

Areal Geology of Graham County, Kansas

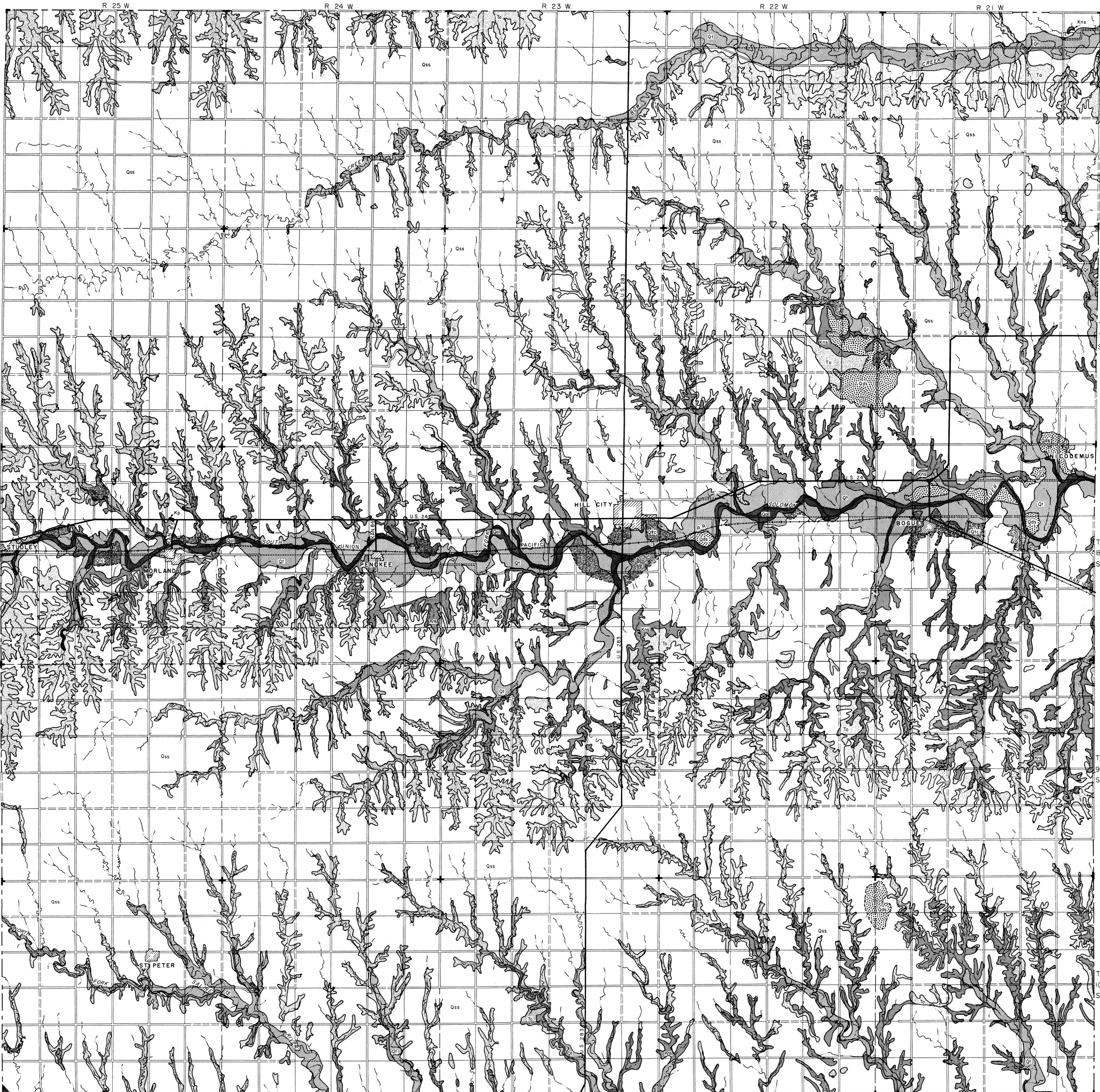
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Plate 1

State Geological Survey
of Kansas

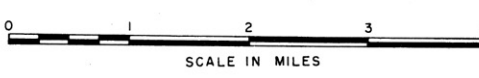


EXPLANATION

- Alluvium**
Sand, gravel, and silt in stream channels in major valleys. Contains much water in larger valleys but supplies water to few wells because it is generally restricted to stream channels.
- Dune sand**
Fine to coarse wind-deposited sand. Lies above the water table but serves as intake for ground-water recharge.
- Terrace Deposits (late Wisconsinan)**
Sand, gravel, silt and clay. Fine-grained along smaller streams. Includes some Recent alluvium along small streams and some coluvium. Yields abundant supplies of water in valleys of South Fork Solomon River and Bow Creek. Yields smaller supplies in tributary valleys.
- Sanborn formation**
Bignell, Peoria and Loveland silt members
(Includes Crete sand and gravel member where covered by silt along some streams; also includes coluvium and a few outcrops of Meade formation.) Massive wind-blown silt; contains water-laid sand and gravel. Crete at base in some valleys. Silt members are above water table but Crete member yields moderate supplies of water where below water table.
- Crete sand and gravel member**
(Where not mantled by thick deposits of loess.) Sand and gravel with some silt and clay. Yields water to wells in some areas where below the water table.
- Ogallala formation**
Sand, gravel, silt, clay. May be consolidated or unconsolidated. Contains beds of limestone, calciche and "quartzite." The most widespread aquifer in Graham County. Yields abundant supplies of water in many areas.
- Pierre shale**
Soft, fissile blue-gray shale. Yields no water to wells.
- Niobrara formation**
Smoky Hill chalk member
Blue-gray, yellow or tan chalk and cherty shale. Yields a small amount of water to wells.

PLEISTOCENE
QUATERNARY
PLIOCENE
TERTIARY
GULFIAN
CRETACEOUS

- Federal or State Highway
- Graded road
- Ungraded road
- Railroad
- County line (no road)
- Township line (no road)
- Section line (no road)
- Intermittent stream



Base modified from map prepared by State Highway Commission of Kansas

Drainage from map prepared by U.S. Dept. of Agriculture