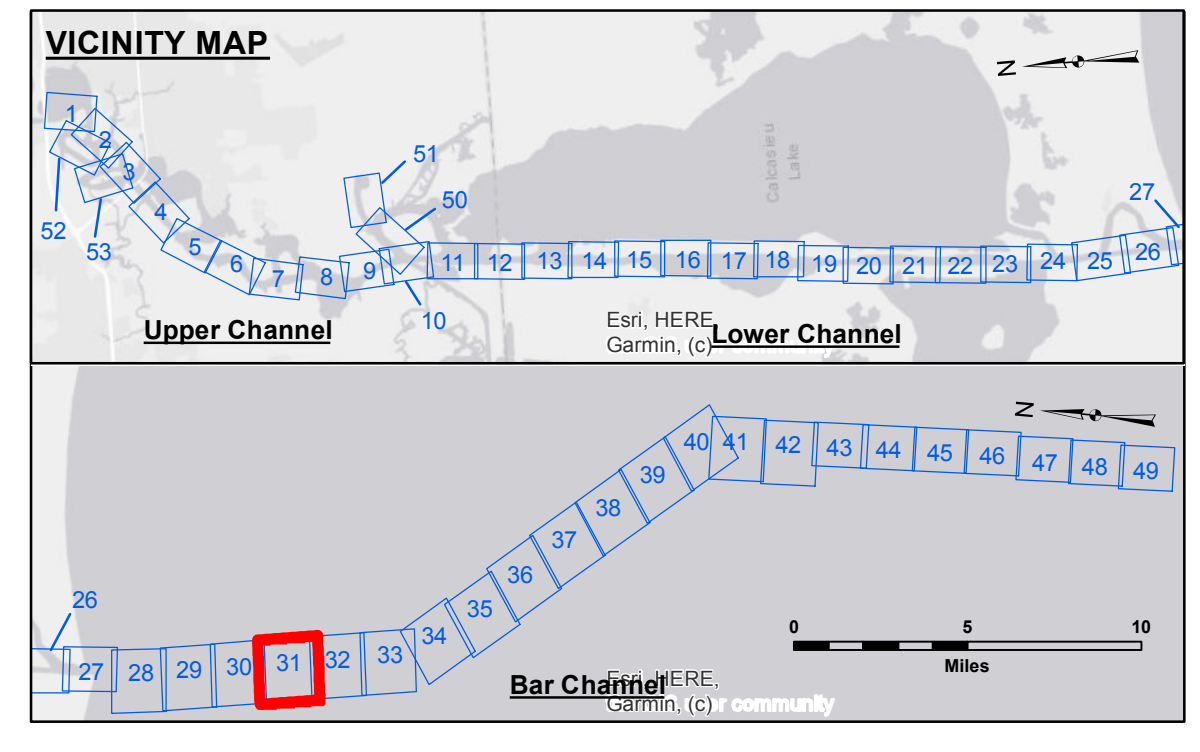
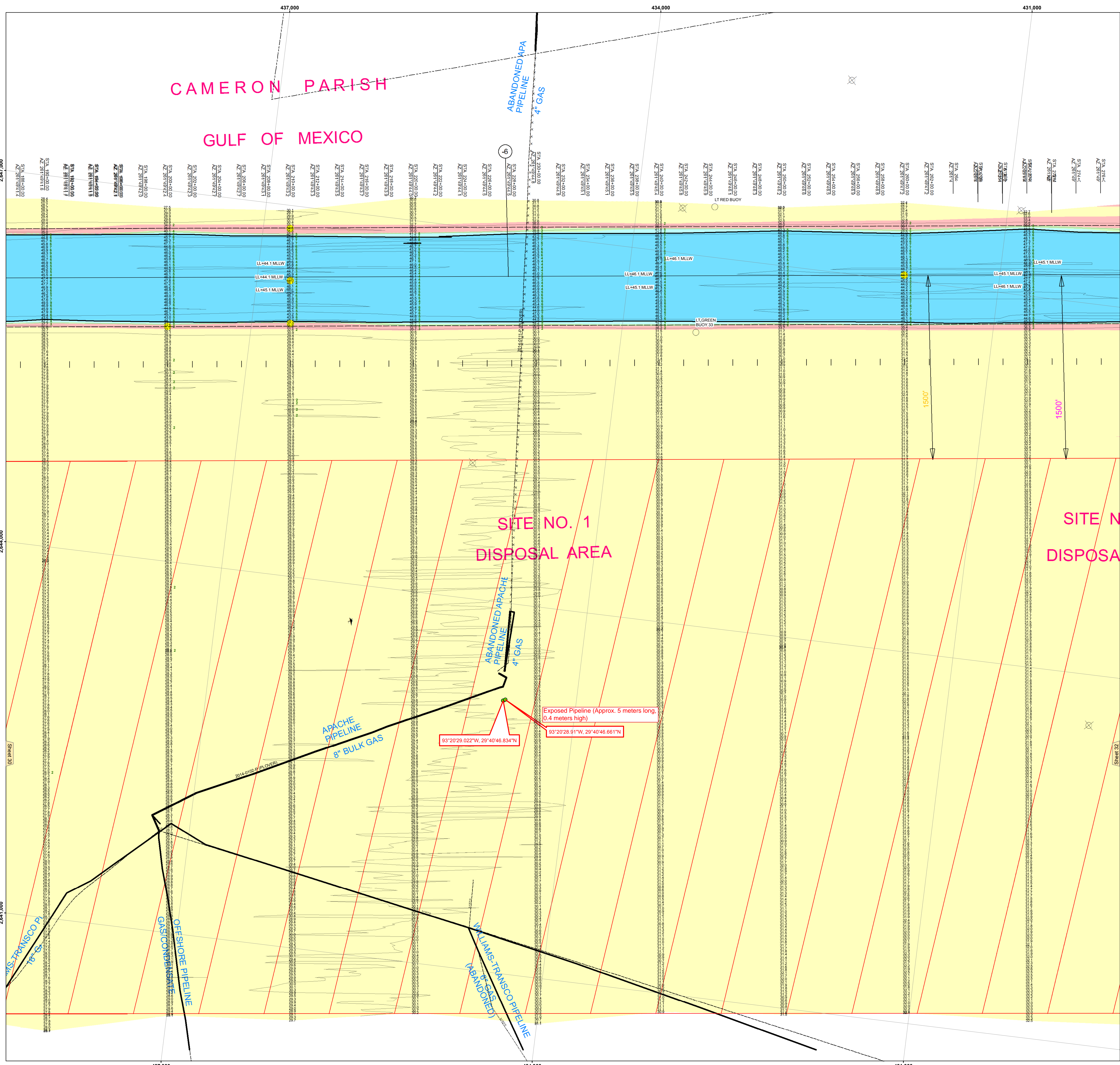
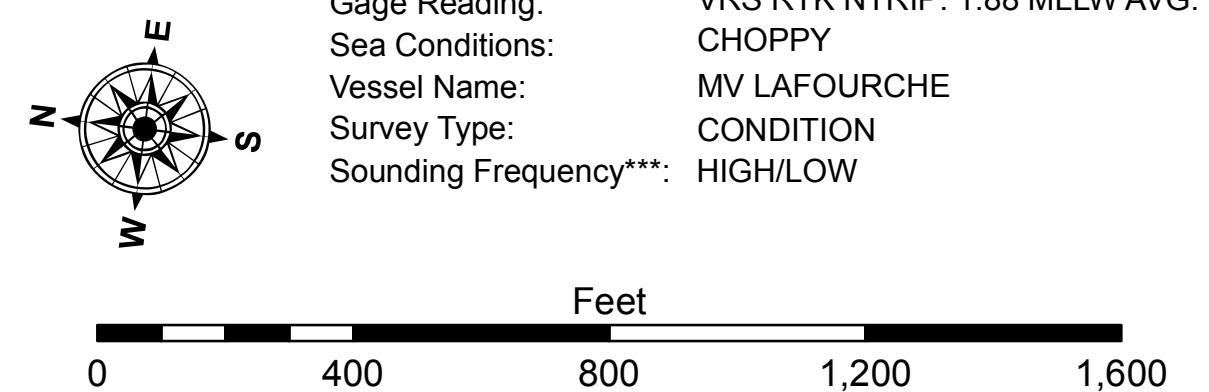




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LEGEND	
--- Federal Navigation Channel	3 Fluff Thickness (feet)*
--- Federal Navigation Center Line	● Shoalest Sounding**
--- As-built Pipeline/Cable	★ Beacon, General
--- Unconfirmed Pipeline/Cable	★ Red Navigation Buoy
--- Project Depth Contour	★ Green Navigation Buoy
□ Placement Area	■ -16' to -21'
□ Anchorage Area	■ -21' to -26'
□ Obstruction Point	■ -26' to -33'
★ Wrecks-Submerged	■ -33' to -39'
	■ -39' to -41'
	■ -41' to -43'
	■ -43' and below



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 Lower Low Water Datum (MLLW).
 Datum Relationships for gage 73650 as of December 2013:
 0.0' NAVD88 (2009.55) = 1.3' MLLW = 2.3' MLG or 0.0' MLLW = 1.0' MLG
 Distances on the Calcasieu River are shown at 1 mile intervals.
 The location of navigation aids are based on and provided by the U.S. Coast Guard and USACE survey crews.
 2015 Aerial Photography data source: NAIP
 Reference is N.O.A. Navigation Chart No. 11339.
 * Difference between high and low frequency elevations where greater than 1.0'.
 ** 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:	SP/PS
Recommended:	BD
Approved:	AO

**CALCASIEU SHIP CHANNEL
 BAR SHEET 31
 CR_31_BARX_20220517_CS
 17 May 2022**

**Sheet Reference Number
 31 of 53**

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