

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX040720\  
 Data File : VX015530.D  
 Acq On : 07 Apr 2020 11:29  
 Operator : JC/SP  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

MMDadoda  
 4/8/2020 11:12:05 AM

Quant Time: Apr 08 03:08:01 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X032520W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Mar 26 02:31:53 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 4.98  | 128  | 224711   | 30.00 | ug/l  | -0.01    |
| 28) 1,4-Difluorobenzene | 6.83  | 114  | 1287622  | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.10 | 117  | 1184105  | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 6.03   | 65    | 557322   | 31.74    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 105.80% |
| 60) 4-Bromofluorobenzene  | 11.12  | 95    | 618348   | 30.51    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 101.70% |
| 63) Toluene-d8            | 8.70   | 98    | 1523600  | 30.29    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 100.97% |

## Target Compounds

|                               |      |     |        |        | Ovalue     |
|-------------------------------|------|-----|--------|--------|------------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 182272 | 16.986 | ug/l 99    |
| 3) Chloromethane              | 1.31 | 50  | 222896 | 16.830 | ug/l 98    |
| 4) Vinyl Chloride             | 1.39 | 62  | 221572 | 17.391 | ug/l 100   |
| 5) Bromomethane               | 1.63 | 94  | 150599 | 22.204 | ug/l 99    |
| 6) Chloroethane               | 1.72 | 64  | 139155 | 17.507 | ug/l 94    |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 333358 | 18.309 | ug/l 97    |
| 8) Diethyl Ether              | 2.17 | 74  | 129808 | 18.530 | ug/l 97    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 224632 | 18.648 | ug/l 98    |
| 10) 1,1-Dichloroethene        | 2.36 | 96  | 217691 | 17.792 | ug/l 96    |
| 11) Methyl Iodide             | 2.49 | 142 | 289668 | 17.815 | ug/l 90    |
| 12) Methyl Acetate            | 2.75 | 43  | 308713 | 17.243 | ug/l 98    |
| 13) Acrolein                  | 2.27 | 56  | 203352 | 87.308 | ug/l 95    |
| 14) Acrylonitrile             | 3.11 | 53  | 657347 | 85.759 | ug/l 98    |
| 15) Acetone                   | 2.42 | 58  | 185875 | 95.366 | ug/l 86    |
| 16) Carbon Disulfide          | 2.55 | 76  | 634605 | 17.742 | ug/l 98    |
| 17) Allyl chloride            | 2.71 | 41  | 483205 | 17.492 | ug/l 100   |
| 18) Methylene Chloride        | 2.83 | 84  | 248899 | 18.118 | ug/l 95    |
| 19) trans-1,2-Dichloroethene  | 3.14 | 96  | 239439 | 18.090 | ug/l 98    |
| 20) Diisopropyl ether         | 3.83 | 45  | 905121 | 18.268 | ug/l 92    |
| 21) 1,1-Dichloroethane        | 3.67 | 63  | 463052 | 18.309 | ug/l 99    |
| 22) cis-1,2-Dichloroethene    | 4.56 | 96  | 276841 | 18.156 | ug/l 100   |
| 23) tert-Butyl Alcohol        | 3.01 | 59  | 282063 | 74.812 | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 3.17 | 73  | 821429 | 18.082 | ug/l 99    |
| 25) Chloroform                | 5.18 | 83  | 451077 | 18.043 | ug/l 100   |
| 26) Cyclohexane               | 5.55 | 56  | 436125 | 18.048 | ug/l # 99  |
| 29) 1,1-Dichloropropene       | 5.77 | 75  | 348088 | 17.994 | ug/l 99    |
| 30) 2-Butanone                | 4.63 | 43  | 983156 | 84.778 | ug/l 99    |
| 31) 2,2-Dichloropropane       | 4.55 | 77  | 429702 | 18.458 | ug/l 98    |
| 32) 1,1,1-Trichloroethane     | 5.47 | 97  | 416696 | 17.654 | ug/l 98    |
| 33) Carbon Tetrachloride      | 5.75 | 117 | 375343 | 17.450 | ug/l 95    |
| 34) Benzene                   | 6.11 | 78  | 991690 | 17.786 | ug/l 99    |
| 35) Methacrylonitrile         | 5.00 | 41  | 221336 | 16.831 | ug/l 97    |
| 36) 1,2-Dichloroethane        | 6.16 | 62  | 400660 | 18.597 | ug/l 99    |
| 37) Trichloroethene           | 7.18 | 130 | 276926 | 17.640 | ug/l 94    |
| 38) Methylcyclohexane         | 7.44 | 83  | 428934 | 18.087 | ug/l 98    |
| 39) 1,2-Dichloropropane       | 7.49 | 63  | 259901 | 17.355 | ug/l 94    |
| 40) Dibromomethane            | 7.64 | 93  | 169139 | 16.968 | ug/l 99    |

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 41) Bromodichloromethane       | 7.87  | 83   | 377311   | 17.417  | ug/l  | 97       |
| 42) Vinyl Acetate              | 3.78  | 43   | 4005303  | 91.153  | ug/l  | 99       |
| 43) Ethyl Acetate              | 4.80  | 43   | 374668   | 14.853  | ug/l  | 99       |
| 44) Isopropyl Acetate          | 6.41  | 43   | 687500   | 16.935  | ug/l  | 99       |
| 45) 1,4-Dioxane                | 7.71  | 88   | 105570   | 282.282 | ug/l  | 99       |
| 46) Methyl methacrylate        | 7.75  | 41   | 342140   | 16.889  | ug/l  | 99       |
| 47) n-amyl Acetate             | 10.88 | 43   | 609495   | 17.412  | ug/l  | 99       |
| 48) t-1,3-Dichloropropene      | 9.03  | 75   | 434792   | 17.386  | ug/l  | 98       |
| 49) cis-1,3-Dichloropropene    | 8.42  | 75   | 454960   | 17.625  | ug/l  | 97       |
| 50) 1,1,2-Trichloroethane      | 9.20  | 97   | 251686   | 17.594  | ug/l  | 97       |
| 51) Ethyl methacrylate         | 9.16  | 69   | 422374   | 17.168  | ug/l  | 100      |
| 52) 1,3-Dichloropropane        | 9.36  | 76   | 444667   | 17.997  | ug/l  | 100      |
| 53) Dibromochloromethane       | 9.56  | 129  | 299365   | 16.976  | ug/l  | 99       |
| 54) 1,2-Dibromoethane          | 9.65  | 107  | 262567   | 17.106  | ug/l  | 98       |
| 55) 2-Chloroethyl vinyl ether  | 8.29  | 63   | 1010780  | 86.987  | ug/l  | 99       |
| 56) Bromoform                  | 10.84 | 173  | 229065   | 15.798  | ug/l  | 99       |
| 58) 4-Methyl-2-Pentanone       | 8.62  | 43   | 1945111  | 85.830  | ug/l  | 99       |
| 59) 2-Hexanone                 | 9.47  | 43   | 1496609  | 86.807  | ug/l  | 100      |
| 61) Tetrachloroethene          | 9.32  | 164  | 266737   | 17.525  | ug/l  | 90       |
| 62) Toluene                    | 8.76  | 91   | 1081666  | 18.035  | ug/l  | 99       |
| 64) Chlorobenzene              | 10.12 | 112  | 689400   | 17.878  | ug/l  | 97       |
| 65) 1,1,1,2-Tetrachloroethane  | 10.20 | 131  | 273375   | 17.349  | ug/l  | 97       |
| 66) Ethyl Benzene              | 10.23 | 91   | 1241494  | 18.120  | ug/l  | 99       |
| 67) m/p-Xylenes                | 10.34 | 106  | 942265   | 36.335  | ug/l  | 99       |
| 68) o-Xylene                   | 10.68 | 106  | 447550   | 17.656  | ug/l  | 100      |
| 69) Styrene                    | 10.70 | 104  | 787996   | 17.843  | ug/l  | 99       |
| 70) Isopropylbenzene           | 11.00 | 105  | 1230619  | 18.313  | ug/l  | 98       |
| 71) 1,1,2,2-Tetrachloroethane  | 11.25 | 83   | 371389   | 17.052  | ug/l  | 99       |
| 72) 1,2,3-Trichloropropane     | 11.28 | 75   | 356510m  | 17.494  | ug/l  |          |
| 73) Bromobenzene               | 11.24 | 156  | 318582   | 17.662  | ug/l  | 99       |
| 74) n-propylbenzene            | 11.34 | 91   | 1457853  | 18.915  | ug/l  | 100      |
| 75) 2-Chlorotoluene            | 11.40 | 91   | 856114   | 18.263  | ug/l  | 99       |
| 76) 1,3,5-Trimethylbenzene     | 11.49 | 105  | 1049176  | 18.181  | ug/l  | 100      |
| 77) t-1,4-Dichloro-2-butene    | 11.06 | 75   | 138586   | 15.781  | ug/l  | 96       |
| 78) 4-Chlorotoluene            | 11.50 | 91   | 1023587  | 18.874  | ug/l  | 100      |
| 79) tert-butylbenzene          | 11.76 | 119  | 1030989  | 17.876  | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene     | 11.79 | 105  | 1068181  | 18.273  | ug/l  | 100      |
| 81) sec-Butylbenzene           | 11.93 | 105  | 1213524  | 18.342  | ug/l  | 100      |
| 82) p-Isopropyltoluene         | 12.05 | 119  | 1160780  | 18.615  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene        | 12.01 | 146  | 584194   | 18.011  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene        | 12.09 | 146  | 581702   | 17.971  | ug/l  | 100      |
| 85) n-Butylbenzene             | 12.37 | 91   | 1069488  | 19.242  | ug/l  | 99       |
| 86) Hexachloroethane           | 12.58 | 117  | 203853   | 16.915  | ug/l  | 98       |
| 87) 1,2-Dichlorobenzene        | 12.38 | 146  | 571759   | 18.069  | ug/l  | 98       |
| 88) 1,2-Dibromo-3-Chloropropan | 12.98 | 75   | 92446    | 16.115  | ug/l  | 96       |
| 89) 1,2,4-Trichlorobenzene     | 13.63 | 180  | 454801   | 17.841  | ug/l  | 99       |
| 90) Hexachlorobutadiene        | 13.77 | 225  | 213969   | 15.934  | ug/l  | 98       |
| 91) Naphthalene                | 13.82 | 128  | 1301530  | 17.632  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene     | 14.01 | 180  | 454165   | 17.935  | ug/l  | 96       |

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

