



JSW STEEL (USA) INC.
5200 E. McKinney Rd
Baytown, TX 77520
Phone: (281) 383-3300
Fax: (281) 303-0473

Metallurgical and Pipe Test Report

MTR No.: 109969-00-2335

Sample No.: V10186546

PO Number: 109969-00

PO Date: 11/09/10 JSW #: SAW1152

Date: 01/10/11

Diameter (In): 30

Wall (In): 0.500

Grade: BM/X42M PSL2

Heat No: S12335

Comments: Meets "NACE MR0175" Section 3.2 (Hardness Only) and MR103 Section 2.1

Pipe Manufactured in USA

SAWL MATERIAL
THERMO MECHANICAL
ROLLED

INSPECTION CERTIFICATE: 3.1 B PER ISO 10474: 1991.
100% Weld seam inspection by ultrasonic testing method;
Calibration standard: N5 notches inside and outside (Longitudinal and Transverse)

API 5L October 2008 44th Ed



END X-RAY: 8" (ASTM - B PENETRAMEETER)

Customer
TEXAS PIPE
2330 HOLMES ROAD
HOUSTON, TEXAS 77051

Ship To
TEXAS PIPE
2330 HOLMES ROAD
HOUSTON, TEXAS 77051

Type	C	Mn	P	S	SI	Cu	NI	Cr	Mo	TI	Al	N	V	B	Nb	Ca	Zr	V +Nb +Ti	CE	Pcm
Ladle	0.15	1.09	0.014	0.006	0.28	0.010	0.010	0.010	0.001	0.001	0.036	0.003	0.001	0.0001	0.000	0.0020	0.000	0.00	0.34	0.22
Prod1	0.17	1.10	0.016	0.010	0.27	0.010	0.010	0.010	0.000	0.005	0.033	0.000	0.001	0.0005	0.000	0.0010	0.000	0.01	0.36	0.24
Prod2	0.16	1.11	0.016	0.010	0.27	0.010	0.010	0.010	0.000	0.005	0.034	0.005	0.001	0.0004	0.000	0.0014	0.000	0.01	0.35	0.23

Mechanical Testing

	Cwidth (Inch)	Yield (PSI)	Tensile (PSI)	Elong (%)	YT Ratio
TBT	1.54	58404	75276	38	0.78
TWT	1.49	0	79170	0	

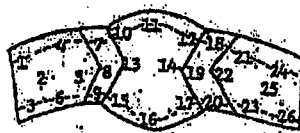
Weld Tensile Fracture Location:

BASE METAL
Guided Bend (WELD)
Root OK Face OK

Hydrostatic Test

HYDRO PSI	HYDRO TIME (sec)
1370	20

Hardness Tests



(HV10 - Scale)

1:172	7:163	13:183	19:171	25:162
2:168	8:162	14:189	20:173	26:169
3:160	9:169	15:187	21:169	
4:161	10:171	16:182	22:160	
5:169	11:181	17:188	23:168	
6:167	12:188	18:173	24:163	

MACRO OK



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Charpy Impact Analysis

DirNotch	Spec Size	Temp	Ft lb1	Ft lb2	Ft lb3	Ft lb avg	Shear1 (%)	Shear2 (%)	Shear3 (%)	Shear Avg (%)
TBC	10x7.5 mm	32 F	146	138	140	141	95	95	95	95
	Full Size Values:		195	184	187	188	95	95	95	95
THC	10x7.5 mm	32 F	110	112	121	114	0	0	0	0
	Full Size Values:		147	149	161	152	0	0	0	0
TWC	10x7.5 mm	32 F	92	91	97	93	0	0	0	0
	Full Size Values:		123	121	129	124	0	0	0	0

Pipes Certified For This HEAT
V10186546

The material has been manufactured, sampled, tested, and inspected in accordance with this spec(API5L) and has been found to meet the requirements.
We certify the above to be correct as contained in the records of the company.

QA ENGINEER