

**BLUE STAR WELDING,
Division of 570147 Alta. Ltd.**

RR #2, Site 7, Box 20
Grand Prairie, Alberta T8V 2Z9

WELDING PROCEDURE SPECIFICATION NO.: _____ BSW-4130

WELDING PROCEDURE QUALIFICATION RECORD NO.(S): _____ BSW-4130-1

QUALIFIED FOR

Restricted Applications: API 6A, PSL LEVELS 1-3, SOUR SERVICE (75 ksi min. yield)
Base Metal (Typical): AISI 4130 to AISI 4130
Process(es): GMAW / SMAW Weld Types: GROOVE & FILLET
Position: FLAT & HORIZONTAL Diameter: ALL DIAMETERS
Filler Metal: ER70S-2, E10018-D2

BASE METAL CONDITIONS & THICKNESS RANGE QUALIFIED:

NOTCH TOUGHNESS APPLICATIONS TO -46°C WITH P.W.H.T.

ASME SECTION IX 15.8 to 50.8 mm (0.625 to 2.0 in.) inclusive

**ALBERTA BOILERS SAFETY ASSOCIATION
PROVINCE OF ALBERTA
SAFETY CODES ACT
WELDING PROCEDURE
RESTRICTED APPLICATION ***

Reg. No. WP. 1779.2 Spec. No. BSW-4130

Weld Process GMAW / SMAW

Matl. No. AISI-4130 to Matl. No. AISI-4130

Elec. Gr. F No. 6+4 A No. 1+11

Th. Qual. For 15.8 to 50.8 mm P.W.H.T. YES

* Limited To: NON-ASME CODE USE APPLICATION

WELL HEAD / PIPELINE

NOT UNDER JURISDICTION OF SAFETY CODE

Yr. 01 Mo. 13 Day 4 Signed [Signature]

PROVINCIAL REGISTRATION

QW-482 WELDING PROCEDURE SPECIFICATION (WPS)

BLUESTAR WELDING, A division of 570147 Alta. Ltd.

RR#2, Site 7, Box 20 Grande Prairie, Alberta T8V 2Z9

Welding Procedure Specification No. BSW-4130 Date November 27, 2001

Supporting PQR No.(s) BSW-4130-1

Welding Process(es) GMAW / SMAW Type(s) Semi-automatic / Manual

JOINTS (QW-402)

Joint Design All groove & fillet joint details permitted by API 6A are qualified

Backing With or without Root Opening 0 - 6.35 mm (0 - 1/4 in.)

Retainers Not required

BASE METALS (QW-403)

P-Number AISI 4130 (75 ksi min. yield) To P-Number AISI 4130 (75 ksi min. yield)

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)

	GMAW	SMAW
Specification No. (SFA)	<u>SFA 5.18</u>	<u>SFA 5.1</u>
AWS No. (Class)	<u>ER70S-2</u>	<u>E10018-D2</u>
F-No.	<u>F6</u>	<u>F4</u>
A-No.	<u>A1</u>	<u>A11</u>
Size	<u>.030 to .045 in. inclusive</u>	<u>3/32 to 1/4 in. inclusive</u>
Filler Metal Product Form	<u>Solid wire without the addition of supplementary fillers</u>	
Deposited Weld Metal Thickness Range:		
Groove	<u>2.79 mm (0.110 in.) max.</u>	<u>50.8 mm (2.0 in.) max.</u>
Fillet	<u>All fillet sizes</u>	<u>All fillet sizes</u>

POSITION (QW-405)

Position of Groove GMAW: All SMAW: Flat

Position of Fillet GMAW: All SMAW: Flat & Horizontal

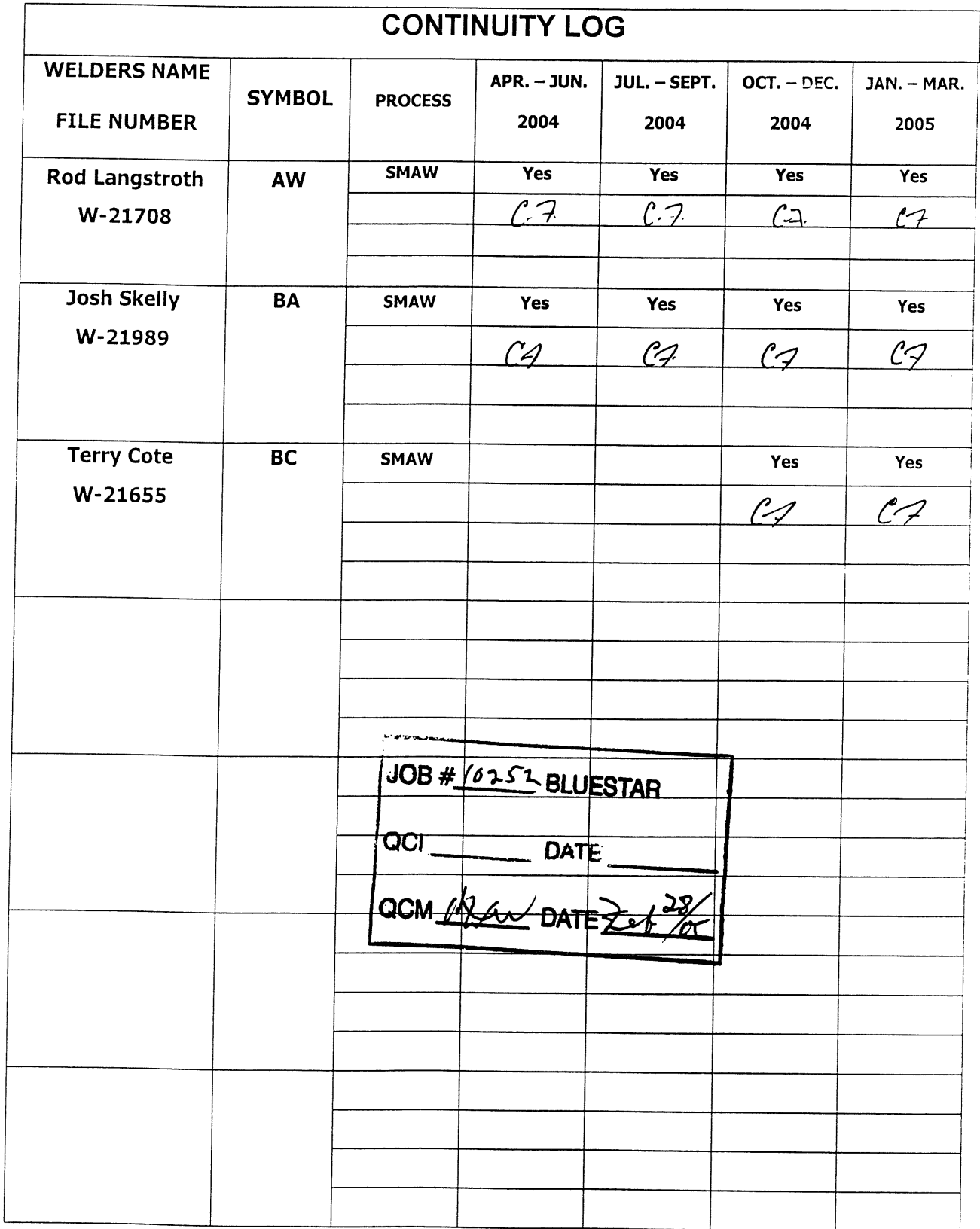
Weld Progression GMAW: Vertical down SMAW: N/A

PREHEAT (QW-406)

Preheat Temperature (Minimum) 177°C (350°F)

Interpass Temperature (Maximum) 288°C (550°F)

Preheat Maintenance 177°C prior to welding. Preheat maintenance is not required if welding is interrupted or after the completion of welding unless required by the code of construction.



Rod Langstroth
(AW)

Grande Prairie Regional College
A.O.Q.P. No. 7111

WELDER PERFORMANCE QUALIFICATION CARD

NAME: RODNEY LANGSTROTH ABSA FILE No. W-21708

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: Apr. 13/04
Signature of Welder or Machine Operator: [Signature]
Welding Examiner (Print/Type): BARRY NICHOL
Card No. **3124**

Card No. **3124**

PERFORMANCE QUALIFICATION

Process(es)	<u>SMaw</u>	Materials (P. No.)	<u>P1-P1</u>
Filler Metal Group (F. No.)	<u>F3 F4</u>	Min. Outside Pipe Diameter	<u>1"OD</u>
Max Deposited Weld Metal	<u>.25" .488"</u>	Position(s) Qualified	<u>ALL</u>
Backing	<u>None Wm.</u>	Backing Gas	<u>-</u>
Progression	<u>uphill</u>		
P.Q. Expiry Date	<u>Apr. 13/06</u>	Welding Examiner Signature	<u>[Signature]</u>
		Certification No.	<u>W600192</u>

Josh Skelly
(BA)

Grande Prairie Regional College
A.O.Q.P. No. 7111

WELDER PERFORMANCE QUALIFICATION CARD

NAME: JOSH SKELLY ABSA FILE No. W-21989

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: Apr. 13/04
Signature of Welder or Machine Operator: [Signature]
Welding Examiner (Print/Type): BARRY NICHOL
Card No. **3125**

Card No. **3125**

PERFORMANCE QUALIFICATION

Process(es)	<u>SMaw</u>	Materials (P. No.)	<u>P1-P1</u>
Filler Metal Group (F. No.)	<u>F3 F4</u>	Min. Outside Pipe Diameter	<u>1"OD</u>
Max Deposited Weld Metal	<u>.25" .438"</u>	Position(s) Qualified	<u>ALL</u>
Backing	<u>None Wm.</u>	Backing Gas	<u>-</u>
Progression	<u>uphill</u>		
P.Q. Expiry Date	<u>Apr. 13/06</u>	Welding Examiner Signature	<u>[Signature]</u>
		Certification No.	<u>W600192</u>

Terry Cote
(BC)

Grande Prairie Regional College
A.O.Q.P. No. 7111

WELDER PERFORMANCE QUALIFICATION CARD

NAME: TERRY COTE ABSA FILE No. W-21655

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: May 5/03
Signature of Welder or Machine Operator: [Signature]
Welding Examiner (Print/Type): PETER WOODCOCK, C.E.T.
Card No. **3008**

Card No. **3008**

PERFORMANCE QUALIFICATION

Process(es)	<u>SMaw</u>	Materials (P. No.)	<u>P1-P1</u>
Filler Metal Group (F. No.)	<u>3 4</u>	Min. Outside Pipe Diameter	<u>1"IN</u>
Max Deposited Weld Metal	<u>0.25" to 0.466"</u>	Position(s) Qualified	<u>all</u>
Backing	<u>W/M T=0.688"</u>	Backing Gas	<u>-</u>
Progression	<u>uphill</u>		
P.Q. Expiry Date	<u>May 5/05</u>	Welding Examiner Signature	<u>[Signature]</u>
		Certification No.	<u>W58</u>