

## **Mount Polley Mining Corporation**

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

WEEKLY UPDATE REPORT – JANUARY 22 TO JANUARY 28, 2016

## Water Management

### **Springer Pit**

The total volume of tailings deposited in the Springer Pit as of January 25, 2016 is 2,217,922 tonnes (1,607,189 m<sup>3</sup> including water retained in tailings).

Water elevations are recorded daily at the Springer Pit and the surrounding groundwater wells and presented here in Table 1.

Monthly water quality monitoring is conducted at Springer Pit and the surrounding groundwater wells. All results are reported to Ministry of Environment each quarter, and monthly results are included here as they become available. Results were last reported in the January 21<sup>st</sup> report which is available on the Imperial Metals website <u>here</u>.

A map of the groundwater well locations is included as Figure 1 of the July 23<sup>rd</sup> weekly report available here: <a href="http://www.imperialmetals.com/assets/docs/mt-polley/07.23.15.weekly-update-SEC.pdf">http://www.imperialmetals.com/assets/docs/mt-polley/07.23.15.weekly-update-SEC.pdf</a>
Note that the suffix "a" indicates the deep well in the pair, and the suffix "b" indicates the shallow well in the pair.

### **Water Treatment and Discharge**

Water discharge continued this week, with discharge rates averaging 0.19 m<sup>3</sup>/s.

## Rehabilitation Work

### **Hazeltine Creek Rehabilitation**

Work around the Ditch Road Bridge was completed. Work commenced to open roads to allow access to Reach 3 and to the area around the Polley Lake Weir.

# **Environmental Monitoring Program**

## **Water Quality Monitoring**

All water quality monitoring as required by Permit 11678 is current. Samples were collected on Quesnel Lake on January 20<sup>th</sup> and 25<sup>th</sup>; this data will be reported to Ministry of Environment in the 2016 Quarter one report.

Samples were collected at end of pipe at the water treatment plant (station HAD-03) and throughout Hazeltine Creek. Table 2 shows the most recent data collected at HAD-03 on January 7<sup>th</sup>,12<sup>th</sup>, and 18<sup>th</sup> compared to the permit requirements. Samples were collected on January 19<sup>th</sup> and 26<sup>th</sup>; results will be reported when they become available.

Profile data and samples were collected on Quesnel Lake on January 20<sup>th</sup> and 25<sup>th</sup>. The profile data is provided in Figure 1 and 2 below. There were no new data available from the edge of the initial dilution zone in Quesnel Lake (QUL-58) since the last report. New data will be provided in this report as it comes available from the lab.

For previous results see the January 21, 2016 report available on the imperial metals website. <a href="http://www.imperialmetals.com/assets/docs/mt-polley/01.21.16.weekly-update-SEC.pdf">http://www.imperialmetals.com/assets/docs/mt-polley/01.21.16.weekly-update-SEC.pdf</a>

A 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

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).

Figure 2 shows the field parameter profile results for turbidity and temperature at station QUL-18 in the misled of the west arm of Quesnel Lake.

Figure 3 shows field turbidity readings for upper, middle and lower Hazeltine Creek.

Figure 4 shows a time series graph of turbidity readings at site QUR-1 in the upper Quesnel River.

Table 1. Water elevations for Springer Pit and groundwater wells

	Last Week	This Week		Change	
	20-Jan-16	27-Jan-16		(m)	
Springer	1025.54	1025.60		0.06	
GW12-2a	1015.34	1015.42		0.08	
GW12-2b	1015.81	1015.89		0.08	
GW15-1a	1025.82	1025.99		0.17	
GW15-1b	1025.77	1025.96		0.19	
GW15-2a	1025.22	1025.34		0.12	
GW15-2b	1025.99	1026.14		0.15	

Table 2. Sample analysis results for HAD-03 (end of pipe from the water treatment plant)

	Lab Ana	Permit 11678		
	07-Jan-16	12-Jan-16	18-Jan-16	mg/L
Total Suspended Solids (mg/L)	12.2	20	7	15
Nitrate (as N) (mg/L)	7.92	7.6	8.38	9.7
Copper (Cu)-Total (mg/L)	0.00374	0.0035	0.00385	0.012
Molybdenum (Mo)-Total (mg/L)	0.148	0.147	0.157	0.41
Selenium (Se)-Total (mg/L)	0.0281	0.0297	0.0326	0.06
Sulphate (mg/L)	544	527	531	720
Cadmium (Cd)-Total (mg/L)	<0.000040	0.000027	0.0000322	N/A

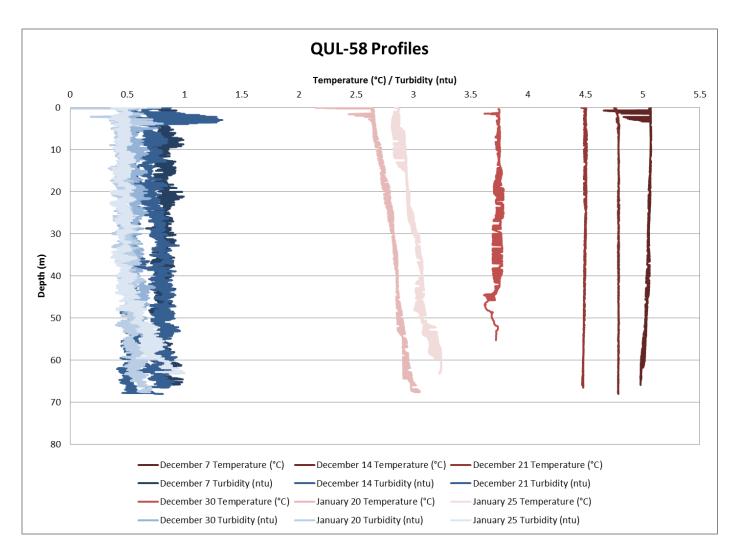


Figure 1. Turbidity and temperature profiles at QUL-58 on December 7, 14, 21 and 30, 2015 and January 20 and 25, 2016.

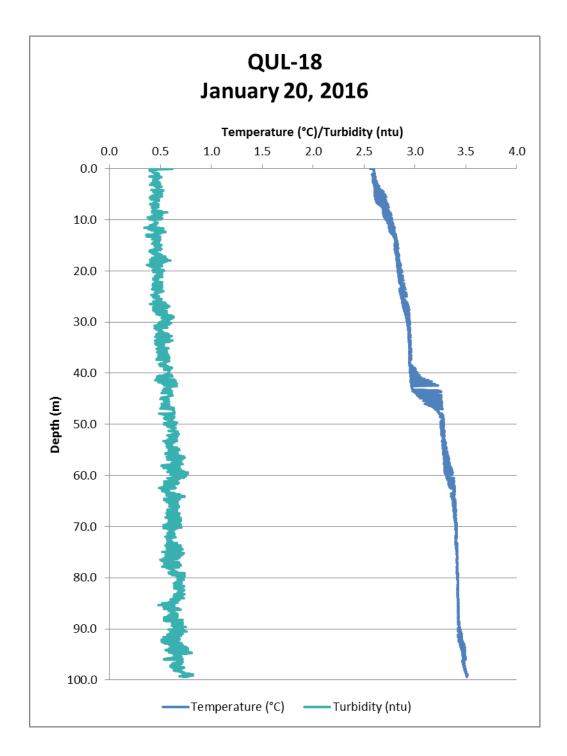


Figure 2. Temperature and turbidity profile at QUL-18 (Quesnel Lake West Arm) on January 20, 2016

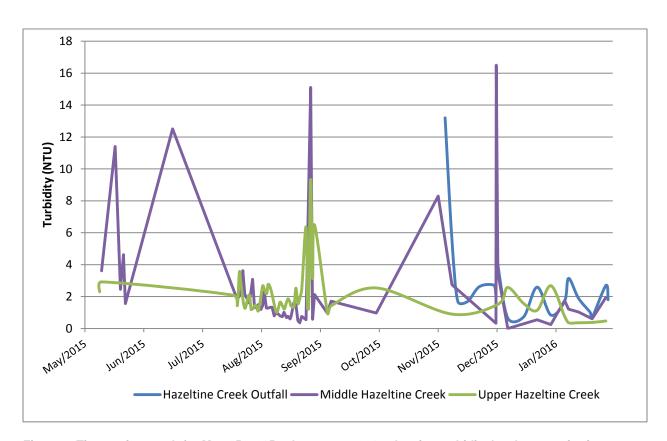


Figure 3. Time series graph for May 15, 2015 – January 27, 2016 showing turbidity levels at monitoring locations in upper and lower Hazeltine Creek

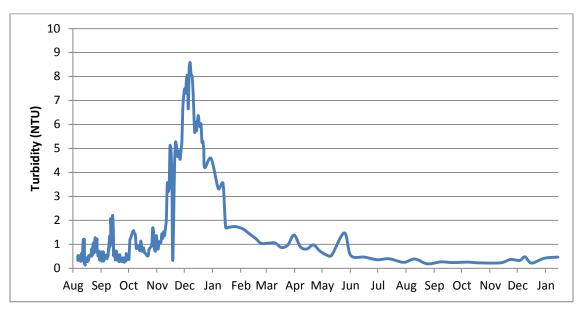


Figure 4. Time series of turbidity readings at site QUR-1 in the upper Quesnel River. Samples are collected every second week from this site.