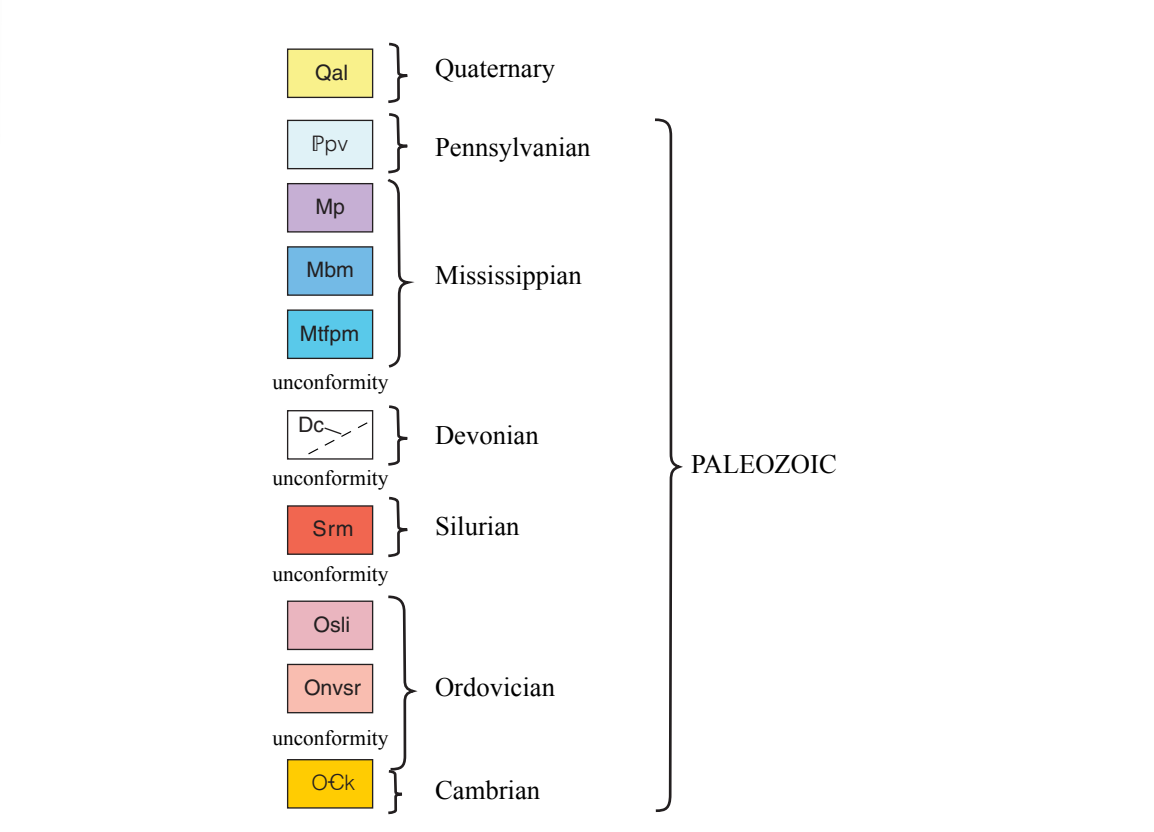


CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qal Alluvium (Quaternary)**—Unconsolidated sand, silt, clay, and gravel derived from local bedrock.
- Ppv Pottsville Formation (Lower Pennsylvanian)**—Light-gray, medium- to coarse-grained quartzose sandstone locally containing scattered to abundant well-rounded quartz pebbles; quartz pebble and ferruginous claystone conglomerate are locally present. Interbeds and intervals of dark-gray shale and mudstone and wavy-bedded sandstone and mudstone are locally common.
- Mp Pennington Formation (Upper Mississippian)**—The lower and middle Pennington include distinctive medium- to dark-gray dolomitic that commonly weathers yellowish gray; light- to medium-gray bioclastic and oolitic limestone; and interbedded olive-green and grayish-red shale. Dolomitic is most common in the lower part and generally contains laminae, nodules, and stringers of dark-gray chert. The uppermost part consists of very light gray, very fine grained sublitic sandstone and interbedded dark-gray shale and mudstone; wavy-bedded sandstone and mudstone are common; and thin beds of coal are locally present at the top.
- Mbm Bangor and Monteagle Limestones undifferentiated (Upper Mississippian)**—Bangor Limestone: Predominantly light- to dark-gray, bioclastic and oolitic limestone; also contains medium-gray peloidal limestone, medium-gray fenestral mudstone, light- to medium-gray dolomitic, and thin interbeds of medium-gray, olive-green, and grayish-red shale; limestone in the upper part contains irregular nodules and stringers of dark-gray chert. Monteagle Limestone: Light- to locally medium-gray, oolitic and bioclastic limestone; an interval of interbedded greenish-gray to medium-gray shale and bioclastic and oolitic limestone is present near the middle. The Hartselle Sandstone (Mh) in the Wannville quadrangle is known to be present between the Bangor and Monteagle Limestones only on Dudley Pond Mountain and includes medium- to dark-gray and reddish-gray shale overlain by light-grayish-brown, very fine grained sandstone.
- Mtpm Tusculum Limestone, Fort Payne Chert, and Maury Formation undifferentiated (Lower and Upper Mississippian)**—Tusculum Limestone: Light-gray micritic and bioclastic limestone containing light-gray and white chert nodules. Fort Payne Chert: Dark- to light-gray, micritic limestone containing blue-gray to dark-gray chert in irregular beds and nodules in fresh exposures; most outcrops consist of irregularly bedded, grayish-orange, partly fossiliferous chert. Maury Formation: Greenish-gray shale and mudstone containing phosphate nodules.
- Dc Chattanooga Shale (Upper Devonian)**—Medium- to dark-gray, carbonaceous shale containing interbeds of light- to dark-gray sandstone at the base and near the middle.
- Srm Red Mountain Formation (Lower and Upper Silurian)**—Greenish-gray shale containing interbeds of medium-gray and dark-reddish-gray, fossiliferous and locally ferruginous limestone and very thin interbeds of very light gray sandstone.
- Osl Sequatchie Formation, Leipers Limestone, and Inman Formation undifferentiated (Upper Ordovician)**—Sequatchie Formation: Olive-green and grayish-red shale, mudstone, and siltstone, interbedded with fossiliferous and partly arenaceous limestone; an interval of dark-orange-brown, poorly sorted, ferruginous sandstone is locally present near the base of the formation. Leipers Limestone: Light-gray to dark-greenish gray and olive-green argillaceous limestone containing argillaceous partings that result in nodular bedding. Inman Formation: Interbedded and interlamated grayish-red and olive-green silty limestone and calcareous siltstone, mottled in part, and minor grayish-green dolomite.
- Onvr Nashville and Stones River Groups undifferentiated (Middle Ordovician)**—Nashville Group: Light- to dark-gray, fossiliferous limestone that is silty and argillaceous in part and locally contains interbeds and partings of medium-gray and greenish-gray calcareous shale. Stones River Group: Medium- to dark-gray, partly argillaceous and silty limestone with locally abundant fossiliferous intervals; greenish-gray, calcareous shale interbeds and partings locally common; light-green bentic shale and benticite present in the upper part. The Pond Springs Formation at the base includes light- to medium-gray and olive-gray dolomitic, dolomitic limestone, and limestone locally containing chert pebble conglomerate and breccia.
- Ock Knox Group undifferentiated (Upper Cambrian and Lower Ordovician)**—Light- to medium-dark-gray, finely to coarsely crystalline siliceous dolomite and minor limestone; weathers to cherty residuum in which the chert commonly preserves the primary texture of the original carbonate rocks.

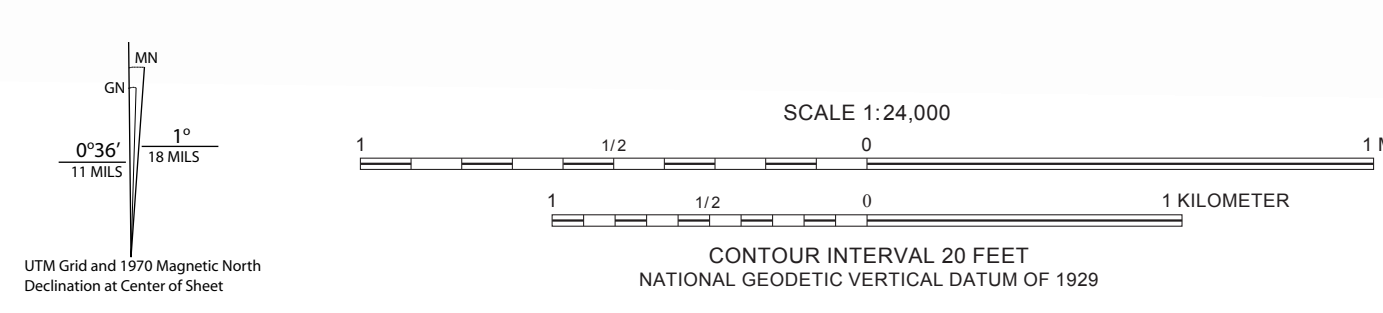
SYMBOLS FOR GEOLOGIC MAP

- Contact, dashed where located very approximately, showing location of control point (contact exposed or closely located)
- Contact, concealed beneath mapped units
- - - - - Thrust fault, located very approximately, sawteeth on upper plate
- - - - - Thrust fault, concealed beneath mapped units
- Trace of anticline axis, located approximately
- Water boundary
- Strike and dip of bedding
- Mh X Outcrop of Hartselle Sandstone, too thin to display

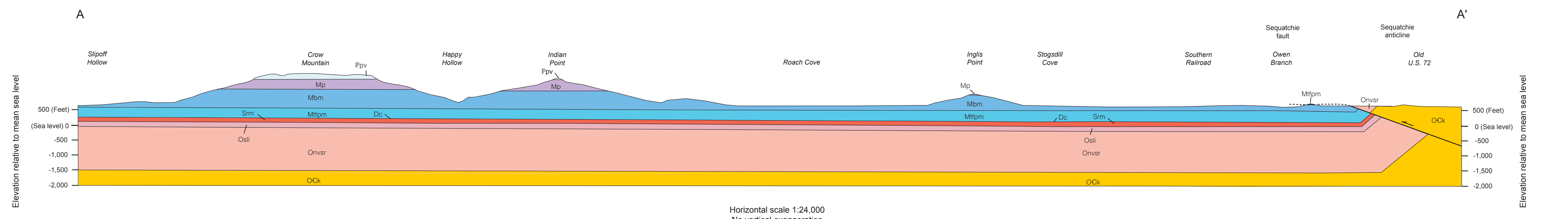
SYMBOLS FOR CROSS SECTION A-A'

- Stratigraphic contact
- - - - - Fault, showing relative movement, dashed where projected

Base topographic map U.S. Geological Survey 1947 (Photorevised 1970)
 Produced in cooperation with the U.S. Geological Survey, National Cooperative Geologic Mapping Program
 Polyconic projection, 1927 North American datum 10,000-foot grid based on Alabama (East) rectangular coordinate system
 Map rotated 0.7 degree clockwise for display

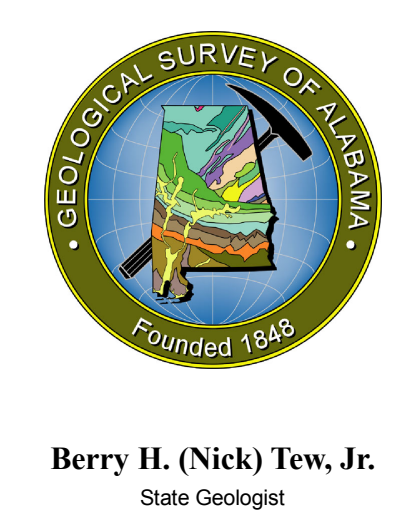


Digital database by Philip Dinterman
 Additional cartography by Don Wheat



Horizontal scale 1:24,000
 No vertical exaggeration

GEOLOGIC MAP OF THE WANNVILLE 7.5-MINUTE QUADRANGLE, JACKSON COUNTY, ALABAMA
 by
 W. Edward Osborne and Willard E. Ward, II
 2008



Berry H. (Nick) Tew, Jr.
 State Geologist