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August 6th, 2015

Ministry of Environment
Mining Operations Environmental Protection
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WEEKLY POST-TSF BREACH REPORT – JULY 29TH – AUGUST 4TH, 2015

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 Mount Polley Updates page of the Imperial Metals website (www.imperialmetals.com). The BC Ministry of Environment (MoE) released a Phase One Progress Report on Mount Polley Remediation on July 29th.
Engagement Activities and Communications with Regulators	Activities relating to government, First Nations, and stakeholder communication and engagement this week included: • The weekly MoE update call on July 29th. • An Implementation Committee Meeting and Breach Technical Working Group Meeting with the Soda Creek and Williams Lake Indian Bands on July 29th. • MPMC provided responses to initial screening comments on the Post-Event Environmental Impact Assessment Report on August 4th. On July 16th Mount Polley Mining Corporation (MPMC) submitted a permit amendment application to MoE for a short-term water discharge to Quesnel Lake. The public comment period will be open until August 23rd. The Environmental Protection Notice can be viewed in the Williams Lake Tribune (July 22nd, page A23). Public meetings are scheduled as follows. Details on times and locations of the meetings will be published in the near future. • August 24th – Likely • August 26th – Xatśūll First Nation (for the Williams Lake and Soda Creek Indian Bands) • August 26th – Williams Lake • August 27th – Quesnel

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 Energy and Mines (MEM) on December 17th, 2014. Buttress placement for the Perimeter Embankment is ongoing; all other work associated with the 2015 Freshet Management Embankment construction is complete.

Water Management

Polley Lake	Polley Lake water elevation = 922.18m (August 4th) The Polley Lake weir valve remained open this week to allow approximately 0.15 – 0.2 m^3/s of outflow from Polley Lake into Hazeltine Creek. The valve was temporarily closed, as required, to accommodate downstream works and monitoring.
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 (CCS). No releases of water to the environment occurred this week. Dewatering from the Springer Pit to the CCS via the West Ditch is ongoing to supply water for: the turbomisters at the Main Seepage Pond; dust suppression sprinklers on the TSF; and, process water to the Mill. Please refer to the May 28th, 2015 weekly report for an overview map of the TSF water management system. Outside the TSF, Construction of the tailings line pipe grade to the Springer Pit and installation of the pipe was completed.
Springer Pit	Permit amendments from MoE and MEM were received on July 9th allowing MPMC to return to restricted mining and milling operations with tailings deposition into the Springer Pit. Restricted milling operations commenced on August 4th. Volume of tailings deposited = 3545 tonnes (2539 m^3 including water retained in tailings) Water Elevations (August 4/5th): • Springer Pit = 1017.20m (+0.24m from last week) • Groundwater well GW12-2a = 1013.05m (+0.08m from last week) • Groundwater well GW12-2b = 1013.21m (+0.06m from last week) • Groundwater well GW15-1a = 1018.34m (+0.20m from last week) • Groundwater well GW15-1b = 1018.24m (+0.20m from last week) • Groundwater well GW15-2a = 1021.84m (+0.10m from last week) • Groundwater well GW15-2b = 1022.12m (+0.11m from last week) A map of the groundwater well locations is included as Figure 1 of the July 23rd weekly report. Note that the suffix “a” indicates the deep well in the pair, and the suffix “b” indicates the shallow well in the pair. Monthly water quality results for parameters of interest from the Springer Pit supernatant and adjacent groundwater wells will be included in this report as they become available. Purging and sampling of all of the groundwater wells adjacent to the Springer Pit was conducted last week (note: this causes some fluctuations in the water elevations).

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 MPMC staff. Installation of silt fence and use of rip rap for erosion control was conducted this week as part of the Edney Creek work.
Hazeltine Creek Rehabilitation	Re-contouring in Hazeltine Creek in Reach 2 (in the area approximately 2,300m downstream of Polley Lake, upstream of the Gavin Lake Road) commenced this week. Re-contouring in Hazeltine Creek in Reach 3 continued between 3,800m and 5,000m of the creek (Polley Lake = 0m).
Edney Creek	This week work continued on construction of the new Edney Creek channel outlet and additional fish habitat features including: • Edney Creek continued to be diverted into Hazeltine Creek upstream of the upper sedimentation pond to dewater the channel for construction purposes. • Hazeltine Creek continues to flow into Quesnel Lake via the temporary diversion channel out of the lower sedimentation pond. • Reinforcement of select locations in the lower Edney Creek channel and placement of rip rap continued. • Installation of habitat features in the constructed Edney Creek channel, including woody debris, rock features, and spawning gravels. • Preparation and stockpiling of materials at the Quesnel Lake shoreline for placement of spawning habitat materials. • Removal of dead trees for use as habitat features in the creek rehabilitation project.

Environmental Monitoring Program

Water Quality Monitoring Program

The current water quality monitoring program is outlined in the table below. All monitoring was completed as scheduled this week and in the month of July. Because of the temporary flow pattern changes associated with the Edney Creek and adjacent Quesnel Lake shoreline habitat rehabilitation work, sampling at some stations has been temporarily adjusted as follows.

- Station EDC-01 is not being monitored, because there is no flow in this section of the creek (lower Edney Creek has been diverted into Hazeltine Creek upstream of the upper sedimentation pond).
- Station EDC-02 is not being monitored because there is no outflow into the lake from the Hazeltine/Edney outflow channel (water has been diverted out of a temporary channel from the lower sedimentation pond).
- Stations QUL-54, QUL-55, and QUL-56 have been shifted from the mouth of the combined Edney/Hazeltine outflow channel to the mouth of the temporary outflow channel from the lower sedimentation pond into Quesnel Lake. These temporary stations are named QUL-54a, QUL-55a, and QUL-56a.
- Station HAC-01b at the outflow of the lower sedimentation pond has been moved to station HAC-01c at the temporary outflow from the lower sedimentation pond in the diversion channel.
- The continuous monitoring sonde at HAC-01b has been temporarily removed.

The other change to the monitoring program this week is that field parameters profiles at reference sites QUL-40a and QUL-120a will only be done to 250m depth bi-annually, with profiles being done to 100m depth for all other monitoring events.

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
	Field Parameters	Continuous	HAC-01b
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
	Field Parameters	Continuous	QUR-1

Please refer to previous weekly reports, such as the May 7th, 2015 report, for a map of these sampling locations.

Water Quality Monitoring 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-01c, respectively. 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 this week at site QUL-55a, near the mouth of the temporary diversion channel from the lower Hazeltine Creek sedimentation pond to Quesnel Lake.

	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.
Other Monitoring Programs	Following completion of the Post-Event Impact Assessment Report, MPMC has moved on to the next phase monitoring, which includes carrying out recommendations made in the Post-Event Impact Assessment Report. Golder Associates Ltd. conducted a field program over the past two weeks for the detailed site investigation and human health and ecological risk assessment of areas impacted by the TSF dam failure. This monitoring included sampling and analysis of soil chemistry, soil invertebrates, vegetation metal uptake, terrestrial habitat, and groundwater chemistry. A group of researchers from the United Kingdom who have experience studying the response and recovery of river systems following mine tailings dam breaches in other parts of the world were at the Mount Polley Mine site this week and began carrying out geomorphology and geochemistry research on areas downstream of the TSF dam failure.

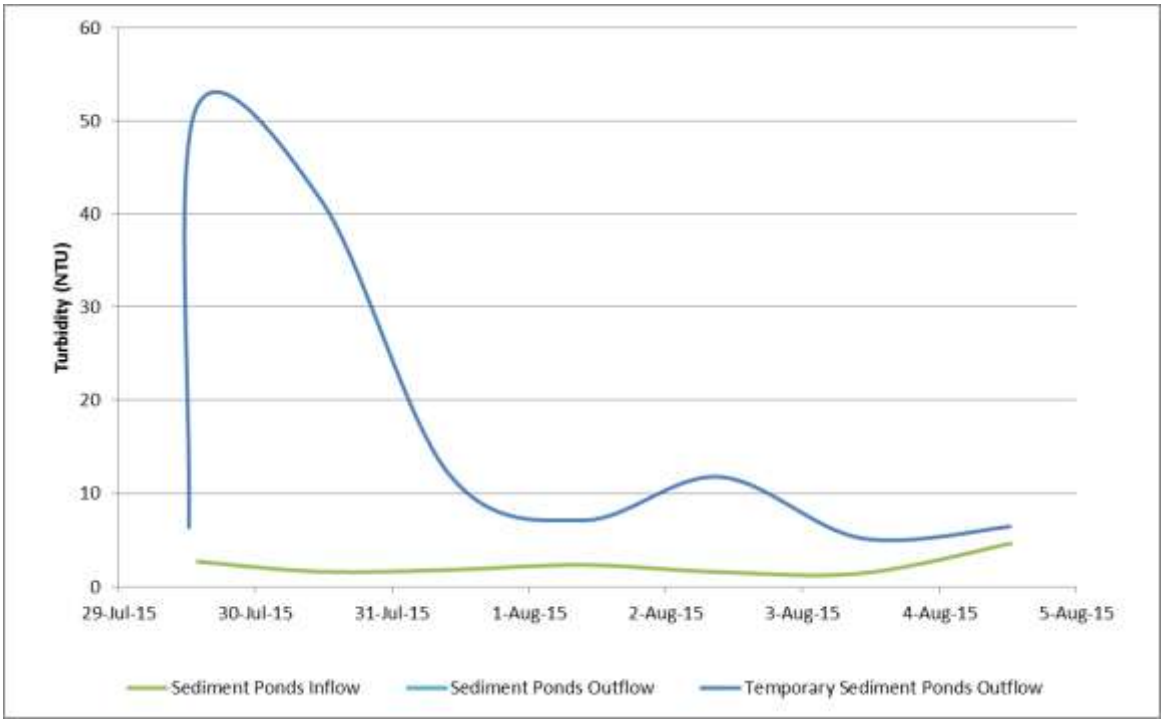

Figure 1. Time series graph for July 29th – August 4th showing turbidity levels at monitoring locations in Hazeltine Creek

Note: Edney Creek has temporarily been diverted into Hazeltine Creek (upstream of the sedimentation ponds) and outflow from the lower sedimentation pond diverted to Quesnel Lake in a temporary channel to allow Edney Creek channel and adjacent shoreline improvements for fish habitat.

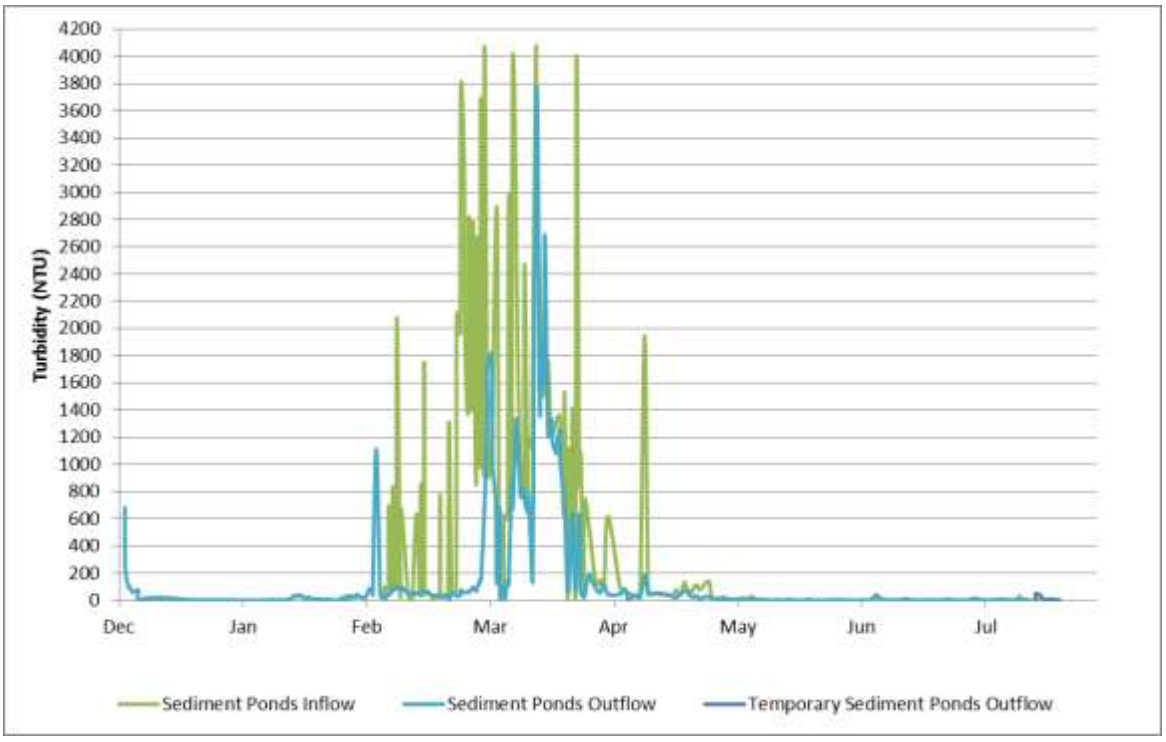

Figure 2. Time series graph for December 12th, 2014 – August 4th, 2015 showing turbidity levels at monitoring locations in Hazeltine Creek

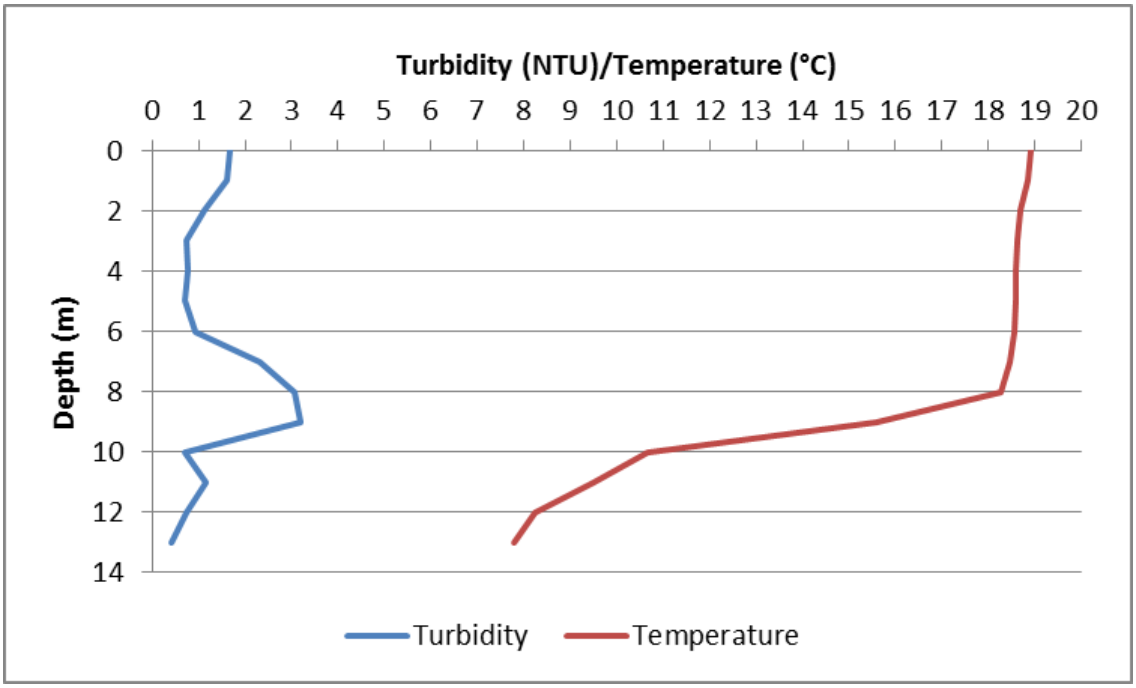

Figure 3. Turbidity and temperature profiles at station QUL-55a on August 4th (note: some elevated turbidity was observed at this temporary monitoring location from the newly constructed temporary diversion ditch and associated works, such as installation of fish barriers; sediment control materials have been installed in this area)

Figure 4. Turbidity time series at station QUR-1 (August 6th, 2014 – July 29th, 2015)