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. : E200905-0021-000489(5004055)
제 품 명 / COMMODITY : E.R.W STEEL PIPE
제 품 규 격 / SPECIFICATION : API 5LB PSL1/ASTM A53B(2007)

발 급 일 자 / DATE OF ISSUE : 2009.04.30
계 약 서 번 호 / L/C No. (P/O No.) : 47LI-C94065-TLRR(1103070196)
수 요 가 / CUSTOMER : PLESA
주 문 자 / SHIPPER : DUFERCO SA

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
25	C826112 (SIJ3172080)	BBE	16 " X 0.375 " X 6.120 M	12	73.440 M	6.828	CONFIRM TO NACE NORM MR0175(LAST EDITION) *ERW: CHEMICAL COMPOSITION, HEAT TREATMENT AND HARDNESS ONLY *DSAW:CHEMICAL COMPOSITION AND HARDNESS ONLY
26	C826154 (SIJ3172090)	BBE	16 " X 0.375 " X 6.120 M	42	257.040 M	23.900	
27	C836830 (SIJ3202080)	BBE	24 " X 0.375 " X 6.120 M	11	67.320 M	9.471	
28	C836824 (SIJ3202100)	BBE	24 " X 0.375 " X 6.120 M	20	122.400 M	17.219	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 Sec. psi	RESULT	N·D·T U *2	DIMENSION & VISUAL	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 (℃) ENERGY Joule	SHEAR AREA %	HARDNESS TEST HRC	HEAT TREATMENT SN *11	PROTECTIVE COATING & LINING THICKNESS	P.H
																				2			3		2	2	2	2	3												
																				*7																				
기준 SPEC									30										MAX	26		120	30	30	40	100	40	15	80								22			
																			MIN													60200	35500							
25	C826112	1990	G	G	G	G			G										H	15	2	84	13	8																
	(SIJ3172080)																		P	14	2	84	13	7	1	1	1	TR	1		T	68890	50030	38			10	G		
																			P	16	3	83	11	9	1	TR	1	TR	TR		W	74400								
26	C826154	1990	G	G	G	G			G										H	17	1	78	15	9																
	(SIJ3172090)																		P	16	1	79	15	7	1	1	1	1	1		T	66860	49600	39			9	G		
																			P	18	2	78	16	9	1	1	1	TR	TR		W	74980								
27	C836830	1990	G	G	G	G			G										H	16	1	77	12	8																
	(SIJ3202080)																		P	15	TR	77	14	7	1	2	1	1	1		T	69610	47130	37			8	G		
																			P	17	2	77	13	6	1	1	1	1	2		W	73240								
28	C836824	1990	G	G	G	G			G										H	16	TR	83	15	8																
	(SIJ3202100)																		P	15	TR	84	16	9	1	1	1	1	1		T	71210	50030	36			8	G		
																			P	16	TR	82	13	7	1	1	1	1	1		W	75560								

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.

N. J. Baek

주식회사세아제강 포항강관품질경영팀장 SeAH