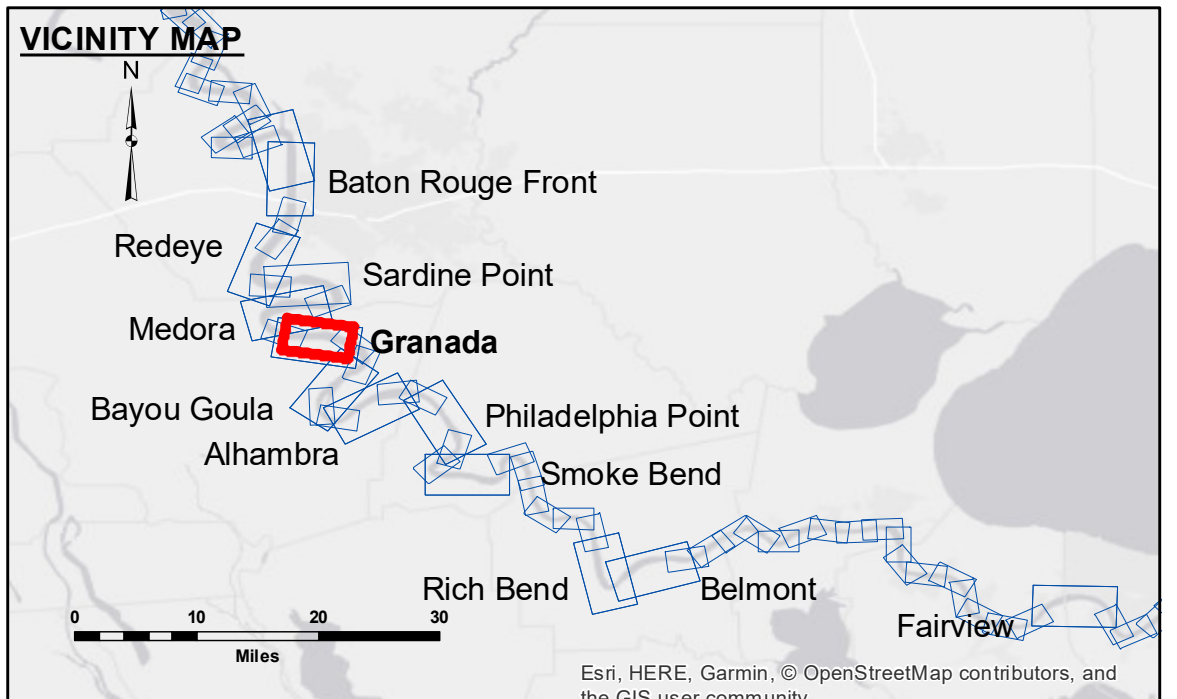


DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the U.S. Army Corps of Engineers. The information is provided for informational purposes only and is not intended to be used for any other purpose. The user is responsible for the accuracy, reliability, and availability of the information. The user is responsible for the accuracy, reliability, and availability of the information. The user is responsible for the accuracy, reliability, and availability of the information.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT		
Submitted:	Surveyed By: DS/PS	Plotted By: AO
Recommended: Chief, Survey Section	Checked By: AO	Checked By: AO
Approved: Chief, Waterways Maintenance Section		

**MISSISSIPPI RIVER - B.R. TO GULF
 GRANADA RECON
 MR_10_GRA_20181003_CS
 03 October 2018**



LEGEND		0' and above	
--- Federal Navigation Channel	○ Cable Area	■ 0' to -5'	
— Federal Navigation Center Line	□ Placement Area	■ -5' to -10'	
— As-built Pipeline/Cable	□ Anchorage Area	■ -10' to -20'	
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	■ -20' to -30'	
— Project Depth Contour	★ Beacon, General	■ -30' to -35'	
	◆ Wrecks-Submerged	■ -35' to -40'	
	□ Borrow Area	■ -40' to 45'	
	● Shoalest Sounding**	■ -45' and below	
	◆ Red Navigation Buoy		
	◆ Green Navigation Buoy		

LWRP: 1.9
 Gage Reading: BR:27.0D:17.8 USED:22.8 NGVD
 Sea Conditions: SMOOTH
 Vessel Name: LAFORUCHE
 Survey Type: CS
 Sounding Frequency***: HIGH

NOTES:
 Horizontal Coordinate System:
 North American Datum of 1983 (NAD83), projected to the State Plane
 Coordinate System (SPCS), Louisiana South Zone. Distance units in U.S. Survey Feet.
 Vertical Datum:
 Soundings are shown in feet and indicate depths below Low Water Reference Plane 2007 (NGVD).
 Distances on the Mississippi River, above and below Head of Passes are shown
 at 1 mile intervals.
 The location of navigation aids are base on and provided by the U.S. Coast Guard and USACE crew.
 2015 Aerial Photography data source: NAIP, USDA-FSA-APFO Aerial Photography Field Office.
 Reference is N.O.A.A. Navigation Chart No. 11370.
 ** Shoalest Sounding per Quarter per Reach.
 *** High frequency (200 kHz) survey data represents the first signal return at a sounding
 location and will include suspended solids, known as "fluff", if present. Low frequency (20 kHz)
 survey data normally penetrates through this "fluff" layer to depict elevations of consolidated bottom
 material. Low frequency accuracies may vary depending on channel conditions and fathometer
 settings.

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 Reference
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