

Data File : VV013468.D  
Acq On : 01 Nov 2019 14:57  
Operator : SY/MD  
Sample : MDL02  
Misc : 5.00G/10.0ML/MSVOA\_V/SOIL  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
MDL02

Manual Integrations  
APPROVED

MMDadoda  
11/4/2019 12:38:31 PM

Quant Time: Nov 02 03:32:57 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM110119S.M  
Quant Title : VOC Analysis  
QLast Update : Sat Nov 02 04:24:53 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 691621   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 668447   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 337548   | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 253023   | 25.98    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 103.92% |
| 7) Chloroethane-d5             | 1.58   | 69    | 195143   | 27.46    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 109.84% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 324942m  | 19.19    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 76.76%  |
| 20) 2-Butanone-d5              | 3.95   | 46    | 229300   | 50.19    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 100.38% |
| 24) Chloroform-d               | 4.40   | 84    | 469981   | 23.99    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 95.96%  |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 285944   | 25.50    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 102.00% |
| 29) Benzene-d6                 | 5.09   | 84    | 992335   | 25.29    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 101.16% |
| 33) 1,2-Dichloropropane-d6     | 6.11   | 67    | 304931   | 25.47    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 101.88% |
| 37) Toluene-d8                 | 7.36   | 98    | 880629   | 25.04    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 100.16% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 126219   | 24.25    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 97.00%  |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 117952   | 46.06    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 92.12%  |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 256866   | 23.41    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 93.64%  |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 340559   | 25.82    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 103.28% |

#### Target Compounds

|                                |      |     |        |              | Qvalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 10053  | 0.932 ug/L   | 92     |
| 3) Chloromethane               | 1.25 | 50  | 9757   | 0.887 ug/L   | 98     |
| 5) Vinyl chloride              | 1.32 | 62  | 10407  | 0.967 ug/L # | 49     |
| 6) Bromomethane                | 1.54 | 94  | 5466   | 1.080 ug/L   | 99     |
| 8) Chloroethane                | 1.60 | 64  | 5540   | 0.927 ug/L   | 92     |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 12686  | 0.861 ug/L   | 96     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.13 | 101 | 10608  | 1.206 ug/L # | 69     |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 10088m | 1.213 ug/L   |        |
| 13) Acetone                    | 2.21 | 43  | 18731  | 3.508 ug/L   | 73     |
| 14) Carbon disulfide           | 2.32 | 76  | 25901  | 0.803 ug/L   | 100    |
| 15) Methyl Acetate             | 2.47 | 43  | 5171   | 0.643 ug/L   | 100    |
| 16) Methylene chloride         | 2.53 | 84  | 31408  | 2.440 ug/L   | 98     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 20988  | 0.769 ug/L   | 98     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 8917   | 0.804 ug/L   | 99     |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 15335  | 0.759 ug/L   | 95     |
| 21) 2-Butanone                 | 4.05 | 43  | 10907m | 1.980 ug/L   |        |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 10283m | 0.882 ug/L   |        |

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Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 23) Bromochloromethane         | 4.31  | 128  | 4875     | 0.871 | ug/L   | 82       |
| 25) Chloroform                 | 4.42  | 83   | 30583m   | 1.478 | ug/L   |          |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 12456    | 0.867 | ug/L   | 98       |
| 30) Cyclohexane                | 4.72  | 56   | 13100    | 0.726 | ug/L   | 98       |
| 31) 1,1,1-Trichloroethane      | 4.65  | 97   | 12869    | 0.759 | ug/L   | 95       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 11956    | 0.791 | ug/L   | 99       |
| 34) Benzene                    | 5.15  | 78   | 35448    | 0.808 | ug/L   | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 10868    | 0.918 | ug/L   | 93       |
| 36) Methylcyclohexane          | 6.17  | 83   | 13124    | 0.708 | ug/L   | 93       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 8753     | 0.793 | ug/L # | 94       |
| 41) Bromodichloromethane       | 6.55  | 83   | 9994     | 0.703 | ug/L # | 98       |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 12508    | 0.764 | ug/L   | 94       |
| 43) 4-Methyl-2-pentanone       | 7.28  | 43   | 19023    | 1.866 | ug/L # | 93       |
| 44) Toluene                    | 7.43  | 91   | 38628    | 0.862 | ug/L   | 94       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 9583     | 0.683 | ug/L   | 92       |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 7067     | 0.799 | ug/L   | 87       |
| 47) Tetrachloroethene          | 8.02  | 164  | 8942     | 0.891 | ug/L   | 84       |
| 49) 2-Hexanone                 | 8.19  | 43   | 26938    | 3.630 | ug/L   | 96       |
| 50) Dibromochloromethane       | 8.29  | 129  | 8121     | 0.768 | ug/L   | 97       |
| 51) 1,2-Dibromoethane          | 8.39  | 107  | 6949     | 0.760 | ug/L # | 95       |
| 52) Chlorobenzene              | 8.92  | 112  | 25076    | 0.827 | ug/L   | 99       |
| 53) Ethylbenzene               | 9.05  | 91   | 36491    | 0.739 | ug/L   | 99       |
| 54) m,p-Xylene                 | 9.18  | 106  | 13568    | 0.731 | ug/L   | 84       |
| 55) o-xylene                   | 9.59  | 106  | 12158    | 0.692 | ug/L   | 85       |
| 56) Styrene                    | 9.60  | 104  | 18254    | 0.599 | ug/L   | 96       |
| 57) Isopropylbenzene           | 9.97  | 105  | 33044    | 0.697 | ug/L   | 97       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.28 | 83   | 10080    | 0.888 | ug/L # | 96       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 7564     | 0.795 | ug/L   | 97       |
| 62) Bromoform                  | 9.77  | 173  | 5157     | 0.771 | ug/L # | 92       |
| 63) 1,3-Dichlorobenzene        | 11.23 | 146  | 19665    | 0.844 | ug/L   | 99       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 22086    | 0.927 | ug/L   | 97       |
| 65) 1,2-Dichlorobenzene        | 11.68 | 146  | 18812    | 0.869 | ug/L   | 89       |
| 66) 1,2-Dibromo-3-chloropropan | 12.47 | 75   | 1918     | 0.963 | ug/L   | 92       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 15635    | 0.848 | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 12231    | 0.779 | ug/L   | 91       |
| 69) Naphthalene                | 13.55 | 128  | 22785    | 0.750 | ug/L   | 97       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 12516    | 0.851 | ug/L   | 97       |

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

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