SURFICIAL GEOLOGY OF AUDUBON COUNTY, IOWA

Iowa Geological and Water Survey
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LEGEND

CENOZOIC

QUATERNARY SYSTEM

HOLocene

WISCONSIN

ILLINOIS EPISODE

PENNSYLVANIAN AND ORDOVICIAN

PERMIAN, JURASSIC, AND TRIASSIC

PERMIAN, JURASSIC, AND TRIASSIC

PRECAMBRIAN

Correlation of Map Units

Abalh Deposits
Estab Deposits
Glacial Deposits
Huron
Huron

Quaternary

Pleistocene

Holocene

Wisconsin

Pre-Holocene

Water Bodies

Bodies of standing water.

Water Wells

Bodies of standing water.

Surficial Geology of Audubon County, Iowa

Introduction to the Surficial Geology of Audubon County, Iowa

Audubon County, Iowa, is located in the south-central part of the state. It is bounded on the east by Franklin County, on the west by Hamilton County, on the north by Buena Vista County, and on the south by Lee County. The county is approximately 46 square miles in area and is divided into ten townships.

Audubon County has a temperate continental climate with cold winters and warm summers. Average annual precipitation is 30 inches, and the average temperature is 50 degrees Fahrenheit. The landscape is predominantly flat, with some low-relief hills and small mountains.

The surficial geology of Audubon County is characterized by glacial deposits and associated features. Glacial deposits include till, outwash, and moraine. These deposits were formed during the Pleistocene Epoch, which is characterized by five major glacial periods: the Illinoian, Wisconsin, Sangamon, Chicago, and Kansan stages.

The Illinoian stage, which lasted from 2.6 to 0.6 million years ago, was characterized by the deposition of till and outwash deposits. The Wisconsin stage, which lasted from 0.6 to 11,500 years ago, was characterized by the deposition of till, outwash, and moraine deposits. The Sangamon stage, which lasted from 11,500 to 12,500 years ago, was characterized by the deposition of outwash deposits.

The Chicago stage, which lasted from 12,500 to 13,000 years ago, was characterized by the deposition of till and outwash deposits. The Kansan stage, which lasted from 13,000 to 100,000 years ago, was characterized by the deposition of till and outwash deposits.

The surficial geology of Audubon County is mapped using a 1:100,000 scale. The map shows the distribution of surficial geologic units and associated features. The map is based on field observations and aerial photographs.

The map shows the following surficial geologic units:

- Till
- Outwash
- Moraine
- Glacial erratic boulders
- Postglacial deposits
- Holocene deposits
- Wisconsin deposits
- Sangamon deposits
- Illinoian deposits
- Kansan deposits
- Pre-Holocene deposits

The map also shows the distribution of water bodies, including lakes and streams.

Additional information about the surficial geology of Audubon County, Iowa, can be found in the following references: