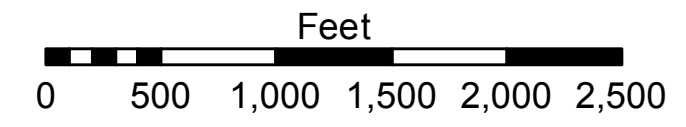
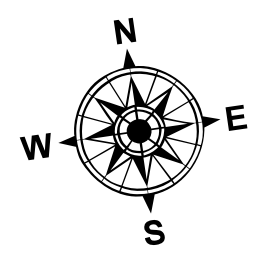


LEGEND	
— Federal Navigation Channel	○ Cable Area
— Federal Navigation Center Line	□ Placement Area
— As-built Pipeline/Cable	□ Anchorage Area
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point
— Project Depth Contour	⚓ Wrecks-Submerged
□ Borrow Area	★ Beacon, General
● Shoalest Sounding**	◆ Red Navigation Buoy
○ Beacon, General	◆ Green Navigation Buoy
■ 0' and above	
■ 0' to -5'	
■ -5' to -10'	
■ -10' to -20'	
■ -20' to -30'	
■ -30' to -35'	
■ -35' to -40'	
■ -40' to -45'	
■ -45' and below	



LWRP: 1.9
 Gage Reading: BR:18.7 D:11.45 USED:15.40 NGVD
 Sea Conditions: CALM
 Vessel Name: 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 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 fathometer
 settings.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	RYLAND/SOONIER
Recommended:	Chief, Survey Section
Approved:	Chief, Waterways Maintenance Section
Surveyed By:	RYLAND/SOONIER
Plotted By:	BD
Checked By:	AC

**MISSISSIPPI RIVER - B.R. TO GULF
 GRANADA RECON
 MR_10_GRA_20170223
 23 February 2017**

**Sheet
 Reference
 Number
 10 of 97**

Revision Number:
 3.8.0-20150202



DISCLAIMER:
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