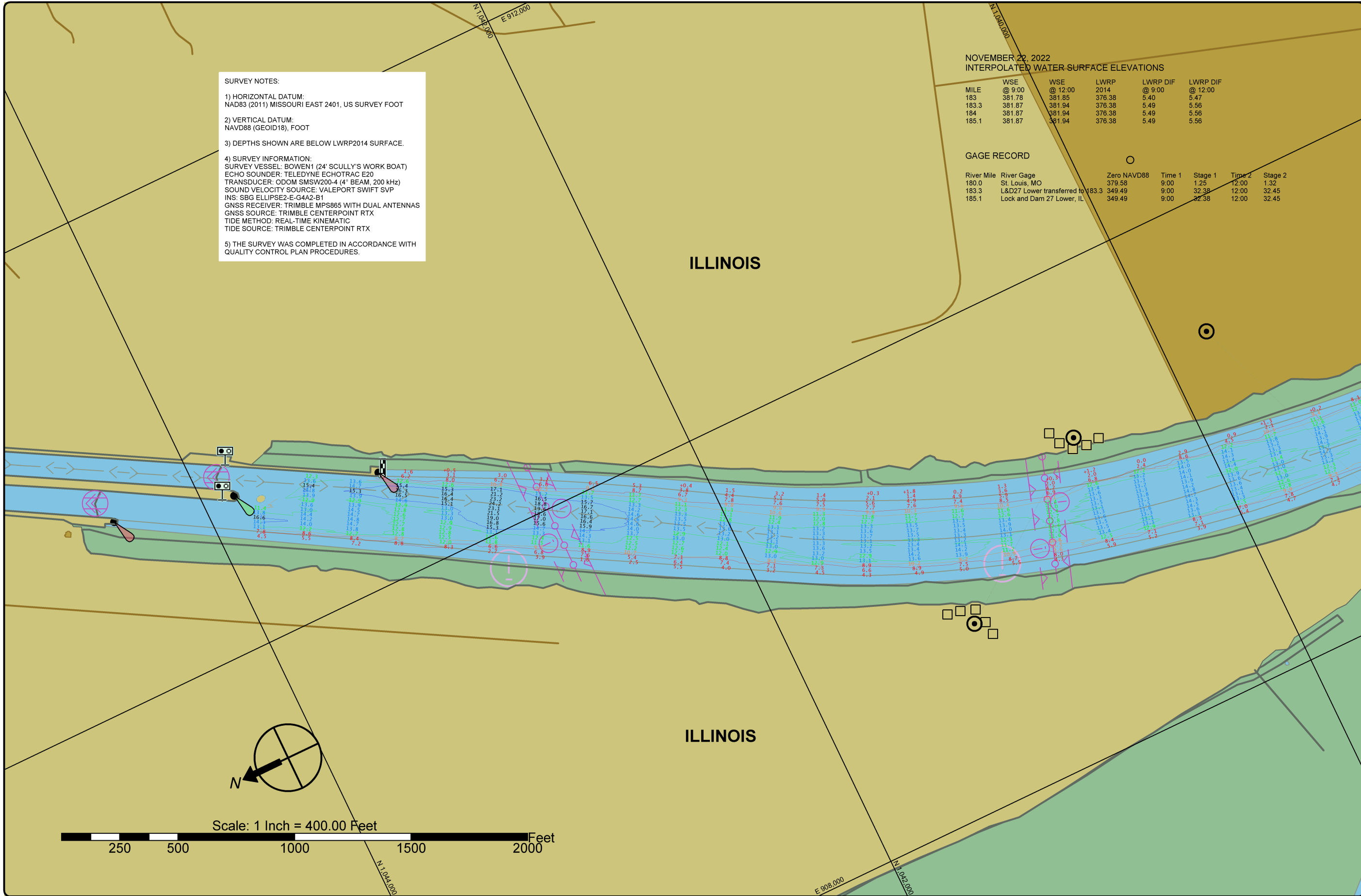




SURVEY NOTES:

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.

NOVEMBER 22, 2022
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 12:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 12:00
183	381.78	381.85	376.38	5.40	5.47
183.3	381.87	381.94	376.38	5.49	5.56
184	381.87	381.94	376.38	5.49	5.56
185.1	381.87	381.94	376.38	5.49	5.56

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
180.0	St. Louis, MO	379.58	9:00	1.25	12:00	1.32
183.3	L&D27 Lower transferred to 183.3	349.49	9:00	32.38	12:00	32.45
185.1	Lock and Dam 27 Lower, IL	349.49	9:00	32.38	12:00	32.45



St. Louis District

DATES OF SURVEY:

NOVEMBER 22, 2022

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

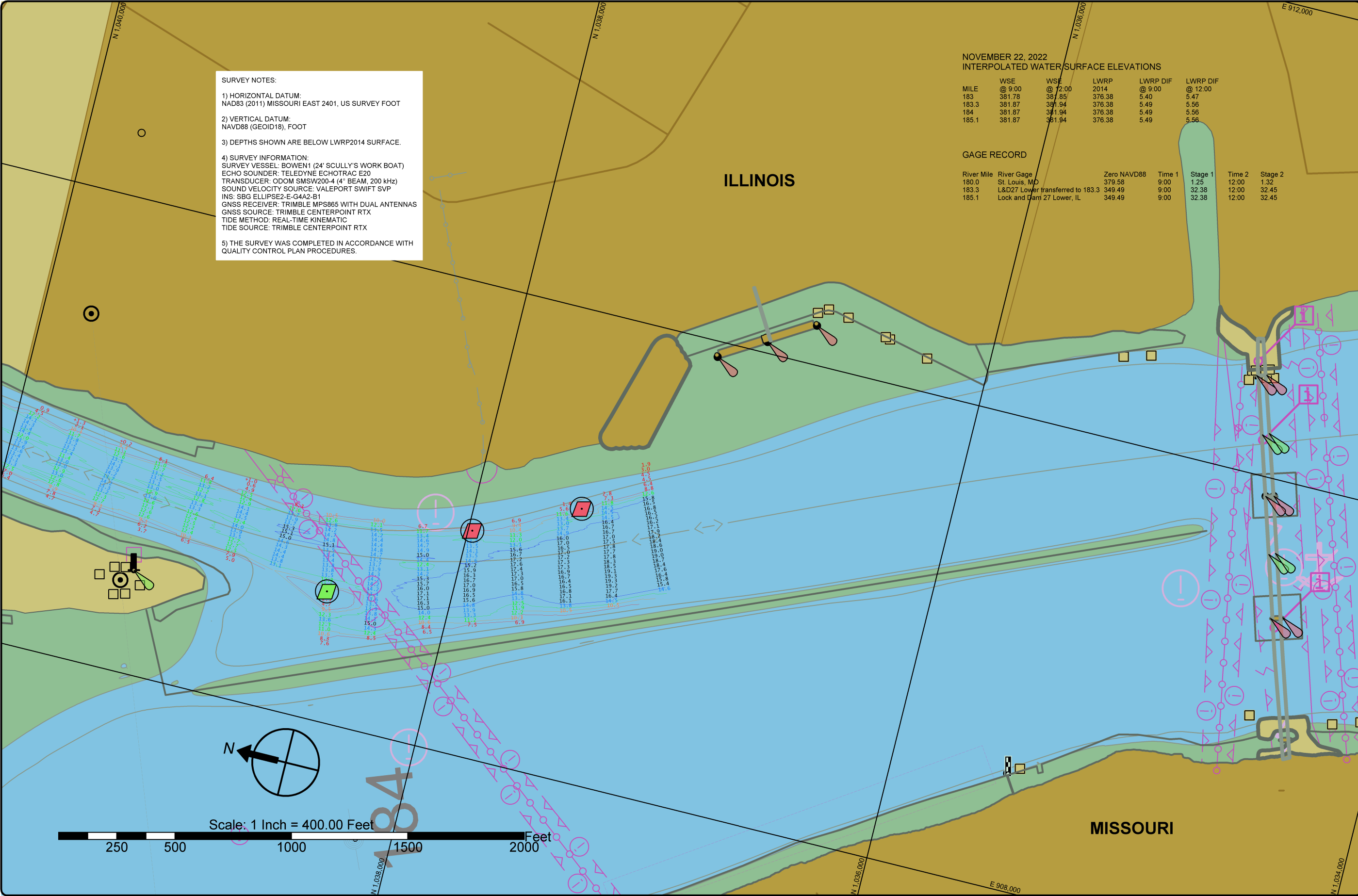
UPPER MISSISSIPPI RIVER
BASIN

MISSISSIPPI RIVER

POST DREDGE SURVEY
RIVER MILES 185.5 - 183.8

SHEET NO.

1 OF 2



SURVEY NOTES:

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St. Louis District

DATES OF SURVEY:

NOVEMBER 22, 2022

SCALE:

1" = 800' (ANSI B)

FIELD BOOKS:

FILE NO.: 184K2222

REQUEST NO.: W912P22F0004

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

POST DREDGE SURVEY
RIVER MILES 185.5 - 183.8

SHEET NO.

2 OF 2