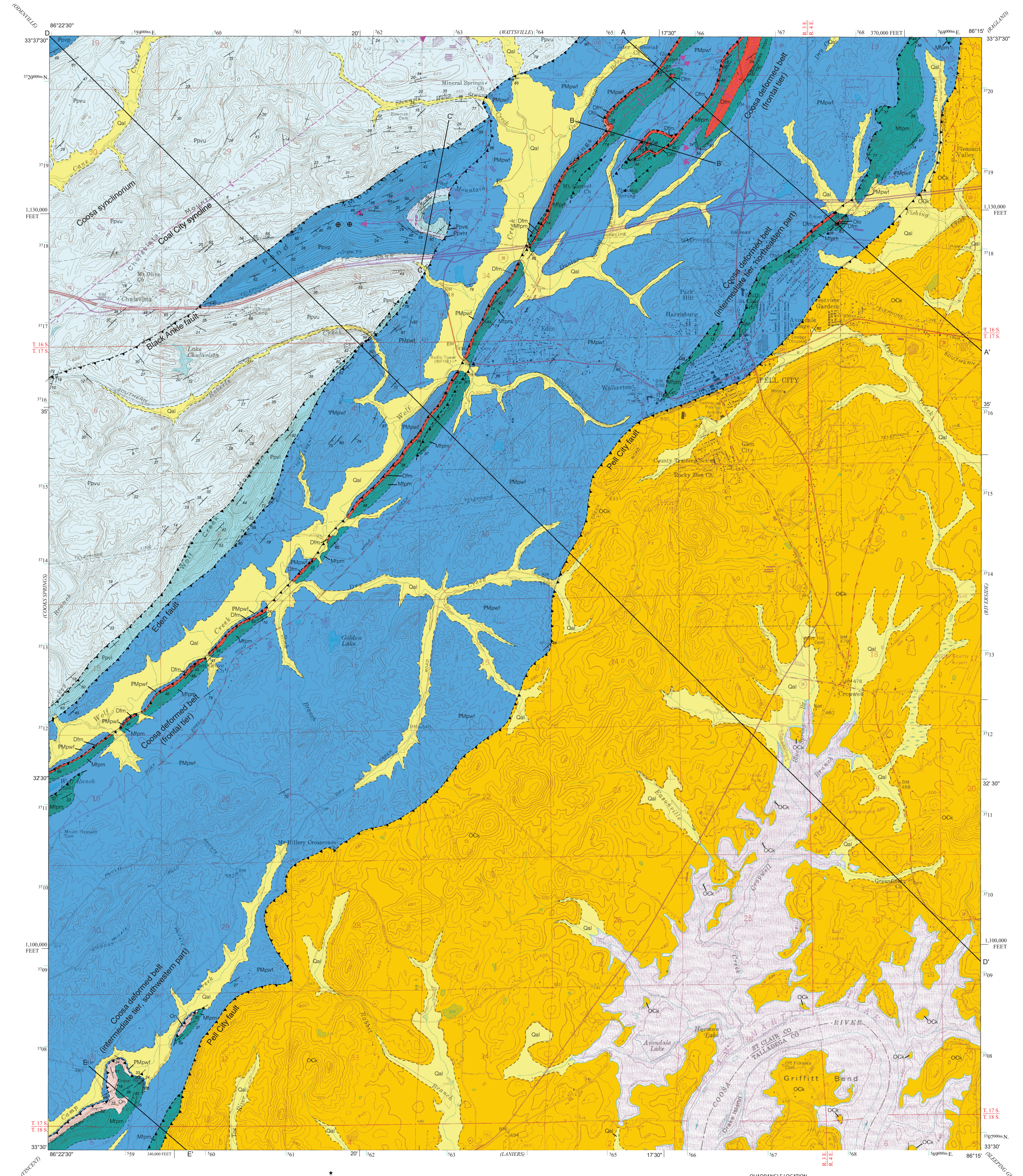




CORRELATION OF MAP UNITS

Qal	Quaternary	CENOZOIC
Ppvi	Pottsville Formation upper part undifferentiated (Lower Pennsylvanian)	
Ppvl	Pottsville Formation lower part undifferentiated (Lower Pennsylvanian)	PALEOZOIC
Ppvi	Pine Sandstone Member, Pottsville Formation (Lower Pennsylvanian)	
Ppvt	Hardwick Tunnel member (informal), Pottsville Formation (Lower Pennsylvanian)	
Ppvi	Shades Sandstone Member, Pottsville Formation (Lower Pennsylvanian)	
Ppvi	Parkwood Formation and Floyd Shale undifferentiated (Upper Mississippian and Lower Pennsylvanian)	
Mm	Fort Payne Chert and Maury Formation undifferentiated (Lower and Middle Mississippian)	
Dm	Frog Mountain Sandstone (Lower and Middle Devonian)	PALEOZOIC
Os	Little Oak Limestone (Middle Ordovician)	
On	Newala Limestone (Knox Group) (Lower Ordovician)	
OCk	Knox Group undifferentiated (Upper Cambrian and Lower Ordovician)	

DESCRIPTION OF MAP UNITS

Qal **Alluvium (Quaternary)**—Unconsolidated sil. sand, and gravel, containing clasts of local bedrock. Mapped only along the larger streams.

Ppvi **Pottsville Formation upper part undifferentiated (Lower Pennsylvanian)**—Light- to medium-gray, fine- to coarse-grained, lithic sandstone; medium- to dark-gray silty shale, mudstone, and siltstone.

Ppvl **Pottsville Formation lower part undifferentiated (Lower Pennsylvanian)**—Light-gray, medium- to coarse-grained, quartzose sandstone, quartz pebbles.

Ppvi **Pine Sandstone Member, Pottsville Formation (Lower Pennsylvanian)**—Light-gray, fine- to medium-grained, quartzose sandstone, quartz pebbles.

Ppvt **Hardwick Tunnel member (informal), Pottsville Formation (Lower Pennsylvanian)**—Shale-dominated unit, poorly exposed.

Ppvi **Shades Sandstone Member, Pottsville Formation (Lower Pennsylvanian)**—Light-gray, fine- to coarse-grained, quartzose sandstone, quartz pebbles.

Ppvi **Parkwood Formation and Floyd Shale undifferentiated (Upper Mississippian and Lower Pennsylvanian)**—**Parkwood**: Medium- to dark-gray shale and mudstone; light- to medium-gray, very fine- to fine-grained, lithic to quartzose, argillaceous, partly micaceous sandstone. **Floyd**: Dark-gray clay shale, siltstone nodules; black, brittle clay shale, siltstone nodules.

Mm **Fort Payne Chert and Maury Formation undifferentiated (Lower and Middle Mississippian)**—**Fort Payne**: Orange-weathering light-gray chert, thin nodular beds, fossil molds; light-medium-gray micritic limestone. **Maury**: Light-green, light-purple, and maroon, laminated clay shale.

Dm **Frog Mountain Sandstone (Lower and Middle Devonian)**—Light-gray to brown, medium- to coarse-grained sandstone; brown, sandy to silty chert; shale.

Os **Little Oak Limestone (Middle Ordovician)**—Medium- to medium-dark-gray micritic limestone, part bioclastic, part silty, part stylonodular; rare chert.

On **Newala Limestone (Knox Group) (Lower Ordovician)**—Light- to medium-gray micritic limestone; medium-gray, very fine-crystalline dolomite; rare medium-gray limestone.

OCk **Knox Group undifferentiated (Upper Cambrian and Lower Ordovician)**—Light- to medium-gray chert residuum, part oolitic, part laminated, medium-gray micritic limestone, part dolomitic; dolomite; fine- to medium-grained quartzose sandstone.

SYMBOLS FOR GEOLOGIC MAP

--- Contact, closely located (uncertainty less than ±100 feet horizontally)

--- Contact, approximately located (uncertainty more than ±100 feet horizontally)

--- Contact, concealed beneath mapped unit

--- Thrust fault, closely located (uncertainty less than ±100 feet horizontally), sawteeth on upper plate

--- Thrust fault, approximately located (uncertainty more than ±100 feet horizontally), sawteeth on upper plate

--- Thrust fault, concealed beneath mapped units

--- Trace of syncline axis, located approximately, arrow showing direction of plunge

--- Trace of anticline axis, located approximately, arrow showing direction of plunge

--- Strike and dip of beds

--- Horizontal beds

--- Vertical beds

--- Axial trend and plunge of small-scale fold

SYMBOLS FOR CROSS SECTIONS

--- Stratigraphic contact

--- Fault, showing relative movement

* Stratigraphic units in the subsurface, but not exposed at the map surface, are identified by name and illustrated on the cross sections to show structural relationships at depth.

Base topographic map U.S. Geological Survey 1948 (Photorevised 1982)

Produced in cooperation with the U.S. Geological Survey, National Cooperative Geologic Mapping Program, Cooperative Agreement G10AC00369

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

Map rotated 0.4 degrees clockwise for display

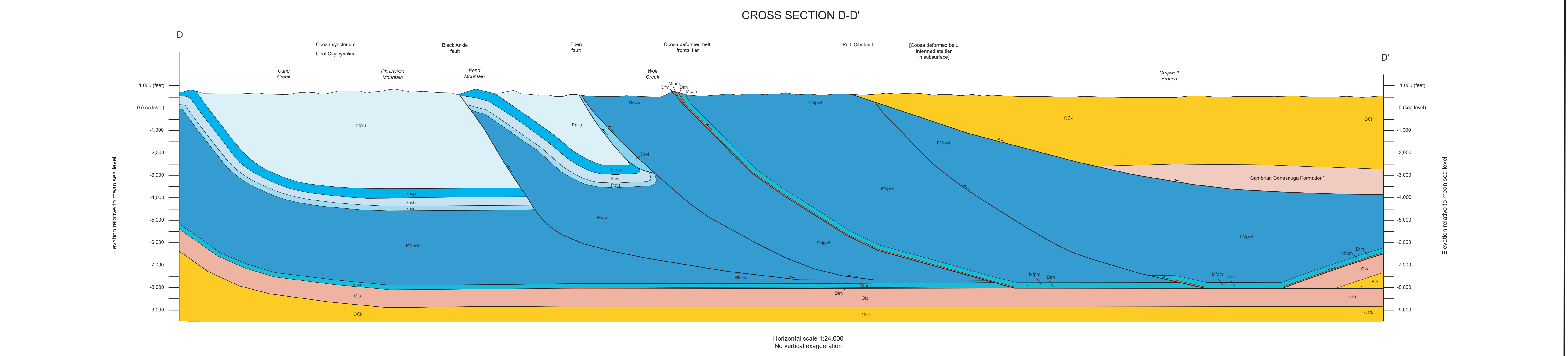
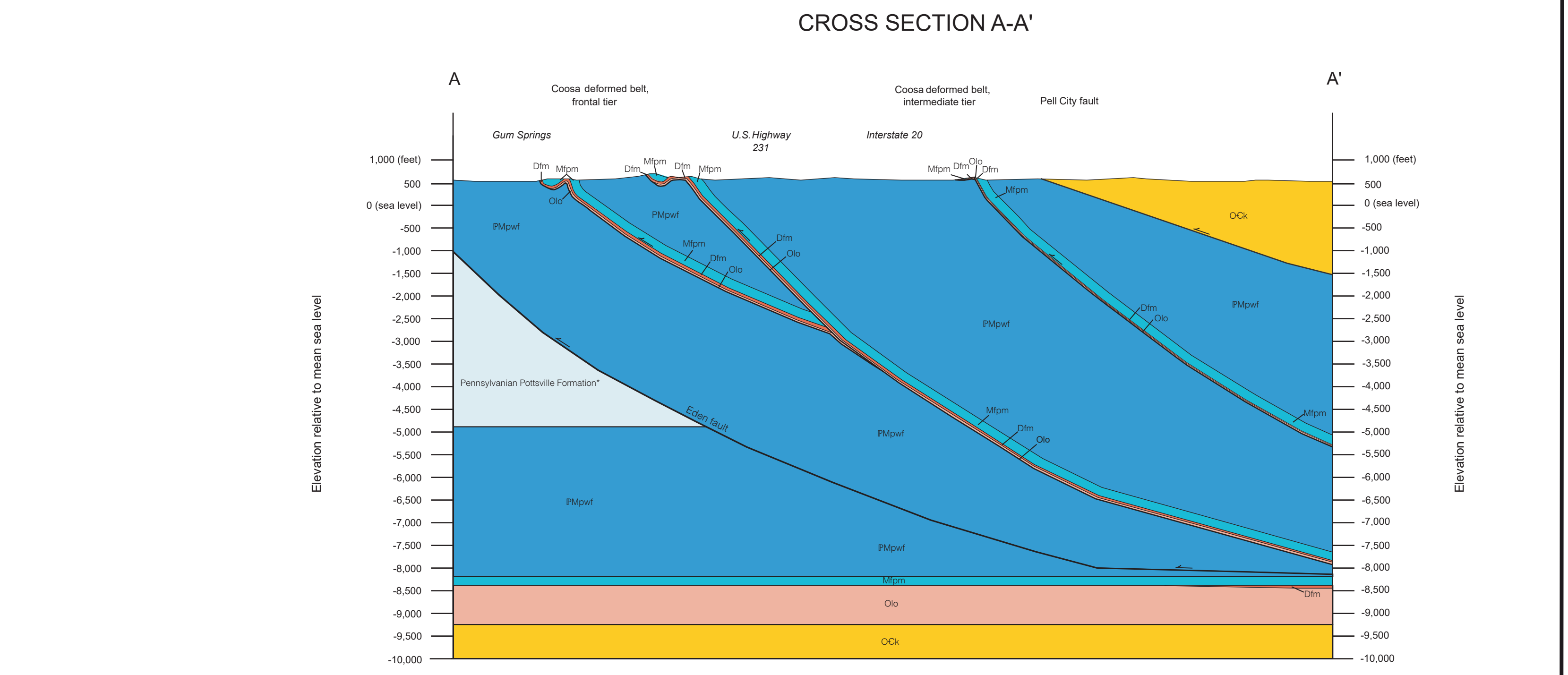
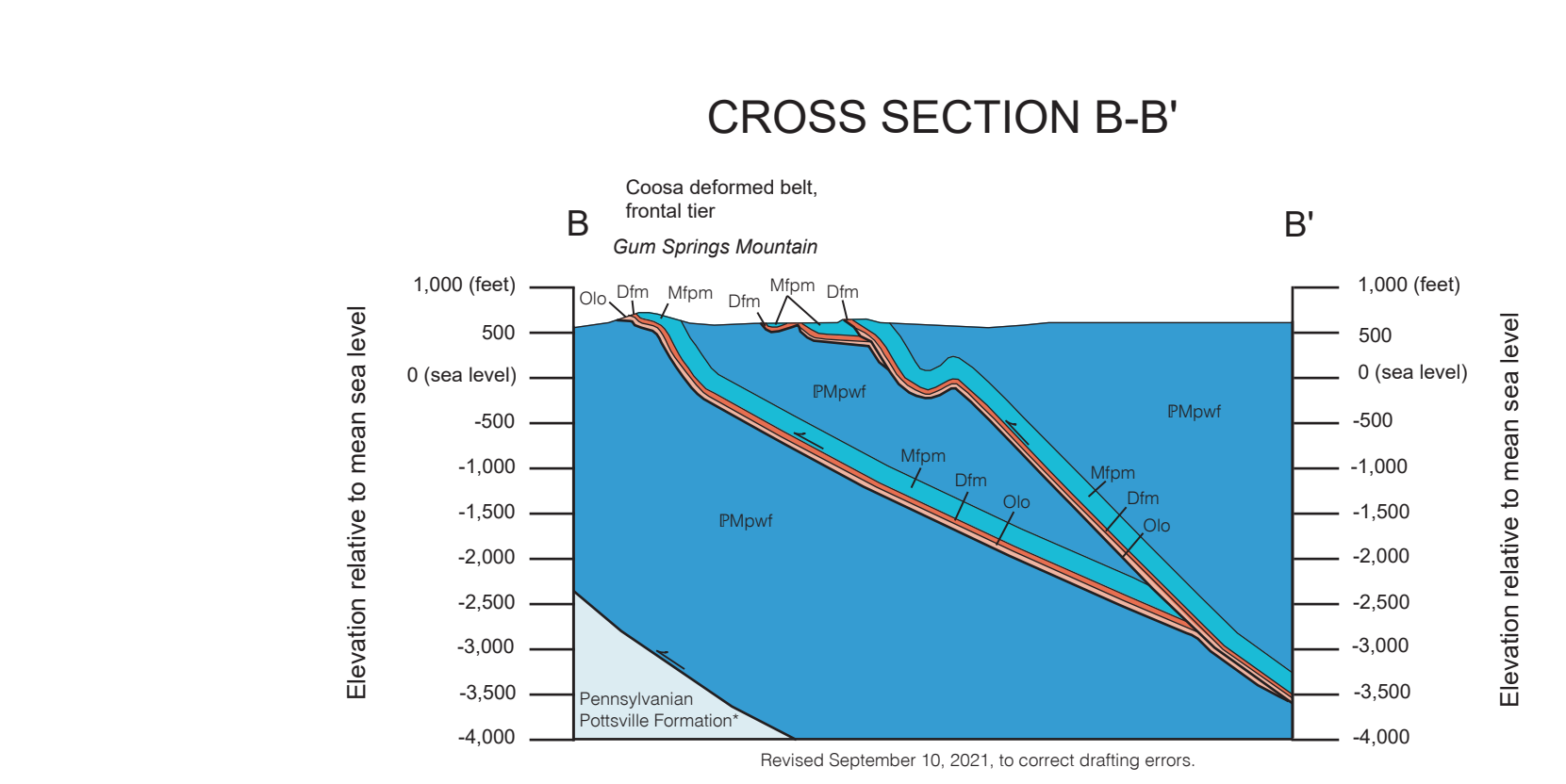
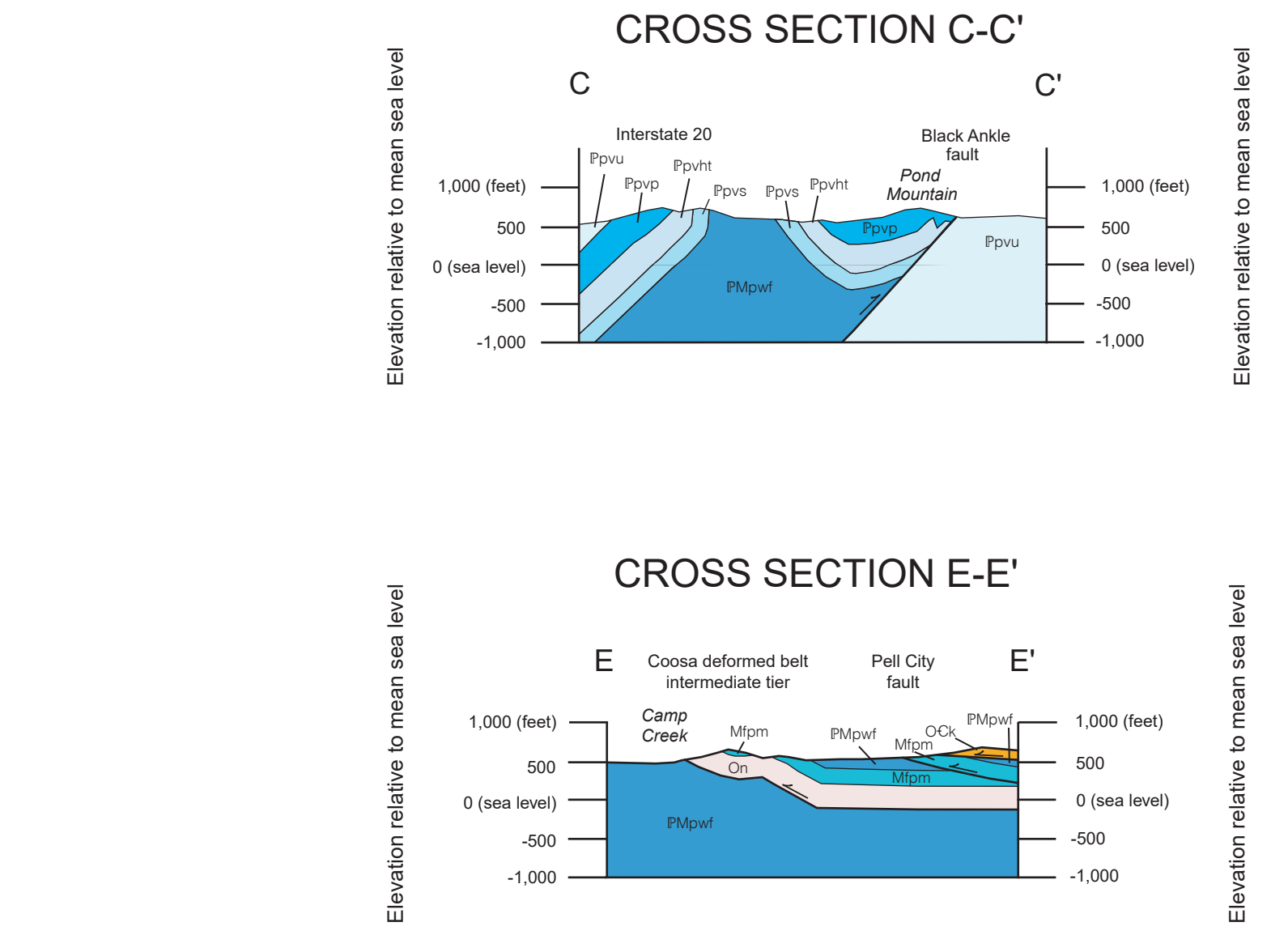
SCALE 1:24,000

CONTOUR INTERVAL 20 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

Digital database by Anthony Tavis



GEOLOGIC MAP AND CROSS SECTIONS OF THE PELL CITY 7.5-MINUTE QUADRANGLE, ST. CLAIR AND TALLADEGA COUNTIES, ALABAMA

by William A. Thomas, James A. Drahovzal, and Willard E. Ward 2013



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