



*River Corridor Closure Project*

# **Recovery Act Weekly Report**

For the week ending December 13, 2009

Contract DE-AC06-05RL14655

*Protecting the Columbia River*

## Overview

Background Summary of Projects that Washington Closure Hanford (WCH) will accomplish using ARRA funds (pending definitization of scope and contract modifications).

### A. The Environmental Restoration Disposal Facility (ERDF)

ERDF is the hub of the WCH scope of work and supports a major portion of other Hanford contractor (OHC) waste disposal. Wastes collected from sites around the Hanford complex are brought to ERDF for treatment and disposal. WCH operates the ERDF and is currently using ARRA funds to upgrade and expand its capabilities to meet the needs of Hanford's accelerating mission.

### B. The 618-10 Burial Grounds

618-10 has long been regarded as one of Hanford's worst waste sites. Using ARRA funds, WCH will characterize the trenches. Intrusive and non-intrusive techniques will be used, and the subsequent analysis of data will enable the project to pursue remediation of the site safely and effectively.

### C. The 618-11 Burial Grounds

Along with 618-10, the 618-11 Burial Grounds are among the biggest challenges faced by WCH using ARRA funds. The 618-11 characterization work will require special care because of its proximity to the Energy Northwest Generating Facility, north of the 300 Area.

### D. Waste Site Remediation

WCH is employing ARRA funds to clean up many failed waste sites not originally part of its contract. Sites in the 100-F and IU 2&6 segments 1&2 are proposed for waste site remediation in the two year period starting in October 2009.

### E. Confirmatory Sampling of other new sites

WCH is proposing to complete the early sampling process of 66 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

This weekly report will provide evidence of these activities as they occur in support of ARRA.

The following figure illustrates the overall scope of WCH's ARRA projects.

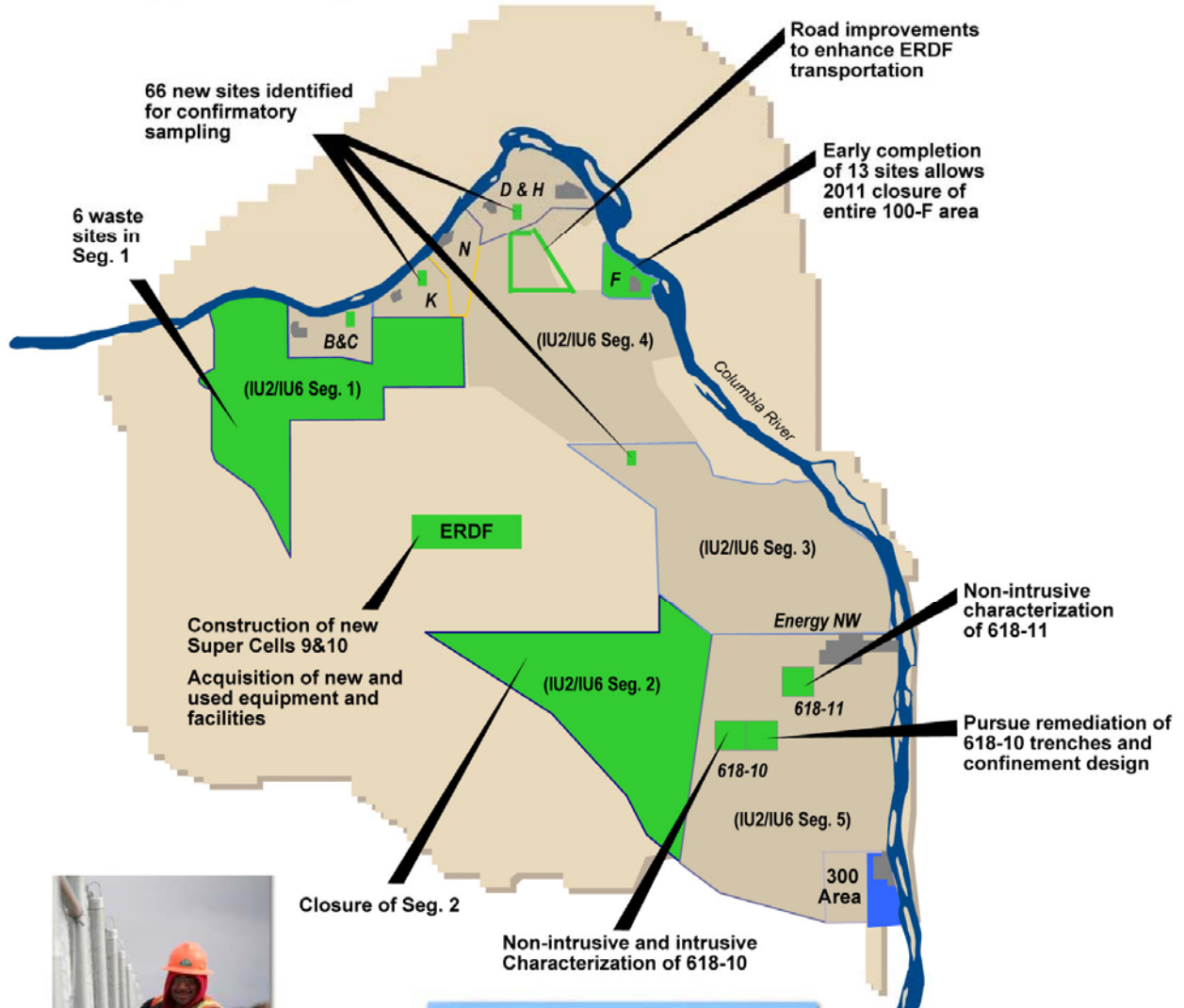


# Overview (Continued)

## the 2015 Vision Handled Site Cleanup

### River Corridor Cleanup Completion

#### ARRA Scope



# Safety

## Safety Accomplishments

As of November 22, 2009, WCH and its subcontractors have safely worked more than 97,000 hours of ARRA scope, with no safety incidents.

## Hazard Reductions

“All Hands Safety Pause” discussions were conducted at many plan-of-the-day meetings, including the 618-10 Burial Ground. The following topics were included in the discussions:

*Human Error Avoidance.* Most events can be avoided through an understanding of the reasons mistakes occur and the application of the lessons learned from past events. Four key questions were raised to ask yourself, your peers, and/or your supervisor. They were:

- What are the critical steps or phases of the task?
- How can I make a mistake during these critical steps or phrases?
- What could happen to me, my co-workers, the public, or the environment?
- How could I handle the situation, and what barriers or defenses are needed to mitigate the hazard?

Examples of desired human performance behaviors also were discussed. They included:

- Discussing potential problems with supervisors and co-workers
- Reporting errors
- Taking initiative to identify flaws in procedures
- Perform self-checks or peer checks for critical activities.

Specific Winter Hazards. The following hazards were discussed:

- Ice, snow, fog, freezing rain
- Cold weather working conditions
- Dark driving and working hours
- Cold/frozen equipment – slow/twitchy hydraulics
- Personal safety – fogged glasses, layered clothing, hydration, protect skin.

Injury Prevention. The following preventative measures were discussed:

- Clean off icy areas
- Walk on designated paths and use handrails
- Use salt and sand on stairs and walking paths
- Wear appropriate footwear and slick conditions.

## Note

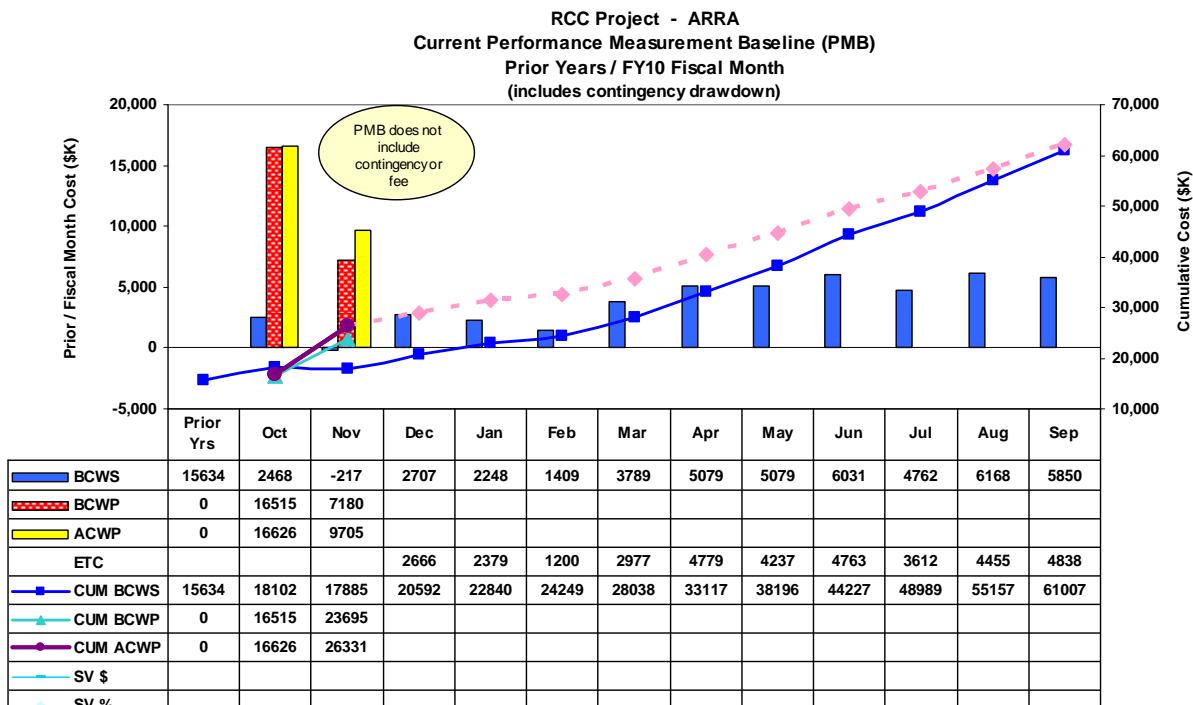
No report will be issued December 29 or January 5. The report issued January 12 will include pertinent information that would have been included in the December 29 and January 5 reports.



# Contract Status/Cost

Contract Mod #	Date	Scope	Obligated (\$M) (Inception to Date)	Not to Exceed (\$M) (Inception to Date)
099	4/9/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$28.0
105	4/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$44.5
126	7/23/09	H.37 Clause - Reporting Requirements	N/A	N/A
139	9/3/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$253.6	\$44.5
142	9/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC; Road Upgrades; Remediation of Orphan Sites	\$253.6	\$123.8

Contract Modification #142 is the definition of the Phase 1 scope of work and was incorporated into the Integrated Project Baseline (IPB) (Performance Measurement Baseline) beginning with October 2009 reporting.



ARRA Actuals (includes PMB and Proposal 2)

Apportionment Number	Apportionment Title	PMB or Balance *	November	Inception To Date
RL-0041.R1.2	ERDF Cell Expansion	PMB	8031	21226
		Balance	616	1607
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	1675	5106
		Balance	55	132
Sub Total		PMB	9705	26331
		Balance	671	1739
Fee			-896	1636
Total			9480	29707

\* PMB is the Phase 1 Performance Measurement Baseline. Balance is Proposal 2



## ERDF

### Super Cells 9 and 10 Construction

Under subcontract to WCH, DelHur Industries has excavated 1,492,366 cubic yards of material for super cell 9 (including 263,913 cubic yards of stockpile removal).

WCH has submitted the award package for the excavation of super cell 10 and the construction of super cells 9 and 10 to DOE for review. WCH has been approved to notify the bidders of the intent to award the contract.



*Excavation of super cell 9 continues at the Environmental Restoration Disposal Facility. More than 1.49 million cubic yards of dirt has been removed.*

## ERDF (Continued)



*Excavation of super cell 9 at the Environmental Restoration Disposal Facility is expected to be completed in early February.*

## ERDF (Continued)



*One of two D9 bulldozers recently delivered to the Environmental Restoration Disposal Facility clears dirt at the disposal site.*

### **Facility and Equipment Upgrades**

A design and engineering team hosted a meeting with scientists from Pacific Northwest National Laboratory (PNNL) to discuss developing a container monitoring system at ERDF. PNNL recently developed a system used for tracking Army cargo containers, which could possibly be adapted to meet WCH's needs. The system would allow for ERDF dispatchers to know exactly how many full and empty containers are available.

Pavement of the back road to ERDF has been postponed until the spring because of cold weather. Richland subcontractor George A. Grant has filled holes and laid a 4-inch gravel overlay. The road will be operable through the winter. The road will be used to accommodate the disposal of waste material from other Hanford contractors.

Hanford contractor Mission Support Alliance has postponed work on several Hanford Site roads due to cold weather. These roads are used to haul radioactive and mixed waste to ERDF for disposal. The roads will be shut down through the winter, and pavement and more extensive repairs will be made in the spring. About 50% of the total work on Route 1 and Federal Avenue has been completed.



## ERDF (Continued)

Work continues on a scope of work for issuing a request for proposals (RFP) to expand the truck maintenance facility, and construct new equipment and container maintenance facilities. An RFP is expected to be issued in early January.

The RFP to build a new onsite refueling station and a new septic system has been issued. A pre-bid meeting was held with potential bidders. The refueling station will service about 65 vehicles ranging from passenger vehicles to tractor-trailers.

Another haul truck was received, bringing the total received to 18 of 20. The trucks are from Peters & Keats of Lewiston, Idaho.

### Upcoming Activities

- Continue excavation of super cell 9.
- A new water truck is scheduled to arrive December 22.



## Profile

Debbie Talbot is an administrator for the Waste Operations construction management team, a position created with Recovery Act funding.

Talbot is stationed at the Environmental Restoration Disposal Facility, the Hanford Site's home for low-level radioactive, hazardous, and mixed waste. One of her job perks is a front-row seat as WCH subcontractor Delhur Industries Inc. digs a super cell that measures 70 feet deep, 500 feet wide, and 1,000 feet long.

It wasn't long ago, however, that Talbot had to dig herself out of a gigantic hole.

Her misfortune began in March 2008, when she lost her job with Performance Abatement Services. The company had completed work to remove asbestos-containing materials at N Area and no longer needed her services.

Talbot was a Hanford veteran, having worked since 1976 in some capacity for companies such as J.A. Jones, Rockwell, and Morrison Knudsen Corporation, as well as for the Washington Public Power Supply System. Suddenly, she was desperate.



*Debbie Talbot's job as an administrator for the Waste Operations construction management team was created with ARRA funding.*

## Profile (Continued)

“It was a time when it seemed like absolutely nobody was hiring. I couldn’t find a thing,” Talbot said.

Unfortunately, that was just the beginning of a trying year. Not long after she lost her job, Talbot was hospitalized with acute respiratory distress syndrome, a life-threatening lung condition that occurs when there is severe fluid buildup in both lungs. She spent 10 days at Kadlec Regional Medical Center in Richland before being airlifted to Harborview Medical Center in Seattle, where she would spend another six weeks.

“I was in a coma for 10 days,” Talbot said. “Things got so bad that the doctors told my sons I might not make it.”

But, after a few months, Talbot began to improve and eventually regained enough strength to rejoin the working world. After applying for “every single job that popped up,” she landed with WCH in June.

“No job, no benefits ... ARRA came at just the right time,” said Talbot, who helps process subcontract documents. “It was like the job just fell from the sky.”



## 618-10 Burial Ground

### **618-10 Non-Intrusive Characterization/Trench Remediation Project**

The installation of cone penetrometers around the vertical pipe units (VPUs) was suspended December 4 when contamination was detected while conducting radiological surveys of the multidetector probe (MDP) test guage. The test guage was lowered into the bottom of the cone penetrometers and radiological surveys conducted to determine if any contamination was present.

A fact finding occurred December 7 and a recovery plan has been developed to determine the contamination source. Upon evaluation of the of the recovery plan results, an ALARA review of the cone penetrometer installation and characterization processes will be conducted. Upon incorporating results of the ALARA review into the associated work documents the cone penetrometer and radiological characterization work activities will commence.

Cone penetrometers are steel cylinders that accommodate the instruments used to determine the type, amount, and distribution of radioactive materials within the VPUs. During the mid 1950s and early 1960s, highly radioactive waste from Hanford's 300 Area was dumped into the VPUs. VPUs typically consist of five bottomless 55-gallon drums welded end to end.

To date, 182 cone penetrometers have been installed to a target depth of about 22 feet. Installation of the cone penetrometers in the VPU area is about 48 percent complete.



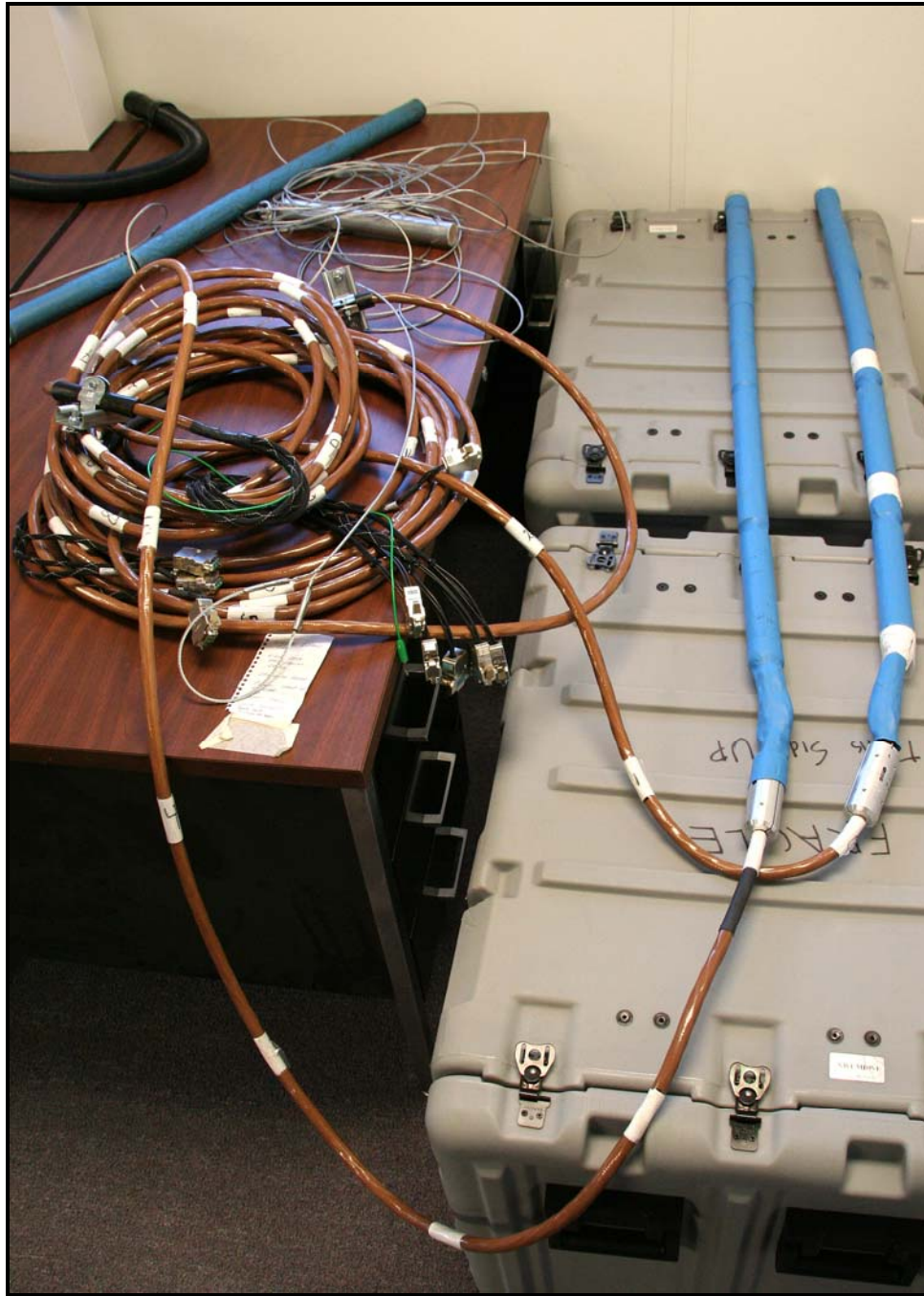
## 618-10 Burial Ground (Continued)



*Cone penetrometers are being installed around the vertical pipe units to a target depth of 22 feet at the 618-10 Burial Ground.*

Preparations continue for radiological characterization activities, which are expected to begin later this month. The MDP, which was designed for use in characterizing VPUs, will be placed inside the cone penetrometers. An MDP includes two gamma-ray detectors used as spectrometers, two neutron detectors, and a gross gamma detector. The detectors measure a wide range of radiation sources and activities through the walls of the cone penetrometers.

## 618-10 Burial Ground (Continued)



*Multidetector probes were designed to characterize vertical pipe units.*

## 618-10 Burial Ground (Continued)

### Upcoming Activities

- Continue reviewing subcontractor submittals.
- Complete preparation of the records search summary report.
- Continue confinement design criteria development activities.
- Continue soil sampling project startup review development activities.

### Video

[Click here to view the video on a demonstration of cone penetrometers.](#)



## 100-F Area

Pre-qualified companies interested in remediation of waste sites are still being sought. Remediation will involve the excavation of radioactive and hazardous soil and debris, and the packaging of the material into shipping containers.

The Environmental Protection Agency is reviewing the design drawings presented during a walkdown of several waste sites. The walkdown, which was conducted last month, was to develop a common understanding of the remediation scope of work for the sites and to begin identifying potential cultural and ecological limitations.

## IU 2 & 6 Segment 1

An integrated chemical and radiological hazard evaluation was completed. Work is being done to coordinate sampling of the sites to establish waste profiles for disposal of the eventual remediation waste to ERDF. Work on the excavation permit also continues. Sampling is expected to take place next week.

The waste sites at IU 2&6 Segment 1 are smaller than those found at 100-F Area and contain mostly surface debris that must be removed and transported to an approved disposal facility. The strategy for this overall effort is to use the onsite capabilities of an existing subcontractor who will be tasked with remediating the sites beginning in March 2010. Full remediation, including transportation and disposal of excavated waste, sampling and waste site close-out documentation, backfill, and revegetation is to be completed by February 2011.





## Confirmatory Sampling

The team continued drafting sampling instructions for waste sites at the 100-D Area and began drafting sampling instructions for waste sites at the 100-K Area. A fresh walkdown of the 100-K Area sites was conducted in order to refine sampling strategies and evaluate equipment access considerations. Development of sampling instructions also includes conducting historical research and consulting regulatory documents, developing a list of contaminants of potential concern to be sampled, and determining potential sample locations for review by DOE and Hanford Site regulators. Internal drafts of five sampling instructions have been completed for review by DOE and the Washington State Department of Ecology.

Drafts of remove, treat, and dispose recommendation reports are also in development for four 100-K Area sites. There is sufficient existing information for these sites to warrant remediation without further confirmatory sampling.

Planning for 100-D Area pipeline waste sites also continues. These sites consist of many pipe segments that are frequently not related to one another.

Work also continues on developing procurement documentation. In late 2009 or early 2010, WCH will issue a request for proposals for a company to provide excavation and sampling support for all 66 waste sites. Waste sites that pass the confirmatory sampling process will be closed out and no further action will be required under the existing interim record of decision. Waste sites that fail will be recommended for cleanup to meet regulatory standards.

Sampling of the sites is expected to begin in spring 2010.



## General

### **Mentoring/Training**

No significant activities this week.

### **Media, Visits, Press Releases**

No significant activities this week.

### **Contracting Actions**

- Held pre-construction meetings for ERDF septic system and fuel station facility improvements.
- Announced Intent to Award and delivered Consent Package to DOE-RL for ERDF super cells 9 and 10 construction.
- Received submittals from three companies interested in participating in the 618-10 mobile lab Request for Proposal.
- Sent Request for Proposal to TPMC subcontractor for 618-10 Intrusive Characterization.

