Alberta Transportation Southern Region Geohazard Assessment Instrumentation Monitoring Results Spring 2004



#### S7 - MILLARVILLE

### **Site Observations**

AMEC installed slope inclinometers and piezometers at this site in March 2001; however, the slope inclinometers have been paved over and/or sheared off. Only the two pneumatic piezometers are operational.

The instrumentation was read on June 3, 2004. At the time of the readings the weather conditions were sunny with a temperature of 14°C.

#### **Instrument Data**

Plots of the instrument readings from the Millarville site are included in Appendix S7. A summary of each of the pneumatic piezometers readings is presented below:

- Piezometer 25151 had a pressure of 89.6 kPa, which corresponds to a calculated piezometric elevation of 981.5 m (equal to ground elevation). This reading is consistent with the previous reading taken in May 2003. This pressure level is on the upper end of the historical range for this piezometer as shown in Figure S7-1.
- No reading could be obtained in Piezometer 25152. This piezometer also did not
  respond during the readings in May and October 2002. Though a reading was obtained
  in May 2003 it was likely not representative since the pressure level was below the
  historical range for the piezometer. It is most likely that the piezometer tube is blocked
  and therefore this piezometer is no longer functioning properly.

# Interpretation

The current instrumentation data is limited, and the only interpretation that can be made is that the piezometric pressure at Piezometer 25151 has not changed significantly.

Significant cracking and settlement of the road surface has continued requiring at least annual resurfacing of the site.

# Recommendations

A design for remedial measures (shear key and slope flattening) for this site has been submitted to AT by AMEC. AMEC recommends that remedial measures be implemented at this site as soon as possible. In the meantime, semi-annual monitoring of the piezometers and annual inspections should be continued as planned.