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CONSTANCIA DE INSPECCION

INSPECTION CONSTANCY

No. CONSTANCIA (constancy No.): **110265**

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 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)
23120	36.000"	0.500"	A53B/5LB/X42 PSL1	API 5L 43 ED/A.S.T.M.	DSAW	9946	SB-029-2011	AHMSA	14/02/2011

NACE MR-0175

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 HRB	PRUEBA DE IMPACTO (impact test) 0 °C °F ORIENTACION (orientation) ENERGY (lb/ft) 1	2	3	AVG	TAMAÑO: (size) 1:1 SHEAR AREA 1	2	3	AVG	DWTT SHEAR AREA 1	2	AVG	GRAIN SIZE
			6		76100				80												
181	269213	H	7	58800	74000	38	0.79		86												
			8						78												
			6		78700				82												
163	269219	H	7	59600	73200	38	0.81		86												
									75												
			6		76100				86												
114	269210	H	7	57600	73100	38	0.78		84												
			8						76												
			6		72400				80												
167	269218	H	7	54400	70900	36	0.76		84												
			8						77												
8	269211		6					OK													
86	269211		6					OK													
117	269218		6					OK													
171	269210		6					OK													

(%)ANALISIS QUIMICO / chemical analysis (%)

TUBO	COLADA	TYPE	LOC	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
181	269213	H	7	0.17	0.58	0.017	0.007	0.134	0.040	0.030	0.030	0.030	0.005	0.003	0.001	0.0000	0.002	-	-	-	-	-
		P	7	0.17	0.55	0.018	0.007	0.137	0.049	0.005	0.015	0.020	0.001	0.002	0.002	0.0002	0.001	-	-	0.001	0.20	0.26
		P	7	0.18	0.55	0.017	0.006	0.135	0.042	0.006	0.016	0.020	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.21	0.27
163	269219	H	7	0.16	0.58	0.016	0.008	0.114	0.038	0.020	0.030	0.020	0.006	0.002	0.001	0.0000	0.002	-	-	-	-	-
		P	7	0.14	0.55	0.018	0.009	0.134	0.044	0.005	0.017	0.020	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.18	0.24
		P	7	0.18	0.55	0.017	0.010	0.133	0.044	0.010	0.016	0.020	0.001	0.001	0.002	0.0001	0.001	-	-	0.001	0.21	0.27
114	269210	H	7	0.16	0.58	0.011	0.006	0.118	0.044	0.020	0.030	0.020	0.005	0.002	0.001	0.0000	0.002	-	-	-	-	-
		P	7	0.17	0.55	0.013	0.007	0.138	0.045	0.005	0.016	0.021	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.21	0.27
		P	7	0.18	0.56	0.015	0.006	0.134	0.042	0.010	0.015	0.020	0.001	0.001	0.002	0.0002	0.001	-	-	0.001	0.21	0.27
167	269218	H	7	0.15	0.59	0.014	0.007	0.140	0.046	0.030	0.030	0.030	0.005	0.002	0.001	0.0000	0.002	-	-	-	-	-
		P	7	0.17	0.55	0.018	0.006	0.128	0.040	0.013	0.024	0.023	0.001	0.001	0.001	0.0002	0.001	-	-	0.001	0.21	0.27
		P	7	0.17	0.56	0.016	0.009	0.132	0.043	0.016	0.025	0.023	0.001	0.001	0.001	0.0001	0.001	-	-	0.001	0.20	0.27

CRITERIOS DE ACEPTACION: (Acceptance critera)	MIN:	42000	60000	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MAX:	-	-	-	0.93	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	1.20	0.030	0.030	-	-	0.400	0.400	0.400	0.150	0.040	-	-	0.080	-	-	-	-	0.43
	PROMEDIO (AVG.)	-	-	-	*No se Aceptan Grietas > 1/8"			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRUEBA HIDROSTATICA: (hidrostatic test) — PRESION: (pressure) 1050 Psi — TIEMPO: (time) 10 sec

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

RAYOS-X (RT): (x-ray) — PENETROMETRO (penetrometer): N° 15 A.S.T.M.

NORMALIZADO DE SOLDADURA: (heat treatment weld) — TEMPERATURA (temperature): N/A

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 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 THEY APPER IN RECORDS OF THE COMPANY).

CONTROL DE CALIDAD TUBACERO, S. DE R.L. DE C.V. 04

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