



Mill Test Certificate

Bri-Steel Manufacturing Inc.
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Product: **Seamless Carbon Steel Pipe** Product Heat Number: **BSM-0777** Product Size: **NPS 18 XS** Production Date: **March 19, 2013**

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

Product Standards: **ASME B36.10-2004, API SL-44th Ed. Grade B PSL1, 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 <API> SL-0898 API SL GR B PSL1 ASTM/ASME A/SA106 GR B/C A/SA53 GR B NPS 18 XS 0.5 inch WT HEAT BSM-0777 (PIPE # LENGTH MASS) 93.45lb/ft NDE 1370 PSI SMLS NACE MR0175 2013/03 MADE IN CANADA.**

Product Details				Non-Destructive Testing										
Heat	Test Type	Product Size	Pieces	Length	Mass	Gelger	Res.Mag.	Visual	OD	UT	UT	ET	HydroTest	End
BSM-0777	Heat	NPS 18 XS 0.5 in.WT	21	DRL	lb/ft	µR/hr	Gauss	Insp.	Pass	Pass	Pass	Pass	Pass	37.5° Bevel

		Chemical Analysis (wt%)														
Heat	Steelmaking Method	C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE	CE
BSM-0777	Blast Furnace; EAF; Ladle Refining; Vacuum Degass; Fully Killed	0.19	0.91	0.009	0.004	0.24	0.04	0.07	0.01	0.04	-	-	-	0.0004	-	-

Mechanical Properties											
Heat	Test Type	Microstructure	Hardness	Flattening Test	Tension Test		Yield (Rp0.5)	Yield (Rp0.2)	Tensile (Rm)	Y/T	Elongation (A)
					HRBW	Pass					

- Additional Details:
- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with API SL-44th Ed., 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 Mar 26
 Kenton Dechant, P.Eng.
 Manager of Quality and R&D