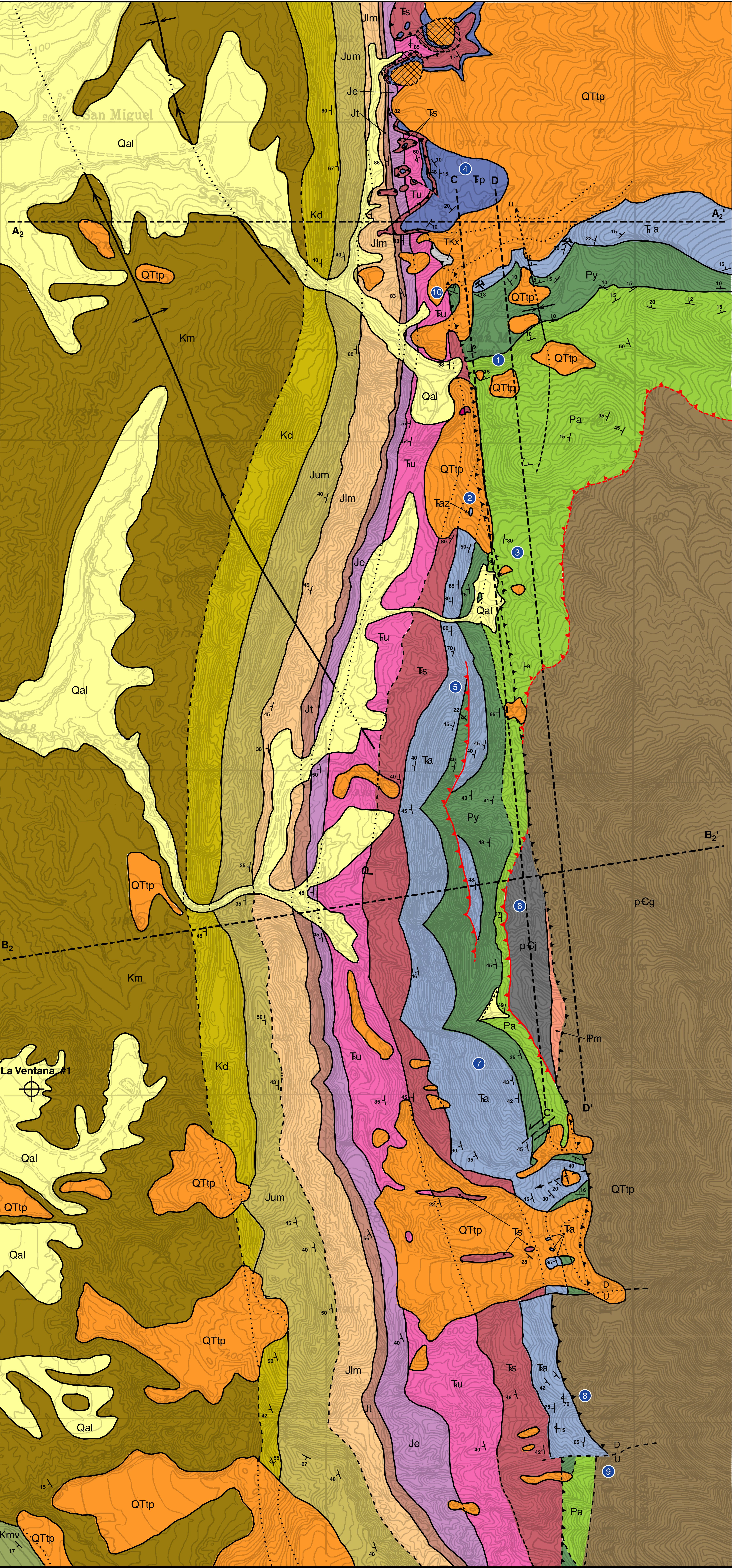


Sheet 1: Bedrock geology of part of the San Pablo and La Ventana 7.5' quadrangles, New Mexico

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Map Legend *

Cenozoic/
Quaternary

QTip

Terrace and pediment deposits

Unconsolidated cobble, and boulder gravel with minor sand and lag gravel. Clasts composed of Precambrian and local Paleozoic and Mesozoic rocks; 0 to 10(?) meters thick.

unconformable contact

TKx

Structural mélange

Unconsolidated tectonic mélange incorporating blocks of Paleozoic and Mesozoic rocks originating in the hanging wall and footwall of the Nacimiento-Pajarito fault; undetermined thickness.

Kl

Lewis Shale

Grey to black shale with minor light-grey to buff sandstone and yellowish nodular limy concretions; 460 to 610 meters thick

Kmv

Mesaverde Group

In ascending order: light-grey, medium-grained sandstone, minor grey shale interbeds; light- to dark-grey carbonaceous shale, light-grey sandstone and sub-bituminous coal; light-grey to brown, medium grained sandstone with grey shale interbeds; 100 to 570 meters thick

Km

Mancos Shale

Black shale with minor, thin-bedded, light-grey sandstone and yellowish limy concretions; 610 to 670 meters thick.

Kd

Dakota Formation

White, yellow, and buff, fine- to medium-grained, thick-bedded sandstone; large (1 m diameter) concretions, black shale and locally coal near the middle, black chert gravel near basal contact; 65 meters thick.

Jum

Upper Member of the Morrison Formation

Yellow, white, buff and pink sandstone with minor shale and conglomeratic sandstone; green shale; 120 meters thick.

Jlm

Lower member of the Morrison Formation

Brownish-maroon siltstone and very fine-grained sandstone with minor light-grey sandstone and maroon shale; brick red and pale green mudstone and very fine-grained sandstone with grey to yellow-buff sandstone and minor pellet limestone; 130 meters thick.

Jt

Toddlito Formation

Basal black to brown, fetid, laminated limestone; 1.5 to 2.5 meters thick. Overlain by massive, white gypsum; 30 to 45 meters thick.

Je

Entrada Formation

In ascending order: light orange-tan, white and pale-yellow, fine- to medium-grained, cross-bedded, eolian sandstones, locally well cemented; 45 meters thick.

Tu

Upper Shale Member of the Chinle Formation

Red shale and minor green and maroon shale and red siltstone and sandstone; 140 to 180 meters thick.

Tp

Poleo Sandstone Member of the Chinle Formation

Greenish, very fine- to coarse-grained, micaceous sandstone with minor green and reddish-maroon shale, pellet limestone, and maroon micaceous sandstone; 0.5 to 40 meters thick. (not mappable as a separate unit south of San Miguel Canyon)

P

Ts

Salitral Shale Member of the Chinle Formation

Maroon shale with subordinate green shale and locally, minor, very coarse-grained, green limy sandstone; 90 to 100 meters thick.

Ta

Agua Zarca Member of the Chinle Formation

White to light-buff, very thick-bedded, coarse-grained, quartz sandstone, conglomerate and conglomeratic sandstone, minor maroon, cross-bedded, siltstone and grey-green to maroon, silty shales, copper mineralization in some conglomeratic channels; 25 to 35 meters thick.

Py

Yeso Formation

Tan-brown and orange-buff, fine- to very fine-grained cross-bedded sandstone with very minor thick-bedded, limestone and dolomite near the upper contact; 90 to 100 meters thick.

Pa

Abo Formation

Reddish-brown mudstone and lenticular sandstone and arkose, very minor light-grey sandstone and arkose; 80 to 145 meters thick.

Pm

Madera Formation

Very coarse-grained to conglomeratic, thick-bedded arkose, reddish- to greyish- maroon shale, and thick-bedded grey, limestone containing clasts of quartz and crystalline rock; stratigraphic thickness can not be determined.

unconformable contact

Precambrian

pCj

Joaquin Granite

Dark-pink, medium- to coarse-grained, locally porphyritic with euhedral, potassium-feldspar phenocrysts, with minor biotite.

pCgn

San Miguel Gneiss

Moderately to strongly foliated, fine- to coarse-grained, quartzo-feldspathic, biotite gneiss.

5

location referred to in text

well location

excavation site

34

strike and dip of bedding

strike of vertical bedding

85

strike and dip of overturned bedding

contact between rock units (solid - exactly located; dashed - approximately located; dotted - covered)

U
D

vertical fault (U on upthrown block, D on downthrown block)

thrust fault (teeth on hanging wall)

back-thrust fault (teeth on hanging wall)

axial trace of a plunging syncline (plunge of hinge indicated)

slump

* map unit descriptions modified from Woodward et al. (1973, 1974)

