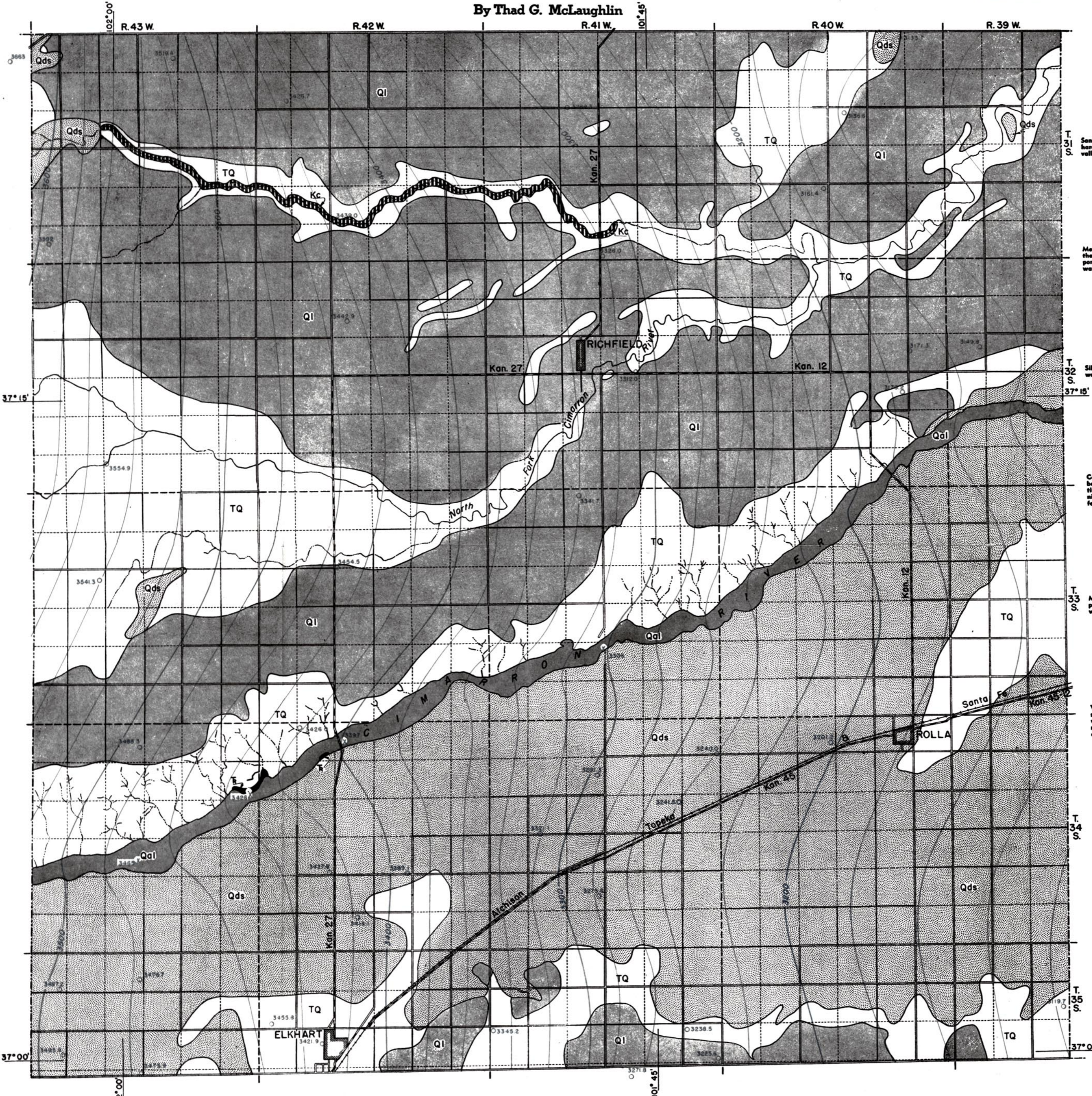
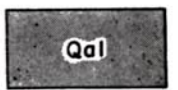


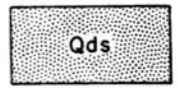
By Thad G. McLaughlin



**EXPLANATION**



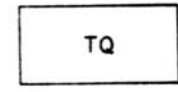
**Alluvium**  
Sand, gravel and clay. Yields moderate quantities of hard water to shallow wells in the Cimarron river valley.



**Dune sand**  
Medium-grained quartz sand. Sand dunes are above the water-table and do not yield water to wells. Important catchment areas for recharge of the ground-water reservoir.



**Loess**  
Silt, sand and clay. Loess deposits are above the water-table and do not yield water to wells.



**Pliocene (including Ogallala formation) and Pleistocene undifferentiated**  
Calcareous silts, sands and gravels. Principal water-bearing formation in county. Yields adequate quantities of moderately hard water to domestic, municipal and irrigation wells, from depths of 75 to 225 feet.



**Cockrum sandstone**  
Massive to thin-bedded sandstone and clay. Important water-bearer. Furnishes moderately hard water to wells in the northwestern part of the county.



**Triassic (?)**  
White, buff and red sandstones and maroon siltstones. The upper part furnishes moderately hard water to a few domestic wells. The lower part yields moderate quantities of very hard water to flowing artesian wells.

Contour interval 20 feet

—3300— Contours drawn on the water-table

○ 3541.7 Well location. Number refers to altitude of water level.

x 3397 Altitude of water surface in stream.

— Federal or State road

— County road

— Township road

- - - Section line (no road)

