



NEW IBERIA NORTH QUADRANGLE LOUISIANA 7.5-MINUTE SERIES



Description of Map Units

QUATERNARY SYSTEM

HOLOCENE

Alluvium-Small thin terrace forms in upland ravines, southwest map area. Brown and dark brown silty mud derived from nearby Peoria loess.

Mississippi River batture channel—Deposits of actively aggrading vestigial channels within Mississippi River remnants abandoned by meander cut-off episodes. Lithology varies among individual battures: brown, dark brown, and brown-black mud to silt-mud. Coarse fraction dominated by quartz and feldspar with variable amounts of micas (< 5%) and trace dark silicates and iron oxides (<1%). Thickness < 1 meter.

Mississippi River abandoned channels—Sedimentary assemblage of modified (Pleistocene) Avoyelles platform, truncated (Holocene) point bars, backswamp style accumulations, batture sediment, and colluvium from degrading remnant banks. Commensurately varied gray-brown, brown, and brown-black muds and minor muddy fine

Red River meander belt—Red color sediment in a low terrace within the course of Bayou Teche. Distinctive red color, medium and thin bedded fine sand, (sandy) silt-mud, and clay-mud. Coarse fraction consists of quartz with lesser feldspar and mica, and trace amounts of dark silicates and iron oxides. Uppermost interval laps onto Mississippi meander

Crevasse complex of the Mississippi River meander belt 3, Teche phase Channel flanking deposit from one or more incised channels now headed at Bayou Teche, but active during Mississippi River occupation of the Bayou Teche course. Brown-gray and gray mud with fine sand and silt component of quartz and lesser feldspar and micas, and trace amounts of dark silicates and iron oxides. Thickness < 1 meter.

Levee deposits of the Mississippi River meander belt 3, Teche phase.—Sediment apron adjacent to Bayou Teche, lacking distinct crevasse channels, of flood origin during Mississippi River occupation of the Bayou Teche course. Gray-brown silt-mud (proximal) and clay-mud (distal) with coarse fraction of quartz, lesser feldspar and light mica, and trace amounts of dark silicates and iron oxides. Thickness < 1 meter.

Point bar deposits of the Mississippi River meander belt 3, Teche phase. Arcuate shaped ridge-and-swale landforms, possibly veneered by overbank mud. Brown, orange-brown mud, silt and fine sand component of quartz with lesser feldspar and light and dark mica with trace amounts of dark silicates and iron oxides. Est. thickness ~ 3 meters.

Levee deposits of the Mississippi River meander belt 3, Portage phase. Sediment apron flanking Portage phase ridge-and-swale (point bar) feature in northern area of map. Brown-gray and rust-gray mud with coarse fraction of quartz, light to dark (brown and green) mica, lesser feldspar and trace amounts of iron oxides and metamorphic rock fragments.

Point bar deposits of the Mississippi River meander belt 3, Portage phase. Arcuate shaped ridge-and-swale landforms, possibly veneered by overbank mud. Brown silty mud, brown-gray mud, and gray clay mud. Very fine sand and silt components of quartz and feldspar, lesser light and dark mica and dark silicates, and trace amounts of igneous and metamorphic rock fragments and iron oxides. Gray color suggests significant incorporation

Backswamp deposits—Clay-mud deposit in topographically low catchments beyond levee and crevasse deposits, settled from slack floodwater of multiple meander belt occupations. Brown-black, black, and gray-black clay with < 1% silt.

PLEISTOCENE

Peoria Loess—Upland mantling of brownish yellow silt with clay and fine sand; lacks discernible bedding structures. Coarse fraction consists of quartz and feldspar with trace amounts of light mica, dark silicates, and iron oxides. Pedogenic goethite occurs as localized concentrations of 2 - 3 mm soft nodules that harden upon exposure. Thickness: < 6 m.

PRAIRIE ALLOGROUP

Avoyelles alloformation—Gray clay-mud with silt and fine sand of quartz, lightly tinted to colorless mica, lesser feldspars, and trace amounts of dark silicates and iron oxides. 2 - 3 mm nodules of goethite and 1 - 2 cm nodules of calcite occur as pedogenic components. Distinct gray color and greater clay content are



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,

Saucier, Roger T., 1994, "Geomorphology and Quaternary History of the Lower Mississippi Valley", Volumes I and II, U.S. Army Engineer Waterways Experiment Station, Vicksburg,

Saucier, Roger T. and John I. Snead, 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

