

SEE PLATE NO. 33		U.S. ARMY, ENGINEER, DIVISION CORPS OF ENGINEERS ST. LOUIS, MISSOURI		Survey Date: NOVEMBER 4, 1915
		Drawn by:	Checked by:	Reviewed by:
			X	X
UPPER MISSISSIPPI RIVER BASIN MISSISSIPPI RIVER		SUBMITTED:		APPROVED:
		X		X
		Plot date:		FILE NAME:
				ENGINEER, DISTRICT #BX55050605#BX5505060500000

120 0 120 240 METERS
400 0 400 800 FEET

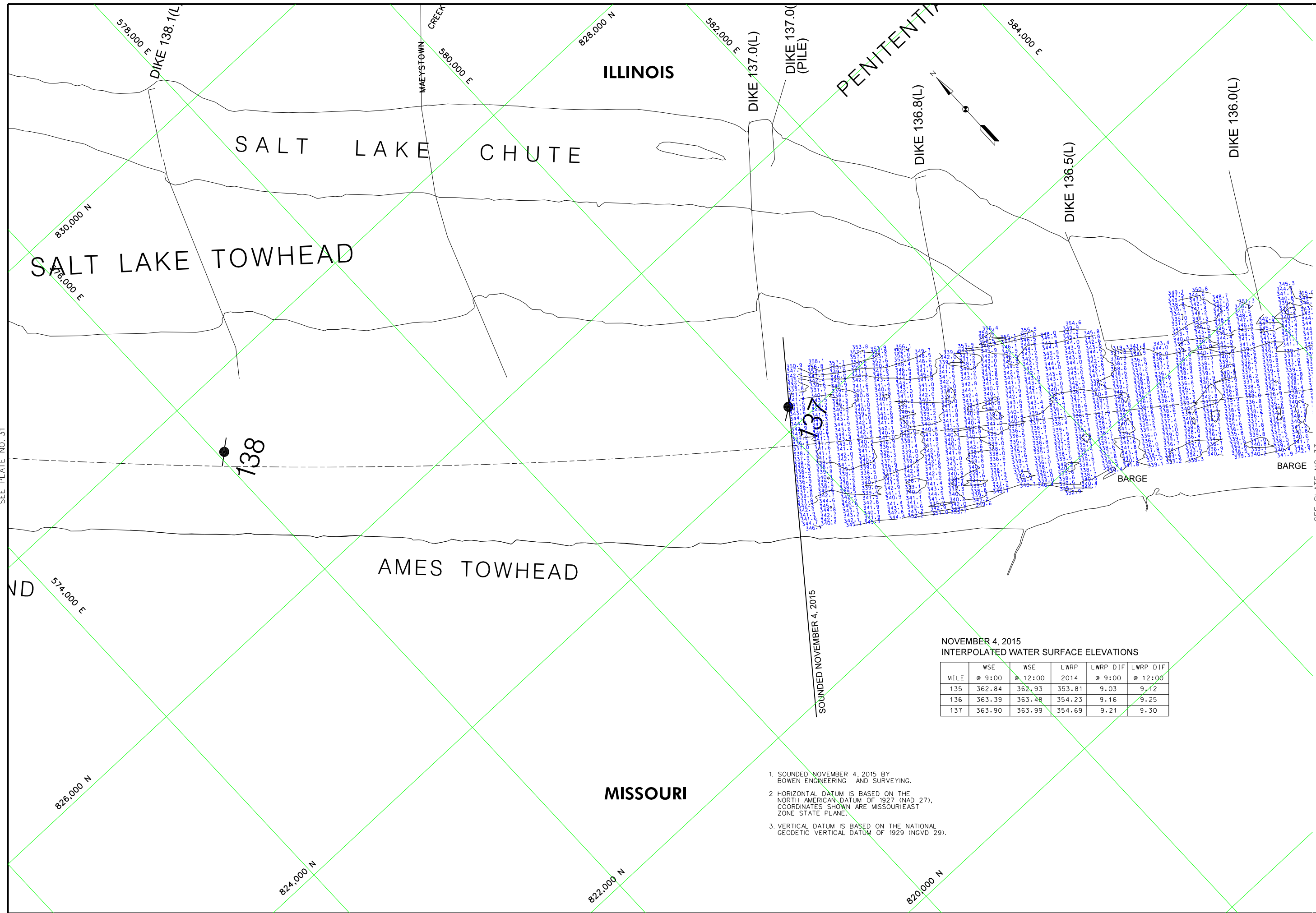
THE INFORMATION DERIVED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

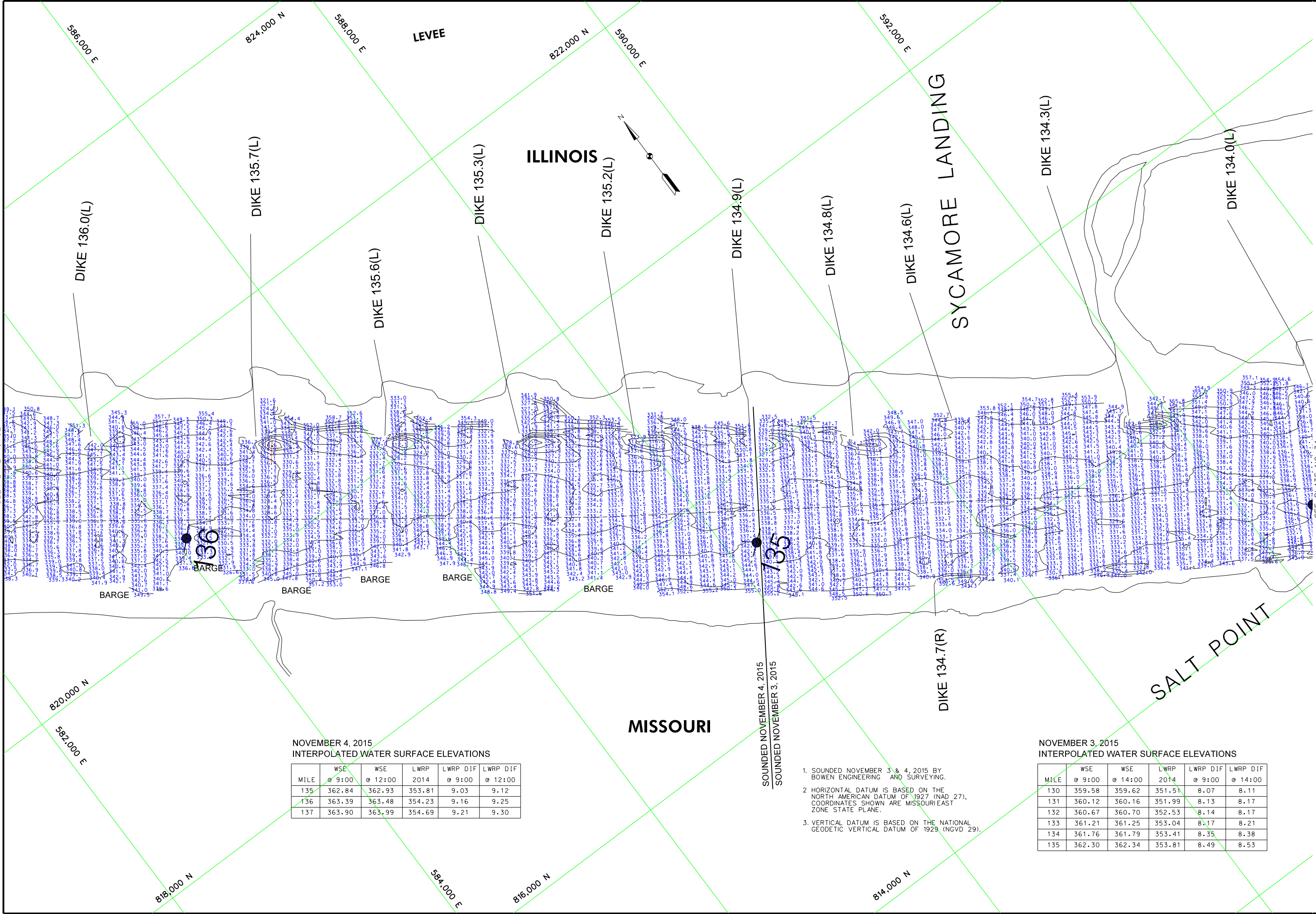
HYDROGRAPHIC SURVEYS

RIVER MILES 136.2 - 138.2

PLATE
NUMBER

32





NOVEMBER 4, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 12:00	LWRP 2014 @ 9:00	LWRP DIF @ 9:00	LWRP DIF @ 12:00
135	362.84	362.93	353.81	9.03	9.12
136	363.39	363.48	354.23	9.16	9.25
137	363.90	363.99	354.69	9.21	9.30

NOVEMBER 3, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014 @ 9:00	LWRP DIF @ 9:00	LWRP DIF @ 14:00
130	359.58	359.62	351.51	8.07	8.11
131	360.12	360.16	351.99	8.13	8.17
132	360.67	360.70	352.53	8.14	8.17
133	361.21	361.25	353.04	8.17	8.21
134	361.76	361.79	353.41	8.35	8.38
135	362.30	362.34	353.81	8.49	8.53

1. SOUNDED NOVEMBER 3 & 4, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

US Army Corps of Engineers
St. Louis District

SEE PLATE NO. 32

SEE PLATE NO. 34

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

NOVEMBER 3 & 4, 2015

Drawn by: ☒ Cdd by: ☒ Reviewed by: ☒

SUBMITTED: ☒ APPROVED: ☒

Plot date: File name:

120 0 120 240 METERS

400 0 400 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE BY THE DISTRICT AND IS NOT TO BE CONSIDERED A GUARANTEE OF THE DATA OR CONCLUSIONS THEREOF.

HYDROGRAPHIC SURVEYS

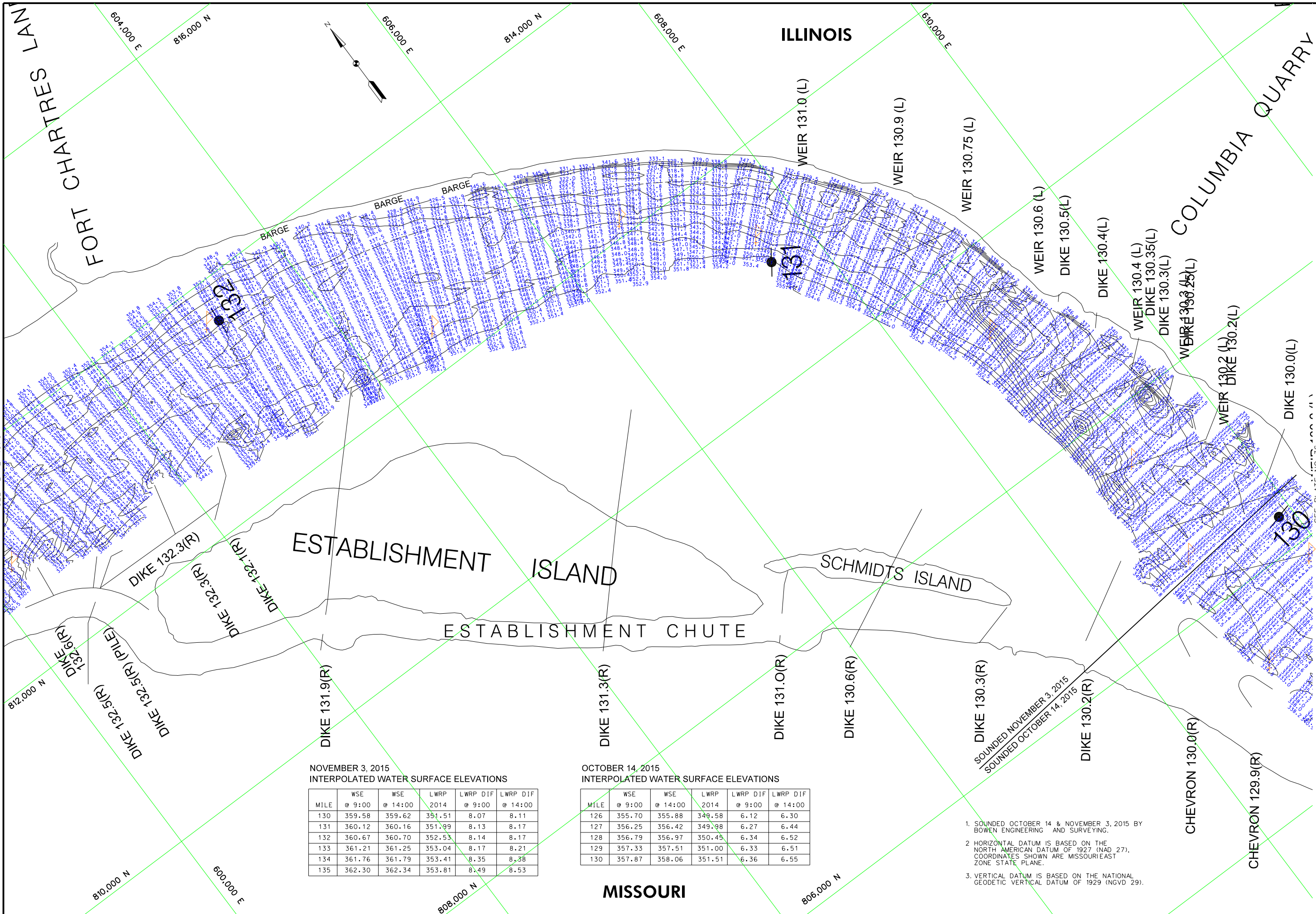
RIVER MILES 134.2 - 136.2

PLATE NUMBER

33

	BISHOPS LANDING, MO	CHESTER, IL	BROCKEY'S LANDING, MO	ST. LOUIS, MO
ZERO NGVD	334.11	341.05	357.78	379.84
MILE	300.8	300.9	335.0	379.6
LWRP 2014	335.56	340.85	354.19	376.74
03 NOV 2015	X	X	X	X
04 NOV 2015	X	X	X	X

7,379,900 7,631,400	5,079,900 5,304,400	5,819,900 5,702,000	5,819,900 5,861,200
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NOVEMBER 3, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
130	359.58	359.62	351.51	8.07	8.11
131	360.12	360.16	351.99	8.13	8.17
132	360.67	360.70	352.53	8.14	8.17
133	361.21	361.25	353.04	8.17	8.21
134	361.76	361.79	353.41	8.35	8.38
135	362.30	362.34	353.81	8.49	8.53

OCTOBER 14, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
126	355.70	355.88	349.58	6.12	6.30
127	356.25	356.42	349.98	6.27	6.44
128	356.79	356.97	350.45	6.34	6.52
129	357.33	357.51	351.00	6.33	6.51
130	357.87	358.06	351.51	6.36	6.55

1. SOUNDED OCTOBER 14 & NOVEMBER 3, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

US Army Corps
of Engineers
St. Louis District

RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER ILL	BRICKY'S LANDING, MO
ZERO N.G.T.D.	328.92	334.11	337.78
MILE	34.1	300.8	109.9
LWRP 2014	331.05	335.56	340.85
14 OCT 2015	X	X	5.287900 5.071400 3.359900 3.341400
03 NOV 2015	X	X	7.571900 7.531400 5.071900 5.011400

Surveyed by: BOWEN ENGINEERING	Survey Date: OCT 14 & NOV 3, 2015	Reviewed by: X
Drawn by: X	Checked by: X	APPROVED: X
SUBMITTED: X		APPROVED: X
Plot date: File name:		REVISIONS/REPLACEMENTS

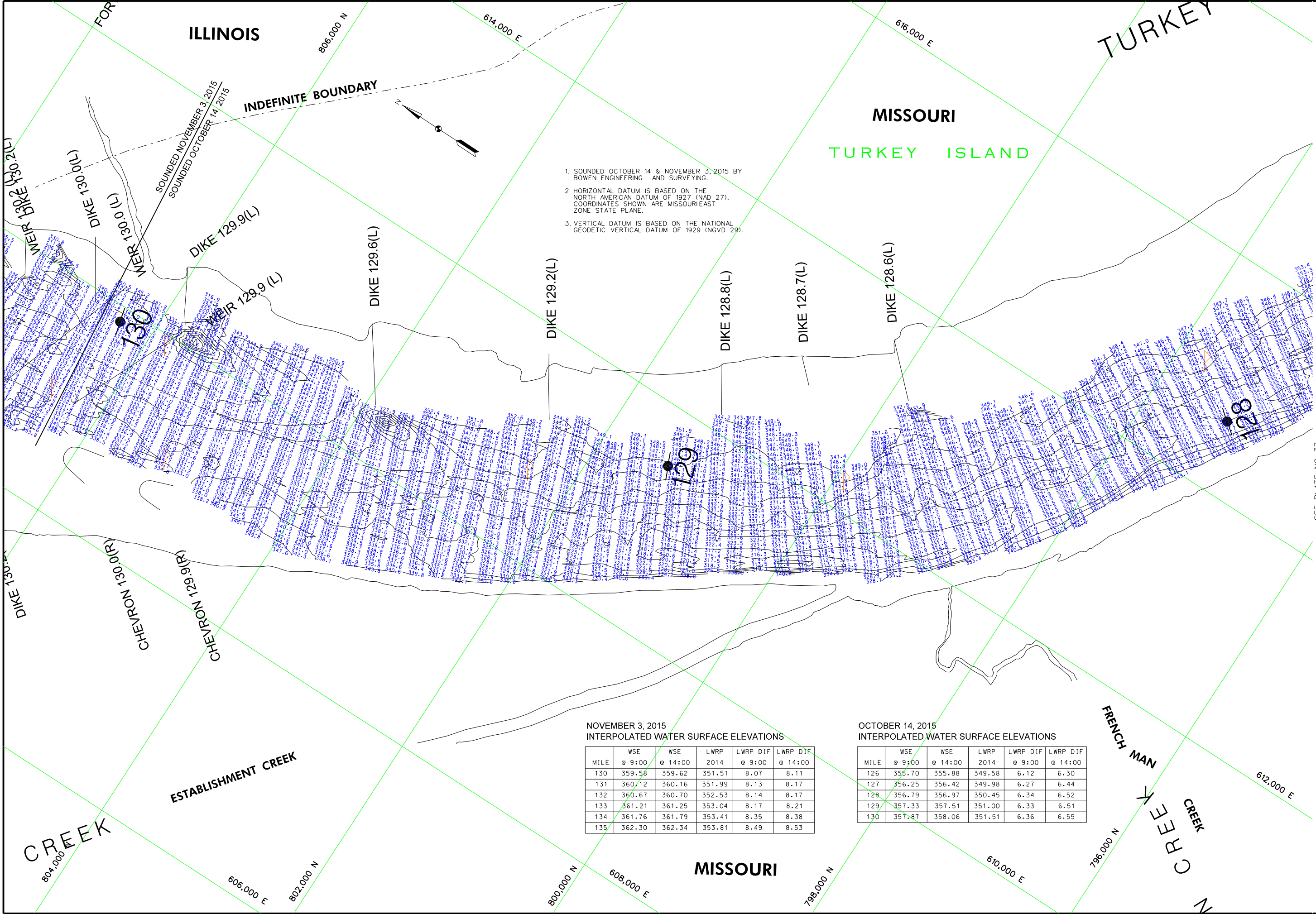
U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

HYDROGRAPHIC SURVEYS
RIVER MILES 130.0 - 132.2

PLATE
NUMBER

35



- 1. SOUNDED OCTOBER 14 & NOVEMBER 3, 2015 BY BOWEN ENGINEERING AND SURVEYING.
- 2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
- 3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

NOVEMBER 3, 2015 INTERPOLATED WATER SURFACE ELEVATIONS					
MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
130	359.58	359.62	351.51	8.07	8.11
131	360.12	360.16	351.99	8.13	8.17
132	360.67	360.70	352.53	8.14	8.17
133	361.21	361.25	353.04	8.17	8.21
134	361.76	361.79	353.41	8.35	8.38
135	362.30	362.34	353.81	8.49	8.53

OCTOBER 14, 2015 INTERPOLATED WATER SURFACE ELEVATIONS					
MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
126	355.70	355.88	349.58	6.12	6.30
127	356.25	356.42	349.98	6.27	6.44
128	356.79	356.97	350.45	6.34	6.52
129	357.33	357.51	351.00	6.33	6.51
130	357.87	358.06	351.51	6.36	6.55

US Army Corps
of Engineers
St. Louis District

CASE RECORD					
RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER ILL	BRICKY'S LANDING, MO		
328.92	334.31	341.05	357.78		
34.2	300.8	109.9	136.0		
331.05	335.56	340.85	354.19		
14 OCT 2015	X	X	X		
03 NOV 2015	X	X	X		

U.S. ARMY ENGINEER DIVISION CORPS OF ENGINEERS ST. LOUIS, MISSOURI	Survey Date: OCT. 14 & NOV. 3, 2015
UPPER MISSISSIPPI RIVER BASIN MISSISSIPPI RIVER	Drawn by: X
	Reviewed by: X
	Submitted: X
	APPROVED: X
Plot Date: File Name:	PROJECT NUMBER: PROFESSIONAL REGISTRATION:

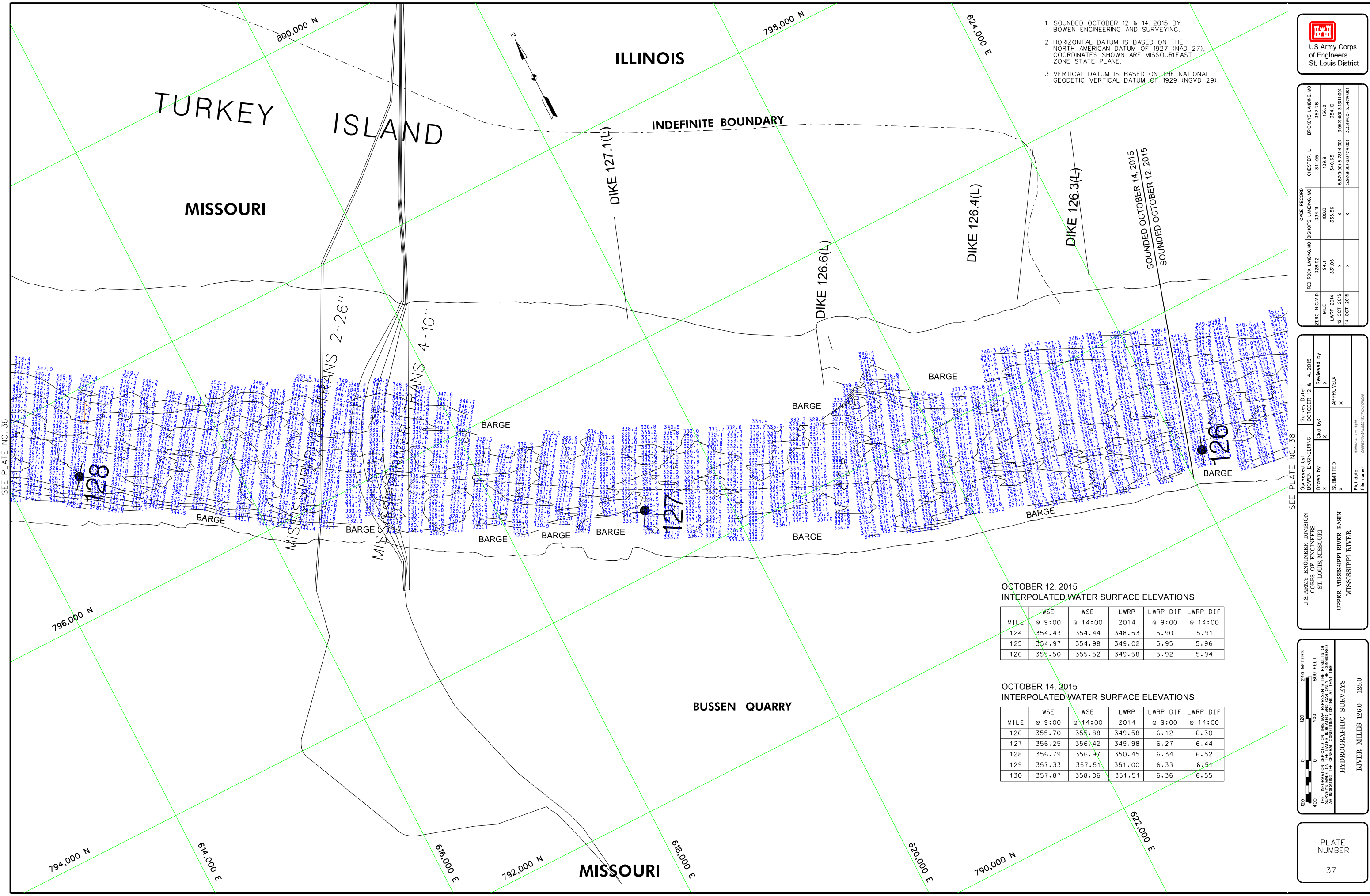
120
400
800
1200
240 METERS

400
800
1200
240 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND SHOULD NOT BE CONSIDERED GUARANTYING THE GENERAL ACCURACY AND RELIABILITY OF THE DATA.

HYDROGRAPHIC SURVEYS
RIVER MILES 128.0 - 130.0

PLATE
NUMBER
36



- 1. SOUNDED OCTOBER 12 & 14, 2015 BY BOWEN ENGINEERING AND SURVEYING.
- 2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
- 3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).



CAGE RECORD				
RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER I.	BRICKY'S LANDING, MO	
ZERO NGVD	328.92	334.31	341.05	357.78
MILE	54.2	100.8	109.9	136.0
LWRP 2014	331.05	335.56	340.85	354.19
12 OCT 2015	X	X	X	3.05900 3.334400
14 OCT 2015	X	X	X	3.52900 3.541400

Survey Date: OCTOBER 12 & 14, 2015	
Drawn by: X	Reviewed by: X
Submitted: X	APPROVED: X
Plot Date: 10/14/2015	File Name: 101014001.DWG

U.S. ARMY ENGINEER DIVISION CORPS OF ENGINEERS ST. LOUIS, MISSOURI	UPPER MISSISSIPPI RIVER BASIN MISSISSIPPI RIVER
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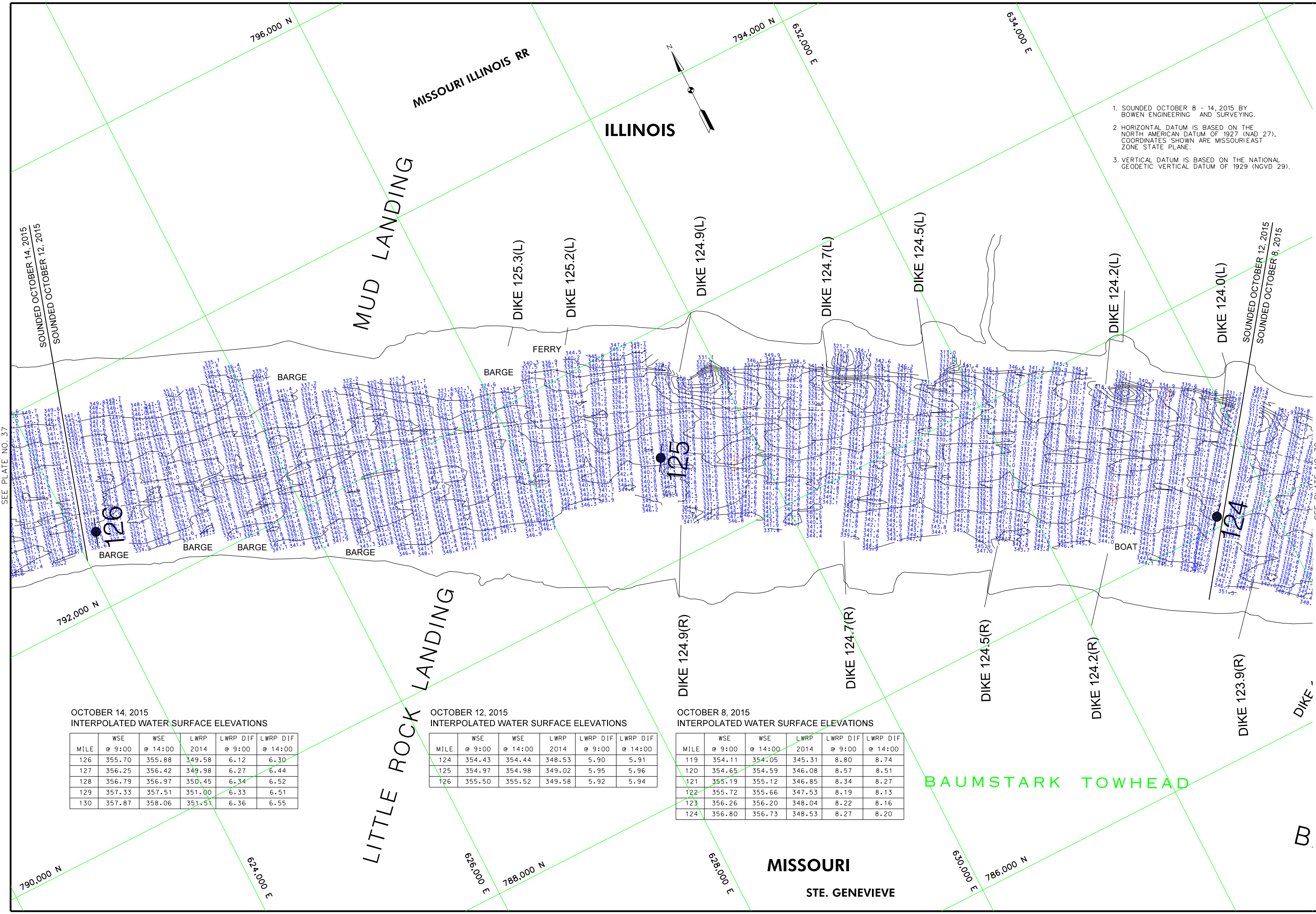
120 400 800 1200 1600 2000 2400 METERS	0 400 800 1200 1600 2000 2400 FEET	THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND SHOULD NOT BE CONSIDERED AS A GUARANTEE OF THE DATA OR THE ACCURACY OF THE DATA.	HYDROGRAPHIC SURVEYS RIVER MILES 126.0 - 128.0
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OCTOBER 12, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
124	354.43	354.44	348.53	5.90	5.91
125	354.97	354.98	349.02	5.95	5.96
126	355.50	355.52	349.58	5.92	5.94

OCTOBER 14, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
126	355.70	355.88	349.58	6.12	6.30
127	356.25	356.42	349.98	6.27	6.44
128	356.79	356.97	350.45	6.34	6.52
129	357.33	357.51	351.00	6.33	6.51
130	357.87	358.06	351.51	6.36	6.55



OCTOBER 14, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
126	355.70	355.88	349.58	6.12	6.30
127	356.25	356.42	349.98	6.27	6.44
128	356.79	356.97	350.45	6.34	6.52
129	357.33	357.51	351.00	6.33	6.51
130	357.87	358.06	351.51	6.36	6.55

OCTOBER 12, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
124	354.43	354.44	348.53	5.90	5.91
125	354.97	354.98	349.02	5.95	5.96
126	355.50	355.52	349.58	5.92	5.94

OCTOBER 8, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
119	354.11	354.05	345.31	8.80	8.74
120	354.65	354.59	346.08	8.57	8.51
121	355.19	355.12	346.85	8.34	8.27
122	355.72	355.66	347.53	8.19	8.13
123	356.26	356.20	348.04	8.22	8.16
124	356.80	356.73	348.53	8.27	8.20

- 1. SOUNDED OCTOBER 8 - 14, 2015 BY BOWEN ENGINEERING AND SURVEYING.
- 2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI/EAST ZONE STATE PLANE.
- 3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

US Army Corps of Engineers
St. Louis District

CAGE RECORD				
RED ROCK LANDING, MO	BISHOPS LANDING, MO			
CHESTER, IL	BRICKY'S LANDING, MO			
ZERO N.G.V.D. MILE	338.92	334.11	341.05	337.78
LWRP 2014	331.05	335.56	340.85	334.19
08 OCT 2015	X	X	X	X
12 OCT 2015	X	X	X	X
14 OCT 2015	X	X	X	X

Surveyed by: BOWEN ENGINEERING	Survey Date: OCTOBER 8 - 14, 2015
Drawn by: X	Checked by: X
Submitted: X	Reviewed by: X
APPROVED: X	

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

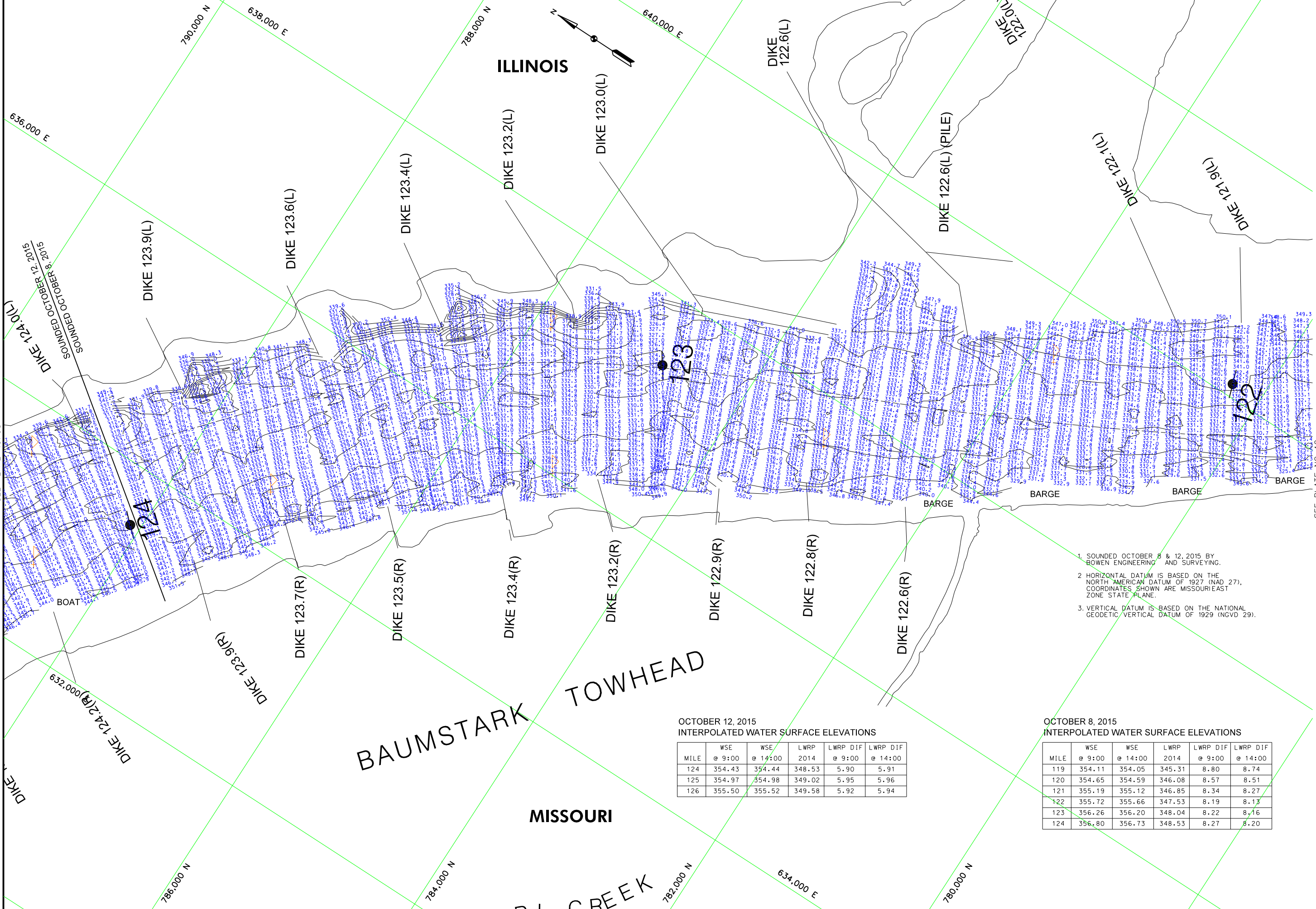
HYDROGRAPHIC SURVEYS
RIVER MILES 124.0 - 126.0

PLATE NUMBER
38

SEE PLATE NO. 37

SEE PLATE NO. 39

170 0 120 240 METERS
400 0 800 FEET
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE BY THE DISTRICT ENGINEER AND HIS STAFF. IT IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE DISTRICT ENGINEER'S PERMISSION.



CAGE RECORD			
RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER, IL	BRICKY'S LANDING, MO
328.92	334.31	341.05	357.78
34.2	100.8	109.9	136.0
331.05	335.56	340.85	354.19
08 OCT 2015	X	X	X
12 OCT 2015	X	X	X

Survey Data: OCTOBER 8 & 12, 2015			
Drawn by:	Checked by:	Reviewed by:	
X	X	X	
SUBMITTED:		APPROVED:	
X	X	X	X
Plot date:		File name:	

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

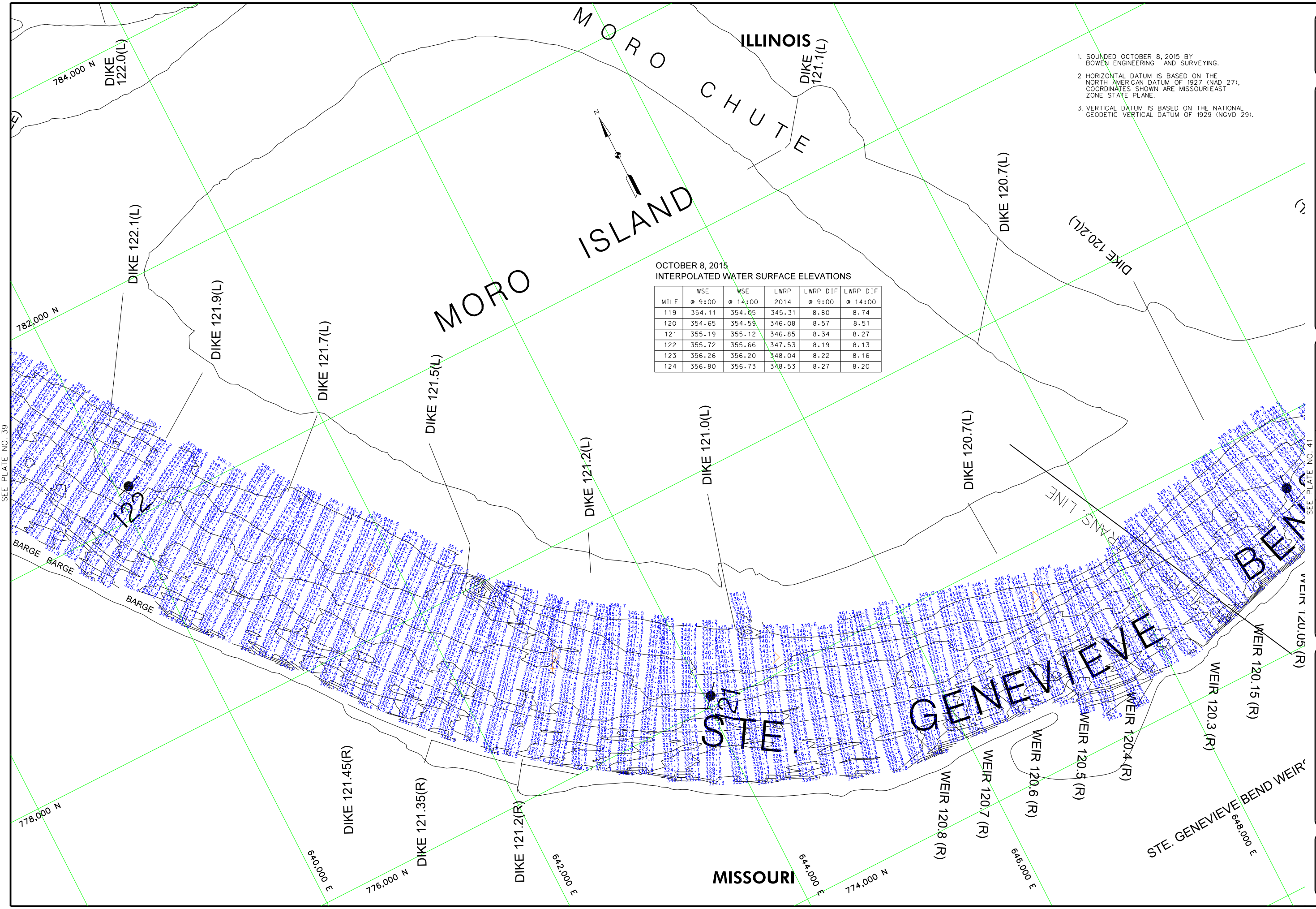
HYDROGRAPHIC SURVEYS
RIVER MILES 122.0 - 124.0

PLATE NUMBER
39

OCTOBER 12, 2015 INTERPOLATED WATER SURFACE ELEVATIONS					
MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
124	354.43	354.44	348.53	5.90	5.91
125	354.97	354.98	349.02	5.95	5.96
126	355.50	355.52	349.58	5.92	5.94

OCTOBER 8, 2015 INTERPOLATED WATER SURFACE ELEVATIONS					
MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
119	354.11	354.05	345.31	8.80	8.74
120	354.65	354.59	346.08	8.57	8.51
121	355.19	355.12	346.85	8.34	8.27
122	355.72	355.66	347.53	8.19	8.13
123	356.26	356.20	348.04	8.22	8.16
124	356.80	356.73	348.53	8.27	8.20

1. SOUNDED OCTOBER 8 & 12, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).



OCTOBER 8, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
119	354.11	354.05	345.31	8.80	8.74
120	354.65	354.59	346.08	8.57	8.51
121	355.19	355.12	346.85	8.34	8.27
122	355.72	355.66	347.53	8.19	8.13
123	356.26	356.20	348.04	8.22	8.16
124	356.80	356.73	348.53	8.27	8.20

1. SOUNDED OCTOBER 8, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

US Army Corps
of Engineers
St. Louis District

RED ROCK LANDING, MO	CHESTER, IL	BISHOPS LANDING, MO	BRICKY'S LANDING, MO
328.92	334.11	334.11	337.78
34.2	300.8	300.8	336.0
33.05	335.56	340.85	354.19
X	X	8.17900 8.121400	5.47900 5.381400
08 OCT 2015			

Survey Date: OCTOBER 8, 2015

Reviewed by: X

Drawn by: X

Submitted: X

Approved: X

Plot Date: 8/8/2015

File Name: 8/8/2015 15:00:00

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

HYDROGRAPHIC SURVEYS

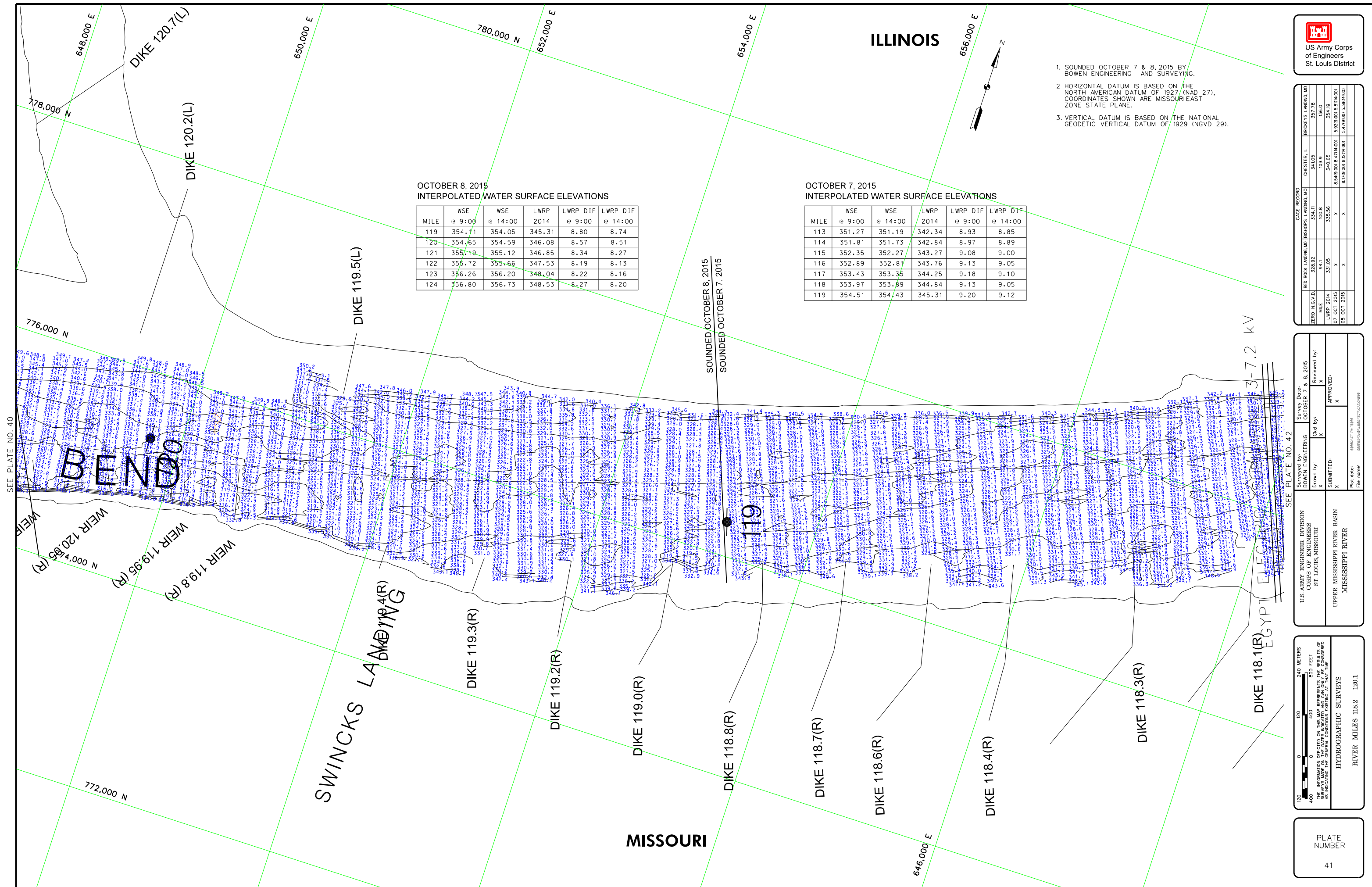
RIVER MILES 120.1 - 122.0

PLATE NUMBER

40



THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE BY THE DISTRICT ENGINEER AND HIS STAFF. IT IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE DISTRICT ENGINEER.



	GAGE RECORD			
	RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER, IL	BRICEYS LANDING, MO
ZERO	329.92	334.11	341.05	357.78
N.G.V.D.				
18 FEB 1934	341.1	334.0	339.9	357.6
18 MAR 1934	339.5	332.6	341.5	357.2
07 OCT 2015		x	8,541,800 (1) 8,214,100	5,929,900 (5) 5,814,400
08 OCT 2015	x	x	8,179,900 (1) 8,214,400	5,479,900 (5) 5,384,400

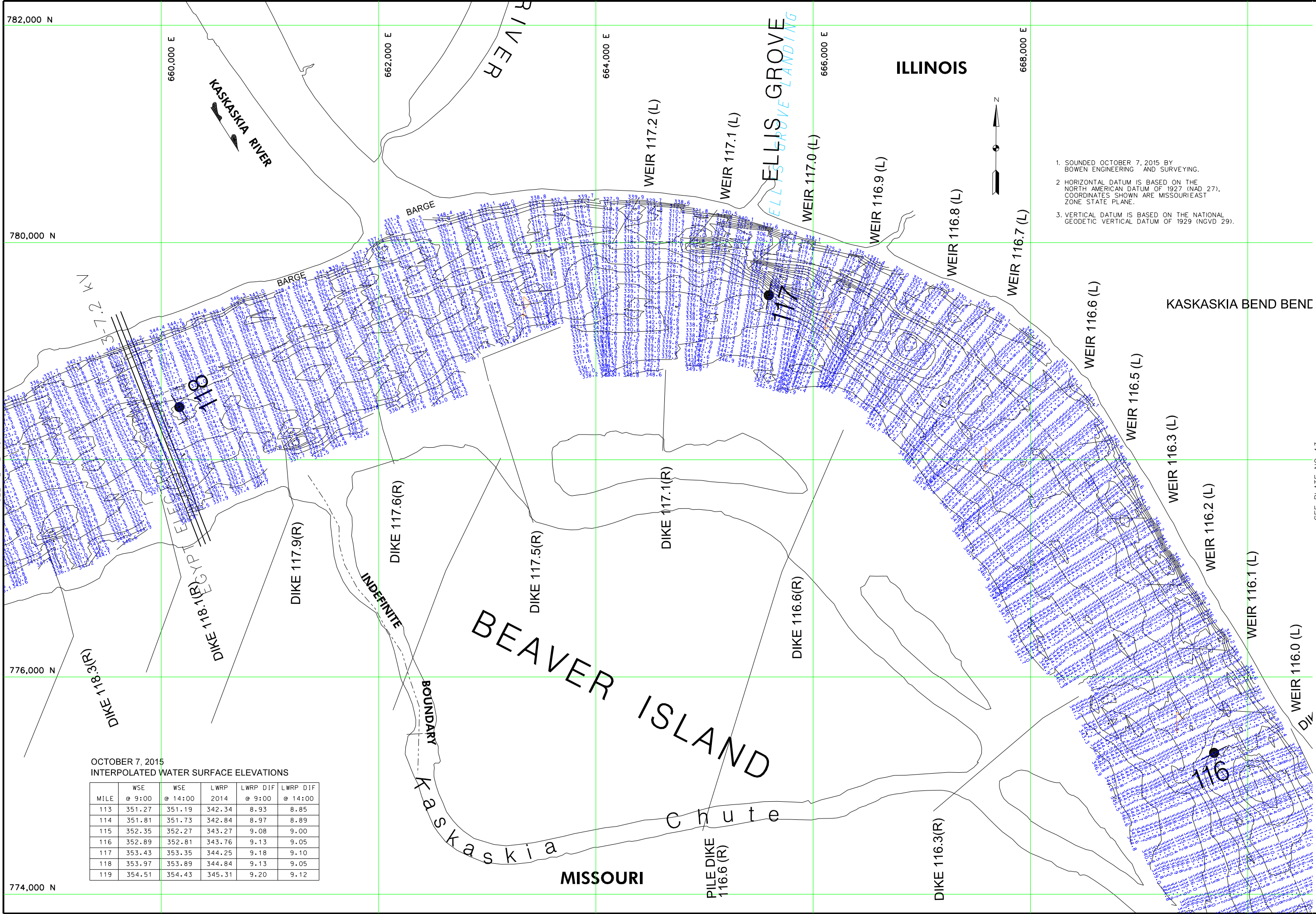
U.S. ARMY ENGINEER DIVISION CORPS OF ENGINEERS ST. LOUIS, MISSOURI	Surveyed by: BOWEN ENGINEERING	Survey Date: OCTOBER 7 & 8, 2015
	Drawn by: X	Reviewed by: X
UPPER MISSISSIPPI RIVER BASIN MISSISSIPPI RIVER	SUBMITTED: X	APPROVED: X
Plot date: 8/20/2016 10:24:59 AM		IMPRESOFILE/IMPRESOFILE000000

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF
A SURVEY CONDUCTED IN THE GENERAL CONDITIONS LISTED AND CONSIDERED
AS INDICATED IN THE GENERAL CONDITIONS LISTED AT THAT TIME.

HYDROGRAPHIC SURVEYS

RIVER MILES 118.2 - 120.1



OCTOBER 7, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 14:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 14:00
113	351.27	351.19	342.34	8.93	8.85
114	351.81	351.73	342.84	8.97	8.89
115	352.35	352.27	343.27	9.08	9.00
116	352.89	352.81	343.76	9.13	9.05
117	353.43	353.35	344.25	9.18	9.10
118	353.97	353.89	344.84	9.13	9.05
119	354.51	354.43	345.31	9.20	9.12

1. SOUNDED OCTOBER 7, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

US Army Corps
of Engineers
St. Louis District

GAGE RECORD			
RED ROCK LANDING, MO	BISHOPS LANDING, MO		
CHESTER, IL	BRIDGES LANDING, MO		
ZERO NGVD	341.05	341.05	357.78
MILE	334.11	334.11	357.78
LWRP 2014	330.8	330.8	354.19
07 OCT 2015	335.56	340.85	354.19
	X	X	5.97900 3.81400

Surveyed by: BOWEN ENGINEERING	Survey Date: OCTOBER 7, 2015
Drawn by: X	Reviewed by: X
Submitted: X	APPROVED: X
Plot date: File name:	PROFESSIONAL SEAL

U.S. ARMY ENGINEER DIVISION
CORPS OF ENGINEERS
ST. LOUIS, MISSOURI

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

HYDROGRAPHIC SURVEYS

RIVER MILES 116.0 - 118.2

PLATE
NUMBER

42



US Army Corps
of Engineers
St. Louis District

1. SOUNDED OCTOBER 7, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27), COORDINATES SHOWN ARE MISSOURI EAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

	GAGE RECORD					
	RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER, IL	BRICKEYS LANDING, MO		
ZERO N.G.V.D.	328.92	334.11	341.05	357.78		
MILE	94.1	100.8	109.9	116.0		
LWRP 2014	331.05	335.56	340.65	354.19		
07 OCT 2015	x	x	8,540,900	8,471,140	5,929,900	5,811,400

SEE PLATE NO. 44	U.S. ARMY ENGINEER DIVISION CORPS OF ENGINEERS ST. LOUIS, MISSOURI	Surveyed by: BOWEN ENGINEERING		Survey Date: OCTOBER 7, 2015
		Drawn by: X	Old by: X	Reviewed by: X
	UPPER MISSISSIPPI RIVER BASIN MISSISSIPPI RIVER	SUBMITTED: X	APPROVED: X	
		Plot date: C	APPROVED: (Signature) C	

HYDROGRAPHIC SURVEYS

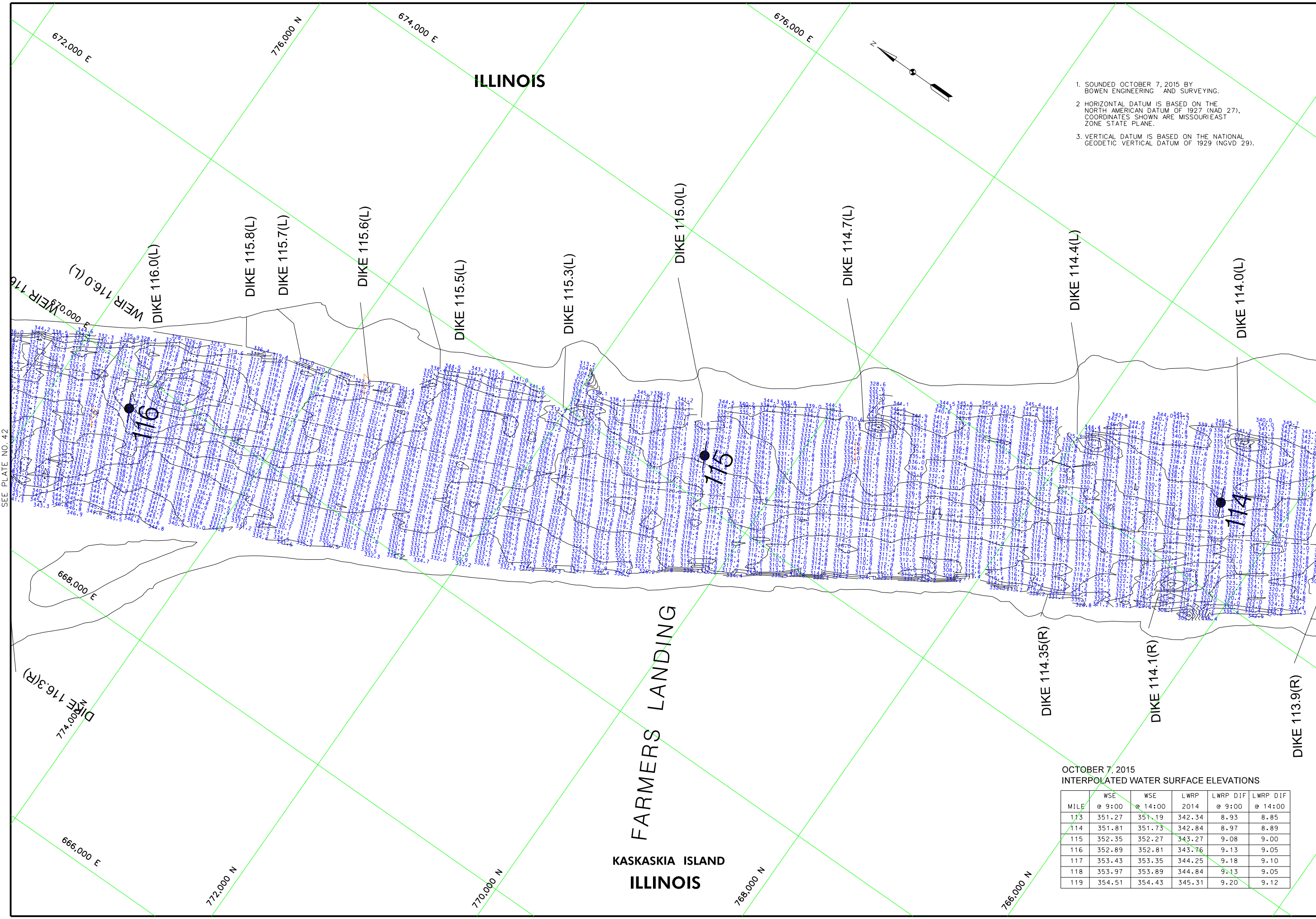
RIVER MILES 114.0 - 116.0

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF
SURVEYS CONDUCTED IN THE PAST AND IS NOT NECESSARILY CONSIDERED
AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

PLATE
NUMBER

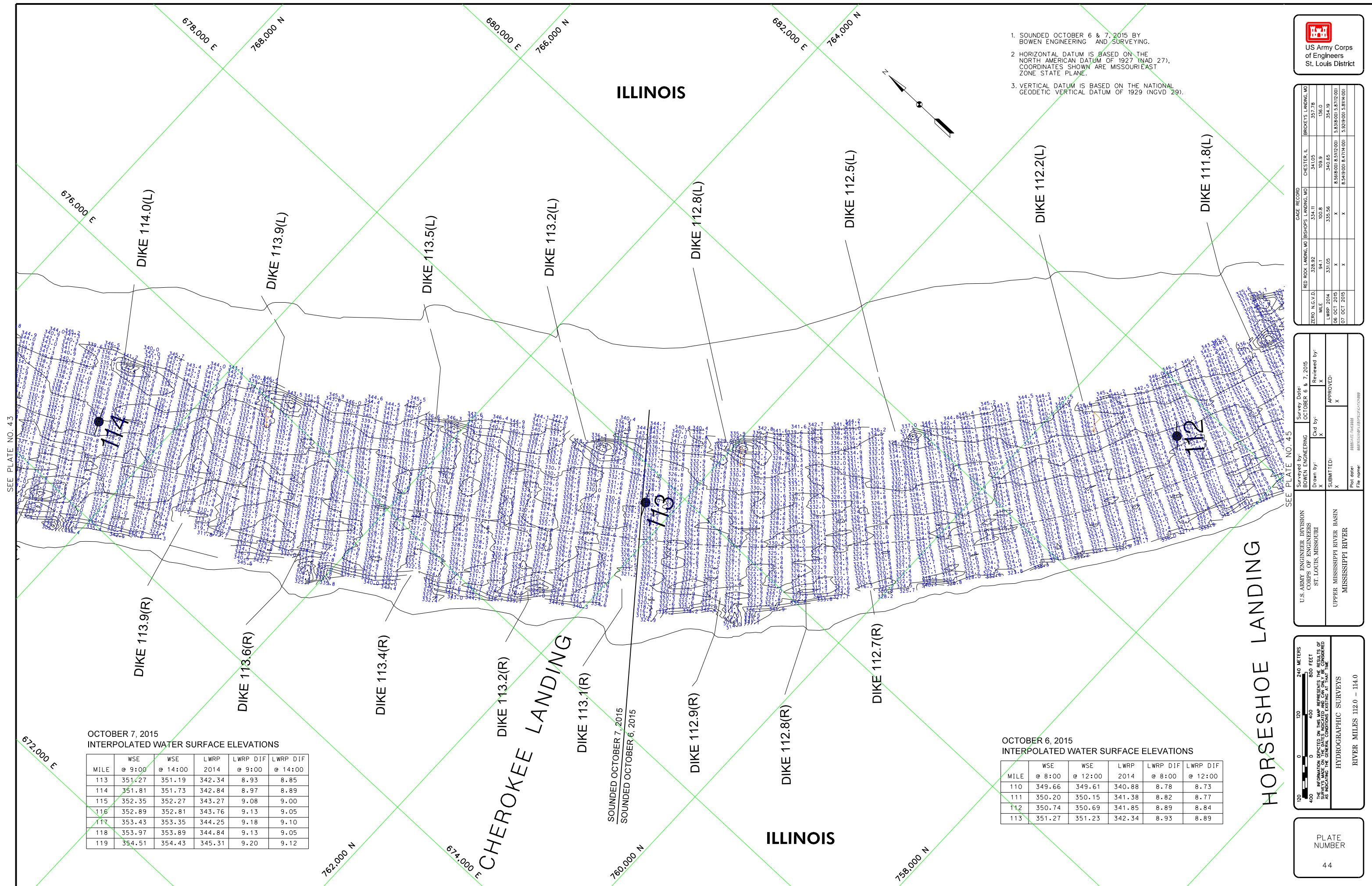
43

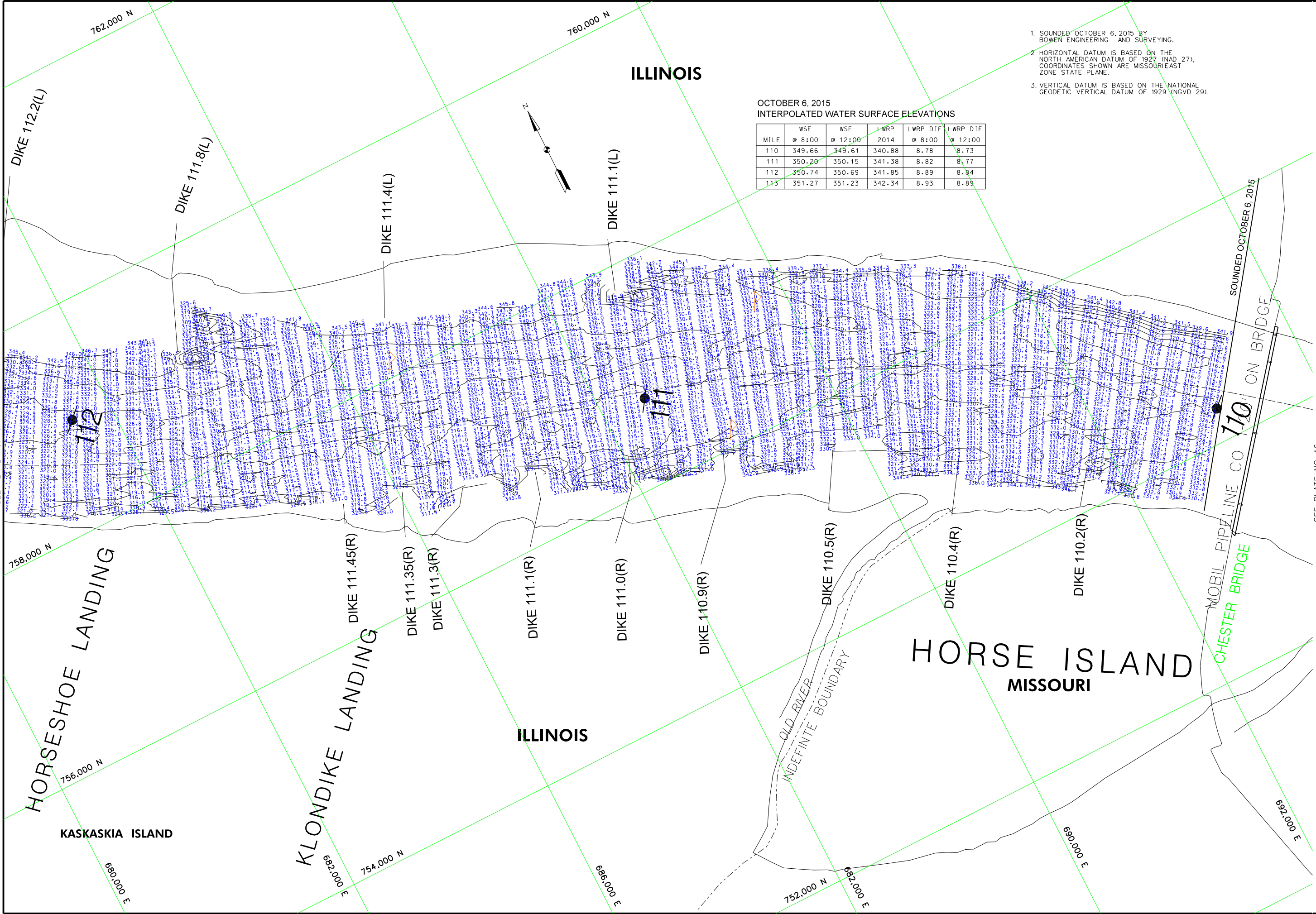


OCTOBER 7, 2015

INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE	WSE	LWRP	LWRP DIF	LWRP DIF
	@ 9:00	@ 14:00	2014	@ 9:00	@ 14:00
113	351.27	351.19	342.34	8.93	8.85
114	351.81	351.73	342.84	8.97	8.89
115	352.35	352.27	343.27	9.08	9.00
116	352.89	352.81	343.76	9.13	9.05
117	353.43	353.35	344.25	9.18	9.10
118	353.97	353.89	344.84	9.13	9.05
119	354.51	354.43	345.31	9.20	9.12





OCTOBER 6, 2015
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 12:00	LWRP 2014	LWRP DIF @ 8:00	LWRP DIF @ 12:00
110	349.66	349.61	340.88	8.78	8.73
111	350.20	350.15	341.38	8.82	8.77
112	350.74	350.69	341.85	8.89	8.84
113	351.27	351.23	342.34	8.93	8.89

1. SOUNDED OCTOBER 6, 2015 BY BOWEN ENGINEERING AND SURVEYING.
2. HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1927 (NAD 27). COORDINATES SHOWN ARE MISSOURIEAST ZONE STATE PLANE.
3. VERTICAL DATUM IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).



RED ROCK LANDING, MO	BISHOPS LANDING, MO	CHESTER I.	BRICKY'S LANDING, MO
328.92	334.31	341.05	357.78
344	300.8	340.85	354.19
331.05	335.56	X	X
06 OCT 2015	8.56(8:00) 8.51(12:00)	5.81(8:00) 5.81(12:00)	

U.S. ARMY ENGINEER DIVISION CORPS OF ENGINEERS ST. LOUIS, MISSOURI	Survey Date: OCTOBER 6, 2015
Drawn by: X	Reviewed by: X
Submitted: X	APPROVED: X
Plot date: 08/01/2015	File name: 08/01/2015

HYDROGRAPHIC SURVEYS	RIVER MILES 110.0 - 112.0
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