Wisconsin’s Major Aquifers Activity Sheet  
(Northern Wisconsin)

1. On the diagram of Wisconsin’s major aquifers, label the layers of rock on the cross-section:
   a) Sand and gravel aquifer
   b) Eastern dolomite aquifer
   c) Maquoketa shale confining layer
   d) Sandstone and dolomite aquifer
   e) Crystalline bedrock aquifer

2. Use colored pencils to color the AQUIFERS different colors.

3. Answer the following questions:
   a) Describe the arrangement and shape of the layers shown on the diagram.

   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

   b) What are confining layers?

   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

   c) How do they affect groundwater movement?

   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

   d) Name the aquifer used by each of the following cities:

   Hudson _______________________
   Eau Claire _______________________
   Junction City _______________________
   Stevens Point _______________________
   De Pere _______________________

   ______________________________________________________
   ______________________________________________________
e) Using the scale on the left margin of the diagram, estimate the depths of wells at these cities.

Hudson _________________________________ ft. Stevens Point _________________________________ ft.

Eau Claire _________________________________ ft. De Pere _________________________________ ft.

Junction City _________________________________ ft.

f) According to the diagram, which city’s well would you expect to be the most susceptible to contamination?

Why?

________________________________________________________________________________________

________________________________________________________________________________________

g) Water that has been in bedrock a long time often contains many dissolved minerals. This water may have to be treated to improve its taste, odor or color. According to the diagram, which city’s well do you think is most likely to have a problem with dissolved minerals?

Why?

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   b) What are confining layers?

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

   c) How do they affect groundwater movement?

   ____________________________________________________________
   ____________________________________________________________

   d) Name the aquifer used by each of the following cities:

       Prairie du Chien ____________________________
       Boscobel _________________________________
       Madison ________________________________
       Waukesha ________________________________
e) Using the scale on the left margin, estimate the depths of wells at these cities.

Prairie du Chien _______________________________ ft. Madison _______________________________ ft.
Boscobel _______________________________ ft. Waukesha _______________________________ ft.

f) According to the diagram, which city’s well would you expect to be the most susceptible to contamination?

Why? _____________________________________________


g) Water that has been in bedrock a long time often has many dissolved minerals in it. This water may have to be treated to improve its taste, odor or color. According to the diagram, which city’s well do you think is most likely to have a problem with dissolved minerals?

Why? _____________________________________________