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PROPOSAL: **PROPERTY FILE**
Giant Mascot Ultrabasic Project
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Geological Division,
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May, 1974

PROPOSAL

on the

GIANT MASCOT ULTRABASIC PROJECT

PROPERTY FILE

By E.W. Grove, Ph.D., P.Eng.

May 1974

FIGURES

Figure 1. - Areas of Nickel-Copper Production and Exploration
in Hope District.

Appendix

Appendix 1. - Claim Map
Giant Mascot Project Area

GIANT MASCOT ULTRABASIC BELT

GEOLOGY PROJECT - 1974

Introduction

As a result of a request from Mr. L.P. Starck, President, Giant Mascot Mines Limited, with respect to assistance from the B.C. Department of Mines and Petroleum Resources, E.W. Grove and A.R.C. James of the Mineral Resources Branch undertook a study of the Giant Mascot mine and presented a report to Mr. J.E. McMynn, Deputy Minister. This study indicated that because the mine faces imminent closure in late 1974 due to a lack of ore a detailed geological study should be undertaken during 1974 to take advantage of the various amenities now available which will be lost after shut-down. The report disclosed that in spite of the long history of the mine there is at present no consistent geological theory for ore control. Without this concept further exploration both at the mine and in the belt of ultrabasic rocks that stretches from Hope to Harrison Lake would be hindered and would result in excessively expensive mineral exploration.

It was recommended in the report that the Geological Division of the B.C. Department of Mines and Petroleum Resources place one geologist on the project for a period of from three to five years to produce a concept of ore controls and local geology.

1974 FIELD PROPOSAL - GIANT MASCOT MINE

General

The Giant Mascot mine is located six miles north of Hope at the head of Stulkawhits Creek. The mine and buildings are reached from the Trans-Canada highway by a 5.1 mile long gravel road. The mine is expected to maintain operation through September 1974 and will probably be maintained in good condition to at least the end of 1975. Underground and surface maps needed for a detailed geological study are available at the mine facility which can probably also provide some accommodation.

The proposed mine study which, during 1974, will be essentially limited to underground and drill core examinations requires only one geologist and one assistant. It is suggested that during the second season (1975) the same project geologist could complete the underground study of the host rock and the ore shoots, and map the Giant Mascot stock and enclosing country rocks. In the third, fourth, and if necessary, fifth seasons the project geologist and his field crew would extend the mapping to include the ultrabasic belt lying between Hope and Harrison Lake (Fig. 1). The results of the detailed mine geology and ore studies, and the areal mapping should be incorporated into a B.C. Department of Mines and Petroleum Resources Bulletin for a permanent record and as an exploration guide.

The general proposal outlined above has been expanded in the following to provide a schedule of expenditures to be incurred as part of the Giant Mascot project. This schedule indicates only extraordinary costs and therefore does not detail Victoria overhead and administrative components.

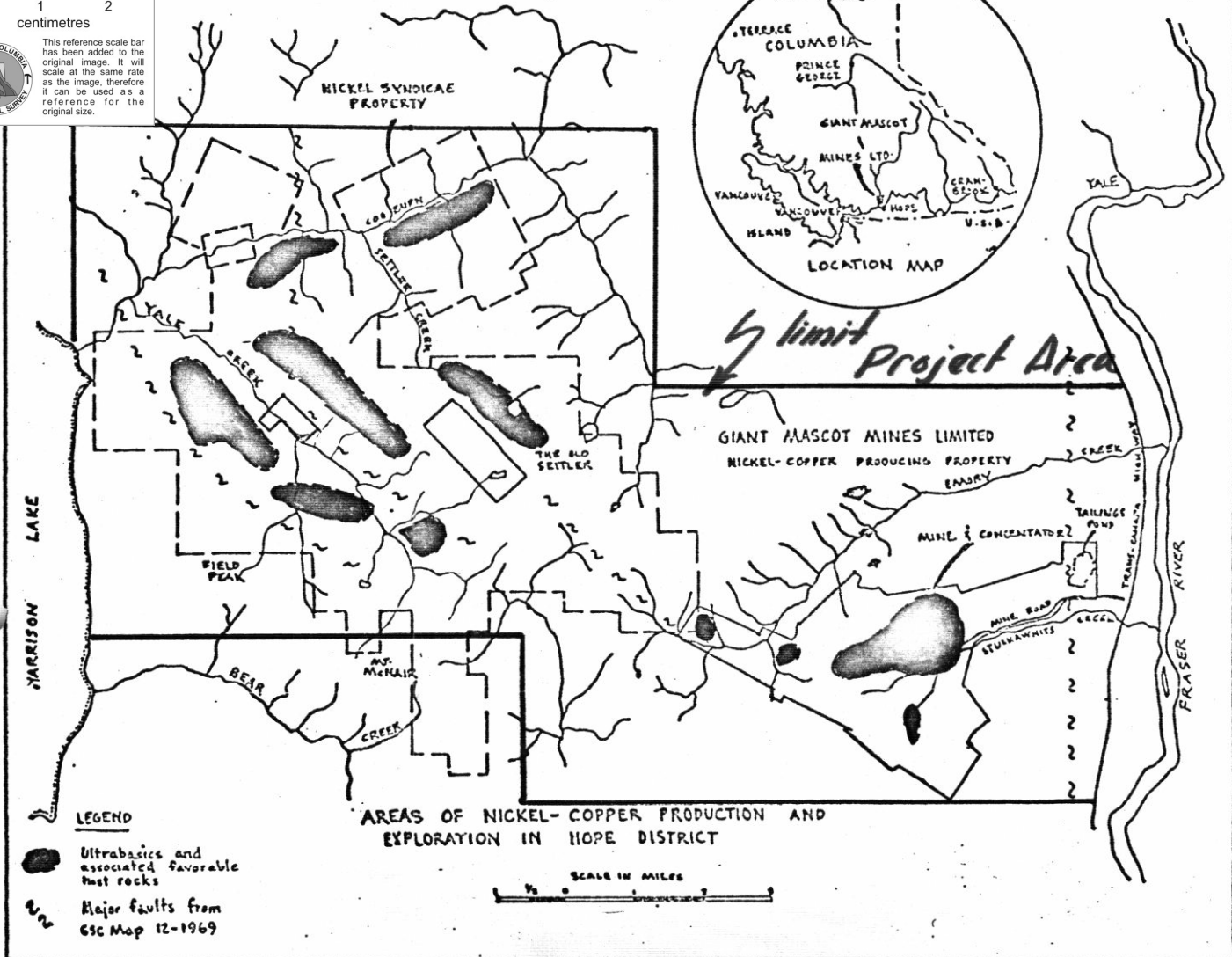
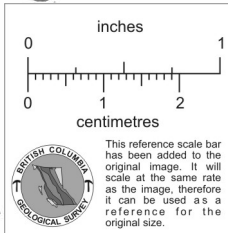


Figure 1. Areas of Nickel-Copper Production and Exploration in Hope District

PHASE I - MINE PROJECT - 1974

Work confined to the Giant Mascot mine on underground and drill core studies - emphasis on host rock petrology, ore mineralogy, alteration, rock structure, and ore controls would be the main thrust of the study which should require a time period of at least four months. This will be followed up by detailed studies in Victoria during the winter 1974-75. Field equipment required would be minimal with one vehicle provided for transport.

Requirements:	Staff Geologist	1	
	Field Assistant	1	\$2,100
	Transportation		
	To and from field		300
	In field		300
	Board and Provisions *		2,000
	Miscellaneous		200
			<hr/>
		Estimate	\$4,900
			<hr/>

* Giant Mascot may provide all or part of this item in 1974.

1975 - PHASE II - MINE AREA

Completion of the underground geologic study, and surface mapping of the Giant Mascot stock. Project geologist and one assistant based at the mine for a period of five months, with one vehicle and two motor bikes for local transport. Surface maps available from Giant Mascot with required 1973 B.C. air photos. A topographic map for the general area should be available for the 1975 field season. This can be prepared from 1973 B.C. air photos by the Department of Lands, Forests and Water Resources (cost not known).

Requirements:	Staff Geologist	1	
	Field Assistant	1	\$3,000
	Transportation		
	To and from field		500
	In field		1,500
	Board and Provisions *		3,000
	Miscellaneous		500
			<hr/>
		Estimate	<u>\$8,500</u>

* Giant Mascot may provide part of this item.

1976 - PHASE III - FIELD PROGRAMME

Geological mapping of the Giant Mascot Ultrabasic belt extending between Hope and Harrison Lake (Fig. 1), an area of about 100 square miles including the Giant Mascot stock. The project would utilize the extensive network of logging and other access roads found on both the Hope and Harrison Lake sides of the area. The work would be supervised by the project geologist assisted by a geologist and at least two geology students. The crew would utilize two 4-wheel drive vehicles, four motor bikes, one boat, and some helicopter transport. Field camps would be established as necessary. The field season would last at least three months as determined by weather and topographic conditions. Followed by continued petrographic and chemical studies in Victoria. Geophysical studies, such as a gravity survey, should be determined at this time prior to the 1977 field season (cost unknown at this time).

Requirements:	Staff Geologist	1	
	Senior Assistant	1	\$5,000
	Junior Assistants	2	8,000
	Transportation		
	To and from field		600
	In field (incl. helicopter)		3,500
			<hr/>
		c/fwd.	17,100

	b/fwd.	\$17,100
Board and Provisions		9,500
Miscellaneous		500
	Estimate	<u>\$27,100</u>

1977 - PHASE IV - FIELD PROGRAMME

Completion of areal mapping including rechecking and integration of detailed and areal geology. Field work followed by completion of various ancillary studies including structure, petrology, sulphide mineral distribution, silt geochemistry, rock geochemistry, and possible geophysical studies. Final geological, geochemical, and geophysical output processed using computer techniques. Field season and physical commitments would be similar to phase III.

Requirements:	Staff Geologist	1	
	Senior Assistant	1	\$5,500
	Junior Assistant	2	8,500
	Transportation		
	To and from field		500
	In field		3,000
	Board and Provisions		10,000
	Miscellaneous		500
	Estimate		<u>\$28,000</u>

1977-78

Any follow-up required to complete or continue the study would be determined subject to a variety of considerations. It should be possible at this time (or earlier) to outline probable geological ore controls for the Giant Mascot ore deposit, and for mineralization in general in the area.

SUMMARY OF DIRECT FIELD EXPENSES ESTIMATES

(GIANT MASCOT ULTRABASIC BELT PROJECT)

Phase I	1974	\$4,900	
Phase II	1975	8,500	
Phase III	1976	27,100	
Phase IV	1977	28,000	
Project Field Estimate	\$68,500	* *

* 10% increase per annum in salaries, and other costs assumed in the estimates.

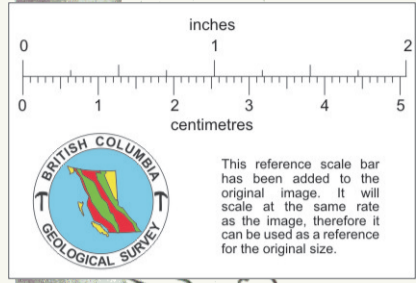
* topographic map cost, and geophysical project costs excluded.

Considerations

1. Apart from the request by Giant Mascot Mines Limited for assistance, it is now apparent that the geological documentation of the mine and the areal geology is a necessary part of resource management if not the historical duty of the B.C. Department of Mines and Petroleum Resources.
2. Because of the imminent mine shut-down any proposed study at the Giant Mascot mine must proceed during 1974 when access and assistance are available.
3. The Economic Geology Section of the Geological Division, has a project geologist available who is prepared to accept the job.
4. The Giant Mascot Ultrabasic Project will comprise an essential first approach to the study of ultrabasic plutons in British Columbia. Many such rock masses are known, but to date only two economic deposits have been found in these rocks. These

4. two deposits include the Giant Mascot nickel-copper mine in southwest B.C., and the very productive Cassiar asbestos mine in north central B.C. Without any geological concept as to ore controls in these rock units, both resource management and future mineral exploration for other deposits will be hindered.

Appendix /
Claim Map
Giant Mascot Project Area



limit of proposed Project Area

