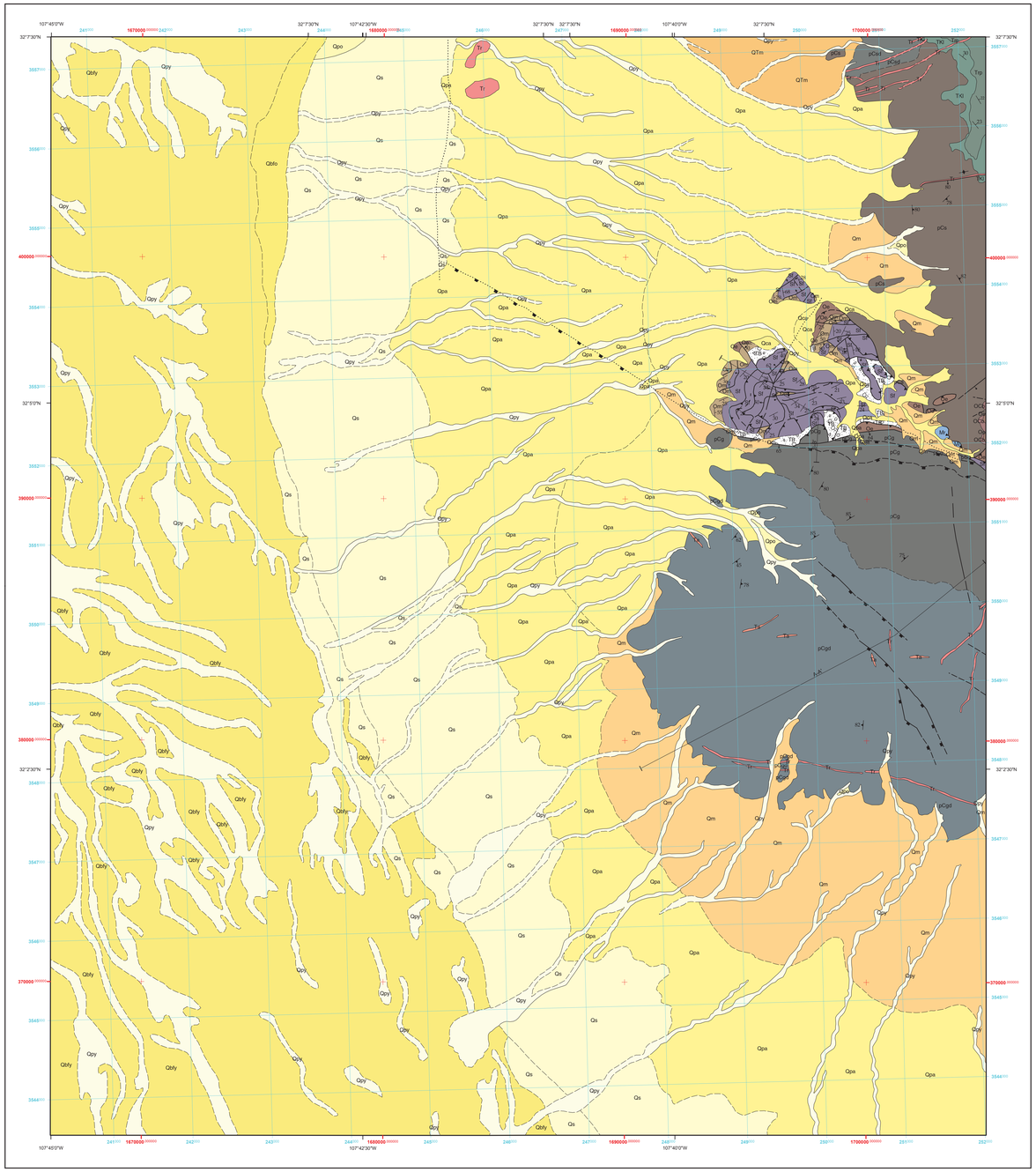
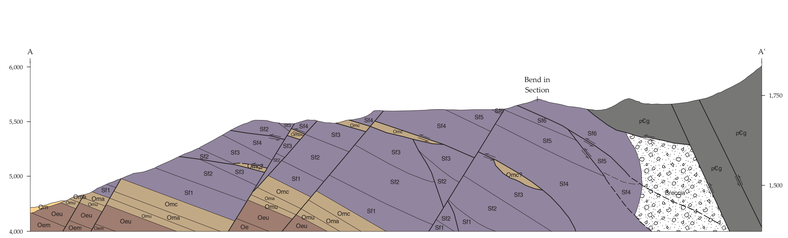
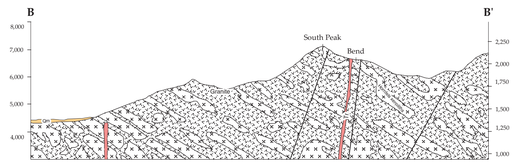




Enlarged 4x, northwest-southeast cross section (A-A'). Symbols not used on geologic map are: Oem–middle El Paso Formation, Oeu–upper El Paso formaiton, Omu–Upham Member of Montoya Formation,Oma–Aleman Member, Omc–Cutter Member, Sf1–lower dark-gray Fusselman Dolomite, Sf2–lower light-gray Fusselman, Sf3–middle dark-gray Fusselman, Sf4–middle light-gray Fusselman, Sf5–upper dark-gray Fusselman, Sf6–upper light-gray Fusselman.



True-scale, southwest-northwest cross section (B-B') showing diagrammatically the interlayered relations of granite (checks) and hornfels xenoliths (crosses).

01-01–Map Unit–Qs–Windblown Sand–Unconsolidated dunes up to 10 ft high; mostly underlain by caliche horizon; forms cover over map unit

01-02–Map Unit–Qbfo–Older basin-floor sediments–Predominantly nongravelly to slightly gravelly alluvium in the Mimbres Basin unaffected

01-03–Map Unit–Qbfy–Younger basin-floor sediments –Predominantly nongravelly to slightly gravelly alluvium in the Mimbres Basin unaffected

01-04–Map Unit–Qca–Undifferentiated colluvium-alluvium–Thin talus-slope veneers and colluvial and alluvial fills on arroyo sideslopes; found in

01-05–Map Unit–Qpa–Undifferentiated piedmont-slope alluvium–Mixed older piedmont-slope alluvium and younger piedmont-slope alluvium

01-06–Map Unit–Qpo–Undifferentiated piedmont-slope alluvium–Unconsolidated fan deposits, piedmont-valley fills, and erosion-surface veneers, associated with surfaces graded to closed basins;

01-07–Map Unit–Qpy–Younger piedmont-slope arroyo alluvium–Silty to gravelly sdeiments in hallow drainage ways cut below older fan and

01-08–Map Unit–Qm–Mimbres Formation, upper part–Fan gravel and interbedded sandy lenses representing piedmont-slope facies; includes thin erosional-surface veneers near mountain fronts; upper layers contain

01-09–Map Unit–QTm–Mimbres Formation, lower part–Similar to Qm but found on higher terrace and alluvial fan-remnants; igneous rock clasts are

02-01–Map Unit–Ta–Hornblende andesite and basaltic andesite –Intensely altered and deeply weathered dikes and small irregular intrusions;

02-02–Map Unit–Tr–Rhyolite–Very light gray dikes, ranging from 1 to 18 ft in thickness, and small stocks; holocrystalline, generally nonporphyritic,

02-03–Map Unit–Trp–Rubio Peak Formation–Grayish-purple and reddish breccias of polylithic volcanic clasts grading upward into greenish-gray breccias and conglomeratic sandstones; basal beds contain abundant

02-04–Map Unit–TKl–Lobo Formation –Interbedded reddish-brown shale, chert-limestone conglomerate, calcareous gray siltstone, sandstone, and pebble-to-cobble conglomerate; this unit is Darton's (1916) Lobo

03-01–Map Unit–Mr–Rancheria Formation–Thin-to medium-bedded, dark-gray to black, fine-crystalline fossiliferous limestone; contains as much as

04-01–Map Unit–Dp–Percha Shale–Dark-gray to olvine-gray fissile shale;

05-01–Map Unit–Sf–Fusselman Dolomite–Thin-to massive-bedded, alternating dark-and light-gray units (6), medium- to coarse-crystalline dolomite; several coral-rich zones; sparse chert in basal and uppermost

06-01–Map Unit–Om–Montoya Formation–Basal, coarse sandy dolomite (Cable Canyon) overlain but dark-brown, coarse-crystalline dolomite (Upham), thin-bedded, medium-gray limestone and cherty limestone

06-02–Map Unit–Oe–El Paso Formation–Basal unit of dark-gray, medium-crystalline dolomite overlain by thick middle unit of thin- to medium-bedded, light- to medium-gray limestone and cherty limestone, and upper

06-03–Map Unit–O•b–Bliss Sandstone–Thin- to medium-bedded arkosic to quartzose sandstone; grades up to calcareous sandsone and silty dolomite

07-01–Map Unit–=g–Granite–Fine- to coarse-crystalline, red to gray, alkali-feldspar granite; contains approximately 65% perthite and microcline, 28% quartz, 5% hastingsite, and 2% magnetite, zircon, sphene, and apatite;

07-02–Map Unit–=gd–Granite with abundant xenoliths –Fine- to coarse-crystalline alkali- feldspar granite (like pCg) containing up to 50% hornblende and pyroxene hornfels xenoliths, predominant bedrock type in

07-03–Map Unit–=s–Syenite and quartz syenite–Predominantly coarse crystalline with many aplitic zones; un weathered rock is bluish gray but most outcrops are a yellowish-brown; composition ranges from alkali-

07-04–Map Unit–=sd–Syenite with abundant xenoliths–Coarse-crystalline syenite (like pCs) containing abundant hornblende and pyroxene hornfels

08-01–Map Unit–TB–Tectonic Breccia–A breccia formed as a result of

Base map from U.S. Geological Survey 2010.
North American Datum of 1927 (NAD27) World Geodetic System of 1984 (WGS84).
Projection and 1000-meter grid: Universal Transverse Mercator, Zone 13S, shown in blue.
10 000-foot ticks: New Mexico Coordinate System of 1927(west zone), shown in red.

Roads.....©2006-2010 Tele Atlas
Names.....GNIS, 2008
Hydrography.....National Hydrography Dataset, 2005
Contours.....National Elevation Dataset, 2000

Quadrangle Location

1:24,000

1 0.5 0 1 Mile

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

1 0.5 0 1 Kilometer

North American Vertical Datum of 1988

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http://geoinfo.nmt.edu

Digital layout and cartography by the NMBGMR Map Production Group:

New Mexico Bureau of Geology and Mineral Resources
Geologic Map 59

Geologic Map of the South Peak 7.5-Minute Quadrangle, Luna County, New Mexico

1985

by
Russel E. Clemons

[1] *New Mexico Bureau of Geology and Mineral Resources, 801 Leroy Place, Socorro, NM 87801*

This draft geologic map is preliminary and will undergo revision. It was produced from either scans of hand-drafted originals or from digitally drafted original maps and figures using a wide variety of software, and is currently in cartographic production. It is being distributed in this draft form as part of the bureau's Open-file map series (OFGM), due to high demand for current geologic map data in these areas where STATEMAP quadrangles are located, and it is the bureau's policy to disseminate geologic data to the public as soon as possible.

After this map has undergone review, editing, and final cartographic production adhering to bureau map standards, it will be released in our Geologic Map (GM) series. This final version will receive a new GM number and will supercede this preliminary open-file geologic map.

DRAFT

Comments to Map Users

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Cross sections are constructed based upon the interpretations of the author made from geologic mapping, and available geophysical, and subsurface (drillhole) data. Cross sections should be used as an aid to understanding the general geologic framework of the map area, and not be the sole source of information for use in locating or designing wells, buildings, roads, or other man-made structures.

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Explanation Of Map Symbols

- 2.11.9 Inclined fault (2nd option)
- 6.2 Inclined bedding
- 8.3.2 Inclined metamorphic foliation
- 8.3.3 Vertical metamorphic foliation
- 31.10 Cross section line
- 2.2.3 Normal fault—Identity and existence certain, location approximate
- 2.2.1 Normal fault—Identity and existence certain, location accurate
- 31.08 Map boundary
- 1.1.1 Contact—Identity and existence certain, location accurate
- 1.1.3 Contact—Identity and existence certain, location approximate
- 2.1.1 Fault (generic; vertical, subvertical, or high angle; or unknown or unspecified orientation or sense of slip)—Identity and existence certain, location accurate
- 2.1.3 Fault (generic; vertical, subvertical, or high angle; or unknown or unspecified orientation or sense of slip)—Identity and existence certain, location approximate
- 2.1.7 Fault (generic; vertical, subvertical, or high angle; or unknown or unspecified orientation or sense of slip)—Identity and existence certain, location concealed
- 2.4.1 Reverse fault—Identity and existence certain, location accurate
- 2.4.3 Reverse fault—Identity and existence certain, location approximate
- 2.4.7 Reverse fault—Identity and existence certain, location concealed
- 2.8.1 Thrust fault (1st option)—Identity and existence certain, location accurate
- 2.8.3 Thrust fault (1st option)—Identity and existence certain, location approximate