WELDING PROCEDURE SPECIFICATION (WPS) YES (X)
PREQUALIFIED __ ___ QUALIFIED BY TESTING ____(X)___
or PROCEDURE QUALIFICATION RECORD (PQR) YES (x)

Company Name A.R.C. Ent. Inc.
Welding Process(es) SAW
Supporting PQR No.(s) ARC - PQR - 42

Identification # ARC WPS #42
Revision 6 **Date** 1/10/2017 **By** SVH
Autherized by STEVE HOWARD **Date** 1/10/2017
Type - Manual Semi - Automatic ( )
Machine ( ) Automatic (X)

JOINT DESIGN USED
Type FILLET
Single (X) Double Weld ( )
Backing ( ) NO (X)
Backing Material
Root Opening **Root Face Dimension**
Groove Angle **Radius (J-U)**
Back Gouging **Method**

BASE METALS
Material Spec A709
Type or Grade 36 50 50W
Thickness **Groove** **Fillet** UNLIMITED
Diameter **(Pipe)**

FILLER METALS Lincoln I-61
AWS Specification A 5.23 A 5.17
AWS Classification EM12K

SHIELDING
Flux LINCOLN 960 **Gas**
Composition
Electrode - Flux (Class) **Flow Rate**
F7A2-EM12K **Gas Cup Size**

Preheat < 3/4" = 50 degrees 3/4" - 1 1/2" = 70 degrees
1 1/2" - 2 1/2" = 150 degrees Over 2 1/2" = 225 degrees F

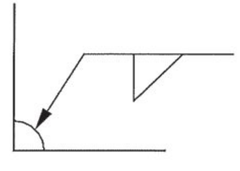
POSITION
Position of Groove **Fillet** 1F 2F
Vertical Progression ( )

ELECTRICAL CHARACTERISTICS
Transfer Mode (FCAW) **Short Circuiting** ( )
Globular ( ) **Spray** (X)
Current : **AC** ( ) **DCEP** **DCEN** (X)
Pulsed ( )
OTHER :

TECHNIQUE
Stringer or Weave Bead STRINGER
Multi-pass or Single Pass (per side) SINGLE
Number of Electrodes -1
Electrode Spacing **Longitudinal**
Lateral
Angle
Contact Tube to Work Distance 1"1/4 STICKOUT +/_1/4"
Peening
Interpass Cleaning : hand and power tools

POSTWELD HEAT TREATMENT
Temp
Time

WELDING PROCEDURE

Pass or Weld Layer(s)	S	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diameter	Type & Polartiy	Amps or Wire Feed Speed			
	5/16"	EM12K	5/32	DCEN	560 - 645	31-33	19 - 23	

Vermont Agency of Transportation
RECEIVED
CK'D BY RSF, TAM OK'D BY JDG
February 9, 2017
RESUBMIT No Approved
BY Kristin Higgins DATE 2/14/2017