



Province of  
British Columbia

GEOLOGICAL SURVEY BRANCH

LOG NO. NOV 20 1989 VAN 1

ACTION  
Ministry of  
Energy, Mines and  
Petroleum Resources

MEMORANDUM

FILE NO. LAND USE

Mailing address: Parliament Buildings, Victoria, British Columbia V8V 1X4 Telephone: (604) 356-2818 Fax: (604) 356-8153

To: G. Bruce McRae  
ADMM

November 15, 1989

*Giant Copper*  
883331

RE: SKAGIT VALLEY RECREATION AREA - HOPE DISTRICT CHAMBER  
OF COMMERCE LUNCHEON

The topic of the Hope District Chamber of Commerce luncheon meeting on November 8<sup>th</sup> was mine development adjacent to the Skagit Valley Recreation Area. The Chamber wanted to know more about mineral resource issues prior to commenting on Ministry of Parks' Draft Management Plan for the Recreation Area.

Henry Ewanchuk (President, Bethlehem Resources Corp.), Brian Kynoch (V.P. Engineering, BRC), and myself attended as guest speakers. Ministry of Parks declined to attend. About 14 Chamber members and a local journalist were present.

Mr. Ewanchuk and Mr. Kynoch discussed their **Giant Copper** property which is situated along the northern boundary of the Recreation Area. They reviewed the exploration program, potential economic impacts on Hope, and strongly emphasized their need to access the adjacent **Invermay** Cu deposit, situated just inside the Recreation Area, to enhance the economic attractiveness of the Giant Copper deposit. The Invermay cannot be explored at present because of the ongoing park planning process for the Skagit Valley R.A.

BRC emphasized that the present bullish copper prices provide a narrow window for underwriting mine development. They urged the Hope Chamber of Commerce to write government to have the Invermay deposit excluded from the Skagit Valley Recreation Area.

My presentation briefly outlined Government's mineral exploration in Recreation Area policy, summarized mineral occurrence and potential deposit types for the Rec Area, and outlined EMPR's intentions to carry out a mineral potential study.

Hope Chamber of Commerce member's comments fell into three categories:

- 1) a high priority must be placed on maintaining Skagit River water quality
- 2) private industry should be given a further chance to explore for minerals in most of the Rec Area.

3) a multi-resource use option for Skagit Rec Area seems to be preferred to all Class A Park option.

I have attached a copy of my information handout, an excerpt from BRC's annual report on the Giant Copper deposit, and will forward BRC's presentation notes, and the newspaper article when received.

RECOMMENDATION:

EMPR raise the issue of possible limited exploration by BRC on the Invermay, with MoP at the next joint executive meeting.

Exploration could be managed under the protocol agreement with area remaining under Recreation Area status.

IMPLICATIONS:

Bethlehem Resources may be able to bring the Giant Copper deposit close to prospectus stage if exploration on the Invermay were successful.

Local area residents would benefit from increased economic activity

Mineral exploration in this area would meet strong public opposition by those in favour of park status



Rolf Schmitt  
Land Use Geologist  
Geological Survey Branch

cc WR Smyth  
G McArthur  
HP Wilton  
M Turner

# Giant Copper

Plan view of geology illustrating present underground workings and A.M. Breccia ore zone at Giant Copper. Figure 2

Our Giant Copper property near Hope, B.C., continues to show great promise.

Previous exploration programs on the northern section of the major mineralized zone, the AM Breccia, have proven mineral reserves of 2.7 million tons grading 1.35 percent copper, 0.017 troy ounces of gold per ton, 0.72 troy ounces of silver per ton and 0.033 per cent molybdenum.

This year's program has expanded these known reserves by the discovery of a second mineralized breccia zone known as the No. 1 Anomaly and of several significant sections of copper mineralization in the central and southern portions of the AM Breccia.

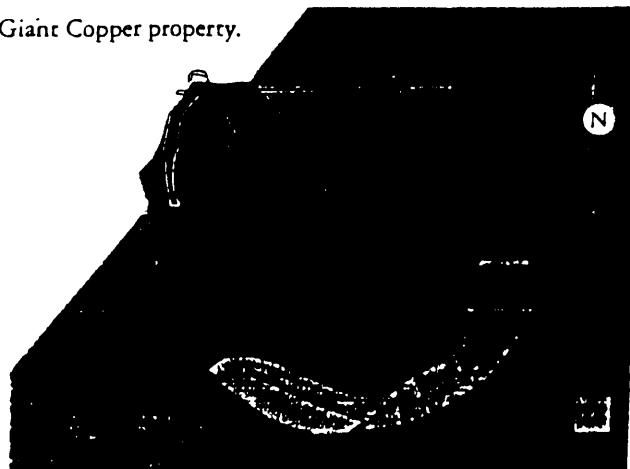
Based on these very positive results, further exploration will be carried out during the coming year to determine the geometry and extent of these newly found mineralized zones and to continue to expand reserves.

For several years, a provincial moratorium on development has prevented any exploration work on the half of the Giant Copper property which is located in the Skagit Valley Recreation Area. However, the provincial government has indicated that the recreation area boundaries will likely be adjusted during the next year to exclude our property, permitting us to begin working that half of the site.

This is very encouraging news since the section now enclosed in the recreation area includes the Invermay Breccia which contains copper, lead, zinc and silver mineralization. We believe that development of this area will significantly enhance the great potential of the Giant Copper property.

Reserves — 2,779,984  
1.35% Copper  
0.017 tr.oz/ton Gold  
0.72 tr.oz/ton Silver  
0.03% Molybdenum

GIANT COPPER  
Plan of A.M. Breccia Zone



MINERALIZED ZONES

HIGH GRADE CORE  
(North Zone)

NORTH ZONE

CENTER ZONE

SOUTH ZONE



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November 8, 1989

To: Hope and District Chamber of Commerce

RE: Information Luncheon on Skagit Valley Recreation Area

The Ministry of Energy, Mines and Petroleum Resources wishes to thank the Hope and District Chamber of Commerce for inviting us to this luncheon.

Attached is a brief review of the mineral resources of the Skagit Valley Recreation Area. We hope you find the information useful and welcome your continued interest in the mineral resources of the area.

For further information please contact:

Rolf Schmitt  
Land Use Geologist  
Geological Survey Branch  
Ministry of Energy, Mines and Petroleum Resources  
756 Fort Street  
Victoria, B.C.  
V8V 1X4

phone: 356-2288  
fax : 356-8153

Thank you



MINERAL RESOURCES OF THE SKAGIT VALLEY RECREATION AREA -  
SOUTHWEST BRITISH COLUMBIA

INTRODUCTION

Skagit Valley Recreation Area was established in 1975 to manage recreation and preserve biological diversity over 32,000 hectares in the Skagit Valley and Cascade Ranges adjacent to the west side of Manning Provincial Park (figure 1). In a recent draft management plan for the area, Ministry of Parks proposes Class A Park status as one option for the most of the area.

Agreement was reached in late 1988 between the Ministry of Energy, Mines and Petroleum Resources and the Ministry of Parks on the boundary for a mineral potential study in the Skagit Valley Recreation Area (figure 2). The study area encompasses about 12,500 hectares of moderate to high mineral potential east of the Skagit River; it was agreed that the Ministry of Energy, Mines and Petroleum Resources would fund the study.

MINERAL RESOURCES

The Skagit Valley Recreation Area has been subject to mineral exploration for nearly 90 years, however exploration activity was curtailed nearly 10 years ago because of government policy.

Nineteen mineral occurrences are known, and mineral claims cover a large area north of Twenty-six Mile Creek (figure 3). Ownership of existing mineral claims in the Recreation Area continues, although exploration and new claim staking are not allowed while the current planning study is underway.

A compilation of existing geological data for the Recreation Area indicates that regional geological mapping at 1:250,000 scale, and several mining company assessment reports are available. Geological mapping at greater detail (1:50,000), and detailed geochemical sampling are required to support land use decisions.

Mineral exploration along the Hozameen Fault northwest of the Skagit Valley Recreation Area over the last decade resulted in the discovery of numerous gold deposits and a brief period of mining at the Carolin deposit (figure 1). Geological mapping and mineral deposit studies by Dr. G.E.

Ray of the Ministry along the Coquihalla Gold Belt and adjacent areas identified three mineral deposit target types.

- a) gold associated with the Hozameen Fault,
- b) copper-cobalt massive sulphides in Hozameen Group greenstone rocks,
- c) copper-molybdenum-silver mineralization related to granitic intrusions.

The Skagit Valley Recreation Area has similar geology, and considerable evidence for all three types of mineralization.

Gold, silver, lead, zinc and copper mineralization occurs along the Hozameen Fault trace in the vicinity of Silverdaisy Creek; similar mineralization occurs along Twenty-six and Twenty-eight Mile Creeks near smaller, possibly related faults.

Copper-cobalt mineralization may occur in Hozameen rocks east of the Skagit River. Mineral showings in the Shawatum Creek area and widespread cobalt anomalies detected during a regional stream sediment program support this model.

Copper, silver, molybdenum (with minor gold, lead, zinc and tungsten) mineralization occurs where younger granitic rocks have intruded older sedimentary or volcanic rocks. High potential for this deposit type occurs along the northern boundary of the Recreation Area between the AM deposit northwest to Skagit Bluffs. Detailed geological mapping and geochemistry may identify similar mineralization elsewhere in the Skagit Valley Recreation Area.

#### MINERAL POTENTIAL STUDY

The Ministry of Parks and Ministry of Energy, Mines and Petroleum Resources have agreed that the area generally east of the Skagit River would be subject to a government-funded mineral potential study (figure 2). The objective of the study is to provide detailed geological information for land use decisions.

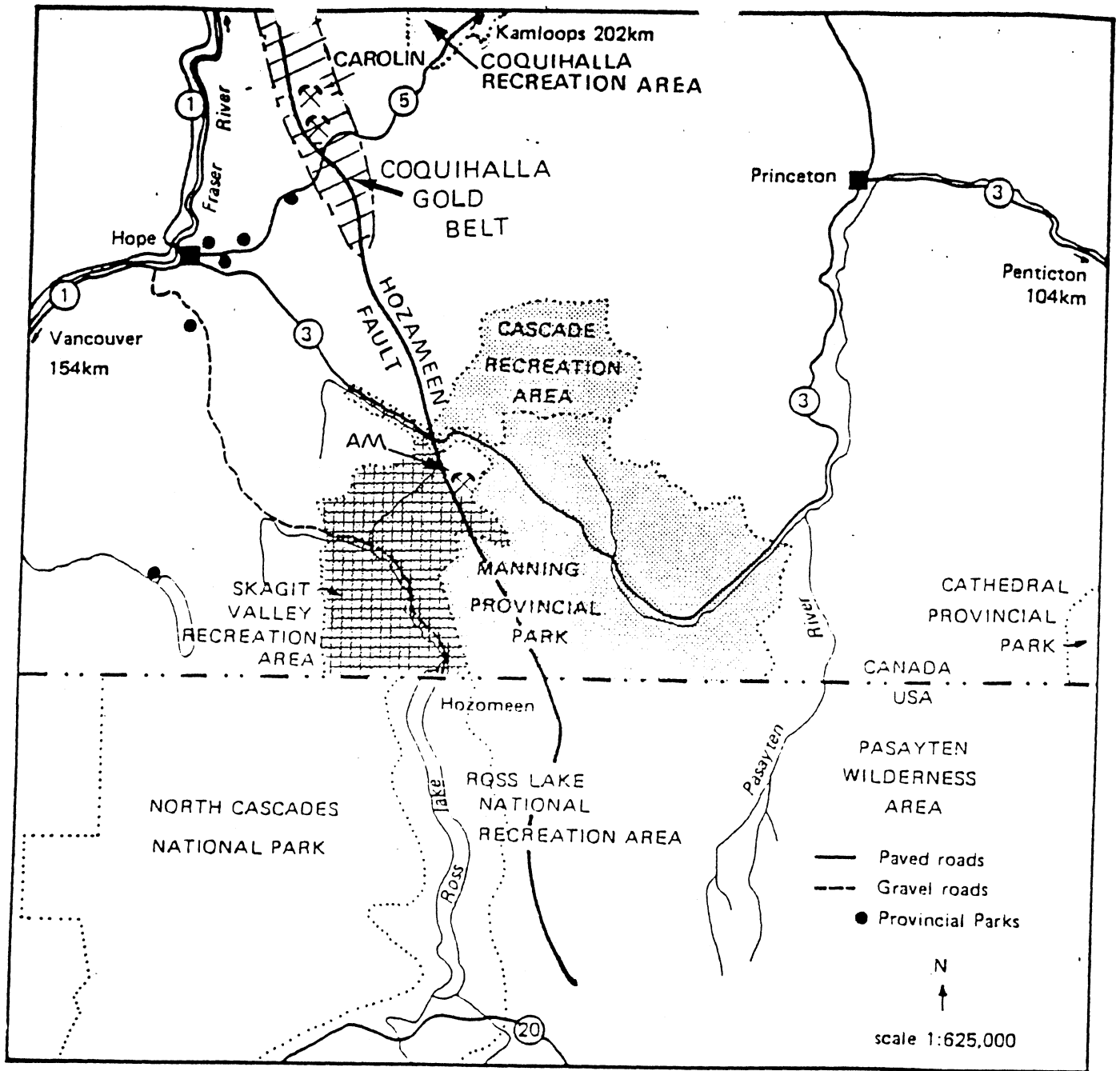
The Geological Survey Branch has prepared field and budget proposals for a two year program, anticipated to commence in 1990. The program would entail detailed geological mapping, geochemical sampling, examination of all known mineral occurrences, and possibly geophysical surveys.

At the conclusion of the study, government may recommend: lands for exclusion from Park or Recreation Area status and hence open to mineral exploration; lands that may be subject to time-limited exploration; and/or lands to be designated as park, or land for further review in the park planning process.

If government decides to permit further mineral exploration on lands designated as Recreation Area, then the existing protocol agreement between Ministry of Parks and the Ministry of Energy, Mines and Petroleum Resources will apply.

The Ministry of Energy, Mines and Petroleum Resources will administer tenure, and coordinate the Mine Development Review Process for lands open to mineral development.

Rolf Schmitt  
Mineral Land Use Geologist  
Geological Survey Branch  
Ministry of Energy, Mines and Petroleum Resources



**FIGURE 1**

REGIONAL SETTING OF AM AND CAROLIN DEPOSITS IN RELATION TO HOZAMEEN FAULT, and LOCATION OF PARK AND RECREATION AREAS IN THE CASCADE MOUNTAINS

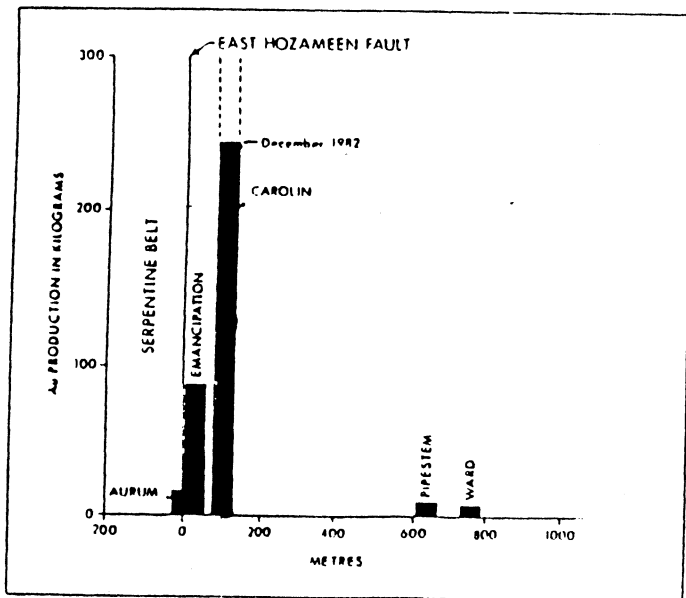


Figure 21b Relationship between gold production from the Belt and distance from the Hozameen fault

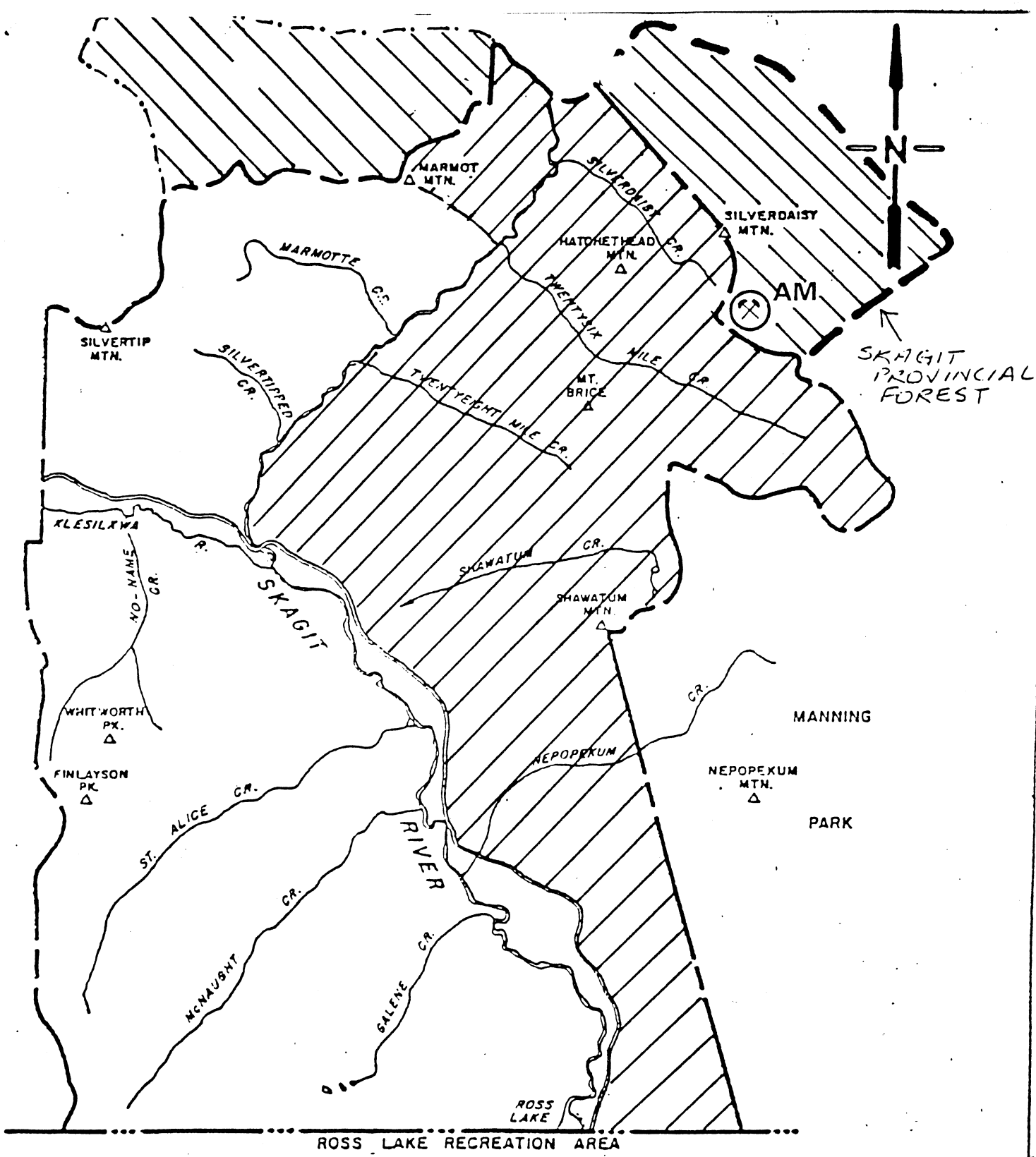
after G.E. Ray (1984)



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources







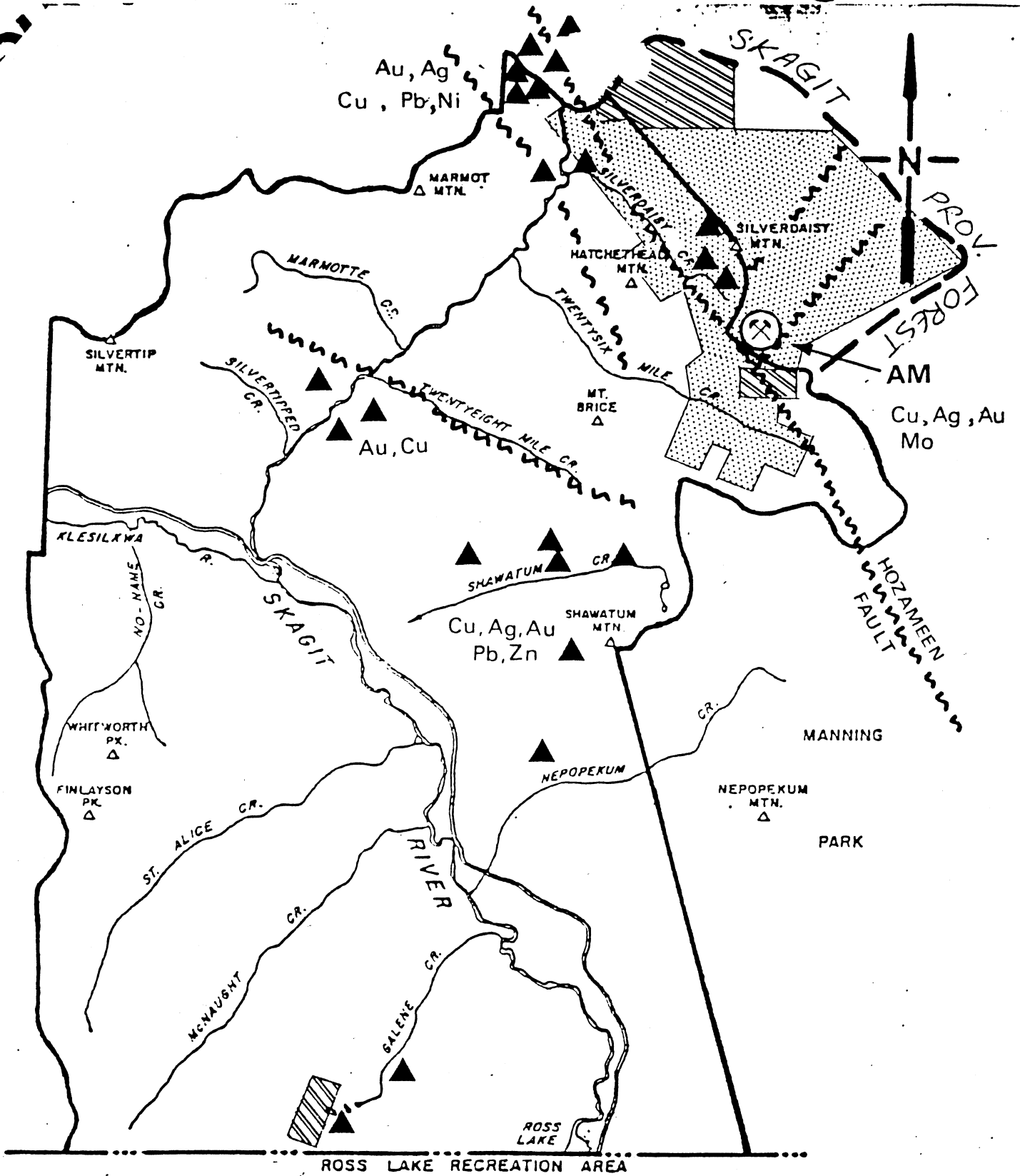
# SKAGIT VALLEY RECREATION AREA

Scale 1" = 2 Miles

FIG. 2

## LEGEND

-  Mineral Resource Study Area Funded by MEMPR
-  Optional - Funded by MEMPR



# SKAGIT VALLEY RECREATION AREA

Scale 1" = 2 Miles


FIG 3

## LEGEND

 MINERAL DEPOSIT

 PROSPECT

 MAJOR FAULT

 CLAIMS OWNED BY BETHLEHEM RESOURCES (APPROX)

 CLAIMS OWNED BY INDIVIDUALS



Bethlehem  
Resources  
Corporation

November 09, 1989

Mr. Rolf Schmitt  
Land Use Geologist  
Geological Survey Branch  
Ministry of Energy, Mines and Petroleum Resources  
756 Fort Street  
Victoria, B.C.  
V8V 1X4

Re: Skaqit Valley Recreation Area

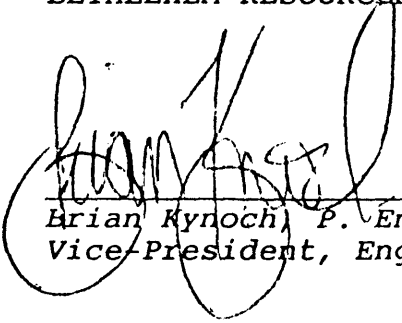
Dear Rolf,

It was a pleasure to meet you at the luncheon put on by the Hope Chamber of Commerce. As requested, please find attached a copy of the presentation I made at the luncheon.

Please call if we can supply you with any additional information on the Giant Copper Property.

Yours very truly,

BETHLEHEM RESOURCES CORPORATION

  
\_\_\_\_\_  
Brian Kynoch, P. Eng  
Vice-President, Engineering

BK:lss  
Enc.

a: |schmitt.let

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HOPE CHAMBER OF COMMERCE LUNCHEON

SPEECH BY BRIAN KYNOCH

I am very pleased about the opportunity to address you today because the mining business needs your help ... and I believe it is in the interest of your group and your community to give it. By way of background, I'll illustrate with reference to our specific project. In 1987 Bethlehem purchased the Giant Copper Property from Campbell Resources for \$1,000,000 dollars. The property is located approximately 35 kilometres east of Hope on the slopes of Silverdaisy Mountain, adjacent to the western boundary of Manning Park. The property has a long history of mining activity and consists of two main groups, the AM and the Invermay, which were joined to form the Giant Copper property in 1956. The AM and Invermay groups were staked in the 1930's and the area which now forms the Giant Copper property has been explored intermittently since that time.

Several companies, including Cominco, Mogul Mining, Canam Copper and Giant Mascot Resources have explored the property over the years, and in excess of 17,000 feet of underground drifting, 2,000 feet of underground raising and 50,000 feet of drilling have been completed on the property. Over \$7,500,000 dollars worth of work at today's prices, much of which has found its way into the economy of Hope, which has both mining people and an advantageous location to provide services for this project.

The Invermay group located on the western slope of Silverdaisy Mountain had a limited amount of high grade silver-lead-zinc ore shipped from it in 1933 and again in 1941. These shipments totalled 97 tons grading 103 ounces per ton silver, 11% lead and 11.8% zinc. The vein containing this material was very narrow and erratic and no further production occurred. Later, it was recognized that the high grade silver vein was surrounded by disseminated copper mineralization. This copper mineralization has undergone little exploration and because of limited data available, no tonnage estimates can be made, but there appears to be good possibility of developing a large tonnage of copper-gold mineralization which may be economically feasible.

The AM side of the property since being staked in 1930 has undergone significant exploration and development work. Ninety-five percent of the work on the entire property has been on the North Nose Zone of the AM Breccia. This work has proven a deposit of approximately 3.0 million tons grading about 1.3% copper, 0.017 oz/ton gold and 0.75 oz/ton silver.

This deposit was readied for production by drifting, raising and mill site preparation work that began in 1955 as Mogul planned to put it in production. The area was part of Manning Park, which was established in 1941, but mining in parks was not prohibited and permits for mining were issued for the development. However, a drop in the price of copper in 1957 caused work towards production to be halted.

In 1964, Giant Mascot Mines, the forerunner to Campbell Resources from whom we purchased the mine, optioned the property. Giant Mascot picked up on the drifting and raising work started by Mogul in hopes of putting the AM mine into production. G.M., however, after doing substantial amounts of work in 1964 through 1967, had to stop work as copper prices dropped again. During this period of work in the mid-sixties, the AM Breccia portion of the property was still a part of Manning Park. But Giant Mascot and the Government, after going through the process of permitting the mine in the park a second time, realized that mining and parks were not compatible and the area around the AM Breccia was removed from Manning Park in May, 1968 and returned to Provincial Forest status, which has no special restrictions on mining exploration or development.

The point to all this history is that we are probably at the beginning of a new copper age -- prices in the last two years have consistently exceeded US \$1.00 per pound -- that means exploration and development funds are again available for copper projects. We need to be able to work and move now to take advantage of the development window. Otherwise, other areas and projects will get the funding.

In 1973, the Skagit Valley Recreation Area was formed and although the AM portion of the Giant Copper property was not included, half the property containing the Invermay zone was. This is illustrated on the plan that we have handed out; the yellow area is Provincial Forest and contains the AM Breccia, the orange area highlights the portion of the Skagit Valley recreation that contains the Invermay half of the Giant Copper property. Giant Mascot did not resist this move because mining exploration and development work was specifically allowed for in recreation area legislation. The only new stipulation on mining work in recreation areas was that the Ministry of Parks as well as Ministry of Mines had to approve the work.

From 1970 to 1982, small diamond drilling programs were completed every couple of years, however no major programs of exploration or development occurred.

During the 1983 to 1987 period, almost no exploration work was carried out anywhere on the property as copper prices remained depressed. Bethlehem acquired the property near the beginning of the recent rise in copper prices and we were able to raise money to spend on the property. Since acquiring the property in 1987, we have spent in excess of \$900,000.00 on exploration.

In the early summer of 1988, we had exploration funds and began to apply for permits to begin exploration work on the property. Everything was proceeding well and Ministry of Parks' representatives assured us that as long as we followed the regulations a resource use permit for exploration on our claims in the Skagit Valley Recreation Area would be granted. We are still waiting. The problems with regard to mining exploration in Strathcona Park erupted and the Parks department slapped a province-wide moratorium on resource use permits. So for the past two summers, we have been restricted to exploring one-half of our claims. This work which included the preparation of a feasibility study shows that the North Nose Zone of the AM Breccia is marginally feasible at today's prices. We are very anxious to carry out exploration work on the Recreation area half of the claims, as it may well contain the additional resources required to make the property feasible. In fact, as the Invermay or recreation area side is the least explored, its potential is unknown and may even be greater than the AM side.

Before reopening the Skagit Valley Recreation Area to exploration, the provincial government has decided to complete a resource management plan with public input. The Ministry of Parks is preparing the plan and has recently held a series of public meetings in Penticton, Princeton, Hope, Vancouver and Seattle. Up until the holding of the meeting, we were led to believe, and had been assured, that the multiple use option was being proposed by the Ministry of Parks. That is:

- 1) high mineral potential and existing claim areas to be reopened to exploration and staking,
- 2) study by Ministry of Mines of areas surrounding known mineral potential before making any decision on these areas and,
- 3) areas of low mineral potential to become Class A park therefore not allowing any mineral exploration.

However, at the meetings we became concerned with the seeming change in attitude of Parks in their presentation and in the materials they circulated. I do not think we are being alarmist when we are shocked by statements contained in the draft management plans such as:

- . "Once the existing and potential mineral tenures have been extinguished, Ministry of Parks will seek Class A park status for all or part of the Skagit Valley Recreation Area."
- . "Objective: To reclassify all or part of the recreation area to Class A provincial park status once existing and potential mineral tenures are extinguished."

The quotes along with comments at the meetings by Vancouver MLA Tom Perry regarding the future for mining in the Skagit Valley Recreation Area indicated that the wiping out of all mineral tenure, regardless of the potential, was actively being promoted.

It is our opinion that making the entire area Class A park would be a shortsighted, if not just silly, decision. Towns such as Hope depend on resource development for jobs, and the province as a whole depends heavily on the mining industry for tax revenue. We believe that the environment and parks are important, but land with good mineral potential, in this case with known mineral reserves, is far less common than good parkland and must be kept available for mineral exploration, development and production if mining is to continue its important contribution to our economy.

Proposals of the Parks Department that areas be given a 10-year period for development of viable ore bodies are unrealistic and based on ignorance of the industry. It is usual for mining properties to undergo several decades of exploration before results and conditions such as metal price combine to make a deposit a viable mine.

I am here today to enlist your help in ensuring that the valuable mineral resources we know to exist within and adjacent to the Skagit Valley Recreation Area are kept outside the boundaries of a Class A park. Surely with the large E.C. Manning Park already in place, and the environment of the Skagit Valley protected by our province's stringent mining and environmental regulations all concerns can be met with this area maintained as a multiple use area. We have provided copies of a response sheet prepared by the Ministry of Parks that have to be completed and returned by December 1, 1989, on which you can make your views as to the future of the recreation area known to the Park's people.

Thank you for giving us the opportunity to express our views and if you have any questions, we'd be happy to try and answer them.

A: |speech.gia