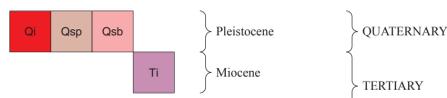


CORRELATION OF MAP UNITS

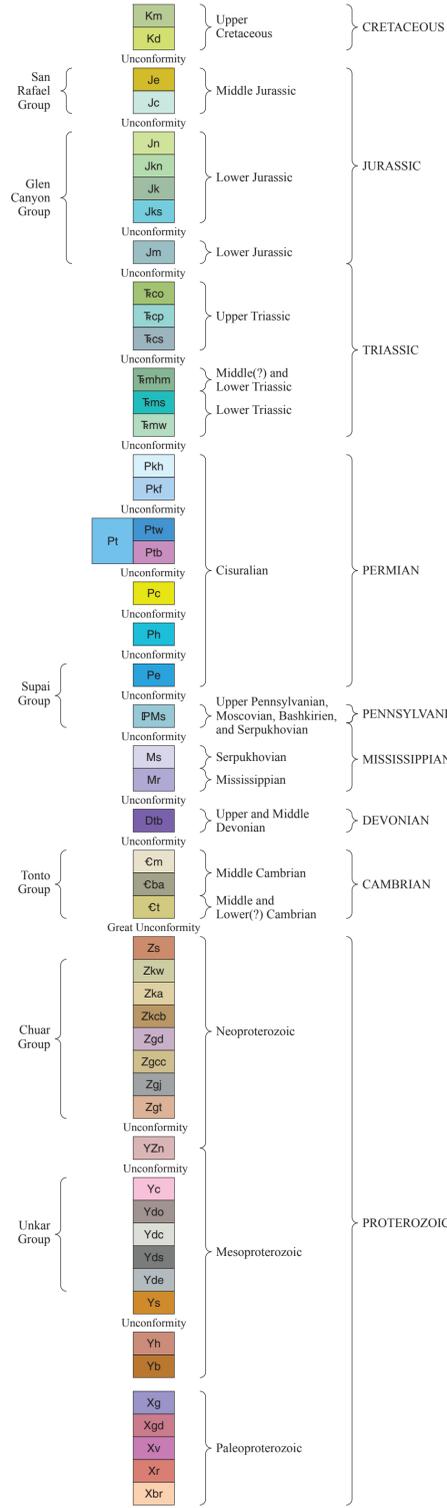
SURFICIAL DEPOSITS



VOLCANIC ROCKS



SEDIMENTARY ROCKS



LIST OF MAP UNITS

[Some polygons on the map are too small to distinguish the color for unit identification. These polygons are labeled where possible. Unlabeled units are attributed in the geodatabase.]

SURFICIAL DEPOSITS

- Qaf** Artificial fill and quarries (Holocene)
- Qs** Stream-channel deposits (Holocene)
- Qf** Flood-plain deposits (Holocene)
- Qes** Sand sheet deposits (Holocene)
- Qd** Dune sand and sand sheet deposits (Holocene)
- Qdl** Linear dune deposits (Holocene)
- Qdp** Parabolic dune deposits (Holocene)
- Qdb** Barchan dune deposits (Holocene)
- Qdm** Mixed dune deposits (Holocene)
- Qdlu** Linear dune and sand sheet deposits (Holocene)
- Qg1** Young terrace-gravel deposits (Holocene)
- Qa1** Young alluvial fan deposits (Holocene)
- Qg2** Intermediate terrace-gravel deposits (Holocene)
- Qa2** Intermediate alluvial fan deposits (Holocene)
- Qps** Pondered sediments (Holocene)
- Qg3** Old terrace-gravel deposits (Holocene)
- Qa3** Old alluvial fan deposits (Holocene)
- Qae** Mixed alluvium and eolian deposits (Holocene)
- Qv** Valley-fill deposits (Holocene)
- Qt** Travertine deposits (Holocene and Pleistocene(?))
- Qtr** Talus and rockfall deposits (Holocene and Pleistocene(?))
- Ql** Landslide deposits (Holocene and Pleistocene)
- QTg4** Older terrace-gravel deposits (Pleistocene and Pliocene(?))
- QTg5** Youngest old terrace-gravel deposits (Pleistocene and Pliocene(?))
- QTg6** Intermediate old terrace-gravel deposits (Pleistocene and Pliocene(?))
- QTg7** Oldest old terrace-gravel deposits (Pleistocene and Pliocene(?))
- Tgs** Gravel and sedimentary deposits (Pliocene(?) and Miocene(?))

VOLCANIC ROCKS

- Qi** Intrusive dikes of Shadow Mountain (Pleistocene)
- Qsp** Pyroclastic deposits of Shadow Mountain (Pleistocene)
- Qsb** Basalt flows of Shadow Mountain (Pleistocene)
- Tl** Intrusive dikes (Miocene)

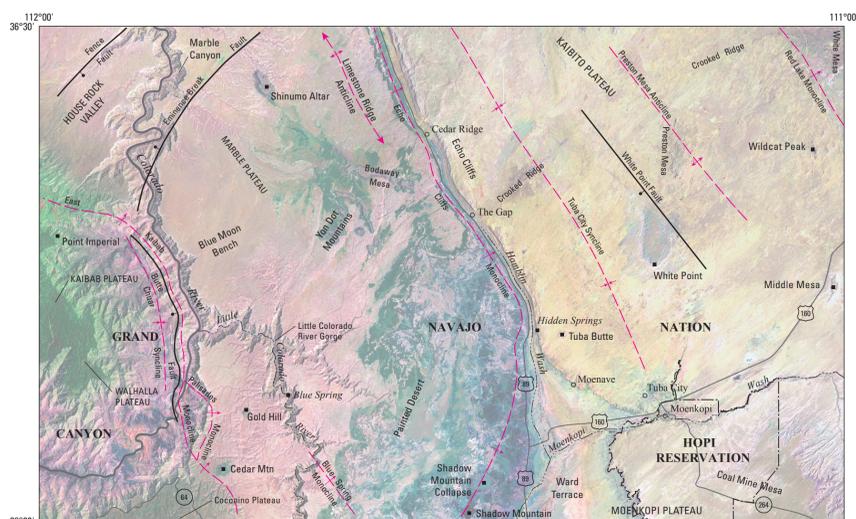
SEDIMENTARY ROCKS

- Km** Mancos Shale (Upper Cretaceous)
- Kd** Dakota Sandstone (Upper Cretaceous)
- San Rafael Group (Middle Jurassic)**
- Je** Entrada Sandstone-Cow Springs Sandstone, undivided (Middle Jurassic)
- Jc** Carmel Formation (Middle Jurassic)
- Glen Canyon Group (Lower Jurassic)**
- Jn** Navajo Sandstone (Lower Jurassic)
- Jkn** Kayenta Formation-Navajo Sandstone transition zone (Lower Jurassic)
- Jk** Kayenta Formation (Lower Jurassic)
- Jks** Springdale Sandstone Member (Lower Jurassic)
- Jm** Moenave Formation (Lower Jurassic)
- Chinle Formation (Upper Triassic)**
- Trco** Owl Rock Member (Upper Triassic)
- Trcp** Petrified Forest Member (Upper Triassic)
- Trcs** Shinarump Member and sandstone and siltstone member, undivided (Upper Triassic)
- Moenkopi Formation (Middle(?) and Lower Triassic)**
- Trmhm** Holbrook and Moqui Members, undivided (Middle(?) and Lower Triassic)
- Trms** Shnabkaib Member (Lower Triassic)
- Trmw** Wupatki Member (Lower Triassic)
- Kaibab Formation (Cisuralian)**
- Pkh** Harrisburg Member (Cisuralian)
- Pkf** Fossil Mountain Member (Cisuralian)
- Pt** Toroweap Formation, undivided (Cisuralian)
- Ptw** Woods Ranch Member (Cisuralian)
- Ptb** Brady Canyon and Seligman Members, undivided (Cisuralian)
- Pc** Coconino Sandstone (Cisuralian)
- Ph** Hermit Formation (Cisuralian)
- Supai Group (Cisuralian, Pennsylvanian, and Upper Mississippian)**
- Esplanade Sandstone (Cisuralian)**
- Pms** Wescogame (Upper Pennsylvanian), Manakacha (Moscovian), and Watahomigi (Bashkirian and Serpukhovian) Formations, undivided
- Ms** Surprise Canyon Formation (Serpukhovian)
- Mr** Redwall Limestone, undivided (Mississippian)
- Dtb** Temple Butte Formation (Upper and Middle Devonian)

- Tonto Group (Middle and Lower(?) Cambrian)**
- Cm** Muav Limestone (Middle Cambrian)
- Cba** Bright Angel Shale (Middle Cambrian)
- Ct** Tapeats Sandstone (Middle and Lower(?) Cambrian)
- NEOPROTEROZOIC ROCKS**
- Zs** Sixtymile Formation, undivided (Neoproterozoic)
- Chuar Group (Neoproterozoic)**
- Zkw** Kwagunt Formation (Neoproterozoic)
- Zka** Walcott Member (Neoproterozoic)
- Zka** Awatubi Member (Neoproterozoic)
- Zkcb** Carbon Butte Member (Neoproterozoic)
- Galerus Formation (Neoproterozoic)**
- Zgd** Duppa Member (Neoproterozoic)
- Zgcc** Carbon Canyon Member (Neoproterozoic)
- Zgj** Jupiter Member (Neoproterozoic)
- Zgt** Tanner Member (Neoproterozoic)
- YZn** Nankowep Formation, undivided (Neoproterozoic to latest Mesoproterozoic)
- MESOPROTEROZOIC ROCKS**
- Unkar Group (Mesoproterozoic)**
- Yc** Cardenas Basalt (Mesoproterozoic)
- Ydo** Dox Formation (Mesoproterozoic)
- Ydc** Ochoa Point Member (Mesoproterozoic)
- Yds** Comanche Point Member (Mesoproterozoic)
- Yde** Solomon Temple Member (Mesoproterozoic)
- Ys** Escalante Creek Member (Mesoproterozoic)
- Yh** Shinumo Sandstone, undivided (Mesoproterozoic)
- Yh** Hakatai Shale, undivided (Mesoproterozoic)
- Yb** Bass Formation (Mesoproterozoic)
- PALEOPROTEROZOIC ROCKS**
- Xg** Granite (Paleoproterozoic)
- Xgd** Granodiorite-gabbro-diorite and granodiorite complexes (Paleoproterozoic)
- Xv** Vishnu Schist of Granite Gorge Metamorphic Suite (Paleoproterozoic)
- Xr** Rama Schist and Gneiss of Granite Gorge Metamorphic Suite (Paleoproterozoic)
- Xbr** Brahma Schist of Granite Gorge Metamorphic Suite (Paleoproterozoic)

EXPLANATION OF MAP SYMBOLS

- Contact**—Contacts between all alluvial and eolian units are approximate and arbitrary
- Fault**—Dashed where inferred or approximately located; dotted where concealed; bar and ball on downthrown side. Showing fault offset in feet
- Fracture**—Open fracture (1 to 12 ft wide) without offset
- Folds**—Showing trace of axial plane and direction of plunge
- Anticline**
- Plunging anticline**
- Syncline**
- Plunging syncline**
- Monocline**—Axis at approximate center of dipping limb
- Dome**
- Strike and dip of beds**
- Inclined**—Showing dip measured in the field
- Implied**—Interpreted from aerial photographs; dip not determined
- Strike of vertical and subvertical joints**—Interpreted from aerial photographs; symbol placed where joints are most visible on aerial photographs
- Collapse structure**—Black dot shows circular collapse structure characterized by strata dipping inward toward a central point. Magenta dot shows circular collapse structure characterized by strata dipping inward toward a central point and brecciated rock
- Sinkhole**
- Volcanic vent**
- Cinder pit**
- Gravel pit**
- Hopi Reservation boundary**



Index map showing physiographic, cultural, and geologic locations mentioned in the text; also shows approximate location of major geologic structures. Base derived from 30-m digital elevation model.

Geologic Map of the Tuba City 30' x 60' Quadrangle, Coconino County, Northern Arizona

By
George H. Billingsley, Philip W. Stoffer, and Susan S. Priest
2012

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