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June 16, 1979.

Dear Dave,

Please find enclosed an outline of the proposed project to identify the dolomite/batholith contact areas in the copper belt. More specific proposals will result from my initial compilation of all the known data on the location of the batholith contact and the distribution and attitude of the dolomite. Preliminary experiments here suggest that most fine-grained dolomite can be identified by its reaction to dilute acid whereas ~~whereas~~ recrystallised dolomite requires staining. Depending on the amount of staining required we may find it useful to hire a helper for part of the project.

If you send me an open ticket for a London - Toronto - Vancouver - Whitehorse trip, I will come to Whitehorse in early July - as soon as I have my present project complete here. I can call Andy a few days in advance to let him know I am on my way.

If there are any question or problems don't hesitate to call me at 519-679-3187 (you may have to leave a message)

Best wishes

Gregg Morrison

OBJECTIVES OF EXPLORATION PROJECT IN THE WHITEHORSE COPPER BELT

Given that mineralised skarn occurs in pendants or embayments in the contact of the Whitehorse batholith, and that magnetite skarn more often contains ore than silicate skarn, then our objective should be to locate as accurately as possible both the margin of the batholith and the distribution of the country rocks that host magnetite skarn.

My mapping to date suggests that magnetite skarn associated with ore is hosted in a dolomitic facies of the Lewes River Group while uneconomic silicate skarn is hosted in a clastic limestone facies. Although the dolomite has a consistent position within the stratigraphy it is not always present and where present may be recrystallised and so can be difficult to recognise. More detailed testing of the distribution of the dolomite by acid etching and/or staining of specimens from outcrop or drill-core is necessary. In areas where the dolomite is recrystallised the attitude of the strata should be carefully mapped so that the horizon can be projected into the contact of the batholith.

The position of the batholith contact has been established for most of the copper belt by mapping, drilling and geophysics. All this data should be compiled on a map on which the distribution of the dolomite can be plotted as the information is collected. There may be areas in which there is insufficient data to locate the contact accurately. Further geophysics or drilling would only be recommended if it could be established that the dolomite was likely to be present in that area.

A programme consisting of mapping, staining and compilation should take four to six weeks and result in the identification of areas in which magnetite skarn may occur at the contact between the favourable dolomite horizon and the Whitehorse batholith.

Gregg Morrison
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