

EXPLANATION

Platane and floor	Qal	Aluvium	QUATERNARY
	Qs	Surficial deposits Colluvium and alluvium of mountainides	
Upper Mississippian	Mgc	Greasy Cove Formation	MISSISSIPPIAN
	Me	Grainger Formation	
Lower Devonian	Dc	Chattanooga Shale	DEVONIAN
	Oba	Bays Formation	
Middle Ordovician	Os	Sevier Formation Os, shale Os, sandstone	ORDOVICIAN
	Ob	Chota Formation	
	Ot	Tellico Formation Ot, shale Ot, sandstone	
	Ots	Blockhouse Shale Includes Whitesburg Limestone Member of the base Obs, sandstone member mapped separately in Tuckalee Cove	
	Ols	Lenoir Limestone	
	Oj	Newala Limestone	
	Ocl	Jonesboro Limestone	
	Ocr	Rome Formation	
	Ocs	Shady Dolomite Csd, shaly members Csd, massive units	
	Chm	Helenode Formation	
Lower Cambrian	Ch	Hesse Quartzite	CAMBRIAN
	Cm	Murray Shale	
	Cnb	Nebo Quartzite	
	Cn	Nichols Shale	
	Cc	Cochran Formation	
	pCs	Sandsuck Formation	
	pCw	White Formation pCw, undifferentiated pCw, dark siltstone pCw, conglomerate and coarse- grained sandstone pCw, quartzite pCw, light siltstone pCw, limestone	
	pCl	Licklog(?) Formation pCl, siltstone pCl, sandstone	
	pCs	Caden Sandstone pCs, prominent white of dark siltstone pCs, sandstone and graywacke	
	pCm	Metzalf Phyllite	

**Contact**  
Long dashed where approximate; short dashed where inferred; dotted where concealed by surficial deposits

**Fault**  
Long dashed where approximate; short dashed where inferred; dotted where concealed by surficial deposits; U, upthrown side; D, downthrown side. Thrust faults; Great Smoky fault has westward on overriding plate, and Capshaw Branch fault has T on overriding plate

**Anticline**  
Approximate trace of axis, showing direction of plunge

**Syncline**  
Approximate trace of axis, showing direction of plunge

**Strike and dip of beds**

**Strike and dip of overturned beds**

**Vertical beds**

**Horizontal beds**

**Strike and dip of slaty cleavage**

**Vertical slaty cleavage**

**Horizontal slaty cleavage**

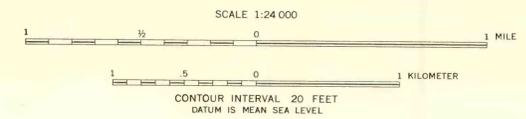
**Lineations**  
Intersections of bedding and cleavage, showing plunge; axis of minor folds where labeled FA

**Localities from which specimens for heavy-minerals study were collected**

**Quarries and prospect pits**

**Jasperoid concentrations in surficial mantle**

GEOLOGIC MAP OF THE KINZEL SPRINGS QUADRANGLE, TENNESSEE



Base map by U.S. Geological Survey in cooperation with Tennessee Valley Authority, 1953

Geology by Robert B. Neuman, Willis H. Nelson, Philip B. King and Charles A. Tucker, Jr., U.S. Geological Survey, and George Swingle, Tennessee Division of Geology. Surveyed 1949-55

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