

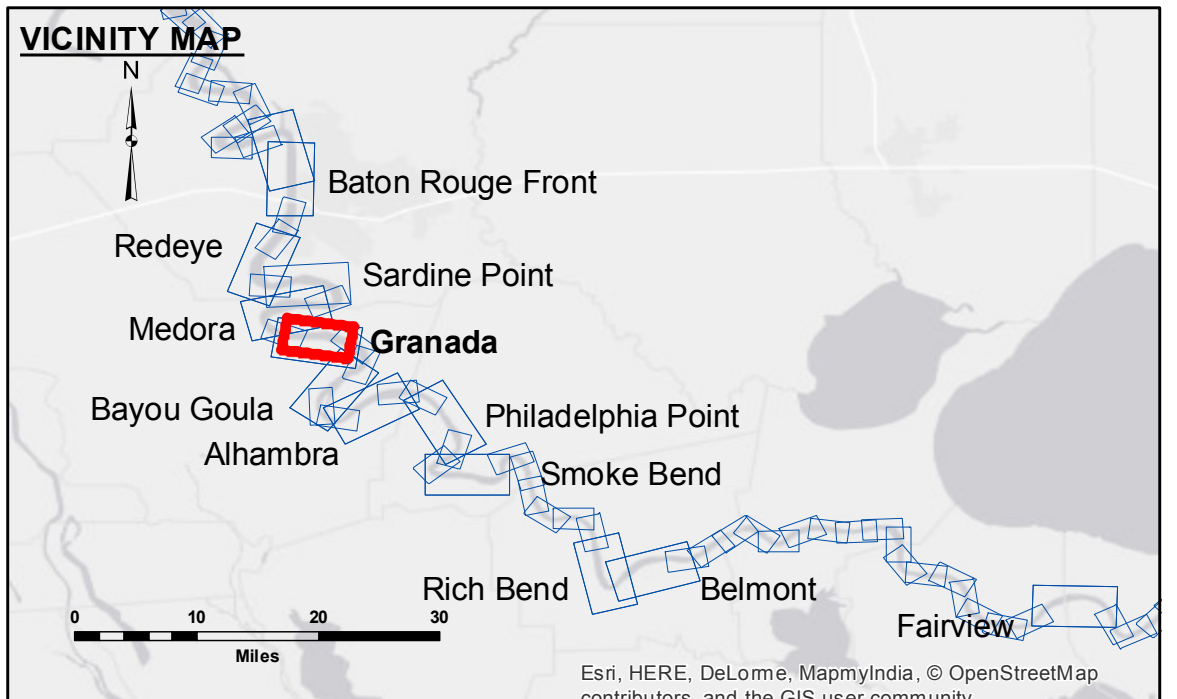
Accession: The data represents the results of data collection processing for a specific US Army Corps of Engineers project. The data is only valid for its intended use, control, time and accuracy specifications. The user is responsible for the results of the data. The application of the data for other than its intended purpose is at the user's risk.

Data Accuracy: Hydrographic survey data is subject to change due to several factors including but not limited to dredging, sedimentation, and other natural processes. The user is responsible for the results of the data. The application of the data for other than its intended purpose is at the user's risk.

Disclaimer: The information depicted on this map represents the results of a survey conducted by the US Army Corps of Engineers. The information is provided for informational purposes only and should not be used for navigation or other critical decisions without the assistance of a qualified professional.

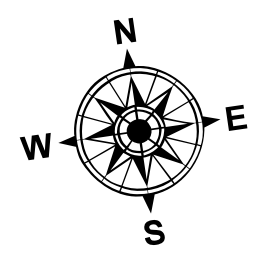
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: DS/DR
Recommended: Chief Survey Section	Plotted By: AO
Approved: Chief Waterways Maintenance Section	Checked By: AO

**MISSISSIPPI RIVER - B.R. TO GULF
GRANADA RECON
MR_10_GRA_20170705_CS
05 July 2017**

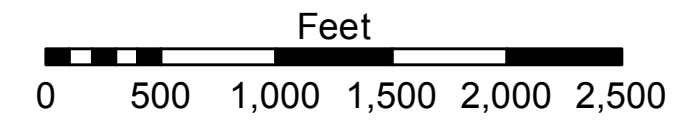


LEGEND

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



LWRP: 1.9
 Gage Reading: BR:26.2D:17.1 USED: 22.0 NGVD
 Sea Conditions: SMOOTH
 Vessel Name: OB189
 Survey Type: CONDITION
 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 based on and provided by the U.S. Coast Guard and USACE crew. 2010 Aerial Photography data source: NAIP, USDA-FSA-APFO Aerial Photography Field Office.

Reference is N.O.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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