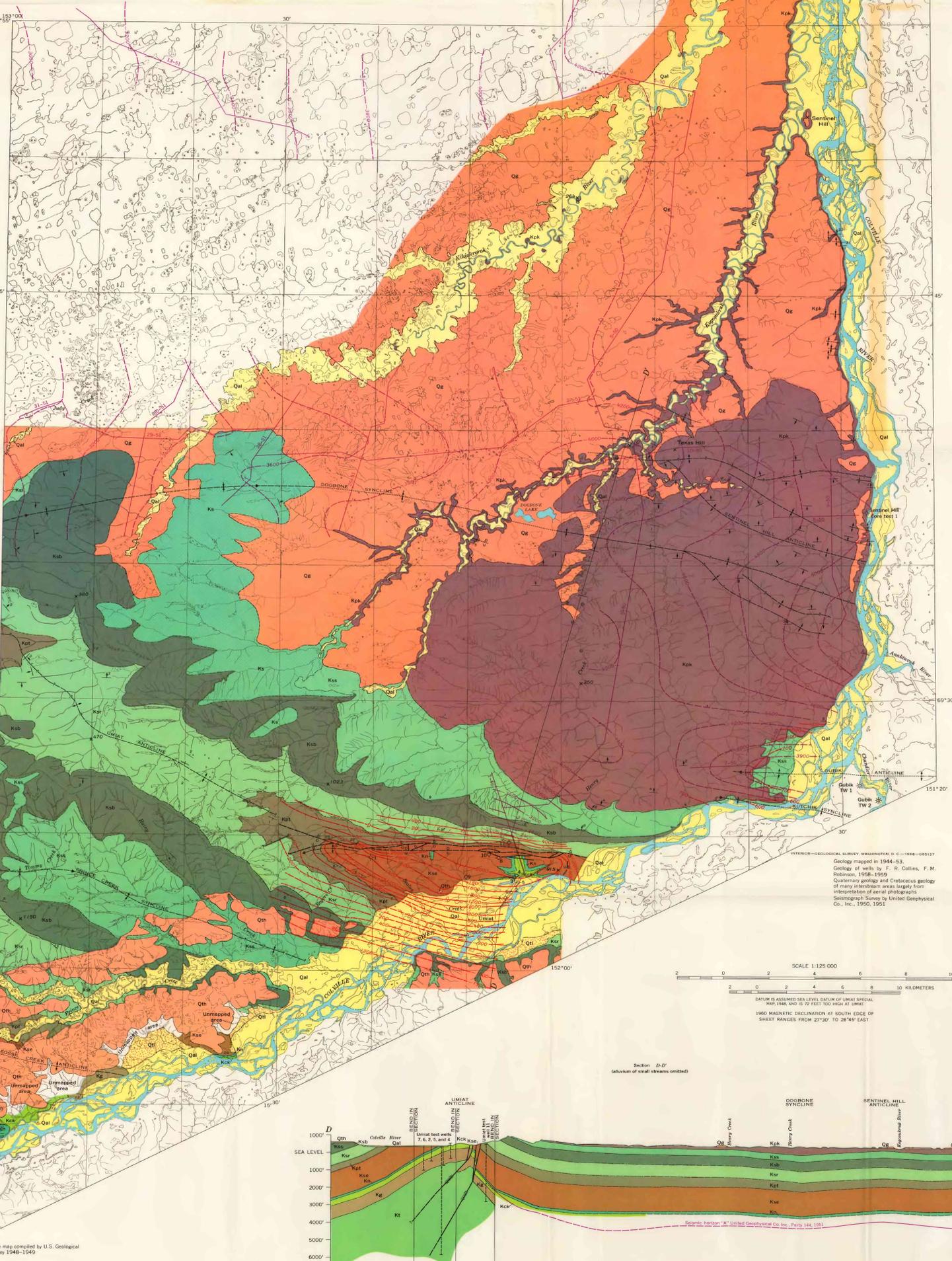


INDEX MAP OF UMIAT-MAYBE CREEK REGION, SHOWING FIELD PARTY AREAS



Base map compiled by U.S. Geological Survey 1948-1949

- EXPLANATION**
- Location of areas traversed by geological field parties of the U.S. Navy and U.S. Geological Survey in the Umiat-Maybe Creek region, 1944-1953
- U.S. NAVY**
- F Form and Woodward, 1944
  - 1 Rogers and McConnell, 1945
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  - 3 Phillips and Corson, 1945
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- C44 Coats and Gray, 1944
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**EXPLANATION**

Qal Alluvium

Qe Low-level terrace deposits

Qh High-level terrace deposits

Qe Marine sand, yellow, fine to medium grained, generally with local gravel, interstratified with somewhat sand, silt, and peat. Fossiliferous gray sand and blue clay beneath the gravel north of lat. 70° N. As much as 150 feet thick. Lowest basaliferous beds may be late Pliocene in age.

**UNCONFORMITY**

Kqk, Kks, Ksb, Kkr, Kk, Kt

Prine Creek Formation (nonmarine) and Schrader Bluff Formation (marine)

Kqk, Kopskrak Tongue of Prine Creek Formation and upper part of Sentinel Hill Member of Schrader Bluff Formation undifferentiated, from top to bottom

Upper part of Kopskrak Tongue: Fine-grained sandstone and interbedded shale, clay, silt, bentonite, and coal. Poorly consolidated. Thickness more than 1,000 feet

Upper part of Sentinel Hill Member: Gray to brown, bentonitic shale and clay containing sandstone and little coal. Thickness 315 feet (north) to 371 feet (south) along lower Colville River

Lower part of Kopskrak Tongue: Generally fine-grained sandstone and conglomerate containing shale, coal, and bentonite. Thickness 200 feet (north) to 100 feet (south) along lower Colville River

Kks, lower part of Sentinel Hill Member of Schrader Bluff Formation: Shale, clay, bentonite, and buff. Weathers white, gray, yellow, or red. Thickness about 300 feet at Prine Creek to about 100 feet along lower Colville River. Inoceramus sp. Ks, lower part of Sentinel Hill Member and Barrow Trail Member of Schrader Bluff Formation undifferentiated

Ksb, Barrow Trail Member of Schrader Bluff Formation: Mostly fine-grained bentonitic sandstone containing shale, silt, sandstone buff. Thickness 275 feet east of Umiat to about 800 feet at Prine Creek. Inoceramus (Strebloceras) patensensis de Loriol, Protocardia of P. borealis Whiteaves

Kkr, upper part of Schrader Bluff Formation: Poorly exposed shale. Thickness about 300 to 400 feet

Kk, Tulvak Tongue of Prine Creek Formation: Fine to medium-grained, plant-bearing sandstone and conglomerate containing shale, coal, bentonite, and local tuff. Thickness generally about 500 to 700 feet. Inferred thickness near Square Lake test well 1 about 1,300 feet. S, R, H, I, J, K, sandstone beds

Schrader Bluff Formation, Convician (?), Stantonian, and Commanian in age

Prine Creek Formation, Tulvak Tongue, Convician in age; Kopskrak Tongue, Commanian or younger in age

Kk, Seabee Formation (marine)

Black shale and bentonite containing limestone concretions. Some generally calcareous sandstone. Thickness northward from 110 feet at Square Lake test well 1, A, G, A, sandstone beds

Shale Hill and Ajayuk Members not differentiated, but sandstone is probably local bed of Ajayuk Member. Inoceramus labialis (Schladerer), Scaphites delatavensis Warren, Otoceraspis seabeana Cobban and Gray, Boristoceras schuchertianum Cobban and Gray. Foraminifera in age

**UNCONFORMITY**

Kks, Ksb, Kkr, Kk, Kt

Ninulik Formation (marine) and Ninkogon Tongue of Chandler Formation (nonmarine), undifferentiated

Shale and fine to medium-grained fossiliferous marine sandstone and interbedded bentonite. This northward from 200 feet at Mege Creek to about 75 feet at Square Lake test well 1 and 25 feet at Umiat. I, J, sandstone beds. Inoceramus surwegensis. Melours in hand beds. Commanian in age

Kk, Killik Tongue of Chandler Formation (largely non-marine)

Shale containing generally fine-grained sandstone, conglomerate of quartz and chert pebbles, coal, and bentonite. Poorly exposed. This northward from 1,100 feet at Killik test well 1 to about 300 feet at Umiat. Mainly Albian in age. Top beds may be Commanian in age

Kt, Grandstand Formation (predominantly marine)

Laterally persistent ridge-forming sandstone, mostly light gray, fine grained in outcrop areas. Minor amount of shale and few thin coal beds. This sandstone from 1,000 feet at Killik test well 1 to 600 to 700 feet at Umiat. Albian in age

(As mapped, Grandstand Formation and Chandler Formation each contain some undifferentiated tongues of the other)

**CONTACT**

Dashed where approximately located; short dashed where inferred; dotted where concealed

**FAULT**

Dashed where approximately located; quartered where doubtful; dotted where concealed; U, upthrown side; D, downthrown side

**ANTICLINE**

Showing trace of axial plane and plunge of axis. Dashed where approximately located; quartered where doubtful; dotted where concealed

**SYNCLINE**

Showing trace of axial plane and plunge of axis. Dashed where approximately located; quartered where doubtful; dotted where concealed

**STRUCTURE CONTOUR**

Drawn on top of the Seabee Formation except on the Gubik anticline where they are drawn on top of the basal conglomerate of the Kopskrak Tongue of the Prine Creek Formation. Contour intervals 50 and 100 feet. Dashed where approximately located

**SCHEMATIC STRUCTURE CONTOUR**

Drawn on shallow reflectors near the base of the Killik Tongue of the Chandler Formation. Contour intervals 100 and 200 feet. Dashed where approximately located. By United Geophysical Co. Inc. Party 14, 1949, 1951

**LINE OF SCHEMATIC TRAVERSE**

First number indicates number of traverse, second number indicates year in which traverse was made

**TEST WELL IN CROSS SECTION**

Dashed where projected

**STRIKE AND DIP OF BEDS**

Strike of vertical beds

Strike and dip of beds determined from aerial photographs

**HORIZONTAL BEDS**

Oil or gas seep

Dry and abandoned test well

Abandoned gas well

Abandoned oil well

Shut-in oil well

Altitude in feet above sea level

GEOLOGIC MAP AND SECTIONS OF THE UMIAT-MAYBE CREEK REGION, ALASKA