

Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

- Hbom Holocene back-barrier marsh**—shallow marsh sediment consisting of fine sand, gray clay, dark gray muddy clay, and/or blackish peaty clay, deposited upon surface sandy washover deposits that veneer reworked deltaic sand on the bay side of barrier island beach sand (Hbi) deposits.
- Hbs Holocene beach sand**—sand and shaly sand being reworked along the distal edge of the Camargo-Moreau deltaic headland in the southern Lafourche delta lobe of the Mississippi River, and detached from the headland on the west and east to form the Timbalier and Isles Dernieres barrier-island chains and Grand Isle.
- Hbr Holocene beach ridges**—low ridges composed of sand, shaly sand, or sandy silt, separated at the surface by narrow and thin organic, fine-grained saline-marsh deposits, marking former shoreward positions during active outbuilding of the Lafourche delta lobe of the Mississippi River, forming the Camargo-Moreau beach-ridge plain.
- Hdl Deposits of the Lafourche delta lobe, Mississippi River**—deltaic deposits underlying the delta plain of the Lafourche delta lobe. They are composed of cyclically interbedded intertidal-marsh peat and clay, natural levee silt and clay, distributary sand, and delta-front and prodelta mud and clay.
- Hli Lafourche natural levee deposits**—deposits forming low natural levees flanking the meander belts of the Lafourche distributary course of the Mississippi River and its main distributary channels. The natural levees of the Lafourche distributary course consist of sandy silts and silt that grade downstream and away from their creeks into silty clay and clay.
- Hds Deposits of the St. Bernard delta lobe, Mississippi River**—deltaic deposits underlying the delta plain of the St. Bernard delta lobe. They are composed of cyclically interbedded intertidal-marsh peat and clay, natural levee silt and clay, distributary sand, and delta-front and prodelta mud and clay.
- Hdli Natural levee complex of the St. Bernard delta lobe, Mississippi River**—deposits of natural levee complexes of the St. Bernard delta lobe, Mississippi River. The natural levees of the St. Bernard distributary courses consist predominantly of silt, silty clay and clay.
- Ht Deposits of the Teche delta lobe, Mississippi River**—deltaic deposits underlying the delta plain of the Teche delta lobe. They are composed of cyclically interbedded intertidal-marsh peat and clay, natural levee silt and clay, distributary sand, and delta-front and prodelta mud and clay. These sediments lie upon the surface of the Margous and other older delta lobes, which are either buried beneath younger delta lobes, submerged beneath the Gulf of Mexico, or a combination of both, and upon the surface of the underlying Proterozoic basement.

- Open water**
- Tidal flats**
- Shoals and spoil areas**
- Contact**
- Inferred contact**
- Normal fault**—identity and existence certain, location accurate. Ball and bar on downthrown block.
- Inferred fault**—identity or existence questionable, location inferred. Ball and bar on downthrown block.
- Roads and railroads**
- Streams and canals**
- Topographic contours**
- Bathymetric contours**

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References:

**Faults**  
Koecher, G. J., 1994. Geologic framework and consolidation settlement potential of the Lafourche delta, Tegetstern valley fill: implications for wetland loss in Terrebonne and Lafourche parishes, Louisiana. Ph.D. dissertation, Louisiana State University, Baton Rouge, 348 p. plus plates.

**Surface Geology**  
Bauch, R. E. & W. C. Ward, and H. C. Skinner (compilers), 1974. Physiographic map of the Atchafalaya Basin and a portion of the Lower Red River Valley, Louisiana: U.S. Army Corps of Engineers, New Orleans, Louisiana, scale 1:250,000.

Engineer Agency for Resources Inventories, 1973. Inventory of basic environmental data, south Louisiana, Mermentau River Basin to Charlotte Sound, with special emphasis on the Atchafalaya Basin. Prepared for U.S. Army Corps of Engineers, New Orleans district.

May, J. R., L. D. Britsch, J. B. Dabbs, J. P. Rodriguez, and L. B. Wozniak, 1984. Geological investigation of the Mississippi River deltaic plain: U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Technical Report GL-84-15, prepared for U.S. Army Corps of Engineers, New Orleans district (unpaginated oversized pages, including plates at 1:62,500 scale).

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Saucer, R. T., and J. I. Sneed (compiler), 1989. Quaternary geology of the Lower Mississippi Valley. In Morrison, R. B., ed., Quaternary non-glacial geology: continental United States. Boulder, Colorado: Geological Society of America, The Geology of North America, v. K-2, Plate 6, scale 1:1,000,000.

New mapping by the compilers based in part on LIDAR quarter-quadrangle images (source: Louisiana Federal Emergency Management Agency, and U.S. Army Corps of Engineers, St. Louis District), and digital orthophoto quarter quadrangle images downloaded from the Atlas website (<http://atlas.lsu.edu>) and on the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), Soil Survey Geographic (SSURGO) Database.

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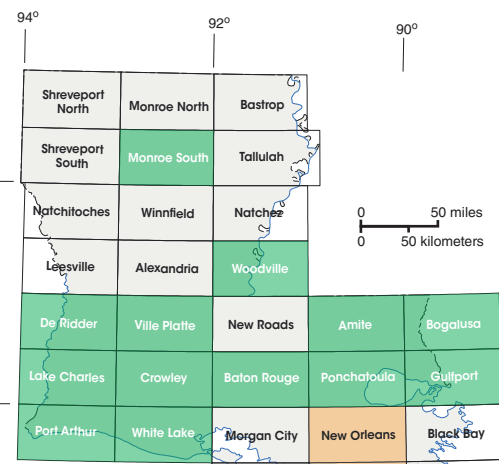
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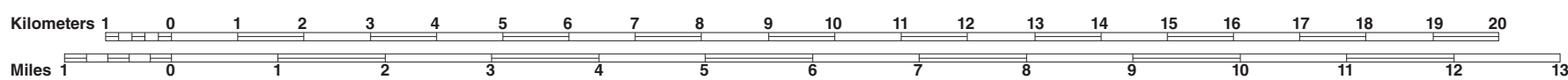
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30 x 60 Minute Geologic Quadrangle Index  
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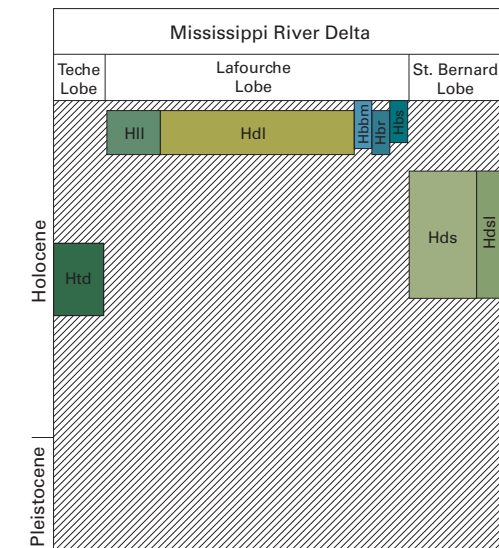
SCALE 1:100,000

Base map from U.S. Geological Survey 1:100,000 Digital Line Graphs (DLG)  
Universal Transverse Mercator Projection, Zone 15  
North American Datum 1927 (NAD 27)  
Contour Interval 2 meters  
Bathymetric Interval 1 meter  
National Geodetic Vertical Datum 1929

0° 12' E  
APPROXIMATE MEAN  
DECLINATION, 2011  
change 0° 07' west/year

## Terrebonne Bay 30 x 60 Minute Geologic Quadrangle 2011

Correlation of Map Units



TERREBONNE BAY, LOUISIANA  
29090-A1-TB-100



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Director & State Geologist

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