

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF041919\  
 Data File : VF062235.D  
 Acq On : 19 Apr 2019 20:04  
 Operator : FY/SY  
 Sample : K2241-03  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 MDL-MDL-SOIL-03-QT2-2019

Manual Integrations  
 APPROVED

MMDadoda  
 4/23/2019 6:56:00 AM

Quant Time: Apr 19 23:53:22 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82F041719S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Apr 19 23:45:30 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|-------|------|----------|--------|---------|----------|
| 1) Pentafluorobenzene         | 5.06  | 168  | 407666   | 50.00  | ug/l    | 0.03     |
| 34) 1,4-Difluorobenzene       | 5.78  | 114  | 578743   | 50.00  | ug/l    | 0.02     |
| 63) Chlorobenzene-d5          | 9.92  | 117  | 434560   | 50.00  | ug/l    | 0.03     |
| 72) 1,4-Dichlorobenzene-d4    | 12.62 | 152  | 298562   | 50.00  | ug/l    | 0.02     |
| System Monitoring Compounds   |       |      |          |        |         |          |
| 33) 1,2-Dichloroethane-d4     | 5.04  | 65   | 217609   | 58.21  | ug/l    | 0.03     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 116.42% |          |
| 35) Dibromofluoromethane      | 4.32  | 113  | 291151   | 57.51  | ug/l    | 0.03     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 115.02% |          |
| 50) Toluene-d8                | 7.72  | 98   | 679222   | 53.00  | ug/l    | 0.03     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 106.00% |          |
| 62) 4-Bromofluorobenzene      | 11.50 | 95   | 279019   | 56.60  | ug/l    | 0.02     |
| Spiked Amount 50.000          |       |      | Recovery | =      | 113.20% |          |
| Target Compounds              |       |      |          |        |         |          |
|                               |       |      |          |        | Qvalue  |          |
| 2) Dichlorodifluoromethane    | 1.01  | 85   | 16284    | 2.628  | ug/l    | 99       |
| 3) Chloromethane              | 1.16  | 50   | 15133    | 2.363  | ug/l    | 99       |
| 4) Vinyl Chloride             | 1.21  | 62   | 12490    | 2.270  | ug/l #  | 82       |
| 5) Bromomethane               | 1.40  | 94   | 11098    | 3.473  | ug/l    | 86       |
| 6) Chloroethane               | 1.46  | 64   | 7469     | 3.248  | ug/l #  | 83       |
| 7) Trichlorofluoromethane     | 1.57  | 101  | 14880m   | 2.129  | ug/l    |          |
| 8) Diethyl Ether              | 1.72  | 74   | 4147     | 2.851  | ug/l    | 79       |
| 9) 1,1,2-Trichlorotrifluoroet | 1.93  | 101  | 12761    | 2.673  | ug/l    | 94       |
| 10) Methyl Iodide             | 2.00  | 142  | 20043m   | 2.363  | ug/l    |          |
| 11) Tert butyl alcohol        | 2.71  | 59   | 3145     | 12.104 | ug/l    | 99       |
| 12) 1,1-Dichloroethene        | 1.89  | 96   | 13173    | 2.901  | ug/l #  | 79       |
| 13) Acrolein                  | 2.11  | 56   | 2129     | 13.522 | ug/l #  | 14       |
| 14) Allyl chloride            | 2.20  | 41   | 11135    | 2.137  | ug/l #  | 72       |
| 15) Acrylonitrile             | 3.09  | 53   | 12017    | 15.184 | ug/l    | 96       |
| 16) Acetone                   | 2.36  | 43   | 13481    | 15.088 | ug/l    | 99       |
| 17) Carbon Disulfide          | 1.93  | 76   | 27553m   | 2.183  | ug/l    |          |
| 18) Methyl Acetate            | 2.48  | 43   | 15902    | 6.468  | ug/l #  | 83       |
| 19) Methyl tert-butyl Ether   | 2.56  | 73   | 20425    | 2.547  | ug/l #  | 81       |
| 20) Methylene Chloride        | 2.36  | 84   | 50394m   | 8.843  | ug/l    |          |
| 21) trans-1,2-Dichloroethene  | 2.43  | 96   | 12517    | 2.787  | ug/l    | 91       |
| 22) Diisopropyl ether         | 2.94  | 45   | 33336    | 2.501  | ug/l    | 95       |
| 23) Vinyl Acetate             | 3.36  | 43   | 69803    | 10.990 | ug/l #  | 95       |
| 24) 1,1-Dichloroethane        | 3.02  | 63   | 18372    | 2.519  | ug/l #  | 94       |
| 25) 2-Butanone                | 4.54  | 43   | 21134    | 11.829 | ug/l #  | 91       |
| 26) 2,2-Dichloropropane       | 3.77  | 77   | 8401     | 2.282  | ug/l    | 83       |
| 27) cis-1,2-Dichloroethene    | 3.65  | 96   | 14272    | 2.454  | ug/l    | 91       |
| 28) Bromochloromethane        | 3.92  | 49   | 8174     | 2.340  | ug/l #  | 94       |
| 29) Tetrahydrofuran           | 4.29  | 42   | 9970     | 12.329 | ug/l #  | 87       |
| 30) Chloroform                | 4.07  | 83   | 24836    | 2.771  | ug/l    | 86       |
| 31) Cyclohexane               | 3.88  | 56   | 23981m   | 2.744  | ug/l    |          |
| 32) 1,1,1-Trichloroethane     | 4.29  | 97   | 14223    | 2.168  | ug/l #  | 91       |
| 36) 1,1-Dichloropropene       | 4.48  | 75   | 17592    | 2.535  | ug/l    | 94       |
| 37) Ethyl Acetate             | 4.32  | 43   | 8108     | 2.476  | ug/l #  | 83       |
| 38) Carbon Tetrachloride      | 4.19  | 117  | 16181    | 2.635  | ug/l    | 92       |

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 Quant Title : SW846 8260  
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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 5.65  | 83   | 19852    | 2.390  | ug/l # | 84       |
| 40) Benzene                    | 4.83  | 78   | 46117    | 2.534  | ug/l   | 94       |
| 41) Methacrylonitrile          | 4.95  | 41   | 6375     | 3.375  | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 5.14  | 62   | 12028    | 2.500  | ug/l # | 74       |
| 43) Isopropyl Acetate          | 7.13  | 43   | 9019     | 2.619  | ug/l # | 98       |
| 44) Trichloroethene            | 5.69  | 130  | 14142    | 2.876  | ug/l   | 87       |
| 45) 1,2-Dichloropropane        | 6.43  | 63   | 9612     | 2.398  | ug/l   | 96       |
| 46) Dibromomethane             | 6.27  | 93   | 7499     | 2.811  | ug/l   | 97       |
| 47) Bromodichloromethane       | 6.56  | 83   | 16219    | 2.695  | ug/l   | 92       |
| 48) Methyl methacrylate        | 6.89  | 41   | 5802     | 2.564  | ug/l # | 56       |
| 49) 1,4-Dioxane                | 6.89  | 88   | 1123     | 43.267 | ug/l # | 1        |
| 51) 4-Methyl-2-Pentanone       | 8.41  | 43   | 33146    | 12.941 | ug/l   | 95       |
| 52) Toluene                    | 7.79  | 92   | 24172    | 2.520  | ug/l   | 96       |
| 53) t-1,3-Dichloropropene      | 8.43  | 75   | 12624    | 2.792  | ug/l # | 88       |
| 54) cis-1,3-Dichloropropene    | 7.47  | 75   | 15885    | 2.598  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 8.64  | 97   | 8181     | 3.044  | ug/l # | 85       |
| 56) Ethyl methacrylate         | 8.77  | 69   | 7958     | 2.604  | ug/l # | 84       |
| 57) 1,3-Dichloropropane        | 9.00  | 76   | 11638    | 2.682  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 7.46  | 63   | 11471    | 12.930 | ug/l   | 97       |
| 59) 2-Hexanone                 | 9.63  | 43   | 23236    | 13.768 | ug/l   | 100      |
| 60) Dibromochloromethane       | 8.87  | 129  | 11134    | 2.786  | ug/l   | 90       |
| 61) 1,2-Dibromoethane          | 9.14  | 107  | 8328     | 2.750  | ug/l   | 95       |
| 64) Tetrachloroethene          | 8.31  | 164  | 11801    | 3.008  | ug/l   | 98       |
| 65) Chlorobenzene              | 9.94  | 112  | 25334    | 2.734  | ug/l   | 91       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.07 | 131  | 12476    | 2.875  | ug/l   | 98       |
| 67) Ethyl Benzene              | 10.04 | 91   | 44322    | 2.631  | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.27 | 106  | 34237    | 5.520  | ug/l   | 95       |
| 69) o-Xylene                   | 10.83 | 106  | 19102    | 2.774  | ug/l   | 100      |
| 70) Styrene                    | 10.90 | 104  | 27465    | 2.826  | ug/l   | 97       |
| 71) Bromoform                  | 10.89 | 173  | 7350     | 3.208  | ug/l # | 95       |
| 73) Isopropylbenzene           | 11.22 | 105  | 52056    | 2.030  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.46 | 43   | 15165    | 2.237  | ug/l # | 91       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.77 | 83   | 9579     | 2.172  | ug/l   | 90       |
| 76) 1,2,3-Trichloropropane     | 11.87 | 75   | 7981m    | 2.630  | ug/l   |          |
| 77) Bromobenzene               | 11.59 | 156  | 13563    | 2.469  | ug/l   | 92       |
| 78) n-propylbenzene            | 11.68 | 91   | 59781    | 2.210  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 11.80 | 91   | 35241    | 2.147  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 50753    | 2.376  | ug/l   | 94       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 4982m    | 3.219  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 36261    | 2.286  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 49954    | 2.261  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 12.28 | 105  | 48537    | 2.348  | ug/l   | 96       |
| 85) sec-Butylbenzene           | 12.37 | 105  | 62011    | 2.162  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.52 | 119  | 58224    | 2.393  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 12.54 | 146  | 26411    | 2.591  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.63 | 146  | 24595    | 2.501  | ug/l   | 94       |
| 89) n-Butylbenzene             | 12.91 | 91   | 54907    | 2.354  | ug/l   | 97       |
| 90) Hexachloroethane           | 12.98 | 117  | 14622    | 2.341  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.01 | 146  | 23947    | 2.433  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.70 | 75   | 2199     | 2.538  | ug/l   | 93       |

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Quant Title : SW846 8260  
QLast Update : Fri Apr 19 23:45:30 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.25 | 180  | 20791    | 2.524 | ug/l  | 96       |
| 94) Hexachlorobutadiene    | 14.24 | 225  | 13687    | 2.423 | ug/l  | 98       |
| 95) Naphthalene            | 14.50 | 128  | 31688    | 2.200 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 14.64 | 180  | 19140    | 2.420 | ug/l  | 97       |

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

