

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY092019\  
 Data File : VY000096.D  
 Acq On : 20 Sep 2019 10:07  
 Operator : SY/MD  
 Sample : VSTDCCC050  
 Misc : 5.00g/5.00ml/MSVOA Y/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 9/24/2019 5:32:22 AM

Quant Time: Sep 20 23:53:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y091719S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 19 05:38:39 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.79  | 168  | 102292   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.69  | 114  | 198620   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.49 | 117  | 171525   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.43 | 152  | 76986    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.14   | 65  | 60742    | 51.61 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.22% |      |
| 35) Dibromofluoromethane  | 7.72   | 113 | 58259    | 48.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.88%  |      |
| 50) Toluene-d8            | 10.18  | 98  | 241932   | 51.22 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.44% |      |
| 62) 4-Bromofluorobenzene  | 12.48  | 95  | 84553    | 48.21 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.42%  |      |

## Target Compounds

|                               |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.90 | 85  | 36122  | 51.322  | ug/l | 93     |
| 3) Chloromethane              | 2.11 | 50  | 42987  | 45.816  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.25 | 62  | 51610  | 45.217  | ug/l | 96     |
| 5) Bromomethane               | 2.64 | 94  | 32697  | 45.840  | ug/l | 91     |
| 6) Chloroethane               | 2.79 | 64  | 35779  | 46.765  | ug/l | 96     |
| 7) Trichlorofluoromethane     | 3.12 | 101 | 75680  | 47.955  | ug/l | 96     |
| 8) Diethyl Ether              | 3.53 | 74  | 33968  | 50.269  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.89 | 101 | 55118  | 50.908  | ug/l | 98     |
| 10) Methyl Iodide             | 4.09 | 142 | 57635  | 51.189  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.97 | 59  | 31294  | 224.298 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.87 | 96  | 49219  | 49.314  | ug/l | 98     |
| 13) Acrolein                  | 3.73 | 56  | 9901   | 125.644 | ug/l | 100    |
| 14) Allyl chloride            | 4.48 | 41  | 77018  | 50.488  | ug/l | 99     |
| 15) Acrylonitrile             | 5.17 | 53  | 97431  | 240.453 | ug/l | 98     |
| 16) Acetone                   | 3.95 | 43  | 57514  | 209.893 | ug/l | 96     |
| 17) Carbon Disulfide          | 4.19 | 76  | 87600  | 49.908  | ug/l | 99     |
| 18) Methyl Acetate            | 4.48 | 43  | 41636  | 45.481  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.23 | 73  | 160420 | 51.432  | ug/l | 99     |
| 20) Methylene Chloride        | 4.71 | 84  | 60745  | 47.125  | ug/l | 96     |
| 21) trans-1,2-Dichloroethene  | 5.21 | 96  | 54067  | 48.732  | ug/l | 99     |
| 22) Diisopropyl ether         | 6.12 | 45  | 181933 | 52.787  | ug/l | 94     |
| 23) Vinyl Acetate             | 6.06 | 43  | 590922 | 256.175 | ug/l | 97     |
| 24) 1,1-Dichloroethane        | 6.02 | 63  | 103716 | 50.843  | ug/l | 96     |
| 25) 2-Butanone                | 6.99 | 43  | 110012 | 221.658 | ug/l | 96     |
| 26) 2,2-Dichloropropane       | 6.98 | 77  | 96056  | 49.895  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.99 | 96  | 72526  | 51.629  | ug/l | 99     |
| 28) Bromochloromethane        | 7.34 | 49  | 49390  | 52.233  | ug/l | 97     |
| 29) Tetrahydrofuran           | 7.35 | 42  | 70843  | 237.769 | ug/l | 96     |
| 30) Chloroform                | 7.51 | 83  | 109539 | 52.033  | ug/l | 98     |
| 31) Cyclohexane               | 7.78 | 56  | 74578  | 51.672  | ug/l | 95     |
| 32) 1,1,1-Trichloroethane     | 7.71 | 97  | 86482  | 50.577  | ug/l | 97     |
| 36) 1,1-Dichloropropene       | 7.92 | 75  | 73246  | 49.319  | ug/l | 97     |
| 37) Ethyl Acetate             | 7.08 | 43  | 48444  | 48.936  | ug/l | 96     |
| 38) Carbon Tetrachloride      | 7.90 | 117 | 73917  | 52.734  | ug/l | 95     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y091719S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Sep 19 05:38:39 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| -----                          |       |      |          |         |        |          |
| 39) Methylcyclohexane          | 9.18  | 83   | 89484    | 49.001  | ug/l   | 94       |
| 40) Benzene                    | 8.16  | 78   | 243562   | 49.654  | ug/l   | 96       |
| 41) Methacrylonitrile          | 7.32  | 41   | 24872    | 35.560  | ug/l # | 50       |
| 42) 1,2-Dichloroethane         | 8.24  | 62   | 68534    | 52.747  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.27  | 43   | 92843    | 47.955  | ug/l   | 98       |
| 44) Trichloroethene            | 8.94  | 130  | 61993    | 49.470  | ug/l   | 91       |
| 45) 1,2-Dichloropropane        | 9.22  | 63   | 62670    | 49.320  | ug/l   | 98       |
| 46) Dibromomethane             | 9.31  | 93   | 34486    | 49.688  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.50  | 83   | 86848    | 51.567  | ug/l   | 96       |
| 48) Methyl methacrylate        | 9.29  | 41   | 41654    | 48.921  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.30  | 88   | 11210    | 831.884 | ug/l # | 93       |
| 51) 4-Methyl-2-Pentanone       | 10.07 | 43   | 258523   | 244.568 | ug/l   | 100      |
| 52) Toluene                    | 10.24 | 92   | 156234   | 50.132  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.46 | 75   | 90539    | 50.701  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.93  | 75   | 105453   | 51.137  | ug/l   | 95       |
| 55) 1,1,2-Trichloroethane      | 10.65 | 97   | 55178    | 50.709  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.51 | 69   | 78056    | 50.412  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.79 | 76   | 90451    | 49.485  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.79  | 63   | 198776   | 237.484 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.83 | 43   | 192801   | 255.664 | ug/l   | 96       |
| 60) Dibromochloromethane       | 10.99 | 129  | 60385    | 52.971  | ug/l   | 96       |
| 61) 1,2-Dibromoethane          | 11.09 | 107  | 50011    | 50.319  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.72 | 164  | 54541    | 50.662  | ug/l   | 94       |
| 65) Chlorobenzene              | 11.51 | 112  | 171321   | 50.495  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.59 | 131  | 59503    | 51.870  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.59 | 91   | 302181   | 49.906  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.70 | 106  | 239000   | 103.735 | ug/l   | 99       |
| 69) o-Xylene                   | 12.02 | 106  | 116828   | 52.369  | ug/l   | 97       |
| 70) Styrene                    | 12.04 | 104  | 204659   | 52.258  | ug/l   | 100      |
| 71) Bromoform                  | 12.21 | 173  | 34402    | 51.801  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.33 | 105  | 307497   | 49.562  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.14 | 43   | 89927    | 50.878  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.59 | 83   | 70347    | 48.167  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 43618m   | 40.268  | ug/l   |          |
| 77) Bromobenzene               | 12.61 | 156  | 65799    | 50.789  | ug/l   | 95       |
| 78) n-propylbenzene            | 12.67 | 91   | 376068   | 49.691  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.76 | 91   | 208392   | 49.253  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.81 | 105  | 259275   | 50.448  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 25885    | 45.960  | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.85 | 91   | 218518   | 49.947  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.07 | 119  | 219056   | 49.819  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.12 | 105  | 257539   | 50.828  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.25 | 105  | 324629   | 49.971  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.37 | 119  | 278499   | 50.576  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.37 | 146  | 129760   | 50.492  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.44 | 146  | 131868   | 51.065  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.69 | 91   | 288543   | 50.936  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.96 | 117  | 54358    | 50.234  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.74 | 146  | 127143   | 52.658  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.35 | 75   | 12178    | 46.832  | ug/l   | 97       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.01 | 180  | 79724    | 54.720 | ug/l  | 95       |
| 94) Hexachlorobutadiene    | 15.11 | 225  | 37000    | 52.894 | ug/l  | 100      |
| 95) Naphthalene            | 15.23 | 128  | 205646   | 49.722 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 15.42 | 180  | 71974    | 51.764 | ug/l  | 99       |

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

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