

## Mill Test Certificate

2125-64 Avenue, Edmonton, AB Canada T6P 1Z4 Bri-Steel Manufacturing Inc.

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www.bri-steel.com

Product: Seamless Carbon Steel Pipe

Product Heat Number:

BSM-2273 Product Size: 26STD

Production Date: Mar 03, 2015

Production Method: **Hot Expansion** 

Product Standards:

Certificate No.: MTR-001613

ASME B36.10-2004, API 5L-45th Ed. Grade B PSL1, ASTM/ASME A106-2014/SA106-2013 Grade B/C NDE, A53-2012/SA53-2013 Grade B Type S, NACE MR0175-2009 MR0103-2012

Product Heat Treatment: As-rolled

<API & L/C No.> API SPEC 5L NPS 26 STD 0.375 INCHWT GR B PSL1 SMLS 2015/03 NDE 700PSI

**Product Markings** Product: Details HEAT BSM-2273 (PIPE # LENGTH MASS) 102.6lb/ft ASTM/ASME A/SA106 GR B/C A/SA53 GR B NACE MR0175/MR0103 MADE IN CANADA Non-Destructive Testing

	BSM-2273	Heat		BSM-2273		Heat
Blast Furnace; EAF Degas; Fully Killed		Stee		Heat	17	Test Type
Blast Furnace; EAF; Ladle Refining; Vacuum Degas; Fully Killed		Steelmaking Method		NPS 26 STD 0.375in. WT		Product Size
Droduct	Heat	Test Type	200			P
0 22	0.19	С		17		Pieces   Length
200	0.96	Mn		DRL		Length
product 0.22 0.08 0.000 0.005 0.20 0.11	0.19 0.96 0.010 0.008 0.23	Р	0	102.6	lb/ft	Mass
0 005	0.008	S	Chemical Analysis (wt%)	<5	μR/hr	Geiger
0.20	0.23	Si	nalysis (w	<20	Gauss	Geiger Res. Mag.
0 11	0.09	Cr	/t%)		ssn	Mag.
0.04	0.04	Cu		Pass	insp.	Visual
0.01	0.00	Мо		Pass		OD
000	0.02	N.		Pass	TW	
0.00 0 0.000 0 0.001	0.001	<		 Pass	ASTM E213 ASTM	TU
003	-	Ti		P	13 AS	_
0 001	-	Nb		Pass		
0 0010 0 41 0 41	-	В		Pass	700 PSI/	Hydrolest
0 41	1	CE(IIW) CE(CSA)		32	/ 5 s Condition	St
0 41	1	CE(CSA)		32.5° Bevel	ondition	End

43	0.57	73,500	42,200	Longitudinal; 38.1 mm x WT	Pass	78 HRBW	Ferrite & Pearlite	Heat	BSM-2273
%	(Rt0.5/Rm)	psi	psi	50mm GL					
Elongation (A)	Υ/τ	Tensile (Rm)	Yield (Rt0.5)	Tension Test	Flattening Test	Hardness	Microstructure	Test Type	Heat
	100			Mechanical Properties	P				

Product

0.22

0.98

0.009

0.005

0.20

0.11

0.04

0.01

0.04

0.004

0.003

0.001

0.0010

0.41

0.41

	BSM-2273		Heat
		Standard	Test
	-	Sample Details	Impact Test
	ī	°C	Temp
	1	J	
	1	J	Impact
		J	Energy
	1	AVG	
		%	
		%	% Shea
	1	%	ear
-	ı	AVG	
	1	mm	
	ι	mm	Lateral Ex
	1	mm	Expansion
The state of the s	1	AVG	

## Additional Details:

🗸 We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with results meet the corresponding requirements. Bri-Steel Manufacturing is registered and certified to ISO-9001:2008 and API Q1 API 5L-45th Ed., ASTM/ASME A106-2014/SA106-2013 Grade B/C A53-2012/SA53-2013, and the purchase order requirements, and that the

Mill Test Certificate approved by:

√ This pipe product meets the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service-2009 NACE MR0103-2012 Section 2.1

No weld repairs have been performed on this product.

 $\checkmark$  This product has not come into contact with mercury during the Bri-Steel Manufacturing processes.

 $\checkmark$  This certificate represents a quality control system that is compliant with EN 10204:2004 Type 3.1.

Tonya Lam, C.E.T.

Assistant QA Manager