

**Field Data Collection**  
(5/17-21/2010 Standard Inspection)

**Company:** BP Pipeline (North America), Inc.

**Unit:** Olympic Pipeline Intrastate Laterals

**Pipe-to-Soil Potential Readings and Rectifiers**

<b>Date</b>	<b>Location</b>	<b>Pipe (Volts) Power On</b>	<b>Casing (Volts)</b>	<b>Comments</b>
5/19/2010	<b><u>Renton Station</u></b>  12" pig launcher for Seattle Lateral  Rectifier #190  Rectifier #195	-0.950	N/A	Rectifier DC output: 11.58 V; 9.56 A  Rectifier DC output: 15.95 V; 8.4 A
5/19/2010	Seattle Lateral CP test station TP-405 just north of I-405 Freeway (with casing)	-1.725	-0.312	The casing was not shorted.
5/19/2010	Seattle Lateral first block valve station north of the Renton Station at MP 1.5	-1.538	N/A	This mainline block valve is a manual valve. It was partially operated by Ken Carlton (Central Area Team Leader) with no difficulty.
5/19/2010	Seattle Lateral CP test station at MP 2.25	-1.741	N/A	
5/19/2010	Seattle Lateral Henderson Street block valve station at MP 6	-2.046	-0.422	The casing was not shorted. This block valve is a MOV with remote control.
5/19/2010	Seattle Lateral Rectifier #200 at the intersection of S. Trenton Street & MLK Jr. Street S.	N/A	N/A	Rectifier DC output: 7.06 V; 3.1 A.
5/19/2010	Seattle Lateral CP test station at the intersection of	-1.992	N/A	

	Dawson Street and Beacon Ave. S.			
5/19/2009	Seattle Lateral block valve station at the intersection of 6 <sup>th</sup> Street and Charleston Street (MP 10) A CP test station is located at this site.	-1.654	N/A	The mainline block valve is a MOV with remote control.
5/19/2010	Seattle Lateral delivery facilities (DF) at Harbor Island (end of the line).  Pig receiver  Rectifier #210 (for station)  Rectifier #220 (for pipeline)  Outgoing line to Shell  Breakout Tank T-102, south side of the bottom plate.	-2.334          -1.849  -1.849	N/A          N/A  N/A	Rectifier DC output: 62.23 V; 3.3 A.          Rectifier DC output: 3.3 V; 1.23 A.       The spill containment and impoundment area around the tank will be paved with concrete in July, 2010.
5/19/2010	<b><u>Renton Station</u></b>  12" pig launcher for SeaTac Lateral	-1.520	N/A	
5/19/2010	SeaTac Lateral CP test station TP Jac Box at MP 1 near Jack in the Box restaurant and north of the Green River	N/A	N/A	The test lead was broken and needs repair.  There is a manual block valve at this location. It requires a confined space entry permit to operate the valve.
5/19/2010	SeaTac Lateral CP test station at Starandard Blvd	-1.655	N/A	
5/19/2010	SeaTac Lateral CP test station for carrier pipe and	N/A	N/A	The test leads for both the carrier pipe and casing were broken and need repair.

	casing under I-5 Freeway			
5/19/2010	SeaTac Lateral at the airport (end of the line) near the 12" pig receiver.	-1.511	N/A	
5/19/2010	SeaTac Lateral rectifier at the airport (end of the line).			Rectifier DC output: 23.31 V; 0.5 A
5/19/2010	<b><u>Tacoma Junction</u></b>  Tacoma Lateral at the Tacoma Junction 8" pig launcher  Rectifier #260 for the 8" lateral	-2.9	N/A	Rectifier DC output: 23.56 V; 4.0 A
5/19/2010	Tacoma Lateral CP test station at the north side of the Puyallup River crossing	-1.518	N/A	
	The south side of the Puyallup River crossing at Lincoln Ave.	-1.384	N/A	
5/19/2010	Tacoma Lateral delivery facilities (DF)			This DF is well maintained.
	8" incoming line to the DF	-1.690	N/A	
	Rectifier #270			Rectifier DC output: 10.54 V; 1.6 A
5/20/2010	<b><u>Vancouver Junction</u></b>  CP test station at the junction  Rectifier #357 at the junction	-1.463	N/A	Rectifier DC output: 3.5 V; 0.25 A The pig launcher valve was partially operated by Brian Duran (operator).
5/20/2010	12" Vancouver	-0.973	-0.478	The casing was not shorted.

	lateral at the Lower River Road crossing			
5/20/2010	12" Vancouver lateral at the Lower River Road crossing outside of the delivery facilities (DF)	-0.840	-0.434	The casing was not shorted.  The pipe to soil potential was low because of adjustment made to rectifier #357 on 5/11. The rectifier needs to be adjusted again to ensure a minimum reading of -.850 volts is achieved with rectifier on and with consideration of IR drop.
5/20/2010	12" Vancouver lateral delivery facilities (DF)			
	Vancouver Port gate	-0.891	-0.272	The casing was not shorted.
	Incoming 12" line to the DF	-1.232	N/A	
	Breakout tank T-107	-1.270 (E) -1.050 (W) -1.021 (N) -1.269 (S)		The potential readings were taken at the edge of the chime (tank bottom plate).
	Rectifier #350 at the DF			Rectifier DC output: 62.6 V; 6.35 A
5/20/2010	<b><u>Rainier Pump Station</u></b>			
	Olympia Lateral 6" pig launcher	-3.182	N/A	
	Rectifier #310			Rectifier DC output: 4 V; 0.26 A
5/20/2010	Olympia Lateral crossing under 138 <sup>th</sup> Street	-2.500	-0.412	The casing was not shorted.
5/20/2010	Olympia Lateral crossing under Military Road	-2.450	-0.086	The casing was not shorted.
5/20/2010	Olympia Lateral crossing under Stadman Road	-2.434	-0.213	The casing was not shorted.
5/20/2010	Olympia Lateral CP test station at MP 8	-2.382	-0.136	The casing was not shorted.