Tubacero
Ave. Guerrero
No. 3729 nte.
Col. Del Norte
Monterrey N.L. México
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CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTFICADO(certificate No.): **050091**

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)
33276	16.000"	0.225"	X-42/B/A 53 B	API 5L ED. 42 / ASTM	ERW	100000849	B-191-2004	HYLSA	7/02/05

TUBO (pipe)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION (tensile test) INDICATOR (psi) PSI (Y.S.)	ORIENTACION (orientation) 1 (T.S.)	TAMAÑO (size) 3 WELL (EST)	BEND	HARDNESS H	PRUEBA DE IMPACTO (impact test) C ORIENTACION F ORIENTACION TAMAÑO (size) ENERGY (lbs/ft) 1	2	3	AVG	SHEAR AREA 1	2	3	AVG	DWTT C SHEAR AREA 1	2	F AVG	GRAIN SIZE
			6		65821															
234	290750	H	7	55755	64706	39	0.86													
			6		68362															
158	290741	H	7	57039	63832	37	0.89													
			6		64391															
309	290745	H	7	53497	61882	37	0.86													
			6		62640															
186	290747	H	7	55262	62442	38	0.88													
			6		69511															
223	290752	H	7	56029	64394	37	0.87													
			6		67638															
272	290754	H	7	56257	64494	38	0.87													

TUBO (pipe)	COLADA (heat)	(%)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
234	290750	P	7	0.06	0.46	0.003	0.002	0.034	0.034	0.026	0.005	0.031	0.006	0.001	0.001	0.0002	0.002	-	-	0.002	0.09	0.14
158	290741	P	7	0.09	0.44	0.003	0.006	0.034	0.038	0.030	0.004	0.033	0.006	0.001	0.001	0.0002	0.002	-	-	0.003	0.11	0.17
309	290745	P	7	0.05	0.44	0.003	0.005	0.037	0.037	0.034	0.003	0.033	0.006	0.001	0.001	0.0002	0.001	-	-	0.002	0.08	0.13
186	290747	P	7	0.09	0.45	0.003	0.004	0.033	0.043	0.025	0.006	0.031	0.006	0.001	0.001	0.0002	0.002	-	-	0.004	0.11	0.17
223	290752	P	7	0.06	0.42	0.002	0.004	0.035	0.036	0.032	0.001	0.033	0.005	0.001	0.001	0.0001	0.001	-		0.001	0.09	0.14
272	290754	P	7	0.11	0.45	0.004	0.003	0.035	0.045	0.027	0.004	0.031	0.006	0.001	0.001	0.0002	0.002	-		0.004	0.13	0.19

PRUEBA HIDROSTATICA (hidrostatic test)	PRESION (pressure) 1000 Ps	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.

REFERENCE STANDARD: I. 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) 1"x
4 C.L. NORICA (round bar) 0.500"
5 C.L. NORICA (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 THE TEST RESULT ARE AS THEY APPEAR IN RECORDS OF THE COMPANY

Control de Calidad (Quality Control)

REV.1 Sep-99

F-TUME-013