

Old Mines on Zeehan Lodes

Silver Duke

- ① Location and Access
- ② History
- ③ Output and Profit
- ④ Geologic Environment
 - Ⓐ Country Rocks
 - Ⓑ Position Relative to Regional Structural Pattern
 - Ⓒ Orientation
- ⑤ The Ore
 - Ⓐ Character of Lode Material
 - Ⓑ Constituent Minerals
- ⑥ Mine Workings
- ⑦ Discussion of Possibilities
- ⑧ Recommendation

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① Location and Access

This very old mine is situated on the north-western foothills of Mount Zeehan. It is 200 chains S.S.W. of Mt. Zeehan station. Access from that point is via Main Street, Trial Harbour Road, and old Tasmanian Tramway to the Swansea; thence by foot-track. The distance by this route is about 8 miles.

② History

Discovered in 1890. This ore occurrence was tested by adits but abandoned within a couple of years. It was referred to by Waller in 1904 as an old mine and a large low-grade proposition, being a replacement of dolomitised serpentine. It was therefore desirable to locate and examine it.

③ Output and Profit

Any output has been only token production. No profit was made.

④ Geologic Environment.

① Country Rocks.

The hanging-wall rocks are Ordovician slates. The footwall is West Coast Range Conglomerate.

② Position Relative to Regional Structural Pattern.

The Silver Duke lode occurs in the east-west ^{phase} of the Waller Upthrust. The actual position and orientation of the Upthrust in that locality is the outcome of the effect of movements on the Oceana and Snelters Tear Faults.

③ Orientation

The strike is 280° .

(5) The Ore

(a) Character of Lode Material.

Essentially siliceous.

(b) Constituent Minerals

In the oxidised zone the minerals are galena in aggregates of cubic crystals. Cellular quartz is the gangue with accessory dolomite + some siderite.

In the unoxidised zone penetrated by the lower adit the minerals are pyrite in loose granular aggregates and accessory galena. Quartz is the gangue.

(6) Mine Workings.

There are two adits. The Upper Adit was driven on the lode for about 100 feet. The lower Adit was driven about 50 feet lower as a crosscut to the lode. It is about 150 feet in length.

The Upper Adit is collapsed about 15 feet in. The lower Adit is completely blocked by ferric hydroxide slurry, which could only be moved by hydraulic mining.

(7) Discussion of Possibilities.

The possibilities suggested by Waller's reference to a "large low-grade lode with disseminated galena" ⁽¹⁾ and Montgomery's reference to lode widths up to 40 feet ⁽²⁾ do not stand up to an examination of the lode material in lower Adit dumps. Pyrites dominates the lode.

(8) Recommendation.

In view of the relative inaccessibility and the absence of any visible evidence of a favourable ore-type or even sporadic rich lode-matter, there seems to be no justification for any further expenditure on this occurrence.

Logans Hills

16th February 1947.

⁽¹⁾ G. A. Waller "Report on Zeston Silver-lead Field" 1904 p. 33

⁽²⁾ A. Montgomery "Report on Mount Zeston" 1890.