



## **CONTACT INFORMATION**

Mining Records Curator  
Arizona Geological Survey  
1520 West Adams St.  
Phoenix, AZ 85007  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

## **ACCESS STATEMENT**

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

## **CONSTRAINTS STATEMENT**

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

## **QUALITY STATEMENT**

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

## THREE R MINE REPORT

### SANTA CRUZ COUNTY, ARIZONA

#### INTRODUCTION

Mr. Jack C. Pierce made available several copies of reports on the Three R Mine for Shattuck Denn Mining Corporation study and consideration.

The property is located in the Harshaw Mining District, Santa Cruz County, Arizona, about  $4\frac{1}{2}$  miles south of Patagonia and about 14 miles northeast of Nogales. It consists of 21 patented claims and 14 unpatented claims that are grouped in a contiguous unit.

Mr. and Mrs. Duane Bird, Mr. and Mrs. Thomas Hall, Mr. C. A. Pierce's heirs (Mrs. Mary L. Pierce, Sallie Van Valkenburgh and Mr. Jack Pierce) are co-owners of the property.

A shaft has been sunk and two adits have been driven for access to the main operation, and at least 30 test pits and short adits have been dug to test other areas on the claims. Some rather extensive diamond drilling has been done underground and on the surface to test potential ground to the east and north of the mine.

A field examination was made on December 5, 6 and 7, 1956, by Mr. T. W. Newell and C. W. Appelin. Mr. Richard Taylor, the most recent lessee, directed the visit through the 400 and 600 levels of the mine, and explained the ore potential that was developed by the surface diamond drilling, northerly from the main operations.

After studying the reports and maps at Mr. Duane Bird's office, the conclusion was reached that, if a possibility of an ore extension

exists, it must be northerly from the main operations on the fractures that have been mined. It was learned during the field examination and office map study in Nogales that the northerly area had been drilled from the surface with five holes. Of these holes, two encountered ore-grade rock some 400 feet apart; the remaining three penetrated part of the same fractures, but were poorly mineralized. Thus, the possible area potential was proved discouraging.

#### CONCLUSION

The Three R Mine has been worked out, as evidenced by the Amster stope. Some ore remains as pillars and level support; however, this tonnage is small. Wall rock reserves in the Amster stope, as indicated on the cross section map, have been mined out by the lessees throughout the subsequent years.

Thus, the Three R Mine has no significant reserve and has little chance of development into a mine of consequence.

#### GENERAL INFORMATION

Mr. Richard Taylor, as lessee, mined for nearly a year from the Amster Stope between the 600 and 400 levels. He hand-sorted essentially all the rock mined and had difficulty shipping 5 per cent copper ore. A discovery was made on the footwall side of the Amster stope on the 400 level, which indicates a possibility of small tonnage at or about 5 per cent copper. Mr. Taylor could not sink a winze and mine this rock at a profit.

The A. S. & R. Company smelted the ore from the Three R Mine, but penalized the shipper heavily for the excessive alumina content. The alumina content eventually precluded further purchase of the ore by

A. S. & R., and Mr. Taylor found himself without a market for the remaining ore that he mined.

Plans had been made toward building a small mill, and Mr. Taylor could not develop enough reserve tonnage to justify the expenditure. Therefore, after losing considerable money, Mr. Taylor dropped his lease.

Mr. William Catron, Bisbee, Arizona, was mine foreman at the time the greater reserve in the Amster stope was being mined out. He said that his company spent about \$1,000,000 trying to develop more ore on the 900 level and to develop other fracture zone possibilities prior to abandonment. Mr. Catron concluded that the copper ore was deposited in a depositional zonal sequence because the vein material on the 900 level graded to pyrite, and the drilling has tended to substantiate his thoughts.

#### GEOLOGY

The Three R Mine lies in a complex of granite and trachyte country rock. Six major northerly-southerly fractures: A, B, C, D, E and F, appear to be the control in the region. The C and D zones were extensively mineralized with chalcocite, chalcopyrite and pyrite. All the essential tonnage that was mined was from this zone. These shear type fracture zones are apparently local in nature and were probably pressure release zones to the local tectonic forces. Mineralizing solutions subsequently invaded these fracture conduits and replaced the feldspar in the granite. Alteration of the remaining feldspar has resulted in high alumina concentration. Apparently some secondary enrichment resulted from ground water action as semi-gossanized surface rock is found above the enriched area.

CWA/hjl-12/21/56

  
Carl W. Appelin

THE THREE R MINING PROPERTY, SANTA CRUZ COUNTY, ARIZONA

PERTINENT DATA

VICTORY: Discovered in 1897 by R. R. Richardson who located and patented the claims.

From 1907 to 1912 the property was bonded to W. R. Green of Cananea, Mexico; the Lewishon interests; and the Calumet and Arizona Mining Company, all of whom did considerable work and returned the property to its original owner.

In May 1911 the owner found a small ore body and several carloads of 15% copper ore was shipped.

The mine was bonded to N. L. Amster of Boston, Mass. in April 1912. The Amster's interests operated the mine to October 1914. It was stated that they grossed more than three million dollars. There was some dispute regarding the last payment and the property reverted to the original owner, R. R. Richardson.

In 1914 or 1915, the Harrison interests of Houston, Texas built a specific gravity mill to treat a chalcocite ore. They were successful oil operators and the property again reverted to the original owner.

The Magna Copper Company of Superior, Arizona had been interested in the property for some time. They assumed further development including a diamond drilling campaign. All of which was done under the name of the Patagonia-Superior Copper Company. Their chief geologist, a Mr. Ettliger, discussed the property with me a number of times. He spent months on the property and was very much interested in the area to the north of the present workings. It was his opinion that there evidenced the probability of a large low grade deposit with high grade shipping lenses on the footwall side. He stated that their manager, Mr. Browning, was generally of the same opinion. Later, it seems that a difference of opinion developed between officials of the Magna Copper Company and Mr. Browning resigned.

The Patagonia-Superior Copper Company abandoned the property. It went through the usual promoters spasms until it was purchased by Mr. Duane Bird and myself. We were not financially able to do anything more than ship some low grade ore and make an unsuccessful attempt to locate an ore body indicated by a diamond drill hole.

A number of well qualified mining engineers have examined the Three R property. Insofar as I know, they were all of the opinion that the property had excellent possibilities but the proposed plans of development differed.

As indicated by Mr. Ettliger's file, the property produced six million two hundred ten thousand tons averaging eighteen dollars per ton, net smelter returns; one-third of which was probably net profit or three million seven hundred twenty-seven thousand dollars.

## GEOLOGY

On the east flank of the Three mountain is the Flux Mine -- within the upfaulted block of the Patagonia Mountain (a substantial lead producer); on the west side of the Three R Mountain is the Three R Mine (a large copper property, having produced one of the largest bodies of chalcocite mined in North America.

The Three R Mine is located within a rather large area of binary, granite porphyry. A gray, monzonitic dike (surface exposures of which are limited) intrudes the granite porphyry and at certain locations contains some finely disseminated chalcocite that evidences the probability of a large, low-grade, deposit. This dike appears to be related to a deep-seated movement which was evidenced by severe faulting, shearing, and fracturing. This dike is similar to the dike which intrudes the Red Mountain rhyolite (Miocene Age) and is profusely impregnated with crystals and grains of pyrite, chalcopyrite, and chalcocite. Red Mountain is adjacent to the Three R Mountain and is therefore of geological importance as regards the Three R.

The Three R ore mined to date, is found within a system of north-south and north-75° east fractures. There is some evidence of a third system of fractures which strike north 30° west. These later fractures are obscured within the highly mineralized area of the ore bodies. They are, however, quite prominent at a location 1600 feet to the north of the Evening Star tunnel portal.

Evidence indicates that solutions accompanying or following the dike's intrusion and regional faulting, were the source of the copper mineralization; that this mineralization took place in at least two stages -- during and after intrusion and faulting. The rugged surface escarpment and outcrop evidence a deep-seated movement. This is especially true on the Three R and Hattie R. No. mining claims.

Past exposed work is not helpful to the small operator because the shipping ores above water level and within confines of the Evening Star tunnel are exhausted. For the major companies, the work done is helpful in outlining a development program that has opportunities for the development of large, low-grade copper ores. Such horizons should include substantial tonnages of high-grade chalcocite.

To those interested in the development of a large, low-grade, copper deposit, this property should be of interest. Its development will require ample capital and capable management.

12/49

3R MINE

SANTA CRUZ COUNTY, ARIZONA

LOCATION

The 3R property is located between Nogales and Patagonia approximately  $3\frac{1}{2}$  miles to the south of the Nogales-Patagonia highway. It is roughly nine miles by road from the property to the rail terminal at Patagonia. The road from the highway to the property is in fairly good shape.

HISTORY

In the early 1900's Mr. R. R. Richardson of Patagonia purchased the two or three claims which comprised the 3R Mine at that time. About 1906 it was optioned to the Lewisohn interests who did a certain amount of work and managed to locate no ore of any importance. Up to this time, although the fissures were strong, only low-grade ore had been developed. A short time after the Lewisohn's dropped their option Mr. Richardson did a considerable amount of work but succeeded only in developing a similar grade of ore as the Lewisohn's, namely 3 to 4% copper which at that time was impractical to attempt to mine or mill. About 1908 or 9 Mr. E. F. Bohlinger proposed to Mr. Richardson that he do a certain amount of work to the west of Richardson's previous work. Mr. Bohlinger encountered the high-grade ore that was later shipped over a period of several years and proved quite profitable.

In 1910 a Mr. Amster of Boston, Massachusetts, optioned the property for \$550,000. He immediately began shipping ore and for a period of four years he shipped in the neighborhood of 50 to 100 tons per day or a total of 40 to 50 thousand tons that averaged 12 to 14% copper. Towards the last of his operations the ore had

dropped to a grade of 7 to 8% which at that time was marginal.

Mr. Amster dropped the property after paying Richardson something over \$200,000. Since then there have been three mills built to handle the lower grade ore and a considerable tonnage of 4 and 5% ore mined and milled.

I question whether any of the milling operations, in spite of the excellent grade of ore, were ever successful. All of the milling attempts made use of gravity separation to which the ore is not amenable. The last attempt was in 1941 when the use of jiggs was again attempted as a means of concentrating the 3R ore. Any investigation would have indicated the utter impossibility of making a gravity separation of an ore of this character.

In 1926 the Magma Copper people purchased the property for \$75,000 and did a large amount of sampling and diamond drilling. They did not, however, attempt any operation and sold the property for the same price to a Mr. Brown. Since the Magma work I question whether there has been more than 5,000 tons of ore mined from the property.

#### PROPERTY

The property consists of 30 to 40 (34?) patented mining claims with two mill sites. It covers the entire length of any possible extension of the 3R vein system. All important workings, so far as I know, are open.

#### WATER AND POWER

To mill the ores of the 3R would require the development of sufficient water, say in the neighborhood of 75 gallons per minute, from the Sonoita River. This pipe line from the Sonoita to the property would be 3.6 miles in length and pumping against

approximately a 400 foot head. This line was in until a few years ago and was a source of water for the past milling operations. The cost of such an installation would not be in excess of \$25,000.

The power line from Tubac to Patagonia passes within  $2\frac{1}{2}$  miles of the property and within one mile of the location of the pumping plant on the Sonoita. Since Parker Dam power will be available in the next month or two this line will carry sufficient power for any requirements for 3R mining and milling and will therefore eliminate the necessity for the installation of a separate power plant.

### GEOLOGY

The development at the 3R has been for the most part through a series of tunnels to the 600 foot level. From this lower tunnel level the property has been developed an additional 300 feet through a winze.

The important copper values are in the form of chalcocite both as veinlets and disseminations although there is a certain amount of chalcopyrite. The mineralization lies in a series of fractures cutting through a large intrusive mass of alaskite which varies from a quartz porphyry to a granite over a length of several miles. It has been termed alaskite which I presume with only field investigation is as good a name as any. This intrusive mass extends from the Flux Mine to well beyond the Ventura some three miles distant. It makes up the entire northwest end and west flank of the Patagonia Mountains. Within the intrusive mass are later dikes of rhyolite and fine grained granite.

The veins consist of six or seven strong fissures running roughly north-south. All of these are mineralized but only three have produced any important ore.

Diamond drilling and development to the 900 foot level has indicated a good grade of ore to this depth and there is no reason to expect that ore will not proceed to a considerably greater depth nor that additional ore bodies will not be found both to the north and south. I am inclined to believe, however, that the most undeveloped direction for ore is towards the south at depth. At the present time there is proven approximately 250,000 tons of ore that will carry 2.67% copper. Of this there is something around 80,000 to 100,000 tons developed and lying above the 600 foot level.

The veins are strong fissures carrying for a distance of several thousand feet along strike. They are roughly parallel and, so far as I know, no intersections of these veins have occurred either along strike or along dip. Aside from the chalcocite and some chalcopyrite there is a certain amount of pyrite present. This latter sulfide is not present in abundance in the ore zones. It is possible that the chalcopyrite content will increase with depth but to the 600 foot level this has not occurred. The dip of the veins is roughly 70 degrees to the east. The widths of the mineralization vary from 4 feet to 15 or 20 feet.

#### MINING AND MILLING

In the past gravity methods have proven wholly unamenable. With our present knowledge even an inspection of the ore would indicate that such concentration would be lucky to give a 60% extraction. On the other hand the ore is ideal for straight flotation and there is no reason why something better than a 90% recovery can not be made which will produce a concentrate carrying

from 40 to 50% copper. Due to the fact that there is relatively little sulfide other than chalcocite it may even be possible to run a higher grade concentrate than the above. Except in the high-grade sections of the mine I should judge that approximately 50% of the copper values are in the form of disseminations and the same amount in the form of veinlets which are from 1/8 of an inch to 2 or 3 inches wide. The latter, of course, is much more readily freed for floating than the disseminations.

Due to the fact that the veins are at a steep angle and that the wall rock stands open without any timber with practically no sloughing low mining costs would be obtained over the widths we have available. I believe that a mining cost, including the surface shops, would not exceed \$1.00 to \$1.35 per ton delivered to the mill.

Above the 600 foot tunnel level there is sufficient ore developed so that mining operations could be started with only minor costs for stope preparation. In other words, there is available and developed at the present time sufficient ore to furnish a 200-ton mill for more than a year with ore carrying 2.67% copper.

With the present price of 17¢ per pound of copper I believe it entirely possible to considerably augment this tonnage by lower grade ore and still make a fair profit. While the maps are not available I recall that there is a considerable tonnage of ore not included under the 2.67% category. I have no way, until the maps are obtained, of ascertaining just what this tonnage may be.

I believe it possible and probable that a profit on the 2.67% ore would amount to five or six cents per pound of copper produced and that on a 12¢ copper under good management approximately 1 cent per pound profit could be made. Assuming a 200-ton capacity, 17¢

coppe~~r~~ and 2.67% ore + believe it possible that a profit of something in excess of \$500.00 per day could be obtained. The ore contains relatively low-grade gold and silver values which can not be considered as affording any profit.

#### FINANCING

It would require a present capital outlay in the neighborhood of \$20,000 to \$25,000 to obtain the deed and retire the mortgage. This is a variable figure and may run somewhat under this depending upon the price the man holding the deed is willing to dispose of his holding but \$9,000, which is included in the first figure, is definite as that is the amount necessary to retire the mortgage. It would not be necessary, however, to spend this latter for two or three months or until just before the date of foreclosure. In addition to the \$25,000 it will probably require an additional \$1,500 to resample those sections of the mine in which a small amount of mining has been done since the Magma Copper Company sampled the property. It should be remembered that the Magma maps, which I know are entirely reliable and of which I have made a careful study during the course of several days, will be available when the deed is purchased.

The mine is in such shape that an R.F.C. loan should readily be obtained for the main financing. I would anticipate little delay in obtaining such a loan due to the fact that the property is so extensively developed and ready for operation. I have estimated that \$100,000 to \$150,000 will be sufficient to construct a 200-ton mill and develop the necessary water together with the usual surface equipment of compressors, sharpeners and rough shop buildings. Production could be started well within a period of six months.

There are two advantages of using R.F.C. funds other than the money itself. (1) A guaranteed price for copper produced over a two and one-half year period and, (2) From my knowledge of other such loans the equipment is more readily and quickly obtained.

March 23, 1942

  
E. E. Maillot

*1957 - Head of Dept. of Research, B.P.*

Edwin A. Stone 6-8-38  
3R Mine, Richardson Property

The 3R mine is reached by driving out from Patagonia on the Nogales highway for 5½ miles to a gulch just past the Circle Z ranch, and taking the road to the left to its end, a distance of about 3½ miles.

The 3R mine has produced from secondarily enriched copper ores developed on nearly NS fractures. The greater part of these fractures contain little ore but "C" & "D" fractures each have one ore shoot and "C" fracture has from 1 to 7 feet of spotty chalcocite ore north of the Amster ore shoot. The Amster ore shoot yielded 33,000 tons of 9.82% Cu grade. A few thousand tons of ore is left on "C" fracture north of the Amster stope. The Amster shoot became very low grade at the 300 level marking the greatest depth of secondary enrichment on "C" fracture; the enrichment zone had a depth of about 400 feet.

The Amster stope owes its existence to a change of strike of "C" fracture. This change in strike resulted in tension fractures on the wall opposite the convexity of the change in strike permitting more thorough primary mineralization by pyrite which carried very low grade copper. In turn, the stronger shearing on "C" fracture than other fractures gave better preparation for mineralization. The peculiarly favorable structural conditions ~~favorable~~ favored secondary enrichment at this point as well as the more thorough primary mineralization. A factor of possible importance in secondary enrichment is the position of this favorable structure below the gulch where water circulation was more intense. The richness of the secondary ore is dependent directly on two factors: the percentage of pyrite in the sheared granite porphyry, and the perviousness to water. Granting the second condition, the percentage of primary pyrite wholly governed the richness of the ore for replacement by chalcocite is practically complete within the orebody.

The much less valuable orebody on "D" fracture is due to the intersection of "D" and "E" fractures (which diverge in depth), and to the splitting up of these fractures where they encounter an irregular "andesite" dike at a low angle on the strike. The ore is very lean in its primary state but was secondarily enriched.

A prominent zone of shearing marked by saddles and slight iron staining extends SSW from the 3R. This zone is exposed in the 400 level workings where it contains no valuable mineralization. It probably is partly later than the mineralization or was too tight for secondary enrichment.

Search for conditions favorable for another good body of secondary ore was not successful. The fractures have been developed by drifts, and the Magma diamond drill holes encountered nothing of much interest. Hole #5 encountered 10 feet of ore averaging 5.9 % Cu but hole #10 from the same set-up gave no values except where the core shows the bit followed a small chalcocite seam.

Probably small orebodies can be developed but doubt that another Amster stope will be found. This is a good place to drop some money with little return.

*estimated 5% Cu*

## TREE R MINE

### LOCATION

This copper property is located in the Harshaw Mining District, Santa Cruz County, Arizona about 4 1/2 miles south of Patagonia and 14 miles northeast of Nogales. It consists of 21 patented claims and 14 unpatented claims, all contiguous, on the upper west slope of the Patagonia Mountains between elevations of approximately 5,000 and 5,800 feet. It is reached by some 3 1/2 miles of ungraded road from the paved highway connecting Patagonia with Nogales. The nearest railhead is at Patagonia, about 7 1/2 road miles away on a Southern Pacific branch line.

### OWNERSHIP

The Three R. Mine ownership is as follows: One half interest held by Duane Bird and Thomas Hall (with their wives), Nogales attorneys; one half by heirs of C. A. Pierce who are Mrs. Mary L. Pierce (1/4 interest), Sallie Van Valkenburgh (1/8 interest) and Jack C. Pierce (1/8 interest).

### HISTORICAL

Discovered in 1890, the property was explored and developed in minor ventures by W. R. Green of Cananea, The Levisohn interests and the Three R syndicate prior to 1909. During that period there was produced only a small tonnage of high-grade chalcocite ore. Between 1909 and 1912 R. R. Richardson (for whom the property derives its name) and the Cement and Arizona Mining Co. developed and shipped to the El Paso smelter considerable 5-15 percent copper ore.

In April, 1912 N. L. Amster of Boston, Mass. acquired the property for \$550,000 and by August, 1914 had shipped about 30,600 tons of ore averaging 9 percent copper with gross value reported at more than \$1,000,000.

In the 1920's Magna Copper Company blocked out ore by diamond drill and underground work and erected a mill which operated until a severe drop in copper price. (Details of this operation are not immediately available to the writer but are on file in the law offices of Bird and Hall in Nogales).

Early in World War II the property was acquired by Duane Bird and C. A. Pierce, who operated it profitably in a small way throughout the war. Ore was obtained by new development, pillar trimming and other scavenger operations in the principle workings of the property. The small profits were applied to <sup>potential</sup> exploration for an untapped ore body discovered by a Magma diamond drill hole. Operations were suspended at the close of the war and the withdrawal of Premium Price plan support.

In 1950 Kennecott Copper Corp., recognizing a part of the property as a potential, large, disseminated copper deposit made cursory examination and declined further interest, because the exposed deposit was not indicative of a large enough operation for Kennecott. This Corporation referred the mine to Consolidated Coppermines Co. and, under a lease-Option agreement, this company conducted a comprehensive surface and underground geological mapping and sampling job on the property during 1951. Five diamond drill holes placed in the granite and trachyte porphyry formation suggested as a possible commercial disseminated deposit were disappointing. The formation is copper enriched but sub-marginal except in narrow fault and fracture zones where copper values were consistently attractive though representing small volumes of ore.

Following Consolidated's abandonment of the property in Sept., 1951 two local groups have held leases on sections of the ground to exploit the near-surface enriched fractures discovered by aforementioned diamond drill exploration and to mine lower-grade segments of the old mine. Twenty two cars of ore were shipped by these operators who recently suspended operations and relinquished their interests in the property. We are told the reason for abandonment by the lessees on the new ore was internal friction among the partners in the venture. The group shipping from the old workings met with smelter resistance to the ore due to high alumina content. The grade of all 22 cars ranged between 5 and 9 percent copper.

PRESENT STATUS

The Three R Mine is available for purchase, lease and option or bonded lease. Ample time for extensive examination will be allowed to any responsible party. Initial cash payment for an option to lease or purchase would be low. Terms for lease and purchase will be reasonable.

OWNER'S OPINION

Although there is established a limited volume of direct-shipping ore on the property, the ultimate success of an operation at the Three R depends on a milling operation. We believe that examination will disclose sufficient milling grade ore to justify a small mill, based on a copper price in excess of 30¢ per pound.

There are three geologically attractive and yet unexplored potential ore horizons on the property. We believe that Coppermines was interested primarily in the prospects of an open pit operation at the point of their drilling operations and paid little or no attention to indications of ore sources that would be exploited by underground mining methods.

In summary, it is our opinion that the Three R Mine should be attractive to experienced operators with the financial and technical ability to confirm indicated mill-ore reserves and to place a mill in operation. The unexplored, favorable ore horizons should enhance the attractiveness of the property as a potential long-lived copper mining operation.

Jack C. Pierce  
September 23, 1956

THREE R MINE

Santa Cruz County, Arizona

*Presume this report  
compiled 1943 in  
application for month  
premium priors.*

Location:

The Three R property is in the Palmetto-Marshaw Mining Districts (Patent Map states Marshaw Mining District and U.S.G.S. Bulletin states Palmetto Mining District) 4.5 miles south of Patagonia, in the Patagonia Mountains, Santa Cruz County, Arizona. The property is more particularly described as Secs. 31, 32, and 36, T. 22 N., R. 15 E.

A truck road connects the property with the main black-top highway between Nogales and Bisbee. The distance from the mine to the black top is 5.8 miles. The distance from the mine to the Nogales high tension power line is 3.0 miles. The distance from the mine to Patagonia, the nearest railroad shipping point, is 7.8 miles.

Elevation is about 5,000 feet. Topography is rugged.

There are 21 patented claims comprising 349,166 acres. Patent No. 922927 November 10, 1923, recorded in Book 7, H. L. page 123. There are also 12 unpatented claims. Some work was done on these claims in 1942 and "Intention to hold without Assessment Work" was filed for the years 1942-43.

History:

The property was located and partially developed by R. R. Richardson, an early pioneer. The Ancester interests (under bond and lease from Richardson) later blocked out and mined one of the largest bodies of chalcocite ever discovered.

The Harrison interests (several years after the Ancester interests had abandoned the property) built a 60 ton semi-stationary mill with a 3-4% copper content.

After a period of several years the Magma Copper Company purchased the property and completed a limited diamond drilling program which disclosed about 100,000 tons of 2-3% copper ore. This company later sold the property to promoters. For a number of years the property has withstood the spasms and abuse that often attend such ventures.

(Jan. 1942)  
More than a year ago the property was sold by the sheriff of Santa Cruz County, Arizona. Title is now vested with that purchaser (C. A. Pierce, C/o United States Potash Company, Carlsbad, New Mexico).

#### Improvements:

The main haulage tunnel is tracked with 16# rails, a distance of approximately 2,000 feet.

There is an additional 3,000 feet of development work on two levels, two-thirds of which is of future value, the remainder having served its purpose.

There are six stopes partially filled with milling grade ores. Most of the loading chutes are in fair condition. Ladderways are intact but pipe lines, air receivers, etc. have been removed.

The physical condition of the mine workings is very good. The walls stand well and no serious convergence was noted. Underground openings and the main tunnel level are dry and dirty. The only water at the mine site is that in the Bohlinger stope - perhaps 500,000 gallons. It did not appear that the make-up water was of appreciable volume. The only reliable source of water is the Sonoita River about 300 feet lower and several miles distant.

There are two buildings at the mine location that "fit into" any future development. The power plant building, approximately 50' x 60' x 16' to the trusses - galvanized corrugated iron on a frame structure. This building is within the flood plain of the canyon but could be protected

by a cribbed or concrete retaining wall. This building could comprise the first unit of a concentration plant. If so, another power plant building would be required at the power line from Nogales to Patagonia and Fort Huachuca would have to be connected in. There is also a small mill building that could be used to house a nominal modern crushing plant, about 20' x 40' x 24' to the eaves.

At the camp location (1-1/2 miles down the cañon) are two modern houses, well furnished. One is adobe and the other frame. A satisfactory pumped water supply and gravity tank are in use.

#### Development and Ore Reserves:

All large tonnages of exposed shipping ores have been mined and sent to the copper smelters at Douglas, Arizona and El Paso, Texas. There is approximately 4,000 tons of 5% copper ore as chalcocite in pillars and around the perimeters of the old stopes. About half of this tonnage is easy of extraction and the balance more difficult, due to open stopes, some of which are partly filled with milling grade ore.

There are also approximately 60,000 tons of 2-1/2% chalcocite milling grade ore and 18,000 tons of 5% shipping grade ore indicated by core drilling. These estimates include a 10% reduction of the copper content as a dilution factor. This core drilling was done by the Harrison interests and the Magna Copper Company. The actual drill logs and their interpretations were reviewed by competent geologists and there is no apparent reason to question their accuracy. However the general statements of many qualified mining men in Arizona are that "drilling developed 200,000 tons of 3-1/2% copper ores."

## Geology:

The ore bodies developed to date are on steeply, westerly dipping north-south fractures at or near their junction with the main E-W fracture. They are large and regular in section. Their depth extensions have not been carefully prospected. The enclosing alascite formation ( a binary granite) is definitely silicified at ore body locations. This is quite interesting in that a system of moderate but persistent cross-fractures showing definite alteration exists but has received little if any attention. These cross-fractures are most prominent to the north and east. They have a physical and mineralogical expression both on surface and underground.

The workings are sufficiently extensive to afford excellent core drill hole locations.

The alascite is medium hard but uniform in texture and easily cored.

## Proposed Mining Program

### Shipping Grade Ore:

With the present 17¢ per lb. price for emergency copper the ore must be 3-1/2% in copper content to break even. A 25¢ per lb. price for this marginal ore would bring this property to the production stage much more rapidly and the volume would be materially increased.

There are approximately 4,000 tons of ore in the perimeter of the old stopes and in pillars that will average 5% Cu. This ore should show an operating profit of about \$ .50 a ton or \$10,000, which will not pay for the minimum, necessary, immediate improvements.

In order to handle this shipping ore efficiently the broken milling

grade ore now in portions of many of the old stopes should be drawn off and trammed to surface (about 3,000 tons). Several grab samples of this ore indicated that it could be partially hand-sorted and shipped. The samples averaged 2.2% Cu. A rough hand sorting should raise this grade to 3% in which case it could be shipped at a small loss and the stopes would be in shape to receive the shipping grade ores (4 to 6% Cu.) Smelting capacity is of course a factor in this case. Additional exploration should develop substantial tonnages of high grade shipping ores.

#### Milling Grade Ores.

The amount of milling grade ores actually blocked out (exposed on three sides) is small - about 10,000 tons of 2.20% Cu. There have been estimated by competent mining engineers to be 80,000 tons of 2.47% Cu. ores and 18,000 tons of 5% Cu. ore developed by core drilling. In view of the limited amount of drilling (about 5,000 feet) the results were satisfactory. A large area of unexplored but attractive territory remains to be prospected in an orderly manner and upon a predetermined pattern. The development work necessary to block out this milling grade ore would be about one foot of advance per 100 tons of ore. However, there should be at least 100,000 tons of ore in sight before a treatment plant is built.

#### Remarks:

The writer is conversant with the history of this property since its discovery. As a producer of high grade copper shipping ore it has a remarkable record. As a producer of good grade concentrates its

...is existing but enviable. The difficulties have ...  
 the physical characteristics of the ore out with the character...  
 of the beneficiators. That however is past history. The question is,  
 can the property be made to produce under the conditions of this  
 national emergency. How long will it require to make this a producer?  
 What production could be expected and what necessary equipment and man-  
 power are available? The answer is involved - not so much from the  
 standpoint of tonnage reasonably expected but with regard to labor,  
 equipment, transportation, and supplies.

It appears to the writer that under the existing conditions, the  
 problem should be divided into two parts. The following is an attempt  
 at such a solution.

Production - First Stage.

The production of 640,000# of copper (4,000 t. @ 5% Cu. ore exposed;  
 4,000 t. of 3% Cu. ore broken in stopes - after hand sorting) with a  
 minimum of time, expense and manpower:

Some of the old stopes would have to be "pulled"; trammed to  
 surface; a rough hand sorting; trucked to RR (the property owns a good  
 loading dock at Patagonia); and shipped to smelters.

The blocked out ore around the perimeter of the stopes to be  
 mined and trammed to surface for direct shipment. Some staging would be  
 required. Hand tramping would "get by" until a small haulage locomotive  
 (storage battery or diesel) were available.

Approximate Mining and Handling Costs, 50 T. a day basis:

Trucking \$1.75, Freight \$2.50, Smelting \$2.50.....	\$6.75	per	mine	ton
Stoping \$1.75, Tramping 0.25 Mine Overhead 0.75.	2.75	"	"	"
General Overhead & Contingencies.....	<u>1.10</u>	"	"	"
Grand Total.....	\$10.60	"	"	"

Necessary Equipment:

Living and equipment for 10 men, office, etc.	\$10,000
Blacksmith and general repair shop with lathes, grinders, drill press, forge, small tools and supply stocks, etc. and 50 H.P. caterpillar power unit.....	20,000
3 Mine Cars - 16 to 20 cu. ft. capacity.....	1,600
1 Air Compressor Sullivan Class WN - 102-C Vehicle V, two stage, 445 cu. ft. with caterpillar D - 13,000 full diesel engine	10,000
3 Rock drills, steel, detachable bits, etc...	2,500
2,000 feet of 2" air line and 1,000 feet of 10# track.....	4,000
Roads - Extensions, repairs, and maintenance...	5,000
Total	\$53,100
Labor. . . . .	7,000
Grand Total. . . . .	\$60,100

Note: Connecting with the Nogales power line would eliminate power unit but require more copper, so is probably "out" at this time. Nevertheless it has possibilities.

Production - Second Stage

To drive 2,000 feet of exploratory work in developing the ore body outlined by core drilling. The high grade ore to be stoped and shipped; the milling grade ores to be blocked out pending the erection of a mill.

This stage should produce four to five times as much shipping ore as stage one and to block out 100,000 tons of milling grade ores.

On 17% copper, returns from shipping ores should about pay for the development and extraction costs. Twenty-five cent copper should pay off the indebtedness and prepare for the installation of a temporary milling plant.

One hundred thousand tons of good grade milling ores should be

measured (at least 75% blocked out) before a mill is built. The concentration of a chalcocite ore in an alascite gangue should not be difficult one. Should it develop that a part of this milling ore is finely disseminated, the problem is not materially complicated.

It seems unnecessary at this time to go into detailed methods and cost statements of beneficiation. When the physical and chemical characteristics of this partially core drilled ore body are known, the copper will be obtained through selective mining or concentration, if that copper is needed.

There are certain conditions of this property that fit in with the present emergency. Work can be started immediately with a small crew and minimum of equipment. As equipment and materials are obtained production will be increased. For maximum, initial production a better price than 17¢ per lb. should be allowed.

The writer has not made a complete sampling on this property nor personally examined the drill cores. The tonnages and metal contents noted in this report are a matter of record with the Magma Copper Company, Superior, Arizona, and Hugo Miller, Nogales, Arizona (records from several carload shipments). The writer did take sufficient pilot samples to verify, to his own satisfaction, the accuracy of the statements made.

It is recognized that this preliminary report is sorely lacking in detail, maps, and corroborating data, however it is hoped that it may be somewhat helpful.

Respectfully submitted,

s/ C. A. PIERCE E.M.

*About March, 1943*

# SILVER EAGLE RESOURCES LTD.

*Three R - file*

Notes to Consolidated Financial Statements  
June 30, 2000

## 4. Mining Property (cont'd)

### c) Liximin Acquisition

During the year ended March 31, 1998 the Company purchased 100% ownership in a US Corporation (Liximin, Inc.) and a Mexican corporation (Liximin S.A. de C.V.). The total assets of these two company's consisted of the following resource and non-resource properties:

Resource Properties (see Note 4(a))	
Three R. Property – Arizona	\$ 375,000
Pimsa Tailing Project, Mexico(written off at 03/31/99)	150,000
Sara Alicia Concession, Mexico	225,000
	<hr/>
	750,000
Non Resource Property (see Note 3)	
Office furniture, computers, laboratory equipment and vehicle	175,000
	<hr/>
	925,000
Pimsa Tailing Project – written off in prior period	150,000
Total	<hr/>
	\$ 775,000

As consideration for delivering these properties as well as tendering their 100% ownership, 3,083,000 common shares in the capital stock of the Company at an ascribed price of \$0.30 per share were issued to former shareholders. Several of these shareholders subsequently became directors and officers of the Company.

The Resource Properties are as follows:

#### i) Three R. Copper Property - Near Patagonia, Arizona, U.S.A.

By the assignment of an option agreement dated December 17, 1992, the Company acquired a 100% interest in an in situ copper leach project located in Santa Cruz County, Arizona, consisting of 21 patented and 2 unpatented mineral claims. Terms of the agreement call for annual US\$15,000 payments over a 20 year lease. The US\$15,000 lease payments are comprised of payments to "Brancote" of US\$10,000 per year and to the original owner, US\$5,000 per year. The Company's 100% interest is subject to a 30% NPI to Brancote US Inc. during recovery of exploration and development costs, along with a 2.5% NSR royalty. Terms of the arrangement with Brancote were revised to eliminate the 30% net profit interest (NPI) in exchange for 50,000 common shares (issued) in the capital stock of the Company at an ascribed value of \$0.35 per share along with US\$10,000 monthly payments for a maximum period of 20 months, commencing upon production, along with a 2.5% NSR royalty. The Company is in default \$10,000 US on its 1998 and 1999 lease payments to the acquired owner. The Company negotiated an extension to May 15, 2000, to bring the Brancote agreement into good standing, which it did on May 8, 2000 by a payment of \$10,500 of which the \$500 was in consideration of the extension allowance.

On April 18, 2000, the Company signed a letter agreements with Norman Capital Inc. (NCI), a private Alberta company, to sell a 50% interest in the 3R Copper Property for the sum of \$350,000US. Terms of the agreement call for the following:

- A payment of \$50,000 US(paid) upon signing the agreement in the form of a note bearing interest at 6%.
- Payment of the \$300,000 US will be released upon receipt of all necessary approvals, where upon NCI will be granted the 50% interest and the interest bearing note for \$50,000 US will be cancelled.

Norman Capitals' investment will be repaid at the rate of 66% of net cash flow after the plant has achieved design capacity. Thereafter NCI will receive 40% of net cash flow until SER has recovered an equal amount, where upon both companies will share 50 – 50 in future net cash flows. Silver Eagle Ltd. will be the operator and will be responsible for obtaining all permits.

# Equatorial Mineral Park, Inc.

## Balance Sheets

(all amounts in U.S. dollars)

	<b>June 30</b>	<b>December 31</b>	
	<b>2000</b>	<b>1999</b>	<b>1998</b>
	<b>(unaudited)</b>		
<b>Assets</b>			
Current assets:			
Cash and cash equivalents	\$ 495,892	\$ 220,398	\$ 383,691
Accounts receivable	367,965	34,368	434,439
Inventories	–	327,561	27,128
Prepaid expenses	37,983	19,860	30,490
Total current assets	901,840	602,187	875,748
Property, plant and equipment, net	194,638	155,000	2,193,950
Mining properties, net	4,189,609	4,214,426	4,182,227
Other assets	808,000	742,000	610,000
Assets held for sale	330,000	330,000	–
	\$ 6,424,087	\$ 6,043,613	\$ 7,861,925
<b>Liabilities and deficiency in net assets</b>			
Current liabilities:			
Accounts payable	\$ 163,849	\$ 246,572	\$ 28,203
Accrued expenses	98,543	77,355	262,678
Total current liabilities	262,392	323,927	290,881
Payable to parent	5,033,901	4,512,131	4,375,355
Accrued mine reclamation and closure costs	4,664,115	4,664,115	4,664,115
Other long-term liabilities	–	–	58,731
Commitments and contingencies (Note 8)			
Deficiency in Net Assets:			
Common stock held by parent, \$1 par value, 1,000 shares authorized, 100 shares issued and outstanding at June 30, 2000 (unaudited) and December 31, 1999 and 1998	100	100	100
Accumulated deficit	(3,536,421)	(3,456,660)	(1,527,257)
Total deficiency in net assets	(3,536,321)	(3,456,560)	(1,527,157)
	\$ 6,424,087	\$ 6,043,613	\$ 7,861,925

Approved by the Directors

“Gavin Thomas”, Director

“Peter McAleer”, Director

*See accompanying notes.*

Equatorial Mineral Park, Inc.

Statements of Operations

(all amounts in U.S. dollars)

	Six months ended		Year ended December 31	
	2000	1999	1999	1998
	(unaudited)	(unaudited)		
Revenues	\$ 2,448,094	\$ 2,636,501	\$ 4,802,233	\$ 5,125,303
Costs and expenses:				
Cost of revenues	2,540,348	2,641,914	5,097,232	5,502,807
Write-down of assets for impairment	—	—	1,085,189	—
Depreciation, depletion, and amortization	24,817	338,719	617,933	613,988
Total costs and expenses	2,565,165	2,980,633	6,800,354	6,116,795
Loss from operations	(117,071)	(344,132)	(1,998,121)	(991,492)
Other income:				
Interest income	6,330	8,069	18,356	2,845
Royalties and other	30,980	21,749	50,362	73,527
	37,310	29,818	68,718	76,372
Loss before income taxes	(79,761)	(314,314)	(1,929,403)	(915,120)
Provision for income taxes	—	—	—	—
Net loss	\$ (79,761)	\$ (314,314)	\$ (1,929,403)	\$ (915,120)

See accompanying notes.

Equatorial Mineral Park, Inc.

Statements of Changes in Deficiency in Net Assets

(all amounts in U.S. dollars)

	<b>Common Stock Held by Parent</b>	<b>Accumulated Deficit</b>	<b>Total</b>
Balance at January 1, 1998	\$100	\$ (612,137)	\$ (612,037)
Net loss	–	(915,120)	(915,120)
Balance at December 31, 1998	100	(1,527,257)	(1,527,157)
Net loss	–	(1,929,403)	(1,929,403)
Balance at December 31, 1999	100	(3,456,660)	(3,456,560)
Net loss for period (unaudited)	–	(79,761)	(79,761)
Balance at June 30, 2000 (unaudited)	\$100	\$(3,536,421)	\$(3,536,321)

*See accompanying notes*

Equatorial Mineral Park, Inc.

Statements of Cash Flows

(all amounts in U.S. dollars)

	Six months ended		Year Ended December 31	
	June 30 2000 (unaudited)	1999 (unaudited)	1999	1998
<b>Operating activities</b>				
Net loss	\$ (79,761)	\$ (314,314)	\$ (1,929,403)	\$ (915,120)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation, depletion and amortization	24,817	338,719	617,933	613,988
Write down of assets for impairment	—	—	1,085,189	—
Changes in operating assets and liabilities:				
Accounts receivable	(333,597)	17,328	400,071	(112,868)
Prepaid expenses	(18,123)	(35,169)	10,630	10,940
Inventories	327,561	19,042	(300,433)	27,871
Other assets and liabilities	(66,000)	(66,000)	(190,731)	(210,000)
Accounts payable and accrued expenses	(61,535)	43,652	33,046	(21,225)
Net cash (used in) provided by operating activities	(206,638)	3,258	(273,698)	(606,414)
<b>Investing activities</b>				
Purchase of property and equipment	(39,638)	—	(26,371)	(1,684,947)
Expenditures on mining properties	—	—	—	(244,227)
Net cash used in investing activities	(39,638)	—	(26,371)	(1,929,174)
<b>Financing activities</b>				
Net increase in payable to parent	521,770	76,499	136,776	2,635,215
Net cash provided by financing activities	521,770	76,499	136,776	2,635,215
Increase (decrease) in cash and cash equivalents	275,494	79,757	(163,293)	99,627
Cash and cash equivalents, beginning of period	220,398	383,691	383,691	284,064
Cash and cash equivalents, end of period	\$ 495,892	\$ 463,448	\$ 220,398	\$ 383,691

See accompanying notes

# Equatorial Mineral Park, Inc.

## Notes to Financial Statements

(The information for the six months ended June 30, 2000 and 1999 is unaudited)  
(all amounts in U.S. dollars)

### **1. Summary of Significant Accounting Policies**

#### *Organization*

Equatorial Mineral Park, Inc. (the Company), a company incorporated in Delaware, is involved in solvent extraction and electro-winning processes for copper deposits in Kingman, Arizona. The Company is a wholly owned subsidiary of Equatorial Mining North America, Inc. (the Parent), a company incorporated in Delaware, to acquire existing known deposits or operating companies for the purpose of mining copper and precious metals in North America. The Parent, which acquired the Company effective September 30, 1997, is a subsidiary of Equatorial Mining Limited, a publicly traded entity in Sydney, Australia.

#### *Basis of Presentation*

The financial statements have been prepared in U.S. dollars following accounting principles generally accepted in the United States ("U.S. GAAP"). These policies are also in conformity, in all material respects, with accounting policies generally accepted in Canada ("Canadian GAAP").

The accompanying financial statements have been prepared assuming Equatorial Mineral Park, Inc. will continue as a going concern. The Company has incurred recurring operating losses, has a deficiency in net assets and continues to require funding from the Parent. Declines in copper prices and/or a significant decline in funding from the Parent would adversely impact the Company's ability to operate as a going concern in 2000.

As described in Note 10, the Company entered into a purchase agreement with Silver Eagle Resources Ltd. (SER). The Company's ability to continue as a going concern upon purchase is dependent upon adequate funding by SER. The inability of SER to provide such funding raises substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements have been prepared assuming that the Company will continue as a going concern.

#### *Use of Estimates*

The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

#### *Cash Equivalents*

Cash equivalents consist of highly-liquid investments that have a maturity of three months or less when purchased.

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### **1. Accounting Policies (continued)**

##### *Inventories*

Inventories, stated at the lower of cost (first-in, first-out basis) or market, consist solely of finished goods (i.e. copper cathodes).

##### *Property, Plant and Equipment*

Property, plant and equipment are stated at cost. Depreciation is computed by the straight line method over the estimated useful lives of the assets, ranging from three to fifteen years. Certain mining equipment is depreciated using the units-of-production method based upon estimated total reserves. Maintenance and repairs are charged to operations as incurred.

##### *Mining Properties*

Operational properties consists of the cost of operational mining properties.

Costs incurred to expand the capacity of operating mines, develop new ore bodies, or develop mine areas substantially in advance of current production are capitalized as operational mining properties and charged to operations generally on the units-of-production method.

Developmental expenditures incurred by the Company on properties in which economically recoverable reserves have been identified are capitalized as developmental properties. These expenditures include the direct costs of acquisition, exploration and development. Determination as to reserve potential is based on results of feasibility studies which indicate whether a property is economically feasible. If production commences, these costs will be amortized against earnings based on the units-of-production method. If a property is determined not to be commercially feasible, unrecovered costs will be expensed in the year in which the determination is made.

##### *Assets Held for Sale*

Assets held for sale are stated at the lower of cost or estimated net realizable value and consist primarily of land.

##### *Revenue Recognition*

The Company recognizes revenue from the sales of copper upon transfer of title as defined in the sales agreement with the customer.

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### 1. Accounting Policies (continued)

##### *Income Taxes*

Income taxes are determined utilizing the liability method. This method gives consideration to the future tax consequences associated with temporary differences between the carrying amounts of assets and liabilities for financial statement purposes and the amounts used for income tax purposes.

##### *Concentration of Credit Risk*

Approximately 100 percent, 100 percent and 74 percent of the accounts receivable at June 30, 2000, December 31, 1999 and 1998, respectively, is from one customer. 100 percent and 99 percent of revenues for the six months ended June 30, 2000 and 1999, respectively, are from two customers. Ninety-five percent of revenue for the year ended December 31, 1999 related to two customers while 87 percent of revenues for the year ended December 31, 1998 related to one customer. The Company has not experienced significant uncollectable accounts from these customers in the past.

##### *Hedges*

The Company frequently enters into futures contracts to hedge the price risks associated with changes in copper prices. As of December 31, 1999 the Company has elected to not early adopt Statement of Financial Accounting Standards (SFAS), No. 133 *Accounting for Derivative Instruments and Hedging Activities*, and, therefore, accounts for futures contracts under SFAS No. 80 *Accounting for Futures Contracts*. In accordance with SFAS No. 80, the Company defers the impact of changes in the market value of these contracts until such time as the hedged transaction is completed. At that time, the impact of the changes in the fair value of these contracts is recognized in income.

To qualify as a hedge, the item to be hedged must expose the Company to price risk and the hedging instrument must reduce that exposure. Any contracts held or issued that do not meet the requirements of a hedge are recorded at fair value in the balance sheet and any changes in that fair value recognized in income. If a contract designated as a hedge of an anticipated transaction is no longer likely to occur, the contract is recorded at fair value and the associated changes in fair value recognized in income.

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### **1. Accounting Policies (continued)**

Certain reclamation is performed and expensed on an ongoing basis as cost of revenues as At June 30, 2000 and December 31, 1999, the Company's hedging activities included futures contracts maturing primarily in the second half of 2000, covering approximately 2,400,000 pounds of copper. Since these contracts are designated as revenue hedges and correlate to price movements of copper, any gains or losses resulting from market changes will be offset by losses or gains on the Company's hedged inventory or production. There were no losses related to hedge activity for the years ended December 31, 1999 and 1998 or for the six months ended June 30, 2000 and 1999.

#### *Reclamation and Environmental Costs*

Minimum standards for mine reclamation have been established by various governmental agencies which affect certain operations of the Company.

performed. The remaining reclamation costs are related to mine closure and are accrued and charged against income on a units-of-production basis over the life of the mine. Costs of future expenditures for environmental remediation obligations are not discounted to their present value.

#### *Impairment of Long-Lived Assets and Long-Lived Assets to be Disposed Of*

The Company adopted the provisions of SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of*, in 1996. SFAS No. 121 requires that long-lived assets and certain identifiable intangibles be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or net realizable value (fair value less costs to sell). The Company regularly monitors the provisions of SFAS No. 121. In 1999, the Company recognized \$1,085,189 in an impairment charge to property, plant, and equipment resulting from adverse trends in the copper industry.

#### *Reclassifications*

Certain reclassifications have been made to the 1998 financial statements to conform them to the 1999 presentation.

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### 2. Property, Plant and Equipment

Property, plant and equipment consists of the following:

	<b>June 30 2000</b>	<b>December 31 1999</b>	<b>December 31 1998</b>
Land	\$ —	\$ —	\$ 330,000
Machinery and equipment	155,000	155,000	2,612,845
	155,000	155,000	2,942,845
Less: accumulated depreciation	—	—	(748,895)
Construction in progress	34,638	—	—
	\$ 194,638	\$ 155,000	\$2,193,950

#### 3. Mining Properties

Mining properties consists of the following:

	<b>June 30 2000</b>	<b>December 31 1999</b>	<b>December 31 1998</b>
Operational mining properties	\$ 276,426	\$ 276,426	\$ 254,184
Less: accumulated depletion	(24,817)	—	(9,957)
	251,609	276,426	244,227
Developmental properties	3,938,000	3,938,000	3,938,000
	\$4,189,609	\$4,214,426	\$4,182,227

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### 4. Other Assets

Other assets consists of the following:

	<b>June 30</b>	<b>December 31</b>	
	<b>2000</b>	<b>1999</b>	<b>1998</b>
Reclamation Surety Bond	\$ 400,000	\$ 400,000	\$ 400,000
Aquifer Protection Trust	408,000	342,000	210,000
	<u>\$ 808,000</u>	<u>\$ 742,000</u>	<u>\$ 610,000</u>

The reclamation surety bond is collateral for a \$1,324,000 performance guarantee from a surety company to cover the estimated costs of the reclamation obligations, including replacing soils and revegetation of mined areas as required by provisions and permits pursuant to the Surface Mining Control and Reclamation Act. The surety bond has been placed with the State of Arizona.

In accordance with the Arizona Department of Environmental Quality, the Company has agreed to make annual contributions of \$132,000 over a ten year period to a trust to pay for final reclamation of the mine site. The trust has been placed with the State of Arizona. Total payments over the ten years will be approximately \$1,530,000 with anticipated appreciation in the trust of \$2,109,000. All interest income will belong to the trust and the State of Arizona and will used for final reclamation

#### 5. Payable to Parent

The Company has an unsecured borrowing arrangement with the Parent whereby the Company may borrow from time to time as approved by the Parent's management. Borrowings under this arrangement do not accrue interest. A total of \$5,033,901, \$4,512,131 and \$4,375,355 was due under this arrangement at June 30, 2000, December 31, 1999 and 1998, respectively. The balance is classified as a long-term liability as no prepayments are expected in 2000.

In January through March 2000, the Company transferred copper inventory through the Parent to Equatorial Tonopah Inc. (a wholly owned subsidiary of the Parent). The copper was used to satisfy hedge contracts entered into by Equatorial Tonopah Inc. which could not be satisfied due to their levels of production. The Company recorded the transaction via intercompany accounts which resulted in a reduction in the amount payable to Parent of \$327,561 and no impact on revenues. The copper inventory was recorded at market (which approximated cost) at the date of transfer.

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### **6. Mine Reclamation and Closure Costs**

The Company's accruals for deferred closure, shutdown of closed operations, and reclamations totaled \$4,664,115 as of June 30, 2000, December 31, 1999 and 1998. Reclamation is an ongoing activity and a cost associated with the Company's mining operations. Accruals for closure and final reclamation liabilities are established on a life of mine basis and are largely the result of reclamation obligations incurred for replacing soils and revegetation of mined areas as required by provisions and permits pursuant to the Surface Mining Control and Reclamation Act. The June 30, 2000, December 31, 1999 and 1998 accrued balance includes approximately \$1.3 million for reclamation obligations and approximately \$3.4 million for site stabilization, cleanup, long-term monitoring, and water treatment costs expected to be required largely by state laws and regulations as well as by sound environmental practice.

The Company believes that it has adequate reserves such that none of these matters or contingencies is expected to have a material adverse effect on its business or financial condition, results of operations, and cash flows, and is unaware of any additional environmental matters which, based on information currently known to the Company would have a material effect upon the Company's financial condition or results of operations.

#### **7. Income Taxes**

The Company has deferred tax assets of approximately \$4,125,000 and \$3,343,000 at December 31, 1999 and 1998, respectively. The deferred tax assets represent the tax benefits of net operating loss carryforwards and accruals and reserves not currently deductible. The majority of the assets have been offset by a valuation allowance of \$3,782,000 and \$2,933,000 in 1999 and 1998, respectively. The valuation allowance is a result of the Company's operating losses. The remaining \$343,000 and \$410,000 of deferred tax assets at December 31, 1999 and 1998, respectively, is fully offset by a \$343,000 and \$410,000 deferred tax liability. The deferred tax liability represents the difference in the basis of fixed assets for book and tax purposes. The Company's valuation allowance increased by approximately \$849,000 and \$691,000 in 1999 and 1998, respectively. The increase in the deferred tax assets is a result of the Company's net operating losses in 1999 and 1998.

#### **8. Commitments and Contingencies**

The Company from time to time is involved in various litigation matters. Management does not believe the resolution of such matters will have a material adverse impact on the Company's financial position, results of operations or cash flows.

## Equatorial Mineral Park, Inc.

### Notes to Financial Statements (continued)

(The information for the six months ended June 30, 2000 and 1999 is unaudited)

(all amounts in U.S. dollars)

#### **9. Employee Benefit Plans**

The Company participates in the Parent's defined contribution plans under Section 401(k) of the Internal Revenue Code and the Employment Retirement Income Security Act. The Plans cover all employees who have attained 21 years of age and who have completed three months of service. The Company's expense for these Plans totaled \$52,202 and \$44,168 for the years ended December 31, 1999 and 1998, respectively, and \$25,194 and \$27,139 for the six months ended June 30, 2000 and 1999, respectively.

#### **10. Purchase Agreement**

On May 29, 2000, the Company and Parent entered into a purchase agreement with Silver Eagle Resources LTD (SER) to sell all the issued and outstanding shares of the Company in exchange for 23,060,875 common shares of SER. The purchase is contingent on the completion of certain matters, including SER procuring minimum financing prior to the closing of the transaction.

*Project Copy*

**GEOLOGICAL REVIEW  
AND PRELIMINARY  
PRECIOUS METAL EVALUATION  
3R MINE  
PATAGONIA, ARIZONA**

RECEIVED  
JUL 11 1983  
DEPT. OF MINES  
PHOENIX, ARIZONA



mountain states research & development



GEOLOGICAL REVIEW  
AND PRELIMINARY PRECIOUS METAL EVALUATION  
3R MINE, PATAGONIA, ARIZONA

for

J.C. Pierce  
612 Morrell Blvd.  
Prescott, Arizona 86301

and

Thomas L. Hall  
5425 N. Via Alcaloe  
Tucson, Arizona 85718

by

Mountain States Research and Development  
Post Office Box 17960  
Tucson, Arizona 85731

Project No. Y-37

August 24, 1982

Prepared by:

N.E. Dausinger, Jr.  
N.E. Dausinger, Jr.  
Senior Geological Engineer

Approved by:

J.F. Shirley  
J.F. Shirley  
Senior Vice President  
and General Manager

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION. . . . .	1
CONCLUSIONS AND RECOMMENDATIONS . . . . .	2
GEOLOGICAL REVIEW OF BASIC DATA . . . . .	3
GEOCHEMICAL SAMPLING RESULTS. . . . .	4
 <u>FIGURES</u>	
Figure 1 - Plan map of 3R claim map . . . . .	5
Figure 2 - West to east cross-section of 3R orebody . . . . .	6
 <u>TABLES</u>	
Table I - Surface geochemical results. . . . .	7
Table II - Analysis of TR-17 drillhole. . . . .	9
 <u>APPENDIX</u>	
Assay certificates	
Claim maps	
Historical notes	
Graphic logs	
Geologic map and cross sections	

## INTRODUCTION

The 3R Mine is located in the upper reaches of 3R Canyon, approximately 5 miles southwest of Patagonia, and 10 miles north of the Mexican border. (Section 36, T. 22S., R15E.), Palmetto Mining District, Santa Cruz County, Arizona. The claim block, consisting of 21 patented claims and 11 unpatented claims, is centered around the 3R Mine in section 36 and extends into National Forest land to the south (T.23S.) with 2 patented claims projecting into T.22S. and T.23S., R.16E. to the east.

The 3R Mine is reported to have been discovered in 1890. The Arizona Bureau of Mines reports that most of the production, 130,000 tons of ore averaging 4% copper with minor silver, lead, zinc, and gold, was from 1908 through 1956. ABM sources report the orebody to be a "large, steeply dipping, lensing orebody of disseminated cupriferous pyrite with minor chalcocopyrite, bornite, and minor lead and zinc along a fault zone intersected by numerous fractures. Zone is strongly oxidized and supergene enriched to high grade chalcocite and some covellite. Wall rock is a shattered and altered Jurassic granite which contains disseminated pyrite and sparse copper mineralization in quartz-sericite veinlets around the orebody. Alunite masses occur in the fault zone."

More recently, from 1962 to mid-1981, an Anaconda-ASARCO joint-venture had the 3R property under option and continue to hold large blocks of claims to the north, east, and west. Canadian interests control the ground to the southwest (West Range).

The general area is within a porphyry copper belt extending from Caridad-Nacozari-Cananea-Mariquita in Sonora, Mexico through Red Mountain, Helvitia-Rosemont, Esperanza-Sierrita, Pima-Mission, and Silver Bell in Arizona. The Red Mountain-Patagonia zone has been explored intensively in the past by Kerr-McGee, ASARCO-Anaconda; results from these efforts indicate major porphyry copper deposits at depths greater than 3000 feet in the Patagonia Mountains.

Review of the available data from the 3R Mine area indicated that precious metal potential was virtually ignored in the past. The recent field effort and data review was directed toward the following:

1. Review of available geological data to determine porphyry copper potential at depth.
2. Review of available geological data and preliminary surface sampling to determine near-surface precious metal potential.
3. To comply with assessment requirements for the claim block for the assessment year September 1, 1981 to August 31, 1982.
4. Cursory investigation of real estate potential for the 21 patented claims as possible sites for summer-weekend cabins, etc. and trade-off value via government agencies.

## GEOLOGICAL REVIEW OF BASIC DATA

Data reviewed included area claim maps, historical notes by J.C. Pierce, geological map, cross-sections, and graphic logs supplied by ASARCO, assay logs for 8 diamond drill holes supplied by ASARCO, and assay-logs of 10 holes drilled by Magma in 1920. In addition, a 1963 thesis, "Geology of the Three R Mine" by Paul A. Handverger proved useful. Copies of some of these items are included in the appendix.

The review revealed the following.

1. Graphic logs for holes TR-10, TR-11, TR-14 and TR-15 were provided by ASARCO. These holes were not drilled within the 3R claim block but on adjacent ground held by ASARCO-ANACONDA. In general, these logs show weak, disseminated copper mineralization (2000 to 6000 ppm) below 4000 foot depths. The TR-10 log shows anomalous arsenic values in the upper 400 feet of the hole where one could suspect a possible association with precious metal mineralization. The logs also show weak chalcocite-energite with alunite in the upper 500 to 1000 foot intervals. No graphic logs were provided for the 9 holes drilled within the 3R claim block.
2. Assay logs were available for 8 of the 9 holes drilled on 3R claims (TR-1, TR-2, TR-3, TR-5, TR-8, TR-12, TR-16, TR-17). Assays for hole TR-13 are missing. Assays were consistently made for copper and sporadically for molybdenum, gold and silver. Apparently, no gold-silver assays were made for any intervals in holes TR-2, TR-3, and TR-5. In general, the assays show occasional intervals of economic copper mineralization, apparently structurally controlled, separated by wide zones of weak-subeconomic values.
3. Review of the 10 diamond drill hole data by Magma in 1920 indicates poor core recovery and generally erratic results. Only copper was assayed and sludge assays are usually higher than split core assays.

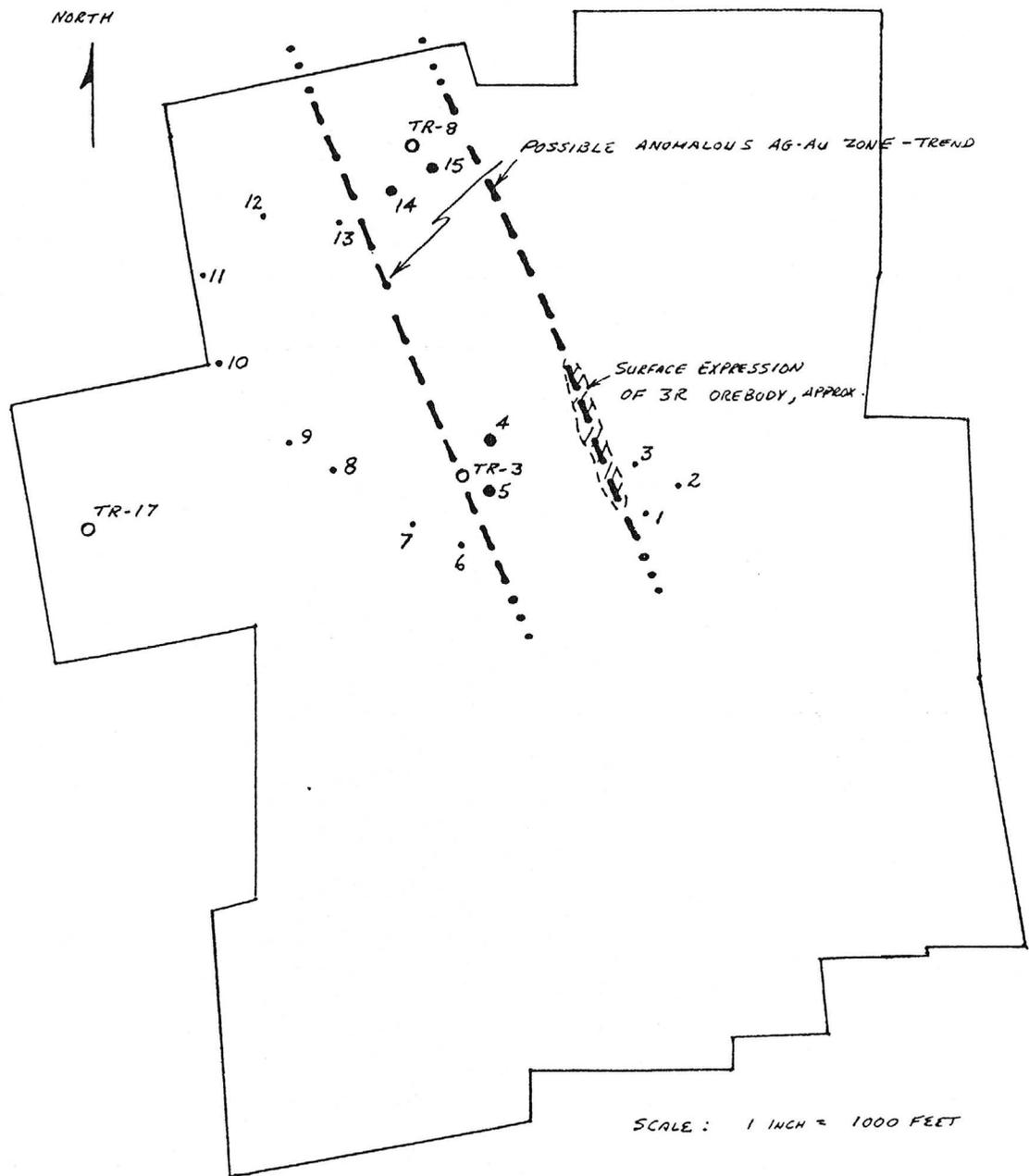


Figure 1 - Plan map of 3R claim block showing locations of geochemical surface samples, drill holes TR-3, TR-8, TR-17, and trend of possible silver-gold anomalous zone in hanging wall of 3R mineralized structure.

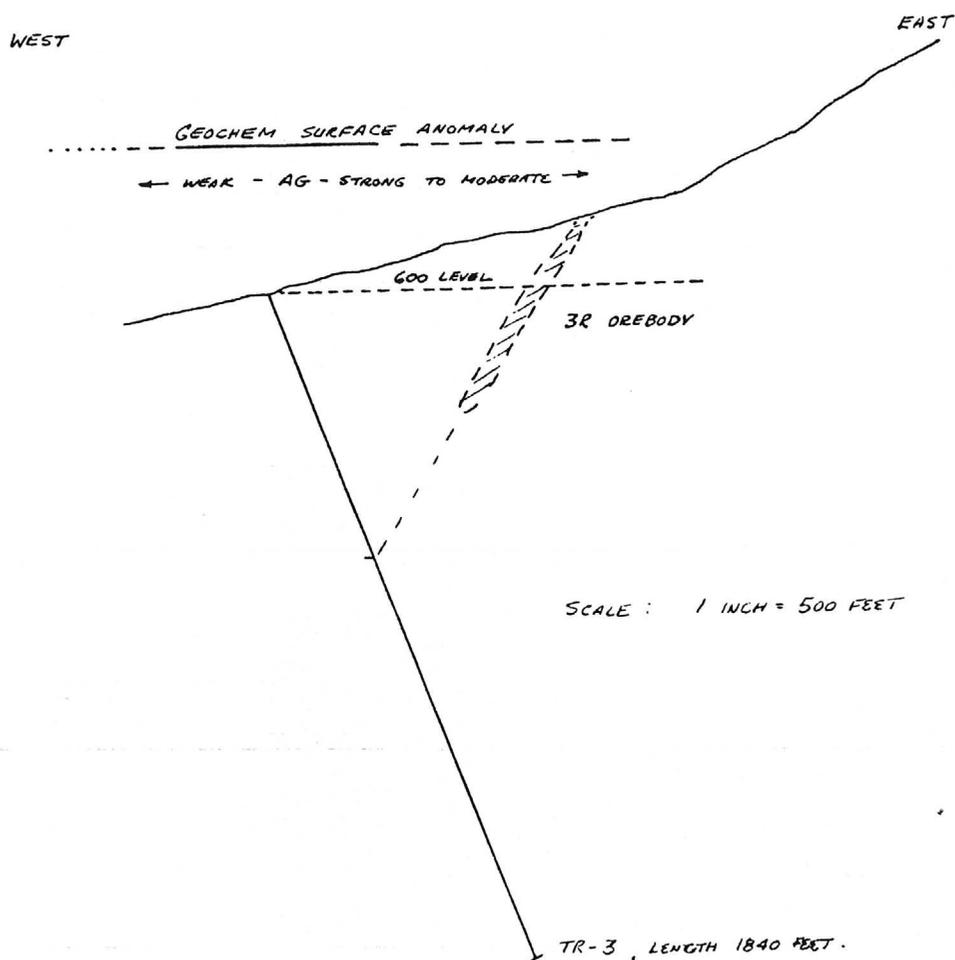


Figure 2 - West to East cross-section through the 3R orebody illustrating the relative strength of the surface geochemical silver values in the hanging wall zone of the 3R orebody. (Sample 3R-1, 2, 3, 4, 5, and 6). Samples 3R-14 and 15, located 1500 to 2000 feet to the northwest suggest a possible increase in silver-gold values to the north along the structural trend (Figure 1 and Table I).

TABLE I

Refer to figure 1 for surface geochemical sample locations. All samples are rock chips.

Sample No.	Au		Ag		Remarks
	oz/t	ppm	oz/t	ppm	
3R-1	0.001	0.034	0.10	3.4	Roadcut - switchback in shear zone, southwest part of Three R No. 5 claim.
3R-2	0.001	0.034	0.10	3.4	Roadcut - switchback approximately 250 feet northeast of 3R-1 sample.
3R-3	0.001	0.034	0.10	3.4	Roadcut - surface expression of 3R orebody, 400-foot adit level.
3R-4	0.001	0.034	0.41	14.0	Outcrop in roadcut, approximately 150 feet north of 600-foot level portal.
3R-5	0.001	0.034	0.15	5.1	Outcrop along wash, approximately 100 feet south of 600-foot level portal.
3R-6	0.001	0.034	0.05	1.7	Outcrop in vicinity of ruins of former campsite.
3R-7	0.001	0.034	ND	-	Bleached outcrop south of engine house ruins.
3R-8	0.001	0.034	ND	-	Outcrop north of road across arroyo with alunite stringers, approximately 500 feet west of engine house.
3R-9	0.001	0.034	ND	-	Outcrop at adit southeast of arroyo-road crossing.
3R-10	0.001	0.034	ND	-	Outcrop near adit and air-foto marker approximately 500 feet northeast of 3R-9 sample. Strong FeOx.
3R-11	0.001	0.034	0.11	3.8	Roadcut in access road to northern prospects and drillsites. FeOx veinlets in granite porphyry.

TABLE II

Analysis of pulps from upper portion of TR-17 drillhole. These were the only samples readily available from ASARCO's drilling at the time of the evaluation effort. TR-17 is located near the center of Colossus No. 5 claim.

<u>Sample Interval (feet)</u>	<u>Au oz/t</u>	<u>Ag oz/t</u>
0-20	0.004	ND
20-30	0.001	ND
30-40	0.001	0.05
40-50	0.001	0.08
50-60	0.001	ND
60-70	0.001	0.05
70-80	0.001	ND
80-90	0.001	0.30
90-100	0.001	0.06
100-110	0.004	ND
110-120	0.001	0.07
120-130	0.001	ND
130-140	0.001	0.06
140-150	0.001	0.08

A P P E N D I X

mountain states research & development

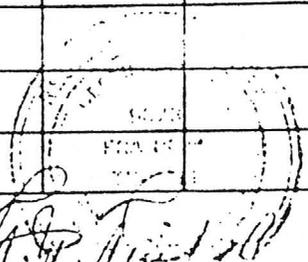
CERTIFICATE OF ASSAY

Certificate No. 82-172-H

Project No. Y-37

Date 8/19/82

	Sample No.	Au	Ag				
		Oz/T	Oz/T				
19370	3R-1	0.001	0.10				
19371	2	0.001	0.10				
19372	3	0.001	0.10				
19373	4	0.001	0.41				
19374	5	0.001	0.15				
19375	6	0.001	0.05				
19376	7	0.001	ND				
19377	8	0.001	ND				
19378	9	0.001	ND				
19379	10	0.001	ND				
19380	11	0.001	0.11				
19381	12	0.001	ND				
19382	13	0.001	ND				
19383	14	0.008	0.92				
19384	15	0.008	0.36				
19385	TR-17 0'-20'	0.004	ND				
19386	20'-30'	0.001	ND				
19387	30'-40'	0.001	0.05				
19388	40'-50'	0.001	0.08				
19389	50'-60'	0.001	ND				
19390	60'-70'	0.001	0.05				
19391	70'-80'	0.001	ND				
19392	80'-90'	0.001	0.30				
19393	90'-100'	0.001	0.06				



Total Charge \$ 108.00

ND (None Detected)

mountain states research & development

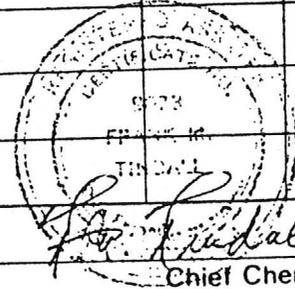
CERTIFICATE OF ASSAY

Certificate No. 82-173-H

Date 8/20/82

Project No. Y-37

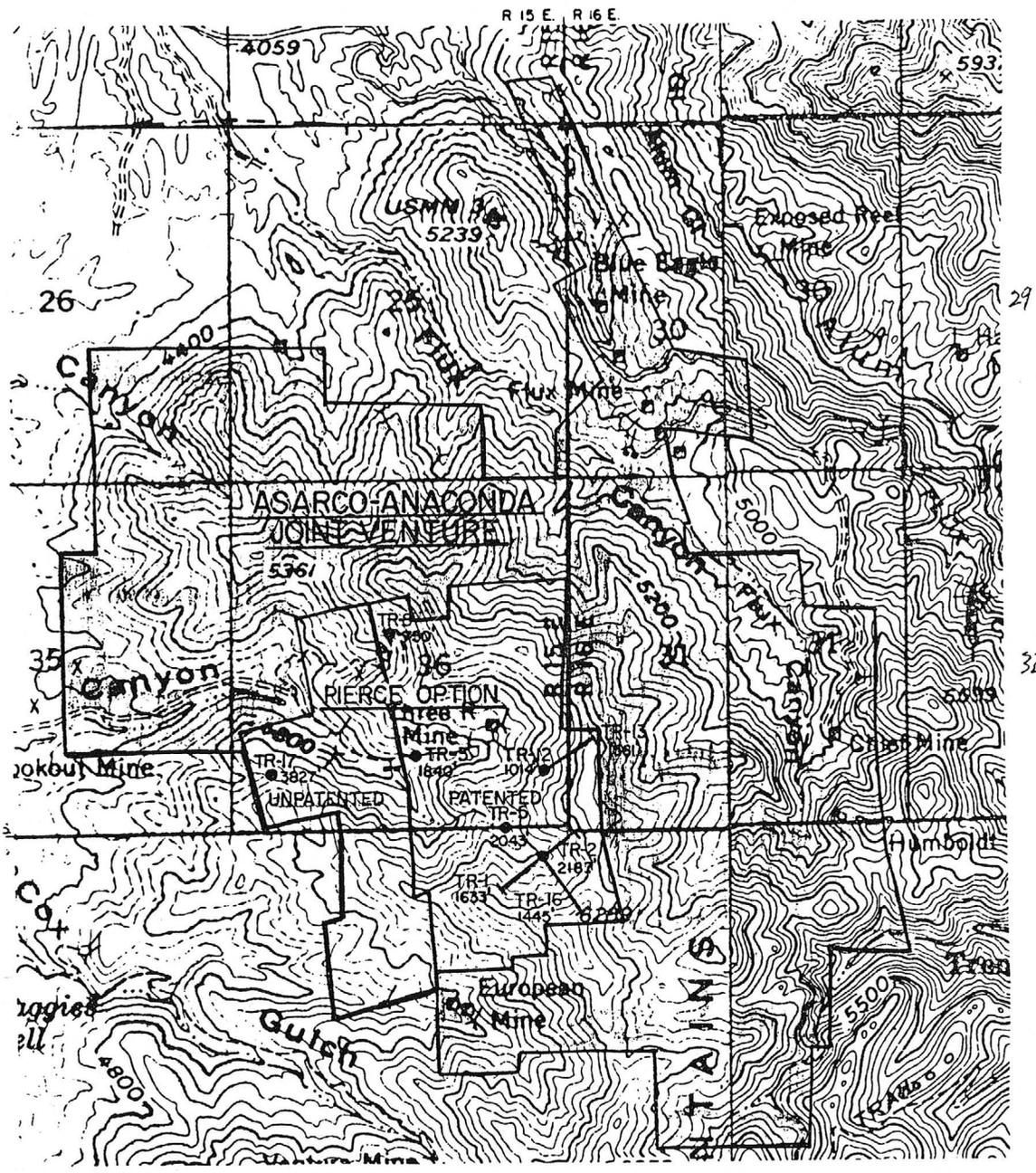
Sample No.	Au		Ag	
		Oz/T		Oz/T
19394 TR-17 100'-110'		0.004		ND
19395 110'-120'		0.001		0.07
19396 120'-130'		0.001		ND
19397 130'-140'		0.001		0.06
19398 140'-150'		0.001		0.08



Total Charge \$ 22.50

ND (None Detected)

Chief Chemist



- ASARCO DRILLING
- PREVIOUS DRILLING

LAND & DRILL LOCATION

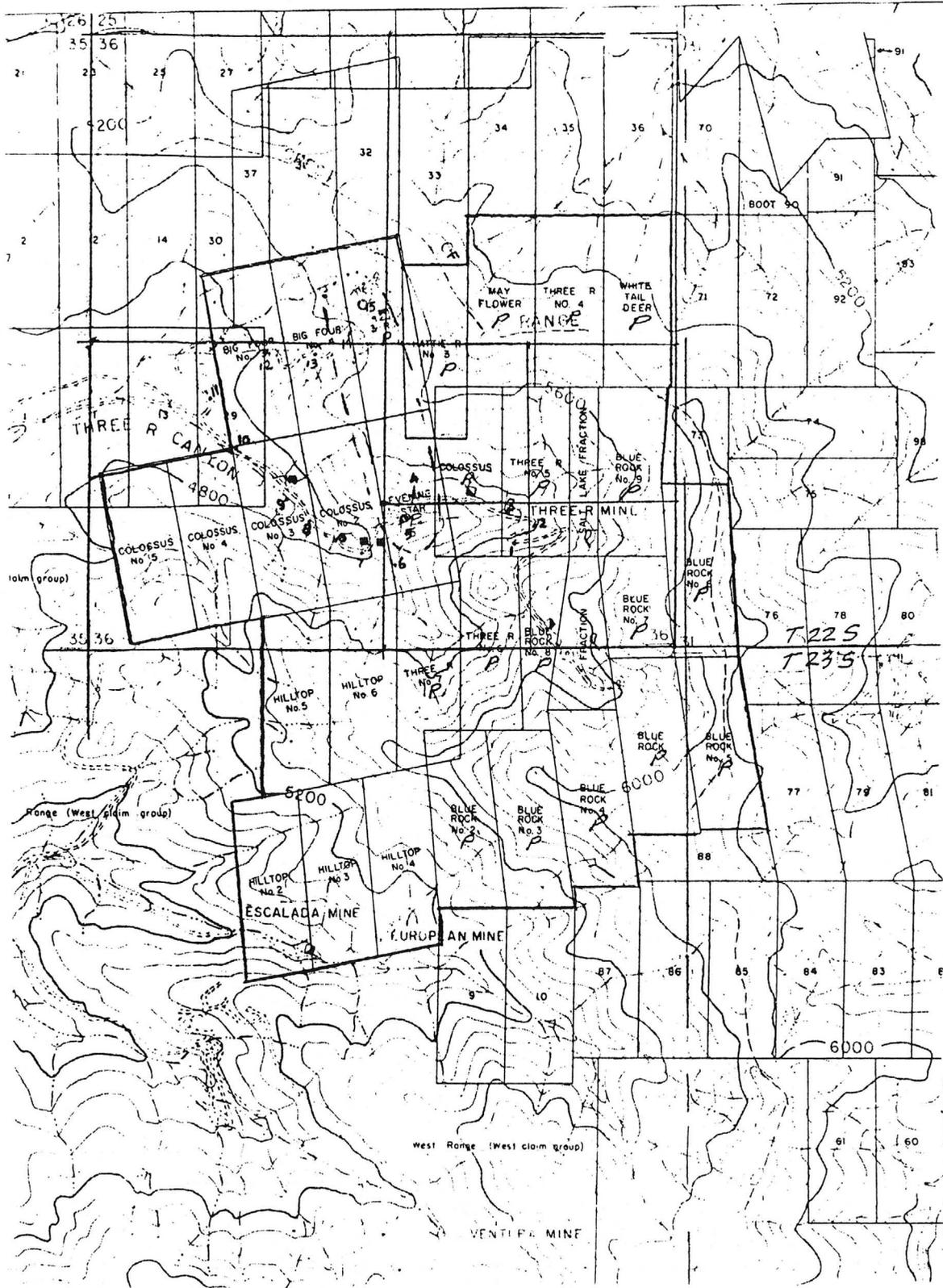
3R JOINT VENTURE

SANTA CRUZ CO., ARIZONA

SCALE: 1" = 2000'

R.B. CRIST

JUNE 1981



History → See Schrader

### THREE R MINE

#### LOCATION

{ Also referred to as  
Palmetto-Harshaw Mining District

This copper property is located in the Harshaw Mining District, Santa Cruz County, Arizona about  $4\frac{1}{2}$  miles south of Patagonia and 14 miles northeast of Nogales. It consists of 21 patented claims and 14 unpatented claims, all contiguous, on the upper west slope of the Patagonia Mountains between elevations of approximately 5,000 and 5,800 feet. It is reached by some  $3\frac{1}{2}$  miles of ungraded road from the paved highway connecting Patagonia with Nogales. The nearest railhead is at Patagonia, about  $7\frac{1}{2}$  road miles away on a Southern Pacific branch line.

#### OWNERSHIP

The Three R. Mine ownership is as follows: One half interest held by Duane Bird and Thomas Hall (with their wives), Nogales attorneys; one half by heirs of C. A. Pierce who are Mrs. Mary L. Pierce ( $\frac{1}{4}$  interest), Sallie Van Valkenburgh ( $\frac{1}{8}$  interest) and Jack C. Pierce ( $\frac{1}{8}$  interest).

#### HISTORICAL

Discovered in 1890, the property was explored and developed in minor ventures by W. R. Green of Cananea, The Lewisohn interests and the Three R syndicate prior to 1909. During that period there was produced only a small tonnage of high-grade chalcocite ore. Between 1909 and 1912 R. R. Richardson (for whom the property derives its name) and the Calumet and Arizona Mining Co. developed and shipped to the El Paso smelter considerable 5-15 percent copper ore.

In April, 1912 N. L. Amster of Boston, Mass. acquired the property for \$550,000 and by August, 1914 had shipped about 30,600 tons of ore averaging 9 percent copper with gross value reported at more than \$1,000,000.

In the 1920's Magma Copper Company blocked out ore by diamond drill and underground work and erected a mill which operated until a severe drop in copper price. (Details of this operation are not immediately available to the writer but are on file in the law offices of Bird and Hall in Nogales).

PRESENT STATUS

The Three R Mine is available for purchase, lease and option or bonded lease. Ample time for extensive examination will be allowed to any responsible party. Initial cash payment for an option to lease or purchase would be low. Terms for lease and purchase will be reasonable.

OWNER'S OPINION

Although there is established a limited volume of direct-shipping ore on the property, the ultimate success of an operation at the Three R depends on a milling operation. We believe that examination will disclose sufficient milling grade ore to justify a small mill, based on a copper price in excess of 30¢ per pound.

There are three geologically attractive and yet unexplored potential ore horizons on the property. We believe that Coppermines was interested primarily in the prospects of an open pit operation at the point of their drilling operations and paid little or no attention to indications of ore sources that would be exploited by underground mining methods.

In summary, it is our opinion that the Three R Mine should be attractive to experienced operators with the financial and technical ability to confirm indicated mill-ore reserves and to place a mill~~x~~ in operation. The unexplored, favorable ore horizons should enhance the attractiveness of the property as a potential long-lived copper mining operation.

Jack C. Pierce  
September 23, 1956

*See 5/30/79 Addendum  
attached.*

## GEOLOGY

On the east flank of the Three<sup>R</sup> Mountain is the Flux Mine -- within the upfaulted block of the Patagonia Mountain (a substantial lead producer); on the west side of the Three R Mountain is the Three R Mine (a large copper property, having produced one of the largest bodies of chalcocite mined in North America.

The Three R Mine is located within a rather large area of binary granite porphyry. A gray, monzonitic dike (surface exposures of which are limited) intrudes the granite porphyry and at certain locations contains some finely disseminated chalcocite that evidences the probability of a large, low-grade, deposit. This dike appears to be related to a deep-seated movement which was evidenced by severe faulting, shearing, and fracturing. This dike is similar to the dike which intrudes the Red Mountain rhyolite (Miocene Age) and is profusely impregnated with crystals and grains of pyrite, chalcopyrite, and chalcocite. Red Mountain is adjacent to the Three R Mountain and is therefore of geological importance as regards the Three R.

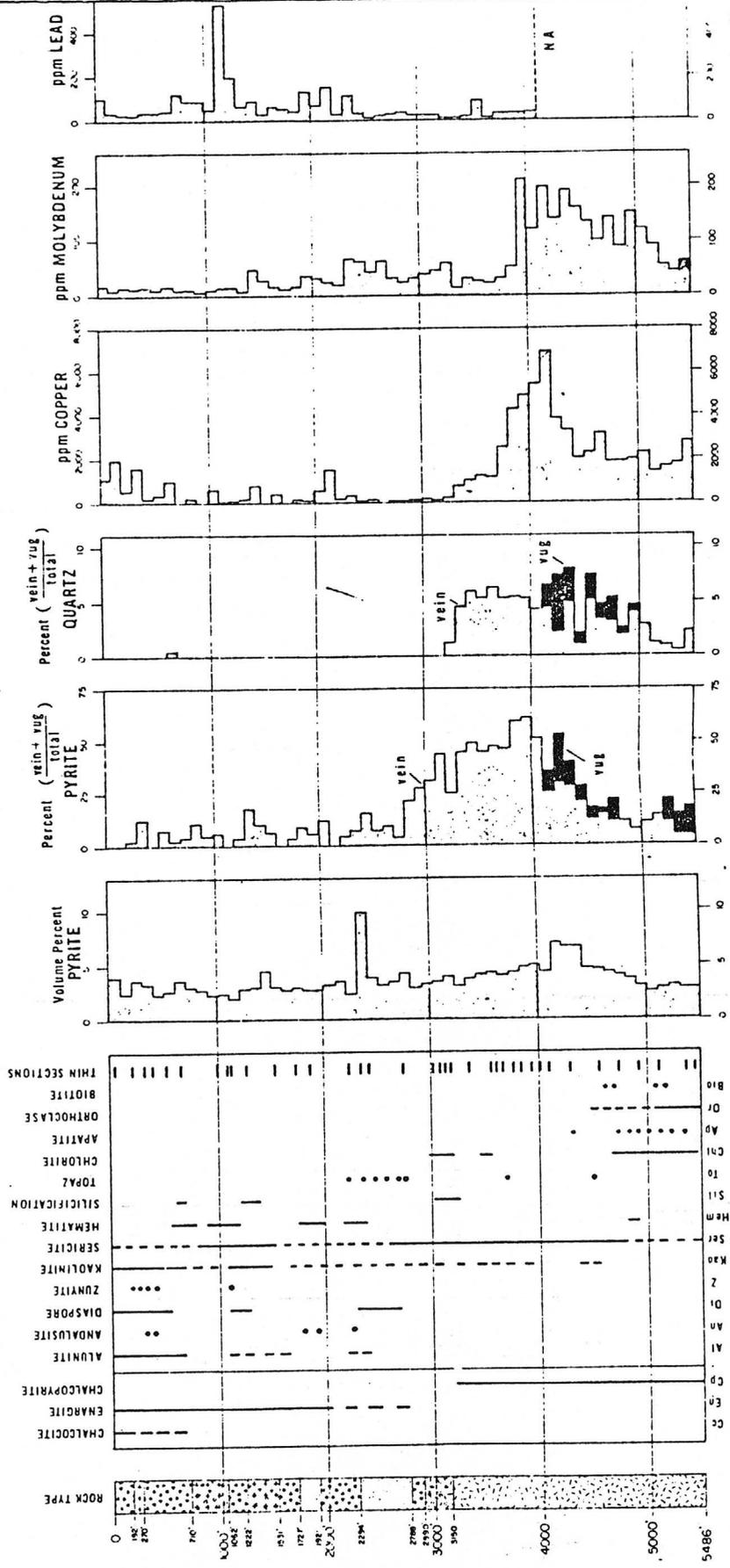
The Three R ore mined to date, is found within a system of north-south and north-75° east fractures. There is some evidence of a third system of fractures which strike north 30° west. These later fractures are obscured within the highly mineralized area of the ore bodies. They are, however, quite prominent at a location 1500 feet to the north of the Evening Star tunnel portal.

Evidence indicates that solutions accompanying or following the dike's intrusion and regional faulting, were the source of the copper mineralization; that this mineralization took place in at least two stages -- during and after intrusion and faulting. The rugged surface escarpment and outcrop evidence a deep-seated movement. This is especially true on the Three R and Hattie R. No. 2 mining claims.

Part exposed work is not helpful to the small operator because the shipping ores above water level and within confines of the Evening Star tunnel are exhausted. For the major companies, the work done is helpful in outlining a development program that has opportunities for the development of large, low-grade copper ores. Such horizons should include substantial tonnages of high-grade chalcocite.

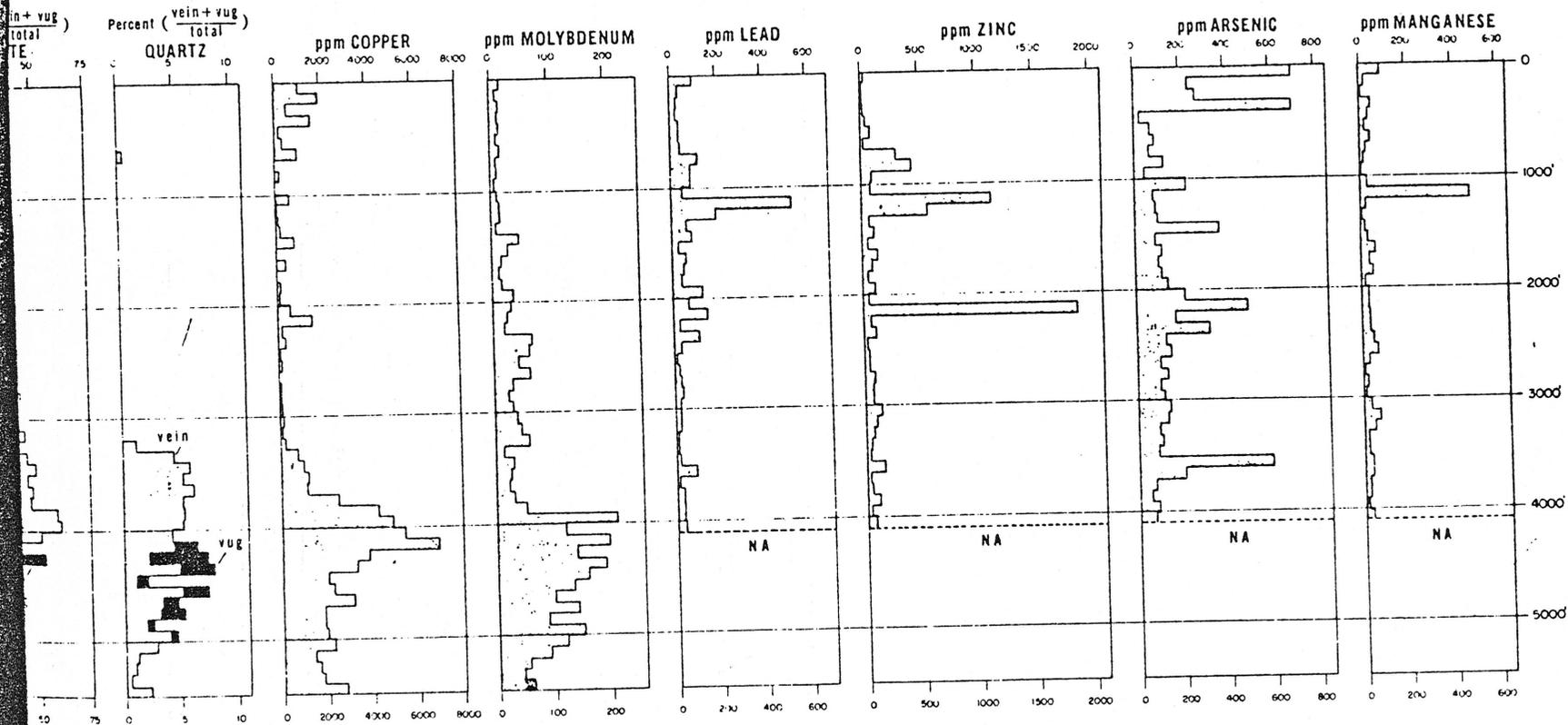
To those interested in the development of a large, low-grade, copper deposit, this property should be of interest. Its development will require ample capital and capable management.

J.C. Pierce  
12/49



GEOLOGIC EXPLANATION

- Quartz feldspar porphyry
- Infusible breccia
- Silica tuff
- Quartz monzonite porphyry

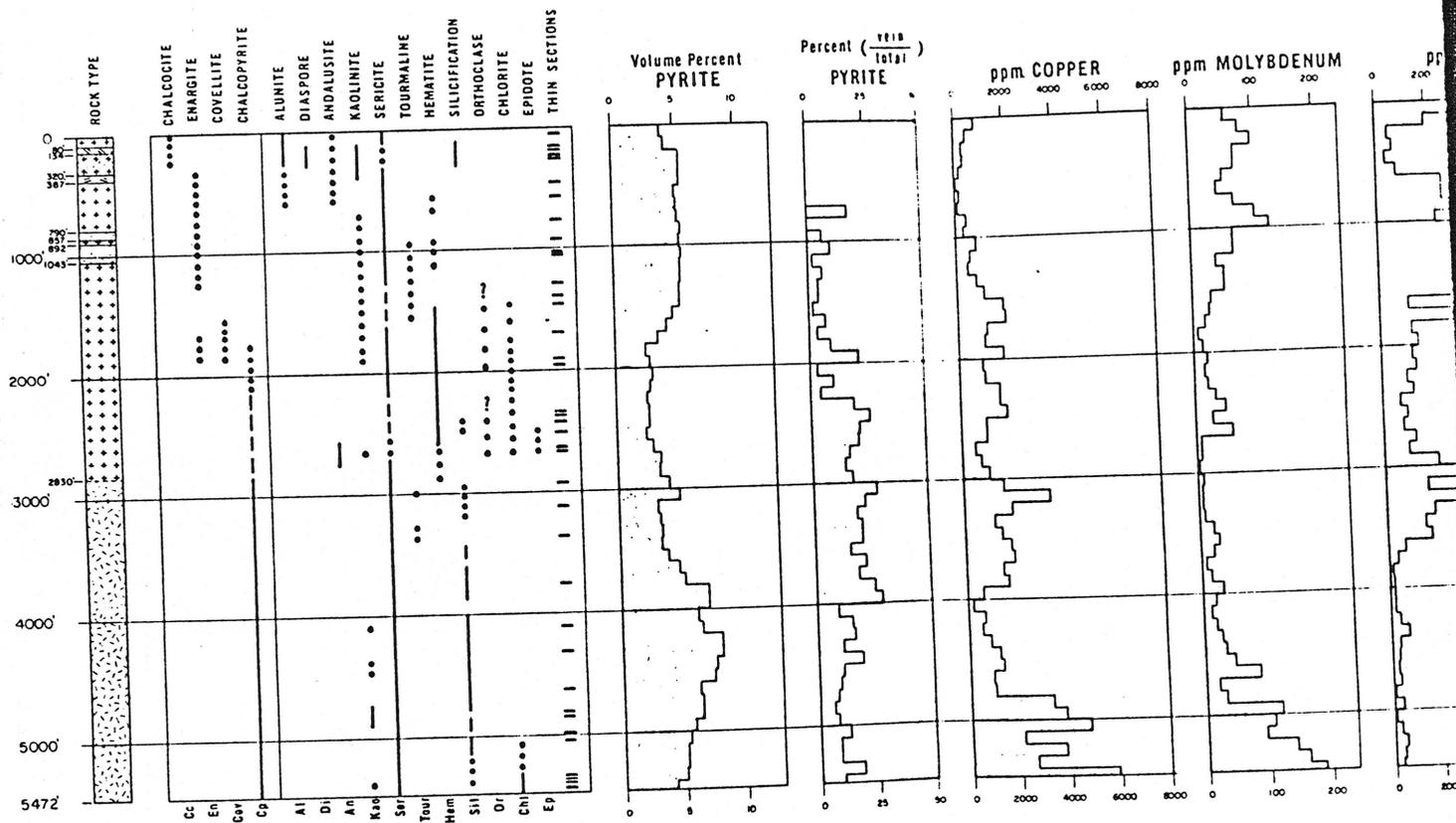


NOTE: NA = NOT ANALYZED

TO ACCOMPANY *Letter from*  
*Edith W. Anderson*  
 DATED *Dec. 16, 1951*  
 BY *W. S. Kelly*

GRAPHIC LOG OF TR-10  
 3-R PROJECT  
 PATAGONIA MOUNTAINS  
 SANTA CRUZ COUNTY, ARIZONA

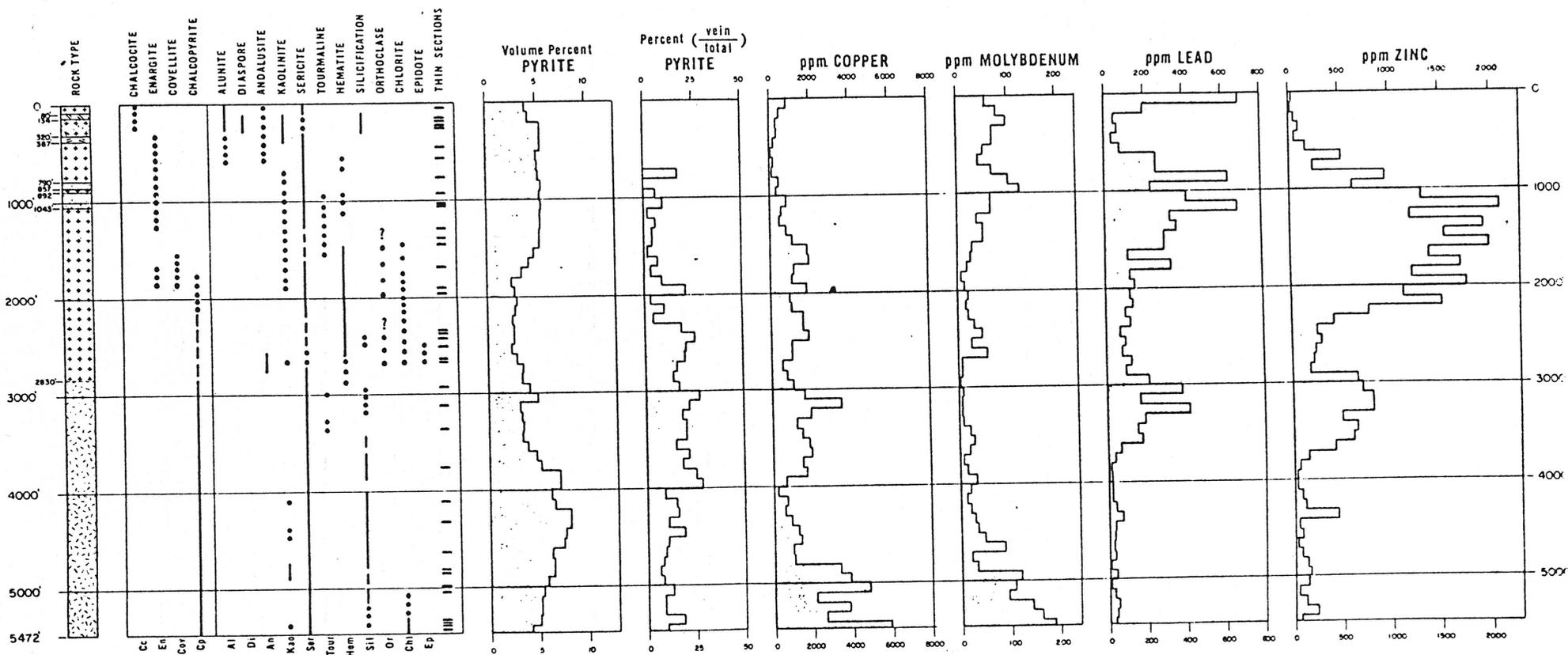
F.T.G. 1" = 1000' AUG. 1974



**GEOLOGIC EXPLANATION**

-  Quartz feldspar porphyry
-  Quartz monzonite porphyry
-  Alaskite
-  Xenolithic zones, breccia

TO ACCOMPANY *Section from*  
*Adak to Kasaan*  
 DATE *January 1975*  
 BY *W. S. Gault*



**GEOLOGIC EXPLANATION**

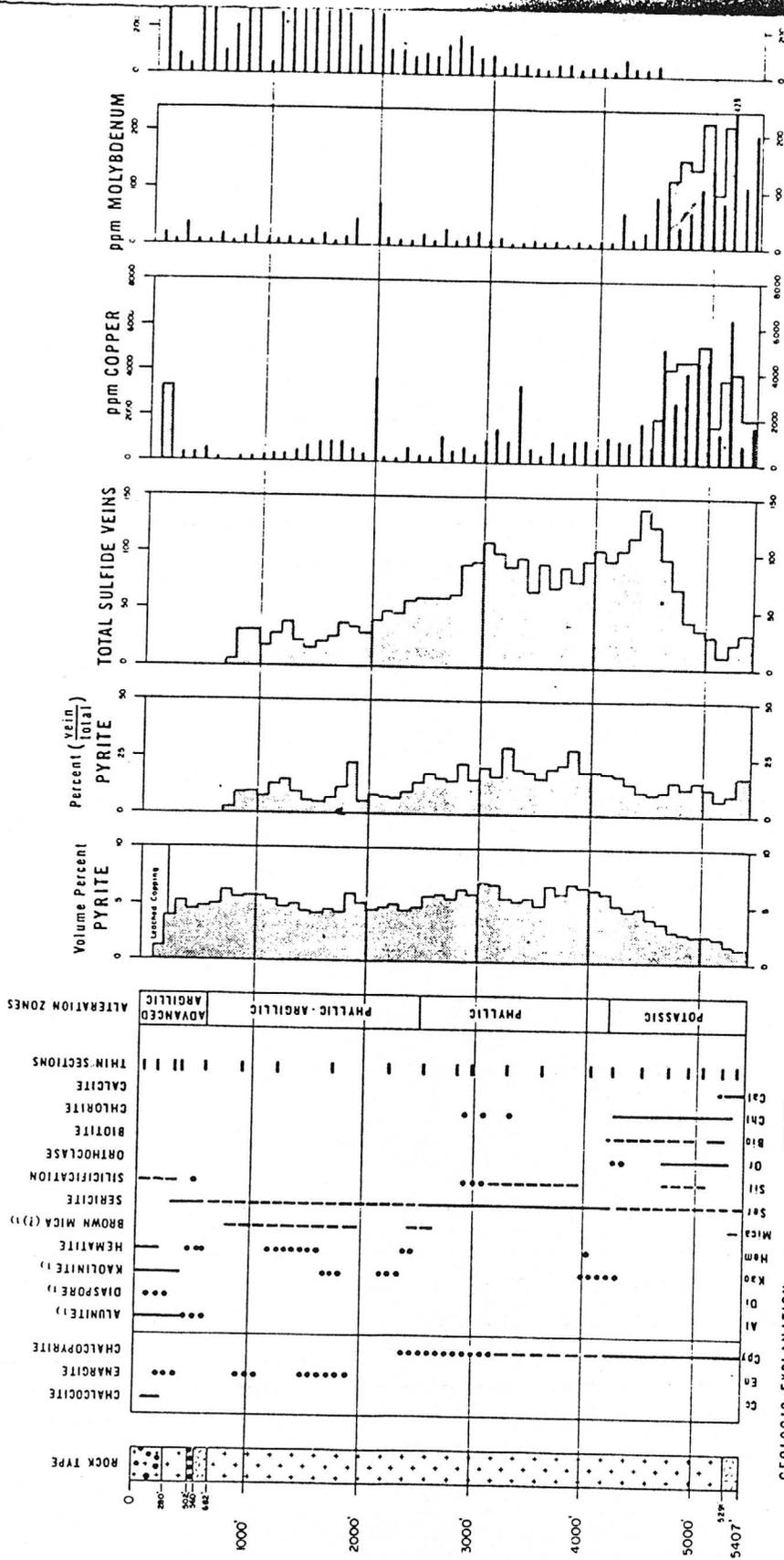
-  Quartz feldspar porphyry
-  Quartz monzonite porphyry
-  Alaskite
-  Xenolithic zones, breccia

TO ACCOMPANY *Letter from*  
*Adrian de la Cruz*  
 DATED *Jan 16, 1975*  
 BY *W. S. Hunt*

**GRAPHIC LOG OF TR-II  
 3R PROJECT  
 PATAGONIA MOUNTAINS  
 SANTA CRUZ COUNTY, ARIZONA**

F.T.G. 1" = 1000' OCT. 1975

FIGURE 1

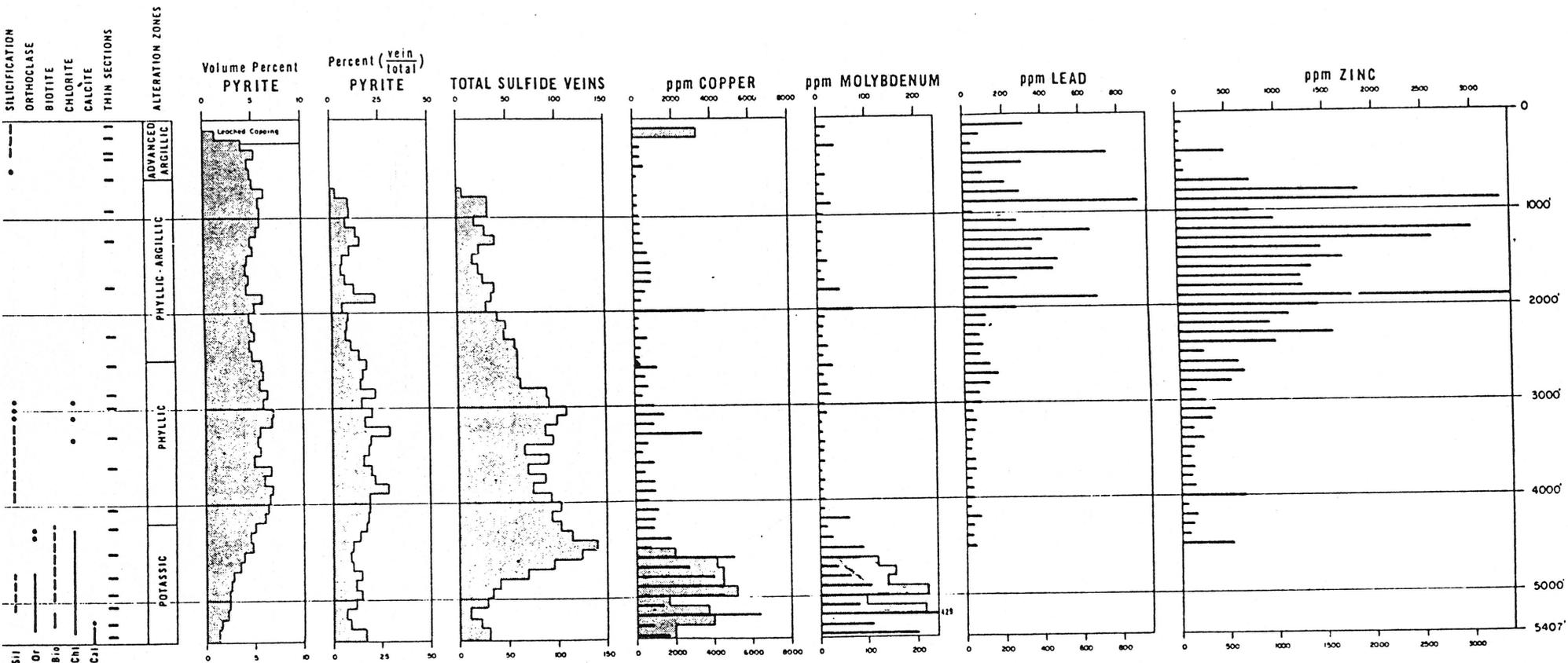


**GEOLOGIC EXPLANATION**

- Quartz feldspar porphyry
- Quartz monzonite porphyry
- Mesozoic volcanic and sedimentary rocks

**NOTES:**

- 1) Minerals identified mostly or entirely in thin section
- 2) Quantity estimated or analyzed for 100% interval
- 3) Single 10 ft. assay every 100 ft.



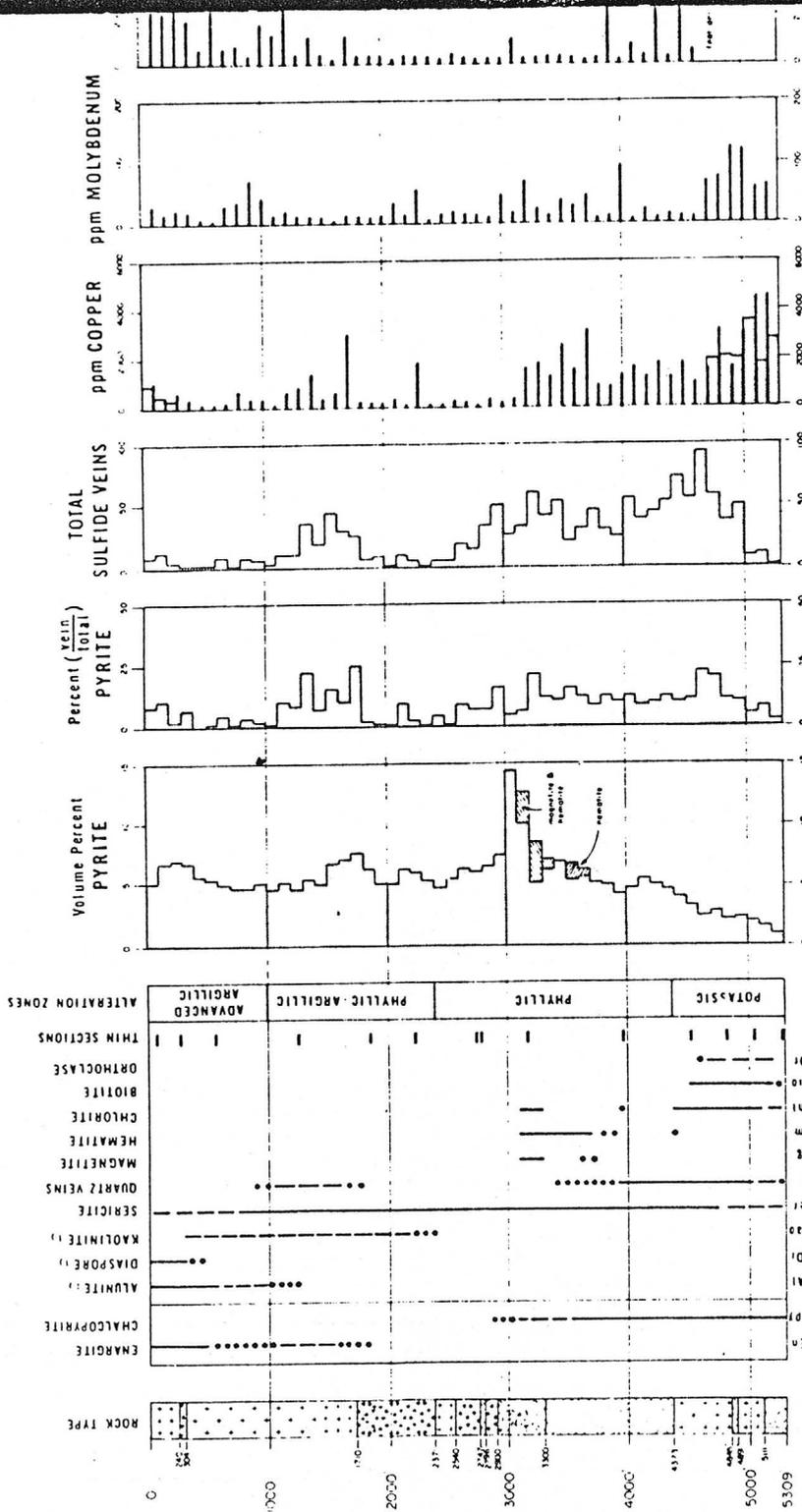
NOTES :

- 1) Minerals identified mostly or entirely in thin section
- 2)  Quantity estimated or analyzed for 100ft. interval
- 3)  Single 10 ft. assay every 100 ft.

TO ACCOMPANY *TR-14*  
*3R PROJECT*  
 DATED *July 1978*  
 BY *R. S. [Signature]*

GRAPHIC LOG OF TR-14  
 3R PROJECT  
 PATAGONIA MOUNTAINS  
 SANTA CRUZ COUNTY, ARIZONA

F.T.G. 1"=1000' MAR.1978



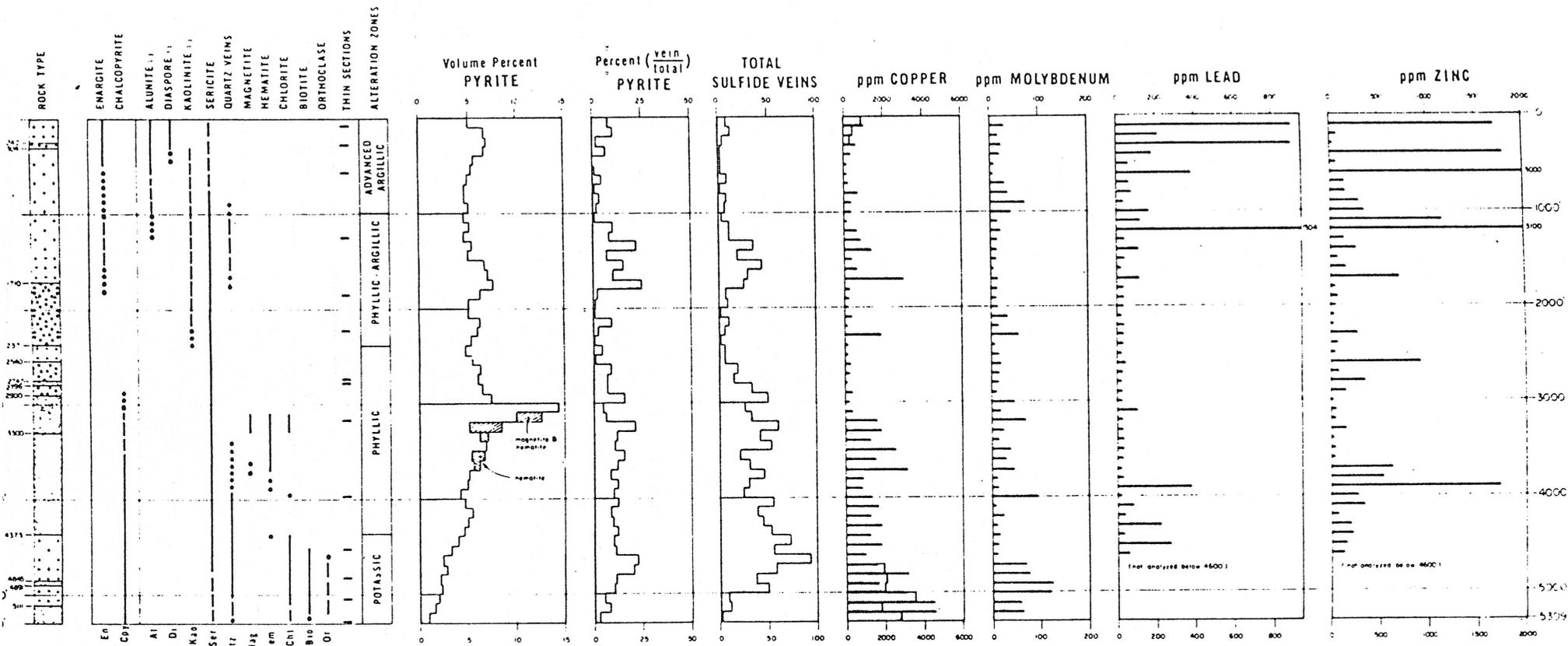
**GEOLOGIC EXPLANATION**

- Quartz feldspar porphyry
- Intrusive breccia
- Quartz monzonite porphyry
- Sericite breccia

**NOTES:**

- 1) Minerals identified mostly or entirely in thin section
- 2) Quantity estimated or analyzed for 100 ft. interval
- 3) Single 10 ft. assay every 100 ft.

TO ACCOMPANY *Section from*  
*Ad. 11100 - 11100 ft. - 11100 ft.*  
 CALLO? *Ad. 11100 - 11100 ft.*  
 BY *W. L. ...*



**GEOLOGIC EXPLANATION**

- Quartz feldspar porphyry
- Intrusive breccia
- Quartz monzonite porphyry xenoliths

**NOTES:**

- 1) Minerals identified mostly or entirely in thin section
- 2) Quantity estimated or analyzed for 100 ft. interval
- 3) Single 10 ft. assay every 100 ft.

TO ACCOMPANY *Section from*  
*Santa Cruz Mountains*  
 DATE: *June 1978*  
 BY: *R. S. Long*

GRAPHIC LOG OF TR-15  
 3R PROJECT  
 PATAGONIA MOUNTAINS  
 SANTA CRUZ COUNTY, ARIZONA  
 F.T.G. 1"=1000' JUNE 1978

R I S E R I S E

TO ACCOMPANY *Geologic Map*  
*of the*  
*3R Mine Area*  
 DATED *Jan 1981*  
 BY *W. S. Koutz*



**EXPLANATION**

- Limonite after chalcocite and/or enargite
- △ Breccia pipes, intrusion breccias
- Lgr Laramide quartz monzonite porphyry & related
- Mgr Alaskite
- Mvs Mesozoic volcanic & sedimentary rocks

161° 04' % Drill hole showing inclination & intervals of +0.3 % Cu

**DRILL HOLE INFORMATION**

- MC - Magma Copper Co. underground holes; 1, 7, 9 drilled on 400 level; 2, 6, 8, 10 drilled on 600 level
- MH - McFarland & Mullinger; drilled on 600 level
- CC - Consolidated Copper mines surface holes
- TR - Anaconda surface holes
- SU - ASARCO surface holes

ASARCO Drill Holes (1976-1978)

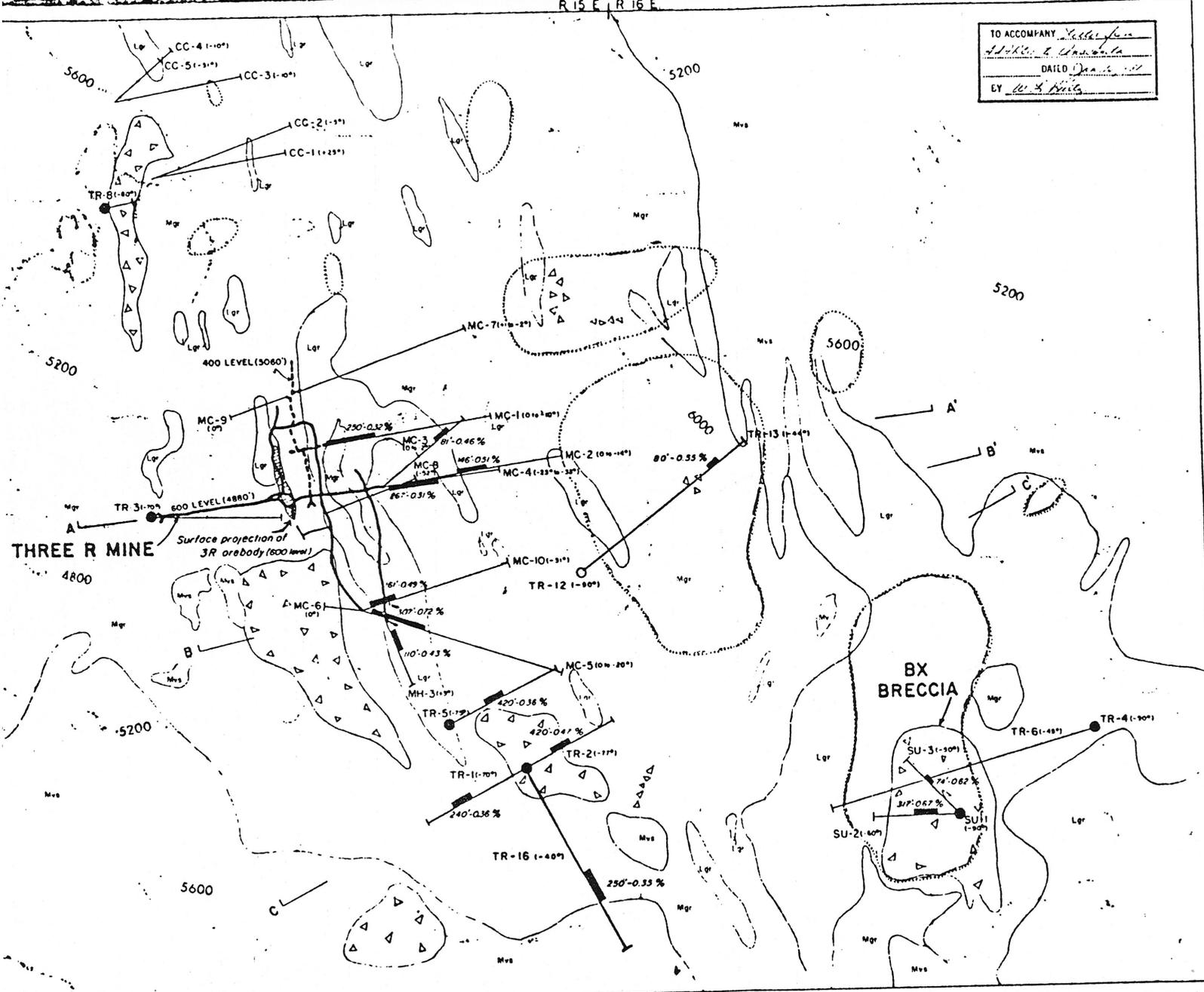
Contour Interval = 80'

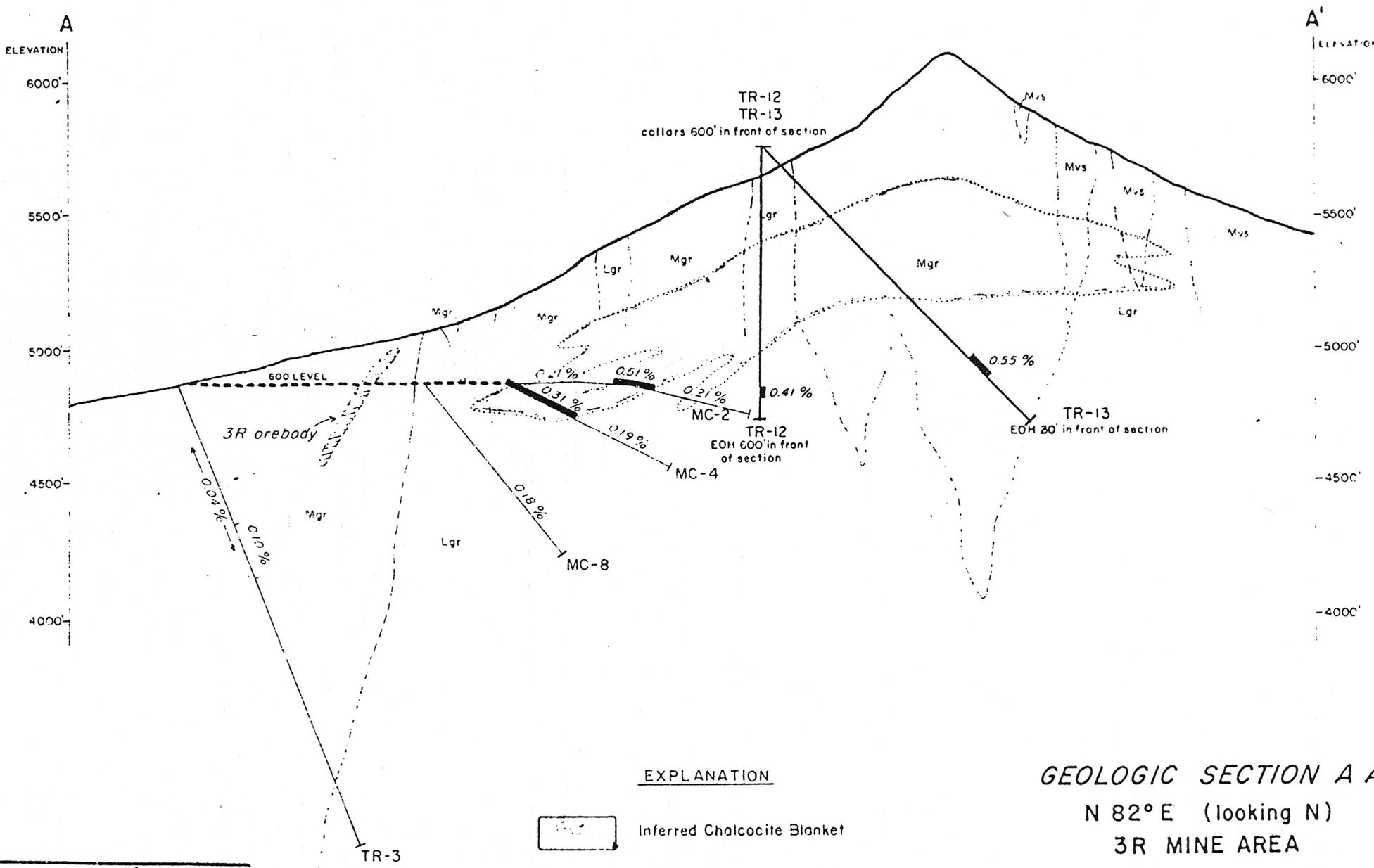
**GEOLOGIC MAP**

**3R MINE AREA**  
**PATAGONIA MOUNTAINS**  
 Santa Cruz County, Arizona  
 SCALE 1"=500'

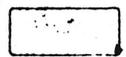
Rev. F.R. Koutz  
 Jan. 1981

-FTG- Jan 26, 1976





EXPLANATION



Inferred Chalcocite Blanket



1976 ASARCO Drilling

**GEOLOGIC SECTION A A'**

N 82° E (looking N)

3R MINE AREA

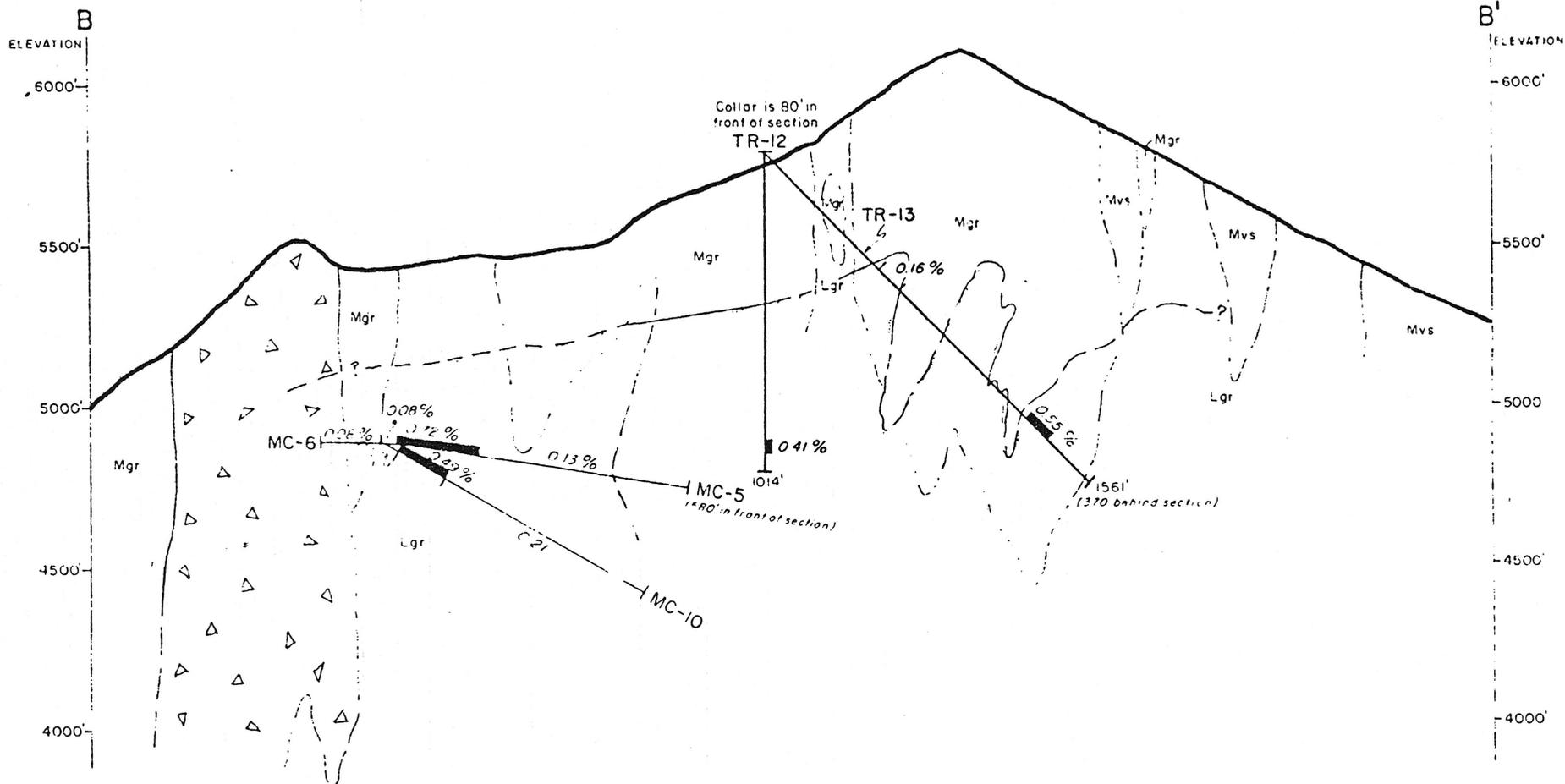
PATAGONIA MOUNTAINS  
Santa Cruz County, Arizona

SCALE: 1" = 500'

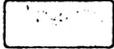
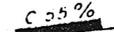
FTG  
Rev. F.R. Koutz, Jan. 1981

Feb. 3, 1976

TO ACCOMPANY *Letter from*  
 ADDRESSED TO *ASARCO*  
 DATED *Jan. 14, 1981*  
 BY *W. L. Koutz*



EXPLANATION

-  Sulfide zone
-  1976 Asarco Drilling
-  C 35% Copper assay

TO ACCOMPANY	<i>Letter from</i>
	<i>ASARCO to Unavonda</i>
DATED	<i>Jan. 16, 1981</i>
BY	<i>W. S. Smith</i>

**GEOLOGIC SECTION B B'**

N 77° E (looking N)

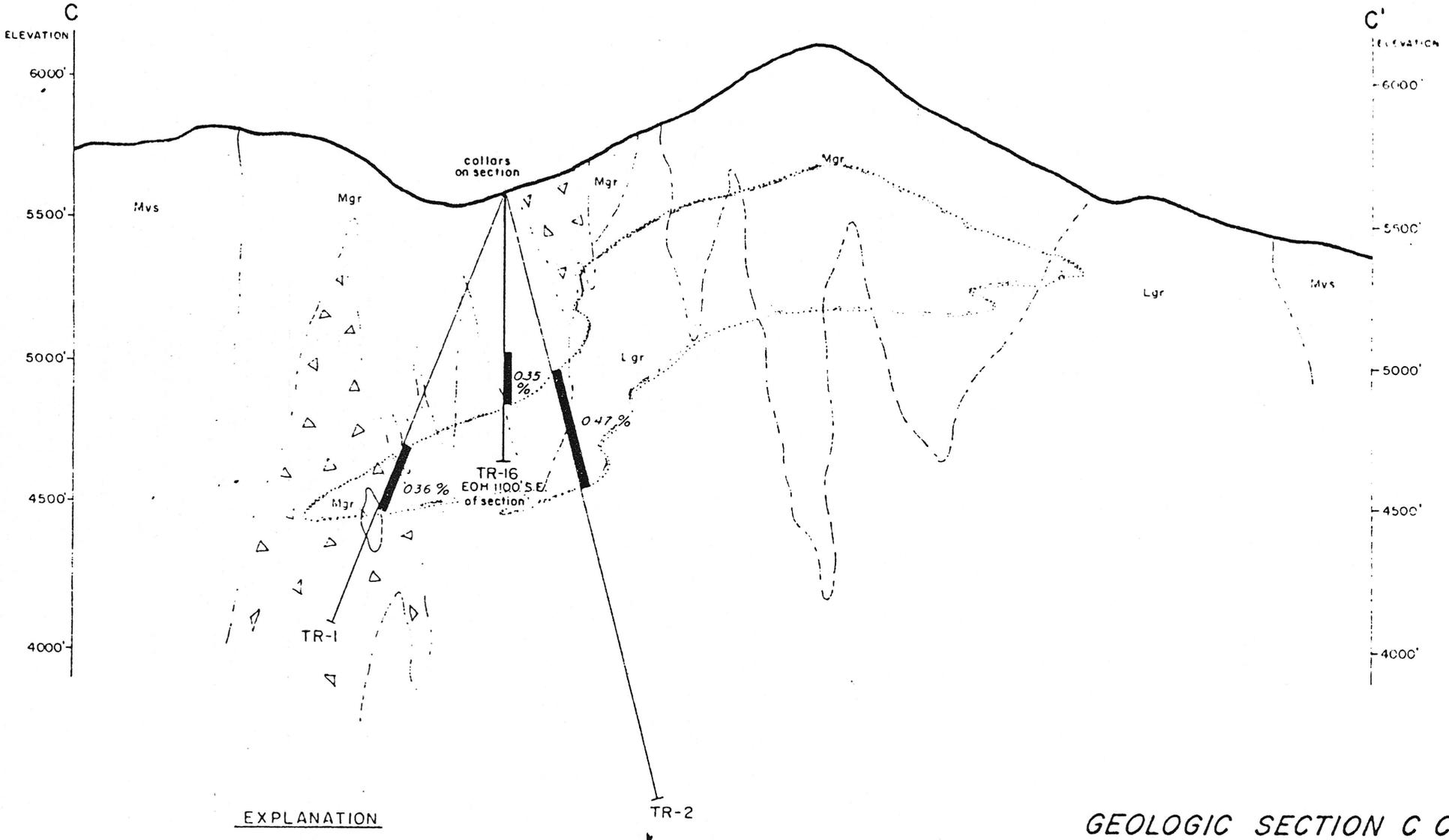
3R MINE AREA

PATAGONIA MOUNTAINS  
Santa Cruz County, Arizona

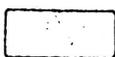
SCALE: 1" = 500'

-FTG-

-Feb. 3, 1976-



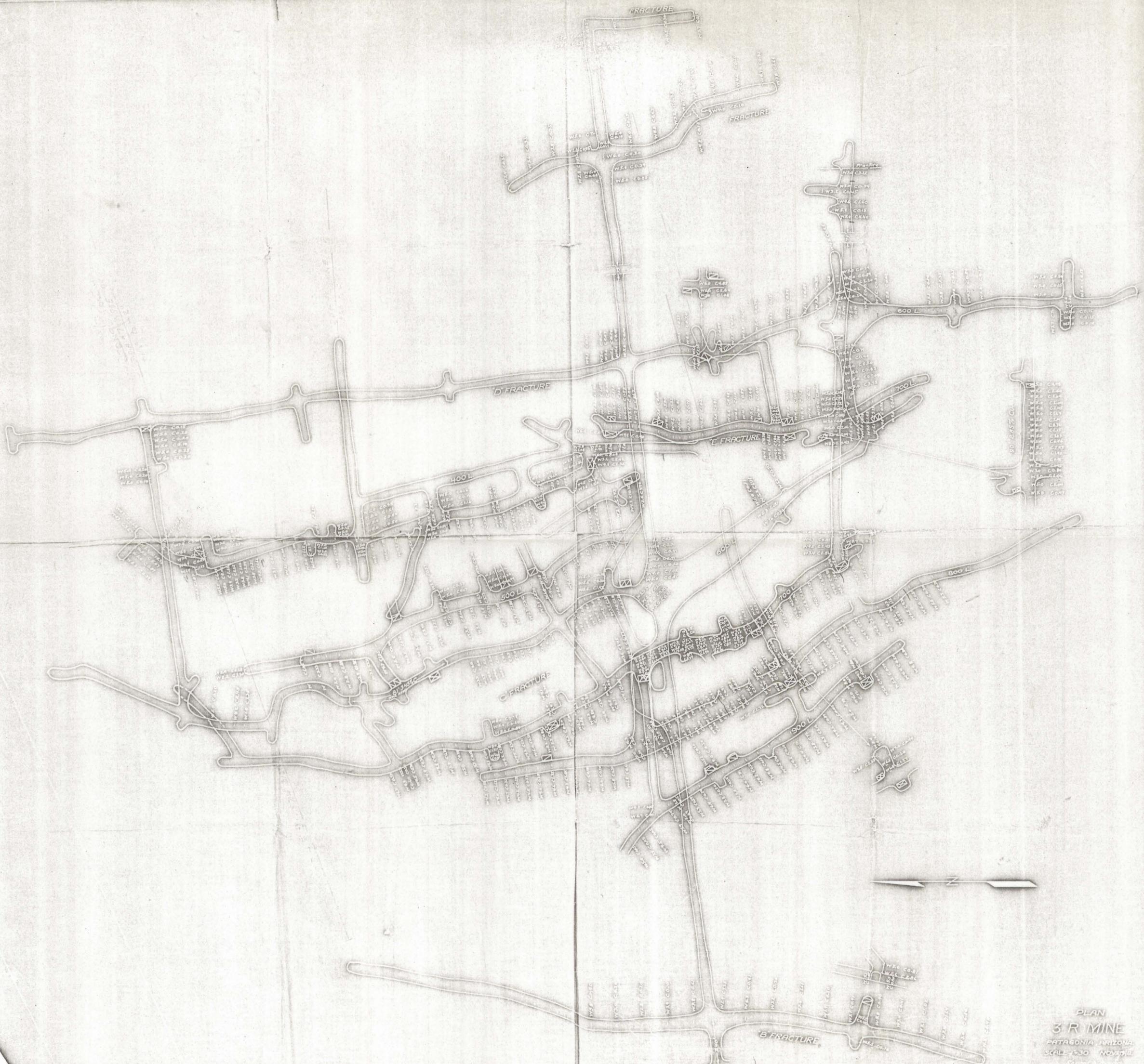
EXPLANATION

-  Inferred Chalcocite Blanket
-  1978 ASARCO Drilling

TO ACCOMPANY *Letter from*  
*ASARCO to USGS*  
 DATED *Jan. 14, 1981*  
 BY *W. L. Koutz*

**GEOLOGIC SECTION C C'**

N 60° E (looking NW)  
 3R MINE AREA  
 PATAGONIA MOUNTAINS  
 Santa Cruz County, Arizona  
 SCALE: 1" = 500'



PLAN  
 3 R MINE  
 PATAGONIA, ARIZONA  
 SCALE 1:50 NOV 1918