

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081523\  
 Data File : VN078887.D  
 Acq On : 15 Aug 2023 13:25  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 08/16/2023  
 Supervised By : Mahesh Dadoda 08/16/2023

Quant Time: Aug 16 02:18:48 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N081523W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 16 02:16:33 2023  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 8.230          | 168  | 162723     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.106          | 114  | 296209     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 11.870         | 117  | 256090     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794         | 152  | 93794      | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 8.588          | 65   | 14337      | 5.662    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 74 - 125 |      | Recovery = | 11.320%# |        |          |
| 35) Dibromofluoromethane     | 8.177          | 113  | 10807      | 5.420    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 10.840%# |        |          |
| 50) Toluene-d8               | 10.576         | 98   | 36668      | 4.953    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 86 - 113 |      | Recovery = | 9.900%#  |        |          |
| 62) 4-Bromofluorobenzene     | 12.859         | 95   | 11631      | 4.806    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 9.620%#  |        |          |
| Target Compounds             |                |      |            |          |        |          |
|                              |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.130          | 85   | 13465      | 5.964    | ug/l   | 97       |
| 3) Chloromethane             | 2.365          | 50   | 19455      | 6.171    | ug/l   | 89       |
| 4) Vinyl Chloride            | 2.512          | 62   | 15762      | 5.701    | ug/l   | 93       |
| 5) Bromomethane              | 2.942          | 94   | 9619       | 6.060    | ug/l   | 94       |
| 6) Chloroethane              | 3.106          | 64   | 10948m     | 5.722    | ug/l   |          |
| 7) Trichlorofluoromethane    | 3.483          | 101  | 19154      | 5.688    | ug/l   | 87       |
| 8) Diethyl Ether             | 3.965          | 74   | 7141       | 5.594    | ug/l   | 59       |
| 9) 1,1,2-Trichlorotrifluo... | 4.365          | 101  | 9669       | 5.391    | ug/l # | 82       |
| 10) Methyl Iodide            | 4.589          | 142  | 10191      | 5.079    | ug/l # | 80       |
| 11) Tert butyl alcohol       | 5.541          | 59   | 12860      | 30.267   | ug/l   | 96       |
| 12) 1,1-Dichloroethene       | 4.342          | 96   | 9604       | 5.498    | ug/l   | 88       |
| 13) Acrolein                 | 4.189          | 56   | 5933       | 27.053   | ug/l   | 92       |
| 14) Allyl chloride           | 5.030          | 41   | 20235      | 5.820    | ug/l # | 80       |
| 15) Acrylonitrile            | 5.730          | 53   | 31093      | 27.013   | ug/l   | 97       |
| 16) Acetone                  | 4.442          | 43   | 28644      | 27.416   | ug/l   | 100      |
| 17) Carbon Disulfide         | 4.718          | 76   | 28296      | 5.786    | ug/l   | 100      |
| 18) Methyl Acetate           | 5.036          | 43   | 24970      | 5.657    | ug/l # | 79       |
| 19) Methyl tert-butyl Ether  | 5.794          | 73   | 32329      | 5.137    | ug/l   | 99       |
| 20) Methylene Chloride       | 5.283          | 84   | 13271      | 5.960    | ug/l # | 90       |
| 21) trans-1,2-Dichloroethene | 5.800          | 96   | 10960      | 5.595    | ug/l   | 91       |
| 22) Diisopropyl ether        | 6.683          | 45   | 36729      | 4.993    | ug/l # | 84       |
| 23) Vinyl Acetate            | 6.606          | 43   | 125242     | 25.859   | ug/l # | 83       |
| 24) 1,1-Dichloroethane       | 6.577          | 63   | 22896      | 5.698    | ug/l # | 91       |
| 25) 2-Butanone               | 7.494          | 43   | 44079      | 26.315   | ug/l # | 74       |
| 26) 2,2-Dichloropropane      | 7.500          | 77   | 16308      | 5.021    | ug/l   | 82       |
| 27) cis-1,2-Dichloroethene   | 7.488          | 96   | 13425      | 5.638    | ug/l   | 88       |
| 28) Bromochloromethane       | 7.812          | 49   | 11180      | 5.245    | ug/l # | 72       |
| 29) Tetrahydrofuran          | 7.841          | 42   | 28609      | 25.804   | ug/l # | 69       |
| 30) Chloroform               | 7.977          | 83   | 20941      | 5.216    | ug/l   | 84       |
| 31) Cyclohexane              | 8.265          | 56   | 22515      | 4.739    | ug/l # | 73       |
| 32) 1,1,1-Trichloroethane    | 8.177          | 97   | 18092      | 5.285    | ug/l # | 82       |
| 36) 1,1-Dichloropropene      | 8.377          | 75   | 15615      | 5.206    | ug/l   | 91       |
| 37) Ethyl Acetate            | 7.571          | 43   | 15197      | 4.528    | ug/l # | 74       |
| 38) Carbon Tetrachloride     | 8.365          | 117  | 15177      | 5.050    | ug/l   | 91       |
| 39) Methylcyclohexane        | 9.606          | 83   | 14538      | 5.270    | ug/l # | 83       |
| 40) Benzene                  | 8.612          | 78   | 45855      | 5.172    | ug/l   | 96       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081523\  
 Data File : VN078887.D  
 Acq On : 15 Aug 2023 13:25  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 08/16/2023  
 Supervised By : Mahesh Dadoda 08/16/2023

Quant Time: Aug 16 02:18:48 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N081523W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 16 02:16:33 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.782  | 41   | 9619     | 5.263   | ug/l # | 78       |
| 42) 1,2-Dichloroethane        | 8.682  | 62   | 17915    | 5.409   | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.700  | 43   | 31852    | 5.370   | ug/l # | 85       |
| 44) Trichloroethene           | 9.353  | 130  | 10685    | 5.072   | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 11791    | 4.995   | ug/l   | 93       |
| 46) Dibromomethane            | 9.712  | 93   | 8790     | 5.429   | ug/l   | 98       |
| 47) Bromodichloromethane      | 9.894  | 83   | 16311    | 5.102   | ug/l   | 96       |
| 48) Methyl methacrylate       | 9.688  | 41   | 13384    | 4.979   | ug/l # | 77       |
| 49) 1,4-Dioxane               | 9.700  | 88   | 4886     | 106.723 | ug/l # | 77       |
| 51) 4-Methyl-2-Pentanone      | 10.453 | 43   | 86453    | 24.575  | ug/l # | 85       |
| 52) Toluene                   | 10.635 | 92   | 27427    | 5.039   | ug/l   | 97       |
| 53) t-1,3-Dichloropropene     | 10.841 | 75   | 15562    | 4.539   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 10.318 | 75   | 18197    | 4.874   | ug/l # | 87       |
| 55) 1,1,2-Trichloroethane     | 11.023 | 97   | 10907    | 4.998   | ug/l # | 81       |
| 56) Ethyl methacrylate        | 10.876 | 69   | 16079    | 4.753   | ug/l # | 81       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 20113    | 5.152   | ug/l   | 95       |
| 58) 2-Chloroethyl Vinyl ether | 10.171 | 63   | 38340    | 23.609  | ug/l # | 86       |
| 59) 2-Hexanone                | 11.200 | 43   | 60727    | 23.833  | ug/l   | 84       |
| 60) Dibromochloromethane      | 11.359 | 129  | 11206    | 4.879   | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 11.476 | 107  | 11136    | 5.021   | ug/l   | 97       |
| 64) Tetrachloroethene         | 11.106 | 164  | 8928     | 5.559   | ug/l # | 84       |
| 65) Chlorobenzene             | 11.894 | 112  | 27571    | 5.058   | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 10430    | 5.063   | ug/l   | 92       |
| 67) Ethyl Benzene             | 11.970 | 91   | 49695    | 5.013   | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.076 | 106  | 35216    | 9.502   | ug/l   | 92       |
| 69) o-Xylene                  | 12.400 | 106  | 17521    | 4.860   | ug/l   | 100      |
| 70) Styrene                   | 12.417 | 104  | 27964    | 4.651   | ug/l   | 97       |
| 71) Bromoform                 | 12.588 | 173  | 6937     | 4.632   | ug/l # | 97       |
| 73) Isopropylbenzene          | 12.700 | 105  | 42856    | 5.480   | ug/l   | 99       |
| 74) N-amyl acetate            | 12.500 | 43   | 21088    | 5.342   | ug/l # | 85       |
| 75) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 16410    | 5.811   | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 12570m   | 3.612   | ug/l   |          |
| 77) Bromobenzene              | 12.988 | 156  | 10612    | 5.645   | ug/l   | 88       |
| 78) n-propylbenzene           | 13.041 | 91   | 46768    | 5.157   | ug/l   | 98       |
| 79) 2-Chlorotoluene           | 13.129 | 91   | 30993    | 5.509   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 32654    | 5.269   | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-b... | 12.747 | 75   | 4573     | 5.169   | ug/l # | 73       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 29400    | 5.341   | ug/l   | 96       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 26352    | 5.061   | ug/l   | 92       |
| 84) 1,2,4-Trimethylbenzene    | 13.488 | 105  | 31078    | 5.064   | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.617 | 105  | 37518    | 5.235   | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 13.735 | 119  | 28282    | 4.940   | ug/l   | 96       |
| 87) 1,3-Dichlorobenzene       | 13.741 | 146  | 16351    | 5.055   | ug/l   | 92       |
| 88) 1,4-Dichlorobenzene       | 13.817 | 146  | 16608    | 5.130   | ug/l   | 88       |
| 89) n-Butylbenzene            | 14.059 | 91   | 22269    | 4.726   | ug/l   | 99       |
| 90) Hexachloroethane          | 14.335 | 117  | 6572     | 5.726   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene       | 14.111 | 146  | 17546    | 5.454   | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 3440     | 3.318   | ug/l   | 78       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 4755     | 4.170   | ug/l   | 97       |
| 94) Hexachlorobutadiene       | 15.506 | 225  | 3778     | 5.396   | ug/l   | 90       |
| 95) Naphthalene               | 15.647 | 128  | 13989    | 5.644   | ug/l # | 93       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 5102     | 4.085   | ug/l   | 88       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081523\  
Data File : VN078887.D  
Acq On : 15 Aug 2023 13:25  
Operator : JC\MD  
Sample : VSTDICC005  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/16/2023  
Supervised By :Mahesh Dadoda 08/16/2023

Quant Time: Aug 16 02:18:48 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N081523W.M  
Quant Title : SW846 8260  
QLast Update : Wed Aug 16 02:16:33 2023  
Response via : Initial Calibration

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

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

Reviewed By :John Carlone 08/16/2023  
Supervised By :Mahesh Dadoda 08/16/2023

Abundance

TIC: VN078887.D\data.ms

Time-->

2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00

580000  
560000  
540000  
520000  
500000  
480000  
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440000  
420000  
400000  
380000  
360000  
340000  
320000  
300000  
280000  
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220000  
200000  
180000  
160000  
140000  
120000  
100000  
80000  
60000  
40000  
20000  
0

Dichlorodifluoromethane, T  
Chloromethane, P  
Vinyl Chloride, C  
Bromomethane, T  
Chloroethane, T  
Trichlorofluoromethane, T  
Diethyl Ether, T  
Acrolein, T  
1,1-Dichloroethane, T  
Acetone, T  
Methyl iodide, T  
Carbon Disulfide, T  
Methyl Acetate, T  
Methylene Chloride, T  
Tert butyl alcohol, T  
Acrylonitrile, T  
1,1-Dichloroethane, T  
Disopropyl Ether, T  
1,1-Dichloroethane, T  
Ethyl Acetate, T  
Methyl Acetate, T  
Methyl Chloride, T  
Chloroform, C  
Dibromodifluoromethane, S  
1,2-Dichloropropane, T  
Isopropyl Alcohol, T  
1,2-Dichloropropane, T  
Trichloroethene, TM  
Dibromodifluoromethane, C  
Bromodichloromethane, T  
cis-1,3-Dichloropropene, T  
2-Chloroethyl Vinyl ether, T  
4-Methyl-2-Pentanone, T  
Toluene, SM  
Ethyl Chloride, T  
1,2-Dichloropropane, T  
1,3-Dichloropropane, T  
Hexanone, T  
1,2-Dibromomethane, T  
Chlorobenzene-d5, I  
Ethyl Chloride, T  
Ethyl Acetate, T  
Bromotoluene, T  
trans-1,2-Dichloropropene, T  
4-Methyl-2-Pentanone, T  
1,2-Dichloropropane, T  
4-Chlorobenzene, T  
Tert-Butylbenzene, T  
sec-Butylbenzene, T  
1,3-Dichloropropane, T  
1,2-Dichloropropane, T  
Hexachloroethane, T  
1,2-Dibromo-3-Chloropropane, T  
1,2,4-Trichlorobenzene, T  
Hexachlorobutadiene, T  
Naphthalene, I  
1,2,3-Trichlorobenzene, T