Tubacero
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Col. Del Norte
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CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTIFICADO(certificate No.): **081254**

CLIENTE(customer): PLESA ANÁHUAC Y CÍAS., S.A. DE C.V.

DIRECCION(address): AV. VALLE DE LAS ALAMEDAS # 66-O COL. SAN FCO. CHILPAN TULTITLAN, EDO. DE MEXICO. C.P. 54940

O.T. (order no.)	DIAMETRO (outside diam.)	ESPESOR (thickness)	GRADO (grade)	ESPECIFICACION (specification)	PROCESO (process)	PEDIDO (contract)	O. PREPARACION (preparation order)	PROVEEDOR (supplier)	FECHA (date)
23120	36.000"	0.500"	X42/5LB PSL1/A53B	API 5L 43 ED/A.S.T.M.	DSAW	5573	TB-254-2008	AHMSA	19/12/2008

TUBO (pipe) O SERIE (SERIAL)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION(tensile test) UNIDADES: (units) PSI (Y.S.)	ORIENTACION: (orientation) 1 (T.S.)	% EL.	Y.S/T.S.	BEND	HARDNESS	PRUEBA DE IMPACTO (impact test) °C °F ORIENTACION (orientation) TAMAÑO: (size) ENERGY (lbs/ft) 1	2	3	AVG	SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE
			6		75700																
159	269216	H	7	57500	73900	36	0.77														
			6		76700																
1	269214	H	7	59800	75600	42	0.79														
			6		76100																
114	269210	H	7	57600	73100	38	0.78														
8	269211		6					OK													
86	269211		6					OK													
117	269218		6					OK													

(%)ANALISIS QUIMICO / chemical analysis (%)

TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
H	7	0.15	0.60	0.013	0.012	0.112	0.044	0.030	0.030	0.030	0.005	0.002	0.001	-	0.003	-	-	-	-	-
P	7	0.18	0.56	0.012	0.008	0.053	0.015	0.015	0.019	0.022	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.21	0.28
P	7	0.22	0.57	0.014	0.008	0.135	0.055	0.011	0.018	0.023	0.001	0.001	0.001	0.0001	0.001	-	-	0.003	0.26	0.32
H	7	0.15	0.60	0.013	0.012	0.112	0.044	0.030	0.030	0.030	0.005	0.002	0.001	-	0.002	-	-	-	-	-
P	7	0.14	0.57	0.015	0.010	0.135	0.047	0.013	0.018	0.023	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.18	0.24
P	7	0.13	0.57	0.013	0.012	0.138	0.046	0.018	0.018	0.023	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.16	0.23
H	7	0.16	0.58	0.011	0.006	0.118	0.044	0.020	0.030	0.020	0.005	0.002	0.001	-	0.002	-	-	-	-	-
P	7	0.17	0.55	0.013	0.007	0.138	0.045	0.005	0.016	0.021	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.21	0.27
P	7	0.18	0.56	0.015	0.006	0.134	0.042	0.010	0.015	0.020	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.21	0.27

PRUEBA HIDROSTATICA: (hidrostatic test) — PRESION: (pressure) 1050 Psi — TIEMPO: (time) 10 sec

ULTRASONIDO(U.T.): (ultrasonic) — STANDARD DE REFERENCIA: REFERENCE STANDARD F

RAYOS-X (RT): (x-ray) — PENETROMETRO (penetrometer): N° 15 A.S.T.M.

NORMALIZADO DE SOLDADURA: (heat treatment weld) — TEMPERATURA (temperature): N/A

REFERENCE STANDARD F: U.T. DRILLED HOLE 1/16", G: U.T. DRILLED HOLE 1/8", I: U.T. NOTCH N-5, J: U.T. NOTCH N-10 L: RT HOLE 1/16", N: RT HOLE 2-2T O: RT HOLE 2-4T

ORIENTACION(orientation):
1. TRANSVERSAL (transverse)
2. LONGITUDINAL (longitudinal)

TAMAÑO (size)
3.RECTANGULAR(rectangular)
4.CILINDRICA(round bar) 0.500"
5.CILINDRICA(round bar) 0.350"

LOCALIZACION (location)
6. SOLDADURA (weld)
7. METAL BASE (base metal)
8. ZONA AFECTADA (h.a.z.)
9. LINEA DE FUSION (fusion line)

TIPO DE PRUEBA (type)
H: COLADA (heat)
P: PRODUCTO (product)
R: REMUESTREO (recheck)

CERTIFICAMOS QUE EL MATERIAL DESCRITO HA SIDO HECHO DE ACUERDO CON LA ESPECIFICACION MENCIONADA, Y QUE LOS RESULTADOS SON COMO APARECEN EN LOS REGISTROS DE LA COMPAÑIA
(WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THESE TEST RESULT ARE AS THEY APPEAR IN RECORDS OF THE COMPANY).

TUBACERO, S.A. DE C.V. CONTROL DE CALIDAD 04

Control de Calidad (Quality Control)