

PROCEDURE QUALIFICATION RECORD

PQR NUMBER 513 (Include PQR Number on All Supporting Documents)

Welder's Name Jason Pinkham ID \_\_\_\_\_ Welding Test Date 1-26-12  
Process GMAW Position 2P horizontal Joint Detail:  Fig. 5.1  Fig. 5.2  
Electrode(s) Mfg. Designation Lincoln Super Duty L-36  Fig. 5.3  Fig. 5.8  
AWS Electrode Classification ER70S-6 Electrical Stick Out \_\_\_\_\_  
Flux Mfg. Designation \_\_\_\_\_ AWS Flux Classification \_\_\_\_\_  
Postweld Heat Treatment: Temp. \_\_\_\_\_ Hold Time \_\_\_\_\_ Heating/Cooling Rate \_\_\_\_\_

Electrode	(1)	Diam.	Current	WFS*	Voltage	Current and Polarity
	(1)	<u>.035</u>	<u>240</u>		<u>27</u>	<u>DCSP</u>
	(2)					
	(3)					

Calculated Heat Input (see 5.12) \_\_\_\_\_  
Shielding Gas Ar Dew Point \_\_\_\_\_ Flow Rate 30cfh Gas Cup Size 3/8"  
Travel Speed: Min. \_\_\_\_\_ Max. \_\_\_\_\_  
Base Metal Specification and Thickness A131500-1" Heat Number \_\_\_\_\_  
Backing Metal Specification and Thickness \_\_\_\_\_ Heat Number \_\_\_\_\_  
Base Metal Carbon Equivalent (see 5.4.2) \_\_\_\_\_

(Attach Copy of Certified Mill Test Report for Base and Backing Materials)

Preheat Temp. 700 Interpass Temp. Min. \_\_\_\_\_ Max. \_\_\_\_\_

SPECIMEN

TEST RESULTS

All Weld Metal Tension (AWMT) \_\_\_\_\_  
 ksi  MPa Tensile Strength \_\_\_\_\_  
Yield Strength \_\_\_\_\_  
Elongation in 50 mm [2 in] (%) \_\_\_\_\_  
Reduction in Area % \_\_\_\_\_

Visual Inspection:  Acceptable  Unacceptable \*\*Macro Test:  Acceptable  Unacceptable

Side Bends 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_

Reduced Section Tension Tension Strength 1. \_\_\_\_\_ Location of Break 1. \_\_\_\_\_  
2. \_\_\_\_\_ 2. \_\_\_\_\_  
 ksi  MPa

Charpy V-Notch Impact ( \_\_\_\_\_ )

Toughness of Weld Metal ( \_\_\_\_\_ )

SMAW, SAW, FCAW, GMAW—5 Req'd. <sup>a</sup>Avg.  ft-lbs,  J @ \_\_\_\_\_ °F  [°C]

ESW and EGW—8 Req'd. <sup>a</sup>Discard the highest and lowest values and average the 3 remaining.

\*\*Chemistry of Deposited Weld Metal C \_\_\_\_\_ Mn \_\_\_\_\_ Si \_\_\_\_\_ P \_\_\_\_\_ S \_\_\_\_\_

When Required by Contract Documents\* Ni \_\_\_\_\_ Cr \_\_\_\_\_ Mo \_\_\_\_\_ V \_\_\_\_\_ Cu \_\_\_\_\_

Radiographic Test:  Acceptable  Unacceptable Remarks: \_\_\_\_\_

Fillet Weld Soundness Maximum Size Single Pass: 3/16 1. O.K. 2. O.K. 3. O.K.

Macroetch Maximum Size Single Pass: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

We, the undersigned, certify that the above described WPQR/FWS has been qualified in accordance with Clause 5 of the AASHTO/AWS D1.5M/D1.5 (2010) Bridge Welding Code.

State/3rd Party Witness [Signature] Mfr./Contractor ARC Ent.

Date 1-26-2012 Authorized By [Signature]

Agency Results Reviewed \_\_\_\_\_ Date 1-26-12

\*Optional \*\*Optional for CJP

Form L-3 Vermont Agency of Transportation

Form L-3—Procedure Qualification Record RECEIVED  
for Qualification, Pretest, and Verification CK'D BY David Peterson OK'D BY JWC

Robert H Porechanian, Jr.  
CWI 80100111  
QC1 EXP. 10/1/2014

Apr 26, 2012

RESUBMIT APPROVED  
BY C. CARLSON DATE 5/7/12