

Data Path : W:\HPCHEM1\MSVOA X\DATA\VX052518\  
 Data File : VX001963.D  
 Acq On : 25 May 2018 02:06  
 Operator : JC/MD  
 Sample : VX0525WBS01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 32 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX0525WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 5/29/2018 4:39:20 PM

Quant Time: May 25 03:13:59 2018  
 Quant Method : W:\HPCHEM1\MSVOA X\METHOD\624X052518W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri May 25 02:17:15 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.03  | 128  | 67763    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.87  | 114  | 371625   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.12 | 117  | 333539   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 6.08   | 65    | 156227   | 29.30    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 97.67%  |
| 60) 4-Bromofluorobenzene  | 11.14  | 95    | 168625   | 29.53    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 98.43%  |
| 63) Toluene-d8            | 8.72   | 98    | 453448   | 30.50    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 101.67% |

## Target Compounds

|                               |      |     |        |         | Ovalue     |
|-------------------------------|------|-----|--------|---------|------------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 71950  | 20.000  | ug/l 100   |
| 3) Chloromethane              | 1.32 | 50  | 88659  | 20.718  | ug/l 98    |
| 4) Vinyl Chloride             | 1.40 | 62  | 85698  | 20.131  | ug/l 99    |
| 5) Bromomethane               | 1.64 | 94  | 59478  | 24.939  | ug/l 99    |
| 6) Chloroethane               | 1.73 | 64  | 52168  | 20.715  | ug/l 99    |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 133866 | 20.618  | ug/l 99    |
| 8) Diethyl Ether              | 2.20 | 74  | 49384  | 20.209  | ug/l 97    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 71925  | 20.570  | ug/l 99    |
| 10) 1,1-Dichloroethene        | 2.37 | 96  | 69662  | 20.663  | ug/l 99    |
| 11) Methyl Iodide             | 2.51 | 142 | 88624  | 16.733  | ug/l 99    |
| 12) Methyl Acetate            | 2.79 | 43  | 112488 | 20.584  | ug/l 95    |
| 13) Acrolein                  | 2.30 | 56  | 43439  | 93.366  | ug/l 99    |
| 14) Acrylonitrile             | 3.16 | 53  | 232176 | 103.271 | ug/l 99    |
| 15) Acetone                   | 2.45 | 58  | 62146  | 103.690 | ug/l 99    |
| 16) Carbon Disulfide          | 2.57 | 76  | 196210 | 20.381  | ug/l 99    |
| 17) Allyl chloride            | 2.73 | 41  | 142783 | 20.519  | ug/l 99    |
| 18) Methylene Chloride        | 2.86 | 84  | 77654  | 20.494  | ug/l 98    |
| 19) trans-1,2-Dichloroethene  | 3.17 | 96  | 74199  | 20.816  | ug/l 98    |
| 20) Diisopropyl ether         | 3.88 | 45  | 274688 | 20.675  | ug/l 99    |
| 21) 1,1-Dichloroethane        | 3.70 | 63  | 145801 | 20.616  | ug/l 99    |
| 22) cis-1,2-Dichloroethene    | 4.60 | 96  | 86171  | 20.276  | ug/l 91    |
| 23) tert-Butyl Alcohol        | 3.09 | 59  | 122562 | 105.104 | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 3.21 | 73  | 271298 | 20.616  | ug/l 99    |
| 25) Chloroform                | 5.22 | 83  | 151941 | 20.434  | ug/l 97    |
| 26) Cyclohexane               | 5.58 | 56  | 132099 | 20.296  | ug/l # 100 |
| 29) 1,1-Dichloropropene       | 5.81 | 75  | 107313 | 20.639  | ug/l 100   |
| 30) 2-Butanone                | 4.72 | 43  | 380424 | 104.896 | ug/l 100   |
| 31) 2,2-Dichloropropane       | 4.59 | 77  | 78727  | 17.229  | ug/l 96    |
| 32) 1,1,1-Trichloroethane     | 5.50 | 97  | 140682 | 20.717  | ug/l 99    |
| 33) Carbon Tetrachloride      | 5.79 | 117 | 126557 | 20.509  | ug/l 93    |
| 34) Benzene                   | 6.15 | 78  | 326186 | 20.776  | ug/l 99    |
| 35) Methacrylonitrile         | 5.07 | 41  | 82467  | 20.535  | ug/l 98    |
| 36) 1,2-Dichloroethane        | 6.21 | 62  | 129836 | 21.226  | ug/l 100   |
| 37) Trichloroethene           | 7.22 | 130 | 91591  | 20.565  | ug/l 94    |
| 38) Methylcyclohexane         | 7.46 | 83  | 122769 | 20.238  | ug/l 98    |
| 39) 1,2-Dichloropropane       | 7.52 | 63  | 87821  | 20.688  | ug/l 98    |
| 40) Dibromomethane            | 7.67 | 93  | 58706  | 20.613  | ug/l 97    |

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 41) Bromodichloromethane       | 7.91  | 83   | 121833   | 20.619  | ug/l   | 98       |
| 42) Vinyl Acetate              | 3.83  | 43   | 1215882  | 105.971 | ug/l   | 100      |
| 43) Ethyl Acetate              | 4.87  | 43   | 151191   | 21.239  | ug/l   | 99       |
| 44) Isopropyl Acetate          | 6.48  | 43   | 248824   | 21.020  | ug/l   | 100      |
| 45) 1,4-Dioxane                | 7.76  | 88   | 47707    | 423.644 | ug/l # | 90       |
| 46) Methyl methacrylate        | 7.79  | 41   | 123592   | 20.618  | ug/l   | 99       |
| 47) n-amyl Acetate             | 10.90 | 43   | 220877   | 20.283  | ug/l # | 91       |
| 48) t-1,3-Dichloropropene      | 8.45  | 75   | 133418   | 20.094  | ug/l   | 99       |
| 49) cis-1,3-Dichloropropene    | 9.05  | 75   | 127848   | 19.890  | ug/l   | 98       |
| 50) 1,1,2-Trichloroethane      | 9.22  | 97   | 85272    | 20.855  | ug/l   | 97       |
| 51) Ethyl methacrylate         | 9.19  | 69   | 147031   | 20.759  | ug/l   | 97       |
| 52) 1,3-Dichloropropane        | 9.38  | 76   | 142343   | 20.638  | ug/l   | 99       |
| 53) Dibromochloromethane       | 9.59  | 129  | 100759   | 20.171  | ug/l   | 99       |
| 54) 1,2-Dibromoethane          | 9.68  | 107  | 90452    | 20.433  | ug/l   | 99       |
| 55) 2-Chloroethyl vinyl ether  | 8.32  | 63   | 332540   | 100.026 | ug/l   | 99       |
| 56) Bromoform                  | 10.87 | 173  | 85305    | 19.421  | ug/l   | 100      |
| 58) 4-Methyl-2-Pentanone       | 8.66  | 43   | 769367   | 105.997 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.51  | 43   | 592646   | 105.222 | ug/l   | 99       |
| 61) Tetrachloroethene          | 9.34  | 164  | 104563   | 20.554  | ug/l   | 97       |
| 62) Toluene                    | 8.79  | 91   | 354522   | 20.813  | ug/l   | 98       |
| 64) Chlorobenzene              | 10.15 | 112  | 225175   | 20.425  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane  | 10.23 | 131  | 92375    | 20.590  | ug/l   | 99       |
| 66) Ethyl Benzene              | 10.26 | 91   | 397266   | 20.751  | ug/l   | 96       |
| 67) m/p-Xylenes                | 10.37 | 106  | 298041   | 41.009  | ug/l   | 97       |
| 68) o-Xylene                   | 10.71 | 106  | 149964   | 20.602  | ug/l   | 100      |
| 69) Styrene                    | 10.72 | 104  | 249554   | 20.423  | ug/l   | 99       |
| 70) Isopropylbenzene           | 11.02 | 105  | 397836   | 20.417  | ug/l   | 100      |
| 71) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 126038   | 20.637  | ug/l   | 100      |
| 72) 1,2,3-Trichloropropane     | 11.30 | 75   | 131027m  | 22.778  | ug/l   |          |
| 73) Bromobenzene               | 11.26 | 156  | 107210   | 20.484  | ug/l   | 98       |
| 74) n-propylbenzene            | 11.37 | 91   | 445307   | 20.473  | ug/l   | 99       |
| 75) 2-Chlorotoluene            | 11.43 | 91   | 278059   | 20.728  | ug/l   | 98       |
| 76) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 338319   | 20.421  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene    | 11.08 | 75   | 39394    | 18.902  | ug/l   | 97       |
| 78) 4-Chlorotoluene            | 11.52 | 91   | 310294   | 20.339  | ug/l   | 99       |
| 79) tert-butylbenzene          | 12.07 | 119  | 351308   | 20.223  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 342821   | 20.468  | ug/l   | 99       |
| 81) sec-Butylbenzene           | 11.95 | 105  | 398571   | 20.524  | ug/l   | 100      |
| 82) p-Isopropyltoluene         | 12.07 | 119  | 351308   | 20.223  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene        | 12.03 | 146  | 183597   | 19.797  | ug/l   | 99       |
| 84) 1,4-Dichlorobenzene        | 12.10 | 146  | 181935   | 19.709  | ug/l   | 99       |
| 85) n-Butylbenzene             | 12.40 | 91   | 286518   | 19.666  | ug/l   | 99       |
| 86) Hexachloroethane           | 12.60 | 117  | 68432    | 19.796  | ug/l   | 98       |
| 87) 1,2-Dichlorobenzene        | 12.40 | 146  | 191850   | 20.085  | ug/l   | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 13.01 | 75   | 36189    | 20.345  | ug/l   | 98       |
| 89) 1,2,4-Trichlorobenzene     | 13.65 | 180  | 131936   | 19.448  | ug/l   | 100      |
| 90) Hexachlorobutadiene        | 13.79 | 225  | 71589    | 19.838  | ug/l   | 99       |
| 91) Naphthalene                | 13.84 | 128  | 433947   | 20.272  | ug/l   | 100      |
| 92) 1,2,3-Trichlorobenzene     | 14.02 | 180  | 142503   | 20.113  | ug/l   | 99       |

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

