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REPORT COVERING
MAGNETOMETER AND GEOCHEMICAL SURVEYS
ON THE
BEM GROUP MINERAL CLAIMS
PRINCETON, B.C.
SIMILKAMEEN MINING DIVISION
49 DEGREES - 120 DEGREES S.E. + SW

BY

E. M. WILSON, P.ENG.

FOR

CUMONT MINES LIMITED (N.P.L.)

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MAP Magnetic contour plan and ~~map~~
Geochemical data combined.
Scale 1" equals 400'

GEOPHYSICAL REPORT
ON THE
BEM GROUP MINERAL CLAIMS
PRINCETON, B.C.
SIMILKAMEEN MINING DIVISION

BY

E. M. WILSON, P.ENG.

FOR

CUMONT MINES LIMITED (N.P.L.)

MAGNETOMETER SURVEY
OF THE
BEM GROUP MINERAL CLAIMS
SIMILKAMEEN MINING DIVISION

I. Introduction:

The following report covers a magnetometer survey which was carried out between May 25th and July 30th, 1966 on the BEM group of mineral claims and Mineral Leases.

The BEM GROUP is comprised as follows : BEM 1-9 inclusive Mineral Claims (held under purchase option by Cumont Mines Limited). BEM No's 1, 6 and 9 Fractional Mineral Claims (owned by Cumont Mines Limited), Mineral Lease No. M 39 (held under purchase option by Cumont Mines Limited) composed of 17 Crown Grants as well as Mineral Lease No. M 49 (owned by Cumont Mines Limited) composed of five Crown Grants. The Group contains a total of 34 parcels.

The Survey was conducted under the supervision of E. M. Wilson, P. Eng. by Messrs. M. Rebagliatte and M. Schenck, both graduates of Provincial Institute of Mining at Haileybury, Ontario.

Local help was used to run the required grid over which the survey was conducted. Three parties consisting of six men were used to cut, chain and picket this grid.

II. Method and Equipment:

Due to the irregular pattern of the group, a grid was run from three chained base lines and consisted of cross lines each 200 feet, chained and picketed every 100 feet to the extreme boundary of the group. The magnetometer readings were taken at each 100 foot station on each cross line. Magnetic ties were made twice daily as a check on diurnal variation.

A McPhar M-500 electronic magnetometer was employed for the survey. This machine, a vertical field variometer, ranges in reading from plus 300,000 gammas to minus 300,000 gammas.

III. Results:

Of the thirty-four claims covered by the McPhar M-500 magnetometer, several areas of high intensity were outlined. In general the highs are located in the western half of the Group and indicate in most part those areas underlain by rocks syeno-gabbroic in nature - a phase of the Copper Mountain Stock. The eastern half of the Group is characterized by magnetic lows which may be twofold in nature. Firstly, the lows generally commence at the contact between the Copper Mountain Stock and the Wolf Creek volcanics. Secondly, they indicate areas of heavy overburden prevalent in the eastern sector especially along Wolf Creek.

All the zones are somewhat irregular in shape but do tend to exhibit a north-south alignment. It is interesting to note that magnetite is a common accessory mineral in the copper-bearing ores of the Princeton area, hence the areas

of magnetic intensity may have great intrinsic value.

Conclusions and Recommendations:

The magnetometer work done during the past season has surely indicated areas (in a well-established copper camp) in which more work could well be done. As previously stated, magnetite is a common accessory mineral with certain copper deposits in the Princeton area, a probable well-known example being the "Voigt" zone located in part on the No.14 claim - B3289 several miles to the north. There are as well several other areas in the immediate district where the mutual association of magnetite and copper is noted.

It is very probable that the magnetometer survey used as a reconnaissance tool has indicated areas well deserving further work.



E. M. Wilson,

P. Eng.

Princeton, B.C.
November 1, 1966.

GEOCHEMICAL REPORT
ON THE
BEM GROUP MINERAL CLAIMS
PRINCETON, B.C.
SIMILKAMEEN MINING DIVISION
49 DEGREES - 120 DEGREES S.E.

BY

E. M. WILSON, P. Eng.,

FOR

CUMONT MINES LIMITED (N.P.L.)

GEOCHEMICAL SURVEY

I. General:

Between May 25 and July 30, 1966, in conjunction with the magnetometer survey, soil sampling was done on the BEM Group. This survey was done by M. Macknight, G. Graham, B. Kennelly, and M. Schenck, under the supervision of E. M. Wilson, P. Eng.

II. Method and Equipment:

Samples were taken every 100 feet along the side lines of the same grid used for the magnetometer survey. Augers, three feet in length, were used to ensure the sample being taken at the same silt horizon. The soil that remained at the tip of the auger was collected in individual plastic bags, sealed, and later tested for the presence of copper by the Rubenic Acid Method. The results, together with the magnetometer readings, are indicated on the accompanying maps.

III. Results:

Good anomalous results are indicated on lines 62, 64, 66 and 70 in the western part of the Group and trend in a general north-south direction. To anyone familiar with the Princeton area it is interesting to note the geochemical anomalies trend northward directly through the Copper Mountain workings, which property juxtaposes on the north. Thorough prospecting, utilizing geochemical and magnetometer indications, may well prove interesting in this area.

Princeton,

November 1 1966



E. M. WILSON,
P. Eng.

APPENDIX I

The following as a record of salaries, wages and expenses in connection with the Geochemical and Magnetometer surveys on the BEM Group.

1. Base Line and Side Line Cutting, Chaining and Picketing.

This work was performed under contract by the following Princeton residents: Messrs. William Drazdoff, Michael Alaric, Michael Zagar, William Waugh, William Ashley and Gary Corsi. The work was paid for according to the following schedule.

Base Line Cutting, Chaining and Picketing	
@ \$80.00 per line mile	
Side Line Cutting, Chaining and Picketing	
@ \$60.00 per line mile	
Base Line Cut, Chained and Picketed	18,600 feet - \$ 281.82
Side Line Cut, Chained and Picketed	256,450 feet - <u>2916.57</u>
Total Line Cutting Costs	\$3,198.39

2. Geochemical and Magnetometer Surveys.

Conducted by Cumont Mines Limited employees, namely Messrs. M. Macknight, Haileybury, Ontario, Mark Rebagliatti, Vancouver, B.C., Marc Schenck, Haileybury, Ontario, Garnet Graham, Keremeos, B.C., and Mr. B. Kennelly, Princeton, B.C. The total man hours days are:

MAGNETOMETER WORK:

Magnetometer Rental 16 days @ \$7.00/day	\$ 112.00
Field Work 16 days @ \$15.00/day	241.00
Office Plotting 3 days @ \$15.00/day	<u>45.00</u>
	\$ 286.00

2. Geochemical and Magnetometer Surveys. (contd.)

Geochemical Work.

Field Work 32 days @ \$15.00/day \$ 480.00

Analyzing Samples 20 days @ \$15.00/day 300.00

3. General Supervision.

By E. M. Wilson, Resident Exploration Manager at Princeton for the period during which the work was done.

30 days @ \$35.00/day \$ 1050.00

4. Interpretation, Drafting, etc.

By E. M. Wilson 7 days @ \$35.00/day 245.00

Total Costs applicable for assessment work \$5,671.39

5. Distribution.

M L No. M 39 \$ 2,292.00

M.L No. M 49 840.00

BEM No.1, 6 and 9 Fraction M.C. 600.00

BEM No.1-9 Mineral Claims 1,800.00

\$5,532.00

AFFIDAVIT

I declare the above statement to be true and correct.


E. M. WILSON

P. Eng.

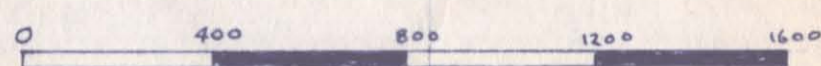
APPENDIX II

Statement of Qualifications

The following is an outline of qualifications as required by Order-in-Council #1491:

- M. Macknight - P.M. Haileybury Graduate 1966
- M. Rebagliotti - P.M. Haileybury Graduate 1966
- M. Schenck - P.M. Haileybury Graduate 1966
- G. Graham - College Student
- B. Kennelly - College Student

CUMONT MINES LIMITED, N.P.L.
 350 BURREARD ST. VANCOUVER
 COPPER MOUNTAIN PROJECT
 BEM GROUP
MAGNETIC & GEOCHEMICAL SURVEYS



MAGNETIC LEGEND

- OVER 6000 GAMMAS
- 5000 TO 6000
- 4000 TO 5000
- 3000 TO 4000
- 2000 TO 3000
- 1000 TO 2000
- 0 TO 1000
- MAGNETIC LOW

GEOCHEMICAL LEGEND

- HIGH COPPER ANOMALY
- MEDIUM COPPER ANOMALY
- LOW COPPER ANOMALY

July 20/66 JHW

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