



WESTMORELAND COAL COMPANY - *Obed Mountain Mine*

**EPO 2013/ CR-34**  
Obed Mountain Mine  
Monthly Status Report - October 2015

Issued November 7th, 2015

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## 1.0 MONTHLY STATUS REPORT – OCTOBER 2015

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.

The following documents are submitted in support of the October,7th 2015 Monthly Status Report:

1. Attachment 1 - October Data Sonde
  - a. Data collected does not cover the entirety of the month as the sondes were pulled in advance of the winter freeze.

## 2.0 EPO ACTIVITIES – October 2015

### 2.1 SUMMARY STATUS OF ASSESSMENTS, PLANS AND REPORTS

Table 1 summarises the current status of EPO required plans, assessments and reports. Clauses highlighted in green have been updated, modified or a status changed has occurred in the last thirty days and further details are provided within the October 2015 Monthly Status Report.

**TABLE 1 –SUMMARY STATUS**

EPO 2013/CR-34 - Clause	Status	Comments
<b>Clause 1 and 2</b> Immediate Requirements	Complete	Completed in 2013 -2014 Immediate response requirements were executed, the STMP and subsequent LTSMP ensures compliance of requirements on an ongoing basis.
<b>Clause 3</b> Immediate and Short Term Sampling and Monitoring Plan ('STSMP')	Approved / Complete	The STSMP was executed and then replaced by the Long Term Sampling and monitoring Plan April 2014.
<b>Clause 6</b> Solids Recovery Plan	Approved / Active	This plan describes the sediment recovery methods and operation of the sediment traps. Sediment trap clean out is planned for October. A request for an alternative storage site, for sediment removed from the sediment traps has been submitted to the AER.
<b>Clause 10</b>	Active / Ongoing	This report provides a volumetric update to

Solids Recovery Report		regarding sediment removal. There is no activity to report for September 2015
<b>Clause 11</b> Impact Assessment Plan	Approved / Ongoing	The Impact Assessment Plan was approved April 24, 2015. Data collected under this plan has been communicated to the AER via Clause 15 Impact Assessment Report.
<b>Clause 15</b> Impact Assessment Report	Submitted / Under AER Review	The updated Impact Assessment Report was submitted to the AER May 2015. Response to SIR's have been provided to the AER
<b>Clause 17</b> Long Term Sampling and Monitoring Plan ('LTSMP')	Approved / Ongoing	The LTSMP was approved in April of 2014. An amendment regarding sampling frequency has been submitted and approved by the AER. The amendment will be implemented August 2015.
<b>Clause 22</b> Wildlife Mitigation Plan	Approved / Ongoing	The subject plan was approved April 2014 as part of the LTSMP. Data collection is ongoing and has been reported via Clause 15 Impact Assessment Report
<b>Clause 25(a)</b> Fish Sampling and Monitoring Plan	Approved / Ongoing	Description of requirements outlined in Clauses 22-26. Sampling and monitoring is completed under the LTSMP. Data and analysis was submitted under Clause 15, Impact Assessment Report, May 28 <sup>th</sup> , 2015.
<b>Clause 27</b> Remediation Plan	Update Submitted/ under review	An updated remediation plan has been submitted to the AER. The remediation strategy will be updated and submitted as a final plan once the Impact Report is approved. ETA- late Q1 2016
<b>Clause 34</b> Waste Management Plan	Approved / Executed	The subject plan was approved on February 14, 2014. No updates to report.
<b>Clause 37</b> Wastewater Management Plan	Approved / Executed	The subject plan was approved on February 14, 2014. No updates to report.
<b>Clause 39</b> Monthly Status Reports	Active / Ongoing	Monthly status reports are ongoing. October submission completed November 7 <sup>th</sup> , 2015.
<b>Clause 41</b> Final Report	In development	The Final Report is required to be submitted to the AER within 30days of the completion of all work.
<b>Human Health Risk Assessment ('HHRA')</b>	Updated / Ongoing	The updated HHRA was submitted to Alberta Health ('AH') May 18, 2015. The file will be updated and resubmitted January 15 <sup>th</sup> , 2016.

## 2.2 CLAUSE 15 – IMPACT ASSESSMENT REPORT

The updated version of the Impact Assessment Report was submitted to the AER on May 28<sup>th</sup>, 2015. The Impact Assessment Report includes all data collected, interpretations and conclusions regarding the impacts to receptors and habitats from the October 31, 2013 release. CVRI has received SIR's and will be responding by October 30<sup>th</sup>, 2015. The AER and CVRI have

agreed that a second round of SIR’s will occur after the 2015 data has been published and the Final Impact Report updated accordingly.

### 2.3 CLAUSES 17 – LONG TERM SAMPLING AND MONITORING PLAN (‘LTSMP’)

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. The LTSMP is considered active and ongoing.

An amendment to the near field sampling frequency was completed in July of 2015. The column highlighted in green, Table 2, identifies which sampling frequencies have been reduced from twice weekly to monthly. A copy of the request for amendment and the approval have been included in this transmittal.

The weekly sampling protocol outlined in Table 1 has returned to EPEA sampling frequencies. Sampling collection during pumping activities has not been modified.

**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 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	Monthly		May, July and September
APC	Apetowun Creek	472400	5938941	Monthly	15-min <sup>2</sup>	May, July and September
APC-DS <sup>3</sup>	Apetowun Creek	477133	5943213	Monthly		

PLC-US	Plante Creek	482483	5945393	Monthly	15-min <sup>2</sup>	
PLC-DS	Plante Creek	483639	5942193	Monthly	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			
ATR-FF6	Athabasca River	463203	6332042			
ATR-FF7	Athabasca River	470022	6463222			

## 2.4 Clause 22- Wildlife Mitigation Plan

CVRI received approval of the Wildlife Mitigation Plan retroactive to April 24, 2014. The required data collected as part of the Wildlife Mitigation Plan has been included in the Final Impact Report submitted to the AER May 28th, 2015.

## 2.5 FISH SAMPLING AND MONITORING PLAN

The data interpretation specific to the Fish Sampling and Monitoring was submitted to the AER as part of the Final Impact Report, May 28<sup>th</sup>, 2015. Sampling and monitoring as described in both the approved Wildlife Mitigation Plan and LTSMP continues.

Fall data collection is now underway. Information collected will be submitted to the AER as part of the annual update planned for January 15th, 2016.

## **2.6 CLAUSE 27 – REMEDIATION PLAN**

An update to the Remediation Plan was submitted to the AER on May 28<sup>th</sup>, 2015. An update to the Remediation plan is tentatively scheduled for late Q1 early Q2 2016.

## **2.7 HUMAN HEALTH RISK ASSESSMENT (“HHRA”)**

The HHRA, update was submitted to AH for review on May 18<sup>th</sup>, 2015. SIR's were received and responded to during the month of June. CVRI has now received additional correspondence from AH regarding the HHRA. The correspondence has been included in this transmittal and the most recent version of the HHRA has been posted to the Obed website.

The HHRA will be updated and submitted to AH and the AER on January 15<sup>th</sup>, 2016 as part of the annual update to the LTSMP.

## **3.0 PLANNED EPO ACTIVITIES NOVEMBER 2015**

During the month of November CVRI will:

1. Analyze the 2015 data collected under the approved plans.

## **4.0 CLOSING**

CVRI continues to work 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.

