

**Description of Map Units**

QUATERNARY SYSTEM

HOLOCENE

- Ha** **Alluvium** — Nonconsolidated mud in floors of ravines and bayous in the northwest corner of the map. Dark brown and black clay from Mississippi River flood episodes, brown mud and fine sand from local Pleistocene terrace sediments, and reworked distributary deposits of New River.
- Hmd** **Distributary channel deposits of Mississippi River meander belt 1** Levee and crevasse deposits of New River, a stranded distributary channel of Mississippi River. Brown silty and fine sandy mud, coarse fraction dominated by quartz and feldspar, ~5% dark and light mica, trace amounts magnetite, dark silicates, and lithic fragments. Thickness < 3 m.
- Hcs** **Coastal swamp** — Mud deposit in paralic setting of seasonally fluctuating fresh and brackish surface water. Dark steel gray, black, and brown-black organic-rich mud with less than 0.1% silt fraction.

PLEISTOCENE

- Plp** **Peoria Loess** — Upland mantling of light buff to rust-orange and gray silt. Coherent deposit with clay and fine sand lacks discernible bedding structures. Silt and fine sand consists of quartz and feldspar with trace amounts of light mica, dark silicates, and magnetite. Pedogenic goethite occurs as localized concentrations of 2 – 3 mm soft nodules that harden upon exposure. Contact with underlying Hammond alloformation is marked by thinly laminated silty mud of the latter. Thickness: 4 – 6 m.

PRAIRIE ALLOGROUP

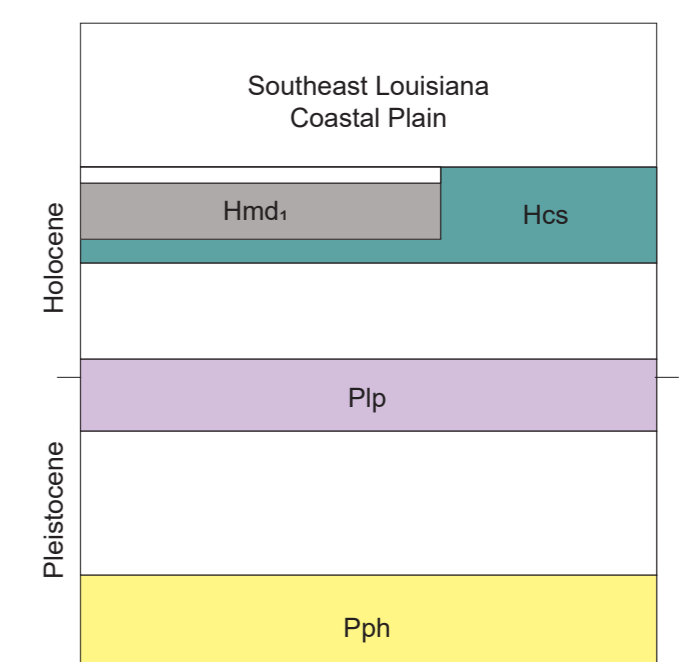
- Pph** **Hammond alloformation** — Rust-yellow, rust-orange, and reddish brown silty and fine sandy mud. Depositional structures (laminations) and half centimeter scale *Skolithos* ichnofossil are diagnostic. Clay vs. silt and fine sand fraction varies with location, the latter dominated by quartz with feldspar and light and dark mica. Post-depositional goethite, chert, and calcite nodules and veins occur at contact with Peoria loess in a borrow pit in northeast map area. Base not exposed; maximum measured thickness ~ 4 meters in excavation near the southwestern corner of the map.

- Open Water, Inundated Area, Swamp**
- Streams**
- Contact**—includes inferred contacts.
- Topographic Contours**

**References:**

- McCulloh, Richard P., Paul V. Heinrich, and John Sneed, 2003, "Pontchartraine 30 x 60 Minute Geologic Quadrangle", scale 1:100,000, Map No. 30090-A1-TM-100k, Louisiana Geological Survey, Louisiana State University, Baton Rouge, LA.
- McGehee, Edward L., 1983, "Oil and Gas Fields and Salt Domes, Including Offshore Areas", Resource Information Series No. 1, Louisiana Geological Survey, Louisiana State University, Baton Rouge, LA, 164 p.
- Saucier, Roger T. and John I. Sneed, 1989, "Quaternary Geology of the Lower Mississippi Valley", scale 1:1,100,000, Quaternary Nonglacial Geology: Conterminous U.S., Geology of North America, vol. K-2, Geological Society of America, Boulder, CO.

**Correlation of Map Units**



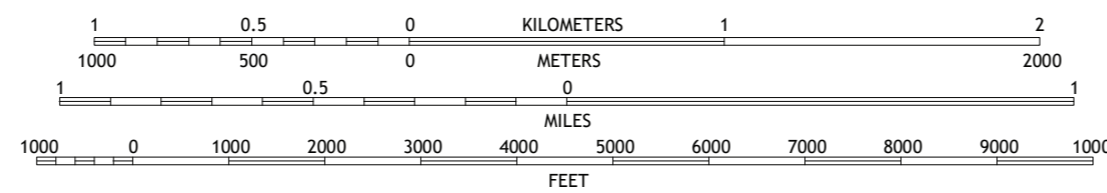
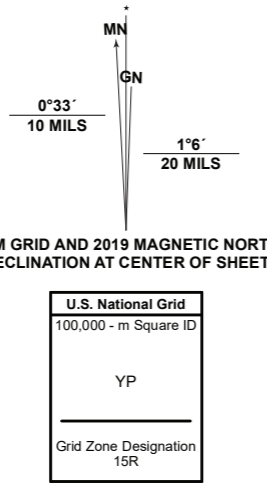
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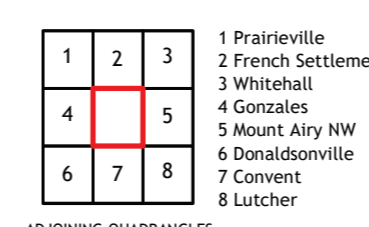
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SCALE 1:24,000  
CONTOUR INTERVAL 5 FEET  
NORTH AMERICAN DATUM OF 1983 (NAD 83)  
WORLD GEODETIC SYSTEM 1984 (WGS 84)  
UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 15  
NORTH AMERICAN VERTICAL DATUM OF 1988



**ROAD CLASSIFICATION**

- Expressway
- Secondary Hwy
- Ramp
- Interstate Route
- US Route
- Local Connector
- Local Road
- 4WD
- State Route

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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**Geology of the Sorrento 7.5' quadrangle,  
Ascension and St. James Parishes Louisiana, 2022**