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INTER-OFFICE CORRESPONDENCE

TO L.P. STARCK DATE AUGUST 13, 1980

FROM W.G. HAINSWORTH COPIES TO

SUBJECT GIANT SOO PROJECT (ESTELLA)

On August 4th, the writer motored to Kimberley, B.C. where discussions were held that evening with Gerald Mason, retired geologist from the Cominco Sullivan Mine. Mr. Mason was hired July 15th on a short term basis to assist in defining the geological complexities at the Estella mine and other GMR properties in the area.

On August 5th, he and I visited the Estella and climbed around several of the peaks seeking to locate the so-called Sullivan Horizon - a limestone bed. We did locate a grey-green argillaceous horizon with limey patches which may be part of the Middle Aldridge formation, the Sullivan horizon. Government mapping and 1954 Cominco mapping differ in the number and type of Sullivan horizon(s). The particular strata we examined contained no mineralization and directly underlay the large diorite intrusion which was identified in all three 1974 drill holes. A limestone bed, attested to by Mason, was spotted on a parallel ridge some 1,000 to 1,500 feet south.

As original thinking at the Estella had been directed towards structural conditions with weak results, it was concluded that a swing to stratigraphic influencing, as at the Sullivan, would be in order.

We calculated that to reach (a) the limey argillite horizon underlying the diorite and (b) to intersect the limestone bed would require a vertical drill hole located in the flat near the tailings pond of (a) 400 feet and (b) 1,500 to 2,000 feet.

It should be noted that at the Sullivan orebody there are 8 ore horizons over a stratigraphic horizon of 200 feet. They are:

HV - Hangingwall Upper Ore Zone - Limestone associated.
H - Hangingwall - Conglomerate

I)
D)
C (
B) Intermediate - siltstone (over 100 feet in thickness)
A)
Main Band)

Another pecularity of the Sullivan is that the orebodies lie off the ends of thin, fine-medium grained conglomerate beds.

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On Wednesday, August 6th, the writer in the company of Mason and the chief geologist at Sullivan toured the open pit, checked individual outcrops of conglomerate and viewed other areas of geological interest.

A return visit was made on August 7th to the Estella mine site where special attention was paid to rock exposures along the creek. It was while roughly mapping the bedding planes of the argillites that we realized that we were encountering folding, a condition not previously recognized. The significance of this structural deformity upon mineralization is not known at present. Should the Estella be a bedded deposit as opposed to a hydrothermal origin then the shear structure might have been brought about by slippage of mineralization during a folding process. The folding, pulling the plastic mineral apart, may have created an unmineralized gap at the north end. A point brought out by Mason is that the Aldridge argillites, as exposed in the creek bed, have long lengths without a sandy break, an anomalous situation as this formation normally shows sandy or limey breaks within distances of 15 to 20 feet. Mason states the Sullivan has great thicknesses of argillite without the above mentioned breaks.

Preliminary examination of the mineralized showing along the creek (where the vent raise broke through) discloses:

1) An offsetting of the shear structure by several feet.

2) A 40^{o} reversal of shear dip across the creek.

3) A thin jet black dolomitic argillite tight against the mineralized shear structure.

The significance of the first two observations is not fully understood at present. However, the third observation according to Mason is in agreement with a similar type sediment often found at the base of Sullivan ores.

We had three possibilities open to us regarding assessment work:

1) Vertical diamond drilling as previously discussed. This was negated by Calgary as being (i) too costly a procedure and/or (ii) providing little or weak information. As conceded this was an argument without a legitimate defence.

2) Push a cat road from the original up-creek road, over the one ridge to the limestone located on the next (south) ridge. This would be linked with stripping of the area and also provide a road should drilling eventually be contemplated. This was an alternative, but a weak one without much geological justification.

3) Map on a large scale all structures in the immediate area of the mine and couple to underground mapping. It is possible that mapping may present a new geological approach to the ore picture particularily at the north end.

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I have chosen the last approach and accordingly have instructed Gerry Mason to proceed with mapping of all surface exposures within the immediate area of the mine. I have advised him to rent a 4-wheel drive vehicle to navigate certain poor sections of the road coming in behind the mine workings. I have also mentioned that from a safety standpoint he should take his 12 year old son along with him. I will be joining Mason near the end of the month in completing the mapping.

This work will not cover the full assessmemt requirement. Consequently money in lieu for the full amount should be submitted at the same time as our map and report are submitted. A refund will be made by the department when our work is evaluated.

Yours truly,

W.G. Hainsworth

WGH:cm

INTER-OFFICE CORRESPONDENCE

TO GIANT SOO FILE

DATE JUNE 23, 1980

FROM L.P. STARCK

COPIES TO W.H. F.H. K.F. L.P.

SUBJECT JUNE 13, 1980, CONVERSATION WITH JERRY MASON (604-427-3197)

Jerry Mason and his associates have recently staked a cobalt showing near St. Mary's, Kimberly, B.C. containing cobalt oxide, strawberry cobalt and cobaltite. The cobalt is in the upper 100 feet of a contact metamorphic type vein that is overlain by a diorite sill. He would like the Company to examine the showing from which a picked sample ran 2.1% cobalt across 2 feet.

Mason, who considers cobalt to be a marker for copper, knows of 4 areas around the Estella, including the Estella itself, where there are indications of cobalt. These areas are:

1) the old working on the right hand side of the road that leads to the Estella. (He believes the workings are in a water course that contains manganese, cobalt and copper.)

2) one of the Estella holes drilled by Giant Soo that intersected the Sullivan horizon under the diorite.

3) to the north of Tracey Creek where there is a two foot vein of copper.

4) an area not far from the Estella where a considerable amount of stripping was done several years ago.

He believes that there could be a major deposit of copper some 2,000 feet below the Sullivan horizon.

Mason's next project is to check out the potential of the former Bulldog claim on Bootleg Mountain that was prospected in the early 1900's.

Yours truly,

L.P. Starck

LPS:cm