PROSPECTORS REPORT

On The

MINOU GROUP

93G/15 August 18, 1969

Mr. Keith Christofferson 93-G-15

REPORT

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MINOU GROUP

By The

PROSPECTORS

August 18, 1969

Phone Towingts Services
Proporty of Red Savidge

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#### INTRODUCTION

During the month of September 1968, R. A. Savidge was walking through an area of crown land south of the city of Prince George, B. C., looking for land suitable for agricultural purposes. At this time, he came across numerous blazed lines and eventually a set of very old mineral claim posts. He also discovered numerous parallel cut lines approximately one-eighth mile apart in the area.

In October and November 1968, K. E. Kania and Mr. Savidge returned to the area, established a camp, and prospected the area. No definite bedrock outcrops were found. At this time it was learned that this area is covered by an isolated aeromagnetic "high" anomaly flown by the Geological Survey of Canada in the 1960's.

In December 1968 we (R. A. Savidge and K. E. Kania) returned to the area, took a soil sample, and received assay results from Coast Eldridge Professional Services Division dated January 9, 1969 (File No. C.3-K.2-69-38+2). We found the results of this analysis extremely encouraging; in particular, the following: Silver 30 ppm, copper 100 ppm, molybdenum 10 ppm, nickel 70 ppm, and titanium 5000 ppm. We returned to the area in February 1969 and dug a pit by hand where the soil sample had been taken, but did not reach bedrock.

We learned, during this time of initial prospecting, that there had once been an apparently large and costly placer mining operation on the main drainage creek of the presently held mineral claims. This old placer mining operation is still in evidence. Placer gold has been found in the area generally. As a result of this discovery and the encouraging values of the first soil sample, on March 1, 1969, we staked and subsequently recorded a total of 28 mineral claims in this area, in the Cariboo Mining District. These 28 mineral claims constitute the "Minou Group." These claims were located in the general direction of the main drainage systems in the area. Subsequent ground geophysical surveys (included with this report) have shown these claims to have been located parallel to the strike of the underlying rock.

#### LOCATION AND ACCESS

The Minou Group is situated at  $53^{\circ}$  46' 30" North and  $122^{\circ}$  45' West. The property is approximately 7 air miles due south of Prince George and  $1\frac{1}{2}$  miles west of the Fraser River. It is three miles to the east of the Blackwater (Baldy Hughes) Road, and  $4\frac{1}{2}$  miles southeast of Highway 16 west. The nearest road to the property is along the west side of the Fraser River and comes within one mile of the claim group. This road has been washed out. Access at present is by helicopter from Prince George or by walking from the nearest road.

The Prince George Industrial Park is 6 air miles north of the property across the Fraser River. Pacific Great Eastern Railway is two miles east of the property across the Fraser River.

#### HISTORY

As mentioned before, old claim posts were found in the area of the Minou Group. On August 15, 1969, R. A. Savidge obtained the following information from the Mining Recorder of the Cariboo Mining District in Quesnel, and was informed that all of the following information is available to the public.

In March of 1959, 82 mineral claims were staked and recorded by 12 different people from the Prince George area. These mineral claims were called "WED." They included what appears to be the entire area covered by the Minou Group. These 82 claims were transferred in their entirety to Totem Minerals Ltd., whose head office was Campney, Owen, and Murphy, 1030 West George Street, Vancouver, B. C.

The following are excerpts from A REPORT ON THE AIRBORNE GEOPHYSICAL SURVEY OF THE WED CLAIM GROUP-CARIBOO MINING DIVISION, BRITISH COLUMBIA, FOR TOTEM MINERALS LTD., VANCOUVER, B.C. by R. A. Knutson, Geologist, and approxed by Hans Lundberg, President of Lundberg Explorations Ltd., 96 Eglinton Avenue East, Toronto 12, Ontario, which company performed the survey.

#### \*INTRODUCTION"

"The Wed Claim Group was staked in March 1959 on a magnetic anomaly encountered during a routine reconnaissance survey in the fall of 1958. It was thought that the aeromagnetic indication might represent a favourable location for base metal deposits... In order to evaluate these claims, a detailed airborne electromagnetic and magnetic survey was undertaken in July 1959... The two plane rotary field electromagnetic method and a vertical component airborne magnetometer were used on these surveys...

"Three flights, on July 17, 18, and 30, 1959, were required..." for "...a total of 695 miles of line... No

### HISTORY (continued)

ground follow-up work was undertaken on the property during the 1959 field season."

#### "GEOLOGICAL CONDITIONS"

"Owing to heavy overburden in the area, very little is known of the bedrock geology. Outcrops southeast of the property in the Fort George Canyon of the Fraser River near the mouth of Redrock Creek have been described by Douglas Lay (Fraser River Bulletin No. II, B. C. Department of Mines) as follows:

"These rocks consist of an assemblage of wide alternating bands of andesitic and basaltic volcanic flow rocks and limy argillites probably of Mesozoic age, which strike north 12 - 42 degrees west and dip 35 degrees northeast to nearly vertical. The interbedded sediments and lavas are overlain by conglomerate and interstratified argillite and coarsed grained sandstone, striking north 50 degrees west and dipping 35 degrees northeastward. Although the distance from the outcrop to the claim group is too great to project geology, the age and type of rocks is probably typical. However, the presence of the magnetic anomaly suggests that a basic intrusion underlies the claim group."

#### "THE GEOPHYSICAL SURVEY"

"The Survey Methods"

"... Flight line spacing is one-quarter mile in a northeastsouthwest direction..."

"Results of the Survey"

"The magnetic survey shows a well defined anomaly of 2000 plus gammas. This anomaly has an elliptical shape, is elongated in an east-west direction and strikes N 70° E. The most likely cause of this anomaly is a basic intrusive of diorite or gabbro composition. The strike of the anomaly, which is normal to the regional strike, is further evidence of an intrusive body. The steeper magnetic gradient of the south side of the anomaly suggests the body has a southward dip. While no mathematical determinations of depth have been made it would appear from the sharp nature of the curves that the body is less than 200 feet below the surface.

"The electromagnetic results show a series of conductors striking in a northwesterly direction which parallel the regional strike... Because of the proximity of the basic intrusion indicated by the magnetic anomaly these electrical anomalies might represent injections of sulphides from the basic intrusion into the surrounding country rock..."

# HISTORY (continued)

# "Results of the Survey" (continued)

"The importance of these anomalies is their proximity to the magnetic anomaly and for this reason, they merit further investigation."

#### "CONCLUSIONS"

"The aeromagnetic survey of the Wed Minerals Claims has outlined a zone thought to represent a basic intrusion. The airborne electromagnetic method has described several conductive zones which could represent sulphide bodies derived from this intrusive. A ground geophysical program employing a deep penetrating electromagnetic or resistivity method is recommended to detail the anomalous zone."

"Toronto, Ontario March 4, 1960"

#### "APPENDIX I"

"Statement of Qualifications"

\*\*4. Interpretation of the geophysical results was made by:--

(a) Electromagnetic -- Mr. B. T. Wilson, B. Sci., M. Sci., (P. Eng., Ont.)

(b) Magnetic -- Mr. G. Isford, B. Sci., M. Sci.
This work was supervised by Dr. Hans Lundberg (P. Eng., Ont.),
President of Lundberg Explorations Ltd. \*\*

Nothing more is known to have been done in the area until staked by us in March 1969. Totem Minerals Ltd. dropped the property in 1961, and it is not known if there was ever a ground follow-up to the airborne geophysical results obtained.

#### DEVELOPMENT

During the month of May 1969, two soil samples were taken. A geochemcial analysis was performed upon one and a 60 element semi-quantitative spectrographic analysis on the other by Coast Eldridge Professional Services Division. The soil sample ran 2 ppm silver, and the spectrographic analysis showed a trace of gold and silver, .001 Molybdenum, .005 copper, .005 nickel, .5 titanium, and .007 vanadium.

# DEVELOPMENT (continued)

During the month of August 1969, K. E. Kania and his wife, and R. A. Savidge returned to the property via Okanagan Helicopters Ltd. A tight geophysical "grid" was established using compass and chain the area from which the above two soil samples had been taken, and it is our opinion as a result of this tight survey that the magnetism in the immediate area is great enough to deflect the compass needle slightly.

Two Ronka EM 16 ground electromagnetic surveys were done by R. A. Savidge by using two different transmitting stations at right angles to each other taking readings every 50 feet.

A Sharpe MF-1 ground magnetic survey was done by K. E. Kania taking readings every 50 feet, and controlled by R. A. Savidge. Numerous strong electromagnetic conductive zones were found which coincide with extremely anomalous areas found by the magnetic survey. As a result of these encouraging geophysical results, 86 soil samples were taken at 100 foot intervals over 4 cross lines of the grid. The soil sample results will accompany this report when assay results are received.

Two reconnaissance lines were run across the width (6000 feet) of the cliam group with the Ronka EM 16 and the Sharpe MF-1 magnetometer. Numerous electromagnetic conductive zones were found with corresponding anomalous results from the magnetometer. It is significent to note that a relatively strong electromagnetic "crossover" with a corresponding magnetic anomaly was found in the vicinity of the hand dug pit where the first soil sample was taken by us in December of 1968. However, no detailed survey was done in this area. These results indicate an area in the Minou Group at least 4000 feet in width with numerous electromagnetic conductors, and an apparent strike parallel to the location lines of the Minou Group.

# PHYSIOGRAPHY AND GENERAL GEOLOGY

The Minou Group is  $l\frac{1}{2}$  miles west of the Fraser River at an elevation of 2500 feet. Timber in the area consists mainly of Lodgepole Pine, Aspen, and scattered Douglas Fir, with dense Black Spruce along the creeks and wet areas. Fyfe Creek is  $\frac{1}{4}$  mile to the southwest of the claim group and flows generally due west from the southwest corner of the claims. Beaverly Creek is to the west of the claim group and flows generally north northwest. An unnamed series of creeks which merge are to the east of the claim group and flow out of the claim group at approximately N 70° E into the Fraser River. It is on this creek near the mouth that the previously mentioned old placer mining

# PHYSIOGRAPHY AND GENERAL GEOLOGY (continued)

operation was in effect.

Photogeological interpretation by us indicate that the area has been glaciated in a north northeat direction. Mr. J. E. Armstrong and Mr. S. F. Leaming of the Geological Survey of Canada in their REPORT OF ACTIVITIES, Part A: May to October 1967, under "Surficial Geology, Prince George Map-Area, British Columbia (93G)" state:

"(1) All the major river valleys predate the last major glaciation and probably predate all the glaciations..."

and

"(2) The area has been subjected to at least three major advances of the Cordilleran glacier..."

The reader is directed to the above REPORT OF ACTIVITIES for further information about this area.

The eastern area of the claim group is characterized by broken steep creek draws with a gentle slope toward the Fraser River. The central and western portions of the claim group are flat to rolling with slopes over 10% being unusual.

Air photographs of the area indicate that there are only two small swamps within the claim coverage. The overburden for a depth of four feet consists of a gravelly soil. Numerous continuous Alder swales also containing Willow, Aspen, and Cottonwood trees, with Black Spruce along the edges, which appear to be drainage systems from air photograph interpretation, flow generally north northeast through the central portion of the Minou Group. These drainage systems have no noticeable fall to them and appear to be swampy areas when observed on the ground. The geophysical survey included such an area, and it is interesting to note that magnetic anomalies seems to be associated with these wet areas.

The ground magnetometer survey indicates the underlying structure to be striking \$ 70° W or N 70° E with possibly a major contact at the eastern portion of the grid area, where the structure appears to be striking north northwest. It is our opinion that the geophysical surveys have indicated "pipes" which come near surface through the country rock and that the electromagnetic conductors could be "lenses" of sulphides.

Although no definite outcrops have been found within the claim area, very large boulders of granite with well-developed quartz crystals have been found which could possibly be an indication of the underlying rock. Gabbro heavily mineralized with pyrite was found, while taking a soil sample, which does not have the appearance of float. Although the amount of overburden is unknown, there is one abrupt steep bank within the survey area which would probably have less than 10 feet of overburden.

#### PROPERTY

The Minou Group consists of 28 contiguous and granted mineral claims. R. A. Savidge of Box 2497, Whitehorse, Y. T., is the recorded owner of Minou 1-10 inclusively and Minou 25-28 inclusively. K. E. Kania of R. R. #3, Quesnel, B. C., is the recorded owner of Minou 11-24 inclusively. The property is free from encumbrances of any sort as of the date of this report.

#### SUMMARY

Ground electromagnetic and magnetic surveys have indicated numerous good conductors within the survey area with coincident magnetic anomalies. We feel that the results obtained through the surveys performed by Lundberg Explorations Ltd. and their recommendations are extremely significant and encouraging.

Two soil samples and one 60 element semi-quantitative spectrographic analyses of a soil sample have produced anomalous values
in silver with very small values of lead and arsenic. It is
thought that this could be caused by argentite. Encouraging
values in nickel, copper, molybdenum, and titanium have also
been obtained. It is also believed by R. A. Savidge that some
of the electromagnetic "curves" obtained could be due to disseminated mineralization, and that the magnetic "highs" produced
by the survey could be caused by pyrrhotite. These are guesses
as a result of a limited amount of geophysical experience.

The prospectors feel that the Minou Group may be regarded as a better than average and extremely promising property for further mining exploration.

A STATEMENT REGARDING
TOTEM MINERALS LTD.
AND
LUNDBERG EXPLORATIONS LTD.

Only those portions of A REPORT ON THE AIRBORNE GEOPHYSICAL SURVEY OF THE WED CLAIM GROUP--CARIBOO MINING DIVISION, BRITISH COLUMBIA, FOR TOTEM MINERALS LTD., VANCOUVER, B. C. which are directly related to the Minou Group have been included in this report. Those statements included in this report in quotation marks are to the best of our knowledge a perfect reproduction of the same statements which are available to the public in the office of the Mining Recorder in Quesnel, B. C. To the best of our knowledge, niether the company of Totem Minerals Ltd. nor Lundberg Explorations Ltd. is still in effect as a company as of the date of this report. Nevertheless, it is not the purpose of this prospector's report to state any fact as such other than as fact, nor is it the purpose of this report to misrepresent or minconstrue any statement made in it, regardless of to what or to whom it pertains.

#### TESTIMONY

This REPORT ON THE MINOU GROUP BY THE PROSPECTORS dated August 18, 1969, is a true statement and unbiased report of work done and results obtained in prospecting the Minou Group to the best of our knowledge.

It has been our intention in this report to present the facts to the best of our ability without bias. To the best of our knowledge nothing stated in this report is misleading.

R. A. Savidge

K. H. Kania





