

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX102519\  
 Data File : VX013233.D  
 Acq On : 25 Oct 2019 16:04  
 Operator : JC/SP  
 Sample : K5546-02MS  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 GW809-8.0-13.0-102419MS

Manual Integrations  
 APPROVED

MMDadoda  
 10/28/2019 12:52:57 PM

Quant Time: Oct 26 00:40:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X102419W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Oct 24 03:56:38 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 78307    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 111787   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 114698   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 76927    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.05   | 65  | 84256    | 51.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.88% |      |
| 35) Dibromofluoromethane  | 5.49   | 113 | 64788    | 51.97 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.94% |      |
| 50) Toluene-d8            | 8.71   | 98  | 230562   | 49.91 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.82%  |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 88916    | 48.63 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.26%  |      |

## Target Compounds

|                               |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 69427  | 43.939  | ug/l | 98     |
| 3) Chloromethane              | 1.32 | 50  | 60378  | 46.471  | ug/l | 96     |
| 4) Vinyl Chloride             | 1.40 | 62  | 63940  | 44.965  | ug/l | 98     |
| 5) Bromomethane               | 1.63 | 94  | 32442  | 43.043  | ug/l | 98     |
| 6) Chloroethane               | 1.71 | 64  | 40373  | 50.773  | ug/l | 96     |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 110207 | 49.120  | ug/l | 99     |
| 8) Diethyl Ether              | 2.18 | 74  | 37400  | 48.598  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 61263  | 44.085  | ug/l | 97     |
| 10) Methyl Iodide             | 2.50 | 142 | 82912  | 47.545  | ug/l | 99     |
| 11) Tert butyl alcohol        | 3.03 | 59  | 89122  | 250.830 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 2.36 | 96  | 63119  | 47.317  | ug/l | 96     |
| 13) Acrolein                  | 2.28 | 56  | 50136  | 260.907 | ug/l | 98     |
| 14) Allyl chloride            | 2.72 | 41  | 96866  | 46.125  | ug/l | 98     |
| 15) Acrylonitrile             | 3.13 | 53  | 178904 | 247.817 | ug/l | 99     |
| 16) Acetone                   | 2.44 | 43  | 160134 | 207.531 | ug/l | 95     |
| 17) Carbon Disulfide          | 2.56 | 76  | 153990 | 42.938  | ug/l | 99     |
| 18) Methyl Acetate            | 2.77 | 43  | 83624  | 49.640  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 3.18 | 73  | 236006 | 50.241  | ug/l | 98     |
| 20) Methylene Chloride        | 2.84 | 84  | 72546  | 50.275  | ug/l | 95     |
| 21) trans-1,2-Dichloroethene  | 3.16 | 96  | 67297  | 48.501  | ug/l | 92     |
| 22) Diisopropyl ether         | 3.84 | 45  | 195834 | 47.692  | ug/l | 96     |
| 23) Vinyl Acetate             | 3.80 | 43  | 863215 | 247.329 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 3.69 | 63  | 123971 | 49.083  | ug/l | 99     |
| 25) 2-Butanone                | 4.65 | 43  | 241511 | 233.386 | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 4.57 | 77  | 104199 | 44.639  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 4.59 | 96  | 77887  | 47.676  | ug/l | 99     |
| 28) Bromochloromethane        | 5.00 | 49  | 34513  | 52.994  | ug/l | 97     |
| 29) Tetrahydrofuran           | 5.12 | 42  | 150438 | 241.184 | ug/l | 99     |
| 30) Chloroform                | 5.20 | 83  | 135224 | 50.285  | ug/l | 97     |
| 31) Cyclohexane               | 5.57 | 56  | 94492  | 44.611  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 5.48 | 97  | 121892 | 50.979  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 92788  | 49.586  | ug/l | 100    |
| 37) Ethyl Acetate             | 4.82 | 43  | 92735  | 49.781  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 103440 | 50.062  | ug/l | 97     |

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 ALS Vial : 16 Sample Multiplier: 1

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 MSVOA\_X  
 ClientSampleId :  
 GW809-8.0-13.0-102419MS

Manual Integrations  
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MMDadoda  
 10/28/2019 12:52:57 PM

Quant Time: Oct 26 00:40:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X102419W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Oct 24 03:56:38 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 39) Methylcyclohexane          | 7.45  | 83   | 97526    | 40.752  | ug/l  | 99       |
| 40) Benzene                    | 6.14  | 78   | 273948   | 48.789  | ug/l  | 98       |
| 41) Methacrylonitrile          | 5.03  | 41   | 52223    | 52.289  | ug/l  | 99       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 110100   | 52.007  | ug/l  | 100      |
| 43) Isopropyl Acetate          | 6.44  | 43   | 154280   | 49.882  | ug/l  | 100      |
| 44) Trichloroethene            | 7.20  | 130  | 76764    | 48.170  | ug/l  | 97       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 67482    | 47.984  | ug/l  | 98       |
| 46) Dibromomethane             | 7.65  | 93   | 49930    | 49.279  | ug/l  | 99       |
| 47) Bromodichloromethane       | 7.89  | 83   | 102823   | 52.074  | ug/l  | 99       |
| 48) Methyl methacrylate        | 7.76  | 41   | 77606    | 50.767  | ug/l  | 99       |
| 49) 1,4-Dioxane                | 7.73  | 88   | 38067    | 978.418 | ug/l  | 98       |
| 51) 4-Methyl-2-Pentanone       | 8.64  | 43   | 478496   | 253.814 | ug/l  | 99       |
| 52) Toluene                    | 8.78  | 92   | 177141   | 47.604  | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 110845   | 52.826  | ug/l  | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 117087   | 51.009  | ug/l  | 98       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 74649    | 50.741  | ug/l  | 99       |
| 56) Ethyl methacrylate         | 9.17  | 69   | 116015   | 52.395  | ug/l  | 100      |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 123177   | 49.622  | ug/l  | 99       |
| 59) 2-Hexanone                 | 9.49  | 43   | 370995   | 255.476 | ug/l  | 98       |
| 60) Dibromochloromethane       | 9.58  | 129  | 81613    | 52.941  | ug/l  | 98       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 79651    | 50.999  | ug/l  | 100      |
| 64) Tetrachloroethene          | 9.33  | 164  | 73848    | 52.269  | ug/l  | 98       |
| 65) Chlorobenzene              | 10.14 | 112  | 188540   | 46.958  | ug/l  | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 75444    | 50.865  | ug/l  | 99       |
| 67) Ethyl Benzene              | 10.25 | 91   | 345458   | 48.061  | ug/l  | 98       |
| 68) m/p-Xylenes                | 10.36 | 106  | 257425   | 94.766  | ug/l  | 99       |
| 69) o-Xylene                   | 10.70 | 106  | 125844   | 48.293  | ug/l  | 99       |
| 70) Styrene                    | 10.71 | 104  | 217365   | 48.443  | ug/l  | 99       |
| 71) Bromoform                  | 10.86 | 173  | 58769    | 54.227  | ug/l  | 98       |
| 73) Isopropylbenzene           | 11.01 | 105  | 340802   | 48.786  | ug/l  | 99       |
| 74) N-amyl acetate             | 10.89 | 43   | 128869   | 50.262  | ug/l  | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 110140   | 51.925  | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 89222m   | 48.122  | ug/l  |          |
| 77) Bromobenzene               | 11.25 | 156  | 83452    | 49.843  | ug/l  | 98       |
| 78) n-propylbenzene            | 11.35 | 91   | 368023   | 48.500  | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 228675   | 47.696  | ug/l  | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.50 | 105  | 289230   | 49.812  | ug/l  | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 32663    | 48.410  | ug/l  | 93       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 272799   | 50.218  | ug/l  | 97       |
| 83) tert-Butylbenzene          | 11.76 | 119  | 278490   | 48.478  | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 298419   | 50.953  | ug/l  | 100      |
| 85) sec-Butylbenzene           | 11.94 | 105  | 306514   | 46.886  | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 285208   | 46.438  | ug/l  | 97       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 143570   | 47.466  | ug/l  | 99       |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146  | 145513   | 47.251  | ug/l  | 99       |
| 89) n-Butylbenzene             | 12.39 | 91   | 232150   | 46.207  | ug/l  | 98       |
| 90) Hexachloroethane           | 12.59 | 117  | 51025    | 49.610  | ug/l  | 99       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 148294   | 49.858  | ug/l  | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 28577    | 54.177  | ug/l  | 98       |
| 93) 1,2,4-Trichlorobenzene     | 13.64 | 180  | 84513    | 45.124  | ug/l  | 94       |

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ALS Vial : 16 Sample Multiplier: 1

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MSVOA\_X  
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Quant Time: Oct 26 00:40:09 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X102419W.M  
Quant Title : SW846 8260  
QLast Update : Thu Oct 24 03:56:38 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 13.78 | 225  | 39880    | 41.163 | ug/l  | 95       |
| 95) Naphthalene            | 13.83 | 128  | 283730   | 49.360 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.01 | 180  | 90439    | 48.867 | ug/l  | 96       |

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

