Geologic Map of Kansas River Valley, Lawrence to Topeka

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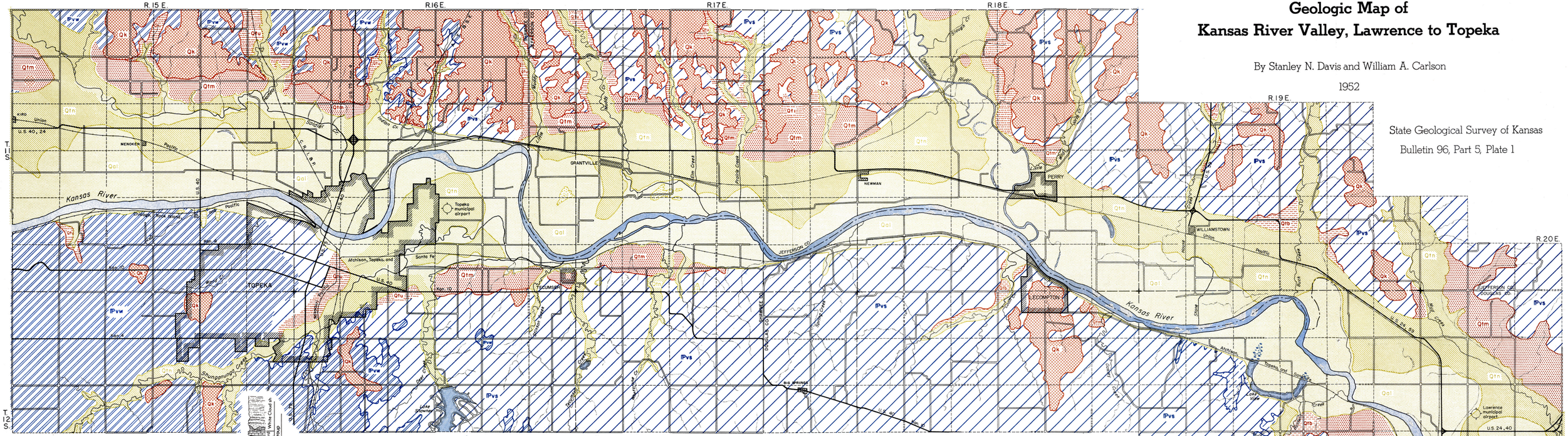
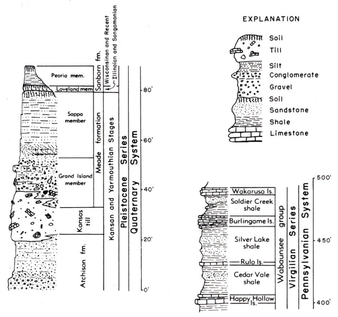


Base adapted from topographic quadrangles, U.S. Geological Survey

Scale in miles: 0, 1, 2, 3, 4



GENERALIZED STRATIGRAPHIC COLUMNS

EXPLANATION

Soil
Till
Silt
Conglomerate
Gravel
Soil
Sandstone
Shale
Limestone

EXPLANATION

QUATERNARY — PLEISTOCENE — Recent

Dune sand

Fine quartz sand. Not known to yield water to wells.

Alluvium

Silt and fine to medium sand grading downward into coarse sand and gravel in the deeper alluvial fill of Kansas River. Yields large amounts of water to wells in the Kansas River Valley. Water is hard but otherwise of good quality.

Newman terrace

Terrace in the valleys is underlain by silt and silty clay which grades downward into sand and gravel. Yields large amounts of water to wells in the Kansas River Valley. Water is hard but otherwise of good quality.

QUATERNARY — PLEISTOCENE — Wisconsinan

Sanborn formation

Loess of Peoria and possibly Loveland members. Yields no water to wells.

QUATERNARY — PLEISTOCENE — Illinoian

Buck Creek terrace

Terrace is underlain by silt and sandy silt of the Sanborn formation. Local lenses of coarse silt and fine gravel in basal portion of terrace fill. Yields small amounts of water to wells.

Undifferentiated middle Pleistocene colluvium and terraces

Fine silt and silty clay. Yields little water to wells.

Menoken terrace

Terrace is underlain by silt, sand, and gravel of the Meade formation and by minor amounts of Kansas till and silt, sand, and gravel of the Atchison formation. Basal portion is usually gravel which yields moderate amounts of water of fair quality where it is in the zone of saturation.

QUATERNARY — PLEISTOCENE — Kansan

Kansas till

Silt and clay with minor amounts of intermixed sand, gravel, and boulders. Yields virtually no water to wells and adversely affects ground-water recharge.

PENNSYLVANIAN — VIRGILIAN

Wabaunsee group

Limestone interbedded with shale, siltstone, and sandstone. Limestone and sandstone locally yield moderate amounts of water to wells.

Shawnee group

Limestone interbedded with shale, siltstone, and sandstone. Sandstone and solution channels in limestone locally yield moderate quantities of water to wells.

Douglas group

Shale, siltstone, and sandstone with a few beds of limestone and coal. Sandstone in lower part of group yields moderate to large quantities of water to wells near Lawrence. Water from these rocks varies greatly in quality but is generally fair to good in the basal sandstone.