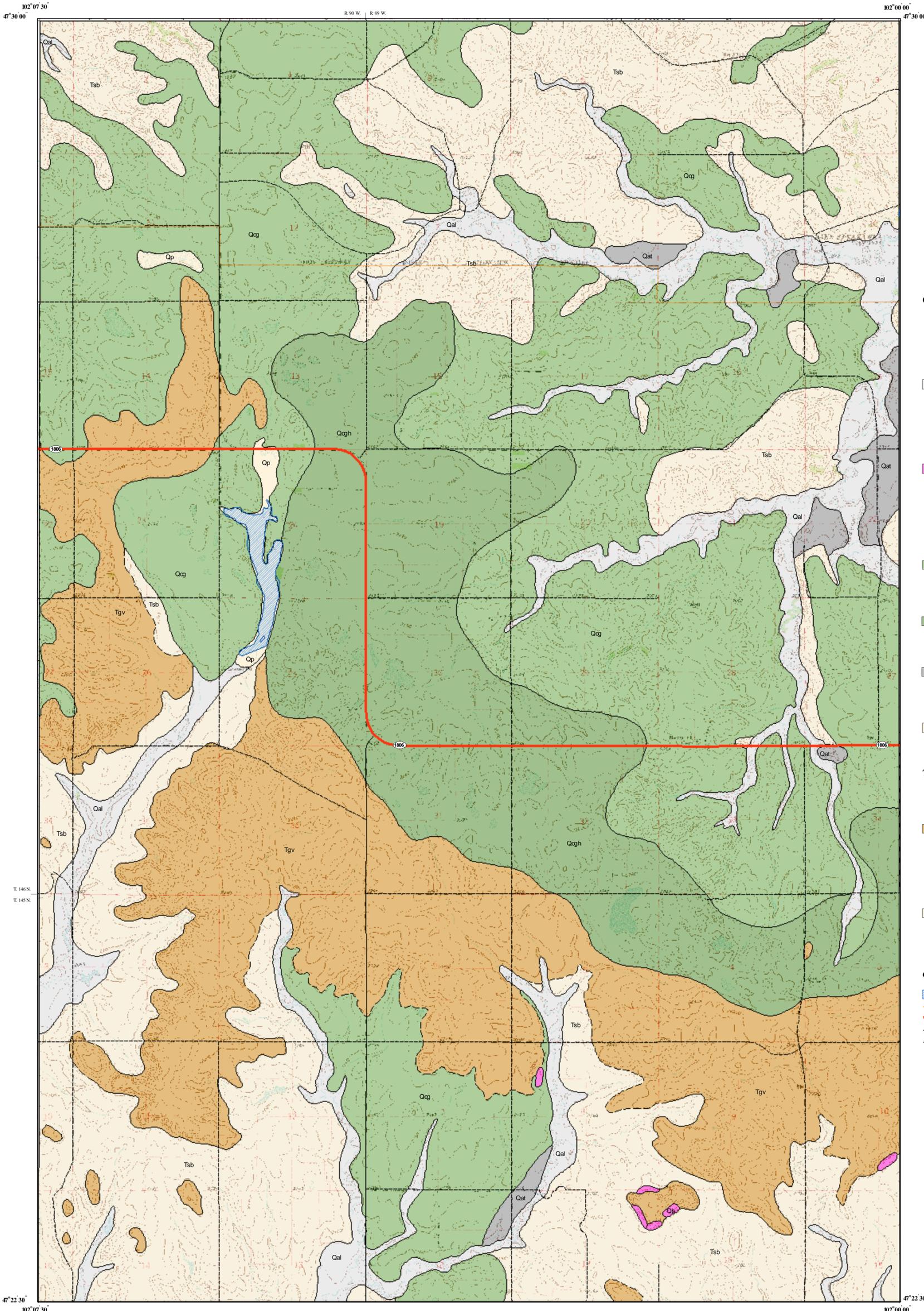


Surface Geology

Golden Valley NE Quadrangle, North Dakota

Edward C. Murphy

2004



UNIT DESCRIPTIONS

QUATERNARY SYSTEM

RECENT

OAHE FORMATION

Qal Alluvium

Brownish gray to black sand, silt, clay, and lenses of gravel; floodplain deposits (typically less than 30 feet thick) along recent drainages. Not differentiated where it overlies Qac.

RECENT/PLEISTOCENE

Qls Landslide Deposits

Variable mixture of strata and deposits that have slid to the base of steep slopes.

PLEISTOCENE

COLEHARBOR GROUP

Qcg Glacial Deposits

Grayish brown, sandy, silty, bouldery clay with lenses of sand and gravel (glacial till). May occasionally include thick deposits of glacial outwash. Generally preserved as a veneer in the uplands.

Qcgh Hummocky Glacial Deposits

Glacial deposits which have an irregular surface that contains numerous, small undrained depressions (hummocks). The hummocks are easily identified on aerial photographs.

Qat Terrace Deposits

Five- to 20-foot-thick layers of sand and gravel (consisting primarily of siltcrete, chert, flint, agate, petrified wood, siltstone) found beneath flat to gently undulating slopes adjacent to many of the major creeks and rivers.

Qp Pediment Deposits

Slopes inclined away from the Killdeer Mountains, capped with layers of gravel consisting primarily of carbonate and chert cobbles and gravel.

TERTIARY SYSTEM

EOCENE-PALEOCENE

Tgv GOLDEN VALLEY FORMATION

Camels Butte Member:

Alternating beds of yellowish brown to brown, micaceous sandstone, siltstone, mudstone, claystone, and lignite.

Bear Den Member:

Brightly colored, kaolinitic claystone, mudstone, and sandstone typically overlain by a thin silicious bed (siltcrete) or lignite.

Tsb SENTINEL BUTTE FORMATION

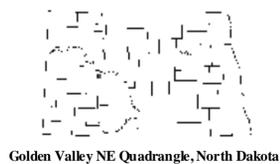
Alternating beds of grayish brown to gray sandstone, siltstone, mudstone, claystone, and lignite.

Other Features

-  Water - Intermittent
-  Tribal Boundary
-  State Highway
-  Paved Road
-  Unpaved Road

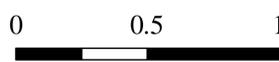
Geologic Symbols

-  Known contact between two geologic units
-  Approximate contact between two geologic units



Golden Valley NE Quadrangle, North Dakota

Scale 1:24,000



Miles

Lambert Conformal Conic Projection
Standard Parallels 47°22'30" and 47°30'00"

The North Dakota Geological Survey compiled this map according to conventional cartographic standards, using what is thought to be the most reliable information available. The North Dakota Geological Survey does not guarantee freedom from errors or inaccuracies and disclaims any legal responsibility or liability for interpretations made from the map, or decisions based thereon. This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program.