Figure 1. Location of Unit Wells 3, 10, 12, 29 and 30
City Well 29
Eagle Crest Bar
Calvary Gospel Church

1 Mi.

300 Feet Deep

1-5 Wells per Quarter Section
6-10 Wells per Quarter Section
11-15 Wells per Quarter Section
16-20 Wells per Quarter Section

NOTES:
1. Well location data sources include:
   - Well Construction Forms, Wisconsin Geologic and Natural History Survey
   - Water Wells Database, Wisconsin Department of Natural Resources
   - High Capacity Wells Database, Wisconsin Department of Natural Resources
   - Well Construction Forms, Wisconsin Geologic and Natural History Survey
   - Well Construction Forms, Wisconsin Department of Natural Resources

2. Duplicate well occurrences were removed from the data set and are not included in the counts shown on this map.
3. Several well records did not include information on quarter-section location. These include:
   - 1 well in Sec. 26 T8N R10E
   - 5 wells in Sec. 27 T8N R10E
   - 3 wells in Sec. 28 T8N R10E
   - 7 wells in Sec. 33 T8N R10E
   - 3 wells in Sec. 34 T8N R10E

Figure 2 - Well Frequency by Quarter Section
Figure 3. Manganese as MnO₂ and Sulfides versus Depth

Note: These data are presented as points at the center of the interval composited. Refer to Table 2 for intervals composited.
Figure 4. Iron Hydroxides:Manganese Dioxide Ratio versus Depth

Note: These data are presented as points at the center of the interval composited. Refer to Table 2 for intervals composited.
Figure 5. Eh – pH Diagram for Manganese

Zone where Mn is soluble

Zones where Mn is not soluble
Figure 6. Eh – pH Diagram for Iron

Zone where Fe is soluble

Zones where Fe is not soluble

Figure 14. Fields of stability for solid and dissolved forms of iron as a function of Eh and pH at 25°C and 1 atmosphere pressure. Activity of sulfur species 96 mg/L as SO₄²⁻, carbon dioxide species 61 mg/L as HCO₃⁻, and dissolved iron 56 μg/L.
Figure 7. Meteoric Water Line

Local Meteoric Water Line Data

Source: Swanson, et al., 2006
Figure 8. Iron versus Manganese Groundwater Concentrations

Trend Line for UW 10 Fe:Mn
\[ y = 0.7498 \ln(x) - 2.4643 \]

\[ R^2 = 0.8758 \]

Not Shown:
UW 10 Sample
Mn = 1,730 ug/L
Fe = 3.3 mg/L