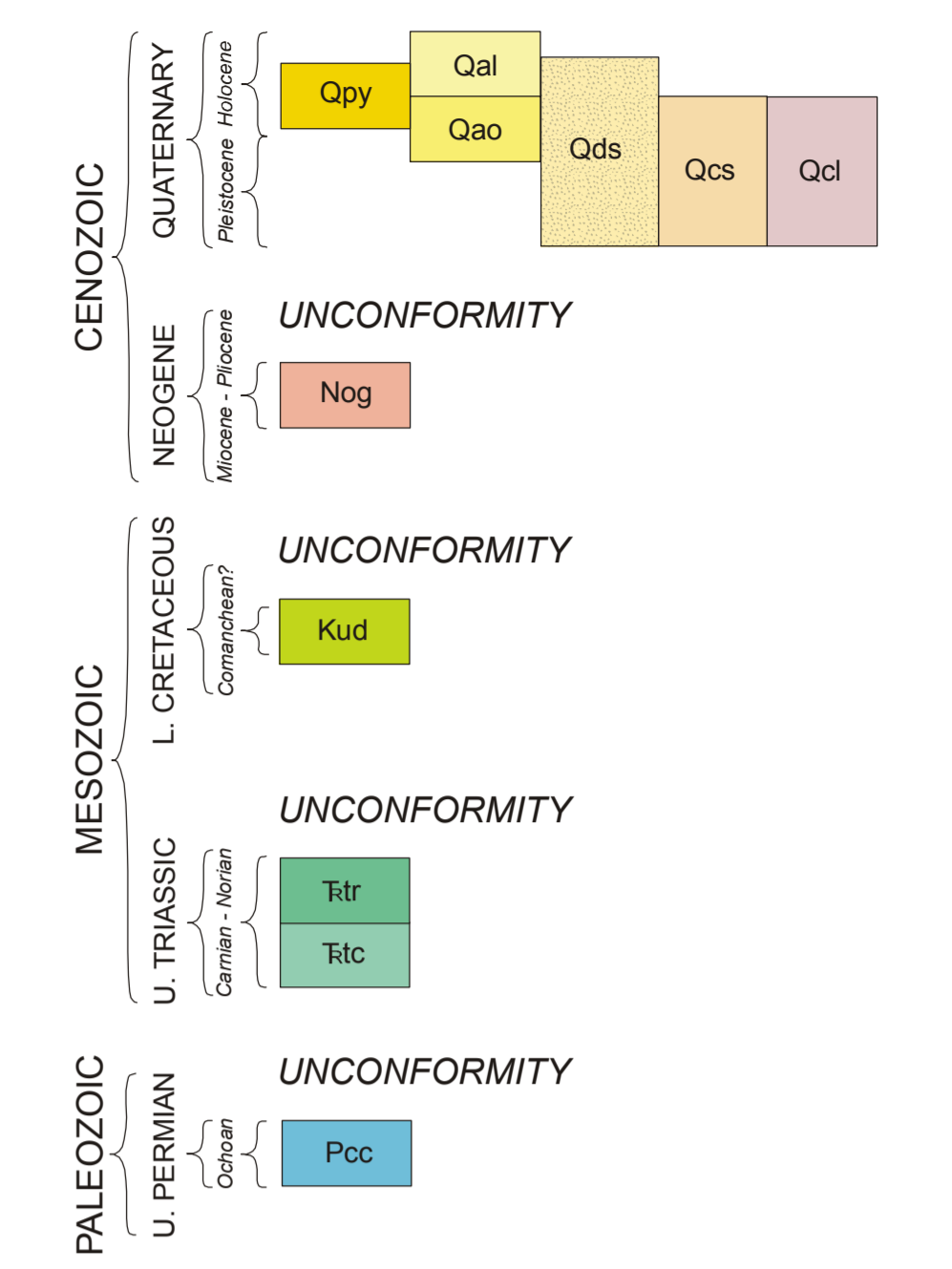


CORRELATION OF UNITS



DESCRIPTION OF UNITS

- Qal** ALLUVIUM—Unconsolidated sand, silt, clay, and gravel in stream and river channels on modern flood plains
- Qao** OLDER ALLUVIUM—Unconsolidated sand, silt, clay, and gravel in stream and river channels concentrated between 0-12 m above modern flood plains
- Qpy** PLAYA DEPOSIT—Unconsolidated clay and silt in shallow depressions that contain water for variable periods of time. Includes Randall clay and Lofton clay loam soils (Meinders and others, 1961)
- Qds** DUNE SAND—Unconsolidated windblown sand formed into definite vegetated dune structures and ridges
- Qcs** COVER SAND—Featureless sheet of windblown sand with minor silt distinguishable from Qcl only on the basis of soil association. Mapped as Richfield-Dalhart soil association by Meinders and others (1961). May correlate to the Blackwater Draw Formation of Reeves (1976)
- Qcl** COVER LOESS—Featureless sheet of windblown silt with minor sand distinguishable from Qcs only on the basis of soil association. Mapped as Richfield-Uyless soil association by Meinders and others (1961). May correlate to the Blackwater Draw Formation of Reeves (1976)
- UNCONFORMITY**
- Nog** OGALLALA FORMATION—Mostly unconsolidated to weakly cemented, light gray to light brown stream-laid deposits of sand, silt, clay and gravel capped by light-colored caliche. Some fossiliferous freshwater limestone and volcanic ash locally. Where exposed, base may consist of a well-indurated bed of conglomerate with basalt, limestone, and dolomite clasts.
- UNCONFORMITY**
- Kud** CRETACEOUS UNDIVIDED—Chaotic mixture of large blocks of Cretaceous sandstones (probably Dakota Formation and Cheyenne Sandstone) intercalated with Kiowa Shale. Formed from subsurface salt dissolution and collapse into older formations
- UNCONFORMITY**
- Ttr** TRUILLO FORMATION—Yellowish-gray to reddish-brown conglomerate, reddish-brown sandstone, and reddish-orange shale. Basal conglomerate well indurated, consists of fine-grained sandstone, dolomite, and volcanic clasts set in a coarse-grained sand matrix. Sandstones friable, medium-grained, micaceous, lenticular, and laterally gradational into shales
- Ttc** TECOVAS FORMATION—Reddish-brown to brownish-orange siltstone and shale; both rock types poorly exposed, laminated, very micaceous, and laterally intergradational
- UNCONFORMITY**
- Pcc** CLOUD CHIEF FORMATION—Reddish-brown to orangish-brown, locally greenish-gray, shale. Minor thin gypsum and reddish-brown fine-grained sandstone and siltstone toward middle. Rare calcite veining

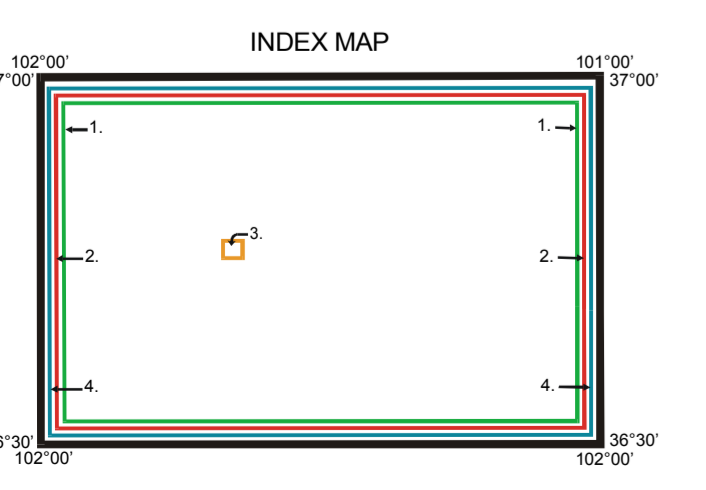
SYMBOLS

Unit contact; approximately located

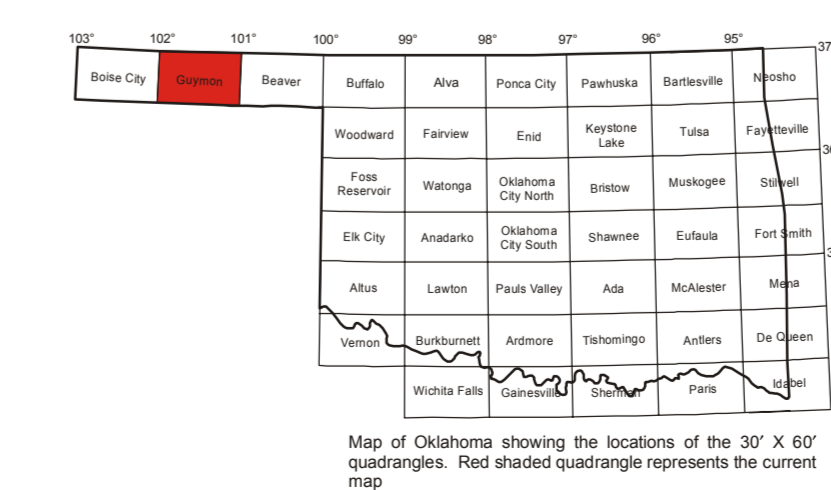
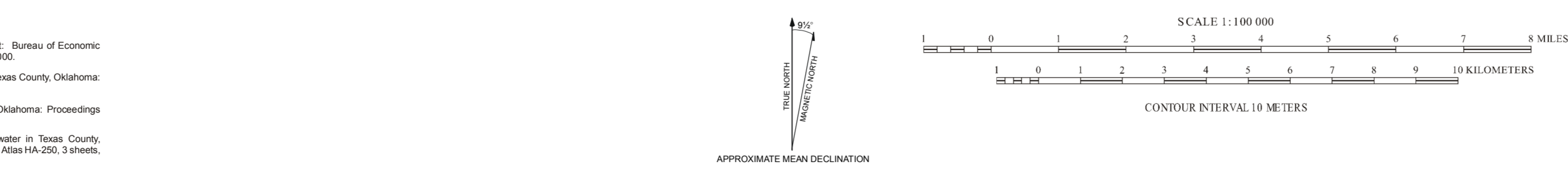
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Base Map Credits
The base map was compiled by the U.S. Geological Survey from 1:24000-scale topographic maps dated 1974. Planimetry revised from aerial photographs taken 1973. Map dated 1982. Universal Transverse Mercator (UTM) projection, 1927 North American Datum, 25,000 meter grid. Grid based on Oklahoma coordinate system, north zone and Kansas coordinate system, south zone. UTM grid, zone 14.

Geologic Map Credits
Geology compiled and field checked by Neil H. Suneson and Thomas M. Stanley, 1998-1999. The northern part of the quadrangle includes the southern part of Morton, Stevens, and Stevens Counties, Kansas. Research supported by the U.S. Geological Survey, National Cooperative Geologic Mapping Program, under Assistance Award Number 50402020. The views and conclusions contained here, however, do not represent the official policies, either expressed or implied, of the U.S. Government. Originally published as Open File Report OF9-2003. Map revised and published as OQG-36. Cartography and layout prepared by G. Russell Standridge, 2002.

Map of Oklahoma showing the locations of the 30' x 60' quadrangles. Red shaded quadrangle represents the current map.

GEOLOGIC MAP OF THE GUYMON 30' X 60' QUADRANGLE,
TEXAS COUNTY, OKLAHOMA
Compiled by Neil H. Suneson and Thomas M. Stanley
Cartography by G. Russell Standridge
2002