

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF052819\  
 Data File : VF062753.D  
 Acq On : 28 May 2019 10:52  
 Operator : FY/SY  
 Sample : VSTDCCC050  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 5/29/2019 11:01:51 AM

Quant Time: May 29 01:54:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F051619S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 17 05:49:09 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.07  | 168  | 881227   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.79  | 114  | 1459194  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.92  | 117  | 1166327  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 549253   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.05   | 65  | 275207   | 44.19 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 88.38% |      |
| 35) Dibromofluoromethane  | 4.32   | 113 | 491780   | 44.04 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 88.08% |      |
| 50) Toluene-d8            | 7.72   | 98  | 1243052  | 46.63 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.26% |      |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 460039   | 45.50 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 91.00% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.01 | 85  | 492454  | 41.065  | ug/l   | 95     |
| 3) Chloromethane              | 1.15 | 50  | 472620  | 42.801  | ug/l   | 99     |
| 4) Vinyl Chloride             | 1.19 | 62  | 455745  | 44.838  | ug/l   | 98     |
| 5) Bromomethane               | 1.40 | 94  | 273853  | 49.250  | ug/l   | 98     |
| 6) Chloroethane               | 1.46 | 64  | 167363  | 44.834  | ug/l   | 94     |
| 7) Trichlorofluoromethane     | 1.56 | 101 | 649502  | 47.591  | ug/l   | 98     |
| 8) Diethyl Ether              | 1.72 | 74  | 137751  | 50.949  | ug/l   | 84     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.92 | 101 | 393279  | 45.255  | ug/l   | 95     |
| 10) Methyl Iodide             | 1.99 | 142 | 824199m | 48.280  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.70 | 59  | 107865  | 262.366 | ug/l   | 97     |
| 12) 1,1-Dichloroethene        | 1.87 | 96  | 361322  | 45.643  | ug/l   | 97     |
| 13) Acrolein                  | 2.10 | 56  | 105421  | 245.648 | ug/l   | 99     |
| 14) Allyl chloride            | 2.21 | 41  | 386317m | 53.920  | ug/l   |        |
| 15) Acrylonitrile             | 3.10 | 53  | 519122  | 447.631 | ug/l # | 94     |
| 16) Acetone                   | 2.35 | 43  | 460178  | 284.846 | ug/l   | 91     |
| 17) Carbon Disulfide          | 1.92 | 76  | 1040702 | 44.354  | ug/l   | 98     |
| 18) Methyl Acetate            | 2.46 | 43  | 135148  | 53.235  | ug/l   | 95     |
| 19) Methyl tert-butyl Ether   | 2.55 | 73  | 779095  | 55.053  | ug/l   | 98     |
| 20) Methylene Chloride        | 2.30 | 84  | 365837m | 45.178  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.43 | 96  | 376237  | 48.625  | ug/l   | 99     |
| 22) Diisopropyl ether         | 2.94 | 45  | 878493  | 49.714  | ug/l   | 100    |
| 23) Vinyl Acetate             | 3.35 | 43  | 3085685 | 258.860 | ug/l   | 96     |
| 24) 1,1-Dichloroethane        | 3.02 | 63  | 672344  | 51.865  | ug/l   | 100    |
| 25) 2-Butanone                | 4.53 | 43  | 923611  | 267.591 | ug/l   | 96     |
| 26) 2,2-Dichloropropane       | 3.79 | 77  | 421023  | 56.763  | ug/l   | 94     |
| 27) cis-1,2-Dichloroethene    | 3.66 | 96  | 661378  | 51.964  | ug/l   | 94     |
| 28) Bromochloromethane        | 3.91 | 49  | 334833  | 46.054  | ug/l   | 90     |
| 29) Tetrahydrofuran           | 4.27 | 42  | 344284  | 246.492 | ug/l   | 93     |
| 30) Chloroform                | 4.06 | 83  | 907314  | 50.411  | ug/l   | 100    |
| 31) Cyclohexane               | 3.88 | 56  | 846983  | 48.661  | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 4.30 | 97  | 586248  | 49.046  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 4.49 | 75  | 724632  | 48.463  | ug/l   | 99     |
| 37) Ethyl Acetate             | 4.32 | 43  | 309584  | 50.710  | ug/l # | 75     |
| 38) Carbon Tetrachloride      | 4.20 | 117 | 527266  | 46.888  | ug/l   | 95     |

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 Sample : VSTDCCC050  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
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 5/29/2019 11:01:51 AM

Quant Time: May 29 01:54:42 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F051619S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 17 05:49:09 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 5.65  | 83   | 976093   | 54.254   | ug/l   | 96       |
| 40) Benzene                    | 4.83  | 78   | 2095916  | 51.454   | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.94  | 41   | 166201   | 51.927   | ug/l   | 96       |
| 42) 1,2-Dichloroethane         | 5.14  | 62   | 409298   | 50.388   | ug/l   | 93       |
| 43) Isopropyl Acetate          | 7.13  | 43   | 410138   | 51.855   | ug/l # | 89       |
| 44) Trichloroethene            | 5.70  | 130  | 624419   | 54.542   | ug/l   | 91       |
| 45) 1,2-Dichloropropane        | 6.42  | 63   | 540634   | 52.577   | ug/l   | 100      |
| 46) Dibromomethane             | 6.27  | 93   | 328968   | 55.357   | ug/l   | 99       |
| 47) Bromodichloromethane       | 6.57  | 83   | 686492   | 55.645   | ug/l   | 99       |
| 48) Methyl methacrylate        | 6.88  | 41   | 216939   | 52.476   | ug/l   | 93       |
| 49) 1,4-Dioxane                | 6.88  | 88   | 53787    | 1015.835 | ug/l # | 84       |
| 51) 4-Methyl-2-Pentanone       | 8.41  | 43   | 1482189  | 274.160  | ug/l   | 98       |
| 52) Toluene                    | 7.79  | 92   | 1148620  | 53.767   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 8.44  | 75   | 573498   | 56.821   | ug/l   | 94       |
| 54) cis-1,3-Dichloropropene    | 7.47  | 75   | 814768   | 57.668   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 8.65  | 97   | 371473   | 58.729   | ug/l   | 96       |
| 56) Ethyl methacrylate         | 8.76  | 69   | 413982   | 54.936   | ug/l   | 95       |
| 57) 1,3-Dichloropropane        | 9.00  | 76   | 609281   | 56.552   | ug/l   | 95       |
| 58) 2-Chloroethyl Vinyl ether  | 7.45  | 63   | 686575   | 279.906  | ug/l   | 95       |
| 59) 2-Hexanone                 | 9.63  | 43   | 1128518  | 326.277  | ug/l   | 93       |
| 60) Dibromochloromethane       | 8.87  | 129  | 498621   | 60.484   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.14  | 107  | 390193   | 58.079   | ug/l   | 98       |
| 64) Tetrachloroethene          | 8.31  | 164  | 493669   | 53.428   | ug/l   | 98       |
| 65) Chlorobenzene              | 9.95  | 112  | 1233201  | 53.833   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.07 | 131  | 497635   | 54.113   | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.04 | 91   | 2014349  | 50.617   | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.26 | 106  | 1551886  | 103.756  | ug/l   | 99       |
| 69) o-Xylene                   | 10.82 | 106  | 838808   | 54.447   | ug/l   | 95       |
| 70) Styrene                    | 10.89 | 104  | 1224714  | 52.303   | ug/l   | 99       |
| 71) Bromoform                  | 10.88 | 173  | 278411   | 60.448   | ug/l   | 100      |
| 73) Isopropylbenzene           | 11.22 | 105  | 2134480  | 54.222   | ug/l   | 100      |
| 74) N-amyl acetate             | 11.45 | 43   | 619415   | 63.274   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.77 | 83   | 449449   | 55.867   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.87 | 75   | 291849   | 55.211   | ug/l   | 86       |
| 77) Bromobenzene               | 11.58 | 156  | 530587   | 54.224   | ug/l   | 97       |
| 78) n-propylbenzene            | 11.68 | 91   | 2345220  | 50.339   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.80 | 91   | 1369173  | 52.148   | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 1676522  | 53.113   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 146052m  | 62.158   | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 1391165  | 53.731   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.20 | 119  | 1674581  | 52.290   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.27 | 105  | 1618028  | 52.961   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 12.37 | 105  | 2251560  | 52.389   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.52 | 119  | 1866559  | 51.535   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.54 | 146  | 921758   | 52.067   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.63 | 146  | 853318   | 51.364   | ug/l   | 99       |
| 89) n-Butylbenzene             | 12.90 | 91   | 1752074  | 49.063   | ug/l   | 99       |
| 90) Hexachloroethane           | 12.97 | 117  | 479931   | 55.237   | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.00 | 146  | 835548   | 52.948   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.69 | 75   | 58354    | 60.802   | ug/l   | 95       |

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Operator : FY/SY  
Sample : VSTDCCC050  
Misc : 5.00g/5mL/MSVOA F/SOIL  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
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MMDadoda  
5/29/2019 11:01:51 AM

Quant Time: May 29 01:54:42 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F051619S.M  
Quant Title : SW846 8260  
QLast Update : Fri May 17 05:49:09 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.24 | 180  | 613564   | 54.318 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 14.23 | 225  | 409221   | 51.912 | ug/l  | 95       |
| 95) Naphthalene            | 14.49 | 128  | 1118307  | 54.496 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.64 | 180  | 572622   | 53.519 | ug/l  | 98       |

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

