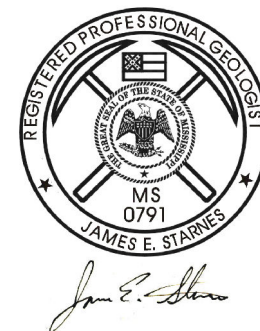


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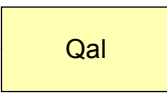
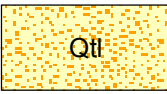
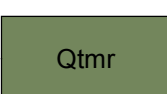



**GEOLOGIC MAP**  
of the  
**RAMSEY SPRINGS QUADRANGLE**  
Stone and George Counties,  
Mississippi

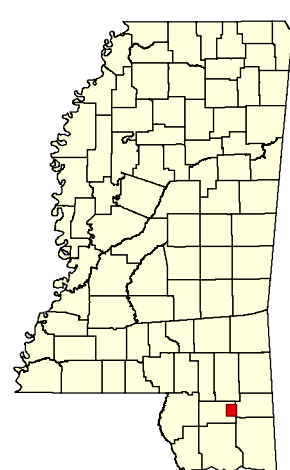


Geology by James E. Starnes, RPG  
and R. Tyler Berry, RPG

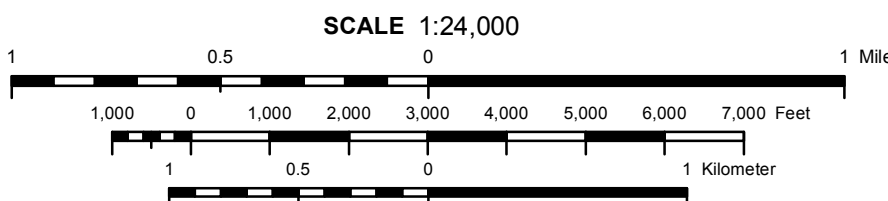
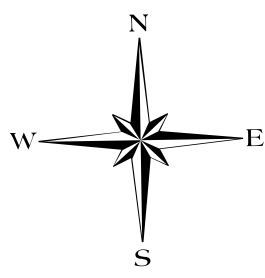


2017

QUATERNARY	HOLOCENE		<b>ALLUVIAL FANS</b> Alternating silts, sands, and gravels. Coarsest at the apex of the fan, fining laterally (radially) from the apex of the fan.
			<b>ALLUVIUM</b> Flood plain sands, silts, gravels, and clays.
			<b>LOW TERRACE</b> Stream terrace. Sand, orange to tan colored, fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; graveliferous, pea-size, predominantly chert and milky quartz; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses.
PLEISTOCENE			<b>MOVELLA HIGH TERRACE</b> Sand, orange to tan colored, fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; graveliferous, pea- to cobble-size, predominantly leached to chalky brown, grey, and white-colored chert and milky quartz; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses. Ironstone and botroidal pyrolusite common in basal contact with the underlying Pascagoula Formation.
	TERTIARY		<b>GRAHAM FERRY FORMATION</b> 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. 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 fine-sandy, locally lignitic and contains pyrite nodules in places.
<b>PASCAGOULA FORMATION</b> Shallow marine to intertidal and deltaic 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; graveliferous, pea- to small-cobble size consisting of black, brown, and grey-colored chert and milky quartz, subangular to well rounded. Silicified wood common.			
	MIocene		
			Drill-hole locality and identification number



**GEOLOGIC MAP**  
**RAMSEY SPRINGS QUADRANGLE**  
Stone and George Counties,  
Mississippi



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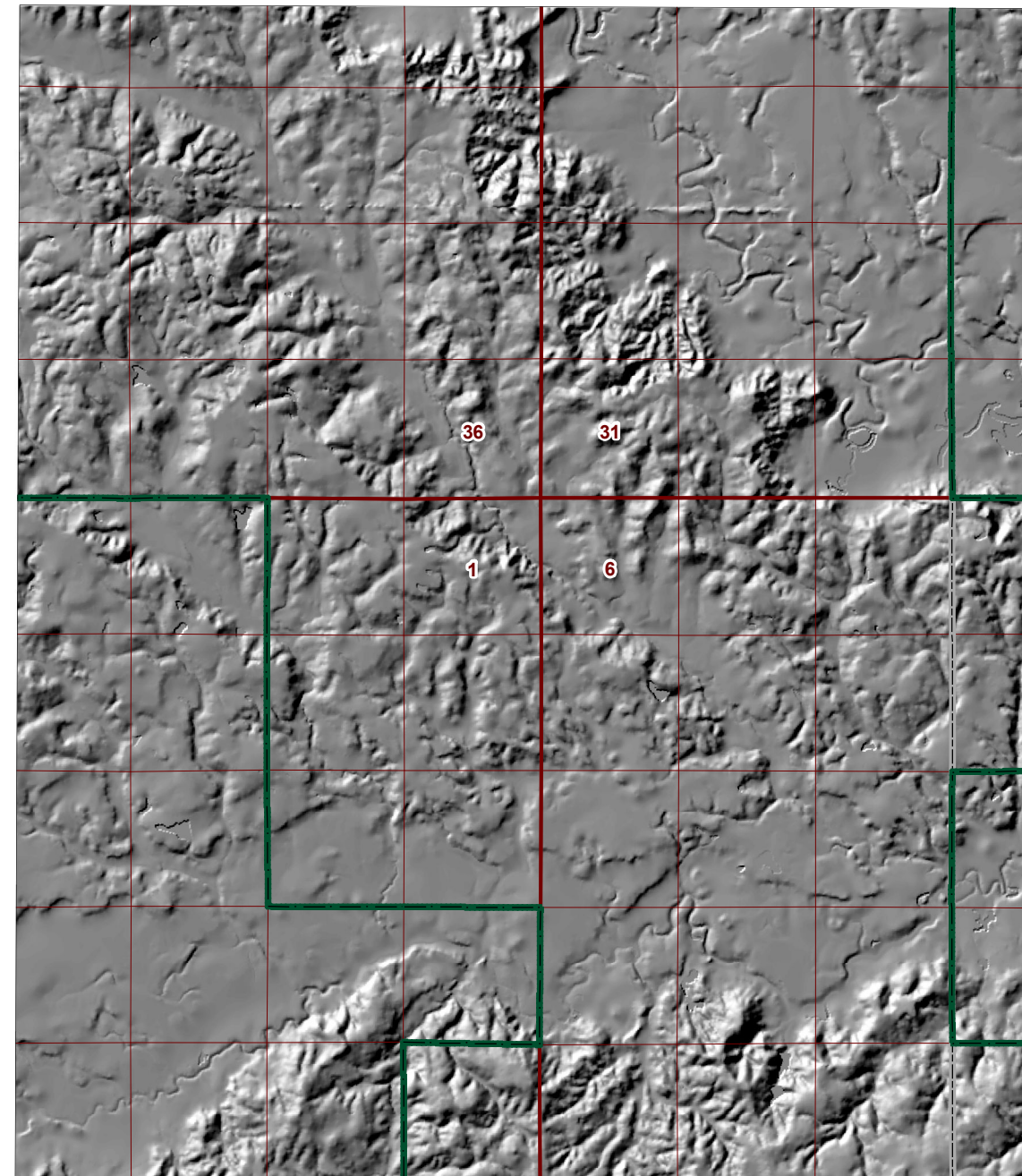
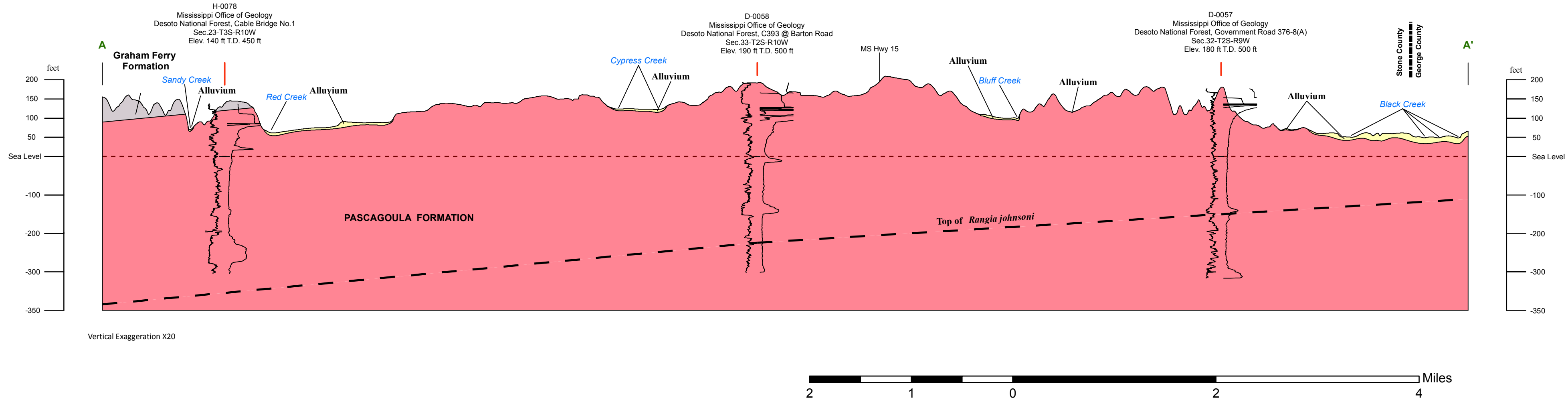
Geology field checked in 2016 using the 2000, revised, U.S. Geological Survey 7.5-minute topographic quadrangle, Universal Transverse Mercator projection, 1927 North American datum, contour interval 10 feet. Universal Transverse Mercator projection, 1983 North American datum, GRS80 spheroid, 1000-meter Universal Transverse Mercator 1983 datum grid ticks, zone 16, shown in red. January 2017, magnetic north declination in quadrangle center is 1°35' west of true north, ± 0°20' uncertainty, changing by 0.7" west per year.

Sources: Contours derived from Mississippi Automated Resource Information System (MARIS); Public Land Survey System, 1:24,000 scale, from MARIS; National Forest Boundary derived from the 2000, revised, U.S. Geological Survey 7.5-minute topographic quadrangle; water features derived from the 7.5 minute Digital 2012 USTopo; road features derived from the Mississippi Digital Earth Model (MDEM); Declination, National Oceanic and Atmospheric Administration (NOAA). We thank the US Forest Service for their cooperation and for facilitating the data collection and field work necessary for this mapping project.

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 Cooperative Geologic Mapping Program, under STATEMAP grant #G16AC00028.

**Structural Cross-Section of the Ramsey Springs 7.5-Minute Geologic Quadrangle**



10 - Meter Hillshade of the Basin Quadrangle