SOME PYRITES PROSPECTS ON THE NORTH WEST COAST

The growing demand for sulphur, coupled with the high transport costs of its comparatively low priced ore, iron pyrites, has focussed attention on certain sulphide deposits of the North West Coast, which lie within short distances of the principal ports. A brief examination of certain of these old prospects was made. Previous reports deal with one or another of these shows, but except for one by F. Blake in 1940 (Pyrite Deposits in Penguin District) they are not regarded from the view point of sulphur producers.

Iron Cliff or Lady Braddon Mine: Four miles south of Penguin on the Iron Cliff Road is a picnic spot called Ferndene. A foot track has been constructed half a mile up a ferny gully to the Iron Cliff. This is a large outcrop of siliceous limonite, some 150 feet in width and showing vertical faces up to 40 feet high. The outcrop trends northeast for some 20 chains before it is covered by plateau basalt about 200 feet above creek level. An adit has been driven in an easterly direction from just above creek level for 290 feet and the last 37 feet have been driven in an iron oxide formation. Previous geologists who have examined this area are divided in opinion as to whether the iron oxide is primary or whether it represents the oxidation of a large sulphide lode. The oxide is chiefly limonite and contains bunches and aggregations of quartz, so it is not unreasonable to suppose that it is the oxidation of a sulphide lode. However in the adit, there is no sign of sulphide minerals and it is likely that the oxidation zone would extend to a considerable depth.

Woodstock Copper Mine, Natone: This is situated, on a good motor road, nine miles from Burnie. In the early 1900's, when the show was known as Rutherfords, an adit with some shallow workings and a main shaft were put in. Twelvetrees reports that to the depth tested (32'), the lode, still more or less in the oxidised zone, averaged 18" in width. The late L.J. Clark for years prospected the area by means of shallow cuts and adits and the widest lode uncovered by him ranged from 4 to 15 feet. This appears to be a parallel formation to that in the old Rutherford Workings. A sample taken across the formation showed on assay 9.1% of Sulphur. The lode material contains a deal of quartz and also horses of country rock / black slate. The area does not seem, in spite of its great accessibility, to offer much possibility as a Sulphur producer.

Copper King: Much the same type of deposit as at Natone, occurs at the old Copper King Mine. Unfortunately the workings here are inaccessible but the material on the dump indicates a better developed sulphide lode than at Natone. In 1905 Twelvetrees mentions the lode as having been proved 30 feet in width at shallow depths. In 1906 a main shaft was sunk and a level opened at 150 feet; there was some production of copper from 1907 to 1909. The country here, is very broken and quickly drops from the basalt plateau to the Blythe River. The settlement of Cuprona on the Plateau is 4 miles from Blythe Heads on the Bass Highway and from here a narrow metalled road 60 chains in length drops down to the mine. Further investigation of this property may lead to the discovery

of adequate amounts of pyrite but it would probably have to be obtained by underground mining.

Dial Range Prospects: Mineralization is common in the Cambrian Sediments of the Dial Range and prospectors and small companies have been interested, in the past, in deposits containing gold, silver and copper. All these metals occur associated with iron pyrites. About 30 years ago, a Mr. Hobbs of Ulverstone, obtained some 50 tons of pyritic ore from the workings of the old Dial Mine. The transport of this involved the sledging of the ore up a steep hill, hauling down the other side to a tram which ran along the Leven River for a few miles. From here the ore was shipped by barge to Ulverstone. With all this handling it did not pay to produce the pyrite. The workings from which this was obtained presumably the Northern adit of the Dial Mine, is now inaccessible but portion of the ore may still be examined on a dump. The pyrite occurs, associated with quartz, in large cubic crystals. No record exists of the width of the lode but Twelvetrees believes that it would vary greatly from place to place. The large well crystallised pyrites suggests that it was deposited in fractures in the rock (probably near the contact of the quartz porphyry) and consequently no great width would be expected. Further more this is the most inaccessible of the prospects and a road would have to be constructed for several miles over very rough country.

Further North, and far more accessible is an old show known as Keddies. A truck track leads from the end of the Lobster Creek Road for about 2 miles right to the show. It is in good order except for two bridges which would need replacing. On the top side of the track near a small gully may be seen a small cut exposing the country rock over a width of 15 feet. The rock-quartzite and breccia- is partly replaced by iron pyrites. A chip-sample taken at intervals across the replaced zone showed 21.3% Sulphur, and 21.4% of Iron. This excess of iron indicates that near the surface a small percentage of the sulphide has been oxidised so that the general percentage of sulphur would be almost 25%. Thus it appears that almost 50% of the country rock has been replaced by pyrite which occurs as fine grained aggregates. In appearance a face of the rock appears as if the pyrite has been splashed on it. Eighty-six feet below, near the level of Dial Creek an adit has been driven, which intersected the ore body at 150 feet from the surface. The width here is stated to be from 4 to 6 feet. Further work near the surface may reveal larger replacements of the country rock by pyrite.

Summary:

Several deposits of iron pyrite, an ore of sulphur exist within a radius of ten miles of the ports of Burnie or Ulverstone. None of these on face values seem large enough to warrant economic mining or quarrying of the pyrite. The Iron Cliff limonite deposit may be the surface expression of a large pyrite lode at depth but it is considered that the depth of the sulphide zone would be too great for economic exploitation. Further investigation in the vicinity of Keddies and the Copper King may lead to the discovery of larger bodies of pyrite close to the surface.

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