

Scale 1:500,000  
1 centimeter equals 5 kilometers  
1 inch equals approximately 8 miles

Contour interval 200 feet  
1973 National datum  
Datum is mean sea level  
Lambert conformal conic projection based on standard parallels 37° and 43°  
Base map supplied by the U.S. Geological Survey, 1981

**POPULATION KEY**  
WICHITA ..... more than 100,000  
LANE ..... 25,000 to 100,000  
DICKINSON ..... 5,000 to 25,000  
BLISS ..... 2,000 to 5,000  
LAWRENCE ..... less than 2,000  
Population indicated by size of stars.

**METRIC CONVERSION**  
1 meter = 3.28 feet  
1 kilometer = 0.62 mile  
1 Celsius = 5/9 Fahrenheit - 32  
1 Fahrenheit = 5/9 Celsius + 32

State capital  
County seat  
City, town, or village  
Scheduled service airport

Corporate boundary shown for towns over 1,000 population  
Built-up area shown for towns over 10,000 population  
County boundary

National wildlife refuge, national historical site, state park  
National game preserve  
Indian reservation  
Military reservation  
Private land and not used within federal boundaries

Interstate Highway  
U.S. Highway  
State Highway  
Other principal road

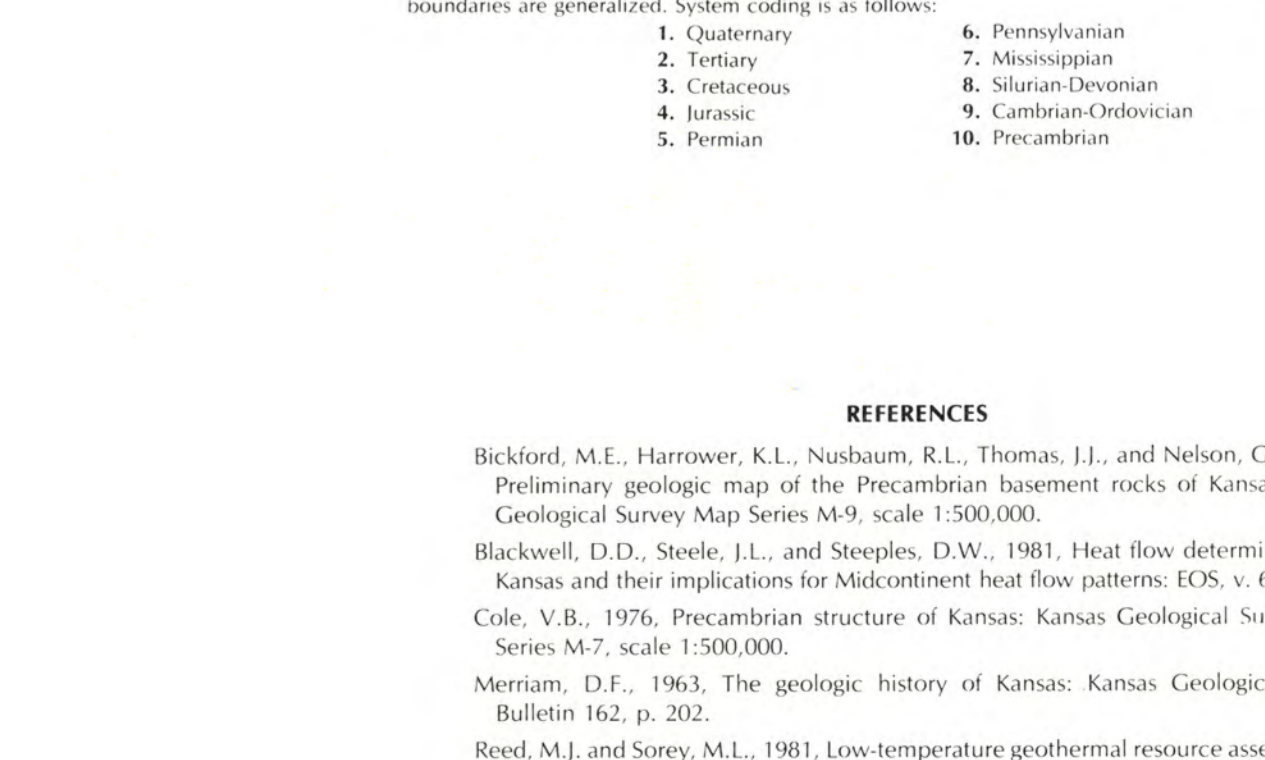
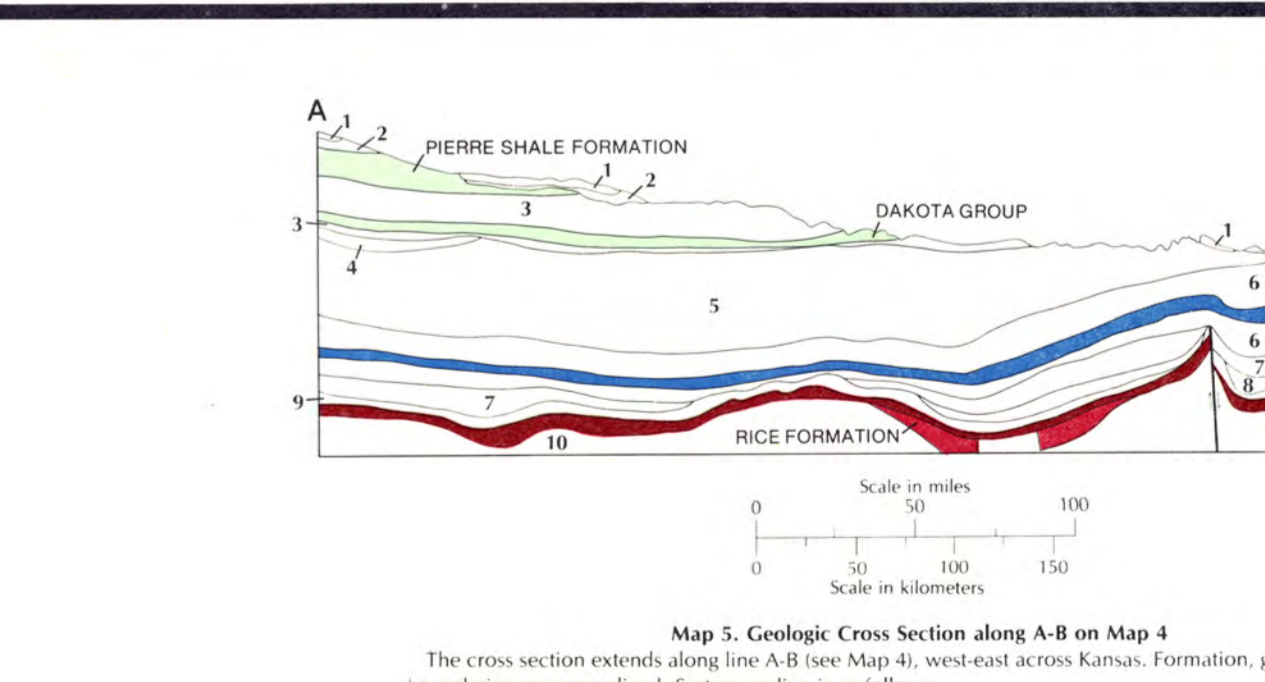
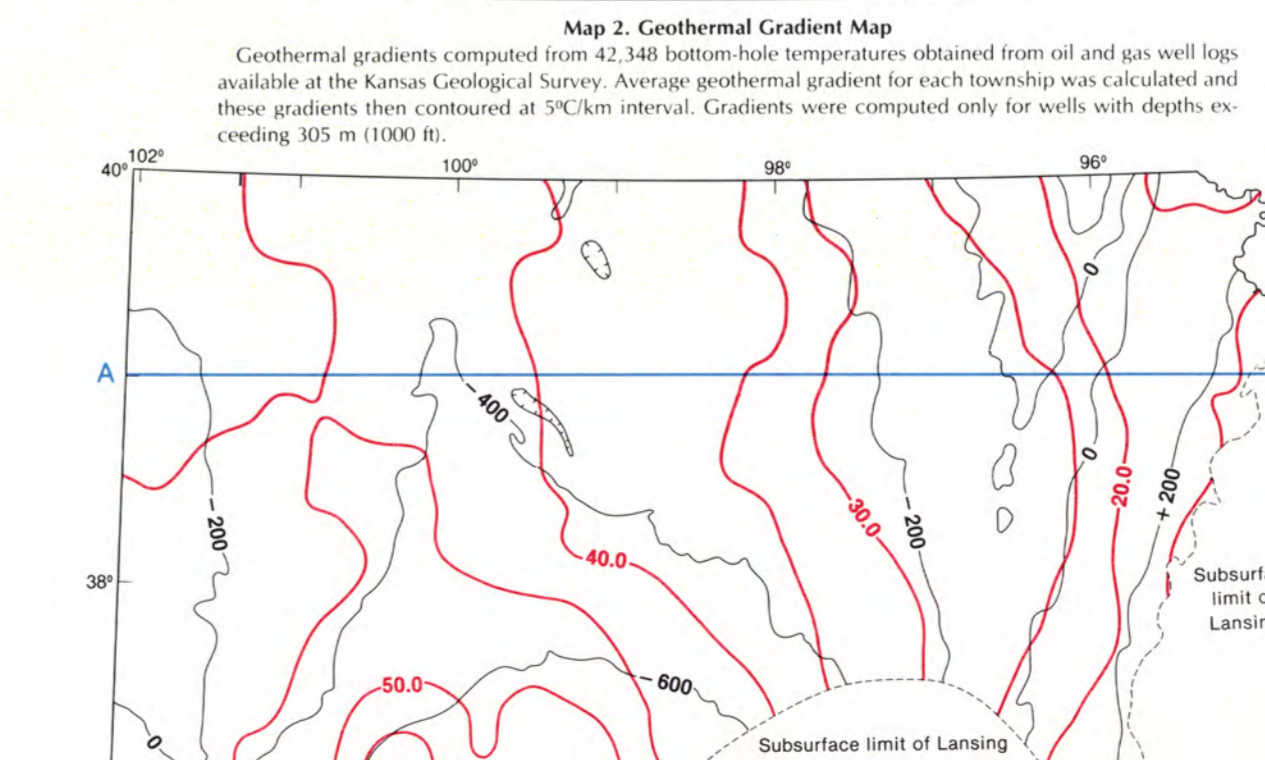
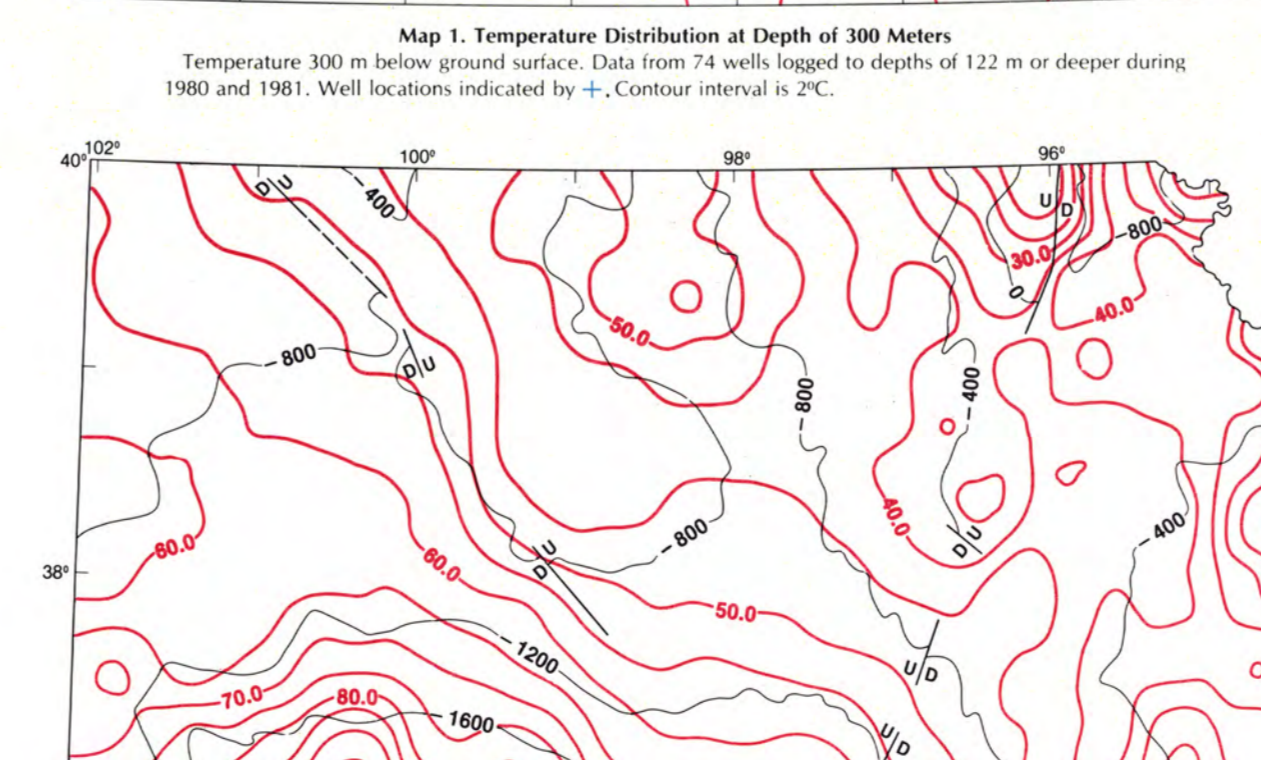
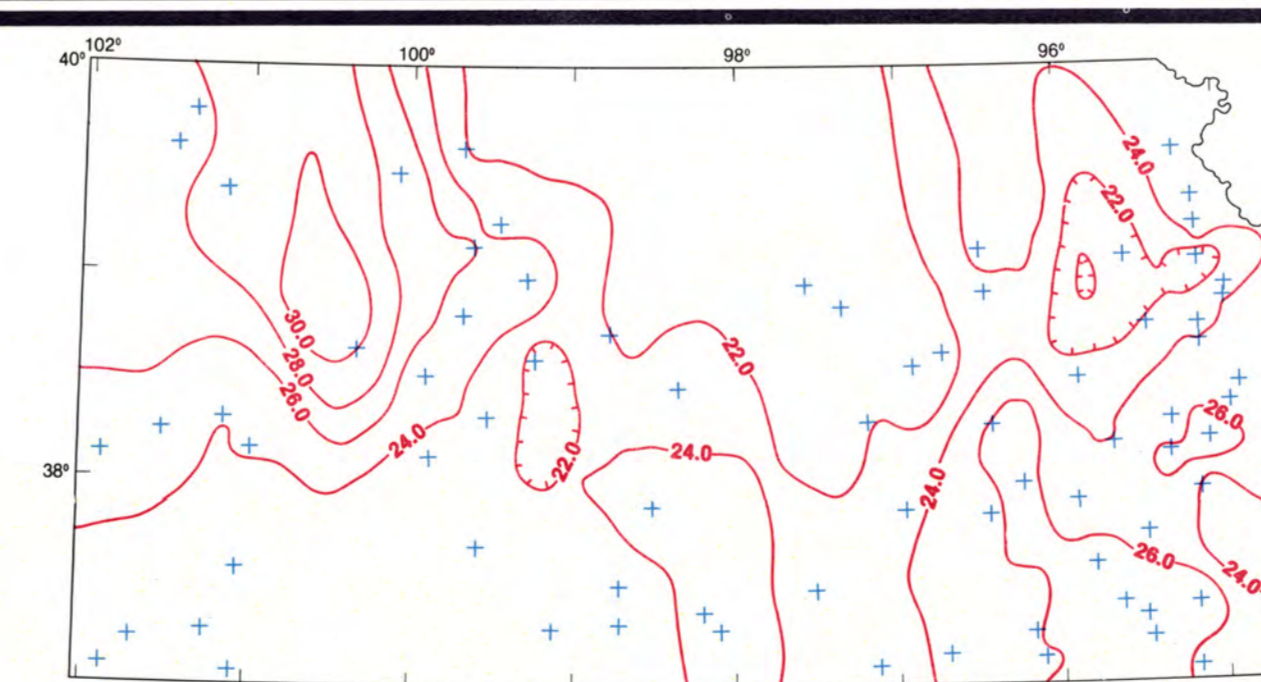
**GEOTHERMAL RESOURCES OF KANSAS**  
Temperature generally increases with depth in the earth. The geothermal gradient is a measure of the rate of temperature increase with depth. In Kansas, the geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet). The geothermal gradient is higher in the central and southern parts of the state where geothermal resources are more abundant. The U.S. Geological Survey defines low-temperature geothermal resources as those with a geothermal gradient of 100°C per kilometer (320°F per mile) or less. These resources are found in the central and southern parts of the state. High-temperature geothermal resources are found in the northern part of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state.

**THERMAL WELLS**  
Depth (m)  
Temperature (°C)  
Gradient (°C/m)

**THERMAL WATERS**  
Dark gray: Area most favorable for discovery and development of low-temperature geothermal resources. These resources are found in the central and southern parts of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state.

Light gray: Area of north-central and southwestern Kansas where temperatures higher than 75°C may occur at depths between 2.0 and 3.0 kilometers in the thick sedimentary section overlying basement rock. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state.

Matched light gray: Area where up to 4 km of Precambrian basalt flows underlie the sedimentary sequence. Although these areas may contain waters that are suitable for geothermal development, the geothermal resources are not as abundant as in the central and southern parts of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state. The geothermal gradient is about 1°C per 100 meters (32°F per 1,000 feet) in the central and southern parts of the state.



Geothermal data compiled and interpreted by Sandra A. Stavnes and Donald W. Steeples for the Kansas Geological Survey supported by the U.S. Department of Energy under Grant No. DE-AS07-79ET27204

Map produced by the National Geophysical Data Center National Oceanic and Atmospheric Administration Division of Geothermal Energy United States Department of Energy 1982

Map available from: Kansas Geological Survey 1930 Avenue "C", Campus West The University of Kansas Lawrence, Kansas 66044

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