

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN062918\  
 Data File : VN049636.D  
 Acq On : 29 Jun 2018 17:23  
 Operator : MD\SY  
 Sample : VN0629WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0629WBSD01

Manual Integrations  
 APPROVED

apatel  
 7/2/2018 2:19:54 PM

Quant Time: Jun 30 01:41:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N062918W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 29 15:11:52 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 1366378  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 2123213  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1878796  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 983898   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 914543   | 50.68 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.36% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 777582   | 48.99 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.98%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 3030375  | 48.77 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.54%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 1016572  | 47.92 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.84%  |      |

## Target Compounds

|                               |      |     |         |        |        | Qvalue |
|-------------------------------|------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 312693  | 20.31  | ug/l   | 98     |
| 3) Chloromethane              | 2.06 | 50  | 371385  | 19.31  | ug/l   | 98     |
| 4) Vinyl Chloride             | 2.18 | 62  | 406994  | 19.70  | ug/l   | 97     |
| 5) Bromomethane               | 2.56 | 94  | 209045  | 19.27  | ug/l   | 96     |
| 6) Chloroethane               | 2.70 | 64  | 244378  | 18.69  | ug/l   | 98     |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 439778  | 18.64  | ug/l   | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 186709  | 19.52  | ug/l   | 93     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 325884  | 19.20  | ug/l   | 94     |
| 10) Methyl Iodide             | 3.95 | 142 | 430907  | 20.28  | ug/l   | 91     |
| 11) Tert butyl alcohol        | 4.80 | 59  | 114325  | 110.41 | ug/l # | 88     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 296663  | 18.49  | ug/l   | 88     |
| 13) Acrolein                  | 3.61 | 56  | 97159   | 100.45 | ug/l   | 100    |
| 14) Allyl chloride            | 4.32 | 41  | 418764  | 19.00  | ug/l   | 90     |
| 15) Acrylonitrile             | 4.99 | 53  | 557046  | 104.16 | ug/l   | 97     |
| 16) Acetone                   | 3.82 | 43  | 406386  | 105.66 | ug/l   | 93     |
| 17) Carbon Disulfide          | 4.05 | 76  | 850815  | 19.04  | ug/l   | 98     |
| 18) Methyl Acetate            | 4.33 | 43  | 343163  | 17.86  | ug/l   | 95     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 837385  | 20.24  | ug/l   | 98     |
| 20) Methylene Chloride        | 4.55 | 84  | 339279  | 18.26  | ug/l   | 92     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 308835  | 18.70  | ug/l   | 94     |
| 22) Diisopropyl ether         | 5.96 | 45  | 992201  | 19.89  | ug/l   | 97     |
| 23) Vinyl Acetate             | 5.90 | 43  | 3218292 | 99.51  | ug/l   | 96     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 598979  | 19.06  | ug/l   | 99     |
| 25) 2-Butanone                | 6.84 | 43  | 615026  | 102.67 | ug/l   | 96     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 497396  | 19.06  | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 358194  | 19.41  | ug/l   | 92     |
| 28) Bromochloromethane        | 7.20 | 49  | 285617  | 21.42  | ug/l # | 82     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 412666  | 108.08 | ug/l   | 93     |
| 30) Chloroform                | 7.37 | 83  | 609230  | 19.02  | ug/l   | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 534486  | 19.39  | ug/l   | 93     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 524548  | 19.34  | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 446392  | 18.69  | ug/l   | 97     |
| 37) Ethyl Acetate             | 6.94 | 43  | 294040  | 21.10  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 423500  | 18.23  | ug/l   | 98     |

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 Sample : VN0629WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VN0629WBSD01

Manual Integrations  
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apatel  
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Quant Time: Jun 30 01:41:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N062918W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 29 15:11:52 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 471935   | 18.02  | ug/l   | 96       |
| 40) Benzene                    | 8.04  | 78   | 1364035  | 18.70  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 135456   | 18.21  | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 434017   | 18.64  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 567801   | 20.18  | ug/l # | 89       |
| 44) Trichloroethene            | 8.84  | 130  | 402698   | 18.31  | ug/l   | 93       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 361003   | 19.16  | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 215498   | 18.90  | ug/l   | 91       |
| 47) Bromodichloromethane       | 9.40  | 83   | 454583   | 18.73  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.20  | 41   | 250743   | 20.25  | ug/l   | 88       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 70935    | 426.16 | ug/l # | 91       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 1401374  | 102.59 | ug/l   | 94       |
| 52) Toluene                    | 10.16 | 92   | 832709   | 18.90  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 431591   | 18.57  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 510275   | 18.79  | ug/l # | 90       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 309443   | 18.86  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 388672   | 20.21  | ug/l # | 85       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 507812   | 19.09  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 888008   | 95.01  | ug/l   | 94       |
| 59) 2-Hexanone                 | 10.75 | 43   | 936997   | 103.73 | ug/l   | 93       |
| 60) Dibromochloromethane       | 10.90 | 129  | 334492   | 18.86  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 297760   | 18.94  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 469958   | 18.47  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.44 | 112  | 909532   | 18.56  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 331071   | 18.80  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1525568  | 18.83  | ug/l   | 97       |
| 68) m/p-Xylenes                | 11.62 | 106  | 1192978  | 38.42  | ug/l   | 97       |
| 69) o-Xylene                   | 11.95 | 106  | 572482   | 19.26  | ug/l   | 95       |
| 70) Styrene                    | 11.97 | 104  | 926124   | 19.25  | ug/l   | 97       |
| 71) Bromoform                  | 12.13 | 173  | 227035   | 19.40  | ug/l   | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1511919  | 19.29  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 422670   | 19.74  | ug/l   | 93       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 351886   | 20.80  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 307501m  | 19.42  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 391184   | 18.36  | ug/l   | 90       |
| 78) n-propylbenzene            | 12.59 | 91   | 1740698  | 19.38  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 1048942  | 18.45  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1274624  | 19.57  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 88698    | 19.09  | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 1070720  | 18.73  | ug/l   | 97       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1080208  | 19.31  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1290702  | 19.29  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1436138  | 19.37  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1243433  | 19.37  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 704313   | 19.17  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 683055   | 19.00  | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 989942   | 18.01  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.88 | 117  | 123931   | 18.38  | ug/l   | 91       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 689107   | 19.20  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 57111    | 20.28  | ug/l   | 79       |

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Sample : VN0629WBSD01  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0629WBSD01

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Quant Title : SW846 8260  
QLast Update : Fri Jun 29 15:11:52 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 302140   | 18.27 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 215285   | 19.23 | ug/l  | 97       |
| 95) Naphthalene            | 15.14 | 128  | 638755   | 19.08 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 306247   | 18.85 | ug/l  | 97       |

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

