

GEOLOGIC MAP OF THE HERMOSA QUADRANGLE, LA PLATA COUNTY, COLORADO

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MAP UNITS

The complete description of map units and references is in the accompanying booklet.

SURFICIAL DEPOSITS

HUMAN-MADE DEPOSITS

af Artificial fill (latest Holocene)

ALLUVIAL DEPOSITS

Qa Stream-channel, flood-plain, and low terrace deposits (Holocene and late Pleistocene)  
Qsw Sheetwash deposits (Holocene and late Pleistocene)  
Qt1 Terrace alluvium one (latest Pleistocene)

COLLUVIAL DEPOSITS

Qc Colluvium (Holocene and late Pleistocene)  
Qls Landslide Deposits (Holocene and Pleistocene)  
Qt Talus (Holocene and late Pleistocene)

ALLUVIAL AND COLLUVIAL DEPOSITS

Qty Younger fan deposits (Holocene and latest Pleistocene)  
Qac Alluvium and colluvium, undivided (Holocene and late Pleistocene)  
Qlo Older fan deposits (late Pleistocene)

SINTER DEPOSITS

Qtu Tufa (Holocene)

GLACIAL DEPOSITS

Qds Dammed tributary sediments (Holocene, late Pleistocene, and late middle Pleistocene?)  
Qk Kame deposits (late and late middle? Pleistocene)  
Qm Glacial moraine and till, undivided (late and late middle? Pleistocene)  
Qmk Morainal and kame deposits, undifferentiated (late and late middle? Pleistocene)

BEDROCK UNITS

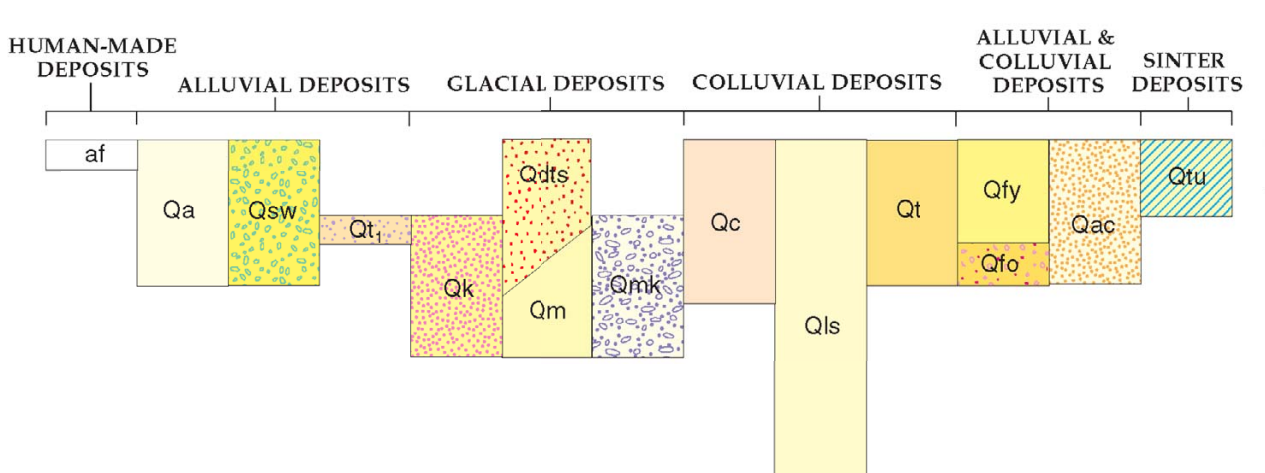
TKd Diorite porphyry (lower Tertiary to Upper Cretaceous)  
Je Entrada Sandstone (Middle Jurassic)  
Td Dolores Formation (Upper Triassic)  
Pc Cutler Formation (Lower Permian)  
Ph Hermosa Group (Middle Pennsylvanian)  
Pm Molas Formation (Lower Pennsylvanian)  
MI Leadville Limestone (Lower Mississippian)  
Do Ouray Limestone (Upper Devonian)  
DCel Elbert Formation (Upper Devonian) and Ignacio Formation (Upper Cambrian) undifferentiated  
gb Gabbroic dikes (age uncertain)  
qp Quartz-porphyry dikes (Mesoproterozoic, ca. 1,400 Ma)  
g Aplites, pegmatites, and fine- to coarse-grained granitic dikes and sills (Paleoproterozoic to Mesoproterozoic, 1,400 to 1,700 Ma)  
Xbt Biotite hornblende granite and two-mica granite of the Bakers Bridge Granite (Paleoproterozoic, ca. 1,690 Ma)  
XI Biotite-muscovite granite phase of the Bakers Bridge Granite (Paleoproterozoic, ca. 1,690 Ma)  
Xb Biotite-hornblende-magnetite granite phase of the Bakers Bridge Granite (Paleoproterozoic, ca. 1,700 Ma)  
Xi Irving Formation (Paleoproterozoic, ca. 1,800 Ma)

MAP SYMBOLS

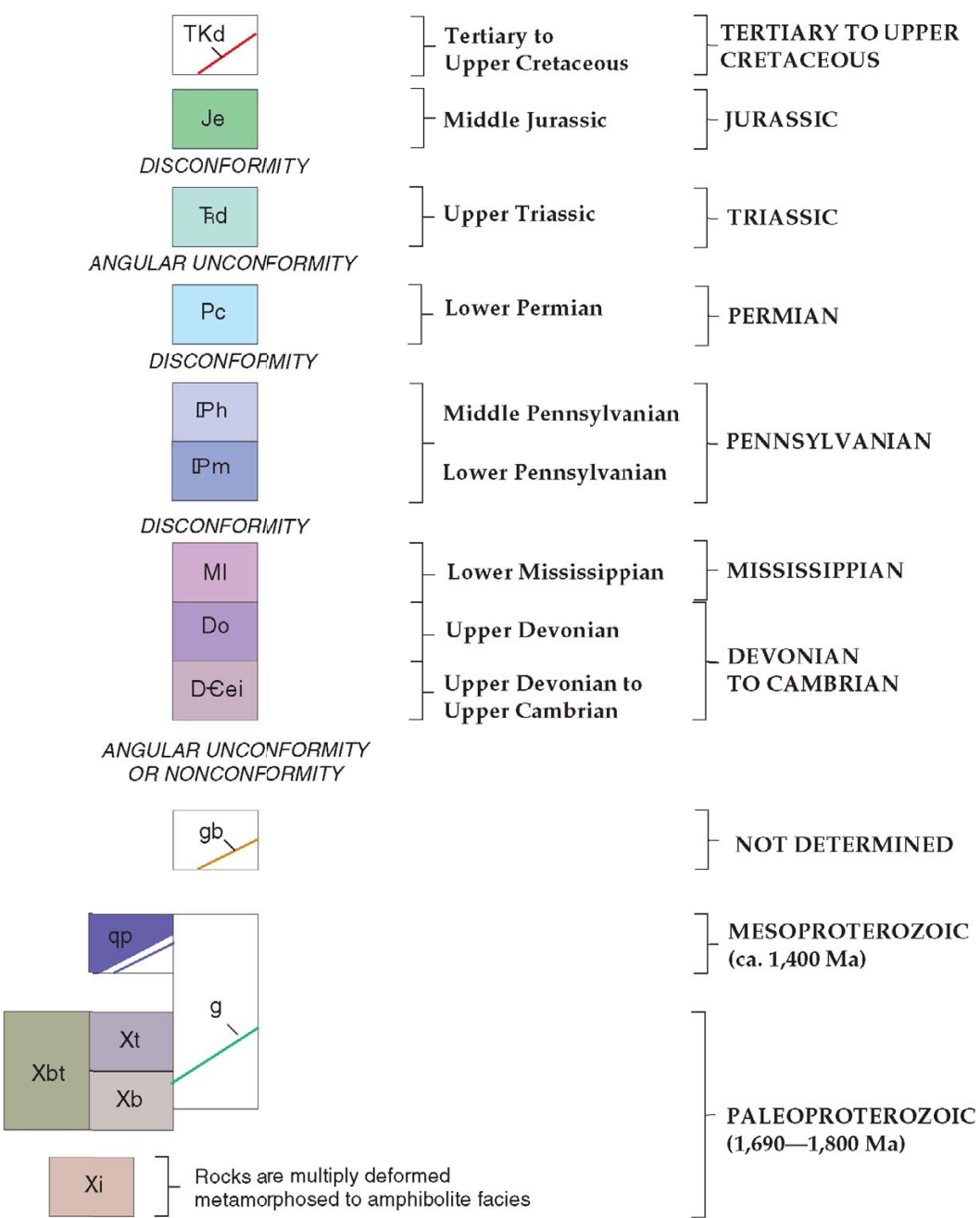
Contact—Dashed where approximately located. Dip of contact or layer is indicated where known  
Fault—Dashed where approximately located; dotted where concealed. Ball and bar on the actual or apparent downthrown side.  
Terrace scarp or riser  
Moraine crest

CORRELATION OF MAP UNITS

SURFICIAL DEPOSITS

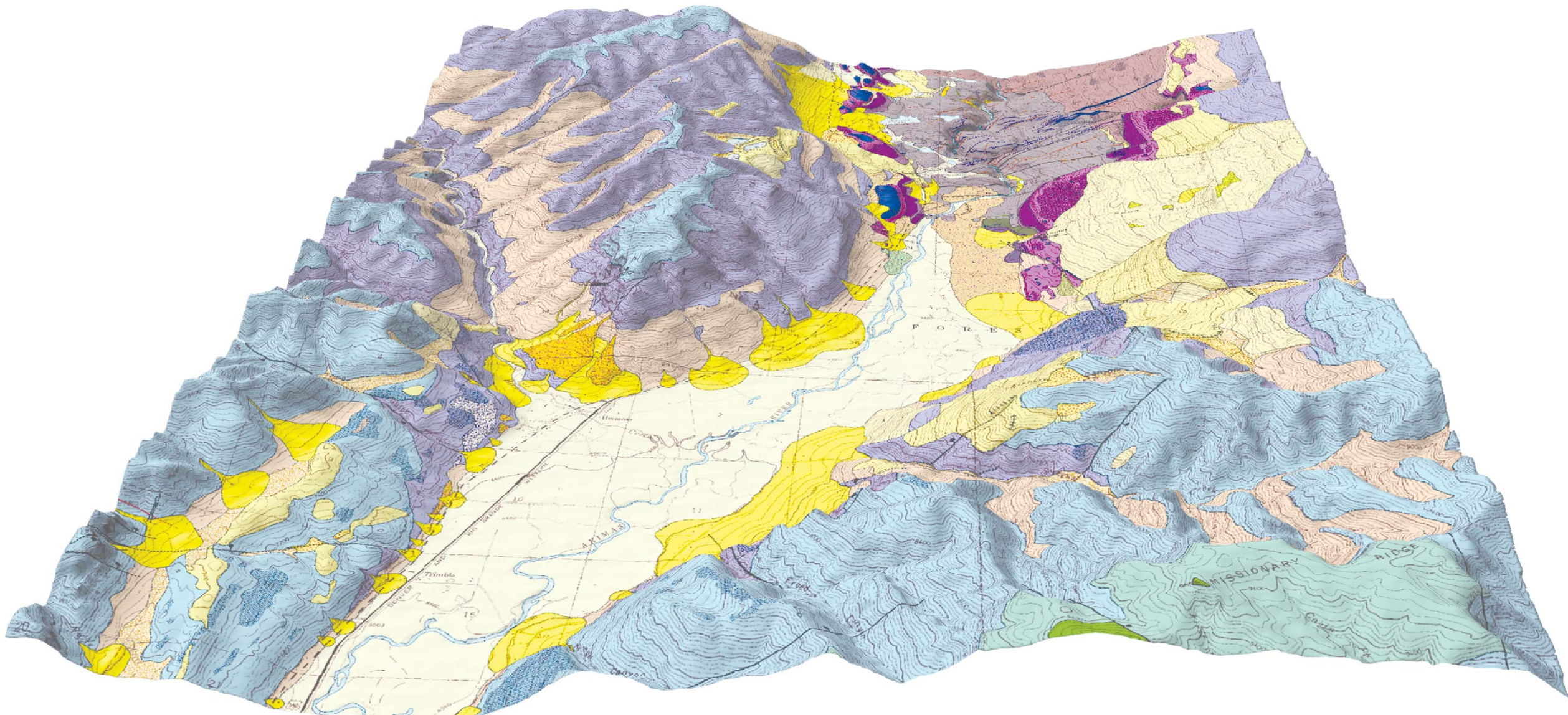


BEDROCK



Strike and dip of bedding  
Inclined—Showing the amount of dip; dip line and amount may be added to the trace of dikes  
Horizontal  
Strike and dip of tectonic foliation  
Inclined—showing the amount of dip  
Vertical  
Strike and dip of inclined mesoscopic joints  
Inclined—Showing the amount of dip  
Vertical  
Bearing and plunge of mineral lineation—Tail of arrow at point of measurement; may be combined with foliation symbol  
Mesoscopic folds—General map view of folded foliation indicated by pattern; general trend or actual dip of foliation may be shown  
Thin cover of glacial till on bedrock  
Location of thermal spring  
Location and identification number of sample submitted for geochemical analysis  
Zone of fault breccia  
Mine adit  
Prospect  
Vertical shaft  
Alignment of cross section

SHADED-RELIEF MAP OF THE HERMOSA QUADRANGLE WITH GEOLOGY AND TOPOGRAPHY OVERLAY, OBLIQUE VIEW LOOKING NORTH



Bill Owens, Governor,  
State of Colorado  
Greg E. Walcher, Executive Director,  
Department of Natural Resources



Ronald W. Cattany, Director,  
Division of Minerals and Geology

