

# Bridge Inspection Report

**04183**  
**SH 4-18 LM 9.42**  
**over**  
**Lake Isaacs**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

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Inspector:

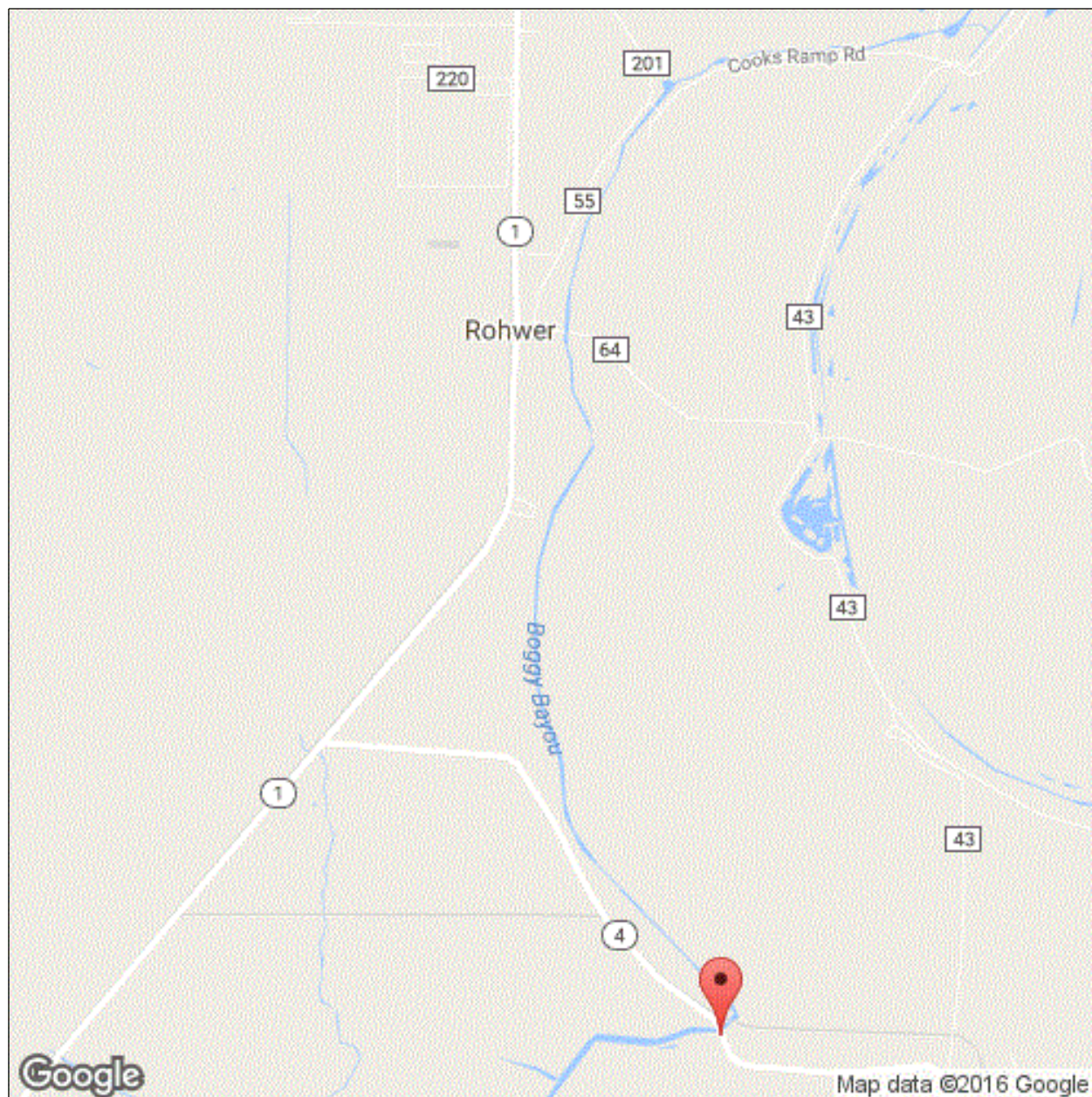
Structure Number: 04183

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Facility Carried: SH 4-18 LM 9.42

## Bridge Inspection Report

### Location Map



Latitude: 33.714793624374906

Longitude: -91.25888034688103

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**Bridge Inspection Report**

**Executive Summary**

Beginning of structure toward Arkansas City, South End.



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## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	01/09/2019
(8) STRUCTURE NUMBER	04183	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 4 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 041	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Lake Isaacs	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 4-18 LM 9.42		
(9) LOCATION	1.8 Mi SE SH 1-Rohwer		
(11) MILEPOINT 9.420	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 33.71479362437490	(17) LONGITUDE -91.25888034688103		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	6
A) KIND OF MATERIAL/DESIGN: 1 - Concrete		(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 7
B) TYPE OF DESIGN/CONSTR: 22 - Channel Beam		(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 0 - Other			
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 13	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 2	(108A) WEARING SURFACE 6		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1962	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	2
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	53
(29) AVERAGE DAILY TRAFFIC 1500	(19) BYPASS DETOUR LENGTH 15	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	32
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 19	(49) STRUCTURE LENGTH (ft.) 247	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.5 RIGHT 0.5		(68) DECK GEOMETRY	4
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 24.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 25		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 25.9		(72) APPROACH ROADWAY ALIGNMENT	5
(33) BRIDGE MEDIAN 0 (34) SKEW (DEG.) 0		(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0 (10) INV RTE, MIN VERT CLEAR (ft.) 99.99		36A) BRIDGE RAILINGS:	0
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 24.9		36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	0
(54) VERTICAL UNDER CLEARANCE (ft.) N 0		36D) APPROACH GUARDRAIL ENDS:	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) N 99.9		(113) SCOUR CRITICAL BRIDGES	5
(56) MIN LATERAL UNDER CLEARANCE (ft.) 99.9		SUFFICIENCY RATING	74.8 STATUS 0
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	2
		(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	0
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	5
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0

**Inspector:**

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**National Bridge Inventory**

(114) FUTURE ADT 1385

(115) YEAR OF FUTURE ADT 2028

(40) NAV HORIZONTAL CLEARANCE (ft.) 0

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## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>16 - Reinforced Concrete Top Flange</b>	1- Ben.	6175	sq. ft.	6175	0	0	0
	Deck length 247 .00 x 25 wide = 6,175 Asphalt wearing surface - all spans: Significant deterioration with large cracks along joints of units - few scattered small spalls. Moderate to large transverse cracks at bents and bridge ends.						
510 - Wearing Surfaces		5952	sq. ft.	0	3976	988	988
<b>110 - Reinforced Concrete Open Girder/Beam</b>	1- Ben.	1729	ft.	1304	2	423	0
	7 precast channel beam units per span / 19' each span x 13 spans = 247' total.  Various locations: Cracking, delamination, and spalling with steel exposed (some section loss) on bottom of legs of precast channel beams units.  Span 4 - Bottom of stem - unit 1 cracking near bent 5, unit 6 small amount of rebar exposed at bent 4. Span 5 - Bottom of stem - unit 1 small amount of rebar exposed on front face of diaphragm Unit 6 cracking at mid-span. Span 6 - Bottom of stem - units 4 & 5 light spalls at mid-span. Span 7 - Bottom of stem - unit 3 cracking at bent 8. Span 9 - Bottom of stem - unit 7 cracking at mid-span. Span 10 - Bottom of stem - unit 4 cracking at mid-span. Span 11 - Bottom of stem - unit 4 cracking at mid-span. Span 12 - Bottom of stem - unit 5 rebar exposed at bent 12 Span 13 - Bottom of stem - units 3 & 4 cracking at bent 12. Span 13 - Bottom of stem - unit 7 exposed rebar from bent 12 out to mid-span. Spalling and cracking to channel legs various location.						
1080 - Delamination/Spall/Patched Area		95		0	0	95	0
1090 - Exposed Rebar		30		0	2	28	0
1130 - Cracking (RC and Other)		300		0	0	300	0
<b>215 - Reinforced Concrete Abutment</b>	1- Ben.	70	ft.	65	5	0	0
	Abutments: 35' each / Bents 1 & 14. Endslope - Bent 1 left: Some erosion beginning at abutment and down slope - bottom of cap and pile exposed.						
1080 - Delamination/Spall/Patched Area		2		0	2	0	0
6000 - Scour		3		0	3	0	0
<b>227 - Reinforced Concrete Pile</b>	1- Ben.	36	each	35	1	0	0
	Piling: 3 per bent / Bents 2-13. Bent 12 pile has damage due to gun shots. Channel - right side: Build-up of large trees, limbs, and other debris against pile at Bents 6-8.						
1080 - Delamination/Spall/Patched Area		1		0	1	0	0

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## Element Inspection

<b>234 - Reinforced Concrete Pier Cap</b>	1- Ben.	300	ft.	289	4	7	0
	Caps: 25' each / Bents 2-13. Bents 8, 11 & 12 have small contact spalls and some cracks. Bent 3 back has small spalls with exposed rebar. Bent 5 cap both ends have small spalls.						
1080 - Delamination/Spall/Patched Area		6		0	2	4	0
1090 - Exposed Rebar		3		0	0	3	0
1130 - Cracking (RC and Other)		2		0	2	0	0
<b>330 - Metal Bridge Railing</b>	1- Ben.	494	ft.	494	0	0	0
	Minor collision damage Coating: 2.5 square feet per linear feet of railing. All railing is dull with no luster.						
515 - Steel Protective Coating		1235	sq. ft.	0	1235	0	0
3410 - Chalking (Steel Protective Coatings)		1235		0	1235	0	0



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**Bridge Inspection Report**

**Pictures**

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**Bridge Inspection Report**

**Sketches**

Inspector:

Structure Number: 04183

Inspection Date:

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### Bridge Inspection Report

## Maintenance Needs

Date Reported: 1/23/2015 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

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### Deficiency Description:

Girder - various locations: Cracking and delaminating on bottom of legs of precast channel beams units.

### Work Description:

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Date Repairs Completed:

Maintenance Comments:

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Stage: Monitor



PHOTO 1      Description      Span 13 Units 3-4 @ Bent 13  
(cracking/delaminating)

Stage: Monitor



PHOTO 2      Description      Span 2 Unit 3 (cracking/delaminating)

Inspector:

Structure Number: 04183

Inspection Date:

Facility Carried: SH 4-18 LM 9.42

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 01/31/2017

Priority: C - Important

Work Code: N/A

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#### Deficiency Description:

Roadway slope - Bent 1 right: Small, narrow area of erosion on the roadway side of winglette - eroded up inside of the curb of the bridge and close to the edge line.

#### Work Description:

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Date Repairs Completed:

#### Maintenance Comments:

Desha: pack area with soil cement

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Stage: Open



PHOTO 1      Description      Abutment - Bent 1 right (erosion)

Stage: Open



PHOTO 2      Description      Abutment - Bent 1 right (erosion)



Inspector:

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Inspection Date:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 01/31/2017

Priority: D - Routine

Work Code: N/A

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#### Deficiency Description:

Endslope - Bent 1 left: Some erosion beginning at abutment and down slope - bottom of cap and pile exposed.

#### Work Description:

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#### Date Repairs Completed:

#### Maintenance Comments:

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Stage: Open



PHOTO 1    Description    Endslope - Bent 1 left (erosion)

Inspector:

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### Bridge Inspection Report

## Maintenance Needs

Date Reported: 01/09/2019

Priority: D - Routine

Work Code: N/A

### Deficiency Description:

Girder - various locations: Spalling with steel exposed (some section loss) on bottom of legs of precast channel beams units.

### Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1      Description      Span 12 Unit 5 @ Bent 13 (rebar exposed/cracking/delaminating)

Stage: Monitor



PHOTO 2      Description      Span 12 Unit 1 @ Bent 13 (rebar exposed)



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### Maintenance Needs

Stage: Monitor



PHOTO 3 Description Span 10 Unit 4 (rebar exposed)

Stage: Monitor



PHOTO 4 Description Span 4 Unit 6 (rebar exposed)

Stage: Monitor



PHOTO 5 Description Span 2 girder 3 spalling to channel legs.

Stage: Monitor



PHOTO 6 Description Span 12 unit 1 girder legs have spalls with exposed rebar. Common unit 5 this span.

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### Maintenance Needs

Stage: Monitor



PHOTO 7      Description      Span 2 girder 6 has spalling to channel legs.

Stage: Monitor



PHOTO 8      Description      Span 4 girder 5 has cracks and delam in channel legs. Common girder 3 this span.



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Date Reported: 01/09/2019

Priority: C - Important

Work Code: N/A

### Deficiency Description:

Asphalt wearing surface - all spans: Significant deterioration with large cracks along joints of units - few scattered small spalls. Moderate to large transverse cracks at bents and bridge ends.

### Work Description:

Date Repairs Completed:

Maintenance Comments:

### Stage: Monitor



PHOTO 1      Description      Asphalt wearing surface - Spans 1-2 (deterioration)

### Stage: Assigned



PHOTO 1      Description      Deck all spans have small spalls in asphalt wear surface at unit ends and key ways.



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### Maintenance Needs

Stage: Assigned



PHOTO 2 Description Bent 1 approach roadway has small pothole near centerline.

Stage: Monitor



PHOTO 2 Description Asphalt wearing surface - Spans 9-10 (deterioration)

Stage: Monitor



PHOTO 3 Description Asphalt wearing surface - Spans 4-5 (deterioration)

Stage: Assigned



PHOTO 3 Description Bent 14 approach roadway has small pothole in asphalt.



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### Maintenance Needs

Date Reported: 01/09/2019

Priority: D - Routine

Work Code: N/A

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#### Deficiency Description:

Channel - right side: Build-up of large trees, limbs, and other debris against pile at Bents 6-8.

#### Work Description:

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#### Date Repairs Completed:

#### Maintenance Comments:

Remove trees and debris - work with Charlie -Ronnie if you need help

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#### Stage: Monitor



PHOTO 1      Description      Channel - right side (debris build-up)

#### Stage: Monitor



PHOTO 2      Description      Channel - right side (debris build-up)

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### Maintenance Needs

Stage: Monitor



PHOTO 3      Description      Channel - right side (debris build-up)

Stage: Monitor



PHOTO 4      Description      Debris field at piles bents 6-8.



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### Maintenance Needs

Date Reported: 01/09/2019

Priority: C - Important

Work Code: N/A

#### Deficiency Description:

Approach roadway - both ends: Significant deterioration of asphalt wearing surface - numerous large cracks and potholes.

#### Work Description:

#### Date Repairs Completed:

#### Maintenance Comments:

Desha: get a bobcat- mill out his approach and replace with hot mix

#### Stage: Monitor



PHOTO 1 Description Approach roadway - Bent 1 (deterioration)

#### Stage: Assigned



PHOTO 1 Description Bent 1 approach roadway has small pothole near centerline.



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## Bridge Inspection Report

### Maintenance Needs

Stage: Assigned



PHOTO 2      Description      Bent 14 approach roadway has small pothole in asphalt.

Stage: Monitor



PHOTO 2      Description      Approach roadway - Bent 14 (deterioration)