

# **Mount Polley Mining Corporation**

an Imperial Metals company Box 12 • Likely, BC VOL 1N0 • T 250.790.2215 • F 250.790.2613

February 5, 2015

Ministry of Environment Mining Operations Environmental Protection 2080 Labieux Rd. Nanaimo, BC V9T 6J9

# WEEKLY POST-TSF BREACH REPORT – WEEK OF JANUARY 28 – FEBRUARY 3, 2015

#### Water Management and TSF Works

Polley Lake	Polley Lake ice elevation = 921.79 m (February 1 <sup>st</sup> )
Dewatering	Water levels are currently within the typical range. Polley Lake is frozen and all pumping infrastructure was removed in late November. Ice elevation surveys are being taken weekly.
TSF Water Management	All water from the TSF water collection system is currently transferred to the Springer Pit via the Central Collection Sump. Water flow from the breach location is currently being pumped to the Upstream 1 sump, and then to the Central Collection Sump via the TSF Settling Pond. Refer to Figure 1 for a map of the Tailings Storage Facility (TSF) area and associated works.
	No breaches of the water management system containing water flow from the TSF occurred this week.
TSF Construction	<ul> <li>The amendment to permit M-200 approving repair of the TSF breach to manage 2015 freshet was received from the Ministry of Mines on December 17<sup>th</sup>. An update on work being completed under this approval is as follows:</li> <li>Foundation preparation and material placement for Perimeter Embankment buttressing is ongoing.</li> <li>Foundation preparation and material placement immediately downstream of the cut-off wall (Phase 1 footprint) is ongoing.</li> <li>Upstream Fill material placement for the cut-off wall is ongoing.</li> <li>Cut-off Wall Aggregate material placement for the cut-off wall is ongoing.</li> <li>Transition material placement for the cut-off wall is ongoing.</li> <li>Compacted Rockfill material placement for the cut-off wall is ongoing.</li> <li>The Cutter Soil Mixing contract has been awarded.</li> </ul>

Project components that have been completed under this approval are:

- Bulk excavation of the North and South Abutments (the embankments to the north and south of the breach).
- Construction of seepage collection drains in the cut-off wall foundation footprint.
- Foundation preparation for the cut-off wall.
- Foundation Filter blanket material placement for the cut-off wall.
- Foundation Transition blanket material placement for the cut-off wall.
- Extension of the seepage collection drains through the Phase 1 footprint.

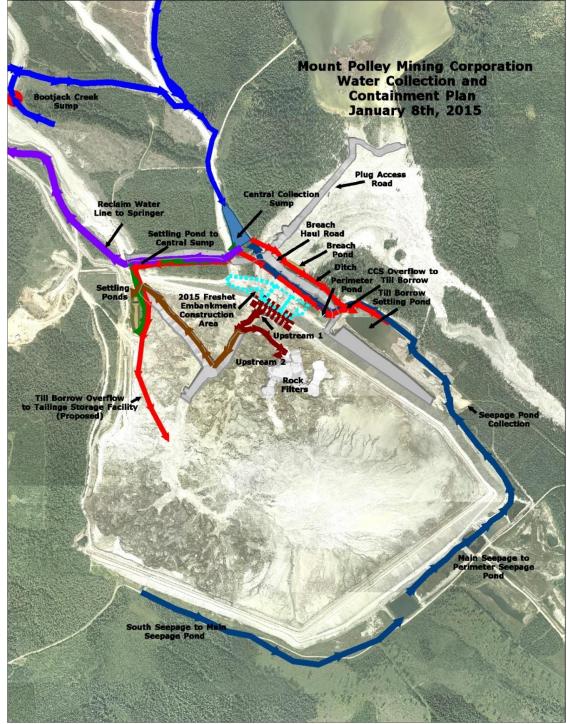


Figure 1. Tailings Storage Facility construction works and water management systems

# **Sediment and Erosion Control Measures**

Silt Curtain	Additional silt curtain has been sourced and is being mobilized to the site. The new section of silt curtain will be installed in Quesnel Lake near the discharge from the Lower Hazeltine Creek sedimentation ponds. Its purpose is to provide a contingency during spring freshet when flows through the ponds are expected to increase, and in the event that the ponds are not adequate to remove sediments. The existing silt curtain remains in good condition and will be retained at the mouth of Hazeltine Creek. This location is where work is in progress on a channel to reconnect Edney Creek to Quesnel Lake, and the silt curtain provides a contingency measure with regards to construction work and commissioning of the channel.
Lower Hazeltine Creek	The Lower Edney Creek channel is approximately 90% complete, and the next step will be to place creek bed materials. The crossing to access the other side of the creek for restoration purposes is complete. The Edney Creek fish barrier is in place and continues to function. Edney Creek is flowing into the Lower Hazeltine Creek sedimentation ponds.
	Restoration work on the South Point (adjacent to the historic Hazeltine Creek mouth) is approximately 30% complete. A trained environmental monitor is supervising this lakeshore work.
	Lower Hazeltine Creek channel reconstruction work is ongoing and is anticipated that this work will be completed in a couple of weeks.
	Figure 2 shows a turbidity time series graph comparing the turbidity in Hazeltine Creek at the Ditch Road bridge and at the outflow of the Lower Hazeltine Creek sedimentation ponds.
Middle Hazeltine Creek	Construction and installation of water diversion systems is underway.
Upper Hazeltine Creek	Construction of the channel, flood plains and creek bed in Reach 1 is ongoing. It is anticipated that this work will be completed to the 1100 metre mark within the next week.
	Channel excavation in Reach 2 is complete and placement of rock in the channel has commenced. This rock is low sulphur rock from the Cariboo Pit and a sampling program is in place to verify the chemistry of the rock.
	This week 26,181 tonnes of till was excavated from Hazeltine Creek and stockpiled on the mine site for reclamation purposes. 1,024 tonnes of this stockpiled till and 26,181 tonnes of construction material were hauled to Hazeltine Creek area for use in restoration work.
	The final drawings for the Polley Lake outlet structure design have been submitted to the Ministry of Forests, Lands and Natural Resource Operations and have been approved. The conceptual rehabilitation plans for Upper Hazeltine Creek have been provided to Ministry of Environment for review.
	Collection of live willow stakes and wattles on site by a local First Nations crew continued this week. These willows will be planted in the spring for erosion control and restoration purposes.
	Trained environmental field workers are monitoring all creek restoration work in Upper, Middle, and Lower Hazeltine Creek.

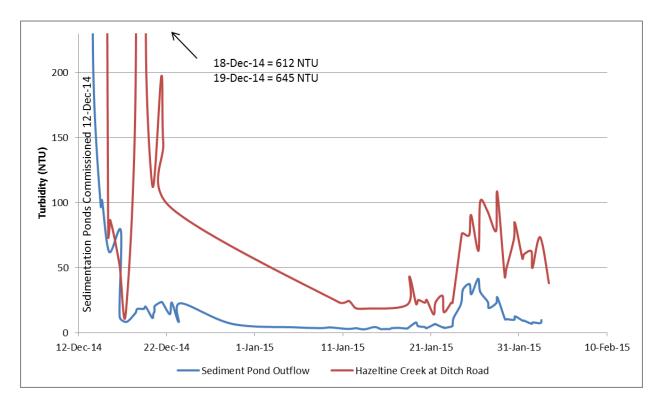


Figure 2. Turbidity time series graph for Hazeltine Creek at the Ditch Road and at the outflow of the Lower Hazeltine Creek sedimentation ponds (December 12<sup>th</sup> – February 3<sup>rd</sup>)

### Water Quality Monitoring Program

The water quality monitoring program currently consists of weekly samples at:

- QUR-1 (Quesnel River at the Quesnel River Research Centre).
- HAC- 05 (Hazeltine Creek at the Gavin Lake Road).
- HAC-08 (Hazeltine Creek upstream of the sedimentation ponds and the confluence with Edney Creek).
- HAC-01b (Hazeltine Creek at the outlet of the sedimentation ponds, just upstream of Quesnel Lake).

All scheduled sampling was completed this week.

The monitoring program also includes a sonde (datalogger) that is deployed in the Quesnel River at monitoring site QUR-1. The sonde measures field parameters (turbidity, pH, specific conductance, dissolved oxygen, and temperature) every 15 minutes. A second sonde which measures the same parameters at the same frequency is deployed at the outlet of the Lower Hazeltine Creek sedimentation ponds.

Figure 3 shows a time series graph of turbidity at site QUR-1. Turbidity data up to December 23<sup>rd</sup> are from laboratory analysis completed by ALS Environmental. Data from December 24<sup>th</sup> onward are laboratory turbidity values from weekly samples supplemented by field data.

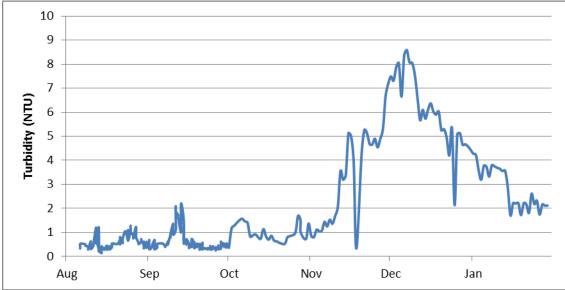


Figure 3. Turbidity time series at sample location QUR-1 (August 6<sup>th</sup> – February 3<sup>rd</sup>)

### Publication of Environmental Monitoring Results & Remediation Updates

Mount Polley will continue to present interpreted environmental monitoring results and updates on remediation work on the <u>Mount Polley Updates</u> page of the Imperial Metals website (www.imperialmetals.com). An <u>Imperial Metals media release</u> was published on January 30<sup>th</sup>, and it is anticipated that a summary of new water toxicity testing results will be published shortly.