Field Data Collection
(2011 Standard Inspection)

Company: Gas Transmission Northwest Corporation (GTN)
Unit: Rosalia District
Inspector: Al Jones, UTC Staff

Pipe-to-soil potential readings and other items

Please note: The A, B, and C lines are 36, 42, and 42 inch diameter pipelines, respectively. The A-Line at Saltese Meadows is located in a Class 3 Location in Spokane Valley was replaced in October 2011. The C-Line extends from Canada through Idaho and terminates at the Spokane Gate Station.

Date	Location	Pipe (Volts DC)	Casing (Volts DC)	Comments
11/30/2011	MP 112.0 Abandoned RR tracts adjacent to a housing development	-0.699 -0.701 -0.555 -0.556	-0.188 -0.197 -0.376 -0.422	A-Line (100 feet upstream) A-Line (100 feet downstream) B-Line (100 feet upstream) B-Line (100 feet downstream)
11/30/2011	MP 115.2 (C/P Test Station)	-1.184 -1.168		New A-Line (100 feet upstream) New A-Line (100 feet downstream)
11/30/2011	MP 115.6 Valve Site 5-25 32nd St., Spokane Valley	-1.19 -1.21		"A" Line "B" Line
11/30/2011	Spokane Gate 6112 N. Starr Rd. (Valve 5.2) Spokane Valley	-0.3.343 -7.346 -3.32 -4.05 -3.08 -3.05	<Insulated Flange> <Insulated Flange> <Insulated Flange>	4" Kellogg Line at PGT side. 4" Kellogg Line at Williams side. 6" Line at GTN side. 6" Line at Avista Utilities side. 6" buried line to heater from GTN. 6" buried line from heater to meter station at Avista Utilities side. Operated Main Line valve A-1. OK.
11/30/2011	MP 116.6 Linke Rd. Crossing	-1.555 -0.240 -1.225		"A" Line "A" Line Casing "B" Line
11/30/2011	MP 143.6 Rosalia Compressor #6 E 315 Babb Rd. Rosalia, WA Compressors include Solar Turbines: 14,000 hp Mars 19,500 hp Titan, and 12,500 hp LM 1500 (GE)	-5.446		Utility fuel gas line to station furnace and hot water tank. Tested gas sensors for Control Room furnace / hot water room, A-Unit, and B-Unit compressor buildings. The sensors functioned correctly by alarmed at 10% LEL and ESD at 25% LEL. **Rectifier:** 39.9 v DC output

Date	Location	Pipe (Volts DC)	Casing (Volts DC)	Comments
				15.6 Amps output Settings: B-course, 4-fine
12/1/2011	MP 160.2 Main Line Valve 6-1	 -1.257 -1.27 1.256		 A-Line Test Station B- Line Test Station P/S at Main Line Valve A-1. Operated Main Line valve A-1. OK.
12/1/2011	Main Line Valve 6-2	-0.716 -0.810 -0.818	 -0.522 n/a	At Valve A-1 A-Line Test Station B- Line Test Station Operated Main Line valve A-1. OK.
12/1/2011	MP 182.8 - LaCrosse Meter & Rectifier Stations	-3.28 -3.74	-0.037	"A" Line "B" Line **Rectifier:** 79.23 v DC output 14.73 Amps output Settings: D-course, 2-fine **Meter Station:** Tested the monitor regulator on the primary supply. The gas delivery to Avista distribution was held at 150 psig.
12/1/2011	Meter Station at: St. John MP 158.9	-1.226 on		Avista C/P -1.11 v with a 150 psig delivery pressure. Insulator is shorted at flange connection with Avista Utilities.
12/1/2011	MP 194.0 Rectifier at Rock Spring			44.33 v DC output 16.5 Amps output Settings: D-course, 2-fine
12/1/2011	MP 197.8 Valve 6-3	-0.852 -0.6295 -0.713	 -0.765 -0.780	A-Line, Valve A-1 A-Line at test station B-Line at test station At south end of A-Line casing. At north end of A-Line casing. **Note:** **Except for the valve, the P/S readings for the casing are greater than the A-Line value.**

Kurt, please provide at the following locations the latest native and the most recent pipe-to-soil values.
Please provide the date when the data was taken. Thank you, -Al

		P/S Potentials		2011 Annual Survey			2011	
Location	MP	Date	Native	Date	ON	Off	Field Insp	Comments
A-Line	197.8						-0.6295	At Test Point
A-Line	197.8						-0.78	North end of Casing
A-Line	197.8						0.765	South end of Casing
B-Line	197.8						-0.713	At Test Point
Valve 6 2								
A-Line							-0.716	At Valve A-1
A-Line							-0.81	At Test Point
A-Line							-0.522	At Casing
B-Line							-0.818	AT test point

Requested Data Follow-up: See Below for notes and Data

Notes: **MLV 6-2 :**

Data- supplied data for this year's Annual Test Lead (ATL) surveys and Depol data
New readings for this location, data gathered after Rectifer adjustments which occurered after 2011 ATL survey. (12/9/2011)
Readings with depol data show greater than 100mV depol shift criteria has been met
New Depol scheduled for Rosalia area in 2012

Notes: **M.P 197.8 / MLV 6-3:**

Data- supplied for 2011 ATL survey and Depol data
New readings for this location, data gathered after Rectifer adjustments which occurered after 2011 ATL survey. (12/9/2011)
Readings with depol data show greater than 100mV depol shift criteria has been met
New Depol scheduled for Rosalia area in 2012
The Casing and pipe potentials can be at different potentials due to them being separate structures.
The Casing values do not shift during the ON/OFF survey which indicates casing is not shorted
The Casing values being at a higher potential than the carrier pipe can be caused by many things, such as the possibility of old Mags being directly connected to casing, casing material, or even soil chemistry and conditions. Please note that the casing does not shift with the pipe indicating no short. A casing test have been completed in Dec 2009 also indicating casing is not shorted to carrier piping.

MP 197.8 Requested Data

Name Plate Change		Date	Native	Date / Time	Casing Readings		Pipe Line Readings		Note:
5006301+197.800-TS	A - Line MP 197.8	Oct-06	0.397	8/17/2011			0.563	0.540	2011 ATL Survey (Annual Test Lead Survey)
5006301+197.800-TS	A - Line MP 197.8			12/9/2011			0.598	0.568	2011 Follow up Readings - Readings taken with Fluke Meter
5006301+197.800-TS	A - Line MP 197.8			8/17/2011	0.883	0.885			2011 ATL Survey
5006301+197.800-TS	A - Line MP 197.8			12/9/2011	0.741	0.743			2011 Follow up Readings - Readings taken with Fluke Meter (south end)
5006301+197.800-TS	A - Line MP 197.8			12/9/2011	0.738	0.736			2011 Follow up Readings - Readings taken with Fluke Meter (north end)
5006302+197.800-TS	B - Line MP 197.8	Oct-06	0.414	8/17/2011			0.633	0.573	2011 ATL Survey
5006302+197.800-TS	B - Line MP 197.8			12/9/2011			0.686	0.617	2011 Follow up Readings - Readings taken with Fluke Meter

Valve 6.2 Requested Data

Name Plate Change	Test Lead Comment	Date	Native	Date / Time			ON Potential	OFF Potential	Measurement Comment
5006201+179.020V-2-TS	mlv 6-2 A-LINE VALVE #A-1	Oct-06	0.485	09-Dec-2011			0.774	0.712	mlv 6-2 A-LINE VALVE #A-1
5006201+179.020V-2-TS	mlv 6-2 A-LINE VALVE #A-1	Oct-06	0.485	18-Aug-2011			0.541	0.448	mlv 6-2 A-LINE VALVE #A-1
5006201+179.020V-2-TS	mlv 6-2 A-LINE VALVE #A-1	Oct-06	0.485	20-Aug-2010			0.774	0.693	mlv 6-2 A-LINE VALVE #A-1

Name Plate Change		Date	Native	Date / Time	Casing Readings		Pipe Line Readings		Note:
5006201+179.000-TS	A - Line MP 179.0	Oct-06	0.345	8/18/2011			0.794	0.656	2011 ATL Survey
5006201+179.000-TS	A - Line MP 179.0			12/9/2011			0.769	0.693	2011 Follow up Readings - Readings taken with Fluke Meter
5006201+179.000-TS	A - Line MP 179.0			8/18/2011	0.531	0.530			2011 ATL Survey
5006201+179.000-TS	A - Line MP 179.0			12/9/2011	0.494	0.494			2011 Follow up Readings - Readings taken with Fluke Meter (south end)
5006202+179.000-TS	B - Line MP 179.0	Oct-06	0.385	8/18/2011			0.811	0.671	2011 ATL Survey
5006202+179.000-TS	B - Line MP 179.0			12/9/2011			0.781	0.685	2011 Follow up Readings - Readings taken with Fluke Meter