



St. Louis District

NOVEMBER 21, 2023
INTERPOLATED WATER SURFACE ELEVATIONS

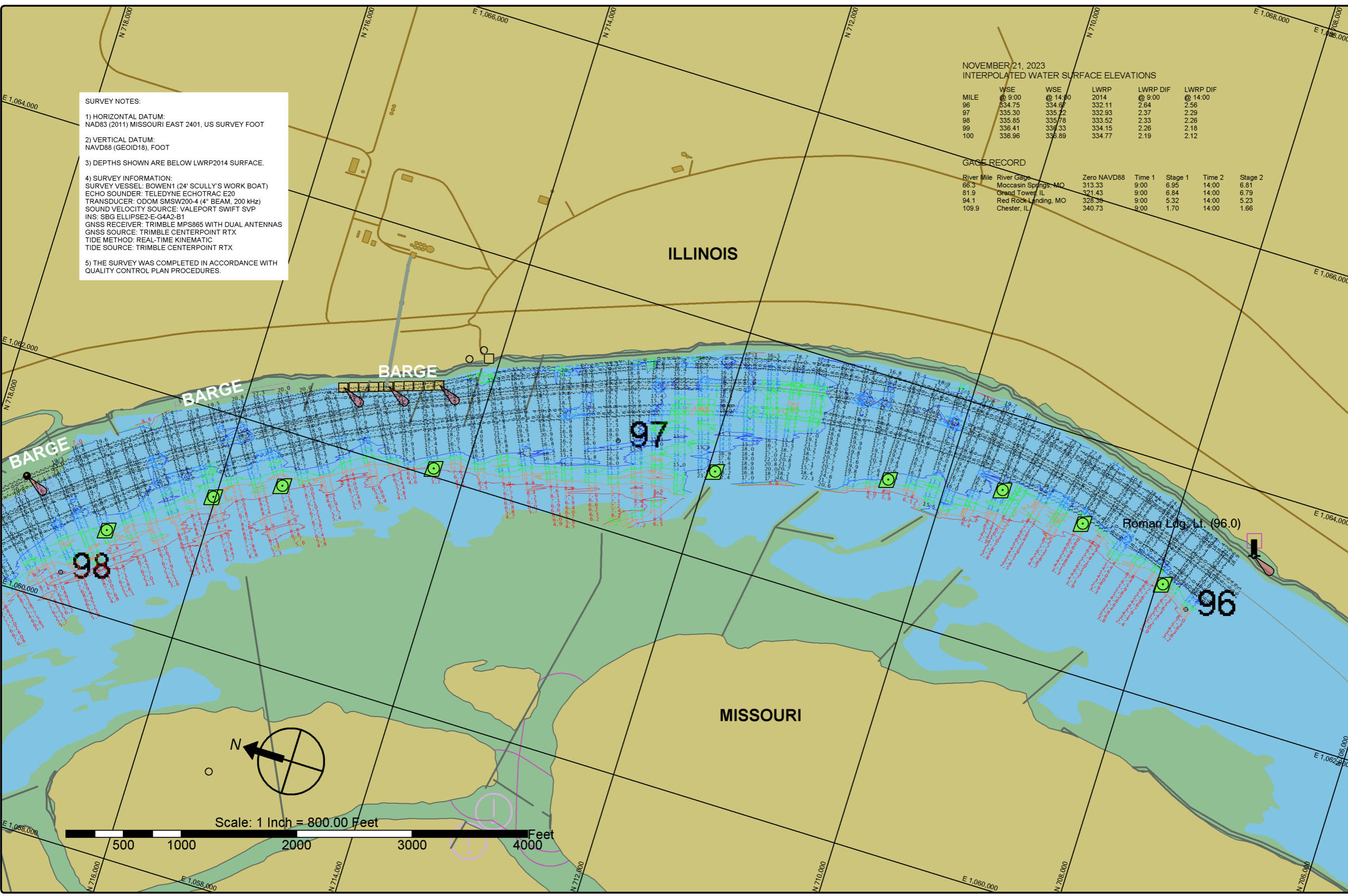
MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
96	334.75	334.67	332.11	2.64	2.56
97	335.30	335.22	332.93	2.37	2.29
98	335.85	335.78	333.52	2.33	2.26
99	336.41	336.33	334.15	2.26	2.18
100	336.96	336.89	334.77	2.19	2.12

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
66.3	Moccasin Springs, MO	313.33	9:00	6.95	14:00	6.81
81.9	Grand Tower, IL	321.43	9:00	6.84	14:00	6.79
94.1	Red Rock Landing, MO	328.38	9:00	5.32	14:00	5.23
109.9	Chester, IL	340.73	9:00	1.70	14:00	1.66

SURVEY NOTES:

- HORIZONTAL DATUM:
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT
- VERTICAL DATUM:
NAVD88 (GEOID18), FOOT
- DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.
- 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
- THE SURVEY WAS COMPLETED IN ACCORDANCE WITH QUALITY CONTROL PLAN PROCEDURES.



DATES OF SURVEY:
NOVEMBER 21, 2023

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

APPROVED:

FIELD CARTOGRAPHER
CIVIL ENGINEERING TECHNICIAN
ASST. CHIEF OF SURVEY
CHIEF OF SURVEY

Date:

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT
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 99.1 - 96.0

SHEET NO.

2 OF 2