

SURVEY NOTES:

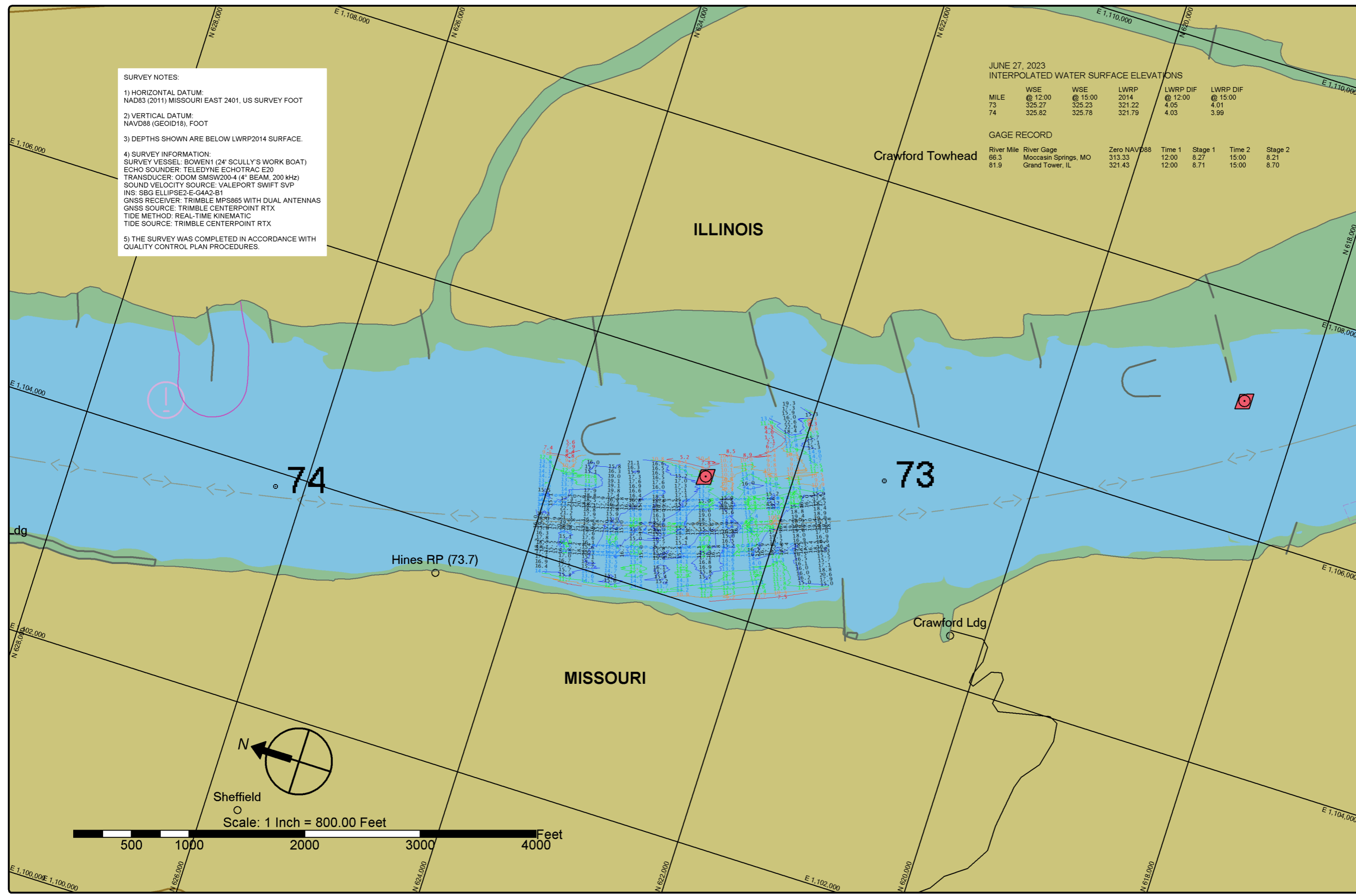
- 1) HORIZONTAL DATUM:
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT
- 2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT
- 3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.
- 4) SURVEY INFORMATION:
SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)
ECHO SOUNDER: TELEDYNE ECHOTRAC E20
TRANSDUCER: ODOM SMSW200-4 (4" BEAM, 200 kHz)
SOUND VELOCITY SOURCE: VALEPORT SWIFT SVP
INS: SBG ELLIPSE2-E-64A2-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 27, 2023
INTERPOLATED WATER SURFACE ELEVATIONS

| MILE | WSE @ 12:00 | WSE @ 15:00 | LWRP 2014 | LWRP DIF @ 12:00 | LWRP DIF @ 15:00 |
|------|-------------|-------------|-----------|------------------|------------------|
| 73 | 325.27 | 325.23 | 321.22 | 4.05 | 4.01 |
| 74 | 325.82 | 325.78 | 321.79 | 4.03 | 3.99 |

GAGE RECORD

| River Mile | River Gage | Zero NAVD88 | Time 1 | Stage 1 | Time 2 | Stage 2 |
|------------|----------------------|-------------|--------|---------|--------|---------|
| 66.3 | Moccasin Springs, MO | 313.33 | 12:00 | 8.27 | 15:00 | 8.21 |
| 81.9 | Grand Tower, IL | 321.43 | 12:00 | 8.71 | 15:00 | 8.70 |





St. Louis District

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| DATES OF SURVEY: <small>JUNE 27, 2023</small> | FIELD BOOKS: <small>FILE NO.: 079F2723</small> <small>REQUEST NO.: W91P023F086</small> |
| SCALE: 1" = 800' (ANSI B) | APPROVED: _____ <small>FIELD CARTOGRAPHER</small> APPROVED: _____ <small>CIVIL ENGINEERING TECHNICIAN</small> APPROVED: _____ <small>ASST. CHIEF OF SURVEY</small> APPROVED: _____ <small>CHIEF OF SURVEY</small> 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 73.5 - 73.1 | |
| SHEET NO. _____ <small>1 OF 1</small> | |