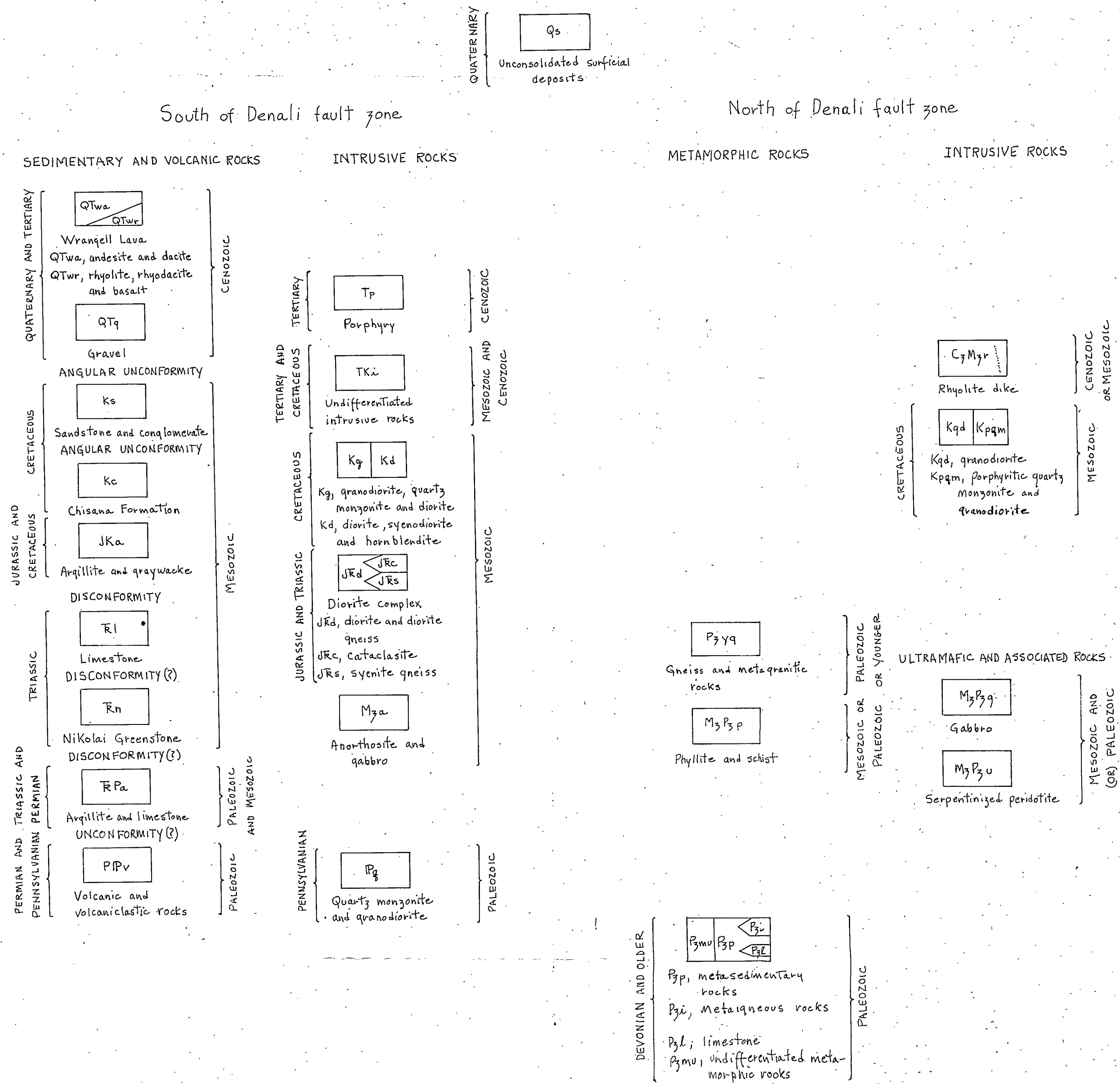


CORRELATION OF MAP UNITS



Contact, known, approximate and inferred

Fault, dotted where concealed, heavy where evidence of Quaternary movement

Thrust fault, dotted where concealed. Sawtooth on upper plate

Strike and dip of beds and flows

Horizontal beds and flows

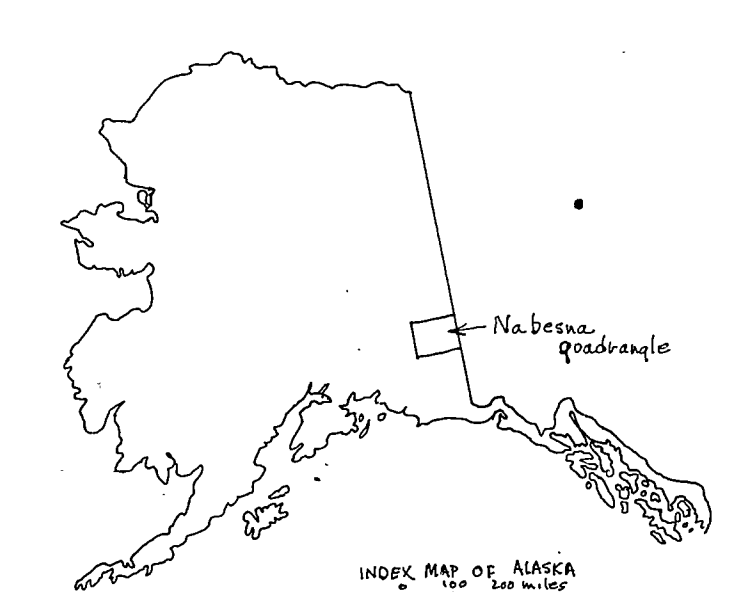
Vertical beds and flows

Overturned beds and flows

Strike and dip of foliation

Volcanic vent, chiefly small, young andesite-dacite volcanoes and andesite cinder cones

Mine or prospect showing principal mineral commodity



DESCRIPTION OF MAP UNITS

Qs	UNCONSOLIDATED SURFICIAL DEPOSITS -- Undifferentiated alluvial, glacial, fluvioglacial, rock glacier, colluvial and eolian deposits. Only more extensive areas covered by surficial deposits show. In northeast part of quadrangle bedrock is generally covered by a mantle of residual soil.	TKi	UNDIFFERENTIATED INTRUSIVE ROCKS -- Small stocks of dark fine- to medium-grained hornblende diorite, hornblende-augite diorite and hornblende. Generally porphyritic with phenocrysts of hornblende and augite. In part probably hypabyssal equivalent of plutonic rocks (Kgd, Kd).	North of Denali fault zone
South of Denali fault zone		Kg	GRANODIORITE, QUARTZ MONZONITE AND DIORITE -- Hornblende- and biotite-bearing granodiorite, quartz monzonite, and diorite with subordinate trondhjemite, quartz diorite and gabbro in large stocks and complex batholiths. Rocks are medium to coarse grained, subhedral granular and nonfoliate. Inclusions of hornfelsed country rock abundant.	MzPzp
QTwa	WRANGELL LAVA; ANDESITE AND DACITE -- Brown, gray and reddish-gray flows of andesite, basaltic andesite and dacite with interlayered lapilli tuff beds and vent debris. Flows are as much as 100 feet thick and commonly exhibit columnar jointing. Vesicles locally filled with chalcedony and zeolite minerals.	Kd	DIORITE, SYENODIORITE AND HORNBLLENDE -- Chiefly dark hornblende-bearing diorite and syenodiorite in large stocks. Hornblende generally restricted to border zones of stocks. Rocks are medium to coarse grained, subhedral granular and nonfoliate.	Pzp
QTwr	WRANGELL LAVA; RHYOLITE, RHYODACITE AND BASALT -- Light-colored massive rhyolite and rhyodacite flows and domes and related ash flow deposits, pumice air fall deposits and lahars. Glacial deposits, chiefly till, are locally interlayered with the volcanic deposits. The silicic volcanics overlie massive dark gray basalt flows in the Jack Creek area (T. 8 N., R. 13 E.).	JRd	DIORITE COMPLEX; DIORITE AND DIORITE GNEISS -- Banded hornblende diorite gneiss, amphibolite and hypersthene-hornblende diorite gneiss gradational into hornblende diorite. Gneissic rocks are fine to coarse grained with xenoblastic texture; nonfoliate rocks are medium to coarse grained with subhedral to anhedral granular texture.	Pai
QTg	GRAVEL -- Weakly consolidated fluvioglacial deposits. Shown only in the Bonanza area (T. 4 N., R. 19 E.).	JRc	DIORITE COMPLEX; CATACLASITE -- Chiefly quartz-feldspar-biotite schist and quartz-feldspar-amphibole schist. Strong deformational fabric of porphyroblastic feldspar and occasionally garnet in a fine-grained granoblastic matrix of quartz with thin bands of biotite and amphibole.	Pz1
Ks	SANDSTONE AND CONGLOMERATE -- Thin-bedded to massive drab-brown to greenish-brown continental deposits of sandstone and conglomerate with subordinate siltstone, argillite and grit. Generally contains abundant lignitized wood and other carbonaceous debris.	JRb	DIORITE COMPLEX; SYENITE GNEISS -- Pink, hornblende-biotite syenite and monzonite gneiss, generally interlayered with diorite gneiss. Fine to coarse grained with xenoblastic texture. Small pegmatitic syenite dikes, locally corundum-bearing, cut the gneiss.	Pzmu
Kc	CHISANA FORMATION -- Chiefly dark-green massive volcanic fragmental rocks with interlayered basalt and andesite flows, lapilli tuffs and volcaniclastics. The volcaniclastics range from mudstone to conglomerate, are generally thin-bedded and locally contain abundant carbonaceous debris.	JRa	ANORTHOSITE AND GABBRO -- Coarse-grained bytownite anorthosite with gabbro and gabbro-pegmatite.	CzNzr
JKa	ARGILLITE AND GRAYWACKE -- Dark-gray to greenish-gray marine deposits consisting chiefly of argillite and graded beds of argillite-siltstone-graywacke with interbedded massive lenses of extraformational conglomerate, and conglomeratic graywacke and minor calcareous siltstone and bioclastic limestone. Graded beds are exceptionally well developed.	M3a	ANORTHOSITE AND GABBRO -- Coarse-grained bytownite anorthosite with gabbro and gabbro-pegmatite.	Kgd
		P3y	GNEISS AND META-GRANITIC ROCKS	Kpqm
		P3p	PHYLITE AND SCHIST	MzPzg
		P3u	SERPENTINIZED PERIDOTITE	MzPzu
		P3m	Metasedimentary rocks	
		P3i	Metagneous rocks	
		P3l	Limestone	
		P3u	Undifferentiated metamorphic rocks	

PRELIMINARY BEDROCK GEOLOGIC MAP OF THE NABESNA QUADRANGLE, ALASKA

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

by
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1973