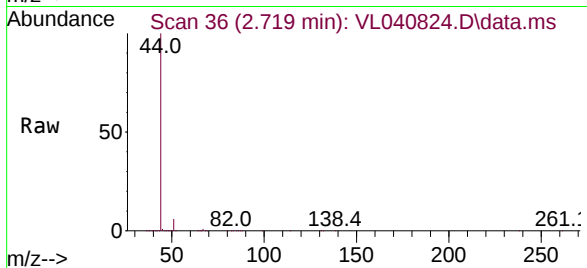
#3  
Chlorodifluoromethane  
Concen: 0.377 ppbv m  
RT: 2.719 min Scan# 30  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Tgt Ion: 51 Resp: 57920  
Ion Ratio Lower Upper  
51 100  
67 17.3 13.8 20.6

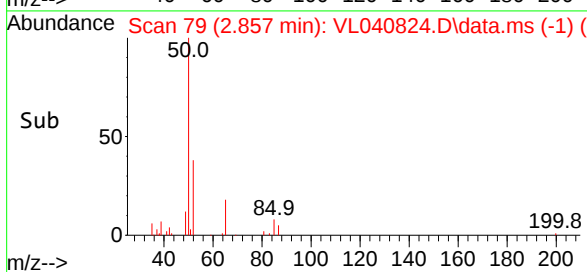
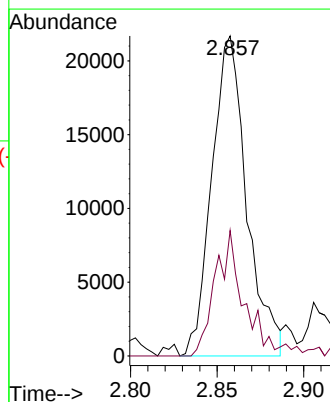
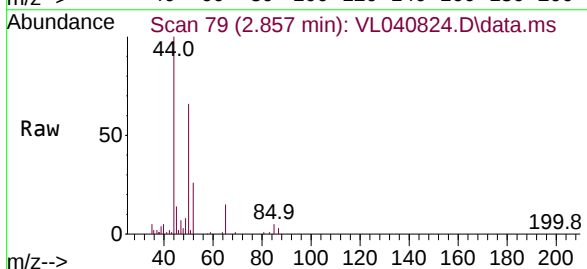
Manual Integrations  
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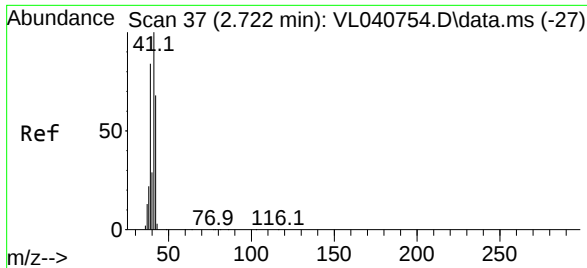
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#4  
Chloromethane  
Concen: 0.501 ppbv  
RT: 2.857 min Scan# 79  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Tgt Ion: 50 Resp: 30379  
Ion Ratio Lower Upper  
50 100  
52 38.0 25.3 37.9





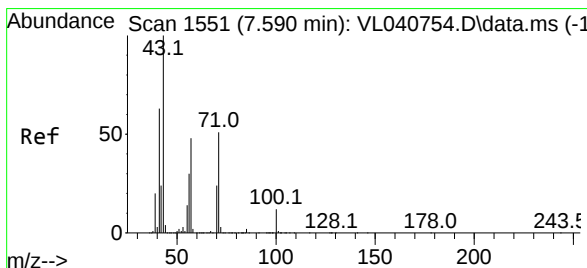
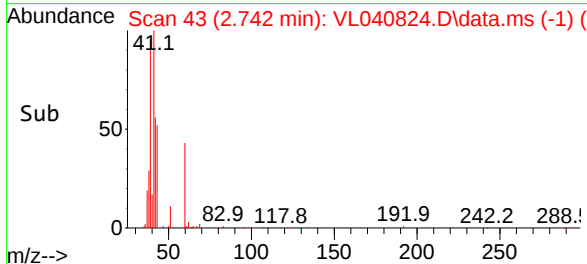
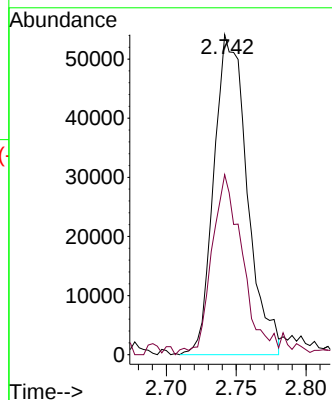
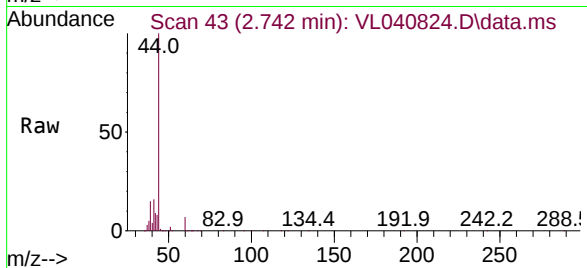
#9  
Propene  
Concen: 1.573 ppbv m  
RT: 2.742 min Scan# 41  
Delta R.T. 0.007 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Tgt Ion: 41 Resp: 8976  
Ion Ratio Lower Upper  
41 100  
42 109.7 57.1 85.7

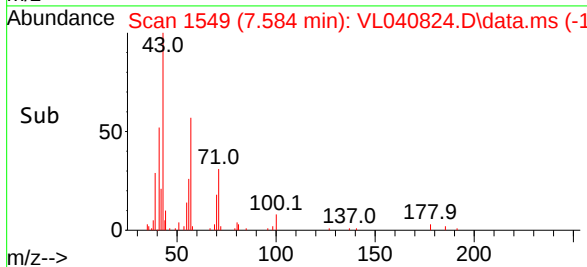
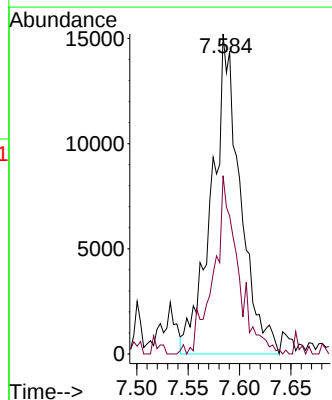
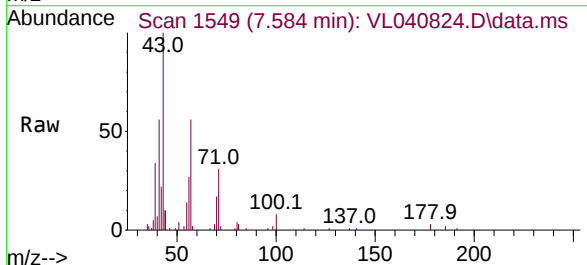
Manual Integrations  
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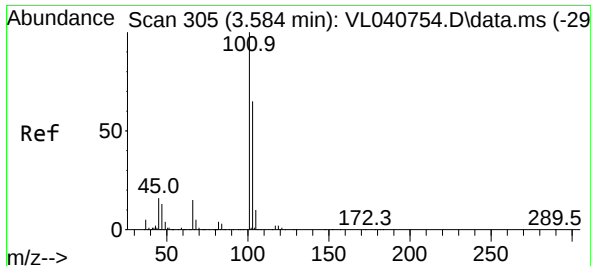
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#10  
Heptane  
Concen: 0.205 ppbv m  
RT: 7.584 min Scan# 1549  
Delta R.T. -0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

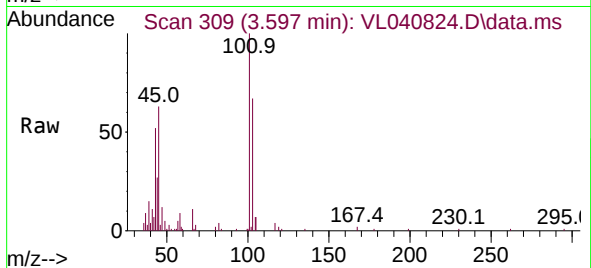
Tgt Ion: 43 Resp: 29461  
Ion Ratio Lower Upper  
43 100  
57 47.4 40.0 60.0





#11  
Trichlorofluoromethane  
Concen: 0.272 ppbv m  
RT: 3.597 min Scan# 305  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

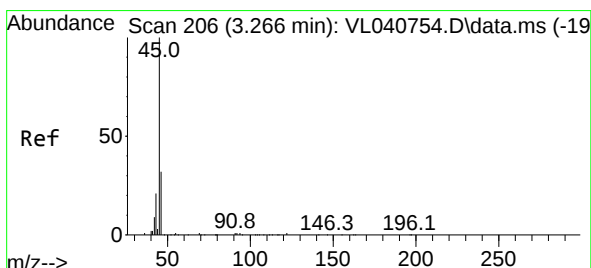
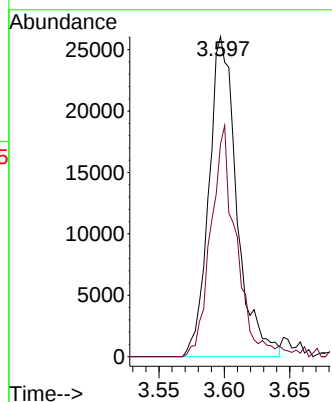
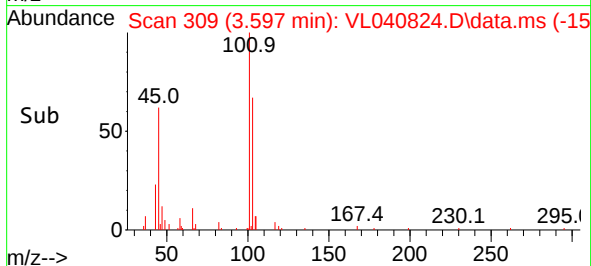
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2



Tgt Ion:101 Resp: 38674  
Ion Ratio Lower Upper  
101 100  
103 66.5 52.2 78.2

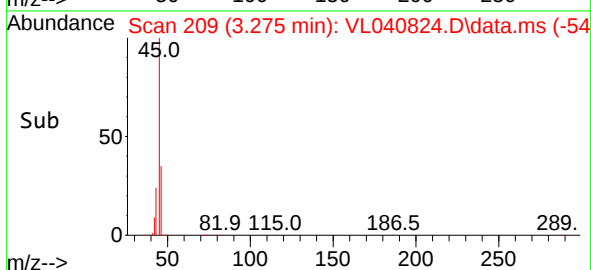
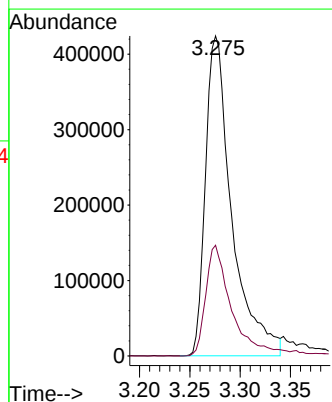
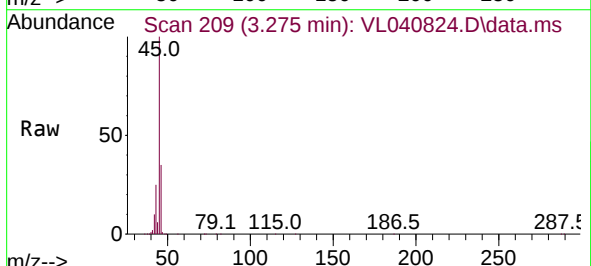
Manual Integrations  
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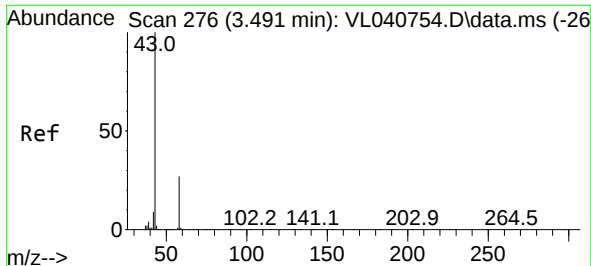
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#13  
Ethanol  
Concen: 59.926 ppbv  
RT: 3.275 min Scan# 209  
Delta R.T. -0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Tgt Ion: 45 Resp: 772162  
Ion Ratio Lower Upper  
45 100  
46 35.6 14.6 58.2





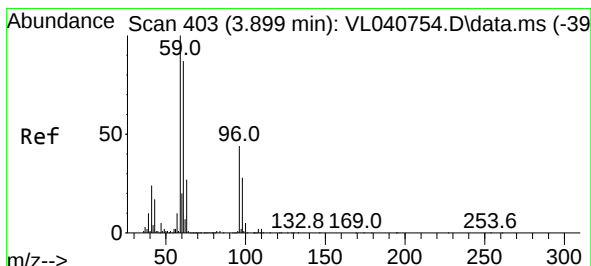
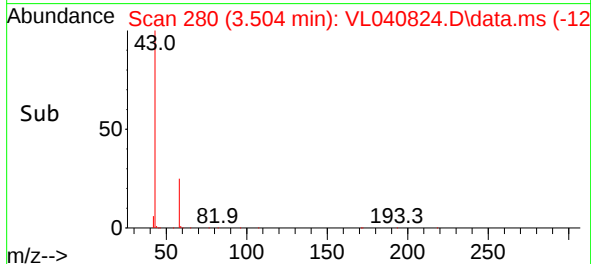
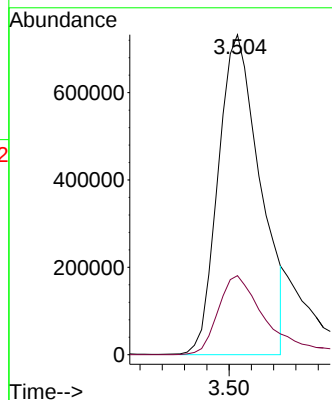
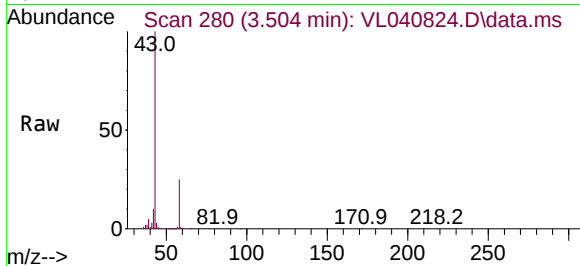
#15  
Acetone  
Concen: 8.888 ppbv m  
RT: 3.504 min Scan# 21  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Tgt Ion: 43 Resp: 960835  
Ion Ratio Lower Upper  
43 100  
58 29.5 21.6 32.4

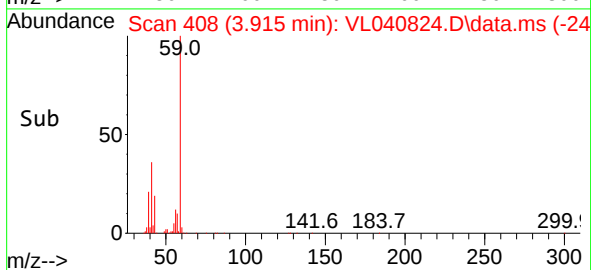
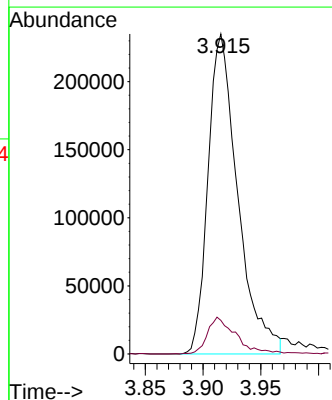
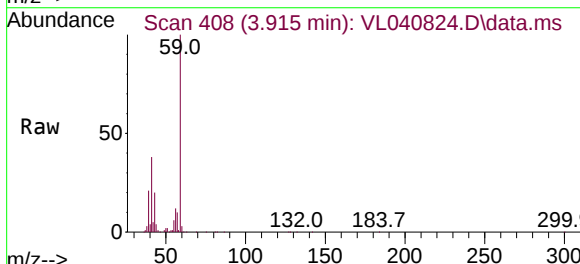
Manual Integrations  
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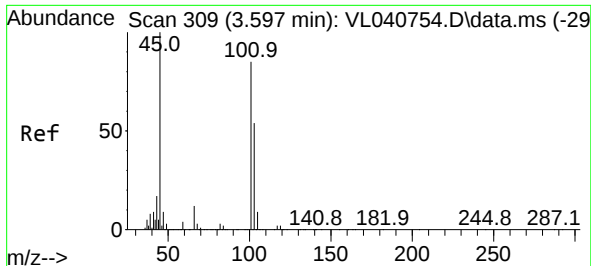
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#17  
tert-Butyl alcohol  
Concen: 3.795 ppbv  
RT: 3.915 min Scan# 408  
Delta R.T. 0.010 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Tgt Ion: 59 Resp: 420670  
Ion Ratio Lower Upper  
59 100  
57 11.3 8.6 13.0





#19

Isopropyl Alcohol

Concen: 2.405 ppbv

RT: 3.616 min Scan# 315

Delta R.T. 0.010 min

Lab File: VL040824.D

Acq: 8 Nov 2023 23:56

Instrument :

MSVOA\_L

ClientSampleId :

NT-IA-2

Tgt Ion: 45 Resp: 167399

Ion Ratio Lower Upper

45 100

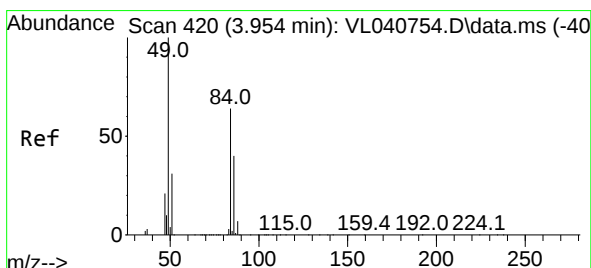
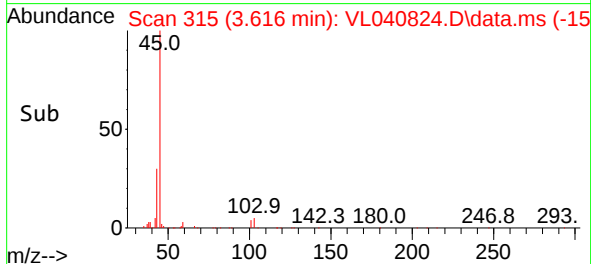
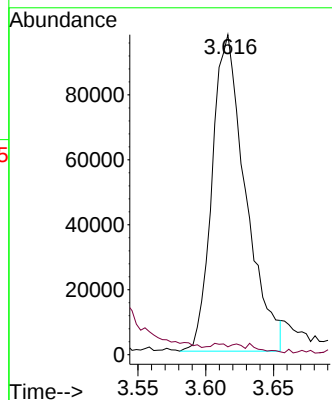
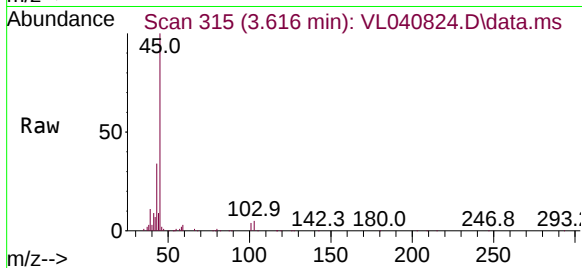
58 169.1 30.3 45.5

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/11/2023

Supervised By :Mahesh Dadoda 11/13/2023



#20

Methylene Chloride

Concen: 23.309 ppbv

RT: 3.967 min Scan# 424

Delta R.T. 0.007 min

Lab File: VL040824.D

Acq: 8 Nov 2023 23:56

Tgt Ion: 84 Resp: 1049616

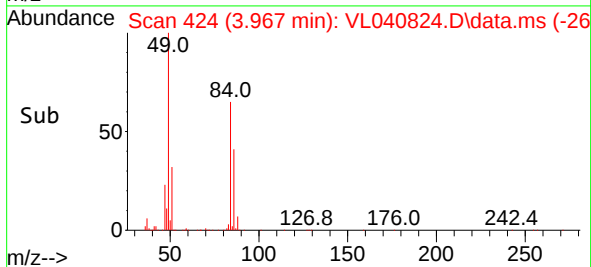
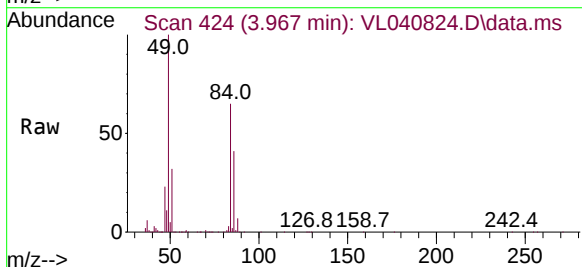
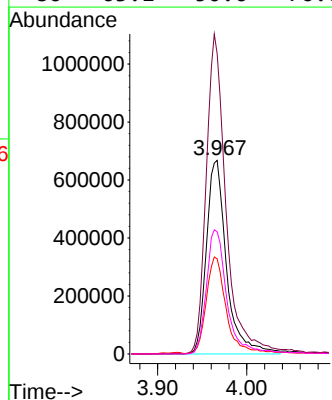
Ion Ratio Lower Upper

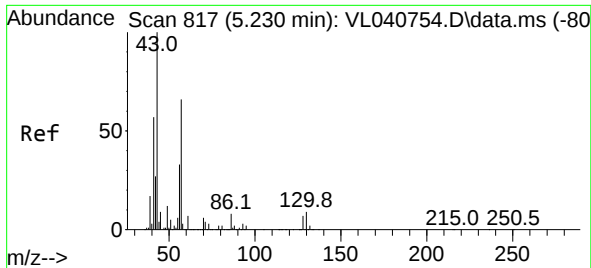
84 100

49 154.8 125.6 188.4

51 48.5 38.9 58.3

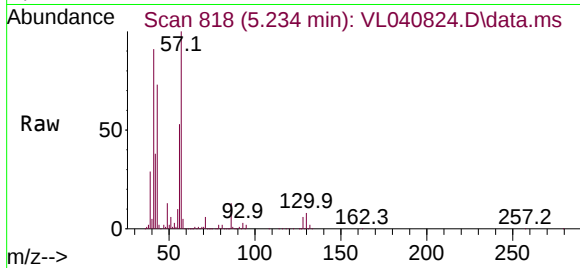
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#26  
Hexane  
Concen: 16.221 ppbv  
RT: 5.234 min Scan# 817  
Delta R.T. 0.007 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

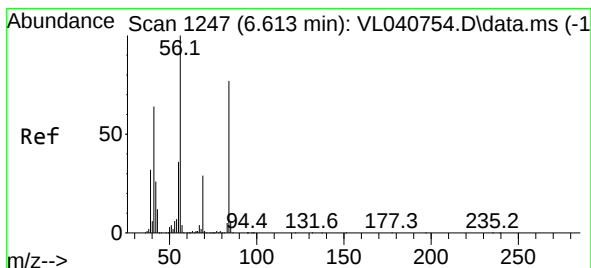
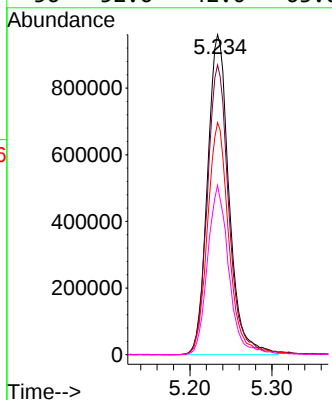
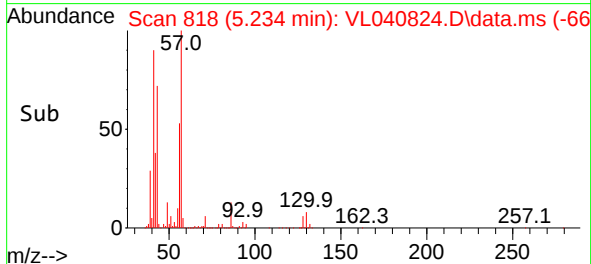
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2



Tgt Ion: 57 Resp: 1756024  
Ion Ratio Lower Upper  
57 100  
41 91.4 71.4 107.2  
43 72.5 182.3 273.5  
56 52.6 42.0 63.0

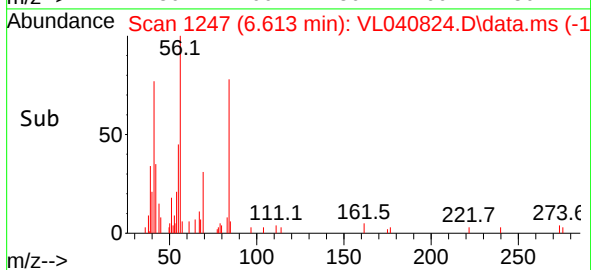
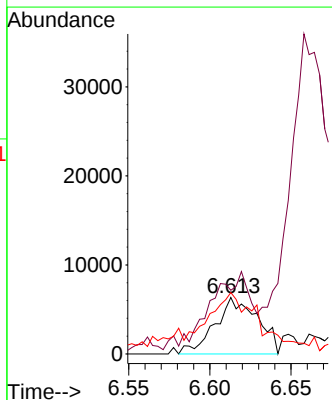
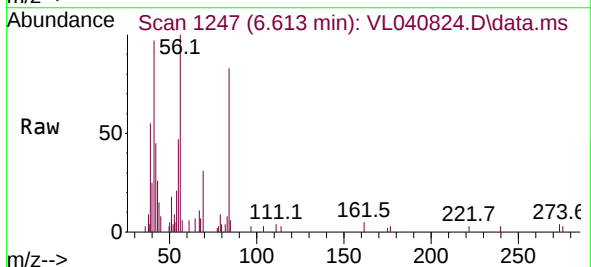
Manual Integrations  
APPROVED

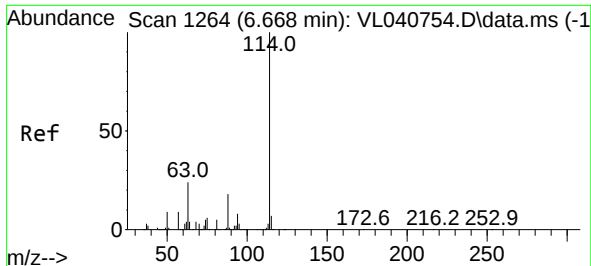
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#30  
Cyclohexane  
Concen: 0.126 ppbv m  
RT: 6.613 min Scan# 1247  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Tgt Ion: 84 Resp: 11590  
Ion Ratio Lower Upper  
84 100  
56 0.0 110.3 165.5#  
41 110.4 67.4 101.2#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.661 min Scan# 1

Delta R.T. -0.003 min

Lab File: VL040824.D

Acq: 8 Nov 2023 23:56

Instrument :

MSVOA\_L

ClientSampleId :

NT-IA-2

Tgt Ion:114 Resp: 261727

Ion Ratio Lower Upper

114 100

63 25.2 19.8 29.6

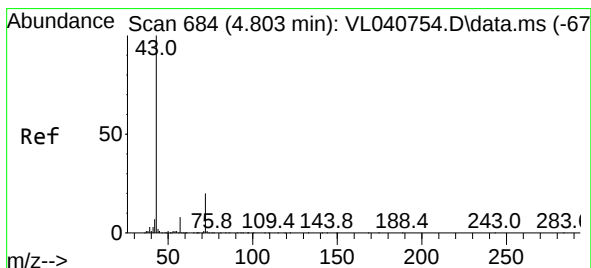
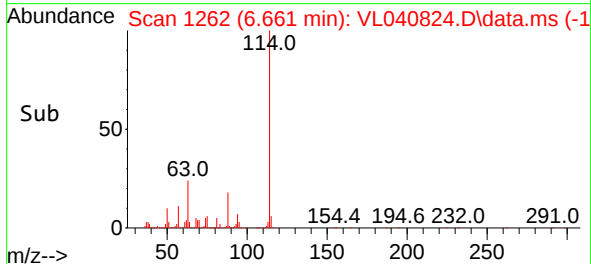
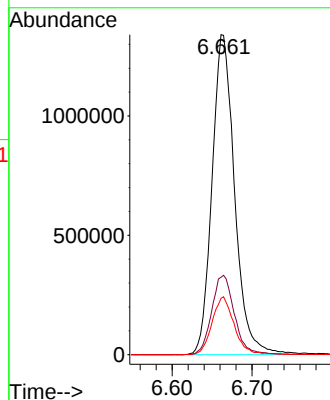
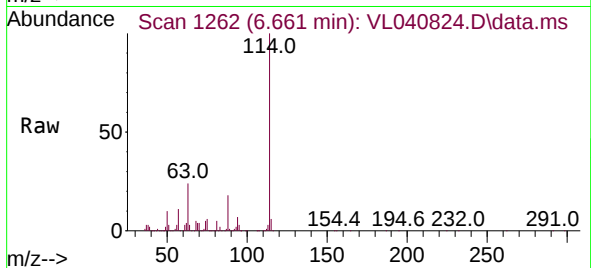
88 18.0 14.2 21.2

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/11/2023

Supervised By :Mahesh Dadoda 11/13/2023



#34

2-Butanone

Concen: 0.828 ppbv m

RT: 4.809 min Scan# 686

Delta R.T. 0.003 min

Lab File: VL040824.D

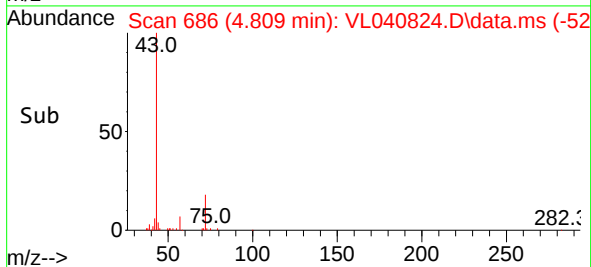
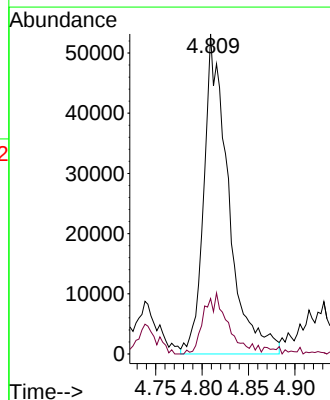
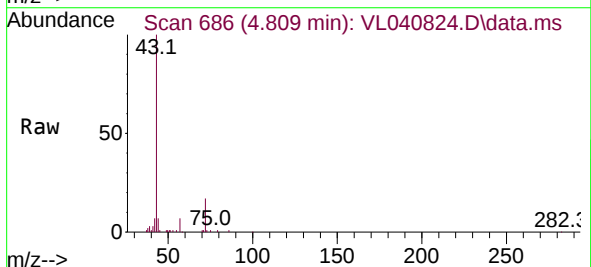
Acq: 8 Nov 2023 23:56

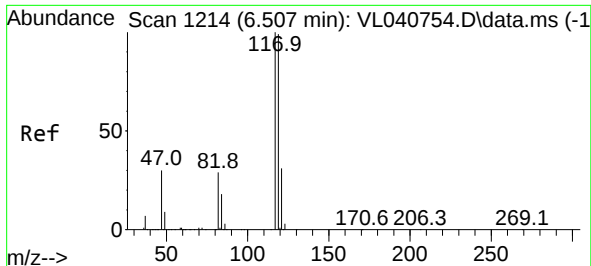
Tgt Ion: 43 Resp: 98121

Ion Ratio Lower Upper

43 100

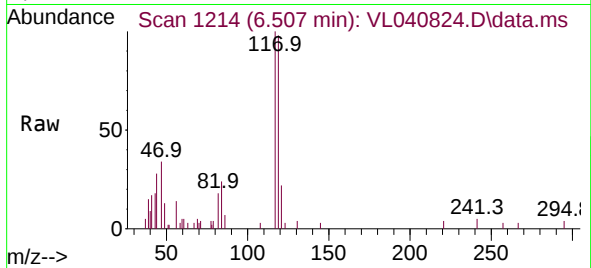
72 19.5 16.8 25.2





#35  
Carbon Tetrachloride  
Concen: 0.082 ppbv m  
RT: 6.507 min Scan# 1214  
Delta R.T. 0.000 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

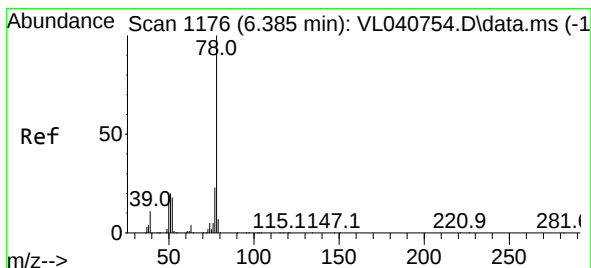
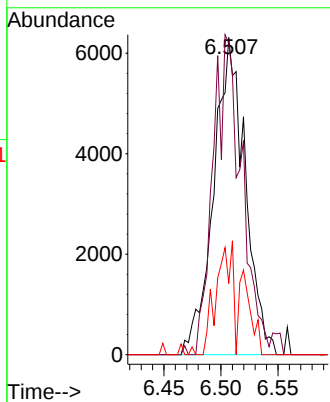
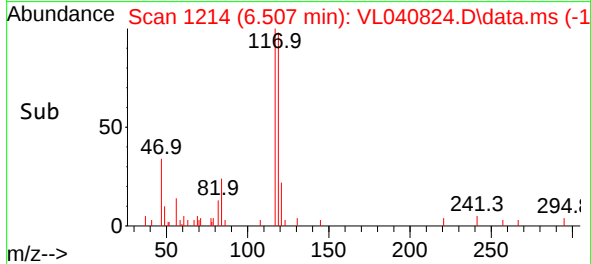
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2



Tgt Ion: 117 Resp: 12110  
Ion Ratio Lower Upper  
117 100  
119 98.1 79.4 119.0  
121 22.4 25.0 37.4

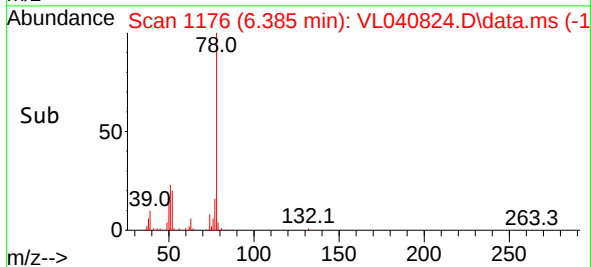
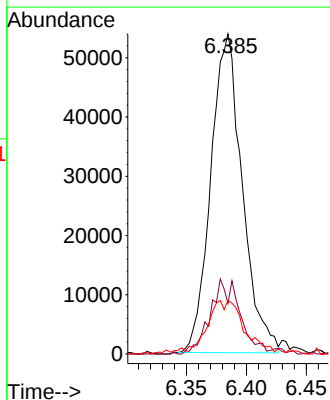
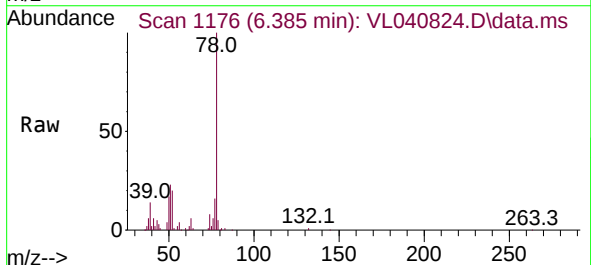
Manual Integrations  
APPROVED

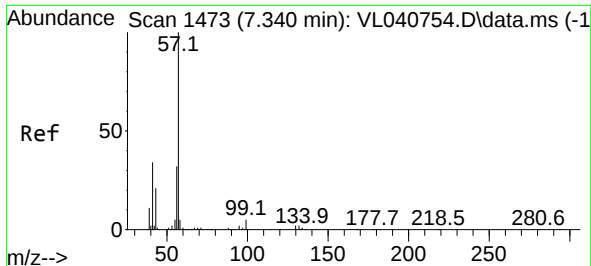
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#36  
Benzene  
Concen: 0.488 ppbv  
RT: 6.385 min Scan# 1176  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

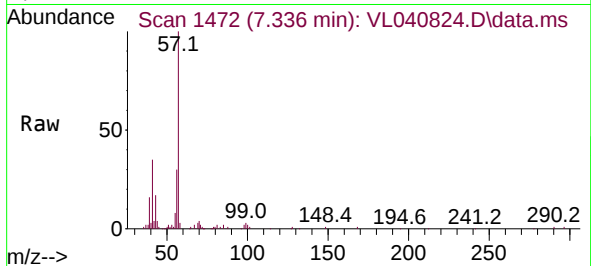
Tgt Ion: 78 Resp: 98173  
Ion Ratio Lower Upper  
78 100  
77 15.4 18.4 27.6#  
50 15.6 15.0 22.4





#44  
2,2,4-Trimethylpentane  
Concen: 0.314 ppbv  
RT: 7.336 min Scan# 1473  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

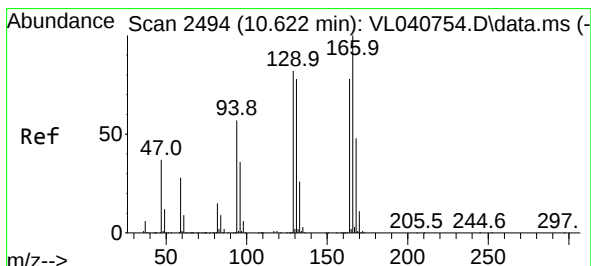
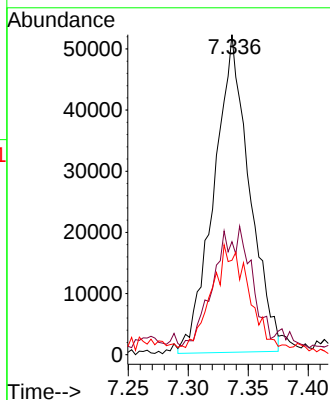
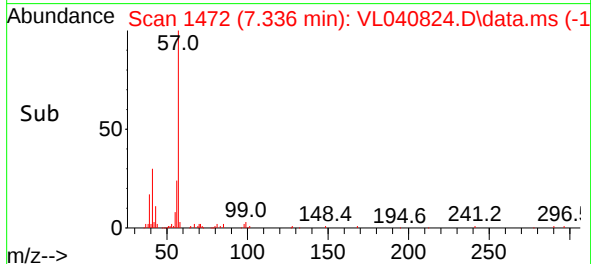
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2



Tgt Ion: 57 Resp: 106950  
Ion Ratio Lower Upper  
57 100  
41 50.6 27.4 41.0#  
56 40.8 25.0 37.6#

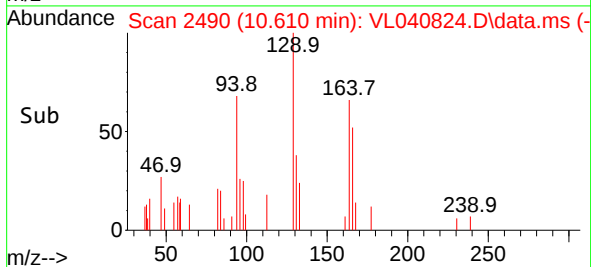
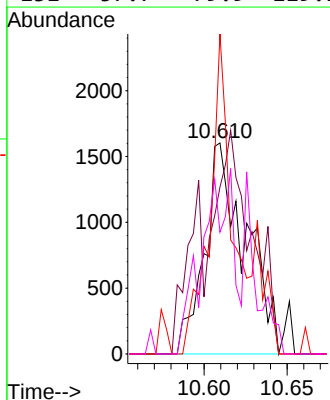
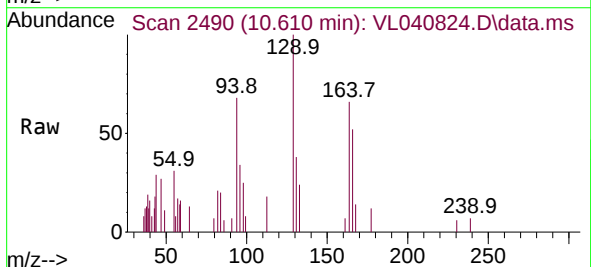
Manual Integrations  
APPROVED

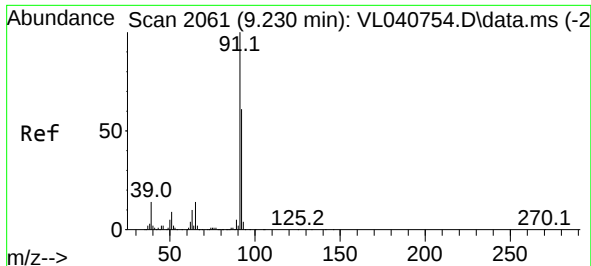
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#52  
Tetrachloroethene  
Concen: 0.034 ppbv m  
RT: 10.610 min Scan# 2490  
Delta R.T. -0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

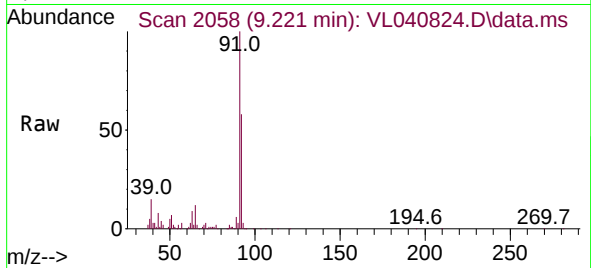
Tgt Ion:164 Resp: 2755  
Ion Ratio Lower Upper  
164 100  
166 79.1 102.4 153.6#  
129 151.7 84.2 126.4#  
131 57.7 79.9 119.9#





#53  
Toluene  
Concen: 0.925 ppbv  
RT: 9.221 min Scan# 2061  
Delta R.T. 0.000 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

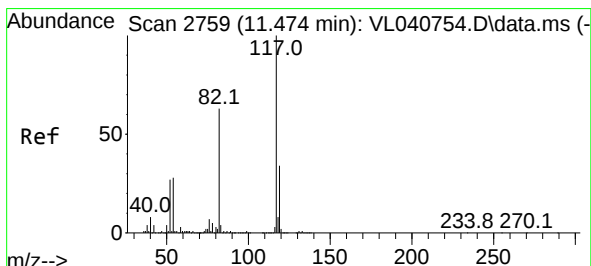
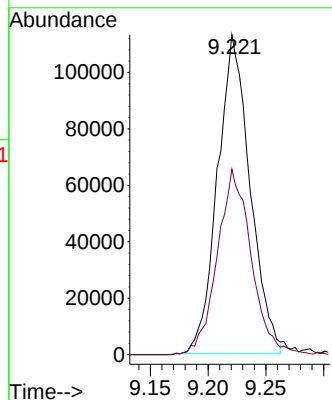
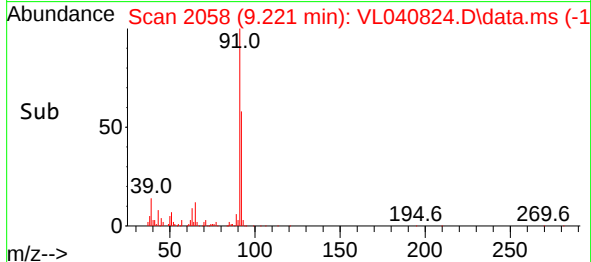
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2



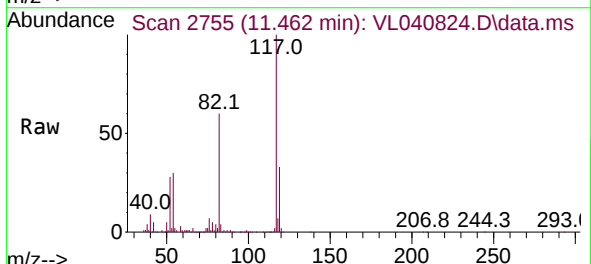
Tgt Ion: 91 Resp: 221500  
Ion Ratio Lower Upper  
91 100  
92 60.9 50.2 75.2

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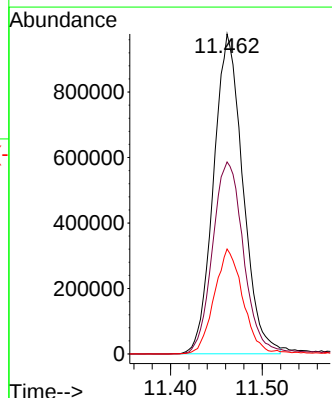
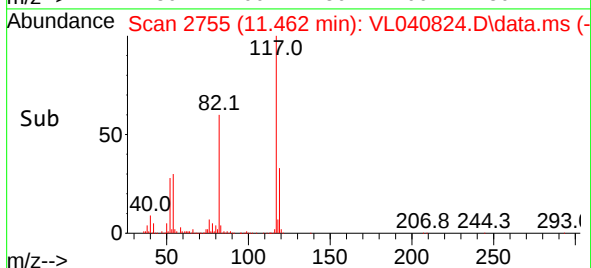
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023

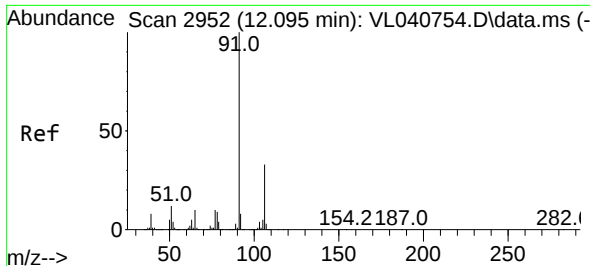


#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.462 min Scan# 2755  
Delta R.T. 0.000 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56



Tgt Ion:117 Resp: 2168175  
Ion Ratio Lower Upper  
117 100  
82 65.2 46.6 70.0  
119 32.9 26.0 39.0





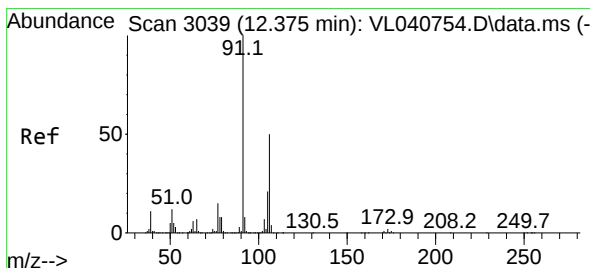
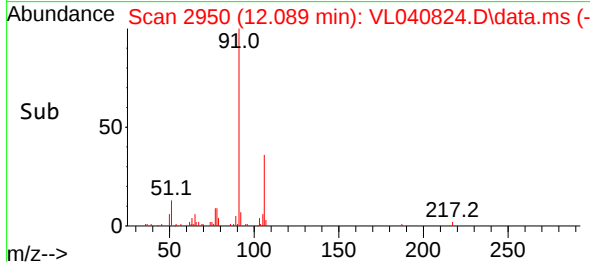
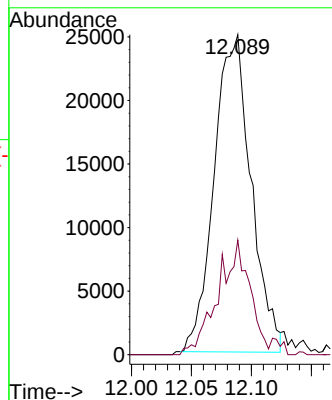
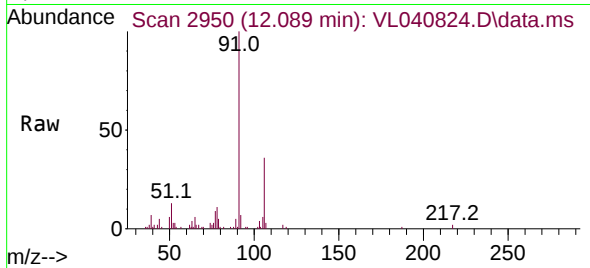
#58  
Ethyl Benzene  
Concen: 0.196 ppbv  
RT: 12.089 min Scan# 2950  
Delta R.T. 0.007 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Tgt Ion: 91 Resp: 53390  
Ion Ratio Lower Upper  
91 100  
106 36.1 26.7 40.1

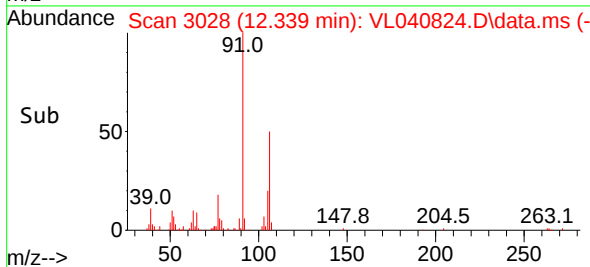
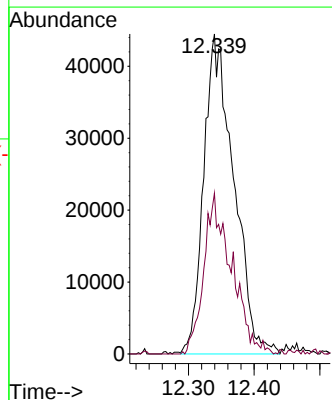
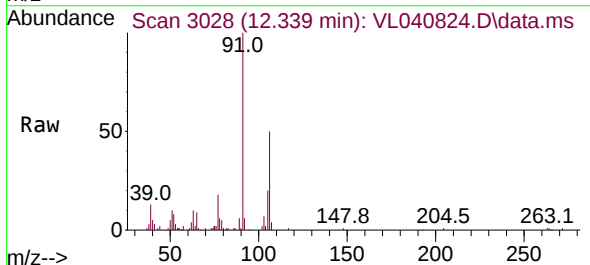
Manual Integrations  
APPROVED

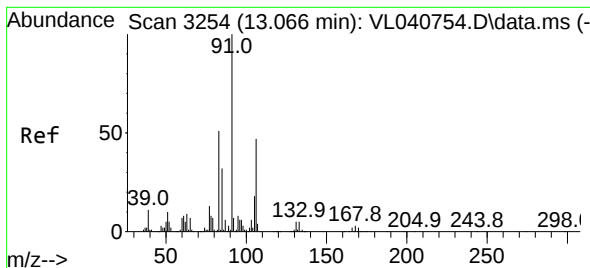
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#59  
m/p-Xylene  
Concen: 0.628 ppbv m  
RT: 12.339 min Scan# 3028  
Delta R.T. -0.029 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Tgt Ion: 91 Resp: 141189  
Ion Ratio Lower Upper  
91 100  
106 0.0 37.7 56.5#





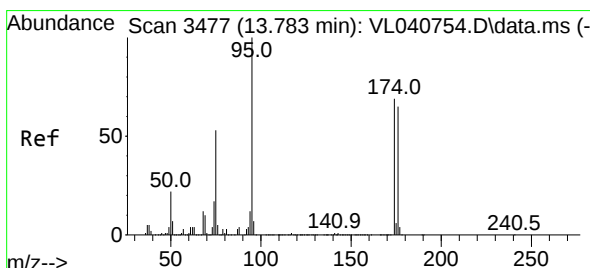
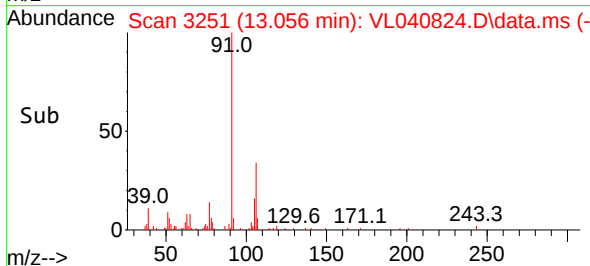
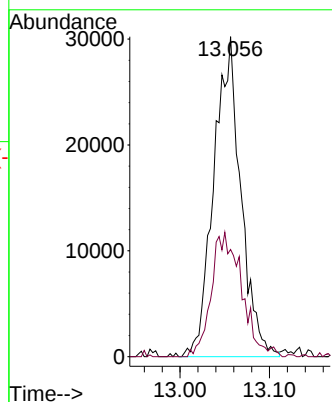
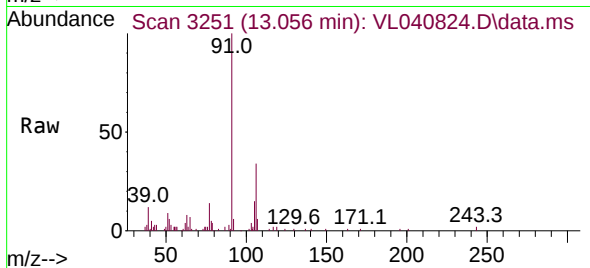
#60  
o-Xylene  
Concen: 0.297 ppbv m  
RT: 13.056 min Scan# 31  
Delta R.T. 0.003 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2

Tgt Ion: 91 Resp: 6355  
Ion Ratio Lower Upper  
91 100  
106 0.0 23.5 70.5

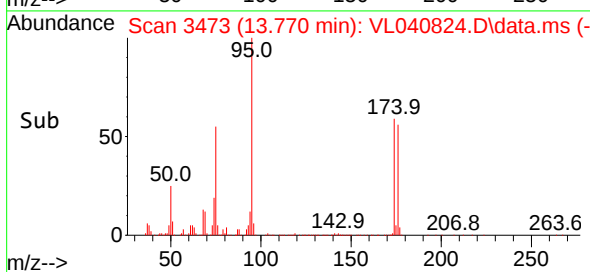
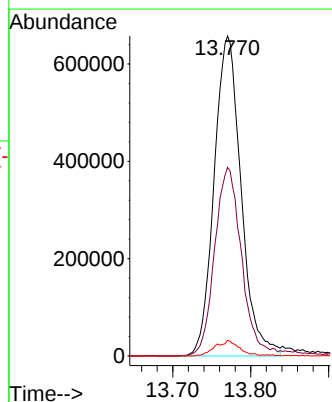
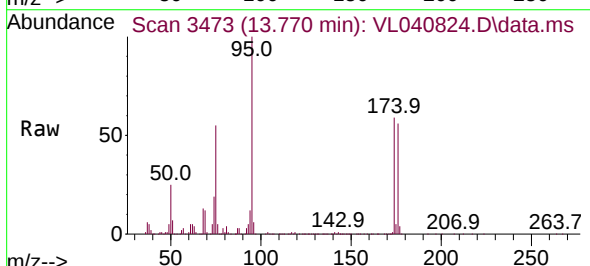
Manual Integrations  
APPROVED

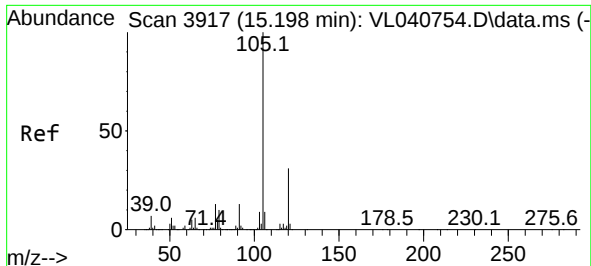
Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.913 ppbv  
RT: 13.770 min Scan# 3473  
Delta R.T. 0.000 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

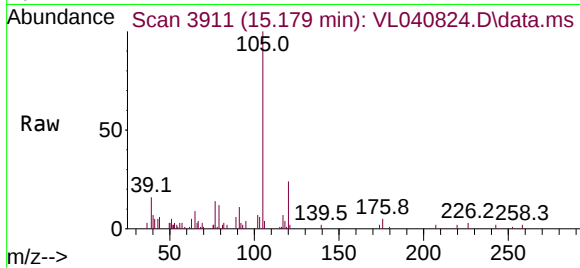
Tgt Ion: 95 Resp: 1581551  
Ion Ratio Lower Upper  
95 100  
174 60.7 54.7 82.1  
175 4.6 4.2 6.4





#72  
4-Ethyltoluene  
Concen: 0.102 ppbv m  
RT: 15.179 min Scan# 3917  
Delta R.T. -0.006 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56

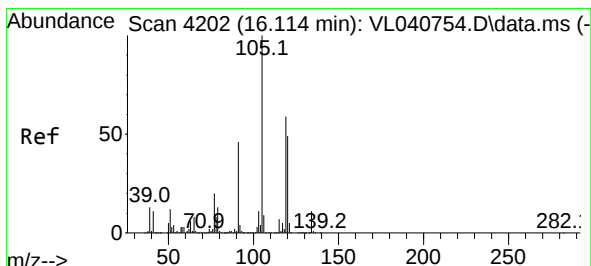
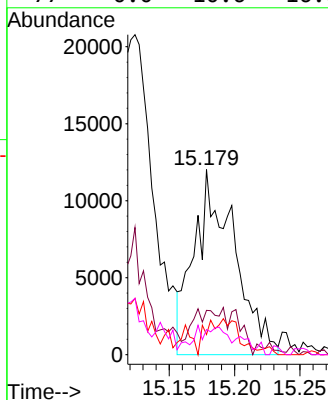
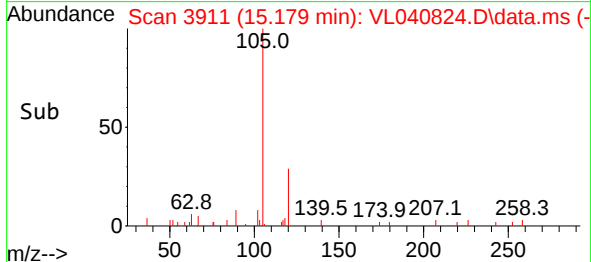
Instrument :  
MSVOA\_L  
ClientSampleId :  
NT-IA-2



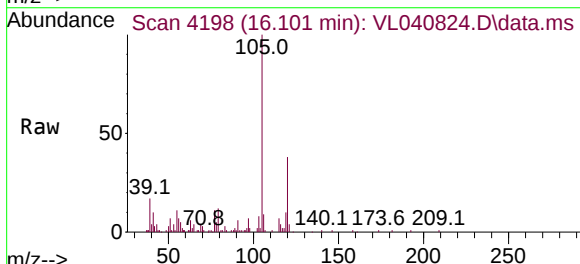
Tgt Ion:105 Resp: 25620  
Ion Ratio Lower Upper  
105 100  
120 0.0 25.0 37.4#  
91 0.0 9.8 14.8#  
77 0.0 10.6 16.0#

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 11/11/2023  
Supervised By :Mahesh Dadoda 11/13/2023



#74  
1,2,4-Trimethylbenzene  
Concen: 0.349 ppbv m  
RT: 16.101 min Scan# 4198  
Delta R.T. 0.000 min  
Lab File: VL040824.D  
Acq: 8 Nov 2023 23:56



Tgt Ion:105 Resp: 84232  
Ion Ratio Lower Upper  
105 100  
120 37.8 39.4 59.2#  
91 5.9 38.6 58.0#  
77 11.1 16.6 25.0#

