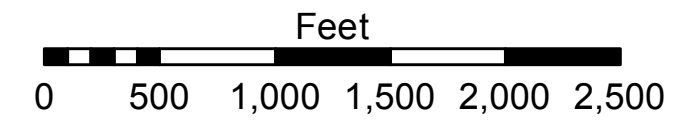
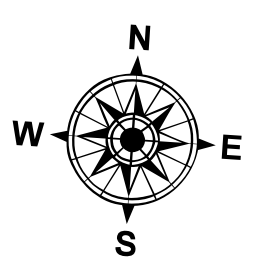
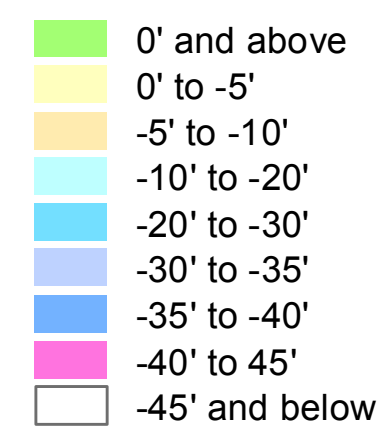


LEGEND	
--- Federal Navigation Channel	● Cable Area
— Federal Navigation Center Line	□ Placement Area
— As-built Pipeline/Cable	□ Anchorage Area
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point
— Project Depth Contour	✈ Wrecks-Submerged
□ Borrow Area	★ Beacon, General
● Shoalest Sounding**	◆ Red Navigation Buoy
◆ Green Navigation Buoy	



LWRP: 2.4
 Gage Reading: BR:13.3D:9.3 USED: 12.6 NGVD
 Sea Conditions: CALM
 Vessel Name: M/V OB189
 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 N.O.A. Navigation Chart No. 11370.
 ** 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 bathymeter settings.



DISCLAIMER:
 The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the Government makes no warranty, expressed or implied, as to the accuracy, completeness, reliability, usability or suitability for any particular purpose of the data. The user is responsible for the results. The application of the data for other than its intended purpose is at the user's risk. The user shall indemnify and hold the United States Government harmless from and against all claims, damages, losses and expenses, including reasonable attorneys' fees, which may be incurred by the United States Government as a result of the use of the data for other than its intended purpose.
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The information is not to be used for any purpose other than that for which it was intended. The user shall indemnify and hold the United States Government harmless from and against all claims, damages, losses and expenses, including reasonable attorneys' fees, which may be incurred by the United States Government as a result of the use of the data for other than its intended purpose.

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

**MISSISSIPPI RIVER - B.R. TO GULF
 SARDINE POINT RECON
 MR_06_SDP_20151118
 18 November 2015**

**Sheet Reference Number
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