

Mill Test Certificate

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

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Seamless Carbon Steel Pipe

Product Heat Number:

BSM-1552

Product Size: 24 STD

Production Date:

Jan 21, 2014

Production Method: Hot Expansion

Product Heat Treatment:

As-rolled

ASME B36.10-2004, ASTM/ASME A/SA106-2013 Grade B/C NDE, A/SA53-2012 Grade B Type S, NACE MR0175-2009 MR0103-2010

Certificate No.: MTR- 000762

Product Markings

Product Standards:

BRI-STEEL NPS 24 STD 0.375 INCHWT SMLS 2014/01 NDE 750PSI

MANUFAGRICANIA HEAT BSM-1552 (PIPE # LENGTH MASS) 94.62lb/ft ASTM/ASME A/SA106 GR B/C A/SA53 GR B NACE MR0175/MR0103 MADE IN CANADA

Is Non-Destructive Testing Non-Destructive Testing Non-Destructive Testing Non-Destructive Testing Non-Destructive Testing HydroTest Solution 150 Pieces Length Mass Geiger Res. Mag. Visual OD UT UT ET HydroTest Non-Destructive Testing Non-Destructive Testing Non-Destructive Testing Non-Destructive Testing HydroTest Solution 150 Pieces Action 150 Pieces Actio	34 Bevel	Pass	Pass	Pass	Pass	Pass	Pass	OT>	ŝ	94.62	DKL	2	NPS 24 STD 0.375III. WT	Πedι	7CCT-IAICG
Pieces Length Mass Geiger Res. Mag. Visual OD UT UT ET HydroTest	3 6 7	D		,	,				,	24 63		ر	אווה אור פתה משקדי אוד	1100±	DCM 1EED
Pieces Length Mass Geiger Res. Mag. Visual OD UT UT ET HydroTest	Condition	750PSI/ 5 s	ASTM	ASTM E213	8		Insp.	Gauss	μR/hr	lb/ft					
Pieces Length Mass Geiger Res. Mag. Visual OD UT UT ET HydroTest		•						,	: (: :					
Non-Destructive Testing	End	HydroTest	E	9	TU	8	Visual	Res. Mag.	Geiger	Mass		Pieces	Product Size	lest lype	Heat
5											- 1				
				tive Testing	on-Destruc	Z							Product: Details		300

		BSM-1552	Heat	
	Cegas, rany smac	Blast Furnace; EAF; Ladle Refining; Vacuum	Steelmaking Method	
	Product	Heat	Test Type	
	0.21	0.20	С	
	0.94	0.94	Mn	
	0.017	0.016	Р	
	0.011	5 0.011	S	Chemical
10000	0.25	0.24	Si	Chemical Analysis (wt%)
Section Commission Com	0.05	0.05	Cr	wt%)
	0.05	0.05	Cu	
200000000000000000000000000000000000000	0.02	0.02	Mo	
	0.03	0.03	N:	
100	0.003		٧	
	0.001		Ti	
	0.001		Nb	
	0.0002	0.0003	В	
	0.39	i.	CE(IIW)	
	0.39	ı	CE(CSA)	

BSM-1552		Heat	
Heat		Test Type	
Ferrite & Pearlite		Microstructure	
76 HRBW		Hardness	
Pass		Flattening Test	
Longitudinal; 38.1 mm x WT	50mm GL	Tension Test	Mechanical Properties
47,500	psi	Yield (Rt0.5)	:
71,000	psi	Tensile (Rm)	
0.67	(Rt0.5/Rm)	Τ/Υ	
40	%	Elongation (A)	

	BSM-1552		Heat
		Standard	Test
The second secon	i.	Sample Details	Impact Test
William Co.	•	°C	Temp
Annual Control of the	-	J	
	-	J	Impact
		J	Energy
	ı	AVG	
	4	%	
	1	%	% Shear
	1	%	ear
	ı	AVG	
	t	mm	
	1	mm	Lateral Expansic
	1	mm	Expansion
	ı	AVG	

Additional Details:

- \checkmark We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with ASTM/ASME A/SA106-2013 Grade B/C A/SA53-2012, and the purchase order requirements, and that the results meet the corresponding requirements.
- √ This pipe product meets the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service-2009 NACE MR0103-2010 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.

Mill Test Certificate approved by:

2014 JAN 23 Branden

Paul Sowden, T.T.

Assistant QA Manager