



FLM-005-7
PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD
 DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

DIAMETRO: 12 3/4" ESPESOR DE PARED: 0.375" GRADO: ASTMA53-B
 WALL THICKNESS: 0.375" GRADE: ASTMA53-B

CLIENTE: TUCOTA
 CUSTOMER:
 PEDIDO CLIENTE / P.O. 11336
 PEDIDO INTERNO / I.O. PARTIDA (S) 49838-50 / 49886-60
 NUMERO PTM-56818-1-2003
 FECHA NOVEMBRE 18, 2003
 DATE

PRUEBAS DE TENSION

ANALISIS QUIMICO % EN PESO

PREISION HIDROSTATICA: 87 Kg/cm² 1240 PSI
 HIDROSTATIC TEST:

NUMEROMETRIA DESCRIPTION	COLANA HEAT	LIMITE ELASTICO YIELD STRENGTH (KSI)	ULTIMA TENSION TENSILE STRENGTH (KSI)	% ELONG. 1"	LABY YACFS	CHEMICAL ANALYSES PERCENT WEIGHT														
						C	Mn	P	S	CB	V	TY	SI	Cu	Al	Ca	Cr	NI	Mo	N
4-14 TC Ts	136416	54 419	72 246 79 365	38	0.75	0.161	1.10	0.015	0.007	0.001	0.003	0.003	0.197	0.030	0.035	0.0017	0.027	0.027	0.006	0.0043
12-9 TC Ts	136419	56 306	71 321 77 785	38	0.78	0.176	1.14	0.013	0.006	0.003	0.004	0.004	0.210	0.021	0.036	0.0017	0.028	0.032	0.009	0.0047
35-4 TC Ts	136422	55 861	67 754 74 337	38	0.82	0.155	1.09	0.014	0.006	0.002	0.004	0.003	0.196	0.014	0.036	0.0027	0.031	0.027	0.009	0.0042
19-8 TC Ts	236189	57 371	72 488 80 190	35	0.79	0.175	1.11	0.015	0.003	0.001	0.003	0.002	0.179	0.040	0.032	0.0025	0.023	0.030	0.006	0.0054
25-11 TC Ts	236223	51 680	67 568 74 620	36	0.76	0.150	1.12	0.014	0.004	0.001	0.002	0.004	0.192	0.034	0.046	0.0023	0.014	0.035	0.008	0.0040
2-11 TC Ts	236667	65 080	70 504 76 045	36	0.92	0.084	0.77	0.015	0.003	0.033	0.002	0.003	0.177	0.260	0.032	0.0024	0.021	0.032	0.003	0.0043
20-12 TC Ts	236668	64 806	72 723 78 283	36	0.89	0.076	0.77	0.014	0.004	0.032	0.002	0.003	0.172	0.266	0.042	0.0026	0.020	0.023	0.002	0.0065
24-10 TC Ts	236872	64 949	71 264 77 752	34	0.91	0.086	0.76	0.016	0.004	0.032	0.002	0.003	0.173	0.251	0.037	0.0028	0.020	0.028	0.003	0.0058

CERTIFICAMOS QUE LA TUBERIA AQUI DESCRITA CUMPLE Y HA SIDO FABRICADA MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:

WE CERTIFY THE PIPE ABOVE MENTIONED ACCOMPLISH AND HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

ASTM A53-B -99

ING. FERNANDO OSORNO PEREZ
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER