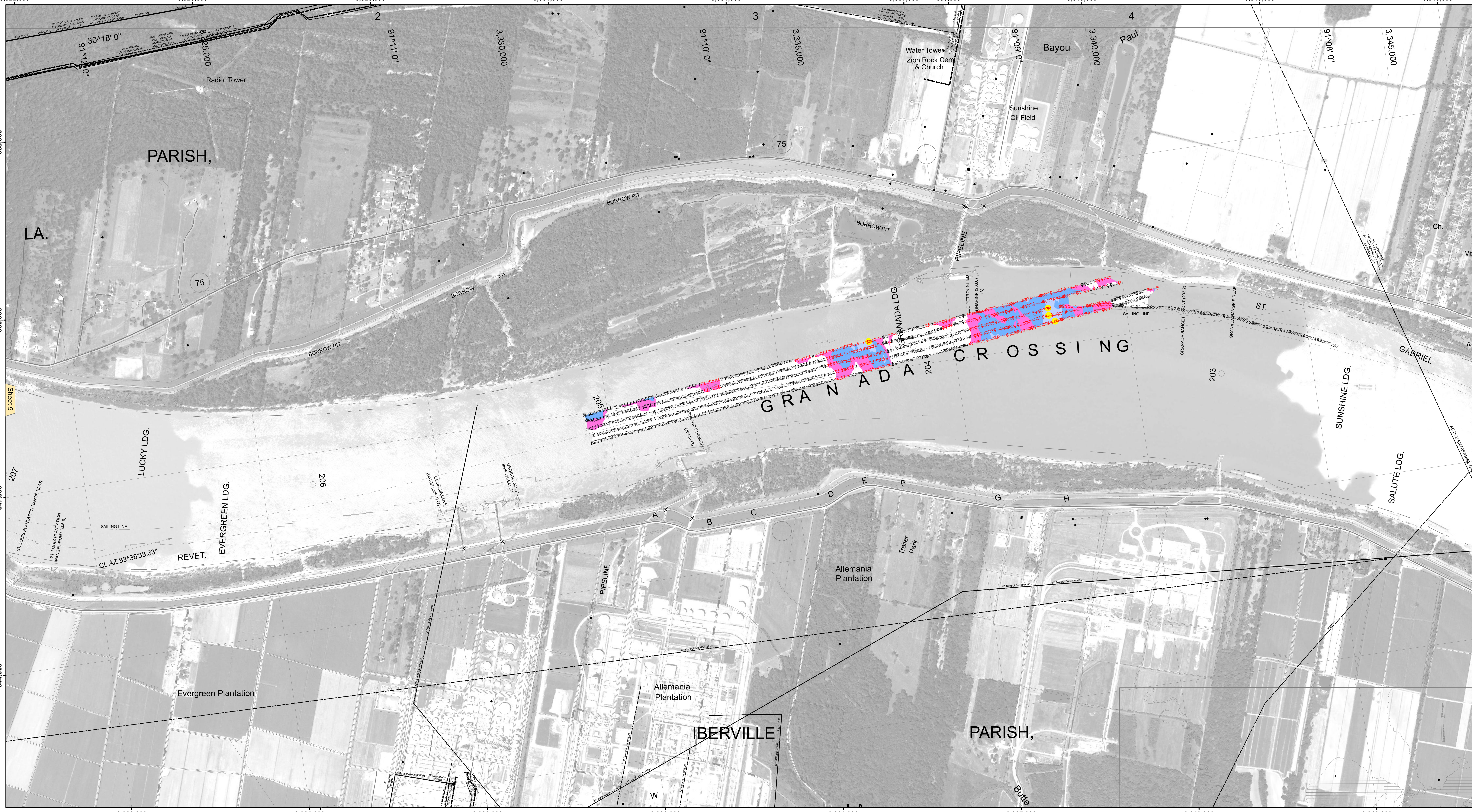

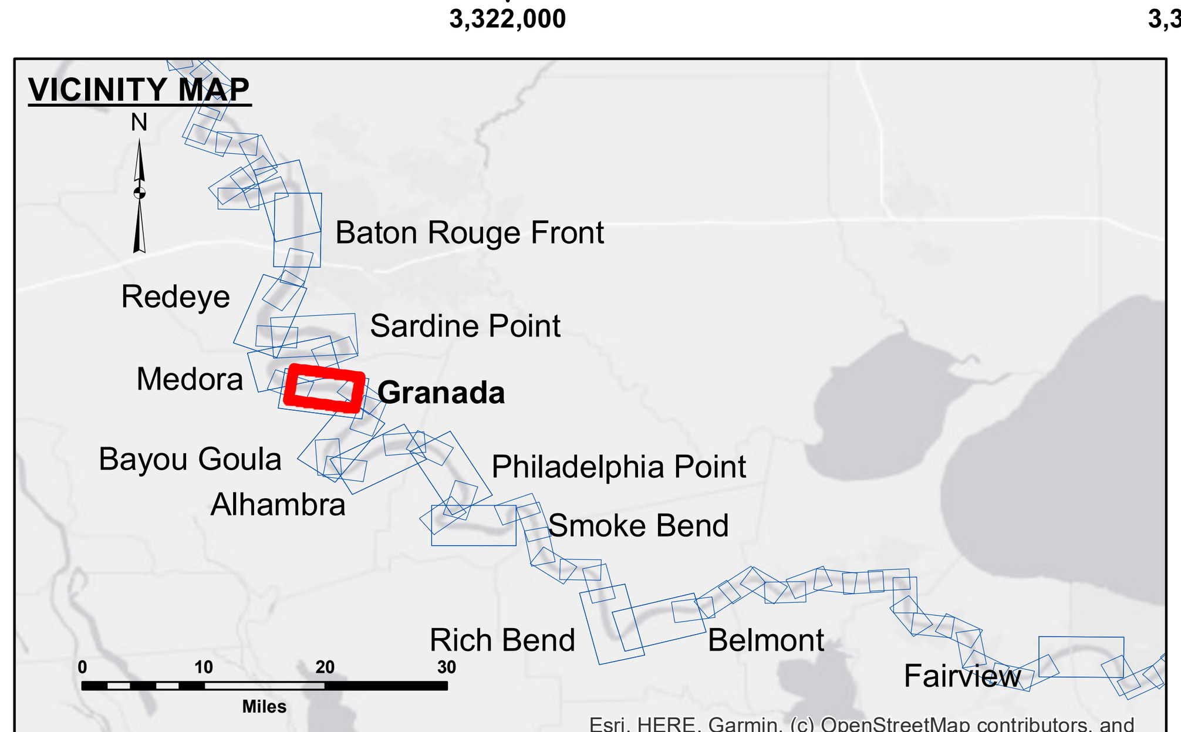

LEGEND

Federal Navigation Channel	Cable Area	Borrow Area
Federal Navigation Center Line	Placement Area	Shoalest Sounding**
As-built Pipeline/Cable	Anchorage Area	Beacon, General
Unconfirmed Pipeline/Cable	Obstruction Point	Red Navigation Buoy
Project Depth Contour	Wrecks-Submerged	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:20.6 D:12.3 USED:16.8 NAVD
Sea Conditions:	CALM
Vessel Name:	M/V LAFOURCHE
Survey Type:	CONDITION
Sounding Frequency***:	HIGH

Feet
0 500 1,000 1,500 2,000 2,500

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 (NAVD).

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.

2015 Aerial Photography data source: NAIP, USDA-FSA-APFO Aerial Photography Field Office.

Reference is N.O.A.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 consoldiated bottom material. Low frequency accuracies may vary depending on channel conditions and fathometer settings.

US Army Corps of Engineers
District: CEMVN

U.S. ARMY COPRPS OF ENGINEERS
NEW ORLEANS DISTRICT

Submitted:	Surveyed By: DJS/SPS
Recommended: Chief, Survey Section	Plotted By: BD
Approved: Chief, Waterways Maintenance Section	Checked By: AO

MISSISSIPPI RIVER - B.R. TO GULF
GRANADA CROSSING
MD_10_GRA_20190821_CS
21 August 2019

Sheet Reference Number
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