

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-014704**Date Inspected:** 14-Jun-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

<b>CWI Name:</b>	M. Gregson, J. Salazar, G. Mundt	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>			
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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-3:**

The QA Inspector observed OIW Lead QC Inspector Mike Gregson performing Ultrasonic Testing on the Weld Joint #W4-01. The QA Inspector noted that this Complete Joint Penetration (AWS D1.5 B-U7-S), was the Fuse 120A-3 to Forging 102A-3 and that QC Inspector Gregson was performing the testing from the exterior or Face "A" side of the joint. The QA Inspector observed that QC Inspector Gregson was utilizing a 70 degree Lucite wedge testing angle attached to a 2.25 MHz transducer and the testing was being performed from a scissor lift. The QA Inspector then spoke with QC Inspector Gregson and Mr. Gregson explained that prior to the testing, that a calibration was performed utilizing an AWS IIV Type 2 calibration block, with a 70 and 60 degree testing angle. QC Inspector Gregson explained that the testing being performed was in accordance to OIW UT procedure # NP-2244-(13)-01 and at this time, no rejectable and 2 recordable indications were found. The QA Inspector noted that per AWS D1.5 Sect.6.19.8 "Only those discontinuities which are rejectable need be recorded on the test report, except that for welds designated in the contract documents as being "Fracture Critical," ratings which are up to and including 6dB less critical than rejectability shall be recorded on the test report".

The QA Inspector was later informed by QC Inspector Gregson that he had completed the testing on Face "A" at the end of the shift and no rejectable indications were found. QC Inspector Gregson explained that he will be performing the testing from the interior or Face "B" side of the weld joint on the following day, 6/15/10.

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The QA Inspector was present on this swing shift and performed approximately 10% UT verification on the above mentioned weld joint. The QA Inspector performed the testing from Face "A", which was previously tested by QC Inspector Gregson. The QA Inspector performed the testing on 3 random areas, approximately 200 mm long each, in the same manner as mentioned above and found no rejectable or recordable indications.

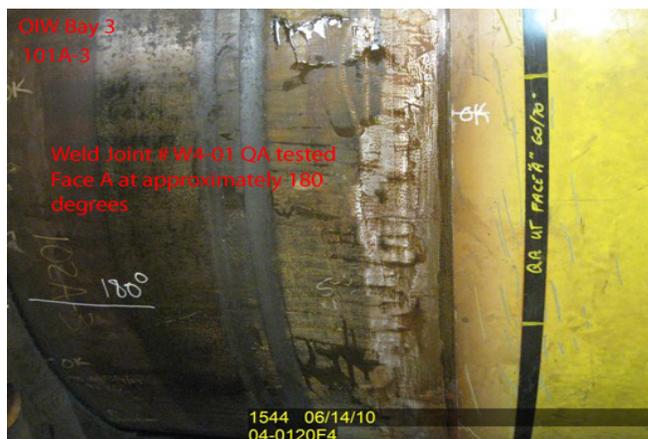
See Summary of Conversations and attached pictures below.

## 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 Clackamas: 3 OIW production personnel and 2 QC Inspectors.

## Summary of Conversations:

Lead QC Inspector Mike Gregson explained to the QA Inspector that after the UT is complete on weld joint # W4-01, Face "B", the QA Inspector will be notified of the testing results. Once notified and OIW QC accepts the testing results, the QA Inspector will then perform the testing from Face "B".



## 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

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Materials for your project.

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**Inspected By:** Vance,Sean

Quality Assurance Inspector

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**Reviewed By:** Adame,Joe

QA Reviewer