Tubacero

Av. Gonzalitos No.3729 Ote. Col. Del Norte Monterrey, N.L. México C.P.64400 TEL:[illegible] FAX:[illegible]

CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTIFICADO(certificate No.): 070256

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

DIRECCION(address): AV. VALLE DE LAS ALAMEDAS # 68 O COL. SAN FCO. CHILPAN TULTITLÁN. EDO. DE MÉXICO 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)
33393	16.000"	0.375"	A-53 B	ASTM	ERW	2673	B-063-2007	APM	10/03/2007

TUBO (pipe)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION (tensile test) UNIDADES: (units) PSI ORIENTACION: (orientation) 1 TAMAÑO: (size) 3 (Y.S.)	(T.S.)	% EL.	Y.S/T.S.	BEND	HARDNESS HRB	PRUEBA DE IMPACTO (impact test) °C °F ORIENTACION (orientation) TAMAÑO: (size) ENERGY (lb/ft) 1	2	3	AVG	SHEAR AREA 1	2	3	AVG	DWTT °C: °F SHEAR AREA 1	2	AVG	GRAIN SIZE
			6		67000																
298	CA0456779	H	7	42900	64100	38	0.75														
			6		65300																
273	XH4734856	H	7	50000	62400	37	0.79														
			6		67422																
173	CA0467574	H	7	47191	61837	38	0.76														
			6		65200																
218	0541382	H	7	48700	62500	38	0.83														
			6		63700																
103	CA0467577	H	7	49700	62100	41	0.63														
			6		66800																
12	CA0456778	H	7	42900	64100	38	0.78														

TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
H	7	0.08	0.34	0.012	0.008	0.007	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.08	0.32	0.010	0.004	0.006	0.03	0.02	0.003	0.021	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.10	0.14
P	7	0.08	0.34	0.011	0.004	0.007	0.02	0.02	0.002	0.021	0.001	0.002	0.001	0.0002	0.002	-	-	0.002	0.10	0.14
H	7	0.10	0.35	0.013	0.008	0.014	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.10	0.34	0.012	0.004	0.012	0.03	0.02	0.002	0.020	0.002	0.002	0.002	0.0002	0.001	-	-	0.002	0.12	0.16
P	7	0.10	0.34	0.010	0.003	0.010	0.03	0.02	0.002	0.020	0.002	0.002	0.002	0.0002	0.001	-	-	0.002	0.12	0.16
H	7	0.10	0.40	0.019	0.009	0.014	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.08	0.39	0.015	0.006	0.012	0.03	0.02	0.002	0.022	0.002	0.001	0.001	0.0002	0.001	-	-	0.002	0.10	0.15
P	7	0.07	0.40	0.016	0.004	0.010	0.03	0.01	0.002	0.023	0.002	0.001	0.001	0.0002	0.001	-	-	0.002	0.09	0.14
H	7	0.09	0.34	0.010	0.004	0.018	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.07	0.38	0.016	0.003	0.032	0.05	0.02	0.003	0.024	0.003	0.001	0.001	0.0002	0.002	-	-	0.002	0.08	0.14
P	7	0.08	0.37	0.016	0.002	0.030	0.05	0.02	0.003	0.022	0.003	0.001	0.001	0.0002	0.002	-	-	0.003	0.08	0.15
H	7	0.09	0.35	0.015	0.012	0.01	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.07	0.40	0.013	0.004	0.03	0.05	0.02	0.002	0.025	0.003	0.002	0.001	0.0004	0.001			0.002	0.09	0.14
P	7	0.08	0.41	0.015	0.003	0.03	0.05	0.02	0.003	0.022	0.001	0.001	0.001	0.0002	0.002			0.002	0.10	0.15
H	7	0.12	0.43	0.019	0.008	0.018	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-
P	7	0.10	0.40	0.016	0.006	0.010	0.03	0.02	0.003	0.022	0.002	0.001	0.001	0.0002	0.002	-	-	0.002	0.12	0.17
P	7	0.12	0.41	0.014	0.006	0.010	0.04	0.01	0.003	0.022	0.002	0.002	0.001	0.0002	0.002	-	-	0.002	0.14	0.19

PRUEBA HIDROSTATICA: (hidrostatic test) PRESION: (pressure) 980 Psi TIEMPO: (time) 10 sec

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

RAYOS-X (RT): (x-ray) PENETROMETRO (penetrometer): N/A

NORMALIZADO DE SOLDADURA: (heat treatment weld) TEMPERATURA (temperature): 1600° F. MIN.

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 V-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) 1½"
4. CILINDRICA (round bar) 0.500"
5. CILINDRICA (round bar) 0.250"

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 WAS PRODUCED IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THESE TEST RESULT ARE AS PER REPORT RECORDS OF THE COMPANY).

Control de Calidad (Quality Control)

REV.1 Sep-99

F-TUME-013