



CERTIFICATE OF AUTHORIZATION

This certificate accredits the named company as authorized to use the indicated symbol of the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the Code symbol and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this symbol shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

Paintearth Energy Services Inc.
LSD: 01-16-40-16-W4M
Halkirk, Alberta, T0C 1M0
Canada

SCOPE:

Manufacture of pressure vessels at the above location only

AUTHORIZED:

October 28, 2005

REVISED: January 19, 2007

EXPIRES:

August 20, 2008

CERTIFICATE NUMBER:

31,246

Chairman of The Boiler
And Pressure Vessel Committee

Director, Accreditation and Certification



The American Society of Mechanical Engineers

Certificate of Authorization Permit Quality Management System

Expiry Date: **August 20, 2008**

Reg. No.: **AQP-1342(S)**

This is to certify that:

PAINTEARTH ENERGY SERVICES INC.

LSD 1-16-40-16-W4M

HALKIRK, ALBERTA

having complied with the provisions of the SAFETY CODES ACT, is hereby authorized to:

Construct, Repair/Alter ASME Section VIII-1 Pressure Vessels

Construct Miniature Pressure Vessels in accordance with CSA B51

Manufacture, Repair/Alter Category 'A', 'E' & 'H' Fittings in accordance with CSA B51

at the above SHOP address.

Construct, Repair/Alter ASME B31.1 Power Piping and ASME B31.3 Process Piping

at the SHOP and FIELD sites controlled from the above address.



Dated at Edmonton, this 15th day of December, 2006

A handwritten signature in black ink, appearing to read "K. Khan", is written over a horizontal line.

Chief Inspector and Administrator

548/57

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by PAINTEARTH ENERGY SERVICES INC., LSD, 1-16-40-16-W4M, Alberta Canada (Box 24, Halkirk, AB T0C 1M0)

2. Manufactured for Husky Energy Inc. #707, 8th Ave. SW, Box 6525, Station D Calgary AB, T2P 3G7 (Name and address of Manufacturer)

3. Location of installation LSD: 07-27-51-19 WSM Husky Energy Inc. #707, 8th Ave. SW, Box 6525, Station D Calgary AB, T2P 3G7 (Name and address of purchaser)

4. Type Horizontal V-9023 U5406.2 PES-12H-1000 Rev. 0 N/A 2008
 (HORIZ. or VERT. tank) (Mfg's serial No.) (CRN) (Drawing No.) (Mater. Bd. No.) (Year Built)

5. The chemical and physical properties of all parts meet the requirements of material specification of the ASME BOLLER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conforms to ASME Rules, Section VIII, Division 1 2007 Year

to N/A N/A
 6. Shell: Addenda (Date) N/A Code Case Nos. N/A Special Service per UG-120(d) N/A
SA-106B 0.688" 0.125" 12 3/4" OD 5' 10" S/S
 Matl. (Spec. No., Grade) (Nom. Thk. (in.) (Corr. Allow. (in.) (Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)
 7. Seams S N/A 100% 1150°F 60 Min. Type 1 Full 100% 1
 Long. (Welded, Dbl. Singl., Lap, Butt) R.T. (Spot or Full) H.T. Temp (F) Time (hr) R.T. (Spot or Full) Eft. No. of Courses
 8. Heads: (a) Material SA-234-WPB (Spec. No., Grade) (b) Material SA-234-WPB (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	End	0.602"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	Concave
(b)	End	0.602"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	Concave

If removable, bolts used (describe other fastenings)

N/A

(Matl. Spec. No., Gr., Size, No.)

9. MAWP 1000 psi N/A psi at max. temp. 351°F N/A
 Internal External Internal External
 Min. design metal temp. -20°F F at 1000 psi Hydro., pneu., or comb. test pressure Hydro 1300 psi

10. Nozzles, inspection and safety valve opening:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Material	Nominal Thickness	Reinforcement Materials	How Attached	Location
(N1a/b) GAS INLET	1	6" NPS	CI 600 rfwn	SA-105N/SA-106B	0.864"	N/A	Fig. UW-16.1(c)	Shell
(N2) GAS OUTLET	1	6" NPS	CI 600 rfwn	SA-105N/SA-106B	0.864"	N/A	Fig. UW-16.1(c)	Head
(N3) PRV	1	2.5" NPS	CI 600 rfwn	SA-105N/SA-106B	0.552"	N/A	Fig. UW-16.1(c)	Head
(C1a/b) Drain	2	3/4" CI 6000	TOL	SA-105N	N/A	N/A	Fig. UW-16.1(a)	Shell

11. Supports: Skirt Yes Lugs Yes (Yes or no) N/A Legs N/A Other Baseplate Attached Welded to Skirt
 (Name of part, item number, Mfg's name and identifying stamp) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned inspectors have been furnished for the following items of the report: N/A

Capacity: 5.3 Cu. Ft.

Construction drawing # V-9023 Rev. 1

(Name of part, item number, Mfg's name and identifying stamp)

Continued on U-4 Supplementary Sheet

**Charpy impact tests: Heads & shell exempt as per UCS-68(c), UCS-66.1, Nozzles exempt per UG-20(f)(1-5) & UCS-68(b)(3), TOLs exempt per UCS-66(b)(3).

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 31,246, expires August 20, 2008.

Date July 28, 2008 Co. name PAINTEARTH ENERGY SERVICES INC., LSD, 1-16-40-16-W4M Signed Dariusz Jurek (Representative)

(Manufacturer)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by PAINTEARTH ENERGY SERVICES INC., LSD, 1-16-40-16-W4M at Halkirk, Alberta, Canada

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Alberta and employed by ABSA

have inspected the component described in this Manufacturer's Data Report on July 28, 2008, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor this employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor this employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 28, 2008 Signed

Dariusz Jurek
 Authorized Inspector

Commissions

AB# 177A

Natl Board (incl. Endorsements) State, Prov. and No.)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

548157

1. Manufactured and certified by PAINT EARTH ENERGY SERVICES INC., LSD: 1-16-40-16-W4M, Alberta Canada (Box 24, Halkirk, AB T0C 1M0)
(Name and address of Manufacturer)
2. Manufactured for Husky Energy Inc. #707, 8th Ave. SW. Box 6525, Station D Calgary AB. T2P 3G7
(Name and address of Purchaser)
3. Location of installation LSD: 07-27-51-19 W5M Husky Energy Inc. #707, 8th Ave. SW. Box 6525, Station D Calgary AB. T2P 3G7
(Name and address)
4. Type: Horizontal Dampener V-9023
(Horizontal, vertical or shipere) (Tank, separator, heat exch., etc.) (Mfg's serial No.)
U5406.2 PES-12H-1000 Rev. 0 N/A 2008
(CRN) (Drawing No.) (Nat'l. Bd. No.) (Year Built)

Data Report	Remarks		
Item Number			
(C2) Pressure Test	1	3/4" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) Shell
(C3) Spare	1	3/4" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) Shell
(C4a) Temp	1	1" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N1a
(C4b) Temp	1	1" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N1b
(C5a) Spare	1	3/4" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N1a
(C5b) Spare	1	3/4" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N1b
(C6a) Monitor	1	1/2" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N1a
(C6b) Monitor	1	1/2" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N1b
(C6c) Monitor	1	1/2" CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) N2
(C7a/b) Inspection	2	1.9" ID CL. 6000 TOL SA-105N	Fig. UW-16.1 (a) Shell

Certificate of Authorization: Type U No. 31,246 Expires August 20, 2008

Date	<u>July 28, 2008</u>	Name	<u>PAINT EARTH ENERGY SERVICES INC.</u> (Manufacturer)	Signed	<u>[Signature]</u>
Date	<u>July 28, 2008</u>	Name	<u>[Signature]</u> (Authorized Inspector)	Admission	<u>AB# 177A</u> (Nat'l board incl. endorsement State, Province and No.)

PAINTEARTH ENERGY SERVICES INC.

TRAVEL SHEET

DO NOT START CONSTRUCTION WITHOUT A.I. REVIEW										TRAVEL SHEET REVISION NO.: 0	
A.I. REVIEW: <i>[Signature]</i>										REVIEW DATE: <i>July 7 2008</i>	
SERIAL NO.: V-9023										JOB NO. 9023	
DRAWING NO.: V-9023										VESSEL TYPE: 12.94" X 8' 0" HORIZONTAL VESSEL - 1000 PSI 1/8" ca	
DWG. REVISION NO.: 0										TRAVEL SHEET INITIATION BY: <i>PSL</i>	
Seq.	Item	Comments	A.C.I.	Date	A.I. Hold Points	A.I.	Date	Owner	Date		
1	Calculations in File		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7-7-08</i>				
2	Release of App'd		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7-7-08</i>				
3	Dwg		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7-7-08</i>				
4	Heat Numbers		<i>PS</i>	<i>July 8/08</i>	*	<i>PS</i>	<i>7/15/08</i>				
5	Recorded		<i>PS</i>	<i>July 8/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
6	MTIs Checked		<i>PS</i>	<i>July 8/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
7	WPS(s) Checked		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
8	Welder(s) Qualified		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
9	Thicknesses		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
10	Verified & Recorded		<i>PS</i>	<i>July 4/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
11	Shell(s) & Head(s)		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
12	Fillet Inspection		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
13	Nozzle & Fittings		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
14	Fit-up Inspection		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
15	Nozzle Orientation		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
16	Nozzle & Flange		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
17	Rating Checked		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
18	Impact Tests		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
19	Internals Checked		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
20	Final Internal Inspection		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
21	Weld Size Checked		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
22	Welder I.D. Checked		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
23	Final External Inspection		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
24	Radiography		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
25	Other N.D.E.		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
26	Materials Checked		<i>PS</i>	<i>July 16/08</i>	*	<i>PS</i>	<i>7/25/08</i>				
27	Final Ext. Prior to P.W.H.T.		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
28	PWHT Chart Checked		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
29	Hydrostatic Test		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
30	1300 psi		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
31	CRN Drawing		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
32	N.C.R.#		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
33	Nameplate Stamping		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
34	Manuf. Data Report		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
35	Completed & Verified		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				
36	Nameplate Installation		<i>PS</i>	<i>July 29/08</i>	*	<i>PS</i>	<i>7/29/08</i>				

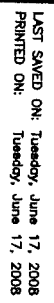
The Authorized Inspector shall be presented with the Travel Sheet prior to construction so that he can designate additional inspection points and/or Hold Points. Any revisions shall be marked with a delta symbol with revision number and described at the bottom of this page.

* Denotes an A.I. Inspection Point

** Denotes an A.I. Hold Point

33. Letter of Acceptance from Design Services

DESIGN DATA										Paintearth ENERGY SERVICES										HUSKY ENERGY									
DESIGN & FABRICATE TO: ASME CODE SECTION VIII, DIV 1, 2007 EDITION										08/07/03 DESIGNED BY PES DRAWN BY D.Phippen CHECKED BY CB OFFERED BY JF SCALE 3/4"=1'-0"										TITLE HORIZONTAL DISCHARGE DAMPENER 12.75" OD x 5'-10" S/S MAWP 1000 PSIG @ 351°F c/w 1/8" C.A. PROJECT NO. 0803-42V SHEET NO. 1 OF 1 DRAWING NO. 9003 REV. NO. A									
MAWP & TEMPERATURE: 1000 PSIG @ 351°F MIN. DESIGN METAL TEMPERATURE (MDMT): -20°F @ 1000 PSIG																													
IMPACT TESTS: HEADS/SHELLS EXEMPT PER UCS-68(c), UCS-68.1: NOZZLES FROM PIPE & WN FLANGE EXEMPT PER UC-20(f)(1-5) & UCS-68(b)(1)(b)/ TOL'S EXEMPT AS PER UCS-68(b)(3)										0 NO 1 08/23/08 AS BUILT																			
RADIOGRAPHY: LONG SEAM - SMILS NO XRAY; CIRC SEAMS - FULL PER UW-11(c)										0 NO 0 08/07/03 ISSUED FOR CONSTRUCTION DP . . .										THIS DRAWING IS THE PROPERTY OF PAINT EARTH ENERGY SERVICES. ANY UNAUTHORIZED USE OR REPRODUCTION OF THIS DESIGN OR DRAWING WITHOUT WRITTEN AUTHORIZATION IS STRICTLY PROHIBITED.									
POST WELD HEAT TREATMENT (PWHT): YES FOR 80 MIN @ 1150°F PREHEAT: 200°F										0 NO C 08/07/03 REV AS PER CUSTOMER MARK-UPS DP . . .																			
CORROSION ALLOWANCE: 1/8" MAX. CAPACITY: 5.3 cu.ft.										0 NO B 08/05/27 ADDED 1 1/2" INSPECTION CONNECTIONS AW . . .																			
HYDROSTATIC TEST PRESSURE: 1300 PSIG EMPTY WEIGHT: 1120 lbs										0 NO A 08/05/27 ISSUED FOR REGISTRATION AW . . .																			
CALC PKG REV. LEVEL										REV. CALCS REQ'D NO. DATE REVISIONS DWN DD PC QC																			



● 1:08:32 PM
● 1:08:45 PM

Date _____
by christine ballinger

Signed Blazo Dedovic
BLAZO DEDOVIC
DESIGN SUPERVISOR



DESIGN DATA

DESIGN & FABRICATE TO: ASME CODE SECTION VIII, DIV 1, 2007 EDITION

IMPACT TESTS: HEADS/SHELLS EXEMPT PER UCS-68(c) UCS-66.1; NOZZLES FROM PIPE & WN FLANGE

EXEMPT PER UC-20(f)(1-5) & UCS-66(b)(1)(b) / TOL'S EXEMPT A

HEAT TREATMENT (PWH): YES FOR 60 MIN @ 1150°F
CORROSION ALLOWANCE: 1/8"

HYDROSTATIC TEST PRESSURE: 1300 PSIG

ELEVATION
SCALE 3/4"=1'-0"
#150

SAFETY CODES ACT - PROVINCE OF ALBERTA

REG. NO. 054062

DWG. No. **PES-124-1000 Rev. 0**

MAWP	Design
KPa	Temp. °C

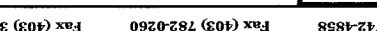
Internal pressure	689.5	-29/177
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ACCEPTED
JUN 29 2008
Signed _____

BLAZO DEDOVIC
DESIGN SURVEYOR

0	NO	A	08/06/11	ISSUED FOR
CALC PKG REV 1/REV	REV CALCS REV	NO	DATE	

RADIATION SOURCE Isotope: IR-192 Focal Spot Size 3.3mm Screens: Lead Front: .010" Back: .010"		INVOICE NUMBER 27124	
FILM CHARGES _____ X _____ X _____ X _____ X _____ X _____ X _____ X		SHEET CHARGES _____ X _____ X _____ X _____ X _____ X _____ X _____ X	
Technician:  Helper: 		Devin Haley SNT LII CGSB 48.9712 LII Reg # 11581	
Total Regular OT KM		1 1 10	

RADIOGRAPHIC INTERPRETATION REPORT  HUNT INSPECTION LTD.		WELD DEFECTS STETTLE, AB (403) 742-4858 LACOMBE, AB (403) 742-4858 BROOKS, AB (403) 742-4858 (403) 501-8029 Fax (403) 782-7862 Fax (403) 782-0260		Check if Applicable 1. Slight 2. Moderate 3. Severe	
Report#: 611261 Date: July 15/08 Page 1 of 2		Client: _____ PAINTEARTH ENERGY SERVICES INC.		Inspector: _____ Print: _____ Sign: _____	
P.O.#: _____ A.F.E.#: _____ Q.C.#: _____ Job#: V9023 Set#: _____ Contractor: _____ Items Inspected: NOZZLES Code: ASME B31.3 SEVERE					

Type of Inspection: ☒ MT ☐ PT ☐ UT

Lt. Ft. 3 CIRC. WELDS U.T. SPOTS 27125

TECHNIQUE: MT-1 Rev2
METHOD: WET (BLACK and WHITE)
LIGHTING: VISIBL (500 WATTS)
SURFACE: BARE METAL

EQUIPMENT USED

Technician: [Signature] Helper: [Signature]
Devin Haley
SNT LI
CGSB.48.9712 LII
Reg # 11581
Total Regular OT KM

WELD I.D.	SIZE	WALL THICKNESS	WELDER SYMBOL	REMARKS	ACCEPT	REJECT
MP1 2 1/2" X 5 3/8"				NO DEFECTS FOUND	✓	
MP2 6" X 5 3/8"					✓	
MP3 12" X 5 3/8"					✓	

MT, PT, UT
INTERPRETATION REPORT



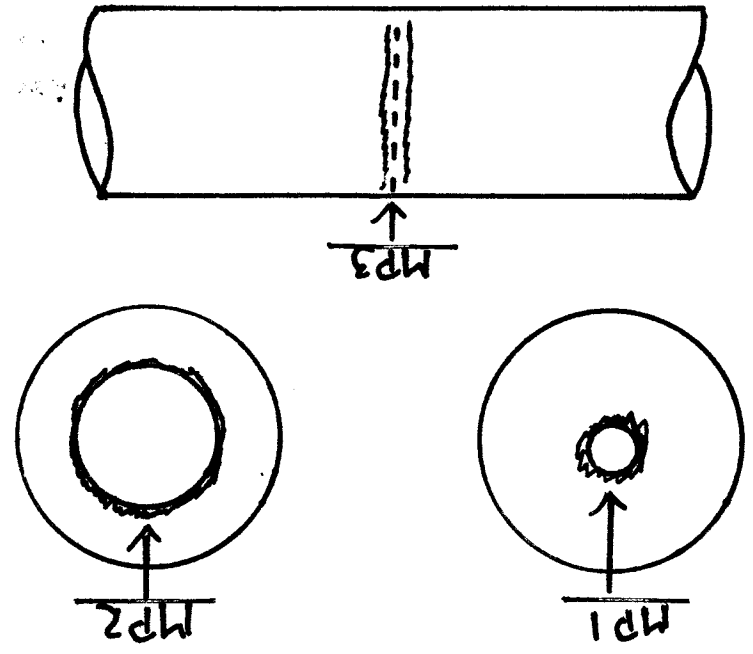
Box 248 Stettler, AB T0C 2L0
Ph: (403) 742-HUNT (4868) Fax: (403) 742-4858

Report#: 1836
Date: July 15/08 Page 2 of 2

Client: PAINTEARTH ENERGY SERVICES INC.
Inspector: [Signature]
Inspector Sign: [Signature]

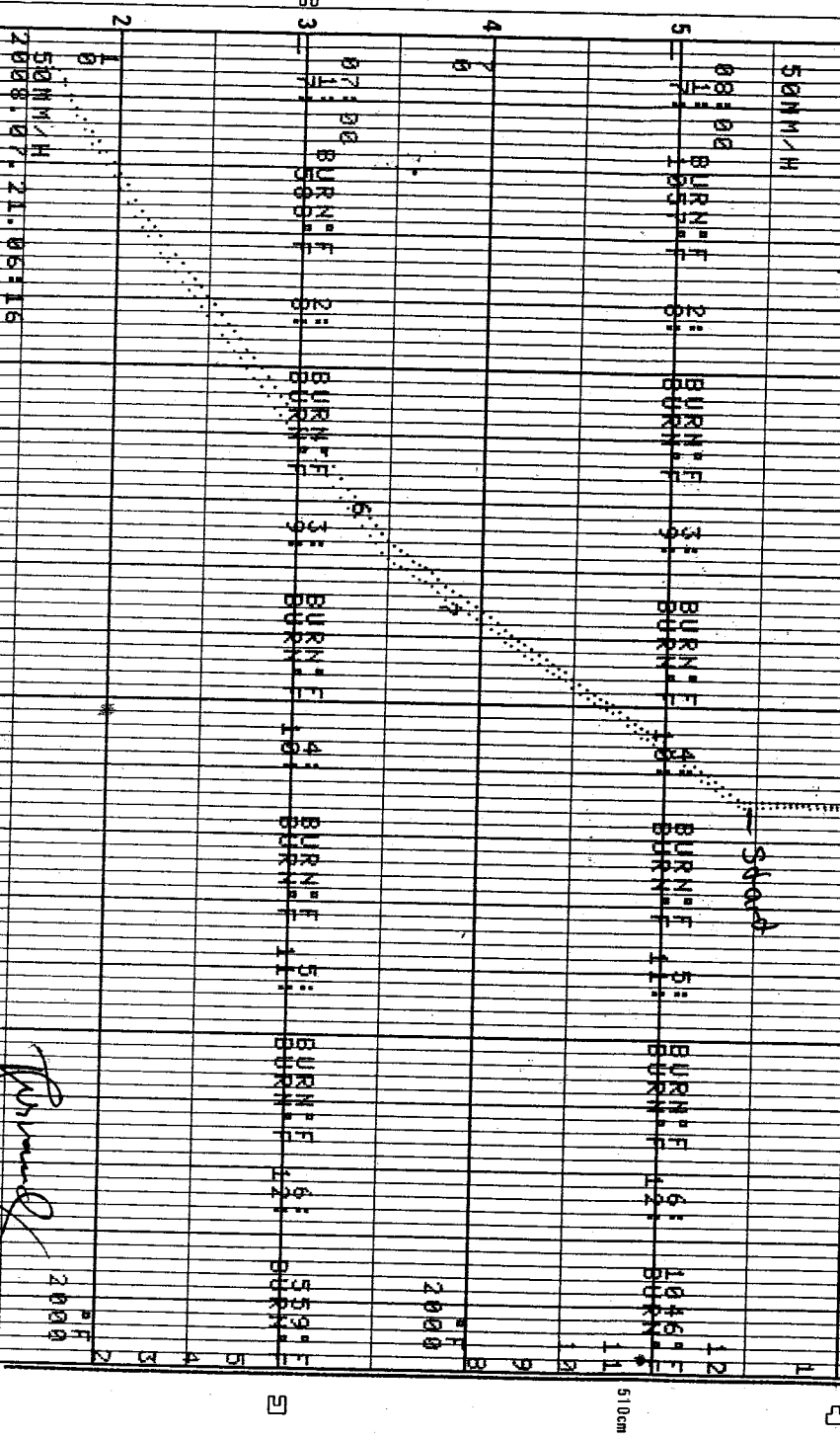
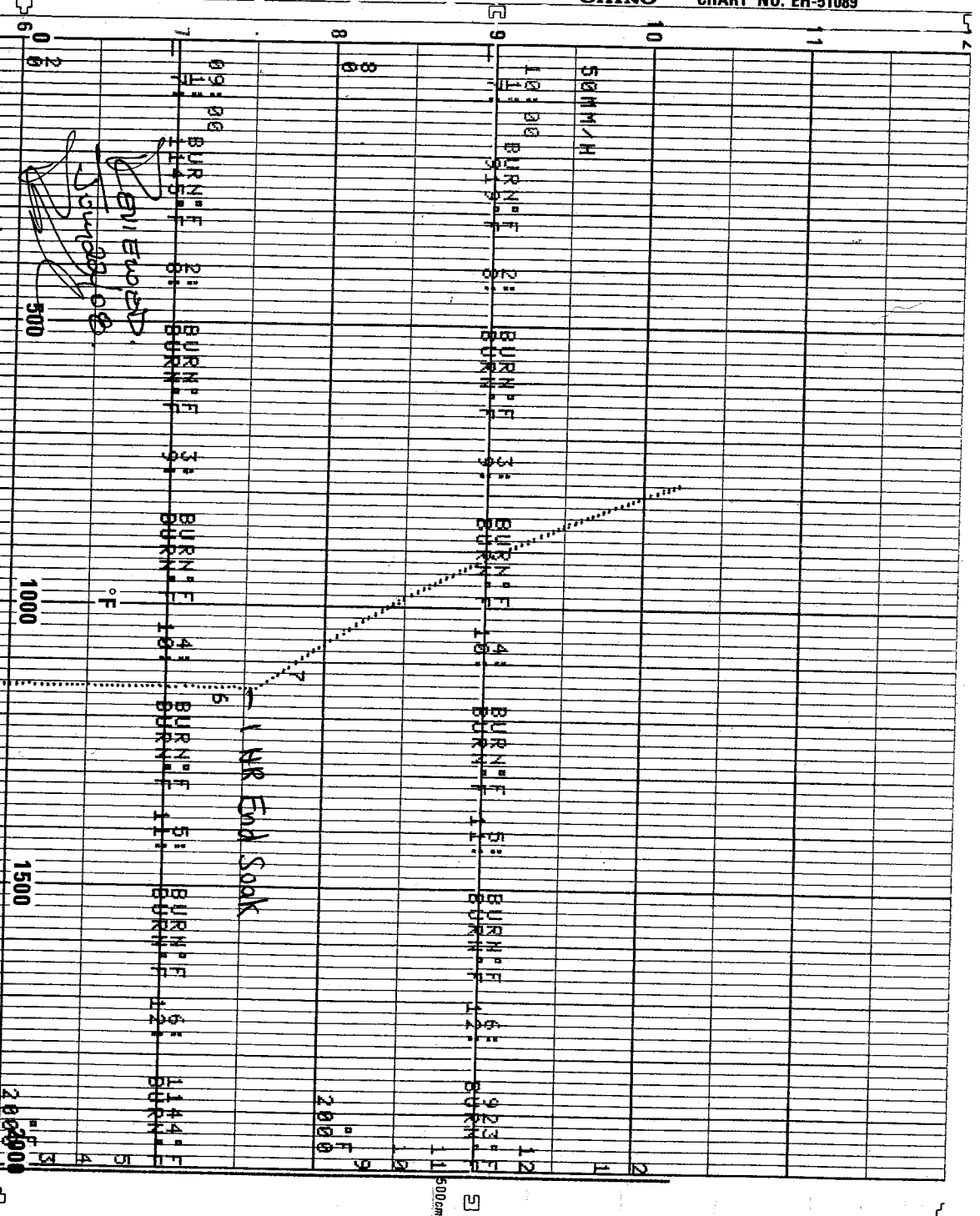
Location: PAINTEARTH FACILITIES
P.O.#: [Blank]
A.F.E.#: [Blank]
QC#: V9023
Job#: V9023
Ser.#: [Blank]
CRN#: [Blank]
① #: [Blank]
Items Inspected: 12" VESSEL
Code: ASME Section III Div 1
Spec: APPX 6

MAG PARTIAL AND INTERNAL NOISE LEVELS AND CENTER RATE



REVIEWED
JUL 18 2008
Jed

Abstract



STRESS RELIEVING SERVICE LTD.

CLIENT: PAINT & CO. ENERGY

DATE: May 21, 2008 1000 ART NO. FLD-080809

CHART SPEED 5000 P.O. #

OPERATOR: R. F. M. M. M. M.

REC. NO.	LOCATION	DESCRIPTION & COMMENTS
1	6-7	

PES-9131 Welded Pipe Spools #2-4
PES-9132 Welded Pipe Spools #1-4
V9023 12 3/4" OD x 5' 10" s/s Horizontal Vessel



R & R Stress Relieving Service Ltd.

Nisku: 2103 - 6 Street • T9E 7X8 Tel: (780) 955-7559 • Fax: (780) 955-2903 • 1-800-499-HEAT (4328)
Blackfalds: #13 Burbank Industrial Park • Tel: (403) 885-2280 • Fax: (403) 885-0177
Calgary: (403) 236-8986

CERTIFICATE OF CONFORMANCE OF RECORDING INSTRUMENTS

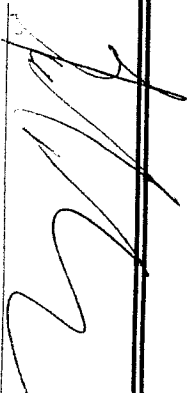
CERTIFIED BY:	<u>R & R Stress Relieving Service Ltd.</u>
TEST NUMBER:	<u>RR1002</u>
DATE:	<u>April 2, 2008</u>
DATE DUE:	<u>October 2, 2008</u>
INSTRUMENT MFG:	<u>Chino</u>
MODEL NUMBER:	<u>AH-3725 N00</u>
SERIAL NUMBER:	<u>AH-043C143</u>
RECORDER NUMBER:	<u>IR-176</u>

This instrument has been calibrated and it is within the manufacturers specifications.

REFERENCE STANDARDS

<u>DIGIMITE 311600 S/N 48430-5522</u>	<u>CERT DATE NOV 21/07</u>
<u>DIG. INDICATOR/CALIR. 028-8427113</u>	<u>CERT DATE DEC 7/07</u>

The calibration of all standards and measuring instruments used in the calibration are traceable to the National Research Council of Canada in Ottawa or to the National Bureau of Standards in Washington, D.C.


Gordon Brown



R & R Stress Relieving Service Ltd.

2103 - 6 Street * Nisku, AB * T9E 7X8

Tel: 780- 955-7559 * Fax: 780- 955-2903 * 1-800-499-HEAT(4328)

Blackfalds * #13 Burbank Industrial Park * (403) 885-2280

Calgary (403) 236-8986

FURNACE OPERATION REPORT

CHART NO:

F12-080869

DATE:

July 21, 2008

CLIENT:

Paintearth Energy Services
PO Box 24
Halkirk, AB T0C 1M0

PHONE: 403-884-2442
FAX: 403-884-2106

CLIENT NO.

15

CLIENT REF NO.

CLIENT PO NO: Not Required

Quantity	Description	Price
	PES-9131 Welded Pipe Spools #2-4	\$535.00
	PES-9132 Welded Pipe Spools #1-4	
	V9023 12 3/4" OD x 5' 10" s/s Horizontal Vessel	

Additional Hold Time

/HR

15% Fuel Surcharge

\$80.25

After Hour Charges

/HR

Other Charges

Subtotal

\$615.25

GST - 5%

\$30.76

Total

\$646.01

SPECIFICATION:

ASME SECTION VIII - DIV 1

P#

MATERIAL:

AMBIENT TO 800°F AT MODERATE RATE
FROM 800°F TO 1150°F AT 400°F/HR
SOAK 1150°F ± 25°F FOR 1 HR MINS
COOL FROM 1150°F TO 800°F AT 500°F/HR
COOL FROM 800°F TO AMB IN ENCLOSED
FURNACE

COMMENTS:

R&R Stress Relieving Service Ltd. will not be responsible for any damage or distortion caused by Heat Treatment Process.

INVOICE TO FOLLOW UNDER SEPARATE COVER. Thank you for your patronage.

PAINTEARTH ENERGY SERVICES INC.

PAINTEARTH ENERGY SERVICES INCC.

ISSUED V-9023		DATE July 28/08	
LOCATION ISSUED PAINTEARTH ENERGY SERVICES INC.			
DESIGN PRESSURE 1000 psi	TEST PRESSURE REQUIRED 1300 psi	GAUGE NO'S USED: Two (2)	
TEST HOLD TIME REQUIRED 30 Mins		ID NO: PI- 2117	RANGE: 0 - 6,000 PSI
TEST MEDIUM H ₂ O		MEDIUM TEMPERATURE REQUIRED 50°F	
PRESSURE INCREASE NOT TO EXCEED 1,000		kPa / MINUTE	
DESCRIPTION EQUIPMENT / SYSTEM			
*HYDRO ONE (1) 12 3/4 " OD X 5' 10" HORIZONTAL DAMPENER VESSEL			
SN. V-9023			
NOTES:			
1. EQUIPMENT / SYSTEM TO BE INSPECTED BY QUALITY CONTROL REPRESENTATIVE AND AUTHORIZED INSPECTOR BEFORE HYDROSTATIC TEST. 2. SEAL ALL NOZZLES USING BLANK FLANGES AND GASKETS - NO GREASE OR OTHER COMPOUNDS TO BE APPLIED TO GASKET SURFACE. 3. COUPLINGS AND WELD-O-LETS ETC. TO BE PLUGGED AND TEFLON TAPE OR WHITELEAD MIXTURE MAY BE USED FOR SEALING. 4. PROVIDE AT LEAST ONE (1) VENT OPENING AT HIGHEST POINT DURING FILLING. 5. WATER TEMPERATURES SHOULD BE AS SPECIFIED BUT NOT LESS THAN 50°F OR MORE THAN 120°F FOR ALLOY STEELS. 6. ONE PRESSURE GAUGE SHALL BE USED ON THE TEST PIECE AND ONE GAUGE ON THE PUMP. 7. TEST GAUGES SHOULD SHOW CALIBRATION DATE WITHIN 12 MONTHS OF DATE OF USE. 8. TEST PRESSURE SHOULD BE HELD AS SPECIFIED BEFORE VIEWING.			
CONTRACTOR PAINTEARTH ENERGY SERVICES INC.		OWNER	
PRINT OR TYPE NAME HERE Ken Walker		PRINT OR TYPE NAME HERE DATE	
DATE July 28/08		DATE	
WITNESSED BY D. Brown		WITNESSED BY DATE	
FIELD TEST COMPLIANCE CERTIFICATE		QUALITY ASSURANCE ENGINEER DATE July 28/08	
This is to certify the above listed equipment / system was tested as stated above and not witnessed by the Authorized Inspector			
WITNESSED BY	DATE	SIGNATURE	OF OWNER QUALITY ASSURANCE



CPW VALVE & INSTRUMENT LTD.

MANUFACTURER OF

CPW HYDRO-POISE OIL FILLED PRESSURE GAUGES

#100, 7503 Girard Road • Edmonton Alberta • T6B 2H2

PH: 780-451-6888 FAX: 780-451-6878



DEADWEIGHT CERTIFICATION REPORT

CUSTOMER NAME: Paintearth Energy Services Inc.

PO ORDER # 18155

AMBIENT TEMPERATURE: 21C

SERIAL # PI/2117

MODEL: 901

MANUFACTURER: CPW

TESTING DEVICE: Deadweight

DIAL SIZE: 4 1/2"

TEST MEDIUM: Oil

PRESSURE RANGE: 6000 psi/40000 kPa MAXIMUM ERROR: 20 psi

SUB DIVISIONS: 100 psi DATE: February 29, 2008

CONNECTION: 1/2" LOCATION TESTED: #100, 7503 Girard Rd.

INSPECTOR: Scott Culver

EDMONTON, ALBERTA

T6B 2H2

Deadweight Tester: Ashcroft Model 1305B Serial Number GN 118

The Ashcroft Deadweight Tester was calibrated against a Chandler Model 23-145, S/N 21270 Deadweight Tester traceable through Institute for National Measurement Standards (I.N.M.S.) Ottawa, Canada, Report Number MS-214-A

<u>READING</u>	<u>DEADWEIGHT</u>	<u>GAUGE READING</u>
<u>NO.</u>	<u>psi</u>	<u>psi</u>
1	1000	1000
2	2000	2000
3	3000	3000
4	4000	4000
5	5000	5000
6	6000	6020



CPW VALVE & INSTRUMENT LTD.

MANUFACTURER OF

CPW HYDRO-POISE OIL FILLED PRESSURE GAUGES

#100, 7503 Girard Road • Edmonton Alberta • T6B 2H2

PH: 780-451-6888 FAX: 780-451-6878



DEADWEIGHT CERTIFICATION REPORT

CUSTOMER NAME: Paintearth Energy Services Inc.

PO ORDER # 18155

AMBIENT TEMPERATURE: 21C

SERIAL # PL-716

MODEL: 901

MANUFACTURER: CPW

TESTING DEVICE: Deadweight

DIAL SIZE: 4 1/2"

TEST MEDIUM: Oil

PRESSURE RANGE: 6000 psi/40000 kPa MAXIMUM ERROR: 20 psi

SUB DIVISIONS: 100 psi DATE: February 29, 2008

CONNECTION: 1/2" LOCATION TESTED: #100, 7503 Girard Rd.

INSPECTOR: Scott Culver

EDMONTON, ALBERTA

T6B 2H2

Deadweight Tester: Ashcroft Model 1305B Serial Number GN 118

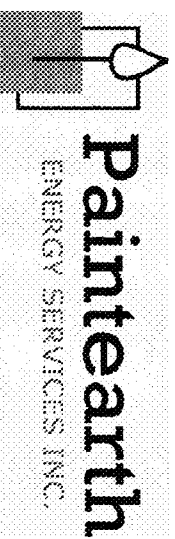
The Ashcroft Deadweight Tester was calibrated against a Chandler Model 23-145, S/N 21270 Deadweight Tester traceable through Institute for National Measurement Standards (I.N.M.S.) Ottawa, Canada, Report Number MS-214-A

<u>READING</u>	<u>DEADWEIGHT</u>	<u>GAUGE READING</u>
<u>NO.</u>	<u>psi</u>	<u>psi</u>
1	1000	1000
2	2000	2000
3	3000	3000
4	4000	4000
5	5000	5000
6	6000	6020

NAMEPLATE FACSIMILIE

CERTIFIED BY

U
W
RT1
HT



YEAR BLT. 2008

SERIAL No. V-9023

VESSEL TYPE 12 3/4" OD X 5' 10" HORIZONTAL VESSEL

M.A.W.P. 1000 PSI AT 351 °F

M.D.M.T. -20 °F AT 1000 PSI

SHELL TK. 0.688 IN HEAD TK. 0.602 IN

CRN U 5406.2 C.A. 0.125 IN

A#: 548157

Mailing Address: Box 24, Halkirk, Alberta, Canada, T0C 1M0

RT1
HT



Paintco
ENERGY SERVICES INC.

CERTIFIED BY

YEAR 2008

SERIAL NO. AU-9023

VESSEL TYPE 123/40DX510 HORIZONTAL VESSEL

WEIGHT 1000

PSI

AT 351

PSI

WEIGHT -20

PSI

AT 1000

PSI

WEIGHT 0.688

IN

HEAD

0.602

IN

ORN US406.2

IN

C.A.

0.125

IN

A 548157

MAILING ADDRESS: BOX 24 HALKIRK ALBERTA CANADA T0C 1M0

WELD ID	SYMBOL	TACKS	FIT UP	WELD ID	SYMBOL	TACKS	FIT UP	WELD ID	SYMBOL	TACKS	FIT UP	WELD ID	SYMBOL	TACKS	FIT UP	WELD ID	SYMBOL	TACKS	FIT UP	WELD ID	SYMBOL	TACKS	FIT UP				
W1	B			W10				W19				W28	B			W37				W46				W55			
W2	B			W11				W20				W29				W38				W47				W56			
W3				W12				W21				W30				W39				W48				W57			
W4	B			W13				W22				W31				W40				W49				W58			
W5				W14				W23				W32				W41				W50				W59			
W6				W15				W24				W33				W42				W51				W60			
W7				W16				W25				W34				W43				W52				W61			
W8				W17				W26				W35				W44				W53				W62			
W9				W18				W27				W36				W45				W54				W63			



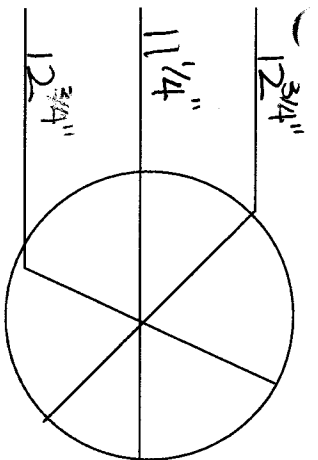
DESIGN DATA

[illegible][illegible]

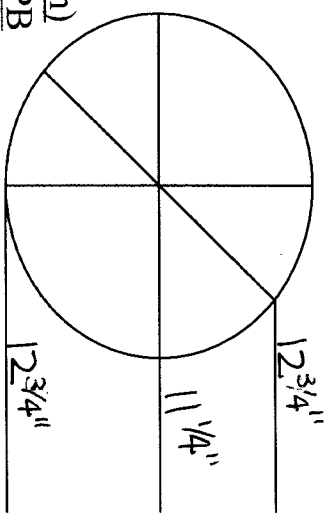
1. QUALITY CONTROL PROGRAM NO. AQP-1342.
2. WELDING PROCEDURE REGISTRATION NO. WPS-1684.2.
3. WELDING PROCEDURE SPECIFICATION NO. REGISTERED WITH ABSA.
4. SERVICE: CORROSIVE HYDROCARBONS.
5. CAPACITY: 5.3 CUBIC FEET.
6. DESIGN REGISTERED TO PAINTEARTH ENERGY SERVICES.
7. SURFACE PREP: HANDTOOL CLEAN.
8. PRIME: AS PER CLIENT SPECIFICATIONS
9. PAINT: AS PER CLIENT SPECIFICATIONS
10. FS = FAR SIDE (OPPOSITE SIDE)
11. FLANGE OR FITTING RATINGS AND PIPE SCHEDULE AS LISTED IN BOM MAY BE INCREASED TO HIGHER RATINGS.
12. WPS: PESI-1sr & PESI-8sr
13. ONLY 2:1 SEMI-ELLIPSOIDAL HEADS TO BE USED IN THIS DESIGN, NO OTHER HEAD TYPES HAVE BEEN CONSIDERED.
14. ALL BOLT HOLES TO STRADDLE NATURAL CENTERLINES.
15. SA-36 MAT'L MAY BE UPGRADED TO SA-516-70N ~~OR SA-516-70N~~ (SA-516-70N MAT'L TO BE 'FINE GRAIN PRACTICE').
16. REF. DWG: PES-12H-1000

 Paintearth ENERGY SERVICES	DATE 08/07/07	CLIENT HUSKY ENERGY		
	DESIGNED BY PES	TITLE HORIZONTAL DISCHARGE DAMPENER		
	DRAWN BY D.Phippen	12.75" OD x 5'-10" S/S		
	CHECKED BY 	MAWP 1000 PSig @ 351°F c/w 1/8" C.A.		
THIS DRAWING IS THE PROPERTY OF PAINTEARTH ENERGY SERVICES. ANY UNAUTHORIZED USE OR REPRODUCTION OF THIS DESIGN OR DRAWING WITHOUT WRITTEN AUTHORIZATION IS STRICTLY PROHIBITED.	APPROVED BY 	PROJECT NO. 9023V	FILENAME 9023	DRAW NO. U-5406.2
	SCALE 3/4"=1'-0"	SHEET NO. 1 OF 1	DIBSED NO. V - 9023QC	REA. NO. 

EXHIBIT 7.3 MATERIAL CONTROL REPORT **JOB #V-9023 12 3/4"OD X 8'0" S/S HORIZONTAL DAMPENER** **1000 psig 1/8" C.A.**

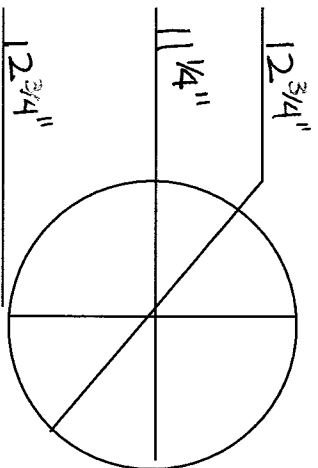


Heads
12 3/4" OD 3/4" NOM.(0.602"min)
2:1 S.E. c/w 2" S.F. SA-234-WPB

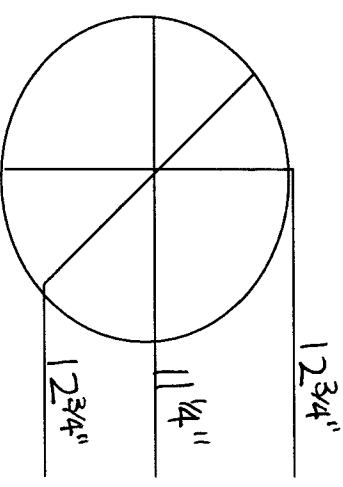


Heat# 08B30008 min: 0.106"

Heat# 08B30008 min: 0.106"



Shell
12 3/4" Sch. 80 (0.688") x 8'0"
Long
SA 106 B



Min: 0.183" Heat # BJZ Min: 0.183"

3	Flange 6" XXH CL 600 RFWN. SA 105N HT# 66A71, 158A71	
2	Pipe 6" XXH (0.688" wall) 10 7/8" long. SA 106B HT#	48352
1	Pipe 6" XXH (0.688" wall) 5 5/8" long. SA-106B HT#	48352
1	Flange 2 1/2" XXH CL 600 RFWN SA-105N HT#	1202086
1	Pipe 2 1/2" XXH (0.552" wall) 2 1/4" long. SA 106B HT#	BPD
1	Plate 6" x 2" x 3/8" thk SA 36 HT#	472747
1	Elbow 2 1/2" XXH 90 LR SA 234-WPB HT#	434557
1	Nameplate Backing 6" x 6" x 3/16" SA 36 HT#	BDJ
2	TOL 1" CL 6000 SA 105N HT#	57195
2	TOL 3/4" CL 6000 SA 105N HT#	57432
4	TOL 3/4" CL 6000 SA 105N HT#	57150
3	TOL 1/2" CL 6000 SA 105N HT#	55769
2	TOL 1 1/2" CL 6000 SA-105N HT#	55829
1	Plate 11 3/8" OD x 3/8" thk. SA-36 HT#	AAW

PO# 52265



Thai Benkan Co., Ltd.
58 Soi Watkrumai, Bangkru, Prapadaeng,
Samutprakarn, 10130 Thailand.

INSPECTION CERTIFICATE

TO EN10204 3.1

D M Y Certificate No.
05/03/2008 T- 2008200207

Purchaser: CCTF CORPORATION

E-No. Purchase Order No. Job No.
MB-204 4881838

No.	MFG. No. (Heat Identification No.)	Specification for Material Made from Seamless Pipe ASTM A234-08/ASME SA234-04 Gr. WPB CSA Z245.11 GR241 CAT I NACE MR0175-2003	Specification for Inspection ASME B16.9-2003	Visual Examination	Dimensional Inspection
		Product & Size (T:*1)	Quantity	Heat Treatment (Note 1)	Item No
1	07P30012	C WPB 1 1/2 S80	5/25	*N	7515723
2	08B30015	C WPB 10 S80	10	*N	7519312
3	08B30008	C WPB 12 S80	5	*N	7510533
4					
5					

Specification	Chemical Composition %												Tension Test *2			HARDNESS MAX
	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	C.E.	YS	TS	E	
Min.	x 100	x 100	x 100	x 1000	x 1000	x 100	x 100	x 100	x 100	x 1000	x 1000	x 100	MPa.		%	197 HB : GOOD
Max.		10	29										240	415	30	
Material Heat No.	23		106	50	58	40	40	40	15	80	20			855		
1 4662	15	21.3	79.7	9	8	1.4	1.3	1.8	0.5	1	<0	28	301	456	43	
2 4707	17.5	28	84.7	14	8	2	1.6	2.5	0.7	2	0	32	295	458	49	
3 126	15.4	25.2	95.2	13	4	1.3	0.8	2.2	0.8	1	<0	30	293	454	54	
4																
5																

ASME STAMP
ED. 2007 ADD.
M/G DATE 11/17/08

(Note 1) A : Hot formed with final temperature between 620 °C-980°C, Air Cooling N : Normalizing 910°Cx0.5 HR. Air Cooling *N : Normalizing 910°Cx0.5 HR. Air Cooling (Specification for material made from plate) Stress Relieving 675° Cx0.5 HR. Air Cooling

THE RESULTS OF THE TESTS AND INSPECTIONS MEET THE REQUIREMENTS.
MAGNETIC PARTICLE EXAMINATION FOR TEE ONLY :
C.E. = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15
We hereby certify that the product described herein has been manufactured in accordance with the specifications concerned
We hereby certify that the test results shown herein are correct.

Quality Assurance Manager
Thai Benkan Co., Ltd.

12" S/80 Pipe

12" SCH.80 PIPE
BJZ
0.783"

PO#52265

0231182

重庆新地公司代江明长江钢管
CONTRACT NO: 200500001806 (01 05121535)
CL. TRACT NO:
产品名称: 高强度作业用螺旋埋弧焊钢管
DESCRIPTION: ASTM A106-1999 MODIFIED
STANDARD:



产 品 证 明 书
MATERIAL CERTIFICATE
江 明 有 限 公 司
JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.
地址: 中国 四川 成都
ADDRESS: CHENGDU SICHUAN CHINA
电话: 028-84503981 传真: 028-84503981 邮编: 610069
TEL: FAX: P.C.BOX:

证书号: 0508211288
CERTIFICATE NO:
站名: 重庆中坝(大渡口)
STATION OF ORIGIN:
站号: 0071875
TRAN NO:
合计: 1 根 11.550 1.825
TOTAL: PIECES METERS TONS

No	包号 PACKAGE No	钢号 (牌) STEEL GRADE	炉号 HEAT No	批号 BATCH No	规格 (mm) SIZE			数量 QUANTITY			熔炼方式 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDRAULIC TEST PRESSURE (MPa)	无损检测 NOT	屈服试验 FLATTENING TEST	扩口试验 ORIFT EXPANDING TEST	冷弯试验 COLD BEND TEST	拉伸试验 TENSILE TEST	冲击试验 IMPACT TEST	表面尺寸 SURFACE & DIMENSION
					外径 O.D	壁厚 W.T	长度 LENGTH	重量 PIECES	米数 METERS	吨数 TONS	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
1	2305066014	B	0581722	Y2350660478	323.8	17.48	3000-19008	1	11.550	1.825	电炉	热轧	16		合格					合格
2																				
3																				
4																				
5																				
6																				
7																				
8																				

No	试样编号 SAMPLE	化 学 成 份 CHEMICAL COMPOSITION (%)											力学性能 MECHANICAL PROPERTIES ① 屈服			金相检验 MICROSCOPIC EXAMINATION ②
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	延伸率 ELONGATION (%)	
1	Y2350660478A/B	.19	.23	.45	.019	.015	.04	.04	.01	.07	.01		310/310	445/465	33/38	
2																
3																
4																
5																
6																
7																
8																

ASME STAMP
ED. 2001 ADD. 1
DATE 04/2/05

备注: 1. 理论重量交货。 TO BE DELIVERED IN THEORETICAL WEIGHT.
REMARKS: 2. 证明本产品按标准检验合格并符合供货标准。
THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED
AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER.
QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.
3. 质量证明书是验收依据, 复印件仅供参考, 不作为验收凭证。
THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE
THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
4. 熔炼方法 MELTING METHOD: 电炉-BOP, 电炉-EAF, 电炉+VD-EAF+VD
5. 交货状态 CONDITION OF SUPPLY: 热轧-Q-T, 热轧-NR, 热轧-NR, 热轧-Q, 热轧-T, 正火-N, 正火-A
6. 无损检测方法: 超声波-UT, 射线检测-LMT, 磁粉检测-MT
7. 取样方向 ORIENTATION OF SPECIMEN: 纵向-LON, 横向-TRA
8. 合格-QUOD

检查员: 张明 发货员: 张明
INSPECTOR: 张明 CONSIGNOR: 张明
制证时间: 2005 年 06 月 27 日
FILING FORM DATE YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD

0231034

合同号: 重庆新港公司代江新长江钢管
CONTRACT NO.: 200600001908 (01 05121520)
产品名称: 高强度用热轧带肋无缝钢管
DESCRIPTION: ASTM A106-1998 MODIFIED
标准: STANDARD



产品合格证
MILITARY CERTIFICATE
攀钢集团成都钢铁有限责任公司
PANGANG GROUP CHENGDU IRON & STEEL CO., LTD.

地址: 中国 四川 成都
ADDRESS: CHENGDU SICHUAN CHINA

电话: 028-84589881
TEL: 028-84589881

邮编: 610069
P.C. BOX:

证书号: 050821106
CERTIFICATE NO.:
站址: 重庆中港(大渡口)
STATION OF DESTINATION:
车号: 4004355
TRAIN NO.:
合计: 4 根 44.500 米 8.870 吨
TOTAL: PIECES METERS TONS

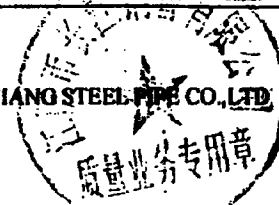
No	包号 PACKAGE No	钢号 (组) STEEL GRADE	炉号 HEAT No	批号 BATCH No	规格 (mm) SIZE			数量 QUANTITY			熔炼方法 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDROSTATIC TEST PRESSURE MPa	无损检测 NDT	压扁试验 FLATTENING TEST	扩口试验 DRIFT EXPANDING TEST	卷边试验 FLAMING TEST	环拉试验 RING TENSILE TEST	可扩试验 RING EXPANDING TEST	表面尺寸 SURFACE & DIMENSION
					外径 O.D	壁厚 W.T	长度 LENGTH	根数 PIECES	米数 METERS	重量 TONS										
1	23050605990	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.200	1.479	电炉	热轧	16		合格					合格
2	23050606007	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.350	1.489	电炉	热轧	16		合格					合格
3	23050606008	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.400	1.505	电炉	热轧	16		合格					合格
4	23050606011	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.550	1.393	电炉	热轧	16		合格					合格
5																				
6																				
7																				
8																				

No	试样编号 SAMPLE No	化 学 成 份 CHEMICAL COMPOSITION %											力学性能 MECHANICAL PROPERTIES ① 屈服			金相组织 METALLOGRAPHIC EXAMINATION ②
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD MPa	抗拉强度 TENSILE MPa	伸长率 ELONGATION %	
1	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	485/485	33/38	
2	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	485/485	33/38	
3	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	485/485	33/38	
4	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	485/485	33/38	
5																
6																
7																
8																

注: 1. 以理论重量交货。 TO BE DELIVERED IN THEORETICAL WEIGHT.
REMARK: 2. 本证书下产品经检验合格并符合标准规定。
THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER, QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.
3. 该证书不作为验收依据, 复印件仅供参考, 不作为验收凭证。
THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
4. 熔炼方法: MELTING METHOD: 电炉—EAF 电炉—EAF 电炉—ESR 电炉—VD—EAF—VD
5. 交货状态: CONDITION OF SUPPLY: 热轧—Q+T 热轧—TR 热轧—HE 热轧—Q 热轧—T 热轧—H 热轧—A
6. 无损检测方法: NDT: 超声—UT 磁粉—MT 磁粉—MT
7. 取样方向: ORIENTATION OF SPECIMEN: 纵向—LON. 横向—TRA
8. 合格—GOOD.

检验员: 王强 发货员: 王强
INSPECTOR: 王强 CONSIGNOR: 王强
发货日期: 2006年08月28日
DELIVERY DATE: YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.



重庆新地公司代江铜长江销售
 CONTRACT NO. 200600001908 (DI 06121529)
 CONTRACT 高铝作业用聚氧乙烯软管
 DESCRIPTION: ASTM A106-1998 MODIFIED
 标准/标准:



产 品 质 量 证 明 书

MILL CERTIFICATE
 攀钢集团成都钢铁有限责任公司
 PANGANG GROUP CHENGDU IRON & STEEL CO., LTD.

地址: 中国 四川 成都
ADDRESS: CHENGDU SICHUAN CHINA

TEL: 3610-5033-8497332

TEL: 028-8450398 FAX: 8450399
E-MAIL: china@china.com.cn 郵箱: 610069
PC.BOX:

提單號碼: 0508211142
 CERTIFICATE NO.:
 目的地: 富錦專線(大渡口)
 STATION OF DESTINATION: 蘇州
 車號:
 TRAIN NO.:
 合計: 3 車 32.500 噸 4.391 噸
 TOTAL: THREE MIXERS TONS

[illegible][illegible]

REMARK: 1. 根據總量交貨, TO BE DELIVERED IN THEORETICAL WEIGHT.
2. 該項產品必須經供貨商檢驗合格並經檢驗符合供貨標準規定。
THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED
AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER,
QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.
3. 該項產品附帶性能檢驗單, 單中提供參考, 不得作為收貨証。
THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE
THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
4. 結算方式 LABELING METHOD: 電匯—EAF 電匯—EAF
5. 裝妥後之裝配 CONDITION OF SUPPLY: 裝機—Q+T 裝機—Q+T 裝機—HIE
6. 設備組合 UNIT: 爐前會合—UT 爐前會合—LMT
7. 取樣方向 ORIENTATION OF SPECIMEN: 爐內—LON 爐內—TRA
8. ①會合—GOOD

检查员: K N 发货员: 2006 制单时间: 2006 年 06 月 26 日
 INSPECTOR CONSIGNOR FILLING FORM DATE YEAR MONTH DAY

Seller : JIANGYIN CITY CHANGJIANG STEEL PIPE CO.,LTD

0232602

重庆新地公司代江市长江钢管
 CONTRACT NO: 200800001806 (01 05121535)
 CONTRACT NO: 200800001806 (01 05121535)
 产品名称: 高强度工业用碳素结构钢
 DESCRIPTION: ASTM A106-1990 MODIFIED
 标准标准: ASTM A106-1990 MODIFIED
 STANDARD:



产品合格证
 MILLS CERTIFICATE
 攀钢集团重庆钢铁有限公司
 PANGANG GROUP CHONGQING IRON & STEEL CO., LTD.

地址: 中国 四川 成都
 ADDRESS: CHENGDU SICHUAN CHINA
 电话: 028-84503551 传真: 028-84503551 邮编: 610009
 TEL: FAX: P.C.BOX:

证书编号: 0508211454
 CERTIFICATE NO:
 站址: 重庆钢铁(大渡口)
 STATION OF DESTINATION:
 车号: 050821
 TRAIN NO:
 合计: 6 件 65.000 吨
 TOTAL: 6 PIECES 65.000 TONS

No	包号 PACKAGE No	钢号 (组) STEEL GRADE	炉罐号 HEAT No	批号 BATCH No	规格 (mm) SIZE			重量 QUANTITY			熔炼方法 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDRO-STATIC TEST PRESSURE (MPa)	无损检测 NOT	压扁试验 FLATTENING TEST	扩口试验 DRIFT EXPANDING TEST	冷弯试验 COLD BEND TEST	冲击试验 IMPACT TEST	表面及尺寸 SURFACE & DIMENSION
					外径 O.D	壁厚 W.T	长度 LENGTH	根数 PIECES	米数 METERS	重量 TONS									
1	230506032	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.200	1.479	电炉	热轧	16		合格				合格
2	230506034	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.000	1.452	电炉	热轧	16		合格				合格
3	230506035	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.100	1.466	电炉	热轧	16		合格				合格
4	230506036	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.550	1.393	电炉	热轧	16		合格				合格
5	230506037	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.300	1.492	电炉	热轧	16		合格				合格
6	230506038	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.750	1.419	电炉	热轧	16		合格				合格
7																			
8																			

No	试样编号 SAMPLE No	化 学 成 份 CHEMICAL COMPOSITION, %											力学性能 MECHANICAL PROPERTIES ② MPa			金相组织 METALLOGRAPHIC EXAMINATION ③
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	延伸率 ELONGATION (%)	
1	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/350	465/495	33/38	
2	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/350	465/495	33/38	
3	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/350	465/495	33/38	
4	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/350	465/495	33/38	
5	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/350	465/495	33/38	
6	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/350	465/495	33/38	
7																
8																

备注: 1. 按理论重量交付。 TO BE DELIVERED IN THEORETICAL WEIGHT.
 REMARK: 2. 质量证明书不作为产品合格证的替代品。 THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED

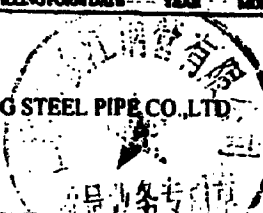
AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER,
 QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.

3. 质量证明书不作为验收依据, 且仅作参考。 THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE
 THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.

4. 熔炼方法 MELTING METHOD: 电炉—BF 电炉—EAF 电炉—ESR 电炉—VD—EAF+VD
 5. 交货状态 CONDITION OF SUPPLY: 热轧—Q+T 热轧—HR 热轧—Q 热轧—T 热轧—N 热轧—A
 6. 无损检测 NOT: 超声检测—UT 射线检测—RT 磁粉检测—MT
 7. 取样方向 ORIENTATION OF SPECIMEN: 纵向—LONG 横向—TRA
 8. 金相组织—GOOD

检查: 5/11 发货: 8/2/08 日期: 2008 年 08 月 30 日
 INSPECTOR: CONSIGNOR: FILLING FORM DATE: YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.



0231173

收货单位: 重庆新港公司代江陵长江钢管
 合同号: 200500081006 (M 05121536)
 CONTRACT NO.
 产品名称: 高压作业用螺旋埋弧焊钢管
 DESCRIPTION:
 标准标准: ASTM A106-1998 MODIFIED
 STANDARD:

地址: 中国 四川 成都
 ADDRESS: CHENGDU SICHUAN CHINA

质量证明书
 MILL CERTIFICATE
 攀钢集团成都钢铁有限责任公司
 PANGLUO GROUP CHENGDU IRON & STEEL CO., LTD.
 电话: 028-84407053 传真: 028-84407411 邮编: 610009
 TEL: FAX: P.C.BOX:

证书号: 0500211207
 CERTIFICATE NO.
 规格: 高压中口径大口径
 SPECIFICATION OF DESTINATION:
 本号: 4071076
 重量: 3 根 32.500 4.200
 合计: 32.500 4.200
 TOTAL: 32.500 4.200
 单位: 根 重量 重量
 UNIT: PCS METERS TONS

ADDRESS: CHENGDU SICHUAN CHINA TEL: FAX: P.C.BOX:										TOTAL:		PIECES METERS TONS								
No	编号 PACKAGE No	钢号 (通) STEEL GRADE	炉号 HEAT No	批号 BATCH No	规格 (mm) SIZE			重量 QUANTITY			熔炼方式 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYD. STATIC TEST PRESSURE MPa	无损检测 NDT	压扁试验 FLATTENING TEST	扩口试验 DRIFT EXPANDING TEST	卷边试验 FLANGING TEST	环拉试验 RING TENSILE TEST	冲击试验 IMP. EXPANDING TEST	表面尺寸 SURFACE DIMENSION
					外径 O.D	壁厚 WT	长度 LENGTH	根数 PIECES	卷重 METERS	重量 TONS										
1	230506012	B	0581722	Y235060478	323.8	17.48	3000-13000	1	10.650	1.406	电炉	热轧	16		合格					合格
2	230506013	B	0581722	Y235060478	323.8	17.48	3000-13000	1	10.650	1.406	电炉	热轧	16		合格					合格
3	230506019	B	0581722	Y235060478	323.8	17.48	3000-13000	1	11.200	1.479	电炉	热轧	16		合格					合格
4																				
5																				
6																				
7																				
8																				

No	试样编号 SAMPLE NO	化 学 成 份 CHEMICAL COMPOSITION (%)											力学性能 MECHANICAL PROPERTIES ④ 续前			金相组织 METALLOGRAPHIC EXAMINATION ⑤
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	延伸率 ELONGATION (%)	
1	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	33/30	
2	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	33/30	
3	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	33/30	
4																
5																
6																
7																
8																

备注: 1. 理论重量交货。 TO BE DELIVERED IN THEORETICAL WEIGHT.

REMARK: 2. 经证实本产品符合标准并符合合同规定的交货条件。

THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED

AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER.

QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.

3. 质量证明书是质量合格的证明, 复印件仅供参考, 不作为验收凭证。

THE QUALITY CERTIFICATE IS THE EVIDENCE OF ACCEPTANCE WHILE

THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.

4. 熔炼方法: 电炉—EAF 电炉—EAF 电炉—EAF 电炉—EAF

5. 交货状态: 交货—Q+T 热轧—HR 热轧—HR 热轧—HR 热轧—HR

6. 交货状态: 交货—Q+T 热轧—HR 热轧—HR 热轧—HR 热轧—HR

7. 交货方向: 交货—Q+T 热轧—HR 热轧—HR 热轧—HR 热轧—HR

8. 交货方向: 交货—Q+T 热轧—HR 热轧—HR 热轧—HR 热轧—HR

9. 交货方向: 交货—Q+T 热轧—HR 热轧—HR 热轧—HR 热轧—HR

10. 交货方向: 交货—Q+T 热轧—HR 热轧—HR 热轧—HR 热轧—HR

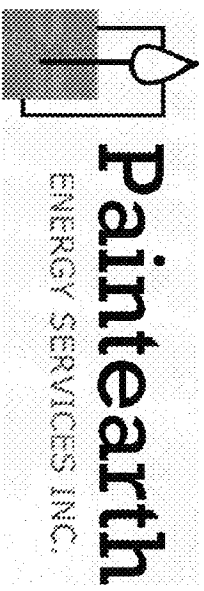
检查员: 发货员: 日期: 2005 年 06 月 27 日
 INSPECTOR: CONSIGNOR: FILLING FORM DATE YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD

NAMEPLATE FACSIMILIE

CERTIFIED BY

U
W
RT2



YEAR BLT. 2008

SERIAL No. V-8774

VESSEL TYPE 24" OD X 8' 0" S/S VERTICAL SEPARATOR

M.A.W.P. 1480 PSI AT 100 °F

M.D.M.T. -20 °F AT 1480 PSI

SHELL TK. 1.00 IN HEAD TK. 1.04 IN

CRN R 6694.213 C.A. 0.125 IN

A#: 577377

Job #

Mailing Address: Box 24, Halkirk, Alberta, Canada, T0C 1M0

12" S/80 Pipe

PO#52265

12" SCH.80 PIPE
BJZ
0.783"

0231182

收货单位: 重庆新港公司代江明长江钢管
CONSIGNEE:
合同号: 200500001906 (01 05121535)
CL. TRACT NO.
产品名称: 高强度作业用碳素钢无缝钢管
DESCRIPTION: ASTM A106-1999 MODIFIED
公称标准:
STANDARD:



产 品 质 量 证 明 书
MILL CERTIFICATE
江 明 城 市 江 明 有 限 公 司
JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.
地址: 中国 四川 成都
ADDRESS: CHENGDU SICHUAN CHINA
电话: 028-84503981
传真: 028-84503981
邮编: 610069
P.C.BOX:

证书号: 0508211206
CERTIFICATE NO.:
规格: 12" SCH.80 (大口径)
STATION OF DESTINATION:
本号: 0071875
TRAN NO.:
合计: 1 根 11.650 1.825
TOTAL: PIECES METERS TONS

No	包号 PACKAGE No	钢号 (组) STEEL GRADE	炉号 HEAT No	批号 BATCH No	规格 (mm) SIZE			数量 QUANTITY			熔炼方式 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDRAULIC TEST PRESSURE (MPa)	无损检测 NOT	屈服试验 FLATTENING TEST	扩口试验 EXPANDING TEST	冷弯试验 FLANGING TEST	冲击试验 IMPACT TEST	扩口试验 EXPANDING TEST	表面尺寸 SURFACE & DIMENSION
					外径 O.D	壁厚 W.T	长度 LENGTH	重量 PIECES	米数 METERS	重量 TONS										
1	230506014	B	0581723	Y235060478	323.8	17.48	3000-13000	1	11.650	1.825	电炉	热轧	16		合格					合格
2																				
3																				
4																				
5																				
6																				
7																				
8																				

化 学 成 份												力学性能 MECHANICAL PROPERTIES ② 表内			金相组织 METALLOGRAPHIC EXAMINATION ③	
试样编号 SAMPLE No.		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	延伸率 ELONGATION (%)	
1	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	485/485	35/38	
2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
3																
4																
5																
6																
7																
8																

ASME STAMP

ED. 2001 ADD. _____

DATE 10/4/03

2

ASME STAMP
ED. 2001 ADD. 1
DATE 11/24/03

备注: 1. 按理论重量交货。 TO BE DELIVERED IN THEORETICAL WEIGHT.
P.E.N.O.P.S.: 2. 本证明书须经供需双方签字盖章方有效。
THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER.
3. 质量证明书须与实物相符, 复印件仅供参考, 不作为验收凭证。
THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
4. 熔炼方法: 电炉-BOF, 电炉-EAF, 电炉+VD-EAF+VD
5. 交货状态: 热轧-DR, 冷轧-2R, 冷轧-3R, 冷轧-4R, 冷轧-5R, 冷轧-6R, 冷轧-7R, 冷轧-8R, 冷轧-9R, 冷轧-10R, 冷轧-11R, 冷轧-12R, 冷轧-13R, 冷轧-14R, 冷轧-15R, 冷轧-16R, 冷轧-17R, 冷轧-18R, 冷轧-19R, 冷轧-20R, 冷轧-21R, 冷轧-22R, 冷轧-23R, 冷轧-24R, 冷轧-25R, 冷轧-26R, 冷轧-27R, 冷轧-28R, 冷轧-29R, 冷轧-30R, 冷轧-31R, 冷轧-32R, 冷轧-33R, 冷轧-34R, 冷轧-35R, 冷轧-36R, 冷轧-37R, 冷轧-38R, 冷轧-39R, 冷轧-40R, 冷轧-41R, 冷轧-42R, 冷轧-43R, 冷轧-44R, 冷轧-45R, 冷轧-46R, 冷轧-47R, 冷轧-48R, 冷轧-49R, 冷轧-50R, 冷轧-51R, 冷轧-52R, 冷轧-53R, 冷轧-54R, 冷轧-55R, 冷轧-56R, 冷轧-57R, 冷轧-58R, 冷轧-59R, 冷轧-60R, 冷轧-61R, 冷轧-62R, 冷轧-63R, 冷轧-64R, 冷轧-65R, 冷轧-66R, 冷轧-67R, 冷轧-68R, 冷轧-69R, 冷轧-70R, 冷轧-71R, 冷轧-72R, 冷轧-73R, 冷轧-74R, 冷轧-75R, 冷轧-76R, 冷轧-77R, 冷轧-78R, 冷轧-79R, 冷轧-80R, 冷轧-81R, 冷轧-82R, 冷轧-83R, 冷轧-84R, 冷轧-85R, 冷轧-86R, 冷轧-87R, 冷轧-88R, 冷轧-89R, 冷轧-90R, 冷轧-91R, 冷轧-92R, 冷轧-93R, 冷轧-94R, 冷轧-95R, 冷轧-96R, 冷轧-97R, 冷轧-98R, 冷轧-99R, 冷轧-100R, 冷轧-101R, 冷轧-102R, 冷轧-103R, 冷轧-104R, 冷轧-105R, 冷轧-106R, 冷轧-107R, 冷轧-108R, 冷轧-109R, 冷轧-110R, 冷轧-111R, 冷轧-112R, 冷轧-113R, 冷轧-114R, 冷轧-115R, 冷轧-116R, 冷轧-117R, 冷轧-118R, 冷轧-119R, 冷轧-120R, 冷轧-121R, 冷轧-122R, 冷轧-123R, 冷轧-124R, 冷轧-125R, 冷轧-126R, 冷轧-127R, 冷轧-128R, 冷轧-129R, 冷轧-130R, 冷轧-131R, 冷轧-132R, 冷轧-133R, 冷轧-134R, 冷轧-135R, 冷轧-136R, 冷轧-137R, 冷轧-138R, 冷轧-139R, 冷轧-140R, 冷轧-141R, 冷轧-142R, 冷轧-143R, 冷轧-144R, 冷轧-145R, 冷轧-146R, 冷轧-147R, 冷轧-148R, 冷轧-149R, 冷轧-150R, 冷轧-151R, 冷轧-152R, 冷轧-153R, 冷轧-154R, 冷轧-155R, 冷轧-156R, 冷轧-157R, 冷轧-158R, 冷轧-159R, 冷轧-160R, 冷轧-161R, 冷轧-162R, 冷轧-163R, 冷轧-164R, 冷轧-165R, 冷轧-166R, 冷轧-167R, 冷轧-168R, 冷轧-169R, 冷轧-170R, 冷轧-171R, 冷轧-172R, 冷轧-173R, 冷轧-174R, 冷轧-175R, 冷轧-176R, 冷轧-177R, 冷轧-178R, 冷轧-179R, 冷轧-180R, 冷轧-181R, 冷轧-182R, 冷轧-183R, 冷轧-184R, 冷轧-185R, 冷轧-186R, 冷轧-187R, 冷轧-188R, 冷轧-189R, 冷轧-190R, 冷轧-191R, 冷轧-192R, 冷轧-193R, 冷轧-194R, 冷轧-195R, 冷轧-196R, 冷轧-197R, 冷轧-198R, 冷轧-199R, 冷轧-200R, 冷轧-201R, 冷轧-202R, 冷轧-203R, 冷轧-204R, 冷轧-205R, 冷轧-206R, 冷轧-207R, 冷轧-208R, 冷轧-209R, 冷轧-210R, 冷轧-211R, 冷轧-212R, 冷轧-213R, 冷轧-214R, 冷轧-215R, 冷轧-216R, 冷轧-217R, 冷轧-218R, 冷轧-219R, 冷轧-220R, 冷轧-221R, 冷轧-222R, 冷轧-223R, 冷轧-224R, 冷轧-225R, 冷轧-226R, 冷轧-227R, 冷轧-228R, 冷轧-229R, 冷轧-230R, 冷轧-231R, 冷轧-232R, 冷轧-233R, 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冷轧-456R, 冷轧-457R, 冷轧-458R, 冷轧-459R, 冷轧-460R, 冷轧-461R, 冷轧-462R, 冷轧-463R, 冷轧-464R, 冷轧-465R, 冷轧-466R, 冷轧-467R, 冷轧-468R, 冷轧-469R, 冷轧-470R, 冷轧-471R, 冷轧-472R, 冷轧-473R, 冷轧-474R, 冷轧-475R, 冷轧-476R, 冷轧-477R, 冷轧-478R, 冷轧-479R, 冷轧-480R, 冷轧-481R, 冷轧-482R, 冷轧-483R, 冷轧-484R, 冷轧-485R, 冷轧-486R, 冷轧-487R, 冷轧-488R, 冷轧-489R, 冷轧-490R, 冷轧-491R, 冷轧-492R, 冷轧-493R, 冷轧-494R, 冷轧-495R, 冷轧-496R, 冷轧-497R, 冷轧-498R, 冷轧-499R, 冷轧-500R, 冷轧-501R, 冷轧-502R, 冷轧-503R, 冷轧-504R, 冷轧-505R, 冷轧-506R, 冷轧-507R, 冷轧-508R, 冷轧-509R, 冷轧-510R, 冷轧-511R, 冷轧-512R, 冷轧-513R, 冷轧-514R, 冷轧-515R, 冷轧-516R, 冷轧-517R, 冷轧-518R, 冷轧-519R, 冷轧-520R, 冷轧-521R, 冷轧-522R, 冷轧-523R, 冷轧-524R, 冷轧-525R, 冷轧-526R, 冷轧-527R, 冷轧-528R, 冷轧-529R, 冷轧-530R, 冷轧-531R, 冷轧-532R, 冷轧-533R, 冷轧-534R, 冷轧-535R, 冷轧-536R, 冷轧-537R, 冷轧-538R, 冷轧-539R, 冷轧-540R, 冷轧-541R, 冷轧-542R, 冷轧-543R, 冷轧-544R, 冷轧-545R, 冷轧-546R, 冷轧-547R, 冷轧-548R, 冷轧-549R, 冷轧-550R, 冷轧-551R, 冷轧-552R, 冷轧-553R, 冷轧-554R, 冷轧-555R, 冷轧-556R, 冷轧-557R, 冷轧-558R, 冷轧-559R, 冷轧-560R, 冷轧-561R, 冷轧-562R, 冷轧-563R, 冷轧-564R, 冷轧-565R, 冷轧-566R, 冷轧-567R, 冷轧-568R, 冷轧-569R, 冷轧-570R, 冷轧-571R, 冷轧-572R, 冷轧-573R, 冷轧-574R, 冷轧-575R, 冷轧-576R, 冷轧-577R, 冷轧-578R, 冷轧-579R, 冷轧-580R, 冷轧-581R, 冷轧-582R, 冷轧-583R, 冷轧-584R, 冷轧-585R, 冷轧-586R, 冷轧-587R, 冷轧-588R, 冷轧-589R, 冷轧-590R, 冷轧-591R, 冷轧-592R, 冷轧-593R, 冷轧-594R, 冷轧-595R, 冷轧-596R, 冷轧-597R, 冷轧-598R, 冷轧-599R, 冷轧-600R, 冷轧-601R, 冷轧-602R, 冷轧-603R, 冷轧-604R, 冷轧-605R, 冷轧-606R, 冷轧-607R, 冷轧-608R, 冷轧-609R, 冷轧-610R, 冷轧-611R, 冷轧-612R, 冷轧-613R, 冷轧-614R, 冷轧-615R, 冷轧-616R, 冷轧-617R, 冷轧-618R, 冷轧-619R, 冷轧-620R, 冷轧-621R, 冷轧-622R, 冷轧-623R, 冷轧-624R, 冷轧-625R, 冷轧-626R, 冷轧-627R, 冷轧-628R, 冷轧-629R, 冷轧-630R, 冷轧-631R, 冷轧-632R, 冷轧-633R, 冷轧-634R, 冷轧-635R, 冷轧-636R, 冷轧-637R, 冷轧-638R, 冷轧-639R, 冷轧-640R, 冷轧-641R, 冷轧-642R, 冷轧-643R, 冷轧-644R, 冷轧-645R, 冷轧-646R, 冷轧-647R, 冷轧-648R, 冷轧-649R, 冷轧-650R, 冷轧-651R, 冷轧-652R, 冷轧-653R, 冷轧-654R, 冷轧-655R, 冷轧-656R, 冷轧-657R, 冷轧-658R, 冷轧-659R, 冷轧-660R, 冷轧-661R, 冷轧-662R, 冷轧-663R, 冷轧-664R, 冷轧-665R, 冷轧-666R, 冷轧-667R, 冷轧-668R, 冷轧-669R, 冷轧-670R, 冷轧-671R, 冷轧-672R, 冷轧-673R, 冷轧-674R, 冷轧-675R, 冷轧-676R, 冷轧-677R, 冷轧-678R, 冷轧-679R, 冷轧-680R, 冷轧-681R, 冷轧-682R, 冷轧-683R, 冷轧-684R, 冷轧-685R, 冷轧-686R, 冷轧-687R, 冷轧-688R, 冷轧-689R, 冷轧-690R, 冷轧-691R, 冷轧-692R, 冷轧-693R, 冷轧-694R, 冷轧-695R, 冷轧-696R, 冷轧-697R, 冷轧-698R, 冷轧-699R, 冷轧-700R, 冷轧-701R, 冷轧-702R, 冷轧-703R, 冷轧-704R, 冷轧-705R, 冷轧-706R, 冷轧-707R, 冷轧-708R, 冷轧-709R, 冷轧-710R, 冷轧-711R, 冷轧-712R, 冷轧-713R, 冷轧-714R, 冷轧-715R, 冷轧-716R, 冷轧-717R, 冷轧-718R, 冷轧-719R, 冷轧-720R, 冷轧-721R, 冷轧-722R, 冷轧-723R, 冷轧-724R, 冷轧-725R, 冷轧-726R, 冷轧-727R, 冷轧-728R, 冷轧-729R, 冷轧-730R, 冷轧-731R, 冷轧-732R, 冷轧-733R, 冷轧-734R, 冷轧-735R, 冷轧-736R, 冷轧-737R, 冷轧-738R, 冷轧-739R, 冷轧-740R, 冷轧-741R, 冷轧-742R, 冷轧-743R, 冷轧-744R, 冷轧-745R, 冷轧-746R, 冷轧-747R, 冷轧-748R, 冷轧-749R, 冷轧-750R, 冷轧-751R, 冷轧-752R, 冷轧-753R, 冷轧-754R, 冷轧-755R, 冷轧-756R, 冷轧-757R, 冷轧-758R, 冷轧-759R, 冷轧-760R, 冷轧-761R, 冷轧-762R, 冷轧-763R, 冷轧-764R, 冷轧-765R, 冷轧-766R, 冷轧-767R, 冷轧-768R, 冷轧-769R, 冷轧-770R, 冷轧-771R, 冷轧-772R, 冷轧-773R, 冷轧-774R, 冷轧-775R, 冷轧-776R, 冷轧-777R, 冷轧-778R, 冷轧-779R, 冷轧-780R, 冷轧-781R, 冷轧-782R, 冷轧-783R, 冷轧-784R, 冷轧-785R, 冷轧-786R, 冷轧-787R, 冷轧-788R, 冷轧-789R, 冷轧-790R, 冷轧-791R, 冷轧-792R, 冷轧-793R, 冷轧-794R, 冷轧-795R, 冷轧-796R, 冷轧-797R, 冷轧-798R, 冷轧-799R, 冷轧-800R, 冷轧-801R, 冷轧-802R, 冷轧-803R, 冷轧-804R, 冷轧-805R, 冷轧-806R, 冷轧-807R, 冷轧-808R, 冷轧-809R, 冷轧-810R, 冷轧-811R, 冷轧-812R, 冷轧-813R, 冷轧-814R, 冷轧-815R, 冷轧-816R, 冷轧-817R, 冷轧-818R, 冷轧-819R, 冷轧-820R, 冷轧-821R, 冷轧-822R, 冷轧-823R, 冷轧-824R, 冷轧-825R, 冷轧-826R, 冷轧-827R, 冷轧-828R, 冷轧-829R, 冷轧-830R, 冷轧-831R, 冷轧-832R, 冷轧-833R, 冷轧-834R, 冷轧-835R, 冷轧-836R, 冷轧-837R, 冷轧-838R, 冷轧-839R, 冷轧-840R, 冷轧-841R, 冷轧-842R, 冷轧-843R, 冷轧-844R, 冷轧-845R, 冷轧-846R, 冷轧-847R, 冷轧-848R, 冷轧-849R, 冷轧-850R, 冷轧-851R, 冷轧-852R, 冷轧-853R, 冷轧-854R, 冷轧-855R, 冷轧-856R, 冷轧-857R, 冷轧-858R, 冷轧-859R, 冷轧-860R, 冷轧-861R, 冷轧-862R, 冷轧-863R, 冷轧-864R, 冷轧-865R, 冷轧-866R, 冷轧-867R, 冷轧-868R, 冷轧-869R, 冷轧-870R, 冷轧-871R, 冷轧-872R, 冷轧-873R, 冷轧-874R, 冷轧-875R, 冷轧-876R, 冷轧-877R, 冷轧-878R, 冷轧-879R, 冷轧-880R, 冷轧-881R, 冷轧-882R, 冷轧-883R, 冷轧-884R, 冷轧-885R, 冷轧-886R, 冷轧-887R, 冷轧-888R, 冷轧-889R, 冷轧-890R, 冷轧-891R, 冷轧-892R, 冷轧-893R, 冷轧-894R, 冷轧-895R, 冷轧-896R, 冷轧-897R, 冷轧-898R, 冷轧-899R, 冷轧-900R, 冷轧-901R, 冷轧-902R, 冷轧-903R, 冷轧-904R, 冷轧-905R, 冷轧-906R, 冷轧-907R, 冷轧-908R, 冷轧-909R, 冷轧-910R, 冷轧-911R, 冷轧-912R, 冷轧-913R, 冷轧-914R, 冷轧-915R, 冷轧-916R, 冷轧-917R, 冷轧-918R, 冷轧-919R, 冷轧-920R, 冷轧-921R, 冷轧-922R, 冷轧-923R, 冷轧-924R, 冷轧-925R, 冷轧-926R, 冷轧-927R, 冷轧-928R, 冷轧-929R, 冷轧-930R, 冷轧-931R, 冷轧-932R, 冷轧-933R, 冷轧-934R, 冷轧-935R, 冷轧-936R, 冷轧-937R, 冷轧-938R, 冷轧-939R, 冷轧-940R, 冷轧-941R, 冷轧-942R, 冷轧-943R, 冷轧-944R, 冷轧-945R, 冷轧-946R, 冷轧-947R, 冷轧-948R, 冷轧-949R, 冷轧-950R, 冷轧-951R, 冷轧-952R, 冷轧-953R, 冷轧-954R, 冷轧-955R, 冷轧-956R, 冷轧-957R, 冷轧-958R, 冷轧-959R, 冷轧-960R, 冷轧-961R, 冷轧-962R, 冷轧-963R, 冷轧-964R, 冷轧-965R, 冷轧-966R, 冷轧-967R, 冷轧-968R, 冷轧-969R, 冷轧-970R, 冷轧-971R, 冷轧-972R, 冷轧-973R, 冷轧-974R, 冷轧-975R, 冷轧-976R, 冷轧-977R, 冷轧-978R, 冷轧-979R, 冷轧-980R, 冷轧-981R, 冷轧-982R, 冷轧-983R, 冷轧-984R, 冷轧-985R, 冷轧-986R, 冷轧-987R, 冷轧-988R, 冷轧-989R, 冷轧-990R, 冷轧-991R, 冷轧-992R, 冷轧-993R, 冷轧-994R, 冷轧-995R, 冷轧-996R, 冷轧-997R, 冷轧-998R, 冷轧-999R, 冷轧-1000R, 冷轧-1001R, 冷轧-1002R, 冷轧-1003R, 冷轧-1004R, 冷轧-1005R, 冷轧-1006R, 冷轧-1007R, 冷轧-1008R, 冷轧-1009R, 冷轧-1010R, 冷轧-1011R, 冷轧-1012R, 冷轧-1013R, 冷轧-1014R, 冷轧-1015R, 冷轧-1016R, 冷轧-1017R, 冷轧-1018R, 冷轧-1019R, 冷轧-1020R, 冷轧-1021R, 冷轧-1022R, 冷轧-1023R, 冷轧-1024R, 冷轧-1025R, 冷轧-1026R, 冷轧-1027R, 冷轧-1028R, 冷轧-1029R, 冷轧-1030R, 冷轧-1031R, 冷轧-1032R, 冷轧-1033R, 冷轧-1034R, 冷轧-1035R, 冷轧-1036R, 冷轧-1037R, 冷轧-1038R, 冷轧-1039R, 冷轧-1040R, 冷轧-1041R, 冷轧-1042R, 冷轧-1043R, 冷轧-1044R, 冷轧-1045R, 冷轧-1046R, 冷轧-1047R, 冷轧-1048R, 冷轧-1049R, 冷轧-1050R, 冷轧-1051R, 冷轧-1052R, 冷轧-1053R, 冷轧-1054R, 冷轧-1055R, 冷轧-1056R, 冷轧-1057R, 冷轧-1058R, 冷轧-1059R, 冷轧-1060R, 冷轧-1061R, 冷轧-1062R, 冷轧-1063R, 冷轧-1064R, 冷轧-1065R, 冷轧-1066R, 冷轧-1067R, 冷轧-1068R, 冷轧-1069R, 冷轧-1070R, 冷轧-1071R, 冷轧-1072R, 冷轧-1073R, 冷轧-1074R, 冷轧-1075R, 冷轧-1076R, 冷轧-1077R, 冷轧-1078R, 冷轧-1079R, 冷轧-1080R, 冷轧-1081R, 冷轧-1082R, 冷轧-1083R, 冷轧-1084R, 冷轧-1085R, 冷轧-1086R, 冷轧-1087R, 冷轧-1088R, 冷轧-1089R, 冷轧-1090R, 冷轧-1091R, 冷轧-1092R, 冷轧-1093R, 冷轧-1094R, 冷轧-1095R, 冷轧-1096R, 冷轧-1097R, 冷轧-1098R, 冷轧-1099R, 冷轧-1100R, 冷轧-1101R, 冷轧-1102R, 冷轧-1103R, 冷轧-1104R, 冷轧-1105R, 冷轧-1106R, 冷轧-1107R, 冷轧-1108R, 冷轧-1109R, 冷轧-1110R, 冷轧-1111R, 冷轧-1112R, 冷轧-1113R, 冷轧-1114R, 冷轧-1115R, 冷轧

0231034

名称: 重庆新港公司代江新长江钢管
 COASTAL: 200600001008 (01 06121520)
 CONTRACT: 高唐作业用螺旋钢管无缝管
 产品名称: 高唐作业用螺旋钢管无缝管
 DESCRIPTION: ASTM A106-1999 MODIFIED
 标准: STANDARD:

地址: 中国 四川 成都
 ADDRESS: CHENGDU SICHUAN CHINA

产品合格证
 MILITARY CERTIFICATE
 攀钢集团成都钢铁有限责任公司
 PANGANG GROUP CHENGDU IRON & STEEL CO., LTD.
 电话: 028-84500000 028-84500001 028-84500002
 TEL: 028-84500000 028-84500001 028-84500002

质量证书: 0600211005
 CERTIFICATE NO.: 0600211005
 规格: 高唐作业用螺旋钢管无缝管
 STATION OF DESTINATION: 高唐作业用螺旋钢管无缝管
 重量: 4.50kg
 合计: 4.50kg
 TOTAL: 4.50kg
 数量: 1
 重量: 4.50kg
 合计: 4.50kg
 TOTAL: 4.50kg

序号 No.	包号 PACKAGE No.	钢号 (组) STEEL GRADE	炉号 HEAT No.	批号 BATCH No.	规格 (mm) SIZE			数量 QUANTITY			熔炼方法 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDROSTATIC TEST PRESSURE MPa	无损检测 NOT	屈服试验 PLATTENING TEST	扩口试验 EXPANSION TEST	卷边试验 FLANGING TEST	环拉试验 RND TENSILE TEST	扩口试验 RND EXPANSION TEST	表面尺寸 SURFACE & DIMENSION
					外径 O.D.	壁厚 W.T.	长度 LENGTH	重量 PIECES	重量 METERS	重量 TONS										
1	2305060590	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.200	1.479	电炉	热轧	16	合格	合格					合格
2	2305060607	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.350	1.499	电炉	热轧	16	合格	合格					合格
3	2305060608	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.400	1.506	电炉	热轧	16	合格	合格					合格
4	2305060611	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.550	1.393	电炉	热轧	16	合格	合格					合格

序号 No.	试样编号 SAMPLE No.	化学成份 CHEMICAL COMPOSITION (%)											力学性能 MECHANICAL PROPERTIES (%)			金相组织 MICROSCOPIC EXAMINATION
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD MPa	抗拉强度 TENSILE MPa	延伸率 ELONGATION %	
1	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	23/38	
2	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	23/38	
3	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	23/38	
4	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	23/38	

REMARK: 1. 本证书在交货时, TO BE DELIVERED IN THEORETICAL WEIGHT.
 2. 本证书不证明产品符合标准, 标准由供需双方商定。
 THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED
 AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER,
 QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.
 3. 本证书不作为验收依据, 此证书仅供参考, 不作为验收依据。
 THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE
 THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
 4. 熔炼方法: MELTING METHOD: 电炉-BOF 电炉-EAF 电炉-ESR 电炉-VD-EAF-VD
 5. 交货状态: CONDITION OF SUPPLY: 热轧-Q-T 热轧-HR 热轧-HR 热轧-Q 热轧-T 正火-N 正火-A
 6. 无损检测: NOT: 超声波-UW 磁粉检测-MPT 磁粉检测-MT
 7. 取样方向: ORIENTATION OF SPECIMEN: 纵向-LON 横向-TRA
 8. 合格-GOOD

检验员: 检验员: 日期: 2006年06月28日
 INSPECTOR: 日期: YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.

质量业务专用章

0231011

重庆新地公司代江阴长江钢管
 CONTRACT NO: 200508001908 (S1 05121529)
 CONTRACT 名称: 高压作业用螺旋埋弧焊钢管
 DESCRIPTION: ASTM A106-1998 MODIFIED
 标准/标准: 标准/标准



产品质量证明书
 MILL CERTIFICATE
 江阴市长江钢管有限公司
 JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.

地址: 中国 四川 成都
 ADDRESS: CHENGDU SICHUAN CHINA

电话: 86-28-8449753
 TEL: 86-28-8449753

传真: 86-28-8456388
 FAX: 86-28-8456388

邮编: 610069
 P.C. BOX: 610069

证书号: 0508211142
 CERTIFICATE NO: 0508211142
 站名: 富锦专线(大渡口)
 STATION OF DESTINATION: 富锦专线(大渡口)
 车号: 3 32.600 4.300
 合计: TOTAL: 32.600 4.300
 单位: 吨 TONS

包号 PACKAGE NO	钢号 STEEL GRADE	炉号 HEAT NO	批号 BATCH NO	规格 (mm) SIZE			数量 QUANTITY			交货状态 CONDITION OF SUPPLY	水压试验 HYDRO-TEST PRESSURE (MPa)	无损检测 NOT	屈服试验 FLATTENING TEST	扩口试验 EXPANSION TEST	卷边试验 FLANGING TEST	环拉试验 RING TENSILE TEST	冲击试验 IMPACT TEST	表面尺寸 SURFACE & DIMENSION
				外径 O.D	壁厚 WT	长度 LENGTH	根数 PIECES	米数 METERS	吨数 TONS									
2305065991	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.050	1.459	电炉	热轧	16	合格					合格
2305066009	B	0681722	Y235060478	323.8	17.48	3000-12000	1	10.950	1.446	电炉	热轧	16	合格					合格
2305066010	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.500	1.386	电炉	热轧	16	合格					合格
4																		
5																		
6																		
7																		
8																		

No.	试样编号 SAMPLE No.	化 学 成 份 CHEMICAL COMPOSITION %										力学性能 MECHANICAL PROPERTIES ②			金相组织 MICROSCOPIC EXAMINATION ③
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	
1	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	465/465	33/38
2	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	465/465	33/38
3	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	465/465	33/38
4															
5															
6															
7															
8															

备注: 1. 按理论重量交货。 TO BE DELIVERED IN THEORETICAL WEIGHT.
 REMARK: 2. 证明本产品符合供货标准, 但不得作为验收依据。
 THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER, QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.

3. 原质量证明书是验收依据, 复印件仅供参考。
 THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.
 4. 检验方法: MELTING METHOD: 电炉-BOF 电炉-EAF 电炉-ESR 电炉+VD-EAF+VD

5. 交货状态: CONDITION OF SUPPLY: 热轧-Q+T 热轧-DR 热轧-HE 热轧-Q 热轧-T 热轧-N 热轧-A
 6. 探伤方法: 超声波-UT 磁粉-MT 磁粉-PT
 7. 取样方向: ORIENTATION OF SPECIMEN: 纵向-LON 横向-TRA
 8. 合格-GOOD

检验员: INSPECTOR 发货员: CONSIGNOR 发货日期: 2005 年 08 月 25 日
 FILING FORM DATE YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD

0232602

收货单位: 重庆新地公司代江陵长江钢管
 合同号: 200800001906 (01 05121536)
 CONTRACT NO:
 产品名称: 高强度低合金钢无缝管
 DESCRIPTION: ASTM A106-1999 MODIFIED
 标准: STANDARD:



产品合格证
 MIDAS CERTIFICATE
 重庆新地公司代江陵长江钢管
 PANGANG GROUP CHENGDU IRON & STEEL CO., LTD.

地址: 中国 四川 成都
 ADDRESS: CHENGDU SICHUAN CHINA
 电话: 028-84887955 传真: 028-84583581 邮编: 610049
 TEL: FAX: P.C.BOX:

证书号: 0508211054
 CERTIFICATE NO:
 站址: 重庆新地公司代江陵长江钢管
 STATION OF DESTINATION:
 车号: 050821
 TRAIN NO:
 合计: 0 05.000 0.701
 TOTAL: PEICES METERS TONS

No	包号 PACKAGE N	钢号 (组) STEEL GRADE	炉号 HEAT N	批号 BATCH N	规格 (mm) SIZE			数量 QUANTITY			熔炼方法 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDRO-STATIC TEST PRESSURE (MPa)	无损检测 NDT	平直度 FLATNESS TEST	扩口试验 DRIFT EXPANDING TEST	卷曲试验 FLANGING TEST	环拉试验 RING TENSILE TEST	扩口试验 DRIFT EXPANDING TEST	表面尺寸 SURFACE & DIMENSION
					外径 O.D	壁厚 W.T	长度 LENGTH	数量 PIECES	米数 METERS	重量 TONS										
1	2305066032	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.200	1.479	电炉	热轧	16		合格					合格
2	2305066034	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.000	1.452	电炉	热轧	16		合格					合格
3	2305066035	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.100	1.466	电炉	热轧	16		合格					合格
4	2305066036	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.550	1.393	电炉	热轧	16		合格					合格
5	2305066037	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.300	1.492	电炉	热轧	16		合格					合格
6	2305066038	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.750	1.419	电炉	热轧	16		合格					合格
7																				
8																				

No	试样编号 SAMPLE No	化 学 成 份 CHEMICAL COMPOSITION, %											力学性能 MECHANICAL PROPERTIES			无损检测 MICROSCOPIC EXAMINATION
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	延伸率 ELONGATION (%)	
1	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	445/445	30/30	
2	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	445/445	30/30	
3	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	445/445	30/30	
4	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	445/445	30/30	
5	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	445/445	30/30	
6	Y235060478A	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	445/445	30/30	
7																
8																

备注: 1. 按理论重量交货。 TO BE DELIVERED IN THEORETICAL WEIGHT.

REMARK: 2. 质量证明书和产品合格证均由供需双方签字盖章有效。
 THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED
 AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER,
 QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.

3. 质量证明书是验收依据, 复印件仅供参考, 不作为验收凭证。
 THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE
 THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.

4. 熔炼方法 (MELTING METHOD): 电炉-BOF 电炉-EAF 电炉-ESR 电炉-VD-EAF+VD
 5. 交货状态 (CONDITION OF SUPPLY): 热轧-Q+T 热轧-DR 热轧-NE 热轧-Q 热轧-T 正火-N 退火-A
 6. 无损检测方法 (NDT): 超声波检测-UT 磁粉检测-LMT 射线检测-MT
 7. 取样方向 (DIRECTION OF SPECIMEN): 纵向-LON 横向-TRA
 8. 总重量 (TOTAL WEIGHT):

检查员:
INSPECTOR

发货员:
CONSIGNOR

日期: 2008 年 08 月 30 日
 FILLING FORM DATE: YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.

0231173

收货单位: 重庆新港公司代江津长江钢管
CONTRACT NO: 200509081908 (01 05121536)
产品标准: 重庆作业用螺旋钢管
DESCRIPTION: 螺旋钢管
STANDARD: ASTM A106-1980 MODIFIED

地址: 中国 四川 成都
ADDRESS: CHENGDU SICHUAN CHINA

质量证明书
MILL CERTIFICATE
攀钢集团成都钢铁有限责任公司
PANGLUO GROUP, CHENGDU IRON & STEEL CO., LTD.
电话: 028-84107053 传真: 028-84107051 邮编: 610049
TEL: FAX: P.C. BOX:

证书号: 0500211207
CERTIFICATE NO:
产地: 重庆中冶(大渡口)
SEASON OF DESTINATION:
本号: 0071876
TRAN NO:
合计: 3 套 32.200 4.200
TOTAL: PIECES METERS TONS

ADDRESS: CHENGDU SICHUAN CHINA										TEL:	FAX:	P.C.BOX:	TOTAL:	PIECES	METERS	TONS				
No	包号 PACKAGE No	钢号 (S) STEEL GRADE	炉号 HEAT No	批号 BATCH No	规格 (mm) SIZE			数量 QUANTITY			熔炼方式 MELTING METHOD	交货状态 CONDITION OF SUPPLY	水压试验 HYDROSTATIC TEST PRESSURE (MPa)	无损检测 NDT	屈服点 FLATTENING TEST	扩口试验 DRIFT EXPANDING TEST	卷边试验 FLANGING TEST	冲击试验 SHOCK TENSILE TEST	反向冲击 REVERSE SHOCK TENSILE TEST	表面尺寸 SURFACE DIMENSION
					外径 O.D	壁厚 W.T	长度 LENGTH	根数 PIECES	米数 METERS	重量 TONS										
1	2305066012	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.650	1.406	电炉	热轧	16		合格					合格
2	2305066013	B	0581722	Y235060478	323.8	17.48	3000-12000	1	10.650	1.406	电炉	热轧	16		合格					合格
3	2305066019	B	0581722	Y235060478	323.8	17.48	3000-12000	1	11.200	1.479	电炉	热轧	16		合格					合格
4																				
5																				
6																				
7																				
8																				

No	试样号 SAMPLE NO	化 学 成 份 CHEMICAL COMPOSITION (%)											力学性能 MECHANICAL PROPERTIES			金相组织 METALLOGRAPHIC EXAMINATION
		C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	N	屈服强度 YIELD (MPa)	抗拉强度 TENSILE (MPa)	延伸率 ELONGATION (%)	
1	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	30/30	
2	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	30/30	
3	Y235060478A/B	.19	.23	.46	.019	.015	.04	.04	.01	.07	.01		310/310	405/405	30/30	
4																
5																
6																
7																
8																

备注: 1. 理论重量仅供参考。 TO BE DELIVERED IN THEORETICAL WEIGHT.

REMARK: 2. 本证书产品经检验合格并符合国家标准规定。

THIS IS TO CERTIFY THAT THE PRODUCT HAS BEEN INSPECTED

AS PER RELEVANT SPECIFICATION AS STIPULATED IN THE ORDER.

QUALIFIED WITH ALL THE DATA IN COMPLIANCE WITH THE SPECIFICATION.

3. 本证书不作为质量证明文件, 其复印件仅供参考, 不作为验收凭证。

THE ORIGINAL QUALITY CERTIFICATE IS THE FOUNDATION OF ACCEPTANCE WHILE

THE COPY IS NOT ACCEPTANCE VOUCHER AND ONLY FOR REFERENCE.

4. 熔炼方法: 电炉—EAF 电炉—EAF 电炉—EAF

5. 交货状态: 热轧—HR 热轧—HR 热轧—HR

6. 无损检测: 超声—UT 射线—RT 射线—RT

7. 取样方向: 纵向—LONG 横向—TRANS

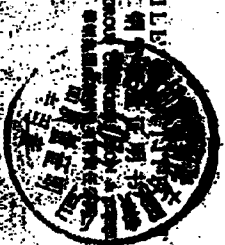
8. 合格—GOOD

检验员: 张明 签字: 张明

制证时间: 2005 年 06 月 27 日
TELLING FORM DATE YEAR MONTH DAY

Seller: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD

PAOWANG GROUP CO., LTD.
SHANGHAI, CHINA



CERTIFICATE No.:
证书编号:

040120601

STATION OF DESTINATION:
站址:

上海金山卫钢铁石化产业园

TRAIN No.:

车号:

140195

TOTAL:

合计:

PCS 66.35 M 8.261 T

CONSIGNEE:
收货单位:

上海石化集团公用设施分公司

OBJECT:
货物名称:

CARBON STEEL PIPE

STANDARD:
技术标准:

ASTM A106-1992 MODIFIED

CONTRACT No.:

DS041.00021738

合同编号:

DS041.00021738

WORKSHIPPED TEST															MANUFACTURING PROCESS 工艺过程			
工艺试验																		
N	PACKAGE 包号	STEEL GRADE 钢号	HEAT 炉号	BATCH 批号	STEEL TUBE SIZE(mm)规格				QUANTITY 数量			FLATTEN TEST 压扁			HYDROSTATIC TEST 水压 (Mpa)		MAGNETIC PARTICLE DETECTION 磁粉探伤	
					OD 外径	WT 壁厚	LENGTH 长度	PCS 支	METERS 米	TON 吨	FLATTEN TEST 压扁	FLATTEN TEST 压扁	FLATTEN TEST 压扁	FLATTEN TEST 压扁	FLATTEN TEST 压扁			
1	230404799	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
2	230404798	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
3	230404803	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
4	230404797	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
5	230404801	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
6	230404802	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
7	230404804	B	0481062	Y234040214	323.8	17.48	≥6000	1	9.40	1.241	GOOD 合格	15.7	GOOD 合格			热轧—Hot-rolling		
CHEMICAL COMPOSITION 化学成分 (%)																		
N	SAMPLE N 试样编号	C	Si	Mn	S	P	Ni	Cr	Mo	Cu	V	Y.S 屈服强度 (Mpa)	T.S 抗拉强度 (Mpa)	EL 延伸率 (%)				
1	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			
2	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			
3	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			
4	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			
5	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			
6	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			
7	Y234040214 A/B	0.20	0.23	0.52	0.018	0.012	0.04	0.03	0.010	0.110	0.01	300330	515205	36.526.5	GOOD			

TESTED BY TENSILE AND TORSION WEIGHT

DIRECTION:

检验员: 孙亚萍

该证书不作为质保书附件, 质保书附件材料合格证为准

CONSIGNOR:

发货员: 孙亚萍

SELLER: JIANGYIN CITY CHANGJIANG STEEL PIPE CO., LTD.