

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF GEOLOGY  
OPEN-FILE REPORT 273

**GEOLOGIC MAP**  
of the  
**EASEN HILL QUADRANGLE**

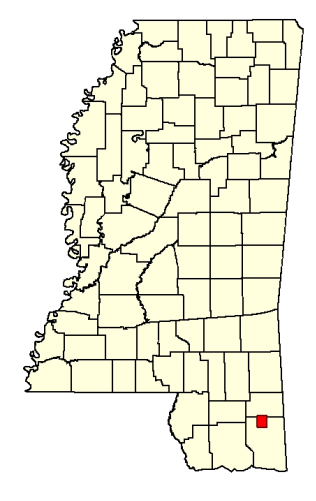
Jackson and George Counties,  
Mississippi

Geology by James E. Starnes, RPG

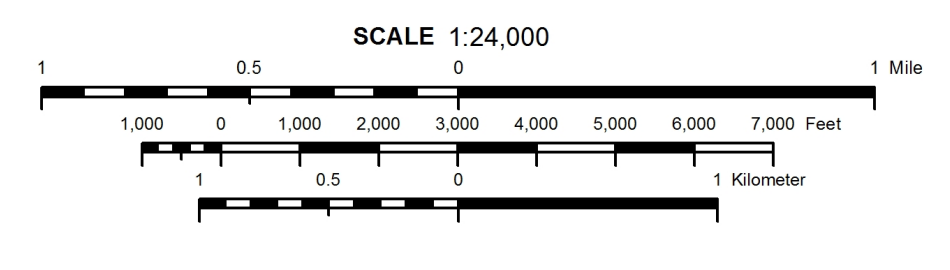
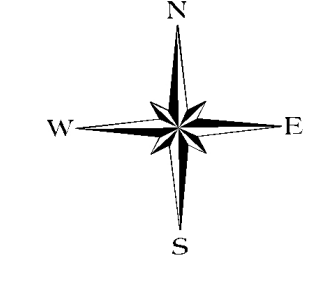
2015

**DESCRIPTION OF MAP UNITS**

- |                        |                        |   |
|------------------------|------------------------|---|
| QUATERNARY<br>HOLOCENE | [Yellow box]           | <b>ALLUVIAL FAN</b><br>Holocene Alluvial Fans- Alternating silts, sands. Coarsest at the apex of the fan, fining laterally (radially) from the apex of the fan. May interfinger with Pascagoula River alluvium.   |
|                        | [Light yellow box]     | <b>ALLUVIUM</b><br>Flood plain sands, silts, gravels, and clays. In the Pascagoula River alluvium, chert gravel is exclusive to the basal portion. The Pascagoula River Alluvium is approximately 40 to 60 feet thick. Chert-bearing gravels were absent outside the Pascagoula River alluvium in the Easen Hill Quadrangle. Quartz pea gravels were noted in the smaller second order streams.   |
|                        | [Yellow box with dots] | <b>STREAM TERRACE</b><br>First order stream terrace sands, silts, gravels, and clays.   |
| TERTIARY<br>PLIOCENE   | [Grey box]             | <b>GRAHAM FERRY FORMATION</b><br>Sand, dark greenish-gray, yellow to tan, micaceous and glauconitic (exclusively in the fine-grained sands), fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; laminar to thinly bedded quartz pea gravels in coarser fraction. Weathers to orange, purple, red, pink with reddish-brown colored pebbly ironstone residuum. Clay, green, gray, brown, weathers mottled purple to pink and white to reddish-brown, silty to sandy, locally lignitic.  |
|                        | [Red box]              | <b>PASCAGOULA FORMATION</b><br>Shallow marine to intertidal deposits, contains the marker fossil, <i>Rangia johnsoni</i> . Clay, green, gray, brown, and white; locally lignitic, locally calcareous and fossiliferous. Weathers mottled purple to pink and white to reddish-brown, silty to fine-sandy. Sand, dark greenish-gray and glauconitic, micaceous, locally lignitic, fine- to coarse-grained, predominantly quartzose, silted wood common. Top of Rangia beds were found at a depth of 120-130ft below land surface in MGS test hole B-105. A discernible contact was not found at outcrop between the Pascagoula and Graham Ferry Formations. |
| MIOCENE                | [Red box]              | <b>TP</b>   |
|                        | [Green dot]            | <b>B-11</b><br>Drill-hole locality and identification number  |



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Jackson and George Counties,  
Mississippi



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Geology field checked in 2014 using the PROVISIONAL EDITION 1982, U.S. Geological Survey 7.5-minute topographic quadrangle, Universal Transverse Mercator projection, 1927 North American datum, contour interval 10 feet. Universal Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator 1983 datum grid ticks, zone 16, shown in red. January 2015, magnetic north declination in quadrangle center is 1°34'32" west of true north, changing by 0'7.1" west per year.

Sources: Contours derived from Mississippi Automated Resource Information System (MARIS) vectorizing the mylar separate of the USGS 1982 topographic quadrangle, updated coding in 2014; Public Land Survey System, 1:24,000 scale, from MARIS; water features derived from the 7.5 minute Digital 2012 LSTODPO; road features derived from the Mississippi Digital Earth Model (MDEM), Declination, National Oceanic and Atmospheric Administration (NOAA).

Geographic Information System by Daniel W. Morse, MDEQ 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 #G14AC00223

**Structural Cross-Section of the Easen Hill 7.5-Minute Geologic Quadrangle**

