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06/24/91

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SUPERIOR AND BOSTON

ALTERNATE NAMES:
BLACK OXIDE
LIMESTONE
GREAT EASTERN SHAFT

GILA COUNTY MILS NUMBER: 172B

LOCATION: TOWNSHIP 1 N RANGE 15.5E SECTION 14 QUARTER NW
LATITUDE: N 33DEG 26MIN 06SEC LONGITUDE: W 110DEG 45MIN 17SEC
TOPO MAP NAME: GLOBE - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
COPPER
SILVER
MANGANESE

BIBLIOGRAPHY:
ADMMR "U" FILE CU 7, MN 37
ADMMR SUPERIOR AND BOSTON FILE
STEVENS H J COPPER HANDBOOK VOL X 1911 P1624-1626
PETERSON N P GEO & ORE DEPTS GLOBE-MIAMI DIST USGS PP 342 1962 P 110-112
AZ MNG JRNL AUG 1919 P 19, FEB 1920 P 30, JAN 1 1922 P 23

Copper Curb & Mining Outlook Jan. 3, 1908



## ANNUAL REPORT OF THE SUPERIOR AND BOSTON

We are just in receipt of the annual report of the Superior & Boston Copper Company, which will probably prove of interest to a number of our readers, and we are herewith submitting extracts therefrom:

"The mineral lands controlled by the Superior & Boston Copper Company and upon which mining operations have been conducted since its organization, comprise in all 45 mining claims, or approximately 800 acres, located in the Globe Mining District, Gila County, Arizona, which, with the advent of the Arizona Commercial railroad, recently constructed, give the property direct rail connections with the Old Dominion smelter.

"In October of this year, final payments were made on bonds covering 22 of the claims, and deeds conveying them to the company have been received. The remaining claims comprising the group are still held under bond, the balance of the purchase price being $256,000, of which $100,000 is payable May 3, 1908, and $156,000 Jan. 20, 1909.

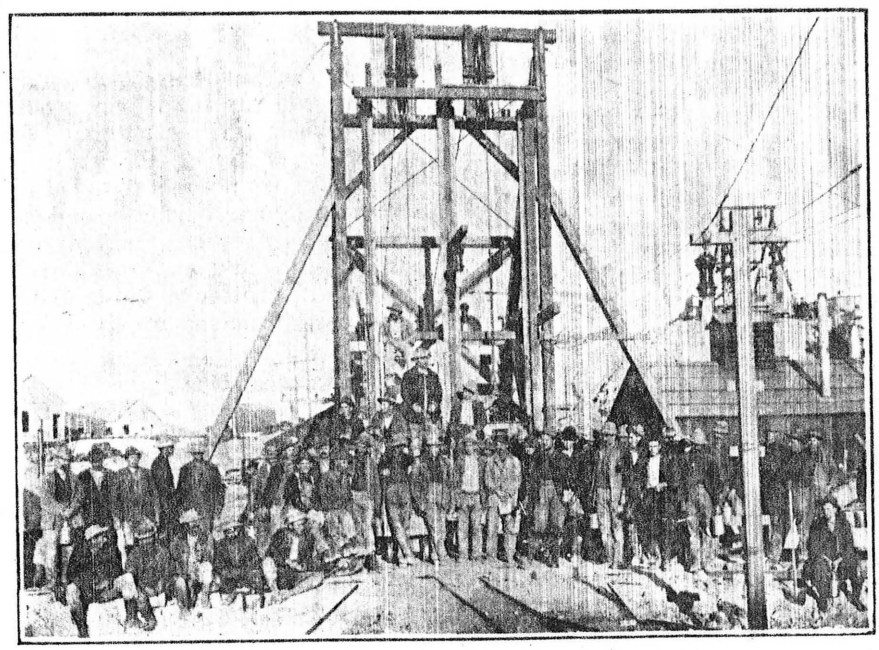
"Active mining operations were begun about Jan. 1 of the present year, and between that date and Dec. 1 a total of 2,763 feet of development work has been done which has been confined to the exploration and development of three (3) faults or veins, known to traverse Superior & Boston territory, namely, the Black Hawk, Buckeye, and Limestone (so-called).

"On the Great Eastern claim, which carries the extension of the Black Hawk fault (and immediately adjoins the Black Hawk mine of the Arizona Commercial Copper Company), a single compartment vertical shaft has been sunk 425 feet, which is equivalent to the 500-foot level of the Black Hawk shaft. At this point a twenty-four (24) foot station was cut, and a crosscut has been driven north two hundred (200) feet to intercept the vein, and at the angle the vein is dipping, it is estimated that the crosscut will have to be driven 215 feet further before the vein is reached, which should be about Feb. 1, 1908.

"At this juncture we might state that at the time of the organization of this company, our neighbor, the Arizona Commercial, had developed good commercial ore to within a very few feet of the end line of our Great Eastern claim, and that recently, with their consent, we have been permitted to drive the east drift at their 500-foot level, through the line and into Great Eastern territory, with the result that for a distance of eighty (80) feet of drifting, we have the same character of ore and vein matter as is in evidence on their ground. There is sufficient warrant for the belief, therefore, that when the crosscut reaches the vein, we will be in a position to begin and maintain shipments of ore from this point. As a test, a small shipment of ore taken from the 500-foot on Great Eastern ground was sent to the smelter, returning 6.70 per cent. copper, and 3.66 ounces silver. This ore was taken from the foot wall side of the vein, and was hardly up to the average. When the vein is encountered in the crosscut it is the intention to immediately drift west to connect with the Black Hawk 500-foot level, thus providing air for both mines. In the meantime, the Black Hawk shaft is being sunk to the 600-foot level, which will be of advantage to our company in that it will demonstrate the character of ground we may expect to encounter at our next level, and it is the well-founded belief of the Arizona Commercial management that sulphide ore will be encountered in its Black Hawk shaft at the 600-foot level, or at no great depth below.

"On the Black Oxide claim a crosscut tunnel was extended one hundred and ninety (190) feet, at which point

(Continued on following page.)



MINERS GOING ON SHIFT—MOHAWK MINE, GOLDFIELD, NEV.

## BUTTE'S DECEMBER COPPER OUTPUT

Owing to the closing down of the Washoe smelter at Anaconda, and the consequent suspension of operations at all of the Amalgamated Copper Company's mines in the Butte District, with the exception of those known as the Boston and Montana, the copper output for December was materially smaller than for any month of the year.

The output for the month of December will be 5,845,400 pounds against 8,310,550 pounds for November, and 9,775,225 pounds for October. The Amalgamated and North Butte properties were operated for only six days in December.

The output in detail was as follows:

| | Tons of Ore. | Lbs. of Copper to ton. | Total lbs. Copper. |
|---|---|---|---|
| Boston-Montana | 48,000 | 60 | 2,880,000 |
| ANACONDA | 9,000 | 68 | 612,000 |
| Butte-Boston | 1,200 | 61 | 73,200 |
| Washoe | 900 | 58 | 52,200 |
| North Butte | 2,400 | 75 | 180,000 |
| W. A. Clark | 26,000 | 61 | 1,586,000 |
| Pittsburg-Mont. | 6,000 | 70 | 420,000 |
| Miscellaneous | 600 | 70 | 42,000 |
| Total | 94,100 | Avg. 62.12 | 5,845,400 |

it intersected the Buckeye fault, where the tunnel was turned, and drifting west along the course of the vein has now progressed with most gratifying results. At the point where the vein was crosscut it was found to be twenty-seven (27) feet wide, with well defined foot and hanging walls, and as far as developed on our ground it has proven to be thoroughly mineralized. A stope one hundred (100) feet in length has been timbered, and everything is in readiness to begin mining the ore at this point. Assays from samples taken from day to day have varied between 4 and 15 per cent. copper, in association with from 60 to 70 per cent. silica, thus making the ore a desirable smelting ore. The vein outcrops on the apex of the Black Oxide hill four hundred and eighty (480) feet above the roof of the tunnel, where, by means of trenches and open cuts, it is found to be similarly well mineralized and well charged with copper contents; so that, at and above our tunnel level, we already have something real and tangible in the shape of an ore reserve. On this same vein, at a distance of only fifty (50) feet from the end line of our Ida claim, the Buckeye shaft of the Old Dominion has attained a depth of about three hundred and fifty (350) feet, and is still in the oxidized zone. The opinion of mining men experienced in the district is that this shaft, or drifts therefrom, will encounter sulphide ore within the next three hundred (300) feet. The proximity of this work to Superior & Boston territory, and the results accomplished by it will serve to determine for our company, in advance, the character and value of this vein at lower levels. On the True Blue claim, owned by the Old Dominion, which immediately adjoins our Black Oxide claim, and about fifty (50) feet from our line, prospectors operating under a lease have sunk a shaft one hundred (100) feet deep and have taken out a very good grade of ore. Reference to operations on the lands owned by adjoining companies is made, as evidencing the persistency of the veins which traverse Superior & Boston territory, and the occurrence of ore therein.

"A single comparment vertical shaft has been sunk to a depth of three hundred and forty (340) feet on the Limestone claim, stations cut, and five hundred and seventeen (517) feet of crosscuts and levels opened. The vein was first encountered in the shaft at a depth of about seventy (70) feet, and was less than two (2) feet wide, but was well charged with copper, averaging about seven per cent. Conforming to the characteristics of other depth and at the second level, two hundred and twenty (220) feet down, it has a varying width of from three (3) to seven (7) feet.

"Drifting at the third level is now in progress, and the results accomplished will determine whether it will be advisable to sink the present shaft deeper, or tap this vein at a greater depth by crosscuts from the proposed three-compartment shaft to be sunk on the Red Oxide claim, to open the Iron King, Black Oxide, and other veins traversing this portion of Superior & Boston territory.

"In prosecuting the development work in hand, no special effort has been made to find ore, and what we have encountered has come in in the regular and necessary course of the work, and we have to-day, on the Limestone and Black Oxide dumps alone, fully fifteen hundred (1500) tons of ore that will run from four to ten per cent. copper, saying nothing of the ores of lower grades, all of which has been taken from sinking and drifting alone, no stoping having been done up to the present time. This ore carries silver values and an excess of iron, which will provide a substantial revenue aside from that received for the copper."

The balance sheet follows:

Assets:

| | | |
|---|---|---|
| Real estate— | | |
| *Mining claims | $222,200.00 | |
| Buildings | 8,357.84 | |
| | | $230,557.84 |
| Machinery and equipment | | 12,991.00 |
| Supplies on hand at mine | | 1,914.44 |
| Teams, etc. | | 1,125.00 |
| Accounts receivable | | 126.82 |
| Cash | | 91,296.32 |
| Patent expense account | | 306.00 |
| Development account | | 65,060.78 |

*This item comprises cash payments of $72,200 and 15,000 shares, full paid, of the stock of the company, being part of the consideration for the mining claims controlled by the company.

Liabilities:

| | | | |
|---|---|---|---|
| Capital stock— | | | |
| 15,000 shares at $10.00 | $150,000 | | |
| 135,000 shares at $2. | $270,000 | | |
| Less not paid Sept. 30, '07. | 23,987 | 246,013 | $396,013 |
| Accounts payable | | | 7,365.20 |
| | | | $403,378.20 |

## CONDITIONS IN UTAH

The smelter situation has reached an acute stage, and is now engrossing the attention of the principal operators of the State.

Advices from Salt Lake state that David Keith and Thos. Kearns, of the Silver King Coalition Company, are back from New York. They admit that the mines of the company are likely to close, pending better prices for silver and lead.

Mr. Keith declares that either the proposed Heinze smelter or some other independent plant will be erected in this State. The producers will not stand for contracts now being forced by the American Company.

A plan is understood to be on foot for all of the lead and silver producers of this region to combine and build works of their own and relegate present custom works method to the rear.

The Tintic Mine Operators' Association will meet on Friday next to arrange a new wage scale for that camp. It will be a cut from present rates, but how much cannot be learned.

Samuel Newhouse is back from New York far from well. He declines to discuss metal, finances or anything else.

## SHANNON COPPER CO.

The Shannon Copper Co. has plans prepared for the enlargement of the two old furnaces in its smelter whereby it will have a smelting capacity of 3,000,000 pounds of copper per month.

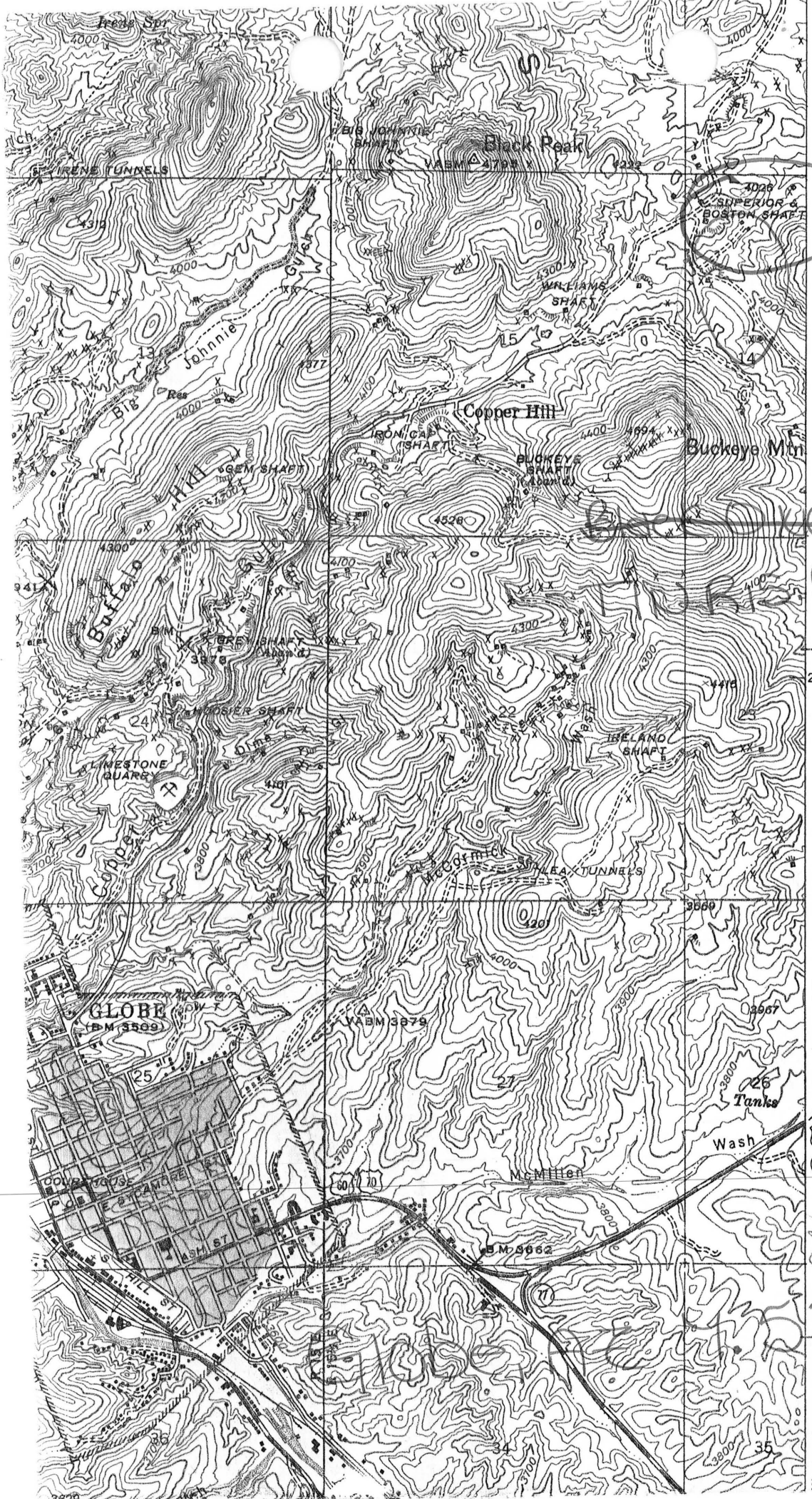
Its new 1,000-ton smelter is turning out copper at the rate of 1,250,000 pounds per month. This is the normal Shannon production.

It is planned to throw the two old furnaces into a single furnace after the same methods employed in the Washoe smelter. This will increase the capacity one-third, and when this work is completed the Shannon Copper Co. will be able not only to increase the output of its own ores, but to treat the product of the Arizona Commercial Copper Co. and the product of the New England & Clifton and other local properties which are in need of a custom smelter.

## COBALT ORE SHIPMENTS

Shipments for week ending December 21st:

| | | | | |
|---|---|---|---|---|
| Nipissing | 2 | cars | 65 | tons. |
| Nova Scotia | 3 | " | 90 | " |
| La Rose | 1 | " | 22 | " |
| Tem. & H. Bay | 1 | " | 32 | " |
| Kerr Lake | 1 | " | 26 | " |
| Total | 8 | cars | 235 | tons. |




T1S R15E Sec. 14

See I.C. 7990
pp 71-74

See: USGS P.P. #12
Page 15.
(Buckeye Mine)
USGS P.P. #342
Page 11

NAME OF MINE: SUPERIOR AND BOSTON
COUNTY: GILA E
DISTRICT:
METALS: MN

| OPERATOR AND ADDRESS: DATE: | | MINE STATUS DATE: | |
|---|---|---|---|
| 5/1/44 | J. W. Walker<br>Dominion Hotel<br>Globe, Arizona | 5/1/44 | Idle |

SUPERIOR & BOSTON
DISTRICT:
METALS: MN

| OPERATOR AND ADDRESS: DATE: | | MINE STATUS DATE: | |
|---|---|---|---|
| 5/1/44 | Keller & Muller, Lessees<br>Globe, Arizona<br>owner: E.A. Borge, 212 N. 18th St., Globe | 5/1/44 | Developing and milling |
| | | 12/44<br>1/45-<br>4/46 | Idle.<br>Shipping<br>Idle |
| 6/46 | E.A.Borge, 212 N.1st St.,<br>Globe | 6/46 | Shipping |

NAME OF MINE: BLACK OXIDE
(Same as Boston - Superior)
COUNTY: GILA
DISTRICT:
METALS: Cu Mn

| OPERATOR AND ADDRESS: DATE: | | MINE STATUS DATE: | |
|---|---|---|---|
| 5/1/44 | E. A. Borge, 212 N. 18th St.<br>Globe (owner) | 5/1/44 | Shipping and Developing |
| 8/44 | Leased: Rudy Keller, Box 54<br>Claypool, & Chris Mueller,<br>Globe | 8/44<br>12/44 | Mining manganese<br>Shipping |

Cu

Gila 4 - 4 T 1 N, R 16 E

Eric A. Borge, 212 N. 1st St., Globe '45

See: Superior-Boston Copper Co (file) Gila Co.
Arizona Commercial Mine (file)

BLACK OXIDE
Gila County

COPPER

E. A. Borge
121 N. 1st St.
Globe, Ariz.

9-44

$5,000 R.F.C. loan
Eng. report by A. Macfarlane 12-7-42

1954 Deceased

BORGE, E. A.
212 N. First St.
Globe, Ariz. 12-7-42

See BLACK OXIDE CLAIM
Re - Field Engineer's Report

See BLACK OXIDE
Re - "C" loan application 12-8-42

See BOSTON & SUPERIOR - re gas application 1-31-45
" " " " 4-27-45

# DEPARTMENT OF MINERAL RESOURCES

## REPORT TO OPA ON ACTIVE MINING PROJECT

ARIZ. MINERAL RESOURCES
RECEIVED
MAY 1 1945
PHOENIX

Date April 27th, 1945

Name of Mine Superior and Boston

Owner or Operator Eric A. Borne

Address 212 North First St. Globe, Arizona.

**Filing Information**

File System

File No.

This chart to be used for gallons of gasoline required per month.

Mine Location About 5 miles northeast of Globe, on Copper Hill

**PRESENT OPERATIONS:** (check X)

Production x; Development x; Financing ; Sale of mine ;

Experimental (sampling) x; Owner's occasional trip x;

Other (specify)

**PRODUCTION:** Past and Future.

| | Tons |
|---|---|
| Approx. tons last 3 months | 300 |
| Approx. present rate per 3 months | 1,000 |
| Anticipated rate next 3 months | 1,000 |
| If in distant future check (X) here | |

**EQUIPMENT OPERATED:**

| Type | Quantity or Horse Power | Miles or Hours Per Month | Gallons Required Per Month |
|---|---|---|---|
| Personal Cars | | | |
| Light or Service Trucks | | | |
| Ore Hauling Trucks | | | |
| Compressors | 2 120 | 200 Hrs each compressor | 350 |
| Other Mine or Mill Eqpt. | Hoist 25 | 160 Hrs. | 100 |
| | | | 450 Gals per Mo. |

**PRODUCT PRODUCED OR CONTEMPLATED:** Name metals or minerals. Copper

**REMARKS:**

This property has been in steady operation for the pa t 3 years and is an important producer of copper ores. Reccomended 450 Gals. per month.

**ARIZONA DEPARTMENT OF MINERAL RESOURCES**

By A. Macfarlane

# DEPARTMENT OF MINERAL RESOURCES

## REPORT TO OPA ON ACTIVE MINING PROJECT

DEPT. MINERAL RESOURCES
RECEIVED
FEB 1 1945
PHOENIX ARIZONA

Date January 31 1945

Name of Mine Surprise & Boston

Owner or Operator Eric A. Borge

Address 974 Globe Ariz

Mine Location Copper Hill

**Filing Information**

File System Legitimate

File No.

This chart to be used for gallons of gasoline required per month.

**PRESENT OPERATIONS:** (check X)

Production ✓; Development ✓; Financing no; Sale of mine no;

Experimental (sampling) ✓; Owner's occasional trip ✓;

Other (specify) Treating

**PRODUCTION:** Past and Future.

| | Tons |
|---|---|
| Approx. tons last 3 months | 300 |
| Approx. present rate per 3 months | 320 |
| Anticipated rate next 3 months | 400 |
| If in distant future check (X) here | |

**EQUIPMENT OPERATED:**

| Type | Quantity or Horse Power | ~~Miles~~ or Hours Per Month | Gallons Required Per Month |
|---|---|---|---|
| Personal Cars | | | |
| Light or Service Trucks | | | |
| Ore Hauling Trucks | | | |
| Compressors | 40 | 200 | 200 |
| Other Mine or Mill Eqpt. | | | |

**PRODUCT PRODUCED OR CONTEMPLATED:** Name metals or minerals.

600 Gals for 3 months

**REMARKS:**

Producing Copper steadily for past 3 years

**ARIZONA DEPARTMENT OF MINERAL RESOURCES**

By A. Macpherson

STATUS OF DORMANT MINES

MINE NAME: No name ( prOperty formerly known as Superior & Boston Copper Co

LOCATION: Globe Mining District, Gila County, Arizona.

OWNER AND/OR LEASEE: E. A. Borge - Owner and Operator.

ADDRESS: Post Box 974, Globe, Arizona.

APPROXIMATE PRODUCTION (Year of 1945):

COPPER 176,973 Lbs. LEAD None Lbs.

ZINC None Lbs. (OTHER) 3000 Tons of Manganese 35.0% plus.

CHECK THE CHIEF CAUSE OF YOUR DISCONTINUED PRODUCTION:

(A) [illegible].
X (B) Increased costs, but have quantity similar to past grade of ore.
(C) [illegible]
(D) ~~with a proper price for ore blocked out a great amount~~ of additional ore would be developed.

If you have ore ready to mine please give your estimate of the amount of metal (name each metal) that you could produce in one year (after allowing 60 days to get started) if there were premiums above present market prices. Name amount with a low premium, and amount at a high premium; such as:

Copper at 22½¢ plus 5¢ premium..... 1,000,000 Lbs. -very little
Copper at 22½¢ plus 10¢ premium..... 1,500,000 Lbs. -250,000 Lbs.
Copper at 22½¢ plus 15¢ premium . . .2,500,000 Lbs.

If you do not have ore ready to mine please discuss the following:

(A) Do you think a reasonable development program would produce a justified tonnage of commercial ore at above mine?

(B) With a premium price (guaranteed for one year) could you carry out such a development program yourself? What premium?

(C) If you could not do this yourself, would a quick drilling program by some government agency (at government expense) be sufficient?

(D) Or would you prefer a loan plan similar to the arrangements during World War II?

If the take politic's out of the whole set up and judge the property, its merits and the individual operating the same.

How about a combination plan in two stages such as follows?

Stage 1: Government engineers review project and, if a little drilling appears to be justified and a preliminary key to the situation, such drilling program to be agreed upon by owner and government engineer, paid for by the government, but let by contract.

Stage 2: If results of drilling (or without drilling) justify underground development and/or production equipment, same to be obtainable via a mortgage loan on property.

Please discuss the above:

SUGGESTIONS: If a good price is offered by the government for copper, manganese and other strategic metals badly needed and the said price is guaranteed for a certain lengt of time or bether yet, for a certain set amount of metals delivered by each operator, there does not need to be any agencies established to finance the operators. With a good price, an assurance that the government will take your product, any operator that then can not get finances has no business to mine. I have complete records of cases where huge sums where loaned by the RFC, where absolutely no production was established and none ever would. These prices should be given to real operators, in other words, to people that's really mining, sinking shafts, drifting, cross-cutting and in general are developing mines, not only sit on a dump and wait for Uncle Sam to come along with a good price to prifit from without enriching the economy as awhole

DATE Aug. 3rd - 1950 SIGNATURE E. A. Sarge

Superior & Boston (+)
Gila County

# MINERAL RESOURCE AND MINING ISSUES

## Copper Canyon Ranch
## Proposed Subdivision

Sections 10, 11, 14, and 15, Township 1 North, Range 15½ East

Gila County, Arizona

Relates to ADMMR AzMILS Gila County numbers:

| | | | | | |
|---|---|---|---|---|---|
| 169D | 171C | 175A | 172A | 175B | 172B |
| 170A | 172C | 170B | 173A | 170D | 173C |
| 170E | 174A | 171A | 174B | 171B | 174C |

abstracted KAP 8-16-1995

KAP 8/1995

**ROBERT BIGANDO, AICP**
**Director**

**ROBERT J. MAWSON, CBO**
**Deputy Director**

HMC
f/c

# GILA COUNTY
# COMMUNITY DEVELOPMENT DEPARTMENT

April 17, 1995

Department of Mines & Mineral Resources
1502 W. Washington
Phoenix, AZ 85007

RE: Proposed Subdivision - Gila County
Copper Canyon Ranches, Units I through III

Dear Sir/Madam:

I am writing to inquire as to procedures required for development of a subdivision located in Gila County, approximately 3 miles from the City of Globe. I am enclosing portions of the Public Report, issued by the State of Arizona, for Unit I; an asbestos report by Fiberquant, the preliminary report by the State abandoned mines supervisor, an inter-office memo from John Shepherdson of ADEQ related to Unit II; and copies of minutes from various hearings along with the Director's notes regarding the preliminary plat review. These items will acquaint you with the unique situation we are facing: abandoned mine works, rugged terrain, questions on health and safety issues and the possible contamination of washes and drainageways. The developer is pressing for approval, and I would appreciate any guidance you might offer as to requirements, remedies and guidelines.

The abandoned mines inspector has issued a preliminary report which indicate the presence of more than 40 significant hazards, including collapsed workings and waste piles. The final report is not due until late May. I would request that your office issue a statement to us, advising us as to your opinion on the advisability of proceeding with subdivision review prior to the receipt of the final report. Although the issue of mineral rights and surface rights is a matter to be decided in court, I would also like an informal opinion from your office as to whether or not lot owners could be permitted to fill, fence or otherwise remedy works located upon their lots in order to construct a residence.

Was Mtg Done?

Yes by HMC

Please advise at your earliest convenience.

Sincerely,

Judy Smrdel

Judy Smrdel

**149 South Broad Street, Suite A, Globe, Arizona 85501. Phone 602-425-2093, 425-2611**
**714 South Beeline Highway (P. O. Box 2297). Payson, Arizona 85547. Phone 602-474-9276**
**FAX: Globe 602-425-0829. Payson 602-474-0802. T. D. D. Number 602-425-0839**

ROBERT BIGANDO, AICP
Director

ROBERT J. MAWSON, CBO
Deputy Director

# GILA COUNTY
# COMMUNITY DEVELOPMENT DEPARTMENT

June 28, 1995

Arizona Department of Mines and Mineral Resources
ATTN: Mr. H. Mason Coggin, PE, LS, Director
1502 W. Washington St.
Phoenix, AZ 85007

Dear Mr. Coggin:

I wrote to you back in April, asking for your advice concerning proposed residential development in the Copper Gulch, just north of Globe. At the time, I was concerned with safety issues and what would be required to make the site developable.

As you may recall, the developer owns surface rights (depth undefined), and the mineral rights are held by others, who are strongly opposed to development due to hazardous conditions, liability issues, and the fact that they intend to extract the minerals as time and conditions allow.

Since that time, everything I have read and heard leads me to believe that the developer would need to invest a considerable amount of money into remedy, and that without the cooperation of the mineral holders that there is a minimal amount that he actually could do to make the site safe for construction or residency. However, it has managed to turn into a political football and intense pressure is being brought to bear upon this department to "accommodate" approval without making expensive or extensive requirements upon the developers. Like many small towns, Globe can be easily polarized, and this is magnified by the fact that mining and ranching are being looked at by some as the "old guard", and tourism and real estate are being regarded as our new economic salvation (by Realtors, mostly).

I am not sure how familiar you are with the Globe and Copper Gulch areas. This area was heavily mined at the turn of the century, and is still being mined today by Cyprus and Pinto Valley. The Old Dominion is rumored to have a very large ore body which has not yet been tapped, although inaccessible due to flooding, and from all that I have gathered in my research, I have the feeling that Copper Gulch is far more important minerally than it could ever be for residential purposes. Gila County has only 3% available privately owned land, however, so there is a lot of pressure to develop any that comes onto the market.

149 South Broad Street, Suite A, Globe, Arizona 85501. Phone 520-425-2093, 425-2611
714 South Beeline Highway (P. O. Box 2297), Payson, Arizona 85547. Phone 520-474-9276
FAX: Globe 520-425-0829. Payson 520-474-0802. T. D. D. Number 520-425-0839

Due to various factors (time, money and resistance from above), I am unable to come to Phoenix and try to support my contention that the site is undevelopable without expert remedial action..identifying underground works, purchasing the mineral rights, collapsing shafts and engineered fill, for a beginning. The fact that the title company will not insure the buyers against damages suffered by subsidence or collapse of underground works, I think, should be a pretty good clue that it is a dangerous place to place a subdivision. Would it be possible for your office to provide me with some statistics on the amount of ore and overburden removed from even just the known operations since 1900? My research suggests an enormous amount of tonnage, and the shoring underground has been deteriorating ever since.

I am sorry to be bothering you with these problems, but it has reached a point where our backs are against the wall, and unless the magnitude of this situation is made perfectly clear to some people who do not want to attempt to comprehend it, we are going to end up with some unhappy people living in houses with cracked foundations, leaky roofs, unsound walls and holes in their backyards. Who will then, of course, wonder why we let them get there in the first place.

I appreciate your patience and understanding with this issue, and thank you for any help at all you can render in averting a political solution to a geological problem.

Sincerely,

Judy Smrdel
Administrative Assistant

# Arizona Department of Mines and Mineral Resources

1502 West Washington, Phoenix, AZ 85007 Phone (602) 255-3795
Toll Free in Arizona 1-800-446-4259 FAX (602) 255-3777


**August 02, 1995**

Judy Smrdel
Gila County Community Development Department
149 S. Broad Street, Suite A
Globe, AZ 85501

Dear Ms. Smrdel:

Further to your letter of June 28, 1995. I am sending along a copy of Chapter 22 NEW RIGHTS OF SURFACE OWNERS CHANGES IN THE DOMINANT/SERVIENT RELATIONSHIP BETWEEN THE MINERAL AND SURFACE ESTATES from the Mineral Law Institute of 1994. This information relates to BLM law but will probably be brought up during the upcoming arguments. It is important to note that this interpretation of the law relates to the mineral rights that have not been transferred with the surface but some of the legal reasoning may be applied to patented mining claims where the surface has been deeded off. I suspect that Gila County may need the services of a good mining attorney to settle their interest in this case.

I certainly thank that you are doing the best and right thing for Gila County in this important case. Please let me know if we can be of any assistance. I have tipped state senators and representatives that this case is coming up. Please feel free to refer any parties to me if they ask questions. Apparently Mr. Don Krayeski of Copper canyon Ranches would like me to send him a copy of your letter. I can do this with your permission if you so request.

Sincerely,

H. Mason Coggin
Director

# Survey of Mining Claims for Asbestos Health Hazard

**Fiberquant Job #:** 95-0632

**Prepared for:** Ally Ong Hing
PO Box A
Superior, AZ 85273
602-689-5598
FAX 602-689-5937

## Introduction

The claims to be surveyed lie in sections 10, 11, 14 and 15 of T 1 N R15 1/2 E, approximately 3 miles north of Globe, Arizona. The group of claims is shown outlined in red in Figure 1. Chrysotile asbestos had previously been mined in a small way on approximately the Hobson Claim, shown in better detail in Figure 2. We were to visit the site to see if any health hazard was posed by the presence of asbestos in the area.

Chrysotile belongs to the serpentine group of minerals. Lizardite and antigorite, the other two serpentine minerals, are not fibrous and pose no health hazard. All chrysotile is asbestos and a potential health hazard. The following occurrences of chrysotile have been described in *Minerals of Arizona* by Galbraith and Brennan, p.106:

> "Gila County: The most extensive deposits of chrysotile in the state are north and northeast of Globe along the Salt River in the vicinity of Chrysotile and along Cherry Creek. The deposits originated through metamorphic action of diabase intrusions upon pre-Cambrian Mescal limestone."
>
> "Pinal County: Globe district. Old Dominion mine. as massive yellow to green mineral in diabase and Mescal limestone"

A geological map of the area by G. W. Botsford, 1919 (shown as Figure 3) indicates only two types of rock in the area of the group of claims: diabase and limestone. The limestone would be the same Mescal limestone mentioned in the quotes above, and the diabase would be in the same swarm of diabase intrusions mentioned in the quotes above.

## Survey Personnel

The project head (and author of this report) is Larry S. Pierce, who has a B.S. in chemistry (University of Wisconsin, Madison, 1971), an M.S. in geochemistry (Arizona State University, 1975), a Ph. D. in geochemistry (Arizona State University, 1979), and is a Certified Industrial Hygienist. Also present for the survey was Robert A. McCormick, who holds a B.S. in geology (Whitworth College, 1985) and a B.A. in physics (Whitworth College, 1985).

## Survey

The area was visited on 2-6-95. Over the course of an afternoon, six claims were visited: 1) Copper Money, 2) Telfair, 3) Hobson, 4)Iron King, 4) Berkeley, and 5) Summit. These areas represented most of the shafts, adits or extensive workings in the group of claims. Briefly, our observations of the rock types are as follows:

1. Copper Money contains the McGaw shaft, which appears to be entirely in diabase with no apparent serpentine or chrysotile.
2. Telfair contains a contact between diabase and limestone. Considerable massive green material (our sample 1) was present at the contact zone, which proved upon XRD analysis (attached) to be mostly talc, but with some serpentine. Apparently the serpentine is not fibrous.
3. Hobson contains an inclined shaft through a zone of chrysotile veins (sample 2). Apparently this deposit was mined to some extent. The shaft occurs on top of a small hill of limestone. The ground around the deposit is littered with pieces of chrysotile-bearing rock, loose chrysotile and loose fibers. Occasionally, a deposit of

matted but loose asbestos fibers can be found (sample 4). The debris is visible for a radius of about 100 feet from the shaft. A soil sample (sample 3) approximately 200 feet downslope from the deposit, and in an area containing no visible pieces of limestone or serpentine was found to be contaminated with chrysotile (see attached bulk asbestos report).

4. Iron King, south part of claims, appears to be all diabase, with no apparent serpentine.
5. Berkeley also appears to have no limestone/diabase contact and no apparent serpentine.
6. Summit is a hill of limestone surrounded by diabase. A sample of talc and quartz (sample 5) was collected, along with a sample of almost pure talc.

**Discussion**

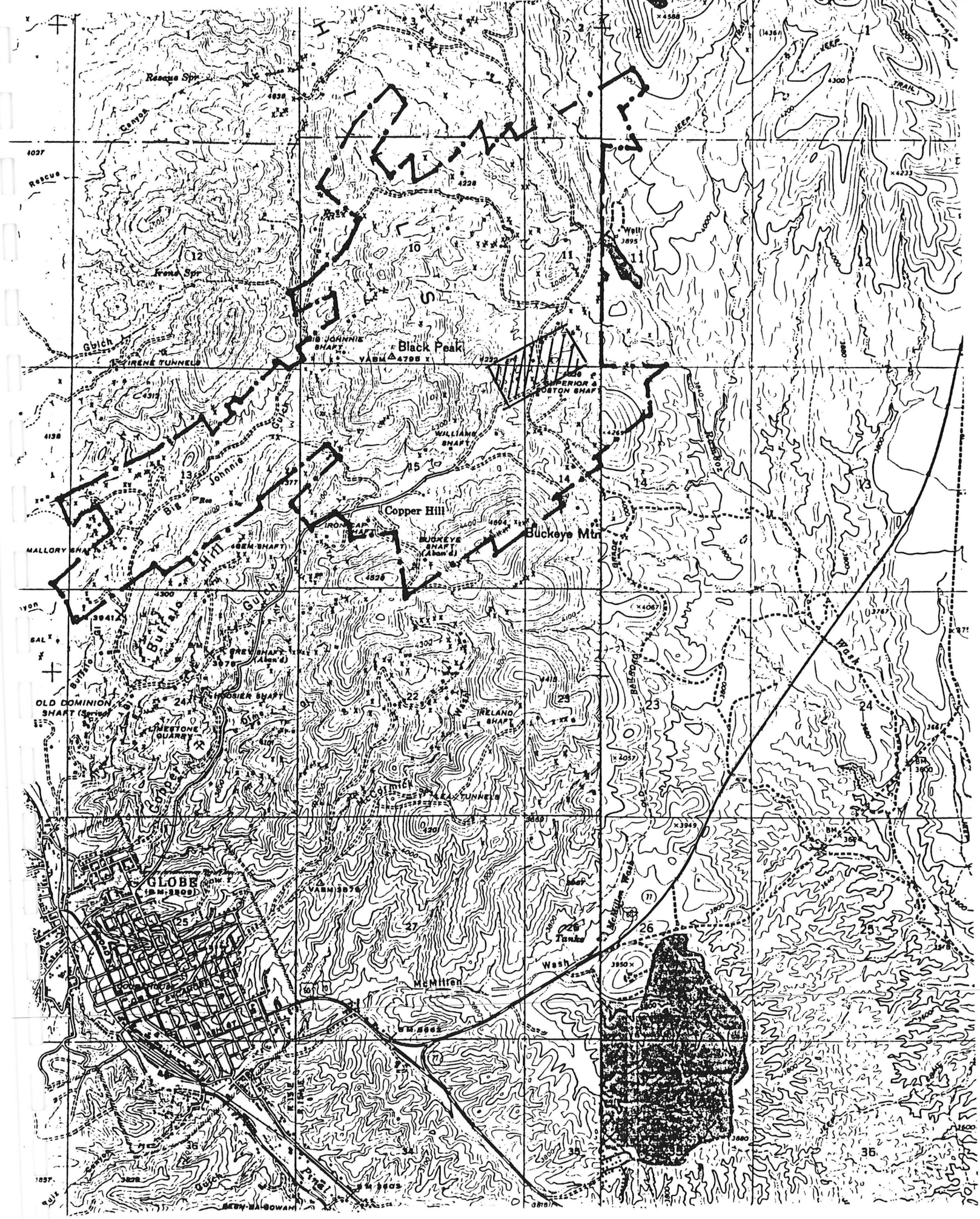
Potential Health Hazard:

The area consists of limestone surrounded by diabase. The limestone is apparently harder and so forms many of the highlands. These are the same rocks from which chrysotile formed over perhaps a 30 mile area from Globe almost to the Salt River Canyon. On these claims, chrysotile is located on the Hobson claim. Serpentine and/or talc was found at two other claims, showing that the metamorphism responsible for the formation of the chrysotile was not confined to the Hobson claim. In conclusion, not only is chrysotile present in the claims, but the geologic conditions are such that chrysotile would not be unexpected anywhere in the area that limestone contacts diabase, even if not apparent at this time. If construction exposes a deposit of chrysotile, the workers or eventual occupants could be exposed to hazardous levels of asbestos.

Immediate Health Hazard:

The only immediate hazard from asbestos arises at the Hobson claim, where asbestos rock, debris and fibers were found contaminating the surface of the soil even some distance from the shaft. A more extensive survey of soil samples would be needed to determine the exact extent of the contamination. Asbestos is not hazardous until it becomes airborne and breathed. Like most asbestos deposits, the chrysotile-containing rock is not emitting much asbestos fiber at present. Therefore, as the area now exists, the hazard from asbestos is minimal. However, if the area were to become a residential development, the deposit, its debris, and its contaminated soil would not remain undisturbed. If not directly disturbed by construction or road-building, human activity (probably child activity) would disturb the asbestos-containing ground. Those persons doing the disturbing might very well be exposed to hazardous levels of asbestos. The more disturbance, the more asbestos exposed and the greater the risk. The area near the chrysotile deposit should not be disturbed, either by construction or any other way.

Larry S. Pierce, Ph. D., C.I.H. 2/10/95



Rescue Spr
Canyon
Rescue
Irene Spr
Gulch
IRENE TUNNELS
BIG JOHNNIE SHAFT
Black Peak
VABM 4795
SUPERIOR & BOSTON SHAFT
WILLIAMS SHAFT
Big Johnnie Gulch
Copper Hill
IRON CAP SHAFT
BUCKEYE SHAFT (Aban'd)
Buckeye Mtn
MALLORY SHAFT
GEM SHAFT
Buffalo Hill
Gulch
GREY SHAFT (Aban'd)
HOOSIER SHAFT
OLD DOMINION SHAFT (Spring)
LIMESTONE QUARRY
IRELAND SHAFT
McCormick
LEA TUNNELS
GLOBE
VABM 3876
McMillen Wash
Tanks
Wash
McMillen
Pinal
JEEP TRAIL
Well
3895

FIGURE 1

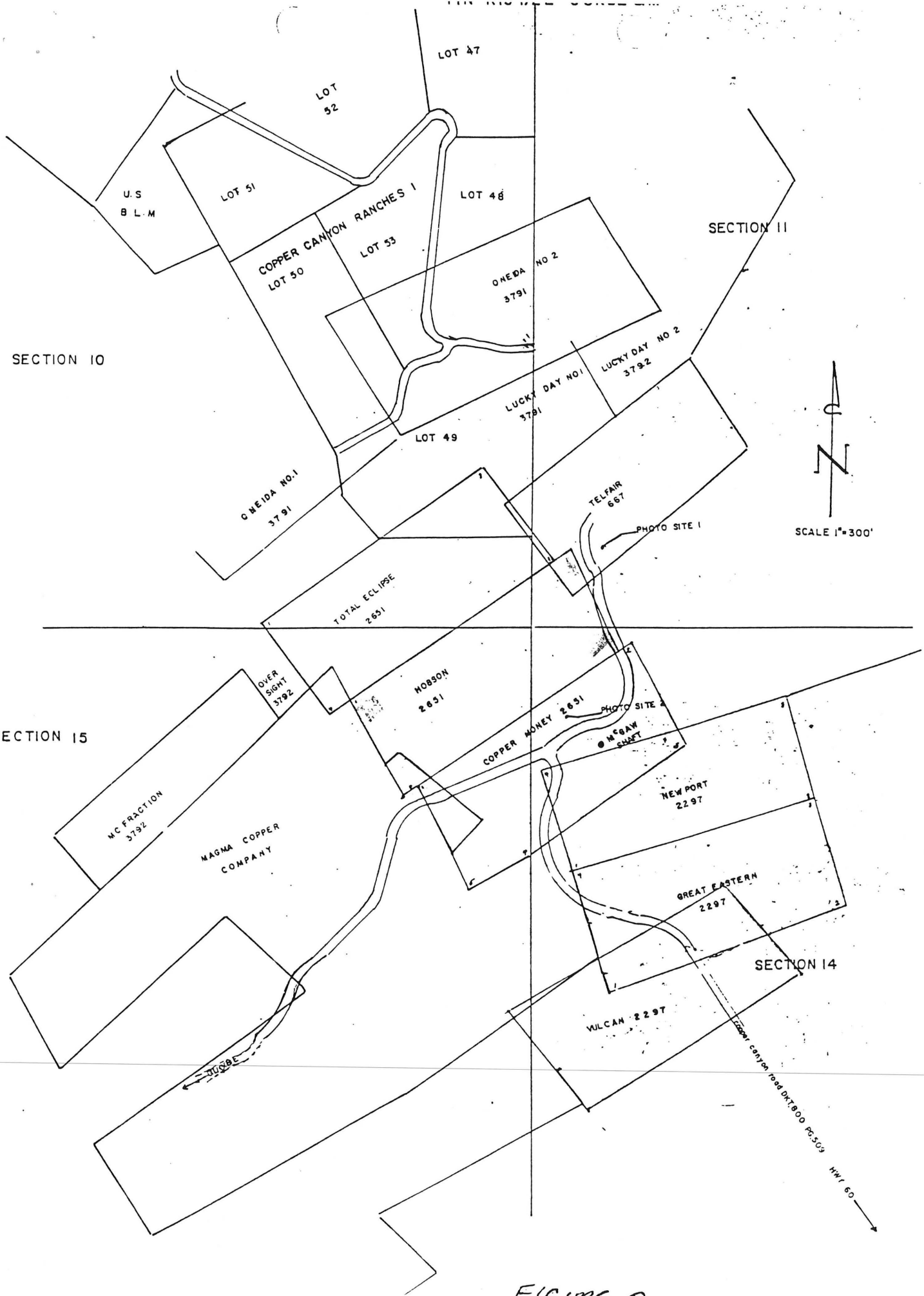

LOT 47
LOT 52
U.S B.L.M
LOT 51
COPPER CANYON RANCHES 1
LOT 50
LOT 53
LOT 48
SECTION 11
ONEDA NO 2 3791
SECTION 10
LUCKY DAY NO 2 379-2
LUCKY DAY NO 1 3791
LOT 49
ONEIDA NO.1 3791
TELFAIR 667
PHOTO SITE 1
SCALE 1"=300'
TOTAL ECLIPSE 2651
OVER SIGHT 3792
HOBSON 2651
COPPER MONEY 2651
PHOTO SITE 2
McGAW SHAFT
SECTION 15
NEW PORT 2297
MC FRACTION 3792
MAGMA COPPER COMPANY
GREAT EASTERN 2297
SECTION 14
VULCAN 2297
DUGBE
COOPER CANYON ROAD DKT 800 PG 503
HWY 60

FIGURE 2

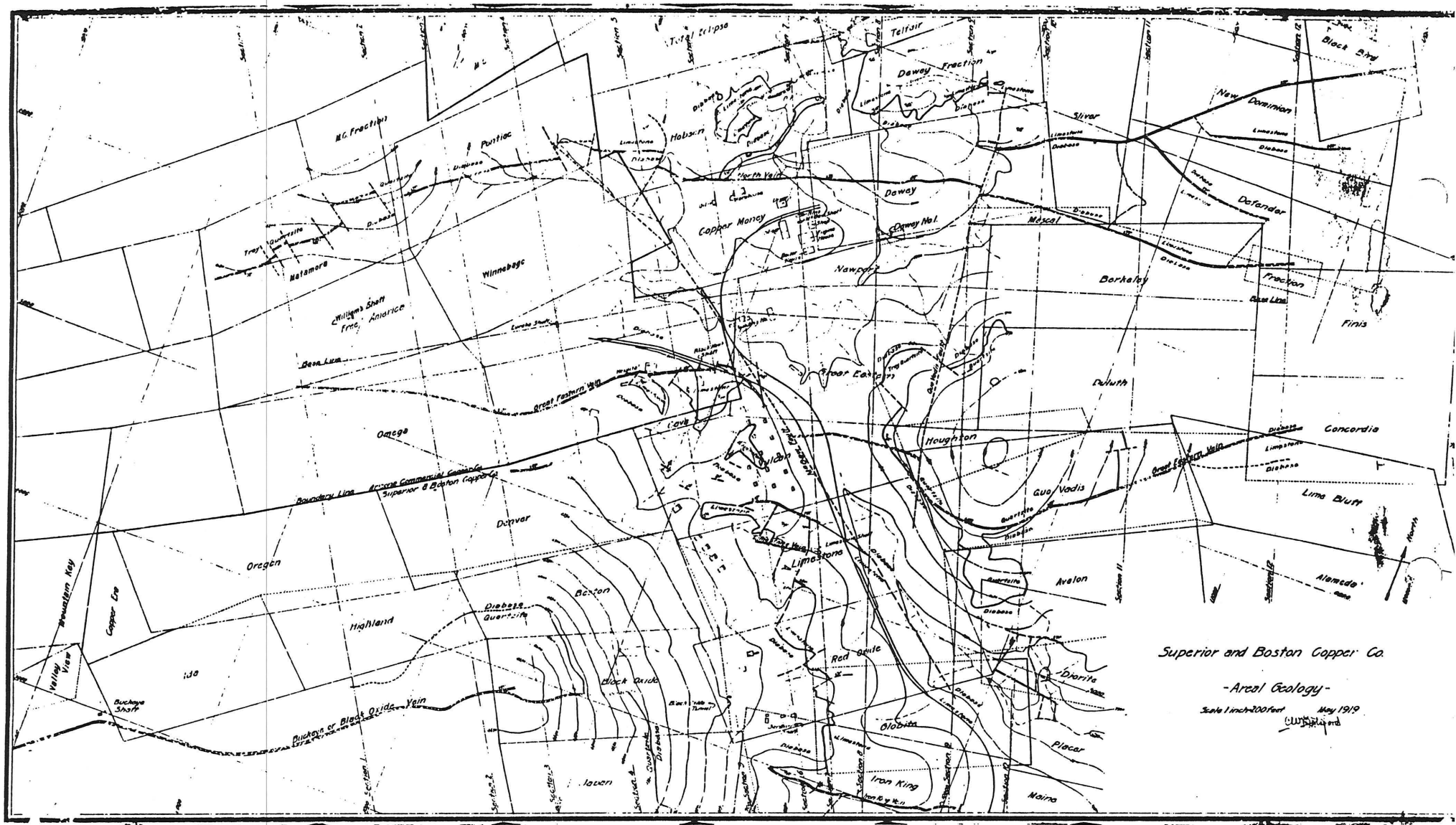

Superior and Boston Copper Co.
-Areal Geology-
Scale 1 inch=200 feet
May 1919
Black Bird
New Dominion
Defender
Finis
Concordia
Lime Bluff
Alameda
Telfair
Dewey Fraction
Sliver
Mescal
Berkeley
Duluth
Houghton
Guo Vadis
Avalon
Diorite
Placer
Maine
Iron King
Globite
Red Oxide
Limestone
Great Eastern
Great Eastern Vein
Copper Money
Dewey
Dewey No.1
Newport
Hobson
North Vein
Pontiac
M.C. Fraction
Winnebago
Matamora
Williams Shaft
Free America
Omega
Denver
Oregon
Highland
Ida
Boston
Black Oxide
Buckeye or Black Oxide Vein
Buckeye Shaft
Copper Era
Mountain Key
Valley View
Boundary Line
Arizona Commercial Copper Co.
Superior & Boston Copper Co.
Base Line
Diabase
Quartzite
Limestone
Section 1
Section 2
Section 3
Section 4
Section 5
Section 7
Section 8
Section 9
Section 10
Section 11
Section 12

FIG. 3

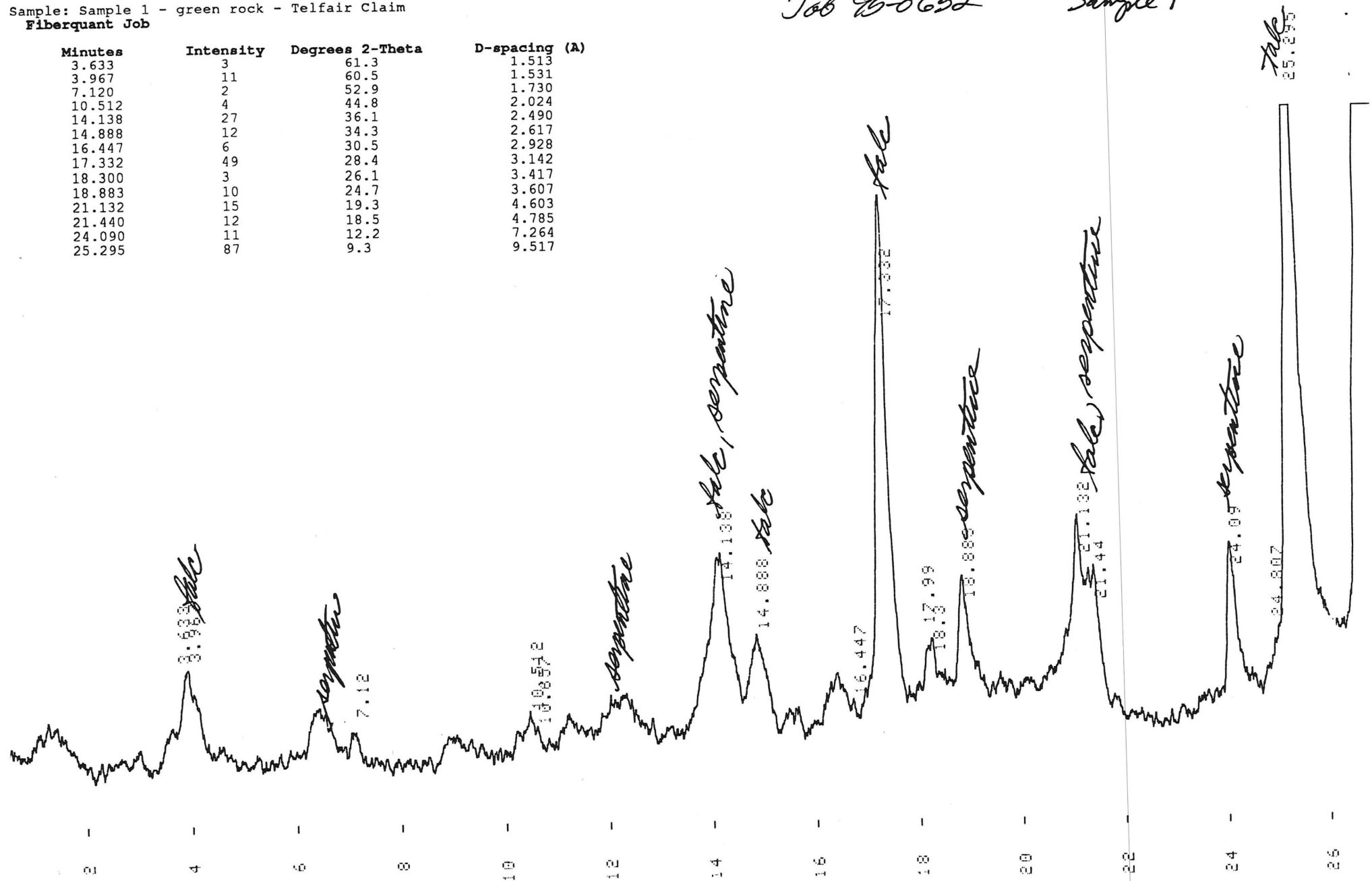
**Calculated angles 2-Theta and d-spacings**
**from minutes during a run from 70 deg @2.4 deg/min**

imadrill 221-25412 16 7

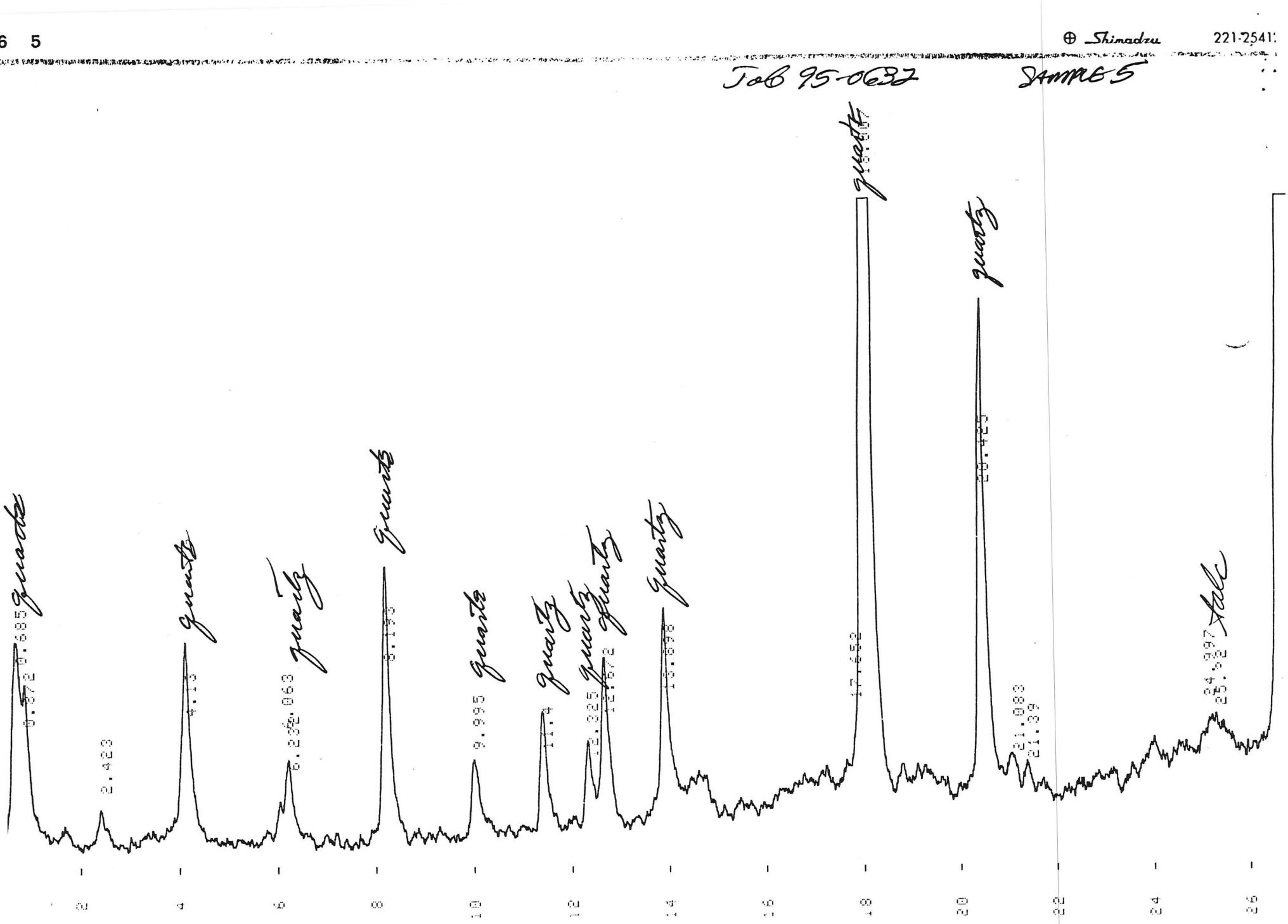
Job 95-0632 Sample 1

Sample: Sample 1 - green rock - Telfair Claim
**Fiberquant Job**

| Minutes | Intensity | Degrees 2-Theta | D-spacing (A) |
|---|---|---|---|
| 3.633 | 3 | 61.3 | 1.513 |
| 3.967 | 11 | 60.5 | 1.531 |
| 7.120 | 2 | 52.9 | 1.730 |
| 10.512 | 4 | 44.8 | 2.024 |
| 14.138 | 27 | 36.1 | 2.490 |
| 14.888 | 12 | 34.3 | 2.617 |
| 16.447 | 6 | 30.5 | 2.928 |
| 17.332 | 49 | 28.4 | 3.142 |
| 18.300 | 3 | 26.1 | 3.417 |
| 18.883 | 10 | 24.7 | 3.607 |
| 21.132 | 15 | 19.3 | 4.603 |
| 21.440 | 12 | 18.5 | 4.785 |
| 24.090 | 11 | 12.2 | 7.264 |
| 25.295 | 87 | 9.3 | 9.517 |



Job 95-0637 SAMPLE 5



Fiberquant, Inc. 4824 S. 35th St.; Phoenix, AZ 85040; (602)276-6139; FAX: (602)276-4558

JOB NO. _____

Lab No. _____

# Bulk Asbestos Determination by Polarized Light Microscopy (PLM)

**Individual Sample Report** (See Cover Letter for Method)

Client Sample Identification: SAMPLE 3

Apparent Type of Sample: DIRT + ROCKS  Fibrous Texture? ☑ Yes ☐ No

Homogeneous? ☐ Yes ☑ No  Painted? ☐ Yes ☑ No  % Fiber Overall: 1-2%

***Layer by Layer Description of Sample*** / ***Estimated Percent of Each Fiber Type in Each Layer***

| % of Each Layer in Smp | Layer Type | Color | Friability (1-4) | Fiber Type 1 | Fiber Type 2 | Fiber Type 3 | Fiber Type 4 |
|---|---|---|---|---|---|---|---|
| 100 | DIRT/ROCKS | BROWN | 3 | 1-2 | ≤1 * | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| ***Overall Percent of Each Fiber Type in Sample →*** | | | | 1-2 | ≤1 | | |

***Fiber Identification***

| | Fiber Type 1 | Fiber Type 2 | Fiber Type 3 | Fiber Type 4 |
|---|---|---|---|---|
| Color | MISC | WHITE | | |
| Morphology (A-G) | F | A | | |
| Isotropic? | ☐ Yes ☑ No | ☐ Yes ☑ No | ☐ Yes ☐ No | ☐ Yes ☐ No |
| Pleochroic? | ☐ Yes ☑ No | ☐ Yes ☑ No | ☐ Yes ☐ No | ☐ Yes ☐ No |
| Birefringence | ☐ None ☐ Low ☑ Med. ☐ High | ☐ None ☑ Low ☐ Med. ☐ High | ☐ None ☐ Low ☐ Med. ☐ High | ☐ None ☐ Low ☐ Med. ☐ High |
| Sign of Elongation | ☑ Pos. ☐ Neg. | ☑ Pos. ☐ Neg. | ☐ Pos. ☐ Neg. | ☐ Pos. ☐ Neg. |
| Extinction | ☐ Para. ☐ Obl. ☑ Wavy ☐ None | ☑ Para. ☐ Obl. ☐ Wavy ☐ None | ☐ Para. ☐ Obl. ☐ Wavy ☐ None | ☐ Para. ☐ Obl. ☐ Wavy ☐ None |
| Refractive Index ☐ Becke Line ☑ Dispersion Staining | / | / | / | / |
| R.I. medium | ☐ 1.55 ☐ 1.605 ☐ 1.66 | ☑ 1.55 ☐ 1.605 ☐ 1.66 | ☐ 1.55 ☐ 1.605 ☐ 1.66 | ☐ 1.55 ☐ 1.605 ☐ 1.66 |
| Fiber Color (par/per) | / | SKY BLUE/ D.BLUE | / | / |
| R.I. fiber (par/per) | / | 1.553/ 1.545 | / | / |
| ***Indentification of Fiber Type →*** | CELLULOSE | CHRYSOTILE | | |

***Non-Fibrous Components in Approximate Order of Decreasing Abundance***

1. ROCKS
2. DIRT / DEBRIS
3.
4.
5.

***Specimen Prep and Additional Procedures***

# Sub-samples 6

- ☐ Grinding with mortar and pestle
- ☑ Solvent dissolution
- ☐ Ashing (removal of organic binder)
- ☐ Acid (removal of carbonate minerals)
- ☐ Homogenization
- ☐ X-ray Diffraction Confirmation
- ☐ SEM Confirmation
- ☐ TEM Confirmation
- ☐ 2nd Opionion Confirmation
- ☐ Point Count: Asb____ All____ % Asb_____

***Friability:***

1 = NESHAP Non-friable Category I
2 = NESHAP Non-friable Category II
3 = Friable (crumbly)
4 = Friable (powdery)

***Morphology:***

A = curved, flexible white bundles or fibers
B = straight, flexible near-white bundles or fibers
C = straight, flexible blue bundles or fibers
D = brittle single fibers, varying diameter
E = large, flexible or constant diameter fibers
F = ribbon-like or tubular fibers
G = lath-like fibers or shards; cleavage fragments

***Colors:***

bl = blue, gr = gray, wh = white, dk = dark, v = vivid, br = brown, bl = black, lt = light, grn = green, yel = yellow, p = pale, cr = cream

***Conclusions***

**Negative**

☐ No Asbestos Detected

☑ Borderline: Less than or equal to 1% asbestos, type: CHRYSOTILE

**Positive**

☐ Borderline: Greater than 1%, up to 2% asbestos, type: _____

☐ % Asbestos and type: _____

**Notes** * SEVERAL FIBERS WERE OBSERVED WITH STEREOSCOPE IN UNCONSOLIDATED MATERIAL.

**Analyst** ROBERT A. McCORMICK **Signature** [signature] **Date** 2/9/95

## GENERAL (CONT.)

1. CONT.

POTENTIAL PURCHASERS ARE HEREBY NOTIFIED THAT CLAIMS MAY ARISE AGAINST THEIR INTEREST IN OWNERSHIP OF LOTS WITHIN THIS SUBDIVISION, SPECIFICALLY THE CLAIMS THAT HOLDERS OF THE MINERAL ESTATE MAY HAVE A RIGHT TO CARRY ON MINING OPERATIONS FROM THE SURFACE THEREOF AND TO USE SUCH PORTIONS OF THE SURFACE AS MAY BE REQUIRED BY THE HOLDERS OF MINERAL ESTATE FOR SUCH MINING OPERATIONS, INCLUDING NECESSARY SITES FOR BUILDINGS, DUMPING GROUNDS, RIGHTS-OF-WAY, AND ALL OTHER PURPOSES NECESSARY FOR THE PROPER DEVELOPMENT OF MINES ON SAID PREMISES.

ALL SUBDIVISION BOUNDARY MONUMENTS HAVE BEEN SET AS NOTED. NO INTERIOR LOT CORNERS HAVE BEEN SET AS OF 16 NOVEMBER 1990.

NO FURTHER SUBDIVIDING MAY TAKE PLACE WITHOUT THE EXPRESS, WRITTEN PERMISSION OF THE GILA COUNTY BOARD OF SUPERVISORS."

2. WATER IS NOT AVAILABLE TO THIS DEVELOPMENT FROM A MUNICIPAL OR PRIVATE WATER COMPANY. THIS DEPARTMENT DOES NOT HAVE ANY INFORMATION ABOUT THE AVAILABILITY OR POTABILITY OF WATER IN THIS AREA. THE ARIZONA DEPARTMENT OF WATER RESOURCES IN ITS REPORT OF OCTOBER 16, 1990 STATES "WATER FOR DOMESTIC USE IS TO BE PROVIDED TO EACH OF THE 53 LOTS IN THE SUBDIVISION BY WELLS TO BE DRILLED ON EACH LOT BY THE INDIVIDUAL LOT OWNERS.

ADEQUACY OF THE WATER SUPPLY WAS REVIEWED BY THE DEPARTMENT WITH REGARD TO QUANTITY, QUALITY AND DEPENDABILITY. THE SUBDIVISION IS LOCATED ABOUT THREE MILES NORTH OF THE TOWN OF GLOBE. THE AQUIFER IN THE AREA IS LIMITED TO THE FISSURES AND FRACTURES IN THE IGNEOUS AND PRECAMBRIAN SEDIMENTARY FORMATIONS. THERE ARE REGISTERED WELLS ON THE PROPERTY, HOWEVER, THERE IS NO VERIFIABLE DATA AVAILABLE TO THE DEPARTMENT WHICH WOULD INDICATE WHAT THE DEPTH TO GROUNDWATER IS IN THE AREA. IT IS VERY PROBABLE THAT THESE EXISTING WELLS TAP FRACTURED AREAS WITHIN THE IGNEOUS AND PRECAMBRIAN SEDIMENTARY ROCKS AND THEREFORE RELY ALMOST ENTIRELY ON DIRECT RECHARGE FROM PRECIPITATION TO SUSTAIN THEIR GROUNDWATER LEVEL.

IT IS NOT KNOWN IF NEW WELLS DRILLED IN THE AREA WOULD BE CAPABLE OF PRODUCING SUFFICIENT QUANTITIES OF ACCEPTABLE QUALITY WATER FOR DOMESTIC USE. ALSO, NO INFORMATION IS AVAILABLE REGARDING THE LONG-TERM DEPENDABILITY OF THE WATER SUPPLY. LACK OF SUCH INFORMATION DOES NOT ALLOW COMPARISON OF THE WATER SUPPLY TO THE DEPARTMENT'S WATER ADEQUACY CRITERIA. THE DEPARTMENT OF WATER RESOURCES THEREFORE, MUST FIND THE WATER SUPPLY TO BE **INADEQUATE** TO MEET THE SUBDIVISION'S PROJECTED WATER DEMANDS.

## GENERAL (CONT.)

4. PURCHASERS ARE ADVISED THAT THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR THIS SUBDIVISION PROVIDES FOR AN ARCHITECTURAL CONTROL COMMITTEE.

5. PROSPECTIVE PURCHASERS ARE ADVISED THAT THE TITLE REPORT COVERING THIS SUBDIVISION CONTAINS THE FOLLOWING EXCEPTION: "ANY LOSS, DAMAGE OR INJURY THAT MAY BE CAUSED BY LACK OF LATERAL OR SUBJACENT SUPPORT, OR BY SUBSIDENCE, DISTURBANCE OR ALTERATION OF THE WITHIN PROPERTY RESULTING FROM MINING OR OTHER OPERATIONS CARRIED ON BENEATH THE SURFACE THEREOF." YOU SHOULD DETERMINE FOR YOURSELF WHAT EFFECT THE EXERCISE OF THE RIGHTS OF MINERAL AND SUBSURFACE OWNERS MAY HAVE ON YOUR USE/ENJOYMENT OF A PARTICULAR LOT PRIOR TO MAKING ANY COMMITMENT TO PURCHASE.

6. SUBDIVIDER ADVISES THAT THIS SUBDIVISION IS LOCATED IN AN OPEN RANGE OR AREA IN WHICH LIVESTOCK MAY ROAM AT LARGE UNDER THE LAWS OF THIS STATE AND THAT NO PROVISIONS HAVE BEEN MADE FOR THE FENCING OF THE SUBDIVISION TO PRECLUDE LIVESTOCK FROM ROAMING WITHIN THE SUBDIVIDED LANDS.

7. SUBDIVIDER ADVISES THAT THERE IS PRESENTLY AN OPEN MINE SHAFT WITHIN THE SUBDIVISION PROPERTY. SUBDIVIDER ADVISES THAT HE WILL CLOSE OFF THIS ENTRANCE BY JUNE 10, 1993.

8. THE PHYSICAL INSPECTION OF THIS SUBDIVISION REVEALS THAT DURING PERIODS OF HEAVY RAIN THE ACCESS ROADS BECOME IMPASSABLE BECAUSE THE MAIN ACCESS ROAD AND INTERNAL SUBDIVISION ROADS CROSS A NUMBER OF SEASONAL STREAMS.

## SUBDIVISION LOCATION

Location: 1 1/2 miles north of Globe, Arizona in Gila County.

## SUBDIVISION CHARACTERISTICS AND CLIMATE

**Topography and Climate:** The site is typical mountain terrain, with desert brush and juniper vegetation types. Elevation is 3700' to 4900'.

## SUBDIVISION CHARACTERISTICS AND CLIMATE (CONT.)

Topography and Climate (Cont.):

| WEATHER Month | Average Temperature (°F) Daily Max | Daily Min. | Average Total Precipitation (Inches) |
|---|---|---|---|
| January | 55.0 | 32.7 | 2.06 |
| February | 60.4 | 35.4 | 1.25 |
| March | 65.1 | 39.5 | 1.78 |
| April | 74.7 | 47.3 | 0.66 |
| May | 84.5 | 55.7 | 0.25 |
| June | 93.7 | 64.2 | 0.26 |
| July | 97.0 | 70.3 | 2.34 |
| August | 93.9 | 67.9 | 3.33 |
| September | 89.7 | 62.9 | 1.53 |
| October | 78.8 | 52.0 | 1.07 |
| November | 65.4 | 40.5 | 1.12 |
| December | 56.6 | 34.2 | 2.40 |
| Year | 76.2 | 50.2 | 18.05 |

Average Total Snow, Sleet and Hail Annually: 3.9 inches
(Based on a thirty year average)

**Natural Hazards:** Drainage concentrates in canyons as it descends the rather steep mountainous terrain. Therefore, significant flood hazards could exist in the canyons.

**Flooding and Drainage:** Darde G. de Roulhac, P.E. of Hansen, Bunger, Hansen states in the conclusion to the Final Drainage Report dated February 8, 1990 that "The stormwater runoff entering and leaving the Copper Canyon Ranches subdivision is quantified in this report. Approximate floodplain locations are shown on Figure 3, and are generally confined to the canyons. All structures and roadways should be constructed outside of the 100-year floodplain limits."

**Soils:** Soil is derived from the igneous and Precambrian sedimentary formation that outcrop in the area. Lot purchasers are advised that underground mining has been done in the area of the subdivision circa 1900. There is a possibility that underground drifts and stopes may intrude beneath the subdivision and as these old drifts and stopes collapse subsidence of ground above may occur.

## SUBDIVISION CHARACTERISTICS AND CLIMATE (CONT.)

**Hazards or Nuisances:** Subdivider advises that there is an open mining shaft on Lot 18 which will be fenced and marked. Within the Globe/ Miami area there are two copper mines, several concentrators, a refinery and a rod mill.

**Adjacent Lands and Vicinity:** Subdivider advises that agriculture/ grazing land surrounds the subdivision. Since subsurface mineral rights are held separately, the holder of these mineral rights has the right to extract minerals below the subdivision surface and may have a right to use as much of the surface as necessary to conduct a mining operation.

## UTILITIES

**Electricity:** Arizona Public Service. Subdivider advises that electric lines are 2 miles from the subdivision in Apache Peak Subdivision. Subdivider advises that lot purchasers will have to pay all costs to extend electric to their individual lots. The cost to extend electric will be very substantial.

The subdivider has secured a variance from the Arizona Corporation Commission, Docket No. V-0000-90-030, Decision No. 56854 permtting installation of overhead facilities to the subdivision. Frank R. Castillo of Arizona Public Service Company states in his letter dated February 9, 1993 that "Subject: Electric Availability to Copper Canyon Ranches I.

Thank you for the opportunity to provide information regarding electrical service to your new subdivision. The above-referenced subdivision is in Arizona Public Service Company's electric service area. The Company extends its lines in accordance with the "Conditions Governing Extensions of Electric Distribution Lines and Services", Schedule #3, and the "Terms and Conditions for the Sale of Electric Service", Schedule #1, on file with the Arizona Corporation Commission at the time we begin installation of the electric facilities.

## UTILITIES (CONT.)

**Sewage Disposal (Cont.):**

Roy Twain Connolly of Connolly Brothers Construction, Inc. states in his letter dated December 7, 1992 as follows: **SEE EXHIBIT "B" ATTACHED**

Subdivider advises "A non-conventional system may be installed. If non-conventional system is required and is installed within two years of lot purchase, and exceeds a cost of $7,000, developer will credit principle balance of account by up to $3,000. In the event of a cash sale, developer will instruct trustee to pay funds from trust. Developer may also obtain bids for property owner to verify price. Home size cannot exceed 1,200 square feet."

**THE ABOVE COSTS ARE SUBJECT TO CHANGE BY SERVICE PROVIDERS. YOU SHOULD CONTACT THE ABOVE PROVIDERS REGARDING EXTENSION RULES AND REGULATIONS, SERVICE CONNECTIONS AND COSTS INVOLVED.**

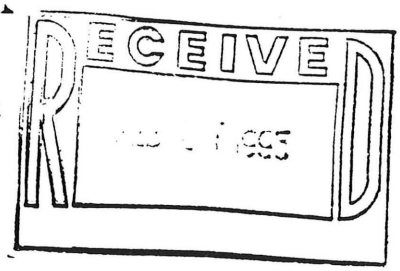
## STREETS, ROADS AND DRAINAGE

**Access to the Subdivision:** The subdivider has obtained an easement from Cyprus Copper Co. for an access road to U. S. Highway 60 that is to serve as the primary access road to this subdivision. The subdivider has advised that the easterly access road from HighwayG 60 to Copper Hills Road and north on Copper Hills Road to Lot 1, Mountain Side Drive and Tract C that connects with Copper Hills Road are for the private use of purchasers. Subdivider advises that they will be bladed and graded with some gravel by December 10, 1993. The developer states that maintenance of these streets will be the responsibility of the Property Owners Association. Lot purchasers will have to pay a $60.00 fee for each lot for road maintenance.

**Access within the Subdivision:** The subdivider has advised that the interior streets are for the private use of purchasers. Subdivider advises that they will be bladed and graded with gravel by December 10, 1993. The subdivider states that maintenance of the interior streets will be the responsibility of the Property Owners' Association.

**Flooding and Drainage:** Subdivider advises that flood or drainage facilities will be installed during road constructions where roads cross seasonal washes or streams.

# nter-Office Memorandu




**TO:** Engineering Review Desk
Engineering Review and Permits Unit

**FROM:** John Shepherdson
Field Services Unit

**DATE:** February 21, 1995

**RE:** Site inspection for the following subdivision:
Copper Canyon Ranches Unit II
ADEQ File No. 950027

I received a request to perform the site inspection for the referenced project on January 16. I did not perform the site inspection until February 17 for reasons explained in my February 18 memo to Ed Swanson. In that memo I presented the findings of my inspection. This memo contains that information plus one additional item included at the Mr. Swanson's suggestion (finding no. 10.). I prepared my initial findings for Mr. Swanson (rather than the Engineering Review Desk) because at the perimeter of the proposed subdivision I found notices of a Zoning Hearing pertaining to it scheduled for February 21 and wanted him to be aware of my findings by that date.

This subdivision is proposed for alternative on-site wastewater systems where conventional septic systems are not feasible. The following are my observations based upon my February 17, 1995 inspection of the subdivision:

1. Many lots, in spite of their size, will not be acceptable for conventional septic systems because of numerous rock formations. Those lots where areas can be found acceptable for leachfields may have such areas greatly distant from the preferred residence locations.

2. Much of the area does not have 2' soil, but the proposed lots are quite large. Still some lots may not have a single continuous area with 2' soil. PGM 1 applies addresses the importation of fill to such lots to facilitate leachfield installation. Fill placement requirement are not as critical for aerobic to surface irrigation systems if only small amounts are imported (most probable dangers are subsidence of disposal area causing to lose berm retention capacity, berm damage, effluent distribution system damage - all of which are much easier to correct than leachfield failure). I would suggest that we not require the full geological report as a requirement before ATC issuance but include in the ATC the condition that any fill applied to serve as effluent disposal areas satisfy PGM 1 physical requirements (lots are so large that the probable locations of the disposal areas cannot be determined at this time).

3. The only well observed in the area was a windmill-driven well (supplying stocktank) immediately east of the next major wash west of proposed subdivision.

4. Questions which may need to asked of the design engineer include:

a. Will dikes crossing wash paralleling Copper Hills Rd. remain?

b. Do the marked 100 year floodplain levels take into account those dikes? (to me they appear to, but not sure)

5. A clearer cartographic definition of the floodplain would be helpful.

6. The lots are large enough that setbacks from washes will not preclude an acceptable area in each for alternative systems - however washes in some may exclude the areas where soil availability and percolation rates would make a conventional septic system acceptable.

7. The steep rocky terrain would make a drinking water distribution system extremely expensive, and the only likely sources are (probably) small shallow aquifers associated with the larger washes (developer proposes "water to be provided individual property owners" - essentially means hauled-water is proposed).

8. In several areas I observed small quantities (most 100 cubic yards or less) of mine tailings or other smaller particle residual material (very litter of which appears small enough to have been sediment from water-borne extractions). The locations of the larger of these that I noticed are indicated as a red "T" on the plans. I'm making no judgment about the effect of these on approvability of lots for wastewater systems or upon what remedial actions ADEQ programs (probably other than our own) might impose on these. Similarly, the existence of mine excavations, whether now filled or not will need to be addressed (possibly includes open shafts).

9. There is an active sand & gravel operation along east side of Copper Hills Rd. immediately south of the proposed subdivision.

10. There is considerable evidence of the discharge of fill to jurisdictional "waters of the United States" which have occurred and may need improvement for purposes of residential development, and are subject to Gila County Floodplain rules and the U. S. Army Corps of Engineers regulatory program under the Federal Clean Water Act.

11. I used 36 exposures to generate several panoramas, most of which are 360-degree views. I will personally deliver the resultant photos to the Engineering Review Desk for inclusion in the file for this project when I receive them on Thursday February 23. The locations of the photographer for these panoramas are indicated in red on the plans.

JIS:jis

cc: Ed Swanson
Jim Matt
Gila County Planning & Zoning

Copies to Co. Engr., Co. Sanitarian, Dankrayeski 2/27/95

**COPPER CANYON RANCHES UNIT II, PRELIMINARY PLAT**
**GENERAL NOTES/SUPPLEMENTAL TO PRELIMINARY PLAT CHECKLIST**
**SECOND REVIEW, REVISED PLAT 3-15-95**

I. ROADS:

A. Submit improvement plans for Copper Canyon Road to Director of Engineering Services for approval. Entire length of road must be improved to provide year-round, all-weather access to subdivision. Improvement to include installation of drainage structures and surfacing materials acceptable to Director of Engineering Services.

B. When street layout is done on final plat, there should be a clear distinction between the tract designation and street name. All dimensions should be clearly set out with clear delineation of length of radius on curvilinear sections.

C. Intersection design of Black Peak Circle and Sundance Lane with Black Peak Road and Black Peak Road with Copper Hills Road must be approved by County Engineer.

D. Call out use of all tracts in dedication statement on final plat.

E. Provide proper road design for Bedrock Drive, Sundance Way and Omega Drive. Extend Omega Drive to boundary of Lot 113.

F. Redesign intersection of Sundance Lane and Sundance Way so that Sundance Way is clearly a minor street.

G. Submit complete set of improvement plans for interior streets, including profiles, sizing and location of drainage structures, surfacing materials, etc. to Director of Engineering Services for submittal to County Engineer for review. Stipulate that all improvements are to be constructed by the developer.

H. If a proscriptive easement has been established by the Superior Court for those portions of Copper Hills Road passing over Magma Copper Co. property, please provide a copy of the court order. If such does not exist, obtain an easement from Magma and provide evidence of same.

I. Provide form of slope easement for berm, allowing developer or homeowner's association to enter onto Lots 59 and 61 to maintain box culvert and berm. Designate west extension of Lot 59 as a tract providing access for maintenance of berm. Obtain easement from Magma Copper Co. for right to enter its property to maintain berm and box culvert. Provide detailed topographic site plan of berm with profile and section drawing to Director of Engineering Services for concurrence that structure is sufficient to provide vehicular access. Improve and provide safety structures as directed by Engineer.

J. Comply with any other review comments of County Engineer and Director of Engineering Services.

II. UTILITIES:

A. Coversheet indicated Electric by A.P.S. In Phase I, the developer sought and received from the Planning and Zoning Commission a waiver of the original requirement that electric power by extended to all lots within the subdivision. No formal request has been made for Phase II. A.P.S. has indicated on their correspondence dated February 17, 1995 and in subsequent conversations, that it may not be economically feasible for individual lots owners to secure an extension of electrical service. If it is the developer's intention to request he be allowed to proceed under the condition that electricity to Phase II will be extended at the expense of lot buyers, then a formal request, in writing, stating the reasons supporting it should be submitted. If it is the inclination of the Commission to once again concur with the developer, then, at a minimum, an accurate cost estimate should be prepared and verified by A.P.S., stating the probable cost to the individual lot owners to have power extended to the subdivision, and full disclosure made on the final plat.

B. The developer should meet with A.P.S. to determine the future location of electrical easements to allow extension of service to all lots and designate those easements on the final plat as "public utility easements".

C. Reference to telephone by "U.S. West (future)" should be deleted and changed to: "not provided".

III. FLOODPLAIN:

A. Existing drainage report must be reviewed and approved by the County Engineer to ensure adequacy under amended regulations. Any changes noted by Mr. Byall should be made.

B. Existing delineations do not coincide with map submitted with original drainage report. Final delineations must conform to approved drainage report.

C. Design must be submitted to and approved by Director of Engineering Services and County Engineer for all-weather crossings at those locations where roads cross designated 100-year floodplain.

IV. OLD MINE WORKINGS:

A. On 24 Feb 1995, Deputy Director and Chief Building Official Robert Mawson issued an internal memorandum stating that due to the unknown location of sub-surface mine workings, no construction permits would be issued in Copper Canyon Ranches Units I and II without the applicant first having obtained a geotechnical report from a register, qualified engineer. This action resulted from

an on-site inspection by Mr. Mawson, concurrent with a request for a building permit. This action is fully within the power and authority of the Chief Building Official and was taken in the interest of public health and safety. The action may not be revoked by the Planning and Zoning Commission or any other County Official, except the Courts.

B. The State Mine Inspector's Office is currently mapping and cataloguing all surface workings and sub-surface workings where they are known. Once this report is completed, we should have a clearer idea of those locations where the greatest potential for subsidance exists. At such time, Mr. Mawson's order may be modified, depending on the extent to which the State Mine Inspector will specify as to the safety of certain building sites.

C. Full disclosure should be made regarding the extent of old mine workings (possibly through identification on the final plat) and of Mr. Mawson's order as it applies at the time of final plat approval, should such be forthcoming.

D. I would also draw the Commission's attention to paragraph 2, schedule B of the Preliminary Title Report (attached).

V. POTENTIAL ASBESTOS HAZARD:

A. A report prepared by Fiberquant Analytical Services dated 2-10-95, which was submitted by Ally Ong Hing, indicates the presence of chrysotile asbestos on the Hobson Claim, which encompasses parts of Lots 54, 55, 62, 63 and 64 as well as the presence of asbestos bearing strata on other claims within the proposed subdivision boundaries.

B. A copy of the report was forwarded to the State Asbestos Coordinator for ADEQ with a request for direction. It is recommended that no final action be taken on the final plat until ADEQ review has been completed and that it's recommendation be incorporated as stipulations upon final plat approval.

VI. COMPLAINTS FROM LOT BUYERS ON UNIT I:

A. Complaints from lot buyers in Unit I have been submitted to this office, to the developer and to State regulatory agencies. Both these complaints and the developer's response have been attached to this report.

B. It is recommended that the Commission consider both the complaints and the responses very carefully and insure that plat approval conditions be clearly spelled out and compliance with these conditions assured in order to minimize, to the the greatest extent possible, a similar recurrence should Phase II be approved.

VII. MISCELLANEOUS:

A. As of the date of this review, March 16, 1995, written comments have not been received from the County Engineer or the Director of Engineering Services. Any items noted in their review which have not been addressed in this report should be incorporated as stipulations to the approval of the preliminary plat.

B. A fully reviewed preliminary plat conforming to the stipulations contained in this report and the engineering report should be submitted prior to the submittal of the final plat for review, comment and hearing.

C. Approved ADOT permit for subdivision access of U.S. Highway 60, with evidence of compliance, has not been submitted as of the date of this review, and should be provided as a stipulation to the approval of the final plat.

D. Developer should be made aware that final plat will not be scheduled for public hearing until such time as all plat technical requirements and stipulations have been complied with.

DRAFT

**MINUTES OF GILA COUNTY PLANNING & ZONING COMMISSION**
**MARCH 21, 1995 - 7:00 P.M.**

The Gila County Planning & Zoning Commission met on Tuesday, March 21, 1995 at 7:00 p.m. in the Supervisors Meeting Room, Gila County Courthouse, 1400 E. Ash St., Globe, Arizona. Present were Commission members Ingo Radicke, Janice Chilton, Ray Anderson, Frank Jimenez, and Mary Ann Rasmussen; Director Bob Bigando; Administrative Assistant Judy Smrdel; Mr. Thomas Johns, Mr. Don Krayeski, Mr. Ally Hing, Mr. Anton Miller, Mr. Louis Ellsworth, Mr. Jim Valenzuela, Chief Building Official Robert Mawson, Gila County Director of Engineering Services John Trujillo, State Abandoned Mines Supervisor Alene Jones, and others (see sign-in sheet attached).

Chairman Ingo Radicke opened the meeting at 7:05 p.m., and led the pledge of allegiance. Mr. Bigando then presented the first item on the agenda.

Z-2-95 THOMAS JOHNS: request for conditional use permit to allow the use of an existing mobile home located on the N. 155' of Lot 13, Oxbow Estates as a non-rental guest house.

Mr. Johns had applied for and been granted a conditional use permit in 1989 to install the mobile home as a residence for his mother-in-law, with the conditions that it never be used as a rental unit, and was for the sole use of his mother-in-law. Mr. Johns wished to re-apply and have the condition pertaining to the mother-in-law repealed, and use the mobile for visiting friends and relatives. The request has been property advertised and posted, and no comments or complaints received by Community Development. At the time of the original installation, the septic system was approved by the Health Department, and the mobile properly permitted, installed and inspected. There have been no complaints of non-compliance received and the use is appropriate to the zoning in the area. The Community Development staff recommended approval, with the stipulation that deed restrictions be recorded prohibiting the future sale or rental of the mobile home independent of the remainder of the property, and stipulating that in the event of the sale of the property, the new owner would either remove the mobile home or re-apply for conditional use. Mrs. Rasmussen made a motion that the Commission recommend approval with said stipulations. Mr. Jimenez seconded the motion, and it carried unanimously.

The Commission then opened public hearings on a request for preliminary plat review for a proposed subdivision three miles north of Globe.

S-5-94 COPPER CANYON RANCHES, UNIT II: request for preliminary plat review for proposed subdivision in Copper Hills Area, north of Globe.

Mr. Bigando presented a detailed summary of items to be reviewed in this matter. He explained that, due to the nature of the subdivision, there were several unusual items to

be considered, and asked that he be allowed to fully present his review before turning the floor over to Ms. Alene Jones of the State Mine Inspectors office, CBO Robert Mawson, Commission questions, and then for open discussion. He mentioned that several different engineers and surveyors had worked on the plat and drainage plans at various times, and that it lacked the seal of the designated, sole responsible person who had assembled the data. Other problems with the plat included floodplain delineation and the failure of the drainage report to satisfy the requirements of the County Engineer.

Mr. Bigando's review began with comments regarding the proposed roads, particularly Copper Canyon Road, which is the main road through the subdivision. He requested the stipulation that this roadway be constructed as an all-weather road to provide year round access, and that the drainage structures and surfacing materials be acceptable to the Director of Engineering Services.

He also requested the street names and tract designations show a clear distinction, with the use of the tracts called out in the dedication statement on the final plat; all dimensions be clearly set out, with clear delineation of the length of the radius on curvilinear sections; and redesign of the intersection of Sundance Lane and Sundance Way to define the intersection and right-of-way width. Also stipulated were: submittal of a complete set of improvement plans for interior streets, all improvements to be constructed by the developer; proof of an easement for those portions of Copper Hills Rd. passing over Magma Copper Co. property; a slope easement for the maintenance of a berm and box culvert for Lots 59 and 61, and compliance to all review comments by the County Engineer and Director of Engineering Services.

The next item to be covered was utility service. The developer had stated on the plat that electric service was to be provided by APS, and telephone by U.S. West. The developer has not requested to waive provision of electricity as he had for Phase I, however he has not contracted with APS to provide it, either. A further complication is the fact that until electricity is provided for Phase I, it is not possible for APS to bring service into Phase II (see statements by APS following review portion of these minutes). Mr. Bigando stated that if it is the intent of the developer that individual owners contract for service, the developer must submit a formal request, and an accurate cost estimate be provided and verified by APS, stating the probable cost to the owners, and full disclosure be made on the final plat. Telephone service should be changed to: "not provided". Utility easements should be designated as such on the final plat, as public utility easements.

Mr. Bigando then brought attention to schedule B of the preliminary title report, wherein the title insurance company stated that they will not insure against loss, damage or injury caused by lack of lateral or subjacent support, or by subsidence, disturbance or alteration of the property resulting from mining or other operations carried on beneath the surface thereof, or water rights to Lots 87 and 90 and part of Lots 84 and 88. At this point, he recognized Mr. Mawson, who stated that the reasoning behind his requirement that no building permits be issued prior to the submission of a geotechnical study is due to the hazards presented by old mine workings, some of which are located near sites where

building permits have been issued. He feels this presents a substantial health and safety hazard.

Ms. Alene Jones, Abandoned Mines Inspector for the State then addressed the hearing; she stated that she had begun surveying the surface workings in late January, has covered 5 sections, and discovered over 300 surface works to date. Over 100 of those had shown signs of collapse, and work has not yet begun on documenting the sub-surface works, which are believed to be extensive. She stated that the Iron Cap and Boston & Superior shafts were a min. of 1,500 deep, and have very extensive underground works, some of which have collapsed. Mr. Hing asked her if she had seen signs of surface asbestos or toxins, and she replied that, yes, she had. She has submitted a preliminary report, and said that the final report would follow. The report that she submitted (as a preliminary) noted many sites identified as "significant public safety hazards".

Mr. Bigando then presented a letter he had written to ADEQ, asking for an opinion, based on a study submitted by Fiberquant, a firm employed by Mr. Hing to assess the asbestos hazard on the property. The report documented finding some quantity of asbestos bearing rock on several claims, mainly on the Hobson Claim, which is within the proposed subdivision boundaries. The ADEQ was asked for guidance concerning the health hazard, if any, and to recommend procedure. No response has been received to date.

The representatives from APS were given the floor, to present their statements regarding this development. Mrs. Rasmussen asked Mr. Valenzuela if the roads must be County roads to be acceptable to APS as an easement for utilities, he responded that it is so, or the easements must be granted by each individual lot owner. Mr. Radicke then asked if the roads must be up to standard in order to be accepted by the County, and Mr. Bigando answered that, yes, they must be up to County standard. Mr. Valenzuela then mentioned that the easement difficulties, along with the rough terrain, made bringing electric into Phase I of the subdivision both expensive and complicated. Until the power is brought into Phase I, Phase II cannot be even contemplated, let alone begun. Ms. Jan Van Ness, of APS added her concerns that prospective buyer are under the impression that APS is planning to bring in electrical service, and are not being informed that it will have to be contracted by the individual homeowners. Mr. Valenzuela has estimated the cost at approximately $400,000, which is non-refundable, just to get the power into Phase I, and has done no cost studies on Phase II.

Mr. Hing asked if the hearings were open to public comment. Chairman Radicke advised him that it was. Mr. Hing stated he is one of the mineral rights holders, and that the road and railroad berm had been constructed in 1910 of materials from the ore dumps. At that time, 2% ore was considered of little value, and 23,000 cubic yards were used. That ore is now worth better than $1,000,000, and assay shows another $1,000,000 or so in the dump area. He owns the dump and the road and the berm, and his attorney has advised him that he has suffered damage and should sue. Mr. Hing stated also that he is upset that the mineral owners may face a liability if someone is hurt, due to their ownership of

the mine workings, but that they share no portion of the approval/disapproval process, other than the opportunity to speak out and be ignored. Mr. Hing said that the rights that Cyprus transferred, they did not own; he said that all they had ownership of were grazing rights and the rights to construct as needed to support the grazing. Mr. Hing believes that Cyprus is legally unable to transfer easements or the right to construct septic tanks and residences upon the land. Mr. Bigando stated that, upon the advise of the County Attorney, he had advised Mr. Hing to take civil action to determine what everyone's rights where, and that this issue could not be decided in a Commission hearing. Mr. Bigando had also made it a matter of public disclosure in the Public Report and sales literature that the matter of mineral rights, ownership and mining activity were unresolved. Mr. Rocky Miller and Mr. Louis Ellsworth also addressed the Commission regarding their mineral claims and the concerns that they have regarding public safety and liability. Mr. Miller, in particular, was extremely upset and also expressed concerns about the asbestos and uranium which had been mined in the past. He stated that no-one knows exactly where all of the claims and workings are, there has been a lot of collapse and subsidence, and that when he posts signs and puts up fences, they are torn down. Mr. Miller felt it was unfair to expose him to the liability when he is unable to enforce safety precautions; trespassers can sue if they jump the fence and venture into a shaft, even if it is posted "keep out, safety hazard".

Mr. Don Krayeski then spoke to the Commission regarding the above: he opened by saying that the plat deficiencies would be corrected and returned to Development within a week. He asked if the plat was corrected, could the final plat review be scheduled? Mr. Bigando responded that it could, if the roads and floodplain deficiencies were corrected upon the preliminary, that the balance could be shown on the final plat. Mr. Bigando also told him that the drainage report would have to be revised to comply with Mr. Byall's and ADEQ's requirements. Mr. Krayeski asked what changes would need to be made, Mr. Bigando responded that Mr. Krayeski would need to discuss those matters with his consultant. Mr. Radicke questioned whether the plat would include easements for utilities, and Mr. Krayeski said he had dedicated a blanket easement in the roadways, and 10 foot perimeter easements along the lots in Phase I, but APS would require individual easements from the owners in Phase II. Mr. Radicke inquired from Jim Valenzuela if that would adequate, and Mr. Valenzuela responded that it would not, that the locations were so scattered that it was an engineering nightmare. Mr. Bigando restated that to avoid the type of misunderstandings which occurred in Phase I, the best disclosures possible must be made of the charges for APS to extend power and must be incorporated into all reports and the plat. Mr. Kidd, of APS, then discussed the extension policy, which is tied into cost -vs- revenue, and the non-refundable charges which would be incurred, and stated that although he had received inquiries from various homeowners, he had not received any requests for a contract to date.

Mr. Krayeski then said that he had made inquiries over the years, and the price had fluctuated. He felt he could cut the expense in half by contracting independent linemen to install the poles, transformers and other hardware and string the cable, to APS specs, and cited some examples where this had been done. Mr. Valenzuela told him that APS

was aware of alternative methods, but that the rough terrain and size of the lots were major factors in the cost to provide electric to this subdivision and that he is more interested in making these facts plain to the public. Mr. Krayeski then asked Mrs. Janie Woller of the Arizona Corporation Commission if the work were subcontracted and performed to APS specs, would APS then be required to extend the power to the subdivision?, and she responded yes, it would. Mr. Krayeski said he would request the waiver of requirement to extend the power, and make full disclosure.

The stipulation for an all-weather passenger vehicle road then was brought up by Mr. Krayeski. He stated that this had already been done and the road was a good road. Mr. Bigando disagreed, saying that it was not considered an all-weather road at this time. Mr. Krayeski stated that the rains have been extremely heavy, and that "no road is perfect", Mr. Bigando restated that the stipulation would remain. Mr. Krayeski asked why this subdivision was being singled out in this manner, particularly the requirement for geotechnical studies. He felt this was extremely unfair. Mr. Bigando explained that this is the only development of its type in the County, being built upon such a heavily mined property. The testing requirement is not unique, as the CBO is required to enforce public health and safety, and in fact would be derelict in his duty if he did not require such testing. If a building had been permitted, and then collapsed due to subsidence, the County would aquire liability due to the issuance of the building permit. Robert Mawson stated that in effect, the area could accurately be described as honeycombed, and the State has saved the property owners a considerable sum by coming out and mapping the shafts, but that drifts are not only possible but quite probable underground. It will take a geologist to assess those. The State has recommended a geological survey of the entire area. Mr. Krayeski said he has been in contact with the State Mining Office and Mr. Hing in order to get a clear picture of the extent of tunnels, Mr. Hing denied that Mr. Krayeski had ever contacted him. He asked Mr. Krayeski when he intended to pay Mr. Hing for the material Mr. Hing claims was stolen to surface the roads, Mr. Krayeski declined to respond. Mr. Bigando then interjected that regardless of anything anyone had to say, that in the case of the geotechnical survey requirement placed by Mr. Mawson, the requirement will remain in place until such time as revoked by Mr. Mawson. Mr. Krayeski then stated that he had spoken to "someone" at ADEQ, and was told the asbestos was no problem. He had also spoken to FiberQuant, who had performed Mr. Hing's assay, and was told asbestos was typical to Globe. Mr. Bigando said that would be decided by the State and he would go by the response to his request for direction. He mentioned that the County had paid to cover an entire subdivision with 4 feet of dirt, due to an asbestos problem.

Mr. Ellsworth then addressed the Commission again, saying that the public report advises people to go out and look for themselves, but no one does. He also said that study has shown a significant ore body buried 400-600 feet below the surface, that until now it was not feasible to go after it but with higher prices for ore and better methods, he is sure someone will be going after it and he doesn't feel this is a proper place for people to buy homes and raise families. Mr. Ellsworth stated that he doesn't believe anyone should take his, Mr. Krayeski's or Mr. Long's or Mr. Hing's word for this, that they should just go

out and look at the property. He has the first claim issued in the state and although it is capped, it is over 2,000 feet deep and is still dangerous.

Ms. Van Ness then restated her concern that she gets letters from property owners which simply state.."please extend the power", and she feels that the owners have been misled. Mr. Long said that he is resentful of the implication that owners are not being properly advised about the mineral rights or the electrical power. Ray Anderson asked if the mineral holders could mine the subdivision right now, Mr. Hing said that they could but would not, that they were gentlemen and would wait for the courts to decide. He then reiterated that there have been millions of tons removed underground, no one knows where all of the tunnels and drifts are located, and that there is over $1 billion left under Old Dominion, by 1957 price calculations, inaccessible due to water, but maybe retrievable in future by advanced methods.

Mrs. Rasmussen then made a motion that until the mine and asbestos reports are in, the matter should be tabled. At that point, with the corrected preliminary plat, acceptable drainage report and the mineral questions resolved, the preliminary review will be rescheduled. Mr. Jimenez seconded the motion which passed unanimously and the meeting was adjourned at 9:20 p.m.

those who bought for the purpose of making a profit on land sales. The zoning change would not prohibit land splits, but would require a hearing process to aid in orderly planning. Zoning changes do not go into effect until 30 days after approval.

In response to a request for a show of hands, most of the persons attending the hearing were in opposition to the change.

Mr. Bigando explained the provisions of the Zoning Ordinance on existing uses.

There were no more comments from the public or the Commission. Mr. Salter moved that action be tabled and that the Commission hold public information meetings at affected areas. The motion was seconded by Mr. Kumparak and unanimously carried. The Development Office was asked to contact Mr. Ewing and Mrs. Rambo when a date is set for the Tonto Basin meeting, and Mr. Louis Fodera will be the contact person for Wheatfields.

Mr. Ewing said a zoning map is needed which shows the entire Tonto Basin area. The Development Office is now updating the zoning maps.

S-1-89 COPPER CANYON RANCHES I - Preliminary Plat Review:

Mr. Bigando presented the preliminary plat of the first phase of a proposed subdivision in the Copper Hills area north of Globe. The plat covered 537 acres, with 52 lots and one tract. Average lot size was 10.3 acres, with minimum size being 4.1 acres. Bernard Comeau represented the developers, Copper Hills Ltd. Partnership, and Rick Bunger and Paul Hansen represented the engineers, Hansen, Bunger and Hansen.

The Commission was given copies of the Staff report, which is attached to these minutes. Mr. Bigando said there is no completely dedicated access to this part of the proposed subdivision. Copper Hills Road was made a public road in 1906, and it comes into another part of the proposed subdivision but does not connect with Phase I. It has been proposed that Copper Hills Road be abandoned because it was designed for ore wagons hauled by mules and could cause liability problems for the County. If it is abandoned, ownership would revert to Magma Copper Company. Mr. Bigando suggested the developer obtain access from Hwy. 60 though Apache Peaks; if they cannot do this, they will be asked to bring Copper Hills Road up to County standards. Mr. Bigando said he would like to develop an alternate standard for all-weather unpaved subdivision streets which would be suitable for this type of subdivision.

There are some serious problems regarding the status of title, since most of the land consists of mining claims on which the developers own only the surface rights. An opinion from the County Attorney expressed some doubt as to whether the developers can perform normal development on the property. The Attorney's letter stated that it appears litigation may be needed to settle

the matter; it recommended full disclosure on the condition of the title and asked that any action forwarded to State regulatory agencies include a copy of the Attorney's memorandum.

Mr. Bigando gave the Commission a copy of his technical review of the plat, which is attached to these minutes. He said the developer should provide slope easements if the terrain will not permit the requested street width, and asked that Copper Canyon Drive be treated as a main collector street designed to permit the flow of traffic through the entire subdivision.

Mr. Comeau said that A.P.S. proposed to use overhead lines for the main line, with spurs going underground. The Corporation Commission must approve the overhead lines.

A letter was received stating that the plat had been sent to the appropriate reviewing agencies, but no comments had been received. Mr. Comeau stated that the plat had been submitted to the Dept. of Water Resources.

Staff recommendation was for approval subject to obtaining dedicated alternate access, arriving at a standad for construction of all-weather/non-paved roads that can be accepted into the County system, meet all stipulations as presented to the Commission, and full disclosure on final plat and sales material relative to the opinion of the County Attorney as approved by the Attorney and Development Office.

Louis Ellsworth said he owns about 80% of the mineral rights in the Phase I area. He had several geological reports showing radon in excess of three times the normal range. Mr. Ellsworth stated that deposits of silver, manganese and copper, together with a plentiful water supply, give a potential for a big mine on this property; the property was meant for grazing cattle, and present roads are dangerous. Mr. Ellsworth said he had obtained information from an attorney showing 9 favorable court decisions on similar cases.

There was no further discussion, and Mr. Salter moved the Commission approve the preliminary plat subject to compliance with the Staff recommendation presented by Mr. Bigando. Mrs. Chilton seconded the motion, which carried.

Z-3-89 COPPER CANYON RANCHES: Mr. Bigando recommended that the entire area of the proposed Copper Canyon Ranches subdivision be rezoned from R1 to SR. Mrs. Chilton moved that the Commission initiate a hearing to rezone as recommended by the Development Staff. Mr. Iverson seconded the motion, which carried.

There being no further business, the meeting adjourned at 9:05 p.m.

Maureen Davidheiser, Secretary

a motel and originally asked for CU zoning; however, Mr. Bigando suggested he apply for C2 because it is a large piece of property next to the highway, and there Pine needs commercial land. CU zoning would require an additional petition and a hearing for a Conditional Use Permit for a motel; C2 would require a Use Permit. The Commission reviewed C2 zoning provisions. Mr. Bigando advised the Commission they could recommend more restrictive zoning if they wished. Mr. Iverson expressed concern over additional uses allowed in C2 and said there is an access problem because of the 2-lane road and a hill.

Mr. Jones stated that ADOT will require a deacceleration strip for safe access. Mr. Jones said he had a well north of Pine delivering 81,000 gallons per day and will drill another well on this property; there are negotiations to combine the water company at The Portal with E&R Water, and if this happens, Mr. Jones will offer to lease them his well for a nominal charge until his property is developed. Mr. Jones plans to offer the property to major motel chains, including Little America. The land has a good stand of mature trees.

Mr. Iverson moved the Commission recommend approval, and the motion was seconded by Mr. Kumparak and unanimously carried. Mr. Iverson cautioned that any use other than a motel should be carefully reviewed.

SUBDIVISION REVIEW

S-1-90 Mesquite Subdivision: Developer Barry Giles and engineer John Saban attended the meeting. Mr. Bigando presented the final plat and said it substantially complied with technical requirements, and the only issue was how the private road will be handled--the deed restrictions and dedication must comply with the way the road is shown on the plat. Mr. Bigando recommended approval subject to any modification that may be required in the dedication statement resulting from means by which ownership of Tract B (road) will be vested. Mrs. Chilton moved the Commission approve the plat with the recommended stipulation, and the motion was seconded by Mr. Kumparak and carried.

S-1-89 Copper Canyon Ranches 1: Engineer Paul Hansen and representatives of Copper Hills Limited Partnership attended the meeting. The Commission reviewed a letter requesting exclusion from certain stipulations on preliminary plat approval. Discussion followed:

Drainage: Request for waiver of requirement to describe and dedicate drainageways and show minimum floor elevations on lots - Mr. Bigando said an acceptable drainage and hydrology study was submitted; drainage is well-defined and well-contained; lots are very large, and there will be buildable areas outside of any flood hazard on each lot. The developer planned to show flowline of major watercourses and floodway areas corresponding to an elevation 3 feet above the streambed. Mr. Bigando recommended this request be granted.

Mr. Ellsworth asked about the effect on owners of mineral rights, since the developer owns only surface rights. Mr. Bigando said this question was not relevant to discussion on drainage--the County Attorney had advised the Commission they should not act as a legal body and advised the mineral rights owners to take legal action to hold their rights. Mr. Ellsworth objected to changing previous requirements for plat approval. Mr. Miller stated the County is risking liability for development of an area which was surveyed by the Atomic Energy Commission and showed radiation readings which were unacceptable for residential buildings. Mr. Miller said an additional study was made which showed some dangerously high readings, and that if ground is disturbed, it could create an enviromentally hazardous area and expose the County to lawsuits.

Water & Sewer: The developer does not want to do an individual percolation test on each lot. Mr. Bigando asked for a note on the plat and in the deed restrictions that responsibility for compliance with Bulletin 12 rests with the lot owner and that alternative individual systems may be required on some lots.

Utilities: The developer asked the Commission to waive requirement of street lights, natural gas lines, and underground utility lines (utility line location is subject to approval by the Corporation Commission). Mr. Bigando concurred with waiver of street lights and gas lines, and also with waiver of curbs, gutters and sidewalks. Mr. Bigando said he felt that utilities should go underground because this is a pristine, scenic area with some historically significant sites, but the Commission would have to weigh the developer's cost against esthetics. The developer applied to the Corporation Commission for a variance to allow overhead lines, and the Corporation Commission inspected the property. Mr. Comeau said cost of overhead utility lines would be $250,000-$260,000, and cost of underground utilities would approach $2.2 million. The development has 1,600 acres, and with underground utilities the land would be priced out at $1,400 per acre. Mr. Comeau said soil is very rocky in some places, with difficult access for equipment, and there would have to be a 20-40 ft. wide strip cut in for underground utilities; providing underground utilities would make this project not feasible. Frank Castillo said that A.P.S. advised the Corporation Commission that A.P.S. would provide electricity either overhead or underground.

Mr. Bigando said that, based on this cost information, he would soften his recommendation, but perhaps there could be a mixture of overhead and underground lines. Mr. Comeau stated that the main lines had to be overhead, but, based on terrain conditions, it might be possible to run lines underground to serve some of the lots; this is a recreational subdivision with 5, 20, and 40 acre parcels, so lines would be far apart. Mr. Hansen said routing plans had not been completed, but overhead lines would be lower than homesites. Mr. Castillo stated that, depending on terrain, poles could be spaced as far apart as 350 ft.; for

a single-phase line, the pole would be about 30 ft. out of the ground, with one wire on top and another line farther down. Mr. Bigando felt the staff needed more time and a chance to look at the routing before making a decision. Mr. Comeau asked if the final plat and rezoning could be scheduled for the next meeting if routing plans are completed, and Mr. Bigando said this should be possible. A legal description of property boundaries is necessary for legal advertising.

Roads: Request for permission to utilize AASHTO standards cited as basis of road design; waiver of pavement requirement; allow private streets with appropriate variance on lengths and lots served; additional variance on maximum slope for several short road segments -

Mr. Bigando said that alternative road standards had not yet been developed by the County, and he did not want to delay the project on this account. The staff recommended concurrence with the request, with a stipulation that roads be surveyed as a unit and shown as a tract on the final plat, with lot lines ending at the road easement instead of at the center line.

Mr. Bigando recommended variances be allowed on everything except utilities in accordance with what was described at this meeting and in accordance with the Staff recommendation, with utilities to be considered at the next meeting. Mrs. Chilton moved that this recommendation be adopted; Mr. Iverson seconded the motion, which carried unanimously. The final plat and rezoning request, with the Commission's recommendation, will go to the Board of Supervisors for final approval.

A scheduled planning training session was postponed to a later meeting.

There being no further business, the meeting was adjourned at 8:30 p.m.

Maureen Davidheiser, Secretary

# Arizona State Mine Inspector's Office

# Preliminary Report Of The Abandoned Mine Openings In The Area Of The Copper Canyon Ranches Development

# Preliminary Report Of Abandoned Mines Located Within The Copper Canyon Ranch Development Area

## Section Summary

Township: 1N
Range: 15E
Section: 12

*Summary Of Mines Surveyed:*

| | |
|---|---|
| Mine locations on *Globe* topographic map: | 14 |
| Mine locations on topographic map now closed or filled: | 2 |
| Mine locations on topographic map unable to locate: | 0 |
| Mine locations on topographic map unable to access: | 0 |
| Mine locations not on topographic map: | 7 |

*Totals From Field Work:*

| | |
|---|---|
| Total number of open shafts: | 2 |
| Total number of open adits: | 7 |
| Total number of prospects located: | 10 |
| Total number of open pits / quarries: | 0 |
| Total mines surveyed: | 21 |
| Total mines open at time of survey: | 19 |
| Total Mines With Possible Environmental Hazards: | 1 |
| Total Mines With Significant Public Hazards: | 2 |

*Environmental Assessments*: The site mapped at "Q" is a party/dump site with tire or wire burning. Hundreds of broken bottles, several shot-up barrels, paint cans, cars and lots of trash litter the site which extends for hundreds of feet along the wash. There are also several fire pits, some with 2" to 3" of residue in them, possibly the remnants of burned tires

*Section Synopsis:*

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| A | 1N-15E-12-001 | 32 | Mapped shaft, 15'x8'x40'+, probably connects to the unmapped adit, 5'x1'x20'+, below. The shaft has poor stability and the adit portal is mostly collapsed. Together the openings have a moderate size waste pile. | @ |
| B | 1N-15E-12-002 | 24 | Mapped adit, collapsed, and unmapped prospect. The collapsed adit has a 1'x2' portal and may have a depth greater than 20' The unmapped prospect, 6'x7'x2', is 40' northeast. | |
| C | | | Mapped prospect, 1'x5'x0'. | |
| D | | | Mapped prospect, 20'x3'x1' trench. | |
| E | 1N-15E-12-003 | 30 | Mapped adit and shaft. The shaft is 6'x8'x75' with poor stability. A few timbers are scattered around and in the shaft. The shaft is fenced. The adit is 2'x2'x20'+ with poor stability. A small mammal may reside inside the adit. | @ |
| F | | | Mapped prospect, found filled. | |
| G | | | Unmapped prospect, 8'x5'x3'. | |
| H | 1N-15E-12-004 | 22 | Unmapped adit, 3'x2'x20'+ with timber supports inside. | |
| I | | | Mapped prospect and unmapped prospect. Mapped prospect is 4'x3'x7' (adit-like). Unmapped prospect is 15'x8'x2' pit, 30' west of mapped one. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| J | 1N-15E-12-005 | 19 | Mapped adit, closed with a 1/3" metal door welded to a culvert pipe. The door had warning signs posted on it but they are gone. Other warning signs and danger signs are posted in the area. A very large waste pile is associated with this opening. There are several cement foundations nearby and a wooden ore chute. *From the literature:* The Irene Tunnels consists of two tunnels (see also K). The first adit is approximately 300' long and intersects a 800' vertical shaft. In 1982 a 15 year old boy died in this mine. He entered through this adit and fell down the shaft. His body was recovered at a depth of 250'. | |
| K | 1N-15E-12-006 | 26 | Mapped adit with a mostly collapsed portal. The remaining opening is 1'x3'. The adit is over 25' long. The portal is located beneath a loose and unstable overhang. There is a large waste pile associated with this opening. | |
| L | | | Unmapped prospect, 15'x8'x4' cut in hill. | |
| M | 1N-15E-12-007 | 24 | Mapped adit and prospect. The adit is located within a 4'x4' pit and measures 4'x3'x20'+. The adit has moderate stability. The collar of the pit is loosed and unstable. A moderate amount of waste is present. The prospect is a 5'x5'x8' cut in the hill. | |
| N | | | Mapped as an adit, found a trench, 10'x40'x5'. | |

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| O | 1N-15E-12-008 | 13 | Party/dump site with tire and wire burning. There are hundreds of broken bottles, several shot-up barrels, paint cans, cars and lots of trash at the site. There are also several fire pits, some with 2" to 3" of residue in them, possibly the remnants of burned tires. | |
| P | 1N-15E-12-009 | 26 | Mapped adit, 4'x2'x25'+, and an unmapped prospect, 15'x5'x1' trench, located above the adit. | |

*Map*: Globe Quadrangle Topographic Map (U.S.G.S., 1945, photorevised, 1982)
Original map scale: 1:24,000
Enlargement: 225%
Scale of map: 1:10,666

## Section Summary

Township: 1N
Range: 15E
Section: 13

***Survey work in this section has not been completed.***

*Summary Of Mines Surveyed:*

Mine locations on *Globe* topographic map:
Mine locations on topographic map now closed or filled:
Mine locations on topographic map unable to locate:
Mine locations on topographic map unable to access:
Mine locations not on topographic map:

*Totals From Field Work:*

Total number of open shafts:
Total number of open adits:
Total number of prospects located:
Total number of open pits / quarries:
Total mines surveyed:
Total mines open at time of survey:
Total Mines With Possible Environmental Hazards:
Total Mines With Significant Public Hazards:

*Environmental Assessments*: A very large waste pile exists at the Mallory Shaft. This waste pile has a sulfurous smell and small pyrite appear to be growing on the surface of the waste pile.

*Section Synopsis:*

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| A 1 | | | Two unmapped prospects; upper is a 15'x15'x8' pit, lower is a 10'x5'x1' trench. | |
| B 2 | | | Two unmapped prospects, unable to locate. | |
| C 3 | | | Mapped prospect, 20'x1'x2' trench. | |
| D 4 | | | Mapped prospect, 6'x30'x3' trench. | |
| E 5 | | | Mapped prospect, and unmapped prospect. Mapped prospect is 5'x7'x4'. Unmapped prospect is 15'x5'x5', 30' northeast. | |
| F 6 | | | Mapped as 1 prospect, found 6. Mapped prospect is 15'x25'x7' pit. Unmapped prospects are: 8'x8'x3' (20' north); 6'x6'x4' (5' south); 6'x5'x6' (10' west); 5'x6'x3' (30' northwest); 8'x8x10'x4' deep triangle shaped prospect (20' south). | |
| G 7 | 1N-15E-13-001 | 27 | Mapped shaft, 8'x5'x25'. | @ |
| H 8 | 1N-15E-13-002 | 25 | Mapped adit, 4'x6'x20'+, within an unmapped prospect trench, 25'x4'x9'. | |
| I 9 | | | Mapped prospect, 30'x6'x8'. | |
| J 10 | | | Unmapped prospect, 25'x3'x3' trench. | |
| K 11 | 1N-15E-13-003 | 32 | Mapped shaft, 40' diameter and 60' deep. The pit is very unstable and has excessive amount of waste. Waste contains pyrites and has a sulfurous smell. The shaft is fenced. "The Mallory Shaft" | @ |
| L 12 | 1N-15E-13-004 | 25 | Mapped adit, 2'x3'x10'+, and unmapped prospect, 5'x10'x<5'. The adit is unstable and collapsing. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| M 13 | 1N-15E-13-005 | 24 | Two mapped adits, one mapped shaft, one mapped prospect. The southern adit is 6'x6'x12' with a partially collapsed portal. This adit is at the end of a 20'x6' trench. There is a 6'x6'x20' shaft at the end of the adit. The second adit is 4'x5'x10'. The mapped shaft is a 15'x5'x10' stope. The prospect is a 150'x10'x20' trench. | |
| N 14 | | | Mapped as an adit, shaft and prospect; found three prospects: 5'x5'x1' (mapped as adit), 20'x8'x3' (mapped as shaft), and 20'x6' quarry-like prospect. | |
| O 15 | | | Three unmapped prospects: 30'x3'x4' trench, 5'x3'x2' (to the west, connects with trench), and 5'x5'x3' (connects with the eastern end of the trench). | |
| P 16 | 1N-15E-13-006 | 31 | Mapped as two prospects, found one shaft and three prospects. The eastern mapped prospect is the shaft. It measures 15'x10'x35' and has poor stability. The western mapped prospect is 10'x8'x5'. Five feet west is a 8'x10'x3' prospect. Ten feet farther west is a 10'x15'x13' prospect. | @ |
| Q 17 | | | Three mapped prospects and one unmapped prospect: 8'x5'x5' (southern prospect), 25'x10'x5' trench ( southwestern prospect), 6'x6'x1' (northeastern prospect), and 10'x8'x3' trench (5' northeast of the southwestern prospect). | |
| R 18 | 1N-15E-13-007 | 29 | Mapped shaft, 5'x5'x75', with an excessive amount of waste but fair stability. | @ |
| S 19 | | | Mapped prospect, 6'x3'x3' trench, and unmapped prospect, 4'x4'x2' trench, 1' north. | |

@ Indicates Significant Public Hazards.

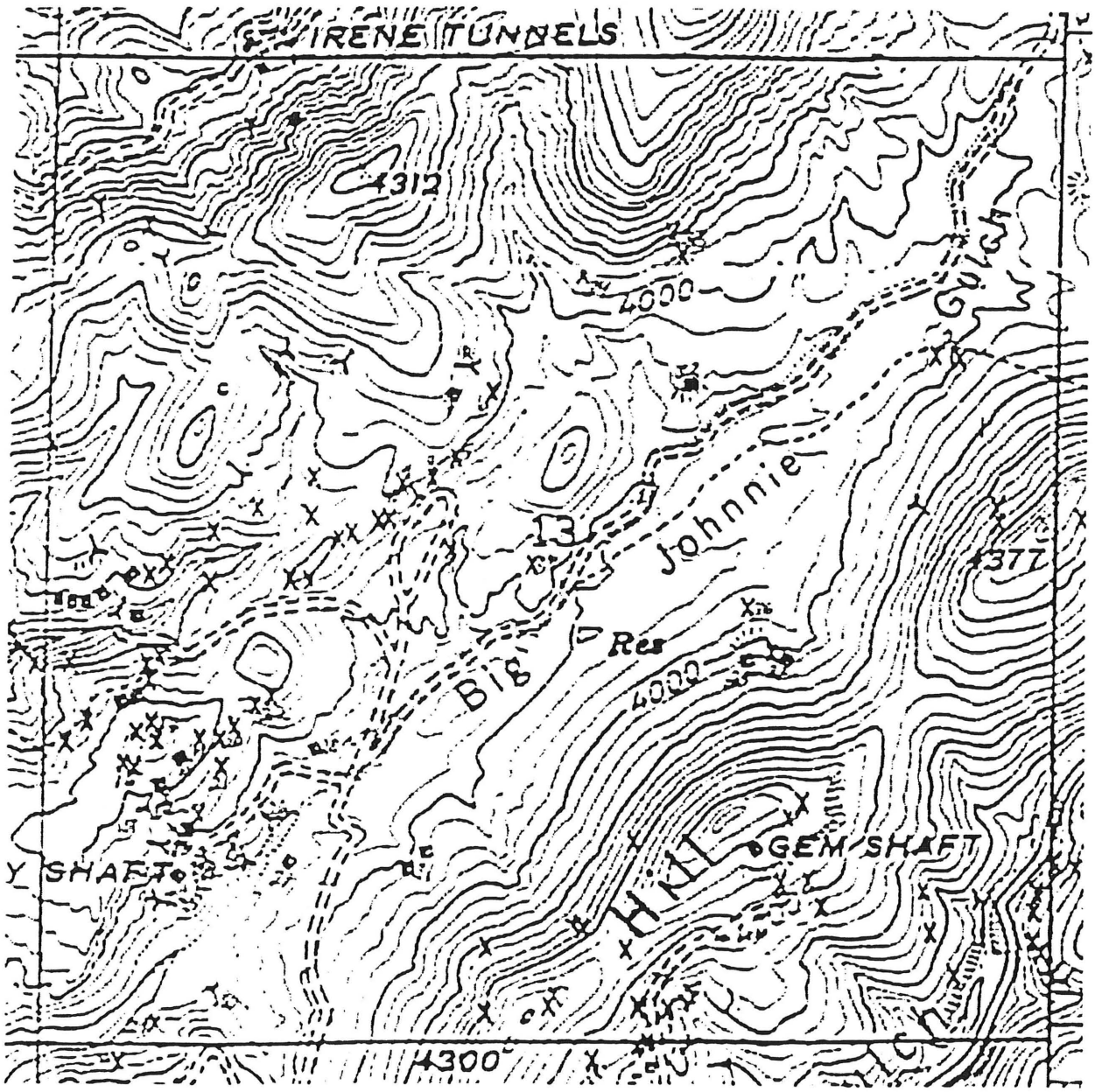
| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| T 20 | | | Two mapped prospects and one unmapped prospects: 40'x6'x10' trench (southern mapped prospect), 40'x10'x8' trench (northern mapped prospect) and 10'x8'x5'. | |
| U 21 | 1N-15E-13-008 | 31 | Mapped as a prospect, found a shaft and three prospects. The collar of the shaft is 10'x15' at the surface but narrows to 8'x8'. The shaft is at least 35' deep and has poor stability. The mapped prospect is 4'x4'x2'. A 8'x8'x5' prospect is located 10' north and a 4'x4'x3' prospect is located 15' south. | @ |
| V 22 | | | Two mapped prospects: 10'x10'x2' (southern) and 6'x4'x3'. | |
| W 23 | | | Unmapped prospect, 8'x6'x8'. | |
| X 24 | | | Mapped adit, now filled. | |
| Y 25 | | | Mapped adit and prospect. Adit is now filled. Prospect is 2'x2'x1'. | |
| Z 26 | 1N-15E-13-009 | 21 | Mapped adit, 1'x1'x10'+. The portal is mostly collapsed. The adit is located next to the waste pile of the Mallory Shaft directly above the wash. | |
| AA 27 | 1N-15E-13-010 | 29 | Mapped shaft, the collar is unstable and measures 15'x10' at the top. It narrows to 6'x5' and the shaft is 35' deep. The shaft is filled with timbers and scrap metal. | @ |
| AB 28 | | | Mapped as shaft, found prospect, 15'x20'x8'. | |
| AC 29 | | | Mapped prospect, 4'x5'x3', adit shaped. | |
| AD 30 | | | Mapped adit, now filled. | |
| AE 31 | | | Two mapped shafts, now filled. Found two waste piles. | |
| AF 32 | 1N-15E-13-011 | 31 | Mapped shaft, 12'x8'x100'. | @ |
| AG 33 | | | Two mapped prospects, filled. Found waste piles. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AH 34 | | | Mapped prospect, filled. | |
| AI 35 | 1N-15E-13-012 | 29 | Mapped shaft, 25' in diameter and 50' deep. The collar is loose and unstable. A piece of sheet metal extends over the shaft like a diving board. Bees live in the shaft. | @ |
| AJ 36 | | | Mapped prospect, unable to locate. | |
| AK 37 | | | Mapped as shaft and prospect, found two prospects: 30'x20'x8' pit and 12'x8'x4' cut in hill. | |
| AL 37 | | | Mapped prospect, unable to locate. | |
| | | | *Remainder of section to be surveyed Week of 3/20/1995.* | |

@ Indicates Significant Public Hazards.

*Map*: Globe Quadrangle Topographic Map (U.S.G.S., 1945, photorevised, 1982)
Original map scale: 1:24,000
Enlargement: 225%
Scale of map: 1:10,666



# Section Summary

Township: 1N
Range: 15*1/2*E
Section: 10

*Summary Of Mines Surveyed:*

| | |
|---|---|
| Mine locations on *Globe* topographic map: | 73 |
| Mine locations on topographic map now closed or filled: | 7 |
| Mine locations on topographic map unable to locate: | 2 |
| Mine locations on topographic map unable to access: | 0 |
| Mine locations not on topographic map: | 35 |

*Totals From Field Work:*

| | |
|---|---|
| Total number of open shafts: | 21 |
| Total number of open adits: | 8 |
| Total number of prospects located: | 62 |
| Total number of open pits / quarries: | 8 |
| Total mines surveyed: | 106 |
| Total mines open at time of survey: | 99 |
| Total Mines With Possible Environmental Hazards: | 0 |
| Total Mines With Significant Public Hazards: | 13 |

*Environmental Assessments*: Several sites in this section have old mill sites or ore chutes. These include the sites at AD through AF and AU.

*Section Synopsis*:

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| A | 1N-15.5E-10-001 | 31 | Mapped shaft, 20'x20'x100'+, with moderate stability and excessive waste. A few small cement foundations and some pipes are located in and around the shaft. The shaft is fenced but the sign that had been posted was missing. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| B | | | Mapped as a shaft and prospect, found 2 prospects and an unmapped prospect. Prospect mapped as shaft measures 10'x6'x7'. Mapped prospect is 10'x10'x2', 120' south of shaft. Unmapped prospect is a 20'x2'x2' trench, 70' south. | |
| C | 1N-15.5E-10-002 | 33 | Mapped as seven adits and one prospect; found four adits, one shaft, three prospects, and one filled adit. From bottom to top they are:<br>1. Mapped adit, found prospect trench, 20'x10'x3'.<br>2. Mapped adit, now filled, covered by waste pile.<br>3. Mapped adit and unmapped shaft. The adit is 4'x4'x40'+ and is connected to the shaft which is 6'x3'x25'. Both the shaft and adit have poor stability. The adit also had shallow water on its floor. The adit may extend past the shaft.<br>4. Mapped adit, found trench, 150'x10'x10'.<br>5. Mapped prospect and adit, found adit, 4'x5'x50'+, with moderate stability. The adit is at the end of a trench.<br>6. Mapped as two adits, found two adits within a trench. The trench measures 50'x8'x15' and trenches northeast. One adit is at the northeast end and measures 4'x6'x10'+. The other is located at the southwestern end and measures 3'x6'x10'+. Both adits may connect.<br>A northeast trending trench runs through the entire area, connecting sites 1 through 5. There area also several large waste piles associated with the entire area. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| D | 1N-15.5E-10-003 | 27 | Mapped as a shaft; found a collapsed pit, 10'x10'x10', with a collapsed drift at the bottom. The drift has a 2'x2' portal. | @ |
| E | 1N-15.5E-10-004 | 27 | Mapped as a shaft; found two shafts connected by a drift. One shaft is 20'x20'x20'; the other is 10'x10'x15'. The drift between them is 8'x5'x10'. Both shafts are partially timbered. Both are partly collapsed and very unstable. | @ |
| F | 1N-15.5E-10-005 | 26 | Mapped as four prospects, found a shaft and three prospects. The shaft measures 15'x15'x15' and is partially collapsed. There are timbers, pipes, and a wooden ladder within and around the shaft. The prospect east of the shaft measures 3'x5'x4'. The prospect directly west of the shaft is a 5'x3' cut. The westernmost prospect consists of several small bulldozer scrapes. | |
| G | | | Mapped prospect, 5'x4'x1'. | |
| H | | | Two unmapped prospects, 5'x4'x2' and 12'x2'x2', 40' south. | |
| I | | | Mapped prospect, 5'x5'x3'. | |
| J | | | Mapped prospect, unable to locate. | |
| K | | | Mapped prospect, 6'x20'x6'. | |
| L | | | Mapped shaft, unable to locate. | |
| M | | | Four mapped prospect: northern two prospects are both 20'x10'x5'. Southern two prospects, found several small bulldozer scrapes. | |
| N | | | Mapped as a prospect, filled. Found a 10'x10'x15' waste pile. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| O | | | Mapped prospect, 20'x2'x2.5' trench. | |
| P | | | Mapped prospect, 4'x50'x2' trench. | |
| Q | 1N-15.5E-10-006 | 27 | Mapped as two shafts and one adit, found six prospects, five or which are large, interconnecting trenches, The adit is collapsed. Beginning at the top of the hill and proceeding down southwest the first trench is about 100' long, between 3' and 30' wide, and between 5' and 15' deep. A west -east trending trench, 40' long, 4' to 10' wide, and 3' to 6' deep, branches off from the southwest end of the first trench. A 6'x5'x5' prospect is located 20' south of the trench. A 40'x8'x5' trench is located 50' southwest of the first trench. Twenty feet farther southwest is another trench, 250' long, 20' wide and 20' deep. The two mapped shafts lie within this trench and both are collapsed. A trench, 50'x8'x10', branches off from the southwest end of the previous trench. The entire mountainside in this area is disturbed and there is an extensive amount of waste. | @ |
| R | | | Mapped adit, filled. | |
| S | | | Mapped prospect, 15'x6'x1'. | |
| T | | | Unmapped quarry, 20'x30'. Possible recently workings. | |
| U | 1N-15.5E-10-007 | 23 | Mapped adit, mostly collapsed. A 1'x2' portal remains. The depth could not be determined. The stability is poor. | |
| V | | | Mapped prospect, filled. Found small waste pile. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| W | | | Mapped prospect, 30'x4'x4' trench, and two unmapped prospects, 10'x2'x3' trench and 10'x2'x1' trench. | |
| X | | | Mapped as an adit, found prospect, 25'x4'x0'-7' trench with two holes, each 3'x1'x10'. | |
| Y | | | Mapped prospect, 6'x6'x2'. | |
| Z | | | Two mapped prospects, 5'x8'x5' (eastern) and 8'x8'x2' (western). | |
| AA | 1N-15.5E-10-008 | 26 | Mapped adit with a 2'x5' portal. It opens to 6'x5' inside and is at least 20' long at which point the tunnel curves to the left. The portal is nearly covered by collapsed rock. | |
| AB | 1N-15.5E-10-009 | 33 | Mapped shaft and prospect, also found two unmapped prospects. The collar of the shaft is approximately 40'x40'. It narrows to 10'x10' at a depth of 30'. The total depth of the shaft is over 200'. The collar has poor stability and there is an excessive amount of waste. The shaft is fenced and has a weathered sign on it. About 30' southeast of the shaft are some concrete footings. Three prospects are located across the road from the shaft. The mapped prospect measures 12'x8'x4'. The unmapped prospects are both 5'x4'x2', one 10' and the other 15' south of the mapped prospect. | @ |
| AC | 1N-15.5E-10-010 | 25 | Mapped as a prospect, found a shaft, 10'x15'x15'. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AD | 1N-15.5E-10-011 | 35 | Two mapped shafts and two unmapped shafts. The first mapped shaft has a 15'x15' collar, which narrows to 8'x8', and is over 40' deep. A wire cable descends into it. The shaft is fenced and has a timbered collar. It has poor stability. The second mapped shaft is about 100' west of the first. It is a collapsed shaft, 20'x15'x15', with a collapsed wooden headframe. The first unmapped shaft is 50' east of the first mapped shaft. It is a 6'x8'x40'+ stope within a 20'x30' pit. The stope is timbered and has poor stability. There are owl droppings in the shaft. The second unmapped shaft is another 40' east. It is a 6'x4'x30'+ declining stope within a 35'x35'x20' pit. The collar of the pit is very loose and unstable. | @ |
| AE | 1N-15.5E-10-012 | | Unmapped shaft located in wash. The shaft is collapsed and measures 4'x5'x12'. It also has a collapsed timber collar. There is a 1930's era car wrecked immediately next to the shaft. | |
| AF | 1N-15.5E-10-011 | 22 | Unmapped mill site, located about 100' south of the shafts at AD. | |
| AG | 1N-15.5E-10-013 | 26 | Mapped as an adit, found two trenches and one pit. The first trench measures 5'x4'x30'. Thirty feet uphill is a collapsing pit measuring 40'x30'x40'. The pit may have been connected to the trench at one time. The collar of the pit is very unstable and the ground around the edges of the pit is undercut. Thirty feet south of the pit is another trench, 6'x3'x50'. | |
| AH | | | Mapped prospect, 3'-7'x2'-8'x40' trench. | |
| AI | | | Two mapped prospects, 7'x5'x2' and 8'x4'x1'. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AJ | | | Unmapped prospect, 5'x6'x200' trench, running from top of ridge to wash. | |
| AK | 1N-15.5E-10-014 | 25 | Mapped adit, 3'x4'x30'+, adjacent to a wash. To west of the adit is a pit, 7'x7'x8'. | |
| AL | | | Mapped as a prospect, found a quarry, 15'x20'. | |
| AM | | | Mapped as two prospects; found two quarries: 20'x40' (eastern) and 15'x25'x12' (western). The western quarry has an adit-like prospect, 5'x2'x8', going into the back wall. | |
| AN | | | Mapped as two prospects; found one prospect, 15'x10'x2', and one quarry, 30'x10'. | |
| AO | | | Mapped prospect, 15'x15'x3' pit. | |
| AP | | | Mapped prospect, 8'x8'x2'. | |
| AQ | | | Mapped prospect, unable to locate, probably covered by road. | |
| AR | | | Unmapped prospect, 50'x20'x20'. | |
| AS | 1N-15.5E-10-015 | 30 | Unmapped shaft within the eastern end of a trench. The trench is 100'x20'x10'. The shaft is 6'x6'x100'+ with a wooden collar. It is timbered part of the way down. The area around the collar is very loose and unstable. There is an excessive amount of waste present. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AT | 1N-15.5E-10-016 | 31 | Unmapped shaft, 10'x20'x100'. The shaft has a large wooden frame and collar over it. The material around the collar is loose sand and it is very difficult to see the actual shaft. This shaft is very dangerous. | @ |
| AU | 1N-15.5E-10-017 | 29 | Unmapped decline, 6'x8'x60', with poor stability and minimal waste. The decline is fenced. Twenty feet north of the decline is an unmapped stope into the cliff face. The stope is 6'x10'x20' and extends 15' into the cliff through a 10'x5' opening. This area is also very unstable. Several hundred feet southeast is a large ore chute with two bins and a small pile of waste rock. | @ |
| AV | 1N-15.5E-10-018 | 28 | Mapped shaft and unmapped prospect. The collar of the shaft measures 25'x15'. About 20' the shaft narrows to 8'x10' and is a total of 40' deep. It may be blocked at this point. The prospect is located about 10' west and measures 10'x20'x between 0' and 10' deep. | @ |
| AW | | | Mapped prospect,. | |
| AX | | | Mapped as an adit, found a 20'x10'x5' trench. | |
| AY | | | Mapped as a shaft and adit, found a 12'x15'x4' pit and a closed adit. | |
| AZ | | | Mapped prospect, 6'x6'x3'. | |
| BA | | | Mapped as an adit, found a trench, 50'x6'x4'. A 6"x3" animal burrow was bound at the face of the trench, possibly an opening into an adit. | |
| BB | | | Unmapped prospect, 30'x6'x3' trench. | |

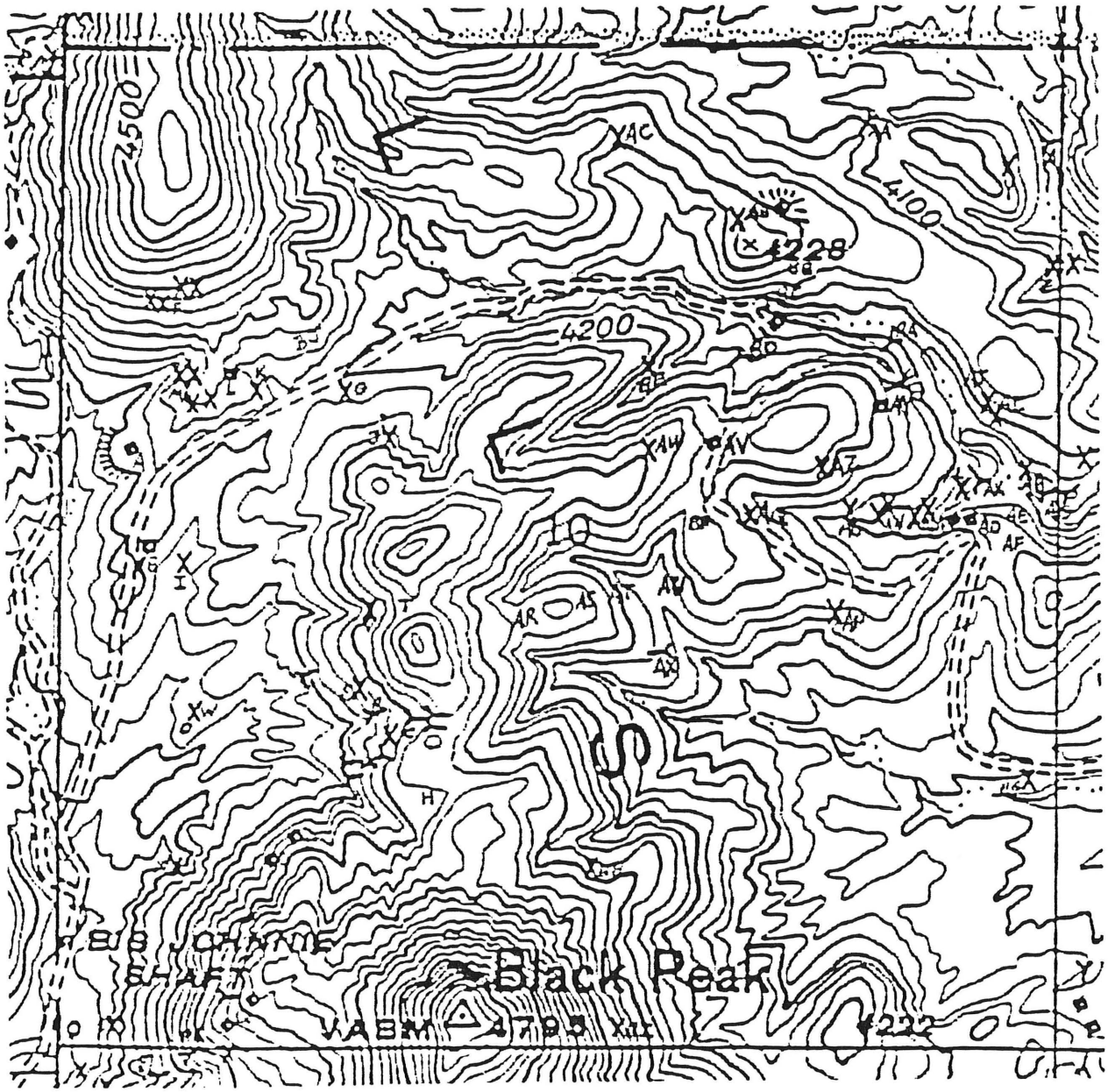
@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| BC | 1N-15.5E-10-019 | 27 | Unmapped adit and unmapped decline. The adit measures 6'x8'x30'+. Just inside the portal is a 10'x6'x15'+ decline. Five feet past this is another opening which connects with the first. There are some support timbers in the adit. The stability of the adit is fair. There are owl droppings in the adit. Just outside the portal of the adit is another decline measuring 6'x8'x10'+. | @ |
| BD | 1N-15.5E-10-020 | 34 | Mapped as a shaft and an adit, found two shafts, three prospects and a quarry. The northernmost opening is the mapped shaft, a 25'x20'x40' decline, which narrows to 10'x10' about 15' down. The decline has poor stability. There are some timbers at the bottom. An unmapped quarry pit, 100'x60'x40', is located about 100' south of the decline. The collar is very unstable and the ground around the edges is undercut. Approximately 50' south of the quarry pit is an unmapped shaft. The shaft is 20'x20'x100'. There is probably a drift at the bottom which runs back to the mapped decline. The collar of the shaft is very loose. It is fenced with three strands of barbed wire. A 4'x5' timbered collar, located 100' west, is possible the site of a collapsed shaft. The first prospect is located 50' east of the quarry and is 20'x10'x5'. Forty feet south is the second prospect, 12'x15'x4', at the end of a long trench. The mapped adit is collapsed and is now a trench, 15' to 30' wide, about 100' long, and 5' deep. It trends north. There are several large waste rock piles in the area. These mines are no the hillside just below the straw house. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| BE | | | Mapped prospect, 6'x6'x8' decline. | |
| BF | | | Unmapped quarry, cut up area on south face of hill. | |
| BG | | | Mapped prospect, 20'x20'x7' pit. | |
| BH | | | Mapped prospect, 35'x4'x2' trench. | |
| BI | | | Mapped prospect, 8'x10'x2' trench. | |
| BJ | | | Unmapped prospect, 100'x20'x up to 20'. | |

*Map*: Globe Quadrangle Topographic Map (U.S.G.S., 1945, photorevised, 1982)
Original map scale: 1:24,000
Enlargement: 225%
Scale of map: 1:10,666



## Section Summary

Township: 1N
Range: 15*1/2*E
Section: 11

*Summary Of Mines Surveyed:*

| | |
|---|---|
| Mine locations on *Globe* topographic map: | 29 |
| Mine locations on topographic map now closed or filled: | 0 |
| Mine locations on topographic map unable to locate: | 6 |
| Mine locations on topographic map unable to access: | 0 |
| Mine locations not on topographic map: | 13 |

*Totals From Field Work:*

| | |
|---|---|
| Total number of open shafts: | 9 |
| Total number of open adits: | 6 |
| Total number of prospects located: | 20 |
| Total number of open pits / quarries: | 1 |
| Total mines surveyed: | 42 |
| Total mines open at time of survey: | 36 |
| Total Mines With Possible Environmental Hazards: | 0 |
| Total Mines With Significant Public Hazards: | 6 |

*Environmental Assessments*: Small concrete foundations are found in the area around the shafts in the southwest quarter of the section. Household garbage has been dumped in several openings in this area.

*Section Synopsis*:

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| A | 1N-15.5E-11-001 | 33 | Mapped shaft, 25'x15'x75', with an excessive amount of waste. The shaft is fenced and was posted at one time. There are some small cement footings nearby. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| B | 1N-15.5E-11-002 | 23 | Mapped as a prospect, found an adit, 4'x6'x15'. | |
| C | | | Mapped prospect, 15'x10'x3'. | |
| D | 1N-15.5E-11-003 | 28 | Mapped shaft and unmapped decline. The shaft measures 15'x15'x20' and is filled with garbage. It may extend to a greater depth below the garbage. It is fenced and posted but the sign has been thoroughly shot up. Northeast of the shaft is the unmapped decline. It measures 3'x3'x 40' to 50'. | @ |
| E | 1N-15.5E-11-004 | 31 | Mapped as a shaft, found a decline, 15'x15'x30'. The collar is very unstable. The opening is double fenced but the inner fence will probably fall into the decline in the near future. There is an excessive amount of waste around the site. Some household garbage has been dumped around the area. | @ |
| F | | | Mapped as an adit, found a prospect pit, 15'x15'x10' with some household garbage in it. | |
| G | | | Mapped prospect, 20' diameter by 5' deep pit. | |
| H | 1N-15.5E-11-005 | 25 | Mapped shaft, 6'x6'x30' at which it may be blocked | |
| I | | | Mapped prospect, 15'x15'x5'. Immediately adjacent to the remains of an old building of similar size. | |
| J | | | Mapped as an adit and prospect, found two prospects: a 15'x15'x1' trench and a 5'x5'x1' pit. | |
| K | 1N-15.5E-11-006 | 31 | Mapped shaft, 10'x15'x50'. | @ |

@ Indicates Significant Public Hazards.

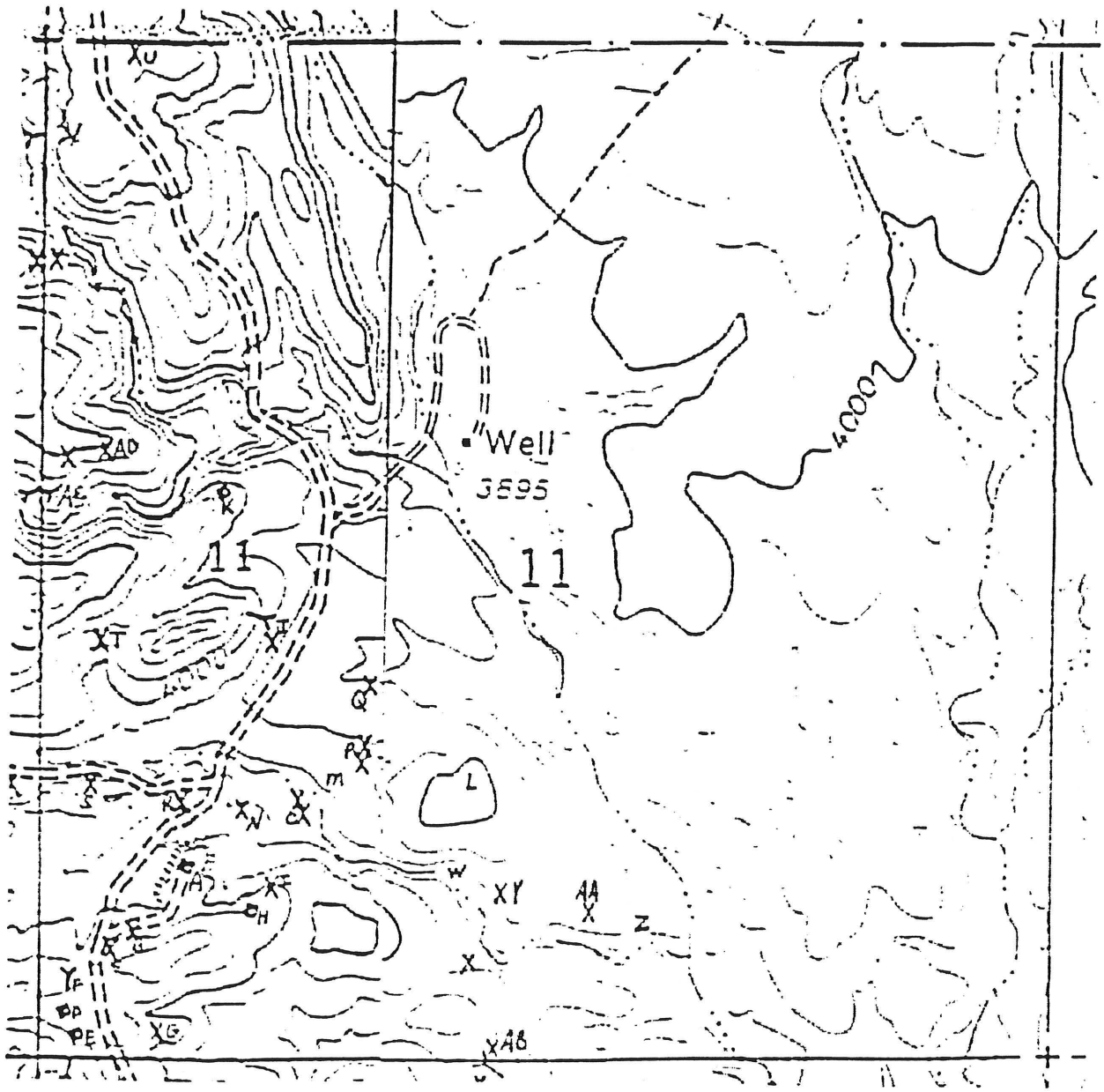
| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| L | 1N-15.5E-11-007 | 33 | Unmapped shaft, adit and prospect. The fenced shaft is 15'x15'x50'. The connecting adit intersected the adit at the 10' level and extended beyond the shaft. The portal of the adit is 3'x6' and the adit is at least 40' long. A 3'x20' trench leads to the portal which has a wooden frame covered by barbed wire. A warning sign hangs at the adit. | @ |
| M | | | Unmapped prospect, 7'x10'x2'. | |
| N | | | Mapped prospect, 10' diameter by 3' depth, and an unmapped prospect, 8' diameter by 2' depth, 15' southeast of mapped. | |
| O | | | Two mapped prospects, unable to locate. | |
| P | | | Two mapped prospects: 15' diameter by 5' deep (southern prospect) and 15' diameter by 1' deep (northern prospect. | |
| Q | | | Mapped prospect, unable to locate. | |
| R | | | Mapped prospect, unable to locate, probably covered by new road. | |
| S | | | Mapped prospect, unable to locate. | |
| T | | | Mapped prospect, 10'x25'x1' cut in hill. | |
| U | | | Mapped prospect, 10'x6'x5'. Also multiple bulldozer scrapes in the area. | |
| V | | | Unmapped quarry, 125'x30'. Some dumping of household garbage and old appliances has occurred here. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| W | 1N-15.5E-11-008 | 23 | Unmapped adit, 5'x6'x40'+. At 40' in the adit turns to the left and may continue farther. The adit is located in a wash. | |
| X | 1N-15.5E-11-009 | | Unmapped adit, 4'x6'x20'+, and two unmapped prospects, 6'x6'x4' and 8'x6'x8', about 25' up hill from the adit. | |
| Y | | | Mapped prospect, 10'x15'x2'. | |
| Z | 1N-15.5E-11-010 | 26 | Unmapped shaft, 6'x6'x60'. | |
| AA | 1N-15.5E-11-011 | 28 | Mapped as a prospect, found shaft, 10'x10'x40'+. The collar is timbered and unstable. The shaft is timbered part way down. | @ |
| AB | 1N-15.5E-11-012 | 23 | Mapped adit and prospect. Unable to locate prospect. Also found unmapped adit. The mapped adit is 6'x6'x100'. The unmapped adit is 75' north of the mapped one and measures 5'x3'x20. There is a timber framed structure and a moderate waste pile in the wash downstream from the adit. | |
| AC | | | Mapped as adit, found trench, 40'x15'x 6' to 16' deep. There is a pit at the west end of the trench. | |
| AD | | | Two mapped prospects and one unmapped prospect. The unmapped prospects are 6'x6'x3' and 10'x5'x3'. The unmapped prospect, 10'x8'x3', is 100' west. | |

@ Indicates Significant Public Hazards.

*Map*: Globe Quadrangle Topographic Map (U.S.G.S., 1945, photorevised, 1982)
Original map scale: 1:24,000
Enlargement: 225%
Scale of map: 1:10,666



## Section Summary

Township: 1N
Range: 15*1/2*E
Section: 15

*Summary Of Mines Surveyed:*

| | |
|---|---|
| Mine locations on *Globe* topographic map: | 75 |
| Mine locations on topographic map now closed or filled: | 12 |
| Mine locations on topographic map unable to locate: | 2 |
| Mine locations on topographic map unable to access: | 0 |
| Mine locations not on topographic map: | 18 |

*Totals From Field Work:*

| | |
|---|---|
| Total number of open shafts: | |
| Total number of open adits: | 16 |
| Total number of prospects located: | 51 |
| Total number of open pits / quarries: | 3 |
| Total mines surveyed: | 91 |
| Total mines open at time of survey: | 79 |
| Total Mines With Possible Environmental Hazards: | 3 |
| Total Mines With Significant Public Hazards: | 14 |

*Environmental Assessments*: At the site mapped as the Williams Shaft there is an extensive processing area with a large building. Beneath the lowest levels of this building are catacombs, the extent of which is unknown. A stone powder magazine is located near the mill building. There are also several moderate sized piles of red and black tails around the site. This area appears to have been a popular party site for a very long time. A mill site is located across the road from the shaft at site AP. There are concrete foundations at this site. There is a small pile of red tailings and a strong odor of sulfur. The site extends several hundred feet along the road. There is an abundance of garbage and broken glass at the site. A partially buried pile of slag is located about 100' NE of the foundations. The area appears to be a party and shooting spot for locals. At the Iron Cap shaft there are several large concrete remnants of the processing area as well as the remains of several buildings nearby. The waste is extensive. There is trash

and automotive waste debris, as well as graffiti, scattered about the foundations and buildings.

*Section Synopsis:*

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| A | 1N-15.5E-15-001 | 30 | Mapped adit, 6'x8'x35' to collapsed face. The mine has an extensive waste pile and appears to be moderately stable. The opening smells like bats but none were observed. | @ |
| B | | | Mapped prospect, found large bulldozed area. | |
| C | 1N-15.5E-15-002 | 25 | Mapped adit, partially collapsed. A 4'x5'x12' opening remains. There is an extensive waste pile associated with this site. | |
| D | | | Mapped prospect, 20'x20'x3', overgrown cut. | |
| E | | | Mapped prospect, found small quarry, 25'x2'. | |
| F | | | Mapped as two prospects, found two quarries: 100' by 8' to 10' by 6' to 8' deep (lower) and 200'x20'x30' (upper) Excessive waste is present. | |
| G | 1N-15.5E-15-003 | 26 | Mapped adit, 1'x1'x10'+. The remaining opening is unstable. There is an excessive amount of waste present. Tracks of a small mammal are found around and leading into the adit. | |
| H | | | Mapped prospect, 15'x8'x1'. | |
| I | | | Mapped as four prospects; found one 3'x5'x1'. Other three prospects, are filled. | |
| J | | | Mapped as three shafts, all appear to be filled in. There are several large waste piles but no openings. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| K | | | Mapped prospects, 35'x25'x 6' to 10' trench. | |
| L | | | Mapped adit, filled. Only a small trench and waste pile remain. | |
| M | 1N-15.5E-15-004 | 25 | Mapped adit, 2'x1'x20'+. Several timber rail supports lead from the adit to the waste pile. The opening may be a bat habitat. | |
| N | | | Mapped prospect, 10'x8'x 2' to 7'. | |
| O | 1N-15.5E-15-005 | 23 | Mapped adit, 2'x4'x10', located directly above a wash. There are tracks of a small mammal around the opening. | |
| P | | | Two mapped prospects: 10'x8'x2' (lower) and 10'x10'x1' (upper). | |
| Q | 1N-15.5E-15-006 | 28 | Mapped adit, 1'x1'x20'+. The portal is mostly collapsed. The mine has poor stability and an excessive waste pile. A couple of old cart rails are located near the portal. | @ |
| R | | | Mapped as two prospects; found a trench 140' by 10' to 30' by 40' long. | |
| S | | | Mapped as an adit and a prospect, found two prospects: 5'x20'x3' trench (collapsed adit), and 12'x12'x4'. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| T | 1N-15.5E-15-007 | 38 | Two mapped shafts and one mapped prospect, "The Williams Shaft". The western shaft is filled. The eastern shaft is capped with a 10'x10' cement slab. There are some small openings on the sides of the slab where the ground is eroding away. The shaft is probably well over 1000' deep. There are several mapped waste piles. One of these has probably been used to cover the second mapped shaft. The prospect is a 30'x20' pit with an average depth of 20'. There is an extensive processing area with a large building. Beneath the lowest levels of this building are catacombs, the extent of which is unknown. A stone powder magazine is located near the mill building. There are several moderate sized piles of red and black tails around the site. This area appears to have been a popular party site for a very long time. | @ |
| U | | | Mapped prospect, 20'x3'x1' trench, overgrown and mostly filled. | |
| V | | | Mapped prospect, 10'x7'x4' pit. | |
| W | 1N-15.5E-15-008 | 36 | Mapped shaft, "Iron Cap Shaft". The shaft has five compartments, each with a cement collar and cement lining. Each compartment is approximately 6'x5' and well over 1000' deep. The shaft has a chain link fence surrounding it but the fence is falling down in places. There are several large concrete remnants of the processing area as well as the remains of several buildings nearby. The waste is extensive. There is trash and automotive waste debris, as well as graffiti, scattered about the foundations and buildings. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| X | 1N-15.5E-15-009 | 30 | Unmapped decline shaft, 5'x2'x20'+, with the entrance partly collapsed. The stability is poor. The entire area has an excessive amount of waste. | @ |
| Y | | | Mapped as three adits; found three prospects: 75' by 5' to 10' by 4' to 5' collapsing trench (westernmost); 20'x5'x3' pit (central) and 50'x20'x10' trench (eastern). The openings are in a series running up the side of the hill and are nearly connected. | |
| Z | 1N-15.5E-15-010 | 26 | Mapped adit and unmapped adit. The mapped adit is 6'x5'x20'+. The unmapped adit is 3'x6'x20'+. Both adits have fair stability. | |
| AA | 1N-15.5E-15-011 | 28 | Mapped as adit and two prospects, found a series of four prospect trenches. The trenches trend southwest to northeast. The first trench is 40'x20'x5'. The second is 150'x20'x20'. The third trench is 200' long by 2' to 15' wide by 5' to 10' deep. The fourth trench is 10' north of the third and measures 70'x6'x8'. The trenches are fairly stable and an excessive amount of waste is present. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AB | 1N-15.5E-15-012 | 35 | Mapped as 9 prospects; **found 14 prospects, 7 of which are trenches, 1 adit, and 2 shafts.** Beginning at the southwestern area of the site and proceeding northeasterly the openings are: a 120'x30'x10' x-shaped trench; a 150' long by 25' wide by 10' to 12' deep trench; a 8'x10'x4' prospect, filled with water; a 200' long, 8' to 15' wide, 5' to 25' deep trench; a 40'x10'x4' trench; a 8'x5'x5' prospect; a 2'x2'x3' adit-like prospect; a 60' long, 5' to 8' wide, 1' to 5' deep trench;a 7'x5'x30' shaft located at the site of the 5th mapped prospect, with poor stability; a 40'x6'x7' trench with a 1'x1'x20' adit in the northeastern end; a 60' long, 8' to 12' wide, 4' to 10' deep trench with two adit-like prospects within the south wall; a pit just east of the trench; two prospects, 3'x4'x5' (northern) and 2'x4'x4' (eastern); a 20'x15'x40' shaft with drifts heading southwest and northeast, probably connecting with the adit to the southwest; and a 25'x15'x15' pit. The entire area has an excessive amount of waste. The entire ridge of Buckeye Mountain is cut up by trenches, shafts, and adits. | @ |
| AC | | | Mapped adit, filled. Found a large waste pile at the site. | |
| AD | 1N-15.5E-15-013 | 32 | Mapped as three prospects, found one shaft and two prospect trenches. Proceeding from the southwest to the northeast: the first mapped prospect is a 35'x8'x12' trench. The second mapped prospect is a 10'x10'x25' shaft with poor stability and excessive waste. The third mapped prospect is a 25'x8'x12' trench. | @ |
| AE | | | Mapped prospect, 20'x4'x2'. | |

@ Indicates Significant Public Hazards.

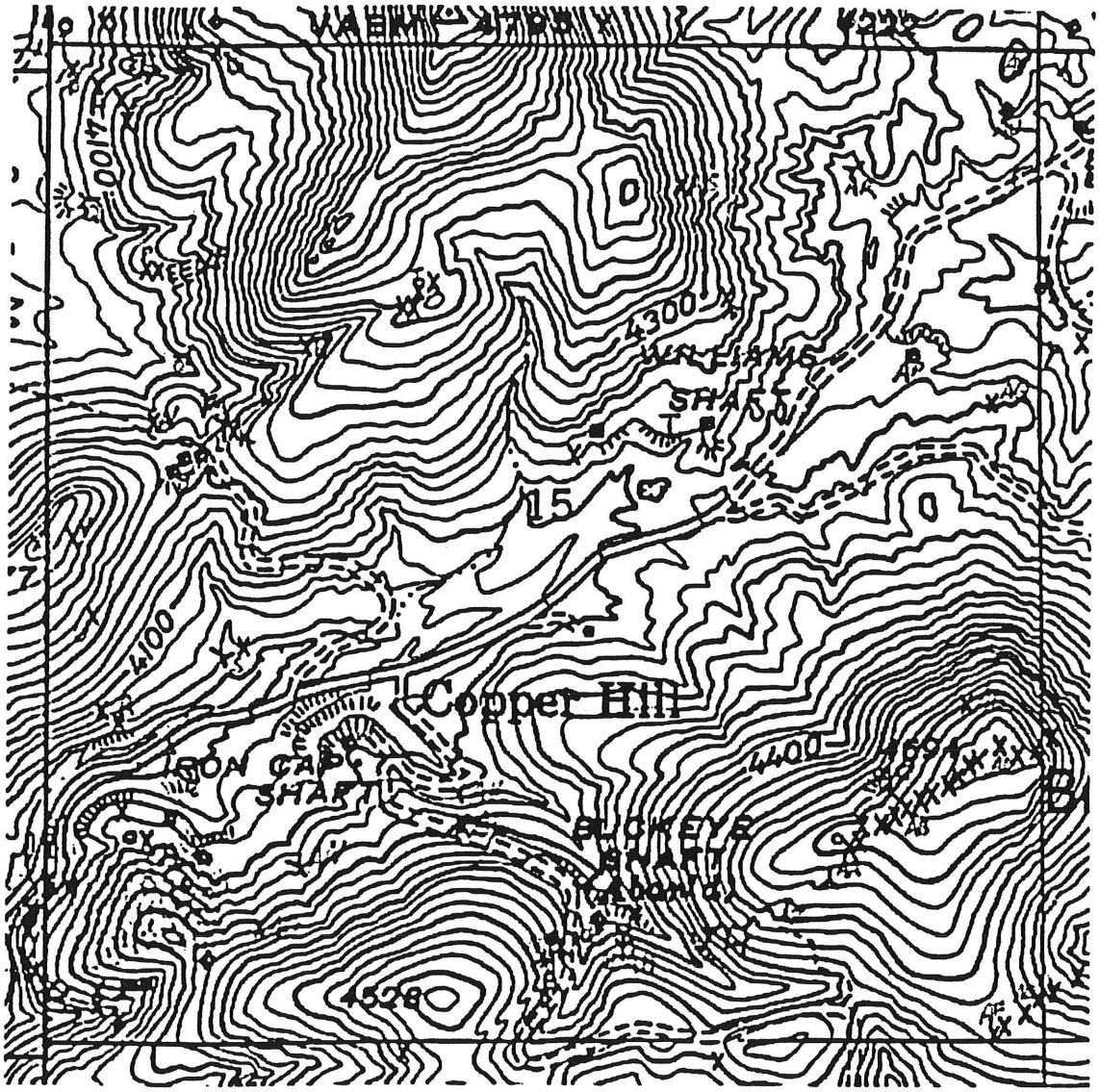
| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AF | | | Two mapped prospects, 10'x10'x3' (western) and 6'x5'x2' (eastern). | |
| AG | | | Two mapped prospects: 10'x8'x3' (western) and 8'x8'x2' (eastern). | |
| AH | 1N-15.5E-15-014 | 30 | Two mapped adits and three unmapped prospects. The southern adit is 6'x4'x 40'+. It has fair stability and an excessive amount of waste. This adit may be the home of a medium size mammal. The northern adit is 2'x1'x20'+. The portal is mostly collapsed. An excessive amount of waste is present. An unmapped trench, 70'x7'x7' is located just above the adit. A 6'x3'x8' decline-like prospect is located in the northern side of the trench. A third unmapped prospect, 10'x15'x3', is located in the western end of the trench. | @ |
| AI | | | Two unmapped prospects: 6'x8'x2' and 10'x20'x5'. | |
| AJ | 1N-15.5E-15-015 | 27 | Mapped shaft and unmapped adit. The shaft is 10'x10'. The depth could not be determined because the shaft is covered with timbers and a chain link fence. The adit is located just west of the shaft and is 3'x2'x20'+. The stability is poor and the amount of waste is moderate. | @ |
| AK | | | Mapped adit, filled. A 6'x1' cement frame, filled with dirt and rock, overgrown with grass and bushes, is all that remains. | |
| AL | | | Mapped prospect, unable to locate. | |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AM | 1N-15.5E-15-016 | 32 | Mapped shaft and two mapped adits. The shaft 6'x6'x50' with fair stability and a moderate amount of waste. The eastern adit is timbered and the portal is partly collapsed. A 5'x2' opening remains. The depth is at least 20'. Approximately 6' in a wooden door partially blocks the opening. The upper adit is a stoped area. The opening is 7'x6' and is at least 30' deep. This opening also extends into the hill an unknown distance. A trench runs up the side of the hill and is 20' to 30' wide, up to 20' deep, and at least 500' long. The trench has several small openings which go through to the stoped area. The trench and the stoped area are fairly stable but an extensive amount of waste is present. | @ |
| AN | | | Mapped as adit, closed. Found trench, 7'x30'x3', and small waste pile. | |
| AO | | | Mapped prospect, filled. Only a small waste pile remains. | |
| AP | 1N-15.5E-15-017 | 34 | Mapped shaft, 10'x20'x100'. The shaft has fair stability and an excessive amount of waste. The shaft is partially ringed by pink flagging. A mill site is located across the road from the shaft. There are concrete foundations at this site. There is a small pile of red tailings and a strong odor of sulfur. The site extends several hundred feet along the road. There is an abundance of garbage and broken glass at the site. A partially buried pile of slag is located about 100' NE of the foundations. The area appears to be a party and shooting spot for locals. | @ |

@ Indicates Significant Public Hazards.

| Letter On Map | Report Number | Hazard Analysis Score | Description | Symbol |
|---|---|---|---|---|
| AQ | | | Mapped prospect, unable to locate. | |
| AR | 1N-15.5E-15-018 | 27 | Mapped adit, 5'x3'x20'+. The tunnel opens up to 6'x6' inside. The portal is partly collapsed. The adit is located just north of the mill site at AP. | @ |
| AS | 1N-15.5E-15-019 | 28 | Mapped as a prospect, found an adit, 6'x5'x75'+. This opening has a strong mammal smell. | @ |
| AT | | | Mapped prospect, 4'x4'x2.5' (adit-like) with a 20'x5'x1' trench leading to it. | |
| AU | | | Mapped as shaft; found two prospects, 10'x15'x4' and 8'x4'x3' (2' west). | |
| AV | 1N-15.5E-15-020 | 26 | Unmapped decline shaft, 6'x6'x30', with good stability. The opening is fenced. | |

@ Indicates Significant Public Hazards.

*Map*: Globe Quadrangle Topographic Map (U.S.G.S., 1945, photorevised, 1982)
Original map scale: 1:24,000
Enlargement: 225%
Scale of map: 1:10,666