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EMPP ASS RPT # 6234  
Great Plains Development Co. Ltd  
Jan 1977

Significant sphalerite was found in only one locality - a peripheral showing on line 72N at 5W. In this weak, but extensive, showing; dark brown, iron rich sphalerite is present with white, well crystallized quartz  $\pm$  calcite in millimetric to centimetric veinlets cutting pyroclastic breccia. Overall grade is  $<0.1\%$  zinc over an area of about 200 x 100 feet. Honey brown siderite is frequently associated with the zinc mineralization. Zinc mineralization is apparently affected by three controls:

1) Fault control:

The showing is located in a north-south fault gully close to the cross-cutting hornblende diorite dyke;

2) Chemical control:

The mineralization directly underlies a thin barren-carbonate horizon which probably provided a favourable chemical environment for mineralization;

3) Vein control:

The sphalerite is present only in quartz or quartz-calcite veinlets.

No economic significance is attached to this showing in view of its low tenor of zinc and the complete lack of mineralization outside the veins. As the fault valley is snow filled, the possibility cannot be excluded that the showing extends north or south somewhat further than the surface mapping indicates.

b) Alteration

Because of the long tabular form and the block-faulted mode of emplacement, the monzonite intrusive on the Mount Dunn property does not display the typical coaxial porphyry alteration pattern. No where in the intrusive is a potassic zone of alteration exposed. Although the monzonite contains a microcrystalline potassium feldspar matrix, the orthoclase appears to be entirely primary and no secondary potassium feldspar veinlets or biotite were observed.

A phyllic alteration assemblage is well developed, particularly along the west edge of the intrusive. This rusty weathering, often crumbly quartz-sericite-pyrite  $\pm$  kaolin assemblage has been mapped as unit I d and previously described as 'felsitized intrusive'. The rock is generally extensively leached and has been hand trenched previously,