



Base from U.S. Geological Survey, 1933

Geology from sources listed under "References"
and mapping by Ogden Tweto, 1944, 1973

RECONNAISSANCE GEOLOGIC MAP OF THE MOUNT POWELL 15-MINUTE QUADRANGLE,
GRAND, SUMMIT, AND EAGLE COUNTIES, COLORADO

By
Ogden Tweto
1973

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

CORRELATION OF MAP UNITS

Qf	Ql	Qd	Qg	QUATERNARY
		Qdo		
Tt	Tv	Tp	+++	TERTIARY
	Tm			
	Kp			CRETACEOUS
	Kc			
	Kd	Kjdm		JURASSIC
	Jm			
	Rc			TRIASSIC
	Ppm			PERMIAN
	Pm			PENNSYLVANIAN
	Xg			PRECAMBRIAN
	Xb			

DESCRIPTION OF MAP UNITS

- Qf Talus (Holocene)
Ql Landslide deposits (Holocene and Pleistocene)
Qd Glacial drift (Pleistocene--Pinedale and Bull Lake)
Qg Terrace gravels (Pleistocene--Pinedale and Bull Lake)
Qdo Older glacial drift (Pleistocene--pre-Bull Lake)
Tt Troublesome Formation (Miocene)--Silt, tuff, sand, gravel, and local interbedded basalt
Tv Volcanic rocks (Pliocene? to upper Oligocene?)
Tp Intrusive porphyries (Miocene? and Oligocene)
+++ Sills and dikes
Tm Middle Park Formation, upper part (Paleocene)
Kp Pierre Shale (Upper Cretaceous)
Kc Colorado Group--Niobrara Formation (Upper Cretaceous) and Benton Shale (Upper and Lower Cretaceous)
Kd Dakota Sandstone
Jm Morrison Formation (Upper Jurassic)--In northwest corner of quadrangle, thin units of underlying Upper Jurassic Sundance Formation and Entrada Sandstone mapped with Morrison
Kjdm Dakota Sandstone and Morrison Formation undivided
Rc Chinle Formation (Upper Triassic)
Ppm Maroon Formation (Permian and Pennsylvanian)--In northwest corner of quadrangle, may include thin equivalent of State Bridge Formation (Triassic? and Permian). In same area, thin unit of Chinle Formation mapped with Maroon Formation
Pm Minturn Formation (Middle Pennsylvanian)
Xg Granitic rocks of 1,700 m.y. age group (Precambrian X)
Xb Biotite gneiss, quartz-feldspar and mica schist, and migmatite (Precambrian X)

- Contact
--- Fault--Dotted where concealed. Bar and ball on downthrown side
--- Thrust fault--Dotted where concealed. Saw-teeth on upper plate
~ ~ ~ Precambrian shear zone
~ ~ ~ Precambrian shear zone and younger fault
Strike and dip of beds
Inclined
Vertical
Overturned
Strike and dip of foliation
Inclined
Vertical

REFERENCES

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Howard, J. H., 1966, Structural development of the Williams Range thrust, Colorado: Geol. Soc. America Bull., v. 77, no. 11, p. 1247-1264.
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