

MAY 16, 1972

800198  
Silver Ray  
82K/9

#### SUMMARY AND CONCLUSIONS

The examination has revealed a shear zone of modest width extending better than 100 feet up the hillside. Strong silver values are present in the structure.

There is a good possibility of parallel or disjointed vein zones existing on the property. The length of these zones is an unknown factor at the present time.

The formations of the area are good receptive hosts to lead-zinc mineralization.

From past reports it is evident that numerous pits and trenches, unseen by the writer, exist, and that good mineralization was uncovered by these workings.

For any modest exploration program to be undertaken, the road to the showing must be vastly improved.

#### RECOMMENDATIONS

An exploration program on this type of mineralized structure presents problems from the topographic and geological environments.

The presence of carbonaceous sediments effectively eliminates any electromagnetic approach to vein location. The steep hillside would make large scale drill operations extremely expensive. Considering these drawbacks, the writer recommends an intensive prospecting approach. All rock exposures, whether outcroppings or trench exposures, should be carefully examined, geologized and sampled if mineralized. The location of these points should be tied into a grid system composed of taped lines running north-south every six hundred feet.

Upon completion of this geological phase, pack sack drilling is recommended from the convenience standpoint. The vein structures as outlined by the earlier mapping system should be drilled to shallow depths, (1) to prove continuity on strike, and (2) to further provide assay results. Depth drilling is not a consideration at this point.

A long range program would include diamond drilling for depth purposes and some underground work for metallurgical reasons and to substantiate geological thinking.

Before any programs are initiated, it is strongly recommended that the road through the claims should be improved considerably.

## INTRODUCTION

At the request of Mr. A. R. Hanna, a principal of Silver Ray Mines Limited (N.P.L.), this report has been prepared for the company concerning recent results from their claim block holdings in the Golden Mining Division of British Columbia. The examination was carried out on May 7, 1972. The claims were covered with a snow mantle varying from 12" to 30" in places.

The property is a silver-lead-zinc property located in the Invermere area of B.C. Accompanying the writer on the examination was Mr. Val Windsor of Invermere.

## PROPERTY

Silver Ray Mines claim block, located in the Golden Mining Division of B.C., is composed of thirty-nine (39) contiguous claims held by right of location. The claims were originally staked by Mr. G. Larrabee, who in turn has optioned them to Silver Ray Mines Limited.

The claims forming the block are:

<u>NAME</u>	<u>RECORD NUMBER</u>	<u>EXPIRY DATE</u>
Mag 1 & 2	3111 & 3112	May 20, 1973
Brown Bear 1 & 2	12940 & 12941	May 3, 1973
Discovery 2 - 7	12947 - 12952	May 3, 1973
Silver Chief 1-3	13001 - 13003	May 25, 1973
Puzzler 1 & 2	12934 & 12935	May 3, 1973
Wilderness 1-8	15716 - 15723	June 12, 1973
Nimrod 1 & 2	9822 & 9823	March 15, 1973
B 1-14	15806 - 15819	July 31, 1972

## LOCATION AND ACCESS

The claim block lies sixteen miles west and slightly north of the town of Invermere. The lower limits of the block lie close on the marsh ground of the Horsethief Creek and extend up the southern slope of Starbird Ridge almost to the peak. Co-ordinates of the property are approximately 50° 35' North Latitude and 116° 22' West Longitude.

Access to the claim is made by following the Horsethief Creek road for some 20 miles from Invermere. At this point, a logging road departs up the side of the ridge for 4 miles. Due to the precipitous nature of the side hill, a four-wheel drive vehicle is highly recommended. It should be noted that this road crosses two slide areas of good proportion near the top.

## TOPOGRAPHY

The topography of the claim can be described as rugged. The southernmost claims are located almost in the valley of Horsethief Creek at an elevation of 4,000 feet. At the trenching area, midway in the group, the elevation is around the 6,000 foot mark. The northern boundaries of the claim extend beyond the 9,000 foot peak.

The young mountain ridges of the area give rise to steep slopes which are heavily drift covered. In addition, the greater majority of the claims lie below the tree line. Spruce, balsam and fir are plentiful and could supply sufficient timber for mining purposes.

## GEOLOGY

The general eastern Lardeau section is considered that area occupying the eastern and central parts of the Purcell Mountains immediately to the west of the Rocky Mountain trench. This section is characterized by lightly metamorphosed sediments of the Purcell and Windermere systems. The area is relatively free of large intrusive bodies, but numerous diorite sills and dykes of the Moyil intrusion are common through most of the Lower Purcell strata.

Government mapping shows the formation of the area to be warped into a broad, north-plunging geanticline. Superimposed on this major structure are minor folds commonly overturned to the east.

Most mineralized zones within the area are associated with the dolomitic limitations of the Mount Nelson formation and the crystalline limestones of the Lardeau series. The old mineral King mine on Toby Creek occurred in the Mount Nelson formation whereas the Giant Mascot Mine on Jubilee Mountain produced from the dolomites of the Lardeau series. The Ruth-Vermont mine occurs in slates and argillites of the Horsethief formations.

The main sulphides of the area are galena and sphalerite, although minor chalcopyrite and some associated argentiferous tetrahedrite occur as well.

## CLAIM GEOLOGY

Only a limited number of exposures were seen during the examination due to the heavy snow cover. In essence the claims are underlain by shale, argillite and limestone formations. The shales are thinly-bedded strata which often grade into fine-grained black argillites. The limestones are impure, carrying considerable carbonaceous material within them. They vary from light to dark grey in colour. The formational strike taken from the slates appear to be northwest with steep easterly dips.

## ECONOMIC GEOLOGY

The writer was rather limited as to what he saw during this examination due to the snow cover. The true purpose of the trip was to check out the mineralization exposed in the trenches recently opened. In this respect, the writer saw only one vein structure. In an earlier report, F. L. Croteau comments on vein structures seen in three different trenches, two pits and an old dump. The writer looked at three recently cut (April, 1972) trenches and does not know the relationship of these trenches to those referred to by Croteau.

Three trenches had been opened in April, 1972, with apparently all three exhibiting varying amounts of mineralization. Large rock slabs, carrying mineralization, had been returned to Vancouver presumably from the area of these trenches.

### TRENCH #1 - Elevation 6,020 feet.

This trench appears to be an extension of the road to the showings. It has been opened up for a distance of 205 feet and shows mostly dark, fine-grained argillite. The beds appear to strike north to north-west and dips  $60^\circ$  east. At a point 22 feet from the beginning of the trench, the cut reveals a tight shear structure with fine-grained galena filling the fractures. The mineralized shear strikes N75W, dips at  $30^\circ$  to the south, and rakes flatly to the east. Width is two feet. Some iron oxide is associated with the structure.

Sample #38128 chipped across the 2 foot width yielded 27.69% lead, 30.71 ounces silver and 0.01 ounces gold. With lead at  $15\frac{1}{2}$ ¢ per pound, silver at \$1.60 per ounce, the value of this sample is \$134.98.

### TRENCH #2 - Elevation 5,990 feet.

This trench lies some 65 feet down slope from the first trench. The host formation is the same - argillite. However, near the start of the 210 foot trench is another shear fracture about  $3\frac{1}{2}$  feet wide with thin veinlets ( $\frac{1}{8}$ " to  $\frac{1}{2}$ ") of galena filling the fractures and again associated with iron oxide. However, the strike and altitude of the zone has materially changed, being N38°W and dipping  $75^\circ$  to the south west.

Sample #38126 taken from this area ran trace in gold and 1.08 ounces silver (\$1.73).

The writer was informed that a trench striking with the vein had been put in quite a while ago and was obliterated with the present trenching. More caterpillar trenching was carried out in this area while

the writer was present. It revealed the structure to carry on intermittently on the above-mentioned strike. At a point 40 feet back from the previous sample, another sample was cut across a 3 foot width.

Sample #38129 ran 4.78% lead and 22.92 ounces silver, for a total value of \$51.49.

Further evidence of lead mineralization was seen beyond the 40 foot mark. In addition, parallel veinlets were noticed some 8 to 10 feet south west of the sampled area. It is possible that mineralization could be more prevalent than was noticed in this rock-strewn area.

#### TRENCH #3 - Elevation 5,960 feet.

This trench is a 185 foot excavation angling south west from #2 trench. At a point 70 feet from the beginning, a wedge-shaped quartzite lens is trapped in the argillites. It was stated that zinc was exposed in the trench, but the writer could find no evidence of zinc. A sample taken from this quartzite and run spectrographically for all elements revealed no lead or zinc of consequence.

#### TRENCH #2A

This trench is an extension of Trench #2 and was located only for convenience and assessment purposes. No mineral was evident in its 120 foot length of shales and argillites.

From the above, it would appear that the trenching has intersected a single shear structure in Trenches 1 & 2.

Samples returned to the Vancouver office show good zinc and lead mineralization. Although no zinc was spotted during the examination, the writer has no doubt that it is present on the property. It also appears that more vein or shear structures will become evident when the snow disappears and more of the old trenches are revealed.

CERTIFICATE

I, WILLIAM G. HAINSWORTH, HEREBY CERTIFY:

1. That I am a geologist residing at #303 - 2187 Bellevue Street, West Vancouver, B.C.
2. That I am a graduate of the University of Western Ontario, London, Ontario, with a B.Sc. degree and am a registered member of the Association of Professional Engineers of the Province of British Columbia.
3. That I have practiced my profession for twenty-two years.
4. That I have no financial interest, either direct or indirect, in the subject properties, in the securities of Silver Ray Mines Limited (N.P.L.), nor in that of any of its affiliates and that I do not expect to obtain any such interest.
5. That the information contained in this report is based on my personal knowledge of the general area and specific examination of the property pertained to in the report on May 7, 1972.

W. G. HAINSWORTH, P. ENG.

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