MILL'S QUALITY CERTIFICATES

HISTEEL CO. , LTD.

HEAD OFFICE & INCHON PLANT : 405-310 89BLOCK 4LOT, GOZANDONG, NAMDONG-KU, INCHON, KOREA
TEL : (032)815-6386-8
FAX : (032)815-6389

SEOUL OFFICE : 100-013 57-8, CHUNGMU-RO 3-GA, JUNG-KU ,, SEOUL, KOREA
TEL : (02)2273-2141-3
FAX : (02)2273-2157

CERTIFICATE NO : HIE2007-0012 PAGE : 1

DATE OF ISSUE : Jan. 19, 2007

L/C NO (P/O NO) : 1103044854

COMMODITY : 1,395.71MT OF WELDED STEEL PIPE, ASTM 500GR-B AS PER FOLLOWING B/ DOWN

SPECIFICATION : ASTM 500 GR-B

CUSTOMER : DUFERCO SA

TYPE OF PIPE END		DIMENSION (OUTDIA. × THICK. × LENGTH)	QUAN-TITY (PCS)	WEIGHT (KG)	HYDRO-STATIC TEST Kg/cm² PSI		HEAT-NO.	PHYSICAL PROPERTIES YIELD STREN-GTH	TENSILE STRENGTH B ※6	W ※7	(EL)	CHEMICAL COMPOSITION	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	Ti	B	HARDNESS	Ceq	IMPACT TEST (0 ℃) ENERGY	SHEAR-VALUE	REMARK (HARDNESS)
※1	※2	※3 ※4				※5		PSI			%	※8	×100			×1000		×100				×1000				HV	×1000	JOULE	%	
BPE	NB	10"X10" X 0.250" X 40'	172	101,706			C061201	46,397	65,971		35	H	17	2	58	15	14													
BPE	NB	10"X10" X 0.375" X 40'	120	104,315			C061204	46,397	66,696		29	H	19	2	56	13	14													
BPE	NB	10"X10" X 0.500" X 40'	88	99,672			H060901	53,936	67,421		23	H	17	9	46	16	4													
BPE	NB	12"X4" X 0.250" X 40'	168	78,653			C070104	46,252	62,346		31	H	12	1	63	15	7													
BPE	NB	12"X4" X 0.375" X 40'	124	84,812			H061108	46,542	63,506		24	H	13	2	55	12	8													
BPE	NB	12"X8" X 0.375" X 40'	120	104,315			C061204	46,397	66,696		29	H	19	2	56	13	14													
BPE	NB	12"X8" X 0.500" X 40'	27	30,581			H060901	53,936	67,421		23	H	17	9	46	16	4													
BPE	NB	12"X8" X 0.500" X 40'	41	46,438			SQ94007	46,107	65,391		28	H	18	Tr	76	11	6													
BPE	NB	6"X6" X 0.313" X 40'	78	32,999			SP68757	47,557	66,261		25	H	19	1	86	12	7													
BPE	NB	6"X6" X 0.375" X 40'	106	52,857			SR20637	46,107	66,261		26	H	16	1	32	13	3													
BPE	NB	6"X6" X 0.375" X 40'	60	29,919			H060605	52,342	63,071		27	H	16	1	81	9	6													

※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 Analysis
※ 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

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

SUPERVISOR

INSPECTION MANAGER