MILL'S QUALITY CERTIFICATES

SeAH Steel Corp.
(주)세 아 제 강

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

증명서번호 CERTIFICATE NO. : E200806-0113-001255(5002660)
제 품 명 COMMODITY : E.R.W STEEL PIPE
제 품 규 격 SPECIFICATION : API 5L8 PSL1/ASTM A53B(2007)

발 급 일 자 DATE OF ISSUE : 2008.06.16
계 약 서 번 호 L/C No. (P/O No.) : 47LI-C45661-TJFE(0801844)
수 요 가 CUSTOMER : DUFERCO SA
주 문 자 SHIPPER : SEAH STEEL CORPORATION

NO.	HEAT NO. (BATCH NO.)	판 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
1	SQ38097 (PI15162161)	BBE	18 " X 0.375 "(3/8")X 6.120 M	1	6.120 M	0.641	
2	4-42306 (SHI3051010)	BBE	14 " X 0.438 "(SCH40) X 6.120 M	19	116.280 M	10.965	
3	C831143 (SHI3291120)	BBE	14 " X 0.375 "(3/8") X 6.120 M	3	18.360 M	1.489	
4	SQ34069 (SHI4012030)	BBE	14 " X 0.312 "(5/16") X 6.120 M	140	856.800 M	58.039	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 Sec psi	RESULT	N-DT 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	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	SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT SN *11	PROTECTIVE COATING & LINING THICKNESS	P.H
																					CHEMICAL COMPOSITION(%) 2			3		2	2	2	2	3			*7								
기준 SPEC									30											MAX	26		120	30	30	40	40	40	15	80											
																				MIN													60000	35000							
1	SQ38097 (PI15162161)	880	G	G	G	G			G											H	18	1	79	12	4																
																				P	17	1	79	14	3	1	1	1	TR	1		T	75240	49210	41				G		
																				P	19	1	79	13	6	1	1	1	TR	TR		W	77233								
2	4-42306 (SHI3051010)	1310	G	G	G	G			G											H	16	19	46	23	5																
																				P	15	18	46	24	7	1	1	1	1	1		T	69410	51200	38				G		
																				P	15	20	46	23	5	1	1	1	1	TR		W	71690								
3	C831143 (SHI3291120)	1130	G	G	G	G			G											H	15	2	78	12	6																
																				P	16	1	79	13	6	2	1	1	1	1		T	71540	48920	40				G		
																				P	14	1	79	13	4	1	1	1	1	1		W	73983								
4	SQ34069 (SHI4012030)	940	G	G	G	G			G											H	18	1	75	14	5																
																				P	17	TR	76	13	5	TR	1	1	TR	1		T	71250	47070	40				G		
																				P	17	1	75	15	5	TR	1	1	TR	TR		W	72255								

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

OTHER:
*DESCRIPTION OF GOODS : 364.507 MT (+/- 10 PCT.)PRIME ERW PIPES / GRADE: API 5L-B/ ASTM A53B.GRADE: API 5L-B/ ASTM A53B.
*PHYSICAL PROPERTIES SAME AS TENSILE TEST & IMPACT TEST.

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