MILL'S QUALITY CERTIFICATES

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CERTIFICATE NO : HIE2007-00263 PAGE : 1

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L/C NO (P/O NO) : 1103051406

COMMODITY : 577.245MT SQUARE AND RECTANGULAR PRIME STEEL PIPES/GRADE:ASTM A 500B. AS PER FOLLOWING BREAKDOWN

CUSTOMER : DUFERCO SA

SPECIFICATION : ASTM A500 GR.B

TYPE OF PIPE END	DIMENSION (OUTDIA. × THICK. × LENGTH)	QUAN-TITY	WEIGHT	HYDRO-STATIC TEST		HEAT-NO.	PHYSICAL PROPERTIES			CHEMICAL COMPOSITION																IMPACT TEST (0 ℃)		REMARK
				Kg/㎠ PSI	※5		YIELD STREN-GTH	TENSILE STRENGTH B ※6	TENSILE STRENGTH W ※7	(EL)		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	Ti	B	HARDNESS	Ceq	ENERGY	SHEAR-VALUE	(HARDNESS)
※1	※2 ※3 ※4	(PCS)	(KG)				PSI			%	※8	×100			×1000		×100			×1000					HV	×1000	JOULE	%	
BPE	NB 10"X4" X 0.250" X 40'	270	109,618			C061203	49,297	68,146		37	H	18	2	55	16	11												
	TOTAL	270	109,618																									

※9 P. S. A	※10 VISUAL & DIMENSION TEST	※11 FLATTENING (B) TEST	※12 WELD DUCTILITY TEST	※13 NONDESTRUCTIVE TEST (U.T)	※14 DRIFT TEST	※15 FLARING TEST	※16 CRUSH TEST	※17 REVERSE FLATTENING TEST
	GOOD							

NOTE 1 ※1 Type of pipe End

BPE :Black Plain End Square-cut	GPE :Galvanized Plain End Square-cut
BPEB :Black Plain End Beveled	GPEB :Galvanized Plain End Beveled
BTC :Black Threaded & Coupled	GTC :Galvanized Threaded & Coupled
BVJ :Black Victaulic Joint	GVJ :Galvanized Victaulic Joint
ETC :Enameled Threaded & Coupled	

※ 2 NB:Norminal Bore, OD:Outside Diameter
※ 3 Unit (M:mm, I:Inch)
※ 4 Unit (M:Meter, F:Feet, I:Inch)
※ 5 G:Good
※ 6 Base Metal
※ 7 W : Weld Part
※ 8 H:Heat (Ladle) Analysis , P:Product Analyics
※ 9 POST SEAM ANNEALING
※10 Visual & Dimension Test
※11 Flattening or Bending Test
※12 Weld Ductility Test
※13 Nondestructive Test
※14 Drift Test
※15 Flaring Test
※16 Crush Test
※17 Reverse Flattening Test

ORIGINAL

SUPERVISOR

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN ACCEPED IN ACCORDANCE WITH THE PRESCRIBED SPECIFICATION AND ORDER

HISTEEL CO., LTD.

INSPECTION MANAGER

J. K. UM / PRESIDENT