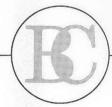
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# **BACON & CROWHURST LTD.**

1720-1055 West Hastings Street Vancouver 1, B.C.

REPORT

on the

## WHITE HOPE MINE

SLOCAN, BRITISH COLUMBIA

for

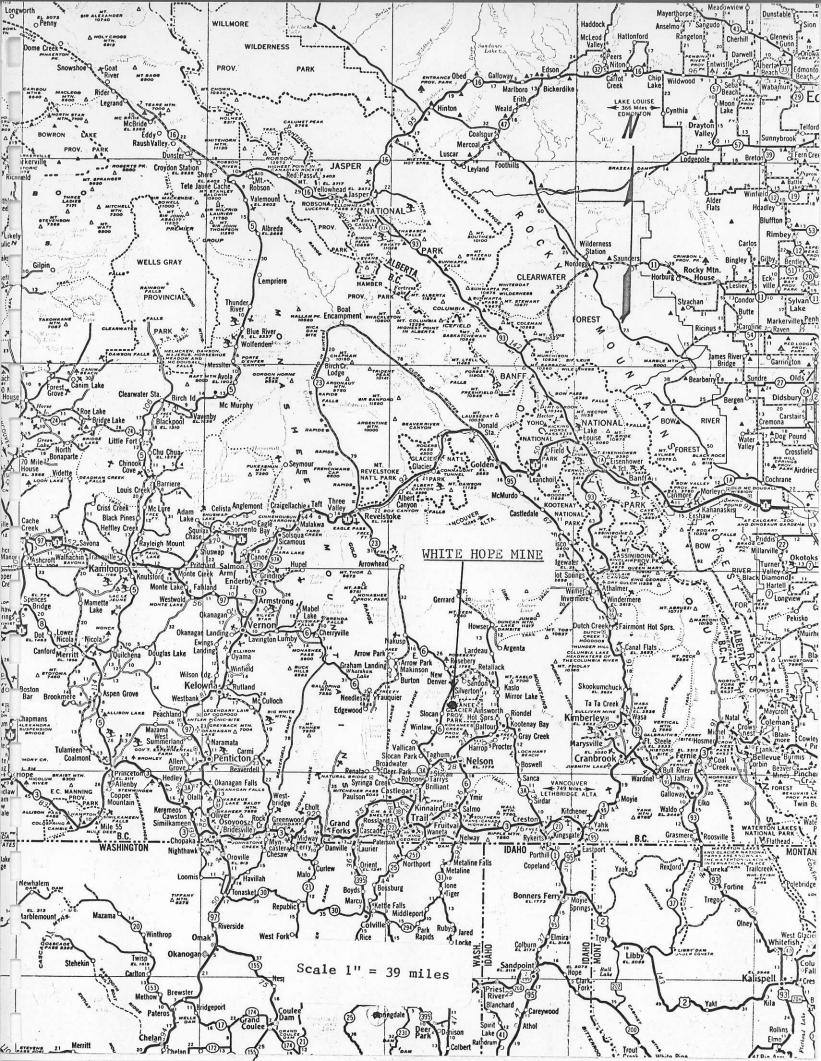
AJAX MERCURY MINES LTD.

by

R.W. PHENDLER, B.Sc., P.Eng.

Vancouver, B.C.

December 9th, 1970.



# TABLE OF CONTENTS

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	164		1975	3	e.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS		1	
INTRODUCTION		2	
LOCATION, ACCESS AND EQUIPMENT		2	
PROPERTY AND OWNERSHIP		3	
HISTORY		3	
GEOLOGY AND MINERALIZATION	5	4	

## LIST OF ILLUSTRATIONS

Location Map - 1" = 39 miles

Frontispiece

Fig.	1	489	Composite	Plan	of	#2	and	#4	Levels	-				
			1" = 40"								At	back	20	report

Fig. 2 - Composite Plan of #3 and #4 Levels - 1'' = 40'

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#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The White Hope property is a few miles north of the town of Slocan in south central British Columbia. Its mineral zones are within a roof pendant of silicified limestones within the Nelson granite batholith. The Slocan has long been known for its abundance of small silver properties.

A series of four northwesterly striking structures has been explored by five adits and some trenches. Only one of the four structures (C vein) contains appreciable mineralization and a 100-foot length may average 1.4 oz. Ag and 7.0% combined lead and zinc. This in no way constitutes ore. There is not enough tonnage to make the property into a base metal producer and silver values are not high enough to make it a profitable silver mine.

At best, the C vein may contain 2400 tons of mineralized material with a revenue value of \$25 per ton. The other veins (E, F) which were opened up in the workings show very low assays in silver and do not warrant further exploration. The G vein was caved during the present examination but selected dump material assayed rather low in silver and lead.

It is recommended that no further interest be shown in the White Hope property.

> Respectfully submitted, BACON & CROWHURST LTD.

R.W. Phendler, B.Sc., P.Eng.

- 1 -

## INTRODUCTION

On November 12th and 13th, 1970, the writer examined the White Hope Mine. He was accompanied by Mr. W. Knox, President of Ajax Mercury Mines Ltd., and Mr. R. Bentley, owner of the property. During the examination all underground and surface workings were seen and numerous chip samples were taken.

The nearby Colorado Mine, which was on the agenda, was not visited due to the presence of snow at the higher levels.

### LOCATION, ACCESS AND EQUIPMENT

The property is located five miles north of Slocan in south central British Columbia and twenty miles northwest of Nelson. Access is by Highway 6 north up the Slocan valley from the Castlegar-Nelson highway.

The mine portals are a few hundred feet east of the highway and can be reached by four-wheel-drive vehicle.

Assorted concentrator machinery has been recently brought to the property. This consists of a 5' x 5' ball mill, diesel generator, 4-cell flotation unit, 2' jaw crusher, one classifier, one roll mill, a 25 H.P. motor and 3-stage jig-slurry. Purchase price of this material is reported to have been \$50,000.

#### PROPERTY AND OWNERSHIP

Mr. Ray Bentley owns the property which consists of

the following:

Crown Grants - White Hope - L15284 White Hope No. 1 - L15285

Mineral Lease M92

Mineral Claims - White Hope 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 White Hope 18, 19, 20, 21, 22, 23, 24, 25 White Hope Fraction 1 and 2.

## HISTORY

Mineralization was discovered in 1897 and some small shipments were made as early as 1904 from the Colorado vein. Less than 125 tons of hand-sorted ore were shipped from this vein, with the last (23 tons) delivered in 1969.

The only recorded shipment ever made from the White Hope Mine was in 1965 when 9.8 tons were sent to Trail. This averaged 5.0 oz. Ag, 0.03 oz. Au, 13.8% Pb, and 12.1% Zn. Net smelter returns averaged about \$39 per ton.

During the past 15 years extensive development and exploration of the White Hope Mine has been carried out on 4 levels. The only significant mineral zone is a 60-foot long zone of galenasphalerite on the C vein on the No. 3 level. This was raised on (40') and is reported to show continuous mineralization.

A low level adit (#4) was driven for 300' in 1958 but failed to intersect significant mineralization. Diamond drilling from this level is reported to have intersected mineral zones but this has not been verified.

In February 1966, Mr. J.A. Millican examined the White Hope and the Colorado mines and recommended that the former be further developed and put into production. He based this recommendation on the assumption that the White Hope property contained 100,000 tons of probable ore. The writer does not concur.

### GEOLOGY AND MINERALIZATION

The area in which the White Hope Mine is located is underlain by altered limestone near the west edge of the granitic Nelson batholith.

A series of northwesterly-striking fractures that dip steeply to the northeast are erratically mineralized. Widths of these structures vary between a few inches and 3.5 feet but probably average about 2.0<sup>4</sup>.

Of the four structures observed, only one (C vein) showed appreciable mineralization. This vein was drifted on for about 100 feet on the #3 level (See Fig. 2). A stope (30° long) developed on this vein averaged 0.4 oz. Ag, 6.0% Pb and 1.35% Zn across an average width of 2.6°. The structure was intersected 100° southwest of the stope area but contained only 4" of gouge with no silver minerals. Host rock is silicified limestone.

The G vein, only observed on surface and not yet intersected in underground workings, was partially caved during the present examination. It was reported to contain good grade ore but a selected dump sample assayed only 1.10 oz. Ag and 1.63% Pb. This cannot be considered encouraging.

During the examination the following samples were taken by the writer:

Sample							
No.	Level	Width	Oz.Ag	Oz.Au	Z Pb	<u>% Zn</u>	Location
36864	2	0.31		*.006			S xc #1 Dr.
36865	2	0.31	.01				S xc F vein
36866		3.01	.30		0.45	0.13	SE dr C vein
36867	2	0.31	.06		0. 44.3	0023	SW dr.
36868	34						
and the second second		0.51	* .01				E vein
36869	3333	0.3	* .01				Gouge zone
36870	3	0.31	* .01				C vein extension
36871	3	0.3*	.01				E vein
36872	3	3.51					C vein - at raise
36873	3	3.01	0.33		5.02	0.59	"C" stope - S end
36874	3	1.5*	0.44		4.41		- TO. N OT
							36873
36875	3	3.01	0.57		11.60	2.86	" " - 20' N of
							36873
36876	3	3.0"	0.26	tr.	1.73	0.57	" " - 30" N of
							26873
36877	32		5.92				Hand picked dump ore
36878		1.51	0.45				E vein hangingwall
36879	2	1.0*	1.16				E vein at portal
36880	2	1.5*	7.98		4.25		C vein at S face
36881	Surface	0.51	* .01				F vein
36882	11	5.01	tr.			1.55	G vein
36883	9.0		1.10		1.63		G vein - dump ore
36884	22	1.0*	.01				Core intersection
							and the second sec

\* Less than

Sample 36879, which showed some fluorescence with the ultraviolet lamp, assayed less than .01 W03.

- 5 -

The mineralization appears to be erratic, discontinuous and distinctly narrow. The possibility that the veins improve in either grade or width is highly unlikely. Most probably they will continue as observed in the present workings.

The use of gross metal values in calculation of dollar value of "ore" is unrealistic and misleading, especially if based on a few hand-picked samples or carefully hand cobbed ore shipments. It is the belief of the writer that the mineralized material would not average \$25 in value.

It must be remembered that gross metal value does not allow for metallurgical loss in the concentrator, shipping costs to smelter (10¢ per ton mile), treatment charges and general smelter deduction. Most smelters do not pay the full price per pound of any metal but, as a hedge against falling prices, pay 5%-10% less than the quoted price for that day.

The foregoing deductions generally leave the ore shipper with a revenue value of little more than half the gross metal value. This revenue value must cover the cost of mining, concentrating, administration, building the mill, property acquisition payments and provide the profit. Hence, the so-called gross value as mentioned in J. Millican's report of 1965 has little meaning and, without any qualifying statements, should be regarded with caution.

- 6 -

