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.: E200709-0077-002313(5002028)
제 품 명 / COMMODITY : E.R.W STEEL PIPE
제 품 규 격 / SPECIFICATION : API 5LB PSL1/ASTM A53B(2006)

발 급 일 자 / DATE OF ISSUE : 2007.08.31
계 약 서 번 호 / L/C No. (P/O No.) : PLESA
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
47	C713784 (SIH7272110)	BBE	16 "	X 0.312 "	X 6.120 M	17	104.040 M	8.077	PO.NO :1103054906
48	SP89454 (SIH8022220)	BBE	18 "	X 0.250 "	X 6.120 M	115	703.800 M	50.054	
49	SP89454 (SIH8031030)	BBE	18 "	X 0.250 "	X 6.120 M	10	61.200 M	4.353	
50	C733434 (SIH8181310)	BBE	16 "	X 0.500 "	X 6.120 M	22	134.640 M	16.602	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 Sec. psi	RESULT	N·D·T U *2	VISUAL & DIMENSION	FLATTENING	SHOCK	COMPRESSION	REMAGNETISM RESIDUAL GAUSS	BENDING *3	DRIFT	CRUSH	FLARING	FLANGE	REVERSE FLATTENING
기준 SPEC									30						
47	C713784 (SIH7272110)	820	G	G	G	G			G						
48	SP89454 (SIH8022220)	580	G	G	G	G			G						
49	SP89454 (SIH8031030)	580	G	G	G	G			G						
50	C733434 (SIH8181310)	1310	G	G	G	G			G						

NO.	HEAT NO (BATCH NO.)	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 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
						2			3		2	2	2	2	3											
					MAX	26		120	30	30	40	40	40	15	80											
					MIN													60000	35000							
47	C713784 (SIH7272110)				H	17	2	77	11	9																
					P	16	2	77	12	10	1	1	1	1	1		T	69830	51630	39				G		
					P	17	2	78	10	9	1	1	1	1	1		W	71259								
48	SP89454 (SIH8022220)				H	14	1	65	13	7																
					P	13	TR	64	12	6	1	1	1	TR	TR		T	68840	44660	39				G		
					P	13	2	65	12	8	1	1	1	TR	1		W	68414								
49	SP89454 (SIH8031030)				H	14	1	65	13	7																
					P	15	2	64	12	8	1	1	1	TR	1		T	68270	44510	40				G		
					P	15	1	64	13	8	1	1	1	TR	TR		W	67419								
50	C733434 (SIH8181310)				H	17	1	77	14	8																
					P	18	2	76	12	7	1	2	2	1	1		T	70260	46080	40				G		
					P	17	2	77	15	6	1	1	2	1	1		W	70690								

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

주식회사 세아제강 SeAH 품질경영팀장