



EXPLANATION

Qal
Alluvium
Sand and silt deposits of modern floodplains and post-glacial stream terraces.

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Qta
Ancha Formation
Sand and gravel of recent different ages but distinguished from recent alluvium by position and consolidation.

Ts
Tesuque Formation
Sand, silt, gravel, volcanic ash, clay, and intraformational breccia, mostly buff colored and slightly consolidated; locally contains thin basalt flows (Tts).

Tp
Picuris Tuff
Coarse basal conglomerate, brick-red, yellow, green, and white clay, volcanic breccia; water-laid volcanic tuff with interbedded coarse and fine gravels and thin basalt flows, compact marl beds and thin shales.

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P
Pennsylvanian undifferentiated
Includes La Pasada Formation, limestone, gray shale, and primarily nonarkosic sandstone; Flacahado Formation, coarse-grained nonarkosic sandstone, conglomerates, gray shales, and minor limestone; Sanguero Formation, coarse-grained arkosic sandstone, conglomerates, lime-shales, and gray and red shales; Sangre de Cristo Formation, basal part only, coarse-grained arkosic sandstone, conglomerates, and red shales.

SOUTH

Alamosa Formation
La Pasada Formation

NORTH

Sangre de Cristo Formation
(basal part)
Flacahado Formation

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P22
Permian
Tt where Terro, Espirito Santo, and San Pedro formations are present; Tt where only San Pedro Sandstone is present.
Mississippian, Sanguero Formation, gray limestone, silty limestone, calcareous siltstone, and limestone boulder conglomerates.
Mississippian or pre-Mississippian, Espirito Santo Formation, sandy recrystallized limestone, sandy dolomitic limestone, and sandy dolomite; San Pedro Sandstone, quartz sandstone and local quartzite conglomerate.

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D
Dabase Dikes
Relatively unmetamorphosed, cutting all other igneous and metamorphic Precambrian rocks.

Embujo Granite
Gray to tan, medium- to coarse-grained partly porphyritic, partly gneissic, microcline-bearing granite or quartz monzonite; also, locally, dark-gray, medium- to coarse-grained, partly gneissic, quartz diorite or granodiorite; also, locally, tan to pinkish, mostly fine-grained, partly gneissic leucogranite. The leucogranite locally contains zones of amphibole gneiss (lqgm).

Vadito Formation

Schist member
Quartz-muscovite schist, quartz-muscovite phyllite, and quartz-schist granulite (lq), interbedded with flows and containing sills and dikes of partly porphyritic plagioclase amphibolites (vcsm).

Conglomerate member
Coarse quartz conglomerate and fine-grained muscovite-schist granulite (lq), locally with minor quartz-muscovite phyllite, interbedded with flows and containing sills of metabasites, chiefly metabasaltites and metabasites (lvt), but also of minor meta-andesites and plagioclase amphibolites (vcsm).

Orrego Formation

Pilar Phyllite Member
Gray-brown carbonaceous quartz-muscovite phyllite with a staly cleavage.

Rinconada Schist Member
Quartz-muscovite-biotite phyllite and schist with thin calcareous beds (lvt), discontinuous quartzite (lq), staurolite-rich schist and gneiss interbedded with thin beds of quartzite, underlain locally by a discontinuous bed of quartzite-biotite gneiss (lq).

Lower quartzite member
Coarse-grained quartzite (lq) with thin beds of siliceous-spongy quartz, quartzite-biotite granulite gneisses, and gray to black, chiefly metasedimentary amphibolites (lqgm). Locally near its exposed base may contain a thin zone of schistose, feldspathic quartzite (Rio Pueblo Schist-corp).

Contact
Dashed where approximately located.

Fault
Showing relative movement. Dashed where approximate location; dotted where concealed. U, upthrown side; D, downthrown side.

Thrust or reverse fault
Saw-tooth on side of upper plate.

Strike and dip of beds

Strike and dip of overturned beds

Strike of vertical beds

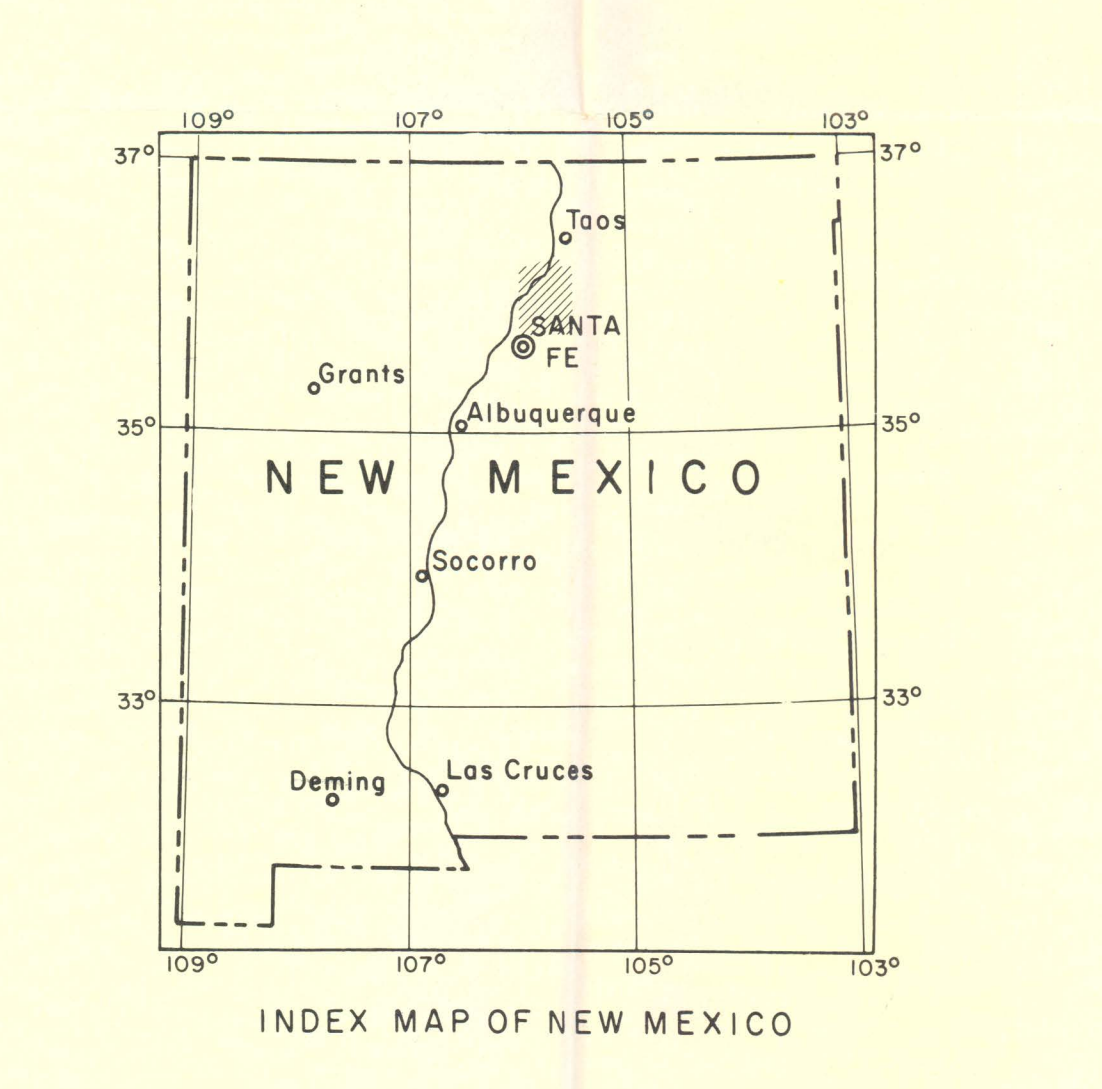
Strike and dip of foliation

Strike of vertical foliation

Strike and dip of foliation and plunge of lineation

Mine

Silicified zone



Base map compiled from U.S. Soil Conservation Service quadrangles 85, 86, 89, and 102; Army Map Service Santa Fe quadrangle and the following U.S. Geological Survey quadrangles: Valverde, Trampas, Chispa, Tscheta, Cordoba, Sierra Mocha, Tesuque, and Aspin Basin.

Geology by John P. Miller, Arthur Montgomery, and Patrick K. Sutherland. Mapped in 1954-1959. Geologic Cartography by Bob Price.

GEOLOGIC MAP AND SECTION OF PART OF THE SOUTHERN SANGRE DE CRISTO MOUNTAINS

by John P. Miller, Arthur Montgomery, and Patrick K. Sutherland

1:63,360

Scale bar: 0 to 5 Miles

Contour interval: 200 feet

Datum: mean sea level

1963