

# RECLAMATION

*Managing Water in the West*

## MP CONSTRUCTION OFFICE

Willows, California

### Construction Progress Report – L29



Coleman National Fish Hatchery Barrier Weir Site Modifications  
Viewing Platform Walls and Wasteway Walls

**August 2012**

**“Doing It Right from the Start”**



U.S. Department of the Interior  
Bureau of Reclamation  
Mid-Pacific Region

CONSTRUCTION PROGRESS REPORT (L-29)  
 MP CONSTRUCTION OFFICE  
 MID-PACIFIC REGION  
 August 2012

CONTENTS

	PAGE
LOCATION MAP.....	i
STAFFING.....	ii
GLOSSARY OF TERMS.....	iii

<u>CONTRACT/SPECS OR P.O. NO., CONTRACTOR, AND CONTRACT NAME</u>	PAGE	MAP
	<u>NO.</u>	<u>NO.</u>
<b>CCAO</b>	<b>1</b>	
R10PC20R15 20-C0649A Abide International, Inc. Fixed Wheel Gate Rehabilitation – Folsom Dam River Division–Central Valley Project, California	3	1
R10PC20019 20-C0689 Andritz Hydro Corp. Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement– American River Division–Folsom Unit–Central Valley Project, California	5	1
R10PC20767 20-C0703 Voith Siemens Hydro Power Generation, Inc. Folsom Power Plant U1, U2, and U3 Replacement Runners–American River Division–Folsom Unit–Central Valley Project, California	6	1
R10PC20128 20-C0706 Koontz Electric Co., Inc. New Melones Power Plant Excitation System Replacement–East Side Division–New Melones Unit–Central Valley Project, California	7	2
R09PC20171 20-C0720 Perryman Mechanical, Inc. Nimbus Powerplant HVAC System Modification–American River Division–Folsom Unit, Central Valley Project, California	8	3
R10PC20R49 20-C0733 CSRW, Inc. (DBA) Allied Construction Services Lake Berryessa ADA Accessibility Improvements–ARRA Project No. 49.000–Lake Berryessa Recreational Area, Solano Project, California CSRW (DBA)	9	4
R10PC20R37 20-C0738 J.I. Garcia Construction, Inc. New Melones ADA Accessibility–ARRA Project No. 50.000–New Melones Recreation Area, East Side Division–Central Valley Project, California	10	2
R10PC20114 20-C0754 Shimmick Construction Co., Inc. Folsom Dam–Safety of Dams Modification–MIAD Key-Block–American River Division, Folsom Unit, Central Valley Project, California	12	1
R10PC20R57 20-C0760 Building Solutions, Inc. Folsom Dam Civil Maintenance Building–American River Division–Folsom Unit, Central Valley Project, California	14	1
R10PC20197 20-C0768 Crane America Services, Inc. Control Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam and Powerplant–American River Division, Folsom unit, Central Valley Project, California	16	1

R10PC20859	None	Trofholtz Technologies, Inc.	17	1
Folsom Dam and Powerplant Site Security System – Central Valley Project, California				
<b>LBAO</b>			<b>19</b>	
R11PC20158	20-C0777	Farr Construction Corp.	21	5
Stampede Powerplant and Switchyard Recoatings–Stampede Dam–Stampede Division–California				
<b>NCAO</b>			<b>23</b>	
R10PC20746	20-C0700	Shimmick Construction, Inc.	25	6
Coleman National Fish Hatchery Water Intakes Rehabilitation–Shasta Division–Central Valley Project, California				
R10PC20744	20-C0712	National Electric Coil, Inc.	26	7
J.F. Carr Power Plant, Generator G1 and G2 Rewinds–NCAO–Shasta Power Plant–Sacramento River Division–Central Valley Project California				
R09PC20126	20-C0727	Extreme Coatings, Inc.	27	7
J.F. Carr Penstock Relining–NCAO, Shasta Power Plant–Sacramento River Division–Central Valley Project, California				
R10PC20R11	20-C0730	MWI Corp.	28	8
Red Bluff Pumping Plant and Fish Screen, Pumps and Motors–Sacramento River Division–Sacramento Canals Unit–Central Valley Project, California				
R10PC20R09	20-C0740	West Bay Builders	29	8
Red Bluff Pumping Plant and Fish Screen, Landfill Excavation and Canal, Siphon and Access Bridge–Sacramento River Division–Sacramento Canals Unit–Central Valley Project, California				
R10PC20R33	20-C0752	Balfour Beatty Infrastructure, Inc.	30	8
Red Bluff Pumping Plant and Fish Screen–Sacramento River Division–Sacramento Canals Unit–Central Valley Project, California				
R10PC20102	20-C0755	Andritz Hydro Corp.	34	7
Spring Creek Powerplant Generators G1 and G2 Rewinds–NCAO–Central Valley Project, California				
R12PC20044	20-C0774a	Eaton Corp.	35	7, 9
Station Service Switchgear Replacement–Trinity River Division–Central Valley Project, California				
R11PC20124	20-C0780	Contractor Services Group, Inc.	36	6
Coleman National Fish Hatchery Barrier Weir Site Modifications–Shasta Division–Central Valley Project, California				
R12PC20053	20-C0789	Ray-Mac Mechanical, Inc.	38	10
Shasta Powerplant Control and Computer Room HVAC Replacement – Shasta Division – Central Valley Project, California				
R12PC20193	20-C0791	Site Work Solutions, Inc.	39	10
Shasta Dam Traffic Circle Pavement Rehabilitation – Shasta Division – Central Valley Project, California				

R10PC20025	None	Tehama Environmental Solutions, Inc.	39	6
Coleman Fish Hatchery Water Intakes Vegetation Replacement and Monitoring–Shasta Division–Central Valley Project, California				
R11PC20235	None	Tehama Environmental Solutions, Inc.	40	8
Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation–Sacramento Canal Units–Sacramento River Division–Central Valley Project, California				
<b>SCCAO</b>			<b>43</b>	
R10PC20R32	20-C0749	Flatiron West, Inc.	45	11
Fish Screen Structure Phase 3, Contra Costa Canal–Central Valley Project, California				
R10PC80R23	20-C0761	Shimmick Construction Co., Inc.	46	11
Delta-Mendota Canal–California Aqueduct Intertie–Central Valley Project–California				
R11PC20155	20-C0776a	Sierra Range Construction	47	11
Delta Cross Channel Gate Control and Lighting Improvements–Central Valley Project, California				
R11PC20185	20-C0778	Contra Costa Electric Corp.	48	12
Tracy 13.8kV Switchgear/Breaker Replacement–Tracy Pumping Plant and Substation–Central Valley Project, California				
<b>Regional</b>			<b>49</b>	
R10PC20005	20-C0717	Syblon Reid Contractors	51	13
North Fork Screens and Ladders–Battle Creek Salmon and Steelhead Restoration Project, California				
R10PC20R48	20-C0741	Sansone Co., Inc.	52	
Gray Lodge Wildlife Area and Pixley National Wildlife Refuge Wetlands–Groundwater Well Construction–ARRA Project No. 28.113–Central Valley Project–East Side Division, California				
R10PC20R39	20-C0744	Sansone Co., Inc.	53	
Volta Wasteway Refuge Level 2 Diversification Phase I Project–ARRA Project No. 28.129 – Central Valley Project, California				
R10PC20R42	20-C0746	RTA Construction/Ray Toney JV	54	13
Hydropower Facility Modifications-Stage 1–Battle Creek Salmon and Steelhead Restoration Project, California				
R10PX20R54	20-C0750	Don Pedro Pump, LLC	57	
Drought Relief, Well Enhancements–ARRA Project No. 28.000–Central Valley Project				
R10PC20R80	20-C0759	Layne Christensen Co.	58	
Drought Relief–Construction of New Wells–ARRA Project No. 28.002–California				

<b>Contracts in Warranty Status</b>	<b>61</b>
R09PC20R03 20-C0677 Transformer K1A and K2A Replacements, Folsom Power	62
R09PC20017 20-C0708 Marble Bluff Fish Handling Building Reroofing	62
R10PC20176 20-C0713 New Melones Resource Area Building Reroofing	62
R10PX20R45 20-C0750 Drought Relief, Well Enhancements–ARRA Project No. 28.000	62
R10PC20R24 20-C0751 Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates	62
R09PC20147 20-C0758 New Melones Lake Restroom Building Reroofing	62
R10PC20185 20-C0762 Whiskeytown Lake Temperature Control Curtain	62
R10PC20196 20-C0769 Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant	62
R12PC20055 20-C0776b Delta Cross Channel Gate Hoist Wire Rope Replacement–Central Valley Project, California	62
R11PC20087 None Coleman National Fish Hatchery, Water Intake No. 3 Repairs to Fish Screen	62
<b>Lab Reports</b>	<b>63</b>
Battle Creek Lab Reports	
MIAD Lab Reports	
Red Bluff Lab Reports	

# Mid-Pacific Region

**RECLAMATION**  
Managing Water in the West



**STAFFING – MID PACIFIC CONSTRUCTION OFFICE**

The Mid Pacific Construction Office had 76 construction and administrative employees at the close of this month as follows:

Construction Engineer's Office	2
Preaward & Project Management Group	3
Administrative Management	12
Division of Field Engineering	28
Division of Office Engineering	13
Materials Lab Branch	10
Detail/Contract Employees	8

## **GLOSSARY OF ACRONYMS AND ABBREVIATIONS**

### **MEANING**

ARRA	American Recovery and Reinvestment Act
CCAO	Central California Area Office
CVP	Central Valley Project
LBAO	Lahontan Basin Area Office
MP	Mid Pacific Regional Office
MPCO	Mid-Pacific Construction Office
NCAO	Northern California Area Office
SCCAO	South Central California Area Office
TO	Tracy Office



CCAO



Contract No. R10PC20R15  
Specification No. 20-C0649A  
Fixed Wheel Gate Rehabilitation – Folsom Dam River Division – Central Valley Project,  
California  
Abide International, Inc., Sonoma, CA

Work Performed:	August	0%
	Time Elapsed	76.0%
	Work Completed	30.9%
Contractor Earnings:	August	\$0
	Previous	\$2,529,703.18
	Total to Date	\$2,529,703.18

Area Office Project Management  
Project Manager: Jesse Castro, CC-607

Office Engineering  
Contract Administrator: Larry Bowman, MPCO-240

No invoices were received this period.

Field Engineering  
Construction Manager: Henry Garcia, MPCO-310  
Construction Representative: Bill Linder, MPCO-312

Number of Contract Employees: 2

Work performed:  
The contractor came back to work on the jobsite in the middle of August. The contractor built a steel working table for rehabilitation activities for the Fixed Wheel Gates. The contractor replaced the wooden seals on the stop logs at the top of the dam.



### Fixed Wheel Gate Rehabilitation

The contractor welding the working table for rehabilitation activities

Contract No. R10PC20019

Specification No. 20-C0689

Folsom Power Plant Generators U1, U2, and U3 Rewind and Excitation System Replacement –

American River Division – Folsom Unit – Central Valley Project, California

Andritz Hydro Corp, Charlotte, NC

Work Performed:	August	0%
	Time Elapsed	54.9%
	Work Completed	52.9%

Contractor Earnings:	August	\$0
	Previous	\$10,281,232.94
	Total to Date	\$10,281,232.94

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

MPCO continued reviewing proposals for Modification 7 which will definitize Modifications 1 and 2. The contractor is putting together a proposal to measure the circularity of the rotors.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Sergio Vivar, MPCO-311, Sean Frische, MPCO-317

Number of Contract Employees: 0

Work performed:

No work was performed. The contractor demobilized on October 28, 2011, and is scheduled to remobilize in October 2012.

Contract No. R10PC20767

Specification No. 20-C0703

Folsom Power Plant U1, U2, and U3 Replacement Runners – American River Division – Folsom Unit – Central Valley Project, California

Voith Siemens Hydro Power Generation, Inc., York, PA

Work Performed:	August	0%
	Time Elapsed	73.5%
	Work Completed	72.1%

Contractor Earnings:	August	\$0
	Previous	\$5,283,450.21
	Total to Date	\$5,283,450.21

Area Office Project Management

Project Manager: Jesse Castro, CC-607

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

Field Engineering

Construction Manager: N/A supply contract

Construction Representative: N/A supply contract

Number of Contract Employees: N/A supply contract

Work performed: N/A supply contract

Contract No. R10PC20128

Specification No. 20-C0706

New Melones Power Plant Excitation System Replacement – East Side Division – New Melones Unit – Central Valley Project, California

Koontz Electric Company, Inc., Morrilton, AR

Work Performed:	August	0%
	Time Elapsed	85.8%
	Work Completed	99.1%
Contractor Earnings:	August	\$0
	Previous	\$2,386,512.50
	Total to Date	\$2,386,512.50

Area Office Project Management

Project Manager: Terry Brown, CC-606a

Office Engineering

Contract Administrator: Larry Bowman, MPCO-240

No invoices were received this period.

Submittals, including as-built drawings, remain to be provided by the contractor.

The date of substantial completion was May 23, 2012.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Dennis Schuenemann, MPCO-338

Number of Contract Employees: 0

Work performed:

The contractor demobilized from the site on May 24, 2012.

The contractor performed no site work this period. The contractor still has to provide a backup central processing unit per the specifications.

Contract No. R09PC20171  
Specification No. 20-C0720  
Nimbus Powerplant HVAC System Modification – American River Division – Folsom Unit,  
Central Valley Project, California  
Perryman Mechanical, Inc., West Sacramento, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	79.9%
Contractor Earnings:	August	\$0
	Previous	\$428,963.09
	Total to Date	\$428,963.09

Area Office Project Management  
Brian Zewe, CC-607A

Office Engineering  
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering  
Construction Manager: Henry Garcia, MPCO-310  
Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 0

Work performed:  
All site work, except for punch list items, has been completed.

Contract No. R10PC20R49

Specification No. 20-C0733

Lake Berryessa ADA Accessibility Improvements – ARRA Project No. 49.000 – Lake Berryessa  
Recreational Area, Solano Project, California CSRW (DBA)

CSRW, Inc. (DBA) Allied Construction Services, Livermore, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	96.3%

Contractor Earnings:	August	\$0
	Previous	\$1,009,249.48
	Total to Date	\$1,009,249.48

Area Office Project Management

Project Manager: Nicole Johnson, CC-605c

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

Modification 5 and Final Modification 6 were executed this period

The remaining work is to submit as built drawings.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Henry Garcia, MPCO-310

Number of Contract Employees: 0

Work performed:

Site work was completed in September 2011.

Contract No. R10PC20R37

Specification No. 20-C0738

New Melones ADA Accessibility – ARRA Project No. 50.000 – New Melones Recreation Area,  
East Side Division – Central Valley Project, California

J.I. Garcia Construction, Inc., Fresno, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	96.5%
Contractor Earnings:	August	\$0
	Previous	\$1,333,872.80
	Total to Date	\$1,333,872.80

Area Office Project Management

Project Manager: Nicole Johnson, CC-605c

Office Engineering

Contract Administrator: Amber Pierce, MPCO-205

No invoices were received this period.

The contractor has to submit as-built drawings.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Henry Garcia, MPCO-310

Number of Contract Employees: 8

Work performed:

Contractor J.I. Garcia and his Sub contractors Scott's Seal Coating & Paving and Scott Coleman Concrete Construction Company performed the following work:

- Demolished the ramp between Acorn 27 and the public restroom
- Replaced all tactile surfaces and underlying asphalt concrete for future placement at Fiddleneck Campground, Chamise Campground, and Glory Hole Amphitheatre.
- Installed additional wood edging at Fiddleneck Campground, Acorn 27, Acorn 54, Chamise 151, and Manzanita 94
- Added additional road base as backing to wood edging that was exposed at the down slope side
- Repainted the handicap symbol at Acorn 27, and Acorn 54
- Restriped ADA parking areas at Acorn 27, Acorn 54, and Manzanita 94
- Formed the new ramp at Acorn 27

- Replaced the concrete ramp at Acorn 27 because the transverse and longitudinal slopes did not meet ADA requirements

Contractor has completed all final punchlist items.



New Melones ADA Accessibility  
Detectable warning tiles with truncated domes

Contract No. R10PC20114  
Specification No. 20-C0754  
Folsom Dam–Safety of Dams Modification–MIAD Key-Block–American River Division,  
Folsom Unit, Central Valley Project, California.  
Shimmick Construction Co., Inc., Sacramento, CA

Work Performed:	August	0%
	Time Elapsed	81.8%
	Work Completed	91.7%
Contractor Earnings:	August	\$0
	Previous	\$36,504,398.26
	Total to Date	\$37,542,948.68

Area Office Project Management  
Project Manager: Larry Hobbs, CC-106

Office Engineering  
Contract Administrator: Larry Bowman, MPCO-240

Invoice 24 was received this period. It was not for work done this period but was done for work through July 28, 2012.

Field Engineering  
Construction Manager: Henry Garcia, MPCO-310  
Construction Representative: Howard Diedrich, MPCO-316, Sean Frische, MPCO-317

Number of Contract Employees: 40

Work Performed:

**CELL E:**

SCCI completed Cell E this month. Backfill was completed from elevation 349' to 380'. Level 1 and Level 2 bracings were also removed.

**CELL A:**

SCCI completed Cell A this month. Backfill was completed from elevation 342.7' to 380'. Level 1 and Level 2 bracings were removed.

**CELL F:**

SCCI finished excavation prep. work at Cell F. Guardrails, swing stage, and inclinometers were completed. SCCI started excavation in Cell F this month. Excavation was completed from elevation 380' to 353'. Level 1 bracing was installed at elevation 373'. Level 2 bracing installation was partially complete. Due to large concrete blowouts, SCCI had to perform additional grinding to facilitate installation of the bracing and to mitigate safety concerns.

**CELL C:**

SCCI finished excavation prep. work at Cell C. Guardrails, swing stage, and inclinometers were completed. SCCI started excavation in Cell C this month. Excavation was completed from elevation 380' to 370'. Prep. work for installing Level 1 bracing was completed.

**MODIFICATION 005:**

SCCI finished fabricating the last pipe struts for Level 6, Group 2.  
SCCI installed inclinometer on the south wall of Cell C and Cell F before excavation.  
SCCI backfilled the dewatering wells in Cell E south wall.  
SCCI finished installing the swing stage at Cell C and F.

**MODIFICATION 007:**

SCCI finished operating and adjusting the supplemental dewatering systems for Cells A and E. The dewatering system was switched over to Cells C and F. SMUD finished installing the meter and running a line from the pole to the transformer. The system is yet to be energized.

SCCI completed pump and recovery test in Cell C. BOR provided list of pumps sizes and locations for supplemental dewatering wells in Cell C. SCCI continued installing the dewatering system in Cell C. Thirteen of the forty pumps are remaining to be installed.

SCCI finished installing the dewatering system in Cell F. A total of 39 pumps were installed.

SCCI's consultant HSI continued monitoring and recording data from the supplemental dewatering system for the two cells. Daily average was 313gpm out of both cells and during the switchover.

Contract No. R10PC20R57

Specification No. 20-C0760

Folsom Dam Civil Maintenance Building – American River Division – Folsom Unit, Central Valley Project, California

Building Solutions, Inc., Reno, NV

Work Performed:	August	0%
	Time Elapsed	98.0%
	Work Completed	87.40%
Contractor Earnings:	August	\$0
	Previous	\$5,902,808.14
	Total to Date	\$5,902,808.14

Area Office Project Management

Project Manager: Ed Roza, CC-608

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

Number of contract employees: 30

Work Performed:

Building Solutions, Inc. etched, primed and painted roof vent caps. They also installed door bottoms and hardware and performed miscellaneous cleanup.

Rex Moore continued to pull and terminate conductors for lighting, receptacles, equipment and fire alarm and detection system. They also performed testing and commissioning for exterior lighting, interior lighting, wiring devices, fire alarm and detection, grounding and power metering.

JL Harris performed touch-up painting for building interior and exterior surfaces.

Iron Mechanical installed dust collector components, installed fan and damper control panels and installed control wiring for the HVAC system. They performed commissioning and testing for the following systems: heat pumps, fan coil units, exhaust fans, evaporative coolers, unit heaters, control dampers and vehicle exhaust fans.

Foothill fire tested and commissioned the following fire suppression systems: wet, dry and deluge.

Takahara replaced the following dead or stressed landscaping features: blue oat grass, a big leaf maple tree and purple ice plant. They also flushed the irrigation system in each Planting Zone.

Stanley Door completed adjustments for automatic door operators.

All-Cal Disinfectant sterilized the domestic water system.

Industrial Door completed terminations between the door bottom pressure sensors and the control boxes for each of the roll-up doors.

Contract No. R10PC20197

Specification No. 20-C0768

Control Upgrade and Modernization of the Gantry and Bridge Cranes at the Folsom Dam and

Powerplant–American River Division, Folsom Unit, Central Valley Project, California

Crane America Services, Inc., Livermore, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	90.0%

Contractor Earnings:	August	\$0
	Previous	\$1,708,179.58
	Total to Date	\$1,708,179.58

Area Office Project Management

Project Manager: Brian Zewe, CC-607A

Office Engineering

Contract Administrator: Madelyn Giles, MPCO-210

No invoices were received this period.

Substantially complete date: June 27, 2012.

The contractor has only punch list items to complete.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Todd Dooley, MPCO-314

Number of Contract Employees: 2

Work performed:

The contractor worked on punch list items.

Contract No. R10PC20859

Specification No. None

Folsom Dam and Powerplant Site Security System – Central Valley Project, California  
Trofholz Technologies, Inc., Rocklin, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	96.0%
Contractor Earnings:	August	\$0
	Previous	\$6,113,853.35
	Total to Date	\$6,113,853.35

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering

Construction Manager: Henry Garcia, MPCO-310

Construction Representative: Arnold "Phil" Moseby, MPCO-327

Number of Contract Employees: 7

Work Performed:

Performance Verification Test:

Trofholz Technologies, Inc (TTI's). Crewmen had begun their Performance Verification test (PVT). The test was conducted throughout the Folsom Dam's Security Management System. The systems were tested and the results from the test showed many areas still in need of repairs and verification. The PVT failed and the test will have to be repeated. A reschedule date for the PVT still had not been determinant.

Adits 3 and 4:

TTI's crew continued their testing of the system. They are continuing the test at the Adit's 4 door Detector/Sounder and Mag Locks at the Adits' doors.

Pump Plant Road Gate:

TTI's crew continued their testing of the system. The crewmen tested the Pumping Plant gate. The gate passed the test and is functional. All the card reader's intercoms and loops are operational.

#### Dikes 4, 5 and 6

TTI's crew continued with their testing of the system of the Wireless Devices on the poles of the dikes. The crew installed the new wireless relay radio and the fiber transceiver.

#### Admin / Maint Area Civil, Electrical & Conduit Installation:

TTI's crew continued their testing of the system. While trouble shooting, they found a damaged fiber cable in the pull box between Administration and Engineering's Trailer. The crew noticed that a rat had chewed through all six fibers strands. The CCAO O&M crew is working on the rat problem.

#### Left Wing Gate:

TTI's crew continued with their testing. The crewmen tested the Left Wing Gate. The gate passed the test and is functional. All the card reader's intercoms and loops are operational and control at Security Control Center (SCC) building.

#### Right Wing Gate:

TTI's crew continued with their testing. They tested the Right Wing Gate. The gate passed the test and is functional. All the card reader's intercoms and loops are operational at the SCC building.

#### Garage Vehicle Gate:

TTI's crew continued with their testing. They tested the Garage Vehicle Gate. The gate passed the test and is functional. All the card readers are operational the SCC building.

#### Radial Gate Structure:

TTI's crew continued their testing of the system at the North Fork pipeline. The crew checked Microwave Sensors and Field Distribution Boxes at the Zones 1, 2, 3, and 4 before retest.

**LBAO**



Contract No. R11PC20158  
Specification No. 20-C0777  
Stampede Powerplant and Switchyard Recoatings–Stampede Dam–Stampede Division–  
California  
Farr Construction Corporation, Sparks, NV

Work Performed:	August	90.4%
	Time Elapsed	100%
	Work Completed	90.4%
Contractor Earnings:	August	\$113,000.00
	Previous	\$0
	Total to Date	\$113,000.00

Area Office Project Management  
Project Manager: Locke Hahne, LO-400

Office Engineering  
Contract Administrator: Amber Pierce, MPCO-205

Invoice 1 was received this period and forwarded to the Denver finance office for processing.

Field Engineering  
Construction Manager: Reynaldo Garcia, MPCO-310  
Construction Representative: Mike Rondoni, MPCO-319

Number of Contract Employees: 6

Work performed:

Mobilize/Site Setup:  
Farr Construction mobilized onsite.

Blast Steel Towers:  
Farr Construction masked and blasted the “H” and “Y” towers to remove the existing coatings. Once the towers were verified clean and the surface profile was inspected, crew members then applied the primer coat, intermediate coat and top coat to the towers. This phase of work was completed this month.

Blast Air Handler:  
Crew members from Farr Construction built a containment system around the air handler.

Farr Construction masked and blasted the air handler to remove the existing coatings. Once the surface was verified clean and the surface profile was inspected, Farr Construction applied the primer coat, intermediate coat and top coat to the air handler. This phase of work was completed this month.

**Blast Transformer:**

Farr Construction pressure washed the transformer. Once the transformer was cleaned, crew members applied the intermediate coat and top coat to the transformer. Farr Construction also applied the intermediate coat and top coat to the transformer's radiator. This phase of work was also completed this month.

**Demobilize:**

Farr Construction cleaned up and demobilized from the site.



Stampede Powerplant and Switchyard Recoatings

Containment walls set around the air handler

**NCAO**



Contract No. R10PC20746

Specification No. 20-C0700

Coleman National Fish Hatchery Water Intakes Rehabilitation - Shasta Division – Central Valley Project, California

Shimmick Construction, Inc., Sacramento, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	97.8%

Contractor Earnings:	August	\$0
	Previous	\$7,915,099.25
	Total to Date	\$7,915,099.25

Area Office Project Management

Project Manager: Hank Harrington, NC-210

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

The contractor has only to complete final submittals.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

Site work is complete.

Contract No. R10PC20744

Specification No. 20-C0712

J.F. Carr Power Plant, Generator G1 and G2 Rewinds – Shasta Division – Central Valley Project  
California

National Electric Coil, Inc., Columbus, OH

Work Performed	August	0%
	Time Elapsed	100%
	Work Completed	98.0%

Contractor Earnings	August	\$0
	Previous	\$14,918,516.31
	Total to Date	\$14,918,516.31

Area Office Project Management

Program Manager: John Dotter, NC-261

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 2

Worked Performed:

The contractor worked on punch list items this period.

Contract No. R09PC20126

Specification No. 20-C0727

J.F. Carr Penstock Relining – Shasta Division – Central Valley Project, California

Extreme Coatings, Inc., Pasco, WA

Work Performed	August	0%
	Time Elapsed	100%
	Work Completed	99.96%

Contractor Earnings	August	\$0
	Previous	\$2,959,066.97
	Total to Date	\$2,959,066.97

Area Office Project Management

Program Manager: George Girgis

Office Engineering

Contract Administrator: Kevin Jacobs

No invoices were received this period.

The only contract requirement remaining is to complete final submittals.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:

Site work was completed in April 2012.

Contract No. R10PC20R11  
Specification No. 20-C0730  
Red Bluff Pumping Plant and Fish Screen, Pumps and Motors – Sacramento River Division –  
Sacramento Canals Unit – Central Valley Project, California  
MWI Corporation, Deerfield Beach, FL

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	98.4%
Contractor Earnings:	August	\$0
	Previous	\$6,851,884.00
	Total to Date	\$6,851,884.00

Area Office Project Management  
Project Manager: Bill Vanderwaal

Office Engineering  
Contract Administrator: Kevin Jacobs, MPCO-214

This is a supply contract.

No invoices were received this period.

Field Engineering  
Construction Manager: Randy Wyatt  
Construction Representative: None

Number of Contract Employees: Not applicable as this is a supply contract.

Work Performed:  
No work was performed. All pumps have been installed.

Contract No. R10PC20R09

Specification No. 20-C0740

Red Bluff Pumping Plant and Fish Screen, Landfill Excavation and Canal, Siphon and Access  
Bridge – Sacramento River Division – Sacramento Canals Unit – Central Valley Project,  
California

West Bay Builders, Novato, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	98.4%

Contractor Earnings:	August	\$0
	Previous	\$22,275,999.59
	Total to Date	\$23,352,177.42

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122

Office Engineering

Contract Administrator: Kevin Jacobs, MPCO-214

Invoice 24 was received this period and forwarded the Denver finance office for processing. It was not for work done this period but for work done through June 25, 2012.

A large modification was being prepared this period.

The contractor still has to provide some certified payrolls and final submittals.

Substantially complete date was December 2, 2011.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work Performed:

No work was performed as site work was completed in January 2012.

Contract No. R10PC20R33  
Specification No. 20-C0752  
Red Bluff Pumping Plant and Fish Screen – Sacramento River Division – Sacramento Canals  
Unit – Central Valley Project, California  
Balfour Beatty Infrastructure, Inc., Red Bluff, CA

Work Performed:	August	0%
	Time Elapsed	98.1
	Work Completed	96.8%
Contractor Earnings:	August	\$0
	Previous	\$73,486,907.58
	Total to Date	\$73,985,587.36

Area Office Project Management  
Project Manager: Bill Vanderwaal

Office Engineering  
Contract Administrator: Kevin Jacobs, MPCO-214

Invoice 26 was received this period and forwarded to the Denver finance office for processing. It was not for work done this period but for work done through July 28, 2012.

Field Engineering  
Construction Manager: Randy Wyatt, MPCO-305  
Construction Representative: Dave Derk, MPCO-334; Luke Smith, MPCO-309

Number of Contract Employees: 53

Work Performed:  
Balfour Beatty Infrastructure Inc.:  
Fish Screen: Workers completed installation of all solid panels in the fish screen and completed all concrete repair work on the fish screen.

Pumping Plant: Workers completed punch list items and assisted with testing the cathodic protection systems.

Switchyard: Workers installed diesel generator fuel piping, started testing the generator, and accomplished the required training.

Site Work: Workers cleaned up, started demobilizing from the site, and worked on punch list items.

All Commercial Fence:  
Site Work: Workers completed the 6-foot high chain link fence and gates around the site.

Central Sierra Electric:

Fish Screen: Electricians completed all electrical work for the fish screen structure.

Pumping Plant: Electricians completed all wiring devices in the pumping plant control room and switchgear rooms. Electricians completed installation of the metal divider in the cable tray and the lockout hardware on distribution panels DCA and DCB. They tested Unit 5 and found irregular temperature spikes on Winding 5, and determined the problem was in the motor sensor.

Switchyard: Electrician installed equipment signs onto the switchyard equipment, replaced the broken floodlights, and installed and started testing the back-up diesel generator and fuel tank.

Site Work: Electricians installed the remaining wiring and equipment at Tehama Colusa Canal and wiring inside the old Bureau office.

Corrpro:

Pumping Plant: Technicians collected cycle data on both cathodic protection systems and fixed the conduit runs on the afterbay deck for the galvanic cathodic protection system.

The Door Company:

Pumping Plant: Workers enabled the electronic controls on both roll-up doors in the control building and installed additional weather stripping.

Dynamic Balancing:

Pumping Plant: A technician assisted with the testing of Motors 3, 6, and 8 described above.

Eaton Corporation:

Pumping Plant: A technician tested Units 3, 6, and 8 and then programmed all 11 units.

FD Thomas:

Fish Screen: Painters continued coating touch-up work on the fish screen solid panels.

Pumping Plant: Painters installed joint sealant around each penetration passing through the control building divider wall.

Green Vista Landscaping:

Site Work: Workers resumed hydroseeding bare slopes around the project site this week.

Industrial Electric Motors:

Pumping Plant: Workers assisted by subcontractor, Moving Water Industries, assisted with the testing of Motors 3, 6, and 8 described above.

Meyers Earthwork:

Site work: Workers completed the backfill for the dredge pipe line, the drain swale, storm water drains, and dress up of all the access roads.

M and J Electric:

Pumping Plant: Workers assisted by vendor, Moving Water Industries, tested Motors 3, 5, 6, and 8.

Moving Water Industries:

Pumping Plant: An engineer fixed the oiler solenoids on Units 3 and 8, and assisted with the testing of Units 3, 6 and 8.

Pisor Fence Company:

Pumping Plant: Laborers completed the metal beam guard railing around the pumping plant deck.

Site Work: Workers completed the metal beam guard railing around the perimeter of the site.

Power-Up Electric:

Switchyard: The electricians performed back-up diesel generator testing and training.

Redline:

Pumping Plant: The testing technician took a reading on Units 3, 6, and 8 during the testing.

Sabah International:

Pumping Plant: Workers completed installation of wiring for the fire detection system in the control room. The workers completed the equipment repairs on the fire suppression system for the switchgear room and started testing the fire detection and suppression systems inside the switchgear room.

Tesco Controls:

Site work: Representatives of Tesco Controls were onsite terminating the fiber cables, programming systems at the pumping plant for various criteria, installing the computer systems at the TCCA Office, and programming Tehama Colusa Canal water conveyance systems.

Virginia Transformer Company:

Switchyard: Technicians retrieved oil samples from transformers KW1A and KW2A in the switchyard.

WV Alton:

Pumping Plant: A technician worked on the air conditioning system and successfully tested the three high-ambient temperature alarms for the control building.



Red Bluff Pumping Plant and Fish Screen  
Central Sierra Electric electricians installing the back-up diesel  
generator wiring in the switchyard

Contract No. R10PC20102  
Specification No. 20-C0755  
Spring Creek Powerplant Generators G1 and G2 Rewinds – NCAO – Central Valley Project,  
California  
Andritz Hydro Corp., Charlotte, NC

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	66.0%
Contractor Earnings:	August	\$0
	Previous	\$7,502,740.65
	Total to Date	\$7,502,740.65

Area Office Project Management  
Project Manager: Joe Ascoli, NC-650

Office Engineering  
Contract Administrator: Kevin Jacobs, MPCO-214

No invoices were received this period.

A modification is in the works to change the outage schedule and change the contract completion date from May 2, 2013, to June 28, 2013.

Field Engineering  
Construction Manager: Steve Holmes, MPCO-320  
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 6

Work performed:  
The contractor moved the stator frame and performed an AC Hi-Pot test.

Contract No. R12PC20044  
Specification No. 20-C0774a  
Station Service Switchgear Replacement – Trinity River Division – Central Valley Project,  
California  
Eaton Corporation, Raleigh, NC

Work Performed:	August	0%
	Time Elapsed	40.2%
	Work Completed	0.4%
Contractor Earnings:	August	\$0
	Previous	\$9,600.59
	Total to Date	\$9,600.59

Area Office Project Management  
Project Manager: Jeff Gifford, NC-221

Office Engineering  
Contract Administrator: Ryan Hennigan, MPCO-214

Notice to Proceed date: April 2, 2012

No invoices were received this period.

Field Engineering  
Construction Manager: Steve Holmes, MPCO-320  
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:  
Onsite work has not begun. Mobilization is scheduled to begin at Spring Creek Power Plant on October 16, 2012; at JF Carr Power Plant on December 20, 2012; and at Trinity Power Plant on February 6, 2013.

Contract No. R11PC20124  
Specification No. 20-C0780  
Coleman National Fish Hatchery Barrier Weir Site Modifications – Shasta Division – Central Valley Project, California  
Contractor Services Group, Inc., West Sacramento, CA

Work Performed:	August	0%
	Time Elapsed	92.0%
	Work Completed	45.3%
Contractor Earnings:	August	\$0
	Previous	\$114,163.22
	Total to Date	\$397,159.50

Area Office Project Manager  
Jim Goodwin, MP-200

Office Engineering  
Contract Administrator: Ryan Hennigan, MPCO-211

Invoice 6 was received this period and forwarded to the Denver finance office for processing. It was not for work done this period, but for work done through July 31, 2012.

Notice to proceed was issued October 13, 2011.

Field Engineering  
Construction Manager: Randy Wyatt, MPCO-305  
Construction Representative: Fernando Pavone, MPCO-333

Number of Contract Employees: 22

Work performed:

Contractor Services Group:

- Assisted Get'er Done with construction of the reinforced concrete viewing platform.
- Worked on installation of the metal grate for the diffuser opening, and installation of the bulkhead gate and guides.
- Placed the composite strip drain at the interior walls for the viewing platform.
- Excavated the concrete path to the subgrade elevation.

Subcontractor Get'er Done:

- Worked on installing the formwork, reinforcing and embedded items.
- Placed the concrete and installed handrail sleeves at the viewing platform and wastewall.
- Placed controlled low-strength material between the west wall and the embankment as backfill.



Coleman National Fish Hatchery Barrier Weir Site Modifications

Viewing Platform Walls and Wasteway Walls

Contract No. R12PC20053  
Specification No. 20-C0789  
Shasta Powerplant Control and Computer Room HVAC Replacement – Shasta Division –  
Central Valley Project, California  
Ray-Mac Mechanical, Inc., Mt. Shasta, CA.

Work Performed:	August	0%
	Time Elapsed	79.4%
	Work Completed	30.3%
Contractor Earnings:	August	\$0
	Previous	\$0
	Total to Date	\$93,848.15

Area Office Project Management  
Project Manager: Bob Gee, NC-230

Office Engineering  
Contract Administrator: Ryan Hennigan, MPCO-214

Notice to Proceed date: April 26, 2012

Invoice 1 was received this period and forwarded to the Denver finance office for processing. It was not for work done this period, but for work done through July 31, 2012.

This period the Division of Acquisition Services continued review of the contractor’s Value Engineering Change Proposal to modify the heating, ventilation, and air conditioning systems.

Field Engineering  
Construction Manager: Steve Holmes, MPCO-320  
Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 6

Work performed:  
The contractor removed the existing air handler on the 6<sup>th</sup> floor and installed it at the pump house for temporary cooling, and installed the new air handler unit on the 6<sup>th</sup> floor.  
The contractor removed the existing duct work and two air handlers from the 7<sup>th</sup> floor two roof-top units. The contractor installed temporary cooling in the 7<sup>th</sup> floor computer room and hung the two new units and new ductwork.  
The contractor removed the cooling system and partially installed the new cooling system at the pump house. The contractor awaits NCAO to complete its electrical connections, after which the contractor will complete installation of the cooling system.

Contract No. R12PC20193

Specification No. 20-C0791

Shasta Dam Traffic Circle Pavement Rehabilitation – Shasta Division – Central Valley Project,  
California

Site Work Solutions, Inc., Redding, CA.

Work Performed:	August	2.5%
	Time Elapsed	20.8%
	Work Completed	2.5%
Contractor Earnings:	August	\$8,583.23
	Previous	\$0
	Total to Date	\$8,583.23

Area Office Project Management

Project Manager: Bob Gee, NC-230

Office Engineering

Contract Administrator: Casandra Arthur, MPCO-245

Notice to Proceed date: August 6, 2012

Invoice 1 was received this period and forwarded to the Denver finance office for processing.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Frank Medberry, MPCO-341

Number of Contract Employees: 0

Work performed:

Site work has not begun. It is scheduled to begin in September 2012.

Contract No. R10PC20025

Specification No. None

Coleman Fish Hatchery Water Intakes Vegetation Replacement and Monitoring – Shasta

Division – Central Valley Project, California

Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	August	0%
	Time Elapsed	36.7%
	Work Completed	88.4%
Contractor Earnings:	August	\$0
	Previous	\$619,058.07
	Total to Date	\$626,095.31

Area Office Project Management

Project Manager: Hank Harrington, NC-210

Office Engineering

Contract Administrator: Jacquelyn Olds, MPCO-202

Invoices 16 and 17 were received this period, 16 for work through June May 30, 2012, and 17 for work through July 31, 2012.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 0

Work performed:

The contractor's current activity consists of maintaining vegetation planted in 2010.

Contract No. R11PC20235

Specification No. None

Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation–  
Sacramento Canal Units–Sacramento River Division–Central Valley Project, California  
Tehama Environmental Solutions, Inc., Red Bluff, CA

Work Performed:	August	0%
	Time Elapsed	8.0%
	Work Completed	55.3%

Contractor Earnings:	August	\$0
	Previous	\$1,401,354.94
	Total to Date	\$2,474,522.19

Area Office Project Management

Project Manager: Bill Vanderwaal, MPCO-122; Hank Herrington, NC-210

Office Engineering

Contract Administrator: Matthew Byrne, MPCO-255

Invoice 3 was received this period and forwarded to the Denver finance office for processing. It was not for work done this period, but for work done through July 21, 2012.

Field Engineering

Construction Manager: Randy Wyatt, MPCO-305

Construction Representative: Daniel Pavone, MPCO-333

Number of Contract Employees: 12

Work performed:

The contractor performed the following work:

- Removed willow shrubs from within the construction site.
- Worked on repair of the water line from the Forest Service, which will be used for irrigation system.
- Worked on collecting seeds along the construction site.

Subcontractor, Meyers Earthwork, Inc., performed the following work:

- Continued excavation of the fish passage channel and the flood plain between stations 1+00 and 29+00, addressing the final touch up.
- At the north end of the channel, excavated and placed rip rap for slope protection and cobble bedding material along the channel.
- At the lower and upper channel between stations 9+00 and 15+80 placed rip rap on the south side of the channel and cobble bedding material along the channel.

- Restored the temporary access road across the Forest Service land that was used to access Crain property.



Red Bluff Diversion Dam, Fish Passage Improvement Project, Terrestrial Mitigation

The contractor placing willow trees at south end of project

**SCCAO**



Contract No. R10PC20R32  
Specification No. 20-C0749  
Fish Screen Structure Phase 3, Contra Costa Canal – Central Valley Project, California  
Flatiron West, Inc., Oakley, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	99.4%

Contractor Earnings:	August	\$0
	Previous	\$13,935,225.66
	Total to Date	\$13,935,225.66

Area Office Project Management  
Project Manager: John Dealy, TO-406

Office Engineering  
Contract Administrator: Larry Bowman, MPCO-240

No invoices were received this period.

Field Engineering  
Construction Manager: Henry Garcia, MPCO-310  
Construction Representative: Henry Garcia, MPCO-310

Number of Contract Employees: 6

Work performed:  
Subcontractor Transco Inc. performed the following:

- Changed all eight springs at the rail ends for all four (4) trash racks.
- Changed the wire rope on all rakes.
- Removed the last heater from last rake and sent it back to the manufacturer for repair of conductor.
- Verified all software was correctly written.
- Washed and cleared all debris from the rakes.
- Made adjustments in rails and programming.
- Troubleshooting and analysis continues to present.

Subcontractor Tesco Systems Inc. performed the following:  
Replaced a burned up power supply.  
Delivered a new water level sensor to CCWD.  
Performed troubleshooting on the IR perimeter beam at the main gate.

Contract No. R10PC80R23

Specification No. 20-C0761

Delta-Mendota Canal–California Aqueduct Intertie – Central Valley Project – California  
Shimmick Construction Company, Inc., Tracy, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	99.2%
Contractor Earnings:	August	\$0
	Previous	\$15,194,493.71
	Total to Date	\$15,194,493.71

Area Office Project Management

Project Manager: Erika Kegel, MP-730

Office Engineering

Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: Chris Van Deusen, MPCO-345

Number of Contract Employees: 3

Work performed:

All site work except for punch list items was completed in May 2012. The contractor and subcontractors worked on punch list items this period.

Purchase Order No. R11PC20155  
Specification No.20-C0776a  
Delta Cross Channel Gate Control and Lighting Improvements – Central Valley Project,  
California  
Sierra Range Construction, Visalia, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	88.7%
Contractor Earnings:	August	\$0
	Previous	\$112,405.58
	Total to Date	\$112,405.58

Area Office Project Management  
Project Manager: Warren Feng, TO-438

Office Engineering  
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

The contractor dealt with the Contracting Officer on the issue that there are missing spare parts.  
The issue was not resolved.

Field Engineering  
Construction Manager: Henry Garcia, MPCO-310  
Construction Representative: Henry Garcia, MPCO-310

Number of Contract Employees: 1

Work Performed:  
Punch list items, such as cutouts for the breakers in the control box, label wiring within the control box, and exchanging the terminal blocks for ones that are heavy duty screw acceptable, were performed

Contract No. R11PC20185  
Specification No. 20-C0778  
Tracy 13.8kV Switchgear/Breaker Replacement – Tracy Pumping Plant and Substation–Central Valley Project, California  
Contra Costa Electric Corp., Martinez, CA

Work Performed:	August	0%
	Time Elapsed	24.9%
	Work Completed	8.0%
Contractor Earnings:	August	\$0
	Previous	\$925,459.88
	Total to Date	\$925,459.88

Area Office Project Management  
Project Manager: Warren Feng, TO-438

Office Engineering  
Contract Administrator: Amber Pierce, MPCO-205

This is a design/build contract.

No invoices were received this period.

Field Engineering  
Construction Manager: Steve Holmes, MPCO-320  
Construction Representative: Not yet determined.

Number of Contract Employees: 0

Work performed:  
No site work was performed because the contractor has not yet mobilized to the site. The contractor is scheduled to begin site work in February 2013.

# Regional



Contract No. R10PC20005  
Specification No. 20-C0717  
North Fork Screens and Ladders–Battle Creek Salmon and Steelhead Restoration Project,  
California  
Syblon Reid Contractors, Folsom, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	97.1%
Contractor Earnings:	August	\$0
	Previous	\$11,912,247.39
	Total to Date	\$11,912,247.39

Area Office Project Management  
Project Manager: Mary Marshall, MP-203

Office Engineering  
Contract Administrator: Kent Perkes, MPCO-225

No invoices were received this period.

The remaining work for the contractor to perform is to gain approval of a few final submittals including as-built drawings.

Field Engineering  
Construction Manager: Randy Wyatt, MPCO-305  
Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 0

Work performed:  
The contractor completed all contract site work in December 2011, and demobilized its field office.

Contract No. R10PC20R48

Specification No. 20-C0741

Gray Lodge Wildlife Area and Pixley National Wildlife Refuge Wetlands–Groundwater Well  
Construction–ARRA Project No. 28.113–Central Valley Project–East Side Division, California  
Sansone Company, Inc., San Luis Obispo, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	97.0%

Contractor Earnings:	August	\$0
	Previous	\$4,791,270.59
	Total to Date	\$4,791,270.59

Area Office Project Management

Project Manager: Sonya Nechanicky, MP-410

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

Field Engineering

Construction Manager: John E. Nelson, MPCO-328

Construction Representative: Richard T. Nead, MPCO-342

Number of Contract Employees: 0

Work performed:

Pixley

No onsite construction activities this month, contractor has met all of his field contractual obligations and substantially complete has been issued.

Contract No. R10PC20R39

Specification No. 20-C0744

Volta Wasteway Refuge Level 2 Diversification Phase I Project—ARRA Project No. 28.129—  
Central Valley Project, California

Sansone Company Inc., San Luis Obispo, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	99.5%
Contractor Earnings:	August	\$0
	Previous	\$1,704,452.80
	Total to Date	\$1,704,452.80

Area Office Project Management

Project Manager: Linda Colella, MP-410

Office Engineering

Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

All submittals complete, contractor is submitting final REA.

The substantially complete date was August 12, 2011.

Field Engineering

Construction Manager: Steve Holmes, MPCO-320

Construction Representative: John Nelson, MPCO-328

Number of Contract Employees: 0

Work performed:

No on site work was performed as all site work has been completed.

Contract No. R10PC20R42  
Specification No. 20-C0746  
Hydropower Facility Modifications-Stage 1–Battle Creek Salmon and Steelhead Restoration  
Project, California  
RTA Construction/Ray Toney JV, Redding, CA

Work Performed:	August	0.7%
	Time Elapsed	91.5%
	Work Completed	68.0%
Contractor Earnings:	August	\$53,692.43
	Previous	\$5,481,853.16
	Total to Date	\$5,535,545.59

Area Office Project Management  
Project Manager: Mary Marshall, MP-203

Office Engineering  
Contract Administrator: Kent Perkes, MPCO-225

Invoice 21 was received this period and forwarded the Denver finance office for processing.

Field Engineering  
Construction Manager: Randy Wyatt, MPCO-305  
Construction Representative: John Pospishil, MPCO-321

Number of Contract Employees: 44

Work performed:

Penstock Bypass Pipeline: The contractor finished installation and backfilling the 66 inch pipeline. Reclamation, the contractor, and Pacific Gas and Electric inspected the interior of the pipeline and minor corrections were noted.

Penstock Bypass Chute: Muse Concrete Contractors completed the chutes fence post blockouts on the bypass chute walls, and Central Fencing began installing the fencing.

Inskip Canal Wasteway Structure: Subcontractor Jewells Concrete Cutting finished saw cutting the shotcrete and the contractor finished excavating a 3' wide by 2' deep by 102' long trench for the structures modification.

Muse Concrete Contractors began and finished setting forms and placed concrete for the existing wasteway modification.

Rock Screen/Crusher: Schnetzer Engineering continued producing 3-inch minus backfill material in Use Areas 2 and 11.

72-inch Reinforced Concrete Pipe (RCP): The contractor completed installation of the pipeline and installed the two air vents for the 72” reinforced concrete pipe. Reclamation, the contractor, and Pacific Gas and Electric inspected the interior of the pipeline and minor corrections were noted.

84-inch RCP: The contractor resumed excavation for and placing the pipe and controlled low strength material.

Lower Jump Basin: The contractor set in place the trash rack for the lower jump basin and placed and compacted backfill around downstream end of the structure.

Upper Jump Basin: Central Fence began drilling fence post holes for fencing around the upper jump.

Tailrace Inlet: The contractor completed excavation of the foundation and placed 3” minus drain rock and concrete. The contractor set the wall thimble for the 84” slide gate, continued building access stairs.

Muse Concrete installed the retro fit water stop and placed the inlet slab. Camblin Steel installed vertical and horizontal reinforcing steel for the walls.

Diversified Concrete Cutting started and finished concrete saw cutting of the tailrace wall in preparation of connection of the new tailrace inlet.

The contractor installed the temporary bulkhead on the downstream end of the powerhouse tailrace and began drilling anchor bolt holes for the blocking gate at the Inskip tailrace.

New Wasteway: The contractor placed and compacted backfill along the upstream wall of the structure and placed non-shrink grout for the slide gate block out.

Baffled Outlet Structure: The contractor installed guardrail along tapered wall sections.

A Road: The contractor continued excavating the V-ditches, placing and compacting road embankment, and began placing and compacting 3” minus material for the wing dikes.

Eagle Canyon Canal (ECC): Muse Concrete began pre-tying rebar mats for the canal shotcrete. Muse placed the forced concrete slab and installed the rebar mats for the canals sloped walls.

Coleman Canal: The contractor performed the following work:

- Set forms and placed the lean concrete base for the precast block wall
- Finished removing the temporary cofferdam
- Continued excavating the baffled outlet connection to the canal
- Placed the pre-cast concrete block wall in the canal
- Began backfill of the upstream corner of the canal adjacent to the pre-cast block wall

Modification 11: The contractor began and finished backfilling, excavating and shaping the ECC diversion canal. The contractor also removed the existing rail car bridge over the Inskip Canal.

Purchase Order No. R10PX20R54  
Specification No. 20-C0750  
Drought Relief, Well Enhancements–ARRA Project No. 28.000–Central Valley Project Don  
Pedro Pump, LLC–Turlock, CA

Work Performed:	August	0%
	Time Elapsed	100%
	Work Completed	86.5%

Contractor Earnings:	August	\$0
	Previous	\$1,084,249.60
	Total to Date	\$1,084,249.60

Area Office Project Management  
Project Manager: Kevin Clancy, MP-410

Office Engineering  
Contract Administrator: Ryan Hennigan, MPCO-211

No invoices were received this period.

Field Engineering  
Construction Manager: John Nelson, MPCO-328  
Construction Representative: Mike McCarty, MPCO-308

Number of Contract Employees: 0

Work performed:  
No work was performed. Contractor is waiting for Pacific Gas and Electric to provide power.

Contract No. R10PC20R80  
Specification No. 20-C0759  
Drought Relief–Construction of New Wells–ARRA Project No. 28.002–California  
Layne Christensen Company, Fontana, CA

Work Performed:	August	9.0%
	Time Elapsed	100%
	Work Completed	84.4%

Contractor Earnings:	August	\$0
	Previous	\$12,090,550.34
	Total to Date	\$13,619,671.88

Area Office Project Management  
Project Manager: Kevin Clancy, MP-410

Office Engineering  
Contract Administrator: Laurie Larson, MPCO-222

No invoices were received this period.

Field Engineering  
Construction Manager: John E. Nelson, MPCO-328  
Construction Representative: Quint I. McCabe, MPCO-304

Modification executed February 23, 2012 that extended the contract until June 30, 2012.

Number of Contract Employees: 4

Work performed:  
GWD Well 8.03, Four Hour Start up Servicing and Field-Testing/Monitoring.  
GWD Well 8.04, Four Hour Start up Servicing and Field-Testing/Monitoring.  
WSID Well 33.1, Install pump, column, tube, shaft, discharge head and motor, completing well equipment installation.  
SLWD Well 43, Install pump, column, tube, shaft, discharge head and motor, completing well equipment installation.



Drought Relief–Construction of New Wells  
Grasslands Water District Well 8.04



# Contracts in Warranty Status

R09PC20R03 20-C0677 Transformer K1A and K2A Replacements, Folsom Power

R09PC20017 20-C0708 Marble Bluff Fish Handling Building Reroofing

R10PC20176 20-C0713 New Melones Resource Area Building Re-roofing

R10PX20R45 20-C0750 Drought Relief, Well Enhancements–ARRA Project No. 28.000

R10PC20R24 20-C0751 Folsom Dam, Safety of Dams Modifications, Spillway Piers and Gates

R09PC20147 20-C0758 New Melones Lake Restroom Building Reroofing

R10PC20185 20-C0762 Whiskeytown Lake Temperature Control Curtain

R10PC20196 20-C0769 Control Upgrade and Modernization of the Gantry Crane at Nimbus Powerplant

R12PC20055 20-C0776b Delta Cross Channel Gate Hoist Wire Rope Replacement

# Lab Reports



From 08/01/2012 to 08/31/2012

Specification : 20-C0746  
 Mix Number : ALL Combined for This Specification  
 Project : Battle Creek  
 Feature : Hydropower Facility Modifications Stage 1

## Sand Gradations (ASTM)

Date	Percent Passing							% -200	FINE MOD	Moist %	Spec Grav	Absorp
	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100					
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
08/03/2012	100.0	99.6	82.6	58.4	35.5	15.8	5.8	3.50	3.02	3.80	2.60	2.20
08/31/2012	100.0	99.7	82.9	58.2	34.8	14.5	4.9	2.70	3.05	3.40	2.59	2.20
	100.0	99.7	82.1	58.3	36.0	16.3	6.2	3.40	3.01	3.40	2.59	2.20
Average	100.0	99.7	82.5	58.3	35.4	15.5	5.6	3.20	3.03	3.53	2.59	2.20
S.D.	0.0	0.1	0.4	0.1	0.6	0.9	0.7	0.44	0.02	0.23	0.01	0.00
C.O.V.	0.0	0.1	0.5	0.2	1.6	6.0	11.6	13.62	0.61	6.54	0.22	0.00

09/05/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 2

From 08/01/2012 to 08/31/2012

Specification : 20-C0746  
Mix Number : ALL Combined for This Specification  
Project : Battle Creek  
Feature : Hydropower Facility Modifications Stage 1

Nominal Size : #8 - 3/8" (ASTM)

Coarse Aggregate Gradations

Date	Percent Passing					% -200	Moist %	Spec Grav	Absorp
	1/2"	3/8"	#4	#8	#16				
Spec Max %	100.0	100.0	30.0	10.0	5.0				
Spec Min %	100.0	85.0	10.0	0.0	0.0				
08/31/2012	100.0	95.4	19.8	0.8	0.4	0.00	0.90	2.65	2.00
	100.0	91.4	16.5	1.2	0.8	0.00	0.90	2.65	2.00
Average	100.0	93.4	18.1	1.0	0.6	0.00	0.90	2.65	2.00
S.D.	0.0	2.8	2.3	0.3	0.3	0.00	0.00	0.00	0.00
C.O.V.	0.0	3.0	12.9	32.1	50.9	0.00	0.00	0.00	0.00

09/05/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 3

From 08/01/2012 to 08/31/2012

Specification : 20-C0746  
Mix Number : ALL Combined for This Specification  
Project : Battle Creek  
Feature : Hydropower Facility Modifications Stage 1

Nominal Size : #4 - 1" (ASTM)

Coarse Aggregate Gradations

Date	Percent Passing					% -200	Moist %	Spec Grav	Absorp
	1 1/2"	1"	1/2"	#4	#8				
Spec Max %	100.0	100.0	60.0	10.0	5.0				
Spec Min %	100.0	95.0	25.0	0.0	0.0				
08/03/2012	100.0	98.2	44.6	3.3	2.0	0.50	1.00	2.54	2.40
Average	100.0	98.2	44.6	3.3	2.0	0.50	1.00	2.54	2.40
S.D.	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
C.O.V.	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

From 08/01/2012 to 08/31/2012

Specification : 20-C0780  
 Mix Number : ALL Combined for This Specification  
 Project : Central Valley  
 Feature : Coleman Fish Hatchery Weir

Sand Gradations (ASTM)

Date	Percent Passing							% -200	FINE MOD	Moist %	Spec Grav	Absorp
	No. 3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100					
Spec Max %	100.0	100.0	100.0	85.0	60.0	30.0	10.0					
Spec Min %	100.0	95.0	80.0	50.0	25.0	10.0	2.0					
08/02/2012	99.1	98.7	81.7	57.8	35.6	16.6	6.8	4.10	3.04	5.20	2.60	2.20
08/08/2012	100.0	99.5	81.5	57.6	35.2	16.1	6.3	3.80	3.04	4.60	2.60	2.20
Average	99.6	99.1	81.6	57.7	35.4	16.4	6.6	3.95	3.04	4.90	2.60	2.20
S.D.	0.6	0.6	0.1	0.1	0.3	0.4	0.4	0.21	0.00	0.42	0.00	0.00
C.O.V.	0.6	0.6	0.1	0.2	0.8	2.5	5.6	5.37	0.04	8.66	0.00	0.00

09/05/2012

U.S. Bureau of Reclamation  
Aggregate Gradation Summary

Page 5

From 08/01/2012 to 08/31/2012

Specification : 20-C0780  
Mix Number : ALL Combined for This Specification  
Project : Central Valley  
Feature : Coleman Fish Hatchery Weir

Nominal Size : #4 - 1 1/2" (ASTM)

Coarse Aggregate Gradations

Date	Percent Passing					% -200	Moist %	Spec Grav	Absorp
	2"	1 1/2"	3/4"	3/8"	#4				
Spec Max %	100.0	100.0	70.0	30.0	5.0				
Spec Min %	100.0	95.0	35.0	10.0	0.0				
08/02/2012	100.0	97.5	56.7	18.8	4.1	1.80	1.00	2.54	2.10
08/08/2012	100.0	97.7	49.5	7.8	2.1	0.10	0.70	2.54	2.10
Average	100.0	97.6	53.1	13.3	3.1	0.95	0.85	2.54	2.10
S.D.	0.0	0.1	5.1	7.8	1.4	1.20	0.21	0.00	0.00
C.O.V.	0.0	0.1	9.6	58.7	46.5	126.53	24.96	0.00	0.00

U.S. Bureau of Reclamation  
 SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL  
 CONTROLLED BY THE LABORATORY COMPACTION METHOD

PROJECT: Battle Creek

SPECIFICATION REQUIREMENTS:

PERIOD OF REPORT: 08/01/2012 - 08/31/2012

FEATURE: Hydropower Facility Mods Stage 1

Min percent compaction (D-Value): 95.00 %  
 Min average D-Value for ALL tests: 95.00 %  
 Max DRY Wo-Wf: 2.00  
 Max WET Wo-Wf: -2.00

SPECIFICATION NO: 20-CO746

FILL NAME: 2 - Structural Backfill

TEST NUMBER	LOCATION		FIELD DENSITY TESTS										LABORATORY VALUES				COMPACTION CONTROL VALUES				VISUAL SOIL CLASS	OTHER TESTS	REMARKS										
			METH	USBR	WET	DEN	MOIS	SPEC GRAV		DEG	COMP	MAX	OPT	DEG	COMP	DRY	MOIS	OF	Wf	C				D	PENE								
M S U T O										MINUS #4																							
O H M T A R		OFF		METH		USBR		WET		DEN		MOIS		SPEC GRAV		DEG		COMP		MAX		OPT		DEG		PENE		VISUAL					
N D I B Y T R		STATION		ELEV		COMP		METH		MAT		MAT		3/4		+3/4		-3/4		DEN		CONT		SAT		Wf		C		D		NEED	
T A F E P U O		SET								(PCF)		%		%		%		%		%		%		%		%		PSI		CLASS		TESTS	
H Y T R E S W																																	
08-27-A-01-R-A*	1	Wstw+0y	8'US	1389	SF	7205	131.9	11.8	26.7	2.57	AV	108.2	15.2	75	R	120.2	110.2	17.7	92	2.5	103.7	98.2	NA	(GC)S	N								
08-27-A-02-R-R	1	Wstw+0y	25'L	1394	SF	7205	131.6	9.3	38.0	2.62	AV	104.6	13.6	61	R	126.1	114.2	15.7	91	2.1	94.2	91.6	NA	(GC)S	N	Failure							
ACCEPTED TESTS THIS PERIOD: 1				AVG.		131.9	11.8	26.7	2.57	108.2	15.2	75	120.2	110.2	17.7	92	2.5	103.7	98.2														

AV: Assumed Values used for Specific Gravity dependant calculations. + #4=2.75 - #4=2.68

09/05/2012

U.S. Bureau of Reclamation  
STATISTICAL SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL  
CONTROLLED BY THE LABORATORY COMPACTION METHOD

Page 2

PROJECT: Battle Creek  
FEATURE: Hydropower Facility Mods Stage 1  
SPECIFICATION NO: 20-CO746  
FILL NAME: 2 - Structural Backfill

SPECIFICATION REQUIREMENTS:  
Min percent compaction (D-Value): 95.00 %  
Min average D-Value for ALL tests: 95.00 %  
Max DRY Wo-Wf: 2.00  
Max WET Wo-Wf: -2.00

PERIOD OF REPORT: 08/01/2012 - 08/31/2012

	This Period	To Date
No. of Tests Taken	2	40
No. of Tests Accepted	1	36
No. of Tests Rejected	1	4
No. of Rejected Tests not Re-Checked	1	3
Average Water Content Total Material	11.8	11.4
Average Control Fraction Water Content	15.2	14.9
Average Optimum Water Content	17.7	16.5
Average Wo-Wf	2.5	1.6
Percent of Accepted Tests Dryer Than 2.00	100.0	33.3
Percent of Accepted Tests Wetter Than -2.00	0.0	0.0
Average Wet Density Total Material (PCF)	131.9	134.7
Average Control Fraction Dry Density (PCF)	108.2	110.1
Average Proctor Max Dry Density (PCF)	110.2	111.4
Average Compaction Cylinder Wet Density (PCF)	120.2	125.6
Average Percent +3/4 Material (%)	26.7	30.5
Average C-Value (%)	103.7	100.6
Average D-Value (%)	98.2	98.8
Percent Accepted with D-Value < 95.0	0.0	11.1
Tests Accepted Outside of Specification Limits	1	16
Minimum D-Value of 95.0 %	0	4
Max DRY Wo-Wf of 2.00	1	12



Concrete Class: Structural Concrete  
Report of Mixes Used From 07/01/2012 to 08/31/2012

Mix Design Number: F670AFPX7  
Specification Number: 20-C0746  
Project: Battle Creek  
Feature: Hydropower Facility Modifications Stage 1

Date Time	y^3 of Conc	Percent Of					Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)					
		Coarse Aggregate in each size					Pounds					Oz					Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Air		3 Day	7 Day	28 Day	90 Day
Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Grav	Press						3	7				
07/03/2012																											
06:20	15.50	51.8	100.0	0.0	0.0	0.0	292	541	99	1512	1376	0	6.6	25.0	18.8	0.0	10.5	87	1.25	141.5	0.46	2.7	3.9	4050	5640	4150	5700
08/24/2012																											
12:11	12.00	47.0	100.0	0.0	0.0	0.0	272	542	99	1399	1544	0	7.1	25.5	19.1	0.0	88	2.75	142.8	0.42	2.5	4.7	4010	#####	3800	#####	
Design		47.4	100.0	0.0	0.0	0.0	280	536	95	1357	1507	0	3.1	25.2	18.9	0.0			3.00	139.8	0.44	4.0	4.0			4000	
AVG.		49.4	100.0	0.0	0.0	0.0	282	542	99	1456	1460	0	6.9	25.3	19.0	0.0	10.5	88	2.00	142.1	0.44	2.6	4.3	4003	5670		
S.D.		3.4	0.0	0.0	0.0	0.0	14	1	0	80	119	0	0.4	0.3	0.3	0.0	0.0	1	1.06	0.9	0.02	0.1	0.6	147	42		
C.O.V		6.9	0.0	0.0	0.0	0.0	5.0	0.1	0.0	5.5	8.1	0.0	5.3	1.4	1.4	0.0	0.0	0.7	53.0	0.6	5.1	5.2	13.2	3.7	0.7		

Bureau.....: Required average strength = -9117 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (n=54) = \*\*.\*  
 ACI.....: Required average strength = 17639 psi at 28 days (n=54)  
 CURE METHOD.: Water Tank with an Average Cure Temperature of 60 - 80 (F)

##### = Specimen not broken as of report date.

Concrete Class: Structural Concrete  
Report of Mixes Used From 07/01/2012 to 08/31/2012

Mix Design Number: F670GFPW8  
Specification Number: 20-C0746  
Project: Battle Creek  
Feature: Hydropower Facility Modifications Stage 1

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size					Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)								
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	M	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year	
07/09/2012 05:58	13.00	47.4	100.0	0.0	0.0	0.0	251	517	93	1384	1503	0	6.0	49.1	33.5	0.0	9.0	78	3.00	138.8	0.41	5.9	5.2	3770 3560	4630 4720					
07/17/2012 11:47	14.50	48.9	100.0	0.0	0.0	0.0	258	529	92	1453	1481	0	7.2	49.8	34.1	0.0	9.1	83	2.50	141.2	0.42	4.1	4.5	3150 4950	4690 4950					
08/03/2012 11:48	4.25	47.2	100.0	0.0	0.0	0.0	250	506	89	1350	1477	0	6.0	47.8	41.2	0.0	6.6	92	4.00	136.0	0.42	7.4	6.0	2410 2510	3470 3220					
08/11/2012 12:01	2.25	47.0	100.0	0.0	0.0	0.0	242	493	126	1311	1446	0	5.7	45.5	39.8	0.0	9.0	90	6.00	134.0	0.39	8.8	7.0	2230 2190	##### #####					
08/29/2012 10:25	20.00	47.2	100.0	0.0	0.0	0.0	272	515	96	1374	1502	0	6.0	48.1	30.5	0.0	8.2	82	4.25	139.2	0.45	4.8	5.4	##### #####	##### #####					
Design		44.4	100.0	0.0	0.0	0.0	285	536	95	1267	1585	0	2.1	50.4	50.4	0.0			6.00	139.6	0.45	4.0	4.0						4000	
AVG.		47.5	100.0	0.0	0.0	0.0	255	512	99	1374	1482	0	6.2	48.0	35.8	0.0	8.3	85	3.95	137.8	0.42	6.2	5.6	2831	4280					
S.D.		0.8	0.0	0.0	0.0	0.0	11	13	15	52	23	0	0.6	1.6	4.5	0.0	1.4	6	1.35	2.8	0.02	1.9	0.9	654	737					
C.O.V		1.7	0.0	0.0	0.0	0.0	4.4	2.6	15.3	3.8	1.6	0.0	9.3	3.4	12.6	0.0	17.3	6.8	34.2	2.1	4.7	30.8	16.7	23.1	17.2					

Bureau.....: Required average strength = 4777 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (n=47) = 12.7  
 ACI.....: Required average strength = 4785 psi at 28 days (n=47)  
 CURE METHOD...: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

Concrete Class: Backfill  
Report of Mixes Used From 07/01/2012 to 08/31/2012

Mix Design Number: F670GFPX7  
Specification Number: 20-C0746  
Project: Battle Creek  
Feature: Hydropower Facility Modifications Stage 1

Date Time	y^3 of Conc	Percent Of				Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)							
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
08/28/2012																												
09:49	2.75	48.7	100.0	0.0	0.0	0.0	256	540	99	1426	1470	0	6.4	26.9	18.8	0.0	83	3.50	140.4	0.40	4.7	5.9	2740	3520	#####			
																						2710	3380	#####				
Design		47.6	100.0	0.0	0.0	0.0	268	536	95	1368	1507	0	6.5	25.2	18.9	0.0		3.00	139.8	0.43	5.0	5.0				1000		
AVG.		48.7	100.0	0.0	0.0	0.0	256	540	99	1426	1470	0	6.4	26.9	18.8	0.0	0.0	83	3.50	140.4	0.40	4.7	5.9	2725	3450			

Bureau.....: Required average strength = 1238 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi & C.O.V. (Est.) = 15.0  
 ACI.....: Required average strength = 2000 psi at 28 days (n=0)  
 CURE METHOD...: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

Concrete Class: Shotcrete  
Report of Mixes Used From 07/01/2012 to 08/31/2012

Mix Design Number: F850BCPA6  
Specification Number: 20-C0746  
Project: Battle Creek  
Feature: Hydropower Facility Modifications Stage 1

Date Time	y^3 of Conc	Percent Of					Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)							
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	M P	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
08/31/2012																													
08:58	39.00	70.7	100.0	0.0	0.0	0.0	289	645	114	1918	815	0	0.0	22.8	76.0	0.0	79	2.50	140.0	0.38	5.2	3.8		#####	#####				
10:02	39.00	70.2	100.0	0.0	0.0	0.0	292	655	116	1893	824	0	0.0	23.2	77.1	0.0	83	2.25	140.0	0.38	5.1	3.4		#####	#####				
Design		69.5	100.0	0.0	0.0	0.0	302	679	120	1961	860	0	0.0	24.0	0.0	0.0		3.00	145.3	0.38	1.5	1.5				4000			
AVG.		70.4	100.0	0.0	0.0	0.0	291	650	115	1906	820	0	0.0	23.0	76.5	0.0	0.0	81	2.38	140.0	0.38	5.1	3.6						
S.D.		0.4	0.0	0.0	0.0	0.0	2	7	1	18	6	0	0.0	0.3	0.8	0.0	0.0	3	0.18	0.0	0.00	0.1	0.3						
C.O.V		0.5	0.0	0.0	0.0	0.0	0.7	1.1	1.2	0.9	0.8	0.0	0.0	1.2	1.0	0.0	0.0	3.5	7.4	0.0	0.4	1.5	7.9						

Bureau.....: Required average strength = 4950 psi at 28 days. Based on 90% exceeding the design strength of 4000 psi & C.O.V. (Est.) = 15.0  
 ACI.....: Required average strength = 5200 psi at 28 days (n=0)  
 CURE METHOD.: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

Concrete Class: Structural  
Report of Mixes Used From 07/01/2012 to 08/31/2012

Mix Design Number: F740QFPX7  
Specification Number: 20-C0780  
Project: Central Valley  
Feature: Coleman Fish Hatchery Weir

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size					Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)							
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	M	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year
07/03/2012																													
10:22	9.50	52.4	100.0	0.0	0.0	0.0	243	593	104	1489	1323	0	7.2	27.8	20.6	0.0	8.8	81	3.50	139.0	0.35	6.4	5.0	3840	5160	3930	5310		
08/02/2012																													
10:02	25.50	51.5	100.0	0.0	0.0	0.0	240	597	104	1471	1352	0	7.0	27.7	20.9	0.0	6.6	85	4.00	139.4	0.34	6.2	4.7	3100	4010	3290	3860		
08/08/2012																													
11:07	38.50	45.3	100.0	0.0	0.0	0.0	228	582	104	1277	1508	0	7.4	27.4	20.4	0.0	84	4.50	137.0	0.33	8.0	6.8	2560	#####	2560	#####			
08/11/2012																													
12:45	8.50	46.1	100.0	0.0	0.0	0.0	76	625	112	1385	1584	0	7.8	29.0	22.0	0.0	89	3.50	140.1	0.10	11.7	4.2	3590	#####	3640	#####			
Design																													
		43.0	100.0	0.0	0.0	0.0	248	593	104	1226	1624	0	6.3	27.8	20.9	0.0			3.00	140.6	0.36	5.0	5.0		4500				
AVG.																													
		48.8	100.0	0.0	0.0	0.0	197	599	106	1406	1442	0	7.3	28.0	21.0	0.0	7.7	85	3.88	138.9	0.28	8.1	5.2	3314	4585				
S.D.																													
		3.7	0.0	0.0	0.0	0.0	81	18	4	97	125	0	0.4	0.7	0.7	0.0	1.6	3	0.48	1.3	0.12	2.5	1.1	537	756				
C.O.V																													
		7.5	0.0	0.0	0.0	0.0	41.0	3.1	3.8	6.9	8.7	0.0	4.8	2.5	3.4	0.0	20.5	3.9	12.4	1.0	42.3	31.4	21.9	16.2	16.5				

Bureau.....: Required average strength = 5569 psi at 28 days. Based on 90% exceeding the design strength of 4500 psi & C.O.V. (Est.) = 15.0  
 ACI.....: Required average strength = 5700 psi at 28 days (n=4)  
 CURE METHOD.: Water Tank with an Average Cure Temperature of 70 - 76 (F)

##### = Specimen not broken as of report date.

U.S. Bureau of Reclamation  
 SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL  
 CONTROLLED BY THE LABORATORY COMPACTION METHOD

PROJECT: Central Valley

SPECIFICATION REQUIREMENT

PERIOD OF REPORT: 08/01/2012 - 08/31/2012

FEATURE: MIAD Key-Block

SPECIFICATION NO: 20-C0754

FILL NAME: 1 - Key Block

TEST NUMBER	LOCATION				FIELD DENSITY TESTS										LABORATORY VALUES				COMPACTION CONTROL VALUES				VISUAL SOIL CLASS	OTHER TESTS	REMARKS		
					WET		MOIS		SPEC GRAV		MINUS #4		DEG		COMP		MAX		OPT		DEG					PENE	
M S U T O O H M T A R N D I B Y T R T A F E P U O H Y T R E S W	STATION	OFF SET	ELEV	METH	USBR	DEN	TOT	TOT	PLUS	+	-	DRY DEN	MOIS (%)	OF SAT	TEST METH	COMP CYL	DRY DEN	MOIS (%)	OF CONT	DEG SAT	Wo-wf (%)	C (%)	D (%)	NEED (PSI)	CLASS	TESTS	REMARKS
08-01-A-01-R-A	3	Cell	E	CL	351	VR	7205	141.5	4.9	24.8	2.72	2.71	126.8	6.1	50	R	130.3	126.1	9.5	76	3.4	103.3	100.6	NA	SM	N	12'NOS 47' EOW
08-01-A-02-R-A	3	Cell	E	CL	351	VR	7205	147.8	4.8	25.7	2.72	2.71	133.6	6.1	62	R	131.9	126.5	9.6	77	3.5	107.5	105.6	NA	SM	N	15'SON 61'EOW
08-03-A-01-R-A	3	Cell	E	CL	361	VR	7205	145.2	5.7	26.8	2.72	2.71	128.7	7.5	65	R	134.5	129.3	10.0	88	2.5	102.9	99.5	NA	SM	N	10'WOE 25' NOS
08-06-A-01-R-R	3	Cell	E	CL	365	VR	7205	133.2	4.6	31.6	2.70	2.71	114.9	6.2	36	R	133.9	129.8	8.5	76	2.3	91.1	88.5	NA	SM	N	3.5'NOS 9.5'WE
08-07-A-01-R-R	3	Cell	E	CL	367	VR	7205	141.5	6.1	31.3	2.73	2.71	121.8	8.5	59	R	137.4	129.7	10.4	93	1.9	96.2	93.9	NA	SM	N	6.5 SON 8 WOE
08-07-A-02-R-A	3	Cell	E	CL	368	VR	7205	147.6	5.2	26.6	2.73	2.71	132.3	6.7	65	R	134.9	129.0	9.5	83	2.8	104.6	102.6	NA	SM	N	16.6EOW 20 NOS
08-08-A-01-R-A	3	Cell	A	CL	347	VR	7205	146.5	6.6	35.8	2.71	2.71	125.0	9.7	75	R	136.8	128.2	11.5	98	1.8	100.2	97.5	NA	SM	N	16 NOS 15 EOW
08-08-A-02-R-A	3	Cell	A	CL	347	VR	7205	150.0	6.0	32.6	2.70	2.71	131.9	8.3	80	R	136.8	128.8	10.2	88	1.9	104.4	102.4	NA	SM	N	16 NOS 63 EOW
08-09-A-01-R-A	3	Cell	E	CL	370	VR	7205	148.0	5.4	27.0	2.71	2.71	133.4	7.0	71	R	134.9	130.7	9.2	85	2.2	105.8	102.1	NA	SM	N	21 NOS 23 WOE
08-09-A-02-R-R	3	Cell	A	CL	349	VR	7205	140.5	5.9	32.6	2.71	2.71	120.5	8.3	56	R	137.4	127.9	10.0	84	1.7	95.0	94.2	NA	SM	N	2' NOS 51' EOW
08-10-A-01-R-A	3	Cell	E	CL	375	VR	7205	142.3	5.2	30.6	2.71	2.71	124.8	7.0	53	R	135.0	128.5	9.3	80	2.3	98.9	97.1	NA	SM	N	4' EOW 19' NOS
08-15-A-01-R-A	3	Cell	A	CL	354	VR	7205	141.8	5.8	32.1	2.71	2.71	122.5	8.1	58	R	135.6	128.4	10.2	87	2.1	97.7	95.4	NA	SM	N	17' SON 59' WOE
08-15-A-02-R-A	3	CELL	A	CL	354	VR	7205	148.9	5.9	29.4	2.69	2.71	132.4	7.8	76	R	136.2	129.8	9.8	88	2.0	104.8	102.0	NA	SM	N	6'NOS 75' EOW
08-16-A-01-R-A	3	Cell	A	CL	359	VR	7205	144.3	6.0	28.8	2.71	2.71	126.5	8.0	64	R	135.6	128.9	10.1	88	2.1	100.8	98.1	NA	SM	N	21' NOS 42' EOW
08-16-A-02-R-A	3	CELL	A	CL	360	VR	7205	146.9	4.8	34.2	1.96	2.71	130.9	6.7	62	R	134.7	129.4	9.3	82	2.6	103.7	101.2	NA	SM	N	26' NOS 6' WOE
08-20-A-01-R-R	3	Cell	A	CL	364	VR	7205	140.0	5.3	37.1	2.71	2.71	119.1	7.6	49	R	135.4	128.3	9.9	84	2.3	94.6	92.8	NA	SM	N	8' NOS 25 EOW
08-20-A-02-R-R	3	Cell	A	CL	364	VR	7205	142.0	5.2	36.5	2.71	2.71	121.4	7.7	53	R	134.7	128.9	9.9	86	2.2	97.1	94.2	NA	SM	N	17' SON 31' EOW
08-20-A-03-X-A	3	Cell	A	CL	364	VR	7205	146.0	5.5	38.6	2.72	2.71	124.8	8.2	63	R	135.2	128.4	10.2	87	2.0	99.9	97.2	NA	SM	N	RE 08-20-12A1
08-20-A-04-X-A	3	Cell	A	CL	364	VR	7205	144.4	5.1	38.2	2.70	2.71	123.8	7.7	57	R	134.9	129.4	9.8	87	2.1	98.8	95.7	NA	SM	N	RE 08-20-12A2
08-21-A-01-R-A	3	Cell	A	CL	368	VR	7205	148.1	5.2	38.8	2.70	2.71	128.3	7.6	65	R	134.9	128.4	10.0	86	2.4	102.3	99.9	NA	SM	N	21' SON 4'4 EOW
08-23-A-01-R-A	3	Cell	A	CL	371	VR	7205	144.2	5.0	36.1	2.71	2.71	124.9	7.2	55	R	135.0	127.7	9.3	78	2.1	99.2	97.8	NA	SM	N	17' NOS 10' WOE
08-23-A-02-R-R	3	CELL	A	CL	371	VR	7205	141.1	6.0	38.4	2.71	2.71	118.1	9.0	57	R	137.4	127.6	10.6	88	1.6	93.7	92.6	NA	SM	N	13' EOE 3' NOS
08-27-A-01-R-R	3	Cell	A	CL	375	VR	7205	141.3	4.4	39.3	2.71	2.71	120.5	6.6	44	R	132.5	128.8	9.6	83	3.0	96.9	93.6	NA	SM	N	9' SON 70 EOW
08-27-A-02-R-A	3	Cell	A	CL	377	VR	7205	145.6	5.5	36.6	2.68	2.71	126.0	8.0	63	R	134.9	128.0	10.1	85	2.1	100.9	98.4	NA	SM	N	27' EOW 29' SON
08-27-A-03-R-A	3	Cell	A	CL	377	VR	7205	147.6	6.0	37.1	2.70	2.71	126.8	8.8	72	R	137.2	127.9	10.4	88	1.6	100.6	99.1	NA	SM	N	12' NOS 71' EOW
ACCEPTED TESTS THIS PERIOD: 18					AVG.	145.9	5.5	32.2	2.67	2.71	128.0	7.6	64	135.0	128.5	9.9	85	2.3	102.0	99.6							
					S.D.	2.5	0.5	4.9	0.18	0.00	3.6	0.9	8	1.6	1.1	0.6	5	0.5	2.8	2.7							
					C.O.V.	1.7	9.2	15.1	6.63	0.00	2.8	12.1	13	1.2	0.9	5.6	6	21.9	2.7	2.7							

08/29/2012

U.S. Bureau of Reclamation  
STATISTICAL SUMMARY OF FIELD AND LABORATORY TESTS OF COMPACTED FILL  
CONTROLLED BY THE LABORATORY COMPACTION METHOD

Page 2

PROJECT: Central Valley

SPECIFICATION REQUIREMENTS:

PERIOD OF REPORT: 08/01/2012 - 08/31/2012

FEATURE: MIAD Key-Block

SPECIFICATION NO: 20-C0754

FILL NAME: 1 - Key Block

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	<u>This Period</u>	<u>To Date</u>
No. of Tests Taken	25	68
No. of Tests Accepted	18	60
No. of Tests Rejected	7	8
No. of Rejected Tests not Re-Checked	5	5
Average Water Content Total Material	5.5	6.3
Average Control Fraction Water Content	7.6	8.3
Average Optimum Water Content	9.9	9.5
Average Wo-Wf	2.3	1.2
Average Wet Density Total Material (PCF)	145.9	141.7
Average Control Fraction Dry Density (PCF)	128.0	129.0
Average Proctor Max Dry Density (PCF)	128.5	128.6
Average Compaction Cylinder Wet Density (PCF)	135.0	137.2
Average Percent #4 Material (%)	32.2	28.3
Average C-Value (%)	102.0	101.9
Average D-Value (%)	99.6	100.4
Percent Accepted with D-Value < 0.0	0.0	0.0

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Concrete Class: Lean Concrete Fill  
Report of Mixes Used From 07/01/2012 to 08/31/2012

Mix Design Number: 1529207  
Specification Number: 20-C0754  
Project: MIAD Key-Block  
Feature: Lean Concrete

Date Time	y^3 of Conc	Percent Of Coarse Aggregate in each size				Yield Quantities per Cubic Yard										Fresh Concrete Tests					Compressive Strength Of Individual Specimens (psi)									
		Sand	CA1	CA2	CA3	CA4	Water	Cem	Poz	Sand	C.A.	AD#3	AEA	WRA	AD#4	AD#5	Cem Eff	M	Slump (ins)	UW (pcf)	W/ C+P	Grav Meth	Press Meter	3 Day	7 Day	28 Day	90 Day	180 Day	1 Year	
07/10/2012							471	402	102	1987	834	0	0.0	0.0	0.0	0.0	3.5	77	6.50	140.6	0.93	-0.5	0.6	800	1440					
09:35	973.33	70.4	100.0	0.0	0.0	0.0	471	402	102	1987	834	0	0.0	0.0	0.0	0.0	3.5	77	6.50	140.6	0.93	-0.5	0.6	840	1410					
12:08	973.33	70.5	100.0	0.0	0.0	0.0	474	405	102	1994	835	0	0.0	0.0	0.0	0.0	3.2	80	7.00	141.1	0.93	-0.9	0.4	770	1300	#####				
14:12	973.33	70.4	100.0	0.0	0.0	0.0	466	399	100	1972	829	0	0.0	0.0	0.0	0.0	3.3	78	6.50	139.5	0.93	0.3	0.4	750	1260	#####				
																								800	1360					
																								790	1300					
07/12/2012							471	403	103	1965	862	0	0.0	0.0	0.0	0.0	3.8	76	6.50	140.9	0.93	-0.6	0.4	850	1510					
08:54	602.00	69.5	100.0	0.0	0.0	0.0	471	403	103	1965	862	0	0.0	0.0	0.0	0.0	3.8	76	6.50	140.9	0.93	-0.6	0.4	900	1530					
10:39	602.00	69.5	100.0	0.0	0.0	0.0	472	403	104	1968	863	0	0.0	0.0	0.0	0.0	3.4	74	6.75	141.1	0.93	-0.8	0.4	830	1430	#####				
12:40	602.00	69.6	100.0	0.0	0.0	0.0	469	401	100	1960	855	0	0.0	0.0	0.0	0.0	3.6	78	6.75	140.2	0.94	-0.2	0.5	820	1350	#####				
14:30	602.00	69.6	100.0	0.0	0.0	0.0	472	403	102	1965	860	0	0.0	0.0	0.0	0.0	80		6.50	140.8	0.93	-0.7	0.6	820	1430					
16:09	602.00	69.6	100.0	0.0	0.0	0.0	472	403	101	1965	858	0	0.0	0.0	0.0	0.0	82		6.50	140.7	0.94	-0.7	0.6			#####				
																										#####				
																										#####				
07/17/2012							467	398	103	1923	872	0	0.0	0.0	0.0	0.0	3.6	67	6.50	139.4	0.93	0.8	0.5	840	1450					
06:47	566.00	68.9	100.0	0.0	0.0	0.0	467	398	103	1923	872	0	0.0	0.0	0.0	0.0	3.6	67	6.50	139.4	0.93	0.8	0.5	820	1420					
09:05	566.00	69.0	100.0	0.0	0.0	0.0	477	407	103	1971	891	0	0.0	0.0	0.0	0.0	3.8	69	5.50	142.6	0.94	-1.5	0.5	910	1540	#####				
11:42	566.00	68.8	100.0	0.0	0.0	0.0	467	403	101	1924	874	0	0.0	0.0	0.0	0.0	3.3	73	6.50	139.6	0.93	0.6	0.5	930	1590	#####				
14:27	566.00	68.9	100.0	0.0	0.0	0.0	471	405	101	1948	887	0	0.0	0.0	0.0	0.0	73		6.50	141.2	0.93	-0.6	0.4	890	1340					
15:22	566.00	69.0	100.0	0.0	0.0	0.0	469	400	101	1930	875	0	0.0	0.0	0.0	0.0	74		6.75	139.8	0.94	0.2	0.5	870	1350					
																										#####				
																										#####				
07/19/2012							472	402	103	1969	851	0	0.0	0.0	0.0	0.0	3.4	67	6.75	140.6	0.93	-0.4	0.5	870	1350					
06:35	450.00	69.8	100.0	0.0	0.0	0.0	472	402	103	1969	851	0	0.0	0.0	0.0	0.0	3.4	67	6.75	140.6	0.93	-0.4	0.5	870	1360					
08:39	450.00	69.8	100.0	0.0	0.0	0.0	469	400	101	1957	847	0	0.0	0.0	0.0	0.0	3.5	72	6.00	139.8	0.94	0.1	0.4	840	1400	#####				
11:26	450.00	69.8	100.0	0.0	0.0	0.0	470	402	101	1960	848	0	0.0	0.0	0.0	0.0	3.6	73	8.00	140.0	0.93	-0.1	0.6	860	1400	#####				
13:25	450.00	69.8	100.0	0.0	0.0	0.0	468	400	100	1954	844	0	0.0	0.0	0.0	0.0	76		6.75	139.5	0.94	0.3	0.5	900	1450					
13:56	450.00	69.8	100.0	0.0	0.0	0.0	474	404	105	1974	854	0	0.0	0.0	0.0	0.0	76		6.00	141.1	0.93	-0.9	0.5	890	1470					
																										#####				
																										#####				
07/24/2012							472	403	103	1969	852	0	0.0	0.0	0.0	0.0	3.1	71	7.75	140.7	0.93	-0.5	0.4	810	1250	#####				
07:00	645.00	69.8	100.0	0.0	0.0	0.0	472	403	103	1969	852	0	0.0	0.0	0.0	0.0	3.1	71	7.75	140.7	0.93	-0.5	0.4	850	1260	#####				
09:23	645.00	69.9	100.0	0.0	0.0	0.0	471	401	106	1964	846	0	0.0	0.0	0.0	0.0	3.7	73	7.00	140.3	0.93	-0.3	0.5	900	1520	#####				
																								920	1460	#####				

07/26/2012																													
06:32	464.00	69.3	100.0	0.0	0.0	0.0	470	401	103	1949	865	0	0.0	0.0	0.0	0.0	0.0	3.9	67	6.00	140.3	0.93	0.1	0.6	1000	1620			
																									950	1530			
08:20	464.00	69.2	100.0	0.0	0.0	0.0	466	398	101	1940	865	0	0.0	0.0	0.0	0.0	0.0	3.5	71	6.00	139.6	0.93	0.6	0.4	850	1400	#####		
																									860	1420	#####		
10:02	464.00	69.3	100.0	0.0	0.0	0.0	472	403	101	1958	867	0	0.0	0.0	0.0	0.0	0.0	3.5	74	6.00	140.8	0.94	-0.4	0.6	900	1470			
																									900	1370			
11:32	464.00	69.4	100.0	0.0	0.0	0.0	467	399	100	1942	858	0	0.0	0.0	0.0	0.0	0.0		76	6.00	139.5	0.94	0.6	0.5			#####		
																												#####	
13:08	464.00	69.2	100.0	0.0	0.0	0.0	468	400	100	1940	864	0	0.0	0.0	0.0	0.0	0.0		76	6.00	139.7	0.94	0.4	0.4			#####		
																												#####	
07/31/2012																													
09:31	680.00	69.2	100.0	0.0	0.0	0.0	473	403	102	1947	868	0	0.0	0.0	0.0	0.0	0.0	3.9	73	5.75	140.5	0.94	-0.2	0.3	800	1560	#####		
																									760	1550	#####		
7/31/2012																													
12:28	680.00	69.4	100.0	0.0	0.0	0.0	469	399	102	1951	862	0	0.0	0.0	0.0	0.0	0.0	3.8	78	6.25	140.1	0.94	0.1	0.3	730	1520	#####		
																									640	1510	#####		
Design		45.0	100.0	0.0	0.0	0.0	475	399	101	1257	1542	0	0.0	0.0	0.0	0.0	0.0			8.00	139.8	0.95	0.4	0.4			1000		
AVG.		69.5	100.0	0.0	0.0	0.0	470	402	102	1957	859	0	0.0	0.0	0.0	0.0	0.0	3.6	74	6.48	140.4	0.93	-0.2	0.5	846	1429			
S.D.		0.5	0.0	0.0	0.0	0.0	3	2	2	17	15	0	0.0	0.0	0.0	0.0	0.0	0.2	4	0.55	0.7	0.00	0.6	0.1	67	94			
C.O.V		0.7	0.0	0.0	0.0	0.0	0.6	0.6	1.5	0.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0	6.5	5.4	8.6	0.5	0.3	**.*	19.0	7.9	6.6			

Bureau.....: Required average strength = 1114 psi at 28 days. Based on 90% exceeding the design strength of 1000 psi & C.O.V. (n=46) = 8.0  
ACI.....: Required average strength = 1154 psi at 28 days (n=46)  
CURE METHOD...: Water Tank with an Average Cure Temperature of 79 - 83 (F)

##### = Specimen not broken as of report date.