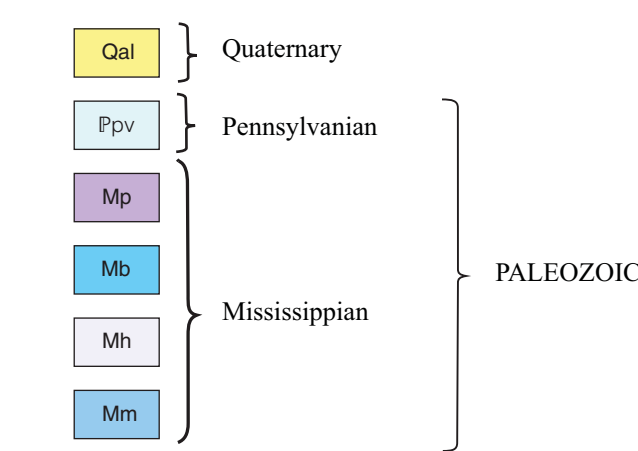


CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qal Alluvium (Quaternary)**—Unconsolidated sand, silt, clay, and angular to rounded chert gravel.
- Ppv Pottsville Formation (Lower Pennsylvanian)**—Light-gray, medium- to coarse-grained, quartzose sandstone locally containing scattered to abundant well-rounded quartz pebbles; quartz pebbles and/or claystone conglomerate locally present. Interbeds and intervals of dark-gray shale and mudstone and wavy- to lenticular-bedded sandstone and shale locally present.
- Mp Pennington Formation (Upper Mississippian)**—Lower part dominated by light-greenish-gray to light-bluish-gray, conchoidally fractured dolomitic containing nodules and stringers of dark-gray chert and thin interbeds of dark-gray and greenish-gray shale and mudstone. Middle part includes variably gray, bioclastic limestone; cherty, argillaceous limestone; limey dolomite; and dolomite containing intervals of maroon and olive-green mudstone. In the southern part of the quadrangle, the uppermost part consists of interbedded maroon and olive-green shale and mudstone. On Keel Mountain, the uppermost part is dark-gray shale, wavy- to lenticular-bedded sandstone and mudstone, ripple-laminated sandstone, and shaly coal.
- Mb Bangor Limestone (Upper Mississippian)**—Predominantly light- to locally dark-gray, bioclastic and oolitic limestone. Medium- to dark-gray shale containing thin to discontinuous interbeds of medium-dark-gray, fossiliferous limestone common at base. Lower part includes medium-gray peloidal and fenestral limestone, light-gray dolomitic, and thin interbeds of light-olive-green shale. Uppermost part includes interbeds of cherty limestone, olive-green and maroon mudstone, and grayish-yellow dolomitic.
- Mh Hartselle Sandstone (Upper Mississippian)**—Greenish-gray, very fine grained, thin-bedded, ripple-laminated, calcareous, quartzose sandstone containing brachiopod molds and horizontal burrows. Stratigraphic position of the Hartselle locally marked by light-gray to greenish-gray dolomitic containing scattered calcite vug fillings.
- Mm Monteagle Limestone (Upper Mississippian)**—Light- to locally medium-gray, oolitic and bioclastic limestone; nodules and stringers of dark-gray, fossiliferous chert rarely present in upper part. In the Kennamer Cove area, the upper Monteagle includes an interval of dark-greenish-gray shale containing thin interbeds of dark-gray, fossiliferous and argillaceous limestone.

SYMBOLS FOR GEOLOGIC MAP

- X— Contact, long dash where located approximately, showing location of control point (contact exposed or closely located)
- - - - - Contact, dashed where located very approximately
- Contact, concealed beneath mapped units
- Water boundary
- X^M Outcrop of Hartselle Sandstone, too thin to display
- X^d Outcrop of vuggy dolomite at stratigraphic position of Hartselle Sandstone

SYMBOLS FOR CROSS SECTION A-A'

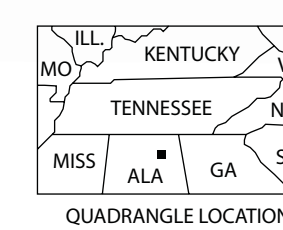
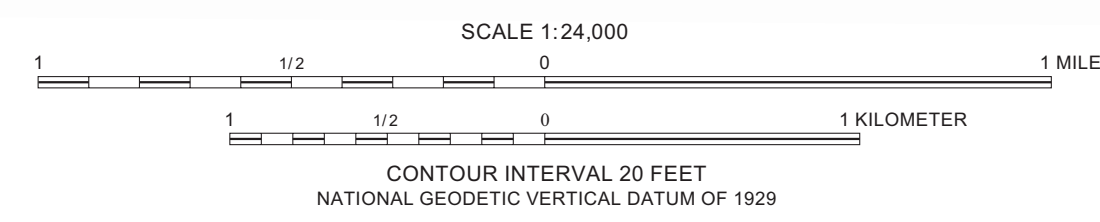
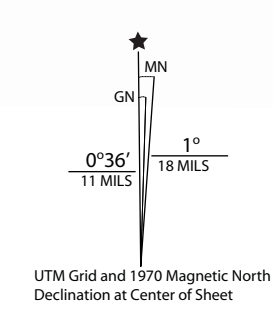
- Stratigraphic contact

Base topographic map U.S. Geological Survey 1947 (Photorevised 1970)

Produced in cooperation with the U.S. Geological Survey, National Cooperative Geologic Mapping Program

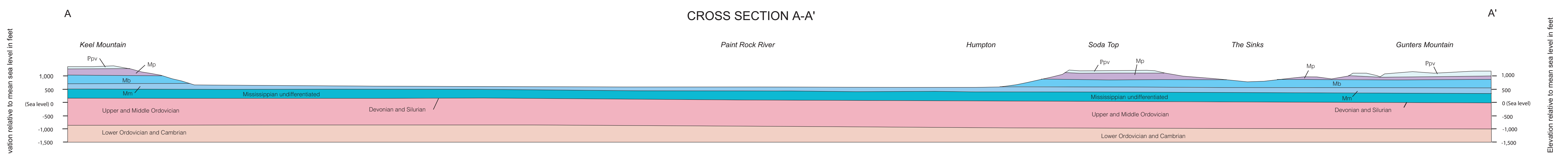
Polyconic projection, 1927 North American datum
10,000-foot grid based on Alabama (East) rectangular coordinate system

Map rotated 0.4 degrees clockwise for display



Digital database by Marty Gates and Philip Dinterman
Additional cartography by Don Wheat

CROSS SECTION A-A'



Horizontal scale 1:24,000
No vertical exaggeration

GEOLOGIC MAP OF THE GRANT 7.5-MINUTE QUADRANGLE,
MADISON, MARSHALL, AND JACKSON COUNTIES, ALABAMA

by
W. Edward Osborne and Willard E. Ward, II
2007



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