Ave. Guerrero
No. 3729 nte.
Col. Del Norte
Monterrey N.L. México
CP.64500
TEL:3056858
FAX:3055580

CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **091232**

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

DIRECCION(address): AV. VALLE DE LAS ALAMEDAS # 66-O COL. SAN FCO. CHILPAN TULTITLÁN, 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)
33484	14.000"	0.312"	X42/5LB PSL 1/A53B	API SPEC 5L 44TH ED./A.S.T.M.	HFW	7187	TB-226-2009	TERNIUM	19/10/2009

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	PRUEBA DE IMPACTO (impact test) °C ORIENTACION (orientation) ENERGY (lbs/ft) 1	2	3	AVG	TAMAÑO (size) SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE
		6		78400																
ZA18391	H	7	48800	65600	40	0.74														
		6		77600																
ZA18303	H	7	51800	67900	37	0.76														
		6		74700																
ZA18304	H	7	51200	69100	40	0.74														
		6		74100																
ZA18314	H	7	51100	68200	39	0.75														
		6		73700																
ZA18305	H	7	48400	64300	39	0.75														
ZA18303		6																		9
ZA18303		6																		9
ZA18303		6																		9

(%)ANALISIS QUIMICO / chemical analysis (%)

COLADA (heat)	TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
ZA18391	H	7	0.18	0.74	0.020	0.007	0.181	0.035	0.020	0.040	0.020	0.004	0.001	0.001	0.0001	0.001	0.002	-	0.000	-	-
	P	7	0.20	0.72	0.020	0.003	0.187	0.024	0.017	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.24	0.3
	P	7	0.20	0.71	0.020	0.004	0.191	0.023	0.017	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.24	0.3
ZA18303	H	7	0.19	0.82	0.015	0.009	0.215	0.046	0.020	0.030	0.020	0.004	0.001	0.002	0.0001	0.001	0.000	-	0.000	-	-
	P	7	0.21	0.78	0.016	0.005	0.218	0.036	0.018	0.001	0.001	0.001	0.001	0.001	0.0001	0.000	-	-	0.001	0.26	0.3
	P	7	0.20	0.77	0.016	0.005	0.222	0.035	0.018	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.25	0.3
ZA18304	H	7	0.19	0.81	0.013	0.006	0.192	0.052	0.020	0.030	0.020	0.004	0.001	0.003	0.0001	0.001	0.004	-	0.000	-	-
	P	7	0.20	0.79	0.015	0.003	0.194	0.040	0.015	0.001	0.001	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.25	0.3
	P	7	0.20	0.78	0.015	0.003	0.202	0.098	0.015	0.001	0.001	0.001	0.001	0.002	0.0001	0.001	-	-	0.001	0.25	0.3
ZA18314	H	7	0.19	0.73	0.014	0.007	0.182	0.042	0.020	0.030	0.020	0.005	0.001	0.002	0.0001	0.001	-	-	0.000	0.24	0.3
	P	7	0.19	0.71	0.016	0.004	0.188	0.033	0.016	0.000	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.23	0.3
	P	7	0.20	0.70	0.016	0.004	0.187	0.032	0.014	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.24	0.3
ZA18305	H	7	0.18	0.74	0.015	0.007	0.177	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	0.000	-	-
	P	7	0.18	0.71	0.016	0.004	0.181	0.043	0.016	0.001	0.001	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.22	0.3
	P	7	0.19	0.71	0.016	0.004	0.183	0.043	0.017	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.23	0.3
S DE ACEPTACION: (ice criteria) MIN:			42.1	60.2	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAX:																					
PROMEDIO (AVG.)			0.26	1.20	0.030	0.030	-	-	0.500	0.400	0.400	0.150	0.040	-	-	0.080	-	-	-	-	-

PLESA ANAHUAC Y CIAS. S.A. DE C.V.
CONTROL DE CALIDAD
FECHA 08/Dic/2009
CEC0012
FIRMA Enrique Ruiz

HIDROSTATICA: (ic test) PRESION: (pressure) 1590 Psi TIEMPO: (time) 10 sec

NIDO(U.T.): STANDARD DE REFERENCIA: J
REFERENCE STANDARD

(RT): PENETROMETRO (penetrometer): N/A

ADO DE SOLDADURA: (tment weld) TEMPERATURA (temperature): 1600° F MIN (NO UNTEMPERED MARTENSITE REMAINS)

R DE REFERENCIA (ICE 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)

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

Control de Calidad (Quality Control)

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

Mzo-09

F-TUME-013