Geologic Map of the Pioneer 7.5 minute quadrangle East and West Carroll Parishes, Louisiana

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North American Datum 1983 (NAD 83)

Contour Interval 5 feet

National Geodetic Vertical Datum 1988

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

QUADRANGLE LOCATION

Description of Map Units

QUATERNARY SYSTEM HOLOCENE

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

Small river meander-belt deposits—Point bar deposits underlying the

Small river natural levee deposits—Deposits forming low natural levees flanking the meander belts of small rivers.

Backswamp deposits—Fine-grained Holocene deposits of rivers, accumulated in the flood basins between meander belts. Primarily unconsolidated mud and

Arkansas River meander-belt deposits—point bar deposits underlying

Arkansas River natural levee deposits—deposits forming low natural levees flanking the meander belts of the Arkansas River.

river channels, buried beneath backswamp and natural levee deposits.

River channel remnants—Sinuous tonal patterns interpreted to be abandoned

PLEISTOCENE

Pmru

Pmrl

LOESS-Eolian silt veneer of late Wisconsin age (Peoria Loess) mantling Pleistocene and older strata. Loess is shown where the total thickness of either or both loess units is 1 meter or greater.

Upper Macon Ridge alloformation—Sandy fluvial deposits formed by the Mississippi River during a braided depositional regime associated with the transport of glacial outwash. Sand and gravel channel and bar deposits that underlie a well-preserved braid belt that is sometimes are capped by Peoria Loess, loess-derived colluvium and/or silty alluvium, and/or fine-grained flood basin sediments. The Upper Macon Ridge alloformation is differentiated from the adjoining Lower Macon Ridge alloformation by a generally lower elevation and distinct crosscutting relationships. It is the stratigraphically higher subunit (geomorphically lower subunit of Rittenour et al., 2007). Dating by the optically stimulated luminescence method (Rittenour et al. 2005, 2007) indicates that the two principal braid belts in Louisiana are both of middle Wisconsin age with the Upper Macon Ridge Alloformation slightly the younger.

Lower Macon Ridge alloformation—Sandy fluvial deposits formed by the Mississippi River during a braided depositional regime associated with the transport of glacial outwash. Sand and gravel channel and bar deposits that underlie a well-preserved braid belt that is that commonly are capped by Peoria Loess, loess-derived colluvium and/or silty alluvium, and/or fine-grained flood basin sediments. The Lower Macon Ridge alloformation in Louisiana is discontinuous along the eastern margin of Macon ridge and is the stratigraphically lower subunit (geomorphically higher subunit of Rittenour et al., 2007). Remnants consist of the southern end of Melville ridge and Walker ridge on the Natchez quadrangle and the Catahoula remnant further south.

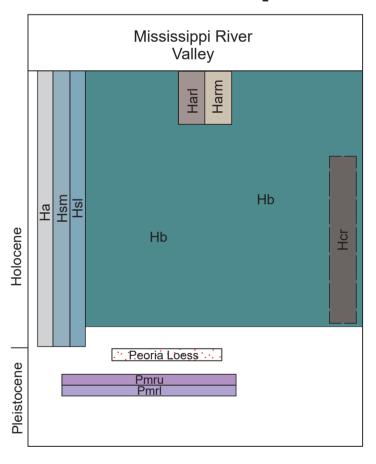
Open Water, Inundated Area, Wetland

Contact—Includes inferred contacts.

Roads and Railroads

Miller, B. J. (compiler), [1983], [Distribution and thickness of loess in Baton Rouge, Louisiana 1 \times 2 degree quadrangle]: Louisiana State University Experiment Station, Baton Rouge, unpublished map, Louisiana Geological Survey, scale 1:250,000.

Correlation of Map Units



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This map has been carefully prepared from the best existing sources available at the time of preparation. However, the Louisiana Geological Survey and Louisiana State University do not assume responsibility or liability for any reliance thereon. This information is provided with the understanding that it is not guaranteed to be correct or complete, and conclusions drawn from such data are the sole responsibility of the user. These geologic quadrangles are intended for use at the scale of 1:24,000. A detailed on-the-ground survey and analysis of a specific site may differ from these maps.