

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN060923\  
 Data File : VN078149.D  
 Acq On : 09 Jun 2023 16:34  
 Operator : JC\MD  
 Sample : 03123-05MSD  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BP-VPB-RW11-GW-698-700MSD

Quant Time: Jun 09 23:10:43 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N060623W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 07 05:05:00 2023  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :John Carlone 06/12/2023  
 Supervised By :Mahesh Dadoda 06/12/2023

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| -----                        |                |      |                     |         |        |          |
| Internal Standards           |                |      |                     |         |        |          |
| 1) Pentafluorobenzene        | 8.236          | 168  | 435357              | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.106          | 114  | 780451              | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 11.871         | 117  | 681094              | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794         | 152  | 280829              | 50.000  | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 33) 1,2-Dichloroethane-d4    | 8.588          | 65   | 298830              | 51.481  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 74 - 125 |      | Recovery = 102.960% |         |        |          |
| 35) Dibromofluoromethane     | 8.177          | 113  | 254143              | 51.501  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = 103.000% |         |        |          |
| 50) Toluene-d8               | 10.571         | 98   | 980154              | 51.523  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 86 - 113 |      | Recovery = 103.040% |         |        |          |
| 62) 4-Bromofluorobenzene     | 12.853         | 95   | 310386              | 52.483  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = 104.960% |         |        |          |
| Target Compounds             |                |      |                     |         |        |          |
|                              |                |      |                     |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.136          | 85   | 218041              | 44.306  | ug/l   | 97       |
| 3) Chloromethane             | 2.371          | 50   | 240677              | 52.060  | ug/l   | 98       |
| 4) Vinyl Chloride            | 2.518          | 62   | 310457              | 48.176  | ug/l   | 99       |
| 5) Bromomethane              | 2.954          | 94   | 225259              | 46.254  | ug/l   | 95       |
| 6) Chloroethane              | 3.124          | 64   | 210879              | 48.004  | ug/l   | 97       |
| 7) Trichlorofluoromethane    | 3.501          | 101  | 414060              | 47.382  | ug/l   | 99       |
| 8) Diethyl Ether             | 3.971          | 74   | 142198              | 46.311  | ug/l   | 82       |
| 9) 1,1,2-Trichlorotrifluo... | 4.383          | 101  | 227951              | 49.427  | ug/l   | 99       |
| 10) Methyl Iodide            | 4.601          | 142  | 313546              | 48.074  | ug/l   | 99       |
| 11) Tert butyl alcohol       | 5.536          | 59   | 176247              | 219.896 | ug/l   | 98       |
| 12) 1,1-Dichloroethene       | 4.353          | 96   | 225704              | 47.476  | ug/l   | 89       |
| 13) Acrolein                 | 4.189          | 56   | 206413              | 233.669 | ug/l   | 96       |
| 14) Allyl chloride           | 5.036          | 41   | 284650              | 49.049  | ug/l   | 93       |
| 15) Acrylonitrile            | 5.730          | 53   | 532149              | 257.526 | ug/l   | 98       |
| 16) Acetone                  | 4.436          | 43   | 407779              | 244.064 | ug/l   | 97       |
| 17) Carbon Disulfide         | 4.718          | 76   | 563782              | 46.073  | ug/l   | 100      |
| 18) Methyl Acetate           | 5.036          | 43   | 381891              | 49.646  | ug/l   | 90       |
| 19) Methyl tert-butyl Ether  | 5.806          | 73   | 753145              | 49.652  | ug/l   | 98       |
| 20) Methylene Chloride       | 5.289          | 84   | 256706              | 46.495  | ug/l   | 93       |
| 21) trans-1,2-Dichloroethene | 5.795          | 96   | 244893              | 47.760  | ug/l   | 88       |
| 22) Diisopropyl ether        | 6.683          | 45   | 715703              | 52.429  | ug/l   | 94       |
| 23) Vinyl Acetate            | 6.612          | 43   | 2081220             | 256.478 | ug/l # | 90       |
| 24) 1,1-Dichloroethane       | 6.577          | 63   | 457346              | 50.787  | ug/l   | 96       |
| 25) 2-Butanone               | 7.494          | 43   | 671500              | 261.354 | ug/l # | 87       |
| 26) 2,2-Dichloropropane      | 7.500          | 77   | 369747              | 55.608  | ug/l   | 100      |
| 27) cis-1,2-Dichloroethene   | 7.494          | 96   | 291412              | 47.645  | ug/l   | 93       |
| 28) Bromochloromethane       | 7.824          | 49   | 186577              | 45.126  | ug/l   | 91       |
| 29) Tetrahydrofuran          | 7.847          | 42   | 447972              | 260.812 | ug/l # | 85       |
| 30) Chloroform               | 7.971          | 83   | 490736              | 50.608  | ug/l   | 97       |
| 31) Cyclohexane              | 8.265          | 56   | 368942              | 49.549  | ug/l   | 93       |
| 32) 1,1,1-Trichloroethane    | 8.177          | 97   | 435918              | 51.205  | ug/l   | 97       |
| 36) 1,1-Dichloropropene      | 8.377          | 75   | 360362              | 50.911  | ug/l   | 98       |
| 37) Ethyl Acetate            | 7.571          | 43   | 279437              | 50.536  | ug/l   | 95       |
| 38) Carbon Tetrachloride     | 8.371          | 117  | 389208              | 52.075  | ug/l   | 98       |
| 39) Methylcyclohexane        | 9.606          | 83   | 379120              | 51.684  | ug/l   | 92       |
| 40) Benzene                  | 8.612          | 78   | 1077591             | 50.994  | ug/l   | 99       |

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 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BP-VPB-RW11-GW-698-700MSD

Quant Time: Jun 09 23:10:43 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N060623W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 07 05:05:00 2023  
 Response via : Initial Calibration

Manual Integrations  
 APPROVED

Reviewed By :John Carlone 06/12/2023  
 Supervised By :Mahesh Dadoda 06/12/2023

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.789  | 41   | 150515   | 50.219  | ug/l   | 95       |
| 42) 1,2-Dichloroethane        | 8.677  | 62   | 370358   | 51.117  | ug/l   | 97       |
| 43) Isopropyl Acetate         | 8.694  | 43   | 494399   | 46.752  | ug/l   | 96       |
| 44) Trichloroethene           | 9.359  | 130  | 277194   | 49.671  | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 274007   | 52.117  | ug/l   | 100      |
| 46) Dibromomethane            | 9.718  | 93   | 193651   | 50.006  | ug/l   | 95       |
| 47) Bromodichloromethane      | 9.894  | 83   | 388729   | 54.040  | ug/l   | 99       |
| 48) Methyl methacrylate       | 9.688  | 41   | 233109   | 52.528  | ug/l   | 91       |
| 49) 1,4-Dioxane               | 9.700  | 88   | 86655    | 929.041 | ug/l # | 91       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 1486537  | 266.948 | ug/l   | 93       |
| 52) Toluene                   | 10.635 | 92   | 684647   | 51.316  | ug/l   | 96       |
| 53) t-1,3-Dichloropropene     | 10.841 | 75   | 398294   | 53.166  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene   | 10.318 | 75   | 430564   | 51.993  | ug/l   | 95       |
| 55) 1,1,2-Trichloroethane     | 11.024 | 97   | 272285   | 53.949  | ug/l   | 98       |
| 56) Ethyl methacrylate        | 10.882 | 69   | 394222   | 53.643  | ug/l   | 93       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 449395   | 52.750  | ug/l   | 100      |
| 59) 2-Hexanone                | 11.200 | 43   | 1054159  | 271.873 | ug/l   | 92       |
| 60) Dibromochloromethane      | 11.365 | 129  | 292114   | 52.892  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.477 | 107  | 274053   | 51.742  | ug/l   | 99       |
| 64) Tetrachloroethene         | 11.106 | 164  | 227293   | 50.023  | ug/l   | 99       |
| 65) Chlorobenzene             | 11.900 | 112  | 724574   | 49.676  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 277068   | 51.646  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.971 | 91   | 1312619  | 52.155  | ug/l   | 100      |
| 68) m/p-Xylenes               | 12.076 | 106  | 1002328  | 104.501 | ug/l   | 98       |
| 69) o-Xylene                  | 12.406 | 106  | 489220   | 51.939  | ug/l   | 95       |
| 70) Styrene                   | 12.418 | 104  | 785274   | 52.957  | ug/l   | 98       |
| 71) Bromoform                 | 12.582 | 173  | 184464   | 53.281  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.700 | 105  | 1227994  | 46.242  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.500 | 43   | 405519   | 46.371  | ug/l   | 93       |
| 75) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 380837   | 52.251  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 13.000 | 75   | 342396m  | 51.574  | ug/l   |          |
| 77) Bromobenzene              | 12.988 | 156  | 276144   | 44.795  | ug/l   | 100      |
| 78) n-propylbenzene           | 13.041 | 91   | 1398391  | 48.467  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.129 | 91   | 850460   | 45.664  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 999882   | 46.505  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.741 | 75   | 104492   | 48.356  | ug/l   | 90       |
| 82) 4-Chlorotoluene           | 13.229 | 91   | 825051   | 47.466  | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.447 | 119  | 866380   | 46.357  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene    | 13.488 | 105  | 996164   | 47.789  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.623 | 105  | 1149856  | 47.006  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 13.735 | 119  | 968395   | 48.784  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.741 | 146  | 485902   | 46.598  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.818 | 146  | 470906   | 46.800  | ug/l   | 100      |
| 89) n-Butylbenzene            | 14.059 | 91   | 771014   | 49.243  | ug/l   | 97       |
| 90) Hexachloroethane          | 14.341 | 117  | 169818   | 48.205  | ug/l   | 90       |
| 91) 1,2-Dichlorobenzene       | 14.112 | 146  | 475642   | 46.672  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 63010    | 47.902  | ug/l   | 96       |
| 93) 1,2,4-Trichlorobenzene    | 15.400 | 180  | 185184   | 51.000  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 15.506 | 225  | 92046    | 51.813  | ug/l   | 98       |
| 95) Naphthalene               | 15.647 | 128  | 574678   | 47.051  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.847 | 180  | 191699   | 47.204  | ug/l   | 97       |

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ALS Vial : 18 Sample Multiplier: 1

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MSVOA\_N  
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Manual Integrations  
APPROVED

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Supervised By :Mahesh Dadoda 06/12/2023

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Quant Title : SW846 8260  
QLast Update : Wed Jun 07 05:05:00 2023  
Response via : Initial Calibration

| Compound                                                             | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------------------------------------------------|------|------|----------|------|-------|----------|
| -----                                                                |      |      |          |      |       |          |
| (#)=qualifier out of range (m)=manual integration (+)=signals summed |      |      |          |      |       |          |

