

Section D

Soil and Groundwater Remediation Project (RL-0030)



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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 May includes the following:

- Collected 997 samples, resulting in 1,225 analyses.
- 0.5M gallons groundwater treated by ZP-1 treatment facility
- 21.2M gallons groundwater treated by KX treatment facility
- 8.9M gallons groundwater treated by KW treatment facility
- 6.1M gallons groundwater treated by KR-4 treatment facility
- 33.9M gallons groundwater treated by HX treatment facility
- 24.9M gallons groundwater treated by DX treatment facility
- 0.7M gallon groundwater treated by TX/TY well pumps
- 96.3M 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	786.2M Gallons through 5/31/12

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	4	N/A
First Aid Cases	1	58	5/9/2012 – Employee felt a sliver in their left palm, treated at CSC, returned to work with no restriction. (22765) EPC
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

- 200W P&T: Continued Acceptance Test Procedures (ATPs) (22 of 23 complete) as of May 30, 2012 with the final on schedule for mid-June completion. The Integrated Acceptance Test Procedure (IATP) field checks started on April 30, 2012 with 50% complete as of May 17, 2012 and completion on schedule for mid-June completion. Turnover to operations is on schedule for June 28, 2012.

Base - RL-0030.01 RL 30 Operations

Strategic Integration

- Remediation Optimization Study: Completed the initial analysis phase and now proceeding to draft the report. Internal review of a preliminary draft of the report has been completed, and revisions are underway.

Environmental Databases

- Stakeholder Access: Provided stakeholder access to cleanup verification data through the EDA (Environmental Dashboard Application) at the request of RL.
- Released the Groundwater Sample Status Workbook to the Groundwater Science group. The tool summarizes ground water sample activities for the current fiscal year.
- WCH Access to WIDS: Provided WCH direct access to tables in the WIDS database which eliminates the need to provide routine data extracts to WCH.

Technical Integration

- 100/300 Area RI/FS Support: Conducted a number of activities in support of the 100/300 Area RI/FS documents:
 - Presented to EPA on the use of exposure point concentrations in baseline risk assessment, feasibility study evaluations and in demonstrating compliance,
 - Participated in connectivity reviews, senior reviews and comment resolution sessions for

- draft RI/FS documents,
- Produced numerous environmental calculation files to document screening levels, preliminary remediation goals, environmental calculations, soil background calculations, and modeling results, and authored draft chapters for the RI/FS documents.
- **Risk Integration:** Initiated meetings with Ecology to resolve their comments on the Tier I/II ecological reports. Two meetings were held and resolutions agreed upon for most of the comments. A third meeting is being planned for early June.

Systematic Planning Integration

- Completed the 300 Area Feasibility Study cost estimate.

River Corridor

100-KR-4

- RI/FS Report: Concurrence reached with RL on Chapter 1 – 5 modifications; files will be finalized and provided to RL in June for transmittal to EPA.
- All 100-K pump-and-treat systems are operating on SIR-700 resin. Each train of the KW and KX systems has two vessels operating with SIR-700 resin. The KR4 pump-and-treat system was the final system to undergo transition to the new resin. Two of the three trains contain the new resin with the third train scheduled for transition once the DOWEX resin is spent.

Central Plateau

200-UP-1 Operable Unit – Base

- Construction and ATP of the S-SX extraction system was completed. Final pipeline connections were made May 8, 2012. Expected system startup is early August 2012.
- The Draft Rev.0 Remedial Investigation/Feasibility Study (RI/FS) report was provided to RL and EPA on May 1, 2012 for a concurrent final check. The Draft Rev.0 Proposed Plan was provided to RL on May 7, 2012 and to EPA on May 9, 2012. EPA modified the Proposed Plan and forwarded the plan to EPA Region 10/Legal for review. Comment resolution meetings were held with RL and EPA on May 30-31, 2012. As a result, redlines of the documents to show comment incorporations are being prepared. Discussion continues on whether the Proposed Plan will be presented as an interim or final remedy.

200-ZP-1 Operable Unit - Base

- Review of the Draft Operational Test Procedure for the 200 West P&T system is complete and the document is currently being finalized.
- The layup of the 200-ZP-1 interim P&T system is ongoing and is anticipated to be completed by mid-July 2012.

200-DV-1 Operable Unit – Base

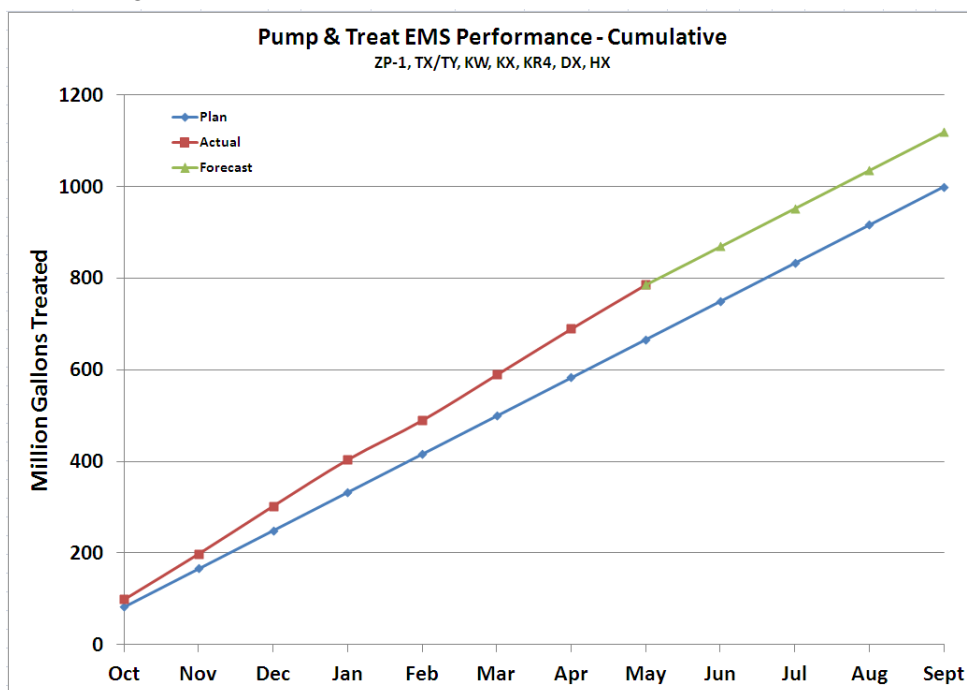
- The B Area perched water removal system continues to operate following installation of an algae treatment system using Copper Sulfate (CuSO₄) injection. To date, approximately 33,475 gallons of effluent have been removed from the perched water zone.

200-WA-1 Operable Unit – Not Funded

- EPA comments on the Draft A 200-WA-1 RI/FS Work Plan were received on May 15, 2012. No funding is available in FY 2012 to incorporate these comments.

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.
- Work was stopped on three projects
 - DVZ Treatability Test
 - BP-5 Treatability Test
 - BY Cribs

Status – A proposed funding rerack was provided to RL on May 16, 2012.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk
Change

Working - No Concerns Increased Confidence
 Working - Concern No Change
 Working - Critical Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-030/WBS 030				
SGW-062: WSCF Availability or Performance	Develop workarounds to prepare samples for off-site analysis, evaluate hold-times and collect additional samples for Quality Control failures (hold-times)			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. CHPRC will implement the final action under the ROD; however, the actions may require a Request for Proposal (RFP)			EPA concurred that need for pump and treat will be evaluated as part of RI/FS process. The draft feasibility study indicate a treatment system may be required as part of a final action under the future Record of Decision. Preferred alternative discussions are planned with RL in mid-June.
SGW-081: 100-FR-3 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution. CHPRC will implement the final action under the ROD; however, the actions may require a RFP			EPA concurred that need for pump and treat will be evaluated as part of RI/FS process. The draft feasibility study is evaluating P&T as viable in two alternatives.
PRC-021A: Workforce Restructuring Caused by Funding Changes	Revise project schedules and work planning documents around workforce restructuring timelines. Work with other contractors to minimize impacts associated with Bump and Roll.			Based on FY-13 funding projections, CHPRC is initiating a workforce restructuring actions.
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.			Document has undergone significant changes due to RL comments received during their early review. These modifications have been expressed to EPA at a high level. The team is uncertain how EPA will respond to the modifications.
SGW-008B: Regulatory Document Comments for 100-HR-3	Routine meetings are being held with regulators during document development; no additional mitigation is feasible.			Routine monthly meetings with Ecology will continue through document development; additional emphasis will be placed on the RI/FS reports in future meetings.
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 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.			EPA comments were received in February resulting in several meetings to resolve. Additional EPA comments were received in April, which have been tentatively resolved. No changes in risk until EPA's concurrence on the revised documents are received.

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-030/WBS 030				
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 currently 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 to meet targeted turnover date.

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
RL-030/WBS 030				
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 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. Lime, Odor Control) 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	3.4	3.4	3.6	0.0	1.1	(0.2)	-5.7
ARRA RL-0030.R1.1 Cleanup Operations	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0
ARRA RL-0030.R1.2 Well Drilling Operations	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
Subtotal RL-0030.C	3.4	3.4	3.6	0.0	1.1	(0.2)	-6.1
Base RL-0030.O1 RL 30 (Operations)	8.1	7.7	8.3	(0.4)	-4.6	(0.6)	-7.3
ARRA RL-0030.R1.3 Support Operations	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0
Total	11.4	11.1	11.9	(0.4)	-2.9	(0.8)	-6.9

Numbers are rounded to the nearest \$0.1M.

CM Schedule Performance

Current month schedule variances that exceed thresholds are as follows:

RL-0030.C (\$0.0M/1.1%)

Base RL-0030.C1 GW Remedy Implementation (\$0.0M)

There is no current month schedule variance.

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) (-\$0.4M)

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/-6.1%)**Base RL-0030.C1 GW Remedy Implementation (-\$0.2M)**

All current month variances are within reporting thresholds.

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

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) (-\$0.6M/-7.3%)****GW Monitoring and Perf Assessments (-\$0.9M)**

The current month cost overrun is a result of the MSA retroactive rate year-to-date adjustment for WSCF laboratory analysis services for FY2012. WSCF rates were increased by approximately 25 percent retroactive to the beginning of the fiscal year. It is anticipated that the WSCF lab costs will exceed the annual budget in this WBS but will be within overall S&GW WSCF budget for the fiscal year.

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

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	70.5	70.5	77.7	0.0	0.0	(7.2)	-10.1	73.4	82.6	(9.2)
ARRA RL-0030.R1.1 Cleanup Operations	175.0	175.0	174.8	0.0	0.0	0.2	0.1	175.0	174.9	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	<u>40.7</u>	<u>38.4</u>	<u>2.4</u>
Subtotal RL-0030.C	286.3	286.3	290.9	0.0	0.0	(4.6)	-1.6	289.1	295.9	(6.7)
Base RL-0030.O1 RL 30 (Operations)	431.9	432.2	434.3	0.3	0.1	(2.1)	-0.5	1,152.4	1,149.1	3.3
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	<u>51.4</u>	<u>51.1</u>	<u>0.3</u>
Total	<u>769.6</u>	<u>769.9</u>	<u>776.3</u>	<u>0.3</u>	0.0	<u>(6.4)</u>	-0.8	1,492.9	1,496.1	(3.1)

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 (+\$0.0M/+0.0%)

Base RL-0030.C1 GW Remedy Implementation (\$0.0M)

Contract to Date variances are within threshold.

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) (+\$0.3M/+0.1%)

100 NR-2 Operable Unit (+\$2.2M)

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 (-\$4.6/-1.6%)

Base RL-0030.C1 GW Remedy Implementation (-\$7.2M)

200-ZP-1 Operable Unit (-\$7.2M)

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 FY2012 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.
- 200W P&T project support, engineering and field supervision costs have increased due to the longer than expected schedule to complete construction punchlist and the impacts on ATP activities.
- 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. This was largely due to drilling footage achieved per day which increased significantly since FY09, in turn required fewer labor hours.
- 200W P&T Remedial Design/Remedial Action work plan and preliminary design activities were completed with fewer resources than planned. This is due to fewer RL and EPA review comments being received than planned.

ARRA RL-0030.R1.1 Cleanup Operations (+\$0.2M)

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) (-\$2.1M/-0.5%)

Integration & Assessments (+\$4.5M)

Due to higher priority River Corridor work, Central Plateau decision documents and related strategy development have been delayed from the initial schedule in the CHPRC contract (originally CP decisions were to be completed in FY 2012 - and now they are out beyond FY 2014).

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-BC-5 OU (-\$0.9M)

Additional time and resources are being spent on internal CERCLA (RI/FS) document development as a result of extensive RL comments. Several actions have been taken to mitigate the cost overrun and updated schedules are being finalized during discussions with RL.

100-NR-2 OU (+\$2.7M)

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 (-\$3.4M)

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 (+\$1.2M)

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 (+\$1.3M)

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.

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

The negative cost variance was driven by prior year 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 prior year 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 -0.6% 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	125.6	125.5	(0.1)
RL-0030 Total	126.2	126.1	(0.1)

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

BCRA-030-12-020R0 - RL-30 May General Administrative Changes

FY2012 Management Reserve (Funded):

ARRA = \$0.0M

Base = \$2.4M

No MR was used in May, 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-015-70-T01	Submit RI/FS Report & PP for 100-HR-1/2/3 and 100-DR-1/2 OUs	TPA	1/12/12 (Original Due Date: 11/24/11)		11/14/12	Missed. Working with RL regarding a recovery schedule and path forward.
M-015-68-T01	Submit RI/FS Report & PP for 100-BC-1/2/5 OUs	TPA	3/15/12 (Original Due Date: 11/30/11)		12/12/12	Missed. Working with RL 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 (Original Due Date: 12/17/11)		12/21/12	Missed. Working with DOE regarding a recovery schedule and path forward
M-091-40L-034	Submit January to March 2nd Quarter FY-12 Burial Ground Sample Results.	TPA	6/15/12		6/15/12	On Schedule Presented at April 26, 2012 PMM
M-015-110D	Submit Technicium-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		6/15/12	On Schedule RL requested document be transmitted as Rev 0 instead of draft A. Those changes are being incorporated prior to transmittal.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-016-120	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	TPA	8/31/12		8/8/12	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		6/26/12	On Schedule
M-091-40L-035	Submit April to June 3 rd Quarter FY-12 Burial Ground Sample Results	TPA	9/15/12		9/15/12	On Schedule
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-015-62-T01	Submit a FS/PP for 100-NR-2-1/2 Operable Units Including groundwater and soil.	TPA	9/17/12		12/30/12	In Jeopardy
M-085-01	Submit a change package to establish a date for major milestone M-085-00.	TPA	9/30/12		9/30/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
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 PPs for all 100 & 300 Area OUs	TPA	12/31/12		12/30/12	On Schedule
M-091-40L-37	PMM Submittal Oct-Dec 1st Qtr FY13 Burial Ground Sample Results	TPA	3/15/13		3/15/13	On Schedule
M-037-03	Submit Revised Closure Plans for 216-B-3 and 216- S-10	TPA	4/30/13		4/30/13	Being worked by Ecology. Funding being evaluated.
M-024-58F	Initiate Discussions of Well Commitments	TPA	6/1/13		6/1/13	On Schedule
M-091-40L-038	PMM Submittal Jan-Mar 2nd Qtr FY13 Burial Ground Sample Results	TPA	6/15/13		6/15/13	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.