December 15, 1998

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Mr. Bud McAlpine
Water Resources Division
Indian Affairs and Northern Development
Whitehorse, Yukon, Y1A 2B5

RE: MT. NANSEN MINE
EVALUATION OF MINE WASTE DISPOSAL IN PIT

Dear Bud,

An assessment of the mine closure issues and an estimate of the cost of mine closure for the Mt. Nansen Mine was presented in the report: Mt. Nansen Mine - Closure Cost Assessment, submitted on Dec. 9, 1998. This report examines an alternative to the closure scenario developed in that report.

In the Dec. 9, 1998 report, the most significant reclamation measure affecting the cost of mine closure has been identified as the potential for metal leaching and acidic drainage from the tailings, a portion of the waste rock and the stockpiled sulphide ore. It was assumed that a small portion of the tailings, all the acid generating waste rock and the stockpiled ore could be relocated to the open pit where they would be submerged to prevent future acid generation. Metal leaching and possibly acidic drainage from the tailings remaining in the tailings pond was to be mitigated by provision of continuous water treatment for a period of at least one hundred years. The cost of this water treatment was estimated to be $167,000 per year for the first 7 years after closure and thereafter $147,000 per year. The net present value of this treatment cost was calculated to be $5.9 million, based on a discount rate of 2.75%.

The following assessment examines the potential for relocation of all of the tailings and stockpiled sulphide ore and a portion of the waste rock into the pit. It is expected that rehandling the tailings into the pit would result in mining of some of the native soils in the impoundment area. An allowance of 5% of the volume of tailings is used here. In addition, the storage volume should include a water cover of at least 1.5 m depth. No allowance for tailings filling the voids in the rock has been made. The estimated quantities of these materials are:

Material	Volume
tailings	250,000 m^3
native soil rehandled with tailings, at 5% of tailings	12,500 m^3
sulphide ore	40,000 m^3
waste rock	15,000 m^3
water cover (1.5 m @ 1260 m elevation)	35,000 m^3
Total	342,500 m^3

B.Y.G. has submitted a current pit plan, dated Nov. 21, 1998. This plan has been used to develop a height-storage volume curve, as shown in Figure 1. The curve assumes that a dam up to 10 m high would be constructed in the south access to the pit. The dam would be located about 50 south of the top of the current ramp to the pit floor.

Based on the above assumptions, the capacity of the pit up to the 1260 contour line is 312,000 m^3. This represents the maximum potential capacity of the pit as the north rim is located between 1260 and 1261 m elevation. Rock conditions in this area may necessitate a slightly lower fill elevation and consequently a small storage capacity. Each metre of storage lost at the 1260 m elevation reduces the storage capacity by 23,500 m^3.

It may be possible to store all of the problem materials in the pit if the some or all of following assumptions can be realized:

- some of the tailings could be pumped into the underground workings,
- some of the tailings are stored in the void space of the waste rock,
- careful mining of the tailings reduces the volume of incorporated native soils, and,
- the water cover could be reduced to 1.0 m.

Even if not all of the materials could be stored in the pit, it is possible the small quantity of material remaining in the tailings pond may not require perpetual water treatment.

A revised assessment of the cost of mine closure has been prepared based on the following assumptions:

- all of the tailings are hydraulically mined and pumped into the pit,
- the tailings will be treated before discharge into the pit to reduce cyanide and ammonia concentrations and stabilize arsenic,
- supernatant from the pit will be returned to the tailings pond for ongoing mining of the tailings,
- processing of the 250,000 m^3 of tailings will require treatment of up to 1,000,000 m^3 of water,
- a dam composed of a compacted till and non-acid generating rock with filter zones will be constructed in the south access to the pit,
- till for the dam will be imported from within 20 km of the mine,
- the dam will be 12 m high and 17.5 m wide,
- foundation preparation and grouting of the rock will be required at the dam location,
- grouting will be required to reduce seepage at the north end of the pit,
- a rock spillway will be constructed to drain overflow from the pit, and,
- following removal of the tailings, the dam and the diversion channel will be breached.

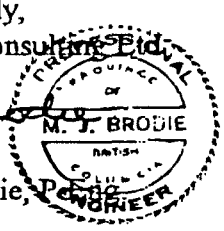
The above assumptions have been used in re-assessing the cost for closure of the Mt. Nansen Mine. The new cost estimate has been made using the RECLAIM model, and the detailed results are attached.

This revised reclamation cost estimate is based on a number of slightly favorable assumptions regarding dam construction and pit storage capacity. In addition, no work has been conducted to substantiate the estimated cost of $3.65/$m^3$ for hydraulic mining of the tailings and pumping to the pit. The treatment cost and volume of water involved in

this process is also presented as "order of magnitude" only and should be examined in more detail. The estimated cost for mine closure based on relocation of mine wastes to the pit is $4,213,000. Considering the above assumptions and qualifications, this value should be considered as only indicative of pit disposal being a more cost effective solution to mine closure.

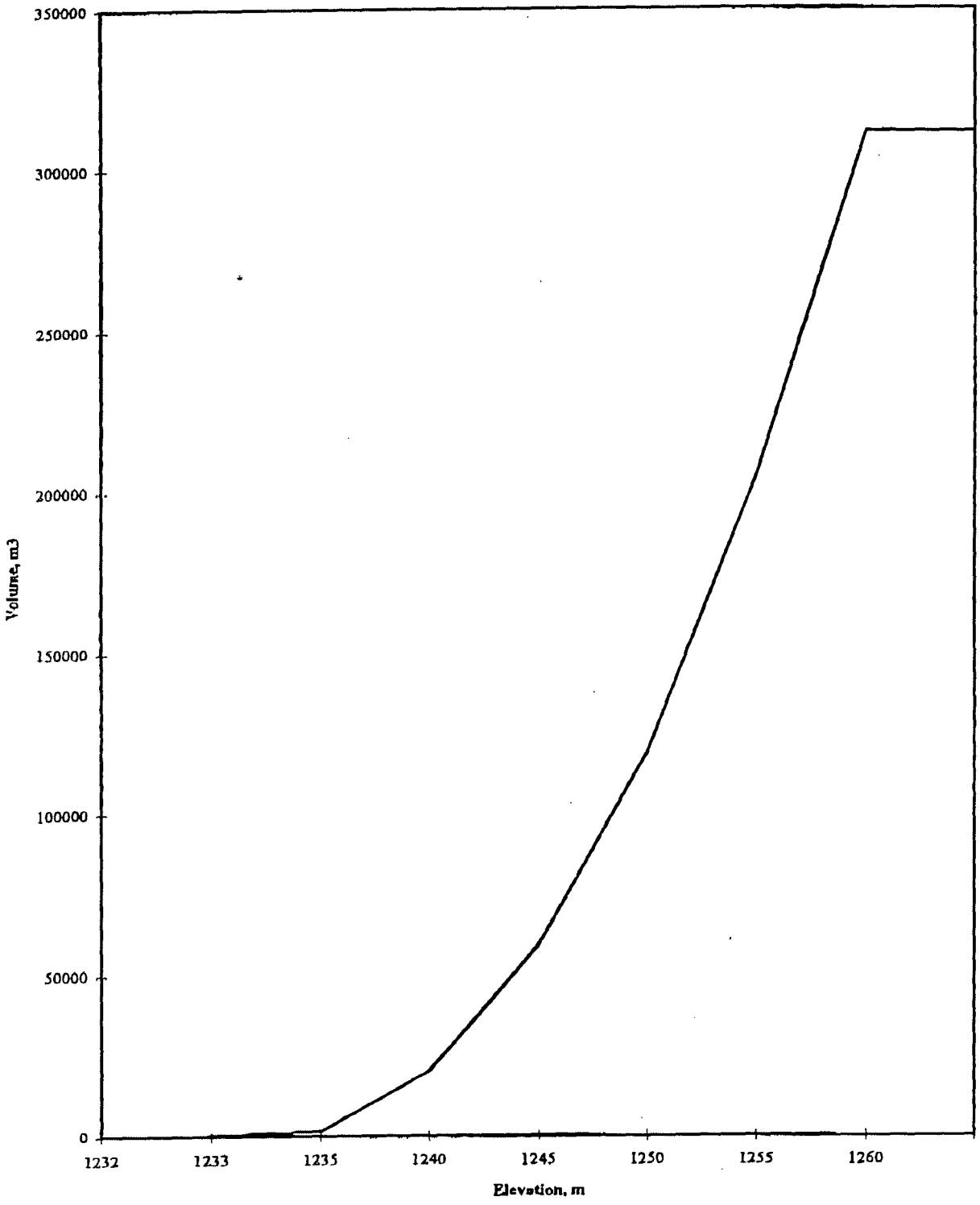
I trust that this letter addresses your current requirements. Please call me if you require additional comments or clarification.

Yours truly,
Brodie Consulting Ltd.



M.J. Brodie, P.Eng.

Mt. Nansen Mine; Open Pit Height-Volume Curve



Pit capacity based on pit plan, Nov. 21, 1998

RECLAMATION COST SUMMARY

PROJECT NAME: **Mt. Nansen Mine**

BEST ESTIMATE FOR UNIT COSTS 15-Dec-98

CAPITAL COST COMPONENT NAME	COMPONENT TYPE		TOTAL COST
	OPEN PIT		$415,401
	UNDERGROUND MINE		$230
	TAILINGS IMPOUNDMENT		$1,056,164
	ROCK PILE		$351,671
	BUILDINGS AND EQUIPMENT		$121,130
	CHEMICALS & CONTAM. SOILS		$36,748
	WATER MANAGEMENT		$1,200,000
	MOBILIZATION/DEMOBILIZATION		$36,756
SUBTOTAL			**$3,218,100**
PROJECT MANAGEMENT	3	% of subtotal	$96,543
ENGINEERING		% of subtotal	$0
CONTINGENCY	25	% of subtotal	$804,525
GRAND TOTAL - CAPITAL COSTS			**$4,119,167**
MONITORING & MAINTENANCE, years 8 -100	$94,000		
			$94,000
TOTAL - CAPITAL & ANNUAL ONGOING COSTS			**$4,213,167**