

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF071718\  
 Data File : VF059516.D  
 Acq On : 17 Jul 2018 19:23  
 Operator : VA/AP  
 Sample : VSTDICC150  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

apatel  
 7/18/2018 3:16:21 PM

Quant Time: Jul 18 02:32:31 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F071718S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 18 01:41:01 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.06  | 168  | 255533   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.79  | 114  | 391843   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.94  | 117  | 373112   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.65 | 152  | 209174   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.04   | 65  | 564990   | 146.48 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 292.96% |      |
| 35) Dibromofluoromethane  | 4.32   | 113 | 468856   | 137.77 | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 275.54% |      |
| 50) Toluene-d8            | 7.73   | 98  | 1117338  | 132.75 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 265.50% |      |
| 62) 4-Bromofluorobenzene  | 11.52  | 95  | 577515   | 129.15 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 258.30% |      |

## Target Compounds

|                               |      |     |         |        |        | Qvalue |
|-------------------------------|------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.99 | 85  | 450858  | 155.01 | ug/l   | 99     |
| 3) Chloromethane              | 1.09 | 50  | 255873  | 156.07 | ug/l   | 95     |
| 4) Vinyl Chloride             | 1.15 | 62  | 266123  | 155.83 | ug/l   | 100    |
| 5) Bromomethane               | 1.34 | 94  | 177465  | 149.20 | ug/l   | 98     |
| 6) Chloroethane               | 1.43 | 64  | 133262  | 149.13 | ug/l # | 86     |
| 7) Trichlorofluoromethane     | 1.53 | 101 | 610250  | 155.68 | ug/l   | 97     |
| 8) Diethyl Ether              | 1.71 | 74  | 120563  | 153.52 | ug/l   | 83     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.91 | 101 | 285115m | 153.13 | ug/l   |        |
| 10) Methyl Iodide             | 1.97 | 142 | 485924  | 154.84 | ug/l   | 96     |
| 11) Tert butyl alcohol        | 2.70 | 59  | 120430  | 673.20 | ug/l # | 92     |
| 12) 1,1-Dichloroethene        | 1.86 | 96  | 285677  | 158.85 | ug/l   | 95     |
| 13) Acrolein                  | 2.10 | 56  | 44477   | 445.02 | ug/l   | 100    |
| 14) Allyl chloride            | 2.20 | 41  | 355193  | 150.60 | ug/l   | 93     |
| 15) Acrylonitrile             | 3.09 | 53  | 232304  | 703.68 | ug/l   | 95     |
| 16) Acetone                   | 2.35 | 43  | 397948  | 607.43 | ug/l   | 100    |
| 17) Carbon Disulfide          | 1.88 | 76  | 716031  | 146.69 | ug/l   | 98     |
| 18) Methyl Acetate            | 2.46 | 43  | 177417m | 131.90 | ug/l   |        |
| 19) Methyl tert-butyl Ether   | 2.54 | 73  | 847274  | 144.05 | ug/l   | 98     |
| 20) Methylene Chloride        | 2.32 | 84  | 259902  | 110.81 | ug/l   | 89     |
| 21) trans-1,2-Dichloroethene  | 2.41 | 96  | 262564  | 160.27 | ug/l   | 99     |
| 22) Diisopropyl ether         | 2.94 | 45  | 1010209 | 149.41 | ug/l   | 98     |
| 23) Vinyl Acetate             | 3.35 | 43  | 2741858 | 697.81 | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 3.01 | 63  | 609906  | 158.90 | ug/l   | 98     |
| 25) 2-Butanone                | 4.53 | 43  | 608066  | 638.54 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 3.78 | 77  | 344107  | 133.58 | ug/l   | 97     |
| 27) cis-1,2-Dichloroethene    | 3.65 | 96  | 306469  | 136.85 | ug/l   | 97     |
| 28) Bromochloromethane        | 3.90 | 49  | 254194  | 142.81 | ug/l   | 98     |
| 29) Tetrahydrofuran           | 4.28 | 42  | 261822  | 640.07 | ug/l   | 98     |
| 30) Chloroform                | 4.05 | 83  | 866928  | 150.38 | ug/l   | 99     |
| 31) Cyclohexane               | 3.87 | 56  | 327285  | 150.96 | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 4.29 | 97  | 554469  | 138.65 | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 4.47 | 75  | 552645  | 138.49 | ug/l   | 97     |
| 37) Ethyl Acetate             | 4.32 | 43  | 287491  | 117.71 | ug/l   | 93     |
| 38) Carbon Tetrachloride      | 4.18 | 117 | 634222  | 137.07 | ug/l   | 99     |

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Quant Time: Jul 18 02:32:31 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F071718S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 18 01:41:01 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.64  | 83   | 402339   | 133.89  | ug/l   | 98       |
| 40) Benzene                    | 4.82  | 78   | 1060860  | 136.82  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.94  | 41   | 146611   | 124.52  | ug/l # | 87       |
| 42) 1,2-Dichloroethane         | 5.14  | 62   | 687698   | 138.55  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 7.13  | 43   | 398344   | 136.19  | ug/l   | 98       |
| 44) Trichloroethene            | 5.69  | 130  | 377816   | 135.17  | ug/l   | 96       |
| 45) 1,2-Dichloropropane        | 6.42  | 63   | 285319   | 129.75  | ug/l   | 98       |
| 46) Dibromomethane             | 6.27  | 93   | 269765   | 137.33  | ug/l   | 94       |
| 47) Bromodichloromethane       | 6.56  | 83   | 700839   | 139.62  | ug/l   | 99       |
| 48) Methyl methacrylate        | 6.89  | 41   | 294201   | 139.57  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 6.88  | 88   | 21387    | 2243.17 | ug/l # | 82       |
| 51) 4-Methyl-2-Pentanone       | 8.43  | 43   | 1257864  | 613.02  | ug/l   | 98       |
| 52) Toluene                    | 7.80  | 92   | 728535   | 130.66  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 8.45  | 75   | 619301   | 139.59  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 7.47  | 75   | 624170   | 135.60  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 8.65  | 97   | 295638   | 133.13  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 8.78  | 69   | 371932   | 132.98  | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 9.02  | 76   | 527901   | 139.73  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 7.80  | 63   | 151104   | 646.99  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.65  | 43   | 1001289  | 621.96  | ug/l   | 97       |
| 60) Dibromochloromethane       | 8.88  | 129  | 508494   | 141.09  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 9.16  | 107  | 382157   | 142.19  | ug/l   | 98       |
| 64) Tetrachloroethene          | 8.32  | 164  | 380480   | 129.34  | ug/l   | 96       |
| 65) Chlorobenzene              | 9.96  | 112  | 963790   | 137.33  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.09 | 131  | 430454   | 135.48  | ug/l   | 97       |
| 67) Ethyl Benzene              | 10.05 | 91   | 1632450  | 130.38  | ug/l   | 97       |
| 68) m/p-Xylenes                | 10.29 | 106  | 1127145  | 251.33  | ug/l   | 88       |
| 69) o-Xylene                   | 10.84 | 106  | 637066   | 136.69  | ug/l   | 97       |
| 70) Styrene                    | 10.91 | 104  | 952297   | 129.15  | ug/l   | 99       |
| 71) Bromoform                  | 10.90 | 173  | 321632   | 138.85  | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.24 | 105  | 1757064  | 131.68  | ug/l   | 96       |
| 74) N-amyl acetate             | 11.47 | 43   | 597999   | 126.28  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.80 | 83   | 387470   | 132.42  | ug/l   | 94       |
| 76) 1,2,3-Trichloropropane     | 11.90 | 75   | 318727   | 132.11  | ug/l   | 95       |
| 77) Bromobenzene               | 11.61 | 156  | 507101   | 134.86  | ug/l   | 97       |
| 78) n-propylbenzene            | 11.70 | 91   | 1948407  | 126.12  | ug/l   | 95       |
| 79) 2-Chlorotoluene            | 11.83 | 91   | 1202281  | 128.77  | ug/l   | 95       |
| 80) 1,3,5-Trimethylbenzene     | 11.93 | 105  | 1427438  | 124.42  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 11.97 | 75   | 163636m  | 143.06  | ug/l   |          |
| 82) 4-Chlorotoluene            | 12.01 | 91   | 1372532  | 126.87  | ug/l   | 90       |
| 83) tert-Butylbenzene          | 12.22 | 119  | 1370176  | 127.60  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.30 | 105  | 1471238  | 128.37  | ug/l   | 95       |
| 85) sec-Butylbenzene           | 12.40 | 105  | 1718600  | 126.71  | ug/l   | 97       |
| 86) p-Isopropyltoluene         | 12.55 | 119  | 1482009  | 123.53  | ug/l   | 96       |
| 87) 1,3-Dichlorobenzene        | 12.57 | 146  | 816139   | 126.76  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.66 | 146  | 843974   | 135.47  | ug/l   | 95       |
| 89) n-Butylbenzene             | 12.93 | 91   | 1375599  | 124.88  | ug/l   | 95       |
| 90) Hexachloroethane           | 13.00 | 117  | 349385   | 129.35  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.03 | 146  | 768919   | 128.11  | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.72 | 75   | 99675    | 153.42  | ug/l   | 91       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.27 | 180  | 496836   | 132.37 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 14.26 | 225  | 276003   | 166.16 | ug/l  | 96       |
| 95) Naphthalene            | 14.53 | 128  | 1118336  | 140.03 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.68 | 180  | 534577   | 163.28 | ug/l  | 98       |

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

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