

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW071618\  
 Data File : VW003957.D  
 Acq On : 16 Jul 2018 17:57  
 Operator : VA/AP  
 Sample : VW0716SBS01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VW0716SBS01

Manual Integrations  
 APPROVED

apatel  
 7/17/2018 10:31:54 AM

Quant Time: Jul 17 05:59:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W071618S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jul 16 15:06:12 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 250949   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 402518   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 375190   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 196889   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 156277   | 55.71 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 111.42% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 132930   | 51.47 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.94% |      |
| 50) Toluene-d8            | 10.33  | 98  | 521385   | 52.03 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.06% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 188450   | 52.15 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.30% |      |

## Target Compounds

|                               |      |     |        |        |      | Qvalue |
|-------------------------------|------|-----|--------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 30979  | 21.98  | ug/l | 97     |
| 3) Chloromethane              | 2.20 | 50  | 42594  | 22.96  | ug/l | 98     |
| 4) Vinyl Chloride             | 2.35 | 62  | 55400  | 21.71  | ug/l | 96     |
| 5) Bromomethane               | 2.76 | 94  | 35164  | 22.05  | ug/l | 99     |
| 6) Chloroethane               | 2.91 | 64  | 30757  | 21.22  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.24 | 101 | 17599  | 16.43  | ug/l | 98     |
| 8) Diethyl Ether              | 3.67 | 74  | 27419  | 22.05  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.04 | 101 | 49658  | 20.09  | ug/l | 99     |
| 10) Methyl Iodide             | 4.26 | 142 | 71770  | 20.22  | ug/l | 99     |
| 11) Tert butyl alcohol        | 5.20 | 59  | 21070  | 108.81 | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 4.02 | 96  | 51398  | 21.07  | ug/l | 98     |
| 13) Acrolein                  | 3.89 | 56  | 22322  | 112.19 | ug/l | 93     |
| 14) Allyl chloride            | 4.65 | 41  | 71054  | 17.65  | ug/l | 99     |
| 15) Acrylonitrile             | 5.37 | 53  | 67867  | 106.52 | ug/l | 97     |
| 16) Acetone                   | 4.12 | 43  | 65731  | 97.51  | ug/l | 97     |
| 17) Carbon Disulfide          | 4.37 | 76  | 155233 | 20.39  | ug/l | 100    |
| 18) Methyl Acetate            | 4.67 | 43  | 34647  | 21.41  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 100339 | 21.47  | ug/l | 96     |
| 20) Methylene Chloride        | 4.92 | 84  | 66532  | 17.20  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.41 | 96  | 54319  | 20.32  | ug/l | 97     |
| 22) Diisopropyl ether         | 6.31 | 45  | 176637 | 21.71  | ug/l | 98     |
| 23) Vinyl Acetate             | 6.26 | 43  | 580734 | 112.66 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 104919 | 21.14  | ug/l | 98     |
| 25) 2-Butanone                | 7.18 | 43  | 102947 | 113.49 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 7.16 | 77  | 54215  | 19.03  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 60016  | 20.77  | ug/l | 100    |
| 28) Bromochloromethane        | 7.51 | 49  | 46574  | 22.93  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.53 | 42  | 65849  | 116.54 | ug/l | 99     |
| 30) Chloroform                | 7.68 | 83  | 106089 | 21.48  | ug/l | 98     |
| 31) Cyclohexane               | 7.95 | 56  | 94437  | 20.29  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 77619  | 20.13  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 82587  | 19.94  | ug/l | 100    |
| 37) Ethyl Acetate             | 7.26 | 43  | 45095  | 22.58  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 76264  | 19.71  | ug/l | 99     |

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 Sample : VW0716SBS01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
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Manual Integrations  
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apatel  
 7/17/2018 10:31:54 AM

Quant Time: Jul 17 05:59:50 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W071618S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jul 16 15:06:12 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 92907    | 19.16  | ug/l   | 97       |
| 40) Benzene                    | 8.32  | 78   | 236596   | 20.59  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.49  | 41   | 22383    | 20.22  | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 75767    | 21.62  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.43  | 43   | 82500    | 22.08  | ug/l   | 99       |
| 44) Trichloroethene            | 9.09  | 130  | 59781    | 20.07  | ug/l   | 95       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 61555    | 20.99  | ug/l   | 100      |
| 46) Dibromomethane             | 9.46  | 93   | 32600    | 21.42  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.65  | 83   | 78464    | 20.92  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.44  | 41   | 39471    | 21.85  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.46  | 88   | 10133    | 433.21 | ug/l # | 91       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 227210   | 114.15 | ug/l   | 99       |
| 52) Toluene                    | 10.39 | 92   | 146871   | 20.67  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 81349    | 20.74  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 91106    | 20.30  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 45901    | 21.45  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 58899    | 21.05  | ug/l   | 95       |
| 57) 1,3-Dichloropropane        | 10.94 | 76   | 81035    | 21.79  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 146435   | 115.34 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.98 | 43   | 157217   | 112.07 | ug/l   | 98       |
| 60) Dibromochloromethane       | 11.13 | 129  | 52647    | 21.12  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 44162    | 21.69  | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.87 | 164  | 52386    | 20.35  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.66 | 112  | 162439   | 20.36  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 56409    | 20.35  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.74 | 91   | 279557   | 19.95  | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.85 | 106  | 212012   | 39.58  | ug/l   | 98       |
| 69) o-Xylene                   | 12.17 | 106  | 99381    | 20.00  | ug/l   | 100      |
| 70) Styrene                    | 12.19 | 104  | 170650   | 20.56  | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 32195    | 20.57  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.47 | 105  | 270285   | 19.43  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.28 | 43   | 79157    | 21.84  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 57578    | 21.40  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 48013m   | 24.56  | ug/l   |          |
| 77) Bromobenzene               | 12.76 | 156  | 67116    | 20.16  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.81 | 91   | 338515   | 19.83  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 194087   | 20.16  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 233203   | 19.92  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 18123    | 20.51  | ug/l   | 95       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 206933   | 20.03  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 192719   | 19.61  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 241608   | 20.06  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.39 | 105  | 285997   | 19.61  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.51 | 119  | 254282   | 19.88  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 135324   | 20.35  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 135737   | 20.36  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.83 | 91   | 244156   | 19.41  | ug/l   | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 46055    | 19.53  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 123024   | 20.77  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 10402    | 21.74  | ug/l   | 97       |

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Misc : 5.00G/5ML/MSVOA W/SOIL  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
VW0716SBSD01

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apatel  
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Quant Time: Jul 17 05:59:50 2018  
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Quant Title : SW846 8260  
QLast Update : Mon Jul 16 15:06:12 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.15 | 180  | 88881    | 21.36 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.25 | 225  | 46843    | 19.61 | ug/l  | 100      |
| 95) Naphthalene            | 15.38 | 128  | 173207   | 22.55 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 79323    | 21.53 | ug/l  | 100      |

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

