

DESCRIPTION OF MAP UNITS

Quaternary

**Q** Colluvium and alluvium - unconsolidated scree, poorly sorted gravel, sand, and clay in surficial deposits

Precambrian (?)

Great Smoky Group of Ocoee Supergroup  
Units NW of Nichols Cove Fault

(Lower Plate)

**I** Lowermost sands and slates

Medium gray, fine to very coarse arkosic and ankeritic (?) meta-sandstone and pebble conglomerate with minor pale green medium-grained quartzite, interbedded with medium to dark gray fissile slates. Base truncated by Nichols Cove fault, minimum thickness 300 m. In part equivalent to unit 3 and one outcrop area of unit 7 of Lesure and others, (1977) reinterpreted to be equivalent to unit 3.

**II** Lower slates and sands

Interbedded gray to black platy or fissile slate and minor fine to coarse arkosic metasandstone with rare lenses of arkosic pebble metaconglomerate. Slates locally (as at Farr Gap) with pyrite porphyroblasts. Some finely laminated buff to gray slate and siltstone. Base not exposed; minimum thickness 300 m, including separately mapped sands (below). Equivalent to unit 4 of Lesure and others (1977).

**IIa** lower sand

Brownish-gray medium- to coarse-grained arkosic metasandstone in beds up to 10 m thick, locally with beds of quartz pebble metaconglomerate. Thickness 30-100 m. Equivalent to sandy parts of unit 3 of Lesure and others (1977).

**IIb** upper sand

Olive gray, yellow, or medium-gray arkosic metasandstone and interbedded siltstone. Thickness 0-60 m. Equivalent to unit 6 of Lesure and others (1977).

**III** Conglomerate-sandstone

Gray or buff arkosic pebble metaconglomerate and medium to coarse arkosic metasandstone. Base marked by dominant conglomerate with abundant dark slate fragments and thin slate partings; top mostly metasandstone with minor pale green quartzite. Both conglomerate and sandstone locally contain reddish carbonate spots, probably ankerite. Unit appears to grade into more abundant slates to southwest, near Flats Mtn. Thickness about 200-250 m. In part, equivalent to units 7 and 8 of Lesure and others (1977).

**IV** Upper slates and sands

Interbedded pale to dark gray or olive gray platy or fissile slates and minor gray metasiltstone and fine- to coarse-grained arkosic metasandstone. Slates rarely contain porphyroblastic pyrite cubes, generally along bedding planes. Interlayered fine- to medium-grained metasandstone and pebble conglomerate in beds up to 30 m thick separately mapped northwest of Pine Ridge. Top of unit not exposed; thickness approximately 150-250 m.

Units SE of Nichols Cove Fault

(Upper Plate)

**V** Graphitic graywacke and slate

Buff to gray medium to very coarse-grained massive metagraywacke and interlayered dark gray to black graphitic slate, with minor laminated slate and siltstone. Near Eagle Gap, slates are highly graphitic and highly sulfidic, commonly with extensive coatings of secondary sulfate minerals. Graywacke is typically very dense, and contains prominent blue quartz grains, disseminated sulfides (pyrite and pyrrhotite) and variable graphite; locally the graywacke is schistose, with conspicuous megascopic biotite. Base truncated by Nichols Cove fault, top gradational into Unit VI; minimum thickness about 700 m. Equivalent to units 9 and 10 of Lesure and others (1977).

**VI** Upper sandstones, graywackes, and slates

Fine to coarse-grained gray arkosic metasandstone and metagraywacke interbedded with gray to dark gray slate and metasiltstone. Graywacke similar to Unit V, with local calcareous concretions or nodules to 1 m, and thin (<2m) sulfidic black slate interbeds. Top not exposed; minimum thickness approximately 800 m. Equivalent to units 11 and 12 of Lesure and others (1977).

CONTACT SHOWING DIRECTION AND MAGNITUDE OF DIP

FAULT SHOWING DIRECTION AND MAGNITUDE OF DIP

THRUST FAULT: SAW TEETH ON UPPER PLATE

FOLDS

MINOR FOLD AXIS SHOWING PLUNGE AND DOWN-PLUNGE VIEW OF FOLD

MONOCLINE

SYNCLINE

ANTICLINE

STRIKE AND DIP OF BEDDING

HORIZONTAL

INCLINED UPRIGHT

VERTICAL

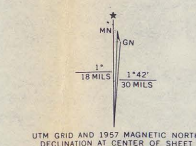
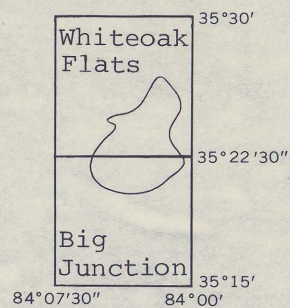
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TREND AND PLUNGE OF CRINKLE AXIS ON BEDDING

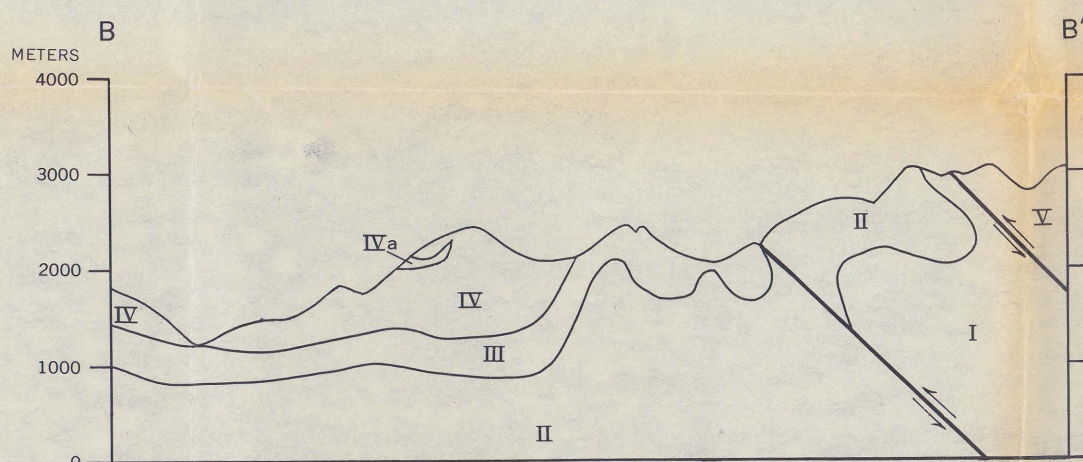
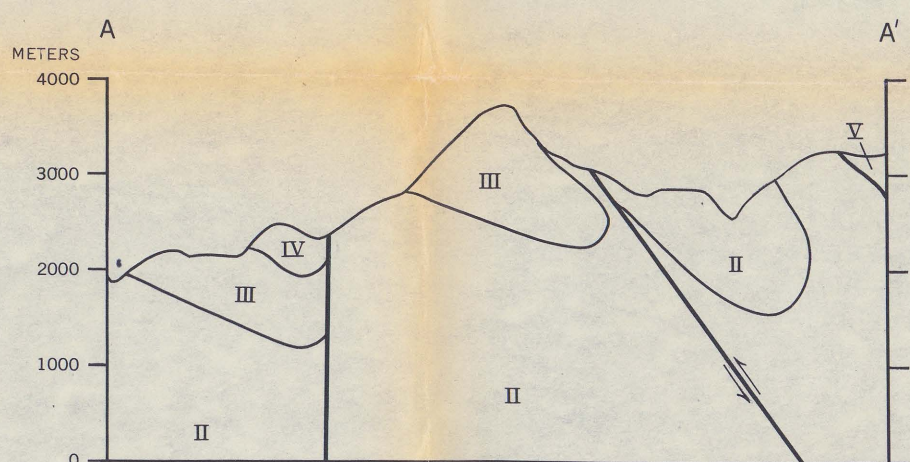
BEDDING PARALLEL TO FOLIATION

CHLORITE  
BIOTITE METAMORPHIC ISOGRAD

INDEX TO TOPOGRAPHIC MAPS



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GEOLOGIC MAP AND SECTIONS OF THE CITICO CREEK WILDERNESS STUDY AREA,  
MONROE COUNTY, TENNESSEE

By  
John F. Slack, Eric R. Force, Paul T. Behum, and Bradford B. Williams

1979

U.S. Geological Survey  
OPEN FILE MAP  
This map is preliminary and has not  
been edited for conformity with  
Geological Survey standards or  
nomenclature.

