

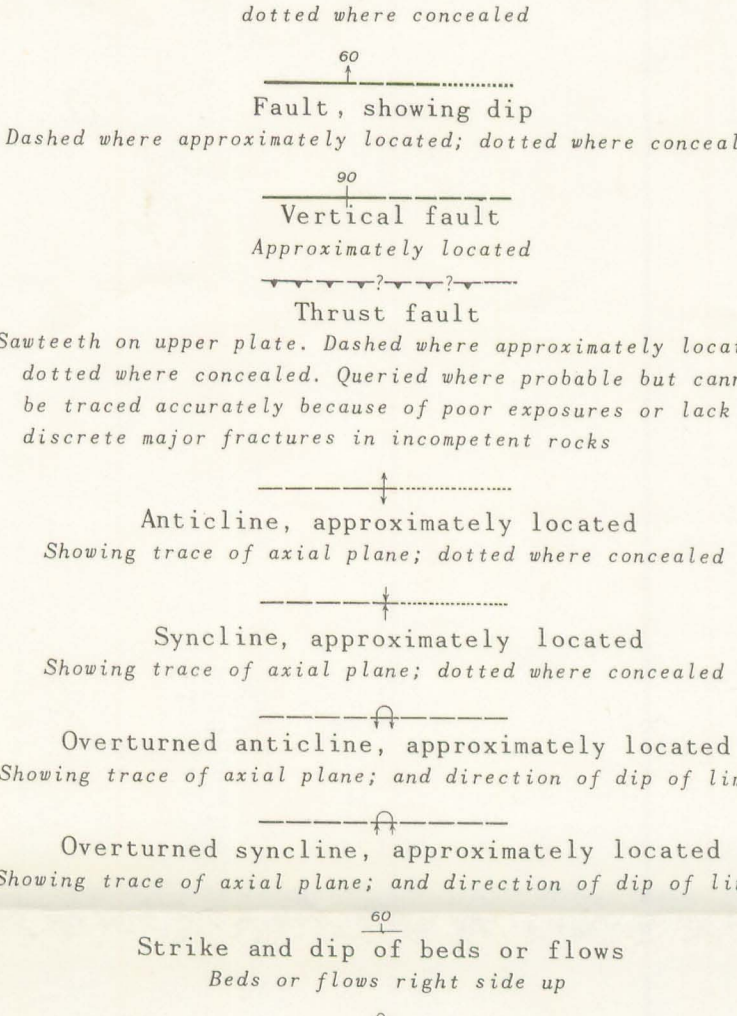
Legend:

- Alluvium, mainly stream gravel** (Symbol: Qa)
- Glacial, fluvioglacial, and related deposits**
 - Qg, glacier or snowfield
 - Qm, glacial moraine and outwash
 - Qmi, moraine on ice
 - Qrg, rock glacier
- Volcanic rocks** (Symbol: QTV)
- Intrusive rocks**
 - Ti, dike
 - Ti+T, dike with breccia
- Sedimentary and volcanic rocks**
 - TSV, Tertiary volcanic rocks
- Metamorphic rocks**
 - Pls, light-gray partly recrystallized limestone, in part biotritonal
 - Ph, gray to brown hornfels

Geological Map:

- Alluvium (Qa)** is shown in the upper right corner.
- Glacial deposits (Qg, Qm, Qmi, Qrg)** are shown in the upper left and middle left areas.
- Volcanic rocks (QTV)** are shown in the middle left area.
- Intrusive rocks (Ti, Ti+T)** are shown in the middle left area.
- Sedimentary and volcanic rocks (TSV)** are shown in the middle right area.
- Metamorphic rocks (Pls, Ph)** are shown in the lower right area.
- Unconformities:**
 - ANGULAR UNCONFORMITY** is shown between the Alluvium and the Glacial deposits.
 - ANGULAR UNCONFORMITY** is shown between the Volcanic rocks and the Sedimentary and volcanic rocks.
 - ANGULAR UNCONFORMITY** is shown between the Intrusive rocks and the Sedimentary and volcanic rocks.
 - ANGULAR UNCONFORMITY** is shown between the Metamorphic rocks and the Sedimentary and volcanic rocks.
 - DISCONFORMITY** is shown between the McCarthy Formation and the Nikolai Greenstone.

QUATERNARY
TERTIARY
AND
QUATERNARY



Contact, showing dip
*Dashed where approximately located; short dashed where gradational;
 dotted where concealed*

Fault, showing dip
Dashed where approximately located; dotted where concealed

Vertical fault
Approximately located

Thrust fault
*Sawteeth on upper plate. Dashed where approximately located;
 dotted where concealed. Queried where probable but cannot
 be traced accurately because of poor exposures or lack of
 discrete major fractures in incompetent rocks*

Anticline, approximately located
Showing trace of axial plane; dotted where concealed

Syncline, approximately located
Showing trace of axial plane; dotted where concealed

Overturned anticline, approximately located
Showing trace of axial plane; and direction of dip of limbs

Overturned syncline, approximately located
Showing trace of axial plane; and direction of dip of limbs

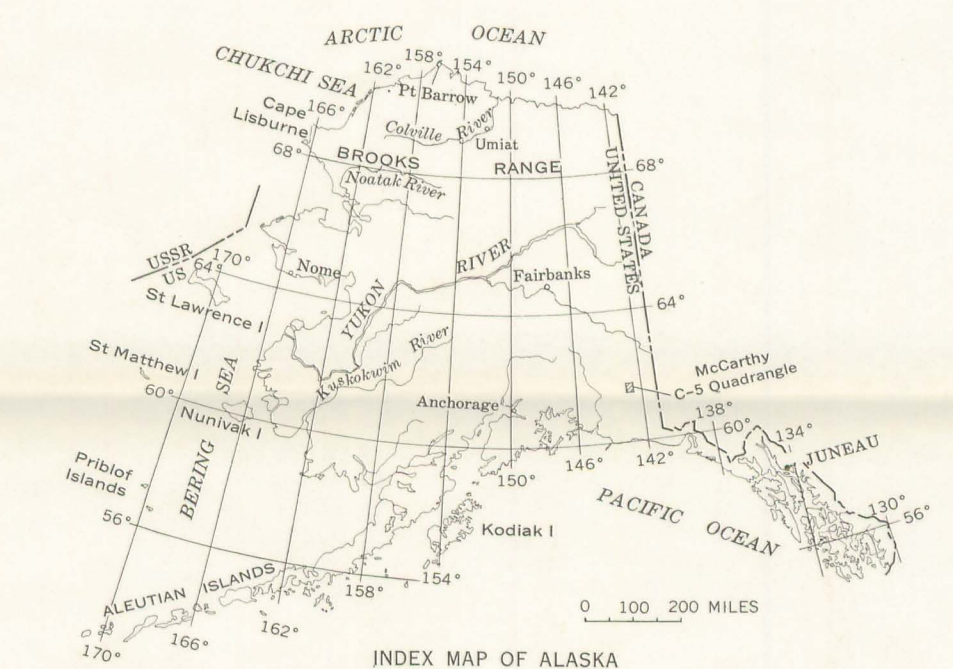
Strike and dip of beds or flows
Beds or flows right side up

Strike and dip of overturned beds

Horizontal beds or flows

*Detailed mapping in the McCarthy C-5 quadrangle has disclosed that the McCarthy Shale is divisible into two mappable units; an upper, predominantly silty limestone member (Jmu), that contains Early Triassic graptolite and other fossils, and a lower member, which is in its upper part, and a lower shale, siltstone, and silty limestone member. These units are separated by a transitional zone of about a hundred feet thick that lacks diagnostic fossils. Inasmuch as the type locality for the McCarthy Shale is in the Jmu member, and because the name McCarthy Shale is well established in the geological literature, it is proposed that the name McCarthy Shale be used for the McCarthy but to revise its age designation from Late Triassic, as age Moffit (1938) considered it to be, to Late Triassic and Early Jurassic. The name McCarthy Shale is well established in the literature, the name McCarthy Formation is adopted in place of McCarthy

Reference:
Moffit, F. H., 1938, Geology of the Chitina Valley and adjacent area, Alaska: U.S. Geol. Survey Bull. 894, 137 p.



INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—G 63378

Geology mapped by E. M. Mackevett Jr.,
1961-62, and M. C. Blake Jr., 1961

SCALE 1:63 360

1 1/2 0 1 2 3 MILES

1 0.5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 100 FEET

DATUM IS MEAN SEA LEVEL

1963