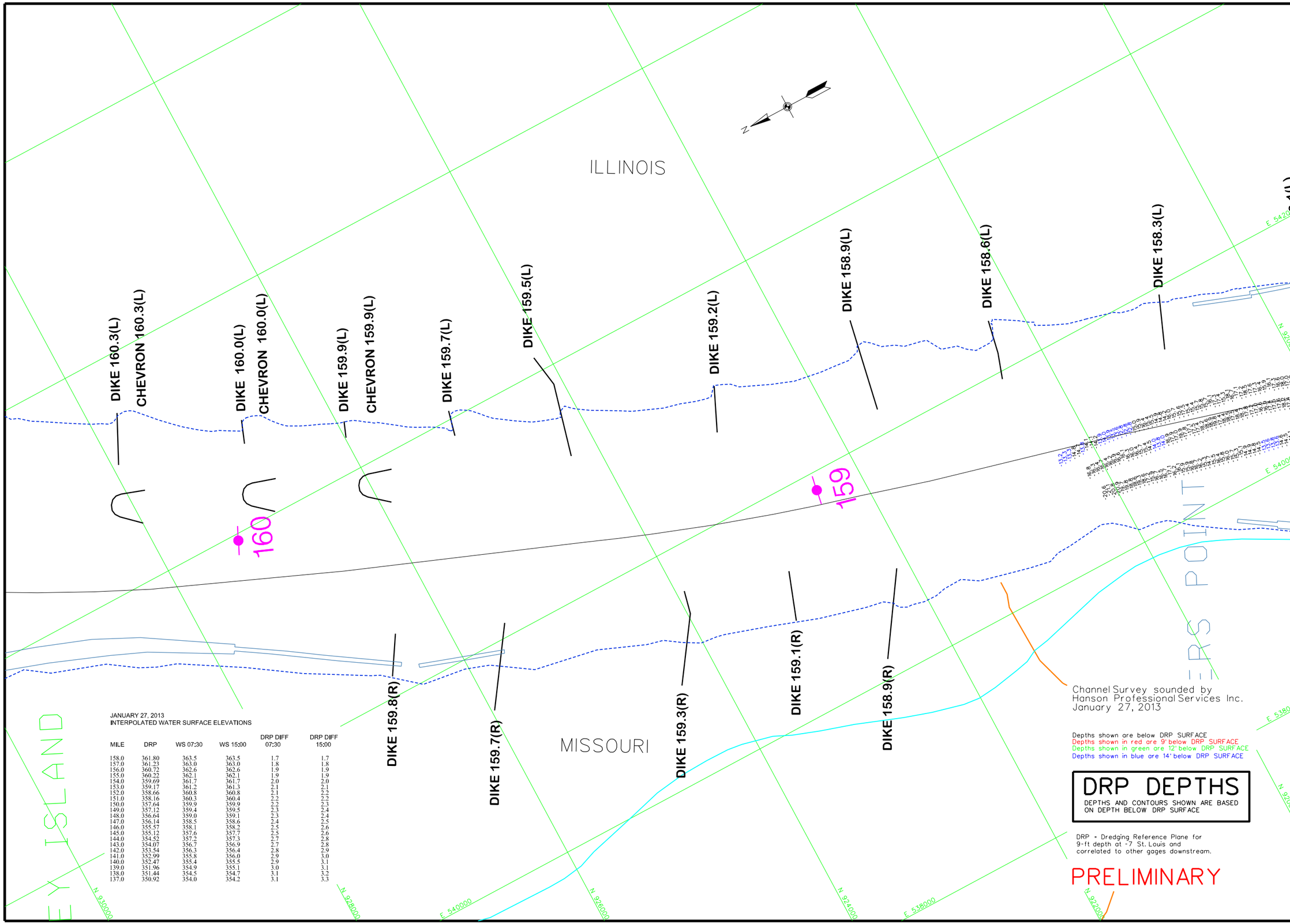
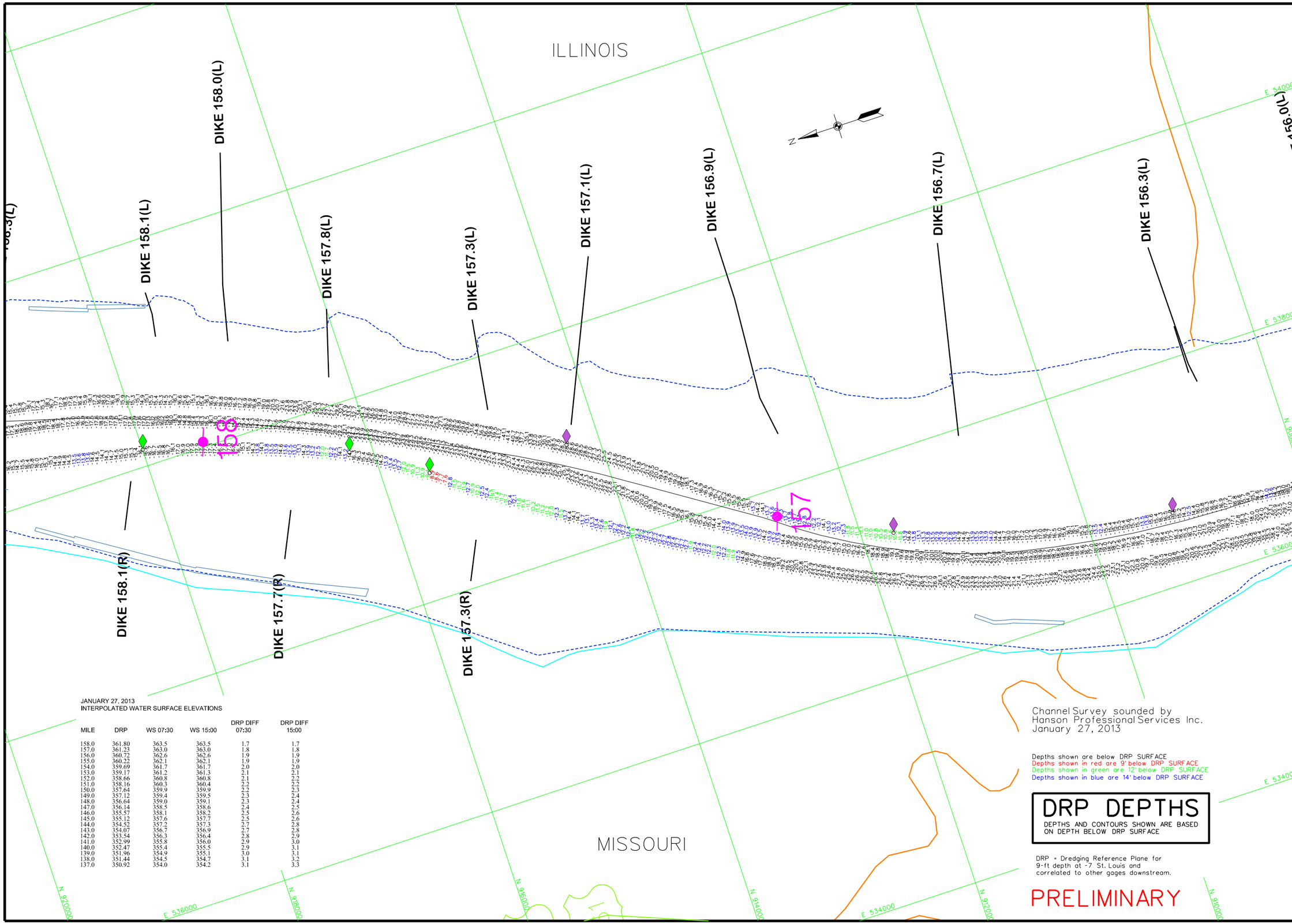


JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
145.0	355.12	357.6	357.7	2.5	2.6
144.0	354.52	357.2	357.3	2.7	2.8
143.0	354.07	356.7	356.9	2.7	2.8
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
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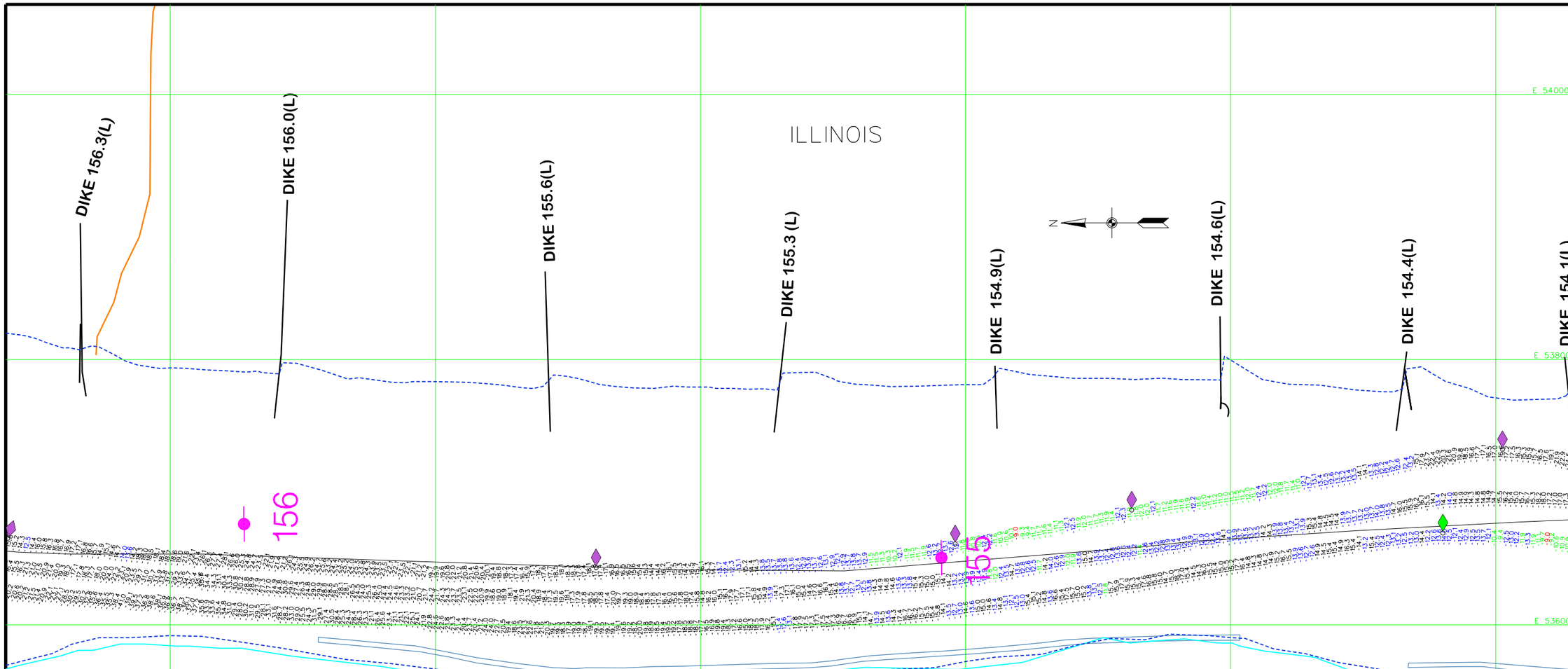
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
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154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
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150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
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144.0	354.52	357.2	357.3	2.7	2.8
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141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP - Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BROCKEYS	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 154,000 C.F.S.

Survey Date: January 27, 2013

SUBMITTED:
Chief, Engr. Data Mngt. Sect.

File name: 158.118242713.dr.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED:
Chief, Geospatial Branch

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

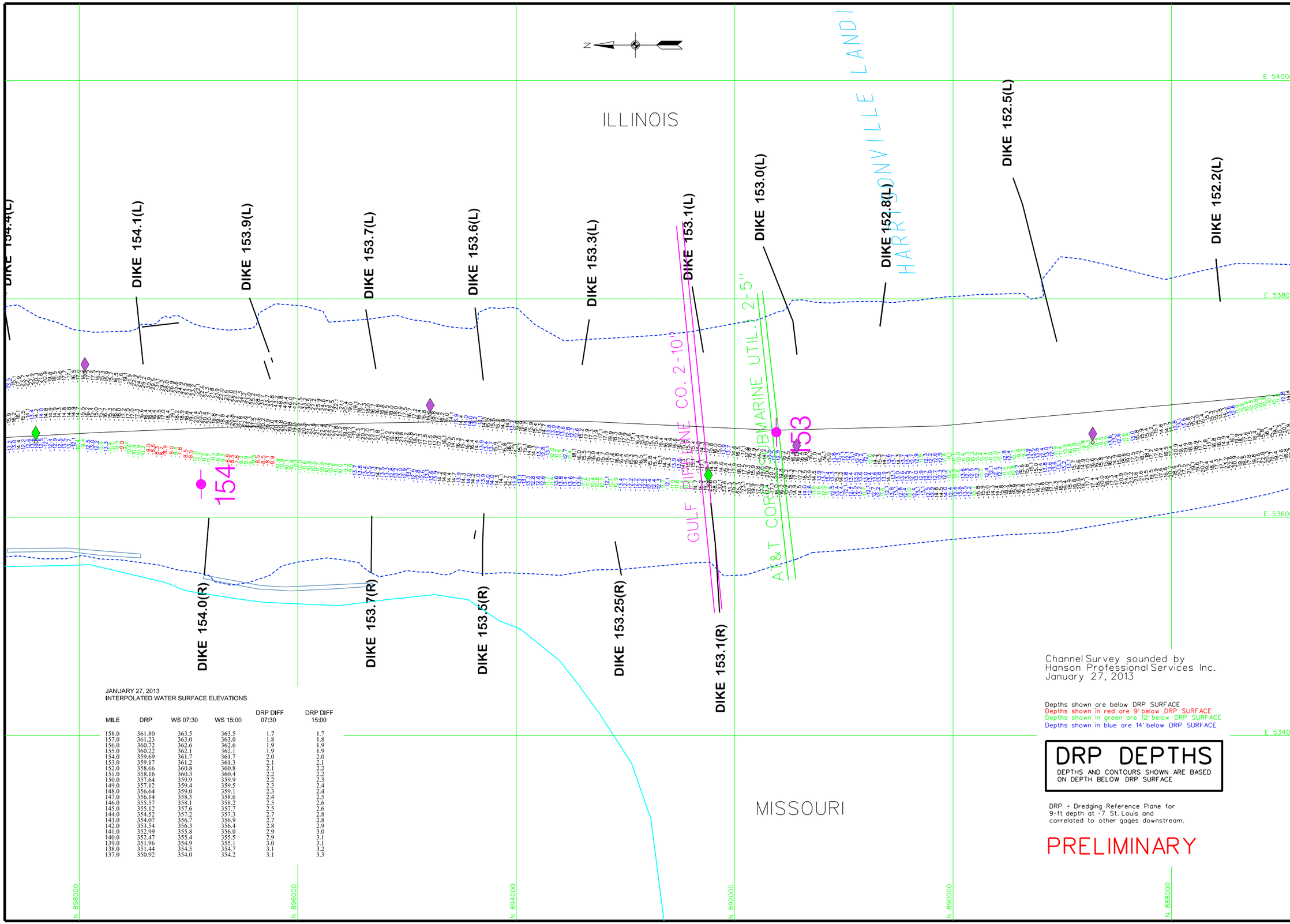
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 400 0 0 120 240 METERS
400 800 FEET

THE NOTE INDICATION REPRESENTED IN THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE SHOWN AND IS INTENDED TO INDICATE THE GENERAL CONDITIONS EXISTING AT THAT TIME.

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
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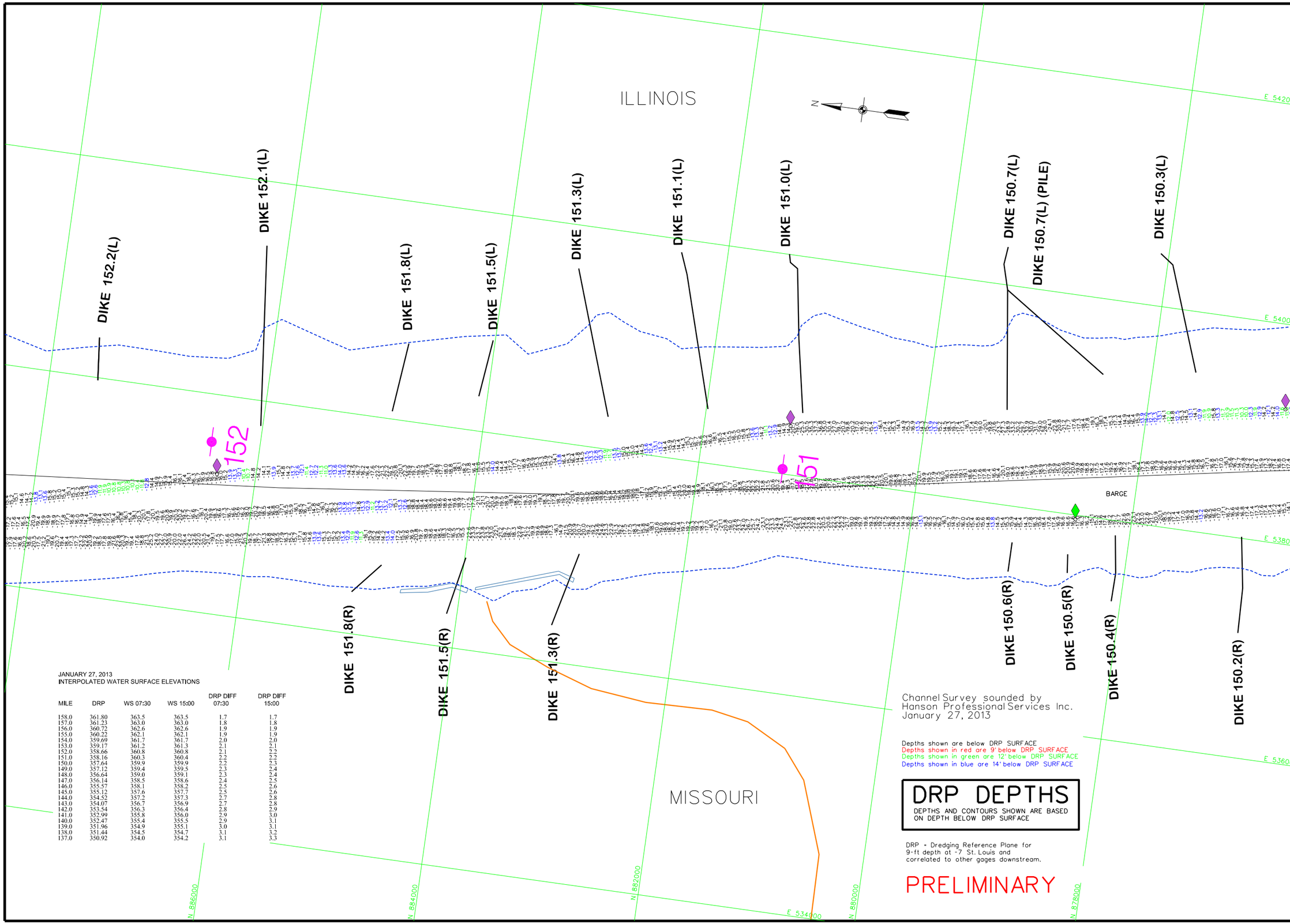
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
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142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BROKEY'S	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 154.000 C.F.S.

Survey Date: January 27, 2013

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
SUBMITTED:
Chief, Engr. Data Mngt. Sect.
APPROVED:
Chief, Geospatial Branch

File name: I58.11B4213.dr-pdgn
Plot date: January 29, 2013
Plot scale: 1"=400'

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

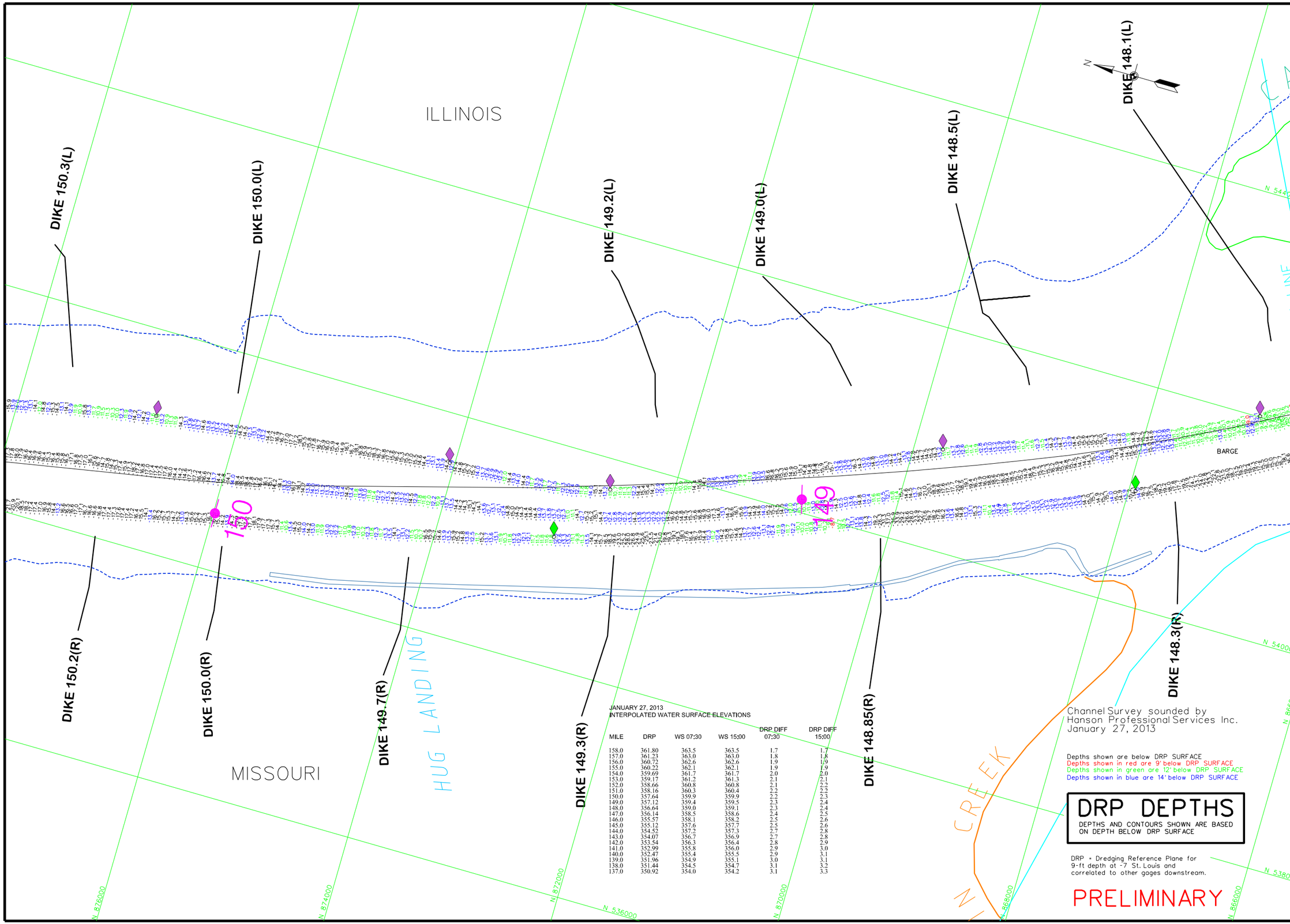
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS
800 FEET
120 0 120
400 0 400

THE HORIZONTAL DIMENSIONS ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE DURING THE YEAR 2013 AND ARE PLOTTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
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142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BRICKEYS	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 154.000 C.F.S.

Survey Date: January 27, 2013

SUBMITTED:

Chief, Engr. Data Mngt. Sect.

File name: 158.118A2713.dr.dgn

Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED: Chief, Geospatial Branch

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS 120 0 120 400
800 FEET 400 0 400

SURVEY INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE INDICATED AND IS BELIEVED TO BE AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER

JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
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138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
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Depths shown in green are 12' below DRP SURFACE
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DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BRICKEY'S	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

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.

Survey Date: January 27, 2013

SUBMITTED:
Chief, Engr. Data Mngt. Sect.
File name: 158.118A2713.drp.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED:
Chief, Geospatial Branch

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

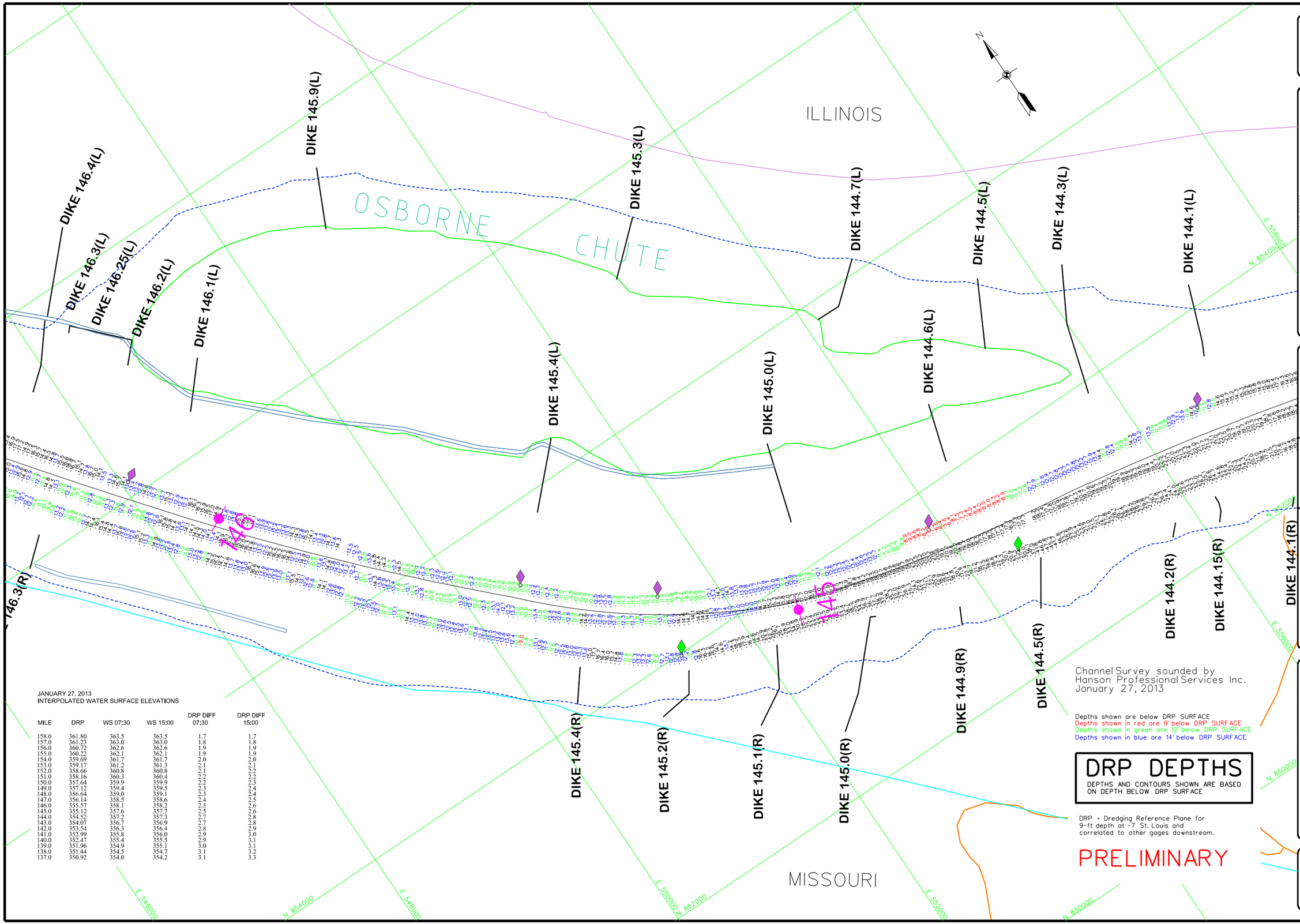
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

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

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
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154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
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148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
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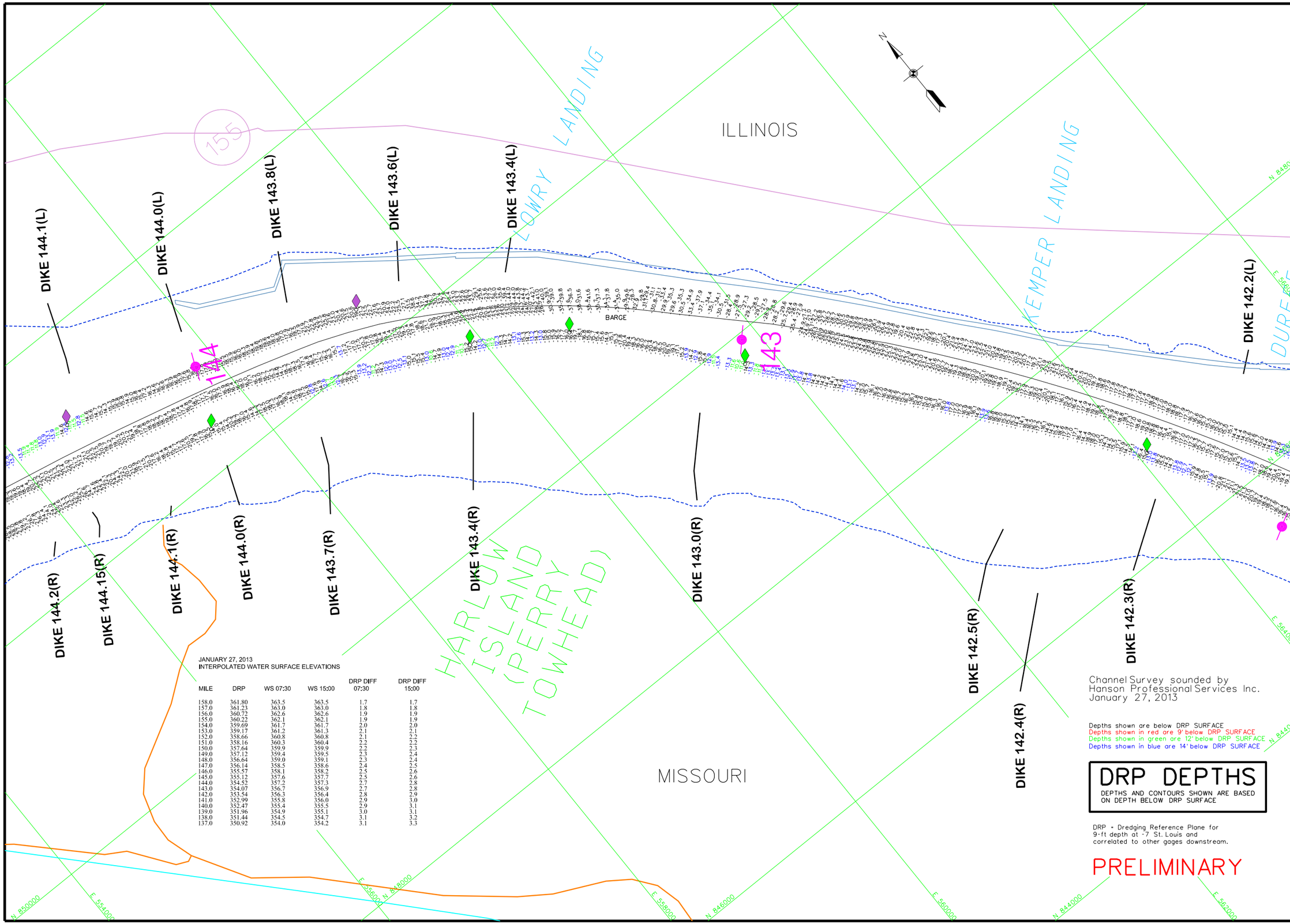
144.0	354.52	357.2	357.3	2.7	2.8
143.0	354.07	356.7	356.9	2.7	2.8
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
145.0	355.12	357.6	357.7	2.5	2.6
144.0	354.52	357.2	357.3	2.7	2.8
143.0	354.07	356.7	356.9	2.7	2.8
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BRICKEYS	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

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: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED:
Chief, Geospatial Branch

Survey Date: January 27, 2013
SUBMITTED:
Chief, Engr. Data Mngt. Sect.
File name: 158.118A2713.drp.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

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

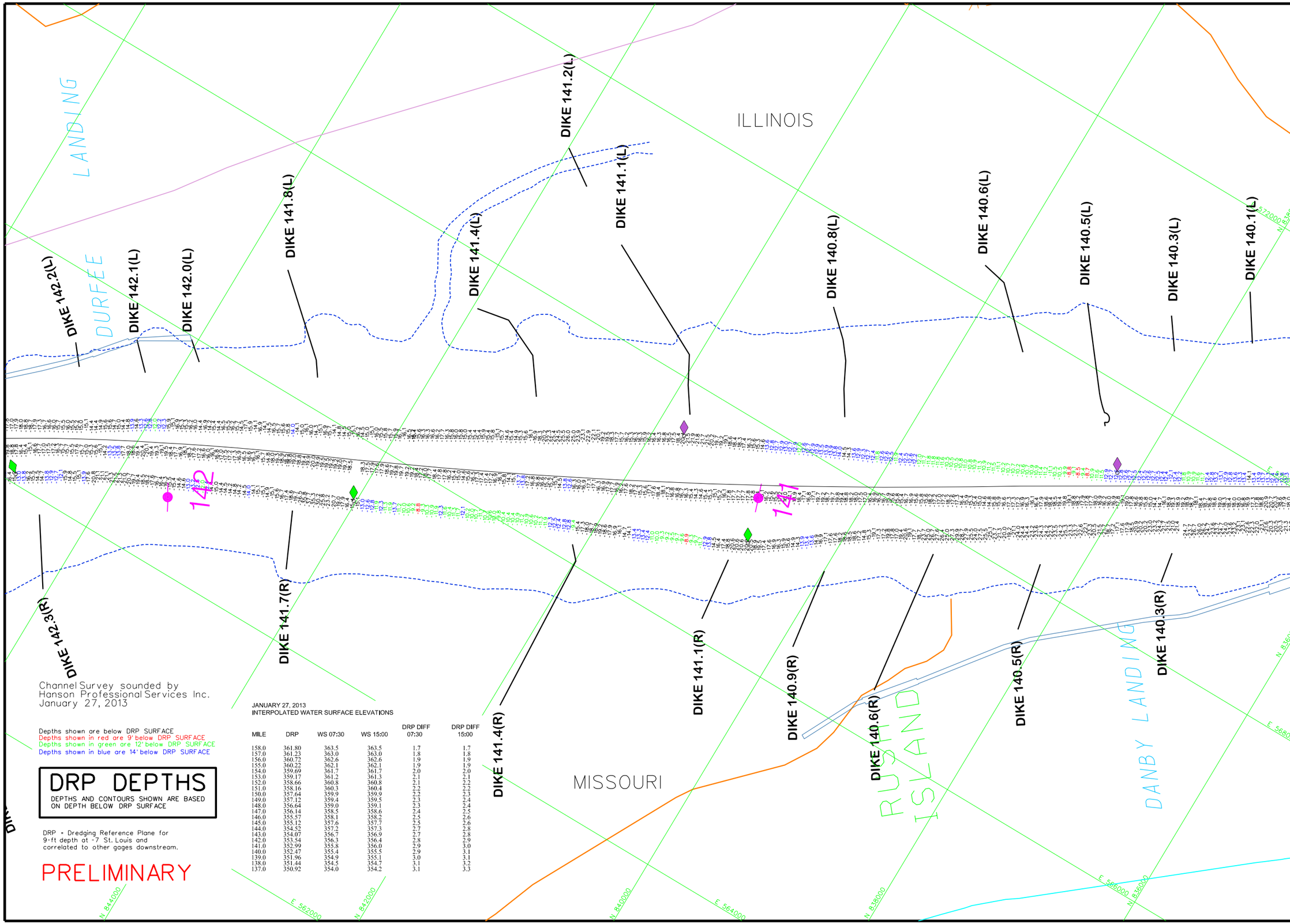
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

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

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
145.0	355.12	357.6	357.7	2.5	2.6
144.0	354.52	357.2	357.3	2.7	2.8
143.0	354.07	356.7	356.9	2.7	2.8
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BROCKEYS	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) (94.000 C.F.S.)

Survey Date: January 27, 2013
SUBMITTED:
Chief, Engr. Data Mngt. Sect.
File name: 158.118242713.dr.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED:
Chief, Geospatial Branch

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

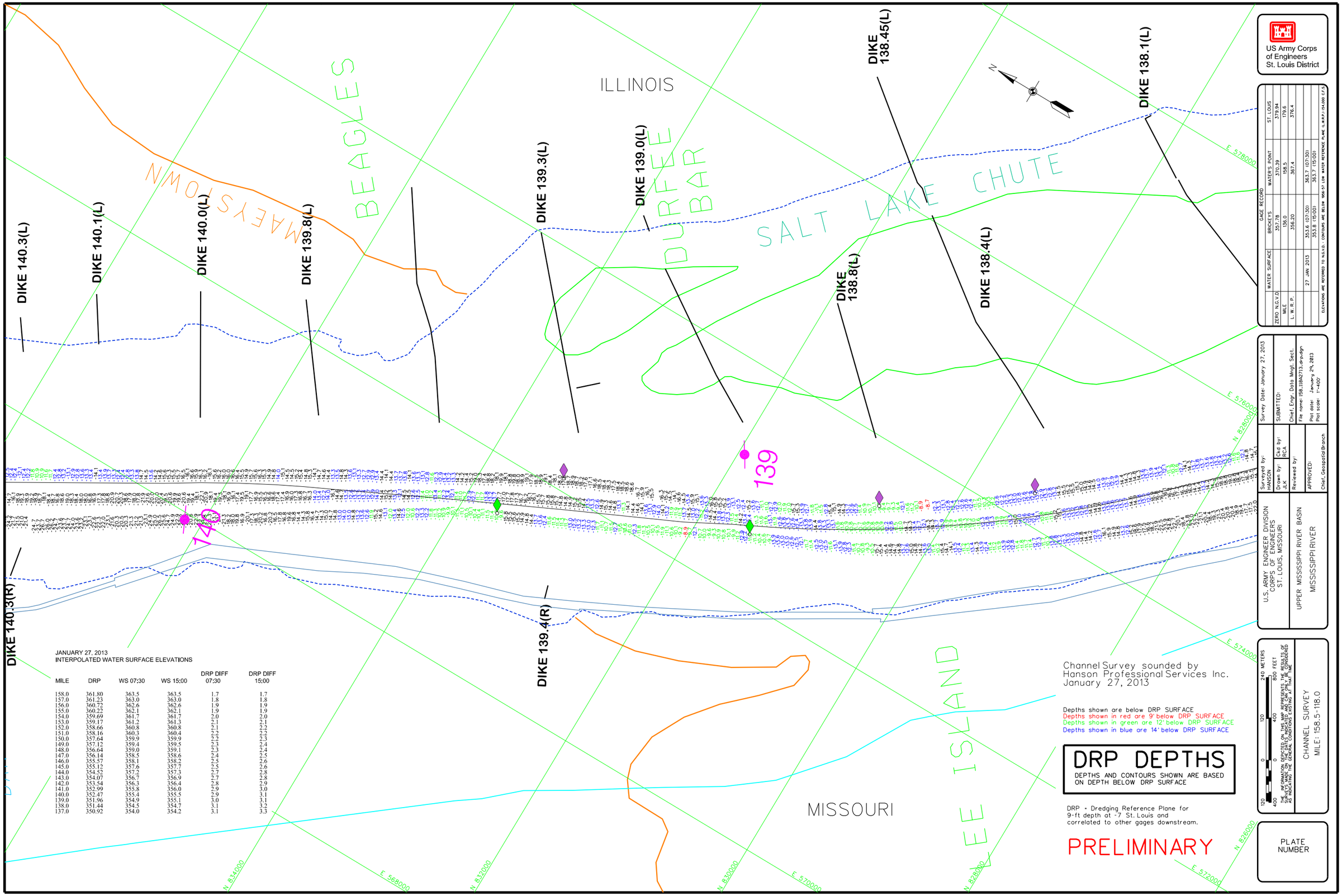
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 400 0 120 240 METERS
400 0 800 FEET

SURVEY INFORMATION REPRESENTS THE POSSIBLE CHANGES SHOWN ON THIS MAP. REFERENCE OF AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

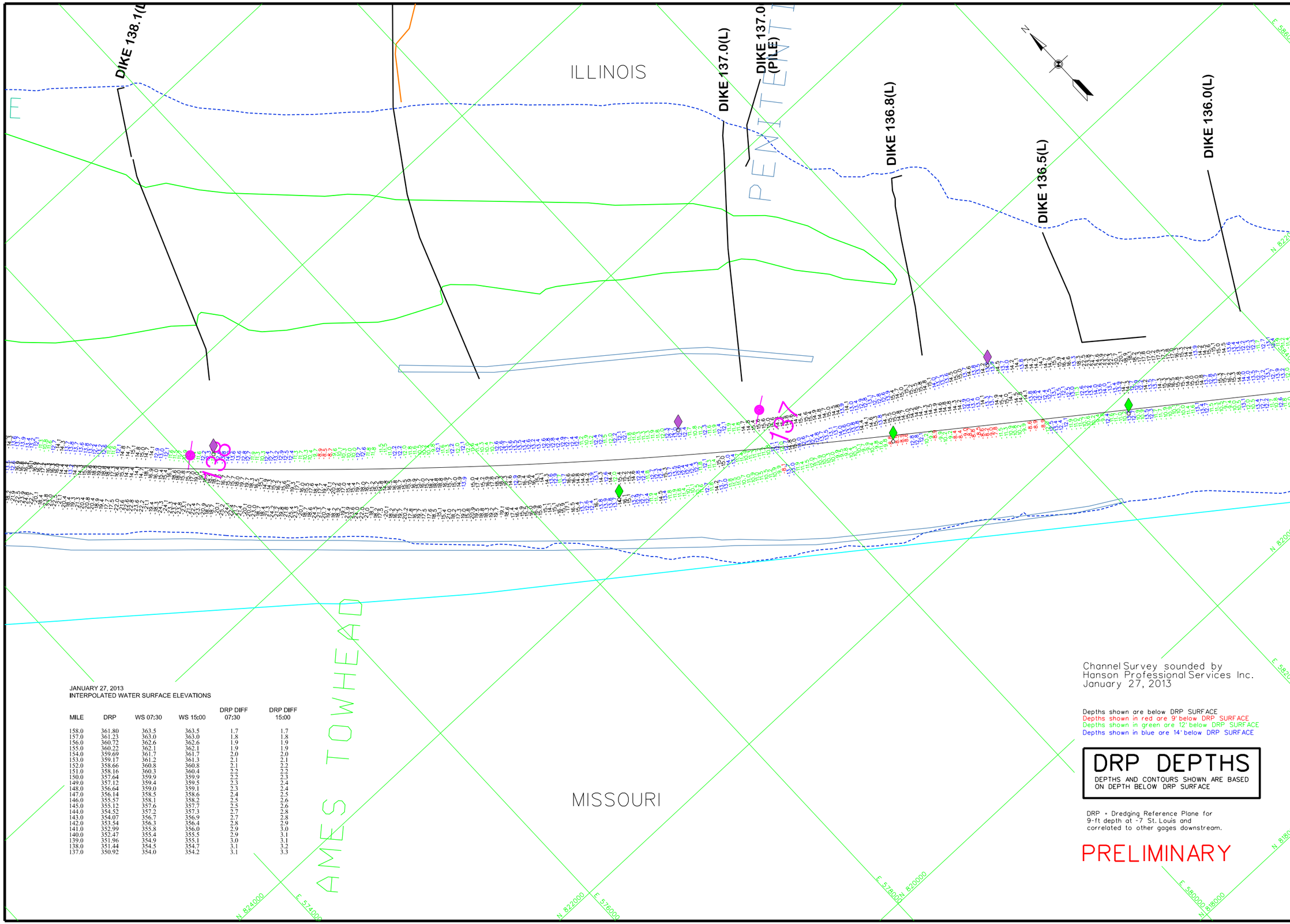
CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
145.0	355.12	357.6	357.7	2.5	2.6
144.0	354.52	357.2	357.3	2.7	2.8
143.0	354.07	356.7	356.9	2.7	2.8
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
158.0	361.80	363.5	363.5	1.7	1.7
157.0	361.23	363.0	363.0	1.8	1.8
156.0	360.72	362.6	362.6	1.9	1.9
155.0	360.22	362.1	362.1	1.9	1.9
154.0	359.69	361.7	361.7	2.0	2.0
153.0	359.17	361.2	361.3	2.1	2.1
152.0	358.66	360.8	360.8	2.1	2.2
151.0	358.16	360.3	360.4	2.2	2.2
150.0	357.64	359.9	359.9	2.2	2.3
149.0	357.12	359.4	359.5	2.3	2.4
148.0	356.64	359.0	359.1	2.3	2.4
147.0	356.14	358.5	358.6	2.4	2.5
146.0	355.57	358.1	358.2	2.5	2.6
145.0	355.12	357.6	357.7	2.5	2.6
144.0	354.52	357.2	357.3	2.7	2.8
143.0	354.07	356.7	356.9	2.7	2.8
142.0	353.54	356.3	356.4	2.8	2.9
141.0	352.99	355.8	356.0	2.9	3.0
140.0	352.47	355.4	355.5	2.9	3.1
139.0	351.96	354.9	355.1	3.0	3.1
138.0	351.44	354.5	354.7	3.1	3.2
137.0	350.92	354.0	354.2	3.1	3.3

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	BRICKEYS	WATER'S POINT	ST. LOUIS
ZERO N.G.V.D.		357.78	370.39	379.94
MILE		136.0	158.5	179.6
L. W. R. P.		356.20	367.4	376.4
	27 JAN 2013	353.6 (07:30)	363.7 (07:30)	
		353.8 (15:00)	363.7 (15:00)	

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.

Survey Date: January 27, 2013

SUBMITTED:
Chief, Engr. Data Mngt. Sect.

File name: 158.118A2713.drp.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED:
Chief, Geospatial Branch

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

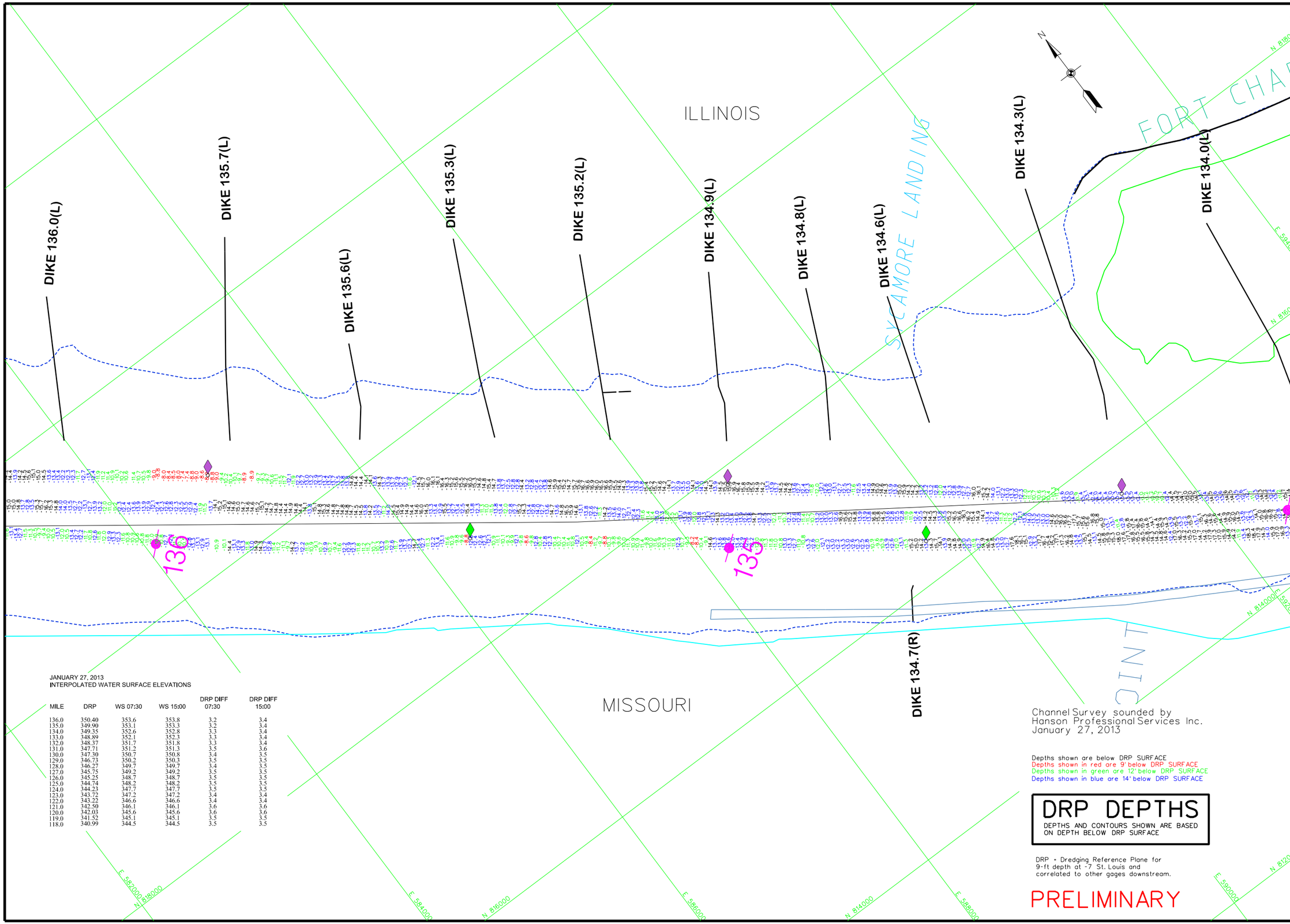
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS
800 FEET
120 0 120 400
400 0 400 800

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

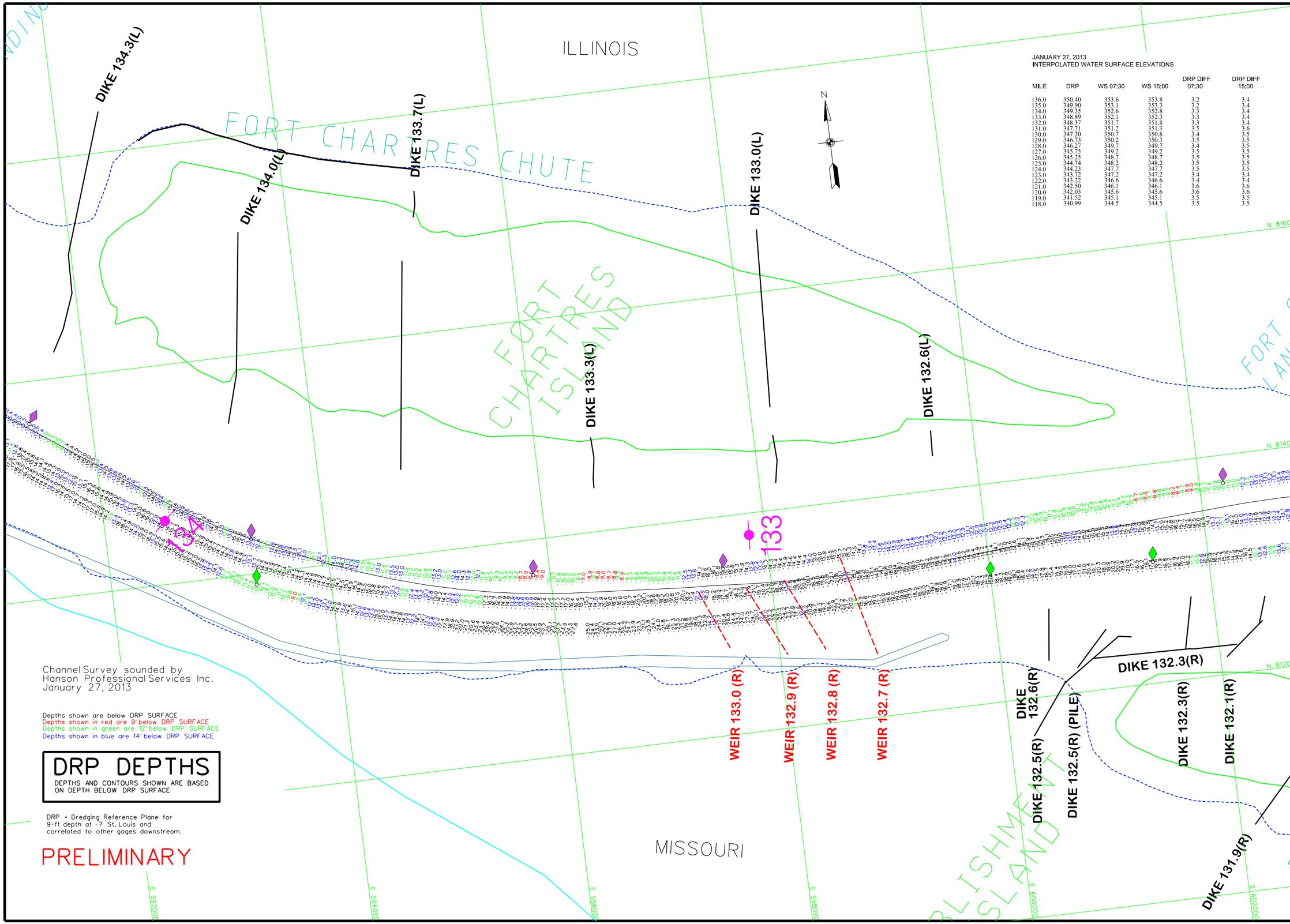
CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	LITTLE ROCK LDG	BRICKEY'S MILL	ST. LOUIS
ZERO N.G.V.D.		213.79	357.78	379.94
MILE		125.5	136.0	179.6
L. W. R. P.		349.2	356.2	376.4
	27 JAN 2013	348.5 (07:30) 348.5 (15:00)	353.6 (07:30) 353.8 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 134.000 C.F.S.

Survey Date: January 27, 2013

SUBMITTED:
Chief, Engr. Data Mngt. Sect.

File name: 158.118A2713.dr.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

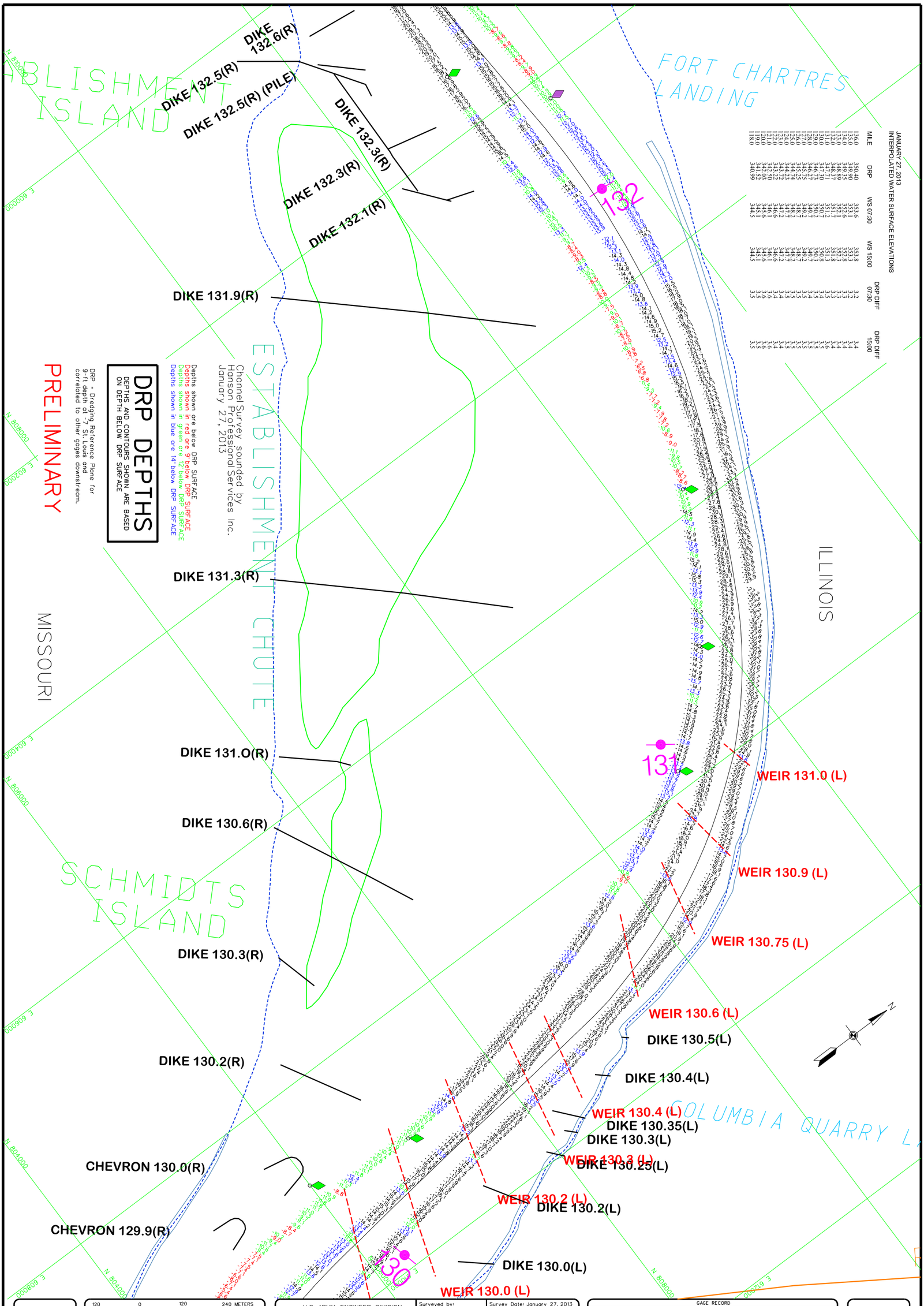
Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED: Chief, Geospatial Branch

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.2	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.5
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP - Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

PRELIMINARY

Channel Survey sounded by Hanson Professional Services Inc. January 27, 2013

PLATE NUMBER

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.

CHANNEL SURVEY
MILE: 158.5-118.0

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

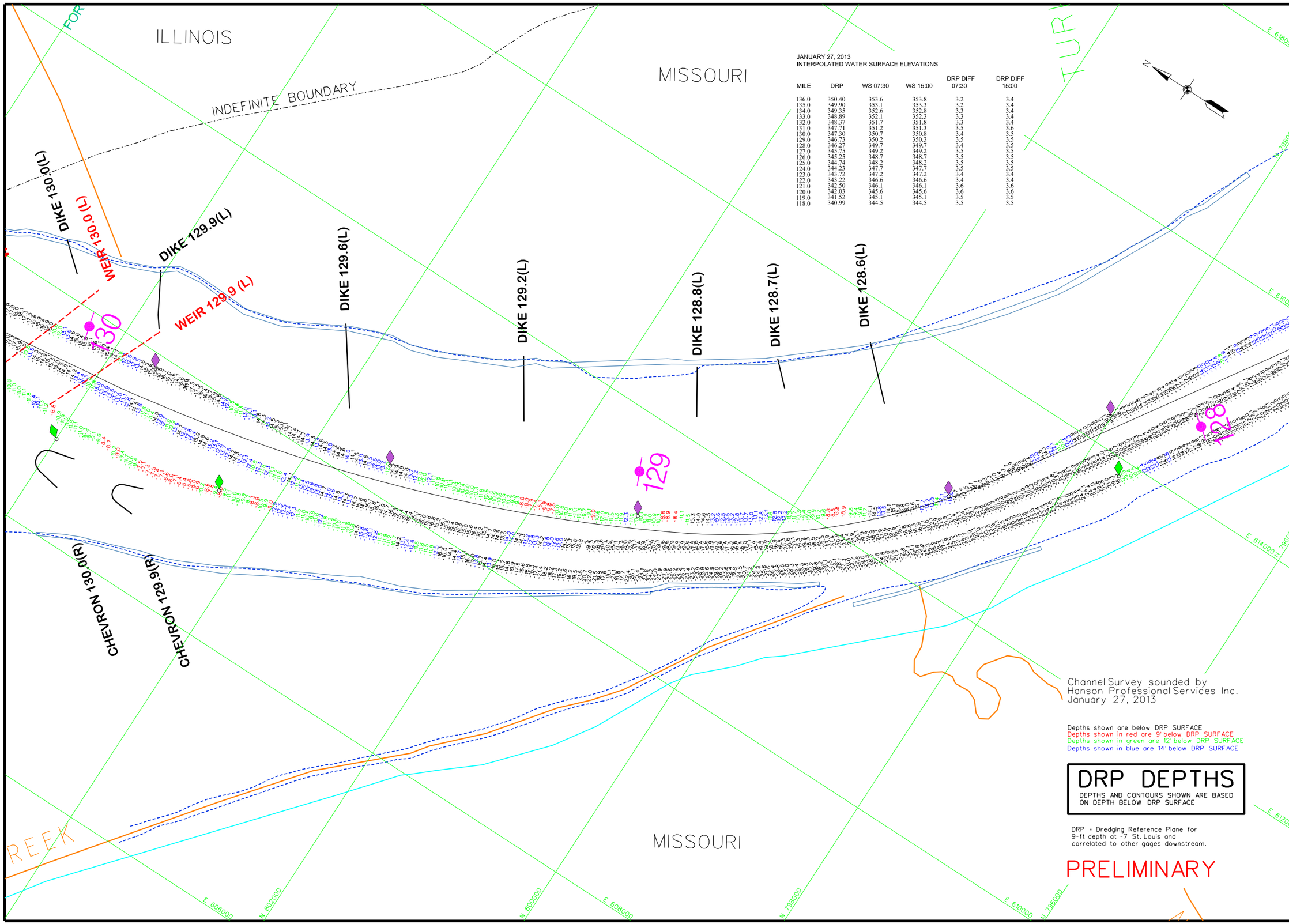
Surveyed by: HANSON	Survey Date: January 27, 2013
Drawn by: JLK / Ckd by: RCA	SUBMITTED: Chief, Engr. Data Mngt. Sect.
Reviewed by:	File name: 158.118A2713.drp.dgn
APPROVED: Chief, Geospatial Branch	Plot date: January 29, 2013 Plot scale: 1"=400'

GAGE RECORD

	WATER SURFACE	LITTLE ROCK LDG	BRICKEY'S MILL	ST. LOUIS
ZERO N.G.V.D.		213.79	357.78	379.94
MILE		125.5	136.0	179.6
L. W. R. P.		349.2	356.2	376.4
	27 JAN 2013	348.5 (07:30)	353.6 (07:30)	
		348.5 (15:00)	353.8 (15:00)	

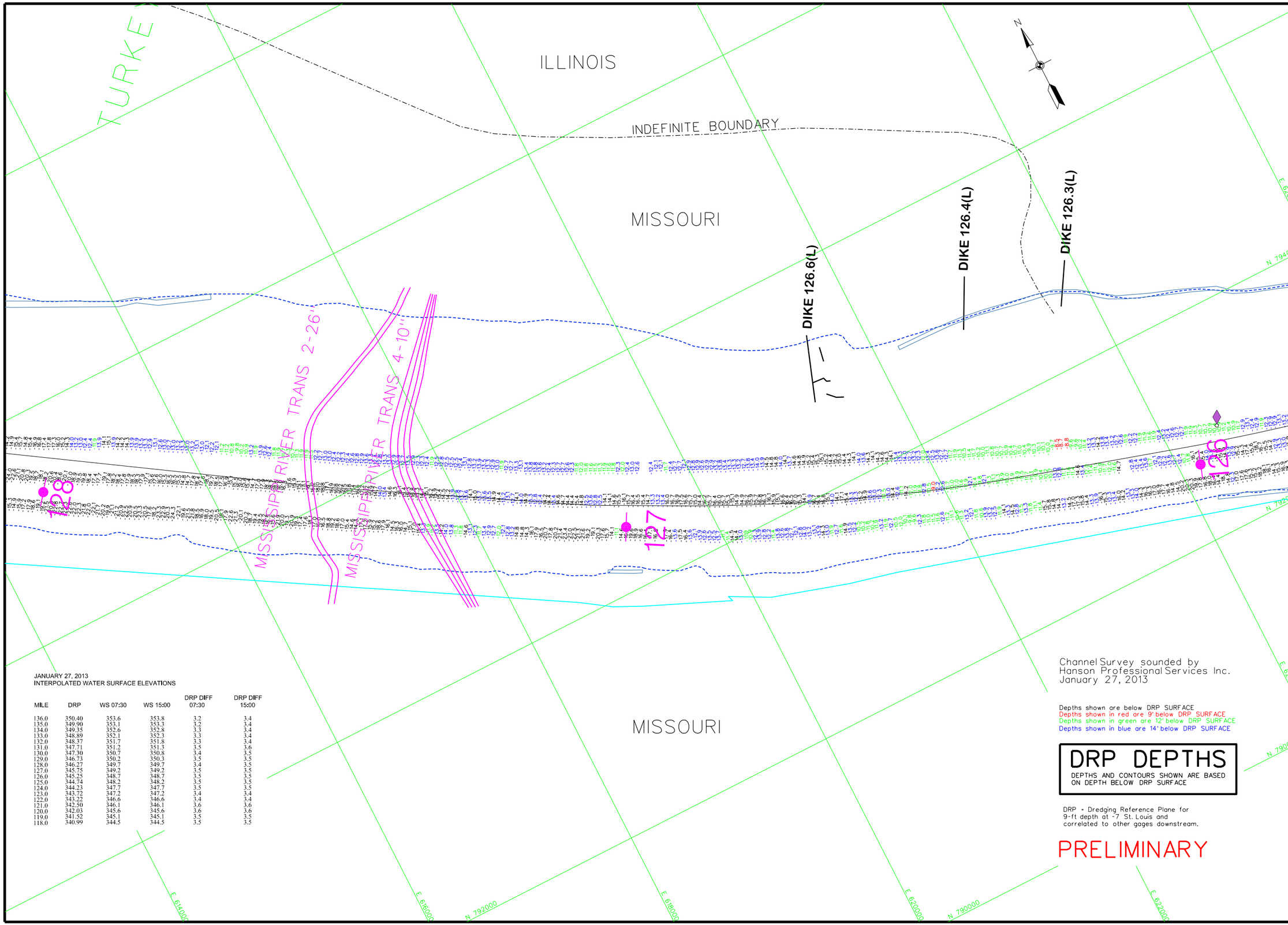
ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1956-57 LOW WATER REFERENCE PLANE (L.W.R.P.) (54,000 C.F.S.)

US Army Corps of Engineers
St. Louis District



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP - Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	LITTLE ROCK LDG	BRICKEY'S MILL	ST. LOUIS
ZERO N.G.V.D.		213.79	357.78	379.94
MILE		125.5	136.0	179.6
L. W. R. P.		349.2	356.2	376.4
	27 JAN 2013	348.5 (07:30) 348.5 (15:00)	353.6 (07:30) 353.8 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 154,000 C.F.S.

Survey Date: January 27, 2013

SUBMITTED:

Chief, Engr. Data Mngt. Sect.

File name: 158.118A2713.dr.dgn

Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED: Chief, Geospatial Branch

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

UPPER MISSISSIPPI RIVER BASIN

MISSISSIPPI RIVER

240 METERS 800 FEET
120 0 120 400 0 400

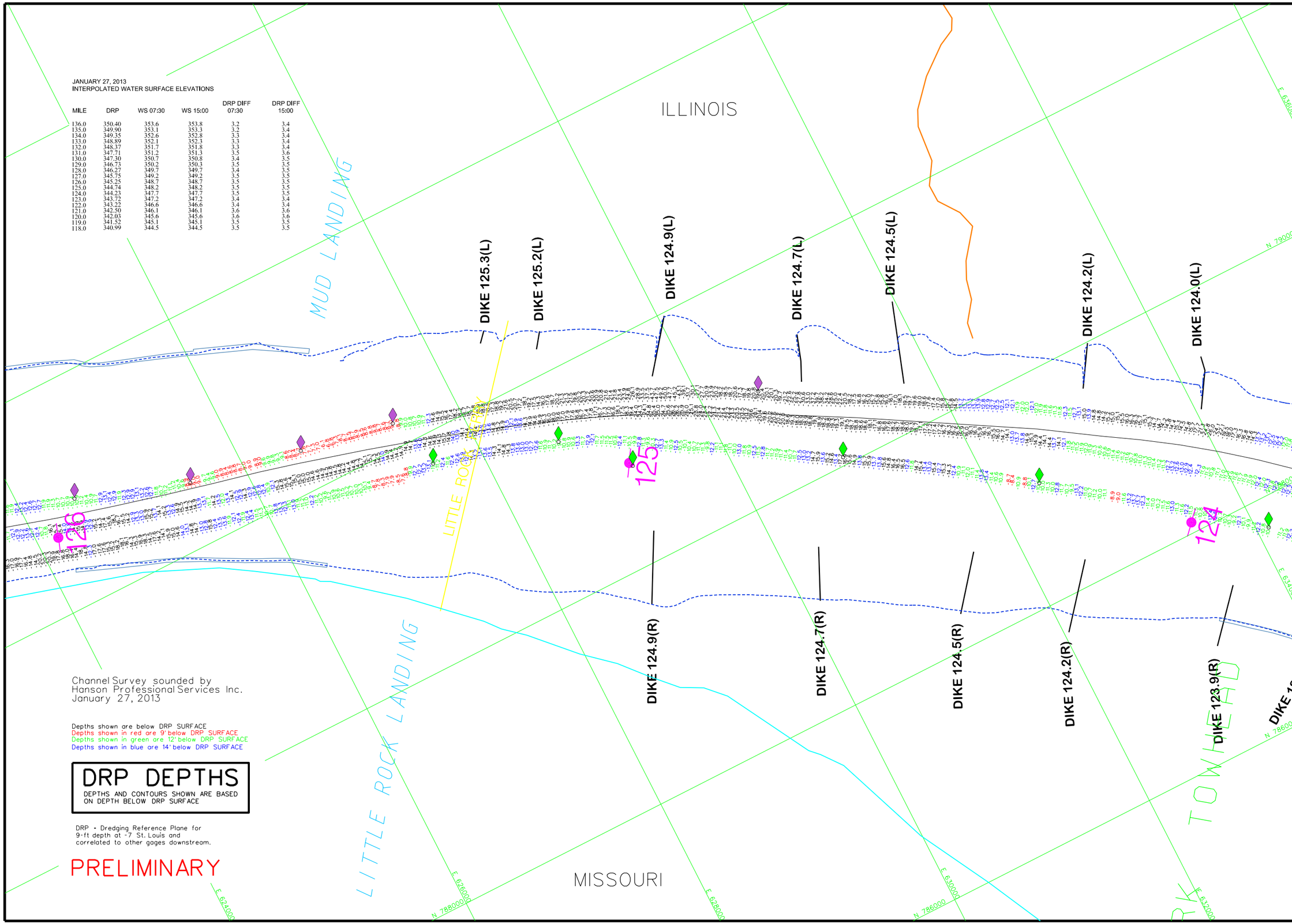
THE INFORMATION REPRESENTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE SHOWN AND IS PRESENTED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5 - 118.0

PLATE NUMBER

JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5



Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS
DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	CHESTER, IL	LITTLE ROCK LDG	ST. LOUIS
ZERO N.G.V.D.		341.05	213.79	379.94
MILE		109.9	125.5	179.6
L. W. R. P.		340.4	349.2	376.4
	27 JAN 2013	340.2 (07:30)	348.5 (07:30)	
		340.3 (15:00)	348.5 (15:00)	

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.

Survey Date: January 27, 2013
SUBMITTED:
Chief, Engr. Data Mngt. Sect.
File name: 158.118A2713.drp.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED:
Chief, Geospatial Branch

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

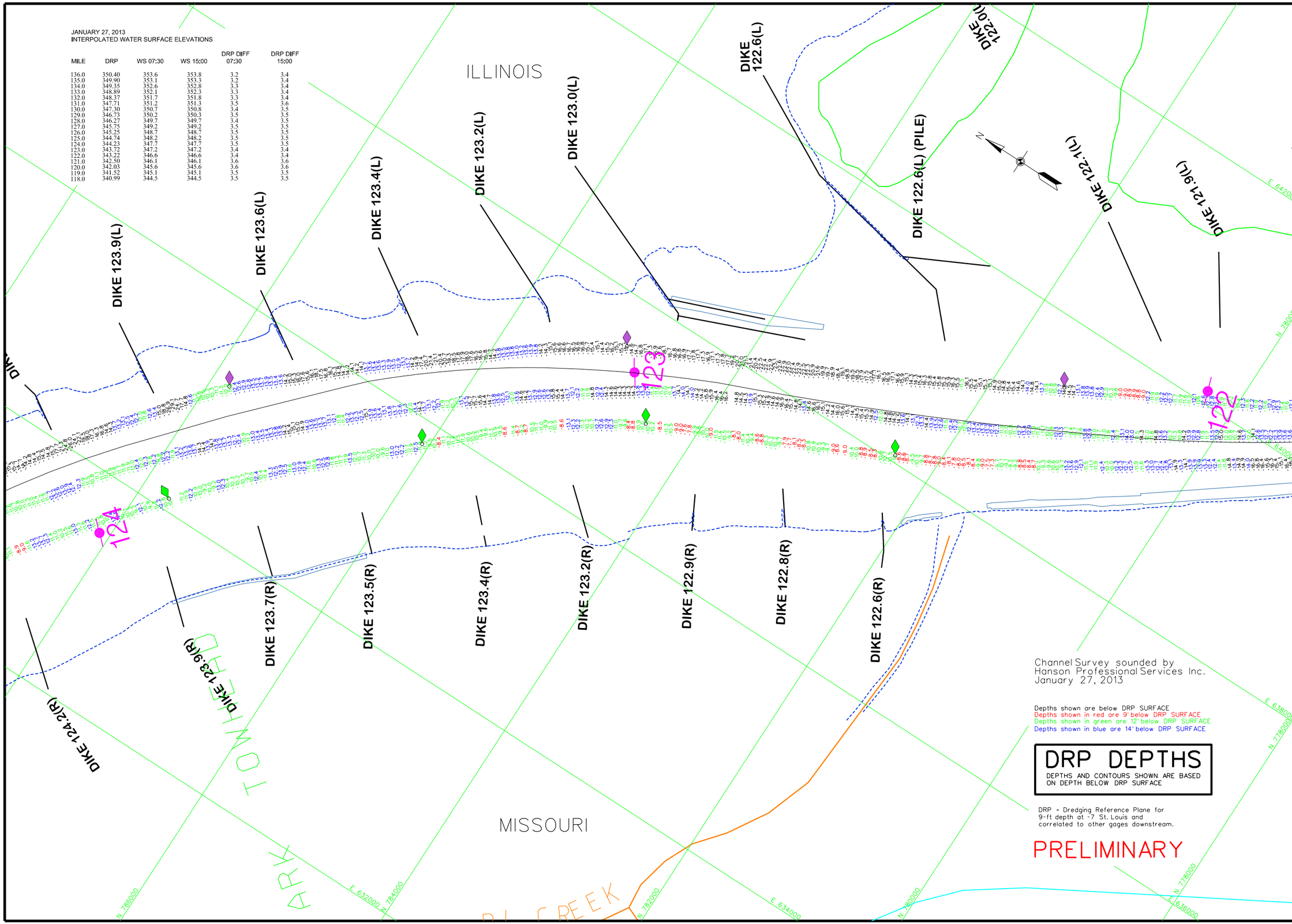
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER

JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5



Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD			
WATER SURFACE	CHESTER, IL	LITTLE ROCK LDG	ST. LOUIS
ZERO N.G.V.D.	341.05	213.79	379.94
MILE	109.9	125.5	179.6
L. W. R. P.	340.4	349.2	376.4
27 JAN 2013	340.2 (07:30)	348.5 (07:30)	
	340.3 (15:00)	348.5 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) (94.000 C.F.S.)

Surveyed by: HANSON
Survey Date: January 27, 2013
Drawn by: JLK
Ckd by: RCA
SUBMITTED:
Chief, Engr. Data Mngt. Sect.
Reviewed by:
File name: 158.118A2713.dr.dgn
APPROVED:
Chief, Geospatial Branch
Plot date: January 29, 2013
Plot scale: 1"=400'

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

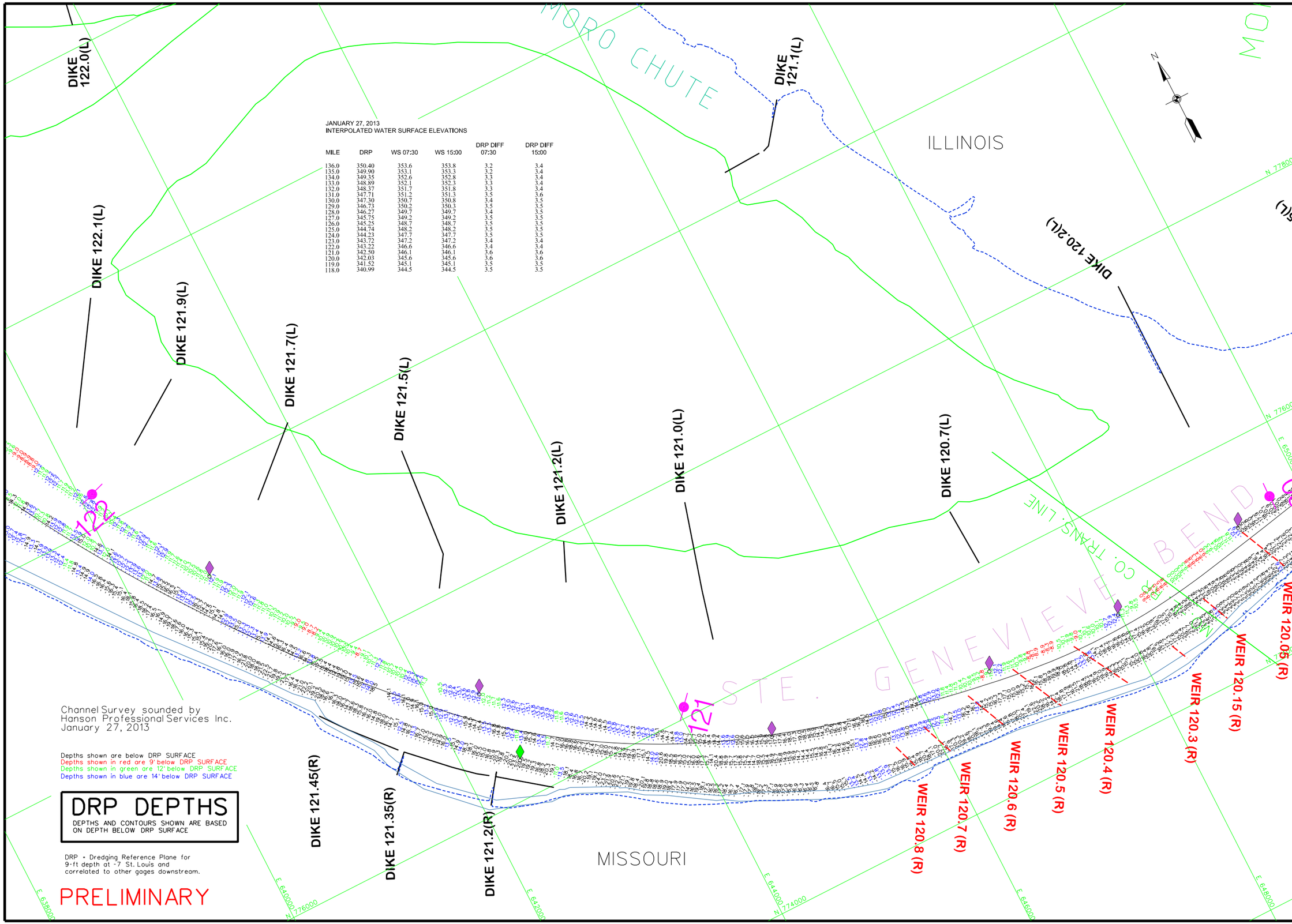
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS
800 FEET
120 0 120 400
0 400

SURVEY INFORMATION REPRESENTS ONLY THE POSSIBLE EXISTENCE OF SHOALS OR OBSTRUCTIONS AS INDICATED BY THE SURVEYS AND DOES NOT NECESSARILY INDICATE THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5 - 118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	CHESTER, IL	LITTLE ROCK LDG	ST. LOUIS
ZERO N.G.V.D.		341.05	213.79	379.94
MILE		109.9	125.5	179.6
L. W. R. P.		340.4	349.2	376.4
	27 JAN 2013	340.2 (07:30) 340.3 (15:00)	348.5 (07:30) 348.5 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 154.000 C.F.S.

Survey Date: January 27, 2013

SUBMITTED:

Chief, Engr. Data Mngt. Sect.

File name: 158.118A2713.dr.dgn

Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED: Chief, Geospatial Branch

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

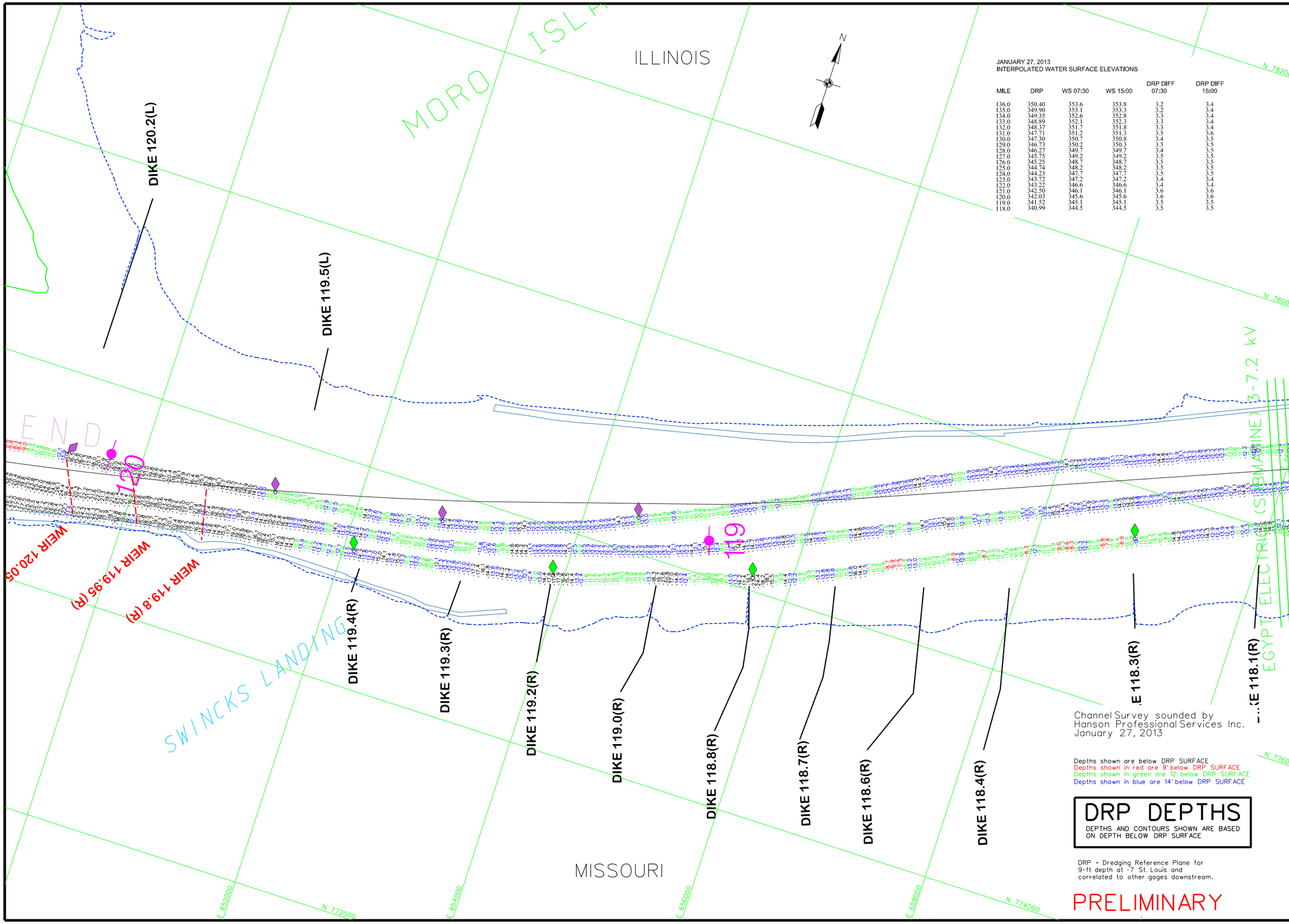
UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

240 METERS 120 0 120 400
800 FEET 400 0 400 800

THE INFORMATION REPORTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE BY THE ST. LOUIS DISTRICT AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER



JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5

Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	CHESTER, IL	LITTLE ROCK LDG	ST. LOUIS
ZERO N.G.V.D.		341.05	213.79	379.94
MILE		109.9	125.5	179.6
L. W. R. P.		340.4	349.2	376.4
	27 JAN 2013	340.2 (07:30) 340.3 (15:00)	348.5 (07:30) 348.5 (15:00)	

ELEVATIONS ARE REFERRED TO N.G.V.D. - CONTOURS ARE BELOW 1994-97 LOW WATER REFERENCE PLANE (L.W.R.P.) 134.000 C.F.S.

Survey Date: January 27, 2013

SUBMITTED:
Chief, Engr. Data Mngt. Sect.

File name: 158.118ALT13.dr.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED: Chief, Geospatial Branch

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 400 0 0 240 METERS 800 FEET

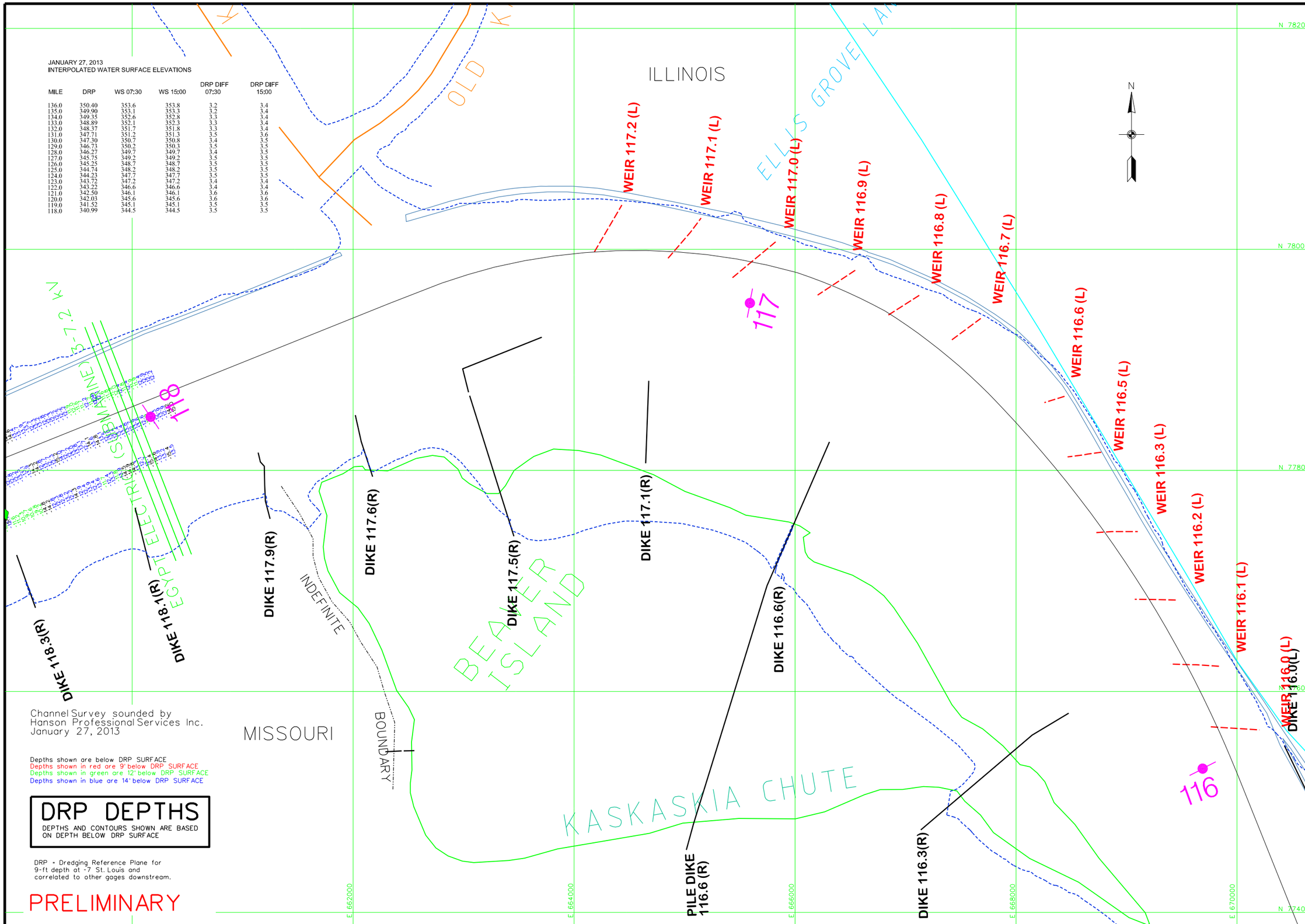
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESOURCES AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER

JANUARY 27, 2013
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	DRP	WS 07:30	WS 15:00	DRP DIFF 07:30	DRP DIFF 15:00
136.0	350.40	353.6	353.8	3.2	3.4
135.0	349.90	353.1	353.3	3.2	3.4
134.0	349.35	352.6	352.8	3.3	3.4
133.0	348.89	352.1	352.3	3.3	3.4
132.0	348.37	351.7	351.8	3.3	3.4
131.0	347.71	351.2	351.3	3.5	3.6
130.0	347.30	350.7	350.8	3.4	3.5
129.0	346.73	350.2	350.3	3.5	3.5
128.0	346.27	349.7	349.7	3.4	3.5
127.0	345.75	349.2	349.2	3.5	3.5
126.0	345.25	348.7	348.7	3.5	3.5
125.0	344.74	348.2	348.2	3.5	3.5
124.0	344.23	347.7	347.7	3.5	3.5
123.0	343.72	347.2	347.2	3.4	3.4
122.0	343.22	346.6	346.6	3.4	3.4
121.0	342.50	346.1	346.1	3.6	3.6
120.0	342.03	345.6	345.6	3.6	3.6
119.0	341.52	345.1	345.1	3.5	3.5
118.0	340.99	344.5	344.5	3.5	3.5



Channel Survey sounded by
Hanson Professional Services Inc.
January 27, 2013

Depths shown are below DRP SURFACE
Depths shown in red are 9' below DRP SURFACE
Depths shown in green are 12' below DRP SURFACE
Depths shown in blue are 14' below DRP SURFACE

DRP DEPTHS

DEPTHS AND CONTOURS SHOWN ARE BASED ON DEPTH BELOW DRP SURFACE

DRP = Dredging Reference Plane for 9-ft depth at -7 St. Louis and correlated to other gages downstream.

PRELIMINARY

US Army Corps of Engineers
St. Louis District

GAGE RECORD

	WATER SURFACE	CHESTER, IL	LITTLE ROCK LDG	ST. LOUIS
ZERO N.G.V.D.		341.05	213.79	379.94
MILE		109.9	125.5	179.6
L. W. R. P.		340.4	349.2	376.4
	27 JAN 2013	340.2 (07:30) 340.3 (15:00)	348.5 (07:30) 348.5 (15:00)	

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.

Survey Date: January 27, 2013

SUBMITTED:
Chief, Engr. Data Mngt. Sect.

File name: 158.118x2713.dr.dgn
Plot date: January 29, 2013
Plot scale: 1"=400'

Surveyed by: HANSON
Drawn by: JLK
Ckd by: RCA
Reviewed by:
APPROVED: Chief, Geospatial Branch

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

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER

120 400 0 0 120 240 400 800 METERS FEET

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE AT THE TIME INDICATED AND MAY NOT BE AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME

CHANNEL SURVEY
MILE: 158.5-118.0

PLATE NUMBER