




Mill Test Certificate

Bri-Steel Manufacturing
 2125-64 Avenue, Edmonton, AB Canada T6P 1Z4
 Tel: 001 (780) 469-6603
 Fax: 001 (780) 469-6986
 www.bri-steel.com

Product: Seamless Carbon Steel Pipe Product Heat Number: BSM-2612 Product Size: NPS 28 STD Production Date: Jan 06, 2016
 Production Method: Hot Expansion Product Heat Treatment: ThermoMechanical Formed Certificate No.: MTR- 002040
 Product Standards: ASME B36.10M-2015, ASTM/ASME A106-2014/SA106-2013 Grade B NDE, AS3-2012/SA53-2013 Grade B Type S, NACE MR0175-2009 MR0103-2012

Product Markings
 NPS 28 STD 0.375 INCHWT SMLS 2016/01 NDE 550PSI
 HEAT BSM-2612 (PIPE # LENGTH MASS) 110 6lb/ft ASTM/ASME A/SA106 GR B A/SA53 GR B NACE MR0175/MR0103 MADE IN CANADA

Product: Details				Non-Destructive Testing										
Heat	Test Type	Product Size	Pieces	Length	Mass lb/ft	Geiger μ R/hr	Res. Mag. Gauss	Visual Insp.	OD	UT WT	UT ASTM E213	ET ASTM E309	HydroTest 550PSI/ 5 s	End Condition
BSM-2612	Heat	NPS 28 STD 0.375in. WT	2	DRL	110.6	<5	<10	Pass	Pass	Pass	Pass	Pass	Pass	35° Bevel

Heat	Test Type	Steelmaking Method	Test Type	Chemical Analysis (wt%)														
				C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE(IIW)	CE(CSA)
BSM-2612	Blast Furnace; EAF; Ladle Refining; Vacuum Degas; Fully Killed		Heat	0.17	1.21	0.016	0.004	0.29	0.03	0.01	0.01	0.01	0.050	0.001	0.001	0.0005	0.39	0.39
			Product	0.16	1.24	0.013	0.004	0.28	0.03	0.01	0.01	0.01	0.054	0.003	0.001	0.0004	0.39	0.38

Heat	Test Type	Microstructure	Hardness	Flattening Test	Tension Test				Yield (Rt0.5) psi	Tensile (Rm) psi	Y/T (Rt0.5/Rm)	Elongation (A) %
					2 in. GL	Longitudinal; 1.5 in. x WT	2 in. GL	Longitudinal; 1.5 in. x WT				
BSM-2612	Heat	Ferrite & Pearlite	79 HRBW	Pass	Pass	51,500	73,000	0.71	46			

Heat	Test Type	Standard	Impact Test Sample Details	Temp °C	Impact Energy				Lateral Expansion								
					J	J	J	AVG	%	%	%	AVG	mm	mm	mm	AVG	
BSM-2612	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Additional Details:

✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing in accordance with ASTM/ASME A106-2014/SA106-2013, AS3-2012/SA53-2013, and the purchase order requirements, and that the results meet the corresponding requirements. Bri-Steel Manufacturing is registered and certified to ISO-9001:2008, API Q1, and PED 97/23/EC.


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

✓ No weld repairs have been performed on this product.

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

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

Mill Test Certificate approved by:


 2016 Jan 8

Kenton Dechant, P.Eng.
 Manager of Quality and R&D