



## **CONTACT INFORMATION**

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

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PRINTED: 12/11/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: BOWYER

ALTERNATE NAMES:

LA PAZ COUNTY MILS NUMBER: 382

LOCATION: TOWNSHIP 5 N RANGE 20 W SECTION 8 QUARTER C  
LATITUDE: N 33DEG 47MIN 30SEC LONGITUDE: W 114DEG 21MIN 30SEC  
TOPO MAP NAME: MOON MTN SE - 7.5 MIN

CURRENT STATUS: UNKNOWN

COMMODITY:

ASBESTOS ACTINOLITE  
ASBESTOS AMPHIBOLITE  
COPPER  
GOLD

BIBLIOGRAPHY:

ELEVATORSKI, E.A., 1978, ARIZONA INDUSTRIAL  
MINERALS, P. 64  
ADMMR BOWYER GROUP FILE

References:

See Valenzuela "U"

TSP R20W  
Sec 8

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TSP R20w  
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BOWYER GOLD AND COPPER COMPANY.

QUARTZSITE,

ARIZONA

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REPORT OF THE BOWYER GROUP OF MINES, YUMA COUNTY, ARIZONA.

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LOCATION AND ACCESSIBILITY:

This property is located on the western slope of the Dome Rock range of mountains in western Arizona, County of Yuma, Plomosa Mining District, 20 miles west of Bouse station on the A. & C. Railway; there is a first class wagon road on which all transportation of ores and supplies are made; also between 12 and 15 miles northwest of Quartzsite, Arizona, this being the nearest Post Office. This property lies 9 miles East of the Colorado river.

CLAIMS AND TITLES:

This property consists of 7 full lode mining claims, 600 feet by 1500 feet each, making an aggregate of 120 acres; also 160 acres of Placer ground, all lying in a compact body.

The titles are held under the present location laws of the United States and all requirements exacted by said laws of the U. S. and the State of Arizona have been complied with by the original locator, Joseph Bowyer, and the Bowyer Gold and Copper Company, the present owners of the property; hence, the title is held in fee simple. This Company has no debt or incumbrance upon it.

GEOLOGY:

The Dome Rock range is a part of the Plomosa range which has a N. E. & S. W. trend from the Plomosa range which has a trend from East to West. The predominating country rock is limestone; however, as a whole, is an anticline at the particular point at which this property is located, may be known as a monocline. All this formation is dipping towards the East at an angle of 40 degrees.

The mountain was evidently formed by an uplift and the original rock deeply altered. This portion of the mountain shows a very large contact having the granite as a base or core, imposed by porphyry; then overlapping this is the limestone; while overhanging, are the schists and quartzsite, Between the limestone and the schist contact lies the ore body or sedimentary beds. There are innumerable transverse anticlines within the monocline caused by the transverse faulting. The general pitch of the sedimentary beds is towards the East at a sharp angle. The West side of the range presents a high escarpment or wall, showing a face of sedimentary beds, 1000 to 1500 feet high, giving a slope with deep gulches along the fault line. This makes a very favorable condition for prospect work on the property; it gives you the face of the vein to begin on and close to the very foot of the mountain. The Apex or outcrop of the vein which has a trend of N. E. & S.W. is oxidized and shows in several places as rich shutes; however, where the arroyos have cut deep, shows sulphide enrichments.

Through these sedimentary beds, the leaching of the ore bodies have precipitated at the point mentioned and have concentrated and formed these sulphide enrichments.

MINERALOGY:

The ore bodies have been traced on this property for over 3000 feet in length and open cuts have been made along the contact which has shown the persistency of the ore bodies, with widths varying from 10 to 200 feet. The ores from the work performed shows the carbonate, oxides and sulphides with azurite and glance. The metal contents of the ore are Copper, Gold and Silver where the glance appears; the Copper predominates.

Along this contact is a very large iron dyke which is a portion of the ore body. Through the process of weathering on the surface, this dyke is formed of a soft oxide; below the surface is in a massive state.

VALUES:

From a careful sampling taken from the several openings that have been made of the property, the average assay values shows Copper 20%, Gold \$5.00 and Silver \$6.00 per ton of #2000. This showing, 20% Copper, .25 Oz. Gold and 12 Oz. Silver, gives an average gross value of \$75.00 per ton, based upon the present market value; while in several instances the assays show exceedingly high values, such as 40% Copper, Gold \$12.00 and Silver where the glance appears 27 Oz. per ton of #2000.

DEVELOPMENT:

The "Swastika" claim, which is the southeast center claim of this group, is where the discovery work was done. There is an incline shaft 40 degrees from the horizontal of 50 feet; this shaft being in ore.

On the "Bowyer", claim, which is the center of the group and adjoins the "Swastika" claim, considerable work had been done proving a body of ore 700 feet long by 200 feet in width. The other claims included in this group, have only that work done which shows the formation and the possible ores.

The placer ground is held principally for a mill site.

WATER:

Water for domestic purposes can be secured from wells at a depth of about 50 feet at a distance of about one half mile from camp. It is very probable that water for mining purposes can be secured by this method; however, the distance from the Colorado river to this property is 9 miles; sloughs which are formed by this river are only a distance of three miles from the property and will give an ample water supply for all purposes.

TIMBER:

Timber for surface and domestic purposes can be secured near the property, consisting of iron wood, mesquite and cotton wood; while timbers for mining purposes and heavy construction work will have to be secured from California, Arizona and New Mexico timber belts at about \$50.00 per "M" F.O.B. Bouse station, Ariz.

FREIGHT FACILITIES AND TRANSPORTATION:

There being an especially good wagon road from Bouse Station to this property, the cost of hauling would be a maximum charge of 25¢ per hundred pounds, while the maximum charge of ore transportation to Bouse station will not exceed the above figure; however, under the existing conditions of the road, this cost, under contract, should be made one-third less. The freight cost on ore from Bouse station to the El Paso or Douglas Smelter will be \$3.00 minimum charge per ton on car lots of 30 tons; this gives a total cost per ton of \$8.00 from mine to Smelter.

LABOR COSTS:

CLASS.	WAGES PER DAY.	HOURS OF LABOR.
Miners	\$3.50	8
Trammers	3.00	8
Top man	3.00	8
Muckers	3.00	8
Timbermen	4.50	8
Hoisting Engineers	4.50	8
Blacksmith	4.00	8
Assayer	4.50	?
Superintendent	7.00	?
Mine Foreman	5.00	8

FUEL COSTS:

Fuel oil	\$ .04 per gal. per car load lot Bouse Sta.
Gasoline	.11 " " " " " " " "
Distillate	.15 " " " " " " " "
Lubricants	.40 " " " " " " " "

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ESTIMATES OF COSTS AND PROFITS.

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These estimates of Costs and profits are made and based upon a production of 25 tons per day of 24 hours, having a total gross value of \$75.00 per ton.

COSTS OF LABOR:	PER DAY:	TOTAL:	PER TON:	PER CENT:
8 Miners	\$3.50	\$28.00	\$1.12	43.5 %
2 Hoist men	3.50	7.00	.28	10.8 %
2 Top men	3.00	6.00	.24	9.3 %
4 Trammers	3.00	12.00	.48	18.6 %
1 Superintendent	7.00	7.00	.28	10.8 %
1 Assayer	4.50	4.50	.18	7.0 %
Total		\$64.50	2.58	100 %

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COSTS OF FUEL AND SUPPLIES:

Fuel cost per day	\$ 3.00	\$ .12	23.4 %
Lubricants " "	1.00	.04	7.4 %
Powder " "	6.00	.24	46.0 %
Miscellaneous expense	3.00	.12	23.4 %
Total	\$13.00	.52	100 %

Total mining cost per ton \$3.10

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TRANSPORTATION AND TREATMENT COSTS:

	PER TON:	AVERAGE:	PER CENT:
Wagon haul	\$5.00	\$ .20	38.3%
Freight	5.00	.20	38.3%
Smelter charges	3.00	.12	23.4%
Total	\$13.00	.52	100 %

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TOTAL COST OF MINING AND MARKETING 25 TONS PER DAY:

Total Mine cost	\$64.50	\$2.58
Total Fuel & Supplies	13.00	.52
Transport.& Treatment	325.00	13.00
Total	\$402.50	\$16.10

Total cost per day \$402.50

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The total gross value of ore based on \$75.00 per ton, with a 25 ton per day production, will give a total gross value of \$1875.00 per day, or a net value per ton \$58.90; the results as follows:

Gross value of ore per ton	\$75.00
Less total cost per ton	16.10
Net value per ton	\$58.90

Gross value of 25 tons per day @ \$75.00 per ton	\$1875.00
Less total cost per day	402.50
Net per day	\$1472.50

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This would show a net earning of \$44,175.00 per month, or earning per year of \$530,100.00; less 25% for development of mine of \$132,525.00; making a net earning of \$397,575.00 per year.

These figures are made and based on proposed operation and should show these earnings.

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HISTORY OF OTHER MINES OF THE DISTRICT.

The " Goodwin " mine, owned by W. E. Scott, of Quartzsite, Ariz., is two and a half miles from the property in question. The values of this mine are Gold and Copper; being about \$30.00 Gold per ton, while the Copper concentrates from the 10 stamp mill run about \$900.00 per ton; this taken from a shaft of about 200 feet. This property was located in 1862 and was operated until 1912 when the United States Survey brought them into the Mojave Indian Reservation - commonly known as the Colorado river Indian Reservation - causing them to close down after having a very successful operation.

The "Valenzuela" mine which is three miles North of this - the "Bowyer" group - has a 14 foot vein of ore running about 10% Copper and \$1.50 Gold, and is also in the Mojave Reservation.

The property in question is very much the same as those of the "Jerome" district which has the United Verde Copper and the United Verde Extension which ranks sixth in the State and the eighth in the country. The ores differ from most of the large Copper deposits of Arizona, in carrying rather high Gold and Silver values; and the Copper contents in this type of deposit are usually high.

This property will be one of Arizona's large producers, as it has the ear-marks which have made the great Copper mines of this State.

Where large bodies of ore exist, easily mined and marketed such as this district, under conservative management and sufficient capital for development and machinery, will prove a great dividend payer.

Respectfully submitted,

*Thor B. Fisher*  
Mining Engineer.

El Paso, Texas, April 24th, 1915.

( C O P Y )

Phoenix, Arizona, Nov. 12, 1908.

Mr. Jos. Bowyer, Manager,  
Valenzuela Copper Co.,  
Quartzsite, Arizona.

Dear Sir:-

I have the honor to report that on Oct. 16th, 1908, I visited your copper prospects, called the Swastika group in the Quartzsite District, after an extended examination of the surrounding country and mining region, covering a period of two weeks, and found the conditions as follows:-

CLAIMS-LOCATION-TITLE:

Your property consists of six full claims in a compact body, lying about three miles in a bee line south of the well known "Valenzuela" Copper Property, of which you are the Manager.

Both the Valenzuela and your property lie in the Dome Rock range about 8 miles east of the Colorado river, and about 15 miles northwest from Quartzsite, Yuma County, Arizona, which is the Post Office town and trading center of the region.

In a straight line, I think you are about 12 to 15 miles south of the new Arizona and California Railway, but I have never been over the whole course and cannot speak with precision as to the distance.

When the contemplated branch of the new Arizona and California Railroad is built to Quartzsite, up the Tyson Valley, it must pass within 3 or 4 miles of your property.

It is the expressed intention of the railroad company to build this branch in the near future, and as the mines in the District can furnish the railroad a large tonnage, that must otherwise be lost, it will undoubtedly be built.

The Valenzuela lies on the east flank of the Dome Rock range, while your property--which we may call the Swastika group - lies at about the same elevation above the desert on the west flank. I rode right up to your claims in a wagon, which fact tells the whole story of their accessibility.

Between your property and the Valenzuela, there is a pass through the range following the Tyson Wash, which furnishes an open road between the desert on the east side of the range and the desert on the west.

Your claims being all recent locations and made by yourself, are held by pre-emption title under the U. S. mining laws - a title that is indefeasible, except by your own laches.

THE GEOLOGY:

While the Dome Rock Range as a whole is an anticlinal uplift with a granite core, it is much broken by longitudinal and transverse faulting and very irregular in its structure. In places it presents the features of a true monoclinical mountain - that is, a mountain in which all the sedimentary beds that enter into its structure slope in the same direction, instead of sloping in the opposite directions as in the anticlinal type of uplift.

This is the condition at the point of the range where your claims are located, but it is a local phase only - and a correct statement of that phase only as a general statement of the case.

There are innumerable transverse anti-clines within the mono-cline caused by transverse faulting, but the general pitch of the sedimentary beds is towards the east, at rather a sharp angle and the west side of the range at that point presents - or originally presented - a high and precipitate escarpment or wall, showing a face of sedimentary beds, now 1000 to 1500 feet high, but originally much higher. Drastic erosion has reduced the height, modified the original escarpment, giving it a slope, and cut deep gulches into it

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along fault lines. To the untutored eye, it now presents the appearance of a series of large monoclinical blocks, but its essential structure is that which I have indicated.

This makes a very favorable condition for inaugurating prospect work, as it gives you the face of the vein, (really a sedimentary stratum rather than a vein) to begin on, and that, close to the very foot of the mountain.

If you will reflect that in geological structure nothing ever occurs with geometrical precision, and that all structural lines are apt to be irregular, you will find these general observations useful or helpful in studying out the special features encountered in your ground.

Your ore is very easy of attack and the long line of outcrop suggests the correct method of attack - the obvious, the natural, and only rational method - to begin on your ore and follow it into the great thickness of overlying limestone, follow it there especially, though you should find the lead to be only the slightest stringer.

From such stringers, great chambers of ore are found in limestones. The carbonic acid which forms a great part of all limestones (nearly half) has a fierce affinity for copper in solution brought into contact with it and seizes upon it and fixes it in the stable compound, carbonate of copper, by the process called "Metasomatic replacement"

Though your work along the outcrop has been entirely in the thin bedded schistose quartzite series, which in that region appear to represent the upper members of the Algonkian schists (known in Arizona as the Pinal schists, and the Yavapai schists) these are closely overlain in your ground by a great thickness of limestone--apparently as much as 600 to 1000 feet--and the conditions are favorable to the occurrence of large ore bodies in that lime.

#### MINERALOGY:

Though I saw a great deal of the Dome Rock Range, I am not prepared to speak very definitely on its mineralogy, that is, on the composition of its rocks. In the lower series, the metamorphism has been so profound, that it is frequently difficult to say whether a rock was originally sedimentary or an interbedded eruptive. However, precise definition is not at all necessary to a clear understanding of the conditions under which your ore occurs. You have the granite core, and overlying that core you have unquestionably the Algonkian schists, which appear to have been the original domicile of all the copper in North America. There is a beautiful exposure of those fissile schists (the lower series) micaceous, talcose and chloritic in the canyon a few miles south of your property.

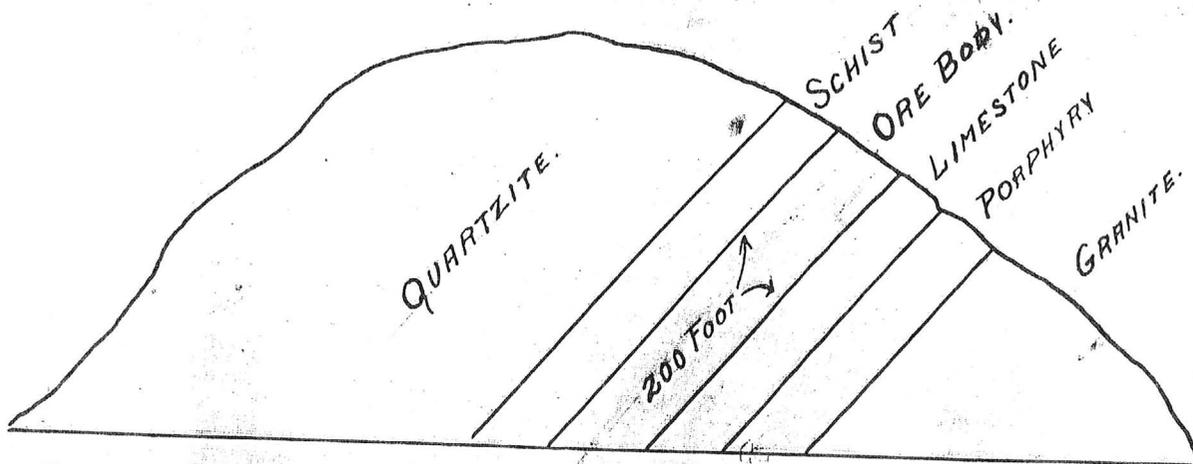
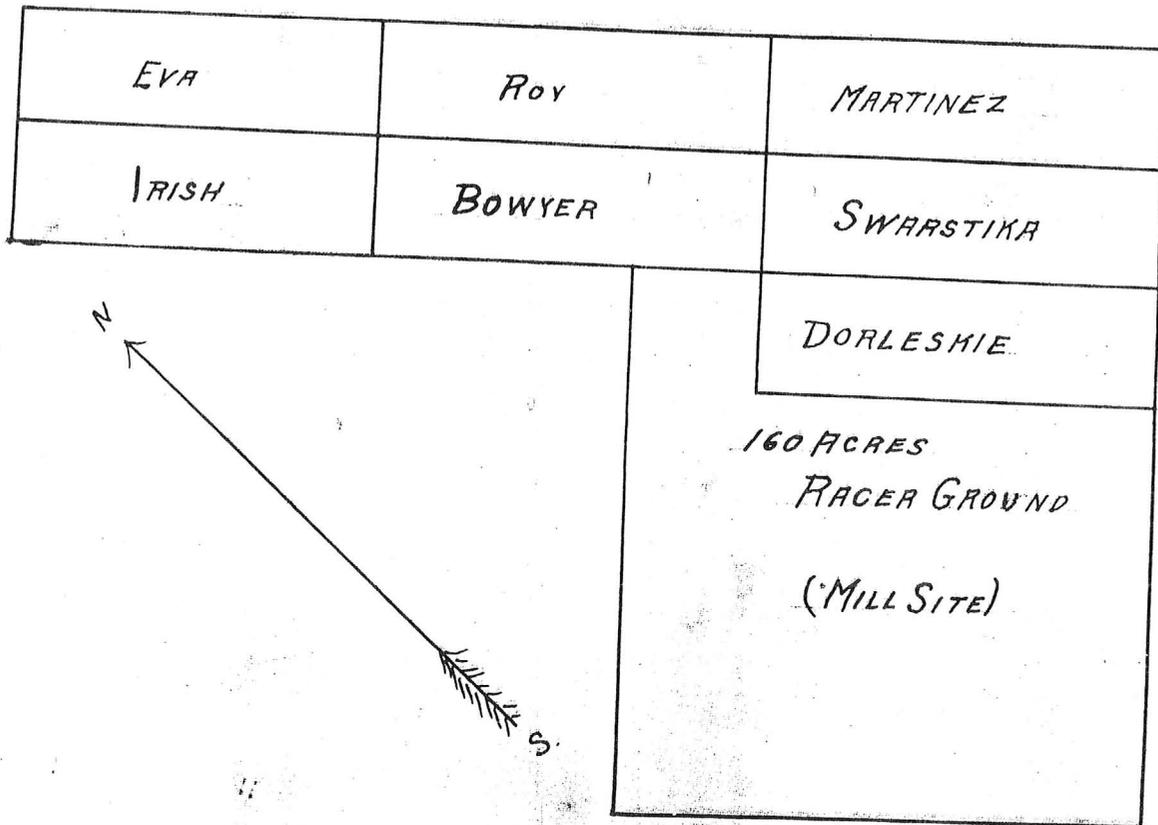
All the great copper camps of Arizona have that schist, as the basal sedimentary rock though in most places, the greater development of ore is in the overlying limestones where it occurs, of course, as a secondary deposit; this is true of the Globe, the Clifton and the Bisbee Districts, but in the Jerome District, the great United Verde mine, lies wholly within the Algonkian schists.

It appears that everywhere those schists are mineralized to a greater or less extent with copper, but it is only where the metallic values have been concentrated, that valuable ore bodies can be expected.

Your ground presents very decisive evidence of such concentration, but the extent and concentration can be determined only by actual mining.

The character of the rock in your vicinity is obvious at a glance; it belongs distinctly to the series of granitoid eruptives whose composition ranges about midway between the basic and acidic, and which in all mining regions appear to be the eruptives which have most influenced the deposition of ores. In the brief time at my command I could not get over the precipitous part of your ground and confined myself to a study of the vicinity of your very promising and extended outcrop. You are reasonably safe in figuring that development will give you a good mine in the Swaskika group--perhaps a bonanza.- Your property is in a well mineralized district; you have the right geological conditions, and a strong and extended outcrop and are warranted in the hopes of developing a fine mine.  
Signed, Fitz-James McCarthy, Mining Geologist.

BOWYER GROUP & MINING CLAIMS.



CROSS SECTION  
SHOWING FORMATION

# CONTOUR MAP of BOWYER GROUP AND OTHER MINES of THE DISTRICT.

- ▣ MINES.
- PLACER.
- ≡ DIKE.
- - - R.R.

