

November 19, 2013

## **Process Water Release from the Obed Mine Information update**

This information update provides an overview of initial findings from tests, analysis and assessments following the breach of an onsite containment pond that occurred at the Obed Mountain Mine on October 31, 2013.

The Obed Mountain Mine is owned by Sherritt International Corporation. Since the incident, the company has focussed its efforts on providing timely and accurate information to interested and affected parties and working with the regulators and independent experts to review all aspects of the incident and conduct the necessary research to develop mitigation plans.

### **Background**

The Obed Mountain Mine produces export-quality thermal coal that is beneficiated through a washing and drying process. No chemicals are used in the process, except for flocculants that settle out the solid material from water. Flocculants are commonly used at potable water treatment plants in Canada. When flocculants come into contact with sediment particles, they bond and become inactive.

The breached pond contained surface and process water and rejected solids from the washing process. The solids include mainly clay, silt or mud, shale and coal fines. Immediately after the incident, Sherritt focussed on ensuring the safety of personnel at site. Water testing and evaluations began the morning following the incident. Initial results of water tests from samples of the discharged water indicate that all parameters are below allowable discharge limits. Further testing is underway to establish more conclusive results.

### **Affected Area:**

The Apetowun Creek is a small, localized creek, which originates near the southern limits of the Obed Mountain Mine. It travels approximately 18.5 km to the Plante Creek. Waters from the Apetowun and Plante Creeks flow another six km, ultimately discharging into the Athabasca River.

When the containment pond wall breached, 670,000 cubic meters (670 million litres) of water and sediment was released down slope. It contained water, clay, silt or mud, shale and coal fines. As it moved downhill, the water and silt picked up additional natural materials. The heavier particles of soil were contained within the headwaters of the Apetowun Creek. As a result of the volume and velocity of water, the first five km of the Apetowun Creek was disturbed, including fish habitat. Finer particles were carried onward to Plante Creek and the Athabasca River, where the fish habitat appears to have sustained less impact.

A wildlife survey of the affected areas shows that the area continues to be used by small and large mammals. Wildlife assessments will continue to be conducted to ensure there are no long-term effects on wildlife use of the area.

Remediation efforts have been initiated to remove deposited sediments. Planning for other remediation work is ongoing and additional measures will be implemented. The effects on fish will continue to be assessed and mitigated over the coming weeks and months. This includes ongoing detailed habitat inventory assessments, sampling of fish and other aquatic life and most importantly, habitat restoration.

### **Water Quality Remains Safe:**

Based on a comprehensive suite of water quality parameters analysed from multiple locations upstream and downstream of the release point and within the observed suspended sediment, no adverse short or long-term health effects are expected for communities using the Athabasca River as a drinking water source. Interested parties should refer to the Government of Alberta's news releases on water quality.

Sherritt continues to conduct daily water quality sampling in the Plante Creek watershed and the Athabasca River. In total, over 200 samples have been taken over multiple locations have been used on a daily basis or more frequent basis. The sampling underway has been part of a thorough examination that includes 170 different parameters, including inorganics, metals, and polycyclic aromatic hydrocarbons. Initial testing indicates that suspended sediments in the Athabasca River immediately downstream of the release returned to levels below the current Alberta short-term water quality guideline.

Daily samples of the suspended sediments travelling downstream in the Athabasca River indicate that suspended sediment remain above seasonally normal values in the Athabasca River, but under values that are normal for April to August as measured by Alberta Environment and Sustainable Resource Development (AESRD) at its long-term monitoring station at Athabasca.

Other than the higher sediment levels, water quality within the Athabasca River meets the 2013 Alberta water quality guidelines for drinking water and for protection of aquatic life as well as livestock and irrigation. As the sediment plume continues to disperse, the location and water quality will continue to be monitored by Sherritt in close cooperation with the regulator.

Plans continue to be developed in cooperation with AESRD for further assessment and monitoring of the effects of this release on the aquatic ecology of Athabasca River, Apetowun Creek and Plante Creek, and for restoration of areas affected by sediment deposit.

### **Remediation Efforts:**

Sherritt is committed to minimizing any potential long-term environmental impacts associated with this incident. Clean up has already begun, in consultation with the appropriate authorities, to

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minimize any effects the release might have on the environment or the community. Mitigation efforts have been deployed to reduce the sediment in the water in the creeks. A sediment curtain is in place at the confluence of Plante creek and the Athabasca River.

We are deeply concerned about what has happened and, we are dedicated to undertaking full restoration of the areas affected.

**Communities:**

A priority has been to immediately inform local communities, First Nations and Metis communities, industry, and other interested parties about the sediment in the water. Frequent updates are provided to communities about the incident and the location of the sediment in the Athabasca River. Sherritt also launched a community information line and website at [www.obed.ca](http://www.obed.ca) where information can be found with frequent updates.