SURVEY NOTES:

1) HORIZONTAL DATUM:
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT

2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT

3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.

4) SURVEY INFORMATION:
SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)
ECHO SOUNDER: TELEDYNE ECHOTRAC E20
TRANSDUCER: ODOM SMSW200-4 (4° BEAM, 200 kHz)
SOUND VELOCITY SOURCE: VALEPORT SWIFT SVP
INS: SBG ELLIPSE2-E-G4A2-B1
GNSS RECEIVER: TRIMBLE MPS865 WITH DUAL ANTENNAS
GNSS SOURCE: TRIMBLE CENTERPOINT RTX
TIDE METHOD: REAL-TIME KINEMATIC
TIDE SOURCE: TRIMBLE CENTERPOINT RTX

5) THE SURVEY WAS COMPLETED IN ACCORDANCE WITH QUALITY CONTROL PLAN PROCEDURES.

JUNE 28, 2023
INTERPOLATED WATER SURFACE ELEVATIONS

| MILE | WSE @ 9:00 | WSE @ 15:00 | LWRP 2014 | LWRP DIF @ 9:00 | LWRP DIF @ 15:00 |
|---|---|---|---|---|---|
| 98 | 337.16 | 337.12 | 333.52 | 3.64 | 3.60 |
| 99 | 337.72 | 337.69 | 334.15 | 3.57 | 3.54 |
| 100 | 338.28 | 338.26 | 334.77 | 3.51 | 3.49 |

GAGE RECORD

| River Mile | River Gage | Zero NAVD88 | Time 1 | Stage 1 | Time 2 | Stage 2 |
|---|---|---|---|---|---|---|
| 94.1 | Red Rock Landing, MO | 328.38 | 9:00 | 6.61 | 15:00 | 6.51 |
| 109.9 | Chester, IL | 340.73 | 9:00 | 3.07 | 15:00 | 3.18 |

ILLINOIS

MISSOURI

Kinder Morgan Coal Facility

Liberty Island RP (99.1)

Jones Point

Liberty Bar

BARGE

BARGE

BARGE

BARGE

99

98

N

Scale: 1 Inch = 800.00 Feet

500 1000 2000 3000 4000 Feet

St. Louis District

DATES OF SURVEY: JUNE 28, 2023

FILE NO.: 099F2823
REQUEST NO.: W912P923R0086

SCALE: 1" = 800' (ANSI B)

FIELD BOOKS:

Approved: CHIEF CARTOGRAPHER
Approved: CIVIL ENGINEERING TECHNICIAN
Approved: ASST. CHIEF OF SURVEY
Approved: CHIEF OF SURVEY
Date:

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT
ST. LOUIS, MISSOURI

SURVEYED BY:
BOWEN ENGINEERING AND SURVEYING, P.C.
2121 NEOSHA DRIVE
CAPE GIRARDEAU, MO 63701

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

PRE DREDGE SURVEY
RIVER MILES 99.1 - 98.2

SHEET NO.
1 OF 1