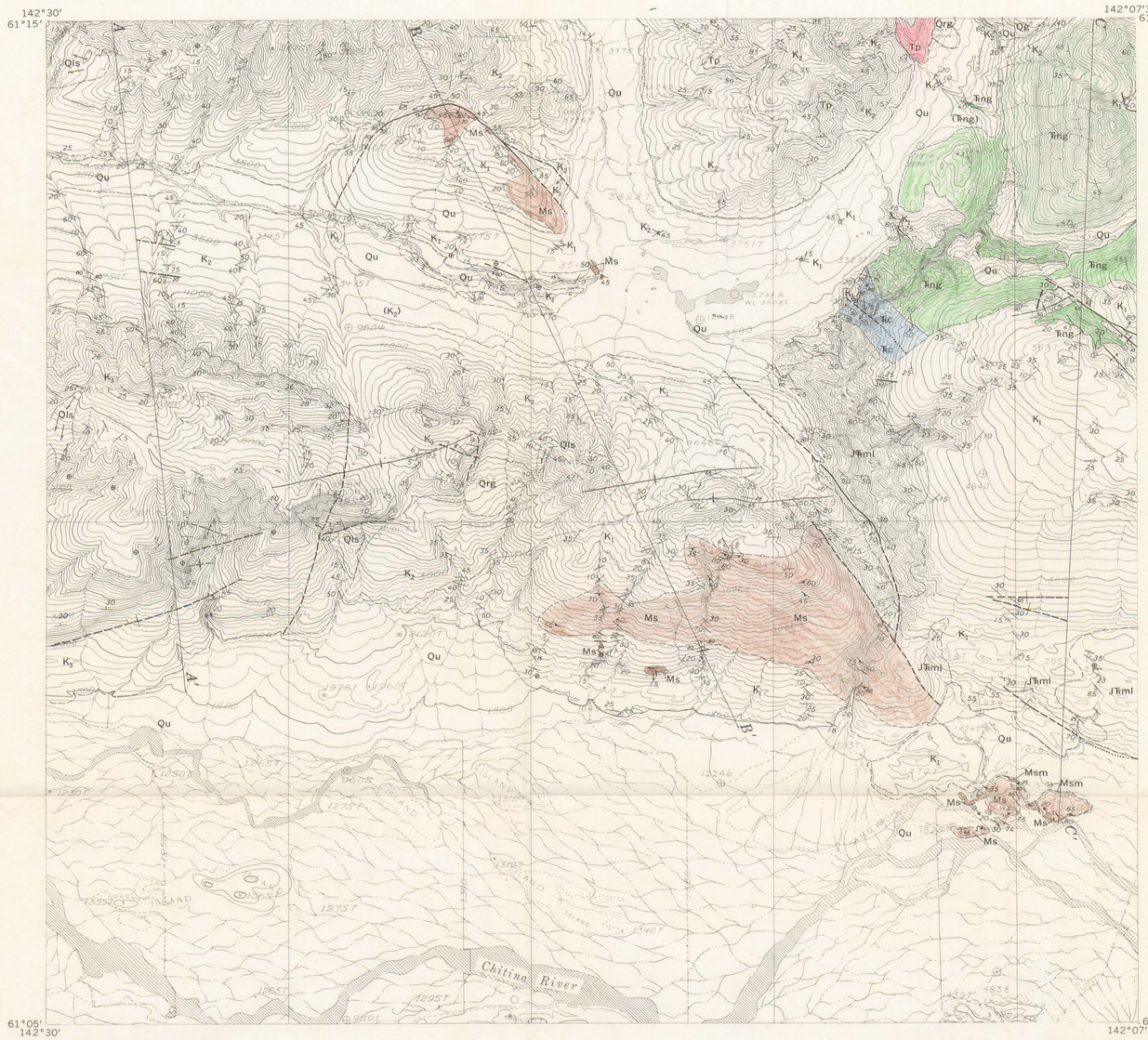
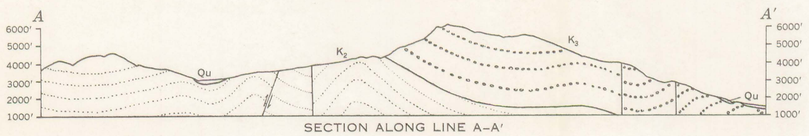
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MISCELLANEOUS GEOLOGIC INVESTIGATIONS
MAP I-410

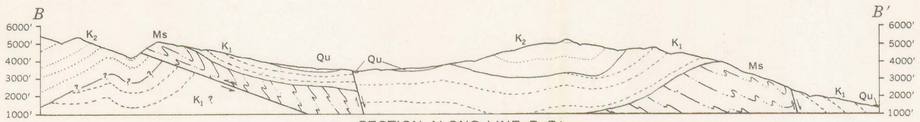


Base from U.S. Geological Survey
topographic quadrangle
McCarthy A–4, 1959

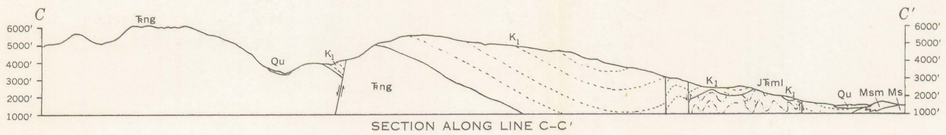
Geology by D. J. Miller and R. S. MacColl, 1961, with minor additions by other U.S.G.S. geologists, 1962



SECTION ALONG LINE A–A′



SECTION ALONG LINE B–B′



SECTION ALONG LINE C–C′

EXPLANATION

QUATERNARY

Pleistocene and Recent

Qu — Undivided unconsolidated deposits
Includes alluvium, moraineal and fluvioglacial deposits, and talus

Qrg — Rock glacier

Qg — Glacier or snowfield

Qls — Landslide

ANGULAR UNCONFORMITY

TERTIARY

Tp — Porphyritic intrusive rocks of intermediate composition

CRETACEOUS

Upper Cretaceous

Campanian and Maestrichtian(?)

K_3 — Sandstone, siltstone, and conglomerate

UNCONFORMITY

Coniacian to Campanian

K_2 — Siltstone
Includes subordinate sandstone, siltstone, and limestone concretions

UNCONFORMITY

Lower and Upper Cretaceous

Albian and Cenomanian

K_1 — Sandstone containing limy concretions
Includes minor shale and banded chert

ANGULAR UNCONFORMITY

TRIASSIC AND JURASSIC(?)

Upper Triassic and Lower Jurassic(?)

JTrml — Lower member of McCarthy Formation
Dark-brown shale. Includes subordinate siltstone, minor limestone, and chert

TRIASSIC

Upper Triassic

Tc — Chitistone Limestone
Light- or medium-gray, generally thick-bedded limestone. Includes subordinate dolomite and chert

Middle or Upper Triassic

Tng — Nikolai Greenstone
Mainly basaltic lava; in part altered to greenstone

UNCONFORMITY

MISSISSIPPIAN

Ms, Msm — Strelna Formation
Mainly hornfels and greenstone; subordinate argillite, slate, phyllite, and schist. Minor marble
Msm, *marble*

55 — Contact, showing dip
Dashed where approximately located; dotted where concealed

60 U D — Fault, showing dip
Dashed where approximately located; dotted where concealed. Arrows indicate relative movement. U, *upthrown side;* D *downthrown side*

Vertical fault

Anticline
Dashed where approximately located

Syncline
Dashed where approximately located

50 — Plunge of minor anticline

10 — Strike and dip of beds

Vertical beds

Horizontal beds

30 — Strike and dip of foliation

Strike of vertical foliation

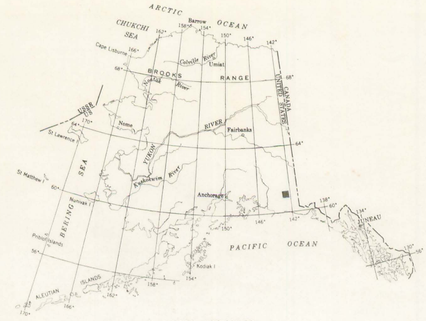
20 — Bearing and plunge of lineation

80 — Strike and dip of joint

Direction of landslide movement

(K_2) — Bedrock formation concealed beneath surficial deposits

29° TRUE NORTH MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1964



INDEX MAP SHOWING LOCATION OF AREA

GEOLOGIC MAP AND SECTIONS OF THE NORTHERN PART OF THE MC CARTHY A–4 QUADRANGLE, ALASKA

By
Don J. Miller and Robert S. MacColl

SCALE 1:63 360

1 ½ 0 1 2 3 4 5 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL

1964

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—G63461

For sale by U. S. Geological Survey, price 50 cents

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