



# Mill Test Certificate

Bri-Steel Manufacturing  
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Product: Seamless Carbon Steel Pipe      Product Heat Number: BSM-1286      Product Size: NPS 36 X  
 Production Method: Hot Expansion      Product Heat Treatment: ThermoMechanical Formed      Certificate No.: MTR- 001921  
 Production Standards: ASME B36.10-2004, ASTM/ASME A106-2014/SA106-2013 Grade B/C NDE, A53-2012/SA53-2013 Grade B Type S, NACE MR0175-2009 MR0103-2012  
 Product Markings: NPS 36 X 0.400 INCHWT SM1S 2013/10 NDE  
 HEAT BSM-1286 (PIPE # LENGTH MASS) 152.2lb/ft ASTM/ASME A/SA106 GR B/C 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 µR/hr	Res. Mag. Gauss	Visual Insp.	OD	UT WT	UT ASTM E213	ET ASTM E309	HydroTest	End Condition	
BSM-1286	Heat	NPS 36 X 0.400in. WT	1	DRL	152.2	<5	<10	Pass	Pass	Pass	Pass	Pass	-	Plain End	

Heat	Steelmaking Method	Test Type	Chemical Analysis (wt%)														
			C	Mn	P	S	Si	Cr	Cu	Mo	NI	V	Ti	Nb	B	CE(I/W)	CE(CSA)
BSM-1286	Blast Furnace; EAF; Ladle Refining; Vacuum Degass; Fully Killed	Heat	0.19	0.90	0.011	0.015	0.22	0.03	0.10	0.02	0.04	0.003	0.001	0.001	0.0002	0.36	0.36
		Product	0.20	0.89	0.012	0.015	0.24	0.04	0.09	0.02	0.04	0.003	0.001	0.001	0.0004	0.37	0.38

Heat	Test Type	Microstructure	Hardness	Flattening Test				Tension Test 2 in. GL		Yield (RT0.5) psi	Tensile (Rm) psi	V/T (R0.5/Rm)	Elongation (A) %
				Pass	Pass	Pass	Pass	Longitudinal; 1.5 in. x WT	Pass				
BSM-1286	Heat	Ferrite & Pearlite	77 HRBW	Pass	Pass	Pass	Pass	46,700	73,000	0.64	43		

Heat	Test Standard	Impact Test Sample Details	Temp °C	Impact Energy			% Shear			Lateral Expansion				
				J	J	J	%	%	%	mm	mm	mm	mm	AVG
BSM-1286	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**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, A53-2012/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 and API Q1.  
 ✓ 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: *T. Lam* *Sept 102/2015*  
 Tonya Lam, C.E.T.  
 Assistant QA Manager