

Geologic Map of the Rock Hill 7.5 minute quadrangle Grant and Rapides Parishes, Louisiana

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Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

Alluvium—Undifferentiated deposits of small upland streams: alluvial deposits of minor streams and creeks of varying textures, filling valleys

Backswamp deposits—Fine-grained Holocene deposits of rivers,

Red River point bar deposits—Point bar deposits underlying meander belts of the Red River. (This map depicts a union of Hrm1 through Hrm8)

Red River natural levee deposits—deposits forming low natural levees

Red River channel remnants—sinuous tonal patterns interpreted to be abandoned Red River channels, buried beneath backswamp deposits.

PLEISTOCENE

Deweyville Allogroup, undifferentiated—alluvial deposits of ancestral

Upper Prairie Allogroup—Late Pleistocene alluvial deposits of the younger of the Prairie Allogroup temporal phases of the Red River valley. Where observed in the area northwest of Shreveport, the unit consists of grayish clayey very fine sand, with red mottles in places, weathering

Montgomery alloformation—meander belt deposits of the Red River in central Louisiana. The unit is blanketed by yellow loam, incises the Bentley alloformation and older units, and is incised by

Bentley alloformation—dissected alluvial deposits of early Pleistocene streams of primarily the Red River in central Louisiana. The unit is blanketed by yellow loam and incises Tertiary formations; it is incised by younger subunits of the Intermediate allogroup, and by the Prairie Allogroup and younger strata. Equivalent to the Natchez Formation of Mississippi.

TERTIARY SYSTEM

MIOCENE

Lena Formation, Fleming Group—texturally heterogeneous suite of generally poorly sorted clastic sediments comprising clay, silt/siltstone, and sandstone in varying proportions. Surface exposures in the Alexandria area predominantly comprise grayish, muddy fine to very fine sand, with

Carnahan Bayou Formation, Fleming Group—texturally heterogeneous suite of generally poorly sorted sediments comprising varying admixtures of sand/sandstone, with granules in places; silt/siltstone; and clay/mud. Primarily clayey very fine to fine sand containing some coarse and very coarse sand with some granules.

Granules and pebbles include both quartz and rock fragments, with granules comprising predominantly quartz, and pebbles and cobbles consisting mostly of rock fragments; the rock fragments comprise both lightish clay/mud rip-up clasts, and in places, dark or black chert. Includes

petrified wood and thin tuffaceous beds locally.

Open Water, Inundated Area, Swamp

Contact—includes inferred contacts

Topographic Contours

late Pleistocene coastal plain streams and certain Mississippi River tributaries including the Red, Ouachita, Sabine, Calcasieu, Pearl, and

Bogue Chitto valleys. Multiple levels are locally recognized.

Prairie Allogroup and Holocene units.

Red River distributary deposits—silty to clayey, reddish brown sediments that form the narrow natural levees of distributaries that extend

from Red River meander belts into the adjacent backswamps.

underlying the flood basins between meander belts.

flanking the meander belts of the Red River.

incised into older deposits.

DEWEYVILLE ALLOGROUP

PRAIRIE ALLOGROUP

yellowish to yellowish brown.

INTERMEDIATE ALLOGROUP

Government or the state of Louisiana. This map was produced to conform with

the National Geospatial Program US Topo Product Standard, 2011.