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GEOCHEMICAL REPORT

Nab and Lake Groups ^{92 K/300 .}
Quadra Island, B.C. 50° 125° SE

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January 1966 - September 1966

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INTRODUCTION

This report summarizes the geochemical work done by Big Lake Mines Ltd. on their Quadra Island copper prospect during the 1966 exploration season.

The claim area held by Big Lake Mines consists of a group of 140 mineral claims located on Quadra Island, approximately 110 miles north of Vancouver, in the Nanaimo Mining Division.

The copper prospects of Quadra Island have been known since the turn of the century and have been subjected to intermittent prospecting since then. The most intensive exploration was carried out in 1952 - 53 when Dodge Copper Mines Ltd. drilled or trenched all of the previously known deposits and assigned tonnage and grade to each deposit.

The object of the present exploration was to conduct a geochemical survey over a considerably larger area than was explored in the past in the hope of locating additional shallow chalcocite deposits of the type explored by Dodge Copper or locating vein-type deposits of the type presently being mined to the north of the Big Lake property.

GEOCHEMICAL SURVEY

Control of the Survey

In order to facilitate a geochemical survey of the magnitude of the one undertaken it was essential that access be readily available to a large area and that the area be surveyed with sufficient accuracy that a point several miles away could be tied in to the reference point with reasonable accuracy. Pre-existing logging roads provided access to most of the claim group. However, it was necessary to build still more roads and to improve some of the existing roads. Three tractors were employed for two weeks and during this period approximately 12 miles of road were built or improved.

As it was expensive to cut baselines over an area the size of the one to be soil-sampled, control of the soil-sampling was provided by a Brunton and chain survey of the road network. Line-cutting and soil-sampling were then done on a co-ordinate grid system controlled by the road survey.

Sample Taking

Soil samples were taken at 100 foot intervals along east-west lines run at 300 foot spacings. Originally, the cross-lines were first cut and flagged, with a view to running a geophysical survey at a later

date using the same lines and stations. However, in the interest of speeding up the geochemical survey, line-cutting was later abandoned. In addition, toward the end of the survey, spacing of the cross-lines was increased to 500 feet.

Sample Analysis

Samples were dried and analysed by the Warren method, a fast and inexpensive method capable of being employed in a field office. This method yields a qualitative result obtained as the copper in solution reacts on Rubianic acid test paper. The amount of copper in the sample is in direct relation to colour of the result.

In order to facilitate plotting of the results obtained, a classification system was developed whereby the sample results were assigned numerical values. Local background (in the order of 50 to 100 parts per million) was assigned an arbitrary value of 2. Samples assigned an arbitrary value of more than 5 (in the order of 500 parts per million) were considered anomalous. Map No. 2 is a plot of the soil samples assigned a value of 3 or more.

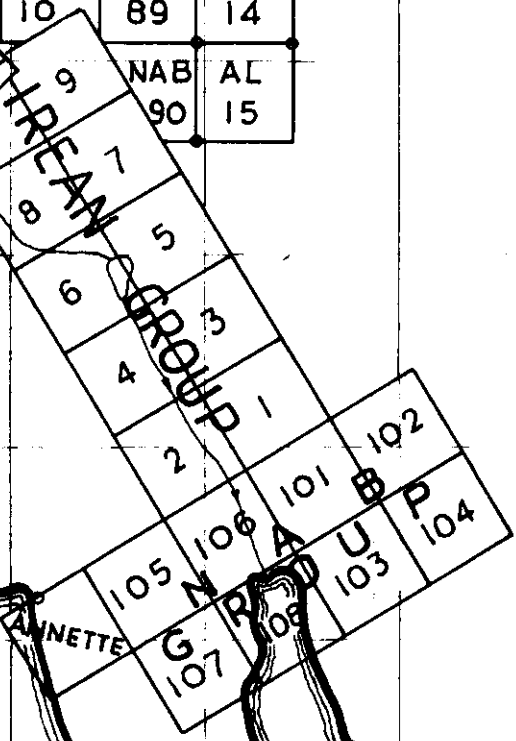
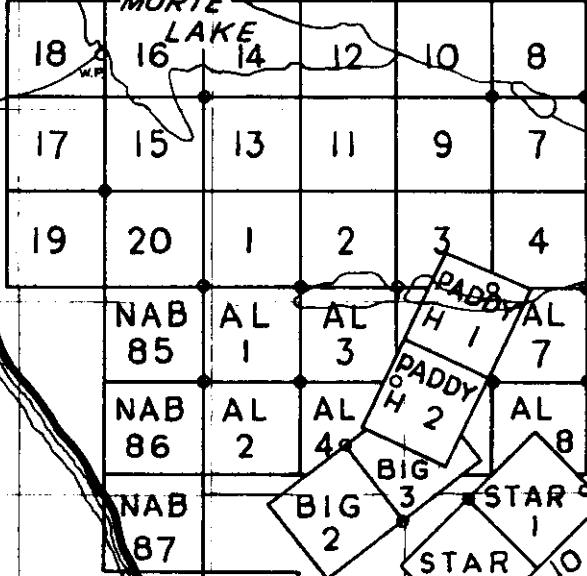
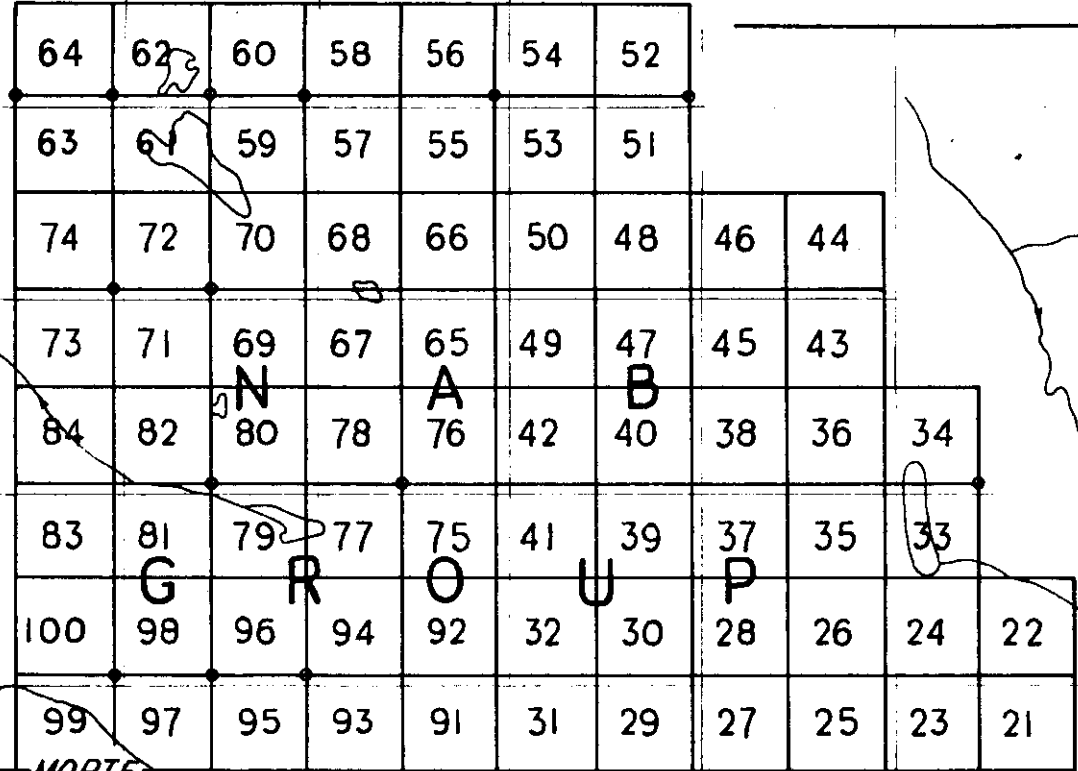
Geochemical Results

In order to verify the effectiveness of the geochemical method chosen, soil samples were taken over

two previously known mineralized areas, the Hall showing and the Pomeroy 1 showing. Both of these areas showed up in the geochemical results with the highest reading obtained from the Pomeroy 1 showing and assigned a value of 15.

The only anomalous area which has shown significant mineralization over an appreciable area has been that designated as the 24S 55E area. After obtaining two geochemical readings from this area corresponding to the highest obtained in the area of the Pomeroy 1 showing, it was decided to take additional samples at 50 foot intervals in order to outline the shape of the anomalous area. From the results obtained from the additional 150 samples taken, it could be seen that there existed one large anomaly of about 100 feet by 600 feet and several smaller adjacent anomalies.

James H. Brown
Sept 22, 1966



150 N.
120 N.
90 N.
60 N.
30 N.
00
30 S.
60 S.
90 S.
120 S.

DISCOVERY
PASSAGE

HYACINTHE BAY

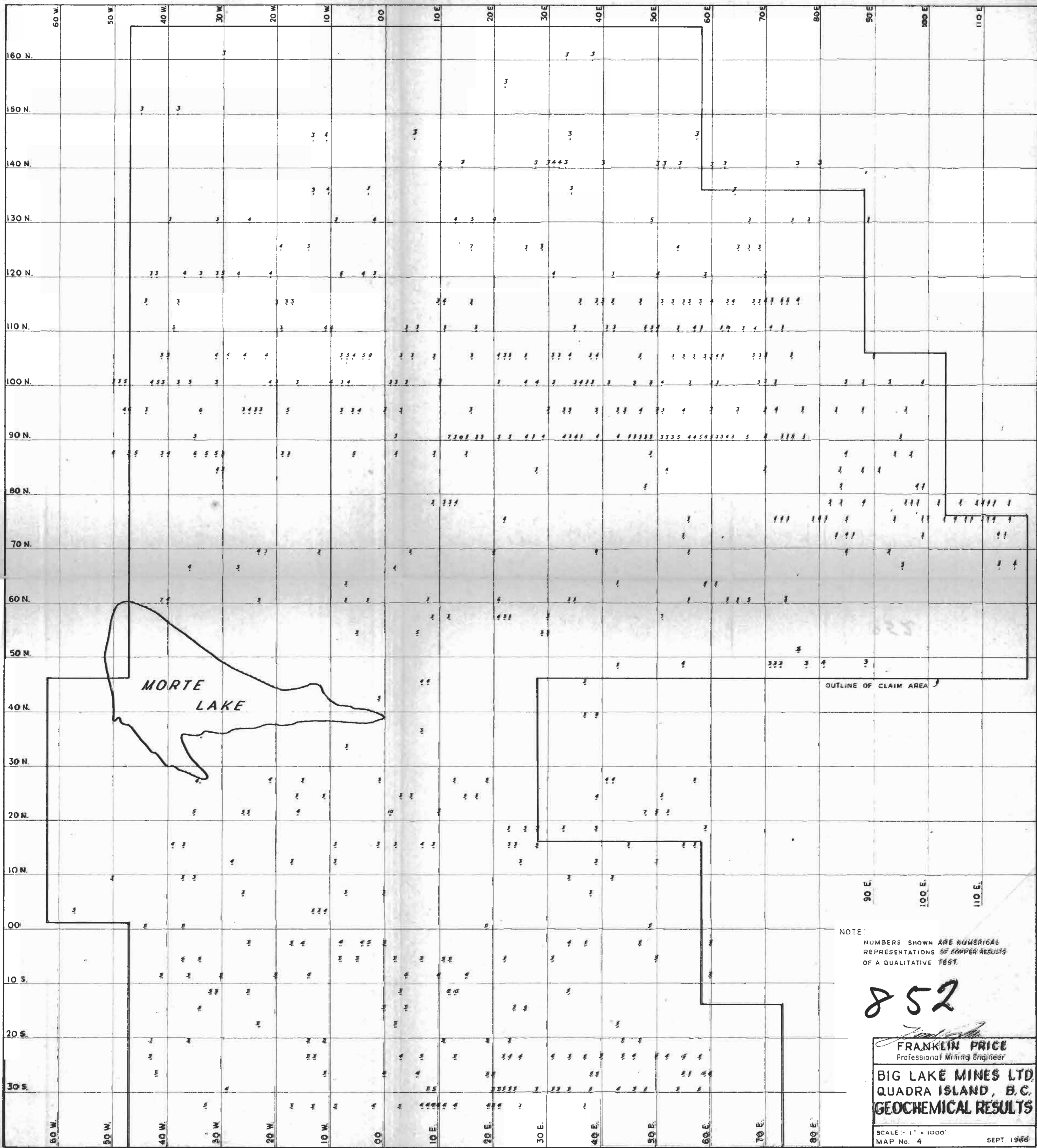
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CLAIM MAP

SCALE: 1" = 3,000' DIAGRAMMATIC
MAP No. 2 SEPT. 1966

30 E.

120 E.

GOWLLAND HARBOUR



OUTLINE OF CLAIM AREA

MORTE LAKE

NOTE:
NUMBERS SHOWN ARE NUMERICAL
REPRESENTATIONS OF COPPER RESULTS
OF A QUALITATIVE TEST.

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QUADRA ISLAND, B.C.
GEOCHEMICAL RESULTS
SCALE: 1" = 1000'
MAP No. 4
SEPT. 1966