



# Mount Polley Mining Corporation

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**January 8, 2015**

Ministry of Environment  
 Mining Operations Environmental Protection  
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## WEEKLY POST-TSF BREACH REPORT – DECEMBER 31, 2014 – JANUARY 6, 2015

### Water Management and TSF Works

<b>Polley Lake Dewatering</b>	<p>Polley Lake ice elevation = 921.80 m (January 5<sup>th</sup>)</p> <p>Water levels are currently within the typical range. Polley Lake is now frozen and all pumping infrastructure was removed in late November. The frequency of ice elevation surveys has been reduced to weekly.</p>
<b>Breaches</b>	<p>No breaches of the water management system containing water flow from the Tailings Storage Facility (TSF) occurred this week.</p>
<b>TSF and Water Management Structures</b>	<p>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>. Ongoing work under this approval includes:</p> <ul style="list-style-type: none"> <li>• Bulk excavation of the North and South Abutments (the embankments to the north and south of the breach) has been completed.</li> <li>• Foundation preparation for Perimeter Embankment buttressing is progressing.</li> <li>• Foundation preparation for the cut-off wall is ongoing and the first priority until completion. Construction of seepage collection drains has commenced.</li> </ul> <p>Refer to Figure 1 for a map of the TSF area and associated works.</p> <p>All water from TSF water collection systems 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.</p>

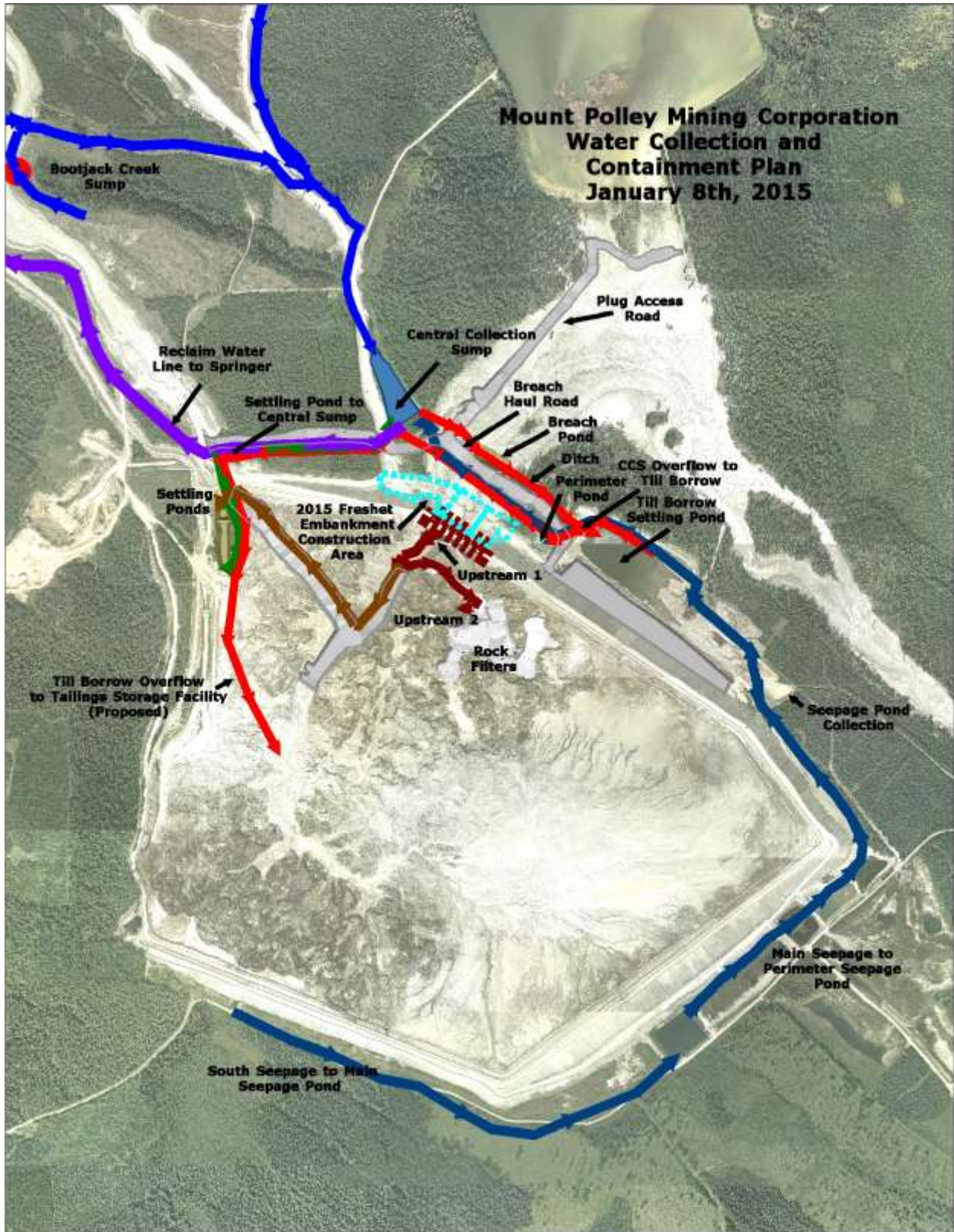


Figure 1. Tailings Storage Facility construction works and water management

## Sediment and Erosion Control Measures

<p><b>Silt Curtain</b></p>	<p>The new Hazeltine Creek outflow channel from the sedimentation ponds into Quesnel Lake bypasses the silt curtain which is attached to the log boom at the mouth of Hazeltine Creek. It is anticipated that the sedimentation ponds will now carry out the role of removing suspended solids from the water column. The curtain is in good condition and will remain in place for the time being.</p>
<p><b>Sediment Control Works (Lower Hazeltine)</b></p>	<p>No work was completed on lower Hazeltine Creek this week. The Edney Creek fish barrier is in place and continues to function. Edney Creek is flowing into the sedimentation ponds.</p> <p>Figure 2 shows a turbidity time series graph comparing the turbidity at the inflow and outflow of the new sedimentation ponds.</p>
<p><b>Sediment Control Works (Upper Hazeltine)</b></p>	<p>The proposed Polley Lake outflow channel continues to be excavated along the south end of the Plug Access Road. Tailings are being sent to the TSF and organic material is being stockpiled. Designs for the Polley Lake weir and outlet structure are in the final stages and communication with MOE regarding the design is ongoing. An access road for restoration work has been constructed along the east side of Hazeltine Creek.</p> <p>Trained environmental monitors are supervising all creek restoration work and sediment control measures are implemented when possible, although sediment fence installation is challenging in freezing conditions.</p> <p>Plans for upper Hazeltine Creek erosion control and restoration works are currently being discussed with Fisheries and Oceans and First Nations prior to implementation.</p>

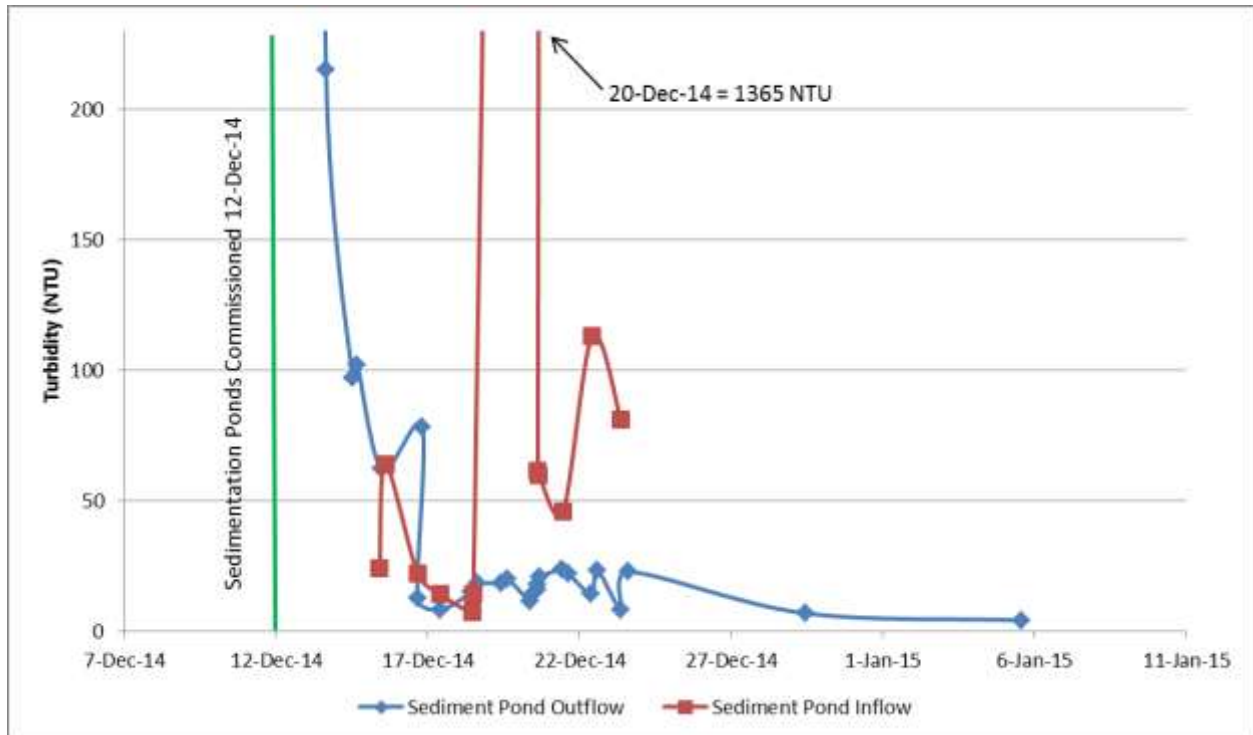


Figure 2. Turbidity time series at the inflow and outflow of the lower Hazeltine Creek sedimentation ponds (December 12, 2014 – January 5, 2015)

## 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-01b (Hazeltine Creek at the outlet of the sedimentation ponds, just upstream of Quesnel Lake).

Sampling on Quesnel Lake has been suspended due to winter conditions since December 18<sup>th</sup>. This is consistent with previous plans communicated to the MOE. All scheduled sampling was completed this week, although the sample at QUR-1 was completed on January 7<sup>th</sup> instead of as scheduled on January 6<sup>th</sup> because of access restrictions resulting from heavy snowfall.

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 (pH, specific conductance, dissolved oxygen, and temperature) every 15 minutes. The sonde stopped recording on December 26<sup>th</sup> and field staff worked to troubleshoot the issue, with data collection recommencing on December 31<sup>st</sup>. Daily turbidity and temperature readings were taken during the period when the sonde was not collecting data.

Figure 3 shows a time series graph of turbidity at site QUR-1. Turbidity data up to December 23<sup>rd</sup> is from laboratory analysis completed by ALS Environmental. The remaining data is from field measurements.

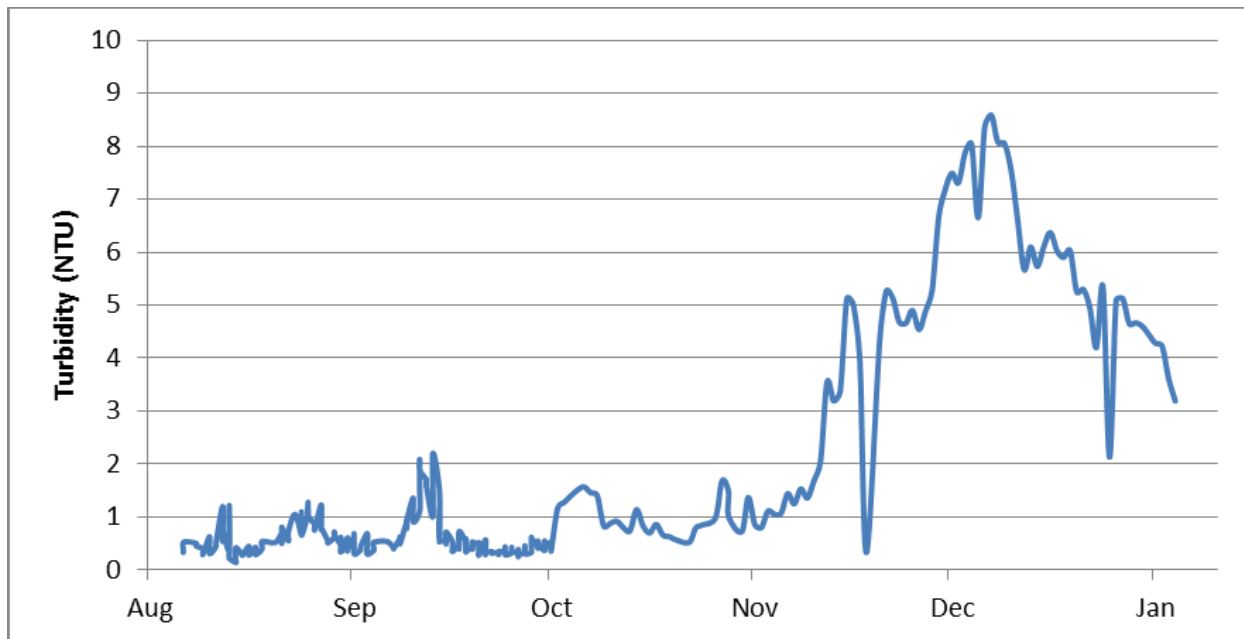


Figure 3. Turbidity time series at sample location QUR-1 (August 6<sup>th</sup> – January 4<sup>th</sup>)

## **Publication of Environmental Monitoring Results & Remediation Updates**

Mount Polley will continue to present interpreted environmental monitoring results and updates on remediation work on the [Mount Polley Updates](#) page of the Imperial Metals website ([www.imperialmetals.com](http://www.imperialmetals.com)). No new information was posted this week, but a Community Open House is scheduled for Tuesday January 13<sup>th</sup> from 7 to 9pm at the Likely Hall, and a Community Update Bulletin is being prepared for distribution next week. It is also anticipated that a report on aquatic toxicity findings from the water toxicity testing program will be published in the upcoming weeks.