GEOLOGIC MAP OF CEDAR CITY AND PAROWAN VALLEYS, UTAH

Scale 1 0 5 Miles

1946

EXPLANATION

SEDIMENTARY ROCKS

Pleistocene and Recent	Qal	Alluvium (Boulders, gravel, sand, and silt, moderately to highly permeable; principal source of ground water in both valleys)	QUATERNARY
	Qds	Dune sand (Well-sorted medium-grained sand; highly permeable)	
	Ql	Lake deposits (Beach gravel, silt, clay, and evaporites; permeable in part)	
	Qls	Landslide breccia (Unsorted, unconsolidated material; impermeable)	
Pleistocene(?)	Qf	Fanglomerate (Boulders, gravel, sand, and silt; moderately to highly permeable)	
Eocene	Tw	Wasatch formation (Conglomerate, limestone, and shale; generally impervious)	TERTIARY
Upper Cretaceous	Ku	Undifferentiated sandstone (Water bearing at certain horizons)	CRETACEOUS
Upper Jurassic	Js	San Rafael group (Limestone, shale, gypsum; all practically impermeable)	JURASSIC(?)
	Jn	Navajo sandstone (Well-sorted sandstone; moderately permeable)	
Upper Triassic	Tc	Chinle formation (Shale and some sandstone; relatively impermeable)	TRIASSIC
	Ts	Shinarump conglomerate (Conglomeratic sandstone; moderately permeable)	
Lower Triassic	Tm	Moenkopi formation (Shale and limestone; practically impermeable)	
Permian	Pk	Kaibab limestone (Dense limestone; water-bearing along fractures and solution channels)	CARBONIFEROUS

IGNEOUS ROCKS

Pleistocene(?)	QTb	Basalt (Dense, but with scoriaceous layers that are probably very permeable)	QUATERNARY
Pliocene(?)	Tv	Acidic volcanic rocks (Rhyolite, latite, and associated pyroclastics; generally rather impermeable)	TERTIARY
Miocene(?)	Ta	Andesite (Lavas and breccias, impermeable except along fractures)	

Fault showing upthrown and downthrown side and angle of dip; dashed where inferred

Strike and dip of beds

Strike and dip of overturned beds

Strike of vertical beds

Horizontal beds

Approximate direction and angle of dip of beds

Spring

Seep

Base from mosaics constructed from aerial photographs of the U. S. Department of Agriculture, Soil Conservation Service, and from township plats of the General Land Office.

Geology by H. E. Thomas, except in Iron Springs district. Geology of Iron Springs district from Leith, C. K., and Harder, E. C., in U. S. Geological Survey Bulletin 338, plate 1 (with some modification of the areas of Qal).

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