SURVEY NOTES:

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

2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT

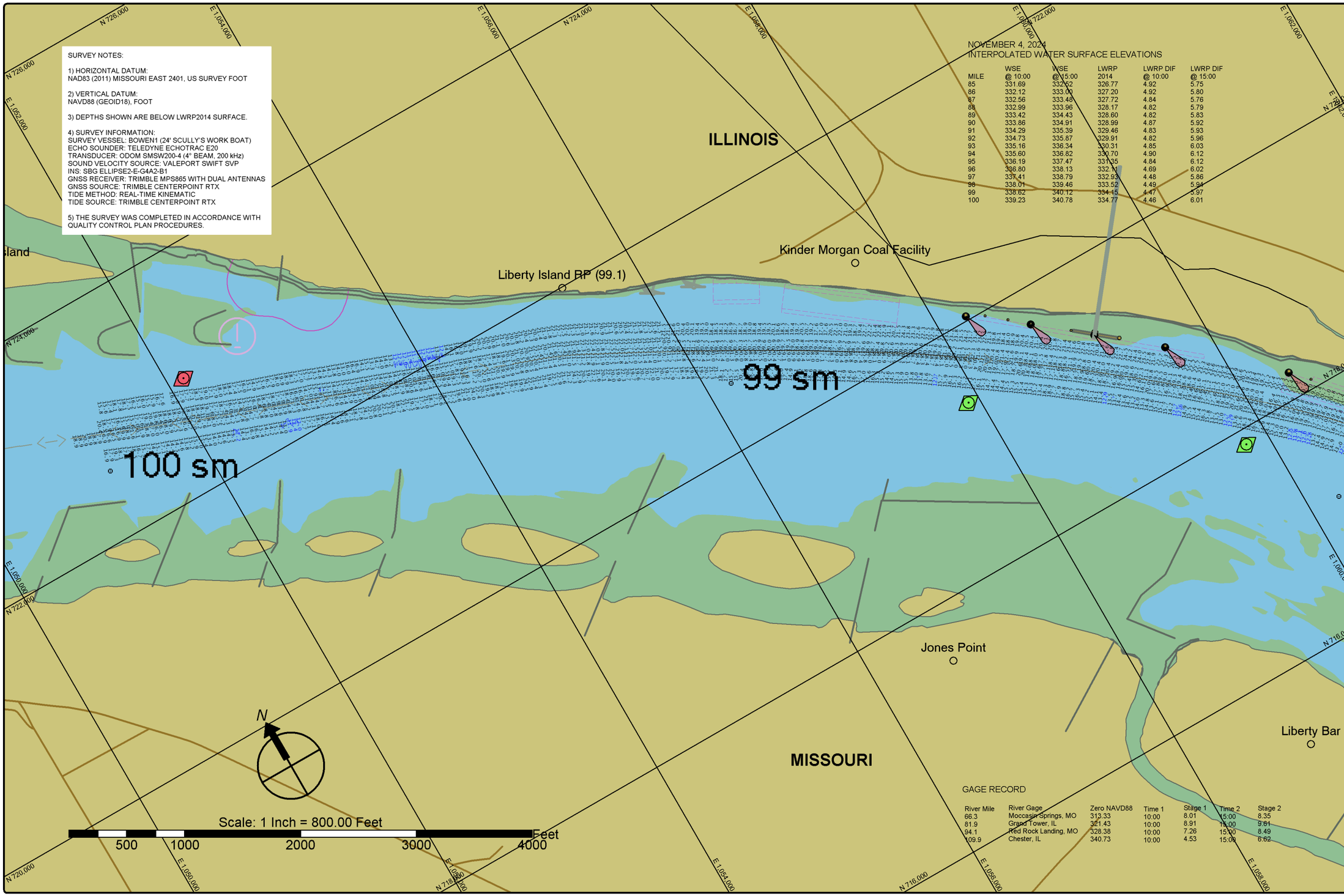
3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.

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 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
85	331.69	332.62	326.77	4.92	5.75
86	332.12	333.00	327.20	4.92	5.80
87	332.56	333.48	327.72	4.84	5.76
88	332.99	333.96	328.17	4.82	5.79
89	333.42	334.43	328.60	4.82	5.83
90	333.86	334.91	328.99	4.87	5.92
91	334.29	335.39	329.46	4.83	5.93
92	334.73	335.87	329.91	4.82	5.96
93	335.16	336.34	330.31	4.85	6.03
94	335.60	336.82	330.70	4.90	6.12
95	336.19	337.47	331.35	4.84	6.12
96	336.80	338.13	332.11	4.69	6.02
97	337.41	338.79	332.93	4.48	5.86
98	338.01	339.46	333.52	4.49	5.94
99	338.62	340.12	334.15	4.47	5.97
100	339.23	340.78	334.77	4.46	6.01



GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
66.3	Moccasin Springs, MO	313.33	10:00	8.01	15:00	8.35
81.9	Grand Tower, IL	321.43	10:00	8.91	15:00	9.61
94.1	Red Rock Landing, MO	328.38	10:00	7.26	15:00	8.49
109.9	Chester, IL	340.73	10:00	4.53	15:00	6.62

St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

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
CHANNEL PATROL
RIVER MILES 98.0 - 100.0

SHEET NO.
1 OF 1

SURVEY NOTES:

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

2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT

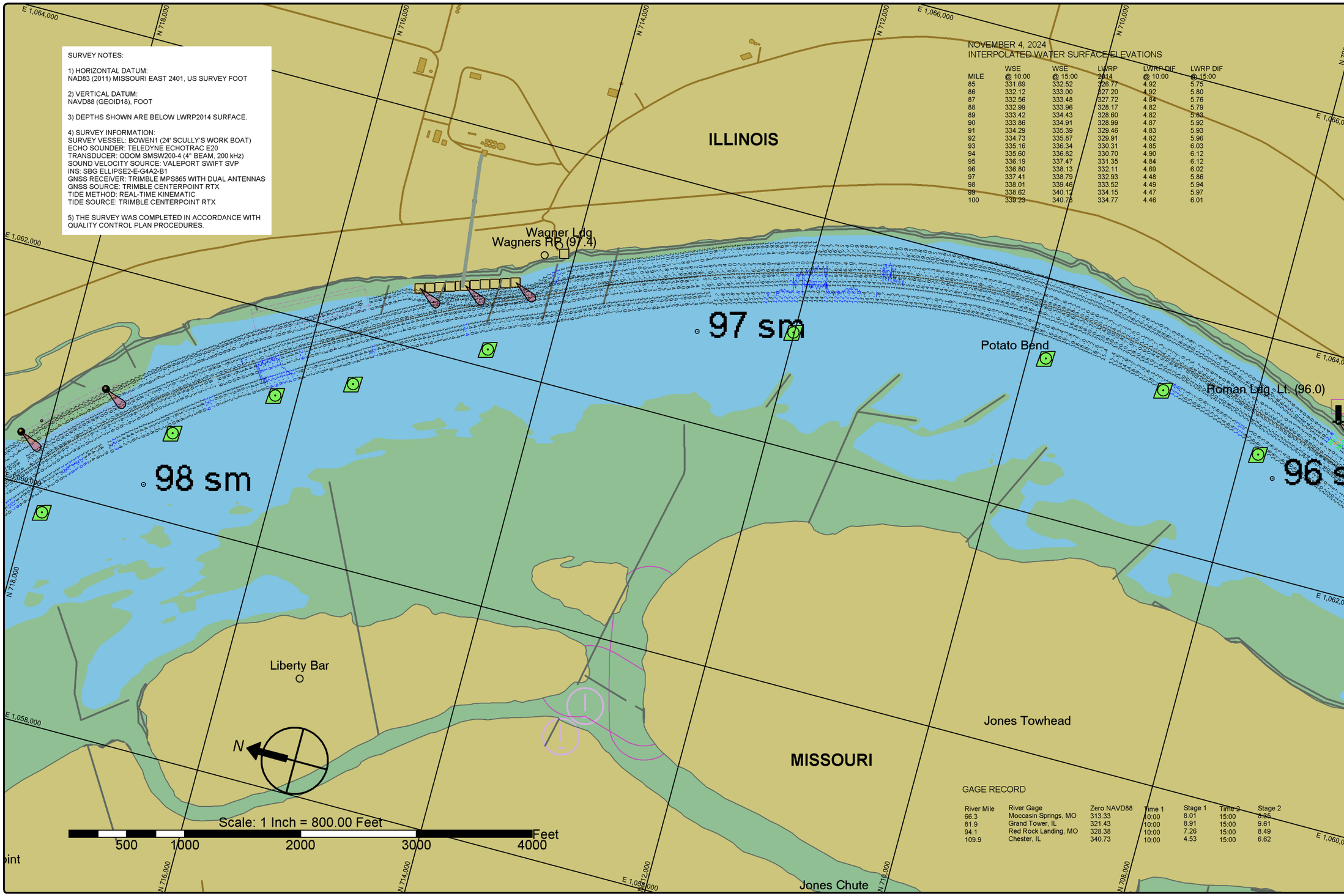
3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.

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 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
85	331.69	332.52	326.77	4.92	5.75
86	332.12	333.00	327.20	4.92	5.80
87	332.56	333.48	327.72	4.84	5.76
88	332.99	333.96	328.17	4.82	5.79
89	333.42	334.43	328.60	4.82	5.83
90	333.86	334.91	328.99	4.87	5.92
91	334.29	335.39	329.46	4.83	5.93
92	334.73	335.87	329.91	4.82	5.96
93	335.16	336.34	330.31	4.85	6.03
94	335.60	336.82	330.70	4.90	6.12
95	336.19	337.47	331.35	4.84	6.12
96	336.80	338.13	332.11	4.69	6.02
97	337.41	338.79	332.93	4.48	5.86
98	338.01	339.46	333.52	4.49	5.94
99	338.62	340.12	334.15	4.47	5.97
100	339.23	340.78	334.77	4.46	6.01



GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
66.3	Moccasin Springs, MO	313.33	10:00	8.01	15:00	9.35
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94.1	Red Rock Landing, MO	328.38	10:00	7.26	15:00	8.49
109.9	Chester, IL	340.73	10:00	4.53	15:00	6.62

St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

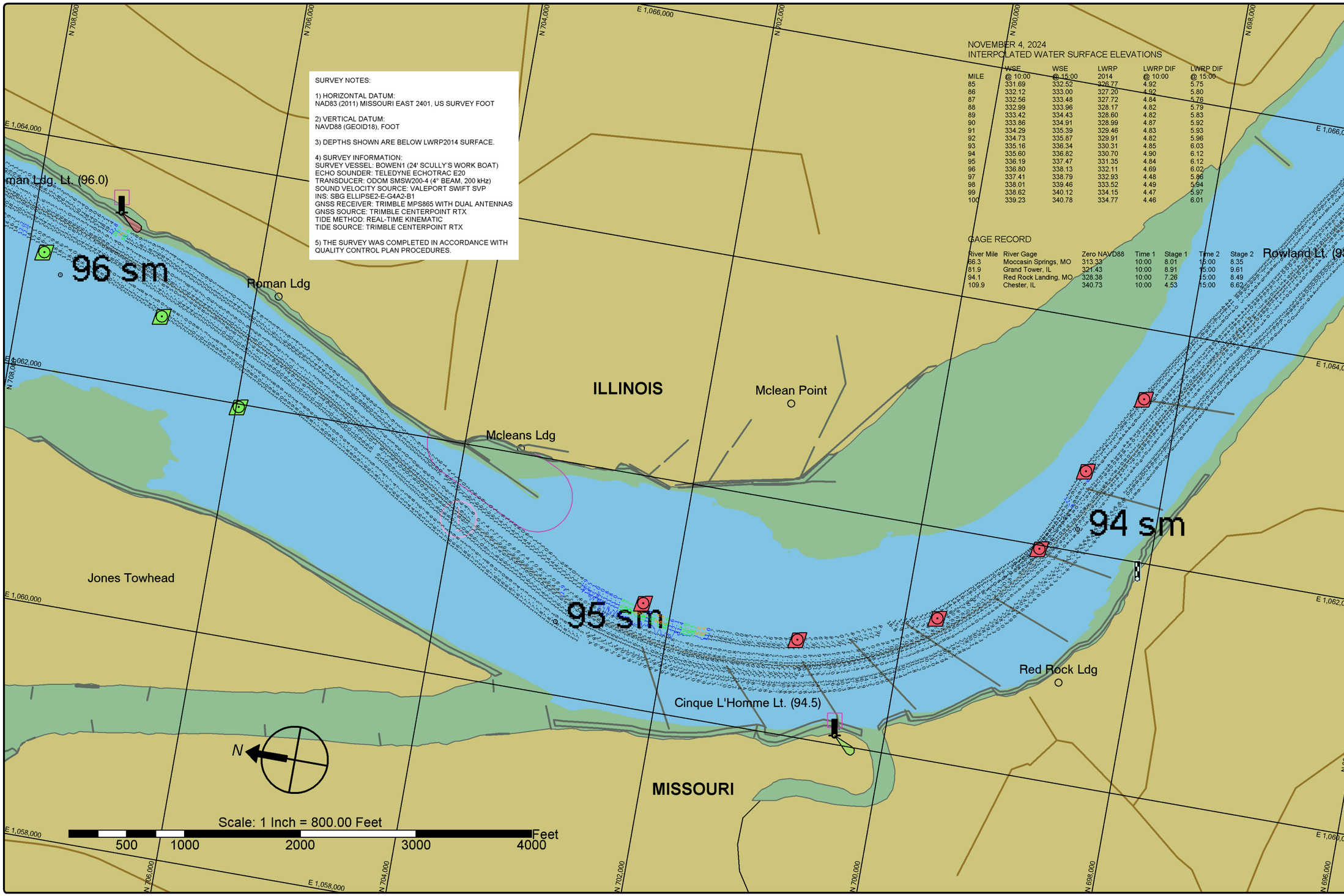
Approved: FIELD CARTOGRAPHER
Approved: CIVIL ENGINEERING TECHNICIAN
Approved: ASST. CHIEF OF SURVEY
Approved: CHIEF OF SURVEY
Date:

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

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
CHANNEL PATROL
RIVER MILES 95.8 - 98.0

SHEET NO.
1 OF 1



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 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
85	331.69	332.52	326.77	4.92	5.75
86	332.12	333.00	327.20	4.92	5.80
87	332.56	333.48	327.72	4.84	5.76
88	332.99	333.96	328.17	4.82	5.79
89	333.42	334.43	328.60	4.82	5.83
90	333.86	334.91	328.99	4.87	5.92
91	334.29	335.39	329.46	4.83	5.93
92	334.73	335.87	329.91	4.82	5.96
93	335.16	336.34	330.31	4.85	6.03
94	335.60	336.82	330.70	4.90	6.12
95	336.19	337.47	331.35	4.84	6.12
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97	337.41	338.79	332.93	4.48	5.86
98	338.01	339.46	333.52	4.49	5.94
99	338.62	340.12	334.15	4.47	5.97
100	339.23	340.78	334.77	4.46	6.01

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
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94.1	Red Rock Landing, MO	328.38	10:00	7.26	15:00	8.49
109.9	Chester, IL	340.73	10:00	4.53	15:00	6.62

St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

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
CHANNEL PATROL
RIVER MILES 93.5 - 95.8

SHEET NO.
1 OF 1

SURVEY NOTES:

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

2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT

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TIDE METHOD: REAL-TIME KINEMATIC
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NOVEMBER 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
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GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
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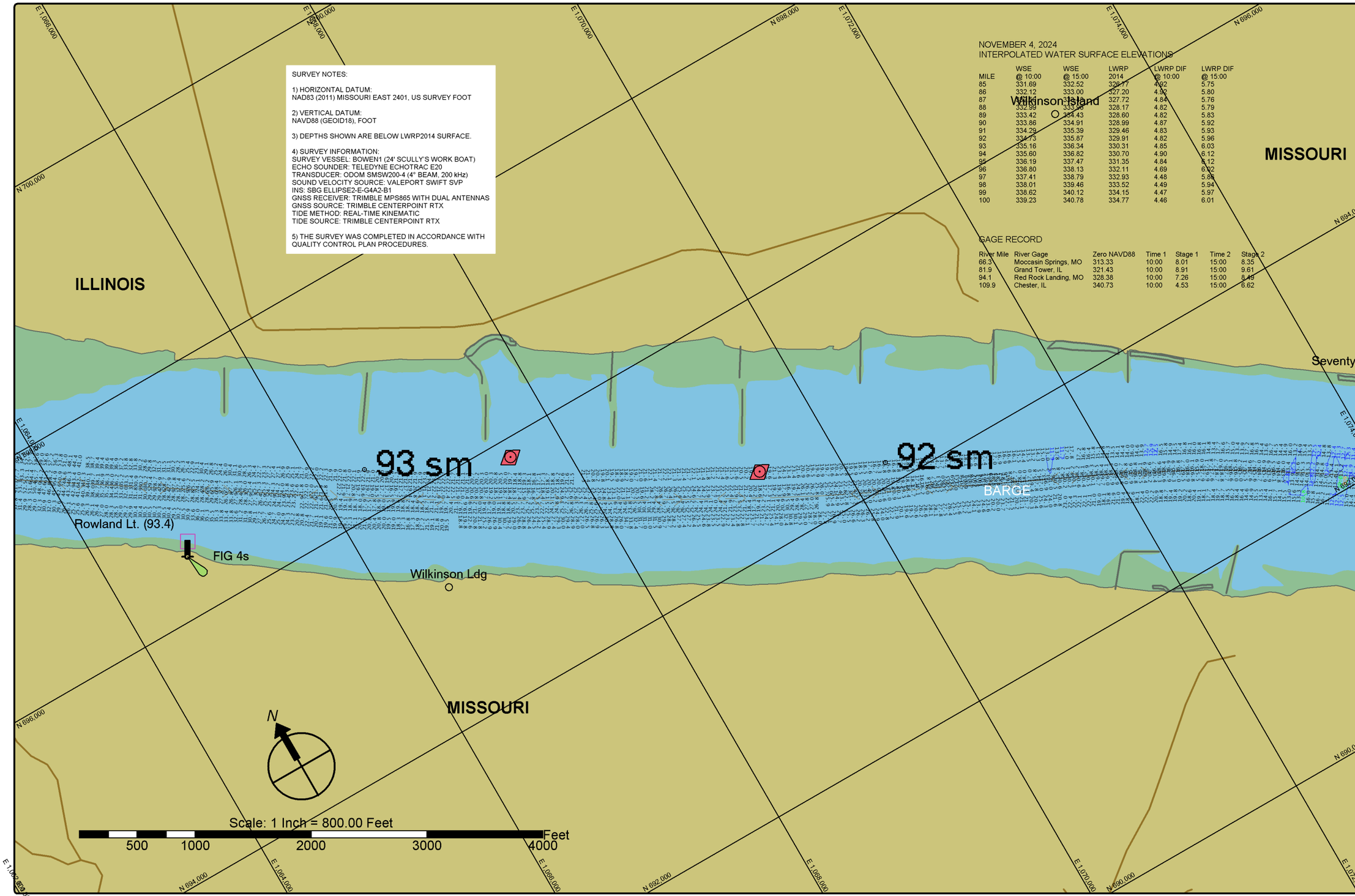

St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

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

CHANNEL PATROL
RIVER MILES 91.2 - 93.5

SHEET NO.
1 OF 1

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.

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TRANSDUCER: ODOM SMSW200-4 (4° BEAM, 200 kHz)
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GNSS SOURCE: TRIMBLE CENTERPOINT RTX
TIDE METHOD: REAL-TIME KINEMATIC
TIDE SOURCE: TRIMBLE CENTERPOINT RTX

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NOVEMBER 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

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92	334.73	335.87	329.91	4.82	5.96
93	335.16	336.34	330.31	4.85	6.03
94	335.60	336.82	330.70	4.90	6.12
95	336.19	337.47	331.35	4.84	6.12
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98	338.01	339.45	333.52	4.49	5.94
99	338.62	340.12	334.15	4.47	5.97
100	339.23	340.78	334.77	4.46	6.01

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
66.3	Moccasin Springs, MO	313.33	10:00	8.01	15:00	8.35
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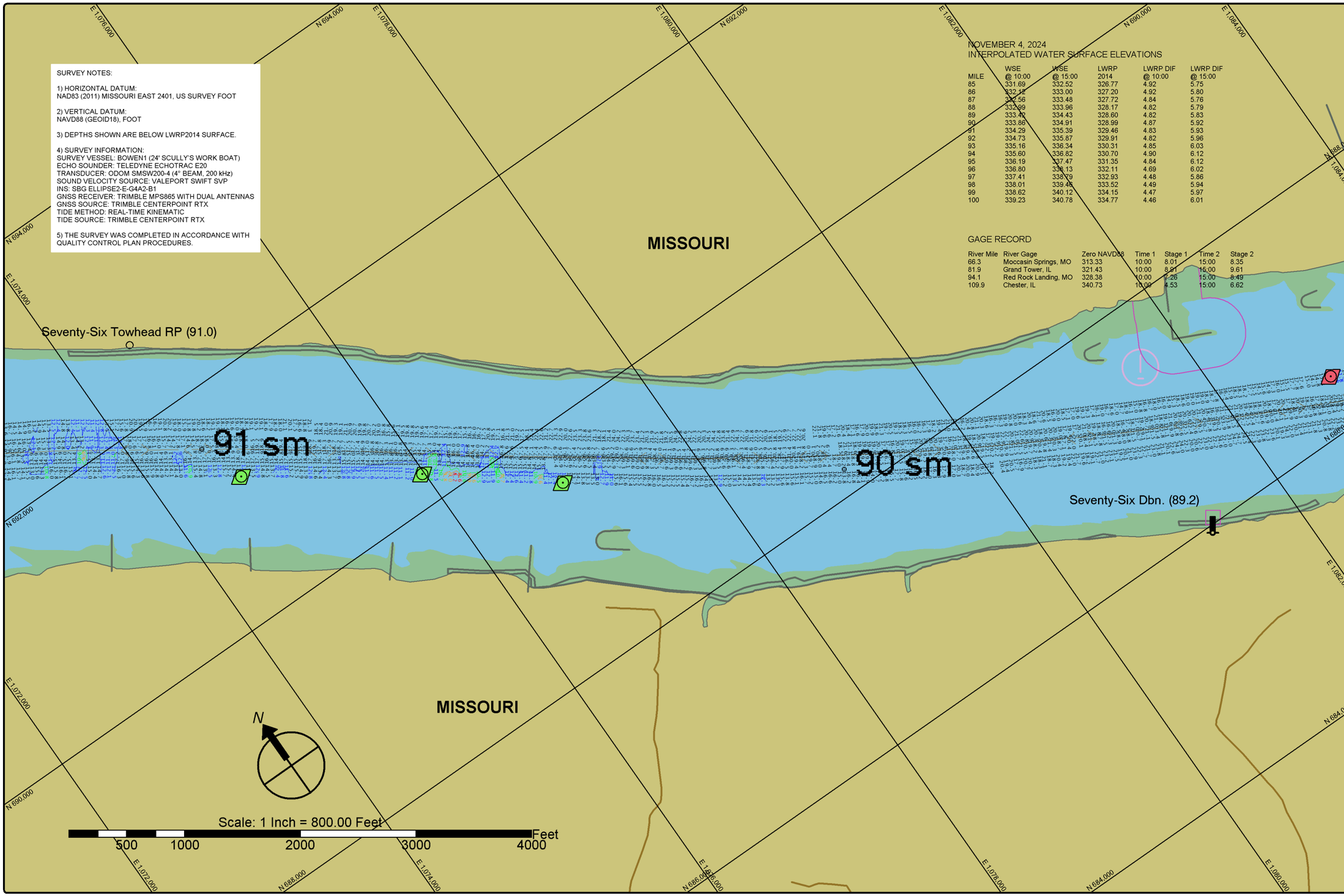


St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

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

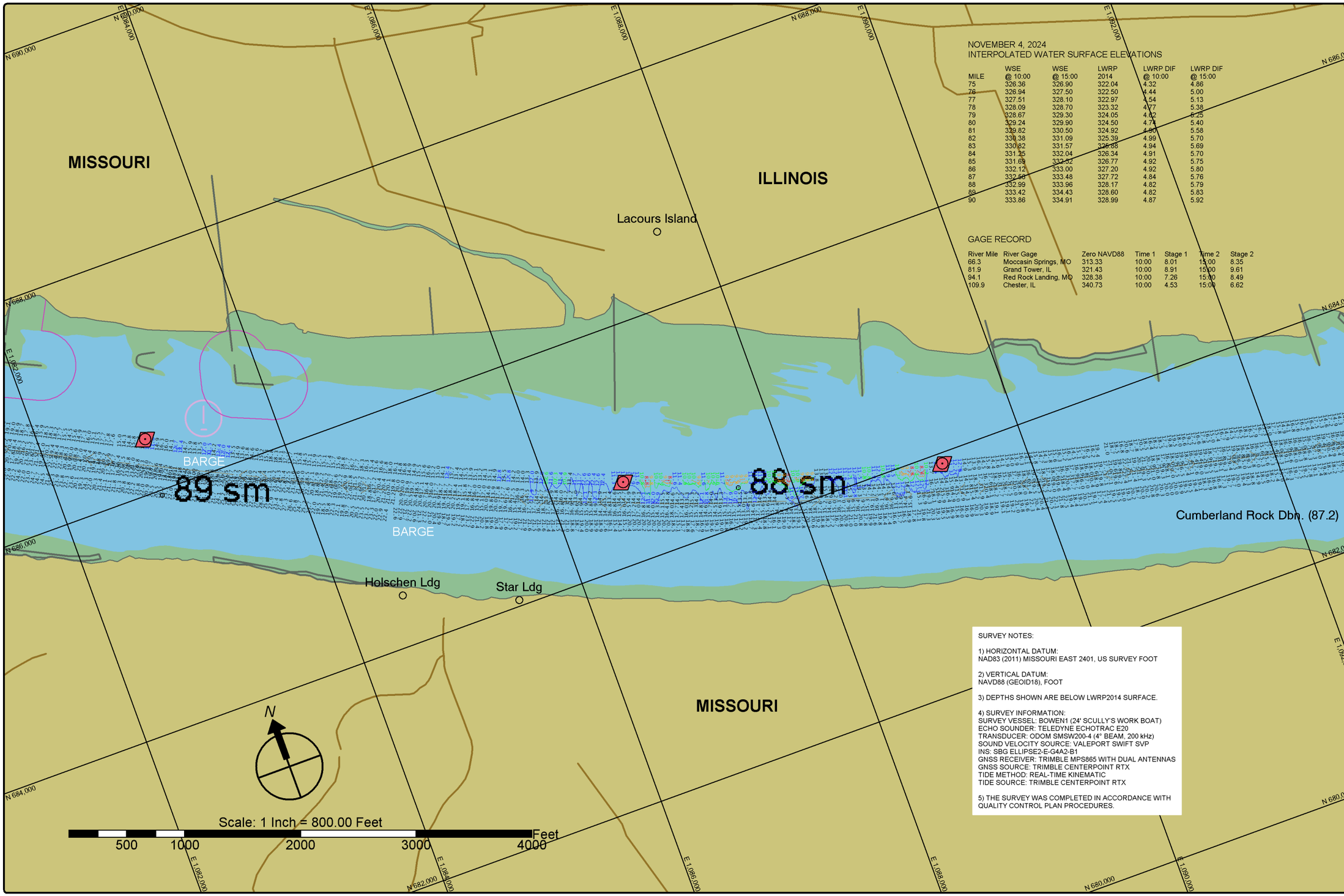
U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT
ST. LOUIS, MISSOURI

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

CHANNEL PATROL
RIVER MILES 89.1 - 91.1

SHEET NO.
1 OF 1



NOVEMBER 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
75	326.36	326.90	322.04	4.32	4.86
76	326.94	327.50	322.50	4.44	5.00
77	327.51	328.10	322.97	4.54	5.13
78	328.09	328.70	323.32	4.77	5.38
79	328.67	329.30	324.05	4.62	5.25
80	329.24	329.90	324.50	4.74	5.40
81	329.82	330.50	324.92	4.90	5.58
82	330.38	331.09	325.39	4.99	5.70
83	330.82	331.57	326.88	4.94	5.69
84	331.25	332.04	326.34	4.91	5.70
85	331.69	332.52	326.77	4.92	5.75
86	332.12	333.00	327.20	4.92	5.80
87	332.56	333.48	327.72	4.84	5.76
88	332.99	333.96	328.17	4.82	5.79
89	333.42	334.43	328.60	4.82	5.83
90	333.86	334.91	328.99	4.87	5.92

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
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SURVEY NOTES:

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NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT

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GNSS SOURCE: TRIMBLE CENTERPOINT RTX
TIDE METHOD: REAL-TIME KINEMATIC
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St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

Approved: FIELD CARTOGRAPHER
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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
CHANNEL PATROL
RIVER MILES 87.1 - 89.1

SHEET NO.
1 OF 1

SURVEY NOTES:

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

2) VERTICAL DATUM:
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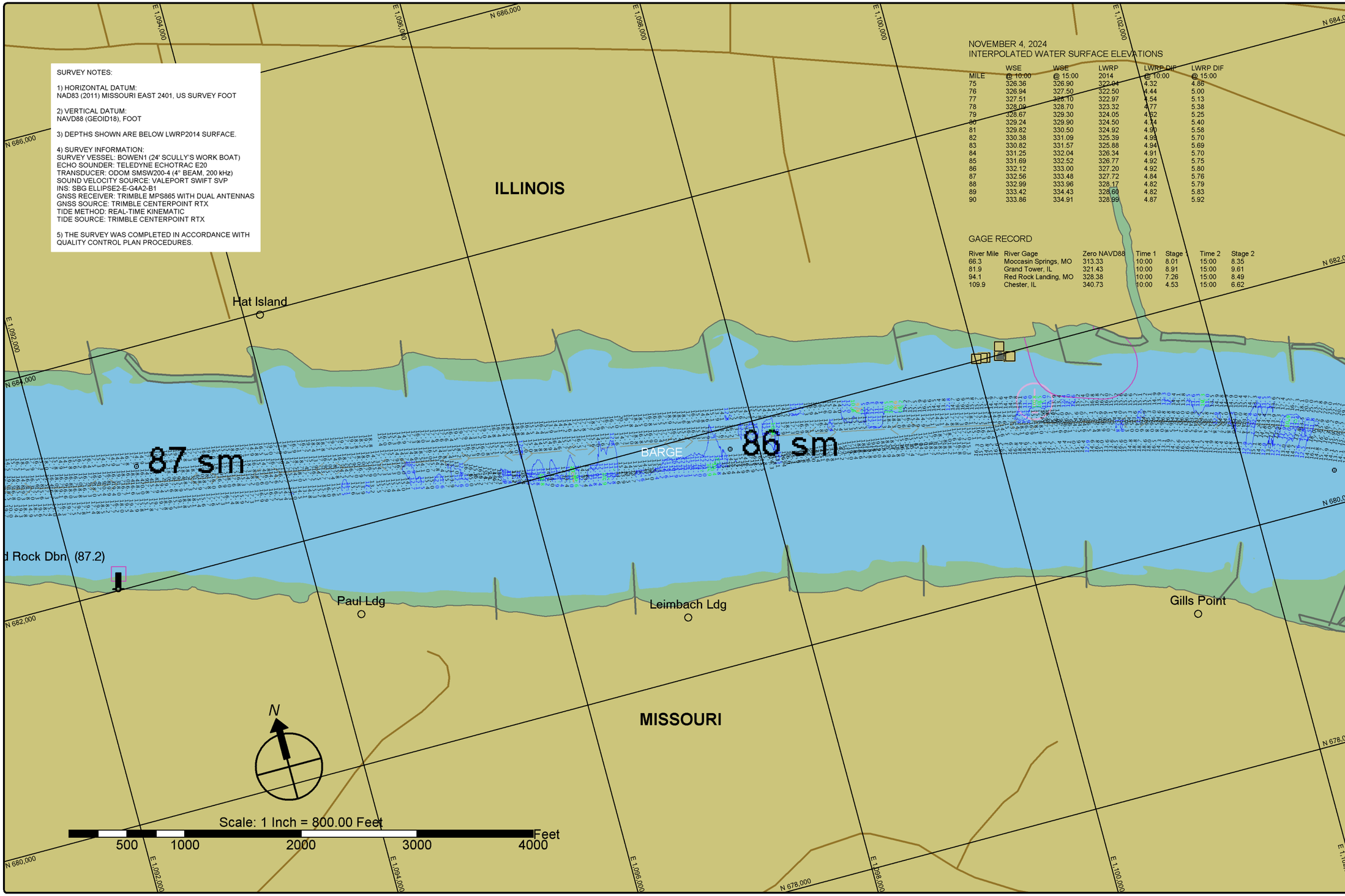
NOVEMBER 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
75	326.36	326.90	322.04	4.32	4.86
76	326.94	327.50	322.50	4.44	5.00
77	327.51	328.10	322.97	4.54	5.13
78	328.09	328.70	323.32	4.77	5.38
79	328.67	329.30	324.05	4.62	5.25
80	329.24	329.90	324.50	4.74	5.40
81	329.82	330.50	324.92	4.90	5.58
82	330.38	331.09	325.39	4.99	5.70
83	330.82	331.57	325.88	4.94	5.69
84	331.25	332.04	326.34	4.91	5.70
85	331.69	332.52	326.77	4.92	5.75
86	332.12	333.00	327.20	4.92	5.80
87	332.56	333.48	327.72	4.84	5.76
88	332.99	333.96	328.17	4.82	5.79
89	333.42	334.43	328.60	4.82	5.83
90	333.86	334.91	328.99	4.87	5.92

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
66.3	Moccasin Springs, MO	313.33	10:00	8.01	15:00	8.35
81.9	Grand Tower, IL	321.43	10:00	8.91	15:00	9.61
94.1	Red Rock Landing, MO	328.38	10:00	7.26	15:00	8.49
109.9	Chester, IL	340.73	10:00	4.53	15:00	6.62



St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

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

CHANNEL PATROL
RIVER MILES 85.0 - 87.1

SHEET NO.
1 OF 1

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 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
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76	326.94	327.50	322.50	4.44	5.00
77	327.51	328.10	322.97	4.54	5.13
78	328.09	328.70	323.32	4.77	5.38
79	328.67	329.30	324.05	4.62	5.25
80	329.24	329.90	324.50	4.74	5.40
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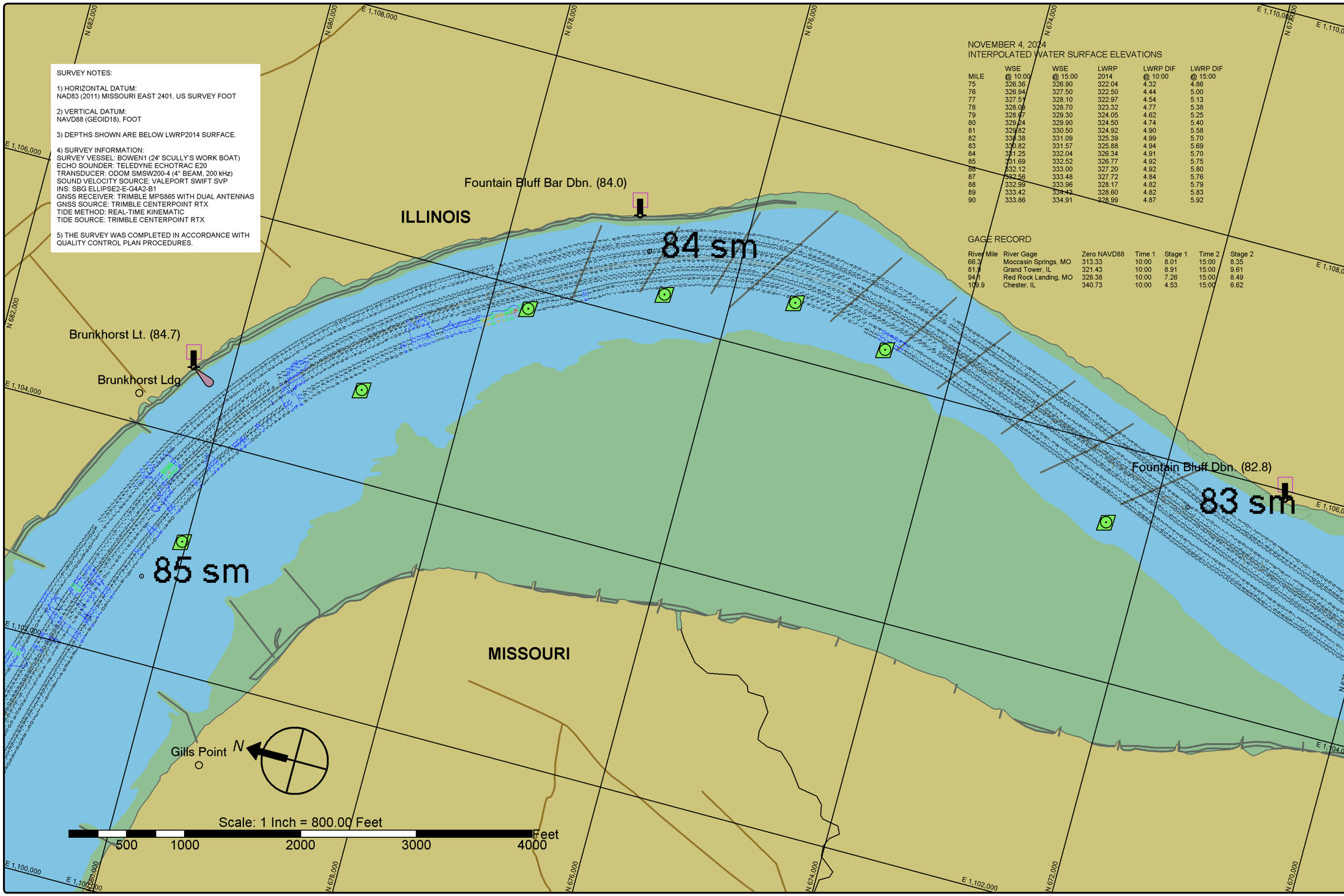

St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

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 MEDAR DRIVE
CAPE GIRARDEAU, MO 63701

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
CHANNEL PATROL
RIVER MILES 82.7 - 85.0

SHEET NO.
1 OF 1

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 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
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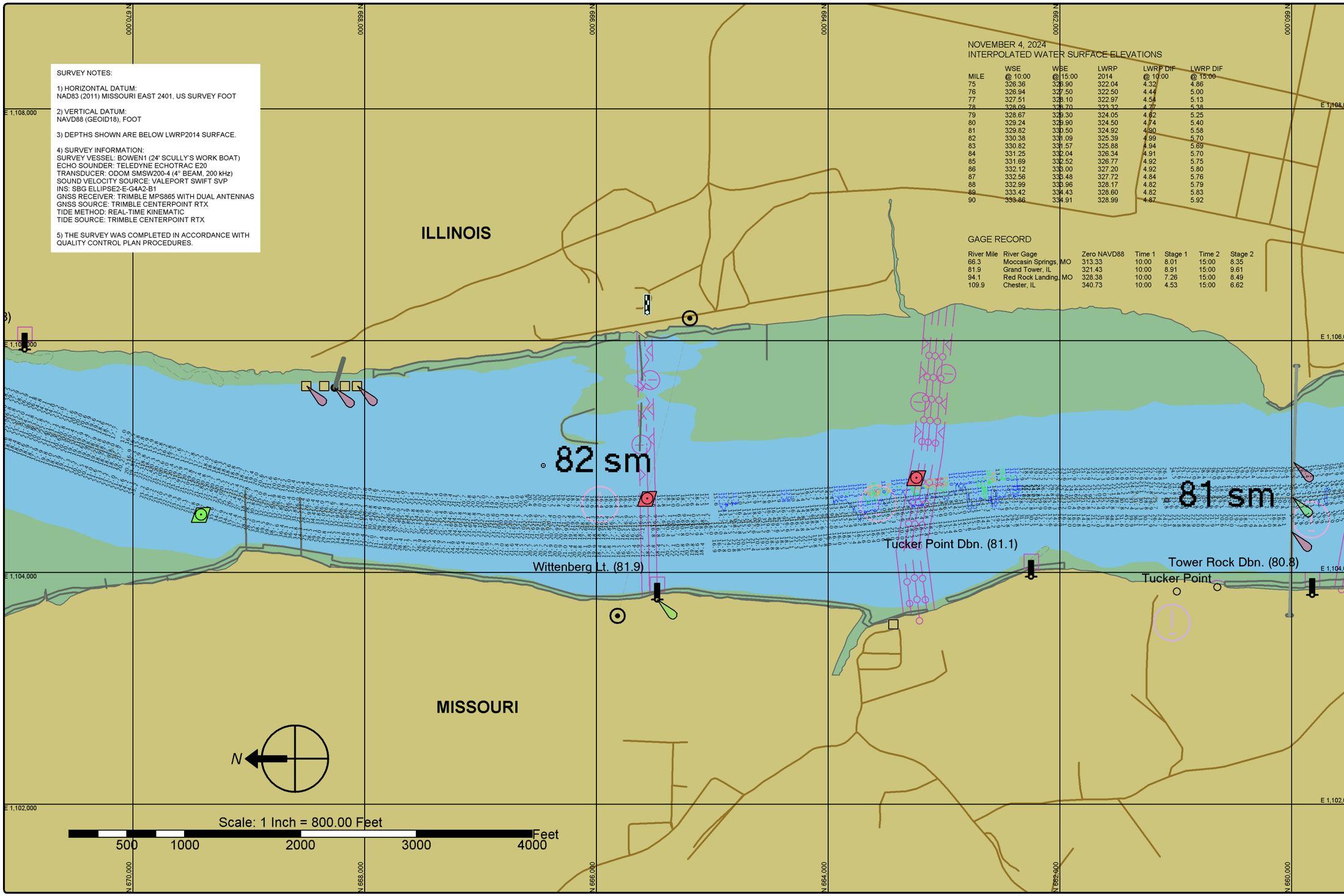


St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0029

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

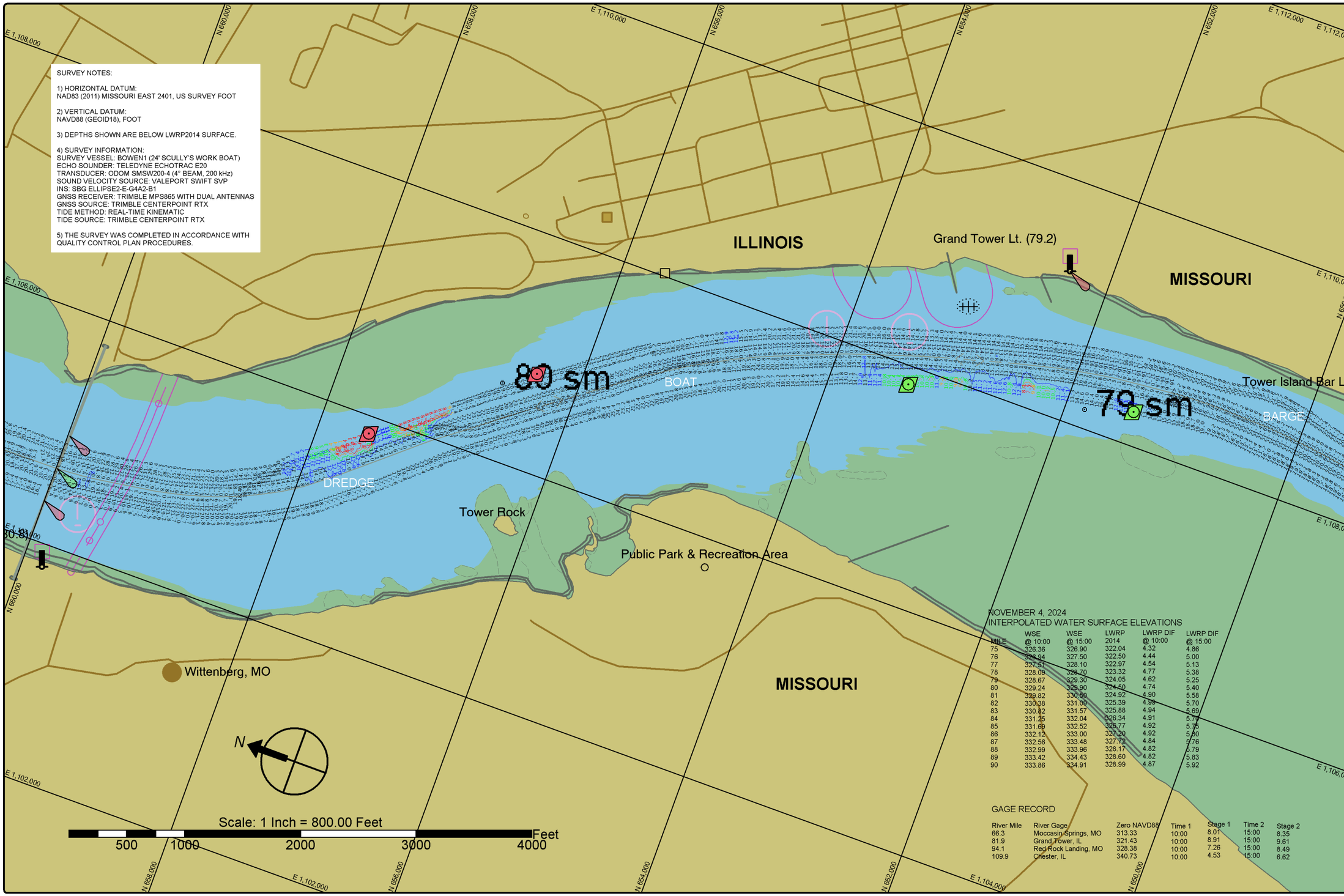
Approved: FIELD CARTOGRAPHER
Approved: CIVIL ENGINEERING TECHNICIAN
Approved: ASST. CHIEF OF SURVEY
Approved: CHIEF OF SURVEY
Date:

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
CHANNEL PATROL
RIVER MILES 80.7 - 82.7

SHEET NO.
1 OF 1



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 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 10:00	WSE @ 15:00	LWRP 2014	LWRP DIF @ 10:00	LWRP DIF @ 15:00
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78	328.09	328.70	323.32	4.77	5.38
79	328.67	329.30	324.05	4.62	5.25
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84	331.25	332.04	326.34	4.91	5.70
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GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
66.3	Moccasin Springs, MO	313.33	10:00	8.01	15:00	8.35
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94.1	Red Rock Landing, MO	328.38	10:00	7.26	15:00	8.49
109.9	Chester, IL	340.73	10:00	4.53	15:00	6.62

St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

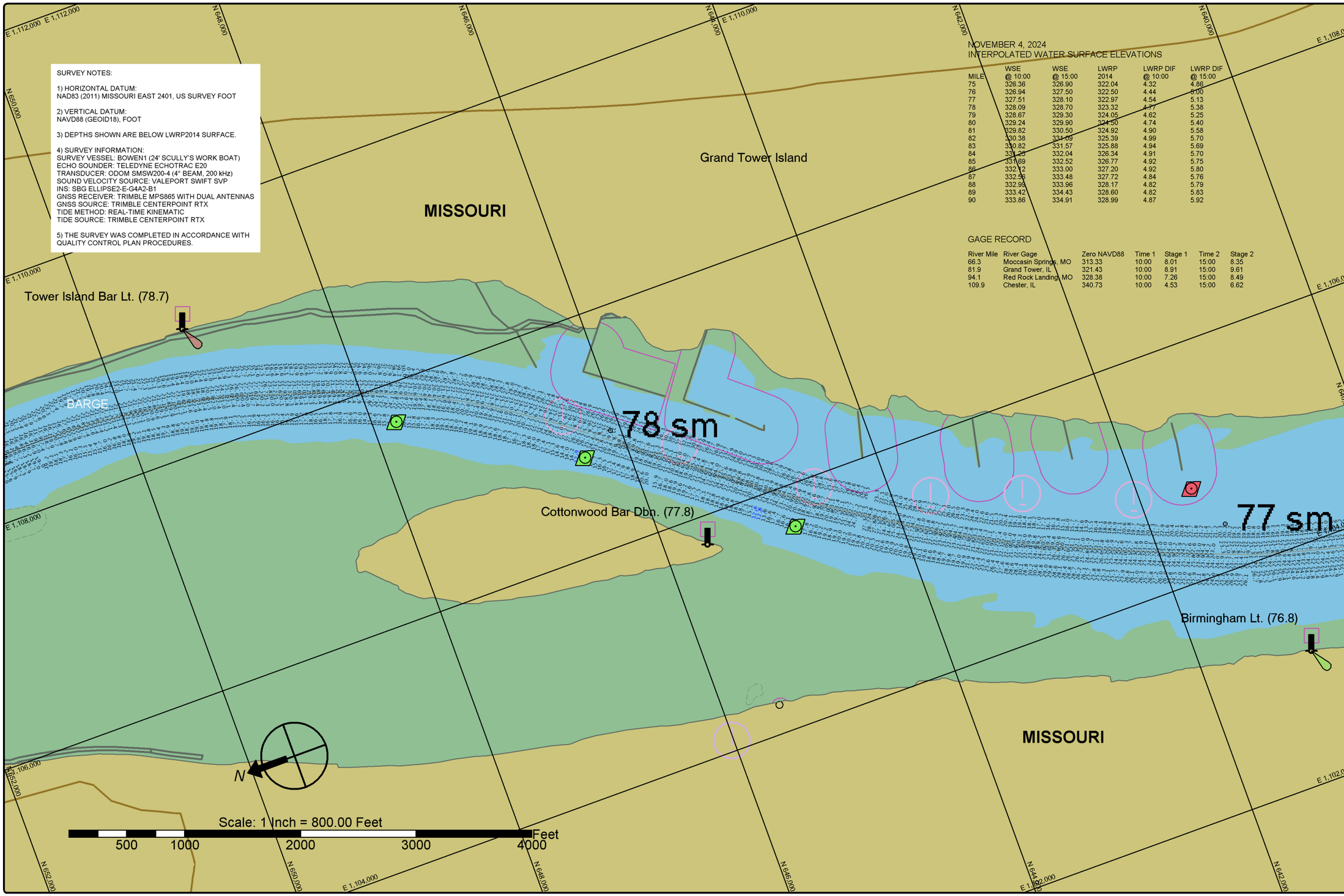
Approved: FIELD CARTOGRAPHER
Approved: CIVIL ENGINEERING TECHNICIAN
Approved: ASST. CHIEF OF SURVEY
Approved: CHIEF OF SURVEY
Date:

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

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
CHANNEL PATROL
RIVER MILES 78.7 - 80.7

SHEET NO.
1 OF 1



SURVEY NOTES:

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

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TIDE METHOD: REAL-TIME KINEMATIC
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NOVEMBER 4, 2024
INTERPOLATED WATER SURFACE ELEVATIONS

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St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

FILE NO.: 100_075K0424
REQUEST NO.: W912P924F0039

SCALE:
1" = 800' (ANSI B)

FIELD BOOKS:

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Approved: CIVIL ENGINEERING TECHNICIAN
Approved: ASST. CHIEF OF SURVEY
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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
CHANNEL PATROL
RIVER MILES 76.8 - 78.6

SHEET NO.
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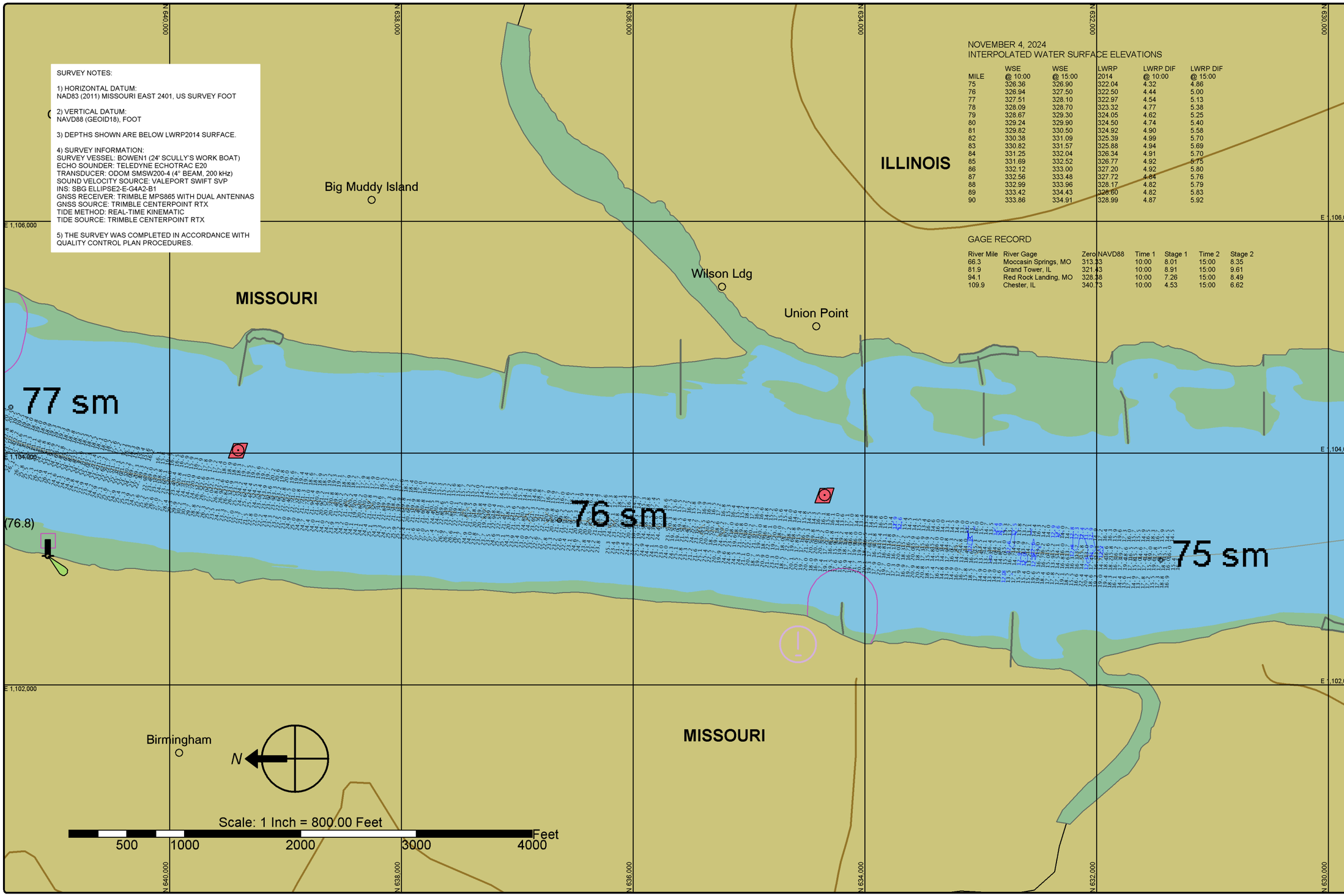

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NOVEMBER 4, 2024
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St. Louis District

DATES OF SURVEY:
NOVEMBER 4, 2024

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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
CHANNEL PATROL
RIVER MILES 74.7 - 76.8

SHEET NO.
1 OF 1