

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 #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013650**Date Inspected:** 29-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR

CWI Name:	M. Gregson, J. Salazar, G. Mundt	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:	Hinge K Pipe Beams				

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Hinge-K Pipe Beam Assembly 101A-4:

The QA Inspector observed WID #B62 (Marcus Belgarde) performing Flux Core Arc Welding (FCAW) intertacking on the Weld Joint #W4-01. The QA Inspector noted that this was the Complete Joint Penetration (CJP AWS D1.5 B-U7-S) Fuse 120A-3 to Forging 102A-3. The QA Inspector observed WID #B62 perform the tacking in the vertical position. The QA Inspector noted that OIW QC Inspector Jose' Salazar was present and QC Inspector Salazar explained that he will be present the entire shift to monitor the in-process welding parameters. The QA Inspector randomly recorded in process pre-heat temperatures of approximately 350 degrees Fahrenheit. The QA Inspector noted that this in compliance with the applicable welding procedure specification 3048. QC Inspector Salazar explained that he had recorded average welding parameters of 220 amps and 23 volts, with a pre-heat temperature of 350 degrees Fahrenheit. QC Inspector Salazar later explained that two tack welds were completed at the end of shift and swing shift will probably start tacking, the remaining two.

The QA Inspector was present on this swing shift and was informed by OIW QC Inspector Gary Mundt that the tack welding will continue. QC Inspector Mundt explained that WID #V7 (Vincent Vue) will be performing the FCAW. The QA Inspector then observed WID #V7 setting up to perform the FCAW. The QA Inspector later observed WID #V7 applying the pre-heat, prior to tack welding and recorded a temperature of approximately 350 degrees Fahrenheit. The QA Inspector was informed by QC Inspector Mundt that WPS 3048 was still being

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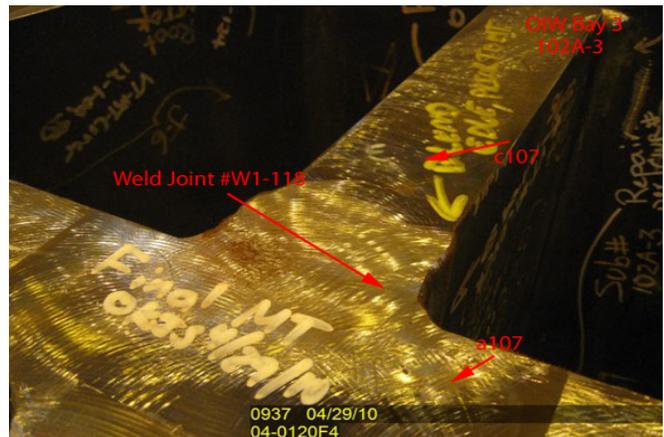
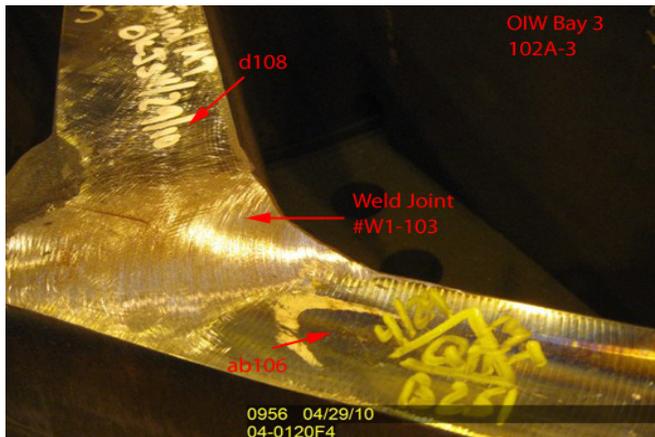
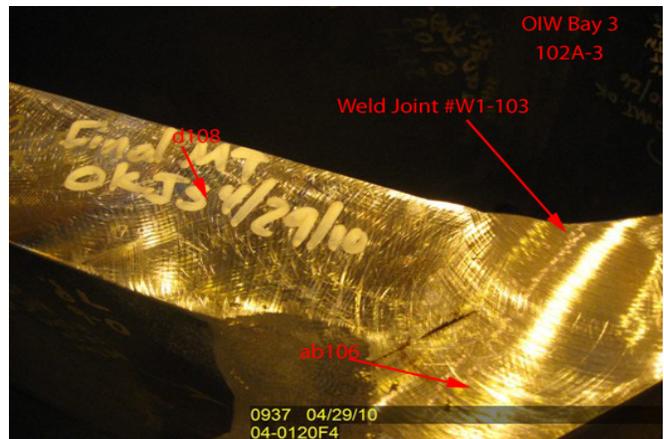
utilized for the tack welding and that WID #V7 currently has a copy of the WPS and the QA Inspector verified this. QC Inspector Mundt explained that average welding parameters were recorded at 240 amps, 24 volts and a travel speed of 7 inches (177 mm) per minute. The QA Inspector was later informed that the tack welding was now complete and that no other work will be performed on the project. The QA Inspector noted that the above mention FCAW appeared to be in compliance with AWS D1.5 and the applicable WPS.

Hinge-K Pipe Beam Assembly 102A-3:

The QA Inspector was informed by OIW QC Inspector Jose' Salazar that he had completed the final Visual and Magnetic Particle testing (VT/MT), on the critical Weld Repair (CWR #2244-024), weld joints #W1-118 and W1-103. The QA Inspector noted that this was the c107 to a107 and d108 to ab106 HPS 485W stiffeners. QC Inspector Salazar explained that no rejectable indications were found, during the testing. QC Inspector Salazar explained that the testing had been performed in accordance to AWS D1.5 Visual and QC-113, Rev. #3 Magnetic Particle Testing criteria. The QA Inspector noted that the welds joints had exceeded the minimum Cooling Time prior to the inspection, performed by QC Inspector Salazar. The QA Inspector then performed 100% VT/MT, on the CWR #2244-024 weld joint # W1-118 and # W1-103. The QA Inspector found no rejectable indications during the testing. The QA Inspector notified Lead QC Inspector Mike Gregson of the testing results and completed the applicable Magnetic Particle Testing Report (TL 6028), on this date. See attached pictures below.

Material, Equipment, and Labor Tracking (MELT)

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 4 OIW production personnel and 2 QC Inspectors.



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Summary of Conversations:

As noted above.

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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer
