



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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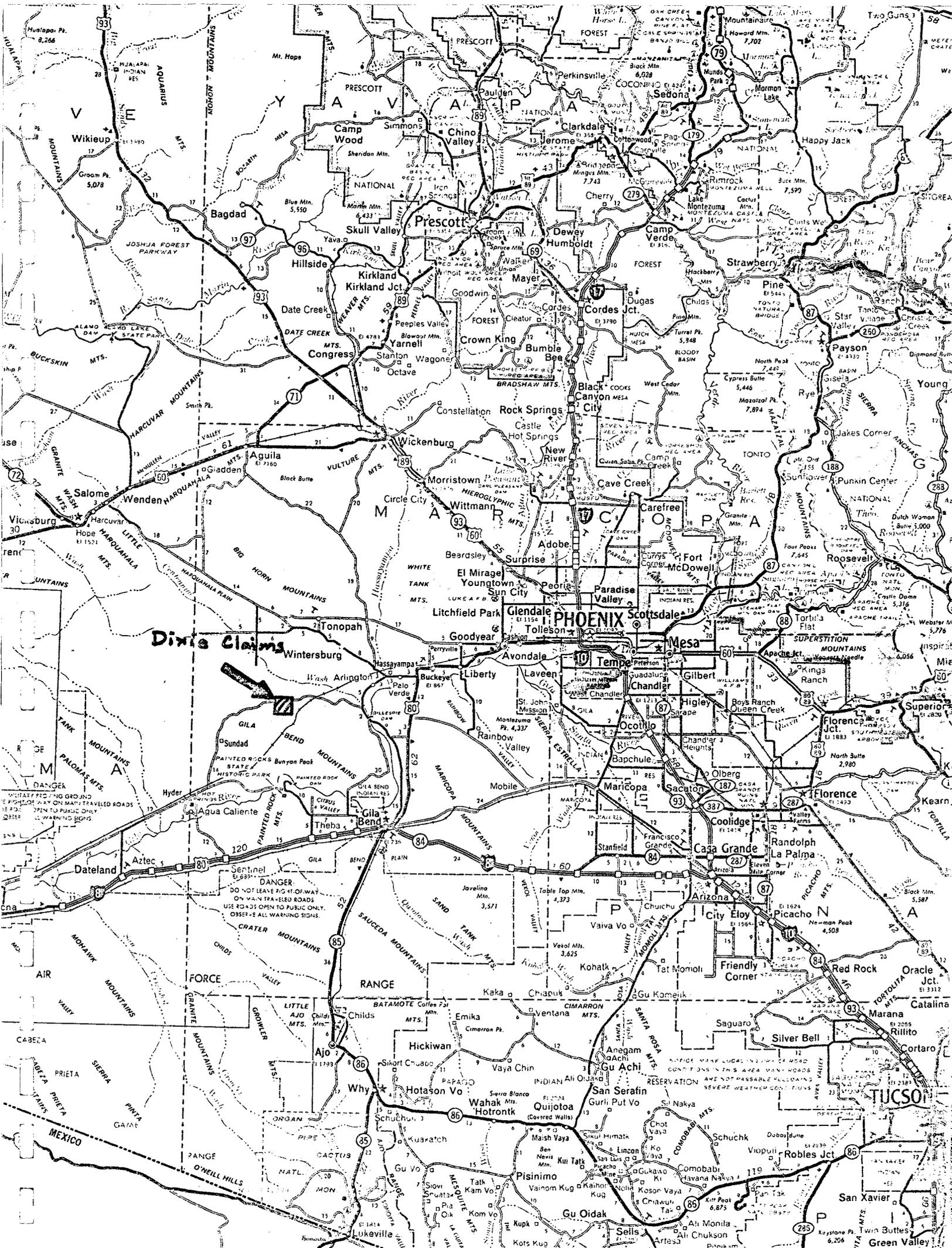
PRELIMINARY REPORT
ON
THE DIXIE MINING CLAIMS.

by

Hamilton A. Higbie--1970

A
PRELIMINARY
GEOLOGICAL REPORT
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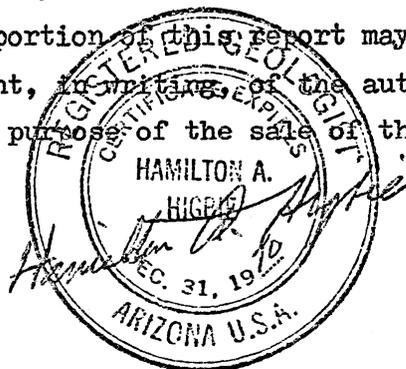
A B S T R A C T.

The 145 unpatented lode mining claims which comprise the "Dixie Group" are located in Maricopa County, Arizona, some 40 miles west and south of Buckeye, Arizona. They consist of numerous outcroppings, and surface showings of oxidized copper mineralization. They also contain minor amounts of free gold and in several areas some silver outcroppings. As they are rather extensive and offer promise of large quantities with depth they merit further examination and evaluation with the view to the possibility of opening up an extensive open-pit copper operation.

Further, and more detailed, geological study of the area is warranted with the possible incorporation of a minimal core-drilling operation. All surface indications point to the existence of such a large and profitable operation but only careful examination can confirm or deny this. Independent lab tests run on random samples were favorable.

The author wishes to emphasize that a total of only about five hours were spent in examining most, if not all, of the claims. This, of course, is inadequate for a complete and fair examination of such a large property as this.

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Hamilton A. Higbie, Reg. Geologist.
Scottsdale, Arizona



Dixie claims

A PRELIMINARY GEOLOGICAL REPORT
ON THE DIXIE GROUP OF LODE CLAIMS.

by
Hamilton A. Higbie, Reg. Geol.

May 1970

1. LOCATION.

The Dixie Group of unpatented lode mining claims are located approximately 40 miles west and south of the community of Buckeye, Arizona. All but the last 16 miles to the claims are via paved road, and the last mileage is achieved via good, all-weather, graded gravel road. This latter road is the old Phoenix-Yuma highway and is maintained for the use of the many ranchers and farmers located along the way. The claims are transected in one portion by this road.

The Dixie Group, 145 unpatented claims in all, are located in sections 5,6,7,8,17, 18, 19, and a portion of 20, Township 2 South, Range 7 West; and, sections 1, 12, 13, and a portion of section 24, Township 2 South, Range 8 West, Gila & Salt River Base and Meridian. They are at an average elevation of 1200 feet above sea level on the north slope of the Gila Bend Mountains.

As can be seen from the photograph below, the terrain is only moderately hilly, and tends on the flat desert type cut occasionally



Typical desert setting in center of Dixie Claims.

by moderate to deep washes. Vegetation is typical of the northern Sonoran type of desert flora, and the size to which some of the shrubs grow in the washes would tend to indicate that there is no great depth to water.

2. FACILITIES.

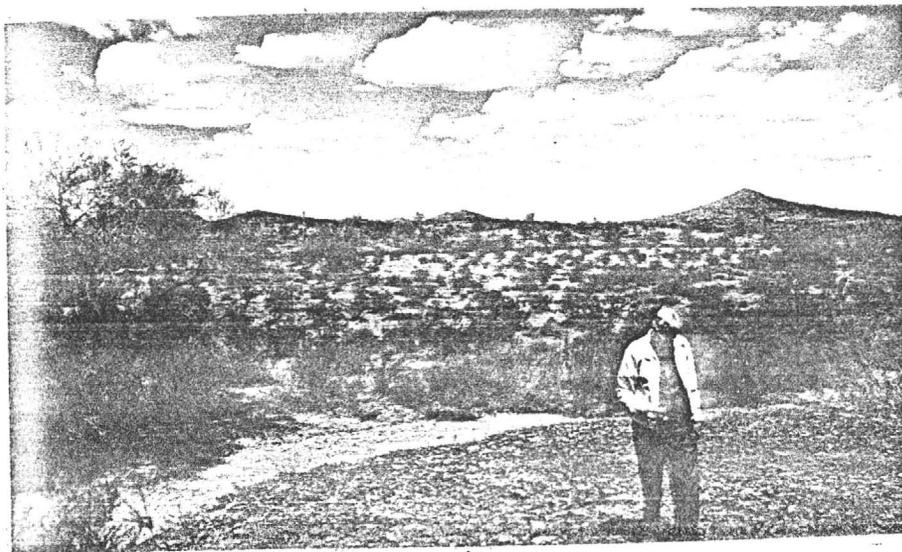
The claims are so located that they are fortunately only a very short distance from all of the necessary facilities and utilities needed for a large scale open-pit type mining operation.

The main access road crosses the main-line of the Southern Pacific Railroad approximately $2\frac{1}{2}$ miles to the east of the claims. Thus truck haulage to this point would be convenient and rapid. The entire route would be over flat terrain and the distance could even be shortened at no great expense. Only some minor bulldozer and blade work would be required.

Along the railroad right-of-way there is also available power, telephone and telegraph service, and a natural gas line. Any or all of these could be brought directly in to the claims across country an airline distance of about one to one and one-half miles.

Arrangements could probably be made with the Southern Pacific Company to build a siding and loading facilities.

The photograph below is taken looking in the direction of the railroad and show the type of terrain necessary to traverse to



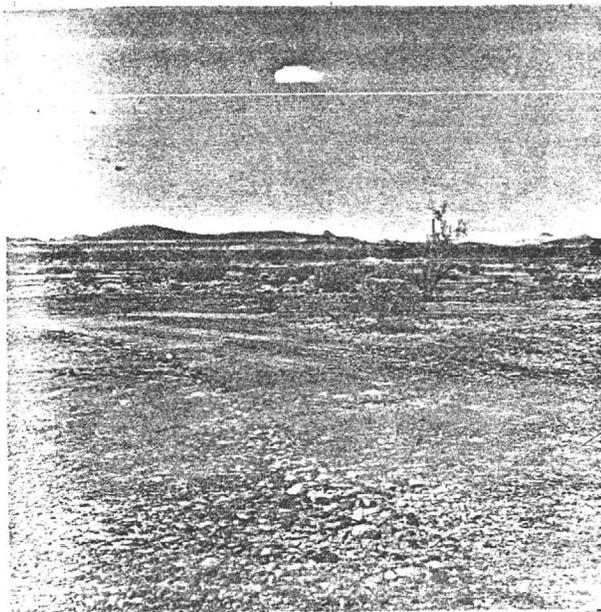
Looking in the direction of the Railroad.

bring in the aforementioned facilities to the property.

3. CLIMATE.

The general climate of the area is typical of the southern Arizona deserts. The period from May through October is hot and dry, except for the occasional thunderstorms which, while usually of short duration, can also be very severe bringing flash-floods gushing down the normally dry washes.

The period from November through April usually is very pleasant weather. There are, however, days of prolonged rains but normally they will not interfere with operations.



Typical approach road to the claims.

4. OWNERSHIP.

The Dixie Group of Claims were staked, and recorded in the Maricopa County Recorder's Office, Phoenix, Arizona by:

Alex, Pete, and Nick Prohoroff

Yuma Road,

Phoenix, Arizona

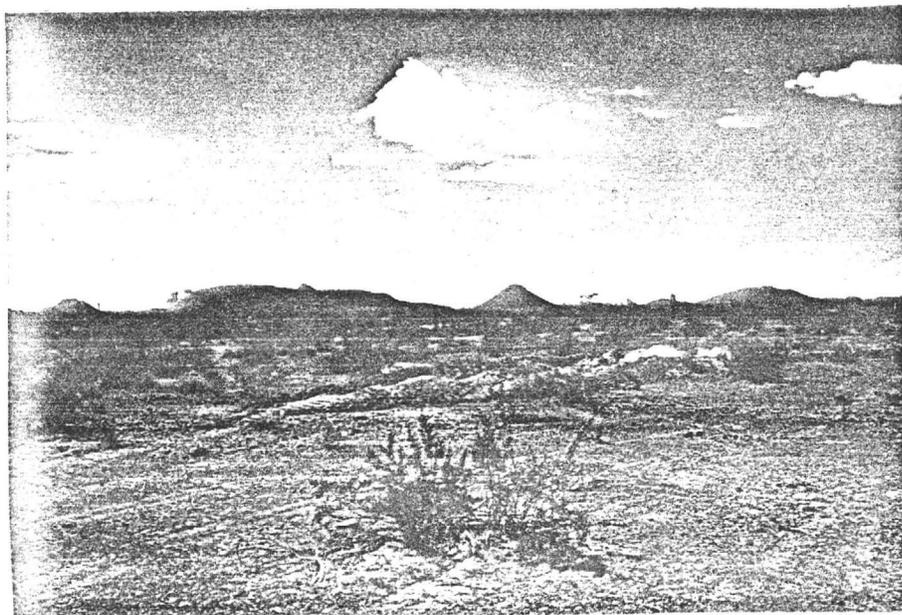
(602) 936-3687

They are the current (May 1970) owners of this property.

4. GEOLOGY (GENERAL).

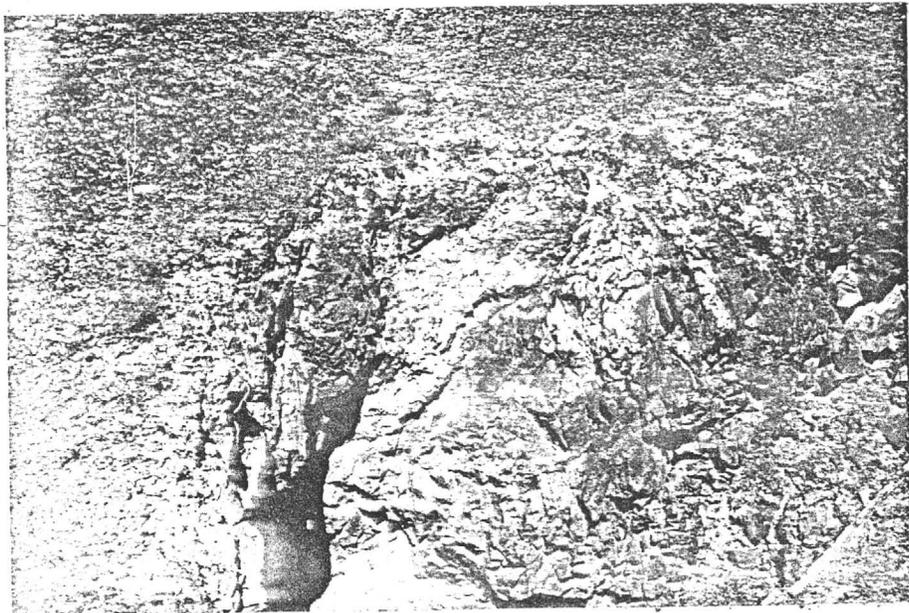
The Dixie Claims are within the Sonoran Desert Section of the Basin and Range structural province of Arizona. This is a region of isolated mountain ranges of some 3,000 to 4,000 feet in elevation, separated by broad valleys filled with detritus to various depths. The ranges which trend generally north to northwest are usually flanked by steep normal faults on their sides. The valleys which separate the ranges vary from a few miles to many tens of miles in width and are covered with erosion debris to varying depths from a few feet to several thousand feet in the general Phoenix area. In the area of this report there is very little overburden or erosional debris, and in most places bedrock is outcropping right at the surface.

Regionally the area consists of older PreCambrian intrusives of an acidic nature; Late Tertiary intrusives, also more acidic in nature than basic; and, Quaternary-Tertiary basalts which cap many of the surrounding hills but have pretty generally been eroded away in the vicinity of the claims. Through the passage of geologic time the immediate area has undergone intensive erosion which accounts for the relative flatness and the exposure of the copper mineralization. The photograph below illustrates this.



In the foreground is "dozed" assessment work. Basalt capped hills in the background, Quaternary in age.

The Dixie Claims lie well within the great mineralized belt or zone of high mineralization which extends from Silver City, New Mexico on the southeast to Yerington and Ely, Nevada on the northwestern extreme of this zone. Included in this area are some of the largest copper producing mines in the Southwest; such mines as those at Bisbee, Globe, Tucson, and Mineral Mountain near Kingman. Not far to the south of the property is the large open pit of Ajo, while a short distance to the east is the Lake Shore Mine which is in the process of being developed near Casa Grande. Also to the east in the San Tan Mountains north of Casa Grande is a large copper deposit which has just been drilled and explored by ASARCO.



Exposure of copper bearing material in an old shaft. This is chrysacolla and below it is some chalcocite.

5. Geology (Mineralogy).

The ore minerals of the area are chiefly those of the oxide zone and consist of chrysacolla, malachite, some but little azurite, chalcocite in rather extensive areas, and occasional pockets of cuprite. These minerals are found over an area embracing approximately

120 of the 145 claims. They are found as many intricately woven veins and veinlets in what appears to be filling in a large shear or fracture zone. Many of these may be followed for long distances over the surface of the ground, and they appear with depth as is seen in several old shafts on the property. Old timers were doing a little high-grading for gold from these shafts in the past but nothing is known of their past production. The copper was not touched as evidenced by its presence in the old dumps. In only a



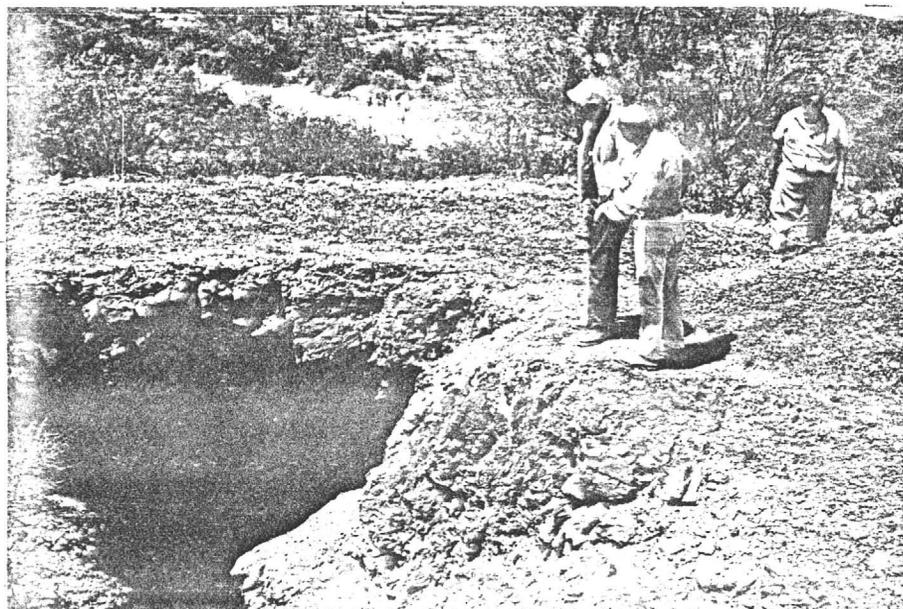
Closeup of surface showing exposure of small vein of copper-bearing material.

two or three places was there any evidence of sulphide mineralization and this was in one of the bulldozer cuts made for the annual assessment work, and in one of the dumps at one of the deeper shafts, and, in the wall of one of the shafts itself. The latter was at a depth of approximately twenty-five feet below the ground surface. These sulphides consisted of chalcopyrite with minor amounts of pyrite. Also observed through the use of a hand lens on some of the samples were minor amounts of free gold.

One claim of the group, known as the "Jackpot", contains

Several parallel veins, approximately 4 to 10 inches in thickness, of cerargyrite which assayed (from surface samples) 22 oz. of silver. These veins are vertical in nature and extend over a lateral area of about 150 feet. Two shafts of unknown depth have been sunk on these in the past, and on the dumps of one large quantities of fluorspar were observed.

In the east-central area of the group of claims extensive deposits of barite were observed and intermingles with these were outcroppings of a black calcite which is said to contain silver assaying 10 to 16 oz. per ton. How extensive these are is not known as not much time was spent on them.



Geologist, foreground, explaining mineral assemblage to visitor. In background is one of owners--Pete Prohoroff.

A complete qualitative and quantitative spectrographic analysis was run on material from the claims. These samples were picked or chosen at random, and every effort was made to have them be as representative as possible of the property as a whole. The results of this test are on the following page. They were run by an independent testing laboratory in Phoenix, Arizona.



Arizona Testing Laboratories
817 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

Chemists
Engineers
Geologists

For: Mr. William L. Dusenberry
7046 East Paradise Drive
Scottsdale, Arizona 80254

Date: May 19, 1970

Lab. No.: 7539

Sample: Ore

Marked: The Dixie Mine

Received: 5-18-70

Submitted by: Same

REPORT OF QUALITATIVE SPECTROGRAPHIC EXAMINATION

ELEMENT

APPROXIMATE PERCENT

Boron	0.005
Silicon	Major Constituent
Aluminum	2.0
Manganese	0.2
Magnesium	0.4
Lead	0.6
Gallium	0.003
Copper	2.0
Iron	5.0
Barium	1.0
Calcium	2.0
Vanadium	0.005
Sodium	1.0
Titanium	0.1
Silver	0.01
Potassium	0.5
Molybdenum	Nil

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E McLean, Jr.

Claude E. McLean, Jr.

The host rock is chiefly granitic in texture and composition, and is preCambrian in age. It exhibits several phases and variations of intrusive acidic rock. Strong veinlets and stockworks at both the granite and quartz-porphry dikes are indicative of the extensiveness of the copper mineralization. The principal structural trend of the area is northwest, though there is considerable variation to this trend found throughout.

Copper mineralization consists of chalcocite, chrysacolla, and malachite with minor amounts of cuprite. The copper oxides are the principal interest in the area, and are exposed in numerous surface pits, trenches, and the shafts mentioned earlier. Alterations and limonite on the structural trend of this zone could possibly indicate a much larger areal extent of possibly mineralized ground than is now suspected.

To date no drilling has been done on the oxidized zones, and therefore no ore reserves can be calculated. However, through known exposures at various shafts throughout the property it is reasonable to assume a depth to the oxide zone of somewhere between 75 and 100 feet. Several samples picked at random, contained limonite of a light brown color and also numerous voids which retain the crystalline shape of the original pyrite crystals they contained.

As mentioned above the host rock is principally granite which contains numerous phases of coarse-grained acidic intrusive rock principally rhyolitic in nature. The granite is cut by numerous quartz veins and veinlets of varying strike and dip and are characteristic of quartz stockworks. Strong copper oxides are present in the many pits and cuts dug by the owners. These copper oxides are both fracture coatings and disseminated and are exposed on much of the surface, and in other areas can be exposed at depths of from two to six feet.

No formal ore reserves can be estimated for the property due to both the lack of extensive sampling and verticle testing. What sampling was done was not controlled, and was done simply to verify the existence of a copper body and to determine some idea as to it's value.

6. CONCLUSIONS .

It is the belief of the author that the Dixie Group of claims offer the distinct possibility of being operated as a large open-pit type copper mine. The oxide zone of mineralization is extensive and should there be any depth to the material it appears to be of sufficient grade to make it a profitable mining operation. The assays on the opposite page would bear this up. The only important question is one of depth, but there seems to be a good chance that the material will hold up, as shown by material exposed at and around several of the shafts which are scattered throughout the property. The appearance of sulphides in two or three locations is encouraging to the possibility of the existence of a large low-grade orebody under the oxidized zone. The presence of a chalcocite "blanket" is also indicative of this possibility, along with the blebs of chalcopyrite and pyrite which were found.

As it was impossible to examine any of the existing shafts on the property due to their poor condition it is the author's belief that a minimum of six holes be drilled at carefully selected sites on the claims. The limonite "gossan" found in this area, along with the extensive "boxworks" or leached out remnants are very favorable indicators to the existence of secondary enrichment below the oxide zone. The suggested drill holes would be the least expensive and most conclusive means of proving out the existence of such an enriched zone, with the further possibility of a deep zone of primary ore beneath this. As mentioned earlier on some of the dumps around the existing shafts specimens were found containing chalcopyrite with minor amounts of pyrite. From what depth these were recovered is, of course, not known. One of the shafts was observed to contain small amounts of these minerals at a depth of approximately 25 feet, in the wall rock, that is, in place. No suggested depth can be given for these core-drill holes, but they should be continued for as long as the material contains showings of ore.

W. R. M. Sheet Professor V-145

O. Sheet Professor V-145

W. R. M. Sheet Professor V-145