



WESTMORELAND COAL COMPANY - *Obed Mountain Mine*

**EPO 2013/ CR-34**  
Obed Mountain Mine  
Monthly Status Report - August 2016

Issued September 7th, 2016

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## 1.0 MONTHLY STATUS REPORT – AUGUST 2016

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 June 2016 Monthly Status Report:

1. Attachment 1 - August 2016 Data Sonde

## 2.0 EPO ACTIVITIES –August 2016

### 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.

**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	Active / Approved /	Comments
<b>Clause 10</b> Solids Recovery Report	Issued - Active	Updated and Issued January 2016. Updated Annually
<b>Clause 11</b> Impact Assessment Plan	Approved / Active	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	Active	Response to SIR's provided
<b>Clause 17</b> Long Term Sampling and Monitoring Plan ('LTSMP')	Approved / Active	Active and ongoing.

<b>Clause 22</b> Wildlife Mitigation Plan	Approved / Active	Response to SIR's provided.
<b>Clause 25(a)</b> Fish Sampling and Monitoring Plan	Approved / Active	Response to SIR's provided.
<b>Clause 27</b> Remediation Plan	Winter work plan In development.	Strategic meeting to define regulatory and contractor roles and responsibilities between agencies will be held in September. Winter work anticipated between November - February
<b>Clause 34</b> Waste Management Plan	Approved / Executed	The subject plan was approved on February 14, 2014.
<b>Clause 37</b> Wastewater Management Plan	Approved / Executed	The subject plan was approved on February 14, 2014.
<b>Clause 39</b> Monthly Status Reports	Active / Ongoing	Monthly status reports are ongoing. August report submitted.
<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>	Active	SIRs response submitted to AH and accepted. Amended version will be posted to the Obed website on or before the 15 <sup>th</sup> of August 2016.

## **2.2 CLAUSE 15 – IMPACT ASSESSMENT REPORT**

The updated / amended report was issued May 15, 2016. CVRI has responded to all received SIR's. SIR's were received from the AER and AEP. A copy of the report is available on the Obed website.

## **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.

The Table below describes any actions related to data sonde operation or calibration to the end of August.

Site	Event Description	Date Range	Note
APC	Sonde calibration	30-Mar	Sonde out of water for 30 minutes
PLC-US	Sonde removal	18-Jan-16	Sonde removed for winter season and sent in for servicing
APC-DS	Sonde removal	9-Dec-15	Sonde was removed for winter season when found frozen. Sent in for servicing.
Plante Creek	Sonde removal	8-Dec-15	Sonde was not functioning, so removed and sent for servicing.
PLC-US	Sonde re-deployment	31-Mar-16	Sonde was redeployed after servicing
Plante Creek	Sonde re-deployment	31-Mar-16	Sonde was redeployed after servicing
Plante Creek	Sonde calibration	3-Apr-16	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	4-Apr-16	Sonde out of water for 30 minutes
APC	Sonde calibration	16-Jun-16	Sonde out of water for 30 minutes
Plante Creek	Sonde calibration	16-Jun-16	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	14-Jun-16	Sonde out of water for 30 minutes
PLC-US	Sonde error	1-Jun-16	Wildlife chewed through data cable, cutting power off to sonde
PLC-US	Sonde error	22-Jun-16	Wildlife chewed through data cable, cutting power off to sonde
APC	Sonde calibration	6-Jul-16	Sonde out of water for 30 minutes
APC	pH probe changed	6-Jul-16	pH probe had malfunctioned, was changed out with a new probe
Plante Creek	Sonde calibration	4-Jul-14	Sonde out of water for 30 minutes
PLC-US	Sonde calibration	5-Jul-16	Sonde out of water for 30 minutes
PLC-US	Sonde error	5-Jul-16	Attempted to fix station. Wildlife had chewed through PT cable on June 22, and shorted irridium link. Irridium link sent to Hoskins for repair. Sonde left in creek to continue collecting data.
PLC-US	Sonde calibration	2-Aug-16	Sonde out of water for 30 minutes
PLC-US	Sonde error	2-Aug-16	Change cable after wildlife issue
Plante Creek	Sonde calibration	2-Aug-16	Sonde out of water for 30 minutes
APC	Sonde calibration	4-Aug-16	Sonde out of water for 30 minutes

## 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. Updates to wildlife Impact Assessments were incorporated into the May 15<sup>th</sup>, 2016 Impact Plan publication. CVRI has responded to all SIR's and awaits response from the AER.

## 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.

Below is a summary table of the fish capture results for Apetowun Creek in August, 2016.

Crews also conducted a reconnaissance fish assessment further upstream of Upper-APC to determine the upper extent of fish distribution. Crews continued to capture rainbow trout and burbot all the way up into the MSL boundary area with no barriers to fish passage observed.

In early September field crews will fish the upper reaches of APC, including the spillway outlet, to see if fish are inhabiting the upper most reaches of Apetowun Creek.

Site Name	Creek	Species	Tally	Effort (seconds)
<b>APC-Upper</b>	<b>Upper Apetowun Creek</b>	BKTR	5	1278
		RNTR	14	-
		BURB*	2	-
		UNKN Trout*	8	-
<b>APC - Mid</b>	<b>Middle Apetowun Creek</b>	BKTR	6	1765
		RNTR	41	-
<b>PLC – Lower</b>	<b>Lower Plante Creek</b>	BKTR	1	3060
		LNDC	5	-
		SPSC	2	-

\*observed but not captured

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

An update to the Remediation Plan was submitted to the AER on May 28<sup>th</sup>, 2015. CVRI is currently developing a winter work strategy that will be submitted to the AER late September to mid October based upon feed back from the strategic meeting and regulator review time.

Work is tentatively planned for winter 2016/2017 between November and March, weather dependant.

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

The HHRA, update was submitted to AH for review on May18th, 2015. The HHRA was submitted to AH for review May 15, 2016. CVRI has responded to AH’s SIR’s; responses were agreed upon and CVRI will update the HHRA and post to the Obed website on or before August 15<sup>th</sup>, 2016.

## **3.0 PLANNED EPO ACTIVITIES September 2016**

1. Sediment trap / creek inspections as per monitoring plans.
2. MTP Dam inspection by BGC Initiate decommissioning plan for MTP.
3. Continuation of the Upper Apetuwon creek design and implementation work.Kick off development of OMM Closure Plan and Upper Apetuwon Design recommendations.

## **4.0 SIR and COMMUNICATION UPDATES**

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.

SIR’s received from communities and regulators will continue to receive a letter detailing the planned response period / timeline.

- No SIR’s received from the AER in August.

- No SIR's received from AEP in August..
- No SIR's have been received from First Nation Communities in August 2016.
- A TLU was completed along the Apetuwon in August 2016.
- No SIR's were received from Department of Fisheries and Oceans (DFO) in August.

## CONTACT INFORMATION

If you have questions regarding the information published, require data, information or would like to submit comments or questions please contact:

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Copies of all plans, data and reports can be accessed at [www.Obed.ca](http://www.Obed.ca)