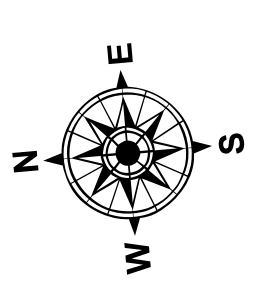
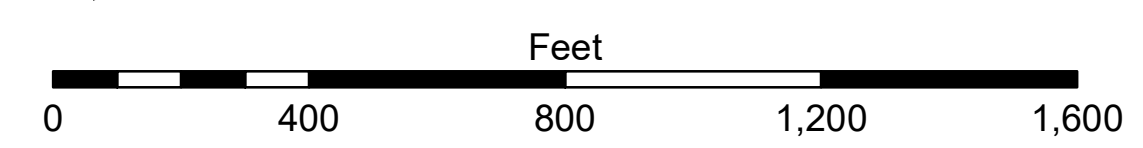


LEGEND			
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	-16' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	-16' to -21'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	-21' to -26'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction 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



Gage Reading: HACKBERRY VRN: 1.01 MLLW AVG.  
 Sea Conditions: CALM  
 Vessel Name: MV TECHE  
 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.  
 2022 Aerial Photography data source: PAR LLC  
 Reference is N.O.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.



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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT		
Submitted:	Surveyed By: SP-JS	Plotted By: BD
Recommended:	Chart, Survey Section	Checked By: AD/JH
Approved:	Chart, Waterways Maintenance Section	

**CALCASIEU SHIP CHANNEL  
 LOWER SHEET 16  
 CR\_16\_LWR\_20231115\_CS  
 15 November 2023**

**Sheet Reference Number  
 16 of 53**