REPORT ON THE

WEST GORDON MINERAL CLAIM
RECORD NO. 6084

COLES CREEK AREA

SOIL GEOCHEMICAL SURVEY/MAGNETOMETER SURVEY

OMINECA MINING DIVISION

LATITUDE 53<sup>O</sup>32' LONGITUDE 127<sup>O</sup>14'W

NTS 93E/11E

FOR

CANUCK RESOURCES CORPORTION OGICAL BRANCH
ASSESSMENT REPORT

J.G. AGER CONSULTANTS MITTER

JAMES G. AGER, B.Sc. CONSULTING GEOLOGIST

DECEMBER, 1984

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#### SUMMARY

In the 1984 season, a geochemical soil sampling survey and geophysical survey-magnetometer was carried out over the West Gordon Claim in the Coles Creek area of west-central British Columbia. A total of 38.5 kilometers of flag and compass grid was established and 682 soil samples were collected. The samples were analyzed for copper, silver, lead, zinc and arsenic. In addition 14 kilometers of magnetometer work was taken over the same grid system and contoured to test potential rock types and rock unit changes.

The object of the search was to narrow down a target area of base metal and precious metal concentration.

## **PROPERTY**

The West Gordon and South Mark claims are located approximately 106 kilometers south-west of Houston, B.C. and contain 40 units in two contiguous mineral claims.

Claim	Record No.	Recording Date
West Gordon	6084	January 5, 1984
South Mark	4966	January 5, 1983

## LOCATION AND ACCESS

The property is located in the Whitesail Mountain Range area on the west tributary of Coles Creek. It lies to the south of Troitsa Lake, between Tahtsa and Whitesail Lakes at approximately 53°32' north latitude, 127°14' west longitude in the Omineca Mining Division.

Access to the claims is best taken by helicopter from Houston, B.C. Gravel roads originate from Burns Lake or Houston but terminate on the north shore of Tahtsa Lake (19km north of the claims).

#### GENERAL GEOLOGY

The metallic mineralization in the Coles Creek area appears to be associated with intrusive and volcanic activity in the Upper Cretaceous and Eocene period. Numerous small dykes and stocks intrude Jurassic andesitic volcanic and sedimentary rocks of the Hazelton Group. This emplacement accompanies broad zones of hornfels alteration, leading to local propylitic alteration, pyritization and localization of breccia, silicia injection and base metal and precious metal mineralization.

The older rocks of the Hazelton Group contain the Telkwa Formation, Whitesail Formation and Smithers Formation with the Ashman Formation considered of Upper Middle Jurassic age. These rocks are then unconformably overlain by Cretaceous to Tertiary Ootsa Lake Group.

## Hazelton Group

The Hazelton Group, considered to be Jurassic in age, has been traditionally divided into three units. Recently, however, four formations have been designated in the Tahtsa Lake area (van der Heyden, 1982), two of which occur at the Coles Creek property.

The Lower Jurassic Telkwa Formation occurs north and south of the quartz diorite dyke in the western part of the map area. It consists of variegated red, maroon, grey, and green tuff, as well as breccia, and flows of basaltic to rhyolitic composition. It may contain lesser volcanic conglomerate, red mudstone, siltstone and argillite.

The Smithers Formation is the other member of Hazelton Group at Coles Creek. It outcrops in the north and east part of the map area and consists of feldspathic volcanic sandstone, greywacke, tuff, breccia, and tuffaceous sediments. Lesser amounts of conglomerate and flows are present. Limestone has been observed in this unit outside the Coles Creek property.

#### Kasalka Group

Unconformably overlying the Hazelton Group is a sequence of volcanic rocks of earliest Upper Cretaceous age. Of the three formational divisions of this group, only the lower, or Mt. Baptiste Formation, is exposed at Coles Creek.

The Mt. Baptiste Formation includes a complex mixture of rhyolite and subordinate andesitic pyroclastic and flow rocks.

Near Mt. Baptiste this unit is up to 300 meters thick and is underlain by reddish-brown pebble conglomerate.

At Coles Creek the Mt. Baptiste Formation is distinguished by its cream to light-grey colour, friable nature, generally low dip angle, and lack of strong deformation. It is in fault contact with the Hazelton Group.

A pluton intruding these statigraphic units in this area has been dated at 83.8 ± 2.8 Ma. appears to be associated with hydrothermal alteration. A number of other smaller intrusions and related fluids may be available but are not easily mapped. A possible coincident metal zoning probably takes place in these zones, both with a high level effect and in an outwards radiating effect. Fracture zones occur peripheral to this and possibly provide large linear fracture zones above and around deep seated plutons, that allow additional hydrothermal alteration and potential epithermal ore deposits.

#### SURVEY GRID

On the West Gordon claim, two base lines were established running north-south. The claim line on the east border was

used as Base Line 0+00 and a second tie line established at
Base Line 15+00 West. Cross lines were then run east-west
at 100 meter intervals with sample stations taken at 50 meters.
A total of 38.5 kilometers of flag and compass lines were placed
over the survey area.

## GEOCHEMICAL SURVEY

Soil samples were taken from the second "B" level and assayed for metals with the results recorded and iso-contoured in Figures 4 to Figure 8.

The samples were analyzed by Acme Analytical Laboratories Limited of Vancouver, B.C. They were subjected to -80 mesh sieving, digestion by hot-perchloricnitric acid, then analysis by atomic absorption. The collected soil was run for copper, silver, lead, zinc and arsenic.

#### GEOPHYSICAL SURVEY

The Magnetometer survey was conducted using a Gem System, Model GSM-8 Magnetometer. Stations were run mainly in the northern section of the claim area. A total of 14 kilometers was covered

by this survey and the results are plotted on Figure 3.

## DISCUSSION OF RESULTS

A zone of lead-zinc soil anomalies was detected on the north-central edge of the sample area. Between 8S and 4S (edge of sample area) a number zinc (541 ppm over 125 ppm background) and lead (as high as 246 ppm above a background of 30 ppm) soil anomalies occur. Further work should be concentrated in this area. In the west central area at 14+00S, 20+00W an area of anomalous zinc occurs with a high of 1,315 ppm and should also be investigated. The copper, silver and arsenic show a number of scattered high values but no large continuous bands of soil anomalies (at station 16+00S, 15+00W a high of 617 ppm copper occurs).

The magnetometer survey was conducted in the northern section of the claim but due to early winter snow conditions the survey was not completed on the total grid.

A large trend appears in a general east-west direction north of the 9+00S line and seems to indicate a possible rock fault/contact or rock type change. A high background section of magnetometer readings were consistently found to read between 1,000 - 1,500 gammas in the north and generally below 9+00S and southwest of Base Line 15+00W between 700 - 850 gammas. Prospecting and geological mapping in this area should outline the reason for these results.

Two local high zones are also evident at 7+00S, 15+00W and 12+00S, 13+50W and may also be related to a change in rock units or possible fluid alteration.

## CONCLUSIONS AND RECOMMENDATIONS

An area in the central and north-central area of the claims appears to be of the most interest where corresponding lead-zinc soil anomalies occur with a possible corresponding change in the underlying rocks. In addition, a number of scattered high soil anomalies occur and should also be investigated.

Further geological work should be done to prospect and sample rock outcrops for any base metal/precious metal zones.

# STATEMENT OF QUALIFICATIONS

I, James G. Ager, B.Sc., of Vancouver, British Columbia, do hereby state that:

- 1. I am a Consulting Geologist. I graduated from the University of British Columbia, Canada in 1972.
- 2. I have worked in the exploration field as follows:
  - Jayco Syndicate; summer season, 1967.
  - Magnetron Mining Ltd., May, 1968 September, 1970.
  - Magnetron Mining Ltd., summer season, 1971.
  - Sibola Mines Ltd., May, 1972 October, 1974.
  - Self-employed Consulting Geologist; October, 1974 to present, as Geologist and Project Supervisior for various Mining Companies throughout British Columbia and the Yukon including Pryme Energy Resources Ltd., Westbank Resources Inc., Colossal Energy Inc., Canuck Resources Inc., and Lansdowne Oil and Minerals Ltd.

IJ

DATED at VANCOUVER, B.C. this 28th day of June, 1984.

JAMES G. AGER, B.Sc. Consulting Geologist

# COST BREAKDOWN

Dates of Work: August 27 to September 17, 1984

Personnel: Tenney Wilkins

Gerry Crowley Lindsay Peterson

Contract: J.G. Ager Consultants Limited

Labour - Soil sampling, Magnetometer \$ 4,200.00
Camp 1,750.00
Report, Truck, Travel 1,000.00
Magnetometer rental 375.00

Helicopter: 1,716.32

Assaying: 3,137.20

TOTAL: \$12,178.52











