

*Send to Bert Reeve*

GEOLOGY OF THE EIGHT MILE LAKE REGION, BRITISH COLUMBIA  
A SUMMARY

*Repnik or Castleman would on earlier project have looked at this*

INTRODUCTION

This report is a summary report based on the comprehensive study entitled 'Geology and Ecology, Eight Mile Lake Region, British Columbia' prepared by us and submitted to Mexxon Mines Limited on September 14th, 1973. Only the geology portion is summarized; the ecology portion has been omitted.

The area under investigation in this report encompasses four placer mining leases, numbered 6780, 6783, 6938 and 6939 presently held by Dubarry Resources Limited and optioned to Mexxon Mines Limited.

The Eight Mile Lake Area is located some seven miles northeast of Barkerville, British Columbia or about 450 miles northeast of Vancouver, British Columbia. Access to the area is gained by two all weather gravelled roads; one from the town of Wells through Downey Pass and the other from near Barkerville through Bowron Lake road to Summit Creek, and from there by logging road.

Geological investigations were conducted to explain the distribution of the placer gold occurring in the leases, and thus to predict the size and extension of the deposits beyond the locations of sampling or present mining. Information garnered in the field and gleaned from published and unpublished sources served as the basis for the derivation of deductions leading to the postulation of location, size, and depth of burial, and value to the as-yet-unmined pay streak.

## GEOLOGY

### Bedrock Geology

The bedrock of the area consists of metamorphosed sedimentary rocks of the Cariboo Series and encompasses the following formations: Pleasant Valley, Barkerville and Richfield. The Richfield Formation does not outcrop in the area, but the former two do. The Barkerville Formation is made of metasedimentary rocks, primarily limestone. The Pleasant Valley Formation is composed mainly of sheared argillaceous rocks. A large number of pyritic quartz veins dissect the formations. The gold occurs in quartz and in the pyrite.

### Tertiary Era and Quaternary Era

During the Tertiary Era in the Barkerville area, gold contained in the quartz veins and in the pyrite, became concentrated as placer gold through erosion of the streams. No gold placer deposits were produced in the Eight Mile Lake area. In this area the gold is derived from the reworking of gold in the glacial till. It occurs between two till sheets a variable distance below the surface. There is no gold present on bedrock. The pay streak is positioned on false bedrock or the hardpan of the oldest till.

In the Barkerville-Wells area, only a few miles to the south, placer gold is present on bedrock below glacial deposits. There is evidence that during the Pleistocene (glacial age) two glaciers covered the Eight Mile Lake area advancing from the Barkerville-Wells area. The first glacier was much larger than the second and it picked up a considerable quantity of placer gold incorporating it into the till. During the ensuing Interglacial period streams eroded this till and produced a new placer deposit. This constitutes the pay streak at the Eight Mile Lake.




The interglacial pay streak was covered by till of the second or last glacier without significant erosion of the streak.

Figure 1

same as Figure 5 in 'Geology and Ecology of Eight Mile Lake  
Region, British Columbia' September 1973

FIGURE 5 Surficial Deposits, Eight Mile Lake Area

LEGEND

- |   |   |
|---|---|
| G   | Ground moraine                                    |
| H   | Hummocky moraine                                  |
| K   | Kame  |
| s   | Swamp, bog, muskeg                                |
| 1.  | Limnetic zone, water depth greater than five feet |
| 2   | Area of hydraulic mining                          |
| 3   | Tailing fans of hydraulic mining                  |
| 4   | Piles of boulders from recent mining              |
|  | Artificial excavation                             |
|  | Possible extension of pay streak                  |
|  | Geological boundary; definite approximate         |

SCALE 1 inch = 620 feet



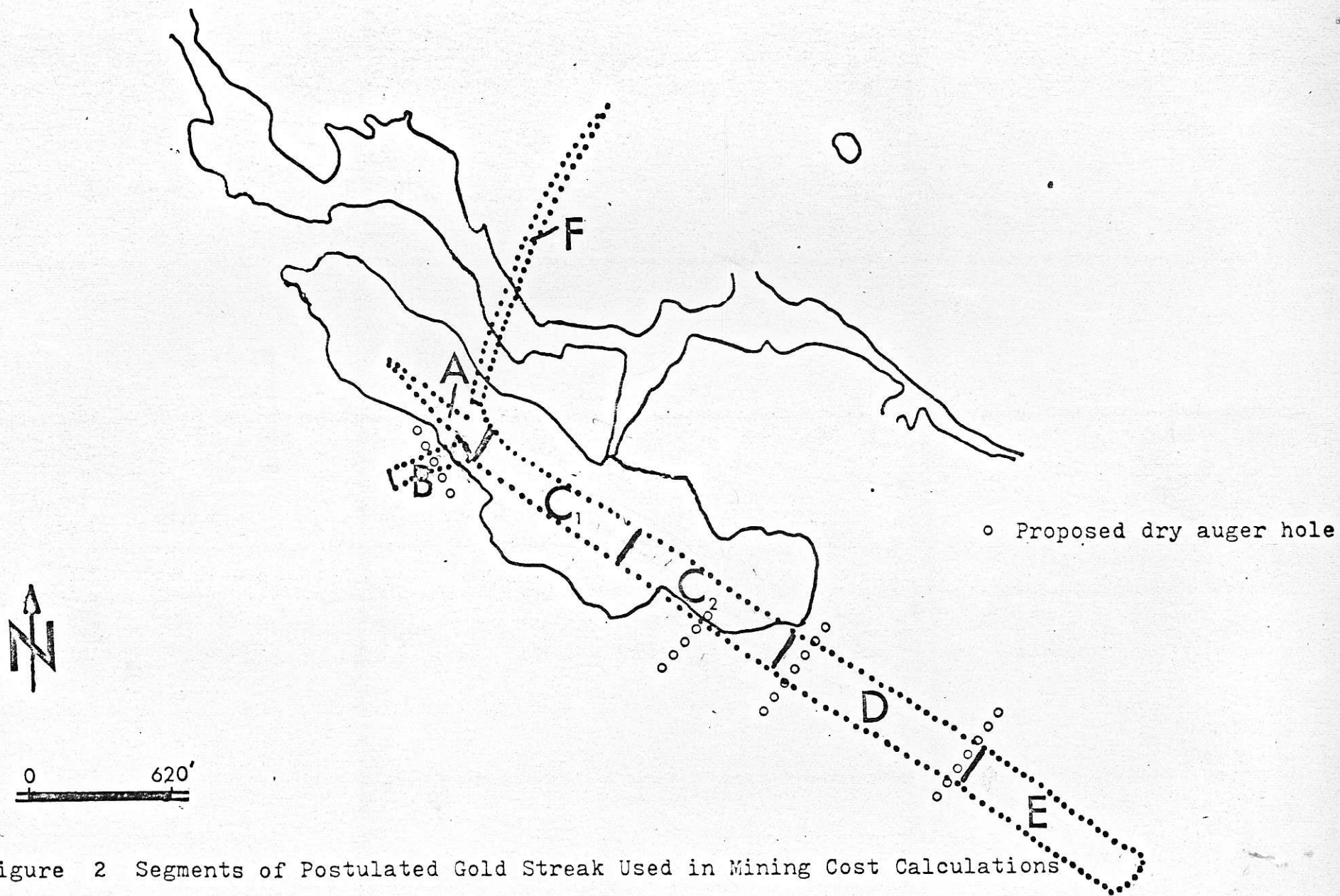


Figure 2 Segments of Postulated Gold Streak Used in Mining Cost Calculations  
 Eight Mile Lake, British Columbia

## POSTULATED MINING COSTS

The gold pay streak is positioned from 20 to 80 feet below the surface. The overburden and the underburden contain only low values of gold. The total amount of gold calculated for the yet unmined pay streak situated within the Dubarry claim is approximately 192,750 ounces. Taking the present value of \$132 per ounce the total value of the above is approximately 25 million dollars.

The cost of mining of the pay streak, provided the Eight Mile Lake and the pay streak gravels would be drained, was approximately 2 million dollars in 1973. Assuming a 30 per cent increase in mining costs since that time and adding to it 20 per cent for contingency, the mining of the dry pay streak would cost approximately 3 million dollars. It should be again stressed here that the reserves have not been proven and hence testing of the deposit is of primary importance.

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February 17, 1976

Mr. Bill Alley,  
DuBarry Resources Ltd.,  
8167 Main Street,  
Vancouver, B.C.

Dear Mr. Alley:

On January 21st, 1976 we submitted to you a report dealing with exploration leading towards mining of gold in the Eight Mile Lake Claim Block.

Discussions between us revealed that proving of resources by using the following approaches was either too costly or not feasible at the present time:

1. Draining of Eight Mile Lake. The cost of draining the lake could be in excess of \$55,000 without proper evaluation of the gold potential.
2. Dry-auger drilling in order to properly sample the deposit is not feasible because of the postulated high water content of the gold-bearing gravels.
3. Digging by hand of at least five shafts to the pay zone in order to evaluate the gold potential of the deposit would cost in excess of \$60,000.

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4. Digging of open excavations by a drag line to the gold pay streak cannot be properly evaluated because the depth to the pay streak and also its exact location are not known.

On February 7th a meeting was held in your office at which you acted as chairman. At the meeting it was decided to evaluate exploratory drilling for the purpose of the defining the location of false bedrock and most likely also the location of the pay streak. After the drilling proper steps would be taken in order to plan evaluation of the resources.

The cost of the preliminary drilling for five days is as follows:

DRILLING:

Drilling with 2 man crew, \$600/10 hr. day .....	\$3,000
Trucking of rig to site @ \$1.40/mile	
600 miles @ \$1.40 .....	840
Room and board, \$30/man day, 2 men .....	300
Crew travel, \$17/man hr. (while on airplane	
and going to and from camp in pickup) .....	485
Air Fares .....	300
Pickup truck rental .....	200
Auger bits .....	400
	<u>\$5,525</u>

...3

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DRAINING OF EIGHTH MILE LAKE.

Draining of the lake is necessary if the "open pit mining" of the deposit is considered. The existing natural (and improved, at one time) drainage channel in the south-east corner of the lake can be used for this purpose.

The problem can be split into three items or operations.

The excavation of the upland channel.

The excavation of a lake bottom channel from the lake edge to the "deep area".

The excavation (dredging) of the muck overlying the till in the "deep area".

Dredging of the lake bottom channel (muck and till) will result in an approximate volume of fifteen cubic yards per lineal foot or a total of appr. 10,000 cubic yards, allowing for an assumed depth of five feet of muck and ten feet of till. The bottom width of the channel would be ten feet with side slopes of 1 to 1 in till and 3 to 1 in muck (hor. to vert.)

Dredging of the deep hole of only the muck would involve approx. 45,000 cubic yards (five feet deep and an equiv. of 800 ft. by 300 ft.)

Allowing an assumed cost of \$1.00 per cubic yard of solid material dredged, the cost of dredging amounts to \$55,000.00

A more economical possibility could be to dredge only the lake bottom channel, dewatering the deep area by pumps and excavating the muck from this area by conventional stripping techniques as part of the overburden removal program. This would lower the cost by approx. \$20,000.00

Since some of the lake bottom must be dredged regardless of the above alternates, and this work can only be done in the summer, it makes sense to schedule the excavation of the upland channel for the summer, also.

A dragline and a crawler tractor (possibly equipped with a ripper) should be used for this operation. The dragline should be of the one cubic yard size or larger with a tractor equal to a Cat D6 or larger. Allowing for a channel approx. 400 ft long, with a ten foot width on the bottom, and 1 to 1 sideslopes, a total quantity of approx. 9,000 cubic yards is assumed. A sum of \$20,000.00 should be considered for this operation, allowing for mobilization and demobilization (\$1,500), pioneering and preparation (\$1,500), personnel travel and subsistence (\$1,000), excavation itself (\$11,000), and a contingency sum of \$5,000. This operation should be completed in two weeks.

*20 ft deep*

No provision has been made for the excavation of bedrock in this channel. If this became a reality, and ripping or blasting were required, an additional cost of about \$15,000 could be realized.

*[Signature]*  
*Jan 20/76*