

Knight Piésold Ltd.
CONSULTING ENGINEERS

FAXED
NOV 4

Mr. Malcolm Swallow
Mount Polley Mining Corp.
Mt. Polley Project
Suite 700 - 815 West Hastings Street
Vancouver, B.C. V6C 1B4

Dear Mr. Swallow,

Re: Winter Construction of Tailings Embankment

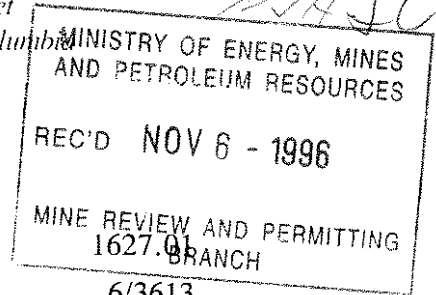
It will be possible to place embankment fill materials during freezing conditions as outlined in the Contract Documents under Section 1.4.g - Suspension and Resumption of Operations - *"The Contractor shall not place fill materials at such times that conditions for such operations are unsatisfactory due to excess rain, low temperatures or any other reason. The Contractor will be permitted to place fill at atmospheric temperatures less than 0 C only if it can be placed and compacted to densities equal to those which would be achieved in the same material if freezing conditions did not prevail"*.

This clause is generally included to permit placement of granular fill materials during freezing conditions, but there is also some precedent for placement of silty or clayey materials during freezing conditions (i.e. Syncrude). Therefore, we believe that it will be possible to place the glacial till materials in the Mt. Polley tailings embankment, provided that the following criteria are met:

1. Only non-frozen fill can be placed on the embankment. Frozen soils must be removed from the borrow areas prior to excavation of unfrozen fill for the embankment. All borrow areas must be developed to promote drainage and prevent ponding.

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MP00088



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2. All ice and snow must be removed from the compacted fill surface prior to placing any additional fill lifts. The Engineer may require the surface to be graded to remove the top surface of any fill which has ice lenses or frost, prior to approving the surface for additional fill placement. The Engineer may also require that the compacted fill surface be disced prior to placement of additional fill to facilitate a good bond between successive fill layers.
3. Fill materials must meet the specified moisture criteria before excavation and before placement on the fill. The fill must be immediately spread and compacted after placement, to achieve compacted densities consistent with the specified criteria (98% of Standard Proctor Maximum Dry Density) before freezing. Any fill which becomes frozen prior to compaction must be removed to spoil.
4. Fill placement and compaction should occur rapidly in relatively small areas. The fill materials must not be placed when it is snowing, or when there is any accumulation of snow or ice on the fill surfaces to be covered with the succeeding layers of fill.
5. Fill placement during freezing conditions is anticipated to be relatively routine at temperatures down to -5 C, and it is anticipated that operations will likely be permitted to -10 C. The Owners Representative may halt fill placement at any time if, in his opinion, acceptable results can not be achieved. Please note the average monthly temperatures for Likely (El 724 m) along with typical maximum and minimum values on the attached Table 1. The tailings site is approximately 200 m higher in elevation so colder temperatures will occur.

Quality Assurance and Quality Control inspection and testing will become even more important during any cold weather construction. In general, it is anticipated that construction will proceed on a 24 hour basis in order to minimize problems with freezing in the borrow area and on the fill surface. It will be important to have continuous supervision and testing capabilities at both the borrow area (to observe that only unfrozen fill with an acceptable moisture content is hauled to the dam) and on the dam (to monitor the placement and compaction of the materials).



In general, snow removal should only be completed over a relatively small section of the borrow area at any time, in order to maintain the insulation characteristics of the snow cover, which will minimize frost penetration prior to borrow development. Fill placement should be restricted to the upstream section of Zone S to facilitate construction to El 927 m. This will enable the remainder of the Zone S fill, the Zone B fill and the filter drainage blanket to be constructed in warmer weather next summer.

Please feel free to contact me if you have any questions or require further information.

Yours very truly,

KNIGHT PIESOLD LTD.



K.J. Brouwer, P.Eng.

Director

/kjb

cc: Mr George Headley (MEI)



TABLE 1
BRITISH COLUMBIA/COLOMBIE-BRITANNIQUE

	JAN JAN	FEB FÉV	MAR MAR	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOÛT	SEP SEPT	OCT OCT	NOV NOV	DEC DÉC	YEAR ANNÉE	CODE	
LIKELY															
52° 36'N 121° 32'W 724 m															
Daily Maximum Temperature	-5.5	0.9	4.2	10.1	16.2	19.6	22.9	21.6	17.0	10.5	2.9	-2.2	9.9	8	Température Maximale Quotidienne
Daily Minimum Temperature	-14.6	-10.2	-7.6	-2.6	1.6	5.4	7.6	7.1	3.7	0.2	-5.0	-9.9	-2.0	8	Température Minimale Quotidienne
Daily Temperature	-10.0	-4.5	-1.6	3.7	9.0	12.8	15.4	14.8	10.4	5.8	-1.1	-5.9	4.0	8	Température Quotidienne
Standard Deviation, Daily Temperature	3.9	4.4	1.8	1.1	1.2	1.3	1.4	1.7	1.0	0.6	2.0	3.8	0.5	6	Écart Type de la Température Quotidienne
Extreme Maximum Temperature	9.5	12.2	16.0	29.4	27.5	30.0	33.8	31.7	28.0	23.5	16.7	11.0	33.9		Température Maximale Extrême
Years of Record	6	6	6	6	6	6	6	6	7	7	7	7			Années de Relèves
Extreme Minimum Temperature	-34.4	-34.5	-31.1	-13.9	-6.0	-1.5	2.8	1.5	-2.0	-6.0	-25.0	-37.0	-37.0		Température Minimale Extrême
Years of Record	6	6	6	6	6	6	6	6	7	7	7	7			Années de Relèves
Rainfall	9.5	6.0	8.5	29.1	36.9	66.3	47.0	82.0	49.8	55.5	31.6	11.8	434.0	8	Chutes de Pluie
Snowfall	62.2	51.6	32.5	14.4	0.1	0.0	0.0	0.0	0.5	5.0	26.6	69.1	262.0	8	Chutes de Neige
Total Precipitation	74.2	60.2	37.8	42.2	36.6	66.3	47.0	82.0	50.4	61.6	58.4	83.0	699.7	8	Précipitations Totales
Standard Deviation, Total Precipitation	27.0	27.7	13.5	20.9	15.4	29.7	27.4	35.7	27.1	42.3	18.8	36.9	116.4	6	Écart Type des Précipitations Totales
Greatest Rainfall in 24 hours	16.5	6.9	15.2	33.0	22.0	20.0	31.8	25.7	15.2	32.5	13.7	26.2	33.0		Chute de Pluie Record en 24 heures:
Years of Record	6	6	6	6	6	6	6	6	6	7	7	7			Années de Relèves
Greatest Snowfall in 24 hours	15.2	14.2	25.4	7.8	0.5	0.0	0.0	0.0	0.0	4.3	20.3	27.4	27.4		Chute de Neige Record en 24 heures
Years of Record	6	6	6	6	6	6	6	6	6	7	7	7			Années de Relèves
Greatest Precipitation in 24 hours	16.5	14.2	25.4	38.1	22.0	20.0	31.8	25.7	15.2	32.5	20.3	27.4	38.1		Précipitation Record en 24 heures
Years of Record	6	6	6	6	6	6	6	6	6	7	7	7			Années de Relèves
Days with Rain	1	2	4	8	10	13	10	13	14	14	9	3	101	8	Jours de Pluie
Days with Snow	16	13	11	6	0	0	0	0	1	3	10	15	75	8	Jours de Neige
Days with Precipitation	15	15	13	10	11	13	10	13	14	15	14	16	159	8	Jours de Précipitation