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MILL'S QUALITY CERTIFICATES

SeAH 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. : E200709-0081-002317(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 : 2007.09.21
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
5	ST93366 (SHH8011050)	BBE	10 " X 0.365 " X 6.120 M	7	42.840 M	2.592	PO.NO :1103054906
6	C713172 (SHH8011080)	BBE	10 " X 0.250 " X 6.120 M	50	306.000 M	12.880	
7	ST93510 (SHH8162010)	BBE	12 " X 0.250 " X 6.120 M	73	446.760 M	22.388	
8	ST93750 (SHH8171130)	BBE	12 " X 0.406 " X 6.120 M	1	6.120 M	0.487	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 Sec. psi	RESULT	N·D·T U *2	VISUAL & DIMENSION	FLATTENING	SHOCK	COMPRESSION	MAGNETISM RESIDUAL 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 STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENE-RGY Joule	SHEAR AREA %	HARD-NESS TEST	HEAT TREAT MENT SN *11	PROTECTIVE COATING & LINING THICK-NESS	P.H
기준 SPEC									30										MAX	26		120	30	30	40	40	40	15	80			60000	35000								
																			MIN																					
5	ST93366	1430	G	G	G	G			G										H	18	1	73	17	4																
	(SHH8011050)																		P	17	TR	72	16	3	1	1	1	TR	TR		T	69970	45940	37				G		
																			P	18	1	72	15	5	1	1	2	TR	TR		W	70406								
6	C713172	980	G	G	G	G			G										H	17	2	79	17	8																
	(SHH8011080)																		P	16	2	79	17	6	1	1	1	1	1		T	72820	53620	36				G		
																			P	18	3	79	17	6	1	1	1	1	2		W	74815								
7	ST93510	820	G	G	G	G			G										H	15	1	63	20	7																
	(SHH8162010)																		P	14	TR	64	22	9	1	1	1	TR	1		T	68130	47500	37				G		
																			P	14	2	65	22	8	1	1	1	TR	TR		W	66707								
8	ST93750	1340	G	G	G	G			G										H	18	1	74	18	7																
	(SHH8171130)																		P	17	1	73	18	6	TR	1	1	TR	1		T	71400	47640	39				G		
																			P	17	TR	74	17	7	TR	1	2	TR	1		W	69125								

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

주식회사세아제강 SeAH 포항공장품질경영팀