

SOILS OF VINCENNES QUADRANGLE
LAWRENCE COUNTY, ILLINOIS AND KNOX COUNTY, INDIANA

Department of Natural Resources
ILLINOIS STATE GEOLOGICAL SURVEY
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Compiled by U.S. Department of Agriculture, Natural Resources Conservation Service
and Illinois State Geological Survey
2004

Illinois Preliminary Geologic Map
IPGM Vincennes-S



Soil Types

Illinois

- 308B Alluvial silt loam, frequently flooded
- 308C Alluvial silt loam, 2 to 4% slopes
- 308C2 Alluvial silt loam, 2 to 4% slopes
- 308C3 Alluvial silt loam, 7 to 12% slopes, sev. eroded
- 308C4 Alluvial silt loam, 12 to 18% slopes, sev. eroded
- 308C5 Alluvial silt loam, 12 to 18% slopes, sev. eroded
- 308C6 Alluvial silt loam, 4 to 7% slopes, eroded
- 308C7 Alluvial silt loam, 7 to 12% slopes, eroded
- 308C8 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C9 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C10 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C11 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C12 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C13 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C14 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C15 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C16 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C17 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C18 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C19 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C20 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C21 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C22 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C23 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C24 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C25 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C26 Alluvial silt loam, 18 to 30% slopes, eroded
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- 308C96 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C97 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C98 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C99 Alluvial silt loam, 18 to 30% slopes, eroded
- 308C100 Alluvial silt loam, 18 to 30% slopes, eroded

Indiana

- A10 Alluvial silt loam, 2 to 6% slopes
- A102 Alluvial silt loam, 2 to 6% slopes, eroded
- AC2 Alluvial silt loam, 6 to 12% slopes, eroded
- AC3 Alluvial silt loam, 12 to 18% slopes, severely eroded
- ArB Alluvial fine sandy loam, 2 to 6% slopes
- ArC Alluvial fine sandy loam, 6 to 12% slopes
- ArD Alluvial fine sandy loam, 12 to 18% slopes
- ArE Alluvial fine sandy loam
- BB Bloomfield loamy fine sand, 2 to 10% slopes
- BD Bloomfield loamy fine sand, 12 to 18% slopes
- CHC Chelsea loamy fine sand, 4 to 10% slopes
- CoA Concretion sandy loam, 0 to 3% slopes
- Ed Edwards variant muck, drained
- ES Alluvial sandy loam, 2 to 6% slopes
- Ha Haymond silt loam, frequently flooded
- HB Haymond silt loam, rarely flooded
- Haymond Variant loamy sand, frequently flooded
- Ko Kings silt clay
- La Landis loamy sand
- Lo Lomax loam
- Ly Lyles fine sandy loam
- Na Nolin silt clay loam, rarely flooded
- PS Patton silt loam
- Pe Petrolia silt clay loam, frequently flooded
- Rea Reesville silt loam, 0 to 2% slopes
- Sa Selma loam
- Sa Selma clay loam
- SDA Stockland sandy loam, 0 to 2% slopes
- SylB2 Sylvan silt loam, 2 to 6% slopes, eroded
- SylC3 Sylvan silt loam, 6 to 12% slopes, severely eroded
- SylD3 Sylvan silt loam, 12 to 18% slopes, severely eroded
- SylF Sylvan silt loam, 25 to 40% slopes
- Ud Udorthen, gently sloping
- Vn Vincennes loam
- Wa Wakefield silt loam, frequently flooded
- Zp Zipp silt clay
- Zp Zipp silt clay, frequently flooded
- Water - Rivers

Introduction

This map of the soils of the Vincennes 7.5 minute Quadrangle is a recompiled and rerelated update of part of the original soil surveys for Lawrence County, IL (Fehrenbacher and Odell 1956) and Knox County, IN (Kelly 1981). It was produced specifically for an Illinois State Geological Survey (ISGS) mapping project (Endres, 1997) under agreement with the U.S. Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS). The soils were updated using the 1988 soil legend for Lawrence County. Because this update affected only the soils on this map (both IL and IN side), we are publishing this map to make available the most recent interpretation of the soils on the quadrangle. In addition, this quadrangle straddles the IL-IN state boundary and this soil map would never be issued as a two-state map by the USDA-NRCS. The soil survey for Lawrence County is very old. A large number of soil series were found to be obsolete and were replaced with modern equivalents during the reclassification. Only a few minor changes were made to the Knox County soil survey.

Using the Updated Soil Map

The USDA-NRCS provided the ISGS with a recompiled soil map and an updated list of the soil series. We digitized and entered into a GIS the individual soil polygons and developed a database that contained various attributes. Each soil series was assigned the same color even when the soil occurred in both Illinois and Indiana. This reduced the number of colors. The individual polygons are retained and labeled, however, so that the detailed information about soil slope and erosion class (e.g., 286C2) is available. Additional information associated with each soil series, such as engineering limitations, agricultural and wildlife capabilities, and soil texture and profile characteristics, can be obtained either from the individual county soil surveys or from local USDA-NRCS and county soil conservation offices.

Different soils develop due to various interacting factors. On this map, different soils have developed mainly due to differences in slope, drainage, and parent material (the geologic sediment in which the soil is developing). The soil series shown on this map can be grouped by many attributes to make other maps such as a parent material map. The parent materials then can be grouped by their texture and geologic origin to make a map of surficial geology (Quaternary geology).

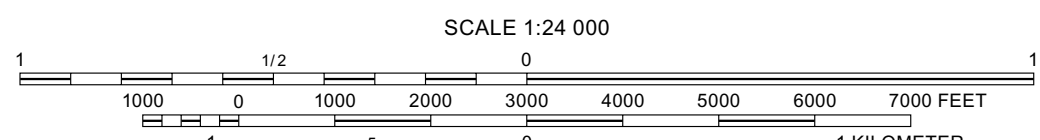
References

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- Fehrenbacher, J. B. and R. T. Odell, 1956, Lawrence County soils. University of Illinois, Agricultural Experiment Station Soil Report 78, 91 p.
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- Kelly, Leo A., 1981, Soil survey of Knox County, Indiana. U.S. Department of Agriculture-Natural Resources Conservation Service, 158 p.

Base map compiled by Illinois State Geological Survey from data provided by the United States Geological Survey. Topography compiled from imagery dated 1958 and 1962 and planimetric surveys 1961 and 1965. Planimetry derived from imagery taken 1967 and other sources. Photorevised using imagery dated 1996.

North American Datum of 1983 (NAD 83)
Projection: Transverse Mercator
10,000-foot ticks: Illinois State Plane Coordinate system, east zone and Indiana State Plane Coordinate System, west zone (Transverse Mercator)
1,000-meter grid: Universal Transverse Mercator grid ticks, zone 16

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BASE MAP CONTOUR INTERVAL 10 FEET
NATIONAL GEOGRAPHIC VERTICAL DATUM OF 1929

Released by the authority of the State of Illinois: 2004

Based on a compilation and reclassification by the U.S. Department of Agriculture, and digitizing and GIS development by the Illinois State Geological Survey.

Field checking, editing and text by M. Barnhardt, Illinois State Geological Survey.

Digital cartography by B. Stiff and J. McLeod, Illinois State Geological Survey.

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This Illinois Preliminary Geologic Map (IPGM) is a lightly edited product, subject to less scientific and cartographic review than our Illinois Geologic Quadrangle (IGQ) series. It will not necessarily correspond to the format of IGQ series maps, or to those of other IPGM series maps. Whether or when this map will be upgraded depends on the resources and priorities of the ISGS.

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- Primary highway, hard surface
- Secondary highway, hard surface
- Light duty road, hard or improved surface
- Unimproved road
- Interstate Route
- U.S. Route
- State Route



1	2	3
4	5	
6	7	8

ADJOINING QUADRANGLES
1 Birds
2 Russellville
3 Oaktown
4 Lawrenceville
5 Friction
6 Saint Francisville
7 Decker
8 Iona, IN

APPROXIMATE MEAN DECLINATION, 2004