

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF082918\  
 Data File : VF060172.D  
 Acq On : 29 Aug 2018 2:48  
 Operator : VA/AP  
 Sample : VSTDIC150  
 Misc : 5.00µ/5mL/MSVOA F/SOIL  
 ALS Vial : 33 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

apatel  
 8/29/2018 2:02:12 PM

Quant Time: Aug 29 03:08:14 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F082918S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Aug 29 02:57:32 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.02  | 168  | 80618    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.75  | 114  | 88340    | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 73603    | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 34796    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |       |
|---------------------------|--------|-----|----------|--------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 4.99   | 65  | 76916    | 153.33 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 306.66% |       |
| 35) Dibromofluoromethane  | 4.27   | 113 | 91254    | 162.87 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =      | 325.74% |       |
| 50) Toluene-d8            | 7.70   | 98  | 313312   | 163.60 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =      | 327.20% |       |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 103858   | 143.89 | ug/l    | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =      | 287.78% |       |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.95 | 85  | 243558 | 146.17  | ug/l   | 98     |
| 3) Chloromethane              | 1.07 | 50  | 91867  | 148.26  | ug/l   | 90     |
| 4) Vinyl Chloride             | 1.12 | 62  | 97891  | 159.66  | ug/l   | 99     |
| 5) Bromomethane               | 1.32 | 94  | 50812  | 167.17  | ug/l   | 99     |
| 6) Chloroethane               | 1.40 | 64  | 58943  | 161.04  | ug/l   | 95     |
| 7) Trichlorofluoromethane     | 1.49 | 101 | 410005 | 143.52  | ug/l   | 98     |
| 8) Diethyl Ether              | 1.68 | 74  | 18062  | 175.25  | ug/l   | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.86 | 101 | 180881 | 144.01  | ug/l   | 97     |
| 10) Methyl Iodide             | 1.93 | 142 | 99183  | 169.43  | ug/l   | 96     |
| 11) Tert butyl alcohol        | 2.61 | 59  | 8254   | 1165.86 | ug/l   | 100    |
| 12) 1,1-Dichloroethene        | 1.82 | 96  | 115889 | 148.79  | ug/l   | 87     |
| 13) Acrolein                  | 2.08 | 56  | 8274   | 782.99  | ug/l # | 79     |
| 14) Allyl chloride            | 2.18 | 41  | 116077 | 187.08  | ug/l   | 90     |
| 15) Acrylonitrile             | 3.04 | 53  | 20090  | 836.63  | ug/l # | 83     |
| 16) Acetone                   | 2.30 | 43  | 38865  | 565.18  | ug/l   | 97     |
| 17) Carbon Disulfide          | 1.84 | 76  | 334073 | 145.48  | ug/l   | 99     |
| 18) Methyl Acetate            | 2.42 | 43  | 19114m | 117.99  | ug/l   |        |
| 19) Methyl tert-butyl Ether   | 2.50 | 73  | 95365  | 170.12  | ug/l   | 93     |
| 20) Methylene Chloride        | 2.27 | 84  | 54759  | 116.33  | ug/l   | 89     |
| 21) trans-1,2-Dichloroethene  | 2.40 | 96  | 103335 | 158.91  | ug/l   | 87     |
| 22) Diisopropyl ether         | 2.89 | 45  | 171328 | 163.58  | ug/l   | 93     |
| 23) Vinyl Acetate             | 3.30 | 43  | 256510 | 1026.01 | ug/l   | 97     |
| 24) 1,1-Dichloroethane        | 2.98 | 63  | 168138 | 152.33  | ug/l   | 100    |
| 25) 2-Butanone                | 4.46 | 43  | 48819  | 839.46  | ug/l   | 89     |
| 26) 2,2-Dichloropropane       | 3.74 | 77  | 141178 | 186.40  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 3.61 | 96  | 75338  | 165.95  | ug/l   | 92     |
| 28) Bromochloromethane        | 3.87 | 49  | 33016  | 136.48  | ug/l # | 74     |
| 29) Tetrahydrofuran           | 4.21 | 42  | 23989  | 923.84  | ug/l # | 83     |
| 30) Chloroform                | 4.02 | 83  | 182950 | 146.87  | ug/l   | 95     |
| 31) Cyclohexane               | 3.85 | 56  | 180009 | 174.32  | ug/l   | 96     |
| 32) 1,1,1-Trichloroethane     | 4.26 | 97  | 273995 | 155.35  | ug/l   | 96     |
| 36) 1,1-Dichloropropene       | 4.44 | 75  | 200936 | 168.13  | ug/l   | 93     |
| 37) Ethyl Acetate             | 4.24 | 43  | 26309  | 187.33  | ug/l # | 9      |
| 38) Carbon Tetrachloride      | 4.16 | 117 | 278835 | 169.74  | ug/l   | 97     |

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 Quant Title : SW846 8260  
 QLast Update : Wed Aug 29 02:57:32 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.62  | 83   | 205601   | 179.91  | ug/l   | 90       |
| 40) Benzene                    | 4.80  | 78   | 267493   | 163.60  | ug/l   | 97       |
| 41) Methacrylonitrile          | 4.89  | 41   | 13423    | 159.10  | ug/l # | 90       |
| 42) 1,2-Dichloroethane         | 5.09  | 62   | 87601    | 145.90  | ug/l   | 95       |
| 43) Isopropyl Acetate          | 7.08  | 43   | 31758    | 171.75  | ug/l # | 94       |
| 44) Trichloroethene            | 5.65  | 130  | 109357   | 154.31  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 6.38  | 63   | 56741    | 164.07  | ug/l   | 100      |
| 46) Dibromomethane             | 6.24  | 93   | 30826    | 168.09  | ug/l   | 92       |
| 47) Bromodichloromethane       | 6.53  | 83   | 110268   | 161.42  | ug/l # | 98       |
| 48) Methyl methacrylate        | 6.86  | 41   | 21191    | 132.70  | ug/l # | 86       |
| 49) 1,4-Dioxane                | 6.83  | 88   | 3353     | 3772.12 | ug/l # | 83       |
| 51) 4-Methyl-2-Pentanone       | 8.39  | 43   | 139381   | 863.76  | ug/l   | 91       |
| 52) Toluene                    | 7.76  | 92   | 190200   | 147.99  | ug/l   | 96       |
| 53) t-1,3-Dichloropropene      | 8.41  | 75   | 69027    | 179.54  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.44  | 75   | 97070    | 198.07  | ug/l   | 95       |
| 55) 1,1,2-Trichloroethane      | 8.62  | 97   | 35224    | 162.66  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 8.74  | 69   | 34433    | 189.41  | ug/l   | 87       |
| 57) 1,3-Dichloropropane        | 8.99  | 76   | 66264    | 179.98  | ug/l   | 96       |
| 58) 2-Chloroethyl Vinyl ether  | 7.76  | 63   | 39244    | 739.24  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.62  | 43   | 104205   | 934.01  | ug/l   | 84       |
| 60) Dibromochloromethane       | 8.85  | 129  | 62384    | 176.40  | ug/l   | 94       |
| 61) 1,2-Dibromoethane          | 9.12  | 107  | 37774    | 171.97  | ug/l   | 82       |
| 64) Tetrachloroethene          | 8.30  | 164  | 136857   | 151.26  | ug/l   | 98       |
| 65) Chlorobenzene              | 9.93  | 112  | 223501   | 151.63  | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.06 | 131  | 76221    | 154.51  | ug/l   | 95       |
| 67) Ethyl Benzene              | 10.03 | 91   | 497303   | 147.52  | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.26 | 106  | 345619   | 299.88  | ug/l   | 87       |
| 69) o-Xylene                   | 10.82 | 106  | 156546   | 160.68  | ug/l   | 98       |
| 70) Styrene                    | 10.90 | 104  | 192446   | 159.65  | ug/l   | 97       |
| 71) Bromoform                  | 10.88 | 173  | 30112    | 178.18  | ug/l   | 98       |
| 73) Isopropylbenzene           | 11.22 | 105  | 611506   | 162.70  | ug/l   | 98       |
| 74) N-amyl acetate             | 11.45 | 43   | 51950    | 190.23  | ug/l # | 93       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.78 | 83   | 39956    | 157.66  | ug/l   | 94       |
| 76) 1,2,3-Trichloropropane     | 11.87 | 75   | 34612    | 159.60  | ug/l   | 94       |
| 77) Bromobenzene               | 11.59 | 156  | 88386    | 161.29  | ug/l   | 96       |
| 78) n-propylbenzene            | 11.68 | 91   | 724600   | 159.70  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.81 | 91   | 348251   | 166.36  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 467661   | 164.57  | ug/l   | 95       |
| 81) trans-1,4-Dichloro-2-buten | 11.94 | 75   | 9893     | 186.33  | ug/l # | 71       |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 321890   | 154.75  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 492535   | 165.58  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 12.28 | 105  | 399517   | 165.33  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 709913   | 158.12  | ug/l   | 93       |
| 86) p-Isopropyltoluene         | 12.54 | 119  | 553922   | 168.09  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.55 | 146  | 171117   | 143.15  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 167261   | 157.67  | ug/l   | 96       |
| 89) n-Butylbenzene             | 12.91 | 91   | 512766   | 186.08  | ug/l   | 95       |
| 90) Hexachloroethane           | 12.99 | 117  | 115581   | 162.53  | ug/l   | 92       |
| 91) 1,2-Dichlorobenzene        | 13.02 | 146  | 137158   | 149.49  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 7060     | 163.70  | ug/l   | 82       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|----------------------------|-------|------|----------|--------|--------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.26 | 180  | 74445    | 193.09 | ug/l   | 95       |
| 94) Hexachlorobutadiene    | 14.25 | 225  | 125894   | 156.25 | ug/l   | 97       |
| 95) Naphthalene            | 14.52 | 128  | 66319    | 240.83 | ug/l # | 93       |
| 96) 1,2,3-Trichlorobenzene | 14.66 | 180  | 62563    | 201.89 | ug/l   | 93       |

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

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