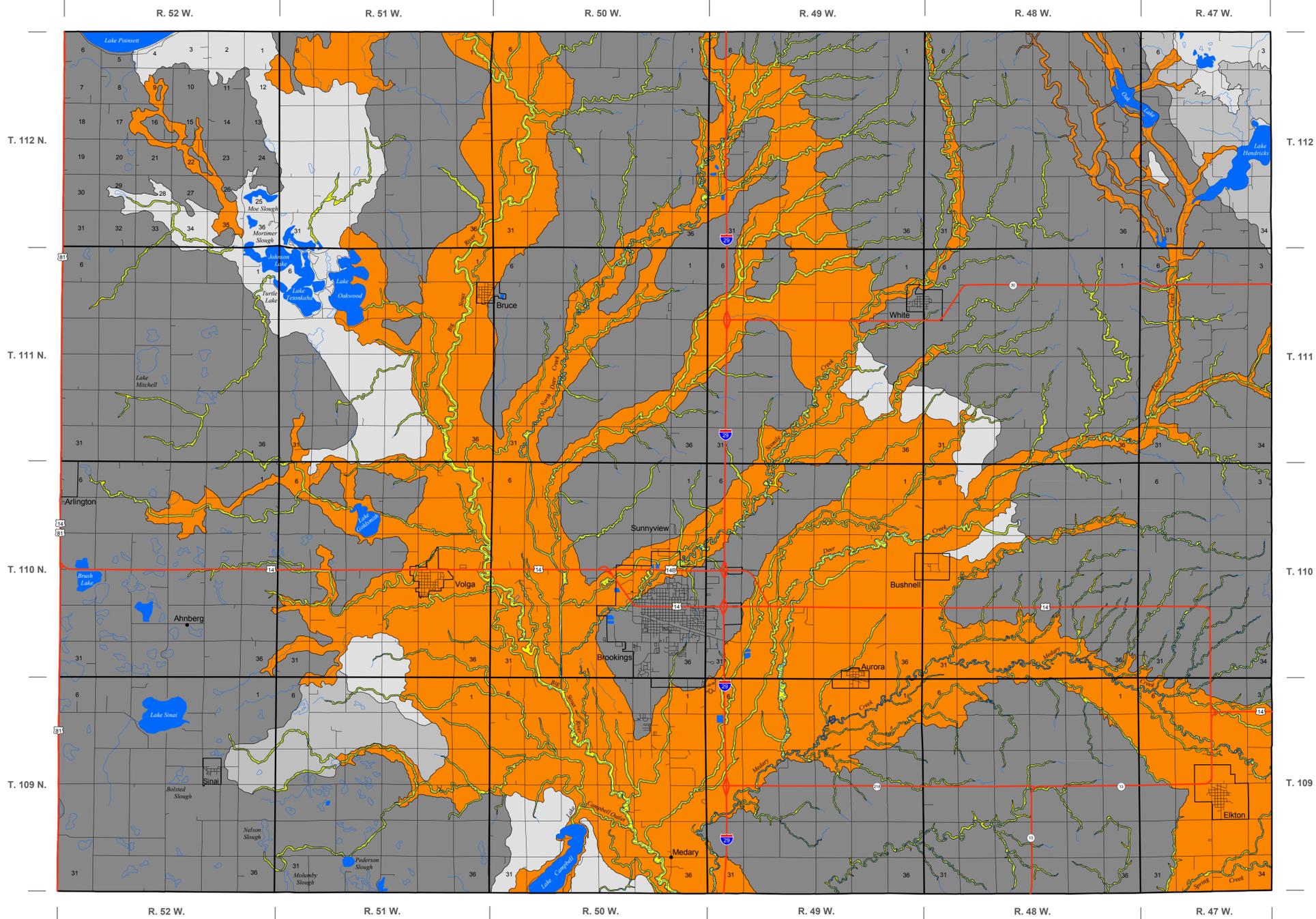


# First Occurrence of Aquifer Materials in Brookings County, South Dakota

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Division of Financial and Technical Assistance  
Geological Survey  
Aquifer Materials Map 19  
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## Explanation

This map is intended for use as a tool to aid in identifying areas underlain by aquifer material. The aquifer materials shown on this map are categorized below. This map does not show individual aquifers. There may be more than one type of aquifer material present in an area. However, only the aquifer material that would be first encountered is shown. Within the boundaries of any given map unit, there may be localized areas where aquifer material is absent. The thickness and permeability of aquifer material may vary significantly. Also, no attempt was made to distinguish between saturated and unsaturated material. Therefore, not all of the areas defined on this map may be an aquifer. Site-specific information should always be examined when making land management or water development decisions.

- Alluvium:** Consists of clay and silt with minor amounts of sand and gravel
- Sand and Gravel:** First occurrence is generally at land surface
- Sand and Gravel:** First occurrence is generally below land surface; may not be uniform in depth and thickness and may be discontinuous in lateral extent
- Sand and Gravel:** First occurrence is generally greater than 50 feet and less than or equal to 100 feet below land surface; may not be uniform in depth and thickness and may be discontinuous in lateral extent
- Sand and Gravel:** First occurrence is generally greater than 100 feet below land surface; may not be uniform in depth and thickness and may be discontinuous in lateral extent
- Major highway
- Road
- Township boundary
- River or stream
- Lake
- Slough or intermittent lake

For township section numbering system, see T. 112 N., R. 52 W.

This map was developed from lithologic logs and published reports. The major sources of information were:

Barari, A., 1968, *Ground-water investigation for the city of Brookings, South Dakota*: South Dakota Geological Survey Special Report 45, 51 p.

———, 1971, *Ground-water investigation for the city of Volga, South Dakota*: South Dakota Geological Survey Special Report 51, 33 p.

Barari, A., and Beissel, D., 1976, *Ground-water study for the Brookings-Deuel Rural Water System*: South Dakota Geological Survey Open-File Report on Urban and Rural Studies 7, 113 p.

Hamilton, L.J., 1989, *Water resources of Brookings and Kingsbury Counties, South Dakota*: U.S. Geological Survey Water-Resources Investigations Report 88-4185, 82 p.

Lee, K.Y., 1958, *Geology and shallow ground water resources of the Brookings area, South Dakota*: South Dakota Geological Survey Report of Investigations 84, 62 p.

———, 1958, *Geology of the Brookings quadrangle, South Dakota*: South Dakota Geological Survey Geologic Quadrangle Map, scale 1:62,500.

———, 1958, *Geology of the White quadrangle, South Dakota*: South Dakota Geological Survey Geologic Quadrangle Map, scale 1:62,500.

———, 1960, *Geology of the Flandreau quadrangle, South Dakota*: South Dakota Geological Survey Geologic Quadrangle Map, scale 1:62,500.

———, 1960, *Geology of the Rutland quadrangle, South Dakota*: South Dakota Geological Survey Geologic Quadrangle Map, scale 1:62,500.

South Dakota Geological Survey, Lithologic logs database.

Steece, F.V., 1958, *Geology of the Esteline quadrangle, South Dakota*: South Dakota Geological Survey Geologic Quadrangle Map, scale 1:62,500.

———, 1958, *Geology of the Hayti quadrangle, South Dakota*: South Dakota Geological Survey Geologic Quadrangle Map, scale 1:62,500.

Tomhave, D.W., 1988, *Ground-water study in the Elkton area for the Brookings-Deuel Rural Water System*: South Dakota Geological Survey Open-File Report on Urban and Rural Studies 46, 16 p.

———, 1988, *Ground-water study for the city of Elkton, South Dakota*: South Dakota Geological Survey Open-File Report on Urban and Rural Studies 47, 25 p.

———, 1988, *Sand and gravel resources in Brookings County, South Dakota*: South Dakota Geological Survey Information Pamphlet 38, 142 p.

The Geological Survey, Department of Environment and Natural Resources, engages in an ongoing data collection and interpretation process. An outcome of that process is to reflect those interpretations on maps such as this one. Reasonable efforts have been made to ensure that this map accurately reflects the source data used in its preparation. This map is date specific. As additional data become available, geologic interpretations may be revised and the map may be updated by the Geological Survey. This map should not be enlarged or otherwise used in an attempt to interpret more detail than can be seen at the 1:100,000 scale.



Index map of South Dakota showing the location of Brookings County

