

**US Army Corps of Engineers District: CEMVN**

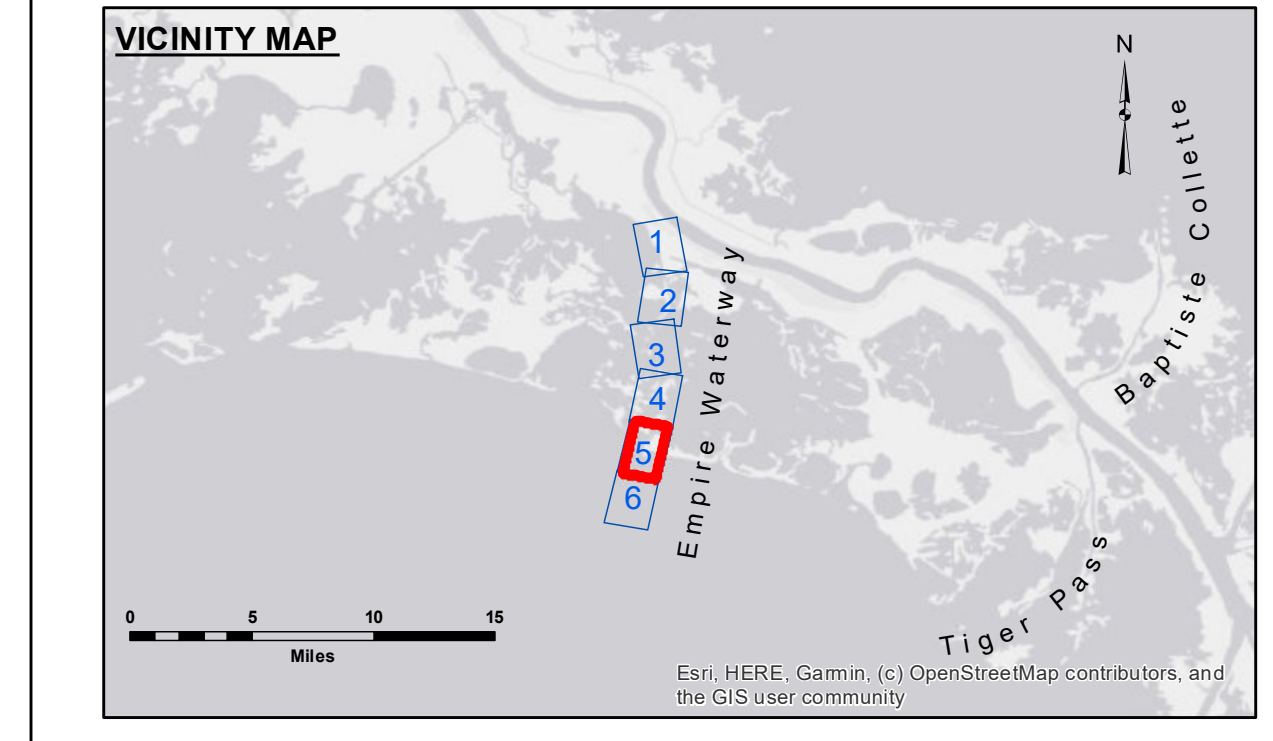
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**DATA CRESTANTS:** Hydrographic survey data is subject to change rapidly due to several factors including but not limited to changing weather conditions, shifting sandbars, and other natural changes in the hydrographical conditions which develop after the date of the survey. The user is advised that the data is not to be used for purposes other than those for which it was collected and that the user should not rely solely upon it.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: RYLAND/SONNER
Recommended:	Plotted By: AO
Approved:	Checked By: AO

**EMPIRE WATERWAY  
EMPIRE BAR  
EM\_05\_BAR\_20200312\_CS  
12 March 2020**

**Sheet Reference Number  
5 of 6**



LEGEND			
--- Federal Navigation Channel	○ Cable Area	□ Borrow Area	■ -9' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	□ -9' and below
— 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 Low Gulf Datum (MLG).

The location of navigation aids are base on and provided by the U.S. Coast Guard.

2015 Aerial Photography data source: NAIP. 1998 DOQQ imagery shown in green from USGS.

Reference is N.O.A.A. Navigation Chart No. 11358 and 11364.

\*\* 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.

Gage Reading: EMPIRE STAFF: 1.6 GAGE DATUM  
Sea Conditions: CALM  
Vessel Name: M/V OB 189  
Survey Type: CONDITION  
Sounding Frequency\*\*\*: LOW

Feet  
0 500 1,000 1,500