DEPARTMENT OF THE INTERIOR UNITED STATES GEOLOGICAL SURVEY

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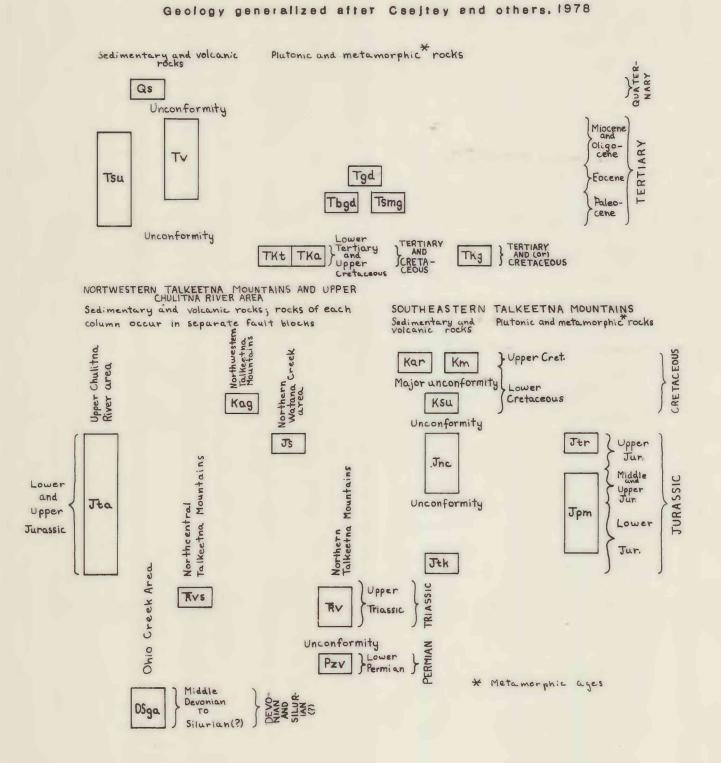
OPEN FILE REPORT

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Folio of the TALKEETNA MOUNTAINS Quadrangle, Alaska

CORRELATION OF MAP UNITS

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DESCRIPTION OF MAP UNITS

- Qs SURFICIAL DEPOSITS, UNDIFFERENTIATED (Quaternary)
- Tv VOLCANIC ROCKS, UNDIVIDED (Paleocene to Pleistocene(?))-Felsic and mafic subaerial volcanic rocks and related shallow intru-
- Tsu TERTIARY SEDIMENTARY ROCKS, UNDIFFERENTIATED (Paleocene to Miocene)--Terrestrial, mostly fluviatile strata with a few lignite
- Tgd GRANODIORITE (Eocene).

Location Index

- Tbgd BIOTITE AND HORNBLENDE GRANODIORITE (Paleocene, in part early
- Tsmg SCHIST, MIGMATITE, AND GRANITE (Paleocene intrusive and metamorphic ages)--Migmatitic border zone of biotite and hornblende
- granodiorite.

 TKt TONALITE (Upper Cretaceous and lower Paleocene).
- TKa ADAMELLITE (Upper Cretaceous and lower Paleocene).
- TKg GRANITIC ROCKS, UNDIVIDED (Cretaceous and (or) Tertiary).

 Kar ARKOSE RIDGE FORMATION (Lower and (or) Upper Cretaceous).
- Km MATANUSKA FORMATION (Lower and Upper Cretaceous).
- Ksu SEDIMENTARY ROCKS, UNDIVIDED (Lower Cretaceous)--Shallow marine sequence of calcareous sandstone, claystone, and massive clastic limestone.
- Kag ARGILLITE AND LITHIC GRAYWACKE (Lower Cretaceous)--Intercalated, marine, flyschlike sequence.
- Js SEDIMENTARY AND VOLCANIC ROCKS, UNDIVIDED (Upper Jurassic)-Marine sequence of argillite, graywacke, conglomerate, and
 andesitic to latitic feldspar porphyry dikes and intercalated

- Jtr TRONDHJEMITE (Upper Jurassic)
- Jnc JURASSIC SEDIMENTARY ROCKS, UNDIVIDED (Middle and Upper Jurassic)
 --Includes Naknek and Chinitna Formations, and Tuxedni Group.
- Jta CRYSTAL TUFF, ARGILLITE, CHERT, GRAYWACKE, AND LIMESTONE (Lower to Upper Jurassic)--Shallow to moderately deep marine, intercalated sequence.
- Jpm PLUTONIC AND METAMORPHIC ROCKS, UNDIFFERENTIATED (Lower to Upper Jurassic)--Mainly quartz diorite, granodiorite, amphibolite, and greenschist.
- Jtk TALKEETNA FORMATION (Lower Jurassic).
- TRVs METABASALT AND SLATE (Upper Triassic)--Intercalated, shallow-
- water marine sequence.
- TRV BASALTIC METAVOLCANIC ROCKS (Upper Triassic)--Mainly shallow water marine metabasalt flows.
- Pzv BASALTIC AND ANDESITIC METAVOLCANOGENIC ROCKS (Pennsylvanian(?)

 and Early Permian) -- Metamorphosed marine sequence of interlayered basaltic to andesitic flows, tuffs, coarse volcaniclastic rocks, and subordinate mudstone and limestone.
- DSga GRAYWACKE, ARGILLITE, SHALE, AND LIMESTONE (Silurian(?) to Middle

 Devonian)--Intercalated marine sequence, probably continental

 margin denosits

Base map from U.S. Geological Survey, 1:250,000 Talkeetna Mountains Quadrangle, Alaska, 1955 SCALE 1:250 000 SYMBOLS CONTOUR INTERVAL 200 FEET DATUM IS MEAN SEA LEVEL Delineated tract for the occurrence of certain types of mineral deposits. Type(s) of deposits designated by letter symbols. Criteria used to define tracts are listed in Individual mineral deposits and occurrences. Numbers adjacent to the mineral deposit symbols correspond to map numbers in table 3. Explanatory Note This report, consisting of a map and a pamphlet of text, three tables, and a list of references cited, is the culmination of a series of multidisciplinary investigations to assess the mineral resources of the Talkeetna Mountains quadrangle of Alaska. These Lode deposits Letter symbols for type(s) of mineral deposits. Subscript numbers correspond to numbers multidisciplinary investigations were carried out under the auspices of the U.S. Geological Survey's Alaska Mineral Resource Assessment Program (AMRAP). Mine. Has produced but not necessarily shipped ore. Presently Disseminated tin deposits Prospect. Has been claimed; in most cases has been scantily explored; lacks evidence of production. Claims may or Massive sulfide base and precious metal deposits associated with may not be presently active. Occurrence. Generally a minor deposit that has not been claimed as far as known. Mainly known from recent U.S. Geological Survey field investigations or from the analyses of geochemical rock samples. Also includes the locations of Porphyry copper and (or) porphyry molybdenum deposits. Base and precious metal vein deposits. Porphyry molybdenum deposits in area selected primarily for float samples with anomalous concentrations of metals. TALKEETNA Placer deposits Mine. Minor but proven record of production. Presently claimed. Prospect. Has been claimed but without proven record of produc-QUADRANGLE LOCATION tion. Claims may or may not be presently active. APPROXIMATE MEAN Extent of placer deposits. DECLINATION, 1951

EXPLANATION OF GEOLOGIC MAP SYMBOLS

Approximate contact of surficial deposits

Long dashed where approximately located; short dashed where inferred;

dotted where concealed. U indicates upthrown side where direction

of displacement is known. Arrows indicate relative lateral movement

Thrust fault

Long dashed where approximately located, dotted where concealed.

Teeth indicate upthrown side.

Approximate axis of intense shear zone of variable width, possibly

marking a thrust fault

Dotted where concealed; teeth indicate possible upthrown side of postulated thrust

MAP AND DISCUSSION OF THE METALLIFEROUS AND SELECTED NONMETALLIFEROUS MINERAL RESOURCES OF THE TALKEETNA MOUNTAINS QUADRANGLE, ALASKA

Cu, Au, Sn, zeolites

Known or reported commodity(ies). Listed in decreasing order of probable commercial value or of abundance in the deposit.

their standard chemical symbols.

Minor constituents or potential byproducts are shown in parentheses. Metallic commodities are abbreviated using