# DEPARTMENT OF MINES SOUTH AUSTRALIA.

# SILVER LEAD PROSPECT—SECTION 278 HUNDRED OF MYPONGA.

# INTRODUCTION:

Several specimens containing galena, anglesite and cerussite have been submitted from the above locality by Mr. H. J. Button of Myponga. The deposit has since been inspected and sampled.

#### LOCATION AND ACCESS:

The deposit is in Section 278, Hundred of Myponga, approximately 3 miles north of Myponga township. Access from the bitumen Myponga—Adelaide road is by  $1\frac{1}{2}$  miles of unmade track through cleared paddocks. The greater portion of the mineralisation exposed is on the side of a steep gully to which direct access is very difficult. Any ore won has to be carried or hauled to the top of this gully before loading.

A water supply is available by damming the creek in the gully.

#### HISTORY AND TITLES:

It is believed that the deposit was worked during the early part of this century but there is no record of this. The only production from the deposit was probably a small ore dump which is still on the site. The size of this dump is consistent with what could have been won from the existing development.

A claim, No.1790 was registered on 1/10/52 by

R. Morrow and F. Christie but no work was done. Forfeiture

of this claim was applied for by Mr. Button and granted to

him on 14/10/54. The registration of Mr. Button's claim has

not been finalised as the deposit is within the area reserved

from operations of the Mining Act.

# GEOLOGY:

The deposit is near the top of the Cambrian Upper Archaeocyathinae limestone which in this area has a regional strike of N60°E and dips 65° to the north.

Mineralisation consists of a series of calcite-galena lenses along a semi-vertical joint or minor fault striking N30°E. The degree of faulting, if any, is masked by pronounced intra-formational brecciation which is a local characteristic of the limestone horizon.

The structure can be traced over a distance of 90 feet in which there are three separate lenses or occurrences of galena and calcite. These are shown on the accompanying plan (55-40). Of the three, it is probably that the northernmost opening, Shaft A, has produced most of the material found in the ore dump.

In largest lens is the southern one which is 20 feet long, up to 12 inches in thickness and has an approximate height of 10 feet. It occurs as a facing on a large wall of limestone and its complete dimensions can be measured. There is no evidence to suggest any continuation of this lens either along the strike or down the dip. This indicates that the mineralisation probably occurs throughout as completely separate bodies.

Small amounts of galena occur in thin stringers up to  $\frac{1}{2}$ " thick striking at  $\frac{45^{\circ}}{2}$  to the main lenses.

Two small pits dug in the alluvium on the north end of the structure have failed to establish any continuation mineralisation but they are not yet wide or deep enough to disprove its existance.

Prospecting on the west side of the creek has outlined a small area in which there are thin calcite stringers carrying traces of galena. There is no evidence of any significant mineralisation.

# RESERVIS, GRADE AND VALUE:

It is considered that the deposit is not sufficiently promising to variant hard-rock mining. Therefore the only reserves are the existing ore dump and a small tennage obtainable by trenching in the weathered material along the structure. This would total about 10 tens in all.

A grab sample from the dump analysed as follows:—

Pb 39.8%, Ag 2 oz.2 dwt./ton, Au.Trace, Bi less than .00%, Zn.Nil

The negligible quantity of bismuth makes the ore acceptable to the Broken Hill Associated Smelters Ltd. and the ore would presumably be sold to them. At the current price of lead, ore of the above grade has a value of approximately £50 per ton at Port Pirie.

From this must be subtracted mining, transport and treatment costs. The latter two would total about £20 per ton. CONCLUSIONS AND RECONTENDATIONS:

The ore occurrences are too small and too isolated to warrant the installation of plant for hard-rock mining.

A small quantity of ore is available in the old dump, in the soft weathered material along the joint and perhaps from the more accessible parts of the harder outcrop. This can be obtained very cheaply, and with some hand-sorting, will produce a grade of ore which can be sold at a reasonable profit.

It is recommended that any ore which can be easily obtained should be taken out but that no large expenditure should be undertaken in any attempt to win ore from the solid rock.

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