Date: 9/12/2014 To: PLESA STEEL INC SO#: S259644 Ln#: 1 PO#: 275 Part: 10750718 Heat#: 233479B

"VOLZHSKY PIPE PLANT"
OJSC

404119 Avtodorogu 7-6, Volzhsky, Volgograd region, Russia

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VOLZHSKY TRUBNY

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MANUFACTURER:

2 VOLZHSKY PIPE PLANT OJSC
404119, VOLZHSKY
VOLGOGRAD REGION
RUSSIA

MILL TEST CERTIFICATE

1 Spec PI-002/72-117223/Customer PO:P12760/TMKII REG: WF83328
DESCRIPTION OF GOODS:
Carbon steel seamless pipes according to API Spec 5L PSL2 (46th edition/2012) X420.80/ASTM A106/A106M (2011) GR. B/C/ ASTM A53/A 53M (2012) Gr.B/ASME SA106 (2010)Gr.B/C/ASME SA53 (2011) Gr.B/ANSI/NACE MR0175/ISO15156-2(2009). NACE MR-0103 (2012). Beveled ends.
10.750" x 0.718" (273.1 x 18.24 mm)

"AMERICAN PIPING PRODUCTS, INC."
11403 PORTA HOUSTON ROSBLYN ROAD, HOUSTON, TX 77088.
USA

4 CERTIFICATE № 1318 DATE OF ISSUE 25.09.2013

5 CONTRACT № PI-002/72-117223

SIZE	HEAT NO / HEAT TREATMENT / LOT NO	LOT NO	CONTAINER TYPE / PIECES	LENGTH, FEET	NET WEIGHT TONS	CHEMICAL COMPOSITION, % C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Ti	V	MILL CONTROL PROTOCOL NO
						x 100	x 100	x 100	x 1000	x 1000	x 100	x 100	x 100	x 100	x 100	x 100	
						*1 18	10	29	23	15	30	30	40	15	4	5	
						L1 max	min 45 max	min 1061 max	max	max	max	max	max	max	max	max	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
273.1x18.24 MM 10.750x 0.718" API SPEC 5L 45 EDITION (GRADE X420/ ISO PSL 2	233479B	3-1785	66	2630.70	93.751	R 16	24	67	9	4	11	11	21	1	0	0	4949
						P 16	23	65	9	6	10	11	21	1	0	0	4949
						2 16	23	65	9	5	10	11	21	1	0	0	4949
	11																6786
	11																6786

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SIZE	ORIENTATION	TENSILE TEST YS psi	UTS psi	EL. %	HARDNESS TEST	IMPACT TEST ORIENTATION	NOTCH SIZE	TEST TEMP °C	IMPACT VALUE ft-lb	FRACTURE %	HEAT TREATMENT	WD T	HYDROSTATIC TEST DURATION (SECONDS)	PRESSURE PSI	NOTE
	* 2	* 3	* 4			* 3	* 5	* 6	* 7	MIN 1.00	* 8	* 9 *(10)	min 5	min 4780	
		min 42100 MAX 71800	min 70000 MAX 95000	min 26.0				-50	min 20.00						
1	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
	L	X					T	V	F					Q&T	H & RH & UT (12)	G	G	ASTM A106/ A106M - 11. ASME SA-106/ SA-106M - 10. GR. B/C ASTM A53/ A53M - 12. ASME SA-53/ SA-53M - 11. GR. B ANSI/NACE MR0175/ISO 15156-2:2009 NACE MR0103-2012 LENGTH:80% - 38-41 FEET 20%- 36- 38 FEET
	L									-50	A E	138.8 133.0 144.2 139.3	50 50 50 50					
	L			53940	72355	47.8												

DESCRIPTION OF TESTS	VISUAL AND DIMENSIONS	BEVELING INSPECTION	END'S PROTECTORS	NONDESTRUCTIVE INSPECTION	COATING				FLATTENING TEST	MARKING: STENCILING	
	G	G	G	G	G				G	G	STEEL IS MANUFACTURED IN THE ELECTRIC FURNACE, FULLY KILLED AND PRODUCED AGAINST THE FINE GRAIN PRACTICE

NOTES: G: GOOD
*1: H: HEAT ANALYSIS, P: PRODUCT ANALYSIS, C: CONTROL ANALYSIS, R: RECHECK ANALYSIS
*2: L: LOT TESW, H: HEAT CONTROL TEST, A: ADDITION TEST, R: RECHECK TEST
*3: L: LONGITUDINAL, T: TRANSVERSE
*4: STRIP G: 1/2 in, H: 3/4 in, M: 1 in, K: 1 1/2 in. R: 12 mm.
*5: V: V (CVN)
*6: F: 10x10mm, 7: 10x7.5mm, 6: 10x6.7mm, 5: 10x5mm, 3: 10x3.3mm, 2: 10x2.5mm
*7: E - EACH VALUE, A - AVERAGE VALUE
*8: HEAT TREATMENT, Q&T: QUENCHED & TEMPERED, N - normalization
*9: M: WET FLUORESCENT MAGNETIC PARTICLE TEST, EMI: ELECTROMAGNETIC TEST, UT: ULTRASONIC TEST
UTA: PIPE BODY UT FOR LAMINATION, UTE: PIPE ENDS UT FOR LAMINATION
UTS: PIPE WALL THICKNESS UT
*10: 5 - NOTCH 5T, 12 - NOTCH 12.5T

TOTAL: QUANTITY OF PIPES 66 PCS NET WEIGHT 93.751 T LENGTH 2630.70 FT

PIPES BY MORKSHOW PIPE ROLLING MILL #3 HEAD OF MILL PRILIPKO P.A. HEAD OF QCD AREA LITVINOVITCH I.A.

MATERIAL HARDNESS CONFORMS TO NACE MR 0175/MR 0103. WE CONFIRM THAT PIPES HAS NO CONTAMINATION BY MERCURY AND NO REPAIR BY WELDING HAS BEEN CARRIED OUT. DTC COMPLY WITH THE STANDARD EN 10204 3.1. COUNTRY OF MELT IS RUSSIA.

INSPECTOR - RYSKOVA A.N.
VOLZHSKY PIPE PLANT
DATE: 26.09.2013

CHEMICAL COMPOSITION, %

	Nb	Nb+V+Ti	Nb+V	Cr+Cu+Mo+Ni+V	CEIIW	CEPcm
	%	%	%	%	%	%
	100	100	100	10	100	100
	5	15	6	10	43	25
	max	max	max	max	max	max
1	0	0	0	4	-	19
2	0	0	0	4	-	18
3	0	0	0	4	-	18

HARDNESS TEST, MAX 22HRC

PIPE NO.	MILL CONTROL PROT. No.		QUADRANT No 1			
6	6787	OD	1	1	1	1
		AD	1	1	1	1
		ID	1	1	1	1

OD-OUTSIDE DIAMETER
AD-AVERAGE DIAMETER
ID-INSIDE DIAMETER

Temperature at the exit of Quenching furnace: 1634 F - 1706 F

Temperature at the exit of Tempering furnace: 1166 F - 1220 F

ACTUAL HYDROSTATIC TEST PRESSURE: 4919 PSI

MATERIAL HARDNESS CONFORMS TO NACE MR 0175/MR 0103. WE CONFIRM THAT PIPES HAS NO CONTAMINATION BY MERCURY AND NO REPAIR BY WELDING HAS BEEN CARRIED OUT. MFG COMPLY WITH THE STANDARD EN 10204 3.1. COUNTRY OF MELT IS RUSSIA.

INSPECTOR - RYTKOVA A.N.
VOLGHSKY PIPE PLANT
DATE: 26.09.2013

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