Review of Nov 1, 2010 Application "Mine Permit Amendment Application". Includes review of Stage 7 Dam Construction. M-200 · MP00052

Dear Diane and Chris,

Please find below responses to questions as outlined in your respective e-mails regarding the Mine Permit Amendment Application for Mount Polley Mine.

Diane Howe's Comments

1. **Review and supply supporting documentation that projected tailings amount will fit into the TSF (970m).**

Please find attached the supporting documentation as **Item 1**.

Based on internal documents including LOM tonnages (32,041,000t of Mill Feed at 2.60 S.G.) and the water balance, in combination with the Tailings Storage Facility (TSF) depth-capacity curve as designed by Knight Piésold, it is projected that all material produced as a result of continuing mining operations, as well as additional items contained within the permit amendment, will be able to be stored within the Dam structure as designed. Final projected elevation of the TSF is 966.51m (freeboard included), with current ultimate design to 970.0m. Full calculations are as included in **Item 1**.

2. **Provide supporting documentation for C2 and Boundary pit design.**

Pit wall and bench configurations have been provided in the Application; however, the Boundary and C2 Zones are still in the exploration stages, with further drilling and definition required before pit design can be finalized. Given that the Boundary and C2 pits are projected to be mined commencing in 2013 and 2014 respectively, comprehensive design will be submitted once the respective ore bodies have been defined appropriately.

Design shall be completed with input from a design consultant, and all work shall be supervised by a qualified geotechnical engineer. Design will be modelled and modified based on pit mapping, stability performance and a review by a qualified geotechnical engineer.

3. **Combined all existing geotechnical data in a single report for SERDS.**

Geotechnical information for the SERDS is attached as **Item 2**.

4. Provide geotechnical information for Temporary PAG dump storage area.

Geotechnical information for the Temporary West PAG Stockpile is included as **Item 3.**

A study provided by Golder Associates dated December 1, 2010 summarizes the results of field and laboratory investigations that were previously carried out in 1999 which include the area now designated for the Temporary West PAG Stockpile (previously called the 1040 metre platform).

5. Provide ABA sampling procedure.

A revised ABA sampling procedure has been included as **Item 4.**

Operational classification procedures are as provided: a combination of geological mapping and modelling of blast hole analysis data is used to map the distribution of the PAG waste in each bench. Key items of the procedure include maintaining minimum sample density of 1 per 30,000 tonnes, and running individual samples through a LECO sulphur analyzer rather than making ABA composites.

6. Provide Water balance

A copy of the most current Water Balance and supporting text is included as **Item 5.**

The water balance projects through 2012 (and will continue to be projected out each year), and is integral in managing material in the TSF. The water balance is updated with real figures every month (i.e. precipitation, evaporation, daily mill throughput, water flow and pumping rates), with projected inputs based on historical data and forecasted figures.

7. Issue clear maps in both electronic and hard copy format

A clear copy of the maps is included as **Item 6.**

8. Remove SEZ PAG temporary stockpile from permit app.

All reference to the Temporary East PAG Stockpile (SEZ PAG temporary stockpile) will be struck from the Application as detailed further in this response.

9. Provide traffic management plan for expansion.

A traffic control procedure is kept updated at the mine in accordance with the Health and Safety requirements of the Code. An updated traffic management plan will be provided before the changeover to the new mine access occurs.

Chris Carr Comments

10. Site plans/maps need labels to show major components of proposed development.

See Comment 7.

11. The application indicates that there is sufficient capacity in the permitted TSF to store the additional water from the proposed mine development however page 39 indicates additional dam construction will be required near end of mine life presumably to store additional tailings. There is no report from the design consultant to indicate required dam height or confirm that additional dam construction is feasible.

See Comment 1.

12. Geotechnical design report required for the Southeast Rock Disposal Site (SERDS). The application provides information for a relatively small South Rock Disposal Site (report dated October 29, 2010 and includes the proposed South Haul Road), the Northeast Zone Waste Dump (report dated October 19, 2004) and Northeast Waste Rock Dump Extension (report dated November 8, 2006). Stability analyses for the South RDS did not consider undrained loading conditions for dump construction over lacustrine silt and swamp deposits.

See Comment 3.

13. Geotechnical design report required for the temporary West PAG Dump.

See Comment 4.

14. The application indicates that a waste rock dump will be located adjacent to Boundary Zone Pit. I think this is the East PAG Dump that is no longer in the plan?

See Comment 8.

15. Pit slope design report required for C2 Pit and Boundary Pit based on local rock mass and geological structure.

See Comment 2.

M-290
Item 1

Item 1 – Tailings Storage Facility Calculation

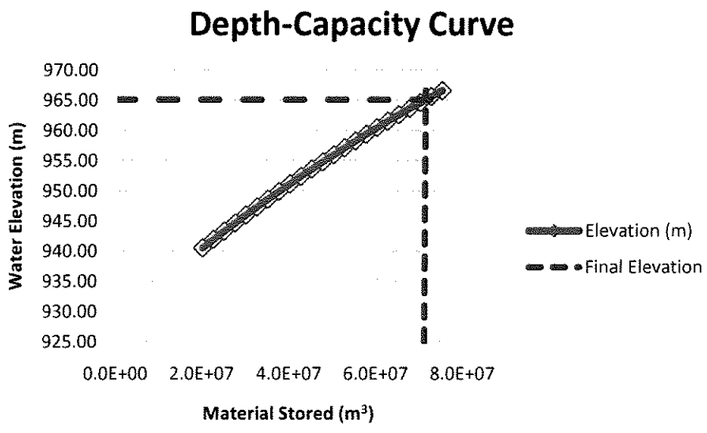
Existing Dam data is as of the end of November and is calculated from the Water Balance (Mount Polley). Projected Values are as per Mount Polley Reserves (Mount Polley) and the Depth-Capacity Curve (Knight Piésold).

Item	Existing Dam	LOM Projection
Cumulative Tailings Since Startup (m^3)	24,782,031	37,106,936
Water (m^3)	22,094,478	34,043,063
Total Material (m^3)	46,876,509	71,150,000
Water Elevation (m)	954.52	965.12
Required Dam Elevation (m)	955.91	966.51

Cumulative tailings to date are as per daily mill throughputs, compiled from daily mill and mine operations data. Water contained in the dam is tracked by means of the water balance, which accounts for all surface and sub-surface water flows collected by various ditches and pipelines that report to the TSF. Water elevation is modeled by the depth-capacity curve provided by Knight Piésold as relating to the dam design, and is verified by monthly surveys of the water surface elevation. A storm and freeboard allowance of 1.39m is added to the projected TSF water level.

For the purpose of Water Balance modelling for the life of mine, an assumed ratio of tailings to water of 1.09 (based on historical data) is assumed. This would require discharge/pit storage at latter stages of mine life in order to maintain.

Depth-Capacity Curve



M-200
Item 5

Mount Polley Water Balance
2010 Update

Introduction

Mount Polley Mine maintains a water balance to assist in water management planning, including optimizing dam build requirements. The latest revision used is an update from an earlier version used during the first phase of operations (1997–2001); adding new development areas, including Springer Pit, Wight Pit, the Northeast Rock Disposal Site and both East and West long perimeter ditches collecting water from the boundary of the property. For the purpose of this Application, the water balance has been constructed to include water capture associated with proposed new development and ditch systems.

The water management plan includes the following objectives:

- To capture and manage all water that has been affected by mine components.
- To divert runoff from undisturbed areas away from the mine site and tailings storage facility (TSF).
- To effectively manage the water to minimize the need for regulated discharges to surface water and prevent the need for water removal from Polley Lake.
- To develop a discharge strategy for excess mine water (including tailings supernatant).

Water Management

Effective water management at the site will ensure that the discharge of TSF water will be minimized and that the removal of water from Polley Lake will not be required. An optimum average volume of water to be stored in the TSF is 1,500,000 m^3.

For average precipitation conditions, a surplus of water will be produced on the site. Water reporting to the Tailings Storage Facility (TSF) includes precipitation and runoff from the TSF catchment, runoff from mine disturbed areas including Rock Disposal Sites, and groundwater from some of the open pits.

Project Components

The main mine components including the open pits; rock disposal sites (RDS), the mill site, and the tailings facility.

HYDROMETEOROLOGY

PRECIPITATION

Mean annual precipitation for the site was estimated at 740 mm. This value reflects data collected at an on-site weather station and updates a previously estimated mean annual precipitation value of 755 mm used for previous work.

SNOWMELT

All snowfall at the site was considered to melt and contribute to runoff for the months from March to November. Snowfall between December and February was assumed to accumulate as snowpack. The accumulated snow was assumed to melt between March and May, with 10% of the snowpack melting in March, 50% in April, and 40% in May.

EVAPORATION

Evaporation data for the site was collected between 1997 and 2003. The site data was found to closely match the estimates used in previous work so these were maintained for the current water balance.

RUNOFF COEFFICIENTS

Freshet runoff coefficients were used for the months of March, April, and May. It was observed that runoff during these months, when the ground was either frozen (in the early period) or water saturated was being underestimated by the general runoff coefficients for some catchment areas. Runoff coefficients for these areas were set to 100% for the freshet period. Conversely, during the dry summer and early fall months from June through October, it was observed that water from some areas (including the East RDS) was never reporting to the TSF or collection areas and was instead being absorbed into the dry ground or seeping out of the collection ditches. The runoff coefficients for these areas were set to zero for the dry period. Recently, and in most cases, estimated flows are projected based on site observations and have been determined to a more accurate means of projecting flow from a disturbed area.

GROUNDWATER INPUT

The groundwater inflow to the open pits is assumed to generally relate to pit depth. Yearly groundwater inflow rates were estimated using a linear relationship between inflow rate and time.

The Cariboo Pit is currently being used to store excess water; however, it is periodically used to supplement process water needs.

Water Balance Updates

The water balance is updated at the end of each month, where pond elevation values are reported in a mine departmental report. The accuracy of the balance is measured by surveyed elevation of the TSF water, and compared to a calculated value in the water balance. (See grey shaded area in the water balance).

Key Parameters and Monitoring Variables

Tailings Tonnage:	Mining Variable
Tailings Solids Density:	Milling Variable
Tailings Beach Volume:	Tailings Operating Variable
Monthly Precipitation:	Automated weather station, snow pack, manual measurements
Monthly Evaporation:	Evaporation pan
Weekly South-East Pond flows:	Estimate; based on field measurements
Weekly Mill site Sump Flows:	Estimate; based on field measurements
Local Weather Information:	Short term planning tool
Ice Thickness:	Monthly Measurement
Hazeltine Flow Measurement:	Pressure Transducers

Water Balance Results

A copy of our water balance is attached. The current dam elevation is 958.0m, and according the water balance provides sufficient freeboard until June of 2011. Looking into late spring of 2012, the dam will need to be at 961m. The crest elevation will be adjusted to maintain freeboard requirements for storage of the probable maximum precipitation (PMP) event plus one metre for wave run-up as required by the current permit (total of 1.39m).

MOUNT POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE - AVERAGE PRECIPITATION CONDITIONS

ASSUMPTIONS:

Daily Ore Throughput (tpd) = 21,297
Solids Content 35%
Tailings S.G. = 2.65
Water Content of Ore = 2.98%
Dry Density (t/m^3) = 1.4
Initial Volume (m^3) = 1,180,821
Minimum Desired Volume = 1,000,000
Maximum Fresh Water Makeup = 2.1%
Underdrainage Recovery - Back to TSF (m^3) = 0
Initial Volume Cariboo Pit (m^3) = 2,159,156
Initial Volume Wight Pit = 191,000
Initial Volume Bell Pit (m^3) = 300,642
Groundwater Seepage Loss (m^3/month) = 5,840
Groundwater and Seepage (m^3/month) = 35,355
Discharge from Seepage Pond (yes/no) no

Areas:

Open Pits
Bell Pit (Area A) = 17
Diversion Efficiency = 100%
Springer Pit (Area B) = 36
Diversion Efficiency = 0%
Wight Pit (Area C) = 16
Diversion Efficiency = 100%
Cariboo Pit Area (Area D1) = 41
*Cariboo Pit acts as a water storage pond

Rock Disposal Sites (RDS)
East Rock Disposal Site (RDS) - Disturbed (Area E1) = 55
Diversion Efficiency = 0%
East RDS - Undisturbed (Area E2) = 89
Diversion Efficiency = 0%
North RDS - Disturbed (Area F1) = 35
Diversion Efficiency = 100%
North RDS - Undisturbed (Area F2) = 1
Diversion Efficiency = 100%
Northeast RDS -Disturbed Area (Area G1) = 0 *Assume Reclaimed
Diversion Efficiency = 100%
Northeast RDS - Un-Disturbed Area (Area G2) = 0
Diversion Efficiency = 100%

Mill Site
Millsite Area (Area H) = 59
Diversion Efficiency = 0%

Tailings Storage Facility (TSF)
Total Tailings Facility Area = 235.0
Pond Area (Area I) = 150.0 150.0
Beach Area (Area J) = 85.0

Unprepared Area (Area K) = 0.0
Biosolids Stockpile (Area L) = 4
Diversion Efficiency = 0%
Downstream Seepage Pond and Area (Area M) = 15
Diversion Efficiency = 0%

Beach Evaporation Factor = 0.50

Groundwater Pumping Rate to the TSF		% to TSF
Cariboo Pit Groundwater Infiltration (m^3/mo) =	0	0
(gpm) =	0	
Wight Pit Groundwater Infiltration (m3/mo) =	70,093	0%
(gpm) =	436	
Bell Pit Groundwater Infiltration (m3/mo) =	16,909	0%
(gpm) =	100	
Springer Pit Groundwater Infiltration (m3/mo) =	33,818	100%
(gpm) =	200	

Water Pumped to Other Pits from the TSF
To Wight Pit (m3/year) = 0
To Cariboo Pit (m3/year) = 0
To Bell Pit (m3/year) = 0

Water Pumped to the TSF from Cariboo Pit
To TSF (m3/year) = 0

Runoff Coefficients:

	General	Freshet	Low Flow Period
Unprepared Basin =	0.35	1.00	0.50
Tailings Beach =	0.90	0.90	0.20
Open Pit Area =	0.59	0.59	0.59
Undisturbed RDS Areas =	0.24	0.85	0.06
Millsite Area =	0.50	0.50	0.10
East RDS - Disturbed =	0.60	0.46	0.10
Downstream Tailings Areas =	0.70	1.00	0.20
North RDS - Disturbed =	0.60	1.00	0.15
Northeast RDS - Disturbed =	0.60	1.00	0.10

Beach Evaporation Factor 0.80

	20,125	17,500	20,650	19,500	20,990	21,250	33,400	22,710	22,704	22,600	22,132	22,000	
	2009		2010										
DESCRIPTION	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
Precipitation (mm/month)	44	55	0	10	11	15	48	86	20	48	76	35	448
% of Annual Precipitation	9.7%	12.3%	0.0%	2.2%	2.5%	3.3%	10.7%	19.3%	4.5%	10.7%	17.0%	7.8%	100%
Evaporation (mm/month)	0.0	0.0	0.0	0.0	0.0	0.0	50.0	77.2	125.0	82.0	63.0	23.0	420
Days per Month	30.0	31.0	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	365
<WATER INTO TAILINGS IMPOUNDMENT> (m^3)				109									
Open Pits													
Bell Pit (Area 7a)	0	0	0	0	0	0	0	0	0	0	0	0	0
Bell Pit Groundwater	0	0	0	0	0	0	0	0	0	0	0	0	0
Springer Pit (Area 11) — Springer to Cariboo	0	0	0	0	0	0	0	0	0	0	0	0	0
Springer Pit Groundwater — See Row 123	0	0	0	0	0	0	0	0	0	0	0	0	0
Wight Pit (Area 12)	0	0	0	0	0	0	0	0	0	0	0	0	0
Wight Pit Groundwater (Pumped)	0	0	0	60,000	0	0	20,000	80,000	40,000	20,000	40,000	20,000	280,000
SEZ (Pumped)	0	0	0	0	0	0	0	0	0	10,000	10,000	10,000	30,000
Rock Disposal Sites (RDS)													
Long Ditch Flow (East Ditch)	14,000	14,000	12,500	60,000	25,000	25,000	58,000	21,600	25,000	25,000	25,000	25,000	322,500
West Ditch Flows (North/Central/South)	0	0	0	0	0	0	0	0	0	0	0	0	
Springer RDS	0	0	0	0	0	0	0	0	0	0	0	0	0
Mill Site													
With Slurry	1,121,250	1,007,500	1,188,850	1,014,000	1,208,424	1,183,929	1,347,171	1,265,271	1,306,929	1,301,114	1,233,069	1,266,571	14,444,079
Mill Site (Area 6)	5,000	0	0	0	5,154	5,200	10,000	10,000	2,500	0	0	0	34,884
Tailings Storage Facility (TSF)													
Tailings Pond Precipitation (Area 1)	65,400	82,500	0	15,000	16,500	22,500	72,000	129,600	30,000	72,000	114,000	52,500	672,000
Tailings Beach Runoff (Area 2)	33,354	0	0	0	13,388	36,338	56,610	14,088	3,400	8,160	12,920	26,775	205,632
Unprepared Area Tailings Facility (Area 3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Stockpile (Area 4)	1,046	0	0	0	700	1,900	2,960	0	0	0	0	840	7,446
Downstream Seepage Pond and Area (Area 9)	3,968	0	0	0	2,273	6,175	9,620	2,246	520	1,248	1,976	3,185	31,213
Total	1,241,018	1,104,000	1,201,810	1,149,000	1,271,471	1,281,041	1,568,361	1,523,406	1,408,349	1,437,522	1,436,965	1,404,871	16,027,814
<WATER OUT OF TAILINGS IMPOUNDMENT> (m^3)													
Unrecoverable Water													
(-) Seepage Loss	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	70,080
(-) Water Retained in Tailings	203,420	182,783	215,684	183,962	219,235	214,791	244,407	229,549	237,106	236,051	223,706	229,784	2,620,479
(-) Evaporation from Supernatant Pond	0	0	0	0	0	0	75,000	115,800	187,500	123,060	94,500	34,500	630,300
(-) Evaporation from Beach	0	0	0	0	0	0	21,250	32,810	53,125	34,850	26,775	9,775	178,585
(-) Dust Control (water from TSF Ponds)	0	0	0	0	0	0	0	0	0	0	0	0	0
(-) TSF Surface Runoff discharged from the Seepage Pond	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	209,260	188,623	221,524	189,802	225,075	220,631	346,497	383,999	483,571	399,741	350,821	279,899	3,499,444
Water In or Out of the TSF													
(-) Water Recycled to Mill + Dust Control Requirement (taken from Pit Water)	1,084,706	972,837	1,151,188	979,229	1,170,438	1,146,348	1,306,891	1,226,345	1,267,314	1,261,595	1,194,675	1,227,624	13,989,186
(+/-) Water Accumulating or Lost	-52,947	-57,460	-170,902	-20,032	-124,043	-85,938	-85,026	-86,938	-342,536	-223,814	-108,571	-102,652	-1,460,818
(+) Groundwater and Seepage Recycle	29,515	29,515	29,515	29,515	29,515	29,515	29,515	29,515	29,515	29,515	29,515	29,515	354,180
Total	1,211,503	1,074,485	1,172,295	1,119,485	1,241,956	1,251,526	1,538,840	1,493,891	1,378,834	1,408,007	1,407,450	1,375,356	15,673,634
Monthly Water Available (excluding stored water in the TSF)	1,031,758	915,377	980,286	959,198	1,046,396	1,060,410	1,221,864	1,139,407	924,778	1,037,781	1,086,143	1,124,972	12,528,371
Available Stored Water in TSF at Beginning of Month	1,180,821	1,041,874	898,414	637,715	531,684	335,696	249,759	209,732	880,000	645,464	529,650	448,119	
Total Monthly Water Available	2,212,579	1,957,251	1,878,700	1,596,913	1,578,079	1,396,106	1,471,623	1,349,140	1,804,778	1,683,245	1,615,793	1,573,091	
Water Required at Millsite													
Water for slurry	1,121,250	1,007,500	1,188,850	1,014,000	1,208,424	1,183,929	1,347,171	1,265,271	1,306,929	1,301,114	1,233,069	1,266,571	14,444,079
(-) Minimum Fresh Water Input to Mill (from groundwater wells)	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	216,000
(-) Water in Ore	18,544	16,663	19,662	16,771	19,986	19,581	22,281	20,926	21,615	21,519	20,394	20,948	236,891
Total Required Water Recycled to Mill	1,084,706	972,837	1,151,188	979,229	1,170,438	1,146,348	1,306,891	1,226,345	1,267,314	1,261,595	1,194,675	1,227,624	13,989,188
Total Water Required	1,084,706	972,837	1,151,188	979,229	1,170,438	1,146,348	1,306,891	1,226,345	1,267,314	1,261,595	1,194,675	1,227,624	13,989,188
Water Surplus (Deficit) After Recycle to Process	(52,947)	(57,460)	(170,902)	(20,032)	(124,043)	(85,938)	(85,026)	(86,938)	(342,536)	(223,814)	(108,571)	(102,652)	-1,460,818
Annual Cumulative Surplus (Deficit)	(52,947)	(110,407)	(281,309)	(301,341)	(425,385)	(511,323)	(596,349)	(683,285)	(1,025,820)	(1,249,635)	(1,358,206)	(1,460,818)	
<CARIBOO PIT> (m^3)													
Water Stored in Cariboo Pit at the Beginning of the Month	2,159,156	2,288,672	2,394,672	2,504,469	2,610,469	2,707,839	2,752,564	2,690,004	2,554,856	2,424,306	2,315,766	2,221,796	
Cariboo Pit Precipitation (Area 8)	13,516	0	0	0	5,425	14,725	22,940	26,784	6,260	14,880	23,560	10,850	138,880
Cariboo Pit Groundwater	0	0	0	0	0	0	0	0	0	0	0	0	0
Cariboo Pit Evaporation	0	0	0	0	0	0	15,500	23,932	38,750	25,420	19,530	7,130	130,262
Water Pumped to the Cariboo Pit from the Springer / and NEZ pit	30,000	20,000	20,000	20,000	20,000	30,000	0	0	40,000	40,000	40,000	40,000	300,000
Water Pumped to Cariboo Pit from the TSF	86,000	86,000	89,797	86,000	71,945	0	0	0	0	0	0	0	419,742
Water Pumped for Dust control and Transfer	0	0	0	0	0	0	70,000	138,000	138,000	138,000	138,000	233,000	855,000
Water Pump for Dust Control	0	0	0	0	0	0	25,000	15,000	30,000	30,000	15,000	10,000	125,000
Water Pumped from the Cariboo pit to the TSF	0	0	0	0	0	0	45,000	123,000	108,000	108,000	123,000	223,000	634,000
Water Stored in Cariboo Pit at the End of the Month	2,288,672	2,394,672	2,504,469	2,610,469	2,707,839	2,752,564	2,690,004	2,554,856	2,424,306	2,315,766	2,221,796	2,032,516	
Available Space below 922m = 6,500,000 m^3*0.25 = 1,625,000 m^3													
<WIGHT PIT> (m^3)													
Water Stored in Wight Pit at the Beginning of the Month	191,000	194,488	264,488	334,488	299,488	325,888	434,688	525,608	533,373	539,013	565,549	572,981	
Wight Pit Runoff	3,488	0	0	0	1,400	3,800	5,920	2,765	640	1,536	2,432	2,800	24,781
Wight Pit Groundwater	0	70,000	70,000	25,000	25,000	105,000	105,000	85,000	45,000	45,000	45,000	45,000	665,000
Wight Pit Groundwater (Pumped)	0	0	0	60,000	0	0	20,000	80,000	40,000	20,000	40,000	20,000	280,000
Water Stored in Wight Pit at the End of the Month	194,488	264,488	334,488	299,488	325,888	434,688	525,608	533,373	539,013	565,549	572,981	600,781	
803 m to 922 m average 250 gpm (45,000 m^3/m)				859.60	861.88	864.91							
<BELL PIT> (m^3)													
Water Stored in Bell Pit at the Beginning of the Month	300,642	320,712	337,621	354,530	369,802	388,199	408,600	431,799	451,101	468,690	487,231	506,178	
Bell Pit Runoff	3,706	0	0	0	1,488	4,038	6,290	2,936	680	1,632	2,584	2,975	20,330
Bell Pit Groundwater	16,364	16,909	16,909	15,273	16,909	16,364	16,909	16,364	16,909	16,909	16,364	16,909	199,091
Water Pumped to Bell Pit from the TSF	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Stored in Bell Pit at the End of the Month	320,712	337,621	354,530	369,802	388,199	408,600	431,799	451,101	468,690	487,231	506,178	526,062	
<SOUTHEAST PIT>(m^3)													
Water in TSF at End of Month	1,041,874	898,414	637,715	531,684	335,696	249,759	209,732	880,000	645,464	529,650	448,119	568,467	568,467

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
Volume of Tailings into basin	227,830	204,717	241,566	206,038	245,543	240,566	273,736	257,094	265,559	264,377	250,551	249,057	2,926,634
Cum. Volume of Tailings into basin	227,830	432,547	674,113	880,151	1,125,694	1,366,260	1,639,996	1,897,091	2,162,649	2,427,027	2,677,578	2,926,634	
Water Surplus (Deficit) After Recycle to Process	(52,947)	(57,460)	(170,902)	(20,032)	(124,043)	(85,938)	(85,026)	(86,938)	(342,536)	(223,814)	(108,571)	(102,652)	-1,460,818
Total Water and Solids added to tailings	174,883	147,257	70,664	186,006	121,501	154,628	188,710	170,157	(76,977)	40,563	142,019	146,405	1,465,817
Cum Volume of Tailings in basin since startup	21,845,491	22,050,208	22,291,774	22,497,811	22,743,355	22,983,921	23,257,657	23,514,751	23,780,310	24,044,687	24,295,238	24,544,295	
Volume of Water retained in solids mass	18,804,841	18,987,624	19,203,308	19,387,270	19,606,505	19,821,297	20,065,704	20,295,252	20,532,358	20,768,409	20,992,116	21,271,900	
Cum. Supernatant Volume	1,041,874	898,414	637,715	531,684	335,696	249,759	209,732	880,000	645,464	529,650	448,119	568,467	
Total Volume of tailings and Water in basin	41,692,206	41,936,246	42,132,797	42,416,765	42,685,556	43,054,976	43,533,093	44,690,003	44,958,132	45,342,747	45,735,472	46,334,662	
Estimated Tailings and Water Elevation — use this	**952.01**	**952.13**	**952.23**	**952.36**	**952.50**	**952.68**	**952.91**	**953.47**	**953.60**	**953.79**	**953.97**	**954.26**	
Plus storm and freeboard ►	953.40	953.52	953.62	953.75	953.89	954.07	954.30	954.86	955.0	955.18	955.36	955.65	43,766,195

Actual Tailings and Water Elevation		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	Actual	951.85	952.05	952.00	952.26	952.37	952.44	952.63	952.86	952.90	952.96	953.19	953.53
	Difference	-0.16	-0.08	-0.23	-0.10	-0.13	-0.24	-0.28	-0.61	-0.70	-0.83	-0.78	-0.73

MOUNT POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE - AVERAGE PRECIPITATION CONDITIONS

ASSUMPTIONS:

Daily Ore Throughput (tpd) = 21,750
Solids Content 35%
Tailings S.G. = 2.65
Water Content of Ore = 2.98%
Dry Density (t/m³) = 1.4
Initial Volume (m³) = 568,467
Maximum Desired Volume = 1,000,000
Minimum Fresh Water Makeup = 2.4%
Underdrainage Recovery - Back to TSF (m³) = 0
Initial Volume Cariboo Pit (m³) = 2,032,516
Initial Volume Wight Pit = 600,781
Initial Volume Bell Pit (m³) = 526,062
Groundwater Seepage Loss (m³/month) = 5,840
Groundwater and Seepage (m³/month) = 35,355
Discharge from Seepage Pond (yes/no) no

Areas:

Open Pits
Bell Pit (Area A) = 17
Diversion Efficiency = 100%
Springer Pit (Area B) = 50
Diversion Efficiency = 0%
Wight Pit (Area C) = 16
Diversion Efficiency = 100%
Cariboo Pit Area (Area D1) = 31
*Cariboo Pit acts as a water storage pond

Rock Disposal Sites (RDS)
East Rock Disposal Site (RDS) - Disturbed (Area E1) = 55
Diversion Efficiency = 0%
East RDS - Undisturbed (Area E2) = 89
Diversion Efficiency = 0%
North RDS - Disturbed (Area F1) = 15
Diversion Efficiency = 100%
North RDS - Undisturbed (Area F2) = 1
Diversion Efficiency = 100%
Northeast RDS -Disturbed Area (Area G1) = 0 *Assume Reclaimed
Diversion Efficiency = 100%
Northeast RDS - Un-Disturbed Area (Area G2) = 0
Diversion Efficiency = 100%

Mill Site
Millsite Area (Area H) = 59
Diversion Efficiency = 0%

Tailings Storage Facility (TSF)
Total Tailings Facility Area = 235.0
Pond Area (Area I) = 150.0 120.0
Beach Area (Area J) = 85.0
Unprepared Area (Area K) = 0.0
Biosolids Stockpile (Area L) = 4
Diversion Efficiency = 0%
Downstream Seepage Pond and Area (Area M) = 13
Diversion Efficiency = 0%
Beach Evaporation Factor = 0.50

Groundwater Pumping Rate to the TSF — % to TSF
Cariboo Pit Groundwater Infiltration (m³/mo) = 0 — 0
(gpm) = 0
Wight Pit Groundwater Infiltration (m3/mo) = 76,091 — 0%
(gpm) = 450
Bell Pit Groundwater Infiltration (m3/mo) = 16,909 — 0%
(gpm) = 100
Springer Pit Groundwater Infiltration (m3/mo) = 33,818 — 100%
(gpm) = 200

Water Pumped to Other Pits from the TSF
To Wight Pit (m3/year) = 0
To Cariboo Pit (m3/year) = 0
To Bell Pit (m3/year) = 0

Water Pumped to the TSF from Cariboo Pit
To TSF (m3/year) = 0

Runoff Coefficients:

	General	Freshet	Low Flow Period
Unprepared Basin =	0.35	1.00	0.20
Tailings Beach =	0.90	0.90	0.20
Open Pit Area =	0.50	0.50	0.20
Undisturbed RDS Areas =	0.24	0.40	0.00
Millsite Area =	0.50	0.50	0.10
East RDS - Disturbed =	0.60	0.40	0.00
Downstream Tailings Areas =	0.70	1.00	0.20
North RDS - Disturbed =	0.60	1.00	0.15
Northeast RDS - Disturbed =	0.60	1.00	0.00

Beach Evaporation Factor = 0.80

	2010		2011										
(Throughput)	21,000	20,000	20,000	20,000	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	
DESCRIPTION	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**ANNUAL**
Precipitation (mm/month)	64	64	65	38	30	40	55	111	80	91	47	57	742
% of Annual Precipitation	8.6%	8.6%	8.8%	5.1%	4.0%	5.4%	7.4%	15.0%	10.8%	12.3%	6.3%	7.7%	100%
Evaporation (mm/month)	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	15.0	423
Days per Month	30.0	31.0	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	365
<WATER INTO TAILINGS IMPOUNDMENT> (m³)													
Open Pits													
Bell Pit (Area 7a)	0	0	0	0	0	0	0	0	0	0	0	0	0
Bell Pit Groundwater	0	0	0	0	0	0	0	0	0	0	0	0	0
Springer Pit (Area 11) — Springer to Cariboo	0	0	0	0	0	0	0	0	0	0	0	0	0
Springer Pit Groundwater — See Row 123	0	0	0	0	0	0	0	0	0	0	0	0	0
Wight Pit (Area 12)	0	0	0	0	0	0	0	0	0	0	0	0	0
Wight Pit Groundwater (Pumped)	0	0	0	0	0	106,000	106,000	85,000	0	0	0	0	297,000
SEZ (Pumped)	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Rock Disposal Sites (RDS)													
Long Ditch Flow (East Ditch)	10,000	5,000	5,000	5,000	15,000	50,000	150,000	122,000	25,000	25,000	25,000	25,000	462,000
West Ditch Flows (North/Central/South)	0	0	0	0	0	16,000	180,000	144,000	0	0	0	0	360,000
Springer RDS	0	0	0	0	0	0	0	0	0	0	0	0	0
Mill Site													
With Slurry	1,170,000	1,151,429	1,151,429	1,040,000	1,295,357	1,253,571	1,295,357	1,253,571	1,295,357	1,295,357	1,253,571	1,295,357	14,750,357
Mill Site (Area 6)	2,000	0	0	0	10,000	10,000	10,000	10,000	0	0	0	0	42,000
Tailings Storage Facility (TSF)													
Tailings Pond Precipitation (Area 1)	0	0	0	0	45,000	60,000	82,500	166,500	120,000	136,500	70,500	85,296	766,296
Tailings Beach Runoff (Area 2)	48,960	0	0	0	35,726	94,478	93,177	18,870	13,600	15,470	7,990	43,501	371,771
Unprepared Area Tailings Facility (Area 3)	0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Stockpile (Area 4)	1,536	0	0	0	1,868	4,940	4,872	0	0	0	0	1,365	14,581
Downstream Seepage Pond and Area (Area 9)	5,824	0	0	0	6,071	16,055	15,834	2,886	2,080	2,366	1,222	5,175	57,513
Total	1,248,320	1,166,429	1,166,429	1,055,000	1,419,022	1,641,044	1,947,740	1,812,827	1,466,037	1,484,693	1,368,283	1,465,693	17,241,517
<WATER OUT OF TAILINGS IMPOUNDMENT> (m³)													
Unrecoverable Water													
(-) Seepage Loss	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	70,080
(-) Water Retained in Tailings	212,264	208,895	208,895	188,679	235,007	227,426	235,007	227,426	235,007	235,007	227,426	235,007	2,676,044
(-) Evaporation from Supernatant Pond	0	0	0	0	0	0	70,500	168,000	160,500	138,000	75,000	22,500	634,500
(-) Evaporation from Beach	0	0	0	0	0	0	19,975	47,600	45,475	39,100	21,250	6,375	179,775
(-) Dust Control (water from TSF Ponds)	0	0	0	0	0	0	0	0	0	0	0	0	0
(-) TSF Surface Runoff discharged from the Seepage Pond	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	218,104	214,735	214,735	194,519	240,847	233,266	331,322	448,866	446,822	417,947	329,510	269,722	3,560,399
Water In or Out of the TSF													
(-) Water Recycled to Mill + Dust Control Requirement (taken from Pit Water)	1,132,649	1,114,385	1,114,385	1,004,799	1,255,933	1,214,839	1,255,933	1,214,839	1,255,933	1,255,933	1,214,839	1,255,933	14,290,401
(+/-) Water Accumulating or Lost	-102,434	-162,691	-162,691	-144,319	-77,758	192,939	360,485	149,123	-236,718	-189,187	-176,071	-59,962	-609,283
(+) Groundwater and Seepage Recycle	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,453,187	1,491,811	1,491,811	1,343,637	1,574,538	1,255,165	1,226,770	1,514,582	1,919,473	1,863,067	1,720,426	1,585,617	
Monthly Water Available (excluding stored water in the TSF)	1,030,216	951,694	951,694	860,481	1,178,175	1,407,778	1,616,418	1,363,962	1,019,215	1,066,746	1,038,768	1,195,971	13,681,117
Available Stored Water in TSF at Beginning of Month	568,467	699,034	769,342	839,651	833,332	893,574	1,224,513	1,697,999	1,970,122	1,841,404	1,760,217	1,707,146	
Total Monthly Water Available	1,598,683	1,650,727	1,721,036	1,700,132	2,011,507	2,301,352	2,840,932	3,061,960	2,989,337	2,908,150	2,798,984	2,903,117	
Water Required at Millsite													
Water for slurry	1,170,000	1,151,429	1,151,429	1,040,000	1,295,357	1,253,571	1,295,357	1,253,571	1,295,357	1,295,357	1,253,571	1,295,357	14,750,357
(-) Minimum Fresh Water Input to Mill (from groundwater wells)	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	216,000
(-) Water in Ore	19,351	19,043	19,043	17,201	21,424	20,733	21,424	20,733	21,424	21,424	20,733	21,424	243,956
Total Required Water Recycled to Mill	1,132,649	1,114,385	1,114,385	1,004,799	1,255,933	1,214,839	1,255,933	1,214,839	1,255,933	1,255,933	1,214,839	1,255,933	14,290,401
Total Water Required	1,132,649	1,114,385	1,114,385	1,004,799	1,255,933	1,214,839	1,255,933	1,214,839	1,255,933	1,255,933	1,214,839	1,255,933	14,290,401
Water Surplus (Deficit) After Recycle to Process	(102,434)	(162,691)	(162,691)	(144,319)	(77,758)	192,939	360,485	149,123	(236,718)	(189,187)	(176,071)	(59,962)	-609,283
Annual Cumulative Surplus (Deficit)	(102,434)	(265,125)	(427,816)	(572,135)	(649,893)	(456,954)	(96,469)	52,654	(184,063)	(373,250)	(549,321)	(609,283)	
<CARIBOO PIT> (m³)													
Water Stored in Cariboo Pit at the Beginning of the Month	2,032,516	1,876,629	1,702,811	1,528,992	1,444,447	1,380,106	1,337,663	1,282,033	1,200,996	1,113,808	1,034,680	953,022	
Cariboo Pit Precipitation (Area 8)	19,840	0	0	0	14,477	38,285	37,758	34,410	24,800	28,210	14,570	17,628	229,978
Cariboo Pit Groundwater	0	0	0	0	0	0	0	0	0	0	0	0	0
Cariboo Pit Evaporation	0	0	0	0	0	0	14,570	34,720	33,170	28,520	15,500	4,650	131,130
Water Pumped to the Cariboo Pit from the Springer / and NEZ pit	57,273	59,182	59,182	53,455	59,182	57,273	59,182	57,273	59,182	59,182	57,273	59,182	696,818
Water Pumped to Cariboo Pit from the TSF	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Pumped for Dust control and Transfer	233,000	233,000	233,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	828,000
Water Pump for Dust Control	0	0	0	0	0	0	25,000	15,000	30,000	10,000	15,000	10,000	125,000
Water Pumped from the Cariboo pit to the TSF	233,000	233,000	233,000	138,000	138,000	138,000	113,000	123,000	108,000	128,000	123,000	128,000	1,816,000
Water Stored in Cariboo Pit at the End of the Month	1,876,629	1,702,811	1,528,992	1,444,447	1,380,106	1,337,663	1,282,033	1,200,996	1,113,808	1,034,680	953,022	887,182	
Available Space below 922m = 6,500,000 m²*0.25 = 1,625,000 m³													
<WIGHT PIT> (m³)													
Water Stored in Wight Pit at the Beginning of the Month	600,781	650,901	695,901	695,901	695,901	699,637	603,517	507,261	425,813	428,373	431,285	432,789	
Wight Pit Runoff	5,120	0	0	0	3,736	9,880	9,744	3,352	2,560	2,912	1,504	4,549	43,557
Wight Pit Groundwater	45,000	45,000	0	0	0	0	0	0	0	0	0	0	90,000
Wight Pit Groundwater (Pumped)	0	0	0	0	0	106,000	106,000	85,000	0	0	0	0	297,000
Water Stored in Wight Pit at the End of the Month	650,901	695,901	695,901	695,901	699,637	603,517	507,261	425,813	428,373	431,285	432,789	437,338	
803 m to 922 m average 250 gpm (45,000 m³/m)				859.00	861.88	864.91							
<BELL PIT> (m³)													
Water Stored in Bell Pit at the Beginning of the Month	526,062	547,866	564,775	581,684	596,957	617,836	644,697	671,959	692,096	711,726	731,729	749,690	
Bell Pit Runoff	5,440	0	0	0	3,970	10,498	10,353	3,774	2,720	3,094	1,598	4,833	46,279
Bell Pit Groundwater	16,364	16,909	16,909	15,273	16,909	16,364	16,909	16,364	16,909	16,909	16,364	16,909	199,091
Water Pumped to Bell Pit from the TSF	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Stored in Bell Pit at the End of the Month	547,866	564,775	581,684	596,957	617,836	644,697	671,959	692,096	711,726	731,729	749,690	771,433	
<SOUTHEAST PIT>(m³)													
Water in TSF at End of Month	699,034	769,342	839,651	833,332	893,574	1,224,513	1,697,999	1,970,122	1,841,404	1,760,217	1,707,146	1,775,184	1,775,184
Volume of Tailings into basin	237,736	233,962	233,962	211,321	263,208	254,717	263,208	254,717	263,208	263,208	254,717	254,717	2,988,679
Cum. Volume of Tailings into basin	237,736	471,698	705,660	916,981	1,180,189	1,434,906	1,698,113	1,952,830	2,216,038	2,479,245	2,733,962	2,988,679	
Water Surplus (Deficit) After Recycle to Process	(102,434)	(162,691)	(162,691)	(144,319)	(77,758)	192,939	360,485	149,123	(236,718)	(189,187)	(176,071)	(59,962)	-609,283
Total Water and Solids added to tailings	135,302	71,271	71,271	67,002	185,449	447,656	623,693	403,840	26,490	74,021	78,646	194,755	2,379,396
Cum Volume of Tailings in basin since startup	24,782,031	25,015,993	25,249,955	25,461,276	25,724,483	25,979,200	26,242,408	26,497,125	26,760,333	27,023,540	27,278,257	27,532,974	
Volume of Water retained in solids mass	21,434,164	21,643,059	21,851,954	22,040,633	22,275,640	22,503,066	22,738,072	22,965,498	23,200,505	23,435,512	23,662,938	23,897,944	
Cum. Supernatant Volume	699,034	769,342	839,651	833,332	893,574	1,224,513	1,697,999	1,970,122	1,841,404	1,760,217	1,707,146	1,775,184	
Total Volume of tailings and Water in basin	46,915,228	47,428,394	47,941,560	48,335,241	48,893,697	49,706,780	50,678,479	51,432,745	51,802,241	52,219,269	52,648,341	53,206,102	
Estimated Tailings and Water Elevation — use this	**954.54**	**954.78**	**955.02**	**955.21**	**955.47**	**955.85**	**956.31**	**956.65**	**956.82**	**957.02**	**957.21**	**957.47**	
Plus storm and freeboard ►	**955.93**	**956.17**	**956.41**	**956.60**	**956.86**	**957.24**	**957.70**	**958.04**	**958.2**	**958.41**	**958.60**	**958.86**	

Actual Tailings and Water Elevation	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
Actual	954.12											
Difference	-0.42	-954.78	-955.02	-955.21	-955.47	-955.85	-956.31	-956.65	-956.82	-957.02	-957.21	-957.47

MOUNT POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE - AVERAGE PRECIPITATION CONDITIONS

ASSUMPTIONS:

Daily Ore Throughput (tpd) =	21,750
Solids Content =	35%
Tailings S.G. =	2.65
Water Content of Ore =	2.08%
Dry Density (t/m³) =	1.4
Initial Volume (m³) =	1,775,184
Minimum Desired Volume =	1,000,000
Minimum Fresh Water Makeup =	2.4%
Underdrainage Recovery - Back to TSF (m³) =	0
Initial Volume Caribou Pit (m³) =	887,182
Initial Volume Wight Pit =	437,338
Initial Volume Bell Pit (m³) =	771,433
Groundwater Seepage Loss (m³/month) =	5,840
Groundwater and Seepage (m³/month) =	35,355
Discharge from Seepage Pond (yes/no) =	no

Areas:

Open Pits

Bell Pit (Area A) =	17
Diversion Efficiency =	100%
Springer Pit (Area B) =	36
Diversion Efficiency =	0%
Wight Pit (Area C) =	16
Diversion Efficiency =	100%
Caribou Pit Area (Area D1) =	31

*Caribou Pit acts as a water storage pond

Rock Disposal Sites (RDS)

East Rock Disposal Site (RDS) - Disturbed (Area E1) =	58
Diversion Efficiency =	0%
East RDS - Undisturbed (Area E2) =	89
Diversion Efficiency =	0%
North RDS - Disturbed (Area F1) =	15
Diversion Efficiency =	100%
North RDS - Undisturbed (Area F2) =	1
Diversion Efficiency =	100%
Northeast RDS -Disturbed Area (Area G1) =	0
Diversion Efficiency =	100%
Northeast RDS - Un-Disturbed Area (Area G2) =	0
Diversion Efficiency =	100%

Mill Site

Millsite Area (Area H) =	89
Diversion Efficiency =	0%

Tailing Storage Facility (TSF)

Total Tailings Facility Area =	235.0	
Pond Area (Area I) =	150.0	150.0
Beach Area (Area J) =	85.0	
Unprepared Area (Area K) =	0.0	
Biosolids Stockpile (Area L) =	4	
Diversion Efficiency =	0%	
Downstream Seepage Pond and Area (Area M) =	14	
Diversion Efficiency =	0%	

*Assume Reclaimed

Beach Evaporation Factor = 0.80

Groundwater Pumping Rate to the TSF — % to TSF

Caribou Pit Groundwater Infiltration (m³/mo) =	0	0
(gpm) =	0	
Wight Pit Groundwater Infiltration (m³/mo) =	76,091	45%
(gpm) =	456	
Bell Pit Groundwater Infiltration (m³/mo) =	16,909	10%
(gpm) =	100	
Springer Pit Groundwater Infiltration (m³/mo) =	33,818	100%
(gpm) =	200	

Water Pumped to Other Pits from the TSF

To Wight Pit (m³/year) =	0
To Caribou Pit (m³/year) =	0
To Bell Pit (m³/year) =	0

Water Pumped to the TSF from Caribou Pit

To TSF (m³/year) =	0

Runoff Coefficients

	General	Freshet	Low Flow Period
Unprepared Basin =	0.35	1.00	0.20
Tailings Beach =	0.90	0.90	0.20
Open Pit Areas =	0.50	0.50	0.20
Undisturbed RDS Areas =	0.24	0.40	0.00
Millsite Area =	0.50	0.50	0.40
East RDS - Disturbed =	0.40	0.40	0.00
Downstream Tailings Areas =	0.70	1.00	0.20
North RDS - Disturbed =	0.60	1.00	0.15
Northeast RDS - Disturbed =	0.60	1.00	0.00

DESCRIPTION		2011 NOV	DEC	2012 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	ANNUAL
Precipitation (mm/month)		64	44	45	36	30	30	55	111	89	94	47	57	742
% of Annual Precipitation		8.6%	5.9%	6.1%	4.9%	4.0%	4.0%	7.4%	15.0%	12.0%	12.7%	6.3%	7.7%	100%
Evaporation (mm/month)		0.0	0.0	0.0	0.0	0.0	0.0	47.0	132.0	107.0	92.0	50.0	15.0	423
Days per Month		30.0	31.0	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	365
<WATER INTO TAILINGS IMPOUNDMENT> (m³)														
Open Pits														
Bell Pit (Area 7a)		0	0	0	0	0	0	0	0	0	0	0	0	0
Bell Pit Groundwater		0	0	0	0	0	0	0	0	0	0	0	0	0
Springer Pit (Area 11)	Spunger to Caribou	0	0	0	0	0	0	0	0	0	0	0	0	0
Springer Pit Groundwater	See Row 123	0	0	0	0	0	0	0	0	0	0	0	0	0
Wight Pit (Area 12)		0	0	0	0	0	0	0	0	0	0	0	0	0
Wight Pit Groundwater (Pumped)		0	0	0	0	106,000	106,000	85,000	0	0	0	0	0	297,000
SEZ (Pumped)		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Rock Disposal Sites (RDS)														
Long Ditch Flow (East Ditch)		10,000	5,000	5,000	5,000	15,000	50,000	150,000	122,000	25,000	25,000	25,000	25,000	462,000
West Ditch Flows (North/Central/South)		0	0	0	0	0	36,000	180,000	144,000	0	0	0	0	360,000
Springer RDS		0	0	0	0	0	0	0	0	0	0	0	0	0
Mill Site														
With Slurry		1,170,000	1,151,429	1,151,429	1,040,000	1,295,357	1,253,571	1,295,357	1,253,571	1,295,357	1,295,357	1,253,571	1,295,357	14,750,357
Mill Site (Area 6)		2,000	0	0	0	10,000	40,000	10,000	10,000	0	0	0	0	42,000
Tailings Storage Facility (TSF)														
Tailings Pond Precipitation (Area 1)		0	0	0	0	45,000	60,000	82,500	150,000	120,000	136,500	70,500	85,296	766,296
Tailings Beach Runoff (Area 2)		48,960	0	0	0	35,703	94,363	93,085	18,870	13,000	15,470	7,990	43,501	371,941
Unprepared Area Tailings Facility (Area 3)		0	0	0	0	0	0	0	0	0	0	0	0	0
Biosolids Stockpile (Area 4)		1,336	0	0	0	1,867	4,934	4,867	0	0	0	0	1,465	14,469
Downstream Seepage Pond and Area (Area 9)		5,824	0	0	0	6,967	16,036	15,818	2,886	2,080	2,466	1,222	5,175	57,474
	Total	1,248,320	1,166,429	1,166,429	1,055,000	1,418,994	1,640,904	1,947,628	1,812,827	1,466,037	1,484,693	1,368,283	1,465,693	17,241,236
<WATER OUT OF TAILINGS IMPOUNDMENT> (m³)														
Unrecoverable Water														
(-) Seepage Loss		5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	5,840	70,080
(-) Water Retained in Tailings		212,264	208,895	208,895	188,679	235,007	227,426	235,007	227,426	235,007	235,007	227,426	235,007	2,670,044
(-) Evaporation from Supernatant Pond		0	0	0	0	0	0	70,500	168,000	160,500	148,000	75,000	22,500	644,500
(-) Evaporation From Beach		0	0	0	0	0	0	19,975	47,600	45,475	41,900	21,250	6,375	182,575
(-) Dust Control (water from TSF Ponds)		0	0	0	0	0	0	0	0	0	0	0	0	0
(-) TSF Surface Runoff discharged from the Seepage Pond		0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	218,104	214,735	214,735	194,519	240,847	233,266	331,322	448,866	446,822	417,947	329,516	269,722	3,566,199
Water In or Out of the TSF														
(-) Water Recycled to Mill = Dust Control Requirement (taken from Pit Water)		1,142,649	1,114,385	1,114,385	1,004,799	1,255,933	1,214,839	1,255,933	1,214,839	1,255,933	1,255,933	1,214,839	1,255,933	14,298,401
(+/-) Water Accumulating or Lost		-102,434	-162,691	-162,691	-144,319	-77,786	192,799	360,373	149,123	-236,718	-189,187	-176,071	-59,962	-609,564
(+) Groundwater and Seepage Recycle		0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,453,187	1,491,811	1,491,811	1,343,637	1,574,566	1,255,305	1,226,882	1,514,582	1,939,473	1,863,067	1,720,426	1,585,617	
Monthly Water Available (excluding stored water in the TSF)		1,010,216	951,694	951,694	860,481	1,178,147	1,407,638	1,616,306	1,363,962	1,019,215	1,006,746	1,038,768	1,195,971	13,680,847
Available Stored Water in TSF at Beginning of Month		1,775,184	1,810,750	1,786,059	1,623,368	1,479,049	1,401,263	1,594,062	1,954,435	2,103,558	1,866,840	1,677,653	1,501,582	
Total Monthly Water Available		2,805,400	2,762,444	2,737,753	2,483,848	2,657,196	2,808,900	3,210,368	3,318,396	3,122,773	2,933,586	2,716,421	2,697,553	
Water Required at Millsite														
Water for slurry		1,170,000	1,151,429	1,151,429	1,040,000	1,295,357	1,253,571	1,295,357	1,253,571	1,295,357	1,295,357	1,253,571	1,295,357	14,750,357
(-) Minimum Fresh Water Input to Mill (from groundwater wells)		18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	216,000
(-) Water in Ore		19,351	19,043	19,043	17,201	21,424	20,733	21,424	20,733	21,424	21,424	20,733	21,424	243,956
Total Required Water Recycle to Mill		1,142,649	1,114,385	1,114,385	1,004,799	1,255,933	1,214,839	1,255,933	1,214,839	1,255,933	1,255,933	1,214,839	1,255,933	14,298,401
Total Water Required		1,142,649	1,114,385	1,114,385	1,004,799	1,255,933	1,214,839	1,255,933	1,214,839	1,255,933	1,255,933	1,214,839	1,255,933	14,298,401
Water Surplus (Deficit) After Recycle to Process		(102,434)	(162,691)	(162,691)	(144,319)	(77,786)	192,799	360,373	149,123	(236,718)	(189,187)	(176,071)	(59,962)	-609,564
Annual Cumulative Surplus (Deficit)		(102,434)	(265,125)	(427,816)	(572,135)	(649,921)	(457,122)	(96,749)	52,374	(184,344)	(373,531)	(549,602)	(609,564)	
<CARIBOO PIT> (m³)														
Water Stored in Caribou Pit at the Beginning of the Month		887,182	826,295	747,476	806,658	860,113	933,762	1,029,274	1,086,606	1,128,569	1,149,381	1,178,253	1,219,595	
Caribou Pit Precipitation (Area 8)		19,840	0	0	0	14,468	38,239	37,721	34,410	24,800	28,210	14,570	17,628	229,885
Caribou Pit Groundwater		0	0	0	0	0	0	0	0	0	0	0	0	0
Caribou Pit Evaporation		0	0	0	0	0	0	14,570	34,720	33,170	28,520	15,500	4,650	131,130
Water Pumped to the Caribou Pit from the Springer / and SEZ pit		57,273	59,182	59,182	53,495	59,182	57,273	59,182	57,273	59,182	59,182	57,273	59,182	696,818
Water Pumped to Caribou Pit from the TSF		0	0	0	0	0	0	0	0	0	0	0	0	0
Water Pumped for Dust control and Transfer		148,000	148,000	0	0	0	0	23,000	15,000	30,000	30,000	15,000	15,000	125,000
Water Pump for Dust Control		0	0	0	0	0	0	25,000	15,000	30,000	30,000	15,000	10,000	125,000
Water Pumped from the Caribou pit to the TSF		148,000	148,000	0	0	0	0	0	0	0	0	0	0	276,000
Water Stored in Caribou Pit at the End of the Month		826,295	747,476	806,658	860,113	933,762	1,029,274	1,086,606	1,128,569	1,149,381	1,178,253	1,219,595	1,281,755	
Available Space below 922m = 6,500,000 m² *0.25 = 1,625,000 m³														
<WIGHT PIT> (m³)														
Water Stored in Wight Pit at the Beginning of the Month		437,338	487,458	532,458	532,458	532,458	536,192	440,060	343,794	262,346	264,906	267,818	269,322	
Wight Pit Runoff		5,120	0	0	0	3,734	9,868	9,734	3,552	2,560	2,912	1,504	4,549	43,533
Wight Pit Groundwater		45,000	45,000	0	0	0	0	0	0	0	0	0	0	90,000
Wight Pit Groundwater (Pumped)		0	0	0	0	0	106,000	106,000	85,000	0	0	0	0	297,000
Water Stored in Wight Pit at the End of the Month		487,458	532,458	532,458	532,458	536,192	440,060	343,794	262,346	264,906	267,818	269,322	273,871	
805 m to 922 m average 250 gpm (45,000 m³/m)					859.60	861.88	864.91							
<BELL PIT> (m³)														
Water Stored in Bell Pit at the Beginning of the Month		771,433	793,236	810,145	827,055	842,427	863,203	890,052	917,304	937,441	957,070	977,073	995,035	
Bell Pit Runoff		5,440	0	0	0	5,967	10,485	10,443	3,774	2,720	3,094	1,998	4,833	46,254
Bell Pit Groundwater		16,364	16,909	16,909	15,273	16,909	16,364	16,909	16,364	16,909	16,909	16,364	16,909	199,091
Water Pumped to Bell Pit from the TSF		0	0	0	0	0	0	0	0	0	0	0	0	0
Water Stored in Bell Pit at the End of the Month		793,236	810,145	827,055	842,327	863,203	890,052	917,304	937,441	957,070	977,073	995,035	1,016,778	
<SOUTHEAST PIT>(m³)														
Water in TSF at End of Month		1,810,750	1,786,059	1,623,368	1,479,049	1,401,263	1,594,062	1,954,435	2,103,558	1,866,840	1,677,653	1,501,582	1,441,620	1,441,620
Volume of Tailings into basin		247,736	233,962	233,962	211,421	263,208	254,717	263,208	254,717	263,208	263,208	254,717	254,717	2,988,679
Cum. Volume of Tailings into basin		247,736	471,698	705,660	916,981	1,180,189	1,434,906	1,698,113	1,952,830	2,216,038	2,479,245	2,733,962	2,988,679	
Water Surplus (Deficit) After Recycle to Process		(102,434)	(162,691)	(162,691)	(144,319)	(77,786)	192,799	360,373	149,123	(236,718)	(189,187)	(176,071)	(59,962)	-609,564
Total Water and Solids added to tailings		145,302	71,271	71,271	67,102	185,421	447,516	623,581	403,840	26,490	74,021	78,646	194,755	2,379,115
Cum Volume of Tailings in basin Since startup		27,770,710	28,004,672	28,238,634	28,449,955	28,713,163	28,967,880	29,231,087	29,485,804	29,749,012	30,012,219	30,266,936	30,521,653	
Volume of Water retained in solids mass		24,110,209	24,319,103	24,527,998	24,716,678	24,951,684	25,179,110	25,414,117	25,641,543	25,876,550	26,111,556	26,338,982	26,573,989	
Cum. Supernatant Volume		1,810,750	1,786,059	1,623,368	1,479,049	1,401,263	1,594,062	1,954,435	2,103,558	1,866,840	1,677,653	1,501,582	1,441,620	
Total Volume of tailings and Water in basin		53,691,669	54,109,835	54,390,000	54,645,682	55,066,110	55,741,052	56,599,639	57,230,905	57,492,401	57,801,429	58,107,501	58,537,262	

Estimated Tailings and Water Elevation	use this	957.69	957.88	958.00	958.12	958.31	958.61	958.99	959.27	959.39	959.53	959.66	959.85	
Plus storm and freeboard ▶		959.08	959.27	959.39	959.51	959.70	960.00	960.38	960.66	960.8	960.92	961.05	961.24	

Actual Tailings and Water Elevation		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	Actual												
	Difference	957.69	957.88	958.00	958.12	958.31	958.61	958.99	959.27	959.39	959.53	959.66	959.85