

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\WX031119\  
 Data File : VX008007.D  
 Acq On : 12 Mar 2019 10:41  
 Operator : JC/SP  
 Sample : K1793-09MSD  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 51 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE123D1-20190306MSD

Manual Integrations  
 APPROVED

MMDadoda  
 3/12/2019 3:24:17 PM

Quant Time: Mar 12 13:49:15 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X030619W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Mar 07 07:33:26 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 229683   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 344000   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 302504   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 152587   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 121198   | 50.02 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.04% |      |
| 35) Dibromofluoromethane  | 5.50   | 113 | 108214   | 49.18 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.36%  |      |
| 50) Toluene-d8            | 8.71   | 98  | 401565   | 49.69 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.38%  |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 140187   | 49.48 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.96%  |      |

## Target Compounds

|                               |      |     |         |         | Qvalue   |
|-------------------------------|------|-----|---------|---------|----------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 88981   | 45.345  | ug/l 100 |
| 3) Chloromethane              | 1.33 | 50  | 116708  | 46.151  | ug/l 100 |
| 4) Vinyl Chloride             | 1.41 | 62  | 122379  | 48.704  | ug/l 98  |
| 5) Bromomethane               | 1.64 | 94  | 62619   | 53.177  | ug/l 97  |
| 6) Chloroethane               | 1.72 | 64  | 76327   | 45.726  | ug/l 99  |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 162915  | 49.799  | ug/l 96  |
| 8) Diethyl Ether              | 2.19 | 74  | 72570   | 51.227  | ug/l 96  |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 96470   | 47.586  | ug/l 99  |
| 10) Methyl Iodide             | 2.51 | 142 | 157334  | 54.705  | ug/l 99  |
| 11) Tert butyl alcohol        | 3.07 | 59  | 144983  | 267.570 | ug/l 99  |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 98185   | 50.244  | ug/l 99  |
| 13) Acrolein                  | 2.30 | 56  | 73823   | 240.807 | ug/l 100 |
| 14) Allyl chloride            | 2.73 | 41  | 187937  | 45.768  | ug/l 99  |
| 15) Acrylonitrile             | 3.15 | 53  | 340778  | 249.165 | ug/l 100 |
| 16) Acetone                   | 2.45 | 43  | 285138  | 203.320 | ug/l 99  |
| 17) Carbon Disulfide          | 2.57 | 76  | 287851  | 48.493  | ug/l 100 |
| 18) Methyl Acetate            | 2.78 | 43  | 118461  | 39.761  | ug/l 97  |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 348468  | 51.834  | ug/l 99  |
| 20) Methylene Chloride        | 2.86 | 84  | 111438  | 49.929  | ug/l 97  |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 105133  | 48.894  | ug/l 96  |
| 22) Diisopropyl ether         | 3.87 | 45  | 365586  | 48.568  | ug/l 97  |
| 23) Vinyl Acetate             | 3.82 | 43  | 1140389 | 172.763 | ug/l 99  |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 202292  | 49.939  | ug/l 99  |
| 25) 2-Butanone                | 4.70 | 43  | 463611  | 233.504 | ug/l 98  |
| 26) 2,2-Dichloropropane       | 4.58 | 77  | 82167   | 30.617  | ug/l 94  |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 122053  | 49.605  | ug/l 94  |
| 28) Bromochloromethane        | 5.02 | 49  | 93323   | 49.416  | ug/l 96  |
| 29) Tetrahydrofuran           | 5.15 | 42  | 308681  | 249.247 | ug/l 98  |
| 30) Chloroform                | 5.21 | 83  | 196406  | 51.257  | ug/l 100 |
| 31) Cyclohexane               | 5.57 | 56  | 178810  | 48.029  | ug/l 98  |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97  | 164433  | 51.720  | ug/l 98  |
| 36) 1,1-Dichloropropene       | 5.80 | 75  | 145234  | 46.626  | ug/l 99  |
| 37) Ethyl Acetate             | 4.85 | 43  | 130116  | 35.201  | ug/l 99  |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 144600  | 48.899  | ug/l 98  |

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 Sample : K1793-09MSD  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 51 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 RE123D1-20190306MSD

Manual Integrations  
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MMDadoda  
 3/12/2019 3:24:17 PM

Quant Time: Mar 12 13:49:15 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X030619W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Mar 07 07:33:26 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 171065   | 45.323   | ug/l   | 99       |
| 40) Benzene                    | 6.14  | 78   | 457341   | 49.319   | ug/l   | 100      |
| 41) Methacrylonitrile          | 5.06  | 41   | 97925    | 48.592   | ug/l   | 98       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 147226   | 48.548   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 6.46  | 43   | 224924   | 41.116   | ug/l   | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 151080   | 59.120   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 120932   | 49.376   | ug/l   | 98       |
| 46) Dibromomethane             | 7.66  | 93   | 77042    | 49.705   | ug/l   | 99       |
| 47) Bromodichloromethane       | 7.90  | 83   | 146109   | 49.719   | ug/l   | 100      |
| 48) Methyl methacrylate        | 7.77  | 41   | 139944   | 48.656   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 7.75  | 88   | 61506    | 1041.013 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 866739   | 246.366  | ug/l   | 99       |
| 52) Toluene                    | 8.79  | 92   | 279402   | 49.352   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 148108   | 48.287   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 165568   | 47.801   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 118109   | 51.535   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 174954   | 50.843   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 192650   | 50.064   | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.49  | 43   | 651616   | 238.567  | ug/l   | 99       |
| 60) Dibromochloromethane       | 9.59  | 129  | 123018   | 51.354   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 122719   | 50.434   | ug/l   | 99       |
| 64) Tetrachloroethene          | 9.34  | 164  | 120895   | 48.226   | ug/l   | 98       |
| 65) Chlorobenzene              | 10.14 | 112  | 309827   | 48.945   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 116449   | 51.328   | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.25 | 91   | 516925   | 49.609   | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.36 | 106  | 397850   | 99.056   | ug/l   | 100      |
| 69) o-Xylene                   | 10.69 | 106  | 194708   | 50.213   | ug/l   | 98       |
| 70) Styrene                    | 10.71 | 104  | 321504   | 50.668   | ug/l   | 100      |
| 71) Bromoform                  | 10.86 | 173  | 97321    | 49.952   | ug/l # | 100      |
| 73) Isopropylbenzene           | 11.02 | 105  | 516147   | 50.016   | ug/l   | 100      |
| 74) N-amyl acetate             | 10.90 | 43   | 161982   | 34.382   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 168668   | 47.383   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 139344m  | 43.519   | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 139042   | 49.144   | ug/l   | 98       |
| 78) n-propylbenzene            | 11.36 | 91   | 565365   | 49.383   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 340029   | 48.576   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 428160   | 50.409   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 43008    | 42.935   | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 391726   | 48.832   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 11.77 | 119  | 436123   | 50.975   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 437913   | 50.294   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 11.94 | 105  | 502619   | 49.881   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 451303   | 50.010   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 241240   | 48.196   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 241780   | 47.167   | ug/l   | 100      |
| 89) n-Butylbenzene             | 12.39 | 91   | 367760   | 48.102   | ug/l   | 99       |
| 90) Hexachloroethane           | 12.60 | 117  | 74922    | 49.656   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 241329   | 48.532   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 35998    | 48.389   | ug/l   | 95       |
| 93) 1,2,4-Trichlorobenzene     | 13.65 | 180  | 169407   | 48.497   | ug/l   | 99       |

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MSVOA\_X  
ClientSampleId :  
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3/12/2019 3:24:17 PM

Quant Time: Mar 12 13:49:15 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X030619W.M  
Quant Title : SW846 8260  
QLast Update : Thu Mar 07 07:33:26 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 13.78 | 225  | 85677    | 46.913 | ug/l  | 100      |
| 95) Naphthalene            | 13.83 | 128  | 518204   | 51.486 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 172136   | 49.467 | ug/l  | 99       |

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

