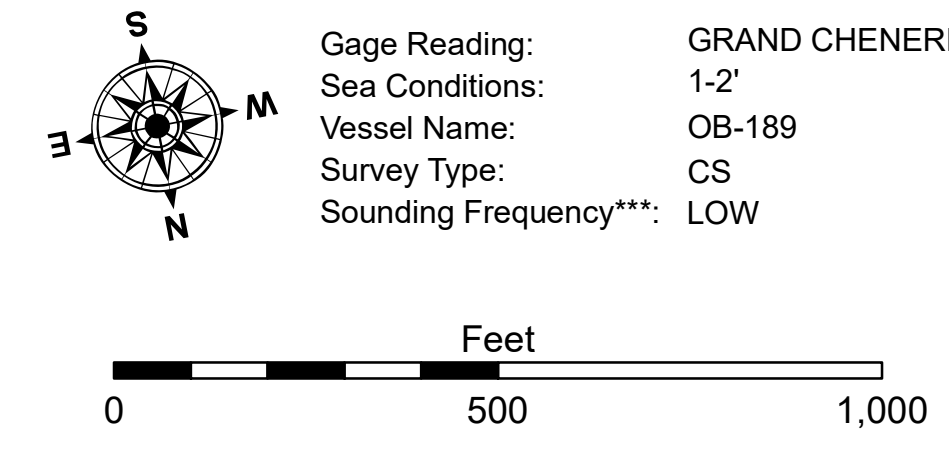


LEGEND

--- Federal Navigation Channel	○ Cable Area	□ Borrow Area
— Federal Navigation Center Line	■ Placement Area	● Shoalest Sounding**
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy
		■ -15' and above
		□ -15' and below



Gage Reading: GRAND CHENIERE: 3.55 MLG
 Sea Conditions: 1-2'
 Vessel Name: OB-189
 Survey Type: CS
 Sounding Frequency***: LOW

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 Mean Low Gulf Datum (MLG).
 The location of navigation aids are base on and provided by the U.S. Coast Guard.
 2015 Aerial Photography data source: NAIP 1998 DOQQ imagery shown in green from USGS.
 Reference is N.O.A. Navigation Chart No. 11344 and 11348.
 ** 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:
 Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. It is only valid for its intended use, control, time and accuracy specifications. The user is responsible for the results. The user must verify the application of the data for other than its intended purpose.
 Data Constants: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging, shoaling, and other changes in the channel. The US Army Corps of Engineers accepts no responsibility for changes in the hydrographic conditions when developed after the date of the survey. Product maintainers should not rely solely upon this information.
 Access Constraints: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were collected, and that the data are not to be used, in whole or in part, for any purpose other than that for which they were collected, without the express written consent of the United States Government. The recipient may not transfer these data to others without also transferring this Disclaimer. The information depicted on this map represents the results of a survey conducted on the date shown. It is not to be considered to represent the general condition existing at that time.

U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT

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

**MERMENTAU RIVER
 LOWER RIVER
 MM_05_LWR_20181023_CS
 23 October 2018**

**Sheet
 Reference
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