

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 OFFICE OF GEOLOGY
 OPEN-FILE REPORT 221
GEOLOGIC MAP
 of the
Knobtown Quadrangle
 Wayne and Greene Counties,
 Mississippi



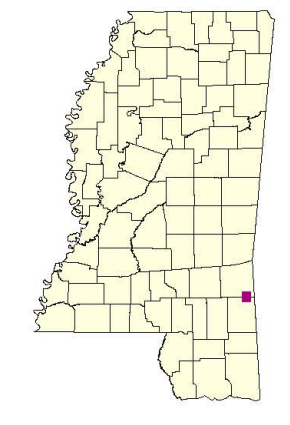
Geology by D. Kenneth Davis
 and James E. Starnes, GIT

2008

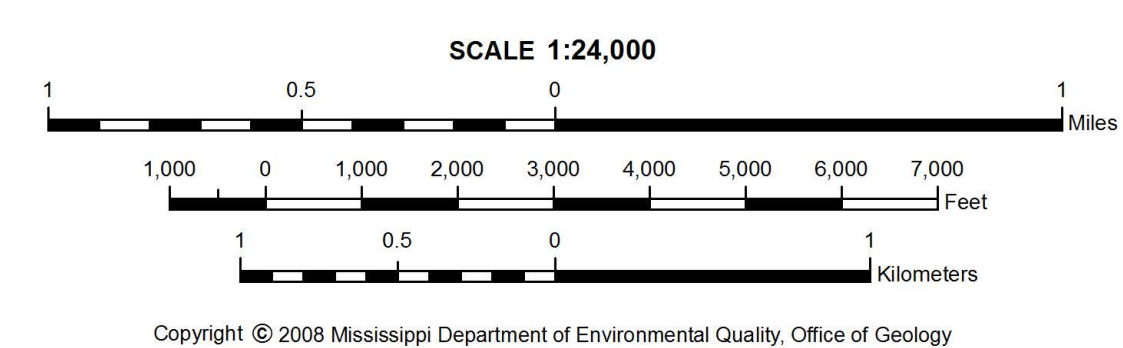
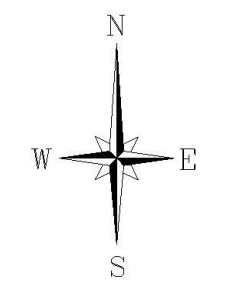
DESCRIPTION OF MAP UNITS

- | | |
|---|---|
| <p>QUATERNARY
HOLOCENE</p> <p>MIocene</p> <p>TERTIARY
MIocene</p> | <p>ALLUVIUM</p> <p>Qal</p> <p>Flood plain sands, silts, gravels, and clays.</p>
<p>HATTIESBURG FORMATION</p> <p>Tha</p> <p>Clay, green, gray, brown, weathers white- to brown and contains opaline concretions in places, silty- to sandy (sills commonly weather to mottled reddish-purple and gray, dense, ferruginous concretionary masses), locally lignitic near the base of the formation; sand, gray, pale-yellow- to white, fine-grained, cross-bedded- to massive, predominantly quartzose with lesser amounts of chert, metaquartzite, mica, and dark-grain heavy minerals, often indurated to sandstones at the surface. The base of the Hattiesburg Formation is placed at the base of a sand unit of regional extent, which is correlated with the base of the Fleming Formation in Louisiana and the middle-Miocene Amos Sand in Alabama.</p>
<p>CATAHOULA FORMATION</p> <p>Tca</p> <p>Sand, gray, pale-yellow- to white, fine- to coarse-grained, cross-bedded- to massive with rare thinly-bedded pea gravels (gravels consist of highly polished, subangular- to well-rounded, black chert and milky quartz), predominantly quartzose with lesser amounts of chert, metaquartzite, mica, and dark-grain heavy minerals, slightly glauconitic in places, silicified wood and fossil palm common, sands are often indurated to sandstones at the surface; clay, green, gray, brown, weathers white- to brown, silty- to sandy, lignitic common in basal clays.</p> |
|---|---|

Y-2 Drill-hole locality and identification number

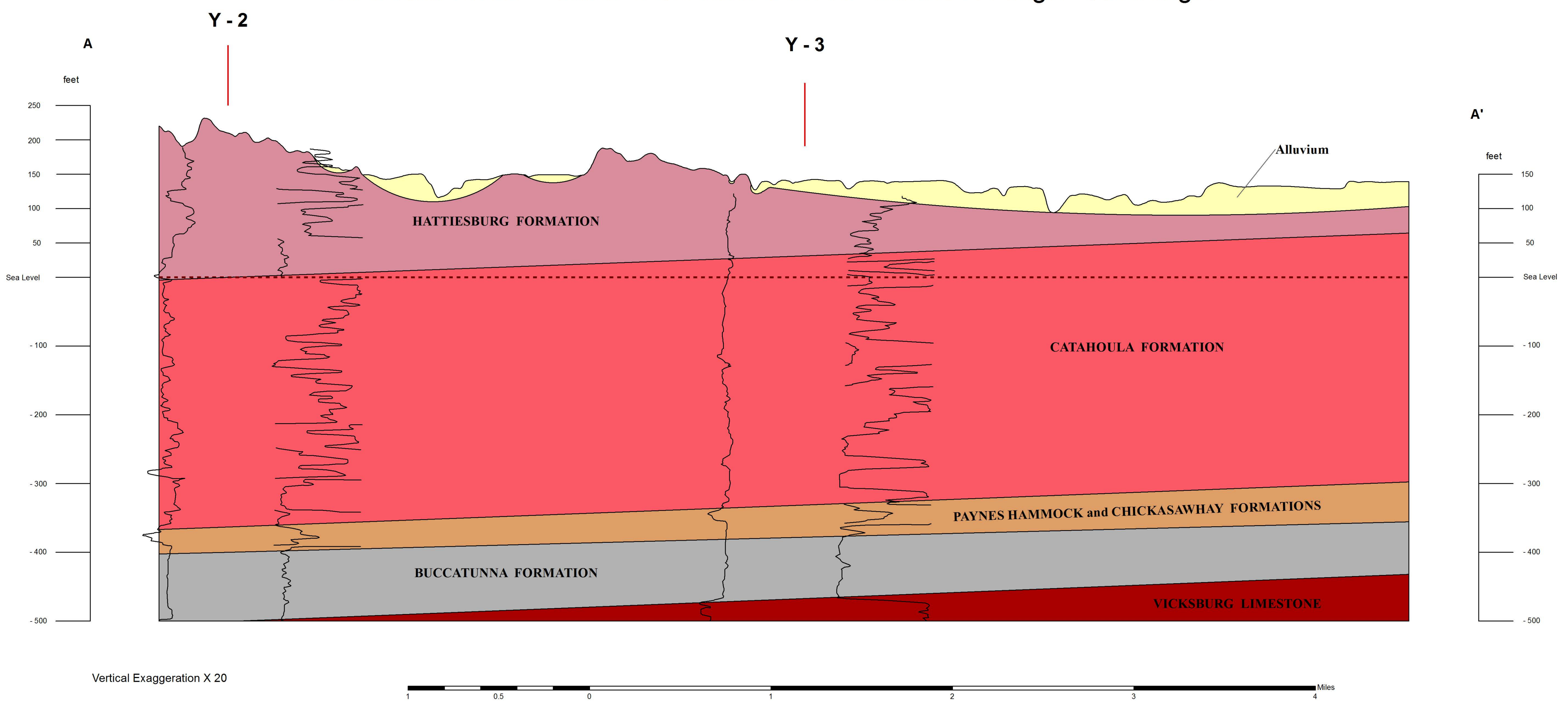


GEOLOGIC MAP
Knobtown Quadrangle
 Wayne and Greene Counties,
 Mississippi



Geology field checked in 2008 using the 2000, U.S. Geological Survey 7.5-minute topographic quadrangle, 1927 North American datum, contour interval 10 feet.
 January 2008, magnetic north declination in quadrangle center is 0°53' west of true north.
 Source: The base map is derived from a Digital Raster Graphic of the USGS topographic quadrangle map. Declination, National Oceanic and Atmospheric Administration (NOAA).
 Geographic Information System by Daniel W. Morse, MOE does not warrant the accuracy or completeness of the source data. Geologic maps are only a guide to current understanding and do not eliminate the need for detailed investigations of specific sites for specific purposes.
 This map was produced by the Mississippi Office of Geology in cooperation with the United States Geological Survey, National Geologic Mapping Program, under STATEMAP grant #07HQAG0066.

Structural Cross-Section of the Knobtown 7.5-Minute Geologic Quadrangle



Vertical Exaggeration X 20