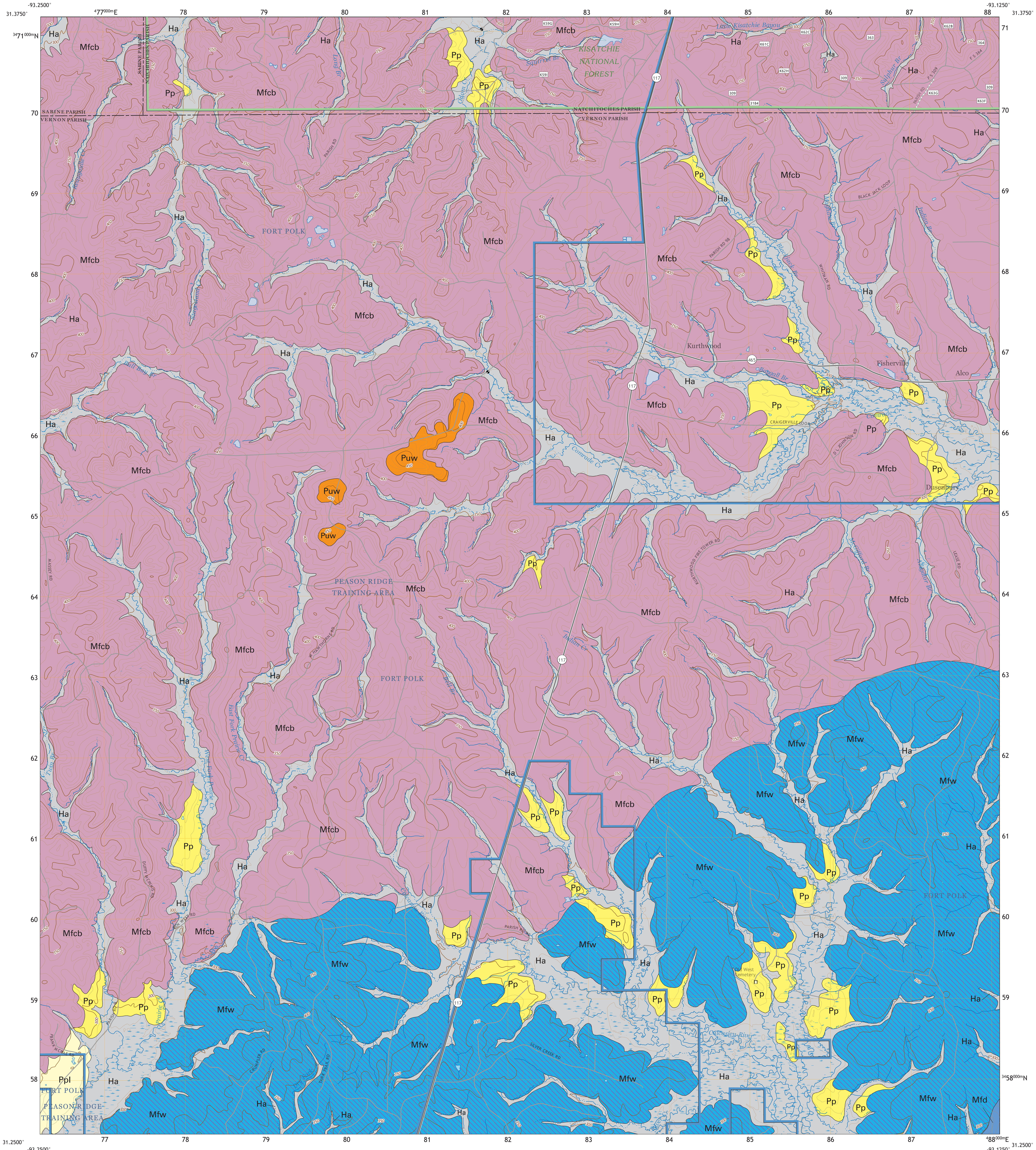
USGS science for a changing world | LSU Louisiana Geological Survey | The National Map OnDemand Topo



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 gravelly sand to sandy mud.

PLEISTOCENE

PRAIRIE ALLOGROUP

Pp — **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), 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 Allogroup is undifferentiated where fluvial terrace remnants flank headward portions of stream courses.

Ppl — **Prairie Allogroup, Late Sangamon**—Younger of the Prairie Allogroup temporal phases. Alluvial deposits of ancestral late Pleistocene streams, blanketed by Peoria Loess near the Mississippi River flood plain.

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 downdip by the Lissie surface.

MIOCENE

FLEMING GROUP

Mfw — **Williamson Creek Formation**—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.

Mfd — **Dough Hills Formation**—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.

Mfcb — **Carnahan Bayou Formation**—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. Characteristics of the surface Carnahan Bayou accord generally with continental, fluvial-dominated deposition, with the large proportion of silt observed in places suggestive of the onset of transition to deltaic facies. In eastern Texas the Carnahan Bayou is classified as the uppermost portion of the Catahoula Formation.

Open Water, Inundated Area, Wetland

Streams

Contact—includes inferred contacts.

Topographic Contours

Department of Defence Boundary

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Geology: McCulloh, R.P. and Heinrich, P.V.

GIS Compilation: Peele, R.H. et. al.

Cartography: Paulsell, R.L.

MN GN 0°6′ 2 MILS 0°44′ 13 MILS

UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
VQ
Grid Zone Designation
15R

KILOMETERS 1 0.5 0 1 2
METERS 1000 500 0 1000 2000
MILES 1 0.5 0 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

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

1	2	3
4		5
6	7	8

1 Peason
2 Kisatchie
3 Bayou Livrogne
4 Dowden Creek
5 Simpson North
6 Leesville
7 Slagle
8 Simpson South

ADJOINING QUADRANGLES

LOUISIANA

QUADRANGLE LOCATION

Expressway | Secondary Hwy | Ramp | Local Connector | Local Road | 4WD
Interstate Route | US Route | State Route
FS Primary Route | FS Passenger Route | FS High Clearance Route

Geologic Map of the Kurthwood 7.5 minute quadrangle Vernon, Natchitoches, and Sabine Parishes, Louisiana

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