North Dakota Geological Survey
Geologic Investigations No. 271 Plate II

North Dakota Geological Survey
Edward C. Murphy, State Geologist

Offshore Glaciolacustrine Deposits of Glacial Lake Agassiz: The Brenna Formation in Grand Forks County, North Dakota

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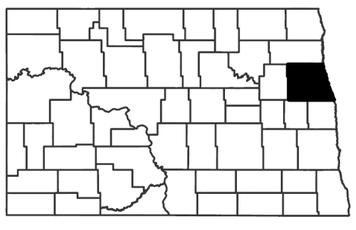
2023

DEPTH TO BRENNA FORMATION

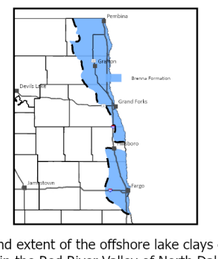
This map depicts the depth of the Brenna Formation in the shallow subsurface in Grand Forks County. Depth to the top of the Brenna Formation is shown as colored isopach contour intervals modeled from test hole, water well, and deep-foundation drilling data. The Brenna Formation was only deposited in the eastern part of the county and covers an area of 414 square miles (1,072 km^2). It is more laterally extensive north of the city of Grand Forks and less extensive to the west and south of the city. The Brenna Formation generally occurs at depths of 15-20 feet (4.6 – 6.1 m) but may be as deep as 35 feet (10.7 m) in the northeastern corner of the county.

Depth Contour (feet bls)

- < 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 -35
- > 35



Grand Forks County, North Dakota



Location and extent of the offshore lake clays of the Brenna Formation in the Red River Valley of North Dakota.

Scale 1:125,000

0 1.5 3 4.5 6

Miles

0 1.5 3 4.5 6

Kilometers

Mercator Projection
Standard Parallel 47°41'15"N

North American 1983 Datum
Central Meridian 97°26'15"W

N W E S

Cartographic Compilation: Navin Thapa