

Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

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Holocene undifferentiated 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

LOESS—Eolian silt veneer of late Wisconsin age (Peoria Loess) mantling Pleistocene strata. Loess is 3-5 m thick in Carencro quadrangle (Miller, 1983) and consists of gray to brown clayey silt to silty clay, in places with rootlets, organic matter, calcareous and/or iron-oxide stains and/or nodules, light gray to dark brown mottles, and some very fine to fine sand.

PRAIRIE ALLOGROUP

Upper Big Cane alluviation—Stratigraphically higher sequence underlying the lower of two geomorphic surfaces developed on the Big Cane alluviation. Gray to brown sand and silty sand, in places with traces of gravel.

Lower Big Cane alluviation—Stratigraphically lower sequence underlying the higher of two geomorphic surfaces developed on the Big Cane alluviation. Brown sand, in places with traces of gravel, iron-oxide stains, and organic matter.

Avoyelles alluviation—Meander-belt deposits of the late Pleistocene Mississippi River, turned above and parallel to its western valley wall and incised into the underlying Beaumont Alluviation. The surface is occupied by relict channels of the Lafayette meander belt. Gray, tan, and brown clay, silt, and sand, in places calcareous and/or carbonaceous, or with clay pockets, silt seams, laminae of clayey silt and sand, sand layers, organic matter, iron-oxide stains and/or nodules (≤ 2 mm), and brown mottles. In the Lafayette area and vicinity a thin blanket of overbank sediment overlies the Beaumont Alluviation adjacent to the edge of the Lafayette meander belt (Mateo, 2015), and could not be mapped.

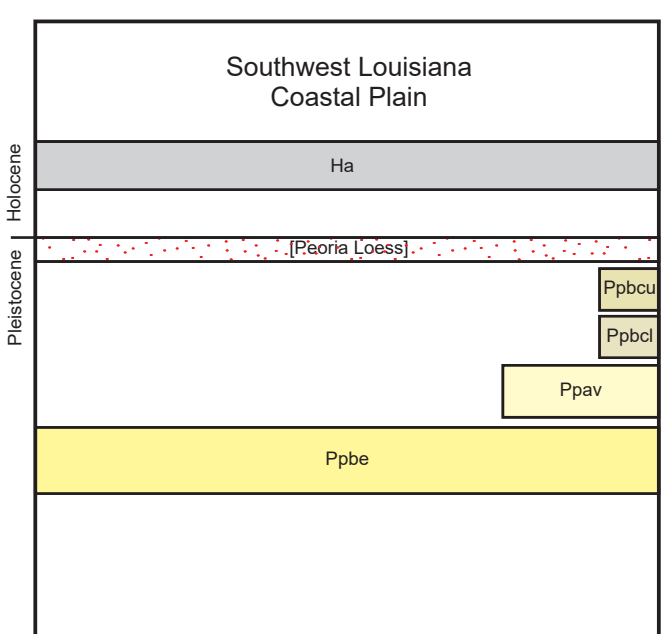
Beaumont Alluviation—Coastal-plain deposits of late to middle Pleistocene streams, forming the oldest and topographically highest of the Prairie surfaces of southwestern Louisiana. Gray, tan, brown, and red clay, silt, and sand, in places with Fe nodules (≤ 2 mm). Subsurface data indicate that in its upper 80+ m the unit in places shows a transition from fining-upward gravel, overlain by coarse sand and gravel, to fining-upward sand (coarse to fine) and clay at the surface. In areas to the north and west of the study area the surface exhibits relict channels of the Red, Mermentau, and Calcasieu Rivers, and the unit includes deposits of the Ingleside barrier trend (Houston Ridge).

- Open Water, Inundated Area, Wetland
- Normal Fault—Ball and bar on downthrown side.
- Inferred Fault—Identity and existence certain, location inferred. Ball and bar on downthrown side.
- Contact—includes inferred contacts.
- Streams
- Topographic Contours
- Open pit

References:

- Mateo, Z. R. P., 2005, Fluvial response to climate and sea-level change, Prairie Complex, Lower Mississippi Valley, M.S. thesis, University of Illinois, Chicago, 66 p.
- Miller, B. J. (compiler), 1983, (Distribution and thickness of loess in Lake Charles, Louisiana 1 x 2 degree quadrangle): Louisiana State University Department of Agronomy, Louisiana Agricultural Center, Louisiana Agricultural Experiment Station, Baton Rouge, unpublished map, Louisiana Geological Survey, scale 1:250,000.

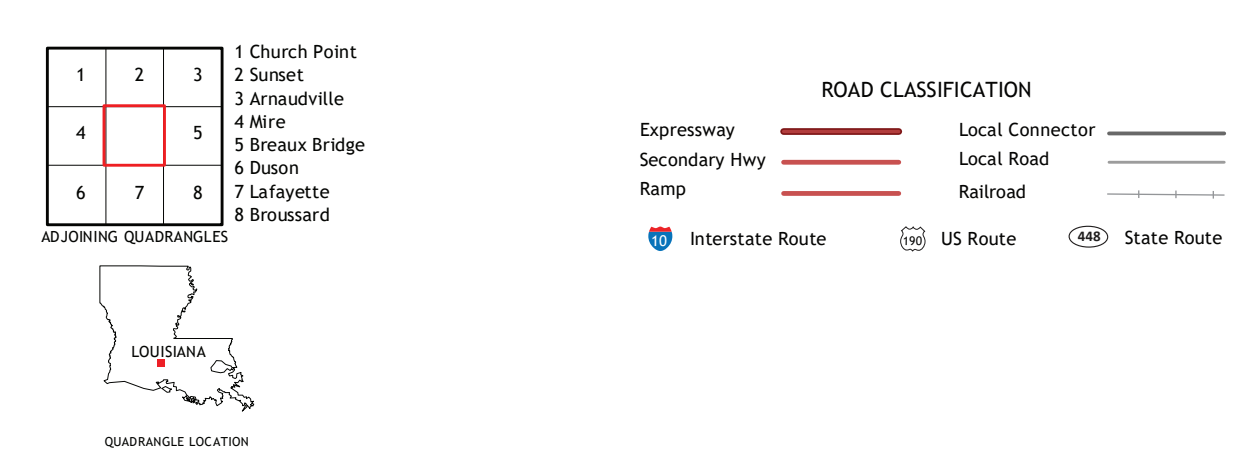
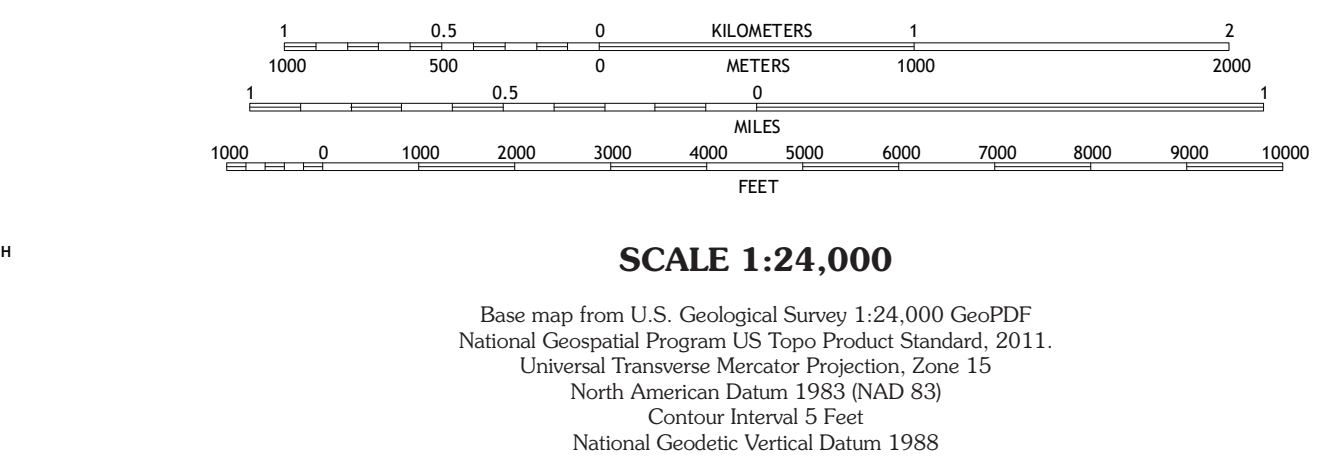
Correlation of Map Units



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Geology of the Carencro 7.5 minute quadrangle
 Lafayette and St. Landry 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

This research is supported by the U. S. Geological Survey, National Cooperative Geologic Mapping Program. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U. S. Government or the state of Louisiana. This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.

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