

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032019\  
 Data File : VL033408.D  
 Acq On : 21 Mar 2019 2:56  
 Operator : SY/AP  
 Sample : K1975-04 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV2

Manual Integrations  
 APPROVED

MMDadoda  
 3/25/2019 8:26:39 AM

Quant Time: Mar 22 06:39:57 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Mar 1  
 QLast Update : Fri Mar 15 14:52:14 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 787233   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 1918755  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 1812560  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1377558  | 10.26    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.60% |

| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 9) Propene                 | 3.04  | 41   | 49235    | 1.221  | ppbv   | 89     |
| 10) Heptane                | 8.25  | 43   | 26979    | 0.270  | ppbv   | 90     |
| 11) Trichlorofluoromethane | 4.00  | 101  | 28406    | 0.206  | ppbv   | 91     |
| 13) Ethanol                | 3.66  | 45   | 33866    | 1.761  | ppbv   | 99     |
| 15) Acetone                | 3.90  | 43   | 1599053  | 13.067 | ppbv   | 98     |
| 20) Methylene Chloride     | 4.41  | 84   | 16562    | 0.415  | ppbv   | 92     |
| 26) Hexane                 | 5.78  | 57   | 42618    | 0.536  | ppbv # | 37     |
| 32) 1,1,1-Trichloroethane  | 6.62  | 97   | 1123614  | 8.788  | ppbv   | 99     |
| 34) 2-Butanone             | 5.33  | 43   | 139468   | 1.107  | ppbv   | 96     |
| 36) Benzene                | 7.00  | 78   | 60994m   | 0.355  | ppbv   |        |
| 44) 2,2,4-Trimethylpentane | 7.99  | 57   | 56393    | 0.198  | ppbv # | 60     |
| 52) Tetrachloroethene      | 11.38 | 164  | 4841761  | 67.680 | ppbv   | 97     |
| 53) Toluene                | 9.95  | 91   | 259453   | 1.330  | ppbv   | 99     |
| 58) Ethyl Benzene          | 12.86 | 91   | 27755    | 0.108  | ppbv   | 89     |
| 59) m/p-Xylene             | 13.12 | 91   | 89213m   | 0.405  | ppbv   |        |
| 60) o-Xylene               | 13.85 | 91   | 41336    | 0.192  | ppbv   | 97     |
| 74) 1,2,4-Trimethylbenzene | 16.93 | 105  | 52948m   | 0.210  | ppbv   |        |

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

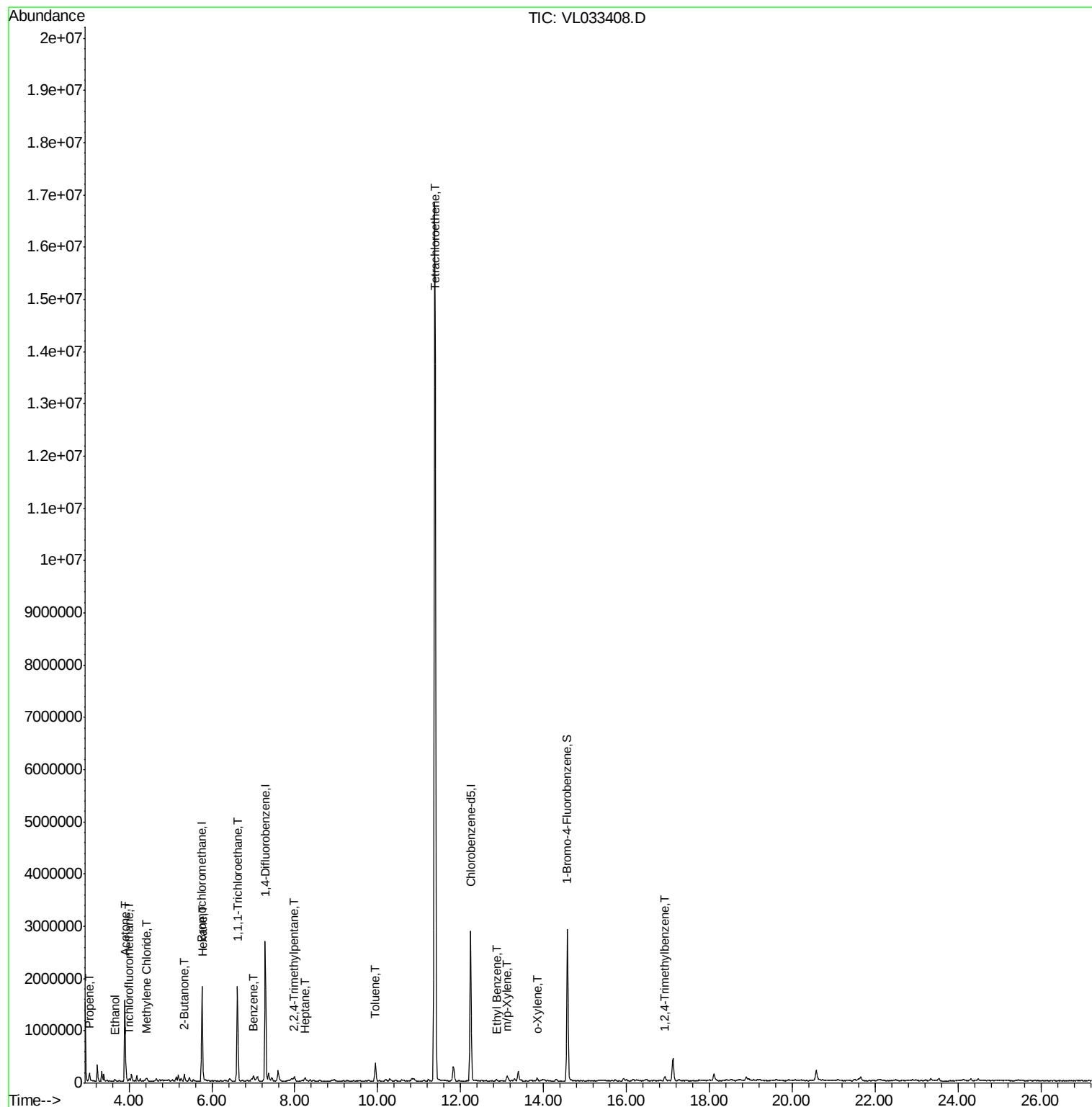
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL032019\  
Data File : VL033408.D  
Acq On : 21 Mar 2019 2:56  
Operator : SY/AP  
Sample : K1975-04 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

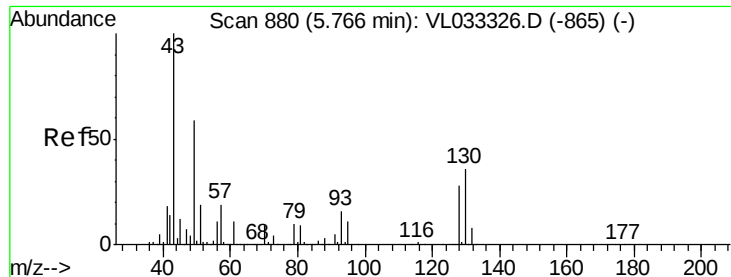
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2

Manual Integrations  
APPROVED

MMDadoda  
3/25/2019 8:26:39 AM

Quant Time: Mar 22 06:39:57 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Mar  
QLast Update : Fri Mar 15 14:52:14 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

SV2

Tot Ion: 49 Resp: 787233

Ion Ratio Lower Upper

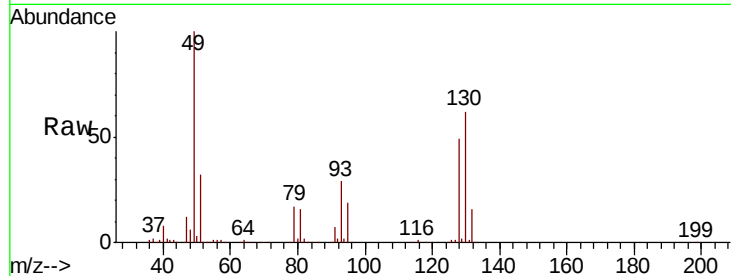
49 100

128 48.7 23.5 70.6

130 62.2 30.1 90.3

Manual Integrations  
APPROVED

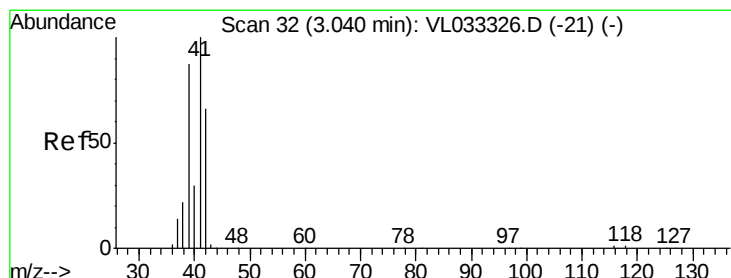
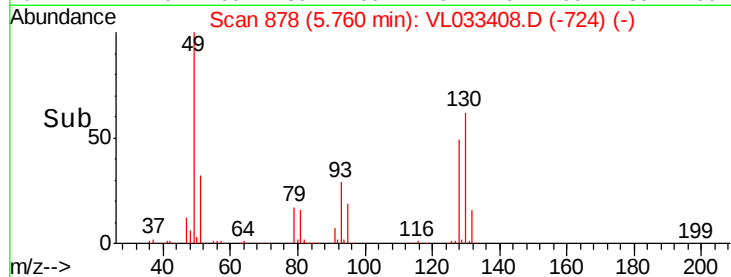
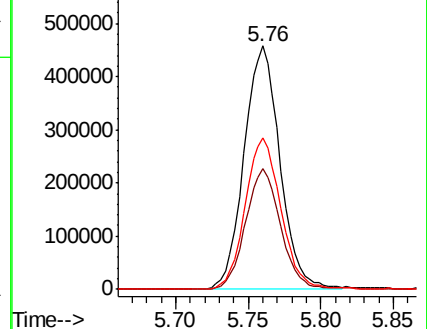
MMDadoda  
3/25/2019 8:26:39 AM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#9

Propene

Concen: 1.221 ppbv

RT: 3.04 min Scan# 31

Delta R.T. -0.00 min

Lab File: VL033408.D

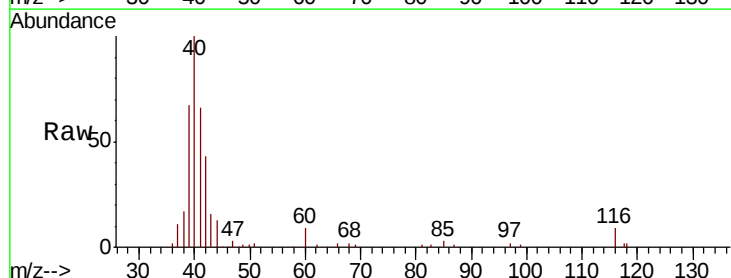
Acq: 21 Mar 2019 2:56

Tgt Ion: 41 Resp: 49235

Ion Ratio Lower Upper

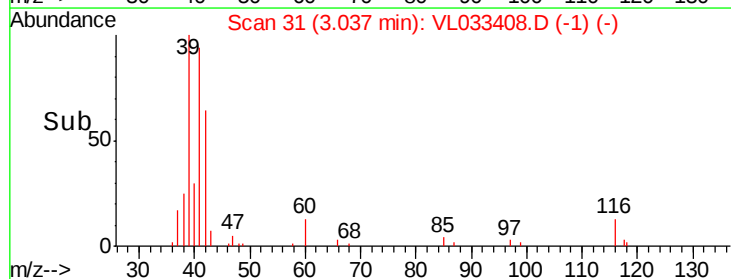
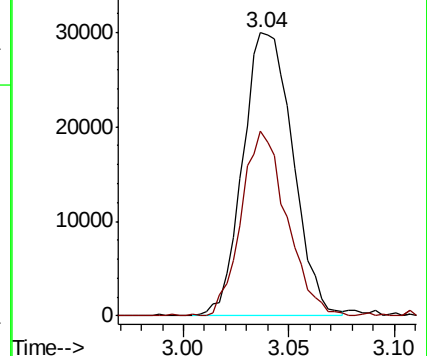
41 100

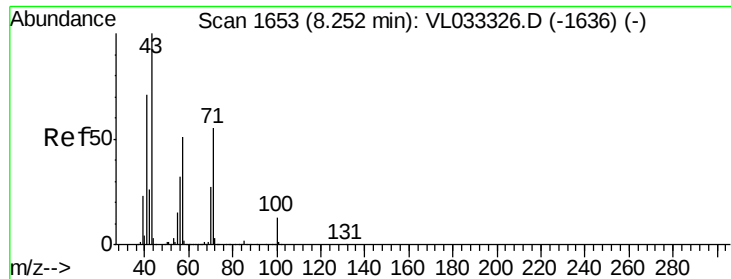
42 59.8 55.2 82.8



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





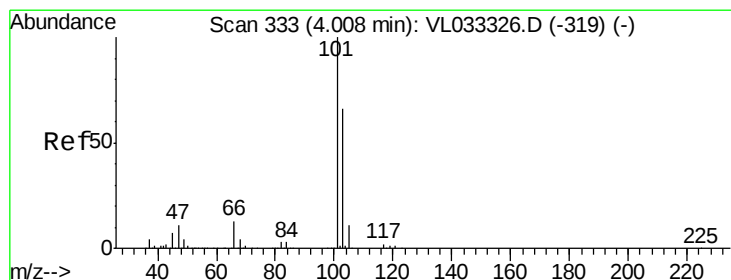
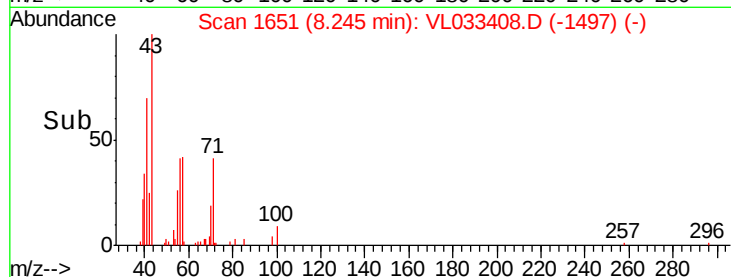
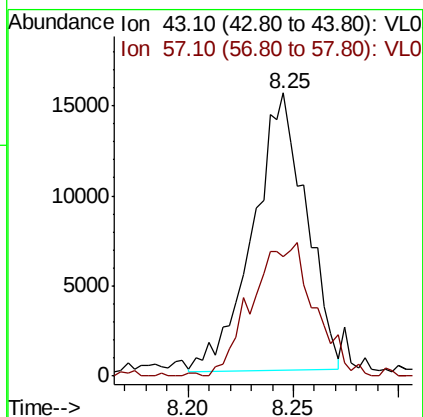
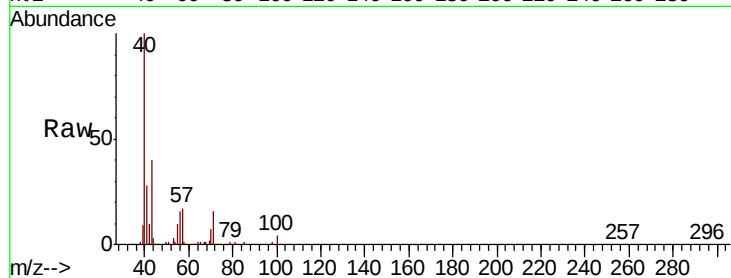
#10  
 Heptane  
 Concen: 0.270 ppbv  
 RT: 8.25 min Scan# 1651  
 Delta R.T. -0.01 min  
 Lab File: VL033408.D  
 Acq: 21 Mar 2019 2:56

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV2

Tot Ion: 43 Resp: 26979  
 Ion Ratio Lower Upper  
 43 100  
 57 57.3 40.4 60.6

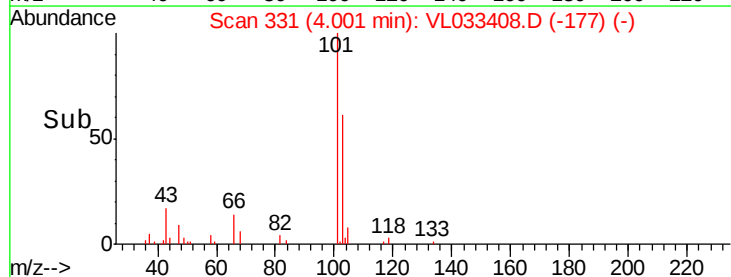
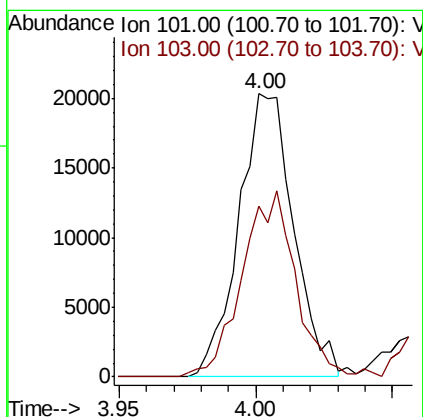
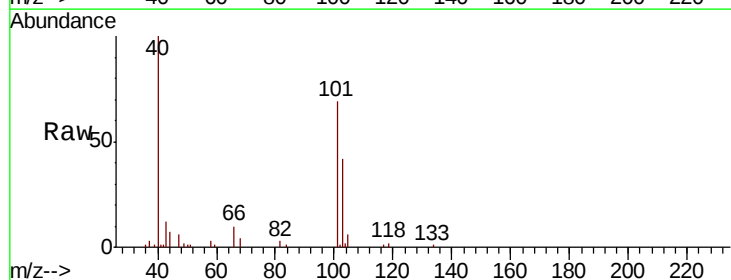
Manual Integrations  
 APPROVED

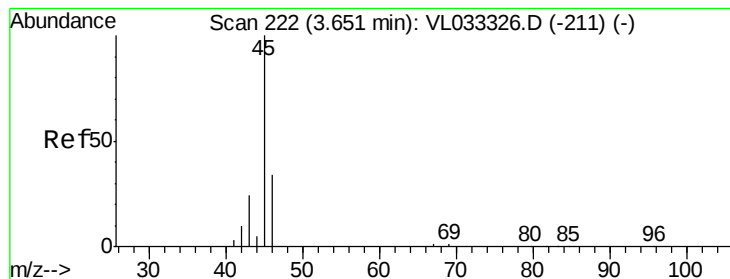
MMDadoda  
 3/25/2019 8:26:39 AM



#11  
 Trichlorofluoromethane  
 Concen: 0.206 ppbv  
 RT: 4.00 min Scan# 331  
 Delta R.T. -0.01 min  
 Lab File: VL033408.D  
 Acq: 21 Mar 2019 2:56

Tgt Ion: 101 Resp: 28406  
 Ion Ratio Lower Upper  
 101 100  
 103 59.0 52.9 79.3





#13

Ethanol

Concen: 1.761 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

SV2

Tot Ion: 45 Resp: 33866

Ion Ratio Lower Upper

45 100

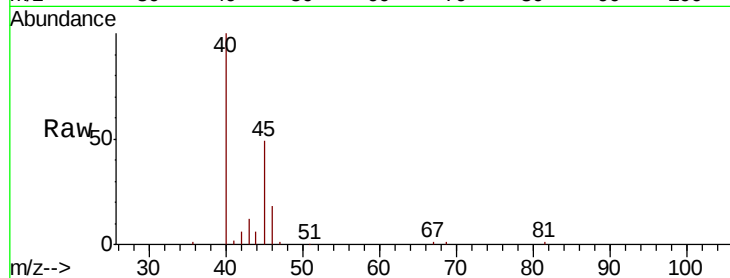
46 37.8 14.9 59.7

Manual Integrations

APPROVED

MMDadoda

3/25/2019 8:26:39 AM



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.66

20000

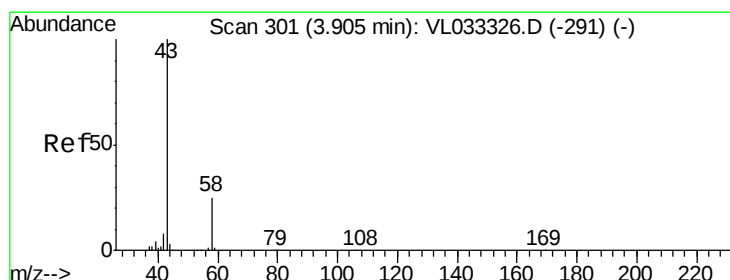
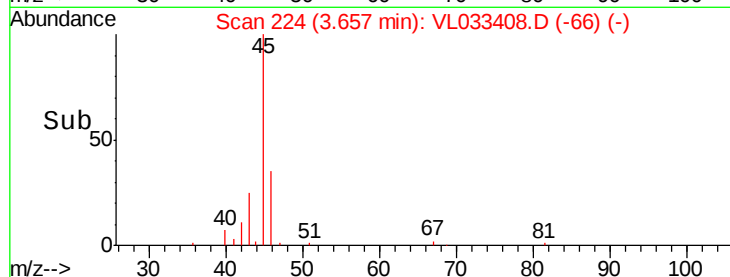
15000

10000

5000

0

Time-->



#15

Acetone

Concen: 13.067 ppbv

RT: 3.90 min Scan# 298

Delta R.T. -0.01 min

Lab File: VL033408.D

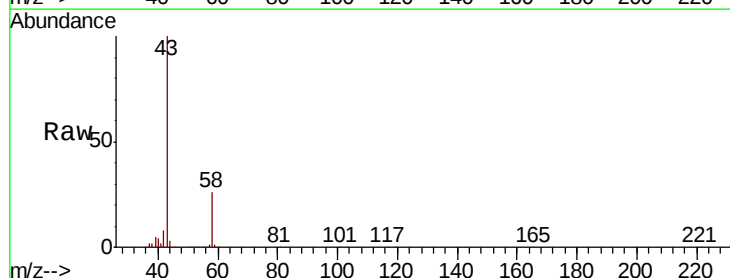
Acq: 21 Mar 2019 2:56

Tgt Ion: 43 Resp: 1599053

Ion Ratio Lower Upper

43 100

58 26.4 20.4 30.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

1200000

1000000

800000

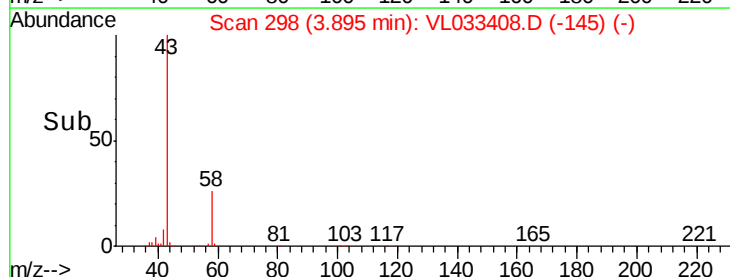
600000

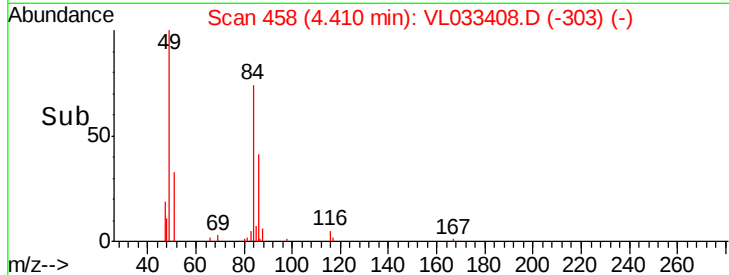
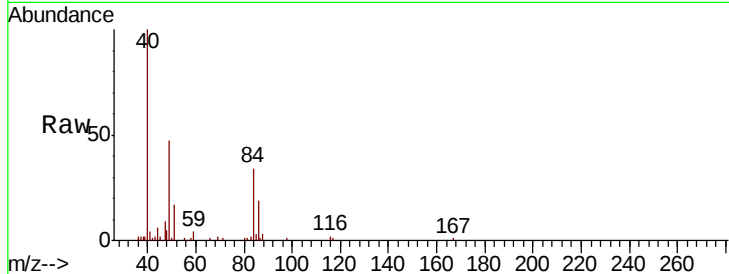
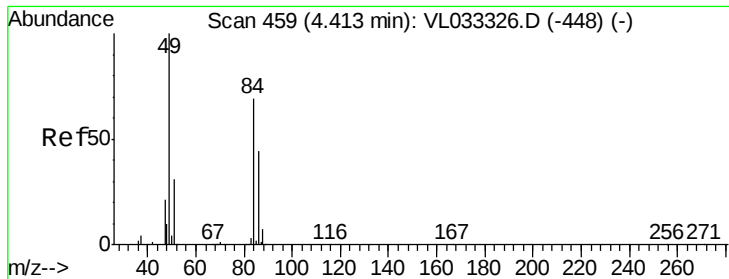
400000

200000

0

Time-->





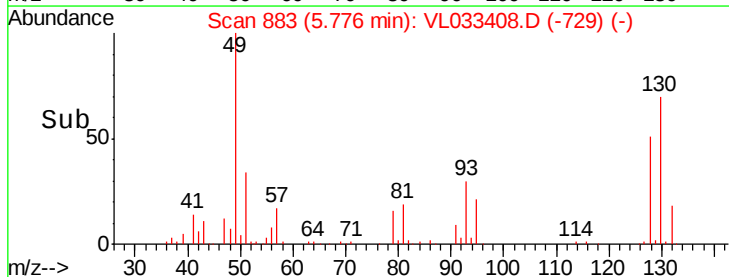
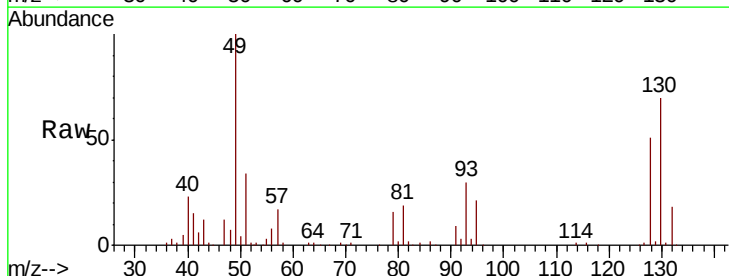
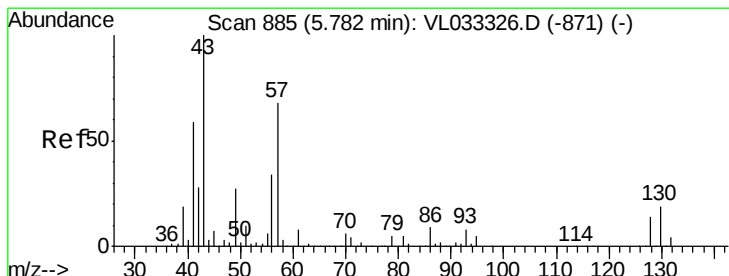
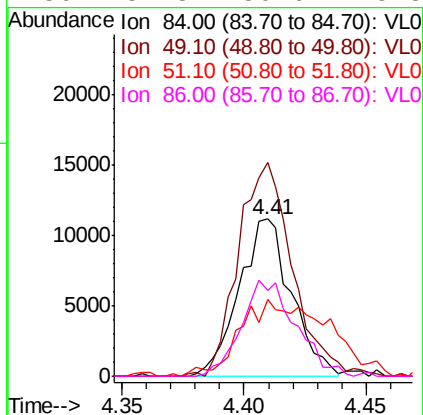
#20  
Methvlene Chloride  
Concen: 0.415 ppbv  
RT: 4.41 min Scan# 458  
Delta R.T. -0.00 min  
Lab File: VL033408.D  
Acq: 21 Mar 2019 2:56

| Tot Ion | Ion   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 84      | 100   |       |       |       |
| 49      | 134.4 | 115.4 | 173.0 |       |
| 51      | 46.7  | 35.8  | 53.6  |       |
| 86      | 54.8  | 50.6  | 75.8  |       |

Instrument :  
MSVOA\_L  
ClientSampleId :  
SV2

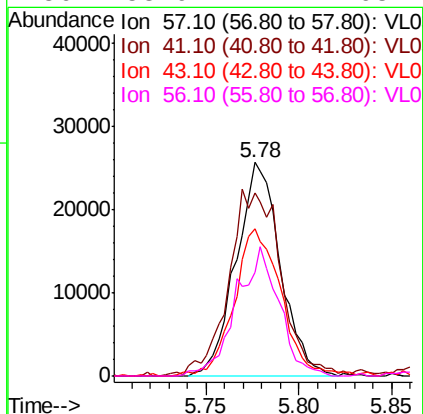
Manual Integrations  
APPROVED

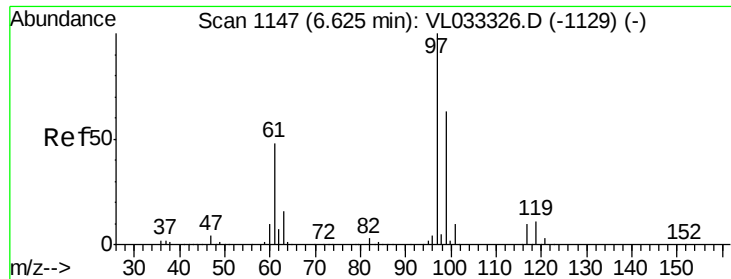
MMDadoda  
3/25/2019 8:26:39 AM



#26  
Hexane  
Concen: 0.536 ppbv  
RT: 5.78 min Scan# 883  
Delta R.T. -0.01 min  
Lab File: VL033408.D  
Acq: 21 Mar 2019 2:56

| Tgt Ion | Ion   | Ratio | Lower  | Upper |
|---------|-------|-------|--------|-------|
| 57      | 100   |       |        |       |
| 41      | 103.0 | 70.5  | 105.7  |       |
| 43      | 74.1  | 181.8 | 272.8# |       |
| 56      | 58.9  | 42.2  | 63.2   |       |





#32

1,1,1-Trichloroethane

Concen: 8.788 ppbv

RT: 6.62 min Scan# 1144

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

Instrument :

MSVOA\_L

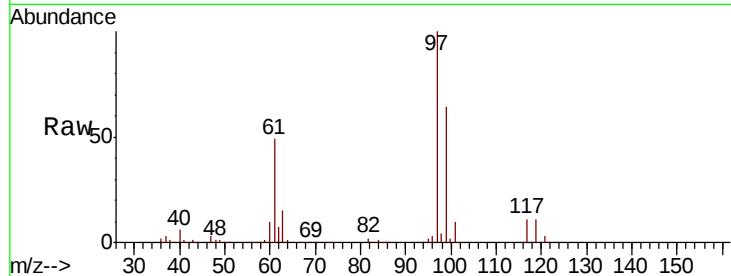
ClientSampled :

SV2

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 97    | Resp: | 1123614 |
| Ion      | Ratio | Lower | Upper   |
| 97       | 100   |       |         |
| 99       | 64.6  | 51.0  | 76.6    |
| 61       | 48.8  | 39.3  | 58.9    |

Manual Integrations  
APPROVED

MMDadoda  
3/25/2019 8:26:39 AM

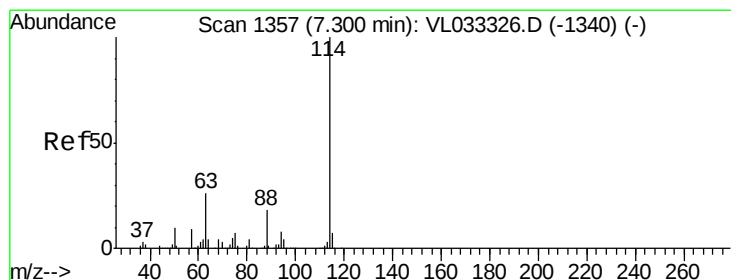
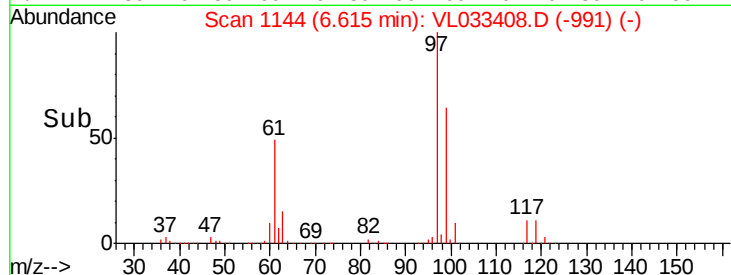
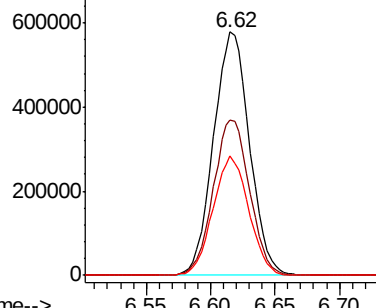


Abundance

Ion 97.00 (96.70 to 97.70): VL0

Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

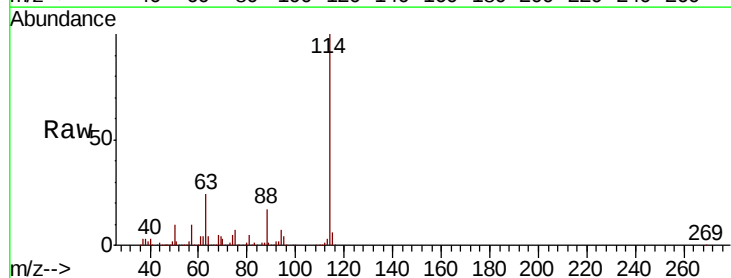
RT: 7.29 min Scan# 1354

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 114   | Resp: | 1918755 |
| Ion      | Ratio | Lower | Upper   |
| 114      | 100   |       |         |
| 63       | 25.6  | 21.4  | 32.2    |
| 88       | 18.0  | 14.5  | 21.7    |

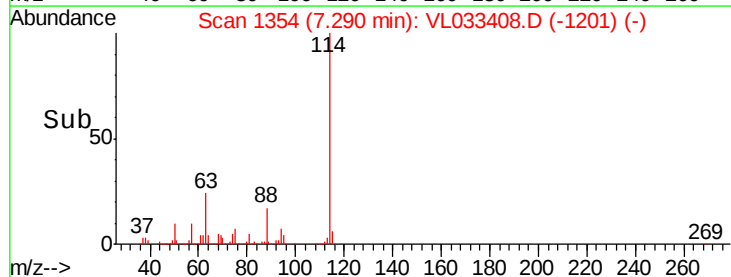
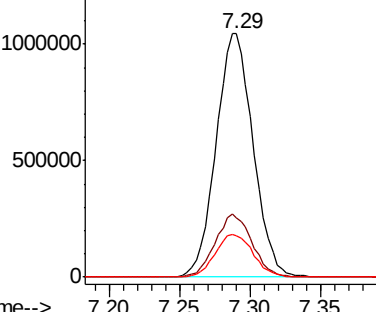


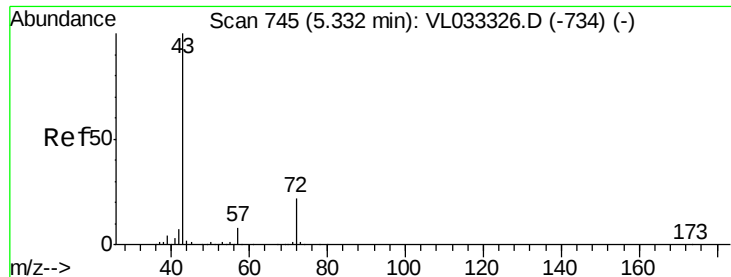
Abundance

Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 1.107 ppbv

RT: 5.33 min Scan# 745

Delta R.T. 0.00 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

SV2

Tot Ion: 43 Resp: 139468

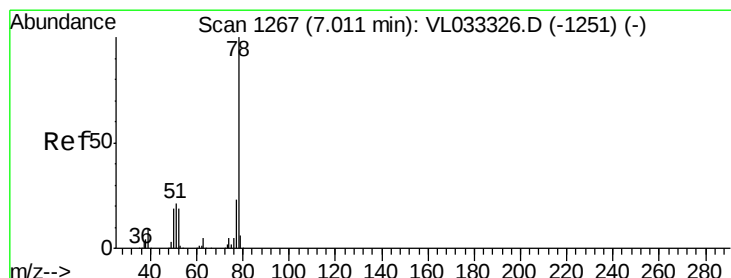
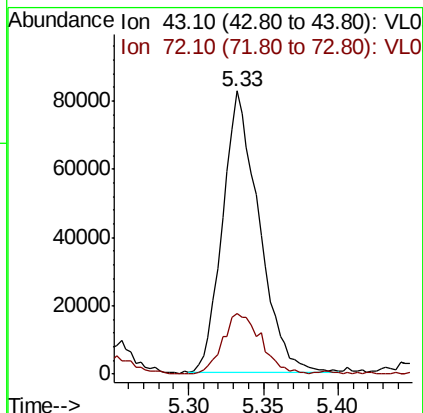
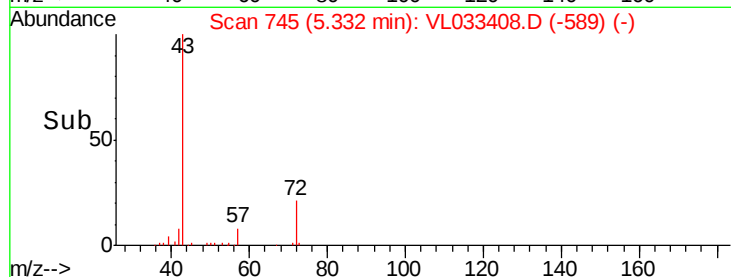
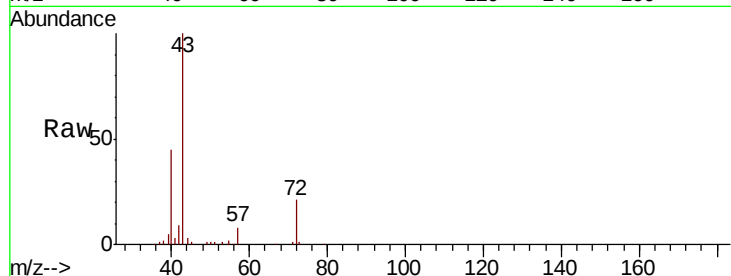
Ion Ratio Lower Upper

43 100

72 23.9 17.7 26.5

Manual Integrations  
APPROVED

MMDadoda  
3/25/2019 8:26:39 AM



#36

Benzene

Concen: 0.355 ppbv m

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

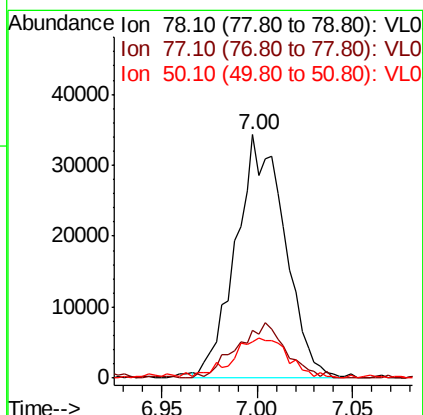
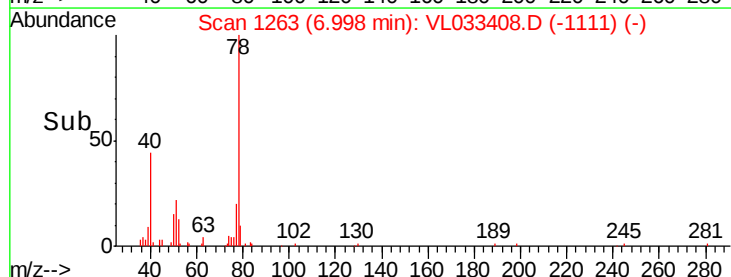
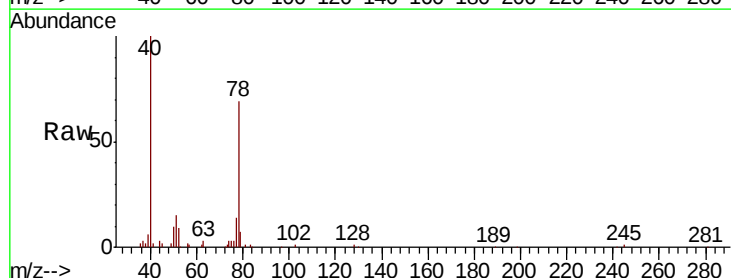
Tgt Ion: 78 Resp: 60994

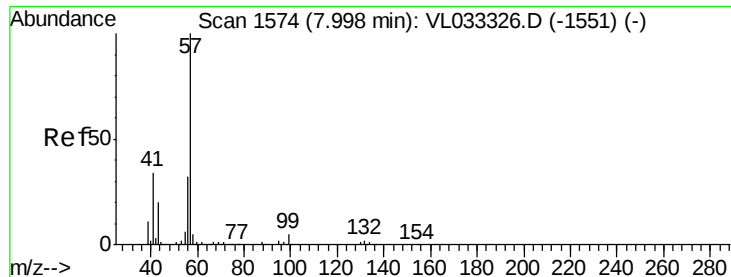
Ion Ratio Lower Upper

78 100

77 19.8 18.1 27.1

50 15.1 15.2 22.8#





#44

2,2,4-Trimethylpentane

Concen: 0.198 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

Instrument :

MSVOA\_L

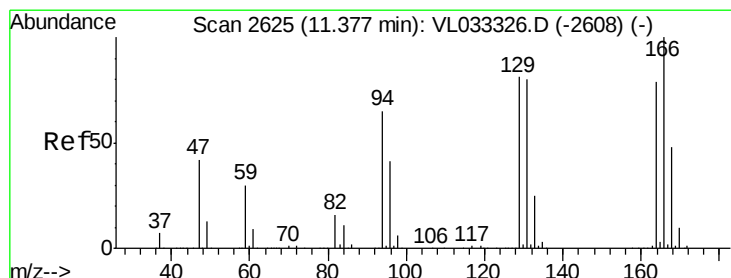
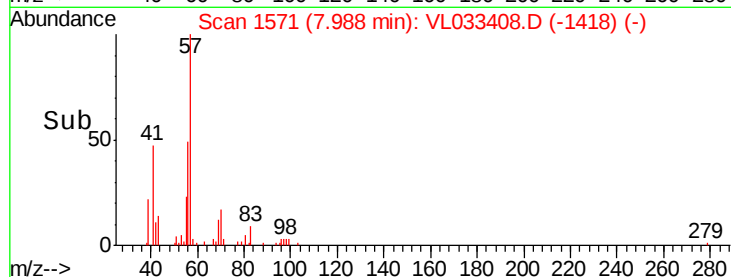
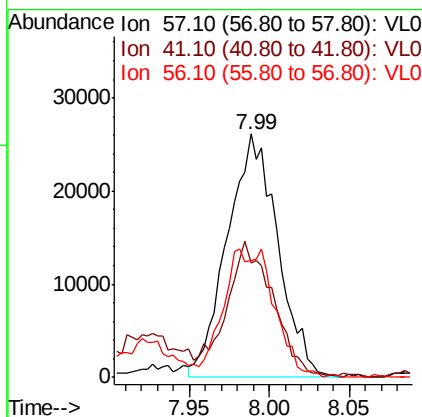
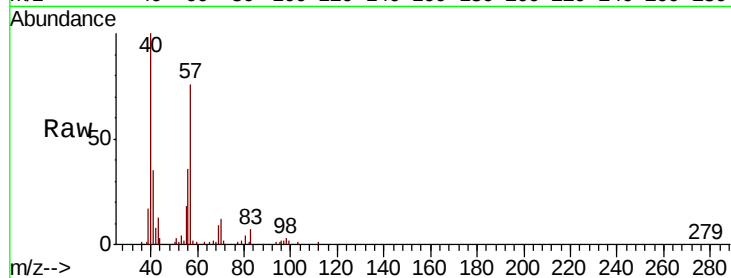
ClientSampleId :

SV2

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 57    | Resp: | 56393 |
| Ion Ratio | Lower | Upper |       |
| 57        | 100   |       |       |
| 41        | 53.4  | 26.0  | 39.0# |
| 56        | 54.1  | 24.6  | 36.8# |

Manual Integrations  
APPROVED

MMDadoda  
3/25/2019 8:26:39 AM



#52

Tetrachloroethene

Concen: 67.680 ppbv

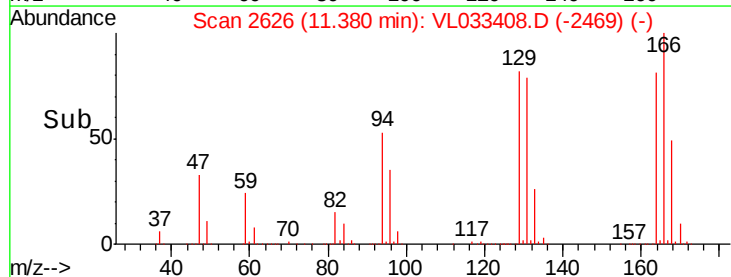
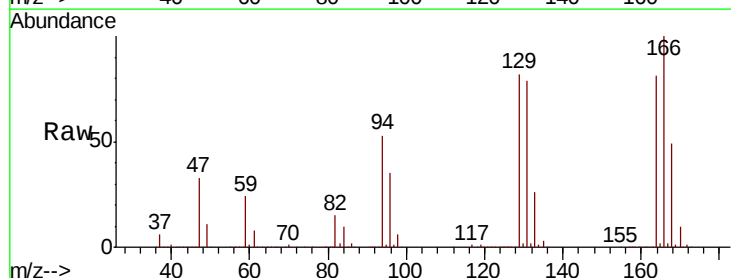
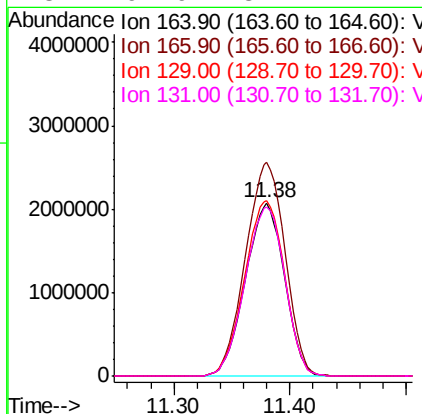
RT: 11.38 min Scan# 2626

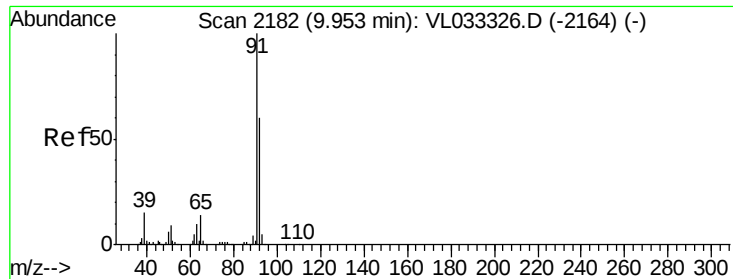
Delta R.T. 0.00 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

|           |       |       |         |
|-----------|-------|-------|---------|
| Tgt Ion:  | 164   | Resp: | 4841761 |
| Ion Ratio | Lower | Upper |         |
| 164       | 100   |       |         |
| 166       | 123.4 | 101.5 | 152.3   |
| 129       | 101.2 | 82.2  | 123.2   |
| 131       | 97.9  | 81.1  | 121.7   |





#53

Toluene

Concen: 1.330 ppbv

RT: 9.95 min Scan# 2180

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

Instrument :

MSVOA\_L

ClientSampleId :

SV2

Tot Ion: 91 Resp: 259453

Ion Ratio Lower Upper

91 100

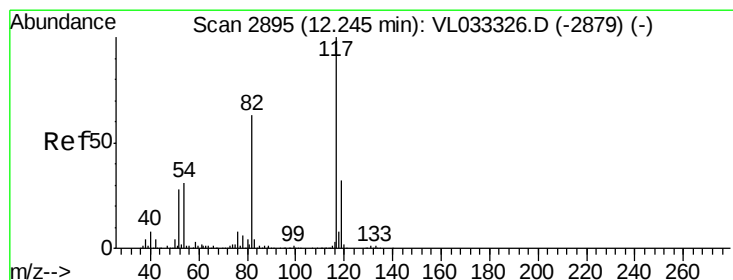
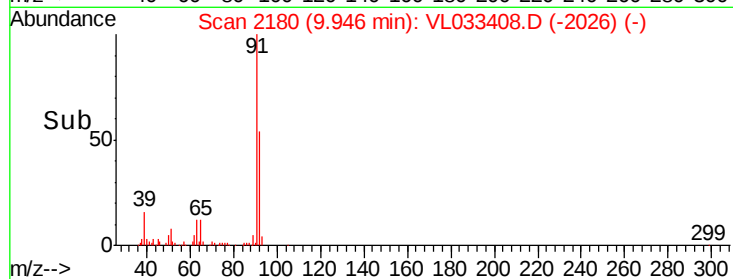
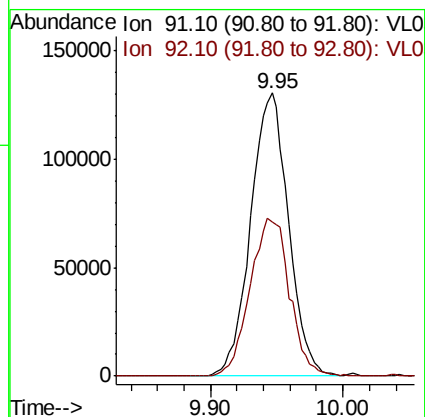
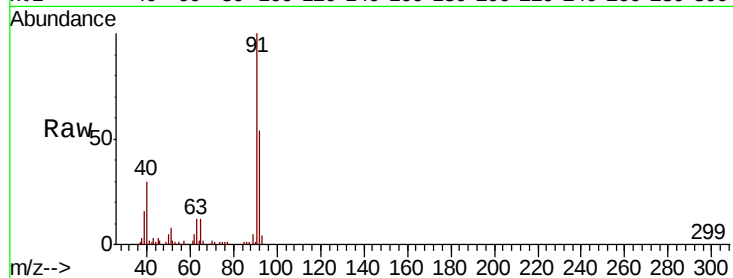
92 58.5 47.4 71.0

Manual Integrations

APPROVED

MMDadoda

3/25/2019 8:26:39 AM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL033408.D

Acq: 21 Mar 2019 2:56

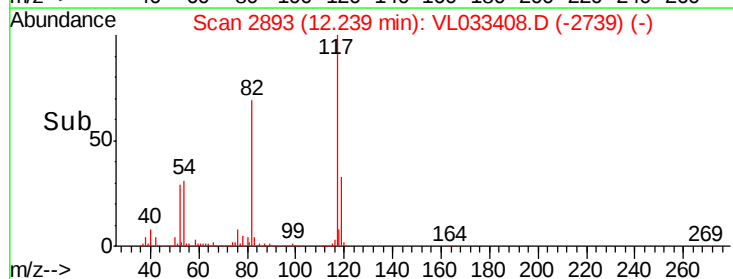
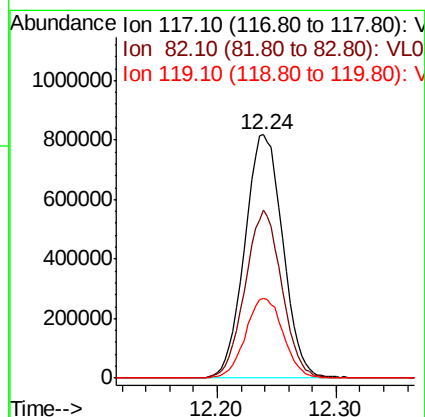
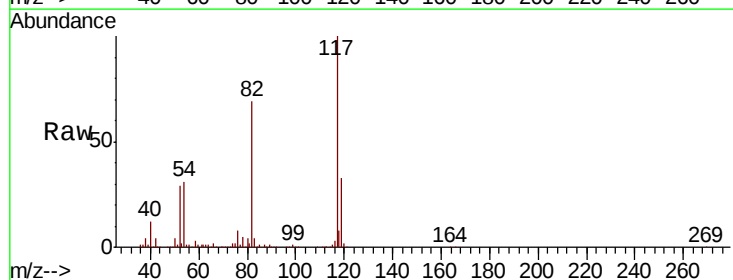
Tgt Ion: 117 Resp: 1812560

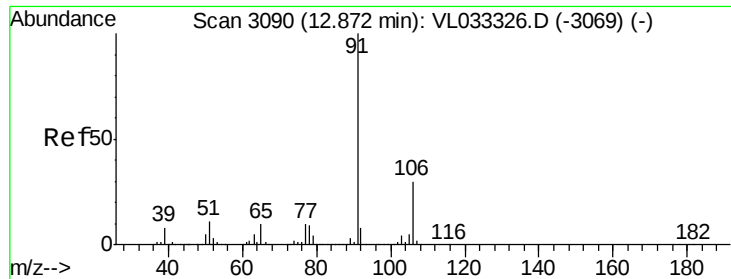
Ion Ratio Lower Upper

117 100

82 66.6 53.4 80.2

119 32.5 27.3 40.9





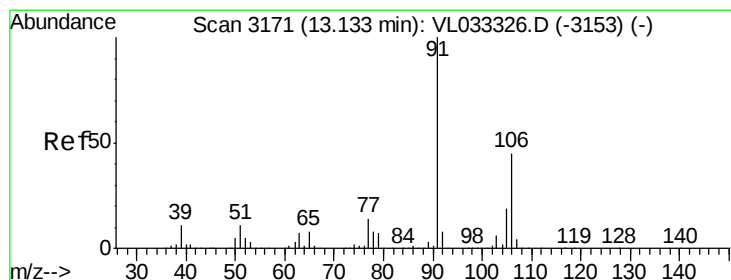
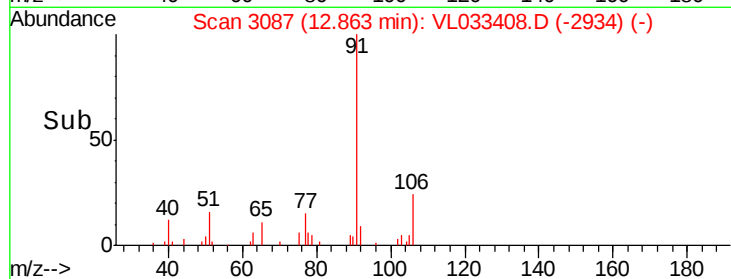
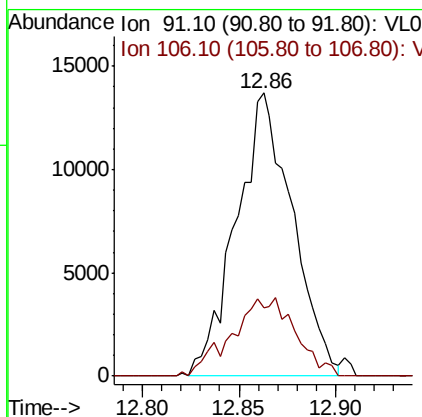
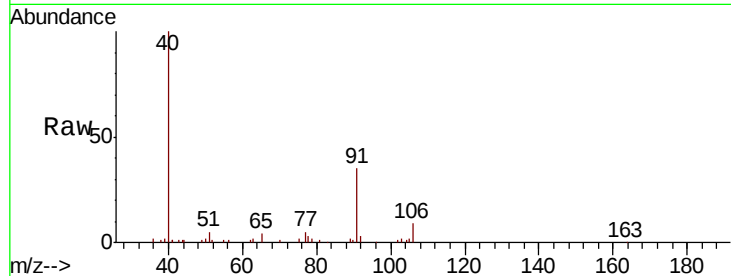
#58  
Ethyl Benzene  
Concen: 0.108 ppbv  
RT: 12.86 min Scan# 3087  
Delta R.T. -0.01 min  
Lab File: VL033408.D  
Acq: 21 Mar 2019 2:56

Instrument :  
MSVOA\_L  
ClientSampled :  
SV2

Tot Ion: 91 Resp: 27755  
Ion Ratio Lower Upper  
91 100  
106 24.3 24.2 36.2

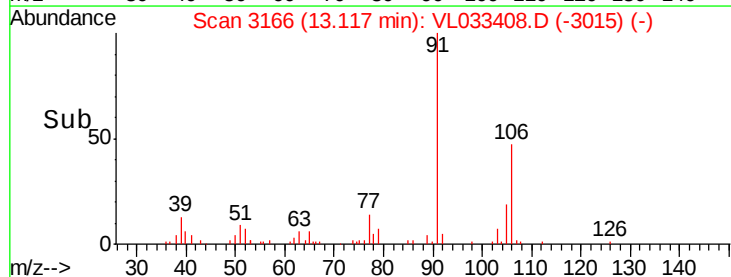
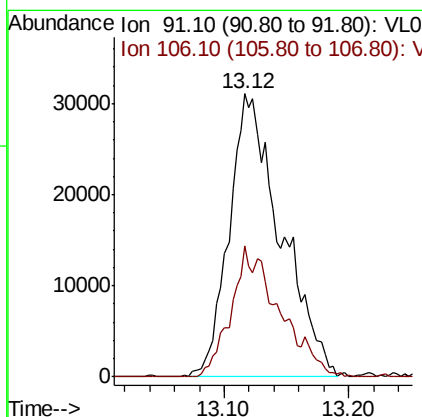
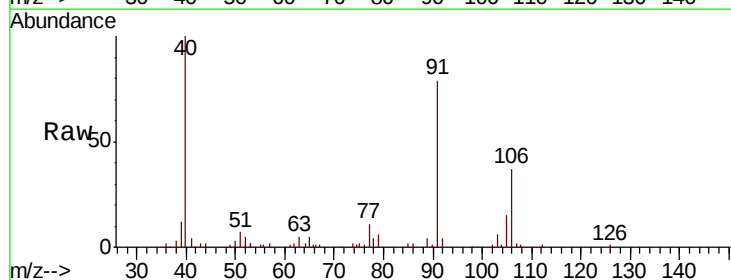
Manual Integrations  
APPROVED

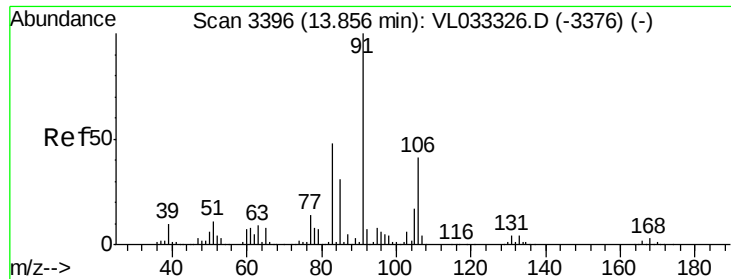
MMDadoda  
3/25/2019 8:26:39 AM



#59  
m/p-Xylene  
Concen: 0.405 ppbv m  
RT: 13.12 min Scan# 3166  
Delta R.T. -0.02 min  
Lab File: VL033408.D  
Acq: 21 Mar 2019 2:56

Tgt Ion: 91 Resp: 89213  
Ion Ratio Lower Upper  
91 100  
106 0.0 0.0 0.0





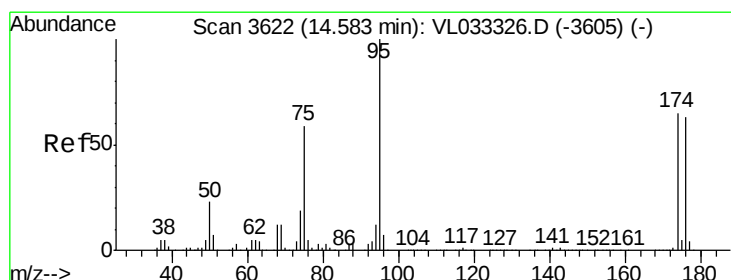
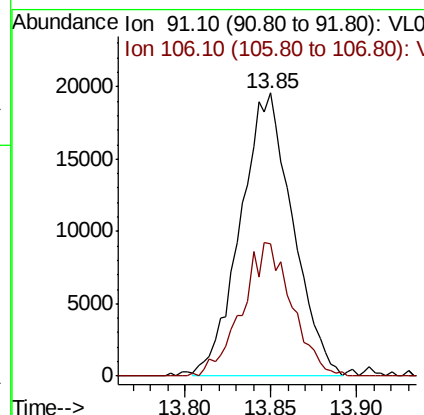
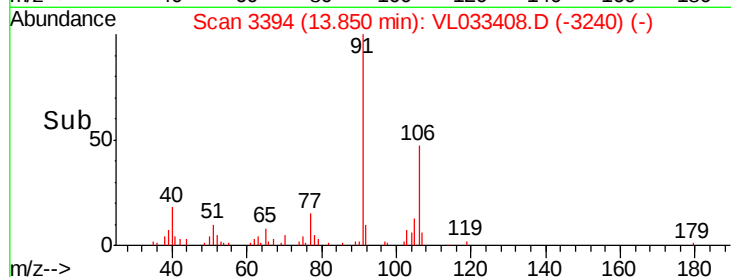
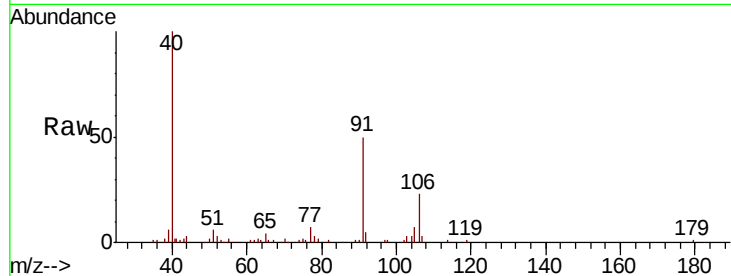
#60  
o-Xylene  
Concen: 0.192 ppbv  
RT: 13.85 min Scan# 3394  
Delta R.T. -0.01 min  
Lab File: VL033408.D  
Acq: 21 Mar 2019 2:56

Instrument :  
MSVOA\_L  
ClientSampled :  
SV2

Tot Ion: 91 Resp: 41336  
Ion Ratio Lower Upper  
91 100  
106 44.7 21.3 63.9

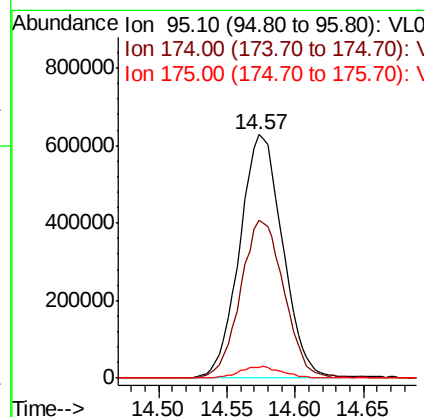
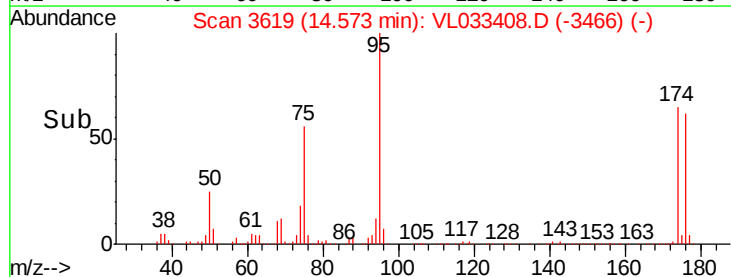
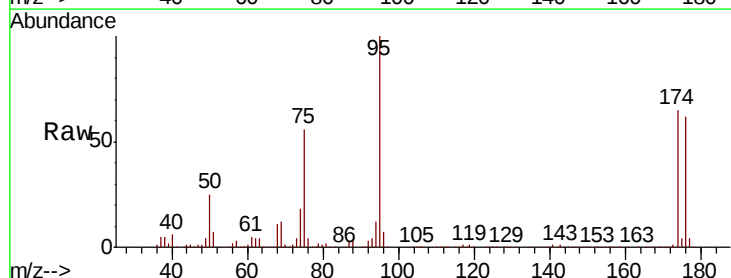
Manual Integrations  
APPROVED

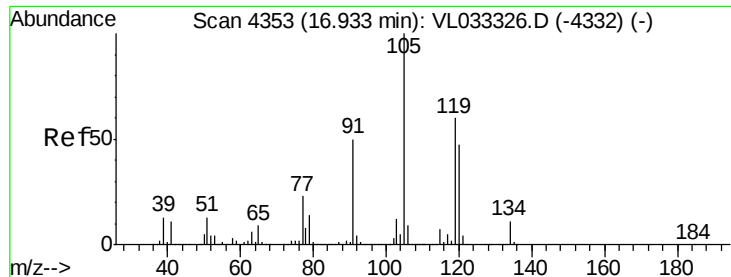
MMDadoda  
3/25/2019 8:26:39 AM



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.257 ppbv  
RT: 14.57 min Scan# 3619  
Delta R.T. -0.01 min  
Lab File: VL033408.D  
Acq: 21 Mar 2019 2:56

Tgt Ion: 95 Resp: 1377558  
Ion Ratio Lower Upper  
95 100  
174 66.1 51.5 77.3  
175 4.6 3.8 5.6





#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.210 ppbv m  
 RT: 16.93 min Scan# 4352  
 Delta R.T. -0.00 min  
 Lab File: VL033408.D  
 Acq: 21 Mar 2019 2:56

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV2

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 105   | Resp: | 52948 |
| Ion Ratio | Lower | Upper |       |
| 105       | 100   |       |       |
| 120       | 38.9  | 37.4  | 56.2  |
| 91        | 11.9  | 41.0  | 61.4# |
| 77        | 17.0  | 18.5  | 27.7# |

Manual Integrations  
 APPROVED

MMDadoda  
 3/25/2019 8:26:39 AM

