



THE GOVERNMENT OF  
THE PROVINCE OF BRITISH COLUMBIA  
DEPARTMENT OF MINES AND PETROLEUM RESOURCES  
VICTORIA

WHEN REPLYING PLEASE REFER TO

FILE NO. ....

673852  
93m/2E

July 13, 1973

Mr. J. C. Stephen,  
Manager, Luc Syndicate,  
Box 3010,  
SMITHERS, B. C.

Dear Cam,

I've had a chance to glance at the thin sections of specimens collected from your Babine properties and can give you the following observations.

Fort Group

All specimens were collected from near the helicopter pad.

Fort 1

a good BFP, although not as crowded a porphyry as is typical of the area. The rock is fairly fresh with good, clean, zoned plagioclase phenocrysts scattered through a very fine grained matrix. Two forms of biotite are present- 1.) 2 mm. plates and books of fresh brown biotite 2.) Secondary biotite altering from hornblende. This is a deep brown colour and most of the original hornblende outlines are mosaics of fine-grained felted biotite. Some chlorite was also noted. There is also abundant fine-grained biotite in the matrix, most of which is probably secondary. According to the Carson model, this is a good sign - i.e. the right environment. In fact, the specimen I collected has a small amount of disseminated pyrite and chalcopyrite on a dry fracture. //

Fort 2

Hornfelsed Graywacke - biotite is well developed along some bedding planes.

Fort 3

Hornblende Diorite - fine-grained, magnetic. An unaltered rock consisting essentially of fresh zoned plagioclase and green hornblende exhibiting only minor biotite alteration which is probably deuteric rather than hydrothermal. Quartz is less than 5%.

Hol Group

H-7

BFP- fine-grained, crowded porphyry, cut by a  $\frac{1}{2}$  inch stringer of BFP intrusive breccia containing plagioclase crystals and small fragments of the host rock. Again, a fresh rock in which the original hornblende is only partially altered to secondary brown biotite. Abundant quartz in matrix.

H-11C

Crowded BFP - almost a seriate-textured or equigranular rock. Again, hornblende shows only incipient biotite alteration.

In summary, the Fort BFP shows much better secondary biotite development than the Hol group.

Hope these notes are of some value to you. Thanks again for the recent hospitality and I'll look forward to seeing you about August 28th. Let me know if I can do anything for you down here.

All the best,

*N.C. Carter - better known as Nick!*

N. C. Carter,  
Senior Geologist- Mineral Resources

NCC/saw

cc W. R. Bacon  
Terry James