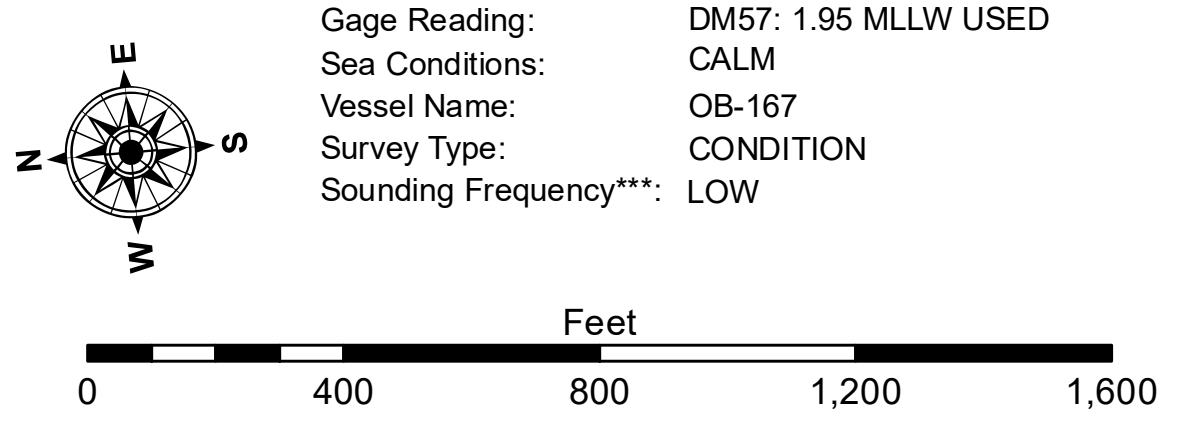


LEGEND			
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	-16' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	-16' to -21'
— As-built Pipeline/Cable	⊗ Anchorage Area	★ Beacon, General	-21' to -26'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	-26' to -33'
— Project Depth Contour	⊗ Wrecks-Submerged	◆ Green Navigation Buoy	-33' to -39'
			-39' to -41'
			-41' to -43'
			-43' and below



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 Lower Low Water Datum (MLLW).
 Datum Relationships for gauge 73625 as of December 2013:
 0.0' NAVD83 (2009.55) = 1.2' MLLW = 2.2' MLG or 0.0' MLLW = 1.0' MLG
 Distances on the Calcasieu River are shown at 1 mile intervals.
 The location of navigation aids are base on and provided by the U.S. Coast Guard and USACE survey crews.
 2015 Aerial Photography data source: NAIP
 Reference is N.O.A.A. Navigation Chart No. 11339.
 * Difference between high and low frequency elevations where greater than 1.0'.
 ** 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 data are not to be used for any purpose other than that for which they were originally intended. The user is responsible for the results of any use of the data. The Corps of Engineers does not accept responsibility for changes in the hydrographical conditions which develop after the date of the original survey. The Corps of Engineers does not warrant the accuracy of the data for other than the purpose for which they were originally intended. The Corps of Engineers does not accept responsibility for changes in the hydrographical conditions which develop after the date of the original survey. The Corps of Engineers does not warrant the accuracy of the data for other than the purpose for which they were originally intended.

Submitted:	Surveyed By: DS, JH
Recommended:	Plotted By: CHECKED_BY
Approved:	Checked By: CHECKED_BY

U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT
 Chief, Waterways Maintenance Section

**CALCASIEU SHIP CHANNEL
 LOWER SHEET 21
 CR-21_LWR_20180918_CS
 18 September 2018**

**Sheet Reference Number
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