

Bridge Culvert Inspection				
Bridge File Number	13841 -1 Bridge Culvert		Form Type	CUL1
Year Built	1976		Lot No.	3
Bridge or Town Name	KEOMA		Inspector Name	Jon Davies
Located Over	WID - IRRIGATION C, WATERCRS-IC		Inspector Class	BR CLS B
Located On	9:02 C1 14.013		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	22-Nov-2011
Legal Land Location	NW SEC 26 TWP 25 RGE 27 W4M		Data Entry By	Alyssa Boynton
Longitude, Latitude	-113:40:46, 51:09:49		Data Entry Date	09-Dec-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA29		Review Date	05-Dec-2011
Clear Roadway/Skew	9 /		Dept. Reviewer Name	Tim Davies
AADT/Year	2,630 / 2010 (A)		Dept. Review Date	15-Dec-2011
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	3			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2607	2881	SPE	56.7	152X51	4.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	West row.		Gas
Power			Municipal
Others	Fibre optics cable at East R/W		Problem (Y/N) Yes
Remarks	Telus temporary above grade cable has snagged minor drift.		

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		9	7	Short sag curve with limited sight distance.
Vertical Alignment		6	6	
Roadway Width (m)	14.000			
Embankment		7	8	2:1 over pipe at east.
Sideslope ( _ :1)	3.0			
(Height of Cover(m) : 5.5)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>350</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2607, Rise (mm): 2881, Type: SPE)				
Barrel Last Accessible Date	22-Nov-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	Roof general shape is good.
Measured Rise (mm)	2820			
Measured At Ring No.	6			Estimate.
Sag (mm)	61			
Percent Sag	2			
Sidewall		N	7	
Measured Span (mm)	2675			
Measured At Ring No.	6			
Deflection (mm)	68			
Percent Deflection	3			
Floor		N	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		N	6	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		4	4	SCALING WITH PITTING @ Haunches Rust stains through bolt holes above water line.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2607, Rise (mm): 2881, Type: SPE)				
Fish Passage Adequacy		X	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		5	5	Bevel end overhanging 50mm
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	400			
Scour Protection		4	4	Mix of 200 + 500 mm rock. Scour protection not complete, Some displacement.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		4	4	500mm deep scour rock lined 1m from D/S invert.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		5	5	Sloughing @ SE above stream
HWM (m below Top of Culvert)	1.5			HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Remove temporary telus line at U/S west, frozen in minor drift.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>54.6/70.2</b>	Est. Repl. Yr	2021	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy							
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Rex Davidson		Previous Assistant's Name				
Next Inspection Date	22-Aug-2013		Previous Inspection Date	25-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							