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CYPRUS EXPLORATION CORPORATION, LTD. 510 WEST HASTINGS STREET VANCOUVER 2. BRITISH COLUMBIA TELEPHONE: 683-9304

April 22, 1971

Mr. L. McKenzie, Box 582, Princeton, B.C.

Dear Mr. McKenzie:

We are returning herewith your Report on the Wilmac Group of Mineral Claims in the Whipsaw Creek Area.

At the present time Cyprus Exploration Corporation, Ltd. would not be willing to commit to a further work program on this property. We appreciate having the opportunity to consider this prospect, and to review the Report, and would be interested to learn of any encouragement which further work by yourselves on the property may reveal.

Yours very truly,

CYPRUS EXPLORATION CORPORATION, LTD.

Ρ. Sawyer Τ.

Manager - Canadian Exploration

Enclosure

JBPS:rj

Box 532, Princeton, B.C.

Cyprus Exploration,

Vancouver, B.C.

Dear Mr. Sawyer:

I am sending you a copy of the report on our property by McDonald Consultants as you requested in your letter to R.L.Ashley. Will you please return the report to me when you have finished studying it.

> Yours truly, Les McKenzie.



The Wilmac Claims ses of Princeton Tack to (1) extensive alteration (2) granitic stocks I would want more toork done by them the look more attractive.

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#### MACDONALD CONSULTANTS LTD. STREET, VANCOUVER, 1, B.C. s U I 25 HOWE ΤE

Report On

# WILMAC GROUP OF MINERAL CLAIMS

# located in the

# WHIPSAW CREEK AREA

# in the

# SIMILKAMEEN MINING DIVISION

by

MacDonald Consultants Ltd. A. J. MacDonald, P. Eng.

March 3, 1969

Mr. J. A. Howard, Owner

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### REPORT ON THE

# WILMAC GROUP OF MINERAL CLAIMS

#### Similkameen Mining Division

#### SUMMARY AND CONCLUSIONS

The Wilmac Group of Mineral Claims is located in an area of considerable geological interest in that the Princeton area is the location of major copper deposits. The geological conditions on the claim group itself, as defined to date, are conducive to copper mineralization and further exploration is warranted in order to define the extent of the basic (pyroxenite-hornblendite) intrusive and the extent and grade of the copper mineralization associated with the intrusive.

Copper mineralization is present in trenches and old pits on the property and assays indicate values of economic grades over reasonable widths. No estimate of tonnage is possible as the work to date is far too limited. An exploration program estimated to cost \$47,000.00 is recommended to determine the value of the ground. This program will consist of a fracture pattern study from areal photographs, linecutting, a geochemical survey, a magnetometer survey plus trenching and diamond drilling.

#### INTRODUCTION

The Wilmac Group of Mineral Claims consists of 42 mineral claims and 2 fractional mineral claims, all contiguous, located in the Similkameen Mining Division approximately nine miles southwest of Princeton on Corral Creek.

The writer's firm was employed in the spring of 1968 to carry out some assessment work on the original Wilmac 1 - 18 claims and to prospect the area

for possible extensions of the zone. This work, carried out under the field supervision of Mr. M. P. Stadnyk, an employee of MacDonald Consultants Ltd., was completed in early June of 1968 and resulted in the staking of an additional 26 claims along the projected strike of the intrusive to the northwest and southeast.

The writer, accompanied by Mr. M. P. Stadnyk and Mr. J. A. Howard visited the claims on June 15, 1968. The trenches and pits were examined at that time and several samples were taken in the mineralized area. This report is based on the observations made during that visit and on a study of the available information on the area. A report by Agilis Exploration Services Ltd., Mr. R. H. D. Philp, P. Eng. dated January 13, 1968 was also made available to the writer.

#### LOCATION AND ACCESS

The Wilmac claim group is located near the head of Corral Creek at coordinates of 120° 41' west longitude and 49° 22' north latitude. It is nine miles southwest of Princeton, B. C. and at an elevation of 4,300 to 5,900 feet above sea level.

Access is by approximately six miles of dirt and gravel road from Highway No. 3 immediately north of the Whipsaw Creek Bridge. This dirt road provides reasonable access to the central portion of the property.

#### PHYSIOGRAPHY

The property lies within the Hozameen Range of the northwesterly Cascade Mountains. The timber growth is mainly pine that appears to be of merchantable size and quantity in the southern part of the claim group. The northern part of the group is sparsely timbered.

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The area is semi-arid but water is available from Corral Creek throughout most of the year.

#### CLAIMS

The following is a complete list of the Wilmac Group of Mineral Claims located in the Similkameen Mining Division near the head of Corral Creek:

Claim	Record No.	Expiry Date
Wilmac 1-4 incl.	17880 - 17883 incl.	May 30, 1969
Wilmac 5-18 incl.	20132 20145 incl.	May 16, 1969
Nac 1-2 incl.	22592 - 22593 incl.	June 14, 1969
Mac 1-20 incl.	22595 - 22614 incl.	June 11, 1969
WM 1-2 incl.	21799 - 21800 incl.	January 29, 1970
WM #1 Fr.	21816	January 29, 1970
WM #2 Fr.	21817	January 29, 1970

The writer inspected several of the posts in the Wilmac and Mac groups and found them to be staked in accordance with the requirements of the B. C. Mineral Act.

#### HISTORY

The first discoveries of copper in the Princeton area dates back to the latter part of the last century. The most significant discovery, the Copper Mountain deposit of the Granby Mining, Smelting and Power Co. Ltd., was made in 1884, and production from that ore body started in 1925. Mining of the Copper Mountain ore body stopped in 1956 when the remaining known reserves were of too low grade to sustain a profitable operation under the existing economic conditions.

Interest in the area was renewed when Newmont Mining Corporation located its Ingerbell ore body across the Similkameen River Valley from Copper

- 3 -

Mountain and also purchased the assets of the Granby Company in the area.

One of the areas of interest that received renewed attention was the Wilmac ground on which two hand trenches had located some copper mineralization in the form of malachite stain sometime prior to 1967. Since then a series of bulldozer trenches were dug and about one mile of road was constructed on the property. The trenches located a basic intrusive body containing copper in the form of malachite, azurite and chalcopyrite as described in detail under the heading "Economic Geology".

#### GENERAL GEOLOGY

The following is quoted from the report dated January 13, 1968 by R. H. D. Philp, P. Eng. and is an accurate statement of the regional geology derived from Government publications:

"Volcanic and sedimentary strata belonging to the Nicola Group of Upper Triassic Age form a broad north-northwest trending belt in the Princeton area. In places these are blanketed by Miocene lavas and sediments of the Princeton Group. Intruding the Nicola Group are a varied assemblage of intrusives of Jurrasic to Upper Cretaccous age and varying from ultrabasic through basic to acidic in composition. The Olivine Mountain intrusive of peridotite to gabbro composition lies five miles northwest of the claims while the Copper Mountain stock of syenogabbro composition lies five miles to the southeast. Numerous copper deposits are associated with both these intrusives. Several small intrusive bodies similar to both these and the Coast Intrusives also occur throughout the area."

#### CLAIM GEOLOGY

The Geological Survey of Canada Map 888A shows the claims to be, in general, underlain by rocks of the Nicola Group.

The writer inspected the area of the tranches in reasonable detail and, referring to attached Map No. 238-2 noted the following:

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#### Trench No. 1

Reached bedrock in two spots only. The exposed bedrock and float in the trench is andesite with some pyritization on the fracture planes. Trench No. 2

Andesite with pyritization on the fracture planes. Some quartz stringers with heavier pyrite. Sample No. 16476 taken in heavy pyrite assayed 0.04% Cu, trace gold and silver.

#### Trench No. 3

Overburden--float consists of andesite with pyrite on the fracture planes. Sample No. 16477 assayed 0.06% Cu, trace gold and silver.

#### Trench No. 4

Highly altered andesite at the upper end grading into a strong shear zone with an apparent true width of approximately 8 feet. This shear zone is highly oxidized and contains remnants of quartz stringers and has fairly abundant oxidiation products of copper, mainly malachite plus some azurite. Remnants of chalcopyrite were located in some of the quartz remnants. Below the shear zone the main rock is a hornblendite-pyroxenite containing malachite staining. This malachite is probably derived from the shear zone.

#### Trench No. 5

Pyroxenite-hornblendite with an oxidized zone of shearing containing several quartz stringers and associated chalcopyrite mineralization over a width of about 20 feet. There is a considerable amount of malachite present, again probably derived from the oxidation of the original chalcopyrite in the contact shear zone. The malachite in this trench spreads to a greater extent below the primary shear. Assays taken by Mr. M. P. Stadnyk and by the writer and shown on Map No. 238-3 indicate that this could be an important factor if it persists to depth.

# Trenches No. 6 and 7

Both trenches have some minor mineralization in pyroxenite rock and both trenches appear to be below the main zone.

#### Trenches No. 8 and 9

Both trenches are in a zone of schistosity and appear to be below the pyroxenite intrusive.

#### CONCLUSIONS

The copper mineralization on the Wilmac group is associated with a contact shear zone along the northern side of a pyroxenite-hornblendite intrusive. The grades and widths of the copper mineralization located to date are in the economic range and should be further explored in order to determine whether or not an economic body occurs in the area.

The additional claims staked are on the projection of the basic intrusive contact and should be prospected as contained in the following recommendations.

#### RECOMMENDATIONS

- Do an aerial photo interpretation of the claim area with particular reference to the contact zone located in the previous work. Attempt to trace the shear zone on the areal photos and also to locate other zones.
- Cut lines at 400 foot spacing and carry out a geochemical program along the contact zone.
- 3. Carry out an electromagnetic survey along the contact zone with a view to establishing the contact and to locating any results in the range for sulphide mineralization. It is not likely that an I.P. program could be successfully applied due to the amount of pyrite in the surrounding volcanics.

4. Follow up the foregoing with trenching and drilling if warranted.

COSTS

1.	Aerial Photo Study	\$ 1,000.00
2.	20 miles of lines @ \$85.00/mile	1,700.00
3.	Geochemical Survey including sample analysis	2,700.00
4.	Electromagnetic Survey	3,000.00
5.	Trenching - 200 hours @ \$30.00/hr.	6,000.00
6.	Diamond Drilling - 1,500 feet @ \$10.00/ft.	15,000.00
7.	Establish water supply from Corral Creek	800.00
8.	Camp and Supplies - 3 months including cook	7,500.00
9.	Transportation including Truck on Site	2,000,00
10.	Map Preparation - Reports, Engineering, etc.	3,000.00
	Contingencies @ 10%	4,300.00
	TOTAL COST OF PROPOSED PROGRAM	\$47,000.00

Respectfully submitted,

MACDONALD CONSULTANTS LTD.

mar P. Eng. J. MacDonald, A.

AJMac/st

MACDONALD CONSULTANTS LTD.

March 3, 1969

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#### CERTIFICATE

I, A. J. MacDonald, the undersigned, declare that:

- I graduated in 1954 from the University of British Columbia in Mining Engineering.
- 2.) I am a registered Professional Engineer in the provinces of British Columbia and Ontario and in the Yukon Territory.
- 3.) I was employed by Falconbridge Nickel Mines Ltd. for eleven years from 1954 to 1965 and since have been an employee and president of MacDonald Consultants Ltd. except for a short period of employment as field manager for Cameron McMynn Ltd.
- 4.) I personally visited the Wilmac Claims in June 15, 1968.
- 5.) I have no interest, direct or indirect, in the Wilmac property or in any securities relating to the said property nor do I expect to receive any.

Respectfully submitted, MACDONALD CONSULTANTS LTD.

I. MacDonald, P. Eng.

AJMac/st

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