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Mr. G. M. Hogg

Mr. W. M. Sirota

LYN GROUP - Yukon Territory

February 9, 1972.

Diamond Drill Logs.

Herewith the three drill logs you should have had a long time ago. It has been our practice to forward copies to Toronto as soon as they are typed but probably I neglected to advise Miss Maxwell to that effect.

There is nothing in the budget for any additional work on the Lyn Group this year and the claims will lapse this Fall unless something is done. The simplest thing to do is to retain one 16-claim group which will encompass the gravity anomalies. The cost of holding this group for one year would be \$160.00.

We have thought in the past that the main gravity anomaly, which extends from Line 110 west to approximately 140 west, might be caused by variations and overburden thickness. However, we have compiled a section along Line 138 west on which we have shown gravity electro-magnetic and self-potential response plus a geologic cross-section. The geologic cross-section may be somewhat imaginative but the faulting shown is based on actual faults found in the drill core.

In view of the electrical response obtained it is clear that there is a conductor on the west flank of the gravity anomaly and this we consider to be a graphite band dipping gently into the hill. We think the gravity response results from a steeper structure which probably replaces a northwesterly trending fault zone, which in turn cuts the bedding of the rocks at an angle of approximately 30 to 40°. Figure 2 shows the trend of the gravity anomaly, the trend of photo-linears and the regional strike of the rock formations.

We have shown a hypothetical sulphide mass as the underlying cause of the broad anomaly centered at 42 N. on Fig. 1. Whatever the cause of the mass may be, the depth to the top would have to be at least 500 feet and it certainly appears to be dipping with the rocks themselves rather than cutting the rocks in the manner of the structures at 52 N. to 58 N. In other words, if the interpretation is at all meaningful, there are two types of deposition on the property: the main gravity anomaly is caused by a steeply dipping heavy mass or masses and the broad anomaly to the south is caused by a strata-bound heavy mass.

I fully realize that the subject of holding any of the Lyn Claims is not popular in Toronto and I do not propose to raise it again, but I strongly urge that we hold at least those claims which encompass the main anomaly for the very small cost involved. This block of 16 claims is depicted in Figure 3. The obvious reason for this recommendation is that DDH 71-1 did not find a causative mass nor can the cause be attributed to overburden variation. The anomaly therefore remains unexplained.

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Re: LYN GROUP - Yukon Territory

We have, of course, considered the possibility that the increase in metamorphic rank as the granite is approached might have caused a sufficient amount of skarn-type mineralization to change the density of the rocks sufficiently to have caused the anomaly. The drill log indicates that metamorphism reaches garnet - kyanite - sillimanite grade but the percentage of these minerals is too low at the depth indicated by the gravity anomaly for this to be the cause.

It is, of course, easy to suppose that any mineralization that might be found as a result of further work would not be a replacement type but again it is hard to know when fault controlled mineralization might change to replacement type.

The literature on lead-zinc deposits indicates that they can be irregular in the extreme and, in consequence, can be very tricky to drill until an adequate geologic key is developed. The Lyn Group has never been properly mapped and this is something I would like to see done. Perhaps we have been over stressing geophysics and physical work generally.

W. M. Sirola

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Copies of drill logs for DDH L71-1 to L71-3 plus drill hole sections.

Fig. 1 - Geophysical and geological cross-section and interpretation along Line 138 W.

Fig. 2 - Airphoto interpretation showing linears, rock trends and gravity anomaly.

Fig. 3 - Plan of portion of the claim group.