

**STONY PLAIN REGION  
GEOHAZARD RISK ASSESSMENT  
SITE INSPECTION FORM**

<b>SITE NUMBER AND NAME:</b> NC 47 – Embankment Slope Failure	<b>HIGHWAY AND KM:</b> Access Road 172, km 2.1	<b>PREVIOUS INSPECTION DATE:</b> May 21, 2010	<b>INSPECTION DATE:</b> June 15, 2011
<b>LEGAL DESCRIPTION:</b> SE 4-50-22-W4M	<b>NAD 83 COORDINATES:</b>	<b>RISK ASSESSMENT:</b> PF: 2      CF: 4 <b>TOTAL: 8</b>	

<b>SUMMARY OF SITE INSTRUMENTATION:</b>  Slope Inclinometer: 1	<b>INSPECTED BY:</b> Adam Gmeinweser, P. Eng. (EBA) Fred Cheng, P. Eng. (TRANS) Sabhago Oad, P. Eng. (TRANS)
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<b>LAST READING DATE:</b> May 18, 2011
<b>PRIMARY SITE ISSUE:</b> Shallow rotational failure of south embankment slope remediated in 2008.
<b>APPROXIMATE DIMENSIONS:</b> Approximately 6.1 m in height and 12.2 m in length.
<b>DATE OF REMEDIAL ACTION:</b> October 2008

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress	X		Cracks along shoulder associated with embankment failure 2H:1V embankment failure stabilized with soil nails		X
Slope Movement	X				X
Erosion		X			
Seepage		X			
Culvert Distress		X			

**COMMENTS:**  
 Rotational failure centered on a culvert; failure possibly due to a high water event.  
 Soil nailing performed in 2008 to stabilize embankment.  
 2009 Risk Assessment reduced from 48 to 8 after repairs. Risk level unchanged since 2009.  
 Location and site plan shown in Figure NC-47.  
 Site conditions shown in Photos 1 and 2.  
 Soil stabilization performing reasonably well.

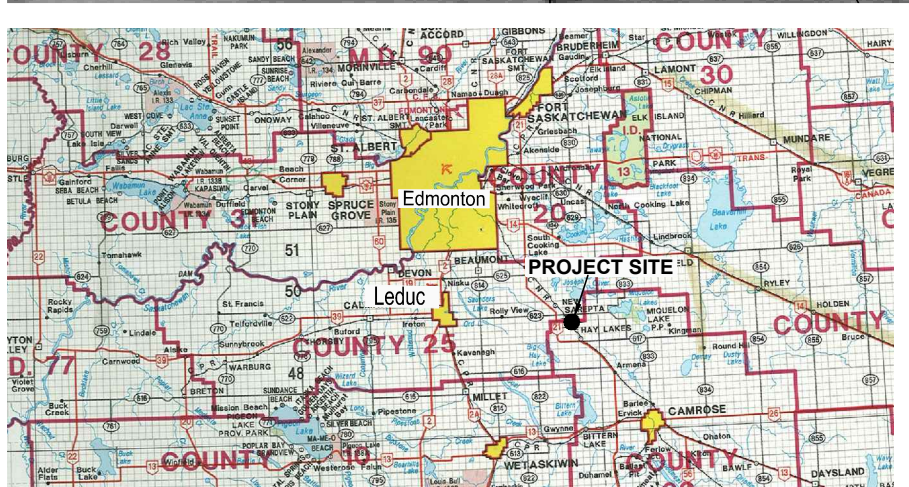
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**SITE OBSERVATIONS:**

- The fill slope is steeper than what is normally constructed by TRANS being approximately 2H:1V and 6.1 m high.
- The slope failure was repaired in October 2008.
- Soil nails sticking out of ground, potentially a risk to public; primarily concerning snowmobile and/or ATV traffic.
- Shallow slope movements have stopped since application of soil nailing in 2008.
- There were minor deep seated movements noted at approximate embankment base level. These could be associated with lateral spreading along organics or wet soils near the culvert/creek location.

**RECOMMENDATIONS:**

- Consider removing site from GRMP.



KEY MAP  
N.T.S

**LEGEND**

 SLOPE INDICATOR

CLIENT

**Government  
of Alberta** ■  
**Transportation**

North Central (Stony Plain)  
Geohazard Risk Management Plan  
NC-47 New Sarepta (AR-172), Alberta

Site Plan



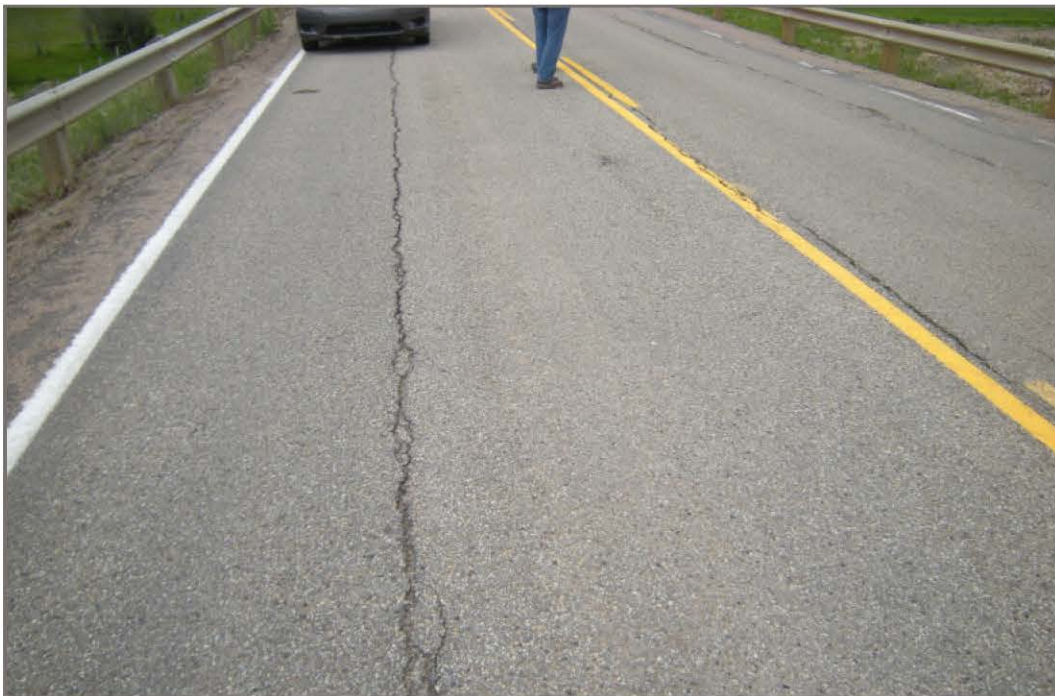
PROJECT NO E12101085.003	DWN DBD	CKD RJM	REV 0
OFFICE EDM	DATE November 2009		

Figure NC-47





**Photo 1:** Repaired sideslope requires topsoil and seeding



**Photo 2:** Looking west along Access Road 172; cracks present along roadway