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: ODOM DIGIBAR S VELOCIMETER
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

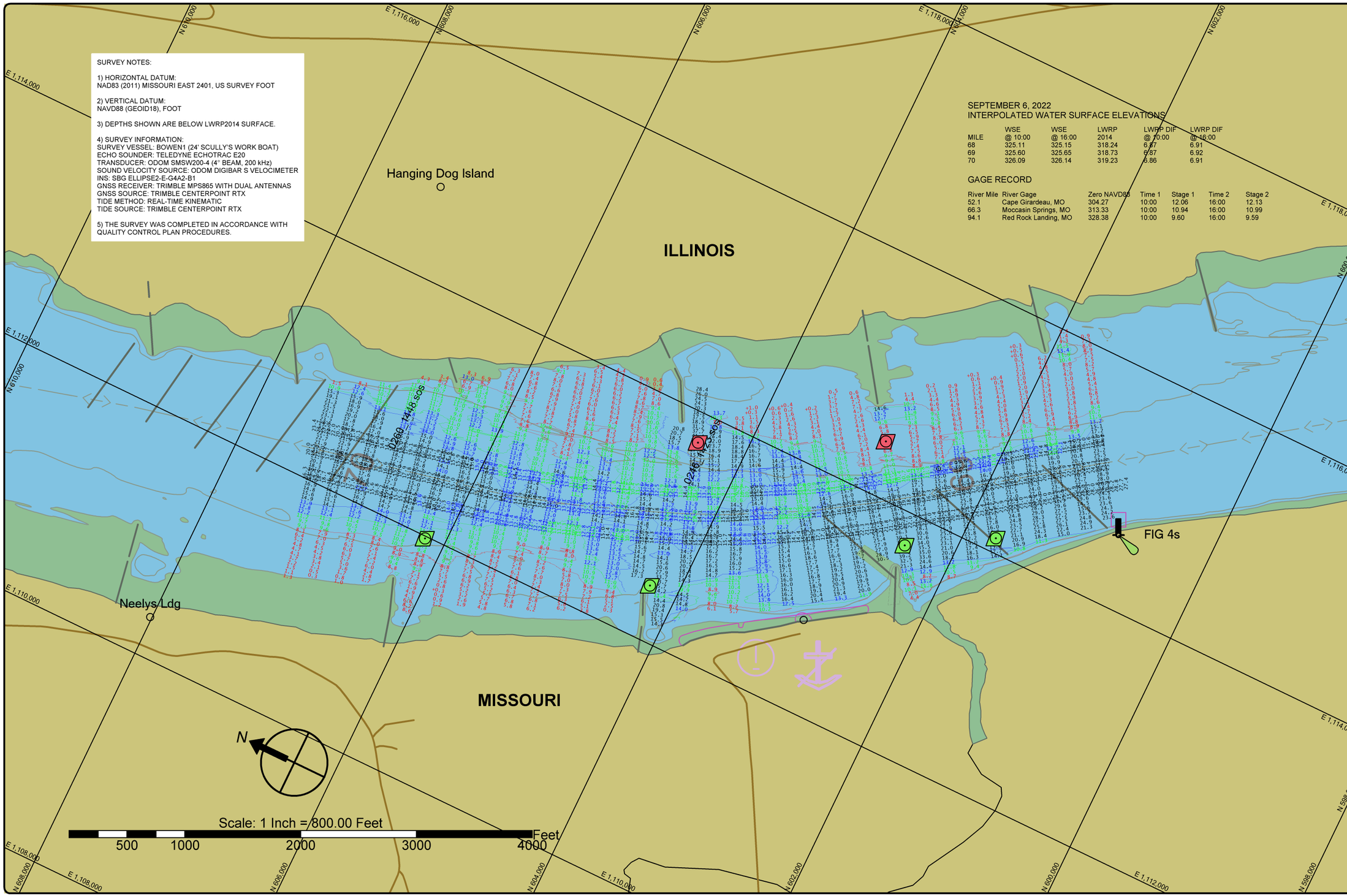
5) THE SURVEY WAS COMPLETED IN ACCORDANCE WITH QUALITY CONTROL PLAN PROCEDURES.

SEPTEMBER 6, 2022
INTERPOLATED WATER SURFACE ELEVATIONS

| MILE | WSE @ 10:00 | WSE @ 16:00 | LWRP 2014 | LWRP DIF @ 10:00 | LWRP DIF @ 16:00 |
|---|---|---|---|---|---|
| 68 | 325.11 | 325.15 | 318.24 | 6.87 | 6.91 |
| 69 | 325.60 | 325.65 | 318.73 | 6.87 | 6.92 |
| 70 | 326.09 | 326.14 | 319.23 | 6.86 | 6.91 |

GAGE RECORD

| River Mile | River Gage | Zero NAVD88 | Time 1 | Stage 1 | Time 2 | Stage 2 |
|---|---|---|---|---|---|---|
| 52.1 | Cape Girardeau, MO | 304.27 | 10:00 | 12.06 | 16:00 | 12.13 |
| 66.3 | Moccasin Springs, MO | 313.33 | 10:00 | 10.94 | 16:00 | 10.99 |
| 94.1 | Red Rock Landing, MO | 328.38 | 10:00 | 9.60 | 16:00 | 9.59 |




St. Louis District

DATES OF SURVEY:
SEPTEMBER 6, 2022

FILE NO.: 06906022
REQUEST NO.: W912P92F0051

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

Approved: FIELD 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 MEGAN DRIVE
CAPE GIRARDEAU, MO 63701

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

PRE DREDGE SURVEY
RIVER MILES 70.0 - 68.8

SHEET NO.
1 OF 1