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Introduction

The objective of the USGS Digital Geologic Maps of Northern Alaska project is to produce a set of digital geologic maps with uniform stratigraphic nomenclature and structural annotation, and publish those maps electronically. Maps were compiled from published USGS and DGGS maps and unpublished maps provided by the oil industry, and are augmented and revised by addition of new reconnaissance field data and reinterpretation of modern Color IR aerial photography. Although users may view and analyze data at varying scales, the authors make no guarantee as to the accuracy of the data at scales larger than 1:250,000. Inquiries about this publication should be addressed to:

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Project Description

These digital datasets are a product of the USGS Digital Geologic Maps of Northern Alaska project, which captures in digital format, quadrangles across the entire width of northern Alaska. These maps span the transition from the deformed rocks of the northern foothills of the Brooks Range into the undeformed rocks of the Arctic coastal plain. Rocks exposed in this area are part of the mid-Cretaceous to Tertiary Brookian Sequence, a thick succession of deep marine through nonmarine deposits that fill the Colville foreland basin north of the Brooks Range thrust belt. These strata contain significant reservoir rocks as well as oil- and gas-prone source rocks, and are known to hold petroleum in both stratigraphic and structural traps. Sources include geologic maps previously published in hardcopy format and recent updates and revisions based on field mapping by the Alaska Department of Natural Resources, Division of Geological and

Geophysical Surveys and Division of Oil and Gas, and the U.S. Geological Survey. Release of the digital geologic maps will enhance the regional understanding of the stratigraphy and structure of the Brookian system, and in addition will provide Federal, State, and Native managers with a basic geologic framework for making land- and resource- use decisions in a broad region of the National Petroleum Reserve in Alaska (NPRA) and adjacent State and Native lands.

System Requirements

ArcGIS Desktop 9.X

Windows XP /Windows 2000
CPU Speed:
1.0 GHz recommended or higher
Processor:
Intel Pentium or Intel Xeon Processors
Memory/RAM:
512 MB minimum, 1 GB recommended or higher
Display Color:
Greater than 256 color depth
Swap Space:
300 MB minimum
Disk Space:
Typical 765 MB NTFS, Complete 1040 MB NTFS
Data Disk Space Requirements:
~14MB Geodatabase and associated files (Unzipped)

Getting Started

The Ikpikpuk River quadrangle geodatabase and associated files are bundled in a single downloadable zip file called Ikpikpuk_ArcGIS_9X.zip. To install:

1. Download Ikpikpuk_ArcGIS_9X.zip (~14MB space required) to local hard drive
2. Open with Winzip or other zip utility and click the "Extract" button (highlighting of the individual files is not necessary)
3. Extract contents to a destination on the local hard drive
4. A folder will be created called Ikpikpuk
5. Inside the folder click Ikpikpuk.mxd to launch the map document

Folder Contents

When Ikpikpuk_ArcGIS_9X.zip is extracted, a folder of the quadrangle name is created. The contents of the folder are:

1. Ikpikpuk.mxd – ArcGIS map document that launches the program
2. Ikpikpuk.mdb – ArcGIS geodatabase containing comprehensive spatial data
3. Ikpikpuk.mxd.xml – Bundled metadata files viewable and exportable through ArcCatalog (recommended) or XML editor

Metadata

Each feature class has associated metadata that is viewable and exportable through ArcCatalog. To view the metadata file, simply click on the feature class in ArcCatalog and then click the Metadata tab.