

# Surface Geology

## Dunn Center NE Quadrangle, North Dakota

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### UNIT DESCRIPTIONS

#### QUATERNARY SYSTEM

##### RECENT/PLEISTOCENE

**Qls** **Landside 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.

**Qsc** **Glacial Channels**  
Generally contain less than 50 feet of channel fill deposits (sand and gravel, silt, and clay) typically much narrower than the proglacial channels. Overlain by Recent alluvium of variable thickness.

#### TERTIARY SYSTEM

##### EOCENE-PALEOCENE

##### GOLDEN VALLEY FORMATION

**Tgv** **Camels Butte Member:**  
Alternating beds of yellowish brown to brown, micaceous sandstone, siltstone, mudstone, claystone, and lignite.  
**Bear Den Member:**  
Brightly colored, kaolinic claystone, mudstone, and sandstone typically overlain by a thin siliceous bed (siltcrete) or lignite.

##### SENTINEL BUTTE FORMATION

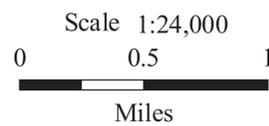
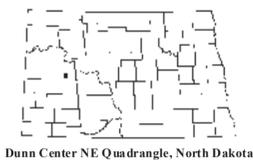
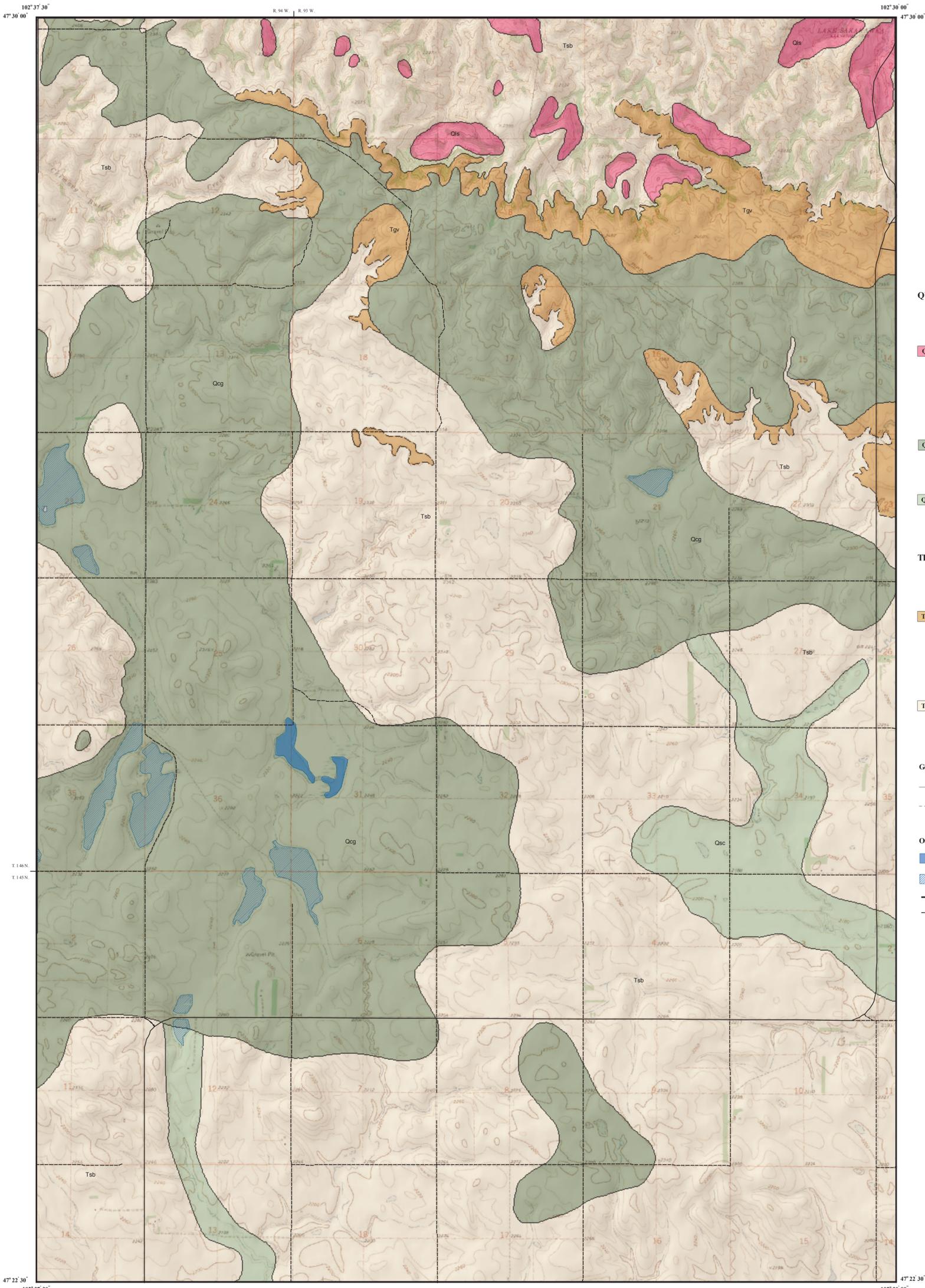
**Tsb** Alternating beds of grayish brown to gray sandstone, siltstone, mudstone, claystone, and lignite.

#### Geologic Symbols

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

#### Other Features

- Water
- Water - Intermittent
- Paved Road
- Unpaved Road



This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program.