

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW062918\  
 Data File : VW003664.D  
 Acq On : 29 Jun 2018 16:50  
 Operator : SY/AP  
 Sample : J3762-01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 LOD-MDL-SOIL-01-QT3-2018

Manual Integrations  
 APPROVED

apatel  
 7/2/2018 10:30:51 AM

Quant Time: Jun 30 04:41:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W061318S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jun 16 05:18:54 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 178685   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 296563   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 280033   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 143784   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 117445   | 60.68 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 121.36% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 101282   | 54.96 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.92% |      |
| 50) Toluene-d8            | 10.33  | 98  | 379689   | 51.96 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.92% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 132719   | 51.33 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.66% |      |

## Target Compounds

|                               |      |     |       |       |        | Qvalue |
|-------------------------------|------|-----|-------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.01 | 85  | 1771  | 3.28  | ug/l   | 72     |
| 3) Chloromethane              | 2.21 | 50  | 3483  | 2.55  | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.36 | 62  | 4907  | 2.47  | ug/l   | 90     |
| 5) Bromomethane               | 2.78 | 94  | 3221  | 2.44  | ug/l   | 94     |
| 6) Chloroethane               | 2.92 | 64  | 3041  | 2.20  | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 2864  | 2.40  | ug/l   | 94     |
| 8) Diethyl Ether              | 3.67 | 74  | 2774  | 3.17  | ug/l   | 67     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 4330  | 2.62  | ug/l   | 95     |
| 10) Methyl Iodide             | 4.26 | 142 | 5975  | 2.39  | ug/l   | 96     |
| 11) Tert butyl alcohol        | 5.23 | 59  | 1978m | 19.06 | ug/l   |        |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 4083  | 2.52  | ug/l   | 100    |
| 13) Acrolein                  | 3.89 | 56  | 1420  | 9.57  | ug/l   | 98     |
| 14) Allyl chloride            | 4.66 | 41  | 7023  | 2.51  | ug/l   | 96     |
| 15) Acrylonitrile             | 5.38 | 53  | 4953  | 13.75 | ug/l   | 97     |
| 16) Acetone                   | 4.14 | 43  | 8843  | 21.79 | ug/l   | 93     |
| 17) Carbon Disulfide          | 4.37 | 76  | 12603 | 2.64  | ug/l   | 98     |
| 18) Methyl Acetate            | 4.68 | 43  | 4464  | 4.64  | ug/l # | 74     |
| 19) Methyl tert-butyl Ether   | 5.44 | 73  | 7349  | 2.43  | ug/l # | 90     |
| 20) Methylene Chloride        | 4.92 | 84  | 14510 | 5.12  | ug/l   | 95     |
| 21) trans-1,2-Dichloroethene  | 5.41 | 96  | 4626  | 2.63  | ug/l # | 79     |
| 22) Diisopropyl ether         | 6.32 | 45  | 11452 | 2.03  | ug/l # | 86     |
| 23) Vinyl Acetate             | 6.26 | 43  | 30214 | 9.30  | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 8726  | 2.61  | ug/l   | 98     |
| 25) 2-Butanone                | 7.18 | 43  | 8555  | 16.95 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 7259  | 3.25  | ug/l   | 87     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 4274  | 2.21  | ug/l   | 72     |
| 28) Bromochloromethane        | 7.51 | 49  | 4503  | 3.23  | ug/l   | 91     |
| 29) Tetrahydrofuran           | 7.54 | 42  | 4207  | 13.64 | ug/l   | 95     |
| 30) Chloroform                | 7.68 | 83  | 8404  | 2.46  | ug/l   | 91     |
| 31) Cyclohexane               | 7.95 | 56  | 11025 | 3.53  | ug/l # | 70     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 6939  | 2.46  | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 8.09 | 75  | 6531  | 2.28  | ug/l   | 98     |
| 37) Ethyl Acetate             | 7.27 | 43  | 3109  | 2.62  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 6274  | 2.23  | ug/l   | 98     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW062918\  
 Data File : VW003664.D  
 Acq On : 29 Jun 2018 16:50  
 Operator : SY/AP  
 Sample : J3762-01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 LOD-MDL-SOIL-01-QT3-2018

Manual Integrations  
 APPROVED

apatel  
 7/2/2018 10:30:51 AM

Quant Time: Jun 30 04:41:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W061318S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jun 16 05:18:54 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 6898     | 2.08  | ug/l   | 95       |
| 40) Benzene                    | 8.32  | 78   | 18592    | 2.36  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.49  | 41   | 1615     | 2.22  | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 6198     | 2.51  | ug/l   | 96       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 5837     | 2.48  | ug/l # | 81       |
| 44) Trichloroethene            | 9.09  | 130  | 4961     | 2.37  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 4722     | 2.35  | ug/l   | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 2394     | 2.33  | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.65  | 83   | 6178     | 2.34  | ug/l # | 96       |
| 48) Methyl methacrylate        | 9.44  | 41   | 2346     | 2.12  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 9.48  | 88   | 795      | 51.16 | ug/l # | 1        |
| 51) 4-Methyl-2-Pentanone       | 10.22 | 43   | 13800    | 11.50 | ug/l   | 95       |
| 52) Toluene                    | 10.39 | 92   | 12186    | 2.41  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 5828     | 2.16  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 10.08 | 75   | 6444     | 2.10  | ug/l   | 94       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 3309     | 2.28  | ug/l # | 87       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 3577     | 2.03  | ug/l # | 83       |
| 57) 1,3-Dichloropropane        | 10.94 | 76   | 5975     | 2.39  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 8195     | 10.38 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.98 | 43   | 9491     | 11.32 | ug/l   | 93       |
| 60) Dibromochloromethane       | 11.13 | 129  | 3908     | 2.27  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 3351     | 2.44  | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.87 | 164  | 4452     | 2.38  | ug/l   | 94       |
| 65) Chlorobenzene              | 11.66 | 112  | 12757    | 2.19  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 4295     | 2.10  | ug/l   | 97       |
| 67) Ethyl Benzene              | 11.74 | 91   | 21121    | 2.04  | ug/l   | 96       |
| 68) m/p-Xylenes                | 11.84 | 106  | 15140    | 3.85  | ug/l   | 96       |
| 69) o-Xylene                   | 12.17 | 106  | 6625     | 1.82  | ug/l   | 97       |
| 70) Styrene                    | 12.19 | 104  | 10761    | 1.78  | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 2132     | 2.01  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.47 | 105  | 18005    | 1.80  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.28 | 43   | 4812     | 2.11  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 4184     | 2.47  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 3426m    | 2.79  | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 5153     | 2.21  | ug/l   | 96       |
| 78) n-propylbenzene            | 12.81 | 91   | 24545    | 2.00  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 14525    | 2.10  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 15553    | 1.85  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 983m     | 1.84  | ug/l   |          |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 15265    | 2.08  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 13246    | 1.85  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 15595    | 1.81  | ug/l   | 97       |
| 85) sec-Butylbenzene           | 13.39 | 105  | 18610    | 1.75  | ug/l   | 96       |
| 86) p-Isopropyltoluene         | 13.51 | 119  | 15823    | 1.69  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 10065    | 2.10  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 11357    | 2.39  | ug/l   | 86       |
| 89) n-Butylbenzene             | 13.83 | 91   | 16875    | 1.85  | ug/l   | 96       |
| 90) Hexachloroethane           | 14.10 | 117  | 3635     | 2.14  | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 9360     | 2.23  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 802      | 2.82  | ug/l   | 89       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW062918\  
Data File : VW003664.D  
Acq On : 29 Jun 2018 16:50  
Operator : SY/AP  
Sample : J3762-01  
Misc : 5.00G/5ML/MSVOA W/SOIL  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
LOD-MDL-SOIL-01-QT3-2018

Manual Integrations  
APPROVED

apatel  
7/2/2018 10:30:51 AM

Quant Time: Jun 30 04:41:44 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W061318S.M  
Quant Title : SW846 8260  
QLast Update : Sat Jun 16 05:18:54 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.15 | 180  | 6054     | 2.06 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.25 | 225  | 3840     | 2.17 | ug/l  | 95       |
| 95) Naphthalene            | 15.38 | 128  | 9142     | 1.83 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 5664     | 2.19 | ug/l  | 97       |

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

