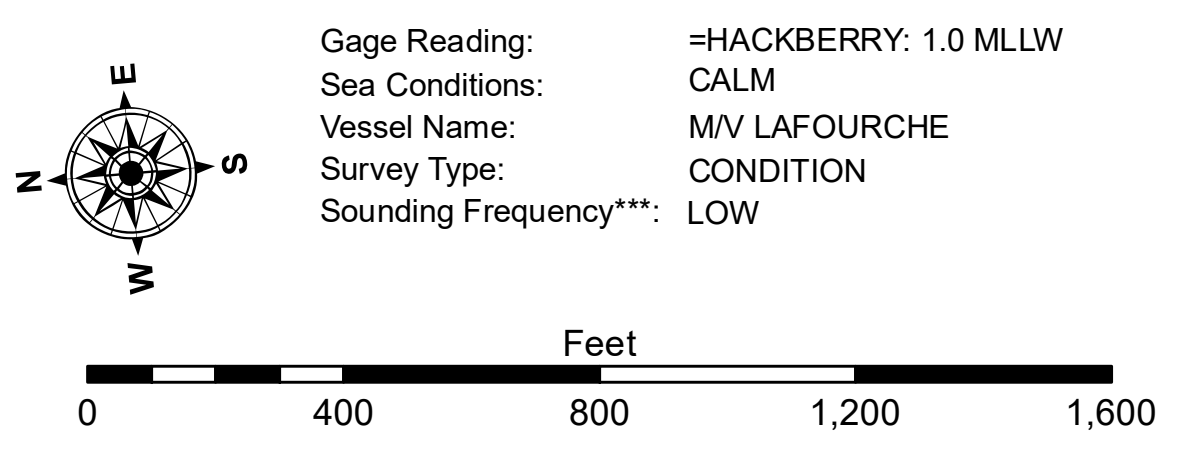


LEGEND		
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy
— Project Depth Contour	⊗ Wrecks-Submerged	◆ Green Navigation Buoy



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 73600 as of December 2013:
 0.0' NAVD83 (OPUS 2010) = 1.0' MLLW = 2.0' 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 Government makes no warranty, expressed or implied, concerning the accuracy, completeness, reliability, usability or availability for any particular purpose of the information. The user is responsible for the results obtained from the use of this information. The user shall indemnify, defend and hold the United States Government harmless from and against all claims, damages, costs and expenses, including reasonable attorneys' fees, that may be incurred by the United States Government as a result of the use of this information. The user shall also indemnify, defend and hold the United States Government harmless from and against all claims, damages, costs and expenses, including reasonable attorneys' fees, that may be incurred by the user as a result of the use of this information. The user shall also indemnify, defend and hold the United States Government harmless from and against all claims, damages, costs and expenses, including reasonable attorneys' fees, that may be incurred by the United States Government as a result of the use of this information. The user shall also indemnify, defend and hold the United States Government harmless from and against all claims, damages, costs and expenses, including reasonable attorneys' fees, that may be incurred by the United States Government as a result of the use of this information.

Submitted:	Surveyed By: JH/PS
Recommended:	Plotted By: BD
Approved:	Checked By: AC

U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT

**CALCASIEU SHIP CHANNEL
 LOWER SHEET 16
 CR_16_LWR_20190124_CS
 24 January 2019**

**Sheet Reference Number
 16 of 53**