



**THURBER** ENGINEERING LTD.

**ALBERTA TRANSPORTATION  
PEACE REGION (PEACE RIVER / HIGH LEVEL)  
INSTRUMENTATION MONITORING RESULTS**

**FALL 2012**

**SECTION C**

**SITE PH47: HWY 690:02, DEADWOOD SLIDE**

**1. OBSERVATIONS**

**1.1 Field Program and Instrumentation Status**

Three standpipe piezometers (SP10-1, SP10-3, and SP10-5) and two vibrating wire piezometers (VW10-1 and VW10-2) were monitored at the Hwy 690:02, Deadwood Slide site on October 1, 2012 by Mr. Chad Gray, C.E.T. and Ms. Jessica Pryer, T.T., of Thurber Engineering Ltd. (Thurber).

A Sinco dip meter was used to read the standpipe piezometers. The vibrating wire piezometers were read using a GEO-KON GK-404 digital VW data recorder device.

**2. INTERPRETATION**

**2.1 Interpretation of Monitoring Results**

The water level decreased in standpipe piezometers SP10-1 and SP10-5 by 0.16 m and 0.76 m, respectively, since the previous reading in spring 2012. The water level in SP10-3 has increased by 0.57 m since the previous reading in spring 2012. The results of the standpipe piezometers are summarized in Table PH47-1.



Since the previous reading in spring 2012, the water levels in vibrating wire piezometers VW10-1 and VW10-2 have decreased by 0.10 m and 0.33 m, respectively. Table PH47-2 summarizes the vibrating wire piezometer readings.

### **3. RECOMMENDATIONS**

#### **3.1 Future Work**

The instruments should be read again during the spring 2013 program.

#### **3.2 Instrumentation Repairs**

No Instrumentation repairs are required at this time.



**TABLE PH47-1  
FALL 2012 – DEADWOOD SLIDE  
STANDPIPE PIEZOMETERS  
INSTRUMENTATION READING SUMMARY**

Date Monitored: October 1, 2012

<b>INSTRUMENT #</b>	<b>DATE INITIALIZED</b>	<b>TIP DEPTH (m)</b>	<b>GROUND ELEV. (m)</b>	<b>CURRENT STATUS</b>	<b>MAXIMUM WATER LEVEL BGS (m)</b>	<b>MEASURED WATER LEVEL BGS (m)</b>	<b>PREVIOUS READING (m)</b>	<b>CHANGE IN WATER LEVEL SINCE PREVIOUS READING (m)</b>
SP10-1	November 4, 2010	9.66	559.54	Active	4.60 on November 4, 2010	4.80	4.64	-0.16
SP10-3	November 4, 2010	8.90	565.44	Active	1.14 on May 27, 2011	1.89	2.46	0.57
SP10-5	April 27, 2010	2.92	561.27	Active	0.63 on July 27, 2011	2.09	1.33	-0.76

Figure PH47-1 in section D provides a sketch of the approximate locations of the monitoring instrumentation for this site.

**TABLE PH47-2  
FALL 2012 – DEADWOOD SLIDE  
VIBRATING WIRE PIEZOMETERS  
INSTRUMENTATION READING SUMMARY**

Date Monitored: October 1, 2012

<b>INSTRUMENT</b>	<b>DATE INITIALIZED</b>	<b>TIP ELEV. (m)</b>	<b>GROUND ELEV. (m)</b>	<b>CURRENT STATUS</b>	<b>MAXIMUM GROUNDWATER ELEVATION (m)</b>	<b>GROUNDWATER ELEV. (m) (FALL 2012)</b>	<b>GROUNDWATER ELEV. (m) (SPRING 2012)</b>	<b>CHANGE IN WATER LEVEL SINCE PREVIOUS READING (m)</b>
VW10-1 (100D10918)	April 27, 2011	553.50	562.00	Operational	560.49 m on June 11, 2012 (1.51 mBGS)	560.39 (1.61 mBGS)	560.49 (1.51 mBGS)	-0.10
VW10-2 (100D10917)	April 27, 2011	555.17	560.96	Operational	558.89 m on May 27, 2011 (2.07 mBGS)	558.41 (2.55 mBGS)	558.74 (2.22 mBGS)	-0.33

Figure PH47-1 in section D provides a sketch of the approximate locations of the monitoring instrumentation for this site.