

Description of Map Units

QUATERNARY SYSTEM

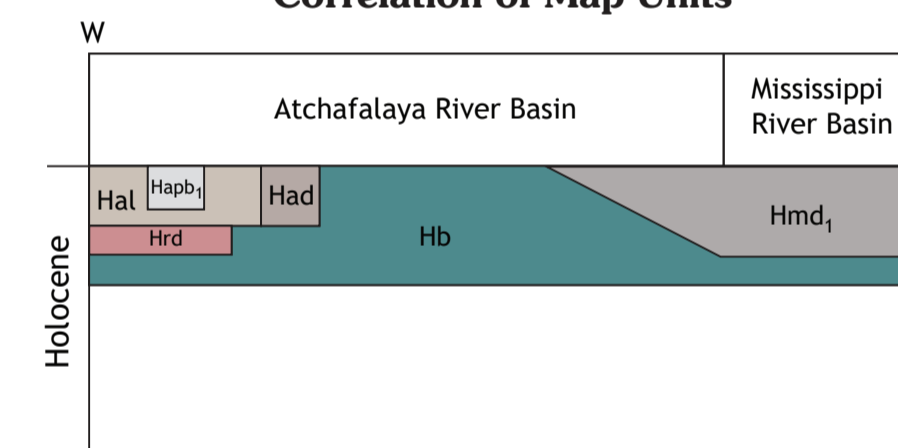
HOLOCENE

- Hapb** Point bar deposits of the Atchafalaya River — light brown coarse sand of quartz, feldspar, and rock fragments. Deposit surface expressed as ridge-and-swale relief. Thickness not determined.
  - Had** Distributary deposits of the Atchafalaya River meander belt dominated by quartz and feldspar with fragments of phyllite, schist, chert, red siltstone and dolomite, and lesser dark micas, dark silicates, and iron oxides. Thickness < 5 meters.
  - Hal** Levee deposits of Atchafalaya River meander belt—brown and red-brown muddy fine sand and fine sand with mud. Coarse fraction dominated by quartz and feldspar with fragments of phyllite, schist, chert, red siltstone and dolomite, and lesser dark micas, dark silicates, and iron oxides. Thickness < 6 meters.
  - Hmd** Distributary deposits of Mississippi River meander belt 1 overbank and minor crevasse deposits of Bayou Fardoché and its secondary distributaries Black, White, and Gerance Bayous. Brown and brown-gray fine sandy mud and muddy fine sand of quartz, feldspar, lithic fragments, and light and dark micas. Other dark silicates and iron oxides occur in trace amounts. Thickness < 8 meters.
  - Hrd** Distributary deposits of Red River meander belt—degraded crevasse splay of Bayou Petite Prairie, a (now abandoned) distributary channel of Red River cross-cut and isolated by the modern Atchafalaya channel in the northwestern corner of the map. Red-brown fine sandy mud, coarse fraction dominated by quartz and feldspar with lesser amounts of rock fragments, micas and dark silicates, and iron oxides. Thickness < 5 meters.
  - Hb** Backswamp deposits—steel gray clay with trace amounts of very fine sand and silt size quartz, feldspar, rock fragments, iron oxides. Skolithos trace fossils (~0.2 mm diameter) occur in trace amounts, depending upon location. Thickness not determined.
- Open Water, Inundated Area, Wetland**
- Streams**
- Contacts**
- Topographic Contours**

References:

- Heinrich, Paul V. and Whitney J. Autin, 2000, "Baton Rouge 30 x 60 Minute Geologic Quadrangle", scale: 1:100,000, Map No. 30091-A1-100K, Louisiana Geological Survey, Louisiana State University, Baton Rouge, LA.
- Heinrich, Paul V. and Richard P. McCulloh, 2007, "New Roads, Louisiana 30 X 60 Minute Geologic Quadrangle, scale: 1:100,000, Map No. 30091-E1-TM-100, Open File Map 2007-04, Louisiana Geological Survey, Louisiana State University, Baton Rouge, LA.
- Saucier, Roger T. and John I. Snead, 1989, "Quaternary Geology of the Lower Mississippi Valley", scale 1:1,100,000, Quaternary Non-glacial Geology: Conterminous U.S., Geology of North America, vol. K-2, Geological Society of America, Boulder, CO.

Correlation of Map Units



Produced and published by the Louisiana Geological Survey  
 3079 Energy, Coast & Environment Building, Louisiana State University  
 Baton Rouge, LA 70803 • 225/578-5320 • www.lsu.edu/lgs/

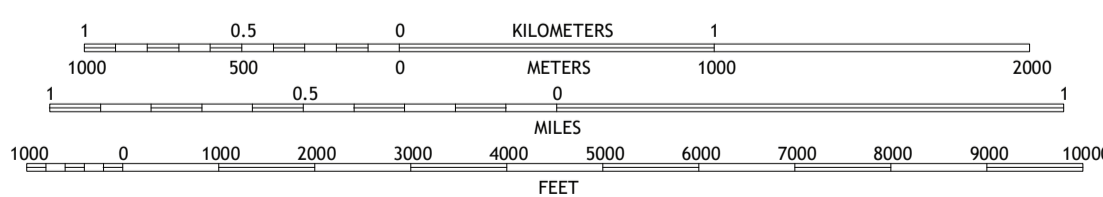
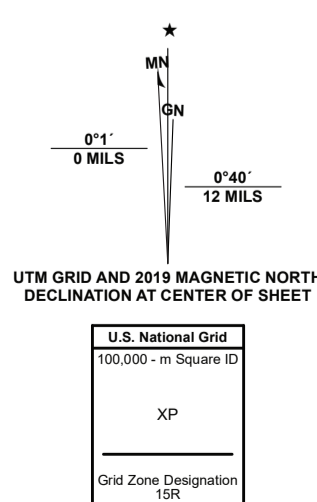
This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program under STATEMAP award number G22AC00379-00, 2022.

Copyright ©2023 by the Louisiana Geological Survey

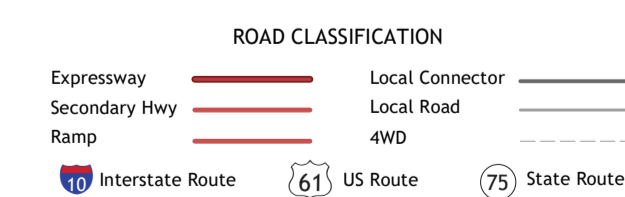
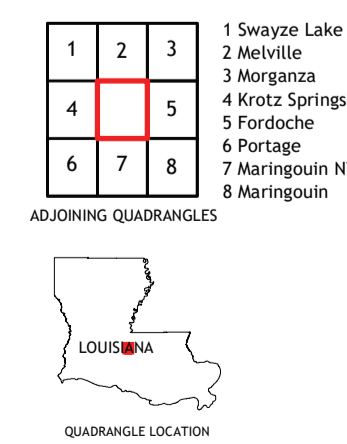
Geology: Marty Horn

Field assistance: Akinbobola Akintomide

GIS Compilation/Cartography: Robert L. Paulsell



SCALE 1:24,000  
 CONTOUR INTERVAL 5 FEET  
 NORTH AMERICAN DATUM OF 1983 (NAD 83)  
 WORLD GEODETIC SYSTEM 1984 (WGS 84)  
 UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 15  
 NORTH AMERICAN VERTICAL DATUM OF 1988



1 Swayze Lake	United States Geological Survey, 2020
2 Melville	LaDOTD, 2007
3 Morganza	National Elevation Dataset, 2008 - 2011
4 Krotz Springs	National Hydrography Dataset, 2002 - 2017
5 Fardoché	GNIS, 1980 - 2017
6 Portage	U.S. Census Bureau, 2017
7 Maringouin NW	U.S. Census Bureau, 2017
8 Maringouin	FWS National Wetlands Inventory 2021

LGS acknowledges the Louisiana Dept. of Fish and Wildlife, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Lottie Wildlife Protection Association, and individual property owners for field work access.

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.

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.

Geology of the Lottie 7.5 Minute Quadrangle,  
 Pointe Coupee and St. Landry Parishes, Louisiana, 2023