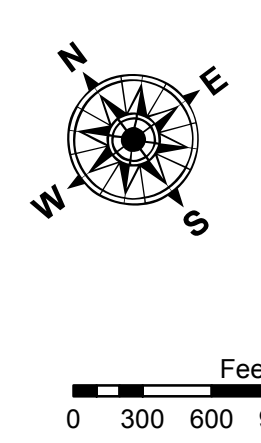


**LEGEND**

--- Federal Navigation Channel	○ Cable Area	■ Shoaling Area	■ 0' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	■ 0' to -5'
— As-built Pipeline/Cable	□ Anchorage Area	☆ Beacon, General	■ -5' to -9'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	□ -9' and below
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy	



LWRP: 13.1  
 Gage Reading: RR:22.65 BR:9.26 USED:22.10 NGVD  
 Sea Conditions: CALM  
 Vessel Name: M/V OB 189  
 Survey Type: CONDITION  
 Sounding Frequency\*\*\*: HIGH

**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 Low Water Reference Plane 2007 (NGVD).  
 Distances on the Mississippi River, above and below Head of Passes are shown at 1 mile intervals.  
 The location of navigation aids are base on and provided by the U.S. Coast Guard and USACE crew.  
 2010 Aerial Photography data source: NAIP, USDA-FSA-APFO Aerial Photography Field Office.  
 Reference is USACE IENC U35LM236.  
 \*\* 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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 Data Constants Hydrographic survey data is subject to change rapidly due to several factors including but not limited to encroaching vegetation, shifting sandbars, and changes in bathymetry. The Army Corps of Engineers accepts no responsibility for changes in the hydrographic conditions which develop after the date of the survey. The information depicted on this map represents the results of a survey conducted at that time. The information is not to be considered for general condition existing at that time.  
 Access Constraints: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were collected, and that the data are not to be used for any purpose other than that for which they were collected, and that the data are not to be used for any purpose other than that for which they were collected.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT		
Submitted:	Surveyed By: DR,JA	Plotted By: BTJ
Recommended: Chief, Survey Section	Checked By: MSK	Checked By: MSK
Approved: Chief, Waterways Maintenance Section		

**MISSISSIPPI RIVER - SHALLOW DRAFT  
 SMITHLAND - SHEET 2  
 MS\_10\_SM2\_20150915  
 15 September 2015**

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