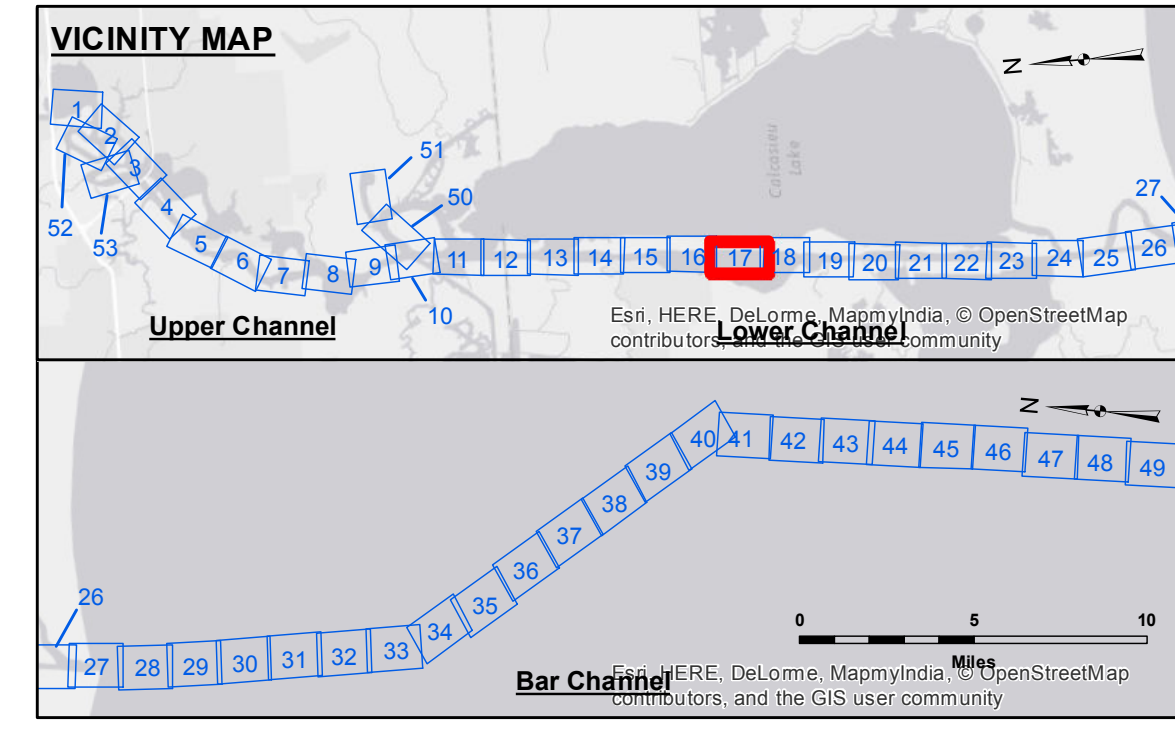


DISCLAIMER
The information depicted on this map represents the results of a survey conducted in accordance with the standards and specifications of the U.S. Army Corps of Engineers. The user is responsible for the proper use of this information and for obtaining any necessary permits for its use. The Corps of Engineers does not warrant the accuracy or completeness of this information for any purpose other than that for which it was collected. The Corps of Engineers does not assume any liability for damages or losses resulting from the use of this information. The user is advised to consult the latest edition of the Corps of Engineers Manual for Engineering and Surveying, and to follow the instructions contained therein. The information depicted on this map represents the results of a survey conducted in accordance with the standards and specifications of the U.S. Army Corps of Engineers. The user is responsible for the proper use of this information and for obtaining any necessary permits for its use. The Corps of Engineers does not warrant the accuracy or completeness of this information for any purpose other than that for which it was collected. The Corps of Engineers does not assume any liability for damages or losses resulting from the use of this information. The user is advised to consult the latest edition of the Corps of Engineers Manual for Engineering and Surveying, and to follow the instructions contained therein.

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

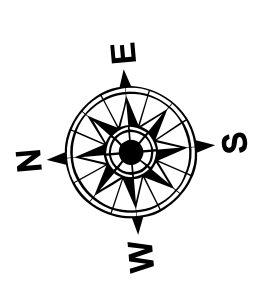
**CALCASIEU SHIP CHANNEL
LOWER SHEET 17
CR_17_LWR_20161005
05 October 2016**

**Sheet
Reference
Number
17 of 53**

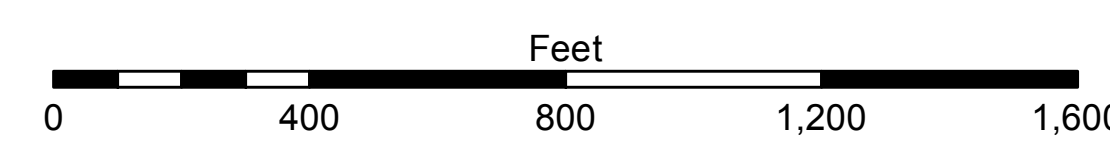


LEGEND

- - - Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	-15' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	-15' to -20'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	-20' to -25'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	-25' to -32'
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy	-32' to -38'
			-38' to -40'
			-40' to -42'
			-42' and below



Gage Reading: DM 72: 3.2 MLG 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 Low Gulf Datum (MLG).
Datum Relationships for gage 73615 as of December 2013:
0.0' NAVD83 (2009.55) = 1.1' MLLW = 2.1' 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. 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.