

Hydrogeologic Cross Sections

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CROSS SECTION EXPLANATION

Aquifers and aquitards grouped by stratigraphy

See Report Figure 1 for geologic unit correlation.

Interpreted tritium age is indicated by background color

Quaternary unconsolidated sediment

Surficial sand and gravel

ss

Buried aquifers and aquitards

hi*

l*

th*

si

ti*

sm

tm*

st

tt*

g1*

s2

g2*

s3

g3*

s4

g4*

te*

su

Undifferentiated sediment (u)

sz

Unknown (UNKN)

*aquitard

Quaternary aquitards

Grouped by texture ranging from highest to lowest sand content indicating relative hydraulic conductivity.

Geologic unit code

tt

ti, tm

th, g1, g2, g3, g4, te

hi, l

Percent sand

>50% and ≤60%

>40% and ≤50%

>30% and ≤40%

≤30%

Tritium age

Darker color in small vertical rectangle (well screen symbol) indicates tritium age of water sampled in well. Lighter color indicates interpreted age of water in aquifer.

Recent: water entered the ground since about 1953 (8 to 15 tritium units [TU]).

Mixed: water is a mixture of recent and vintage waters (greater than 1 TU to less than 8 TU).

Vintage: water entered the ground before 1953 (less than or equal to 1 TU).

Well not sampled for tritium.

Symbols and labels

17.2* Chloride concentration. If shown, chloride concentration equals or exceeds 5 parts per million and bromide concentration equals or exceeds 0.07 part per million. (* indicates naturally elevated values)

8.1 If shown, arsenic concentration equals or exceeds 5 parts per billion.

110 If shown, manganese concentration equals or exceeds 100 parts per billion.

1.98 If shown, nitrate concentration equals or exceeds 1 part per million.

8000 If shown, groundwater residence time in years as estimated by carbon-14 (¹⁴C) isotope analysis.

General groundwater flow direction

Approximate equipotential contour; contour interval 25 feet

Geologic contact

Land or bedrock surface

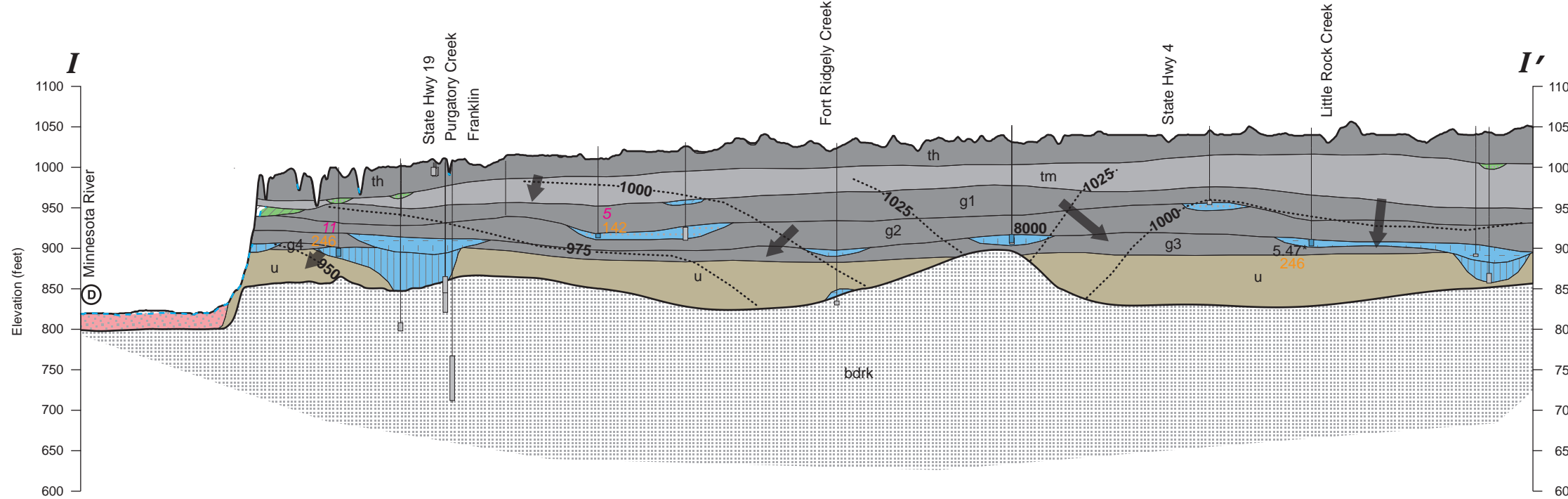
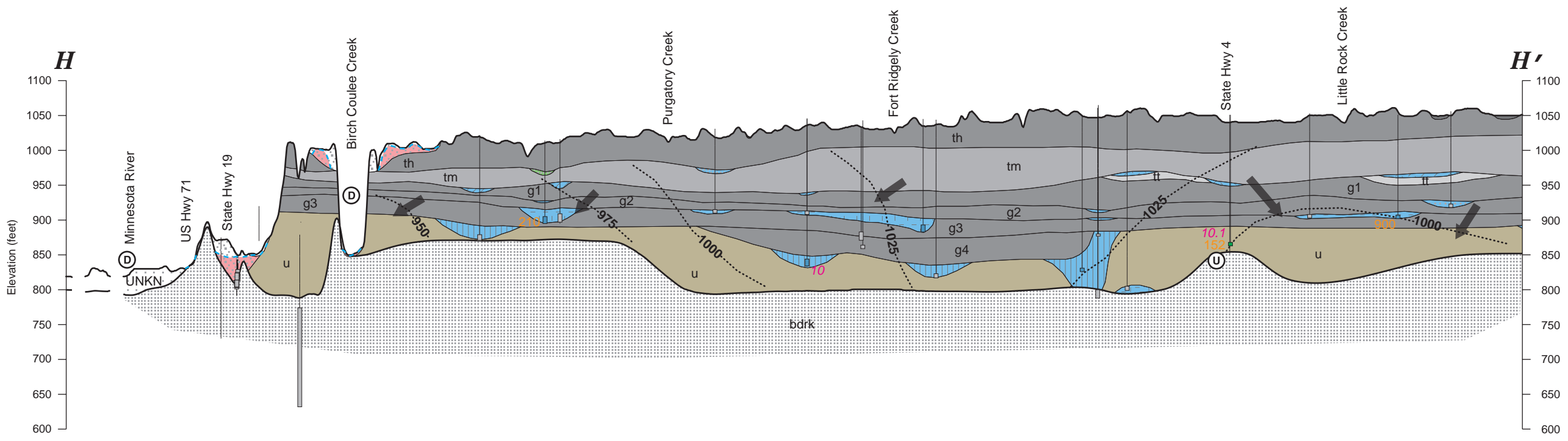
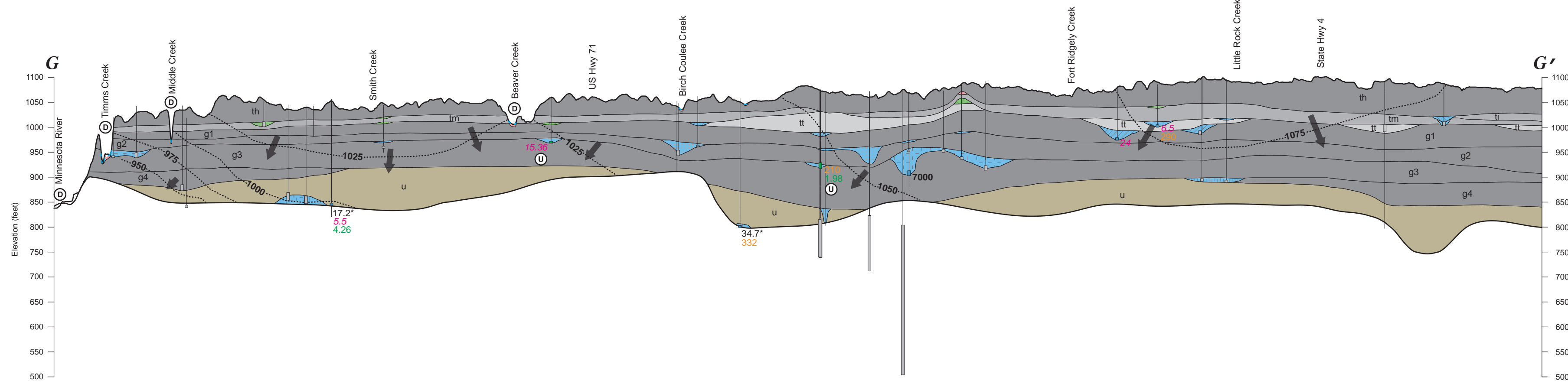
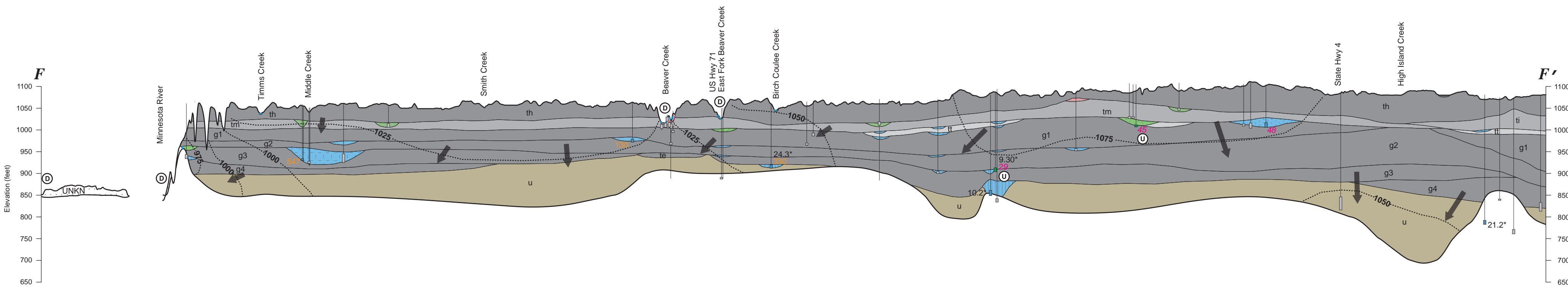
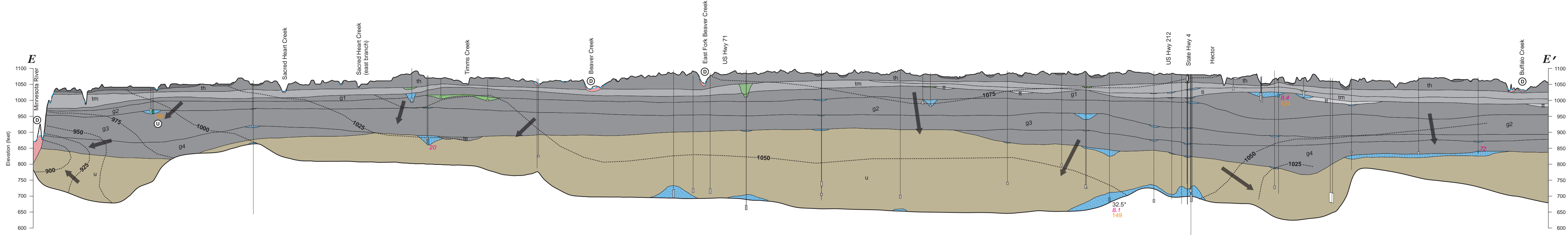
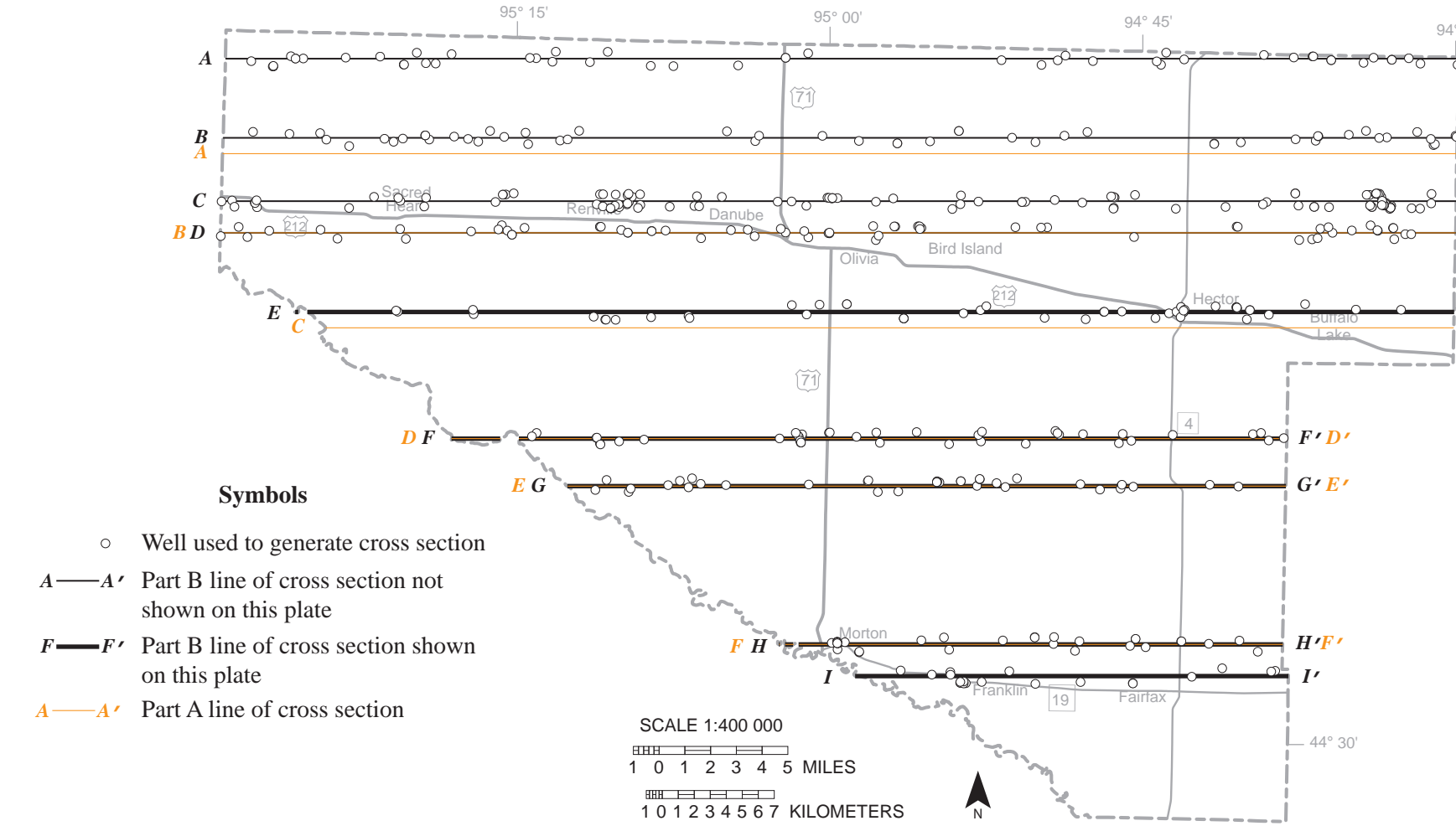
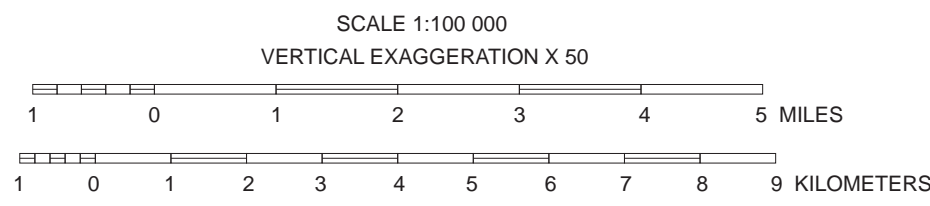
Water table

Pumping well

Groundwater conditions

Groundwater discharges to a surface-water body.

Groundwater flowpath is unknown (deep groundwater, recent or mixed tritium age).



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This map was compiled and generated in a geographic information system. Digital data products are available on the DNR County Geologic Atlas Program [page](http://page.mndnr.gov/groundwatermapping) (mndnr.gov/groundwatermapping).

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Base modified from Minnesota Geological Survey, Renville County Geologic Atlas, Part A, 2013.

Universal Transverse Mercator projection, zone 15N, North American Datum of 1983. North American Vertical Datum of 1988.

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