



Energy, Mines and
Resources Canada
Geological Survey of Canada
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Énergie, Mines et
Ressources Canada
Commission géologique du Canada
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Your file Votre référence

Our file Notre référence

Nov 4/91

Jeff Franzen,
Pacific Sentinel Gold Corp.,
1020-800 W Pender St
Vancouver BC V6C 2V6

Dear Jeff:

Thank you for the extremely interesting and informative session on Fish Lake at your office last week. Your data strongly suggest that it will become a major new mine in the near future - if non-geological factors permit!

Nadia asked me about the stratigraphy of the Kingsvale Group hostrocks, a subject not particularly familiar to me. I recommend she read the enclosed paper by Thorkelson & Rance revising 'Kingsvale' to 'Spencer Bridge Gr'. This detailed stratigraphy may not be valid west of Fraser R, but should be considered. Nadia should refer to BCQS Open File maps 920/4 (McLaren) and 920/5 (Scharazza) for descriptions of the Cambrian section.

Howard Tupper told me that rocks similar to

Canada

The Jackson Mountain Gp are recognized west of Fish Lake therefore the low angle fault which cuts off are at depth is probably a segment of the Henry Valley thrust as Nadra suggested.

If your hot rocks are as old as Alban (Lower Crut) i.e. like Lower Spinnaker Ridge Gp, then there exists a considerable gap ($\approx 30 \text{ Ma} \pm$) between deposition of the host & emplacement of the intraminal dykes. The two units may not be comagmatic.

This indicates that $^{37}\text{Ar}/^{39}\text{Ar}$ isotope dating should be undertaken on dykes and hot rocks, and a new KAr date established on hydrothermal heathite. This could be done in conjunction with regional mapping (1:50,000) underway on the Toadco Lake sheet by Cathy Hickson and Peter vander Heyden of the G.S.C. I would be interested in participating in a dating study, and would like to spend time on the deposit next summer for that purpose. You are advised to give priority to establishing age of dyking & mineralization in order to facilitate exploration in regions proposed for parks.

— many thanks

Jim Dawson