



Latitude:33.93399, Longitude:-92.06511

Route:114 Section:00 Log:6.309

Arnold Road ID:13x114x0xA, Arnold Log mile:6.32

District 07, 25 - Cleveland County

Owner: 1 - State Highway Agency

**Bridge Posting Information**

41 - Structure Open/Posted/Closed: A - Open, no restriction

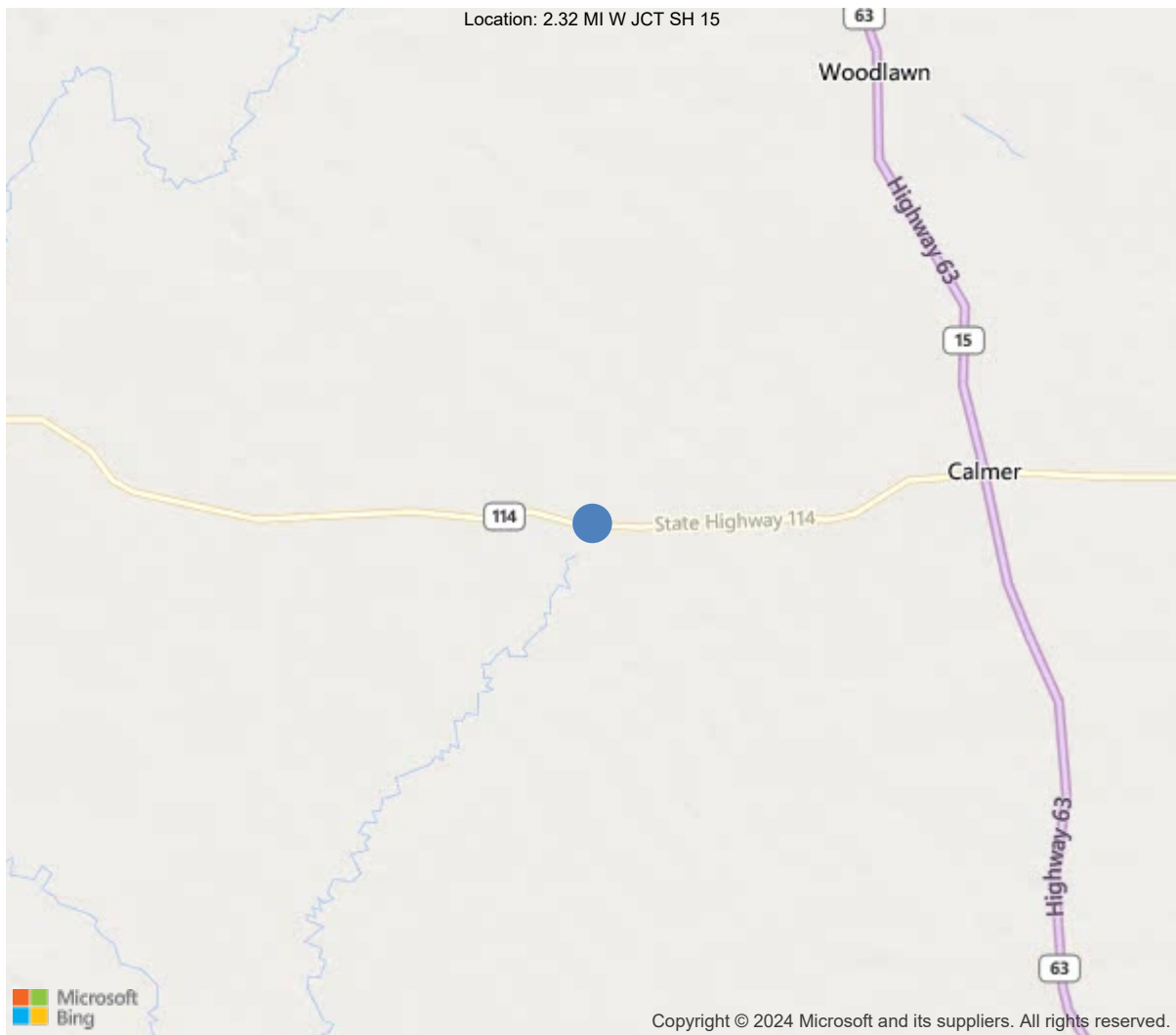
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	34		
Code 9 (31 Tons)	38		
Code 5 (40 Tons)	47		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



33.93399, -92.06511



**Asset #M4070**(Routine, Underwater type 2)

**SH 114 S-O LM 6.30 over KESSEE CREEK**

**Location: 2.32 MI W JCT SH 15**

**Team Lead: Rickie Bratton, Inspection Date: 09/06/2023**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M4070
(5) Inventory Route	1
(2) Highway Agency District	07 - District 07
(3) County Code	25 - Cleveland County
(4) Place Code	0
(6) Features Intersected	KESSEE CREEK
(7) Facility Carried	SH 114 S-O LM 6.30
(9) Location	2.32 MI W JCT SH 15
(11) Mile Point	6.309 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.93399
(17) Longitude	-92.06511
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1 - Concrete
Type	22 - Channel beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	2 - Concrete Precast Panels
(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	1975
(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	700
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	16 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	63 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	28.2 ft
(52) Deck Width Out to Out	30.7 ft
(32) Approach Roadway Width (W/Shoulders)	24 ft
(33) Bridge Median	0 - No 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	29.2 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	0
(26) Functional Class	7 - Rural Major Collector
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	5
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	51
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	31
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	5 - 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	1100
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	09/06/2023		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* 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 #M4070(Routine, Underwater type 2)

District: 07, County: 25 - Cleveland County

Team Lead: Rickie Bratton, Inspection Date: 09/06/2023

### General Observation

06/13/2018 JPR - This structure is logged from West to East.  
2 Span Channel beam with concrete cap and timber piles.

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**58 - Deck** (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Span 1 missing grout between units 3 and 4.

Span 1 unit 3, heavy surface spalling, filled with asphalt.

span 2 unit 2, surface spall filled with asphalt.

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**59 - Superstructure** (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Span 1 units 1,2 and 8 exposed rebar

span 2 units 1,2, 6 and 8 exposed rebar

Unit 1 span 1 numerous cracks and spalls. Unit 6 span 2 has 12' of cracks and spalls. Efflorescence between units 3-4 span 1.

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**60 - Substructure** (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Bent 2 cap, back face, spalled under units 4 and 5

bent 2 ahead, spalled under units 2-8. Also has exposed rebar.

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### A-46 - Asset Files

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Asset #M4070(Routine, Underwater type 2)

SH 114 S-O LM 6.30 over KESSEE CREEK

Location: 2.32 MI W JCT SH 15

Team Lead: Rickie Bratton, Inspection Date: 09/06/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1934	1844	0	90	0
1080	Delamination/Spall/Patched Area	SF	90	0	0	90	0
(16) Span 1 has a PC Unit with two full length spalls running longitudinally along each side, these have been patched. 06/12/2108 JPR -- There is also a patch on Span 1 PC Unit 3 that is about (4' x 4' = 16 sq. ft.). Span 2 PC Unit 2 has a (3' x 2' = 6 sq. ft.) spall and Span 2 PC Unit 6 has (0.5' x 6' = 3 sq. ft.)							
110	Reinforced Concrete Open Girder/Beam	LF	441	193	186	62	0
1080	Delamination/Spall/Patched Area	LF	18	0	0	18	0
1090	Exposed Rebar	LF	44	0	0	44	0
1120	Efflorescence/Rust Staining	LF	30	0	30	0	0
1130	Cracking (RC and Other)	LF	156	0	156	0	0
(110) Unit 1 span 1 numerous cracks and spalls. Unit 6 span 2 has 12" of cracks and spalls. Heavy white efflorescence between units 3-4 span 1. 06/13/2018 JPR -- All of span 2 has some minor hairline cracks in the bottom and up the sides of the stems.							
215	Reinforced Concrete Abutment	LF	62	0	62	0	0
6000	Scour	LF	62	0	62	0	0
(215) 06/13/2018 JPR -- Both Abutments have scour that goes back under the abutment caps, but at this time there is very little roadway settlement @ either abutment.							
228	Timber Pile	EA	6	2	4	0	0
1150	Check/Shake	EA	1	1	0	0	0
1160	Crack (Timber)	EA	4	0	4	0	0
234	Reinforced Concrete Pier Cap	LF	31	21	6	4	0
1080	Delamination/Spall/Patched Area	LF	4	0	0	4	0
1090	Exposed Rebar	LF	6	0	6	0	0
304	Open Expansion Joint	LF	31	31	0	0	0
331	Reinforced Concrete Bridge Railing	LF	126	126	0	0	0



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## Deck

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SH 114 S-O LM 6.30 over KESSEE CREEK

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## Superstructure

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1120	Efflorescence/Rust Staining	LF	30	0	30	0	0
1130	Cracking (RC and Other)	LF	156	0	156	0	0
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Comment: Span 1 units 1,2 and 8 exposed rebar

span 2 units 1,2, 6 and 8 exposed rebar

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228	Timber Pile	EA	6	2	4	0	0
1150	Check/Shake	EA	1	1	0	0	0
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1090	Exposed Rebar	LF	6	0	6	0	0

**60 - Substructure** (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Comment: Bent 2 cap, back face, spalled under units 4 and 5

bent 2 ahead, spalled under units 2-8. Also has exposed rebar.



Span 2, unit 2 6 and 7, spalls



span 1, Joint between units 6 and 7, missing grout.



span 1, Joint between units 3 and 4 missing grout.



Deck overview



Abutment 2 (bent 3) settlement



Abutment 1, settlement



Span 1 soffit, looking at abt 1



Span 2 soffit



Bent 2 cap ahead exposed rebar



Span 2 unit 2, cracks, and exposed rebar



Span 2 unit 4, cracks



Span 2 unit 5, cracks



Span 2 unit 6, exposed rebar



Span 2 unit 8, exposed rebar



Span 1 unit 8, exposed rebar



Span 1 unit 1, exposed rebar



Elevation



Approach roadway Eastbound



Elevation.



Underside



Deck



Roadway



Deck overview.



Approach roadway.



Bent 2 cap ahead face spalled delam and exposed rebar.



Span 2 unit 6, spall with exposed rebar.

### Maintenance Needs

Date Reported: 06/26/2012

Priority: C - Important

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

Status: Open

Component:

### Deficiency Description

Span 1, joint between units 3 and 4 has no grout, Span 2 units 2, 6 and 7 have spalls.  
PC Unit # 2 Span # 1 large spall w/exposed steel. Span 2 unit 6 has a 12' spall. 06/13/20108 JPR --

### Remarks



Span 1 unit 3 has numerous large spalls for entire length of the PC Unit.



Grout missing between units 3 and 4 span 1

### Maintenance Needs

Date Reported: 06/13/2018

Priority: C - Important

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

Status: Monitor

Component:

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### Deficiency Description

Span 2 unit 6 has 18' of spall on the girders, with exposed steel. 10/18/2021 JPR -- The exposed steel on span 2 PC Unit 6 has increased to 25' of total exposed reinforcing steel, this structure was built in 1975 so we are not sure if it has any shear reinforcing steel at the ends.

### Remarks

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Span 2 unit 6, spall with exposed rebar.



Span 2 unit 6 spalled with exposed rebar



Span 2 unit 6 spalled

### Maintenance Needs

**Date Reported:** 10/19/2021

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Channel

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### Deficiency Description

Abutment 1, span 1 slope has scoured out back towards the abutment and back under Rt. side of the abutment cap. There is scouring on the down stream side and channel is migrating towards abutment 1, there is also a deep hole just outside the Rt. side of the bridge. There is also silt and sediment built up on the Lt. side, down stream side just outside the Rt. side of the bridge and is blocking about 2/3 of the drainage area and thus causing the scouring on abutment 1.

### Remarks

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Scour under cap abutment 1



Scour abutment 1



Span 1 scour Rt. side with silt and sediment built up in the stream bed

**Maintenance Needs**

**Date Reported:** 10/20/2021

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Channel

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**Deficiency Description**

Drift bent 2

**Remarks**

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Bent 2 drift.



Drift bent 2



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**SH 114 S-O LM 6.30 over KESSEE CREEK**

**Location: 2.32 MI W JCT SH 15**

**Team Lead:** Rickie Bratton, **Inspection Date:** 09/06/2023

## **Routine Maintenance**

Check Box Maintenance Items

<b>Type of Maintenance</b>	<b>Is recommended?</b>
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	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

**A-54 - Sealable Deck Cracks**

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed**



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**A-57 - Beam End and Bearing Painting 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**

**A-63 - Missing/Incorrect Log Mile Signage**

**A-64 - Vegetation Removal Requested**



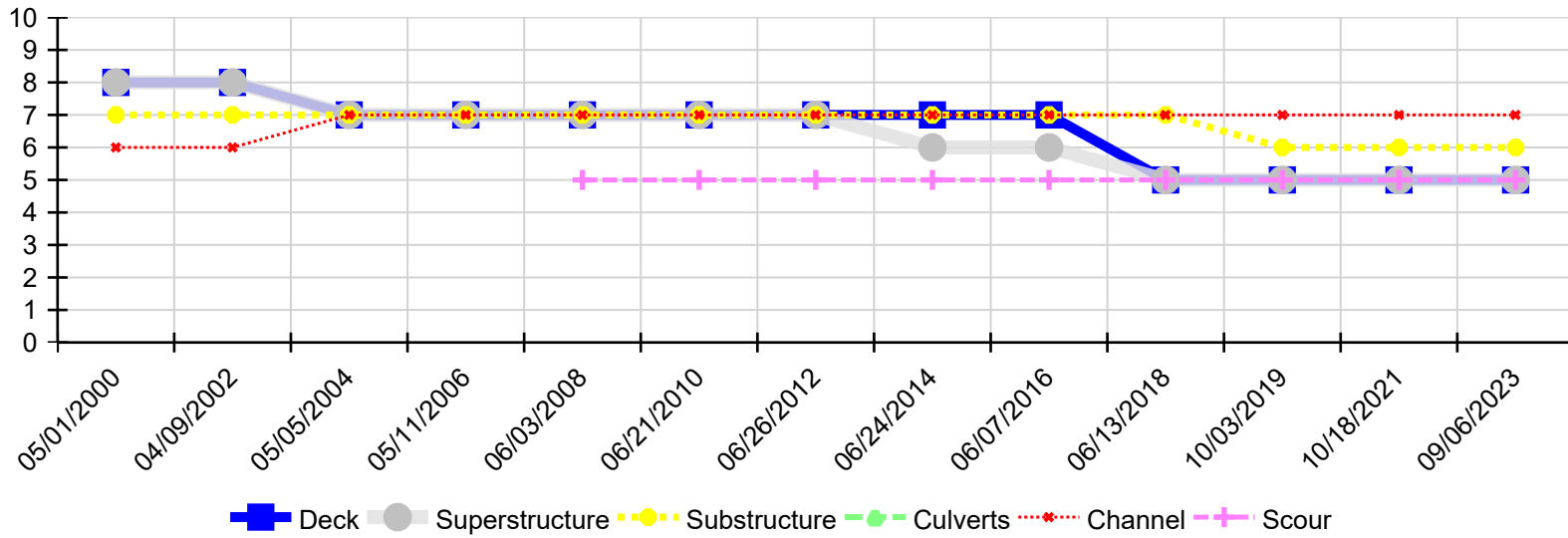
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Location: 2.32 MI W JCT SH 15

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Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
09/06/2023	5	5	6	N	7	5
10/18/2021	5	5	6	N	7	5
10/03/2019	5	5	6	N	7	5
06/13/2018	5	5	7	N	7	5
06/07/2016	7	6	7	N	7	5
06/24/2014	7	6	7	N	7	5
06/26/2012	7	7	7	N	7	5
06/21/2010	7	7	7	N	7	5
06/03/2008	7	7	7	N	7	5
05/11/2006	7	7	7	N	7	N
05/05/2004	7	7	7	N	7	N
04/09/2002	8	8	7	N	6	N
05/01/2000	8	8	7	N	6	N