Mount Polley Mining Corporation
an Imperial Metals company
Box 12 • Likely, BC V0L 1N0 • T 250.790.2215 • F 250.790.2613

January 21, 2016

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

WEEKLY UPDATE REPORT – JANUARY 15 TO JANUARY 21, 2016

Water Management

Springer Pit

The total volume of tailings deposited in the Springer Pit as of January 19, 2016 is 2,093,701 tonnes (1,517,174 m^3 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 parameters of interest for the last six sampling events are presented here. Table 2 presents the results from Springer Pit sampling, and Tables 3 through 8 present the sampling results from the groundwater wells.

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

On January 6th it was noted that there may have been a couple days in early January where exfiltration from Springer Pit to ground may have occurred in an isolated area. This was reported to the Director at Ministry of Environment. A report as required by section 2.6 of Permit 11678 was submitted to the Ministry of Environment on January 15, 2016.

Water Treatment and Discharge

Water discharge continued this week, with discharge rates averaging 0.21 m^3/s.

Rehabilitation Work

Hazeltine Creek Rehabilitation

Work continued to place rip rap around slopes at the new Ditch Road Bridge.

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 20th , 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 9 shows new data collected HAD-03 on January 7th,12th, and 18th compared to the permit requirements. The sample collected on January 12th had an exceedence of the TSS limit so the site was resampled on January 18th. Additionally there were operational TSS samples collected on January 11th and 13th. On January 11th the TSS was 5.0 mg/L and the average TSS on January 13th was 8.57 mg/L with a maximum reading of 11.5 mg/L. TSS results for lower Hazeltine on January 12th were <3.0 mg/L. In response to the exceedence MPMC has brought the water treatment plant manufacturer on site to assist with identifying any technical problems that may have caused the elevated TSS.

Profile data was collected on Quesnel Lake on January 20th and this information is provided in Figure 1 below. A sample was not collected due to time constraints (samples were collected at the far field sites on Quesnel Lake that day). 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 14, 2016 report available on the imperial metals website.
http://www.imperialmetals.com/assets/docs/mt-polley/2016-01-14_MOE.pdf

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

Figure 3 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
	13-Jan-16	20-Jan-16		(m)
Springer	1025.32	1025.54		0.22
GW12-2a	1015.38	1015.34		-0.04
GW12-2b	1015.80	1015.81		0.01
GW15-1a	1025.71	1025.82		0.11
GW15-1b	1025.25	1025.77		0.52
GW15-2a	1026.02	1025.22		-0.80
GW15-2b	1025.32	1025.99		0.67

Table 2. Springer Pit supernatant water chemistry results (September 2015 - January 2016)

		Springer Pit Supernatant					
Date Sampled		**30-Sep-15**	**13-Oct-15**	**29-Oct-15**	**11-Nov-15**	**01-Dec-15**	**06-Jan-16**
Physical Tests							
Conductivity	µS/cm	1120	1100	1130	1120	1140	1150
Hardness (as CaCO3)	mg/L	537	537	529	534	552	520
pH	pH	8.07	8.05	8.04	8.03	8.07	7.95
Total Suspended Solids	mg/L	<3.0	3.30	<3.0	6.20	9.10	<3.0
Turbidity	NTU	0.61	0.45	1.00	3.28	4.52	0.90
Anions and Nutrients							
Nitrate (as N)	mg/L	8.26	8.13	8.44	8.34	8.22	8.30
Sulfate (SO4)	mg/L	497	490	513	511	501	514
Total Metals							
Aluminum (Al)-Total	mg/L	0.0373	0.03	0.09	0.26	0.31	0.08
Arsenic (As)-Total	mg/L	0.00117	0.00091	0.00106	0.00124	0.00120	0.00118
Cadmium (Cd)-Total	mg/L	<0.00002	0.0000108	0.0000121	<0.000025	<0.000020	0.0000183
Copper (Cu)-Total	mg/L	0.00845	0.00702	0.00829	0.03140	0.01790	0.01130
Iron (Fe)-Total	mg/L	<0.030	<0.03	0.059	0.21	0.256	0.045
Lead (Pb)-Total	mg/L	<0.00005	<0.000050	<0.000050	0.000268	0.000069	<0.000050
Molybdenum (Mo)-Total	mg/L	0.153	0.148	0.152	0.145	0.154	0.151
Selenium (Se)-Total	mg/L	0.0354	0.0336	0.0334	0.0323	0.0366	0.0357
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	0.0123	0.0145	0.0143	0.0151	0.0137	0.0086
Arsenic (As)-Dissolved	mg/L	0.00100	0.00087	0.00099	0.00093	0.00097	0.00092
Cadmium (Cd)-Dissolved	mg/L	<0.00002	0.0000083	0.0000064	<0.000020	<0.000020	0.000014
Copper (Cu)-Dissolved	mg/L	0.0054	0.00498	0.00363	0.00409	0.00377	0.00402
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.137	0.149	0.148	0.149	0.149	0.139
Selenium (Se)-Dissolved	mg/L	0.0363	0.0321	0.0318	0.0319	0.0351	0.0336

Table 3. GW 12-2a water chemistry results (September 2015 - January 2016)

		GW 12-2A					
Date Sampled		**02-Sep-15**	**29-Sep-15**	**21-Oct-15**	**17-Nov-15**	**17-Dec-15**	**12-Jan-16**
Physical Tests							
Conductivity	µS/cm	219	224	230	227	232	228
Hardness (as CaCO3)	mg/L	47.4	47.8	50.1	49.7	50.7	50.8
pH	pH	7.98	8.10	8.08	8.16	8.27	8.30
Anions and Nutrients							
Nitrate (as N)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sulfate (SO4)	mg/L	54.1	56.1	59.6	60.8	63.7	63.7
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	0.0066	0.0072	0.0057	0.0056	0.0054	0.0054
Arsenic (As)-Dissolved	mg/L	0.00224	0.00231	0.00215	0.00224	0.00232	0.00226
Cadmium (Cd)-Dissolved	mg/L	0.0000076	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Copper (Cu)-Dissolved	mg/L	0.00066	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.0397	0.0394	0.0400	0.0398	0.0398	0.0331
Selenium (Se)-Dissolved	mg/L	0.000075	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

Table 4. GW 12-2b water chemistry results (September 2015 - January 2016)

		GW 12-2B					
Date Sampled		**02-Sep-15**	**29-Sep-15**	**21-Oct-15**	**17-Nov-15**	**17-Dec-15**	**12-Jan-16**
Physical Tests							
Conductivity	µS/cm	510	557	593	653	663	641
Hardness (as CaCO3)	mg/L	264	283	311.0	331.0	336.0	324.0
pH	pH	7.91	7.85	8.10	8.09	7.82	7.77
Anions and Nutrients							
Nitrate (as N)	mg/L	3.5	3.86	4.28	4.67	4.86	4.64
Sulfate (SO4)	mg/L	93.7	119	137	160	169	158
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	0.0031	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Arsenic (As)-Dissolved	mg/L	0.00051	0.00051	0.00047	0.00049	0.00051	0.00053
Cadmium (Cd)-Dissolved	mg/L	0.0000076	<0.000005	0.0000088	0.0000071	0.0000051	<0.0000050
Copper (Cu)-Dissolved	mg/L	0.00118	0.00066	0.00177	0.00074	0.00081	0.0007
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.0244	0.0235	0.0230	0.0223	0.0219	0.0215
Selenium (Se)-Dissolved	mg/L	0.0122	0.0151	0.0151	0.0175	0.0161	0.0151

Table 5. GW 15-1a water chemistry results (September 2015 - January 2016)

		GW 15-1A					
Date Sampled		**09-Sep-15**	**01-Oct-15**	**21-Oct-15**	**18-Nov-15**	**17-Dec-15**	**13-Jan-16**
Physical Tests							
Conductivity	µS/cm	322	303	296	304	292	290
Hardness (as CaCO3)	mg/L		93.2	93.5	94.5	86.7	84.0
pH	pH	8.20	8.06	8.1	7.99	7.97	8.08
Anions and Nutrients							
Nitrate (as N)	mg/L	<0.0050	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Sulfate (SO4)	mg/L	71.4	67.8	63.9	63.3	64.2	63.0
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	0.0037	0.0054	0.0031	0.0040	0.0035	0.0033
Arsenic (As)-Dissolved	mg/L	0.00586	0.00649	0.00563	0.00540	0.00560	0.00511
Cadmium (Cd)-Dissolved	mg/L	0.0000061	0.0000084	0.0000071	0.0000241	0.0000160	0.0000066
Copper (Cu)-Dissolved	mg/L	0.00085	<0.00050	<0.00050	0.00058	<0.00050	<0.00050
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.0221	0.0259	0.0249	0.0257	0.0249	0.0245
Selenium (Se)-Dissolved	mg/L	0.00040	0.000162	0.000116	0.000186	0.000115	0.000131

Table 6. GW 15-1B water chemistry results (September 2015 - January 2016)

		GW 15-1B					
Date Sampled		**09-Sep-15**	**01-Oct-15**	**21-Oct-15**	**17-Nov-15**	**17-Dec-15**	**12-Jan-16**
Physical Tests							
Conductivity	µS/cm	559	543	568	577	570	564
Hardness (as CaCO3)	mg/L		249	272	260.0	254.0	249.0
pH	pH	7.97	7.94	8.12	8.12	7.91	7.82
Anions and Nutrients							
Nitrate (as N)	mg/L	1.09	1.14	1.05	1.06	1.11	1.14
Sulfate (SO4)	mg/L	118.0	118	118	118.0	125.0	127.0
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	<0.0030	<0.003	<0.0030	<0.0030	<0.0030	<0.0030
Arsenic (As)-Dissolved	mg/L	0.00164	0.00159	0.00156	0.00157	0.00164	0.00159
Cadmium (Cd)-Dissolved	mg/L	<0.0000050	0.000005	<0.0000050	0.0000057	0.0000050	<0.0000050
Copper (Cu)-Dissolved	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.0055	0.00528	0.00534	0.0053	0.0055	0.0051
Selenium (Se)-Dissolved	mg/L	0.01500	0.0132	0.0129	0.0138	0.0148	0.0176

Table 7. GW 15-2a water chemistry results (September 2015- January 2016)

		GW 15-2A					
Date Sampled		**09-Sep-15**	**29-Sep-05**	**21-Oct-15**	**17-Nov-15**	**17-Dec-15**	**12-Jan-16**
Physical Tests (Water)							
Conductivity	µS/cm	214	209	208	208	210	208
Hardness (as CaCO3)	mg/L		61.3	62.2	61.5	61.9	61.6
pH	pH	8.18	8.04	8.17	8.19	8.26	8.20
Anions and Nutrients							
Nitrate (as N)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Sulfate (SO4)	mg/L	39.7	38.8	38.2	38.1	39.4	38.8
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	0.0035	0.0034	0.0067	<0.0030	<0.0030	<0.0030
Arsenic (As)-Dissolved	mg/L	0.00325	0.00355	0.00332	0.00335	0.00352	0.00362
Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.0000125	<0.0000050	<0.0000050	<0.0000050
Copper (Cu)-Dissolved	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.0402	0.0415	0.041	0.0419	0.0422	0.0411
Selenium (Se)-Dissolved	mg/L	0.00009	0.000056	<0.000050	0.000075	0.000186	0.000072

Table 8. GW 15-2b water chemistry results (September 2015 - January 2016)

		GW 15-2B					
Date Sampled		**09-Sep-15**	**29-Sep-05**	**21-Oct-15**	**17-Nov-15**	**17-Dec-15**	**12-Jan-16**
Physical Tests (Water)							
Conductivity	µS/cm	333	340	344	358	364	366
Hardness (as CaCO3)	mg/L		127	135	140	143	142
pH	pH	8.07	7.98	8.1	8.04	8.07	8.02
Anions and Nutrients							
Nitrate (as N)	mg/L	0.14	0.1	0.234	0.44	0.572	0.593
Sulfate (SO4)	mg/L	68.1	69.3	69.8	73.3	77.6	78.3
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	0.0035	0.0032	<0.0030	<0.0030	<0.0030	<0.0030
Arsenic (As)-Dissolved	mg/L	0.00261	0.00285	0.00261	0.00240	0.00242	0.00239
Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Copper (Cu)-Dissolved	mg/L	<0.00050	0.00013	<0.00050	<0.00050	<0.00050	<0.00050
Iron (Fe)-Dissolved	mg/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.0424	0.0432	0.0444	0.0440	0.0383	0.0422
Selenium (Se)-Dissolved	mg/L	0.00013	0.000084	0.000117	0.000187	0.000186	0.000243

Table 9. Sample analysis results for HAD-03 (end of pipe from the water treatment plant)

	Lab Analysis Results for HAD-03			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

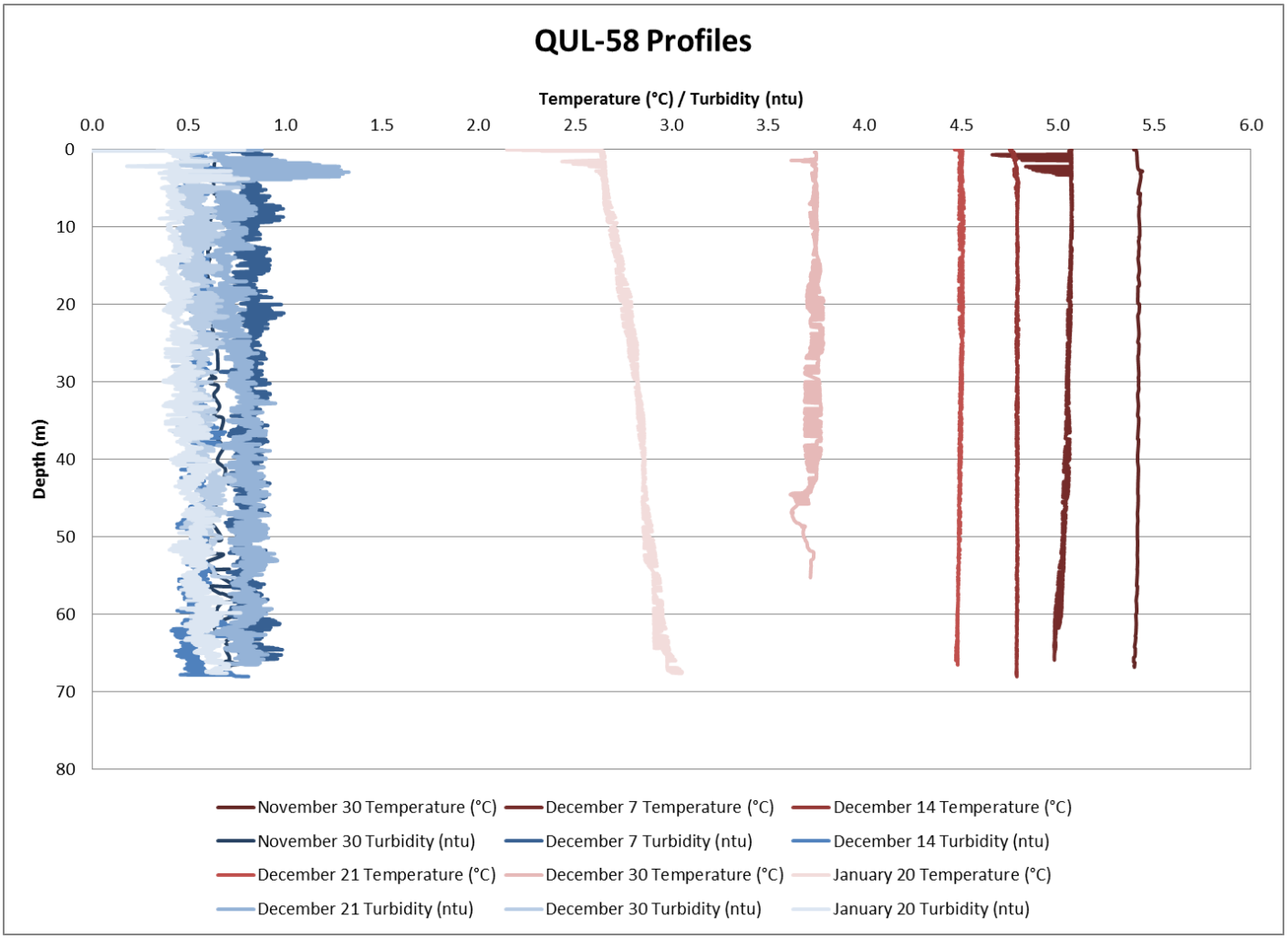

Figure 1. Turbidity and temperature profiles at QUL-58 on November 30, December 7, 14, 21 and 30.

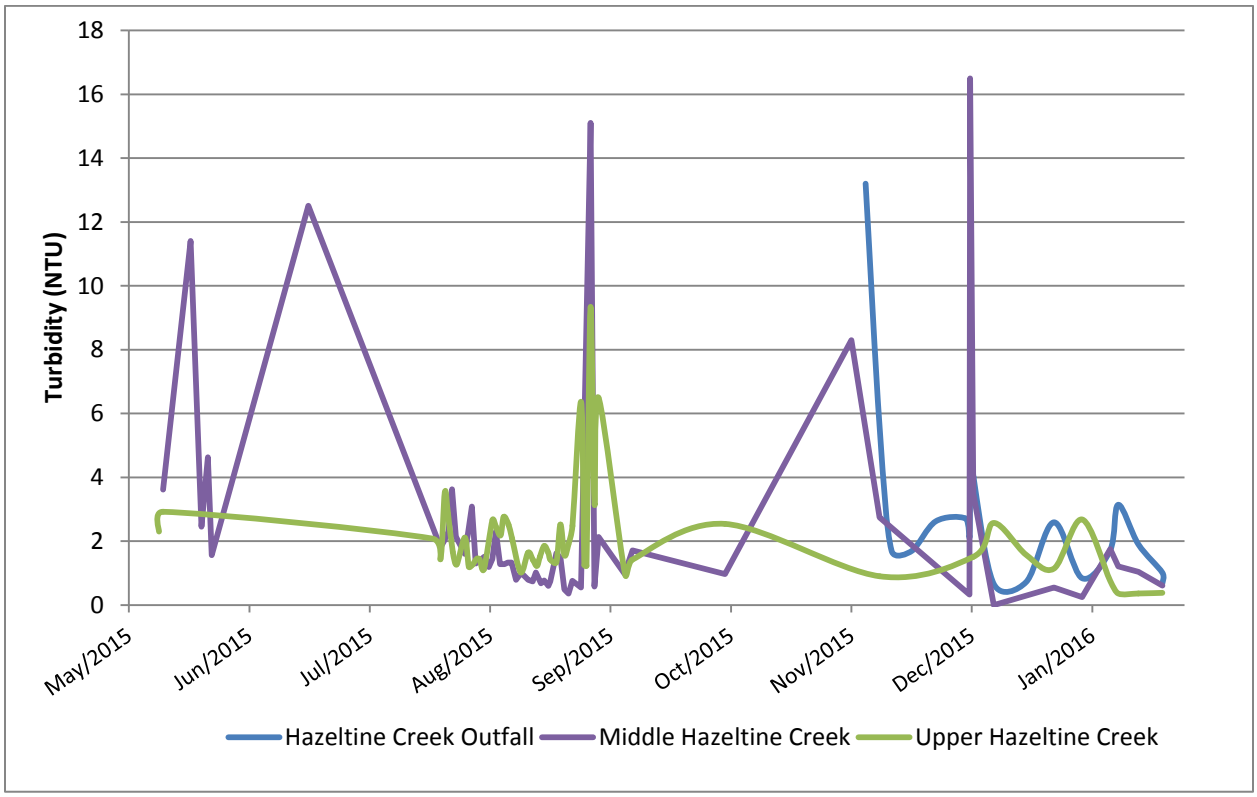

Figure 2. Time series graph for May 15, 2015 – January 13, 2016 showing turbidity levels at monitoring locations in upper and lower Hazeltine Creek

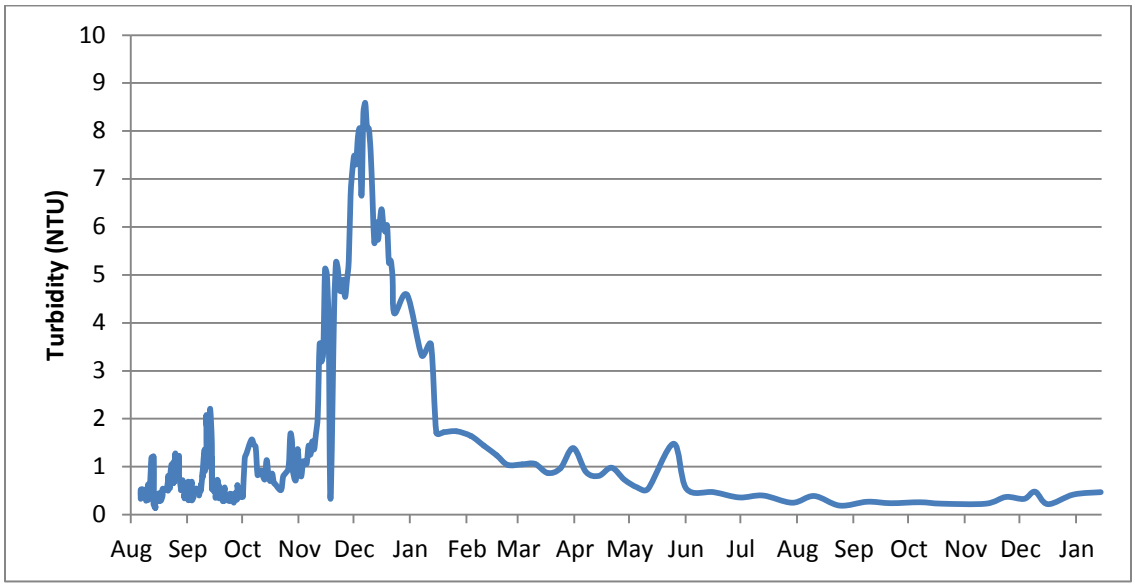

Figure 3. Time series of turbidity readings at site QUR-1 in the upper Quesnel River. Samples are collected every second week from this site.