



ABBREVIATED EXPLANATION

Approximate stratigraphic relationships only; see Geologic Map Explanation for more accurate age determinations and unit descriptions.

QUATERNARY

- Alluvium (Undifferentiated)
- Wash deposits (Alluvial deposits of modern washes)
- Older wash deposits (Alluvial deposits of abandoned washes)
- Landslide deposits
- Wind-blown sand
- Younger fan deposits
- Fan deposits
- Younger alluvium
- Lake deposits
- Older fan deposits
- Older alluvium (Undifferentiated)
- Glacial till and outwash
- Well dissected alluvial fans
- Harold Formation and Shoemaker Gravel (Fine- to coarse-grained sediments, nonmarine)
- Older lake deposits
- Continental deposits (Undifferentiated; fluvial gravel, sand, silt, and clay)
- San Timoteo Formation (Nonmarine sandstone, siltstone, conglomerate, and shale)
- Juniper Hills Formation (Nonmarine sandstone, conglomerate, siltstone, and shale)
- Old Woman Sandstone (Archaic sandstone and conglomerate; nonmarine)
- Crowder Formation (Nonmarine arkosic sandstone and conglomerate)
- Anaverde Formation (Nonmarine sandstone and shale)
- Fernando Formation (Siltstone, sandstone, conglomerate, marine)
- Punchbowl Formation (Nonmarine cobble to pebbly sandstone)
- Potato Sandstone
- Santa Ana Sandstone (Nonmarine)
- Coachella Fonglomerate (Boulder, cobble, and pebble fonglomerate)
- Puente Formation (Marine siltstone, sandstone, and shale)
- Barstow Formation (Nonmarine arkosic sandstone, siltstone, conglomerate, and tuff)
- Mb¹-volcanic rocks
- Punchbowl (?) Formation of Cajon Valley (Nonmarine arkosic conglomerate and sandstone)
- Topanga Formation (Marine sandstone and conglomerate)
- Tropico Group (Conglomerate, arkosic sandstone, siltstone, tuff, shale, and limestone)
- Unnamed Miocene continental deposits (Poorly sorted sandstone and conglomerate)
- Mels-limestone and claystone
- Pickhandle and Jackhammer Formations (Nonmarine tuff, agglomerate, sandstone, and mudflows)
- Hector Formation (Nonmarine volcaniclastic sediments)
- Vaqueros (?) Formation (Marine arkosic sandstone, siltstone, and conglomerate)

MIocene

- Miocene-Pliocene volcanic rocks (b-basalt; t-ryholite tuff)
- Miocene shallow intrusive rocks (a-andesitic; d-dacite and rhyolite; b-basaltic)
- Glendora Volcanics (e-andesitic; b-basalt; r-rhyolite)
- Miocene volcanic rocks (a-andesitic; b-basalt; d-dacite; p-pyroclastic rocks)

PLIOcene

- Tertiary granitic rocks
- Vaquex Formation, volcanic member (Andesite, diorite, and tuff)
- Mountain Meadows Biotite, Dacite Porphyry

MESozoIC

MESozoIC PLUTONIC ROCKS

- Creaceous granitic rocks
- Gabbroic and dioritic rocks
- Jurassic or Creaceous granitic
- Jurassic quartz diorite
- Jurassic monzonite
- Mt. Lowe Granodiorite
- Gabbro of Pleasant View Ridge
- Creaceous quartz diorite
- Creaceous or Jurassic quartz monzonite; Quartz Monzonite of Pleasant View Ridge
- Jurassic or Creaceous granodiorite
- Jurassic hornblende diorite and minor gabbro
- Jurassic monzonite
- Triassic monzonite

PALEozoIC

- Upper Paleozoic limestone and marble
- Waterman Gneiss
- Metasedimentary rocks of uncertain age (Quartzite, phyllite, and schist)
- ls - limestone and marble
- Cambrian and uppermost Precambrian metamorphic rocks
- Cls - Crystalline limestone; Cq - Quartzite
- Late Precambrian metamorphic rocks (pCs - univided; pCq - quartzite)
- Baldwin Gneiss

PRECAMBRIAN

- m - Gneiss
- m - Mylonite of Vincent Thrust
- m - "Black Belt" Mylonite
- m - High-grade metamorphic rocks

Sheared and deformed metamorphic rocks (age uncertain)

Locally contain undeformed to slightly deformed plutonic rocks.

Geology compiled 1981-83

Scale 1:250,000

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS
TRANSVERSE MERCATOR PROJECTION

1983 MAGNETIC DECLINATION FROM TRUE NORTH VARIES FROM 15°15' (2000 FEET WEST) EASTERLY TO THE CENTER OF THE WEST COAST TO 15°17'10" WEST EASTERLY FOR THE CENTER OF THE EAST COAST

Geology by Eleanor Taylor and Richard R. Moor

ABBREVIATED INDEX TO GEOLOGIC SOURCE DATA (Complete index on Sheet 3)

CROSS SECTION ACROSS THE SAN BERNARDINO QUADRANGLE

Vertical Exaggeration = Approximately 2X Horizontal

SOUTHWEST A

NORTHEAST A'

San Jose Fault, Cucamonga Fault, San Andreas Fault, Vincent Thrust, State Route 138, Baldy Mesa, US 395, Mojave River, Quartzite Mt., Mojave River, State Route 58, Holendale Fault

San Gabriel Mountains, MOJAVE DESERT, MOJAVE DESERT

San Jose Fault, Cucamonga Fault, San Andreas Fault, Vincent Thrust, State Route 138, Baldy Mesa, US 395, Mojave River, Quartzite Mt., Mojave River, State Route 58, Holendale Fault

San Jose Fault, Cucamonga Fault, San Andreas Fault, Vincent Thrust, State Route 138, Baldy Mesa, US 395, Mojave River, Quartzite Mt., Mojave River, State Route 58, Holendale Fault

GEOLOGIC MAP OF THE SAN BERNARDINO QUADRANGLE, CALIFORNIA, 1:250,000

Compilation by E.J. Borgtuno and T.E. Spittler
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