North Dakota Geological Survey
24K: Brlg - sg

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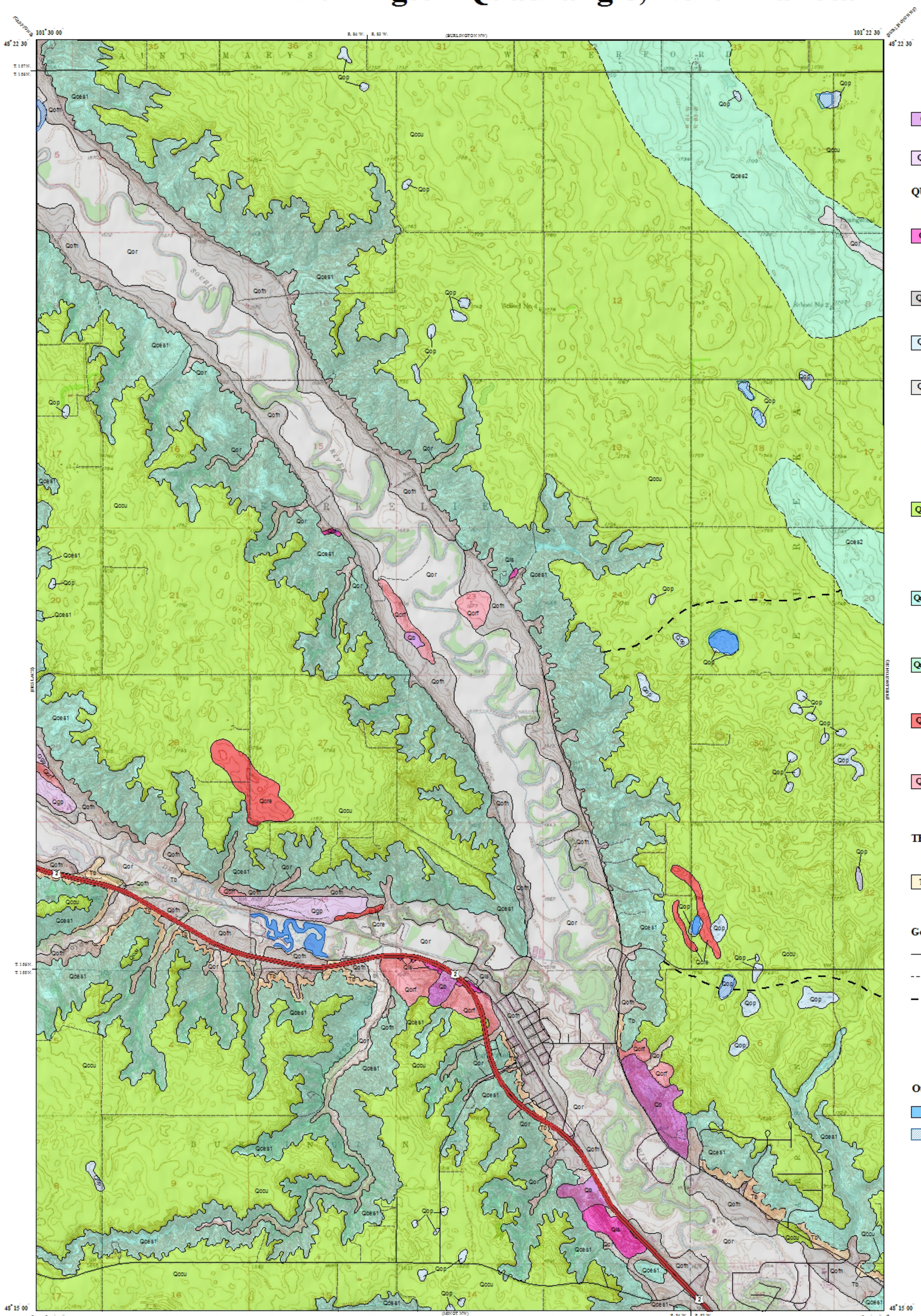
Surface Geology

Burlington Quadrangle, North Dakota

Lorraine A. Manz
2006



EXPLANATION

Qb — **Borrow Area (abandoned and/or reclaimed)**

Includes gravel pits and disused mine workings.

Qgp — **Borrow Area (active)**

QUATERNARY SYSTEM

HOLOCENE

Qls — **Landslide**

A mass of glacial and/or preglacial material that has slumped downslope.

OAHE FORMATION

Qofn — **Alluvial Fans**

Dark, obscurely bedded clay and silt deposited by ephemeral streams on sloping surfaces near the mouths of coulees.

Qop — **Pond and Slough Sediment**

Clay, silt, and organic debris; obscurely bedded; dark colored; deposited in modern ponds and sloughs.

Qor — **River Sediment**

Dark, occasionally cross-bedded overbank sediment deposited on the floodplains of modern streams. Contains some sand and gravel (channel sediment).

PLEISTOCENE

COLEHARBOR GROUP

Ice-Contact Deposits

Qccu — **Till**

Poorly sorted, unbedded mixture of rock, cobbles, pebbles, gravel, sand, silt, and clay deposited by active and stagnating ice. Flat to undulating topography with poorly to moderately well-integrated drainage. Subdued disintegration features visible on air photos.

Glaciofluvial Sediment

Qcesl — **Stream-Eroded Glacial Sediment**

Unbedded, poorly sorted rock, cobbles, gravel, sand, silt, and clay with patches of bedded sand and silty sand. Steeply sloping, bouldery surface found mainly along the slopes of the Des Lacs and Souris River valleys and their tributaries.

Qcesl2 — **Stream-Eroded Glacial Sediment**

Unbedded, poorly sorted rock, cobbles, gravel, sand, silt, and clay with patches of bedded sand and silty sand. Nearly flat surface, bouldery in places.

Qcre — **Ice-Contact Fluvial Deposits**

Poorly to well-sorted sand and gravel intermixed with cobbles, boulders and till. Cross-bedding, laminae, and soft-sediment deformation structures common. Includes eskers and kames.

Qcrf — **Channel Sediment**

Moderately well-sorted, cross-bedded and plane-bedded sand and gravel deposited as point bars and outwash. Includes cobble and boulder-laden sediments of the Des Lacs and Souris spillways.

TERTIARY SYSTEM

PALEOCENE

Tb — **BULLION CREEK FORMATION**

River, lake and swamp sediment. Yellow-brown sand, silt, clay, and lignite.

Geologic Symbols

——— Known contact between two geologic units

- - - - - Approximate contact between two geologic units

— — Boundary between different-age glacial deposits. Sediments outside the broken lines were deposited during a readvance of the Souris Lobe of the Late Wisconsinan Laurentide ice sheet about, 12,000 years ago. The till is texturally and lithologically similar, but slightly younger by a few hundred years, than the till confined with the demarcated area.

Other Features

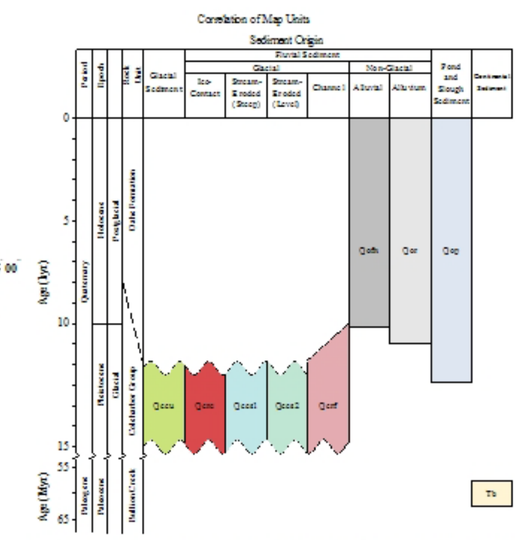
Water

Water, Intermittent

Federal Highway

Paved Road

Unpaved Road



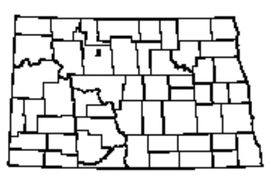
Scale 1:24,000

0 0.5 1

Miles

Lambert Conformal Conic Projection Standard Parallels 48° 15 00" and 48° 22 30"
1927 North American Datum NGVD 1929
USGS 7.5 Minute Topographic Map Contour Interval 5 Feet
Road and Hydrologic Layers Rectified to 2003 NAIP Digital Orthophoto

12°
MN
1979 Magnetic North
Declination at Center of Sheet



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Cartographic Compilation: Elroy L. Kadrmas

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