
FINAL

Office of River Protection
Consent Decree 08-5085-FVS
Monthly Summary Report
October 2013

Office of River Protection**Consent Decree 08-5085-FVS
Monthly Summary Report****October 2013 (Monthly Summary Report/Project Earned Value Management System reflects August 2013 information)**

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1	Statistics/Status	James Lynch/Dan McDonald/Jeff Lyon
2	Single-Shell Tank (SST) Retrieval and Closure – D-00B-01, -02, -03, -04	Chris Kemp/Jeff Lyon
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4	SST Retrieval Monthly and Fiscal Year Earned Value Management System Data	Kathy Higgins/Jeff Lyon
6	Waste Treatment and Immobilization Plant (WTP) Project – D-00A-06, D-00A-17, D-00A-01	Delmar Noyes/Dan McDonald
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12	High-Level Waste Facility – D-00A-20, D-00A-21, D-00A-02, D-00A-03	Wahed Abdul/Dan McDonald
15	Low-Activity Waste Facility – D-00A-07, D-00A-08, D-00A-09	Jeff Bruggeman/Dan McDonald
17	Balance of Facilities – D-00A-12	Jason Young/Dan McDonald
19	Analytical Laboratory – D-00A-005	

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2013				
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 elevation of 37 feet in HLW Fac.	12/31/2012	10/24/2012	Completed
Fiscal Year 2014				
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	08/24/2011	Completed
Fiscal Year 2015				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		On-going*
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		On-going*

DOE = U.S. Department of Energy.

Fac. = facility.

LAB = Analytical Laboratory.

PT = pretreatment.

WMA-C = C-Farm Waste Management Area.

* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

Consent Decree Reports/Reviews

D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report,

Due: Semi-Annually – January 31 and July 31 of each year. Status: On-going.

D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports, Due: End of Each Month, Status: On-going.

D-006-00-A, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Due: To Be Determined (TBD), Status: On-going.

D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled, Due: TBD, Status: On-going.

Single-Shell Tank Retrieval Program

D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining Single-Shell Tanks (SST) in WMA-C, Due: September 30, 2014, Status: On-going.* Please see issues.

D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: TBD, pursuant to Section IV-B-5 of the Consent Decree, U.S. Department of Energy (DOE) must submit to the Washington State of Ecology (Ecology) a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree. Completed for SST C-104 on March 21, 2013, via DOE Office of River Protection (ORP) letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037.

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

D-00B-03, Initiate Startup of Retrieval in At Least five of nine SSTs in D-00B-02, Due: December 31, 2017, Status: On-going.

D-00B-04, Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02, Due: September 30, 2022, Status: On-going.

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

Significant Past Accomplishments:

- Continued C-101 retrieval with high pressure water and modified sluicing retrieval activities
- Continued installation of long length-equipment for the Mobile Arm Retrieval System-Vacuum (MARS-V) at C-105, completing installation of the pump, mast, strong back, and end effector
- Initiated procurement and planning activities for slurry pump replacement at C-107
- Continued with retrieval of C-110 using the foldtrack and modified sluicing systems
- Continued with modification and installation of equipment for C-112 hard heel removal, completed removal of the failed Extended Reach Sluicing System sluicer in riser seven, and preparations for installation of the replacement Extended Reach Sluicing System sluicer.

Significant Planned Activities in the Next 6 Months:

- Complete C-101 hard heel retrieval
- Complete installation of the MARS-V in C-105
- Complete replacement of the C-107 slurry pump
- Submit retrieval data report for C-108 to Ecology
- Complete C-110 hard heel retrieval using the foldtrack
- Begin start-up of hard heel retrieval in C-112 using caustic dissolution.

Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water with ERSS	-
C-102	RPP-22393, Rev. 6A	In Process	Modified Sluicing with ERSS	High-Pressure Water with ERSS	-
C-104	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution, retrieval complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 7	Complete	MARS-V	MARS-V-High Pressure Water	-
C-107	RPP-22393, Rev. 6A	Complete	MARS-S	MARS-S-High Pressure Water	-
C-108	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution, retrieval complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Dissolution, retrieval complete per 13-TF-0037	-
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	High pressure water with ERSS	Chemical Dissolution with ERSS
C-112	RPP-22393, Rev. 6A	In Process	Modified Sluicing	Chemical Dissolution	-

ERSS = Extended Reach Sluicing System.
MARS = Mobile Arm Retrieval System.
S = sluicing.
TWRWP = Tank Waste Retrieval Work Plan.
V = vacuum.

Significant Past Accomplishments:

Modification notice 2013-08 for Tank Waste Retrieval Work Plan RPP-22520 was approved by ORP and Ecology to allow high wall washing in C-101, August 20, 2013.

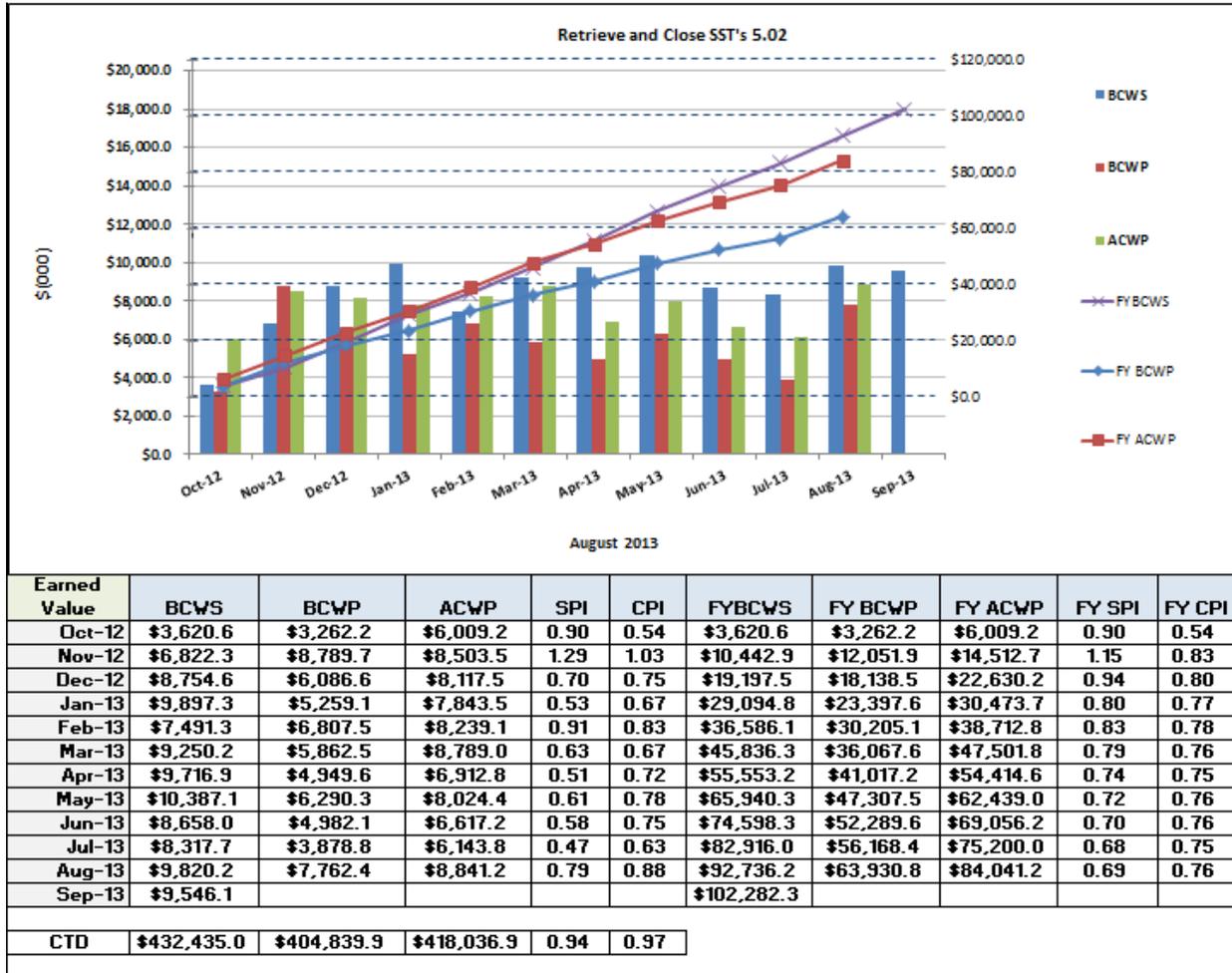
Significant Planned Activities in the Next 6 Months:

None.

Issues:

None.

SST Retrieval Monthly and Fiscal Year Earned Value Management System Data



Retrieval and Close Single-Shell Tanks

Schedule Variance of **(\$2,058K)**:

The unfavorable schedule variance is primarily due to:

- Retrieval technology development delays in preliminary design documentation for the next generation MARS-V feasibility study due to resources being allocated to C-105
- A 3-week slip to complete field preparations for the SX Pore Water Extraction test project
- Third retrieval technology not starting as planned in C-101
- Not performing retrieval of tank C-102 as planned
- Acceleration of post retrieval sampling and analysis in C-104
- MARS-V startup and retrieval delays in C-105 caused by the C-101 event
- A change in strategy that delayed partial design and construction for C-111 and C-112.

Cost Variance of (\$1,079K):The unfavorable cost variance is primarily due to:

- Maintaining ready field operation crews and an agreed-upon joint retrieval resource strategy to share operation and field-deployed resources for C-101.
- Higher subcontract and labor costs needed to resolve issues with the MARS-V prior to field deployment, including resolving eductor plugging, the safety instrument system, cross-flow filter systems, temperature monitoring, and hydraulic power unit corrosion. Additionally, management oversight has increased to resolve technical issues in support of project demobilization and closeout.
- High heat conditions in the field, which resulted in increased construction crew hours for installation field work for C-105.
- A failed slurry pump that will require replacement in C-107.
- Issues with the hot water skid requiring additional engineering support and additional construction support to complete installation in C-110.

Waste Treatment and Immobilization Plant Project

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

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,223 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 604 craft, 360 non-manual, and 125 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

As of August 2013, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL) were 64-percent complete, design and engineering was 78-percent complete, procurement was 84-percent complete, construction was 73-percent complete, and startup and commissioning was 11-percent complete.

In September 2012, the baseline change proposal that implemented the LAW, LAB, and BOF 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. In October 2012, the Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-Year Interim Work Plan was incorporated into the project over-target baseline and the percent-complete values for PT and HLW Facilities were frozen at the September 2012 rate. The WTP Project continues to progress in accordance with the LBL replan and PT/HLW 2-Year Interim Work Plan.

In August 2013, the cumulative to-date WTP Project schedule variance was a negative \$33.5 million, and the cumulative to-date WTP Project cost variance was a negative \$18.2 million. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL replan and PT/HLW 2-Year Interim Work Plan.

The following is the status of project matters through the end of August.

Significant Past Accomplishments:

- Received the 14-ft Test Vessel UFP-2T (PT/HLW)
- Completed one wall placement at plus 37-ft elevation (HLW)
- Started installation of structural steel at plus 77-ft elevation (HLW)
- Installed permanent plant lighting in the melter pour caves (LAW)
- Pulled over 8,900 linear feet of cable and completed 250 cable terminations in the Glass Former Facility (BOF)
- Completed repairs and final inspections on vessel RLD-VSL-0165 (LAB).

Significant Planned Actions in the Next 6 Months:

- Install radioactive liquid waste disposal (RLD) Vessel 8T at the test platform (PT/HLW)
- Complete Reliability Validation Process reviews (HLW)
- Develop vessel specific particle characteristics report for erosion/corrosion (PT/HLW)
- Complete installation of melter power supplies (LAW)
- Complete installation of ASX System (LAW)
- Complete construction of the Glass Former Storage Facility (BOF)
- Complete construction of WTP Chiller Compressor Plant (BOF)
- Complete repairs to RLD vessels (LAB).

Issues:

* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

** In October 2013, DOE notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet milestone A-6.

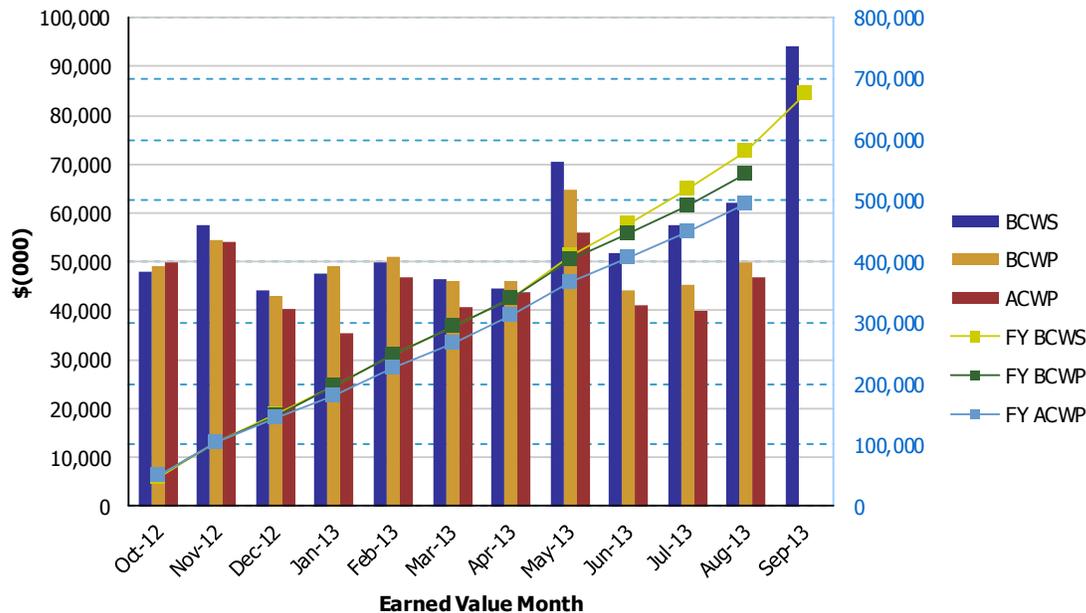
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: August 2013

**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	\$47,780	\$49,037	\$35,389	1.03	1.39	\$197,367	\$195,818	\$179,504	0.99	1.09
Feb 2013	\$49,984	\$50,929	\$47,008	1.02	1.08	\$247,351	\$246,747	\$226,512	1.00	1.09
Mar 2013	\$46,568	\$45,897	\$40,819	0.99	1.12	\$293,919	\$292,644	\$267,331	1.00	1.09
Apr 2013	\$44,537	\$46,052	\$43,887	1.03	1.05	\$338,456	\$338,696	\$311,218	1.00	1.09
May 2013	\$70,575	\$64,750	\$55,933	0.92	1.16	\$409,031	\$403,446	\$367,151	0.99	1.10
Jun 2013	\$51,759	\$44,327	\$41,082	0.86	1.08	\$460,790	\$447,773	\$408,233	0.97	1.10
Jul 2013	\$57,703	\$45,164	\$40,078	0.78	1.13	\$518,493	\$492,937	\$448,311	0.95	1.10
Aug 2013	\$62,183	\$50,011	\$46,647	0.80	1.07	\$580,676	\$542,948	\$494,958	0.94	1.10
Sep 2013	\$94,165					\$674,841				
PTD	\$7,721,285	\$7,687,815	\$7,706,016	1.00	1.00					

Pretreatment Facility

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

The PT Facility will separate radioactive tank waste into HLW and 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. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Technical review teams continue to evaluate open technical issues. Construction of the mixing test platform continues in preparation for full-scale testing. Engineering specifications for full-scale testing have been prepared and are undergoing a multi-discipline review. National laboratories are developing a test plan, simulant, and instrumentation requirements. Phase 1 testing for erosion/abrasivity is scheduled to be completed by the end of calendar year 2013. BNI is developing probabilistic risk assessment plans and project execution plans to resolve technical issues regarding Criticality, Hydrogen in Vessel, and HPAV. The plans are undergoing comment resolution.

BNI is evaluating the impact of a proposed change to the natural phenomenon hazards design criteria that would double the ashfall criteria. This design criteria revision has the potential to impact facility design and heating, ventilating, and air-conditioning (HVAC) system design.

Significant Past Accomplishments:

- Completed pulse jet mixer controls scoping tests with three different orifices
- Received 14-ft Test Vessel UFP-2T

Significant Planned Actions in the Next 6 Months:

- Perform independent review of the potential for criticality in vessels
- Review flammable gas generation, retention, and release from sediments in vessels
- Develop decision process for vessel structural modifications
- Develop vessel-specific particle characteristics report for erosion/corrosion

- Issue engineering specification for vessel testing
- Issue sampling action plan to determine sampling accuracy
- Issue draft procedure for conducting failure mode, effects, and criticality analysis
- Update basis of design for safety classification regarding seismic analysis of vessels
- Install RLD-8T into position in full-scale test facility platform.

Issues:

* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed specification.

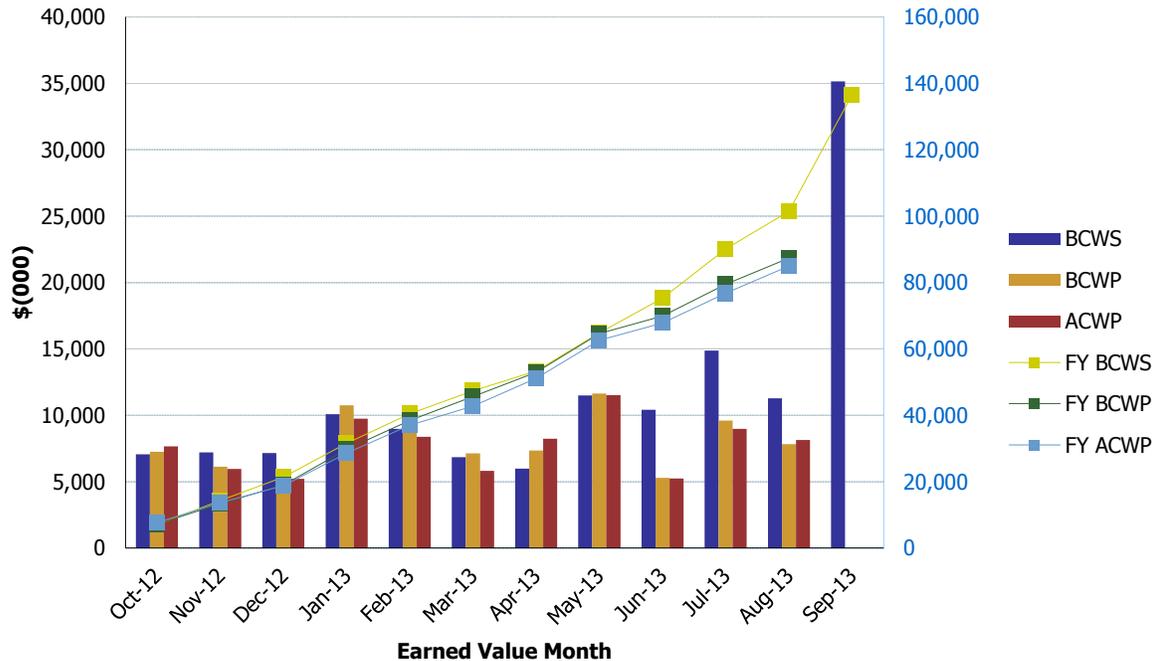
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: August 2013

**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	\$10,097	\$10,759	\$9,756	1.07	1.10	\$31,537	\$29,777	\$28,620	0.94	1.04
Feb 2013	\$8,994	\$8,716	\$8,382	0.97	1.04	\$40,531	\$38,493	\$37,002	0.95	1.04
Mar 2013	\$6,839	\$7,142	\$5,831	1.04	1.22	\$47,370	\$45,635	\$42,833	0.96	1.07
Apr 2013	\$5,995	\$7,355	\$8,252	1.23	0.89	\$53,365	\$52,990	\$51,085	0.99	1.04
May 2013	\$11,509	\$11,641	\$11,512	1.01	1.01	\$64,874	\$64,631	\$62,597	1.00	1.03
Jun 2013	\$10,410	\$5,286	\$5,242	0.51	1.01	\$75,284	\$69,917	\$67,839	0.93	1.03
Jul 2013	\$14,873	\$9,616	\$8,989	0.65	1.07	\$90,157	\$79,533	\$76,828	0.88	1.04
Aug 2013	\$11,280	\$7,831	\$8,142	0.69	0.96	\$101,437	\$87,364	\$84,970	0.86	1.03
Sep 2013	\$35,145					\$136,582				

PTD	\$1,511,904	\$1,497,831	\$1,495,437	0.99	1.00
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High-Level Waste Facility

Number	Title	Due Date	Status
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	Ongoing *
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	Ongoing *
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	Ongoing *

The HLW Facility will receive the separated HLW concentrate from the 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 before 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 4-percent complete. Construction, procurement, and production engineering activities have significantly slowed down, resulting in minimal change to the percent completion status since September. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Technical review teams continue to evaluate open technical issues with priority placed on the resumption of HLW construction. Construction activities include the placement of walls at the 37-ft elevation, installation of structural steel at the 58-ft and 77-ft elevation, and installation of cable tray supports and ventilation ducts at the 14-ft elevation. Engineering efforts are focused on resolution of Priority Level 1 findings. The Environmental and Nuclear Safety group is in the process of developing the Safety Design Strategy as part of the initiative to resume design, procurement, and construction.

The path forward to ramp up HLW production engineering and construction is separated into three actions: Conduct engineering studies to resolve technical safety issues; perform risk assessment for the issues noted in priority level 1 findings, reliability validation process, project issues evaluation reporting, etc.; and perform assessment of BNI process improvement for the readiness to proceed.

BNI is evaluating the impact of a proposed change to the natural phenomenon hazards design criteria that would double the ashfall criteria. This design criteria revision has the potential to impact facility design and HVAC system design.

Significant Past Accomplishments:

- Issued the plan to ramp-up HLW production engineering
- Issued first HLW hydrogen in pipe and ancillary vessels hydrogen generation rate calculation
- Completed one wall placement at plus 37-ft elevation
- Started installation of structural steel at plus 77-ft elevation
- Commenced RLD system redesign
- Awarded the second subcontract for the high-efficiency particulate air (HEPA) filter qualification.

Significant Planned Actions in the Next 6 Months:

- Approve the resumption of design, procurement, and construction for HLW
- Complete Reliability Validation Process reviews
- Development of HLW-specific safety design strategy
- Develop plan to close technical issues and other issues (e.g., safety basis compliance, quality assurance issues, and design defensibility) of HLW
- Complete draft analysis of single-point failures in support of failure mode analysis
- Complete conceptual design of in-service inspection
- Complete plan for erosion/corrosion risk evaluation for HLW
- Perform HEPA filter qualification testing at Michigan State University.

Issues:

* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed specification.

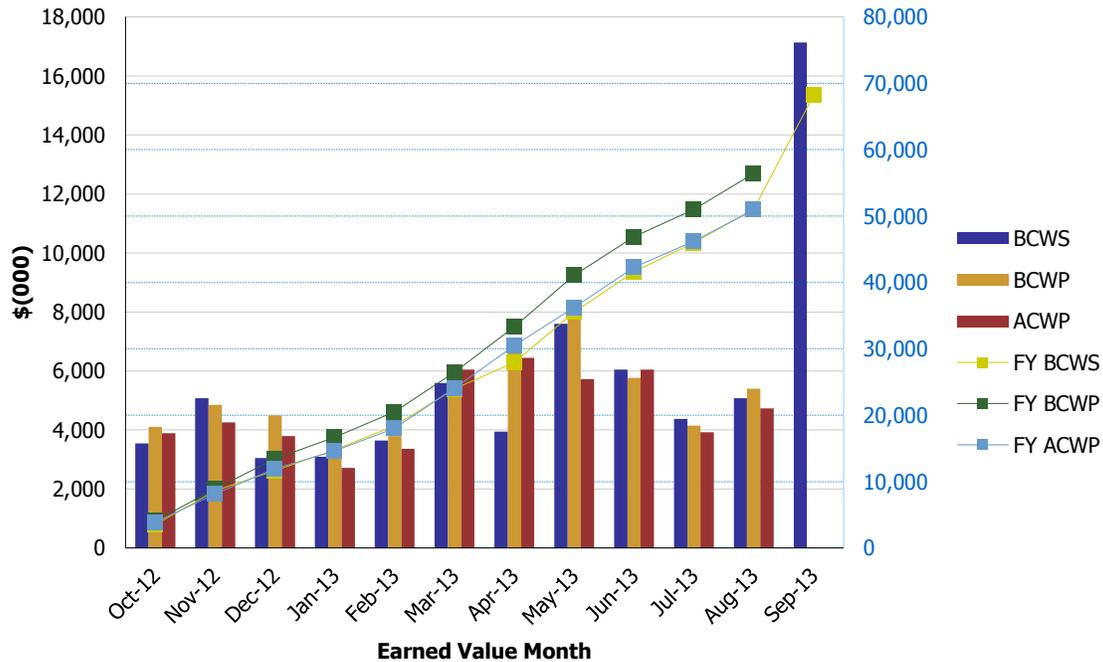
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: August 2013

**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	\$3,092	\$3,266	\$2,714	1.06	1.20	\$14,770	\$16,719	\$14,660	1.13	1.14
Feb 2013	\$3,639	\$3,791	\$3,362	1.04	1.13	\$18,409	\$20,510	\$18,022	1.11	1.14
Mar 2013	\$5,595	\$5,953	\$6,053	1.06	0.98	\$24,004	\$26,463	\$24,075	1.10	1.10
Apr 2013	\$3,944	\$6,860	\$6,443	1.74	1.06	\$27,948	\$33,323	\$30,518	1.19	1.09
May 2013	\$7,604	\$7,788	\$5,726	1.02	1.36	\$35,552	\$41,111	\$36,244	1.16	1.13
Jun 2013	\$6,045	\$5,767	\$6,047	0.95	0.95	\$41,597	\$46,878	\$42,291	1.13	1.11
Jul 2013	\$4,382	\$4,152	\$3,929	0.95	1.06	\$45,979	\$51,030	\$46,220	1.11	1.10
Aug 2013	\$5,080	\$5,402	\$4,728	1.06	1.14	\$51,059	\$56,432	\$50,948	1.11	1.11
Sep 2013	\$17,135					\$68,194				

PTD	\$973,193	\$978,561	\$973,081	1.01	1.01
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Low-Activity Waste Facility

Number	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Ongoing*
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	Ongoing**
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	Ongoing**

The LAW Facility will process LAW that 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 of on the Hanford Site in the Integrated Disposal Facility. As of August 2013, the LAW Facility is 65-percent complete overall, with engineering design 78-percent complete, procurement 86-percent complete, construction 68-percent complete, and startup and commissioning 5-percent complete.

Significant Past Accomplishments:

- Installed permanent plant lighting in the melter pour caves
- Installed C5 fan instrument control rack
- Installed the electrical bus duct from transformers to switch gear
- Hydro-tested over 4,000 linear feet of piping
- Installed over 650 linear feet of instrument tubing and 2,300 linear feet of electrical conduit.

Significant Planned Actions in the Next 6 Months:

- Complete installation of Autosampling System
- Receive HEPA preheaters for LAW Secondary Offgas/Vessel Vent Process System
- Continue refractory brick installation in the melters
- Complete hazard analysis for the melter and melter off-gas.

Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

** In October 2013, DOE notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet Consent Decree milestones A-8 and A-9.

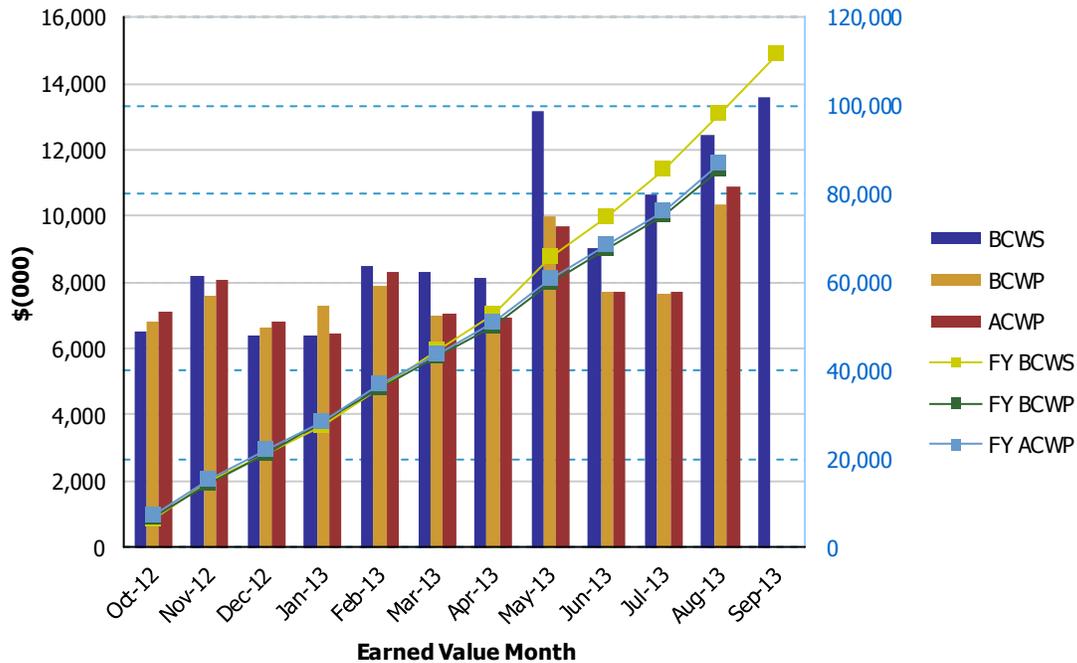
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: August 2013

**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	\$6,392	\$7,303	\$6,469	1.14	1.13	\$27,558	\$28,340	\$28,496	1.03	0.99
Feb 2013	\$8,503	\$7,873	\$8,338	0.93	0.94	\$36,061	\$36,213	\$36,834	1.00	0.98
Mar 2013	\$8,316	\$6,966	\$7,054	0.84	0.99	\$44,377	\$43,179	\$43,888	0.97	0.98
Apr 2013	\$8,135	\$6,765	\$6,950	0.83	0.97	\$52,512	\$49,944	\$50,838	0.95	0.98
May 2013	\$13,190	\$9,960	\$9,706	0.76	1.03	\$65,702	\$59,904	\$60,544	0.91	0.99
Jun 2013	\$9,044	\$7,696	\$7,701	0.85	1.00	\$74,746	\$67,600	\$68,245	0.90	0.99
Jul 2013	\$10,642	\$7,665	\$7,714	0.72	0.99	\$85,388	\$75,265	\$75,959	0.88	0.99
Aug 2013	\$12,448	\$10,375	\$10,909	0.83	0.95	\$97,836	\$85,640	\$86,868	0.88	0.99
Sep 2013	\$13,606					\$111,442				
PTD	\$791,546	\$782,629	\$835,413	0.99	0.94					

Balance of Facilities

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

The BOF provides services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of August 2013, BOF is 58-percent complete overall, with engineering design 80-percent complete, procurement 73-percent complete, construction 77-percent complete, and startup and commissioning 12-percent complete.

Commercial grade dedication activities in support of the emergency turbine generator procurement are the primary focus for design engineering and the procurement organization. Construction efforts are focused on completion of the Chiller Compressor Plant, Glass Former Facility, and the Non-Radioactive Liquid Waste Disposal building. Excavation activities for the Standby Diesel Generator Building are complete, and facility completion is targeted for June 2014.

Significant Past Accomplishments:

- Began heat tracing and insulation installation in the chiller compressor plant
- Pulled over 8,900 linear feet of cable and completed 250 cable terminations in the Glass Former Facility.

Significant Planned Actions in the Next 6 Months:

- Complete construction of WTP Chiller Compressor Plant
- Complete construction of the Glass Former Storage Facility
- Turnover the Non-Radioactive Liquid Waste Disposal system from construction to startup
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for Switchgear Buildings 87 and 91.

Issues:

No major issues at this time.

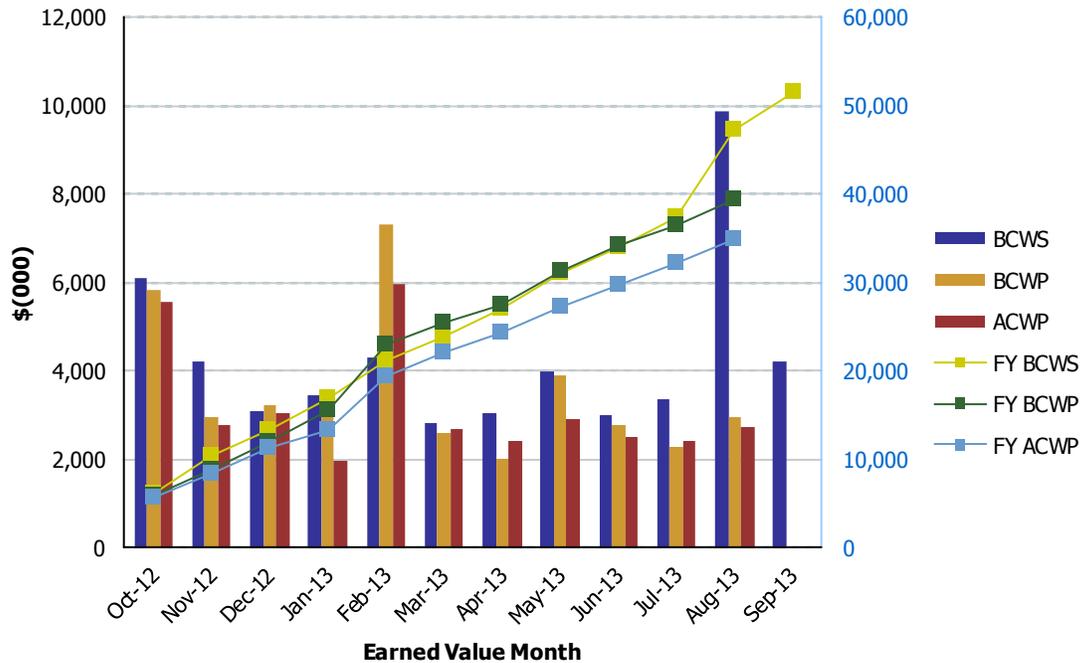
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**River Protection Project
Balance of Facilities**

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	\$3,452	\$3,559	\$1,970	1.03	1.81	\$16,861	\$15,547	\$13,351	0.92	1.16
Feb 2013	\$4,286	\$7,315	\$5,963	1.71	1.23	\$21,147	\$22,862	\$19,314	1.08	1.18
Mar 2013	\$2,799	\$2,588	\$2,675	0.92	0.97	\$23,946	\$25,450	\$21,989	1.06	1.16
Apr 2013	\$3,057	\$1,988	\$2,397	0.65	0.83	\$27,003	\$27,438	\$24,386	1.02	1.13
May 2013	\$3,987	\$3,897	\$2,929	0.98	1.33	\$30,990	\$31,335	\$27,315	1.01	1.15
Jun 2013	\$3,021	\$2,789	\$2,504	0.92	1.11	\$34,011	\$34,124	\$29,819	1.00	1.14
Jul 2013	\$3,357	\$2,277	\$2,396	0.68	0.95	\$37,368	\$36,401	\$32,215	0.97	1.13
Aug 2013	\$9,852	\$2,944	\$2,707	0.30	1.09	\$47,220	\$39,345	\$34,922	0.83	1.13
Sep 2013	\$4,223					\$51,444				

PTD	\$322,967	\$314,930	\$308,854	0.98	1.02
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Analytical Laboratory

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

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of August 2013, the LAB is 70-percent complete overall, with engineering design 77-percent complete, procurement 86-percent complete, construction 84-percent complete, and startup and commissioning 22-percent complete.

Engineering efforts are focused on supporting RLD vessel repairs and finalizing the electrical engineering portions of the LAB design. Construction efforts are focused on installation of instrument tubing and electrical commodities to support the completion of LAB construction.

Significant Past Accomplishments:

- Completed repairs and final inspections on vessel RLD-VSL-0165
- Mobilized the penetration seals subcontractor
- Pulled over 14,000 linear feet of cable and completed 700 cable terminations.

Significant Planned Actions in the Next 6 Months:

- Receive instrument and transport lines for the exhaust stack monitors
- Start installation of penetration seals
- Complete repairs to RLD vessels.

Issues:

No major issues at this time.

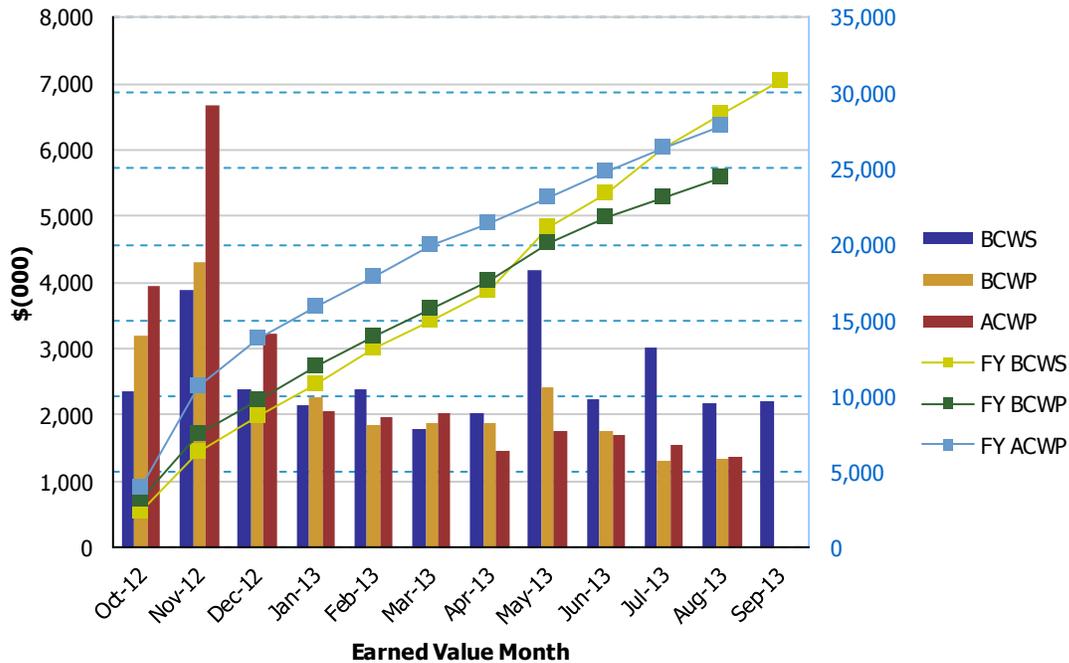
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**River Protection Project
Analytical Laboratory**

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	\$2,137	\$2,270	\$2,052	1.06	1.11	\$10,784	\$12,013	\$15,898	1.11	0.76
Feb 2013	\$2,387	\$1,852	\$1,977	0.78	0.94	\$13,171	\$13,865	\$17,875	1.05	0.78
Mar 2013	\$1,783	\$1,879	\$2,044	1.05	0.92	\$14,954	\$15,744	\$19,919	1.05	0.79
Apr 2013	\$2,021	\$1,883	\$1,475	0.93	1.28	\$16,975	\$17,627	\$21,394	1.04	0.82
May 2013	\$4,187	\$2,419	\$1,757	0.58	1.38	\$21,162	\$20,046	\$23,151	0.95	0.87
Jun 2013	\$2,224	\$1,749	\$1,698	0.79	1.03	\$23,386	\$21,795	\$24,849	0.93	0.88
Jul 2013	\$3,021	\$1,303	\$1,560	0.43	0.84	\$26,407	\$23,098	\$26,409	0.87	0.87
Aug 2013	\$2,185	\$1,354	\$1,358	0.62	1.00	\$28,592	\$24,452	\$27,767	0.86	0.88
Sep 2013	\$2,220					\$30,812				

PTD	\$234,518	\$231,524	\$251,121	0.99	0.92
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Waste Treatment Plant Project - (LBL) Percent Complete Status Through August 2013															
(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	1,196.6	782.6	65%	308.9	242.4	78%	261.3	225.4	86%	448.6	305.2	68%	177.8	9.6	5%
Analytical Lab	331.7	231.5	70%	71.7	54.9	77%	54.7	47.0	86%	136.4	114.2	84%	68.9	15.4	22%
Balance of Facilities	541.8	314.9	58%	93.3	74.2	80%	71.2	51.9	73%	222.6	170.9	77%	154.7	18.0	12%
Total LBL	2,070.0	1,329.1	64%	473.9	371.4	78%	387.1	324.3	84%	807.7	590.4	73%	401.4	43.0	11%
PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)															
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
Total WTP	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%

Source: Preliminary WTP Contract Performance Report - Format 1, Data for August 2013

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 \$1,976M.