

# Surface Geology

## Killedeer Mountains Quadrangle, North Dakota

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### 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

**Qk** Landslide Deposits  
Variable mixture of strata and deposits that have slid to the base of steep slopes.

##### PLEISTOCENE

##### COLEHARBOR GROUP

**Qp** Pediment Deposits  
Slopes inclined away from the Killedeer Mountains, capped with layers of gravel consisting primarily of carbonate and chert cobbles and gravel.

#### TERTIARY SYSTEM

##### MIOCENE-OLIGOCENE

**Ta** ARIKAREE FORMATION  
Buff-colored tuffaceous sandstone, siltstone, and fresh water carbonate.

##### EOCENE

**Tc** CHADRON FORMATION  
Sandy and pebbly mudstone and clayey sandstone.

##### 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 (silkrete) or lignite.

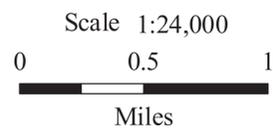
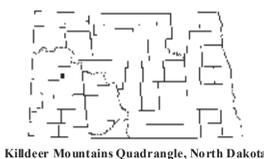
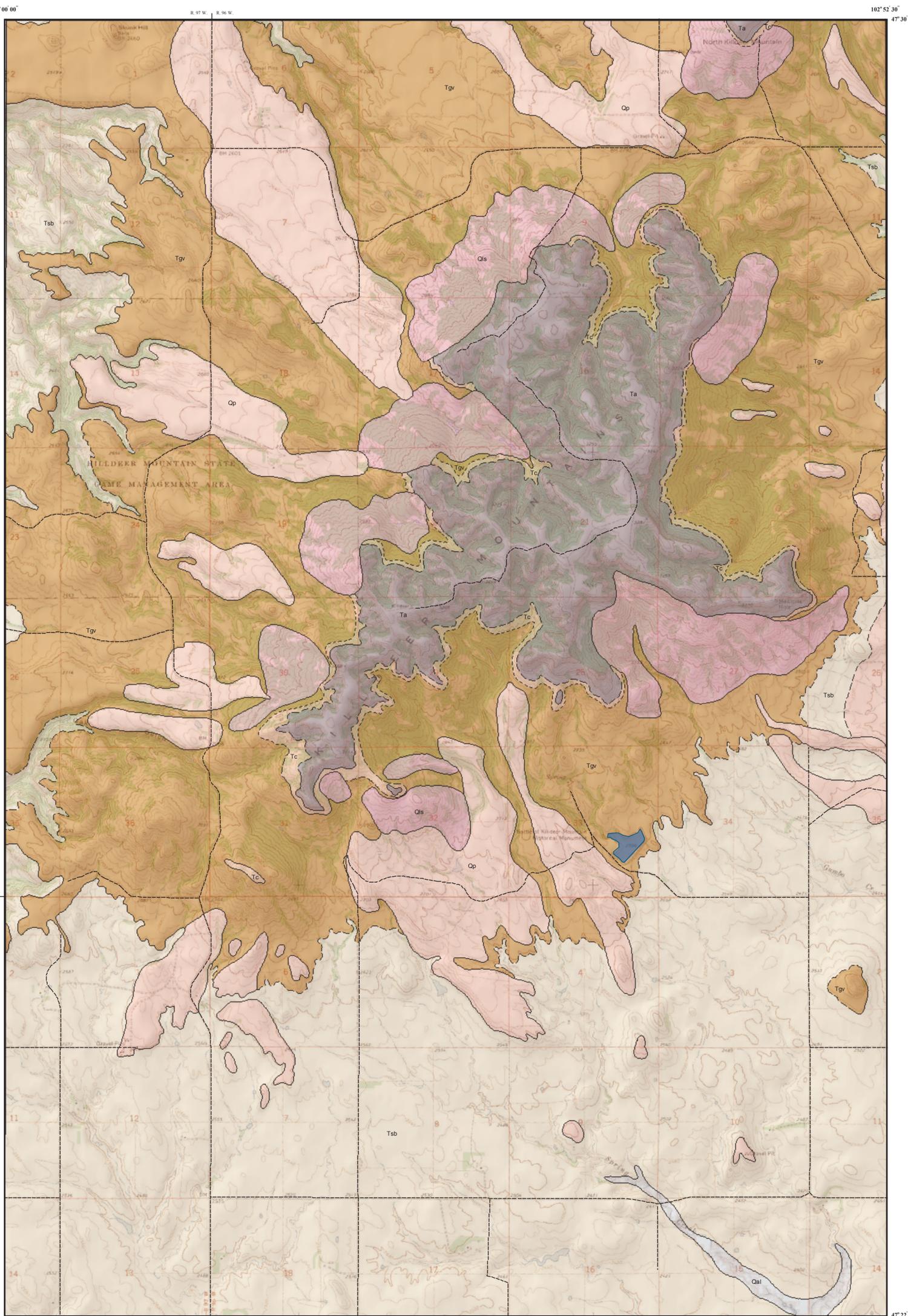
**Tsb** SENTINEL BUTTE FORMATION  
Alternating beds of grayish brown to gray sandstone, siltstone, mudstone, claystone, and lignite.

#### Geologic Symbols

- Known contact between two geologic units.
- - - Approximate contact between two geologic units.
- ..... Inferred (unknown) contact between two geologic units.

#### Other Features

- Water
- Paved Road
- Unpaved Road



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