

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX102320\  
 Data File : VX019072.D  
 Acq On : 23 Oct 2020 11:23  
 Operator : JC/SP  
 Sample : VSTDIC150  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 10/26/2020 11:17:08 AM

Quant Time: Oct 23 11:49:55 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X102320W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Oct 23 11:41:37 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 4.98  | 128  | 46949    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.83  | 114  | 263197   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.10 | 117  | 231748   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 6.03   | 65    | 91684    | 30.23    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 91 - 110 | Recovery | =    | 100.77% |
| 60) 4-Bromofluorobenzene  | 11.12  | 95    | 111562   | 31.25    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 63 - 112 | Recovery | =    | 104.17% |
| 63) Toluene-d8            | 8.70   | 98    | 310717   | 30.38    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 91 - 112 | Recovery | =    | 101.27% |

## Target Compounds

|                               |      |     |         |         | Ovalue     |
|-------------------------------|------|-----|---------|---------|------------|
| 2) Dichlorodifluoromethane    | 1.18 | 85  | 371489  | 166.668 | ug/l 98    |
| 3) Chloromethane              | 1.31 | 50  | 306838  | 128.131 | ug/l 100   |
| 4) Vinyl Chloride             | 1.39 | 62  | 436606  | 144.936 | ug/l 97    |
| 5) Bromomethane               | 1.62 | 94  | 162529  | 86.509  | ug/l 98    |
| 6) Chloroethane               | 1.70 | 64  | 295055  | 142.041 | ug/l 99    |
| 7) Trichlorofluoromethane     | 1.91 | 101 | 776571  | 161.758 | ug/l 96    |
| 8) Diethyl Ether              | 2.17 | 74  | 293250  | 155.736 | ug/l 99    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.36 | 101 | 368168  | 141.314 | ug/l 98    |
| 10) 1,1-Dichloroethene        | 2.35 | 96  | 378385  | 139.880 | ug/l 97    |
| 11) Methyl Iodide             | 2.49 | 142 | 437485  | 143.192 | ug/l 96    |
| 12) Methyl Acetate            | 2.75 | 43  | 374890  | 140.785 | ug/l 97    |
| 13) Acrolein                  | 2.27 | 56  | 195667  | 417.072 | ug/l 97    |
| 14) Acrylonitrile             | 3.12 | 53  | 863934  | 698.767 | ug/l 99    |
| 15) Acetone                   | 2.42 | 58  | 259670  | 659.848 | ug/l 94    |
| 16) Carbon Disulfide          | 2.55 | 76  | 1045513 | 154.615 | ug/l 100   |
| 17) Allyl chloride            | 2.70 | 41  | 477099  | 136.975 | ug/l 98    |
| 18) Methylene Chloride        | 2.83 | 84  | 419051  | 150.899 | ug/l 98    |
| 19) trans-1,2-Dichloroethene  | 3.14 | 96  | 443734  | 158.896 | ug/l 96    |
| 20) Diisopropyl ether         | 3.82 | 45  | 941451  | 143.700 | ug/l 98    |
| 21) 1,1-Dichloroethane        | 3.67 | 63  | 693459  | 152.913 | ug/l 99    |
| 22) cis-1,2-Dichloroethene    | 4.56 | 96  | 501816  | 158.056 | ug/l 99    |
| 23) tert-Butyl Alcohol        | 3.03 | 59  | 448428  | 670.512 | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 3.17 | 73  | 1189728 | 156.521 | ug/l 98    |
| 25) Chloroform                | 5.18 | 83  | 768214  | 158.649 | ug/l 96    |
| 26) Cyclohexane               | 5.55 | 56  | 533486  | 147.373 | ug/l # 99  |
| 29) 1,1-Dichloropropene       | 5.77 | 75  | 579525  | 154.815 | ug/l 99    |
| 30) 2-Butanone                | 4.64 | 43  | 1174403 | 651.624 | ug/l 99    |
| 31) 2,2-Dichloropropane       | 4.55 | 77  | 662596  | 150.838 | ug/l 100   |
| 32) 1,1,1-Trichloroethane     | 5.46 | 97  | 708692  | 155.965 | ug/l 99    |
| 33) Carbon Tetrachloride      | 5.76 | 117 | 624190  | 151.705 | ug/l 97    |
| 34) Benzene                   | 6.11 | 78  | 1697662 | 153.074 | ug/l 97    |
| 35) Methacrylonitrile         | 5.01 | 41  | 252510  | 133.640 | ug/l 95    |
| 36) 1,2-Dichloroethane        | 6.17 | 62  | 577307  | 157.280 | ug/l 100   |
| 37) Trichloroethene           | 7.19 | 130 | 493986  | 152.793 | ug/l 97    |
| 38) Methylcyclohexane         | 7.44 | 83  | 652339  | 153.353 | ug/l 100   |
| 39) 1,2-Dichloropropane       | 7.49 | 63  | 397773  | 148.257 | ug/l 99    |
| 40) Dibromomethane            | 7.64 | 93  | 306777  | 154.378 | ug/l 98    |

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 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X102320W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Oct 23 11:41:37 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 41) Bromodichloromethane       | 7.88  | 83   | 613804   | 152.771  | ug/l  | 99       |
| 42) Vinyl Acetate              | 3.79  | 43   | 4549399  | 693.704  | ug/l  | 98       |
| 43) Ethyl Acetate              | 4.79  | 43   | 476824   | 126.777  | ug/l  | 99       |
| 44) Isopropyl Acetate          | 6.42  | 43   | 805784   | 133.313  | ug/l  | 100      |
| 45) 1,4-Dioxane                | 7.72  | 88   | 183348   | 2861.766 | ug/l  | 98       |
| 46) Methyl methacrylate        | 7.74  | 41   | 381135   | 135.150  | ug/l  | 98       |
| 47) n-amyl Acetate             | 10.88 | 43   | 693800   | 139.847  | ug/l  | 100      |
| 48) t-1,3-Dichloropropene      | 9.02  | 75   | 689190   | 151.062  | ug/l  | 100      |
| 49) cis-1,3-Dichloropropene    | 8.42  | 75   | 728519   | 150.107  | ug/l  | 99       |
| 50) 1,1,2-Trichloroethane      | 9.20  | 97   | 439783   | 155.272  | ug/l  | 98       |
| 51) Ethyl methacrylate         | 9.16  | 69   | 652656   | 147.688  | ug/l  | 99       |
| 52) 1,3-Dichloropropane        | 9.35  | 76   | 701819   | 149.735  | ug/l  | 99       |
| 53) Dibromochloromethane       | 9.57  | 129  | 515505   | 156.021  | ug/l  | 98       |
| 54) 1,2-Dibromoethane          | 9.65  | 107  | 470589   | 151.129  | ug/l  | 97       |
| 55) 2-Chloroethyl vinyl ether  | 8.29  | 63   | 1802845  | 754.732  | ug/l  | 98       |
| 56) Bromoform                  | 10.84 | 173  | 393571   | 155.723  | ug/l  | 98       |
| 58) 4-Methyl-2-Pentanone       | 8.62  | 43   | 2308752  | 649.118  | ug/l  | 98       |
| 59) 2-Hexanone                 | 9.48  | 43   | 1767052  | 652.207  | ug/l  | 99       |
| 61) Tetrachloroethene          | 9.32  | 164  | 421801   | 150.032  | ug/l  | 93       |
| 62) Toluene                    | 8.77  | 91   | 1920069  | 156.572  | ug/l  | 100      |
| 64) Chlorobenzene              | 10.12 | 112  | 1201171  | 155.833  | ug/l  | 99       |
| 65) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 450569   | 152.044  | ug/l  | 99       |
| 66) Ethyl Benzene              | 10.24 | 91   | 2114717  | 156.881  | ug/l  | 95       |
| 67) m/p-Xylenes                | 10.34 | 106  | 1661690  | 315.785  | ug/l  | 97       |
| 68) o-Xylene                   | 10.68 | 106  | 798866   | 160.858  | ug/l  | 98       |
| 69) Styrene                    | 10.70 | 104  | 1387510  | 163.178  | ug/l  | 99       |
| 70) Isopropylbenzene           | 11.00 | 105  | 2114084  | 160.199  | ug/l  | 100      |
| 71) 1,1,2,2-Tetrachloroethane  | 11.25 | 83   | 648600   | 157.853  | ug/l  | 100      |
| 72) 1,2,3-Trichloropropane     | 11.28 | 75   | 567451m  | 148.660  | ug/l  |          |
| 73) Bromobenzene               | 11.24 | 156  | 537640   | 159.436  | ug/l  | 96       |
| 74) n-propylbenzene            | 11.35 | 91   | 2438720  | 162.018  | ug/l  | 98       |
| 75) 2-Chlorotoluene            | 11.40 | 91   | 1391642  | 160.696  | ug/l  | 98       |
| 76) 1,3,5-Trimethylbenzene     | 11.49 | 105  | 1795552  | 163.263  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene    | 11.06 | 75   | 239145   | 148.038  | ug/l  | 94       |
| 78) 4-Chlorotoluene            | 11.49 | 91   | 1664051  | 162.990  | ug/l  | 98       |
| 79) tert-butylbenzene          | 11.76 | 119  | 1784769  | 160.751  | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene     | 11.79 | 105  | 1782021  | 162.072  | ug/l  | 98       |
| 81) sec-Butylbenzene           | 11.93 | 105  | 2092477  | 163.247  | ug/l  | 99       |
| 82) p-Isopropyltoluene         | 12.05 | 119  | 1970296  | 165.657  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene        | 12.01 | 146  | 993769   | 164.589  | ug/l  | 100      |
| 84) 1,4-Dichlorobenzene        | 12.08 | 146  | 1012431  | 166.273  | ug/l  | 99       |
| 85) n-Butylbenzene             | 12.37 | 91   | 1788721  | 167.447  | ug/l  | 98       |
| 86) Hexachloroethane           | 12.58 | 117  | 324732   | 164.375  | ug/l  | 99       |
| 87) 1,2-Dichlorobenzene        | 12.38 | 146  | 957602   | 164.186  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 12.98 | 75   | 151872   | 154.620  | ug/l  | 97       |
| 89) 1,2,4-Trichlorobenzene     | 13.63 | 180  | 682164   | 160.021  | ug/l  | 98       |
| 90) Hexachlorobutadiene        | 13.77 | 225  | 292479   | 164.408  | ug/l  | 98       |
| 91) Naphthalene                | 13.82 | 128  | 2261340  | 163.152  | ug/l  | 99       |
| 92) 1,2,3-Trichlorobenzene     | 14.00 | 180  | 654298   | 158.012  | ug/l  | 98       |

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Operator : JC/SP  
Sample : VSTDICC150  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150

Manual Integrations  
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QLast Update : Fri Oct 23 11:41:37 2020  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

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

