UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EXPLANATION

Pleistocene and Recent — QUATERNARY

Qal — Alluvium on Ogallala formation

Qal — Alluvium on Brule formation
Gravel, sand, and silt. Yields large quantities of water to irrigation and public-supply wells

Pliocene — TERTIARY

To — Ogallala formation
Gravel, sand, silt, and clay beds cemented in part by calcium carbonate. Yields large quantities of water to irrigation and public-supply wells

Oligocene — TERTIARY

Tb — Brule formation
Siltstone, compact and brittle. Generally poor aquifer, but locally yields a large supply of water from permeable zones

Contact

4400 — Contour line drawn on pre-Quaternary erosional surface
Based on information from test holes and wells. Contour interval is 50 feet, datum is mean sea level

● 3659 — Test hole
Drilled in connection with cooperative ground-water investigation by the Conservation and Survey Division of the University of Nebraska and the U. S. Geological Survey. Upper number is test-hole number; lower number is altitude of pre-Quaternary erosional surface

○ 4128 — Well drilled by local resident
Showing altitude of pre-Quaternary erosional surface

× 3740 — Location and altitude of bedrock

A — A′ — Geologic section shown on plate 2

Adapted from map compiled by the Conservation and Survey Division of the University of Nebraska

MAP SHOWING AREAL GEOLOGY AND TOPOGRAPHY OF THE ROCKS BENEATH THE QUATERNARY DEPOSITS IN THE LOWER LODGEPOLE CREEK VALLEY, NEBRASKA

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