North Dakota Geological Survey
24K: Brmn - sg

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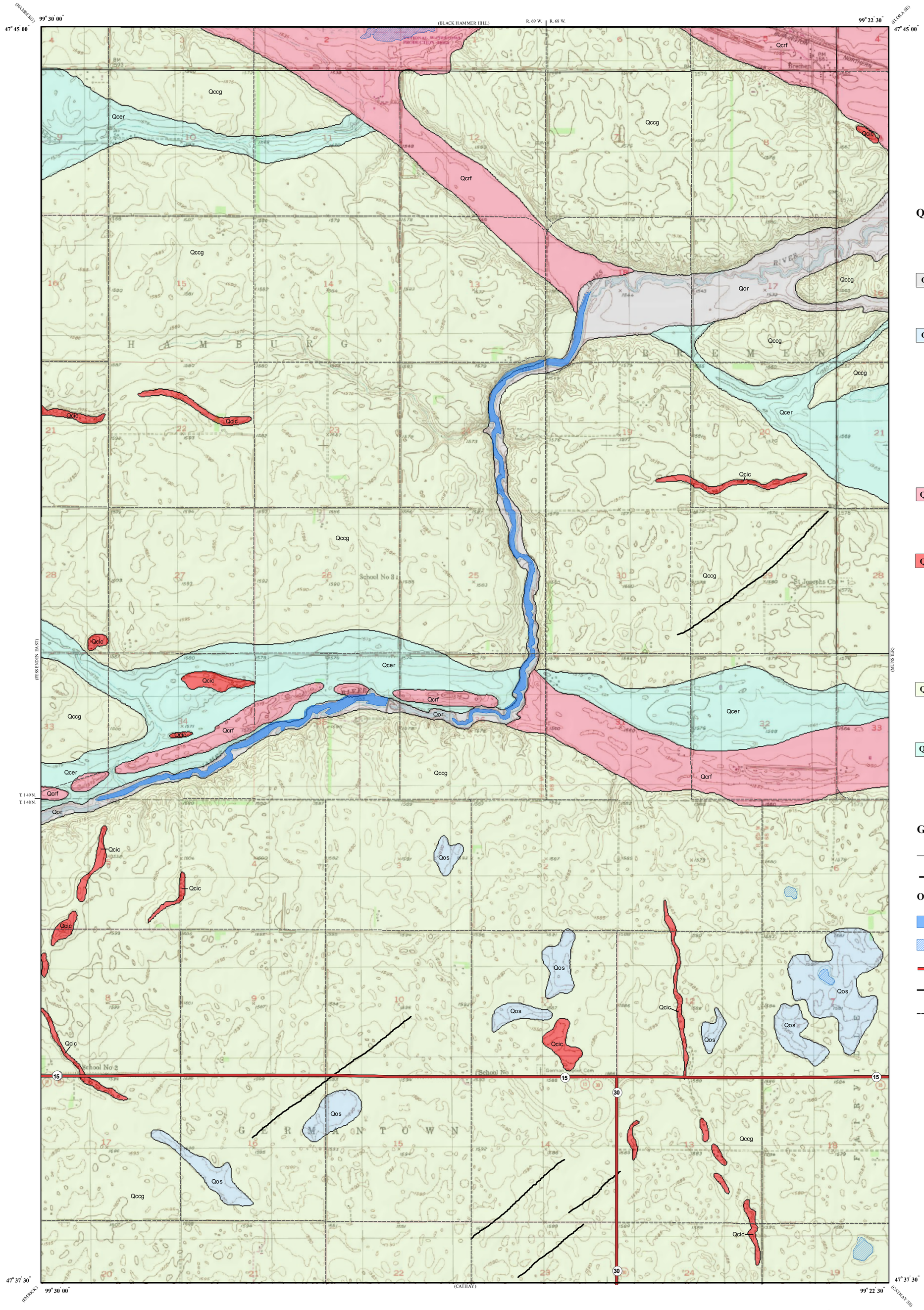
Surface Geology

Bremen Quadrangle, North Dakota



John P. Bluemle
2006

EXPLANATION

QUATERNARY SYSTEM

RECENT

OAHE FORMATION

Qor **Alluvium**

River and stream sediment. Dark obscurely bedded clay and silt (mainly overbank sediment); generally overlying cross-bedded sand (channel sediment); on plains of modern streams.

Qos **Pond and Slough Sediment**

Dark, obscurely bedded clay and silt; in modern ephemeral ponds.

PLEISTOCENE

COLEHARBOR GROUP

Silt Facies

(Insignificant amounts of this facies on this quadrangle)

Sand and Gravel Facies

River sediment. Moderately well-sorted, cross bedded sand and plane-bedded gravel, including sediment of meltwater rivers.

Qcrf **Uncollapsed Flat Fluvial Plains**

Flat-bedded sediment of nearly level plains and river terraces, commonly with braided channel scars, oxbows, and other relict markings; relief of 1 to 10 feet.

Qcic **Ice-Contact Deposits**

Mainly gravel and sand with cobbles and boulders common; inclusions of glacial sediment common; local relief up to 50 feet; eskers and kames.

Till Facies

Glacial sediment. Unsorted, unbedded mixture of angular, subangular, and rounded blocks of rock, gravel, and sand, generally in a stiff matrix of silt and clay; yellowish-brown to olive-gray in exposures depending on weathering intensity; contains discontinuous lenses of gravel and sand.

Qccg **Collapsed Glacial-Gently Undulating**

Spuraglacial sediment with hummocky topography; areas of linear topography and ice-thrust topography interspersed; gently undulating with 1 to 2 degree maximum slopes.

Qcer **River-Eroded Glacial Sediment**

Glacial sediment with flat to undulating topography resulting from stream erosion in the bottom of large meltwater trenches or over board areas of till that have been washed by running water; overlain by a thin layer of fluvial sediment of the Coleharbor group or Oahe Formation in places.

Geologic Symbols

Known contact between two geologic units

Transverse Ridge

Other Features

Water

Water - Intermittent

State Highway

Paved Road

Unpaved Road

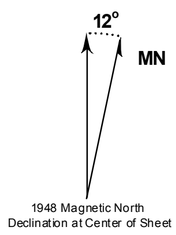
Bremen Quadrangle, North Dakota

Scale 1:24,000

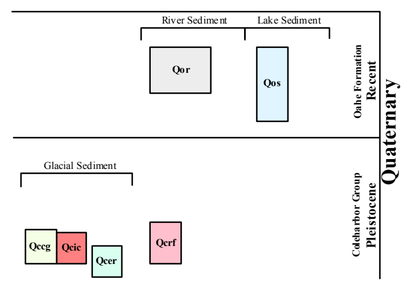
0 0.5 1

Miles

Lambert Conformal Conic Projection Standard Parallels 47° 37' 30" and 47° 45' 00"
1927 North American Datum NGVD 1929
USGS 7.5 Minute Topographic Map Contour Interval 5 Feet
Roads and Hydrologic Layers Rectified to 2003 NAIP Digital Orthophoto



1948 Magnetic North
Declination at Center of Sheet



Cartographic Compilation: E.L.Kadrmas & S.S.Kranich

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