

# ALBERTA TRANSPORTATION NORTH CENTRAL REGION – ATHABASCA AREA INSTRUMENTATION MONITORING RESULTS

## **SPRING 2011**

# SECTION C

SITE NC43: HWY 2:48, WEST OF WIDEWATER

# 1. OBSERVATIONS

# 1.1 Field Program and Instrumentation Status

Two slope inclinometers (SI1 and SI2) were read at the Hwy 2:48 site on May 31, 2011, by Mr. Justin Sousa, C.E.T. and Mr. Chad Gray, C.E.T., of Thurber Engineering Ltd. (Thurber).

The SI's were read using a RST Digital Inclinometer probe with 2 ft wheelbase and a RST Pocket PC readout. Inclinometer reading depths were defined as per cable markings with respect to the top of the inclinometer casing.

## 2. INTERPRETATION

## 2.1 General

SI plots for the A and B directions are presented in Section D and are summarized below. Where movement has been recorded the resultant plot (X direction) and rate of movement have also been provided.

# 2.2 Zones of Movement

Zones of new movement were not observed in the SI since the last set of readings in the spring 2010.

Zones of old movements are summarized in Table NC42-1 at the end of this report. This table also provides a historical account of the total movement, the depth of movement, and the maximum rate of movement that has occurred at this site since the initialization of the slope inclinometer.



#### 2.3 Interpretation of Monitoring Results

Since the initial September 2006 readings, there has been no discernable movement trend observed in the slope inclinometers installed at this site.

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#### 3. **RECOMMENDATIONS**

#### 3.1 **Future Work**

The SI's should be read again in the spring of 2012.

#### 3.2 **Instrumentation Repairs**

No instrument repairs are needed at this time.

Client: Alberta Transportation File: 15-16-260

08\15\16-260 rpt NC43 e-file:



# TABLE NC42-1 SPRING 2011 - HWY2:48, WEST OF WIDEWATER Instrumentation Summary

Date Monitored: May 31, 2011

INSTRUMENT#	DATE INITIALIZED	TOTAL CUMULATIVE RESULTANT MOVEMENT AND DEPTH OF MOVEMENT TO DATE (mm)	MAXIMUM RATE OF MOVEMENT (mm/yr)	CURRENT STATUS OF SI	DATE OF PREVIOUS READING	INCREMENTAL MOVEMENT SINCE PREVIOUS READING (mm)	CURRENT RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)	
SI1	Sept. 6, 2006	No discernible movement	No discernible Movement	Operational	May 12, 2010	No discernable movement	N/A	N/A	
SI2	Sept. 6, 2006	No discernible movement	No discernible movement	Operational	May 12, 2010	No discernable movement	N/A	N/A	

Figure NC43-1 in section D provides a sketch of the approximate location of the monitoring instrumentation for this site.

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# ALBERTA TR \_\_PORTATION NORTH CENTRAL REGION - ATHABASCA AREA (CE143/06) INSTRUMENTATION MONITORING FIELD SUMMARY (NC43) SPRING 2009

Location: HWY 2:48, West of Widewater

Readout: RST

File Number: 15-16-223

Extension: 3.34"

Probe: RST

Temp: 12°C

Cable: RST

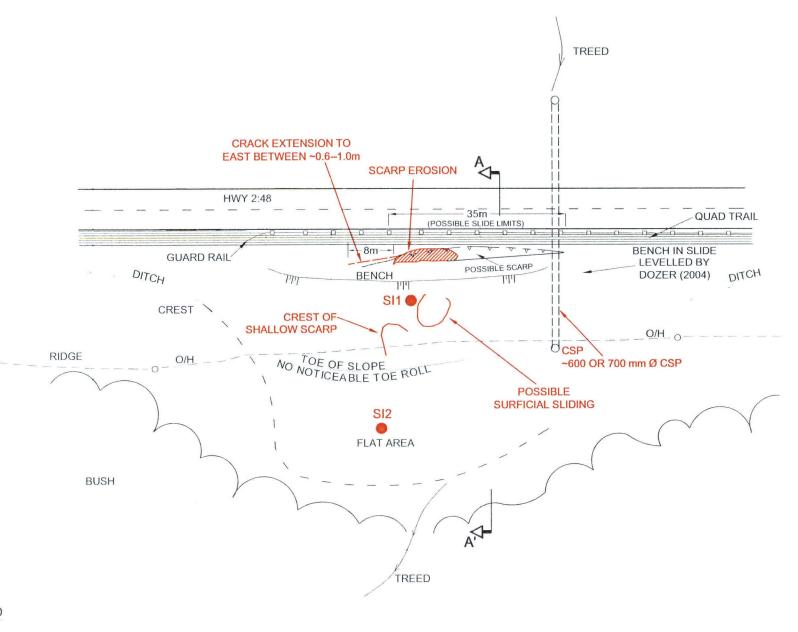
Read by: JCS / CMG

# SLOPE INCLINOMETER (SI) READINGS

SI#	GPS Location		Date	Stickup	Depth from top	Magn. North	Current Bottom			Remarks	
				(ft)	of casing (ft)	A+ Groove	Depth Readings				
	Latitude	Longitude					A+	A-	B+	B-	
1	N55° 21' 36"	W115° 02' 35"	27-May-09	2.89	50 to 4	0°	-461	763	277	-278	
2	N55° 21' 37"	W115° 02' 34"	27-May-09	2.69	34 to 4	0°	-66	70	-383	380	

# DAILY INSPECTOR REPORT ON 27-MAY-09





**LEGEND** 

**SI#** SLOPE INDICATOR INSTALLED BY JACQUES WHITFORD 2006.

2006 OBSERVATIONS IN RED

# FIGURE NC43 SKETCH SITE PLAN NC43- HWY 2:48 Km 21

JUNE, 2009 THURBER PROJECT #15-16-223



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