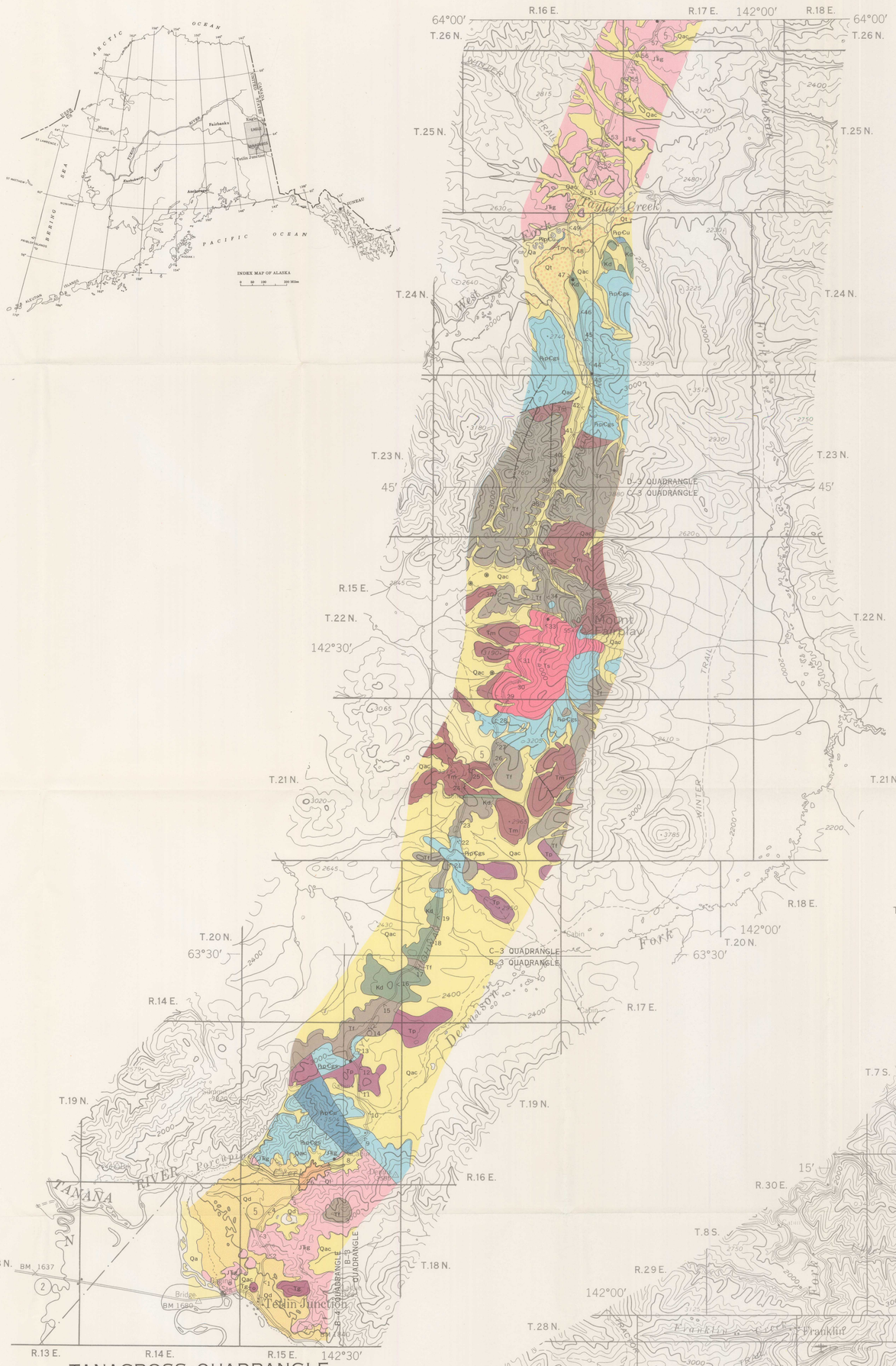

EXPLANATION

UNCONSOLIDATED DEPOSITS

Qa — Flood-plain and low-terrace alluvium
Well-rounded gravel, sand, and silt in stratified deposits; local accumulations of organic material on the surface and interbedded. Mapped only along the larger streams

Qac — Alluvium and colluvium of small stream valleys, alluvial fans, and broad slopes
Silt, sandy silt, and carbonaceous silt containing layers and lenses of sand and gravel. Scattered boulders and rubble; local deposits of organic material. Material angular to well rounded; unstratified to stratified; unsorted to sorted

Qt — High-terrace alluvium of larger streams
Massive to well-stratified layers and lenses of sand, gravel, and silt; boulders present in most places. Mostly well sorted

Qd — Dune deposits and loess
Sand of stabilized sand dunes; locally covered by and (or) mixed with loess. Locally mixed with alluvial and colluvial materials

Ql — Lake deposits
Silt and sandy silt, well-stratified. Locally covered or partly covered and (or) mixed with colluvial and alluvial deposits. Fossiliferous in places

QUATERNARY — CENOZOIC

SEDIMENTARY ROCKS

Tc — Detrital rocks and coal
Interbedded conglomerate, sandstone, shale, siltstone, tuff, and carbonaceous shale. Include subbituminous coal near Chicken and breccia along Walker Fork. Contain plant fragments and impressions and ferruginous nodules

Kd — Detrital rocks
Interbedded conglomerate, sandstone, shale, siltstone, tuff and carbonaceous shale. Local chert. Contain plant fragments and impressions

CRETACEOUS(?) — MESOZOIC

IGNEOUS ROCKS

Tb — Basalt
Fairly coarse-grained to fine-grained; locally porphyritic, vesicular, and amygdaloidal

Tg — Gabbro
Coarse- to fine-grained dark-greenish-black or greenish-gray hornblende-plagioclase gabbro

Tm — Mafic volcanic rocks
Dominantly dark-colored andesitic lava, tuff, tuff-breccia and breccia. Locally include dikes and small areas of more felsic rock

Tp — Granitic porphyry
Pink fine- to coarse-grained porphyritic granitic rock. Locally equigranular; terminated quartz phenocrysts characteristic

Tf — Felsic volcanic rocks
Dominantly light-colored rhyolitic and dacitic tuff, lapilli tuff, tuff-breccia, breccia, volcanic conglomerate, and lava. Welded tuff is abundant; volcanic glass is rare. Locally include dikes and small areas of more mafic rock

Ts — Syenite of Mount Fairplay intrusive
Equigranular to coarsely porphyritic hornblende-biotite syenite. Locally quartz monzonite in composition

TERTIARY(?) — CENOZOIC

J̄Ŧg — Granodiorite of the Taylor Mountain batholith and other granitic rocks of probable similar age
Medium- to coarse-grained equigranular granodiorite. Locally include diorite, quartz diorite, and quartz monzonite. Cut by aplitic and lamprophyric dikes

TRIASSIC OR JURASSIC — MESOZOIC

MPzu — Ultramafic rocks
Mostly highly serpentinized peridotite

PALEOZOIC OR MESOZOIC

METAMORPHIC ROCKS

Pzs — Slightly metamorphosed sedimentary rocks
Pink, tan, green, gray, and black argillite and slaty shale, gray and dark-gray limestone, and gray and tan sandstone. Rocks only slightly metamorphosed. Patterned area is quartz-feldspar rock of probable igneous origin which locally includes white, green, or yellow-green sericite schist

Pzg — Greenstone
Dark-green and greenish-gray fine-grained massive to slightly foliated metavolcanic rocks. Locally amygdaloidal; relict pillow structures

PALEOZOIC(?)

Pzc — Calc-schist unit
Greenschist, calcareous greenschist, marble, quartzite, quartz-graphite schist, sericite schist

Pzm — Metamorphic rocks of the Chicken area
Green weakly foliated metavolcanic rocks; thin-bedded to massive white, pink and gray marble; some banded gray and tan quartzite; banded chert. Mica shist occurs locally

PALEOZOIC

PzpCq — Quartz-graphite schist unit
Dark-gray quartz-graphite schist, greenschist, quartz-muscovite schist, and cataclastic "gneiss" with blue quartz "eyes"

PzpCu — Undifferentiated metamorphic rocks
Gray and tan quartzite, mica schist, and chert. Include marble near the West Fork

PzpCgs — Gneiss and schist unit
Quartz-biotite gneiss and schist, hornblende-plagioclase gneiss, amphibolite, augen gneiss, quartzite, and marble. Some rocks highly garnetiferous

PRECAMBRIAN(?) AND PALEOZOIC(?)

Contact, approximately located

Fault
Dashed where approximately located; dotted where concealed

Pingo

Fossil or mineral locality described in text

18>
Milepost
Distance measured from Tetlin Junction on Alaska Highway and from Canadian border westward to Eagle Junction

Base from U.S. Geological Survey, 1:250,000
Tanacross, 1964 and Eagle, 1957

MAP OF GEOLOGY ALONG THE TAYLOR HIGHWAY IN THE TANACROSS AND EAGLE QUADRANGLES, ALASKA

SCALE 1:125 000

2 0 2 4 6 8 10 MILES

2 0 2 4 6 8 10 KILOMETERS

CONTOUR INTERVAL 200 FEET
DOTTED LINES REPRESENT 100-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
1968 MAGNETIC DECLINATION VARIES FROM 30° TO 32° EAST

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1969—G69059

Geology of the Tanacross quadrangle compiled by Helen L. Foster and Terry E. C. Keith, 1968, from published (Foster, 1967) and unpublished data
Geology of Eagle quadrangle compiled by Helen L. Foster and Terry E. C. Keith, 1968, from unpublished data; Eagle D-1 quadrangle from Brabb and Churkin (1965)