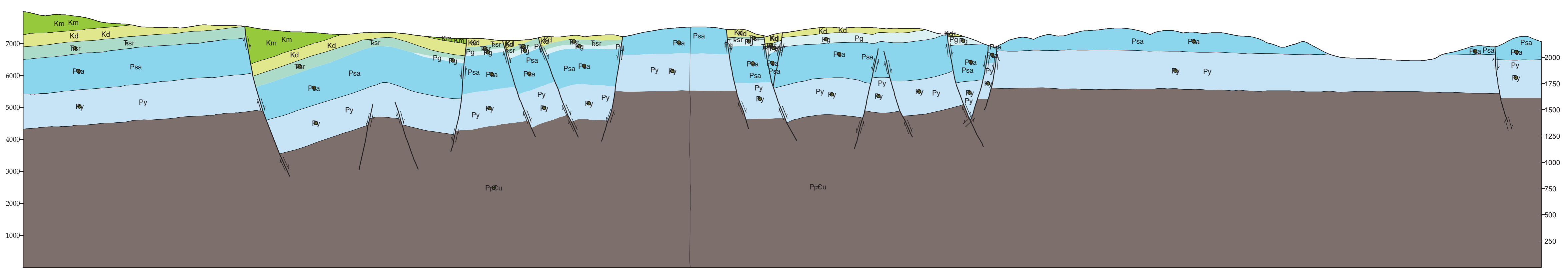
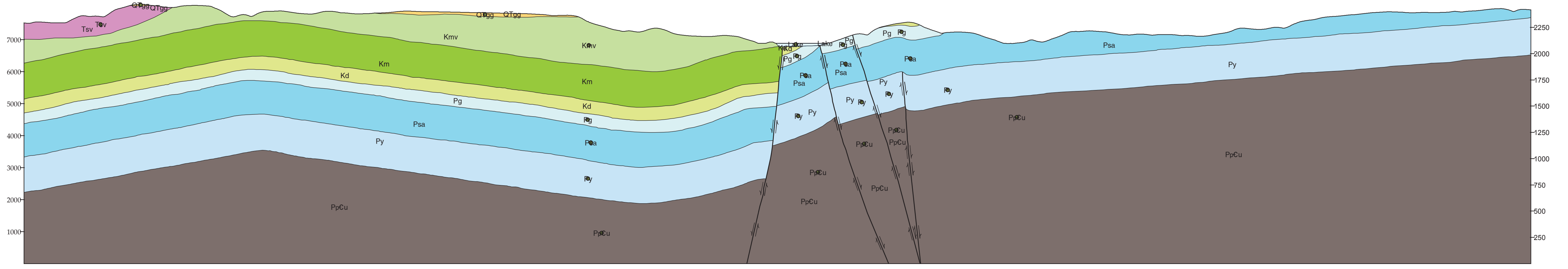
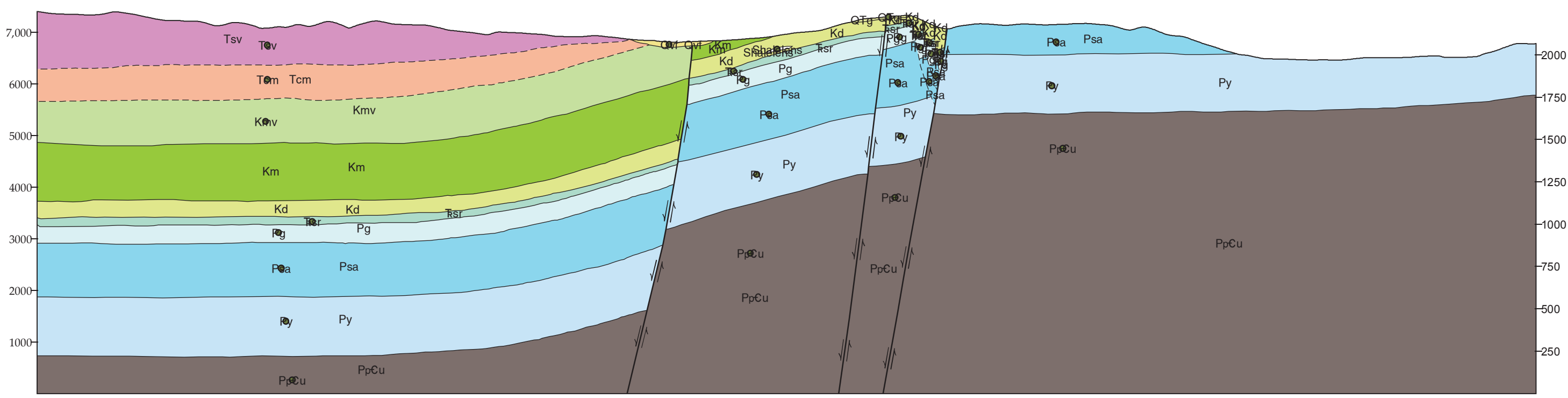


Explanation of Map Symbols

- 4.3.2 Minor inclined joint (1st option)
- 6.2 Inclined bedding
- 8.2.3 Inclined flow banding, lamination, layering, or foliation in igneous rock
- 31.10 Cross section line
- 5.1.1 Anticline (1st option)—Identity and existence certain, location accurate
- 5.1.3 Anticline (1st option)—Identity and existence certain, location approximate
- 5.5.1 Syncline (1st option)—Identity and existence certain, location accurate
- 5.5.3 Syncline (1st option)—Identity and existence certain, location approximate
- 1.1.1 Contact—Identity and existence certain, location accurate
- 1.1.3 Contact—Identity and existence certain, location approximate
- 1.1.5 Contact—Identity and existence certain, location inferred
- 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
- 31.08 Map boundary

Description of Map Units

- 01-00-00-00-00—Heading02—Anthropogenic Deposits—Anthropogenic Deposits
- 01-01-00-00-00-00—Unit—af—Artificial Fill—Artificial fill
- 01-02-00-00-00-00—Unit—daf—Disturbed Anthropogenic Fill—Heavily disturbed land and/or artificial fill.
- 02-00-00-00-00-00—Heading02—Qt T Surficial Deposits—Quaternary and Tertiary Surficial Deposits—Quaternary and Tertiary Surficial Deposits
- 02-01-00-00-00-00—Unit—QHa—Alluvium—Alluvium (Holocene to Pleistocene to Holocene)
- 02-02-00-00-00-00—Unit—Qv—Valley fill—Valley fill (upper Pleistocene to Holocene)
- 02-03-00-00-00-00—Unit—Qr3—Lowest terrace deposit of Rio Ruidoso—Lowest terrace deposit of Rio Ruidoso (Holocene)
- 02-04-00-00-00-00—Unit—Qr2—Middle terrace deposit of Rio Ruidoso—Middle terrace deposit of Rio Ruidoso (upper Pleistocene)
- 02-05-00-00-00-00—Unit—Qr1—Upper terrace deposit of Rio Ruidoso—Upper terrace deposit of Rio Ruidoso (middle Pleistocene)
- 02-06-00-00-00-00—Unit—Qaf—Alluvial fan deposits—Alluvial fan deposits (middle to upper Pleistocene)
- 02-07-00-00-00-00—Unit—Qls—Landslide deposits—Landslide deposits (lower to middle Pleistocene?)
- 02-08-00-00-00-00—Unit—Qg—Stream gravel deposits—Stream gravel deposits (lower to middle (?) Pleistocene)
- 02-09-00-00-00-00—Unit—QTg—Pediment gravel deposits—Pediment gravel deposits (Pliocene (?)—lower Pleistocene)
- 02-10-00-00-00-00—Unit—QTgg—Glacial outwash gravel—Glacial outwash gravel (Pliocene (?) to lowest (?) Pleistocene)
- 03-00-00-00-00-00—Heading02—Cenozoic Igneous Rocks—Cenozoic Igneous Rocks—Cenozoic Igneous Rocks
- 03-01-00-00-00-00—Unit—Tsv—Sierra Blanca Volcanic Rocks, Undivided—Sierra Blanca volcanic rocks, undivided (upper Eocene to Oligocene)
- 03-02-00-00-00-00—Unit—Tsv-tp—Trachyphonolite porphyry flows—Trachyphonolite porphyry flows
- 03-03-00-00-00-00—Unit—Tsv-tf—Trachybasalt flows—Trachybasalt flows
- 03-04-00-00-00-00—Unit—Tad—Andesite/diorite dike, undivided—Andesite/diorite dike, undivided (Oligocene)
- 03-05-00-00-00-00—Unit—Tmz—Monzonite (?) dike—Monzonite (?) dike (Oligocene)
- 04-00-00-00-00-00—Heading02—Cenozoic Sedimentary Rocks—Cenozoic Sedimentary Rocks—Cenozoic Sedimentary Rocks
- 04-01-00-00-00-00—Unit—Tcm—Cub Mountain Formation—Cub Mountain Formation (Eocene)
- 05-00-00-00-00-00—Heading02—Mesozoic Sedimentary Rocks—Mesozoic Sedimentary Rocks—Mesozoic Sedimentary Rocks
- 05-01-00-00-00-00—Unit—Kmv—Cretaceous Mesa Verde Group, undivided—Cretaceous Mesa Verde Group, undivided (upper Cretaceous)
- 05-02-00-00-00-00—Unit—Km—Mancos Shale—Mancos Shale (middle to upper Cretaceous)
- 05-03-00-00-00-00—Unit—Kd—Dakota Sandstone—Dakota Sandstone (lower to middle Cretaceous)
- 05-04-00-00-00-00—Unit—sr—Santa Rosa Formation—Santa Rosa Formation (upper Triassic)
- 06-00-00-00-00-00—Heading02—Paleozoic—Paleozoic—Paleozoic
- 06-01-00-00-00-00—Heading03—Paleozoic Sedimentary Rocks—Paleozoic Sedimentary Rocks—Paleozoic Sedimentary Rocks
- 06-01-01-00-00-00—Unit—Pg—Grayburg Formation—Grayburg Formation (upper Permian)
- 06-01-02-00-00-00—Unit—Psa—San Andres Formation—San Andres Formation (middle to upper Permian)
- 06-01-03-00-00-00—Unit—Py—Yeso Formation—Yeso Formation (middle Permian)
- 07-00-00-00-00-00—Heading02—Permian to Proterozoic—Permian to Proterozoic rocks—Permian to Proterozoic rocks
- 07-01-00-00-00-00—Unit—PpCu—Permian to Proterozoic rocks—Permian to Proterozoic rocks



Base map from U.S. Geological Survey 2017.
North American Datum of 1983 (NAD83).
Projection and 100-meter Grid: Universal Transverse Mercator, Zone 13S, shown in blue.
Coordinate System: New Mexico Coordinate System of 1972 based on the 1983 datum.
Scale: 1:24,000
Contour Interval: 40 Feet
National Geodetic Vertical Datum 1929

Quadrangle Location

New Mexico Bureau of Geology and Mineral Resources
New Mexico Tech
801 Leroy Place
Socorro, New Mexico
87801-4796
(575) 835-5490

This and other STATEMAP quadrangles are available for free download in both PDF and ArcGIS formats at:
<http://geoinfo.nmt.edu>

Geologic Map of the Ruidoso 7.5-Minute Quadrangle, Lincoln and Otero County, New Mexico

May 2004
by
Geoffrey Rawling

NMBGMR, 801 Leroy Pl., Socorro, NM, 87801

Comments to Map Users

A geologic map displays information on the distribution, nature, orientation, and age relationships of rock and deposits and the occurrence of structural features. Geologic and fault contacts are irregular surfaces that form boundaries between different types or ages of units. Data depicted on this geologic quadrangle map may be based on any of the following: reconnaissance field geologic mapping; compilation of published and unpublished work; and photogeologic interpretation. Locations of contacts are not surveyed, but are plotted by interpretation of the position of a given contact onto a topographic base map; therefore, the accuracy of contact locations depends on the scale of mapping and the interpretation of the geologists. Any enlargement of this map could cause misunderstanding in the detail of mapping and may result in erroneous interpretations. Site-specific conditions should be verified by detailed surface mapping or subsurface exploration. Topographic and cultural changes may not be shown due to recent development.

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.

The New Mexico Bureau of Geology and Mineral Resources created the Open-File Geologic Map Series to expedite dissemination of these geologic maps and map data to the public as rapidly as possible while allowing for map revision as geologists continued to work in map areas. Each map sheet carries the original date of publication below the map as well as the latest revision date in the upper right corner. In most cases, the original date of publication coincides with the date of the map product delivered to the National Cooperative Geologic Mapping Program (NCGMP) as part of New Mexico's STATEMAP agreement. While maps are produced, maintained, and updated in an ArcGIS geodatabase, at the time of the STATEMAP deliverable, each map goes through cartographic production and internal review prior to uploading to the Internet. Even if additional updates are carried out on the ArcGIS map data files, citations to these maps should reflect this original publication date and the original authors listed. The views and conclusions contained in these map documents are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the State of New Mexico, or the U.S. Government.

