## -93.1250° 88 31.2500° 31.2500° Mfw Mfw Mfw Mfw Mfcc Mfcc Mfcc Mfcc Puw Mfcc Mfcc Puw Mfcc Mfcc Mfcc Mfcc 31.1250° 31.1250° -93.1250° ROAD CLASSIFICATION Produced and published by the Louisiana Geological Survey 3079 Energy, Coast & Environment Building, Louisiana State University Baton Rouge, LA 70803 • 225/578-5320 • www.lsu.edu/lgs/ 171 US Route (111) State Route This geologic map was funded by the U.S. Army Corps of Engineers contract number DACA63-95-D-0051. UTM GRID AND 2021 MAGNETIC NORTH **SCALE 1:24.000** DECLINATION AT CENTER OF SHEET Copyright ©1998, 2024 by the Louisiana Geological Survey ADJOINING QUADRANGLES Base map from U.S. Geological Survey 1:24,000 GeoPDF Geology: McCulloh, R.P. and Heinrich, P.V. National Geospatial Program US Topo Product Standard, 2011. Universal Transverse Mercator Projection, Zone 15 North American Datum 1983 (NAD 83) GIS Compilation: Peele, R.H. et. al. Contour Interval 10 Feet North American Vertical Datum 1988 ..United States Geological Survey, 2020 Cartography: Paulsell, R.L. Base Map. ..LaDOTD, 2007 Boundaries.. QUADRANGLE LOCATION .National Elevation Dataset, 2008 - 2011 Contours.. Geologic Map of the Slagle 7.5 minute quadrangle

Vernon Parish, Louisiana

## **Description of Map Units**

## **QUATERNARY SYSTEM**

HOLOCENE

Alluvium—undifferentiated deposits of small upland streams: unconsolidated alluvial deposits of minor streams and creeks filling valleys incised into older deposits, with textures varying from gravelly sand to

> PLEISTOCENE PRAIRIE ALLOGROUP

colluvial, estuarine, deltaic, and marine units deposited during the Wisconsin to Sangamon interval of the late Pleistocene. Multiple levels along alluvial valleys and coast-parallel trends are grouped into two

Prairie Allogroup, undifferentiated—diverse depositional sequence of deposits of the Mississippi River, its tributaries, and coastal plain streams; includes terraced fluvial (meander belt, backswamp, and braided stream),

brownish-tan hues.

principal temporal phases. The Prairie Allogroup is undifferentiated where fluvial terrace remnants flank headward portions of stream courses. Upper Prairie Allogroup—Younger of Prairie Allogroup temporal phases, consisting of alluvial deposits of ancestral late Pleistocene streams. Grayish-white to reddish-white and light red very fine to medium sand to silt, with clay, to sandy mud, in places including beds of gravelly sand and sandy gravel of chert and vein quartz. Weathers to yellow, orange, and/or

> TERTIARY SYSTEM PLIOCENE UPLAND ALLOGROUP

Willis Formation, undifferentiated—deeply dissected alluvial sediments deposited by Pliocene streams in west-central Louisiana. The unit is unconformably underlain by Tertiary formations of Miocene to Eocene age, and is bounded downdip by the Lissie surface.

**MIOCENE** 

FLEMING GROUP

Blounts Creek Formation, Fleming Groupa—relatively nondescript series of grayish clayey and silty very fine to fine sands, silty and very fine to fine sandy clays, and clayey silts. The principal sedimentary structures comprise rare lamination and low-angle cross lamination. Characteristics of the surface Blounts Creek accord generally with fluvial deposition interpreted as characteristic of an upper deltaic plain setting.

Castor Creek Formation, Fleming Group—silty to very fine sandy, grayish clay, with reddish mottles in places. Comprises calcareous clay, with scattered irregular calcareous nodules up to several centimeters long, at numerous localities. May weather to black soil. Local vertebrate fossil finds at Fort Polk in west-central Louisiana all occur in a coarse-sand- and conglomerate-rich sequence that represents a concentration and reworking of these calcareous nodules. Subsurface-to-surface electric-log correlation indicates that this sequence lies very near, if not coincident with, the uppermost portion of the Castor Creek. Fisk interpreted the Castor Creek as reflecting more brackish-water-influenced deposition than for the superjacent Blounts Creek and the subjacent Williamson Creek, based on overall texture and internal features and the occurrence of the Potamides matsoni fauna. The coarser-grained vertebrate-fossil-bearing sequence as indicating fluvial deposition with episodes of repetitive paleosol formation on a flood plain surface.

Williamson Creek Formation, Fleming Group-very fine to very coarse sand, averaging very fine to medium overall, with overall poor sorting. Overall grain size appears coarser than in other Fleming subunits, with sands containing much more of the coarser size fractions and a larger proportion of quartz granules in places. Granules are extremely abundant locally and consist almost exclusively of quartz, in places comprising sandy granule conglomerate. Internal features include medium-scale trough cross beds in coarser, granule-rich sand and sandy granule conglomerate, with bedding sets fining upward in places. Characteristics of the surface Williamson Creek accord generally with continental, fluvial-dominated

Dough Hills Formation, Fleming Group—clay, sand and sandstone, and silt and siltstone, in varying proportions. Includes calcareous clay, containing characteristic calcareous nodules, and may include in places anomalous localized concentrations of fine-grained calcareous rock. According to Hinds (1999), calcareous clay occurs more in the western portion of the outcrop belt, and noncalcareous clay in the eastern part. May weather to black soil. Sand and sandstone are poorly sorted, range in grain size from very fine to very coarse, and contain sparse quartz granules at a number of localities. Overall texture and internal features were interpreted by Fisk (1940) and Hinds (1999) as reflecting more brackish-water-influenced deposition than for the superjacent Williamson Creek and the subjacent Carnahan Bayou.

Open Water, Inundated Area, Wetland

**Contact**—includes inferred contacts.

**Department of Defence Boundary** 

**Topographic Contours** 

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.National Hydrography Dataset, 2002 - 2017

.FWS National Wetlands Inventory 2021

...GNIS, 1980 - 2017

..U.S. Census Bureau, 2017

Hydrography.

Names.

Roads..

Wetlands.