



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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: TUBO Y ACERO DE MONTERREY,
CUSTOMER: S.A. DE C.V.

NUMERO
NUMBER PTM-58106-2004

PEDIDO CLIENTE / P.O.
PEDIDO INTERNO / I.O. 11840
PARTIDA (S)
ITEMS 49827-50

FECHA
DATE MARZO 30, 2004

DIAMETRO: 10 3/4" ESPESOR DE PARED: 0.365" GRADO: API 5L X-42 PRESION HIDROSTATICA: 170 Kg/cm² 2420 PSI
 DIAMETER: 10 3/4" WALL THICKNESS: 0.365" GRADE: API 5L X-42 HYDROSTATIC TEST: 170 Kg/cm² 2420 PSI

PRUEBAS DE TENSION TENSILE TEST ANALISIS QUIMICO % EN PESO CHEMICAL ANALYSES PERCENT WEIGHT

DESCRIPCION	COLADA HEAT	PRUEBAS DE TENSION TENSILE TEST			ANALISIS QUIMICO % EN PESO CHEMICAL ANALYSES PERCENT WEIGHT														
		LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 1"	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N
33-12 Tc Ts	136365	52 722	71 893 79 058	35	0.160	1.12	0.013	0.010	0.001	0.003	0.004	0.298	0.078	0.037	0.0028	0.017	0.027	0.004	0.0039
38-15 Tc Ts	136366	55 748	74 011 82 786	36	0.170	1.12	0.016	0.005	0.001	0.005	0.004	0.260	0.046	0.044	0.0032	0.019	0.025	0.008	0.0069
11-13 Tc Ts	236083	55 801	62 422 77 628	38	0.169	1.14	0.012	0.006	0.001	0.004	0.003	0.285	0.033	0.042	0.0033	0.014	0.022	0.004	0.0055
42-16 Tc Ts	236084	57 561	71 487 77 439	36	0.176	1.12	0.015	0.006	0.001	0.003	0.003	0.261	0.050	0.042	0.0030	0.020	0.036	0.005	0.0049
9-16 Tc Ts	236086	56 667	72 504 78 659	36	0.162	1.11	0.021	0.006	0.001	0.002	0.003	0.282	0.016	0.044	0.0029	0.011	0.021	0.003	0.0063

CONFIRMAMOS QUE LA TUBERIA AQUÍ DESCRITA CUMPLE Y HA SIDO
 ICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO
 LOS REQUISITOS APPLICABLES DE LA ESPECIFICACION:
 API SPECIFICATION 5L
 FORTY-SECOND EDITION, JANUARY, 2000

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

ING. FERNANDO OSORIO PEREZ
 GERENTE DE ASEGURAMIENTO DE CALIDAD

RECEIVED DATE: JUN 1 2004