

GEOLOGIC MAP
of the
KEWANEE QUADRANGLE
Lauderdale County, Mississippi



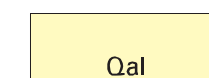
Geology by David E. Thompson

2001

DESCRIPTION OF MAP UNITS

QUATERNARY
HOLOCENE

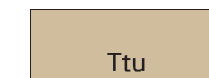
ALLUVIUM



Sand, flood plain sands and silts.

TERTIARY
PALEOCENE

TUSCAHOMA FORMATION



Sand, dark greenish gray to light gray, weathers reddish orange to pale yellowish 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; however the maximum thickness present in the quadrangle is approximately 330 feet in the southwest corner. The basal sandy interval constitutes the Middle Wilcox Aquifer.

TERTIARY
PALEOCENE

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, glauconitic. Basal portion is typically sandy. Thickness is 130 feet.

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, top of sand is locally glauconitic with fossil mollusk prints and is equivalent to the 'Ostrea thirsa' beds of Alabama; upper portion consists of clay, dark gray to light gray, typically dense, occasionally silty, carbonaceous to lignitic. Thickness is 80 to 110 feet. Unconformity at base. The basal sandy interval (along with the underlying Coal Bluff sand) constitutes the Lower Wilcox Aquifer.

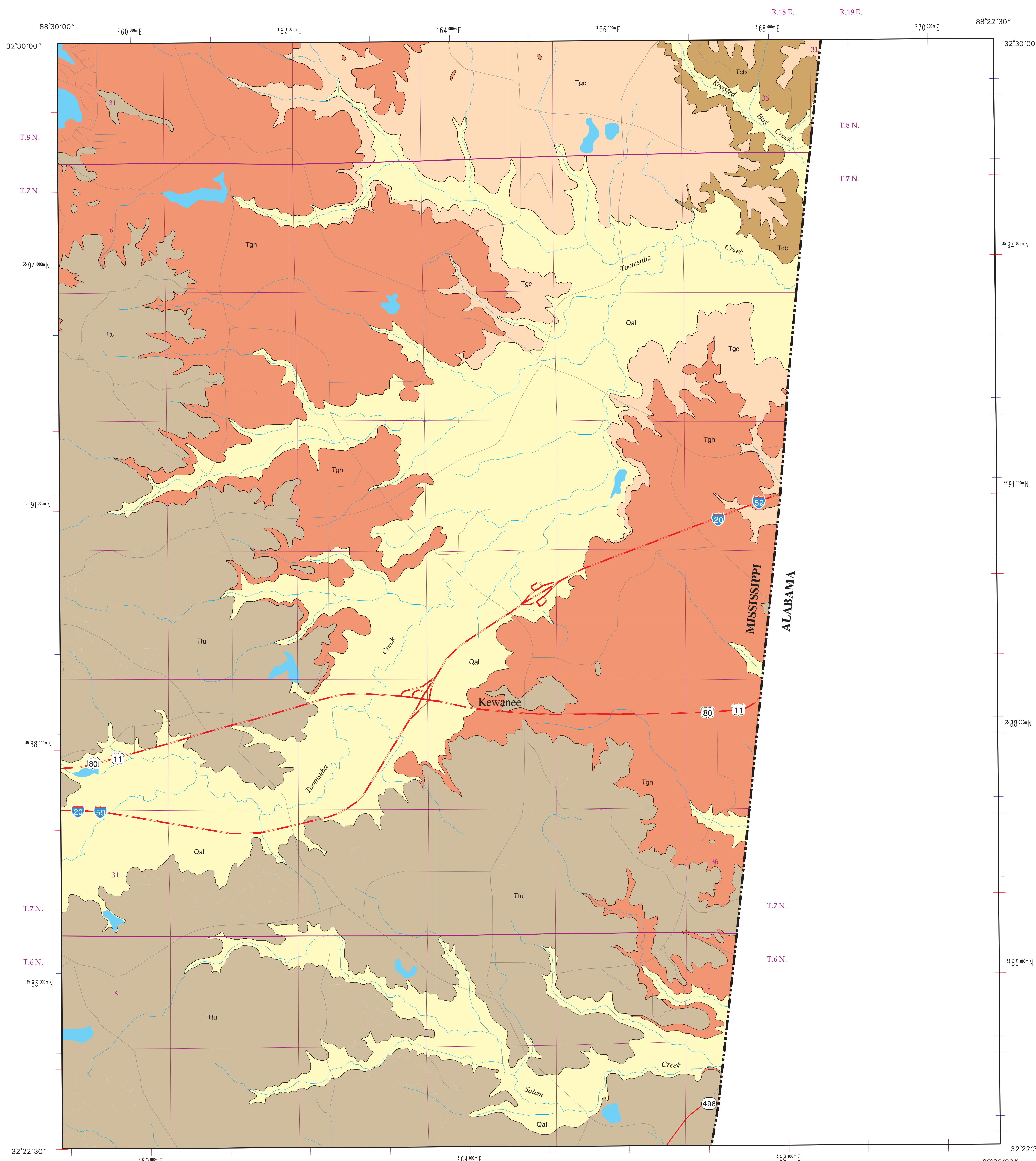
TERTIARY
PALEOCENE

NAHEOLA FORMATION

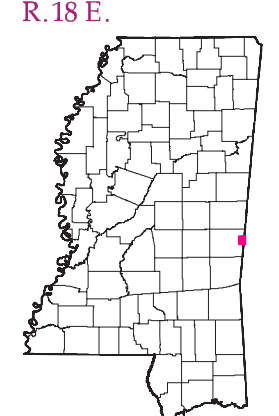
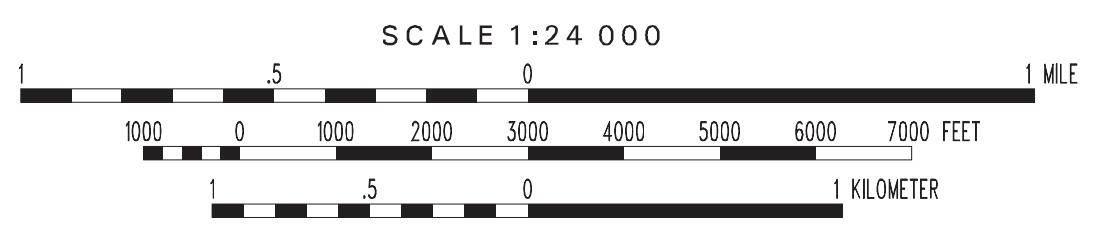
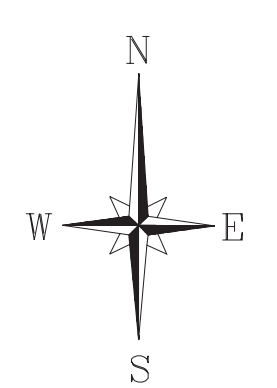


Sand, dark gray to light gray, weathers pale yellowish orange to reddish orange, very fine- to very coarse-grained, sometimes pebbly, typically fining upward, quartzose, very micaceous, carbonaceous, clay clast conglomerate; interbedded to interlaminated with clay and silt, dark gray to light gray, carbonaceous, lignitic, especially argillaceous at the top. The lower sands may contain kaolinitic clay clasts or beds. The total thickness is approximately 70 to 80 feet; however only the upper 50 feet are exposed in the northeastern region of the quadrangle. Unconformity at base. Along with the overlying Gravel Creek sand, constitutes the Lower Wilcox Aquifer.

MIDWAY GROUP



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Lauderdale County, Mississippi



Geology field checked in 2001 using the 1974 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.