

Bridge Inspection Report

03337

**State Highway 28
over
Cedar Creek-Scott Co.**



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

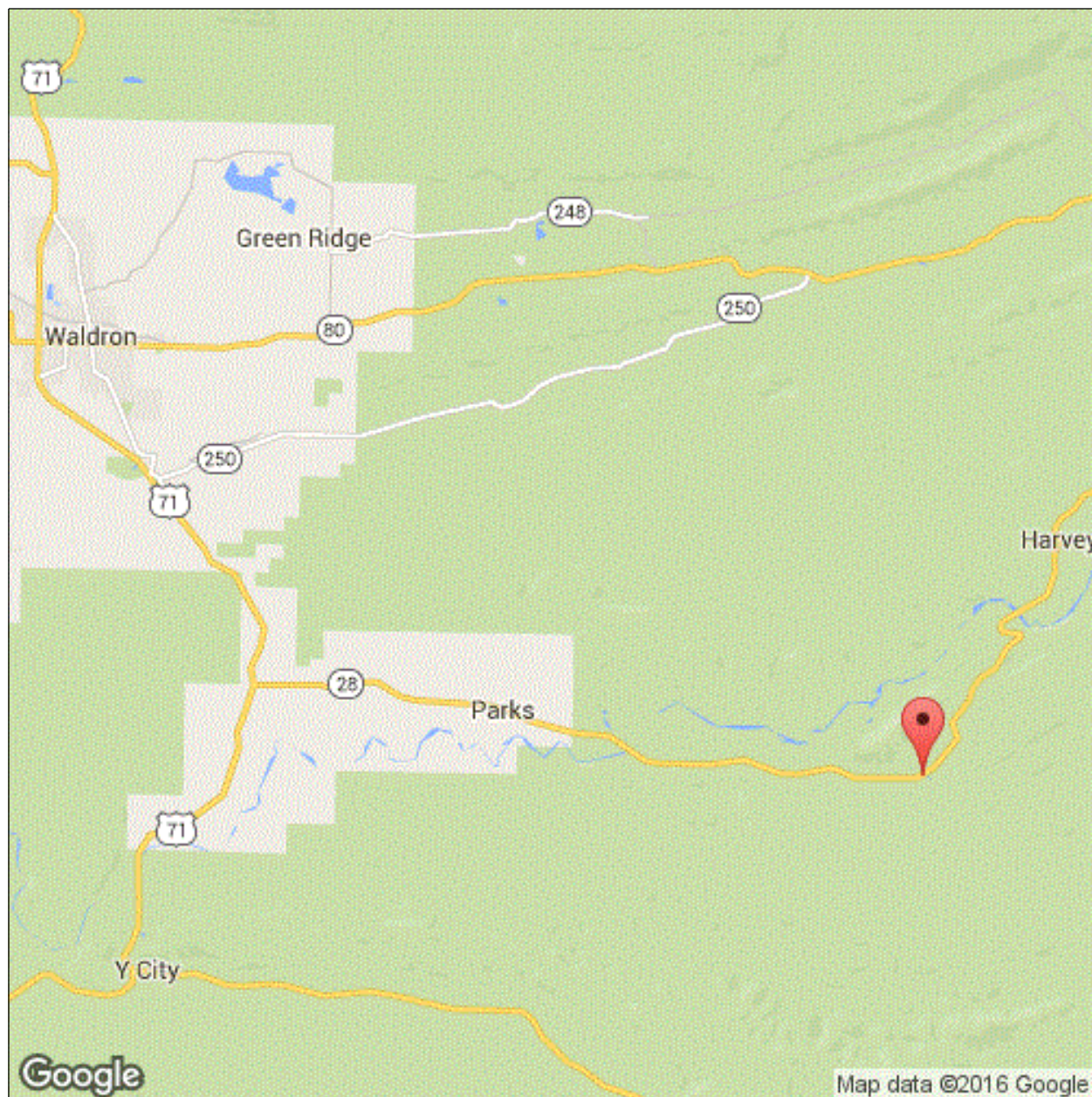
Structure Number: 03337

Inspection Date:

Facility Carried: State Highway 28

Bridge Inspection Report

Location Map



Latitude: 34.78516

Longitude: -93.82794

Inspector:

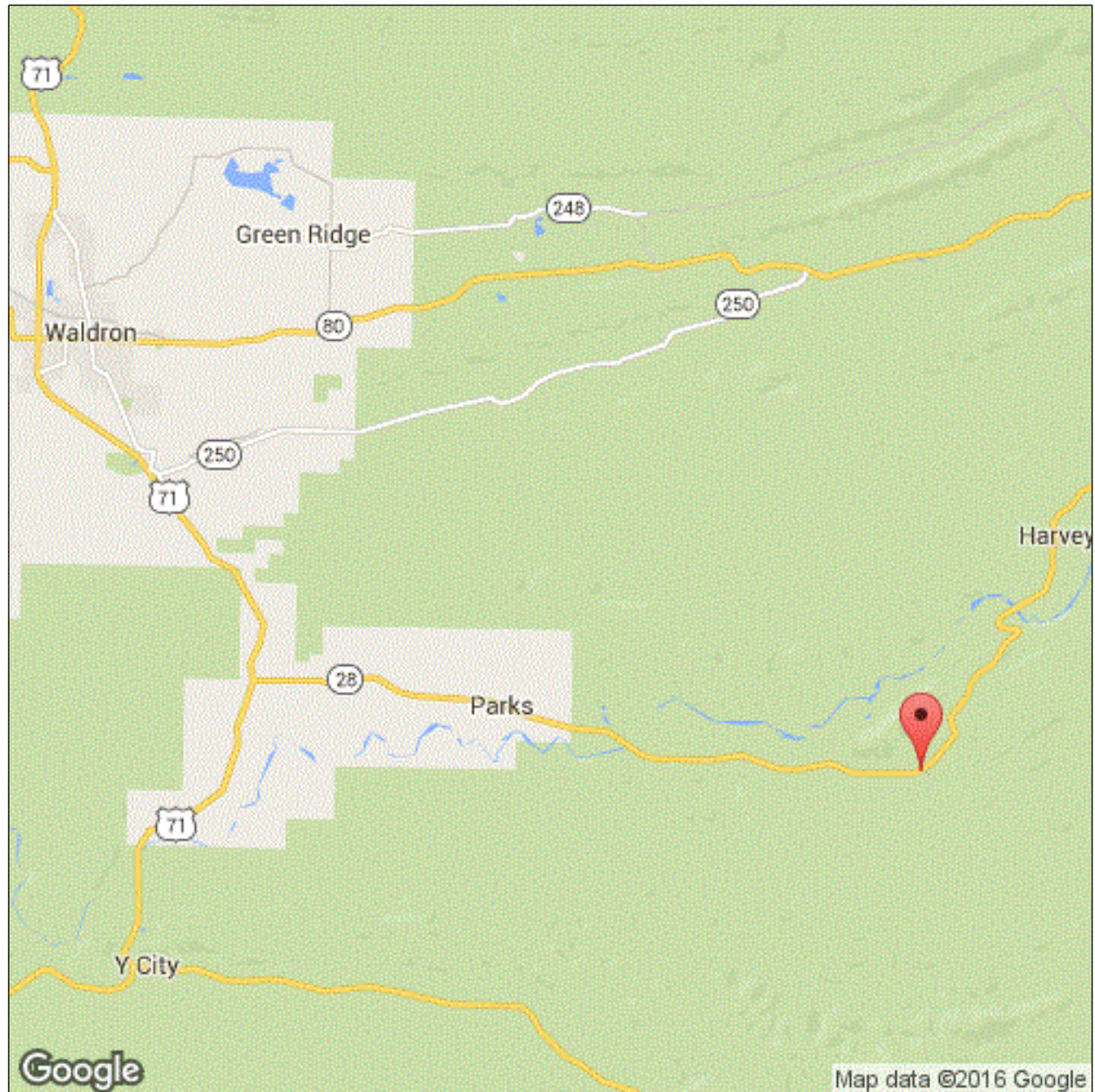
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Location Map



Latitude: 34.78516

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Bridge Inspection Report

Executive Summary

06/19/2018 - EJW & JPW - Underwater Type II inspection conducted on this date. Probing from a boat indicates that approximately 6" of the vertical edge of the left column at Bent # 2 left is exposed and the top of the footing is exposed. The footings at Bents # 3 & 4 have cover. Maintenance forces have placed sand bags at the base of Bent # 1 to cover the exposed steel piles. Steel piles at Bent # 1 are not visible at this inspection.

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National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/19/2018
(8) STRUCTURE NUMBER	03337	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 28 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	04 (3) COUNTY CODE 127	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Cedar Creek-Scott Co.	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	State Highway 28		
(9) LOCATION	12.48 MI E OF US 71 JCT		
(11) MILEPOINT 12.477	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.78516	(17) LONGITUDE -93.82794		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	5
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(59) SUPERSTRUCTURE 6	(60) SUBSTRUCTURE 5
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION 8	(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 4	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1961	(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	49.1
(29) AVERAGE DAILY TRAFFIC 280	(19) BYPASS DETOUR LENGTH 14	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	30.0
(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.) 55	(49) STRUCTURE LENGTH (ft.) 222	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 1	RIGHT 1	(68) DECK GEOMETRY	5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	24.0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	28	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	24.0	(72) APPROACH ROADWAY ALIGNMENT	6
(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.)	25.9	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	8
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	SUFFICIENCY RATING	70.7 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
(114) FUTURE ADT 366	(115) YEAR OF FUTURE ADT 2028	(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	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

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Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	5280	sq. ft.	0	3513	1767	0
	-Large areas of medium / heavy scale. -Medium scale in gutters with epoxy / sand patches that are showing signs of deterioration. -Random areas of sealable transverse cracking at approximately 12" centers is visible from the driving surface. -Span #4 has a longitudinal crack near mid-span. -Hairline map cracking visible from the undersurface of Span # 1. -Delaminated areas are visible from the undersurface of the deck. -Exposed reinforcing steel with no apparent section loss adjacent to the deck drains.						
1080 - Delamination/Spall/Patched Area		184			2	182	
1090 - Exposed Rebar		5				5	
1130 - Cracking (RC and Other)		619			430	189	
1190 - Abrasion/Wear (PSC/RC)		4472			3081	1391	
107 - Steel Open Girder/Beam	1- Ben.	1100	ft.	50	967	83	0
	-Ends of beams have active corrosion with flaking rust. -Ends of beams at the East abutment have active corrosion with layers of rust and 1/4" section loss to the bottom flange. -Top flanges have isolated areas of active corrosion under the full depth cracks in the deck and adjacent to the deck drains. -Beam ends at Bent # 1 have been painted in the past.						
1000 - Corrosion		1050			967	83	
515 - Steel Protective Coating		8461	sq. ft.	0	387	7436	638
3440 - Effectiveness (Steel Protective Coatings)		8461			387	7436	638
205 - Reinforced Concrete Column	1- Ben.	6	each	0	4	2	0
	-Columns have light abrasion at the water elevation. -Bent # 2 RT column has vertical cracking in the edges of the column at the base of the cap. -The Right column of Bent # 3 has shallow spalls with exposed # 9 wire that was placed against the forms during the construction process. Both columns have vertical cracking in the edges.						
1130 - Cracking (RC and Other)		5			3	2	
1190 - Abrasion/Wear (PSC/RC)		1			1		
215 - Reinforced Concrete Abutment	1- Ben.	67	ft.	37	0	30	0
	-Maintenance forces have placed rip rap at Bent # 1 in the past, repairs have partially failed. -Recently maintenance forces have placed sandbags at the base of the abutment to hide the exposed steel piles which are no longer visible.						
6000 - Scour		30				30	

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Element Inspection

220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	36	ft.	24	12	0	0
-Bent # 2 left footing is exposed with approximately 6" of the vertical edge exposed, footing appears keyed into a solid rock / shale channel. The top of the Right column footing is exposed. -Bent # 3 footings have cover. -Bent # 4 footings have cover.							
6000 - Scour		12			12		
234 - Reinforced Concrete Pier Cap	1- Ben.	78	ft.	44	6	28	0
-Bent # 4 has horizontal cracking at the top of the cap on the Span # 3 & 4 sides. -Bent # 4 Span # 4 has a shallow 8" spall with exposed reinforcing steel. No significant changes since the last inspection. -Bent # 2 cap has two 12" delaminated areas in the Span # 2 side of cap. -The Left side of Bent # 2 cap has a vertical crack above column # 1 and horizontal cracking in the top of the cap at mid span from apparent water leakage through the joint.							
1080 - Delamination/Spall/Patched Area		3				3	
1090 - Exposed Rebar		2				2	
1120 - Efflorescence/Rust Staining		1				1	
1130 - Cracking (RC and Other)		28			6	22	
305 - Assembly Joint without Seal	1- Ben.	120	ft.	94	26	0	0
-Shallow spalls with no exposed reinforcing steel adjacent to the sliding plates. Sliding plates appear to be securely anchored at this inspection.							
2360 - Adjacent Deck or Header		26			26		
311 - Movable Bearing	1- Ben.	20	each	3	14	3	0
-Bearings have been sprayed with rust inhibitor in the past that is deteriorating and allowing active corrosion to form at the base of the bearings and masonry plates.							
1000 - Corrosion		17			14	3	
515 - Steel Protective Coating		20	sq. ft.	0	14	6	0
3440 - Effectiveness (Steel Protective Coatings)		20			14	6	
313 - Fixed Bearing	1- Ben.	20	each	0	12	8	0
-Bearings have been sprayed with rust inhibitor in the past that is deteriorating and allowing active corrosion to form at the base of the bearings and masonry plates.							
1000 - Corrosion		20			12	8	
515 - Steel Protective Coating		20	sq. ft.	0	12	8	0
3440 - Effectiveness (Steel Protective Coatings)		20			12	8	
330 - Metal Bridge Railing	1- Ben.	440	ft.	440			
-Paint system is beginning to fail with rust spots present.							
515 - Steel Protective Coating		1391	sq. ft.	0	522	521	348
3440 - Effectiveness (Steel Protective Coatings)		1391			522	521	348

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Bridge Inspection Report

Pictures

PHOTO 1

Description

PHOTO 2

Description

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Sketches

Inspector:

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Maintenance Needs

Date Reported: 6/26/2012 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Deck

Deck has sealable deck cracks with shallow spalls, delaminations and large areas of medium / heavy scale.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Span # 1 concrete deterioration.

Stage: Assigned



PHOTO 2 Description Spalling on the driving surface of the deck.

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Maintenance Needs

Date Reported: 6/26/2012 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Superstructure

Superstructure has isolated areas of active corrosion with flaking rust. Ends of beams at the bearings have up to 1/4" section loss with flaking rust.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Active corrosion at the beam ends.

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Maintenance Needs

Date Reported: 5/21/2014 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Bearings

Bearings have active corrosion with layers of rust

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Active corrosion in the bearings at Bent # 5.

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Maintenance Needs

Date Reported: 06/19/2018

Priority: D - Routine

Work Code:

Deficiency Description:

Substructure

Cracking, concrete delamination's and spalling in the caps and columns of the intermediate bents from apparent water leakage through the sliding plate joints.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Bent # 2 cracking and delamination in the cap.

Stage: Open



PHOTO 2 Description Bent # 4 cap cracking.

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Maintenance Needs

Stage: Open



PHOTO 3 Description Bent # 4 column # 2 cracking.