



## **CONTACT INFORMATION**

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02/11/87

7

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: HERCULES AND MONARCH MINES

ALTERNATE NAMES:

MONARCH

PIMA COUNTY MILS NUMBER: 379

LOCATION: TOWNSHIP 15 S RANGE 6 E SECTION 5 QUARTER NE  
LATITUDE: N 32DEG 09MIN 28SEC LONGITUDE: W 111DEG 45MIN 18SEC  
TOPO MAP NAME: COMOBABI - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILVER

BIBLIOGRAPHY:

FULL, ROY P., INDIAN CLAIMS COMM. DOCKET 345,  
VOL. I, P 361-362, 1970  
ADDITIONAL WORKINGS T15S-R5.5E, SEC. 1  
ADMMR HERCULES AND MONARCH MINES

HERCULES AND MONARCH MINES (F, PIMA)

K On  
MS

COMPLETE AND MAIL TO:  
STATE MINE INSPECTOR  
1616 WEST ADAMS, SUITE 411  
PHOENIX, ARIZONA 85007-2627

SEP 19 1988

FOR OFFICE USE ONLY	
START-UP NUMBER	87221234
STATE NUMBER	10190800
DEPUTY NUMBER	Kelly
NEW <input checked="" type="checkbox"/>	MOVE <input type="checkbox"/>

### NOTICE TO ARIZONA STATE MINE INSPECTOR

Handwritten signature/initials in a circle.

In compliance with the Arizona Revised Statutes, we are submitting this written notice to the Arizona State Mine Inspector of our intent to start X, stop \_\_\_\_\_, move \_\_\_\_\_ an operation.

Please check the appropriate boxes: Contractor , Owner , Operator , Open Pit Mine , Underground Mine , Mill , Quarry , Aggregate Plant , Hot Plant , Batch Plant , Smelter , Leach Plant .

If this is a move, please show last location: N/A  
If you have not operated a previously in Arizona, please check here: X If you want the Education and Training Division to assist with your mine safety training, please check here: X  
If this operation will use Cyanide for leaching, please check here: \_\_\_\_\_

COMPANY NAME: HERCULES MINING COMPANY

DIVISION: CABABI

MINE OR PLANT NAME: HERCULES AND MONARCH TELEPHONE: 298-4812

CHIEF OFFICER: TOM DILLE MAIN OPERATOR TONY ESCAMILLA

COMPANY ADDRESS: 2150 S Calle Mesa del Oso

CITY: TUCSON STATE: ARIZONA ZIP CODE: 85748

MINE OR PLANT LOCATION: ( Include county and nearest town, as well as directions for locating property by vehicle: North-west from Kit Peak to Sil Nakya then apprx.

three miles making a abrupt turn to the east and continue for apprx. three miles  
to the site. The gate will always be locked when the mine is unattended.

TYPE OF OPERATION: Mining (hammer-mill) PRINCIPAL PRODUCT: Silver

STARTING DATE: Sept. 30, 1988 CLOSING DATE: \_\_\_\_\_

PERSON COMPLETING NOTICE: Tom Dille TITLE: Owner

MONARCH COPPER GROUP

PIMA

Office call by Joseph S. McCosker for information on the McCosker for information on the Monarch and Hercules patented claims that belong to his family and are located north of Sells in Pima County.  
GWI WR 11/23/76

---

NJN WR 6/3/83: James Bond supplied a report by George Heikes, Consulting Geologist from San Jose California on the Monarch-Hercules patented claims in Pima County. This is the Monarch Copper Group.

---

MG WR 1/30/87: Provided file information on the Hercules-Monarch Mine (Pima County) to Mr. Ken Cornelius (c) of Tucson. He has purchased the two patented claims. He and Tom Patton are no longer partners.

---

NJN WR 4/1/88: Fred Johnson (card) reported that he has done some preliminary mapping and sampling for E.N. Smith Company, a Texas firm at the Hercules-Badger (file) Mohave County.

---

File R&E  
Comobabi Dist  
Pima Co, Ariz

M E M O

To: H. T. Eyrich Date: Feb. 25, 1981  
From: R. L. Clayton  
Subject: Monarch and Hercules Patented Claims, North Comobabi Mountains, Pima Co., AZ.

This report is intended to be an addendum to the April 5, 1954 report by G.C. Heikes under the same Title; therefore, the location, owners, and general geology will be omitted. I have, however, enclosed those portions of the Comobabi quadrangle (Figure 1) and the Pima County Map (Figure 2) which contain the prospect location. These maps were unavailable at the time of Heikes report.

Heikes directions were quite accurate as things have apparently changed little in the past 27 years. The last 4½ miles contain places that are difficult to navigate.

Local Geology and Structure

The property lies entirely within Tertiary andesite (Figure 2) The andesite is nonporphyritic and highly siliceous adjacent to the mineralized structures.

There are 3 silicified outcrops, the linear nature of which, suggests that they are along a common structure. The structure strikes northerly and dips steeply to the east. The continuity of this structure is not exposed on the surface between the silicified zones.

An inclined shaft was sunk in the middle siliceous zone on the footwall of a gougy structure (see Photos 1 and 3, and Sketch 1). This area contains the best mineralization exposed on the property. The mineralization consists of a 2'-3' quartz vein on the footwall of the structure and intense quartz flooding 30'-40' into the footwall andesite. (see Photos 1 and 5) The vein is again exposed in an open cut 60' to the north (see Photo 2).

Fractures in the silicified andesite contain  $CuCO_3$ , particularly noticable near the shaft, and less conspicuous in the open cut. No silver minerals could be identified.

The northern most silicified zone is shown in photos 6 and 8. It is 50'-60' in length, 15'-20' wide and occurs 300+ feet north of the open cut (see Sketch 1) Photo 9 shows the brecciated character of the structure. The southern most siliceous zone is much smaller but displays the same brecciated character.

Monarch and Hercules Patented Claims-MEMO

February 25, 1981

Page 2

The isolation of these silicified and brecciated zones along a common structure (?) may have been caused by cross-faulting or strike slip movement along a sinuous structure. There is no evidence on the surface to indicated pipe-like or chimney-like attitudes as suggested by Heikes.

Seven samples were taken at the property. One in the northern zone, 3 in the open cut, 2 near the shaft and one in the southern zone. (see Sketch 1)

The assay results, although interesting certainly would not justify the scale of operation indicated by the geology.

Recommendations:

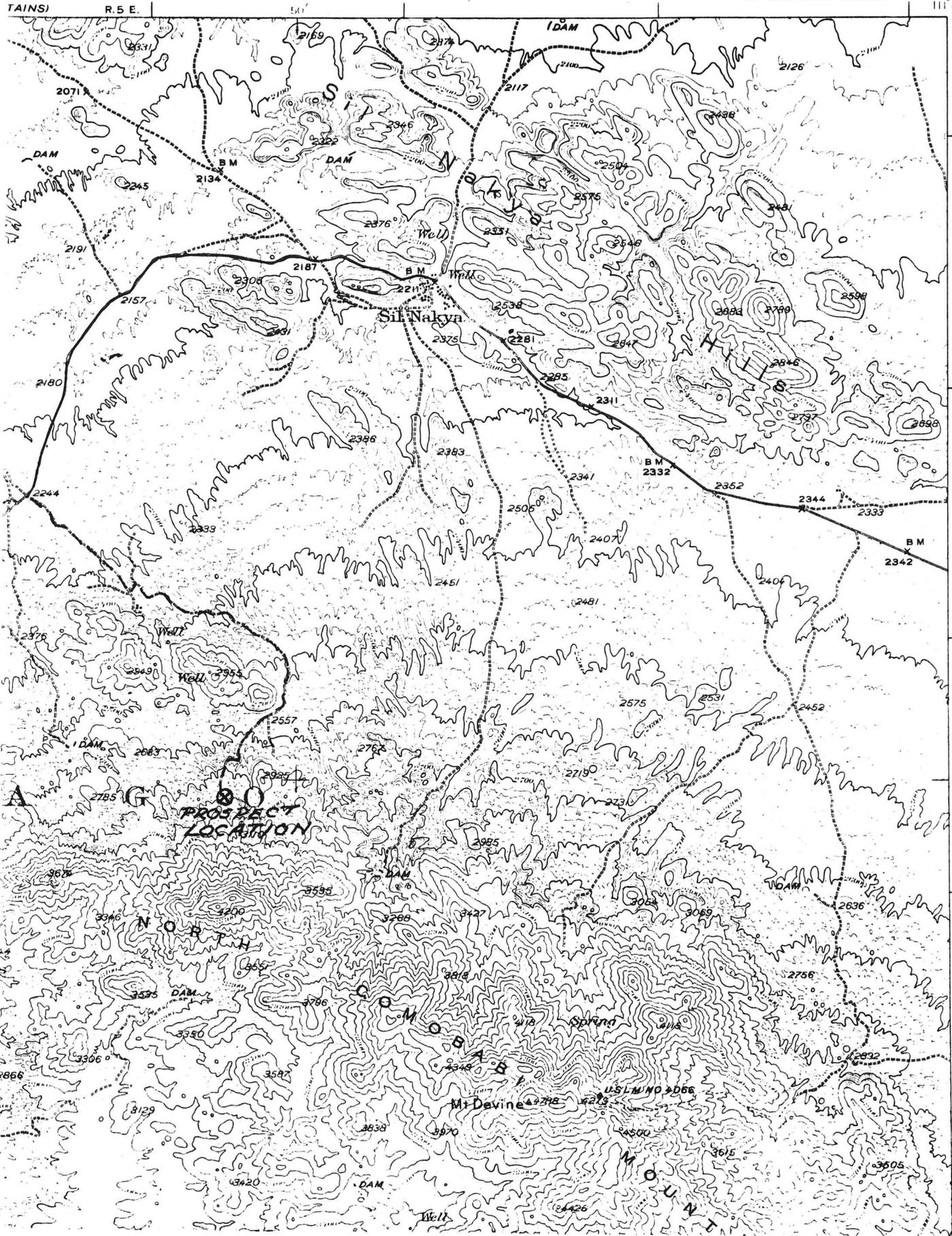
Because of the limited size, the isolated nature of the siliceous mineralization, and the restricted lateral extent of the silicification, I recommend we terminate our interest in this property.

cs

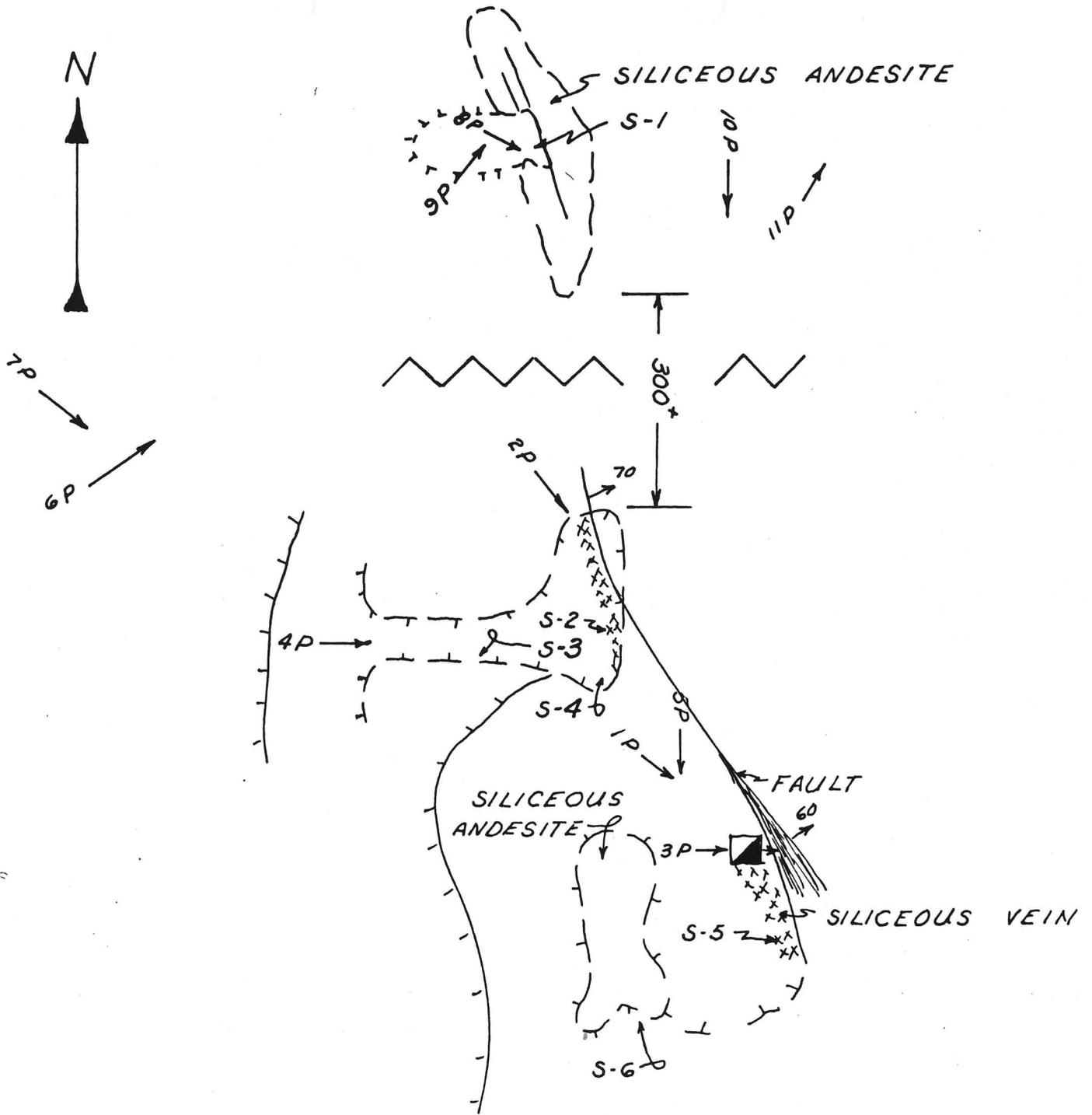
FIGURE 1

ARIZONA  
(PIMA COUNTY)  
COMOBABI QUADRANGLE  
15-MINUTE SERIES

(VACA HILLS)







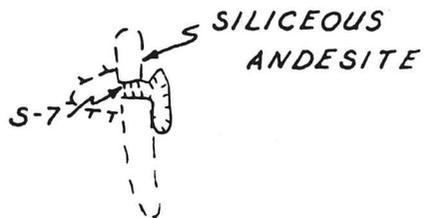
SKETCH 1

SCALE: 1" = 30', BY: RLC

DATE: 2-24-81

S-3 SAMPLE NO

3P PHOTO NO



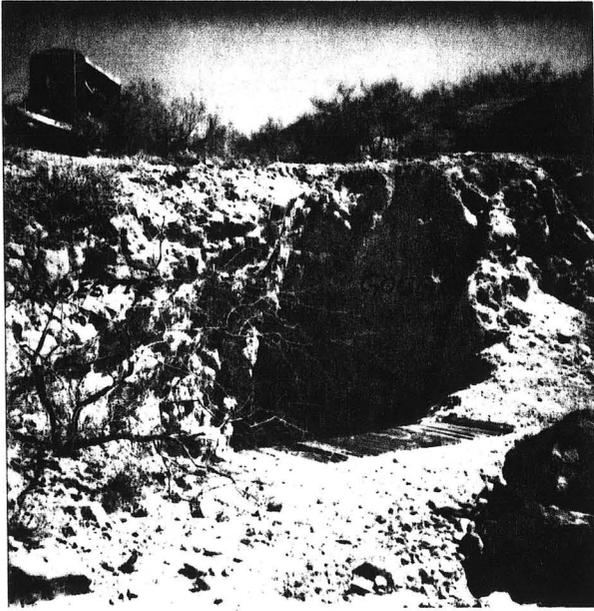


PHOTO 1 LOOKING SE AT TOP  
OF INCLINE SHAFT

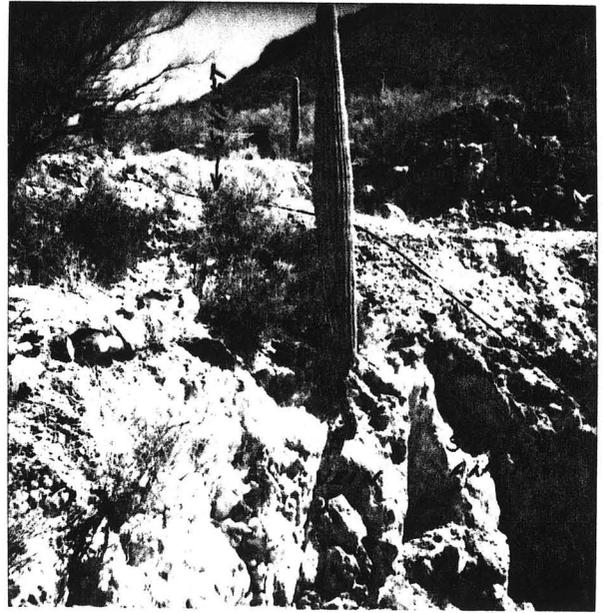


PHOTO 2 LOOKING ALONG VEIN  
IN OPEN-CUT

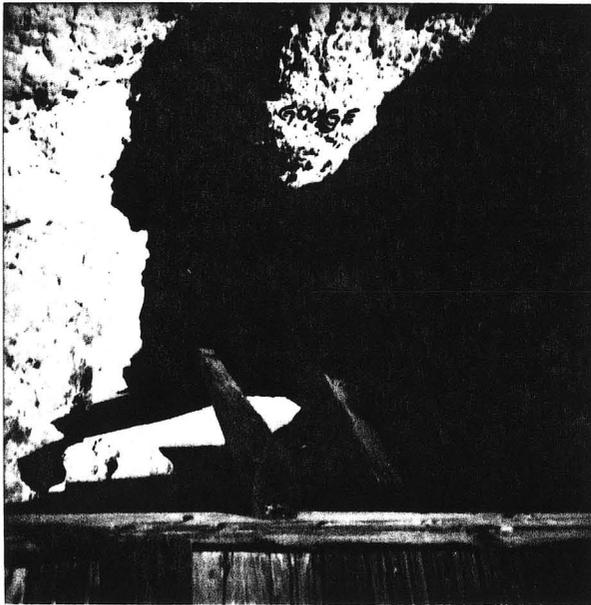


PHOTO 3 LOOKING EAST DOWN  
INCLINE SHAFT

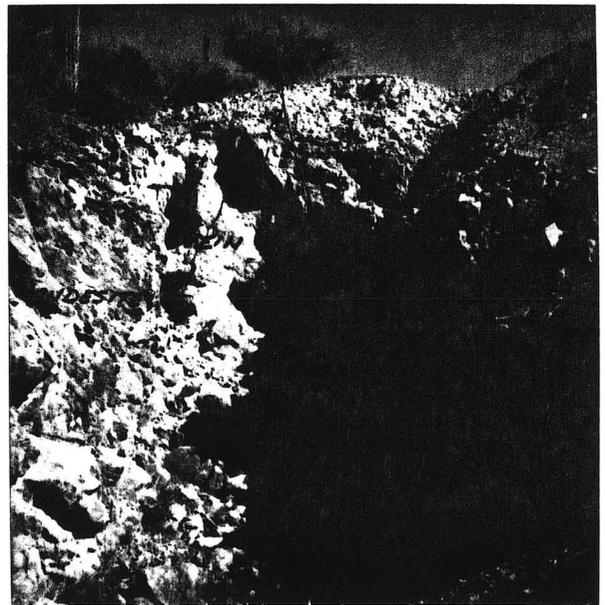


PHOTO 4 LOOKING EAST INTO CROSS-  
CUTTING OPEN CUT, VEIN EXPOSED  
IN FACE OF CUT



PHOTO 5 LOOKING SOUTH AT OPEN  
CUT BETWEEN SHAFT AND  
SILICEOUS ANDESITE,  $\text{CuCO}_3$   
IN FRACTURES OF ANDESITE



PHOTO 6 LOOKING SE AT NORTHERN  
MOST SILICEOUS ANDESITE  
OUTCROP



PHOTO 7 LOOKING SE AT OLD  
MILL-SITE



PHOTO 8 LOOKING ESE AT SILICEOUS  
ANDESITE OUTLINE IN PHOTO 6

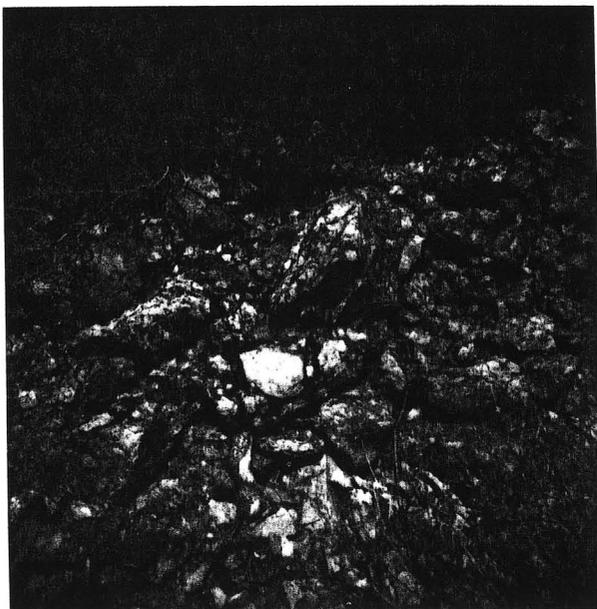


PHOTO 9 BRECCIA FLOAT FROM  
OUTCROP IN PHOTO 8

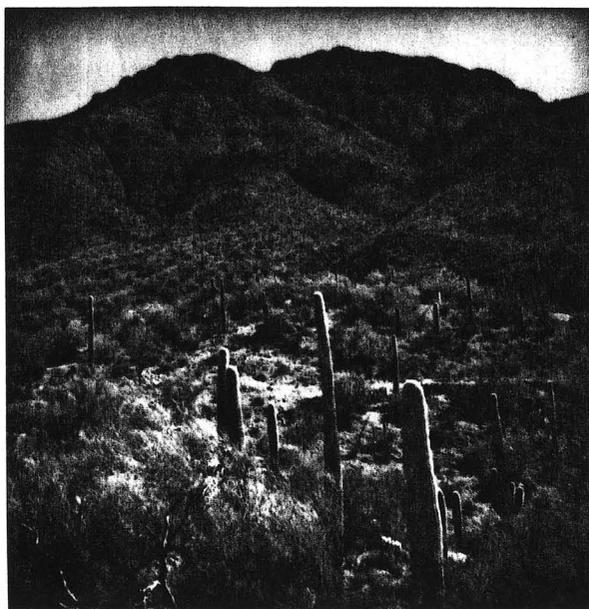


PHOTO 10 LOOKING SOUTH INTO  
NORTH COMOBABI MOUNTAINS



PHOTO 11 LOOKING NNE, SILVERBELL  
OPERATION ON HORIZON



W. H. LOERPABEL  
MINING ENGINEER  
307 NORTH LONGFELLOW AVE.  
TUCSON, ARIZONA  
85711

TELEPHONE: AREA CODE 602  
EAST 6-1232

JOSEPH S. McCOSKER  
11922 OTSEGO STREET  
NORTH HOLLYWOOD, CALIFORNIA 91607

January 13, 1965

RECEIVED JAN 15 1981

Mr. David B. McCosker  
2108 Linda Flora Drive  
Los Angeles, California 90024

Dear Mr. McCosker:

Monarch & Hercules  
Patented Lode Mining Claims  
North Comobabi Mts.  
Pima County, Arizona

This letter gives my opinion and recommendations on this property, concerning which, on December 15 and 26, I have already written you and Mr. Shank in a preliminary way.

The outlook for even a small operation is not good enough to interest a large mining company. The fundamental obstacle is lack of an orebody of adequate grade and tonnage, and poor geological prospects for finding such an orebody.

An operation by a small company, or small group of men, would meet essentially the same fundamental obstacle, and, under present conditions, probably would not be successful.

Despite this present unfavorable outlook, I suggest that you continue to preserve the title to these patented claims, paying the small yearly taxes which I understand are about \$10 per claim. With the passage of time, changes might occur which would permit a profitable small scale operation.

Before giving up the title, or disposing otherwise of the claims, additional sampling and geological work is recommended, as described in more detail near the end of this letter.

These conclusions are based principally on the following:

1. Report, with sampling results, by George C. Heikes of April 5, 1954.
2. Two reports, with sampling results, by two engineers employed by the American Smelting and Refining Company (Asarco), one made in August, 1947, and the other in December, 1964.

Mr. David B. McCosker - page two

3. A personal visit to the property, and inspection of the underground workings December 23, 1964.
4. History of the district as found in U.S. Government reports and in other records.

#### Mining History of District

Although the outlook for a mining property obviously must be chiefly on ore found within its own boundaries, nevertheless the history of the surrounding district is not without significance, because of the overall view thus obtained regarding the character and strength of mineralization in the district as a whole, and also as some indication of the possibility of finding more than one mine, which might be combined into a single operation. If this combination were possible, then the cost of a central mill might be distributed over several mines, and a mine, too small to warrant a mill by itself, might be economic.

The mining districts covering the area with which we are concerned are the Cababi and the Comobabi. Their boundaries are poorly defined but the two districts adjoin, and the Cababi, the smaller of the two, lies to the west. These districts are approximately at the center of Pima County, about 45 miles west of Tucson, and are within the Papago Indian Reservation.

The enclosed U.S. G.S. map (Comobabi, Ariz., Scale 1:62,500) shows the northern part of these mining districts. Near the southwest corner of the map area, between the Ko Vaya Hills and the South Comobabi Mountains, are several mines, including the Picacho Mine, which seems to have been the center of activity in this area, and around which there is still a cluster of 40 or more patented claims, evidently held by their owners for many years in the hope of better days. The map sheet adjoining this one at the South (not enclosed herewith) shows the names of other mines, some of them perhaps mere prospects, extending around the southern flank of the South Comobabi Mountains.

The Monarch and Hercules claims, as plotted on the map, are about 10 miles northeast of the Picacho and the principal mining center.

According to a U.S. Government report of 1868, the Picacho Mine had been active for some years prior to that time, and had produced then \$50,000. in silver.

During the decade of the 1880's there was continued activity in this area, but I have seen no record of production for that period.

Since the year 1900 there have been at least two attempts by responsible parties to set up mining operations in the Picacho region. Information on these comes from a master's thesis, dated 1957, by Jules A. MacKallor, a graduate student in geology at the University of Arizona. The thesis is

Mr. David B. McCosker - page three

based on the field study of an area of 50 square miles, beginning about 2 miles north of the Picacho Mine and extending 8 miles south of it. Twenty-three prospects are briefly described and some mining history is given. The work was under the direction and guidance of the faculty of the Department of Geology, University of Arizona. The following quotations are from Mr. MacKallor's thesis:

"In the early 1900's the Cobabi Mining Company, Ltd., a British corporation, spent nearly a million dollars trying to develop gold and silver mines in the area, but the corporation failed. Several old shafts and adits, numerous prospect pits, and the foundations of a few buildings are all that remain.

"From 1949 to 1952 Mr. Melvin Redhead of Picacho Mines Inc., a California company, made an extensive survey, including sampling of many of the old prospects in the Cobabi Mining District. The company partially cleaned out some of the workings of the old Picacho Mine (Locality 12) and operated a small customs mill on a trial basis. Old dump material from various prospects throughout the district was run through the mill as well as some ore mined by the company.---" (pp. 70-71)

The outcome of this undertaking by the Picacho Mines, Inc. is not given by MacKallor, but, in view of no lode mining activity being reported here for several years the venture presumably has failed.

This recent history of the most productive part of the district, therefore, although not conclusive does not encourage the hope of finding one or more properties in the Picacho area that might supply ore to a central mill.

#### Monarch and Hercules Claims

These claims are shown in the records as the Pima Mine, and also as the Silver Giant Mine. As shown on the attached map, they are on the north slope of the North Comobabi Mountains, 4 1/2 miles S 20° W from the Papago Indian village of Sil Nakya, and 73 miles by road from Tucson. The road leading to the mine and shown in dotted lines is an ungraded desert road, and the mile or two nearest the mine is passable now only with a jeep or other vehicle with high clearance and powerful drive.

Very little history has been obtained on these claims, although from George Heike's report it is noted they were patented December 13, 1895.

Production has been small, a fact confirmed by an inspection on the ground. The only records of shipments obtained are the following received by the El Paso Smelter in 1951.

<u>Smelter Lot</u>	<u>Date Received</u>	<u>Dry Tons</u>	<u>Av</u>	<u>Ag</u>	<u>Pb</u>	<u>Cu</u>	<u>Zn</u>
669 -Ore	3- 7-51	0.90	--	45.9	0.2	1.24	0
670 -Conc.	3- 7-51	1.75	--	146.1	0.1	0.65	0
1301-Conc.	5- 2-51	1.03	--	313.7	0.3	0.88	0
2026-Conc.	7-11-51	<u>0.42</u>	.01	778.8	0	1.85	0
		4.10					

Mr. David B. McCosker - page four

The three lots of concentrate (flotation concentrate probably) are significant in showing that a high grade marketable concentrate can be made from this ore. The percentage of silver recovery, and all other technical mill data, however, are unknown, and laboratory mill tests would now be required to obtain this information, an expense, which although not large, would be warranted only after additional sampling of the property had shown strong hope of ore reserves adequate for a small operation.

The underground workings on these claims - opened at an unknown time - are still essentially as described by George Heikes in his report of April 5, 1954. They consist of a 60 degree incline shaft, open to a depth, reported by Heikes at 65 feet (but possibly somewhat less) and about 120 feet of drifting and crosscutting at the 65 foot level, as illustrated on Map #3 of Heike's report.

An inspection of the mine workings shows clearly that the shaft goes to some greater depth, and that below the so-called 65 foot level it has been filled with "muck" or waste rock, a bad mining practice, because an expensive exploration opening is thus closed to geological examination and important evidence is lost. The logical assumption now is that the shaft went into low grade material below 65 feet, and disposal of waste rock by dumping it into the shaft (considered without value) was cheaper than hoisting it to the ground surface. The Asarco report of 1947 refers to a 100 foot shaft, the lower 35 feet being then bulkheaded off, but this lower part was not examined and may then have been inaccessible. Also whether 35 feet is the actual length of this inaccessible part is not known.

The ore body, explored by the present underground workings, is believed to have a chimney or pipe-like shape, formed at the intersection of two steeply dipping fractures in andesitic country rock. One fracture strikes north and the other northwest. The shaft is sunk on or near their intersection. The conception of a chimney or pipe-like form seems confirmed by the sampling results in all three of the reports before mentioned, which are consistent in showing the highest grade silver assays in the vicinity of the shaft, the silver content rapidly decreasing with distance from the shaft.

Other orebodies of similar form might be found at fracture intersections on these claims, and could be prospected by sinking at places which show favorable assays at the ground surface. The outlook, however, based on present evidence, is meager, and the ore finally developed might total only a few thousand tons averaging say 20 ozs. of silver. These figures are little better than a guess and are given only to provide some idea of dimension.

#### Sampling

The sampling which has been done on these claims so far, the assays of which are given in the reports above mentioned, is of a preliminary or reconnaissance nature. There were only a few samples - nine in Heike's report, and about the same number in each of the Asarco reports.

Mr. David B. McCosker - page five

These samples doubtless were adequate for the purpose intended, and, for the Asarco engineers gave sufficient grounds for the conclusion that the property had no promise for a large company. Under these circumstances to have carried the examination or sampling further would have been a waste of their employer's money. No criticism, therefore, of the authors of these three reports is here intended.

But, from the viewpoint of the claim owner, who wishes to know as accurately as possible the full resources of his property, this sampling is not sufficient. From the view point of a lessee, planning exploration work, the same would be true.

Thorough sampling would consist in the taking of a much larger number of samples, covering in greater detail the underground workings, the open cuts near the shaft on the ground surface, vein outcrops, fracture intersections, and other favorable places that might be found by a careful geological examination of the ground surface. Each sample should consist of the material from a groove or channel, about 1/2 inch deep by 4 inches wide, cut into the solid rock, with the use, if required, of a nail and hammer. Samples, excepting unusual circumstances, should not exceed 5 feet in length, and should weigh about 3 lbs. per foot of sample. The work would require two men, one of whom should be a geologist, who would map the formations sampled, and would prepare finally a sample or assay map showing clearly the position and assay of each sample.

Samples taken with this care are expensive, and the cost of this work, including assaying for gold and silver, might be \$500. to \$1,000. I do not recommend it to the owners now, but (despite the probability that the result would be unfavorable) I would recommend it to them before any critical decision is reached, such as a decision to relinquish the title, or otherwise dispose of the claims. Also a lessee, proposing to do exploration work on the claims, should begin with this sampling and geological work.

Despite what seems now to be a poor outlook, other opportunities may occur to lease these claims. Miners have been notoriously optimistic and sometimes have convinced the experts. Further exploration work should follow the ore, or mineralized showings, either by sinking from the ground surface, or by driving along mineralized fractures from the present underground workings. Long tunnels (adits) driven into the hillside in barren country rock, or with poorly defined objectives, (for which there is temptation in a region of strong relief) should not be undertaken.

Yours very truly,

  
W. H. Loerpabel

copy: Mr. Floyd C. Shank  
1009 Shreve Building  
210 Post Street  
San Francisco 8, California

enclosures: list attached

M E M O

To: W. A. Ryan

Date: April 2, 1981

From: H. T. Eyrich

*HTE*

Copies: J.G. Gidwitz  
R.L. Clayton

Subject: Heikes submittal on claims in Comobabi district,  
Pima Co., Arizona.

Enclosed herewith is a report by Bob Clayton on his field examination of the two patented claims recommended by George Heikes. I concur with Clayton's recommendation that we take no further interest in this property.

Encl:

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

February 18, 1981.

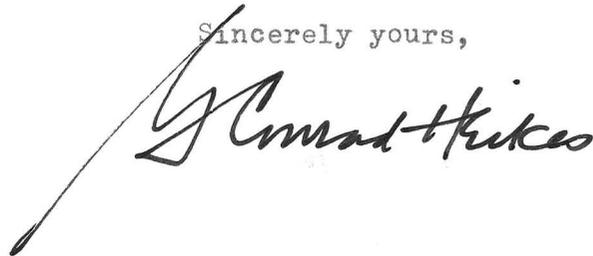
Mr. Henry T. Eyrich, Vice President,  
Continental Materials Corporation,  
P.O. Box 50726.  
Tucson, Arizona 85703.

Dear Mr. Eyrich:

Thank you very much for copying that voluminous thesis  
by Jules A. MacKallor concerning the Comobabi area near Sells,  
Arizona on the Papago Indian Reservation, and sending it to me.  
I appreciate your kindness very much.

Good luck and very kindest regards.

Sincerely yours,

A handwritten signature in cursive script that reads "George Conrad Heikes". The signature is written in dark ink and is positioned below the typed name "George Conrad Heikes".

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

February 6, 1981.

Mr. Henry T. Eyrich, Vice President,  
Continental Materials Corp.,  
P.O. Box 50726,  
Tucson, Arizona 85703.

Dear Mr. Eyrich:

Thank you for your letter of Feb. 3rd with an excerpt from Jules A. MacKallor's Thesis of 1957. I would appreciate your sending me a complete copy of MacKallor's report as it may be very useful to anyone doing more extensive prospecting in the Comobabi area.

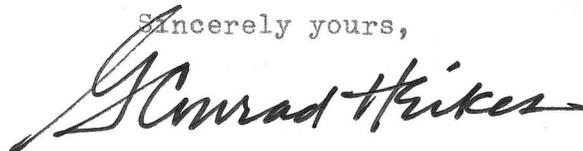
Although the area near Sells appears to be quite erratic in its mineralization, the mineralization on the Monarch-Hercules patented lode mining claims seemed of sufficient concentration when I examined them in 1954 to warrant more study, and now, of course, with the higher price for silver, even more so.

From what information is available, I believe the demand for silver as an industrial mineral may sustain a higher price unrelated to the price of gold which will fluctuate considerably over the next few years. The price of silver is the controlling factor as far as these two mining claims is concerned as I believe enough ore can be developed on that property to justify the work, and if rich enough ore can be mined to justify direct shipping to the Ajo Smelter 75 miles away, a mill would not be necessary.

In any case, I thank you for your prompt decision in this matter.

With best regards,

Sincerely yours,

*Sent*  


Copies to:  
Gloria Rosenfeld  
Ellen Collins  
Joseph S. McCosker  
David B. McCosker  
Janice R. Bartel

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

February 5th, 1981.

Mrs. Berton Rosenfeld,  
31 Royal Court,  
San Rafael, Calif. 94901.

Dear Gloria:

With further reference to my advice to you concerning Patented Lode Mining Claims, the enclosed letter from James R. Crowther, Mining Engineer for the Bureau of Indian Affairs in Phoenix, Ariz. might be of interest.

A Patented Lode Mining Claim has a warranty deed from the U.S. Government which includes the surface and mineral rights. In some cases, especially along the Mother Lode from Mariposa northward along Highway 49, many owners of patented mining claims have sold the surface rights to real estate promoters but kept the mineral rights intact. One case with which I am familiar is a sad story of an individual with delusions of grandeur who owns the surface, and the heirs and assigns who own the mineral rights, which in this case is a first class gold prospect, can't get on their property unless they buy out the man who owns the surface, and he wants \$200,000 for about ten acres. So, as long as you all haven't sold the surface to anybody, you still own the whole surface and mineral rights. Proof of that is that you are paying taxes to Pima County. Hope this clears up that question that was in your mind awhile ago.

Continental Materials Mining Division thinks they can examine your property this month. I hope they do, and if they are not interested because they think it may be too small for them, I will endeavor to interest other companies. The sooner they say yes or no, the better.

In the meantime, very kindest regards and best wishes.

Sincerely,



Copies to:  
Ellen S. Collins  
Joseph S. McCosker  
David B. McCosker  
Janice R. Bartel  
Henry T. Eyrich

CONTINENTAL MATERIALS CORPORATION

Mining Division Office: Suite 101, 2002 N. Forbes Blvd. \* P.O. Box 50726, Tucson, Arizona 85703 Phone (602) 882-4144

February 3, 1981

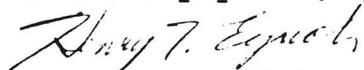
Mr. George Conrad Heikes  
112 Douglane Avenue  
San Jose, CA 95117

Dear Mr. Heikes:

Thank you for your letter of January 21, 1981, with additional background regarding the Monarch and Hercules claims on the Papago Reservation. Since my first letter, I have obtained and read the M.S. thesis by MacKallor on the Geology of the Western Part of the Cobabi Mining District, Pima County, Arizona. I have copied the Abstract, Index Map and Economic Geology portions for your information and enclose them herewith. You will note that the thesis area is some distance southwest of the claims. However, the style of mineralization appears to be comparable, that is narrow veins, erratic values, and generally small "ore" bodies. If you want a complete copy of the MacKallor thesis I can make one for you.

I believe the size potential of the property is too limited for further consideration by Continental, particularly considering the isolated location in the Papago Reservation. Therefore, I suggest that you present the property to the other companies you mention, who may have a more optimistic view. I will appreciate your advising me if another company options the property so I can keep our files up to date.

Sincerely yours,



Henry T. Eyrich  
Vice President, Mining

HTE/cs

cc: W. A. Ryan  
G. Gidwitz  
S. M. Gunther  
C. H. Reynolds



United States Department of the Interior  
BUREAU OF INDIAN AFFAIRS

PHOENIX AREA OFFICE

P.O. Box 7007

Phoenix, Arizona 85011

IN REPLY REFER TO:

332 - Papago - Mining  
(602) 241-2275

January 30, 1981

Mr. George C. Heikes  
112 Douglane Ave.  
San Jose, CA 95117

Dear Mr. Heikes:

Thank you for your letter of January 13, 1981, regarding patented mining claims on the Papago Indian Reservation in Arizona.

As I stated in my telephone conversation with you, patented mining claims, even though on an Indian reservation, have the same status as similar claims on public land. The one issue of possible significance is access to the claims across Indian lands. Our legal advisors in the Department of the Interior inform us that if such access was established for mining purposes prior to the establishment of the reservation or whenever reservation lands were open to mineral entry, that same access can be used for a similar purpose today. The Papago Reservation was open to mineral entry prior to May 27, 1955, which would seem to preclude any problem with access to the claims you are concerned with.

Please let us know if we can be of further assistance.

Sincerely yours,

James R. Crowther  
Mining Engineer

HENRY T EYRICH  
Continental Dist  
P.O. Box 101, HIZ

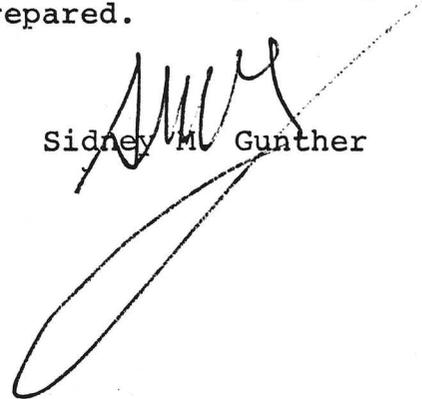
January 22, 1981

Subject: Monarch and Hercules Claims  
To: William A. Ryan  
From: Sidney M. Gunther

Enclosed is a draft letter to one of the owners of the Monarch and Hercules silver claims to be sent by Henry I. Eyrich after Chicago review and any modification. It outlines the terms of a final agreement under which a subsidiary of CMC would take the property. If these terms are satisfactory to the owners and they return a signed copy, Continental can begin to examine the property while the final agreement is being prepared.

  
Sidney M. Gunther

SMG/mq  
cc: James G. Gidwitz  
Henry T. Eyrich ✓  
George C. Heikes



[Continental Materials Corporation]

[Date]

Mrs. Gloria Shank Rosenfeld  
31 Royal Court  
San Rafael, CA 93901

Dear Mrs. Rosenfeld: Monarch and Hercules Claims

George C. Heikes asked that we confirm to you and the other owners of the Monarch and Hercules claims the terms under which our company will examine and explore your claims with a view toward purchasing them. Mr. Heikes examined these claims in 1954, and later in 1960 when he was associated with our company he had correspondence with your father concerning them.

Our company would like the opportunity to examine the claims to determine whether an economic mine can be developed. This letter outlines the terms to be incorporated into an agreement which we will prepare and submit to you for review and approval. The terms for the agreement follow.

Purchase Price

Continental will pay the owners a purchase price of \$200 000 for the two claims.

Payment of Production Royalties

Continental will pay the owners a production royalty of 7% of net smelter returns, to apply against the purchase price.

Payment of Advance Royalties

Continental will pay the owners an advance royalty of \$550 per month beginning at the end of the examination period, to apply against the purchase price.

Payment of Balance of Purchase Price

At its option Continental may pay the owners the unpaid balance of the purchase price at any time.

Examination Period

Continental may examine and explore the claims for six months, at the end of which it will either commence payment of advance royalties to the owners or will return the claims to the owners.

Return of Claims

Continental may return the claims to the owners at any time, and terminate all further obligations of the parties.

Insurance and Indemnification

Continental will indemnify and hold harmless the owners from all costs, expenses and liabilities arising from acts performed by Continental on the claims. Continental will carry workers' compensation and public liability insurance with respect to its operations on the claims.

Claims

The claims are the Monarch and Hercules claims, Mineral Survey 1179, in section 36, township 14 south and section 1,

township 15 south, in Range 5½ East, G & SRB & M.

Operator

The property will be taken by a wholly owned subsidiary of Continental Materials Corporation, which subsidiary is qualified to operate in Arizona.

Owners

The owners of the claims are:

Gloria Shank Rosenfeld  
31 Royal Court  
San Rafael, CA 94901

Ellen Shank Collins  
254 Marlborough Street  
Boston, MA 02116

Joseph S. McCosker  
11922 Otsego Street  
North Hollywood, CA 91607

David B. McCosker  
38 Woodgrove  
Irvine, CA 92714

Janice R. Bartel  
13370 St. Andrews Drive  
Seal Beach, CA 90748

Heikes Fee

George C. Heikes, who brought the parties together will be compensated by the owners. At the direction of the owners, Continental will make payments directly to him in such amounts as the owners specify.

Final Agreement

The parties will enter into a final comprehensive agree-

ment, subject to approval of the parties and their counsel, embodying the above terms and other usual provisions, including those dealing with Royalty Definition and Computation, Examination by Owners of Books and Records, Freedom from Liens, Compliance with Laws, Rules and Regulations, Inspection of Property by Owners, Payment of Taxes, Title of Claims, Default and Remedies, Force Majeur, Removal of Property, Furnishing of Information on Surrender, etc.

If you and the other owners would like us to proceed on the above basis, please sign and return a copy of this letter. We will then begin to examine and explore the claims and we will prepare and submit to you a definitive contract.

Yours very truly,  
[Mining Company]

By \_\_\_\_\_  
Henry T. Eyrich, President

Agreed on behalf of all  
owners, this \_\_\_\_\_  
day of \_\_\_\_\_ 1981.

\_\_\_\_\_  
Gloria Shank Rosenfeld

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

January 21, 1981.

Mr. Henry T. Eyrick, Vice President,  
Continental Materials Corporation,  
P.O. Box 50726,  
Tucson, Arizona 85703.

Monarch & Hercules Pat. Lode  
Mining Claims, Pima County,  
North Comobabi Mtns, Arizona.

Dear Mr. Eyrick:

Thank you for your letter of January 21 re the above property. When it came to my attention, I phoned Mr. Sidney Gunther at his home in Carmel to find out what kind of a deal might be acceptable. He called me back from Chicago and was in Mr. Bill Ryan's office, so I talked to them both. Six months free exam period then \$550 per month and 7% net smelter return on shipments all applied on a \$200,000 purchase price seemed to be acceptable. The owners had some additional ideas but I was able to convince them to take this arrangement of terms. In my experience I have found out it is better to have a framework of terms expected before you spend time and money on a property and then if interested, find out that the owners have delusions of grandeur so that your time and effort has been wasted. Up on the Mother Lode these days it is impossible to get any kind of a property on the above terms.

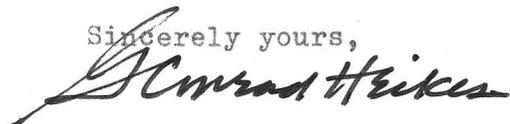
In my conversation with Mr. James Crowther, U.S. Office of Indian Affairs in Phoenix, he mentioned the name of Citiano Manual. All I know about Manual is that he might have been the member of the Papago Indian Tribe who tried to get the Monarch and Hercules Claims for nothing, as a present from the owners.

In the very short time I had available to me in 1954 to examine this property, all I could do was map the workings and take a few orientation samples. It looked interesting enough to return and do a more thorough job of sampling and also do some systematic mapping of the surface as I do not remember that all of the mineralization was confined to the spot where they mined. The price of silver is now \$16 per ounce compared to \$1.29 in 1954 which puts an entirely different aspect on the potential. I think it is a mighty good prospect and well worth your effort. However, if you turn it down, please let me know as soon as you can as I have some other companies for whom I am consulting that will take it on. I put it up to you first as a matter of habit and because you are only 73 miles from it.

Hope to meet you one of these days, and in the meantime,  
very best regards.

cc: W.A. Ryan  
G.G. Gidwitz  
S.M. Gunther  
C.H. Reynolds

Sincerely yours,



# CONTINENTAL MATERIALS CORPORATION

Mining Division Office: Suite 101, 2002 N. Forbes Blvd. • P.O. Box 50726, Tucson, Arizona 85703 Phone (602) 882-4144

January 19, 1981

Mr. George Conrad Heikes  
112 Douglane Anenue  
San Jose, CA 95117

Dear Mr. Heikes:

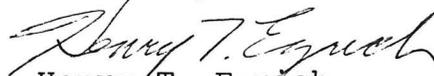
This is in response to your submittal on the Monarch and Hercules patented mining claims in Pima County, Arizona. It is the policy of the Mining Division to make a field examination of every property considered for acquisition before drafting an acquisition agreement. Therefore, it would be inappropriate for Mr. Gunther to prepare an agreement at this time unless he is representing you or the owners.

The data you presented indicate a very limited tonnage potential along narrow veins or at vein intersections. Unless there is strong evidence of significant mineralization outside the narrow veins, it is unlikely we would proceed with property acquisition.

We are short of available field personnel at this time, but may be able to schedule an examination early in February. I would like some clarification of your comment in the letter to Bill Ryan about Mr. Citiano Manual. What is his address and what interest does he have in developing the property?

I will look forward to hearing from you before we take any further action on the property. We will try to get a copy of MacKallor's thesis. Thank you for your continued interest in Continental Materials Corporation.

Sincerely,



Henry T. Eyrich  
Vice President, Mining

HTE/cs

cc: W.A. Ryan  
G.G. Gidwitz  
S. M. Gunther  
C. H. Reynolds

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

January 16th, 1981.

Mr. C.H. Reynolds,  
Continental Materials Corp.,  
P.O. Box 50726,  
Tucson, AZ 85703.

Dear Herb:

Enclosed is some additional information just now received from one of the owners of the Comobabi silver property in Pima County, Arizona which I am sure will be of interest to you. If you can get a copy of MacKallor's thesis I would be glad to reimburse you for it.

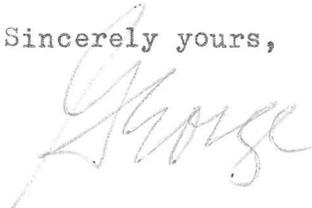
If the price of silver had been \$16 per Troy Ounce, as it is to-day instead of \$1.29 as it was in 1964, Bill Loerpapel would very likely have insisted that ASARCO do more work on the property, since all big mines in this world started out as small prospects in their youth.

When Sidney completes a lease with option to purchase on this property he will no doubt submit it to the owners for their approval and signatures. I told them the lease would also include the usual boiler plate clauses about workmens's compensation, lessor not held liable for liens, etc. lessee to pay taxes, insurance, etc. with right to remove whatever machinery within 3 months after cessation of operations, and lessor to get a copy of maps, assays, etc. of the work done on the property along with a right to visit the property, possibly inspect books since one of the owners is a Certified Public Accountant, etc.

Whatever I can do to help, please let me know.

Best regards.

Sincerely yours,



cc Mr. William D. Ryan, Chicago  
Sidney Gunther, Carmel  
Joeseph S. McCosker, N. Hollywood

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

January 16, 1981.

Mr. Joseph S. McCosker,  
11922 Otsego Street,  
North Hollywood, Ca. 91607.

Dear Mr. McCosker:

Thank you very much for sending me a copy of William Harrison Loerpapel's letter-report of January 13th, 1965. He was 73 at the time of writing the report and as far as I know is still living. He is a very fine man and I have known him since he was Manager of the Mining Department of the American Smelting and Refining Co. (ASARCO) in New York in 1948 and have the highest regard for his character and technical competence.

Loerpapel's letter contains much valuable information which I was very pleased to learn. In the first place he had access to the reports made in August 1947 and Dec. 1964 of engineers employed by his company plus his personal observations at the property in December 23, 1964. Also he mentioned that Jules A. MacKallor had prepared a report on the area in order to obtain his Masters degree in Geology at the University of Arizona dated 1957 - I would like to get a copy of this thesis somehow. Of great value was Loerpapel's tabulation of past shipments although amounting to only 4.1 tons during 1951 they contained 946.856 Troy Ounces of silver,  $0.664 \times 20 = 13.28$  lbs. lead,  $0.96 \times 20 = 19.2$  lbs. of copper or per short dry ton 230.94 oz. silver 0.162% lead and 0.96% Copper. No zinc content. At the present price to-day of \$16. per Troy Ounce the situation is quite different from what it was in former years. I don't know whether the above shipments were hand sorted ore or flotation or some other kind of concentrates, Loerpapel thinks they were flotation concentrates but since the ore is quite oxidized, I'm not sure about that.

The fact that the shaft was 100 feet deep is interesting. I taped the shaft on the incline. The samples I took were for orientation purposes only as I sampled fault gouge, fracture zone, vein material, silicified andesite, a few grab samples on the surface, and a sample of a pile of hand sorted high grade. Although mining was confined to a relatively small area along 90 feet of vein along a N45°W strike the main concentration of mineralization was at the south end where there is an intersection with a southerly striking branch vein - this vein did not cut across the main vein as suggested by Mr. Loerpapel, and may not be a chimney but something worth further investigation. There was no evidence, according to my original notes, of the ore stopping on the so-called 65 ft. level.

Best regards.

Sincerely yours,



GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

January 14, 1981.

Mr. C.H. Reynolds,  
Continental Materials Corp.,  
P.O. Box 50726,  
Tucson, Ariz. 85703.

Dear Herb:

After I talked to you about the silver/copper prospect in the North Comobabi Mountains near Highway Arizona 86, I phoned Sid Gunther in Carmel to see what kind of a lease arrangement was most acceptable. He was in Chicago so Eleanor told him to phone me. He was in Bill Ryan's office at the time - this morning, so I was able to talk to both of them.

The attached correspondence is the result of that conversation. When I was with the company back in January 1960, the price of silver and copper wasn't very encouraging but I did talk to you about it and put a copy in your files at the time. Then I proceeded to forget all about it.

The other day, after my old friend Floyd Shank died, his daughter Gloria phoned me and asked me what they should do about the property. When I looked over my old report done in 1954 I was astounded to see the high silver assays and widths. I truly believe this is an outstanding opportunity. I would tackle it myself if it was closer to here, but I'm trying to concentrate my activities closer to San Jose which means the Mother Lode of Calif. and some prospects in Esmeralda County, Nevada so I called you up since you are well established now in Arizona.

Very best regards.

Sincerely yours,



GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

COPY

January 14, 1981.

Mr. William D. Ryan, President,  
Continental Materials Corporation,  
111 East Wacker Drive,  
Chicago, Illinois 60601.

MONARCH & HERCULES Patented  
Lod Mining Claims, Pima County,  
Arizona.

Dear Mr. Ryan:

Following our telephone conversation this morning with you and Mr. Sidney Gunther, I am sending to you herewith the report I made on this property in April 1954 for Mr. Floyd C. Shank and also a copy of my letter to him dated Jan. 28, 1960 when I was employed by your company and before I went to Korea.

On Mr. Shank's demise the property reverted to his two daughters who have a  $\frac{1}{2}$  interest and to three cousins for the other  $\frac{1}{2}$  interest. Gloria Shank Rosenfeld phoned me recently to see if I could help in getting someone interested in this property and when I read over my old report, copy herewith, I was surprised to see the high silver assays on samples I took so long ago. Now with silver at \$15 per ounce, more or less, the property is certainly worth careful investigation. I phoned Mr. C.H. Reynolds in your Tucson office and he said they would be interested to look into the matter so I am sending him a copy of the report and this letter.

As soon as I can get in touch with the owners, I will make the proposal to them that they consider a six months free examination period and if the company is still interested for them to pay to the owners \$550 per month out of which \$50 per month would be paid to me. When the mine is put into production a royalty of 7% to be paid on the net smelter return if shipped to a smelter, or 7% of the gross income if the ore is treated on the property, all of the monthly payments and royalty paid to apply on a purchase price of \$200,000, Heikes to get ten per cent of any payments made to the owners. Furthermore, if the owners agree to these terms, your legal staff will draw up an appropriate contract for their approval and signatures.

Mr. Shank's two daughters who together have a  $\frac{1}{2}$  interest are Gloria Shank Rosenfeld, 31 Royal Court, San Rafael, Calif. 02116. and Ellen Shank Collins, 254 Marlborough Street, Boston, Mass. 02116. The three cousins, who together have a  $\frac{1}{2}$  interest, are Joseph S. McCosker, 11922 Opsego Street, North Hollywood, Calif. 91607, David B. McCosker, 38 woodgrove, Irvine, Calif. 92714 and Janice R. Bartel, 13370 St. Andrews Drive, Seal Beach, Calif. 90748

GEORGE CONRAD HEIKES, MINING GEOLOGIST, 112 DOUGLANE AVENUE, SAN JOSE, CALIFORNIA 95117

Mr. William D. Ryan re Comobabi, Ariz. silver. Jan. 14, 1981 Page 2

Accordingly, on a basis of \$550 per month, Gloria and Ellen would each get \$125; Joe, David and Janice each \$83.33 and I would get \$50.

Mr. James Crowther, Chief mining Engineer for the U.S. Bureau of Indian Affairs, P.O. Box 7007, Phoenix, Ariz. 85011 (602)241-2305 assured me over the phone that the surface and mineral rights on those two patented lode mining claims are valid and there have been no encroachments by the Papago Indian Tribe as these claims are on the Papago Indian Reservation. Taxes have been kept up to date and an insurance policy has been maintained as to liability. The access road has been badly weathered during its disuse over the years which would help keep the curious away and will have to be repaired.

It would be advantageous for the company representatives to meet with Mr. Citiano Manual who has been trying to get these claims for a nominal price, or nothing and in some way get his support. The Papago Indians would no doubt welcome a chance to get employment in fixing up the road and in training some of the younger men to help in the exploration program.

Phelps Dodge need siliceous ore for flux at their smelter in Ajo and would very likely be glad to purchase sorted ore, or mine run, or concentrates containing silver and copper mineralization. According to a map I have of Arizona, the mine is fairly close to Arizona Highway 86 which goes from Tucson to Ajo, near Sells. It looks like 50 or 60 miles on the map.

If there is more information you require, please let me know and I'll try to answer. Best regards to you all.

Sincerely yours,



18335 Lexington Drive,  
Los Gatos, California  
January 28th, 1960.

Mr. Floyd C. Shank,  
1009 Shreve Building,  
210 Post Street,  
San Francisco 8, Calif.

Monarch & Hercules Pat. Lode  
Mining Claims, North Comobabi  
Mountains, Pima County, Arizona.

Dear Mr. Shank:

Your letters of Sept. 4, 1959, Dec. 21, 1959, and Jan. 24, 1960 are before me, as well as the lease between Myrtle McCosker and Lucille Shank, Lessors and the Sells Mining Co, an Ariz. corporation, dated Feb. 13, 1952 and ending Nov. 30, 1961. You stated that F.C. Merrell had not been able to carry out his end of the agreement and accordingly was going to give you a signed release. At the same time I presume he has removed his personal property and the machinery of the Sells Mining Co.

In my opinion, the main cause of the trouble was in the second paragraph of the lease in which it was stated...2. During the term of this lease and during any extension of such term, Lessee agrees to keep and maintain upon said premises or near said premises a mill of twenty-five (25) tons per day capacity to be used as a mill for said mining premises". On account of that, the money of the Sells Mining Co. was spent on a mill, rather than on properly developing the mine. In order to justify a 25 ton per day mill, which would now cost on the order of \$75,000 or more, you should have at least enough ore to run the mill for two years before you start mining and milling. 25 t/d for 300 working days, x 2 = 15,000 tons. It would cost \$15 to 20 per ton to mine that ore, probably \$10. per ton to mill it. Your ore would have to contain at least \$50. per ton to make a profit, cover your overhead as well as operating expenses. The next question would be, "How much would it cost to develop 15,000 tons of ore, and maintain the ore reserve during the mining operation?" If the ore could be followed continuously, you would have to have a shaft 200 feet deep and drifts northwest and southeast for 150 feet from the shaft, then connecting raises. Ore would have to average 5 feet wide. The grade would have to be 35 oz. silver or more, and several percent copper, or 50 oz. silver or better, if there was little copper. Gold was only a trace where we sampled. It would cost \$100 to \$150 per foot to sink a shaft, \$35 to \$40 per linear foot for drifting, or roughly \$75,000 for development. It would cost at least \$50,000 for water supply, camp, shops, hoist, compressor, and working capital. Thus, it could cost \$200,000 to get a 25 ton per day operation underway, providing one could make a decent recovery on the ore. The ore is oxidized copper and silver. It would take some research to devise a proper mill flow sheet and that would have to be done before you could work out the economics of the proposition, and prepare yourself a cash flow-chart. Thus there is much to be done in this business, and many ways to lose money unless each step is worked out correctly.

The best kind of a deal would be to get the lessee to agree to spend a certain amount of money for each agreed upon period with the chance to stop at any time it did not work out well. If the mine were put into production, then the lessee to pay a nominal royalty to apply against a total purchase price for the two claims.

For two years or so, we were doing a certain amount of speculative exploration work and during that time we actually developed considerable mineralized rock. However, in one case it was too low grade to pay all of the current labor costs due to inflation and we had to walk away, in another case we developed a very large tonnage, but it was too low grade and also a difficult metallurgical problem.

Some people in the oil business are now getting into metal mining. They can use tax money in some cases, and these kinds of prospects like yours are attractive to them. I would like to know some of these people, instead of only knowing about them, and am constantly on the watch for them. If I find one I will be glad to refer him to you.

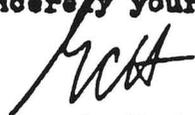
As far as my company is concerned, we do not have the facilities or desire to engage in this type of exploration at this time. If we change our minds, I will let you know.

At present, the company with whom I am spending all my time, the Continantal Materials Corp. is merging with other companies, concentrating on situations where ore has been developed and the operators need a mill, or more working capital, or different management. Thus, my life is replete with incident and I can tell you one thing for sure; I have learned many things since we visited your property back in March 1954.

In case we should be interested in your property at some time in the future, I will put a copy of my maps and this letter in our reference file. In the meantime, however, do not hesitate to make a deal with anyone you can, and let it be first come, first serve. Also, while I am talking to you about this, I suggest you continue to pay your taxes on these claims (patented mining claims are difficult to obtain now). One of these days the U.S.A. is going to go after gold and silver as diligently as they went after uranium - then your property will be very valuable to you, and I don't think that time is too far away. I think you have an excellent prospect.

With best regards and kindest wishes.

Sincerely yours,

  
George C. Heikes

Preliminary  
Geological Report  
on the  
MONARCH AND HERCULES PATENTED LODE MINING CLAIMS

North Comobabi Mountains

Pima County, Arizona

by

George Conrad Heikes  
Consulting Mining Geologist  
April 5, 1954

REVISED  
October 27, 1981  
112 Douglane Avenue  
San Jose, California 95117  
Telephone (408)247-3961

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### Maps

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Sketch Map showing the Monarch and Hercules Patented Lode Mining Claims and Incline Shaft and Mine Workings, location of samples with assays.	
SUPPLEMENTAL REPORT by W.H. Loerpabel dated January 13, 1965	

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

October 27, 1981.

TO WHOM IT MIGHT CONCERN

The geological report on the MONARCH-HERCULES Patented Lode Mining Claims in Pima County, Arizona was made originally in April 1954. In 1978 the U.S. Geological Survey prepared a geological map of the area under consideration on a Scale of one mile to the inch or 62500 by Gordon Haxel and others. The increase in the commercial use of silver has suggested that in the future it may be considered more as a commodity than a precious metal with a chance of a more sustained price. Another favorable point is that this property is half way, about, between Tucson and Ajo where the Phelps Dodge Corp. has a copper smelter. If enough ore can be found and developed on the Monarch-Hercules property it might be possible to ship it to Ajo for flux in the copper smelter - Phelps Dodge indicated they might buy a certain amount if they could count on regular shipments. Thus, with the above points taken into consideration, I have revised the original report of April 5th, 1954.

  
Registered Geologist  
Arizona No. 9219

GEORGE CONRAD HEIKES, MINING GEOLOGIST, 112 DOUGLANE AVENUE, SAN JOSE, CALIFORNIA 95117.  
MONARCH-HERCULES PATENTED LODE MINING CLAIMS, PIMA COUNTY, ARIZONA

SUMMARY An examination was made of this prospect on March 29 and 30, 1954 at the request of Mr. Floyd C. Shank, 210 Post Street, San Francisco, California. After his demise in 1979 the property reverted to his two daughters and three cousins. Taxes and liability insurance have been kept up to date and are fully paid.

The mining claims were patented in 1895, an inclined shaft was sunk on a vein and a level run about 65 feet below the surface. Some high grade oxidized mineralization was indicated containing a little copper and predominantly silver. The surface, shaft and mine workings were mapped and sampled in March 1954 - at the time of this inspection a Mr. F.C. Merrell and his associate Dean Stanley had spent \$30,000 on a flotation mill which had been stipulated in their contract, but no additional new work had been done on the mine workings apparently and the ore for the mill was from surface mining.

INTRODUCTION (Verbatim from original report)

The Monarch and Hercules Claims, together covering about 40 acres, were patented Dec. 13, 1895 and are identified under Mineral Survey 1179, General Land Office No. 26,622. They are in the North Comobabi Mountains in Sec. 36 Township 14 South and Section 1, Township 15 South, both in Range 5½ East G & SRB & M Meridian 12 miles North 55° East of the intersection of 112° West Longitude and 32° North Latitude. Taxes are fully paid. The property is now recorded in the names of Lucille Shank and Myrtle McCosker.

Mr. F.C. Shank, Gloria Shank, F.C. Merrall and myself drove 44.3 miles from Tucson to San Vicente over Arizona Highway 86 then northerly on a dirt road 19.4 miles to the Papago Indian Village of Sil Nakya, then 4.7 miles to the mine turn-off, then 4.3 miles over a rough road to the mine. The mine road can be repaired at a nominal cost by filling in spots washed out by occasional cloudbursts, until then a pick-up or 4-wheel drive is preferable to a passenger car.

Water would have to be hauled from Sil Nakya. Merrell pointed

INTRODUCTION ( Continued )

out a pipe casing protruding above the ground with a pump stem still in it. At one time this well, said to be 800 feet deep, was the source of water for mining operations many years ago. There was evidence that a steam engine had been used to do the pumping. This well should be rehabilitated and would probably be a source of water again.

The climate is that of the arid desert, extremely hot in summer, cool in winter with occasional cloudbursts in the late summer. The vegetation is a prolific and picturesque growth of cactus as seen by the attached photographs.

GEOLOGY, MINE WORKINGS AND SAMPLING

Various phases of Tertiary ( Classified JURASSIC on Map MF 964 ) andesites were observed on the property. Along the faulted fissure vein the andesite was well fractured and silicified in places, especially along the footwall. The vein material was thoroughly oxidized on the surface, contained carbonates of copper in fractures and disseminated in the silicified andesite. The silver seemed to follow more along the fault gouge and in the kaolinized andesite immediately adjacent to the fault gouge even where there was no copper stain to act as an indicator. From this observation it was assumed that the values in the ore are erratic and apt to migrate in an uncertain manner. The best way to do when operating a property of this kind would be to sample every five feet regardless of the appearance of the vein.

The largest and oldest silver mining districts in the World

GEOLOGY ( Continued )

are at Pachuca and Guanajuato in Mexico. These are also fault fissures in Tertiary andesite underlain by Mesozoic sediments and igneous rocks. (The vein on the Monarch-Hercules is mostly in Jurassic Quartz monzonite and an assemblage of volcanic rocks, potassium poor andesite and potassium rich trachyandesite and trachyte, according to the new U.S. Geological Map of the North Comobabi Mts. ).

Many years ago an inclined shaft was put down on the hanging wall slip of the outcrop on the Hercules Claim. No timber was used other than to support a ladder, and is still not necessary. This shaft is 65 feet deep dipping steeply to the east, starting at 60° and flattening out to 45°. At the bottom of the shaft a drift was driven 30 feet to the north and a similar distance southerly along a fault structure. A crosscut was driven 19 feet to the west under the bottom of the shaft, cut a footwall streak and a short drift was driven north and south. In the south face Sample E shown on the attached map, was three feet containing 28.9 ounces of silver and 0.35% copper. This face was in altered andesite, didn't look like it contained any value and showed practically no copper stain.

Sample F was taken at the bottom of the shaft showing four feet of similar material assayed 3.0 ounces silver, and 0.04% copper. Upon closer examination and thorough sampling it is expected there will be more ore showings revealed and that the vein may continue in depth and surely will extend to the north and south.

Four samples were taken of the vein outcropping on the surface. Sample A on the hanging wall branch of the vein assayed Three feet of

GEOLOGY ( Continued )

36.5 ounces of silver and 0.77% copper in fault gouge, altered and crushed andesite and showed very little copper stain. Next to this sample was taken an eight foot wide cut in fractured and silicified andesite; it's lean appearance was confirmed by the assay which was 0.2 ounces silver and 0.03% copper. The next sample cut adjoining was of fractured vein material and assayed seven feet of 11.0 ounces silver and 0.17% copper. An orientation sample was then taken of the footwall of silicified andesite which assayed nine feet of 9.0 ounces silver and 0.11% copper.

In walking over the surface, another vein was encountered in the hanging wall of the one described above. At the place on the outcrop where this vein was sampled, 300 feet North 20° East of the mill, the assay was two feet of 1.6 ounces silver and 0.06% copper.

A large sample of fractured andesite lying on the surface along the ridge of the Monarch Claim assayed 0.3 ounces silver and 0.03% copper.

During previous mining operations some selected high grade had been piled up. A sample of this was taken for orientation purposes and was found to assay 414.0 ounces of silver and 11.76% copper.

On account of the limited amount of mining work that had been done, no attempt was made to estimate an ore reserve tonnage or to calculate an average grade. It was believed such an estimate would be purely academic and of no value to the owners or leasers of the property.

RECOMMENDATIONS

In the April 5, 1954 Report there were two paragraphs pertaining to geologic mapping; this has since been taken care of by the detailed U.S. Geological Survey Map MF 964 by Gordon Haxel and associates. The next recommendation suggested an adit to come in under the present workings - in 1954 you could drive a 5 x 7 foot drift or crosscut for \$15 to \$20 per foot, today it might cost nearly \$100 per foot, therefore it would be better to work from the surface - the means of doing this would depend on the availability of trained personnel and modern methods that could be obtained in Arizona. Young Papago Indians make very good workmen when trained as this property is on the Papago Reservation. In a later report on this property by W.H. Loerpabel, formerly Chief of the Tucson office for the American Smelting and Refining Co. and Manager of Mining in the New York office, it was mentioned that the shaft had been much deeper and had been filled in. In my opinion after all these years the best way to explore and develop this property would be by more sinking and drifting, more careful geologic mapping and sampling on the patented mining claim area, and if sufficient mineralization of commercial value be developed, then shipment as flux to the smelter of Phelps Dodge Corp. at Ajo, Arizona.

BIBLIOGRAPHY

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2. BRYSON, Kirk THE PAPAGO COUNTRY, ARIZONA, U.S. Geological Survey Water-Supply Paper 499, 1925.
3. GILLULY, James THE AJO MINING DISTRICT, ARIZONA U.S. Geological Survey, Professional Paper 209, 1946.
4. LOCKE, Augustus LEACHED OUTCROPS AS GUIDES TO COPPER ORE, 1926.
5. LINDGREN, Waldemar MINERAL DEPOSITS, 1928.
6. RECONNAISSANCE GEOLOGY OF THE MESOZOIC AND LOWER CENOZOIC ROCKS OF THE SOUTHERN PAPAGO INDIAN RESERVATION, ARIZONA by Gordon Haxel, James E. Wright, Daniel J. May and Richard M. Tosdal, Arizona Geological Survey Digest, Volume XII, 1980.
7. UNITED STATES MINERAL RESOURCES, U.S. Geological Survey Professional Paper 820 1973.



New Cornelia Branch, Ajo, Arizona 85321

January 21, 1981

RECEIVED JAN 23 1981

Mr. George C. Heikes  
Consulting Mining Geologist  
112 Douglane Avenue  
San Jose, California 95117

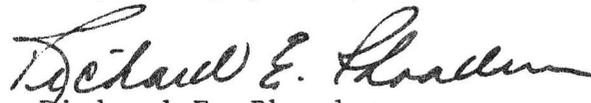
Dear Mr. Heikes:

This is to acknowledge your letter dated January 12, 1981, asking whether or not the New Cornelia Branch handles ore shipments on a custom basis.

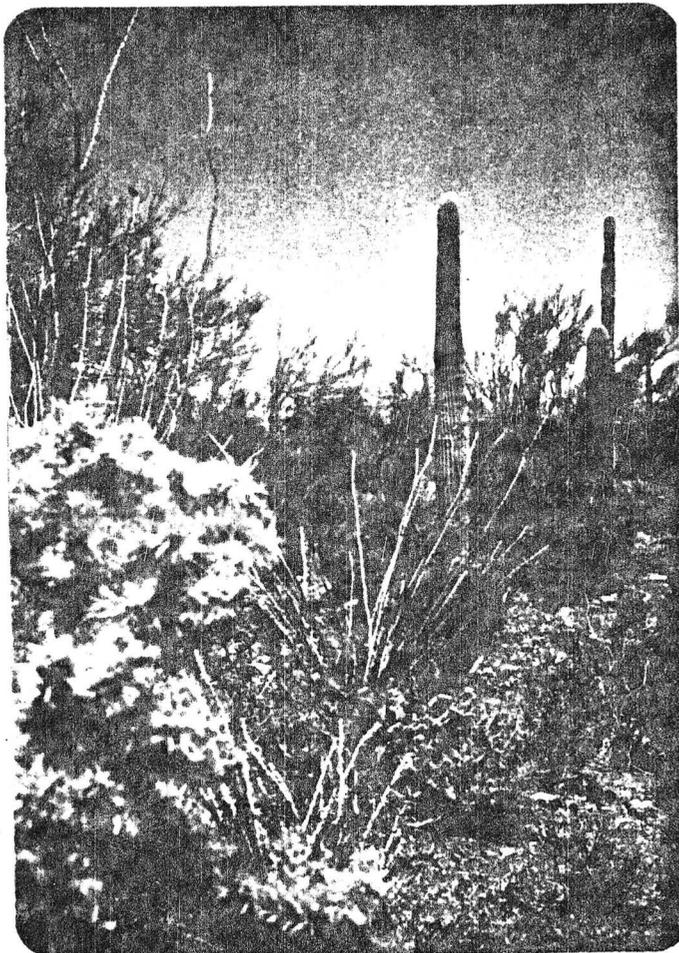
The Smelter at Ajo, of course, contracts for relatively modest amounts of siliceous material for fluxing and makes additional payments for the contained gold and silver. However, since the Smelter is a single reverberatory operation, there is not sufficient capacity to treat custom ore as such. The corporation's smelter in Douglas, on the other hand, is a custom smelter. I would suggest that you contact Walter L. Gage, Smelter Superintendent, Phelps Dodge Corporation, Douglas Reduction Works, P. O. Drawer E, Douglas, Arizona 85607 (602-364-7521, Extension 267).

If you are referring to a dependable supply of high quality siliceous material that can be economically transported to Ajo as flux, please contact John M. Robertson, Smelter Superintendent, New Cornelia Branch, Phelps Dodge Corporation, Ajo, Arizona 85321 (602-387-6122). He would need to know the silica, gold and silver content and amounts of material that can be shipped on a regular basis.

Very truly yours,

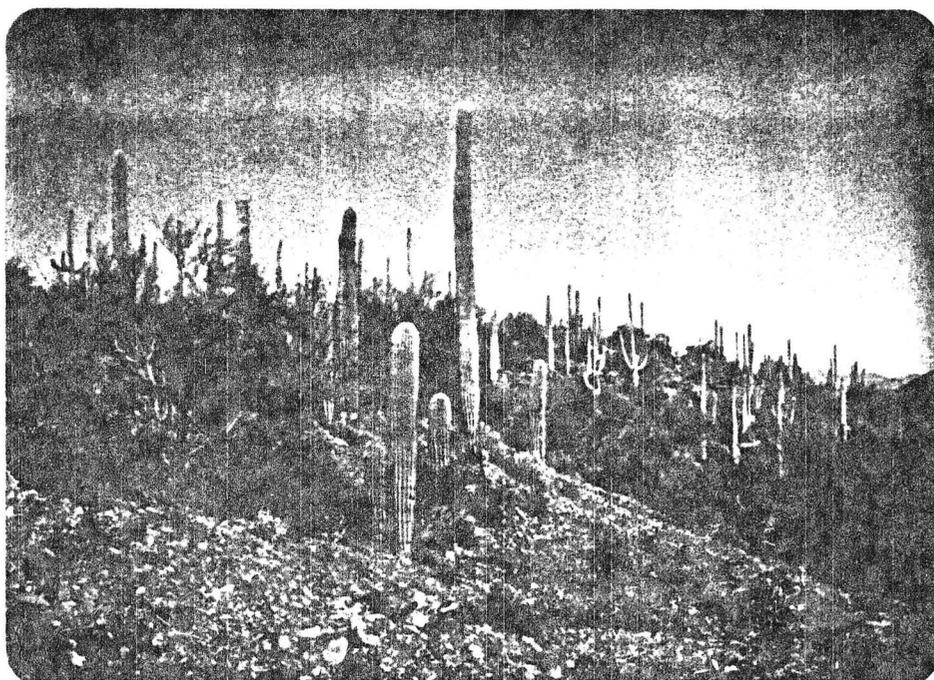
  
Richard E. Rhoades,  
Manager

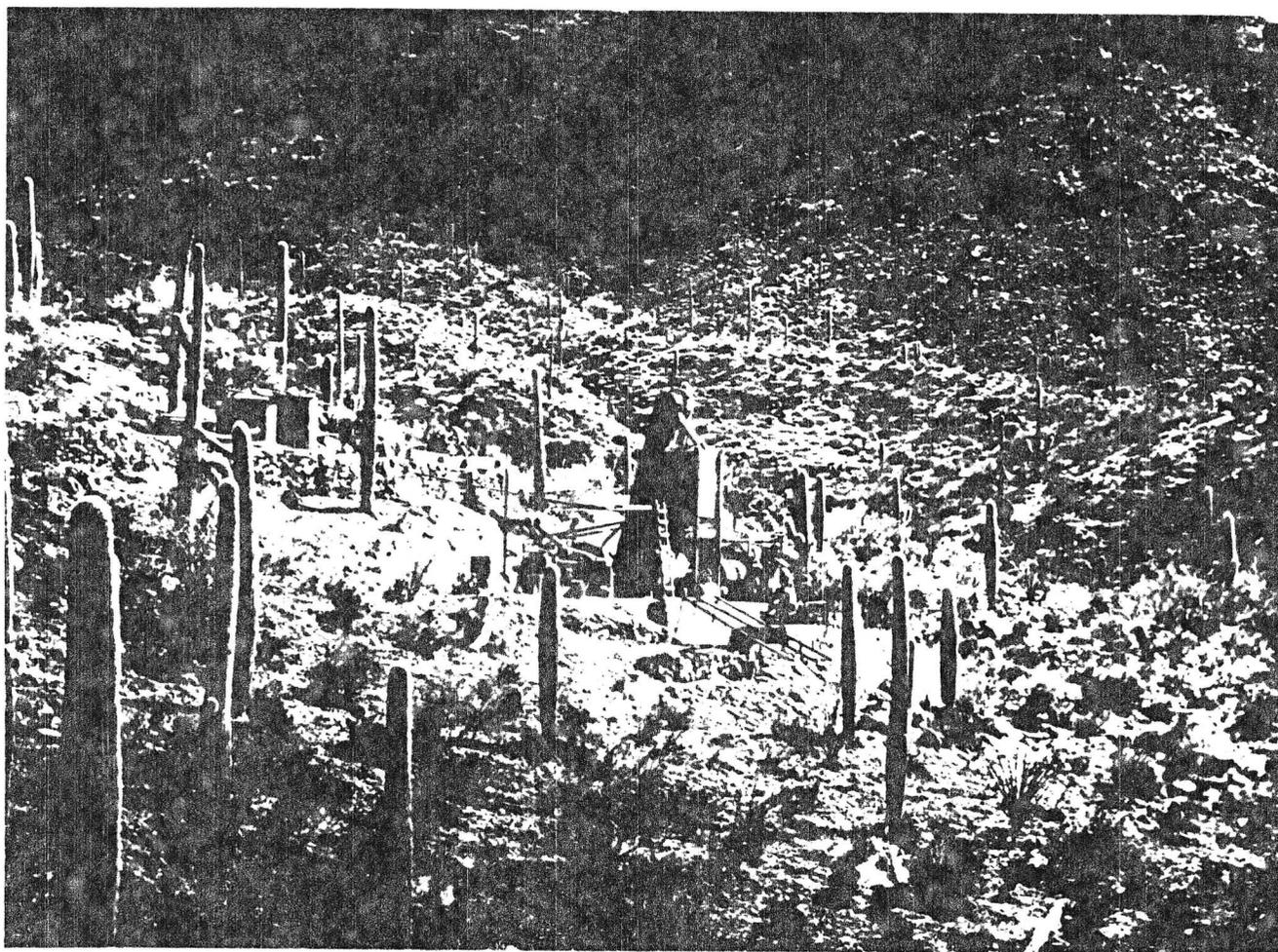
RER:tjp  
cc: JMRb  
WLG



*Cactus Comobabi Mountains*

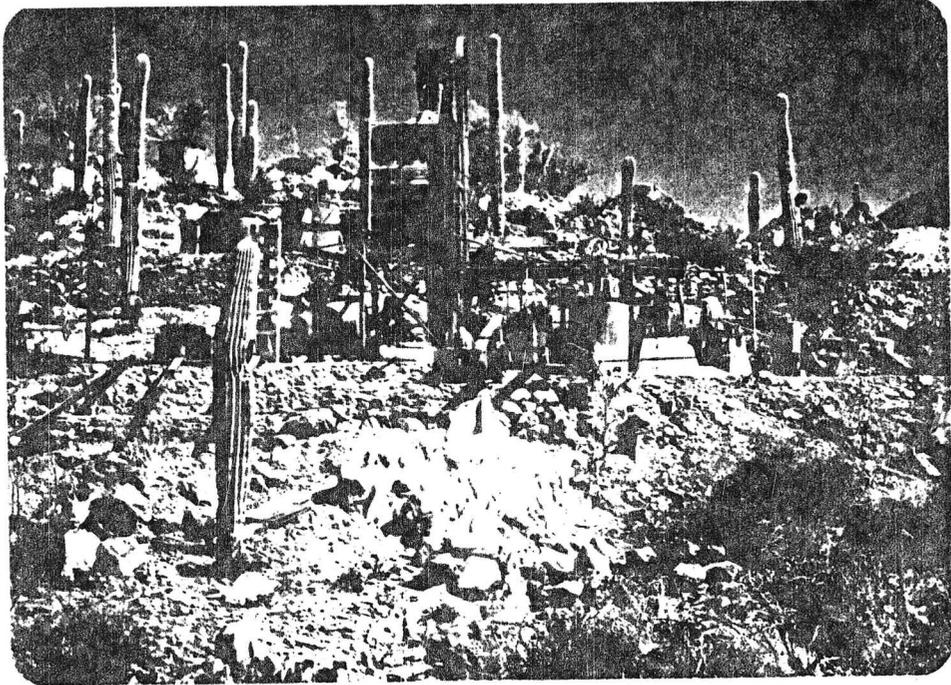
4/29/54





Sells Mining Co. Mill

4/29/54



Sells Mining Co. Mill

4/29/54



Floyd C. Shank  
W. C. Merrill

Inclined  
Shaft.

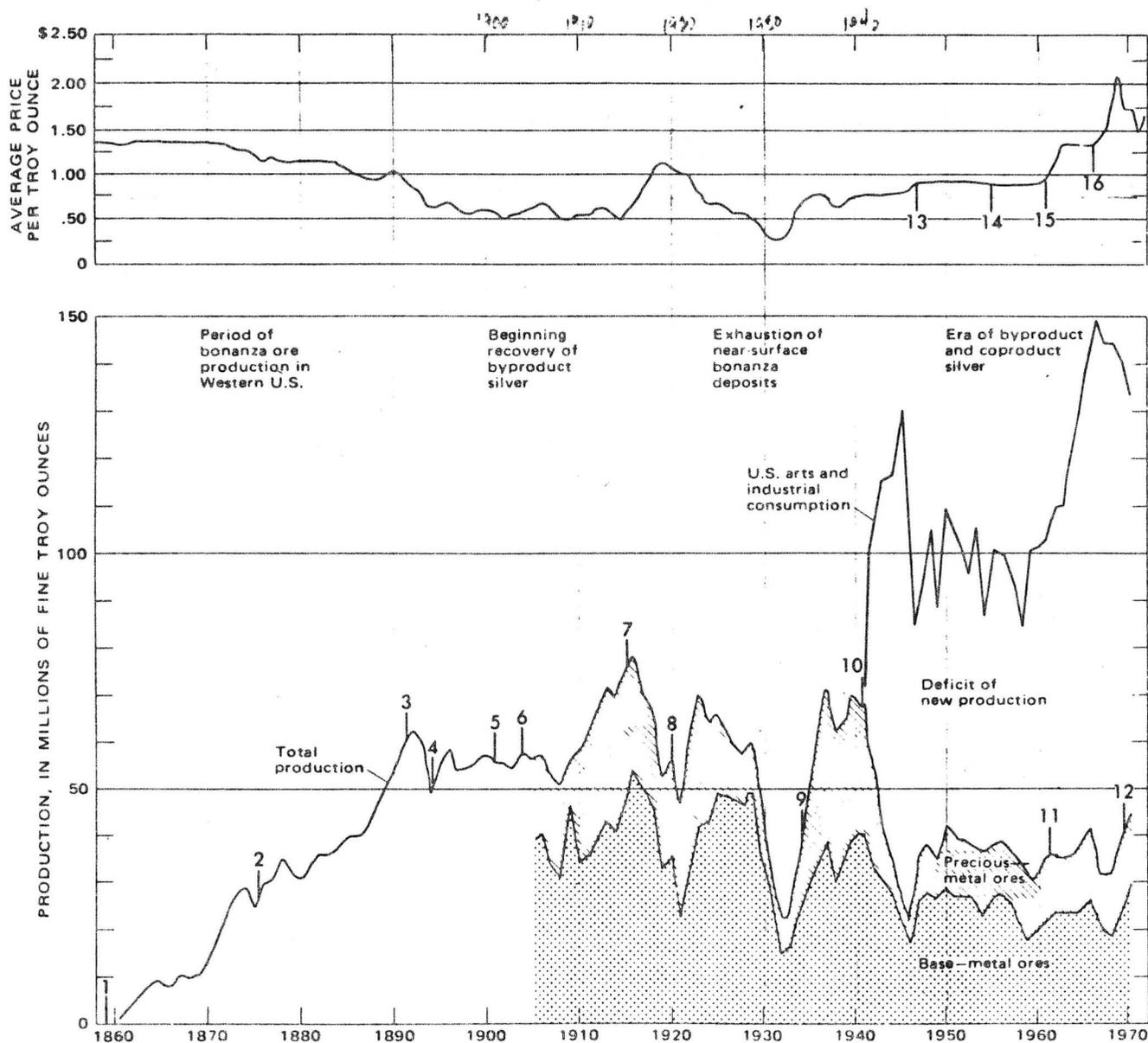
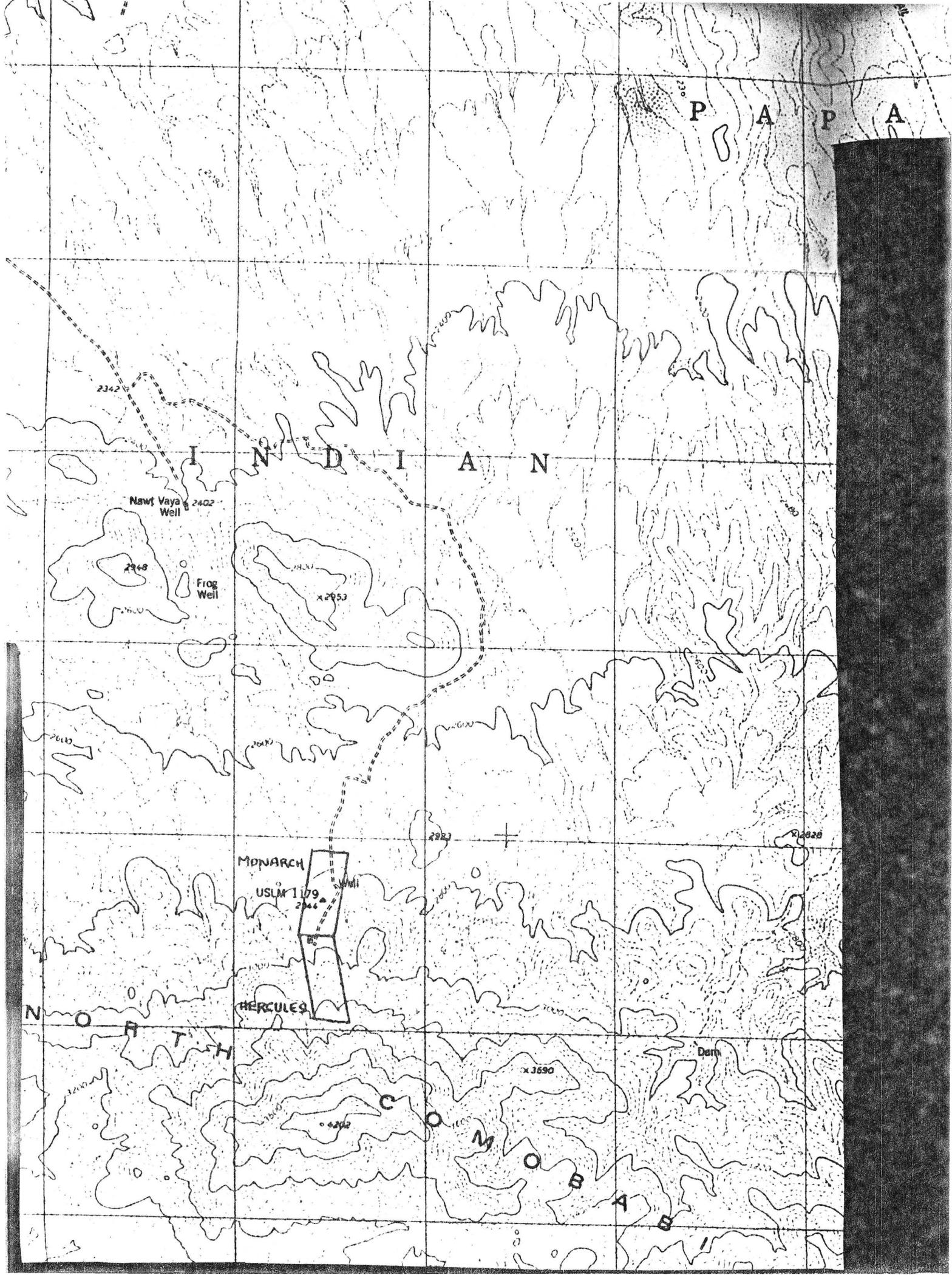
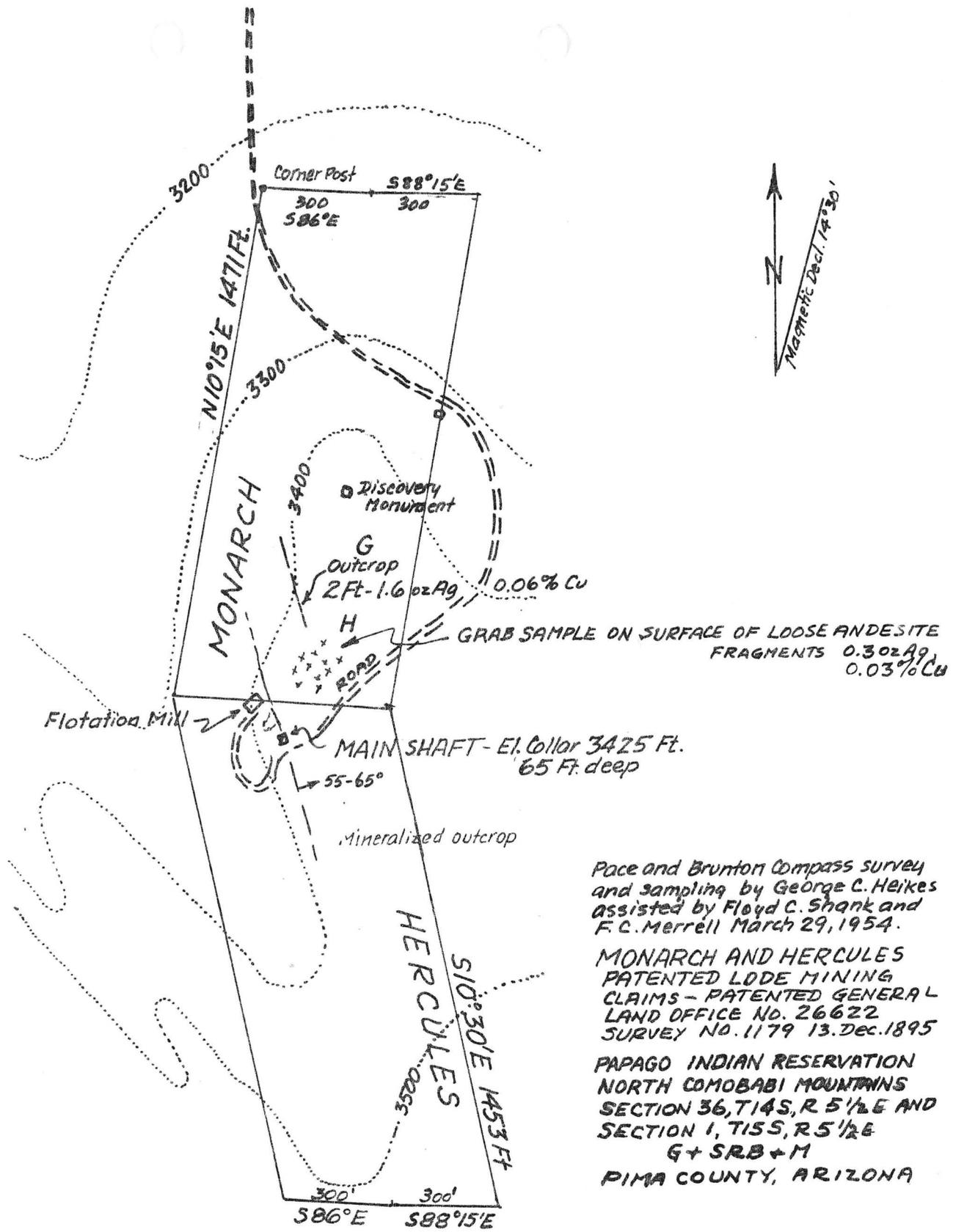


FIGURE 66.—Exploitation of the silver in the United States.

1. Comstock lode, Nevada, discovered;
2. Authorization for coinage of silver dollars;
3. U.S. Treasury act to purchase silver;
4. Purchasing act repealed and sharp price drop;
5. Tonopah, Nevada, discovered;
6. Production began from porphyry copper deposits;
7. Peak from early silver and silver-gold mines and coinage demand of World War I allies;
8. Heavy Chinese buying;
9. Treasury began purchasing silver as monetary backing. Development Silver Belt, Idaho;
10. World War II;
11. Treasury began withdrawal of bullion reserve;
12. Cessation use of silver for coinage;
13. U.S. Treasury directed to purchase domestic silver at 90 1/2c and authorized to sell at 91c;
14. U.S. Treasury sales stabilizes price at 91c;
15. Cessation of U.S. Treasury sales;
16. Exhaustion of U.S. Treasury bullion reserve. Modified from McKnight (unpub. data, 1962).





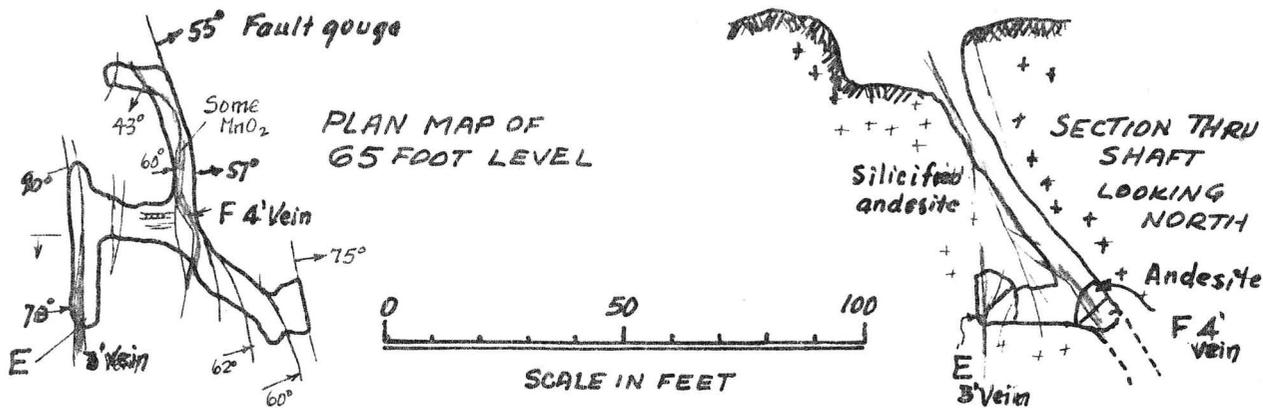
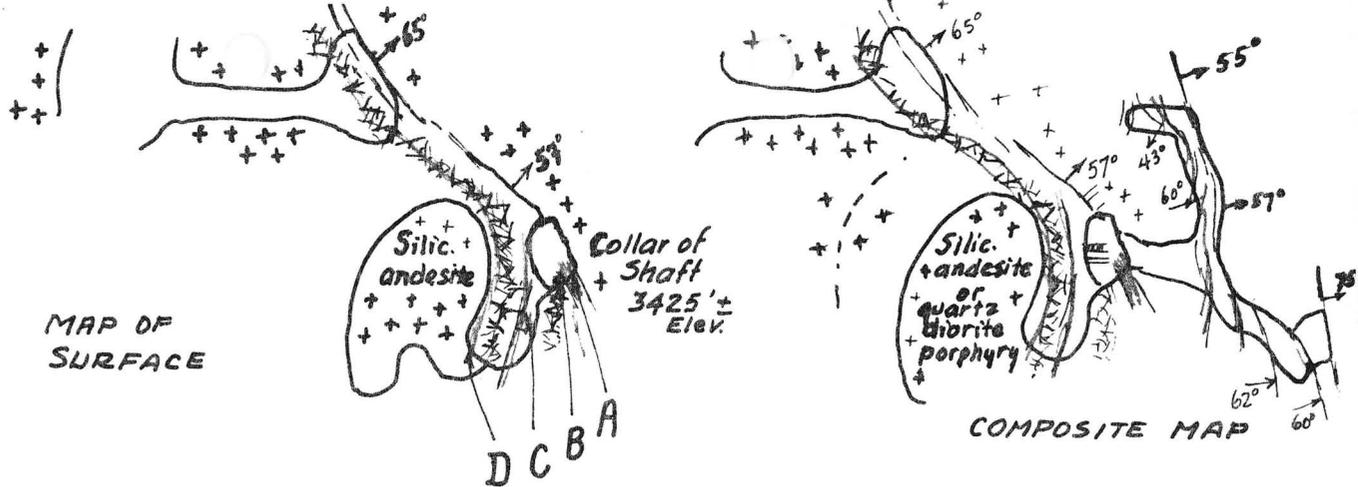
Pace and Brunton Compass survey and sampling by George C. Heikes assisted by Floyd C. Shank and F. C. Merrell March 29, 1954.

MONARCH AND HERCULES PATENTED LODE MINING CLAIMS - PATENTED GENERAL LAND OFFICE NO. 26622 SURVEY NO. 1179 13. Dec. 1895

PAPAGO INDIAN RESERVATION NORTH COMOBABI MOUNTAINS SECTION 36, T14S, R 5 1/2 E AND SECTION 1, T15S, R 5 1/2 E G + SRB + M

PIMA COUNTY, ARIZONA





**ORIENTATION SAMPLES**

ASSAYING BY BEN. P. JACOBS  
30 SOUTH MAIN ST, TUCSON, ARIZONA.

No.	WIDTH FEET	LOCATION	oz. Silver	% Copper
A	3	Fault Gouge - Surface	36.5	0.77
B	8	Fracture Zone - Surface	0.2	0.03
C	7	Vein - Surface	11.0	0.17
D	10	Silicified andesite	9.2	0.11
E	3	Vein on Footwall Streak - 65' Level	28.9	0.33
F	4	Vein - top of Drift North at bottom of Shaft	3.0	0.04
G	2	Outcrop of Vein located 300 ft. N20°E from mill	1.6	0.06
H		Grab Sample surface on Monarch Claim - andesite fragments.	0.3	0.03
I		Grab Sample from a pile of sorted ore near collar of Shaft.	414.0	11.76

This map to accompany Report on Property dated April 5<sup>th</sup>, 1954 by George Conrad Heikes.

**MONARCH AND HERCULES  
PATENTED LODE MINING  
CLAIMS  
PIMA COUNTY, ARIZONA**

W. H. LOERPABEL  
MINING ENGINEER  
307 NORTH LONGFELLOW AVE.  
TUCSON, ARIZONA  
85711

TELEPHONE: AREA CODE 602  
EAST 6-1232

JOSEPH S. McCOSKER  
11822 OTSEGO STREET  
NORTH HOLLYWOOD, CALIFORNIA 91607

January 13, 1965

RECEIVED JAN 15 1981

Mr. David B. McCosker  
2108 Linda Flora Drive  
Los Angeles, California 90024

Dear Mr. McCosker:

Monarch & Hercules  
Patented Lode Mining Claims  
North Comobabi Mts.  
Pima County, Arizona

This letter gives my opinion and recommendations on this property, concerning which, on December 15 and 26, I have already written you and Mr. Shank in a preliminary way.

The outlook for even a small operation is not good enough to interest a large mining company. The fundamental obstacle is lack of an orebody of adequate grade and tonnage, and poor geological prospects for finding such an orebody.

An operation by a small company, or small group of men, would meet essentially the same fundamental obstacle, and, under present conditions, probably would not be successful.

Despite this present unfavorable outlook, I suggest that you continue to preserve the title to these patented claims, paying the small yearly taxes which I understand are about \$10 per claim. With the passage of time, changes might occur which would permit a profitable small scale operation.

Before giving up the title, or disposing otherwise of the claims, additional sampling and geological work is recommended, as described in more detail near the end of this letter.

These conclusions are based principally on the following:

1. Report, with sampling results, by George C. Heikes of April 5, 1954.
2. Two reports, with sampling results, by two engineers employed by the American Smelting and Refining Company (Asarco), one made in August, 1947, and the other in December, 1964.

Mr. David E. McCosker - page two

3. A personal visit to the property, and inspection of the underground workings December 23, 1964.
4. History of the district as found in U.S. Government reports and in other records.

#### Mining History of District

Although the outlook for a mining property obviously must be chiefly on ore found within its own boundaries, nevertheless the history of the surrounding district is not without significance, because of the overall view thus obtained regarding the character and strength of mineralization in the district as a whole, and also as some indication of the possibility of finding more than one mine, which might be combined into a single operation. If this combination were possible, then the cost of a central mill might be distributed over several mines, and a mine, too small to warrant a mill by itself, might be economic.

The mining districts covering the area with which we are concerned are the Cababi and the Comobabi. Their boundaries are poorly defined but the two districts adjoin, and the Cababi, the smaller of the two, lies to the west. These districts are approximately at the center of Pima County, about 45 miles west of Tucson, and are within the Papago Indian Reservation.

The enclosed U.S. G.S. map (Comobabi, Ariz., Scale 1:62,500) shows the northern part of these mining districts. Near the southwest corner of the map area, between the Ko Vaya Hills and the South Comobabi Mountains, are several mines, including the Picacho Mine, which seems to have been the center of activity in this area, and around which there is still a cluster of 40 or more patented claims, evidently held by their owners for many years in the hope of better days. The map sheet adjoining this one at the South (not enclosed herewith) shows the names of other mines, some of them perhaps mere prospects, extending around the southern flank of the South Comobabi Mountains.

The Monarch and Hercules claims, as plotted on the map, are about 10 miles northeast of the Picacho and the principal mining center.

According to a U.S. Government report of 1868, the Picacho Mine had been active for some years prior to that time, and had produced then \$50,000. in silver.

During the decade of the 1880's there was continued activity in this area, but I have seen no record of production for that period.

Since the year 1900 there have been at least two attempts by responsible parties to set up mining operations in the Picacho region. Information on these comes from a master's thesis, dated 1957, by Jules A. MacKallor, a graduate student in geology at the University of Arizona. The thesis is

Mr. David B. McCosker - page three

based on the field study of an area of 50 square miles, beginning about 2 miles north of the Picacho Mine and extending 8 miles south of it. Twenty-three prospects are briefly described and some mining history is given. The work was under the direction and guidance of the faculty of the Department of Geology, University of Arizona. The following quotations are from Mr. MacKallor's thesis:

"In the early 1900's the Cobabi Mining Company, Ltd., a British corporation, spent nearly a million dollars trying to develop gold and silver mines in the area, but the corporation failed. Several old shafts and adits, numerous prospect pits, and the foundations of a few buildings are all that remain.

"From 1949 to 1952 Mr. Melvin Redhead of Picacho Mines Inc., a California company, made an extensive survey, including sampling of many of the old prospects in the Cobabi Mining District. The company partially cleaned out some of the workings of the old Picacho Mine (Locality 12) and operated a small customs mill on a trial basis. Old dump material from various prospects throughout the district was run through the mill as well as some ore mined by the company.---" (pp. 70-71)

The outcome of this undertaking by the Picacho Mines, Inc. is not given by MacKallor, but, in view of no lode mining activity being reported here for several years the venture presumably has failed.

This recent history of the most productive part of the district, therefore, although not conclusive does not encourage the hope of finding one or more properties in the Picacho area that might supply ore to a central mill.

#### Monarch and Hercules Claims

These claims are shown in the records as the Pima Mine, and also as the Silver Giant Mine. As shown on the attached map, they are on the north slope of the North Comobabi Mountains, 4 1/2 miles S 20° W from the Papago Indian village of Sil Nakya, and 73 miles by road from Tucson. The road leading to the mine and shown in dotted lines is an ungraded desert road, and the mile or two nearest the mine is passable now only with a jeep or other vehicle with high clearance and powerful drive.

Very little history has been obtained on these claims, although from George Heike's report it is noted they were patented December 13, 1895.

Production has been small, a fact confirmed by an inspection on the ground. The only records of shipments obtained are the following received by the El Paso Smelter in 1951.

Smelter Lot	Date Received	Dry Tons	Av	Ag	Pb	Cu	Zn
669 -Ore	3- 7-51	0.90	--	45.9	0.2	1.24	0
670 -Conc.	3- 7-51	1.75	--	146.1	0.1	0.65	0
1301-Conc.	5- 2-51	1.03	--	313.7	0.3	0.88	0
2026-Conc.	7-11-51	<u>0.42</u>	.01	778.8	0	1.85	0
		4.10					

Mr. David B. McCosker - page four

The three lots of concentrate (flotation concentrate probably) are significant in showing that a high grade marketable concentrate can be made from this ore. The percentage of silver recovery, and all other technical mill data, however, are unknown, and laboratory mill tests would now be required to obtain this information, an expense, which although not large, would be warranted only after additional sampling of the property had shown strong hope of ore reserves adequate for a small operation.

The underground workings on these claims - opened at an unknown time - are still essentially as described by George Heikes in his report of April 5, 1954. They consist of a 60 degree incline shaft, open to a depth, reported by Heikes at 65 feet (but possibly somewhat less) and about 120 feet of drifting and crosscutting at the 65 foot level, as illustrated on Map #3 of Heike's report.

An inspection of the mine workings shows clearly that the shaft goes to some greater depth, and that below the so-called 65 foot level it has been filled with "muck" or waste rock, a bad mining practice, because an expensive exploration opening is thus closed to geological examination and important evidence is lost. The logical assumption now is that the shaft went into low grade material below 65 feet, and disposal of waste rock by dumping it into the shaft (considered without value) was cheaper than hoisting it to the ground surface. The Asarco report of 1947 refers to a 100 foot shaft, the lower 35 feet being then bulkheaded off, but this lower part was not examined and may then have been inaccessible. Also whether 35 feet is the actual length of this inaccessible part is not known.

The ore body, explored by the present underground workings, is believed to have a chimney or pipe-like shape, formed at the intersection of two steeply dipping fractures in andesitic country rock. One fracture strikes north and the other northwest. The shaft is sunk on or near their intersection. The conception of a chimney or pipe-like form seems confirmed by the sampling results in all three of the reports before mentioned, which are consistent in showing the highest grade silver assays in the vicinity of the shaft, the silver content rapidly decreasing with distance from the shaft.

Other orebodies of similar form might be found at fracture intersections on these claims, and could be prospected by sinking at places which show favorable assays at the ground surface. The outlook, however, based on present evidence, is meager, and the ore finally developed might total only a few thousand tons averaging say 20 ozs. of silver. These figures are little better than a guess and are given only to provide some idea of dimension.

#### Sampling

The sampling which has been done on these claims so far, the assays of which are given in the reports above mentioned, is of a preliminary or reconnaissance nature. There were only a few samples - nine in Heike's report, and about the same number in each of the Asarco reports.

Mr. David B. McCosker - page five

These samples doubtless were adequate for the purpose intended, and, for the Asarco engineers gave sufficient grounds for the conclusion that the property had no promise for a large company. Under these circumstances to have carried the examination or sampling further would have been a waste of their employer's money. No criticism, therefore, of the authors of these three reports is here intended.

But, from the viewpoint of the claim owner, who wishes to know as accurately as possible the full resources of his property, this sampling is not sufficient. From the view point of a lessee, planning exploration work, the same would be true.

Thorough sampling would consist in the taking of a much larger number of samples, covering in greater detail the underground workings, the open cuts near the shaft on the ground surface, vein outcrops, fracture intersections, and other favorable places that might be found by a careful geological examination of the ground surface. Each sample should consist of the material from a groove or channel, about 1/2 inch deep by 4 inches wide, cut into the solid rock, with the use, if required, of a mail and hammer. Samples, excepting unusual circumstances, should not exceed 5 feet in length, and should weigh about 3 lbs. per foot of sample. The work would require two men, one of whom should be a geologist, who would map the formations sampled, and would prepare finally a sample or assay map showing clearly the position and assay of each sample.

Samples taken with this care are expensive, and the cost of this work, including assaying for gold and silver, might be \$500. to \$1,000. I do not recommend it to the owners now, but (despite the probability that the result would be unfavorable) I would recommend it to them before any critical decision is reached, such as a decision to relinquish the title, or otherwise dispose of the claims. Also a lessee, proposing to do exploration work on the claims, should begin with this sampling and geological work.

Despite what seems now to be a poor outlook, other opportunities may occur to lease these claims. Miners have been notoriously optimistic and sometimes have confounded the experts. Further exploration work should follow the ore, or mineralized showings, either by sinking from the ground surface, or by driving along mineralized fractures from the present underground workings. Long tunnels (adits) driven into the hillside in barren country rock, or with poorly defined objectives, (for which there is temptation in a region of strong relief) should not be undertaken.

Yours very truly,

  
W. H. Loerpabel

copy: Mr. Floyd C. Shank  
1009 Shreve Building  
210 Post Street  
San Francisco 8, California

enclosures: list attached



United States Department of the Interior  
BUREAU OF INDIAN AFFAIRS

PHOENIX AREA OFFICE

P.O. Box 7007

Phoenix, Arizona 85011

IN REPLY REFER TO:

332 - Papago - Mining  
(602) 241-2275

January 30, 1981

Mr. George C. Heikes  
112 Douglane Ave.  
San Jose, CA 95117

Dear Mr. Heikes:

Thank you for your letter of January 13, 1981, regarding patented mining claims on the Papago Indian Reservation in Arizona.

As I stated in my telephone conversation with you, patented mining claims, even though on an Indian reservation, have the same status as similar claims on public land. The one issue of possible significance is access to the claims across Indian lands. Our legal advisors in the Department of the Interior inform us that if such access was established for mining purposes prior to the establishment of the reservation or whenever reservation lands were open to mineral entry, that same access can be used for a similar purpose today. The Papago Reservation was open to mineral entry prior to May 27, 1955, which would seem to preclude any problem with access to the claims you are concerned with.

Please let us know if we can be of further assistance.

Sincerely yours,

James R. Crowther  
Mining Engineer

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

February 2, 1983

Mr. James Bond II,  
Attorney at Law,  
P.O. Box 948,  
Welch, West Virginia 24801.

Dear Jim:

Herewith another copy of my report on the Monarch-Hercules silver property on the Papago Reservation in Arizona.

Terry Beckwith is the man that Joe Warren talked to when he went down there. I talked to him on the phone after Joe's visit and at the time Mr. James R. Crowther happened to be in his office. Correspondence about this also herewith.

W.H. Loerpapel was an acquaintance of mine and for a long time was in charge of the Tucson office and later in the New York Office of the American Smelting and Refining Co.

Secretary Watts has recently lowered the boom on the Indians and want them to become more self-supporting. There are an abundance of young braves on the Papago Reservation who might be interested in learning how to mine.

Although I drove up to the property in my Buick back in 1954, I would recommend a 4-wheel drive to get there now, especially if the roads are torn up by recent heavy rain.

Joe Warren has sold out in Reno and moved to Arizona. I don't have his new address or telephone number. Also, there are some good mining geologists in Arizona and if you are at all interested in having a look at this property, one of these geologists might have a 4-wheel vehicle.

The owners have been paying taxes on these patented mining claims since 1895 and I believe they would be glad to make a reasonable arrangement if you are interested in the property. The geology shown on the new U.S.G.S. Map MF964 by Gordon Haxel suggests this property might have greater possibilities than just the two patented claims, hence the suggestion to go there with a geologist. I'll name some.

Sincerely,

*George*

GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

Friday June 18, 1982.

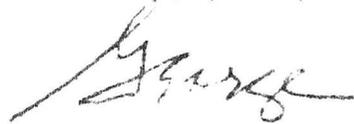
Mr. Joseph W. Warren,  
12140 Lemmon Drive, Lemmon Valley,  
Reno, Nevada 89506.

Dear Joe:

Tomorrow morning I am driving up to San Francisco and will be meeting with the main owners of the MONARCH-HERCULES silver mining claims on the Papago Reservation in Arizona. I had to have something to say so I telephoned Terry Beckwith this morning (602)383-2611 Ext. 338 and had a good talk with him. As you said, he is a fine man. Beckwith acknowledged my letter to him of May 22nd and said he had been wanting to get in touch with me, that James Crowther had been in the office and he had had a chance to talk things over with him about the status of access to Patented Lode Mining Claims and as far as the Indian Council was concerned he thought they would be cooperative. I told him that the big mistake in the past was an agreement whereby a mill was to be erected immediately to treat the ore - this had been done back in 1954 when I examined the property. That in the future, if funds could be obtained to do so, the plan would be to explore and block out sufficient ore of commercial recoverable content to justify mining and either shipping directly to the Phelps Dodge Smelter at Ajo, Arizona or erecting a type of mill at the property to recover the values, mostly silver with copper, to prepare a product that could be sold or to produce an end product at the mine. That this activity would make employment, train young men, bring income and interesting work to the Reservation. When I told him you saw no reason to go to the property if the Tribe would not grant access, you had not gone. He was chagrined at that and said he had hoped you would have gone on in and looked at the property. Well, so it is, I see no problem whatsoever as regards access or cooperation with the Papago Indian Council.

Very best regards to you and Mary.

Sincerely yours,



GEORGE CONRAD HEIKES  
CONSULTING MINING GEOLOGIST  
112 DOUGLANE AVENUE  
SAN JOSE, CALIFORNIA 95117  
PHONE (408) 247-3961

May 22, 1982.

Mr. Terry Beckwith,  
Papago Indian Reservation,  
via Sells, Arizona 85634.

COPY

Dear Mr. Beckwith:

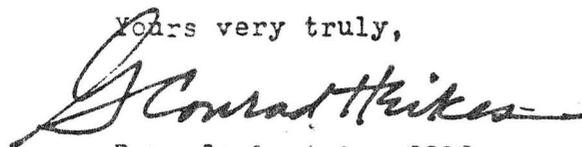
For several years I have been endeavoring to interest some group into doing further exploration work on the MONARCH and HERCULES Patented Lode Mining Claims, Mineral Survey 1179, Patent Dec. 13, 1895, Land Office No. 26,622 located in Sec. 36 TWP 14 S and SEC 1 TWP 15 S, Range 5½ E.

On January 13, 1981 I wrote to the U.S. Dept. of the Interior, Bureau of Indian Affairs, Phoenix and asked them for up to date information concerning Patented Mining Claims on your Reservation. I received a reply dated January 30th from Mr. James R. Crowther, Mining Engineer with the following information. "As I stated in my telephone conversation with you, patented mining claims, even though on an Indian reservation, have the same status as similar claims on public land. The one issue of possible significance is access to the claim across Indian Lands. Our legal advisors in the Department of the Interior inform us that if such access was established for mining purposes prior to the establishment of the reservation or whenever reservation lands were open to mineral entry, that same access can be used for a similar purpose today. The Papago Reservation was open to mineral entry prior to May 27, 1955, which would seem to preclude any problem with access to the claims you are concerned with."

It was on this basis that my old friend, Joseph W. Warren, proceeded to southern Arizona to inspect the Monarch and Hercules Claims. On his return here last Thursday he told me about his conversation with you and new rulings of your Council with regard to access to mining claims, also that the roads had been washed out during our recent bad winter, so he did not inspect the claims.

I would deeply appreciate your advising me as to the new procedures regarding access to Patented Lode Mining Claims on the Papago Reservation, in order for me to proceed in the proper manner.

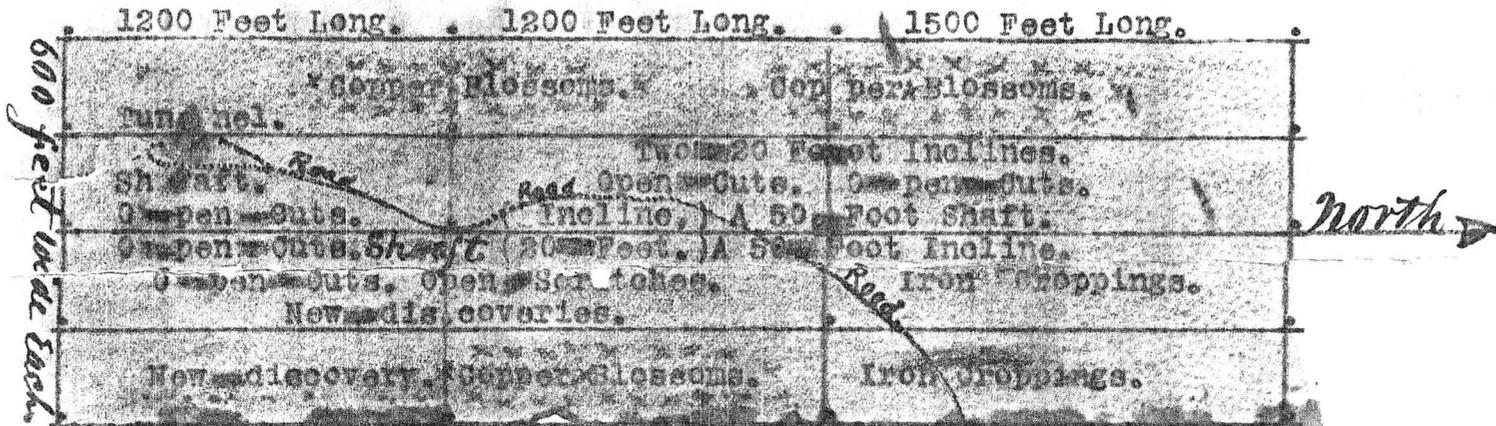
Yours very truly,



Reg. Geol. Ariz. 9219

12-Claims-And-A-5-Acre-Water-Site-With-A-30-Foot-Well-And-Solid-Rock

These-Claims-Are-In-Compact-Form-as-Follows.



WELL AND WATER SITE.

The above type-written diagram is a MAP OF THE MONARCH COPPER GOLD AND SILVER GROUP OF Mining Claims, situated about 12 miles North-Westerly from Tucson, containing upwards of 200 acres in compact form, with a 5-acre water-site, in the very heart of the Tucson mountains, in one of the richest metal-bearing ranges in all Arizona. THE MINERAL BELT IN WHICH IT LIES is from 150, to 200 miles wide from east to west, and from 200 to 300 miles from north to south, extending throughout Arizona, & far down into Mexico.

Even more. This group is in the heart of the greatest Copper, gold, and silver region on earth. To the east we have the mighty Copper-Camps of Clifton and Morenci; to the south, the vast deposits of the Copper-Queen, and Calumet and Arizona; to the west the great Congress gold and silver mine with a multitude of others; and to the north we have those great outputs at Globe, Riverside, and Jerome; and all in Arizona: constituting a rapid fulfillment of the PROPHETIC WORDS of Germany's greatest scientist, uttered nearly 100 years ago, that "The-time-would-come, when-the-mines-of-Arizona-would-constitute-the-treasure-house-of-the-earth."

THE MONARCH COPPER GROUP lies in about the center of this rich belt: and about midway between the great IMPERIAL, and the TWIN-BUTTES Copper mines. (NOTE.) (Look at the little stable map attached to the front above, and you can study out the relative position of all the properties lying in this (Pima) county mentioned in this report, in relation to themselves, and to the City-Of-Tucson.)

About two years ago, the Imperial Co. bought the OLD-BOOT-GROUP-OF-COPPER-MINES for upwards of a half-million-dollars. They have since built 21 miles of R. R. connecting with Red-Rock-Station, on the S. P. R. R. 31 miles N. W. from Tucson; and have recently measured up their developed ore.

~~MAP OF THE~~  
THE-MONARCH-COPPER-GOLD-AND-SILVER-GROUP.

which is the subject of this report, or statement, is mapped out at the top of the first page, and embraces a rich and extensive "COPPER-FIELD," mixed largely with silver, and all carrying some gold. One or two of these claims are likely to prove themselves gold claims at depths, or rather gold is likely to dominate at great depths.

WORK-DONE.

A large amount of work has been done on this property. An extensive ROAD has been built up to, and through the center of these claims.

An 80 Foot-Tunnel has been run through unbroken masses of ore; about 1/5 of which is copper; the balance being brown-and-specular-hematite-iron carrying silver and gold with a small amount of copper. This iron is of great value-for-fluxing/ores. More than 100 tons of this ore lies on the dump, and 1,000 tons and more is virtually 'in-sight' within the tunnel. It will always be sought after by owners of Smelting plants, to mix with what they call "dry-ores,"

Down the mountain from this tunnel from 500 to 600 feet, two small shafts and several open-cuts have been made in ore of high grade of Copper, all carrying well in silver with some gold. About 2,000 feet north from the tunnel and the works last mentioned, are two 50 foot shafts or inclines, with several large and small cuts all in ore; and about half way from these and the works first mentioned is a 20 foot incline containing some very high-grade-ore in copper and silver, with a small amount of gold; and south from this last mentioned about 400 feet is another small incline with silver and copper of high grade.

TO-SUM-IT-ALL-UP-IT-IS-A-GREAT-COPPER-FIELD; and the indications all point to the probability of great ore bodies underneath; and by proper mixing these ores they can easily be made self-fluxing.

THE-FORMATION-IS-GRANITE-PORPHYRY-AND-LIME.

PROSPECT-WORK.

More than 400 feet of work has been done on this Monarch group, which is known as....."Prospect-Work,".....to determine if possible, the best place to sink, or to go down when systematic work is begun.

New owners backed by capital dont have to sink in all the "holes" the "prospector" has made. Capital selects A-SINGLE-PLACE and goes down in a uniform way to where the concentrated ore bodies lie; and at proper depth drifts under the deserted holes above to find what ores are buried there.

A multitude of such holes can now be seen on the United Verde and Copper Queen, and on all the great copper mines of the earth which will never be worked again.

A-ROUGH-MAP-OF-A-MINING-SHAFT.

This map is designed to show how Capital commences to work a mining claim, or claims; and also if it has good managers, it will employ very few men to begin with.

After examining all 'the holes 'the prospector has made, and various other matters,--such as "FORMATION,"--"CHANCES-FOR-WATER," "FEASIBILITY-FOR-ROADS," &c. &c. it then decides upon ONE-SINGLE-LOCALITY-TO-SINK-A-SHAFT, and spends its money at that single point, to get down to the concentrated ore bodies below. SUPPOSE-A-COMPANY-IS-FORMED-BY-PERSONS-OF-ORDINARY-MEANS-WHO-POOL-THEIR-MONEY, and arrange to buy undeveloped mining property? And commence to figure THE-EXPENSES to sink a 5-by-7-foot shaft at the most feasible point on the property? How many men should they employ to begin with? No more than 2 could work there without being in each others way; but by working night and day, which is the least expensive, they could work 4 men, and employ a 5th man to cook and help windlass up the ore and debrase till they got down 50 feet; when they might require a 6th man down to the 100-foot level; when and where, they might require A-WHIM-OR-SMALL-ENGINE to do the hoisting. And there, they would be likely to drift to the right, and to the left; but only 2 men could work in either of these "drifts" at the same time; but if they worked night and day it would require 8 more men at that point till they drifted into the ore bodies; and then they could increase their workmen as fast as room is made in the ore openings; until finally, they could work 1,000 and more men without being in each others way.

Then Cars and Car-tracks, would have to be provided; and other similar expenses taken care of.

Those who think that undeveloped mining claims are going to pay dividends next day after purchase, had better stay out. And those who want to "fuss and feather" by working in all the prospectors holes, to get and ship a little ore from the surface TO-MAKE-A-SHOW, had better keep out.

Many a millionaire mine has been lost to its owners, because they skirmished, and paid for labor on, and all over the surface, IN THE HOLES THE PROSPECTOR HAD MADE AND LEFT. The great UNITED VERDE COPPER MINE OF ARIZONA presents a striking example of such folly by a former owner.

Look at the map below; and if you start in right, perhaps in 1, 2, or 3 years, your property may look like this; and then you may begin to feel that in the aggregate you are becoming millionaires.



To Whom It May Concern.....Tucson, Arizona, July 3d. 1905.

"We have been on the Monarch-Copper-Group-a-great many times. The ground embraces A-GREAT-COPPER-FIELD. All who examine it speak highly of its merits. Much could have been added to the foregoing statement in its favor."

BENT & SAMPSON.(Business and mining men at No. 540  
(South Stone Avenue, Tucson, Arizona.

"I stayed several days in the Monarch mining Camp last winter, (1905) and studied the developments then going on; and I fully endorse what is said above. It is a-great-copper-field, and a fine prospect. It needs only money to open it up properly."

E. B. GIFFORD.(Who is a mining man, an old resident of  
(Tucson, at 525, Pennington street.

"I spent two)

(days at the Monarch mining Camp while Mr. Gifford was there, and watched the work then going on; and my belief is, that there is a mighty deposit of Copper, Gold and Silver underneath that group; and that the foregoing report might have been made much stronger without overstating the facts. The ore contains the iron and lime to make it self-fluxing."

ALLEN KNIGHT.(Who is a long time miner, with home in  
(Tucson, at 524, North 7th. Ave.

"I am a Mining Engineer and Metallurgist; and have visited and examined the Monarch Group Of Mining Claims ten miles from Tucson, and they appear to be the making of a great big property. I thoroughly coincide with the opinions given above."

C. T. GOODING.(Who lives at 562, South Meyers st. Tucso

"I am an old miner, and have raised a family in Tucson. I have been on the Monarch Copper Group many times. I have read the annexed report and endorsements, and concur in all that is above said in relation thereto."

WILLIAM WAFFORD.(Residence 116 S. Meyers St. Tucson.

"The undersigned have examined the Monarch Copper group together; and think the foregoing statement a modest one. Much more might have been said in their favor. It needs money for development. It carries enough lime and hematite iron to make its ores self-fluxing."

HORACE W. HOWARD.(Train Dispatcher for the S. P. R. R.  
JOHN BARRETT.....(Conductor for the Southern P. R. R.

"I am Supt. of the Arizona Copper Mining Co. two miles north of the Monarch Copper group, and in the same mineral belt, and on the same formation; I have visited the Monarch group and to some extent have investigated its ore; and I concur in the above statement and opinions."

As time passes and developments continue in the Tucson range of mountains, the fact is being demonstrated beyond any question that in that range will be found a wonderful series of copper, gold, silver and lead mines. Nearly, if not all, of the many prospects which are under development show results. Nowhere can there be found a better mineral showing for the development made than is illustrated by the prospecting work in the various camps in the Tucson range. It is only a matter of time when there will be a series of copper bullion producing camps from the south and the Tucson range to the Picacho. But a short distance south of this peak are located the famous copper mines of the Imperial company, which now it is stated, has more than \$3,000,000 in value of copper in sight. Also the Cleveland Arizona copper mines which have developed large bodies of high grade copper ores, and this same result follows southward along this range of mountains wherever intelligent developments are being made.

Tucson will yet see a score of smelting plants turning out their daily bullion product to be shipped to the markets of the world, and this in the very near future. Keep your eye on the Tucson mountains and the developments in progress there.

The winter season will show a most interesting revival in mining in all of the camps tributary to Tucson. This because of the exceedingly good showing which the last six months' developments have made. The Tucson mountains will be the district of special interest. There are many mines being developed and all showing well, some of them surprisingly well.

### The World's Copper Producers

There are not more than 285 really important copper mines in the world. These mines have all gone through various stages of prosperity, one year putting forth a mammoth amount of ore, and the next falling short of the average. Out of the 285 properties the Boston & Montana leads the list. Now but eleven years old, this mine has increased its production from 50,000,000 pounds in 1894 to 94,000,000 in 1905. The Anaconda property in Montana stands second and has had various stages of production. In 1894 this property put forth 95,578,000 pounds. In two years it was forced to 125,350,693 pounds. This is the greatest amount the mine has ever put out in one year. Since 1896 the Anaconda has been on the fall, and last year was the lowest in its history, being but 90,000,000 pounds.

The Calumet & Hecla of Michigan has been on a steady upward climb, like the Boston & Montana, since its beginning. Each year its yielding is greater, having steadily increased from 50,000,000 pounds in 1894 to 94,000,000 last year. Spain brings forth a mine, the Rio Tinto, which stands forth among the world's copper producers, 80,000,214,400 pounds being taken from it last year. The Copper Queen of Bisbee has had a steadily increasing output since 1880 until 1892, when it fell away 106,541 pounds compared to the previous

their imports always exceeding their exports, however.

There has been much speculation on the future production of copper. Probably the safest guide to the future is the history of the past. The average decennial percentage of increase for the past century was 53.91 per cent, for the latter part of the century more than 67 per cent. During the past twenty years, in fact since the electrical industry has been such a great consumer of copper, the average decennial increase in copper output was 77.83 per cent. Measured by decades, the increase in the production of copper during the nineteenth century was forty-fold, from the first decennium to the last, which, measured by years, and estimating the production of one hundred years ago, at 9,000 tons, the production of 1900, which amounted to 486,363 tons, was more than fifty fold as great as in 1801. A fifty fold increase in production during the present century would give an output in round numbers, of 25,000,000 tons of copper for the year 2000.

The ratio of increase in the copper production of the world has varied between 6 and 8 per cent for several years. It is generally conceded now that there is an 8 per cent yearly increase, but this is by no means absolute.—Exchange.

Statistics indicate that Arizona has taken first place among copper producers. It is producing 21,000,000