

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV110420\  
 Data File : VV019235.D  
 Acq On : 03 Nov 2020 14:48  
 Operator : SY/MD  
 Sample : L4485-18  
 Misc : 5.0µL/5.0mL/100µL/5.0mL/MSVOA\_V/MEOH  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleID :  
 MDL-ME-SOIL-04

Manual Integrations  
 APPROVED

MMDadoda  
 11/5/2020 7:00:29 PM

Quant Time: Nov 04 07:34:00 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SFAMVLM110320WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Nov 04 07:03:57 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.64  | 114  | 244380   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.87  | 117  | 235875   | 50.00 | ug/L  | 0.00     |
| 58) 1,4-Dichlorobenzene-d4 | 11.27 | 152  | 122459   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32    | 65    | 85391    | 45.28    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 90.56%  |
| 7) Chloroethane-d5             | 1.58    | 69    | 72640    | 49.15    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 98.30%  |
| 11) 1,1-Dichloroethene-d2      | 2.12    | 63    | 137080   | 39.26    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 78.52%  |
| 21) 2-Butanone-d5              | 3.91    | 46    | 109303   | 105.11   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 105.11% |
| 24) Chloroform-d               | 4.37    | 84    | 166076   | 47.05    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.10%  |
| 26) 1,2-Dichloroethane-d4      | 5.06    | 65    | 117248   | 47.67    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 95.34%  |
| 32) Benzene-d6                 | 5.07    | 84    | 312414   | 47.97    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 95.94%  |
| 36) 1,2-Dichloropropane-d6     | 6.09    | 67    | 96143    | 49.44    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 98.88%  |
| 41) Toluene-d8                 | 7.34    | 98    | 289879   | 47.78    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 95.56%  |
| 43) trans-1,3-Dichloropropene- | 7.64    | 79    | 51990    | 47.22    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 94.44%  |
| 47) 2-Hexanone-d5              | 8.11    | 63    | 72507    | 96.04    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 96.04%  |
| 56) 1,1,2,2-Tetrachloroethane- | 10.24   | 84    | 119496   | 46.12    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 92.24%  |
| 66) 1,2-Dichlorobenzene-d4     | 11.65   | 152   | 121765   | 49.70    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 99.40%  |

## Target Compounds

|                                |      |     |       |              | Ovalue |
|--------------------------------|------|-----|-------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 3489  | 2.330 ug/L   | 99     |
| 3) Chloromethane               | 1.25 | 50  | 3416  | 2.191 ug/L   | 94     |
| 5) Vinyl chloride              | 1.32 | 62  | 4044  | 2.492 ug/L # | 52     |
| 6) Bromomethane                | 1.53 | 94  | 2586  | 2.371 ug/L   | 96     |
| 8) Chloroethane                | 1.60 | 64  | 2536  | 2.390 ug/L   | 93     |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 6327  | 2.355 ug/L   | 94     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.13 | 101 | 4177  | 3.272 ug/L # | 80     |
| 12) 1,1-Dichloroethene         | 2.13 | 96  | 4066  | 3.082 ug/L # | 1      |
| 13) Acetone                    | 2.19 | 43  | 4560  | 5.766 ug/L   | 95     |
| 14) Carbon disulfide           | 2.31 | 76  | 9069  | 2.394 ug/L   | 96     |
| 15) Methyl Acetate             | 2.46 | 43  | 3441  | 2.246 ug/L # | 81     |
| 16) Methylene chloride         | 2.52 | 84  | 3620  | 2.308 ug/L   | 91     |
| 17) trans-1,2-Dichloroethene   | 2.78 | 96  | 2892  | 2.021 ug/L   | 92     |
| 18) Methyl tert-butyl Ether    | 2.78 | 73  | 10551 | 2.097 ug/L   | 98     |
| 19) 1,1-Dichloroethane         | 3.22 | 63  | 6120  | 2.182 ug/L   | 92     |
| 20) cis-1,2-Dichloroethene     | 3.94 | 96  | 3373  | 2.133 ug/L   | 99     |
| 22) 2-Butanone                 | 4.05 | 43  | 3042m | 3.030 ug/L   |        |

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 Quant Title : VOC Analysis  
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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| -----                          |       |      |          |       |        |          |
| 23) Bromochloromethane         | 4.29  | 128  | 1950m    | 2.239 | ug/L   |          |
| 25) Chloroform                 | 4.41  | 83   | 8045     | 2.676 | ug/L   | 98       |
| 27) 1,2-Dichloroethane         | 5.16  | 62   | 5294m    | 2.072 | ug/L   |          |
| 29) Cyclohexane                | 4.71  | 56   | 4462m    | 2.210 | ug/L   |          |
| 30) 1,1,1-Trichloroethane      | 4.64  | 97   | 5716     | 2.089 | ug/L # | 88       |
| 31) Carbon tetrachloride       | 4.86  | 117  | 4855     | 2.055 | ug/L   | 97       |
| 33) Benzene                    | 5.13  | 78   | 13159    | 2.245 | ug/L   | 100      |
| 34) Trichloroethene            | 5.94  | 95   | 3427     | 2.151 | ug/L   | 94       |
| 35) Methylcyclohexane          | 6.16  | 83   | 4037     | 2.094 | ug/L   | 91       |
| 37) 1,2-Dichloropropane        | 6.21  | 63   | 3429m    | 2.192 | ug/L   |          |
| 38) Bromodichloromethane       | 6.54  | 83   | 4730     | 2.101 | ug/L   | 92       |
| 39) cis-1,3-Dichloropropene    | 7.05  | 75   | 5132m    | 2.050 | ug/L   |          |
| 40) 4-Methyl-2-pentanone       | 7.25  | 43   | 8397     | 3.995 | ug/L   | 98       |
| 42) Toluene                    | 7.41  | 91   | 15030    | 2.372 | ug/L   | 99       |
| 44) trans-1,3-Dichloropropene  | 7.68  | 75   | 5371     | 2.094 | ug/L   | 95       |
| 45) 1,1,2-Trichloroethane      | 7.86  | 97   | 3254     | 2.104 | ug/L   | 92       |
| 46) Tetrachloroethene          | 8.00  | 164  | 2694     | 2.073 | ug/L   | 90       |
| 48) 2-Hexanone                 | 8.16  | 43   | 9524m    | 5.994 | ug/L   |          |
| 49) Dibromochloromethane       | 8.27  | 129  | 3600     | 1.952 | ug/L   | 96       |
| 50) 1,2-Dibromoethane          | 8.38  | 107  | 3444     | 2.149 | ug/L # | 94       |
| 51) Chlorobenzene              | 8.90  | 112  | 9253     | 2.183 | ug/L   | 98       |
| 52) Ethylbenzene               | 9.04  | 91   | 14013    | 2.005 | ug/L   | 97       |
| 53) m,p-Xylene                 | 9.16  | 106  | 5165     | 1.974 | ug/L   | 99       |
| 54) o-Xylene                   | 9.57  | 106  | 5017     | 1.945 | ug/L   | 99       |
| 55) Styrene                    | 9.59  | 104  | 8612     | 1.875 | ug/L   | 95       |
| 57) 1,1,2,2-Tetrachloroethane  | 10.26 | 83   | 5394     | 2.306 | ug/L   | 89       |
| 59) Bromoform                  | 9.76  | 173  | 2632     | 1.937 | ug/L # | 97       |
| 60) Isopropylbenzene           | 9.95  | 105  | 12518    | 1.950 | ug/L   | 99       |
| 61) 1,2,3-Trichloropropane     | 10.30 | 75   | 4334     | 2.278 | ug/L   | 98       |
| 62) 1,3,5-Trimethylbenzene     | 10.56 | 105  | 10512    | 1.966 | ug/L   | 99       |
| 63) 1,2,4-Trimethylbenzene     | 10.94 | 105  | 10171    | 1.944 | ug/L   | 98       |
| 64) 1,3-Dichlorobenzene        | 11.21 | 146  | 6781     | 2.020 | ug/L   | 88       |
| 65) 1,4-Dichlorobenzene        | 11.30 | 146  | 8542     | 2.459 | ug/L   | 95       |
| 67) 1,2-Dichlorobenzene        | 11.67 | 146  | 8420     | 2.452 | ug/L   | 94       |
| 68) 1,2-Dibromo-3-chloropropan | 12.45 | 75   | 1021     | 1.840 | ug/L   | 89       |
| 69) 1,3,5-Trichlorobenzene     | 12.67 | 180  | 5140     | 2.133 | ug/L   | 99       |
| 70) 1,2,4-trichlorobenzene     | 13.29 | 180  | 4540     | 2.002 | ug/L   | 95       |
| 71) Naphthalene                | 13.53 | 128  | 9132     | 1.428 | ug/L   | 99       |
| 72) 1,2,3-Trichlorobenzene     | 13.77 | 180  | 4048     | 1.801 | ug/L   | 96       |
| -----                          |       |      |          |       |        |          |

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

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