

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027818**Date Inspected:** 22-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Component**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Electroslag Weld Excavation

This QA observed ABF/JV welding personnel Xiao Jian Wan #9677 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW V" and was excavated on Face A at location:

Weld "V" – Y=330mm, D=50mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 2mm-5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT) and photographed the discovered indications.

Throughout this excavation this QA observed and photographed several linear indications in both the transverse and longitudinal orientation.

This excavation is currently in-progress and final measurements have not been made. Please see attached photographs for more information.

This QA observed ABF/JV welding personnel Jin Pei Wang #7299 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

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The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW V" and was excavated on Face A at location:

Weld "V" – Y=8650mm, L= 300mm, W=75mm, D=50mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 2mm-5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT) and photographed the discovered indications.

Throughout this excavation this QA observed and photographed linear indications.

Please see attached photographs for more information.

Orthotropic Box Girder - 13W

This QA randomly observed ABF/JV qualified welder Rory Hogan #3186 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1040C-CU. The joint being welded was 13W-W122.1.

During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters. Welding parameters were recorded as (A=130).

This QA randomly observed ABF/JV qualified welder Mike Jiminez #4671 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1040C-CU. The joint being welded was 13W-W2.1.

During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters. Welding parameters were recorded as (A=132).

This QA randomly observed ABF/JV qualified welder Wen Han Yu #6317 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1040C-CU. The joint being welded was 13W-W2.2.

During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters. Welding parameters were recorded as (A=130).

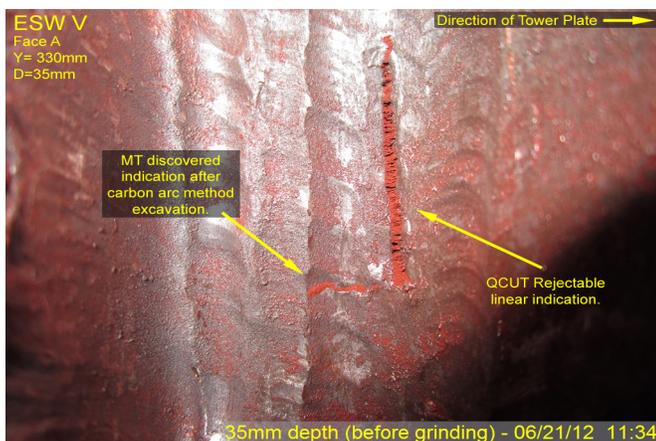
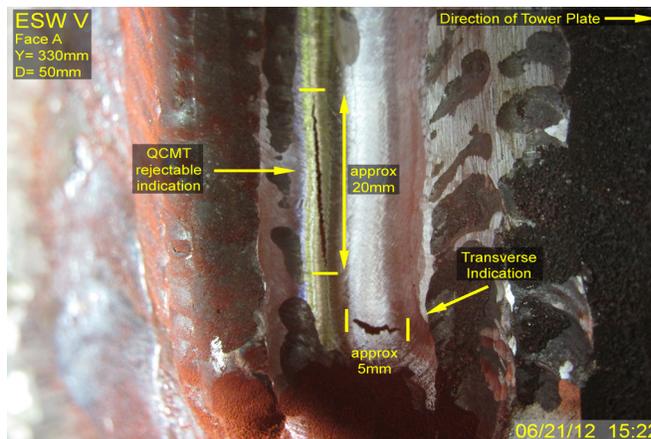
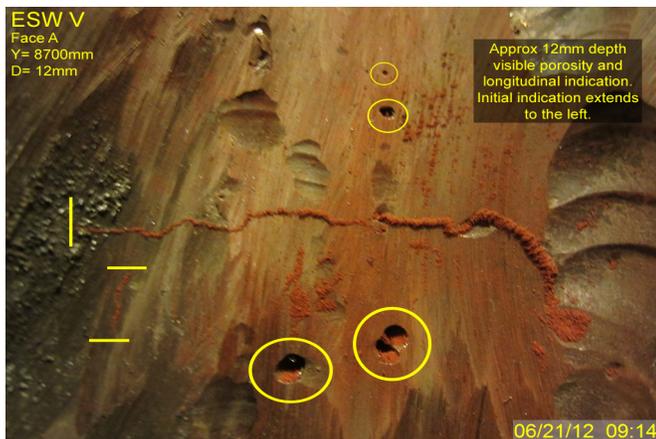
This QA randomly observed ABF/JV qualified welder Jeremy Dolman #5042 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1040C-CU. The joint being welded was 13W-W2.8 (Y=6800mm~9200mm)

During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters. Welding parameters were recorded as (A=131).

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Conversations were relevant to testing performed and indications discovered during excavation.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Clifford, William

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer