RELEASED

ASSESSMENT REPORTS

MAP No. 115-G-3 TYPE OF WORK: GEOLOGICAL

REPORT FILED UNDER	Barymin Mines Ltd. (Dickson Nickel Prospect)
DATE PERFORMED	1953
LOCATION- LAT.	61°-10' N 25 miles S. of Duke River bridge
LONG.	139°-10' W Mile 1098 Alaska highway
CLAIM Nos.	KANE group
WORK DONE BY	L.G. White, P. Eng.
WORK DONE FOR	Barymin Mines Ltd.
REMARKS.	Peridotite dyke intrusion - 5000' long and 135' wide. Pyrrhotite and chalcopyrite mineralization. Assay values low but consistent. 3 samples - 0.3% Ni, 0.2% Cu across dyke. Picked pieces averaged 5.13% Ni, 0.80% Cu. Further [illegible] and geophysical work recommended.

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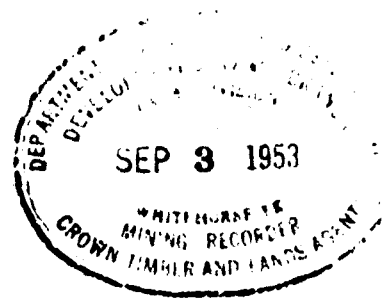
A REPORT ON

DICKSON NICKEL PROSPECT - DUKE RIVER, Y.T.

by

L. G. White P. Eng.



Vancouver, B.C.
June 2[illegible], 1953.

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APPENDIX:

A. Photostatic Reproduction taken from Map 1012A

B. Plan - Dickson Nickel Prospect.

References:

(1) Geology of Northwest Shakwak Valley, Yukon Territory, Memoir 267 - 1952 - H. S. Bostock.

(2) Department of Mines & Technical Surveys - Map 1012A

[redacted]

DICKSON NICKEL PROSPECT - BARYMIN MINES LIMITED

PEEK RIVER AREA, Y. T.

GENERAL STATEMENT:

The property, although remotely located, has enough merit based on preliminary sample results and personal observations to warrant sufficient expense to retain the group of claims in good standing for the ensuing year. This will involve a work program as recommended herein or payment of $3200.00 in lieu of assessment work.

OBSERVATIONS & COMMENT:

(1) The "Kane Group" of mineral claims, property of Barymin Mines Limited, is located in the general area receiving close attention from other Companies of good repute.

(2) Geological data available from exploration and development work completed to date by pioneer Companies in the field, indicate that values in the principal metals -- nickel and copper -- are contained in pyrrhotite and chalcopyrite mineralization associated with basic dyke intrusions classified as peridotites.

(3) The Barymin claims cover a peridotite dyke intrusion that is exposed at several locations over a strike length exceeding 5,000 feet. Measured width across the dyke at an accessible location totalled 135 feet.

(4) Sections of the dyke contain pyrrhotite and chalcopyrite mineralization. Sulphides occur as solid stringers up to 2 inches in width and as disseminations in small crystal form throughout the dyke.

(5) Assay values from samples taken across mineralized sections of the dyke are low but consistent. Three separate samples over an accumulated length averaged 0.34% Ni. and 0.25% Cu across 64.0 ft. of dyke material.

Picked pieces of massive sulphide mineralization taken from a location along the dyke now covered by a talus slide assayed 5.13% Ni., 0.60% Cu., 0.11 ozs./T.Pt. and 0.13% Co.

(6) Staking has been well done and the claims cover an area quite adequate for preliminary exploration. No further staking is required, unless results from the preliminary program as proposed below warrants a "blanket" covering popular to the district.

CONCLUSIONS:

The property can be classified as a good "geological bet". Sampling of the exposed dyke has indicated sub-marginal values in recoverable metal content, but strong structural conditions exist, which should be thoroughly traced to extent and explored.

Enough massive sulphide is in evidence to conclude that possibilities of large concentrations exist within the extremities of the peridotite mass. It may be possible to locate these by employing geophysical methods of prospecting along the dyke.

RECOMMENDATIONS:

The following work program is recommended:

(1) (a) Establish a camp at the site of the claim holdings for the balance of the 1953 season (2 months) and employ two labourers to trench and expose sections of the dyke now covered by alluvial wash.

(b) Trench and examine all dyke outcroppings for additional mineralized sections.

(c) Prospect the general area in proximity of the peridotite dyke for possible parallel structure or mineralized occurrences.

(d) Completely sample the entire showings prior to closing camp at the end of the season.

(2) Contingent on results obtained from (1), a geophysical survey should be completed early in the field season of 1954.

(3) If enough favourable anomalies are obtained from the above survey, a diamond drill program should be completed to determine the economic possibilities of the property.

The trenching and prospecting program as outlined under (1) will involve an expenditure of $3500.00. This will provide sufficient work to hold the entire group of claims in good standing for a full year.

Program (2) is estimated to cost $4,000.00 based on costs supplied by field parties presently conducting such surveys in the area.

Program (3) is entirely dependent on results obtained from the survey with regard to footage requirements. An overall cost of $5.50 per foot for "A" core should be provided for any program not exceeding 5,000 feet.

PROPERTY:

The claims are recorded under the name and numbers known as "Klume Group 1-32".

Original staking done in August, 1952 consisted of six claims covering the discovery along the creek gully. These were recorded on ~~August 21~~ September 19, 1953 and will lapse on the same date of this year, unless assessment work is completed in the amount of $600.00, or payment made in lieu of work.

In April, 1953 twenty-two claims were staked around the original six to provide for protection on extensions of the peridotite dyke. Complete staking provides for a group four claims wide and eight long, or an area 6,000' x 12,000'.

Providing it is decided to maintain the entire group of claims in good standing, it will be necessary to complete the assessment work this summer. Work in the amount of $3200.00 will have to be recorded.

LOCATION & ACCESS:

The property is located along an unnamed creek, which drains a basin on the western slope of the Kluane range of mountains. Stream flow is westerly into the Duke River. The Kluane Range separates the Shakwak Valley and Kluane Lake from the Duke River valley, known as the "Lake Depression". This is an upland valley, level of which is 1500 feet above that of the Shakwak Valley on the east side of the Kluane Range.

The Duke River flows in a northwesterly direction along the west side of the Kluane Range for some thirty miles before changing course and cutting easterly to empty into the extreme North end of Kluane Lake. The river is bridged by the Alaska Highway at Milepost 1040, one hundred and seventy-nine miles west of Whitehorse, Y.T.

A rough trail starting at the Duke River bridge follows the general course of the river for approximately 25 miles to the location of the claims. The trip to the property involves 1½ days by saddle-horse.

During the dry season, it would be possible to gain access to the property by tractor following the gravel bars left during flood conditions along the river valley. This method of transport would be rough on personnel and equipment.

The wide flood valley of the Duke River offers an excellent possibility for quick construction of a temporary flight strip in the event that preliminary results of exploration warranted an expanded program. Access by plane or helicopter could be made in about 20 minutes from the flight strip at Mile 1095 on the Alaska Highway.

TOPOGRAPHY & VEGETATION:

The peaks of the Kluane Range separating the Duke River depression from the Shakwak Valley reach heights exceeding 7500 feet. The jagged ridges grade into steep talus slides which taper into moss and willow covered slopes at elevations approximating 5000 feet. The timberline fringe reaches elevations of between 3500 and 4000 feet.

The stage of erosion in the area can be classified in geological terms as fairly recent. The glacial streams have cut through the mantle of overlying sedimentary and volcanic rocks to create narrow valleys with precipitous walls. The valley bottoms are strewn with glacial fill, boulders and volcanic ash, created by spring run-off conditions.

The claim holdings are situated above timberline. The closest stands of timber are 2½ miles down-stream along the Duke River.

Other than the rocky canyon formed by the creek over which the claims are staked, the bench area is covered with moss and willow swales. An excellent cross-section of the rock structure is provided by the erosive action of the creek.

GENERAL GEOLOGY & STRUCTURAL FEATURES:

The major structures comprising the Klemme Range consists of sediments classified by age in the Carboniferous or Cretaceous period. These are closely associated in distribution and structure with the "Older Volcanics".

Rock types are classified as tuffs, andesite lavas and volcanic breccias, interlayered with dark shales, quartzite and limestone.

Generally, the volcanics overlie the sediments or intrude them. The strike of the structures is predominantly Northwesterly, with a very flat dip to the west.

The peridotite dyke which has been covered by staking for a distance of two miles occurs as a vertical or near vertical intrusion along a fault zone in tuff formation. The strike of the dyke is roughly northwest and almost parallels the creek channel.

The dyke rock is of strictly ultra-basic composition. It is dark green to black in colour and has been highly "serpentinized" due to weathering processes. Countless smooth, shiny surfaces or "slickensides" exist at every place the dyke has been exposed to the weather.

The tuffs are dense, fine textured ash rocks, pale green in colour, with a chalky appearance. The cliff faces as exposed along the creek which have been weathered to a rusty, vibrant red alteration product. Small areas of oxidation has taken place.

MINERALIZATION:

Metallic mineralization consisting of pyrrhotite, chalcopyrite and some magnetite exists in both the peridotite dyke and the surrounding tuff. In the tuffs and contacting the dyke where it was observed, mineralization consisted of narrow stringers up to 2 inches in width of chalcopyrite and pyrrhotite. A heavily oxidized zone of mineralization was also noted in the tuff formation approximately 500 feet North of the dyke intrusion.

The peridotite dyke contains pyrrhotite and chalcopyrite as scattered crystals across a width exceeding 60 feet. A 14.0-ft. section near the centre of the dyke contained sulphides in a slightly greater concentration indicative of a mineralized core. Sampling results confirmed this to a degree but not conclusively. Visually, there appears to be a definite zone of more intense mineralization within the dyke.

RESULTS OF SAMPLING:

Sampling returned low but consistent values in Ni. and Cu. Two of the samples taken across sections of the dyke which showed very little or no sulphide, returned results averaging 0.30% Ni. and 0.20% Cu. Locations and widths are shown on the attached plan.

The picked sample taken from stringers of sulphide near the contact of the dyke and the tuff 3,400 feet Southeast of the main dyke outcrop, returned assays as follows:

Cu.	-	0.8%
Ni.	-	5.13%
Pt.	-	0.11 oz/t.
Co.	-	0.13%

ECONOMIC POSSIBILITIES OF THE PROPERTY:

The property, as located and explored to date, has no estimable economic value. It is strictly a "geological bet" as heretofore described.

The structure is strong and contains metal content in sufficient quantity to warrant further investigation. No economic significance can be placed on mineralized occurrences located in or near the peridotite dyke as exposed so far.

The peridotite dyke was examined at five different locations over a strike length of 5,000 feet. The general strike of the dyke approximates N.45° W., with the dip being almost vertical at the exposed locations. Only two sections of the dyke were sampled, due to the relative inaccessibility of the other locations along the creek gulch. One other outcropping at the extreme Southeast end of the showing contained no visible mineralization.

WORK PROGRAM:

As recommended, enough prospecting and surface trenching should be completed this year to maintain the group of claims in good standing.

The striping and trenching program as proposed was discussed with Mr. Dickson during the course of the examination. He can provide adequate supervision of the initial work quite satisfactorily and at the same time prospect the general area on a more thorough basis.

Cost of the above work is estimated as detailed below:

Wages - 2 men for 2 months @ $350.00/mo. each	1,400.00
Proportion Dickson's salary @ $150.00/mo.	300.00
Camp Equipment and Tools	300.00
Groceries	500.00
Horse rentals and packing supplies	400.00
Transportation - men and supplies	100.00
General expense, assays, air express, etc.	500.00
	$ 3,500.00

It is hoped that enough work will have been completed and satisfactory results gained therefrom to decide whether a geophysical survey should be completed during the 1954 season.

The estimated cost of the survey at $4,000.00 is considered reasonably accurate and will provide for transportation of the survey party and equipment by horse from the Alaska Highway. It is assumed that present parties conducting surveys in the area during the current season will return in 1954 and will be available to do the job.

If a contract is let to include transportation from Toronto, the estimate will have to be adjusted by an additional $1,500.00

No consideration should be given to a diamond drill program until fairly conclusive evidence is available from the above survey that definite concentrations of sulphide exist within the peridotite structures.

If a program of drilling is warranted, it is recommended that "A" core be recovered. The Hudson Bay Mining & Smelting Co. have found from experience that recovery is 50% greater utilizing equipment to handle the large diameter core. They are currently drilling a peridotite dyke

of similar characteristics to the Lake Alice structure.

The figure of $5.50 per foot is calculated to cover an estimated contract price of $3.50 per foot, plus $2.00 per foot for transportation of men and equipment and camp expenses. A minimum 5,000-foot contract would be necessary to gain the above costs.

Conclusion

Substantiating reasons for recommending further expenditure and investigation on the property are summarized below:

(1) The intense activity shown by other large Companies in prospecting and exploring ground not too distant from your holdings.

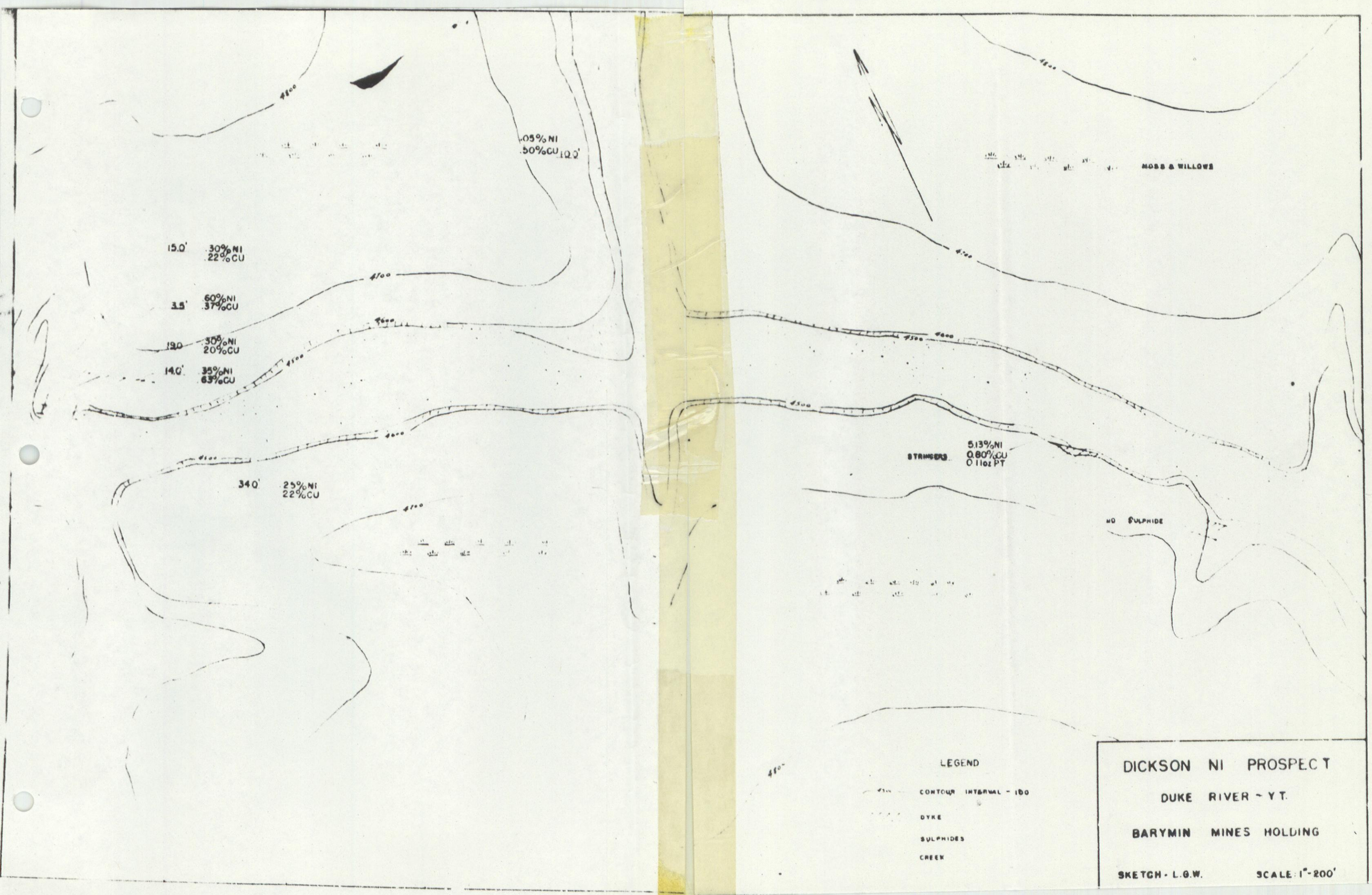
(2) The consistent, if not spectacular, results being obtained by H.B.M. & S. Co. Ltd. drilling a dyke of similar composition and structure to the one covered by your claims. Their engineer revealed that average results being obtained from drilling the dyke were in the range of 0.5% each in Ni. and Cu. It is the opinion that the H.B.M. & S. Co. are more interested in the tonnage possibilities of the lower grade structure rather than the high-grade "sulphide plug" already outlined within the dyke.

(3) The strong physical characteristics of the serpentite dyke located on the property and the interesting results obtained to date.

Vancouver, B.C.
June 20, 1953

(J. G. White), P. Eng.

Approved
Gilbraith
13 Nov. 53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34.0' .25%NI .22%CU
MOSS & WILLOWS
STRINGERS
5.13%NI
0.80%CU
0.11oz PT
NO SULPHIDE
LEGEND
CONTOUR INTERVAL - 100
DYKE
SULPHIDES
CREEK
DICKSON NI PROSPECT
DUKE RIVER - Y.T.
BARYMIN MINES HOLDING
SKETCH - L.G.W.
SCALE: 1"-200'