

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX081318\  
 Data File : VX003993.D  
 Acq On : 13 Aug 2018 12:09  
 Operator : JC/MD  
 Sample : VX0813WBS01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX0813WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 8/14/2018 12:55:35 PM

Quant Time: Aug 14 03:59:51 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X080618W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Aug 13 01:34:27 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 325047   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 473236   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 444082   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 273963   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 221265   | 51.35 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.70% |      |
| 35) Dibromofluoromethane  | 5.50   | 113 | 176804   | 49.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.64%  |      |
| 50) Toluene-d8            | 8.71   | 98  | 701607   | 50.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.64% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 254290   | 56.37 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 112.74% |      |

## Target Compounds

|                               |      |     |         |        |      | Qvalue |
|-------------------------------|------|-----|---------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 67577   | 20.52  | ug/l | 99     |
| 3) Chloromethane              | 1.32 | 50  | 77278   | 17.24  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.40 | 62  | 86420   | 19.34  | ug/l | 100    |
| 5) Bromomethane               | 1.64 | 94  | 43309   | 15.21  | ug/l | 98     |
| 6) Chloroethane               | 1.73 | 64  | 59363   | 20.76  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 122364  | 20.74  | ug/l | 95     |
| 8) Diethyl Ether              | 2.18 | 74  | 52048   | 19.62  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 77334   | 20.97  | ug/l | 100    |
| 10) Methyl Iodide             | 2.51 | 142 | 57343   | 12.50  | ug/l | 100    |
| 11) Tert butyl alcohol        | 3.04 | 59  | 100937  | 97.49  | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 2.38 | 96  | 69324   | 19.87  | ug/l | 96     |
| 13) Acrolein                  | 2.29 | 56  | 33130   | 58.05  | ug/l | 99     |
| 14) Allyl chloride            | 2.73 | 41  | 131222  | 19.51  | ug/l | 96     |
| 15) Acrylonitrile             | 3.14 | 53  | 248372  | 100.53 | ug/l | 100    |
| 16) Acetone                   | 2.43 | 43  | 260204  | 101.51 | ug/l | 99     |
| 17) Carbon Disulfide          | 2.57 | 76  | 184194  | 17.31  | ug/l | 99     |
| 18) Methyl Acetate            | 2.77 | 43  | 115745  | 20.74  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 259970  | 21.03  | ug/l | 98     |
| 20) Methylene Chloride        | 2.86 | 84  | 84927   | 13.67  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 79847   | 20.16  | ug/l | 95     |
| 22) Diisopropyl ether         | 3.86 | 45  | 277459  | 22.44  | ug/l | 93     |
| 23) Vinyl Acetate             | 3.82 | 43  | 1147618 | 111.57 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 153406  | 20.89  | ug/l | 100    |
| 25) 2-Butanone                | 4.69 | 43  | 395096  | 102.51 | ug/l | 98     |
| 26) 2,2-Dichloropropane       | 4.58 | 77  | 119756  | 22.61  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 89618   | 20.85  | ug/l | 99     |
| 28) Bromochloromethane        | 5.02 | 49  | 57044   | 18.15  | ug/l | 100    |
| 29) Tetrahydrofuran           | 5.15 | 42  | 194988  | 98.43  | ug/l | 99     |
| 30) Chloroform                | 5.21 | 83  | 148111  | 21.42  | ug/l | 97     |
| 31) Cyclohexane               | 5.57 | 56  | 119993  | 19.32  | ug/l | 98     |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97  | 123077  | 21.23  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.80 | 75  | 108865  | 20.54  | ug/l | 99     |
| 37) Ethyl Acetate             | 4.85 | 43  | 116560  | 19.99  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 109042  | 21.62  | ug/l | 95     |

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 Sample : VX0813WBS01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 VX0813WBS01

Manual Integrations  
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MMDadoda  
 8/14/2018 12:55:35 PM

Quant Time: Aug 14 03:59:51 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X080618W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Aug 13 01:34:27 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 125078   | 20.02  | ug/l   | 98       |
| 40) Benzene                    | 6.14  | 78   | 331927   | 20.86  | ug/l   | 98       |
| 41) Methacrylonitrile          | 5.05  | 41   | 66099    | 20.59  | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 118163   | 21.96  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 6.46  | 43   | 182258   | 20.77  | ug/l   | 100      |
| 44) Trichloroethene            | 7.21  | 130  | 91818    | 21.09  | ug/l   | 88       |
| 45) 1,2-Dichloropropane        | 7.52  | 63   | 88831    | 21.61  | ug/l   | 99       |
| 46) Dibromomethane             | 7.66  | 93   | 56907    | 21.33  | ug/l   | 97       |
| 47) Bromodichloromethane       | 7.90  | 83   | 108108   | 21.51  | ug/l   | 99       |
| 48) Methyl methacrylate        | 7.77  | 41   | 92035    | 20.64  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 7.76  | 88   | 40787    | 388.21 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 766115   | 105.34 | ug/l   | 99       |
| 52) Toluene                    | 8.79  | 92   | 216890   | 21.57  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 117042   | 20.60  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 8.44  | 75   | 130223   | 21.26  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 86897    | 21.15  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 118932   | 19.95  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 147854   | 21.50  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 8.31  | 63   | 287832   | 98.17  | ug/l   | 99       |
| 59) 2-Hexanone                 | 9.50  | 43   | 576917   | 106.12 | ug/l   | 99       |
| 60) Dibromochloromethane       | 9.59  | 129  | 85566    | 22.33  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 90581    | 22.02  | ug/l   | 100      |
| 64) Tetrachloroethene          | 9.34  | 164  | 86370    | 19.77  | ug/l   | 97       |
| 65) Chlorobenzene              | 10.14 | 112  | 235455   | 20.38  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.23 | 131  | 82193    | 20.69  | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.26 | 91   | 392241   | 20.74  | ug/l   | 93       |
| 68) m/p-Xylenes                | 10.36 | 106  | 305893   | 41.39  | ug/l   | 96       |
| 69) o-Xylene                   | 10.70 | 106  | 140733   | 20.17  | ug/l   | 98       |
| 70) Styrene                    | 10.71 | 104  | 243825   | 21.34  | ug/l   | 97       |
| 71) Bromoform                  | 10.86 | 173  | 61579    | 20.73  | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.02 | 105  | 403279   | 19.90  | ug/l   | 97       |
| 74) N-amyl acetate             | 6.46  | 43   | 182258   | 17.29  | ug/l # | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 135620   | 19.52  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 119369m  | 19.73  | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 107183   | 19.82  | ug/l   | 100      |
| 78) n-propylbenzene            | 11.36 | 91   | 465194   | 20.44  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 272348   | 19.63  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 338210   | 20.47  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 35316    | 17.79  | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 323370   | 19.89  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 335745   | 20.65  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 355454   | 21.39  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 394893   | 20.58  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 356361   | 20.70  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 198683   | 19.88  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 207220   | 19.99  | ug/l   | 98       |
| 89) n-Butylbenzene             | 12.39 | 91   | 293901   | 19.59  | ug/l   | 99       |
| 90) Hexachloroethane           | 12.60 | 117  | 49454    | 17.69  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 190585   | 19.24  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 23006    | 16.17  | ug/l   | 97       |

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ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX0813WBS01

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Quant Time: Aug 14 03:59:51 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X080618W.M  
Quant Title : SW846 8260  
QLast Update : Mon Aug 13 01:34:27 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 124381   | 17.46 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 62225    | 18.65 | ug/l  | 97       |
| 95) Naphthalene            | 13.83 | 128  | 385640   | 18.90 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 139448   | 19.61 | ug/l  | 100      |

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

