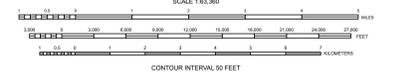
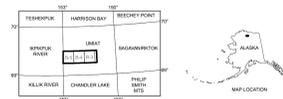


GEOLOGIC MAP OF THE UMIAT-GUBIK AREA, CENTRAL NORTH SLOPE, ALASKA

by
 Trystan M. Herriott¹, Marwan A. Wartes¹, Paul L. Decker², Robert J. Gillis¹, Diane P. Shellenbaum³, Amanda L. Willingham⁴, and David J. Mauel⁵

2018



ABBREVIATED MAP UNIT DESCRIPTIONS

Full descriptions in accompanying booklet

SURFICIAL DEPOSITS

ALLUVIAL DEPOSITS (Quaternary)—Undifferentiated alluvium (modified from Carter and Galloway, 1986)

BROOKLIN MEGASEQUENCE

PRINCE CREEK FORMATION (Campanian-Maastrichtian)—Brown to gray-brown; weathering, locally pebbly sandstone, with subordinate coal and carbonaceous sandstone and mudstone

SCHRAEDER BLUFF FORMATION, regional lower part (Rantonian-Campanian)

SENTINEL HILL MEMBER—Brown-weathering, tuffaceous to siliceous siltstone and very fine-grained sandstone; typically exhibits recessive-weathering profile

BARROW TRAIL MEMBER—Gray to tan to brown, tuffaceous very fine- to fine-grained sandstone, with subordinate carbonaceous mudstone and bentonitic tuff; typically exhibits resistant-weathering profile

ROGERS CREEK MEMBER—Gray to olive-brown, tuffaceous to bentonitic mudstone, with subordinate very fine- to fine-grained sandstone; typically exhibits recessive-weathering profile

TULLYAK FORMATION (Turonian-Cenomanian)—Tan to brown- to orange-brown-weathering, very fine- to medium-grained sandstone, with subordinate mudstone

SEABREE FORMATION (Cenomanian-Turonian)—Tan to gray-weathering, tuffaceous to bentonitic mudstone, with subordinate very fine-grained sandstone

NANUSHUK FORMATION (Cenomanian)—Tan to gray-brown to rusty-brown-weathering, fine- to medium-grained sandstone, with subordinate siltstone

EXPLANATION OF MAP SYMBOLS

Contact—long dashed where approximately located; short dashed where inferred; queried where uncertain; *pinkish-dashed where mapped in magnetic data constrained by seismic data and well log interpretations*

Bidding—strike and dip

Traceable bed

Outcrop extent

National Petroleum Reserve in Alaska (NPR-A) boundary

Exploration well

FAULTS AND FOLDS

Line work long-dashed where approximately located; short-dashed where inferred; queried where uncertain; *pinkish-dashed where mapped in magnetic data constrained by seismic data and well log interpretations*

Thrust or reverse fault—sawtooth on hanging wall

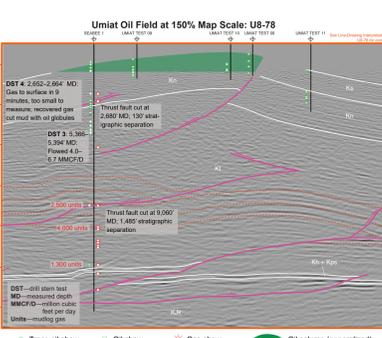
Normal fault—ball and bar on hanging wall

Strike-slip fault—arrows indicate sense of slip

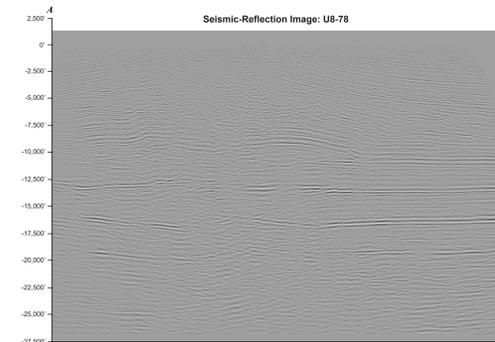
Anticline—large arrow indicates plunge direction

Inverted fault—arrow indicates senses of slip (cross section only)

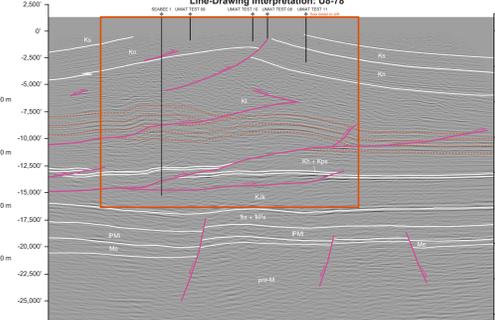
Fault—arrow indicates sense of slip (cross section only)



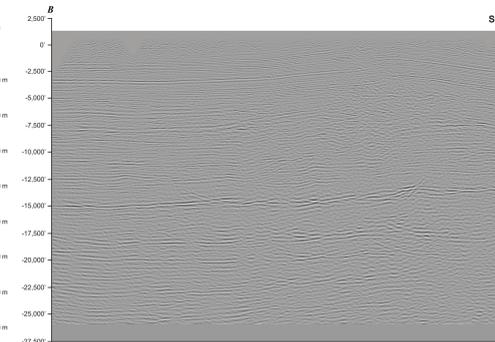
Umiat Oil Field at 150% Map Scale: U8-78



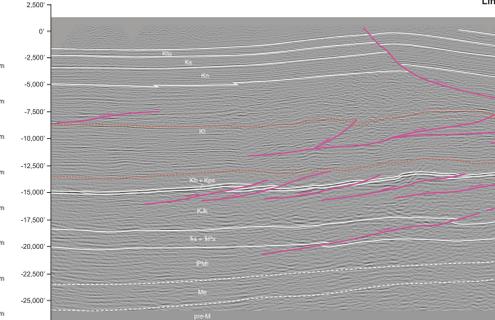
Seismic-Reflection Image: U8-78



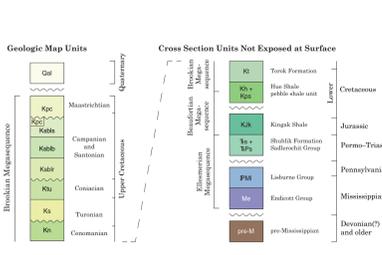
Line-Drawing Interpretation: U8-78



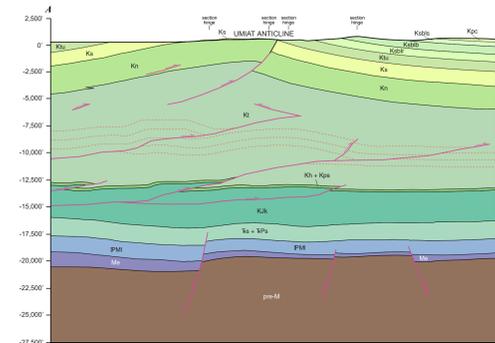
Seismic-Reflection Image: 720-80



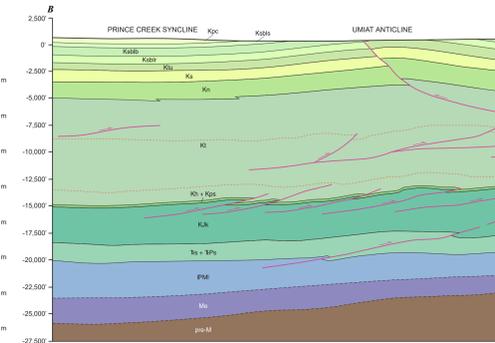
Line-Drawing Interpretation: 720-80



Geologic Map Units and Cross Section Units Not Exposed at Surface



Geologic Map Units and Cross Section Units Not Exposed at Surface



Geologic Map Units and Cross Section Units Not Exposed at Surface

The State of Alaska makes no expressed or implied warranties (including warranties for merchantability and fitness) with respect to the character, functions, or quantities of the electronic data or products or their appropriateness for any user's purposes in no event will the State of Alaska be liable for any incidental, indirect, special, consequential, or other damages suffered by the user or any other person or entity whether from the use of the electronic services or products or any future thereof or otherwise. In no event will the State of Alaska's liability to the Requestor or anyone else exceed the paid for the electronic service or product.

Publications produced by the Division of Geological & Geophysical Surveys (DGGS) are available for download from the DGGS website (<http://dgg.alaska.gov>). Publications in hard-copy or digital media can be examined or purchased in the Fairbanks office.