

COLUMNAR SECTION SHEET

GENERALIZED SECTION FOR MAYNARDVILLE QUADRANGLE NORTHWEST OF WALLENS RIDGE.
SCALE: 1 INCH = 1000 FEET.

PERIOD.	FORMATION NAME.	SYMBOL.	COLUMNAR SECTION.	THICKNESS IN FEET.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOILS.
CARBONIFEROUS	Briceville shale.	Cbv		200+	Black, bluish-gray, and gray, argillaceous shale with small beds of sandy shale and sandstone, and thick coal beds.	Flat valleys with small hills and spurs. Thin clay soil with sandy wash.
	Lee conglomerate.	Cle		1000-1100	Massive sandstone, in part cross bedded, with conglomerate, a few thin shale beds, and thin coal seams.	Sharp, rugged ridges and mountains with many cliffs and ledges. Thin, sandy and rocky soil with much sandstone waste.
	Pennington shale.	Cpn		150-220	Calcareous shale, sandstone, and limestone.	Small hollows. Sandy clay soil.
	Newman limestone.	Cn		300-600	Massive and cherty, blue limestones with a few shale beds.	Rolling ground, small ridges, and a few cliffs on the mountain slopes. Cherty, red clay soil.
DEV.	Chattanooga shale.	Dc		100-400	Black, carbonaceous shale.	Narrow depressions.
	Rockwood formation.	Sr		400-700	Red and brown, calcareous and sandy shales with local beds of white sandstone and fossiliferous red hematite.	Valleys and sharp, even-topped ridges. Thin, sandy soil.
	Bays formation.	Sb		150-250	Red, argillaceous and sandy limestone.	Valleys and low slopes. Thin, sandy clay soil.
SILURIAN	Chickamauga limestone.	Sc		1500-2000	Blue and gray limestone, argillaceous limestone, flaggy limestone, and calcareous shale.	Smooth, open valleys. Red and yellow clay soil.
					Blue and gray, massive limestone with a few nodules of black chert.	Low, rounded hills. Red, clayey soil with chert fragments.
					Magnesian limestone, white, gray, light blue, and dark blue, with nodules of chert.	Broad, cherty ridges and high, rounded hills. Deep, red clay soil with many fragments of chert and sandstone.
CAMBRIAN					Beds of white, calcareous sandstone and sandy marble.	
	Conasauga shale.	Ec		600-750	Yellow, red, and brown, calcareous shale with thin beds of limestone.	Valleys, and slopes of Knox dolomite ridges. Thin, yellow clay soil.
	Rome formation.	Er		450-600	Bright-red, green, and brown, sandy shale with layers of thin sandstone.	Slopes of sandstone ridges. Thin, brown clay soil with much sandstone wash.
	Rome sandstone lentils.	Ers		1000+	Red, yellow, and brown, sandy shale and massive sandstone with layers of blue and sandy limestones.	Sharp ridges with notches and gaps. Thin, sandy soil with ledges and fragments of sandstone.

NAMES OF FORMATIONS.

PERIOD.	ARTHUR KEITH: BRICEVILLE FOLIO, U. S. GEOLOGICAL SURVEY, 1896.	NAMES AND SYMBOLS USED IN THIS FOLIO.	ARTHUR KEITH: MORRISTOWN FOLIO, U. S. GEOLOGICAL SURVEY, 1896.	SAFFORD: GEOLOGY OF TENNESSEE, 1909.
CARB.	Briceville shale.	Briceville shale.	Cbv	
	Lee conglomerate.	Lee conglomerate.	Cle	
	Pennington shale.	Pennington shale.	Cpn	Pennington shale.
DEV.	Newman limestone.	Newman limestone.	Cn	Newman limestone. Mountain limestone.
	Grainger shale.	Grainger shale.	Dg	Grainger shale. Siliceous group.
	Chattanooga shale.	Chattanooga shale.	Dc	Chattanooga shale. Black shale.
SILURIAN	Rockwood formation.	Rockwood formation.	Sr	Rockwood formation. Dyestone group.
		Clinch sandstone.	Sc	Clinch sandstone. Clinch Mountain sandstone.
	Bays limestone.	Bays formation.	Sb	Bays sandstone.
		Sevier shale.	Ssv	Sevier shale.
		Tellico sandstone.	St	
		Athens shale.		
SILURIAN	Chickamauga limestone.	Moccasin limestone.	Smc	Moccasin limestone. Trenton and Nashville series.
		Chickamauga limestone.	Sc	Chickamauga limestone. Trenton, Lebanon, or Maclurea limestone.
		Holston marble.	Shl	Holston marble.
	Knox dolomite.	Knox dolomite.	CSk	Knox dolomite.
CAMBRIAN	Conasauga shale.	Conasauga shale.	Ec	Nolichucky shale. Knox shale.
		Maryville limestone.	Em	Maryville limestone.
		Rogersville shale.	Erg	Rogersville shale.
		Rutledge limestone.	Ert	Rutledge limestone.
	Rome formation.	Rome formation.	Er	Rome formation. Knox sandstone.
Rome sandstone lentil.	Rome sandstone lentils.	Ers	Rome sandstone lentil.	

GENERALIZED SECTION FOR MAYNARDVILLE QUADRANGLE SOUTHEAST OF WALLENS RIDGE.
SCALE: 1 INCH = 1000 FEET.

PERIOD.	FORMATION NAME.	SYMBOL.	COLUMNAR SECTION.	THICKNESS IN FEET.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOILS.
CARB.	Newman limestone.	Cn		300+	Massive and cherty, blue limestone.	Flat, open valleys. Cherty, red clay soil.
DEVONIAN	Grainger shale.	Dg		900-1000	Greenish-gray and bluish-gray, sandy shale and sandstone.	High ridges and lines of knobs with many water gaps. Thin, sandy soil.
	Chattanooga shale.	Dc		400-450	Black, carbonaceous shale.	Deep, narrow valleys. Yellow clay soil.
SILURIAN	Rockwood formation.	Sr		0-300+	Red, yellow, and brown, sandy shales and thin sandstones with thin beds of red hematite.	Sharp, even-topped ridges. Thin, sandy soil.
	Clinch sandstone.	Sc		150-500	Massive, white sandstone.	High, sharp mountains.
	Bays formation.	Sb		200-500	Red, calcareous and argillaceous sandstones.	Steep slopes of Clinch sandstone mountains.
	Sevier shale.	Ssv		1100-1300	Light-blue, sandy and calcareous shales with beds of shaly limestone.	Irregular ridges and steep knobs. Yellow and red clay soil.
	Moccasin limestone.	Smc		600-800	Red and gray, flaggy limestone and calcareous shale.	Low ground with irregular ridges and knobs. Red and yellow clay soil.
	Chickamauga limestone. (Holston marble.)	Sc (Shl)		500-1800	Blue and gray limestone, argillaceous limestone, flaggy limestone, and calcareous shale. Variegated marble, red, brown, gray, and pink.	Smooth, open valleys. Red and yellow clay soil.
CAMBRIAN					Magnesian limestone, light blue, dark blue, and white, with nodules of chert.	Broad ridges and irregular, rounded hills. Deep, red clay soil with many fragments of chert and sandstone.
					Beds of white, calcareous sandstone and sandy marble.	
	Nolichucky shale.	En		500-600	Yellow, red, and brown, calcareous shale with a few limestone beds.	Narrow valleys, and steep slopes of Knox dolomite ridges. Thin, shaly soil.
	Maryville limestone.	Em		300-600	Massive, blue limestone, becoming shaly toward the west.	Lines of knobs. Red clay soil.
	Rogersville shale.	Erg		100-225	Bright-green clay shale, with a limestone bed.	Valleys and low knolls. Thin, shaly soil.
Rutledge limestone.	Ert		180-500	Massive, blue limestone, becoming shaly toward the west.	Open valleys. Red clay soil.	
Rome formation.	Er		350-400	Red, green, yellow, and brown shale and sandy shale.	Slopes of Rome sandstone ridges. Thin, sandy soil.	
Rome sandstone lentils.	Ers		1100+	Red, yellow, and brown, sandy shale and massive sandstone with layers of blue, sandy limestone.	Sharp ridges with many notches and water gaps. Thin, sandy soil with fragments of sandstone.	

GENERALIZED SECTION FOR MAYNARDVILLE QUADRANGLE NEAR HOLSTON RIVER.
SCALE: 1 INCH = 1000 FEET.

PERIOD.	FORMATION NAME.	SYMBOL.	COLUMNAR SECTION.	THICKNESS IN FEET.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOILS.
SILURIAN	Sevier shale.	Ssv		700+	Light-blue, sandy and calcareous shales with beds of limestone and argillaceous marble near the base.	Flat, open valleys with low knobs. Yellow and red clay soil.
	Tellico sandstone.	St		100-350	Bluish-gray, calcareous sandstone and sandy shale.	High, rounded knobs and ridges. Red, sandy soil.
	Holston marble.	Shl		200-400	Variegated marble, red, brown, gray, and white.	Rounded hills and slopes. Deep, red clay soil.
	Chickamauga limestone.	Sc		500-700	Blue limestones and gray, argillaceous limestones.	Low and rolling valleys. Red clay soil.
Knox dolomite.	CSk		3500	Magnesian limestone with nodules of chert.	Broad ridges and irregular rounded hills. Deep, red clay soil with many fragments of chert and sandstone.	

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