

# Yellow Creek Watershed Assessment

January 2022

Appendix 5: All water quality data collected and organized for this study. Data are provided in Microsoft Excel and .pdf formats.

- Table 1. Data details
- Table 2. Sampling locations
- Table 3. Chemical data
- Table 4. Detailed cross sections
- Table 5. Lucerne monitoring wells
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- Table 8. LYC in-stream
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**Table 1**  
**Data Details**

**This data was compiled by Hedin Environmental for the 2022 Yellow Creek Watershed Assessment**

| <b>Table, Excel Tab Name</b>      | <b>Notes</b>   |
|-----------------------------------|--|
| Table 1, Data details             | Details of the data contained in Appendix 5  |
| Table 2, Sampling locations       | Sampling locations (latitude and longitude) and description of what data was collected at each sampling location.  |
| Table 3, Chemical data            | All field and lab data collected during the quarterly sampling and monthly discharge sampling.   |
| Table 4, Detailed Cross sections  | Field and lab data collected for locations LYC 10.5 and LYC 11. Water quality varies from the eastern bank of the stream (clean) to the western bank (polluted).   |
| Table 5, Lucerne monitoring wells | Monitoring well data recorded from the Lucerne refuse pile mining permit (#32950202) from a file review from PADEP's Cambria District Mining Office. Quarterly sampling data before 2019 exists in the PADEP file but was not recorded for this project. |
| Table 6, Colver MW-2              | Colver groundwater well (MW-2) data. Data provided by PADEP in December 2021.  |
| Table 7, Colver MW-3              | Colver groundwater well (MW-3) data. Data provided by PADEP in December 2021.  |
| Table 8, LYC Instream             | Yellow Creek instream chemistry collected from monitoring points above the refuse pile (L-6) and below the refuse pile (L-13). Data is collected for the Lucerne refuse pile mining permit (#32950202).  |
| Table 9, Historical Data          | Historical data collected for Yellow Creek. Most of the data collected for the Yellow Creek report by George Chakot is included in the 2005 watershed assessment report.   |

**Table 2**  
**Sample Locations**

| DEP Alias | Sequence # | Description   | Lat        | Lon         | County  | Township           | Map Quad     | Sample Type | Measuring           |
|-----------|------------|---|------------|-------------|---------|--------------------|--------------|-------------|---------------------|
| D-1       | 2          | 954 Seep North                                      | 40.5677936 | -79.1264676 | Indiana | Brush Valley       | Indiana      | Discharge   | Flow, AMD           |
| D-12      | 42         | Tide refuse diversion ditch effluent                | 40.561092  | -79.128589  | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD chemistry |
| D-13      | 43         | Mitigation wetland effluent                         | 40.560301  | -79.128877  | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD           |
| D-14      | 44         | Corrugated pipe discharge @ Lucerne refuse pile     | 40.550207  | -79.151009  | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD chemistry |
| D-15      | 45         | Sipos Mine discharge                                | 40.551765  | -79.115861  | Indiana | Center Township    | Brush Valley | Discharge   | Flow, AMD           |
| D-16      | 46         | Ditch along Rt 119 south                            | 40.54905   | -79.155853  | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD           |
| D-2       | 3          | 954 Seep South                                      | 40.5675747 | -79.1263491 | Indiana | Brush Valley       | Indiana      | Discharge   | Flow, AMD           |
| D-3       | 8          | Tide Mine Discharge                                 | 40.5619383 | -79.1272321 | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD           |
| D-4       | 9          | Judy 14 Discharge                                   | 40.557094  | -79.115539  | Indiana | Brush Valley       | Brush Valley | Discharge   | Flow, AMD           |
| D-5       | 13         | Nancy Mine Discharge                                | 40.552194  | -79.124879  | Indiana | Center Township    | Brush Valley | Discharge   | Flow, AMD           |
| D-6       | 17         | Lucerne Portal Discharge, at source                 | 40.5588659 | -79.1412649 | Indiana | White Township     | Indiana      | Discharge   | AMD Chemistry       |
| D-6B      | 19         | Lucerne Portal Discharge, at stream                 | 40.557314  | -79.142758  | Indiana | Center Township    | Indiana      | Discharge   | AMD Chemistry       |
| D-7       | 21         | Concrete Pipe Discharge                             | 40.550481  | -79.151201  | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD           |
| D-8       | 22         | Refuse Pile Trib                                    | 40.5502009 | -79.150917  | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD           |
| D-9       | 24         | Route 119 Borehole source                           | 40.549863  | -79.155119  | Indiana | Center Township    | Indiana      | Discharge   | AMD Chemistry       |
| D-9A      | 25         | Route 119 Borehole at weir                          | 40.5489042 | -79.1551477 | Indiana | Center Township    | Indiana      | Discharge   | Flow, AMD           |
| LYC-1     | 1          | YC above Rt. 954 Bridge                             | 40.5690318 | -79.1273237 | Indiana | Brush Valley       | Indiana      | In-stream   | Flow, AMD           |
| LYC-10    | 20         | YC below Lucerne Portal Discharge above Refuse Pile | 40.556268  | -79.146235  | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD chemistry |
| LYC-10.5  | 36         | YC mid-refuse pile                                  | 40.5526084 | -79.1504988 | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD           |
| LYC-11    | 23         | YC above Route 119                                  | 40.5481095 | -79.1530621 | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD           |
| LYC-12    | 26         | YC Mouth (@ Floodway                                | 40.544154  | -79.159587  | Indiana | Homer City Borough | Indiana      | In-stream   | Flow, AMD           |
| LYC-2     | 6          | YC above Judy 14 Trib                               | 40.5627536 | -79.1279806 | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD           |
| LYC-3     | 7          | Judy 14 Trib Mouth                                  | 40.5620505 | -79.1275668 | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD           |
| LYC-4     | 10         | Judy 14 Trib above Snyder                           | 40.5577826 | -79.1146319 | Indiana | Brush Valley       | Brush Valley | In-stream   | AMD Chemistry       |
| LYC-5     | 11         | YC above Tide Trib                                  | 40.5568526 | -79.1321668 | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD           |
| LYC-6     | 12         | Tide Trib Mouth above Tide Rd.                      | 40.55427   | -79.1292254 | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD chemistry |
| LYC-7     | 14         | Tide Trib above Ondo Trib                           | 40.5515548 | -79.1169402 | Indiana | Center Township    | Brush Valley | In-stream   | AMD Chemistry       |
| LYC-8     | 15         | Ondo Trib above Tide Trib                           | 40.5517246 | -79.1169115 | Indiana | Center Township    | Brush Valley | In-stream   | AMD Chemistry       |
| LYC-9     | 16         | YC above Lucerne #1 & #3                            | 40.5572668 | -79.142063  | Indiana | Center Township    | Indiana      | In-stream   | Flow, AMD           |
| UYC-1     | 27         | YC in Mentcle                                       | 40.6376019 | -78.8875256 | Indiana | Pine Township      | Commodore    | In-stream   | AMD Chemistry       |
| UYC-2     | 28         | Leonard Run at foot bridge                          | 40.614172  | -78.9213549 | Indiana | Pine Township      | Strongstown  | In-stream   | AMD Chemistry       |
| UYC-3     | 29         | YC Below Leonard Run                                | 40.6179346 | -78.9237627 | Indiana | Pine Township      | Strongstown  | In-stream   | AMD Chemistry       |

**Table 2  
Sample Locations**

| <b>DEP Alias</b> | <b>Sequence #</b> | <b>Description</b>                                   | <b>Lat</b> | <b>Lon</b>  | <b>County</b> | <b>Township</b>     | <b>Map Quad</b> | <b>Sample Type</b>       | <b>Measuring</b>    |
|------------------|-------------------|--|------------|-------------|---------------|---------------------|-----------------|--------------------------|---------------------|
| UYC-4            | 30                | YC at Spruce Grove Road                              | 40.6128457 | -78.9565236 | Indiana       | Cherryhill Township | Strongstown     | In-stream                | AMD Chemistry       |
| UYC-5            | 31                | YC above Reservoir                                   | 40.5831062 | -79.0025297 | Indiana       | Cherryhill Township | Brush Valley    | In-stream                | Flow, AMD           |
| UYC-6            | 32                | LYC at Malloy Hollow Road                            | 40.5723565 | -78.9248305 | Indiana       | Pine Township       | Brush Valley    | In-stream                | AMD Chemistry       |
| UYC-7            | 33                | LYC at SR 2027                                       | 40.5569323 | -79.0064631 | Indiana       | Brush Valley        | Strongstown     | In-stream                | Flow, AMD           |
| 1A out           | 4                 | 1A System Out  | 40.5669855 | -79.1270461 | Indiana       | Center Township     | Indiana         | Passive Treatment System | Flow, AMD chemistry |
| 1B out           | 5                 | 1B System Out  | 40.5668034 | -79.1270757 | Indiana       | Center Township     | Indiana         | Passive Treatment System | Flow, AMD chemistry |
| 2A/2B out        | 41                | 2A/2B system final effluent                          | 40.563773  | -79.127594  | Indiana       | Center Township     | Indiana         | Passive Treatment System | Flow, AMD chemistry |
| 2C out           | n/a               | 2C System Out  | 40.561877  | -79.128078  | Indiana       | Center Township     | Indiana         | Passive Treatment System | n/a                 |
| MW-3             | n/a               | Lucerne refuse pile monitoring well, permit location | 40.548333  | -79.151667  | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Chemistry           |
| MW-4             | n/a               | Lucerne refuse pile monitoring well, permit location | 40.550351  | -79.15091   | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Chemistry           |
| MW-5             | n/a               | Lucerne refuse pile monitoring well, permit location | 40.553917  | -79.148902  | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Chemistry           |
| L-6              | n/a               | Upstream of Lucerne refuse pile, permit location     | 40.556111  | -79.146389  | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Chemistry           |
| L-13             | n/a               | Downstream of Lucerne refuse pile, permit location   | 40.548611  | -79.154722  | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Chemistry           |
| L-12             | n/a               | Lucerne No. 2 mine borehole discharge                | 40.548056  | -79.154722  | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Flow, AMD chemistry |
| L-4              | n/a               | Lucerne No. 2 mine discharge                         | 40.55671   | -79.142548  | Indiana       | Center Township     | Indiana         | Lucerne refuse pile      | Flow, AMD chemistry |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description                           | Flow          | pH, field   | pH, lab    | Cond, field | Cond, lab  | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe          | Al          | Mn         | SO <sub>4</sub> | Ca    | Mg   | Na   | K    | Cl   | Ni    | Zn    | Br    |
|------------|--------|-----------|---------------------------------------|---------------|-------------|------------|-------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|-------------|------------|-----------------|-------|------|------|------|------|-------|-------|-------|
|            |        |           |                                       | gpm           | s.u         | s.u        | uS/cm       | umhos/cm   | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L        | mg/L        | mg/L       | mg/L            | mg/L  | mg/L | mg/L | mg/L | mg/L | mg/L  | mg/L  | mg/L  |
| 11/17/2019 | 001    | LYC-1     | YC above Rt. 954 Bridge               | 5,296         | 7.06        | 7.4        |             | 207        | 32                        | 37                        | -31                       | -32                       | 0.2         | <0.3        | 0.1        | 45              | 20.3  | 6.0  | 10.0 | 1.7  | 9.3  | <0.05 | 0.03  | <0.20 |
| 2/24/2020  | 001    | LYC-1     | YC above Rt. 954 Bridge               | not measured  | 7.06        | 6.7        |             | 156        | 22                        | 18                        | -11                       | -21                       | 0.2         | <0.3        | 0.1        | 37              | 14.5  | 4.5  | 5.6  | 1.2  | 7.6  | <0.05 | <0.30 | <0.20 |
| 9/20/2020  | 001    | LYC-1     | YC above Rt. 954 Bridge               | 4,991         | 7.98        | 7.6        |             | 199        | 38                        | 41                        | -37                       | -37                       | 0.1         | 0.0         | 0.3        | 43              | 18.4  | 5.7  | 9.7  | 1.3  | 7.2  | <0.05 | <0.03 | <0.20 |
| 5/25/2021  | 001    | LYC-1     | YC above Rt. 954 Bridge               | 22,624        | 7.43        | 6.6        |             | 167        | 13                        | 24                        | -13                       | -11                       | 0.2         | 0.3         | 0.1        | 38              | 17.1  | 5.2  | 6.3  | 1.4  | 8.0  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>YC above Rt. 954 Bridge</b>        | <b>10,970</b> | <b>7.38</b> | <b>7.1</b> |             | <b>182</b> | <b>26</b>                 | <b>30</b>                 | <b>-23</b>                | <b>-25</b>                | <b>0.2</b>  | <b>0.2</b>  | <b>0.1</b> | <b>41</b>       |       |      |      |      |      |       |       |       |
| 11/17/2019 | 006    | LYC-2     | YC above Judy 14 Trib                 | 4,834         | 6.01        | 7.8        |             | 467        | 45                        | 58                        | -52                       | -44                       | 0.2         | <0.3        | 0.1        | 129             | 27.5  | 8.4  | 52.8 | 2.1  | 38.6 | 0.05  | <0.03 | 0.25  |
| 9/20/2020  | 006    | LYC-2     | YC above Judy 14 Trib                 | 4,865         | 8.58        | 7.8        |             | 443        | 58                        | 59                        | -52                       | -56                       | 0.2         | 0.0         | 0.3        | 104             | 25.8  | 7.9  | 48.4 | 1.9  | 35.9 | 0.05  | 0.03  | 0.27  |
| 5/25/2021  | 006    | LYC-2     | YC above Judy 14 Trib                 | 24,595        | 7.16        | 6.6        |             | 151        | 22                        | 25                        | -15                       | -20                       | 0.2         | 0.3         | 0.1        | 31              | 15.0  | 4.6  | 6.9  | 1.3  | 8.6  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>YC above Judy 14 Trib</b>          | <b>11,431</b> | <b>7.25</b> | <b>7.4</b> |             | <b>354</b> | <b>42</b>                 | <b>48</b>                 | <b>-40</b>                | <b>-40</b>                | <b>0.2</b>  | <b>0.2</b>  | <b>0.1</b> | <b>88</b>       |       |      |      |      |      |       |       |       |
| 11/17/2019 | 007    | LYC-3     | Judy 14 Trib Mouth                    | 76            | 2.77        | 3.2        |             | 924        | 0                         | 0                         | 180                       | 135                       | 5.2         | 15.6        | 4.1        | 467             | 81.5  | 25.9 | 6.8  | 2.9  | 9.4  | 0.15  | 0.31  | <0.20 |
| 2/24/2020  | 007    | LYC-3     | Judy 14 Trib Mouth                    | not measured  | 3.41        | 3.4        |             | 659        | 0                         | 0                         | 97                        | 83                        | 6.0         | 8.8         | 1.9        | 253             | 53.1  | 17.7 | 4.5  | 2.0  | 7.2  | 0.09  | 0.19  | <0.20 |
| 9/20/2020  | 007    | LYC-3     | Judy 14 Trib Mouth                    | 2             | 3.34        | 3.3        |             | 945        | 0                         | 0                         | 154                       | 92                        | 0.4         | 6.1         | 18.1       | 403             | 81.6  | 28.5 | 9.1  | 1.8  | 11.0 | 0.21  | 0.41  | <0.20 |
| 5/25/2021  | 007    | LYC-3     | Judy 14 Trib Mouth                    | 22            | 3.43        | 3.2        |             | 702        | 0                         | 0                         | 111                       | 99                        | 3.5         | 10.3        | 2.3        | 429             | 60.7  | 20.2 | 6.1  | 2.5  | 7.4  | 0.13  | 0.24  | <0.20 |
| <b>AVG</b> |        |           | <b>Judy 14 Trib Mouth</b>             | <b>33</b>     | <b>3.24</b> | <b>3.3</b> |             | <b>808</b> | <b>0</b>                  | <b>0</b>                  | <b>135</b>                | <b>102</b>                | <b>3.8</b>  | <b>10.2</b> | <b>6.6</b> | <b>388</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 010    | LYC-4     | Judy 14 Trib above Snyder Rd.         | not measured  | 3.83        | 3.6        |             | 615        | 0                         | 0                         | 91                        | 88                        | 10.8        | 9.1         | 2.9        | 271             | 55.9  | 18.2 | 2.8  | 2.1  | 4.5  | 0.12  | 0.25  | <0.20 |
| 2/24/2020  | 010    | LYC-4     | Judy 14 Trib above Snyder Rd.         | not measured  | 3.45        | 3.6        |             | 441        | 0                         | 0                         | 57                        | 55                        | 4.4         | 5.7         | 1.5        | 182             | 38.0  | 14.2 | 2.1  | 1.9  | 2.4  | 0.08  | 0.17  | <0.20 |
| 9/20/2020  | 010    | LYC-4     | Judy 14 Trib above Snyder Rd.         | not measured  | 3.04        | 3.1        |             | 1448       | 0                         | 0                         | 322                       | 286                       | 79.4        | 13.0        | 17.8       | 688             | 134.9 | 38.2 | 8.2  | 2.7  | 10.8 | 0.35  | 0.59  | <0.20 |
| 5/25/2021  | 010    | LYC-4     | Judy 14 Trib above Snyder Rd.         | not measured  | 3.64        | 3.6        |             | 531        | 0                         | 0                         | 72                        | 61                        | 5.8         | 6.5         | 1.7        | 318             | 43.8  | 15.6 | 2.4  | 1.8  | 2.8  | 0.11  | 0.20  | <0.20 |
| <b>AVG</b> |        |           | <b>Judy 14 Trib above Snyder Rd.</b>  |               | <b>3.49</b> | <b>3.5</b> |             | <b>759</b> | <b>0</b>                  | <b>0</b>                  | <b>136</b>                | <b>123</b>                | <b>25.1</b> | <b>8.6</b>  | <b>6.0</b> | <b>365</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 011    | LYC-5     | YC above Tide Trib                    | 5,732         | 6.40        | 7.4        |             | 457        | 40                        | 49                        | -41                       | -36                       | 0.4         | 0.5         | 0.2        | 136             | 27.7  | 8.4  | 47.1 | 2.2  | 35.3 | <0.05 | <0.03 | 0.23  |
| 9/20/2020  | 011    | LYC-5     | YC above Tide Trib                    | 5,485         | 8.03        | 7.9        |             | 449        | 54                        | 57                        | -48                       | -53                       | 0.3         | 0.1         | 0.3        | 107             | 25.8  | 7.9  | 47.6 | 1.9  | 35.9 | 0.05  | 0.03  | 0.28  |
| 5/25/2021  | 011    | LYC-5     | YC above Tide Trib                    | 23,878        | 6.96        | 6.4        |             | 182        | 13                        | 23                        | -10                       | -8                        | 0.4         | 0.7         | 0.1        | 47              | 17.9  | 4.9  | 6.7  | 1.7  | 8.7  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>YC above Tide Trib</b>             | <b>11,698</b> | <b>7.13</b> | <b>7.2</b> |             | <b>363</b> | <b>36</b>                 | <b>43</b>                 | <b>-33</b>                | <b>-32</b>                | <b>0.3</b>  | <b>0.4</b>  | <b>0.2</b> | <b>97</b>       |       |      |      |      |      |       |       |       |
| 11/17/2019 | 012    | LYC-6     | Tide Trib Mouth above Tide Rd.        | 137           | 2.86        | 3.2        |             | 880        | 0                         | 0                         | 108                       | 95                        | 7.8         | 7.8         | 3.0        | 432             | 78.0  | 25.7 | 11.8 | 2.9  | 17.1 | 0.08  | 0.19  | <0.20 |
| 2/24/2020  | 012    | LYC-6     | Tide Trib Mouth above Tide Rd.        | 598           | 4.78        | 4.8        |             | 557        | 3                         | 1                         | 32                        | 28                        | 7.3         | 2.7         | 1.0        | 252             | 54.9  | 19.2 | 10.4 | 1.9  | 14.3 | <0.05 | 0.08  | <0.20 |
| 9/20/2020  | 012    | LYC-6     | Tide Trib Mouth above Tide Rd.        | 27            | 3.11        | 3.0        |             | 1228       | 0                         | 0                         | 193                       | 120                       | 5.2         | 5.1         | 17.7       | 504             | 123.1 | 34.5 | 9.2  | 3.0  | 13.3 | 0.15  | 0.32  | <0.20 |
| 5/25/2021  | 012    | LYC-6     | Tide Trib Mouth above Tide Rd.        | 137           | 4.35        | 3.6        |             | 640        | 0                         | 0                         | 48                        | 42                        | 4.1         | 3.5         | 1.2        | 507             | 63.9  | 20.6 | 13.3 | 2.4  | 18.4 | <0.05 | 0.08  | <0.20 |
| <b>AVG</b> |        |           | <b>Tide Trib Mouth above Tide Rd.</b> | <b>225</b>    | <b>3.78</b> | <b>3.7</b> |             | <b>826</b> | <b>1</b>                  | <b>0</b>                  | <b>95</b>                 | <b>71</b>                 | <b>6.1</b>  | <b>4.8</b>  | <b>5.7</b> | <b>424</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 014    | LYC-7     | Tide Trib above Ondo Trib             | not measured  | 4.66        | 5.0        |             | 462        | 10                        | 1                         | 5                         | -3                        | <0.1        | 0.9         | 0.7        | 240             | 50.2  | 18.7 | 4.5  | 2.4  | 5.5  | <0.05 | 0.10  | <0.20 |
| 9/20/2020  | 014    | LYC-7     | Tide Trib above Ondo Trib             | not measured  | 6.32        | 3.0        |             | 1204       | 0                         | 0                         | 150                       | 130                       | 18.4        | 6.2         | 7.0        | 469             | 98.9  | 34.9 | 11.2 | 3.0  | 17.1 | 0.12  | 0.29  | <0.20 |
| 5/25/2021  | 014    | LYC-7     | Tide Trib above Ondo Trib             | not measured  | 4.23        | 4.1        |             | 580        | 0                         | 0                         | 28                        | 28                        | 8.9         | 1.0         | 1.3        | 323             | 54.3  | 19.4 | 17.8 | 2.4  | 22.8 | <0.05 | 0.09  | <0.20 |
| <b>AVG</b> |        |           | <b>Tide Trib above Ondo Trib</b>      |               | <b>5.07</b> | <b>4.0</b> |             | <b>749</b> | <b>3</b>                  | <b>0</b>                  | <b>61</b>                 | <b>51</b>                 | <b>13.7</b> | <b>2.7</b>  | <b>3.0</b> | <b>344</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 015    | LYC-8     | Ondo Trib above Tide Trib             | not measured  | 4.63        | 4.6        |             | 909        | 0                         | 0                         | 109                       | 100                       | 35.8        | 5.2         | 3.1        | 487             | 86.9  | 26.7 | 28.4 | 3.2  | 44.0 | 0.08  | 0.17  | <0.20 |
| 9/20/2020  | 015    | LYC-8     | Ondo Trib above Tide Trib             | 0             |             |            |             |            |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| <b>AVG</b> |        |           | <b>Ondo Trib above Tide Trib</b>      |               | <b>4.63</b> | <b>4.6</b> |             | <b>909</b> | <b>0</b>                  | <b>0</b>                  | <b>109</b>                | <b>100</b>                | <b>35.8</b> | <b>5.2</b>  | <b>3.1</b> | <b>487</b>      |       |      |      |      |      |       |       |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias    | Description  | Flow          | pH, field   | pH, lab    | Cond, field | Cond, lab  | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe          | Al         | Mn         | SO <sub>4</sub> | Ca   | Mg   | Na   | K    | Cl   | Ni    | Zn    | Br    |
|------------|--------|--------------|--|---------------|-------------|------------|-------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|------------|------------|-----------------|------|------|------|------|------|-------|-------|-------|
|            |        |              |  | gpm           | s.u         | s.u        | uS/cm       | umhos/cm   | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L        | mg/L       | mg/L       | mg/L            | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L  | mg/L  | mg/L  |
| 11/17/2019 | 016    | LYC-9        | YC above Lucerne #1 & #3                                   | 6,118         | 6.93        | 7.4        |             | 425        | 60                        | 47                        | -5                        | -56                       | 0.4         | 0.5        | 0.2        | 125             | 29.6 | 8.6  | 42.6 | 2.3  | 31.9 | <0.05 | <0.03 | <0.20 |
| 2/24/2020  | 016    | LYC-9        | YC above Lucerne #1 & #3                                   | 49,135        | 7.05        | 6.6        |             | 189        | 19                        | 16                        | -9                        | -14                       | 0.7         | 0.6        | 0.1        | 45              | 15.1 | 4.8  | 11.5 | 1.4  | 11.3 | <0.05 | <0.30 | <0.20 |
| 9/20/2020  | 016    | LYC-9        | YC above Lucerne #1 & #3                                   | 5,817         | 7.81        | 7.7        |             | 407        | 63                        | 55                        | -52                       | -62                       | 0.2         | 0.1        | 0.3        | 100             | 27.0 | 8.2  | 43.3 | 1.8  | 31.6 | 0.05  | 0.03  | 0.23  |
| 5/25/2021  | 016    | LYC-9        | YC above Lucerne #1 & #3                                   | 23,610        | 7.15        | 6.6        |             | 175        | 21                        | 26                        | -11                       | -17                       | 0.3         | 0.5        | 0.1        | 45              | 17.2 | 5.1  | 6.8  | 1.4  | 8.5  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |              | <b>YC above Lucerne #1 &amp; #3</b>                        | <b>21,170</b> | <b>7.24</b> | <b>7.1</b> |             | <b>299</b> | <b>41</b>                 | <b>36</b>                 | <b>-19</b>                | <b>-37</b>                | <b>0.4</b>  | <b>0.4</b> | <b>0.2</b> | <b>79</b>       |      |      |      |      |      |       |       |       |
| 11/17/2019 | 020    | LYC-10       | YC below Lucerne Portal Discharge above Refuse Pile        | 6,450         | 7.04        | 7.2        |             | 462        | 26                        | 42                        | -32                       | -21                       | 0.6         | 0.5        | 0.3        | 146             | 34.6 | 10.2 | 44.1 | 2.4  | 32.5 | <0.05 | <0.03 | <0.20 |
| 9/20/2020  | 020    | LYC-10       | YC below Lucerne Portal Discharge above Refuse Pile        | 4,684         | 7.63        | 7.6        |             | 422        | 57                        | 51                        | -48                       | -55                       | 0.4         | 0.2        | 0.3        | 109             | 28.5 | 8.7  | 43.2 | 1.8  | 31.9 | <0.05 | 0.03  | 0.23  |
| 5/25/2021  | 020    | LYC-10       | YC below Lucerne Portal Discharge above Refuse Pile        | 29,353        | 6.93        | 6.6        |             | 199        | 22                        | 22                        | -10                       | -18                       | 0.3         | 0.6        | 0.2        | 56              | 19.1 | 5.8  | 7.5  | 1.4  | 9.2  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |              | <b>YC below Lucerne Portal Discharge above Refuse Pile</b> | <b>13,496</b> | <b>7.20</b> | <b>7.1</b> |             | <b>361</b> | <b>35</b>                 | <b>38</b>                 | <b>-30</b>                | <b>-31</b>                | <b>0.4</b>  | <b>0.4</b> | <b>0.3</b> | <b>104</b>      |      |      |      |      |      |       |       |       |
| 2/24/2020  |        | LYC-10.5 AVG | YC mid-refuse pile   | 50,212        | 5.81        | 5.40       |             | 327        | 9                         | 6                         | 50                        | 41                        | 12.5        | 4.5        | 0.4        | 110             | 21.6 | 6.9  | 12.6 | 1.5  | 13.4 | <0.05 | 0.13  | <0.20 |
| 9/20/20    |        | LYC-10.5 AVG | YC mid-refuse pile   | 4,684         | 6.00        | 5.90       |             | 553        | 26                        | 22                        | 32                        | 29                        | 21.1        | 0.6        | 7.4        | 195             | 34.3 | 10.5 | 42.8 | 2.0  | 31.7 | 0.12  | 0.25  | 0.23  |
| 5/25/2021  |        | LYC-10.5 AVG | YC mid-refuse pile   | 27,198        | 6.60        | 6.70       |             | 216        | 13                        | 19                        | -6                        | -6                        | 0.8         | 0.9        | 0.3        | 66              | 20.8 | 6.6  | 8.1  | 1.5  | 9.3  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |              | <b>YC mid-refuse pile</b>                                  | <b>27,365</b> | <b>6.13</b> | <b>6.0</b> |             | <b>365</b> | <b>16</b>                 | <b>15</b>                 | <b>25</b>                 | <b>21</b>                 | <b>11.5</b> | <b>2.0</b> | <b>2.7</b> | <b>123</b>      |      |      |      |      |      |       |       |       |
| 2/24/2020  |        | LYC-11 AVG   | YC above Route 119 Borehole                                | 50,001        | 6.12        | 5.85       |             | 265        | 10                        | 6                         | 12                        | 9                         | 4.2         | 1.9        | 0.3        | 85              | 21.4 | 6.8  | 12.9 | 1.6  | 13.0 | <0.05 | 0.06  | <0.20 |
| 9/20/20    |        | LYC-11 AVG   | YC above Route 119 Borehole                                | 6,484         | 6.11        | 6.15       |             | 533        | 27                        | 14                        | 14                        | 11                        | 14.4        | 0.6        | 4.8        | 184             | 35.1 | 10.6 | 44.6 | 2.3  | 33.8 | 0.06  | 0.09  | 0.24  |
| 5/25/2021  |        | LYC-11 AVG   | YC above Route 119 Borehole                                | 30,240        | 5.89        | 5.75       |             | 249        | 12                        | 7                         | 7                         | 8                         | 3.7         | 2.1        | 0.3        | 88              | 22.7 | 7.0  | 8.3  | 1.6  | 9.6  | <0.05 | 0.05  | <0.20 |
| <b>AVG</b> |        |              | <b>YC above Route 119 Borehole</b>                         | <b>28,908</b> | <b>6.04</b> | <b>5.9</b> |             | <b>349</b> | <b>16</b>                 | <b>9</b>                  | <b>11</b>                 | <b>9</b>                  | <b>7.5</b>  | <b>1.5</b> | <b>1.8</b> | <b>119</b>      |      |      |      |      |      |       |       |       |
| 11/17/2019 | 026    | LYC-12       | YC Mouth (@ Floodway Park)                                 | 6,611         | 6.05        | 6.3        |             | 551        | 23                        | 13                        | 9                         | 30                        | 16.3        | 4.0        | 0.7        | 192             | 43.6 | 12.2 | 46.5 | 2.8  | 34.2 | 0.05  | 0.09  | <0.20 |
| 2/24/2020  | 026    | LYC-12       | YC Mouth (@ Floodway Park)                                 | 51,024        | 6.27        | 6.1        |             | 254        | 10                        | 7                         | 8                         | 7                         | 3.6         | 1.7        | 0.3        | 82              | 21.0 | 6.8  | 13.0 | 1.5  | 12.8 | <0.05 | 0.03  | <0.20 |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description                       | Flow          | pH, field   | pH, lab    | Cond, field | Cond, lab  | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe         | Al         | Mn         | SO <sub>4</sub> | Ca   | Mg   | Na   | K    | Cl   | Ni    | Zn    | Br    |
|------------|--------|-----------|-----------------------------------|---------------|-------------|------------|-------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|------------|------------|------------|-----------------|------|------|------|------|------|-------|-------|-------|
|            |        |           |                                   | gpm           | s.u         | s.u        | uS/cm       | umhos/cm   | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L       | mg/L       | mg/L       | mg/L            | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L  | mg/L  | mg/L  |
| 9/20/20    | 026    | LYC-12    | YC Mouth (@ Floodway Park)        | 5,144         | 6.75        | 6.5        |             | 508        | 28                        | 11                        | 5                         | 1                         | 11.6       | 0.6        | 2.8        | 175             | 33.8 | 10.2 | 41.6 | 2.2  | 32.3 | <0.05 | 0.08  | 0.24  |
| 5/25/21    | 026    | LYC-12    | YC Mouth (@ Floodway Park)        | 28,762        | 6.43        | 6.0        |             | 248        | 17                        | 11                        | 8                         | 2                         | 3.6        | 2.2        | 0.4        | 111             | 23.5 | 7.1  | 8.7  | 1.7  | 10.1 | <0.05 | 0.04  | <0.20 |
| <b>AVG</b> |        |           | <b>YC Mouth (@ Floodway Park)</b> | <b>22,885</b> | <b>6.38</b> | <b>6.2</b> |             | <b>390</b> | <b>19</b>                 | <b>10</b>                 | <b>8</b>                  | <b>10</b>                 | <b>8.8</b> | <b>2.1</b> | <b>1.0</b> | <b>140</b>      |      |      |      |      |      |       |       |       |
| 11/17/2019 | 027    | UYC-1     | YC in Mentcle                     | not measured  | 7.88        | 7.5        |             | 226        | 80                        | 57                        | -39                       | -80                       | <0.1       | <0.3       | 0.0        | 37              | 25.8 | 5.9  | 7.8  | 1.8  | 12.3 | <0.05 | <0.03 | <0.20 |
| 2/24/2020  | 027    | UYC-1     | YC in Mentcle                     | not measured  | 6.78        | 7.0        |             | 176        | 35                        | 32                        | -28                       | -35                       | <0.1       | <0.3       | 0.0        | 30              | 17.3 | 4.4  | 6.5  | 1.4  | 11.7 | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 027    | UYC-1     | YC in Mentcle                     | not measured  | 7.10        | 7.8        |             | 456        | 95                        | 96                        | -87                       | -93                       | 0.1        | 0.3        | 0.3        | 98              | 54.3 | 12.5 | 19.8 | 3.2  | 27.2 | 0.05  | 0.03  | <0.20 |
| 5/25/21    | 027    | UYC-1     | YC in Mentcle                     | not measured  | 7.74        | 7.1        |             | 197        | 60                        | 44                        | -39                       | -58                       | 0.2        | 0.3        | 0.0        | 36              |      |      |      |      |      |       |       |       |
| <b>AVG</b> |        |           | <b>YC in Mentcle</b>              |               | <b>7.38</b> | <b>7.4</b> |             | <b>264</b> | <b>68</b>                 | <b>57</b>                 | <b>-48</b>                | <b>-66</b>                | <b>0.1</b> | <b>0.3</b> | <b>0.1</b> | <b>50</b>       |      |      |      |      |      |       |       |       |
| 11/17/2019 | 028    | UYC-2     | Leonard Run at foot bridge        | not measured  | 7.51        | 7.0        |             | 335        | 60                        | 25                        | -20                       | -59                       | 0.5        | <0.3       | 0.2        | 128             | 37.8 | 10.7 | 9.9  | 1.8  | 16.8 | <0.05 | <0.03 | <0.20 |
| 2/24/2020  | 028    | UYC-2     | Leonard Run at foot bridge        | not measured  | 6.66        | 6.6        |             | 263        | 20                        | 12                        | -8                        | -17                       | 0.1        | 0.5        | 0.2        | 78              | 26.9 | 7.6  | 5.7  | 1.5  | 9.4  | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 028    | UYC-2     | Leonard Run at foot bridge        | not measured  | 7.44        | 7.2        |             | 491        | 25                        | 28                        | -23                       | -23                       | 0.5        | 0.1        | 0.4        | 210             | 63.1 | 22.9 | 1.3  | 2.2  | 2.0  | 0.05  | 0.03  | <0.20 |
| 5/25/21    | 028    | UYC-2     | Leonard Run at foot bridge        | not measured  | 7.19        | 6.7        |             | 303        | 25                        | 15                        | -10                       | -23                       | 0.1        | 0.3        | 0.2        | 126             | 33.9 | 9.5  | 6.3  | 1.7  | 8.9  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>Leonard Run at foot bridge</b> |               | <b>7.20</b> | <b>6.9</b> |             | <b>348</b> | <b>33</b>                 | <b>20</b>                 | <b>-15</b>                | <b>-30</b>                | <b>0.3</b> | <b>0.3</b> | <b>0.2</b> | <b>136</b>      |      |      |      |      |      |       |       |       |
| 11/17/2019 | 029    | UYC-3     | YC Below Leonard Run              | not measured  | 7.18        | 7.1        |             | 495        | 140                       | 91                        | -93                       | -140                      | <0.1       | <0.3       | 0.1        | 165             | 51.4 | 13.5 | 30.1 | 2.7  | 19.1 | 0.05  | 0.03  | <0.20 |
| 2/24/2020  | 029    | UYC-3     | YC Below Leonard Run              | not measured  | 6.75        | 7.1        |             | 367        | 70                        | 61                        | -56                       | -69                       | 0.3        | <0.3       | 0.1        | 92              | 34.9 | 9.6  | 16.2 | 1.8  | 11.5 | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 029    | UYC-3     | YC Below Leonard Run              | not measured  | 7.40        | 7.8        |             | 625        | 120                       | 123                       | -126                      | -119                      | 0.1        | 0.1        | 0.3        | 173             | 66.0 | 17.5 | 38.7 | 2.7  | 19.0 | <0.05 | <0.03 | <0.20 |
| 5/25/21    | 029    | UYC-3     | YC Below Leonard Run              | not measured  | 7.16        | 7.4        |             | 410        | 55                        | 71                        | -66                       | -53                       | 0.1        | 0.3        | 0.1        | 113             | 44.3 | 11.7 | 19.2 | 2.2  | 12.6 | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>YC Below Leonard Run</b>       |               | <b>7.12</b> | <b>7.4</b> |             | <b>474</b> | <b>96</b>                 | <b>87</b>                 | <b>-85</b>                | <b>-95</b>                | <b>0.2</b> | <b>0.2</b> | <b>0.1</b> | <b>136</b>      |      |      |      |      |      |       |       |       |
| 11/17/2019 | 030    | UYC-4     | YC at Spruce Grove Road           | not measured  | 7.90        | 7.8        |             | 411        | 120                       | 75                        | -74                       | -118                      | 0.1        | 0.3        | 0.0        | 143             | 41.7 | 11.3 | 25.5 | 2.1  | 16.9 | <0.05 | <0.03 | <0.20 |
| 2/24/2020  | 030    | UYC-4     | YC at Spruce Grove Road           | not measured  | 6.95        | 7.2        |             | 272        | 45                        | 42                        | -38                       | -45                       | <0.1       | <0.3       | 0.0        | 68              | 25.5 | 7.3  | 12.0 | 1.4  | 9.2  | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 030    | UYC-4     | YC at Spruce Grove Road           | not measured  | 7.53        | 8.1        |             | 610        | 120                       | 114                       | -111                      | -119                      | 0.1        | 0.0        | 0.3        | 164             | 61.3 | 16.8 | 40.8 | 2.7  | 21.0 | 0.05  | 0.03  | 0.20  |
| 5/25/21    | 030    | UYC-4     | YC at Spruce Grove Road           | not measured  | 7.91        | 7.4        |             | 328        | 60                        | 60                        | -54                       | -57                       | 0.6        | 0.4        | 0.1        | 86              | 35.1 | 9.6  | 15.0 | 1.9  | 10.2 | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>YC at Spruce Grove Road</b>    |               | <b>7.57</b> | <b>7.6</b> |             | <b>405</b> | <b>86</b>                 | <b>73</b>                 | <b>-69</b>                | <b>-85</b>                | <b>0.3</b> | <b>0.2</b> | <b>0.1</b> | <b>115</b>      |      |      |      |      |      |       |       |       |
| 11/17/2019 | 031    | UYC-5     | YC above Reservoir                | not measured  | 7.76        | 7.7        |             | 263        | 80                        | 47                        | -45                       | -80                       | 0.1        | <0.3       | 0.0        | 51              | 24.6 | 7.5  | 15.2 | 1.8  | 15.5 | <0.05 | 0.03  | 0.20  |
| 2/24/2020  | 031    | UYC-5     | YC above Reservoir                | not measured  | 6.77        | 7.1        |             | 211        | 40                        | 34                        | -29                       | -35                       | 1.2        | 0.5        | 0.1        | 45              | 18.2 | 5.6  | 11.0 | 1.4  | 9.9  | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 031    | UYC-5     | YC above Reservoir                | not measured  | 8.15        | 8.0        |             | 502        | 110                       | 102                       | -86                       | -106                      | 1.1        | 0.1        | 0.6        | 122             | 45.0 | 13.0 | 40.3 | 2.4  | 19.3 | 0.05  | 0.03  | 0.20  |
| 5/25/21    | 031    | UYC-5     | YC above Reservoir                | not measured  | 7.86        | 7.2        |             | 173        | 50                        | 42                        | -36                       | -48                       | 0.2        | 0.3        | 0.0        | 35              | 19.3 | 5.4  | 5.9  | 1.3  | 6.8  | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>YC above Reservoir</b>         |               | <b>7.64</b> | <b>7.5</b> |             | <b>287</b> | <b>70</b>                 | <b>57</b>                 | <b>-49</b>                | <b>-67</b>                | <b>0.6</b> | <b>0.3</b> | <b>0.2</b> | <b>63</b>       |      |      |      |      |      |       |       |       |
| 11/17/2019 | 032    | UYC-6     | LYC at Malloy Hollow Road         | not measured  | 7.42        | 7.3        |             | 296        | 80                        | 47                        | -41                       | -78                       | 0.7        | <0.3       | 0.3        | 97              | 32.1 | 8.6  | 11.4 | 1.6  | 9.7  | <0.05 | <0.03 | <0.20 |
| 2/24/2020  | 032    | UYC-6     | LYC at Malloy Hollow Road         | not measured  | 6.70        | 7.2        |             | 172        | 35                        | 30                        | -19                       | -22                       | 3.6        | 1.0        | 0.5        | 36              | 17.1 | 4.7  | 6.8  | 1.3  | 9.5  | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 032    | UYC-6     | LYC at Malloy Hollow Road         | not measured  | 7.80        | 8.0        |             | 626        | 115                       | 106                       | -100                      | -113                      | 0.3        | 0.2        | 0.3        | 200             | 75.0 | 19.8 | 28.3 | 2.2  | 11.7 | 0.05  | 0.03  | 0.20  |
| 5/25/21    | 032    | UYC-6     | LYC at Malloy Hollow Road         | not measured  | 7.57        | 7.1        |             | 199        | 50                        | 41                        | -35                       | -46                       | 0.9        | 0.3        | 0.1        | 39              | 20.7 | 5.6  | 8.0  | 1.3  | 10.6 | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>LYC at Malloy Hollow Road</b>  |               | <b>7.37</b> | <b>7.4</b> |             | <b>323</b> | <b>70</b>                 | <b>56</b>                 | <b>-49</b>                | <b>-65</b>                | <b>1.4</b> | <b>0.5</b> | <b>0.3</b> | <b>93</b>       |      |      |      |      |      |       |       |       |
| 11/17/2019 | 033    | UYC-7     | LYC at SR 2027                    | not measured  | 7.68        | 7.7        |             | 215        | 100                       | 47                        | -46                       | -100                      | <0.1       | <0.3       | <0.01      | 43              | 23.8 | 6.4  | 7.9  | 1.2  | 8.5  | <0.05 | 0.03  | <0.20 |
| 2/24/2020  | 033    | UYC-7     | LYC at SR 2027                    | not measured  | 6.68        | 7.4        |             | 161        | 35                        | 31                        | -26                       | -35                       | 0.1        | <0.3       | 0.0        | 32              | 16.1 | 4.6  | 4.9  | 1.0  | 6.9  | <0.05 | <0.30 | <0.20 |
| 9/20/20    | 033    | UYC-7     | LYC at SR 2027                    | not measured  | 7.84        | 8.0        |             | 437        | 115                       | 103                       | -103                      | -114                      | 0.2        | 0.0        | 0.3        | 117             | 54.0 | 14.5 | 16.1 | 1.8  | 8.7  | 0.05  | 0.03  | 0.20  |
| 5/25/21    | 033    | UYC-7     | LYC at SR 2027                    | not measured  | 7.98        | 7.2        |             | 246        | 50                        | 43                        | -39                       |                           | 0.2        | 0.3        | 0.0        | 56              | 23.9 | 6.9  | 12.0 | 1.7  | 11.8 | <0.05 | <0.03 | <0.20 |
| <b>AVG</b> |        |           | <b>LYC at SR 2027</b>             |               | <b>7.55</b> | <b>7.6</b> |             | <b>265</b> | <b>75</b>                 | <b>56</b>                 | <b>-54</b>                | <b>-83</b>                | <b>0.2</b> | <b>0.2</b> | <b>0.1</b> | <b>62</b>       |      |      |      |      |      |       |       |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description                        | Flow      | pH, field   | pH, lab     | Cond, field | Cond, lab   | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe          | Al          | Mn         | SO <sub>4</sub> | Ca    | Mg   | Na   | K    | Cl   | Ni   | Zn   | Br    |
|------------|--------|-----------|------------------------------------|-----------|-------------|-------------|-------------|-------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|-------------|------------|-----------------|-------|------|------|------|------|------|------|-------|
|            |        |           |                                    | gpm       | s.u         | s.u         | uS/cm       | umhos/cm    | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L        | mg/L        | mg/L       | mg/L            | mg/L  | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L  |
| 11/17/2019 | 002    | D-1       | 954 Seep North                     | 3         | 5.07        | 4.4         |             | 1199        | 5                         | 0                         | 83                        | 72                        | 0.2         | 12.0        | 4.8        | 755             | 173.4 | 53.1 | 2.3  | 3.0  | 4.2  | 0.19 | 0.31 | <0.20 |
| 2/24/2020  | 002    | D-1       | 954 Seep North                     | 1         | 4.03        | 3.9         |             | 902         | 0                         | 0                         | 75                        | 72                        | 0.3         | 10.6        | 3.5        | 447             | 97.6  | 39.9 | 1.9  | 2.0  | 3.0  | 0.16 | 0.27 | <0.20 |
| 9/20/20    | 002    | D-1       | 954 Seep North                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 11/2/20    | 002    | D-1       | 954 Seep North                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 12/3/20    | 002    | D-1       | 954 Seep North                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 1/6/21     | 002    | D-1       | 954 Seep North                     | 84        | 3.98        | 4.2         | 1429        | 1119        | 0                         | 0                         | 99                        | 83                        | 0.5         | 12.8        | 4.3        | 604             |       |      |      |      |      |      |      |       |
| 3/15/21    | 002    | D-1       | 954 Seep North                     | 23        | 3.96        | 4.2         | 1095        | 1069        | 0                         | 0                         | 101                       | 99                        | 0.5         | 15.6        | 4.4        | 599             |       |      |      |      |      |      |      |       |
| 4/12/21    | 002    | D-1       | 954 Seep North                     | 55        | 4.11        | 4.1         | 940         | 1033        |                           | 0                         | 96                        | 84                        | 0.4         | 13.1        | 3.7        | 511             |       |      |      |      |      |      |      |       |
| 5/25/21    | 002    | D-1       | 954 Seep North                     | 36        | 3.97        | 4.0         |             | 973         | 0                         | 0                         | 93                        | 83                        | 0.4         | 12.7        | 3.8        | 624             | 132.8 | 45.3 | 2.4  | 1.8  | 3.1  | 0.19 | 0.30 | <0.20 |
| <b>AVG</b> |        |           | <b>954 Seep North</b>              | <b>22</b> | <b>4.19</b> | <b>4.18</b> | <b>1155</b> | <b>1049</b> | <b>1</b>                  | <b>0</b>                  | <b>91</b>                 | <b>82</b>                 | <b>0.3</b>  | <b>12.8</b> | <b>4.1</b> | <b>590</b>      |       |      |      |      |      |      |      |       |
| 11/17/2019 | 003    | D-2       | 954 Seep South                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 2/24/2020  | 003    | D-2       | 954 Seep South                     | 60        | 2.13        | 3.2         |             | 1012        | 0                         | 0                         | 149                       | 127                       | 1.7         | 15.6        | 3.3        | 449             | 77.5  | 39.5 | 1.5  | 2.1  | 2.4  | 0.18 | 0.34 | <0.20 |
| 9/20/20    | 003    | D-2       | 954 Seep South                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 11/2/20    | 003    | D-2       | 954 Seep South                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 12/3/20    | 003    | D-2       | 954 Seep South                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 1/6/21     | 003    | D-2       | 954 Seep South                     | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 3/15/21    | 003    | D-2       | 954 Seep South                     | 80        | 3.04        | 3.1         | 1382        | 1382        | 0                         | 0                         | 217                       | 199                       | 3.1         | 26.2        | 4.4        | 567             |       |      |      |      |      |      |      |       |
| 4/12/21    | 003    | D-2       | 954 Seep South                     | 60        | 3.37        | 3.0         | 1142        | 1168        |                           | 0                         | 203                       | 178                       | 2.9         | 20.9        | 3.5        | 685             |       |      |      |      |      |      |      |       |
| 5/25/21    | 003    | D-2       | 954 Seep South                     | 50        | 3.18        | 3.0         |             | 1167        | 0                         | 0                         | 211                       | 183                       | 3.1         | 21.8        | 3.7        | 525             | 85.7  | 44.4 | 1.9  | 2.0  | 3.0  | 0.23 | 0.39 | <0.20 |
| <b>AVG</b> |        |           | <b>954 Seep South</b>              | <b>28</b> | <b>2.93</b> | <b>3.08</b> | <b>1262</b> | <b>1182</b> | <b>0</b>                  | <b>0</b>                  | <b>195</b>                | <b>172</b>                | <b>2.7</b>  | <b>21.1</b> | <b>3.7</b> | <b>556</b>      |       |      |      |      |      |      |      |       |
| 11/17/2019 | 004    | PTS-1     | 1A System Out                      | 3         | 5.82        | 6.4         |             | 1101        | 20                        | 10                        | 14                        | -7                        | <0.01       | 1.1         | 3.9        | 652             | 164.4 | 48.3 | 2.9  | 2.6  | 4.8  | 0.12 | 0.14 | <0.20 |
| 2/24/2020  | 004    | PTS-1     | 1A System Out                      | 33        | 4.57        | 4.4         |             | 882         | 0                         | 0                         | 64                        | 65                        | 0.4         | 10.1        | 3.4        | 429             | 104.1 | 39.6 | 4.5  | 2.1  | 6.6  | 0.16 | 0.25 | <0.20 |
| 9/20/20    | 004    | PTS-1     | 1A System Out                      | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 5/25/21    | 004    | PTS-1     | 1A System Out                      | 36        | 4.64        | 5.0         |             | 968         | 0                         | 0                         | 17                        | 23                        | 0.3         | 2.7         | 3.7        | 910             | 143.7 | 42.9 | 2.7  | 1.9  | 3.9  | 0.13 | 0.20 | <0.20 |
| <b>AVG</b> |        |           | <b>1A System Out</b>               | <b>18</b> | <b>5.01</b> | <b>5.3</b>  |             | <b>984</b>  | <b>7</b>                  | <b>4</b>                  | <b>32</b>                 | <b>27</b>                 | <b>0.3</b>  | <b>4.6</b>  | <b>3.7</b> | <b>664</b>      |       |      |      |      |      |      |      |       |
| 2/24/2020  | 041    | PTS-3     | 2A/2B system final effluent        | 30        | 5.26        | 5.3         |             | 646         | 5                         | 1                         | 10                        | 5                         | 1.2         | 0.5         | 2.6        | 260             |       |      |      |      |      |      |      |       |
| 11/2/2020  | 041    | PTS-3     | 2A/2B system final effluent        | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 12/3/2020  | 041    | PTS-3     | 2A/2B system final effluent        | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 5/25/2021  | 041    | PTS-3     | 2A/2B system final effluent        | 12        | 4.30        | 4.3         |             | 1073        | 0                         | 0                         | 22                        | 20                        | 0.4         | 1.7         | 4.2        | 776             |       |      |      |      |      |      |      |       |
| <b>AVG</b> |        |           | <b>2A/2B system final effluent</b> | <b>11</b> | <b>4.78</b> | <b>4.8</b>  |             | <b>860</b>  | <b>3</b>                  | <b>1</b>                  | <b>16</b>                 | <b>13</b>                 | <b>0.8</b>  | <b>1.1</b>  | <b>3.4</b> | <b>518</b>      |       |      |      |      |      |      |      |       |
| 11/17/2019 | 008    | D-3       | Tide Mine Discharge                | 24        | 3.37        | 3.2         |             | 1393        | 0                         | 0                         | 210                       | 175                       | 30.0        | 14.8        | 3.9        | 811             | 152.8 | 42.6 | 3.7  | 4.5  | 6.8  | 0.12 | 0.27 | <0.20 |
| 2/24/2020  | 008    | D-3       | Tide Mine Discharge                | 104       | 3.19        | 3.1         |             | 1257        | 0                         | 0                         | 192                       | 180                       | 21.9        | 17.2        | 3.2        | 544             | 112.5 | 36.4 | 3.1  | 3.7  | 4.7  | 0.14 | 0.27 | <0.20 |
| 9/20/20    | 008    | D-3       | Tide Mine Discharge                | 4         | 3.45        | 3.1         |             | 1301        | 0                         | 0                         | 206                       | 156                       | 39.5        | 3.7         | 13.9       | 625             | 129.0 | 41.9 | 3.8  | 4.4  | 6.9  | 0.11 | 0.24 | <0.20 |
| 11/2/20    | 008    | D-3       | Tide Mine Discharge                | 1         | 3.52        | 3.0         | 1800        | 1320        | 0                         | 0                         | 177                       | 170                       | 17.0        | 14.8        | 3.9        | 635             |       |      |      |      |      |      |      |       |
| 12/3/20    | 008    | D-3       | Tide Mine Discharge                | 1         | 3.03        | 3.2         | 910         | 830         |                           | 0                         | 141                       | 121                       | 6.2         | 13.0        | 3.5        | 320             |       |      |      |      |      |      |      |       |
| 1/6/21     | 008    | D-3       | Tide Mine Discharge                | 0         |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |      |      |       |
| 2/17/21    | 008    | D-3       | Tide Mine Discharge                | 6         | 3.08        | 3.2         | 1483        | 1320        | 0                         | 0                         | 177                       | 176                       | 25.5        | 16.3        | 4.8        | 748             |       |      |      |      |      |      |      |       |
| 3/15/21    | 008    | D-3       | Tide Mine Discharge                | 70        | 3.16        | 3.2         | 1395        | 1307        | 0                         | 0                         | 218                       | 202                       | 30.4        | 19.4        | 4.4        | 655             |       |      |      |      |      |      |      |       |
| 4/12/21    | 008    | D-3       | Tide Mine Discharge                | 55        | 3.40        | 3.1         | 1204        | 1412        |                           | 0                         | 215                       | 198                       | 28.7        | 18.1        | 3.4        | 651             |       |      |      |      |      |      |      |       |
| 5/25/21    | 008    | D-3       | Tide Mine Discharge                | 36        | 3.18        | 3.1         |             | 1241        | 0                         | 0                         | 227                       | 203                       | 31.9        | 18.0        | 3.4        | 639             | 129.2 | 38.8 | 3.5  | 3.8  | 5.4  | 0.13 | 0.28 | <0.20 |
| <b>AVG</b> |        |           | <b>Tide Mine Discharge</b>         | <b>30</b> | <b>3.26</b> | <b>3.13</b> | <b>1358</b> | <b>1265</b> | <b>0</b>                  | <b>0</b>                  | <b>196</b>                | <b>176</b>                | <b>25.7</b> | <b>15.0</b> | <b>4.9</b> | <b>625</b>      |       |      |      |      |      |      |      |       |
| 11/17/2019 | 009    | D-4       | Judy 14 Discharge                  | 6         | 3.10        | 3.0         |             | 1137        | 0                         | 0                         | 332                       | 274                       | 25.3        | 31.1        | 2.9        | 542             | 67.2  | 19.2 | 9.4  | 2.5  | 8.9  | 0.30 | 0.57 | <0.20 |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description                                | Flow         | pH, field   | pH, lab     | Cond, field | Cond, lab   | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe          | Al          | Mn         | SO <sub>4</sub> | Ca    | Mg   | Na   | K    | Cl   | Ni    | Zn    | Br    |
|------------|--------|-----------|--|--------------|-------------|-------------|-------------|-------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|-------------|------------|-----------------|-------|------|------|------|------|-------|-------|-------|
|            |        |           |  | gpm          | s.u         | s.u         | uS/cm       | umhos/cm    | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L        | mg/L        | mg/L       | mg/L            | mg/L  | mg/L | mg/L | mg/L | mg/L | mg/L  | mg/L  | mg/L  |
| 2/24/2020  | 009    | D-4       | Judy 14 Discharge                          | 96           | 2.95        | 2.9         |             | 934         | 0                         | 0                         | 199                       | 204                       | 13.6        | 20.2        | 2.3        | 362             | 55.5  | 17.4 | 6.4  | 1.8  | 7.4  | 0.21  | 0.40  | <0.20 |
| 9/20/20    | 009    | D-4       | Judy 14 Discharge                          | 7            | 2.70        | 2.7         |             | 1805        | 0                         | 0                         | 652                       | 331                       | 46.6        | 6.2         | 63.0       | 1065            | 141.1 | 35.6 | 5.7  | 2.8  | 5.7  | 0.56  | 1.10  | <0.20 |
| 11/2/20    | 009    | D-4       | Judy 14 Discharge                          | 10           | 3.15        | 2.7         | 1750        | 1870        | 0                         | 0                         | 607                       | 611                       | 51.2        | 73.7        | 5.5        | 1173            |       |      |      |      |      |       |       |       |
| 12/3/20    | 009    | D-4       | Judy 14 Discharge                          | 23           | 2.77        | 2.9         | 1558        | 1494        |                           | 0                         | 452                       | 374                       | 35.4        | 43.3        | 4.0        | 701             |       |      |      |      |      |       |       |       |
| 1/6/21     | 009    | D-4       | Judy 14 Discharge                          | 100          | 3.19        | 3.0         | 1222        | 1045        | 0                         | 0                         | 244                       | 205                       | 11.9        | 23.4        | 2.0        | 369             |       |      |      |      |      |       |       |       |
| 2/17/21    | 009    | D-4       | Judy 14 Discharge                          | 42           | 2.99        | 2.9         | 2196        | 2000        | 0                         | 0                         | 317                       | 309                       | 19.5        | 37.0        | 3.1        | 543             |       |      |      |      |      |       |       |       |
| 3/15/21    | 009    | D-4       | Judy 14 Discharge                          | 100          | 2.89        | 3.0         | 1267        | 1210        | 0                         | 0                         | 269                       | 244                       | 16.2        | 28.8        | 2.5        | 460             |       |      |      |      |      |       |       |       |
| 4/12/21    | 009    | D-4       | Judy 14 Discharge                          | 60           | 3.31        | 3.0         | 922         | 1012        |                           | 0                         | 203                       | 185                       | 11.2        | 19.9        | 2.1        | 343             |       |      |      |      |      |       |       |       |
| 5/25/21    | 009    | D-4       | Judy 14 Discharge                          | 60           | 3.06        | 2.9         |             | 1084        | 0                         | 0                         | 238                       | 223                       | 15.2        | 23.0        | 2.7        | 534             | 62.8  | 19.5 | 6.6  | 2.0  | 7.1  | 0.25  | 0.48  | <0.20 |
| <b>AVG</b> |        |           | <b>Judy 14 Discharge</b>                   | <b>50</b>    | <b>3.01</b> | <b>2.90</b> |             | <b>1486</b> | <b>0</b>                  | <b>0</b>                  | <b>351</b>                | <b>296</b>                | <b>24.6</b> | <b>30.7</b> | <b>9.0</b> | <b>609</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 013    | D-5       | Nancy Mine Discharge                       | 2            | 3.75        | 3.4         |             | 1379        | 0                         | 0                         | 293                       | 259                       | 46.7        | 27.4        | 1.5        | 933             | 129.8 | 35.6 | 2.3  | 3.0  | 3.6  | 0.12  | 0.26  | <0.20 |
| 2/24/2020  | 013    | D-5       | Nancy Mine Discharge                       | 30           | 5.45        | 6.9         |             | 723         | 39                        | 48                        | -40                       | -11                       | 7.2         | 2.6         | 0.2        | 311             | 105.7 | 27.2 | 1.6  | 2.4  | 2.0  | <0.05 | <0.30 | <0.20 |
| 9/20/2020  | 013    | D-5       | Nancy Mine Discharge                       | 0            |             |             |             |             |                           | 0                         |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 11/2/2020  | 013    | D-5       | Nancy Mine Discharge                       | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 12/3/2020  | 013    | D-5       | Nancy Mine Discharge                       | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 1/6/21     | 013    | D-5       | Nancy Mine Discharge                       | 15           | 6.49        | 6.7         | 933         | 703         |                           | 45                        | -32                       | 21                        | 4.6         | 2.2         | 0.1        | 327             |       |      |      |      |      |       |       |       |
| 3/15/21    | 013    | D-5       | Nancy Mine Discharge                       | 20           | 6.08        | 6.6         | 768         | 730         | 38                        | 45                        | -31                       | -9                        | 7.2         | 2.8         | 0.2        | 326             |       |      |      |      |      |       |       |       |
| 4/12/21    | 013    | D-5       | Nancy Mine Discharge                       | 24           | 6.05        | 7.1         | 694         | 749         |                           | 40                        | -40                       | -18                       | 6.1         | 2.1         | 0.2        | 323             |       |      |      |      |      |       |       |       |
| 5/25/21    | 013    | D-5       | Nancy Mine Discharge                       | 12           | 5.88        | 7.1         |             | 750         | 17                        | 47                        | -32                       | -20                       | 5.9         | 2.9         | 0.1        | 356             | 123.5 | 28.8 | 1.5  | 2.6  | 2.2  | 0.05  | 0.03  | <0.20 |
| <b>AVG</b> |        |           | <b>Nancy Mine Discharge</b>                | <b>11</b>    | <b>5.62</b> | <b>6.3</b>  |             | <b>839</b>  | <b>24</b>                 | <b>32</b>                 | <b>19</b>                 | <b>37</b>                 | <b>12.9</b> | <b>6.7</b>  | <b>0.4</b> | <b>429</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 017    | D-6       | Lucerne Portal Discharge, at source        | 208          | 5.57        | 5.8         |             | 946         | 6                         | 3                         | 8                         | 4                         | 3.3         | 0.4         | 1.4        | 505             | 96.9  | 30.8 | 57.0 | 3.6  | 41.5 | 0.11  | 0.21  | <0.20 |
| 2/24/2020  | 017    | D-6       | Lucerne Portal Discharge, at source        | not measured | 4.88        | 4.8         |             | 898         | 4                         | 2                         | 33                        | 47                        | 6.3         | 6.6         | 1.4        | 404             | 87.8  | 31.8 | 47.0 | 3.2  | 33.7 | 0.13  | 0.25  | <0.20 |
| 9/20/20    | 017    | D-6       | Lucerne Portal Discharge, at source        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 11/2/20    | 017    | D-6       | Lucerne Portal Discharge, at source        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 12/3/20    | 017    | D-6       | Lucerne Portal Discharge, at source        | not measured | 4.92        | 4.9         | 908         | 931         |                           | 1                         | 29                        | 17                        | 2.7         | 1.8         | 1.3        | 513             |       |      |      |      |      |       |       |       |
| 1/6/21     | 017    | D-6       | Lucerne Portal Discharge, at source        | 2            | 6.42        | 4.8         | 898         | 902         |                           | 1                         | 22                        | 15                        | 0.5         | 1.9         | 1.2        | 389             |       |      |      |      |      |       |       |       |
| 3/15/21    | 017    | D-6       | Lucerne Portal Discharge, at source        | 100          | 5.25        | 4.9         | 886         | 886         | 0                         | 3                         | 18                        | 29                        | 3.4         | 3.6         | 1.3        | 373             |       |      |      |      |      |       |       |       |
| 4/12/21    | 017    | D-6       | Lucerne Portal Discharge, at source        | 200          | 5.08        | 4.6         | 873         | 909         |                           | 0                         | 39                        | 42                        | 2.4         | 6.1         | 1.2        | 379             |       |      |      |      |      |       |       |       |
| 5/25/21    | 017    | D-6       | Lucerne Portal Discharge, at source        | 522          | 4.43        | 4.5         | 831         | 865         | 0                         | 0                         | 44                        | 44                        | 1.7         | 6.7         | 1.3        | 401             | 85.0  | 31.4 | 39.5 | 3.3  | 28.7 | 0.13  | 0.25  | <0.20 |
| <b>AVG</b> |        |           | <b>Lucerne Portal Discharge, at source</b> | <b>147</b>   | <b>5.22</b> | <b>4.90</b> | <b>879</b>  | <b>905</b>  | <b>3</b>                  | <b>1</b>                  | <b>28</b>                 | <b>28</b>                 | <b>2.9</b>  | <b>3.9</b>  | <b>1.3</b> | <b>423</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 019    | D-6B      | Lucerne Portal Discharge, at stream        | 252          |             | 4.6         |             | 925         | 0                         | 0                         | 29                        | 25                        | 7.5         | 1.3         | 1.8        | 417             | 87.8  | 29.9 | 53.1 | 4.0  | 39.4 | 0.08  | 0.12  | <0.20 |
| 2/24/2020  | 019    | D-6B      | Lucerne Portal Discharge, at stream        | 350          | 4.91        | 4.9         |             | 880         | 3                         | 1                         | 25                        | 17                        | 1.3         | 2.7         | 1.4        | 391             | 85.6  | 30.4 | 46.3 | 3.2  | 33.6 | 0.12  | 0.25  | <0.20 |
| 9/20/20    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | 10           | 3.87        | 3.7         |             | 917         | 0                         | 0                         | 39                        | 35                        | 7.7         | 1.6         | 1.2        | 350             | 71.2  | 25.7 | 42.0 | 4.2  | 32.6 | 0.06  | 0.09  | <0.20 |
| 11/2/20    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | 5            | 4.24        | 3.90        | 896         | 904         | 0                         | 0                         | 27.4                      | 33                        | 6.3         | 2.3         | 1.8        | 411             |       |      |      |      |      |       |       |       |
| 12/3/20    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | not measured | 3.99        | 4.00        | 891         | 913         |                           | 0                         | 40                        | 27                        | 5.3         | 1.7         | 1.6        | 380             |       |      |      |      |      |       |       |       |
| 1/6/21     | 019    | D-6B      | Lucerne Portal Discharge, at stream        | not measured | 4.54        | 4.5         | 854         | 829         |                           | 0                         | 26                        | 18                        | 2.2         | 1.8         | 1.4        | 358             |       |      |      |      |      |       |       |       |
| 2/17/21    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | not measured | 4.58        | 4.0         | 925         | 919         |                           | 0                         | 26                        | 49                        | 12.1        | 3.6         | 1.7        | No data         |       |      |      |      |      |       |       |       |
| 3/15/21    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | 150          | 5.30        | 5.0         | 802         | 804         | 2                         | 2                         | 13                        | 11                        | 1.3         | 1.5         | 1.2        | 331             |       |      |      |      |      |       |       |       |
| 4/12/21    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | 4            | 4.72        | 4.3         | 827         | 916         |                           | 0                         | 31                        | 29                        | 1.8         | 3.7         | 1.4        | 370             |       |      |      |      |      |       |       |       |
| 5/25/21    | 019    | D-6B      | Lucerne Portal Discharge, at stream        | not measured | 3.99        | 4.0         | 790         | 835         | 0                         | 0                         | 31                        | 26                        | 0.1         | 3.2         | 1.5        | 742             | 79.8  | 28.4 | 37.0 | 3.4  | 26.8 | 0.09  | 0.18  | <0.20 |
| <b>AVG</b> |        |           | <b>Lucerne Portal Discharge, at stream</b> | <b>129</b>   | <b>4.46</b> | <b>4.29</b> | <b>855</b>  | <b>884</b>  | <b>1</b>                  | <b>0</b>                  | <b>29</b>                 | <b>27</b>                 | <b>4.6</b>  | <b>2.3</b>  | <b>1.5</b> | <b>417</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 021    | D-7       | Concrete Pipe Discharge                    | 10           | 2.51        | 4.0         |             | 2710        | 0                         | 0                         | 621                       | 568                       | 175.7       | 42.7        | 6.4        | 1742            | 482.2 | 36.3 | 18.6 | 52.3 | 18.9 | 0.22  | 0.45  | 0.51  |
| 2/24/2020  | 021    | D-7       | Concrete Pipe Discharge                    | 24           | 3.85        | 3.8         |             | 2470        | 0                         | 0                         | 370                       | 361                       | 108.0       | 27.2        | 4.6        | 1449            | 442.0 | 28.8 | 14.6 | 41.3 | 14.4 | 0.14  | 0.28  | 0.38  |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description                      | Flow           | pH, field   | pH, lab     | Cond, field | Cond, lab   | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe             | Al             | Mn             | SO <sub>4</sub> | Ca    | Mg   | Na   | K    | Cl   | Ni    | Zn   | Br    |
|------------|--------|-----------|----------------------------------|----------------|-------------|-------------|-------------|-------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------|----------------|----------------|-----------------|-------|------|------|------|------|-------|------|-------|
|            |        |           |                                  | gpm            | s.u         | s.u         | uS/cm       | umhos/cm    | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L           | mg/L           | mg/L           | mg/L            | mg/L  | mg/L | mg/L | mg/L | mg/L | mg/L  | mg/L | mg/L  |
| 9/20/2020  | 021    | D-7       | Concrete Pipe Discharge          | 8              | 3.62        | 3.4         |             | 2660        | 0                         | 0                         | 549                       | 420                       | 162.0          | 6.1            | 42.4           | 1681            | 385.0 | 37.3 | 17.2 | 46.1 | 16.8 | 0.25  | 0.49 | 0.44  |
| 11/2/2020  | 021    | D-7       | Concrete Pipe Discharge          | 7              | 3.77        | 3.00        | 2390        | 2750        | 0                         | 0                         | 695                       | 774                       | 222.5          | 56.2           | 7.3            | 1871            |       |      |      |      |      |       |      |       |
| 12/3/2020  | 021    | D-7       | Concrete Pipe Discharge          | 10             | 3.41        | 3.40        | 2442        | 2610        |                           | 0                         | 493.6                     | 448                       | 133.0          | 32.2           | 6.4            | 1863            |       |      |      |      |      |       |      |       |
| 1/6/21     | 021    | D-7       | Concrete Pipe Discharge          | 12             | 4.30        | 3.8         | 2292        | 2450        | 0                         | 0                         | 375                       | 405                       | 121.4          | 30.4           | 5.8            | 1500            |       |      |      |      |      |       |      |       |
| 2/17/21    | 021    | D-7       | Concrete Pipe Discharge          | 9              | 3.91        | 3.4         | 2395        | 2480        | 0                         | 0                         | 560                       | 622                       | 175.0          | 49.6           | 7.1            | 1495            |       |      |      |      |      |       |      |       |
| 3/15/21    | 021    | D-7       | Concrete Pipe Discharge          | 14             | 3.64        | 3.6         | 2397        | 2480        | 0                         | 0                         | 515                       | 508                       | 146.4          | 40.1           | 6.0            | 1550            |       |      |      |      |      |       |      |       |
| 4/12/21    | 021    | D-7       | Concrete Pipe Discharge          | 50             | 4.55        | 3.5         | 1083        | 1241        |                           | 0                         | 176                       | 167                       | 45.5           | 10.4           | 6.5            | 786             |       |      |      |      |      |       |      |       |
| 5/25/21    | 021    | D-7       | Concrete Pipe Discharge          | 14             | 3.48        | 3.1         | 2306        | 2570        | 0                         | 0                         | 658                       | 623                       | 169.2          | 48.5           | 5.9            | 1878            | 397.4 | 32.7 | 20.0 | 43.7 | 16.7 | 0.31  | 0.61 | 0.29  |
| <b>AVG</b> |        |           | <b>Concrete Pipe Discharge</b>   | <b>16</b>      | <b>3.70</b> | <b>3.50</b> | <b>2186</b> | <b>2442</b> | <b>0</b>                  | <b>0</b>                  | <b>501</b>                | <b>490</b>                | <b>145.9</b>   | <b>34.3</b>    | <b>9.8</b>     | <b>1582</b>     |       |      |      |      |      |       |      |       |
| 11/17/2019 | 022    | D-8       | Refuse Pile Trib                 | 4              | 3.00        | 3.2         |             | 2340        | 0                         | 0                         | 323                       | 289                       | 119.0          | 2.5            | 16.8           | 1265            | 346.1 | 53.5 | 27.0 | 16.4 | 68.7 | 0.08  | 0.14 | 1.97  |
| 2/24/2020  | 022    | D-8       | Refuse Pile Trib                 | 80             | 3.95        | 4.0         |             | 1087        | 0                         | 0                         | 122                       | 132                       | 59.3           | 1.5            | 6.9            | 522             | 128.0 | 20.5 | 13.2 | 11.4 | 25.2 | 0.05  | 0.09 | 0.65  |
| 9/20/2020  | 022    | D-8       | Refuse Pile Trib                 | 3              | 2.97        | 2.8         |             | 2590        | 0                         | 0                         | 328                       | 374                       | 102.0          | 18.8           | 4.1            | 1258            | 333.0 | 64.0 | 32.3 | 14.1 | 77.0 | 0.09  | 0.16 | 2.41  |
| 11/2/2020  | 022    | D-8       | Refuse Pile Trib                 | 4              | 3.37        | 2.90        | 2104        | 2330        | 0                         | 0                         | 270                       | 260                       | 81.1           | 3.9            | 16.6           | 1227            |       |      |      |      |      |       |      |       |
| 12/3/2020  | 022    | D-8       | Refuse Pile Trib                 | 5              | 2.96        | 3.20        | 2056        | 2110        |                           | 0                         | 268                       | 203                       | 71.9           | 3.2            | 14.2           | 1125            |       |      |      |      |      |       |      |       |
| 1/6/21     | 022    | D-8       | Refuse Pile Trib                 | 150            | 6.94        | 7.5         | 1635        | 1789        |                           | 178                       | -114                      | No metals data            | No metals data | No metals data | No metals data | 1057            |       |      |      |      |      |       |      |       |
| 2/17/21    | 022    | D-8       | Refuse Pile Trib                 | 100            | 6.67        | 7.1         | 1356        | 1401        |                           | 85                        | -556 value removed        | 364                       | 122.0          | 39.8           | 5.0            | 563             |       |      |      |      |      |       |      |       |
| 3/15/21    | 022    | D-8       | Refuse Pile Trib                 | 10             | 3.56        | 3.3         | 1610        | 1618        | 0                         | 0                         | 189                       | 198                       | 80.8           | 1.8            | 10.5           | 744             |       |      |      |      |      |       |      |       |
| 4/12/21    | 022    | D-8       | Refuse Pile Trib                 | 50             | 3.90        | 3.5         | 1034        | 1201        |                           | 0                         | 101                       | 95                        | 34.9           | 1.2            | 5.9            | 512             |       |      |      |      |      |       |      |       |
| 5/25/21    | 022    | D-8       | Refuse Pile Trib                 | 32             | 3.94        | 3.4         | 1278        | 1384        | 0                         | 0                         | 128                       | 144                       | 57.5           | 1.1            | 8.4            | 799             | 197.4 | 28.0 | 21.7 | 15.3 | 37.8 | 0.06  | 0.11 | 0.82  |
| <b>AVG</b> |        |           | <b>Refuse Pile Trib</b>          | <b>44</b>      | <b>4.13</b> | <b>4.09</b> | <b>1582</b> | <b>1785</b> | <b>0</b>                  | <b>26</b>                 | <b>179</b>                | <b>212</b>                | <b>80.9</b>    | <b>8.2</b>     | <b>9.8</b>     | <b>907</b>      |       |      |      |      |      |       |      |       |
| 11/17/2019 | 024    | D-9       | Route 119 Borehole source        | not measured   | 6.10        | 6.2         |             | 1090        | 83                        | 80                        | -4                        | 1                         | 37.1           | 2.4            | 2.5            | 447             | 102.9 | 28.9 | 72.3 | 5.2  | 50.6 | 0.06  | 0.06 | <0.20 |
| 2/24/2020  | 024    | D-9       | Route 119 Borehole source        | not measured   | 4.72        | 5.0         |             | 1130        | 18                        | 4                         | 97                        | 141                       | 41.0           | 13.6           | 5.0            | 546             | 96.2  | 41.1 | 51.1 | 3.9  | 34.1 | 0.14  | 0.23 | <0.20 |
| 9/20/2020  | 024    | D-9       | Route 119 Borehole source        | not measured   | 6.07        | 6.6         |             | 1022        | 77                        | 66                        | -13                       | -4                        | 31.9           | 2.2            | 1.9            | 372             | 108.2 | 28.3 | 62.8 | 4.8  | 44.2 | 0.06  | 0.07 | <0.20 |
| 11/2/2020  | 024    | D-9       | Route 119 Borehole source        | not measured   | 6.06        | 6.00        | 956         | 1035        | 80                        | 29.8                      | -17.2                     | 5                         | 35.4           | 3.2            | 2.2            | 423             |       |      |      |      |      |       |      |       |
| 12/3/2020  | 024    | D-9       | Route 119 Borehole source        | not measured   | 5.94        | 6.30        | 1070        | 1022        | not measured              | 72.6                      | 2.8                       |                           | 31.8           | 1.8            | 2.2            | 455             |       |      |      |      |      |       |      |       |
| 1/6/21     | 024    | D-9       | Route 119 Borehole source        | not measured   | 6.14        | 6.2         | 1019        | 1079        | not measured              | 63                        | 17                        | 21                        | 43.4           | 0.1            | 3.3            | 456             |       |      |      |      |      |       |      |       |
| 2/17/21    | 024    | D-9       | Route 119 Borehole source        | not measured   | 6.30        |             | 1043        |             | 100                       | no lab data               | no lab data               | no lab data               | no lab data    | no lab data    | no lab data    | no lab data     |       |      |      |      |      |       |      |       |
| 3/15/21    | 024    | D-9       | Route 119 Borehole source        | not measured   | 6.00        | 6.2         | 1059        | 1063        | 61                        | 60                        | 10                        | 15                        | 34.9           | 1.7            | 2.6            | 420             |       |      |      |      |      |       |      |       |
| 4/12/21    | 024    | D-9       | Route 119 Borehole source        | not measured   | 5.52        | 6.0         | 1012        | 1105        |                           | 16                        | 59                        | 84                        | 33.3           | 6.2            | 3.5            | 538             |       |      |      |      |      |       |      |       |
| 5/25/21    | 024    | D-9       | Route 119 Borehole source        | not measured   | 5.31        | 5.8         | 1203        | 1077        | 35                        | 16                        | 58                        | 85                        | 37.2           | 8.3            | 4.1            | 588             | 105.9 | 37.2 | 55.3 | 4.3  | 36.7 | 0.11  | 0.18 | <0.20 |
| <b>AVG</b> |        |           | <b>Route 119 Borehole source</b> | <b>#DIV/0!</b> | <b>5.82</b> | <b>6.03</b> | <b>1052</b> | <b>1069</b> | <b>65</b>                 | <b>45</b>                 | <b>23</b>                 | <b>44</b>                 | <b>36.2</b>    | <b>4.4</b>     | <b>3.0</b>     | <b>472</b>      |       |      |      |      |      |       |      |       |
| 11/17/2019 | 025    | D-9A      | Route 119 Borehole at weir       | 32             | 6.60        | 6.5         |             | 1030        | 48                        | 38                        | -2                        | 13                        | 25.0           | 2.2            | 2.5            | 398             | 101.5 | 29.2 | 73.5 | 5.3  | 49.8 | <0.05 | 0.06 | <0.20 |
| 2/24/2020  | 025    | D-9A      | Route 119 Borehole at weir       | 106            | 5.00        | 5.0         |             | 1114        | 4                         | 0                         | 85                        | 116                       | 33.8           | 8.9            | 5.1            | 534             | 96.2  | 40.7 | 51.3 | 4.0  | 33.4 | 0.14  | 0.23 | <0.20 |
| 9/20/2020  | 025    | D-9A      | Route 119 Borehole at weir       | 60             | 5.91        | 7.0         |             | 1019        | 52                        | 29                        | -11                       | 1                         | 21.7           | 2.2            | 1.2            | 374             | 109.4 | 28.8 | 64.0 | 4.9  | 44.6 | 0.05  | 0.07 | <0.20 |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description  | Flow         | pH, field   | pH, lab     | Cond, field | Cond, lab   | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe          | Al          | Mn         | SO <sub>4</sub> | Ca    | Mg   | Na   | K    | Cl   | Ni    | Zn    | Br    |
|------------|--------|-----------|--|--------------|-------------|-------------|-------------|-------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|-------------|------------|-----------------|-------|------|------|------|------|-------|-------|-------|
|            |        |           |  | gpm          | s.u         | s.u         | uS/cm       | umhos/cm    | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L        | mg/L        | mg/L       | mg/L            | mg/L  | mg/L | mg/L | mg/L | mg/L | mg/L  | mg/L  | mg/L  |
| 11/2/2020  | 025    | D-9A      | Route 119 Borehole at weir                             | 22           | 5.72        | 6.50        | 972         | 1030        | 58                        | 30.8                      | -16.2                     | -6                        | 23.9        | 1.0         | 2.3        | 428             |       |      |      |      |      |       |       |       |
| 12/3/2020  | 025    | D-9A      | Route 119 Borehole at weir                             | 56           | 6.24        | 6.60        | 1013        | 1005        |                           | 35.6                      | 0.4                       | 50                        | 22.4        | 1.0         | 2.2        | 412             |       |      |      |      |      |       |       |       |
| 1/6/21     | 025    | D-9A      | Route 119 Borehole at weir                             | 45           | 6.58        | 6.4         | 1067        | 1030        | not measured              | 33                        | 8.6                       | 35                        | 29.7        | 1.8         | 3.0        | 437             |       |      |      |      |      |       |       |       |
| 2/17/21    | 025    | D-9A      | Route 119 Borehole at weir                             | 59           | 6.60        |             | 1008        |             | 60                        | no lab data               |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 3/15/21    | 025    | D-9A      | Route 119 Borehole at weir                             | 46           | 6.98        | 6.4         | 1020        | 1025        | 44                        | 32                        | 3                         | 6                         | 23.0        | 0.9         | 2.4        | 450             |       |      |      |      |      |       |       |       |
| 4/12/21    | 025    | D-9A      | Route 119 Borehole at weir                             | 68           | 6.26        | 6.2         | 984         | 1098        |                           | 16                        | 49                        | 74                        | 32.2        | 4.5         | 3.7        | 466             |       |      |      |      |      |       |       |       |
| 5/25/21    | 025    | D-9A      | Route 119 Borehole at weir                             | 48           | 6.78        | 5.9         | 1000        | 1056        | 23                        | 3                         | 54                        | 83                        | 37.4        | 5.8         | 3.9        | 736             | 124.4 | 35.7 | 53.5 | 4.2  | 36.6 | 0.10  | 0.15  | <0.20 |
| <b>AVG</b> |        |           | <b>Route 119 Borehole at weir</b>                      | <b>54</b>    | <b>6.27</b> | <b>6.28</b> | <b>1009</b> | <b>1045</b> | <b>41</b>                 | <b>24</b>                 | <b>19</b>                 | <b>42</b>                 | <b>27.7</b> | <b>3.1</b>  | <b>2.9</b> | <b>471</b>      |       |      |      |      |      |       |       |       |
| 11/17/2019 | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 2/24/2020  | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 59           | 3.79        | 3.7         |             | 1265        | 0                         | 0                         | 183                       | 178                       | 44.8        | 13.6        | 6.7        | 625             | 104.0 | 49.8 | 18.6 | 4.5  | 13.4 | 0.18  | 0.35  | <0.20 |
| 9/20/2020  | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 11/2/2020  | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 12/3/2020  | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 1/6/21     | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 3/15/21    | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 45           | 4.15        | 4.0         | 1168        | 1210        | 0                         | 0                         | 147                       | 138                       | 51.8        | 5.3         | 5.8        | 562             |       |      |      |      |      |       |       |       |
| 4/12/21    | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 13           | 3.80        | 3.2         | 2190        | 2600        |                           | 0                         | 594                       | 576                       | 162.4       | 43.9        | 5.5        | 1409            |       |      |      |      |      |       |       |       |
| 5/25/21    | 044    | D-14      | Corrugated pipe discharge @ Lucerne refuse pile        | 43           | 3.94        | 3.4         |             | 1110        | 0                         | 0                         | 197                       | 210                       | 39.4        | 19.0        | 7.6        | 1155            | 113.5 | 56.6 | 14.3 | 4.6  | 9.1  | 0.22  | 0.43  | <0.20 |
| <b>AVG</b> |        |           | <b>Corrugated pipe discharge @ Lucerne refuse pile</b> | <b>18</b>    | <b>3.92</b> | <b>3.6</b>  |             | <b>1546</b> | <b>0</b>                  | <b>0</b>                  | <b>280</b>                | <b>275</b>                | <b>74.6</b> | <b>20.5</b> | <b>6.4</b> | <b>938</b>      |       |      |      |      |      |       |       |       |
| 2/24/2020  | 045    | D-15      | Sipos Mine discharge                                   | 20           | 2.73        | 2.7         |             | 1190        | 0                         | 0                         | 247                       | 212                       | 17.7        | 14.4        | 0.3        | 290             |       |      |      |      |      |       |       |       |
| 9/20/2020  | 045    | D-15      | Sipos Mine discharge                                   | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 11/2/2020  | 045    | D-15      | Sipos Mine discharge                                   | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 12/3/2020  | 045    | D-15      | Sipos Mine discharge                                   | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 1/6/2021   | 045    | D-15      | Sipos Mine discharge                                   | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 3/15/2021  | 045    | D-15      | Sipos Mine discharge                                   | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| 5/25/2021  | 045    | D-15      | Sipos Mine discharge                                   | 0            |             |             |             |             |                           |                           |                           |                           |             |             |            |                 |       |      |      |      |      |       |       |       |
| <b>AVG</b> |        |           | <b>Sipos Mine discharge</b>                            | <b>3</b>     | <b>2.73</b> | <b>2.7</b>  |             | <b>1190</b> | <b>0</b>                  | <b>0</b>                  | <b>247</b>                | <b>212</b>                | <b>17.7</b> | <b>14.4</b> | <b>0.3</b> | <b>290</b>      |       |      |      |      |      |       |       |       |
| 2/24/2020  | 046    | D-16      | Ditch Along Rte. 119S                                  | 30           | 6.06        | 6.8         |             | 1062        | 87                        | 77                        | -69                       | -44                       | 23.3        | <0.3        | 0.8        | 402             | 93.1  | 23.2 | 89.6 | 4.6  | 60.3 | <0.05 | <0.30 | <0.20 |
| 9/20/2020  | 046    | D-16      | Ditch Along Rte. 119S                                  | 25           | 6.52        | 7.6         |             | 1018        | 80                        | 70                        | -62                       | -33                       | 23.4        | 0.9         | 0.3        | 350             | 93.1  | 24.1 | 83.6 | 4.6  | 52.3 | 0.05  | 0.03  | <0.20 |
| <b>AVG</b> |        |           | <b>Ditch Along Rte. 119S</b>                           | <b>28</b>    | <b>6.29</b> | <b>7.20</b> |             | <b>1040</b> | <b>84</b>                 | <b>74</b>                 | <b>-65</b>                | <b>-38</b>                | <b>23.4</b> | <b>0.9</b>  | <b>0.6</b> | <b>376</b>      |       |      |      |      |      |       |       |       |
| 2/24/2020  | 042    | D-12      | Tide refuse diversion ditch effluent                   | 6            | 2.66        | 2.4         |             | 4200        | 0                         | 0                         | 2941                      | 2762                      | 336.9       | 350.7       | 5.3        | 3372            | 200.6 | 41.4 | 3.5  | 1.6  | 3.8  | 0.70  | 1.39  | <0.20 |
| 1/6/2021   | 042    | D-12      | Tide refuse diversion ditch effluent                   | not measured | 2.41        | 2.4         |             | 5400        | 0                         | 0                         | 6201                      | 4820                      | 480.9       | 674.2       | 6.4        | 4857            |       |      |      |      |      |       |       |       |
| 3/15/2021  | 042    | D-12      | Tide refuse diversion ditch effluent                   | 25           | 2.35        | 2.5         |             | 4190        | 0                         | 0                         | 2998                      | 2653                      | 214.0       | 377.9       | 6.0        | 3050            |       |      |      |      |      |       |       |       |
| 4/12/2021  | 042    | D-12      | Tide refuse diversion ditch effluent                   | 9            | 2.57        | 2.4         | 3967        | 4510        |                           | 0                         | 3225                      | 2905                      | 267.8       | 398.1       | 7.4        | 3168            |       |      |      |      |      |       |       |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Description                                 | Flow      | pH, field   | pH, lab     | Cond, field  | Cond, lab    | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe           | Al           | Mn         | SO <sub>4</sub> | Ca    | Mg   | Na   | K    | Cl   | Ni   | Zn   | Br    |
|------------|--------|-----------|---|-----------|-------------|-------------|--------------|--------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------|--------------|------------|-----------------|-------|------|------|------|------|------|------|-------|
|            |        |           |   | gpm       | s.u         | s.u         | uS/cm        | umhos/cm     | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L         | mg/L         | mg/L       | mg/L            | mg/L  | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L  |
| 5/25/2021  | 042    | D-12      | Tide refuse diversion ditch effluent        | 6         | 2.51        | 2.4         |              | 4070         | 0                         | 0                         | 2361                      | 2305                      | 172.8        | 321.1        | 6.0        | 2515            | 222.7 | 38.4 | 2.8  | 1.0  | 3.7  | 0.64 | 1.23 | <0.20 |
| <b>AVG</b> |        |           | <b>Tide refuse diversion ditch effluent</b> | <b>12</b> | <b>2.50</b> | <b>2.42</b> |              | <b>4474</b>  | <b>0</b>                  | <b>0</b>                  | <b>3545</b>               | <b>3089</b>               | <b>294.5</b> | <b>424.4</b> | <b>6.2</b> | <b>3392</b>     |       |      |      |      |      |      |      |       |
| 2/24/2020  | 043    | D-13      | Mitigation wetland effluent                 | 3         | 2.6         | 2.60        | 2806         | 3080         | 0                         | 0                         | 1768                      | 1777                      | 126.7        | 254.6        | 5.2        | 2166            | 190.4 | 36.3 | 3.5  | 3.1  | 4.1  | 0.61 | 1.21 | <0.20 |
| 11/2/2020  | 043    | D-13      | Mitigation wetland effluent                 | 0         |             |             |              |              |                           |                           |                           |                           |              |              |            |                 |       |      |      |      |      |      |      |       |
| 12/3/2020  | 043    | D-13      | Mitigation wetland effluent                 | 0         |             |             |              |              |                           |                           |                           |                           |              |              |            |                 |       |      |      |      |      |      |      |       |
| 1/6/2021   | 043    | D-13      | Mitigation wetland effluent                 | 0         |             |             |              |              |                           |                           |                           |                           |              |              |            |                 |       |      |      |      |      |      |      |       |
| 3/15/2021  | 043    | D-13      | Mitigation wetland effluent                 | 0         |             |             |              |              |                           |                           |                           |                           |              |              |            |                 |       |      |      |      |      |      |      |       |
| <b>AVG</b> |        |           | <b>Mitigation wetland effluent</b>          | <b>1</b>  | <b>3</b>    | <b>3</b>    | <b>2,806</b> | <b>3,080</b> | <b>0</b>                  | <b>0</b>                  | <b>1,768</b>              | <b>1,777</b>              | <b>127</b>   | <b>255</b>   | <b>5</b>   | <b>2166</b>     |       |      |      |      |      |      |      |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load     | Fe load   | Al load   | Mn load   | SO <sub>4</sub> load | Lat       | Long       | Notes |
|------------|--------|-----------|---------------|-----------|-----------|-----------|----------------------|-----------|------------|-------|
|            |        |           | ppd           | ppd       | ppd       | ppd       | ppd                  |           |            |       |
| 11/17/2019 | 001    | LYC-1     | -1,970        | 11        |           | 4         | 2,885                | 40.569032 | -79.127324 |       |
| 2/24/2020  | 001    | LYC-1     |               |           |           |           |                      |           |            |       |
| 9/20/2020  | 001    | LYC-1     | -2,192        | 8         | 2         | 18        | 2,599                |           |            |       |
| 5/25/2021  | 001    | LYC-1     | -3,584        | 57        | 81        | 28        | 10,262               |           |            |       |
| <b>AVG</b> |        |           | <b>-2,582</b> | <b>25</b> | <b>42</b> | <b>16</b> | <b>5,249</b>         |           |            |       |
| 11/17/2019 | 006    | LYC-2     | -3,028        | 12        |           | 5         | 7,494                | 40.562754 | -79.127981 |       |
| 9/20/2020  | 006    | LYC-2     | -3,036        | 12        | 3         | 18        | 6,060                |           |            |       |
| 5/25/2021  | 006    | LYC-2     | -4,309        | 45        | 89        | 17        | 9,149                |           |            |       |
| <b>AVG</b> |        |           | <b>-3,458</b> | <b>23</b> | <b>46</b> | <b>13</b> | <b>7,568</b>         |           |            |       |
| 11/17/2019 | 007    | LYC-3     | 165           | 5         | 14        | 4         | 427                  | 40.562051 | -79.127567 |       |
| 2/24/2020  | 007    | LYC-3     |               |           |           |           |                      |           |            |       |
| 9/20/2020  | 007    | LYC-3     | 3             | 0         | 0         | 0         | 9                    |           |            |       |
| 5/25/2021  | 007    | LYC-3     | 29            | 1         | 3         | 1         | 111                  |           |            |       |
| <b>AVG</b> |        |           | <b>66</b>     | <b>2</b>  | <b>6</b>  | <b>2</b>  | <b>182</b>           |           |            |       |
| 11/17/2019 | 010    | LYC-4     |               |           |           |           |                      | 40.557783 | -79.114632 |       |
| 2/24/2020  | 010    | LYC-4     |               |           |           |           |                      |           |            |       |
| 9/20/2020  | 010    | LYC-4     |               |           |           |           |                      |           |            |       |
| 5/25/2021  | 010    | LYC-4     |               |           |           |           |                      |           |            |       |
| <b>AVG</b> |        |           |               |           |           |           |                      |           |            |       |
| 11/17/2019 | 011    | LYC-5     | -2,847        | 29        | 34        | 12        | 9,361                | 40.556853 | -79.132167 |       |
| 9/20/2020  | 011    | LYC-5     | -3,186        | 17        | 4         | 20        | 7,062                |           |            |       |
| 5/25/2021  | 011    | LYC-5     | -2,865        | 101       | 197       | 38        | 13,467               |           |            |       |
| <b>AVG</b> |        |           | <b>-2,966</b> | <b>49</b> | <b>79</b> | <b>23</b> | <b>9,963</b>         |           |            |       |
| 11/17/2019 | 012    | LYC-6     | 178           | 13        |           |           | 713                  | 40.554270 | -79.129225 |       |
| 2/24/2020  | 012    | LYC-6     | 233           | 53        | 20        | 7         | 1,810                |           |            |       |
| 9/20/2020  | 012    | LYC-6     | 62            | 2         | 2         | 6         | 163                  |           |            |       |
| 5/25/2021  | 012    | LYC-6     | 80            | 7         | 6         | 2         | 837                  |           |            |       |
| <b>AVG</b> |        |           | <b>138</b>    | <b>19</b> | <b>9</b>  | <b>5</b>  | <b>881</b>           |           |            |       |
| 11/17/2019 | 014    | LYC-7     |               |           |           |           |                      | 40.551555 | -79.116940 |       |
| 9/20/2020  | 014    | LYC-7     |               |           |           |           |                      |           |            |       |
| 5/25/2021  | 014    | LYC-7     |               |           |           |           |                      |           |            |       |
| <b>AVG</b> |        |           |               |           |           |           |                      |           |            |       |
| 11/17/2019 | 015    | LYC-8     |               |           |           |           |                      | 40.551725 | -79.116912 |       |
| 9/20/2020  | 015    | LYC-8     |               |           |           |           |                      |           |            |       |
| <b>AVG</b> |        |           |               |           |           |           |                      |           |            |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias    | Acid load     | Fe load      | Al load      | Mn load    | SO <sub>4</sub> load | Lat       | Long       | Notes   |
|------------|--------|--------------|---------------|--------------|--------------|------------|----------------------|-----------|------------|---|
|            |        |              | ppd           | ppd          | ppd          | ppd        | ppd                  |           |            |   |
| 11/17/2019 | 016    | LYC-9        | -4,126        | 31           | 35           | 15         | 9,191                | 40.557267 | -79.142063 | Measured acidity likely wrong. Calculated acidity used in report. |
| 2/24/2020  | 016    | LYC-9        | -5,189        | 399          | 356          | 64         | 26,769               |           |            |   |
| 9/20/2020  | 016    | LYC-9        | -3,658        | 15           | 6            | 21         | 7,008                |           |            |   |
| 5/25/2021  | 016    | LYC-9        | -3,116        | 98           | 152          | 35         | 12,664               |           |            |   |
| <b>AVG</b> |        |              | <b>-4,022</b> | <b>136</b>   | <b>137</b>   | <b>34</b>  | <b>13,908</b>        |           |            |   |
| 11/17/2019 | 020    | LYC-10       | -2,477        | 44           | 40           | 26         | 11,269               | 40.556268 | -79.146235 |   |
| 9/20/2020  | 020    | LYC-10       | -2,698        | 25           | 9            | 17         | 6,132                |           |            |   |
| 5/25/2021  | 020    | LYC-10       | -3,381        | 113          | 220          | 58         | 19,831               |           |            |   |
| <b>AVG</b> |        |              | <b>-2,852</b> | <b>61</b>    | <b>90</b>    | <b>34</b>  | <b>12,411</b>        |           |            |   |
| 2/24/2020  |        | LYC-10.5 AVG | 30,308        | 7,550        | 2,729        | 233        | 66,189               | 40.55261  | -79.1505   |   |
| 9/20/20    |        | LYC-10.5 AVG | 1,782         | 1,185        | 33           | 418        | 10,944               |           |            |   |
| 5/25/2021  |        | LYC-10.5 AVG | -1,893        | 251          | 300          | 83         | 21,443               |           |            |   |
| <b>AVG</b> |        |              | <b>10,066</b> | <b>2,996</b> | <b>1,021</b> | <b>245</b> | <b>32,859</b>        |           |            |   |
| 2/24/2020  |        | LYC-11 AVG   | 7,380         | 2,544        | 1,149        | 208        | 50,761               | 40.54811  | -79.15306  |   |
| 9/20/20    |        | LYC-11 AVG   | 1,089         | 1,120        | 46           | 377        | 14,336               |           |            |   |
| 5/25/2021  |        | LYC-11 AVG   | 2,468         | 1,357        | 764          | 125        | 31,988               |           |            |   |
| <b>AVG</b> |        |              | <b>3,646</b>  | <b>1,674</b> | <b>653</b>   | <b>237</b> | <b>32,362</b>        |           |            |   |
| 11/17/2019 | 026    | LYC-12       | 730           | 1,293        | 320          | 57         | 15,216               | 40.544154 | -79.159587 |   |
| 2/24/2020  | 026    | LYC-12       | 5,021         | 2,174        | 1,053        | 195        | 50,391               |           |            |   |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load    | Fe load      | Al load    | Mn load    | SO <sub>4</sub> load | Lat       | Long       | Notes |
|------------|--------|-----------|--------------|--------------|------------|------------|----------------------|-----------|------------|-------|
|            |        |           | ppd          | ppd          | ppd        | ppd        | ppd                  |           |            |       |
| 9/20/20    | 026    | LYC-12    | 333          | 714          | 34         | 172        | 10,783               |           |            |       |
| 5/25/21    | 026    | LYC-12    | 2,623        | 1,249        | 742        | 124        | 38,345               |           |            |       |
| <b>AVG</b> |        |           | <b>2,177</b> | <b>1,358</b> | <b>537</b> | <b>137</b> | <b>28,684</b>        |           |            |       |
| 11/17/2019 | 027    | UYC-1     |              |              |            |            |                      | 40.637602 | -78.887526 |       |
| 2/24/2020  | 027    | UYC-1     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 027    | UYC-1     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 027    | UYC-1     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |
| 11/17/2019 | 028    | UYC-2     |              |              |            |            |                      | 40.614172 | -78.921355 |       |
| 2/24/2020  | 028    | UYC-2     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 028    | UYC-2     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 028    | UYC-2     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |
| 11/17/2019 | 029    | UYC-3     |              |              |            |            |                      | 40.617935 | -78.923763 |       |
| 2/24/2020  | 029    | UYC-3     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 029    | UYC-3     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 029    | UYC-3     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |
| 11/17/2019 | 030    | UYC-4     |              |              |            |            |                      | 40.612846 | -78.956524 |       |
| 2/24/2020  | 030    | UYC-4     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 030    | UYC-4     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 030    | UYC-4     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |
| 11/17/2019 | 031    | UYC-5     |              |              |            |            |                      | 40.583106 | -79.002530 |       |
| 2/24/2020  | 031    | UYC-5     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 031    | UYC-5     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 031    | UYC-5     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |
| 11/17/2019 | 032    | UYC-6     |              |              |            |            |                      | 40.57236  | -78.92483  |       |
| 2/24/2020  | 032    | UYC-6     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 032    | UYC-6     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 032    | UYC-6     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |
| 11/17/2019 | 033    | UYC-7     |              |              |            |            |                      | 40.55693  | -79.00646  |       |
| 2/24/2020  | 033    | UYC-7     |              |              |            |            |                      |           |            |       |
| 9/20/20    | 033    | UYC-7     |              |              |            |            |                      |           |            |       |
| 5/25/21    | 033    | UYC-7     |              |              |            |            |                      |           |            |       |
| <b>AVG</b> |        |           |              |              |            |            |                      |           |            |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load | Fe load   | Al load  | Mn load  | SO <sub>4</sub> load | Lat       | Long       | Notes |
|------------|--------|-----------|-----------|-----------|----------|----------|----------------------|-----------|------------|-------|
|            |        |           | ppd       | ppd       | ppd      | ppd      | ppd                  |           |            |       |
| 11/17/2019 | 002    | D-1       | 3         | 0         | 0        | 0        | 27                   | 40.567794 | -79.126468 |       |
| 2/24/2020  | 002    | D-1       | 0         | 0         | 0        | 0        | 3                    |           |            |       |
| 9/20/20    | 002    | D-1       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 11/2/20    | 002    | D-1       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 12/3/20    | 002    | D-1       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 1/6/21     | 002    | D-1       | 100       | 0         | 13       | 4        | 609                  |           |            |       |
| 3/15/21    | 002    | D-1       | 27        | 0         | 4        | 1        | 162                  |           |            |       |
| 4/12/21    | 002    | D-1       | 63        | 0         | 9        | 2        | 337                  |           |            |       |
| 5/25/21    | 002    | D-1       | 40        | 0         | 5        | 2        | 270                  |           |            |       |
| <b>AVG</b> |        |           | <b>26</b> | <b>0</b>  | <b>4</b> | <b>1</b> | <b>156</b>           |           |            |       |
| 11/17/2019 | 003    | D-2       | 0         | 0         | 0        | 0        | 0                    | 40.567575 | -79.126349 |       |
| 2/24/2020  | 003    | D-2       | 107       | 1         | 11       | 2        | 324                  |           |            |       |
| 9/20/20    | 003    | D-2       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 11/2/20    | 003    | D-2       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 12/3/20    | 003    | D-2       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 1/6/21     | 003    | D-2       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 3/15/21    | 003    | D-2       | 209       | 3         | 25       | 4        | 544                  |           |            |       |
| 4/12/21    | 003    | D-2       | 146       | 2         | 15       | 3        | 493                  |           |            |       |
| 5/25/21    | 003    | D-2       | 127       | 2         | 13       | 2        | 315                  |           |            |       |
| <b>AVG</b> |        |           | <b>65</b> | <b>1</b>  | <b>7</b> | <b>1</b> | <b>186</b>           |           |            |       |
| 11/17/2019 | 004    | PTS-1     | 1         |           | 0        | 0        | 23                   | 40.566986 | -79.127046 |       |
| 2/24/2020  | 004    | PTS-1     | 25        | 0         | 4        | 1        | 170                  |           |            |       |
| 9/20/20    | 004    | PTS-1     | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 5/25/21    | 004    | PTS-1     | 7         | 10        | 0        | 1        | 2                    |           |            |       |
| <b>AVG</b> |        |           | <b>9</b>  | <b>0</b>  | <b>1</b> | <b>0</b> | <b>65</b>            |           |            |       |
| 2/24/2020  | 041    | PTS-3     | 4         | 0         | 0        | 1        | 94                   |           |            |       |
| 11/2/2020  | 041    | PTS-3     | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 12/3/2020  | 041    | PTS-3     | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 5/25/2021  | 041    | PTS-3     | 3         | 0         | 0        | 1        | 112                  |           |            |       |
| <b>AVG</b> |        |           | <b>2</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>65</b>            |           |            |       |
| 11/17/2019 | 008    | D-3       | 61        | 9         | 4        | 1        | 233                  | 40.561938 | -79.127232 |       |
| 2/24/2020  | 008    | D-3       | 240       | 27        | 21       | 4        | 678                  |           |            |       |
| 9/20/20    | 008    | D-3       | 10        | 2         | 0        | 1        | 30                   |           |            |       |
| 11/2/20    | 008    | D-3       | 1         | 0         | 0        | 0        | 4                    |           |            |       |
| 12/3/20    | 008    | D-3       | 2         | 0         | 0        | 0        | 6                    |           |            |       |
| 1/6/21     | 008    | D-3       | 0         | 0         | 0        | 0        | 0                    |           |            |       |
| 2/17/21    | 008    | D-3       | 13        | 2         | 1        | 0        | 54                   |           |            |       |
| 3/15/21    | 008    | D-3       | 183       | 26        | 16       | 4        | 550                  |           |            |       |
| 4/12/21    | 008    | D-3       | 142       | 19        | 12       | 2        | 429                  |           |            |       |
| 5/25/21    | 008    | D-3       | 98        | 14        | 8        | 1        | 276                  |           |            |       |
| <b>AVG</b> |        |           | <b>75</b> | <b>10</b> | <b>6</b> | <b>1</b> | <b>226</b>           |           |            |       |
| 11/17/2019 | 009    | D-4       | 24        | 2         | 2        | 0        | 39                   | 40.557094 | -79.115539 |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load  | Fe load   | Al load   | Mn load  | SO <sub>4</sub> load | Lat       | Long       | Notes |
|------------|--------|-----------|------------|-----------|-----------|----------|----------------------|-----------|------------|-------|
|            |        |           | ppd        | ppd       | ppd       | ppd      | ppd                  |           |            |       |
| 2/24/2020  | 009    | D-4       | 230        | 16        | 23        | 3        | 417                  |           |            |       |
| 9/20/20    | 009    | D-4       | 52         | 4         | 0         | 5        | 84                   |           |            |       |
| 11/2/20    | 009    | D-4       | 73         | 6         | 9         | 1        | 141                  |           |            |       |
| 12/3/20    | 009    | D-4       | 127        | 10        | 12        | 1        | 197                  |           |            |       |
| 1/6/21     | 009    | D-4       | 293        | 14        | 28        | 2        | 443                  |           |            |       |
| 2/17/21    | 009    | D-4       | 160        | 10        | 19        | 2        | 274                  |           |            |       |
| 3/15/21    | 009    | D-4       | 323        | 19        | 35        | 3        | 552                  |           |            |       |
| 4/12/21    | 009    | D-4       | 146        | 8         | 14        | 2        | 247                  |           |            |       |
| 5/25/21    | 009    | D-4       | 172        | 11        | 17        | 2        | 385                  |           |            |       |
| <b>AVG</b> |        |           | <b>160</b> | <b>10</b> | <b>16</b> | <b>2</b> | <b>278</b>           |           |            |       |
| 11/17/2019 | 013    | D-5       | 5          | 1         | 0         | 0        | 17                   | 40.552194 | -79.124879 |       |
| 2/24/2020  | 013    | D-5       | -15        | 3         | 1         | 0        | 112                  |           |            |       |
| 9/20/2020  | 013    | D-5       | 0          | 0         | 0         | 0        | 0                    |           |            |       |
| 11/2/2020  | 013    | D-5       | 0          | 0         | 0         | 0        | 0                    |           |            |       |
| 12/3/2020  | 013    | D-5       | 0          | 0         | 0         | 0        | 0                    |           |            |       |
| 1/6/21     | 013    | D-5       | -6         | 1         | 0         | 0        | 59                   |           |            |       |
| 3/15/21    | 013    | D-5       | -8         | 2         | 1         | 0        | 78                   |           |            |       |
| 4/12/21    | 013    | D-5       | -12        | 2         | 1         | 0        | 93                   |           |            |       |
| 5/25/21    | 013    | D-5       | -5         | 1         | 0         | 0        | 51                   |           |            |       |
| <b>AVG</b> |        |           | <b>-4</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>46</b>            |           |            |       |
| 11/17/2019 | 017    | D-6       | 20         | 8         | 1         | 3        | 1,263                | 40.558866 | -79.141265 |       |
| 2/24/2020  | 017    | D-6       |            |           |           |          |                      |           |            |       |
| 9/20/20    | 017    | D-6       | 0          | 0         | 0         | 0        | 0                    |           |            |       |
| 11/2/20    | 017    | D-6       | 0          | 0         | 0         | 0        | 0                    |           |            |       |
| 12/3/20    | 017    | D-6       |            |           |           |          |                      |           |            |       |
| 1/6/21     | 017    | D-6       | 1          | 0         | 0         | 0        | 9                    |           |            |       |
| 3/15/21    | 017    | D-6       | 22         | 4         | 4         | 2        | 448                  |           |            |       |
| 4/12/21    | 017    | D-6       | 95         | 6         | 15        | 3        | 909                  |           |            |       |
| 5/25/21    | 017    | D-6       | 274        | 10        | 42        | 8        | 2,512                |           |            |       |
| <b>AVG</b> |        |           | <b>59</b>  | <b>4</b>  | <b>9</b>  | <b>2</b> | <b>734</b>           |           |            |       |
| 11/17/2019 | 019    | D-6B      | 88         | 23        | 4         | 5        | 1,260                | 40.557314 | -79.142758 |       |
| 2/24/2020  | 019    | D-6B      | 107        | 6         | 11        | 6        | 1,643                |           |            |       |
| 9/20/20    | 019    | D-6B      | 5          | 1         | 0         | 0        | 42                   |           |            |       |
| 11/2/20    | 019    | D-6B      | 2          | 0         | 0         | 0        | 25                   |           |            |       |
| 12/3/20    | 019    | D-6B      |            |           |           |          |                      |           |            |       |
| 1/6/21     | 019    | D-6B      |            |           |           |          |                      |           |            |       |
| 2/17/21    | 019    | D-6B      |            |           |           |          |                      |           |            |       |
| 3/15/21    | 019    | D-6B      | 23         | 2         | 3         | 2        | 595                  |           |            |       |
| 4/12/21    | 019    | D-6B      | 1          | 0         | 0         | 0        | 18                   |           |            |       |
| 5/25/21    | 019    | D-6B      |            |           |           |          |                      |           |            |       |
| <b>AVG</b> |        |           | <b>38</b>  | <b>5</b>  | <b>3</b>  | <b>2</b> | <b>597</b>           |           |            |       |
| 11/17/2019 | 021    | D-7       | 77         | 22        | 5         | 1        | 217                  | 40.550481 | -79.151201 |       |
| 2/24/2020  | 021    | D-7       | 106        | 31        | 8         | 1        | 414                  |           |            |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load | Fe load   | Al load  | Mn load  | SO <sub>4</sub> load | Lat       | Long       | Notes   |
|------------|--------|-----------|-----------|-----------|----------|----------|----------------------|-----------|------------|---|
|            |        |           | ppd       | ppd       | ppd      | ppd      | ppd                  |           |            |   |
| 9/20/2020  | 021    | D-7       | 53        | 16        | 1        | 4        | 161                  |           |            |   |
| 11/2/2020  | 021    | D-7       | 58        | 19        | 5        | 1        | 157                  |           |            |   |
| 12/3/2020  | 021    | D-7       | 57        | 15        | 4        | 1        | 215                  |           |            |   |
| 1/6/21     | 021    | D-7       | 54        | 17        | 4        | 1        | 216                  |           |            |   |
| 2/17/21    | 021    | D-7       | 60        | 19        | 5        | 1        | 161                  |           |            |   |
| 3/15/21    | 021    | D-7       | 83        | 24        | 6        | 1        | 251                  |           |            |   |
| 4/12/21    | 021    | D-7       | 105       | 27        | 6        | 4        | 472                  |           |            |   |
| 5/25/21    | 021    | D-7       | 107       | 27        | 8        | 1        | 304                  |           |            |   |
| <b>AVG</b> |        |           | <b>76</b> | <b>22</b> | <b>5</b> | <b>1</b> | <b>257</b>           |           |            |   |
| 11/17/2019 | 022    | D-8       | 17        | 6         | 0        | 1        | 65                   | 40.550201 | -79.150917 |   |
| 2/24/2020  | 022    | D-8       | 118       | 57        | 1        | 7        | 503                  |           |            |   |
| 9/20/2020  | 022    | D-8       | 12        | 4         | 1        | 0        | 45                   |           |            |   |
| 11/2/2020  | 022    | D-8       | 11        | 3         | 0        | 1        | 52                   |           |            |   |
| 12/3/2020  | 022    | D-8       | 18        | 5         | 0        | 1        | 74                   |           |            |   |
| 1/6/21     | 022    | D-8       |           |           |          |          |                      |           |            |   |
| 2/17/21    | 022    | D-8       | 437       | 146       | 48       | 6        | 676                  |           |            | Measured acidity of 556. Clearly wrong. Removed |
| 3/15/21    | 022    | D-8       | 23        | 10        | 0        | 1        | 89                   |           |            |   |
| 4/12/21    | 022    | D-8       | 60        | 21        | 1        | 4        | 307                  |           |            |   |
| 5/25/21    | 022    | D-8       | 50        | 22        | 0        | 3        | 311                  |           |            |   |
| <b>AVG</b> |        |           | <b>83</b> | <b>30</b> | <b>6</b> | <b>3</b> | <b>236</b>           |           |            |   |
| 11/17/2019 | 024    | D-9       |           |           |          |          |                      | 40.549863 | -79.155119 |   |
| 2/24/2020  | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 9/20/2020  | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 11/2/2020  | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 12/3/2020  | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 1/6/21     | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 2/17/21    | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 3/15/21    | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 4/12/21    | 024    | D-9       |           |           |          |          |                      |           |            |   |
| 5/25/21    | 024    | D-9       |           |           |          |          |                      |           |            |   |
| <b>AVG</b> |        |           |           |           |          |          |                      |           |            |   |
| 11/17/2019 | 025    | D-9A      | -1        | 9         | 1        | 1        | 151                  | 40.548904 | -79.155148 |   |
| 2/24/2020  | 025    | D-9A      | 109       | 43        | 11       | 7        | 681                  |           |            |   |
| 9/20/2020  | 025    | D-9A      | -8        | 16        | 2        | 1        | 269                  |           |            |   |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load | Fe load   | Al load  | Mn load   | SO <sub>4</sub> load | Lat       | Long       | Notes |
|------------|--------|-----------|-----------|-----------|----------|-----------|----------------------|-----------|------------|-------|
|            |        |           | ppd       | ppd       | ppd      | ppd       | ppd                  |           |            |       |
| 11/2/2020  | 025    | D-9A      | -4        | 6         | 0        | 1         | 113                  |           |            |       |
| 12/3/2020  | 025    | D-9A      | 0         | 15        | 1        | 2         | 279                  |           |            |       |
| 1/6/21     | 025    | D-9A      | 5         | 16        | 1        | 2         | 236                  |           |            |       |
| 2/17/21    | 025    | D-9A      |           |           |          |           |                      |           |            |       |
| 3/15/21    | 025    | D-9A      | 2         | 13        | 0        | 1         | 248                  |           |            |       |
| 4/12/21    | 025    | D-9A      | 40        | 26        | 4        | 3         | 380                  |           |            |       |
| 5/25/21    | 025    | D-9A      | 31        | 21        | 3        | 2         | 422                  |           |            |       |
| <b>AVG</b> |        |           | <b>19</b> | <b>18</b> | <b>3</b> | <b>2</b>  | <b>309</b>           |           |            |       |
|            |        |           |           |           |          |           |                      |           |            |       |
| 11/17/2019 | 044    | D-14      | 0         | 0         | 0        | 0         | 0                    | 40.550090 | -79.151010 |       |
| 2/24/2020  | 044    | D-14      | 129       | 32        | 10       | 5         | 440                  |           |            |       |
| 9/20/2020  | 044    | D-14      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 11/2/2020  | 044    | D-14      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 12/3/2020  | 044    | D-14      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 1/6/21     | 044    | D-14      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 3/15/21    | 044    | D-14      | 79        | 28        | 3        | 3         | 304                  |           |            |       |
| 4/12/21    | 044    | D-14      | 93        | 25        | 7        | 1         | 220                  |           |            |       |
| 5/25/21    | 044    | D-14      | 102       | 20        | 10       | 4         | 599                  |           |            |       |
| <b>AVG</b> |        |           | <b>45</b> | <b>12</b> | <b>3</b> | <b>1</b>  | <b>174</b>           |           |            |       |
|            |        |           |           |           |          |           |                      |           |            |       |
| 2/24/2020  | 045    | D-15      | 59        | 4         | 3        | 0         | 69                   | 40.55177  | -79.11586  |       |
| 9/20/2020  | 045    | D-15      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 11/2/2020  | 045    | D-15      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 12/3/2020  | 045    | D-15      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 1/6/2021   | 045    | D-15      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 3/15/2021  | 045    | D-15      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| 5/25/2021  | 045    | D-15      | 0         | 0         | 0        | 0         | 0                    |           |            |       |
| <b>AVG</b> |        |           | <b>8</b>  | <b>1</b>  | <b>0</b> | <b>0</b>  | <b>10</b>            |           |            |       |
|            |        |           |           |           |          |           |                      |           |            |       |
| 2/24/2020  | 046    | D-16      | -25       | 8         |          | 0         | 145                  | 40.54905  | -79.15585  |       |
| 9/20/2020  | 046    | D-16      | 7         | 0         | 0        | 105       | 2                    |           |            |       |
| <b>AVG</b> |        |           | <b>-9</b> | <b>4</b>  | <b>0</b> | <b>53</b> | <b>73</b>            |           |            |       |
|            |        |           |           |           |          |           |                      |           |            |       |
| 2/24/2020  | 042    | D-12      | 212       | 24        | 25       | 0         | 243                  | 40.56109  | -79.12859  |       |
| 1/6/2021   | 042    | D-12      |           |           |          |           |                      |           |            |       |
| 3/15/2021  | 042    | D-12      | 899       | 64        | 113      | 2         | 915                  |           |            |       |
| 4/12/2021  | 042    | D-12      | 348       | 29        | 43       | 1         | 342                  |           |            |       |

**Table 3  
Chemical Data**

| Date       | Sample | DEP Alias | Acid load  | Fe load   | Al load   | Mn load  | SO <sub>4</sub> load | Lat     | Long      | Notes |
|------------|--------|-----------|------------|-----------|-----------|----------|----------------------|---------|-----------|-------|
|            |        |           | ppd        | ppd       | ppd       | ppd      | ppd                  |         |           |       |
| 5/25/2021  | 042    | D-12      | 170        | 12        | 23        | 0        | 181                  |         | 23%       |       |
| <b>AVG</b> |        |           | <b>407</b> | <b>32</b> | <b>51</b> | <b>1</b> | <b>420</b>           |         |           |       |
|            |        |           |            |           |           |          |                      |         |           |       |
| 2/24/2020  | 043    | D-13      | 53         | 4         | 8         | 0        | 65                   | 40.5603 | -79.12888 |       |
| 11/2/2020  | 043    | D-13      | 0          | 0         | 0         | 0        | 0                    |         |           |       |
| 12/3/2020  | 043    | D-13      | 0          | 0         | 0         | 0        | 0                    |         |           |       |
| 1/6/2021   | 043    | D-13      | 0          | 0         | 0         | 0        | 0                    |         |           |       |
| 3/15/2021  | 043    | D-13      | 0          | 0         | 0         | 0        | 0                    |         |           |       |
| <b>AVG</b> |        |           | <b>11</b>  | <b>1</b>  | <b>2</b>  | <b>0</b> | <b>13</b>            |         |           |       |
|            |        |           |            |           |           |          |                      |         |           |       |

**Table 4  
Cross Sections**

| Date     | Sample | DEP Alias  | Description  | Flow          | pH, field   | pH, lab    | Cond, field | Cond, lab  | Alk, field                | Alk, lab                  | Acid                      | Acid Calc                 | Fe          | Al         | Mn         | SO <sub>4</sub> | Acid load     | Fe load      | Al load      | Mn load    | SO <sub>4</sub> load |
|----------|--------|------------|--|---------------|-------------|------------|-------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|------------|------------|-----------------|---------------|--------------|--------------|------------|----------------------|
|          |        |            |  | gpm           | s.u         | s.u        | uS/cm       | umhos/cm   | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L as CaCO <sub>3</sub> | mg/L        | mg/L       | mg/L       | mg/L            | ppd           | ppd          | ppd          | ppd        | ppd                  |
| 02/24/20 | 039    | LYC-11A    | YC above Route 119 Borehole-bank opposite refuse pile    | 50,001        | 6.34        | 6.4        |             | 240        | 13                        | 12                        | 0                         | -5                        | 1.1         | 1.0        | 0.3        | 71              | -240          | 678          | 612          | 150        | 42,721               |
| 09/20/20 | 039    | LYC-11     | YC above Route 119 Borehole-bank opposite refuse pile    | 6,484         | 6.53        | 6.6        |             | 484        | 42                        | 25                        | -17                       | -19                       | 8.2         | 0.4        | 2.8        | 154             | -1,307        | 638          | 34           | 215        | 11,998               |
| 05/25/21 | 039    | LYC-11A    | YC above Route 119 Borehole-bank opposite refuse pile    | 30,240        | 6.62        | 6.6        |             | 220        | 20                        | 12                        | -6                        | -11                       | 1.3         | 1.2        | 0.3        | 69              | -2,177        | 472          | 421          | 96         | 24,930               |
|          |        |            | <b>AVG</b>   | <b>28,908</b> | <b>6.50</b> | <b>6.5</b> |             | <b>315</b> | <b>25</b>                 | <b>16</b>                 | <b>-8</b>                 | <b>-12</b>                | <b>3.5</b>  | <b>0.9</b> | <b>1.1</b> | <b>98</b>       | <b>-1,241</b> | <b>596</b>   | <b>356</b>   | <b>154</b> | <b>26,550</b>        |
| 02/24/20 | 040    | LYC-11B    | YC above Route 119 Borehole-bank adjacent to refuse pile | 50,001        | 5.90        | 5.3        |             | 290        | 8                         | 1                         | 25                        | 22                        | 7.4         | 2.8        | 0.4        | 98              | 15,000        | 4,410        | 1,686        | 266        | 58,801               |
| 09/20/20 | 050    | LYC-11D    | YC above Route 119 Borehole-bank adjacent to refuse pile | 6,484         | 5.68        | 5.7        |             | 582        | 12                        | 4                         | 45                        | 42                        | 20.6        | 0.8        | 6.9        | 214             | 3,486         | 1,603        | 59           | 539        | 16,674               |
| 05/25/21 | 040    | LYC-11B    | YC above Route 119 Borehole-bank adjacent to refuse pile | 30,240        | 5.16        | 4.9        |             | 278        | 3                         | 2                         | 20                        | 26                        | 6.2         | 3.1        | 0.4        | 108             | 7,112         | 2,243        | 1,107        | 154        | 39,046               |
|          |        |            | <b>AVG</b>   | <b>28,908</b> | <b>5.58</b> | <b>5.3</b> |             | <b>383</b> | <b>7</b>                  | <b>2</b>                  | <b>30</b>                 | <b>30</b>                 | <b>11.4</b> | <b>2.2</b> | <b>2.6</b> | <b>140</b>      | <b>8,533</b>  | <b>2,752</b> | <b>951</b>   | <b>320</b> | <b>38,174</b>        |
| 02/24/20 | 037    | LYC-10.5A  | YC mid-refuse pile-bank opposite refuse                  | 50,212        | 6.40        | 6.4        |             | 236        | 17                        | 11                        | -5                        | -10                       | 1.0         | 1.0        | 0.2        | 68              | -2,892        | 580          | 601          | 143        | 40,852               |
| 09/20/20 | 037    | LYC-10.5A  | YC mid-refuse pile-bank opposite refuse                  | 4,684         | 7.10        | 7.3        |             | 443        | 50                        | 43                        | -45                       | -42                       | 2.3         | 0.4        | 1.0        | 127             | -2,507        | 132          | 20           | 54         | 7,110                |
| 05/25/21 | 037    | LYC-10.5A  | YC mid-refuse pile-bank opposite refuse                  | 27,198        | 6.77        | 6.7        |             | 215        | 22                        | 22                        | -6                        | -15                       | 0.7         | 0.9        | 0.2        | 65              | -1,958        | 217          | 288          | 81         | 21,149               |
|          |        |            | <b>AVG</b>   | <b>27,365</b> | <b>6.76</b> | <b>6.8</b> |             | <b>298</b> | <b>30</b>                 | <b>25</b>                 | <b>-18</b>                | <b>-22</b>                | <b>1.3</b>  | <b>0.7</b> | <b>0.5</b> | <b>86</b>       | <b>-2,452</b> | <b>309</b>   | <b>303</b>   | <b>93</b>  | <b>23,037</b>        |
| 02/24/20 | 038    | LYC-10.5B  | YC mid-refuse pile-bank adjacent to refuse pile          | 50,212        | 5.22        | 4.4        |             | 417        | 0                         | 0                         | 105                       | 91                        | 24.1        | 8.1        | 0.5        | 152             | 63,508        | 14,521       | 4,856        | 324        | 91,526               |
| 09/20/20 | 048    | LYC-10.5D  | YC mid-refuse pile-bank adjacent to refuse pile          | 4,684         | 4.89        | 4.5        |             | 662        | 2                         | 0                         | 108                       | 100                       | 39.8        | 0.8        | 13.9       | 263             | 6,070         | 2,239        | 45           | 782        | 14,777               |
| 05/25/21 | 038    | LYC-10.5B  | YC mid-refuse pile-bank adjacent to refuse pile          | 27,198        | 6.42        | 6.7        |             | 216        | 3                         | 16                        | -6                        | 4                         | 0.9         | 1.0        | 0.3        | 67              | -1,828        | 286          | 313          | 86         | 21,737               |
|          |        |            | <b>AVG</b>   | <b>27,365</b> | <b>5.51</b> | <b>5.2</b> |             | <b>432</b> | <b>2</b>                  | <b>5</b>                  | <b>69</b>                 | <b>65</b>                 | <b>21.6</b> | <b>3.3</b> | <b>4.9</b> | <b>160</b>      | <b>22,584</b> | <b>5,682</b> | <b>1,738</b> | <b>397</b> | <b>42,680</b>        |
| 09/20/20 | 036    | LYC-10.5   | YC mid-refuse pile                                       | 4,684         | 7.13        | 7.3        |             | 441        | 50                        | 44                        | -39                       | -43                       | 2.0         | 0.3        | 0.8        | 121             | -2,192        | 114          | 19           | 47         | 6,824                |
| 09/20/20 | 037    | LYC-10.5A  | YC mid-refuse pile                                       | 4,684         | 7.10        | 7.3        |             | 443        | 50                        | 43                        | -45                       | -42                       | 2.3         | 0.4        | 1.0        | 127             | -2,507        | 132          | 20           | 54         | 7,110                |
| 09/20/20 | 051    | LYC-10.5A1 | YC mid-refuse pile-FILTERED                              | 4,684         | 7.10        | 7.3        |             |            | 50                        |                           |                           | -45                       | 1.7         | 0.3        | 0.3        |                 |               |              |              |            |                      |
| 09/20/20 | 038    | LYC-10.5B  | YC mid-refuse pile                                       | 4,684         | 7.07        | 7.3        |             | 445        | 51                        | 42                        | -45                       | -42                       | 2.7         | 0.4        | 1.1        | 129             | -2,529        | 151          | 21           | 61         | 7,240                |
| 09/20/20 | 047    | LYC-10.5C  | YC mid-refuse pile                                       | 4,684         | 5.42        | 4.8        |             | 577        | 7                         | 0                         | 53                        | 58                        | 24.5        | 0.6        | 9.2        | 218             | 2,968         | 1,379        | 35           | 518        | 12,236               |
| 09/20/20 | 048    | LYC-10.5D  | YC mid-refuse pile                                       | 4,684         | 4.89        | 4.5        |             | 662        | 2                         | 0                         | 108                       | 100                       | 39.8        | 0.8        | 13.9       | 263             | 6,070         | 2,239        | 45           | 782        | 14,777               |
| 09/20/20 | 052    | LYC-10.5D1 | YC mid-refuse pile-FILTERED                              | 4,684         | 4.89        | 4.5        |             |            | 2                         |                           |                           | 87                        | 37.8        | 0.8        | 8.6        |                 |               |              |              |            |                      |
| 09/20/20 | 023    | LYC-11     | YC above Route 119 Borehole                              | 6,484         | 6.53        | 6.6        |             | 484        | 42                        | 25                        | -17                       | -19                       | 8.2         | 0.4        | 2.8        | 154             | -1,307        | 638          | 34           | 215        | 11,998               |
| 09/20/20 | 039    | LYC-11A    | YC above Route 119 Borehole                              | 6,484         | 6.39        | 6.6        |             | 489        | 34                        | 21                        | -10                       | -8                        | 9.7         | 0.4        | 3.5        | 160             | -747          | 758          | 35           | 275        | 12,418               |
| 09/20/20 | 053    | LYC-11A1   | YC above Route 119 Borehole--FILTERED                    | 6,484         | 6.39        | 6.6        |             |            | 34                        |                           |                           | -18                       | 7.5         | 0.4        | 0.3        |                 |               |              |              |            |                      |
| 09/20/20 | 040    | LYC-11B    | YC above Route 119 Borehole                              | 6,484         | 6.21        | 6.4        |             | 498        | 25                        | 14                        | -2                        | 7                         | 11.9        | 0.5        | 4.2        | 171             | -156          | 922          | 37           | 330        | 13,282               |
| 09/20/20 | 049    | LYC-11C    | YC above Route 119 Borehole                              | 6,484         | 5.95        | 6.1        |             | 541        | 18                        | 8                         | 16                        | 25                        | 16.4        | 0.6        | 5.7        | 195             | 1,245         | 1,278        | 46           | 441        | 15,134               |
| 09/20/20 | 050    | LYC-11D    | YC above Route 119 Borehole                              | 6,484         | 5.68        | 5.7        |             | 582        | 12                        | 4                         | 45                        | 42                        | 20.6        | 0.8        | 6.9        | 214             | 3,486         | 1,603        | 59           | 539        | 16,674               |
| 09/20/20 | 054    | LYC-11D1   | YC above Route 119 Borehole---FILTERED                   | 6,484         | 5.68        | 5.7        |             |            | 12                        |                           |                           | 26                        | 18.2        | 0.8        | 0.3        |                 |               |              |              |            |                      |

**Table 5**  
**Lucerne Refuse Pile Monitoring Wells**

Data from Cambria DMO permit review. All data collected between 11/13/2019 and 5/19/2021 is shown here. Only a few select dates are shown previous to 11/13/2019. More historic data is available from PADEP.

| Well        | Date          | pH         | Alkalinity    | Acidity    | SO4         | Total Metals   |            |           | Dissolved Metals |              |             |
|-------------|---------------|------------|---------------|------------|-------------|----------------|------------|-----------|------------------|--------------|-------------|
|             |               |            |               |            |             | Al             | Fe         | Mn        | Al               | Fe           | Mn          |
| MW-3        | 05/19/21      | 5.7        | <9.24         | 291.8      | 163         | <0.1           | 163        | 14.7      | <0.1             | 162.0        | 15.3        |
| MW-3        | 03/08/21      | 5.7        | <9.24         | 256.4      | 1530        | <0.1           | 163        | 15.3      | <0.1             | 171.0        | 15.4        |
| MW-3        | 11/10/20      | 6.3        | <9.24         | 298.1      | 1440        | <0.1           | 170        | 14.4      | <0.1             | 173.0        | 14.2        |
| MW-3        | 08/11/20      | 6.1        | 12.6          | 265.2      | 1430        | <0.1           | 159        | 14.6      | <0.1             | 158.0        | 13.9        |
| MW-3        | 05/21/20      | 5.8        | <9.24         | 242.4      | 1340        | <0.1           | 154        | 14.2      | <0.1             | 151.0        | 13.3        |
| MW-3        | 03/18/20      | 5.7        | <9.24         | 254.7      | 1360        | <0.1           | 158        | 14.5      | <0.1             | 152.0        | 14.2        |
| MW-3        | 11/13/19      | 6.2        | <9.24         | 287.2      | 1380        | <0.05          | 162        | 15.5      | <0.1             | 161.0        | 13.9        |
| MW-3        | 02/19/19      | 5.9        | 25.3          | 291.9      | 1190        | <0.1           | 135        | 12.4      | <0.1             | 132.0        | 11.9        |
| MW-3        | 08/10/17      | 5.6        | <9.74         | 75.13      | 511         | <0.5           | 66         | 7.29      | <0.5             | 63.8         | 7.0         |
| MW-3        | 02/04/16      | 6.3        | 26            | 52         | 401         | <0.5           | 49         | 5.28      | <0.5             | 51.9         | 5.6         |
| MW-3        | 08/25/14      | 5.4        | 18            | 46         | 418         | <0.25          | 44.8       | 5.14      | <0.25            | 20.6         | 5.3         |
| MW-3        | 02/12/13      | 6          | <1            | 38         | 357         | <2.5           | 39.2       | 4.69      | <2.5             | 39.8         | 4.7         |
| MW-3        | 08/24/11      | 5.7        | <20           | 52         | 379         | <0.5           | 36.5       | 5.03      | <0.5             | 37.9         | 4.6         |
| MW-3        | 03/24/10      | 6.02       | <1            | 86         | 471         | <0.05          | 46.9       | 5.55      | <0.05            | 50.1         | 6.1         |
| <b>MW-3</b> | <b>Recent</b> | <b>5.9</b> | <b>&lt;10</b> | <b>271</b> | <b>1235</b> | <b>&lt;0.1</b> | <b>161</b> | <b>15</b> | <b>&lt;0.1</b>   | <b>161.1</b> | <b>14.3</b> |
|             |               |            |               |            |             |                |            |           |                  |              |             |
|             |               |            |               |            |             |                |            |           |                  |              |             |
| MW-4        | 05/21/21      | 4.7        | <9.24         | 170        | 672         | 7.07           | 51.6       | 5.7       | 7.0              | 51.1         | 5.6         |
| MW-4        | 03/08/21      | 4.9        | <9.24         | 178.2      | 649         | 6.82           | 53.6       | 4.32      | 5.7              | 49.2         | 4.0         |
| MW-4        | 11/10/20      | 4.6        | <9.24         | 213.1      | 603         | 7.31           | 47         | 4.16      | 7.3              | 43.8         | 4.0         |
| MW-4        | 08/11/20      | 4.6        | <9.24         | 189.8      | 680         | 11             | 45.5       | 5.21      | 10.3             | 43.1         | 5.0         |
| MW-4        | 05/21/20      | 5.1        | <9.24         | 164.7      | 675         | 8.83           | 50.6       | 5.38      | 6.4              | 44.6         | 5.0         |
| MW-4        | 03/18/20      | 4.8        | <9.24         | 157.9      | 739         | 8.11           | 56.6       | 5.57      | 8.5              | 58.2         | 5.8         |
| MW-4        | 11/13/19      | 4.1        | <9.24         | 208.5      | 659         | 11.2           | 60.9       | 5.42      | 9.4              | 51.2         | 4.7         |
| MW-4        | 02/19/19      | 4.9        | <9.24         | 238.2      | 764         | 10.2           | 58.9       | 5.41      | 8.8              | 58.4         | 5.4         |
| MW-4        | 08/10/17      | 4.3        | <9.24         | 232.9      | 840         | 15.9           | 68.4       | 6.88      | 15.3             | 65.2         | 6.6         |
| MW-4        | 02/04/16      | 3.9        | <1            | 230        | 893         | 11.6           | 89.6       | 7.11      | 11.2             | 88.5         | 6.9         |
| MW-4        | 08/25/14      | 4.3        | <1            | 260        | 1550        | 16.9           | 89.3       | 7.9       | 16.5             | 69.6         | 7.8         |
| MW-4        | 02/12/13      | 4.4        | <1            | 202        | 869         | 12.4           | 96.2       | 7.92      | 11.5             | 89.7         | 7.5         |
| MW-4        | 08/24/11      | 4.5        | <20           | 190        | 1250        | 10.4           | 81.8       | 6.68      | 2.2              | 88.8         | 5.6         |
| MW-4        | 03/24/10      | 5.2        | <1            | 230        | 1330        | 5.82           | 106        | 7.31      | 2.9              | 100.0        | 6.9         |
| <b>MW-4</b> | <b>Recent</b> | <b>4.7</b> | <b>&lt;10</b> | <b>183</b> | <b>668</b>  | <b>9</b>       | <b>52</b>  | <b>5</b>  | <b>7.8</b>       | <b>48.7</b>  | <b>4.9</b>  |
|             |               |            |               |            |             |                |            |           |                  |              |             |

**Table 5**  
**Lucerne Refuse Pile Monitoring Wells**

Data from Cambria DMO permit review. All data collected between 11/13/2019 and 5/19/2021 is shown here. Only a few select dates are shown previous to 11/13/2019. More historic data is available from PADEP.

| Well        | Date          | pH         | Alkalinity | Acidity    | SO4        | Total Metals |           |          | Dissolved Metals |             |            |
|-------------|---------------|------------|------------|------------|------------|--------------|-----------|----------|------------------|-------------|------------|
|             |               |            |            |            |            | Al           | Fe        | Mn       | Al               | Fe          | Mn         |
| MW-5        | 05/19/21      | 5.5        | 20.3       | 172.6      | 630        | 0.226        | 92.5      | 4.43     | <0.1             | 94.1        | 4.5        |
| MW-5        | 03/08/21      | 5.8        | 25.3       | 123.4      | 534        | 0.117        | 78.3      | 3.59     | <0.1             | 76.5        | 3.2        |
| MW-5        | 11/10/20      | 6.1        | 52.8       | 134.8      | 468        | 0.142        | 65.1      | 3.12     | <0.1             | 56.4        | 2.8        |
| MW-5        | 08/11/20      | 5.6        | 35.6       | 150.7      | 504        | 0.179        | 64.2      | 3.25     | 0.2              | 61.9        | 3.2        |
| MW-5        | 05/21/20      | 5.7        | 25.3       | 183.4      | 761        | 0.227        | 96.6      | 4.54     | 0.2              | 89.5        | 4.5        |
| MW-5        | 03/18/20      | 5.7        | <9.74      | 130.6      | 633        | 0.175        | 83.1      | 3.81     | 0.2              | 78.8        | 3.7        |
| MW-5        | 11/13/19      | 5.4        | <9.74      | 90.33      | 495        | <0.5         | 67.2      | 3.12     | <0.1             | 58.9        | 2.8        |
| MW-5        | 02/19/19      | 5.9        | 29.7       | 267.6      | 742        | 1            | 108       | 4.88     | 0.7              | 109.0       | 4.9        |
| MW-5        | 09/13/17      | 5.6        | <9.74      | 80.86      | 656        | <0.5         | 89.4      | 3.65     | <0.5             | 84.4        | 3.0        |
| MW-5        | 02/04/16      | 6.1        | 22         | 54         | 535        | <0.5         | 82.1      | 2.33     | <0.5             | 79.4        | 2.2        |
| MW-5        | 08/25/14      | 5.5        | 38         | 22         | 607        | <0.25        | 64.4      | 1.51     | <0.25            | 27.8        | 1.5        |
| MW-5        | 02/12/13      | 6          | 26         | 44         | 565        | <0.25        | 84.6      | 1.53     | <0.25            | 77.3        | 1.7        |
| MW-5        | 08/24/11      | 5.3        | 32         | 32         | 605        | <0.5         | 70.4      | 1.45     | <0.5             | 62.6        | 1.3        |
| MW-5        | 03/24/10      | 6          | 20         | 68         | 727        | 1.66         | 88.8      | 1.51     | <0.05            | 90.3        | 1.5        |
| <b>MW-5</b> | <b>Recent</b> | <b>5.7</b> | <b>32</b>  | <b>141</b> | <b>575</b> | <b>0</b>     | <b>78</b> | <b>4</b> | <b>0.2</b>       | <b>73.7</b> | <b>3.5</b> |

**Table 6  
Colver Power Project  
Monitoring Well 2**

**COAL ASH PLACEMENT GROUNDWATER QUALITY PARAMETERS  
WATER MONITORING REPORT**

Permit #11900201 Maple Coal - Colver Site

MW-2 Monitoring Well - Downgradient Nose of the Refuse Pile 40° 33' 6" -78° 48' 28" Elev. 1727.47'

In ppm (mg/l) *less than*

| DATE     | SWE     | FIELD | LAB  | SPECIF. | ALK.     | ACID.    | TDS   | TSS  | SO4  | NH3     | NO3   | NO2 | Cl   | F    | Al       | Al        | Sb    | Sb        | As    | As        | Ba    | Ba        | Be    | Be        | B     | B         | Cd    | Cd        | Ca    | Ca        |
|----------|---------|-------|------|---------|----------|----------|-------|------|------|---------|-------|-----|------|------|----------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| SAMPLED  | FEET    | pH    | pH   | COND.   | as CaCO3 | as CaCO3 |       |      |      |         |       |     |      |      | Total    | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved |
| 10/11/90 | 1710.52 | 4.3   | 3.20 | 6420    | 0        | 6904     | 12994 | 0    | 9300 |         | 0.090 |     |      | 0.20 | 245.000  |           |       | 0.9300    |       | 0.0900    |       |           |       |           |       | 0.48000   |       |           |       |           |
| 11/07/90 | 1710.82 | 2.2   | 2.50 | 9020    | 0        | 5322     | 9189  | 6296 | 9400 |         |       |     |      |      | 770.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/11/90 | 1710.82 | 2.4   | 2.50 | 8045    | 0        | 4602     | 9584  | 292  | 6000 |         |       |     |      |      | 440.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 01/14/91 | 1710.82 | 3.1   | 2.50 | 5860    | 0        | 6652     | 10159 | 142  | 6241 |         |       |     |      |      | 467.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 02/22/91 | 1711.07 | 2.4   | 2.50 | 8360    | 0        | 7036     | 9569  | 83   | 6200 |         |       |     |      |      | 462.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/15/91 | 1710.87 | 2.5   | 2.60 | 8480    | 0        | 4864     | 9763  | 123  | 6000 | 4.930   | 0.190 |     | 1.00 | 0.20 | 428.000  |           |       | 0.9800    |       | 0.0200    |       |           |       |           |       | 0.24000   |       | 190.000   |       |           |
| 04/24/91 | 1711.02 | 2.4   | 2.50 | 6720    | 0        | 473      | 9815  | 46   | 6458 |         |       |     |      |      | 487.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 05/25/91 | 1710.67 | 2.5   | 2.60 | 2360    | 0        | 6014     | 9431  | 7    | 6416 |         |       |     |      |      | 509.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/25/91 | 1710.62 | 2.5   | 2.60 | 8100    | 0        | 5778     | 9959  | 3192 | 8658 |         |       |     |      |      | 685.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 07/25/91 | 1710.52 | 2.5   | 2.50 | 5800    | 0        | 0        | 10981 | 158  | 6700 | 12.700  | 0.130 |     | 1.10 | 0.20 | 492.000  |           |       | 1.1200    |       | 0.0100    |       |           |       |           |       | 0.01000   |       | 201.000   |       |           |
| 08/26/91 | 1710.47 | 2.5   | 2.60 | 9360    | 0        | 4362     | 10541 | 66   | 6185 |         |       |     |      |      | 442.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/30/91 | 1701.47 | 2.5   | 2.70 | 8280    | 0        | 5075     | 10676 | 9    | 6316 |         |       |     |      |      | 443.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 10/31/91 | 1710.37 | 2.5   | 2.60 | 11657   | 0        | 7940     | 12400 | 47   | 7500 |         |       |     |      |      | 503.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 11/22/91 | 1710.77 | 2.8   | 2.80 | 13700   | 0        | 7080     | 12195 | 272  | 7500 |         |       |     |      |      | 484.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/31/91 | 1710.82 | 2.3   | 2.70 | 6650    | 0        | 6505     | 9986  | 10   | 6500 |         |       |     |      |      | 439.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 01/27/92 | 1710.57 | 2.5   | 2.60 | 10500   | 0        | 5668     | 9805  | 12   | 6500 |         |       |     |      |      | 452.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 02/28/92 | 1710.92 | 2.4   | 2.50 | 16400   | 0        | 6436     | 9168  | 7    | 6000 |         |       |     |      |      | 403.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/27/92 | 1711.17 | 2.5   | 2.60 | 5980    | 0        | 5012     | 8939  | 5    | 5900 | 9.360   | 0.670 |     | 1.00 | 0.10 | 413.000  |           |       | 0.6300    |       | 0.0100    |       |           |       |           |       | 0.06000   |       | 166.000   |       |           |
| 04/28/92 | 1710.77 | 2.4   | 2.60 | 9520    | 0        | 4622     | 8757  | 30   | 4600 |         |       |     |      |      | 324.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/01/92 | 1710.62 | 2.5   | 2.70 | 9320    | 0        | 4744     | 9615  | 15   | 5500 |         |       |     |      |      | 387.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/29/92 | 1710.47 | 2.5   | 2.70 | 10800   | 0        | 6201     | 9126  | 10   | 6300 |         |       |     |      |      | 406.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 07/21/92 | 1710.77 | 3.1   | 2.70 | 8790    | 0        | 4887     | 10260 | 16   | 6800 |         |       |     |      |      | 456.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 08/24/92 | 1710.37 | 2.6   | 2.90 | 6140    | 0        | 6105     | 10350 | 30   | 6800 |         |       |     |      |      | 433.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 10/01/92 |         | 3.0   | 3.60 | 11700   | 0        | 6618     | 10538 | 17   | 6300 | 19.400  | 0.830 |     | 1.00 | 0.10 | 398.000  |           |       | 0.8300    |       | 0.0300    |       |           |       |           |       | 0.02000   |       | 167.000   |       |           |
| 10/23/92 | 1710.52 | 2.6   | 2.60 | 6590    | 0        | 6606     | 10106 | 8    | 8500 |         |       |     |      |      | 520.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 11/25/92 | 1710.77 | 2.6   | 2.60 | 9990    | 0        | 3701     | 11001 | 16   | 6400 |         |       |     |      |      | 420.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/18/92 | 1710.82 | 2.7   | 2.60 | 13200   | 0        | 6733     | 10190 | 65   | 6800 |         |       |     |      |      | 448.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/29/93 | 1711.37 | 2.3   | 2.60 | 9930    | 0        | 5081     | 8989  | 15   | 5700 |         |       |     |      |      | 386.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/14/93 | 1709.82 | 2.6   | 2.50 | 11400   | 0        | 5649     | 8403  | 21   | 5500 | 11.300  | 0.410 |     | 1.00 | 0.10 | 390.000  |           |       | 0.5900    |       | 0.0100    |       |           |       |           |       | 0.15000   |       | 158.000   |       |           |
| 09/08/93 | 1709.57 | 2.8   | 2.70 | 10300   | 0        | 5829     | 8679  | 36   | 6000 | 17.900  | 0.400 |     | 1.00 | 0.10 | 309.000  |           |       | 1.0400    |       | 0.0100    |       |           |       |           |       | 0.08000   |       | 148.000   |       |           |
| 12/21/93 | 1710.47 | 2.5   | 2.50 | 9800    | 0        | 5985     | 7904  | 202  | 5300 |         |       |     |      |      | 395.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/09/94 | 1710.12 | 2.5   | 2.50 | 11100   | 0        | 659      | 8104  | 8    | 5500 | 13.100  | 0.050 |     | 1.00 | 0.10 | 375.000  |           |       | 0.5600    |       | 0.0100    |       |           |       |           |       | 0.00500   |       | 138.000   |       |           |
| 06/27/94 | 1710.22 | 2.6   | 2.70 | 4680    | 0        | 526      | 7619  | 696  | 4600 |         |       |     |      |      | 380.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/15/94 | 1709.67 | 2.4   | 2.60 | 5870    | 0        | 7067     | 9805  | 157  | 6300 | 24.700  | 0.440 |     | 1.00 | 0.10 | 314.000  |           |       | 3.9000    |       | 0.0900    |       |           |       |           |       | 0.05000   |       | 153.000   |       |           |
| 12/06/94 | 1709.47 | 2.4   | 2.50 | 10300   | 0        | 615      | 8427  | 268  | 4900 |         |       |     |      |      | 374.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/21/95 | 1709.47 | 2.5   | 2.50 | 5550    | 0        | 4083     | 6836  | 127  | 4400 | 14.200  | 0.310 |     | 1.00 |      | 1110.000 |           |       | 0.5700    |       | 0.0100    |       |           |       |           |       | 0.03200   |       | 409.000   |       |           |
| 06/29/95 | 1709.72 | 3.5   | 2.70 | 4900    | 1        | 2212     | 3428  | 258  | 3580 |         |       |     |      |      | 280.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/18/95 | 1709.52 | 2.3   | 2.60 | 5000    | 1        | 2425     | 3498  | 32   | 4750 | 45.000  | 0.010 |     | 0.80 | 1.40 | 250.000  |           |       | 0.4200    |       | 0.0300    |       |           |       |           |       | 0.01000   |       | 120.000   |       |           |
| 12/15/95 | 1709.47 | 2.9   | 3.68 | 6400    | 1        | 2226     | 4488  | 78   | 6500 |         |       |     |      |      | 34.000   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/27/96 | 1710.07 | 2.2   | 2.69 | 4730    | 1        | 2393     | 4430  | 172  | 3763 | 130.000 | 0.010 |     | 0.50 | 1.24 | 220.000  |           |       | 0.2576    |       | 0.1700    |       |           |       |           |       | 0.00320   |       | 140.000   |       |           |
| 06/18/96 | 1709.97 | 2.8   | 2.80 | 5110    | 1        | 3984     | 5004  | 42   | 4400 |         |       |     |      |      | 34.380   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/26/96 | 1710.22 | 3.0   | 3.30 | 4500    | 1        | 3000     | 6202  | 282  | 3450 | 65.000  | 0.440 |     | 0.50 | 0.80 | 165.000  |           |       | 0.4261    |       | 0.0300    |       |           |       |           |       | 0.00321   |       | 130.000   |       |           |
| 12/05/96 | 1710.37 | 2.6   | 3.50 | 7040    | 1        | 3200     | 6948  | 150  | 2950 |         |       |     |      |      | 170.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/10/97 | 1710.52 | 2.6   | 2.70 | 4230    | 1        | 2996     | 4184  | 194  | 3125 | 4.600   | 0.360 |     | 0.50 | 0.10 | 160.000  |           |       | 0.2215    |       | 0.0300    |       |           |       |           |       | 0.00270   |       | 120.000   |       |           |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | SWE     | FIELD | LAB  | SPECIF. | ALK.     | ACID.    | TDS  | TSS | SO4  | NH3   | NO3   | NO2 | Cl     | F    | Al      | Al        | Sb    | Sb        | As    | As        | Ba    | Ba        | Be    | Be        | B     | B         | Cd    | Cd        | Ca    | Ca        |
|----------|---------|-------|------|---------|----------|----------|------|-----|------|-------|-------|-----|--------|------|---------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| SAMPLED  | FEET    | pH    | pH   | COND.   | as CaCO3 | as CaCO3 |      |     |      |       |       |     |        |      | Total   | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved |
| 06/17/97 | 1710.17 | 2.8   | 2.70 | 3840    | 0        | 2586     |      | 54  | 2900 |       |       |     |        |      | 160.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/18/97 | 1709.87 | 3.0   | 2.70 | 3990    | 0        | 2816     |      | 98  | 3200 | 5.520 | 0.050 |     | 3.00   | 0.10 | 150.000 |           |       | 0.5400    |       | 0.0100    |       |           |       |           |       | 0.00500   |       | 95.300    |       |           |
| 10/28/97 | 1709.47 | 3.3   | 2.90 | 4952    | 1        | 3200     | 6172 | 46  | 4083 |       |       |     | 0.78   |      | 180.000 |           |       | 0.2487    |       |           |       |           |       |           |       | 0.00520   |       | 170.000   |       |           |
| 11/17/97 | 1709.87 | 3.0   | 2.60 | 7750    | 1        | 4510     | 7103 | 112 | 4500 |       |       |     | 1.60   |      | 210.000 |           |       | 0.9630    |       |           |       |           |       |           |       | 0.00260   |       | 170.000   |       |           |
| 12/08/97 | 1710.07 | 2.7   | 2.70 | 6400    | 1        | 4740     | 6368 | 234 | 4333 |       |       |     | 0.92   |      | 120.000 |           |       | 0.1914    |       |           |       |           |       |           |       | 0.00120   |       | 140.000   |       |           |
| 01/08/98 | 1710.07 | 3.4   | 2.80 | 8640    | 1        | 4400     | 6476 | 823 | 4333 |       |       |     | 0.84   |      | 104.000 |           |       | 0.4321    |       |           |       |           |       |           |       | 0.00700   |       | 150.000   |       |           |
| 02/13/98 | 1709.67 | 4.7   | 3.40 | 8300    | 1        | 3050     | 8256 | 72  | 5208 |       |       |     | 13.00  |      | 27.000  |           |       | 0.0010    |       |           |       |           |       |           |       | 0.00600   |       | 430.000   |       |           |
| 03/12/98 | 1710.27 | 3.8   | 3.60 | 9000    | 1        | 6965     | 8044 | 24  | 5250 | 0.020 |       |     | 12.20  |      | 19.000  |           |       | 0.0007    |       |           |       |           |       |           |       | 0.00066   |       | 440.000   |       |           |
| 06/19/98 | 1709.97 | 3.1   | 2.80 | 5400    | 1        | 2690     | 5356 | 733 | 3000 |       |       |     |        |      | 230.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/15/98 | 1710.07 | 2.2   | 2.90 | 4000    | 1        | 2680     | 4096 | 247 | 3333 |       |       |     | 25.00  |      | 170.000 |           |       | 0.4780    |       |           |       |           |       |           |       | 0.00130   |       | 120.000   |       |           |
| 12/01/98 | 1709.67 | 3.2   | 4.50 | 4760    | 0        | 2738     | 3346 | 27  | 1075 |       |       |     |        |      | 24.000  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 04/06/99 | 1709.87 | 2.4   | 2.70 | 5610    | 1        | 4300     | 5794 | 164 | 2000 |       |       |     |        |      | 350.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/23/99 | 1709.27 | 2.8   | 2.40 | 4030    | 10       | 3560     | 7245 | 7   | 3440 |       |       |     |        |      | 282.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/15/99 | 1709.12 | 2.5   | 2.70 | 4060    | 10       | 3158     | 6876 | 103 | 888  |       |       |     |        |      | 237.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/08/99 | 1710.32 | 2.3   | 2.80 | 4210    | 10       | 3665     | 7115 | 55  | 4480 |       |       |     | 20.00  |      | 254.500 |           |       | 0.3800    |       |           |       |           |       |           |       | 0.00700   |       | 162.000   |       |           |
| 03/10/00 | 1709.67 | 2.1   | 2.70 | 4600    | 10       | 3932     | 6890 | 45  | 4040 |       |       |     |        |      | 440.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 05/25/00 | 1709.47 | 2.3   | 2.60 | 3080    | 10       | 2712     | 7010 | 33  | 3183 |       |       |     |        |      | 360.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/15/00 | 1709.22 | 2.9   | 2.40 | 4420    | 10       | 2850     | 6610 | 43  | 3350 |       |       |     |        |      | 268.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/07/00 | 1709.47 | 2.7   | 2.60 | 4850    | 10       | 4320     | 4815 | 42  | 3775 |       |       |     | 30.00  |      | 240.000 |           |       | 0.1400    |       |           |       |           |       |           |       | 0.00200   |       | 18.400    |       |           |
| 03/08/01 | 1709.47 | 2.9   | 2.70 | 3720    | 10       | 2418     | 4693 | 4   | 3625 |       |       |     |        |      | 151.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/19/01 | 1709.07 | 2.7   | 2.90 | 5920    | 10       | 4874     | 9310 | 154 | 5875 |       |       |     |        |      | 115.400 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 08/31/01 | 1709.77 | 2.8   | 2.90 | 3340    | 10       | 2430     | 5280 | 5   | 3530 |       |       |     |        |      | 139.000 |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/11/01 | 1709.87 | 2.9   | 3.00 | 3970    | 10       | 1300     | 4200 | 4   | 2700 |       |       |     | 66.00  |      | 59.000  |           |       | 0.3500    |       |           |       |           |       |           |       | 0.00550   |       | 340.000   |       |           |
| 03/06/02 | 1709.77 | 3.1   | 3.10 | 3540    | 10       | 620      | 3100 | 4   | 2200 |       |       |     |        |      | 33.500  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 05/16/02 | 1710.97 | 3.2   | 3.20 | 3690    | 10       | 750      | 3700 | 4   | 2300 |       |       |     |        |      | 18.100  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/04/02 | 1710.57 | 3.3   | 3.10 | 4250    | 10       | 650      | 4040 | 8   | 2500 |       |       |     |        |      | 20.900  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/31/02 | 1710.07 | 3.5   | 3.20 | 4250    | 10       | 480      | 3760 | 11  | 3010 |       |       |     | 177.00 |      | 17.000  |           |       | 1.0800    |       |           |       |           |       |           |       | 0.02450   |       | 439.000   |       |           |
| 03/27/03 | 1710.17 | 3.6   | 3.10 | 3640    | 10       | 560      | 3520 | 11  | 2170 |       |       |     |        |      | 31.600  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/27/03 | 1709.67 | 3.4   | 3.20 | 4010    | 10       | 520      | 3850 | 17  | 3690 |       |       |     |        |      | 78.500  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/17/03 | 1711.17 | 3.7   | 3.40 | 4970    | 10       | 170      | 4240 | 5   | 2870 |       |       |     | 226.00 |      | 4.340   |           |       | 0.7730    |       |           |       |           |       |           |       | 0.01430   |       | 505.000   |       |           |
| 01/21/04 | 1711.27 | 3.7   | 3.60 | 4560    | 10       | 220      | 4210 | 4   | 2460 |       |       |     |        |      | 4.760   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 03/05/04 | 1711.57 | 4.2   | 3.50 | 4730    | 10       | 240      | 4070 | 4   | 2910 |       |       |     |        |      | 17.500  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/30/04 | 1711.67 | 5.3   | 3.80 | 4490    | 10       | 200      | 3980 | 50  | 2650 |       |       |     |        |      | 1.170   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 08/27/04 | 1711.17 | 4.2   | 3.80 | 4580    | 10       | 290      | 4310 | 20  | 2800 |       |       |     |        |      | 1.330   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/08/04 | 1711.47 | 4.3   | 3.70 | 4260    | 10       | 160      | 3990 | 12  | 4200 |       |       |     | 208.00 |      | 0.996   |           |       | 1.0300    |       |           |       |           |       |           |       | 0.02190   |       | 553.000   |       |           |
| 03/31/05 | 1711.37 | 4.2   | 3.90 | 4330    | 10       | 140      | 3650 | 4   | 2210 |       |       |     |        |      | 0.957   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/29/05 | 1707.02 | 4.7   | 3.20 | 4880    | 10       | 330      | 3820 | 246 | 3050 |       |       |     |        |      | 5.290   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/30/05 | 1705.97 | 3.9   | 3.60 | 4920    | 10       | 170      | 3870 | 52  | 2470 |       |       |     |        |      | 0.575   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/29/05 | 1707.27 | 3.6   | 3.40 | 4020    | 10       | 120      | 3090 | 4   | 3250 |       |       |     | 208.00 |      | 5.570   |           |       | 0.3810    |       |           |       |           |       |           |       | 0.00800   |       | 436.000   |       |           |
| 03/29/06 | 1709.57 | 3.3   | 3.10 | 3830    | 10       | 370      |      | 9   | 2580 |       |       |     |        |      | 30.900  |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/21/06 | 1707.47 | 3.6   | 3.40 | 4160    | 10       | 110      |      | 17  | 2150 |       |       |     | 179.80 |      | 1.490   |           |       | 0.9130    |       |           |       |           |       |           |       | 0.00200   |       | 539.000   |       |           |
| 09/26/06 | 1708.67 | 4.4   | 3.90 | 4070    | 10       | 110      |      | 17  | 2610 |       |       |     |        |      | 0.391   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/12/06 | 1707.72 | 4.4   | 3.80 | 3620    | 10       | 88       |      | 12  | 2080 |       |       |     |        |      | 0.100   |           |       | 0.8500    |       |           |       |           |       |           |       | 0.02170   |       | 499.000   |       |           |
| 03/22/07 | 1708.17 | 4.4   | 3.40 | 3690    | 10       | 160      |      | 19  | 1740 |       |       |     |        |      | 6.440   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/15/07 | 1707.67 | 4.2   | 4.20 | 4080    | 10       | 120      |      | 6   | 2080 |       |       |     |        |      | 0.323   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/21/07 | 1708.17 | 4.3   | 4.40 | 4400    | 10       | 120      |      | 58  | 1910 |       |       |     |        |      | 0.799   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 12/20/07 | 1708.37 | 4.5   | 4.30 | 4050    | 10       | 94       |      | 24  | 2470 |       |       |     |        |      | 0.213   |           |       | 0.8810    |       |           |       |           |       |           |       | 0.02060   |       | 576.000   |       |           |
| 03/24/08 | 1710.12 | 4.8   | 4.50 | 3910    | 10       | 86       |      | 4   | 1820 |       |       |     |        |      | 0.324   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 06/25/08 | 1708.52 | 3.7   | 3.40 | 3970    | 10       | 98       |      | 27  | 1870 |       |       |     |        |      | 4.070   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |
| 09/17/08 | 1708.47 | 4.5   | 4.00 | 4210    | 10       | 100      |      | 28  | 2120 |       |       |     |        |      | 0.730   |           |       |           |       |           |       |           |       |           |       |           |       |           |       |           |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | SWE     | FIELD | LAB  | SPECIF. | ALK.     | ACID.    | TDS  | TSS | SO4  | NH3   | NO3   | NO2  | Cl     | F    | Al     | Al        | Sb     | Sb        | As     | As        | Ba     | Ba        | Be      | Be        | B      | B         | Cd      | Cd        | Ca      | Ca        |
|----------|---------|-------|------|---------|----------|----------|------|-----|------|-------|-------|------|--------|------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|-----------|--------|-----------|---------|-----------|---------|-----------|
| SAMPLED  | FEET    | pH    | pH   | COND.   | as CaCO3 | as CaCO3 |      |     |      |       |       |      |        |      | Total  | Dissolved | Total  | Dissolved | Total  | Dissolved | Total  | Dissolved | Total   | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved |
| 12/18/08 | 1708.77 | 4.0   | 3.80 | 4030    | 10       | 94       |      | 7   | 2430 |       |       |      |        |      | 0.905  |           |        |           | 0.8930 |           |        |           |         |           |        |           | 0.02340 |           | 568.000 |           |
| 03/25/09 | 1708.77 | 4.7   | 4.80 | 3960    | 10       | 94       |      | 18  | 1690 | 1.200 | 0.500 | 0.10 | 243.00 | 0.50 | 0.175  | 0.151     | 0.0020 | 0.0020    | 0.4680 | 0.0837    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.1000 | 0.1000    | 0.00964 | 0.00200   | 445.000 | 452.000   |
| 06/30/09 | 1708.82 | 3.7   | 3.20 | 4330    | 10       | 140      |      | 9   | 3010 | 1.390 | 0.511 | 0.10 | 268.00 | 0.50 | 4.270  | 3.860     | 0.0100 | 0.0020    | 0.3930 | 0.0040    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.0100 | 0.1000    | 0.00734 | 0.00200   | 546.000 | 509.000   |
| 09/22/09 | 1708.11 | 4.1   | 3.70 | 4610    | 10       | 120      |      | 52  | 8170 | 1.490 | 2.500 | 0.50 | 353.00 | 2.50 | 0.711  | 0.567     | 0.0100 | 0.0100    | 0.4600 | 0.0040    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.0100 | 0.1000    | 0.01090 | 0.00200   | 555.000 | 550.000   |
| 12/30/09 | 1708.60 | 4.1   | 3.40 | 3770    | 10       | 150      | 3170 | 45  | 1630 | 1.160 | 0.500 | 0.10 | 195.00 | 0.50 | 2.910  | 2.110     | 0.0100 | 0.0100    | 0.3650 | 0.2910    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.0100 | 0.1000    | 0.00481 | 0.00312   | 471.000 | 430.000   |
| 03/31/10 | 1708.64 | 3.7   | 3.60 | 3500    | 10       | 140      | 2890 | 33  | 1900 | 1.320 | 0.500 | 0.10 | 267.00 | 0.50 | 8.220  | 8.170     | 0.0100 | 0.0100    | 0.5910 | 0.1330    | 0.0100 | 0.0100    | 0.00193 | 0.00192   | 0.0100 | 0.1000    | 0.01820 | 0.00333   | 493.000 | 475.000   |
| 06/10/10 | 1708.87 | 4.5   | 4.40 | 4170    | 10       | 690      | 3910 | 17  | 2560 | 1.360 | 1.000 | 0.20 | 243.00 | 1.00 | 5.330  | 3.530     | 0.0500 | 0.0100    | 0.7930 | 0.4430    | 0.0500 | 0.0100    | 0.00500 | 0.00135   | 0.0500 | 0.1000    | 0.02520 | 0.01290   | 507.000 | 521.000   |
| 09/14/10 | 1708.07 | 5.1   | 4.70 | 4610    | 10       | 240      |      | 20  | 3290 | 1.240 | 1.000 | 0.20 | 313.00 | 1.00 | 1.150  | 0.808     | 0.0500 | 0.0500    | 0.9870 | 0.6920    | 0.0500 | 0.0500    | 0.00500 | 0.00500   | 0.0500 | 0.0500    | 0.03400 | 0.02410   | 587.000 | 543.000   |
| 12/29/10 | 1707.87 | 3.5   | 3.50 | 3540    | 10       | 120      | 2860 | 20  | 1710 | 1.070 | 1.000 | 0.20 | 193.00 | 1.00 | 5.740  | 5.690     | 0.0100 | 0.0100    | 0.2110 | 0.0664    | 0.0100 | 0.0100    | 0.00194 | 0.00155   | 0.0100 | 0.0100    | 0.00532 | 0.00323   | 464.000 | 452.000   |
| 03/14/11 | 1709.52 | 3.2   | 3.10 | 3720    | 10       | 340      | 2960 | 4   | 1760 | 1.750 | 1.000 | 0.20 | 208.00 | 1.00 | 23.100 | 23.100    | 0.0100 | 0.0100    | 0.1060 | 0.0212    | 0.0100 | 0.0100    | 0.00370 | 0.00353   | 0.0150 | 0.0121    | 0.00200 | 0.00200   | 455.000 | 448.000   |
| 06/07/11 | 1711.30 | 4.2   | 4.30 | 3570    | 10       | 120      | 3170 | 16  | 1630 | 0.816 | 1.000 | 0.20 | 262.00 | 1.00 | 1.370  | 1.290     | 0.0100 | 0.0100    | 0.8310 | 0.4550    | 0.0191 | 0.0176    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.02100 | 0.01070   | 484.000 | 428.000   |
| 09/22/11 | 1709.35 | 3.5   | 3.30 | 3670    | 20       | 140      | 3380 | 11  | 2560 | 0.933 | 1.000 | 0.20 | 286.00 | 1.00 | 5.830  | 5.660     | 0.0100 | 0.0100    | 0.8160 | 0.0379    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.0100 | 0.0138    | 0.01890 | 0.00200   | 491.000 | 523.000   |
| 11/04/11 | 1709.82 | 4.5   | 3.88 | 3620    | 20       | 88       | 3160 | 4   | 1760 | 1.260 | 1.000 | 0.20 | 257.00 | 1.00 | 1.350  | 0.738     | 0.0155 | 0.0111    | 0.3690 | 0.3510    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.00299 | 0.03260   | 487.000 | 487.000   |
| 03/15/12 | 1709.52 | 3.9   | 3.70 | 3000    | 20       | 100      | 2940 | 14  | 1680 | 0.716 | 1.000 | 0.20 | 229.00 | 1.00 | 2.980  | 2.730     | 0.0100 | 0.0100    | 0.3430 | 0.2730    | 0.0285 | 0.0100    | 0.00290 | 0.00100   | 0.0260 | 0.0100    | 0.00200 | 0.00200   | 513.000 | 469.000   |
| 05/30/12 | 1709.97 | 3.1   | 3.02 | 4010    | 20       | 430      |      | 12  | 3020 | 2.095 | 1.000 | 0.20 | 178.00 | 1.00 | 27.700 | 28.400    | 0.0100 | 0.0100    | 0.2970 | 0.0356    | 0.0100 | 0.0100    | 0.00274 | 0.00281   | 0.0100 | 0.0100    | 0.00241 | 0.00200   | 453.000 | 462.000   |
| 08/31/12 | 1709.22 | 4.2   | 3.86 | 3970    | 20       | 228      | 3040 | 18  | 1780 | 1.168 | 1.000 | 0.20 | 176.00 | 1.00 | 0.963  | 0.838     | 0.0100 | 0.0100    | 0.6570 | 0.0526    | 0.0103 | 0.0100    | 0.00100 | 0.00100   | 0.0244 | 0.0255    | 0.01360 | 0.01100   | 503.000 | 479.000   |
| 12/17/12 | 1709.54 | 3.1   | 3.18 | 3320    | 20       | 250      | 2590 | 10  | 1590 | 1.801 | 1.000 | 0.20 | 114.00 | 1.00 | 16.100 | 16.700    | 0.0100 | 0.0100    | 0.0445 | 0.0040    | 0.0100 | 0.0100    | 0.00200 | 0.00203   | 0.0329 | 0.0330    | 0.00200 | 0.00200   | 417.000 | 431.000   |
| 03/06/13 | 1710.10 | 3.0   | 2.86 | 3430    | 20       | 500      | 2520 | 9   | 1720 | 2.575 | 1.000 | 0.20 | 122.00 | 1.00 | 37.600 | 37.100    | 0.0100 | 0.0100    | 0.0475 | 0.0256    | 0.0100 | 0.0100    | 0.00470 | 0.00415   | 0.0100 | 0.0100    | 0.00200 | 0.00200   | 407.000 | 391.000   |
| 05/17/13 | 1709.67 | 3.7   | 3.61 | 3990    | 20       | 122      | 3160 | 16  | 1620 | 1.088 | 1.000 | 0.20 | 344.00 | 1.00 | 1.810  | 1.820     | 0.0100 | 0.0100    | 0.3600 | 0.2800    | 0.0155 | 0.0172    | 0.00100 | 0.00100   | 0.0151 | 0.0100    | 0.00985 | 0.00826   | 531.000 | 545.000   |
| 09/11/13 | 1709.85 | 5.1   | 3.04 | 3580    | 20       | 302      | 2500 | 13  | 1790 | 1.675 | 1.000 | 0.20 | 137.00 | 1.00 | 12.300 | 11.700    | 0.0100 | 0.0100    | 0.0167 | 0.0186    | 0.0100 | 0.0100    | 0.00100 | 0.00100   | 0.0500 | 0.0500    | 0.00200 | 0.00200   | 544.000 | 509.000   |
| 11/18/13 | 1710.17 | 3.3   | 3.30 | 3500    | 20       | 218      | 2830 | 15  | 1350 | 0.100 | 1.000 | 0.20 | 147.00 | 1.00 | 13.400 | 13.200    | 0.0100 | 0.0100    | 0.1650 | 0.1120    | 0.0100 | 0.0100    | 0.00536 | 0.00561   | 0.0500 | 0.0500    | 0.00200 | 0.00200   | 528.000 | 507.000   |
| 03/07/14 | 1710.22 | 3.6   | 3.61 | 4180    | 20       | 608      | 4190 | 24  | 2480 | 1.787 | 1.000 | 0.20 | 165.00 | 1.00 | 7.950  | 5.390     | 0.0500 | 0.0500    | 0.3440 | 0.4970    | 0.0500 | 0.0500    | 0.00500 | 0.00500   | 0.2500 | 0.2500    | 0.01000 | 0.01000   | 410.000 | 418.000   |
| 05/07/14 | 1709.67 | 4.3   | 3.23 | 5330    | 0        | 1985     | 6665 | 29  | 1010 | 4.420 | 0.730 | 0.01 | 205.00 | 0.40 | 11.101 | 8.420     | 0.0100 | 0.0100    | 0.0830 | 0.1220    | 0.0120 | 0.0110    | 0.00300 | 0.00200   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 426.666 | 420.436   |
| 08/14/14 | 1709.87 | 4.5   | 3.02 | 4250    | 0        | 750      | 3360 | 6   | 2341 | 1.150 | 0.690 | 0.01 | 201.50 | 0.11 | 5.544  | 5.520     | 0.0100 | 0.0100    | 0.4330 | 0.2990    | 0.0130 | 0.0110    | 0.00100 | 0.00200   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 563.186 | 521.036   |
| 10/14/14 | 1708.97 | 4.1   | 3.04 | 3630    | 0        | 199      | 560  | 18  | 1927 | 2.280 | 0.890 | 0.01 | 214.50 | 0.34 | 3.324  | 2.893     | 0.0100 | 0.0100    | 0.5190 | 0.2360    | 0.0080 | 0.0060    | 0.00100 | 0.00100   | 0.0170 | 0.0170    | 0.00300 | 0.00300   | 541.437 | 537.427   |
| 03/12/15 | 1710.82 | 4.3   | 2.94 | 3159    | 0        | 201      | 3800 | 13  | 1682 | 2.310 | 0.720 | 0.19 | 163.00 | 0.13 | 1.887  | 2.206     | 0.0100 | 0.0100    | 0.5180 | 0.4230    | 0.0090 | 0.0090    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 487.279 | 466.849   |
| 06/01/15 | 1709.77 | 4.1   | 2.89 | 4260    | 0        | 890      | 4560 | 26  | 2704 | 2.880 | 0.700 | 0.01 | 202.00 | 0.10 | 4.647  | 4.455     | 0.0100 | 0.0100    | 0.5430 | 0.2960    | 0.0060 | 0.0050    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 489.480 | 487.580   |
| 08/11/15 | 1709.67 | 4.1   | 2.88 | 4170    | 0        | 619      | 3620 | 72  | 2357 | 2.750 | 0.960 | 0.01 | 162.50 | 0.10 | 2.076  | 3.550     | 0.0100 | 0.0100    | 0.8200 | 0.2040    | 0.0350 | 0.0330    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 431.660 | 421.280   |
| 11/10/15 | 1709.47 | 3.6   | 3.17 | 3297    | 0        | 113      | 2700 | 6   | 1666 | 1.730 | 0.630 | 0.01 | 156.50 | 0.10 | 1.288  | 1.143     | 0.0100 | 0.0100    | 0.7380 | 0.3810    | 0.0050 | 0.0050    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 555.139 | 529.019   |
| 01/26/16 | 1709.67 | 4.3   | 3.21 | 2952    | 0        | 70       | 2420 | 5   | 1454 | 1.120 | 0.620 | 0.01 | 158.00 | 0.10 | 1.102  | 0.814     | 0.0100 | 0.0100    | 0.4730 | 0.2110    | 0.0050 | 0.0050    | 0.00100 | 0.00100   | 0.0100 | 0.0100    | 0.00300 | 0.00300   | 528.189 | 417.649   |
| 05/10/16 | 1709.77 | 4.0   | 2.96 | 5271    | 0        | 2127     | 5040 | 38  | 2948 | 3.770 | 0.100 | 0.27 | 308.00 | 0.34 | 6.077  | 5.415     | 0.0100 | 0.0100    | 0.7690 | 0.1820    | 0.0080 | 0.0060    | 0.00200 | 0.00200   | 0.0100 | 0.0110    | 0.00300 | 0.00300   | 459.569 | 472.029   |
| 08/31/16 | 1709.67 | 4.0   | 3.70 | 3196    | 0        | 126      | 2380 | 9   | 1721 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 12/26/16 | 1709.22 | 3.5   | 3.07 | 3015    | 0        | 143      | 2480 | 17  | 1470 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 03/26/17 | 1710.22 | 3.2   | 2.92 | 3056    | 0        | 315      | 2340 | 6   | 1422 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 05/16/17 | 1710.07 | 4.3   | 2.77 | 4958    | 0        | 1525     | 4960 | 37  | 2365 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 07/19/17 | 1710.02 | 4.3   | 3.20 | 3309    | 0        | 76       | 2580 | 19  | 1703 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 10/20/17 | 1709.07 | 4.2   | 3.43 | 3384    | 0        | 111      | 2520 | 31  | 1584 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 02/15/18 | 1710.67 | 4.3   | 3.17 | 3276    | 0        | 890      | 3100 | 102 | 2208 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 04/24/18 | 1710.37 | 4.8   | 3.23 | 3169    | 0        | 74       | 1980 | 13  | 1380 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |
| 07/10/18 | 1710.67 | 4.3   | 2.79 | 4550    | 0        | 910      | 4150 | 42  | 5822 |       |       |      |        |      |        |           |        |           |        |           |        |           |         |           |        |           |         |           |         |           |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | Cr      | Cr        | Co    | Co        | Cu     | Cu        | Fe       | Fe        | Pb     | Pb        | MG     | Mg        | Mn      | Mn        | Hg      | Hg        | Mo    | Mo        | Ni    | Ni        | K     | K         | Se      | Se        | Ag      | Ag        | Na     |
|----------|---------|-----------|-------|-----------|--------|-----------|----------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|-------|-----------|-------|-----------|-------|-----------|---------|-----------|---------|-----------|--------|
| SAMPLED  | Total   | Dissolved | Total | Dissolved | Total  | Dissolved | Total    | Dissolved | &07al  | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total   | Dissolved | Total   | Dissolved | Total  |
| 10/11/90 | 0.26000 |           |       |           |        |           | 2690.000 |           | 0.0600 |           |        |           | 41.800  |           | 0.00040 |           |       |           |       |           |       |           | 0.00200 |           | 0.01000 |           |        |
| 11/07/90 |         |           |       |           |        |           | 2390.000 |           |        |           |        |           | 35.700  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 12/11/90 |         |           |       |           |        |           | 1460.000 |           |        |           |        |           | 22.500  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 01/14/91 |         |           |       |           |        |           | 1600.000 |           |        |           |        |           | 23.800  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 02/22/91 |         |           |       |           |        |           | 1480.000 |           |        |           |        |           | 21.800  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/15/91 | 0.34000 |           |       |           | 1.7700 |           | 1610.000 |           | 0.0200 |           | 46.10  |           | 21.300  |           | 0.00020 |           |       |           |       |           | 8.30  |           | 0.00300 |           | 0.01000 |           | 14.400 |
| 04/24/91 |         |           |       |           |        |           | 1560.000 |           |        |           |        |           | 23.100  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 05/25/91 |         |           |       |           |        |           | 1520.000 |           |        |           |        |           | 23.200  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 06/25/91 |         |           |       |           |        |           | 2200.000 |           |        |           |        |           | 33.400  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 07/25/91 | 0.36000 |           |       |           | 1.6600 |           | 1680.000 |           | 0.0200 |           | 55.60  |           | 23.600  |           | 0.00020 |           |       |           |       |           | 11.20 |           | 0.00500 |           | 0.01000 |           | 19.400 |
| 08/26/91 |         |           |       |           |        |           | 1550.000 |           |        |           |        |           | 22.200  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 09/30/91 |         |           |       |           |        |           | 1810.000 |           |        |           |        |           | 26.700  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 10/31/91 |         |           |       |           |        |           | 2170.000 |           |        |           |        |           | 29.200  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 11/22/91 |         |           |       |           |        |           | 2280.000 |           |        |           |        |           | 29.900  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 12/31/91 |         |           |       |           |        |           | 1710.000 |           |        |           |        |           | 21.200  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 01/27/92 |         |           |       |           |        |           | 1740.000 |           |        |           |        |           | 20.700  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 02/28/92 |         |           |       |           |        |           | 1510.000 |           |        |           |        |           | 19.300  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/27/92 | 0.32000 |           |       |           | 1.2900 |           | 1500.000 |           | 0.2500 |           | 49.60  |           | 19.900  |           | 0.00020 |           |       |           |       |           | 9.06  |           | 0.00300 |           | 0.01000 |           | 11.000 |
| 04/28/92 |         |           |       |           |        |           | 1200.000 |           |        |           |        |           | 16.300  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 06/01/92 |         |           |       |           |        |           | 1830.000 |           |        |           |        |           | 21.400  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 06/29/92 |         |           |       |           |        |           | 1660.000 |           |        |           |        |           | 22.400  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 07/21/92 |         |           |       |           |        |           | 1830.000 |           |        |           |        |           | 27.400  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 08/24/92 |         |           |       |           |        |           | 1940.000 |           |        |           |        |           | 23.800  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 10/01/92 | 0.44000 |           |       |           | 0.5700 |           | 1860.000 |           | 0.3000 |           | 51.40  |           | 22.300  |           | 0.00020 |           |       |           |       |           | 12.20 |           | 0.00200 |           | 0.01000 |           | 13.200 |
| 10/23/92 |         |           |       |           |        |           | 2460.000 |           |        |           |        |           | 28.500  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 11/25/92 |         |           |       |           |        |           | 1850.000 |           |        |           |        |           | 21.800  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 12/18/92 |         |           |       |           |        |           | 1990.000 |           |        |           |        |           | 25.000  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/29/93 |         |           |       |           |        |           | 1550.000 |           |        |           |        |           | 20.100  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 06/14/93 | 0.22000 |           |       |           | 0.7200 |           | 1430.000 |           | 0.1400 |           | 54.70  |           | 23.400  |           | 0.00020 |           |       |           |       |           | 9.01  |           | 0.00200 |           | 0.01000 |           | 9.480  |
| 09/08/93 | 0.24000 |           |       |           | 0.3700 |           | 961.000  |           | 0.1700 |           | 41.60  |           | 17.300  |           | 0.00020 |           |       |           |       |           | 12.50 |           | 0.00300 |           | 0.01000 |           | 9.270  |
| 12/21/93 |         |           |       |           |        |           | 1320.000 |           |        |           |        |           | 22.400  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/09/94 | 0.22000 |           |       |           | 0.7500 |           | 1240.000 |           | 0.2000 |           | 47.10  |           | 18.100  |           | 0.00020 |           |       |           |       |           | 7.22  |           | 0.00200 |           | 0.01000 |           | 6.920  |
| 06/27/94 |         |           |       |           |        |           | 1280.000 |           |        |           |        |           | 24.600  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 09/15/94 | 0.94000 |           |       |           | 1.7000 |           | 1720.000 |           | 0.2000 |           | 87.60  |           | 45.800  |           | 0.00020 |           |       |           |       |           | 42.20 |           | 0.00300 |           | 1.80000 |           | 9.800  |
| 12/06/94 |         |           |       |           |        |           | 1220.000 |           |        |           |        |           | 20.200  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/21/95 | 0.20000 |           |       |           | 0.6400 |           | 3140.000 |           | 0.0200 |           | 162.00 |           | 69.500  |           | 0.00020 |           |       |           |       |           |       |           | 0.00200 |           | 0.01000 |           | 24.700 |
| 06/29/95 |         |           |       |           |        |           | 980.000  |           |        |           |        |           | 21.000  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 09/18/95 | 0.14000 |           |       |           | 0.5600 |           | 1100.000 |           | 0.0300 |           | 29.00  |           | 21.000  |           | 0.00020 |           |       |           |       |           | 14.00 |           | 0.00080 |           | 0.01000 |           | 14.000 |
| 12/15/95 |         |           |       |           |        |           | 1600.000 |           |        |           |        |           | 260.000 |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/27/96 | 0.16000 |           |       |           | 0.5700 |           | 970.000  |           | 0.0005 |           | 37.00  |           | 17.000  |           | 0.00020 |           |       |           |       |           | 8.20  |           | 0.00020 |           | 0.00006 |           | 8.900  |
| 06/18/96 |         |           |       |           |        |           | 1275.000 |           |        |           |        |           | 30.000  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 09/26/96 | 0.14000 |           |       |           | 0.3900 |           | 850.000  |           | 0.0005 |           | 30.00  |           | 17.000  |           | 0.00020 |           |       |           |       |           | 11.00 |           | 0.00040 |           | 0.00290 |           | 12.000 |
| 12/05/96 |         |           |       |           |        |           | 790.000  |           |        |           |        |           | 16.000  |           |         |           |       |           |       |           |       |           |         |           |         |           |        |
| 03/10/97 | 0.12000 |           |       |           | 0.3800 |           | 767.000  |           | 0.0005 |           | 24.00  |           | 13.400  |           | 0.00020 |           |       |           |       |           | 9.30  |           | 0.00120 |           | 0.01920 |           | 9.200  |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | Cr      | Cr        | Co    | Co        | Cu     | Cu        | Fe       | Fe        | Pb     | Pb        | MG     | Mg        | Mn      | Mn        | Hg      | Hg        | Mo    | Mo        | Ni     | Ni        | K      | K         | Se      | Se        | Ag      | Ag        | Na      |
|----------|---------|-----------|-------|-----------|--------|-----------|----------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|-------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|
| SAMPLED  | Total   | Dissolved | Total | Dissolved | Total  | Dissolved | Total    | Dissolved | &07al  | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved | Total | Dissolved | Total  | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved | Total   |
| 06/17/97 |         |           |       |           |        |           | 570.000  |           |        |           |        |           | 15.000  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/18/97 | 0.11000 |           |       |           | 0.2600 |           | 550.000  |           | 0.0400 |           | 30.80  |           | 15.200  |           | 0.00020 |           |       |           |        |           | 9.80   |           | 0.01000 |           | 0.06000 |           | 6.980   |
| 10/28/97 | 0.15000 |           |       |           | 0.2800 |           | 940.000  |           | 0.0005 |           | 43.00  |           | 23.000  |           | 0.00020 |           |       |           | 0.8200 |           |        |           | 0.00090 |           |         |           | 11.050  |
| 11/17/97 | 0.16000 |           |       |           | 0.2700 |           | 1200.000 |           | 0.0005 |           | 47.00  |           | 23.000  |           | 0.00020 |           |       |           | 0.8200 |           |        |           | 0.00270 |           |         |           | 16.000  |
| 12/08/97 | 0.15000 |           |       |           | 0.4300 |           | 1100.000 |           | 0.0005 |           | 38.00  |           | 25.000  |           | 0.00020 |           |       |           | 0.8900 |           |        |           | 0.00220 |           |         |           | 11.000  |
| 01/08/98 | 0.21000 |           |       |           | 0.5200 |           | 1100.000 |           | 0.0054 |           | 52.00  |           | 18.000  |           | 0.00060 |           |       |           | 0.9200 |           |        |           | 0.00470 |           |         |           | 6.600   |
| 02/13/98 | 0.05000 |           |       |           | 0.0400 |           | 1500.000 |           | 0.0005 |           | 240.00 |           | 250.000 |           | 0.00050 |           |       |           | 1.1000 |           |        |           | 0.00040 |           |         |           | 16.000  |
| 03/12/98 | 0.01000 |           |       |           | 0.0300 |           | 1300.000 |           | 0.0012 |           | 200.00 |           | 210.000 |           | 0.00020 |           |       |           | 1.2000 |           |        |           | 0.00020 |           |         |           | 17.000  |
| 06/19/98 |         |           |       |           |        |           | 830.000  |           |        |           |        |           | 20.000  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/15/98 | 0.14100 |           |       |           | 0.2600 |           | 800.000  |           | 0.0015 |           | 38.00  |           | 18.000  |           | 0.00020 |           |       |           |        |           | 12.00  |           | 0.00020 |           |         |           | 17.000  |
| 12/01/98 |         |           |       |           |        |           | 1500.000 |           |        |           |        |           | 280.000 |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 04/06/99 |         |           |       |           |        |           | 1300.000 |           |        |           |        |           | 16.000  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/23/99 |         |           |       |           |        |           | 1013.000 |           |        |           |        |           | 18.400  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/15/99 |         |           |       |           |        |           | 1090.000 |           |        |           |        |           | 17.400  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/08/99 | 0.04000 |           |       |           | 0.1700 |           | 914.000  |           | 0.0010 |           | 38.00  |           | 18.000  |           | 0.00040 |           |       |           | 0.2800 |           | 17.10  |           | 0.00500 |           |         |           | 14.000  |
| 03/10/00 |         |           |       |           |        |           | 1292.000 |           |        |           |        |           | 21.500  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 05/25/00 |         |           |       |           |        |           | 1475.000 |           |        |           |        |           | 15.200  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/15/00 |         |           |       |           |        |           | 1250.000 |           |        |           |        |           | 16.180  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/07/00 | 0.14000 |           |       |           | 0.1100 |           | 1416.000 |           | 0.0120 |           | 41.00  |           | 19.000  |           | 0.00040 |           |       |           | 1.1000 |           | 20.75  |           | 0.04000 |           |         |           | 24.600  |
| 03/08/01 |         |           |       |           |        |           | 1224.000 |           |        |           |        |           | 38.760  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/19/01 |         |           |       |           |        |           | 256.000  |           |        |           |        |           | 9.960   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 08/31/01 |         |           |       |           |        |           | 372.000  |           |        |           |        |           | 13.600  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/11/01 | 0.01700 |           |       |           | 0.0240 |           | 270.000  |           | 0.0250 |           | 28.00  |           | 7.100   |           | 0.00020 |           |       |           | 0.2300 |           | 180.00 |           | 0.00800 |           |         |           | 131.000 |
| 03/06/02 |         |           |       |           |        |           | 173.000  |           |        |           |        |           | 4.260   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 05/16/02 |         |           |       |           |        |           | 131.000  |           |        |           |        |           | 3.750   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/04/02 |         |           |       |           |        |           | 378.000  |           |        |           |        |           | 10.900  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/31/02 | 0.00814 |           |       |           | 0.0200 |           | 174.000  |           | 0.0060 |           | 12.50  |           | 6.320   |           | 0.00020 |           |       |           | 0.1300 |           | 455.00 |           | 0.07810 |           |         |           | 140.000 |
| 03/27/03 |         |           |       |           |        |           | 211.000  |           |        |           |        |           | 8.330   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/27/03 |         |           |       |           |        |           | 53.500   |           |        |           |        |           | 51.800  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/17/03 | 0.00916 |           |       |           | 0.0200 |           | 68.300   |           | 0.0040 |           | 2.96   |           | 3.610   |           | 0.00020 |           |       |           | 0.0278 |           | 734.00 |           | 0.00800 |           |         |           | 256.000 |
| 01/21/04 |         |           |       |           |        |           | 82.200   |           |        |           |        |           | 3.350   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 03/05/04 |         |           |       |           |        |           | 68.100   |           |        |           |        |           | 11.700  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/30/04 |         |           |       |           |        |           | 53.200   |           |        |           |        |           | 2.020   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 08/27/04 |         |           |       |           |        |           | 84.300   |           |        |           |        |           | 2.540   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/08/04 | 0.00250 |           |       |           | 0.0200 |           | 58.600   |           | 0.0400 |           | 1.91   |           | 2.490   |           | 0.00020 |           |       |           | 0.0200 |           | 756.00 |           | 0.00800 |           |         |           | 219.000 |
| 03/31/05 |         |           |       |           |        |           | 57.300   |           |        |           |        |           | 2.220   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/29/05 |         |           |       |           |        |           | 147.000  |           |        |           |        |           | 4.370   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/30/05 |         |           |       |           |        |           | 70.700   |           |        |           |        |           | 2.450   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/29/05 | 0.00500 |           |       |           | 0.0100 |           | 37.400   |           | 0.0020 |           | 4.33   |           | 7.320   |           | 0.00020 |           |       |           | 0.0390 |           | 476.00 |           | 0.00400 |           |         |           | 143.000 |
| 03/29/06 |         |           |       |           |        |           | 27.000   |           |        |           |        |           | 26.800  |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/21/06 | 0.05000 |           |       |           | 0.0100 |           | 41.200   |           | 0.0010 |           | 1.79   |           | 3.300   |           | 0.00100 |           |       |           | 0.0500 |           | 471.00 |           | 0.07000 |           |         |           | 125.000 |
| 09/26/06 |         |           |       |           |        |           | 61.600   |           |        |           |        |           | 2.090   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/12/06 | 0.00369 |           |       |           | 0.0200 |           | 46.100   |           | 0.0040 |           | 1.49   |           | 1.790   |           | 0.00020 |           |       |           | 0.0267 |           | 307.00 |           | 0.01230 |           |         |           | 137.000 |
| 03/22/07 |         |           |       |           |        |           | 40.600   |           |        |           |        |           | 7.360   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/15/07 |         |           |       |           |        |           | 58.400   |           |        |           |        |           | 2.130   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/21/07 |         |           |       |           |        |           | 58.100   |           |        |           |        |           | 2.880   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 12/20/07 | 0.00400 |           |       |           | 0.0200 |           | 59.200   |           | 0.0040 |           | 2.12   |           | 2.060   |           | 0.00020 |           |       |           | 0.0200 |           | 539.00 |           | 0.01710 |           |         |           | 140.000 |
| 03/24/08 |         |           |       |           |        |           | 38.700   |           |        |           |        |           | 2.080   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 06/25/08 |         |           |       |           |        |           | 46.100   |           |        |           |        |           | 6.170   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |
| 09/17/08 |         |           |       |           |        |           | 55.200   |           |        |           |        |           | 2.370   |           |         |           |       |           |        |           |        |           |         |           |         |           |         |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | Cr      | Cr        | Co     | Co        | Cu     | Cu        | Fe       | Fe        | Pb     | Pb        | MG    | Mg        | Mn     | Mn        | Hg      | Hg        | Mo     | Mo        | Ni     | Ni        | K      | K         | Se      | Se        | Ag      | Ag        | Na      |
|----------|---------|-----------|--------|-----------|--------|-----------|----------|-----------|--------|-----------|-------|-----------|--------|-----------|---------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|
| SAMPLED  | Total   | Dissolved | Total  | Dissolved | Total  | Dissolved | Total    | Dissolved | &07al  | Dissolved | Total | Dissolved | Total  | Dissolved | Total   | Dissolved | Total  | Dissolved | Total  | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved | Total   |
| 12/18/08 | 0.00400 |           |        |           | 0.0200 |           | 54.700   |           | 0.0040 |           | 2.42  |           | 2.660  |           | 0.00020 |           |        |           | 0.0200 |           | 519.00 |           | 0.00958 |           |         |           | 156.000 |
| 03/25/09 | 0.00200 | 0.00200   | 0.0118 | 0.0125    | 0.0100 | 0.0100    | 43.500   | 6.980     | 0.0020 | 0.0020    | 2.02  | 1.99      | 1.760  | 1.610     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0100 | 0.0100    | 394.00 | 394.00    | 0.00400 | 0.00400   | 0.00400 | 0.00400   | 140.000 |
| 06/30/09 | 0.00436 | 0.00366   | 0.0642 | 0.0611    | 0.0121 | 0.0100    | 49.700   | 8.740     | 0.0020 | 0.0020    | 4.75  | 4.49      | 6.360  | 5.970     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0465 | 0.0430    | 452.00 | 414.00    | 0.03620 | 0.02870   | 0.00709 | 0.00599   | 171.000 |
| 09/22/09 | 0.00100 | 0.00100   | 0.0155 | 0.0141    | 0.0100 | 0.0100    | 52.200   | 9.300     | 0.0020 | 0.0020    | 2.30  | 2.43      | 2.410  | 2.490     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0132 | 0.0105    | 485.00 | 489.00    | 0.01000 | 0.01000   | 0.00400 | 0.00400   | 187.000 |
| 12/30/09 | 0.00100 | 0.00100   | 0.0578 | 0.0494    | 0.0100 | 0.0100    | 39.900   | 35.800    | 0.0020 | 0.0020    | 3.00  | 2.94      | 5.100  | 3.940     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0326 | 0.0268    | 408.00 | 383.00    | 0.01000 | 0.01000   | 0.00577 | 0.00400   | 147.000 |
| 03/31/10 | 0.00100 | 0.00100   | 0.1170 | 0.1130    | 0.0100 | 0.0100    | 34.600   | 25.800    | 0.0020 | 0.0020    | 7.45  | 7.31      | 12.300 | 12.100    | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0704 | 0.0678    | 360.00 | 347.00    | 0.01210 | 0.01050   | 0.00400 | 0.00400   | 144.000 |
| 06/10/10 | 0.00957 | 0.00100   | 0.1540 | 0.0982    | 0.0500 | 0.0100    | 262.000  | 275.000   | 0.0100 | 0.0020    | 29.60 | 19.80     | 14.800 | 14.800    | 0.00020 | 0.00020   | 0.0500 | 0.0100    | 0.0500 | 0.0100    | 369.00 | 364.00    | 0.05000 | 0.01000   | 0.02000 | 0.00463   | 217.000 |
| 09/14/10 | 0.00500 | 0.00500   | 0.0620 | 0.0568    | 0.0500 | 0.0500    | 167.000  | 131.000   | 0.0100 | 0.0100    | 12.00 | 10.30     | 7.760  | 7.240     | 0.00020 | 0.00020   | 0.0500 | 0.0500    | 0.0500 | 0.0500    | 467.00 | 448.00    | 0.05000 | 0.05000   | 0.02000 | 0.02000   | 191.000 |
| 12/29/10 | 0.00100 | 0.00100   | 0.0896 | 0.0824    | 0.0100 | 0.0100    | 37.500   | 31.200    | 0.0020 | 0.0020    | 5.78  | 5.74      | 8.350  | 7.740     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0682 | 0.0655    | 384.00 | 358.00    | 0.01000 | 0.01000   | 0.00400 | 0.00400   | 144.000 |
| 03/14/11 | 0.02370 | 0.02320   | 0.3000 | 0.2950    | 0.0100 | 0.0100    | 32.600   | 26.300    | 0.0020 | 0.0020    | 18.60 | 17.10     | 30.000 | 29.700    | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.2000 | 0.1960    | 270.00 | 266.00    | 0.01000 | 0.01000   | 0.00587 | 0.00408   | 125.000 |
| 06/07/11 | 0.00100 | 0.00100   | 0.0464 | 0.0440    | 0.0131 | 0.0119    | 47.800   | 40.200    | 0.0020 | 0.0020    | 4.17  | 3.81      | 3.020  | 2.850     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0278 | 0.0260    | 339.00 | 315.00    | 0.01000 | 0.01000   | 0.00803 | 0.00612   | 151.000 |
| 09/22/11 | 0.00408 | 0.00593   | 0.0879 | 0.0874    | 0.0100 | 0.0100    | 36.700   | 39.300    | 0.0020 | 0.0020    | 6.30  | 6.43      | 9.240  | 10.600    | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0487 | 0.0515    | 328.00 | 391.00    | 0.01000 | 0.01000   | 0.00400 | 0.00400   | 173.000 |
| 11/04/11 | 0.00148 | 0.00100   | 0.0452 | 0.0352    | 0.0100 | 0.0100    | 38.000   | 38.800    | 0.0020 | 0.0020    | 3.78  | 2.94      | 4.180  | 3.280     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0218 | 0.0124    | 355.00 | 373.00    | 0.01900 | 0.01000   | 0.00400 | 0.00400   | 163.000 |
| 03/15/12 | 0.00100 | 0.00100   | 0.0833 | 0.0342    | 0.0197 | 0.0100    | 46.100   | 40.400    | 0.0020 | 0.0020    | 4.32  | 3.59      | 5.320  | 4.620     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0273 | 0.0275    | 388.00 | 350.00    | 0.01000 | 0.01000   | 0.00400 | 0.00400   | 182.000 |
| 05/30/12 | 0.00369 | 0.00419   | 0.3680 | 0.3540    | 0.0125 | 0.0153    | 61.600   | 49.700    | 0.0152 | 0.0104    | 20.70 | 20.10     | 40.400 | 40.700    | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.2640 | 0.2560    | 275.00 | 281.00    | 0.01000 | 0.01000   | 0.01060 | 0.01020   | 130.000 |
| 08/31/12 | 0.00100 | 0.00100   | 0.0420 | 0.0398    | 0.0108 | 0.0116    | 51.800   | 46.900    | 0.0200 | 0.0167    | 2.98  | 2.89      | 2.960  | 2.720     | 0.00020 | 0.00020   | 0.0137 | 0.0140    | 0.0462 | 0.0429    | 356.00 | 339.00    | 0.01000 | 0.01000   | 0.00400 | 0.00400   | 139.000 |
| 12/17/12 | 0.00699 | 0.00591   | 0.2300 | 0.2380    | 0.0181 | 0.0166    | 31.300   | 28.900    | 0.0020 | 0.0020    | 13.60 | 14.40     | 24.400 | 25.400    | 0.00020 | 0.00020   | 0.0100 | 0.0115    | 0.1530 | 0.1580    | 191.00 | 196.00    | 0.01000 | 0.01000   | 0.01810 | 0.01960   | 67.300  |
| 03/06/13 | 0.01180 | 0.00897   | 0.5020 | 0.4480    | 0.0198 | 0.0245    | 49.700   | 47.600    | 0.0159 | 0.0125    | 26.60 | 26.20     | 52.800 | 52.900    | 0.00020 | 0.00020   | 0.0135 | 0.0104    | 0.3600 | 0.3180    | 128.00 | 124.00    | 0.01000 | 0.01000   | 0.03090 | 0.02750   | 75.400  |
| 05/17/13 | 0.00110 | 0.00109   | 0.0345 | 0.0366    | 0.0100 | 0.0100    | 46.800   | 43.500    | 0.0058 | 0.0030    | 4.23  | 4.40      | 3.730  | 3.750     | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.0389 | 0.0407    | 247.00 | 255.00    | 0.03540 | 0.03690   | 0.01080 | 0.01240   | 203.000 |
| 09/11/13 | 0.06770 | 0.01180   | 0.1910 | 0.1920    | 0.0100 | 0.0100    | 46.700   | 43.500    | 0.0101 | 0.0086    | 11.50 | 11.60     | 23.300 | 24.100    | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.1480 | 0.1250    | 214.00 | 198.00    | 0.02060 | 0.02050   | 0.00200 | 0.00400   | 105.000 |
| 11/18/13 | 0.01090 | 0.01060   | 0.1570 | 0.1590    | 0.0100 | 0.0100    | 40.200   | 35.400    | 0.0125 | 0.0140    | 12.00 | 11.90     | 27.000 | 25.500    | 0.00020 | 0.00020   | 0.0100 | 0.0100    | 0.1020 | 0.1020    | 208.00 | 203.00    | 0.01000 | 0.01000   | 0.00200 | 0.00200   | 103.000 |
| 03/07/14 | 0.01000 | 0.01000   | 0.1790 | 0.1390    | 0.0500 | 0.0500    | 428.000  | 360.000   | 0.0200 | 0.0040    | 27.50 | 22.20     | 19.900 | 17.000    | 0.00020 | 0.00020   | 0.0500 | 0.0500    | 0.0500 | 0.0520    | 150.00 | 160.00    | 0.05000 | 0.05000   | 0.01000 | 0.01000   | 92.400  |
| 05/07/14 | 0.00400 | 0.00400   | 0.2980 | 0.2420    | 0.0100 | 0.0100    | 1123.207 | 792.147   | 0.0880 | 0.0670    | 65.35 | 47.11     | 41.139 | 30.619    | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0330 | 0.0370    | 121.79 | 127.12    | 0.01000 | 0.01000   | 0.00500 | 0.00500   | 104.017 |
| 08/14/14 | 0.00400 | 0.00400   | 0.1410 | 0.1390    | 0.0100 | 0.0100    | 459.645  | 401.685   | 0.0400 | 0.0390    | 26.79 | 24.71     | 17.546 | 16.940    | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0310 | 0.0320    | 149.41 | 153.05    | 0.01000 | 0.01000   | 0.00500 | 0.00500   | 107.763 |
| 10/14/14 | 0.00400 | 0.00400   | 0.0570 | 0.0540    | 0.0100 | 0.0100    | 124.039  | 111.219   | 0.0130 | 0.0100    | 7.40  | 6.77      | 7.686  | 7.369     | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0330 | 0.0320    | 171.77 | 171.22    | 0.01000 | 0.01000   | 0.00500 | 0.01100   | 105.540 |
| 03/12/15 | 0.00400 | 0.00400   | 0.0450 | 0.0450    | 0.0100 | 0.0100    | 120.236  | 121.756   | 0.0090 | 0.0090    | 6.19  | 6.33      | 4.720  | 4.832     | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0210 | 0.0200    | 149.81 | 149.49    | 0.01000 | 0.01000   | 0.01000 | 0.01000   | 91.110  |
| 06/01/15 | 0.00400 | 0.00400   | 0.1360 | 0.1300    | 0.0100 | 0.0100    | 371.900  | 347.850   | 0.0340 | 0.0320    | 23.81 | 22.15     | 16.133 | 15.122    | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0360 | 0.0340    | 133.52 | 133.24    | 0.01000 | 0.01000   | 0.00500 | 0.00500   | 107.560 |
| 08/11/15 | 0.00400 | 0.00400   | 0.1450 | 0.1680    | 0.0100 | 0.0100    | 421.550  | 467.100   | 0.0350 | 0.0410    | 25.98 | 30.71     | 18.290 | 20.940    | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0380 | 0.0370    | 120.52 | 119.16    | 0.01000 | 0.01000   | 0.00500 | 0.00500   | 80.110  |
| 11/10/15 | 0.00400 | 0.00400   | 0.0220 | 0.0220    | 0.0110 | 0.0130    | 48.279   | 43.658    | 0.0020 | 0.0020    | 2.47  | 2.55      | 3.197  | 3.103     | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0200 | 0.0220    | 158.70 | 158.51    | 0.01000 | 0.01000   | 0.04700 | 0.05100   | 81.770  |
| 01/26/16 | 0.00400 | 0.00400   | 0.0210 | 0.0170    | 0.0170 | 0.0160    | 40.367   | 37.037    | 0.0020 | 0.0020    | 2.42  | 2.12      | 2.353  | 2.697     | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0200 | 0.0180    | 119.95 | 116.79    | 0.01000 | 0.01000   | 0.10800 | 0.10400   | 66.540  |
| 05/10/16 | 0.00400 | 0.00400   | 0.1750 | 0.1590    | 0.0100 | 0.0100    | 554.032  | 429.442   | 0.0200 | 0.0190    | 32.68 | 28.05     | 22.073 | 19.431    | 0.00015 | 0.00015   | 0.0100 | 0.0100    | 0.0330 | 0.0330    | 110.58 | 114.96    | 0.01000 | 0.01000   | 0.00500 | 0.00500   | 96.760  |
| 08/31/16 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 12/26/16 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 03/26/17 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 05/16/17 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 07/19/17 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 10/20/17 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 02/15/18 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 04/24/18 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |
| 07/10/18 |         |           |        |           |        |           |          |           |        |           |       |           |        |           |         |           |        |           |        |           |        |           |         |           |         |           |         |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| <b>DATE</b>    | <b>Na</b>        | <b>Tl</b>    | <b>Tl</b>        | <b>V</b>     | <b>V</b>         | <b>Zn</b>    | <b>Zn</b>        |
|----------------|------------------|--------------|------------------|--------------|------------------|--------------|------------------|
| <b>SAMPLED</b> | <b>Dissolved</b> | <b>Total</b> | <b>Dissolved</b> | <b>Total</b> | <b>Dissolved</b> | <b>Total</b> | <b>Dissolved</b> |
| 10/11/90       |                  |              |                  |              |                  |              |                  |
| 11/07/90       |                  |              |                  |              |                  |              |                  |
| 12/11/90       |                  |              |                  |              |                  |              |                  |
| 01/14/91       |                  |              |                  |              |                  |              |                  |
| 02/22/91       |                  |              |                  |              |                  |              |                  |
| 03/15/91       |                  |              |                  |              |                  | 2.1700       |                  |
| 04/24/91       |                  |              |                  |              |                  |              |                  |
| 05/25/91       |                  |              |                  |              |                  |              |                  |
| 06/25/91       |                  |              |                  |              |                  |              |                  |
| 07/25/91       |                  |              |                  |              |                  | 2.3200       |                  |
| 08/26/91       |                  |              |                  |              |                  |              |                  |
| 09/30/91       |                  |              |                  |              |                  |              |                  |
| 10/31/91       |                  |              |                  |              |                  |              |                  |
| 11/22/91       |                  |              |                  |              |                  |              |                  |
| 12/31/91       |                  |              |                  |              |                  |              |                  |
| 01/27/92       |                  |              |                  |              |                  |              |                  |
| 02/28/92       |                  |              |                  |              |                  |              |                  |
| 03/27/92       |                  |              |                  |              |                  | 2.1600       |                  |
| 04/28/92       |                  |              |                  |              |                  |              |                  |
| 06/01/92       |                  |              |                  |              |                  |              |                  |
| 06/29/92       |                  |              |                  |              |                  |              |                  |
| 07/21/92       |                  |              |                  |              |                  |              |                  |
| 08/24/92       |                  |              |                  |              |                  |              |                  |
| 10/01/92       |                  |              |                  |              |                  | 2.4100       |                  |
| 10/23/92       |                  |              |                  |              |                  |              |                  |
| 11/25/92       |                  |              |                  |              |                  |              |                  |
| 12/18/92       |                  |              |                  |              |                  |              |                  |
| 03/29/93       |                  |              |                  |              |                  |              |                  |
| 06/14/93       |                  |              |                  |              |                  | 1.7700       |                  |
| 09/08/93       |                  |              |                  |              |                  | 1.8300       |                  |
| 12/21/93       |                  |              |                  |              |                  |              |                  |
| 03/09/94       |                  |              |                  |              |                  | 1.6200       |                  |
| 06/27/94       |                  |              |                  |              |                  |              |                  |
| 09/15/94       |                  |              |                  |              |                  | 7.2300       |                  |
| 12/06/94       |                  |              |                  |              |                  |              |                  |
| 03/21/95       |                  |              |                  |              |                  | 1.4700       |                  |
| 06/29/95       |                  |              |                  |              |                  |              |                  |
| 09/18/95       |                  |              |                  |              |                  | 1.8000       |                  |
| 12/15/95       |                  |              |                  |              |                  |              |                  |
| 03/27/96       |                  |              |                  |              |                  | 1.7000       |                  |
| 06/18/96       |                  |              |                  |              |                  |              |                  |
| 09/26/96       |                  |              |                  |              |                  | 1.2000       |                  |
| 12/05/96       |                  |              |                  |              |                  |              |                  |
| 03/10/97       |                  |              |                  |              |                  | 1.4600       |                  |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | Na        | Tl    | Tl        | V     | V         | Zn     | Zn        |
|----------|-----------|-------|-----------|-------|-----------|--------|-----------|
| SAMPLED  | Dissolved | Total | Dissolved | Total | Dissolved | Total  | Dissolved |
| 06/17/97 |           |       |           |       |           |        |           |
| 09/18/97 |           |       |           |       |           | 1.1000 |           |
| 10/28/97 |           |       |           |       |           | 1.5000 |           |
| 11/17/97 |           |       |           |       |           | 1.5000 |           |
| 12/08/97 |           |       |           |       |           | 1.6000 |           |
| 01/08/98 |           |       |           |       |           | 1.6000 |           |
| 02/13/98 |           |       |           |       |           | 2.1000 |           |
| 03/12/98 |           |       |           |       |           | 1.8000 |           |
| 06/19/98 |           |       |           |       |           |        |           |
| 09/15/98 |           |       |           |       |           | 1.2200 |           |
| 12/01/98 |           |       |           |       |           |        |           |
| 04/06/99 |           |       |           |       |           |        |           |
| 06/23/99 |           |       |           |       |           |        |           |
| 09/15/99 |           |       |           |       |           |        |           |
| 12/08/99 |           |       |           |       |           | 1.4800 |           |
| 03/10/00 |           |       |           |       |           |        |           |
| 05/25/00 |           |       |           |       |           |        |           |
| 09/15/00 |           |       |           |       |           |        |           |
| 12/07/00 |           |       |           |       |           | 1.0000 |           |
| 03/08/01 |           |       |           |       |           |        |           |
| 06/19/01 |           |       |           |       |           |        |           |
| 08/31/01 |           |       |           |       |           |        |           |
| 12/11/01 |           |       |           |       |           | 0.8100 |           |
| 03/06/02 |           |       |           |       |           |        |           |
| 05/16/02 |           |       |           |       |           |        |           |
| 09/04/02 |           |       |           |       |           |        |           |
| 12/31/02 |           |       |           |       |           | 0.1800 |           |
| 03/27/03 |           |       |           |       |           |        |           |
| 06/27/03 |           |       |           |       |           |        |           |
| 09/17/03 |           |       |           |       |           | 0.0200 |           |
| 01/21/04 |           |       |           |       |           |        |           |
| 03/05/04 |           |       |           |       |           |        |           |
| 06/30/04 |           |       |           |       |           |        |           |
| 08/27/04 |           |       |           |       |           |        |           |
| 12/08/04 |           |       |           |       |           | 0.0200 |           |
| 03/31/05 |           |       |           |       |           |        |           |
| 06/29/05 |           |       |           |       |           |        |           |
| 09/30/05 |           |       |           |       |           |        |           |
| 12/29/05 |           |       |           |       |           | 0.0460 |           |
| 03/29/06 |           |       |           |       |           |        |           |
| 06/21/06 |           |       |           |       |           | 0.0360 |           |
| 09/26/06 |           |       |           |       |           |        |           |
| 12/12/06 |           |       |           |       |           | 0.0200 |           |
| 03/22/07 |           |       |           |       |           |        |           |
| 06/15/07 |           |       |           |       |           |        |           |
| 09/21/07 |           |       |           |       |           |        |           |
| 12/20/07 |           |       |           |       |           | 0.0200 |           |
| 03/24/08 |           |       |           |       |           |        |           |
| 06/25/08 |           |       |           |       |           |        |           |
| 09/17/08 |           |       |           |       |           |        |           |

**Table 6  
Colver Power Project  
Monitoring Well 2**

| DATE     | Na        | TI      | TI        | V      | V         | Zn     | Zn        |
|----------|-----------|---------|-----------|--------|-----------|--------|-----------|
| SAMPLED  | Dissolved | Total   | Dissolved | Total  | Dissolved | Total  | Dissolved |
| 12/18/08 |           |         |           |        |           | 0.0200 |           |
| 03/25/09 | 139.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0224 | 0.0245    |
| 06/30/09 | 159.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0583 | 0.0602    |
| 09/22/09 | 186.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0871 | 0.0775    |
| 12/30/09 | 136.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0624 | 0.0523    |
| 03/31/10 | 137.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.1260 | 0.1230    |
| 06/10/10 | 157.000   | 0.02000 | 0.00400   | 0.0500 | 0.0100    | 0.1130 | 0.0754    |
| 09/14/10 | 194.000   | 0.02000 | 0.02000   | 0.0500 | 0.0500    | 0.0757 | 0.0686    |
| 12/29/10 | 138.000   | 0.00691 | 0.00400   | 0.0100 | 0.0100    | 0.1240 | 0.1170    |
| 03/14/11 | 122.000   | 0.00400 | 0.00499   | 0.0100 | 0.0100    | 0.3550 | 0.3480    |
| 06/07/11 | 142.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0669 | 0.0613    |
| 09/22/11 | 196.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.1010 | 0.0991    |
| 11/04/11 | 170.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0494 | 0.0319    |
| 03/15/12 | 154.000   | 0.00400 | 0.00400   | 0.0355 | 0.0315    | 0.0889 | 0.0566    |
| 05/30/12 | 133.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.4390 | 0.4260    |
| 08/31/12 | 129.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0856 | 0.0886    |
| 12/17/12 | 66.900    | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.2750 | 0.2860    |
| 03/06/13 | 72.500    | 0.00400 | 0.00400   | 0.0338 | 0.0300    | 0.5950 | 0.5320    |
| 05/17/13 | 210.000   | 0.00400 | 0.00400   | 0.0100 | 0.0100    | 0.0547 | 0.0578    |
| 09/11/13 | 97.100    | 0.00800 | 0.00400   | 0.0100 | 0.0100    | 0.2230 | 0.2230    |
| 11/18/13 | 100.000   | 0.00800 | 0.00800   | 0.0100 | 0.0100    | 0.1930 | 0.1940    |
| 03/07/14 | 100.000   | 0.04000 | 0.04000   | 0.0500 | 0.0100    | 0.2610 | 0.2350    |
| 05/07/14 | 101.357   | 0.05800 | 0.04600   | 0.0050 | 0.0050    | 0.4890 | 0.4100    |
| 08/14/14 | 107.003   | 0.03500 | 0.03500   | 0.0050 | 0.0050    | 0.2290 | 0.2150    |
| 10/14/14 | 108.960   | 0.05200 | 0.04400   | 0.0170 | 0.0150    | 0.1060 | 0.1000    |
| 03/12/15 | 90.820    | 0.01000 | 0.01300   | 0.0050 | 0.0050    | 0.1020 | 0.1010    |
| 06/01/15 | 103.080   | 0.02400 | 0.02400   | 0.0050 | 0.0050    | 0.2530 | 0.2370    |
| 08/11/15 | 81.810    | 0.03000 | 0.03600   | 0.0050 | 0.0050    | 0.3010 | 0.3290    |
| 11/10/15 | 87.960    | 0.00400 | 0.00700   | 0.0050 | 0.0050    | 0.0490 | 0.0510    |
| 01/26/16 | 67.010    | 0.01000 | 0.00800   | 0.0050 | 0.0050    | 0.0470 | 0.0420    |
| 05/10/16 | 100.720   | 0.02600 | 0.02700   | 0.0050 | 0.0050    | 0.2720 | 0.2450    |
| 08/31/16 |           |         |           |        |           |        |           |
| 12/26/16 |           |         |           |        |           |        |           |
| 03/26/17 |           |         |           |        |           |        |           |
| 05/16/17 |           |         |           |        |           |        |           |
| 07/19/17 |           |         |           |        |           |        |           |
| 10/20/17 |           |         |           |        |           |        |           |
| 02/15/18 |           |         |           |        |           |        |           |
| 04/24/18 |           |         |           |        |           |        |           |
| 07/10/18 |           |         |           |        |           |        |           |

**Table 7**  
**Colver Power Project**  
**Monitoring Well 3**

**COAL ASH PLACEMENT GROUNDWATER QUALITY PARAMETERS**  
**WATER MONITORING REPORT**

Permit #11900201 Maple Coal - Colver Site

MW-3 Monitoring Well 40° 33' 9" -78° 48' 23" Elev. 1763.38'

In ppm (mg/l) *less than*

| DATE     | SWE     | FIELD | LAB  | SPECIF. | ALK.      | ACID.    | TDS  | TSS | SO4   | NH3 | NO3 | NO2 | Cl    | F | Al      | Al        | Sb    | Sb        | As      | As        | Ba    | Ba        | Be    | Be        | B     | B         | Cd      | Cd        |  |
|----------|---------|-------|------|---------|-----------|----------|------|-----|-------|-----|-----|-----|-------|---|---------|-----------|-------|-----------|---------|-----------|-------|-----------|-------|-----------|-------|-----------|---------|-----------|--|
| SAMPLED  | FEET    | pH    | pH   | COND.   | as CaCO3  | as CaCO3 |      |     |       |     |     |     |       |   | Total   | Dissolved | Total | Dissolved | Total   | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total   | Dissolved |  |
| 09/08/93 |         |       | 4.30 |         | 13        | 4320     |      | 84  | 6926  |     |     |     |       |   | 31.100  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 12/21/93 |         |       | 4.20 |         | 13        | 4278     |      | 70  | 5164  |     |     |     |       |   | 51.500  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 10/28/97 | 1735.38 | 5.0   | 4.20 | 11000   | <i>1</i>  | 3239     |      | 84  | 6167  |     |     |     | 8.64  |   | 20.000  |           |       |           | 0.09470 |           |       |           |       |           |       |           | 0.00090 |           |  |
| 11/18/97 | 1739.38 | 3.7   | 2.90 | 8525    | <i>1</i>  | 4220     |      | 90  | 6000  |     |     |     | 9.86  |   | 22.000  |           |       |           | 0.00290 |           |       |           |       |           |       |           | 0.00050 |           |  |
| 12/08/97 | 1743.08 | 4.9   | 3.30 | 9100    | <i>1</i>  | 3840     | 9074 | 54  | 5333  |     |     |     | 10.20 |   | 17.000  |           |       |           | 0.00060 |           |       |           |       |           |       |           | 0.00020 |           |  |
| 01/08/98 | 1739.58 | 4.5   | 3.70 | 9720    | <i>1</i>  | 5670     |      | 152 | 5375  |     |     |     | 12.00 |   | 17.000  |           |       |           | 0.00120 |           |       |           |       |           |       |           | 0.00140 |           |  |
| 02/13/98 | 1741.08 | 4.5   | 3.70 | 8300    | <i>1</i>  | 2800     |      | 44  | 5333  |     |     |     | 11.70 |   | 23.000  |           |       |           | 0.00080 |           |       |           |       |           |       |           | 0.00000 |           |  |
| 03/12/98 | 1741.38 | 4.6   | 3.70 | 9500    | <i>1</i>  | 5675     | 8962 | 24  | 5500  |     |     |     | 11.40 |   | 17.000  |           |       |           | 0.00110 |           |       |           |       |           |       |           | 0.00032 |           |  |
| 06/19/98 | 1738.28 | 4.4   | 4.10 | 7200    | <i>1</i>  | 2734     | 7182 | 18  | 4050  |     |     |     |       |   | 27.000  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 09/15/98 | 1737.28 | 3.8   | 3.60 | 6200    | <i>1</i>  | 2505     | 6162 | 86  | 4583  |     |     |     | 25.00 |   | 73.000  |           |       |           | 0.00080 |           |       |           |       |           |       |           | 0.00200 |           |  |
| 12/01/98 | 1733.18 | 4.2   | 4.30 | 4690    | 0         | 2732     | 3264 | 44  | 975   |     |     |     |       |   | 8.400   |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 04/06/99 | 1745.78 | 2.8   | 3.20 | 5670    | <i>1</i>  | 2520     | 5490 | 14  | 4000  |     |     |     |       |   | 110.000 |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 06/23/99 | 1736.28 | 4.4   | 2.60 | 5290    | <i>10</i> | 3060     | 8021 | 4   | 4000  |     |     |     |       |   | 72.500  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 09/15/99 | 1735.48 | 4.4   | 4.30 | 5620    | <i>10</i> | 2688     | 8460 | 42  | 3956  |     |     |     | 28.00 |   | 57.500  |           |       |           | 0.01200 |           |       |           |       |           |       |           | 0.00220 |           |  |
| 12/08/99 | 1737.68 | 4.0   | 3.80 | 5600    | <i>10</i> | 3010     | 7952 | 25  | 4690  |     |     |     |       |   | 41.600  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 03/10/00 | 1739.58 | 4.3   | 4.30 | 5950    | <i>10</i> | 2850     | 8332 | 15  | 5250  |     |     |     |       |   | 26.100  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 05/25/00 | 1739.78 | 4.3   | 4.30 | 3370    | <i>10</i> | 2626     | 7778 | 32  | 3566  |     |     |     |       |   | 33.300  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 09/15/00 | 1734.68 | 4.4   | 2.50 | 5330    | <i>10</i> | 3910     | 7791 | 32  | 3550  |     |     |     |       |   | 46.400  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 12/07/00 | 1738.28 | 3.1   | 2.60 | 5010    | <i>10</i> | 2800     | 3281 | 31  | 3775  |     |     |     | 30.00 |   | 66.000  |           |       |           | 0.01600 |           |       |           |       |           |       |           | 0.00140 |           |  |
| 03/08/01 | 1738.38 | 3.8   | 3.10 | 4970    | <i>10</i> | 2478     | 6310 | 10  | 4225  |     |     |     |       |   | 96.420  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 06/19/01 | 1735.58 | 4.2   | 4.00 | 4900    | <i>10</i> | 2660     | 6579 | 40  | 4330  |     |     |     |       |   | 80.190  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 08/31/01 | 1735.98 | 4.1   | 3.10 | 4210    | <i>10</i> | 2880     | 6890 | 4   | 4035  |     |     |     |       |   | 50.800  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 12/11/01 | 1736.18 | 3.5   | 3.20 | 5100    | <i>10</i> | 2300     | 6700 | 47  | 4600  |     |     |     | 20.00 |   | 36.000  |           |       |           | 0.12000 |           |       |           |       |           |       |           | 0.00560 |           |  |
| 03/07/02 | 1736.38 | 3.2   | 3.00 | 5480    | <i>10</i> | 2600     | 7100 | 4   | 4700  |     |     |     |       |   | 69.500  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 05/16/02 | 1742.08 | 3.4   | 3.20 | 5380    | <i>10</i> | 2300     | 7100 | 4   | 4800  |     |     |     |       |   | 21.100  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 09/04/02 | 1736.88 | 4.2   | 3.70 | 4640    | <i>10</i> | 2200     | 6190 | 60  | 3700  |     |     |     |       |   | 36.600  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 12/12/02 | 1736.08 | 4.5   | 3.90 | 4130    | <i>10</i> | 2300     | 6270 | 4   | 4790  |     |     |     | 37.00 |   | 96.300  |           |       |           | 0.07680 |           |       |           |       |           |       |           | 0.00400 |           |  |
| 03/27/03 | 1736.38 | 3.3   | 2.70 | 3690    | <i>10</i> | 2200     | 5390 | 4   | 4130  |     |     |     |       |   | 276.000 |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 06/27/03 | 1735.98 | 3.6   | 3.00 | 3900    | <i>10</i> | 1900     | 5580 | 6   | 4590  |     |     |     |       |   | 207.000 |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 09/17/03 | 1741.58 | 3.1   | 2.80 | 3980    | <i>10</i> | 2100     | 5420 | 4   | 6660  |     |     |     | 11.30 |   | 183.000 |           |       |           | 0.02790 |           |       |           |       |           |       |           | 0.00400 |           |  |
| 01/06/04 | 1747.18 | 3.4   | 2.70 | 3940    | <i>10</i> | 2000     | 5210 | 4   | 6390  |     |     |     |       |   | 220.000 |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 03/05/04 | 1746.88 | 3.6   | 2.90 | 4460    | <i>10</i> | 2300     | 6070 | 4   | 5560  |     |     |     |       |   | 48.800  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 06/30/04 | 1746.98 | 5.3   | 3.80 | 4030    | <i>10</i> | 2200     | 5840 | 10  | 4320  |     |     |     |       |   | 30.200  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 08/27/04 | 1746.58 | 3.8   | 3.30 | 4410    | <i>10</i> | 2100     | 6380 | 5   | 4690  |     |     |     |       |   | 34.200  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 12/08/04 | 1745.48 | 3.9   | 3.10 | 4270    | <i>10</i> | 2300     | 6410 | 6   | 13900 |     |     |     | 62.10 |   | 49.400  |           |       |           | 0.03910 |           |       |           |       |           |       |           | 0.04000 |           |  |
| 03/31/05 | 1746.78 | 3.4   | 3.00 | 4550    | <i>10</i> | 1800     | 5740 | 4   | 4380  |     |     |     |       |   | 21.600  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 06/29/05 | 1741.88 | 5.3   | 4.20 | 5120    | <i>10</i> | 2200     | 6910 | 26  | 5620  |     |     |     |       |   | 6.300   |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 09/30/05 | 1734.38 | 4.5   | 4.10 | 4580    | <i>10</i> | 1700     | 5470 | 22  | 4470  |     |     |     |       |   | 21.200  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 12/29/05 | 1742.03 | 3.4   | 3.20 | 4140    | <i>10</i> | 1800     | 4480 | 36  | 13500 |     |     |     | 43.40 |   | 144.000 |           |       |           | 0.02000 |           |       |           |       |           |       |           | 0.01000 |           |  |
| 03/29/06 | 1745.48 | 3.1   | 3.10 | 3820    | <i>10</i> | 1600     | 4550 | 4   | 6020  |     |     |     |       |   | 190.000 |           |       |           |         |           |       |           |       |           |       |           |         |           |  |
| 06/21/06 | 1737.58 | 4.1   | 3.20 | 4150    | <i>10</i> | 1800     | 5160 | 5   | 5020  |     |     |     | 72.10 |   | 91.000  |           |       |           | 0.04000 |           |       |           |       |           |       |           | 0.00350 |           |  |
| 09/26/06 | 1739.78 | 4.6   | 4.30 | 4070    | <i>10</i> | 1400     | 4770 | 7   | 3850  |     |     |     |       |   | 24.100  |           |       |           |         |           |       |           |       |           |       |           |         |           |  |



**Table 7  
Colver Power Project  
Monitoring Well 3**

| DATE     | Ca      | Ca        | Cr      | Cr        | Co    | Co        | Cu     | Cu        | Fe       | Fe        | Pb      | Pb        | MG     | Mg        | Mn      | Mn        | Hg      | Hg        | Mo    | Mo        | Ni    | Ni        | K     | K         | Se     | Se        |  |
|----------|---------|-----------|---------|-----------|-------|-----------|--------|-----------|----------|-----------|---------|-----------|--------|-----------|---------|-----------|---------|-----------|-------|-----------|-------|-----------|-------|-----------|--------|-----------|--|
| SAMPLED  | Total   | Dissolved | Total   | Dissolved | Total | Dissolved | Total  | Dissolved | Total    | Dissolved | &07al   | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total  | Dissolved |  |
| 09/08/93 |         |           |         |           |       |           |        |           |          |           |         |           |        |           | 298.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 12/21/93 |         |           |         |           |       |           |        |           |          |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |  |
| 10/28/97 | 470.000 |           | 0.01000 |           |       |           | 0.0500 |           | 1600.000 |           | 0.00150 |           | 280.00 |           | 300.000 |           | 0.00020 |           |       |           | 1.200 |           |       |           | 0.0002 |           |  |
| 11/18/97 | 480.000 |           | 0.02000 |           |       |           | 0.0400 |           | 1700.000 |           | 0.00050 |           | 260.00 |           | 540.000 |           | 0.00030 |           |       |           | 1.200 |           |       |           | 0.0010 |           |  |
| 12/08/97 | 490.000 |           | 0.02000 |           |       |           | 0.0300 |           | 1700.000 |           | 0.00050 |           | 250.00 |           | 290.000 |           | 0.00020 |           |       |           | 1.200 |           |       |           | 0.0004 |           |  |
| 01/08/98 | 400.000 |           | 0.03000 |           |       |           | 0.0300 |           | 1600.000 |           | 0.00290 |           | 260.00 |           | 250.000 |           | 0.00050 |           |       |           | 1.100 |           |       |           | 0.0016 |           |  |
| 02/13/98 | 420.000 |           | 0.03000 |           |       |           | 0.0400 |           | 1500.000 |           | 0.01100 |           | 240.00 |           | 250.000 |           | 0.00080 |           |       |           | 1.100 |           |       |           | 0.0005 |           |  |
| 03/12/98 | 450.000 |           | 0.01000 |           |       |           | 0.0300 |           | 1200.000 |           | 0.00500 |           | 210.00 |           | 220.000 |           | 0.00020 |           |       |           | 1.200 |           |       |           | 0.0002 |           |  |
| 06/19/98 |         |           |         |           |       |           |        |           | 1400.000 |           |         |           |        |           | 220.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 09/15/98 | 440.000 |           | 0.03100 |           |       |           | 0.0450 |           | 1000.000 |           | 0.00280 |           | 180.00 |           | 180.000 |           | 0.00020 |           |       |           |       |           | 4.70  |           |        |           |  |
| 12/01/98 |         |           |         |           |       |           |        |           | 1400.000 |           |         |           |        |           | 270.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 04/06/99 |         |           |         |           |       |           |        |           | 1100.000 |           |         |           |        |           | 200.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 06/23/99 |         |           |         |           |       |           |        |           | 5295.000 |           |         |           |        |           | 159.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 09/15/99 | 580.000 |           | 0.01000 |           |       |           | 0.0400 |           | 1525.000 |           | 0.00100 |           | 190.00 |           | 200.000 |           | 0.00040 |           |       |           | 0.260 |           | 3.94  |           |        |           |  |
| 12/08/99 |         |           |         |           |       |           |        |           | 1174.000 |           |         |           |        |           | 98.000  |           |         |           |       |           |       |           |       |           |        |           |  |
| 03/10/00 |         |           |         |           |       |           |        |           | 1588.000 |           |         |           |        |           | 268.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 05/25/00 |         |           |         |           |       |           |        |           | 1570.000 |           |         |           |        |           | 203.500 |           |         |           |       |           |       |           |       |           |        |           |  |
| 09/15/00 |         |           |         |           |       |           |        |           | 1662.000 |           |         |           |        |           | 215.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 12/07/00 | 435.000 |           | 0.08800 |           |       |           | 0.0650 |           | 1494.000 |           | 0.00100 |           | 177.00 |           | 158.000 |           | 0.00040 |           |       |           | 1.000 |           | 5.30  |           | 0.0640 |           |  |
| 03/08/01 |         |           |         |           |       |           |        |           | 815.500  |           |         |           |        |           | 133.900 |           |         |           |       |           |       |           |       |           |        |           |  |
| 06/19/01 |         |           |         |           |       |           |        |           | 313.500  |           |         |           |        |           | 66.650  |           |         |           |       |           |       |           |       |           |        |           |  |
| 08/31/01 |         |           |         |           |       |           |        |           | 313.400  |           |         |           |        |           | 69.900  |           |         |           |       |           |       |           |       |           |        |           |  |
| 12/11/01 | 340.000 |           | 0.03300 |           |       |           | 0.0200 |           | 330.000  |           | 0.03300 |           | 110.00 |           | 73.000  |           | 0.00020 |           |       |           | 0.530 |           | 3.50  |           | 0.0080 |           |  |
| 03/07/02 |         |           |         |           |       |           |        |           | 312.000  |           |         |           |        |           | 75.600  |           |         |           |       |           |       |           |       |           |        |           |  |
| 05/16/02 |         |           |         |           |       |           |        |           | 729.000  |           |         |           |        |           | 70.200  |           |         |           |       |           |       |           |       |           |        |           |  |
| 09/04/02 |         |           |         |           |       |           |        |           | 837.000  |           |         |           |        |           | 110.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 12/12/02 | 321.000 |           | 0.03830 |           |       |           | 0.0200 |           | 440.000  |           | 0.01780 |           | 98.10  |           | 107.000 |           | 0.00020 |           |       |           | 0.680 |           | 3.06  |           | 0.1810 |           |  |
| 03/27/03 |         |           |         |           |       |           |        |           | 140.000  |           |         |           |        |           | 102.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 06/27/03 |         |           |         |           |       |           |        |           | 357.000  |           |         |           |        |           | 90.700  |           |         |           |       |           |       |           |       |           |        |           |  |
| 09/17/03 | 346.000 |           | 0.06670 |           |       |           | 0.0930 |           | 188.000  |           | 0.00400 |           | 66.60  |           | 61.600  |           | 0.00020 |           |       |           | 1.060 |           | 1.60  |           | 0.0080 |           |  |
| 01/06/04 |         |           |         |           |       |           |        |           | 115.000  |           |         |           |        |           | 51.000  |           |         |           |       |           |       |           |       |           |        |           |  |
| 03/05/04 |         |           |         |           |       |           |        |           | 864.000  |           |         |           |        |           | 114.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 06/30/04 |         |           |         |           |       |           |        |           | 814.000  |           |         |           |        |           | 101.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 08/27/04 |         |           |         |           |       |           |        |           | 961.000  |           |         |           |        |           | 128.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 12/08/04 | 428.000 |           | 0.09840 |           |       |           | 0.0500 |           | 887.000  |           | 0.01000 |           | 149.00 |           | 124.000 |           | 0.00020 |           |       |           | 0.794 |           | 3.92  |           | 0.0707 |           |  |
| 03/31/05 |         |           |         |           |       |           |        |           | 633.000  |           |         |           |        |           | 163.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 06/29/05 |         |           |         |           |       |           |        |           | 1090.000 |           |         |           |        |           | 135.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 09/30/05 |         |           |         |           |       |           |        |           | 815.000  |           |         |           |        |           | 105.000 |           |         |           |       |           |       |           |       |           |        |           |  |
| 12/29/05 | 430.000 |           | 0.06170 |           |       |           | 0.0500 |           | 247.000  |           | 0.02500 |           | 84.70  |           | 77.200  |           | 0.00020 |           |       |           | 0.939 |           | 3.73  |           | 0.0200 |           |  |
| 03/29/06 |         |           |         |           |       |           |        |           | 85.900   |           |         |           |        |           | 49.300  |           |         |           |       |           |       |           |       |           |        |           |  |
| 06/21/06 | 457.000 |           | 0.05000 |           |       |           | 0.0470 |           | 607.000  |           | 0.00100 |           | 123.00 |           | 98.100  |           | 0.00100 |           |       |           | 0.515 |           | 4.61  |           | 0.0700 |           |  |
| 09/26/06 |         |           |         |           |       |           |        |           | 740.000  |           |         |           |        |           | 89.900  |           |         |           |       |           |       |           |       |           |        |           |  |

**Table 7  
Colver Power Project  
Monitoring Well 3**

| DATE     | Ca      | Ca        | Cr      | Cr        | Co    | Co        | Cu     | Cu        | Fe      | Fe        | Pb      | Pb        | MG     | Mg        | Mn      | Mn        | Hg      | Hg        | Mo    | Mo        | Ni    | Ni        | K     | K         | Se     | Se        |
|----------|---------|-----------|---------|-----------|-------|-----------|--------|-----------|---------|-----------|---------|-----------|--------|-----------|---------|-----------|---------|-----------|-------|-----------|-------|-----------|-------|-----------|--------|-----------|
| SAMPLED  | Total   | Dissolved | Total   | Dissolved | Total | Dissolved | Total  | Dissolved | Total   | Dissolved | &07al   | Dissolved | Total  | Dissolved | Total   | Dissolved | Total   | Dissolved | Total | Dissolved | Total | Dissolved | Total | Dissolved | Total  | Dissolved |
| 12/21/06 | 413.000 |           | 0.11000 |           |       |           | 0.1000 |           | 723.000 |           | 0.03660 |           | 117.00 |           | 127.000 |           | 0.00020 |           |       |           | 0.666 |           | 4.78  |           | 0.0400 |           |
| 03/22/07 |         |           |         |           |       |           |        |           | 435.000 |           |         |           |        |           | 78.400  |           |         |           |       |           |       |           |       |           |        |           |
| 06/15/07 |         |           |         |           |       |           |        |           | 867.000 |           |         |           |        |           | 122.000 |           |         |           |       |           |       |           |       |           |        |           |
| 09/21/07 |         |           |         |           |       |           |        |           | 541.000 |           |         |           |        |           | 81.600  |           |         |           |       |           |       |           |       |           |        |           |
| 12/20/07 | 429.000 |           | 0.07450 |           |       |           | 0.0500 |           | 759.000 |           | 0.01000 |           | 125.00 |           | 99.200  |           | 0.00020 |           |       |           | 0.516 |           | 4.66  |           | 0.0422 |           |
| 03/24/08 |         |           |         |           |       |           |        |           | 844.000 |           |         |           |        |           | 117.000 |           |         |           |       |           |       |           |       |           |        |           |
| 06/25/08 |         |           |         |           |       |           |        |           | 757.000 |           |         |           |        |           | 103.000 |           |         |           |       |           |       |           |       |           |        |           |
| 09/17/08 |         |           |         |           |       |           |        |           | 965.000 |           |         |           |        |           | 120.000 |           |         |           |       |           |       |           |       |           |        |           |
| 12/18/08 | 419.000 |           | 0.07540 |           |       |           | 0.0500 |           | 587.000 |           | 0.01000 |           | 98.30  |           | 81.300  |           | 0.00020 |           |       |           | 0.400 |           | 12.40 |           | 0.0301 |           |
| 03/25/09 | 426.000 | 303.000   | 0.08020 | 0.05460   | 1.400 | 0.990     | 0.0535 | 0.0413    | 640.000 | 431.000   | 0.01000 | 0.00200   | 114.00 | 83.60     | 100.000 | 91.200    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.594 | 0.535     | 11.50 | 6.68      | 0.0438 | 0.0040    |
| 06/30/09 | 401.000 | 343.000   | 0.05910 | 0.05150   | 1.110 | 0.973     | 0.0200 | 0.0200    | 575.000 | 341.000   | 0.00400 | 0.00400   | 96.50  | 83.00     | 71.800  | 64.100    | 0.00020 | 0.00020   | 0.020 | 0.020     | 0.479 | 0.395     | 6.72  | 5.54      | 0.0200 | 0.0080    |
| 09/22/09 | 385.000 | 393.000   | 0.07670 | 0.04750   | 1.240 | 0.874     | 0.0500 | 0.0100    | 545.000 | 484.000   | 0.01000 | 0.00200   | 108.00 | 101.00    | 92.600  | 92.300    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.428 | 0.398     | 9.04  | 6.59      | 0.0500 | 0.0100    |
| 12/30/09 | 399.000 | 371.000   | 0.02790 | 0.02750   | 0.692 | 0.688     | 0.0100 | 0.0100    | 256.000 | 366.000   | 0.00200 | 0.00200   | 71.90  | 73.20     | 68.100  | 68.900    | 0.00020 | 0.00020   | 0.010 | 0.010     | 0.516 | 0.395     | 4.21  | 4.18      | 0.0100 | 0.0100    |
| 03/31/10 | 440.000 | 421.000   | 0.02910 | 0.02340   | 0.755 | 0.740     | 0.0658 | 0.0539    | 140.000 | 120.000   | 0.02810 | 0.02810   | 62.10  | 60.90     | 59.300  | 58.800    | 0.00020 | 0.00020   | 0.010 | 0.010     | 0.973 | 0.873     | 3.47  | 3.75      | 0.0286 | 0.0175    |
| 06/10/10 | 413.000 | 375.000   | 0.10300 | 0.06110   | 1.610 | 1.110     | 0.0500 | 0.0100    | 605.000 | 601.000   | 0.01000 | 0.01190   | 122.00 | 118.00    | 114.000 | 108.000   | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.558 | 0.525     | 6.51  | 4.57      | 0.0500 | 0.0100    |
| 09/14/10 | 415.000 | 405.000   | 0.08560 | 0.06730   | 1.250 | 0.959     | 0.0500 | 0.0100    | 590.000 | 598.000   | 0.01000 | 0.00200   | 108.00 | 106.00    | 106.000 | 106.000   | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.418 | 0.406     | 7.12  | 6.04      | 0.0513 | 0.0124    |
| 12/29/10 | 416.000 | 410.000   | 0.02100 | 0.02260   | 0.981 | 0.935     | 0.0500 | 0.0500    | 506.000 | 379.000   | 0.01000 | 0.01000   | 79.80  | 76.70     | 83.300  | 75.500    | 0.00020 | 0.00020   | 0.050 | 0.050     | 0.410 | 0.468     | 6.82  | 6.16      | 0.0500 | 0.0500    |
| 03/14/11 | 455.000 | 440.000   | 0.03850 | 0.03640   | 0.749 | 0.735     | 0.0500 | 0.0157    | 132.000 | 71.900    | 0.01000 | 0.01220   | 50.70  | 56.90     | 61.100  | 73.500    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.635 | 0.501     | 4.38  | 5.91      | 0.0500 | 0.0100    |
| 06/07/11 | 393.000 | 352.000   | 0.05740 | 0.05030   | 1.080 | 0.954     | 0.0500 | 0.0293    | 454.000 | 556.000   | 0.01000 | 0.00994   | 92.60  | 96.00     | 94.400  | 89.000    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.422 | 0.403     | 6.93  | 6.65      | 0.0500 | 0.0100    |
| 09/22/11 | 450.000 | 341.000   | 0.06110 | 0.04920   | 0.971 | 0.789     | 0.0500 | 0.0100    | 350.000 | 396.000   | 0.01000 | 0.00811   | 80.40  | 80.00     | 88.700  | 72.500    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.395 | 0.313     | 7.92  | 6.89      | 0.0500 | 0.0100    |
| 11/04/11 | 770.000 | 408.000   | 0.08410 | 0.06940   | 1.230 | 1.060     | 0.0500 | 0.0167    | 623.000 | 652.000   | 0.01000 | 0.01910   | 106.00 | 111.00    | 106.000 | 109.000   | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.405 | 0.404     | 7.57  | 7.54      | 0.0500 | 0.0100    |
| 03/15/12 | 373.000 | 370.000   | 0.02260 | 0.00969   | 1.170 | 0.902     | 0.0500 | 0.0120    | 599.000 | 632.000   | 0.01000 | 0.02630   | 93.50  | 97.80     | 95.200  | 93.100    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.364 | 0.322     | 8.42  | 7.48      | 0.0500 | 0.0100    |
| 05/30/12 | 371.000 | 367.000   | 0.01150 | 0.01320   | 1.040 | 1.060     | 0.0500 | 0.0500    | 430.000 | 511.000   | 0.01000 | 0.01000   | 81.60  | 82.60     | 83.600  | 82.900    | 0.00020 | 0.00020   | 0.050 | 0.050     | 0.419 | 0.401     | 6.78  | 7.13      | 0.0500 | 0.0500    |
| 08/31/12 | 359.000 | 363.000   | 0.02630 | 0.02780   | 1.210 | 1.250     | 0.0500 | 0.0500    | 518.000 | 701.000   | 0.06310 | 0.05870   | 101.00 | 104.00    | 101.000 | 104.000   | 0.00020 | 0.00020   | 0.050 | 0.050     | 0.393 | 0.400     | 9.15  | 8.22      | 0.0799 | 0.0696    |
| 12/17/12 | 376.000 | 402.000   | 0.01950 | 0.01360   | 0.908 | 0.784     | 0.0500 | 0.0500    | 246.000 | 480.000   | 0.01000 | 0.01320   | 69.90  | 71.50     | 65.600  | 78.200    | 0.00020 | 0.00020   | 0.050 | 0.050     | 0.472 | 0.367     | 7.57  | 7.75      | 0.0764 | 0.0100    |
| 03/06/13 | 365.000 | 365.000   | 0.01670 | 0.01580   | 0.802 | 0.882     | 0.0500 | 0.0500    | 227.000 | 308.000   | 0.01000 | 0.01000   | 60.30  | 67.30     | 60.000  | 64.800    | 0.00020 | 0.00020   | 0.050 | 0.050     | 0.518 | 0.485     | 4.74  | 5.88      | 0.0500 | 0.0500    |
| 05/17/13 | 338.000 | 370.000   | 0.01850 | 0.01600   | 1.150 | 1.150     | 0.0500 | 0.0100    | 583.000 | 362.000   | 0.04140 | 0.05040   | 96.00  | 96.00     | 96.100  | 96.100    | 0.00020 | 0.00020   | 0.050 | 0.010     | 0.357 | 0.319     | 8.67  | 7.82      | 0.1150 | 0.1240    |
| 09/11/13 | 339.000 | 357.000   | 0.02210 | 0.02430   | 0.775 | 0.829     | 0.0100 | 0.0100    | 374.000 | 424.000   | 0.01060 | 0.01520   | 61.10  | 67.70     | 66.400  | 71.700    | 0.00020 | 0.00020   | 0.010 | 0.010     | 0.279 | 0.294     | 9.15  | 9.87      | 0.0368 | 0.0416    |
| 11/18/13 | 320.000 | 338.000   | 0.01980 | 0.01930   | 0.763 | 0.796     | 0.0100 | 0.0100    | 363.000 | 370.000   | 0.02210 | 0.01880   | 57.90  | 56.70     | 69.200  | 69.100    | 0.00020 | 0.00020   | 0.010 | 0.010     | 0.263 | 0.256     | 9.27  | 8.95      | 0.0100 | 0.0100    |
| 03/07/14 | 309.000 | 311.000   | 0.01890 | 0.01970   | 0.916 | 0.950     | 0.0500 | 0.0500    | 448.000 | 471.000   | 0.02000 | 0.00400   | 74.50  | 80.20     | 58.600  | 51.700    | 0.00020 | 0.00020   | 0.050 | 0.050     | 0.284 | 0.305     | 10.80 | 11.40     | 0.0500 | 0.0500    |
| 05/07/14 | 296.350 | 320.690   | 0.02800 | 0.03400   | 0.855 | 0.966     | 0.0100 | 0.0100    | 492.950 | 594.920   | 0.04300 | 0.05100   | 80.12  | 95.15     | 75.179  | 88.014    | 0.00015 | 0.00015   | 0.022 | 0.027     | 0.268 | 0.313     | 8.86  | 9.50      | 0.0100 | 0.0100    |
| 08/14/14 | 378.216 | 365.136   | 0.03000 | 0.03100   | 1.526 | 1.487     | 0.0100 | 0.0100    | 923.295 | 861.285   | 0.08000 | 0.08500   | 139.33 | 132.65    | 121.557 | 116.387   | 0.00015 | 0.00015   | 0.023 | 0.029     | 0.324 | 0.340     | 10.34 | 10.59     | 0.0100 | 0.0100    |
| 10/14/14 | 339.537 | 334.537   | 0.01400 | 0.01400   | 0.738 | 0.727     | 0.0100 | 0.0100    | 593.229 | 502.139   | 0.05000 | 0.04800   | 75.34  | 73.52     | 65.649  | 52.836    | 0.00015 | 0.00015   | 0.015 | 0.015     | 0.211 | 0.211     | 13.21 | 12.55     | 0.0100 | 0.0100    |
| 03/12/15 | 370.659 | 370.989   | 0.03400 | 0.03400   | 1.466 | 1.474     | 0.0100 | 0.0100    | 784.576 | 815.296   | 0.07400 | 0.07600   | 131.28 | 133.56    | 114.934 | 118.034   | 0.00015 | 0.00015   | 0.022 | 0.020     | 0.316 | 0.316     | 10.90 | 10.84     | 0.0100 | 0.0100    |
| 06/01/15 | 348.680 | 352.170   | 0.02700 | 0.02700   | 1.399 | 1.391     | 0.0100 | 0.0100    | 791.760 | 764.440   | 0.07500 | 0.07600   | 128.33 | 126.14    | 106.490 | 108.470   | 0.00015 | 0.00015   | 0.014 | 0.011     | 0.316 | 0.318     | 11.20 | 10.64     | 0.0100 | 0.0100    |
| 08/11/15 | 290.200 | 291.550   | 0.02900 | 0.02900   | 1.381 | 1.376     | 0.0100 | 0.0100    | 778.650 | 755.200   | 0.07700 | 0.07800   | 126.04 | 125.16    | 109.890 | 109.350   | 0.00015 | 0.00015   | 0.019 | 0.020     | 0.309 | 0.314     | 10.24 | 10.27     | 0.0100 | 0.0100    |
| 11/10/15 | 327.399 | 342.219   | 0.01700 | 0.01900   | 0.735 | 0.805     | 0.0100 | 0.0100    | 548.001 | 535.161   | 0.02800 | 0.03000   | 78.39  | 86.17     | 66.530  | 74.757    | 0.00015 | 0.00015   | 0.010 | 0.010     | 0.186 | 0.153     | 16.96 | 17.84     | 0.0100 | 0.0100    |
| 01/26/16 | 314.969 | 320.890   | 0.01800 | 0.01700   | 1.022 | 1.096     | 0.0100 | 0.0100    | 772.340 | 640.160   | 0.02900 | 0.02800   | 93.06  | 100.58    | 84.256  | 87.480    | 0.00015 | 0.00015   | 0.010 | 0.010     | 0.295 | 0.267     | 22.45 | 18.49     | 0.0100 | 0.0100    |
| 05/10/16 | 327.759 | 329.309   | 0.04300 | 0.02700   | 1.283 | 1.299     | 0.0100 | 0.0100    | 806.112 | 795.592   | 0.03800 | 0.03800   | 123.29 | 122.43    | 109.322 | 109.982   | 0.00015 | 0.00015   | 0.024 | 0.021     | 0.274 | 0.266     | 12.31 | 12.69     | 0.0100 | 0.0100    |
| 08/31/16 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 12/26/16 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 03/26/17 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 05/16/17 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 07/19/17 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 10/20/17 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 02/15/18 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 04/24/18 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |
| 07/10/18 |         |           |         |           |       |           |        |           |         |           |         |           |        |           |         |           |         |           |       |           |       |           |       |           |        |           |

**Table 7  
Colver Power Project  
Monitoring Well 3**

| DATE<br>SAMPLED | Ag<br>Total | Ag<br>Dissolved | Na<br>Total | Na<br>Dissolved | Tl<br>Total | Tl<br>Dissolved | V<br>Total | V<br>Dissolved | Zn<br>Total | Zn<br>Dissolved | TEMP<br>C° |
|-----------------|-------------|-----------------|-------------|-----------------|-------------|-----------------|------------|----------------|-------------|-----------------|------------|
| 09/08/93        |             |                 | 13.600      |                 |             |                 |            |                |             |                 |            |
| 12/21/93        |             |                 | 17.100      |                 |             |                 |            |                |             |                 |            |
| 10/28/97        |             |                 | 31.200      |                 |             |                 |            |                | 3.000       |                 |            |
| 11/18/97        |             |                 | 14.000      |                 |             |                 |            |                | 2.500       |                 |            |
| 12/08/97        |             |                 | 14.000      |                 |             |                 |            |                | 2.000       |                 | 13.00      |
| 01/08/98        |             |                 | 11.000      |                 |             |                 |            |                | 2.100       |                 |            |
| 02/13/98        |             |                 | 15.000      |                 |             |                 |            |                | 2.000       |                 |            |
| 03/12/98        |             |                 | 17.000      |                 |             |                 |            |                | 1.900       |                 | 13.00      |
| 06/19/98        |             |                 |             |                 |             |                 |            |                |             |                 | 18.00      |
| 09/15/98        |             |                 | 33.000      |                 |             |                 |            |                | 2.900       |                 | 18.00      |
| 12/01/98        |             |                 |             |                 |             |                 |            |                |             |                 | 14.00      |
| 04/06/99        |             |                 |             |                 |             |                 |            |                |             |                 | 11.00      |
| 06/23/99        |             |                 |             |                 |             |                 |            |                |             |                 | 15.00      |
| 09/15/99        |             |                 | 30.750      |                 |             |                 |            |                | 2.250       |                 | 15.00      |
| 12/08/99        |             |                 |             |                 |             |                 |            |                |             |                 | 12.00      |
| 03/10/00        |             |                 |             |                 |             |                 |            |                |             |                 | 12.00      |
| 05/25/00        |             |                 |             |                 |             |                 |            |                |             |                 | 13.00      |
| 09/15/00        |             |                 |             |                 |             |                 |            |                |             |                 | 12.00      |
| 12/07/00        |             |                 | 30.600      |                 |             |                 |            |                | 1.500       |                 | 11.00      |
| 03/08/01        |             |                 |             |                 |             |                 |            |                |             |                 | 10.00      |
| 06/19/01        |             |                 |             |                 |             |                 |            |                |             |                 | 14.00      |
| 08/31/01        |             |                 |             |                 |             |                 |            |                |             |                 | 15.00      |
| 12/11/01        |             |                 | 7.170       |                 |             |                 |            |                | 1.600       |                 | 15.00      |
| 03/07/02        |             |                 |             |                 |             |                 |            |                |             |                 | 12.00      |
| 05/16/02        |             |                 |             |                 |             |                 |            |                |             |                 | 13.00      |
| 09/04/02        |             |                 |             |                 |             |                 |            |                |             |                 | 16.00      |
| 12/12/02        |             |                 | 17.900      |                 |             |                 |            |                | 2.030       |                 | 12.00      |
| 03/27/03        |             |                 |             |                 |             |                 |            |                |             |                 | 14.00      |
| 06/27/03        |             |                 |             |                 |             |                 |            |                |             |                 | 14.00      |
| 09/17/03        |             |                 | 34.200      |                 |             |                 |            |                | 3.610       |                 | 16.00      |
| 01/06/04        |             |                 |             |                 |             |                 |            |                |             |                 | 11.00      |
| 03/05/04        |             |                 |             |                 |             |                 |            |                |             |                 | 14.00      |
| 06/30/04        |             |                 |             |                 |             |                 |            |                |             |                 | 15.00      |
| 08/27/04        |             |                 |             |                 |             |                 |            |                |             |                 | 16.00      |
| 12/08/04        |             |                 | 25.000      |                 |             |                 |            |                | 1.900       |                 | 13.00      |
| 03/31/05        |             |                 |             |                 |             |                 |            |                |             |                 | 12.00      |
| 06/29/05        |             |                 |             |                 |             |                 |            |                |             |                 | 11.00      |
| 09/30/05        |             |                 |             |                 |             |                 |            |                |             |                 | 15.00      |
| 12/29/05        |             |                 | 22.000      |                 |             |                 |            |                | 2.540       |                 | 10.00      |
| 03/29/06        |             |                 |             |                 |             |                 |            |                |             |                 | 10.00      |
| 06/21/06        |             |                 | 33.100      |                 |             |                 |            |                | 1.510       |                 | 14.00      |
| 09/26/06        |             |                 |             |                 |             |                 |            |                |             |                 | 17.00      |

**Table 7  
Colver Power Project  
Monitoring Well 3**

| DATE     | Ag      | Ag        | Na      | Na        | Tl     | Tl        | V      | V         | Zn    | Zn        | TEMP  |
|----------|---------|-----------|---------|-----------|--------|-----------|--------|-----------|-------|-----------|-------|
| SAMPLED  | Total   | Dissolved | Total   | Dissolved | Total  | Dissolved | Total  | Dissolved | Total | Dissolved | C°    |
| 12/21/06 |         |           | 32.000  |           |        |           |        |           | 2.150 |           | 12.00 |
| 03/22/07 |         |           |         |           |        |           |        |           |       |           | 19.00 |
| 06/15/07 |         |           |         |           |        |           |        |           |       |           | 14.00 |
| 09/21/07 |         |           |         |           |        |           |        |           |       |           | 15.00 |
| 12/20/07 |         |           | 40.700  |           |        |           |        |           | 1.370 |           | 12.00 |
| 03/24/08 |         |           |         |           |        |           |        |           |       |           | 11.00 |
| 06/25/08 |         |           |         |           |        |           |        |           |       |           | 15.00 |
| 09/17/08 |         |           |         |           |        |           |        |           |       |           | 14.00 |
| 12/18/08 |         |           | 41.400  |           |        |           |        |           | 1.100 |           | 12.00 |
| 03/25/09 | 0.02000 | 0.00400   | 47.200  | 36.100    | 0.0275 | 0.0194    | 0.0516 | 0.0100    | 1.680 | 1.010     | 11.00 |
| 06/30/09 | 0.02190 | 0.01880   | 48.200  | 40.900    | 0.0233 | 0.0195    | 0.0200 | 0.0200    | 1.140 | 1.000     | 16.00 |
| 09/22/09 | 0.02000 | 0.00400   | 55.700  | 43.500    | 0.0585 | 0.0399    | 0.0513 | 0.0100    | 1.340 | 0.888     | 15.00 |
| 12/30/09 | 0.00400 | 0.00400   | 26.700  | 30.300    | 0.0285 | 0.0285    | 0.0100 | 0.0100    | 1.130 | 0.947     | 11.00 |
| 03/31/10 | 0.00400 | 0.00400   | 19.400  | 19.900    | 0.0227 | 0.0040    | 0.0100 | 0.0100    | 2.010 | 1.840     | 11.00 |
| 06/10/10 | 0.03320 | 0.01060   | 59.400  | 41.300    | 0.0200 | 0.0040    | 0.0500 | 0.0100    | 1.510 | 0.961     | 15.00 |
| 09/14/10 | 0.02000 | 0.00400   | 53.400  | 47.600    | 0.0200 | 0.0040    | 0.0500 | 0.0100    | 1.280 | 0.968     | 14.00 |
| 12/29/10 | 0.02000 | 0.02000   | 46.400  | 41.800    | 0.0428 | 0.0371    | 0.0500 | 0.0500    | 1.310 | 1.460     | 12.00 |
| 03/14/11 | 0.02000 | 0.00400   | 20.400  | 31.000    | 0.0200 | 0.0114    | 0.0500 | 0.0100    | 1.990 | 1.310     | 11.00 |
| 06/07/11 | 0.02000 | 0.01040   | 48.400  | 48.900    | 0.0200 | 0.0121    | 0.0620 | 0.0100    | 1.310 | 0.998     | 13.00 |
| 09/22/11 | 0.02000 | 0.00400   | 47.500  | 46.500    | 0.0200 | 0.0143    | 0.0893 | 0.0100    | 1.290 | 0.837     | 16.00 |
| 11/04/11 | 0.02000 | 0.00457   | 61.800  | 63.000    | 0.0200 | 0.0163    | 0.0522 | 0.0100    | 1.200 | 0.953     | 12.00 |
| 03/15/12 | 0.02000 | 0.00400   | 68.800  | 66.000    | 0.0200 | 0.0040    | 0.5510 | 0.3060    | 1.200 | 0.888     | 12.00 |
| 05/30/12 | 0.02000 | 0.02000   | 57.600  | 59.400    | 0.0200 | 0.0200    | 0.0500 | 0.0500    | 1.420 | 1.370     | 15.00 |
| 08/31/12 | 0.02000 | 0.02000   | 78.700  | 78.700    | 0.0200 | 0.0200    | 0.0500 | 0.0500    | 1.150 | 1.150     | 14.00 |
| 12/17/12 | 0.05090 | 0.02000   | 53.000  | 62.800    | 0.0200 | 0.0040    | 0.0500 | 0.0100    | 1.470 | 0.984     | 14.00 |
| 03/06/13 | 0.02490 | 0.02700   | 43.700  | 48.000    | 0.0200 | 0.0200    | 0.1020 | 0.1110    | 1.660 | 1.600     |       |
| 05/17/13 | 0.02000 | 0.00400   | 77.700  | 77.700    | 0.0200 | 0.0040    | 0.1350 | 0.0100    | 1.060 | 0.941     |       |
| 09/11/13 | 0.00236 | 0.00400   | 60.600  | 67.900    | 0.0080 | 0.0040    | 0.0100 | 0.0100    | 1.020 | 1.080     |       |
| 11/18/13 | 0.00200 | 0.00200   | 63.600  | 60.800    | 0.0080 | 0.0080    | 0.0100 | 0.0100    | 0.930 | 0.947     |       |
| 03/07/14 | 0.01000 | 0.01000   | 78.300  | 84.400    | 0.0400 | 0.0400    | 0.0500 | 0.0100    | 1.040 | 0.964     |       |
| 05/07/14 | 0.00500 | 0.00500   | 72.959  | 83.673    | 0.1340 | 0.1550    | 0.0050 | 0.0050    | 0.933 | 0.947     |       |
| 08/14/14 | 0.00500 | 0.00500   | 115.513 | 153.903   | 0.1840 | 0.1920    | 0.0050 | 0.0050    | 0.973 | 1.021     |       |
| 10/14/14 | 0.00500 | 0.00500   | 108.990 | 103.930   | 0.3990 | 0.3900    | 0.0540 | 0.0520    | 0.845 | 0.846     |       |
| 03/12/15 | 0.00500 | 0.00500   | 122.790 | 125.080   | 0.1810 | 0.1860    | 0.0050 | 0.0050    | 1.135 | 1.109     |       |
| 06/01/15 | 0.00500 | 0.00500   | 131.420 | 128.330   | 0.1560 | 0.1590    | 0.0050 | 0.0050    | 0.998 | 1.001     |       |
| 08/11/15 | 0.00500 | 0.00500   | 114.130 | 114.940   | 0.1790 | 0.1920    | 0.0050 | 0.0050    | 0.901 | 0.902     |       |
| 11/10/15 | 0.00500 | 0.00500   | 125.740 | 135.300   | 0.0850 | 0.0980    | 0.0050 | 0.0050    | 0.306 | 0.137     |       |
| 01/26/16 | 0.00500 | 0.00500   | 125.750 | 125.560   | 0.1460 | 0.1370    | 0.0050 | 0.0050    | 0.605 | 0.517     |       |
| 05/10/16 | 0.00500 | 0.00500   | 121.730 | 125.780   | 0.1360 | 0.1390    | 0.0050 | 0.0050    | 0.766 | 0.769     |       |
| 08/31/16 |         |           |         |           |        |           |        |           |       |           |       |
| 12/26/16 |         |           |         |           |        |           |        |           |       |           |       |
| 03/26/17 |         |           |         |           |        |           |        |           |       |           |       |
| 05/16/17 |         |           |         |           |        |           |        |           |       |           |       |
| 07/19/17 |         |           |         |           |        |           |        |           |       |           |       |
| 10/20/17 |         |           |         |           |        |           |        |           |       |           |       |
| 02/15/18 |         |           |         |           |        |           |        |           |       |           |       |
| 04/24/18 |         |           |         |           |        |           |        |           |       |           |       |
| 07/10/18 |         |           |         |           |        |           |        |           |       |           |       |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

Data from Lucerne Permit #32950202. L6 is Yellow Creek upstream from the Lucerne pile and L13 is Yellow Creek downstream of the pile. Bold, italicized data were below the displayed detection limit.

| Date Sampled | pH, field |     | pH, lab |     | Cond, Lab |       | Temp |      | Alkalinity |       | Acidity |       | Net acidity Measured |       | Net acidity Calc |       |
|--------------|-----------|-----|---------|-----|-----------|-------|------|------|------------|-------|---------|-------|----------------------|-------|------------------|-------|
|              | L6        | L13 | L6      | L13 | L6        | L13   | L6   | L13  | L6         | L13   | L6      | L13   | L6                   | L13   | L6               | L13   |
| 04/04/94     | 4.8       | 5.0 | 4.6     | 4.7 | 267.0     | 255.0 | 4.0  | 5.0  | 10.0       | 10.0  | 44.0    | 26.0  | 34.0                 | 16.0  | 11.7             | 10.9  |
| 05/12/94     | 5.0       | 5.0 | 3.9     | 4.9 | 215.0     | 247.0 | 13.0 | 13.0 | 0.0        | 6.0   | 40.0    | 28.0  | 40.0                 | 22.0  | 23.7             | 13.9  |
| 06/08/94     | 5.0       | 4.5 | 4.1     | 3.7 | 345.0     | 556.0 | 19.0 | 19.0 | 0.0        | 0.0   | 30.0    | 130.0 | 30.0                 | 130.0 | 25.9             | 92.5  |
| 07/08/94     | 4.8       | 4.8 | 5.1     | 3.1 | 309.0     | 646.0 | 23.0 | 23.0 | 16.0       | 0.0   | 10.0    | 0.6   | -6.0                 | 0.6   |                  |       |
| 08/11/94     | 5.3       | 4.6 | 4.5     | 4.2 | 271.0     | 536.0 | 19.0 | 19.0 | 6.0        | 4.0   | 12.0    | 166.0 | 6.0                  | 162.0 | 14.8             | 89.2  |
| 09/07/94     | 5.0       | 5.0 | 4.8     | 4.6 | 316.0     | 430.0 | 18.0 | 18.0 | 8.0        | 6.0   | 2.0     | 54.0  | -6.0                 | 48.0  | 3.0              | 38.9  |
| 10/07/94     | 5.4       | 5.0 | 5.8     | 4.8 | 190.0     | 264.0 | 13.0 | 15.0 | 10.0       | 8.0   | 4.0     | 52.0  | -6.0                 | 44.0  | -1.4             | 30.0  |
| 11/07/94     | 5.5       | 4.6 | 4.7     | 4.2 | 357.0     | 515.0 | 10.0 | 11.0 | 8.0        | 4.0   | 0.0     | 76.0  | -8.0                 | 72.0  | -0.3             | 56.4  |
| 12/09/94     | 6.4       | 6.2 | 4.6     | 6.3 | 2010.0    | 195.0 | 5.0  | 6.0  | 8.0        | 16.0  | 0.0     | 0.0   | -8.0                 | -16.0 | -2.6             | -10.6 |
| 01/09/95     | 5.6       | 6.0 | 5.7     | 6.3 | 300.0     | 300.0 | 0.0  | 0.0  | 10.0       | 10.0  | 20.0    | 4.0   | 10.0                 | -6.0  | 0.9              | 0.1   |
| 02/03/95     | 5.6       | 5.2 | 4.7     | 4.9 | 231.0     | 262.0 | 0.0  | 1.0  | 8.0        | 8.0   | 40.0    | 36.0  | 32.0                 | 28.0  | 6.7              | 21.4  |
| 03/08/95     | 6.0       | 5.9 | 4.3     | 6.0 | 187.0     | 206.0 | 3.0  | 3.0  | 4.0        | 8.0   | 0.0     | 0.0   | -4.0                 | -8.0  | 6.3              | 2.8   |
| 04/11/95     | 5.9       | 5.9 | 5.2     | 5.7 | 199.0     | 216.0 | 13.0 | 13.0 | 8.0        | 8.0   | 14.0    | 10.0  | 6.0                  | 2.0   | -2.3             | 0.5   |
| 05/09/95     | 5.0       | 4.8 | 4.8     | 4.6 | 420.0     | 367.0 | 14.0 | 13.0 | 12.0       | 10.0  | 18.0    | 50.0  | 6.0                  | 40.0  | 10.2             | 26.2  |
| 06/08/95     | 6.0       | 5.1 | 5.6     | 5.0 | 261.0     | 244.0 | 21.0 | 21.0 | 8.0        | 6.0   | 0.0     | 18.0  | -8.0                 | 12.0  | -3.8             | 8.0   |
| 07/13/95     | 5.2       | 4.6 | 3.8     | 3.8 | 445.0     | 437.0 | 22.0 | 22.0 | 0.0        | 0.0   | 34.0    | 68.0  | 34.0                 | 68.0  | 22.4             | 56.8  |
| 05/20/96     | 5.9       | 4.7 | 4.5     | 4.4 | 350.0     | 290.0 | 20.0 | 21.0 | 0.0        | 0.0   | 150.0   | 134.0 | 150.0                | 134.0 | 18.8             | 38.7  |
| 08/22/97     | 6.7       | 6.3 | 6.3     | 6.2 | 205.0     | 226.0 | 21.0 | 21.0 | 14.0       | 18.0  | 0.0     | 0.0   | -14.0                | -18.0 | -4.3             | -3.9  |
| 11/10/97     | 6.4       | 6.4 | 6.4     | 6.0 | 138.0     | 141.0 | 7.0  | 7.0  | 14.0       | 14.0  | 0.0     | 0.0   | -14.0                | -14.0 | -6.7             | -6.7  |
| 02/19/98     | 5.8       | 5.8 | 4.8     | 5.4 | 208.0     | 237.0 | 5.0  | 5.0  | 10.0       | 10.0  | 10.0    | 12.0  | 0.0                  | 2.0   | 0.3              | 2.5   |
| 05/14/98     | 5.3       | 5.5 | 4.0     | 4.5 | 318.0     | 233.0 | 18.0 | 19.0 | 0.0        | 10.0  | 32.0    | 12.0  | 32.0                 | 2.0   | 20.7             | 24.3  |
| 08/14/98     | 4.8       | 4.5 | 4.3     | 3.5 | 459.0     | 795.0 | 22.0 | 21.0 | 4.0        | 0.0   | 62.0    | 190.0 | 58.0                 | 190.0 | 66.9             | 175.1 |
| 11/13/98     | 4.9       | 4.5 | 4.8     | 4.1 | 470.0     | 581.0 | 6.0  | 7.0  | 6.0        | 2.0   | 34.0    | 168.0 | 28.0                 | 166.0 | 26.1             | 116.1 |
| 02/23/99     | 4.8       | 4.6 | 4.4     | 4.4 | 274.0     | 315.0 | 1.0  | 1.0  | -20.0      | -10.0 | 190.0   | 70.0  | 190.0                | 70.0  | 67.3             | 56.4  |
| 05/24/99     | 4.6       | 4.5 | 3.9     | 3.7 | 386.0     | 542.0 | 16.0 | 16.0 | -36.0      | -20.0 | 64.0    | 120.0 | 64.0                 | 120.0 | 96.7             | 89.4  |
| 08/17/99     | 4.7       | 4.5 | 3.8     | 3.3 | 360.0     | 767.0 | 22.0 | 23.0 | -12.0      | -70.0 | 40.0    | 170.0 | 40.0                 | 170.0 | 58.9             | 215.2 |
| 11/15/99     | 5.4       | 4.9 | 4.8     | 4.6 | 332.0     | 518.0 | 7.0  | 7.0  | -7.0       | -28.0 | 32.0    | 58.0  | 32.0                 | 58.0  | 48.8             | 91.3  |
| 02/22/00     | 4.7       | 4.6 | 3.7     | 3.9 | 564.0     | 559.0 | 6.0  | 6.0  | -43.0      | -37.0 | 86.0    | 74.0  | 86.0                 | 74.0  | 136.1            | 112.5 |
| 05/08/00     | 4.6       | 4.6 | 4.2     | 4.3 | 278.0     | 256.0 | 18.0 | 18.0 | -10.0      | -30.0 | 70.0    | 70.0  | 70.0                 | 70.0  | 80.8             | 87.7  |
| 08/15/00     | 5.0       | 4.7 | 4.2     | 4.0 | 331.0     | 496.0 | 22.0 | 23.0 | 0.0        | 0.0   | 15.0    | 30.0  | 15.0                 | 30.0  | 53.4             | 86.0  |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | pH, field |     | pH, lab |     | Cond, Lab |        | Temp |      | Alkalinity |      | Acidity |       | Net acidity Measured |       | Net acidity Calc |       |
|--------------|-----------|-----|---------|-----|-----------|--------|------|------|------------|------|---------|-------|----------------------|-------|------------------|-------|
|              | L6        | L13 | L6      | L13 | L6        | L13    | L6   | L13  | L6         | L13  | L6      | L13   | L6                   | L13   | L6               | L13   |
| 11/15/00     | 4.9       | 5.5 | 4.8     | 5.3 | 351.0     | 2890.0 | 7.0  | 7.0  | 0.0        | 0.0  | 38.0    | 140.0 | 38.0                 | 140.0 | 42.5             | 67.9  |
| 02/15/01     | 6.0       | 6.2 | 5.2     | 6.2 | 248.0     | 259.0  | 5.0  | 5.0  | 4.0        | 8.0  | 46.0    | 20.0  | 46.0                 | 20.0  | 11.0             | 0.8   |
| 05/23/01     | 4.8       | 4.8 | 3.9     | 4.0 | 424.0     | 433.0  | 14.0 | 16.0 | 0.0        | 0.0  | 60.0    | 62.0  | 60.0                 | 62.0  | 64.4             | 59.3  |
| 08/28/01     | 4.8       | 4.6 | 4.0     | 3.1 | 475.0     | 867.0  | 20.0 | 22.0 | 0.0        | 0.0  | 168.0   | 510.0 | 168.0                | 510.0 | 53.7             | 178.1 |
| 11/19/01     | 5.4       | 4.6 | 4.7     | 3.7 | 698.0     | 758.0  | 6.0  | 6.0  | 0.0        | 0.0  | 42.0    | 170.0 | 42.0                 | 170.0 | 50.4             | 155.8 |
| 02/14/02     | 5.7       | 4.7 | 5.3     | 5.8 | 261.0     | 281.0  | 3.0  | 3.0  | 2.0        | 4.0  | 34.0    | 12.0  | 34.0                 | 12.0  | 28.5             | 18.6  |
| 05/20/02     | 5.0       | 5.0 | 4.7     | 5.3 | 1040.0    | 228.0  | 15.0 | 15.0 | 0.0        | 8.0  | 56.0    | 0.0   | 56.0                 | 0.0   | 23.7             | 6.1   |
| 08/07/02     | 4.8       | 4.5 | 4.6     | 3.5 | 396.0     | 709.0  | 20.0 | 22.0 | 8.0        | 0.0  | 46.0    | 176.0 | 46.0                 | 176.0 | 38.1             | 156.7 |
| 11/14/02     | 6.3       | 6.0 | 3.9     | 5.9 | 563.0     | 350.0  | 7.0  | 9.0  | 0.0        | 12.0 | 222.0   | 22.0  | 222.0                | 22.0  | 52.5             | 27.6  |
| 02/20/03     | 5.0       | 4.8 | 4.6     | 4.6 | 317.0     | 350.0  | 3.0  | 3.0  | 8.0        | 6.0  | 68.0    | 58.0  | 68.0                 | 58.0  | 63.3             | 53.4  |
| 05/15/03     | 6.0       | 4.6 | 5.1     | 5.9 | 296.0     | 240.0  | 13.0 | 13.0 | 8.0        | 10.0 | 24.0    | 14.0  | 24.0                 | 14.0  | 21.0             | 15.6  |
| 08/26/03     | 4.4       | 4.5 | 3.3     | 3.5 | 594.0     | 472.0  | 22.0 | 23.0 | 0.0        | 0.0  | 99.0    | 69.0  | 99.0                 | 69.0  | 124.2            | 84.8  |
| 11/21/03     | 5.7       | 6.2 | 4.7     | 6.8 | 181.0     | 181.0  | 6.0  | 8.0  | 8.0        | 20.0 | 68.0    | 0.0   | 68.0                 | 0.0   | 7.2              | -9.8  |
| 02/23/04     | 4.8       | 5.2 | 5.0     | 5.2 | 305.0     | 246.0  | 2.0  | 3.0  | 8.0        | 8.0  | 24.0    | 16.0  | 24.0                 | 16.0  | 16.6             | 10.0  |
| 05/18/04     | 4.8       | 4.6 | 4.4     | 4.2 | 554.0     | 404.0  | 20.0 | 22.0 | 4.0        | 2.0  | 36.0    | 46.0  | 36.0                 | 46.0  | 47.5             | 50.3  |
| 08/18/04     | 4.7       | 4.6 | 3.7     | 4.5 | 317.0     | 388.0  | 20.0 | 25.0 | 0.0        | 6.0  | 72.0    | 60.0  | 72.0                 | 60.0  | 65.0             | 55.2  |
| 11/09/04     | N/T       | NTT | 5.1     | 4.6 | 325.0     | 403.0  | N/T  | NTT  | 8.0        | 6.0  | 32.0    | 68.0  | 32.0                 | 68.0  | 40.1             | 64.3  |
| 02/17/05     | 5.4       | 5.2 | 6.0     | 6.2 | 182.0     | 199.0  | 2.0  | 1.0  | 14.0       | 14.0 | 10.0    | 12.0  | 10.0                 | 12.0  | 0.3              | 0.8   |
| 05/19/05     | 4.9       | 5.5 | 4.3     | 4.5 | 308.0     | 427.0  | 18.0 | 13.0 | 3.0        | 5.0  | 60.0    | 58.0  | 60.0                 | 58.0  | 30.6             | 50.5  |
| 08/25/05     | 5.7       | 4.5 | 5.4     | 3.7 | 440.0     | 591.0  | 22.0 | 25.0 | 9.0        | 0.0  | 37.0    | 53.0  | 37.0                 | 53.0  | 11.6             | 60.1  |
| 11/17/05     | 5.1       | 4.9 | 4.0     | 5.1 | 338.0     | 412.0  | 3.0  | 5.0  | 0.0        | 6.0  | 467.0   | 28.0  | 467.0                | 28.0  | 25.4             | 35.7  |
| 02/13/06     | 4.8       | 4.9 | 4.2     | 5.3 | 350.0     | 312.0  | 1.0  | 1.0  | 3.0        | 6.0  | 56.0    | 18.0  | 56.0                 | 18.0  | 21.8             | 19.8  |
| 05/23/06     | 5.5       | 5.2 | 3.2     | 6.3 | 474.0     | 324.0  | 11.0 | 13.0 | 0.0        | 16.0 | 370.0   | 24.0  | 370.0                | 24.0  | 42.3             | -2.2  |
| 08/16/06     | 4.4       | 3.6 | 4.0     | 3.3 | 498.0     | 834.0  | 23.0 | 25.0 | 0.0        | 0.0  | 46.0    | 148.0 | 46.0                 | 148.0 | 34.2             | 128.0 |
| 11/10/06     | 5.6       | 5.3 | 4.6     | 5.7 | 304.0     | 310.0  | 10.0 | 10.0 | 4.0        | 7.0  | 46.0    | 27.0  | 46.0                 | 27.0  | 11.4             | 21.0  |
| 02/23/07     | 4.6       | 4.9 | 4.6     | 5.5 | 285.0     | 305.0  | 1.0  | 1.0  | 4.0        | 6.0  | 33.0    | 18.0  | 33.0                 | 18.0  | 19.3             | 19.7  |
| 05/15/07     | N/T       | 3.9 | 4.7     | 4.3 | 283.0     | 422.0  | N/T  | 20.0 | 5.0        | 4.0  | 31.0    | 58.0  | 31.0                 | 58.0  | 16.8             | 54.8  |
| 08/22/07     | 5.6       | 5.6 | 6.7     | 6.9 | 210.0     | 214.0  | 22.0 | 21.0 | 23.0       | 27.0 | -9.0    | -12.0 | -9.0                 | -12.0 | -9.7             | -15.2 |
| 11/19/07     | 5.9       | 5.7 | 7.2     | 6.4 | 262.0     | 331.0  | 8.0  | 8.0  | 29.0       | 17.0 | -14.0   | 6.0   | -14.0                | 6.0   | -23.2            | 2.0   |
| 02/21/08     | 6.5       | 5.3 | 6.7     | 6.1 | 203.0     | 254.0  | 2.0  | 1.0  | 13.0       | 9.0  | 1.0     | 12.0  | 1.0                  | 12.0  | -7.4             | 10.6  |
| 05/21/08     | 5.3       | 5.4 | 6.6     | 6.2 | 198.0     | 223.0  | 13.0 | 15.0 | 17.0       | 13.0 | 2.0     | 12.0  | 2.0                  | 12.0  | -7.9             | 3.4   |
| 08/22/08     | 5.6       | 4.2 | 6.8     | 3.7 | 516.0     | 811.0  | 19.0 | 21.0 | 31.0       | 0.0  | -7.0    | 122.0 | -7.0                 | 122.0 | -24.8            | 133.3 |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | pH, field |     | pH, lab |     | Cond, Lab |       | Temp |      | Alkalinity |      | Acidity |       | Net acidity Measured |       | Net acidity Calc |       |
|--------------|-----------|-----|---------|-----|-----------|-------|------|------|------------|------|---------|-------|----------------------|-------|------------------|-------|
|              | L6        | L13 | L6      | L13 | L6        | L13   | L6   | L13  | L6         | L13  | L6      | L13   | L6                   | L13   | L6               | L13   |
| 11/18/08     | 5.6       | 4.8 | 6.7     | 4.9 | 332.0     | 491.0 | 6.0  | 4.0  | 26.0       | 7.0  | -3.0    | 57.0  | -3.0                 | 57.0  | -18.9            | 54.5  |
| 02/18/09     | 5.3       | 4.9 | 6.2     | 5.6 | 212.0     | 256.0 | 3.0  | 3.0  | 11.0       | 7.0  | 8.0     | 19.0  | 8.0                  | 19.0  | 0.2              | 13.2  |
| 05/18/09     | 5.1       | 4.8 | 6.4     | 5.5 | 252.0     | 332.0 | 13.0 | 19.0 | 21.0       | 10.0 | 0.0     | 28.0  | 0.0                  | 28.0  | -15.8            | 16.4  |
| 08/24/09     | 5.3       | 5.1 | 6.8     | 6.0 | 327.0     | 397.0 | 24.0 | 22.0 | 10.0       | 10.0 | -40.0   | -40.0 | -40.0                | -40.0 | -7.5             | 14.8  |
| 11/12/09     | 5.7       | 5.7 | 6.7     | 6.5 | 323.0     | 386.0 | 10.0 | 8.0  | 30.0       | 14.0 | -12.0   | 12.0  | -12.0                | 12.0  | -22.6            | 13.8  |
| 03/24/10     | 5.7       | 5.8 | 6.0     | 5.8 | 190.0     | 232.0 | 10.0 | 14.0 | 12.0       | 1.0  | 0.0     | 10.0  | 0.0                  | 10.0  | -5.0             | 13.3  |
| 05/12/10     | 6.0       | 5.8 | 6.5     | 6.0 | 192.0     | 202.0 | 13.0 | 14.0 | 20.0       | 14.0 | -6.0    | 0.0   | -6.0                 | 0.0   | -13.7            | -2.2  |
| 08/24/10     | 5.5       | 4.6 | 7.1     | 4.8 | 397.0     | 609.0 | 20.0 | 21.0 | 30.0       | 1.0  | -18.0   | 78.0  | -18.0                | 78.0  | -27.2            | 62.0  |
| 11/09/10     | 7.0       | 4.9 | 7.0     | 4.7 | 370.0     | 527.0 | 6.0  | 8.0  | 30.0       | 1.0  | -22.0   | 62.0  | -22.0                | 62.0  | -22.0            | 42.0  |
| 02/17/11     | 5.3       | 5.8 | 7.3     | 6.5 | 267.0     | 289.0 | 3.0  | 6.0  | 20.0       | 12.0 | -12.0   | 2.0   | -12.0                | 2.0   | -15.6            | 3.6   |
| 05/09/11     | 6.5       | 5.0 | 6.1     | 6.9 | 231.0     | 301.0 | 12.0 | 18.0 | 8.0        | 2.0  | -2.0    | 16.0  | -2.0                 | 16.0  | 2.6              | 22.2  |
| 08/24/11     | 5.8       | 4.9 | 7.2     | 5.7 | 385.0     | 504.0 | 20.0 | 21.0 | 34.0       | 4.0  | -26.0   | 28.0  | -26.0                | 28.0  | -30.4            | 24.6  |
| 11/21/11     | 7.0       | 6.5 | 7.6     | 6.2 | 211.0     | 262.0 | 8.0  | 8.0  | 22.0       | 12.0 | -14.0   | -2.0  | -14.0                | -2.0  | -17.5            | 2.3   |
| 02/21/12     | 5.1       | 5.4 | 8.0     | 6.2 | 227.0     | 271.0 | 3.0  | 3.0  | 12.0       | 8.0  | -10.0   | 8.0   | -10.0                | 8.0   | -7.0             | 11.1  |
| 05/17/12     | 5.3       | 5.5 | 7.4     | 6.1 | 194.0     | 237.0 | 16.0 | 18.0 | 12.0       | 10.0 | 7.0     | -1.0  | 7.0                  | -1.0  | -6.9             | 4.8   |
| 08/07/12     | 5.3       | 5.8 | 7.9     | 6.3 | 451.0     | 523.0 | 26.0 | 23.0 | 42.0       | 18.0 | -34.0   | -4.0  | -34.0                | -4.0  | -39.5            | 1.7   |
| 11/14/12     | 4.8       | 5.3 | 6.9     | 6.5 | 276.0     | 349.0 | 7.0  | 7.0  | 30.0       | 18.0 | -24.0   | -2.0  | -24.0                | -2.0  | -24.4            | 2.0   |
| 02/12/13     | 6.4       | 6.1 | 6.6     | 6.4 | 246.0     | 275.0 | 3.0  | 2.0  | 14.0       | 20.0 | -6.0    | -10.0 | -6.0                 | -10.0 | -5.8             | -4.2  |
| 05/16/13     | 6.2       | 6.5 | 6.9     | 6.3 | 274.0     | 430.0 | 20.0 | 18.0 | 18.0       | 12.0 | -12.0   | 2.0   | -12.0                | 2.0   | -12.3            | 13.6  |
| 08/12/13     | q         | 5.6 | 7.1     | 6.4 | 518.0     | 578.0 | 25.0 | 27.0 | 34.0       | 12.0 | -24.0   | 2.0   | -24.0                | 2.0   | -18.6            | 5.7   |
| 11/07/13     | 5.9       | 5.4 | 7.3     | 6.7 | 481.0     | 566.0 | 11.0 | 10.0 | 56.0       | 18.0 | -56.0   | 2.0   | -56.0                | 2.0   | -47.9            | 0.4   |
| 02/24/14     | 5.2       | 5.2 | 7.1     | 6.9 | 233.0     | 244.0 | 3.0  | 2.0  | 22.0       | 16.0 | -16.0   | 0.0   | -16.0                | 0.0   | -18.0            | -9.1  |
| 05/19/14     | 5.8       | 5.3 | 7.5     | 7.1 | 204.0     | 226.0 | 14.0 | 16.0 | 22.0       | 14.0 | -14.0   | -6.0  | -14.0                | -6.0  | -17.5            | -5.2  |
| 08/25/14     | 5.5       | 5.2 | 7.7     | 6.4 | 347.0     | 398.0 | 22.0 | 23.0 | 36.0       | 14.0 | -28.0   | 6.0   | -28.0                | 6.0   | -33.5            | 9.8   |
| 11/24/14     | 6.2       | 5.1 | 7.3     | 5.4 | 422.0     | 621.0 | 8.0  | 10.0 | 28.0       | 2.0  | -20.0   | 42.0  | -20.0                | 42.0  | -20.9            | 53.5  |
| 02/11/15     | 6.7       | 5.8 | 7.3     | 6.9 | 272.0     | 299.0 | 2.0  | 2.0  | 28.0       | 22.0 | -18.0   | -16.0 | -18.0                | -16.0 | -24.4            | -9.9  |
| 05/12/15     | 6.1       | 5.6 | 7.0     | 6.1 | 216.0     | 284.0 | 22.0 | 23.0 | 18.0       | 6.0  | -12.0   | 10.0  | -12.0                | 10.0  | -13.4            | 14.8  |
| 08/17/15     | 4.8       | 3.9 | 6.6     | 4.6 | 419.0     | 693.0 | 24.0 | 25.0 | 10.0       | 1.0  | 0.0     | 140.0 | 0.0                  | 140.0 | 5.5              | 137.0 |
| 11/03/15     | 5.3       | 4.6 | 6.7     | 5.1 | 593.0     | 701.0 | 10.0 | 13.0 | 34.0       | 6.0  | -24.0   | 50.0  | -24.0                | 50.0  | -13.7            | 78.9  |
| 02/04/16     | 6.2       | 6.3 | 7.3     | 7.0 | 198.0     | 207.0 | 5.0  | 5.0  | 24.0       | 20.0 | -16.0   | -12.0 | -16.0                | -12.0 | -20.0            | -12.1 |
| 05/23/16     | 5.5       | 5.6 | 7.2     | 6.9 | 206.0     | 225.0 | 17.0 | 18.0 | 24.0       | 17.0 | -24.0   | -16.0 | -24.0                | -16.0 | -20.2            | -7.5  |
| 08/15/16     | 5.9       | 5.7 | 7.6     | 6.4 | 445.0     | 525.0 | 22.0 | 24.0 | 70.0       | 21.0 | -46.0   | 10.0  | -46.0                | 10.0  | -65.9            | 17.4  |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | pH, field |     | pH, lab |     | Cond, Lab |        | Temp |      | Alkalinity |       | Acidity |       | Net acidity Measured |       | Net acidity Calc |       |
|--------------|-----------|-----|---------|-----|-----------|--------|------|------|------------|-------|---------|-------|----------------------|-------|------------------|-------|
|              | L6        | L13 | L6      | L13 | L6        | L13    | L6   | L13  | L6         | L13   | L6      | L13   | L6                   | L13   | L6               | L13   |
| 11/15/16     | 6.4       | 4.7 | 7.0     | 5.6 | 281.0     | 359.0  | 9.0  | 8.0  | 25         | 3.24  | -11.0   | -9.0  | -11.0                | -9.0  | -18.2            | 33.6  |
| 02/15/17     | 6.2       | 6.0 | 6.6     | 6.6 | 178.0     | 19.0   | 4.0  | 4.0  | 9.74       | 9.74  | 4.0     | 6.0   | 4.0                  | 6.0   | -2.7             | 2.8   |
| 05/24/17     | 6.2       | 5.2 | 6.8     | 6.1 | 307.0     | 431.0  | 16.0 | 18.0 | 14.6       | 9.74  | 0.8     | 27.0  | 0.8                  | 27.0  | 0.4              | 19.6  |
| 08/10/17     | 5.6       | 5.2 | 4.4     | 6.4 | 374.0     | 351.0  | 21.0 | 23.0 | 9.74       | 9.74  | 24.0    | 17.0  | 24.0                 | 17.0  | 1.2              | 13.5  |
| 11/21/17     | 6.1       | 6.5 | 7.4     | 7.0 | 170.0     | 181.0  | 7.0  | 7.0  | 36.0       | 32.0  | -18.0   | -9.0  | -18.0                | -9.0  | -32.1            | -24.0 |
| 02/21/18     | 5.3       | 5.5 | 5.7     | 6.2 | 173.0     | 157.0  | 7.0  | 6.0  | 9.74       | 9.74  | 19.0    | 16.0  | 19.0                 | 16.0  | 11.6             | 8.0   |
| 05/23/18     | 6.1       | 5.8 | 7.3     | 6.9 | 166.0     | 182.0  | 19.0 | 19.0 | 20         | 14    | -6.0    | 0.0   | -6.0                 | 0.0   | -16.2            | -4.1  |
| 08/15/18     | 5.7       | 5.8 | 7.4     | 6.5 | 223.0     | 242.0  | 21.0 | 19.0 | 26         | 9.74  | -10.0   | 21.0  | -10.0                | 21.0  | -20.1            | 27.1  |
| 11/20/18     | 6.4       | 6.4 | 7.2     | 7.0 | 157.0     | 171.0  | 6.0  | 6.0  | 16.0       | 13.0  | -5.0    | -3.0  | -5.0                 | -3.0  | -9.2             | -3.7  |
| 02/19/19     | 6.5       | 6.2 | 6.2     | 6.6 | 199.0     | 245.0  | 2.0  | 4.0  | 9.74       | 11    | 9.0     | 10.0  | 9.0                  | 10.0  | 5.6              | 7.3   |
| 05/09/19     | 6.8       | 5.9 | 7.1     | 7.6 | 227.0     | 272.0  | 17.0 | 18.0 | 17.0       | 16.0  | -4.0    | -4.0  | -4.0                 | -4.0  | -11.9            | -2.5  |
| 08/15/19     | 6.2       | 6.0 | 7.5     | 7.4 | 305.0     | 387.0  | 21.0 | 23.0 | 40.0       | 17.0  | -21.0   | -5.0  | -21.0                | -5.0  | -34.7            | 0.1   |
| 11/13/19     | 6.9       | 6.9 | 7.2     | 3.3 | 431.0     | 2050.0 | 3.0  | 5.0  | 46         | 9.74  | -12.0   | 279.0 | -12.0                | 279.0 | -29.0            | 33.5  |
| 3/18/20      | 6.0       | 7.6 | 6.4     | 7.7 |           |        |      |      | 13.0       | 31.0  | 2.0     | -5.0  | 2.0                  | -5.0  | -4.3             | -23.4 |
| 5/12/20      | 6.8       | 5.6 | 7.4     | 7.0 |           |        |      |      | 10.2       | 17.0  | 3.2     | -1.1  | 3.2                  | -1.1  | -0.6             | -8.7  |
| 8/11/20      | 6.0       | 6.6 | 6.7     | 6.6 |           |        |      |      | 31.7       | 23.5  | -4.7    | 13.0  | -4.7                 | 13.0  | -17.2            | -1.4  |
| 11/10/21     | 6.8       | 6.5 | 6.7     | 7.6 |           |        |      |      | 37.2       | 109.0 | 4.2     | -31.8 | 4.2                  | -31.8 | -17.6            | -98.4 |
| 3/8/21       | 6.3       | 5.3 | 6.3     | 7.6 |           |        |      |      | 12.6       | 10.5  | 11.5    | 11.9  | 11.5                 | 11.9  | -4.3             | 1.8   |
| 5/19/21      | 5.3       | 6.0 | 6.1     | 6.6 |           |        |      |      | 9.74       | 27.4  | 9.9     | -1.3  | 9.9                  | -1.3  | 1.4              | -18.7 |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | Fe   |      | Mn  |     | Al  |      | SO4    |       | TSS  |      |
|--------------|------|------|-----|-----|-----|------|--------|-------|------|------|
|              | L6   | L13  | L6  | L13 | L6  | L13  | L6     | L13   | L6   | L13  |
| 04/04/94     | 6.2  | 4.5  | 0.3 | 0.3 | 1.6 | 2.0  | 193.0  | 83.0  | 7.0  | 8.7  |
| 05/12/94     | 3.4  | 5.0  | 0.3 | 0.3 | 1.9 | 1.8  | 252.0  | 72.0  | 11.3 | 10.7 |
| 06/08/94     | 4.3  | 23.6 | 0.6 | 0.9 | 2.4 | 7.0  | 314.0  | 300.0 | 2.7  | 4.0  |
| 07/08/94     | 6.0  | 26.0 | 0.4 | 0.9 | N/A | N/A  | 116.0  | 307.0 | 5.7  | 5.7  |
| 08/11/94     | 5.1  | 25.8 | 0.4 | 0.7 | 1.7 | 7.7  | 105.0  | 294.0 | 8.3  | 4.3  |
| 09/07/94     | 2.1  | 13.1 | 0.4 | 0.6 | 1.0 | 3.5  | 98.0   | 146.0 | 11.3 | 8.0  |
| 10/07/94     | 2.3  | 11.8 | 0.4 | 0.5 | 0.7 | 2.7  | 129.0  | 148.0 | 7.3  | 7.7  |
| 11/07/94     | 1.8  | 17.6 | 0.4 | 0.8 | 0.5 | 4.4  | 101.0  | 166.0 | 6.3  | 5.0  |
| 12/09/94     | 0.8  | 1.9  | 0.2 | 0.2 | 0.4 | 0.3  | 1400.0 | 52.0  | 10.7 | 22.3 |
| 01/09/95     | 2.4  | 3.1  | 0.2 | 0.2 | 1.1 | 0.8  | 41.0   | 43.0  | 16.3 | 17.3 |
| 02/03/95     | 3.3  | 7.6  | 0.4 | 0.4 | 1.3 | 2.6  | 64.0   | 77.0  | 14.0 | 12.0 |
| 03/08/95     | 1.7  | 2.5  | 0.2 | 0.3 | 0.8 | 1.0  | 77.0   | 45.0  | 10.0 | 10.0 |
| 04/11/95     | 1.4  | 2.2  | 0.2 | 0.3 | 0.5 | 0.7  | 53.0   | 48.0  | 12.7 | 12.3 |
| 05/09/95     | 6.0  | 8.7  | 0.4 | 0.5 | 1.8 | 3.3  | 132.0  | 114.0 | 7.7  | 10.0 |
| 06/08/95     | 0.5  | 3.3  | 0.4 | 0.4 | 0.5 | 1.2  | 78.0   | 73.0  | 8.7  | 17.7 |
| 07/13/95     | 2.6  | 12.5 | 0.5 | 0.7 | 1.6 | 4.6  | 133.0  | 146.0 | 2.3  | 3.7  |
| 05/20/96     | 2.9  | 6.6  | 0.3 | 0.5 | 2.1 | 4.3  | 123.0  | 113.9 | 11.6 | 9.2  |
| 08/22/97     | 1.8  | 3.8  | 0.4 | 0.3 | 1.1 | 1.2  | 51.0   | 63.0  | 4.0  | 11.0 |
| 11/10/97     | 1.2  | 1.5  | 0.2 | 0.2 | 0.9 | 0.8  | 34.0   | 37.0  | 19.0 | 17.7 |
| 02/19/98     | 2.1  | 3.0  | 0.2 | 0.2 | 1.0 | 1.2  | 54.0   | 72.0  | 9.7  | 11.7 |
| 05/14/98     | 2.9  | 5.9  | 0.3 | 0.3 | 1.8 | 3.9  | 54.0   | 62.0  | 2.3  | 1.7  |
| 08/14/98     | 13.7 | 39.5 | 0.6 | 1.3 | 7.7 | 15.5 | 132.0  | 270.0 | 9.7  | 3.0  |
| 11/13/98     | 6.1  | 30.1 | 0.4 | 1.0 | 3.5 | 10.5 | 120.0  | 248.0 | 8.3  | 6.7  |
| 02/23/99     | 9.5  | 11.3 | 0.3 | 0.5 | 5.0 | 4.2  | 94.0   | 124.0 | 18.0 | 19.0 |
| 05/24/99     | 12.6 | 13.6 | 0.7 | 1.0 | 5.5 | 6.0  | 110.0  | 76.0  | 45.0 | 17.0 |
| 08/17/99     | 9.5  | 32.0 | 0.5 | 1.0 | 3.8 | 11.0 | 110.0  | 234.0 | 14.0 | 25.0 |
| 11/15/99     | 12.5 | 21.8 | 0.5 | 0.7 | 3.2 | 3.9  | 106.0  | 171.0 | 23.0 | 33.0 |
| 02/22/00     | 18.0 | 15.8 | 1.4 | 1.1 | 8.7 | 7.0  | 168.0  | 166.0 | 26.0 | 22.0 |
| 05/08/00     | 17.2 | 12.2 | 0.4 | 0.6 | 6.5 | 5.8  | 104.0  | 116.0 | 31.0 | 18.0 |
| 08/15/00     | 14.0 | 23.3 | 0.4 | 0.9 | 4.4 | 6.8  | 107.0  | 160.0 | 34.0 | 28.0 |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | Fe   |      | Mn  |     | Al  |      | SO4   |       | TSS        |            |
|--------------|------|------|-----|-----|-----|------|-------|-------|------------|------------|
|              | L6   | L13  | L6  | L13 | L6  | L13  | L6    | L13   | L6         | L13        |
| 11/15/00     | 13.7 | 28.6 | 0.3 | 0.5 | 3.0 | 2.8  | 104.0 | 104.0 | 35.0       | 25.0       |
| 02/15/01     | 4.2  | 2.7  | 0.3 | 0.3 | 1.2 | 0.6  | 48.0  | 55.0  | 5.0        | 4.0        |
| 05/23/01     | 16.4 | 15.6 | 0.6 | 0.9 | 5.0 | 4.5  | 133.0 | 142.0 | 30.0       | 26.0       |
| 08/28/01     | 16.2 | 40.4 | 0.6 | 1.4 | 3.4 | 11.4 | 172.0 | 297.0 | 9.0        | 11.0       |
| 11/19/01     | 18.0 | 43.0 | 0.6 | 1.2 | 2.9 | 12.0 | 130.0 | 280.0 | 11.0       | 9.0        |
| 02/14/02     | 9.5  | 6.8  | 0.2 | 0.3 | 2.3 | 1.8  | 78.0  | 75.0  | 13.0       | 4.0        |
| 05/20/02     | 6.1  | 3.5  | 0.3 | 0.3 | 2.0 | 1.3  | 58.0  | 42.0  | 15.0       | 4.0        |
| 08/07/02     | 11.8 | 34.2 | 0.6 | 1.4 | 4.1 | 13.9 | 138.0 | 298.0 | 9.7        | 9.0        |
| 11/14/02     | 13.0 | 11.0 | 0.3 | 0.4 | 4.0 | 3.4  | 103.0 | 113.0 | 15.0       | 29.0       |
| 02/20/03     | 18.6 | 15.4 | 0.3 | 0.6 | 6.5 | 5.3  | 131.0 | 136.0 | 3.0        | 5.0        |
| 05/15/03     | 7.8  | 6.9  | 0.3 | 0.4 | 2.5 | 2.3  | 78.0  | 83.0  | 12.9       | 24.3       |
| 08/26/03     | 29.3 | 19.0 | 0.7 | 0.9 | 8.2 | 6.0  | 154.0 | 149.0 | 11.4       | 14.3       |
| 11/21/03     | 3.8  | 2.6  | 0.2 | 0.2 | 1.3 | 0.9  | 41.0  | 38.0  | 5.7        | 11.4       |
| 02/23/04     | 6.2  | 6.0  | 0.3 | 0.3 | 2.3 | 1.2  | 62.0  | 62.0  | 20.0       | 21.4       |
| 05/18/04     | 13.9 | 13.5 | 0.5 | 0.8 | 4.3 | 4.2  | 107.0 | 148.0 | 10.0       | 12.9       |
| 08/18/04     | 17.8 | 19.3 | 0.3 | 0.6 | 4.1 | 4.3  | 99.0  | 141.0 | 24.3       | 25.7       |
| 11/09/04     | 14.2 | 20.8 | 0.4 | 0.6 | 3.9 | 5.5  | 96.0  | 159.0 | 10.0       | 11.4       |
| 02/17/05     | 3.6  | 3.7  | 0.2 | 0.2 | 1.4 | 1.4  | 50.0  | 58.0  | 5.7        | 8.6        |
| 05/19/05     | 8.9  | 16.1 | 0.3 | 0.7 | 2.6 | 4.3  | 91.0  | 157.0 | 24.3       | 17.1       |
| 08/25/05     | 4.9  | 20.8 | 0.3 | 0.9 | 2.0 | 2.0  | 88.0  | 191.0 | <b>6.2</b> | 10         |
| 11/17/05     | 5.0  | 13.3 | 0.5 | 0.9 | 1.9 | 2.9  | 99.0  | 150.0 | 15.7       | 10.0       |
| 02/13/06     | 6.2  | 6.9  | 0.2 | 0.4 | 1.8 | 2.3  | 61.0  | 69.0  | 12.9       | 7.1        |
| 05/23/06     | 2.6  | 4.0  | 0.2 | 0.3 | 1.0 | 1.1  | 55.0  | 68.0  | 8.6        | 11.4       |
| 08/16/06     | 8.3  | 26.2 | 0.7 | 1.5 | 2.4 | 9.6  | 183.0 | 337.0 | 22.9       | 27.1       |
| 11/10/06     | 3.5  | 8.6  | 0.3 | 0.5 | 1.3 | 2.1  | 73.0  | 112.0 | <b>6.2</b> | <b>6.2</b> |
| 02/23/07     | 4.3  | 7.2  | 0.5 | 0.5 | 2.5 | 2.1  | 69.0  | 99.0  | 6.0        | 5.0        |
| 05/15/07     | 4.3  | 14.9 | 0.5 | 0.8 | 2.2 | 5.1  | 93.0  | 182.0 | 19.0       | 12.0       |
| 08/22/07     | 3.1  | 2.9  | 0.6 | 0.5 | 1.2 | 1.0  | 49.0  | 51.0  | 5.0        | 11.0       |
| 11/19/07     | 1.2  | 6.7  | 0.2 | 0.4 | 0.6 | 1.1  | 68.0  | 100.0 | 8.0        | 9.0        |
| 02/21/08     | 0.8  | 4.6  | 0.2 | 0.3 | 0.7 | 1.9  | 45.0  | 65.0  | 7.0        | 8.0        |
| 05/21/08     | 1.6  | 4.1  | 0.2 | 0.3 | 1.1 | 1.5  | 51.0  | 62.0  | 13.0       | 9.0        |
| 08/22/08     | 1.3  | 37.0 | 0.5 | 1.5 | 0.5 | 9.8  | 150.0 | 321.0 | <b>5</b>   | 8          |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | Fe  |      | Mn  |     | Al  |      | SO4   |       | TSS  |      |
|--------------|-----|------|-----|-----|-----|------|-------|-------|------|------|
|              | L6  | L13  | L6  | L13 | L6  | L13  | L6    | L13   | L6   | L13  |
| 11/18/08     | 1.4 | 20.0 | 0.4 | 1.0 | 0.7 | 4.2  | 116.0 | 219.0 | 5    | 6    |
| 02/18/09     | 1.1 | 4.0  | 0.3 | 0.3 | 1.5 | 2.2  | 62.0  | 87.0  | 8.0  | 18.0 |
| 05/18/09     | 0.7 | 7.5  | 0.2 | 0.4 | 0.6 | 2.2  | 72.0  | 116.0 | 5    | 11   |
| 08/24/09     | 0.4 | 11.5 | 0.2 | 0.6 | 0.3 | 0.5  | 127.0 | 199.0 | 4    | 10   |
| 11/12/09     | 1.2 | 9.5  | 0.3 | 0.5 | 0.8 | 1.8  | 96.6  | 140.0 | 5.0  | 7.0  |
| 03/24/10     | 0.8 | 2.9  | 0.3 | 0.3 | 0.9 | 1.5  | 50.3  | 72.6  | 17.0 | 18.0 |
| 05/12/10     | 0.9 | 2.6  | 0.3 | 0.3 | 0.7 | 1.2  | 40.5  | 53.0  | 17.0 | 28.0 |
| 08/24/10     | 0.4 | 21.5 | 0.2 | 1.1 | 0.3 | 3.9  | 116.0 | 225.0 | 40   | 40   |
| 11/09/10     | 1.4 | 15.2 | 0.5 | 0.8 | 0.8 | 2.4  | 119.0 | 178.0 | 40   | 9    |
| 02/17/11     | 0.7 | 4.3  | 0.2 | 0.3 | 0.5 | 1.3  | 109.0 | 74.6  | 4.0  | 21.0 |
| 05/09/11     | 0.9 | 5.3  | 0.3 | 0.4 | 1.5 | 2.5  | 64.1  | 96.1  | 8.0  | 16.0 |
| 08/24/11     | 0.3 | 9.6  | 0.1 | 0.5 | 0.5 | 1.9  | 108.0 | 190.0 | 40   | 15   |
| 11/21/11     | 0.6 | 3.2  | 0.2 | 0.3 | 0.6 | 1.4  | 55.9  | 77.8  | 4    | 40   |
| 02/21/12     | 0.7 | 5.2  | 0.2 | 0.3 | 0.6 | 1.7  | 58.3  | 85.0  | 5.0  | 14.0 |
| 05/17/12     | 0.6 | 3.8  | 0.2 | 0.3 | 0.7 | 1.4  | 63.8  | 79.0  | 6.0  | 10.0 |
| 08/07/12     | 0.3 | 9.6  | 0.1 | 0.6 | 0.3 | 0.3  | 135.0 | 190.0 | 12.0 | 10.0 |
| 11/14/12     | 0.8 | 6.2  | 0.2 | 0.4 | 0.7 | 1.5  | 68.5  | 107.0 | 40   | 5    |
| 02/12/13     | 1.2 | 4.0  | 0.3 | 0.3 | 1.0 | 1.5  | 62.9  | 78.3  | 16.0 | 12.0 |
| 05/16/13     | 0.8 | 8.1  | 0.3 | 0.5 | 0.7 | 1.9  | 73.6  | 140.0 | 8.0  | 13.0 |
| 08/12/13     | 2.6 | 8.3  | 0.7 | 0.6 | 1.7 | 0.3  | 158.0 | 201.0 | 6    | 40   |
| 11/07/13     | 1.3 | 7.4  | 0.4 | 0.7 | 0.9 | 0.7  | 158.0 | 210.0 | 10   | 40   |
| 02/24/14     | 0.5 | 1.5  | 0.2 | 0.2 | 0.5 | 0.7  | 51.5  | 58.4  | 7    | 40   |
| 05/19/14     | 0.6 | 2.0  | 0.2 | 0.2 | 0.6 | 0.9  | 48.8  | 59.3  | 11.0 | 7.0  |
| 08/25/14     | 0.3 | 8.6  | 0.1 | 0.5 | 0.3 | 1.4  | 105.0 | 172.0 | 40   | 40   |
| 11/24/14     | 0.7 | 17.2 | 0.4 | 0.9 | 0.9 | 4.1  | 129.0 | 237.0 | 40   | 13   |
| 02/11/15     | 0.4 | 2.4  | 0.1 | 0.2 | 0.5 | 1.3  | 58.5  | 74.3  | 6.0  | 15.0 |
| 05/12/15     | 0.5 | 4.8  | 0.2 | 0.4 | 0.6 | 2.1  | 58.3  | 98.1  | 13.0 | 21.0 |
| 08/17/15     | 2.0 | 34.4 | 0.7 | 1.3 | 1.9 | 13.1 | 151.0 | 314.0 | 40   | 40   |
| 11/03/15     | 2.8 | 27.0 | 0.8 | 0.9 | 2.5 | 6.2  | 187.0 | 260.0 | 12.0 | 18.0 |
| 02/04/16     | 0.5 | 2.0  | 0.2 | 0.2 | 0.5 | 0.7  | 44.9  | 53.3  | 18.0 | 18.0 |
| 05/23/16     | 0.4 | 2.4  | 0.2 | 0.2 | 0.5 | 0.9  | 48.7  | 61.0  | 6    | 40   |
| 08/15/16     | 0.5 | 13.4 | 0.2 | 0.7 | 0.5 | 2.4  | 109.0 | 196.0 | 1.8  | 15.2 |

**Table 8**  
**Lower Yellow Creek In-stream**  
**Sample Results**

| Date Sampled | Fe         |      | Mn  |     | Al         |            | SO4   |       | TSS  |      |
|--------------|------------|------|-----|-----|------------|------------|-------|-------|------|------|
|              | L6         | L13  | L6  | L13 | L6         | L13        | L6    | L13   | L6   | L13  |
| 11/15/16     | 0.8        | 13.5 | 0.3 | 0.7 | 0.8        | 2.0        | 83.7  | 146.0 | 4.2  | 11.0 |
| 02/15/17     | 0.5        | 2.6  | 0.2 | 0.2 | 1.0        | 1.4        | 48.1  | 55.6  | 9.4  | 12.4 |
| 05/24/17     | 0.8        | 9.1  | 0.5 | 0.5 | 2.3        | 2.2        | 116.0 | 150.0 | 14.0 | 10.4 |
| 08/10/17     | 0.8        | 10.2 | 0.4 | 0.4 | 1.3        | 0.8        | 81.7  | 119.0 | 7.6  | 8.0  |
| 11/21/17     | 0.5        | 2.0  | 0.1 | 0.2 | <b>0.5</b> | 0.7        | 35.7  | 46.4  | 6.4  | 6.0  |
| 02/21/18     | 2.7        | 3.5  | 0.5 | 0.2 | 2.8        | 2.0        | 55.6  | 44.8  | 34.0 | 35.2 |
| 05/23/18     | 0.4        | 2.5  | 0.2 | 0.2 | <b>0.5</b> | 0.9        | 37.8  | 49.3  | 10.8 | 18.0 |
| 08/15/18     | 0.7        | 10.9 | 0.3 | 0.5 | 0.7        | 3.0        | 58.2  | 89.8  | 2.4  | 12.0 |
| 11/20/18     | 1.0        | 2.1  | 0.3 | 0.2 | 0.8        | 0.9        | 37.0  | 44.8  | 10.4 | 14.4 |
| 02/19/19     | 0.9        | 4.6  | 0.4 | 0.3 | 2.3        | 1.7        | 81.4  | 97.8  | 17.2 | 17.6 |
| 05/09/19     | 0.5        | 3.9  | 0.3 | 0.3 | 0.7        | 1.1        | 63.3  | 74.7  | 6.4  | 10.6 |
| 08/15/19     | <b>0.9</b> | 7.6  | 0.2 | 0.4 | 0.6        | <b>0.5</b> | 67.7  | 110.0 | 2.8  | 7.6  |
| 11/13/19     | 2.3        | 7.2  | 0.7 | 0.4 | 2.1        | 0.7        | 137.0 | 140.0 | 1.6  | 17.6 |
| 3/18/20      | 0.9        | 1.9  | 0.3 | 0.2 | 1.2        | 0.7        |       |       |      |      |
| 5/12/20      | 0.7        | 1.8  | 0.3 | 0.2 | 1.4        | 0.9        |       |       |      |      |
| 8/11/20      | 1.8        | 10.3 | 0.5 | 0.6 | 1.9        | 0.5        |       |       |      |      |
| 11/10/21     | 2.6        | 4.8  | 0.7 | 0.7 | 2.5        | 0.1        |       |       |      |      |
| 3/8/21       | 1.1        | 2.5  | 0.2 | 0.2 | 1.1        | 1.3        |       |       |      |      |
| 5/19/21      | 0.7        | 2.0  | 0.4 | 0.2 | 1.7        | 0.9        |       |       |      |      |

**Table 9**  
**Historical Data**

| Location         | Date       | Source                              | Flow    | pH   | Alkalinity    | Net acidity   | Fe, tot | Mn, tot | Al, tot | SO4  | TSS  |
|------------------|------------|-------------------------------------|---------|------|---------------|---------------|---------|---------|---------|------|------|
|                  |            |                                     | gpm     |      | mg/L<br>CaCO3 | mg/L<br>CaCO3 | mg/L    | mg/L    | mg/L    | mg/L | mg/L |
| YC above Rt. 954 | 04/24/1997 | Yellow Creek report (George Chakot) |         | 6.50 | 24            | -24           | 0.3     | 0.1     | 0.5     | 37   | <10  |
| YC above Rt. 954 | 08/28/1997 | Yellow Creek report (George Chakot) |         | 6.30 | 34            | -34           | 0.2     | 0.1     | 0.5     | 39   | 4.03 |
| YC above Rt. 954 | 10/02/1997 | Yellow Creek report (George Chakot) |         | 6.30 | 30            | -30           | 0.3     | 0.2     | 0.5     | 59   | <10  |
| YC above Rt. 954 | 12/05/1997 | Yellow Creek report (George Chakot) |         | 6.30 | 18            | -15           | 0.7     | 0.2     | 0.5     | 40   | <10  |
| YC above Rt. 954 | 01/28/1998 | Yellow Creek report (George Chakot) |         | 6.10 | 20            | -20           | 0.3     | 0.1     | 0.5     | 31   | <10  |
| YC above Rt. 954 | 02/23/1998 | Yellow Creek report (George Chakot) |         | 6.30 | 20            | -20           | 0.3     | 0.1     | 0.5     | 51   | <10  |
| YC above Rt. 954 | 04/24/1998 | Yellow Creek report (George Chakot) |         | 6.20 | 17            | -17           | 0.6     | 0.1     | 0.5     | 39   | <10  |
| YC above Rt. 954 | 08/18/1998 | Yellow Creek report (George Chakot) |         | 6.90 | 42            | -42           | 0.5     | 0.1     | 0.5     | 27   | <10  |
| YC above Rt. 954 | 11/12/1998 | Yellow Creek report (George Chakot) |         | 6.70 | 32            | -32           | 0.3     | 0.1     | 0.5     | 49   | <10  |
| YC above Rt. 954 | 02/22/1999 | Yellow Creek report (George Chakot) |         | 6.60 | 20            | -20           | 0.3     | 0.1     | 0.5     | 39   | <10  |
| YC above Rt. 954 | 04/26/1999 | Yellow Creek report (George Chakot) |         | 6.40 | 22            | -22           | 1.4     | 0.3     | 0.7     | 103  | <10  |
| YC above Rt. 954 | 07/26/1999 | Yellow Creek report (George Chakot) |         | 6.80 | 34            | -34           | 0.3     | 0.1     | 0.5     | 52   | <10  |
| YC above Rt. 954 | 10/28/1999 | Yellow Creek report (George Chakot) |         | 6.80 | 34            | -34           | 0.3     | 0.2     | 0.5     | 40   | <10  |
| YC above Rt. 954 | 01/27/2000 | Yellow Creek report (George Chakot) |         | 6.40 | 28            | -28           | 0.3     | 0.2     | 0.5     | 115  | <10  |
| YC above Rt. 954 | 04/26/2000 | Yellow Creek report (George Chakot) |         | 6.60 | 22            | -22           | 0.3     | 0.1     | 0.5     | 27   | <10  |
| YC above Rt. 954 | 07/31/2000 | Yellow Creek report (George Chakot) |         | 6.60 | 36            | -36           | 0.4     | 0.1     | 0.5     | 50   | <10  |
| YC above Rt. 954 | 10/31/2000 | Yellow Creek report (George Chakot) |         | 6.80 | 34            | -34           | 0.3     | 0.1     | 0.5     | 37   | <10  |
| YC above Rt. 954 | 02/28/2001 | Yellow Creek report (George Chakot) |         | 6.60 | 20            | -20           | 0.3     | 0.1     | 0.5     | 27   |      |
| YC above Rt. 954 | 04/26/2001 | Yellow Creek report (George Chakot) |         | 6.60 | 22            | -22           | 0.3     | 0.1     | 0.5     | 39   |      |
| YC above Rt. 954 | 07/31/2001 | Yellow Creek report (George Chakot) |         | 7.20 | 34            | -34           | 0.4     | 0.1     | 0.5     | 57   |      |
| YC above Rt. 954 | 11/29/2001 | Yellow Creek report (George Chakot) |         | 6.50 | 26            | -26           | 0.4     | 0.2     | 0.5     | 121  |      |
| YC above Rt. 954 | 04/26/2002 | Yellow Creek report (George Chakot) |         | 6.40 | 22            | -18           | 3.3     | 1.0     | 1.5     | 48   |      |
| YC above Rt. 954 | 04/30/2003 | Yellow Creek report (George Chakot) |         | 6.90 | 24            | -24           | 0.3     | 0.2     | 0.5     | 51   |      |
| YC above Rt. 954 | 06/27/2003 | 2005 BCWA assessment                | 41,173  | 7.24 | 24            | -21           | 0.2     | 0.1     | 0.0     | 50   |      |
| YC above Rt. 954 | 07/30/2003 | 2005 BCWA assessment                | 35,264  | 6.79 | 22            | -20           | 0.5     | 0.2     | 0.0     | 44   |      |
| YC above Rt. 954 | 08/19/2003 | 2005 BCWA assessment                | 32,887  | 6.75 | 25            | -23           | 0.4     | 0.1     | 0.0     | 46   |      |
| YC above Rt. 954 | 09/28/2003 | 2005 BCWA assessment                | 51,231  | 6.69 | 27            | -24           | 0.4     | 0.1     | 0.0     | 34   |      |
| YC above Rt. 954 | 10/24/2003 | 2005 BCWA assessment                | 46,202  | 6.78 | 23            | -16           | 0.3     | 0.1     | 0.2     | 46   |      |
| YC above Rt. 954 | 12/05/2003 | 2005 BCWA assessment                | 51,231  | 7.22 | 16            | -13           | 0.3     | 0.1     | 0.2     | 34   |      |
| YC above Rt. 954 | 12/31/2003 | 2005 BCWA assessment                | 46,359  | 7.11 | 16            | -13           | 0.7     | 0.1     | 0.4     | 41   |      |
| YC above Rt. 954 | 01/31/2004 | 2005 BCWA assessment                | 48,324  | 6.81 | 12            | -6            | 0.4     | 0.1     | 0.3     | 34   |      |
| YC above Rt. 954 | 02/28/2004 | 2005 BCWA assessment                | 32,499  | 6.63 | 14            | -12           | 0.6     | 0.1     | 1.2     | 45   |      |
| YC above Rt. 954 | 03/26/2004 | 2005 BCWA assessment                | 28,287  | 6.45 | 12            | -10           | 0.4     | 0.1     | 0.2     | 33   |      |
| YC above Rt. 954 | 04/16/2004 | 2005 BCWA assessment                | 122,846 | 6.74 | 11            | -9            | 0.8     | 0.1     | 0.3     | 31   |      |

**Table 9**  
**Historical Data**

| Location            | Date       | Source                              | Flow          | pH          | Alkalinity    | Net acidity   | Fe, tot    | Mn, tot    | Al, tot    | SO4       | TSS  |
|---------------------|------------|-------------------------------------|---------------|-------------|---------------|---------------|------------|------------|------------|-----------|------|
|                     |            |                                     | gpm           |             | mg/L<br>CaCO3 | mg/L<br>CaCO3 | mg/L       | mg/L       | mg/L       | mg/L      | mg/L |
| YC above Rt. 954    | 05/13/2004 | 2005 BCWA assessment                | 29,371        | 6.84        | 17            | -14           | 0.3        | 0.1        | 0.0        | 45        |      |
|                     | <b>AVG</b> |                                     |               | <b>6.56</b> | <b>27</b>     | <b>-26</b>    | <b>0.5</b> | <b>0.2</b> | <b>0.6</b> | <b>51</b> |      |
| YC above Rt. 954    | 11/17/2019 | 2022 assessment                     | 5,296         | 7.06        | 32            | -31           | 0.2        | 0.1        | 0.3        | 45        |      |
| YC above Rt. 954    | 02/24/2020 | 2022 assessment                     |               | 7.06        | 22            | -11           | 0.2        | 0.1        | 0.3        | 37        |      |
| YC above Rt. 954    | 09/20/2020 | 2022 assessment                     | 4,991         | 7.98        | 38            | -37           | 0.1        | 0.3        | 0.0        | 43        |      |
| YC above Rt. 954    | 05/25/2021 | 2022 assessment                     | 22,624        | 7.43        | 13            | -13           | 0.2        | 0.1        | 0.3        | 38        |      |
|                     | <b>AVG</b> |                                     | <b>10,970</b> | <b>7.38</b> | <b>26</b>     | <b>-23</b>    | <b>0.2</b> | <b>0.1</b> | <b>0.2</b> | <b>41</b> |      |
|                     |            |                                     |               |             |               |               |            |            |            |           |      |
|                     |            |                                     |               |             |               |               |            |            |            |           |      |
| YC at Floodway park | 04/24/1997 | Yellow Creek report (George Chakot) |               | 4.50        | 11            | 41            | 14.2       | 0.6        | 5.1        | 143       | <3   |
| YC at Floodway park | 10/02/1997 | Yellow Creek report (George Chakot) |               | 5.70        | 12            | 12            | 11.4       | 0.4        | 2.9        | 78        | 8    |
| YC at Floodway park | 12/05/1997 | Yellow Creek report (George Chakot) |               | 5.20        | 10            | 16            | 4.9        | 0.3        | 2.2        | 72        | 12   |
| YC at Floodway park | 01/28/1998 | Yellow Creek report (George Chakot) |               | 4.90        | 10            | 20            | 5.4        | 0.3        | 2.3        | 78        | <3   |
| YC at Floodway park | 04/24/1998 | Yellow Creek report (George Chakot) |               | 5.30        | 10            | 1             | 4.3        | 0.3        | 1.7        | 71        | 28   |
| YC at Floodway park | 08/18/1998 | Yellow Creek report (George Chakot) |               | 3.60        | 0             | 148           | 29.2       | 1.2        | 12.2       | 342       | 8    |
| YC at Floodway park | 11/12/1998 | Yellow Creek report (George Chakot) |               | 4.30        | 6             | 114           | 29.2       | 1.1        | 9.0        | 235       | 8    |
| YC at Floodway park | 02/22/1999 | Yellow Creek report (George Chakot) |               | 5.00        | 11            | 23            | 12.0       | 0.5        | 4.0        | 108       | 8    |
| YC at Floodway park | 04/26/1999 | Yellow Creek report (George Chakot) |               | 5.80        | 11            | -4            | 3.7        | 0.3        | 1.4        | 48        | <3   |
| YC at Floodway park | 07/26/1999 | Yellow Creek report (George Chakot) |               | 3.50        | 0             | 128           | 23.1       | 1.1        | 10.3       | 247       | 4    |
| YC at Floodway park | 10/28/1999 | Yellow Creek report (George Chakot) |               | 6.40        | 26            | -26           | 5.1        | 0.3        | 1.1        | 55        | 6    |
| YC at Floodway park | 01/27/2000 | Yellow Creek report (George Chakot) |               | 4.60        | 11            | 89            | 30.1       | 0.9        | 8.6        | 261       | 8    |
| YC at Floodway park | 04/26/2000 | Yellow Creek report (George Chakot) |               | 6.00        | 13            | 4             | 3.6        | 0.3        | 1.4        | 66        | 10   |
| YC at Floodway park | 07/31/2000 | Yellow Creek report (George Chakot) |               | 3.40        | 0             | 162           | 29.4       | 1.5        | 14.4       | 347       | <3   |
| YC at Floodway park | 10/31/2000 | Yellow Creek report (George Chakot) |               | 4.90        | 11            | 35            | 16.1       | 0.5        | 4.8        | 132       | 18   |
| YC at Floodway park | 02/28/2001 | Yellow Creek report (George Chakot) |               | 4.80        | 7             | 25            | 9.5        | 0.4        | 3.1        | 78        | 18   |
| YC at Floodway park | 04/26/2001 | Yellow Creek report (George Chakot) |               | 4.90        | 8             | 14            | 7.3        | 0.4        | 2.6        | 72        | 14   |
| YC at Floodway park | 07/31/2001 | Yellow Creek report (George Chakot) |               | 3.10        | 0             | 197           | 36.5       | 1.5        | 15.7       | 255       | 6    |
| YC at Floodway park | 11/29/2001 | Yellow Creek report (George Chakot) |               | 4.00        | 0             | 84            | 14.3       | 1.1        | 4.9        | 202       | <3   |
| YC at Floodway park | 02/01/2002 | Yellow Creek report (George Chakot) |               | 5.90        | 14            | 22            | 5.4        | 0.3        | 1.7        | 70        | 4    |
| YC at Floodway park | 04/26/2002 | Yellow Creek report (George Chakot) |               | 5.00        | 15            | 37            | 7.8        | 0.4        | 2.6        | <20.0     | 14   |
| YC at Floodway park | 04/30/2003 | Yellow Creek report (George Chakot) |               | 4.60        | 7             | 70            | 17.2       | 0.7        | 5.5        | 160       | 14   |
| YC at Floodway park | 06/27/2003 | 2005 BCWA assessment                | 19,532        | 3.68        | 0             | 51            | 15.0       | 0.6        | 3.9        | 133       |      |

**Table 9**  
**Historical Data**

| Location            | Date       | Source               | Flow    | pH          | Alkalinity    | Net acidity   | Fe, tot     | Mn, tot    | Al, tot    | SO4        | TSS  |
|---------------------|------------|----------------------|---------|-------------|---------------|---------------|-------------|------------|------------|------------|------|
|                     |            |                      | gpm     |             | mg/L<br>CaCO3 | mg/L<br>CaCO3 | mg/L        | mg/L       | mg/L       | mg/L       | mg/L |
| YC at Floodway park | 07/30/2003 | 2005 BCWA assessment |         | 4.59        | -1            | 13            | 7.6         | 0.4        | 2.0        | 88         |      |
| YC at Floodway park | 08/19/2003 | 2005 BCWA assessment | 29,724  | 3.50        | 0             | 58            | 20.4        | 0.7        | 5.8        | 152        |      |
| YC at Floodway park | 09/27/2003 | 2005 BCWA assessment | 30,914  | 4.52        | -1            | 37            | 13.6        | 0.5        | 3.7        | 116        |      |
| YC at Floodway park | 10/25/2003 | 2005 BCWA assessment | 27,209  | 4.35        | 0             | 40            | 15.5        | 0.5        | 4.7        | 123        |      |
| YC at Floodway park | 12/05/2003 | 2005 BCWA assessment | 50,108  | 4.32        | 0             | 41            | 11.0        | 0.5        | 3.8        | 109        |      |
| YC at Floodway park | 12/31/2003 | 2005 BCWA assessment | 32,732  | 5.84        | 3             | 15            | 6.3         | 0.2        | 1.7        | 69         |      |
| YC at Floodway park | 01/30/2004 | 2005 BCWA assessment | 50,917  | 3.15        | 0             | 141           | 18.2        | 0.7        | 7.5        | 158        |      |
| YC at Floodway park | 02/28/2004 | 2005 BCWA assessment | 42,026  | 4.46        | 0             | 33            | 8.8         | 0.4        | 2.6        | 76         |      |
| YC at Floodway park | 03/26/2004 | 2005 BCWA assessment | 51,065  | 4.56        | -1            | 21            | 7.0         | 0.3        | 2.1        | 65         |      |
| YC at Floodway park | 04/16/2004 | 2005 BCWA assessment | 107,690 | 4.53        | -1            | 9             | 3.9         | 0.2        | 2.3        | 49         |      |
| YC at Floodway park | 05/13/2004 | 2005 BCWA assessment | 29,634  | 3.93        | 0             | 39            | 12.0        | 0.5        | 3.0        | 121        |      |
|                     | <b>AVG</b> |                      |         | <b>4.79</b> | <b>9</b>      | <b>55</b>     | <b>14.5</b> | <b>0.6</b> | <b>5.3</b> | <b>149</b> |      |
|                     |            |                      |         |             |               |               |             |            |            |            |      |
| YC at Floodway park | 11/17/2019 | 2022 assessment      | 6,611   | 6.05        | 80            | 9             | 16.3        | 0.7        | 4.0        | 192        |      |
| YC at Floodway park | 02/24/2020 | 2022 assessment      | 51,024  | 6.27        | 35            | 8             | 3.6         | 0.3        | 1.7        | 82         |      |
| YC at Floodway park | 09/20/2020 | 2022 assessment      | 5,144   | 6.75        | 95            | 5             | 11.6        | 2.8        | 0.6        | 175        |      |
| YC at Floodway park | 05/25/2021 | 2022 assessment      | 28,762  | 6.43        | 60            | 8             | 3.6         | 0.4        | 2.2        | 111        |      |
|                     | <b>AVG</b> |                      |         | <b>6.38</b> | <b>68</b>     | <b>8</b>      | <b>8.8</b>  | <b>1.0</b> | <b>2.1</b> | <b>140</b> |      |
|                     |            |                      |         |             |               |               |             |            |            |            |      |