MILL'S QUALITY CERTIFICATE

SeAH Steel Corp.
(주)세아제강

HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA
POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

증명서번호 CERTIFICATE NO. : E200704-0086-001171(5001422)
제 품 명 COMMODITY : E.R.W STEEL PIPE
제 품 규 격 SPECIFICATION : API 5LB PSL1/ASTM A53B(2005)

발 급 일 자 DATE OF ISSUE : 2007.03.30
계 약 서 번 호 L/C No. (P/O No.) : 47LI-B82946-TLJY(1103049204)
수 요 가 CUSTOMER : DUFERCO SA
주 문 자 SHIPPER : SEAH STEEL CORPORATION

NO.	HEAT NO. (BATCH NO.)	관 단 TYPE *1	주 문 치 수 ORDER SIZE	수 량 QUANTITY 본 수 PCS	총 길 이 TOTAL LENGTH	중량(M/T) WEIGHT	비 고 REMARK
29	C710329 (SHH3061060)	BBE	14 " X 0.250 " X 6.120 M	25	153.000 M	8.432	* DESCRIPTIION OF GOODS : 1,408.552MT (+/- 10 PCT) CARBON STEEL PIPES WELDED / ASTM A53 B
30	C730412 (SHH3061070)	BBE	14 " X 0.250 " X 6.120 M	176	1,077.120 M	59.360	* STEEL GRADE : ASTM A53 B
31	4-35846 (SIH1232130)	BBE	20 " X 0.250 " X 6.120 M	47	287.640 M	22.769	
32	6-22103 (SIH1232140)	BBE	20 " X 0.250 " X 6.120 M	56	342.720 M	27.130	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 10 Sec. psi	RESULT	N·D·T U *2	VISUAL & DIMENSION	FLATTENING	SHOCK	COMPRESSION	RESIDUAL MAGNETISM GAUSS	BENDING *3	DRIFT	CRUSH	FLARING	FLANGE	REVERSE FLATTENING	ZINC COATING TEST WEIGHT OF ZINC COAT-ING	균일성 C.S *4	알칼리 ALK *5
기준 SPEC									30									
29	C710329 (SHH3061060)	750	G	G	G	G			G									
30	C730412 (SHH3061070)	750	G	G	G	G			G									
31	4-35846 (SIH1232130)	530	G	G	G	G			G									
32	6-22103 (SIH1232140)	530	G	G	G	G			G									

NO.	HEAT NO (BATCH NO.)	CHEMICAL COMPOSITION(%) DESIG *6	C	Si	Mn	P	S	CU	NI	CR	MO	V	CEQ *8	DIR *9	TENSILE TEST (Gage Length : 50mm) TENSILE STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	IMPACT TEST (℃) SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT SN *11	PROTECTIVE COATING & LINING THICKNESS	P.H
			2			3		2	2	2	2	3	*7										
기준 SPEC		MAX	26		120	30	30	40	40	40	15	80											
		MIN													60000	35000							
29	C710329 (SHH3061060)	H	16	1	85	12	8																
		P	15	TR	84	13	8	1	1	1	TR	1		T	73250	60440	42				G		
		P	16	2	86	10	9	1	1	1	TR	2		W	73819								
30	C730412 (SHH3061070)	H	16	2	79	17	6																
		P	17	1	78	19	8	1	2	2	1	1		T	71540	56040	42				G		
		P	17	2	78	19	4	1	2	2	1	1		W	72112								
31	4-35846 (SIH1232130)	H	15	16	45	21	5																
		P	15	17	44	22	4	1	1	1	1	1		T	68690	53190	42				G		
		P	16	19	46	19	5	1	1	1	1	2		W	69552								
32	6-22103 (SIH1232140)	H	16	17	43	15	5																
		P	15	17	42	17	4	2	2	2	1	1		T	68980	52340	41				G		
		P	15	17	44	13	4	1	2	2	1	1		W	71259								

COPY

NOTE *1 ~ *12 : Refer To The Attached Section Designation

OTHER

Surveyor :

- WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH ABOVE SPECIFICATION AND THE RESULTS OF ALL TEST ARE ACCEPTABLE.
- THE USE OF THE MATERIAL OUTSIDE THE SPECIFICATIONS INDICATED ON THIS CERTIFICATE MAY CAUSE SAFETY AND/OR MONETARY PROBLEMS. FURTHERMORE, ANY ORGANIZATION OR PERSON(S) WHO DELIBERATELY MODIFIES THE CERTIFICATE WILL BE PROSECUTED FOR FORGING AN OFFICIAL DOCUMENT (ACCORDING TO THE PROVISIONS OF THE CRIMINAL CODE 231)

Manager of Q.M Dept.

J.E. KIM