



Bri-Steel Manufacturing Inc.  
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## Mill Test Certificate

Product: **Seamless Carbon Steel Pipe** Product Heat Number: **BSM-0908** Product Size: **NPS 20 X 0.700** Production Date: **May 15, 2013**

Production Method: **Hot Expansion** Product Heat Treatment: **As-rolled**

Product Standards: **ASME B36.10-2004, ASTM/ASME A/SA106-2011 Grade B/C NDE, A/SA53-2012 Grade B Type S, NACE MR0175-2009, MR0103-2010**

Product Markings: **BRI-STEEL MFG ASTM/ASME A/SA106 GR B/C A/SA53 GR B NPS 20 X 0.700 inchWT HEAT BSM-0908 (PIPE # LENGTH MASS) 144.3lb/ft NDE SMLS NACE MR0175 2013/05 MADE IN CANADA.**


Product Details				Non-Destructive Testing												
Heat	Test Type	Product Size	Pieces	Length	Mass	Geiger	Res. Mag.	Visual	OD	WT	UT	UT	ET	HydroTest	End Condition	
BSM-0908	Heat	NPS 20 X 0.700 In. WT	9	DRL	lb/ft	µR/hr	Gauss	Insp.	Pass	Pass	Pass	Pass	Pass	Pass	*	Plain End

Chemical Analysis (wt%)																	
Heat	Steelmaking Method	Analysis	C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE (IIW)	CE (CSA)
BSM-0908	Blast Furnace; EAF; Ladle Refining; Vacuum Degass, Fully Killed	Heat Product	0.20	0.96	0.020	0.004	0.35	0.06	0.09	0.01	0.03	0.005	0.002	0.001	0.0002	-	-

Mechanical Properties										
Heat	Test Type	Microstructure	Hardness HRBW	Flattening Test	Tension Test		Yield (Rt0.5) psi	Tensile (Rm) psi	Y/T (Rt0.5/Rm)	Elongation (A) %
					Pass	Longitudinal; 38.1mm x WT				
BSM-0908	Heat	Ferrite & Pearlite	80	Pass	Pass	44,600	72,000	0.62	45	

**Additional Details:**

- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with ASTM/ASME A/SA106-2011, 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, and NACE MR0103-2010 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:  
  
 2013 May 22  
 Kenton Dechant, P. Eng.  
 Manager of Quality and R&D

cert #1241