

W.A. NO.

NAME **GEOL RPT**

SUBJECT

TRIVNE

82KNW026
PROPERTY FILE **07**

003819

notes on Silver Chief group

Ownership etc.

The Silver Chief claims are held by James Main of Ferguson and optioned to Lanyon Mines, of which Albert Peterson is field superintendent. The group is sometimes referred to as Bunker Hill, but there appears to be no reason for this.

Present access

The Silver Chief showings are high on the southwest flank of a ridge extending northwest from Reddick mt. between Index and Indian creeks. A pack trail leads from the present bridge over Gainer creek, past the white Quail cabin, to the forks of Index creek, then switches up to the adit at No. 5 prospect. The lower part is shown very approximately on the accompanying map.

Geology

The ~~the~~ mineralized zones are in limestone near the contact with a green rock that appears to be argillite but may possibly be partly or wholly volcanic in origin. This contact is irregular, probably due to folding and faulting; it was mapped only near No. 1 zone and southeast from No. 5 and 6. A narrow band of limestone, 10 to 15 feet thick, is traceable southeastward from No. 5 ^{prospect.} Bedding is fairly constant at $310^{\circ} 60' SW$. Both limestone and argillite are in places intensely druse-filled. The limestone is normally ~~off~~ grey, but has been altered and recrystallized to a buff colour along numerous zones ranging in thickness from one to more than twenty feet. Some of these zones have a core of galena mineralization. At about 6725 feet elevation contains only traces of galena.

Prospects.

All the prospects of any merit appear to be ~~off~~ galena-carbonate replacements in limestone; quartz is minor, ^{and what has not been detected} Nos. 1 to 4 are bedded replacement zones, whereas No. 5 appears to be a pocket in a highly contorted part of the narrow limestone band and No. 7 comprises mineralization in the walls of three small fissures cutting obliquely across the bedding.

No. 1 is a ~~zone~~, 4 to 6 feet wide, of silver-bearing galena ore, estimated to contain 12 per cent lead. It ~~is~~ has been traced in outcrop and trenches for 300 feet along strike, passing under cover to the southeast and extending down 70 feet of bluff face to talus in the northwest. In one place it bulges to a width of 20 feet.

Halfway between zones 1 and 2 is a 3-inch bedded vein of

massive galena. This was not mentioned by Peterson or vein.

No. 2 is a 3-foot ~~zone~~^{zone} of rather spotty galena replacement. It was seen at only one place, but is reported to have been traced northwest for 200 feet.

No. 3 comprises two 4-inch bedded veins of massive galena, 5 feet apart, ^{in contorted limestone.} This zone was followed by pits for 100 feet southeast, where cover became thicker.

No. 4 was not seen. It is reported to be about 100 feet below No. 3.

No. 5 comprises closely spaced small pockets of massive galena, replacing the cores of dragfolds in highly contorted limestone, ^{exposed in a small cut.} A nearby adit followed a shear striking 050° and dipping 70° N.W. about 5 tons of massive galena has been stored in sacks at the portal, but is reported to have come from the cut, which is several feet in the footwall of the shear. No attempt has been made to explore the limestone band in the shear hanging wall, but there is no mineralization in the limestone band southeast of the cut. This prospect appears to be a small, high grade pocket or ore-shot, too small to be of any consequence.

No. 6, indicated by red dots, is a 3-foot vein of quartz and calcite, associated with buff, altered ls., cutting across the limestone bedding at a small angle. It contains only very sparse galena.

No. 7 comprises three narrow bands of massive galena replacement, 3 to 15 inches wide, along small shears cutting obliquely across the limestone bedding. It is exposed in a 10-foot adit and three cuts. No information was obtainable concerning a longer adit 75 feet lower in the draw.

Wain has since told the writer of an eighth prospect, below No. 7 in the draw, which was not mentioned by Peterson and was not seen.

Cover is thin but extensive in the hillside below the No. 1 zone, and the chances of finding additional mineralized zones appear fairly good.

Proposed work

Peterson proposes to drive an adit to intersect the four upper zones, ^{but was not specific as to location.} To do so he will have to build a road to at least the elevation of the tent. He was not specific as to route, but the general plan is shown by black pencil dots. Some road work appears unavoidable, but should not be extensive. The

road up Indian Creek will be steep, with grades up to 25 per cent, and at the mercy of ^{more} slides coming down the valley. A road along the old pack trail as far as Indian Creek would have provided a gentler grade, ~~and~~ would have been protected from slides by extensive timber, ~~if road was started~~ and would have provided access to the White Quail prospects. A road was started along it, but too many springs and seeps were encountered. A road up the northeast side of the ridge is out of the question because of sheer cliffs near the top.

Considerable difficulty will be experienced in maintaining the road, and it is doubtful whether the property could be mined during the winter months.

-82K/11W
82K-26

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Summary Report

TRIUNE SILVER PROPERTY
Lardeau District, British Columbia

INTRODUCTION

The Triune silver property of Richrock Mines Limited is located 50 miles southeast of Revelstoke in the Revelstoke Mining Division of British Columbia. It is 15 miles from the town of Trout Lake which is on an all-weather road.

The property consists of six Crown Granted mineral claims. Between the dates of July 29th and September 10th, 1969, a preliminary program of topographic and geologic mapping and trenching was carried out on the property. The work was under the supervision of the writer. No field work was carried out in 1970.

HISTORY

The Triune mine, like the other mines in the Lardeau mineral district, was active in the early 1900's. Only limited and spasmodic activity has occurred since. Recorded production was 653 tons of hand-cobbed concentrates which returned the following metal credits: lead - 494,867 pounds; zinc - 9,749 pounds; gold - 335 ounces; and silver - 144,928 ounces. Most of the zinc mined was discarded by cobbing.

Production was derived from a 400-foot vertical interval developed by three levels driven southeasterly into the south wall of a cirque. The fourth and lowest level, at an elevation of about 7250 feet, apparently did not explore the main vein. Total development in the mine was 2000 feet of tunnelling and 400 feet of raising.

The Silver Cup mine, lying 3500 feet northwest of the Triune mine, produced approximately 5,700,000 pounds of lead, 1,400,000 ounces of silver and 5,000 ounces of gold.

GEOLOGICAL SETTING

Sedimentary and volcanic rocks of the Lardeau group are folded into the major 'Silver Cup' anticline which strikes northwesterly and is overturned to the southwest. Many secondary folds are present. The lower two formations of the Lardeau group, the Index and Triune, crop out in the mine area and are the host rocks to the veins. They consist of slates, phyllites, and greenstones and are intruded by a small diorite body.

MINERAL DEPOSITS

Most of the larger mines in the Lardeau mineral district lie close to the Silver Cup anticline along what has been termed the "Central" mineral belt. The principal veins occur in bedding-plane shear zones associated with secondary fold structures. The veins strike northwesterly, dip northeasterly, and are from a few inches to several feet in width. They are composed of quartz and lesser amounts of siderite, locally mineralized with pyrite, galena, sphalerite, tetrahedrite and

chalcopyrite. The dimensions of the Triune ore-shoots are unknown but the Silver Cup ore-shoots have depth to length ratios in the range of 5:1 to 10:1. Because of this, it is anticipated that undiscovered ore-shoots will present only very short surface exploration targets.

ORE POTENTIAL

There is no known unbroken ore in the Triune mine. Based on information in old reports, there may be up to a few hundred tons of broken ore, in presently inaccessible workings, and of hand-cobbed and sacked middlings. The average grade of about 35 tons of middlings at the No. 2 Portal is as follows: Au - 0.5 oz. per ton; Ag - 42 oz. per ton; Pb- 15%; and Zn - 6%.

The Triune mine production was derived from an ore shoot which cropped out. The vein was developed over about a 500-foot strike length and a 400-foot vertical interval. Total strike length of the Triune vein on Richrock property is 3300 feet. A portion of this length is concealed under the Triune basin and much of the remaining portion is virtually inaccessible at surface because of rugged topography. The writer cannot confirm the reported presence above No. 1 Portal of massive galena mineralization which would have been concealed by a glacier at the time of active mining.

The portion of vein concealed in the basin can be tested readily by drilling from existing roads. The remaining length of the vein can be tested most easily by advancing the No. 4 tunnel as a line drive and using it for drill stations. Such investigation would be expensive and would be undertaken only as second stage work.

Of particular significance in regard to the potential of the Triune vein are first that the Silver Cup ore shoots on a nearby, parallel vein extended to a depth of 1200 feet and second that as far as is known ore on the third level of the Triune mine was not followed to depth. (The fourth level was apparently driven off the main vein). Also significant is the high silver content of the ores. For past production, silver averaged five to six ounces per percent of lead.

A number of old mines in the Lardeau area are currently being investigated by other companies.

CONCLUSIONS

To be economically exploitable, it is estimated that a minimum of 100,000 tons of reserves grading 8% lead and 5 oz. per ton silver would be required. To provide that quantity of ore would require the equivalent of an ore shoot measuring 250 feet in length, 1200 feet in depth and 4 feet in width. Considering the production history of the Silver Cup mine, this is not an unreasonable possibility for the Triune vein.

RECOMMENDATIONS

It is recommended that the Triune vein near No. 4 Portal and under the Triune basin be investigated by diamond drilling. Estimated cost of the program is as follows:

ITEM	COST
Diamond drilling (including mobilization, camp and supervision) - 1400' @ \$21.	\$29,400.
Transportation and travel - bulldozer, truck, commercial travel.	5,000.
Administration, management and overhead.	5,000.
Engineering	<u>3,000.</u>
Sub-total:	\$42,400.
Contingency - 15%	<u>6,400.</u>
	<u>\$48,800.</u>

An expansion of the program would be dependent on obtaining positive results or additional property.

Respectfully submitted,
DOLMAGE CAMPBELL & ASSOCIATES Ltd.

"LISLE T. JORY"
Lisle T. Jory, Ph.D., P.Eng.

November 13, 1970.

CERTIFICATE

I, Lisle T. Jory, of Vancouver, Canada, do hereby certify that:

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia, (B.A.Sc., Geological Engineering, 1950), and of the California Institute of Technology, (Ph.D., Economic Geology and Geochemistry, 1964).
3. I am a registered Professional Engineer of the Province of British Columbia.
4. From 1950 until the present I have been engaged in mining, mining exploration and engineering geology for various companies in Canada. I was chief geologist for Eldorado Mining & Refining Co. Ltd. for six years and Senior Engineering Geologist for International Power & Engineering Consultants for three years.
5. I examined surface and underground exposures in the Triune mine area, Lardeau District, B.C., and available published and unpublished reports.
6. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the properties or securities of Richrock Mines Limited.

Respectfully submitted,

"LISLE T. JORY"
Lisle T. Jory, Ph.D., P.Eng.

Vancouver, Canada.

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