

THE ADJUTANT MINELEFROY.Introduction

The Adjutant Mine is another of those mines opened during the declining days of the Lefroy Field. Lately attention has again been given to this gold bearing quartz vein by a Launceston Syndicate under the direction of C.P. Andrews.

The Ore-Body and its Development

This is a quartz vein, coursing 70 degrees and dipping south-eastward at 50 degrees, contained in grey purple and yellow slates and white friable sandstone. The accessory components are pyrite and arsenopyrite and a very little galena and chalcopyrite. The vein has been exposed over a distance of 400 feet in five shafts and some trenches to varying depths at the several points.

Main shaft is 200 feet deep, and is 30 feet on the south side of the outcrop. At the lower level a drive 40 feet westerly did not disclose any rich stone nor were the operators more successful in connecting with underlay shaft about 100 feet away in an easterly direction. It is reported that the ore-body at that level is 20 feet wide. If so, it is very poor, for an ore-body of that size would not have been left undeveloped.

The underlay shaft like all the other old workings is now inaccessible. Stone on the dump consists of hard bluish quartz flecked with arsenopyrite and pyrite. A sample of this stone yielded:-

Gold at a trace per ton.

Silver at a trace per ton.

Whip shaft, 60 feet deep, is nearby. The stone on the dump is similar to that already described. Samples yielded:-

Gold at 0 oz. 1 dwt. 0 grs. per ton.

Silver at 0 oz. 1 dwt. 7 grs. per ton and

Gold at 0 oz. 0 dwt. 9 grs. per ton

Silver at 0 oz. 0 dwt. 9 grs. per ton

The vein is reported to be 2 feet wide at this point.

Prospect shaft recently sunk to 8 feet is 130 feet eastward of Whip shaft. Here the ore-body is 8 inches to 14 inches wide, consists of quartz and limonite and the ore is contained in white sandstone and yellow slate. The presence of very much limonite in the ore and its impregnation of the wall-rocks indicates a much higher proportion of metallic mineral at this point, limonite representing one of the oxidation products of pyrite and arsenopyrite. On the walls of the vein, the footwall especially, is a large amount of blue pug which has been formed from the wall-rock by the movement of one wall on the other. The sign of movement indicates complete fissuring of the containing rocks. It is stated that the greater part of the gold is found in the metallic components of the ore and little only in the quartz.

If this is true, gold deposition followed the re-opening of the fissure and accounts for the comparative poorness of the quartz in other sections of the orebody where the metallic minerals are not prominent. The selvage material or pug on the wall proves that there was considerable movement subsequent to the deposition of quartz and such movement would be competent to produce fracturing of the quartz. Samples of the several materials of the vein yielded:-

Gossaneous quartz

Gold at 0 oz. 1 dwt. 7 grs. per ton.
Silver at 0 oz. 1 dwt. 13 grs. per ton.

Blue Pug

Gold at 0 oz. 1 dwt. 13 grs. per ton.
Silver at 0 oz. 1 dwt. 13 grs. per ton.

Quartz

Gold at 0 oz. 0 dwt. 18 grs. per ton.
Silver at 0 oz. 0 dwt. 12 grs. per ton.

Tatlow Shaft, 20 feet deep, is 20 feet farther eastward. Fair prospects were obtained from the stone at this point.

Other developments are to be seen in two trenches some distance farther eastward. Quartz rubble indicates the near presence of the vein here.

Reviewing the foregoing, it is evident that the vein was well explored by the early operators many years ago and that the results were mostly discouraging. Tests of the stone from the dumps and from new openings confirm these results and do not lend encouragement to further exploration.

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