



PROCARSA, S.A. DE C.V.

**CERTIFI DO DE CALIDAD
DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

| | | | |
|-----------------------|----------|--------|------------------|
| CLIENTE: | TUCOTA | NUMERO | PTM-52044-2-2002 |
| CUSTOMER: | | NUMBER | |
| PEDIDO CLIENTE / P.O. | 8988 | FECHA | MAYO 20, 2002 |
| PEDIDO INTERNO / I.O. | | DATE | |
| PARTIDA (S) | 20182-20 | | |
| ITEMS | | | |


TAMANO 18" ESPESSOR DE PARED 0.375" GRADO: API 5L X-42 PRESION HIDROSTATICA: 105 Kg/cm² 1490 PSI
 SIZE: 18" WALL THICKNESS 0.375" GRADE: API 5L X-42 PRESSION HYDROSTATIC: 105 Kg/cm² 1490 PSI

| NUM. PROBETA DESCRIPCION | COLADA HEAT | LIMITE ELASTICO YIELD STRENGTH (σ _{0.2}) | ULTIMA TENSION TENSILE STRENGTH (σ _U) | % ELONG. 1" | LENY Y _{0.015} | CHEMICAL ANALYSIS PERCENT WEIGHT | | | | | | | | | | | | | |
|-----------------------------|----------------|--|---|----------------|----------------------------|----------------------------------|------|-------|-------|----|---|-------|-------|-------|--------|-------|-------|----|--------|
| | | | | | | C | Mn | P | S | Cb | V | TI | SI | Cu | Al | Ca | Cr | Ni | Mo |
| 4-6 Tc Ts | 111158 | 50 321 | 66 183 71 381 | 42 | 0.76 | 0.135 | 0.92 | 0.025 | 0.006 | - | - | 0.192 | 0.013 | 0.037 | 0.0037 | 0.023 | 0.026 | - | 0.0057 |

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


 MRS. FERNANDO OJORIO PEREZ
 GERENTE DE ASESURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER