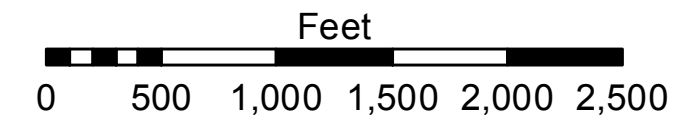
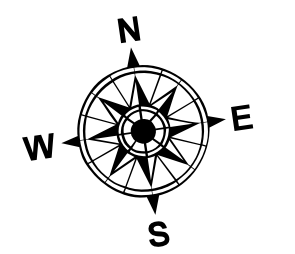


**LEGEND**

--- 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:35.8 D:24.9 USED:30.80 NAVD  
 Sea Conditions: CALM  
 Vessel Name: M/V 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 (NAVD).  
 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.



**DISCLAIMER:** The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the Government makes no warranty, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information provided. The user is responsible for the results obtained from the use of this information. The application of the data for other than its intended purpose may result in injury or damage to persons or property. The user assumes all liability for any use of this information. These data belong to the Government. Therefore, the recipient may not transfer, reproduce, or disseminate these data to others without also transferring this Disclaimer. The information depicted on this map represents the results of a survey conducted on the ground. It is not to be considered a representation of the general condition existing at the time of the survey.

U.S. ARMY CORPS OF ENGINEERS  
 NEW ORLEANS DISTRICT

Submitted:	Surveyed By: RYLAND/ADAMS
Recommended: Chief, Survey Section	Plotted By: BD
Approved: Chief, Waterways Maintenance Section	Checked By: AC

**MISSISSIPPI RIVER - B.R. TO GULF  
 GRANADA CROSSING  
 MD\_10\_GRAX\_20210331\_CS  
 31 March 2021**

**Sheet  
 Reference  
 Number  
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