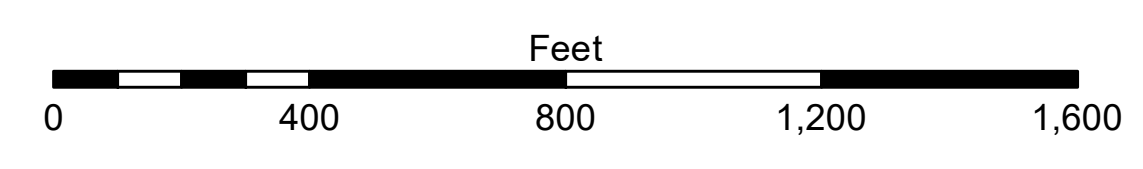
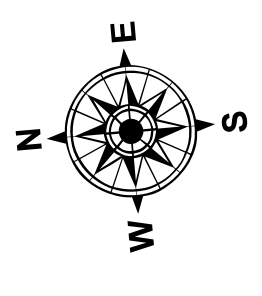


LEGEND		
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy
— Project Depth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



Gage Reading: HACKBERRY: 2.71 MLLG AVG.
 Sea Conditions: CALM
 Vessel Name: M/V VALENTOUR
 Survey Type: CONDITION
 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 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 information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The data represents the results of a collection of data for a specific US Army Corps of Engineers project. The data is only valid for its intended use, control, time and accuracy specifications. The user is responsible for the results of any use of the data for other than its intended purpose. The application of the data for other than its intended purpose is at the user's risk. Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging, sedimentation, and changes in the bathymetry of the waterway. The user is responsible for the results of any use of the data for other than its intended purpose. The user is responsible for the results of any use of the data for other than its intended purpose. The user is responsible for the results of any use of the data for other than its intended purpose.

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

**CALCASIEU SHIP CHANNEL
 LOWER SHEET 16
 CR_16_LWR_20190919_CS
 19 September 2019**

**Sheet Reference Number
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