

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

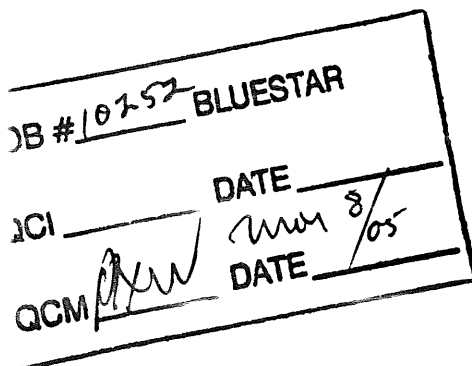
WELDING PROCEDURE QUALIFICATION RECORD NO.(S): BSW-4130-1

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. <u>1779.2</u>	Spec. No. <u>BSW-4130</u>
Weld Process <u>GMAW / SMAW</u>	
Matl. No. <u>AISI-4130</u>	to Matl. No. <u>AISI-4130</u>
Elec. Gr. F No. <u>6+4</u>	A No. <u>1+11</u>
Th. Qual. For <u>15.8 TO 50.8 mm P.W.H.T.</u> <u>YES</u>	
* Limited To: <u>NON-ASME CODE USE APPLICATION</u>	
<u>WELL HEAD / PIPELINE</u>	
<u>NOT UNDER JURISDICTION OF SAFETY CODES</u>	
Yr. <u>01</u>	Mo. <u>12</u> Day <u>4</u> Signed <u>[Signature]</u>
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

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

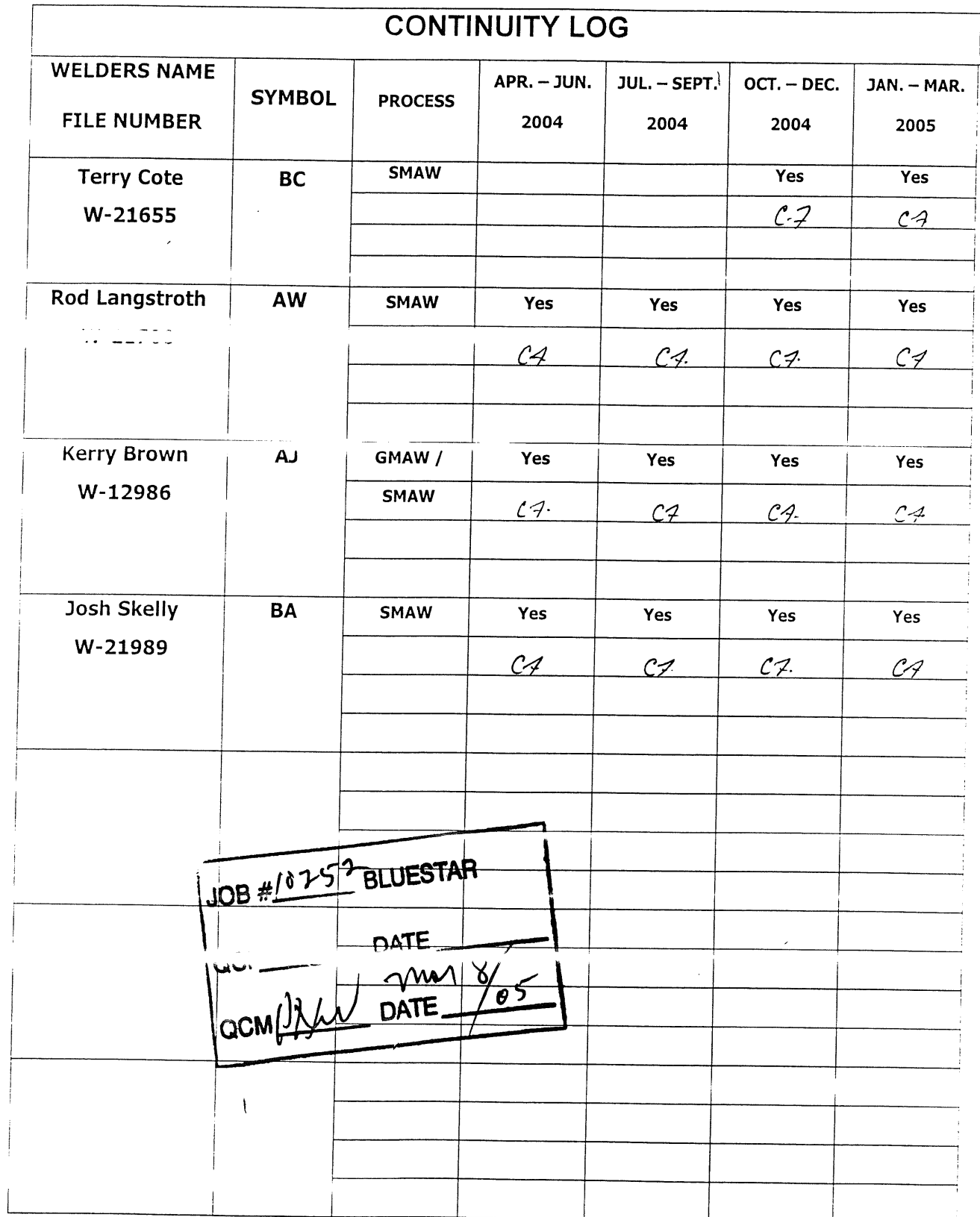
Position of Fillet GMAW: All SMAW: Flat & Horizontal

Weld Progression GMAW: Vertical down SMAW: N/A

PREHEAT (QW-406)

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.



Terry Cote
(BC)

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

PERFORMANCE QUALIFICATION
Card No. NE 3124
Process(es) SMW Materials (P. No.) P1-P1
Filler Metal Group (F. No.) 3 4 Min. Outside Pipe Diameter 1 IN
Max Deposited Weld Metal 0.25" 0.466" Position(s) Qualified all
Backing W/4 T-0.688" Backing Gas -
Progression uphill
May 5/05 P.Q. Expiry Date P. Woodcock W58 Welding Examiner Signature Certification No.

Rod Langstroth
(AW)

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.
Apr. 13/04 Date of Test
BARRY NICHOL Signature of Welder or Machine Operator
Welding Examiner (Print/Type) Card No. 3124

PERFORMANCE QUALIFICATION
Card No. 3124
Process(es) SMW Materials (P. No.) P1-P1
Filler Metal Group (F. No.) F3 F4 Min. Outside Pipe Diameter 1" 60
Max Deposited Weld Metal 0.25" .438" Position(s) Qualified ALL
Backing NONE W.M. Backing Gas -
Progression uphill
Apr. 13/06 P.Q. Expiry Date B. Nichol W600192 Welding Examiner Signature Certification No.

Kerry Brown
(AJ)

WELDER PERFORMANCE QUALIFICATION CARD
NAME: KERRY BROWN ABSA FILE No. W-12986
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.
Aug. 1/03 Date of Test
PETER WOODCOCK, C.E.T. Signature of Welder or Machine Operator
Welding Examiner (Print/Type) Card No. 2037

PERFORMANCE QUALIFICATION
Card No. 2037
Process(es) GMAW/SMW Materials (P. No.) P1-P1
Filler Metal Group (F. No.) 6/14 Min. Outside Diameter 2 3/8"
Max Deposited Weld Metal 0.25" .438" Position(s) Qualified all
Backing W/M To 775" Backing Gas CO2
Progression uphill
Aug 1/05 P.Q. Expiry Date P. Woodcock W658 Welding Examiner Signature Certification No.

Josh Skelly
(BA)

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.
Apr. 13/04 Date of Test
BARRY NICHOL Signature of Welder or Machine Operator
Welding Examiner (Print/Type) Card No. 3125

PERFORMANCE QUALIFICATION
Card No. 3125
Process(es) SMW Materials (P. No.) P1-P1
Filler Metal Group (F. No.) F3 F4 Min. Outside Pipe Diameter 1" 60
Max Deposited Weld Metal 0.25" .438" Position(s) Qualified ALL
Backing NONE W.M. Backing Gas -
Progression uphill
Apr. 13/06 P.Q. Expiry Date B. Nichol W600192 Welding Examiner Signature Certification No.

OB # 10252 BLUESTAR
CI DATE
QCM DATE 8/05