



**Coal Valley Resources Inc. – *Obed Mountain Mine***  
A Subsidiary of WESTMORELAND COAL COMPANY

**Obed Mountain Mine  
Wastewater Release  
Monthly Status Report for November 2014**

**December 7, 2014**

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## 1.0 MONTHLY STATUS REPORT – NOVEMBER 2014

On November 19, 2013, Alberta Environment and Sustainable Resource Development ("ESRD") issued Environmental Protection Order No. EPO-2013/34-CR, as amended (the "EPO"), to Coal Valley Resources Inc. ("CVRI") and Sherritt International Corporation in respect of the Obed Mountain Mine (the "Mine"). Oversight of the EPO transferred from ESRD to the Alberta Energy Regulator ("AER") in March 2014. CVRI became a subsidiary of Westmoreland Coal Company in April 2014.

This Monthly Status Report has been prepared in accordance with clauses 39 and 40 of the EPO. The following documents are submitted in support of the November 2014 Monthly Status Report:

1. **Attachment 1** - Request for change: December Monthly Status Report submission modified from January 7 to 15, 2015.
2. **Attachment 2** - Monthly Data Sonde Summary Tables
3. **Attachment 3** - Updated data collection Table
4. **Attachment 4** - Example Data Collection Table
  - a. This Table is submitted as an example of the raw data collected during the 2014 season that will be made available to the AER by January 15<sup>th</sup>, 2015. All data collected as of January 5<sup>th</sup> will be updated and available in the Quarterly Progression Report. A map will be provided to support the information.

## 2.0 EPO Activities in November 2014

### 2.1 CLAUSE 3 IMMEDIATE AND SHORT TERM SAMPLING AND MONITORING PLAN

CVRI received ESRD approval of the Immediate and Short-Term Sampling and Monitoring Plan on February 7, 2014.

The implementation and execution of the Immediate and Short Term Sampling and Monitoring Plan concluded on April 24<sup>th</sup>, 2014 when the Long Term Sampling and Monitoring Plan was

approved. All data that was previously collected under the Immediate and Short Term Sampling and Monitoring Program has continued under the agreed upon terms outlined in the approved Long Term Sampling and Monitoring Plan.

The requirements prescribed under Clause 3 the Immediate and Short Term Sampling and Monitoring Plan are considered complete.

## 2.2 CLAUSES 6-10 - SOLIDS RECOVERY PLAN

CVRI received ESRD approval of the Solids Recovery Plan on February 7, 2014. The approval of the Solids Recovery Plan included contingencies and revisions that required the Solids Recovery Plan to be updated and resubmitted to ESRD by February 14, 2014. The amended Solids Recovery Plan was resubmitted to ESRD on February 14, 2014.

As part of the maintenance and operation of the sediment traps, the silt curtains were scheduled to be removed in late fall. The curtains have been removed for the 2014/2015 winter season and will be placed in stream prior to spring freshet 2015. A notice of activity will be provided to all regulatory authorities prior activity.

## 2.3 CLAUSES 10 – SOLIDS RECOVERY REPORT

CVRI submits updates to the Clause 10 – Solids Recovery Report as part of the Quarterly Progress reporting requirements. The next updated will be provided on January 15, 2015.

## 2.4 CLAUSE 11 LONG TERM SAMPLING AND MONITORING PLAN

CVRI received approval of the Long-Term Sampling and Monitoring Plan retroactive to April 24, 2014.

The Long-Term Sampling and Monitoring Plan is fully implemented and replaces the requirements outlined in Clause 3, the Immediate and Short Term Sampling and Monitoring Plan.

- CVRI collects and reports on samples to the AER on a weekly basis. The data collected is reviewed and discussions regarding the findings are provided in the Quarterly Progress Report.
- Water sampling on the Mine site, as required under EPEA Approval No. 10119-02-00 (the "Approval"), and as prescribed by the approved EPO Plans are summarized below.

CVRI has received a rollback of the surface water sampling requirements for the 2014-2015 winter period. The request for the rollback mirrors the winter procedure that was implemented for the winter season 2013-2014 and was implemented November 15, 2014.

**Table 1: Obed Sampling and Monitoring Requirements During Pumping Operations**

Location	Requirements	Frequency	Notes
Oldman Creek (OMC)	NTU, pH	2X/Day U/S and D/S while pumping	TSS samples collected when NTU>50
	Water Chemistry	1X/ week	
Baseline Creek (BLC)	NTU, pH	2X/Day D/S while pumping	TSS Samples collected when NTU>50
	Water Chemistry	1X/ week	
Pump Discharges	NTU, pH, Flow, Volume	Every 6 hours while pumping	Includes: MTP, ELP1, Pond 5. TSS samples are collected when NTU>50

**Table 2: Obed Regular On-Site Sampling and Monitoring Operations**

Location	Classification	Frequency	Requirements
East Limb Pond 1 (ELP1)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
East Limb Pond 2 (ELP2)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
South Plateau Pond 1 (SPP1)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
South Plateau Pond 2 (SPP2)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
South Plateau Pond 3 (SPP3)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates

Main Tailing Pond (MTP)	Major Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates Monthly Water Chemistry
Pond 5	Minor Pond	Daily	3X/week for pH, TSS Daily for NTU Bi-weekly for Nitrates
Load-Out Settling Pond 2 (LSP2)	Minor Pond	Weekly	1X/week for pH, TSS, NTU Monthly for nitrates
Load-Out Settling Pond 3 (LSP3)	Minor Pond	Weekly	1X/week for pH, TSS, NTU Monthly for nitrates

**Table 3: Obed Water Sampling and Monitoring Program**

Site Name	Watercourse	UTM		Data Collection Frequency		
		Easting	Northing	Water	Data Sonde	Water Sediment Toxicity
<b>Near-Field Sample Sites<sup>1</sup> (See Figure 1)</b>						
APC –US <sup>3</sup>	Apetowun Creek	470657	5937715			May, July and September
APC	Apetowun Creek	472400	5938941		15-min <sup>2</sup>	May, July and September
APC-DS <sup>3</sup>	Apetowun Creek	477133	5943213			
PLC-US	Plante Creek	482483	5945393		15-min <sup>2</sup>	
PLC-DS	Plante Creek	483639	5942193	2 x weekly	15-min <sup>2</sup>	May, July and September
ATR-US	Athabasca River	476280	5931218		15-min <sup>2</sup>	May, July and September
ATR –PLC	Athabasca River	485385	5940747		15-min <sup>2</sup>	
ATR-D1	Athabasca River	478576	5950378			May, July and September
ATR-D2	Athabasca River	489498	5965837		15-min <sup>2</sup>	
<b>Far-Field Sample Sites<sup>1</sup> (See Figure 2)</b>						
ATR-WD1	Athabasca River	660944	6028061			
ATR-FF2 <sup>3</sup>	Athabasca River	605947	6002848			
ATR-FF3 <sup>3</sup>	Athabasca River	564752	6003585			
ATR-AD1	Athabasca River	658459	6025745	Monthly		
ATR-FF5	Athabasca River	475330	6286105			

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ATR-FF6	Athabasca River	463203	6332042			
ATR-FF7	Athabasca River	470022	6463222			

## 2.5 Fish Sampling and Monitoring Plan

Approval of the Fish Sampling and Monitoring Plan has been received with a contingency that a technical review meeting will be held in late January 2015. The intent of the technical review is to discuss the data findings and determine if the approved plan is providing the requisite information or if changes to the Fish Sampling and Monitoring Plan are required. In addition to the technical meeting, an addendum request for rationale for sampling technique fish liver versus muscle will be posted with the approved plan once consensus has been reached.

## 2.6 Clause 15 - Impacts Report and Clause 17- Impacts Assessment Plan

### **CLAUSE 15 - IMPACTS REPORT**

On May 16, 2014, CVRI submitted the Impacts Report as prescribed by the EPO. No communication regarding the Impacts Report has been received as of December 7, 2014. The Impacts Report will be updated and resubmitted on April 1, 2015.

### **CLAUSE 17 - IMPACTS ASSESSMENT PLAN**

CVRI received approval of the Impacts Assessment Plan retroactive to April 24, 2014. Approval of the Impacts Assessment Plan included contingencies and revisions that required a response. The Impacts Assessment Plan was resubmitted to the AER on May 27, 2014. The Impact Assessment Plan has been implemented. The next update will be provided on January 15<sup>th</sup>, 2015.

## 2.7 Clause 22- Wildlife Mitigation Plan

CVRI received approval of the Wildlife Mitigation Plan retroactive to April 24, 2014.

Data related to the Wildlife Mitigation Plan was submitted to the AER on October 15, 2014 as part of the Quarterly Progress Report. The submitted information is available on the Obed website. The next update will be provided on January 15, 2015.

## 2.8 Clause 27 - Remediation Plan

On May 16, 2014, CVRI submitted the Remediation Plan as prescribed by the EPO. The Remediation Plan will be updated on a quarterly basis as outlined in the Reporting Strategy. The next update will be provided on January 15, 2015. The Final Remediation Plan will be submitted April 1, 2015.

## 2.9 Clause 34 – Waste Management Plan

CVRI received approval of the Waste Management Plan on February 11, 2014. Included in the ESRD approval of the Waste Management Plan was a request to respond to outstanding questions and resubmit the plan by February 14, 2014. CVRI addressed the concerns and resubmitted the plan. No updates or changes to communicate.

## 2.10 Clause 37 - Wastewater Management Plan

CVRI received approval for the Wastewater Management Plan on February 11, 2014. Included in the approval was a request to update ESRD as to the expected completion of the Medium Term Plan. CVRI provided an update to ESRD and submitted the Medium Term Plan (Clause 37 of the EPO) to ESRD on February 28, 2014.

In accordance with the Medium Term Plan, CVRI completed the following submissions:

1. Geotechnical Information – March 17, 2014;
2. Causation Report and required data – March 18, 2014;
3. Application under the *Water Act* to Construct Red/Green Pit Dam – March 26, 2014;
  - a. SIRs received, response submitted May 30, 2014;
  - b. Follow-up to SIRs received June 16, 2014;
    - i. Request for clarification received from the AER on July 2, 2014;
4. Application under the *Coal Conservation Act* to amend Licence C 2009-1 (Red/Green Pit Dam) – March 26, 2014; and
5. Red/Green Perimeter Assessment Report – March 31, 2014.



CVRI has received approval to amend Licence C 2009-1 (Red-Green Pit Dam). CVRI is now in the process of reviewing the approval in terms of end land use planning and plans to submit an update to the AER with the 3 year reclamation plan in March 2015.

### 2.11 Human Health Risk Assessment (“HHRA”) Report

CVRI submitted an updated Table of Contents to Alberta Health ("AH") on August 27, 2014 for review and feedback. AH provided a written response on September 5, 2014 to help direct CVRI in the development of a detailed HHRA. The development of the HHRA has been in coordination with the Fish Sampling and Monitoring Plan. The HHRA is progressing into its final phase, with a submission planned for January 15, 2015 with the Quarterly Progress Report.

## **3.0 PLANNED EPO ACTIVITIES FOR DECEMBER 2014**

During the month of December, CVRI will continue with:

1. Surface water quality sampling and monitoring;
2. Data collection as prescribed by the Long-Term Sampling and Monitoring Plan, Impacts Assessment Plan, and Wildlife Mitigation Plan; and
3. Updates to the Obed website.

CVRI was granted a November 15, 2014 start date for the seasonal roll back under the Long-Term Sampling and Monitoring Plan requirements. This change has been implemented.

3.1 REPORTING STRATEGY

<b>Table 4: Obed Reporting Program May 2014-April 2015</b>				
<b>Report Type</b>	<b>EPO Clause</b>	<b>Submission Frequency</b>	<b>Description</b>	<b>Status</b>
Action Summary	Clause 21	Weekly Thursdays	Details the weekly action related to operations and EPO related activities.	Ongoing
Monthly Update	Clause 39	Monthly - on or before the 7 <sup>th</sup> day of each month.	A status report in writing that contains a summary of all activities undertaken in accordance with the EPO in the previous month and all activities that are planned for the next month. Inclusion of Clause 10 Solids Recovery Report updated initiated in July.	Ongoing  Request to combine December Monthly with January progress report has been submitted for approval.
Impacts Report	Clause 15	May 16, 2014	A report of all data collected (including references to data collection locations) and all conclusions regarding the impacts to the receptors and habitats as identified during implementation of the Impacts Assessment Plan (the "Impacts Report"). See EPO Amendment 1 for date change.	Initial Submission complete.
Remediation Plan	Clause 27	May 16, 2014	A detailed remediation plan – See EPO	Initial submission complete.

			Amendment 1 for date change.	
Progression Report	Clauses 15 and 27	July 15, 2014	Provide scheduled data updates and proposed modifications to EPO plans submitted under Clauses 15 and 27. SIR response period of 30 days.	Complete
Progression Report	Clauses 15 and 27	October 15, 2014	Provide scheduled data updates and proposed modifications to EPO plans submitted under Clauses 15 and 27. SIR response period of 30 days.	Complete
Progression Report	Clauses 15 and 27	January 15, 2014	Provide scheduled data updates and proposed modifications to EPO plans submitted under Clauses 15 and 27. SIR response period of 30 days.	In process
Final - Impacts Assessment Report	Clause 15	April 1, 2015	Amendments to May 16, 2014 submission based upon data collected in the 2014/2015 season.	In development
Final - Remediation Plan	Clause 27	April 1, 2015	Amendments to May 16, 2014 submission based upon data collected in the 2014/2015 season.	In development
Final Report		May 1, 2015	Required 30 days after the completion of all requirements as prescribed by the EPO.	

#### 4.0 CLOSING

CVRI continues to communicate with the AER to collect and submit data and information as prescribed by the approved plans. The submission of regularly scheduled progress reports and defined response periods allows CVRI and the AER to continue to communicate in a clear and effective manner until the final Impacts Report and Reclamation Report are submitted.