



PLM-005-7

PROCARSA, S.A. DE C.V.

CERTIFICADO DE CALIDAD  
DE PRUEBAS FISICAS-QUIMICAS

QUALITY CERTIFICATE OF TEST PHYSICAL-CHEMICAL

|                        |          |        |                  |
|------------------------|----------|--------|------------------|
| CLIENTE:               | TUCOTA   | NUMERO | PTM-49193-1-2001 |
| CUSTOMER:              |          | NUMBER |                  |
| PEDIDO CLIENTE / I. O. | 7724     | FECHA  | OCTUBRE 09, 2001 |
| PARTIDA (S)            | 10128-10 | DATE   |                  |
| ITEMS                  |          |        |                  |

TAMANO: 18" ESPESOR DE PARED: 0.250" GRADO: API 5L X42 PERISION HIDROSTATICA: 70 Kg/cm<sup>2</sup> 990 PSI  
 SIZE: 18" WALL THICKNESS: 0.250" GRADE: API 5L X42 HYDROSTATIC TEST: 70 Kg/cm<sup>2</sup> 990 PSI

PRUEBAS DE TENSION

TENSILE TEST

| NUM PROBETA<br>DESCRIPTION | COLADA<br>HEAT | LMITE ELASTICO<br>YIELD STRENGTH<br>(P.S.I.) | ULTIMA TENSION<br>TENSILE STRENGTH<br>(P.S.I.) | % ELONG.<br>ELONG.<br>% | LEOUT<br>ELONG.<br>% | C     | Mn   | P     | S     | Cb | V  | Ti | Si    | Cu    | Al    | Ca     | Cr    | Ni    | Mo | N      | Ceq |
|----------------------------|----------------|--|--|-------------------------|----------------------|-------|------|-------|-------|----|----|----|-------|-------|-------|--------|-------|-------|----|--------|-----|
| 32-12 Tc<br>TS             | 203901         | 50 850                                       | 66 966<br>69 574                               | 38                      | 0.76                 | 0.120 | 0.91 | 0.015 | 0.008 | -- | -- | -- | 0.150 | 0.018 | 0.050 | 0.0022 | 0.017 | 0.033 | -- | 0.0055 |     |

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:

API SPECIFICATION 5L  
 FORTY-SECOND EDITION, JANUARY, 2000  
 EFFECTIVE DATE: JULY 1, 2000

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