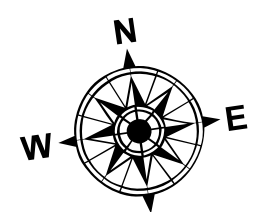


**LEGEND**

--- 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:43.9 D:31.7 USED:38.4 NGVD  
 Sea Conditions: CALM  
 Vessel Name: M/V LAFOURCHE  
 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 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 United States Government makes no warranty, express or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the information furnished hereunder. 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 is at the user's risk. 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 is at the user's risk. 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 is at the user's risk.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT			
Submitted:	Surveyed By: JDH/SPS	Plotted By: BD	Checked By: AC
Recommended:	Chief, Survey Section		
Approved:	Chief, Waterways Maintenance Section		

**MISSISSIPPI RIVER - B.R. TO GULF  
 GRANADA RECON  
 MR\_10\_GRA\_20190521\_CS  
 21 May 2019**

**Sheet Reference Number  
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