PAGE : 1 / 1

증명서번호
CERTIFICATE NO.: E201106-0149-001432(5006702)

제 품 명
COMMODITY : E.R.W STEEL PIPE

제 품 규 격
SPECIFICATION : API 5L B(PSL1)

INSPECTION CERTIFICATE

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

발 급 일 자
DATE OF ISSUE : 2011.05.31

계 약 서 번 호
L/C No. (P/O No.) : P01103087278

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
1	M16020 (SIL4052030)	BBE	20 " X 0.500 " X 6.120 M	22	134.640 M	20.885	CONFIRM TO NACE NORM MR0175 (LAST EDITION)
2	SB00835 (SIL4052040)	BBE	20 " X 0.500 " X 6.120 M	48	293.760 M	45.568	*ERW: CHEMICAL COMPOSITION, HEAT TREATMENT AND HARDNESS ONLY *DSAW: CHEMICAL COMPOSITION AND HARDNESS ONLY

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	DESIG *6	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti		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
																					CHEMICAL COMPOSITION(%)																	TENSILE TEST (Gage Length : 50mm)						
																					2			3		2	2	2	2	3	3	3											
																					*7													*8	*9									
기준 SPEC									30											MAX	26		120	30	30	50	50	50	15															
																				MIN																60200	35500							
1	M16020 (SIL4052030)	1070	G	G	G	G			G											H	6	1	76	13	5																			
																				P	5	TR	76	13	7	2	1	TR	TR	1	2	2			T	71500	59750	38				G
																				P	7	1	77	11	4	2	1	TR	TR	1	2	2			W	73960						
2	SB00835 (SIL4052040)	1070	G	G	G	G			G											H	18	2	75	16	4																			
																				P	17	1	74	16	5	1	TR	1	TR	1	1	2			T	72950	51340	37				G
																				P	19	2	76	18	5	1	TR	1	TR	1	1	2			W	77010						

NOTE *1 ~ *11: Refer To Others

OTHERS
*1-BBE:Black Beveled End(30°)
*2-U:Weld Seam Ultrasonic Test
*6-H:Heat(Ladle) Analysis, P:Product Analysis *7-2:X100, 3:X1000
*9-T:Base Metal Transverse, W:Weld Part Transverse *10-E.L:Elongation *11-S.N:Seam Normalizing *G:GOOD *Tr:Trace

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 SeAH 포항강철품질경영팀장