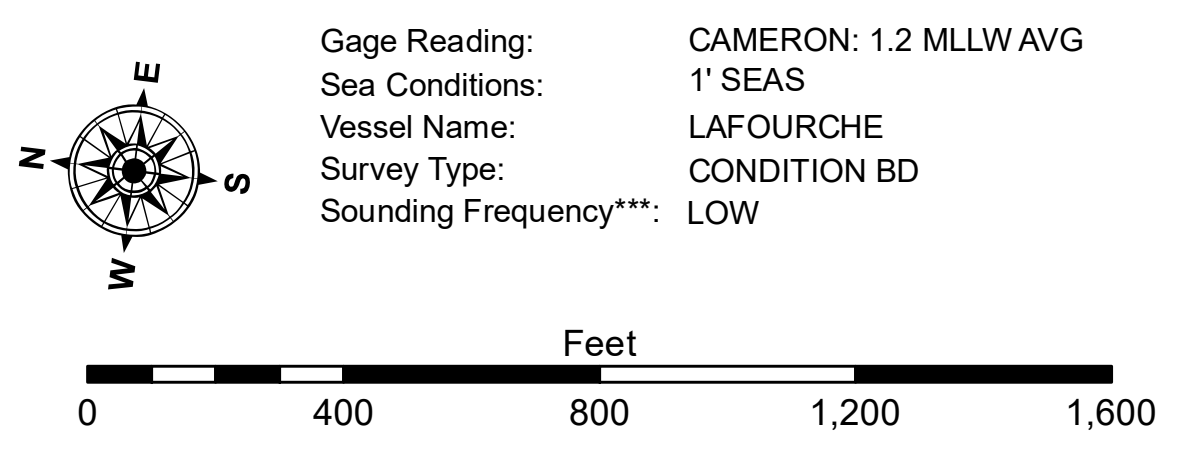


**LEGEND**

--- 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 gage 73650 as of December 2013: 0.0' NAVD88 (2009.55) = 1.3' MLLW = 2.3' 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 based 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**

Accession: 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, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information furnished. The user is responsible for the results obtained from the use of this information. 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. Application of the data for other than its intended purpose is at the user's risk.

**DATA CONSTRAINTS**

Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging operations, channel migration, and changes in bathymetry. The Army Corps of Engineers accepts no responsibility for changes in the hydrographic conditions when developed after the date of the survey. The user is responsible for the results of the information furnished. The user is responsible for the results of the information furnished.

Submitted:	Surveyed By: SPS,JH
Recommended:	Plotted By: AO
Approved:	Checked By: AO

U.S. ARMY CORPS OF ENGINEERS  
NEW ORLEANS DISTRICT

**CALCASIEU SHIP CHANNEL**  
BAR SHEET 31  
CR\_31\_BAR\_20180724\_BD  
24 July 2018

**Sheet Reference Number**  
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