

EPO 2013/ CR-34
Obed Mountain Mine
Monthly Status Report – September 2018

Issued: October 7, 2018

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1.0 MONTHLY STATUS REPORT – SEPTEMBER 2018

On December 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 ("Sherritt") in respect of the Obed Mountain Mine (the "Mine").

The Proponent's, Sherritt and Prairie Mines & Royalty ULC ("PMRU", previously known as CVRI), submit the following Monthly Status Report as required by the EPO:

- **Appendix 1 - September 2018 Data Sonde Data**
 - Please Note: data in monthly graphs are raw, uncorrected data. All data will be corrected applying standard correction methods using calibration records, field notes and water levels, data grading, and will be presented in the annual monitoring report.
- **Attachment – Remediation Design – Bi-Weekly Update Report #6**

2.0 EPO ACTIVITIES

2.1 FIELD WORK COMPLETED IN SEPTEMBER

Table 1 summarizes EPO related field work that was completed in September 2018.

Table 1 Field Work Completed		
Location	Activity	Description
MTP and ECP	Water Management	Water management of the MTP and ECP was completed via pumps and sclear pipe.
MSL	Rock Screening	Screening of rock at the top of Obed Mountain continued, as required.
Upper APC	Construction	Construction of the approved Remediation Design Plan continued and included work within APC-1 and APC-2 (channel design, armoring, pools, rock checks, habitat features). Weather (i.e. snow and rain) caused multiple days of delays.
APC-4	Fish Fence Maintenance	The fish fence located within APC-4 upstream of the confluence with APC-Main Branch was continuously monitored, cleaned and upgraded as required.
Sediment Traps	Monthly Sediment Trap Inspection	The monthly sediment trap inspection including ST1, ST2A and ST2B was completed in September.

2.2 CLAUSES 17 – LONG TERM SAMPLING AND MONITORING PLAN ('LTSMP')

The Proponents received approval of the Long-Term Sampling and Monitoring Plan (LTSMP) retroactive to April 24, 2014.

The AER, AEP, DFO and Alberta Health Services received a copy of all data collected under the LTSMP on March 29, 2018. To date, no questions have been received from the various regulatory agencies.

Table 2 below describes any actions related to data sonde operation or calibration to the end of September.

Table 2 Data Sonde Status (2018)			
Site	Event Description	Date Range	Notes
APC	Sonde calibration	31 – Jan - 18	SDI issue, crew returning February 2, 2018 to fix.
APC	Sonde Troubleshooting	2 – Feb - 18	Crew returned and fixed the identified SDI issued.
APC	Sonde calibration	13 – Feb - 18	Sonde calibrated, out of water for 30 minutes.
APC	Sonde calibration	15 – Mar - 18	Troubleshoot station and sonde. Issue is with station and not sonde. Replace sonde with calibrated unit. Data is being recorded internally, but not transmitted via Sutron-win because of station issues. A software patch will be installed during the week of April 9 – 13, 2018.
APC	Sonde calibration	11 – Apr - 18	Sonde calibrated, issues with Sutron-Win fixed.
APC	Sonde calibration	2 – May – 18	Sonde calibrated, out of water for 30 minutes.
APC-US	Sonde deployment	2 – May – 18	Sonde redeployed.
PLC-DS	Sonde deployment	2 – May – 18	Sonde redeployed.
APC-MTP	Sonde deployment	9 – May – 18	Sonde redeployed.
PLC-DS	Sonde calibration	17 – June – 18	Sonde calibrated, out of water for 30 minutes; pH sensor not calibrating (sensor failed on June 17/18); turbidity probe not calibrating. Ordering probes to replace faulty pH and turbidity sensors.
APC-MTP	Sonde calibration	18 – June – 18	Sonde out of water; no flow through channel. Removed sonde. Data from period when sonde was perched was removed.
APC	Sonde calibration	19 – June – 18	Sonde calibrated, out of water for 30 minutes.
APC-US	Sonde calibration	19 – June – 18	Sonde calibrated, out of water for 30 minutes.

Table 2 Data Sonde Status (2018)			
Site	Event Description	Date Range	Notes
APC-US	Sonde calibration	25 – July – 18	Sonde calibrated, out of water for 30 minutes.
APC-MTP	Sonde calibration	25 – July – 18	Sonde moved to monitor water quality of APC impoundment on July 1; sonde calibrated, out of water for 1 hour.
APC	Sonde calibration	26 – July – 18	Sonde calibrated, out of water for 30 minutes.
PLC-DS	Sonde calibration	26 – July – 18	Sonde calibrated, out of water for 30 minutes.
PLC-DS	Sonde calibration	15 – Aug – 18	Sonde calibrated, out of water for 30 minutes.
APC	Sonde calibration	16 – Aug - 18	Sonde calibrated, out of water for 30 minutes.
APC-US	Sonde calibration	16 – Aug - 18	Sonde calibrated, out of water for 30 minutes. pH sensor fails on August 17.
APC-MTP	Sonde calibration	16 – Aug - 18	Sonde calibrated, out of water for 30 minutes. Dissolved oxygen sensor not functioning, and not repairable. Will order parts as necessary.
APC-MTP	Sonde calibration	18 – Sept – 18	Location of sonde went dry, data removed as it is not indicative of in-situ conditions; sonde removed during visit on Sept 18/18.
APC	Sonde calibration	27 - Sept – 18	Sonde calibrated, out of water for 30 minutes.
APC-US	Sonde calibration	27 - Sept – 18	pH sensor failed; was replaced during monthly visit.
PLC-DS	Sonde calibration	27 - Sept – 18	Turbidity probe malfunctioned but was corrected during visit; sonde calibrated, out of water for 30 minutes.

Note: data from the historic APC-MTP has been removed as the station was moved to the impoundment on July 1, 2018 to monitor water temperatures in ECP for fish health purposes. The APC-MTP site has also been dry for much of this period due to weather patterns, construction and pumping activity.

There was a pH probe malfunction at APC-US and turbidity probe problem at PLC-DS. The sondes have been swapped out and data is now correct. A spare sonde will be brought to site in the upcoming week and used to replace either site if problems persist.

2.3 CLAUSE 27 – REMEDIATION PLAN

The following is an update of completed and planned activities as well as upcoming targets:

- The Remediation Design, Conceptual Design, was submitted to the AER on February 3rd, 2017.
 - The Proponent received and responded to SIRs from AEP, AER and DFO (GRA)
 - A second set of Design Drawings were submitted on June 24, 2017.
 - The Proponent received a second round of SIRs from DFO (GRA) on July 12, 2017.
 - An updated survey of the disturbance area was requested at the time of the second round of SIRs and was completed in August 2017.
 - Revised design drawings for APC-1 to APC-4 as well as the corresponding GRA SIR responses were submitted on October 20, 2017.
 - Revised design drawings for APC-5 and APC-7 as well as the corresponding GRA SIR responses were submitted on November 6, 2017.
 - The Proponent received SIRs related to the latest design drawings on January 16, 2018.
 - Revised design drawings for APC-1 to APC-7 as well as corresponding images from APC-1 to APC-7, a Design Brief and responses to the GRA SIRs were submitted on February 23, 2018.
 - A technical face-to-face meeting with the EPO Technical Team, DFO, GRA, AER and AEP occurred on March 9, 2018.
 - The DFO Authorization was submitted on March 12, 2018.
 - Subsequent Offsetting Plan meetings related to the Authorization occurred on March 16 and 23, 2018 with DFO, AEP, AER and the Proponent's Team.
 - The Proponent received SIRs on April 11, 2018.
 - The Proponent submitted SIR responses on April 27, 2018.
 - The Proponent received a letter titled, "*Application for a Paragraph 35(2)(b) Fisheries Act Authorization is Complete*" from DFO on May 18, 2018.
 - The Proponent received DFO Authorization 18-HCAA-00236 on August 10, 2018.
 - Ongoing Remediation Design construction is occurring to date and planned to continue.
 - ECP Habitat Assessment Memo was submitted on June 5, 2018.
 - AEP questions were responded to on June 12 and 22, 2018.
 - The FRL was issued on June 22, 2018 with minor amendments to the FRL occurring on July 3, 2018.
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- EPO Clause 27-33 Remediation Plan Update was submitted to the AER on June 22, 2018. This submission mirrored the DFO Application for Authorization submission.
 - The EPO Clause 27-33 Remediation Plan Update was accepted by the AER on June 27, 2018.

2.4 HUMAN HEALTH RISK ASSESSMENT (“HHRA”)

Alberta Health Services was provided a copy of all data collected in 2017 on March 29, 2018.

3.0 PLANNED FIELD WORK OCTOBER 2018

The following outlines work planned for October 2018:

- **On-site Water Management**
 - Pumping as required based on weather events and the onsite water management plan.
- **Screening and Staging of Materials:**
 - On-going screening and staging of the material at various identified locations based on the design plan and as required.
- **Construction within APC-1 to APC-3**
 - Construction in APC-1 to APC-3 will continue as outlined in the approved Remediation Design Plan and per the DFO Authorization. Based on weather patterns and time of year, Design activities will be focused on the currently disturbed sections.
- **Site Repairs and Maintenance**
 - If weather patterns and time allow - minor repair work to the DX Road culvert inlet (armoring, removal of geotextile fabric); sediment trap cleanouts (ST2A, ST1).

4.0 CONTACT INFORMATION

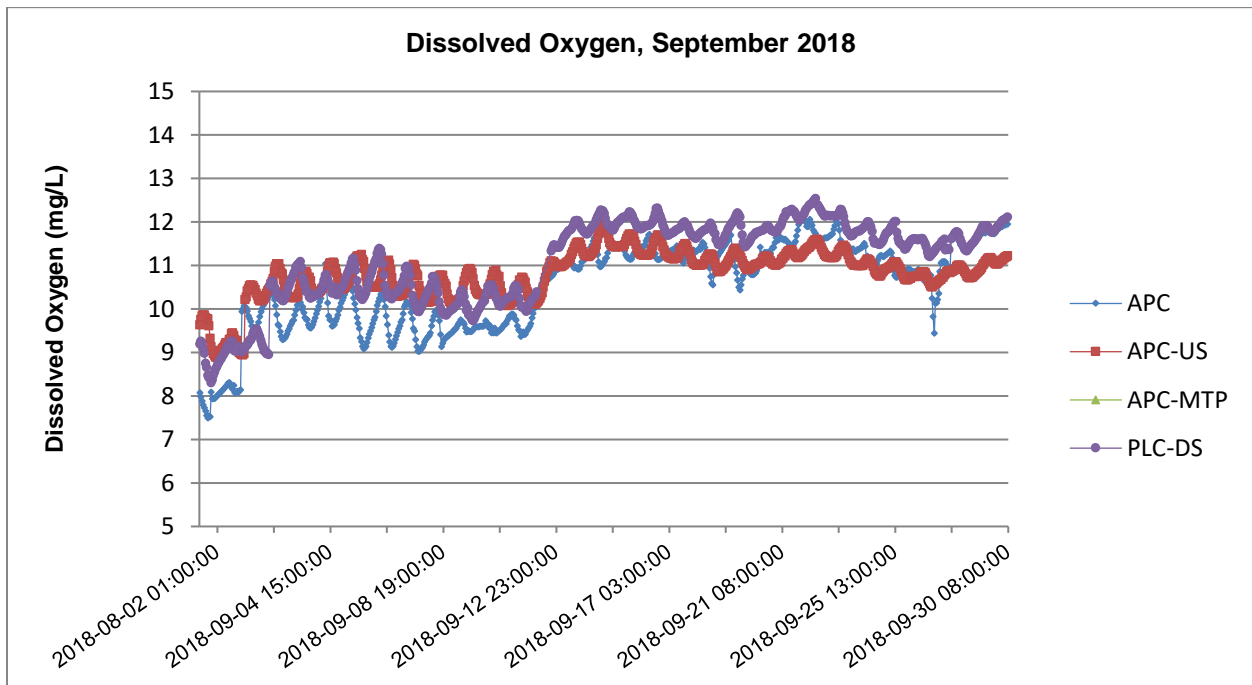
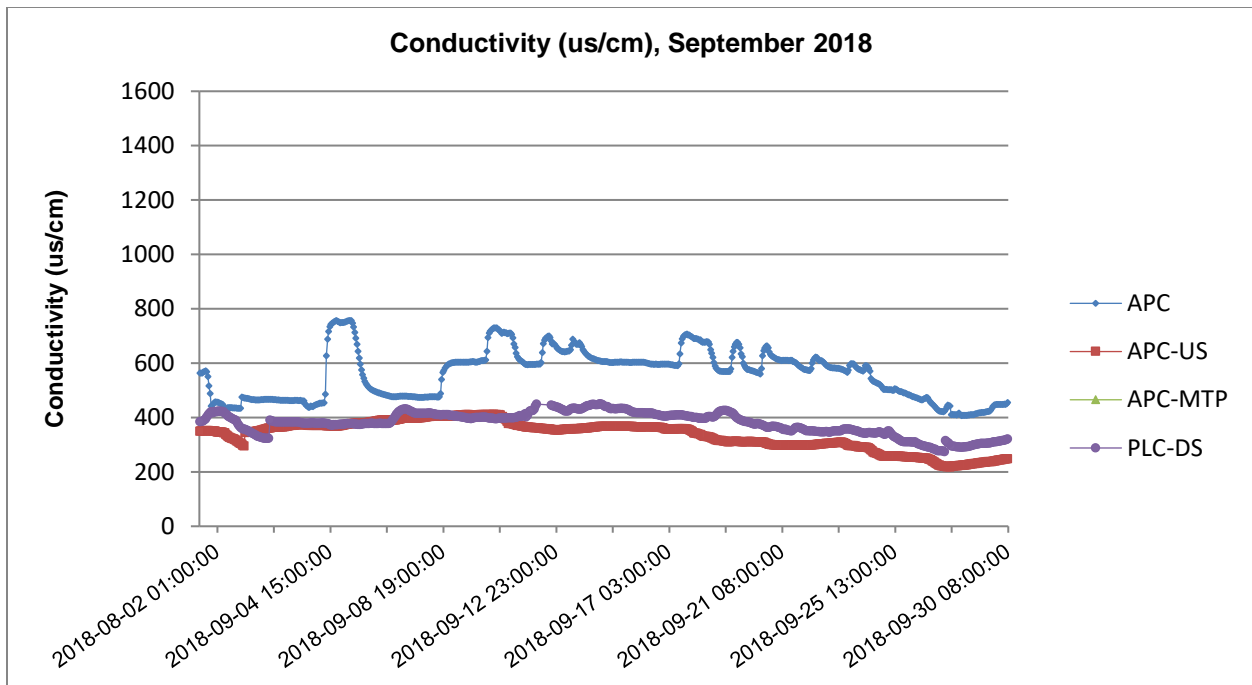
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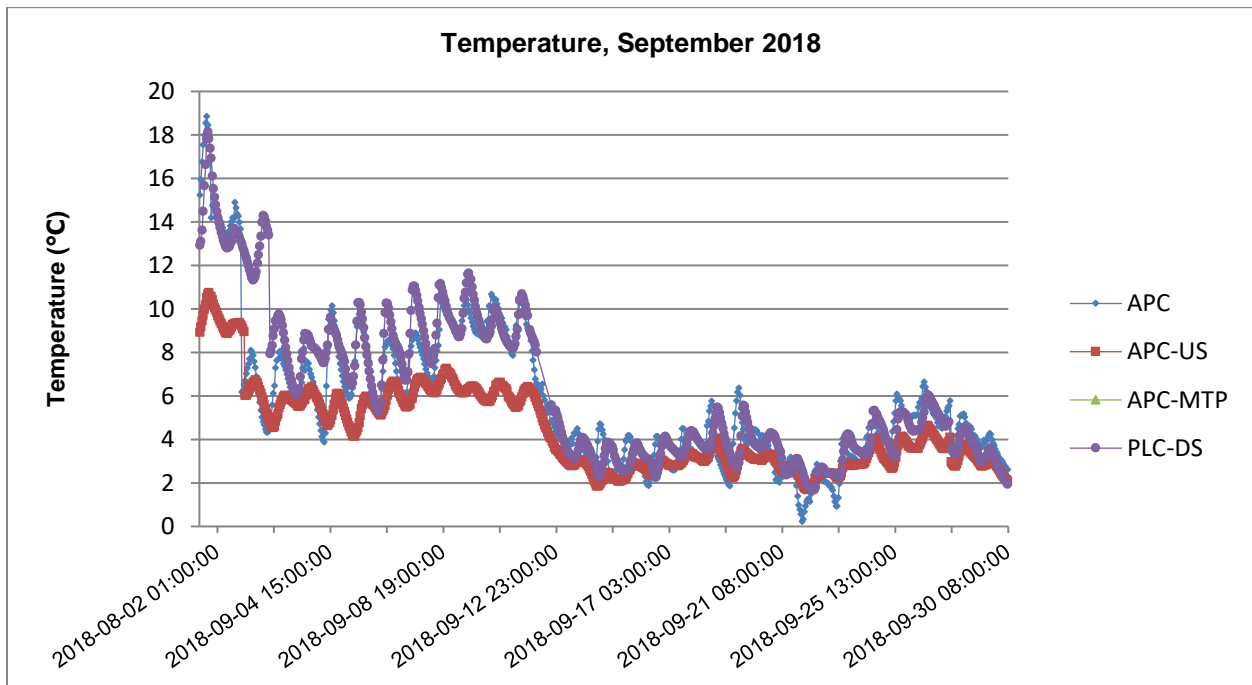
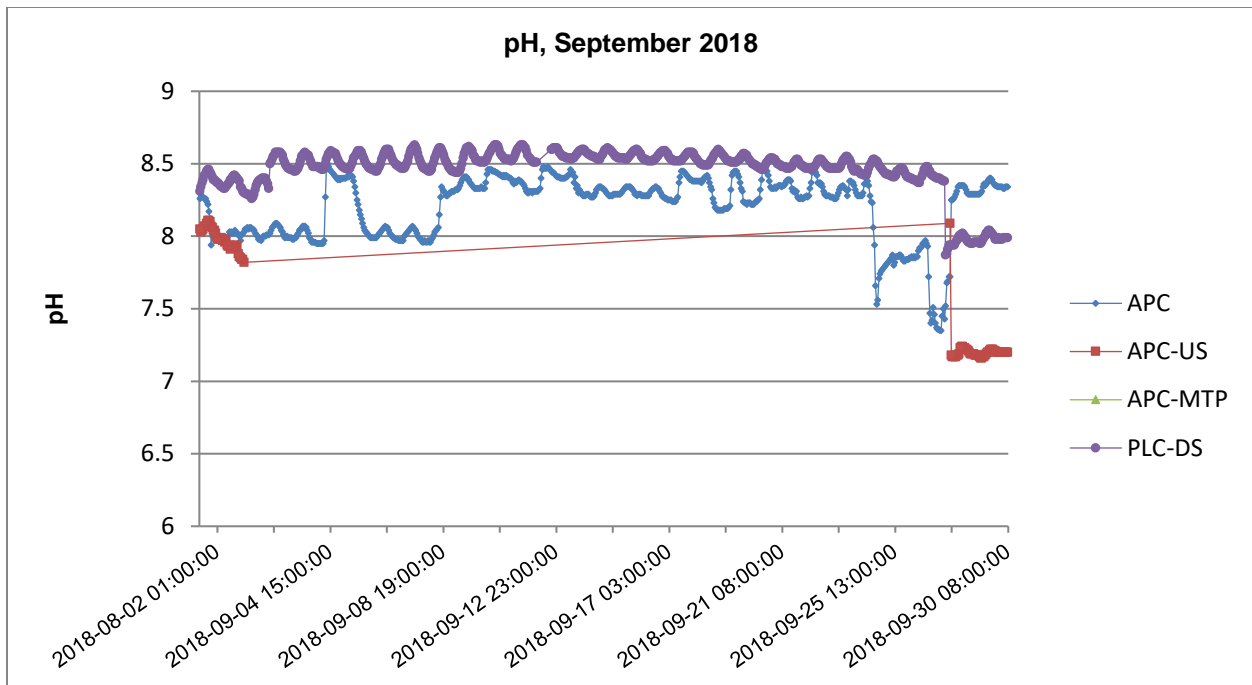
Don Guest at DGuest@westmoreland.com

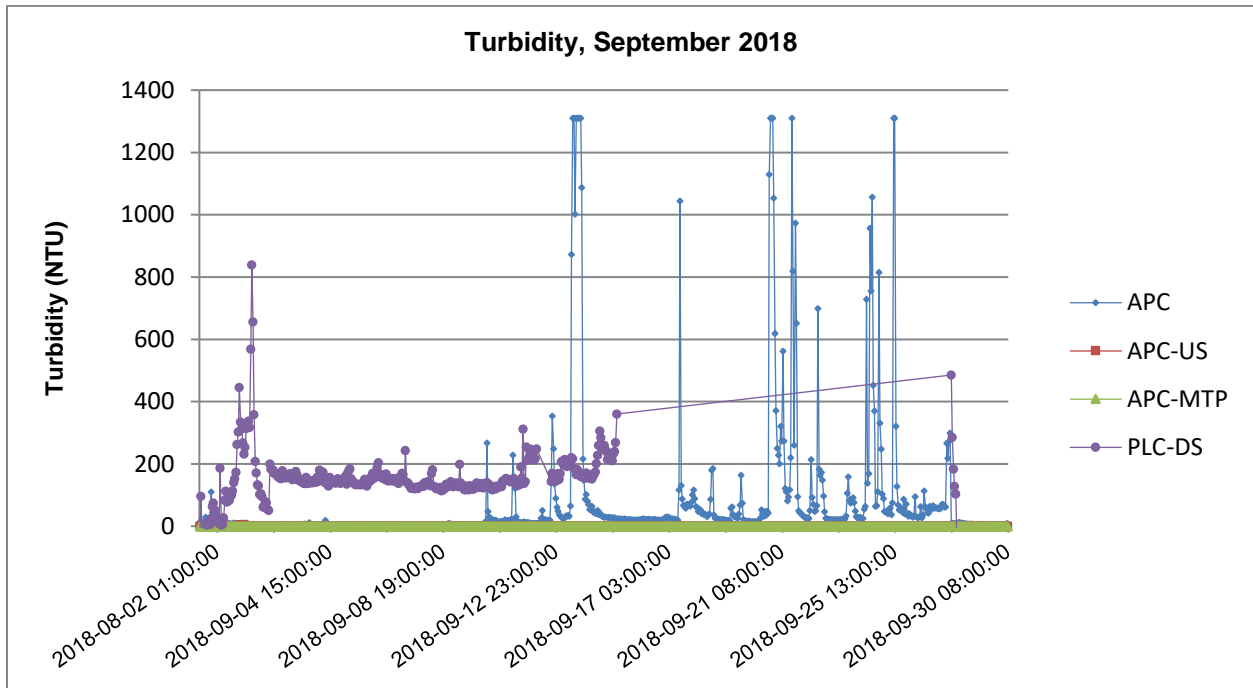
Kari McDonald at Obred-Reg@Sherritt.com

The Obed website was updated monthly. The website includes copies of all plans, data and reports published to date and can be accessed at www.Obed.ca

Appendix 1: September 2018 Data Sonde Data







**Attached Under Separate Cover: Remediation Design – Bi-Weekly Update
Report #6**