

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN041321\  
 Data File : VN066577.D  
 Acq On : 13 Apr 2021 14:07  
 Operator : JC/MD  
 Sample : VSTDIC150  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 4/23/2021 2:17:15 PM

Quant Time: Apr 13 15:37:20 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N041321W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Apr 13 14:24:25 2021  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Bromochloromethane        | 7.096          | 128  | 56908      | 30.00    | ug/l   | -0.01    |
| 28) 1,4-Difluorobenzene      | 8.510          | 114  | 276584     | 30.00    | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.347         | 117  | 287794     | 30.00    | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 7.947          | 65   | 152066     | 34.76    | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = | 115.87%# |        |          |
| 60) 4-Bromofluorobenzene     | 12.342         | 95   | 149158     | 33.21    | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = | 110.70%  |        |          |
| 63) Toluene-d8               | 10.025         | 98   | 397878     | 29.46    | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = | 98.20%   |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          |        |          |
|                              |                |      |            |          |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.813          | 85   | 620054     | 194.82   | ug/l   | 100      |
| 3) Chloromethane             | 2.014          | 50   | 809902     | 202.41   | ug/l   | 99       |
| 4) Vinyl Chloride            | 2.140          | 62   | 791324     | 188.16   | ug/l   | 98       |
| 5) Bromomethane              | 2.483          | 94   | 500081     | 168.03   | ug/l   | 94       |
| 6) Chloroethane              | 2.631          | 64   | 459218     | 170.51   | ug/l   | 96       |
| 7) Trichlorofluoromethane    | 2.947          | 101  | 1069938    | 176.40   | ug/l   | 98       |
| 8) Diethyl Ether             | 3.336          | 74   | 401466     | 195.95   | ug/l   | 71       |
| 9) 1,1,2-Trichlorotrifluo... | 3.669          | 101  | 533832     | 179.83   | ug/l   | 90       |
| 10) 1,1-Dichloroethene       | 3.647          | 96   | 527869     | 179.60   | ug/l   | 84       |
| 11) Methyl Iodide            | 3.857          | 142  | 726594     | 171.89   | ug/l   | 88       |
| 12) Methyl Acetate           | 4.229          | 43   | 1016400    | 222.81   | ug/l # | 89       |
| 13) Acrolein                 | 3.524          | 56   | 566332     | 1791.54  | ug/l   | 96       |
| 14) Acrylonitrile            | 4.876          | 53   | 1660719    | 882.60   | ug/l   | 99       |
| 15) Acetone                  | 3.733          | 58   | 468268     | 854.68   | ug/l   | 72       |
| 16) Carbon Disulfide         | 3.953          | 76   | 1736281    | 213.32   | ug/l   | 99       |
| 17) Allyl chloride           | 4.219          | 41   | 1485665    | 279.80   | ug/l   | 96       |
| 18) Methylene Chloride       | 4.436          | 84   | 562466     | 160.17   | ug/l # | 82       |
| 19) trans-1,2-Dichloroethene | 4.919          | 96   | 538324     | 166.58   | ug/l   | 89       |
| 20) Diisopropyl ether        | 5.852          | 45   | 2514802    | 215.81   | ug/l # | 93       |
| 21) 1,1-Dichloroethane       | 5.737          | 63   | 1123098    | 178.05   | ug/l   | 99       |
| 22) cis-1,2-Dichloroethene   | 6.724          | 96   | 612264     | 158.23   | ug/l   | 86       |
| 23) tert-Butyl Alcohol       | 4.715          | 59   | 504228     | 652.75   | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 4.937          | 73   | 1836597    | 163.83   | ug/l   | 96       |
| 25) Chloroform               | 7.279          | 83   | 1126147    | 176.73   | ug/l   | 99       |
| 26) Cyclohexane              | 7.563          | 56   | 1042283    | 186.31   | ug/l # | 92       |
| 29) 1,1-Dichloropropene      | 7.705          | 75   | 853904     | 206.45   | ug/l   | 97       |
| 30) 2-Butanone               | 6.742          | 43   | 2469211    | 1018.54  | ug/l   | 92       |
| 31) 2,2-Dichloropropane      | 6.718          | 77   | 981575     | 191.59   | ug/l   | 95       |
| 32) 1,1,1-Trichloroethane    | 7.480          | 97   | 977705     | 195.01   | ug/l   | 97       |
| 33) Carbon Tetrachloride     | 7.686          | 117  | 836472     | 197.61   | ug/l   | 96       |
| 34) Benzene                  | 7.957          | 78   | 2489602    | 197.48   | ug/l   | 94       |
| 35) Methacrylonitrile        | 7.078          | 41   | 521959     | 254.55   | ug/l   | 93       |
| 36) 1,2-Dichloroethane       | 8.040          | 62   | 981120     | 212.45   | ug/l   | 98       |
| 37) Trichloroethene          | 8.759          | 130  | 546162     | 166.11   | ug/l   | 92       |
| 38) Methylcyclohexane        | 9.006          | 83   | 947507     | 185.14   | ug/l   | 91       |
| 39) 1,2-Dichloropropane      | 9.043          | 63   | 684488     | 200.64   | ug/l   | 100      |
| 40) Dibromomethane           | 9.135          | 93   | 429925     | 195.95   | ug/l   | 89       |
| 41) Bromodichloromethane     | 9.333          | 83   | 951095     | 204.85   | ug/l   | 100      |
| 42) Vinyl Acetate            | 5.790          | 43   | 10638007   | 1164.30  | ug/l   | 97       |

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Apr 13 14:24:25 2021  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 6.839  | 43   | 1052052  | 225.33  | ug/l # | 86       |
| 44) Isopropyl Acetate         | 8.089  | 43   | 1819428  | 218.23  | ug/l # | 82       |
| 45) 1,4-Dioxane               | 9.135  | 88   | 186899   | 3514.12 | ug/l # | 88       |
| 46) Methyl methacrylate       | 9.132  | 41   | 889455   | 228.43  | ug/l   | 87       |
| 47) n-amyl Acetate            | 12.015 | 43   | 1443114  | 428.04  | ug/l   | 98       |
| 48) t-1,3-Dichloropropene     | 10.320 | 75   | 1061203  | 210.36  | ug/l   | 99       |
| 49) cis-1,3-Dichloropropene   | 9.773  | 75   | 1105621  | 203.92  | ug/l   | 93       |
| 50) 1,1,2-Trichloroethane     | 10.500 | 97   | 593535   | 189.04  | ug/l   | 97       |
| 51) Ethyl methacrylate        | 10.368 | 69   | 996667   | 202.81  | ug/l   | 87       |
| 52) 1,3-Dichloropropane       | 10.645 | 76   | 1086024  | 207.47  | ug/l   | 98       |
| 53) Dibromochloromethane      | 10.840 | 129  | 692259   | 196.23  | ug/l   | 100      |
| 54) 1,2-Dibromoethane         | 10.945 | 107  | 619901   | 191.83  | ug/l   | 99       |
| 55) 2-Chloroethyl vinyl ether | 9.631  | 63   | 629201   | 861.18  | ug/l   | 97       |
| 56) Bromoform                 | 12.069 | 173  | 478778   | 184.99  | ug/l # | 100      |
| 58) 4-Methyl-2-Pentanone      | 9.920  | 43   | 5321469  | 922.88  | ug/l # | 94       |
| 59) 2-Hexanone                | 10.690 | 43   | 3936178  | 992.03  | ug/l   | 94       |
| 61) Tetrachloroethene         | 10.570 | 164  | 486007   | 122.64  | ug/l   | 97       |
| 62) Toluene                   | 10.089 | 91   | 2702970  | 169.65  | ug/l   | 99       |
| 64) Chlorobenzene             | 11.371 | 112  | 1582285  | 169.03  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 11.449 | 131  | 604889   | 164.71  | ug/l   | 99       |
| 66) Ethyl Benzene             | 11.452 | 91   | 3120683  | 181.82  | ug/l   | 98       |
| 67) m/p-Xylenes               | 11.562 | 106  | 2313383  | 362.67  | ug/l   | 99       |
| 68) o-Xylene                  | 11.889 | 106  | 1094343  | 173.85  | ug/l   | 95       |
| 69) Styrene                   | 11.905 | 104  | 1916729  | 190.01  | ug/l   | 98       |
| 70) Isopropylbenzene          | 12.192 | 105  | 3024232  | 182.57  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 12.447 | 83   | 953200   | 179.68  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 12.495 | 75   | 928253m  | 181.26  | ug/l   |          |
| 73) Bromobenzene              | 12.466 | 156  | 679576   | 166.45  | ug/l   | 83       |
| 74) n-propylbenzene           | 12.533 | 91   | 3655022  | 199.61  | ug/l   | 97       |
| 75) 2-Chlorotoluene           | 12.616 | 91   | 2119569  | 191.18  | ug/l   | 94       |
| 76) 1,3,5-Trimethylbenzene    | 12.675 | 105  | 2550940  | 187.14  | ug/l   | 98       |
| 77) t-1,4-Dichloro-2-butene   | 12.243 | 75   | 326626   | 196.61  | ug/l   | 94       |
| 78) 4-Chlorotoluene           | 12.715 | 91   | 2232435  | 205.29  | ug/l   | 95       |
| 79) tert-butylbenzene         | 12.935 | 119  | 2095159  | 176.83  | ug/l   | 95       |
| 80) 1,2,4-Trimethylbenzene    | 12.981 | 105  | 2551835  | 192.97  | ug/l   | 98       |
| 81) sec-Butylbenzene          | 13.115 | 105  | 2962317  | 195.81  | ug/l   | 98       |
| 82) p-Isopropyltoluene        | 13.230 | 119  | 2635461  | 197.77  | ug/l   | 96       |
| 83) 1,3-Dichlorobenzene       | 13.225 | 146  | 1263711  | 188.75  | ug/l   | 97       |
| 84) 1,4-Dichlorobenzene       | 13.305 | 146  | 1233652  | 189.29  | ug/l   | 97       |
| 85) n-Butylbenzene            | 13.557 | 91   | 2467930  | 227.04  | ug/l   | 98       |
| 86) Hexachloroethane          | 13.815 | 117  | 511188   | 207.76  | ug/l   | 81       |
| 87) 1,2-Dichlorobenzene       | 13.595 | 146  | 1225480  | 185.01  | ug/l   | 97       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.228 | 75   | 181502   | 167.70  | ug/l   | 86       |
| 89) 1,2,4-Trichlorobenzene    | 14.976 | 180  | 710565   | 168.11  | ug/l   | 98       |
| 90) Hexachlorobutadiene       | 15.105 | 225  | 355127   | 155.04  | ug/l   | 98       |
| 91) Naphthalene               | 15.260 | 128  | 1981547  | 153.99  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.499 | 180  | 665056   | 160.65  | ug/l   | 98       |

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

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