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FORTUNE CHANNEL MINES LTD. GEOPHYSICAL REPORT ON A GROUND MAGNETOMETER SURVEY

MAG, CU, LB and BA Mineral Claims, 30 miles S. of Smithers, B.C. Latitude 54° 26'N Longitude 126° 50'W Omineca Mining Division, B.C. N.T.S. 93L/7

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DATE OF WORK: May 1st to 17th, 1971

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 3017 MAP

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ILLUSTRATIONS

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Location and Claim Map

MAG claims - Magnetic Intensity contour map

CU, LB and BA claims Magnetic Intensity contour map





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INTRODUCTION

During the period May 1st to May 17, 1971, Tri-Con Exploration Surveys Ltd. conducted a program of line cutting and ground magnetometer surveying over portions of the MAG, CU, LB, and BA claim groups, Omineca Mining Division, Province of British Columbia on behalf of Fortune Channel Mines Ltd.

The purpose of the ground magnetometer survey was to try and locate any magnetic patterns indicative of structure or changes in lithology which would aid in directing any further exploration.

LOCATION AND ACCESS

The MAG, CU, LB, and BA mineral claims are situated some 30 miles south of the town of Smithers in the Omineca Mining Division, Province of B.C. latitude 54° 26' North, longitude 126 50' West N.T.S. 93L/7

Access to the property is made via the village of Quick, B.C. some 16 miles south of Smithers on Highway 16, where the Bulkley River is crossed and a good gravel road is followed along the south side of the river for a distance of some 9 miles towards Walcott. At the Walcott junction the righthand turn off is taken for a distance of some 4 miles until the bridge at Sunrise Creek is crossed where the road splits into two unimproved private roads. The left fork is taken for a distance of approximately ½ of a mile to where the road forks once more. The right hand fork traverses both survey grids.

THE PROPERTY

The MAG, CU, LB and BA claims or portions of claims which were covered by this survey are as shown in Figure 1 and listed as follows:

> MAG 4, 6, 8, 10, 29-33, 35, 37-40, 41-44 CU 1-7, 9, 13-17, 25 LB 5-10, 13-16 BA 15, 17, 19

SURVEY SPECIFICATIONS

Survey Grid

In both survey areas Figures 2 and 3, the ground magnetometer survey was conducted on chain and compass traverse grids which consisted of northsouth lines turned off at right-angles every 500 feet from east-west baselines. The traverse lines were flagged and numbered at 100 foot intervals. The survey grid on the MAG claim group was established coincident to the ground magnetometer program. A previously located traverse grid on the CU, LB and BA mineral claims was re-established and used for survey control.

The Magnetometer Survey

The magnetometer survey was conducted using two Sharpe MF-1 fluxgate magnetometers. This instrument measures the vertical component of the earth's magnetic field to an accuracy of 20 gammas. Corrections for diurnal variation were made from an on site, continuous recording Sharpe MF-R-100 fluxgate magnetometer coupled to an Esterline-Angus Model T171B battery operated, Servo Recorder. Readings were taken at 100 foot intervals along the traverse lines.

Data Presentation

Some 51,500 line feet of ground magnetometer surveying was conducted on the MAG claims and some 115,100 line feet on the CU, LB and BA mineral claims. The results are presented in contour form at a horizontal scale of 1''=400 feet as follows:

- Figure 2 The MAG claim group; Vertical Magnetic Intensity-contour interval 200 gammas
- Figure 3 The CU, LB and BA claims; Vertical Magnetic Intensitycontour interval 200 gammas.

DISCUSSION OF RESULTS

The ground magnetometer data has in general been correlated with Aeromagnetic Map 5308G of Houston area and Geological Compilation Map, Map 69-1 both from the B.C. Department of Mines and Petroleum Resources.

Geologically Map 69-1 indicates that the survey area lies on or near two small upper cretaceous and/or early Tertiary porphyritic acidic intrusives which have intruded a series of Lower Jurassic and Middle Jurassic andesites, rhyolites, tuffs, breccias and minor intercalated sed-

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imentary rocks.

Aeromagnetic Map 5308G indicates that the groups of mineral claims covered by this report are situated in a large circular magnetic depression defined by the 5000 gamma contour. It is interesting to note that both intrusives shown on Map 69-1 are situated on or near the perifery of this magnetic feature. Map 69-1 also indicates two showings of copper mineralization in this area.

The ground magnetometer data shown in Figures 2 and 3 shows a moderate range of magnetic intensity values across the two map areas. The change in magnetic intensity from a moderate magnetic high on the west side of Figure 2 to a magnetic low on the east side of Figure 2, to intermediately high magnetic values on the west side of Figure 3 and finally to moderately high values on the east side of Figure 3, reflect the large circular magnetic depression as shown on Aeromagnetic Map 5308G.

The ground magnetic intensity data in the area of claims MAG 37 and 39. (Figure 2) showed the steepest magnetic gradients on this survey grid. The magnetic highs appear to be well defined and may possibly represent more basic variations in lithology in this area. The strongest magnetic response located on the survey grid covering the CU, LB and BA mineral claims is situated at the intersection of claims CU 13-16 and shows an interesting dipole response which may possibly represent a limited amount of magnetite and/or possibly a small amount of pyrrhotite mineralization.

The ground magnetic intensity data for both survey grids appear to be biased, in general, in the same direction as the magnetic data on Map 5308G and would appear to possibly reflect local trends in lithology. No specific trends in the magnetic intensity data were delineated which could be attributed with any certainty to the known granitic intrusives.

CONCLUSION

A program of ground magnetometer surveying was conducted over portions of the MAG, CU, LB and BA claim groups on behalf of Fortune Channel Mines Ltd.

The patterns of magnetic intensity delineated reflect a large magnetic depression as shown on Aeromagnetic Map 5308G. Several trends of moderately

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high magnetic intensity values were located which can possibly be attributed to basic rock types. One interesting dipole response was located in the area of claims CU 13-16 which may possibly represent magnetite and/or pyrrhotite mineralization. The magnetic data in general shows gentle trends which likely reflect changes in lithology and thus may possibly aid in evaluating any geochemical, geological or further geophysical programs conducted in the survey area.

> Respectfully submitted, TRI-CON EXPLORATION SURVEYS LTD.

Glen E. White, B.Sc. Chief Geophysicist

APPENDIX

Instrument Specification

MAGNETOMETER

A Instrument

- (a) Type Fluxgate
- (b) Make Sharpe MF-1
- B Specifications
 - (a) Measurement Vertical Magnetic Field
 - (b) Range ±100 K gammas in 5 ranges
 - (c) Sensitivity Maximum 20 gammas per scale division
 - (d) Accuracy ±10 gammas

C Survey Procedures

- (a) Method One and one half hour loops
- (b) Corrections (i) Base

(ii) Diurnal

(c) Station relationship - each station read for intensity of vertical magnetic field.

<u>CERTIFICATION</u>

TO WHOM IT MAY CONCERN:

I, GLEN ELMO WHITE, of the City of Richmond in the Province of British Columbia, hereby certify:

- That I am a Geophysicist and reside at 117 641 Gilbert Road, Richmond, B.C.
- 2. That I studied Geophysics and Geology and graduated from the University of Biritsh Columbia with the degree of Bachelor of Science.
- 3. That I have been engaged in Mining Exploration for eight years.
- 4. That I do not have, nor do I expect to receive, either directly or indirectly, any interest in the MAG, CU, LB or BA mineral claims or in the securities of Fortune Channel Mines Ltd.
- 5. That this report is based on information derived from a ground magnetometer survey carried out by Tri-Con Exploration Surveys Ltd., under my supervision.

Dated this 11 day of June 1971.

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Glen E. White, B.Sc., Chief Geophysicist

CERTIFICATE

I, William G. Stevenson, DO HEREBY CERTIFY:

- That I am a Consulting Geological Engineer with offices at Suite 209 Stock Exchange Building, 475 Howe Street, Vancouver 1, B.C.
- That I am a graduate of the University of Utah, 1946, with a B.Sc. Degree.
- That I am a registered Professional Engineer in the Association in British Columbia.
- That I have practised my profession for 22 years.
- That I have no direct, indirect or contingent interest in the MAG, CU,
 LB or BA mineral claims or in the securities of Fortune Channel Mines
 Ltd., nor do I intend to receive any such interest.
- That I have reviewed a report dated June 11, 1971 based on work conducted by Tri-Con Exploration Surveys Ltd. under the supervision of Glen E. White, Chief Geophysicist.

DATED at Vancouver, British Columbia, this 14th day of June 1971.

W. G. STEVENSON & ASSOCIATES LIMITED Consulting Geologists

W. G. Stevenson, P. Engineer



