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Conducted on the

WOOD GROUP

NTS

92I/10E & 92I/9W

Lat. 50° 36'N Long. 120° 43'W

SUB-RECORDER RECENCE 26 192 M.R. 🗄 ...... \$ VANCOUVER, B.C.

Owned and Operated

by

Charles Boitard

and

Vic Doucet

Author:

John P. La Rue

April 15, 1992 GEOLOGICAL BRANCH ASSESSMENT REPORT

22,404

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INTRODUCTION

 (i) The Wood Group is owned by Charles Boitard and Vic Doucet. The property is situated at a latitude of 50° 36' and longitude of 120° 32', 6 km. south of Afton Mine in the Kamloops area. The property is drained by Cherry Creek and Alkali Creek. (Fig 1 & 2).

Access to the claim group is gained by the Trans-Canada Highway (Kamloops-Cache Creek) then turning off via Greenstone Mtn. Road 16 km. from Kamloops, then turning left from Greenstone Mtn. Road to an old logging road 6 km. from the junction of the Trans-Canada Highway and Greenstone Mtn. Road, then driving on the old logging road for 1.5 km. before entering the claim group. The property is also accessible from the Coquihalla Highway by using the Inks Lake exit 12 km. from Kamloops, then driving west on old logging roads for another 7 km. to the east side of Wood #5 (see attached sketch, Fig. 3a) The area was logged 30 to 40 years ago and is covered by a network of old roads and skid trails giving access to all parts of the property. The vegetation is partly grassland and forest, groves of pine and fir trees occur throughout the property with some poplar and a considerable amount of underbrush. The topography is low to moderate with elevation ranging from 910 metres to 1310 metres.

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The climate is semi-arid with an annual precipitation of approximately 25 cm. The temperature varies from an extreme high in the summer of  $+30^{\circ}$ to a low in the winter of  $-30^{\circ}$ .

(ii) The Wood Group is owned and operated by Charles Boitard and Vic Doucet.

<u>Name</u>	<u>Units</u>	<u>Record #</u>	<u>Expiry Date</u>
Camp	20	218587	13/06/96
Wood #1	1	218373	04/04/95
Wood #2	1	218374	04/04/95
Wood #3	1	218375	04/04/95
Wood #4	6	218376	04/04/95
Wood #5	9	218377	05/04/95
Wood #8	1	218382	16/04/95
Wood #9	1	218383	16/04/95
Wood #10	1	218384	16/04/95
Wood #11	1	218385	16/04/95
Kam	9	216860	15/06/93
Kam #2	4	216956	26/08/92
Kam #3	1	216967	10/11/92
Kam #4	1	216968	10/11/92
Cat #1	1	306784	11/12/95
Cat #2	1	306785	11/12/92
Cat #3	1	306786	17/12/95
Creek #1	1	307541	03/02/96
Creek #2	1	307542	03/02/96
Creek #3	1	307543	03/02/96
Creek #4	1	307544	03/02/96
Creek #5	1	307545	03/02/96
Creek #6	1	307546	03/02/96
Creek #7	1	307547	03/02/96
Creek #8	1	307548	03/02/96
Likely	16	304044	14/09/95

#### (iii) <u>GEOLOGY AND HISTORY</u>

The general geology of the Wood Group area is depicted in Memoir #249 (Nicola) by W.E. Cockfield as follows:

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Sand, gravel debris (quarternary age). Intensive sequence of granite, grandiorite, diorite and mafic dykes (Coast Intrusion Jurassic) Greenstone, andersite and basalt (Nicola Group, Upper Triassic). The Wood Group area is mostly underlain by the Nicola Group (G.S.C. Map 886A), this group primarily made up of greenstone, andersite flows and tuffs with some sedimentary facies. The Kamloops formation of tertiary age generally flat lying is made up of volcanic and sediment overlying the Nicola Group.

The proximity of the Iron Mask Batholith make the Wood Group of Claims a favorable geological location. The mineralization in the Kamloops area is associated with the Iron Mask Batholith. The Afton Orebody (30 million tonnes of 1% copper) located 6 km. north of the Wood Group is tabulas shaped 520 metres in depth. This zone of mineralization has been cut by a north south fault.

The area covered by the I.P. Survey described in this report was previously known as the Hank Claim. A VLF-EM and a soil sampling survey carried out by Donald Tully, P. Eng. in March 1981, Report #9533 and August 1983, Report #11550 returned negative results.

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In 1980 three diamond drill holes drilled on the Kam Claim adjoining the westside of Wood #5, returned visible native copper in every fracture of the core, unfortunately, there was not enough fractures in the formation and the assay returned sub-commercial values. The following excerpt is taken from a Summary Report (1980) by Mr. E.D. Cruz, P. Eng. "The concentration of native copper lie on the possible presence of nearby intrusive rock similar to that of Afton Mine. The native copper mineralization in the Kam Claim maybe a fringe effect of an intrusive similar to that of Afton".

Subsequently 9 percussion drill holes carried out in 1981 on the Kam Claims returned sub-commercial values. The best results were on line 80S, 350E from 270 ft. to 280 ft. assays returned the following values: CU 720ppm; MO 9ppm; ZN 40ppm; AG 0.4ppm; AU 20ppb. The following excerpt is taken from a 1981 Summary Report by D.G. Allen, P. Eng., "There is little indication of any significant alteration minerals other than chlorite and epidote in the volcanic rocks that would be a useful guide for further drilling. However, quartz chips are locally abundant (up to 50% in a few 10 foot intervals in the coarse fraction) in holes L90-35 and 45E indicating more intense quartz veining in that area".

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(iv) A summary of work performed on the Wood Group of claims for assessment purposes during the period from June 1991 to March 20, 1992; the work was carried out on the Wood Mineral Claims #4, #5, #8 and #9.

> A grid was established with a hip chain and a compass, the survey lines are in the north 130 degrees, north 315 degrees direction. The lines were blazed, cut and flagged with stations at 25 metre intervals on Lines 1650N, 1750N, 1800N, 1850N, 1900N, 1950N, 2000N, 2050N, 2100, 2150N.

> The following lines were reflagged with stations at 25 metre intervals on Lines 1400N, 1500N, 1600N, 1700N 1800N.

11.65 km. of Induced Polarization was carried out with a dipole-dipole array of 150 metres n=1; 206 readings were taken at 50 metre intervals.

8.400 km. of Induced Polarization with a square array of 150 metre spacing 145 readings were taken at 50 metre intervals.

1.85 km. of Induced Polarization with a square array of 100 metre spacing; 34 readings were taken at 50 metre intervals.

12 km. of E.M. Survey was carried out using the transmitter at Seattle, Washington. - 6 -

(v) Work for assessment purposes was carried out over the Wood #4, Wood #5, Wood #8 and the Wood #9 Claims.

#### DETAILED TECHNICAL DATA AND INTERPRETATION

### Induced Polarization Survey, Dipole-dipole

The I.P. Survey was carried out with a Sabre Instrument Model 21, Type Frequency Domain, Frequency 0.3 10Hz with a dipole array of 150 metres between the transmitter and the receiver n=1 The dipole array was moved on the survey lines with readings taken every 50 metres. A total of 206 readings were taken on Lines 800N, 900N, 1000N, 1100N, 1200N, 1300N, 1400N, 1500N, 1700N, 1800N, 1900N representing a total of 11.650 km. (Fig. 4 and 5)

#### Induced Polarization Survey, Square-array

The I,P. Survey was carried out with a Sabre Instrument Model 21, Type Frequency Domain, Frequency 0.3 10Hz. The survey was carried out with 150 metres line between the electrodes and 150 metres between the transmitter and the receiver. The survey was carried out on the west side of the grid simultaneously on Lines 1550N-1700N, 1600N-1750N, 1650N-1800N, 1700N-1850N, 1750N-1900N, 1800N-1950N, 1850N-2000N, 1900N-2050N, 1950N-2100N, 2000N-2150N 145 readings were taken by this method at 50 metre intervals in both directions representing 8.3 km. (Fig. 6 and 7). The square array survey was also carried out on the east side of the grid with the same instrument, with 100 metre spacing between the electrode and 100 metre between the receiver and the transmitter. 34 readings were taken at 50 metre intervals on Lines 1500N-1600N, 1600N-1700N, 1700N-1800N representing 1,85 km. (Fig. 8).

The resistivity from the square array survey was not calculated because it is impossible to guaranty the equal distance between the survey line so the results would be misleading, The purpose of the I.P. Survey was to locate fracture filling or disseminated sulphides which could mean locating pyritization associated with economic sulphide mineralization. The following notes on the theory and method of field operation for the Induced Polarization method are taken from context of a geophysical report completed for McPhar Geophysics by Phillip G. Hallof, Ph.D. (Geophysics)

"Induced Polarization as a geophysical measurement refers to blocking action or polarization of metallic or electronic the conductors in a medium or ionic solution conduction. This electrochemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally when current is passed through ground, as in resistivity measurements, all of the conductions takes place through ions present in the water content or the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than water. The group of minerals commonly described as 'metallic' however, have specific resistivities much lower than ground waters. The Induced Polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present in the rock. The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d.c. current is allowed to flow through the rock; i.e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is

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enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock... when the d.c. voltage used to create this d.c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position.

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#### Electromagnetic Survey

The survey was carried out in the northwest-southeast direction  $130^{\circ}$   $315^{\circ}$ , with a Sabre Instrument VLF-EM receiver Model 27 Backpack configuration.

This instrument is designed to measure the magnetic component of very low frequency (VLF) electromagnetic field. The U.S. Navy Marine Submarine at Seattle Washington transmitting at 18.6 KHz was used. The survey was carried out in the northwestsoutheast direction with readings taken at 25 metre intervals on Lines 1400N, 1500N, 1600N, 1700N, 1800N, 1900N, 2000N, 2100N. A total distance of 12 km. was surveyed, the results have been Fraser Filtered and mapped (Fig. 9).

The survey was carried out in February and the fog and bad weather interfered with the field strength which was constantly changing and unreliable. The field strength has not been mapped.

In all electromagnetic prospecting, a transmitter produces an alternating magnetic field (primary) by a strong alternating current usually through a coil of wire. If a conductive mass such as a sulphide body is within this magnetic field, a secondary alternating current is induced within it, which in turn induces a secondary magnetic field that distorts the primary magnetic field. It is this distortion that the E.M. receiver measures. The VLF-EM uses a frequency range from 16 to 24 KHz, whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz.

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SUMMARY AND DISCUSSION OF RESULTS

The survey discussed in this report was carried out on the Wood Group of Mineral Claims, located south of Afton Mine, on the east side of Cherry Creek.

The area is covered with 25 to 30 metres of overburden made up of sand, gravel and glacial debris, so very little detail is known of the bedrock. The regional geology described in Memoire 249, by W.E. Cockfield, Map 886A shows the area covered by this survey to be situated west of the Iron Mask Batholith and is part of the Nicola Group made up of greenstone, andesite and basalt of the Upper Triassic.

Structurally the rock sequence of the Nicola Group which underlies the Wood Group of Claims trends northwest, this is established from the study of the aeromagnetic maps of the area which reflect the trend of the geological structure.

The resistivity of this survey with a low of 14 ohm metres and a high of 135 ohm metres shows a northeast trend paralleling the creek. This trend is also shown in the combination of the F.E. Anomalies A,D,E,F (fig. 4 and 5)

This low resistivity and the variation could also be attributed to the changes in the conductivity of the overburden and the depth of the overburden.

The survey was carried out with a dipole dipole array of 150 metre spacing n=1, this arrangement theoretically represents a penetration to 75 metres but, if the low resistivity is caused by a very conductive overburden, this could reduce the penetration and mask the

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bedrock. However, the E.M. Survey carried over the northeast part of the I.P. Survey also shows a trend paralleling Cherry Creek (fig. 9)

The frequency effect results from this survey show a background of 4 to 5% and a high of 12% on the Anomaly B. The combination of the Anomalies A, B, E, F clearly indicate a northeast trend and do not appear to be related to any visible topographic change. The Lines 1700N, 1800N, and 1900N have been resurveyed using a square array method of 150 metre spacing between the transmitter and the receiver. The results show a much lower background of approximately 3% and two distinct F.E. Anomalous trends northsouth, and northeast paralleling Cherry Creek. Unfortunately, this survey was carried out in the winter and Cherry Creek on the west side of the survey flows into a canyon and could have been dangerous to cross due to the frozen and slippery slopes. The west side of this survey should be extended to reach the background.

Conclusion; it is more than likely that Cherry Creek which flows into a gorge at north 060<sup>0</sup> represents a fault and the parallel trend shown in this report represents a parallel fault which is worthy of further investigation.

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## MALASPINA COLLEGE

# Statement of Course Completion

JOHN P. LARUE

has

Successfully Completed Hours of Instruction 180 in

> MINERAL EXPLORATION FOR PROSPECTORS PRESENTED BY B.C. MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES B.C. MINISTRY OF EDUCATION

> > APRIL 16 to 30, 1983 - MESACHIE LAKE, B.C.

MAY 2, 1983



Dated at Nanaimo. British Columbia, Canada

Director / Instructor

T.K.

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#### STATEMENT OF COST AND EXPENSES

Detailed costs and expenses incurred on the Wood Group, Kamloops Mining Division for the period June 1991 to March 1992. Establishing a grid in preparation for a Geophysical Survey, with stations at 25 metre intervals, blazing and cutting the following lines: 1650N, 1750N, 1800N, 1850N, 1900N, 1950N, 2000N, 2050N, 2100N, 2150N. \$ 2,064.00 12.9 km. at \$160 per km. Flagging the following Lines at 25 m. intervals 1700N, 1800N .817 km., 348 stations at \$2.50 per stn. 870.00 I.P. Survey dipole-dipole array, 150 m. spacing 11.65 km. at \$1,900 per km. (all included) 22,135.00 I.P. Survey square array, 150 m. spacing 8.4 km. 100 m. spacing 1.85 km. 10.25 km. at \$1,900 per km. 19,475.00 (all included) E.M. Survey at 25 m. intervals 12 km. at \$160 per km. 1,920.00 Map drafting and plotting 2,000.00 E.M. Filtering and plotting 1,500.00 Report 1,500.00 250.00 Typing

\$51,714.00

Respectfully submitted by,

Charles Boitard

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## REFERENCES

Cockfield, W.E.	Memoir #249 (Nicola) 1961
Tully, D.	Geophysical Report #9533 on the Hank #1 Mineral Claim, Sep. 16/81
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