

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121818\  
 Data File : VX006632.D  
 Acq On : 19 Dec 2018 07:25  
 Operator : JC/MD  
 Sample : J6408-11MSD  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 49 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SA.PZ135I-20181208MSD

Quant Time: Dec 19 10:33:59 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 19 00:58:54 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 490378   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 809899   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 756781   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 395261   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 6.06   | 65  | 274317   | 51.90 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 103.80% |      |
| 35) Dibromofluoromethane    | 5.50   | 113 | 252254   | 49.25 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 98.50%  |      |
| 50) Toluene-d8              | 8.71   | 98  | 907162   | 46.98 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 93.96%  |      |
| 62) 4-Bromofluorobenzene    | 11.13  | 95  | 352062   | 49.78 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 99.56%  |      |

| Target Compounds              |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 229600  | 51.180  | ug/l | 97     |
| 3) Chloromethane              | 1.33 | 50  | 265263  | 54.885  | ug/l | 97     |
| 4) Vinyl Chloride             | 1.41 | 62  | 274215  | 54.324  | ug/l | 97     |
| 5) Bromomethane               | 1.64 | 94  | 269022  | 57.394  | ug/l | 96     |
| 6) Chloroethane               | 1.72 | 64  | 180118  | 51.534  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 431055  | 54.773  | ug/l | 97     |
| 8) Diethyl Ether              | 2.19 | 74  | 171603  | 54.899  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 234235  | 50.692  | ug/l | 99     |
| 10) Methyl Iodide             | 2.51 | 142 | 397321  | 60.069  | ug/l | 99     |
| 11) Tert butyl alcohol        | 3.07 | 59  | 378745  | 321.110 | ug/l | 97     |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 237859  | 54.289  | ug/l | 99     |
| 13) Acrolein                  | 2.29 | 56  | 183206  | 230.248 | ug/l | 98     |
| 14) Allyl chloride            | 2.73 | 41  | 372847  | 50.556  | ug/l | 99     |
| 15) Acrylonitrile             | 3.15 | 53  | 765430  | 292.280 | ug/l | 100    |
| 16) Acetone                   | 2.45 | 43  | 646480  | 266.246 | ug/l | 98     |
| 17) Carbon Disulfide          | 2.57 | 76  | 569585  | 49.124  | ug/l | 100    |
| 18) Methyl Acetate            | 2.78 | 43  | 311208  | 43.587  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 844739  | 58.090  | ug/l | 98     |
| 20) Methylene Chloride        | 2.85 | 84  | 277691  | 55.306  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 255458  | 52.622  | ug/l | 97     |
| 22) Diisopropyl ether         | 3.87 | 45  | 770183  | 57.085  | ug/l | 96     |
| 23) Vinyl Acetate             | 3.82 | 43  | 2126516 | 192.689 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 448054  | 55.631  | ug/l | 99     |
| 25) 2-Butanone                | 4.70 | 43  | 948629  | 277.745 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 4.59 | 77  | 123923  | 19.919  | ug/l | 89     |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 301803  | 56.347  | ug/l | 94     |
| 28) Bromochloromethane        | 5.01 | 49  | 184974  | 54.654  | ug/l | 99     |
| 29) Tetrahydrofuran           | 5.15 | 42  | 647805  | 287.972 | ug/l | 100    |
| 30) Chloroform                | 5.21 | 83  | 478074  | 57.320  | ug/l | 98     |
| 31) Cyclohexane               | 5.57 | 56  | 379647  | 51.886  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97  | 403606  | 57.310  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.80 | 75  | 341256  | 50.874  | ug/l | 99     |
| 37) Ethyl Acetate             | 4.85 | 43  | 271101  | 38.831  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 341254  | 52.348  | ug/l | 95     |

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 ALS Vial : 49 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SA.PZ135I-20181208MSD

Quant Time: Dec 19 10:33:59 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 19 00:58:54 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 386622   | 43.780   | ug/l  | 99       |
| 40) Benzene                    | 6.14  | 78   | 1069783  | 52.467   | ug/l  | 100      |
| 41) Methacrylonitrile          | 5.06  | 41   | 208446   | 56.235   | ug/l  | 99       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 367886   | 52.950   | ug/l  | 99       |
| 43) Isopropyl Acetate          | 6.46  | 43   | 488108   | 45.949   | ug/l  | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 310743   | 50.353   | ug/l  | 99       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 266551   | 53.721   | ug/l  | 99       |
| 46) Dibromomethane             | 7.66  | 93   | 192483   | 52.740   | ug/l  | 100      |
| 47) Bromodichloromethane       | 7.90  | 83   | 329296   | 54.346   | ug/l  | 97       |
| 48) Methyl methacrylate        | 7.77  | 41   | 305734   | 56.596   | ug/l  | 100      |
| 49) 1,4-Dioxane                | 7.75  | 88   | 159136   | 1128.451 | ug/l  | 99       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 1931149  | 285.715  | ug/l  | 100      |
| 52) Toluene                    | 8.78  | 92   | 705730   | 53.576   | ug/l  | 100      |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 304231   | 46.816   | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 344678   | 48.339   | ug/l  | 98       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 290926   | 53.958   | ug/l  | 96       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 428224   | 56.193   | ug/l  | 99       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 464883   | 53.590   | ug/l  | 99       |
| 59) 2-Hexanone                 | 9.49  | 43   | 1471116  | 284.469  | ug/l  | 100      |
| 60) Dibromochloromethane       | 9.59  | 129  | 289637   | 58.320   | ug/l  | 96       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 316847   | 55.281   | ug/l  | 99       |
| 64) Tetrachloroethene          | 9.34  | 164  | 287670   | 48.005   | ug/l  | 96       |
| 65) Chlorobenzene              | 10.14 | 112  | 821614   | 51.318   | ug/l  | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 281162   | 56.287   | ug/l  | 98       |
| 67) Ethyl Benzene              | 10.25 | 91   | 1349154  | 51.569   | ug/l  | 99       |
| 68) m/p-Xylenes                | 10.36 | 106  | 1065619  | 103.223  | ug/l  | 100      |
| 69) o-Xylene                   | 10.69 | 106  | 530357   | 52.025   | ug/l  | 97       |
| 70) Styrene                    | 10.71 | 104  | 873176   | 54.141   | ug/l  | 100      |
| 71) Bromoform                  | 10.86 | 173  | 208930   | 46.694   | ug/l  | 100      |
| 73) Isopropylbenzene           | 11.02 | 105  | 1397365  | 51.677   | ug/l  | 99       |
| 74) N-amyl acetate             | 10.90 | 43   | 376463   | 38.895   | ug/l  | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 440950   | 54.832   | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 438247   | 59.661   | ug/l  | 91       |
| 77) Bromobenzene               | 11.26 | 156  | 382329   | 52.298   | ug/l  | 99       |
| 78) n-propylbenzene            | 11.36 | 91   | 1525915  | 51.244   | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 934233   | 51.772   | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 1156731  | 51.936   | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 75156    | 32.734   | ug/l  | 92       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 1063533  | 51.381   | ug/l  | 100      |
| 83) tert-Butylbenzene          | 11.77 | 119  | 1198542  | 53.768   | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 1179693  | 50.357   | ug/l  | 100      |
| 85) sec-Butylbenzene           | 11.94 | 105  | 1385096  | 50.680   | ug/l  | 99       |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 1223489  | 50.927   | ug/l  | 99       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 670975   | 50.926   | ug/l  | 99       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 673436   | 49.860   | ug/l  | 99       |
| 89) n-Butylbenzene             | 12.39 | 91   | 979495   | 47.907   | ug/l  | 99       |
| 90) Hexachloroethane           | 12.60 | 117  | 180720   | 48.192   | ug/l  | 98       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 674771   | 51.197   | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 88132    | 52.964   | ug/l  | 99       |
| 93) 1,2,4-Trichlorobenzene     | 13.65 | 180  | 447083   | 49.176   | ug/l  | 98       |

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Sample : J6408-11MSD  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 49 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
SA.PZ135I-20181208MSD

Quant Time: Dec 19 10:33:59 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 19 00:58:54 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 13.78 | 225  | 191788   | 44.756 | ug/l  | 97       |
| 95) Naphthalene            | 13.83 | 128  | 1525491  | 52.573 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 470114   | 50.082 | ug/l  | 98       |

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

