PETRO FLANGE, S.A. DE C.V.

Vendido a: FERRISA, S.A. DE C.V.
Direccion:
Pedido: TEL

Folio:	**2329**
Cert. No.	**PFSB-578-4**
Date.	*30/05/2008*

INSPECTION CERTIFICATE

ITEM	PCS	DESCRIPTION	SPECIFICATIONS	HEAT No.	MECHANICAL COMPOSITION TENSILE Mpa	YIELD Mpa	ELONG %	R/Area %	HARDNES HB
1	9	S.W. 3/4" 150# R.F. SCH-80	ASTM A-105-05	958	496	267	31	34	172
2	2	S.W. 1/1/2" 600# R.F. SCH-160	ASME SA-105-05	750	496	285	32	34	182
3	29	W.N. 16" 600# R.F. SCH-80	ASME B16.5-2003	532	489	284	33	34	153
4	1	W.N. 16" 600# R.F. SCH-81	NACE MR-0175-03/05	662	501	256	34	36	139
			MSS SP-44						

CHEMICAL COMPOSITION

ITEM	HEAT. No.	C	Mn	P	S	Si	Cu [A]	Ni [A]	Cr [A,B]	Mo [A,B]	V [A]	Nb	CE
1	958	0.194	0.699	0.030	0.018	0.200	0.110	0.011	0.090	0.100	0.010	-	0.36
2	750	0.259	0.825	0.024	0.023	0.259	0.272	0.028	0.011	0.030	0.001	-	0.42
3	532	0.213	0.754	0.022	0.032	0.134	0.199	0.039	0.142	0.002	0.004	-	0.38
4	662	0.248	0.743	0.019	0.026	0.199	0.245	0.015	0.134	0.039	0.001	-	0.42

[A] The sum of cooper, nickel, chromium, molybdenum and vanadium shall not exceed 1.00 %
[B] The sum of chromium and molybdenum shall not exceed 0.32%

CE= C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15

NOTE: FORGED ROLLED 1150°C -1200°C
NORMALIZED 900°C AND ALLOWED TO COOL IN STILL AIR.

PETRO FLANGE S.A. DE C.V.
QUALITY ASSURANCE CONTROL DEPARTAMENT
ENTREGADO