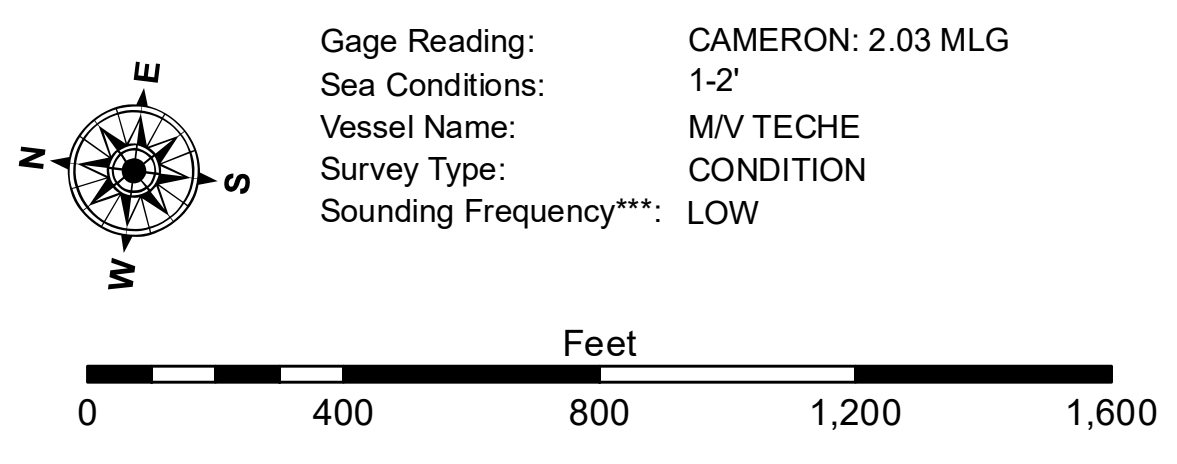


LEGEND			
	Federal Navigation Channel		Placement Area
	Federal Navigation Center Line		Anchorage Area
	As-built Pipeline/Cable		Obstruction Point
	Unconfirmed Pipeline/Cable		Wrecks-Submerged
	Project Depth Contour		Fluff Thickness (feet)*
	Cable Area		Shoalest Sounding**
	Beacon, General		Red Navigation Buoy
	Green Navigation Buoy		Green Navigation Buoy



**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). 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**

The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not warranted for any purpose other than that for which they were prepared, or implied for any particular purpose of the recipient. The user is responsible for the results and accuracy of any data derived from these data. The user is responsible for the results and accuracy of any data derived from these data. The user is responsible for the results and accuracy of any data derived from these data.

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

**CALCASIEU SHIP CHANNEL**  
**BAR SHEET 31**  
**CR\_31\_BAR\_20171011\_CS**  
**11 October 2017**

**Sheet Reference Number**  
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