

MISSISSIPPI OFFICE OF GEOLOGY
OPEN-FILE REPORT 81

GEOLOGIC MAP
of the
BANNER QUADRANGLE
Calhoun County,
Mississippi



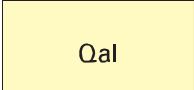
Geology by David E. Thompson

1999

DESCRIPTION OF MAP UNITS

QUATERNARY
HOLOCENE

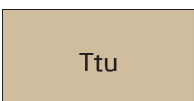
ALLUVIUM



Sand, flood plain sands and silts.

TERTIARY
PALEOCENE
WILCOX GROUP

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 430 feet; the maximum thickness present in the quadrangle is approximately 390 feet in the southwestern region. Basal sandy interval constitutes the Middle Wilcox Aquifer.

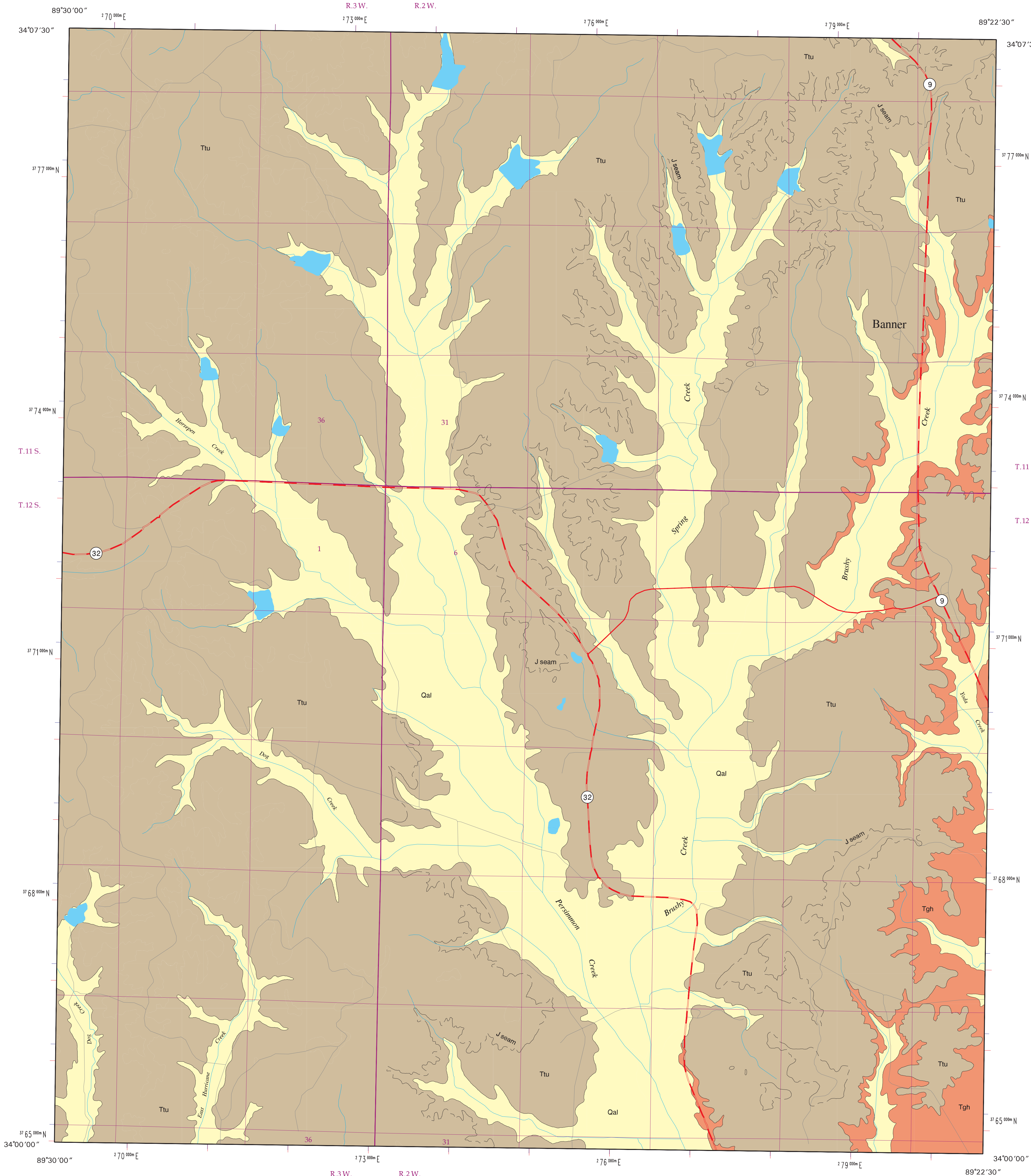
An informal boundary which marks the Top of the J-seam, Red Hills Mine equivalent. While the lignite seam is not always present, clay, silt, and lignite at that horizon are typically overlain by a sand unit. The thickness of the J-seam lignite, when present, is up to four feet.

NANAFALIA FORMATION

Grampian Hills Member



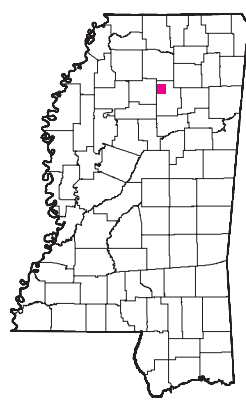
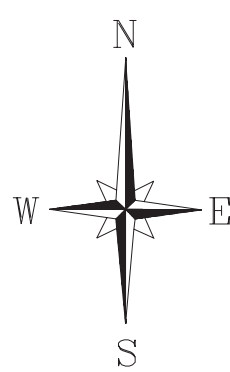
Clay and silt, medium gray to pale green, weathers to various shades of red, brown, and gray, carbonaceous, lignitic, contains Red Hills Mine equivalent lignite seams C through G; interbedded to interlaminated with sand, dark greenish gray to medium gray, weathers reddish orange to pale yellowish orange, very fine- to medium-grained, quartzose, micaceous, carbonaceous, and glauconitic. Basal portion is typically sandy. Thickness is 130 feet.



GEOLOGIC MAP

BANNER QUADRANGLE

Calhoun County, Mississippi



Geology field checked in 1998 using the 1972 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.