



PROCARSA, S.A. DE C.V.

CERTIFICADO DE CALIDAD
DE PRUEBAS FISICAS-QUIMICAS

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE:	TUCOTA	NUMERO:	PTM-54749-1-2003
CUSTOMER:		NUMBER:	
PERIODO CLIENTE / P.O.	10438	FECHA:	MAYO 10, 2003
PERIODO INTERNO / I/O.		DATE:	
PARTEIDA (G)	39905-20		
LITROS			
PRUEBAS HIDROSTATICAS:	56 Kg/cm ²		
ANALISIS QUIMICO % EN PESO	790 PSI		
HEMOSTATIC TEST:			

DIAMETRO: 20"	ESPESOR DE PARED	GRADO:	ASTM A53-B
	WALL THICKNESS	GRADE:	

PRUEBAS DE TENSION		CHEMICAL ANALYSIS PERCENT WEIGHT																		
TENSILE TEST																				
DIAMETRO (IN)	AREA (IN ²)	ULTIMA TENSION (KSI)	% ELONGACION (IN)	C	MS	S	SI	Cu	Al	Ca	Cr	Ni	Mn	N	Ceq					
14-10 Tc	120884	48 850	37	0.66	0.180	1.17	0.014	0.005	0.001	0.003	0.004	0.239	0.016	0.036	0.0010	0.018	0.028	0.007	0.0032	
14-10 Ts		78 961																		
27-6 Tc	120898	46 566	36	0.66	0.178	1.12	0.013	0.007	0.003	0.004	0.004	0.209	0.018	0.034	0.0022	0.016	0.030	0.012	0.0037	
27-6 Ts		78 238																		
20-11 Tc	120898	51 939	37	0.73	0.171	1.11	0.017	0.008	0.001	0.004	0.004	0.225	0.019	0.043	0.0010	0.014	0.026	0.004	0.0057	
20-11 Ts		76 971																		
20-9 Tc	120860	48 723	36	0.69	0.180	1.11	0.020	0.005	0.001	0.003	0.003	0.224	0.023	0.043	0.0018	0.019	0.029	0.004	0.0040	
20-9 Ts		77 622																		
10-11 Tc	227020	51 239	35	0.70	0.180	1.13	0.014	0.005	0.001	0.002	0.002	0.179	0.015	0.034	0.0037	0.009	0.023	0.004	0.0040	
10-11 Ts		80 619																		
14-1 Tc	227021	45 917	35	0.68	0.177	1.12	0.012	0.008	0.003	0.004	0.003	0.161	0.034	0.039	0.0020	0.025	0.030	0.012	0.0036	
14-1 Ts		75 312																		

CERTIFICAMOS QUE LA TUBERIA ACUJ DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION: ASTM A53-B-98

WE CERTIFY THE PIPE ABOVE MENTIONED ACCORD WITH THE MANUFACTURERS SAMPLES, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATION.

ING. FERNANDO OSORIO PEREZ
GERENTE DE ASESURAMIENTO DE CALIDAD
QUALITY ASSURANCE MANAGER