US Department of Transportation Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety

Gas IMP Field Verification Inspection 49 CFR Subparts 192.911, 192.921, 192.933, & 192.935

General Notes:

- 1. This Field Verification Inspection is performed on field activities being performed by an Operator in support of their Integrity Management Program (IMP).
- 2. This is a two part inspection form:
 - i. A review of applicable Operations and Maintenance (O&M) and IMP processes and procedures applicable to the field activity being inspected to ensure the operator is implementing their O&M and IMP Manuals in a consistent manner.
 - ii. A Field Verification Inspection to determine that activities on the pipeline and facilities are being performed in accordance with written procedures or guidance.
- 3. Not all parts of this form may be applicable to a specific Field Verification Inspection, and only those applicable portions of this form need to be completed. The applicable portions are identified in the Table below by a check mark. Only those sections of the form marked immediately below need to be documented as either "Satisfactory"; "Unsatisfactory"; or Not Checked ("N/C"). Those sections not marked below may be left blank.

Operator Inspected:

Gas Transmission Northwest Corporation (GTN)

Op ID:

15014

Perform Activity (denoted by mark)	Activity Number	Activity Description
	1A	In-Line Inspection
	1B	Hydrostatic Pressure Testing
	1C	Direct Assessment Technologies
	1D	Other Assessment Technologies
	2A	Remedial Actions
	2B	Remediation – Implementation
	3A	Preventive & Mitigative – additional measures evaluated for HCAs
	3B	Preventive & Mitigative – automatic shut-off valves
•	4A	Field Inspection for Verification of HCA Locations
	4B	Field Inspection for Verification of Anomaly Digs
X	4C	Field Inspection to Verify adequacy of the Cathodic Protection
		System
X	4D	Field inspection for general system characteristics
	attachment	Anomaly Evaluation Report
	attachment	Anomaly Repair Report

Gas IMP Field Verification Inspection Form

Name of Operator:

Gas Transmission Northwest Corporation (GTN)

Headquarters Address:

1400 SW 5th Ave

Suite 900

Portland, OR 97201

Company Official:

Ken Leier, Regional Director

Phone Number:

509-533-2831

Fax Number:

509-533-2825

Operator ID:

15014

Persons Interviewed	Title	Phone No.	E-Mail
Kurt Smith	Compliance Specialist Primary Contact	509-546-8865	kurt_smith@transcanada.com
James Olson	Multi-Skills Technician / Corrosion Tech	509-533-4311	James_olson@transcanada.com
Rich Christman	Corrosion Specialist	208-304-5700	Rich_christman@transcanada.com

OPS/State Representative(s): Al Jones/WUTC

Date(s) of Inspection: March 27-30, 2012

Inspector Signature: Al Jones

Date: April 4, 2012

Pipeline Segment Descriptions: [note: Description of the Pipeline Segment Inspected as part of this field verification. (If information is available, include the pipe size, wall thickness, grade, seam type, coating type, length, normal operating pressure, MAOP, %SMYS, HCA locations, class locations, and Pipeline Segment boundaries.)]

The portion of the Rosalia District inspected included the 36-inch (A-Line) and 42-inch (B-Line) diameter pipelines south of the Spokane Gate Station to the Spokane Valley (MP 113.6). The Field Data Report includes native values as a follow-up to the November 2011standard inspection. On March 26, 2012 the local rectifiers were turned off and native values were taken on March 29, 2012. See Exhibit-A for annual CP data from 2007 to 2011 provided by Rich Christman, GTN's Corrosion Specialist. Also, the table includes the native value for MP 113.6.

Site Location of field activities: [note: Describe the portion of the pipeline segment reviewed during the field verification, i.e. milepost/stations/valves/pipe-to-soil readings/river crossings/etc. In addition, a brief description and case number of the follow up items in any PHMSA compliance action or consent agreement that required field verification. Note: Complete pages 8 & 9 as appropriate.]

The follow-up inspection site includes the rectifier at MP 105.7 on Beck Rd. in Idaho, native CP data at MP 110.2, MP 110.8, and MP 113.6.

Summary:

The NOPV for the 2011 inspection has been remediated with updated 2008 native survey. In summary, all CP values at MP 110.1 and 110.8 test stations were in compliance with 100mv shift criteria using the 2008 native values, except 2008 data. And at MP 113.6 the test station was in compliance with -850 mv on criteria. See Exhibit-A for annual CP data from 2007 to 2011 and Exhibit-B and Exhibit-C for rectifier history from 2007 to 2011.

Findings:

During the 2011 standard inspection the CP values for the A and B lines at MP 110.1 and MP 110.8 were less than -850 vDC on and less than 100 mv shift criteria with respect to the 2006 native survey. Since the inspection, GTN has updated their database to 2008 native values. See Exhibit-A, for annual survey data from 2007 to 2011.

Key Documents Reviewed:

Document Title	Document No.	Rev. No	Date
Exhibit-A CP data 2007-2011			3/28/2012
Exhibit-B Beck Rd Rectifier data 2007-2011			3/28/2012
Exhibit-C Baker Rd Rectifier data 2007-2011			3/28/2012

Part 1 - Performance of Integrity Assessments

	T	T		T = -
1A. In-Line Inspection	Satisfactory	Unsatisfactory	N/C	Notes:
Verify that Operator's O&M and IMP procedural			**	
requirements (e.g. launching/receiving tools) for performance of ILI were followed.			X	
Verify Operator's ILI procedural requirements were fol	lowed (e.g.	operation of t	ran	
for launching and receiving of pig, operational control of			тар	
Verify ILI tool systems and calibration checks before ru			ıre	
tool was operating correctly prior to assessment being p				·
Verify ILI complied with Operator's procedural require				
successful assessment (e.g. speed of travel within limits				
coverage), as appropriate.				
Document ILl Tool Vendor and Tool type (e.g. MFL, D	eformation). Document		
other pertinent information about Vendor and Tool, as a				
Verify that Operator's personnel have access to applica				
running and monitoring the pipeline for ILI tools include			nts	
(e.g.: tool speeds, pipe cleanliness, operation of tool se	nsors, and I	LI field		[Note: Add location specific
calibration requirements), as appropriate.				information, as appropriate.]
Other:		The Cash Wat of Day 2		injormation, as appropriate.j
1B. Hydrostatic Pressure Testing	Satisfactory	Unsatisfactory	N/C	Notes:
Verify that hydrostatic pressure tests complied with	<u> </u>	,		
Part 192 Subpart J requirements.			X	
Review documentation of Hydrostatic Pressure Test par	ameters and	l results. Ver	ify	
test was performed without leakage and in compliance v	with Part 19	2 Subpart J		
requirements.				
Review test procedures and records and verify test acce	ptability and	d validity.		
Review determination of the cause of hydrostatic test fa	ilures, as ap	propriate.		
Document Hydrostatic Pressure Test Vendor and equip	ment used, a	as appropriate		
Verify that the baseline assessment is conducted in a ma				
environmental and safety risks (reference §192.919(e) a	nd ADB-04	-01)		
Other:				
	A STATE OF THE STA			
1C. Direct Assessment Technologies	Satisfactory	Unsatisfactory	N/C	Notes:
Verify that application of "Direct Assessment			X	
Technology" complied with Part 192.923	L			
Review documentation of Operator's application of "Di				
Technology", if available. Verify compliance with Part	192.923 an	d Operator's		
procedural requirements, as applicable. Verify that appropriate tests and/or inspections are being	r porformo	l and annranri	nto	
data is being collected, as appropriate.	g periorinec	and appropri	aic	
Other.				
	GU GOMBANASA GOLGANIS DIGER		Artico	
1D. Other Assessment Technologies	Satisfactory	Unsatisfactory	N/C	Notes:
Verify that application of "Other Assessment				
Technology" complied with Operator's requirements,		·	v	
that appropriate notifications had been submitted to			X	
PHMSA, and that appropriate data was collected.				
Review documentation of notification to PHMSA of Op				
Assessment Technology", if available. Verify complian				
requirements. If documentation of notification to PHM!				
of "Other Assessment Technology" is available, verify parameters originally submitted to PHMSA.	octionnance	oi assessmer	IL	
Verify that appropriate tests are being performed and ap	nropriate de	ata is heing		
collected, as appropriate.	propriate de	in is being		
Other.				
	- 5 (5.4%)	1 10 10 10 10 10 10 10 10 10 10 10 10 10		

Part 2 - Remediation of Anomalies

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2A. Remedial Actions – Process	Satisfactory	Unsatisfactory	N/C	Notes:
Verify that remedial actions complied with the			v	
Operator's procedural requirements.			X	
Witness anomaly remediation and verify documentation	of remedia	tion (e.g.		•
Exposed Pipe Reports, Maintenance Report, any Data A			ý	
compliance with Operator's O&M Manual and Part 192			•	
1				
Verify that Operator's procedures were followed in loca	ating and ex	posing the		
anomaly (e.g. any required pressure reductions, line loc				
approximate location of anomaly for excavation, excava				
.,, r	,	8		
Verify that procedures were followed in measuring the	anomaly, de	termining the		
severity of the anomaly, and determining remaining stre				
class location factor and failure pressure ratio used by C				Cathodic Protection readings of pipe to
of anomaly.	P		r	soil at dig site (if available):
or unemary.				On Potential: mV
Verify that Operator's personnel have access to and kno	wledge of a	nnlicable		Off Potential: mV
procedures.	, whouge of t	ppneasie		·
procedures.				[Note: Add location specific information
Other:	*			and note whether CP readings were from
Other.				the surface or from the pipe following
•				exposure, as appropriate.]
2B. Remediation - Implementation	Satisfactory	Unsatisfactory	N/C	Notes:
	Satisfactory	Olisatisfactory	IN/C	Notes.
Verify that the operator has adequately implemented				
its remediation process and procedures to effectively			X	
remediate conditions identified through integrity assessments or information analysis.				
If documentation is available, verify that repairs were co	ampleted in	accordance u	ith	
the operator's prioritized schedule and within the time f			VIUI .	
\$192.933(d).	raines anov	veu iii		
§192.933(u).				
Review any documentation for this inspection site for a	n immodiate	ropoir condit	ion	
(§192.933(d)(1)) where operating pressure was reduced			1011	
shutdown. Verify for an immediate repair condition that				
pressure was determined in accordance with the require			:£	
not applicable, the operator should provide an engineer			11	
amount of pressure reduction.	ing Dasis Jus	strying me		
amount of pressure reduction.				
Verify that repairs were performed in accordance with	\$102.102.5	102 111		
\$192.713, \$192.717, \$192.719, \$192.933 and the Opera				
appropriate. If welding is performed, verify a qualified			hod	
qualified welders are used to perform repairs. If composerify that a method approved by the Operator is used,				Cathodic Protection readings of pipe to
qualified personnel perform the repair.	procedures	are followed,	anu	soil at dig site (if available):
quanned personner perform the repair.				On Potential: mV
Pavious CD readings at anomaly dis site if possible (S	laa Dart 4 of	this farm		Off Potential: mV
Review CP readings at anomaly dig site, if possible. (S "Field Inspection to Verify adequacy of the Cathodic P				
, , , , , , , , , , , , , , , , , , , ,	rotection sy	stem, as		[Note: Add location specific information
appropriate.				and note whether CP readings were from
Othor	·			the surface or from the pipe following
Other:				exposure, as appropriate.]
				The same of the tappe of the total of
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Part 3 - Preventive and Mitigative Actions

3A. P&M Measures for Third Party Damage	Satisfactory	Unsatisfactory	N/C	Notes:
Identify additional measures evaluated for the HCA	Satisfactory	Onsatisfactory		11063.
section of the pipeline and facilities.			X	
Verify that P & M measures regarding threats due to thi	rd party dan	nage are bein	g	1
implemented: [§192.915(c), §192.935(b)(1)(iv)]:				
				<u> </u> -
Confirm the use of qualified personnel for marking, local	ating, and d	irect supervis	ion	
of known excavation work, as appropriate.				
Confirm the use of qualified personnel for monitoring o	favoavatio	ns conducted		-
covered pipeline segments by pipeline personnel, as app		iis conducted	311	·
pipeline segments by pipeline personner, as app	лорпасс.			
Other:				-
				[Note: Add location specific information,
				as appropriate.]
	18 506 - 333	Nation & B		as appropriate.
3B. Installed Automatic Shut-off Valves (Protocol	C-4:-C4	T.I	NIC	Notes:
H.07)	Satisfactory	Unsatisfactory	N/C	
Verify additional preventive and mitigative actions			X	
implemented by Operator.			A	
Document that additional measures evaluated by the ope				
such as, installing Automatic Shut-off Valves or Remot				
computerized monitoring and leak detection systems, re			th	
pipe of heavier wall thickness, providing additional train response procedures, conducting drills with local emerg				
implementing additional inspection and maintenance pro				
Verify that the operator has a process to decide if autom				
remote control valves represent an efficient means of ad			İ	
potentially affected high consequence areas. [§192.935(
Verify operation of installed remote control valve by rev				
inspection/remote control records for partially opening a	ina closing	tne valve, as		
appropriate.				
Other:			-	
				[Note: Add location specific information,
				as appropriate.]
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Market Market (Anthorne Market Mark	Note a transfer as a second of a			14. 名。其一學是學典歷史學的思數(為學學的學學學的是學的數學)。

Part 4 - Field Investigations (Additional Activities as appropriate)

A. Field Inspection for Verification of HCA Locations Satisfactory Unsatisfactory NC Notes:					
Verify that the operator maps, as appropriate. Verify that the operator's integrity management program includes accurate and updated system maps or other suitably detailed means documenting the pipeline segment locations that are located in high consequence areas, as appropriate. [§192.905(a)]	4A. Field Inspection for Verification of HCA Locations	Satisfactory	Unsatisfactory	N/C	Notes:
updated system maps or other suitably detailed means documenting the pipeline segment locations that are located in high consequence areas, as appropriate. [§192.905(a)] Review the operator's applicable procedures and forms used to document new information from one-calls, surveys, aerial & ground patrols are being completed by field personnel to communicate new developments that may impact high consequence areas or that may create new high consequence areas to IM personnel, as appropriate. [§192.905(c)] Review the operator's applicable procedures and forms to confirm that new HCAs and class location changes are being identified through it's continuing surveillance program as required by §192.613 and §192.905. 4B. Field Inspection for Verification of Anomaly Digs Satisfactory Unsatisfactory NIC Notes: Verify repair areas, ILI verification sites, etc. X X Document the anomaly dig sites observed and reviewed as part of this field activity and the actions taken by the operator. 4C. Field Inspection to Verify adequacy of the Satisfactory NIC Notes: Cathodic Protection System Satisfactory NIC Notes: AC. Field Inspection to Verify adequacy of the Satisfactory NIC Notes: AC. Field Inspection to Verify adequacy of the Satisfactory NIC Notes: AC. Field Inspection to Verify adequacy of the Satisfactory NIC Notes: AC. Field Inspection to Verify adequacy of the Satisfactory NIC Notes: AC. Field Inspection to Verify adequacy of the Satisfactory NIC Notes: AC. Field Inspection to Protection System Satisfactory NIC Notes: AC. Field Inspection to Protection System Satisfactory NIC Notes: AC. Field Inspection to Protection System Satisfactory NIC Notes: AC. Field Inspection to Protection System Satisfactory NIC Notes: AC. Field Inspection to Protection System NIC				X	
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Verify repair areas, ILI verification sites, etc.	and class location changes are being identified through i				
Verify repair areas, ILI verification sites, etc.	4B. Field Inspection for Verification of Anomaly Digs	Satisfactory	Unsatisfactory	N/C	Notes:
Document the anomaly dig sites observed and reviewed as part of this field activity and the actions taken by the operator. Acc. Field Inspection to Verify adequacy of the Cathodic Protection System Satisfactory Unsatisfactory N/C		,	,,		2.00000
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Protection (CP) systems must be evaluated for general adequacy. The operator should review the CP system performance in conjunction with a hydrostatic pressure test to ensure the integrity assessment addressed applicable threats to the integrity of the pipeline. Has the operator reviewed the CP system performance in conjunction with the hydrostatic pressure test? Review records of CP readings from CIS and/or annual survey to ensure minimum code requirements are being met, if available. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible.	Cathodic Protection System	Satisfactory	Unsatisfactory	N/C	Notes:
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Review results of random field CP readings performed during this activity to ensure minimum code requirements are being met, if possible. Perform random rectifier checks during this activity and ensure rectifiers are operating correctly, if possible. [Note: Add location specific information and note whether CP readings were from the surface or from the pipe following]	Review records of CP readings from CIS and/or annual		nsure minimu	m	soil at dig site (if available): On Potential:mV
。	minimum code requirements are being met, if possible.	Perform ra	ndom rectifie	r	[Note: Add location specific information and note whether CP readings were from the surface or from the pipe following
4D. Field inspection for general system characteristics Satisfactory Unsatisfactory N/C Notes:	4D. Field inspection for general system characteristics	Satisfactory	Unsatisfactory	N/C	Notes:
Through field inspection determine overall condition of pipeline and associated facilities for a general estimation of the effectiveness of the operator's IMP implementation. X Field reviewed the pipeline right-of-way and line markers between MP 105.7 and MP 110.8.	pipeline and associated facilities for a general estimation of the effectiveness of the operator's IMP	X			and line markers between MP 105.7 and
Evaluate condition of the ROW of inspection site to ensure minimum code requirements are being met, as appropriate. Comment on Operator's apparent commitment to the integrity and safe operation of	Evaluate condition of the ROW of inspection site to ens requirements are being met, as appropriate.			of	Acces A A MICH
their system, as appropriate. Check ROW for pipeline markers in line-of-sight and Emergency call-in number on marker posts.	their system, as appropriate. Check ROW for pipeline markers in line-of-sight and E				
Other: The control of the contro					

Anomaly Evaluation Report (to be completed as appropriate)

Pineline Sv	stem and Line	Pipe Information
Operator (OpID and System Name):		
Unit ID (Pipeline Name)		
Pipe Manufacturer and Year:		Seam Type and Orientation:
Pipe Nominal OD (inch):		Depth of Cover:
Pipe Nominal Wall thickness (inch):		Coating Type and Condition:
Grade of Pipe:		MAOP:
	I Danartad Inf	週1回というよりは大きなでものできる。整ち 2012 要 第 1000 にいって 単発 <mark>調整</mark> 1000 でも
ILI Technology (e.g., Vendor, Tools):	inceported in	ormation
Anomaly Type (e.g., Mechanical, Metal L	oaa).	
Is anomaly in a segment that can affect an		
Date of Tool Run (MM/DD/YY):		
		nspection Report (MM/DD/YY):
Date of "Discovery of Anomaly" (MM/DI	· · · · · · · · · · · · · · · · · · ·	
Type of "Condition" (e.g.; Immediate; 60-Anomaly Feature (Int/Ext):		(O'alask position):
		(O'clock position):
Anomaly Details: Length (in):	Width (in):	Depth (in):
Anomaly Log Distance (ft):		m Upstream weld (ft):
Length of joint(s) of pipe in which anomal	HIROTECO SERVICE A RECORD OF	AC a character of a describe afficient of selection and the property of the contract of the co
	Dig Site Inform	nation Summary
Date of Anomaly Dig (MM/DD/YY):	 :	
Location Information (describe or attach n		
Mile Post Number:	Distance fro	om A/G Reference (ft):
Distance from Upstream weld (ft):		
GPS Readings (if available) Longitude:		Latitude:
Anomaly Feature (Int/Ext):	Orientation:	
Length of joint of pipe in which anomaly i		
For Mo	echanical Dam	age Anomaly
Damage Type (e.g., original construction,	plain dent, gouge):
Length (in):	Width (in):	Depth (in):
Near a weld? (Yes / No):		
Gouge or metal loss associated with dent?	(Yes / No):	Are multiple dents present? (Yes / No):
Did operator perform additional NDE to ev	valuate presence o	of cracks in dent? (Yes / No):
Cracks associated with dent? (Yes / No):		
For Co	rosion Metal	Loss Anomaly
Anomaly Type (e.g., pitting, general):		
Length (in):	Width (in):	Max. Depth (in):
Remaining minimum wall thickness (in):		num % Wall Loss measurement(%):
Safe pressure calculation (psi), as appropri		70 7001 2000 111000 11100 11100
and the second of the second o	Other Types" (of Anomalies
Describe anomaly (e.g., dent with metal lo	es crack soom de	efect SCC)
Length (in):	Width (in):	Max. Depth (in):
Other Information, as appropriate:	widui (III).	iviax. Depui (iii).
	valuate prosones s	of gracks? (Vac / Na).
Did operator perform additional NDE to ex	anuate presence (01 Clacks: (165/190).
Cracks present? (Yes / No):		

Anomaly Repair Report (to be completed as appropriate)

	Repair Information
Was a repair of the	anomaly made? (Yes / No):
Was Operating Pres	ssure Reduced per 192.933(a) requirements?
Was defect ground	out to eliminate need for repair? (Yes / No):
If grinding used, co	emplete the following for affected area:
Length (in):	Width (in): Depth (in):
If NO repair of an a	anomaly for which RSTRENG/B31.G is applicable, were the Operator's RSTRENG/B31.G
calculations review	ed? (Yes / No):
If Repair made, co	omplete the following:
Repair Type (e.g.,	Гуре B-sleeve, composite wrap)
	out prior to making repair? (Yes / No):
Operating Pressure	at the time of repair:
Length of Repair:	Pipe re-coating material used:
Comments on Repa	air material, as appropriate (e.g., grade of steel, wall thickness):
Comments on Repa	air procedure, as appropriate (e.g., welded sleeve, composite wrap):
	General Observations and Comments
Was a diagram (e.g	., corrosion map) of the anomaly made? (Yes / No): (Include in report if available)
	athodic protection readings taken? (Yes / No):
If CP readings take	* /
	· · · · · · · · · · · · · · · · · · ·
[Note: Note whether C.	n, Record: On Potential: mV; Off Potential: mV
[Note: Note whether C.	n, Record: On Potential: mV; Off Potential: mV P readings were from the surface or from the pipe following exposure, as appropriate.]
[Note: Note whether C.	n, Record: On Potential: mV; Off Potential: mV P readings were from the surface or from the pipe following exposure, as appropriate.]
[Note: Note whether C.	n, Record: On Potential: mV; Off Potential: mV P readings were from the surface or from the pipe following exposure, as appropriate.]
[Note: Note whether C.	n, Record: On Potential: mV; Off Potential: mV P readings were from the surface or from the pipe following exposure, as appropriate.]
[Note: Note whether C.	n, Record: On Potential: mV; Off Potential: mV P readings were from the surface or from the pipe following exposure, as appropriate.]
[Note: Note whether C. Describe method us	n, Record: On Potential: mV; Off Potential: mV P readings were from the surface or from the pipe following exposure, as appropriate.]
[Note: Note whether C. Describe method us	n, Record: On Potential:mV; Off Potential:mV Preadings were from the surface or from the pipe following exposure, as appropriate.] sed by Operator to locate anomaly (as appropriate):
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