

# **Mount Polley Mining Corporation**

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

## WEEKLY POST-TSF BREACH REPORT – JULY 1<sup>ST</sup> – 7<sup>TH</sup>, 2015

#### Water Management

Polley Lake	Polley Lake water elevation = 922.48m (July 7 <sup>th</sup> )
Dewatering	The Polley Lake weir valve remained open this week to allow approximately $0.1 - 0.2 \text{ m}^3$ /s of outflow from Polley Lake into Hazeltine Creek, with the exception of one day when the valve was closed to accommodate downstream works.
TSF Water Management	All water from the Tailings Storage Facility (TSF) water collection system continues to be transferred to the Springer Pit via the Central Collection Sump. No releases of water to the environment occurred this week. Please refer to the May 28 <sup>th</sup> , 2015 weekly report for an overview map of the TSF water management system.

#### Government, First Nations and Stakeholder Engagement

Publications and Website 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 ( <u>www.imperialmetals.com</u> ). No updates were posted this week. A reminder that the Post-Event Environmental Impact Assessment Report <u>Key</u> <u>Findings summary</u> and <u>technical appendices</u> were posted on June 18 <sup>th</sup> .		
Engagement Activities and Communications with Regulators	<ul> <li>Activities relating to government, First Nations, and stakeholder communication and engagement this week included:</li> <li>The weekly Ministry of Environment (MoE) update call on July 2<sup>nd</sup>.</li> <li>Review of Edney Creek rehabilitation and fish habitat designs with the First Nations consultant on July 6<sup>th</sup>.</li> </ul>		

## **Sediment and Erosion Control Measures**

Silt Curtain	The turbidity barrier (silt curtain) installed in Quesnel Lake near the outlet of the constructed Edney (Hazeltine) Creek channel is in good condition.		
Monitoring	Environmental monitors are monitoring ongoing sediment and erosion control and rehabilitation work. This monitoring is being conducted by Mount Polley Mining Corporation (MPMC) staff.		
Hazeltine Creek Rehabilitation	This week, re-contouring and application of woody debris and organics continued on the disturbed areas between the Hazeltine Creek floodplain and the forest edge for erosion control and reclamation purposes. Work was carried out in Reach 3 on the west side of the channel to tie into the upper rock canyon. Work was also carried out in Reach 3 downstream of the Gavin Lake bridge; this work adjoins with the reclamation work done adjacent to the Gavin Lake Road bridge. Re-contouring on the west side of Hazeltine Creek in Reach 3 is complete except for an approximately 60m section.		
	<ul> <li>Additional ongoing work associated with the rehabilitation project this week included:</li> <li>Cleaning of the fish exclusion fences.</li> <li>Replacement of fish exclusion fence components at the Hazeltine Creek lower sedimentation pond.</li> <li>A salvage program for fish that had managed to navigate into the sedimentation ponds.</li> </ul>		

## **TSF Construction**

Construction Update	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> , 2014. Buttress placement for the Perimeter Embankment is ongoing; all other work associated with the 2015 Freshet Management Embankment construction is complete.
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### Water Quality Monitoring Program

Water Quality Monitoring Program	The current water quality monitoring program is outlined in the table below. No changes to the monitoring program occurred this week. All monitoring was completed as scheduled this week.						
egi alli	Area	Monitoring Type	Frequency	Stations			
	Polley Lake	Samples	Monthly	P1, P2			
		Profiles	Bi-monthly	P1, P2			
	Hazeltine Creek	Samples	Weekly	HAC-01b			
			Monthly	HAC-05, HAC-08, HAC-10			
	Edney Creek	Samples	Weekly	EDC-02			
			Monthly	EDC-01			
	Quesnel Lake	Profiles	Weekly	QUL-54, QUL-55, QUL-56			
		Profiles	Bi-monthly	QUL-21a, QUL-18, QUL-66a,			
			,	QUL-2a, QUL-79			
		Profiles	Monthly	QUL-40a, QUL-120a			
		Samples	Weekly	QUL-55			
		Samples	Monthly	QUL-2a, QUL-18, QUL-40a,			
				QUL-120a			
	Quesnel River	Samples	Bi-monthly	QUR-1			
Continuous	Please refer to previous weekly reports, such as the May 7 <sup>th</sup> , 2015 report, for a map of these sampling locations. The monitoring program also includes a sonde (datalogger) that is deployed in the						
Monitoring	Quesnel River at monitoring station 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.						
Results	Figure 1 shows a time series graph for this week of daily field turbidity readings in Lower Hazeltine Creek upstream and downstream of the sedimentation ponds (stations HAC-09 and HAC-01b, respectively), and in Edney Creek downstream of the confluence with Hazeltine Creek (station EDC-02). Figure 2 shows turbidity levels at these sites over a longer time period to provide context for this week's data.						
	Figure 3 shows a turbidity and temperature profile from July 6 <sup>th</sup> at site QUL-55 (a near field site at the mouth of Hazeltine Creek).						
	Figure 4 shows a time series graph of turbidity at site QUR-1. Turbidity data are from laboratory analysis completed by ALS Environmental. This chart will be updated every second week, as per the monitoring frequency of this site in the sampling program.						

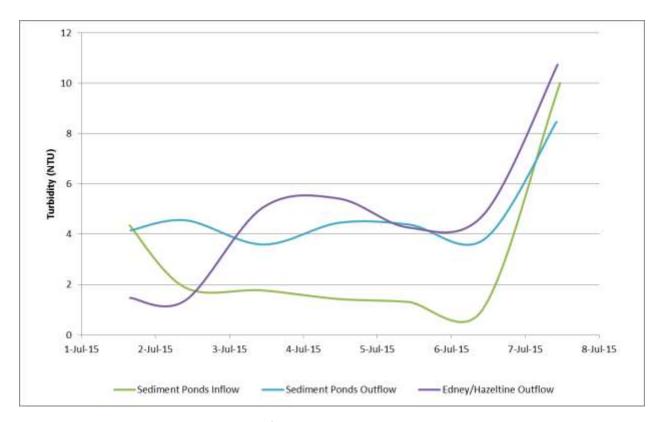


Figure 1. Time series graph for July  $1^{st} - 7^{th}$  showing turbidity levels at monitoring locations in Hazeltine and Edney Creeks

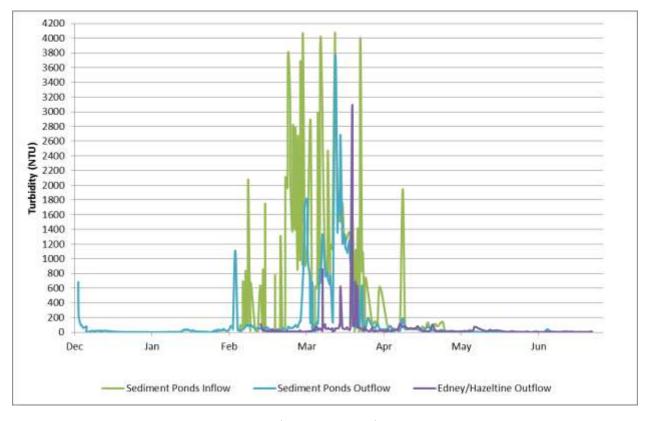


Figure 2. Time series graph for December 12<sup>th</sup>, 2014 – July 7<sup>th</sup>, 2015 showing turbidity levels at monitoring locations in Hazeltine Creek

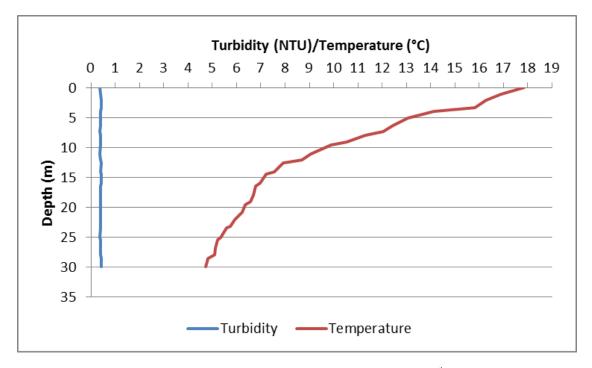


Figure 3. Turbidity and temperature profiles at station QUL-55 on July  $\mathbf{6}^{\text{th}}$ 

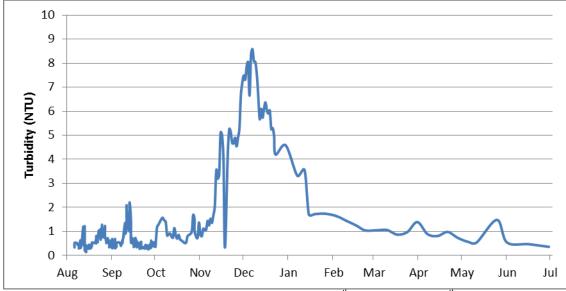


Figure 4. Turbidity time series at station QUR-1 (August 6<sup>th</sup>, 2014 – June 30<sup>th</sup>, 2015)