

**Field Data Collection  
(2012 Standard Inspection)**

**Company: Olympic Pipe Line Company**

**Unit: North**

**Pipe-to-Soil potential readings and other items.**

<b>Date</b>	<b>Location</b>	<b>Pipe/Soil (Volts)</b>	<b>Casing (Volts)</b>	<b>Comments</b>
8/22/2012	<b><u>Cherry Point Pump Station</u></b>  16" Incoming line from the Cherry Point Refinery  Rectifier at the station (#10)	-0.908		Rectifier DC output: 25.39 V; 10.3 A
8/22/2012	Rail road crossing outside of Cherry Point Station	-2.846	-0.589	
8/22/2012	Rectifier at Alder Grove Road outside of the Cherry Point Pump Station			Rectifier DC output: 3.16 V; 2.9 A
8/22/2012	Alcoa Intelco Plant check valve	-1.719		The 16" line is bonded with 24" crude oil line & 6" butane line.
8/22/2012	Rectifier outside of the Alcoa Intelco Plant	-2.030		This rectifier is an automatic rectifier synchronized with current output to the ground by the Intelco Plant. It was down during the field inspection.



Date	Location	Pipe/Soil (Volts)	Casing (Volts)	Comments
8/22/2012	<p><b><u>Allen Station (MP37.3)</u></b></p> <p>Station rectifier #50</p> <p>Mainline rectifier #55</p> <p>16" line from Ferndale</p> <p>16" line to Woodinville</p> <p>20" line to Renton</p> <p>Breakout Tank T-101</p> <p>Railroad crossing outside of the station fence</p> <p>16" line</p> <p>20" line</p>	<p>-1.684</p> <p>-1.372</p> <p>-1.641</p> <p>Tank CP on outer edge of chime</p> <p>-1.400 (E)</p> <p>-1.534 (W)</p> <p>-1.728 (N)</p> <p>-1.580 (S)</p> <p>-1.651</p> <p>-1.711</p>	<p></p> <p></p> <p></p> <p></p> <p></p> <p>-0.486</p> <p>-0.494</p>	<p>Rectifier DC output: 7.16 V; 7.20 A</p> <p>Rectifier DC output: 21.23 V; 5.00 A</p> <p>The tank was inspected and it appeared to be in good working condition.</p> <p>The thermal relief valve (TRV) for the 20" launcher at the Allen Station was removed from the line and tested in the shop during the inspection. The set point was 984 psi and it opened at between 980 psi and 990 psi. The test was successful. The set point for this TRV was previously set by mistake at 925 psi while the system MOP is at 928 psi. The frequent opening of the TRV and the vibration of the piping caused the sampling port to fail on 3/31/2012 and pressure gage to fail on 4/1/2012 resulting in product spills.</p>



Date	Location	Pipe/Soil (Volts)	Casing (Volts)	Comments
8/23/2012	<p><b><u>Anacortes Station</u></b></p> <p>16" Incoming line from Shell &amp; Tesoro refineries</p> <p>Rectifier #60 for station piping</p> <p>Rectifier #70 for pipeline</p> <p>Meter run</p> <p>Pig launcher for 16" line to Bayview</p> <p>Breakout tank T-117</p>	<p>-0.995 -1.424</p> <p>-1.643</p> <p>-1.331</p>		<p>Rectifier DC output: 21.09 V; 2.19 A</p> <p>Rectifier DC output: 16.11 V; 3.18 A</p> <p>The seal between the bottom of chime and concrete ring wall failed at several locations. Sealant was injected at this space after the inspection in 2008. Proper sealant and installation procedures should be used for a long lasting application. Post inspection notes: The existing seal under the entire chime was removed and a new sealant injected on 8/28/2012.</p>
8/23/2012	<p>Main line valve station at MP 46 in Conway for Allen to Renton segment</p> <p>Rectifier #95</p> <p>16" line</p> <p>20" line</p>	<p>-1.782</p> <p>-1.754</p>	<p>-0.553</p> <p>-0.541</p>	<p>Rectifier DC output: 4.06 V; 5.2 A</p> <p>These two lines are bonded.</p>

Date	Location	Pipe/Soil (Volts)	Casing (Volts)	Comments
8/23/2012	Main line valve station at MP 56 in Stanwood for Allen to Renton segment  Rectifier #100  16" valve stem 20" valve stem	-3.43 -1.414		Rectifier DC output: 54.17 V; 2.5 A  The 20" valve was partially operated without difficulty.
8/23/2012	MP 65 for Allen to Renton segment 16" line	-1.393	-0.311	
8/23/2012	<b><u>Woodinville Pump Station</u></b>  Station rectifier  Pipeline rectifier  16" Incoming line  20" Incoming line	-1.566 -2.416		Rectifier DC output: 25.50 V; 0.76 A  94.3 V; 3.14 A  A short section of about 30 feet of 16" line with readings of -0.712/-0.794 due to shielding problem in the station. Additional anodes will be installed shortly and monitored for improvement.
8/23/2012	<b><u>Renton Station</u></b>  Breakout tank T-116 chime	-1.408 (E) -1.244 (N)		The station was inspected in June 2012 during intrastate laterals inspection except for breakout tank T-116. The tank shell bulging appeared to be the same as during the Integrated Inspection in November 2010. The seal under the chime appeared to be in good condition and no cracks were found.