

Field Data Collection
(2009 Standard Inspection)

Company: Kinder Morgan Canada Inc.
Trans Mountain Pipeline (Puget Sound) LLC

Unit: Trans Mountain Pipeline (Puget Sound) LLC

Pipe-to-Soil Potential Readings, Rectifiers and Mainline Valves (MLV)

Date	Location	Pipe (Volts) Power On	Pipe (Volts) Power Off	Casing (Volts)	Comments
9/23/2009	<u>Breakout Tank T-170 at Laurel Station</u> Bottom plate chime East side West side	-1.349 -1.642	N/A N/A	N/A N/A	Potential readings were acceptable.
9/23/2009	<u>Breakout Tank T-180 at Laurel Station</u> Bottom plate chime East side West side	-1.427 -1.568	N/A N/A	N/A N/A	Potential readings were acceptable.
9/23/2009	<u>Mainline Valve (MLV) MU-14 north of Nooksak River on Sumas to Laurel segment</u> Rectifier R-68 MU-14 valve stem	-1.155			The MLV was inspected & partially operated by Rick Axelson and was fine. Rectifier DC output: 7.6 V; 1.8A Potential reading was acceptable.
9/23/2009	<u>MLV ML-6 on the Laurel to Ferndale segment</u> next to I-5 Freeway.				The MLV was inspected and was partially operated by Rick Axelson and was fine.
9/23/2009	<u>CP test site 1L-5.647</u> Next to I-5 Freeway	-1.434	N/A	-0.797	Potential readings were acceptable. Casing was not shorted.
9/23/2009	<u>MLV ML-8 on the Laurel to Ferndale</u>				This MLV with a check valve were inspected. The MLV was not partially operated as it

					requires a confined space entry permit.
9/23/2009	<u>Rectifier R-69</u> next to MLV ML-8				Rectifier DC output: 29 V; 2.2 A
9/23/2009	<u>Ferndale Station</u> Tank rectifier R-87 Pipeline rectifier R-60 CP test site 1L-11.250 <u>Tank T-130</u> North side of chime West side of chime	 -1.064 -0.998 -0.911	 N/A N/A N/A	 N/A N/A N/A	Rectifier DC output: 33.86 V; 0.1 A Rectifier DC output: 7.58 V; 1.6 A Potential reading was acceptable. Potential reading was acceptable. Potential reading was acceptable.
9/24/2009	<u>Anacortes Meter Station</u> 16" Incoming line from Burlington 12" surge relief line to T-7 in Shell Refinery CP test station 1F-1B-8.959 Rectifier R-76 Breakout tank T-7 inside Shell Refinery	 -1.757 -1.849 -1.395 	 N/A N/A N/A 	 N/A N/A -0.765 	Potential reading was acceptable. Potential reading was acceptable. Potential readings were acceptable. Casing was not shorted. Rectifier DC output: 21.08 V; 6.4 A T-7 was inspected and there were two NOPVs concerning corrosion on chime and inadequate drainage around the tank.

9/24/2009	<u>MLV MB-3</u> downstream of Burlington scraper trap area				The MLV was inspected and was partially operated by Rick Axelson
	CP test site 1B-2.500 Burlington to Anacortes segment	-1.489	N/A	N/A	Potential reading was acceptable.
9/24/2009	<u>Burlington Scraper</u> <u>Trap Station Rectifier</u> R-40				Rectifier DC output: 9.31 V; 3.3 A
	CP test station 1B- 0.045	-1.616	N/A	N/A	Potential reading was acceptable.
9/24/2009	<u>Manley Road CP test</u> <u>sites</u>				Most of the instant off potentials did not meet the -850 mv criterion. However, they did meet the 100 mv shift criterion.
	1A-34.196	-1.208	-0.683	N/A	
	1A-34.059	-1.431	-1.001	N/A	
	1A-33.916	-1.068	-0.590	N/A	
	1A-33.882	-0.892	-0.351	N/A	
	1A-33.813	-1.373	-0.846	N/A	
	1A-33.764	-0.934	-0.446	N/A	