

Table 1.—Description of

| Geologic unit | General lithology | MESOZOIC (200MSZC) | | | | Eratthem System Series |
|---|---|--|---|--|---|---|
| | | Upper Jurassic | Middle Jurassic | Lower Jurassic | Triassic (?) | |
| Morrison Formation—Continued (221MRSN) | Bluff Sandstone Member (221BLRF) Light gray to light brown fine- to medium-grained well-sorted quartz sandstone. | | | | | Upper Jurassic |
| Sumnerville Formation (of former usage, now designated Wapakah Formation) | Red, gray, green, and brown, thin evenly bedded sandy shale, siltstone, shale, and mudstone; and, in south, fine-grained sandstone. | | | | | San Rafael Group |
| 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. | Navajo Sandstone (220NVJO) White, gray, yellowish-gray, or pale orange fine- to medium-grained well-sorted quartz sandstone. | Lower Jurassic |
| Kayenta Formation (231KXNF) | 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. | | | | | Upper Triassic (?) |
| Wingate Sandstone (231WNGT) | Reddish-brown, buff, to grayish-orange fine-grained, well-cemented quartz sandstone | | | | | Upper Triassic Glen Canyon Group (220GANC) |

geologic units—Continued

| Water-bearing Aquifer system | Thickness and areal extent | M aquifer | N aquifer | MESOZOIC (200MSZC) | | | | |
|------------------------------|----------------------------|---|--|--|--|---|--|--|
| | | | | Upper Jurassic | Middle Jurassic | Lower Jurassic | Triassic (?) | |
| Water-bearing Aquifer system | Thickness and areal extent | 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. | Present overlying the Entrada Sandstone. Irregular thickness 60 to 200 feet, but thin north of Monticello. | Present east of the Comb monoclinal and its extension to the north, except where eroded on Nokai to Bench and in the Dry Valley area. Thickness 60 to 550 feet; average thickness 150 feet. | Present in western part of area underlying the Entrada Sandstone. Thickness 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 monoclinal and its extension to the north. Maximum thickness is 600 feet, generally thins southward to zero along a northeast trending line just east of the southeast corner of the county. Average thickness 350 feet. Thickness of test hole (D-32-24) 22ADB-1. | Average thickness 150 feet. Thins southward to near zero at the southeastern corner of the county. | Present east of the Comb monoclinal 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. |
| | | | Very low permeability. It is the N aquifer. Very low permeability. It is the N aquifer. | Very low to low permeability. The Entrada Sandstone is not considered part of the N aquifer south of the San Juan River (Cooly and others, 1969, table 3). The Kayenta Formation is a partial confining bed between the Navajo and Wingate Sandstones. | | | | |