

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY111219\  
 Data File : VY000659.D  
 Acq On : 12 Nov 2019 16:23  
 Operator : SY/MD  
 Sample : MDL07  
 Misc : 5.00G/10ML/MSVOA Y/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 MDL07

Manual Integrations  
 APPROVED

MMDadoda  
 11/15/2019 3:07:21 PM

Quant Time: Nov 13 10:18:03 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\SOM2YLM111219S.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Nov 13 03:04:36 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 8.70  | 114  | 342170   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 11.49 | 117  | 318227   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 13.42 | 152  | 151373   | 25.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 2.24   | 65    | 120861   | 25.01    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 100.04% |
| 7) Chloroethane-d5             | 2.76   | 69    | 110404   | 25.71    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 102.84% |
| 10) 1,1-Dichloroethene-d2      | 3.85   | 63    | 165674   | 18.56    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 74.24%  |
| 20) 2-Butanone-d5              | 6.91   | 46    | 105165   | 52.74    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 105.48% |
| 24) Chloroform-d               | 7.49   | 84    | 217382   | 24.21    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 96.84%  |
| 26) 1,2-Dichloroethane-d4      | 8.15   | 65    | 130187   | 25.01    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 100.04% |
| 29) Benzene-d6                 | 8.12   | 84    | 461015   | 24.95    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 99.80%  |
| 33) 1,2-Dichloropropane-d6     | 9.13   | 67    | 144679   | 24.98    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 99.92%  |
| 37) Toluene-d8                 | 10.18  | 98    | 420598   | 24.36    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 97.44%  |
| 38) trans-1,3-Dichloropropene- | 10.44  | 79    | 67409    | 24.95    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 99.80%  |
| 39) 2-Hexanone-d5              | 10.79  | 63    | 81656    | 52.16    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 104.32% |
| 48) 1,1,2,2-Tetrachloroethane- | 12.56  | 84    | 134966   | 23.96    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 95.84%  |
| 61) 1,2-Dichlorobenzene-d4     | 13.72  | 152   | 149397   | 24.68    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 98.72%  |

## Target Compounds

|                                |      |     |       |              | Ovalue |
|--------------------------------|------|-----|-------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.90 | 85  | 5956  | 1.317 ug/L   | 97     |
| 3) Chloromethane               | 2.12 | 50  | 6949  | 1.226 ug/L   | 96     |
| 5) Vinyl chloride              | 2.25 | 62  | 7070  | 1.250 ug/L # | 53     |
| 6) Bromomethane                | 2.66 | 94  | 3725  | 1.206 ug/L   | 99     |
| 8) Chloroethane                | 2.80 | 64  | 4309  | 1.215 ug/L # | 64     |
| 9) Trichlorofluoromethane      | 3.13 | 101 | 9572m | 1.195 ug/L   |        |
| 11) 1,1,2-Trichloro-1,2,2-trif | 3.89 | 101 | 6076m | 1.337 ug/L   |        |
| 12) 1,1-Dichloroethene         | 3.87 | 96  | 6610m | 1.490 ug/L   |        |
| 13) Acetone                    | 3.96 | 43  | 5980  | 4.099 ug/L   | 98     |
| 14) Carbon disulfide           | 4.19 | 76  | 14528 | 1.061 ug/L   | 97     |
| 15) Methyl Acetate             | 4.49 | 43  | 4175  | 1.249 ug/L # | 65     |
| 16) Methylene chloride         | 4.72 | 84  | 12977 | 2.297 ug/L   | 87     |
| 17) Methyl tert-butyl Ether    | 5.23 | 73  | 15230 | 1.128 ug/L # | 94     |
| 18) trans-1,2-Dichloroethene   | 5.24 | 96  | 5609  | 1.132 ug/L   | 83     |
| 19) 1,1-Dichloroethane         | 6.03 | 63  | 10213 | 1.171 ug/L   | 95     |
| 21) 2-Butanone                 | 7.00 | 43  | 8845  | 3.442 ug/L # | 56     |
| 22) cis-1,2-Dichloroethene     | 6.99 | 96  | 6940  | 1.266 ug/L   | 92     |

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| Internal Standards              | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|---------------------------------|-------|------|----------|-------|--------|----------|
| -----                           |       |      |          |       |        |          |
| 23) Bromochloromethane          | 7.36  | 128  | 3251m    | 1.359 | ug/L   |          |
| 25) Chloroform                  | 7.52  | 83   | 17857    | 1.900 | ug/L   | 83       |
| 27) 1,2-Dichloroethane          | 8.25  | 62   | 7742     | 1.232 | ug/L   | 100      |
| 30) Cyclohexane                 | 7.80  | 56   | 9610     | 1.107 | ug/L # | 31       |
| 31) 1,1,1-Trichloroethane       | 7.71  | 97   | 8747m    | 1.116 | ug/L   |          |
| 32) Carbon tetrachloride        | 7.91  | 117  | 8045     | 1.177 | ug/L   | 98       |
| 34) Benzene                     | 8.17  | 78   | 23266    | 1.118 | ug/L   | 100      |
| 35) Trichloroethene             | 8.94  | 95   | 6552m    | 1.201 | ug/L   |          |
| 36) Methylcyclohexane           | 9.19  | 83   | 10823    | 1.159 | ug/L   | 97       |
| 40) 1,2-Dichloropropane         | 9.23  | 63   | 6683     | 1.268 | ug/L # | 96       |
| 41) Bromodichloromethane        | 9.50  | 83   | 8326     | 1.227 | ug/L   | 87       |
| 42) cis-1,3-Dichloropropene     | 9.93  | 75   | 9624m    | 1.133 | ug/L   |          |
| 43) 4-Methyl-2-pentanone        | 10.08 | 43   | 13519    | 2.681 | ug/L   | 97       |
| 44) Toluene                     | 10.25 | 91   | 26066    | 1.159 | ug/L   | 97       |
| 45) trans-1,3-Dichloropropene   | 10.47 | 75   | 8515m    | 1.167 | ug/L   |          |
| 46) 1,1,2-Trichloroethane       | 10.65 | 97   | 5611     | 1.297 | ug/L # | 80       |
| 47) Tetrachloroethene           | 10.72 | 164  | 4723     | 1.159 | ug/L   | 90       |
| 49) 2-Hexanone                  | 10.84 | 43   | 10618    | 2.703 | ug/L # | 92       |
| 50) Dibromochloromethane        | 10.98 | 129  | 5428     | 1.111 | ug/L   | 88       |
| 51) 1,2-Dibromoethane           | 11.09 | 107  | 5030     | 1.195 | ug/L # | 98       |
| 52) Chlorobenzene               | 11.51 | 112  | 17444    | 1.222 | ug/L   | 89       |
| 53) Ethylbenzene                | 11.59 | 91   | 28561    | 1.122 | ug/L   | 95       |
| 54) m,p-Xylene                  | 11.70 | 106  | 10907    | 1.133 | ug/L   | 94       |
| 55) o-xylene                    | 12.03 | 106  | 10038    | 1.062 | ug/L   | 80       |
| 56) Styrene                     | 12.05 | 104  | 16776    | 1.068 | ug/L   | 81       |
| 57) Isopropylbenzene            | 12.33 | 105  | 26816    | 1.091 | ug/L   | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 12.58 | 83   | 6658     | 1.234 | ug/L # | 80       |
| 59) 1,2,3-Trichloropropane      | 12.63 | 75   | 5391     | 1.229 | ug/L   | 93       |
| 62) Bromoform                   | 12.21 | 173  | 2970     | 1.033 | ug/L # | 85       |
| 63) 1,3-Dichlorobenzene         | 13.37 | 146  | 12301    | 1.139 | ug/L   | 91       |
| 64) 1,4-Dichlorobenzene         | 13.45 | 146  | 13510    | 1.252 | ug/L   | 94       |
| 65) 1,2-Dichlorobenzene         | 13.74 | 146  | 12314    | 1.231 | ug/L   | 91       |
| 66) 1,2-Dibromo-3-chloropropan  | 14.36 | 75   | 1204     | 1.267 | ug/L # | 81       |
| 67) 1,3,5-Trichlorobenzene      | 14.50 | 180  | 8749     | 1.162 | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene      | 15.01 | 180  | 8147     | 1.211 | ug/L   | 95       |
| 69) Naphthalene                 | 15.23 | 128  | 19787    | 1.180 | ug/L   | 97       |
| 70) 1,2,3-Trichlorobenzene      | 15.42 | 180  | 8214     | 1.313 | ug/L   | 96       |
| -----                           |       |      |          |       |        |          |

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

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