Company Report - complements J.M. Can Nov'73

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SUMMARY REPORT MAMIT LAKE MINING LTD. (N.P.L.) PROJECT NO. 1033

May 1 - December 22, 1972

January, 1973 Vancouver, B. C.

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## SUMMARY REPORT

MAMIT LAKE MINING LTD. (N.P.L.)

## PROJECT NO. 1033

May 1 - December 22, 1972

On May 1, 1972 the Keevil Mining Group Limited entered into an agreement with Mamit Lake Mining Ltd. (N.P.L.) to option the MLM Claim Group located in the Nicola and Kamloops Mining Divisions of south central British Columbia.

The property consists of 160 claims and is situated at  $50^{\circ}25'$  N latitude and  $120^{\circ}50'$  W longitude on the west side of Mamit Lake some 18 miles north of the town of Merritt.

Previous work carried out on the property included geological, geochemical, IP, resistivity, magnetic, and EM surveys, trenching and diamond drilling, none of which appeared to be conclusive.

As an initial step to evaluating the property it was mapped in detail with the emphasis placed on alteration, mineralization and structure.

Geological mapping (1) was conducted by G. D. Ulrich, geologist, and G. Davidson, assistant of W. Meyer and Associates Ltd. during the period June 5 to July 20, 1972. The basic geological picture as presented by geologists that had previously mapped the property remained unchanged.

The MLM Claim Group lies on the eastern margin of the Guichon Creek batholith, a large intrusive body which is exposed within an area of some 400 square miles in south central British Columbia.

The property is underlain by volcanic and sedimentary rocks of the Nicola Group and by the Gump Lake phase of the batholith which is thought to be of intermediate age.

The Nicola Group rocks on the property have been metamorphosed due to their proximity to the Hybrid and Gump Lake phases of the intrusive.

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Exposed mineralization and alteration on the property is of a limited nature and is usually confined to small shears or fractures in the Nicola rocks. Chalcopyrite is often found plating fractures in locally epidotized and chloritized diorite near granodiorite dykes and pyrite is commonly disseminated throughout the granitized sediments close to the intrusive contact.

The property lies just to the west of a large regional northerly trending fault which forms the Guichon Creek valley. Small scale faults are evident on the claim group and are usually expressed by topographic lows. Shear zones up to 20' wide are common but are seldom seen in outcrop.

Two diamond drill holes drilled by Bethlehem Corporation Ltd., on the property in 1969 along the Gump Lake - Nicola contact intersected intensely altered quartz monzonite and quartz diorite rocks containing sericite, chlorite, secondary K-spar, epidote and clay with varying amounts of pyrite and chalcopyrite throughout. One 50 foot section ran 0.41% Cu.

After evaluating the exposed surface geology and the results obtained through Bethlehem's efforts it was concluded that the contact between the Nicola Group and the Gump Lake phase of the Guichon batholith warranted further exploration.

The contact is well exposed in the northern half of the property and shows little sign of alteration or mineralization. In the southern half where Bethlehem's two diamond drill holes are located, the contact is entirely obscured by overburden.

Both geochemical and induced polarization surveys were carried out to cover that area of the Gump Lake - Nicola contact that was obscured by overburden in an attempt to outline any associated mineralization.

The geochemical soil survey (2) was conducted during the period August 9, 1972 to September 14, 1972 with a total of 40 line miles being surveyed and more than 2,000 samples collected. Every second sample collected was analyzed for copper and every eighth sample on every other line was analyzed for molybdenum.

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Less than 6% of the samples analyzed ran in excess of 100 ppm Cu and with only a couple of exceptions the higher values (average 500 ppm, high 3,000 ppm) were located close to exposed Nicola Group rocks known to contain copper mineralization. The highest Mo value obtained in the survey was 4 ppm.

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The geochemical survey failed to outline or indicate the presence of economic mineralization associated with the Gump Lake - Nicola contact.

The induced polarization survey (3) & (4) was carried out by McPhar Geophysics Limited during the period August 26, 1972 to October 4, 1972 over the same area that was geochemically sampled. The instrument 'used was a McPhar P660 high power variable frequency IP unit operating at 0.3 and 5 Hz with an electrode spread length of 300 feet and electrode separations of 300, 600 and 900 feet.

The induced polarization survey indicated the presence of widespread metallic mineralization with the strongest anomalous zones paralleling Mamit Lake and extending over the entire length of the eastern border of the survey grid. The anomalies vary in magnitude from possible to definite, with the definite anomalies being of moderately high magnitude.

One of the definite IP anomalies is located in the northeast corner of the grid area. This anomaly was tested with two percussion holes and two diamond drill holes, none of which reached bedrock. The deepest hole, DDH 72-M-2 was drilled to a depth of 534 feet.

A series of probable to definite IP anomalies is located in the southeastern half of the grid area and it is in this area that Bethlehem's two diamond drill holes were located in 1969.

A total of 15 percussion holes (5) & (7) averaging 180 feet in depth were drilled to test this area. Pyrite mineralization varying from a trace to 7% was encountered in 10 of the 14 holes that reached bedrock. None of the drill holes encountered mineralization of economic importance.

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The percussion drilling (4) was carried out by Central Drilling Co. Ltd. during the period October 26, 1972 to November 7th, 1972. The total footage drilled was 3,125 feet in 17 holes.

The diamond drilling (6) & (7) was conducted by Connors Drilling Ltd. from November 22, 1972 to December 22, 1972. Two holes were drilled for a total of 848 feet.

All work on the property terminated as of December 22, 1972.

Assessment work (8) based on the results of the induced polarization, geochemical and airborne magnetometer surveys and percussion drilling was filed on the 160 claim group in December, 1972 and January, 1973.

Assessment work filed on the mineral claims varies from a minimum of one to a maximum of three years.

## References

- (1) \* Ulrich, G. D., and Carr, J. M., (1972),
  - "Report on the Geological Survey of the Mamit Lake Mining Ltd. (N.P.L.) Property, Mamit Lake, British Columbia."

(2) \* Hindson, R. E., and Carr, J. M., (1972),

"A Geochemical Report on the MLM Mineral Claims for Mamit Lake Mining Ltd. (N.P.L.), Nicola Mining Division, British Columbia."

- (3) \* Hallof, P. G., and Goudie, M. A., (1972),
  'Report on the Induced Polarization and Resistivity Survey on Project No. 1033, Mamit Lake Mining Ltd. (N.P.L.) Property, Nicola Mining Division, British Columbia."
- (4) Induced Polarization Plans, Resistivity and % Frequency Effect, 2nd Separation. Scale 1" = 400'.
- (5) Percussion drill logs G. D. Ulrich.
- (6) Diamond drill logs G. W. Davies.
- (7) Geological Maps, 3 Sheets, (north, central and south) illustrating drill hole locations with summary of results. Scale 1" = 400'.

(8) Claim Map illustrating the total number of years work applied to each claim upon completion of the 1972 exploration programme. Scale 1'' = 1/2 mile.

\* Under separate cover.

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