

Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

Ha 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 gravely sand to sandy mud.

PLEISTOCENE

PRAIRIE ALLOGROUP

Pp Prairie Allgroup, undifferentiated—diverse depositional sequence of deposits of the Mississippi River, its tributaries, and coastal plain streams; includes terraced fluvial (meander belt, backslope, and braided stream), 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 principal temporal phases. The Prairie Allgroup is undifferentiated where fluvial terrace remnants flank headward portions of stream courses.

TERTIARY SYSTEM

PLIOCENE

UPLAND ALLOGROUP

Puw 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 downward by the Lissie surface.

MIOCENE

FLEMING GROUP

Mfb Blounts Creek Formation, Fleming Group—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.

Mfcc 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 Potamidites matsoni fauna. The coarser-grained vertebrate-fossil-bearing sequence as indicating fluvial deposition with episodes of repetitive paleosol formation on a flood plain surface.

Mfw 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 deposition.

- Open Water, Inundated Area, Wetland**
- Streams**
- Contact**—includes inferred contacts.
- Topographic Contours**
- Department of Defence Boundary**

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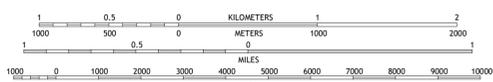
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SCALE 1:24,000

Base map from U.S. Geological Survey 1:24,000 GeoPDF National Geospatial Program US Topo Product Standard, 2011. Universal Transverse Mercator Projection, Zone 15 North American Datum 1983 (NAD 83) Contour Interval 10 Feet North American Vertical Datum 1988

North	Simpson North	Temple
Single	Simpson South	Lacum
Fort Polk	Bird Creek	Palmetto Lake

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

Base Map	United States Geological Survey, 2020
Boundaries	LaDOTD, 2007
Contours	National Elevation Dataset, 2008 - 2011
Hydrography	National Hydrography Dataset, 2002 - 2017
Names	GNIS, 1980 - 2017
Roads	U.S. Census Bureau, 2017
Wetlands	FWS National Wetlands Inventory 2021

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Geologic Map of the Simpson South 7.5 minute quadrangle Vernon Parish, Louisiana