

REPORT ON

H. M. GROUP OF MINERAL CLAIMS

PORTER MOUNTAIN, ALBERNI M. D.

INTRODUCTION

The following report is written at the request of Messrs. M. McIntyre and A. Audet, officers of Great Central Mines Ltd., which company presently owns the property known as the H. M. Group.

The property was first examined by the writer on July 17, 1969 at which time it was recommended that additional work be done primarily additional prospecting and some soil sampling.

Since then additional claims have been staked and several lines of soil samples, as shown on the attached sketch map, were taken and tested. These show areas of threshold type values well above the general background which would seem to warrant some further investigation. These also point to the need of a much more comprehensive soil sampling program.

The property was last visited on October 1, 1971 at which time ground underlying claims staked since the previous visit was traversed on existing roads. An area of 5 claims which had also been soil sampled was also traversed and information obtained on one drill hole which had been drilled.

92F/6E.W 671500

Rain, Robin

2

It was found that the new claims are partly over granite and that there are several bands of granite on the contacts of which mineralization may be found. So far they have not been prospected as they were staked for the purpose of making a more solid block of claims.

REPORT ON

H. M. GROUP OF MINERAL CLAIMS

PORTER MOUNTAIN, ALBERNI, M. D.

by

J. A. Mitchell, P. Eng.,

Vancouver, B. C.

October 15, 1971

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Generally speaking, the climate is temperate, rarely falling below zero degrees Fahrenheit in winter and rarely exceeding 80 degrees Fahrenheit in summer. When the humidity drops during hot weather, all activity in the forest is stopped because of the fire hazard.

The timber of the area consists of commercially valuable varieties of coniferous trees and it is owned by a large logging company which would require that all timber unavoidably cut as a result of mining operations be decked and it would require adequate compensation for any timber that might be destroyed. The compensation would also apply to seedlings planted in logged-over areas which may be destroyed by mining operations.

ACCESSIBILITY

There is a paved highway from Alberni for about ten miles to the west end of Great Central Lake. From there the property can be reached by about 7 miles of private logging roads which form a network on the south slope of Porter Mountain and continues over to the north slope. Most of the discoveries of copper mineralization so far discovered have been on as close to these logging roads and generally in freshly broken rock.

The antimony-mercury vein is reached by about one mile of trail from the end of the road on the north side of the mountain. It could also be reached by climbing the north slope of Great Central Lake, and any extension beyond an almost impassable canyon previously mentioned would be more accessible by climbing up from Great Central Lake.

Port Alberni is on Alberni canal, a long inlet from the Pacific Ocean and has adequate facilities for loading deepsea vessels. It is also connected by fifty miles of good paved highway and by rail to Nanaimo on the Gulf of Georgia, opposite Vancouver, B. C. all necessary facilities are therefore readily available in the event an operation ensues.

GEOLOGY AND MINERALIZATION

General Geology: As mapped by Dr. J. E. Muller of the Geological Survey of Canada, Map 17-1968, the rocks in the vicinity of the claim group are predominantly basic volcanics of the Karmutsen Formation of Triassic age which are surrounded on three sides by the Island Intrusions consisting of granodiorite and quartz diorite of Jurassic age. The northerly striking faults cross Porter Mountain on the Eastern and Western margins of the claim group and may provide channels for mineralizing solutions. In any event, the antimony-mercury occurrence appears to parallel closely the westerly fault.

Rocks of the Bonanza formation, the host formation at Island Copper Mines, are mapped across Sproat Lake from the property and remnants of what appears to be Quatsino sediments have been found on the north shore of Sproat Lake to the west of the property where they are well mineralized in places with chalcopyrite.

Mineralization, consisting of stibnite and cinnabar in quartz stringers was the original reason for staking the claims in the area. Copper mineralization was later found in silicified shears, calcite filled fractures and in disseminations in the volcanics. It is probably partly syngenetic and partly epigenetic. Although not yet found in quantities to constitute ore, the mineralized shears and disseminations in the volcanics or fine textured fairly basic intrusives are encouraging features.

Mercury Antimony Occurrences: The cinnabar-stibnite occurrence has been trenced at intervals from the rim of a canyon, near the northwesterly end of the claim group, for about a claim length to the bed of a stream and thence along the stream bed for a short distance. Generally speaking, the mineralization appears to be associated with quartz stringers which sometimes coalesce but which are usually scattered across three feet in a wider band of intensely bleached and altered, dense to porphyritic material thought to be of intrusive origin.

SUMMARY

The H. M. Group of 55 claims as currently constituted straddles the summit of Porter Mountain between Sproat Lake and Great Central Lake near the town of Alberni on Vancouver Island. It overlies an area of Karmutsen volcanics of Triassic age which are intruded by bands of granodiorite and quartz diorite of Jurassic age. Mineralization consisting of antimony and mercury sulphides has been found in quartz stringers on the north side of the mountain and copper sulphides have been found in fractures and shear zones and often in fine disseminations in the unshered volcanics. Sometimes these disseminations are restricted to the vesicles but can also be found in more massive bands where the vesicles are not in evidence. On an adjoining property bands of argillites appear to be collectors.

The mineralization is not readily apparent as it throws little or no stain, and a rock with finely disseminated chalcopyrite often looks no different to the writer's eyes than one without chalcopyrite, until he has examined it with a hand lens. It has therefore been recommended that the best way to prospect the ground is first by systematic soil sampling to be followed by trenching, drilling and a program to eventually cost about \$150,000.00 has been submitted.

Some soil sampling has been computed on claims Nos. 29 to 35 and No. 50 as shown on attached sketch. This shows several areas as outlined in excess of 3 times background which has been determined by statistical methods but a much more reliable statistical interpretation would be obtainable from a greater quantity of samples taken in a homogeneous manner, preferably under the direction of a fully qualified geochemist.

PROPERTY

The property consists of the H. M. #1 to H. M. #55 mineral claims with record numbers and expiration dates as follows:

<u>Claim</u>	<u>Record Number</u>	<u>Expiry Date</u>
H. M. # 1 to # 6 incl	12199 to 12204	September 11, 1972
H. M. # 7 to #10 incl.	12269 to 12272	October 10, 1972
H. M. # 11 to #20 incl.	12416 to 12425	February 14, 1973
H. M. # 21 to # 26 incl.	15122 to 15127	July 14, 1972
H. M. # 27 to # 36 incl	16412 to 16421	June 1, 1972
H. M. # 37 to # 55 incl	16941 to 16959	September 7, 1972

These claims straddle the summit of Porter Mountain, co-ordinates 49° 15' N. Lat. 125° 17' W. Long. The original claims were staked along the outcrop of an antimony cinnabar occurrence on the north side of the mountain above Great Central Lake. A second occurrence of similar material has been reported but has not been seen by the writer. Eight claims were staked on the east end of the property to cover mineralization found in 1970. The balance were staked to square off the property. A cabin was built during 1971.

PHYSIOGRAPHY

The topography of the area is quite rugged and one canyon on the north side has virtually impassable walls. This makes it rather difficult to traverse parts of the property. Logging roads have made other parts quite accessible, but logging slash has made it difficult in some areas to examine rock outcrops to the extent necessary to detect evidence of mineralization.

Rainfall is moderately heavy and much of it is in the form of snow which may remain on the ground above 3000 foot elevation until June, particularly in the shade in the forested areas on the north slope. At sea level, on the other hand, or at the level of the lakes there is very little snow at any time of the year.

Copper Occurrences: At several points copper mineralization has been noted and soil sampling has indicated a good copper content in the top soil.

About two miles west of the Forest Lookout there is an outcrop of silicified and carbonated volcanics in a shear zone mineralized by pyrite and chalcopyrite, particularly in two quartz veins, each about 8 inches wide. There are two definite breaks about 12 feet apart striking about 320 degrees and dipping about 80 degrees to the southwest. Between these and to a slight extent beyond them the volcanics are fractured and rehealed with quartz and calcite. A visual examination suggests that the copper content between the breaks is somewhere between 0.50% and 1.0% copper. A two foot sample, # 4470, assayed: nil gold, 0.29 ounces silver and 1.45% copper to the ton. This is not ore but is worthy of further investigation. The writer was shown the collar of a drill hole which was reported as drilled in a direction north 70 degrees east at minus fifty degrees. This was drilled with a small drill, the recovery was poor and the core boxes and core were stolen, it is reported, while the owner was away from his camp. He claims that there was copper mineralization in this hole at intervals for over 100 feet. To confirm this it will be necessary to drill another hole, this time with a bigger drill so that BQ core can be obtained and the hole should be directed to cut the zone at greater depth.

In the same general area but on the south side of the ridge, fractures and joints in the basalts show some quite good chalcopyrite mineralization in a road cut. These mineralized fractures were not spaced closely enough to provide an ore body but no mineral was to be seen on the old weathered surfaces. This illustrates that good quality mineralization could be overlooked unless the rock has been blasted.

This zone is associated with a number of light gray granodiorite or quartz diorite dikes which strike northwesterly across the property and are apparently related to the intrusive outcrops mapped by Dr. Mueller. It might be advisable to do some further blasting to expose fresh surfaces along the zone using the dikes to locate it, as they could be more readily traced than the zone itself. The principal fractures or joints appear to strike about north 65 degrees east and north 55 degrees west, dip steeply north and to be about 18" apart on the average. Fractures striking north 30 degrees west are not as well mineralized. Vesicles in the basalts were generally filled with ferro-magnesium minerals and there is considerable manganese stain in shears close to the main 60 foot wide dike.

Between these two showings some finely disseminated chalcopyrite was noted in rather massive volcanics but the distribution is quite variable. It could best be sampled by diamond drilling as a good width of say 200 feet would be required before it could be considered as ore. Blasting and bulk sampling could be done as an alternative to diamond drilling.

On the east end of the property, a narrow silicified shear was blasted and proved to be discontinuous. Above it several hundred feet on outcrop of volcanics along a logging road showed some chalcopyrite in vesicles and in streaks and disseminations. It is in this general area that soil sampling has been completed.

GEOCHEMISTRY

A few soil samples taken at the time of the writer's first examination yielded 35 to 375 parts per million copper, with 4 in the vicinity of the first described shear, yielding in excess of 100 parts per million. It was then concluded that soil sampling would prove useful in the search for copper mineralization.

Phenocrysts in this material appear to be kaolinized feldspars.

The most intense mineralization is confined to upwards of 6 inches of stibnite and cinnabar with lesser amounts on the flanks of the structure where the better mineralization was noted, but there has not always been sufficient trenching done to adequately expose the structure where the better mineralization was noted. In the stream bed at the southeastern end there is a good exposure of the intrusive material, but the mineralization is practically non-existent at this point.

At the northwest end near the common posts for claims 7, 8, 9 and 10 and on the edge of a deep canyon there is an outcrop of the kaolinized dike rock at least twenty feet wide in which there are thin seams of quartz.

Coalescing to almost two feet of almost solid quartz. Stibnite and lesser amounts of realgar and cinnabar are found in this quartz. A sample #4466, taken across one foot of stibnite and quartz assayed 0.012 ounces gold, 0.26 ounces silver, 4.90% antimony and 0.243% mercury to the ton.

About two hundred feet at south sixty degrees east there is a trench about twenty feet along the strike and six to eight feet wide which exposes, for about eighteen inches, a lens of stibnite, maximum width three inches. Sample # 4467 from this lens assayed 0.023 ounces gold, 0.88 ounces silver, 7.60% antimony and 0.204% mercury to the ton.

Another eighty feet to the southeast is another trench exposing three inches of quartz and streaks of cinnabar close to the north edge of the dike. Sample No. 4468, representative of this quartz and cinnabar, assayed 7.20% antimony and 0.258% mercury. It was not assayed for gold or silver.

Another four hundred and seventy feet to the southwest the dike is exposed in the stream bed. A sample, #4469 taken across eighteen inches assayed 0.003 ounces gold, 0.03 ounces silver, 0.55% antimony and nil mercury.

At 750 feet up the stream bed, similar dike material is exposed about 200 feet above the common post of claims, 5, 6, 7 and 8, but it had not been trenched and no mineralization was seen.

It appears that the dike and fracturing is continuous for a considerable distance, but the mineralization is not, at least not on the surface. A check should be made for a probable extension to the northwest across the canyon. Good float has been picked up in the canyon.

Initially, the least expensive way to check out this vein and others like it where there is no access for heavy equipment, would be by more hand trenching, using low velocity explosives to help remove overburden.

If this produces encouraging results, arrangements could be made for further stripping by using a bulldozer or to drill a series of short diamond drill holes. If the former is done it may be advisable to first make arrangements with the owners of the timber to obtain a right-of-way along a mutually suitable route as a fairly large bulldozer with rippers should be used. However, the copper occurrences require a soil sampling program which should take precedence over any other work and by the time this and other work is completed a logging road on this Sproat Lake side of the mountain near the summit may provide easier access.

CABLE ADDRESS COMTECO

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 228 NORTH LA BALLE STREET, CHICAGO, ILLINOIS 60601 • AREA CODE 312 726-8434

Please address all correspondence to:
147 Riverside Drive, North Vancouver, B.C.Office: Tel. (604) 929-2228
Roberts Bank Tel. (604) 946-7021**CERTIFICATE OF ANALYSIS**TO GREAT CENTRAL MINES LTD.
3370 COAST MERIDDIAN RD.
COQUITLAM, B.C.

TYPE OF SAMPLES SOIL

No. of SAMPLES 197

Attn: Mr. McIntyre

FILE No. 640-51

SAMPLE No.	OZ. PER TON GOLD	OZ. PER TON SILVER	PPM	PPM	PPM	PPM
			Cu	Mo	Ni	Hg
CLAIM 27 - 1			12	ND	32	ND
2			30	ND	12	ND
3			39	ND	16	ND
4			33	ND	18	ND
5			36	3	14	ND
6			57			
7			42			
8			36			
CLAIM 29 - 1			15			
2			30			
3			9			
4			18			
5			51			
6			9			
7			39			
8			45			
9			15			
10			35			
11			50			
12			96			
13			22			
14			62			
15			27			
16			135			
17			15			
18			63			
19			51			
20			120			

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No. of SAMPLES ~~197~~ 197

FILE No. 640-51

SAMPLE No.	OZ. PER TON GOLD	OZ. PER TON SILVER	PPM	PPM	PPM	PPM
			Cu	Mo	Ni	Hg
CLAIM 29 -21			48			
22			54			
24			99			
25			198			
26			90			
27			60			
28			165			
29			12			
30			33			
31			108			
32			111			
CLAIM 31 - 1			174			
2			42			
3			162			
4			148			
5			68			
6			159			
7			87			
8			72			
9			75			
10			96			
11			21			
12			159			
13			23			
14			54			
15			73			
16			129			
17			75			
18			42			

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Six claims have now been sampled at 100 foot intervals on lines 400 feet apart across the trend of the formations. These show values up to 600 parts per million with a background estimated to be about 100 parts per million. Further sampling is required to establish background.

CONCLUSIONS AND RECOMMENDATIONS

From the foregoing it is concluded that this property warrants a thorough geochemical analysis at least. Favorable looking anomalies could then be trenched and drilled. The work should be under the supervision of a geologist or geochemist fully qualified to give the necessary analysis of the results.

If strong anomalies are found they would have to be further investigated by geophysics followed by trenching and drilling. Weak anomalies would have to be studied carefully before a further program could be committed. If rock outcrops were available they would have to be closely inspected possibly with the help of blasting to provide fresh faces and then a decision made on which further work in the form of geophysics, trenching and drilling should be done.

Because of uncertainties attached to future work it is thought advisable to recommend a program divided into two stages the first to consist of prospecting and soil sampling with a limited amount of trenching and drilling and the second to take care of whatever further geophysics, trenching and drilling is warranted as a result of the soil sample results. A third stage may be required.

In the meantime no work is recommended for the antimony-mercury occurrences unless new discoveries are made while the above program is being done.

ESTIMATED COST OF PROPOSALS

A - STAGE I

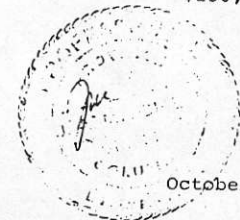
Prospecting - allow	\$10,000.00
Preliminary mapping - allow	1,000.00
Soil sampling and assaying for copper on 50 claims allowing \$1,000 for antimony and mercury checks	13,500.00
Incidental trenching and 500 feet of drilling at \$12/foot	9,000.00
Camp costs and transportation - allow	3,500.00
Bulldozer trenching of anomalies and access roads - allow	20,000.00
	<hr/>
Contingencies at approximately 10%	5,500.00
TOTAL COST STAGE I	<hr/> \$62,500.00

B - STAGE II

Diamond drilling - make provision for 6000 feet of BQ wireline drilling at \$13/foot	\$65,000.00
Camp and transportation	5,000.00
Geological and consulting services - allow	6,000.00
	<hr/>
Contingencies at approximately 15%	11,500.00
TOTAL COST STAGE II	<hr/> \$87,500.00
Overall cost	<hr/> \$150,000.00

Respectfully submitted,

J.A. Mitchell
J.A. Mitchell



October 15, 1971

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TYPE OF SAMPLES SOIL

Attn: Mr/ McIntyre

No. of SAMPLES 197

FILE No. 640-51

SAMPLE No.	OZ. PER TON GOLD	OZ. PER TON SILVER	PPM Cu	PPM Mo	PPM Ni	PPM Hg
CLAIM 33 -21			216			
22			93			
23			192			
24			150			
25			44			
26			26			
27			213			
28			120			
29			87			
30			89			
31			62			
32			195			
CLAIM 24 - 1			216			
2			126			
3			24			
4			15			
5			237			
6			134			
7			156			
8			144			
9			215			
10			18			
11			126			
12			30			
13			42			
14			5			
15			60			
16			177			
17			65			

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FILE No. 640-51

SAMPLE No.	OZ. PER TON GOLD	OZ. PER TON SILVER	PPM Cu	PPM Mo	PPM Ni	PPM Hg
CLAIM 50 -11			38			
12			12	ND	6	ND
13			39	ND	16	ND
14			75	ND	16	ND
15			39			
16			63			
17			39			
18			59			
19			81			
20			20			
21			15			
22			189			
23			33			
24			98			
25			251			
26			30			
27			18			
28			32			
29			24			
30			72			
31			84			
32			63			
SS1			57			
SS2			60			

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SAMPLE No.	OZ. PER TON GOLD	OZ. PER TON SILVER	PPM Cu	PPM Mo	PPM Ni	PPM Hg
CLAIM 31 -19-			69			
20			84			
21			33			
22			280			
23			66			
24			150			
25			117			
26			123			
27			114			
28			111			
29			144			
30			102			
31			90			
32			120			
CLAIM 32 - 1			18			
2			260			
3			204			
4			75			
5			114			
6			96			
7			51			
8			80			
9			102			
10			87			
11			96			
12			131			
13			101			
14			186			
15			168			

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PROVINCIAL ASSAYER

J. Chatterton



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SAMPLE No.	OZ. PER TON GOLD	OZ. PER TON SILVER	PPM Cu	PPM Mo	PPM Ni	PPM Hg
CLAIM 32 -16			54			
17			78			
18			75			
19			84			
20			30			
21			108			
22			75			
23			96			
24			123			
CLAIM 33 - 1			12			
2			171			
3			24			
4			96			
5			38			
6			36			
7			69			
8			42			
9			15			
10			30			
11			135			
12			123			
13			60			
14			198			
15			57			
16			123			
17			143			
18			295			
19			177			
20			81			

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PROVINCIAL ASSAYER

J. Chatterton

