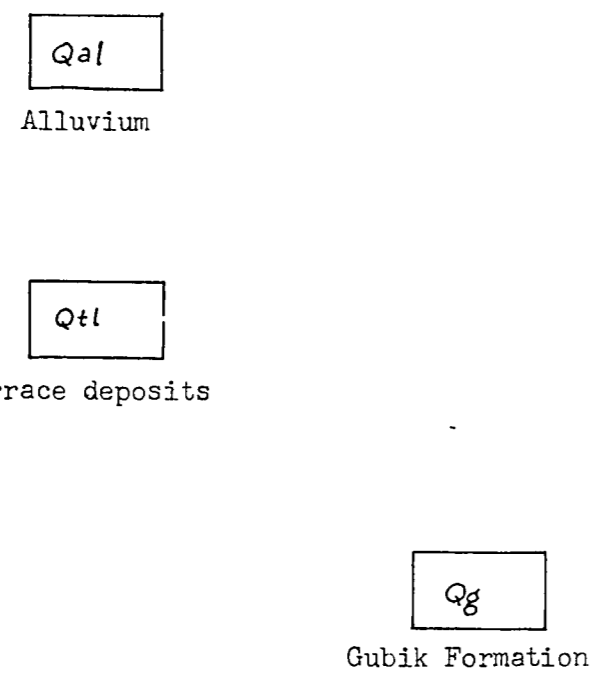


EXPLANATION

EXPLANATION

PROPERTY OF DGGG LIBRARY

Recent  
Pleistocene or Recent  
Pleistocene



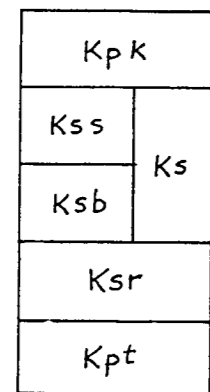
**Qal**  
Alluvium

**Qtl**  
Low terrace deposits

**Qth**  
High terrace deposits  
Predominantly alluvial gravel where exposed. Upper part probably windblown silt.

**Qg**  
Gubik Formation  
Yellow, fine- to medium-grained marine sand, generally with basal gravel; intertongues(?) with nonmarine sand, silt and peat. Fossiliferous gray sand and blue clay beneath the gravel north of latitude 70° N. As much as 150 feet thick. Fossiliferous lowest beds may be late Pliocene in age.

UNCONFORMITY



**Kpk**  
Prince Creek Formation (nonmarine) and Schrader Bluff Formation (marine)

**Kpsn**  
Tuluva Tongue of Prince Creek Formation, Seabee Formation, Minuluk Formation, and Nisakogon Tongue of Chandler Formation, undifferentiated

**Kse**  
Seabee Formation (marine)

**Kn**  
Minuluk Formation (marine) and Nisakogon Tongue of Chandler Formation (non-marine), undifferentiated

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

**Kg**  
Grandstand Formation (predominantly marine)

**Kt**  
Torok Formation

Black shale and bentonite, with limestone concretions. Some generally calcareous sandstone. Thickens northeastward from 410 feet south of Maybe Creek to 1,495 feet at Umiat and 1,185 feet at Square Lake Test Well 1.  
*Inoceramus labialis* (Schlotheim), *Scaphites delicatulus* Harris, *Otoscochites seabeensis* Cobban and Gryc, *Horissiakoceras ashurkoffae* Cobban and Gryc  
Turonian in age

Shale and fine- to medium-grained fossiliferous marine sandstone with interbedded coal and bentonite. Thins northeastward from 920 feet south of Maybe Creek to about 75 feet at Square Lake Test Well 1 and 95 feet at Umiat.  
*Inoceramus dunveganensis* McLearn in basal beds.  
Cenomanian in age

Shale, with generally fine-grained sandstone, conglomerate of quartz and chert pebbles, coal and bentonite. Poorly exposed. Thins northeastward from 3,400 feet at Knifeflade Test Wells to about 300 feet at Umiat. Mainly Albian in age. Top beds may be Cenomanian in age.

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

Shale and siltstone with some sandstone. Poorly exposed. Upper part probably locally equivalent to lower part of Grandstand Formation.  
Albian in age

QUATERNARY

CRETACEOUS

Geologic Contact  
Dashed where approximately located, short dashed where inferred, dotted where concealed

Key sandstone bed  
Sandstone bed A correlates approximately with a horizon between sandstone beds 4 and 5

Scratch boundary

Fault  
Dashed where approximately located, queried where doubtful, short dashed where concealed. U, upthrown side; D, downthrown side

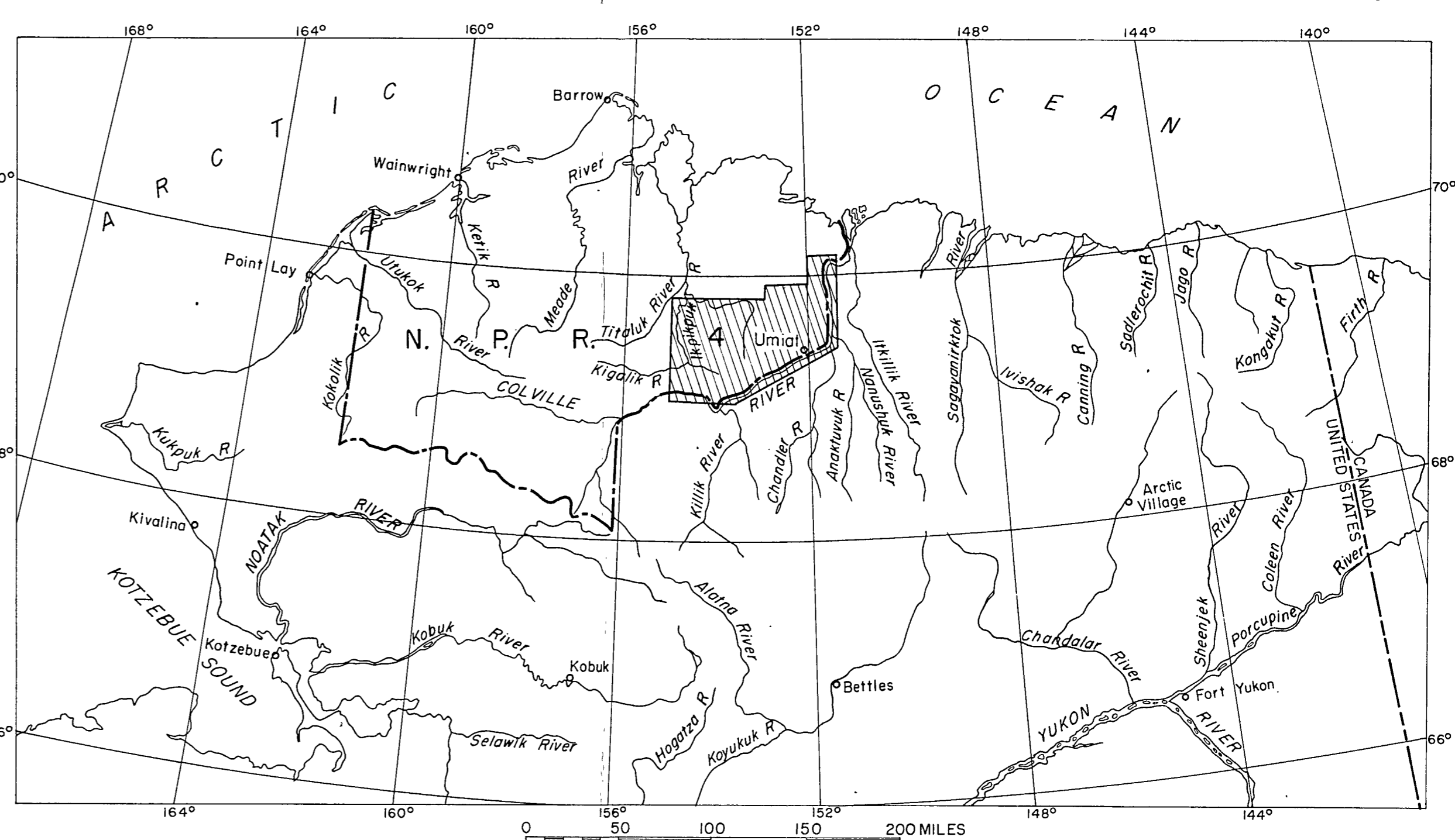
Anticline  
Showing trace of axial plane and plunge of axis. Dashed where approximately located, queried where doubtful, short dashed where concealed

Syncline  
Showing trace of axial plane and plunge of axis. Dashed where approximately located, queried where doubtful, short dashed where concealed

Strike and dip of 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



INDEX MAP SHOWING LOCATION OF UMIAT-MAYBE CREEK REGION AND N.P.R. 4

This map is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards.

PRELIMINARY GEOLOGIC MAP OF THE UMIAT-MAYBE CREEK REGION, ALASKA

By  
W. P. Brosge and C. L. Whittington  
1962