

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD031120\  
 Data File : VD065476.D  
 Acq On : 11 Mar 2020 12:37  
 Operator : VA/SY  
 Sample : VD0311SBS01  
 Misc : 5.00G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VD0311SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/13/2020 9:49:37 AM

Quant Time: Mar 11 19:15:57 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D030420S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Mar 05 01:22:07 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 475889   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 694565   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 632123   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 316623   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65  | 197340   | 48.34 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.68%  |      |
| 35) Dibromofluoromethane  | 7.92   | 113 | 212364   | 49.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.88%  |      |
| 50) Toluene-d8            | 10.34  | 98  | 821073   | 49.83 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.66%  |      |
| 62) 4-Bromofluorobenzene  | 12.64  | 95  | 260182   | 51.15 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.30% |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.99 | 85  | 92985  | 22.735  | ug/l   | 94     |
| 3) Chloromethane              | 2.21 | 50  | 105378 | 21.341  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.35 | 62  | 106215 | 21.808  | ug/l   | 99     |
| 5) Bromomethane               | 2.77 | 94  | 68633  | 22.519  | ug/l   | 97     |
| 6) Chloroethane               | 2.92 | 64  | 64858  | 21.743  | ug/l   | 100    |
| 7) Trichlorofluoromethane     | 3.27 | 101 | 153331 | 21.366  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.70 | 74  | 44305  | 20.760  | ug/l   | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.08 | 101 | 98948  | 21.408  | ug/l   | 98     |
| 10) Methyl Iodide             | 4.29 | 142 | 100796 | 20.991  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 5.24 | 59  | 24049  | 102.707 | ug/l   | 96     |
| 12) 1,1-Dichloroethene        | 4.06 | 96  | 91039  | 20.570  | ug/l   | 92     |
| 13) Acrolein                  | 3.92 | 56  | 36559  | 90.532  | ug/l   | 100    |
| 14) Allyl chloride            | 4.71 | 41  | 137517 | 20.227  | ug/l   | 98     |
| 15) Acrylonitrile             | 5.43 | 53  | 96385  | 103.813 | ug/l   | 99     |
| 16) Acetone                   | 4.17 | 43  | 82071  | 99.410  | ug/l   | 94     |
| 17) Carbon Disulfide          | 4.40 | 76  | 305969 | 20.759  | ug/l   | 100    |
| 18) Methyl Acetate            | 4.72 | 43  | 45654  | 21.800  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 5.48 | 73  | 175172 | 20.582  | ug/l   | 95     |
| 20) Methylene Chloride        | 4.97 | 84  | 116194 | 24.129  | ug/l   | 93     |
| 21) trans-1,2-Dichloroethene  | 5.47 | 96  | 103312 | 20.984  | ug/l   | 97     |
| 22) Diisopropyl ether         | 6.37 | 45  | 276356 | 21.866  | ug/l   | 98     |
| 23) Vinyl Acetate             | 6.31 | 43  | 726589 | 103.538 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 6.27 | 63  | 172911 | 21.330  | ug/l   | 98     |
| 25) 2-Butanone                | 7.22 | 43  | 115603 | 102.610 | ug/l   | 98     |
| 26) 2,2-Dichloropropane       | 7.21 | 77  | 147994 | 20.891  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene    | 7.21 | 96  | 105442 | 20.953  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.55 | 49  | 67920  | 20.941  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 7.57 | 42  | 72459  | 100.711 | ug/l   | 98     |
| 30) Chloroform                | 7.71 | 83  | 178069 | 21.976  | ug/l   | 95     |
| 31) Cyclohexane               | 7.98 | 56  | 165187 | 20.378  | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 7.91 | 97  | 160804 | 21.475  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 8.11 | 75  | 143268 | 21.519  | ug/l   | 99     |
| 37) Ethyl Acetate             | 7.30 | 43  | 54998  | 21.372  | ug/l # | 95     |
| 38) Carbon Tetrachloride      | 8.10 | 117 | 149444 | 21.646  | ug/l   | 95     |

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 Quant Title : SW846 8260  
 QLast Update : Thu Mar 05 01:22:07 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.36  | 83   | 160217   | 19.924  | ug/l   | 95       |
| 40) Benzene                    | 8.35  | 78   | 411868   | 22.126  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.53  | 41   | 34207    | 25.135  | ug/l # | 75       |
| 42) 1,2-Dichloroethane         | 8.43  | 62   | 107329   | 22.080  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.46  | 43   | 99805    | 21.005  | ug/l   | 98       |
| 44) Trichloroethene            | 9.11  | 130  | 111859   | 21.278  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.39  | 63   | 97950    | 21.722  | ug/l   | 98       |
| 46) Dibromomethane             | 9.48  | 93   | 50996    | 21.803  | ug/l   | 96       |
| 47) Bromodichloromethane       | 9.67  | 83   | 133555   | 21.949  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.46  | 41   | 44144    | 19.751  | ug/l   | 93       |
| 49) 1,4-Dioxane                | 9.46  | 88   | 11200    | 418.629 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 10.24 | 43   | 258887   | 108.272 | ug/l   | 100      |
| 52) Toluene                    | 10.41 | 92   | 257531   | 21.961  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.63 | 75   | 121467   | 21.361  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.10 | 75   | 146390   | 21.269  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.81 | 97   | 72732    | 21.955  | ug/l   | 96       |
| 56) Ethyl methacrylate         | 10.67 | 69   | 76334    | 20.440  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.95 | 76   | 122038   | 21.773  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.94  | 63   | 114271   | 99.227  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.99 | 43   | 173560   | 104.857 | ug/l   | 98       |
| 60) Dibromochloromethane       | 11.14 | 129  | 94716    | 22.305  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.26 | 107  | 68814    | 21.778  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.88 | 164  | 99486    | 21.964  | ug/l   | 97       |
| 65) Chlorobenzene              | 11.67 | 112  | 268954   | 21.501  | ug/l   | 95       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.75 | 131  | 102604   | 22.522  | ug/l   | 96       |
| 67) Ethyl Benzene              | 11.75 | 91   | 461449   | 21.349  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.86 | 106  | 369341   | 44.317  | ug/l   | 100      |
| 69) o-Xylene                   | 12.18 | 106  | 159071   | 21.698  | ug/l   | 98       |
| 70) Styrene                    | 12.20 | 104  | 282512   | 21.896  | ug/l   | 100      |
| 71) Bromoform                  | 12.37 | 173  | 56735    | 22.171  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.48 | 105  | 436289   | 20.949  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.30 | 43   | 85942    | 20.157  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.74 | 83   | 76944    | 21.019  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.79 | 75   | 53098m   | 21.253  | ug/l   |          |
| 77) Bromobenzene               | 12.77 | 156  | 112302   | 21.704  | ug/l   | 100      |
| 78) n-propylbenzene            | 12.83 | 91   | 523926   | 21.203  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.91 | 91   | 293936   | 21.107  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.97 | 105  | 364309   | 21.278  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.54 | 75   | 24391    | 20.602  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 13.01 | 91   | 312743   | 21.371  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.23 | 119  | 298107   | 20.581  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.28 | 105  | 364192   | 21.580  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.41 | 105  | 431597   | 20.875  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.53 | 119  | 398377   | 21.116  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.53 | 146  | 214795   | 21.592  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.60 | 146  | 211467   | 21.370  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.86 | 91   | 355057   | 20.356  | ug/l   | 99       |
| 90) Hexachloroethane           | 14.12 | 117  | 81924    | 21.086  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.90 | 146  | 181162   | 21.400  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.52 | 75   | 11438    | 20.516  | ug/l   | 97       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.18 | 180  | 119722   | 20.866 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 15.28 | 225  | 79032    | 20.963 | ug/l  | 99       |
| 95) Naphthalene            | 15.41 | 128  | 179021   | 20.370 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.61 | 180  | 102152   | 20.603 | ug/l  | 99       |

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

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