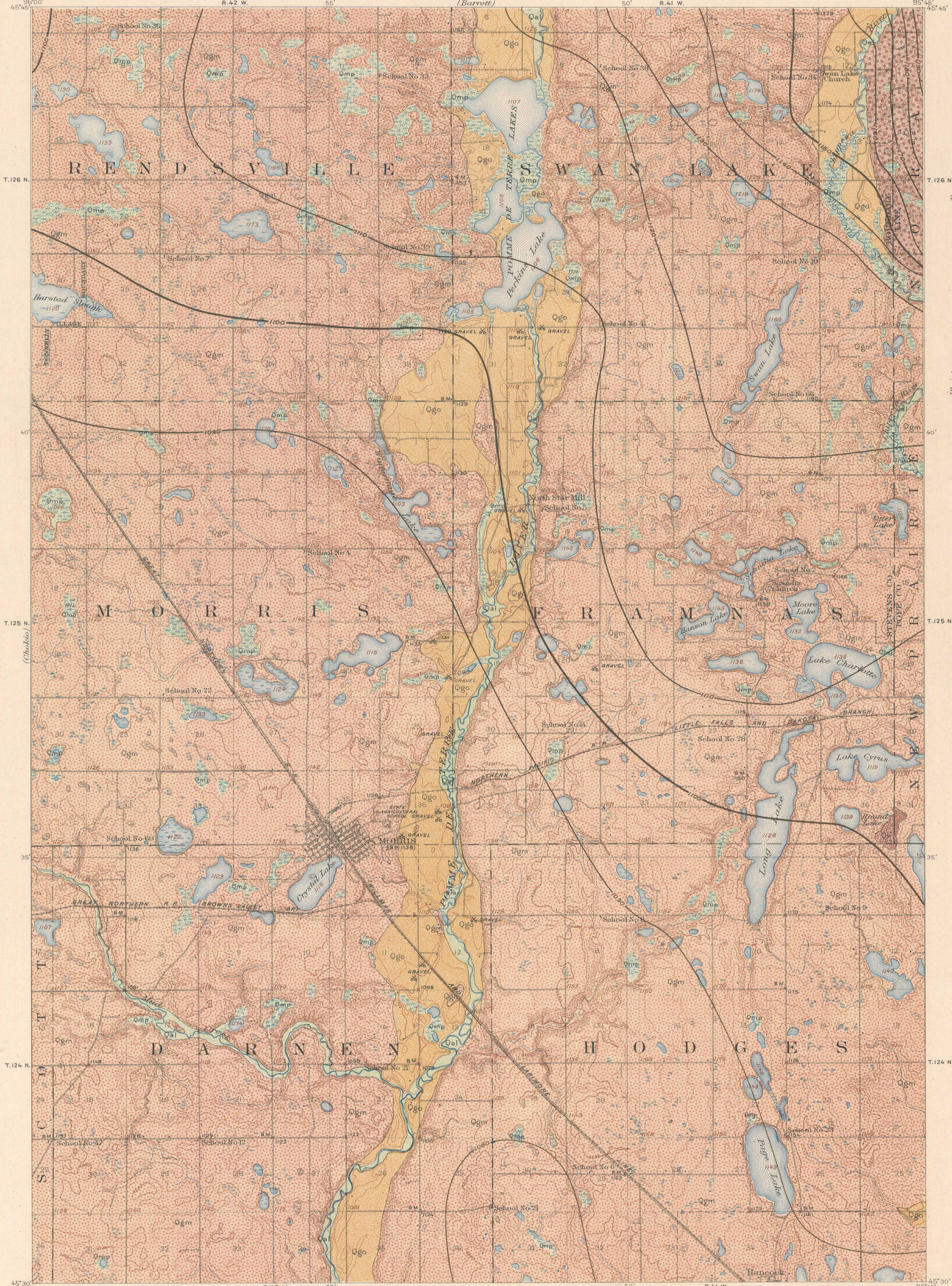


AREAL GEOLOGY

STATE OF MINNESOTA  
MINNESOTA GEOLOGICAL SURVEY  
W. H. EMMONS, DIRECTOR  
(Barrett)

MINNESOTA  
MORRIS QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

(Areas of subaerial deposits are shown by patterns of dots and circles)

Qmp

Muck and some peat (marsh land)

Qal

Alluvium (shown only along the larger streams)

Qgo

Glacial outwash (gravel deposited by glacial drainage and former gravel pits)

Qk

Kames (gravel hills or steep knolls)

Qgm

Ground moraine (all plain, with flat to gently undulating surface)

Qm

Terminal moraine (all and gravel materials with undulating to hilly surface)

ECONOMIC DATA

GRAVEL Gravel pits

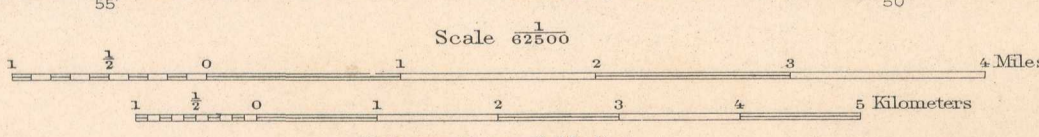
CLAY Clay pits

1000

Underground-water contours (showing approximate elevation to which water from deeper part of drift will rise. In certain flowing wells which have exceptionally favorable conditions water rises higher than the elevations indicated by the contours)

Economic note: Gravel for road material and sand for building may be obtained from glacial outwash, clay for brick from local deposits in the ground moraine, foundation stones from boulders in the terminal and ground moraines. Flowing wells may be expected in the valley of Rensselaire River as indicated by the underground-water contours.

R. B. Marshall, Chief Geographer.  
W. H. Heron, Geographer in charge.  
Topography by C. H. Nelson and E. L. Jain.  
Control by E. M. Douglas and G. E. Halstead.  
Surveyed in 1910.



Scale 48500  
Contour interval 10 feet.  
Datum is mean sea level.  
Edition of April 1917

Geology by F. W. Sardeson.  
Surveyed in 1912.  
SURVEYED IN COOPERATION WITH THE STATE OF MINNESOTA.

SURVEYED IN COOPERATION WITH THE STATE OF MINNESOTA.