

Bri-Steel Manufacturing Inc.

2125-64 Avenue, Edmonton, AB Canada T6P 1Z4

Fax: 001 (780) 469-6986 Tel: 001 (780) 469-6603

www.brichemsteel.com

Product: Seamless Carbon Steel Pipe

Product Heat Number: BSM-0113

Product Size:

Mill Test Certificate

NPS 18 STD

Production Date:

2011 Nov 23

Product Standards:

Production Method:

Product Heat Treatment: As-rolled

Hot Expansion

ASTM/ASME A/SA106-2010 Grade B/C, A/SA53-2010 Grade B Type S, NACE MR0175-2009

Product Markings: .BRI-STEEL MFG NPS 18 STD ASTM/ASME A/SA106 GR B/C A/SA53 GR B HEAT BSM-0113 (PIPE # LENGTH MASS) NDE 1030PSI NACE MR0175 2011/11 MADE IN CANADA.

Product Details Non-Destructive Testing Non-Destructive Testing HydroTest End Figure Res.Mag. Visual Figure Res.Mag. Vis	_	T		_
Product Details Non-Destructive Testing Hype NPS SCH Pieces Length Mass μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 103 t 18 STD 1 DRL 2760 LB <5 <20 Pass Pass Pass Pass	BSM-0113	Heat		
Product Details Non-Destructive Testing	Heat			
Details Details Non-Destructive Testing Horizon Geiger Res.Mag. Visual UT UT ET Hy Hy Pieces Length Mass μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 103 D 1 DRL 2760 LB <5	18	NPS		P
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Non-Destructive Testing	1	Pieces		ils
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Res.Mag. Visual	2760 LB	Mass		
Non-Destructive Testing Visual UT UT ET Hy Insp. OD WT ASTM E213 ASTM E309 103 Pass Pass Pass Pass	G	μR/hr	Geiger	
Non-Destructive Testing	<20	Gauss	Res.Mag.	
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JT ET Hy 1 E213 ASTM E309 103 Pass	Pass	TW	TU	Destructive T
Hyu 309 103	***	ASTM E213	TU	esting
Hy.	Pass	ASTM E309	ET	
End Condition 37.5° Bevel	 Pass	103	HydroTest	
	37.5° Bevel	Condition	End	

	_	,		_
	BSM-0113	Heat		
	Heat	Test Type		
	Refining; Vacuum Degas	Blast Furnace; EAF; Ladle	Steelmaking Method	The state of the s
	0.20	С		
	0.86	Μ'n		
	0.015	P		
	0.010	S		Chemical
2000	0.22	Si		cal Analysis (v
	0.03	Ç		(wt%)
28.5	0.11	Cu		
0.000	0.01	Mo		
0.0000000000000000000000000000000000000	0.04	<u>Z</u> .		
	0.003	٧		
	0.001	Ti		
	0.001	Nb		
	0.0001	В		
	0.36	(IIW)	Œ	
	0.37	(CSA)	æ	

	BSI			
	BSM-0113 Heat	Heat		
	Heat	Test Type		
	Ferrite & Pearlite	Microstructure		
	76	HRBW	Hardness	
	Pass	Flattening Test		Mechan
Longitudinal	Transverse	50mm GL; 38mm x WT	Tension Test	Mechanical Properties
47,300	45,700	psi	Yield (Rt0.5)	
47,600	45,700	psi	Yield (Rp0.2)	
74,000	72,500	psi	Tensile (Rm)	
0.64	0.63	(Rt0.5/Rm)	Τ/Υ	
41	39	%	Elongation (A)	

Additional Details:

results meet the corresponding requirements. Inc. in accordance with ASTM/ASME A/SA106-2010, A/SA53-2010 and the purchase order requirements, and that the We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing

Service, and NACE MR0103-2010 Section 2.1. This pipe product meet the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour

No weld repairs have been performed on this product. This product has no mercury contamination.

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

Mill Test Certificate approved by:

Kenton Dechant, P.Eng.

2011 Dec 2

Manager of Quality and R&D