

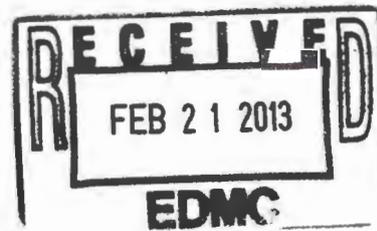


**FINAL**

**Office of River Protection  
Consent Decree 08-5085-FVS**

**Monthly Summary Report**

**February 2013**



## Office of River Protection

Consent Decree 08-5085-FVS  
Monthly Summary Report

February 2013 (Project EVMS reflects December 2012)

Page	Topic	Leads
1	Statistics / Status	James Lynch / Dan McDonald / Jeff Lyon
2	SST Retrieval and Closure - D-00B-01, -02, -03, -04	Chris Kemp / Jeff Lyon
3	Tank Waste Retrieval Work Plan (TWRWP) Status - Consent Decree Appendix C	Chris Kemp / Jeff Lyon
4	SST Retrieval Monthly and Fiscal Year EVMS Data	Dan Knight / Jeff Lyon
5	WTP - Immobilization Plant Project - D-00A-06, D-00A-17, D-00A-01	Delmar Noyes / Dan McDonald
7	WTP Pretreatment (PT) Facility - D-00A-18, -19, -13, -14, -15, 16	Wahed Abdul / Dan McDonald
10	High-Level Waste (HLW) Facility - D-00A-20, -21, 02, 03	Wahed Abdul / Dan McDonald
13	Low-Activity Waste (LAW) Facility - D-00A-07, -08, -09	Jeff Bruggeman / Dan McDonald
15	Balance of Facilities (BOF) - D-00A-12	Jason Young / Dan McDonald
17	Analytical Laboratory (LAB) - D-00A-005	

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2013</b>				
D-00C-02X	Submit to Ecology & State of Oregon Monthly Summary Report	10/31/2012	10/31/2012	Completed
D-00C-02Y	Submit to Ecology & State of Oregon Monthly Summary Report	11/30/2012	11/20/2012	Completed
D-00C-02Z	Submit to Ecology & State of Oregon Monthly Summary Report	12/31/2012	12/26/2012	Completed
D-00A-05	LAB Construction Substantially Complete	12/31/2012	12/31/2012	Completed
D-00A-12	Steam Plant Construction Complete	12/31/2012	12/31/2012	Completed
D-00A-21	Complete Construction of Structural Steel to EL. 37' in HLW Fac.	12/31/2012	10/24/2012	Completed
D-00C-01F	Submit to Ecology & State of Oregon Semi-Annual Report	01/31/2013	01/31/2013	Completed
D-00C-02AA	Submit to Ecology & State of Oregon Monthly Summary Report	01/31/2013	01/24/2013	Completed
D-00C-02AB	Submit to Ecology & State of Oregon Monthly Summary Report	02/28/2013		On-going
**D-00C-02AC	Submit to Ecology & State of Oregon Monthly Summary Report	03/31/2013		On-going
** Future Monthly Reports will be added as necessary to maintain a two-months ahead activity.				
D-00C-01G	Submit to Ecology & State of Oregon Semi-Annual Report	07/31/2013		On-going
D-006-00-A1	Provide State of Oregon Notice of Meetings	09/25/2013		On-going
<b>Fiscal Year 2014</b>				
D-006-00-A	Meet Approximately Every 3 Years to Review Requirements of CD	10/25/2013		On-going
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		On-going
D-00B-02	Advise Ecology of the 9 SSTs Waste Will be Retrieved by 2022	09/30/2014	08/22/2011	Completed

## Reports

**D-00C-01 series, Submit to Ecology & State of Oregon Semi-Annual Report, Due: Semi-Annually – January 31<sup>st</sup> and July 31<sup>st</sup> of each year. Status: On-going**

**D-00C-02 series, Submit to Ecology & State of Oregon Monthly Summary Report Documenting Progress During Previous Month, Due: End of Each Month, Status: On-going**

## SST Retrieval Program

**D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due:** 9/30/2014, Status: On-going

**D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due:** TBD  
Pursuant to the requirement in Section IV-B-5 of the Consent Decree (CD), DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix "C", Part 1, of the CD.

**D-00B-02, Advise Ecology of the 9 SSTs from which Waste Will Be Retrieved by 2022, Due:** 9/30/2014, Status: Completed on 08/24/2011.

**D-00B-03, Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due:** 12/31/2017, Status: On-going

**D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due:** 9/30/2022, Status: On-going

**D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due:** TBD

### Significant Past Accomplishments:

1. Completed start up of the modified sluicing system in C-101 using ERSS.
2. Continued field activities associated with repair of the C-107 high pressure spray water nozzle leak.
3. Continued training for the Fold-Track at the Cold Test Facility for future use at C-110 SST.

### Significant Planned Activities in the Next Six Months:

1. Continued field activities for replacement of failed pump for AN-106.
2. Begin start-up of the modified sluicing system in C-102.
3. Complete installation of the MARS-V in C-105.
4. Complete C-107 hard heel retrieval.
5. Submit retrieval certificates of completion for C-104, C-108, and C-109 to Ecology.
6. Begin start-up of hard heel retrieval in C-110 using the Fold-Track.

### Issues:

1. DOE-ORP has delayed dome cut activities using the water/abrasive cutting technique for tank C-105 and has experienced delays to the planned schedule while resolution of an issue through the Differing Professional Opinion process DOE O 442.2 is completed. DOE-ORP and its Contractor are evaluating the schedule impacts and possible mitigation actions for alternative cutting techniques.

2. DOE-ORP and its Contractor are reviewing whether the amount of sludge being stored in the tanks causes additional hazards due to gas generation and the potential that gas could be released within the headspace of the tank safely. While this issue is under review, controls have been put in place to limit the amount of sludge being added to the DSTs during C Farm retrieval. The Contractor is conducting analysis of the best way to release the limitations on retrieval and provide safe storage for sludge in the DSTs.

### Tank Waste Retrieval Work Plan (TWRWP) Status

Tank	TWRWP	Expected Revisions	Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 7	Complete	MRS (per 10/7/10 agreement, to be Modified Sluicing)	High-Pressure Water with ERSS	-
C-102	RPP-22393, Rev. 6A	In Process	Modified Sluicing	High-Pressure Water with ERSS	-
C-104	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution	-
C-105	RPP-22520, Rev. 7	Complete	MARS-V	MARS-High Pressure Water	-
C-107	RPP-22393, Rev. 6A	Complete	MARS-S	MARS-High Pressure Water	-
C-108	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Dissolution	-
C-110	RPP-33116, Rev. 2	Complete	Modified Sluicing	Mechanical Waste Conditioning	High Pressure Water
C-111	RPP-37739, Rev. 1	In process	Modified Sluicing	None	-
C-112	RPP-22393, Rev. 6A	In process	Modified Sluicing	Chemical Dissolution	-

#### Significant Accomplishments

C-110 TWRWP modification 2012-13 approved.

#### Significant Planned Activities in the Next 6 Months:

Work with Ecology on updates to TWRWPs RPP-22393, RPP-22520 and RPP-37739 for tanks C-105, C-111, and C-112.

#### Issues:

None.

### SST Retrieval Monthly and Fiscal Year EVMS Data

Office of River Protection (ORP-0014) Fiscal Year 2013 - Monthly Project Performance



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-12	\$3,620.6	\$3,262.2	\$6,009.2	0.90	0.54	\$3,620.6	\$3,262.2	\$6,009.2	0.90	0.54
Nov-12	\$6,822.3	\$8,789.7	\$8,503.5	1.29	1.03	\$10,442.9	\$12,051.9	\$14,512.7	1.15	0.83
Dec-12	\$8,754.6	\$6,086.6	\$8,117.5	0.70	0.75	\$19,197.5	\$18,138.5	\$22,630.2	0.94	0.80
Jan-13	\$9,897.3			0.00		\$29,094.8			0.00	
Feb-13	\$7,352.9			0.00		\$36,447.7			0.00	
Mar-13	\$8,549.1			0.00		\$44,996.8			0.00	
Apr-13	\$8,677.0			0.00		\$53,673.8			0.00	
May-13	\$9,896.3			0.00		\$63,570.1			0.00	
Jun-13	\$8,470.0			0.00		\$72,040.1			0.00	
Jul-13	\$7,298.8			0.00		\$79,338.9			0.00	
Aug-13	\$9,902.0			0.00		\$89,240.9			0.00	
Sep-13	\$10,128.5			0.00		\$99,369.4			0.00	
<b>CTD</b>	<b>\$358,896.5</b>	<b>\$359,047.6</b>	<b>\$356,626.0</b>	<b>1.00</b>	<b>1.01</b>					

**Single-Shell Tanks**

Cost Variance (853K):

The unfavorable cost variance is primarily due to:

- Costs incurred for idle operation crews due to delays in declaring startup and readiness and C-101 retrieval operations.
- Installation and startup and readiness activities of the SST C-102 waste retrieval system.

The favorable CV was partially offset by:

- Cost savings by modifying the existing Fold-Track system instead of procuring a new hard heel removal unit for the next technology to be used in SST C-110.

Schedule Variance (\$497K):

The unfavorable schedule variance is primarily due to:

- Weather delays and resource availability issues that prevented the completion of AN-106 pump removal in December.
- One week of schedule delay was incurred because key resources for the pump removal were working on S-Complex HIHTL removals.
- High winds and associated cleanup work in mid-December resulted in another 1-week delay.

### Waste Treatment and Immobilization Plant (WTP) Project

Number	Title	Due Date	Status
D-00A-06	Complete Methods Validations	12/31/2017	On-going* (see issues below)
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	On-going* (see issues below)
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	On-going* (see issues below)

The project currently employs approximately 2205 Full-Time Equivalent (FTE) contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel, including 608 craft, 477 non-manual, and 126 subcontractor personnel FTEs working at the WTP construction site (all facilities). As of December 2012, the Low-Activity Waste, Analytical Laboratory and Balance of Facilities were 60 percent complete combined, design and engineering was 75 percent complete, procurement was 80 percent complete, construction was 67 percent complete, and startup and commissioning was 9 percent complete. In October 2012, the Baseline Change Proposal that implemented the LBL replan was incorporated into the project over target baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. The percent complete values for PT and HLW are frozen at September rates due to the implementation of the 2 year interim work plan.

The cumulative-to-date WTP Project schedule variance in December 2012 was a positive \$1.5 M. The cumulative-to-date WTP Project cost variance was a negative \$63.5 M. The most recent contribution to the cumulative-to date schedule variance is due to early plant equipment deliveries and construction activities. The most recent contribution to the cumulative-to-date cost variance is the carryover negative cost variances from the LBL replan.

The following is the status of project matters through the end of December:

#### Significant Past Accomplishments:

- Issued 12 off-gas isometric drawings for the LAW Secondary Offgas/Vessel Vent Process (LVP) system (LAW)
- Issued request for quote for the ammonia safety valves and vaporizer root valves (BOF)
- Completed installation of facility control valves (LAB)

#### Significant Planned Actions in the Next Six Months:

- Complete the HPAV HGR rate calculations (PT)
- Award contract(s) for prototype design/fabrication for HEPA filter redesign (HLW)
- Complete installation of melter power supplies (LAW)
- Complete installation of Auto Sampling (ASX system) (LAW)
- Complete construction of the WTP Cooling Tower (BOF)
- Complete construction of WTP Chiller Compressor Plant (BOF)
- Completion of the high purity gas system layup (LAB)

**Issues:**

\* Technical issues relevant to the PTF and HLW facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

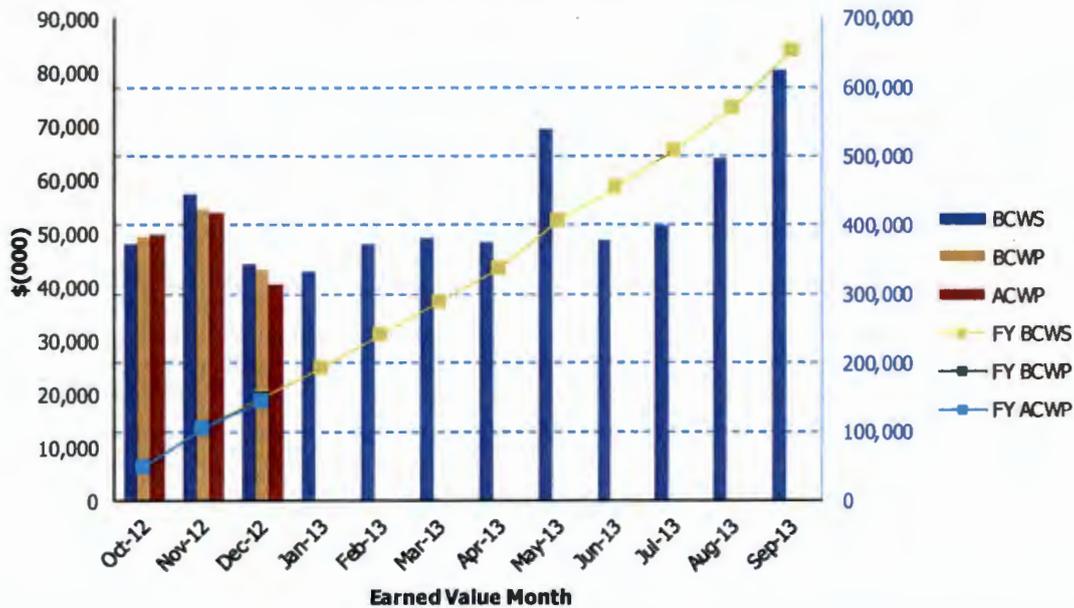
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2013 Earned Value Data

Data as of: December 2012

**River Protection Project  
Waste Treatment Plant (WTP) Project**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$47,840	\$49,300	\$49,742	1.03	0.99	\$47,840	\$49,300	\$49,742	1.03	0.99
Nov 2012	\$57,411	\$54,398	\$53,916	0.95	1.01	\$105,251	\$103,698	\$103,658	0.99	1.00
Dec 2012	\$44,336	\$43,083	\$40,457	0.97	1.06	\$149,587	\$146,781	\$144,115	0.98	1.02
Jan 2013	\$42,828					\$192,415				
Feb 2013	\$47,838					\$240,253				
Mar 2013	\$48,918					\$289,171				
Apr 2013	\$48,297					\$337,468				
May 2013	\$69,312					\$406,780				
Jun 2013	\$48,818					\$455,598				
Jul 2013	\$51,392					\$506,990				
Aug 2013	\$63,898					\$570,888				
Sep 2013	\$80,281					\$651,169				
PTD	\$7,290,197	\$7,291,648	\$7,355,172	1.00	0.99					

**PRETREATMENT (PT) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	On-going *
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	On-going *
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	On-going *
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	On-going *
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	On-going *

The Pretreatment (PT) Facility will separate radioactive tank waste into High Level Waste (HLW) and Low-Activity Waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56 percent complete overall, with engineering design 85 percent complete, procurement 56 percent complete, construction 43 percent complete, and startup and commissioning 3 percent complete. Additional work-scope is required to resolve outstanding technical issues, which will impact the engineering design percent complete status and schedule for completion.

**Significant Past Accomplishments:**

The key on-going activities in PT are resolution of technical issues, hazard analyses and safety evaluations for process systems.

Due to the 2 year interim work plan construction, procurement, and production engineering is on hold, resulting in no change to the percent complete status since September.

The Design Completion Team continues to have discussions on resolution of open technical issues to ensure the design changes are required and requirements are finalized. All of the 13 committed deliverables have been released for review by DOE. Some of the key deliverables include: Full- scale test strategy, Design criteria for in-service inspection (ISI), Corrosion/erosion test strategy and Sensitivity assessment of erosion calculation.

Construction of the mixing test platform continues as part of preparations for full-scale testing. Engineering studies are being performed to determine full-scale test objectives, vessel selections, and instrument functions to support full scale testing in late 2013.

Evaluations are ongoing to understand the available redundancy in case of failures in the black cells. At the same time, available technology is being reviewed to support in-service inspection.

Engineering solutions have been developed by BNI and recommendation is to modify the Bottom Head and Bottom Head Cooling Jacket on the High Level Waste Lag Storage HLP

Vessels (HLP-VSL-0027A, HLP-VSL-0027B, and HLP-VSL-0028). Draft study has been submitted to the Design Completion Team for review.

**Significant Planned Actions in the Next Six Months:**

- Complete the HPAV HGR rate calculations
- Determine a path forward on vessel mixing
- Independent review of potential for Criticality in Vessels
- Review of Flammable Gas Generation, Retention, and Release from sediments in vessels
- Decision process for Vessel Structural Modifications
- Develop vessel specific particle characteristics report for erosion/corrosion
- Complete HAZOP for PVP system
- Key activities for resolution of technical issues

**Issues:**

\* Technical issues relevant to the PTF and HLW facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

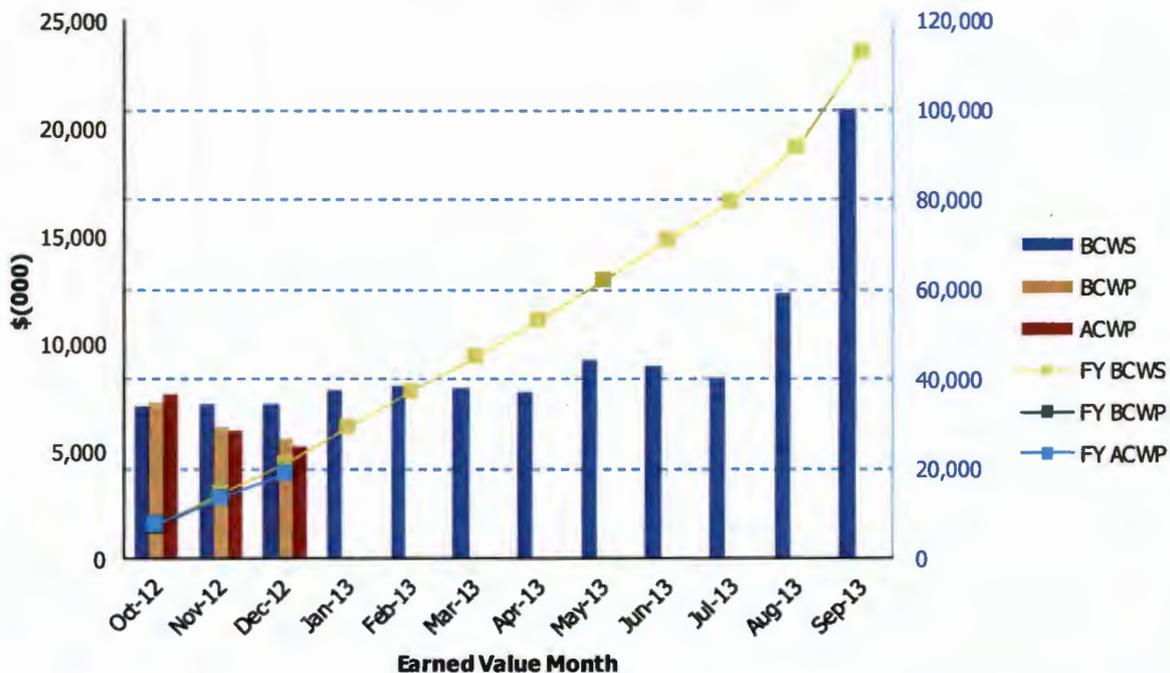
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: December 2012

**River Protection Project  
Pretreatment Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$7,077	\$7,269	\$7,660	1.03	0.95	\$7,077	\$7,269	\$7,660	1.03	0.95
Nov 2012	\$7,200	\$6,130	\$5,974	0.85	1.03	\$14,277	\$13,399	\$13,634	0.94	0.98
Dec 2012	\$7,163	\$5,619	\$5,230	0.78	1.07	\$21,440	\$19,018	\$18,864	0.89	1.01
Jan 2013	\$7,828					\$29,268				
Feb 2013	\$8,023					\$37,291				
Mar 2013	\$7,948					\$45,239				
Apr 2013	\$7,707					\$52,946				
May 2013	\$9,246					\$62,192				
Jun 2013	\$8,933					\$71,125				
Jul 2013	\$8,400					\$79,525				
Aug 2013	\$12,325					\$91,850				
Sep 2013	\$20,839					\$112,689				
PTD	\$1,431,907	\$1,429,484	\$1,429,331	1.00	1.00					

**HIGH-LEVEL WASTE (HLW) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	On-going *
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	On-going *
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	On-going *

The High Level Waste (HLW) Facility will receive the separated high-level waste concentrate from the Pretreatment (PT) Facility. This concentrate will be blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated prior to shipment to interim storage. As of September 2012, the HLW Facility is 62 percent complete overall, with engineering design 89 percent complete, procurement 81 percent complete, construction 43 percent complete, and startup and commissioning is 4 percent complete.

**Significant Past Accomplishments:**

All concrete slabs at 37' elevation have been placed. Key ongoing Construction activities are: limited placement of walls at 37' elevation; installation of structure steel at 58' elevation; installation of cable tray supports and HVAC ducts at 14' elevation.

Due to the 2 year interim work plan construction, procurement, and production engineering has significantly slowed down, resulting in minimal change to the percent complete status since September.

Key ongoing Engineering and ENS activities are: support construction, procurement, Reliability Validation Process (RVP) towards resolution of level 1 findings and Preliminary Documented Safety Analysis (PDSA) update.

The Design Completion Team continues to have discussions on resolution of open technical issues to ensure the design changes are required and requirements are finalized. Most of the committed deliverables have been released for review by DOE. Some of the key deliverables include: Full- scale test strategy, Design criteria for in-service inspection (ISI), Corrosion/erosion test strategy and Sensitivity assessment of erosion calculation.

To resolve the HEPA filter issue, a schedule to procure a redesigned filter that will meet plant operating conditions has been developed. The HEPA filter test strategy is complete. Specifications for the fabrication of HEPA filter prototype and testing are issued. Once the vendors are selected, the redesigned filters will be tested and the best option selected; the successful design will then go through qualifying testing for use in WTP.

The current Plant Wash and Drain Vessel (RLD-VSL-08) will be repurposed for use in full-scale testing and a new vessel will be procured to replace it. The new RLD-VSL-08 along with the Acidic Waste Vessel (RLD-VSL-07) will be modified from the current design to incorporate changes recommended by the S-1 Team.

First phase of RVP (Wave 1) is almost complete with the findings being categorized and recorded. BNI is in the process of initiating review and analysis of the issues identified to develop path forward for resolutions. BNI has started the second phase of RVP (Wave 2) that includes review of the C5V system.

**Significant Planned Actions in the Next Six Months:**

- Award contract(s) for prototype design/fabrication for HEPA filter redesign
- Complete RVP reviews
- Complete the first of the two Authorization Basis Amendment Requests (ABARs) to support Preliminary Documented Safety Analysis (PDSA) upgrade – focus of the first ABAR is to incorporate changes in the facility and control descriptions
- Complete review of fabrication of the Thermal Catalytic Oxidizer
- Develop plan to close all technical issues (e.g., vessel mixing, corrosion, redundancy, in-service inspection) and other issues (e.g., safety basis compliance, QA issues and design defensibility) to support ramp-up of HLW construction

**Issues:**

\* Technical issues relevant to the PTF and HLW facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

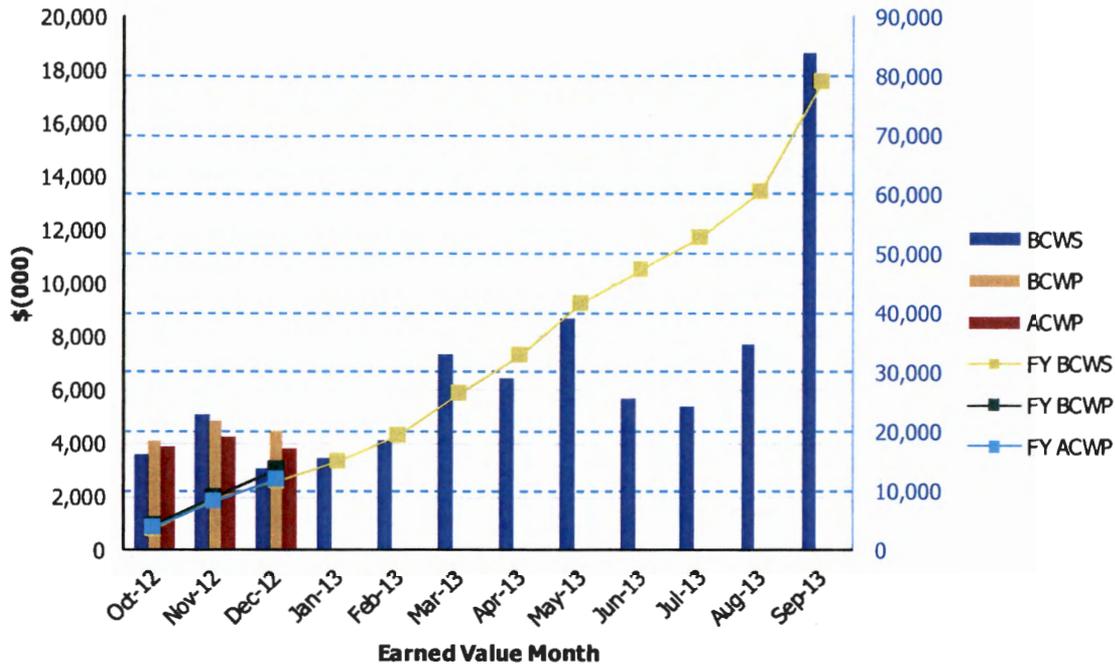
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: December 2012

**River Protection Project  
High-Level Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$3,545	\$4,105	\$3,895	1.16	1.05	\$3,545	\$4,105	\$3,895	1.16	1.05
Nov 2012	\$5,079	\$4,852	\$4,256	0.96	1.14	\$8,624	\$8,957	\$8,151	1.04	1.10
Dec 2012	\$3,054	\$4,496	\$3,795	1.47	1.18	\$11,678	\$13,453	\$11,946	1.15	1.13
Jan 2013	\$3,388					\$15,066				
Feb 2013	\$4,069					\$19,135				
Mar 2013	\$7,292					\$26,427				
Apr 2013	\$6,451					\$32,878				
May 2013	\$8,700					\$41,578				
Jun 2013	\$5,688					\$47,266				
Jul 2013	\$5,378					\$52,644				
Aug 2013	\$7,657					\$60,301				
Sep 2013	\$18,609					\$78,910				
PTD	\$933,811	\$935,582	\$934,079	1.00	1.00					

**LOW-ACTIVITY WASTE (LAW) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	On-going
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	On-going
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	On-going

The Low-Activity Waste (LAW) Facility will vitrify LAW from the Pretreatment (PT) Facility. Waste will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that are anticipated to be disposed on the Hanford Site in the Integrated Disposal Facility. As of December 2012, the LAW Facility is 61 percent complete overall, with engineering design 76 percent complete, procurement 84 percent complete, construction 61 percent complete, and startup and commissioning is 4 percent complete.

**Significant Past Accomplishments:**

- Issued 17 off-gas isometric drawings for the LAW Secondary Offgas/Vessel Vent Process (LVP) system
- Issued 35 control logic diagrams
- Issued 73 instrument datasheets
- Began installation of Melter #1 Refractory
- Completed mica installation on the bottom of the melter
- Completed installation of electrical conduit outside the melter bays

**Significant Planned Actions in the Next Six Months:**

- Complete installation melter power supplies
- Complete installation of Auto Sampling (ASX) system
- Receive HEPA Pre-heaters for LVP system
- Receive TCO for LVP system
- Complete software development and testing

**Issues:**

No major issues at this time.

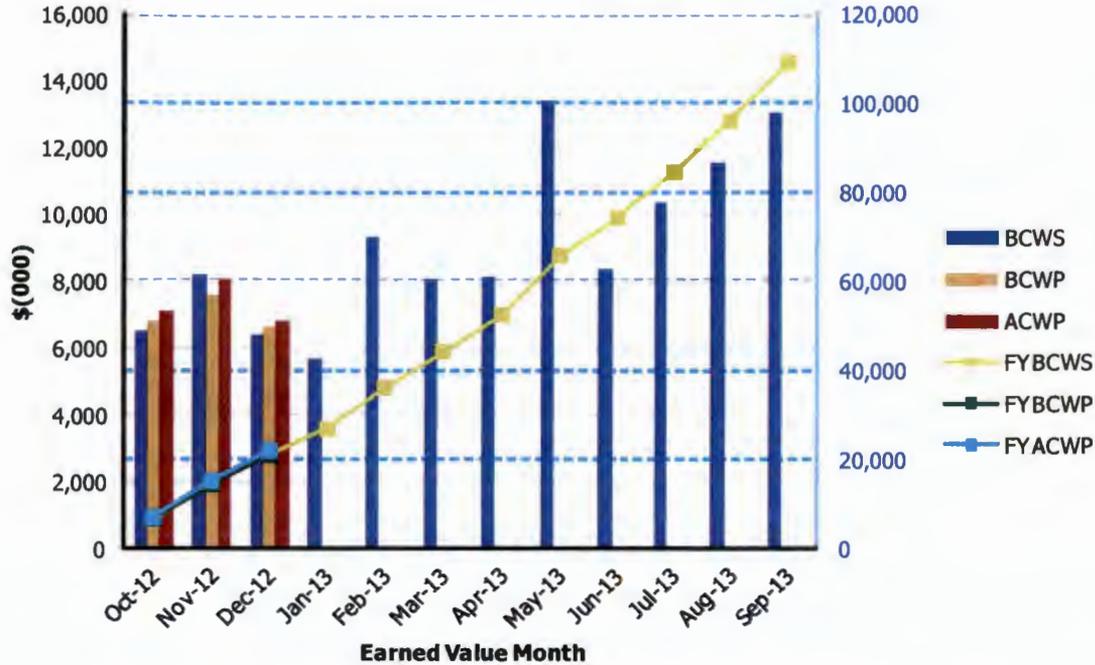
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: December 2012

**River Protection Project  
Low-Activity Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$6,536	\$6,787	\$7,142	1.04	0.95	\$6,536	\$6,787	\$7,142	1.04	0.95
Nov 2012	\$8,212	\$7,602	\$8,071	0.93	0.94	\$14,748	\$14,389	\$15,213	0.98	0.95
Dec 2012	\$6,418	\$6,648	\$6,814	1.04	0.98	\$21,166	\$21,037	\$22,027	0.99	0.96
Jan 2013	\$5,684					\$26,850				
Feb 2013	\$9,307					\$36,157				
Mar 2013	\$8,089					\$44,246				
Apr 2013	\$8,151					\$52,397				
May 2013	\$13,419					\$65,816				
Jun 2013	\$8,357					\$74,173				
Jul 2013	\$10,335					\$84,508				
Aug 2013	\$11,564					\$96,072				
Sep 2013	\$13,020					\$109,092				
PTD	\$714,877	\$718,026	\$770,573	1.00	0.93					

**BALANCE OF FACILITIES (BOF)**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

The Balance of Facilities (BOF) provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. As of December 2012, the BOF is 53 percent complete overall, with engineering design 76 percent complete, procurement 67 percent complete, construction 71 percent complete, and startup and commissioning is 9 percent complete.

**Significant Past Accomplishments:**

Activities within BOF to support facility completion, and turnover to the startup organization are on-going. Each facility will be evaluated to verify the adequacy of design and readiness for operation. The first stage of this validation will occur as part of the turnover from construction to the startup organization for component level testing.

The WTP contractor continues to conduct bi-weekly meetings to support facility construction completion. These meetings focus on schedule reviews, punch list development for remaining construction activities, and startup and operations activities.

A concern has been raised about the effectiveness of the design for the cathodic protection system. BNI is designing and installing test stations to improve the understanding of the effectiveness of the system.

**Recent accomplishments for the BOF team are:**

- Issued request for quote for the ammonia safety valves and vaporizer root valves.
- Completed installation of the DC Electrical System (DCE) batteries and temperature elements in Switchgear Building 91.
- Completed mobilization to site of the metering and calibration subcontractor.
- Construction turned over to startup the Medium Voltage Electrical (MVE) system in Switchgear Building 87.

**Significant Planned Actions in the Next Six Months:**

- Complete Construction of the WTP Chiller Compressor Plant
- Complete the component and functional testing of the low and medium voltage (LVE/MVE) and fire detection (FDE) systems in the switchgear building (bldg 87).
- Complete construction of the Glass Former Storage Facility

**Issues:**

No major issues at this time.

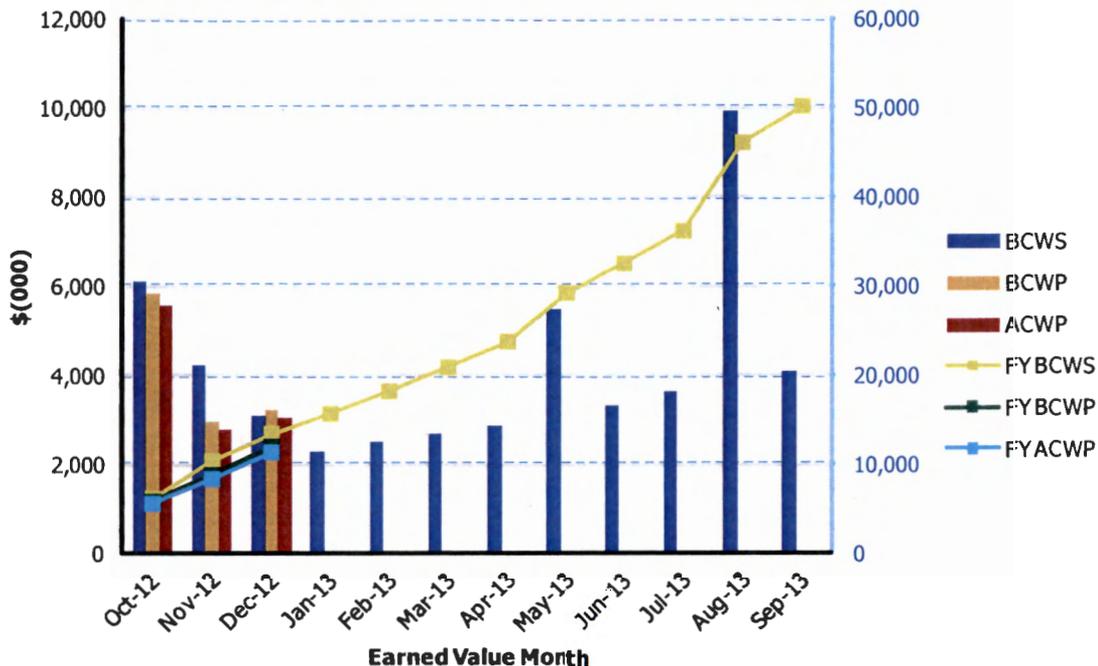
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: December 2012

**River Protection Project  
Balance of Facilities**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$6,106	\$5,820	\$5,580	0.95	1.04	\$6,106	\$5,820	\$5,580	0.95	1.04
Nov 2012	\$4,226	\$2,955	\$2,775	0.70	1.06	\$10,332	\$8,775	\$8,355	0.85	1.05
Dec 2012	\$3,077	\$3,213	\$3,026	1.04	1.06	\$13,409	\$11,988	\$11,381	0.89	1.05
Jan 2013	\$2,276					\$15,685				
Feb 2013	\$2,521					\$18,206				
Mar 2013	\$2,670					\$20,876				
Apr 2013	\$2,875					\$23,751				
May 2013	\$5,462					\$29,213				
Jun 2013	\$3,316					\$32,529				
Jul 2013	\$3,637					\$36,166				
Aug 2013	\$9,908					\$46,074				
Sep 2013	\$4,092					\$50,166				
PTD	\$289,156	\$287,573	\$285,313	0.99	1.01					

**ANALYTICAL LABORATORY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

The Analytical Laboratory (LAB) will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of December 2012, the LAB is 66 percent complete overall, with engineering design 73 percent complete, procurement 82 percent complete, construction 78 percent complete, and startup and commissioning is 21 percent complete.

**Significant Past Accomplishments:**

Following completion of the interim milestone “LAB Construction Substantially Complete”, efforts are focused on construction completion in June 2014. Work continues on weld repair for the Radioactive Liquid Waste Disposal System (RLD) vessels and installation of Hot Cell commodities.

RLD Vessels 163 & 164 welds require significant rework.

**Recent accomplishments for the LAB team are:**

- Completed installation of facility control valves
- Completed installation of the high purity gas systems
- Started work on testing the high-purity gas system by subcontractor crews (65% complete)

**Significant Planned Actions in the Next Six Months:**

- Completion of the high purity gas system layup
- Pulling cable for the C2 ventilation (C2V) system adjustable speed drive (ASD) equipment
- Terminating cable for the HVAC air-handling units and ASDs
- Completion and closeout of the HVAC subcontract
- Complete repairs to RLD vessels

**Issues:**

No major issues at this time.

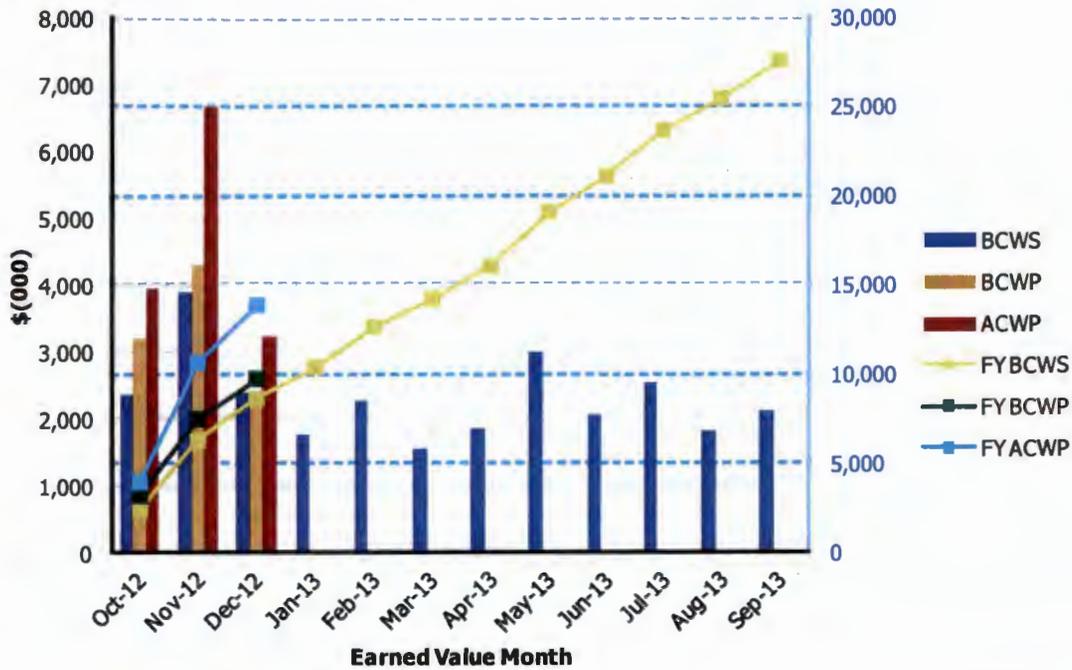
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: December 2012

**River Protection Project  
Analytical Laboratory**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$2,370	\$3,183	\$3,952	1.34	0.81	\$2,370	\$3,183	\$3,952	1.34	0.81
Nov 2012	\$3,896	\$4,303	\$6,675	1.10	0.64	\$6,266	\$7,486	\$10,627	1.19	0.70
Dec 2012	\$2,381	\$2,257	\$3,219	0.95	0.70	\$8,647	\$9,743	\$13,846	1.13	0.70
Jan 2013	\$1,751					\$10,398				
Feb 2013	\$2,264					\$12,662				
Mar 2013	\$1,541					\$14,203				
Apr 2013	\$1,835					\$16,038				
May 2013	\$2,998					\$19,036				
Jun 2013	\$2,067					\$21,103				
Jul 2013	\$2,542					\$23,645				
Aug 2013	\$1,809					\$25,454				
Sep 2013	\$2,111					\$27,565				
PTD	\$214,573	\$216,814	\$237,202	1.01	0.91					

Waste Treatment Plant Project - (LBL) Percent Complete Status Through December 2012															
(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Facilities															
Low-Activity Waste	1,175.8	718.0	61%	293.6	222.4	76%	259.4	216.8	84%	445.1	271.1	61%	177.7	7.7	4%
Analytical Lab	329.2	216.8	66%	69.7	51.0	73%	56.2	45.9	82%	134.4	105.3	78%	68.8	14.6	21%
Balance of Facilities	539.0	287.6	53%	90.5	68.5	76%	71.6	47.8	67%	223.8	158.2	71%	153.1	13.1	9%
<b>Total LBL</b>	<b>2,044.0</b>	<b>1,222.4</b>	<b>60%</b>	<b>453.8</b>	<b>341.9</b>	<b>75%</b>	<b>387.2</b>	<b>310.4</b>	<b>80%</b>	<b>803.4</b>	<b>534.6</b>	<b>67%</b>	<b>399.7</b>	<b>35.4</b>	<b>9%</b>
<b>PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)</b>															
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%
Total WTP w/o UB	n/a	n/a	67%	n/a	n/a	87%	n/a	n/a	73%	n/a	n/a	62%	n/a	n/a	15%
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total WTP</b>	<b>n/a</b>	<b>n/a</b>	<b>67%</b>	<b>n/a</b>	<b>n/a</b>	<b>87%</b>	<b>n/a</b>	<b>n/a</b>	<b>73%</b>	<b>n/a</b>	<b>n/a</b>	<b>62%</b>	<b>n/a</b>	<b>n/a</b>	<b>15%</b>

Source: Preliminary WTP Contract Performance Report - Format 1, Data for December 2012

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$1,983M.