

Section D

Soil and Groundwater Remediation Project (RL-0030)



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March 2012
CHPRC-2012-03, Rev. 0
Contract DE-AC06-08RL14788
Deliverable C.3.1.3.1 - 1

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PROJECT SUMMARY

Work included pump-and-treat (P&T) operations, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial process documentation for the River Corridor and Central Plateau. Sampling and groundwater treatment completed in March includes the following:

- Collected 699 samples, resulting in 4,268 analyses.
- 14.8M gallons groundwater treated by ZP-1 treatment facility
- 17.8M gallons groundwater treated by KX treatment facility
- 8.8M gallons groundwater treated by KW treatment facility
- 7.0M gallons groundwater treated by KR-4 treatment facility
- 27.2M gallons groundwater treated by HX treatment facility
- 23.2M gallons groundwater treated by DX treatment facility
- .83M gallon groundwater treated by TX/TY well pumps
- 99.7M gallons of groundwater treated total

EMS Objectives and Target Status

Objective#	Objective	Target	Due Date	Status
12-EMS-SGWR-OB1-T1	Reduce the release of toxic and/or hazardous material	Treat 1 billion gallons of groundwater from all Pump & Treat systems during FY2012. This assumes that existing P&T facilities continue to operate at or near current production /through put levels.	9/30/12	On Schedule
		Review and tally total number of gallons treated	Monthly	589.8M Gallons through 3/31/12

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	7	N/A
First Aid Cases	2	73	<p>3/13/2012 – Employee felt pain in his hand after reviewing a large document for a couple of days. 22702 (S&GRP)</p> <p>3/29/2012 – Employee caught another employee while they were losing their balance resulting discomfort in their right shoulder. 22719 (EPC)</p>
Near-Misses	0	1	N/A

KEY ACCOMPLISHMENTS

Base - RL-0030.C1 –GW Remedy Implementation

Engineering Projects and Construction (EPC) Projects in Support of Soil and Groundwater Remediation Project (S&GRP) - Base

- 200WP&T: Continued Acceptance Test (CAT) Procedures (31 of 33 complete) on schedule. Commissioning of all Membrane Biological Reactors (MBRs) completed. Acceptance Test Procedures (ATPs) (12 of 23 complete) on schedule. Preparation for the Integrated Acceptance Test Procedure (IATP) and readiness continues on schedule.

Base - RL-0030.01 RL 30 Operations

Strategic Integration

- Remediation Optimization Study: Completed work group evaluations for all Central Plateau implementation areas; developed preliminary P6 schedules and draft Appendix A. Sub-unit boundaries are being adjusted to minimize constraints to implementation and logic ties are being developed.

Systematic Planning Integration

- RI/FS Documents:
 - Technical Agreements - Began facilitating weekly conference calls with RL to focus management attention on items that may be inhibiting progress on the RI/FS documents.
 - Cost Estimating - Continued to provide changes as needed to assist in the completion of the 100-K and 100-DH cost estimates as well as prepare the 100-BC, 100-F/IU, and the 300 Area workbooks for the upcoming cost estimates.
- 100 K RI/FS:
 - Document Quality Improvement - Completed coordination of Connectivity Review and Senior

Consistency Review of the 100-K RI/FS Report. Results are being incorporated into the Rev 0 working draft for RL/EPA and are also being cascaded to the remaining River Corridor RI/FS efforts.

- RI/FS Corporate Subject Matter Expert - CH2MHILL corporate RI/FS expert met with team members to review and make recommendations on the 100-K RI/FS. Results are being presented and discussed with RL.

Environmental Databases

- HEIS/Sample Data Tracking Training and Support – Provided training to MSA personnel (Public Safety and Resource Protection department) in the use of the Sample Data Tracking (SDT) application and Hanford Environmental Information System (HEIS). SDT was modified to allow its use for input to the HEIS database to support the Ecological Monitoring and Compliance program.
- Graphic Information System (GIS) Support for Stakeholders – Modified the external Environmental Dashboard Application to provide access to spatial data associated with groundwater, wells, and WIDS sites. This was done in response to multiple requests to RL from stakeholders for GIS data and information that has been cleared for public release.
- Sample Management Integrated Lifecycle Environment (SMILE) – Application SMILE Version Number 1.3.0 was implemented on March 9, 2012. This release included updates and bug fixes for the Analytical Services, Sample Planning, and Task Planning modules.

Central Plateau

200-BP-5 Operable Unit – Base

- Pump and Transducer installations for wells at Site One and Site Two have been completed. The fabrication of mechanical and electrical well racks were completed and installed on-site with 99% field activities completed with electrical terminations and piping connections. Effluent Treatment Facility (ETF) pipeline tie-in activities have also been completed.

200-UP-1 Operable Unit – Base

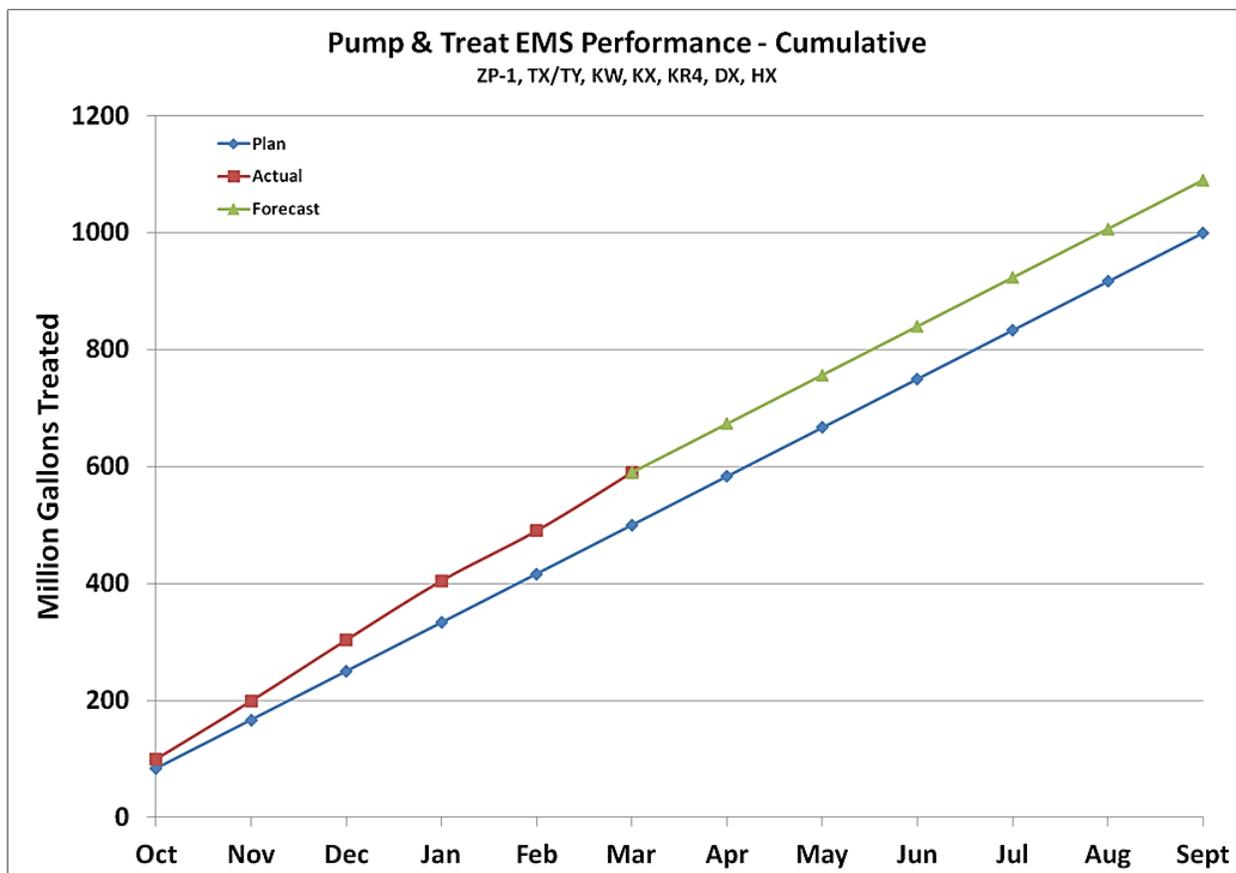
- Construction and Acceptance Test Procedure (ATP) of the Waste Management Area (WMA) S-SX extraction system was completed, except for final pipeline connects to the 200 West Treatment Facility and the well racks, which are scheduled to be made by April 2012. Punch list items from field walkdowns of the system with Operations are being worked.
- Received EPA comments on the final Draft Remedial Investigation/Feasibility Study (RI/FS). A series of comment resolution meetings were held with EPA the last week of February and early March. Comment resolutions are currently in the process of being incorporated into the document.

200-ZP-1 Operable Unit - Base

- The interim P&T system is currently operating at 310 gpm. Discharge lines for off-line interim extraction wells are being flushed as part of layup process.
- Locations for final water level monitoring stations for the 200 West P&T system are currently being defined through modeling.

Pump and Treat Operations - Base

- P&T Operations is trending ahead of the goal of reaching one billion gallons of treated contaminated groundwater in FY2012.



MAJOR ISSUES

Issue - The number of comments on CERCLA document comments and the need for policy and technical decisions is impacting contractual delivery due dates and decreasing float on major TPA Milestone M-015-00D “DOE shall complete the RI/FS process through the submittal of a Proposed Plan for all 100 and 300 Area operable units”.

Corrective Action -

- Maintain list of policy and technical decisions that remain open and have been resolved
- Development of detailed Field Execution Schedules
- Engagement of Assistant Manager for Central Plateau (AMCP) Management for technical decisions
- Identified additional resources necessary to meet schedule
- Partnering sessions between RL and CHPRC

Status - AMCP Management is working with the Regulators to determine the appropriate path forward on policy level decisions. Additional resources have been obtained and are fully engaged in the completion of the CERCLA documents.

Issue - The 200 West Groundwater Treatment Facility Project has experienced an increase in several work activities due to realization of risks previously established, resulting in an increased Estimate to Complete (ETC) and therefore an increased Variance at Completion (VAC). The changes in work

activities have cost and schedule impacts beyond the cost of the mitigating action itself and in some cases compounding effects (e.g., changes in work activities caused delay to construction completion, which in turn results in weather issues during testing that were not previously expected). Another common cost impact is retaining staff beyond the project's ramp down/closeout plan to manage work that was delayed. The impacts occur in the following areas:

- Equipment Impacts due to Weather
- Well capacity
- Fiber Optic Cable in place of wireless
- Touch-up Painting/Trade Damage
- Sludge Stabilization System (Lime)
- Programming Support/ Integration of Package Software Systems
- Tank Repairs
- Piping Supports/Repairs
- Procedure/As-Building Development
- MBR Recirculation Loop & Chemical Skid Modifications

Corrective Action - The project will continue to work with Soil & Groundwater Operations to work the funding issues by:

- Re-evaluate cost savings efforts across the project
- Evaluate viability of Credits and Back Charges against subcontractors who own some of the responsibilities.
- Evaluate need for potential deferral of SGW FY2012 scope

Status - BCRs were implemented in February utilizing DOE RL-0030.C Capital Asset Project Management Reserve for the realized risks discussed above. Funds issues remain to be resolved within the project and the overall Project Baseline Summary (PBS).

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

 Working - No Concerns
 Working - Concern
 Working - Critical

 Increased Confidence
 No Change
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-030/WBS 030				
SGW-062: WSCF Availability or Performance	Realized risk in the areas of WSCF lab analysis. A future BCR will drawdown Management Reserve to increase BCWS in the affected areas of the PMB Baseline.			Due to the issues at WSCF thousands of samples had to be sent to offsite labs for analysis. Due to the requirements of repackaging and shipping these samples offsite additional costs have been incurred. Costs have increased due to the overtime required to recover schedule.
SGW-080: 100-BC-5 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.			EPA concurred that need for pump and treat will be evaluated as part of RI/FS process; existing sample data and the draft feasibility study indicate a treatment system may be required as part of a final action under the future Record of Decision.
SGW-081: 100-FR-3 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.			EPA concurred that need for pump and treat will be evaluated as part of RI/FS process but based upon current sample data and the draft feasibility study, the need for treatment is not considered likely.
SGW-008A: Significant Regulatory Comments - 100-KR-4	Routine meetings are already held with the regulators and RL during document development. No additional mitigation is feasible. Risk is accepted.			EPA has policy related comments that are being evaluated and considered for impacts to not only K, but other related projects. Examples include the addition of irrigation within the unrestricted land use which has overarching impacts on other projects. Potential additional impacts due to EPA questions regarding sampling of UPR-100K-1, 116-KE-3 and 116-KE-1.
SGW-008B: Regulatory Document Comments for 100-HR-3	Routine meetings are being held with regulators during document development; no additional mitigation is feasible.			DOE completed their review and set expectations. The 100-K EPA comments will also be addressed in 100-HR-3.
SGW-008D: Regulatory Document Comments - 100-NR-2	Coordinating with RL to conduct routine meetings with Ecology during document development. No additional mitigation is feasible at this time. Risk is accepted with monitoring.			Routine meetings with Ecology began late March and will continue through document development.
SGW-008J: Regulatory Document Comments - 300-FF-5	Routine meetings were held with the regulators and RL during document development. Additional meetings are being held during document review. No additional mitigation is feasible. Risk is accepted.			Final EPA comments were received in February resulting in several meetings to resolve. Significant effort is underway to revise the RI/FS & PP to incorporate the changes in the documents. No changes in risk until EPA's concurrence on the revised documents are received.

SGW-017: Groundwater Flow Less Than Planned -200 West P&T	Well installation was accelerated to provide more definitive basis for well production rates. Since it was determined that additional wells would be required to meet 2000 gpm, resources have already been utilized to update the test plan and perform associated construction activities (e.g. installation of well racks, tie-in of wells, lay HDPE). If performance of facility is unacceptable during testing or startup of operations, new wells may be required to meet ROD requirements. Interim injection wells are being hooked up at this time for additional injection capacity.	●	↔	Modifications performed at ITB #2. Additional modifications may be required at other ITB #1. This issue will be addressed through acceptance testing process.
SGW-031A: P&T Design Changes - 200 West	Identify required design changes early in the process to minimize schedule impact. Work closely with the client and regulators to minimize impact to schedule. Incorporate design changes quickly to minimize cost impacts and avoid rework. Supplement Eng/QA/QC support and contracts for special inspection so as to finalize engineering requirements.	●	↔	As readiness continues, additional design modifications may be requested to facilitate turnover of facility (e.g. fiber optic cable).
SGW-083, River Corridor Characterization	Additional characterization wells are required to support the development of an RI/FS and Proposed Plan for the River Corridor groundwater operable units or to investigate findings from WCH data gathering.	●	↔	WCH is gathering data in and along the river. This data could result in the need to install additional characterization wells in the River Corridor operable units. Information and conclusions from WCH risk assessments is raising questions regarding the Riparian Zone and Columbia River component human health risk assessment.
SGW-086: 200 W P&T Startup	Operations and engineering input has been obtained on the operating system controls to standardize the controls to those used for other pump and treat systems to the extent possible. Corporate design team and technologists experienced in bioremediation have been deployed to support the design effort and system startup. Resident engineer from corporate will also be supplied to support startup and testing of the new process equipment. Initiate preparation of CAT/ATP/OTP early. Early integration with contractors for incremental testing (e.g. isolate transfer buildings for a more efficient CAT/ATP). Notify vendors of necessary reconfigurations as early as possible so as to minimize schedule and cost impact.	●	↔	Integration of FBR/MBR during startup is a unique process and challenges are current being experienced. Design changes are required to cease the movement of carbon media downstream.
SGW-092: 200 West P&T Operating Requirements	As preventative maintenance packages proceed through the development process, staffing levels will be evaluated to ensure continuous P&T operation.	●	↔	Overtime is utilized to keep scope on schedule for readiness/turnover. As preventative maintenance packages proceed through the development process, staffing levels will be evaluated to ensure continuous P&T operation.
SGW-098: 200-W P&T - Schedule Impacts Due to Scope Increases	As these issues are identified, they will be listed with other emerging issues. At this point, further mitigation tactics will be determined.	●	↔	Cost impacts continue as emergent work is identified and to meet targeted turnover date.
SGW-119: Integration of Lime system Vendor Package Equipment into Facility Construction	Send representatives to fabrication facilities to inspect processes. PRC is actively managing subcontractors by holding schedule accountability meetings twice per week. Project will retrofit as required to facilitate progress.	●	↔	Final integration of instruments and software will continue to present until ATP/IATP is complete (i.e. profibus connections, analytical, instruments).

SGW-121: 200 West P&T Work - Software Development & Verification/Validation	Monitor progress of software development and apply additional resources as necessary. Visit vendors or coordinate vendors' visits to the site as necessary to facilitate integration testing.			Primary difficulty is experienced while integrating the vendors' package system controls (e.g. FBR, MBR) with CHPRC's SCADA system. Probability of occurrence remains until system is fully operational.
SGW-131: 200 W P&T - Readiness Review and Turnover	Project strategy has been to include design authority resources early in development of processes/design. Once issues are identified, expedite design changes to support startup.			Turnover requires a more rigorous approach to readiness prior to turnover that is different than the commercial type of approach in the baseline. Cost and schedule impacts are realized as IATP strategy has changed.

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 030/RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
Base RL-0030.C1 GW Remedy Implement	4.5	3.7	3.8	(0.8)	-17.7	(0.1)	-1.5
ARRA RL-0030.R1.1 Cleanup Operations	0.0	0.0	0.1	0.0	0.0	(0.1)	0.0
ARRA RL-0030.R1.2 Well Drilling Operations	<u>0.0</u>	<u>0.0</u>	<u>(0.0)</u>	<u>0.0</u>	0.0	<u>0.0</u>	0.0
Subtotal RL-0030.C	4.5	3.7	3.9	(0.8)	-17.7	(0.2)	-4.8
Base RL-0030.O1 RL 30 (Operations)	8.4	8.3	7.5	(0.1)	-1.5	0.8	9.5
ARRA RL-0030.R1.3 Support Operations	<u>0.0</u>	<u>0.0</u>	<u>0.2</u>	<u>0.0</u>	0.0	<u>(0.2)</u>	0.0
Total	12.9	11.9	11.5	(0.9)	-7.2	0.4	3.4

Numbers are rounded to the nearest \$0.1M.

CM Schedule Performance

Current month schedule variances that exceed thresholds are as follows:

RL-0030.C (-\$0.8M/-17.7%)

Base RL-0030.C1 GW Remedy Implementation (-\$0.8M)

200 ZP-1 Operable Unit (-\$0.8M)

The project is slightly ahead of schedule and the negative variance for the current period is the result of realized BCWS for work completed in previous months.

ARRA RL-0030.R1.1 Cleanup Operations (+\$0.0M)

There is no current month schedule variance.

ARRA RL-0030.R1.2 Well Drilling Operations (+\$0.0M)

There is no current month schedule variance.

RL-0030.O1

Base RL-0030.O1 RL 30 (Operations) (-\$0.1M)

All current month variances are within reporting thresholds.

RL-0030.R1.3

ARRA RL-0030.R1.3 Support Operations (+\$0.0M)

There is no current month schedule variance.

CM Cost Performance

Current month cost variances that exceed thresholds are as follows:

RL-0030.C (-\$0.2M/-4.8%)**Base RL-0030.C1 GW Remedy Implementation (-\$0.0M)**

All current month variances are within reporting thresholds.

ARRA RL-0030.R1.1 Cleanup Operations (-\$0.1M)

All current month variances are within reporting thresholds.

ARRA RL-0030.R1.2 Well Drilling Operations (+\$0.0M)

All current month variances are within reporting thresholds.

RL-0030.O1**Base RL-0030.O1 RL 30 (Operations) (+\$0.8M/+9.5%)****GW Monitoring & Performance Assessments (+\$0.5)**

BCR-030-12-010R0 for the Impact of the WSCF Ventilation Hood and resulting stop work was implemented and resulted in a current month point adjustment. The WSCF laboratory stop work was a realized risk and management reserve was utilized to mitigate the impact.

RL-0030.R1.3**ARRA RL-0030.R1.3 Support Operations (-\$0.2M)**

All current month variances are within reporting thresholds.

Contract-to-Date (\$M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)	Budget at Completion (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
Base RL-0030.C1 GW Remedy Implement	63.6	64.8	70.7	1.2	1.9	(5.9)	-9.1	73.4	80.1	(6.7)
ARRA RL-0030.R1.1 Cleanup Operations	175.0	175.0	174.7	0.0	0.0	0.3	0.2	175.0	175.0	0.0
ARRA RL-0030.R1.2 Well Drilling Operations	<u>40.7</u>	<u>40.7</u>	<u>38.4</u>	<u>0.0</u>	0.0	<u>2.4</u>	5.8	40.7	38.4	2.4
Subtotal RL-0030.C	279.3	280.5	283.8	1.2	0.4	(3.3)	-1.2	289.1	293.5	(4.4)
Base RL-0030.O1 RL 30 (Operations)	417.3	418.7	420.4	1.4	0.3	(1.7)	-0.4	1,251.2	1,245.7	5.5
ARRA RL-0030.R1.3 Support Operations	<u>51.4</u>	<u>51.4</u>	<u>51.1</u>	<u>(0.0)</u>	-0.0	<u>0.3</u>	0.5	51.4	51.1	0.3
Total	748.0	750.6	755.5	2.6	0.4	(4.9)	-0.6	1,591.7	1,590.3	1.4

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance

The primary contributors to the schedule variances that exceed the reporting thresholds are discussed below:

RL-0030.C (+\$1.2M/+0.4%)**Base RL-0030.C1 GW Remedy Implementation (+\$1.2M)**

Contract to Date variances are within threshold. See variance explanation below.

200 ZP-1 Operable Unit (+\$1.2M)

Performance of ATP activities is slightly ahead of the Baseline Schedule. MBR recirculation and piping modifications, including those for sludge stabilization system, have occurred slightly faster than planned in the baseline.

ARRA RL-0030.R1.1 Cleanup Operations (+\$0.0M)

Scope is complete. There is no contract to date schedule variance.

ARRA RL-0030.R1.2 Well Drilling Operations (+\$0.0M)

Scope is complete. There is no contract to date schedule variance.

RL-0030.O1

Base RL-0030.O1 RL 30 (Operations) (+\$1.4M/+0.3%)

100 NR-2 Operable Unit (+\$2.3M)

Positive schedule variance has resulted from performing barrier expansion and sampling support that was planned in FY13 and performed in FY11 and FY12.

RL-0030.R1.3

ARRA RL-0030.R1.3 Support Operations (+\$0.0M)

Scope is complete. There is no contract to date schedule variance.

CTD Cost Performance

The primary contributors to the cost variances that exceed the reporting thresholds are discussed below:

RL-0030.C (-\$3.3/-1.2%)

Base RL-0030.C1 GW Remedy Implementation (-\$5.9M)

200-ZP-1 Operable Unit (-\$5.9M)

Major contributors to the variance are as follows:

- 200W P&T construction negative CV is associated with the CHPRC accrued costs for Construction Contractor's completed work scope defined in Change Notifications which are in the process of definitization. The costs are associated with the resources expended to complete the P&T facility by the end of FY2011 including added shifts, overtime, and logistics of working parallel activities
- Sludge Stabilization System installation is costing more than budgeted. There have been significant delays in long lead equipment, field installation issues, design changes and schedule extensions that have resulted in cost overruns
- Interim Operations reflects significant progress and cost underruns achieved to date for System Calibration
- Design of the permanent hookup of well EW-1 was lower than planned as only minor changes were needed to an existing design
- Cost for performing general operating and maintenance and minor modification activities have been lower than planned as the system has been running smoothly
- Cost for collecting depth-discrete groundwater and soil samples during the installation of new wells was less than planned
- 200W P&T Remedial Design/Remedial Action work plan and preliminary design activities were completed with fewer resources than planned

ARRA RL-0030.R1.1 Cleanup Operations (+\$0.3M)

Contract to Date variances are within threshold.

ARRA RL-0030.R1.2 Well Drilling Operations (+\$2.4M)Drilling (+\$2.4M)

The positive cost variance is due to efficiencies and savings obtained in drilling for 100-NR-2 and 200-BP-5 wells. Cost efficiencies have been obtained through an aggressive drilling schedule with savings in support personnel and faster drilling methods. Well decommissioning has also been completed for less than planned.

RL-0030.O1**Base RL-0030.O1 RL 30 (Operations) (-\$1.9M/-0.4%)**Integration & Assessments (+\$4.3M)

Primary drivers for this positive cost variance are as follows:

- Less subcontractor support required for Central Plateau strategy development and integration
- Sample Management and Reporting has performed work scope more efficiently than planned
- Less cleanup document reviews were required than originally planned, requiring less contract support. Also efficiencies/savings were realized in establishing document templates, reviewing procedures, and software procurements.

Drilling (-\$2.4M)

Radiological contamination encountered on five NR-2 wells has caused additional supporting resource requirements (Health Physics Technicians). In order to recover schedule additional well drilling rigs were used, resulting in additional overruns to the project. Also, cost for remaining casing at the completion of the project was accrued as it cannot be released to the contractor.

100-NR-2 OU (+\$2.8M)

Barrier expansion and sampling scope, chemical treatment and maintenance scope, jet grouting pilot test work, RI/FS work plan and interim proposed plan reporting were performed more efficiently than planned leading to the positive cost variance.

100-HR-3 OU (-\$3.6M)

Primary contributors to the negative cost variance are as follows:

- 100 DX- Extensive effort required to design the pH adjustment system as the design components were more difficult and required more resources than budgeted, cost overruns in completing the OU Remedial Process Optimization studies.
- 100 DX -The acceptance test plan (ATP) and the operational test plan (OTP) was more involved than planned with resource requirements exceeding the budget for the scope, additionally the work was performed in freezing weather requiring 24/7 attention to prevent freezing of pipes to continue water flow to and from wells.
- Cost of realigning wells from DR-5 to 100 DX was greater than planned as a result of continuing operation of DR-5, until DX was fully operational.
- 100 HX- copper material costs increased significantly between estimate and procurement of materials resulting in cost over-runs. Additionally the ATP was more involved than planned with resource requirements exceeding the budget for the scope.
- Additional time and resources being spent on internal CERCLA (RI/FS) document development as a result of extensive RL comments.

200-ZP-1 OU (+\$1.0M)

Labor and subcontract cost for general operations and minor modifications support for 200-ZP-1 interim pump & treat facility is significantly less than planned. The system is running very smoothly with less adjustment than had been anticipated. Efficiencies are expected to continue with the interim facility operations until startup of the new 200 West Pump & Treat facility.

200 PW-1 OU (+\$1.2M)

Labor and subcontract cost for general operations and minor modifications support is less than planned. In addition, efficiencies and savings experienced with the Soil Vapor Extraction (SVE) system testing prior to March 2010 as well as the removal of two old SVE units.

Usage Based Services (-\$1.1M)

Increased cost associated with training due to the additional ARRA work in FY2010 and fleet services costs that occurred in FY2009 and FY2010. Overruns will continue to be funds-managed within the S&GRP project.

Ramp-up and Transition (-\$2.8M)

The negative cost variance was driven by increased Project Services Distribution to RL-0030.

RL-0030.R1.3**ARRA RL-0030.R1.3 Support Operations (+\$0.3M/+0.5%)**Regulatory Decision and Closure Integration (+\$1.7M)

The positive cost variance is primarily due to completing work scope more efficiently than planned, primarily in the areas of multi-incremental sampling (using existing documentation and direct haul rather than staging), and borehole drilling and landfill characterization (competitive subcontracting of drilling support and efficient field support).

Ramp-up and Transition (-\$2.0M)

The negative cost variance was driven by increased Project Services Distribution to RL-0030.

Estimate at Completion (EAC)

ARRA – The projected variance at completion is +1.0%.

Base – The projected variance at completion of +0.1% is spread among several operational areas and is not considered significant.

ARRA – The EAC change from the previous month is within reporting thresholds.

Base – The EAC change from the previous month is within reporting thresholds.

FUNDS vs. SPEND FORECAST (\$M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	FY2012		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	0.6	0.6	0.0
Base	121.1	123.4	(2.3)
RL-0030 Total	121.7	124.1	(2.3)

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2011 carryover and FY2012 new Budget Authority.

Critical Path Schedule

Critical path analysis can be provided upon request.

Baseline Change Requests

BCR-030-12-006R0 - *Incorporation of Definitization of Change Order #072 for Operation and Maintenance of the 200 West Pump and Treat System*

BCR-030-12-010R0 - *RL-30 WSCF Ventilation Fume Hood Impacts*

BCR-030-12-014R0 - *RL-30 Miscellaneous Corrections after PMB Rev-3.*

BCRA-030-12-017R0 - *RL-30 March General Administrative Changes*

FY2012 Management Reserve (Funded):

ARRA = \$0.0M

Base = \$2.4M

\$479K of MR was used in March for BCR-030-12-010R0, see Management Reserve table in the CHPRC Overview.

MILESTONE STATUS

Tri-Party Agreement (TPA) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PMB Revision 3, implemented in November 2011, and subsequent approved BCRs define CHPRC planning with respect to TPA milestones. The following table is a one year look ahead of commitments and TPA enforceable milestones and non-enforceable target due dates.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-40L-033	Submit Oct-Dec 1 st Quarter Burial Ground Sample Results	TPA	3/15/12		3/15/12	Complete
M-015-68-T01	Submit CERCLA RI/FS Report and Proposed Plan for the 100-BC-1, 100-BC-2 and 100-BC-5 Operable Units for groundwater and soil.	TPA	3/15/12		11/14/12	Working with DOE regarding a recovery schedule and path forward
M-015-64-T01	Submit RI/FS Report and PP for 100-FR-1/2/3 and 100-IU-2/6	TPA	5/14/12		11/20/12	Working with DOE regarding a recovery schedule and path forward
M-024-58E	Initiate Discussions of Well Commitments.	TPA	6/1/12		6/1/12	On Schedule
M-091-40L-034	Submit January to March 2nd Quarter FY-12 Burial Ground Sample Results.	TPA	6/15/12		5/31/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-110D	Submit Technicum-99 Pilot-scale Treatment Study Test Report as an element of the Remedial Investigation for the 200-WA-1 OU to EPA.	TPA	6/30/12		6/13/12	On Schedule
M-016-120	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	TPA	8/31/12		7/12/12	On Schedule
M-024-63-T01	Conclude Discussions of Well Commitments Initiated Under M-024-058 and Add a New Interim M-024 Milestone Commitment for 12/31/15	TPA	8/1/12		8/1/12	On Schedule
M-091-40L-035	Submit April to June 3 rd Quarter FY-12 Burial Ground Sample Results	TPA	9/15/12		8/31/12	On Schedule
M-015-62-T01	Submit a FS/PP for 100-NR-2-1/2 Operable Unites Including groundwater and soil.	TPA	9/17/12		12/13/12	Currently DOE is working with Ecology to adjust milestone date

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-110-T01	Take Actions to Contain or Remediate Hexavalent Cr 100A GW Plumes	TPA	12/31/12		9/28/12	On Schedule
M-024-63	DOE Shall Complete Construction of all Wells Listed	TPA	12/31/12		12/31/12	Fieldwork complete, milestone accepted when M-024-58E is complete
M-091-40L-036	PMM Submittal Jul-Sep 4th Qtr FY12 Burial Ground Sample Results	TPA	12/15/12		12/15/12	On Schedule
M-015-00D	Complete RI/FS Process by Submitting PP's for all 100 & 300 Area OUs	TPA	12/31/12		12/13/12	On Schedule

SELF-PERFORMED WORK

The Section H. clause entitled "Self-Performed Work" is addressed in the Overview.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.