

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

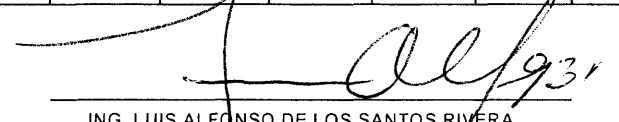
**CERTIFICADO DE CALIDAD
 DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

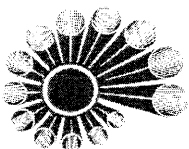
CLIENTE:	PLESA ANAHUAC Y CIAS. S.A. DE C.V.	NUMERO	PTM-78720-2011
CUSTOMER:		NUMBER	
PEDIDO CLIENTE / P.O.		FECHA	
PEDIDO INTERNO / I.O.	3406	DATE	FEBRERO 04, 2011
PARTIDA (S)			
ITEMS	101404-40 / T-01-08		

DIAMETRO :	ESPESOR DE PARED	GRADO :	PRESION HIDROSTATICA:
DIAMETER : 14"	WALL THICKNESS 0.375"	GRADE : ASTM A53-B	HIDROSTATIC TEST: 79 Kg/cm ² 1120 PSI HOJA 1 DE 2

PRUEBAS DE TENSION TENSILE TEST						ANALISIS QUIMICO % EN PESO CHEMICAL ANALYSES PERCENT WEIGHT															
NUM.PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LE/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
146-17 Tc	288320	69 698	80 615	32	0.86	0.120	1.11	0.017	0.004	0.047	0.004	0.010	0.193	0.030	0.033	0.0028	0.030	0.020	0.007	0.0032	
Ts			88 992																		
38-11 Tc	813026	72 901	92 016	28	0.79	0.078	1.14	0.012	0.002	0.055	0.062	0.018	0.122	0.007	0.032	0.0034	0.014	0.006	0.001	0.0034	
Ts			92 208																		
249-8 Tc	813195	80 848	86 894	30	0.92	0.074	1.12	0.010	0.003	0.053	0.067	0.015	0.124	0.006	0.035	0.0026	0.012	0.005	0.001	0.0045	
Ts			81 849																		
85-14 Tc	813196	85 992	94 200	28	0.91	0.082	1.14	0.013	0.001	0.051	0.065	0.017	0.111	0.006	0.029	0.0016	0.013	0.006	0.001	0.0042	
Ts			87 682																		
11-14 Tc	823037	75 699	83 043	28	0.91	0.081	1.15	0.011	0.002	0.050	0.062	0.020	0.114	0.006	0.029	0.0032	0.014	0.004	0.002	0.0044	
Ts			90 118																		
299-15 Tc	823194	82 419	92 016	28	0.89	0.076	1.15	0.015	0.003	0.051	0.061	0.015	0.113	0.006	0.036	0.0030	0.013	0.006	0.001	0.0040	
Ts			91 765																		
264-6 Tc	823196	77 592	88 093	30	0.88	0.084	1.16	0.012	0.002	0.051	0.060	0.015	0.101	0.006	0.030	0.0029	0.013	0.006	0.001	0.0038	
Ts			86 928																		
302-12 Tc	823208	78 990	88 576	29	0.89	0.088	1.12	0.011	0.001	0.053	0.060	0.017	0.117	0.006	0.036	0.0023	0.011	0.006	0.001	0.0039	
Ts			89 265																		
58-16 Tc	833120	71 436	82 042	29	0.87	0.083	1.12	0.011	0.002	0.051	0.064	0.018	0.119	0.006	0.029	0.0033	0.012	0.004	0.002	0.0060	
Ts			91 382																		
290-18 Tc	833295	82 278	93 556	29	0.87	0.084	1.16	0.013	0.002	0.052	0.065	0.022	0.125	0.007	0.034	0.0018	0.012	0.006	0.002	0.0040	
Ts			97 458																		
186-5 Tc	833299	85 401	93 252	29	0.91	0.078	1.12	0.012	0.001	0.050	0.062	0.019	0.123	0.007	0.034	0.0030	0.014	0.005	0.001	0.0046	
Ts			91 450																		
280-8 Tc	833300	78 361	84 533	32	0.92	0.086	1.12	0.010	0.001	0.046	0.063	0.017	0.106	0.007	0.026	0.0017	0.010	0.005	0.001	0.0055	
Ts			84 422																		
244-7 Tc	843089	79 668	87 897	30	0.90	0.095	1.15	0.013	0.002	0.055	0.074	0.017	0.119	0.008	0.026	0.0020	0.012	0.007	0.002	0.0029	
Ts			88 685																		
277-5 Tc	843169	80 652	86 017	32	0.93	0.085	1.15	0.008	0.001	0.048	0.061	0.015	0.130	0.006	0.032	0.0030	0.015	0.005	0.001	0.0048	
Ts			86 164																		
281-10 Tc	843170	77 456	83 802	30	0.92	0.078	1.15	0.009	0.001	0.048	0.061	0.015	0.115	0.005	0.032	0.0035	0.015	0.005	0.001	0.0037	
Ts			83 991																		

CERTIFICAMOS QUE LA TUBERIA AQUÍ 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:	 ING. LUIS ALFONSO DE LOS SANTOS RIVERA SUPERVISOR DE LABORATORIO METALURGICO METALLURGICAL LABORATORY SUPERVISOR
ASTM -06		

FLM-005-7



PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: PLESA ANAHUAC Y CIAS. S.A. DE C.V.

CUSTOMER:

NUMERO PTM-78720-2011

NUMBER

PEDIDO CLIENTE / P.O.

PEDIDO INTERNO / I.O.

3406

FECHA

DATE

FEBRERO 04, 2011

PARTIDA (S)

ITEMS

101404-40 / T-01-08

TAMAÑO

SIZE:

14"

ESPEJOR DE PARED

WALL THICKNESS

0.375"

GRADO :

GRADE :

ASTM A53-B

PRESION HIDROSTATICA:

HIDROSTATIC TEST:

79 Kg/cm²

1120 PSI

HOJA 2 DE 2

PRUEBAS DE TENSION

TENSILE TEST

ANALISIS QUIMICO % EN PESO

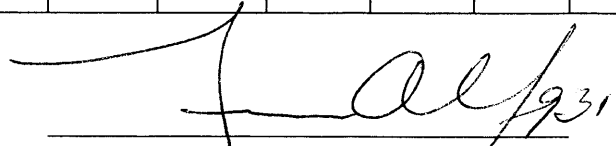
CHEMICAL ANALYSES PERCENT WEIGHT

NUM.PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LE/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
219-11 Tc Ts	843174	75 444	83 763 82 529	32	0.90	0.084	1.14	0.011	0.003	0.049	0.060	0.016	0.120	0.007	0.037	0.0034	0.011	0.007	0.001	0.0047	
270-13 Tc Ts	843179	76 311	83 022 83 664	30	0.91	0.072	1.17	0.012	0.001	0.049	0.060	0.016	0.121	0.007	0.032	0.0028	0.012	0.006	0.001	0.0030	
393-11 Tc Ts	843183	79 893	90 430 92 269	28	0.88	0.077	1.18	0.011	0.003	0.049	0.062	0.017	0.107	0.008	0.029	0.0027	0.014	0.006	0.003	0.0027	

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

ASTM -06

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


 ING. LUIS ALFONSO DE LOS SANTOS RIVERA
 SUPERVISOR DE LABORATORIO METALURGICO
 METALLURGICAL LABORATORY SUPERVISOR