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PRELIMINARY GEOLOGY OF THE LOU GROUP,
LOUISE LAKE, B. C., NORTHWEST OF SMITHERS, B. C.

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Byron L. Ristvet

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PRELIMINARY GEOLOGY OF THE LOU GROUP,
LOUISE LAKE, B. C., NORTHWEST OF SMITHERS, B. C.

The geology of the area encompassed by the Lou Group of claims is relatively simple and uncomplex. The host rock for the mineralization is a fine to medium crystalline quartz-monzonite. This stock which is Tertiary has intruded volcanic rocks of an earlier Tertiary age. The area appears to have been denuded during the last glaciation; however, there also appears to be very little till present.

The stock forms a topographic high at the west end of Louise Lake. The soil has been geochemically checked which produced a copper anomaly and molybdenum anomaly. An I.P. survey was run over the area which produced a corresponding anomaly over the intersection of the copper and moly anomalies. (See I.P. - Geochem map of Lou Group). During the last week of June, four trenches were bulldozed through the weathered overburden to bedrock. These trenches are on lines 52E, 60E, 64E, and 67.50E and run from N48 - N52, N44 - N52, N48 - N52, and N50 - N54 respectively. The depth of the trenches is from 10 to 30 feet. The trench on line 67.50E is a hillside cut.

The geology of the trenches was thoroughly examined. The rock is a grey, fine to medium crystalline quartz-monzonite, which is deeply

weathered on the surface. It should be stated that the overburden, with exception of a small lense of till present at N51, 52E, is composed of the weathered quartz-monzonite, therefore, geochemical soil samples should be quite accurate. The crystalline size of the quartz-monzonite, which widely varies throughout the exposed rock, appears to be random in nature. This variance of crystal sizes is often quite normal for small stocks of this type due to differential cooling and probably has no effect on the mineralization.

The rock is well fractured with three major orientations of fractures. The first is an east-west vertical system which corresponds to the direction of a shear zone which is about 20 to 40 feet wide in trench 52E. This shear zone has rocks of a schistose appearance with secondary quartz and epidote formed along the shear planes. Pyrite has also mineralized along these planes, but appears to have entered the rock after the quartz filling. This shear zone is probably associated with minor faulting and this is the only sheared rock viewed in the trenches. Two more sets of filled fractures are also present. They are N20W/40W-90 and N20E/40W-90. The N20E set appears to be the primary set of fractures. Those fractures more than 1/8" in width are usually filled with quartz and pyrite. The pyrite crystallized after the quartz. The largest quartz vein observed was about 1/2" in width. The quartz veins of this fracture set cut across those of the other sets making them younger in age.

In trench 60E at 46N, there is a small presence of covellite along fractures of the N20E system. This is the only visual appearance of copper mineralization in the rock. Moly mineralization may be present - also filling fractures along with the pyrite, but it is difficult to visually distinguish between the weathered pyrite and molybdenite.

Directly above the surface of the bedrock is a blue and yellow clay. The blue may be weathered molybdenite along with kaolin from the feldspar of the quartz monzonite and yellow may be moly bloom. This clay is almost always present above the bedrock in the moly anomaly areas.

It is my recommendation that a vertical diamond drill hole be sunk at 60E, 50N to a thousand foot depth to determine if the mineralization goes to depth as moly and copper usually do and to be able to assay unleached rock. I feel that the geologic setting is very good for a possible orebody. The host rock is fractured throughout the stock and is well mineralized with sulphides, mainly visible pyrite.

/eds

(Signed)


Byron L. Ristvet, Geologist