



Eastend Iron Industries Ltd.  
6215 – 54 Avenue  
Taber, AB T1G 1X4

Phone: (403) 223-2620  
Fax: (403) 223-8626  
[www.eastendiron.com](http://www.eastendiron.com)

Quality Control  
For the Repairs  
Of Firetubes

Constructed for  
C.N.R.L  
@13-18-10-16W4

Repaired By:  
Eastend Iron Ind. Ltd.  
Taber Alberta

AQP.-#2972  
Expires-July 27,2010  
WPS#2178.2 EII-2  
Job #010408F

# Certificate of Authorization Permit

## Quality Management System

Expiry Date: **July 27, 2010**

Reg. No.: **AQP-2972**

This is to certify that:

**EASTEND IRON INDUSTRIES LTD.**  
**6215 - 54 AVENUE**  
**TABER, ALBERTA**

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

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

**Repair/Alter ASME Section I Power Boilers, ASME Section IV Heating  
Boilers and ASME Section VIII-1 Pressure Vessels**

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

Dated at Edmonton, this 31st day of July, 2007



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

Chief Inspector and Administrator

**Certificate No.: 5612**

# Certificate of Authorization Permit

## Quality Management System

Expiry Date: **July 27, 2010**

Reg. No.: **AQP-2972**

This is to certify that:

**EASTEND IRON INDUSTRIES LTD.**  
**6006 - 54 AVENUE**  
**TABER, ALBERTA**

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

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

**Repair/Alter ASME Section I Power Boilers, ASME Section IV Heating  
Boilers and ASME Section VIII-1 Pressure Vessels**

the SHOP and FIELD sites controlled from the above address.



Dated at Edmonton, this 31st day of July, 2007

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

Chief Inspector and Administrator

**Certificate No.: 5613**



**EASTEND IRON IND. LTD.**  
**6215 54 AVENUE**  
**TABER ALBERTA T1G 1X4**  
**TELEPHONE (403) 223-2620**  
**FAX (403) 223-8626**

012422002 30300A

**JOURNEYMAN CERTIFICATE**

THIS IS TO CERTIFY THAT  
**TINH VAN NGUYEN**  
 HAS COMPLETED AN ALBERTA APPRENTICESHIP PROGRAM AND HAVING ACHIEVED THE STANDARDS ESTABLISHED UNDER THE ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING ACT, IS HEREBY AUTHORIZED TO WORK IN THE TRADE AS A JOURNEYMAN AND TO USE THE TITLE CERTIFIED JOURNEYMAN

WELDER

EFFECTIVE DATE: March 16th, 1999  
 ISSUE DATE: March 24th, 1999

*Cliff Dawid*  
 CLIFF DAWID, MINISTER OF  
 ADVANCED EDUCATION &  
 CAREER DEVELOPMENT

*Shelley*  
 SHELLEY OIL, EXECUTIVE  
 DIRECTOR OF APPRENTICESHIP  
 & INDUSTRY TRAINING



Alberta LABOUR ABSA

**Grade "B" Pressure Welder's Certificate of Competency**

This is to Certify that: **Tinh Nguyen**  
 having complied with provisions of the Safety Codes Act, is authorized to engage in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton, this  
**May 18, 1999**

W-17671  
 File No.

*Shelley*  
 Chief Inspector and Administrator

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Tinh Nguyen** W-17671  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
 Date of Test *Jack Bennett*  
 Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type)

Card No.: **2025**

Card No.: **2025**

**PERFORMANCE QUALIFICATION**

Process(es) SMAW SMAW Material (P.No.) PI-P11  
 Filler Metal Group (F No.) F3 F4 Min. Outside Diameter 1" O.D.  
 Max. Deposited Weld Metal 0.250 0.622 Position(s) Qualified 6G-ALL  
with  
 Backing without with Backing Gas ---  
 Progression Dn hill uphill  
 11-April-09 *Jack Bennett* W600032  
 P.Q. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Tinh Nguyen** W-17671  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
 Date of Test *Jack Bennett*  
 Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type)

Card No.: **2015**

Card No.: **2015**

**PERFORMANCE QUALIFICATION**

Process(es) GMAW GMAW Material (P.No.) PI-P11  
 Filler Metal Group (F No.) F6 ER70S ER70S Min. Outside Diameter 1" O.D.  
 Max. Deposited Weld Metal 0.110 0.1298 Position(s) Qualified 0-45°  
with  
 Backing None without Backing Gas NA  
 Progression Downhill Downhill  
 11-April-09 *Jack Bennett* W600032  
 P.Q. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Tinh Nguyen** W-17671  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
 Date of Test *Jack Bennett*  
 Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type)

Card No.: **2021**

Card No.: **2021**

**PERFORMANCE QUALIFICATION**

Process(es) SMAW SMAW Material (P.No.) PI-P11  
 Filler Metal Group (F No.) F3 F4 Min. Outside Diameter 1" O.D.  
 Max. Deposited Weld Metal 0.250 0.622 Position(s) Qualified 6G-ALL  
with  
 Backing without with Backing Gas ---  
 Progression uphill uphill  
 11-April-09 *Jack Bennett* W600032  
 P.Q. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Tinh Nguyen** W-17671  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
 Date of Test *Jack Bennett*  
 Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type)

Card No.: **2022**

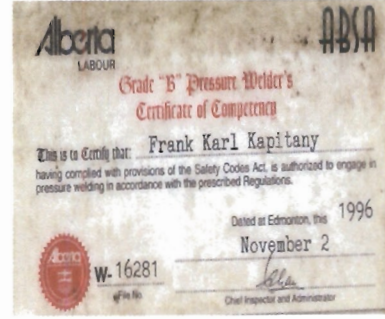
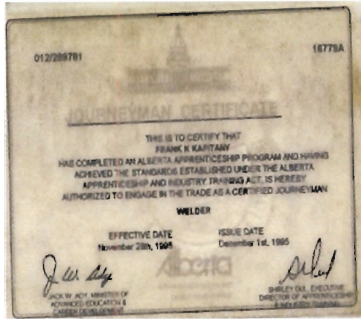
Card No.: **2022**

**PERFORMANCE QUALIFICATION**

Process(es) GTAW GTAW Material (P.No.) P8-P8  
 Filler Metal Group (F No.) F6 F6 Min. Outside Diameter 1" O.D.  
 Max. Deposited Weld Metal 0.200 0.236 Position(s) Qualified 6G-ALL  
with  
 Backing without with Backing Gas Argon  
 Progression uphill uphill  
 11-April-09 *Jack Bennett* W600032  
 P.Q. Expiry Date Welding Examiner Signature Certificate No.



Eastend Iron Industries Ltd. Phone: (403) 223-2620  
 6215 - 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)



A.O.Q.P. No. 7106 (c)  
**LUDWIG & ASSOCIATES LTD.**  
 Materials and Welding Engineering  
**WELDER PERFORMANCE QUALIFICATION CARD**  
 Name: Frank Kapitany ABSA File No. W-16281  
 This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.  
 Date of Test: June 15, 2006  
 Signature of Welder or Machine Operator: [Signature]  
 Welding Examiner (Print/type): STEVE RIEBERGER Card No. **C 9611**

**PERFORMANCE QUALIFICATION C 9611**  
 Process(es) GMAW SMAW Materials (P.No.) PI  
 Filler Metal Group (F.No.) F6 F4 Min. Outside Diameter 2.875 in O.D.  
 Max. Deposited Weld Metal 0.110" MAX Position(s) Qualified SMAW: Flat  
 Backing with or without Backing Gas with or without  
 Progression downhill N/A  
 Date of Test: June 15, 2008 Signature of Welder or Machine Operator: [Signature]  
 P.Q. Expiry Date: June 15, 2008 Welding Examiner Signature: [Signature] Examiner File No.: E-00097

A.O.Q.P. No. 7106 (c)  
**LUDWIG & ASSOCIATES LTD.**  
 Materials and Welding Engineering  
**WELDER PERFORMANCE QUALIFICATION CARD**  
 Name: Frank Kapitany ABSA File No. W-16281  
 This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.  
 Date of Test: June 15, 2006  
 Signature of Welder or Machine Operator: [Signature]  
 Welding Examiner (Print/type): STEVE RIEBERGER Card No. **C 9609**

**PERFORMANCE QUALIFICATION C 9609**  
 Process(es) SMAW SMAW Materials (P.No.) PI  
 Filler Metal Group (F.No.) F3 F4 Min. Outside Diameter 1.0 in O.D.  
 Max. Deposited Weld Metal 0.188" 0.500" Position(s) Qualified All  
 Backing with or without Backing Gas N/A  
 Progression uphill uphill  
 Date of Test: June 15, 2008 Signature of Welder or Machine Operator: [Signature]  
 P.Q. Expiry Date: June 15, 2008 Welding Examiner Signature: [Signature] Examiner File No.: E-00097

A.O.Q.P. No. 7106 (c)  
**LUDWIG & ASSOCIATES LTD.**  
 Materials and Welding Engineering  
**WELDER PERFORMANCE QUALIFICATION CARD**  
 Name: Frank Kapitany ABSA File No. W-16281  
 This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.  
 Date of Test: June 15, 2006  
 Signature of Welder or Machine Operator: [Signature]  
 Welding Examiner (Print/type): STEVE RIEBERGER Card No. **C 9610**

**PERFORMANCE QUALIFICATION C 9610**  
 Process(es) GMAW SMAW Materials (P.No.) PI  
 Filler Metal Group (F.No.) F6 F4 Min. Outside Diameter 1.0 in O.D.  
 Max. Deposited Weld Metal 0.110" 0.488" Position(s) Qualified SMAW: Flat  
 Backing with or without Backing Gas with or without  
 Progression downhill N/A  
 Date of Test: June 15, 2008 Signature of Welder or Machine Operator: [Signature]  
 P.Q. Expiry Date: June 15, 2008 Welding Examiner Signature: [Signature] Examiner File No.: E-00097



**EASTEND IRON IND. LTD.**  
**6215 54 AVENUE**  
**TABER ALBERTA T1G 1X4**  
**TELEPHONE (403) 223-2620**  
**FAX (403) 223-8626**

APPRENTICESHIP AND TRADE CERTIFICATION BRANCH

**Alberta**  
ADVANCED EDUCATION AND MANPOWER

THIS IS TO CERTIFY THAT  
W. George VAN DER MEULEN

HOLDS A CERTIFICATE OF PROFICIENCY  
 AS A/AN Welder - First Class

DATE July 6, 1982 No. CD2958

FILE 12/06551

*B. Watson*  
 DIRECTOR

(OVER)

CONDITION(S) OF ISSUE  
 ON COMPLETION OF APPRENTICESHIP  
 # AC1791, ALBERTA

INTERPROVINCIAL STANDARD  
**CANADA**  
 J-22-01351  
 NORME INTERPROVINCIALE

**Alberta** LABOUR

**ABSA**

Grade "B" Pressure Welder's Certificate of Competency

This is to Certify that Weibe George Van Der Meulen  
 having complied with provisions of the Safety Codes Act, is authorized to engage in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton, this  
December 12, 1997

W- 16936  
 File No. *Sela*  
 Chief Inspector and Administrator

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
George Vandermeulen W-16936  
 (Name) ABSA File No.

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
 Date of Test *[Signature]*  
 Signature of Welder or Operator

Jack Bennett  
 Examiner (Print/Type)

Card No.: **2019**

Card No.: **2019**

**PERFORMANCE QUALIFICATION**

Process(es) SMAW SMAW Material (P-No.) P1-P11

Filler Metal Group (F No.) F3 F4 Min. Outside Diameter 1" O.D.

Max. Deposited Weld Metal 0.250 0.622 Position(s) Qualified 6G-ALL

Backing without with Backing Gas \_\_\_\_\_

Progression uphill uphill

11-April-09 *Jack Bennett* WG00032  
 P.Q. Expiry Date Welding Examiner Signature Certificate No.

012/223095 673424

**JOURNEYMAN CERTIFICATE**

THIS IS TO CERTIFY THAT  
ROBERT J. CAMPBELL  
 HAS COMPLETED AN ALBERTA APPRENTICESHIP PROGRAM AND HAVING ACHIEVED THE STANDARDS ESTABLISHED UNDER THE ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING ACT, IS HEREBY AUTHORIZED TO WORK IN THE TRADE AS A JOURNEYMAN AND TO USE THE TITLE CERTIFIED JOURNEYMAN.

WELDER

EFFECTIVE DATE April 22nd, 2005 ISSUE DATE May 10th, 2005

**Alberta** GOVERNMENT  
 HONOURABLE DAVE HANCOCK, O.C. MINISTER OF ADVANCED EDUCATION

*[Signature]*  
 SHIRLEY DILL, EXECUTIVE DIRECTOR OF APPRENTICESHIP & INDUSTRY TRAINING

INTERPROVINCIAL STANDARD  
**CANADA**  
 J-22-74676  
 NORME INTERPROVINCIALE

**Alberta** MUNICIPAL AFFAIRS

**ABSA**

20859 Grade "B" Pressure Welder's Certificate of Competency

This is to certify that Robert Campbell  
 having complied with provisions of the Safety Codes Act, is authorized to engage in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton  
March 30, 2007

W-25637  
 File no. *Sela*  
 Chief Inspector and Administrator

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
Robert Campbell W-25637  
 (Name) ABSA File No.

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
 Date of Test *[Signature]*  
 Signature of Welder or Operator

Jack Bennett  
 Examiner (Print/Type)

Card No.: **2018**

Card No.: **2018**

**PERFORMANCE QUALIFICATION**

Process(es) SMAW SMAW Material (P-No.) P1-P11

Filler Metal Group (F No.) F3 F4 Min. Outside Diameter 1" O.D.

Max. Deposited Weld Metal 0.250 0.622 Position(s) Qualified 6G-ALL

Backing without with Backing Gas \_\_\_\_\_

Progression uphill uphill

11-April-09 *Jack Bennett* WG00032  
 P.Q. Expiry Date Welding Examiner Signature Certificate No.



**EASTEND IRON IND. LTD.**  
**6215 54 AVENUE**  
**TABER ALBERTA T1G 1X4**  
**TELEPHONE (403) 223-2620**  
**FAX (403) 223-8626**

012/296295 20911A

THIS IS TO CERTIFY THAT  
**CUONG D NGUYEN**  
 HAS COMPLETED AN ALBERTA APPRENTICESHIP PROGRAM AND HAVING ACHIEVED THE STANDARDS ESTABLISHED UNDER THE ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING ACT, IS HEREBY AUTHORIZED TO WORK IN THE TRADE AS A JOURNEYMAN AND TO USE THE TITLE CERTIFIED JOURNEYMAN

**WELDER**

EFFECTIVE DATE December 11th, 1996 ISSUE DATE December 17th, 1996

*J. W. Bennett* *Shirley Dill*

JACK W. BENNETT, MINISTER OF ADVANCED EDUCATION & CHILD DEVELOPMENT SHIRLEY DILL, EXECUTIVE DIRECTOR OF APPRENTICESHIP & INDUSTRY TRAINING



Alberta LABOUR ABSA

**Grade "B" Pressure Welder's Certificate of Competency**

This is to Certify that: **Cuong Dinh Nguyen**  
 having complied with provisions of the Safety Codes Act, is authorized to engage in pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton, this **October 31, 1997**

File No. **W-16221** Chief Inspector and Administrator *Shirley Dill*

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Cuong Nguyen** W-16221  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07 *Cuong*  
 Date of Test Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type) Card No.: **2053**

Card No.: **2053**  
**PERFORMANCE QUALIFICATION**

Process(es) **GMAW GMAW** Material (P-No.) **P1-P11**  
 Filler Metal Group (F No.) **F6 F6** Min. Outside Diameter **1" O.D.**  
 Max. Deposited Weld Metal **0.110 with 0.1298** Position(s) Qualified **6G-ALL**  
 Backing **without with** Backing Gas **---**  
 Progression **Downhill Downhill**

11-April-09 *Jack Bennett* W-16221  
 P.O. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Cuong Nguyen** W-16221  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07 *Cuong*  
 Date of Test Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type) Card No.: **2052**

Card No.: **2052**  
**PERFORMANCE QUALIFICATION**

Process(es) **GTAW GTAW** Material (P-No.) **P8-P8**  
 Filler Metal Group (F No.) **F6 F6** Min. Outside Diameter **1" O.D.**  
 Max. Deposited Weld Metal **0.200 with 0.236** Position(s) Qualified **6G-ALL**  
 Backing **without with** Backing Gas **Argon**  
 Progression **uphill uphill**

11-April-09 *Jack Bennett* W-16221  
 P.O. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**  
**Cuong Nguyen** W-16221  
 (Name) (ABSA File No.)

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07 *Cuong*  
 Date of Test Signature of Welder or Operator

**Jack Bennett**  
 Examiner (Print/Type) Card No.: **2051**

Card No.: **2051**  
**PERFORMANCE QUALIFICATION**

Process(es) **SMAW SMAW** Material (P-No.) **P1-P11**  
 Filler Metal Group (F No.) **F3 F4** Min. Outside Diameter **1" O.D.**  
 Max. Deposited Weld Metal **0.250 with 0.622** Position(s) Qualified **6G-ALL**  
 Backing **without with** Backing Gas **---**  
 Progression **uphill uphill**

11-April-09 *Jack Bennett* W-16221  
 P.O. Expiry Date Welding Examiner Signature Certificate No.



**EASTEND IRON IND. LTD.**  
**6215 54 AVENUE**  
**TABER ALBERTA T1G 1X4**  
**TELEPHONE (403) 223-2620**  
**FAX (403) 223-8626**

APPRENTICESHIP AND  
 TRADE CERTIFICATION  
 BRANCH

**Alberta**  
 MANPOWER

THIS IS TO CERTIFY THAT  
Larry William GARRETT

HOLDS A CERTIFICATE OF PROFICIENCY  
 AS A/AN Welder - First Class

DATE June 22, 1984 No. CF8903

FILE 12/10499

*[Signature]*  
 DIRECTOR

(OVER)

CONDITION(S) OF ISSUE  
 ON COMPLETION OF APPRENTICESHIP  
 # AD2731, ALBERTA

**INTERPROVINCIAL  
 STANDARD**

**CANADA**

J-22-02876

**NORME  
 INTERPROVINCIALE**

**Alberta**  
 LABOUR

**ABSA**

**Grade "B" Pressure Welder's  
 Certificate of Competency**

This is to Certify that: Larry W. Garrett  
 having complied with provisions of the Safety Codes Act, is authorized to engage in  
 pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton, this  
May 12, 1999

*[Signature]*  
 Chief Inspector and Administrator

**W-17676**  
 File No.

**Bromley Mechanical Services**  
 (Accredited Organization) A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**

Larry Garrett W-17676  
 (Name) ABSA File No.

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure  
 Welders' Regulations. The performance qualification is in accordance with Section  
 IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07 *[Signature]*  
 Date of Test Signature of Welder or Operator

Jack Bennett  
 Examiner (Print/Type) Card No.: **2020**

Card No.: **2020**

**PERFORMANCE QUALIFICATION**

Process(es) <u>SMAW SMAW</u>	Material (P-No.) <u>PI-PII</u>
Filler Metal Group (F No.) <u>F3 F4</u>	Min. Outside Diameter <u>1" OD</u>
Max. Deposited Weld Metal <u>0.250 0.622</u>	Position(s) Qualified <u>6G-ALL</u>
Backing <u>without with</u>	Backing Gas <u>—</u>
Progression <u>uphill uphill</u>	
<u>11-April-09</u> P. Q. Expiry Date	<i>[Signature]</i> Welding Examiner Signature
	<u>WG00032</u> Certificate No.





**EASTEND IRON IND. LTD.**  
**6215 54 AVENUE**  
**TABER ALBERTA T1G 1X4**  
**TELEPHONE (403) 223-2620**  
**FAX (403) 223-8626**



Saskatchewan  
Post-Secondary  
Education and  
Skills Training

Apprenticeship  
and Trade  
Certification

This is to certify that  
**PERRY J. WEINBERGER**

holds a Journeyman certificate of qualification in the

**WELDER** trade

Date of Issue: 18/12/98

*Doug Meier*  
Director

No 50436



Alberta  
LABOUR

ABSA

Grade "B" Pressure Welder's  
Certificate of Competency

This is to Certify that **Perry J. Weinberger**  
having complied with provisions of the Safety Codes Act, is authorized to engage in  
pressure welding in accordance with the prescribed Regulations.

Dated at Edmonton, this  
February 17, 1999



W. 17416  
File No.

Chief Inspector and Administrator

**Bromley Mechanical Services**

(Accredited Organization)

A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**

*Perry Weinberger W-17416*  
(Name) ABSA File No.

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
Date of Test

*Perry Weinberger*  
Signature of Welder or Operator

*Jack Bennett*  
Examiner (Print/Type)

Card No.: 2023

Card No.: 2023

**PERFORMANCE QUALIFICATION**

Process(es) *GMAW GMAW* Material (P-No.) *PI-P11*  
 Filler Metal Group (F No.) *F6 F6* Min. Outside Diameter *1" O.D.*  
 Max. Deposited Weld Metal *0.110 0.1298* Position(s) Qualified *0-45°*  
 Backing *None without* Backing Gas *NA*

Progression *Downhill Downhill*

11-April-09 *Jack Bennett* *WG00032*  
P.Q. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**

(Accredited Organization)

A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**

*Perry Weinberger W-17416*  
(Name) ABSA File No.

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
Date of Test

*Perry Weinberger*  
Signature of Welder or Operator

*Jack Bennett*  
Examiner (Print/Type)

Card No.: 2024

Card No.: 2024

**PERFORMANCE QUALIFICATION**

Process(es) *GTAW GTAW* Material (P-No.) *P8-P8*  
 Filler Metal Group (F No.) *F6 F6* Min. Outside Diameter *1" O.D.*  
 Max. Deposited Weld Metal *0.200 0.236* Position(s) Qualified *6G-ALL*  
 Backing *without with* Backing Gas *Argon*

Progression *uphill uphill*

11-April-09 *Jack Bennett* *WG00032*  
P.Q. Expiry Date Welding Examiner Signature Certificate No.

**Bromley Mechanical Services**

(Accredited Organization)

A.O.Q.P. No. 7119

**WELDER PERFORMANCE QUALIFICATION CARD**

*Perry Weinberger W-17416*  
(Name) ABSA File No.

This card is issued pursuant to the Alberta Safety Codes Act and the Pressure Welders' Regulations. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

11-April-07  
Date of Test

*Perry Weinberger*  
Signature of Welder or Operator

*Jack Bennett*  
Examiner (Print/Type)

Card No.: 2017

Card No.: 2017

**PERFORMANCE QUALIFICATION**

Process(es) *SMAW SMAW* Material (P-No.) *PI-P11*  
 Filler Metal Group (F No.) *F3 F4* Min. Outside Diameter *1" O.D.*  
 Max. Deposited Weld Metal *0.250 0.622* Position(s) Qualified *6G-ALL*  
 Backing *Without with* Backing Gas *—*

Progression *uphill uphill*

11-April-09 *Jack Bennett* *WG00032*  
P.Q. Expiry Date Welding Examiner Signature Certificate No.

**Procedure 5b: Weld Build-Up of Wasted Areas Non PWHT**

A#	2710237	Facility	Medicine Hat West, Taber South
CRN#	H 0995.2	LSD	13-18-010-16W4
S/N	L-8-325		
MAWP	75 PSIG	Vessel Description	Treater; Repair to Spare Fire Tube 18" X .625" SA-516-70 Sour Service
Material	SA-516-70		
Shell Thickness	.375"	Scope of Work: Weld build up of pitted areas on a firetube as per IRIS report details attached.	
Head Thickness	.598"		

**Scope**

*Authentic Work  
from IRIS*

1. The weld build up of wasted areas in a firetube constructed of P-I Group 1 or 2 materials.
2. Weld build up shall not exceed the lesser of one-half the vessel wall thickness or a maximum of 12.7 mm (1/2").

**Procedure**

**Weld Preparation**

1. Area to be welded to shall be cleaned to white metal for a distance of 10 mm beyond the expected weld area.

**Hydrogen Bake out and Sulfur removal: (remove this section if this firetube is not in sour service)**

2. Vessels that have been exposed to sour or sulfur bearing process streams shall required the weld attachment area to undergo a "Bake Out" procedure. This procedure shall consist of heating the weld attachment area and 10 cm on each side to 315 C (600 F) and holding that temperature for a minimum of 60 minutes. Bake out should be done prior to cutting out, if cutout is done thermally. Stipulate controls methods.



**Note**

The Bake Out temperature shall be limited to 450 C (842 F) to stay within the elastic limit of a P1 material so as to avoid the possibility of plastic deformation due to over heating.

3. *Bake Out* is performed by either induction coil (use thermocouples as control instrumentation) or propane torch

**Procedure**  
**continued...**

(use temperature-sensitive crayons – upper and lower temperature to be controlled). Oxyacetylene torches are **not** acceptable.

4. If induction coils are used, a 250 C (482 F) four-hours heat treatment may be substituted for the normal 315 C (600 F) one-hour heat treatment.

---

**Preheat and Welding:**

**Non-Post Weld Heat Treated Equipment**

5. Minimum pre-heat shall be 80 C (176 F) for a 100 mm band on both sides of the weld build-up area.



**Note**

The 80 C (176 F) pre-heat temperature has been selected for alignment with NB-23, Appendix B assuming the specific carbon content of the material is not known.

6. Welds shall be completed using new 2.4 mm (3/32") E 7018-1 electrodes.

- 
7. Maximum interpass temperature shall not exceed 230 C (450 F).
  8. The Owner's Inspector, shall witness seal on the box being broken and ensure that once the box has been opened the electrodes are stored in an oven.
  9. Use only stringer beads where the width of the weld weave is a maximum of 7 mm.
  10. No down hand welding shall be used.
  11. Once the welds are completed the weld area shall be wrapped with an insulating blanket and allowed to slow cool to 100 C (212 F). The cooling rate shall not exceed 260 C (500 F) / hour.
  12. Once the finished weld has cooled below 100 C (212 F) grind off the cap of the weld smooth and contour to the original shape of the firetube.

---

**Post Welding NDE:**

**Procedure**

continued...

---

13. Perform MT 12 hours after completion of the work

14. No hydrotest is required.

---

**Documentation:**

15. Ensure Company Approved Contractor has completed QC documentation.

16. Sign off ABSA AB-40 and ensure one copy is submitted to ABSA and one is retained on file in the equipment inspection file.

Procedure 2: Weld Build-Up of Wasted Areas Non PWHT			
Section	Comments	Sign Off	Date
Scope		Authentic Weld	Jan 8/08
Procedure		Authentic Weld	Jan 8/08
Weld Preparation			
Step 1		Berry Weinberg	Mar 11/2008
Hydrogen Bake Out and Sulphur Removal			
Step 2		Berry Weinberg	Mar 11/2008
Step 3		Berry Weinberg	Mar 11/2008
Step 4			
Preheat and Welding			
Step 5		Berry Weinberg	Mar 11/2008
Step 6		Berry Weinberg	Mar 11/2008
Step 7		Berry Weinberg	Mar 11/2008
Step 8			
Step 9		Berry Weinberg	Mar 11/2008
Step 10		Berry Weinberg	Mar 11/2008
Step 11		Berry Weinberg	Mar 11/2008
Step 12		Berry Weinberg	Mar 12/2008
Post Welding NDE			
Step 13		Berry Weinberg	Mar 13/2008
Step 14			
Documentation			
Step 15		Berry Weinberg	Mar 14/2008
Step 16		Berry Weinberg	Mar 14/2008

**Procedure 5: Firetube Repair Procedure – Cracking Non PWHT**

A#	2710237	Facility	Medicine Hat West, Taber South
CRN#	H 0995.2	LSD	13-18-010-16W4
S/N	L-8-325		
MAWP	75 PSIG	Vessel Description	Treater; Repair to Spare Fire Tube 18" X .625" SA-516-70 Sour Service
Material	SA-516-70		
Shell Thickness	.375"	Scope of Work: Replacement of full miter return bend as per IRIS report details attached.	
Head Thickness	.598"		

**Scope**

*Anthony Paul  
Jan 5/08*

1. The repair of cracks to a firetube constructed of P-I Group 1 or 2 materials.
2. Severe cracking or pitting into the firetube parent metal or through wall cracking may require the replacement of a section of the firetube.

**Procedure**

**Weld Preparation**

1. Defects identified by Wet Fluorescent Magnetic Particle Inspection shall be removed using an air arc gouger or grinder. Area shall be reinspected (including beveled surfaces of weld prep) using WFMPI to ensure all defects have been removed.
2. Area to be welded to shall be cleaned to white metal for a distance of 10 mm beyond the expected weld area.

**Hydrogen Bake out and Sulfur removal: (remove this section if this firetube is not in sour service)**

3. Vessels that have been exposed to sour or sulfur bearing process streams shall required the weld attachment area to undergo a "Bake Out" procedure. This procedure shall consist of heating the weld attachment area and 10 cm on each side to 315 C (600 F) and holding that temperature for a minimum of 60 minutes. Bake out should be done prior to cutting out, if cutout is done thermally. Stipulate controls methods.
4. *Bake Out* is performed by either induction coil (use thermocouples as control instrumentation) or propane torch (use temperature-sensitive crayons – upper and lower temperature to be controlled). Oxyacetylene torches are **not**

**Procedure  
continued...**

acceptable.

5. If induction coils are used, a 250 C (482 F) four-hours heat treatment may be substituted for the normal 315 C (600 F) one-hour heat treatment.

---

**Preheat and Welding:**

**Non-Post Weld Heat Treated Equipment**

6. Minimum pre-heat shall be 80 C (176 F) for a 100 mm band on both sides of the weld build-up area. Temperature is to be monitored by use of temple sticks or pyrometer.



**Note**

The 80 C (176 F) pre-heat temperature has been selected for alignment with NB-23, Appendix B assuming the specific carbon content of the material is not known.

7. Welds shall be completed using new 2.4 mm (3/32") E 7018-1 electrodes.
- 

8. Maximum interpass temperature shall not exceed 230 C (450 F).
9. The Owner's Inspector, shall witness seal on the box being broken and ensure that once the box has been opened the electrodes are stored in an oven.
10. Perform repair to the procedure as outlined in the registered WPS.
11. Perform dry MPI on the root weld.
12. Fill and cap using E7018 low hydrogen electrodes. Minimize the weave (maximum 4 times electrode size and minimize heat input).
13. Ensure all fillet welds are transitioned to ensure there are no areas of undercut or stress risers.
14. Once the welds are completed the weld area shall be wrapped

with an insulating blanket and allowed to slow cool to 100 C (212 F). The cooling rate shall not exceed 260 C (500 F) / hour.

**Procedure**

continued...

---

**Post Welding NDE:**

15. Complete 100 % RT of miter butt weld joints
16. Perform MT 12 hours after completion of the work
17. No hydrotest is required.

---

**Documentation:**

18. Ensure Company Approved Contractor has completed QC documentation.
19. Sign off ABSA AB-40 and ensure one copy is submitted to ABSA and one is retained on file in the equipment inspection file.

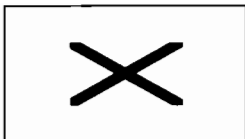


Step 19

Berry Weirby Thru 14/2008

**Procedure 5: Firetube Repair Procedure – Cracking Non PWHT**

Section	Comments	Sign Off	Date
Scope		<i>Anthony Park</i>	Jan 8/08
Procedure		<i>Anthony Park</i>	Jan 8/08
<b>Weld Preparation</b>			
Step 1		<i>Perry Weiringer</i>	Jan 9/08
Step 2		<i>Perry Weiringer</i>	Jan 9/08
<b>Hydrogen Bake Out and Sulphur Removal</b>			
Step 3		<i>Perry Weiringer</i>	Jan 9/08
Step 4		<i>Perry Weiringer</i>	Jan 9/08
Step 5			
<b>Preheat and Welding</b>			
Step 6		<i>Perry Weiringer</i>	Jan 11/08
Step 7		<i>Perry Weiringer</i>	Jan 11/08
Step 8		<i>Perry Weiringer</i>	Jan 11/08
Step 9			
Step 10		<i>Perry Weiringer</i>	Jan 11/08
Step 11		<i>Perry Weiringer</i>	Jan 29 Feb 5/08
Step 12		<i>Perry Weiringer</i>	March 11/08
Step 13		<i>Perry Weiringer</i>	Mar 11/08
Step 14		<i>Perry Weiringer</i>	Mar 11/08
<b>Post Welding NDE</b>			
Step 15		<i>Perry Weiringer</i>	Mar 13/08
Step 16		<i>Perry Weiringer</i>	Mar 14/08
Step 17			
<b>Documentation</b>			
Step 18		<i>Perry Weiringer</i>	Mar 14/08



# BOILERS AND PRESSURE VESSELS REPAIR AND ALTERATION REPORT

(A) #: 2710237

OWNER EQUIP NO.: L-8-325

REPAIR  and/or ALTERATION  Partial  Final

1. Name and Address of Organization doing Repair/Alteration Eastend Iron Ind. Ltd.

6215 54 Ave. Taber Alta T1G1X4 AQP No. & Expiry Date 2972 July 27, 2010

Location of Installation 13-18-10-16W4

2. Name of Owner C.N.R.L

Address \_\_\_\_\_

3. Boiler/Pressure Vessel Description Horizontal CRN H-0995.2

Manufacturer's Name Natco Canada Serial No. L-8-325

4. Design Conditions:

a) Vessel/Shellside/Boiler: Max Allowable Working Press. 75psi Min/Max Design Temp 200/f

b) Jacket/Tubeside: Max Allowable Working Press. \_\_\_\_\_ Min/Max Design Temp /f

5. Description of defects (location and types of deterioration that resulted in the repair/alteration). \_\_\_\_\_

A hole and thin areas were found on the miter joints, and pitting found on one leg of the firetube.

6. ASME Code Edition and Addenda used for work: ASME Sect. VIII Year 2004 Addenda \_\_\_\_\_

7. Repair/Alter. Description of Work. Step by step description of repair/alteration method, attach additional sheets as needed.

**Note 1:** Repair/Alteration Procedure to be accepted by Alberta Boilers Safety Association SCO prior to start of work.

All three miter joints will be replaced. The miter joints will be preheated, welded and wrapped as outlined in the procedures. The replacement miters will be cut from 18" A-106 pipe. The pitted area will be preheated and weled and wrapped as per the outline. The root passes on the miter joints will be ground out and dry mag particaled, before the fill and caps are preformed.

8. Material - List any material used in repair/alteration and any base material welded on:

Item	Mat'l Spec.	Thick/Sch	Diam	Item	Mat'l Spec.	Thick/Sch	Diam
Shell/Drum				Heads/ Ends			
Tubesheet				Tubes	A-106	.375	18"
Nozzles				Flanges/Fittings		Class	

9. Welding Procedure - Alberta Registration Number WP- 2178.2 WPS Numbers used: EII 2

10. Heat Treatment: Bake Out (Temp./Time) 1 / 1hr Preheat Temp 600F Post Weld HT (Temp./Time)  / hr

11. Non Destructive Examination (Specify type and extent).

A magpartical and xray will be done on the affected areas.

(A) #: 2710237

OWNER EQUIP. NO. L-8-325

12. Pressure Test	Vessel/Boiler/Shellside	Tubeside/Jacket
a) Hydrostatic	<u>NA</u>	<u>NA</u>
b) Other Test	<u>NA</u>	<u>NA</u>

13. **Welded Replacement Parts:** Attached are Manufacturer's Partial Data Reports or Repair/Alteration Reports properly identified and signed by Authorized Inspectors for the following items of this report: (Welded parts supplied by others).

14. **Responsibility Owner/Client.** Identify below items that the owner/client has assumed responsibility for. **Note (2)**

- a) Design Submission O      b) Repair/Alteration Procedure: C      c) Material Control C
- d) Welding Control C      e) NDE C      f) Heat Treatment C      g) Pressure Test C

**Note 2:** Owner/client must have a valid Alberta Quality Program (AQP), for the scope of work, to assume responsibility for function c, d, e, f, or g.

15. **REMARKS:**

No rejectable indications noted at the time of the inspection.

16. **CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this Report are correct and that all design, material, construction and workmanship on this repair/alteration conform to the requirements of the Alberta Safety Codes Act and Regulations.

a) For all items except for items identified in 14:

Eastend Iron Ind. Ltd.

(Repair/Alteration Organization Name)

AQP#2972 July 27, 2010

(AQP Number & Expiry Date)

Perry Weinberger March 14/2008

(Signature & Date)

Perry Weinberger

(Print Name)

b) For items identified in 14 only:

(Owner/Client Organization Name)

(AQP Number & Expiry Date)

(Signature & Date)

(Print Name)

17. **DATE WORK WAS COMPLETED:** March 14/2008

18. **CERTIFICATE OF INSPECTION**

I have inspected the repairs and/or alterations described in this report. To the best of my knowledge this work has been done in accordance with the Safety Codes Act and Regulations.

**a) Owner-User Inspection Certification (Field Only)**  
(Required when Owner-User Inspects the work under their ABSA Authorized Owner-User Quality Program).

**b) ABSA Safety Codes Officer Certification**  
(when work is inspected by ABSA).

Owner-User AQP# & Expiry Date

Owner User In-Service Inspector Signature & Date

ABSA SCO Signature & Date

Owner-User In-Service Inspector Name (Please Print)

Print Name

Owner-User In-Service Inspector Alberta Cert #

Report Received by ABSA SCO \_\_\_\_\_

Date \_\_\_\_\_

**EASTEND IRON INDUSTRIES (1995) LTD.**

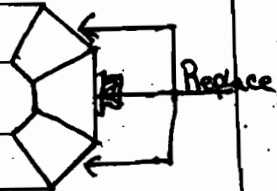
**EXAMINATION & INSPECTION REPORT  
Pressure Vessel Repair or Alteration**

Pressure Vessel Description	Serial Number	Alberta (A) No.
Horizontal	L-8-325	2710237

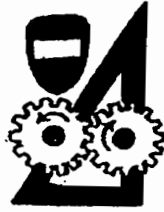
Initial and Date				
Delete items which are not applicable	Comments	QCM	ABSA Safety Codes Officer	Owner's Insp.
1) Contract Reviewed			Pw01/04/08	
2) Repair or Alteration Procedure Accepted by ABSA Safety Codes Officer (and Owner User Program Inspector, when applicable)			Pw01/04/08	
3) Welding Procedures Registered for Welding to be done			Pw01/04/08	
4) Welders have valid Alberta PQ card for work to be done			Pw01/04/08	
5) Drawings Released				
6) Cracks Mag Particle/Dye check after removal				
7) Material to be used:				
- checked against PO/Drawing				
- material identified with correct SA/SB Specifications			Pw01/04/08	
- material test reports checked against Specification			Pw01/04/08	
8) Fitup:				
- Shell Courses - Flush Patches - Heads				
- Tubesheet / Shell / Firetube			Pw01/04/08	
- Nozzles and Fittings				
9) Radiographic Examinations			Pw03/13/08	
10) Ultrasonic Examination/Magnetic Particle / Dye Penetrant			Pw03/13/08	
11) Internal Visual after welding			Pw03/13/08	
12) External Visual after welding			Pw03/13/08	
13) Heat Treatment			Pw01/18/08	
14) Hardness Tests				
15) Non Conformances Cleared				
16) Hydrostatic Pressure Test				
17) Alternative Test (Specify)				
18) Alberta Repair or Alteration Form AB-40 completed			Pw03/14/08	
19) Repair or Alteration name plate attached				

OUTLINE SKETCH	MATERIAL USED IN REPAIR / ALTERATION					
	Item	Mat'l Spec.	Ht. No.'s Pl. & Heads	Thk.	Sch.	Rating
(Record Welder's Symbols and Heat No.'s, Radiograph ID's).  Attach separate sketch if required.	Shell/Patches					
	Heads/End					
	Tubesheet					
	Firetube	A-106	826226	.375		
	Nozzles					
	Fittings					
	Flanges					

Pitting  
←→



Hold Points are indicated by an asterisk - \*



**EASTEND IRON IND. LTD.  
6215 54 AVENUE  
TABER ALBERTA T1G 1X4  
TELEPHONE (403) 223-2620  
FAX. (403) 223-8626**

**CERTIFYING STATEMENT**

**ACCEPTANCE OF PROCEDURES MANUAL**

**I have reviewed the written practice, procedures, personnel records and certification of:**

**Law Inspection Services Ltd.  
P.O. Box 1971  
Lethbridge, Alberta T1J 4K5**

**In my opinion, they comply in all respects with the requirements of:**

**CGSB AND ASNT-TC-1A**

**Law Inspection Service Inc.**

**Are hereby appointed to perform:**

**RADIOGRAPHY, ULTRASOUND, DYE PENETRANT &  
MAGNETIC PARTICLE INSPECTION**

**FOR**

**Eastend Iron Ind. Ltd.  
6215 54 Ave  
Taber, Alberta.  
T1G 1X4**

**Appointment of Level III Examiner**

**Warren Graham**

**Is by this statement to act as the Level III examiner for:**

**Eastend Iron Ind. Ltd.**

**To Conduct:**

**RADIOGRAPHY, ULTRASOUND, DYE PENETRANT, AND  
MAGPARTICLE INSPECTION.**

Date: June 29/2008 Signature of QC Manager Perry Weinberger



**Eastend Iron Industries Ltd.** Phone: (403) 223-2620  
 6215 – 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)

Natural Resources Canada / Ressources naturelles Canada  
 Qualified to (1) CAN/CQSB-45 9712 or (2) ISO 28807

Name: Austin J. McNeely  
 Reg. No.: 4918  
 Issue Date: 2007/01/11  
 Expiry Date: 2009/12/31  
 Signature: *[Signature]*

Method	Level	Swear	Cert. Date	Revert. Date	Expires
Method	Level	Swear	Date cert.	Date reverts	Expiration
RT	2	EMC	93/06/06		09/12/31
MT	2	EMC	93/04/22		09/12/31
UT	1	EMC	95/09/14		09/12/31

For proof of certification, visit website: <http://www.nrcc.gc.ca>  
 Pour confirmer la certification, visitez le site web: <http://www.nrcc.gc.ca>  
 Manager, Certifying Agency: *[Signature]*  
 Gérant, Organisme de certification: *[Signature]*

Method	Level	Swear	Cert. Date	Revert. Date	Expires
Method	Level	Swear	Date cert.	Date reverts	Expiration
RT	2	EMC	91/06/06		09/12/31
MT	2	EMC	93/04/22		09/12/31
UT	1	EMC	95/09/14		09/12/31

For proof of certification, visit website: <http://www.nrcc.gc.ca>  
 Pour confirmer la certification, visitez le site web: <http://www.nrcc.gc.ca>  
 Manager, Certifying Agency: *[Signature]*  
 Gérant, Organisme de certification: *[Signature]*

LAW INSPECTION SERVICES INC.

**NDT Personnel Certification to the Latest Accepted Edition of SNT-TC-1A  
 EYE EXAMINATION REPORT**

In accordance with the latest accepted edition of SNT-TC-1A, Section 8.2 this Eye Examination Report, consisting of two vision requirements (Near Vision Part A) and (Colour Vision Part B), is to be completed annually.

Employee's Name: AUSTIN McNEELY Registration Number: 4918  
 I am Submitting for the following: Renewal

**Part A Near Vision**

Near vision acuity shall permit reading a minimum of Jaeger number 2 at not less than 30.5 cm with one or both eyes, either corrected or uncorrected.

I CONFIRM THAT THE ABOVE MENTIONED EMPLOYEE: (Please check one.)  
 Meets WITHOUT Correction  Meets WITH Correction  Does Not Meet

WARREN GRAHAM  
 Examiner's Name (Please Print/Type) *[Signature]*  
 Examiner's Signature

NDT III / OWNER  
 Appointment Title SEPT. 20, 2006  
 Date of Eye Examination

**Part B Colour Vision**

I CONFIRM THAT THE ABOVE- MENTIONED EMPLOYEE CAN DISTINGUISH AND DIFFERENTIATE CONTRAST BETWEEN THE COLOURS USED IN THE NDT METHOD(S) CONCERNED

WARREN GRAHAM  
 Examiner's Name (Please Print/Type) *[Signature]*  
 Examiner's Signature

NDT III / OWNER  
 Appointment Title SEPT. 20, 2006  
 Date of Eye Examination

**NDT PERSONNEL CERTIFICATION TO THE LATEST ACCEPTED STANDARD SNT-TC-1A**

**EYE EXAMINATION REPORT**

Applicant's Name: AUSTIN McNEELY C.G.S.B. Registration Number: 4918

**Part C Shades of Gray**

To be completed by any of the following: the employer; medically recognized personnel; or certified level 3 personnell

I CERTIFY THE ABOVE MENTIONED APPLICANT CAN DISTINGUISH AND DIFFERENTIATE CONTRAST BETWEEN THE SHADES OF GRAY USED IN THE NDT METHOD(S) CONCERNED.

WARREN GRAHAM  
 Examiner's Name (Please Print/Type) *[Signature]*  
 Examiner's Signature

NDT III / OWNER  
 Appointment Title SEPT. 20, 2006  
 Date of Eye Examination



Eastend Iron Industries Ltd. Phone: (403) 223-2620  
 6215 - 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)

**Heavy Resources** **Insurance Services**  
 Canada Canada  
 Qualified to provide services in Alberta  
 as per SIBI's Qualification

Medical	Level	Factor	Exp. Date	Issue Date	Issue
Minimum	Maximum	Minimum	Maximum	Policy	Expiration
20	4	0%	03/09/18		09/12/17

For more information, visit website: <http://www.sibi.ca>  
 For a complete list of services, visit us at: [www.eastendiron.com](http://www.eastendiron.com)  
 Through: **Canbridge Agency**  
 Insurance, Operations & maintenance *Richard H. King*

**Heavy Resources** **Insurance Services**  
 Canada Canada  
 Qualified to provide services in Alberta  
 as per SIBI's Qualification

**Name:**  
**Everett W. MacLeod**

**Exp. No.:**  
**No. materials: 12318**

**Issue Date:**  
**Exp. Expiration: 06/06/2011**

**Equip. Class:**  
**Expiration: 06/06/2011**

**Signature:** *Everett W. MacLeod*



*Everett W. MacLeod*





Eastend Iron Industries Ltd. Phone: (403) 223-2620  
 6215 - 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)

 Natural Resources Canada / Ressources naturelles Canada

This card is proof of the certification of the individual as specified.  
 Cette carte est la preuve de la certification de l'individu comme indiqué.



Name/  
 Nom Robert D. Jones  
 Reg. No./  
 No. matricule 6329  
 Issue Date/  
 Date d'émission 2007/02/20  
 Expiry Date/  
 Expiration 2009/12/31  
 Signature

Appointment Name: Robert Jones  
 C.O.A. Registration Number: 6329  
**Part C Shades of Gray**  
 To be completed by any of the following: the employer; medically recognized personnel; or certified level 3 personnel.  
 I CERTIFY THE ABOVE MENTIONED APPLICANT CAN DISTINGUISH AND DIFFERENTIATE THE CONTRAST BETWEEN THE SHADES OF GRAY USED IN THE NDT METHODS CONCERNED.  
 ALAN G. GIBSON  
 Examiner's Name  
 General Manager / Owner  
 Appointment Title  
 JULY 11, 2006  
 Date of Eye Exam

NOT RECOGNIZED CERTIFICATION FOR THIS APPOINTMENT APPROVED STATIONARY SERVICE  
**EYE EXAMINATION REPORT**

LAW INSPECTION SERVICES INC.

**NDT Personnel Certification to the Latest Accepted Edition of SNT-TC-1A  
 EYE EXAMINATION REPORT**

In accordance with the latest accepted edition of SNT-TC-1A, Section 8.2 this Eye Examination Report, consisting of two vision requirements (Near Vision Part A and Colour Vision Part B), is to be completed annually.

Employee's Name: ROBERT JONES Registration Number: 6329  
 Exam Submitting for the following: Renewal

**Part A Near Vision**

Your vision acuity shall permit reading a minimum of Jaeger number 2 at not less than 30.5 cm with one or both eyes, either corrected or uncorrected.

I CONFIRM THAT THE ABOVE MENTIONED EMPLOYEE (Please check one):  
 Sees WITHOUT Correction  Meets WITH Correction  Does Not Meet

ALAN G. GIBSON  
 Examiner's Name (Please Print Type)      Examiner's Signature

GENERAL MANAGER / OWNER      JULY 11, 2006  
 Appointment Title      Date of Eye Examination

**Part B Colour Vision**

I CONFIRM THAT THE ABOVE MENTIONED EMPLOYEE CAN DISTINGUISH AND DIFFERENTIATE CONTRAST BETWEEN THE COLOURS USED IN THE NDT METHOD(S) CONCERNED.

ALAN G. GIBSON  
 Examiner's Name (Please Print Type)      Examiner's Signature

GENERAL MANAGER / OWNER      JULY 11, 2006  
 Appointment Title      Date of Eye Examination



Eastend Iron Industries Ltd. Phone: (403) 223-2620  
 6215 – 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)





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 6215 - 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)

Natural Resources Canada / Ressources naturelles Canada  
 This card is proof of the certification of the individual as specified  
 Cette carte est la preuve de la certification de l'individu comme indiquée



Name/  
Nom **Wendell Dennis Peterson**  
 Reg. No./  
N<sup>o</sup>. matricule **6111**  
 Issue Date/  
Date d'émission **2005/01/07**  
 Expiry Date/  
Expiration **2007/12/31**

*Wendell Peterson*

Natural Resources Canada / Ressources naturelles Canada

Qualified to 1) CAN/CGSB-48 9712 or/ou  
 2) ISO 20807 Qualifié selon

Method Méthode	Level Niveau	Sector Secteur	Cert. Date Date cert.	Recert. Date Date recert.	Expires Expiration
RT 1	2	EMC	94/04/26		07/12/31
MT 1	2	EMC	95/12/07		07/12/31

Manager, Certifying Agency  
 Gestionnaire, Organisme de certification

*Richard Murphy*

Natural Resources Canada / Ressources naturelles Canada  
**MEDIA EYE EXAMINATION REPORT - NBT PERSONNEL**

This report must be completed by a qualified person (physician, optometrist, or optician) who is licensed to practice in the province or territory of the applicant. This form must be completed and returned to the NBT Certifying Agency when applying for certification under NBT method instead of certification of membership.

Comments from: *Wendell Peterson* *6111*

See Value and Reason Codes - to be completed by medically responsible person (ophthalmologist, optometrist, physician, nurse, etc.)

<input type="checkbox"/> None value assigned (staff performing tests) <input type="checkbox"/> Reason NBT requires number 2 or 3 or combination thereof (as not less than 30 sec without or together, either corrected or uncorrected)	<input type="checkbox"/> Vision value assigned (staffing equal to or better than Snellen Fraction 20/30 without or both eyes, either corrective or uncorrected)
<input type="checkbox"/> Document used (see Definition): <input type="checkbox"/> 20/30 or better (M log) <input type="checkbox"/> 20/30 or better the requirement without correction <input type="checkbox"/> 20/30 or better the requirement with correction <input type="checkbox"/> None met (corrected or uncorrected)	<input type="checkbox"/> Document used (see Definition): <input type="checkbox"/> 20/30 or better (M log) <input type="checkbox"/> 20/30 or better the requirement without correction <input type="checkbox"/> 20/30 or better the requirement with correction <input type="checkbox"/> None met (corrected or uncorrected)

Examiner's Name: *Richard Murphy* (Please Print Type)  
 Examiner's Signature: *[Signature]*  
 Appointment Date: *07/12/07*  
 Date of Eye Examination: *07/12/07*

Value - to be completed by medically responsible person or the employee or certified level 2 NBT person.

Note: A candidate who cannot follow the standard test is acceptable. An alternate test or part of a letter of abilities and the equivalent level NBT procedure, otherwise a performance test to which the candidate can follow instructions that are specific to the method. Examples for applications include that the candidate can follow instructions on a video background and therefore give responses on a variety of responses.

I certify that the candidate is qualified to perform work under the conditions of the NBT method and that the candidate is qualified to perform work under the conditions of the NBT method and that the candidate is qualified to perform work under the conditions of the NBT method.

Examiner's Name: *Richard Murphy* (Please Print Type)  
 Examiner's Signature: *[Signature]*  
 Appointment Date: *07/12/07*  
 Date of Eye Examination: *07/12/07*

**Part C Shades of Gray**

To be completed by any of the following: **the employer; medically recognized personnel; or certified level 3 personnel**

I CERTIFY THE ABOVE MENTIONED APPLICANT CAN DISTINGUISH AND DIFFERENTIATE CONTRAST BETWEEN THE SHADES OF GRAY USED IN THE NBT METHOD(S) CONCERNED.

Examiner's Name: *Richard Murphy* (Please Print Type)  
 Examiner's Signature: *[Signature]*  
 Appointment Date: *07/12/07*  
 Date of Eye Examination: *07/12/07*

ADP PERSONNEL CERTIFIED FROM TO THIS LATEST ACCEPTED EXAMINATION REPORT-11

**EYE EXAMINATION REPORT**

Applicant's Name: \_\_\_\_\_  
 C.G.S.B. Registration Number: \_\_\_\_\_



Eastend Iron Industries Ltd.  
6215 - 54 Avenue  
Taber, AB T1G 1X4

Phone: (403) 223-2620  
Fax: (403) 223-8626  
[www.eastendiron.com](http://www.eastendiron.com)

**Working Procedures**  
Canada

**Responsible Authority**  
CMAA

Qualified as a CMAA (Section 101) on the  
01/01/2007 Qualification

Method	Level	Year	Exp. Date	Next Test	Exp. Date
Method	Year	Test	Test Date	Test Date	Exp. Date
WT	2	WC	01/08/20		08/12/30
WT	2	WC	03/04/24		08/12/30

For proof of an officer's test status: [www.cma.ca](http://www.cma.ca)  
For proof of a certification status: [www.cma.ca](http://www.cma.ca)

Member, Certifying Agency  
Ce membre, Organisme de certification

*Richard Murphy*

**Working Procedures**  
Canada

**Responsible Authority**  
Canada

This card is proof of the holder's status as a member in good standing.  
Cet état est la preuve de la certification de l'adhésion en bonne et loyale forme.

Name:  
Name: Capital Minority

Reg No:  
No. Adhésif: 6794

Issue Date/  
Date d'émission: 2007/01/05

Expiry Date/  
Expiration: 2009/12/31

Signature: *[Signature]*





Eastend Iron Industries Ltd. Phone: (403) 223-2620  
 6215 – 54 Avenue Fax: (403) 223-8626  
 Taber, AB T1G 1X4 [www.eastendiron.com](http://www.eastendiron.com)





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 Natural Resources Canada / Ressources naturelles Canada

This card is proof of the certification of the individual as specified  
 Cette carte est la preuve de la certification de l'individu comme indiquée

Name / Nom: Ron L. Collins

Reg No / No matricule: 4795

Issue Date / Date d'émission: 2006/02/22

Expiry Date / Expiration: 2008/12/31

Signature: 

 Natural Resources Canada / Ressources naturelles Canada

Qualified to 1) CAN/CGSB-48 9712 or/ou  
 2) ISO 20807 Qualifié selon

Method / Méthode	Level / Niveau	Sector / Secteur	Cert. Date / Date cert.	Recert. Date / Date recert.	Expires / Expiration
RT 1	2	EMC	90/05/30		08/12/31
UT 1	1	EMC	95/05/12		08/12/31

Manager, Certifying Agency  
 Gestionnaire, Organisme de certification





Eastend Iron Industries Ltd. Phone: (403) 223-2620  
 6215 - 54 Avenue  
 Taber, AB T1G 1X4  
 Fax: (403) 223-8626  
[www.eastendiron.com](http://www.eastendiron.com)

**Natural Resources Canada / Ressources naturelles Canada**  
 This card is proof of the certification of the individual as specified  
 Cette carte est la preuve de la certification de l'individu comme indiqué

Name: **Warren B. Graham**  
 Reg. No. / No matricule: **5841**  
 Issue Date / Date d'émission: **2007/01/12**  
 Expiry Date / Expiration: **2009/12/31**

Signature: *[Signature]*

**Natural Resources Canada / Ressources naturelles Canada**  
 Qualified to (i) CAN/CSG-48 9712 or/ou  
 (ii) ISO 20807 Qualifié selon

Method / Méthode	Level / Niveau	Sector / Secteur	Cert. Date / Date cert.	Recert. Date / Date recert.	Expires / Expiration
RT	3	EMC	01/06/14		09/12/31
PT	2	EMC	94/04/18		09/12/31
MT	2	EMC	94/03/28		09/12/31
UT	1	EMC	95/09/05		09/12/31

For proof of certification, visit website: <http://nhl.orcan.gc.ca>  
 Pour confirmer la certification, visitez le site web: <http://nhl.orcan.gc.ca>

Manager, Certifying Agency / Gestionnaire, Système de certification  
*[Signature]*

**LAM INSPECTION SERVICES INC.**  
 NHT Personnel Certification to the Latest Accepted Edition of SNT-TC-1A  
 EYE EXAMINATION REPORT

In accordance with the latest accepted edition of SNT-TC-1A, Section 8.1 this Eye Examination Report, consisting of two vision requirements (Near Vision Part A) and Colour Vision Part B), is to be completed annually.

Employee's Name: Warren Graham Registration Number: 5841  
 I am Submitting for the following:  Recertification

**Part A Near Vision**

Near vision acuity shall provide reading a minimum of larger number 2 at not less than 10.1 cm with one or both eyes, either corrected or uncorrected.

I CONFIRM THAT THE ABOVE MENTIONED EMPLOYEE: (Please check one)

Meets WITHOUT Correction  Meets WITH Correction  Does Not Meet

*[Signature]*  
 Examiner's Name (Please Print Type)  
*[Signature]*  
 Examiner's Signature  
*[Signature]*  
 Appointment Title  
 Date of Eye Examination: July 11, 2006

**Part B Colour Vision**

I CONFIRM THAT THE ABOVE MENTIONED EMPLOYEE CAN DISTINGUISH AND DIFFERENTIATE CONTRAST BETWEEN THE COLOURS USED IN THE NHT METHOD(S) CONCERNED.

*[Signature]*  
 Examiner's Name (Please Print Type)  
*[Signature]*  
 Examiner's Signature  
*[Signature]*  
 Appointment Title  
 Date of Eye Examination: July 11, 2006

**EYE EXAMINATION REPORT**

Applicant's Name: Warren Graham C.S.S.B. Registration Number: 5841

**Part C Shades of Gray**

To be completed by any of the following: the employer; medically recognized personnel; or certified level 3 personnel.

I CERTIFY THE ABOVE MENTIONED APPLICANT CAN DISTINGUISH AND DIFFERENTIATE CONTRAST BETWEEN THE SHADES OF GRAY USED IN THE NHT METHOD(S) CONCERNED.

*[Signature]*  
 Examiner's Name  
 Appointment Title  
 Date of Eye Examination: July 11, 2006

NHT PERSONNEL CERTIFICATION TO THE LATEST ACCEPTED STANDARD SNT-TC-1A



**EASTEND IRON IND. LTD.**  
**6215 54 AVENUE**  
**TABER ALBERTA T1G 1X4**  
**TELEPHONE (403) 223-2620**  
**FAX. (403) 223-8626**

**CERTIFYING STATEMENT**

**ACCEPTANCE OF PROCEDURES MANUAL**

**I have reviewed the written practice, procedures, personnel records and certification of:**

**Law Inspection Services Ltd.**  
**P.O. Box 1971**  
**Lethbridge, Alberta T1J 4K5**

**In my opinion, they comply in all respects with the requirements of:**

**CGSB AND ASNT-TC-1A**

**Law Inspection Service Inc.**

**Are hereby appointed to perform:**

**RADIOGRAPHY, ULTRASOUND, DYE PENETRANT &  
MAGNETIC PARTICLE INSPECTION  
FOR**

**Eastend Iron Ind. Ltd.**  
**6215 54 Ave**  
**Taber, Alberta.**  
**T1G 1X4**

**Appointment of Level III Examiner**

**Warren Graham**

**Is by this statement to act as the Level III examiner for:**

**Eastend Iron Ind. Ltd.**

**To Conduct:**

**RADIOGRAPHY, ULTRASOUND, DYE PENETRANT, AND  
MAGPARTICLE INSPECTION.**

**Date:** Jun 29 / 2008 **Signature of QC Manager** Berry Weinberger





# LAW INSPECTION SERVICES INC.

P.O. Box 1971 Lethbridge, AB  
T1J 4K5 Ph. (403) 380-3555

Date Feb 5 / 2008  
Page 1 of 1

## Magnetic Particle/Penetrant Inspection

**M 3950**

Client CNRL Client # \_\_\_\_\_  
Location 13-18-10-16 wcf LAW Job # AT-23

**MAGNETIC PARTICLE:** (Check One) LAW Procedure  MT-1A  MT-2A  MT-3A  Other

EQUIPMENT: • Yoke S/N 2112 • Make Parker • Cal date July 18/07  
 BLACKLIGHT: • Serial # \_\_\_\_\_ • Make \_\_\_\_\_ • Cal test \_\_\_\_\_ Date \_\_\_\_\_

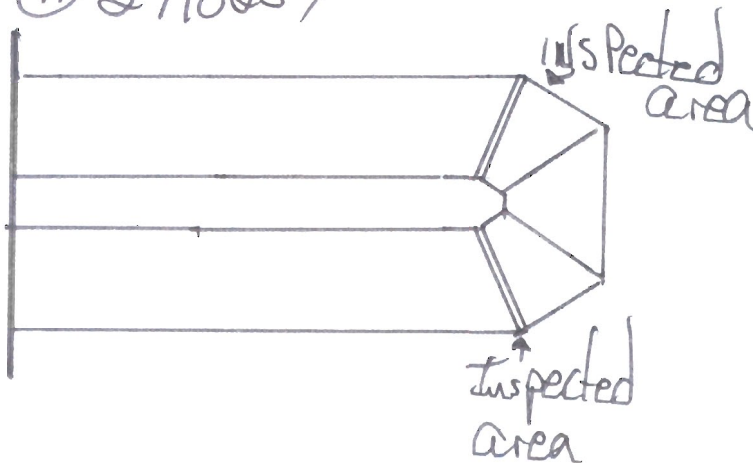
METHOD:  AC  DC  HWDW  Fluorescent  Visible  Continuous  12 V  
 Residual  Wet  Dry

PARTICLE:  Red  Black  Grey  Green  
 CODE:  ASME VIII DIV I APPENDIX VI  Other \_\_\_\_\_

**DYE PENETRANT:** (Check One) LAW Procedure  PT-1A  PT-2A  PT-3A  PT-B1  PT-B2  PT-B3  
 (SEE REVERSE)

BLACKLIGHT: (Serial#) \_\_\_\_\_ Make \_\_\_\_\_ Cal. Test \_\_\_\_\_  
 PRODUCT NAME: \_\_\_\_\_ Penetrant # \_\_\_\_\_ Cleaner # \_\_\_\_\_  
 CODE:  ASME VIII DIV I APPENDIX VIII  Other \_\_\_\_\_

Performed inspection on 2-root passes on finetube  
 No rejectable indications were noted at the time of  
 the inspection **(A) 2710237**



REG <u>4</u>	OT	KM	SUB	Est. Cost <u>500.00</u>	STAMP	Client Signature <u>Perry Weinberger</u>
Consumables					 AUSTIN McNEELY CGSB RTII MTII UTI 1987 RTII MTII UTI #4918	Client Print <u>Perry Weinberger</u>
						Tech. Signature <u>A.M.F.</u>



# LAW INSPECTION SERVICES INC.

P.O. Box 1971 Lethbridge, AB  
T1J 4K5 Ph. (403) 380-3555

Date Jan 21/2008

Page 1 of 1

## Magnetic Particle/Penetrant Inspection

**M** 4356

Client CNRL Client # A# 2710237

Location 13-18-10-16 W4 LAW Job # AT 23

**MAGNETIC PARTICLE:** (Check One) LAW Procedure  MT-1A  MT-2A  MT-3A  Other

EQUIPMENT: • Yoke S/N 1925 • Make Parker • Cal date Oct 25/2007

BLACKLIGHT: • Serial # \_\_\_\_\_ • Make \_\_\_\_\_ • Cal test \_\_\_\_\_ Date \_\_\_\_\_

METHOD:  AC  DC  HWDW  Fluorescent  Visible  Continuous  12 V

Residual  Wet  Dry

PARTICLE:  Red  Black  Grey  Green

CODE:  ASME VIII DIV I APPENDIX VI  Other No Cracks

**DYE PENETRANT:** (Check One) LAW Procedure  PT-1A  PT-2A  PT-3A  PT-B1  PT-B2  PT-B3

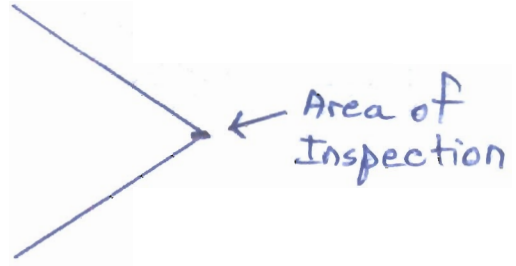
(SEE REVERSE)

BLACKLIGHT: (Serial#) \_\_\_\_\_ Make \_\_\_\_\_ Cal. Test \_\_\_\_\_

PRODUCT NAME: \_\_\_\_\_ Penetrant # \_\_\_\_\_ Cleaner # \_\_\_\_\_

CODE:  ASME VIII DIV I APPENDIX VIII  Other \_\_\_\_\_

Magnetic Particle Inspection of ROOT on 18" Weld.  
- No repectable indications at time of Inspection.



QTY	OT	KM	SUB	Est. Cost	 <b>WENDELL PETERSON #6111</b> CGSB-RT 11/MT 11 ASNT-RT 11/MT 11	Client Signature <u>Rory Weinberger</u>
4	0	0	0	500.00		Client Print _____
Consumables						Tech. Signature <u>Wendell Peterson</u>



# LAW INSPECTION SERVICES INC.

P.O. Box 1971 Lethbridge, AB  
T1J 4K5 Ph. (403) 380-3555

Date Jan 29/08  
Page 1 of 1  
**M 3948**

## Magnetic Particle/Penetrant Inspection

Client C.NRI Client # \_\_\_\_\_  
Location 13-18-10-16 w4 LAW Job # AT-23

**MAGNETIC PARTICLE:** (Check One) LAW Procedure  MT-1A  MT-2A  MT-3A  Other

EQUIPMENT: • Yoke S/N 2112 • Make Parker • Cal date July 18/07  
 BLACKLIGHT: • Serial # \_\_\_\_\_ • Make \_\_\_\_\_ • Cal test \_\_\_\_\_ Date \_\_\_\_\_

METHOD:  AC  DC  HWDW  Fluorescent  Visible  Continuous  12 V  
 Residual  Wet  Dry

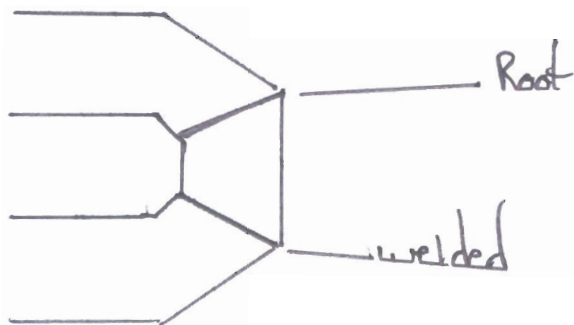
PARTICLE:  Red  Black  Grey  Green  
 CODE:  ASME VIII DIV I APPENDIX VI  Other \_\_\_\_\_

**DYE PENETRANT:** (Check One) LAW Procedure  PT-1A  PT-2A  PT-3A  PT-B1  PT-B2  PT-B3  
 (SEE REVERSE)

BLACKLIGHT: (Serial#) \_\_\_\_\_ Make \_\_\_\_\_ Cal. Test \_\_\_\_\_  
 PRODUCT NAME: \_\_\_\_\_ Penetrant # \_\_\_\_\_ Cleaner # \_\_\_\_\_  
 CODE:  ASME VIII DIV I APPENDIX VIII  Other \_\_\_\_\_

Performed particle inspection on root mitre weld for  
firetube (A# 2710237)

No indications of cracking noted on root



REG <u>H</u>	OT	KM	SUB	Est. Cost <u>500.00</u>	STAMP	Client Signature <u>[Signature]</u>
<b>Consumables</b>					<b>AUSTIN McNEELY</b> CGSB RTII MTII UTII ANST RTII MTII UTII #4918	Client Print _____
						Tech. Signature <u>[Signature]</u>



# LAW INSPECTION SERVICES INC.

P.O. Box 1971 Lethbridge, AB T1J 4K5

Ph. (403) 380-3555

Date March 14/08

Page 1 of 1

FT 0177

## Firetube Inspection

Client CNRL Client (AFE / PO No.) \_\_\_\_\_ LAW Job No. AT-23

Location 13-18-10-16w4 Vessel A No. \_\_\_\_\_ Fire Tube Serial No. \_\_\_\_\_

**MAGNETIC PARTICLE:** (Check One) LAW Procedure  MT-1A  MT-2A  MT-3A  Other (See below)

EQUIPMENT: • Yoke S/N 2112 Make Parker Cal. Date Feb 15/08

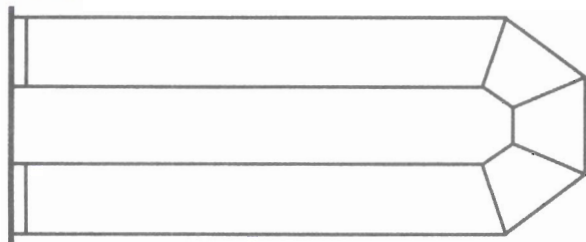
METHOD:  AC  DC  12V  Visible  Continuous  Residual  Wet  Dry

PARTICLE Type:  Red  Black  Grey  Green

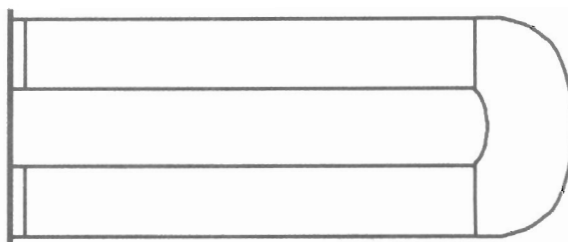
CODE:  ASME VIII DIV 1 APPENDIX VI  Other (Specify) \_\_\_\_\_

TUBE TYPE:  A  B  Other (See attached drawing)

**A.**



**B.**



Magnetic Particle Inspection techniques:

MT-1 DRY Particle	A B C D	Yoke Longitudinal Circular Conductor	Cracks found by MPI (indicated on diagram)
MT-2 Wet Fluorescent	A B C D	Yoke Longitudinal Circular Conductor	Visual Defects (indicated on diagram)
			Performed inspection on all butt welds 24 hrs after initial inspection
MT-3 Black & White (Wet Visible)	A B C D	Yoke Longitudinal Circular Conductor	No rejectable indications were noted

REG <u>4</u>	OT /	KM /	SUB /	Est. Cost <u>500.00</u>
-----------------	---------	---------	----------	----------------------------

Consumables



STAMP

AUSTIN McNEELY  
CGSB RTII MTII UTI  
ANST RTII MTII UTI  
#4918

Client Signature

Client Print

Tech. Signature

*Berry Weinberger*  
*Berry Weinberger*  
*A.M.*



# LAW INSPECTION SERVICES INC.

P.O. Box 1971 Lethbridge, AB  
T1J - 4K5 Ph. (403) 380-3555

Date Mar 13/2008  
Page 1 of 2

**R - 30429**

## Radiographic Inspection Report

Client: CNRL Client # A 2710237  
 Location: 13-18-10-16 W4 Client # \_\_\_\_\_  
 Material CS Source 3.4mm / Ir 192 Screens 0.010"Pb F+B Film AGFA/D5  
SIZE TYPE BRAND TYPE

LAW Job # AT 23 SFD DWC Technique(s) Refer to back Code(s) UW 51

T = Technique      LF = Lack of Fusion      LC = Low Cover      EUC = External Undercut      1 = Slight  
 WS = Welder Stamp      S = Slag      HL = High Low      ACC = Accept      2 = Moderate  
 IP = Incomplete Penetration      BT = Burn Through      CK = Crack      Rej = Reject      3 = Severe  
 P = Porosity      IC = Internal Concavity      IUC = Internal Undercut      O = Other

Film #	SIZE/SCH	ACC	T	WS	IP	LF	P	S	BT	IC	LC	HL	CK	IUC	EUC	O	Comments	REJ
1	X-1	18"/std	✓	1														
2	0→36		✓															
3	36→72		✓															
4	72→108		✓									1						
5	108→144		✓															
6	144→0		✓															
7	X-2		✓															
8	0→36		✓						1									
9	36→72		✓						1									
10	72→108		✓															
11	108→144		✓						1									
12	144→0		✓															
13	X-3		✓															
14	0→36		✓															
15	36→72		✓															
16	72→108		✓						1									
17	108→144		✓						1									
18	144→0		✓															
19	X-4		✓															
20	0→36		✓															
21	36→72		✓															
22	72→108		✓															
23	108→144		✓															
24	144→0		✓															
25																		

Weld or film quantity	
2"	Other (specify)
3"	18" x 4
4"	
6"	

Stamp

**WENDELL PETERSON #6111**  
 CGSB-RT 11/MT 11  
 ASNT-RT 11/MT 11

Reg. hrs.	O.T. Hrs.	kms	Sub-days	Est. cost
4	0	0	0	556.00

Client Signature Perry Weiringer  
 Client Print \_\_\_\_\_  
 Technician Signature Wendell Peterson



# LAW INSPECTION SERVICES INC.

P.O. Box 1971 Lethbridge, AB  
T1J 4K5 Ph. (403) 380-3555

Date Mar 13/2008

Page 2 of 2

## Magnetic Particle/Penetrant Inspection

**M** 4369

Client CNRL Client # A 2710237

Location 13-18-10-16 W4 LAW Job # AT 23

**MAGNETIC PARTICLE:** (Check One) LAW Procedure  MT-1A  MT-2A  MT-3A  Other

EQUIPMENT: • Yoke S/N 1925 • Make Parker • Cal date Oct 25/2008  
 BLACKLIGHT: • Serial # \_\_\_\_\_ • Make \_\_\_\_\_ • Cal test \_\_\_\_\_ Date \_\_\_\_\_

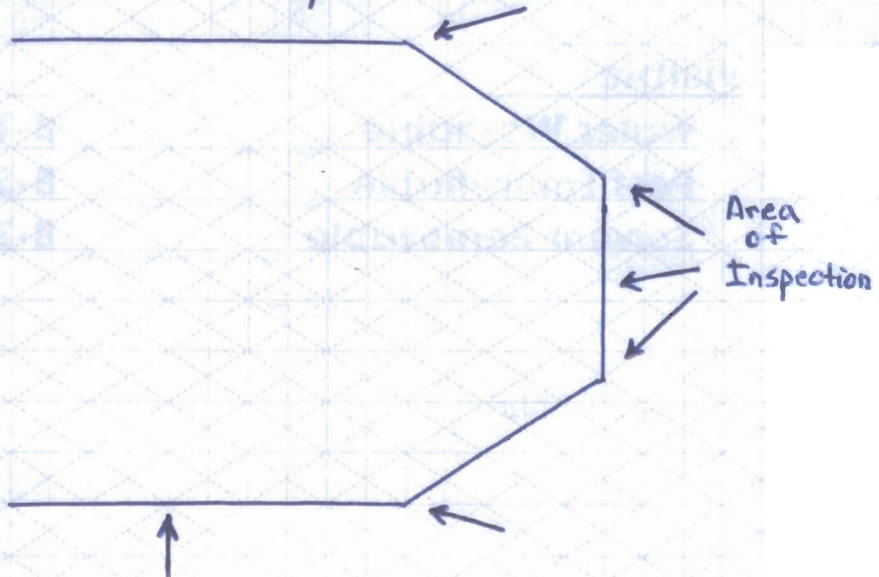
METHOD:  AC  DC  HWDW  Fluorescent  Visible  Continuous  12 V  
 Residual  Wet  Dry

PARTICLE:  Red  Black  Grey  Green  
 CODE:  ASME VIII DIV I APPENDIX VI  Other \_\_\_\_\_

**DYE PENETRANT:** (Check One) LAW Procedure  PT-1A  PT-2A  PT-3A  PT-B1  PT-B2  PT-B3  
 (SEE REVERSE)

BLACKLIGHT: (Serial#) \_\_\_\_\_ Make \_\_\_\_\_ Cal. Test \_\_\_\_\_  
 PRODUCT NAME: \_\_\_\_\_ Penetrant # \_\_\_\_\_ Cleaner # \_\_\_\_\_  
 CODE:  ASME VIII DIV I APPENDIX VIII  Other \_\_\_\_\_

Magnetic Particle Inspection on Fire Tube A 2710237  
No rejectable indications at time of Inspection.



REG	OT	KM	SUB	Est. Cost	 <b>WENDELL PETERSON #6111</b> CGSB-RT 11/MT 11 ASNT-RT 11/MT 11	Client Signature <u>Peggy Weinberger</u>
Page 1 <b>Consumables</b>						Client Print _____
						Tech. Signature <u>Wendell Peterson</u>

DATE: 06/27/06  
 TIME: 05:44:32  
 SERIAL NO: L0009945

TUBULAR PRODUCTS  
 CERTIFIED TEST REPORT

(IN ACCORDANCE WITH ISO 10474/EN10204/DIN50049 3.1.b)

UNITED STATES STEEL  
 P.O. NUMBER  
 1436260-OR-2100

MILL ORDER/ITEM NO TT09493 03	SHIPPER NO. R67715	VEHICLE ID LT8317	VENDOR USS TUBULAR PRODUCTS 2199 EAST 28TH ST. LORAIN, OH 44055
SOLE TO ADDRESS CE FRANKLIN LTD 1900 300-5TH AVE SW CALGARY AB T2P 3C4		MARK TO ADDRESS	

JUL 06 2006

PIPE CARBON SMLS STD PIPE API 5L-43RD EDITION DATED 3/04 PSL-2 GRADE B AND GRADE X42 ASTM A53-\*04A  
 ASTM A106-\*04B GRADE B QUAD STENCIL ASME S453-\*2004 EDITION ASME SA106-\*2004 EDITION GRADE B BLK REG  
 MILL COAT PE BEV 30 DEG MEETING ALL THE APPLICABLE REQUIREMENTS OF MACE STANDARD MR-01-75 \*2002

MATERIAL COND:	AS ROLLED		QT - QUENCH & TEMPERED		GR - STRESS RELIEVED		R. BODY											W. WELD
	WELD	EXT %	PSI	YIELD	Y/T	ELONG %	HARDNESS	MINI HYDRO	MINI	MAX:	MIN:	MAX:	MIN:	MAX:	MIN:	MAX:	MIN:	
B26226 G980AA	42000	50	70000	0.65	28.0	99.0	1490	5	0.375	9.525	0.375	9.525	0.375	9.525	0.375	9.525	0.375	9.525
B26226 G980AA	47600	50	72500	0.65	43.0	80.0	1490	5	0.375	9.525	0.375	9.525	0.375	9.525	0.375	9.525	0.375	9.525

PRODUCT IDENTIFICATION	TYPE	T. TRANSVERSE											R. BODY											W. WELD
		C	BN	P	S	SI	CU	MI	CR	NO	AL	N	V	B	TI	CB	CD	CE*						
B26226 G980AA	HEAT	19	107	008	004	19	04	04	06	03	034	005	0001	002	001	001	001	0.43						
B26226 G980AA	PROD	19	109	007	007	18	04	04	06	03	031	006	0000	001	001	001	001	.39						
B26226 G980AA	PROD	19	109	006	005	18	04	03	06	03	033	006	0000	001	001	001	001	.40						

\*CE IS BASED ON THE FOLLOWING EQUATION(S): CE=C+(MIN/6)+(CR+MO+V)/5+(NI+CU)/15

DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.



UNITED STATES STEEL

TUBULAR PRODUCTS

CERTIFIED TEST REPORT

(IN ACCORDANCE WITH ISO 9001/EN10204/DIN50049 3.1.b)

DATE: 06/27/06  
 TIME: 05:44:32  
 SERIAL NO: L0009945

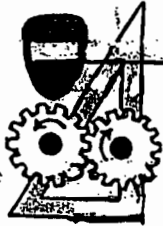
MATERIAL CONDITION: TT09493 03		SHIPPER'S NO. R67715		P.O. NUMBER 1436260-OR-2100		O.D.: 18.000 (457.200)		WALL THICKNESS: 0.375 (9.525)		IN (mm)					
AS ROLLED		0019989													
PRODUCT IDENTIFICATION	FLAT	BEND	GRAIN SIZE	MIN COLLAPSE	DIR	TEST LOC.	TEMP	SIZE	TEST COND.	CHARPY V-NOTCH IMPACT TESTING					
E26226 G980AA	OK		**	**	T	B	+ 32	2/3	AR	102	99				
				DEG F				HAZ. REBT AFFECTED ZONE							
L - LONGITUDINAL				T - TRANSVERSE				B - BODY				W - WELD			
TESTING / INSPECTION INFORMATION															
RESULTS / COMMENTS															
FULL LENGTH VISUAL															
FULL LENGTH EMI															
FULL LENGTH MPI															
FULL LENGTH UT															
END AREA INSPECTION (PLAIN END)															
SPECIAL END AREA (SEA) INSP															
FULL LENGTH DRIFT															
OD <input checked="" type="checkbox"/> X															
OD/D <input checked="" type="checkbox"/> X															
MPI <input checked="" type="checkbox"/> X															
MPI <input checked="" type="checkbox"/> X															
DRIFT MANDREL SIZE: 10.0/10.0% NOTCH															
TESTING / INSPECTION INFORMATION															
RESULTS / COMMENTS															
TUBULAR PRODUCTS															
CERTIFIED TEST REPORT															
(IN ACCORDANCE WITH ISO 9001/EN10204/DIN50049 3.1.b)															
DATE: 06/27/06															
TIME: 05:44:32															
SERIAL NO: L0009945															

THIS IS TO CERTIFY THAT THE PRODUCT DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED AND/OR INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND FULFILLS THE REQUIREMENTS IN SUCH RESPECTS.

PREPARED BY THE OFFICE OF: J. MAJURZAK - MANAGER, Q.A.

DATE: 06/27/06





# EASTEND IRON INDUSTRIES (1995) LTD.

215 - 54 Avenue SER NR=L5J157508

Taber, Alberta T1G 1X4

Telephone (403) 223-2620

Fax (403) 223 8626

WELDING PROCEDURE SPECIFICATION NO: EII-2

WELDING PROCEDURE QUALIFICATION RECORD NO(S): P05-P08 P.17

### QUALIFIED FOR

Base Metal (Typical): P1 Groups 1 & 2 to P1 Groups 1 & 2 (SA 333 Gr. 6, SA 420 WPL6, SA 350 Gr. LF2, SA 516 Gr. 70 etc.)

Process(es): SMAW Weld Types: GROOVE & FILLET

Position: ALL POSITIONS Diameter: ALL DIAMETERS

Filler Metal: E6010, E7018-1

### BASE METAL CONDITIONS & THICKNESS RANGE QUALIFIED:

#### NOTCH TOUGHNESS APPLICATIONS TO -46°C AS WELDED

ASME B31.1 3.2 to 19.1 mm (0.125 to 0.750 in.) inclusive.

ASME B31.3 3.2 to 19.1 mm (0.125 to 0.750 in.) inclusive.

ASME SECT. VIII, DIV.1 3.2 to 38.1 mm (0.125 to 1.50 in.) inclusive.

ALBERTA BOILERS SAFETY ASSOCIATION  
 PROVINCE OF ALBERTA  
 SAFETY CODES ACT  
 WELDING PROCEDURE

Reg. No. WP 3178.2

Spec. No. EII-2

Weld Process SMAW

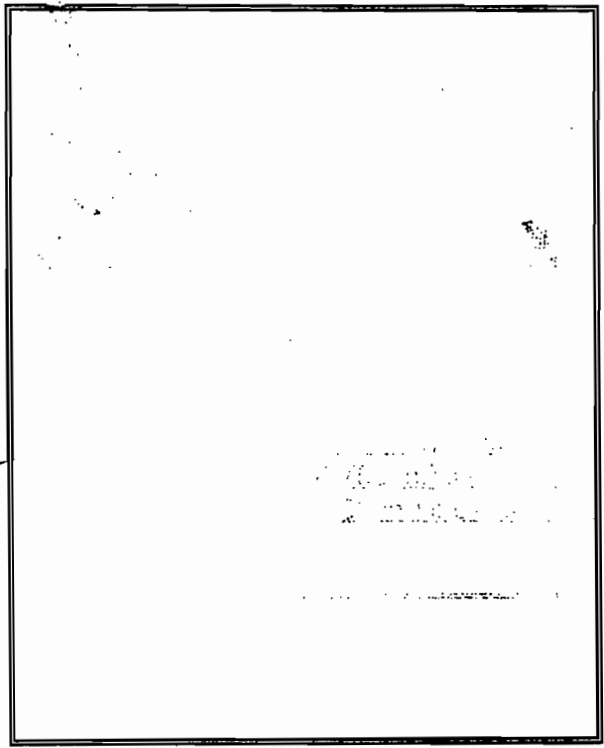
Matl. Gr. P No. 1 Gr 1+2 to P No. 1 Gr 1+2

Elec. Gr. F No. 3+4 A No. 1

Th. Qual. For 3.2 to 38.1 mm PWHT NO  
CVN -46°C

Yr. 99 Mo. 7 Day 30 Signed [Signature]  
 R. ROSEBERG, P. ENG.  
 WELDING SPECIALIST

PROVINCIAL REGISTRATION



## QW-482 WELDING PROCEDURE SPECIFICATION (WPS)

Eastend Iron Industries (1995) Ltd., 6215 - 54 Avenue, Taber, Alberta T1G 1X4  
Welding Procedure Specification No. EII-2 Date July 21, 1999  
Revision(s) ---  
Supporting PQR No.(s) PQ5, PQ6, PQ7  
Welding Process(es) SMAW Type(s) Manual

### JOINTS (QW-402)

Joint Design All ASME groove & fillet, reference construction drawing for joint details, where joint details are not specified, refer to figures 1 to 15 attached.  
Backing With or without Root Opening 0 - 6.4 mm (0 - 1/4 in.)  
Retainers Not required

### BASE METALS (QW-403)

P-Number P1 Groups 1 & 2 To P-Number P1 Groups 1 & 2  
Thickness Range: Groove See cover page for thickness qualified by governing code  
Fillet All base metal thicknesses  
Pipe Diameter Ranges: Groove All diameters  
Fillet All diameters  
Deposited Weld Metal (Per Pass) 12.7 mm (0.500 in.) maximum

### FILLER METALS (QW-404)

Specification No. (SFA) SFA 5.1 SFA 5.1  
AWS No. (Class) E6010 E7018-1  
F-No. F3 F4  
A-No. A1 A1  
Size 3/32 to 5/32 in. inclusive 3/32 to 1/4 in. inclusive  
Deposited Weld Metal Thickness Range:  
Groove 6.35 mm (0.250 in.) max. 38.1 mm (1.50 in.) max.  
Fillet All fillet sizes All fillet sizes

### POSITION (QW-405)

Position of Groove All positions Position of Fillet All positions  
Weld Progression F3: Vertical up or vertical down F4: Vertical up

### PREHEAT (QW-406)

Preheat Temperature (Minimum) See attached preheat sheet  
Interpass Temperature (Maximum) 232°C (450°F)  
Preheat Maintenance Per attached preheat sheet prior to welding. Preheat maintenance is not required if welding is interrupted or after the completion of welding.

**POST WELD HEAT TREATMENT (QW-407)**Temperature Range None Time Range N/A**ELECTRICAL CHARACTERISTICS (QW-409)**Current Direct Polarity Reverse, electrode positiveAmps See Table #1 Volts See Table #1

Maximum Heat Input

Base Metal Thickness Range	E6010 Electrode	E7018-1 Electrode
(0.125 - 0.499 in. T)	25 793 J/in.	39 103 J/in.
(0.500 - 0.624 in. T)	32 775 J/in.	72 833 J/in.
(0.625 - 1.50 in. T)	35 526 J/in.	84 682 J/in.

**TECHNIQUE (QW-410)**String or Weave F3: String F4: Either Travel Speed See Table #1Initial & Interpass Cleaning Brushing, chipping or grinding as requiredMethod of Back Gouging Air carbon arc, back-grind as requiredMultiple or Single Pass Per Side EitherMultiple or Single Electrodes SinglePeening Not required**TABLE 1 - WELDING PARAMETERS**

Process	Filler Metal	Diameter mm(in.)	Current Type & Polarity	Amperage Range	Voltage Range	Travel Speed mm/min (ipm.)
SMAW	E6010	2.4 (3/32)	DCRP	50 - 100	18 - 30	38 - 300 (1.5 - 12)
SMAW	E6010	3.2 (1/8)	DCRP	60 - 140	19 - 32	48 - 350 (1.9 - 14)
SMAW	E6010	4.0 (5/32)	DCRP	115 - 250	21 - 32	104 - 400 (4.1 - 16)
SMAW	E7018-1	2.4 (3/32)	DCRP	60 - 110	17 - 26	18 - 300 (0.7 - 12)
SMAW	E7018-1	3.2 (1/8)	DCRP	90 - 150	18 - 28	28 - 350 (1.1 - 14)
SMAW	E7018-1	4.0 (5/32)	DCRP	110 - 220	19 - 28	38 - 400 (1.5 - 16)
SMAW	E7018-1	5.0 (3/16)	DCRP	160 - 320	20 - 30	58 - 500 (2.3 - 20)
SMAW	E7018-1	5.5 (7/32)	DCRP	240 - 350	21 - 32	91 - 550 (3.6 - 22)
SMAW	E7018-1	6.4 (1/4)	DCRP	300 - 400	22 - 32	119 - 550 (4.7 - 22)

Note: Welding parameters shall be adjusted to insure that the maximum heat input value specified in QW-409 above is not exceeded.

## TYPICAL GROOVE DESIGNS

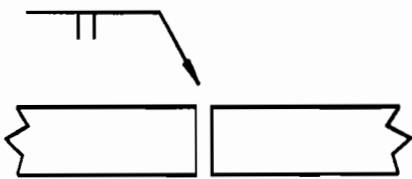


Figure 1  
Single Square Butt

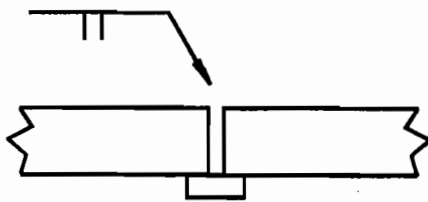


Figure 2  
Single Square Butt with Backing Strip

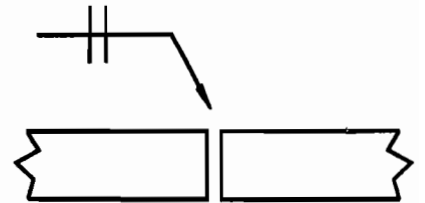


Figure 3  
Double Square Butt

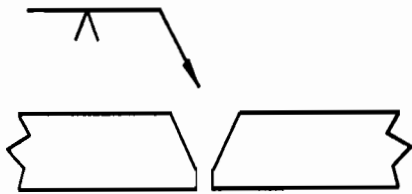


Figure 4  
Single Vee Butt

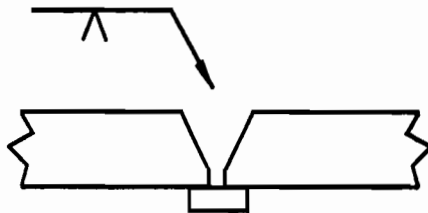


Figure 5  
Single Vee Butt with Backing Strip

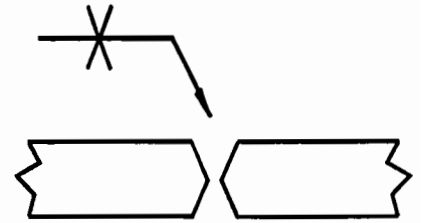


Figure 6  
Double Vee Butt

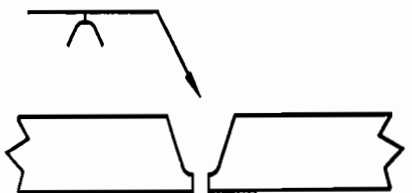


Figure 7  
Single U Butt

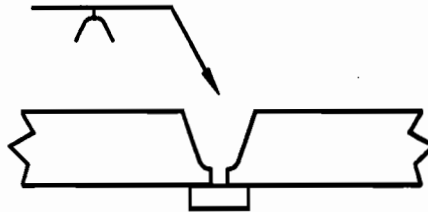


Figure 8  
Single U Butt with Backing Strip

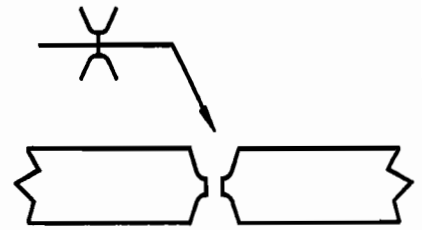


Figure 9  
Double U Butt

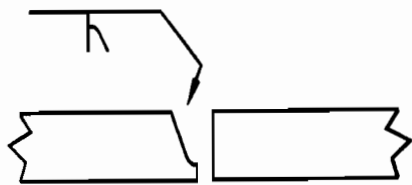


Figure 10  
Single J Butt

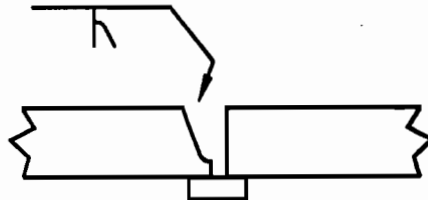


Figure 11  
Single J Butt with Backing Strip

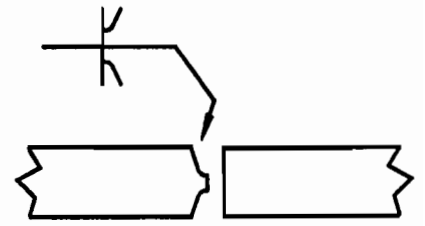


Figure 12  
Double J Butt

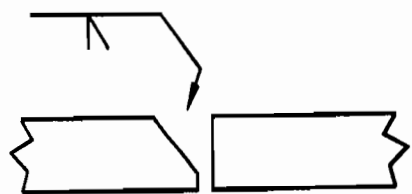


Figure 13  
Single Bevel Butt

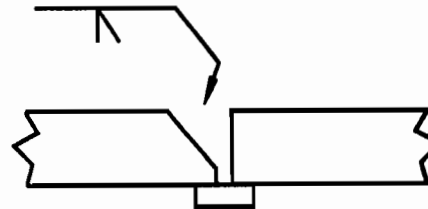


Figure 14  
Single Bevel Butt with Backing Strip

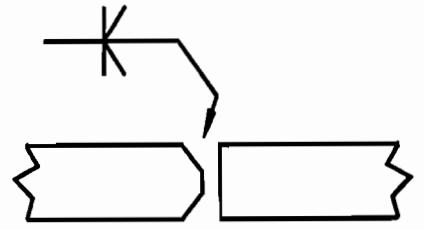


Figure 15  
Double Bevel Butt

## PREHEAT

### P-No. 1 Groups 1, 2 & 3

1. Welds joining pressure parts or attachments shall be preheated to not less than the minimum preheat temperatures stated in paragraph 6.
2. The preheat temperature shall be maintained during welding.
3. If welding is interrupted, the weld joint and adjacent areas shall be reheated to the minimum preheat temperature stated in paragraph 6, prior to the start of welding.
4. The preheated area shall not be less than 50.8 mm (2.0 in.) wide on each side of the weld.
5. Preheat temperatures shall be checked by the welder or inspector, using temperature indicating crayons or other reputable methods.
6. Minimum preheating temperatures shall be as follows:

#### **PRESSURE VESSELS IN ACCORDANCE WITH ASME SECTION VIII, DIV. 1**

NOMINAL WALL THICKNESS	MINIMUM PREHEAT TEMPERATURE
0 to 31.8 mm (0 to 1.25 in)	10°C (50°F)
Over 31.8 mm (Over 1.25 in.)	93°C (200°F)
Over 25.4 mm (1.0 in.) & specified maximum carbon content in excess of 0.30%.	80°C (175°F)

#### **CHEMICAL PLANT & PETROLEUM REFINERY PIPING IN ACCORDANCE WITH ASME B31.3**

NOMINAL WALL THICKNESS	MINIMUM SPECIFIED BASE METAL TENSILE STRENGTH	MINIMUM PREHEAT TEMPERATURE
< 25.4 mm (1.0 in.)	≤ 490 MPa (71 ksi)	10°C (50°F)
≥ 25.4 mm (1.0 in.)	All	80°C (175°F)
All	> 490 MPa (71 ksi)	80°C (175°F)

#### **POWER PIPING IN ACCORDANCE WITH ASME B31.1**

NOMINAL WALL THICKNESS	MINIMUM PREHEAT TEMPERATURE
Over 25.4 mm (1.0 in.) & specified maximum carbon content in excess of 0.30%.	80°C (175°F)
All others	10°C (50°F)

## QW-483 PROCEDURE QUALIFICATION RECORD (PQR)

Eastend Iron Industries (1995) Ltd., 6215 - 54 Avenue, Taber, Alberta T1G 1X4  
Procedure Qualification Record No. PQ5 Date July 13, 1999  
Welding Procedure Specification No. EII-2  
Welding Process(es) SMAW Type(s) Manual

### JOINTS (QW-402)

Type Butt joint, single vee groove, see next page

### BASE METALS (QW-403)

Material Spec. SA 333 to SA 350 Type or Grade Gr. 6 to Gr. LF2  
P-No. P1 Group 1 To P-No. P1 Group 2 Thickness 6.32 mm (0.249 in.)  
Diameter 114.3 mm (4.50 in.) O.D. Other Schedule 80 m/c to 0.249 in. w.t.

### FILLER METALS (QW-404)

Specification No. (SFA) SFA 5.1 SFA 5.1  
AWS No. (Class) E6010 E7018-1  
Filler Metal F-No. F3 F4  
Filler Metal A-No. A1 A1  
Size of Electrode See attached sketch  
Deposited Weld Metal Thickness 2.39 mm (0.094 in.) 3.94 mm (0.155 in.)

### POSITION (QW-405)

Position of Groove 5G  
Weld Progression Vertical up

### PREHEAT (QW-406)

Preheat Temperature 10°C (50°F) Interpass Temp. (Max.) 232°C (450°F)

### POSTWELD HEAT TREATMENT (QW-407)

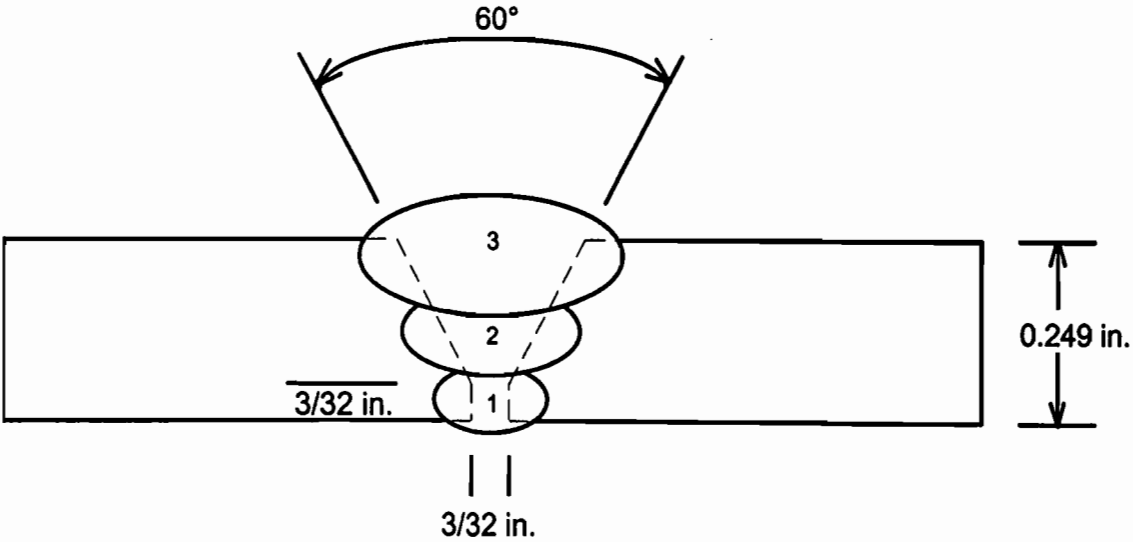
Temperature None Time N/A

### ELECTRICAL CHARACTERISTICS (QW-409)

Current Direct Polarity Reverse, electrode positive  
Amps See next page Volts See next page  
Heat Input F3: 25 793 J/in. Max. F4: 39 103 J/in. Max.

### TECHNIQUE (QW-410)

String or Weave F3: String F4: Weave Travel Speed See next page  
Multiple or Single Pass Per Side Multipass from groove side  
Multiple or Single Electrodes Single



Pass	Process	Filler Metal	Diameter mm (in.)	Current & Polarity	Amperage Range	Voltage Range	Travel Speed mm/min (ipm.)
1	SMAW	E6010	2.4 (3/32)	DCRP	70 - 80	22 - 25	104 (4.1)
2	SMAW	E7018-1	2.4 (3/32)	DCRP	90 - 100	20 - 22	99 (3.9)
3	SMAW	E7018-1	2.4 (3/32)	DCRP	85 - 95	20 - 22	74 (2.9)

**TENSILE TEST (QW-150)**

Specimen No.	Width mm (in.)	Thickness mm (in.)	Area Sq. mm (Sq. in.)	Ultimate Load N (lbs.)	Ultimate Stress Mpa (Psi)	Character & Fracture Location
T1	18.9 (0.744)	5.00 (0.197)	94.5 (0.146)	47 600 (10,700)	504 (73,100)	Partial cup & cone Parent metal (Gr. 6)
T2	19.0 (0.748)	4.80 (0.189)	91.2 (0.141)	44 900 (10,100)	492 (71,400)	Partial cup & cone Parent metal (Gr. 6)

**GUIDED BEND TEST (QW-160)**

Type & Figure No.	Result	Type & Figure No.	Result
QW-462.3a, TFB - F1	Pass	QW-462.3a, TRB - R1	Pass
QW-462.3a, TFB - F2	Pass	QW-462.3a, TRB - R2	Pass

**CHARPY IMPACT TOUGHNESS**

Type of Test Charpy V Notch Orientation Transverse  
 Test Temperature -48°C (-55°F) Specimen Size 10 x 5 mm

Specimen No.	Notch Location	Impact Values J (ft. lbs)
C2.1	Weld Metal	41.0 (30.2)
C2.2	Weld Metal	46.1 (34.0)
C2.3	Weld Metal	50.2 (37.0)
C3.1	Gr. 6 - HAZ	65.6 (48.4)
C3.2	Gr. 6 - HAZ	102 (75.0)
C3.3	Gr. 6 - HAZ	75.9 (56.0)
C4.1	Gr. LF2 - HAZ	40.4 (29.8)
C4.2	Gr. LF2 - HAZ	44.7 (33.2)
C4.3	Gr. LF2 - HAZ	31.5 (23.2)

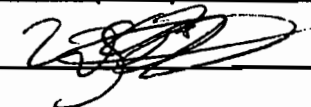
**OTHER TESTS**

Vickers hardness survey - see attached report, C99-474.8

Welders Name Larry Czerniak Certificate File No. W-12887  
 Tests Conducted By Ludwig & Associates Ltd.  
 Laboratory Test No. C99-474.8

We certify the statements in this record are correct and that the test welds were prepared, welded and tested in accordance with the requirements of Section IX of the ASME Code.

Manufacturer EASTEND IRON INDUSTRIES (1995) LTD.

Date July 21, 1989 Signed 



# EASTEND IRON INDUSTRIES (1995) LTD.

## RECORD OF QUALIFICATION OF WELDING PERSONNEL

WELDOR'S NAME AND FILE NUMBER	SYMBOL	PROCESS	WELDING PROCEDURE {WPS#}	{P} NO.	{F} NO.	POSITION WELD PREGRESSION	MAX DEP. WELD METAL THK.	MIN. PIPE OD.	EXPIRY DATE
TINH NGUYEN W-17671	<b>T</b>	SMAW	2178.2	P1-P11	F3- F4	6G-ALL	.622	1" OD	April 11 2009
		GTAW		P 8	F 6	6G- ALL	.236	1" OD	April 11 2009
		GMAW	2178.2	P1-P11	F6	0-45'	.1298	1" OD	April 11 2009
		SMAW	EEIL- 100	P1-P11	F3- F4	6G- ALL	.622	1" OD	April 11 2009
PERRY WEINBERGER W-17416	<b>W</b>	GMAW	2178.2	P1-P11	F6	0- 45'	.1298	1" OD	April 11 2009
		GTAW		P8	F6	6G- ALL	.236	1" OD	April 11 2009
		SMAW	2178.2	P1-P11	F3- F4	6G- ALL	.622	1" OD	April 11 2009
COUNG NGUYEN W- 16221	<b>C</b>	GMAW	2178.2	P1-P11	F6	0-45'	.1298	1" OD	April 11 2009
		GTAW		P-8	F6	6G- ALL	.236	1" OD	April 11 2009
		SMAW	2178.2	P1-P11	F3- F4	6G- ALL	.622	1" OD	April 11 2009
GEORGE VANDERMEULEN W-16936	<b>V</b>	SMAW	2178.2	P1-P11	F3- F4	6G- ALL	.622	1" OD	April 11 2009
ROBERT CAMPBELL W-25637	<b>A</b>	SMAW	2178.2	P1-P11	F3-F4	6G-ALL	.622	1" OD	April 11 2009
LARRY GARRETT W-17676	<b>G</b>	SMAW	2178.2	P1-P11	F3-F4	6G- ALL	.622	1" OD	April 11 2009
FRANK KAPITANY W-16281	<b>K</b>	SMAW	2178.2	P1	F3-F4	6G-ALL	.500	1" OD	June 15 2008
		GMAW/ SMAW	2178.2	P1	F6-F4	0-45'	.110	2.875"OD	June 15 2008
		GMAW/ SMAW		P1	F6-f4	0-45'	.488"	1"OD	June 15 2008