



Latitude:34.35369, Longitude:-92.88546

Route:30 Section:21 Log:93.51

Arnold Road ID:30x30x21xA, Arnold Log mile:93.462

District 06, 59 - Hot Spring County

Owner: 1 - State Highway Agency





34.35369, -92.88546



**Asset #B5027**(Routine, Underwater type 2)

**I-30 EB log 93.51 over CREEK**

**Location: 4.45 MI SW OF US 270**

**Team Lead: Chris Doggett, Inspection Date: 10/26/2022**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	B5027
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	59 - Hot Spring County
(4) Place Code	0
(6) Features Intersected	CREEK
(7) Facility Carried	I-30 EB log 93.51
(9) Location	4.45 MI SW OF US 270
(11) Mile Point	93.51 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000030210
(16) Latitude	34.353687
(17) Longitude	-92.88546
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3 - Steel
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	5
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1967
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	15500
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	41 ft
(49) Structure Length	207 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	39 ft
(52) Deck Width Out to Out	42 ft
(32) Approach Roadway Width (W/Shoulders)	42 ft
(33) Bridge Median	1 - Open median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	1 - Navigation protection not
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	1
(26) Functional Class	1 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	R - The right structure of par
(102) Direction of Traffic	1 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	4
(60) Substructure	5
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6 - MS 18+Mod / HS 20+Mod
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	36
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	17465
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	10/26/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



Asset #B5027(Routine, Underwater type 2)

District: 06, County: 59 - Hot Spring County

Team Lead: Chris Doggett, Inspection Date: 10/26/2022

#### General Observation

Lane closure information is located under other tab.

Approach looking eastbound

Underwater performed 10/26/2022: during this inspection the creek was dry and we were able to probe it.

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#### A-46 - Asset Files

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Asset #B5027 (Routine, Underwater type 2)

I-30 EB log 93.51 over CREEK

Location: 4.45 MI SW OF US 270

Team Lead: Chris Doggett, Inspection Date: 10/26/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	8405	8405	0	0	0
510	Wearing Surfaces	SF	7995	5171	2554	270	0
3210	Delam/Spall/Patched Area/Pothole	SF	12	0	12	0	0
3220	Crack (Wearing Surface)	SF	2812	0	2542	270	0
(12) Deck has a 2" wearing surface. Wearing surface has moderate to large unsealed cracks in all spans.							
107	Steel Open Girder/Beam	LF	1435	1294	62	77	2
1000	Corrosion	LF	140	0	62	76	2
1010	Cracking	LF	1	0	0	1	0
515	Steel Protective Coating	SF	7937	4447	2100	1330	60
3420	Peeling/Bubbling/Cracking	LF	130	0	0	130	0
3440	Effectiveness (Steel Protective Coatings)	LF	3360	0	2100	1200	60
(107) Beam ends at bents 2 thru 5 have section loss up to 1/4" to bottom flange and top portion of web at the haunch. Span 4, bent 5, beam 3: 3" hole in the web at the haunch area. Span 4, bent 4, beam 5: 2" hole in the web at the haunch area.							
205	Reinforced Concrete Column	EA	4	2	2	0	0
1090	Exposed Rebar	EA	2	0	2	0	0
(205) Bent 3 column 2 spall with exposed reinforcing steel. Bent 4 column 1 exposed reinforcing steel.							
210	Reinforced Concrete Pier Wall	LF	40	39	1	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
(210) Bent 3 pier wall has a delaminated area on ahead side by column 1.							
215	Reinforced Concrete Abutment	LF	84	79	5	0	0
1130	Cracking (RC and Other)	LF	5	0	5	0	0
(215) Both abutments have vertical cracks. Bent 6: dirt and debris is resting atop the entire beam seat covering majority of the bearings due to joint seal missing							
225	Steel Pile	EA	12	0	5	7	0
1000	Corrosion	EA	12	0	5	7	0
515	Steel Protective Coating	SF	1440	100	0	670	670
3440	Effectiveness (Steel Protective Coatings)	EA	1340	0	0	670	670
(225) Bent 5 ahead side bottom bracing on piles have broke welds at piles 2 thru 4. Bent 2 piles 5 and 6 have active corrosion and pitting to 1/8" deep at the top under the cap. Bent 5 piles 2-5 have section loss at top of piles.							
234	Reinforced Concrete Pier Cap	LF	161	140	21	0	0

**Team Lead:** Chris Doggett, **Inspection Date:** 10/26/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0
1090	Exposed Rebar	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
(234) Small horizontal cracks in the caps of bents 2 and 3. Bent 3 ahead face at the top between beams 5 & 6, small delam. Bent 4, back side, two exposed rebar and on the bottom of the cap on the right end. Bent 5 ahead side between piles 5 and 6 cap has a spall with exposed rebar.							
302	Compression Joint Seal	LF	254	0	189	65	0
2310	Leakage	LF	189	0	189	0	0
2330	Seal Damage	LF	65	0	0	65	0
(302) All the seals leak. Sections of the seal are missing at all bents.							
311	Movable Bearing	EA	35	13	22	0	0
1000	Corrosion	EA	19	0	19	0	0
2210	Movement	EA	3	0	3	0	0
(311) Bearings 3 ahead and backside are floating at bents 2,3 & 4.							
313	Fixed Bearing	EA	35	10	25	0	0
1000	Corrosion	EA	20	0	20	0	0
2210	Movement	EA	5	0	5	0	0
(313) All bents have floating bearings.							
321	Reinforced Concrete Approach Slab	SF	2800	2742	58	0	0
1130	Cracking (RC and Other)	SF	58	0	58	0	0
(321) Both approach slabs have transverse cracks.							
330	Metal Bridge Railing	LF	415	365	10	40	0
1900	Distortion	LF	10	0	10	0	0
7000	Damage	LF	40	0	0	40	0
(330) Span 1 right rail and span 4 left rail damaged due to traffic impact.Metal rail has approximately 40' of damage.							
331	Reinforced Concrete Bridge Railing	LF	415	346	69	0	0
1080	Delamination/Spall/Patched Area	LF	11	0	11	0	0
1130	Cracking (RC and Other)	LF	58	0	58	0	0
(331) Concrete bridge rail has vertical cracks scattered throughout structure. Left rail has 2 repaired areas.							

**Asset #B5027**(Routine, Underwater type 2)



[illegible]

## Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	4	2	2	0	0
1090	Exposed Rebar	EA	2	0	2	0	0
(205) Bent 3 column 2 spall with exposed reinforcing steel. Bent 4 column 1 exposed reinforcing steel.							
210	Reinforced Concrete Pier Wall	LF	40	39	1	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
(210) Bent 3 pier wall has a delaminated area on ahead side by column 1.							
215	Reinforced Concrete Abutment	LF	84	79	5	0	0
1130	Cracking (RC and Other)	LF	5	0	5	0	0
(215) Both abutments have vertical cracks. Bent 6: dirt and debris is resting atop the entire beam seat covering majority of the bearings due to joint seal missing							
225	Steel Pile	EA	12	0	5	7	0
1000	Corrosion	EA	12	0	5	7	0
515	Steel Protective Coating	SF	1440	100	0	670	670
3440	Effectiveness (Steel Protective Coatings)	EA	1340	0	0	670	670
(225) Bent 5 ahead side bottom bracing on piles have broke welds at piles 2 thru 4. Bent 2 piles 5 and 6 have active corrosion and pitting to 1/8" deep at the top under the cap. Bent 5 piles 2-5 have section loss at top of piles.							
234	Reinforced Concrete Pier Cap	LF	161	140	21	0	0
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0
1090	Exposed Rebar	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
(234) Small horizontal cracks in the caps of bents 2 and 3. Bent 3 ahead face at the top between beams 5 & 6, small delam. Bent 4, back side, two exposed rebar and on the bottom of the cap on the right end. Bent 5 ahead side between piles 5 and 6 cap has a spall with exposed rebar.							



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### Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4





Elevation



Deck view



Bent 5 ahead side: spall with exposed rebar under beam 5



3" of holes  
200





2" hole in web at the haunch  
2022



Bent 5: all pile with surface rust



Section loss at the haunch and above diaphragm 2022



2022





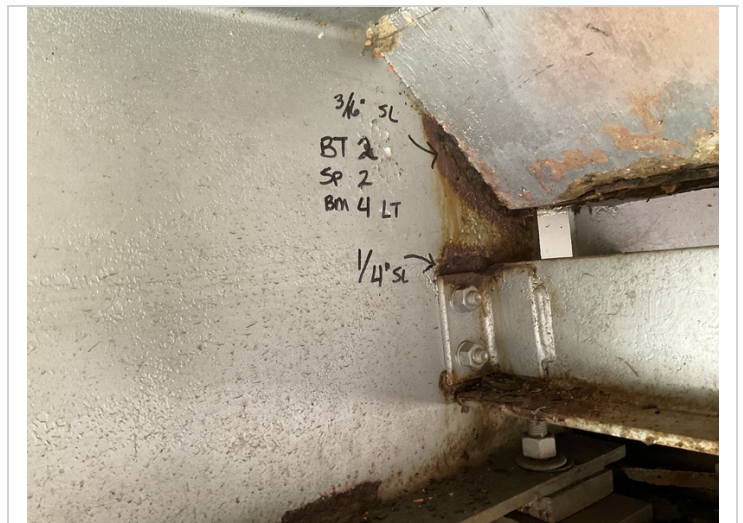
Backside of bent 4 cap has couple spalls with exposed rebar



Ahead side of bent 3 between beams 5 and 6: spall and delam approximately 6 feet in length



2022



2022





Span 1, beam 7, 3rd dia.: Crack to the weld  
2022



1/4" section loss at the haunch 2022



Soffit view



Inventory looking east



**Maintenance Needs**

**Date Reported:** 10/13/2016

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Element

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**Deficiency Description**

Deck joints at all bents have lost bond, have missing sections and leak.

**Remarks**

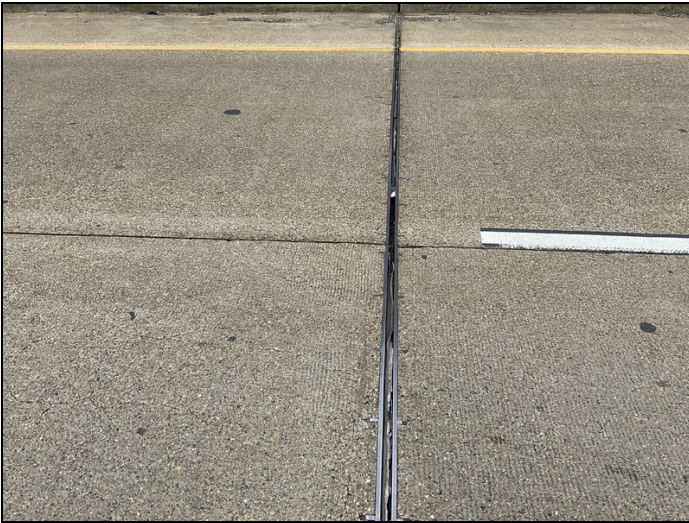
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Bent 6: majority of joint seal missing.  
2022



Bent 5: joint seal has lost bond allowing water to leak  
through.  
2022



Bent 3: entire joint seal damaged







Bent 5 joint seal is damaged and leaking. Common all joints.

**Maintenance Needs**

**Date Reported:** 10/03/2018

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Assigned

**Component:**

---

**Deficiency Description**

Trees growing under bridge in spans 1 and 4.

2022 Both sides of bridge has trees and heavy vegetation making it difficult to use the Aspen inspection vehicle.

**Remarks**

Assigned Hot Springs 06301 10/31/18

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Both sides of bridge has trees and heavy vegetation making it difficult to use the Aspen inspection vehicle.



Bent 2: vines climbing onto pile 6





Trees growing under bridge in span 1.



Trees growing in span 4.



State forces have cut trees growing under span1.  
Common span 4.



**Maintenance Needs**

**Date Reported:** 10/03/2018

**Priority:** C - Important

**Type of Work:** Replace (General)

**Status:** Monitor

**Component:** Element

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**Deficiency Description**

Metal bridge rail damaged in span 4 both sides and Span 5, right rail damaged due to traffic impact

**Remarks**

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Span 5, right rail damaged due to traffic impact



Span 4: left rail is damaged due to traffic impact. 2022





Span 4 collision damage to bridge rail, bottom rail section is missing. Right side



Span 4 left side collision damage to metal bridge rail.



Left bridge rail at span 4 is damaged due to traffic impact.

**Maintenance Needs**

**Date Reported:** 10/03/2018

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Floating bearings at the following locations, Fixed bearings, bent 1 bearing 5, bent 2 bearing 2, bent 3 bearing 3, bent 4 bearings 2 and 3, bent 5 bearing 3 and bent 6 bearing 3 and 4. Moveable bearings, bent 2 bearing 3 and bent 3 bearing 3.

**Remarks**

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Bent 4, beam 5, span 4: beam floating



Span 3, bent 4, beam 5: beam is floating and causing a rattling sound





Looking back at bent 3: beams 3&4 the beams are floating causing the bearings to have getting rust



Span 1, bent 2, beam 7: beam is floating.



Bent 3 bearings 3 ahead and back have movement.



**Maintenance Needs**

**Date Reported:** 10/03/2018

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Open

**Component:** Deck

---

**Deficiency Description**

Deck has moderate to large transverse/longitude cracks in all spans.

**Remarks**

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Span 1: multiple unsealed longitudinal cracks



Span 1 longitudinal cracks.



Span 2 large longitudinal cracks.



Span 5 longitudinal and transverse cracks.



**Maintenance Needs**

**Date Reported:** 11/03/2022

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Open

**Component:** Deck

---

**Deficiency Description**

Bent 4: small spall in the lane just right of centerline.

**Remarks**

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Bent 4: small spall in the lane just right of centerline.





**Asset #B5027**(Routine, Underwater type 2)

**I-30 EB log 93.51 over CREEK**

**Location: 4.45 MI SW OF US 270**

**Team Lead:** Chris Doggett, **Inspection Date:** 10/26/2022

#### **Maintenance Needs**

**Date Reported:** 11/03/2022

**Priority:** D- Routine

**Status:** Open

**Type of Work:** (Inactive) (Inactive) 1 - Clean

**Component:** Element

---

#### **Deficiency Description**

Bent 6: dirt and debris is resting atop the entire beam seat covering majority of the bearings due to joint seal missing

#### **Remarks**

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**Maintenance Needs**

**Date Reported:** 11/03/2022

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Open

**Component:** Element

**Deficiency Description**

Bent 5, pile 4: top of the pile has up to 3/16" section loss adjacent to the cap. Similar condition at piles 2,3&4.

**Remarks**



Bent 5, pile 4: top of the pile has up to 3/16" section loss adjacent to the cap. Similar condition at piles 2,3&4.



2022



2022



**Maintenance Needs**

**Date Reported:** 11/03/2022

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Open

**Component:** Approach

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**Deficiency Description**

North west end: Left guard rail damaged from traffic impact

**Remarks**

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North west end: Left guard rail damaged from traffic impact

**Maintenance Needs**

**Date Reported:** 11/04/2022

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Open

**Component:** Element

**Deficiency Description**

Beam ends at bents 2 thru 5 have section loss up to 1/4" to bottom flange and top portion of web at the haunch.

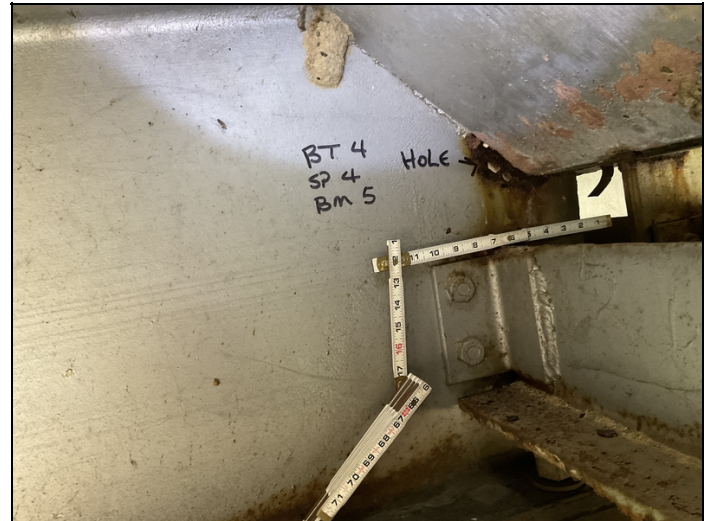
Span 4, bent 5, beam 3: 3" hole in the web at the haunch area.

Span 4, bent 4, beam 5: 2" hole in the web at the haunch area.

**Remarks**



3" of holes



2" hole in web at the haunch



Section loss at the haunch and above diaphragm 2022



2022





2022

**Maintenance Needs**

**Date Reported:** 11/04/2022

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Open

**Component:** Element

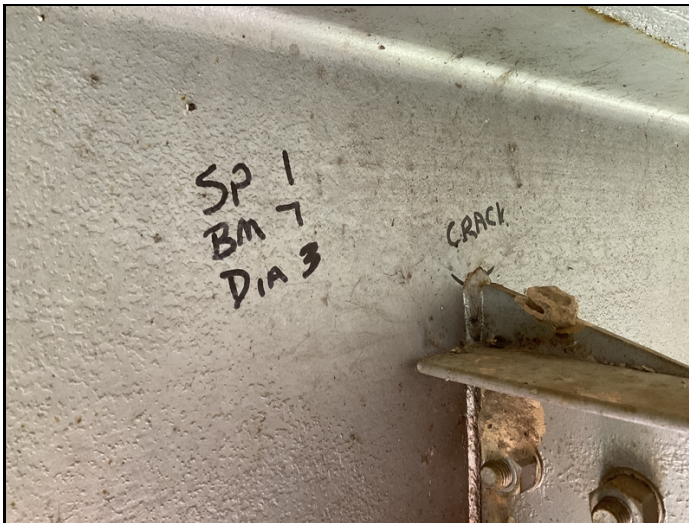
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**Deficiency Description**

Span 1, beam 7, 3rd dia.: Crack to the weld

**Remarks**

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Span 1, beam 7, 3rd dia.: Crack to the weld



**Asset #B5027**(Routine, Underwater type 2)

**I-30 EB log 93.51 over CREEK**

**Location: 4.45 MI SW OF US 270**

**Team Lead:** Chris Doggett, **Inspection Date:** 10/26/2022

## **Routine Maintenance**

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57 - Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	





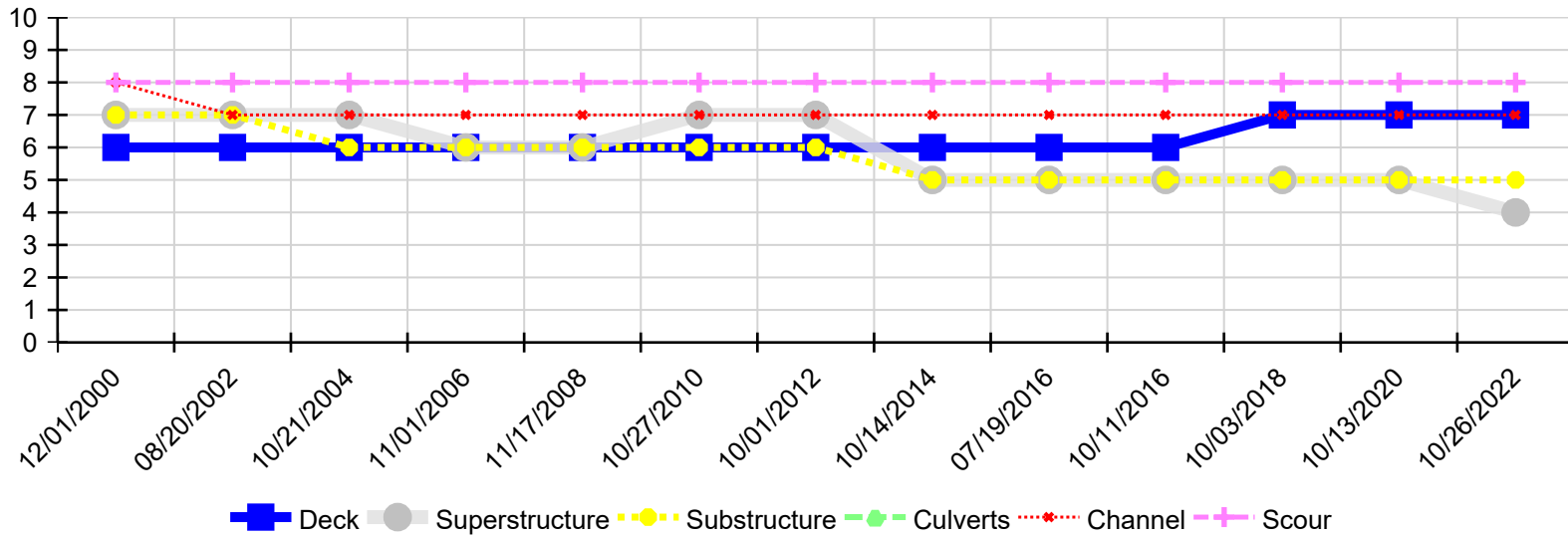
Asset #B5027 (Routine, Underwater type 2)

I-30 EB log 93.51 over CREEK

Location: 4.45 MI SW OF US 270

Team Lead: Chris Doggett, Inspection Date: 10/26/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
10/26/2022	7	4	5	N	7	8
10/13/2020	7	5	5	N	7	8
10/03/2018	7	5	5	N	7	8
10/11/2016	6	5	5	N	7	8
07/19/2016	6	5	5	N	7	8
10/14/2014	6	5	5	N	7	8
10/01/2012	6	7	6	N	7	8
10/27/2010	6	7	6	N	7	8
11/17/2008	6	6	6	N	7	8
11/01/2006	6	6	6	N	7	8
10/21/2004	6	7	6	N	7	8
08/20/2002	6	7	7	N	7	8
12/01/2000	6	7	7	N	8	8