



Bri-Steel Manufacturing Inc.
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Mill Test Certificate

Product: Seamless Carbon Steel Pipe

Product Heat Number:

BSM-0955

Product Size:

NPS 24 TRUE40

Production Date:

June 3, 2013

Production Method: Hot Expansion

Product Heat Treatment:

As-rolled

Product Standards: ASME B36.10-2004, API 5L-44th Ed. Grade B PSL1, ASTM/ASME A/SA106-2011 Grade B NDE, A/SA53-2012 Grade B Type 5, NACE MR0175-2009, MR0103-2010

Product Markings:

BRI-STEEL MFG <API> 5L-0898 API 5L GR B PSL1 ASTM/ASME A/SA106 GR B A/SA53 GR B NPS 24 TRUE40 0.688 inchWT HEAT BSM-0955 (PIPE # LENGTH MASS) 17.1.2lb/ft NDE 1370 PSI SMLS NACE MR0175 2013/06 MADE IN CANADA.

Product Details					Non-Destructive Testing									
Heat	Test Type	Product Size	Pieces	Length	Mass	Geiger	Res. Mag.	Visual	OD*	UT	UT	ET	HydroTest	End
BSM-0955	Heat	NPS 24 TRUE40 0.688 in. WT	1	DRL	171.20	<5	<20	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
BSM-0955	Blast Furnace; EAF; Ladle Refining; Vacuum Degass; Fully Killed	Heat	0.18	0.88	0.009	0.004	0.25	0.04	0.09	0.02	0.05	-	-	-
		Product	0.22	0.88	0.010	0.011	0.24	0.06	0.07	0.02	0.06	0.004	0.001	0.001

Mechanical Properties									
Heat	Test Type	Microstructure	Hardness HRBW	Flattening Test	Tension Test		Yield (Rt0.5) psi	Tensile (Rm) psi	Y/T (Rt0.5/Rm)
					50mm GL	Longitudinal: 38.1mm x WT			
BSM-0955	Heat	Ferrite & Pearlite	74	Pass			39,500	67,500	0.59

Heat	Test	Standard	Impact Test Sample Details	Temp °C	Impact Energy				% Shear				Lateral Expansion			
					J	J	J	AVG	%	%	%	AVG	mm	mm	mm	AVG
BSM-0955	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Additional Details:

- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with API 5L-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.

*OD Tolerances as per API

Mill Test Certificate approved by:

2013 JUN 07

Paul Sowden, T.T.
Assistant QA Manager