705 TRANS.

NOTES ON COMSTOCK ADIT WORKINGS IN VICINITY OF ALLISON'S LODE

Location and Access

The Comstock adit workings are situated 2½ miles east-south-east of Zeehan township. Access is gained from the latter by way of Trial Harbour road for a distance of 4 miles.

Introduction

Comstock adit was driven many years ago at different stages by various companies, but, as far as can be ascertained, the last work in the north-east end of adit was undertaken by Broken Hill Pty., Block 10 Company about the year 1910.

In 1935 the Mines Department decided to continue the adit from that end with the object of intersecting Allison's Lode and others further east, and ultimately driving towards Sylvester mine, approximately ½ a mile to the north-east, to obtain a drainage channel for any lodes which might be cut by adit workings.

Three men, including the foreman, A. Brown, have been engaged on this work for the past 9 months, a description of which is included hereunder.

Mining Works

The recent mining works comprise:-

- (1) Air Shaft to surface (143 feet vertical) at end ofold work in Comstock adit.
- (2) Cross-cut from shaft to south-east, for length of 37 feet, at 18 feet above adit level.
- (3) Cross-cut from shaft to north and northwest, for a length of 31 feet; at 18 feet above adit level.
- (4) Cross-cut northerly from shaft at adit level for a distance of 23 feet.
- (5) Continuation of main adit in a general north-north-easterly direction for 165 feet.
- (6) Cross-cut south from adit, commencing 7 feet east of shaft, on bearing of 177 over a length of 76 feet. Also from 67 feet in this an easterly cut for 22 feet.
- (7) North-north-easterly cross-cut from adit level, or 24 feet east of shaft, over a length of 11 feet.

The attached plan of survey indicates the relationship between work recently undertaken and that of old adit workings in the immediate vicinity, together with mining work on Allison's Lode at surface and 47 feet level.

Lodes

. A lode channel coursing approximately 274° and

dipping to south at 60° was intersected at 57 feet from adit in south cross-cut. On east side of cross-cut mineralization occurs in the form of disseminated pyrite and sphalerite, but no defined channel appears to exist. On west side the channel is more definite and shows splashes of pyrite and sphalerite on footwall side with mixed galena, pyrite and gangue, over two feet in width, on hanging wall. Bunches of silver-lead ore occur, but the lode in its present stage of development offers little encouragement of its becoming a workable ore shoot. Probably the best manner of testing the lode would be to drive on it to the west where the channel seems to be better defined.

A sample of clean galena from hanging wall side of lode was assayed with the following result:-

Silver 35.9 ozs.per ton

Lead 58.2 per cent.

This lode appears to junction on the underlay with a 12 inches wide quartz and pyrite lode, exposed in west cross-cut, five feet further south. The latter is vertical and has an apparent strike of 307°.

In north cross-cut from shaft at adit level a small vein of pyrite in quartz associated with a bunch of ore, in the form of galena, sphalerite and pyrite, was intersected. Bands of pyrite occur as replacement of slate in this cross-cut and the one further east. These occurrences appear to be of little consequence in themselves but may be connected with Allison's lode.

Allison's Lode

Allison's lode is indicated at surface by shafts and caved stopes trending in a general north-north-westerly direction. Old underground workings partly accessible at present include:-

- (1) Vertical Ladder Shaft 75 feet deep.
- (2) " Whip " 47 " "
- (3) Drive on lode at 47 " level
- (4) Short drive to north at 60 " " from Ladder Shaft.

Owing to stoping and timbering the lode is now only exposed in 47 feet level at 17 feet north of ladder shaft. At this point the strike is 337° and dip to east at 52°. The lode has a width of 18 inches and consists of a 6 inch clean galena vein, the remaining portion being made up of admixtures of sphalerite, galena, pyrite and gangue.

The result of an assay of picked galena from the 6 inch vein showed a content of 24.9 ozs. of silver per ton and 81.3 per cent of lead.

The stoping and driving on 47 feet level indicates that, to the south, the lode turned south west, before reaching the vicinity of Comstock adit, and junctioned with a short lode coming from the north-north-west.

If the general dip of Allison's lode coincides with that of 52° as exposed in north end of 47 feet drive, then it should have been cut either in the back of north cross-cut from Comstock adit level, or slightly to the east thereof.

However, from the relationship between what appears to be caved stopes at surface and the underground workings, it seems probable that the dip of the lode is actually much steeper. In that case, if the lode channel extends far enough, it would be intersected by driving in a westerly direction from north cross-cut at Comstock adit level.

F. Blake ACTING GOVERNMENT GEOLOGIST

Mines Department,

15th July, 1936.