

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-028143**Date Inspected:** 08-Aug-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:** Salvador Merino**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:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson 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:

This QAI randomly observed ABF/JV QC inspector John Pagliero performing magnetic particle testing (MT) of the repair excavation for weld 13E-PP122.2 at Y=70. The sought indication was a rejectable transverse indication discovered by ABF QC while utilizing scanning pattern D. After Carbon Arc Gouging to a depth of 3mm from face B, pockets of scattered porosity were observed as seen in the attached photograph.

After the (MT) was performed the QAI observed ABF/JV qualified welder Wai Kitlai #2953 performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1004-Repair. The welding observed was for repairs to the deck panel drop-in welds designated as 13E-PP122.2 at Y=70 and 13E-PP122.5-E2.1 at Y=2330/Y=2550. The weld surface and surrounding area was brought to temperature by the use of an induction heater from face A, and the preheat temperature was confirmed ABF personnel prior to welding. Due to the first time repair at this location approval for repair (RWR) of this weld was not required.

The QAI performed a minimum of 10% verification Ultrasonic Testing (UT) and was directed by the QA lead to scan the weld utilizing scanning pattern D only for the detection of indications oriented transverse to the weld axis. Due to contract requirements the weld was ground flush after being previously accepted by ABF QC. No Rejectable indications were observed at the time of inspection however, recordable indications were observed and recorded by ABF personnel. The following weld was tested directly behind ABF QC, utilizing scanning pattern D

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# WELDING INSPECTION REPORT

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only;

12W-13W-A3

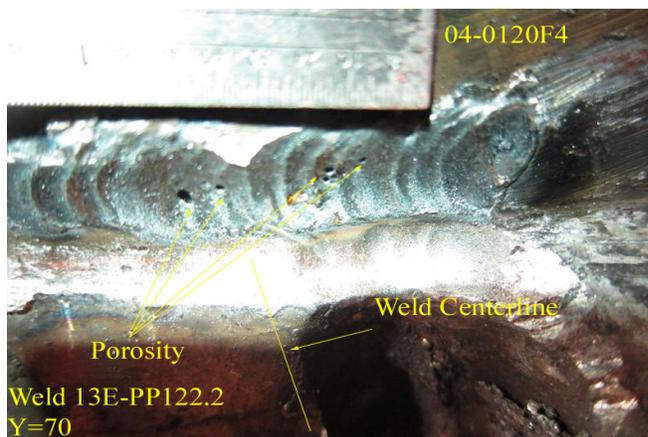
The QA inspector noted and periodically observed ABF/JV qualified welder Xiao Hua Luo #1291 performing Shielded Metal Arc Welding (SMAW) in the 2G/3G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1040-A. The welding observed was for the web splice at panel point 121. The weld surface and surrounding area was brought to temperature by the use of a gas torch and the preheat temperature was confirmed ABF personnel prior to welding.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13W/14W and 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

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

### Summary of Conversations:

No relevant conversations.



### 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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:**      Patterson,Rodney

Quality Assurance Inspector

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**Reviewed By:**      Levell,Bill

QA Reviewer