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**GEOLOGICAL EXAMINATION  
GOLD-SILVER PROSPECT  
ARIVACA MINING DISTRICT  
PIMA COUNTY, ARIZONA**

**For**

**Mr. Stephen Hartman and John Epley**

**December 1966**

**By**

**Heinrichs Geoexploration Company  
P. O. Box 5671, Tucson, Arizona**

## INTRODUCTION

At the request of Mr. Stephen Hartman and John Epley, Heinrichs Geoexploration Company conducted a geological examination of a gold-silver prospect, located in the Arivaca Mining District, Pima County, Arizona, on December 23, 1966.

The purpose of the investigation was to determine mineral association and character with consideration to possible extensions of such mineralization.

Previous work on the prospect is limited to four prospect pits, three on one of two major veins, and one on a minor vein. These pits are approximately three feet in diameter, the deepest being about four feet in depth. No exploration has been done on the west major vein.

## CONCLUSION AND RECOMMENDATIONS

Since little work has been done to test the mineralization of the veins at depth and since the values seem to be increasing with depth, it is suggested that further exploration is warranted. It should be realized that the potential of this prospect is such to lend itself to a small scale operation.

It is recommended during the initial stages of evaluation that a bulldozer be used to test vein extensions and to some extent depth. Sampling should be objective and non-selective. If mineral values increase or persist,,then shaft exploration should be employed.

## LOCATION AND ACCESSIBILITY

The prospect is located approximately one mile east of the Backbone Mine in the Arivaca Mining District, Section 9, T21S, R10E, Pima County, Arizona. It can be reached by taking the Backbone Mine road turnoff located approximately three miles north of Arivaca on the Arivaca Highway.

## GEOLOGY

The geology of the area is characterized by Cretaceous volcanics which are intruded by a granite believed to be Laramide in age. Mineralization in the prospect area is confined to

quartz veins of which there are two major and several minor ones, having a general strike of N70°W, dipping approximately 35 to 40° SW. These veins are found cutting both the granite and volcanics. The two major veins vary from less than one foot to several feet in thickness, having an exposed strike length of several hundred feet. Much of the area is soil covered, therefore, it seems probable that these veins have a greater strike length.

The mineralization associated with these quartz veins is dominantly galena with associated values of silver, gold and copper (oxides and minor chalcopyrite). Some pyrite is found. Initial samples collected from surface vein exposures by Mr. Hartman and Epley, gave values of .01 to .16 oz. gold, 1.1 to 3.5 oz. silver, .04% copper and 1.2 to 3.6% lead. A sample taken from the east vein, approximately a foot from the surface gave values of 2.25 ozs. gold and 2.5 ozs. silver.

The east major vein appears to be mineralized the strongest, but consideration should be given to the fact that only surface exposures of the west major vein are observable.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

Harvey S. Durand  
Geologist

APPROVED

  
Walter E. Heinrichs, Jr.  
President & General Manager

