



EXPLANATION

ROCKS

Alluvium
Sand, silt, and clay containing some gravel.
Present in most valleys.

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Terrace gravel, colluvium, and stream-channel gravel
Gravel capping terraces, colluvial aprons on slopes and walls of valleys, and sand, silt, clay, and gravel in the higher parts of some valleys.

High terrace gravel
Boulder gravel capping remnants of the highest erosional surface of the foot of San Pedro Mountain.

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Intrusive rocks
Mafic dikes locally including some agglomerate of igneous and sedimentary rocks.

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San Jose formation
The Tapicito member, consists of red shale and interbedded white to tan conglomerate. The Laves member, consists of thick to massive, red to buff conglomeratic sandstone with some shale interbedded. The Regno member, consists of variegated shale and interbedded thin to thick, white to tan sandstone. The Cuba Mesa member, consists of thick to massive, buff to tan conglomeratic sandstone with some interbedded shale. Where tongues of the Cuba Mesa member are present, the persistent main part of the member, and the are long.

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Nacimiento formation
Gray to olive-green shale with interbedded thin to thick sandstone and conglomeratic sandstone.

Ojo Alamo sandstone
Buff to light-brown, thick, cross-bedded sandstone containing lenses of conglomerate and thin lenses of olive-green and gray shale.

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Kirtland shale and Fruitland formation, undivided
Dark-gray to olive-green shale and interbedded buff, brown, and white sandstone, contains local lenses of pebbly conglomerate and coal.

Pictured Cliffs sandstone
Gray to light-brown sandstone and interbedded gray carbonaceous shale. North of sec. 23, T. 21 N., R. 1 W. the Pictured Cliffs is overlain by the undivided Kirtland shale and Fruitland formation.

Lewis shale
Gray shale containing a few beds of sandstone and concretionary limestone.

Mesoverde group, undivided
Consists of an upper sandstone and equivalent to the La Ventana tongue of the Cliff House sandstone, a medial unit of speckling shale and sandstone equivalent to the Manley formation, and a lower sandstone unit equivalent to the Point Lookout sandstone.

Cretaceous and older rocks, undivided
Shale, sandstone, limestone, granite, and schist.

SYMBOLS

Contact of geologic formation
Dashed where approximately located, dotted where concealed.

Strike and dip of bed

Strike and dip of overturned bed

Trace of axial plane of anticline
Arrowhead denotes direction of plunge. Dashed where approximately located, dotted where concealed.

Trace of axial plane of syncline
Arrowhead denotes direction of plunge. Dashed where approximately located, dotted where concealed.

Trace of axial plane of anticlinal bend

Trace of axial plane of synclinal bend

Fault
Symbol (+) denotes downthrown side; arrowhead indicates relative horizontal displacement. Dashed where approximately located, dotted where concealed.

Locality of measured stratigraphic section
Line of cross section
Shown on Fig. 13

Base map compiled from U.S. Geological Survey topographic quadrangle maps, New Mexico State Highway Commission Planning Survey quadrangle maps, and Resources Map of the Jicarilla Indian Reservation (1957).

Geology mapped in 1959 and 1960 by E. H. Boltz assisted by S. R. Ash.

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Figure 2.--Geologic map of the east-central part of the San Juan Basin, New Mexico