GEOLOGICAL REPORT
on the
Cu 4 Reduced Claim
Vancouver Mining Division
92 G / 11
49° 42' 22" N 123° 27' 19" W
Owner: D. K. Bragg
Operator: D. K. Bragg
Author: D. K. Bragg
Date: April 15, 1991

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INTRODUCTION

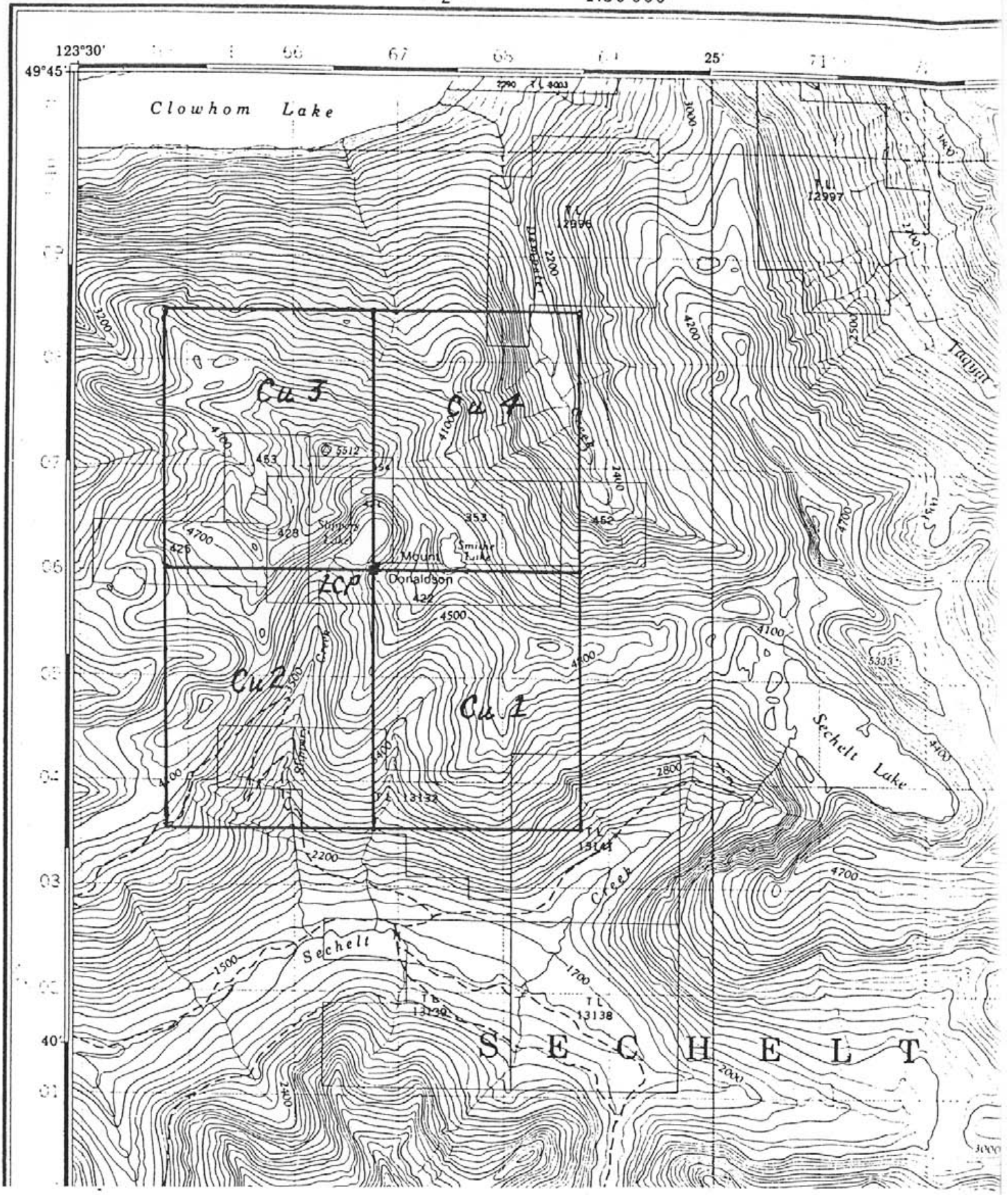
During Nov. 1987 the Cu 1 to 4 claims were located over the known mineralization in the vicinity of Smithe and Slippery lakes north of Mt Donaldson on NTS 92 G/11 just to the south of Clowhom Lake. The claims were recorded on Dec. 23, 1987 and on the 21 of Dec. 1988 the 80 units that had been staked were reduced to four units, retaining the area of known mineralization around Smithe and Slippery lakes. Also at that time a Prospecting Report was filed under a Statement of Work applying for one year assessment credits, (see 'Prospecting Report'on the Cu 4 Reduced claim by D. K. Bragg dated Feb. 15, 1989). The Cu 4 Reduced Claim was maintained for a subsequent year by paying Cash in Lieu on Dec 22, 1989.

This current report covers the work done on the Cu 4 Reduced Claim from Sept. 19 to Sept 26, 1990 when the area was visited to assess further the potential of the showing and to collect a number of representative samples for some testing and analysis.

The history of the showings on Mt Donaldson date from 1874 when the Howe Sound Mining Company reported finding copper mineralization on the mountain. Since then an adit has been driven for 90 feet on the best showing to date at Smithe Lake and numerous other showings have been trenched. The area has been staked numerous times since with some recorded work having been done, such as an airborne magnetic and electromagnetic survey, limited ground surveys of both magnetic and electromagnetics, geological mapping and 2500 ft of drilling. However this work has been sporadic and has not yet resulted in a conclusive evaluation of the potential of the area.

In researching the bibliography of the area there is little of substance to be found. There is mention of early shipments having been made from the property but no record of tonages or assay results could be found. During 1967 five diamond drill holes were drilled for a total of 2500 feet, but as yet no record of the logs or assays could be found.

Table 1 of the CIMM Vol 15 mentions a reserve of $\pm$ 5 million tons of .02 copper , but no record of the logs or grade intersections have been found to date. This mention in the CIMM Vol suggests that the mineralization may be hosted in a greisen.



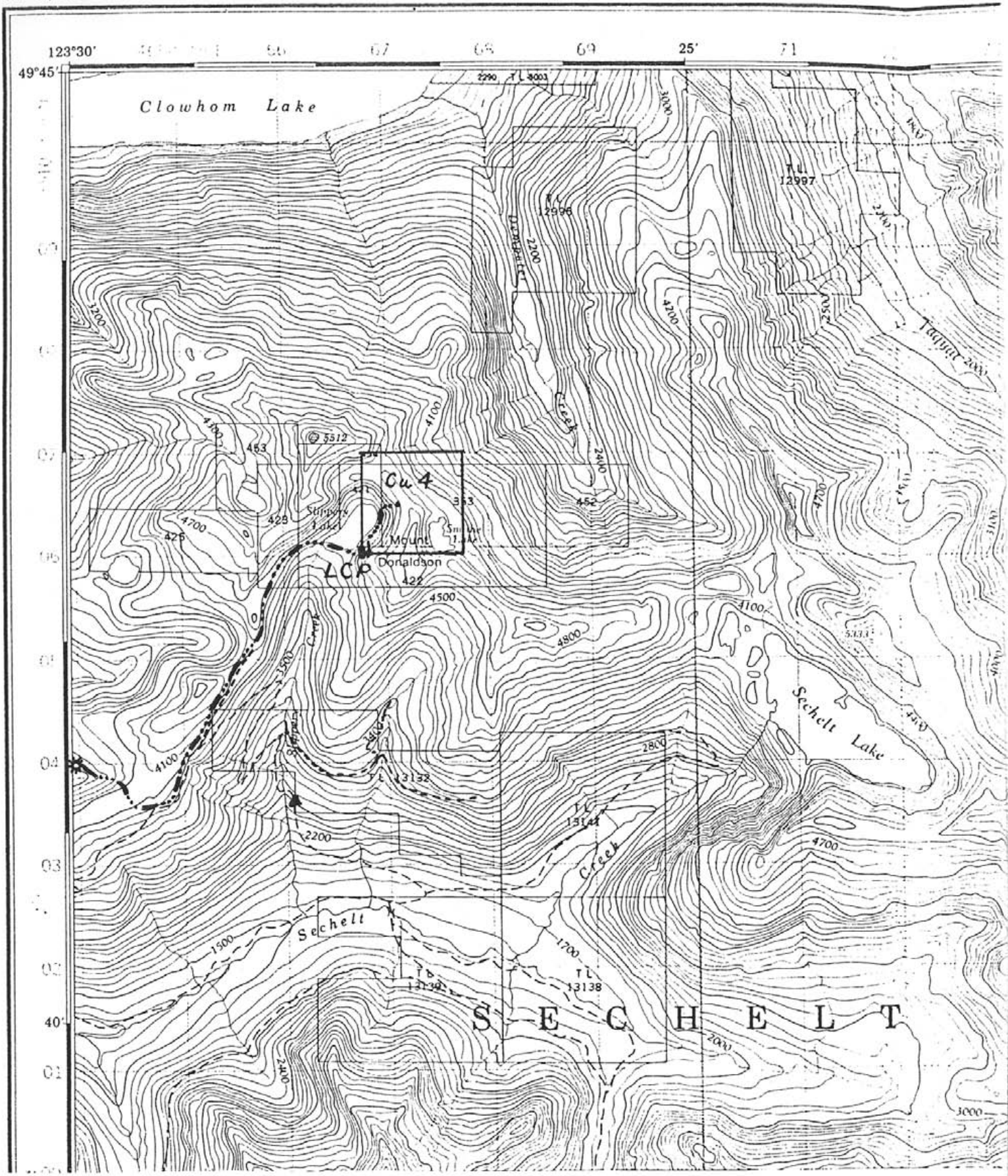
Index Map of Original Claim Block Fig 1
Cu 1 to 4 claims

Scale 1 - 50,000

Miles 1 .5 0 1 2 Miles

Metres 1000 500 0 1000 2000 3000 Metres

92 G/11 1:50 000



Index Map of Cu 4 Reduced Claim Fig 2

✲ 1990 Campsite

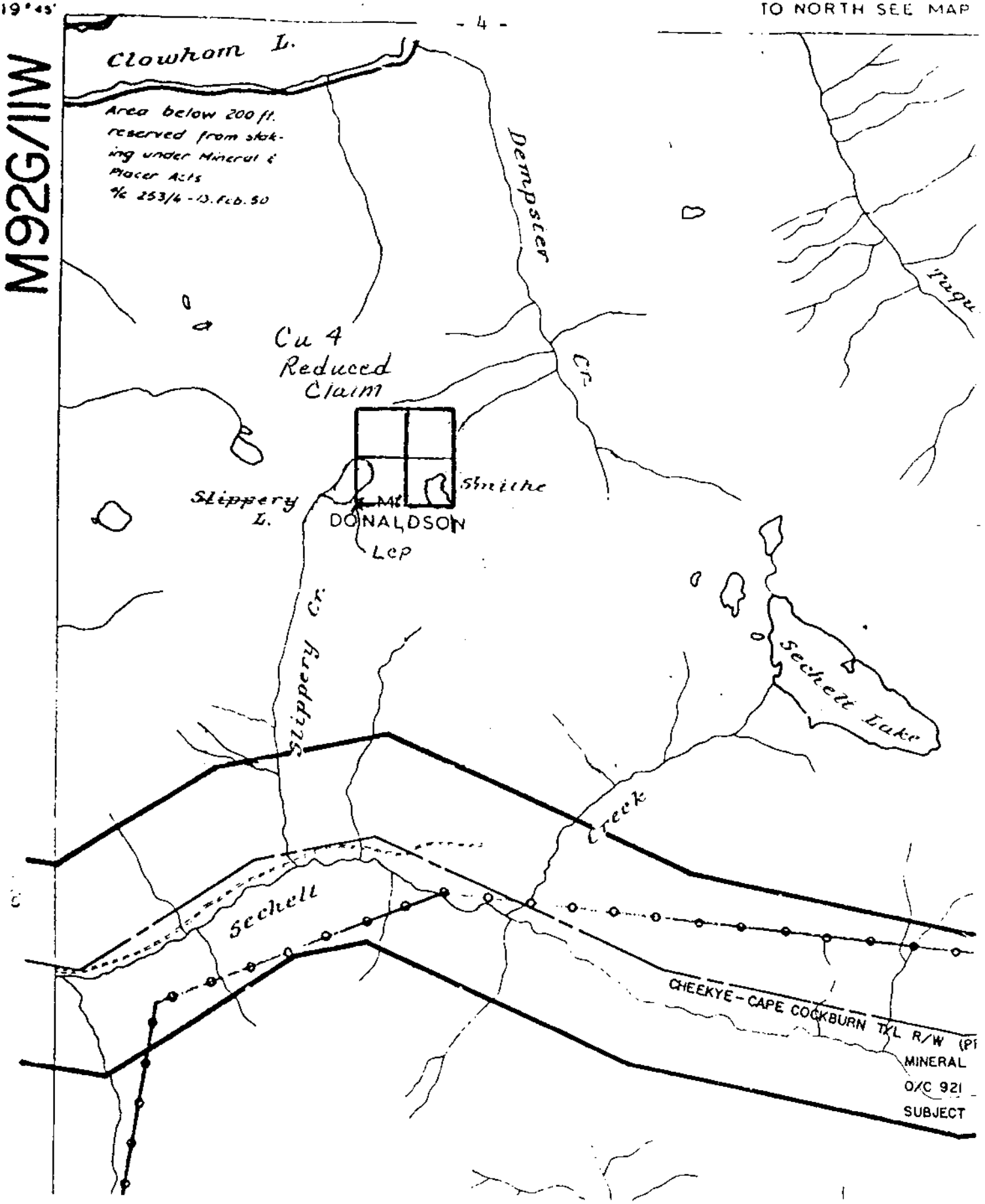
— ... — ... — Route into Showings

▲ 1987 Campsite

Scale 1 - 50,000

Miles 1 .5 0 1 2 Miles

Metres 1000 . 500 0 1000 2000 3000 Metres



Location Map of Cu 4 Reduced Claim Fig. 3

Scale 1 - 50,000

Miles 1 .5 0 1 2 Miles

Metres 1000 500 0 1000 2000 3000 Metres

PROPERTY LOCATION AND ACCESSIBILITY

The Cu 1 - 4 claims were located on Mt. Donaldson within the Coast Range approximately 35 miles north north west of Vancouver. The L C P is at 49° 42' 22" N and 123° 27' 19" W. (See Fig. 1). Elevations on the Cu 1 - 4 range from 730 metres to 1680 metres. The elevations on the remaining 4 units of Cu 4 after reduction range from 1150 metres to 1550 metres (see Fig. 2 & 3). The topography of the area is very steep and precipitous to the point where some areas are impassible by foot or at the least trecherous. Much of the lower elevations on the southern two claims, Cu 1 & 2, have been logged and numerous roads do exist in the area, however some of these roads are now impassible due to wash outs and renewed growth on the roads. The remainder of the claim area up to about the 1350 metre elevation is covered by typical dense coast range forest. Above the 1350 metre elevation this forest cover decreases to sub alpine and above 1500 metres the area is mainly rock, talus and snow. In some areas this snow may remain all year around.

Previous assessment reports on the area had suggested that vehicular access could be via the power line from Port Mellon along the north shore of Thornbough Channel to M^{c}Nab Creek and thence via the logging roads into Slippery Creek. However at the time of Nov. 1987 the power line was no longer passible and we had the truck transported by a small barge from Horseshoe Bay to M^{c}Nab Creek and then traversed the logging roads up M^{c}Nab Creek, over the pass into Sechelt Creek and up to the 760 metre elevation on Slippery Creek. From there we were able to travel by foot up Slippery Creek into the area of the showings.

At the time of our visit into the area there was about a half a metre of snow at the L C P and for the last three days we were subjected to strong cold gale force winds with driven snow above the 1400 metres that made work above that elevation most enervating and difficult. In some areas this fresh snow had drifted into snow packs of over two metres on top of old snow that had not melted during the summer. From this it was estimated that at the most the area of the workings might be open for exploration for less than four months of the year.

At the time of this current visit to the property in Sept. 1990 there still was no direct vehicular access to the area. For this current trip access was via water taxi from Port Mellon to McNab Creek and hiring the logging contractor at McNab Creek to drive me into the area.

Although the gas pipe line was currently under construction from the headwaters of Sechelt Cr. across McNab Cr. into the headwaters of Rainy Cr. and into Chapman Cr., it is most unlikely that this route will afford direct vehicular access into the area.

GENERAL GEOLOGY OF THE AREA

The general geology of the area is covered by Map 42 - 1963, Squamish B.C. by H. H. Bostock, with more specific geology present in Assessment reports 752, 4003, 8822 and 11619.

The area of the Cu 1 - 4 claims is within the Coast Plutonic Complex consisting here mainly of medium grained quartz, biotite and hornblend, biotite granites. In the area of the showings west of Smithe Lake within the quartz, biotite granite is what is probably a late stage intrusive body of muscovite granite.

The mineralization appears to be closely associated with this muscovite granite and occurs as disseminations and small blebs within the muscovite granite and in many of the numerous quartz veins and quartz masses within the muscovite granite, and to some extent within the surrounding envelope of quartz biotite granite.

Small aplitic dikes cross the propery parallel to the joint systems. Also within the area are linear outcrops of bedded lapilli tuffs or tuffaceous rocks. The relation ship of these tuffs to the granite is unclear.

FIELD WORK

I left Vancouver late in the afternoon of Sept 19 and after 6 hrs. of driving and ferry crossing, I arrived in Port Mellon. The next morning I cdught the water taxi at 6:00 AM and was into the drop off area at 9:00 AM, not knowing for sure where I was since I did not have map sheet 92 G/12 with me. After four hrs. walking up the hill to the east I was able to establish my position on NTS 92 G/11. I was at least 5.5 km from the showings. I then backpacked the camp up hill another 190 metres in elevation from the drop point and at least another km closer to the area of the showings. This would save better than an hour of walking each day in traverse time. On the 21 of Sept I established a traverse route into the showings utilizing the road on the southside of the ridge south east of camp. (see map page 3) The traverse time from camp to the ridge between Slippery and Smithe lake was better than three hours one way.

During the three days that I worked on the showings a total of 2.19 km of

chain and compass line was established and the topography and geology was mapped along the lines. Unfortunately the shortage of time and the steepness of the terrain did not allow for any closures of the lines, but in relating my survey to the 1 to 50,000 NTS maps it would appear that my lines are probably within a 10 % error factor. Wherever possible these lines were tied into specific topographical features that can be identified in the field at a later date. On the average the geology was mapped for at least 25 metres on each side of the lines, so something in excess of 11 hectares was mapped during the survey.

Fifteen rock samples and one Moss Mat Sample was collected at the time of the survey. Some of the rock samples were more than 25 lbs in weight for expanded studies. In total an excess of 150 lbs of rock were backpacked out of the area of the showings. These fifteen rocks are described and the description is included in the Rock Library in the appendix.

The original proposal for this trip included taking approximately 10 Moss Mat samples around the Mt. Donaldson mineralized area at about the 1200 metre elevation in an attempt to determine the geochemical signature of the deposit. But since camp was so far away from the showings and the dificult terrain this part of the program had to be abandoned.

In researching the bibliography of the property much mention is made of the highgrade silver in the veins, but no mention is found of any gold content in either the veins or in the muscovite granite. The rock samples were collected for analysis at a later date to determine if there is any gold associated with the copper mineralization. Some of the samples will be submitted for 32 element ICP to determine the geochemical signature of the area.

RESULTS

Although the time on the property was limited and the mapping was not over as large an area, or as detailed as was wished, certain features of the property became more interesting. In Assessment Report No. 752, W. Leszezyszyn has adequately mapped and described the outcropping of the quartz muscovite granite, and the main quartz veins above the adit on Smithe Lake, so little time was spent in this area other than to visit the adit and to take some samples and to map in some of the features.

In mapping and prospecting the area I got the impression that the quartz muscovite granite was a late stage, probably very hydrous intrusion into the coast range quartz biotite granite and that the muscovite quartz veins and large quartz pods that were intruded into the quartz muscovite granite and the enclosing envelope of quartz biotite granite was the last feature of this late stage episode. The copper, molybdenum and silver mineralization may have been introduced during this last feature. The quartz muscovite granite is very porous. This porosity may account for the deep leaching of the copper sulphides and the resulting malachite

stains seen on the cliffs of the steeply outcropping quartz muscovite granite.

In report 752 the writer gives the dimension of the outcropping quartz muscovite granite as 91 metres in width by 335 metres in length. Although I did not check the southern boundary it would appear that the length as reported may be about right, the width would appear to be a little more, about 120 metres. The quartz muscovite granite forms the northern sholder of Mt. Donaldson and is exposed for a height of something in excess of a 100 metres above the portal on Smithe Lake.

In mapping the area from T 17 to T18 I got the impression that the quartz muscovite granite is plunging to the NNW beneith the quartz biotite granite about 100 metres to the south of T 10, and that at sample site PR 90 - 18 the quartz muscovite granite may be less than 100 metres below the sample site. If this is the case then the strike length of the Quartz muscovite granite is probably closer to 800 metres. I dont have hard evidence but I suspect that the attitude of the quartz muscovite granite is not vertical but that the body may be dipping to the ENE, but by how much could not be determined.

The CIMM Vol. 15 gives a reserve of $\pm$ 5 million tons of .02 % copper. This grade in itself is much to low to be economic. In 1967 when the drilling was done it was generally not the practice to assay copper deposits for gold and silver, so there may be a low value of each associated with the copper. Although molybdenum can be seen in the area it would appear that the core may also not have been assayed for molybdenum.

Even with the possibility of some low gold and silver values and maybe some molybdenum the grade may still be uneconomic.

In looking at the quartz muscovite granite I was struck with the uniqueness of the body. The muscovite varies from about 20 % to locally up to 40 %. The over all content of the muscovite may be about 25 %. The size of the muscovite is from very minute to up to 5 mm. Since the quartz muscovite granite is very vuggy it will probably comminute very easily and much of the muscovite may be freed very cheaply. The muscovite may well be an economic mineral in this deposit..There may even be some value in the large quartz pods and veins in the area especially where they may be free of sulphides and feldspar.

The contact between the quartz muscovite granite and the quartz biotite granite seems quite sharp, although there does seem to be some alteration of the latter close to the contact. Within the envelope of the quartz biotite granite there has been an invasion of quartz veins muscovite and some copper minerals plus considerable fracture filling of quartz , muscovite and copper minerals. In the vicinity of PR 90 - 17 these quartz muscovite fracture fillings were as many as four per foot.This halo of quartz muscovite invasion decreases outwards from the main core of the quartz muscovite granite intrusion for up to 300 metres or more It is the size and the similarity of the veins at PR 90 - 15 and especially at

PR 90 - 20 to the main vein at the portal at T 17 that suggests that the quartz muscovite granite may not be too far below PR 90 - 15 and PR 90 -20. Past work on this northern section suggests a number of such veins in the area.

Although the power grid is within 3 km of the showing there may be a possibility of developing a small hydro electric power generating development in the area utilizing Slippery Lake and the small lake just to the north as impoundment areas. Both lakes have been formed by alpine glaciers and the downsides of both lakes have been breached by the outflowing streams. These breaches could be easily and cheaply dammed for about 40 feet to increase the water reserve. Although the catchment basin is not large it is in an area of fairly high precipitation. The drop from the upper lake to Slippery Lake is about 170 metres and from Slippery Lake into the valley below is about 250 matres. Any power developed could be hooked into the power grid three km away at a later date.

CONCLUSIONS AND RECOMMENDATIONS

The quartz muscovite granite and the accompanying quartz muscovite veins is believed to be a late stage intrusive episode into the Coast Plutonic complex. The quartz muscovite granite is unique. It is believed that the potential of this prospect could be such that it could be economic to mine, although much work has yet to be done. At this stage the copper content would be, by itselfe, uneconomic but the silver, molibdenum and the potential gold content of the showing has yet to be determined. The showing may also have some value in the muscovite in the quartz muscovite granite and even perhaps some of the silica in the large pods and veins where they are clean of sulphide minerals and feldspars. As yet the exposed quartz muscovite granite has a rough dimension of 335 metres by 120 metres by 100 metres, but it is suspected that the overall length of the quartz muscovite granite may be as much as 800 metres and the vertical extension is unknown so there is potential for greater tonages.

This prospect does have some plus features to it that should be considered. The occurance is on a ridge so that the waste to potential ore would be low. The quartz muscovite granite is quite vuggy and the mineral grains seem to be loosely joined so that the cost of comminution may be relatively cheap. If the muscovite can be an economic mineral much of it may be freed at an early stage of comminution. The prospect is within 15 km of tide water and 3 km of the power grid. I believe that this prospect warrents further investigation.

Of the 15 samples collected at least 5 should be sent to a lab for 32 element ICP plus gold to determine the geochemical signature of the area. A bulk composite should be made of the quartz muscovite granite to study the potential of the muscovite.

In future any work in the area should be conducted from a campsite much closer to the area, preferably from the old campsite *on* the north end of Smithe Lake. If the quartz muscovite granite is plunging to the NNW and dipping to the ENE then more work should be done along the ridge to the north west of Smithe Lake and on the slopes from the ridge into the headwaters of Demster Creek. More of mineralized quartz muscovite veins may be found here within the quartz biotite granite that may indicate the proximity of the quartz muscovite granite , and the quartz muscovite granite may also be found in place.

STATEMENT OF COSTS

D.K. Bragg	Sept. 20, 21, 23 and 25, 1990 1 day each Sept. 26 $\frac{1}{2}$ day Total $4\frac{1}{2}$ days at $ 225.00 per day	$ 1012.50
Camp costs and food	$4\frac{1}{2}$ days at $ 45.00 per day	$ 202.50
Truck costs	$4\frac{1}{2}$ days at $ 55.00 per day	$ 247.50
Equipment and field supplies		$ 45.00
To transportation costs ; ferry and transportation into area		$ 130.00
To report preparation		$ 600.00
	Total	$ 2237.50

STATEMENT OF QUALIFICATIONS

D.K. Bragg supervised and did most of the work involved in this investigation, including the line cutting, prospecting , geological mapping, soil sampling, magnetometer survey and report preparation. His qualifications are as follows.

Graduated Armstrong High School, Armestrong B.C., 1951

Attended U. B. C. from 1958 to 1962 In Arts and Science; Honors Geology.

Has worked in the mineral exploration industry since 1956.

Worked for Kennco Explorations during the summers of 1956. 1957, and 1959 in the Yukon and northern B.C. as an assistant prospector and geochem sampler under the direction of Dr. R. Campbell and R. Woodcock.

Worked as head prospector for the Nahanni 60 Syndicate in the Northwest. Territories in 1960 under the direction of Doug Wilmont.

Worked as head prospector in the Yukon for Dualco in 1961 under the supervision of E. Wozniak.

Worked as head prospector for Mining Corp. of Canada in southwest B.C. in 1962 under J. S. Scott and Dr. K. Northcote.

Worked as head prospector during the summer of 1963 for the Fransis River Syndicate in central Yukon, under the direction of Dr. A. Aho

Worked as field geologist in the Greenwood area of B.C. for Scurry Rainbow Oil.

Worked as field supervisor for Alray Explorations Ltd. from Sept 1965 to April 1967 under the direction of Rae Jury.

Since 1956 has also worked as a self employed contractor, working for various mining companies in the following fields: prospecting, property examination, staking claims, line cutting, topagraphical mapping, geological mapping and reconnaisance, mineral sampler, drafting, air photo interpretation, geochemistry, geophysics, and supervising property exploration programs. Since 1956 has also been a self employed prospector working in various areas in B.C. on numerous properties.

Has assisted in teaching the geochemical section of the Ministry of Energy, Mines & Petroleum Resources Mineral Exploration Course For Prospectors under the direction of Dr. S. Hoffman in 1984, 1985, 1986, 1987, 1988. 1989, 1990, 1991

Has recieved the B.C. Provincial Grubstake for the years 1964, 1968, 1969, 1970, 1980, 1981, 1982, 1983, 1985, 1986, 1987, 1988. 1989, 1990.

Has worked in the Rossland Camp since 1971 as a miner on the Snowdrop and Blue-bird claims. Has spent considerable time in the camp as a prospector and mining exploration contractor.

REFERENCES

Map 42 - 1963, Squamish, B.C. by H.H. Bostock

BCDM MMAR 1917 - 281
1922 - 251
1924 - 244
1928 - 389
1965 - 222
1966 - 245
1967 - 62

BCDM GEM 1972 - 277
1975 - E106

BCDM Open File

EMR MRD Corpfile (Pacific copper Mines Ltd., Grasset Lake Mines Ltd.)

CIM Special Vol 15 - Res

BCDM Ass Rpt 752
4003
8822
11619

APPENDIX

MT. DONALDSON ROCK LIBRARY 1990

PR 90 - 6 Grab sample of the quartz biotite granite in the vicinity of T6 where a 1" stringer of quartz was found containing pyrite, chalcopyrite and bornite along with muscovite. This sample was collected from the area but was not immediately adjacent to any of the numerous small quartz veins that were in the area, about 50 % of these contained some minor copper mineralization.
The sample is a medium grained quartz biotite granite with fractures filled with muscovite. After the rock had been collected and weathering of the freshly broken surface had begun to take place light azurite staining took place around some of the crystals of muscovite that has invaded the granite, and around some of the blotches of limonite in the granite. This staining seemed to be preferential to the plageoclase. Although no primary minerals could be identified in the rock the fact that azurite coloured staining is forming rather than malachite, it would suggest that there may be minute amounts of tetrahedrite in the rock and perhaps some chalcocite. The rock is non magnetic.
A much larger sample should be collected from this area for rock analysis

PR 90 - 7 Light gray Dacite - Rhyolite dike collected 25 metres north east of T8. The matrix is very fine grained with larger crystals of biotite, quartz eyes and possibly hornblend. There are inclusions of quartz biotite granite within the dike up to 1 cm and there appears to be some garnitization of these inclusions. There are some small rusty blotches within the matrix. Only very minor pyrite and / or chalcopyrite in the sample. Non magnetic.

PR 90 - 8 Very similar to PR 90 - 7. Very fine grained matrix gray white with larger crystals of biotite and containing inclusions of quartz biotite granite that has been garnitized and altered. The sample is quite rusty on the fractures. Non magnetic. The sample was collected from a small dike on the north west side of Slippery Lake.

PR 90 - 9 Samples collected from the core boxes at the north end of Smythe Lake. The samples are mostly from the muscovite granite showing what may be representative of some of the drilling. The samples range from the muscovite granite with only minor amounts of mineralization to the quartz veins or quartz muscovite veins with blebs of mineralization and rich malachite staining. Some of the muscovite has a slight rose to purplish sheen to it. Much of the core has been scattered to the extent that it would be impossible to relog the core.

PR 90 - 10 Quartz muscovite granite, very light gray white. The quartz and feldspar seem to be about equil in content, about 40 % each, although in some samples the quartz predominates the feldspar by two to one and the quartz seems to be quite spherical. The feldspar is quite whitish to slightly greyish, orthoclase. The quartz sometimes forms larger eyes in an equigranular matrix. The muscovite tends to form nodules and often the chalcopyrite and boronite mineralization is associated with these nodules, some up to 1.5 cm. Much of the rock is quite vuggy with muscovite forming in the vugs. The muscovite comprises as much as 20 % of the rock on the average, but some samples may contain up to 30 % to the point that the rock is mostly quartz muscovite with much less orthoclase.There is considerable malachite staining on the weathered surfaces. Some of this sample should be cut and polished and the remainder sent in for analysis. The sample was collected just to the NNW of the adit from the rubble from the cliffs above.

Pr 90 - 11 This was a 30 lb suite of samples from the portal and dump on the west side of Smithe Lake and were selected to represent the enviroment of the main vein and the quartz muscovite granite adjacent to the vein.
Much of the vein itself appears to be unmineralized. Where the vein is unmineralized the quartz appears to be slightly milky to clear with some of the clear quartz coming from large vugs, ie growing inside the vugs, in which some of the crystal faces collected were 2" by 2".
Most of the sample represents some of the more mineralized portion of the vein. In these samples the quartz is almost all milky white with rusty staining. There is a minor amount of muscovite in the quartz vein, but this appears to be only about 3 %. Some of the mineralization is associated with the muscovite, but the majority seems to fill vugs, resulting in large nodules of highgrade. However much of the mineralization is in the form of irregular stringers. The copper mineralization is mainly boronite and chalcopyrite and possibly some chalcocite. The secondary minerals are mainly malachite with some azurite, which may indicate some tetrahedrite. Since the azurite is limited there may only be small amounts of tetrahedrite in the vein. There are some rosetts of molybdenum in the quartz, with only a few irregular smears or veinlets of molybdenum within the quartz.
Some of the suite was collected from the hanging wall and foot wall of the vein. This is the quartz muscovite granite that varies from a very fine grained grayish white to a much coarser grained gray sample. Within the quartz muscovite granite are small nodules of bornite and chalcopyrite, malachite and some stringers of molybdenite. These samples of the quartz muscovite granite seem inordinately heavy for the minerals that are recognized within them. The rocks within this sample are non magnetic to only very slightly magnetic..

PR 90 - 12 This sample was collected from the dump at the adit on the west side of Smithe Lake. These samples were of the nodules of highgrade material in the dump and were collected for display only and to get some assessment of the amount of highgrade in the dump. It was estimated that these highgrade samples would represent less than 2 % of the dump although the overall sulphide content of the dump would be up to 5 %. Old reports suggest that some shipments had been made from the property in the early days. If this was actually the case it would be suspected that the shipments would have been made of hand picked ore, and what I was seeing in the dump would only be remnants of the high grade content. I suspect that not much of the high grade ore was shipped.
The discription of these samples would be the same as the discription of the more mineralized portion of the vein in PR 90 - 11.
Of note was that a good 10 % of these high grade samples contained appreciable amount of molybdenum. Rocks non magnetic to only very slightly magnetic.

PR 90 - 13 This rock was collected from T 10. It is a light buff coloured quartz biotite granite; medium grained. Quartz 40 % , feldspar 55% biotite 5 %. Some of the biotite appears to be chloritized. Minor malachite staining around some of the feldspar crystals. No primary sulphide minerals can be seen. Rock non magnetic.

PR 90 - 14 Light grayish white dike rock . Dacite rhyolite? Very fine grained matrix with larger crystals of muscovite. Very similar to PR 90 - 8. Collected from dike 60 metres 301° from T 10.

PR 90 - 15 Sample from an 8" to 12" vein at 310 metres 301° from T10. Sample includes unmineralized portion of the vein, partially mineralized material and high grade nodules.
The unmineralized portion of the vein is a very grayish quartz with minor amounts of muscovite and possibly some orthoclase feldspar. Some of the quartz crystals have a smoky - bluish tinge that is not related to azurite staining. Some of the quartz is stained an apple green that may be the result of minute inclusions of malachite. Portions of the vein are almost entirely muscovite with bornite and chalcocite with both malachite and azurite so I suspect some tetrahedrite. There seems to be almost no chalcopyrite in this vein. About half of the sample was high grade nugets of bornite and chalcocite that are coated with malachite and azurite. Some of these samples are quite spectacular but it is estimated that they represent less than 3 % of the vein whereas the overall mineralization in the vein might be as high as 8 %. Some samples were slightely magnetic. No molybdenum could be seen , and there was very little chalcopyrite. One sample had a garnet up to 1.2 cm. Most of the highgrade samples seem to be associated with the muscovite rich sections of the vein rather than with the more siliceous sections.
Some of this sample, excluding the high grade nugets should be selected for analysis.

PR 90 - 16 Collected from a small outcrop at 335 metres 301° from T 10. Muscovite quartz vein? or pod. 60 % muscovite 40 % quartz. There are blebs of malachite and disseminated malachite. Primary minerals are bornite and possibly chalcocite and probably represent less than 1 % of the rock. This rock is probably a very weathered portion of the outcrop and a sample should be taken below the weathered surface. It is believed that this may be a new find as there had been no work or trenching in the area. The showing was covered by talus and no malachite staining could be seen on the surface.

PR 90 - 17 Collected at 350 metres 301° from T 10. Buff coloured quartz biotite granite. This sample is very similar to PR 90 - 13. It is a medium grained quartz biotite granite, quartz 40 %, biotite 5 % and orthoclase 55 %. Some minor chloritization of the biotite has taken place. Of particular interest was the fracture containing silica 25 %, orthoclase 25 % and muscovite about 47 % with about 3 % of nodules of limonite that are suspected to be weathering from original blebs or nodules of chalcopyrite and perhaps other copper minerals. In this area there are an abundance of these fractures at 93° and there can be 3 to 4 parallel fractures per foot that are filled with quartz and muscovite with limonite. These fractures range from 1 mm up to 1 cm.The cross fractures at almost right angles do not seem to contain quartz and muscovite with limonite.

PR 90 - 18 Sample collected from a small quartz muscovite pod sitting on the north side or hanging wall side of the dike intersected at T 18 The pod is 45 metres east of T18. The quartz will constitute about 85 % of the rock, muscovite about 15 %. Very minor amounts of bornite and chalcocite are seen in the rock There is a very minor malachite staining in the sample. However throughout the rock are narrow irregular stringers of a very fine grained mineral that is reddish purple. I suspect that it may be ruby silver. A sample of the rock containing this reddish purple stain, but not having any other visable sulphides has been selected for analysis.

PR 90 - 19 From a small pit 40 metres 26.5° from a point 300 metres 301° from T 10.
This pit cuts into a small quartz muscovite vein striking 93° with a dip of 80° to 85° to the north. The true size of the vein could not be determined since the pit only exposed the south portion of the vein, ie the foot wall.
The vein appears more like the vein at the adit on Smithe Lake and not the vein sampled at PR 90 - 15. The vein is predominantly white and rusty coloured quartz with irregular blebs and stringers of bornite, chalcopyrite and chalcocite with considerable malachite staining and very little azurite. The mineralization is closely associated with the muscovite. The mineralization seem more pervasive through out the quartz and there appears to be fewer nodules of high grade. Some of the samples are quite magnetic and in places magnetite can be seen.
The quartz rich section of the vein appears to be within an envelope of quartz biotite which contains some orthoclase. There may also be some muscovite. The quartz is about 50 %, biotite 40 % and the orthoclase about 10 %. This envelope contains considerable malachite staining but no primary sulphides could be seen in the quartz biotite envelope. A portion of the least mineralized vein material was selected for analysis.

PR 90 - 20 Sample from the rubble from the cliff face 70 metres 173° from T 10. Very fine grained muscovite granite in which it is difficult to determine the percentages of the constituent minerals. The sample is a light buff white in colour, that may be the result of some iron staining. In some spots the rock has a slightly pinkish cast. The rock is quite vuggy and some of these vugs contain limonite. The rock seems to have a leach zoning. The outside shell is leached white with an iron rich zone beneith. The vugs represent about 10 % of the rock with about one half of these still containing limonite. Above where this sample was collected there was considerable malachite staining on the cliff.

ADDITIONAL INFORMATION ON THE CU 4 REDUCED CLAIM

Since filing the Statement of Work on Dec. 24, 1990 considerable additional work and research has been done on the samples that had been collected in the field and in trying to find any other information about the area. This additional work has been to the excess of $ 1800.00 in time and expenses incurred. Even though assessment credits are not being applied for, it is felt that this added information confirms and enhances some of my observations and conclusions refered to in the proceeding report.

Five samples were selected from the samples collected during the field trip and these samples were submitted to the lab for 32 element ICP plus Gold and three of the samples were submitted for tin and flourine. The results of these analysis are to be seen on page 2, (see also the preceeding description of the rocks in the 'Mt. Donaldson Rock Library 1990')

Sample PR 90 - 15 reports better than .02 oz / ton in gold. Most of the vein material report high in bismuth and low in strontium. However there seems to be no direct relationship between the molybdenum and flourine, but there may be some relationship between the tungsten and the flourine in PR 90 - 10. The low tin values may suggest that the quartz muscovite granite may not be a greisen.

A composite sample of 1649.6 grams of the quartz muscovite granite was made from some of the material collected in the field. Some of the material was up to 2 inches in size. This sample was then put through a one quarter inch laboratory jaw crusher. This material was comminuted very quickly and exceptionally easy. The sample was then screened through a minus 10 mesh. From this first crush we obtained 1131.0 grams of plus 10 mesh and 514.3 grams of minus 10 mesh. Almost one third of the sample was minus 10 mesh on the first comminution stage. Photographs of the material were then taken, see page 3. Figure 1 is a sample of the + 10 mesh material. Fig. 2 is the - 10 mesh material. Here about 40 % of the material appers to be muscovite mica. At this point the mica could be seperated by either an air seperator or by means of floation. Note the malachite staining. Some of the mica may have malachite between the books and it may be necessary to leach the copper from the mica at this stage to obtain a pure product. The size of the mica is from very minute to up to 3 to 4 mm. Some of the mica has a slight rose tinge to it , but most is clear.

A sample of the rock taken from PR 90 - 10 was cut and polished with photographs taken of the two sides of the polished rock (see page 4). Fig 3 is the polished surface of the rock.Note the vuggy character of the rock and the polished portion of the nodule of chalcopyrite surrounded by a halo of limonite stain. Fig 4 is the reverse side of the rock. Note the four nodules of chalcopyrite and the malachite staining.

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
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To: BRAGG, MR. DON ##

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Project :
Comments:

Page Number :1-A
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P.O. Number :

CERTIFICATE OF ANALYSIS A9114427

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
PR90-10	205	294	< 5	1.0	0.74	65	60	< 0.5	< 2	0.86	< 0.5	< 1	170	1435	0.50	< 10	< 1	0.40	< 10	0.02	55
PR90-11	205	294	270	80.0	0.11	20	10	< 0.5	732	0.02	4.0	5	298	>10000	1.65	< 10	< 1	0.01	< 10	< 0.01	30
PR90-15	205	294	705	>200	0.57	< 5	10	< 0.5	4250	0.09	< 0.5	20	196	>10000	5.31	< 10	< 1	0.12	< 10	0.06	105
PR90-18	205	294	< 5	2.8	0.12	< 5	< 10	< 0.5	28	0.01	< 0.5	< 1	238	921	0.49	< 10	< 1	0.03	< 10	< 0.01	25
PR90-19	205	294	175	98.6	0.34	< 5	10	< 0.5	1240	0.01	< 0.5	9	252	>10000	4.83	< 10	< 1	0.12	< 10	0.01	105

CERTIFICATE OF ANALYSIS A9114427

SAMPLE DESCRIPTION	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Sn ppm	F ppm
PR90-10	205	294	9	0.02	2	170	18	5	< 1	5	< 0.01	< 10	20	8	50	18	< 2	510
PR90-11	205	294	202	< 0.01	5	< 10	64	< 5	1	15	< 0.01	< 10	< 10	2	< 10	216	< 2	70
PR90-15	205	294	11	0.01	4	5700	10	5	5	8	0.01	< 10	30	36	< 10	668	< 2	210
PR90-18	205	294	6	0.01	5	10	2	< 5	< 1	1	< 0.01	< 10	10	2	< 10	4	-----	-----
PR90-19	205	294	244	0.01	4	< 10	6	5	1	1	< 0.01	< 10	50	39	< 10	212	-----	-----

CERTIFICATION:

Fig. 1 Plus 10 mesh after crushing and screening

Fig. 2 Minus 10 mesh after crushing and screening

Fig. 3 Polished side of a sample from PR 90 - 10

Fig. 4 Reverse side of the sample above from PR 90 - 10

In doing the research on the property I was talking to J. J. M^{c}Dougal about the area and he kindly loaned me an excerpt from a report he had written on the property in 1963. (see page 6).. Of particular interest was the result of the 25 sample composit from which he obtained an assay of 0.01 oz per ton in gold and .29 % copper. This sample was collected from the rubble in the area of my PR 90 - 10. This is most encouraging as it suggests that the prospect contains some gold values.

Also in the process of researching the material on this property I accessed the property file in Victoria and obtained the material on pages 7 to 11. This material is included here as this material is not readily accessible to most people. Of particular interest was the dimensions of the quartz muscovite granite as given in the Description of the Deposit. This data substantiates my thinking as to the strike length, although I suggest this length is perhaps 70 metres more than given in the description. It also gives a greater size to the other two dimensions and suggests a dip of 15^{o} to 20^{o} to the north east. I had not thought that the dip was this shallow. Using these dimensions the size of the quartz muscovite granite would be in the neighbourhood of 150 million tons, so the tonage potential could be there if economic grades were found.

The information on the hole intersections is also encouraging. Unfortunately it would appear that gold, silver and molybdenum were not assayed for.

Also at the time that I researched the property file in Victoria I obtained a copy of an old sketch map of the Mt. Donaldson area that indicates a couple of old adits and a number of quartz veins about the 3600 foot elevation below the ridge to the north of Mt. Donaldson and along the east facing slopes into the headwaters of Demster Cr. This map was undated and labled Howe Mine. It is not included in the report.

In doing the research on mica it was indicated that that the industrial minerals was not always an easy field to get into. The procedure suggested was to try to determine what product that you can produce and then promote your product to the consumers. Canada does not have a large consumer market for mica and on the west coast it would appear that California has the largest consumer market.

Current prices for mica varies from 8¢ per lb. to 25 ¢ per lb. US depending on the purity of the mica, the fineness of the grind and the end use of the mica. Currently the North American production capacity exceeds the demand but the expansion of the plastics industry and the uses of mica, which is currently considered as an enviromentally frendly material, to replace other products is expected to increase the consumption. At an average price of 16 ¢ US per lb. even if only 200 lbs of mica were produced per ton of ore this could gross $ 32.00 US or be roughly the equivalent of 1.5 % copper.

B. SOUTH COAST AREA

(1) Mt. Donaldson Copper - An examination was finally made of the Mt. Donaldson copper prospect north of Sechelt. In the midst of a mountainous granitic area (elevation 4500 feet) a small promontory of muscovite quartz diorite or quartz monzonite is cut by a large muscovite-quartz vein exposed erratically for about 1000 feet. A few hundred feet above this vein several smaller, steep southerly dipping quartz veins aggregating some 3 or 4 feet run up the side of the 300 or 400-foot hill of interest. These veins, or pegmatites as they could well be termed, contain bunches of bornite and chalcopyrite but in no economic amounts. The granitic rock below this contains raisin-sized, evenly distributed gobs of chalcopyrite and muscovite. The spacings of the individual gobs, plus their alteration halo, varies from about 1 inch near the small quartz veins to about 1 foot nearer the large quartz vein. Large talus blocks (about ½ million tons broken off) allowed sufficiently accurate sampling of the only possible zone of economic interest. A 25 sample composite of at least "high average" material assayed 0.01 gold, tr. silver and 0.29% copper.

April 1991 Property file Victoria

92G/NW-5

PRODUCT COPPER	PROVINCE OR TERRITORY British Columbia	N.T.S. AREA 92 G/11	REF. CU 6

NAME OF PROPERTY HOWE COPPER (ZEL) (PACIFIC COPPER) (DONALDSON MTN)

OBJECT LOCATED – Adit – west shore of Smithe Lake.

UNCERTAINTY IN METRES 300. Lat. 49°42'35" Long. 123°27'10"

Mining Division Vancouver District New Westminster

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR

DESCRIPTION OF DEPOSIT

The area is underlain by Cretaceous-Tertiary biotite granite of the Coast plutonic complex. Drilling in the vicinity of the showings indicates these rocks are intruded by an irregular flat-lying, lensoid muscovite granite approximately 450 feet thick, which dips northeast at 15 to 20 degrees. The upper contact of the muscovite granite is altered to a quartz-muscovite-feldspar rock. The long axis of this altered phase has been traced north-northwest for 2,400 feet from Smythe lake. At the lake it has a horizontal width of 1,200 feet.

Disseminated chalcopyrite and bornite, with minor molybdenite and chalcocite(?) occurs over variable widths within the altered zone, which is best exposed on a talus slope extending for 400 feet along the northeast end of Mt. Donaldson on the west shore of Smythe lake.

Quartz veins on the property favour three directions: an east-west set dipping steeply south; an east-west set dipping 40° to 65° north; a north-south set dipping 0° to 20° west. The

see Card 2 ....

Associated minerals or products – Molybdenum, silver.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at elevations of 4,500 to 5,000 feet on Mt. Donaldson, some 13 miles west of Squamish and 3 miles east of the head of Salmon Inlet.

The showings were discovered by Alex Donaldson in 1874. Prior to the Lode Mineral Act the title to the land carried the minerals so about 2 square miles in 8 lots was taken up. Work included a 30 foot drift adit. A small amount of ore was reportedly shipped to Swansea, Wales, in about 1875. In 1877 the 8 lots, Nos. 353, 421-423, 425, 452-454, were Crown-granted to Mr. Donaldson.

The Howe Mining Company, Limited was incorporated in Victoria in September 1877 to acquire the property. The company carried out some exploration and development at intervals until 1883. Work to that date included trenching & stripping and the driving of 3 drift adits on copper-bearing veins. One of the adits, on the west shore of Smithe Lake was driven 88 feet; the second adit lies 1,600 feet to the north. Subsequent events are not known but apparently the Granite Mining & Milling Company and the Howe Group Mining Company, both of Spokane, had some connection with the property in the late 1890's.

Pacific Copper Mines, Limited, incorporated in October 1928, acquired the Crown grants and staked 36 claims and 3 fractions surrounding them. In 1929 the old workings were examined and a Radiore survey carried out. The company charter was surrendered in 1932. No further activity was reported until 1965 when Bralorne Pioneer Mines Limited held the property as the Zel group of 8 claims. Geological mapping and trenching was reported.

Grassett Lake Mines Limited by a November 1966 agreement optioned a 51% interest in the Zel 1-8 claims from the Zel Syndicate, which was owned by Murray Zulaps and associates, of Vancouver. The company staked a further 16 claims (Zel 9-24). Work during 1966-67 included an induced potential survey, and 2,532 feet of drilling in 5 vertical holes. Drill intersections were reported by Graham (22/10/67) as follows:

Hole	Section (Ft.)	Cu %
67-1	0-98	0.30
	98-385	0.12
67-4	38-77	0.38

see Card 2 ....

Mineral Policy Sector, Department of Energy, Mines and Resources, Ottawa
502210

MRB-124

PRODUCT	COPPER	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	92 G/11	Card 2 REF.	CU 6

NAME OF PROPERTY: HOWE COPPER (ZEL) (PACIFIC COPPER) (DONALDSON MTN)

DESCRIPTION OF DEPOSIT (continued)

longest strike recognized is approximately 900 feet but generally the vein length is 300 feet or less. The veins vary in width but are mainly less than one foot wide. The veins occur in the muscovite granite, and in the biotite granite to the northwest of the muscovite granite. Some 9 parallel quartz veins of the north dipping set are mineralized with bornite, chalcopyrite, cuprite, and molybdenite, and contain silver values. Sampling by McDougall (1956) from the portal to the face of a 95 foot drift adit on one of the veins returned values from 0.22 to 12.45% copper. A composite of the above samples assayed a trace of gold and 1.90 ozs/ton silver.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

Hole	Section (Ft.)	Cu %
67-2	0-5.5	0.25
	88.5-117.5	0.55
	273-282	0.30

Narrow higher grade sections associated with quartz veining in hole 67-2 were as follows:

135.5-138	3.07
261-263	1.52

In 1972 the property was held as the Karen 1-16 claims, owned by Ken Sato, of Vancouver. Athena Mines Ltd. optioned the claims in April 1972 and carried out airborne magnetometer and electromagnetic surveys and trenching.

Amax Exploration, Inc. held the property in 1975 as the West 1 & 2 claims (12 units). Geological mapping was reported.

Tonnage and grade have been estimated at ±0.5 million tonnes at 0.2% copper (The Canadian Institute of Mining & Metallurgy, Special Volume 15, Table I, #15).

Minfile

MINFILE NO.: 092GNW005 NATIONAL MINERAL INVENTORY NO.: 092G11 Cu6

NAME(S): HOWE COPPER,MOUNT DONALDSON,ZEL,PACIFIC COPPER,DONALDSON MTN,KAREN,WEST,ANTHONY

STATUS: Prospect MINING DIVISION: Vancouver
N.T.S.: 092G11W
LATITUDE: 49 42 36 UTM ZONE: 10
LONGITUDE: 123 27 08 UTM NORTHING: 5506265
ELEVATION 1417 Metres UTM EASTING: 467400
COMMENTS: Main adit on the west shore of Smith Lake at the summit of Mount Donaldson, between Clowhom and Sechelt lakes, 15 kilometres west-northwest from the pulp mill at Woodfibre (Assessment Report 11619).
LOCATION ACCURACY: Within 500 M

COMMODITIES:	Copper	Silver		Molybdenum	
SIGNIFICANT MINERALS:	Bornite	Chalcopyrite	Pyrite	Tetrahedrite	Chalcocite
	Molybdenite				
ASSOCIATED MINERALS:	Quartz	Muscovite			
ALTERATION MINERALS:	Malachite	Azurite	Cuprite		
ALTERATION TYPE(S):	Oxidation				
AGE OF MINERALIZATION:	Unknown				
DEPOSIT CHARACTER:	Vein	Massive	Disseminated		
DEPOSIT CLASS.:	Epigenetic	Hydrothermal			

DOMINANT HOST ROCK: Plutonic

IGNEOUS/METAMORPHIC/OTHER: Coast Plutonic Complex STRATIGRAPHIC AGE: Upper Cretaceous
ISOTOPIC AGE: 83 Ma DATING METHOD: Potassium/Argon MATERIAL DATED: Muscovite
LITHOLOGY: Muscovite Granite
Biotite Granite
Hornblende Biotite Granite
Aplite Dyke
COMMENTS: Age date from GSC Open File 611.

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RESERVES:

ZONE: HOWE COPPER

CLASSIFICATION: Best Assay
DATE: 1982
SAMPLE TYPE: Grab

COMMODITY	GRADE
Copper	15.1600 Per cent
Silver	194.7000 Grams per tonne 6.26 oz

COMMENTS: Sample from main adit.
REFERENCE: Assessment Report 11619

GEOLOGY:

The Howe Copper occurrence is predominantly underlain by biotite and hornblende-biotite granite of the Cenozoic-Mesozoic Coast Plutonic Complex. Intruding these, and incorporating blocks of the biotite granite, is a sugary textured, fine to medium-grained, vuggy muscovite granite. Drusy quartz crystals often line the vugs. The muscovite granite has a potassium-argon age date of 83 million years (Late Cretaceous) (Geological Survey of Canada Open File 611). Locally, several linear outcrops occur, comprised of bedded lapilli tuff or tuffaceous rock striking northeast with moderate dips northwest.

The most prominent feature of the property are masses of quartz and quartz veins which crisscross the area. At least three sets of veins are recognized in association with major joints. Two areas of locally widespread and irregular quartz masses are also evident. The veins commonly pinch and swell and appear discontinuous in length. The quartz occurs in the form of milky to translucent masses and crystals. Larger veins are vuggy and often filled with drusy quartz, various copper minerals and muscovite. A persistent mineral constituent of the quartz veins is a muscovite mica which occurs primarily along the selvage of the veins. It also occurs as massive books completely enveloped by the quartz and lining the vugs and cavities. Small aplitic dykes, 2 to 10 centimetres in width, transect the area and are locally parallel to the strike of the joint systems.

The intrusive rocks are well jointed in at least two directions; the dominant joint striking east with steep north and south dips, and the secondary system striking 020 degrees and dipping almost vertically.

The quartz veins structurally parallel each other in a confined area. The three sets of veins strike: (1) east with steep south dips; (2) east with 40 to 65 degree north dips; and (3) north with 0 to 20 degree west dips. The veins commonly split and disappear in hairline fractures; locally they split and rejoin. The veins vary up to 80 centimetres in width but most are less than 30 centimetres wide. The longest strike length is 274 metres but is generally less than 91 metres.

Massive bornite and chalcopyrite is associated with the quartz veining but are also found as minor blebs within vugs of the muscovite granite. Flakes of molybdenite and pods of tetrahedrite and chalcocite were also identified. Cuprite, malachite and azurite are also locally evident and represent oxidation alteration mineralogy.

A total of 9 quartz veins have received work in the past. A main adit is developed on the main vein with 3 parallel veins in the hangingwall (HW 1, HW 2 and HW 3 veins). These 4 veins strike east and dip south at 45 to 65 degrees. Approximately 61 metres south of the main adit vein are 3 quartz veins striking north with flat dips (10-20 degrees) to the west. Two other veins are situated on the saddle north and northeast of Slippery Lake, 700 metres northwest of the main adit on Smithe Lake.

Past work included adits, trenching and stripping.

BIBLIOGRAPHY:

GSC OF 611
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GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
EMPR FIELDWORK 1980, pp. 165-178
EMPR ASS RPT *725, 4003, 8822, *11619, 18609
EMR MP CORPFILE (Grasset Lake Mines Limited; Athena Mines Ltd.; Pacific Copper Mines, Limited; Seatac Resources Inc.)
EMPR AR 1876-429; 1877-413; 1917-F281; 1922-N251; 1924-B244; 1928-C389; 1929-C395; 1931-A173; 1965-222; 1966-245; 1967-62
EMPR GEM 1972-277
EMPR EXPL 1975-E106; 1983-219
EMPR PF (Geology maps; claim map)
GSC RPT 1908, No.996, p.36
GSC SUM RPT 1887-88, Part II, p. 102R
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: NO
DATE REVISED: 900606 REVISED BY: GO FIELD CHECK: NO

MINFILE NO.: 092GNW005

To properly test for the mica product or products that might be produced from this deposit a 500 kilogram sample should be collected from the quartz muscovite granite and sent to a testing lab for crushing tests, seperation tests both by air seperation and flotation, screening tests and final sizing of the end product. This sample should include some of the material from round the veins as this might produce some of the coarser muscovite.

FINAL CONCLUSIONS

Based on this confirmation of some of my work in the field, new data and the new research this deposit looks even more encouraging

The geological setting and the size of the quartz muscovite granite confirms the possibility that there is a chance of there being a fairly large tonage.

There would seem to be gold and silver in the system.

Comminution of the rock should be cheap and easy.

The muscovite mica might be a very important constituent.

130+00N Lake
Gully
T10
185° PR 90-18
3a
185° / 93° Considerable fracturing
Jointing very pronounced 93° to 98°
Trees
PR90-20
PR 90-17
PR 90-16
PR90-15
Vein trenched for 20 metres
185°
Pegmatite Veins 8" - 12"
Malachite along fractures in the granite
Steep Slope bush & cliffs
Trees
40°
Minor quartz Veins
PR90-14
Rubble
Numerous quartz veins up to 10 cm. muscovite No mineralization
180°
T10
PR90-13
Pass
Gully
Rubble
T11
Irregular quartz Vein 3 metres wide
30°
Irregular quartz veins
Large Rubble
Trees
Some outcrops of quartz biotite Granite
40°
Cliff
Quartz Rubble No mineralization
Malachite Stain on Muscovite granite
Small irregular quartz Veins
Irregular quartz mass
T12
DDH 90° hole
Some malachite Stain on outcrop and boulder faces
2' wide 222° dip to south No mineral
Helipad
T13
old camp
Timber blocks in Rubble. Possible DDH on top
Much malachite Stain
quartz Veins
Cliff
T14
Core
PR90-9
T16
T15
PR90-8
MMS 90-4
T9
PR 90-7
Creek
T8
T7
PR90-6
T6 1" quartz stringer with muscovite pyrite chalcopyrite bornite
Slippery Lake
Smithe Lake
PR90-10
PR90-11
PR90-12
Large quartz Veins up cliff
Much malachite Stain
T5
T4
T3
T2
~45° Slope
LCP
T1
Cu 4 Reduced Claim
South boundary per A.R. 752

130+00N
110+00N
90+00N
70+00N
50+00N
50+00E
70+00E
90+00E
110+00E

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,242

LEGEND

- Cut or pit
- Adit
- Gully or intermittant stream
- outcrop boundary
- Geological boundary
- Geological boundary assumed
- PR 90-6 Sample site

GEOLOGY

1. Coast Range Plutonic Complex 1a Quartz Biotite Granite
2. Quartz Muscovite Granite
3. Dike Rocks 3a Dacite - Rhyolite
4. Quartz Veins, pods & irregular bodies

N 22

TOPOGRAPHY & GEOLOGY

MT. DONALDSON
Vancouver M. D.
49° 42' 22" N 123° 27' 19" W
Cu 4 Reduced claim

25 0 25 50 75 metres

To accompany 'GEOLOGICAL REPORT' on the Cu 4 Reduced Claim Smithe Lake, Vancouver M.D. by D.K. Bragg Dated April 15, 1991

SCALE: 1 - 1000	DATE: APRIL 15, 1991
DRAWN BY: D.K. Bragg	FIG: 4