



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.:

Sample No.: T11119482

PO Number: 116119-00

PO Date: 10/27/11 JSW #: SAW1425

Date: 11/16/11

Diameter (in): 30

Wall (in): 0.500

Grade: B PSL1/X42M PSL2

Heat No: S14169

Comments: EN 10204 3.1 Meets "NACE MR0175" and "NACE MR0103" (Hardness Only)"

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	Chemical											Analysis		V	B	Nb	Ca	Zr	V +Nb +Ti	CE (0.43)	Pcm
	C	Mn	P	S	SI	Cu	NI	Cr	Mo	TI	Al	N									
Ladle	0.10	0.97	0.013	0.011	0.29	0.050	0.040	0.030	0.006	0.003	0.030	0.006	0.004	0.0005	0.003	0.0020	0.000	0.01	0.28	0.17	
Prod1	0.12	0.92	0.013	0.013	0.31	0.070	0.040	0.040	0.004	0.006	0.031	0.005	0.002	0.0002	0.001	0.0010	0.000	0.01	0.29	0.18	
Prod2	0.11	0.93	0.014	0.013	0.32	0.070	0.040	0.040	0.004	0.006	0.032	0.003	0.002	0.0003	0.001	0.0010	0.000	0.01	0.28	0.18	

## Mechanical Testing

Orientation	Cwidth (Inch)	Yield (PSI)	Tensile (PSI)	Elong (%)	Y/T Ratio
1T180	1.46	59100	72500	37	0.82
1W	1.45	0	71400	0	

Weld Tensile Fracture Location:  
BASE METAL

Guided Bend  
Orientation Root Face  
2W OK OK

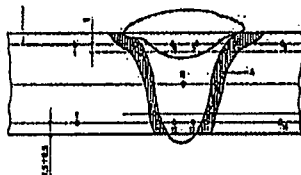
## Hydrostatic Test

TEST PRESS. HOLDING  
PSI TIME  
(sec)  
1370 20

## Hardness Tests

Orientation: 1W

1:172	7:172	13:183	19:169
2:160	8:160	14:167	
3:161	9:160	15:174	
4:182	10:163	16:169	
5:183	11:160	17:167	
6:162	12:182	18:183	



MACRO OK

Form # ML-014  
Rev: 2  
Date: 07/05/11



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### Charpy Impact Analysis

Orientation	Spec Size	Temp	Ft lb1	Ft lb2	Ft lb3	Ft lb avg	Shear1 (%)	Shear2 (%)	Shear3 (%)	Shear Avg (%)
3T90	10x10 mm	32 F	68	61	72	67	95	95	95	95
3W	10x10 mm	32 F	38	41	37	39	0	0	0	0
3HAZ	10x10 mm	32 F	65	56	57	59	0	0	0	0

Pipes Certified For This HEAT

T11119482

The material has been manufactured, sampled, tested, and inspected in accordance with this spec (API 5L) and has been found to meet the requirements. We certify the above to be correct as contained in the records of the company.

*Jade L. Lemelle*

QA ENGINEER

Form #	ML-014
Rev:	2
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