

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

- Pip** **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 ichnofossils 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**

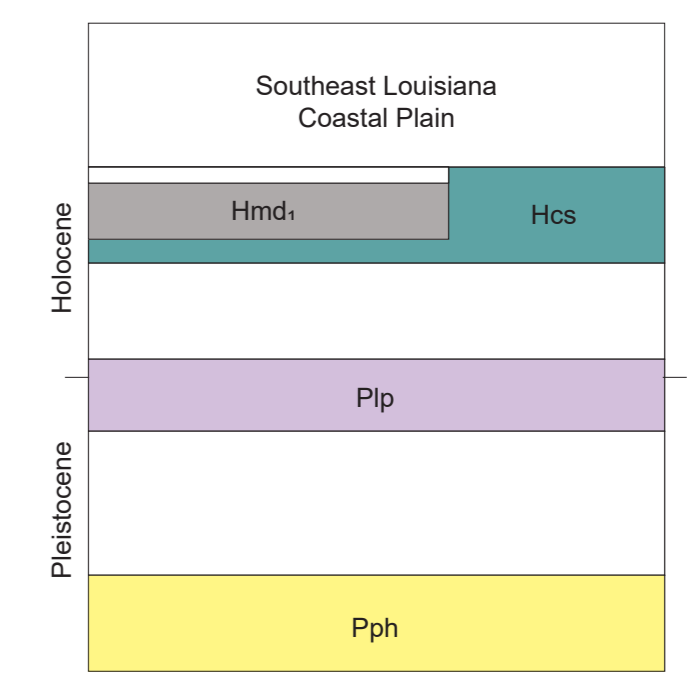
References:

McCulloh, Richard P., Paul V. Heinrich, and John Sneed, 2003, "Pontchartrouls 30 x 60 Minute Geologic Quadrangle", scale 1:100,000, Map No. 30090-A1-TM-100L, 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

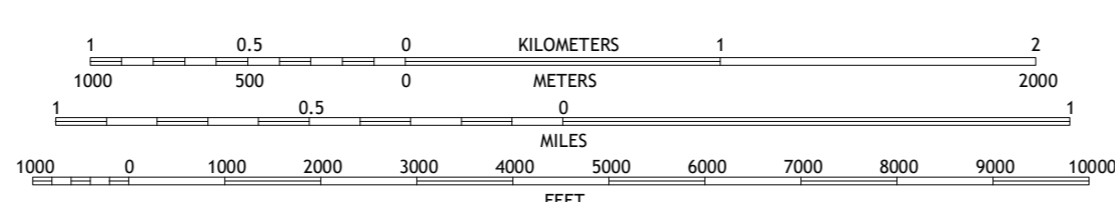
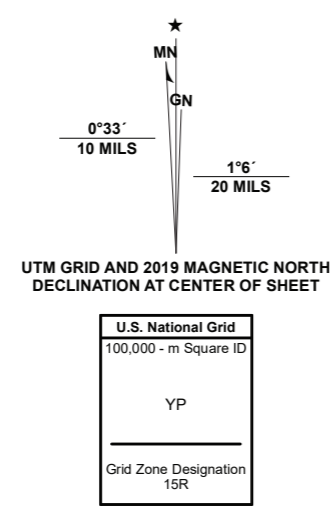


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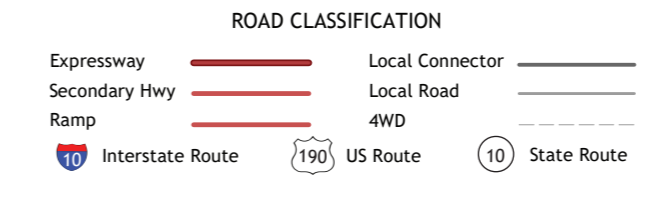
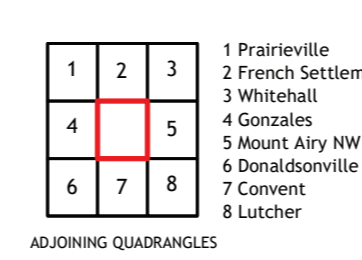
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SCALE 1:24,000
 CONTOUR INTERVAL 5 FEET
 NORTH AMERICAN DATUM OF 1983 (NAD 83)
 WORLD GEODETIC SYSTEM 1984 (WGS 84)
 UNIVERSAL TRANSVERSE MERCATOR PROJECTION, ZONE 15
 NORTH AMERICAN VERTICAL DATUM OF 1988



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

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

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