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REPORT ON THE HOLDINGS

OF

GRAMARA MINES LTD. (N.P.L.)

CARIBOO M.D., B.C.

INTRODUCTION

The Gramara Mines property is located in the McLeese Lake area of the Cariboo Mining Division, 7 miles south of the Gibraltar property which is now being prepared for production by Placer Developments Ltd.

The writer examined the Gramara property April 24-25 and October 18-19, 1970.

The purpose of this report is to describe the geology of the claims area, and to outline an exploration programme considered most practicable to assess the mineral potential of same.

LOCATION AND ACCESSIBILITY

The Gramara property is located in Southern British Columbia, about one mile east of McLeese Lake. This is in the Cariboo Mining Division at latitude 52° – 23' north and longitude 122° – 16' west.

Access is via the main highway from Williams Lake, 34 miles north to McLeese Lake, and by secondary road one mile easterly onto the property.

TOPOGRAPHY

The area is about 5 miles east of the Fraser River. The hills are rounded and the slopes gentle. Drainage is northerly into Sheridan Creek and westerly into McLeese Lake.

Elevations range from 3,000 to 4,000 feet above sea level, and the predominant physical feature is Granite Mountain, seven miles to the north which attains an elevation of 4,587 feet.

PROPERTY

The Gramara Mines property is made up of the following adjoining located mineral claims.

Claims	Record Numbers
Barb 13 - 24	55922A - 55933A
Barb 37 - 46	55946A - 55955A

During the examination by the writer many of the lines and posts were observed by the writer and the claims are located in accordance with the Mineral Act of British Columbia.

GEOLOGY

The Cache Creek formation, which is composed of argillite, greenstone, chert, limestone and tuff, underlies the claims area.

On the adjoining properties, to the north and east, the Granite Mountain igneous complex outcrops over sizeable areas. As mapped by the Geological Survey of Canada, the granitic rocks are

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exposed over an area about 12 miles long and 6 to 8 miles wide.

At the southern end, the intrusives outcrop in the shape of a "tongue" which widens to the north on Granite Mountain. In the claims area the Permian sedimentary and volcanic rocks of the Cache Creek formation show the effects of the Upper Jurassic intrusive phase by extensive faulting, fracturing, tight folding and alteration.

There are mineral deposits in the granitic rocks, the largest being the Gibraltar copper-molybdenum orebodies now being prepared for production.

There are also mineralized zones within the Cache Creek strata, some of which contain copper-iron mineralization in sufficient quantities to warrant extensive exploratory work.

The Permian sedimentary and volcanic rocks and younger granitic intrusives have been overlain by Tertiary, and some recent, basalt, andesite, rhyolite, dacite and minor tuff, shale, conglomerate and sandstone. These mask the older rocks particularly over large areas to the west of the property.

On the Barb claims there is overburden over 95 percent of the surface area and hence only minor widely separated outcrops have been observed by the writer.

In the Cache Creek rocks of these outcrops no heavily mineralized zones have been observed, but pyrite along with minor chalcopyrite, malachite and azurite have been detected. Sizeable angular pieces of limestone float have been noted to contain pyrite and maraposite.

SUMMARY AND CONCLUSIONS

The Barb Group of mineral claims is located in the McLeese lake area, where many new prospects are being investigated and one large copper-molybdenum open pit is being prepared for production.

The property lies near the southwest contact of the Granite Mountain igneous complex, and exposures of Cache Creek rocks observed to date show evidence of strong faulting, fracturing, folding and alteration.

It is concluded that detailed investigation of the property is warranted.

The stripping and trenching that has been arranged with T and A Contracting should be started immediately.

A suggested three-phase field programme is herewith recommended.

RECOMMENDATIONS

The field programme on the Barb Group should be carried out in three phases.

The last two may require modifications depending on results acquired during phase one.

Phase No. 1		Estimated Costs
1.	Establish a surveyed grid over the claims area with stations at 100-foot intervals on lines spaced every 400 feet. Conduct a geochemical survey over the property on the grid pattern,	$ 6,500.00
2.	Trench to bedrock where necessary to acquire information pertaining to geological detail,	2,200.00
3.	Office, overhead and supervision,	500.00

Phase No. 1 (continued)

4.	Contingencies.	800.00
	Total estimated costs,	$10,000.00

Phase No. 2

1.	Map the geology in as much detail as possible, using the outcrop areas and the trenching,	1,000.00
2.	Conduct an induced polarization survey over selected areas,	6,000.00
3.	Strip to bedrock where necessary to check geological details and anomalous conditions if indicated by the induced polarization results. Trench into bedrock where required,	5,000.00
4.	Office, overhead, and supervision,	1,500.00
5.	Contingencies,	1,500.00
	Total estimated costs,	$15,000.00

Phase No. 3

1.	Conduct detailed induced polarization and soil sampling surveys over reduced grid patterns, to establish as closely as possible anomalous boundaries,	$ 3,000.00
2.	Drill "scout" holes to 300 feet with percussion equipment on anomalous areas, 5 holes,	5,000.00
3.	Drill "core" holes where necessary to check zones of mineralization, 2,000 feet,	22,000.00
4.	Office, overhead and supervision,	3,000.00
5.	Contingencies,	2,000.00
	Estimated total costs	$35,000.00

The three-phase programme, estimated to cost $60.000.00, will require about 6 months to complete.

Respectfully submitted,
ALLEN GEOLOGICAL ENGINEERING LTD.
Per "ALFRED R. ALLEN" P. Eng.
Alfred R. Allen

Vancouver, B.C.
December 3rd, 1970

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CERTIFICATE

I, Alfred R. Allen, certify that:

I am a graduate of the University of British Columbia and hold the following degrees therefrom:

BASc Geological Engineering 1939
MASc Geological Engineering 1941

I am a member of the Association of Professional Engineers of the Province of British Columbia.

I have practised my profession for the past twenty-eight years.

I hold no interest in the properties or securities of Gramara Mines Ltd. (N.P.L.), or affiliates thereof, nor do I expect to receive any, directly or indirectly.

My report of December 3rd, 1970, entitled, Report on The Holdings of Gramara Mines Ltd. (N.P.L.), Cariboo M.D., is based upon field examinations of the property on April 24-25 and October 18-19, 1970.

I consent to this report being filed with the British Columbia Securities Commission.

I have examined the posts and lines of most of the claims and I am of the opinion that they are staked in accordance with the requirements of the British Columbia Mineral Act.

"ALFRED R. ALLEN" P. Eng.
Alfred R. Allen.

REFERENCES

Annual Reports, B.C. Minister of Mines, '57-'66

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