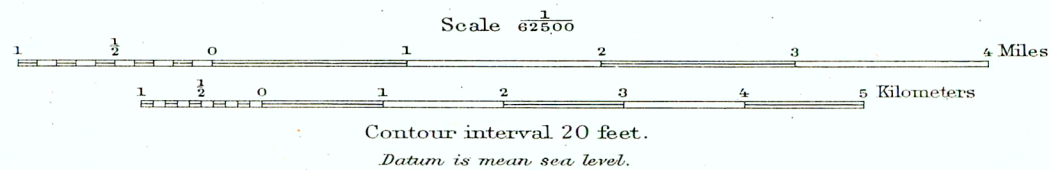


Topographic base surveyed in cooperation
with the U. S. Geological Survey, 1916.

SURFICIAL GEOLOGY OF THE MARSEILLES QUADRANGLE

BY
H. B. WILLMAN

Geologically surveyed in 1929-1941



- LEGEND**
- Mine dumps and waste piles
 - Stream alluvium
 - Slope-wash and alluvial fans
 - Sand dunes
 - Ottawa terrace
(Qo, thick deposits of sand and gravel; Qm, thin deposits on Marseilles drift; Fo, thin deposits on Pennsylvanian)
 - Cryder Lake shoreline
 - Sulphur Springs terrace
 - Wedron terrace
 - Serena terrace
 - Buffalo Rock terrace
(Thin deposits on Marseilles drift)
 - Lake Morris
(Approximate position of shoreline)
 - Kankakee Torrent
(Boundaries of erosional channels and terraces)
 - Lake Wauponsee
(Approximate position of highest shoreline)
 - Lake Ottawa
(Approximate position of highest shoreline)
 - Lake Lisbon
(Approximate position of highest shoreline)
 - Lake Lisbon deltas
 - Marseilles ground-moraine
(Includes small areas of older drift along Illinois Valley)
 - Subglacial and marginal drainage channels of Marseilles age
 - Eskers and kames of Marseilles age
 - Marseilles inner moraine
(Includes small areas of older drift along Illinois Valley; Qm, Ottawa terrace on Marseilles drift; Qmb, Buffalo Rock terrace on Marseilles drift)
 - Marseilles outer moraine
 - Farm Ridge ground-moraine
(Includes small areas of older drift along Fox Valley)
 - Lake Illinois deltas of Farm Ridge and Marseilles ages
 - Pennsylvanian system
(P, outcrops and areas with thin cover of soil or slumped material; Fo, Ottawa terrace on Pennsylvanian)
 - St. Peter sandstone
(Outcrops and areas with thin cover of soil and slumped material)