

Field Data Collection
(2010 BP Pipelines Integrated Inspection)

Company: BP Olympic Pipe Line Company

Unit: North and South

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

Date	Location	Pipe-to-Soil Potentials (Volts)	Casing (Volts)	Comments
11/16/2010	<u>Renton Station</u> Rectifier (for station)			Rectifier DC output: 11.55 V ; 10 A
11/16/2010	Rectifier (for mainline & laterals)			Rectifier DC output: 24.47 V; 14 A
11/16/2010	20" In-coming line to Renton Station	-1.24 (on) -0.864 (off)		
11/16/2010	16" In-coming line to Renton Station	-1.590 (on) -1.400 (off)		
11/16/2010	14" line leaving Renton Station to Portland	-1.884 (on) -1.428 (off)		
11/16/2010	Fire Extinguisher #17			The monthly inspection tag was not marked for the month of October, 2010. It was later confirmed by the operator that the fire extinguisher was inspected by an outside inspector during the month of October for annual inspection.
11/16/2010	Breakout tank T-116 at the Renton Station			The second course of tank shell from the top appeared to have bulged outward. The API 653 out-of-service inspection conducted in 2008 did not include this item in the report.
11/17/2010	<u>Cherry Point Pump Station</u> Insulating flange for 16" in-coming line from the refinery	-1.428 (on) (pipeline side) -0.992 (on) (station side)		The insulating flange was not shorted.

11/17/2010	The 16" line leaving Cherry Point Station	-2.482 (on)	-0.950	The casing was not shorted.
11/17/2010	The 16" mainline from Ferndale Station to Allen Station at mile post 7 (MP 7).	-1.500 (on)	-0.511	The casing was not shorted.
11/17/2010	<u>Anacortes Station</u> 16" out-going line at pig launcher	-1.300 (on)		
11/17/2010	Breakout tank T-107 at the Anacortes Station	-1.645 (on)		The seal between the chime and the base appeared to be in good condition. The tank will be repainted within two years.
11/17/2010	<u>Bayview Products Terminal</u> Rectifier B			All 6 breakout tanks (T-202/203/204/205/206/209) were inspected. There were some isolated paint failures on tank shell. The seal between the chime and tank base appeared to be in good condition after recent repairs. Rectifier DC output: 14.6 V; 7.76 A
11/17/2010	<u>Allen Station</u>			A lot of construction activities were going on at the station during the inspection. The station was shut down for two days during the inspection.
11/17/2010	Mainline valve station at mile post 57 of the Allen-Renton section			The 20" mainline valve was partially operated by Dennis Johnston. As the 16" and the 20" are located in the same right-of-way, it is recommended that the identifications of these two lines be posted at the valve stations and CP test stations along the ROW.
11/17/2010	<u>Woodinville Station</u> Rectifier #130 CP test station downstream of the station	-1.276 (on) (for pipelines) -1.140 (on)(for station)		Rectifier DC output: 93.3 V; 4.2 A

11/18/2010	<u>Castle Rock Pump Station</u> Incoming mainline block valve Rectifier #340 (for mainline) Rectifier #342 (for station)	-1.408 (on)		Dave Wild, Electrical & Mechanical Technician I, demonstrated the procedures to calibrate a pressure transmitter. The P/S potential for block valve on the incoming line was acceptable. The rectifier DC output for rectifier #340 (for mainline) were: 8.83 V; 3.12 A; and for rectifier #342 (for station) were: 46.8 V; 1.70 A
11/18/2010	Main Line Valve station at MP 196	-1.800 (on)		A new MOV with SCADA remote control was installed in 9/2009 at this location.
11/18/2010	Main Line Valve station at MP 186			The existing manual valve at this location was converted to MOV in 2008 with SCADA remote control capability.
11/18/2010	<u>Olympia Station</u> Rectifier #300			Rectifier DC output: 55.3 V; 2.1 A
11/18/2010	<u>Tacoma Pump Station</u> MLV on incoming 14" line Rectifier #290 (for pipeline) Rectifier #280 (for station)	-1.608 (on)		Rectifier DC output: 28.12 V; 7.8 A Rectifier DC output: 60.23 V; 0.3 A