

GEOLOGIC MAP
of the
BELLEFONTAINE QUADRANGLE
Webster and Calhoun Counties,
Mississippi

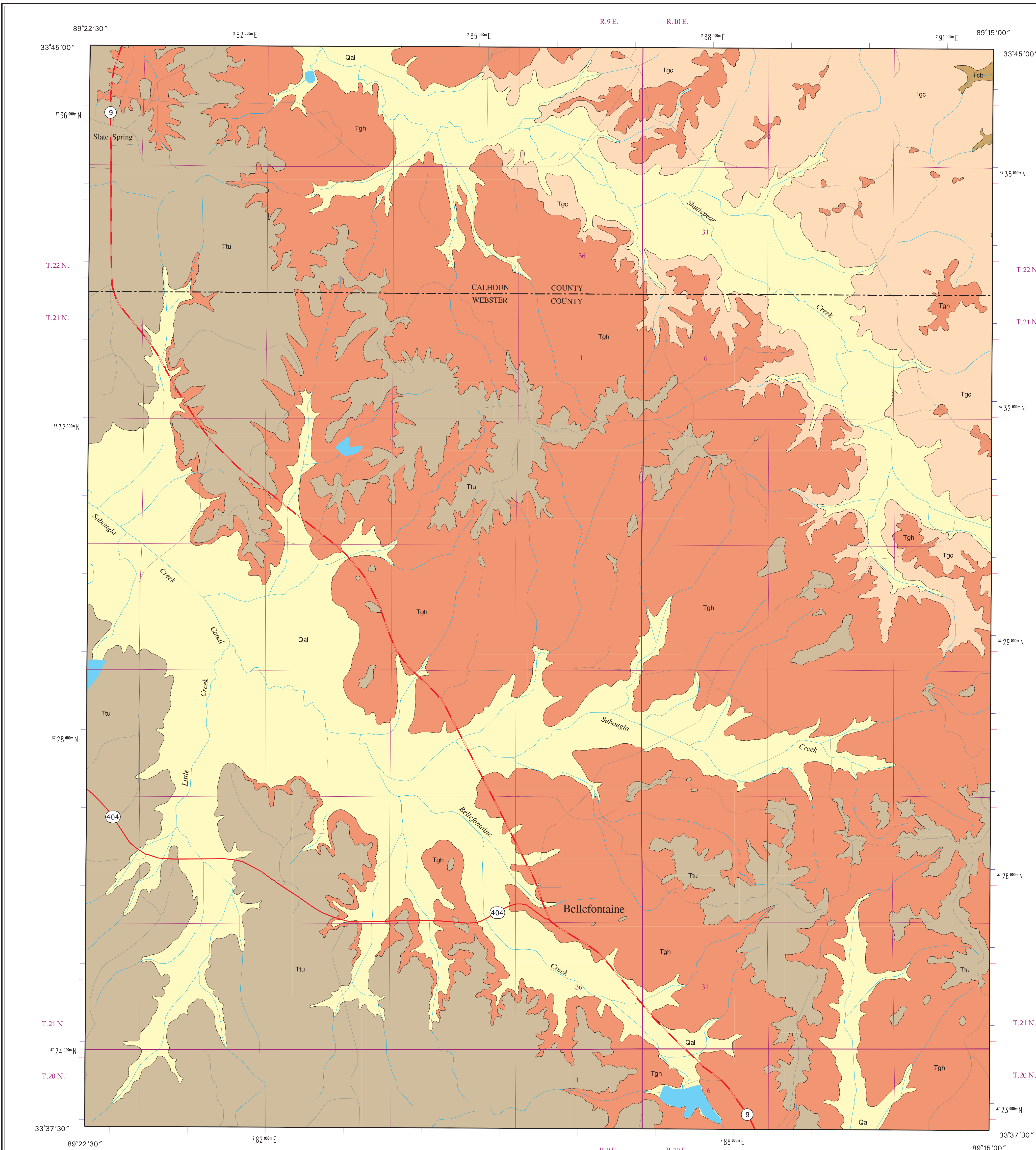


Geology by David E. Thompson

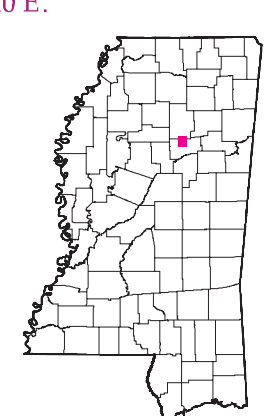
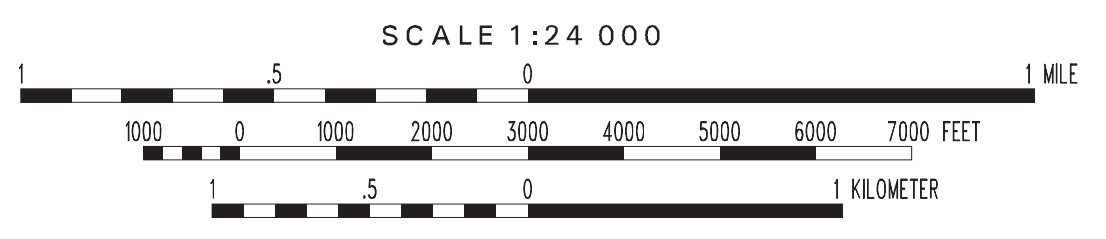
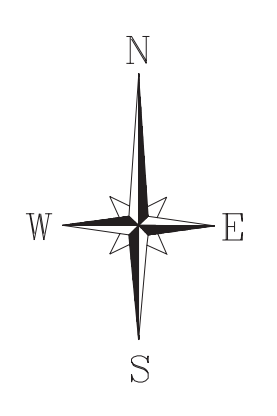
1998

DESCRIPTION OF MAP UNITS

QUATERNARY	HOLOCENE	Qal	ALLUVIUM Sand, flood plain sands and silts.	
		Ttu	TUSCAHOMA FORMATION Sand, dark greenish gray to light gray, weathers reddish orange to pale yellow orange, very fine- to coarse-grained, quartzose, micaceous, carbonaceous, glauconitic. Interbedded to interlaminated with clay and silt, light olive gray to brownish black, weathers to various shades of red, gray, brown, or white; lignite, contains Red Hills Mine equivalent lignite seams H through L. Total thickness is 400 feet; the maximum thickness present in the quadrangle is approximately 250 feet in the southwestern region. Basal sandy interval constitutes the Middle Wilcox Aquifer.	
TERTIARY	PALEOCENE	WILCOX GROUP	Tgh	NANAFALIA FORMATION Grampian Hills Member Clay and silt, medium gray to pale green, weathers to various shades of red, brown, and gray, carbonaceous, lignitic, contains Red Hills Mine equivalent lignite seams C through G; interbedded to interlaminated with sand, dark greenish gray to medium gray, weathers reddish orange to pale yellowish orange, very fine- to medium-grained, quartzose, micaceous, carbonaceous, and glauconitic. Basal portion is typically sandy. Thickness is 130 feet.
			Tgc	Gravel Creek Sand Member Sand, medium gray to very light gray, weathers reddish orange to pale yellowish orange, very coarse- to fine-grained, typically fining upward, quartzose, micaceous, clay clast conglomerate; upper portion consists of clay, dark gray to light gray, typically dense, occasionally silty, carbonaceous to lignitic. Contains Red Hills Mine equivalent lignite seams A and B. Thickness is 80 to 110 feet. Unconformity at base. Basal sandy interval (along with the underlying Coal Bluff sand) constitutes the Lower Wilcox Aquifer.
		MIDWAY GROUP	Tcb	NAHEOLA FORMATION Coal Bluff Member Sand, dark gray to light gray, weathers pale yellowish orange to reddish orange, very fine- to very coarse-grained, sometimes pebbly, typically fining upward, quartzose, very micaceous, carbonaceous, clay clast conglomerate; interbedded to interlaminated with clay and silt, dark gray to light gray, carbonaceous, lignitic, especially argillaceous at the top. The lower sands may contain kaolinitic to bauxitic clay clasts or beds. The thickness is 70 to 80 feet; only the upper 20 to 30 feet are exposed in the northeastern corner of the quadrangle. Unconformity at base. Along with overlying Gravel Creek sand, constitutes the Lower Wilcox Aquifer.



GEOLOGIC MAP
BELLEFONTAINE QUADRANGLE
Webster and Calhoun Counties, Mississippi



Geology field checked in 1997 using the Provisional Edition 1983 U.S. Geological Survey 7.5-minute topographic quadrangle, 1927 North American datum, contour interval 20 feet.
Mississippi Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator grid ticks, zone 16, 1983 datum shown in red, 1927 datum shown in blue.
Sources: Road and water features, USGS Digital Line Graph data, 1:100,000 scale. Public Land Survey System, Mississippi Automated Resource Information System (MARIS), 1:24,000 scale.
Geographic Information System by Daniel W. Morse.