

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN102620\  
 Data File : VN064310.D  
 Acq On : 26 Oct 2020 18:17  
 Operator : JC/MD  
 Sample : VSTDICV020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN102620

Manual Integrations  
 APPROVED

MMDadoda  
 10/27/2020 2:21:20 PM

Quant Time: Oct 27 02:43:16 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N102620W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Oct 26 17:44:53 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 47088    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 263776   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 236856   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 131806   | 31.11    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 91 - 110 | Recovery | =    | 103.70% |
| 60) 4-Bromofluorobenzene  | 12.37  | 95    | 131821   | 31.11    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 63 - 112 | Recovery | =    | 103.70% |
| 63) Toluene-d8            | 10.06  | 98    | 332923   | 31.52    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 91 - 112 | Recovery | =    | 105.07% |

## Target Compounds

|                               |      |     |        |               | Ovalue |
|-------------------------------|------|-----|--------|---------------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 74170  | 19.259 ug/l   | 91     |
| 3) Chloromethane              | 2.04 | 50  | 70905  | 19.704 ug/l   | 98     |
| 4) Vinyl Chloride             | 2.16 | 62  | 65405  | 18.643 ug/l   | 92     |
| 5) Bromomethane               | 2.53 | 94  | 44463  | 20.532 ug/l   | 90     |
| 6) Chloroethane               | 2.67 | 64  | 36923  | 18.841 ug/l   | 97     |
| 7) Trichlorofluoromethane     | 2.98 | 101 | 105503 | 19.519 ug/l   | 93     |
| 8) Diethyl Ether              | 3.38 | 74  | 33614  | 19.414 ug/l   | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 52049  | 18.905 ug/l   | 88     |
| 10) 1,1-Dichloroethene        | 3.70 | 96  | 50857  | 19.222 ug/l   | 91     |
| 11) Methyl Iodide             | 3.91 | 142 | 64571  | 17.044 ug/l   | 95     |
| 12) Methyl Acetate            | 4.28 | 43  | 61378  | 19.374 ug/l   | 93     |
| 13) Acrolein                  | 3.57 | 56  | 18549  | 88.648 ug/l   | 94     |
| 14) Acrylonitrile             | 4.93 | 53  | 127068 | 92.210 ug/l # | 62     |
| 15) Acetone                   | 3.77 | 58  | 33104  | 87.332 ug/l   | 86     |
| 16) Carbon Disulfide          | 4.01 | 76  | 145758 | 18.559 ug/l   | 98     |
| 17) Allyl chloride            | 4.28 | 41  | 88026  | 17.523 ug/l   | 97     |
| 18) Methylene Chloride        | 4.50 | 84  | 54843  | 18.203 ug/l   | 94     |
| 19) trans-1,2-Dichloroethene  | 4.99 | 96  | 54438  | 18.957 ug/l   | 91     |
| 20) Diisopropyl ether         | 5.90 | 45  | 192297 | 18.912 ug/l   | 96     |
| 21) 1,1-Dichloroethane        | 5.80 | 63  | 109631 | 19.248 ug/l   | 99     |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 63193  | 19.071 ug/l # | 85     |
| 23) tert-Butyl Alcohol        | 4.73 | 59  | 62020  | 98.888 ug/l # | 100    |
| 24) Methyl tert-Butyl Ether   | 4.99 | 73  | 190330 | 19.044 ug/l   | 97     |
| 25) Chloroform                | 7.33 | 83  | 112254 | 19.104 ug/l   | 98     |
| 26) Cyclohexane               | 7.61 | 56  | 87047  | 18.656 ug/l # | 99     |
| 29) 1,1-Dichloropropene       | 7.75 | 75  | 83907  | 18.477 ug/l   | 95     |
| 30) 2-Butanone                | 6.78 | 43  | 198736 | 92.880 ug/l # | 98     |
| 31) 2,2-Dichloropropane       | 6.77 | 77  | 101565 | 18.619 ug/l # | 65     |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 107558 | 18.922 ug/l   | 98     |
| 33) Carbon Tetrachloride      | 7.73 | 117 | 95187  | 18.301 ug/l   | 97     |
| 34) Benzene                   | 8.00 | 78  | 226784 | 18.609 ug/l   | 96     |
| 35) Methacrylonitrile         | 7.14 | 41  | 40026m | 17.913 ug/l   |        |
| 36) 1,2-Dichloroethane        | 8.08 | 62  | 100805 | 18.622 ug/l # | 90     |
| 37) Trichloroethene           | 8.80 | 130 | 62293  | 18.740 ug/l   | 99     |
| 38) Methylcyclohexane         | 9.05 | 83  | 80705  | 18.392 ug/l   | 98     |
| 39) 1,2-Dichloropropane       | 9.08 | 63  | 61106  | 18.573 ug/l   | 98     |
| 40) Dibromomethane            | 9.17 | 93  | 44453  | 19.466 ug/l   | 93     |

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|--------------------------------|-------|------|----------|---------|--------|----------|
| 41) Bromodichloromethane       | 9.37  | 83   | 90119    | 18.272  | ug/l   | 96       |
| 42) Vinyl Acetate              | 5.84  | 43   | 832483   | 91.048  | ug/l   | 99       |
| 43) Ethyl Acetate              | 6.88  | 43   | 81992    | 18.799  | ug/l # | 81       |
| 44) Isopropyl Acetate          | 8.13  | 43   | 145330m  | 18.135  | ug/l   |          |
| 45) 1,4-Dioxane                | 9.16  | 88   | 21921    | 354.681 | ug/l   | 89       |
| 46) Methyl methacrylate        | 9.17  | 41   | 75055    | 19.193  | ug/l   | 98       |
| 47) n-amyl Acetate             | 12.05 | 43   | 119184   | 17.665  | ug/l   | 96       |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 101147   | 18.182  | ug/l   | 98       |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 101659   | 17.931  | ug/l   | 96       |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 55686    | 18.163  | ug/l   | 95       |
| 51) Ethyl methacrylate         | 10.40 | 69   | 85494    | 17.859  | ug/l   | 99       |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 99975    | 18.570  | ug/l   | 96       |
| 53) Dibromochloromethane       | 10.87 | 129  | 67812    | 18.110  | ug/l   | 98       |
| 54) 1,2-Dibromoethane          | 10.98 | 107  | 60524    | 18.480  | ug/l   | 97       |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 226106   | 94.894  | ug/l   | 98       |
| 56) Bromoform                  | 12.10 | 173  | 46834    | 17.446  | ug/l   | 98       |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 420106   | 95.870  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.72 | 43   | 305516   | 93.309  | ug/l   | 99       |
| 61) Tetrachloroethene          | 10.60 | 164  | 59355    | 18.791  | ug/l   | 96       |
| 62) Toluene                    | 10.13 | 91   | 244120   | 18.711  | ug/l   | 99       |
| 64) Chlorobenzene              | 11.41 | 112  | 155544   | 19.124  | ug/l   | 98       |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 61785    | 19.229  | ug/l   | 97       |
| 66) Ethyl Benzene              | 11.48 | 91   | 281127   | 18.854  | ug/l   | 98       |
| 67) m/p-Xylenes                | 11.60 | 106  | 203740   | 37.206  | ug/l   | 94       |
| 68) o-Xylene                   | 11.92 | 106  | 99073    | 18.397  | ug/l   | 99       |
| 69) Styrene                    | 11.94 | 104  | 163479   | 18.214  | ug/l   | 99       |
| 70) Isopropylbenzene           | 12.22 | 105  | 264892   | 18.551  | ug/l   | 99       |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 77820    | 19.128  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane     | 12.52 | 75   | 84822m   | 19.578  | ug/l   |          |
| 73) Bromobenzene               | 12.50 | 156  | 65893    | 18.824  | ug/l   | 99       |
| 74) n-propylbenzene            | 12.57 | 91   | 295251   | 18.142  | ug/l   | 99       |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 189061   | 18.785  | ug/l   | 99       |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 225206   | 18.649  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene    | 12.27 | 75   | 29947    | 18.512  | ug/l   | 96       |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 194241   | 18.443  | ug/l   | 100      |
| 79) tert-butylbenzene          | 12.97 | 119  | 182894   | 18.378  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 223531   | 18.351  | ug/l   | 100      |
| 81) sec-Butylbenzene           | 13.14 | 105  | 230440   | 17.841  | ug/l   | 99       |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 213719   | 18.064  | ug/l   | 97       |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 110978   | 18.252  | ug/l   | 99       |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 110224   | 18.052  | ug/l   | 98       |
| 85) n-Butylbenzene             | 13.59 | 91   | 185022   | 17.934  | ug/l   | 96       |
| 86) Hexachloroethane           | 13.85 | 117  | 41189    | 18.668  | ug/l   | 94       |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 109436   | 18.278  | ug/l   | 98       |
| 88) 1,2-Dibromo-3-Chloropropan | 14.24 | 75   | 20627    | 20.058  | ug/l   | 98       |
| 89) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 59492    | 17.537  | ug/l   | 99       |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 33265    | 18.219  | ug/l   | 98       |
| 91) Naphthalene                | 15.10 | 128  | 187834   | 18.342  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 61509    | 18.770  | ug/l   | 93       |

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

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