Tubacero
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Col. Del Norte
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CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTIFICADO(certificate No.): **080633**

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)
23151	20.000"	0.500"	X42/5LB PSL1/A53B	API 5L 43 ED/A.S.T.M.	ERW	5017	TB-167-2008	AHMSA	22/08/2008

TUBO (pipe) O SERIE (SERIAL)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION (tensile test) UNIDADES (units)	ORIENTACION (orientation)	TAMAÑO (size)			BEND	HARDNESS	PRUEBA DE IMPACTO (impact test) °C °F ORIENTACION (orientation)				TAMAÑO (size)				DWTT			GRAIN SIZE
				PSI (Y.S.)	(T.S.)	% EL.	Y.S/T.S.				ENERGY (lbs/ft) 1	2	3	AVG	SHEAR AREA 1	2	3	AVG	SHEAR AREA 1	2	AVG	
			6		70400																	
48	175463	H	7	51400	64900	42	0.78															
			6		76600																	
29	175465	H	7	55200	67700	42	0.81															
			6		69700																	
80	175464	H	7	49300	63000	44	0.78															
			6		72600																	
141	175468	H	7	51300	63900	42	0.80															

(%)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	0.16	0.61	0.013	0.008	0.121	0.032	0.030	0.020	0.030	0.010	-	-	-	-	-	-	-	-	0.28
P	7	0.14	0.63	0.015	0.011	0.172	0.035	0.021	0.009	0.015	0.001	0.002	0.002	0.0002	0.002	-	-	0.001	0.18	0.25
P	7	0.15	0.64	0.016	0.010	0.168	0.035	0.017	0.009	0.015	0.001	0.002	0.001	0.0002	0.002	-	-	0.001	0.19	0.26
H	7	0.17	0.61	0.018	0.010	0.113	0.028	0.020	0.060	0.020	0.015	-	-	-	-	-	-	-	-	0.29
P	7	0.17	0.58	0.020	0.012	0.130	0.033	0.014	0.056	0.014	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.20	0.27
P	7	0.17	0.57	0.019	0.011	0.127	0.032	0.013	0.055	0.014	0.001	0.001	0.001	0.0002	0.002	-	-	0.001	0.21	0.28
H	7	0.16	0.62	0.011	0.010	0.117	0.049	0.010	0.010	0.020	0.011	-	-	-	-	-	-	-	-	0.27
P	7	0.16	0.63	0.013	0.009	0.136	0.042	0.015	0.011	0.016	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.20	0.27
P	7	0.14	0.65	0.013	0.011	0.138	0.041	0.016	0.012	0.017	0.001	0.002	0.002	0.0002	0.002	-	-	0.001	0.18	0.25
H	7	0.16	0.61	0.013	0.008	0.116	0.041	0.020	0.020	0.020	0.014	-	-	-	-	-	-	-	-	0.27
P	7	0.14	0.57	0.015	0.009	0.129	0.044	0.013	0.008	0.014	0.001	0.001	0.001	0.0002	0.002	-	-	0.001	0.18	0.24
P	7	0.14	0.57	0.013	0.009	0.132	0.045	0.016	0.009	0.013	0.001	0.001	0.002	0.0002	0.002	-	-	0.001	0.18	0.24

PRUEBA HIDROSTATICA: (hidrostatic test) — PRESION: (pressure) 1890 Psi — TIEMPO: (time) 10 sec

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

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 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 RESULTS ARE AS THEY APPEAR IN RECORDS OF THE COMPANY)

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

Control de Calidad (Quality Control)