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PRINTED: 02/13/2004

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: COPPER QUEEN 2

ALTERNATE NAMES:
GREY EAGLE COPPER CO. PROPERTY
PATENTED CLAIMS MS 1854
PATENTED CLAIMS MS 3430
PATENTED CLAIMS MS 2959

YAVAPAI COUNTY MILS NUMBER: 1010B

LOCATION: TOWNSHIP 12 N RANGE 2 E SECTION 6 QUARTER NW
LATITUDE: N 34DEG 27MIN 20SEC LONGITUDE: W 112DEG 11MIN 32SEC
TOPO MAP NAME: MAYER - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
COPPER SULFIDE
COPPER OXIDE
SILVER
GOLD

BIBLIOGRAPHY:
USGS MAYER QUAD
BLM MINING DISTRICT SHEET 45
YAVAPAI MAGAZINE MAR. 1918 P 4-6 SHARLOT HALL
MUSEUM PRESCOTT, AZ
ADMMR COPPER QUEEN 2 MINE FILE
LINDGRE, W. ORE DEPTS JEROME & BRADSHAW MTNS
QUADS USGS BULL 782 1926 P 148
WEED, W.H. MINES HANDBOOK 1920 VOL XIV P 349

COPPER MOUNTAIN MINES CO. — ARIZONA

Address: Celora M. Stoddard, Phoenix, Ariz.

Is a reorganization of the Stoddard Copper Co.

Officers: Celora M. Stoddard, pres.; Senator Reynolds of N. Y., v. p.; M. V. Pickett, sec.-treas., Phoenix, Arizona. S. C. Chaney, supt.

Inc. 1912, in Arizona. **Cap.,** $5,000,000; shares $5 par.

Property: the old Stoddard mine on Copper Mountain, a mile from the Arizona Binghamton, and near Mayer, Ariz.

Mine reopened, Nov., 1917, gasoline hoist installed; shaft retimbered and sunk to 250′ level. Ore shoot encountered at depth of 100′.

COPPER QUEEN GOLD MINING CO. — ARIZONA

Address: Stoddard, Ariz.

Officers: Louis Goldman, pres., Los Angeles, Calif.; E. G. Ball, v. p. and mgr.; A. B. Owens, sec.; V. S. Wardlaw, treas.; preceding with J. K. Bywaters, A. Goldman, C. R. Caldwell, J. H. Gooch and A. N. Rogers, directors; Chas. Cramp, supt., Stoddard, Ariz.

Cap., $2,000,000; shares; $1 par.

Property: 25 claims, 23 patented, about 360 acres, and a mill-site on the Agua Fria river, 6 miles east of Humboldt, adjoins the Arizona Binghampton. Claims show great beds of silicified schist, cut in places by rhyolite dikes.

Development: by tunnels; No. 1, 593′ long with about 2,500′ of workings, including shaft and workings on 300′ level; No. 2, 600′ long, with 2,100′ of workings on adit level, a 500′ inclined shaft and 3,900′ of workings. On the 900′ level there are two orebodies, 7′ to 12′ wide, containing chalcopyrite and tetrahedrite, with some gold and silver. Diamond drilling said to show good results.

Equipment: consists of two 400 cu. ft. electric driven air compressors and 30 h. p. electric hoist. Development work is being done on a substantial scale.

Ore reserves are said to be 50,000 tons of 3% copper ore. A 100-ton mill was ordered in July, 1919.

COPPER VALLEY MNG. CO. — ARIZONA

Address: Skull Valley, Ariz., or Thos. A. McKennell, of McKennell & Appell, Prescott, Ariz.

Inc. April, 1917, by D. C. McIver and Rich. Lamson. **Cap.,** $1,000,000; shares $1 par.

Property: 10 claims known as the Ehle group in Copper Basin, about 4 miles from Skull Valley, Yavapai county, Ariz., said to show a mineralized schist belt over 100′ wide and carrying some ore of commercial grade.

Development: by 3 shafts 30′, 45′, 60′ deep.

A prospect only. Presumably idle.

DEVELOPMENT COMPANY OF AMERICA — ARIZONA

Practically defunct. T. G. Norris receiver, Prescott, Ariz.

Company has small interests in several subsidiary concerns, none of them prosperous. Stock considered almost worthless.

DOLPHIN MINE — ARIZONA

Frank Ritzel, mgr.

Property: near Poland, Yavapai county. Shaft 125′ deep. Gold predominant near surface, changing to silver content at 100′.

A prospect.

DOS ORIS MINES — ARIZONA

Office: care J. B. Tomlinson, Prescott, Ariz.

Property located 14 miles from Prescott, consisting of the Dos Oris, Buzzard and Raven silver mines, formerly property of R. H. Burmister, reported to have produced about $200,000 in the '80's. Dumps said to contain good value in silver.

COPPER QUEEN MINE

YAVAPAI COUNTY
AGUA FRIA DISTRICT
T12N R2E Sec 6

USGS Bull. 782 p. 147

See also: Binghampton Mine (file)

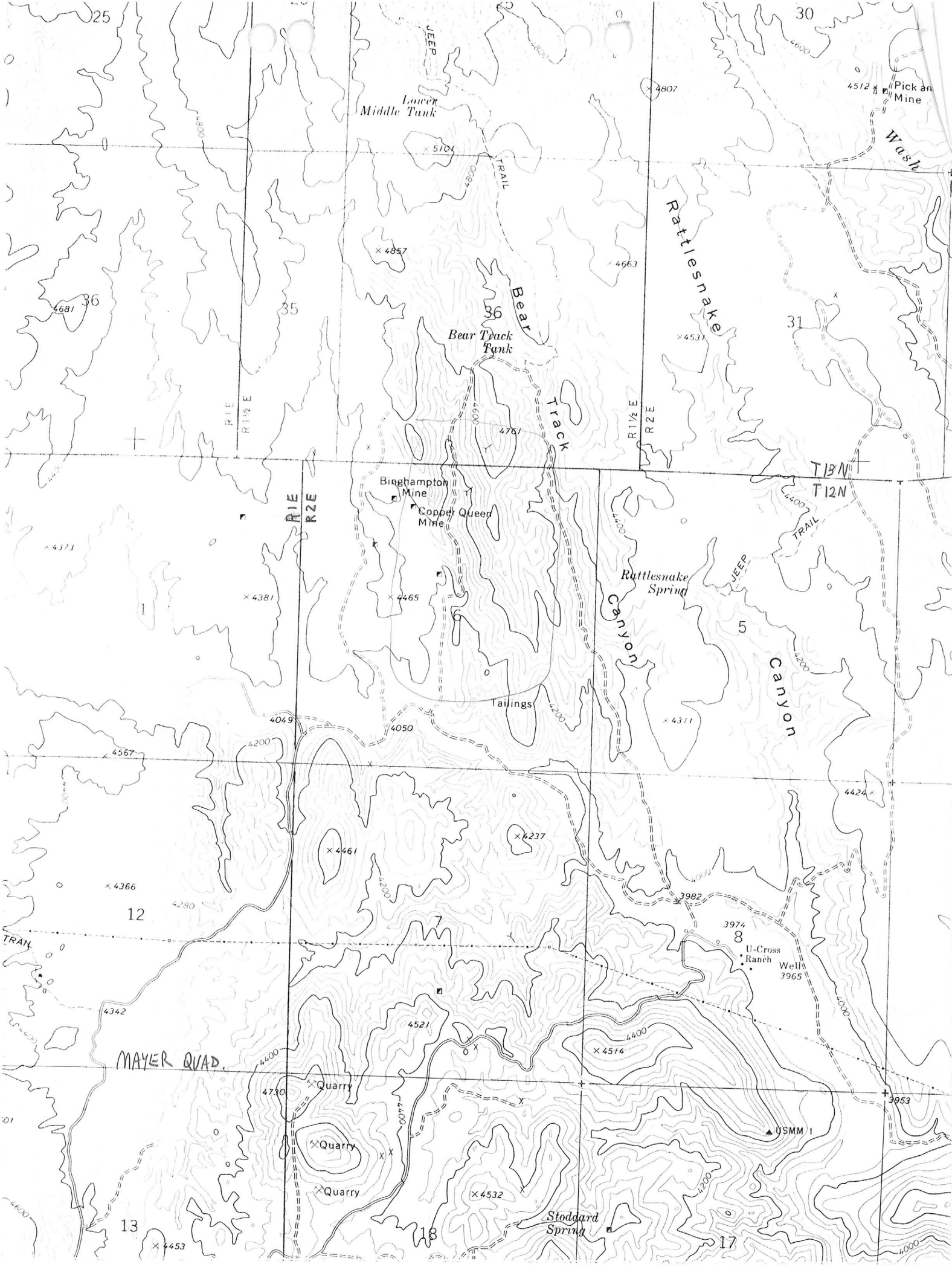
Many maps and considerable information available on this property at the Shattuck Denn Mining Corp. at H umbolt.

USGS 550A p. A4

Colvo. file

Yavapai Magazine, March 1918 p 4-6

Lindgren W. Ore Deposits of the Jerome and Bradshaw Mtn. Quads
USGS Bull 782 p. 148
Weed W. H. The Mines Handbook 1920 Vol XIV p. 349


Lower Middle Tank
JEEP
TRAIL
Bear Track Tank
Bear Track
Rattlesnake Wash
Pick an Mine
Binghampton Mine
Copper Queen Mine
Rattlesnake Spring
Canyon
Tailings
U-Cross Ranch Well
3965
MAYER QUAD.
Quarry
Quarry
Quarry
USMM 1
Stoddard Spring
R1E
R1½E
R2E
T13N
T12N
25
30
36
35
31
1
6
5
12
7
8
13
18
17

rizona City which is located about
o miles north of Mayer. This
melter has since been abandoned and
tirely removed. The principal
lues of the Boggs and Hackberry
re gold and copper. Recently the
helps-Dodge people have shown
me interest in reviving these prop-
ties. The Boggs lies about a mile
utheast of Poland Junction and the
ackberry about two miles southwest
Poland Junction.

Iron Queen—This property was
veloped about the same time as the
ggs and Hackberry. It also fur-
shed ore for the old smelter at Ari-
na City. It is now closed down and
s been for a number of years.
bout eight years ago, however, both
e Iron Queen and the Boggs were
mporarily revived and some ore was
ipped to the Treadwell Mining Com-
ny's smelter at Mayer.

Arizona Copper—On this property
velopment work is being prosecuted
ergetically. The property consists
eight claims lying about three
les northwest of Mayer. The shaft
down about 400 feet and good
owings of chalcopyrite ore are be-
encountered. Three shifts are
w working and 20 men are em-
yed. As soon as the property gets
a producing basis, an aerial tram-
y will be built from the mine to
railroad which is about three-
rths of a mile distant.

Moscow—This property is south-
st of the Arizona-Binghamton and
oins it. Though the property is
ctive at present, it has produced
e high grade copper. Develop-
t work consists of a shaft down
feet, a tunnel and a number of
ll cuts.

Binghamton—This property is lo-
d at Stoddard five miles east of
yer district. The shaft is down
feet. About 700 feet of develop-
t work are being done every
th. The property is equipped
machinery to carry on develop-
t work indefinitely and the camp
Stoddard is fast assuming the pro-
ns of a thriving town. All ore
ced at the mine is at present be-
ated at the company's flotation
About 200 tons are now being
d daily. Approximately 30 tons
ncentrates averaging 23½ per
opper are being shipped daily
smelter at Humboldt.

Queen which adjoins the
mton is one of the producing
in the Mayer district. A total
9 feet of development work has
one on the property during the
1917—development work con-
of sinking, drifting, raising
rosscutting. The shaft is down
eet. At the beginning of the
re reserves totaled 20,000 tons.
g 1917, 18,239 tons were de-
d and 4,627 tons were deliv-
o the mill, leaving 33,612 tons
erve on January 1st, 1918.

Tonto—This property adjoins
opper Queen on the south. Little
opment work has been done on
roperty outside of a shaft down
eet. There is no equipment on
roperty. The showings encount-
from limited workings are good
he management expects to have
of the active properties in the
at in the near future.

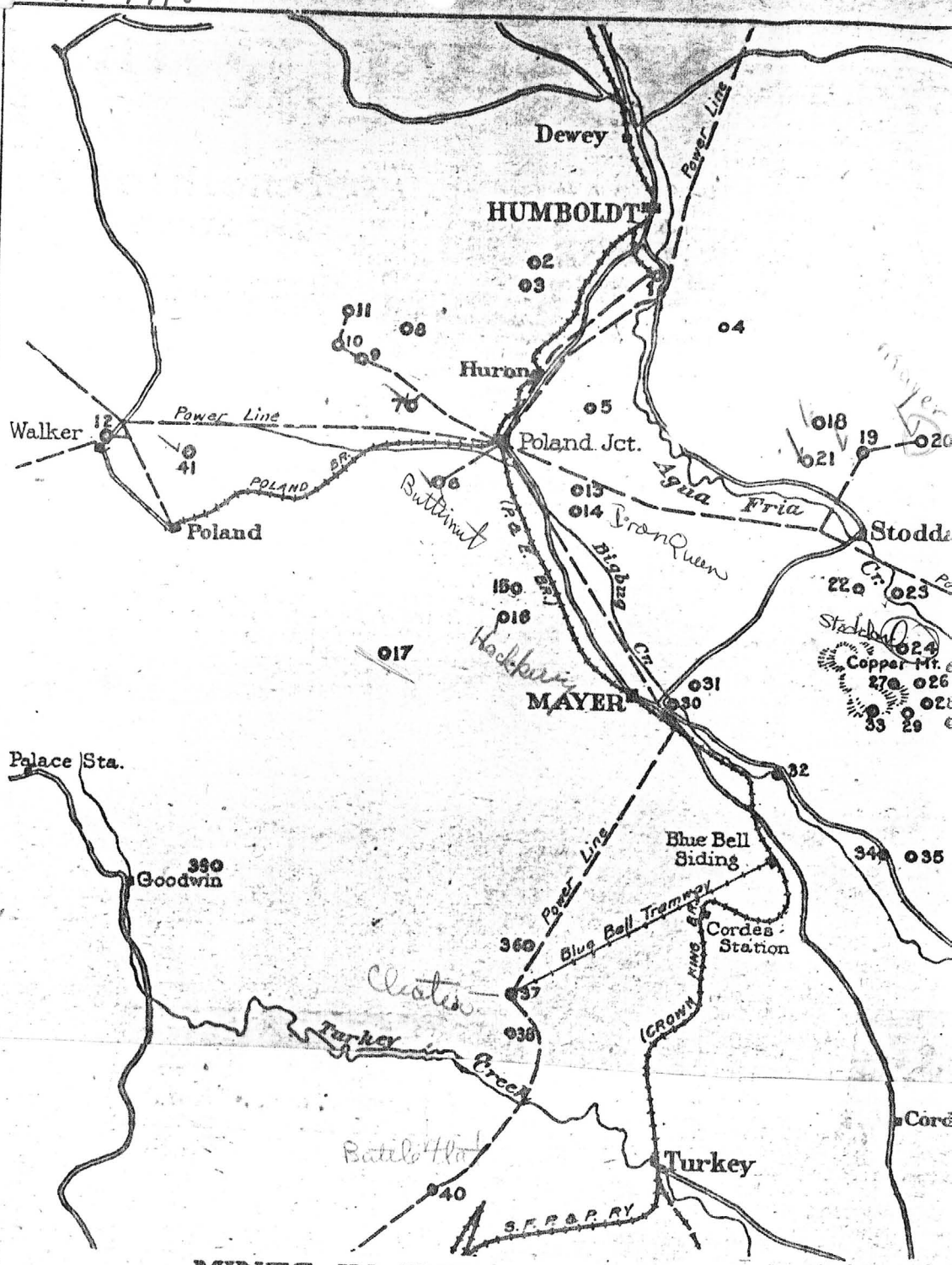
Copper Mountain Mines Co.—This
rty many years ago was opened
to define walls and a drift is also being driven in under the shaft that has produced some high grade copper ore several years ago. The property will be completely equipped with machinery and a camp will be built.

Big Bug—This property is situated on Copper Mountain. At present two men are working in order to determine a suitable location for a shaft. There is an old shaft down 35 feet. In addition to this there are several other small cuts on the property

claims. The southern neighbor of the Big Bug is the Copper Mountain Mines Company.

Jerome Copper—The holdings of the Jerome Copper Company are situated at Copper mountain. Little development work has been done on the property to date, but showings encountered on the surface are good enough in the company's estimation to warrant extensive development work. It is expected that work will begin in the near future.

cludes a 340 foot tunnel, th
the deepest being 70 feet, a
ber of cuts. About 40 fe
and three-eights copper w
the tunnel. At present wo
pended and funds are bei
When the company is financ
shaft will be sunk 300 fe
south end of the proper
equipment will be purchas
complete, up-to-date camp
built



MINES IN THE MAYER DISTRICT

1. Consolidated Arizona Smelting Co. Smelter
2. Silver Belt
3. Arizona National
4. Loma Verde
5. Swindler
6. Butternut
7. Henrietta
8. Gladstone-McCabe
9. Little Jessie
10. Lelan
11. Locey-Pabst (Union)
12. Mudhole
13. Boggs
15. Arizona Copper Mining Co.
16. Hackberry
17. Big Reef
18. Moscow
19. Arizona Binghamton
20. Copper Queen Gold Mining Co.
21. Arizona Copper Hill
22. Half Moon
23. Rio Tonto
24. Copper Mountain Mines Co.
25. Copper Age
26. Big Bug
27. Jerome Copper
28. Miner
29. Monte de Cobra (Barbara)
30. Great Western Smelter
31. Little Egypt
32. May Ore Purchasing Co. Smelter.
33. Easy Boss
34. Pocahontas
35. Iowa
36. May
37. Blue Bell
38. Cinderella
39. Circle Park
40. De Soto
41. Amulet
14. Iron Queen

JHJ Oct 6, 1972

Mr. Rex Rciks owner of Copper Queen has given 4 year option to comenco. They have run I.P. Geo-chem Hg Halo and now preparing for drilling program. Have 240,000 t of 3.0 oz cu. Included shaft to 500 level ore workings on 400 level.

COPPER QUEEN YAVAPAI COUNTY

McFarland Hullinger examining Copper Queen for possible source of our for Iron King mill. FTJ WR 3-21-69

Active Mine List April 1969 - Dev. - Rex Ricks, et al, Box 351, Mayer

W. R. Ashwill visited for information on the Copper Queen mine near the Stoddard and Binghampton in the Agua Fria District north of Mayer. He is with Ranchers. JHS WR 5-23-69

Rex Ricks is still trying to do something with the Copper Queen. FPK WR 6-4-69

Interview with Mrs. Manley- Rex Ricks still holding the Copper Queen mine. Apparently he is trying to get some help to build a mill. FTJ WR 7-18-69

Interview with Mrs. Manley. Rex Ricks is still trying to get a mill for the Copper Queen. FTJ WR 9-19-69

Active Mine List Oct. 1969 - Dev. - Rex Ricks --Sec. 6, 12½N, 2E

Interviewed Mrs. Manley - Rex Ricks still has option on claims - does not know his plans. FTJ WR 1-23-70

Visited Rex Ricks, he still has the Copper Queen mine, he hopes to start mining soon. FTJ WR 5-22-70

Active Mine List May 1970 - Dev. - Rex Ricks, et al, Box 351, Mayer

Interview Mrs. Manley who owns the Copper Queen - no activity there or in the area. Interview Rex Ricks who is still trying to get help to develop Copper Queen. FTJ WR 9-18-70

To Bumble Bee - visit Mrs. Manley who said Rex Ricks holds option on her Copper Queen and is still trying to sell his option. FTJ WR 1-22-71

Visited Mrs. Manly who said Rex Ricks is still paying on Copper Queen lease and option and hunting for financial assistance. FTJ WR 5-24-71

Rex Rickes, Mayer, came in to say Cominco had been doing considerable surface exploration at the old Copper Queen mine NE of Black Canyon City. GW WR 10/6/72

Rex Ricks said Standard Oil of Calif. were examining the Copper Queen mine east of Mayer. FTJ WR 5-8-74

COPPER QUEEN

YAVAPAI COUNTY

Mr. Rex Ricks is mining the Copper Queen east of Mayer and will ship ore to Iron King mill. FTJ WR 11-24-67

Visited Copper Queen mine unable to contact Rex Ricks who is trying to develop the Copper Queen (Manly) FTJ WR 1-19-68

Mrs. Manly said Rex Ricks is still trying to develop the Copper Queen. FTJ WR 5-24-68

Visited Rex Ricks at his home - Three men at Copper Queen raising from 400. He hopes Iron King might take his ore. FTJ WR 5-24-68

Rex Ricks visited office re Copper Queen. They have repaired winze from the 400' level to 900' level. He hopes to obtain a mill. Vein is 8 to 10' wide and a known strike length of 500'. Mr. Ricks address is Box 351, Mayer, Arizona. FTJ WR 10-4-68

Visit to Copper Queen - Mr. Ricks out of town, but still active at the mine. FTJ WR 11-22-68

Visited Copper Queen - Interview with Emil Muller and Rex Ricks who has been developing the Copper Queen Mine. He hopes to have some company take over or someone to build mill. FTJ WR 1-24-69

COPPER QUEEN YAVAPAI COUNTY

Interviewed Mrs. Manly who had leased her Copper Queen Mine and Golden Turkey mine to Canyon State Mining Co. The latter company has not complied with their agreement and she was trying without success to locate Mr. Childs, the president of Canyon State Mining Co. FTJ WR 5-21-65

Conference with Mrs. Manly whose Turkey Creek and Copper Queen mines are idle. FTJ WR 7-23-65

Visited Mr. C. H. Manly, Bumble Bee. No activity on his properties. FTJ WR 11-19-65

Visited Mrs. Manly in Bumble Bee. She has optioned her Copper Queen and Payoff Groups to Robert Ford Enterprises, Flagstaff, who is also associated with McAlester Fuel Co. Ford to trying to come to agreement with the Binghampton mine owners and proposed to drill both properties in the near future. FTJ WR 1-21-66

Visited Mrs. Manly at Bumble Bee. She said dismissal of suit against Copper Queen was expected and that Ford and Chilson were still interested. FTJ WR 3-18-66

Visited Mrs. Manly at Bumble Bee. Robert Ford and associates have drilled 5 holes, depths ranging from 200 to 500 feet, on her Copper Queen and Payoff claims. Drilling had been suspended until June 1. Bagdad Copper Corp. are also interested in the property if Ford relinquishes his option. FTJ WR 5-20-66

Visited Mrs. Manly at Bumble Bee, who said Ford Enterprises had dropped the Binghampton and Copper Queen properties. FTJ WR 7-22-66

Visited Mr. & Mrs. Manly at Bumble Bee. Mrs. Manly has optioned the Copper Queen to Paul Bennett, geologist, Tempe. FTJ WR 1-20-67

Visited Copper Queen Mine, where Dexter Broyles and Larry Wiseman, working for Paul Bennett, are constructing a ramp on the 300' adit. Plans are to clean this level, lay track and repair raise to the 200' level, where mining is expected to begin. FTJ WR 1-20-67

Rex Ricks, 508 W. 17th Place, Tempe is involved with Paul Bennett, in possible development of the Copper Queen mine - Agua Fria district. FTJ WR 3-24-67

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dec'd 3-28-67

Interview with Mrs. Manly - Paul Bennett/et al, had completed a shipment, 50 tons plus or minus, of copper ore to AS&R, at Hayden and discontinued mining, awaiting returns. FTJ WR 3-24-67

Interview with Mrs. Manly at Bumble Bee. Rex Ricks and Mrs. Paul Bennett have lease and option on the Copper Queen. FTJ WR 5-19-67

T12N R2E Sec 6+7

COPPER QUEEN

YAVAPAI COUNTY

Early in 1961 Mrs. Dennison married H. A. Manly, owner of the Golden Turkey mine near Cleator and they live at the Golden Turkey. TPL Memo 5-7-62

Bob Wick Phone 945-7-96

Phoned dept that "they" -
Have option on Copper Queen
Have reports by Douglas and also by Potter
Have 3 tailings samples assaying over 1% copper. Claim 150 M tons available tails
Says people with "Kem" process say they can extract 98% of the copper in a $30 M plant.
Doesn't think ore was efficiently milled & thinks reprocessing would be profitable.

According to USGS Bull. 782 a 100 ton mill was erected about 1921-22. 1% tails unlikely since Wick says ore is sulfide. FPK Note 5-4-62

Visited the Binghampton and Copper Queen mines. 12 men working, building roads, stripping overburden and repairing some buildings.

Canyon State Mining Co., operators, Capt. Delaney, mgr., Jerry Russell, project engineer, Jack Patrick, pit foreman. They are going to start a heap leach operation.

EGW WR 3-25-64

Visited Copper Queen-Binghampton property - no activity. EGW WR 5-26-64

United Comstock Lode Mines, Ltd., Toronto, Ontario, Canada - has taken over and sampled Copper Queen and Binghampton mines, Hassayampa District, Yavapai County. Came up with 1% Cu (0.8 to 1.5% range) 500 to 600 across schist belt. See card for United Comstock Lode Mines, Ltd. LAS 8-14-64

Visited the Copper Queen and Binghampton mines near Mayer. 1 bulldozer cutting roads and McClintock Diamond Drill Co. has 1 drill operating. Work is being done by the United Comstock Lode Co. of Toronto, Canada. 9-16-64

Interviewed Dave Hamilton, supt. and Bernard Jessel, Pres. of United Comstock Lode Mining Co. who is exploring the Copper Queen, Binghampton properties. The McClintock Drilling Co. is still drilling on 2 shifts. The information obtained so far, is favorable but more and deeper drilling is to be done, some holes to be 2000 to 3000 ft. Dr. Gerald Greene, New Mexico Institute of Mining and Technology, Campus Station, Socorro, N. M. Consultant.
EGW WR 1-22-65

Interviewed Mrs. Manly at Bumble Bee. Learned that the United Comstock Mining Co. had finished drilling and had given up their lease on the Copper Queen and Binghampton properties and that Canyon State Mining Co. have again leased them. EGW WR 3-19-65

Records of Yavapai County, Arizona. WITNESS my hand and official seal the 4th day and year first above written

Patsy C. Jenney, County Recorder

By [illegible] Deputy

AFFIDAVIT OF PERFORMANCE OF ANNUAL WORK

STATE OF ARIZONA)
) ss.
COUNTY OF PIMA)

H. RENÉ MOULINET, being duly sworn, deposes and says that he is a citizen of the United States and more than twenty-one years of age; that he is the Land Manager for Newmont Exploration Limited and resides in Tucson, Pima County, Arizona; that he is personally acquainted with the twelve (12) unpatented mining claims located in the Agua Fria Mining District, Yavapai County, State of Arizona, and listed below together with the Record of Mines Book and page as recorded in the Office of the County Recorder of Yavapai County, Arizona:

Name of Claim	Record of Mines Book	Page
Azure Blue	182	457
Copper Ridge	182	458
Lucky Three	183	117
Treasure	183	118
Bonanza	203	243
Copper Moon	204	407
Jump Off	204	408
Payoff	204	409
Red Copper	204	410
Surprise	204	411
D. & D.	208	142
Winner	209	16

That between the 1st day of September, A. D. 1977, and the 31st day of August, A. D. 1978, at least Twelve Hundred Dollars ($1200.00) worth of work and improvements were done and performed for the benefit of said claims, not including location work of said claims, for the purpose of complying with the laws of the United States pertaining to assessment or annual work.

Such work and improvements were performed under the supervision of and at the expense of Newmont Exploration Limited on behalf of the Owners Samar M. Manly and Mary Durant, unmarried individuals.

STATE OF ARIZONA County of Yavapai—ss 24757

I do hereby certify that the within instrument was filed and recorded at the request of [illegible]

on AUG 28 78 - [illegible] PM Book [illegible] Official Records Page [illegible]

Records of Yavapai County Arizona WITNESS my hand and official seal the day and year first above written

PATSY C. JENNEY County Recorder

By [illegible] Deputy

WHEN RECORDED MAIL TO: NEWMONT EXPLORATION LIMITED
200 West Desert Sky Road
Tucson, AZ 85704

3-

MEMORANDUM OF LEASE AND OPTION AGREEMENT

NOTICE IS HEREBY GIVEN that CHURCHILL G. BELL, a widower of Mayer, Arizona, and NEWMONT EXPLORATION LIMITED, a Delaware corporation authorized to do business in Arizona (hereinafter called "Optionee"), have entered into a Lease and Option Agreement dated July 1, 1978, by the terms of which the parties have agreed as follows:

For a period ending at midnight June 30, 1983, and subject to the terms and provisions of the above-mentioned Lease and Option Agreement, Optionee has a lease of, and the exclusive option to purchase, certain real property situated in Yavapai County, Arizona, together with all rights and privileges appurtenant thereto, to wit:

> Section 35, Township 13 North, Range 1 East of the Gila and Salt River Base and Meridian, including, without limitation, mineral rights, water rights and ditch rights.

The terms and provisions of said Lease and Option Agreement of July 1, 1978, are hereby incorporated by reference in this Memorandum of Lease and Option Agreement.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Lease and Option Agreement as of July 1, 1978.

Churchill G. Bell
Churchill G. Bell

ATTEST:

[illegible]
Secretary

NEWMONT EXPLORATION LIMITED

By [illegible]
Vice President

STATE OF Arizona)
COUNTY OF Yavapai) SS.

This instrument was acknowledged before me this 1st day of August, 1978, by Churchill G. Bell.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Eleanor Burns
Notary Public

My Commission Expires:
June 21, 1980

163 at 152

COPY

THE NEW JERSEY ZINC COMPANY

EXPLORATION DEPARTMENT

Mr. E. H. Callahan -2- November 1, 1954

PROGRESS REPORT - October, 1954.

Copper Queen
Yav.

I reviewed the Copper Queen project with Mr. DeVore during his recent visit here from Palmerton. Mr. DeVore made some resistivity measurements of the Copper Queen sulphides. We were surprised at the high resistivity of the most massive sulphides.

Following is a summary of staff time on this project during October:

	Office Days	Field Days
D. C. Bulmer	4	1

D.C.Bulmer D. C. Bulmer

cc- Messrs. E. H. Callahan (2)
P. J. Kalott
E. P. Wills (1)
File

COPY

Copper Queen Yav.

THE NEW JERSEY ZINC COMPANY
EXPLORATION DEPARTMENT
P. O. Box 1629, Prescott, Arizona

Mr. W. H. Callahan, Manager of Exploration
New York

Oct. 1, 1954

Progress Report - September 1954

Prescott Office
Prescott, Arizona

Minor (Copper Queen) Venture
Yavapai County, Arizona

Work on this project during September was divided between completing the compilation of geology to the 1200 scale map, study of geochemical information, and one day in the field surveying a line to obtain the surface profile for a section through the Copper Queen and Binghampton workings.

Copper mineralization in the Copper Queen-Binghampton area is localized within a broad area of shearing and carbonatization where a large mass of quartz porphyry, normally concordant with the bedding direction, sharply crosscuts and interfingers a section of andesite and rhyolite pyroclastics. Ore mineralization occurs along the rhyolite-andesite contact at the Binghampton mine and in finer grain rhyolite tuffs at the Copper Queen mine, both localities near the margins of quartz porphyry.

We reported in our July and August reports that field mapping indicated the presence of a large fault east of the Copper Queen workings which could explain the termination downward of both the Binghampton and Copper Queen Zones. The mineralization is either offset by the fault or the fault is an early structure and acted as a channelway for the ore solutions. We favor the latter possibility.

The geochemical work has outlined a broad area of rock having abnormal base metal content. This zone roughly corresponds with the area of shearing and carbonatization. No significant rise in base metal values in the rock occurs as one approaches ore. One anomalous geochemical area in a favorable geological setting, with no known associated sulphides, occurs approximately 600 feet northeast of the Copper Queen zone. Upon receipt of the F.E.M. geophysical equipment we plan on conducting a survey over this area.

Before submitting final recommendations on this project, we wish to:

(1) Carry out an E.M. survey over the limited area indicated as favorable.

Mr. W. H. Callahan -2- Oct. 1, 1954

Progress Report - September 1954

(2) Review the work to date with Mr. Mills of Shattuck Denn.

(3) Complete the section for which the necessary information has been gathered.

Tabulated below is the staff time on this project for September:

	Office Days	Field Days
D. C. Bulmer	8	1
C. A. Link	2	1
total	10	2

The group sub-leasing the Copper Queen property have put a road up to the old workings and are now building a small ore bin and chute. No ore has been shipped.

D. C. Bulmer D.C. Bulmer

cc- Messrs. W. H. Callahan (2)
H. F. Mills (3)
F. J. Maloit
File

X1086G 24M 7-53

COPY

Copper Queen Yav-

THE NEW JERSEY ZINC COMPANY
P. O. Box 1629, Prescott, Ariz.

EXPLORATION DEPARTMENT

Mr. W. H. Callahan, Manager of Exploration
New York

September 1, 1954

PROGRESS REPORT - August 1954

Prescott Office
Prescott, Arizona

Minor (Copper Queen) Venture
Yavapai County, Arizona

Field work in the Copper Queen area was completed the latter part of August. The geology is now being compiled to our 1200 scale regional map.

In my July report I mentioned a flat fault (Copper Queen fault) east of the Copper Queen mineralized zone. I reported that this fault appears to have considerable movement and that work was proceeding in an attempt to gain some idea of the magnitude of movement. I stated present indications were the fault would cut the Copper Queen mineralization below the adit level and was of the normal type placing the footwall roots (if any existed) of the Copper Queen sulphides some distance north.

The faulting although quite flat southeast of the Copper Queen workings swings to a more northerly direction and its dip steepens to a minimum of 45°, east of the mine. At the time of writing my July report incomplete field work indicated the possible correlation of two spheroidal type rhyolites on opposite sides of the fault. Correlation of these units give a normal displacement to the fault. However, further mapping discloses other similar rhyolites north of the fault making it impossible to be certain which, if any, are equivalent to the exposed faulted rhyolite. It is therefore not possible to use the rhyolites as a measure of direction of fault movement. Two other criteria remain which agree in the direction of movement. First, all drag of beds into the Copper Queen fault at the one exposure where it can be seen indicates the west side moved south with respect to the east side. Secondly, the Copper Queen fault apparently is a large braid off the Shylock fault. In the Copper Queen-Bushy Bush area total movement on the Shylock fault zone is taken up along the Copper Queen braid and the main Shylock break (see sketch). Therefore it can be assumed that the direction of movement along the Copper Queen braid is in the same sense as the movement along the main fault but probably of smaller order.

COPY

THE NEW JERSEY ZINC COMPANY — EXPLORATION DEPARTMENT

P. O. Box 1629, Prescott, Ariz.

Mr. E. N. Callahan -2- September 1, 1954

PROGRESS REPORT - August 1954

Copper Queen Area

The block bounded by the Shylock and Copper Queen faults is a drag block in a fault zone. The main Shylock break separates the andesitic and rhyolitic pyroclastics of Yaeger Canyon from the volcanics of the Copper Queen-Brushy Wash area. It is my belief that these are equivalent units on either side of Shylock fault. The horizontal displacement along the fault then being of the order of six miles, the west side south with respect to the east side. Correlation of these units is based not only on lithologic similarities but also on matching of structural features. The tuffs in Yaeger Canyon face west with an anticlinal axis to the east and the Copper Queen volcanics face west with a synclinal axis to the west. Both fold axes plunge north. Iron formation is common to both localities. This is the evidence we have for indicating the direction of displacement along the Shylock and Copper Queen faults. It is my recollection that Anderson in his work further north along the Shylock fault arrived at the same direction of movement as we have.

Further work in the Copper-Queen-Brushy Wash area now leads me to believe that the Shylock fault and Copper Queen braid may well be very early structures with most if not all of the movement taking place in pre-ore times. If such is the case then the direction of movement is not too important. It seems quite possible that the fault zones acted as channelways for ore bearing solutions and localization of the ore took place in small shears or fractures. Both the Shylock and Copper Queen faults are marked by strong carbonatization of the adjacent rocks. Ankerite is the common carbonate. The strongest carbonatization along the Copper Queen braid occurs up-dip from the Binghampton and Copper Queen sulphide bodies. Similar sulphide bodies with quartzitic gangues occur several miles north of the Copper Queen Mine along the Shylock fault. These are the Yaeger and Shylock mines. Here too the rocks have abundant ankerite. Other small prospects showing varying amounts of copper are found along the Shylock fault system.

Following is a summary of staff time on this project:

	Office days	Field days
D. C. Bulmer	4	11
C. A. Link	2	0
	6	11

D. C. Bulmer

D. C. Bulmer

cc- Messrs. E. N. Callahan (2)
H. P. Mills (3)
F. J. Maloit
File

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THE NEW JERSEY ZINC COMPANY — EXPLORATION DEPARTMENT

P. O. Box 1629, Prescott, Ariz.

Mr. W. H. Callahan, Manager of Exploration
New York

July 1, 1954

Progress Report - June 1954

Copper Queen Mine

Prescott Office
Prescott, Arizona

Mine (Copper Queen) Ventures
Yavapai County, Arizona

In June the adit level of the Copper Queen Mine was mapped on a scale of 1" = 50'. A winze 400 feet deep with lateral workings on the seven and nine levels which explore the mineralized zone below the adit level are all under water and probably partially caved.

Following is a summary of staff time on this work:

	Office Days	Field Days
D. C. Bulmer	0	2
W. L. Johnson	2½	½
	2½	2½

Copper Queen - Geochemistry.
Tabulated below is the geochemical work on this project for June:

	No. of Samples	Man Days
Collected	7	-
Crushed	960	6.5
Analyzed	750	8
	Total	14.5 man days

One man day was spent posting results to base maps.

D. C. Bulmer D.C. Bulmer

cc- Messrs. W. H. Callahan (2)
P. H. Moloit
H. F. Mills (3)
File

COPY

THE NEW JERSEY ZINC COMPANY — EXPLORATION DEPARTMENT

Mr. W. H. Callahan -2- August 2, 1954

Progress Report - July 1954

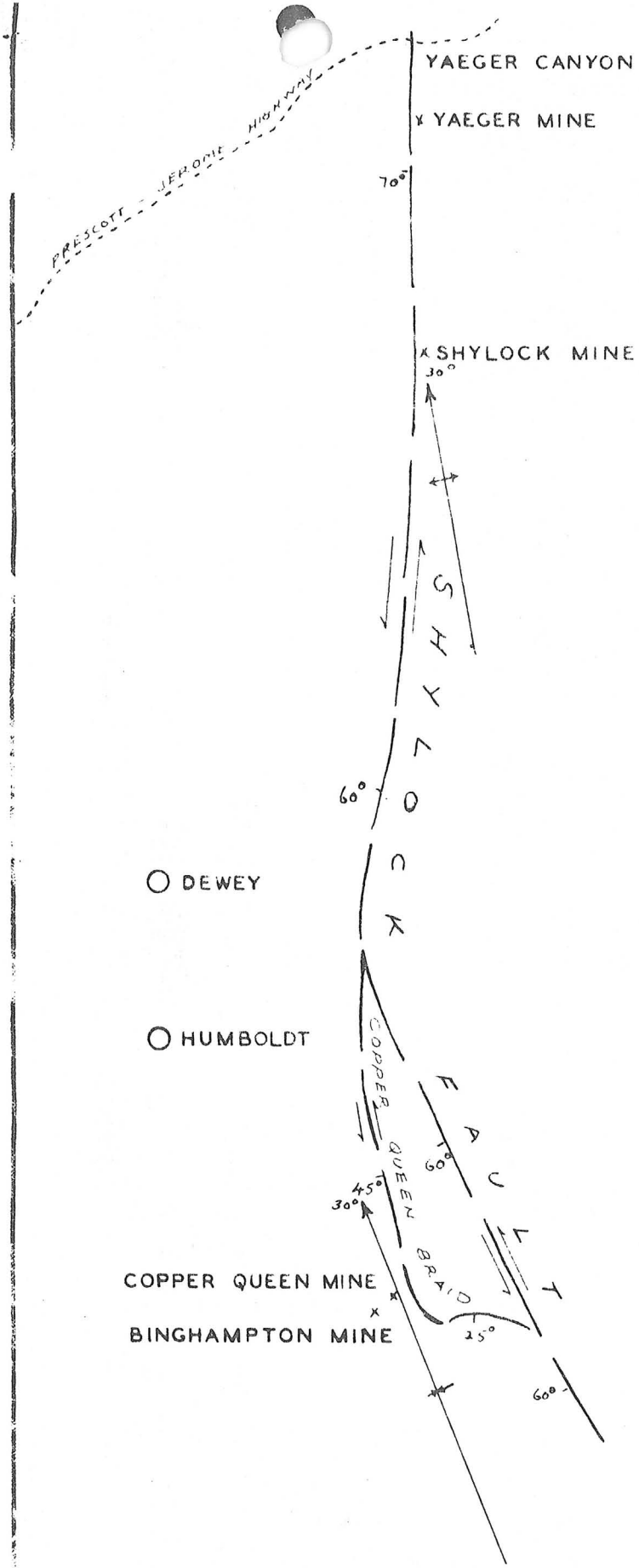
Following is a summary of geochemical work in the Copper Queen area:

	No. of Samples	Man Days
Collected	-	-
Crushed	503	3
Analyzed	1,498	23.1
		Total 26.1

Copper Queen Mine

D. C. Bulmer

D. C. Bulmer
cc-Messrs. W. H. Callahan (2)
P. J. Malott
H. F. Mills (3)
File



Copper Queen Mine

CHERRY

THE NEW JERSEY ZINC EXPLORATION COMPANY
PRESCOTT ARIZONA

DATE: SEPT. 54 | SCALE: 1 IN = 2 MILES

SKETCH SHOWING SHYLOCK FAULT AND COPPER QUEEN BRAID

STATE: ARIZONA	SURVEY:
COUNTY: YAVAPAI	GEOLOGY:
DISTRICT:	DRAWN: DCB
AREA:	TRACED:
REVISIONS:	FILE AX-AR-G14
REFERENCES:	

HOWARD SUTTON CO., INC., N. Y.

AX 5309C 100 6-5

COPY

THE NEW JERSEY ZINC COMPANY

EXPLORATION DEPARTMENT

P. O. Box 1629, Prescott, Ariz.

Mr. W. H. Callahan,
Manager of Exploration, New York

August 2, 1954

Copper Queen
Yav.

Progress Report - July 1954

Prescott Office
Prescott, Arizona

Miner (Copper Queen) Venture
Yavapai County, Arizona

During July the surface mapping in the Copper Queen area was extended eastward. This area has a large mass of quartz porphyry intruding an andesitic pyroclastic sequence. The intrusion apparently was quite passive, the western contact with andesite fragmentals being gradational going from quartz porphyry to tuffs in varying stages of replacement by the quartz porphyry, to unaltered tuffs. The coarser pyroclastics seem more susceptible to replacement by the quartz porphyry.

Also occurring in this zone is a flat fault dipping south 25° and striking westward toward the Copper Queen mineralized zone. In the vicinity of the Copper Queen Mine this fault swings to a more northward strike. Old mine maps of the Copper Queen workings show a flat fault in the mines below the adit level which apparently terminated the mineralization downward. This fault may be the same fault as mapped on surface. Work is continuing in an effort to match similar units on either side of the fault to gain some idea of the displacement. If present indications prove correct the amount of displacement is considerable. If the copper mineralization is pre-faulting then the roots of the Copper Queen and possibly the Hinchampton sulphide would lie a considerable distance northward in the covered footwall of the fault zone. Flat quartz-tremolite veins and much enkerite are associated with the fault. Work on this structure is continuing.

Following is a summary of staff time on this work:

	Office Days	Field Days
D. G. Sulmer	1	7
W. L. Johnson	0	2
Total	1	9

Copper Queen - Geochemistry: During July the remaining samples on hand were analyzed. In addition to the regular analyses 267 controls were run and 102 samples re-analyzed.

COPY

Prescott, Arizona
October 5th, 1953

NEW JERSEY ZINC EXPLORATIONS LIMITED

Mr. William H. Callahan, Manager of Exploration, New York

PROGRESS REPORT, SEPTEMBER 1953

Copper Queen file
Apr. Co.

COPPER QUEEN AREA - MINOR VENTURE

Yavapai County, Arizona

During September Messrs. Wyman and Frary spent a few days field mapping in the vicinity of the Copper Queen claims.

Mr. Mills received a reply to his second letter to the estate of Mr. Ralph Pfeffer inquiring what terms they would consider for an option on the Binghampton Mine. They replied that due to unforeseen difficulties encountered in administering the estate, they would be unable to discuss an option on the property until late in October at the earliest.

Following is a summary of staff time on this project for September:

	Office Days	Field Days
I. C. Frary	½	1
R. V. Wyman	½	1
D. C. Bulmer		1
	1	3

D. C. Bulmer

D. C. Bulmer/dvl
cc: Messrs. W. H. Callahan (2)
P. J. Maloit
H. F. Mills (3)
File

COPY

Prescott, Arizona
August 5th, 1953.

Mr. William H. Callahan, Manager of Exploration, New York

PROGRESS REPORT, JULY, 1953

COPPER QUEEN AREA

Yavapai County, Arizona

Mr. Mills recently received an inquiry from the estate of Ralph H. Pheffer, part owner of the Binghampton Mine, asking if we would be interested in optioning this property. Mr. Mills replied to the letter asking what terms they would consider. No reply has been received.

To obtain a better idea of the properties potential several days were spent in the area mapping in the vicinity of the Binghampton Mine. The ore shoots occur in highly sheared andesite tuffs between two enechelon masses of quartz porphyry more or less where one echelon dies out and the other picks up. Sulphide mineralization occurs both in the tuffs and quartz porphyry. However mining apparently was confined to replacement bodies in the tuffs, mineralization in the quartz porphyry being limited to disseminated pyrite. One exception to this was noted at an inclined shaft south of the main Binghampton workings where fine banded sphalerite, galena and pyrite was found on the dump. This shaft is in quartz porphyry.

The workings at the Binghampton extend to the 1200 level and quite extensive exploration was carried out on the 600 level. No evident possibilities for exploration at the Binghampton Property were found and it was decided best to complete the mapping of the Copper Queen and other adjacent areas before making any decision as to its merit. In the meantime if the owners should be willing to give us a years free option on their property we would recommend taking it, otherwise it is better to take our chances on it being available at a later date.

D. C. Bulmer/dvl D.C. Bulmer
cc: Messrs. W. H. Callahan (2)
F. J. Maloit
H. F. Mills (3) ✓
File

COPY

Prescott, Arizona
September 2nd, 1953

Mr. William H. Callahan, Manager of Exploration, New York

PROGRESS REPORT, AUGUST, 1953

COPPER QUEEN AREA file - MINOR VENTURE

Yavapai County, Arizona

During August the mapping in this area commenced in July was continued. Mr. Wyman began mapping an area directly south of the Copper Queen claims. His report on this phase of the work is as follows:

> "Ten field days were spent on the Binghampton-Copper Queen project. Most of the time was spent in mapping south of the Agua Fria River. One interesting feature of this area is the persistent though weak copper mineralization along the eastern contact of a large unit andesite fragmentals with a rhyolite. This contact shows some copper mineralization for at least two miles along strike."

To date Mr. Mills has received no reply to his inquiry to the estate of Mr. Ralph Pheffer (part owner) regarding what terms they might consider for an option on the Binghampton Mine.

D. C. Bulmer/dvl D.C. Bulmer
cc: Messrs. W. H. Callahan (2)
F. J. Maloit
H. F. Mills (3) ✓
File

C O P Y

STATEMENT CONCERNING COPPER QUEEN MINE

BY A. B. ROMBAUER, E.M.

C O P Y

Aquarius District Yavapai

Mr. Louis Goldman,
Los Angeles, Calif.

My dear Mr. Goldman:

I regret that your inquiry relative to the recent development at the Copper Queen Gold Mining Co's. property did not come while I was in charge there for it would have been possible to give more exact data as to extent and assay value of ore bodies than is now possible without the mine records. However, a general outline will give you enough information to warrant an examination of the property when the statements herein made can easily be verified.

The contact in which the ore bodies occur is strongly in evidence by the large jagged outstanding reefs showing in places mineralized zones impregnated with oxidized copper ores. On one of the contacts the principal development work has been done and an outline of the extent of the ore body and its value is given herein. It is only proper to state at this time that in the writer's opinion the most promosing croppings and contacts lie to the south of the ore developed and with intelligent work would soon prove their value.

It is on a series of parallel contacts immediately west of those of the Copper Queen that the Arizona Binghamton Company have profitably operated for the past several years.

The properties of the Copper Queen Company and the Binghamton Company lie side by side, and the contacts dip towards the west at an angle of 60 degrees from the horizontal. In following the ore contact downward for every 100 ft. along the vein, 50 ft. is gained in a westerly direction. This means a vertical shaft sunk, would at 1,000 feet depth, intersect the vein 500 ft. west of the vein outcrop. Bearing in mind the fact that the Binghamton and Copper Queen are side by side and that the former has a vertical shaft on its property 1,200 feet in depth it is easy to understand why owners of the Copper Queen should feel some concern over the possibility of trespass on the part of the Binghamton. That the Binghamton are working in close proximity to Copper Queen is apparent to one in the lower workings of the Copper Queen when the miners blast in the Binghamton.

The ore body is developed in the Copper Queen by means of a tunnel known as the 400ft level and a 60 degree incline shaft sunk 560 ft. below this level with stations and levels on the 500-600-700-800 and 900. The ore body on the 400 shows a length of 400 ft. and is opened up by a raise to the 300 ft. level on the north end. Its width and value varies by a safe average width as shown by stop openings and raises is 6 ft. and its assay value between 2.5 and 3% Cu.

On the 500 level the ore body is cut by a flat fault and is shorter inlength, altho a width of 12 and 14 feet obtains for about 50 ft. with an assay value of an average 2 per cent Cu.

Copper Queen Agua Dria Ghr

On the 600 level there is disclosed a more concentrated mineralization altho not so wide; a south drift was run on this level with average about 2% for about 200 ft. on its length.

The 700 ft. level was driven several years ago and the work is not done on the vein.

The 800 ft. level shows some of the highest grade ore, a solid streak of clean chalcopyrite varying from 10 to 12 inches and assaying over 20% cu. being in evidence for 73 ft. which was as far as the work progressed before the present shut down.

At the 900 ft. level the formation gives promise of a large commercial ore body. The black schist banded with spar attains a width of 100 ft. and twelve feet of this on the hanging wall assays better than 2½% Cu.

On the 900 a drift south for 300 ft. is all in ore averaging nearly 2% Cu. and a continuation south of this drift is one of the first developments advised.

From the appearance of the 900 the high grade ore on the 800 and the diamond drill below the 900 which at 140 ft. below the 900 encountered an ore body of 15 or more feet in width, with a high grade section of 4 or 5 ft. in width assaying from 6 to 7% Cu. it appears to the writer that the sinking of the incline shaft another 200 ft. and doing some drifting, a very valuable ore body would be found and this was strongly advised to the directorate.

The south, and to me, the most promising section of the Copper Queen property, has never been intelligently developed. A vertical shaft was sunk 380 ft. but this shaft passed through the contact close to the surface and no cross cut to the west was driven from the bottom of this shaft to explore the possibilities at that depth. I advised sinking this shaft 200 ft deeper and then cross cutting west to the contact and drifting on it north. I firmly believe if this work was done together with the work outlined on the 900 level, and the further sinking of the incline shaft 200 ft. farther the Copper Queen Company would be placed in the ranks of dividend paying mines.

I sincerely hope Mr. Goldman that the above statements will place before interested parties the possibilities contained in the Copper Queen Co's property. I am certain, that, if as claimed, the Binghamton have developed large valuable ore bodies by deeper work you are in a more favorable position to do likewise, for your surface showings are more extensive and more promising than those of your neighbor.

With kindest regards, believe me,

Yours truly,

A. B. ROMBAUER.

Los Angeles, California
June 19, 1919.

COPY

COPPER QUEEN GOLD MINING COMPANY Agua Dria, Yav

ESTIMATED ORE RESERVES SEPTEMBER 1, 1917,

AVERAGE OF 127 SAMPLES

BROKEN ORE

Place	Tons	% Cu.	Tons Cu.
3-64-S	210	3.08	6.47
3-74-S	60	3.20	1.92
4 & 4-73-S	1,636	2.72	44.50
4-53-S	150	1.87	2.81
4-43-S	100	2.27	2.27
46-43-S	644	2.50	16.10
5-53-S	1,200	2.00	24.00
	4,000	2.45	98.00

SUMMARY

Completely Sampled	16,947	2.25	371.55
Incompletely Sampled	13,115	2.35	308.92
Broken Ore	4,000	2.45	98.00
	33,612	2.32%	778.54

NOTE: Since the above estimate was made the Copper Queen has been opened up on the eight and nine hundred levels and according to their former Superintendent the tonnage doubled.

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COPPER QUEEN GOLD MINING CO. Agua Fria Year

ESTIMATE OF ORE RESERVES SEPTEMBER 1, 1917.

AVERAGE OF 127 SAMPLES

Place	Width	Average Length	Height	Cu. Ft.	Tons	% Cu.	Tons Cu.
3-74-s	3.6	45	50	8,100	675	3.20	21.60
3-64-S	8.6	50	50	21,500	1,790	3.08	55.20
4-43-S	4.6	25	50	5,750	480	2.27	10.90
4-44-S	6.7	45	50	15,000	1,250	2.02	25.20
4-53-S	5.5	15	78	6,400	537	1.87	10.00
4-53-S-N	5.0	15	106	7,960	663	2.23	14.70
4-63-S	5.4	22	44	5,230	434	3.61	15.65
4-73-S	3.5	49	73	12,500	1040	2.38	24.50
4-73-S	3.5	6	73	1,530	128	2.52	3.80
5-53-S	14.0	90	90	113,500	9,500	2.00	190.00
					16,497	2.25	371.55

INACESSIBLE FOR COMPLETE SAMPLING

4-63-S	5.00	7	106	3,710	310	2.00	6.20
4-63-S	5.5	6	100	3,300	275	3.00	8.25
4-53-S to							
4-63-S	5.5	40	100	22,000	1,800	2.50	45.00
4-53-S	5.00	20	100	10,000	830	2.00	16.60
4-63-S	9.0	100	20	20,000	1,500	2.50	37.50
5-63-S	10.00	45	40	18,000	1350	2.50	33.75
5-63-S	10.0	25	6	1,500	125	2.50	3.12
5-53 Winze to							
5-53-S	10.0	55	90	48,000	4,000	2.50	100.00
Less	10.0	15	10				
5-43R	5.0	30	90	13,500	1,125	2.00	22.50
Below 500	10.00	145	15	21,750	1,800	2.00	36.00
					13,115	2.35	308.92

COPY

Copper Queen Yav.

C
O
P
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YAVAPAI COUNTY
AGUA FRIA DIST.

COPPER QUEEN HISTORY

The Copper Queen Mine property was first brought into light back at the turn of the century.

Louis Goldman, from Paris, Texas, purchased the property in 1910 and began operations using oil money from his home state. As the miners advanced they cut through numerous high grade copper and gold veins. Some of these were drifted on and stopes opened, others were bypassed to explore at a later date. Time went on and plans were formulated for a large reduction and smelter plant to be installed. Before the construction was under way came the decrease in copper price and then World War I.

During the latter part of World War I, Mr. Furgeson took over the property and prepared for a large floatation plant and continued the development program as before. This continued until 1922. During this period a 200 ton flotation mill was built on the property but due to litigation both among the participants and the adjoining property, the Arizona Binghampton, the mill was never operated.

The property was then closed until 1926 when it was reopened and after about a year the mill was rebuilt to more modern methods and mining operations about to begin when litigation again closed the property and all machinery and equipment was sold.

The Copper Queen was then closed with her vast tonnage of low, medium and high grade ores sealed within until 1947 when she was again opened. Some ore was stoped from the main Adit #2 and shipped to the Phelps Dodge Smelter at Clarkdale. After a thorough sampling program was completed the price of copper declined to $14\frac{1}{2}¢$ and future operations were again ceased.

When completed, the mill cost $50,000.00 -- that was in 1918, but it was never run.

The Grey Eagle Copper Company spent over two million on the property. They took over from the Copper Queen Company.

The company paid a watchman $60.00 a month for 15 years after which the mill was dismantled and sold, supposedly by the watchman whom they caught in Louisiana and sent to prison.
At one time the Company had the property up for sale for $350,000.00. had a buyer and before they could complete the deal copper dropped.

The ore runs from $2\frac{1}{2}\%$ to 23% at present.

Copper Queen
Yav.

Sholto Douglas, an International British Mining Engineer recommends open pit method. His report is enclosed.

REPORT ON COPPER QUEEN MINE

Ownership - Samar M. Dennison, P. O. Box 115, Mayer, Ariz.

Location - State of Arizona, Yavapai County, Big Bug Mining District, 4 miles north and east of Mayer.

Title - Twenty two patented mining claims, taxes paid.

Accessibility- All weather road, maintained by the County.

Transportation - Railroad siding at Humboldt, 8 miles, Commercial truck service to property. Airline service at Prescott, 30 miles to northwest, excellent highway.

Water - Mine makes approximately 18,000 gallons per 24 hrs.

Power - Ample power from transmission line few thousand feet from property.

Period of Operation - Year around operation. Area subject to light snows which rarely last but a few days.

Agua Fria River below

CONDITION AT THE PROPERTY: I found the mine barren of equipment, the tunnels and drifts to be well planned and engineered with ample room for larger tonnage operation. The road is good all the way to the Agua Fria River, a small stream at which the place fording necessary. The bottom of this river is rock and gravel, large trucks cross this river at all times during the year except when there might occur flash floods. The gravel road from the Agua Fria River, 3/4 of a mile, up to the mine is narrow and would require a little repair, however, I was able to drive to the mine portal with my auto. The deep winze from the 400 level of Adit #2 in the Copper Queen is caved and would require a new collar set and possibly 50 to 75 feet of new timbering. The bins within the mine are usable and in most cases in excellent condition. The rise ladders, etc. are good but in places would require some repair.

SURFACE AND OUTCROP: The property lies along a narrow ridge extending north from the Agua Fria River and just east of the former town of Stoddard.

Copper Queen
Yar

Its crest is marked by a very hard salicious zone of Yavapai schist which is almost quartzite. The strike is north and it dips west at an angle of about 60 degrees. Lying just west of this solidified schist are patches of black rock containing vesicles filled with iron oxide and greenish schist which contained malachite, azurite, and calcopyrite.

The best copper outcrops, from the general appearance, occur near the north end of the property just south of the Gracie claim and directly over the main adit or the 400 ft level. Further south the solidification of the schist is also well marked, though not so prominent. There are numerous quartz veins showing oxidized copper materials. On the Gracie claim, a basic dike which strikes east and west cuts across the croppings. This dike appears similar to a number that have been cut by the underground workings. These run in all directions and cut across the ore bodies without any noticeable effect or displacement.

The surface of this property is exceptionally interesting, in that the mineralized areas there are great dikes of silicated black schist which have been cut through by the Agua Fria River. In this ore-bearing black schist there is a chloritic schist, always closely associated with the frequently encountered quartz and porphy, making good values, with several small ryolite dikes making a gold bearing vein of some enrichment. Spar is found in abundance in the ore making materials, and occasionally an altered granite is found, but due to its inconsistency it appears of little consequence.

The impregnation of iron gives the formation a brown stain, sometimes even smooth, and always mineralized. There appears to be a chief dike of this schist towards which the almost parallel veins tend coming together at the north end of the Gracie claim. At one point a dike of ryolite cuts sharply through the formation which abruptly altered the mineralized main vein 100 feet, altering one end of the break to the north. At this point the ryolite makes a chute or chimney of gold ore. Other intrusions have caused similar, but lesser, disturbances. On the Copperopolis ground there was a rather larger fault but it did not alter the main vein but little.

The surface showing is exceptional, and to the geologist or Engineer with experience in this area, there is evidence of millions of tons of low grade ore which could be developed from an open pit. In all of this acreage there is little overburden which would have to be removed.

ORE BODIES: The ore bodies, occur along fissures in the schist which are practically parallel to the cleavage. They are confined to the dark colored portions of the schist with a fine grained smooth texture. The prevailing type of schist is light colored and consists of crystals of pebbles of quartz enclosed in sericite and chlorite with associated

Copper Queen
Yar.

pyrites. The principal ore body is cut by a fault on Adit or 400 level, where its length is approximately 400 feet and its maximum width about 16 feet. This ore body is cut a fault on the north end. In drilling through this fault on approximately the 350 ft level a body which was the continuation of the original ore body was encountered of increased value. (A 40-ton shipment of this continuated body assayed 3.79 copper .67 silver and .15 gold.) This fault has a northwesterly strike and dips to the southwest. On the adit level its dip is about 28 degrees, while on the 500 level 100 feet below, it dips only 12 degrees. This ore body has probably been cut on the 700 level below the fault, as below the fault it is of considerably increased value. On the 200 and 300 levels its ore body is similar and approximately the same copper content as that on the 400 level, but it is somewhat shorter. On the 500 level it is similar in length and values, but a little wider.

The considerable underground development shows the formation to be in place, and in depth gives the same intrusions, the same cross-cut dike and same mineral-bearing materials. At depth, though, the mineralization is heavier and more general and while the sulphide shows above the water level at that depth, as seen at the hoist station of the deep winze in #2, a secondary enrichment was more uniform than above.

The surface shows apparently a number of mineralized dikes, but depth indicates a very large mineralizatied area where large tonnages will develop. This pertains to the copper. There are a number of gold-bearing quartz veins on the surface and in place quite persistent, which are about 3 feet wide on the average.

All the latter development work was done in Adit #2. This apparently a wise plan because the drift was driven in pay ore to the point where the joining of a number of semi-parallel veins made one big ore body. Transversing the crest of the ridge in a northeast direction, which is fully 200 feet in width, we found it heavily copper stained and when broken into, azurite and malachite are found in quantity. The fact that the schist staining is vertical is an aid to carrying copper-impregnated waters downward to the water level. There it concentrated in the form of sulphites causing a secondary enrichment. Because of the sulphides forming above the permanent water level, as is here the case, the deep deposition has been so prominent from the water level down that a superficial water level results, continually rising until the sulphide making materials becomes blocked off. Thus the heavily mineralization on the surface make almost certain that at depth there is a large body of ore.

ORE RESERVES: There are ore reserves of the following nature: 33,000 tons on the 400 level and above adit #2 which is now available for sampling and averaging approximately 2½% copper, a little silver and gold. Approximately 200,000 tons which is unavailable for sampling but which

may be substantiated from attached reports of previous engineers, and excerpts from mining and engineering publications of the period when this

Copper Queen
Yard

work was done. Material was located primarily from the public library in Los Angeles and from the Charlot Hall Museum of Prescott, Arizona. For instance, if one were to rely upon Mr. Dinsmore's report (and incidentally Mr. Dinsmore is regarded as one of the best authorities during this period) in Adit #1 - Mr. Dinsmore refers to our adit #1 as Adit #3 in his reports, of the Little Ella claim one could well derive several millions of tons of ore which would prove of milling values under prices of today.

Due to the extremely large area of mineralized schist which in this instance very probably would be considered ore, it would be impossible in the matter of the few days that I had to spend to ascertain exactly the value and amount of ore reserves. However, I was able to examine and take grab-samples from numerous places. These are numbered on the attached map of the underground workings.

In traversing from the portal to a point 450 ft. inward we encountered consistent walls of mineralized schist, beginning from a point about 170 to 180 ft inward from the portal. We took grab-samples from the walls, which is the sample marked "cross-cut sample". There is a 6 ft cross cut at this point that was driven north. This cross-cut is in the center of the vein, which did not touch either wall. In this drift, about 25 ft is a stope from which we took a sample marked "Cross-Cut station #1 stope".

A carload shipment from this stope was shipped to Phelps Dodge Clarkdale 4/15/48 settlement sheet copy attached. Traversing back to the original drift to a point another 75 feet, there is another drift angling again to the north. About 25 to 50 ft. in this drift we took samples marked "Adit #2 Second Station". A carload shipment from this point was shipped from this point to Phelps Dodge 4/1/48 as Lot No. 4920, settlement sheet attached. And from a point 60 ft north from the hoist station at the base of a rise and manway to the upper workings we took a sample marked "Last Stope#2". From this point a shipment of 84,300 lbs. was shipped to Phelps Dodge 6/1/49 under Lot No. 5208 settlement sheet attached. May the reader bear in mind the samples were not intended to be cross sampling of the stope ore vein, but only grab samples from the purpose of establishing an ore body or vein.

From a point where the adit cross-cut intersects with the main ore body, there is a drift on the body approximately 500 ft north. Every 50 to 100 feet there is a slight rise; in some instances stopes have been opened. Just beyond the hoist station there is a rise 100 ft to the 300 level. One hundred feet further is another rise to the upper workings. On the 300 level, the ore is drifted from the second rise to just above the hoist station about 475 feet. It has not been developed further south where it intersected with a point above the adit drift. The 200 level has a similar drift on the ore of approximately 400 feet. Thus the ore in this section is completely blocked by drifts and rises, which is available

Copper Queen
Agua Dria
Yav

surface showings are consistent over this belt.

DUMPS: On the Copper Queen property is a tailing dump from a mill formerly located on the adjoining property. The dump contains approximately 150,000 tons of tailings which assay about 1% copper. A flotation mill could be installed which would reclaim 80% or 18 pounds of copper per ton, with accompanying gold and silver. Therefore, one could treat these tailings for a handling charge of approximately $1.50 this leaving about $6.00 net per ton. This tailings dump would then show a profit of $900,000.00 in copper, plus silver and gold. As for chemical treatment of these tailings, the Kemo Mining Corp. controls a suitable process for this purpose. With it a possible extraction of about 98% could be obtained at a considerable lower cost per ton treated, and a complete installation could be installed for a figure not to exceed $30,000.00 for a 250 ton plant operating on a 24 hour basis. The first figures of profit are determined upon ordinary methods of treating but if this Kemo process could be employed considerable more profit could well be expected. I recommend that a thorough study and test of this process be made on these tailings. If the results prove satisfactory, it could be very profitable.

IN CONCLUSION: In view of the excellent surface showings, the extensive underground development totaling 10,000 feet or more, all of this work apparently has been in ore of values considered profitable under present day prices. The results of this development demonstrates the existence of large bodies of enriched ore. One of the favorable things about this property is that the major expense and gamble is in the past. I have seen or been through upwards of a million dollars worth of development work, and yet I cannot see where there has been but very little, if any, production from this property. The history of this mine goes back to an extensive development program by a group of very wealthy Texans. Their program was to develop vast tonnages of ore for a future large production. The only ores taken from this property, or sold from this property, were taken from the actual development work and it has never been what one might consider a producing mine. During the course of years of World War II, etc, there has been some stoping done on the 400 level of Adit #2. Other than this, it has been strictly a development program, and this million dollar development is now all a matter of history, with the gamble of developing in barren ground or running out of ore no longer a matter to be incurred by a new operator.

There are millions of tons of ore which are proven by the 10,000 or more feet of workings. It is true the grade is low and the operator would have to have as efficient an operation as possible in order to show a substantial per ton profit, but there are other mines in the country operating with substantial incomes without nearly the potential that this property has. I don't believe that I have ever undergone an inspection of an unoperating property with more merit than this Copper Queen property demonstrates to me. With the proper management and adequate funds,

Copper Queen Year

for complete sampling on all four sides. The tonnage in this area of the main vein would approximate 30,000 to 35,000 tons, and available for immediate mining. Stopes and all the development work necessary have been completed. As for the total amount of tonnage or ore reserves in this area, it would be necessary to quote from excerpts of the early mining journals and previous reports of engineers that were on the property and underwent an inspection during the time the property was under activation. However, on entering Adit #2 on the 400 level, I was able to determine numerous veins and lenses from 4, 5, and 6 feet wide of considerable enrichment above the normal ore-bearing schist. As I stated before, 170 some odd feet in from the portal we came upon mineralized schist. The value of this schist can best be ascertained from the dump inasmuch as all the work according to previous records, was done in developing and entirely in ore. In sampling this dump the assy report showed $14.85 in copper, a trace of gold and a little pay silver. This would indicate this mineralized schist is running approximately 1½% copper. However, our sample did not assay this amount when sampling the walls. This schist is approximately 600 ft wide at this point with backs of approximately 400 feet above the Adit. As per the reports on the 500,700 and on the 900 levels, this same mineralized schist was encountered with continuous lenses of enrichment as was found on the 400, the 300 and the 200 levels. All information indicates there is approximately 7,500 ft of workings with Adit #2 of this property. As for Adit #1 the Adit furthest south, according to reports there is approximately 2,516 feet of workings, in this work, all of the work with the exception of approximately 100 feet is said to have been done in ore. These two adits are 3,000 ft apart. In Adit #2 the total backs are approximately 600 ft if we were to take the round figures of 700 ft backs, then this ore has been drifted on and developed 600 ft. wide, 3000 ft long and 700 ft deep. This, of course, is low grade ore; approximately 1% plus or minus. The total tonnage of this ore would be well in excess of one hundred million tons.

There being little or no overburden to be removed, it would require no preliminary work other than a reassuring complete sampling program to determine the feasibility of a large open pit operation.

FUTURE ORE RESERVES: North of Adit #3 there has been no development work other than shallow surface workings, and an examination of these workings show mineralized schist similar to that encountered in Adit #2 and #3. On the extreme south end of the claims, on the bank of the Agua Fria River, there is a drift about 200 ft on the main lens. This drift was sampled by Mr. Naylor in February of this year. A section 16 ft wide showed 1.78% in copper with a little gold and an ounce of silver. This is a point approximately 5,000 feet from the surface workings on the north end of the property. This would indicate the probability that this same mineralization continues, throughout the entire Copper Queen Claims. This would give total ore reserves and future prospects of a minimum of 600 ft wide by 5,000 ft long with a minimum depth of 600 ft. The surface showings are by 5,000 ft. long with a minimum depth of 600 ft. The

Copper Queen - Yav Co Agua Fria

this could well be one of the big producing copper mines of our day.

The foregoing remarks, brief as they are, should convey to any person who is able to understand their meaning the fact that the Copper Queen mine offers to those who own it an investment seldom found in mining ventures. It is a project which has proven ore reserves the value of which is known. All that is required is equipment, organization, ability to organize the technical details of the project.

(Signed) SHOLTO DOUGLAS, D.Sc.

COPY

THE NEW JERSEY ZINC COMPANY

EXPLORATION DEPARTMENT

P. O. Box 1639, Prescott, Ariz.

Mr. F. M. Callahan, Manager of Exploration
New York

November 1, 1954

PROGRESS REPORT - October, 1954.

Copper Queen Mine

Prescott Office
Prescott, Arizona

Mine (Copper Queen) Venture
Yavapai County, Arizona

During October the equivalent of three office days were spent studying old maps, and compiling a vertical cross-section through the Binghampton and Copper Queen mines. Study of this section and a longitudinal section through the Binghampton stoped area indicates both the Copper Queen and Binghampton sulphide zones plunge steeply south and lie above a probable flat fault zone. I use the term "probable" because the fault is in areas of the mines now inaccessible and is known only from a notation on an old level map. We believe the flat fault is an early feature, a channelway for ore bearing solutions.

Potential ground for undiscovered sulphide bodies is the hangingwall of the flat fault, or roughly the area south from the Copper Queen and Binghampton mines to a point where the flat fault becomes too deeply buried to be within reach of available methods of exploration. From the Copper Queen mine south to the Agua Fria River the flat fault remains at relatively shallow depths (100-1000'). In this area we plan on conducting a reconnaissance scale electromagnetic survey (EM).

I have reviewed our work on the Copper Queen Project with Mr. Mills and we are both agreed that if the geophysics fail to disclose any targets we should abandon the project.

Deer season in this section of Arizona is from the 29th of October to the 14th of November. The Copper Queen area is relatively open with little brush. For this reason we have delayed our geophysical survey until now, feeling this area will be relatively safe to work during "open season". We expect to have the geophysical survey underway November 3, and hope to have it completed prior to November 15, 1954, the date the next monthly property payment is due.

GEOPHYSICAL SURVEY

COPPER QUEEN PROJECT, YAVAPAI COUNTY, ARIZONA (file)
Sections 6 & 7, T12N, R2E, Mayer 7½' Topographic Sheet
Agua Fria Dist

The data presented here were obtained using Newmont Exploration EMP Mark 7 equipment. Distances were measured in meters.

In the EMP method, the ground is energized by transmitting a series of current pulses around a large fixed transmitter loop. The rapid interruption of these current pulses sets up a transient magnetic field which induces eddy currents to flow in any conductors present in the ground. These eddy currents in turn set up a secondary magnetic field which is then recorded with a mobile receiver coil.

By convention, current is transmitted in a clockwise direction around the transmitter loop. On surface traverses, three components of the secondary magnetic field are recorded at each station with the convention: X pointing towards grid-north; Y pointing towards grid-east; and Z pointing vertically downwards. The data presented in this report were measured at 12 sample times ranging from 1.18 to 7.82 milliseconds after interruption of each pulse.

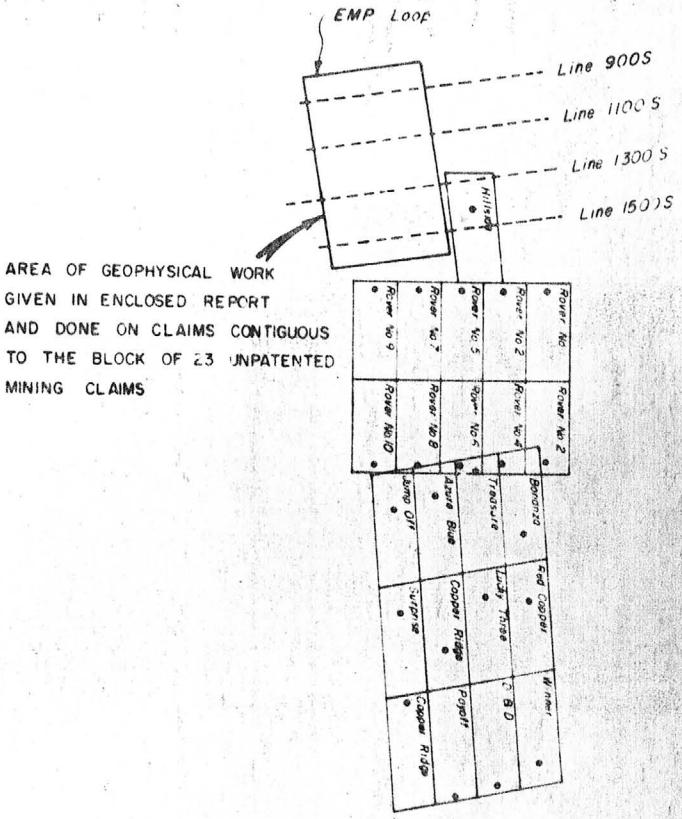
The presence of a conductor will be indicated by a variation in the secondary magnetic field recorded by the receiver. The position and attitude of a conductor can be interpreted from the variation in the amplitude of the signal from station-to-station at a selected sample time. The quality of the conductor can then be determined from the variation in the amplitude of the signal with time at a selected station. In general, the signal from a good conductor takes longer to decay than the signal from a poor conductor of equal size.

The sign of the anomaly depends on the polarity of the induced current. In interpreting EMP data it is important to recognize this

polarity, which depends on the relative positions of the transmitter loop and the conducting body. For example, the interruption of a current pulse transmitted clockwise into a loop placed directly over a flat-lying conductor would tend to induce an eddy current also flowing in a clockwise direction around the conductor. Conversely, a loop placed offset to one side of the conductor would set up an eddy current flowing in a counter-clockwise direction.

H. E. Swanson.

H. E. Swanson
Geophysicist



AREA OF GEOPHYSICAL WORK GIVEN IN ENCLOSED REPORT AND DONE ON CLAIMS CONTIGUOUS TO THE BLOCK OF 23 UNPATENTED MINING CLAIMS

N

•– Indicates Point of Discovery

Location Map of the Block of 23 Claims
for which Geophysical Expenditures are applied
for the Annual Assessment Work, 1978

Copper Queen – Binghamton

Yavapai County, Arizona

Scale 1"=2000

BOOK 1164 PAGE 304

MDS Sheet #45

NW¼ T12N, R2E

Agua Fria Dist.

Sec. 6

Sec. 7

Sec.

THE HONEYMOON PAT 2543

KID PAT. 2543

RUSSIA PAT 3517

BELGIUM PAT. 3517

ENGLAND PAT. 3613

FRANCE PAT. 3613

NO. 19 PAT 1864

BINGHAMTON FRACTION 3421

ILLINOIS PAT. 3421

TENNESSEE PAT. 3421

BINGHAMTON COPPER 1894 PAT.

COPPER MT. 1894 PAT.

RUIN

OTSELIC PAT 1694

SUSQUEHANNA 1694

CHENANGO 1894 PAT.

LITTLE ELLA 1854 PAT.

GENEGANTSLETT PAT 1694

RUBIDOUX 2959

HIGHLAND 1854 PAT.

CHIEF

COPPER QUEEN 1854 PAT.

COPPEROPOLIS 1854 PAT.

IOWA 2959 PAT

ROBIN 2959

COPPER PAT

BUCKET PAT 2959

MISSING LINK 2959

LOUISE PAT. 3429

IRON 2959

SUPPRISE PAT. 2959

NUT TOUGH 2959 PAT.


Copper Queen
Mayer, Ariz.
300 Level
400 Level
500 Level
600 Level
700 Level
800 Level
900 Level
Adit #3
100
200
300
400
500
600
700
800
900
Copper Queen Mine
Mayer, Ariz.
Main workings
adit # 2.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine: Copper Queen

Date: November 30, 1960

District: Agua Fria - Yavapai County

Engineer: Travis P. Lane

Subject: Status

The following information was obtained from Mrs. Samar M. Dennison during a visit to Cleator on Nov. 22, 1960.

The property comprises 26 patented mining claims located in the Agua Fria Mining District, and is about 5 miles easterly from the town of Mayer. It adjoins the Binghampton mine.

It is owned by the Copper Queen Gold Mining Co. which was incorporated in Arizona Oct. 29, 1903. The corporate charter expired on Oct. 29, 1928.

A 100 ton flotation mill was built in 1920. The mine appears to have made some production of copper accompanied by small amounts of gold and silver, but no record is available in this office.

Mrs. Samar M. Dennison, address Bumble Bee, Arizona, is the principal in the present ownership. Mrs. Dennison advises that more complete information is contained in a report by Shulton Douglas which she has in her possession and will make available to persons interested in a deal on the property.

COPIED FROM:

BRIEF ON ICC HEARING TO ABANDON MAYER RAILROAD - 8-6-57

Page 2

WITNESS SHERWOOD B. OWENS, Mine Owner and Operator during the past 15 years, with mining interests over entire State of Arizona, testified (316-17), in substance:

Presently, is the owner of the De Soto Mine in the Big Bug District about 12½ miles from Blue Bell siding (317-18-45-6). Said mine is being developed under lease arrangement by the De Soto Copper Corpn., which was formed in December 1956, and actual work began about January 15, 1957 (318-19).

The De Soto was first operated in about 1890. It produced slightly in excess of 300,000 tons of pretty good grade ore until 1926 (342-3).

The present management appropriated $250,000, aside from money I previously expended, to determine the ore reserve (319). After preliminary investigation of ten months, conclusion was reached that there was better than a 50-50 chance of developing a six million plus tons ore body of one percent copper (320-25).

From January 15 to May 31, 1957, slightly more than $70,000 were expended (321), leaving roughly $180,000 of private money still on hand (348).

The witness described the methods being used in developing the mine; the first stage of the work has been completed, and 350 to 400 samples taken which practically completes the sampling on the 600-foot level. While it has cost a lot of money, the management is more than satisfied (320-1).

Open-pit operation is proposed with a mill to produce 2,000 tons of concentrates daily which will be shipped to El Paso (325). The open-pit possibilities have not been completely explored but they will be determined by drilling and sampling the mine. Presently, sufficient quantity of good grade ore justifies underground operation (326). In the event it develops that open-pit operation is not feasible, lesser tonnage of high grade ore, ranging from 2,000 to 2,500 tons per month, will be produced by underground mining (325), employing 25 to 30 people (336).

Page 3

Under present conditions, our engineering estimates overall costs of placing the property and mill in operation will be between 6½ and 7 million dollars, of which the 2,000-ton mill will cost approximately 3½ million dollars, of which the 2,000-ton mill will cost approximately 3½ million dollars (332). The effects of the present development work in the De Soto Mine must be obtained not later than May 1, 1958, (336-7).

The Blue Bell Mine, four and one half miles from end of track at Blue Bell, owned by the witness, Sherwood B. Owens, has opened up outstanding area of direct smelting ore (326-7). Exploration work has developed 35,000 to 40,000 tons of high-grade siliceous ore running 2.5 to 2.9 percent copper. As the witness is furnishing fluxing ores for American Smelting and Refining Company, he is in position to ship this ore. Qualified engineer has made complete study of the mine. There is no question but that it can be substantial producing mine by further expenditure of $50,000, which is going to be made (327-8).

Page 3

Flux is simply low grade ore which is of value to smelter because of content of other metal (341).

In the past, the Blue Bell Mine produced and shipped over one million tons of commercial ore over the two loading ramps at Blue Bell which are still there, thus making perfect loading situation (329).

During World War II it shipped about 20,000 to 25,000 tons of ore (350).

The plans of the owners for the development of both the De Soto and Blue Bell Mines took into consideration availability of railroad service from Blue Bell (229). Cost of trucking to Humboldt, instead of to Blue Bell, would be approximately 96 cents per ton compared with rail charge of 28 to 30 cents per ton (330). Continuation of rail service from Blue Bell is absolutely vital to successful operation of the De Soto and Blue Bell Mines not only for the outbound movement of ore and concentrates, but for the inbound movement of machinery and supplies (331).

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The Iron King and Blue Bell Mines were formerly owned by the Consolidated Arizona Smelting Co., which owned the former smelter at Humboldt, which company went broke (333-42-43). The Iron King Mine was reopened in 1942 by the Shattuck Denn Mining Corporation since which time it has been continously in operation, and presently making a small profit, although the price of zinc is much depressed (333-34).

While the De Soto and Blue Bell Mines were previously shut down, it was not because the metals therein were exhausted (353-4).

It would require 12 bob-tail trucks to haul the ore or concentrates to Humboldt because of the longer distance, while only three such trucks can perform the same service to Blue Bell (354-55).

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Other principal producing mines tributary to the line between Iron King and Blue Bell, incl., are the Bing Hampton, Copper Queen, Hackberry, Buttermut, Minor, Stoddard, Golden Turkey and Silver Cord (376-7-8-9-80-.

The Nipponese Mining Co., Ltd., which is Canadian capital, has an option on the Bing Hampton and Copper Queen Mines. During three or four months in 1956, the properties were being diamond drilled to determine the size of the ore bodies and the grades thereof (382-3).

Page 8

The Hackberry Mine has a good long-range chance; not in the next three years, unless the price of lead and zinc increases. Then there might be considerable activity, depending more on economic conditions (391-2).

The Minor Mine is in the exploration phase. It has good ore indications, but its operation will be further removed than in the case of the De Soto (391).

The Bing Hampton and Copper Queen Mines have a large outcrop of an iron-stained shear carrying small amounts of copper, lead and zinc that have never been explored prior to the work performed in 1956 (392).

WITNESS JOE STARNICK, engaged in the mining business about 35 years and presently Superintendent of the U. S. Consolidated Mines, known as Minor properties, 5 miles east of Mayer, testified (409-10), in substance:

That the Minor Mine has both milling and shipping grades of copper and zinc ores. It has done development work such as diamond drilling and presently is at the point where it can go ahead. It is further planning to drive a 700-foot drift (410).

In the near future we will ship ore. We have ore and are exploring, but we still have to run our drift to determine how much ore we will ship. It is hard to say when and what will develop. It could be 2,000 or 200 tons a day. There could be some shipping ore as well as milling ore. We might ship some and blend the ore (411-12).

The high grade ore is definately shipping ore, while the low grade siliceous ores, which the smelters want, would be more profitably milled and blended with high grade ores. To start, we contemplate erection of a mill with capacity of 200 tons per day (411-12).

The Iron King Mine has zinc, gold, silver and lead, and the Minor Mine has copper, zinc, gold and silver ores (412).

We struck ore at the 200-foot level. Ore was shipped out of the Minor Mine during World War II, and six carload trial shipments have recently been made (412-13).

We were going to ship from Mayer but since the line is our of operation, we have to truck the ore to and ship from Humboldt. We must call the Iron King in order to get a place to load and then go and see the station agent at Mayer to order a car. We can move the ore on the Iron King ramp if it is not busy. If Iron King is using the ramp, we must wait until the car is spotted for loading (414).

The additional cost of trucking the ore to Humboldt is $1.50 a ton higher than the cost of trucking it to Mayer (414-15-16-17). Illustrating the importance of $1.50 additional trucking cost to Humboldt over Mayer, if we were shipping 200 tons a day, the additional operating cost to us would be $300 a day, which is sufficient to mean a profit or a loss (418).

We have shipped 5 carloads of test ore from Humboldt since January 1, 1957. We expect to ship a few cars during the next six months or a year (420-421).

In operating a mine, every foot you penetrate has to be developed (421). We expect to be in production within six months to a certain degree. Development and operation go hand in hand. The proposed mill, close to the mine, should be in operation inside of a year. The concentrates from the mill will move by rail to El Paso (422-23). I could not be definite about the date; might be before a year or a little thereafter. I am sure that within a year we will have the mill on the property ready to operate (425).

WITNESS EUGENE FREDERICK, President and General Manager of the U. S. Consolidated Mine, Inc., and in charge of the Minor properties, testified that $125,000 cash has been spent in development of the mine since work began in August 1955 in exploration, purchase of new machinery and hoist (426-7-30).

WITNESS M. L. HECKLTHORN, practical mine operator, who owns the Oro Fino Mine 18 miles southwest of Mayer, and has a lease on the Stoddard Mine, and is driving a shaft on the St. Anthony Mine testified (421), in substance:

I am not developing a large mine. I am an independent operator and obtain my living by putting up my own money and services for producing ore from various ming properties (437).

Shipped orefrom the Stoddard and Half Moon Mines from Mayer in 1956.

STATEMENT CONCERNING COPPER QUEEN MINE

BY A. B. ROMBUER, E. M

Mr. Louis Goldman,
Los Angeles, Calif.

My dear Mr. Goldman:

I regret that your inquiry relative to the recent development at the Copper Queen Gold Mining Co's. property didnot come while I was in charge there for it would have been possible to give more exact data as to extent and assay value of ore bodies than is now possible without the mine records. However, a general outline will give you enough information to warrant an examination of the property when the statements herein made can easily be verified.

The contact inwhich the ore bodies occur is strongly in evidence by the large jagged outstanding reefs showing in places mineralized zones impregnated with oxidized copper ores. On one of the contacts the principal development work has been done and an outline of the extent of the ore body and its value is given herein. It is only proper to state at this time that in the writers opinion the most promising croppings or contacts lie to the south of the ore developed and with intelligent work would soon prove their value.

It is on a series of parallel contacts immediately west of those of the Copper Queen that the Arizona Binghamton Company have profitably operated for the past several years.

The properties of the Copper Queen Company and the Binghamton Company lie side by side, and the contacts dip towards the west at an angle of 60 degrees from the horizonal. In following the ore contact downward for every 100 ft. along the vein, 50 ft. is gained in a westerly direction. This means a vertical shaft sunk, would at 1,000 feet depth, intersect the vein 500 ft. west of the vein outcrop. Bearing in mind the fact that the Binghamton and Copper Queen are side by side and that the former has a vertical shaft on its property 1,200 feet in depth it is easy to understand why owners of the Copper Queen should feel some concern over the possibility of trespass on the part of the Binghamton. That the Binghamton are working in close proximity to Copper Queen is apparent to one in the lower workings of the Copper Queen when the miners blast in the Binghamton.

The ore body is developed in the Copper Queen by means

of a tunnel known as the 400 ft. level and a 60 degree incline shaft sunk 560 ft. below this level with stations and levels on the 500-600-700-800 and 900. The ore body on the 400 shows a length of 400 ft. and is opened up by a raise to the 300 ft. level on the north end. Its width and value varies by a safe average width as shown by stop openings and raises is 6 ft. and its assay value between 2.5 and 3% Cu.

On the 500 level the ore body is cut by a flat fault and is shorter in length, altho a width of 12 and 14 feet obtains for about 50 ft. with an assay value of an average 2 per cent. Cu.

On the 600 level there is disclosed a more concentrated mineralization altho not so wide; a south drift was run on this level with average about 2% for about 200 ft. of its length.

The 700 ft. level was driven several years ago and the work is not done on the vein.

The 800 ft. level shows some of the highest grade ore, a solid streak of clean chalcopyrite varying from 10 to 12 inches and assaying over 20% Cu. being in evidence for 73 ft. which was as far as the work progressed before the present shut down.

At the 900 ft. level the formation gives promise of a large commercial ore body. The black schist banded with spar attains a width of 100 ft. and twelve feet of this on the hanging wall assays better than 2. 5/10 Cu.

On the 900 a drift south for 300 ft. is all in ore averaging nearly 2% Cu. and a continuation south of this drift is one of the first developments advised.

From the appearance of the 900 the high grade ore on the 800 and the diamond drill below the 900 which at 140 ft. below the 900 encountered an ore body of 15 or more feet in width, with a high grade section of 4 or 5 ft. in width assaying from 6 to 7% Cu. it appears to the writer that the sinking of the incline shaft another 200 ft. and doing some drifting, a very valuable ore body would be found and this was strongly advised to the directorate.

The south, and to me, the most promising section of the Copper Queen property has never been intelligently developed. A vertical shaft was sunk 380 ft. but this shaft passed through the contact close to the surface and no cross cut to the west was driven from the bottom of this shaft to explore the

possibilities at that depth. I advised sinking this shaft 200 feet deeper and than cross cutting west to the contact and drifting on it north. I firmly believe if this work was done together with the work outlined on the 900 level, and the further sinking of the incline shaft 200 ft. farther the Copper Queen Company would be placed in the ranks of dividend paying mines.

I sincerely hope Mr. Goldman that the above statements will place before interested parties the possibilities contained in the Copper Queen Co's. property. I am certain, that, if as claimed, the Binghamton have developed large valuable ore bodies by deeper work you are in a more favorable position to do likewise, for your surgace showings are more extensive and more promising than those of your neighbor.

With kindest regards, believe me,

Yours truly,

A. B. Rombauer.

Los Angeles, California

June 19, 1919.

COPPER QUEEN GOLD MINING CO.

ESTIMATE OF ORE RESERVES SEPTEMBER 1, 1917.

AVERAGE OF 127 SAMPLES

Place	Width	Average Length	Height	Cu. Ft.	Tons	% Cu.	Tons Cu.
3-74-s	3.6	45	50	8100	675	3.20	21.60
3-64-S	8.6	50	50	21500	1790	3.08	55.20
4-43-S	4.6	25	50	5750	480	2.27	10.90
4-44-S	6.7	45	50	15000	1250	2.02	25.20
4-53-S	5.5	15	78	6400	537	1.87	10.00
4-53-S-N	5.0	15	106	7960	663	2.23	14.70
4-63-S	5.4	22	44	5230	434	3.61	15.65
4-73-S	3.5	49	73	12500	1040	2.38	24.50
4-73-S	3.5	6	73	1530	128	2.52	3.80
5-53-S	14.0	90	90	113500	9500	2.00	190.00
					16497	2.25	371.55

INACCESSIBLE FOR COMPLETE SAMPLING

4-63-S	5.0	7	106	3710	310	2.00	6.20
4-63-S	5.5	6	100	3300	275	3.00	8.25
4-53-S to							
4-63-S	5.5	40	100	22000	1800	2.50	45.00
4-53-S	5.0	20	100	10000	830	2.00	16.60
46-63-S	9.0	100	20	20000	1500	2.50	37.50
5-63-S	10.00	45	40	18000	1350	2.50	33.75
5-63-S	10.0	25	6	1500	125	2.50	3.12
5-53 Winze to							
5-53-S	10.0	55	90	48000	4000	2.50	100.00
Less,	10.0	15	10				
5-43R	5.0	30	90	13500	1125	2.00	22.50
Below 500	10.00	145	15	21750	1800	2.00	36.00
					13,115	2.35	308.92

COPPER QUEEN GOLD MINING COMPANY

ESTIMATED ORE RESERVES SEPTEMBER 1, 1917.

AVERAGE OF 127 SAMPLES

BROKEN ORE

Place	Tons	% Cu.	Tons Cu.
3-64-S	210	3.08	6.47
3-74-S	60	3.20	1.92
4 & 4-73-S	1636	2.72	44.50
4-53-S	150	1.87	2.81
4-43-S	100	2.27	2.27
46-43-S	644	2.50	16.10
5-53-S	1200	2.00	24.00
	4000	2.45	98.00

SUMMARY

Completely Sampled	16,497	2.25	371.55
Incompletely Sampled	13,115	2.35	308.92
Broken Ore	4,000	2.45	98.00
	33,612	2.32%	778.54

NOTE: Since the above estimate was made the Copper Queen has been opened up on the eight and nine hundred levels and according to their former Superintendent the tonnage doubled.

numerous veins and lenses from 4, [illegible] 3 feet wide of considerable enrichment above the [illegible]n ore-bearing schist. As I s[illegible] before, 170 some odd [illegible]n from the portal we came [illegible] mineralized schist. The value of this schist can best be ascertained from the dump inasmuch as all the work, according to previous records, was done in developing, and entirely in ore. In sampling this dump the assay report showed $14.85 in copper, a trace of gold and a little pay in silver. This would indicate this mineralized schist is running approximately 1-1/2% copper. However, our sample did not assay this amount when sampling the walls. This schist is approximately 600 ft wide at this point, with backs of approximately 400 feet above the adit. As per the reports on the 500, 700 and 900 levels, the same mineralized schist was encountered with continuous lenses of enrichment as was found on the 400, 300 and 200 levels. All information indicates there is approximately 7,500 feet of workings within adit #2 of this property. As for adit #1, the adit farthest south, according to reports, there is approximately 2,516 feet of workings. In this work, all of the work with the exception of approximately 100 feet is said to have been done in ore. These two adits are 3,000 feet apart. In Adit #2 the total backs are approximately 600 ft. If we were to take the round figures of 700 ft backs, then this ore has been drifted on and developed 600 ft wide, 3,000 ft long and 700 ft deep. This, of course, is low-grade ore; approximately 1% plus or minus.

There being little or no overburden to be removed, it would require no preliminary work other than a reassuring complete sampling program to determine the feasibility of a large open pit operation.

FUTURE ORE RESERVES: North of adit #3 there has been no development work other than shallow surface workings; and an examination of these workings shows mineralized schist similar to that encountered in adit #2 and #3. On the extreme south end of the claims, on the bank of the Agua Fria River, there is a drift about 200 ft on the main lens. This drift was sampled by Mr. Naylor in February of this year. A section 16 ft wide showed 1.78% copper, with a little gold and an ounce and a half of silver. This is a point approximately 5,000 feet from the surface workings on the north end of the property. This would indicate the probability that this same mineralization continues throughout the entire Copper Queen claims. This would give total ore reserves and future prospects of a minimum of 600 ft wide by 5,000 ft long with a minimum depth of 600 ft. This surface showings are consistent over this belt.

DUMPS: On the Copper Queen property is a tailings dump from a mill formerly located on the adjoining property. This dump contains approximately 150,000 tons of tailings which assay about 1% copper. A flotation mill could be installed which would reclaim 90% or 18 pounds of copper per ton, with accompanying gold and silver. Therefore, one could treat these tailings for a handling charge of approximately $1.50, this leaving about $6.00 net per ton. This tailings dump would then show a profit of $900,000.00 in copper plus gold and silver. As for chemical treatment of these tailings, the Kemo Mining Corp. controls a suitable process for this purpose. With it a possible extraction of about 98% could be obtained at a considerably lower cost-per-ton treated and a complete installation could be installed for a figure not to exceed $30,000.00 for a 250-ton plant operating on a 24-hour basis. The first figures of profit are determined upon ordinary methods of treating, but if this Kemo process could be employed considerable more profit could well be expected. I recommend that a thorough study and test of this process be made on these tailings. If the results prove satisfactory, it could be very profitable.

IN CONCLUSION: In view of the excellent surface showings, the extensive underground development totaling 10,000 feet or more, all of this work apparently has been in ore of values considered profitable under present day prices. The results of this development demonstrate the existence of large bodies of enriched ore. One of the favorable things about this property is that the major expense and gamble is in the past. I have seen or been through upwards of a million dollars worth of development work, and yet I cannot see where there has been but very little, if any, production from this property. The history of this mine goes back to an extensive development program by a group of very wealthy Texans. Their program was to develope vast tonnages of ore for a future large production. The only ores taken from this property, or sold from this property, were taken from the actual development work and it has never been what one might consider a producing mine. During the course of years of World War II etc. there has been some stoping done on the 400 level of adit #2. Other than this, it has been strictly a development program, and this million dollar development is now all a matter of history, with the gamble of developing in barren ground or running out of ore no longer a matter to be insurred by a new operator.

There are millions of tons of ore which are proven by the 10,000 or more feet of workings. It is true the grade is low and the operator would have to have as efficient an operation as possible in order to show a substantial per-ton profit, but there are other mines in the country operating with substantial incomes without nearly the potential that this property has. I don't believe that I have ever undergone an inspection of an unoperated property with more merit than this Copper Queen property demonstrates to me. With the proper management and adequate funds this could well be one of the big producing copper mines of our day.

Copper Queen Mine

The foreg[illegible]emarks, brief as they are, should [illegible]y to any [illegible] who is able to understand their [illegible]ning the fac[illegible] the Copper Queen mine offers to those who own it, an investment seldom found in mining ventures. It is a project which has proven ore reserves the value of which is known. All that is required is equipment, organization, ability to organize the technical details of the project. The same ownership controls the Binghampton mine, which adjoins the Copper Queen property. This property was a big producer in its day and produced, during one period, over eight million pounds of copper, 33,000 ounces of silver, and over 200 ounces of gold.

(signed) SHOLTO DOUGLAS, D. Sc.

THE EDUCATION, TECHNICAL TRAINING, AND EXPERIENCE OF RONALD SHOLTO DOUGLAS:

CITIZENSHIP: U.S. Citizen, but born in England on March 25, 1899, age 52.

EDUCATION: Douglas was educated at Sneaton Castle, Whitby, England; Eton College, Eton, England; The Royal Military College, Sandhurst, England; and London University, London, England.

He studied Mining and Metallurgy and Mechanical Engineering and was graduated in 1928 with a B. Sc. degree. In 1938 he wrote a thesis on Extractive Metallurgy, obtaining his D. Sc. degree.

Douglas served on apprenticeship with Messrs. Vickers Ltd., of England. His time was spent in the machine shops, the foundry and casting shops, on tests of steam and diesel engines, in the drawing office, and on specification writing.

Douglas is a member of the Institute of Mining and Metallurgy, an associate member of the Institutes of Mechanical and Electrical Engineering, and an associate of the Institute of Aeronautical Engineering.

EXPERIENCE: In 1928 Douglas was appointed as an Assistant Engineer with the Anglo-Oriental Mining Corp. in Nigeria, West Afrida. In three years he became their liaison Engineer.

His work commenced with the surveying and cutting of water leats, building of dams for water conservation, building roads and workshops, the installation of plant consisting of dredgers (bucket and suction cutter type), hydraulic elevators and monitors, sluice races, gravel and nozzle pumps etc. and the operation and maintenance of steam, diesel, and electrically operated shovels, draglines, cranes and grabs; gas and gravity operated railways, skips and ropeways. Work in the tin dressing mill - the ore was mined as casserite (SnO_2) which was concentrated in Willouby's and Wilfley tables until it was assayed 72% Sn, when it was sacked and shipped to the smelter.

While employed on this work Douglas designed and constructed the Hydro-electric power station at Jos, Nigeria, which is operated by 10 Pelton Wheels and generates 148,000 volts for transmission over 15,000 square miles of Nigerian Mining Country on the Bauhi Plateau.

As Liaison Engineer Douglas' duties included visits to the Corporation's mines, mills and smelters in Africa, Burma and the F.M.S. He spent some time at the Penpole Smelter, their plant in England.

In 1932 Douglas was appointed as consulting metallurgist to the late Sir Harry Oakes, then Mr. Harry Oaks and President of the Lake Shore Mines Ltd., at Kirkland Lake in Canada. His first assignment was to examine and report upon the Flotation and Cyanidation of Flotation Concentrates as employed at Lake Shore at that time. This examination was ordered by Mr. Harry Oakes. The Flotation and system of Cyanidation of Flotation Concentrates was the idea of Mr. Lee Dougan and Mr. W. H. Englebright, it has been installed by them at considerable cost to Lake Shore with the concurrence and approval of Mr. E. B. Knapp, the General Superintendent of Lake Shore Mines, Ltd.

Owing to much opposition and hindrance to this work by the above-named men, and others at Lake Shore, Douglas was compelled to build his own test laboratory, engage his own assistants, and run his own assays.

REPORT ON THE COPPER QUEEN GOLD MINING COMPANY'S GROUP

Persuant to your request, I have carefully examined that certain group of mining claims near Mayer, Arizona, formerly owned by the Copper Queen Gold Mining Co., and the following represents the results of my examination.

HISTORY: This district has a very favorable history of gold, silver and copper production. Much gold was mined around here in the early days. Practically all the gold production is a by-product of the copper operations. The LARGEST PRODUCER IN THE DISTRICT prior to the operation of the "Iron King" mine, operated by the Calumen and Hecla Mining Co., which is about 10 miles distant from your property, was the "Binghampton" mine, which is reported to have produced over 8,000,000 pounds of copper and considerable gold. The ore bodies of the Binghampton and the Copper Queen are practically one and the same.

A group of oil men from Texas began the development of the "Copper Queen" about the beginning of the 20th century. The development was expertly done. With the exception of less than 200 feet at the portals of the adits all advancement is in mineralized ground. With the exception of a small tonnage milled in the Binghampton mill and the ore shipped by yourself in sampling the ore above the #2 adit level, the ore bodies are intact.

After World War I the price of copper broke sharply and stayed at a low level for many years. The properties in this district were abandoned and forgotten and many subsequently sold for delinquent taxes. Your property was one of these.

DESCRIPTION: This group is located in Yavapai County, Arizona, and lies about 5 miles easterly from the town of Mayer, consists of 26 Patented claims totaling 353.413 acres (See claim map). Following is an itemized list of the claims, their names, survey number and acreage area.

NAME	SURVEY NO.	ACREAGE AREA
1. Lightning Bug	1854	20.661 acres
2. Bracie No. 2	1854	11.035 "
3. Copper Queen	1854	17.861 "
4. Fraction	1854	6.188 "
5. Little Ella	1854	16.336 "
6. Copperopolis	1854	20.690 "
7. Highland Chief	1854	16.780 "
8. Fraction No. 2	2548	16.180 "
9. Fraction No. 3	2548	11.175 "
10. Gray Eagle	2958	20.507 "
11. Price of Yavapai	2958	11.964 "
12. Golden Star	2958	11.934 "
13. Iowa	2959	17.929 "
14. Robin	2959	20.548 "
15. Toughnut	2959	20.387 "
16. Missing Link	2959	9.609 "
17. Rubidium	2959	8.632 "
18. Copper Bucket	2959	13.024 "
19. Surprise	2959	20.031 "
20. Copper Iron	2959	20.016 "
21. Louise	3429	5.013 "
22. Martin Fraction	3429	5.634 "
23. Martin Fraction Extension Honeymoon Grp.	3430	0.244 "
24. No. Nineteen	1854	20.449 "
25. Kid	2543	8.98- "
26. Honeymoon	2543	20.660 "

GEOLOGY: The country rock of this district consists of various phases of Yavapai schist, mostly chloritic and sericitic. The writer observed near the #1 adit rocks of carboniferous slate suggesting sedimentary origin of the schists. The schists are cross fractured by dikes of rhyolit, basic felsites and quartz. Blowouts of bull quartz are frequent.

Mineralization is largely confined to the area of silicication. The mineral in the form of copper, iron, silver and gold sulphides accompanied the silicous solutions and were precipitated where the conditions were favorable. The silicified areas, withstanding erosion more than the country rock, stands up boldly and assumes the form of prominent reefs. There offurs some pre- and post- mineral faulting, mostly the latter, and the main fault, which has a comparatively short throw, appears to flatten at depth, as far as can be observed.

The strike of the ore body is northerly-southerly. The enriched portions of the zone appear as lenses of varying width and length and persist vertically. Some of the walls of these lenses are well defined and others are assay walls.

The geology of the Binghampton, which is identical to that of the Copper Queen, is described by Waldemar Lindgren in Bulletin #782, issued by the U.S.G.S. in 1926, "Ore Deposits of the Jerome and Bradshaw Mountains Quadrangle, Arizona". Copy attached hereto.

DEVELOPMENT: The writer has not examined a mining property in the State of Arizona, not in operation, with as extensive and rewarding development as the Copper Queen. You have in your possession a map of the underground workings, made for the former management of the property. This map covers the workings accessible from adit #2. You have also a description of the workings by Charles A. Dinsmore published by the Mining and Engineering World of Oct. 21, 1911. Mr. Dinsmore describes the workings in adits #1, #2 and #3. From these descriptions in conjunction with the map, we learn in detail of the work accomplished.

For the purposes of this report I have designated the adits as follows: The lowest and most southerly, adit #1; the main adit, adit #2; the upper and highest in elevation, adit #3; to coincide with your map.

On adit #1, called #2, from a copy of a report made by Charles A. Dinsmore, a mining engineer, in the Mining & Engineering World of Dec. 9, 1911, the cross-cut is 328 feet in length. Winzes, rifts and crosscuts from this level are reported to have advanced a total of 2,516 feet. This adit was started on the south end of the "Little Ella" and cut into "Copperopolis" ground.

Most of the development work has been done on the #2 adit, designated on the map as the 400 foot level. This map was made by an engineer for the Gray Eagle Copper Co., who were operating the property at that time. This adit was started on the north end of the "Little Ella" and penetrates the Copper Queen and Gracie No. 2 ground.

On this adit level a winze was sunk to the 900 foot level and raises run to the 200 foot level. Stations were cut at the 200, 300, 500, 700, and 900 foot levels. This map shows crosscutting and drifting on the adit level of 2,300 feet. Raises and winzes 700 feet. Drifting on the 200 and 300 about 400 feet each. On the 500 foot level, drifting and crosscutting of 1,080 feet. On the 700 foot level, drifting and crosscutting of 2,258 feet and on the 900, drifting and crosscutting of about 450 feet. A total of 7,588 feet of development on this adit level. On the #3 adit, which was probably the earliest workings, crosscutting and drifting amounts to about 350 feet.

This totals about 10,400 feet of development work from which very little ore has been extracted. In addition to the above systematic development, there are numerous cuts, shallow shafts and short tunnels on both sides of the ore body, totaling several thousand feet.

At today's costs, it is doubtful that this development could be done for less than half a million dollars.

Much of the underground workings are inaccessible, but wherever the workings may be entered, the map mentioned above has proven correct.

THE ORE BODY: The ore in the Copper Queen group may be divided into two classifications: ore of a grade which may be profitably treated in a small mill and low-grade ore which may be quarried and milled on a large scale. According to sampling from actual shipments to the smelter made by you and the settlement sheets in your possession, there is now available in the mine, from adit #2, over 30,000 tons of ore that will assay 2.3% copper and some silver. The writer considers that there should be ten times this amount of ore, of this grade or better, in the 500, 700, and 900 foot levels. The winze leading to these levels are now filled with water and the workings cannot be inspected.

Following is a list of the ore shipments, tonnage, and value made in 1947, 1948 and 1949:

AMERICAN SMELTING AND REFINING COMPANY

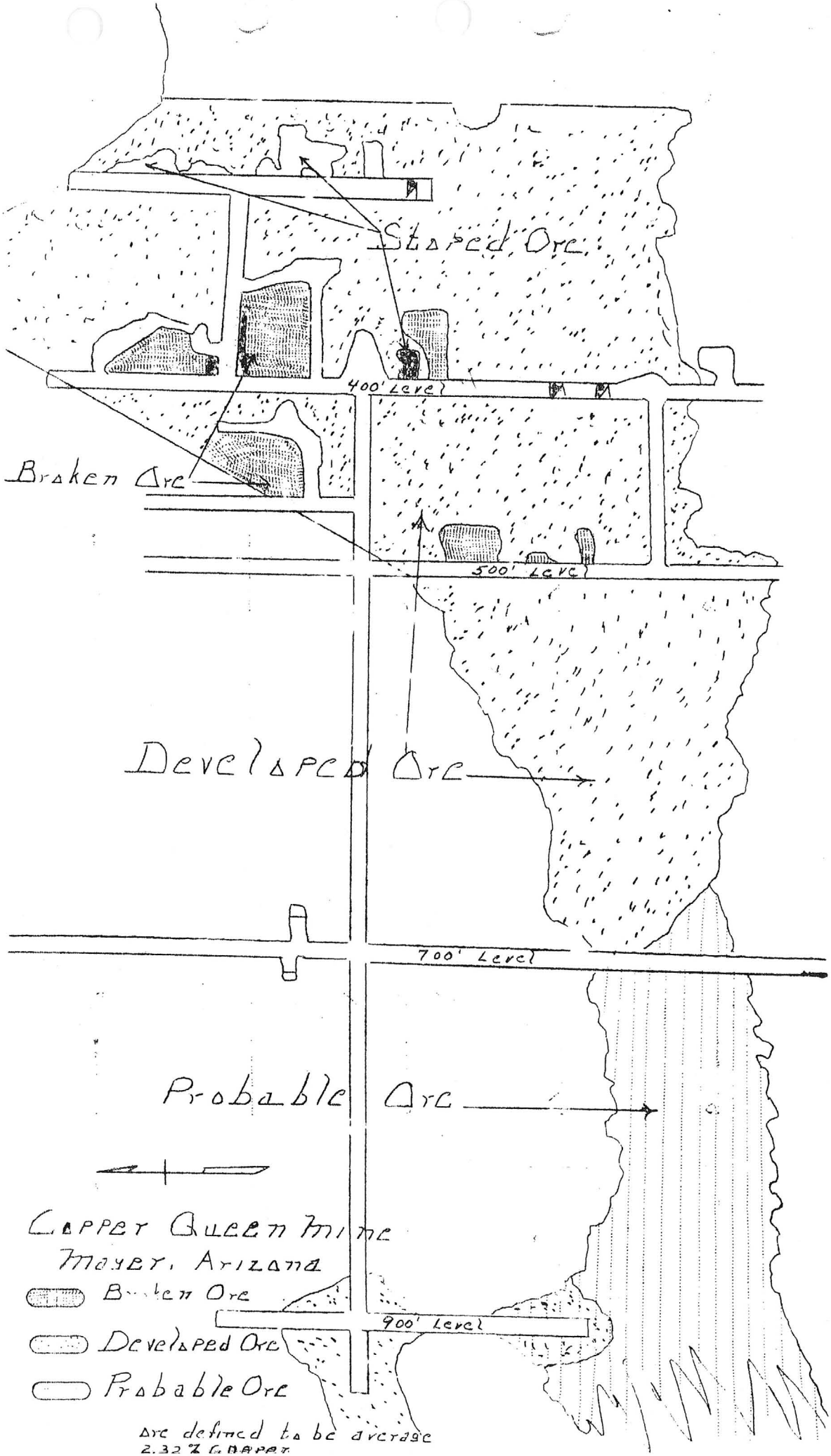
Tonnage	% Copper	% Silver ozs.	% Gold ozs.
39.175	4.58	3.5	.01

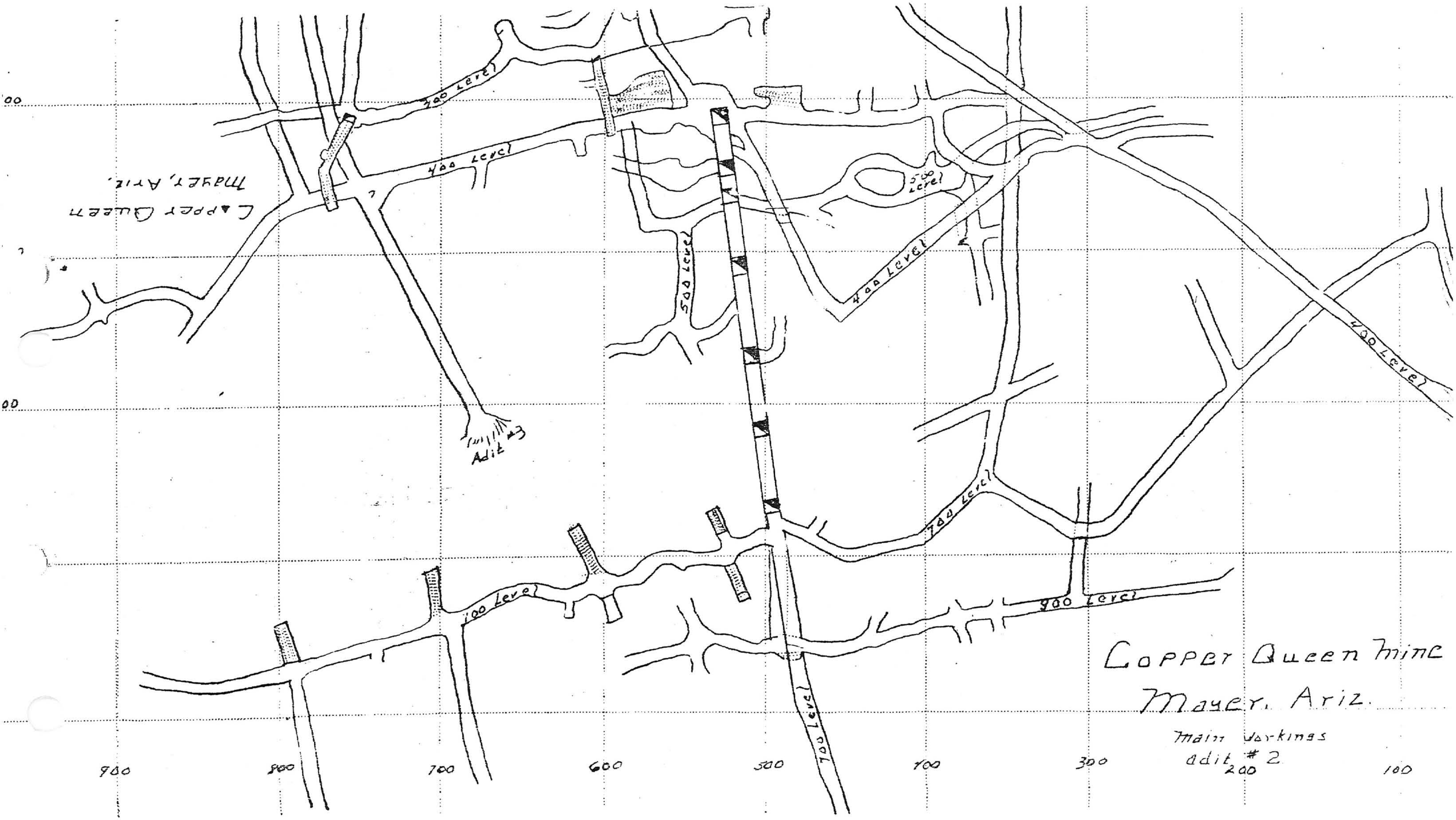
PHELPS-DODGE CORPORATION

47.53	3.74	.40	.017
51.05	2.80	.35	.003
41.522	3.97	.37	.015
46.971	3.33	.45	.01
50.639	2.31	.30	.00
47.174	2.74	.49	.017
51.154	2.89	.33	.00
50.094	2.61	.30	.0025
50.639	2.81	.35	.00
97.565	2.64	.34	.005
45.738	2.91	.29	.003
46.971	3.33	.45	.01
41.134	2.85	.33	.00
47.174	2.74	.49	.017

Average value of copper 2.55.

(Over)


Stoped Ore
400' Level
Broken Ore
500' Level
Developed Ore
700' Level
Probable Ore
Copper Queen Mine
Mayer, Arizona
Broken Ore
Developed Ore
Probable Ore
900' Level
Ore defined to be average
2.32 % COPPER


Copper Queen Mine
Mayer, Ariz.
Main Workings
adit # 2
Copper Queen
Mayer, Ariz.
Adit #3
100 Level
400 Level
500 Level
700 Level
900 Level
900
800
700
600
500
400
300
200
100

Mr. Ferguson sampled the 400 adit during the time he was operating the property and following is a list of the results.

ESTIMATE OF ORE RESERVES SEPTEMBER 1, 1949 - AVERAGE OF 140 SAMPLES

Place	Width	Average Length	Height	Cu. Ft.	Tons	% CU	Tons CU
1. 3-74-S	3.6	45	50	8100	675	3.20	21.60
2. 3-64-S	8.6	50	50	21500	1790	3.08	55.20
3. 4-43-S	4.6	25	50	5750	480	2.27	10.90
4. 4-44-S	6.7	45	50	15000	1250	2.02	25.20
5. 4-53-S	5.5	15	78	6400	537	1.87	10.00
6. 4-53-S-N	5.0	15	106	7959	663	2.23	14.70
7. 4-63-S	5.4	22	44	5230	434	3.01	15.65
8, 4-73-S-S	3.5	49	73	12500	1040	2.38	24.50
8. 4-73-S-S	3.5	6	73	1530	126	2.52	3.80
10. 5-53-S	14.0	90	90	113500	9500	2.00	190.00
					16497	2.25	371.55
			INACCESSIBLE FOR COMPLETE SAMPLING				
4-63 Pillar-N	5.0	7	106	3710	310	2.00	6.20
" " S	5.5	6	100	3300	275	3.00	8.25
4-53-S Pillar to 4-63-S3	5.5	40	100	22000	1800	2.50	45.00
4-53-S Extn	5.0	20	100	10000	830	2.00	16.60
46-63-S	9.0	100	20	18000	1500	2.50	37.50
	9.0	45	40	16200	1350	2.50	33.75
5-63-S	10.0	25	6	1500	125	2.50	3.12
5-53, Winze to 5-53-S	10.0	53.3	90	48000	4000	2.50	100.00
5-43-R	5.0	30	90	13500	1125	2.00	22.50
Below 500	10.0	145	15	21750	1800	2.00	36.00
					13115	2.35	308.92
			BROKEN ORE				
3-64-S					210	3.08	6.47
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46-63-S					644	2.50	16.10
5-53-S					1200	2.00	24.00
					4000	2.45	98.07
			SUMMARY				
			COMPLETELY SAMPLED		16497	2.25	371.55
			INCOMPLETELY SAMPLED		13115	2.35	308.92
					4000	2.45	98.07
			TOTALS		33614	2.32	778.54

The average value in copper of the above samples is 2.45%, with a high of 3.61% and a low of 1.87%. The average of the shipments was 2.95% cu., with a high of 3.97% cu. and a low of 2.61% cu. We see here a pattern of uniformity, showing wide and comparatively equal mineral dstribution. I consider that in the lower levels you will find a similar mineral distribution. Copies of old reports made by competent engineers, in your possession, verify this statement.

It is my opinion that the mineralization of the schists was coincident with the silicification. I was impressed with the presence of sulfide minerals, both chalcopyrite and pyrite, in the silicous schists, outside of the considered ore body. Inspection of the walls of the crosscut, from less than 100 feet from the portal of adit #2 reveals the presence of varying amounts of mineralization. It is a high probability that a core drill exploration program confining the exploration to the silicified areas of the mine would develope a very large tonnage of low grade copper ore susceptible to quarry and pit operation.

If we consider the silicified schists as possible ore, there would be a body 3,000 x 600 x 700 feet which at 12 Cu. Ft. to the ton would amount to over 100,000,000 tons.

METALLURGY: Most of the copper values in this property, as stated before, are in the form of sulfides, principally chalcopyrite. High recovery of copper sulfides by flotation is accomplished by standard milling practice and presents no problem.

CONCLUSION: Judging from the map of the underground workings, combined with various reports in your possession, the Copper Queen, in its present state is a highly developed property with over 10,000 feet of development. You have positive ore reserve of over 33,000 tons of milling grade ore with evidence of many times this amount in other levels. There is a distince probability that proper exploration should develope a very large body of low-grade copper ore.

RECOMMENDATIONS: You have sufficient ore in sight to feed a flotation mill of 100 tons per 24-hour day capacity. Opening up caved drifts and de-watering winzes on the adits should furnish you with mill ore for many years. I recommend the installation of such a mill. I further recommend that as soon as practicable the inaugeration of a core drilling program designed to develope a low-grade ore body.

I am fully convinced that the operation of the Copper Queen will prove to be a highly profitable undertaking.

Respectfully submitted,

(signed) HOWARD J. POTTER
Engineer

HOWARD J. POTTER, ENGINEER

QUALIFICATIONS

TECHNICAL EDUCATION:

University of Washington - engineering

University of Southern California - strategic minerals; class and laboratory

University of Arizona - Scheelite recovery in University mill and lab.

Master Gunners School - U. S. Army; World War-I; surveying, map and mechanical drawing.

EXPERIENCE FROM 1915 TO DATE:

Operated War Eagle mine; lead-silver, near Baghdad

Mined manganese, Conception Bay, near Mulege, Baja California

Engineer, Copper Dog Mining Co., Patagonia, Ariz.

Exploration, Holcomb Valley Mines, San Bernardino Co.

Engineer; field work and exploration for Charles Johnston former President, Guardian Corp., L.A., Calif

Many intermittent field examinations for various clients in Calif., Ariz., Nevada, New Mexico.

Engineer for shipping chrome property in Tehana Co., C

Operating Engineer for Kern Sierra Tungsten Mine in the Southern Sierras, Kern Co., Calif.

Operating Engineer for the Mountain Key Mine, gold-silver-lead and copper, near Silver City, N.M.

Since 1951 consulting engineer for the Allied Mines, Petroleum Investment Trust, Allied Royalties and Atolia Tungsten. All work on scheelite properties.

REFERENCES:

Carder Livingston
Livingston Materials
Cherry Street
Long Beach, Calif.

C. R. Zapponi
Glamis,
Imperial County, Calif.

Anson Murphy
Ansco Construction Co.
Atlantic Avenue
Long Beach, Calif.

George G. Moore
316 N. Norton St.
Los Angeles, Calif.

Ed. Eisenhaur, Jr.
San Pedro Street
Los Angeles, Calif.

ZONA DEPARTMENT OF MI[illegible] RESOURCES
Mineral Building, Fairgrounds
Phoenix, Arizona

1. Information from: Murray Schultz Phone 216-5229

   Address:

2. Mine: Copper Queen 3. No. of Claims - Patented

   Unpatented

4. Location: E of Hereford

5. Sec Tp Range 6. Mining District

7. Owner: M/S Manley

8. Address: Bumble Bee

9. Operating Co.: Fidelity Mining Investments, Ltd.

10. Address: 11th Floor 20 Toronto St., Toronto, Canada

11. President: C.C. Rollins 12. Gen. Mgr.: J.C. McCoy UP

13. Principal Metals: Cu. 14. No. Employed:

15. Mill, Type & Capacity:

16. Present Operations: (a) Down ☐ (b) Assessment work ☐ (c) Exploration ☐
    (d) Production ☐ (e) Rate tpd.

17. New Work Planned: ??

18. Miscl. Notes:

Date: Jul 9 1970

T. J. Johnson
(Signature) (Field Engineer)

COPPER QUEEN GOLD MINING COMPANY

ESTIMATED ORE RESERVES SEPTEMBER 1, 1917,

AVERAGE OF 127 SAMPLES

BROKEN ORE

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	33,612	2.32%	778.54

NOTE: Since the above estimate was made the Copper Queen has been opened up on the eight and nine hundred levels and according to their former Superintendent the tonnage doubled.

COPY

COPPER QUEEN MINE (Gray Eagle)

5.5 miles northeasterly of Mayer, joining the Binghampton Mine. Owner; F.R. and S.M. Dennison; Mayer, Arizona.

This property was quite extensively developed in the early 1920s. The production at that time is unknown. It was reopened in 1948 and produced 50,350 lbs copper. Faced with high costs and low metal price, it closed in 1949.

The mine still contains considerable material of similar grade to that last shipped. Should the price of copper justify, it could be put into production quickly with comparatively little capital investment. It could possibily produce 150,000 lbs of copper per year. Four to five men would be required.

Miscellaneous Dormant Properties;

About six miles easterly from Mayer, in the vicinity of Copper Mountain, there are several past producers that together shipped some 60,000 lbs of copper during the Premium Price Plan. Give the proper conditions these and other small mines could, and would produce a worth while amount of copper.

October 1950.

L.L. Farnham

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Copper Queen ✓ Date April 20, 1956

District Agua Fria - 6 m. NE Mayer, adjoins Binghamton Engineer Mark Gemmill

Subject: Present Status

The property consisting of about 15 patented claims was acquired by Mr. Francis Dennison, Mayer, Ariz. a few years back.

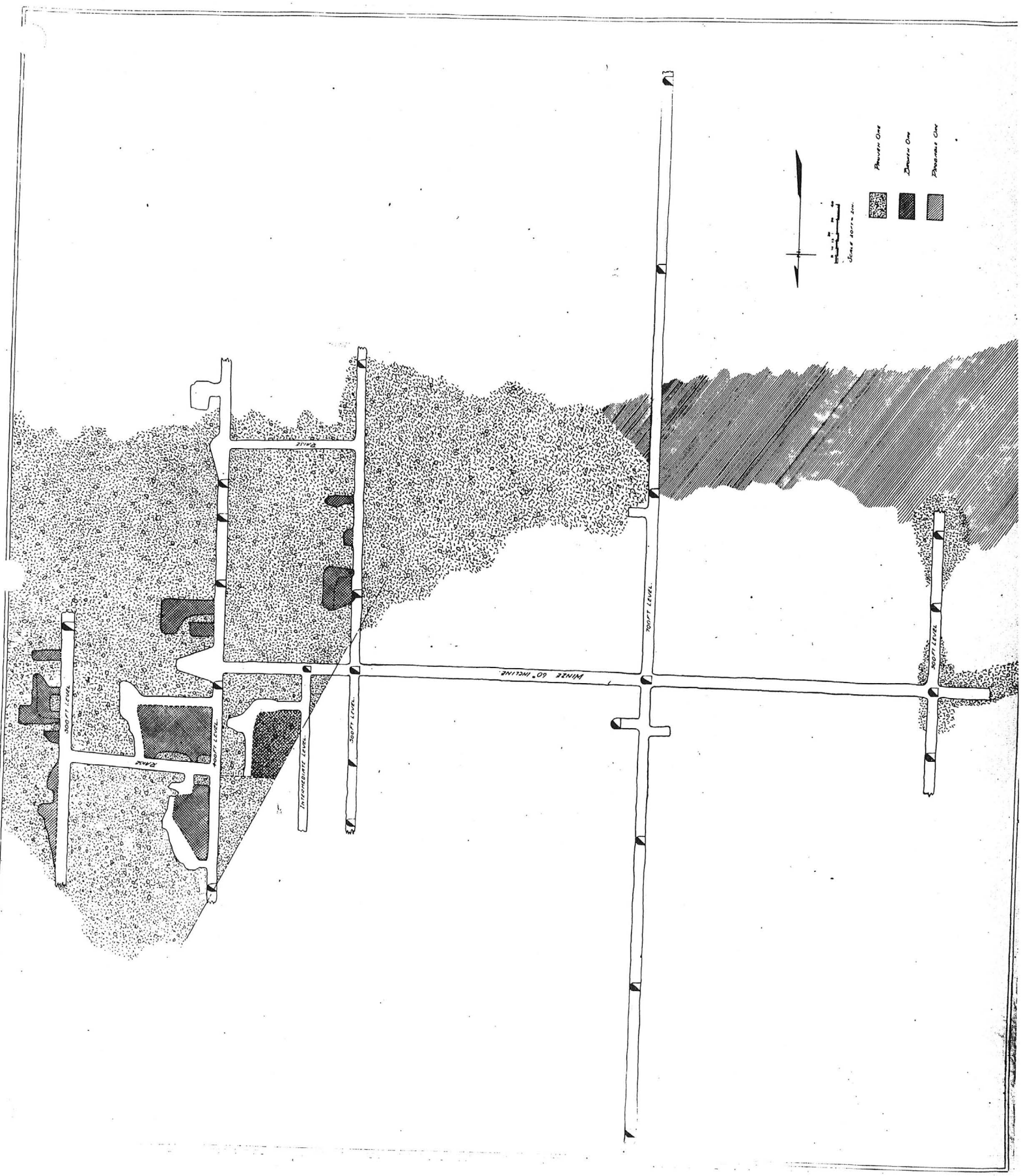
The property was under development from about 1910 to 1920. In 1927 a few hundred tons of sulphide ore was mined from above the adit tunnel and milled in the Binghamton mill. The grade was 2.2 % copper. This operation was unprofitable and discontinued. Since 1942 several lessees have attempted to mine and ship ore from the upper levels but found it unprofitable. The lower levels (below adit) have been under water since 1920. The best information on the property is contained in a report by A. B. Rombauer, dated June 19, 1919 which is attached. Also Mr. Allison has some records and maps.

It is now under lease and option to purchase to Dick Naylor, 1228 Atlantic, Los Angeles 22, Calif.

DENNISON, MR. FRANCIS
MAYER, ARIZONA

MINE: COPPER QUEEN, Agua Fria Dist., Yavapai County
OWNER: Francis Dennison
LESSEE & OPTION TO PURCHASE: Dick Naylor, 1228 Atlantic, Los Angeles, 22 California 4/20/56

COPPER QUE


Proven Ore
Drawn Ore
Probable Ore
Scale 40 ft = 1 in.
MINZE 60° INCLINE
300FT LEVEL.
INTERMEDIATE LEVEL.
RAISE

COPPER QUEEN