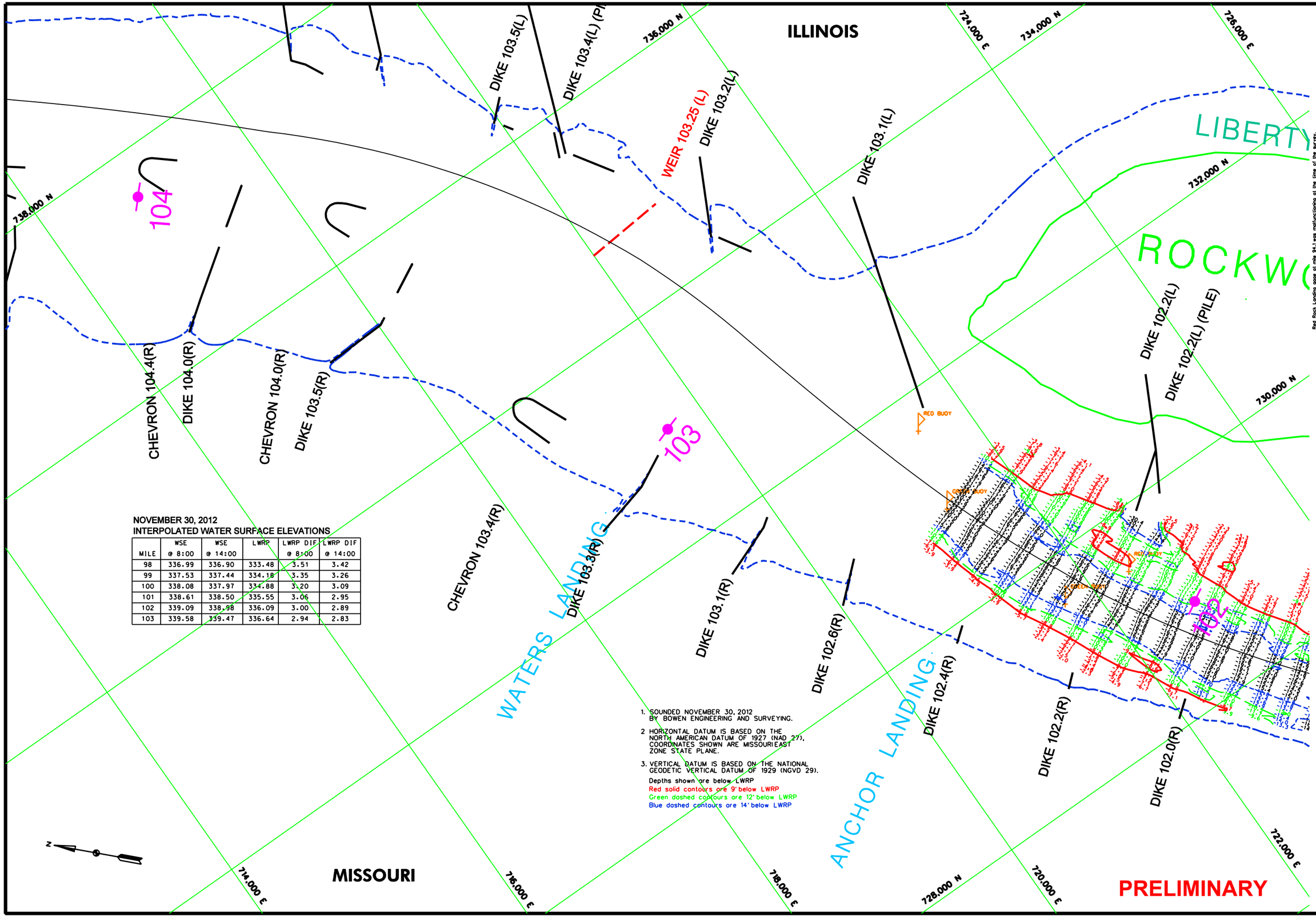


NOVEMBER 30, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 14:00	LWRP	LWRP DIF @ 8:00	LWRP DIF @ 14:00
98	336.99	336.90	333.48	3.51	3.42
99	337.53	337.44	334.18	3.35	3.26
100	338.08	337.97	334.88	3.20	3.09
101	338.61	338.50	335.55	3.06	2.95
102	339.09	338.98	336.09	3.00	2.89
103	339.58	339.47	336.64	2.94	2.83

1. SOUNDED NOVEMBER 30, 2012 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).

Depths shown are below LWRP
Red solid contours are 9' below LWRP
Green dashed contours are 12' below LWRP
Blue dashed contours are 14' below LWRP

US Army Corps of Engineers
St. Louis District

Red Rock Landing gage at mile 94.1 was malfunctioning at the time of the survey.

GAGE RECORD

	GRAND TOWER, IL	BISHOPS LANDING, MO	CHESTER, IL
ZERO N.G.V.D.	321.93	334.11	341.05
MLE	81.9	100.8	109.9
L. W. R. P.	325.3	335.4	340.4
30 NOV 2012	6.268:001 6.29:14:001	4.48:201 4.31:145:	1.87:18:001 1.78:14:001

ELEVATIONS ARE REFERENCED TO N.G.V.D. CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) (34,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: NOVEMBER 30, 2012
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x Chief, Engr. Data Mngt. Sect.
APPROVED: x Chief, Geospatial Eng. Branch
Plot date: ##/##/##:##:##
File name: ##/##/##/##/##/##/##

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

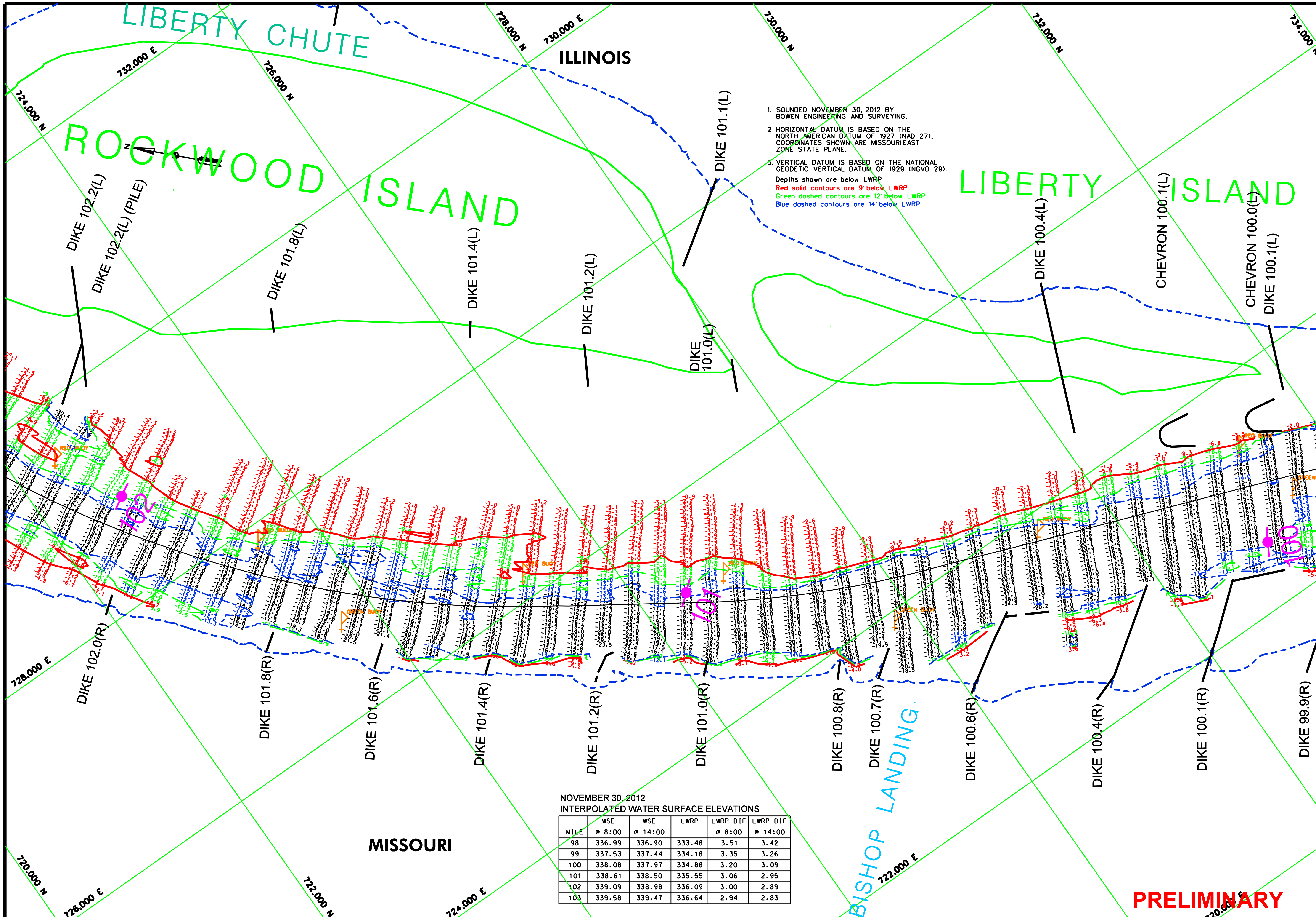
120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED. THE DATA IS PRESENTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

POST DREDGE SURVEYS

RIVER MILES 102.5 – 98.0

PLATE NUMBER
XX
SHEET 1 OF 3



1. SOUNDED NOVEMBER 30, 2012 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.

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NOVEMBER 30, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 8:00	WSE @ 14:00	LWRP	LWRP DIF @ 8:00	LWRP DIF @ 14:00
98	336.99	336.90	333.48	3.51	3.42
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PRELIMINARY

US Army Corps of Engineers St. Louis District

GAGE RECORD

	GRAND TOWER, IL	BISHOPS LANDING, MO	CHESTER, IL
ZERO N.G.V.D.	321.93	334.11	341.05
MILE	81.9	100.8	109.9
L. W. R. P.	325.3	335.4	340.4
30 NOV 2012	6.26(8:00) 6.29(14:00)	4.4(8:20) 4.3(13:45)	1.87(8:00) 1.78(14:00)

Red Rock Landing gage at mile 94.1 was malfunctioning at the time of the survey.

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) 154,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: NOVEMBER 30, 2012
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x Chief, Engr. Data Mngt. Sect.
APPROVED: x Chief, Geospatial Eng. Branch
Plot date: $$$$DATE-TIME$$$$
File name: $$$DESIGN$FILE$SPECIFICATION$$$

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

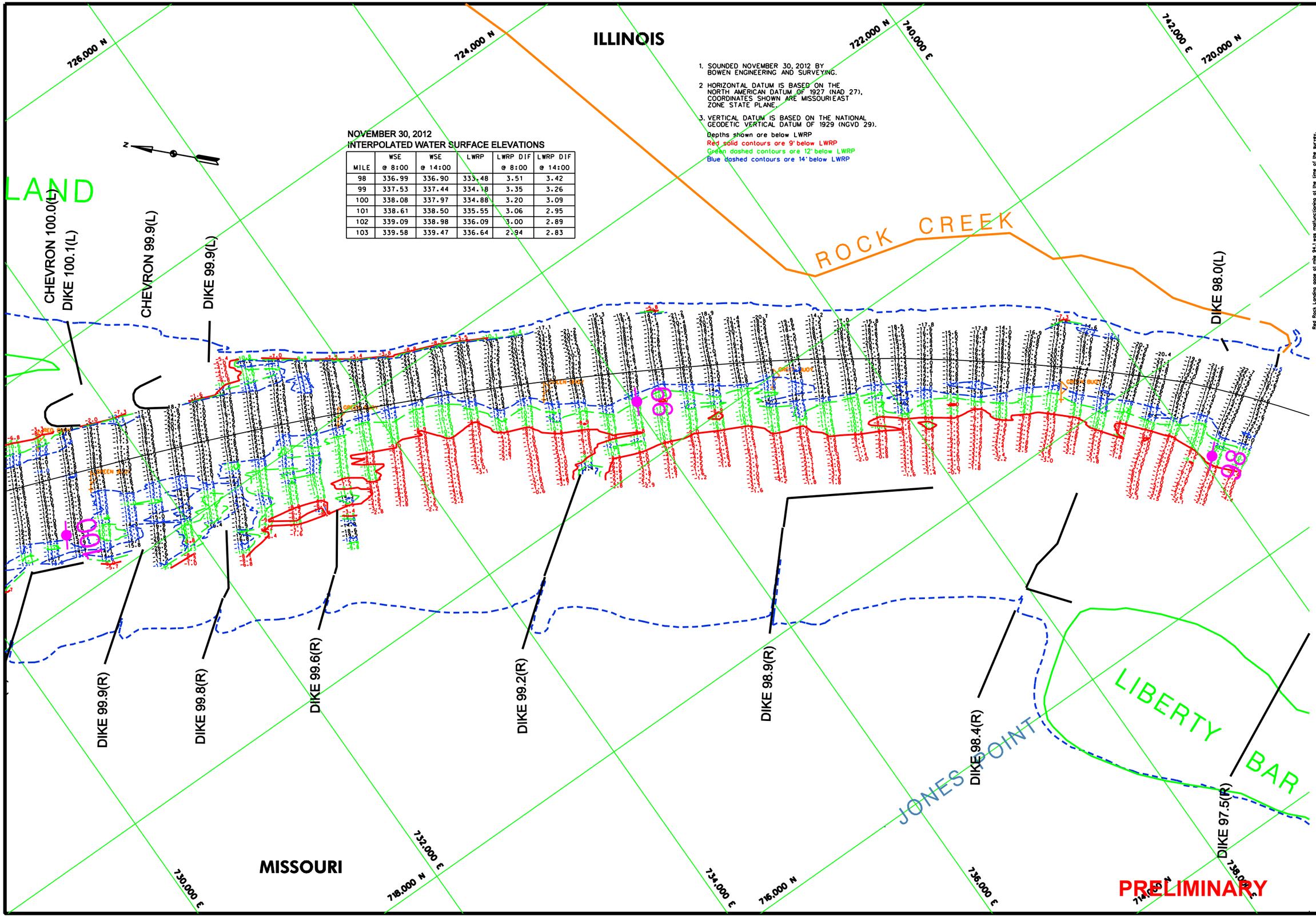
120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION DEPICTED 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

POST DREDGE SURVEYS

RIVER MILES 102.5 – 98.0

PLATE NUMBER
XX
SHEET 2 OF 3



1. SOUNDED NOVEMBER 30, 2012 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.
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NOVEMBER 30, 2012
INTERPOLATED WATER SURFACE ELEVATIONS

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US Army Corps of Engineers
St. Louis District

Red Rock Landing gage at mile 94.1 was malfunctioning at the time of the survey.

GAGE RECORD

	GRAND TOWER, IL	BISHOPS LANDING, MO	CHESTER, IL
ZERO N.G.V.D.	321.93	334.11	341.05
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30 NOV 2012	6.268:001 6.29:14:001	4.48:201 4.31:14:51	1.87:18:001 1.78:14:001

ELEVATIONS ARE REFERRED TO N.G.V.D. CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) (34,000 C.F.S.)

Surveyed by: BOWEN ENGINEERING
Survey Date: NOVEMBER 30, 2012
Drawn by: x
Ckd by: x
Reviewed by: x
SUBMITTED: x Chief, Engr. Data Mngt. Sect.
APPROVED: x Chief, Geospatial Eng. Branch
Plot date: MMMDDYYYY:HHMMAM
File name: MMMDDYYYYGRIDSPECIFICATIONMM

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 0 120 240 METERS
400 0 400 800 FEET

THE INFORMATION REPRESENTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE INDICATED. THE CONTOURS ARE SHOWN AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

POST DREDGE SURVEYS

RIVER MILES 102.5 – 98.0

PLATE NUMBER
XX
SHEET 3 OF 3

PRELIMINARY