

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN102020\  
 Data File : VN064199.D  
 Acq On : 20 Oct 2020 16:43  
 Operator : JC/MD  
 Sample : VN1020WBS01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN1020WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 10/23/2020 2:28:53 PM

Quant Time: Oct 21 05:01:09 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N102020W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Oct 20 11:51:57 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 47795    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 281665   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 248390   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 130574   | 33.37    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 111.23% |
| 60) 4-Bromofluorobenzene  | 12.38  | 95    | 135666   | 30.48    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 101.60% |
| 63) Toluene-d8            | 10.06  | 98    | 346214   | 30.79    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 102.63% |

## Target Compounds

|                               |      |     |         |               | Ovalue |
|-------------------------------|------|-----|---------|---------------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 68169   | 20.789 ug/l   | 92     |
| 3) Chloromethane              | 2.04 | 50  | 66564   | 19.809 ug/l   | 98     |
| 4) Vinyl Chloride             | 2.16 | 62  | 65436   | 19.793 ug/l   | 98     |
| 5) Bromomethane               | 2.54 | 94  | 42224   | 21.348 ug/l   | 94     |
| 6) Chloroethane               | 2.68 | 64  | 38428   | 19.957 ug/l   | 95     |
| 7) Trichlorofluoromethane     | 2.99 | 101 | 105083  | 19.800 ug/l   | 99     |
| 8) Diethyl Ether              | 3.38 | 74  | 34295   | 19.033 ug/l   | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 52660   | 18.800 ug/l   | 100    |
| 10) 1,1-Dichloroethene        | 3.70 | 96  | 50449   | 18.498 ug/l   | 91     |
| 11) Methyl Iodide             | 3.91 | 142 | 71326   | 18.145 ug/l   | 98     |
| 12) Methyl Acetate            | 4.28 | 43  | 56774m  | 19.751 ug/l   |        |
| 13) Acrolein                  | 3.57 | 56  | 30639   | 97.483 ug/l # | 34     |
| 14) Acrylonitrile             | 4.93 | 53  | 106944  | 92.325 ug/l   | 96     |
| 15) Acetone                   | 3.77 | 58  | 28638   | 91.568 ug/l   | 92     |
| 16) Carbon Disulfide          | 4.01 | 76  | 146454  | 18.778 ug/l   | 98     |
| 17) Allyl chloride            | 4.28 | 41  | 91747   | 18.092 ug/l   | 96     |
| 18) Methylene Chloride        | 4.51 | 84  | 59212   | 18.983 ug/l   | 95     |
| 19) trans-1,2-Dichloroethene  | 4.99 | 96  | 53238   | 18.096 ug/l   | 98     |
| 20) Diisopropyl ether         | 5.90 | 45  | 177762  | 18.968 ug/l   | 97     |
| 21) 1,1-Dichloroethane        | 5.80 | 63  | 107602  | 18.807 ug/l   | 96     |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 65240   | 18.970 ug/l # | 60     |
| 23) tert-Butyl Alcohol        | 4.73 | 59  | 53422   | 99.713 ug/l # | 100    |
| 24) Methyl tert-Butyl Ether   | 5.00 | 73  | 169455m | 18.804 ug/l   |        |
| 25) Chloroform                | 7.33 | 83  | 112933  | 18.998 ug/l   | 96     |
| 26) Cyclohexane               | 7.61 | 56  | 83115   | 18.322 ug/l # | 87     |
| 29) 1,1-Dichloropropene       | 7.76 | 75  | 85359   | 18.248 ug/l   | 99     |
| 30) 2-Butanone                | 6.78 | 43  | 175120  | 90.785 ug/l   | 99     |
| 31) 2,2-Dichloropropane       | 6.78 | 77  | 103557  | 17.438 ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 108793  | 18.254 ug/l   | 98     |
| 33) Carbon Tetrachloride      | 7.74 | 117 | 99449   | 18.303 ug/l   | 95     |
| 34) Benzene                   | 8.00 | 78  | 233293  | 17.910 ug/l   | 99     |
| 35) Methacrylonitrile         | 7.13 | 41  | 36274   | 17.144 ug/l   | 94     |
| 36) 1,2-Dichloroethane        | 8.09 | 62  | 97168   | 18.444 ug/l   | 99     |
| 37) Trichloroethene           | 8.80 | 130 | 63931   | 17.826 ug/l   | 98     |
| 38) Methylcyclohexane         | 9.05 | 83  | 75945   | 16.976 ug/l   | 97     |
| 39) 1,2-Dichloropropane       | 9.09 | 63  | 62423   | 17.958 ug/l   | 100    |
| 40) Dibromomethane            | 9.17 | 93  | 43065   | 17.806 ug/l   | 100    |

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Oct 20 11:51:57 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 41) Bromodichloromethane       | 9.37  | 83   | 94155    | 17.988  | ug/l   | 99       |
| 42) Vinyl Acetate              | 5.84  | 43   | 830870   | 90.730  | ug/l   | 99       |
| 43) Ethyl Acetate              | 6.88  | 43   | 81611    | 19.372  | ug/l # | 85       |
| 44) Isopropyl Acetate          | 8.13  | 43   | 152415   | 18.845  | ug/l # | 87       |
| 45) 1,4-Dioxane                | 9.16  | 88   | 16779    | 354.708 | ug/l   | 98       |
| 46) Methyl methacrylate        | 9.16  | 41   | 69831    | 18.196  | ug/l   | 97       |
| 47) n-amyl Acetate             | 12.05 | 43   | 123149   | 17.163  | ug/l   | 98       |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 104729   | 17.741  | ug/l   | 92       |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 109539   | 17.959  | ug/l   | 98       |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 58554    | 18.071  | ug/l   | 96       |
| 51) Ethyl methacrylate         | 10.40 | 69   | 88739    | 17.319  | ug/l   | 96       |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 98375    | 17.610  | ug/l   | 99       |
| 53) Dibromochloromethane       | 10.87 | 129  | 70625    | 17.318  | ug/l   | 100      |
| 54) 1,2-Dibromoethane          | 10.98 | 107  | 62253    | 18.075  | ug/l   | 98       |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 235871   | 93.666  | ug/l   | 100      |
| 56) Bromoform                  | 12.10 | 173  | 47186    | 16.614  | ug/l   | 99       |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 392922   | 93.350  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.72 | 43   | 281259   | 90.008  | ug/l   | 100      |
| 61) Tetrachloroethene          | 10.60 | 164  | 60040    | 17.930  | ug/l   | 98       |
| 62) Toluene                    | 10.13 | 91   | 253367   | 17.842  | ug/l   | 100      |
| 64) Chlorobenzene              | 11.41 | 112  | 158194   | 17.889  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 61323    | 17.699  | ug/l   | 98       |
| 66) Ethyl Benzene              | 11.48 | 91   | 290591   | 17.799  | ug/l   | 95       |
| 67) m/p-Xylenes                | 11.59 | 106  | 218254   | 35.946  | ug/l   | 99       |
| 68) o-Xylene                   | 11.92 | 106  | 106166   | 18.019  | ug/l   | 94       |
| 69) Styrene                    | 11.94 | 104  | 177130   | 17.770  | ug/l   | 99       |
| 70) Isopropylbenzene           | 12.22 | 105  | 283761   | 18.236  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 76448    | 17.928  | ug/l   | 97       |
| 72) 1,2,3-Trichloropropane     | 12.52 | 75   | 76722m   | 17.241  | ug/l   |          |
| 73) Bromobenzene               | 12.50 | 156  | 66471    | 17.714  | ug/l   | 97       |
| 74) n-propylbenzene            | 12.57 | 91   | 317269   | 17.864  | ug/l   | 99       |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 199756   | 18.169  | ug/l   | 99       |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 240111   | 18.134  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene    | 12.28 | 75   | 30613    | 17.596  | ug/l   | 98       |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 203988   | 17.738  | ug/l   | 100      |
| 79) tert-butylbenzene          | 12.97 | 119  | 197000   | 18.198  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 240644   | 17.903  | ug/l   | 100      |
| 81) sec-Butylbenzene           | 13.14 | 105  | 245054   | 17.399  | ug/l   | 99       |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 226783   | 17.397  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 118594   | 17.632  | ug/l   | 99       |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 117480   | 17.446  | ug/l   | 97       |
| 85) n-Butylbenzene             | 13.59 | 91   | 200061   | 17.288  | ug/l   | 100      |
| 86) Hexachloroethane           | 13.85 | 117  | 38842    | 17.308  | ug/l   | 95       |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 114362   | 17.435  | ug/l   | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 14.24 | 75   | 19315    | 17.884  | ug/l   | 93       |
| 89) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 66465    | 16.874  | ug/l   | 98       |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 33930    | 16.994  | ug/l   | 97       |
| 91) Naphthalene                | 15.10 | 128  | 205175   | 17.184  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 63834    | 16.945  | ug/l   | 96       |

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

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