

# Welding Performance Qualification Record (WPQR)

No. XXX

Welder's Name:

ID:

Manufacturer:

## Testing Description

Identification of WPS: WPS CS-2110-0

Test Type: Coupon

Specification of Base Metal: A106 Grade B

Thickness: 0.625 inch

## Testing Variables and Qualifications Limits

| Welding Variables (QW-350)                            |        |                       | Actual Values    | Range Qualified          |
|-------------------------------------------------------|--------|-----------------------|------------------|--------------------------|
| Welding Process                                       |        |                       | SMAW             | SMAW                     |
| Type used (manual, semi-auto etc.)                    |        |                       | Manual           | Manual                   |
| Backing                                               |        |                       | Without          | With/without             |
| ( ) Plate (X) Pipe – Diameter                         |        |                       | Pipe (≥ NPS 2.5) | 1 inch to Unlimited      |
| Pipe Wall Thickness                                   |        |                       | ≥ 0.625 inch     | WPS limits               |
| Base Metal P Number                                   |        |                       | P1               | P1 to P15F, 34, 41 to 49 |
| Filler Metal or Electrode Specification (SFA)         |        |                       | 5.1/5.18         | N/A                      |
| Filler Metal or Electrode Classification              |        |                       | E6010/E7018      | N/A                      |
| Filler Metal F-Number                                 |        |                       | F1/F4            | F4, F3, F2, F1           |
| Consumable Insert (GTAW or PAW)                       |        |                       | None             | None                     |
| Filler Metal Type (solid/metal or flux cored)         |        |                       | Solid rod/wire   | N/A                      |
| Deposit thickness of each process                     |        |                       |                  |                          |
| Process 1: SMAW E6010 F1 3 Layers min. ( ) Yes (X) No |        |                       | 0.125 inch       | 0.250 inch               |
| Process 2: SMAW E7018 F4 3 layers min. (X) Yes ( ) No |        |                       | 0.500 inch       | WPS Limits               |
| Position                                              | Groove | Plate & pipe > 24 NPS | 6G               | All                      |
|                                                       | Fillet | Pipe ≤ 24 NPS         |                  | All                      |
|                                                       |        | Plate & pipe          |                  | All                      |
| Vertical Progression                                  |        |                       | Uphill           | Uphill                   |
| Current type and polarity                             |        |                       | DCEP             | N/A                      |
| Type of Fuel Gas (OFW)                                |        |                       | N/A              | N/A                      |
| Inert Gas Backing                                     |        |                       | None             | N/A                      |

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## Testing Variables and Qualifications Limits

| Welding Variables (QW-350)                      |        |                       | Actual Values    | Range Qualified          |
|-------------------------------------------------|--------|-----------------------|------------------|--------------------------|
| Welding Process                                 |        |                       | GTAW             | GTAW                     |
| Type used (manual, auto etc.)                   |        |                       | Manual           | Manual                   |
| Backing (metal, weld metal etc.)                |        |                       | Without          | With/without             |
| ( )Plate (X)Pipe – enter diameter in mm         |        |                       | Pipe (≥ NPS 2.5) | 1 inch to Unlimited      |
| Pipe Wall Thickness (mm)                        |        |                       | ≥ 0.625 inch     | WPS limits               |
| Base Metal P Number                             |        |                       | P1               | P1 to P15F, 34, 41 to 49 |
| Filler Metal or Electrode Spec. SFA             |        |                       | 5.18             | N/A                      |
| Filler Metal or Electrode Class. SFA            |        |                       | ER70S-2          | N/A                      |
| Filler Metal F-Number                           |        |                       | F6               | F6                       |
| Consumable Insert (GTAW or PAW)                 |        |                       | None             | None                     |
| Filler Metal Type (solid/metal or flux cored)   |        |                       | Solid rod/wire   | N/A                      |
| Deposit thickness of each process               |        |                       |                  |                          |
| Process 1: GTAW 3 Layers minimum (X) Yes ( ) No |        |                       | 0.625 inch       | WPS limits               |
| Process 2: N/A                                  |        |                       | N/A              | N/A                      |
| Position                                        | Groove | Plate & pipe > 24 NPS | 6G               | All                      |
|                                                 | Fillet | Pipe ≤ 24 NPS         |                  | All                      |
|                                                 |        | Plate & pipe          |                  | All                      |
| Vertical Progression                            |        |                       | Uphill           | Uphill                   |
| Current type and polarity                       |        |                       | DCEP             | N/A                      |
| Type of Fuel Gas (OFW)                          |        |                       | N/A              | N/A                      |
| Inert Gas Backing                               |        |                       | None             | N/A                      |