



## **CONTACT INFORMATION**

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03/20/90

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: IRON KING

ALTERNATE NAMES:  
EQUATOR

YAVAPAI COUNTY MILS NUMBER: 592

LOCATION: TOWNSHIP 15 N RANGE 2.5E SECTION 12 QUARTER SW  
LATITUDE: N 34DEG 42MIN 19SEC LONGITUDE: W 112DEG 05MIN 23SEC  
TOPO MAP NAME: COTTONWOOD - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:  
COPPER  
GOLD  
SILVER  
LEAD  
ZINC

BIBLIOGRAPHY:

USGS COTTONWOOD QUAD  
LINDGREN, W. ORE DEPTS OF JEROME & BRADSHAW  
MTN QUADS USGS BULL 782 1926 P 92  
ANDERSON, C.A. & S.C. CRESY GEOLGOY AND ORE  
DEPTS OF JEROME AREA USGS PP 308 1958 P 149  
ADMMR EQUATOR GROUP FILE  
ADMMR IRON KING MINE (EQUATOR MNG) COLVO FILE

EQUATOR GROUP

AKA Iron King Mine

Yavapai  
Verde District  
T15N, R2 $\frac{1}{2}$ E Sec. 1

USGS Bulletin 782, page 92 & 60

See AGJ Vol 15  
Field trip section

May 27, 1957

EQUATOR GROUP  
(Copper Chief-Equator.)

YAVAPAI COUNTY

This property idle.

MARK GEMMILL

See: U.S.G.S. Bull # 782 p92, 60

T15 N R2 1/2 E Sec 1

SOURCES

*Received*



REASON CHECKED  
backdated  
for better address  
forward. Left no address  
to each office in advance

MISSSENT TO CASHION, ARIZ

Mr. A. B. Peach  
Box 38  
Clarkdale, Ariz.

NAME OF MINE: EQUATOR  
(COPPER CHIEF)

COUNTY: YAVAPAI  
DISTRICT: Verde  
METALS: CU

OWNER: (Phelps Dodge)

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

5/1/44

A.B. Peach, Clarkdale (Box 38)

DATE:

5/1/44

Shipping

Idle

*deceased*

6/45

4/10/44

7 men working developing during Clarkdale shutdown.

EQUATOR

Cu

T 15 N, R 2 E

A. B. Peach, Clarkdale

'42

Clarkdale, Arizona  
August 18, 1950

Mr. Chas. H. Dunning  
Mineral Building, Fairgrounds  
Phoenix, Arizona

Dear Mr. Dunning:

Herewith enclosed is estimate of copper  
for a period of twelve months.

Unless I would have definite information  
of their desire of the copper from here by October 1, 1950  
I would not be interested in undertaking production as I  
expect to move to Salt River Valley permanently about that  
time.

Yours very truly,



A. B. Peach

**DEPARTMENT OF MINERAL RESOURCES**  
**STATE OF ARIZONA**  
**FIELD ENGINEERS REPORT**

Mine EQUATOR GROUP (Equator lease)

Date September 26, 1942

District VERDE

Engineer A. C. NEBEKER

Subject: PRODUCTION POSSIBILITIES

This group of claims is leased by Mr. A. B. Peach and has been known as the Copper Chief-Equator.

The production has been averaging around 45 to 50 railroad cars of 52 tons, per month. 1500 tons would be of oxides and carbonates with high silica, the 700 to 800 tons are heavy sulphides carrying an average of 3% copper.

The production is now down to 32 to 33 cars per month. The reason of the reduction is the lack of labor. Mr. Peach can't get the men he needs. He needs now and can use 25 more miners and muckers, and could step up production by 50 per cent.

Mr. Peach is now working 40 men. He tells me that the day his men learned of the Freezing order 10 men quit him, saying that they were not going to be froze on any job.

This same thing has happened at two other mines in this section of the state as many as twenty men quitting at once, fearing the freezing order.

One other problem Mr. Peach has, is, unable to get mine timber, due to the shortage of men who will get out and cut and peel the logs.

Mr. Peach thinks something other than talk must be done to keep men in the mines where wages are not as high as in the Defense Works. He thinks a raise in the price of copper, so wages could be raised, may help some.

One other solution is to draft at once, these men who refuse to stay on the job.

Mr. Peach thinks if the companies would be allowed to go into Mexico and get their men, and be held accountable for these men and be required to return them at the end of the duration, a lot of this labor trouble could be overcome. He has operated in Mexico and knows he can get good men. He also suggests that they be required to buy Bonds just as the others.

Mr. Peach has another property he would like to start up, if he could only depend on labor.

(Signed) A. C. NEBEKER

STATUS OF DORMANT MINES

MINE NAME: Florencia Lease

LOCATION: Jerome, Arizona

OWNER AND/OR LEASEE: A. B. Peach - Lessee

ADDRESS: P. O. Box 38, Clarkdale, Arizona

APPROXIMATE PRODUCTION (Year of 1945):

COPPER 760,880 Lbs. LEAD \_\_\_\_\_ Lbs.  
ZINC \_\_\_\_\_ Lbs. (OTHER) \_\_\_\_\_

CHECK THE CHIEF CAUSE OF YOUR DISCONTINUED PRODUCTION:

- (A) Easily available ore worked out.
- x (B) Increased costs, but have quantity similar to past grade of ore.
- (C) Too close a margin to develop more ore.
- (D) \_\_\_\_\_

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

Copper at  $22\frac{1}{2}\text{¢}$  plus 5¢ premium..... 1,000,000 Lbs.  
Copper at  $22\frac{1}{2}\text{¢}$  plus 10¢ premium..... 1,500,000 Lbs.

Copper at  $22\frac{1}{2}\text{¢}$  plus  $7\frac{1}{2}\text{¢}$  premium 550,000 Lbs.  
if labor is available

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

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

\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_

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

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

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

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

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

Please discuss the above: \_\_\_\_\_

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SUGGESTIONS: The above estimated copper, I believe could be mined within one year at a total cost of  $30\phi$  -  $22\frac{1}{2}\phi$  world price plus  $7\frac{1}{2}\phi$  premium. The increased costs due to the Clarkdale smelter having shut down, necessitating high shipping costs as well as increased smelting charges. Due to having sold all my mining machinery and equip. the above production would depend on an outlay of not less than \$5000 to get into production. I would not be willing to undertake production at all unless guaranteed a price of  $30\phi$  per Lb. for a definite period of 12 months.

DATE August 18, 1950

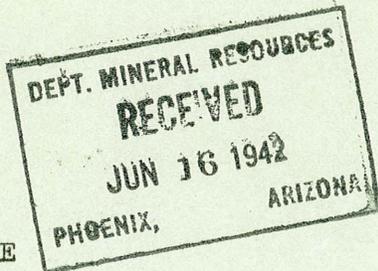
SIGNATURE

A. B. Beach

21

SURVEY OF OPERATING MINES

By: A. G. Nebeker



JUNE 15th, 1942

OLD EQUATOR & COPPER CHIEF

OLD EQUATOR & COPPER CHIEF MINE  
Phelps Dodge Corp. Owner

A. B. Peach - Lessee  
Clemenceau, Ariz.

L. R. D'Arcy Gen.Supt.

The Old Equator, and Copper Chief ( called by some Iron King Mine) is located on the east side of Mingus Mountain about 6 miles west of Clemenceau, in the Verde Mining District.

The deposit is a large flat dipping one, the dip is 6 ft to the 100 and the length 600 feet with a thickness of 6 ft to 70 ft, between wall of schists. The ground is heavy and mining by square sets and fill is used. The upper part is oxides and lower the sulphide ores. They ship 2 cars of oxides to 3 cars of sulphides. There is 8000 to 10,000 tons of probable ore in sight, Values in copper runs 1.8% to 5.0% a fair average of 3.0% Gold and silver very low in the copper ores.

1941 The production in 1941 was for the gold-silver value and little attention was given to the copper ores. Shipments amounted to 2200 tons per month of ore having the value of \$10.03 per ton.

1942 The production this year is taking in the copper ore along with the oxides. The shipments holding up well to the 2000 ton mark per month, here also the 2:3 ratio is being maintained. The aim is to get out as much copper as possible and are trying for 50 railroad cars per month, if enough men can be found to do the job.

The ores are hauled by truck and dumped in cars at Clarkdale, then it goes to the Smelter

The property uses Diesel oil engine on a 210 cu ft compressor.  
40 men are employed.

*A. G. Nebeker*

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine EQUATOR GROUP ( Equator lease)

Date Sept 26th 1942

District VERDE

Engineer A. C. NEBECKER

Subject: PRODUCTION POSSIBILITIES

This group of claims is leased by Mr A. B. Peach and has been known as the Copper Chief-Equator.

The production has been averaging around 45 to 50 railroad cars of 52 tons, per month. 1500 tons would be of oxides and carbonates with high silica, the 700 to 800 tons are heavy sulphides carrying an average of 3% copper.

The production is now down to 32 to 33 cars per month. The reason of the reduction is the lack of labor. Mr Peach can't get the men he needs. He needs now and can use 25 more miners and muckers, and could step up production by 50 per cent.

Mr Peach is now working 40 men. He tells me that the day his men learned of the Freezing order 10 men quit him, saying that they were not going to freeze on any job.

This same thing has happened at two other mines in this section of the state as many as twenty men quitting at once, fearing the freezing order.

One other problem Mr Peach has, is, unable to get mine timber, due to the shortage of men who will get out a cut and peel the logs.

Mr Peach thinks something other than talk must be done to keep men in the mines where wages are not as high as in the Defense Works. He thinks a raise in the price of copper, so wages could be raise, may help some. One other solution is to draft at once, these men who refuse to stay on the job.

Mr Peach thinks if the companies would be allowed to go into Mexico and get their men, and be held accountable for these men and be required to return them at the end of the duration, a lot of this labor trouble could be over come. He has operated in Mexico and knows he can get good men. He also suggests that they be required to buy Bonds just as the others.

Mr Peach has another property he would like to start up, if he could only depend on labor.





## Arizona Department of Mines and Mineral Resources

1502 West Washington, Phoenix, AZ 85007 Phone (602) 255-3795  
1-800-446-4259 in Arizona FAX (602) 255-3777 www.admmr.state.az.us

### Verbal Information Summary

**Mine:** Iron King (ADMMR Equator file)  
**County:** Yavapai  
**Location:** T15N, R2.5W, Sec. 12

**Date:** 12/4/2001  
**Engineer:** Nyal Niemuth

Brief notes from a paper entitled *Innovative Strategies for the Treatment of Acid Drainage from an underground mine* presented by Tim Eastep, Phelps Dodge Corp presented at the Arizona conference SME December 3, 2001.

#### Introduction

Phelps Dodge bought the Iron King/Copper chief property for its water rights about 60 years ago. The property is large and has a limited number of workings on steep slopes of Black Mountains. It is located west of and above the City of Cottonwood with a Prescott National Forest Road providing the public access through the property.

Typical drainage from the lower adit is reported to be 2 to 3 gallons per minute of acidic water (typical sample values reported: pH 4-5, TDS <10,000, Cu 900 - 5 ppm, Pb <.002 ppm, Zn x00 - x0 ppm. Phelps Dodge would recover copper except for the remote area (vandalism problems) and steep terrain.

Phelps Dodge's desire is to have all their properties meet environmental standards. The goal is to eliminate discharge above standard from the property. Phelps Dodge is waiting to receive a NPDES permit from the EPA and is continuing to seek a long term, lower cost solutions, like a reducing bacteria.

#### Treatment Options Considered

##### Passive

##### Evaporation Pond

This method was considered but it would require a 3-5 acre pond to contain the 100-year storm event. View of the pond from the town of Cottonwood would be a negative factor. Its proposed cost would be about \$2 million. It would not result in a walk away solution and would require the removal of about 150 lbs. of sludge per year.

##### Wetlands

##### Active

##### Seal Underground Workings

The property's 3 adits were bulk headed some time back in an attempt to deal with the acid mine drainage. A pump back system was installed in November of 2000. The underground workings serve as a tank and contain an estimated 2 to 3 million gallons.

##### Engineered Membrane Treatment

At present this is the favored approach for this site. Advantages include a mobile plant and minimal use of reagents. HW Process Technologies membrane can process 95 gallons per minute. Twice thru membrane removes Cu from 500 mg/l to 0.09 mg/l concentration, Zn from 3100 mg/l to 3.4 mg/l. Estimate of site preparation costs are \$80,000. Costs per each campaign are estimated at \$245,000 or about \$117 per 1,000 gallons! May be required once or twice per year. This method has draw back of significantly higher cost.

##### Lime Treatment

This would possibly be the cheapest method of treatment. It would not be a permanent walk away solution. A negative factor is that it would entail hauling large amounts of material to the site for treatment.

EQUATOR GROUP

DO NOT REPRODUCE

YAVAPAI  
VERDE DISTRICT

T15N, R2½E Sec. 1

WR KPA 7/15/77 - The Allen Springs Road was traveled from Jerome to Mingus Mtn., a trip of 26 miles which took 5½ hours of continuous driving. There has been no sign of recent activity at the Iron King or Copper Chief mines in Sec. 1 & 12, T15N, R2½E. Some effort appears to have been made to smooth out and seed the dumps of the Copper Chief Mine.

---



FRANK J. MONTONATI  
 MINING ENGINEER  
 Box 662  
 1036 Reese Street  
 Silverton, Colorado  
 81433  
 303-387-5734

STATE A Copper Co. Mine  
 MCO BODEN VERDE DIST.  
 611 MILLER VALLEY RD.  
 PINE PLAZA, SUITE 14  
 PRESCOTT, AZ 86301

START

STATE A Copper Co. Mine

JAN 30 1984

Mr. J. R. Matt  
 Acting Chief Deputy Mine Inspector

Dear Mr. Matt,

T15N R2E

I plan to activate the lower Iron King adit for the purpose of cleaning out the portal area so that personell may enter the workings for the purpose of geological mapping.

T15N R2E

I will also clear the Copper Chief crosscut for the same purpose.

Both of the above workings are located on the extension of the airport road at Cottonwood AZ, and the work performed will be by my company MCO; for Phelps Dodge corp., Western Exploration Division, Chuck Arnold as Phelps Dodge representative.

This work will commence on Monday, Jan 30, 1984.

Sincerely  
 Frank Montonati



DEPT. MINERAL RESOURCES  
RECEIVED  
JUN 16 1942  
PHOENIX, ARIZONA

9D

PROBLEMS

JUNE 15th, 1942

By A. C. Nebeker

OLD EQUATOR & COPPER CHIEF.

Mr. Peach says their main problem now is to get the men to get out the ore.

He aims to put on all the men, old and young he can get.  
The ground is heavy so naturally they expect to make miners for  
their type of mining, as trained men are few and far apart.

All other things seems to be going along very well.

Mr. Peach says to send along any men looking for jobs.

*A. C. Nebeker*

EQUATOR GROUP (Equator lease)

September 26, 1942

VERDE

A. C. NEBECKER

PRODUCTION POSSIBILITIES

This group of claims is leased by Mr. A. B. Peach and has been known as the Copper Chief-Equator.

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Mr. Peach has another property he would like to start up, if he could only depend on labor.

(Signed) A. C. NEBECKER

EQUATOR GROUP, Yavapai County, A. B. Peach, Lessee, Prescott, Arizona.

This mine has, until recently, been producing 2500 tons of 3% copper ore per month, the major portion being a highly silicious ore. 40 men were employed, but when the labor freezing order was made public 10 men quit immediately and the lessee has been unable to replace them.

Production as of September 26, 1942 has dropped to the rate of 1500 tons per month, and is still declining.

Further difficulty is encountered in obtaining mine timbers as there is a shortage of men available for cutting and peeling local timber.

Production from this property could be doubled if 25 miners and muckers were available, without the addition of equipment.

Report by Earl F. Hastings, October 9, 1942, to Copper Branch, War Production Board.

September 29, 1942

MEMORANDUM

EQUATOR GROUP

TO: A. C. Nebeker  
FROM: Earl F. Hastings

We note your report on this property with a great deal of interest, particularly in respect to Mr. Peach's labor problem. As you know, the freezing order was made public on the evening of September 7. However, the order had become effective on the morning of September 7. Therefore, by the time the men knew of this order the regulation was already in effect and it was too late for them to quit their jobs to avoid being frozen.

The 10 men who left Mr. Peach did so against regulations. If he knows where they have gone, he could possibly get them back, as they cannot legally accept other employment, and even if he did not get them back, it would serve as an example for the other employees on his payroll.

We note that you state the same thing has happened to two other mines in this section with 20 men quitting at once. Please give us the names of the properties and the number of men in each who have quit.

There will be a directive out within the next few days which will be mailed to all operators and will have further information as to the steps to be taken in making the freezing order entirely effective. Regardless of the status of the employee, he will be placed in class 1-A by the Draft Board if he leaves any operation engaged in the production of strategic minerals.