

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY  
 OFFICE OF GEOLOGY  
 OPEN-FILE REPORT 238  
**GEOLOGIC MAP**  
 of the  
**WILLIAMSBURG QUADRANGLE**  
 Covington and Jefferson Davis  
 Counties, Mississippi

Geology by James E. Starnes, RPG,  
 and D. Kenneth Davis  
 2010

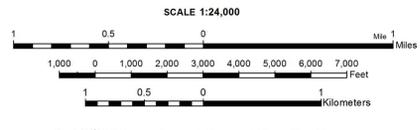
**DESCRIPTION OF MAP UNITS**

Geologic Unit	Color	Description
ALLUVIUM	Qal	Sand, flood plain sands, silts, and gravels.
CITRONELLE FORMATION	QTc	Sand, yellow, orange, red, pink, fine- to coarse-grained, predominantly quartzose; graveliferous, pea- to cobble size, predominantly chert with lesser amounts of vein quartz, micaceous, agate, and sandstone, lashed and chalky gravels in upper portions of deposits; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses, and rip-up clasts. Conglomeratic limestone ledges are common in the graveliferous sands at the base of the formation, which overlie the Hattiesburg Formation unconformably.
HATTIESBURG FORMATION	Tha	Clay, gray to brown, green, weathers white to brown, silty to fine-sandy, locally indurates to claystone at outcrop. Claystones locally contain common opal filled vugs. Sand, gray, pale yellow to white, quartzose, cherty, typically exhibits a salt and pepper appearance, fine- to coarse-grained, more angular than the sands of the overlying Citronelle Formation, commonly graveliferous in basal sands. Gravels are typically pea-sized and consist of black chert and milky quartz, typically highly polished, subangular to well rounded. Unweathered gravels are often encrusted with pyrite.

● K-9 Drill-hole locality and identification number



**GEOLOGIC MAP**  
**WILLIAMSBURG QUADRANGLE**  
 Covington and Jefferson Davis  
 Counties, Mississippi



Geology field checked in 2010 using the 1974, U.S. Geological Survey 7.5-minute topographic quadrangle, 1983 North American datum, contour interval 10 feet, 1000-meter Universal Transverse Mercator grid ticks, zone 18, 1983 datum shown in red; January 2010, magnetic north declination in quadrangle center is 0°28' west of true north.

Sources: 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, 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 Department of Environmental Quality in cooperation with the United States Geological Survey, National Geologic Mapping Program, under STATEMAP grant #G059AC00173.

**Structural Cross-Section Williamsburg 7.5-Minute Geologic Quadrangle**

