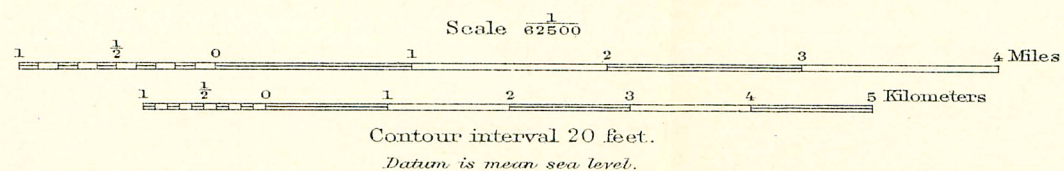


- LEGEND**
- Mine dumps
 - Sand dunes
(wind-blown sand on 620-foot and Lake Morris flats)
 - Alluvium
(in flood plains of present streams)
 - Earlier alluvium
(sand and gravel of Illinois valley during outlet stage)
 - Stream terrace deposits
(poorly assorted sand and gravel on terraces)
 - Cryder Lake beach
 - Lake Morris beach and associated sands and silts
 - Heavy Moraine
(terminal moraine of Minooka ice, except the ridges near Aux Sable Creek)
 - Ground moraine
(ground moraine of Marseilles ice)
 - Gravel knolls
(small hills of sand and gravel related to recession stage of Marseilles ice)
 - UNCONFORMITY
 - Carbonale formation
(sandy shales and Waupese sandstone in the upper part; black shales, fire clay with local coal beds, calcareous shales, and Morris [No. 2] coal at base, comprising lower part)
 - Pottsville formation
(sandstones, sandy shales, fire clay, and local coal beds)
 - UNCONFORMITY
 - Maquoket formation
(limestone member, massive to thin bedded, medium to coarse texture, highly fossiliferous, weathering pink)
 - Galena-Platteville formation
(dolomite, gray, weathering buff, pyritic, and locally fossiliferous; no exposure of Platteville recognized)
- Clay pit, Quaternary
 - Sand and gravel pits
 - Surface wells
 - Artesian wells
 - Coal tests
 - Striae

Topographic base map surveyed in cooperation with U. S. Geological Survey



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 TRUE NORTH
 MAGNETIC NORTH
 APPROXIMATE MEAN DECLINATION 1910.

Geology by H. E. Culver
 Surveyed in 1920

SURFICIAL GEOLOGY AND ROCK OUTCROPS OF THE MORRIS QUADRANGLE