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Memo To:	E.T. Kimura		R.H. Pinsent B. Barde				
From:	D.G. Mallalieu				2. 24. 40		
Date:	89-08-21						
Subject:	Budget Proposal for Exploration in	n the	Standard	Peak	area		

A limited examination of some of the crown grants covering and surrounding the Standard massive sulphide prospect was carried out on August 7, 1989. The crown grants are currently licensed to G. Rayner of West Vancouver, B.C. Rayner's claims are encompassed by the Trim claims of D. Blanne of Vernon, B.C. Donald McLeod of Northair Mines Ltd. has recently carried out staking to the west and north of the Trim claims. No units have been registered to date.

The Standard property is located about 40km north of Revelstoke and about 8km northeast of Highway 23.

The crown grants and Trim claims in the vicinity of Standard Peak (referred to as the Standard property) overlie a dominantly sedimentary succession of Lower Paleozoic Lardeau Group stratigraphy. The succession has suffered three phases of deformation. Previous workers (Hughes *et al.*, 1976; Høy, 1979; Høy *et al.*, 1984) have indicated that the stratigraphy has been recumbently and antiformally folded. Strata strikes north-south, dips $25-45^{\circ}$ to the east and plunges to the north at about $3-4^{\circ}$. There has been relatively little obliteration of primary textures. Massive pyrrhotite-pyrite-chalcopyrite, Besshi-type sulphide mineralization is most evident immediately northwest of Standard Peak where the Prince Mining & Development Co, Ltd. Lby. (PMD) carried out about 900m of underground exploration/development between 1900 and 1906. The mineralization was defined over a strike length of about 40m, over a vertical distance of 60m. It locally attains thicknesses of 7m with an average of about 1.5 to 2m. About 0.1 mT of sulphide mineralization was defined by the Company to 1906.

On the east limb of the antiformal fold massive sulphide mineralization in the form of pods/lenses can be traced intermittently for about 1500m.

The Standard property underwent exploration in 1976-77 by Noranda Expl. Co. Ltd. Noranda carried out geological mapping, soil geochemistry, geophysics (CEM) and 1074m of drilling in 11 holes. About half of the drilling was focused around the old PMD workings. Preussag Canada Ltd. completed an airborne geophysical survey immediately to the north of the crown grants. This was followed up the same year by a limited ground geophysical survey. Relatively mild topography and extensive outcrop occurs over about 9 $\rm km^2$ of the property. About 6 $\rm km^2$ of the property is moderate to heavy density bush.

Property Potential

The underground exploration and diamond drilling that has been carried out over the Standard property has indicated the presence of a prospect that could be about 2m in thickness, 1000m long and 120m down dip. This is equivalent to about 0.96 mT. Grade is difficult to estimate given the very limited number of analyses that have been carried out. Noranda Exploration Co. Ltd. was relatively unsuccessful in intersecting significant thicknesses of massive sulphide mineralization. A weighted mean of analyses over a 11.23m interval from diamond drill hole NS 2 was 1.29% Cu, 0.41% Zn, 7.17 g/T Ag, and nil Au. Locally within this interval grades would be as high as 3.50% Cu, 0.60% Zn, 15.77 g/T Ag, and 1.03 g/T Au over 1.15m.

Grab samples have returned values of 9.98% Cu, 0.84% Zn, 29 g/T Ag, 1 g/T Au (H ϕ y, 1979).

The potential for additional mineralization as either extensions to the known mineralized zones or as new discoveries within the dominantly sedimentary stratigraphy is high given the nature of the type of deposit. The potential of the sedimentary stratigraphy has been relatively untested.

The Standard property holds the potential to host a Besshi-type deposit in the range of 5 mT grading 5% Cu, 1% Zn and 20-25 g/T Ag. Au content would be low, probably in the range of 0.8-1.0 g/T.

Exploration Techniques

The primary exploration technique over the Standard property will be geological mapping. The property has undergone mapping in the past however it appears that there was little emphasis on ascertaining whether:

- i) the massive sulphide mineralization had distinct associations with particular lithologies
- ii) deformation resulted in a translation of the massive sulphide sheet from its place of origin
- iii)the massive sulphide detectable on surface and within the underground workings represents part of a stacked sulphide system
- iv) an alteration signature was generated within surrounding lithologies.

A re-mapping of the property will emphasize these features.

The sedimentary stratigraphy within the Standard Peak area is graphiterich. As a result of this many geophysical techniques are ineffective in discriminating relatively thin, sheet-like massive sulphides from the enclosing strata. Techniques which can be effective in identifying the sulphide mineralization are MAG, VLF-EM, CEM, and PEM.

Much of the massive sulphide on the Standard property contains mildly magnetic pyrrhotite. A 2-3m thick, pyrrhotite-rich massive sulphide sheet should have a recognizable magnetic signature. VLF-EM may or may not

recognize the sulphide sheet from the enclosing strata but it should be effective in assisting in mapping conductive lithologies. A CEM survey in which coil separation is in the range of 25-50m should be be able to adequately discriminate between frequently changing graphitic sedimentary units and the sulphide sheet or sulphide-rich horizons. PEM surveys down the longer drill holes could prove to be the most effective tool to assist in vectoring toward the massive sulphide sheet.

Option Criteria

There is currently an agreement in principle between the three owners of claims composing the Standard property, Rayner - 19 crown grants, Blanne - 74 units and McLeod - claims currently un-registered. Rayner and Blanne are very amenable to an option for a reasonable sum of money and sufficient work to keep the claims in good standing. These two owners have license to the claims of most interest. An option on the Standard property should be provisional on low option payments and no guarantee of drilling the first year.

The following is a proposed preliminary budget for two stages of exploration over the Standard property. The budget does not include option payments.

Stage I

Personnel 1 Project Geologist 1 Senior Geologist 2 Senior Assistants	14 days @ \$250/day	3 500	
2 Senior Geophysicists			18 050
Camp Operations 63 man-days @ \$35/day			2 205
Transpertation 5 ton truck rental and	fuel	1 100	
1 4X4 Truck and Fuel - 1 4X4 Truck and Fuel -		1 200 420	
1 Bell 204 Helicopter	6 hours @ \$1 500/hou	r <u>9 000</u>	11 720
Field Supplies Miscellaneous field equ	4 000	4 000	
Report Preparation 1 Project Geologist 1 Draughtsman	@ 10 days @ \$325/da @ 5 days @ \$150/day		4 000
Geochemical Analyses 100 Whole rock 150 Base and precious r		3 500 <u>2 250</u>	5 750
		TOTAL	45 725

Contingency @ 10% of Total

GRAND TOTAL <u>50 325</u>

The second phase of exploration woul geologically, geochemically and/or geophysical						
Stage II						
Personnel 1 Project Geologist 1 Senior Geologist 2 Senior Assistants 1 Cook 40 days @ \$325/day 40 days @ \$250/day 40 days @ \$250/day	10 000 16 000	33 300				
Camp Operations 360 man-days @ \$40/day		14 400				
Transportation 1 4X4 Truck and Fuel 44 days @ \$ 60/day 1 Bell 206 B Helicopter 40 hours @ \$625/hou	2 640 ur <u>13 000</u>	15 640				
Field Supplies Miscellaneous field equipment	2 000	2 000				
Diamond Drilling Costs @ 10 000 ft. @ \$35/ft	350 000	350 000				
Geochemical Analyses 150 Whole rock @ \$35/sample 200 Base and precious metal @ \$15/sample	5 250 <u>3 000</u>	8 250				
Report Preparation 1 Project Geologist 10 days @ \$325/day 1 Draughtsman 5 days @ \$150/day	3 250 750	4 000				
	TOTAL	427 290				
Contingency @ 10% of Total	43 000					
	GRAND TOTAL	<u>470_290</u>				

To some extent costs have been minimized in the first stage of exploration because of extremely reduced costs for geophysics. The graphite content of the predominantly sedimentary succession precludes the effective use of many geophysical techniques.

References

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