



DEPARTMENT OF MINES AND PETROLEUM RESOURCES  
VICTORIA

WHEN REPLYING PLEASE REFER TO

FILE NO. 673784  
FORT  
93M/IW

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%.