

AREAL GEOLOGY OF GOVE COUNTY, KANSAS

Bulletin 145

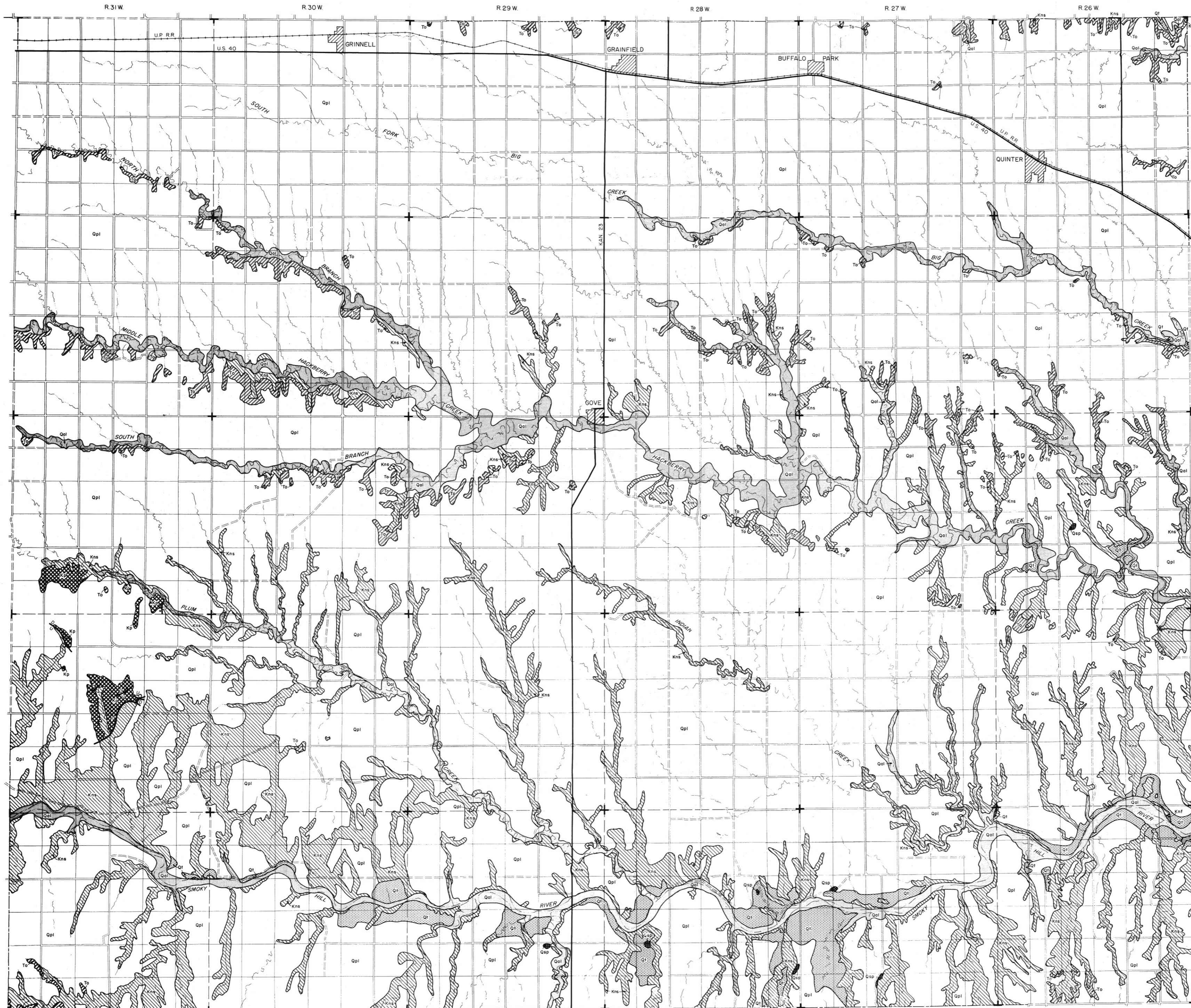
By Warren G. Hodson and Kenneth D. Wahl

Plate 1

State Geological Survey
of Kansas

1956

EXPLANATION



QUATERNARY

Pleistocene

- Qal**
Alluvium
Stream-laid deposits ranging in composition from clay to coarse sand and gravel. Occurs along principal stream valleys. Yields moderate to large quantities of water to wells along larger valleys; lesser amounts along smaller valleys.
- Qpl**
Peoria and Loveland Formations
Silt, mostly eolian, becoming sandy in lower part. Occurs along principal stream valleys overlying Cretaceous bedrock. Yields little or no water to wells.
- Qst**
Terrace deposits
Stream-deposited sand, gravel, and silt. Occur in a terrace along principal stream valleys overlying Cretaceous bedrock. Yield small quantities of water to wells, chiefly along Smoky Hill Valley.
- Qsp**
Pearlette Ash bed of the Sappa Formation
Scattered deposits of volcanic ash generally associated with terrace deposits. Deposits are of small areal extent. Known deposits lie above the water table and yield no water to wells.

Pliocene

- Kns**
Ogallala Formation
Consists chiefly of sand, gravel, silt, and clay. Outcropping beds generally are cemented with calcium carbonate and locally with silica. Constitutes the principal aquifer in northern and west-central Gove County.
- Kps**
Pierre Shale
Fissile dark-gray shale, which weathers to coffee brown. Contains abundant scintillate crystals. Yields no water to wells.

Gulfian

- Knf**
Niobrara Chalk
 - Smoky Hill Chalk member**
Light to dark-gray chalk and chalky shale; generally thin bedded and platy. Locally contains silicified zones in upper part. Yields no water to wells, except in local silicified zones or fractured zones from which small quantities of water may be available.
 - Fort Hays Chalk member**
Massive grayish-white chalk beds separated by thin chalky shale partings. Yields little or no water to wells.

CRETACEOUS

Castle Rock

- Federal or State Highway
- Graded road
- Ungraded road
- Railroad
- County line (no road)
- Township line (no road)
- Section line (no road)
- Intermittent stream
- Fault (arrow indicates direction of dip)

0 1 2
Scale, in miles

Base compiled from map prepared by the Soil Conservation Service