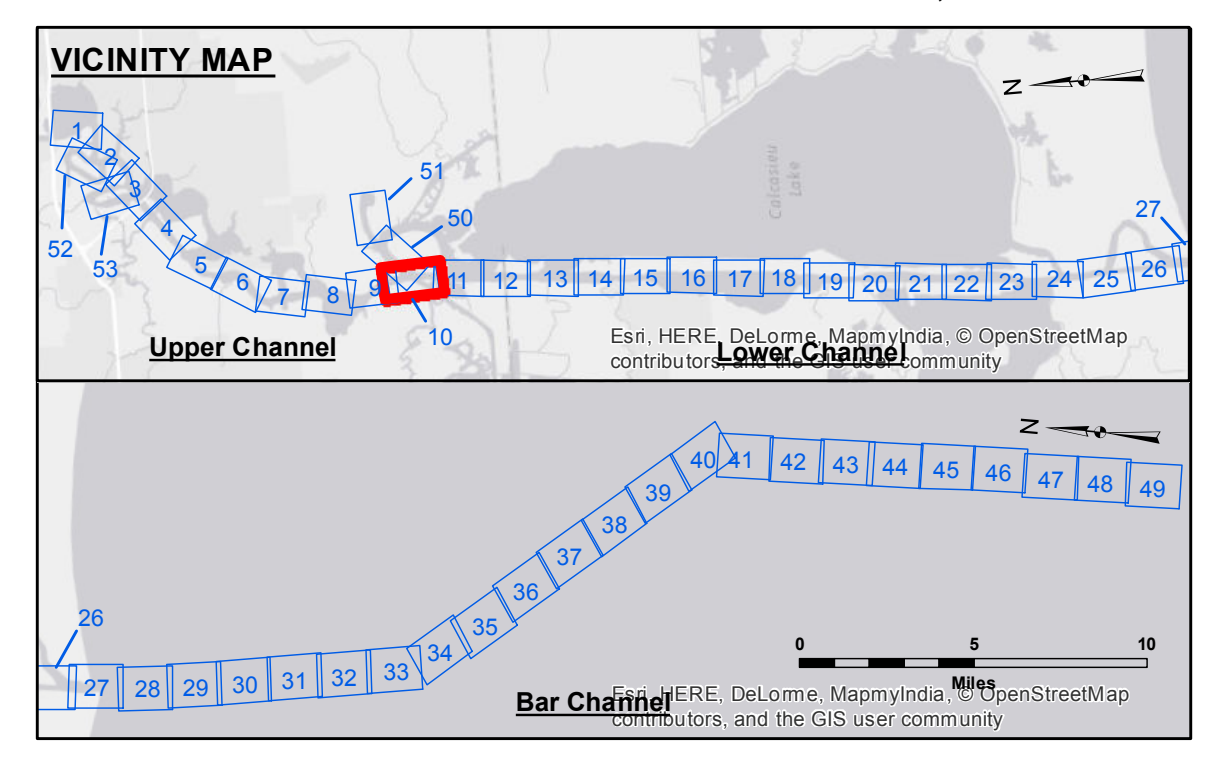
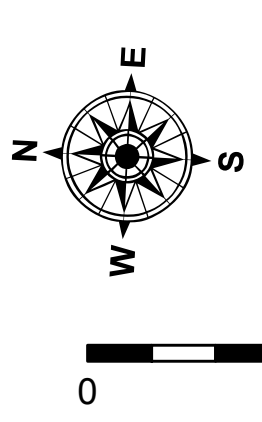


DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The user of this information is advised that the information is provided for informational purposes only and is not intended to be used for any other purpose. The user of this information is advised that the information is provided for informational purposes only and is not intended to be used for any other purpose. The user of this information is advised that the information is provided for informational purposes only and is not intended to be used for any other purpose.

Submitted:	Surveyed By:	Plotted By:	Checked By:
	SPS:JH	AO	AO
Recommended:	Chief, Survey Section		
Approved:	Chief, Waterways Maintenance Section		



LEGEND			
	Federal Navigation Channel		-15' and above
	Federal Navigation Center Line		-15' to -20'
	As-built Pipeline/Cable		-20' to -25'
	Unconfirmed Pipeline/Cable		-25' to -32'
	Project Depth Contour		-32' to -38'
	Beacon, General		-38' to -40'
	Red Navigation Buoy		-40' to -42'
	Green Navigation Buoy		-42' and below
	Placement Area		Fluff Thickness (feet)*
	Cable Area		Shoalest Sounding**
	Anchorage Area		Beacon, General
	Obstruction Point		Red Navigation Buoy
	Wrecks-Submerged		Green Navigation Buoy



Gage Reading: 1'
 Sea Conditions: MV TECHE
 Survey Type: CONDITION
 Sounding Frequency***: LOW

RANGE D: 2.85 MLG

0 400 800 1,200 1,600
 Feet

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 73585 as of December 2013:
 0.0' NAVD83 (OPUS 2013) = 0.8' MLLW = 1.8' 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.

**CALCASIEU SHIP CHANNEL
 UPPER SHEET 10
 CR_10_UPR_20170910_CS_POSTSTORM
 10 September 2017**

**Sheet Reference Number
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