## WELDING PROCEDURE DATA SHEET (WPDS) MCAW - PLUG1 WPDS No.: Rev: RC Technical Services Oct. 13, 2019 Date: MCAW-CS 512 MacDougall Road Ref. WPS: CSA W47.1, CSA W59 MacDougall Settlement, N.B. Ref. Standards: CSA W47.1 Clause 11.2.2. (a) Prequalified joint no.: Base Metal: Filler Metal / Classification E491C-6M-H8 or H4 **CSA W48:** CSA W59, Table 11.1, GROUPS 1, 2, 3 E70C-6M-H8 or H4 AWS A5.18: **MCAW** 6 mm (1/4") to UNLIMITED Thickness: Process: Argon + 10% CO2 Shielding: 30 - 40 CFH Gas Flow Rate: SPRAY Metal Transfer Mode: Process Mode: SEMI-AUTOMATIC FLAT Position: Τ1 Weld Technique LAP Joint Type: Weld Type: **PLUG** T2 COMPLETE Penetration: 19 mm (3/4") Electrode Stickout: AREA OF HOLE Side I T1 = 12 mm (1/2") or 16 mm (5/8")Effective Area: 10°C & Table 5.3 W59 T2 = 6 mm (1/4") to UnlimitedPreheating Temp. 3 3 260°C (500°F) MAX Ø = Hole diameter. Interpass Temp.: 2 2 N/A Backgouging Method: Layers 3 mm (1/8") max. reinforcement. N/A 1 1 Backgouging Depth: Backing Material: See base metal above 6 mm (1/4") minimum min. Ø max. Ø Backing Thickness: 12 mm 20 mm 27 mm Weld technique: 16 mm 24 mm 36 mm Continuous pass shall be deposited around the root of the joint and then continue along a spiral path to the center of the hole, fusing a layer of weld at the root and bottom of the joint. Remove silicon islands, check for fusion. Check maximum interpass temperature. Repeat, fusing successive layers to fill the hole to the required depth. Maximum layer thickness 6 mm (1/4"). Welding Parameters: Side Pass Electrode Current Amperes WFS Volts Arc Travel Plug Weld Layer Depth Diameter Polarity inch / min. in/min inch (+/-10%)(+/-10%)(+/-7%)(+/-15%)mm mm inch 12 12 1/2 1 - 2 1 - 2 0.045 **DCRP** 250 340 29 20 16 1 - 3 1 - 3 0.045 **DCRP** 250 340 29 16 20 Remarks: **CWB Approval:** Company's Approval: Mis-located holes may be repaired by welding only with the approval of contractor's engineer.