



Mount Polley Mining Corporation

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Ministry of Environment
 Mining Operations Environmental Protection
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 Nanaimo, BC
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WEEKLY UPDATE REPORT –DECEMBER 16 TO DECEMBER 23, 2015

NOTE the web link for the Mount Polley Mine TSF Breach Updates has changed. This is the new link: <http://www.imperialmetals.com/our-operations-and-projects/operations/mount-polley-mine/mount-polley-updates/tsf-breach-information-resources>

Water Management

Springer Pit	<p>The total volume of tailings deposited in the Springer Pit as of December 21st (data for the 22nd not available at time of reporting) is 1,569,649 tonnes (1,137,426 m³ including water retained in tailings).</p> <p>Water Elevations (December 22nd)</p> <ul style="list-style-type: none"> • Springer Pit = 1025.09m (+0.24m from last week) • Groundwater well GW12-2a = 1015.16m (+0.17m from last week) • Groundwater well GW12-2b = 1015.53m (+0.17m from last week) • Groundwater well GW15-1a = 1025.41m (+0.18m from last week) • Groundwater well GW15-1b = 1025.37m (+0.18m from last week) • Groundwater well GW15-2a = 1025.13m (+0.16m from last week) • Groundwater well GW15-2b = 1025.83m (+0.16m from last week) <p>Monthly water quality results for parameters of interest from the Springer Pit supernatant and adjacent groundwater wells will continue to be presented, as available. The last reported water quality was in the November 26th report. Purging and sampling of the Springer Pit groundwater wells was completed this week.</p>
Water Discharge	<p>Water discharge continued this week, with discharge rates ranging from 0.16 to 0.23 m³/s.</p>

Rehabilitation Work

Hazeltine Creek Rehabilitation	There were no activities in the creek this week due to weather and equipment restrictions.
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Environmental Monitoring Program

Water Quality Monitoring	<p>All water quality monitoring as required by Permit 11678 is current. Water discharge sampling included collection at stations QUL-57, 58, and 59 (Quesnel Lake discharge near-field sites) all permitted depths. Samples were also collected at end of pipe at the water treatment plant (station HAD-03) and throughout Hazeltine Creek.</p> <p>An updated map of monitoring stations is available on the Imperial Metals website. http://www.imperialmetals.com/assets/docs/mt-polley/12.03.15.weekly-update.pdf</p> <p>Mount Polley continues to investigate possible reasons for the slight green tinge that showed up in Quesnel Lake and Quesnel River in late November. The turbidity in the river remains below 1 NTU (measure of cloudiness) and the last reading on December 16th was 0.22 NTU. Initial testing of the water for the green colour (absorbance and transmittance at 510 nm, the wavelength associated with green) indicate that levels in the Quesnel River are similar to those in nearby waterbodies (Cariboo River and Big Lake). Likewise, levels of plant pigments (chlorophyll a and phaeophytin a) were similar in Quesnel River and Cariboo River. Seasonal testing of these indicators will be continued to further understand causal relationships of water colour.</p>
Results	<p>Table 1 shows a selection of the laboratory analysis results for grab samples collected at the water treatment plant end of pipe (HAD-03) on December 3rd, 7th and 15th compared to the permit requirements. Though not all parameters are shown here, all were below the permit guidelines.</p> <p>Table 2 shows a selection of the laboratory analysis results for grab samples collected at the edge of the initial dilution zone in Quesnel Lake (QUL-58) on December 2nd, 9th, and 14th. Though not all parameters are shown here, all were below the aquatic guidelines or at background levels.</p> <p>Figure 1 shows field parameter profile results for turbidity and temperature at station QUL-58 in Quesnel Lake (station 100m from the Hazeltine Creek outflow diffusers, at the edge of the initial dilution zone).</p> <p>Figure 2 shows field turbidity readings for upper, middle and lower Hazeltine Creek.</p> <p>Figure 3 shows a time series graph of turbidity readings at site QUR-1 in the upper Quesnel River.</p>

Table 1. Sample analysis results for HAD-03 (end of pipe from the water treatment plant).

	Lab Analysis Results for HAD-03			Permit 11678
	12/3/2015 11:33	12/7/2015 10:18	12/15/2015 13:33	mg/L
Total Suspended Solids (mg/L)	13.9	8.2	7.6	15
Nitrate (as N) (mg/L)	7.13	7.33	7.78	9.7
Copper (Cu)-Total (mg/L) (mg/L)	0.00461	0.00412	0.00403	0.012
Molybdenum (Mo)-Total (mg/L)	0.155	0.147	0.141	0.41
Selenium (Se)-Total (mg/L)	0.0274	0.029	0.0302	0.06
Sulphate (mg/L)	535	526	525	720
Cadmium (Cd)-Total (mg/L) (mg/L)	0.0000694	<0.000050	0.0000177	N/A

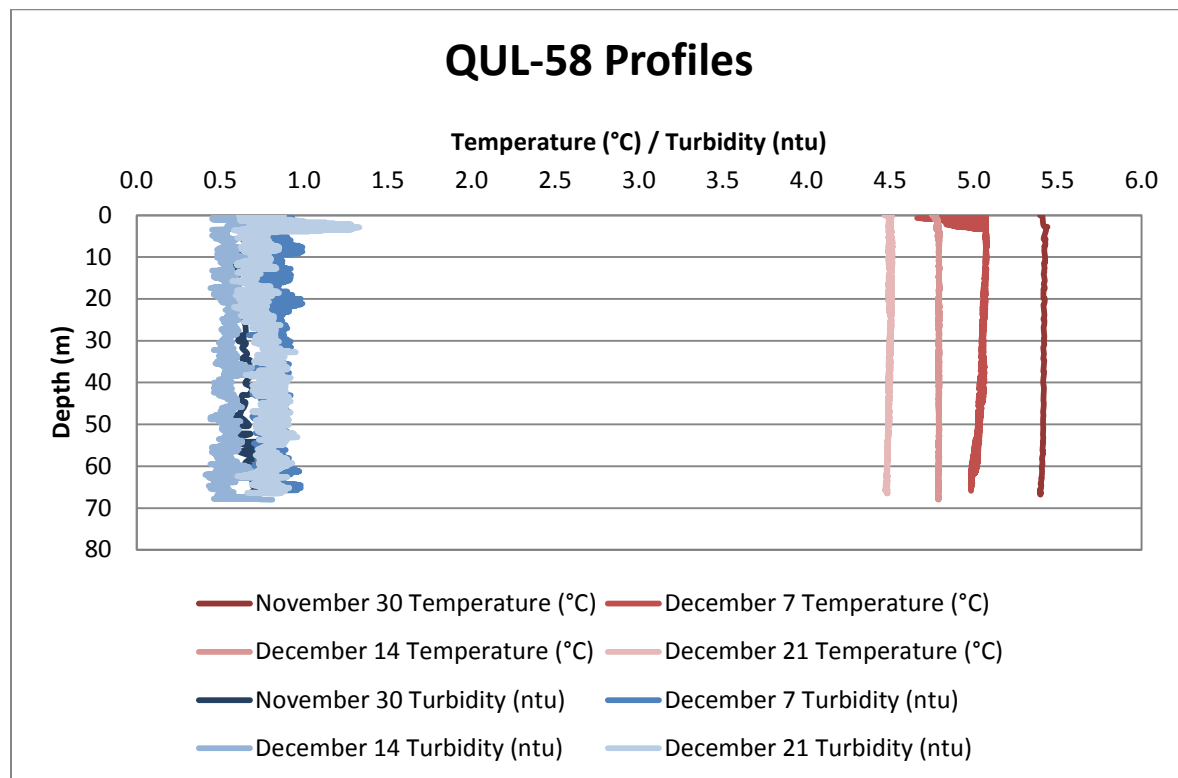


Figure 1. Turbidity and temperature profiles at QUL-58 on November 30th, December 7th, 14th and 21st

Table 2. Sample analysis results from the Quesnel Lake initial dilution zone (QUL-58)

	QUL-58-S	QUL-58-Mid	QUL-58-B	QUL-58-S	QUL-58-Mid	QUL-58-B	QUL-58-S	QUL-58-Mid	QUL-58-B
	12/2/2015 11:35	12/2/2015 12:09	12/2/2015 12:25	12/9/2015 10:18	12/9/2015 12:42	12/9/2015 12:53	12/14/2015 11:19	12/14/2015 11:30	12/14/2015 11:41
Total Suspended Solids (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Nitrate (as N) (mg/L)	0.105	0.106	0.105	0.110	0.110	0.112	0.116	0.115	0.114
Copper (Cu)-Total (mg/L)	0.00163	0.00149	0.00136	0.00143	0.00150	0.00281	0.00130	0.00138	0.00157
Molybdenum (Mo)-Total (mg/L)	0.000452	0.000414	0.000404	<0.00050	<0.00050	<0.00050	0.000466	0.000426	0.000443
Selenium (Se)-Total (mg/L)	0.000113	0.000096	0.000089	0.000099	0.000089	0.000103	0.000110	0.000108	0.000110
Sulphate (mg/L)	6.66	6.60	6.60	6.67	6.70	6.84	6.68	6.63	6.58
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050

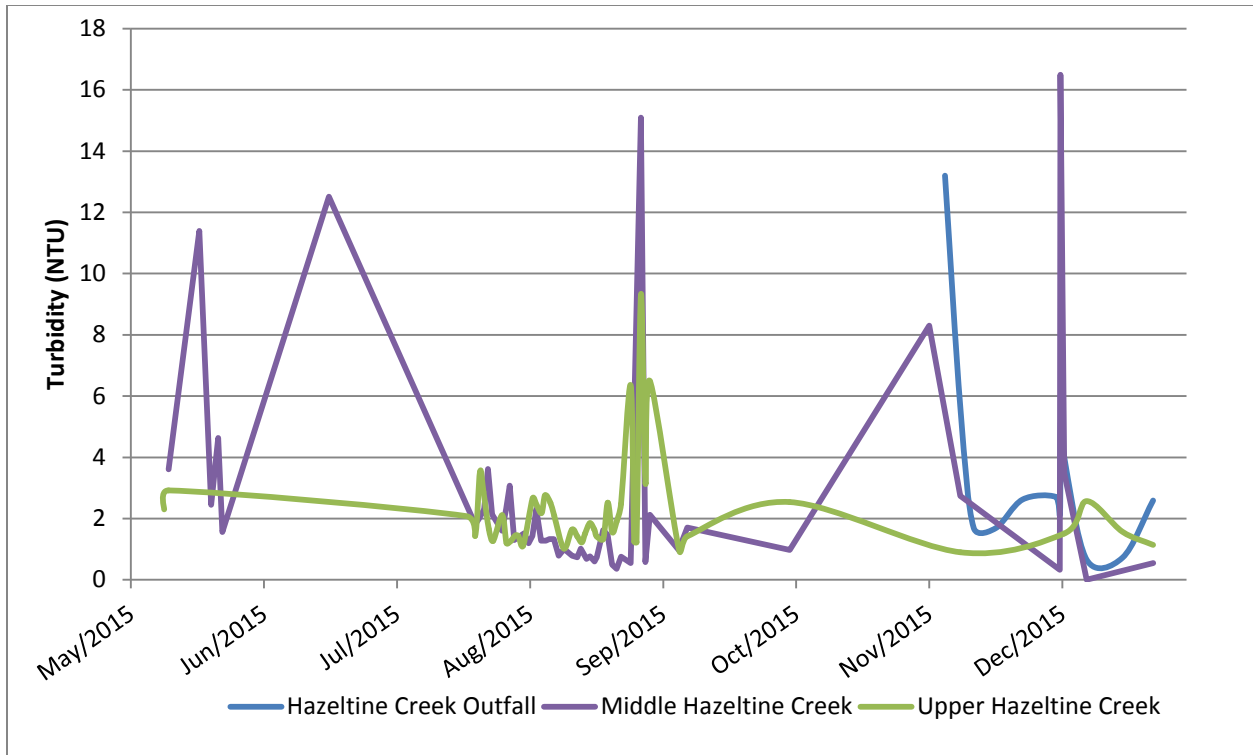


Figure 2. Time series graph for May 15, 2015 – December 22, 2015 showing turbidity levels at monitoring locations in upper and lower Hazeltine Creek (note: discharge commenced on December 1st causing a short-lived increase in turbidity in the middle reaches of Hazeltine Creek)

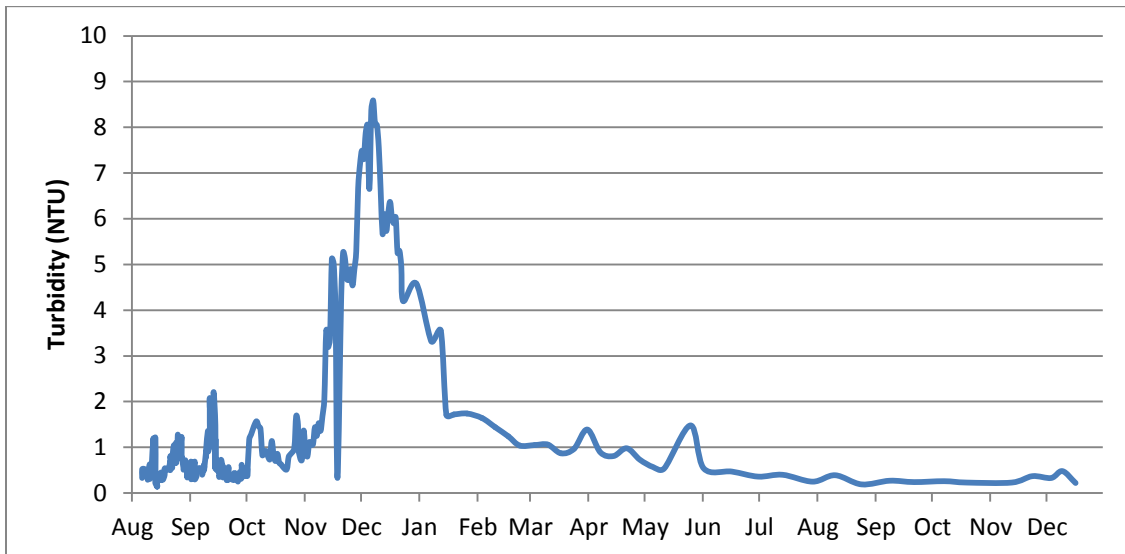


Figure 3. Turbidity time series at station QUR-1 (December 1, 2014 – December 16, 2015)