

Data File : VF059909.D  
Acq On : 7 Aug 2018 8:31  
Operator : VA/AP  
Sample : VF0807SBS01  
Misc : 5.00g/5mL/MSVOA\_F/SOIL  
ALS Vial : 35 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VF0807SBS01

Manual Integrations  
APPROVED

apatel  
8/8/2018 11:38:25 AM

Quant Time: Aug 07 11:02:48 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
Quant Title : SW846 8260  
QLast Update : Sat Aug 04 07:08:36 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.05  | 168  | 169156   | 50.00 | ug/l  | 0.01     |
| 34) 1,4-Difluorobenzene    | 5.77  | 114  | 246419   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.92  | 117  | 253147   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.64 | 152  | 162359   | 50.00 | ug/l  | 0.01     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 5.03   | 65  | 175101   | 57.42 | ug/l    | 0.01 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 114.84% |      |
| 35) Dibromofluoromethane    | 4.31   | 113 | 132015   | 53.85 | ug/l    | 0.01 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 107.70% |      |
| 50) Toluene-d8              | 7.72   | 98  | 282387   | 54.13 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 108.26% |      |
| 62) 4-Bromofluorobenzene    | 11.52  | 95  | 163497   | 55.77 | ug/l    | 0.01 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 111.54% |      |

| Target Compounds              |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.99 | 85  | 65776  | 22.758  | ug/l   | 95     |
| 3) Chloromethane              | 1.09 | 50  | 23748  | 17.763  | ug/l   | 99     |
| 4) Vinyl Chloride             | 1.16 | 62  | 30044  | 21.936  | ug/l   | 96     |
| 5) Bromomethane               | 1.35 | 94  | 28080  | 21.721  | ug/l   | 100    |
| 6) Chloroethane               | 1.44 | 64  | 18740  | 21.785  | ug/l   | 95     |
| 7) Trichlorofluoromethane     | 1.55 | 101 | 88455m | 23.598  | ug/l   |        |
| 8) Diethyl Ether              | 1.70 | 74  | 12433  | 20.901  | ug/l   | 92     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.90 | 101 | 41969  | 20.289  | ug/l   | 95     |
| 10) Methyl Iodide             | 1.98 | 142 | 71350m | 22.452  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.70 | 59  | 15929  | 129.493 | ug/l # | 89     |
| 12) 1,1-Dichloroethene        | 1.86 | 96  | 32504  | 21.512  | ug/l   | 97     |
| 13) Acrolein                  | 2.09 | 56  | 4943m  | 67.052  | ug/l   |        |
| 14) Allyl chloride            | 2.20 | 41  | 49516  | 19.655  | ug/l   | 95     |
| 15) Acrylonitrile             | 3.07 | 53  | 22830  | 101.283 | ug/l # | 89     |
| 16) Acetone                   | 2.34 | 43  | 63143  | 112.158 | ug/l # | 92     |
| 17) Carbon Disulfide          | 1.89 | 76  | 86832m | 21.527  | ug/l   |        |
| 18) Methyl Acetate            | 2.45 | 43  | 23197  | 24.425  | ug/l # | 85     |
| 19) Methyl tert-butyl Ether   | 2.54 | 73  | 101155 | 23.646  | ug/l   | 96     |
| 20) Methylene Chloride        | 2.27 | 84  | 41800m | 27.096  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.42 | 96  | 30581  | 20.374  | ug/l   | 93     |
| 22) Diisopropyl ether         | 2.93 | 45  | 101415 | 20.926  | ug/l   | 96     |
| 23) Vinyl Acetate             | 3.34 | 43  | 296085 | 126.202 | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 3.00 | 63  | 78639  | 22.281  | ug/l   | 99     |
| 25) 2-Butanone                | 4.52 | 43  | 68326  | 111.614 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 3.77 | 77  | 44586  | 21.700  | ug/l   | 94     |
| 27) cis-1,2-Dichloroethene    | 3.63 | 96  | 38161  | 22.611  | ug/l   | 98     |
| 28) Bromochloromethane        | 3.89 | 49  | 28896  | 23.186  | ug/l   | 93     |
| 29) Tetrahydrofuran           | 4.27 | 42  | 25538  | 113.321 | ug/l   | 96     |
| 30) Chloroform                | 4.05 | 83  | 108478 | 22.719  | ug/l   | 98     |
| 31) Cyclohexane               | 3.88 | 56  | 35584  | 20.371  | ug/l   | 91     |
| 32) 1,1,1-Trichloroethane     | 4.29 | 97  | 83173  | 21.774  | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 4.47 | 75  | 57593  | 20.206  | ug/l   | 97     |
| 37) Ethyl Acetate             | 4.29 | 43  | 29781  | 24.335  | ug/l   | 95     |
| 38) Carbon Tetrachloride      | 4.19 | 117 | 88420m | 21.670  | ug/l   |        |

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ALS Vial : 35 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleID :  
VF0807SBS01

Manual Integrations  
APPROVED

apatel  
8/8/2018 11:38:25 AM

Quant Time: Aug 07 11:02:48 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
Quant Title : SW846 8260  
QLast Update : Sat Aug 04 07:08:36 2018  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.64  | 83   | 42538    | 19.901  | ug/l   | 91       |
| 40) Benzene                    | 4.82  | 78   | 103966   | 19.388  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.93  | 41   | 14036    | 21.732  | ug/l # | 82       |
| 42) 1,2-Dichloroethane         | 5.12  | 62   | 87725    | 22.227  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 7.12  | 43   | 26820    | 21.283  | ug/l # | 88       |
| 44) Trichloroethene            | 5.69  | 130  | 44125    | 23.245  | ug/l   | 87       |
| 45) 1,2-Dichloropropane        | 6.41  | 63   | 29980    | 22.921  | ug/l   | 90       |
| 46) Dibromomethane             | 6.27  | 93   | 28560    | 21.640  | ug/l   | 93       |
| 47) Bromodichloromethane       | 6.56  | 83   | 79401    | 21.996  | ug/l # | 93       |
| 48) Methyl methacrylate        | 6.89  | 41   | 21764    | 22.200  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 6.88  | 88   | 3214     | 500.051 | ug/l # | 79       |
| 51) 4-Methyl-2-Pentanone       | 8.42  | 43   | 151325   | 117.448 | ug/l   | 96       |
| 52) Toluene                    | 7.79  | 92   | 80992    | 22.498  | ug/l   | 84       |
| 53) t-1,3-Dichloropropene      | 8.44  | 75   | 64446    | 23.470  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 7.47  | 75   | 61176    | 21.587  | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane      | 8.65  | 97   | 28288    | 21.829  | ug/l   | 91       |
| 56) Ethyl methacrylate         | 8.77  | 69   | 28773    | 22.245  | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 9.01  | 76   | 48663    | 21.869  | ug/l   | 95       |
| 58) 2-Chloroethyl Vinyl ether  | 7.78  | 63   | 20256    | 118.149 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.64  | 43   | 114486   | 125.787 | ug/l   | 100      |
| 60) Dibromochloromethane       | 8.88  | 129  | 56121    | 23.083  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 9.15  | 107  | 36912    | 23.377  | ug/l   | 88       |
| 64) Tetrachloroethene          | 8.32  | 164  | 45892    | 21.015  | ug/l   | 95       |
| 65) Chlorobenzene              | 9.95  | 112  | 106077   | 20.644  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.08 | 131  | 53201    | 20.814  | ug/l   | 94       |
| 67) Ethyl Benzene              | 10.05 | 91   | 192249   | 21.476  | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.28 | 106  | 129731   | 41.924  | ug/l   | 99       |
| 69) o-Xylene                   | 10.84 | 106  | 68145    | 20.788  | ug/l   | 93       |
| 70) Styrene                    | 10.91 | 104  | 101066   | 20.661  | ug/l   | 96       |
| 71) Bromoform                  | 10.90 | 173  | 35197    | 22.469  | ug/l   | 98       |
| 73) Isopropylbenzene           | 11.23 | 105  | 227369   | 22.484  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.47 | 43   | 53426    | 23.045  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.80 | 83   | 43884    | 23.113  | ug/l   | 89       |
| 76) 1,2,3-Trichloropropane     | 11.90 | 75   | 36984    | 22.679  | ug/l   | 87       |
| 77) Bromobenzene               | 11.60 | 156  | 61334    | 22.302  | ug/l   | 90       |
| 78) n-propylbenzene            | 11.70 | 91   | 263961   | 22.102  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.82 | 91   | 169322   | 22.413  | ug/l   | 94       |
| 80) 1,3,5-Trimethylbenzene     | 11.91 | 105  | 214747   | 22.869  | ug/l   | 93       |
| 81) trans-1,4-Dichloro-2-buten | 11.96 | 75   | 13321m   | 22.742  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.99 | 91   | 183919   | 22.421  | ug/l   | 94       |
| 83) tert-Butylbenzene          | 12.22 | 119  | 208421   | 22.802  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 12.30 | 105  | 220918   | 22.875  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.40 | 105  | 268405   | 22.099  | ug/l   | 97       |
| 86) p-Isopropyltoluene         | 12.55 | 119  | 244550   | 23.956  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.57 | 146  | 118928   | 22.823  | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 12.65 | 146  | 113464   | 22.181  | ug/l   | 97       |
| 89) n-Butylbenzene             | 12.93 | 91   | 221100   | 22.726  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.00 | 117  | 61355    | 21.781  | ug/l   | 91       |
| 91) 1,2-Dichlorobenzene        | 13.03 | 146  | 119257   | 23.783  | ug/l   | 94       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.72 | 75   | 12037    | 25.148  | ug/l   | 83       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_F\Data\VF080718\  
Quantitation Report (QT Reviewed)

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Operator : VA/AP  
Sample : VF0807SBSD01  
Misc : 5.00g/5mL/MSVOA\_F/SOIL  
ALS Vial : 35 Sample Multiplier: 1

Instrument :  
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8/8/2018 11:38:25 AM

Quant Time: Aug 07 11:02:48 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
Quant Title : SW846 8260  
QLast Update : Sat Aug 04 07:08:36 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.27 | 180  | 89563    | 23.525 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 14.26 | 225  | 60197    | 22.382 | ug/l  | 96       |
| 95) Naphthalene            | 14.53 | 128  | 151285   | 22.952 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.68 | 180  | 90404    | 24.045 | ug/l  | 98       |

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

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```
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Operator     : VA/AP
Sample       : VF0807SBS01
Misc         : 5.00g/5mL/MSV0A_F/SOIL
ALS Vial     : 35    Sample Multiplier: 1
```

**Instrument :**  
MSVOA\_F  
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VF0807SBSD01

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