Tubacero

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CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **101486**

CLIENTE(customer): PLESA ANAHUAC Y CIAS., 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)
23209	18,000"	0,500"	X42/5LB PSL1/A53B	API SPEC 5L 44TH ED/A.S.T.M.	HFW	9495	B-165-2010	TERNIUM	07/12/2010

TUBO (pipe) O SERIE (SERIAL)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION(tensile test) UNIDADES (units) Psi (Y.S.)	ORIENTACION (orientation) 1 (T.S.)	TAMAÑO (size) 3 % EL.	Y S/T.S	BEND.	HARDNESS HV	PRUEBA DE IMPACTO (impact test) °C °F ENERGY (J) 1	2	3	AVG	ORIENTACION (orientation) TAMAÑO (size) SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE
			6		76000																
201	0910522	H	7	53000	67400	44	0.78														
			6		72400																
121	0910525	H	7	50900	62700	45	0.81														
			6		75800																
109	833613	H	7	49900	65100	42	0.76														
			6		75900																
138	ZZ0015405	H	7	55900	71000	44	0.78														
			6		71500																
47	833612	H	7	51400	65100	44	0.78														
			6		75200																
21	RA980247	H	7	48000	64500	44	0.74														
			6		76600																
101	TB3092147	H	7	54100	71400	38	0.75														
36	0930864		6																		9
59	0930864		6																		9
106	TB3092147		6																		9
185	0910522		6																		9
118	0930864		6																		9
CRITERIOS DE ACEPTACION: (Acceptance criteria)	MIN:			42100	60200	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
	MAX:			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PROMEDIO (AVG.)			-	-	-			-		-	-	-	-	-	-	-	-	-	-	-

(%)ANALISIS QUIMICO / chemical analysis (%)

TUBO (pipe) O SERIE (SERIAL)	TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
	H	7	0.17	0.79	0.009	0.001	0.235	0.040	0.009	0.016	0.008	0.001	0.001	0.002	-	0.001	0.003	-	-	-	-
201	P	7	0.11	0.87	0.012	0.001	0.238	0.052	0.001	0.011	0.011	0.001	0.002	0.009	0.0002	0.001	-	-	0.001	0.16	0.26
	P	7	0.12	0.85	0.012	0.001	0.242	0.051	0.008	0.011	0.011	0.001	0.002	0.008	0.0002	0.001	-	-	0.002	0.17	0.26
	H	7	0.18	0.66	0.009	0.004	0.203	0.033	0.009	0.010	0.006	0.000	0.000	0.000	-	0.001	0.003	-	-	-	-
121	P	7	0.16	0.71	0.007	0.002	0.213	0.045	0.016	0.003	0.009	0.001	0.000	0.005	0.0001	0.001	-	-	0.003	0.21	0.28
	P	7	0.14	0.68	0.011	0.004	0.209	0.045	0.010	0.004	0.009	0.001	0.001	0.006	0.0001	0.001	-	-	0.002	0.19	0.26
	H	7	0.18	0.67	0.010	0.006	0.155	0.037	0.014	0.016	0.010	0.003	0.002	0.000	-	0.001	0.002	-	-	-	-
109	P	7	0.19	0.71	0.012	0.008	0.167	0.043	0.016	0.009	0.012	0.001	0.001	0.007	0.0001	0.001	-	-	0.002	0.23	0.31
	P	7	0.19	0.69	0.012	0.009	0.178	0.045	0.013	0.010	0.013	0.001	0.002	0.006	0.0001	0.001	-	-	0.004	0.23	0.30
	H	7	0.20	0.80	0.014	0.006	0.225	0.000	0.010	0.030	0.020	0.003	0.001	0.002	-	0.001	0.005	-	-	-	-
138	P	7	0.16	0.85	0.017	0.006	0.239	0.063	0.013	0.034	0.021	0.001	0.001	0.006	0.0001	0.001	-	-	0.001	0.22	0.31
	P	7	0.18	0.85	0.016	0.006	0.251	0.064	0.014	0.035	0.021	0.001	0.001	0.007	0.0001	0.001	-	-	0.001	0.24	0.34
	H	7	0.19	0.72	0.013	0.002	0.167	0.029	0.031	0.016	0.015	0.005	0.001	0.000	-	0.001	0.004	-	-	-	-
47	P	7	0.10	0.75	0.015	0.004	0.180	0.040	0.033	0.011	0.018	0.001	0.001	0.007	0.0001	0.001	-	-	0.002	0.15	0.23
	P	7	0.09	0.73	0.014	0.004	0.183	0.040	0.037	0.011	0.017	0.001	0.001	0.006	0.0001	0.001	-	-	0.002	0.14	0.22
	H	7	0.18	0.67	0.014	0.004	0.159	0.035	0.019	0.024	0.036	0.002	0.003	0.003	-	0.002	0.004	-	-	-	-
21	P	7	0.13	0.71	0.015	0.003	0.163	0.048	0.027	0.020	0.040	0.001	0.003	0.006	0.0001	0.001	-	-	0.004	0.18	0.26
	P	7	0.13	0.70	0.012	0.001	0.168	0.046	0.026	0.020	0.040	0.001	0.003	0.005	0.0001	0.001	-	-	0.005	0.17	0.25
	H	7	0.20	0.73	0.017	0.007	0.194	-	0.020	0.030	0.020	0.003	0.003	0.001	-	0.001	0.003	-	-	-	-
101	P	7	0.19	0.83	0.020	0.009	0.191	0.057	0.007	0.017	0.010	0.001	0.002	0.007	0.0001	0.001	-	-	0.001	0.24	0.33
	P	7	0.18	0.81	0.020	0.008	0.205	0.058	0.008	0.017	0.009	0.001	0.002	0.007	0.0001	0.001	-	-	0.001	0.23	0.32
CRITERIOS DE ACEPTACION: (Acceptance criteria)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			0.26	1.20	0.030	0.030	-	-	0.500	0.400	0.400	0.150	-	-	-	0.080	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ESTA CONSTANCIA CANCELA Y SUSTITUYE A LA Nº 101481 EMITIDA EL 03-DIC-2010

PRUEBA HIDROSTATICA: (hidrostatic test) PRESION: (pressure) 1990 Psi TIEMPO: (time) 5 sec

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

PRUEBA DE APLASTAMIENTO: (flattening test) 0° OK 90° OK

NORMALIZADO DE SOLDADURA: (heat treatment weld) TEMPERATURA (temperature): 1600° F MIN. (NO UNTEMPERED MARTENSITE REMAINS)

ESTANDAR DE REFERENCIA (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 Barreno (Drilled Hole)=H Muesca (Notch)=N

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) T: UNIDAD DE PRUEBA (Test unit)

HACEMOS CONSTAR QUE EL MATERIAL DESCRITO HA SIDO FABRICADO, MUESTREADO, PROBADO E INSPECCIONADO DE ACUERDO CON LA ESPECIFICACION MENCIONADA, Y QUE LOS RESULTADOS CON COMO APARECEN EN LOS REGISTROS DE LA EMPRESA
(WE HEREBY VERIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THESE RESULTS ARE AS THEY APPEAR IN RECORDS OF THE COMPANY)

TUBACERO S.A. DE C.V. 04

Control de Calidad (Quality Control)
Ing. Samuel Montoya Laguna.

REV. 5 Jun.-10

F-TUME-013