

CHEMICAL DATA - Analytes tested for in a lab, 2008 - MVTL, New Ulm

RR1 - Primary Lower Redwood River at Redwood CR17 near Redwood Falls - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S001-679

| FLOW TYPE | SAMP TYPE | DATE | TIME | LAB SAMPLE ID # | TSS MG/L | TSVS MG/L | TKN MG/L | N-NO2+NO3 MG/L | P-PO4 MG/L | TP MG/L | E.COLI /100mL | TURBIDITY NTU | Sulfate MG/L | Chloride MG/L | Ammonia | Hardness - |
|---------------|-----------|------------|-------|-----------------|----------|-----------|----------|----------------|------------|---------|---------------|---------------|--------------|---------------|---------|------------|
| | | | | | | | | | | | | | | | | CaCO3 MG/L |
| Base Flow | Grab | 1/15/2008 | 10:00 | 08-A1894 | 4 | 2 | | 6.71 | 0.541 | 0.550 | | 8 | | | | |
| Base Flow | Grab | 2/13/2008 | 9:45 | 08-A5500 | 6 | 3 | | 5.56 | 1.050 | 1.130 | | 4 | | | | |
| Base Flow | Grab | 3/4/2008 | 9:20 | 08-A7824 | 3 | 3 | | 5.21 | 1.160 | 1.170 | | 4 | | | | |
| Base Flow | Grab | 4/8/2008 | 8:15 | 08-A12968 | 19 | 6 | | 2.82 | 0.256 | 0.316 | | 14 | | | | |
| Snowmelt/Tile | Grab | 4/16/2008 | 8:35 | 08-A14676 | 26 | 8 | | 8.92 | 0.279 | 0.348 | | 17 | | | | |
| Snowmelt/Tile | Grab | 4/18/2008 | 7:45 | 08-A15199 | 211 | 28 | | 8.61 | 0.250 | 0.490 | | 120 | | | | |
| Snowmelt/Tile | Grab | 4/21/2008 | 8:00 | 08-A15423 | 104 | 14 | | 6.54 | 0.204 | 0.411 | | 74 | | | | |
| Snowmelt/Tile | Grab | 4/28/2008 | 8:00 | 08-A16808 | 110 | 16 | | 13.2 | 0.189 | 0.315 | | 64 | | | | |
| Base Flow | Grab | 5/6/2008 | 7:55 | 08-A18455 | 92 | 11 | | 10.8 | 0.120 | 0.243 | | 50 | | | | |
| Base Flow | Grab | 5/21/2008 | 7:50 | 08-A21927 | 68 | 9 | | 8.59 | 0.106 | 0.192 | 32.7 | 42 | | | | |
| Storm Flow | Grab | 6/6/2008 | 8:10 | 08-A25144 | 90 | 10 | | 10.4 | 0.198 | 0.294 | | 59 | | | | |
| Storm Flow | Grab | 6/9/2008 | 8:15 | 08-A25402 | 140 | 18 | | 13.3 | 0.176 | 0.314 | | 74 | | | | |
| Storm Flow | Grab | 6/13/2008 | 6:40 | 08-A26654 | 160 | 22 | | 13.6 | 0.199 | 0.355 | | 97 | | | | |
| Base Flow | Grab | 6/26/2008 | 7:00 | 08-A28861 | 100 | 11 | | 8.64 | 0.201 | 0.242 | 248.1 | 65 | | | | |
| Base Flow | Grab | 7/8/2008 | 9:45 | 08-A30655 | 33 | 4 | | 4.81 | 0.249 | 0.338 | | 27 | | | | |
| Base Flow | Grab | 7/31/2008 | 8:30 | 08-A35210 | 15 | 6 | 1.3 | 0.5 | 0.306 | 0.465 | 816.4 | 8 | 361^ | 65.4 | | |
| Base Flow | Grab | 8/6/2008 | 8:00 | 08-A36212 | 22 | 13 | 1.3 | <0.2 | 0.157 | 0.319 | | 13 | 419^ | 94.2 | <0.16 | |
| Base Flow | Grab | 8/26/2008 | 9:40 | 08-A40569 | 40 | 18 | 2.8 | <0.2 | 0.131 | 0.392 | 10.9 | 30 | 456^ | 115 | <0.16 | 559 |
| Base Flow | Grab | 9/15/2008 | 9:05 | 08-A44102 | 47 | 11 | 2.2 | 1.48 | 0.491* | 0.707 | | 32 | 464^ | 105 | <0.16 | 546 |
| Base Flow | Dup | 9/15/2008 | 9:05 | 08-A44100 | 46 | 11 | | 1.48 | 0.476* | 0.688 | 816.4 | 33 | | | | |
| Base Flow | Grab | 9/29/2008 | 8:50 | 08-A46288 | 36 | 13 | 1.7 | <0.2 | 0.422 | 0.617 | | 30 | 482^ | 104 | <0.16 | 631 |
| Base Flow | Dup | 9/29/2008 | 8:50 | 08-A46283 | 38 | 14 | | <0.2 | 0.415 | 0.636 | | 25 | | | | |
| Base Flow | Grab | 10/31/2008 | 9:20 | 08-A52750 | 25 | 5 | 1.4 | 2.67 | 0.667 | 0.748 | | 29* | 500^ | 60.6 | <0.16 | 662 |
| Base Flow | Grab | 11/25/2008 | 10:15 | 08-A56473 | 7 | 4 | 1.9 | 5.89 | 1.100 | 1.880 | | 9 | 606^ | 115 | <0.16 | 765 |
| Base Flow | Grab | 12/30/2008 | 10:30 | 08-A60255 | 5 | 2 | 2.0 | 4.98 | 1.260 | 1.26^ | | 6.0* | 603^ | 141 | <0.16 | 757 |

^ Sample Diluted due to result above calibration or linear range

* Sample Exceeded Holding Time

CHEMICAL DATA - Analytes tested for in a lab, 2008 - MVTL, New Ulm**CC3 - Clear Creek in Seaforth - Non-impacted stream/Western Corn Belt Plains****STORET CODE - S002-311**

| FLOW TYPE | SAMP TYPE | DATE | TIME | LAB SAMPLE ID # | TSS MG/L | TSVS MG/L | TKN MG/L | N-NO2+NO3 MG/L | P-PO4 MG/L | TP MG/L | E.COLI /100mL | TURBIDITY NTU |
|---------------|-----------|-----------|-------|-----------------|----------|-----------|----------|----------------|------------|---------|---------------|---------------|
| Base Flow | Grab | 4/8/2008 | 8:40 | 08-A12969 | 23 | 4 | | 3.99 | 0.054 | 0.112 | | 8 |
| Snowmelt/tile | Grab | 4/16/2008 | 9:00 | 08-A14677 | 7 | 4 | | 4.03 | 0.045 | 0.072 | | 9 |
| Snowmelt/tile | Grab | 4/28/2008 | 8:30 | 08-A16809 | 25 | 4 | | 21.00 | 0.096 | 0.130 | | 11 |
| Base Flow | Grab | 5/6/2008 | 8:20 | 08-A18456 | 12 | 3 | | 19.60 | 0.032 | 0.056 | | 7 |
| Base Flow | Grab | 5/21/2008 | 8:15 | 08-A21928 | 10 | 2 | | 17.90 | 0.005 | 0.022 | 60.9 | 5 |
| Storm Flow | Grab | 6/6/2008 | 8:35 | 08-A25145 | 132* | 17* | | 22.00^ | 0.098 | 0.089 | | 45 |
| Storm Flow | Grab | 6/9/2008 | 8:35 | 08-A25403 | 32 | 6 | | 19.60 | 0.043 | 0.073 | | 17 |
| Storm Flow | Grab | 6/13/2008 | 7:10 | 08-A26655 | 65 | 8 | | 22.10^ | 0.152 | 0.160 | | 33 |
| Base Flow | Grab | 6/26/2008 | 7:25 | 08-A28862 | 32 | 6 | | 17.60 | 0.034 | 0.058 | 365.4 | 20 |
| Base Flow | Grab | 7/8/2008 | 10:10 | 08-A30647 | 20 | 4 | | 10.90 | 0.044 | 0.095 | | 18 |
| Base Flow | Grab | 7/31/2008 | 9:05 | 08-A35305 | 58 | 26 | | <0.2 | 0.025 | 0.237 | 260.3 | 25 |
| Base Flow | Grab | 8/6/2008 | 8:30 | 08-A36214 | 28 | 12 | | <0.2 | 0.027 | 0.180 | | 23 |
| Base Flow | Grab | 8/26/2008 | 10:15 | 08-A40571 | 46 | 12 | | 1.19 | 0.114 | 0.176 | 866.4 | 50 |
| Base Flow | Grab | 9/15/2008 | 9:50 | 08-A44097 | 20 | 8 | | 0.46 | .065* | 0.173 | 410.6 | 14 |
| Base Flow | Grab | 9/29/2008 | 9:30 | 08-A46284 | 26 | 7 | | 0.27 | 0.056 | 0.113 | | 22 |

^ Sample Diluted due to result above calibration or linear range

* Sample Exceeded Holding Time

CHEMICAL DATA - Analytes tested for in a lab, 2008 - MVTL, New Ulm**TC4A - Three Mile Creek near Green Valley - Non-impacted stream/Western Corn Belt Plains****STORET CODE - S002-313**

| FLOW TYPE | SAMP TYPE | DATE | TIME | LAB SAMPLE ID # | TSS MG/L | TSVS MG/L | TKN MG/L | N-NO2+NO3 MG/L | P-PO4 MG/L | TP MG/L | E.COLI | TURBIDITY NTU |
|---------------|--------------|-----------|-------|--------------------|-------------|--------------|-------------|-------------------|---------------|------------|--------|------------------|
| Base Flow | Grab | 4/8/2008 | 9:30 | 08-A12970 | 14 | 3 | | 3.40 | 0.055 | 0.094 | | 8 |
| Snowmelt/tile | Grab | 4/16/2008 | 9:50 | 08-A14678 | 189 | 28 | | 14.70 | 0.163 | 0.375 | | 120 |
| Snowmelt/tile | Grab | 4/18/2008 | 8:50 | 08-A15200 | 54 | 8 | | 11.40 | 0.115 | 0.183 | | 43 |
| Snowmelt/tile | Grab | 4/21/2008 | 8:45 | 08-A15424 | 56 | 8 | | 7.43 | 0.056 | 0.137 | | 37 |
| Snowmelt/tile | Grab | 4/28/2008 | 9:20 | 08-A16810 | 49 | 8 | | 12.40 | 0.091 | 0.154 | | 29 |
| Base Flow | Grab | 5/6/2008 | 9:00 | 08-A18457 | 22 | 6 | | 9.95 | 0.024 | 0.067 | | 14 |
| Base Flow | Grab | 5/21/2008 | 9:00 | 08-A21929 | 20 | 6 | | 9.10 | 0.006 | 0.032 | 51.2 | 11 |
| Storm Flow | Grab | 6/6/2008 | 9:25 | 08-A25146 | 156* | 23* | | 14.90 | 0.248 | 0.474 | | 52 |
| Storm Flow | Grab | 6/9/2008 | 9:15 | 08-A25404 | 51 | 4 | | 14.10 | 0.072 | 0.080 | | 33 |
| Storm Flow | Grab | 6/13/2008 | 7:45 | 08-A26661 | 86 | 13 | | 14.90 | 0.162 | 0.186 | | 58 |
| Base Flow | Grab | 6/26/2008 | 8:15 | 08-A28863 | 60 | 9 | | 10.50 | 0.047 | 0.070 | 365.4 | 42 |
| Base Flow | Grab | 7/8/2008 | 10:50 | 08-A30648 | 57 | 8 | | 4.40 | 0.051 | 0.131 | | 45 |
| Base Flow | Grab | 7/31/2008 | 9:50 | 08-A35306 | 52 | 10 | | 0.83 | 0.100 | 0.171 | 517.2 | 49 |
| Base Flow | Grab | 8/6/2008 | 9:10 | 08-A36215 | 72 | 12 | | 0.68 | 0.116 | 0.180 | | 61 |
| Base Flow | Grab | 8/26/2008 | 11:10 | 08-A40572 | 15 | 4 | | <0.2 | 0.015 | 0.055 | 980.4 | 14 |
| Base Flow | Grab | 9/15/2008 | 11:00 | 08-A44098 | 12 | 3 | | <0.2 | 0.025 | 0.048 | 222.4 | 11 |
| Base Flow | Grab | 9/29/2008 | 10:20 | 08-A46285 | 18 | 4 | | <0.2 | 0.022 | 0.066 | | 18 |

^ Sample Diluted due to result above calibration or linear range

* Sample Exceeded Holding Time

CHEMICAL DATA - Analytes tested for in a lab, 2008 - MVTL, New Ulm

RRUS - Redwood River at Russell - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S000-696

| FLOW TYPE | SAMP TYPE | DATE | TIME | LAB SAMPLE ID # | TSS MG/L | TSVS MG/L | TKN MG/L | N-NO2+NO3 MG/L | P-PO4 MG/L | TP MG/L | E.COLI | TURB NTU |
|---------------|--------------|-----------|-------|--------------------|-------------|--------------|-------------|-------------------|---------------|------------|--------|-------------|
| Base Flow | Grab | 4/8/2008 | 10:15 | 08-A12971 | 18 | 5 | | 2.02 | 0.045 | 0.098 | | 16 |
| Snowmelt/tile | Grab | 4/16/2008 | 10:40 | 08-A14679 | 176 | 22 | | 6.94 | 0.158 | 0.366 | | 110 |
| Snowmelt/tile | Grab | 4/18/2008 | 9:40 | 08-A15201 | 54 | 8 | | 4.89 | 0.097 | 0.185 | | 44 |
| Snowmelt/tile | Grab | 4/28/2008 | 10:10 | 08-A16811 | 37 | 3 | | 5.33 | 0.026 | 0.099 | | 27 |
| Base Flow | Grab | 5/6/2008 | 9:45 | 08-A18458 | 23 | 6 | | 4.22 | 0.007 | 0.057 | | 15 |
| Base Flow | Grab | 5/21/2008 | 10:00 | 08-A21930 | 24 | 7 | | 3.49 | <0.005 | 0.041 | 41.4 | 12 |
| Storm Flow | Grab | 6/6/2008 | 10:05 | 08-A25147 | 178 | 21 | | 8.36 | 0.109 | 0.240 | | 92 |
| Storm Flow | Grab | 6/9/2008 | 9:55 | 08-A25405 | 64 | 12 | | 6.17 | 0.085 | 0.171 | | 39 |
| Storm Flow | Grab | 6/13/2008 | 8:25 | 08-A26662 | 117 | 12 | | 6.55 | 0.102 | 0.227 | | 73 |
| Base Flow | Grab | 6/26/2008 | 9:00 | 08-A28864 | 23 | 4 | | 3.52 | 0.036 | 0.063 | 166.4 | 18 |
| Base Flow | Grab | 7/8/2008 | 11:40 | 08-A30649 | 30 | 7 | | 1.48 | 0.068 | 0.127 | | 19 |
| Base Flow | Grab | 7/31/2008 | 10:45 | 08-A35307 | 17 | 3 | | 0.97 | 0.133 | 0.189 | 920.8 | 18 |
| Base Flow | Grab | 8/6/2008 | 9:50 | 08-A36216 | 11 | 3 | | 0.44 | 0.101 | 0.138 | | 16 |
| Base Flow | Grab | 8/26/2008 | 12:00 | 08-A40573 | 6 | 5 | | 0.35 | 0.026 | 0.050 | 547.5 | 3.2 |
| Base Flow | Dup. | 8/26/2008 | 12:00 | 08-A40575 | 2 | 2 | | 0.35 | 0.027 | 0.048 | | 2.6 |
| Base Flow | Grab | 9/15/2008 | 11:50 | 08-A44099 | 3 | 2 | | <0.2 | <0.02 | 0.020 | 137.6 | 3.0 |
| Base Flow | Grab | 9/29/2008 | 11:10 | 08-A46286 | 4 | <2 | | <0.2 | 0.015 | 0.028 | | 4.0 |

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