Bedrock geology by Sandra H.B. Clark and Susan R. Bartsch, 1970. Contacts of bedrock and surficial deposits by H.R. Schmoll and E. Dobrovolny, 1971.

Mapped, edited, and published by the Geological Survey

Control by USDA-SCS and USGS

Topography by photogrammetric methods from aerial photographs

Topographic base compiled from USGS/CS

Selected hydrographic data compiled from USGS/CS

Check-listed 1974-1974 (scale 1:24,000). This information is not intended for navigational purposes

Universal Transverse Mercator projection, 1927 North American datum

10,000-foot grid ticks on Alaska coordinate system, zone 4

1000-meter Universal Transverse Mercator grid ticks, zone 6, shown in blue

Land lines omitted in view of extensive clear-cutting, and withdrawals for other purposes predetermined by the Bureau of Land Management, Sections 5, 13 and 5-24, Township 16 N., R. 1 E., Seward Meridian

Soundings as portrayed indicate only the water areas, using the best information available from aerial photographs

APPROXIMATE MEAN DECLINATION, 1969

CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL
DIFFERENTIAL BENCH MARKS

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FAIRBANKS, ALASKA DENVER 25, COLORADO WASHINGTON 25, D.C.
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ANCHORAGE (B-7), ALASKA
1966

Figure 1. Reconnaissance geologic map of the Anchorage B-7 quadrangle, Alaska.

EXPLANATION

UNCONSOLIDATED DEPOSITS

QUATERNARY

Qs

Surficial deposits

SEDIMENTARY DEPOSITS

TERTIARY

Tk

Kenai Formation

Predominantly sandstone, siltstone and claystone; nonmarine, contains fossil plants

METAMORPHIC ROCKS

JURASSIC(?) and CRETACEOUS

KJv

Valdez(?) Group

Predominantly metagraywacke, siltite, and argillite flysch deposits; includes some calcareous metasandstones. Locally phyllitic. Generally medium to dark gray. Metamorphic assemblages of white mica, chlorite, epidote, and albite (greenschist facies?) are widespread.

Upper Jurassic or Cretaceous

JURASSIC or CRETACEOUS

JKa

Heterogeneous Assemblage

Includes marine metaclastic and metavolcanic rocks. Predominantly metasandstone to metaconglomeratic sandstone; commonly quartz-poor, feldspathic to lithic; may include tuffaceous material. Characteristically massive, jagged outcrops; bedding commonly obscure to indistinguishable. Generally dark green to gray-green on weathered surfaces. Subordinate greenstones (including basaltic pillow lavas) usually associated with chert, cherty argillite, and argillite. May be part of a tectonically mixed mass of rocks which locally resembles a mélange. Both clastic and volcanic sequences contain widespread prehnite-pumpellyite facies metamorphic assemblages. The possibility that this unit is of early Tertiary age and that the contact with the Valdez (?) Group is not entirely a fault contact has not been ruled out, but is considered unlikely

- Dot pattern indicates known areas of predominantly massive, weakly metamorphosed sandstone and conglomeratic sandstone.
- Open triangle pattern indicates known area of predominantly greenstone, chert, cherty argillite, and argillite
- Queried where doubtful

PERMIAN to JURASSIC

JPu

Undifferentiated plutonic, metaplutonic, metasedimentary and metavolcanic rocks

Igneous and metaigneous rocks are predominantly gabbro to quartz diorite in composition. Metasedimentary and metavolcanic rocks include greenstone (metabasalt to metadiorite), chert, siliceous argillite and marble. Greenschist facies metamorphic assemblages predominate; some have prehnite-pumpellyite facies overprint. Age assignment based on Permian (Leonardian?) fusulinids from marble and K-Ar age of middle Jurassic from quartz-diorite. Older and (or) younger rocks could also be included

- Pattern #1 indicates gabbro, metagabbro, and related rocks
- Pattern #2 indicates predominantly quartz diorite (non-foliated)
- Pattern #3 indicates predominantly greenschist, greenstone (at least partly metabasalt) gneiss, and foliated metaplutonic rocks (mainly metadiorite to metaquartz diorite)
- Pattern #4 indicates predominantly fine-grained siliceous metasedimentary rocks (chert and siliceous argillite)

Queried where doubtful

IGNEOUS ROCKS

TERTIARY(?)

Felsic to intermediate hypabyssal rocks. Dikes, sills, and small intrusive bodies. Some mapped from air photos, most checked on ground

PALEOZOIC to MESOZOIC

MzPu

Ultramafic rocks

Predominantly peridotite (wehrlite), dunite, and pyroxenite. Most is weakly serpentinized; locally strongly serpentinized

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

SYMBOLS

Contact; dashed where approximately located

Scratch boundary

Fault

Dashed where inferred, dotted where concealed. Arrows show apparent relative horizontal movement

Probable thrust fault

Sawteeth on upper plate, dotted where concealed

Air photo linear feature, thought to be a fault

70 Strike and dip of bedding

Strike of vertical bedding

20 Strike and dip of cleavage

20 Strike and dip of parallel bedding and cleavage

Strike of vertical cleavage

25 Lineation, showing plunge

Horizontal lineation

20 PA Minor fold axis, showing plunge

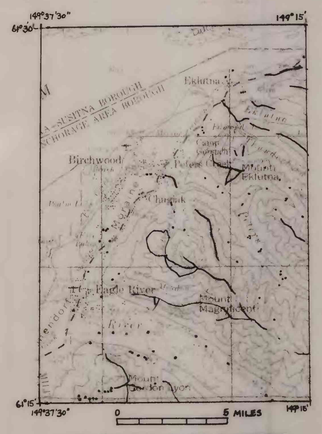
20 Strike and dip of foliation

20 Strike and dip of axial plane of minor fold

Strike of vertical axial plane of minor fold

X' Fossil locality:
1. Fusulinids
2. Plant material

□' Locality of sample dated by K-Ar method



INDEX MAP SHOWING FIELD COVERAGE

Foot traverses shown by lines; helicopter and vehicle stops shown by dots. Bedrock contacts and structures have been extended between field stations by aerial reconnaissance.