

On account of this peculiar situation this mine has not been worked in winter, and only the richest ore can be classed as first grade ore. This mineral belt extends over Silver Cup Mountain, the Cromwell and other claims being situated on it. It probably runs along the range past the head of American and Haskins Creeks, but on account of the snow it was impossible to trace it up.

Some quartz claims carrying free gold have been found on this range, some containing feldspar and bearing a resemblance to acid facies of pegmatite dykes.

The lime dike series of rocks which extend along the headwaters of the tributaries of Lardeau and the west fork of the Duncan River, is also well mineralized. Veins occur both in the slates or phyllites or in the limestone itself. The Badshot, Mohican, Black Prince, Ophir Ludi and numerous other claims occur in this series of rocks.

Ores very similar to those of the Central Belt occur in Trout Lake and Lardeau River Valley, particularly on the slopes to the south. From the position and number of locations this may be considered as forming a third mineral belt.

The claims near the valley enjoy the great advantage of being near transportation facilities, permitting a lower grade ore to be shipped, as the freight and smelting on ore delivered on Trout Lake is from \$15 to \$18 per ton.

The Lucky Boy claim, northwest of Trout Lake City, shipped ore last summer and several other claims were being developed.

THE POPLAR CREEK DISTRICT.

The basin of the Lardeau River below Trout Lake is now usually referred to as the Poplar Creek District, since the excitement and rush into the district this summer was caused by discoveries about the mouth of Poplar Creek.

The district is not altogether new to prospectors; some of the most highly-prized claims, such as the Goldsmith, were staked ten years ago and abandoned, and some prospectors have been at work ever since.

The rocks of this lower part of the Lardeau Basin are similar to those found in the upper, and consist of greenstones and green schists, slates and phyllites with a few limestone bands and dykes of the yellow weathering diabase and the schist formed by its deformation. The veins occur on a belt of slates and diabase, dykes which crosses the Lardeau River from the northwest, above Tenderfoot Creek, and extends south-westward nearly parallel to the river across Rapid, Poplar and Cascade Creeks. On account of the snow the Silver Cup belt could not be followed southeast across the Silver Cup Mountain, but there is little doubt that the Poplar Creek belt is its south-eastern continuation. Thus the lime dike series is seen up Lake Creek showing the rocks to be angling toward the river. In Rapid Creek boulders of a conglomerate similar to that found in Trout Lake, afford pretty good evidence that this band is to be found up Rapid Creek, that is, it has crossed the valley and is now away to the south-west. The veins are similar in character to those of

Fish River and Silver Cup Mountain already described, except that at Poplar Creek arsenic pyrite is occasionally found. But the introduction of a new mineral at a particular point in a mineral belt is no rare thing. In this part of the belt veins are very numerous. In some places they form a network. They usually conform to two principal directions. One set runs about 290 degrees, that is, almost parallel to the formation, though its dip may vary from that of the rocks, and the second set cross-cuts the formation running nearly north and south. The claims which have received most attention, up to the time of my visit, were the Lucky Jack, Swede Group (Goldsmith) Gold Park on Poplar Creek; North Star on Rapid Creek, the Maggie May and Handy groups near the railway at Tenderfoot.

The Lucky Jack is situated on the west side of the railway about one-quarter of a mile below Poplar Creek crossing. The main vein is exposed in the hillside about 100 yards from the track, standing out like a wall from the more easily weathered country rock. The vein is quartz two to five feet wide standing almost vertical with a strike of 338 degrees. A number of other veins occur on the property, but these have mostly the more westerly strikes.

The quartz is milky to water, while carrying a little arsenopyrite which holds free gold, galena and pyrite, with, in places, very coarse free gold liberally splashed through it in bunches, masses, fibres and plates. Gold occurs in the pure quartz, in the sulphides, surrounding the sulphides in inclusions of country rock, or, along the walls, fine gold invisible to the eye is also found. This vein has afforded some magnificent specimens, some of the finest ore found in the Province. The values are not evenly distributed; often no gold is visible though even here the quartz is said to pan.

The occurrence of sulphide and inclusions of rock appear to be favourable indications of values. The arseno-pyrite is often rich in free gold.

On the Gold Nile and Goldsmith claims, 1,400 feet above the valley and south of Poplar Creek, are a number of veins varying from a few inches to several feet in width. They are mineralized here and there with spathic iron weathering to limonites, galena and pyrites.

From one of these veins on the Goldsmith the richest specimens yet found at Poplar Creek were obtained. One such specimen was estimated to weigh five pounds, of which about half was estimated to be gold.

The country rock here consists of slate and diabase schists. In the latter is a vein heavily mineralized with galena and blende, copper and iron pyrite said to carry very high values, mostly in gold.

On the Crown King, just to the southeast, decomposed country rock, containing stringers of quartz which I panned, yielded heavily.

On the Spy Glass claim about twelve miles up Poplar Creek, the lead occurs in glassy mica schists. Here there is a quartz lead several feet wide, with bands of pyrite containing a paystreak of 6 to 8 inches heavily mineralized with blende, tetrahedrite, galena, copper and iron pyrite. Native silver is quite abund-