

ABERFOYLE - STOREYS CREEKEXPLORATION.

I have been in this area now for about 5 months and have had the opportunity to form an opinion on the general exploration of the ground and development in the mines with a view to the future of the Rossarden-Storeys Creek Mining Camp.

Thinking that these arguments are worthy of your consideration, I will try to set them forth.

ABERFOYLE MINE - ROSSARDEN.

This is an old mine and the ore reserves outlined might keep it going without difficulties for some three years (my own estimate) at the stepped-up rate of production. Judging by the diamond drilling done underground, the development during past years as well as the development program outlined for the next half year, there is only slight hope that a few additional stopes will be added within the present working areas. The latest diamond drill program which was suspended in March 1961 and was intended to check up on intersections encountered in former holes as well as fill-in drilling at gaps within the workings, showed from the very outset such poor results that a change in the program was made by skipping a few levels. (The drill was moved from No.5 to No.8 Level).

The mine, with regard to the finding of new stopes within what we call the proper ore body, has had its best years. It is not enough now to get a few 'odd stopes' going. What is needed is a new ore body which should have its location as close as possible to the present hoisting facilities. If we consider the time it takes to locate and develop new stoping areas which in future will involve considerable crosscutting, long drives, slow progress along faults, as well as longer haulage, while a depletion of the present ore reserves takes place, then the necessity of a stepped up programme of development becomes evident. This of course would require more diamond drilling underground.

A short range programme like this would refrain from chasing up small intersections which might at best be of very limited extent and questionable value and rather concentrate on the opening up of new promising ground. That would include the area South East of the present workings towards Aberfoyle Fault No.2. This fault is within the reach of a drill hole of 400 feet drilled from the No.8 Level. Further driving along the Western fault which is tin bearing, i.e. development by driving and crosscutting towards the North and West of the present workings as has been suggested by Mr. R. Hare.

For a long range programme that might result in the discovery of a completely new ore body it should be borne in mind that there is not only a chance of finding ore in the Northern extension of the Aberfoyle No.1 fault but also in the No.3 fault which is of much greater length. Another good bet is the Burn's Marsh fault which has the same strike as the Aberfoyle faults. Holes should be drilled to test these structures, particularly at points where surface showing are close by and also at junctions with other faults. The study of aerial photographs and the map we are preparing with the aid of them, makes this very clear. We started to plot a geological map using all old maps available together with the aerial photographs and were able to locate a few structural features that do not appear to have been paid any attention before. I hope that this procedure will help to clarify the intricate structural pattern and also provide some proper correlation with regional features.

In short the problems for the Aberfoyle Mine boil down to the following -

- (A) The need for a short range underground exploration and development program covering the ground adjacent to the present mine workings and of such an extent that any ore found can be handled with existing facilities.
- (B) Long range exploration drilling in the Northern extension of Aberfoyle No.1 fault and the exploration of similar parallel structures. The mining of an ore body in these or adjacent structures involves the sinking of a new shaft.

STOREYS CREEK MINE.

This mine is a more delicate thing than the Aberfoyle Mine.

This is not due to the shorter span of life to be expected by the presently outlined ore reserves (we do not know yet how much the No.9 Level will contribute) but rather it is due to it's geological setup. Up to now no clear association or control of the veins by major fault structures, as is the case with the Aberfoyle ore body has been recognised.

The ore body at Storeys Creek is a group of veins of limited extent.

The outcropping of a similar system of veins on the Eastern Hill invited a check by driving an adit and putting a drill hole down (SC-1). The results were negative just as in the drilling of the veins of 'Egans Alluvial'. This information as well as the results of surface drill holes SC-2; SC-3 and SC-4 (Sc-3 showed a very problematical quartz intersection) seem to indicate that major ore accumulations do not here favour a pattern like a string of pearls. SC-5 showed a vein intersection of 42" associated with a fault zone. The hole was stopped when a drill bit was lost

(it was stuck) in what could have been another fault. This latter fault, it appears to me, would line up with the strong fault encountered in Drill Hole U8-12. The faults in SC-2; SC-5 and U8-12 can be lined up in their strike and dip and seem to correspond with a strong lineation visible on aerial photographs. This particular lineation is a fault which trends to the N.W. and displaces the Burn's Marsh fault at a point about 4,000 feet west of the Aberfoyle shaft. As it goes apparently through the Storeys Creek Dam I call it for simplicity, 'Dam fault'. If the intersections in the holes belong to that fault then the dip of that fault is 'East', contrary to the west dipping Storeys Creek deposit. A strong parallel fault which runs along part of the upper reaches of the Aberfoyle Creek, trending N.W. comes close to the N.E. corner of Storeys Creek SL-7 claim. The dip is unknown but there are vein outcroppings on the S.W. side of the fault.

To come to the point: The location of the Storeys Creek ore body lies between the above two strong faults (zones?) which contain vein quartz as shown in SC-5 and quartz and carbonate as shown in SC-2. This leads to the conclusion that these faults may have some kind of structural influence and control. We know from the Aberfoyle ore body that there is mineralization in faults and not only in veins, though veins frequently follow faults.

The present surface drilling programme which started about a year ago follows a pattern looking for similar ore bodies or lenses as we have in the Storeys Creek deposit.

The results up to now show that the finding of such a body is unlikely for major concentrations of veins apparently do not follow in such a repetition.

The above discussion suggests that more attention should be paid to structures with which veining or mineralization is associated. As the regional picture is still far from being clear we should at least put a few holes into any major structure encountered, structures where some evidence was found that they were used for channels in the feeding of the vein quartz. Such a program is dictated by common sense and if I consider the procedure applied by companies I worked for before, then I must say that they would do the very same. As mentioned in the chapter on the Aberfoyle Mine, attention should also be paid to structural junctions for wherever we find them there are in many cases showings of vein quartz in close proximity.

REGIONAL EXPLORATION.

Assuming the case that the exploration program conducted in the two mines and the closer area should fail due to the fact that, in spite of favourable geological circumstances and mineral traps, nature was not generous enough to put another ore body down by the backdoor, outside exploration of good mineral prospects and the acquisition of mineral bearing mining ground should not be neglected.

Here in N.E. Tasmania we are in a mineral district that shows a clear zonal distribution of Tin-Tungsten on the one hand and gold on the other. This part of the country has been neglected and has received the treatment of a stepchild in the area of mineral exploration.

Aberfoyle Tin N.L. is centrally located and should at all events try to take its pickings now, for certainly during the coming years the ground will be just as over-run as in parts of Canada once foreign mining companies as well as some domestic ones get the scent of it. Everybody is looking for mineral bearing ground that has not been scratched yet, that, is, ground where some surface exploration of showings and some mining has been done without the benefit of diamond drilling.

I take as an example the neighbouring Mangana goldfield. If that ground could be taken up, the old mines studied in detail, then by drilling for extensions and also in some main structures ore might be found and enough of it outlined to warrant underground development. To make such a thing feasible should be easy for this company for it is right in the neighbourhood and possesses all of the necessary facilities.

By preparations like this the eventual loss of an old operating mine could be quickly compensated.

To take bets on uncompletely explored or scratched mineral occurrences should not only be regarded from the angle of finding a substitute for a lose which is to be expected, but also from a view of expansion and building up.

G.J. WESTNER.
GEOLOGIST.

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