673564

REPORT ON THE

小人を

RED ROCK MINES LTD.

HIGHLAND VALLEY PROPERTY

KAMLOOPS MINING DIVISION

RED ROCK MINES LTD.

HARVEY H. COHEN, P.ENG.

## HARVEY H. COHEN ENGINEERING LTD.

CONSULTING ENGINEERS

TELEPHONE: BUS.: 684-6711 RES.: 266-8169 1264 West Pender Street VANCOUVER 1, B. C.

January 13th, 1965.

Mr. J. Hallberg, President, Red Rock Mines Ltd., 310 Credit Foncier Building, 850 West Hastings Street, VANCOUVER 1, B. C.

Dear Sir:

April 1-14, Up 1-19 and Apt 1, 3 Fr. 4 and 5 M.C.'s, Highland Valley Area, B. C. File 65-84.

This report is based on a field examination of the area by the writer, accompanied by Mr. Fred Hemsworth, P.Eng., during the period August 15 - 16, 1963, together with a progress report by Mr. Fred Hemsworth dated September 8, 1964.

Respectfully submitted,

\$

Harvey H. Cohen, P.Eng.

Encls. HHC:rl

# REPORT ON THE

APRIL 1-14, UP 1-19 AND APT 1, 3 FR. 4 AND 5 M. C. '5.

HIGHLAND VALLEY AREA, B. C.

#### To:

Red Rock Mines Ltd., 310 Credit Foncier Building, 850 West Hastings Street, Vancouver 1, B.C.

> Harvey H. Cohen, P.Eng. Jenuary, 1965.

# TABLE OF CONTENTS

															1											Page
ABST	RACT	•	ø	•		•	•	•	•	•	•	•	•	•	•	•	•	٠	*	•	*	*	•	٠	•	1
INTR	ODUCT	ION	. •	*	*		*	•	*		*	•			6	6	e		*	ø			ħ	*		2
	Loca	rtio	n	7 c	Aa	rea	3	*	٩	•	•	8	•	٠		9	•		a		*		•	•		2
	Phys	iog	roj	gric	1		8					•	•			÷	*		*	٠			*		٠	2
	Size	of	A:	rea	3 6	anc	1	Exp	00	BUC	res	3			•			•		•				•	•	3
	Meth	bod	of	Ĩr	IVE	est	ti	ga	ti	nc	•	•	•	•	٠	•	•	•	•	•	•	٠	*	٠	•	63
SUMM	IARY A	UND	CO	VCI	<u>U</u> 9	510	)N	5	•		*	•	•		•		•	4	٩	•	•	•	•		•	4
RECO	IMMENT	ATI	ON	5	•	•	۰	٠	•	•	*	•		٠	ą	•	٠	•		•	ð	•	4		•	5
GEOG	RAPH	٤.			•	•	a	•	•	•		•	•	6	¥	•			ę			*	•	•		6
	Reli	lef	an	di	210	₹Vŧ	at.	امد	n		ø	•	•	•			•		٠	•	•	*			•	6
	Clin	ate	9		*	ę	a	ø			ę			•					#	٠	6				•	6

## ABSTRACT

1.

The April, Up and Apt Mineral Claims are situated in the Gnawed Mountain Area along Witches Brook and the Merritt-Ashcroft road. The property, consisting of 37 mineral claims and fractions, is held by Red Rock Mines Ltd. of Vancouver, B.C.

The area is in close proximity to the producing Bethlehem Copper Mine and adjacent to the active Jericho Mines property, Sheba and Peel prospects. The Highland Valley Road passes directly through the property.

Very little work of exploratory nature has been carried out on the property to date, and the ground is of importance due to its geographical location, geological environment and close proximity to active mining operations. It is for this reason and the fact that "hidden deposits" of copper bearing minerals have been uncovered in the area as a result of geophysical exploration, that the Red Rock property warrants a geological and geophysical study to test the possibilities of the ground from a mining standpoint.

#### INTRODUCTION

#### Location of Area:

The Red Rock Mines Ltd. property is located in Witches Brook valley three miles north of Gnawed Mountain at an elevation of approximately 3500 feet above sea level. The area lies 25 miles southeast of Ashcroft, B.C. and 32 miles southwest of Kamloops, B.C.

The property is reached from Merritt by travelling the Merritt Lake Road for 33 miles, then turning west on the Highland Valley Road for an additional nine miles. It can also be reached from Ashcroft along the Highland Valley Road, or from Savona via Merritt Lake Road and Highland Valley Road.

The nearest supply centre is Ashcroft -- 25 miles northwest of the property.

#### Physiography:

The area is situated within the dry belt of British Columbia. The mountains in the vicinity rise to heights of approximately 6000 feet while the valley bottoms stand at approximately 2500 feet. The relief, generally, is not rugged, and most of the area is covered by a layer of overburden, glacial outwash and open jackpine forest growth.

### Size of Area and Exposures:

The April Up and Apt mineral claims cover an area of approximately 1800 acres. Natural rock exposures comprise less than 5% of the total area, and these are limited to a few rock bluffs, road cuts, and creek beds.

# Method of Investigation:

The field trip to the Red Rock property was carried out during 15-16 August, 1963; and included a general reconnaissance of the area, together with an inspection of the adjacent Jericho workings.

# SUMMARY AND CONCLUSIONS

The Highland Valley Area is presently being subjected to renewed interests and investigation. The Bethlehem Copper Corp. Ltd. commenced production during November, 1962 at their 3500 T.P.D. plant producing copper and molybdenum concentrates.

The properties of Minex, Torwest, and Peel have been optioned by Anaconda and are presently being investigated by the latter.

The property of Jericho Mines Ltd. is being explored by a 500 foot crosscut and reports intersections of bornite mineralization in fractures in granitic rocks from 190 feet to 250 feet (present face of tunnel).

The Red Rock property lying adjacent to the Jericho property is underlain by rocks grouped under the Coast Intrusions and consisting of granite, granodiorite, and gabbro. The mineralization revealed at the Jericho property are contained in granodiorite — similar in appearance to that observed on the Red Rock property, and was associated with shearing and alteration of the granodiorite.

The mineralized zone is reported to have been discovered by geophysical methods, subsequently diamond drilled, and presently being investigated by the crosscut.

The Red Rock property warrants a geophysical study to determine any existing structural features that may provide suitable areas of favorable geology for further exploratory work, together with limited test drilling of the gossan areas on the north slopes of the Jericho property on the April group.

#### RECOMMENDATIONS

5.

In view of the nature of the area — the lack of natural exposures initial work should be confined to a magnetometer survey on a grid 400 feet by 100 feet with a detailed survey on a grid 100 feet by 25 feet on areas of interest.

The results of the geophysical work would govern any further efforts to test the anomalous areas by stripping.

With the availability of the percussion drilling equipment capable of penetrations of 400 feet at costs of less than \$2.00 per foot, it is recommended that this equipment be employed to test at depth that area on the April No. 6 Fraction which has exposed, by trenching, copper mineralization of a minor nature. The trenching failed to reach bedrock, and the drilling would determine rapidly and economically the nature of the underlying host rock.

Estimated cost of the program is as follows:

Magnetometer & Engineering	\$2000.00
Stripping & Preparation of drill sites	3000.00
Drilling	5000.00
Total	\$10,000.00

the data the calls also de trans de cal

### GEOGRAPHY

## Relief and Elevation:

The Highland Valley property held by Red Rock Mines Ltd. occupies an area within the dry belt of the interior plateaux. The ground consists of undulating slopes in the lower valley regions at elevations of 2500 to 3500 feet, to mildly rugged regions in the upper reaches. The claims lie at an elevation of approximately 3500 feet.

The main timber growth is jackpine and this could be classed as "subcommercial" in grade. The undergrowth is light and the ground is covered by overburden to an extent of over 95%.

#### Climate:

The average annual precipitation for this area is 10-11 inches with somewhat more at higher elevations. The climate in general is considered "agreeable" with temperatures during the summer months reaching 100°F and during the winter months 0°F.