IMPERIAL METALS CORP.
MT. POLLEY PROJECT

REPORT ON PROJECT WATER MANAGEMENT
(REF. NO. 1624/1)

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IMPERIAL METALS CORP.
MT. POLLEY PROJECT

REPORT ON PROJECT WATER MANAGEMENT
(REF. NO. 1624/1)

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

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REPORT ON PROJECT WATER MANAGEMENT
(REF. NO. 1624/1)

SECTION 1.0 - INTRODUCTION

This report provides an overview of the source and fate of all water associated with the Mt. Polley Project. An overall project water balance was completed by integrating the water balances for the mine site with the tailings facility. The objectives of the water balance analyses are to demonstrate that the tailings facility and open pit can be operated to ensure that no surface discharge of excess water will be required, and by selective addition of surface runoff from waste dumps and undisturbed catchment areas, the make-up water requirements from Polley Lake can be minimized.

A probabilistic water balance analysis using @RISK was developed to describe the effects of a statistical range of precipitation conditions over the entire life of the project. From the corresponding results, estimates were made of the probable requirements for fresh make-up water, probable tailings pond volume and probable volumes of additional water to be diverted out of the project area.

The @RISK Analysis and Modelling program is a software package that allows the input of a statistical distribution to describe an uncertain quantity. Instead of using a finite value to describe a particular quantity, individual values are repeatedly selected from a specified statistical distribution describing that quantity. These selected values are then used in subsequent calculations to generate a distribution of results that accounts for the uncertainty in the initial quantity.

SECTION 2.0 - HYDROMETEOROLOGY

2.1 GENERAL

The hydrometeorological information used for the preparation of this report was taken from the most recent information incorporated in the Mine Development Certificate. A summary of the data is given in Table 2.1.

This section provides an overview of the applicable hydrometeorological information and how it was used to complete this analysis.

2.2 PRECIPITATION

A normal probability distribution was used to model the expected seasonal variability in precipitation data as shown in Figure 2.1. This distribution was chosen after using the software package BESTFIT to determine the underlying distribution of long term annual precipitation records for relevant AES stations in the region.

Since precipitation data at the site is limited, mean precipitation records for climatologically similar stations in the area were used to estimate a mean annual site precipitation of 755 mm. A coefficient of variation of 0.16 was determined for the standard deviation of 121 mm. These conditions were applied to the tailings facility and adjacent additional tailings catchment areas. To account for higher elevation, the waste dumps, pit area and mill site were modelled with a mean precipitation of 810 mm, a coefficient of variation of 0.16 and a standard deviation of 130 mm. The increased precipitation value is consistent with elevation correlations previously presented in the Stage I application documents. This data is summarized on Table 2.1.

2.3 SNOWMELT

Snowfall at the site was considered to melt only during the months of September, April and May. All snowfall in September was assumed to melt during the month

and all snowfall accumulated during the remainder of the year was assumed to melt equally in April and May.

2.4 EVAPORATION

Evaporation data is consistent with previous analyses incorporated in the Mine Development Certificate (MDC). The annual evaporation rate of 423 mm at the site has been assumed to be constant for all years of operation and precipitation conditions.

2.5 RUNOFF

Runoff coefficients used in this analysis are consistent with values used in the Mine Development Certificate and included variable runoff coefficients based on dry, average and wet years. Dry years were defined as years when the total precipitation was less than or equal to 1.3 standard deviations below the mean (10 year dry), and wet years were defined as years when the total precipitation was at least 1.3 standard deviations above the mean (10 year wet). Runoff coefficients are presented in the following section.

SECTION 3.0 - PROJECT COMPONENTS

The overall project components and development sequence are described in previous documents incorporated in the MDC. The main mine components incorporated in the model are illustrated on Figure 3.1 and include disturbed and undisturbed areas at; open pits, waste dumps, mill site, tailings facility, and also the additional undisturbed catchment areas (Areas A and B) immediately upgradient from the tailings area.

The project water balances consider the staged development of the various components of the project as summarized in:

- Table 3.1 - Open Pit Development
- Table 3.2 - Waste Dump Development
- Table 3.3 - Tailings Storage Facility Development

In addition, specific assumptions incorporated in the water balance analyses are included in Table 3.4. These assumptions are consistent with those used in previous water balances for the tailings impoundment and mine site conducted in 1991.

SECTION 4.0 - WATER BALANCE AND MAKE-UP WATER SUPPLY

4.1 GENERAL

The updated Water Management Plan for the Mt. Polley Project includes the following objectives:

- To minimize the volume of fresh water abstracted from Polley Lake.
- To limit the period of water removal from the Polley Lake/Hazeltine Creek system to high flow periods.
- To regulate additional surface water runoff into the tailings pond.
- To prevent the accumulation of excess water within the tailings impoundment so that the impoundment and open pit can be operated as a closed system with no surface water release.
- To supply make-up water for the milling process from within the project catchment area.
- To minimize the requirement for regulated discharges of surface runoff from the waste dumps.

These objectives will be managed simultaneously during operations by provision of surface water collection ditches around the project perimeter and by judicious transfer of "fresh" surface runoff from designated undisturbed catchment areas adjacent to the tailings impoundment.

The Starter Dam for the tailings impoundment will be constructed approximately one year prior to mill start-up, and will entrap the freshet runoff so that adequate quantities of water are available for mill start-up and the first years of operation.

During on-going operations, the size of the tailings supernatant pond will be controlled, to a large extent by mine operators, by the annual precipitation and evaporation regime and by the water released from the settled tailings. Process fresh water make-up requirements from Polley Lake will be minimized by utilization of water sources in the following priority:

- Tailings supernatant.
- Open pit dewatering.
- Open pit groundwater depressurization wells.
- Mill site and waste dump runoff.
- Runoff diversion structures will be operated to provide supplementary water from diverted catchment areas A and B upslope of the tailings impoundment.
- Transfer of excess stream flow from Polley Lake/Hazeltine Creek during peak flow periods.

A series of water balances have been carried out to evaluate the annual process requirements for fresh make-up water and the overall water surpluses or deficits for the Mt. Polley Project. Water balances have been carried out for all 14 years of the project life, under a range of hydrometeorological conditions and for the various catchment areas.

The monthly water balance incorporates inflows from the open pit into the tailings storage facility. Additional surface runoff from the millsite, the various waste dump areas and additional undisturbed catchment areas have also been determined separately. Runoff collection ditches are assumed to control the addition of surface runoff into the system.

Linked water balances have been carried out for all 14 years of the mine life. An example of the linked water balances for average precipitation conditions are included in Appendices A and B. Appendix A includes the tailings facility and open pit as per the existing MDC, and Appendix B includes separate water balances for the mine site area plus the additional undisturbed catchment area A immediately upgradient from the tailings impoundment. The information in these two sets of tables is linked, and when the tailings pond volume drops below a minimum specified volume of 1.5 million m^3, all available surface runoff is diverted into the process. Catchment Area B is not included in the water balances and is therefore considered to represent a contingency source of additional water to compensate for any process shortfalls.

4.2 WATER BALANCE

The fundamental objective of the overall Water Management Plan is to operate the project so that surface discharge of excess water from the tailings impoundment and open pit will not be required. Table 4.1 summarizes the various components of the water balance for average precipitation conditions (as shown in Appendices A and B) over the life of the project assuming Catchment Area B will not be required. The main components of the water balances are illustrated graphically on Figure 4.1 for the Year 1 water balance previously presented in 1991 and on Figure 4.2 for the current 1995 Year 1 water balance which minimizes make-up water recovery from Polley Lake. The main difference between the two options is that in the 1995 water balance model, the make-up water requirements are reduced by incorporating additional runoff water collection from waste dumps and the additional catchment area at the tailings facility, plus it utilizes ponded water that is contained in the tailings impoundment at start-up.

The annual water balance summaries for Years 1 and 14 previously developed in 1991 are compared to results from the updated water management plan in Tables 4.2 and 4.3. The updated values presented in this table were developed using similar water balance tables to those in the MDC and were conducted separately from the linked water balance results included in Appendix A, in order to provide an independent check on the @RISK water balance results.

The variation in the volume of the tailings pond for average precipitation conditions is illustrated on Figure 4.3. The pond volume reaches a minimum during the winter months when there is little surface runoff and reaches a maximum volume in the summer after the freshet. Figure 4.3 also includes a smoothed average curve which tracks the tailings pond volume at the end of September in each year. The 50th percentile curve for September pond volumes, as determined in the @RISK analyses is also included for comparison.

The computer program @RISK was used to assess the risks of:

- accumulating too much water in the tailings impoundment over the life of the project,

- depleting the volume of water in the tailings pond so that an external source of make-up water would be required.

The @RISK program randomly selects separate annual precipitation values for each of the 14 years of operation and linked water balances are conducted. The water balances "link" the tailings facility and mine site water balances and also link the pond volumes from year to year. This process was repeated for 1000 iterations in order to provide estimates of the tailings pond volume, runoff water and make-up water requirements for various extreme combinations of wet and dry precipitation years. These results are illustrated on Figures 4.4, 4.5 and 4.6, and are discussed in the following section. It is evident that the updated water management strategy will achieve the permitted requirements for prevention of surface water discharge from the tailings facility and open pit, while minimizing the amount of make-up water removed from Polley Lake.

4.3 MAKE-UP WATER REQUIREMENTS

A fundamental requirement for the updated project water balances is that an adequate volume of water has to be stored at the tailings impoundment to compensate for low runoff periods during the cold winter months and during dry

summer months. It has been estimated that a minimum volume of 1.5 million m^3 of water will need to be in storage prior to mill start-up. It is intended that this water will be obtained by constructing the tailings impoundment at least one year prior to mill start-up to allow capture of one year of direct surface runoff including the freshet. The amount of surface runoff which will be collected prior to start-up for various precipitation conditions is presented on Tables 4.4 to 4.7 and summarized as follows:

Summary of Water Available at Start-Up		
Precipitation Condition	Surface Runoff Water (m^3) Available	
	with Catchment Area A	with Catchment Areas A & B
Average Year	1,455,000	1,992,000
10 Year Dry	1,084,000	1,445,000
50 Year Dry	921,000	1,220,000
10 Year Wet	1,900,000	2,657,000

These results indicate that if extremely dry conditions are encountered, up to 300,000 m^3 of water may also need to be abstracted from either Polley Lake or Hazeltine Creek during peak freshet flows to supplement stored water in the first year of operation as 1.5 million m^3 of water must be stored prior to start-up.

The tailings pond volumes determined by the @RISK analyses for the linked water balances extending over the 14 year project life are shown on Figure 4.4. An initial pond volume of 1.5 million m^3 has been included at start-up and runoff from waste dumps and catchment Area A have been included when necessary to provide adequate water for milling. The monthly fluctuations in the volume of the tailings pond have not been included on this summary figure. Figure 4.5 illustrates the amount of excess surface runoff from all waste dumps plus the 240 ha of Catchment Area A that is not diverted into the mill process. It does not include for additional runoff available from Catchment Area B.

Comparison of Figures 4.4 and 4.5 illustrates that virtually all available runoff is diverted into the process under average and dry precipitation conditions for the first

two to three years. The volume of stored water in the tailings impoundment is also reduced during this period. However, the analyses indicate that no additional make-up water will be required from Polley Lake except during the most extreme combinations of dry years. Figure 4.6 illustrates that there is about a 5% chance that some minor amount of additional make-up water will be required.

In practice, there is also a minimum pond volume which must be maintained in the tailings impoundment in order to compensate for ice accumulation in winter and to allow trouble free operation of the reclaim barge. Therefore, it will be necessary to include contingency provisions to transfer additional water into the tailings impoundment during operations. This additional water can be obtained from:

- selective diversion from Catchment Area B upgradient from the tailings impoundment, and/or

- transfer of excess flows from Polley Lake or Hazeltine Creek during peak flow periods. Minimum stream flows for fisheries releases would be maintained during any pumping period.

4.4 WATER MANAGEMENT PLAN

The objective of the project Water Management Plan in the early years will be to route all project water flows from disturbed areas into the process or into associated mine site activities such as dust suppression. An additional objective is to selectively route runoff from upslope Catchment Areas A and B into the tailings impoundment in order to eliminate the need for an external source of make-up water from Polley Lake. In the later years of operation the objective will be to monitor and release selected surface water inflow components which meet the required quality standards in order to manage the final volume of ponded water in the tailings impoundment at closure. The following activities will be incorporated in the Water Management Plan:

(i) Maximize the capture of surface and groundwater flows from within the project area.

(ii) Maximize the use of the poorest quality water recovered from within the project area in the milling process and in associated activities (such as dust suppression).

(iii) Minimize the deliberate introduction of excess clean fresh water from Polley Lake and Hazeltine Creek.

(iv) Monitor the quality of surface runoff from disturbed areas and groundwater flows within the project site.

(v) Release only the best quality water from within the project boundaries and in accordance with permitted requirements, as is necessary to maintain an overall project water balance under actual hydrometeorological conditions.

(vi) Manage the operation of the tailings supernatant pond to optimize the volume of water stored on the tailings surface during operations and at closure.

(vii) Develop and maintain a detailed data base to allow water balances for the site to be as accurate as possible and thereby become useful tools for predicting annual make-up water requirements and for scheduling releases of clean surface runoff water as appropriate.

SECTION 5.0 - SUMMARY AND CONCLUSIONS

A revised water management plan has been developed for the Mt. Polley project. Detailed water balances have been conducted for each year of the project using average precipitation conditions. Water balances have also been developed for 1000 different 14 year combinations of annual precipitation in order to assess the risk of either accumulating too much water in the system or increasing the make-up water requirements. These revised water balances indicate that:

(i) Discharge of excess water from the tailings facility and open pit will not be necessary. These results confirm the findings of the previous project water balances conducted in 1991.

(ii) It is possible to eliminate the requirement for a water supply dam on Polley Lake.

The updated water management plan requires early construction of a starter dam at the tailings impoundment in order to capture surface runoff for one year prior to the projected early start-up in October, 1996. Surface runoff from undisturbed catchment areas immediately adjacent to the tailings impoundment will be routed into the facility in order to provide a minimum pond volume of 1.5 million m^3 prior to start-up. This initial volume of water is projected to be drawn down during the first few years of operation, even if all mine site runoff and runoff from the additional Catchment Area A is routed into the mill process. However, the amount of surface runoff increases during the later years of operation when the waste dumps increase in area and surface runoff also increases. Therefore, the amount of surface runoff obtained from undisturbed catchment areas will decrease after the first few years of operation.

The water balance has been evaluated for each year of the 14 year project life and under various precipitation conditions. Water balances have been conducted for over 1000 different combinations of mine life precipitation conditions and the risks of significant water accumulation or depletion have been assessed. These probability analyses indicate that it is extremely unlikely that any additional make-

up water, beyond the projected fresh water requirements of 24.9 m^3/hr, will be required from Polley Lake. However, it is recommended that a contingency water supply of about 300,000 m^3/yr be included in the revised permit application. It is anticipated that this volume of water would only be removed from either Polley Lake or Hazeltine Creek during high flow periods and would only remove water which is not required for minimum fisheries flow releases.

TABLE 2.1
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
PRECIPITATION DETAILS USED IN ANALYSIS

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DESCRIPTION	VALUE			
Lower Elevations (ie. TSF)				
Mean annual precipitation (mm)	755			
"Dry" annual precipitation (mm)	601			
"Wet" annual precipitation (mm)	909			
"Max." annual precipitation (mm)	1050			
"Min." annual precipitation (mm)	450			
Mean annual rainfall (mm)	451			
Mean annual snowfall (mm)	304			
Coefficient of variation	0.16			
Standard deviation (mm)	121			
Higher Elevations (ie. mill site, waste dumps, etc.)				
"Elevation" factor	1.07285			
Mean annual precipitation (mm)	810			
"Dry" annual precipitation (mm)	645			
"Wet" annual precipitation (mm)	975			
Coefficient of variation	0.16			
Standard deviation (mm)	130			
Proportions of Total Precipitation:				
Rainfall	0.60			
Snowfall	0.40			
Monthly Proportions of Precipitation:	Rainfall (mm)	Proportion as Rainfall	Snowfall (mm)	Proportion as Snowfall
Oct	48.3	0.11	12.1	0.04
Nov	17.3	0.04	40.0	0.13
Dec	7.6	0.02	67.2	0.22
Jan	6.8	0.02	68.7	0.23
Feb	6.0	0.01	52.1	0.17
Mar	6.0	0.01	38.5	0.13
Apr	24.2	0.05	18.9	0.06
May	45.3	0.10	5.3	0.02
Jun	81.5	0.18	0.0	0.00
Jul	65.7	0.15	0.0	0.00
Aug	83.1	0.18	0.0	0.00
Sep	58.9	0.13	1.5	0.00
Total (mm)	450.7		304.3	

TABLE 3.1
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
OPEN PIT DEVELOPMENT

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END OF YEAR	PIT CATCHMENT AREAS (ha)			TOTAL AREA (ha)
	CENTRAL	NORTH	WEST	
0	0.0	0.0	0.0	0.0
1	17.6	0.0	0.0	17.6
2	17.6	0.0	0.0	17.6
3	*25.5*	0.0	0.0	25.5
4	*25.5*	0.0	0.0	25.5
5	25.5	14.9	0.0	40.4
6	25.5	14.9	0.0	40.4
7	25.5	14.9	*24.3*	64.7
8	25.5	14.9	24.3	64.7
9	25.5	14.9	24.3	64.7
10	25.5	14.9	24.3	64.7
11	25.5	14.9	24.3	64.7
12	25.5	14.9	24.3	64.7
13	25.5	14.9	24.3	64.7
14	25.5	14.9	24.3	64.7

Notes:

1. Pit areas in italics are conservative estimates only.
2. Pit areas measured from mining sequence plans c/o Wright Engineers ("Feasibility Study", Vol. 1 of 5).

TABLE 3.2
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
WASTE DUMP DEVELOPMENT

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YEAR	WASTE (T x1000)	CUM. WASTE (T x1000)	DUMP CATCHMENT AREAS (ha)						TOTAL WASTE AREA (ha)
			EAST		NORTH		WEST		
			WASTE	UNDIST'BD	WASTE	UNDIST'BD	WASTE	UNDIST'BD	
0	1217.0	1217.0							
1	2774.9	3991.9	10.0	70.0	0.0	0.0	0.0	0.0	10.0
2	2720.2	6712.1	14.7	65.3	0.0	0.0	0.0	0.0	14.7
3	2342.2	9054.3	19.3	60.7	0.0	0.0	0.0	0.0	19.3
4	1812.7	10867.0	24.0	56.0	0.0	0.0	0.0	0.0	24.0
5	9496.2	20363.2	28.7	51.3	9.3	75.7	0.0	0.0	38.0
6	7649.2	28012.4	33.3	46.7	18.7	66.3	0.0	37.0	52.0
7	10839.3	38851.7	38.0	42.0	28.0	57.0	2.3	34.8	68.3
8	11103.3	49955.0	42.7	37.3	37.3	47.7	4.5	32.5	84.5
9	8591.8	58546.8	47.3	32.7	46.7	38.3	6.8	30.3	100.8
10	1152.4	59699.2	52.0	28.0	56.0	29.0	9.0	28.0	117.0
11	0.0	59699.2	52.0	28.0	56.0	29.0	9.0	28.0	117.0
12	0.0	59699.2	52.0	28.0	56.0	29.0	9.0	28.0	117.0
13	0.0	59699.2	52.0	28.0	56.0	29.0	9.0	28.0	117.0
14	0.0	59699.2	52.0	28.0	56.0	29.0	9.0	28.0	117.0

Notes: - dump areas for years 1 and 14 taken from Stage 1 Environmental and Socionomic Impact Assessment, Responses to Comments by the Agencies. All areas for intermediate years are interpolated linearly.

TABLE 3.3
IMPERIAL METALS CORPORATION
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TAILINGS STORAGE FACILITY DEVELOPMENT

Area of total impoundment = 230 ha

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END OF YEAR	AREAS (ha)					
	UNPREP'D BASIN	TOT. PREP'D BASIN	PREP'D BASIN	BEACH (incl. pond)	BEACH ONLY	POND
t=0	96	134	119	15	0	15
1	96	134	64	70	48.9	21.1
2	54	176	67	109	81.9	27.1
3	54	176	38	138	104.8	33.2
4	26	204	44	160	120.7	39.3
5	26	204	19	185	139.6	45.4
6	15	215	22	193	141.6	51.4
7	15	215	13	202	144.5	57.5
8	6	224	18	206	142.6	63.4
9	6	224	15	209	139.4	69.6
10	0	230	17	213	137.3	75.7
11	0	230	13	217	135.2	81.8
12	0	230	10	220	132.1	87.9
13	0	230	6	224	130.1	93.9
14	0	230	3	227	127	100

Notes:
1) Unprep'd Basin = Total Impoundment - Prep'd Basin.
2) Prep'd Basin taken from Filling Schedule and Staged Construction.
3) Prep'd Basin has been increased by 5% in order to equal total impoundment area after 10 years.
4) Beach (incl. pond) taken from D/A/C curve.
5) Pond volume varied linearly from 15ha at t=0 to 100ha at end of year 14.

TABLE 3.4
IMPERIAL METALS CORPORATION
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ASSUMPTIONS USED IN WATER BALANCE ANALYSIS

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DESCRIPTION		VALUE		
General Details:				
Daily ore throughput (tpd)		13,425		
Tailings % solids		35%		
Tailings S.G.		2.78		
Yr. 1 initial pond volume (m^3)		1,500,000		
Water content of ore		4%		
Min fresh water makeup (% of water in with slurry)		2.4%		
Initial tailings dry density (t/m^3)		0.9		
Final tailings dry density (t/m^3)	Yr.1	1.1		
	Yr.2	1.2		
	Yr.3 - 14	1.3		
Pit g/w infiltration (m^3/month)		39,818		
Beach evaporation factor		0.8		
Dust control (m^3/month)		25,000		
Runoff Coefficients:		dry	ave	wet
Unprepared basin		20%	24%	29%
Prepared basin		90%	90%	90%
Tailings beach		90%	90%	90%
Pit area		45%	50%	55%
Waste rock		58%	60%	62%
Undisturbed catchment		20%	24%	29%
Mill site		65%	70%	75%

TABLE 4.1
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
ANNUAL WATER BALANCES FOR AVERAGE CONDITIONS - CATCHMENT AREA "A"

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YEAR	WATER AVAILABLE (m^3)	TAILINGS POND VOL. (m^3)		MAKEUP WATER REQ'D (m^3)	EXCESS DIVERTED WATER (m^3)
		MIN.	MAX.		
0	1,500,000	1,500,000	1,500,000		
1	1,136,187	765,590	1,432,777	0	0
2	1,233,138	610,223	1,341,963	0	0
3	1,440,914	866,681	1,663,887	0	150,014
4	1,441,040	1,090,844	1,760,095	0	435,218
5	1,507,113	1,120,791	1,861,307	0	549,537
6	1,491,361	1,136,205	1,929,259	0	770,682
7	1,603,921	1,181,655	2,032,575	0	756,609
8	1,674,549	1,215,669	2,100,044	0	876,349
9	1,735,786	1,276,298	2,172,620	0	922,218
10	1,824,823	1,341,827	2,264,337	0	957,312
11	1,889,491	1,420,501	2,343,190	0	967,572
12	1,933,176	1,474,927	2,398,170	0	977,832
13	1,652,895	1,518,504	2,132,030	0	1,287,699
14	1,703,906	1,270,389	2,194,337	0	945,683

Note : Excess Diverted Water is surplus runoff not diverted into tailings impoundment.

TABLE 4.2

IMPERIAL METALS CORPORATION
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WATER BALANCE SUMMARY - ANNUAL WATER SURPLUS

	Annual Surplus in Tailings Facility (m^3)				
	Initial Case (1991)		New Case (1995)		
	Year 1	Year 14	Year 1	Year 7	Year 14
50 Year Dry	0	0	0	0	0
10 Year Dry	0	0	0	0	0
Average Year	0	3,856[(1)]	0	0	0
10 Year Wet	0	440,148[(1)]	0	87,098	74,626
50 Year Wet	0	680,032[(1)]	0	311,451	309,400

Note:

1. The Initial Case (1991) does not include water usage for dust control or enhanced evaporation losses (approximately 400,000 m^3/yr). The New Case (1995) includes for dust control (150,000 m^3/year) but not enhanced evaporation (250,000 m^3/year).

TABLE 4.3

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT

ADDITIONAL MAKE-UP WATER REQUIREMENTS

Precipitation Conditions	Permitted Option: Scenario 2 - Total Pit Inflow to Tailings Area or to Process	
	1991 Model (m^3/year)	1995 Model (m^3/year)
Year 1 - 50 Year Dry	1,580,709	0
Year 1 - 10 Year Dry	1,490,936	0
Year 1 - Average Year	1,259,725	0
Year 1 - 10 Year Wet	973,150	0
Year 1 - 50 Year Wet	861,263	0
Year 14 - 50 Year Dry	646,609	0
Year 14 - 10 Year Dry	415,057	0
Year 14 - Average Year	0	0
Year 14 - 10 Year Wet	0	0
Year 14 - 50 Year Wet	0	0

Notes:

1. The additional make-up water required is in addition to the 4.6 percent minimum fresh make-up water required (418,611 m^3/yr) to the mill. Of this, 200,000 m^3/yr is water in ore, and the remainder is for fresh water requirements (ie: potable water, etc.)
2. The new 1995 water balance model assumes that approximately 1.5 million m^3 of water is stored in the tailings impoundment in October of each year.
3. Year 1 water balances indicate that ponded water in the tailings facility may need to be supplemented with additional make-up water if the tailings pond volume becomes too low for practical operations. Therefore, a contingency make-up water allowance of 300,000 m^3 may need to be extracted during freshet from the Polley Lake system under extreme dry start-up conditions during the first few years of operations.

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TABLE 4.4

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY

WATER AVAILABLE AT START-UP
Average Year Precipitation

Catchment Areas		Runoff Coeff.
Stage I Tailings Facility Basin =	134 ha	90%
Tailings Facility Unprepared Basin =	96 ha	24%
Diverted Catchment Area A =	240 ha	24%
Diverted Catchment Area B =	310 ha	24%

Total annual precipitation = 755 mm

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.1	58.9	450.7
B	Snowfall (mm/month - water equivalent)	12.1	40.0	67.2	68.7	52.1	38.5	18.9	5.3	0.0	0.0	0.0	1.5	304.3
C	Lake evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	Tailings Facility Catchment Area Runoff	58,250	20,864	9,166	8,201	7,236	7,236	29,185	421,618	98,289	79,234	100,219	71,033	910,530
2	Diverted Catchment Area A Runoff	27,821	9,965	4,378	3,917	3,456	3,456	13,939	201,370	46,944	37,843	47,866	33,926	434,880
3	Diverted Catchment Area B Runoff	35,935	12,871	5,654	5,059	4,464	4,464	18,005	260,102	60,636	48,881	61,826	43,822	561,720
4	Unprepared Basin Runoff	11,128	3,986	1,751	1,567	1,382	1,382	5,576	80,548	18,778	15,137	19,146	13,571	173,952
5	Total Monthly Precipitation Runoff	133,134	47,686	20,949	18,744	16,538	16,538	66,705	963,637	224,647	181,095	229,057	162,352	**2,081,082**
6	Cumulative Monthly Precipitation Runoff	133,134	180,820	201,768	220,512	237,050	253,589	320,294	1,283,931	1,508,578	1,689,673	1,918,730	2,081,082	
	<WATER OUT> (m^3)													
	Surface Area of Start-up Pond (ha)	5	5	5	5	5	5	5	13	21	21	21	34	
7	Evaporation from Start-up Pond	750	0	0	0	0	0	0	6,110	23,520	22,470	19,320	17,000	**89,170**
	<AVAILABLE WATER IN TSF> (m^3)													
8	Total Monthly Available Water	132,384	47,686	20,949	18,744	16,538	16,538	66,705	957,527	201,127	158,625	209,737	145,352	**1,991,912**
9	Cumulative Monthly Available Water	132,384	180,070	201,018	219,762	236,300	252,839	319,544	1,277,071	1,478,198	1,636,823	1,846,560	1,991,912	

Assumptions:

1. Snowfall is given in equivalent depth of rainfall and is assumed to accumulate on catchment areas until May when it melts with 90% recovery in the tailings facility and 24% recovery from the diverted catchment areas.

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TABLE 4.5

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY

WATER AVAILABLE AT START-UP
10 Year Dry Precipitation

Catchment Areas		Runoff Coeff.
Stage I Tailings Facility Basin =	134 ha	90%
Tailings Facility Unprepared Basin =	96 ha	20%
Diverted Catchment Area A =	240 ha	20%
Diverted Catchment Area B =	310 ha	20%

Total annual precipitation = 601.3 mm

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	38.5	13.8	6.1	5.4	4.8	4.8	19.3	36.1	64.9	52.3	66.2	46.9	359.1
B	Snowfall (mm/month - water equivalent)	9.6	31.8	53.5	54.7	41.5	30.7	15.0	4.2	0.0	0.0	0.0	1.2	242.2
C	Lake evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m³)													
1	Tailings Facility Catchment Area Runoff	46,431	16,643	7,357	6,512	5,789	5,789	23,276	335,630	78,269	63,074	79,837	56,561	725,168
2	Diverted Catchment Area A Runoff	18,480	6,624	2,928	2,592	2,304	2,304	9,264	133,584	31,152	25,104	31,776	22,512	288,624
3	Diverted Catchment Area B Runoff	23,870	8,556	3,782	3,348	2,976	2,976	11,966	172,546	40,238	32,426	41,044	29,078	372,806
4	Unprepared Basin Runoff	7,392	2,650	1,171	1,037	922	922	3,706	53,434	12,461	10,042	12,710	9,005	115,450
5	Total Monthly Precipitation Runoff	96,173	34,472	15,238	13,489	11,990	11,990	48,211	695,193	162,120	130,645	165,368	117,156	**1,502,047**
6	Cumulative Monthly Precipitation Runoff	96,173	130,645	145,883	159,372	171,363	183,353	231,565	926,758	1,088,878	1,219,524	1,384,891	1,502,047	
	<WATER OUT> (m³)													
	Surface Area of Start-up Pond (ha)	0	5	5	5	5	5	5	13	13	13	13	21	
7	Evaporation from Start-up Pond	0	0	0	0	0	0	0	6,110	14,560	13,910	11,960	10,500	**57,040**
	<AVAILABLE WATER IN TSF> (m³)													
8	Total Monthly Available Water	96,173	34,472	15,238	13,489	11,990	11,990	48,211	689,083	147,560	116,735	153,408	106,656	**1,445,007**
9	Cumulative Monthly Available Water	96,173	130,645	145,883	159,372	171,363	183,353	231,565	920,648	1,068,208	1,184,944	1,338,351	1,445,007	

Assumptions:

1. Snowfall is given in equivalent depth of rainfall and is assumed to accumulate on catchment areas until May when it melts with 90% recovery in the tailings facility and 20% recovery from the diverted catchment areas.

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE 4.6

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY

WATER AVAILABLE AT START-UP
50 Year Dry Precipitation

Catchment Areas		Runoff Coeff.
Stage I Tailings Facility Basin =	134 ha	90%
Tailings Facility Unprepared Basin =	96 ha	20%
Diverted Catchment Area A =	240 ha	20%
Diverted Catchment Area B =	310 ha	20%

Total annual precipitation = 508.9 mm

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	32.6	11.7	5.1	4.6	4.0	4.0	16.3	30.5	54.9	44.3	56.0	39.7	303.7
B	Snowfall (mm/month - water equivalent)	8.2	27.0	45.3	46.3	35.1	26.0	12.7	3.6	0.0	0.0	0.0	1.0	205.2
C	Lake evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m³)													
1	Tailings Facility Catchment Area Runoff	39,316	14,110	6,151	5,548	4,824	4,824	19,658	284,254	66,209	53,426	67,536	47,878	613,733
2	Diverted Catchment Area A Runoff	15,648	5,616	2,448	2,208	1,920	1,920	7,824	113,136	26,352	21,264	26,880	19,056	244,272
3	Diverted Catchment Area B Runoff	20,212	7,254	3,162	2,852	2,480	2,480	10,106	146,134	34,038	27,466	34,720	24,614	315,518
4	Unprepared Basin Runoff	6,259	2,246	979	883	768	768	3,130	45,254	10,541	8,506	10,752	7,622	97,709
5	Total Monthly Precipitation Runoff	81,435	29,227	12,740	11,491	9,992	9,992	40,717	588,779	137,140	110,661	139,888	99,171	**1,271,232**
6	Cumulative Monthly Precipitation Runoff	81,435	110,661	123,401	134,892	144,884	154,876	195,593	784,372	921,512	1,032,174	1,172,062	1,271,232	
	<WATER OUT> (m³)													
	Surface Area of Start-up Pond (ha)	0	5	5	5	5	5	5	8	13	13	13	13	
7	Evaporation from Start-up Pond	0	0	0	0	0	0	0	3,760	14,560	13,910	11,960	6,500	**50,690**
	<AVAILABLE WATER IN TSF> (m³)													
8	Total Monthly Available Water	81,435	29,227	12,740	11,491	9,992	9,992	40,717	585,019	122,580	96,751	127,928	92,671	**1,220,542**
9	Cumulative Monthly Available Water	81,435	110,661	123,401	134,892	144,884	154,876	195,593	780,612	903,192	999,944	1,127,872	1,220,542	

Assumptions:

1. Snowfall is given in equivalent depth of rainfall and is assumed to accumulate on catchment areas until May when it melts with 90% recovery in the tailings facility and 20% recovery from the diverted catchment areas.

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CONSULTING ENGINEERS

TABLE 4.7

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY

WATER AVAILABLE AT START-UP
10 Year Wet Precipitation

Catchment Areas		Runoff Coeff.
Stage I Tailings Facility Basin =	134 ha	90%
Tailings Facility Unprepared Basin =	96 ha	29%
Diverted Catchment Area A =	240 ha	29%
Diverted Catchment Area B =	310 ha	29%

Total annual precipitation = 908.7 mm

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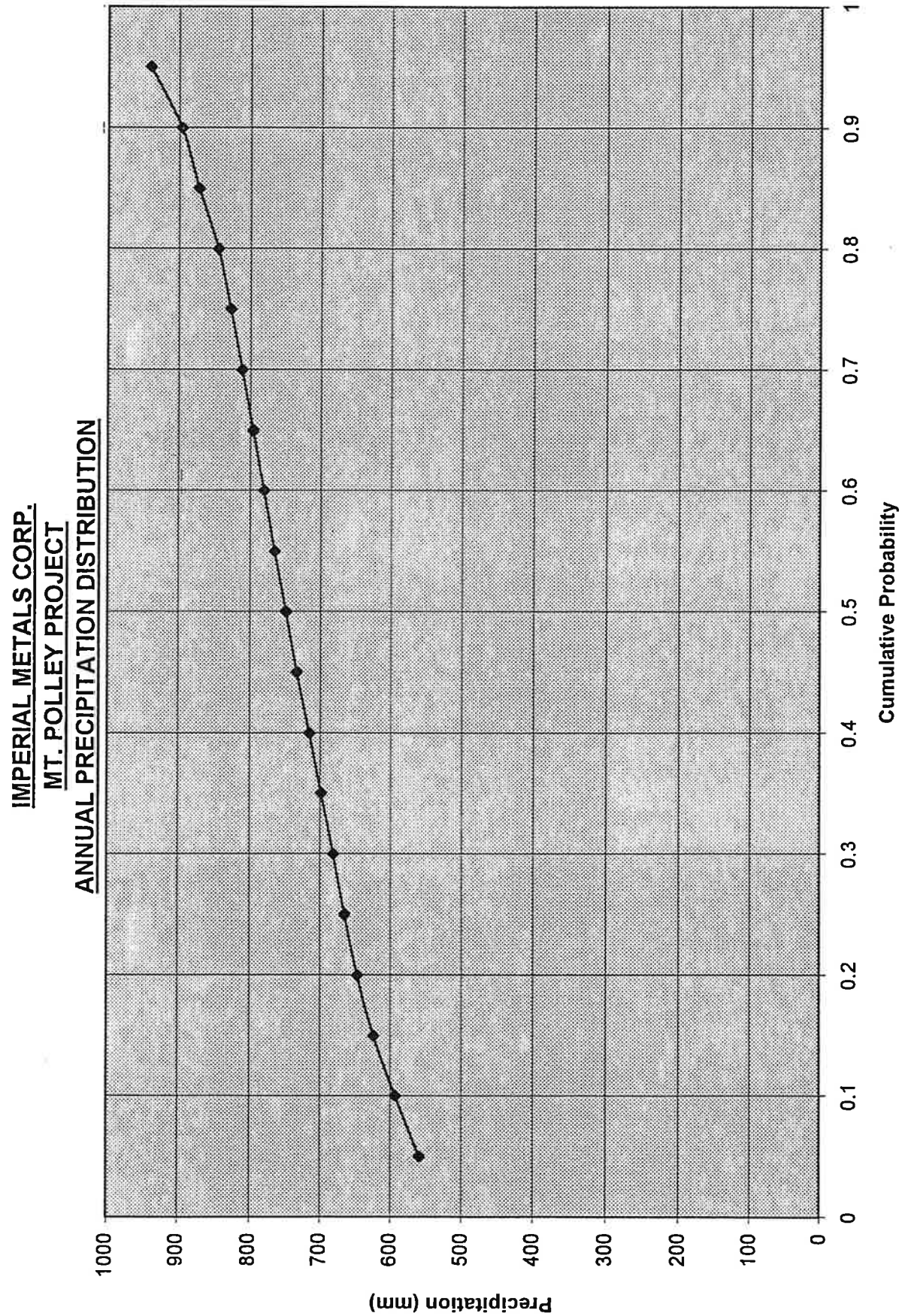
	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	58.1	20.8	9.1	8.2	7.2	7.2	29.1	54.5	98.1	79.1	100.0	70.9	542.3
B	Snowfall (mm/month - water equivalent)	14.6	48.2	80.9	82.7	62.7	46.3	22.8	6.4	0.0	0.0	0.0	1.8	366.4
C	Lake evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	Tailings Facility Catchment Area Runoff	70,069	25,085	10,975	9,889	8,683	8,683	35,095	507,605	118,309	95,395	120,600	85,505	1,095,892
2	Diverted Catchment Area A Runoff	40,438	14,477	6,334	5,707	5,011	5,011	20,254	292,946	68,278	55,054	69,600	49,346	632,455
3	Diverted Catchment Area B Runoff	52,232	18,699	8,181	7,372	6,473	6,473	26,161	378,389	88,192	71,111	89,900	63,739	816,921
4	Unprepared Basin Runoff	16,175	5,791	2,533	2,283	2,004	2,004	8,101	117,179	27,311	22,021	27,840	19,739	252,982
5	Total Monthly Precipitation Runoff	178,913	64,052	28,023	25,251	22,172	22,172	89,611	1,296,119	302,089	243,581	307,940	218,329	**2,798,251**
6	Cumulative Monthly Precipitation Runoff	178,913	242,965	270,987	296,238	318,410	340,582	430,192	1,726,312	2,028,401	2,271,981	2,579,921	2,798,251	
	<WATER OUT> (m^3)													
	Surface Area of Start-up Pond (ha)	5	5	5	5	5	5	5	21	34	34	34	50	
7	Evaporation from Start-up Pond	750	0	0	0	0	0	0	9,870	38,080	36,380	31,280	25,000	**141,360**
	<AVAILABLE WATER IN TSF> (m^3)													
8	Total Monthly Available Water	178,163	64,052	28,023	25,251	22,172	22,172	89,611	1,286,249	264,009	207,201	276,660	193,329	**2,656,891**
9	Cumulative Monthly Available Water	178,163	242,215	270,237	295,488	317,660	339,832	429,442	1,715,692	1,979,701	2,186,901	2,463,561	2,656,891	

Assumptions:

1. Snowfall is given in equivalent depth of rainfall and is assumed to accumulate on catchment areas until May when it melts with 90% recovery in the tailings facility and 29% recovery from the diverted catchment areas.



Feb. 3, 1995

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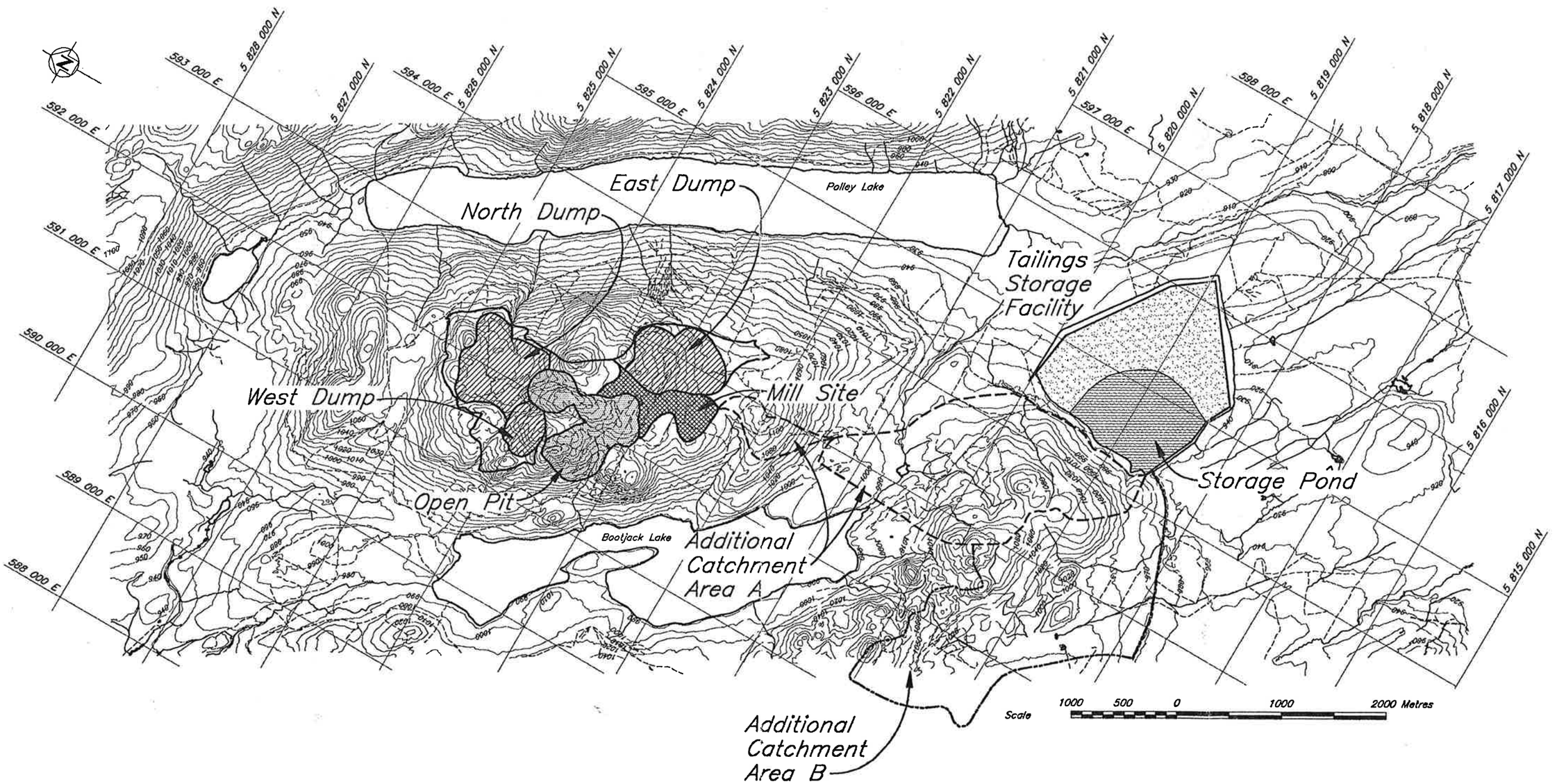
FIGURE 2.1

1624.B1

IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
OVERVIEW OF WATER BALANCE COMPONENTS



CAD FILE: \PROJECT\1624\FIG\B1 Plot scale 1=40 STD. 1 PLOT USER 2

Feb. 6, 1995

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FIGURE 3.1

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

WATER BALANCE FLOW VOLUMES - AVERAGE CONDITIONS: YEAR 1

EXISTING PERMIT

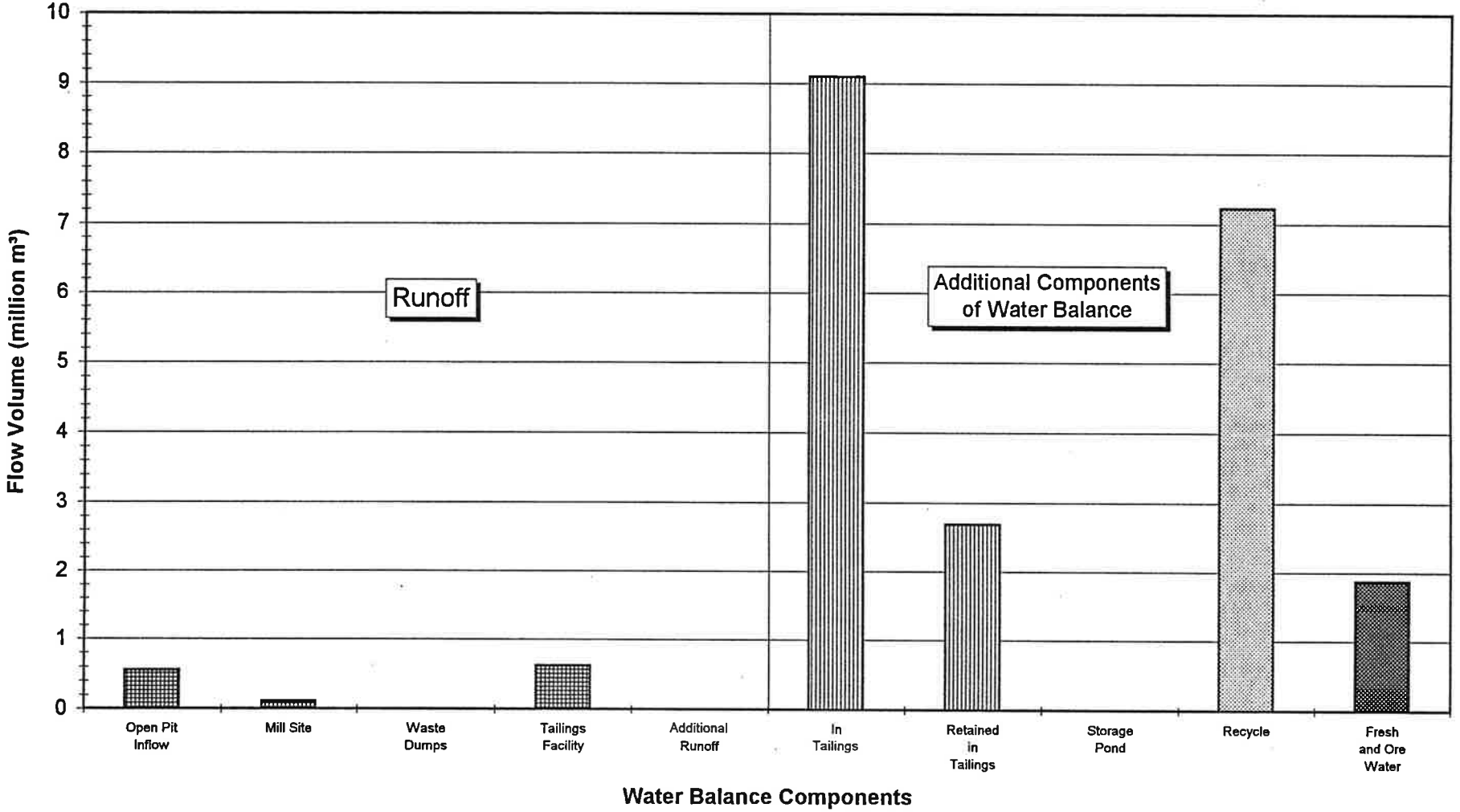

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FIGURE 4.1

KNIGHT PIESOLD LTD.
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Feb. 3, 1995

1624.A7

IMPERIAL METALS CORPORATION

MT. POLLEY PROJECT

WATER BALANCE FLOW VOLUMES - AVERAGE CONDITIONS : YEAR 1

NEW OPTION

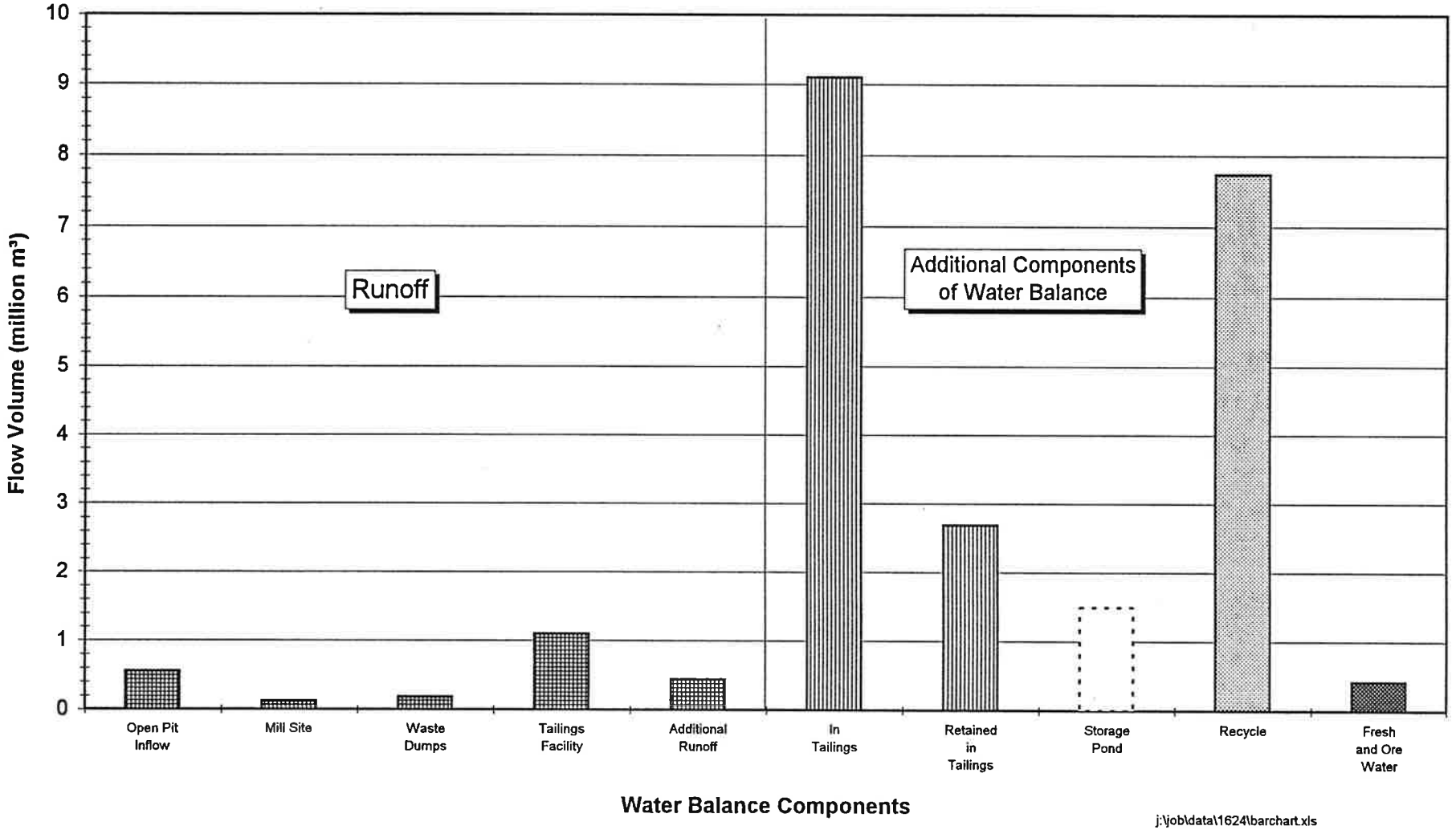

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FIGURE 4.2

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1624.A8

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IMPERIAL METALS CORP.
MT. POLLEY PROJECT
VARIATION IN TAILINGS POND VOLUME FOR AVERAGE PRECIPITATION CONDITIONS

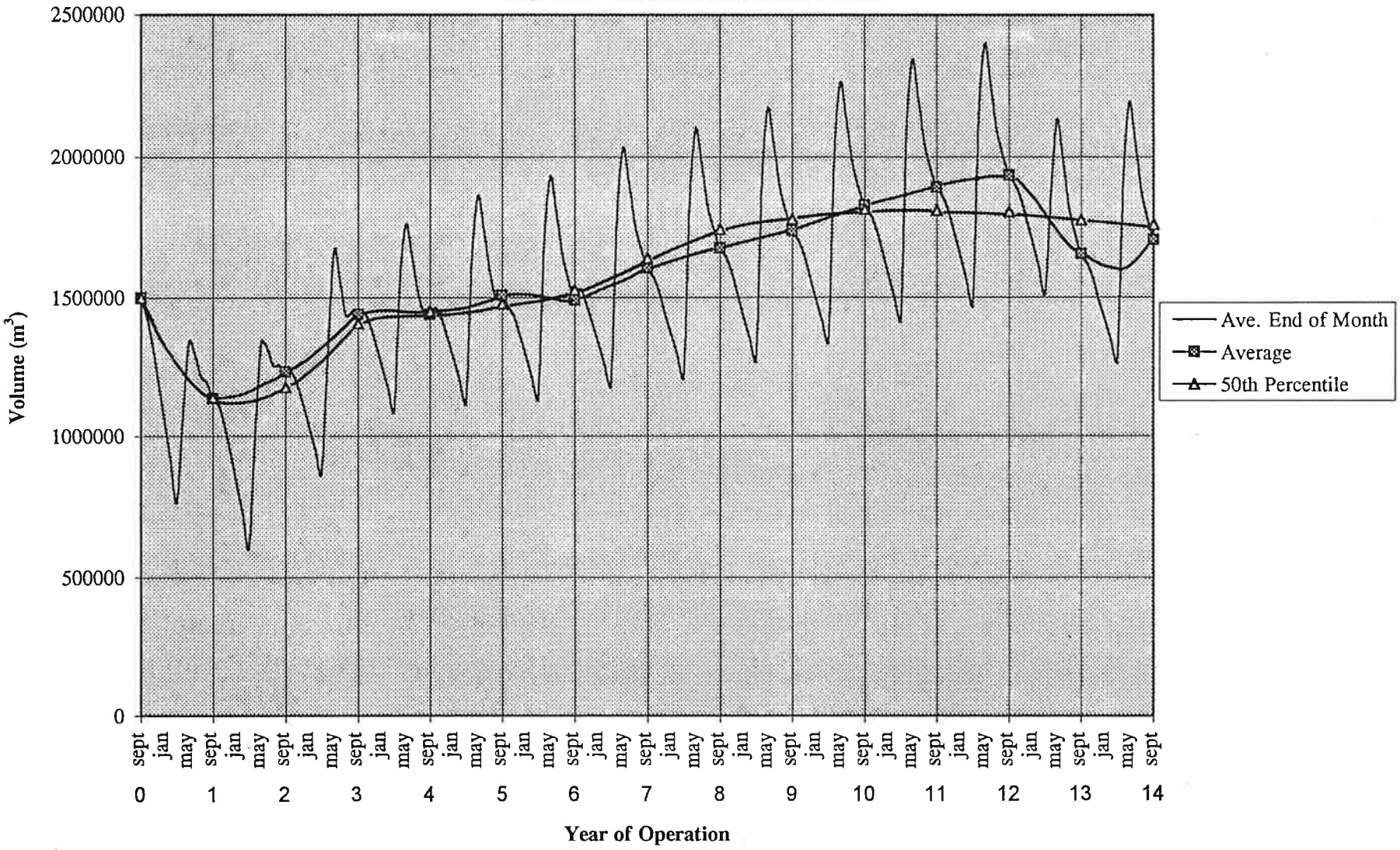

FIGURE 4.3

1624.A5

Feb. 6, 1995
KNIGHT PIESOLD LTD.
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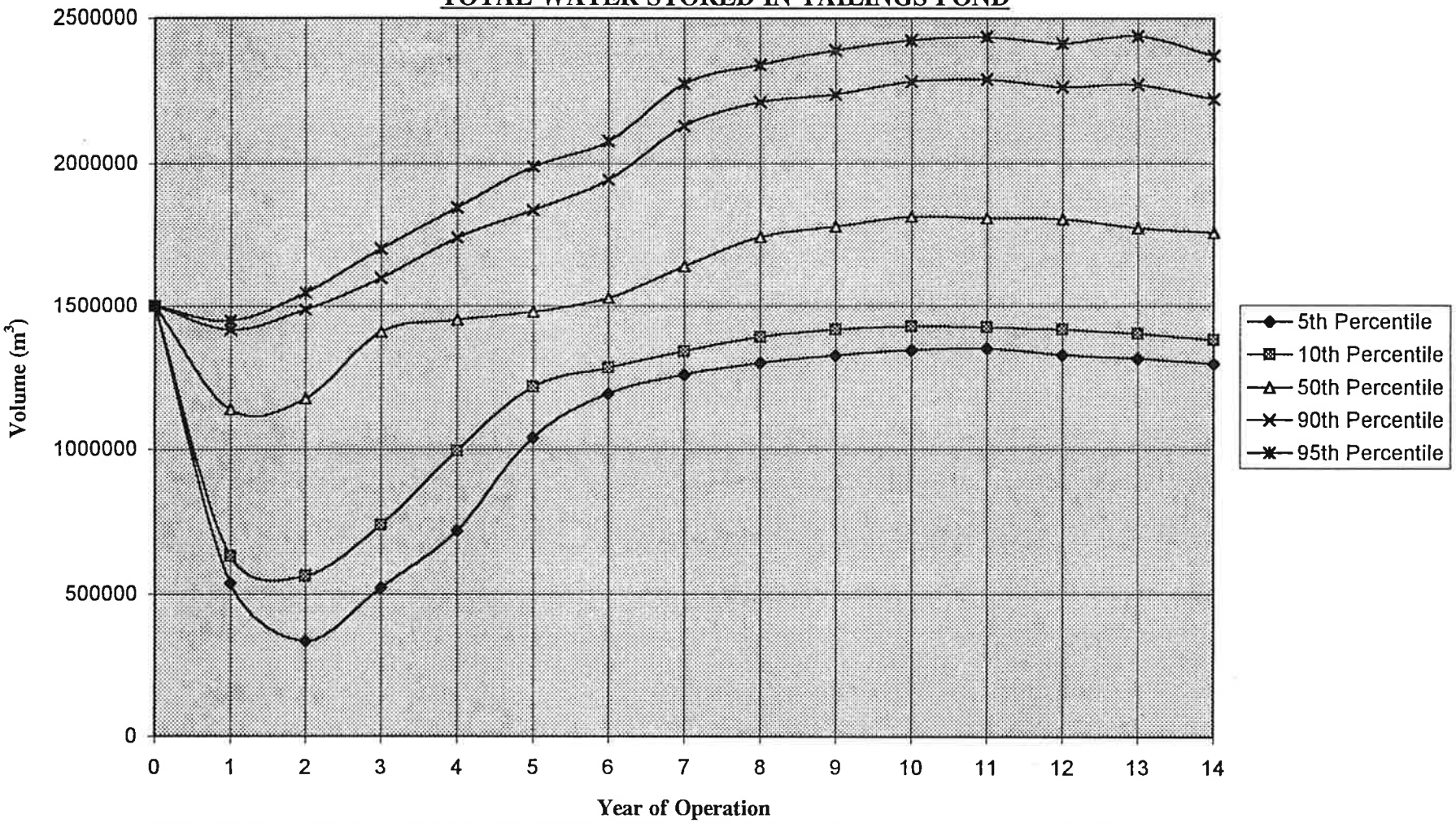
IMPERIAL METALS CORP.
MT. POLLEY PROJECT
TOTAL WATER STORED IN TAILINGS POND



Note: Above curves are for average annual values and are based on pond volumes measured at the end of September in each year. Actual pond volumes fluctuate during each year.

FIGURE 4.4

1624.A6

IMPERIAL METALS CORP.
MT. POLLEY PROJECT
EXCESS DIVERTED WATER

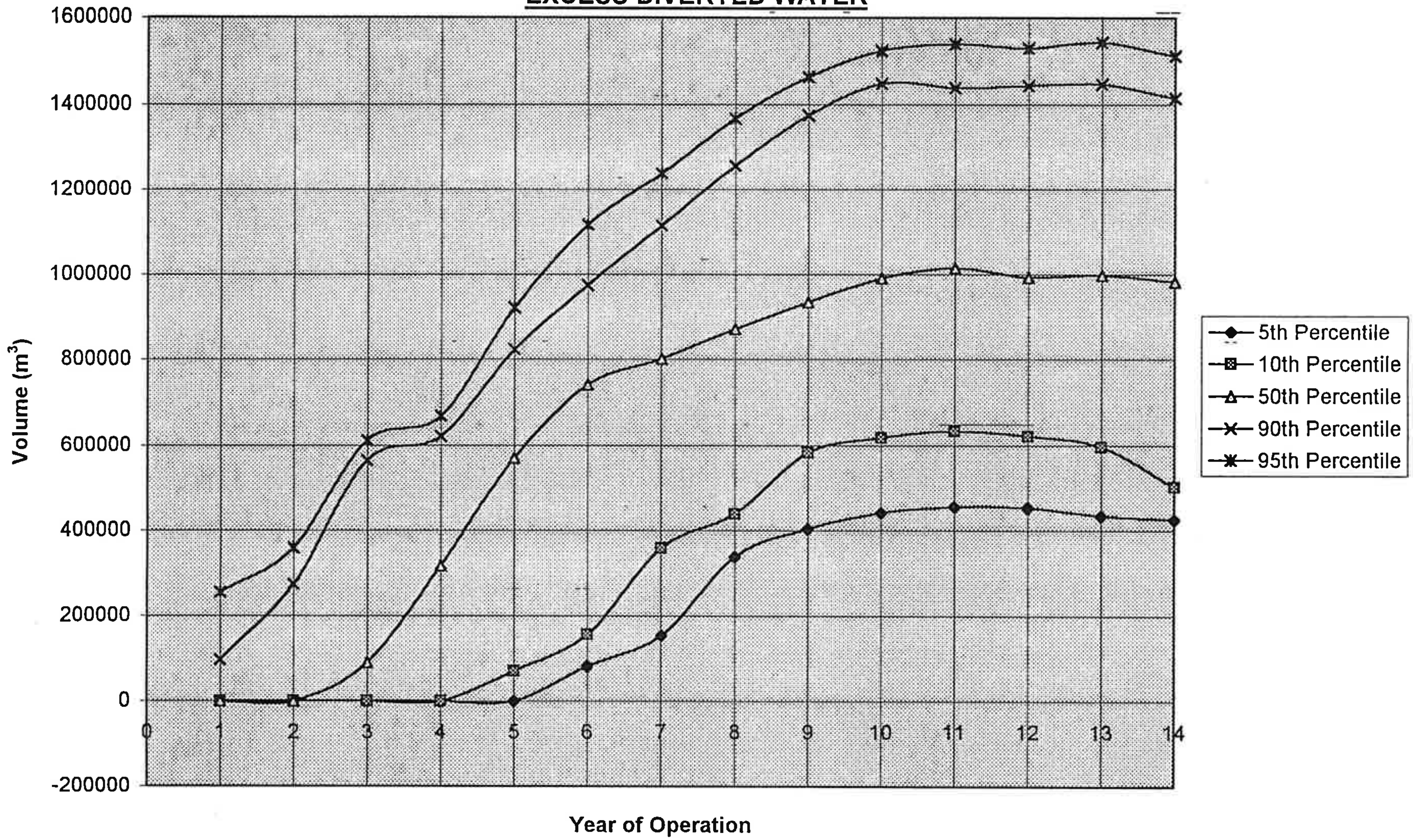


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FIGURE 4.5

1624.A3

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Feb. 3, 1995

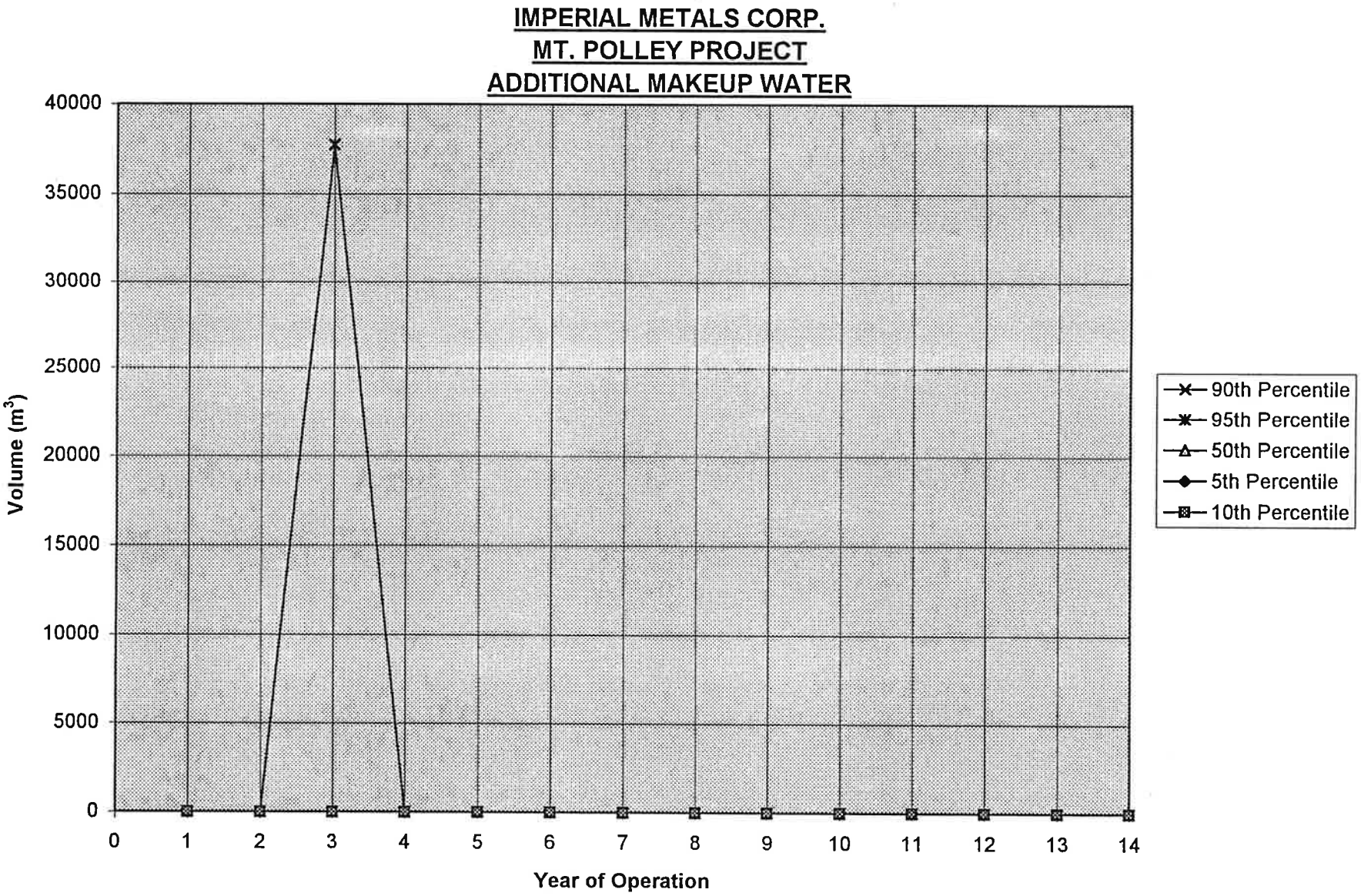

FIGURE 4.6

1624.A4

APPENDIX A

TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCES
FOR AVERAGE PRECIPITATION

Knight Piésold Ltd.
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TABLE A.1
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 1

assumptions:

					dry	ave.	wet
daily ore throughput (tpd) = 13,425	min. fresh water makeup (%) = 2%	unprepared basin area (ha) = 96		unprep'd basin runoff coeff. =	20%	24%	29%
tails % solids = 35%	initial dry density (t/m^3) = 0.9	prepared basin area (ha) = 64		prep'd basin runoff coeff. =	90%	90%	90%
tails S.G. = 2.78	final dry density (t/m^3) = 1.1	beach area (ha) = 49		beach runoff coeff. =	90%	90%	90%
initial pond volume (m^3) = 1,500,000	total pit area (ha) = 18	pond area (ha) = 21		pit area runoff coeff. =	45%	50%	55%
water content of ore = 4%	pit g/w infiltration (m^3/mo) = 39,818	beach evaporation factor = 0.80					

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		10,185	3,648	1,603	1,434	1,265	1,265	38,211	39,814	17,186	13,854	17,524	12,734	158,724
3	Beach runoff		21,244	7,609	3,343	2,991	2,639	2,639	79,700	83,044	35,847	28,897	36,550	26,561	331,063
4	Unprep'd basin runoff		11,122	3,984	1,750	1,566	1,382	1,382	41,724	43,475	18,766	15,128	19,135	13,905	173,317
5	Prep'd basin runoff		27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
6	Recovery from open pit:	precipitation	4,557	1,632	717	642	566	566	17,097	17,815	7,690	6,199	7,841	5,698	71,020
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		873,083	825,003	809,958	808,717	807,477	807,477	1,079,214	1,091,006	924,575	900,070	927,057	891,832	10,745,467
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		114,730	66,650	51,605	50,365	49,124	49,124	320,861	332,653	166,222	141,717	168,704	133,479	1,645,234
12	(-) Evaporation from pond		3,165	0	0	0	0	0	0	9,917	23,632	22,577	19,412	10,550	89,253
13	(-) Evaporation from beach		5,868	0	0	0	0	0	0	18,386	43,814	41,858	35,990	19,560	165,478
14	(+) Consolidation to final density		82,494	82,494	82,494	82,494	82,494	82,494	82,494	82,494	82,494	82,494	82,494	82,494	989,924
15	Sub-total (Water recovered as S/N)		581,614	542,567	527,523	526,282	525,041	525,041	796,779	780,267	574,693	553,199	589,219	579,287	7,101,512
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		224,335	224,335	224,335	224,335	224,335	224,335	224,335	224,335	224,335	224,335	224,335	224,335	2,692,024
20	Evaporation from beach and pond		9,033	0	0	0	0	0	0	28,303	67,446	64,435	55,402	30,110	254,731
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		239,208	230,175	230,175	230,175	230,175	230,175	230,175	258,479	297,622	294,611	285,578	260,285	3,016,835
23	>>> Total Water Output		873,083	825,003	809,958	808,717	807,477	807,477	1,079,214	1,091,006	924,575	900,070	927,057	891,832	10,745,467
24	Monthly water available (excluding stored water in TSF)		633,874	594,827	579,783	578,542	577,301	577,301	849,039	832,527	626,953	605,459	641,479	631,547	7,728,632
25	Available stored water in TSF at beginning of month		1,500,000	1,432,777	1,321,031	1,184,705	1,046,351	905,971	765,590	1,069,188	1,339,298	1,297,793	1,219,260	1,193,853	
26	*Total Monthly Water Available*		2,133,874	2,027,604	1,900,814	1,763,247	1,623,653	1,483,272	1,614,628	1,901,715	1,966,252	1,903,252	1,860,739	1,825,400	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-114,706	-128,753	-143,798	-145,039	-146,279	-146,279	125,458	83,946	-121,627	-143,122	-107,102	-117,034	-1,104,334
34	Annual cumulative precipitation surplus/deficit		-114,706	-243,459	-387,257	-532,296	-678,575	-824,854	-699,396	-615,450	-737,077	-880,199	-987,300	-1,104,334	
35	Total water in TSF at end of month (incl. mine site runoff)		1,432,777	1,321,031	1,184,705	1,046,351	905,971	765,590	1,069,188	1,339,298	1,297,793	1,219,260	1,193,853	1,136,187	
36	Excess runoff not diverted into tailings pond		0	0	0	0	0	0	0	0	0	0	0	0	0

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.2
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 2

assumptions:

daily ore throughput (tpd) = 13,425
tails % solids = 35%
tails S.G. = 2.78
initial pond volume (m^3) = 1,136,187
water content of ore = 4%

min. fresh water makeup (%) = 2%
initial dry density (t/m^3) = 0.9
final dry density (t/m^3) = 1.2
total pit area (ha) = 18
pit g/w infiltration (m^3/mo) = 39,818

unprepared basin area (ha) = 54
prepared basin area (ha) = 67
beach area (ha) = 82
pond area (ha) = 27
beach evaporation factor = 0.80

	dry	ave.	wet
unprep'd basin runoff coeff. =	20%	24%	29%
prep'd basin runoff coeff. =	90%	90%	90%
beach runoff coeff. =	90%	90%	90%
pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		13,081	4,685	2,058	1,842	1,625	1,625	49,077	51,136	22,073	17,794	22,507	16,355	203,859
3	Beach runoff		35,580	12,744	5,599	5,009	4,420	4,420	133,485	139,086	60,037	48,398	61,216	44,486	554,480
4	Unprep'd basin runoff		6,256	2,241	984	881	777	777	23,470	24,455	10,556	8,510	10,763	7,822	97,491
5	Prep'd basin runoff		29,107	10,426	4,580	4,098	3,616	3,616	109,200	113,782	49,115	39,593	50,079	36,392	453,604
6	Recovery from open pit:	precipitation	4,557	1,632	717	642	566	566	17,097	17,815	7,690	6,199	7,841	5,698	71,020
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		886,753	829,899	812,109	810,642	809,175	809,175	1,130,500	1,144,443	947,642	918,665	950,576	908,924	10,958,503
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		128,400	71,546	53,756	52,289	50,822	50,822	372,147	386,091	189,289	160,312	192,224	150,571	1,858,270
12	(-) Evaporation from pond		4,065	0	0	0	0	0	0	12,737	30,352	28,997	24,932	13,550	114,633
13	(-) Evaporation from beach		9,828	0	0	0	0	0	0	30,794	73,382	70,106	60,278	32,760	277,150
14	(+) Consolidation to final density		113,429	113,429	113,429	113,429	113,429	113,429	113,429	113,429	113,429	113,429	113,429	113,429	1,361,146
15	Sub-total (Water recovered as S/N)		621,360	578,399	560,609	559,142	557,674	557,674	879,000	849,412	592,407	568,061	613,866	611,113	7,548,717
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	2,320,803
20	Evaporation from beach and pond		13,893	0	0	0	0	0	0	43,531	103,734	99,103	85,210	46,310	391,783
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		213,133	199,240	199,240	199,240	199,240	199,240	199,240	242,772	302,975	298,344	284,451	245,550	2,782,665
23	>>> Total Water Output		886,753	829,899	812,109	810,642	809,175	809,175	1,130,500	1,144,443	947,642	918,665	950,576	908,924	10,958,503
24	Monthly water available (excluding stored water in TSF)		673,620	630,659	612,869	611,402	609,934	609,934	931,260	901,672	644,667	620,321	666,126	663,373	8,175,837
25	Available stored water in TSF at beginning of month		1,136,187	1,109,579	1,033,977	930,874	825,502	717,863	610,223	999,307	1,341,963	1,319,640	1,257,153	1,257,890	
26	*Total Monthly Water Available*		1,809,807	1,740,238	1,646,846	1,542,275	1,435,437	1,327,797	1,541,483	1,900,978	1,986,630	1,939,961	1,923,279	1,921,263	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-74,961	-92,922	-110,712	-112,179	-113,646	-113,646	207,679	153,091	-103,913	-128,259	-82,455	-85,207	-657,129
34	Annual cumulative precipitation surplus/deficit		-74,961	-167,882	-278,594	-390,773	-504,419	-618,065	-410,386	-257,294	-361,208	-489,467	-571,922	-657,129	
35	Total water in TSF at end of month (incl. mine site runoff)		1,109,579	1,033,977	930,874	825,502	717,863	610,223	999,307	1,341,963	1,319,640	1,257,153	1,257,890	1,233,138	
36	Excess runoff not diverted into tailings pond		0	0	0	0	0	0	0	0	0	0	0	0	0

Knight Piésold Ltd.
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TABLE A.3
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 3

assumptions:

daily ore throughput (tpd) = 13,425
tails % solids = 35%
tails S.G. = 2.78
initial pond volume (m^3) = 1,233,138
water content of ore = 4%

min. fresh water makeup (%) = 2%
initial dry density (t/m^3) = 0.9
final dry density (t/m^3) = 1.3
total pit area (ha) = 26
pit g/w infiltration (m^3/mo) = 39,818

unprepared basin area (ha) = 54
prepared basin area (ha) = 38
beach area (ha) = 105
pond area (ha) = 33
beach evaporation factor = 0.80

	dry	ave.	wet
unprep'd basin runoff coeff. =	20%	24%	29%
prep'd basin runoff coeff. =	90%	90%	90%
beach runoff coeff. =	90%	90%	90%
pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)	12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	With slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond	16,026	5,740	2,522	2,256	1,991	1,991	60,124	62,646	27,042	21,799	27,573	20,037	249,746
3	Beach runoff	45,529	16,308	7,164	6,410	5,656	5,656	170,809	177,975	76,824	61,931	78,333	56,924	709,518
4	Unprep'd basin runoff	6,256	2,241	984	881	777	777	23,470	24,455	10,556	8,510	10,763	7,822	97,491
5	Prep'd basin runoff	16,509	5,913	2,598	2,324	2,051	2,051	61,934	64,533	27,856	22,456	28,403	20,640	257,268
6	Recovery from open pit: precipitation	6,603	2,365	1,039	930	820	820	24,772	25,811	11,142	8,982	11,360	8,255	102,898
7	g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input	889,093	830,737	812,477	810,971	809,465	809,465	1,139,279	1,153,591	951,590	921,848	954,602	911,849	10,994,970
	<WATER OUT> (m^3)													
	Supernatant Recovery													
9	(+) Recovery from tailings	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff	130,740	72,384	54,125	52,619	51,113	51,113	380,926	395,238	193,238	163,495	196,250	153,497	1,894,737
12	(-) Evaporation from pond	4,980	0	0	0	0	0	0	15,604	37,184	35,524	30,544	16,600	140,436
13	(-) Evaporation from beach	12,576	0	0	0	0	0	0	39,405	93,901	89,709	77,133	41,920	354,643
14	(+) Consolidation to final density	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)	646,213	605,413	587,153	585,647	584,141	584,141	913,955	873,258	595,181	571,291	621,601	628,005	7,795,998
	Underdrainage recovery													
16	(+) Underdrainage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses	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
18	Sub-total (Water recovered as U/D)	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water													
19	Water retained in tailings	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond	17,556	0	0	0	0	0	0	55,009	131,085	125,233	107,677	58,520	495,079
21	Seepage losses	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
22	Sub-total (Unrecoverable water)	190,620	173,064	173,064	173,064	173,064	173,064	173,064	228,073	304,149	298,297	280,741	231,584	2,571,851
23	>>> Total Water Output	889,093	830,737	812,477	810,971	809,465	809,465	1,139,279	1,153,591	951,590	921,848	954,602	911,849	10,994,970
24	Monthly water available (excluding stored water in TSF)	698,473	657,673	639,413	637,907	636,401	636,401	966,215	925,518	647,441	623,551	673,861	680,265	8,423,118
25	Available stored water in TSF at beginning of month	1,233,138	1,232,253	1,183,976	1,107,554	1,028,811	947,746	866,681	1,293,983	1,663,887	1,562,747	1,437,718	1,447,687	
26	*Total Monthly Water Available*	1,931,611	1,889,926	1,823,389	1,745,461	1,665,212	1,584,147	1,832,896	2,219,501	2,311,328	2,186,298	2,111,579	2,127,952	
27	Water included with slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads	25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*	748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit	-50,108	-65,908	-84,168	-85,673	-87,179	-87,179	242,634	176,937	-101,139	-125,030	-74,719	-68,315	-409,848
34	Annual cumulative precipitation surplus/deficit	-50,108	-116,016	-200,183	-285,857	-373,036	-460,215	-217,581	-40,644	-141,783	-266,813	-341,532	-409,848	
35	Total water in TSF at end of month (incl. mine site runoff)	1,232,253	1,183,976	1,107,554	1,028,811	947,746	866,681	1,293,983	1,663,887	1,562,747	1,437,718	1,447,687	1,440,914	
36	Excess runoff not diverted into tailings pond	0	0	0	0	0	0	0	0	83,058	66,956	0	0	150,014

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.4
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 4

assumptions:

daily ore throughput (tpd) = 13,425	min. fresh water makeup (%) = 2%	unprepared basin area (ha) = 26				dry	ave.	wet
tails % solids = 35%	initial dry density (t/m^3) = 0.9	prepared basin area (ha) = 44	unprep'd basin runoff coeff. =			20%	24%	29%
tails S.G. = 2.78	final dry density (t/m^3) = 1.3	beach area (ha) = 121	prep'd basin runoff coeff. =			90%	90%	90%
initial pond volume (m^3) = 1,440,914	total pit area (ha) = 26	pond area (ha) = 39	beach runoff coeff. =			90%	90%	90%
water content of ore = 4%	pit g/w infiltration (m^3/mo) = 39,818	beach evaporation factor = 0.80	pit area runoff coeff. =			45%	50%	55%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)	12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	With slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond	18,970	6,795	2,985	2,671	2,357	2,357	71,170	74,156	32,010	25,805	32,639	23,718	295,633
3	Beach runoff	52,437	18,782	8,251	7,382	6,514	6,514	196,723	204,977	88,480	71,327	90,217	65,561	817,165
4	Unprep'd basin runoff	3,012	1,079	474	424	374	374	11,300	11,774	5,083	4,097	5,182	3,766	46,940
5	Prep'd basin runoff	19,115	6,847	3,008	2,691	2,375	2,375	71,714	74,722	32,255	26,002	32,888	23,899	297,889
6	Recovery from open pit: precipitation	6,603	2,365	1,039	930	820	820	24,772	25,811	11,142	8,982	11,360	8,255	102,898
7	g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input	898,308	834,038	813,927	812,269	810,610	810,610	1,173,850	1,189,612	967,139	934,382	970,457	923,371	11,138,573
	<WATER OUT> (m^3)													
	Supernatant Recovery													
9	(+) Recovery from tailings	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff	139,955	75,685	55,575	53,916	52,257	52,257	415,497	431,260	208,787	176,030	212,104	165,018	2,038,341
12	(-) Evaporation from pond	5,895	0	0	0	0	0	0	18,471	44,016	42,051	36,156	19,650	166,239
13	(-) Evaporation from beach	14,484	0	0	0	0	0	0	45,383	108,147	103,319	88,835	48,280	408,449
14	(+) Consolidation to final density	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)	652,605	608,713	588,603	586,944	585,286	585,286	948,526	900,434	589,652	563,688	620,141	630,116	7,859,993
	Underdrainage recovery													
16	(+) Underdrainage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses	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
18	Sub-total (Water recovered as U/D)	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water													
19	Water retained in tailings	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond	20,379	0	0	0	0	0	0	63,854	152,163	145,370	124,991	67,930	574,688
21	Seepage losses	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
22	Sub-total (Unrecoverable water)	193,443	173,064	173,064	173,064	173,064	173,064	173,064	236,919	325,228	318,435	298,056	240,994	2,651,460
23	>>> Total Water Output	898,308	834,038	813,927	812,269	810,610	810,610	1,173,850	1,189,612	967,139	934,382	970,457	923,371	11,138,573
24	Monthly water available (excluding stored water in TSF)	704,865	660,973	640,863	639,204	637,546	637,546	1,000,786	952,694	641,912	615,948	672,401	682,376	8,487,113
25	Available stored water in TSF at beginning of month	1,440,914	1,447,292	1,402,627	1,327,792	1,250,468	1,170,656	1,090,844	1,555,981	1,760,095	1,653,426	1,520,793	1,444,614	
26	*Total Monthly Water Available*	2,145,779	2,108,265	2,043,490	1,966,996	1,888,014	1,808,202	2,091,630	2,508,675	2,402,007	2,269,374	2,193,194	2,126,990	
27	Water included with slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads	25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*	748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit	-43,716	-62,607	-82,718	-84,376	-86,035	-86,035	277,205	204,113	-106,669	-132,633	-76,179	-66,204	-345,853
34	Annual cumulative precipitation surplus/deficit	-43,716	-106,323	-189,041	-273,417	-359,451	-445,486	-168,281	35,832	-70,836	-203,469	-279,648	-345,853	
35	Total water in TSF at end of month (incl. mine site runoff)	1,447,292	1,402,627	1,327,792	1,250,468	1,170,656	1,090,844	1,555,981	1,760,095	1,653,426	1,520,793	1,444,614	1,441,040	
36	Excess runoff not diverted into tailings pond	0	0	0	0	0	0	0	196,367	84,526	68,139	86,185	0	435,218

TABLE A.5
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 5

Knight Piésold Ltd.
CONSULTING ENGINEERS

assumptions:

daily ore throughput (tpd) =	13,425	min. fresh water makeup (%) =	2%	unprepared basin area (ha) =	26			dry	ave.	wet
tails % solids =	35%	initial dry density (t/m^3) =	0.9	prepared basin area (ha) =	19		unprep'd basin runoff coeff. =	20%	24%	29%
tails S.G. =	2.78	final dry density (t/m^3) =	1.3	beach area (ha) =	140		prep'd basin runoff coeff. =	90%	90%	90%
initial pond volume (m^3) =	1,441,040	total pit area (ha) =	40	pond area (ha) =	45		beach runoff coeff. =	90%	90%	90%
water content of ore =	4%	pit g/w infiltration (m^3/mo) =	39,818	beach evaporation factor =	0.80		pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)	12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	With slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond	21,915	7,849	3,448	3,085	2,722	2,722	82,217	85,667	36,979	29,810	37,705	27,400	341,520
3	Beach runoff	60,648	21,723	9,543	8,538	7,534	7,534	227,528	237,074	102,335	82,496	104,344	75,827	945,122
4	Unprep'd basin runoff	3,012	1,079	474	424	374	374	11,300	11,774	5,083	4,097	5,182	3,766	46,940
5	Prep'd basin runoff	8,254	2,957	1,299	1,162	1,025	1,025	30,967	32,267	13,928	11,228	14,202	10,320	128,634
6	Recovery from open pit: precipitation	10,461	3,747	1,646	1,473	1,300	1,300	39,246	40,893	17,652	14,230	17,998	13,079	163,023
7	g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input	902,461	835,525	814,581	812,853	811,126	811,126	1,189,429	1,205,845	974,146	940,031	977,601	928,563	11,203,287
	<WATER OUT> (m^3)													
	Supernatant Recovery													
9	(+) Recovery from tailings	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff	144,108	77,172	56,228	54,501	52,773	52,773	431,076	447,492	215,794	181,678	219,249	170,210	2,103,055
12	(-) Evaporation from pond	6,810	0	0	0	0	0	0	21,338	50,848	48,578	41,768	22,700	192,042
13	(-) Evaporation from beach	16,752	0	0	0	0	0	0	52,490	125,082	119,498	102,746	55,840	472,406
14	(+) Consolidation to final density	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)	653,574	610,201	589,256	587,529	585,802	585,802	964,105	906,693	572,893	546,631	607,763	624,698	7,834,947
	Underdrainage recovery													
16	(+) Underdrainage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses	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
18	Sub-total (Water recovered as U/D)	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water													
19	Water retained in tailings	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond	23,562	0	0	0	0	0	0	73,828	175,930	168,076	144,514	78,540	664,448
21	Seepage losses	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
22	Sub-total (Unrecoverable water)	196,626	173,064	173,064	173,064	173,064	173,064	173,064	246,892	348,994	341,140	317,578	251,604	2,741,220
23	>>> Total Water Output	902,461	835,525	814,581	812,853	811,126	811,126	1,189,429	1,205,845	974,146	940,031	977,601	928,563	11,203,287
24	Monthly water available (excluding stored water in TSF)	705,834	662,461	641,516	639,789	638,062	638,062	1,016,365	958,953	625,153	598,891	660,023	676,958	8,462,067
25	Available stored water in TSF at beginning of month	1,441,040	1,461,562	1,423,104	1,350,995	1,276,111	1,198,451	1,120,791	1,650,935	1,861,307	1,737,879	1,588,190	1,499,633	
26	*Total Monthly Water Available*	2,146,875	2,124,023	2,064,620	1,990,784	1,914,172	1,836,513	2,137,156	2,609,888	2,486,460	2,336,770	2,248,213	2,176,591	
27	Water included with slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads	25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*	748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit	-42,746	-61,120	-82,064	-83,792	-85,519	-85,519	292,784	210,373	-123,428	-149,690	-88,557	-71,622	-370,900
34	Annual cumulative precipitation surplus/deficit	-42,746	-103,866	-185,930	-269,722	-355,241	-440,760	-147,975	62,397	-61,031	-210,720	-299,277	-370,900	
35	Total water in TSF at end of month (incl. mine site runoff)	1,461,562	1,423,104	1,350,995	1,276,111	1,198,451	1,120,791	1,650,935	1,861,307	1,737,879	1,588,190	1,499,633	1,507,113	
36	Excess runoff not diverted into tailings pond	0	0	0	0	0	0	0	247,868	106,757	86,060	108,852	0	549,537

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.6
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 6

assumptions:

					dry	ave.	wet
daily ore throughput (tpd) = 13,425	min. fresh water makeup (%) = 2%	unprepared basin area (ha) = 15					
tails % solids = 35%	initial dry density (t/m^3) = 0.9	prepared basin area (ha) = 22		unprep'd basin runoff coeff. =	20%	24%	29%
tails S.G. = 2.78	final dry density (t/m^3) = 1.3	beach area (ha) = 142		prep'd basin runoff coeff. =	90%	90%	90%
initial pond volume (m^3) = 1,507,113	total pit area (ha) = 40	pond area (ha) = 51		beach runoff coeff. =	90%	90%	90%
water content of ore = 4%	pit g/w infiltration (m^3/mo) = 39,818	beach evaporation factor = 0.80		pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		24,811	8,887	3,904	3,493	3,082	3,082	93,083	96,988	41,866	33,749	42,688	31,021	386,654
3	Beach runoff		61,516	22,034	9,680	8,661	7,642	7,642	230,787	240,471	103,801	83,678	105,839	76,913	958,662
4	Unprep'd basin runoff		1,738	622	273	245	216	216	6,519	6,793	2,932	2,364	2,990	2,173	27,081
5	Prep'd basin runoff		9,558	3,423	1,504	1,346	1,187	1,187	35,857	37,361	16,127	13,001	16,444	11,950	148,945
6	Recovery from open pit:	precipitation	10,461	3,747	1,646	1,473	1,300	1,300	39,246	40,893	17,652	14,230	17,998	13,079	163,023
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		906,255	836,884	815,178	813,387	811,597	811,597	1,203,663	1,220,676	980,548	945,192	984,129	933,306	11,262,414
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		147,902	78,531	56,825	55,035	53,245	53,245	445,311	462,324	222,196	186,839	225,776	174,954	2,162,181
12	(-) Evaporation from pond		7,710	0	0	0	0	0	0	24,158	57,568	54,998	47,288	25,700	217,422
13	(-) Evaporation from beach		16,992	0	0	0	0	0	0	53,242	126,874	121,210	104,218	56,640	479,174
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		656,228	611,560	589,853	588,063	586,273	586,273	978,339	917,953	570,783	543,660	607,299	625,642	7,861,925
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		24,702	0	0	0	0	0	0	77,400	184,442	176,208	151,506	82,340	696,596
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		197,766	173,064	173,064	173,064	173,064	173,064	173,064	250,464	357,506	349,272	324,570	255,404	2,773,368
23	>>> Total Water Output		906,255	836,884	815,178	813,387	811,597	811,597	1,203,663	1,220,676	980,548	945,192	984,129	933,306	11,262,414
24	Monthly water available (excluding stored water in TSF)		708,488	663,820	642,113	640,323	638,533	638,533	1,030,599	970,213	623,043	595,920	659,559	677,902	8,489,045
25	Available stored water in TSF at beginning of month		1,507,113	1,467,021	1,432,504	1,362,126	1,288,791	1,212,498	1,136,205	1,707,627	1,929,259	1,803,721	1,651,061	1,562,039	
26	*Total Monthly Water Available*		2,215,602	2,130,841	2,074,617	2,002,449	1,927,324	1,851,031	2,166,804	2,677,840	2,552,302	2,399,641	2,310,620	2,239,941	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-40,092	-59,761	-81,467	-83,257	-85,048	-85,048	307,018	221,632	-125,538	-152,661	-89,022	-70,679	-343,921
34	Annual cumulative precipitation surplus/deficit		-40,092	-99,853	-181,320	-264,578	-349,625	-434,673	-127,654	93,978	-31,560	-184,221	-273,242	-343,921	
35	Total water in TSF at end of month (incl. mine site runoff)		1,467,021	1,432,504	1,362,126	1,288,791	1,212,498	1,136,205	1,707,627	1,929,259	1,803,721	1,651,061	1,562,039	1,491,361	
36	Excess runoff not diverted into tailings pond		70,477	0	0	0	0	0	0	276,047	118,921	95,866	121,255	88,116	770,682

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.7
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 7

assumptions:

daily ore throughput (tpd) = 13,425
tails % solids = 35%
tails S.G. = 2.78
initial pond volume (m^3) = 1,491,361
water content of ore = 4%

min. fresh water makeup (%) = 2%
initial dry density (t/m^3) = 0.9
final dry density (t/m^3) = 1.3
total pit area (ha) = 65
pit g/w infiltration (m^3/mo) = 39,818

unprepared basin area (ha) = 15
prepared basin area (ha) = 13
beach area (ha) = 145
pond area (ha) = 58
beach evaporation factor = 0.80

	dry	ave.	wet
unprep'd basin runoff coeff. =	20%	24%	29%
prep'd basin runoff coeff. =	90%	90%	90%
beach runoff coeff. =	90%	90%	90%
pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		27,756	9,941	4,367	3,908	3,448	3,448	104,130	108,499	46,834	37,755	47,754	34,703	432,541
3	Beach runoff		62,776	22,485	9,878	8,838	7,798	7,798	235,514	245,395	105,927	85,391	108,006	78,488	978,296
4	Unprep'd basin runoff		1,738	622	273	245	216	216	6,519	6,793	2,932	2,364	2,990	2,173	27,081
5	Prep'd basin runoff		5,648	2,023	889	795	702	702	21,188	22,077	9,530	7,682	9,717	7,061	88,013
6	Recovery from open pit:	precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		912,841	839,243	816,214	814,315	812,415	812,415	1,228,374	1,246,424	991,663	954,151	995,461	941,541	11,365,058
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		154,489	80,891	57,861	55,962	54,063	54,063	470,021	488,071	233,310	195,799	237,108	183,189	2,264,826
12	(-) Evaporation from pond		8,625	0	0	0	0	0	0	27,025	64,400	61,525	52,900	28,750	243,225
13	(-) Evaporation from beach		17,340	0	0	0	0	0	0	54,332	129,472	123,692	106,352	57,800	488,988
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		661,552	613,919	590,890	588,990	587,091	587,091	1,003,049	939,743	572,466	543,610	610,885	629,667	7,928,953
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		25,965	0	0	0	0	0	0	81,357	193,872	185,217	159,252	86,550	732,213
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		199,029	173,064	173,064	173,064	173,064	173,064	173,064	254,421	366,936	358,281	332,316	259,614	2,808,985
23	>>> Total Water Output		912,841	839,243	816,214	814,315	812,415	812,415	1,228,374	1,246,424	991,663	954,151	995,461	941,541	11,365,058
24	Monthly water available (excluding stored water in TSF)		713,812	666,179	643,150	641,250	639,351	639,351	1,055,309	992,003	624,726	595,870	663,145	681,927	8,556,073
25	Available stored water in TSF at beginning of month		1,491,361	1,530,099	1,472,697	1,403,832	1,331,851	1,256,753	1,181,655	1,789,153	2,032,575	1,908,721	1,756,010	1,670,575	
26	*Total Monthly Water Available*		2,205,173	2,196,277	2,115,847	2,045,083	1,971,202	1,896,104	2,236,964	2,781,156	2,657,302	2,504,591	2,419,155	2,352,502	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-34,769	-57,402	-80,431	-82,330	-84,229	-84,229	331,729	243,422	-123,854	-152,711	-85,436	-66,653	-276,893
34	Annual cumulative precipitation surplus/deficit		-34,769	-92,170	-172,601	-254,931	-339,160	-423,390	-91,661	151,761	27,907	-124,804	-210,239	-276,893	
35	Total water in TSF at end of month (incl. mine site runoff)		1,530,099	1,472,697	1,403,832	1,331,851	1,256,753	1,181,655	1,789,153	2,032,575	1,908,721	1,756,010	1,670,575	1,603,921	
36	Excess runoff not diverted into tailings pond		0	26,328	0	0	0	0	0	287,890	124,033	99,987	126,468	91,904	756,609

Knight Piésold Ltd.
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TABLE A.8
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 8

assumptions:

daily ore throughput (tpd) = 13,425
tails % solids = 35%
tails S.G. = 2.78
initial pond volume (m^3) = 1,603,921
water content of ore = 4%

min. fresh water makeup (%) = 2%
initial dry density (t/m^3) = 0.9
final dry density (t/m^3) = 1.3
total pit area (ha) = 65
pit g/w infiltration (m^3/mo) = 39,818

unprepared basin area (ha) = 6
prepared basin area (ha) = 18
beach area (ha) = 143
pond area (ha) = 63
beach evaporation factor = 0.80

	dry	ave.	wet
unprep'd basin runoff coeff. =	20%	24%	29%
prep'd basin runoff coeff. =	90%	90%	90%
beach runoff coeff. =	90%	90%	90%
pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		30,604	10,962	4,815	4,309	3,802	3,802	114,814	119,631	51,640	41,629	52,654	38,263	476,924
3	Beach runoff		61,951	22,189	9,748	8,722	7,696	7,696	232,417	242,169	104,534	84,269	106,586	77,456	965,432
4	Unprep'd basin runoff		695	249	109	98	86	86	2,608	2,717	1,173	946	1,196	869	10,832
5	Prep'd basin runoff		7,820	2,801	1,230	1,101	971	971	29,337	30,568	13,195	10,637	13,454	9,777	121,864
6	Recovery from open pit:	precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		915,993	840,372	816,710	814,759	812,807	812,807	1,240,199	1,258,746	996,981	958,439	1,000,884	945,482	11,414,180
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		157,641	82,020	58,357	56,406	54,454	54,454	481,847	500,393	238,629	200,086	242,532	187,130	2,313,948
12	(-) Evaporation from pond		9,510	0	0	0	0	0	0	29,798	71,008	67,838	58,328	31,700	268,182
13	(-) Evaporation from beach		17,112	0	0	0	0	0	0	53,618	127,770	122,066	104,954	57,040	482,558
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		664,047	615,048	591,386	589,434	587,483	587,483	1,014,875	950,006	572,879	543,211	612,278	631,418	7,959,548
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		26,622	0	0	0	0	0	0	83,416	198,778	189,904	163,282	88,740	750,740
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		199,686	173,064	173,064	173,064	173,064	173,064	173,064	256,480	371,842	362,968	336,346	261,804	2,827,512
23	>>> Total Water Output		915,993	840,372	816,710	814,759	812,807	812,807	1,240,199	1,258,746	996,981	958,439	1,000,884	945,482	11,414,180
24	Monthly water available (excluding stored water in TSF)		716,307	667,308	643,646	641,694	639,743	639,743	1,067,135	1,002,266	625,139	595,471	664,538	683,678	8,586,668
25	Available stored water in TSF at beginning of month		1,603,921	1,571,648	1,515,375	1,435,440	1,364,329	1,289,999	1,215,669	1,846,359	2,100,044	1,976,603	1,823,493	1,739,451	
26	*Total Monthly Water Available*		2,320,228	2,238,956	2,159,021	2,077,135	2,004,072	1,929,742	2,282,804	2,848,624	2,725,183	2,572,074	2,488,032	2,423,129	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-32,273	-56,273	-79,935	-81,886	-83,838	-83,838	343,554	253,685	-123,441	-153,110	-84,042	-64,902	-246,298
34	Annual cumulative precipitation surplus/deficit		-32,273	-88,546	-168,481	-250,367	-334,205	-418,043	-74,488	179,197	55,756	-97,354	-181,396	-246,298	
35	Total water in TSF at end of month (incl. mine site runoff)		1,571,648	1,515,375	1,435,440	1,364,329	1,289,999	1,215,669	1,846,359	2,100,044	1,976,603	1,823,493	1,739,451	1,674,549	
36	Excess runoff not diverted into tailings pond		76,536	27,413	12,043	0	0	0	0	299,733	129,145	104,108	131,680	95,692	876,349

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.9
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 9

assumptions:

daily ore throughput (tpd) =	13,425	min. fresh water makeup (%) =	2%	unprepared basin area (ha) =	6		dry	ave.	wet
tails % solids =	35%	initial dry density (t/m^3) =	0.9	prepared basin area (ha) =	15	unprep'd basin runoff coeff. =	20%	24%	29%
tails S.G. =	2.78	final dry density (t/m^3) =	1.3	beach area (ha) =	139	prep'd basin runoff coeff. =	90%	90%	90%
initial pond volume (m^3) =	1,674,549	total pit area (ha) =	65	pond area (ha) =	70	beach runoff coeff. =	90%	90%	90%
water content of ore =	4%	pit g/w infiltration (m^3/mo) =	39,818	beach evaporation factor =	0.80	pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)	12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	With slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond	33,597	12,034	5,286	4,730	4,173	4,173	126,042	131,330	56,690	45,700	57,803	42,005	523,563
3	Beach runoff	60,561	21,691	9,529	8,526	7,523	7,523	227,202	236,734	102,188	82,377	104,194	75,718	943,768
4	Unprep'd basin runoff	695	249	109	98	86	86	2,608	2,717	1,173	946	1,196	869	10,832
5	Prep'd basin runoff	6,517	2,334	1,025	917	810	810	24,448	25,474	10,996	8,864	11,212	8,148	101,553
6	Recovery from open pit: precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7	g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input	916,293	840,479	816,757	814,801	812,844	812,844	1,241,322	1,259,915	997,486	958,846	1,001,399	945,857	11,418,844
	<WATER OUT> (m^3)													
	Supernatant Recovery													
9	(+) Recovery from tailings	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff	157,940	82,127	58,404	56,448	54,492	54,492	482,969	501,563	239,134	200,493	243,047	187,504	2,318,612
12	(-) Evaporation from pond	10,440	0	0	0	0	0	0	32,712	77,952	74,472	64,032	34,800	294,408
13	(-) Evaporation from beach	16,728	0	0	0	0	0	0	52,414	124,902	119,326	102,598	55,760	471,730
14	(+) Consolidation to final density	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)	663,800	615,155	591,433	589,476	587,520	587,520	1,015,998	949,465	569,308	539,723	609,445	629,972	7,948,814
	Underdrainage recovery													
16	(+) Underdrainage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses	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
18	Sub-total (Water recovered as U/D)	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water													
19	Water retained in tailings	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond	27,168	0	0	0	0	0	0	85,126	202,854	193,798	166,630	90,560	766,138
21	Seepage losses	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
22	Sub-total (Unrecoverable water)	200,232	173,064	173,064	173,064	173,064	173,064	173,064	258,191	375,919	366,863	339,695	263,624	2,842,910
23	>>> Total Water Output	916,293	840,479	816,757	814,801	812,844	812,844	1,241,322	1,259,915	997,486	958,846	1,001,399	945,857	11,418,844
24	Monthly water available (excluding stored water in TSF)	716,060	667,415	643,693	641,736	639,780	639,780	1,068,258	1,001,725	621,568	591,983	661,705	682,232	8,575,934
25	Available stored water in TSF at beginning of month	1,674,549	1,642,028	1,585,863	1,505,975	1,424,131	1,350,214	1,276,298	1,919,476	2,172,620	2,045,607	1,889,010	1,802,134	
26	*Total Monthly Water Available*	2,390,609	2,309,444	2,229,556	2,147,712	2,063,911	1,989,994	2,344,556	2,921,201	2,794,188	2,637,591	2,550,715	2,484,366	
27	Water included with slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads	25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*	748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit	-32,520	-56,165	-79,888	-81,844	-83,801	-83,801	344,677	253,144	-127,013	-156,597	-86,876	-66,348	-257,032
34	Annual cumulative precipitation surplus/deficit	-32,520	-88,686	-168,573	-250,417	-334,218	-418,019	-73,341	179,803	52,790	-103,808	-190,684	-257,032	
35	Total water in TSF at end of month (incl. mine site runoff)	1,642,028	1,585,863	1,505,975	1,424,131	1,350,214	1,276,298	1,919,476	2,172,620	2,045,607	1,889,010	1,802,134	1,735,786	
36	Excess runoff not diverted into tailings pond	79,566	28,499	12,520	11,202	0	0	0	311,575	134,256	108,229	136,892	99,479	922,218

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.10
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 10

assumptions:

daily ore throughput (tpd) =	13,425	min. fresh water makeup (%) =	2%	unprepared basin area (ha) =	0		
tails % solids =	35%	initial dry density (t/m^3) =	0.9	prepared basin area (ha) =	17		
tails S.G. =	2.78	final dry density (t/m^3) =	1.3	beach area (ha) =	137		
initial pond volume (m^3) =	1,735,786	total pit area (ha) =	65	pond area (ha) =	76		
water content of ore =	4%	pit g/w infiltration (m^3/mo) =	39,818	beach evaporation factor =	0.80		

	dry	ave.	wet
unprep'd basin runoff coeff. =	20%	24%	29%
prep'd basin runoff coeff. =	90%	90%	90%
beach runoff coeff. =	90%	90%	90%
pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		36,541	13,088	5,750	5,144	4,539	4,539	137,089	142,841	61,658	49,705	62,869	45,687	569,450
3	Beach runoff		59,648	21,365	9,386	8,398	7,410	7,410	223,779	233,168	100,649	81,137	102,625	74,577	929,550
4	Unprep'd basin runoff		0	0	0	0	0	0	0	0	0	0	0	0	0
5	Prep'd basin runoff		7,385	2,645	1,162	1,040	917	917	27,708	28,870	12,462	10,046	12,707	9,234	115,094
6	Recovery from open pit:	precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		918,499	841,270	817,104	815,111	813,118	813,118	1,249,598	1,268,539	1,001,209	961,847	1,005,195	948,615	11,453,222
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		160,146	82,917	58,752	56,759	54,766	54,766	491,245	510,186	242,856	203,494	246,842	190,262	2,352,990
12	(-) Evaporation from pond		11,355	0	0	0	0	0	0	35,579	84,784	80,999	69,644	37,850	320,211
13	(-) Evaporation from beach		16,476	0	0	0	0	0	0	51,625	123,021	117,529	101,053	54,920	464,623
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		665,343	615,945	591,780	589,787	587,794	587,794	1,024,274	956,011	568,079	537,995	609,173	630,520	7,964,495
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		27,831	0	0	0	0	0	0	87,204	207,805	198,528	170,697	92,770	784,834
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		200,895	173,064	173,064	173,064	173,064	173,064	173,064	260,268	380,869	371,592	343,761	265,834	2,861,606
23	>>> Total Water Output		918,499	841,270	817,104	815,111	813,118	813,118	1,249,598	1,268,539	1,001,209	961,847	1,005,195	948,615	11,453,222
24	Monthly water available (excluding stored water in TSF)		717,603	668,205	644,040	642,047	640,054	640,054	1,076,534	1,008,271	620,339	590,255	661,433	682,780	8,591,615
25	Available stored water in TSF at beginning of month		1,735,786	1,704,809	1,649,433	1,569,893	1,488,359	1,415,093	1,341,827	2,004,647	2,264,337	2,136,096	1,977,770	1,890,623	
26	*Total Monthly Water Available*		2,453,389	2,373,014	2,293,473	2,211,940	2,128,413	2,055,147	2,418,360	3,012,918	2,884,676	2,726,350	2,639,203	2,573,403	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-30,977	-55,375	-79,541	-81,534	-83,527	-83,527	352,953	259,690	-128,241	-158,326	-87,147	-65,800	-241,351
34	Annual cumulative precipitation surplus/deficit		-30,977	-86,352	-165,893	-247,427	-330,953	-414,480	-61,527	198,164	69,922	-88,404	-175,551	-241,351	
35	Total water in TSF at end of month (incl. mine site runoff)		1,704,809	1,649,433	1,569,893	1,488,359	1,415,093	1,341,827	2,004,647	2,264,337	2,136,096	1,977,770	1,890,623	1,824,823	
36	Excess runoff not diverted into tailings pond		82,595	29,584	12,996	11,628	0	0	0	323,418	139,368	112,350	142,105	103,267	957,312

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.11
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 11

assumptions:

					dry	ave.	wet
daily ore throughput (tpd) = 13,425	min. fresh water makeup (%) = 2%	unprepared basin area (ha) = 0		unprep'd basin runoff coeff. =	20%	24%	29%
tails % solids = 35%	initial dry density (t/m^3) = 0.9	prepared basin area (ha) = 13		prep'd basin runoff coeff. =	90%	90%	90%
tails S.G. = 2.78	final dry density (t/m^3) = 1.3	beach area (ha) = 135		beach runoff coeff. =	90%	90%	90%
initial pond volume (m^3) = 1,824,823	total pit area (ha) = 65	pond area (ha) = 82		pit area runoff coeff. =	45%	50%	55%
water content of ore = 4%	pit g/w infiltration (m^3/mo) = 39,818	beach evaporation factor = 0.80					

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)	12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)													
1	With slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond	39,486	14,143	6,213	5,559	4,905	4,905	148,136	154,351	66,627	53,710	67,935	49,368	615,337
3	Beach runoff	58,736	21,038	9,242	8,269	7,296	7,296	220,356	229,602	99,109	79,896	101,055	73,437	915,333
4	Unprep'd basin runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Prep'd basin runoff	5,648	2,023	889	795	702	702	21,188	22,077	9,530	7,682	9,717	7,061	88,013
6	Recovery from open pit: precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7	g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input	918,793	841,375	817,151	815,153	813,155	813,155	1,250,703	1,269,690	1,001,705	962,247	1,005,701	948,983	11,457,810
	<WATER OUT> (m^3)													
	Supernatant Recovery													
9	(+) Recovery from tailings	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff	160,440	83,022	58,798	56,800	54,802	54,802	492,350	511,337	243,353	203,894	247,349	190,630	2,357,578
12	(-) Evaporation from pond	12,270	0	0	0	0	0	0	38,446	91,616	87,526	75,256	40,900	346,014
13	(-) Evaporation from beach	16,224	0	0	0	0	0	0	50,835	121,139	115,731	99,507	54,080	457,517
14	(+) Consolidation to final density	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)	664,975	616,051	591,826	589,828	587,830	587,830	1,025,378	955,084	563,626	533,666	605,614	628,679	7,950,388
	Underdrainage recovery													
16	(+) Underdrainage	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses	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
18	Sub-total (Water recovered as U/D)	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water													
19	Water retained in tailings	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond	28,494	0	0	0	0	0	0	89,281	212,755	203,257	174,763	94,980	803,531
21	Seepage losses	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
22	Sub-total (Unrecoverable water)	201,558	173,064	173,064	173,064	173,064	173,064	173,064	262,346	385,820	376,322	347,828	268,044	2,880,303
23	>>> Total Water Output	918,793	841,375	817,151	815,153	813,155	813,155	1,250,703	1,269,690	1,001,705	962,247	1,005,701	948,983	11,457,810
24	Monthly water available (excluding stored water in TSF)	717,235	668,311	644,086	642,088	640,090	640,090	1,077,638	1,007,344	615,886	585,926	657,874	680,939	8,577,508
25	Available stored water in TSF at beginning of month	1,824,823	1,793,477	1,738,207	1,658,713	1,577,221	1,493,731	1,420,501	2,084,426	2,343,190	2,210,495	2,047,840	1,957,133	
26	*Total Monthly Water Available*	2,542,058	2,461,788	2,382,293	2,300,801	2,217,311	2,133,821	2,498,140	3,091,770	2,959,076	2,796,421	2,705,714	2,638,072	
27	Water included with slurry	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads	25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*	748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit	-31,346	-55,270	-79,494	-81,492	-83,490	-83,490	354,058	258,764	-132,695	-162,655	-90,707	-67,642	-255,459
34	Annual cumulative precipitation surplus/deficit	-31,346	-86,616	-166,110	-247,602	-331,092	-414,582	-60,524	198,240	65,545	-97,110	-187,817	-255,459	
35	Total water in TSF at end of month (incl. mine site runoff)	1,793,477	1,738,207	1,658,713	1,577,221	1,493,731	1,420,501	2,084,426	2,343,190	2,210,495	2,047,840	1,957,133	1,889,491	
36	Excess runoff not diverted into tailings pond	82,595	29,584	12,996	11,628	10,260	0	0	323,418	139,368	112,350	142,105	103,267	967,572

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.12
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 12

assumptions:

					dry	ave.	wet
daily ore throughput (tpd) = 13,425	min. fresh water makeup (%) = 2%	unprepared basin area (ha) = 0		unprep'd basin runoff coeff. =	20%	24%	29%
tails % solids = 35%	initial dry density (t/m^3) = 0.9	prepared basin area (ha) = 10		prep'd basin runoff coeff. =	90%	90%	90%
tails S.G. = 2.78	final dry density (t/m^3) = 1.3	beach area (ha) = 132		beach runoff coeff. =	90%	90%	90%
initial pond volume (m^3) = 1,889,491	total pit area (ha) = 65	pond area (ha) = 88		pit area runoff coeff. =	45%	50%	55%
water content of ore = 4%	pit g/w infiltration (m^3/mo) = 39,818	beach evaporation factor = 0.80					

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		42,430	15,198	6,676	5,974	5,271	5,271	159,182	165,861	71,595	57,715	73,001	53,050	661,224
3	Beach runoff		57,389	20,556	9,030	8,080	7,129	7,129	215,304	224,337	96,837	78,064	98,738	71,753	894,345
4	Unprep'd basin runoff		0	0	0	0	0	0	0	0	0	0	0	0	0
5	Prep'd basin runoff		4,344	1,556	684	612	540	540	16,299	16,982	7,331	5,909	7,474	5,432	67,702
6	Recovery from open pit:	precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		919,088	841,480	817,197	815,194	813,191	813,191	1,251,807	1,270,841	1,002,202	962,648	1,006,208	949,351	11,462,399
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		160,735	83,128	58,844	56,841	54,839	54,839	493,455	512,488	243,850	204,295	247,855	190,998	2,362,167
12	(-) Evaporation from pond		13,185	0	0	0	0	0	0	41,313	98,448	94,053	80,868	43,950	371,817
13	(-) Evaporation from beach		15,852	0	0	0	0	0	0	49,670	118,362	113,078	97,226	52,840	447,026
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		664,726	616,156	591,873	589,870	587,867	587,867	1,026,483	954,534	560,068	530,193	602,790	627,237	7,939,664
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		29,037	0	0	0	0	0	0	90,983	216,810	207,131	178,094	96,790	818,843
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		202,101	173,064	173,064	173,064	173,064	173,064	173,064	264,047	389,874	380,195	351,158	269,854	2,895,615
23	>>> Total Water Output		919,088	841,480	817,197	815,194	813,191	813,191	1,251,807	1,270,841	1,002,202	962,648	1,006,208	949,351	11,462,399
24	Monthly water available (excluding stored water in TSF)		716,986	668,416	644,133	642,130	640,127	640,127	1,078,743	1,006,794	612,328	582,453	655,050	679,497	8,566,784
25	Available stored water in TSF at beginning of month		1,889,491	1,857,897	1,802,733	1,723,285	1,641,834	1,558,381	1,474,927	2,139,957	2,398,170	2,261,918	2,095,790	2,002,260	
26	*Total Monthly Water Available*		2,606,478	2,526,313	2,446,865	2,365,415	2,281,961	2,198,508	2,553,671	3,146,751	3,010,499	2,844,371	2,750,840	2,681,757	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-31,594	-55,164	-79,448	-81,451	-83,453	-83,453	355,163	258,213	-136,252	-166,128	-93,531	-69,084	-266,183
34	Annual cumulative precipitation surplus/deficit		-31,594	-86,759	-166,207	-247,657	-331,111	-414,564	-59,401	198,812	62,560	-103,568	-197,099	-266,183	
35	Total water in TSF at end of month (incl. mine site runoff)		1,857,897	1,802,733	1,723,285	1,641,834	1,558,381	1,474,927	2,139,957	2,398,170	2,261,918	2,095,790	2,002,260	1,933,176	
36	Excess runoff not diverted into tailings pond		82,595	29,584	12,996	11,628	10,260	10,260	0	323,418	139,368	112,350	142,105	103,267	977,832

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.13
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 13

assumptions:

daily ore throughput (tpd) =	13,425	min. fresh water makeup (%) =	2%	unprepared basin area (ha) =	0		dry	ave.	wet
tails % solids =	35%	initial dry density (t/m^3) =	0.9	prepared basin area (ha) =	6	unprep'd basin runoff coeff. =	20%	24%	29%
tails S.G. =	2.78	final dry density (t/m^3) =	1.3	beach area (ha) =	130	prep'd basin runoff coeff. =	90%	90%	90%
initial pond volume (m^3) =	1,933,176	total pit area (ha) =	65	pond area (ha) =	94	beach runoff coeff. =	90%	90%	90%
water content of ore =	4%	pit g/w infiltration (m^3/mo) =	39,818	beach evaporation factor =	0.80	pit area runoff coeff. =	45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		45,326	16,235	7,132	6,381	5,631	5,631	170,048	177,183	76,482	61,655	77,984	56,671	706,359
3	Beach runoff		56,520	20,244	8,893	7,957	7,021	7,021	212,044	220,941	95,371	76,882	97,243	70,666	880,805
4	Unprep'd basin runoff		0	0	0	0	0	0	0	0	0	0	0	0	0
5	Prep'd basin runoff		2,607	934	410	367	324	324	9,779	10,189	4,398	3,546	4,485	3,259	40,621
6	Recovery from open pit:	precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		919,377	841,584	817,243	815,235	813,227	813,227	1,252,894	1,271,973	1,002,691	963,042	1,006,706	949,713	11,466,913
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		161,025	83,232	58,890	56,882	54,875	54,875	494,541	513,620	244,338	204,689	248,353	191,360	2,366,680
12	(-) Evaporation from pond		14,085	0	0	0	0	0	0	44,133	105,168	100,473	86,388	46,950	397,197
13	(-) Evaporation from beach		15,612	0	0	0	0	0	0	48,918	116,570	111,366	95,754	52,040	440,258
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		664,356	616,260	591,918	589,911	587,903	587,903	1,027,570	953,598	555,629	525,879	599,240	625,399	7,925,565
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		29,697	0	0	0	0	0	0	93,051	221,738	211,839	182,142	98,990	837,455
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		202,761	173,064	173,064	173,064	173,064	173,064	173,064	266,115	394,802	384,903	355,206	272,054	2,914,227
23	>>> Total Water Output		919,377	841,584	817,243	815,235	813,227	813,227	1,252,894	1,271,973	1,002,691	963,042	1,006,706	949,713	11,466,913
24	Monthly water available (excluding stored water in TSF)		716,616	668,520	644,178	642,171	640,163	640,163	1,079,830	1,005,858	607,889	578,139	651,500	677,659	8,552,685
25	Available stored water in TSF at beginning of month		1,933,176	1,901,211	1,846,151	1,766,748	1,685,338	1,601,921	1,518,504	1,874,753	2,132,030	1,991,339	1,820,897	1,723,817	
26	*Total Monthly Water Available*		2,649,792	2,569,731	2,490,329	2,408,919	2,325,502	2,242,084	2,598,333	2,880,611	2,739,919	2,569,478	2,472,397	2,401,475	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-31,965	-55,061	-79,402	-81,410	-83,417	-83,417	356,249	257,277	-140,691	-170,442	-97,080	-70,922	-280,281
34	Annual cumulative precipitation surplus/deficit		-31,965	-87,025	-166,428	-247,838	-331,255	-414,672	-58,423	198,854	58,163	-112,279	-209,359	-280,281	
35	Total water in TSF at end of month (incl. mine site runoff)		1,901,211	1,846,151	1,766,748	1,685,338	1,601,921	1,518,504	1,874,753	2,132,030	1,991,339	1,820,897	1,723,817	1,652,895	
36	Excess runoff not diverted into tailings pond		82,595	29,584	12,996	11,628	10,260	10,260	309,867	323,418	139,368	112,350	142,105	103,267	1,287,699

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE A.14
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
TAILINGS STORAGE FACILITY
MONTHLY WATER BALANCE
YEAR 14

assumptions:

					dry	ave.	wet
daily ore throughput (tpd) = 13,425	min. fresh water makeup (%) = 2%	unprepared basin area (ha) = 0					
tails % solids = 35%	initial dry density (t/m^3) = 0.9	prepared basin area (ha) = 3	unprep'd basin runoff coeff. =		20%	24%	29%
tails S.G. = 2.78	final dry density (t/m^3) = 1.3	beach area (ha) = 127	prep'd basin runoff coeff. =		90%	90%	90%
initial pond volume (m^3) = 1,652,895	total pit area (ha) = 65	pond area (ha) = 100	beach runoff coeff. =		90%	90%	90%
water content of ore = 4%	pit g/w infiltration (m^3/mo) = 39,818	beach evaporation factor = 0.80	pit area runoff coeff. =		45%	50%	55%

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	DESCRIPTION		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)		48.3	17.3	7.6	6.8	6.0	6.0	24.2	45.3	81.5	65.7	83.0	58.9	450.4
B	Snowfall (mm/month)		12.0	39.7	66.7	68.1	51.7	38.2	18.7	5.3	0.0	0.0	0.0	1.5	301.8
C	Evaporation (mm/month)		15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<WATER IN> (m^3)														
1	With slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
2	Precipitation onto pond		48,271	17,290	7,595	6,796	5,996	5,996	181,095	188,693	81,451	65,660	83,050	60,352	752,246
3	Beach runoff		55,174	19,762	8,682	7,768	6,854	6,854	206,992	215,676	93,098	75,050	94,926	68,983	859,817
4	Unprep'd basin runoff		0	0	0	0	0	0	0	0	0	0	0	0	0
5	Prep'd basin runoff		1,303	467	205	183	162	162	4,890	5,095	2,199	1,773	2,242	1,630	20,311
6	Recovery from open pit:	precipitation	16,753	6,001	2,636	2,359	2,081	2,081	62,852	65,489	28,269	22,789	28,824	20,946	261,080
7		g/w infiltration	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	39,818	477,816
8	>>> Total Water Input		919,672	841,690	817,289	815,276	813,264	813,264	1,253,999	1,273,124	1,003,188	963,442	1,007,213	950,081	11,471,501
	<WATER OUT> (m^3)														
	Supernatant Recovery														
9	(+) Recovery from tailings		451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	451,524	5,418,284
10	(-) Seepage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
11	(+) Total precipitation runoff		161,319	83,337	58,936	56,924	54,911	54,911	495,646	514,771	244,835	205,090	248,860	191,729	2,371,269
12	(-) Evaporation from pond		15,000	0	0	0	0	0	0	47,000	112,000	107,000	92,000	50,000	423,000
13	(-) Evaporation from beach		15,240	0	0	0	0	0	0	47,752	113,792	108,712	93,472	50,800	429,768
14	(+) Consolidation to final density		139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	139,605	1,675,256
15	Sub-total (Water recovered as S/N)		664,107	616,365	591,965	589,952	587,940	587,940	1,028,674	953,048	552,072	522,406	596,416	623,957	7,914,841
	Underdrainage recovery														
16	(+) Underdrainage		58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	58,100	697,200
17	(-) Seepage losses		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
18	Sub-total (Water recovered as U/D)		52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	52,260	627,120
	Unrecoverable Water														
19	Water retained in tailings		167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	167,224	2,006,692
20	Evaporation from beach and pond		30,240	0	0	0	0	0	0	94,752	225,792	215,712	185,472	100,800	852,768
21	Seepage losses		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
22	Sub-total (Unrecoverable water)		203,304	173,064	173,064	173,064	173,064	173,064	173,064	267,816	398,856	388,776	358,536	273,864	2,929,540
23	>>> Total Water Output		919,672	841,690	817,289	815,276	813,264	813,264	1,253,999	1,273,124	1,003,188	963,442	1,007,213	950,081	11,471,501
24	Monthly water available (excluding stored water in TSF)		716,367	668,625	644,225	642,212	640,200	640,200	1,080,934	1,005,308	604,332	574,666	648,676	676,217	8,541,961
25	Available stored water in TSF at beginning of month		1,652,895	1,620,682	1,565,727	1,486,371	1,416,630	1,343,510	1,270,389	1,937,610	2,194,337	2,050,088	1,876,174	1,776,269	
26	*Total Monthly Water Available*		2,369,262	2,289,307	2,209,951	2,128,583	2,056,830	1,983,709	2,351,324	2,942,918	2,798,669	2,624,754	2,524,850	2,452,486	
27	Water included with slurry		758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	758,353	9,100,232
28	Fresh water input to mill		18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	18,200	218,406
29	Water in ore		16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	16,572	198,860
30	Water for dust control on roads		25,000	0	0	0	0	0	0	25,000	25,000	25,000	25,000	25,000	150,000
31	*Total Mill Water Required*		748,581	723,581	723,581	723,581	723,581	723,581	723,581	748,581	748,581	748,581	748,581	748,581	8,832,966
32	Additional makeup water required		0	0	0	0	0	0	0	0	0	0	0	0	0
33	Monthly precipitation water surplus/deficit		-32,213	-54,955	-79,356	-81,368	-83,381	-83,381	357,354	256,727	-144,249	-173,915	-99,904	-72,364	-291,005
34	Annual cumulative precipitation surplus/deficit		-32,213	-87,168	-166,524	-247,893	-331,274	-414,655	-57,301	199,426	55,177	-118,737	-218,641	-291,005	
35	Total water in TSF at end of month (incl. mine site runoff)		1,620,682	1,565,727	1,486,371	1,416,630	1,343,510	1,270,389	1,937,610	2,194,337	2,050,088	1,876,174	1,776,269	1,703,906	
36	Excess runoff not diverted into tailings pond		82,595	29,584	12,996	0	0	0	0	323,418	139,368	112,350	142,105	103,267	945,683

APPENDIX B

MINE SITE - MONTHLY WATER BALANCES FOR AVERAGE PRECIPITATION

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.1
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 1

catchment areas (ha):

	dist'bd	undist'bd
East dump:	10	70
West dump:	0	0
North dump:	0	0
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	3,107	1,113	489	437	386	386	11,657	12,146	5,243	4,227	5,346	3,885	48,423
2	Undisturbed catchment runoff	8,700	3,116	1,369	1,225	1,081	1,081	32,640	34,010	14,681	11,835	14,969	10,878	135,584
	West Waste Dump													
3	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	North Waste Dump													
5	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	11,808	4,229	1,858	1,662	1,467	1,467	44,298	46,156	19,924	16,061	20,315	14,763	184,007
10	North waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
11	West waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	19,679	7,049	3,097	2,771	2,445	2,445	73,829	77,477	33,206	26,769	33,858	24,605	307,228
15	Grand Total (including additional tails catchment)	47,483	17,007	7,471	6,685	5,899	5,899	178,140	186,164	80,122	64,589	81,695	59,367	740,521

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.2
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 2

catchment areas (ha):

	dist'bd	undist'bd
East dump:	15	65
West dump:	0	0
North dump:	0	0
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	4,557	1,632	717	642	566	566	17,097	17,815	7,690	6,199	7,841	5,698	71,020
2	Undisturbed catchment runoff	8,120	2,908	1,278	1,143	1,009	1,009	30,464	31,743	13,702	11,046	13,971	10,153	126,545
	West Waste Dump													
3	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	North Waste Dump													
5	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	12,678	4,541	1,995	1,785	1,575	1,575	47,562	49,557	21,392	17,245	21,812	15,851	197,565
10	North waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
11	West waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	20,549	7,360	3,233	2,893	2,553	2,553	77,093	80,878	34,674	27,952	35,355	25,692	320,786
15	Grand Total (including additional tails catchment)	48,353	17,319	7,608	6,807	6,007	6,007	181,404	189,565	81,590	65,772	83,192	60,455	754,080

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.3
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 3

catchment areas (ha):

	dist'bd	undist'bd
East dump:	19	61
West dump:	0	0
North dump:	0	0
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	6,007	2,152	945	846	746	746	22,537	23,483	10,137	8,171	10,336	7,511	93,617
2	Undisturbed catchment runoff	7,540	2,701	1,186	1,062	937	937	28,288	29,475	12,723	10,257	12,973	9,427	117,506
	West Waste Dump													
3	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	North Waste Dump													
5	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	13,548	4,852	2,132	1,907	1,683	1,683	50,826	52,958	22,860	18,428	23,309	16,938	211,123
10	North waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
11	West waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	21,419	7,672	3,370	3,016	2,661	2,661	80,357	84,279	36,142	29,136	36,852	26,780	334,345
15	Grand Total (including additional tails catchment)	49,223	17,631	7,745	6,930	6,115	6,115	184,668	192,966	83,058	66,956	84,688	61,543	767,638

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TABLE B.4
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 4

catchment areas (ha):

	dist'bd	undist'bd
East dump:	24	56
West dump:	0	0
North dump:	0	0
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	7,457	2,671	1,173	1,050	926	926	27,977	29,151	12,583	10,144	12,830	9,324	116,215
2	Undisturbed catchment runoff	6,960	2,493	1,095	980	865	865	26,112	27,208	11,744	9,468	11,975	8,702	108,467
	West Waste Dump													
3	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	North Waste Dump													
5	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	14,418	5,164	2,269	2,030	1,791	1,791	54,090	56,359	24,328	19,612	24,805	18,026	224,682
10	North waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
11	West waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	22,289	7,984	3,507	3,138	2,769	2,769	83,621	87,680	37,610	30,319	38,349	27,868	347,903
15	Grand Total (including additional tails catchment)	50,093	17,942	7,882	7,052	6,223	6,223	187,932	196,367	84,526	68,139	86,185	62,631	781,197

Knight Piésold Ltd.
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TABLE B.5
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 5

catchment areas (ha):

	dist'bd	undist'bd
East dump:	29	51
West dump:	0	0
North dump:	9	76
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	8,907	3,190	1,402	1,254	1,107	1,107	33,417	34,820	15,030	12,116	15,325	11,137	138,812
2	Undisturbed catchment runoff	6,380	2,285	1,004	898	793	793	23,936	24,941	10,766	8,679	10,977	7,977	99,428
	West Waste Dump													
3	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Undisturbed catchment runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
	North Waste Dump													
5	Waste rock runoff	2,900	1,039	456	408	360	360	10,880	11,337	4,894	3,945	4,990	3,626	45,195
6	Undisturbed catchment runoff	9,405	3,369	1,480	1,324	1,168	1,168	35,283	36,763	15,869	12,793	16,181	11,758	146,560
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	15,288	5,476	2,406	2,152	1,899	1,899	57,354	59,760	25,796	20,795	26,302	19,114	238,240
10	North waste dump	12,305	4,407	1,936	1,732	1,529	1,529	46,163	48,100	20,763	16,737	21,170	15,384	191,754
11	West waste dump	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	35,464	12,702	5,580	4,993	4,405	4,405	133,048	139,180	59,841	48,240	61,016	44,340	553,216
15	Grand Total (including additional tails catchment)	63,268	22,661	9,955	8,907	7,859	7,859	237,359	247,868	106,757	86,060	108,852	79,103	986,509

Knight Piésold Ltd.
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TABLE B.6
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 6

catchment areas (ha):

	dist'bd	undist'bd
East dump:	33	47
West dump:	0	37
North dump:	19	66
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	10,357	3,710	1,630	1,458	1,287	1,287	38,858	40,488	17,477	14,089	17,820	12,950	161,409
2	Undisturbed catchment runoff	5,800	2,077	913	817	721	721	21,760	22,673	9,787	7,890	9,979	7,252	90,389
	West Waste Dump													
3	Waste rock runoff	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Undisturbed catchment runoff	4,599	1,647	724	647	571	571	17,253	17,977	7,760	6,255	7,912	5,750	71,666
	North Waste Dump													
5	Waste rock runoff	5,800	2,077	913	817	721	721	21,760	22,673	9,787	7,890	9,979	7,252	90,389
6	Undisturbed catchment runoff	8,245	2,953	1,297	1,161	1,024	1,024	30,931	32,228	13,912	11,215	14,185	10,308	128,482
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	16,158	5,787	2,542	2,275	2,007	2,007	60,618	63,161	27,264	21,978	27,799	20,202	251,799
10	North waste dump	14,045	5,031	2,210	1,977	1,745	1,745	52,691	54,902	23,699	19,104	24,164	17,560	218,871
11	West waste dump	4,599	1,647	724	647	571	571	17,253	17,977	7,760	6,255	7,912	5,750	71,666
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	42,673	15,284	6,715	6,008	5,301	5,301	160,093	167,360	72,005	58,046	73,418	53,353	665,557
15	Grand Total (including additional tails catchment)	70,477	25,243	11,090	9,922	8,755	8,755	264,404	276,047	118,921	95,866	121,255	88,116	1,098,850

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.7
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 7

catchment areas (ha):

	dist'bd	undist'bd
East dump:	38	42
West dump:	2	35
North dump:	28	57
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	11,808	4,229	1,858	1,662	1,467	1,467	44,298	46,156	19,924	16,061	20,315	14,763	184,007
2	Undisturbed catchment runoff	5,220	1,870	821	735	648	648	19,584	20,406	8,808	7,101	8,981	6,527	81,350
	West Waste Dump													
3	Waste rock runoff	699	250	110	98	87	87	2,623	2,733	1,180	951	1,203	874	10,895
4	Undisturbed catchment runoff	4,319	1,547	680	608	537	537	16,204	16,883	7,288	5,875	7,431	5,400	67,308
	North Waste Dump													
5	Waste rock runoff	8,700	3,116	1,369	1,225	1,081	1,081	32,640	34,010	14,681	11,835	14,969	10,878	135,584
6	Undisturbed catchment runoff	7,085	2,538	1,115	997	880	880	26,579	27,694	11,954	9,637	12,189	8,858	110,404
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	17,028	6,099	2,679	2,397	2,115	2,115	63,882	66,562	28,732	23,162	29,296	21,289	265,357
10	North waste dump	15,785	5,654	2,484	2,222	1,961	1,961	59,219	61,704	26,635	21,471	27,158	19,735	245,988
11	West waste dump	5,018	1,797	790	706	623	623	18,826	19,616	8,468	6,826	8,634	6,274	78,203
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	45,702	16,370	7,191	6,434	5,677	5,677	171,459	179,203	77,117	62,167	78,631	57,141	712,769
15	Grand Total (including additional tails catchment)	73,506	26,328	11,566	10,349	9,131	9,131	275,770	287,890	124,033	99,987	126,468	91,904	1,146,062

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.8
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 8

catchment areas (ha):

	dist'bd	undist'bd
East dump:	43	37
West dump:	5	33
North dump:	37	48
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	13,258	4,749	2,086	1,866	1,647	1,647	49,738	51,824	22,370	18,034	22,810	16,576	206,604
2	Undisturbed catchment runoff	4,640	1,662	730	653	576	576	17,408	18,139	7,830	6,312	7,983	5,801	72,311
	West Waste Dump													
3	Waste rock runoff	1,398	501	220	197	174	174	5,246	5,466	2,359	1,902	2,406	1,748	21,790
4	Undisturbed catchment runoff	4,039	1,447	636	569	502	502	15,154	15,790	6,816	5,495	6,950	5,050	62,950
	North Waste Dump													
5	Waste rock runoff	11,600	4,155	1,825	1,633	1,441	1,441	43,520	45,346	19,574	15,779	19,958	14,504	180,779
6	Undisturbed catchment runoff	5,924	2,122	932	834	736	736	22,227	23,159	9,997	8,059	10,193	7,407	92,326
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	17,898	6,411	2,816	2,520	2,223	2,223	67,146	69,963	30,200	24,345	30,793	22,377	278,915
10	North waste dump	17,525	6,277	2,758	2,467	2,177	2,177	65,747	68,506	29,571	23,838	30,151	21,911	273,105
11	West waste dump	5,438	1,948	856	766	675	675	20,400	21,256	9,175	7,397	9,356	6,799	84,740
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	48,732	17,455	7,668	6,861	6,054	6,054	182,825	191,045	82,229	66,288	83,843	60,929	759,981
15	Grand Total (including additional tails catchment)	76,536	27,413	12,043	10,775	9,508	9,508	287,135	299,733	129,145	104,108	131,680	95,692	1,193,275

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.9
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 9

catchment areas (ha):

	dist'bd	undist'bd
East dump:	47	33
West dump:	7	30
North dump:	47	38
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	14,708	5,268	2,314	2,071	1,827	1,827	55,178	57,493	24,817	20,006	25,304	18,389	229,201
2	Undisturbed catchment runoff	4,060	1,454	639	572	504	504	15,232	15,871	6,851	5,523	6,985	5,076	63,272
	West Waste Dump													
3	Waste rock runoff	2,097	751	330	295	261	261	7,869	8,199	3,539	2,853	3,609	2,622	32,685
4	Undisturbed catchment runoff	3,760	1,347	592	529	467	467	14,105	14,697	6,344	5,114	6,469	4,701	58,592
	North Waste Dump													
5	Waste rock runoff	14,500	5,194	2,282	2,041	1,801	1,801	54,401	56,683	24,468	19,724	24,948	18,130	225,973
6	Undisturbed catchment runoff	4,764	1,707	750	671	592	592	17,874	18,624	8,039	6,481	8,197	5,957	74,248
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	18,768	6,722	2,953	2,642	2,331	2,331	70,410	73,364	31,668	25,529	32,290	23,465	292,474
10	North waste dump	19,265	6,900	3,031	2,712	2,393	2,393	72,275	75,307	32,507	26,205	33,145	24,087	300,221
11	West waste dump	5,857	2,098	922	825	728	728	21,974	22,896	9,883	7,967	10,077	7,323	91,277
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	51,761	18,540	8,145	7,287	6,430	6,430	194,191	202,888	87,341	70,408	89,055	64,717	807,193
15	Grand Total (including additional tails catchment)	79,566	28,499	12,520	11,202	9,884	9,884	298,501	311,575	134,256	108,229	136,892	99,479	1,240,487

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.10
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 10

catchment areas (ha):

	dist'bd	undist'bd
East dump:	52	28
West dump:	9	28
North dump:	56	29
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	16,158	5,787	2,542	2,275	2,007	2,007	60,618	63,161	27,264	21,978	27,799	20,202	251,799
2	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	West Waste Dump													
3	Waste rock runoff	2,797	1,002	440	394	347	347	10,492	10,932	4,719	3,804	4,811	3,496	43,581
4	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	North Waste Dump													
5	Waste rock runoff	17,401	6,232	2,738	2,450	2,162	2,162	65,281	68,020	29,361	23,669	29,938	21,756	271,168
6	Undisturbed catchment runoff	3,604	1,291	567	507	448	448	13,522	14,090	6,082	4,903	6,201	4,507	56,170
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	19,638	7,034	3,090	2,765	2,439	2,439	73,674	76,765	33,136	26,712	33,787	24,553	306,032
10	North waste dump	21,005	7,524	3,305	2,957	2,609	2,609	78,803	82,109	35,443	28,572	36,139	26,262	327,338
11	West waste dump	6,277	2,248	988	884	780	780	23,548	24,536	10,591	8,538	10,799	7,848	97,814
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	54,791	19,625	8,621	7,714	6,806	6,806	205,556	214,731	92,453	74,529	94,268	68,504	854,406
15	Grand Total (including additional tails catchment)	82,595	29,584	12,996	11,628	10,260	10,260	309,867	323,418	139,368	112,350	142,105	103,267	1,287,699

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.11
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 11

catchment areas (ha):

	dist'bd	undist'bd
East dump:	52	28
West dump:	9	28
North dump:	56	29
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	16,158	5,787	2,542	2,275	2,007	2,007	60,618	63,161	27,264	21,978	27,799	20,202	251,799
2	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	West Waste Dump													
3	Waste rock runoff	2,797	1,002	440	394	347	347	10,492	10,932	4,719	3,804	4,811	3,496	43,581
4	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	North Waste Dump													
5	Waste rock runoff	17,401	6,232	2,738	2,450	2,162	2,162	65,281	68,020	29,361	23,669	29,938	21,756	271,168
6	Undisturbed catchment runoff	3,604	1,291	567	507	448	448	13,522	14,090	6,082	4,903	6,201	4,507	56,170
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	19,638	7,034	3,090	2,765	2,439	2,439	73,674	76,765	33,136	26,712	33,787	24,553	306,032
10	North waste dump	21,005	7,524	3,305	2,957	2,609	2,609	78,803	82,109	35,443	28,572	36,139	26,262	327,338
11	West waste dump	6,277	2,248	988	884	780	780	23,548	24,536	10,591	8,538	10,799	7,848	97,814
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	54,791	19,625	8,621	7,714	6,806	6,806	205,556	214,731	92,453	74,529	94,268	68,504	854,406
15	Grand Total (including additional tails catchment)	82,595	29,584	12,996	11,628	10,260	10,260	309,867	323,418	139,368	112,350	142,105	103,267	1,287,699

TABLE B.12
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 12

catchment areas (ha):

	dist'bd	undist'bd
East dump:	52	28
West dump:	9	28
North dump:	56	29
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	16,158	5,787	2,542	2,275	2,007	2,007	60,618	63,161	27,264	21,978	27,799	20,202	251,799
2	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	West Waste Dump													
3	Waste rock runoff	2,797	1,002	440	394	347	347	10,492	10,932	4,719	3,804	4,811	3,496	43,581
4	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	North Waste Dump													
5	Waste rock runoff	17,401	6,232	2,738	2,450	2,162	2,162	65,281	68,020	29,361	23,669	29,938	21,756	271,168
6	Undisturbed catchment runoff	3,604	1,291	567	507	448	448	13,522	14,090	6,082	4,903	6,201	4,507	56,170
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	19,638	7,034	3,090	2,765	2,439	2,439	73,674	76,765	33,136	26,712	33,787	24,553	306,032
10	North waste dump	21,005	7,524	3,305	2,957	2,609	2,609	78,803	82,109	35,443	28,572	36,139	26,262	327,338
11	West waste dump	6,277	2,248	988	884	780	780	23,548	24,536	10,591	8,538	10,799	7,848	97,814
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	54,791	19,625	8,621	7,714	6,806	6,806	205,556	214,731	92,453	74,529	94,268	68,504	854,406
15	Grand Total (including additional tails catchment)	82,595	29,584	12,996	11,628	10,260	10,260	309,867	323,418	139,368	112,350	142,105	103,267	1,287,699

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.13
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 13

catchment areas (ha):

	dist'bd	undist'bd
East dump:	52	28
West dump:	9	28
North dump:	56	29
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	16,158	5,787	2,542	2,275	2,007	2,007	60,618	63,161	27,264	21,978	27,799	20,202	251,799
2	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	West Waste Dump													
3	Waste rock runoff	2,797	1,002	440	394	347	347	10,492	10,932	4,719	3,804	4,811	3,496	43,581
4	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	North Waste Dump													
5	Waste rock runoff	17,401	6,232	2,738	2,450	2,162	2,162	65,281	68,020	29,361	23,669	29,938	21,756	271,168
6	Undisturbed catchment runoff	3,604	1,291	567	507	448	448	13,522	14,090	6,082	4,903	6,201	4,507	56,170
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	19,638	7,034	3,090	2,765	2,439	2,439	73,674	76,765	33,136	26,712	33,787	24,553	306,032
10	North waste dump	21,005	7,524	3,305	2,957	2,609	2,609	78,803	82,109	35,443	28,572	36,139	26,262	327,338
11	West waste dump	6,277	2,248	988	884	780	780	23,548	24,536	10,591	8,538	10,799	7,848	97,814
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	54,791	19,625	8,621	7,714	6,806	6,806	205,556	214,731	92,453	74,529	94,268	68,504	854,406
15	Grand Total (including additional tails catchment)	82,595	29,584	12,996	11,628	10,260	10,260	309,867	323,418	139,368	112,350	142,105	103,267	1,287,699

Knight Piésold Ltd.
CONSULTING ENGINEERS

TABLE B.14
IMPERIAL METALS CORPORATION
MT. POLLEY PROJECT
MINE SITE RUNOFF
MONTHLY WATER BALANCE
YEAR 14

catchment areas (ha):

	dist'bd	undist'bd
East dump:	52	28
West dump:	9	28
North dump:	56	29
Mill site:	20	5
Additional tailings area:	0	240

runoff coefficients:

	dry	ave.	wet
waste rock =	58%	60%	62%
undisturbed catchment =	20%	24%	29%
mill site =	65%	70%	75%

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	DESCRIPTION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
A	Rainfall (mm/month)	51.8	18.5	8.1	7.3	6.4	6.4	25.9	48.6	87.4	70.4	89.1	63.2	483.2
B	Snowfall (mm/month)	12.9	42.6	71.5	73.1	55.4	41.0	20.1	5.6	0.0	0.0	0.0	1.6	323.8
C	Evaporation (mm/month)	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	112.0	107.0	92.0	50.0	423.0
	<CATCHMENT RUNOFF> (m^3)													
	East Waste Dump													
1	Waste rock runoff	16,158	5,787	2,542	2,275	2,007	2,007	60,618	63,161	27,264	21,978	27,799	20,202	251,799
2	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	West Waste Dump													
3	Waste rock runoff	2,797	1,002	440	394	347	347	10,492	10,932	4,719	3,804	4,811	3,496	43,581
4	Undisturbed catchment runoff	3,480	1,246	548	490	432	432	13,056	13,604	5,872	4,734	5,988	4,351	54,234
	North Waste Dump													
5	Waste rock runoff	17,401	6,232	2,738	2,450	2,162	2,162	65,281	68,020	29,361	23,669	29,938	21,756	271,168
6	Undisturbed catchment runoff	3,604	1,291	567	507	448	448	13,522	14,090	6,082	4,903	6,201	4,507	56,170
	Mill Site													
7	Catchment runoff	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
	Additional Tailings Area Catchment													
8	Catchment runoff	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
	<TOTAL RUNOFF> (m^3)													
9	East waste dump	19,638	7,034	3,090	2,765	2,439	2,439	73,674	76,765	33,136	26,712	33,787	24,553	306,032
10	North waste dump	21,005	7,524	3,305	2,957	2,609	2,609	78,803	82,109	35,443	28,572	36,139	26,262	327,338
11	West waste dump	6,277	2,248	988	884	780	780	23,548	24,536	10,591	8,538	10,799	7,848	97,814
12	Mill site	7,872	2,819	1,239	1,108	978	978	29,532	31,321	13,282	10,707	13,543	9,842	123,221
13	Additional tailings area catchment	27,804	9,959	4,375	3,914	3,454	3,454	104,311	108,687	46,916	37,820	47,837	34,763	433,294
14	Total Waste Dumps and Mill Site	54,791	19,625	8,621	7,714	6,806	6,806	205,556	214,731	92,453	74,529	94,268	68,504	854,406
15	Grand Total (including additional tails catchment)	82,595	29,584	12,996	11,628	10,260	10,260	309,867	323,418	139,368	112,350	142,105	103,267	1,287,699