

Table 1.—Description of

Eratthem System Series	Geologic unit	General lithology
Upper Jurassic	Morrison Formation--Continued (221MRSN)	Bluff Sandstone Member (221BLFF) Light gray to light brown fine- to medium-grained well-sorted quartz sandstone.
Middle Jurassic San Rafael Group	Summerville Formation (of former usage, now designated Wanakah Formation)	Red, gray, green, and brown, thin evenly bedded sandy shale, siltstone, shale, and mudstone; and, in south, fine-grained sandstone.
	Entrada Sandstone (221ENRD)	Moab Member—white, medium-grained, well sorted sandstone
		Slick Rock Member—white, reddish, or yellowish-orange fine- to medium-grained quartz sandstone. More silty in southern part of area.
		Dewey Bridge Member—reddish-brown earthy to sandy siltstone, with some white sandstone.
Carmel Formation	Dark reddish-brown to grayish-red, even thin-bedded silty shale, siltstone, and gray to brown silty sandstone.	
Lower Jurassic	Navajo Sandstone (220NVJO)	White, gray, yellowish-gray, or pale orange fine- to medium-grained well-sorted quartz sandstone.
Triassic (?)	?	?
Upper Triassic (?)	Kayenta Formation (231KYNT)	Gray, purplish-gray, or grayish-orange-red, irregularly bedded sandstone and siltstone. Silty facies north of San Juan River; sandy facies south of the San Juan River. Interbedded with the Navajo Sandstone.
Upper Triassic Glen Canyon Group	Wingate Sandstone (231WNGT)	Reddish-brown, buff, to grayish-orange fine-grained, well-cemented quartz sandstone

geologic units—Continued

Thickness and areal extent	Water-bearing ¹ characteristics	Aquifer system
Maximum thickness is 300 feet near Bluff. Thins northward to zero at Blanding, and thins southward to about 20 feet at the Utah-Arizona State line.		M aquifer
Present overlying the Entrada Sandstone. Irregular thickness 60 to 200 feet, but thin north of Monticello.	Very low permeability. It is the confining bed between the M and N aquifers.	
Present east of the Comb monocline and its extension to the north, except where eroded on Nokaito Bench and in the Dry Valley area. Thickness 60 to 550 feet; average thickness 150 feet.	Very low to low permeability. The Entrada Sandstone is not considered part of the N aquifer south of the San Juan River (Cooley and others, 1969, table 3). The Kayenta Formation is a partial confining bed between the Navajo and Wingate Sandstones.	N aquifer
Present in western part of area underlying the Entrada Sandstone. Thickens to about 100 feet in the west, thins and grades laterally northward into the Dewey Bridge Member of the Entrada Sandstone.		
Present east of the Comb monocline and its extension to the north. Maximum thickness is 600 feet, generally thins southeastward to zero along a northeast trending line just east of the southeast corner of the county. Average thickness 350 feet. Thickness of 170 feet in U.S. Geological Survey test hole (D-32-24) 22ADB-1.		
Average thickness 150 feet. Thins southeastward to near zero at the southeastern corner of the county.		
Present east of the Comb monocline and its extension to the north. Thickness ranges from 150 to 650 feet; average thickness north of San Juan River is 300 feet. Thickness in the central part of the area south of the San Juan River is about 500 feet.		