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Reconstruction Finance Corporation Arizona Records

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

A ..... Westerners

Mine	ABE IINCOIN	Date July 27, 1942
District Subject:	Black Rock Mining District or Castle Creek Mining District	Engineer J. S. Coupal
	Reconstruction Finance Corporation Preliminary Development Loan Field Report	

Docket No. Date Application Received	Phoenix C-4	C-ND-7530 (4) July 27, 1942
Date of Field Examination Date of Report		None August 1, 1942

- 1. Name and address of applicant (correspondent): E. I. Mills, Route 2, Box 76, Phoenix, Arizona. E. I. Mills and F. P. Bracken (of Wickenburg) doing business as Abe Lincoln Group.
- 2. Character of project and estimated cost thereof: Project - rehabilitating an adit tunnel which cuts 700 foot shaft, 175 feet below collar, bulk heading shaft, above 175 foot station, retimbering and repairing shaft to 350 foot level, cleaning drifts on vein on 350 foot level, sampling and assaying ore so exposed. Estimated cost \$5,000.
- 3. Location of property: Castle Creek Mining District, sometimes called Black Rock Mining District, Yavapai County, Arizona, about 14 miles northeasterly from Wickenburg, Arizona.
- 4. Applicant's interest in or ownership of property: E. I. Mills of Phoenix and F. P. Bracken of Wickenburg, owners of property, and doing business as Abe Lincoln Group. Agreement of grub claim deed of equal ownership from F. P. Bracken to E. I. Mills attached. Ownership of the unpatented claims is recorded in County Recorders Office, Frescott, Arizona, in the name of F. P. Bracken.
- 5. Loan Requested: A \$5,000 preliminary development loan is requested.
- 6. Loan Recommended: The \$5,000 loan is recommended.

#### 7. Comments:

Report by Arthur C. Simkins, March 29, 1929, assay map by Nathorts in September, 1922, mineral survey for patenting intention in 1920, together with mention of operation in Need Handbooks of Copper from 1918 to 1925 and discussion with E. I. Mills, applicant, a mining engineer whom I have known for a number of years, favorably as to ability and integrity, and my knowledge of the district from a personal visit to the property in 1921, made as a cursory visit and not for examination purposes, makes it possible for me to recommend this loan. Due to the economic advantage of being able to open the 350 foot level by working through the 175 adit

7. Comments (Cont'd.):

tunnel, the amount requested seems sufficient to open for sampling and assaying enough one of good commercial grade to warrant the loan. The structure has been worked out and good one is indicated on either side of the fault zone and in a displaced segment of the vein by the quoted assays in connection with the survey for patent.

An arithmetic average of assays and widths of ore from assay map, apparently even distributed on a length of drift of 210 feet, on the 350 foot levels shows 5.23% copper and a width of vein of 7.44 feet, with ore on a level 175 feet above and on the level 310 feet below indicate a substantial tonnage of probable commercial ore.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

J. S. Coupal, Director.

ABE LINCOIN

July 27, 1942

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J. S. Coupel

Black Rock Mining District or Castle Greek Mining District

Reconstruction Finance Corporation Preliminary Development Loan Field Report

Docket No. Date Application Received Date of Field Exemination Date of Report

C-ND-7530 (4) July 27, 1942 None August 1, 1942

Name and address of applicant (correspondent):
 E. I. Mills, Route 2, Box 76, Phoenix, Arizona.
 E. I. Mills and F. P. Bracken (of Wickenburg) doing business as Abe Lincoln Group.

Phoenix C-4

- 2. Character of project and estimated cost thereof: Project - rehabilitating an adit tunnel which cuts 700 foot shaft, 175 feet below collar, bulk heading shaft, above 175 foot station, retimbering and repairing shaft to 350 foot level, cleaning drifts on vein on 350 foot level, sampling and assaying ore so exposed. Estimated cost \$5,000.
- Location of property: Castle Creek Mining District, sometimes called Black Rock Mining District, Yavapai County, Arizona, about 14 miles northeasterly from Wickenburg, Arizona.
- 4. Applicant's interest in or ownership of property: E. I. Mills of Phoenix and F. P. Bracken of Wickenburg, owners of property, and doing business as Abe Lincoln Group. Agreement of grub claim deed of equal ownership from F. P. Bracken to E. I. Mills attached. Ownership of the unpatented claims is recorded in County Recorders Office, Prescott, Arizona, in the name of F. P. Bracken.
- 5. Loen Requested: A \$5,000 proliminary development loen is requested.
- 6. Loan Recommended: The \$5,000 loan is recommended.

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tunnel, the amount requested seems sufficient to open for sampling and assaying enough ore of good commercial grade to warrant the loan. The structure has been worked out and good ore is indicated on either side of the fault zone and in a displaced segment of the vein by the quoted assays in connection with the survey for patent.

-2-

An arithmetic average of assays and widths of ore from assay map, apparently even distributed on a length of drift of 210 feet, on the 350 foot levels shows 5.23% copper and a width of vein of 7.44 feet, with ore on a level 175 feet above and on the level 310 feet below indicate a substantial tonnage of probable commercial ore.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

J. S. Coupal, Director.

July 27, 1942 J. S. Coupel

Black Rock Mining District or Castle Greek Mining District

Reconstruction Finance Corporation Preliminary Development Loan Field Report

Docket No. Date Application Received Date of Field Exemination Date of Report

ABE IINCOIN

C-ND-7530 (4) July 27, 1942 None August 1, 1942

 Name and address of applicant (correspondent):
 E. I. Mills, Route 2, Box 76, Phoenix, Arizona.
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Phoenix C-4

- 2. Character of project and estimated cost thereof: Project - rehabilitating an addit tunnel which cuts 700 foot shaft, 175 feet below collar, bulk heading shaft, above 175 foot station, retimbering and repairing shaft to 350 foot level, cleaning drifts on vein on 350 foot level, sampling and assaying one so exposed. Estimated cost \$5,000.
- 5. Location of property: Castle Greek Mining District, sometimes called Black Rock Mining District, Yavapai County, Arizona, about 14 miles northeasterly from Wickenburg, Arizona.
- 4. Applicant's interest in or ownership of property: E. I. Hills of Phoenix and F. P. Bracken of Wickenburg, owners of property, and doing business as Abe Lincoln Group. Agreement of grub claim deed of equal ownership from F. P. Bracken to E. I. Mills attached. Ownership of the unpatented claims is recorded in County Recorders Office, Phaseott, Arizona, in the name of F. P. Bracken.
- 5. Loan Requested: A \$5,000 preliminary development loan is requested.
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ARIZONA DEPARTMENT OF MINERAL RESOURCES

J. S. Coupal, Director.

July 27, 1942

J. S. Coupel

ARE LINCOLN

Black Rock Mining District or Castle Greek Mining District

Reconstruction Finance Corporation Preliminary Development Loan Field Report

Docket No. Date Application Received Date of Field Exercination Date of Report Phoenix 6-4

C-10-7530 (4) July 27, 1942 None August 1, 1942

Name and address of applicant (correspondent):
 E. I. Mills, Houte E. Box 76, Phoenix, Arizona.
 E. I. Mills and F. P. Bracken (of Wickenburg) doing business as Abe Lincoln Group.

- 2. Character of project and estimated cost thereof: Project - rehabilitating on addit tunnel which cuts 700 foot shaft, 175 feet below collar, bulk heading shaft, above 175 foot station, retimbering and repairing shaft to 350 foot level, cleaning drifts on voin on 350 foot level, compling and assaying one so exposed. Estimated cost \$5,000.
- 3. Location of property: Castle Grock Mining District, sometimes called Black Rock Mining District, Yavapai County, Arizona, about 14 miles northeasterly from Wickenburg, Arizona.
- 4. Applicant's interest in or conorship of property: E. I. Mills of Phoenix and F. P. Bracken of Wickenburg, onners of property, and doing business as abe Macola Group. Agreement of grub claim deed of equal conership from F. P. Bracken to E. I. Mills attached. Comership of the unputented claims is recorded in County Recorders Office, Physicst, Arizona, in the name of F. P. Brackon.
- 5. Loen Requested: A 85.000 preliminary development loen is requested.
- 6. Losn Recormoniod: The \$5,000 Losn is recormonded.

### 7. Comments:

Report by Arthur C. Similar, March 29, 1929, assay map by Matharts in September, 1922, mineral survey for patenting intention in 1930, together with montion of operation in Beed Handbooks of Copper from 1918 to 1925 and discussion with E. I. Mills, applicant, a mining engineer when I have known for a musber of years, favorably as to ability and integrity, and my knowledge of the district from a personal visit to the property in 1921, made as a cursory visit and not for examination purposes, makes it possible for me to recommend this loss. Due to the economic advantage of being able to open the 550 foot level by working through the 175 adit

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#### 7. Comments (Cont 'd.):

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ARIZONA DEPARTMENT OF MINERAL RESOURCES

J. S. Coupel, Director.

July 27, 1942

J. S. Coupal

Granted ...

Black Rock Mining District or Castle Creek Mining District Reconstruction Finance Corporation Preliminary Development Loan Field Report

Docket No. Date Application Received Date of Field Examination Date of Report

ABE LINCOLN

C-ND-7530 (4) July 27, 1942 None August 1, 1942

Name and address of applicant (correspondent):
 E. I. Mills, Route 2, Box 76, Phoenix, Arizona.
 E. I. Mills and F. P. Bracken (of Wickenburg) doing business as Abe Lincoln Group.

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Phoenix C-4

3. Location of property: Castle Creek Mining District, sometimes called Black Rock Mining District, Yawapai County, Arizona, about 14 miles northeasterly from Wickenburg, Arizona.

4. Applicant's interest in or ownership of property: E. I. Mills of Phoenix and F. P. Bracken of Wickenburg, owners of property, and doing business as Abe Lincoln Group. Agreement of grub claim deed of equal ownership from F. P. Bracken to E. I. Mills attached. Ownership of the unpatented claims is recorded in County Recorders Office, Prescott, Arizona, in the name of F. P. Bracken.

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July 27, 1942

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#### 7. Comments (Cont'd.):

The structure has been worked out and good ore is indicated on either side of the fault zone and in a displaced segment of the vein by the quoted assays in connection with the survey for patent.

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An arithmetic average of assays and widths of ore from assay map, apparently even distributed on a length of drift of 210 feet, on the 350 foot levels shows 5.2% copper and a width of vein of 7.44 feet, with ore on a level 175 feet above and on the level 310 feet below indicate a substantial tonnage of probable commercial ore.

Arizona Department of Mineral Resources

J. S. Coupal, Director

Ag Cu Au No 43 36" .08 tr. 8.25 No 44 24" .03 tr 7.85 17.89 No 45 24" .02 .2 Timbered and Lagred Cared Cu AU Ag LN0 39 32" 0.05 tr tr Water Muck Pile No 40 40" tr tr. 0.10 Chutes -No 41 36" .02 tr. 6.52 - Raise to stope - 1= 30' up. No 12 60" .02 .3 15.12 Portion of 350 - Level To shaft. Abe Lincoln Mine Docket ND-5379 Scale 1"= 20' June 7, 1943 Charles a. Pason.

#### RECONSTRUCTION FINANCE CORPORATION

#### MINING SECTION

REPORT OF SUPERVISING ENGINEER

Docket No. ND-5379 - E. I. Mills & F.P. Bracken, Route 2, Box 76, Phoenix, Arizona Date authorization for Examination Received. . . . . June 3, 1943

Received. June 3, 1943 Date of Examination, Inc. June 7, 1943 Date of Report . . . June 12, 1943

On August 17, 1942, a Preliminary Development Loan of \$5,000.00 was approved to the captioned applicant (see Docket No. C-ND-7530). The purpose of the loan was to unwater and rehabilitate the underground workings of applicants' copper mine. Borrower was not able to complete its proposed project with the allotted loan funds and on March 3, 1943, asked for more money. On March 19, 1943, a loan of \$7,500.00 was approved to the Borrower to complete the re-opening of the 350' level of the Abe Lincoln Mine so as to make it/accessible for sampling of a copper vein.

Applicant was in the Office on June 3, 1943, asking that an Engineer examine the property for a Development and Mining Loan as part of the vein on the 350' Level was accessible for sampling.

Your Engineer spent June 7, 1943, on the Abe Lincoln property examining the work done under the \$7,500.00 Loan and gathering information concerning the advisability of granting a new loan for mining and development.

The surface and underground equipment is the same as listed by James H. Cazier, Supervising Engineer, on a previous examination. A map attached to Mr. Cazier's report locates the cave which was to be re-opened. The cave was 10' long more or less, and was opened by spiling and opening a hole over the top of the muck. As fer as could be ascertained, this was all the applicant did, except for sampling along the vein. At a point 85' farther on, another cave was encountered. Applicant could do nothing with this cave as the preceding cave had not been cleaned out properly. Thus, the condition of the 350' Level is as follows:

From the shaft to the first cave, the Level contains muck piled on both sides of a 2" x 6" runway used as a track to wheel-barrow muck away from the cave. The cave still exists and blocks any attempt to cleanup the opened area and also keeps water from draining out. From this cave, to within 6' of the next cave, a distance of 85', the drift is heavily timbered and lagged, thus preventing any examination of the walls, vein and other pertinent data.

Boulders of ore and portions of the vein project through the timber. The vein could not be examined on the floor because of muck and water. 20' from the first cave, a raise goes to a stope over the timbered drift. Applicant said stope was up 30' and that the raise was inaccessible and dangerous. 10' beyond this raise was a group of 3 chutes all filled with large boulders of broken ore or waste. Beyond these chutes there was another group of two chutes filled with the same kind of material. Then came the second cave with the drift blocked to the roof. About 15' back from this cave, the drift sets were open and access could be made to the stope over the chutes. Applicant and his miner refused to go into this caved stope and your Engineer likewise refused to risk his neck. However, I did climb part way to see the condition of this stope and estimate its heighth and to determine, if possible, the structure of the vein. Samples were taken under difficult conditions.

### 1. NAME AND ADDRESS OF APPLICANT

E. I. MILLS AND F. P. BRACKEN Route 2, Box 76 Phoenix, Arizona

Correspondent: E. I. Mills Same address

# 2. CHARACTER OF PROJECT

To complete rehabilitation of shaft at 175\* Level so as to facilitate hoisting of muck and ore, rehabilitation of 350\* level and re-opening of caved portion, preparation of underground workings for mining and construction of camp.

#### 3. LOCATION OF MINE

Probably in T. S N., R. 5 W., Castle Creek Mining District, Yavapai County, Arizona. The mine is about 14 miles northeast of Wickenburg, Arizona, the nearest railroad shipping point. The road is of the unimproved dirt type.

4. APPLICANT

The applicant is a partnerhip composed of E. I. Mills and F. P. Bracken. Mr. Bracken is an "old timer" in the District and a former mine foreman at this property. Mr. Mills, the correspondent, who will supervise the project, is an Arizona mining engineer and mine operator and is qualified. He was in charge of the property when it was last worked in 1923 and is completely familiar with the underground workings.

#### 5. LOAN REQUESTED

\$26,000.00.

#### 6. DESCRIPTION OF PROJECT

#### Ao General Features

- (1) There are no mine workings, etc., which are not confined within the applicant's ownership.
- (2)Applicant will comply with State Compensation and Safety-first Statutes.
- No apparent legal discrepancies in the project. No impeded right-of-way facilities. No likelihood of surface or sub-surface (3)
- $\binom{4}{5}$
- trespass.

# B. Existing Development

- (1) Tunnel level or 175' shaft level and 350 and 600' shaft levels. Collar of shaft is caved, but shaft is accessible on 175' Level and unwatered to the 350' level. Northeast end of 350' Level is caved about 90' from the end.
  - a. A copy of applicant's composite map accompanies this report. Also, a sketch map of that part of the 350' Level available for sampling.
  - Seven (7) samples were taken at places bo previously sampled by the applicant.

Sample No. 39 was taken across the vein exposed in the roof about 2\* ahead of the last drift set. Vein material consisted of quartz, pyrite and chalcopyrite. This sample was taken near applicant's No. 1 or No. 3 Sample. Assay results are as follows:-

No.	Width	<u>Au</u> .	Ac.	<u>Cu.</u>
39	32"	Tr,	Tr.	0.05

41

Sample No. 40 was taken in the roof, 6' southwest of Sample No. 39. This one was taken near the place where applicant had taken a sample.

assay results are as follows:

No.	Width	<u>Au.</u>	Ag.	<u>Cu.</u>
40	40"	Tr.	Tr.	0.10

3

Sample No. 41 was taken across the vein exposed in the roof and about 6' southwest of Sample No. 40. Applicant had also taken a sample hear here.

36"	.02	Tr.	6.52	
and the second se				

Sample No. 42 was taken across the exposed vein in the roof at the break between the drift and the stope. Vein consists of quartz, pyrite and chalcopyrite with altered igneous rock.

<u>No</u> .	Width	Allo	Ale	<u>Cu.</u>								
42	60"	.02	0.3	15,12								
	cant ha Sample was pro	Between samples No. 42 and 43, the appli- cant had taken a sample in the floor and wall. Sample was taken under water. This sample was probably applicant's No. 5 which assayed 4.6% Copper.										
	Sample No. 43 was taken at applicant's No. 6 which was cut along the wall and floor of drift, and represents about one-half the vein width. Most of this sample was under water. Assay results are as follows:-											
No.	Width	<u>Au.</u>	Age	<u>Cu</u> .								
43	36"	.08	Tr.	8.25								
		No. 44 is a ch of ore sticki										

boulder of ore sticking out from the lagging. Applicant had taken a sample of this boulder. Sample represents only the grade of ore of the boulder.

No.	Width	Aue	<u>46</u> .	<u>Cu</u> .
44	24"	.03	Tr.	7.85
	boulder o roof. A	of ore projec	ip sample acro ting out from previously tak	the

45

.02 .2 7.89

Thus, out of seven samples taken, only four represent the true condition of the vein. The rest of the vein was inaccessible for sampling.

# d. General Features of Deposit

The ore deposit is associated with the Pre-Gambrian Bradshaw Granite and according to the applicant, is on the contact between the granite and a diorite dike. The vein strikes northeast and dips between 70 and 80° northwest. The vein composition consists of quartz, pyrite and chalcopyrite. Gold and silver are not present in commercial quantities.

- 4

Very little could be ascertained about the thickness of the vein and its structural characteristics. At the last known cave, the vein was 18" and widened toward the stope. The first two samples across the vein were blanks as far as copper was concerned. As the vein widened toward the stope, the copper values increased and even the chip samples across the boulders indicated a good grade of ore in the stope area. Because of the dangerous condition around the stope, it was impossible to sample the back. One could not reach the stope back any way, unless sets or stulls were installed. From observations made at the edge of the stope, it appeared that the stope was narrowing and that at the top it appeared as if the vein was about 2 or 3' thick.

- C. Proposed Development
  - (1) Recommended plan of development
    - a. Put in a shaft station at the 175' tunnel level so that muck, ore and supplies can be hoisted.
    - b. Place the 350' level in working condition.
    - c. Raise from 350' Level to the 175' Level, 180' on incline of ore.
    - d. Prepare stopes for mining ore.
  - (2) Recommendations concerning applicant's mining method: - Mining method will be cut and fill.
  - (3) Expected capacity of operations
    - a. 50 tons per 24 hour day
    - b. Not applicable.
    - c. Not applicable.
    - d. Raise development 4' per working day.
    - e. Not applicable.
    - f. " "
    - R. 11 11
    - h. " "
    - 1. Local wage scale: Miners -\$.90 to \$1.00 per hour Timbermen " -82 Muchers .80 -.90 --糖 Tranmers Hoistmen .90 " 1.00 轉 -

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### D. Equipment

- (1) Working Equipment usual hand tools Duplex piston pump Rented 105 cu.ft. portable compressor @ \$115.00 per month Tugget air hoist @ \$50.00 per month
- (2) No mill
- (3) Not applicable
- (4) A 315 cu. ft. compressor if development work shows substantial vein of ore.
  - a. Larger air hoist to remove ore and muck from shaft.

3 stopers and drills to be rented at \$60 per month.

- 4 14 cu.ft. ore cars
- 3 50' air hose with couplings
- 3 50' water hose with couplings
- 1.000' of 2" black pipe
  - 300' of 1" " "
- 200' of 1/2" " "
- 1.000' of 6" blower pipe
- 2 2,000 Gal. water tanks
- 1 500 Gal. " "
- 1 36" by 72" Air Receiver
- 1 Mine cage
- (5) There is only one tent on the property at the present time.
- (6) Recommended camp Four knock-down cabins
- E. Cost Estimations
  - (1) Lode mine

a. Mining - \$3.50 per ton
b. Not applicable
c. "/""
d. Raising \$20.00 per ft.
e. Not applicable
f. """
g. """
h. Haulage - orude ore - Mine to Wickenburg-

- \$2.00 per ton 1. Freight to Hayden Smelter - \$2.00 per ton
- j. Smelter treatment \$3.50

k. \$200.00 per month

1. \$70.00 per 1,000

m. Total cost - \$11.15 per ton

#### F. Ore Reserves

Existing records which are not in this Office, indicate that the **350'** Level should reveal a substantial quantity of 5% copper ore for approximately 150' on the vein. In recommending the original preliminary development loan, the Arizona Department of Mineral Resources stated:

"An arithmetic average of assays and widths of ore from assay map, apparently even distributed on a length of drift 210° on the 350° level, shows 5.23% copper and a width of vein of 7.44°.....

It is impossible to estimate any tonnage or grade of ore unless the vein is accessible for sampling. As my map shows about 30° out of the total of 85° were accessible for sampling, out of the four samples taken along the 30°, two were blanks in copper. Thus, it is impossible for me to estimate any tonnage or grade of ore.

If the Engineer Examiner has access to the sample map of Nathorts, he can check the few samples I was able to secure across the vein, plus those of doubtful value across portions of veins and boulders. Should these agree, the Engineer Examiner can set up a tonnage and value.

If the average assay value o. the ore is 5.23% copper, the smelter value will be as follows:

5.23% less .4% = 4.83% or 96.6 lbs. 96.6 lbs. x 95% x .0905¢ = \$8.31

Metal Reserve premium at 93.7 lbs.

TOTAL VALUE ..... \$12.99

4.68

Costs against the ore:

2.00		
2.00		
.15		
3.50 .50		11.65_
	.15 3.50	2.00 .15 3.50

### 7. EMPLOYMENT

- A. Correspondent and one miner and one hoistman.
- B. About 20
  - 2 hoistmen
  - 4 trammers
  - 2 timbermen
  - 2 mechanics
  - 10 miners
- C. Two shifts
- 8. OBJECTIONS TO PROJECT
  - A. None
  - B. It is doubtful whether the project will be successful.
- 9. TIME SCHEDULE
  - A. Six months from starting date
  - B. Twelve months
  - C. Two years
- 10. RETIMATED COST OF PROJECT
  - A. Total Development
    - (1) Station on 175' Level \$2,500.00
      (2) Placing 350' level in
       condition and re-open ing caved portion 3,500.00
    - (3) Preparing stope for extraction and raising on ore 50\*
- \$8,000.00

2,000.00

# B. Equipment

Rental of 105 cu.ft. Compressor at \$115.00 per mon. - 6 mons. \$690.00 Rental of air hoist small capacity at \$50 per month, 6 months 300.00 3 - Stoper drills at \$60.00 per month - 4 mons. 720.00 4 - 14 cu.ft. ore cars at \$10.00 each per mon. 3 mons.120.00 1,830.00 Purchase of supplies -Air hose, water hose, drill steel, blower, pipe, water tank . . . . 1,200.00

#### D. General Expense

	(1) -	Supervision -	6	m	on.	I	)01	ric	bđ	•	•	.\$1,200.00
	(2) -	Insurance, Co	mp	en	eat	ic	m		1	•	•	. 1,000.00
	(3) -	Interest duri	ng	pi	roj	ec	et	•	•	•	•	. 1,200.00
Ε.	Contin	ngencies		1. 1.	r		•		•	•	•	. 3,220.00
			T	0	T	A	I				•	\$21.000.00

### 11. NATURE AND SOURCE OF REVENUE

- A. How and when loan will be repaid
  - It is unlikely that loan will be repaid from proceeds and probably will not become self-sustaining upon completion of present project.

# 12. COMMEN IS OF SUPERVISING ENGINEER

Applicant was given a preliminary development loan of \$5,000.00 on August 17, 1942 and was unable, up to March, 1943, to re-open completely the 350' level. Consequently, an additional loan of \$2,500.00 was granted to re-open the 350' level for sampling the copper vein. This did not re-open all of the vein; only 85', of which 30' was accessible for sampling.

The Arizona Department of Mineral Resources says that an arithmetical average of assays and width of ore from ore assay map, apparently evenly distributed over a length of 210\*, showed 5.23% copper and a width of 7.44.

> CHARLES A. RASOR Supervising Engine er

Attachments Assay certificate Plan map of underground workings Plan and assay map of 350° Level

Rasor Samples. This PORTION of DRIFT Made Au. Ag. Cu. face 8.25 No. 43 36" 0.08 te. Frisbie Samples: Cu. 2.10 34" 0.04 0.2 No. 44 te. 24" 0.03 7.85 Lagged TIGHTLY No. 41 24" 0.01 0.1 1.02 No. 45 24" 0.02 0.2 7.89 Lagged. Muck. Timbered Lond Rasor Samples. Au. Cu. 49 32" No. 39 tr. tR 0.05 No 40 40" te. 0.10 tr No.41 36" 0.02 6.52 tR. Raise to stope 30' up. No.42 60" 0.02 0.3 15.12 PORTION OF 350 - LEVEL To Shaft

ABE LINCOLN MINE

DOCKET ND-5379

Scale 1"= 20' January 25/44 Rasor & Frisbie

# RECONSTRUCTION FINANCE CORPORATION

### MINING DIVISION

#### REPORT OF SUPERVISING ENGINEER

# Docket Nos. ND-5379 and C-ND-7530 - E. I. Mills and F. F. Bracken Date of Report . . . . . . . July 1, 1943

### SUPPLEMENTAL REPORT

Pursuant to the request of D. M. Rait, Chief, Mining Section, in his letter of June 28, 1943, I called the Borrower to notify him that a change in program was requested. He came to the Office and we arranged the following proposed program which will be discussed later in this Report. Mr. Mills and your Engineer are in agreement on this program, as it is the same program agreed upon before it was suggested that a larger program be worked out.

### CONDITION OF MINE

Mr. Mills has told your Engineer that he has not accomplished anything at the mine since my examination, except to keep the water down. Therefore, the condition of the mine is the same as at the time of the examination and as far as the vein is concerned, is still inaccessible and cannot be made accessible until a shaft station is prepared on the 175' level to handle muck from the 350' level.

#### 175' Level

This level is an adit level from the surface to the shaft and the Borrower has stated that re-opening the level was laden with difficulties.

The present difficulties can still be laid to this level because the condition of same at the shaft is the "bottle neck" to any program proposed. For instance, the Borrower, who is a mining engineer, did not place the 175' level at the shaft in such a condition as to do any work from the 350' level. Mr. Cazier stated in his Report as follows:

"No attempt was made to completely rehabilitate the shaft 175' station, or to provide head room for hoisting rock from below. A drift size opening was spiled through to the shaft and the shaft was bulk-headed and caught up well enough so that a trigger hoist and head sheave could be installed for hoisting or lowering tools and supplies."

Hence, before anything can be done on the 350' Level, a

### ND-5379 and C-ND-7530

station must be made on the 175' level to handle muck from below and to lower cars, rail and pipe. This requires tearing out all the timbers around the shaft and drift, and placing new timber and enlarging the drift; cutting a station for the hoist, which is now in the drift; and possibly, retimbering the shaft from the level down for 20'. This will cost \$2,800.00 as set up in the new program.

### 350' Level

The condition of the 350' level has already been described. To recondition this level to the new cave, the following work will need to be done,

- 1. Clean up drift from shaft to cave first noted by Mr. Cazier and lay track, water and air pipe.
- Install new sets and clean up cave to vein. This will allow water to drain out of drift to new cave as noted by me which is within 115' of end of drift.
- 3. Clean out stope and make vein in back accessible for sampling.
- 4. Clean out new cave and reopen drift so as to expose vein for sampling.

#### Grade of Ore

In a report by Arthur C. Simkins, dated March 29, 1929, the copper content on the 175' level was stated as averaging 2.85% and that this level marked the transition zone where the carbonates and oxides gave way to the sulphides.

In the same report, the 350° level is reported as having an average copper content of 4.9%; the width of the ore is reported as varying from 30°, its narrowest extreme, to 18°, its widest part; and the tons of ore blocked out as 22,000.

To date, there is no way of checking these figures. An assay map, made by Charles Nathorst in 1922, located some 52 samples in the mine. Eight of these samples are located on the 350' level and along the vein under discussion. Comparing these with the four I was able to get across the vein, I would say that Nathorst sample widths are too uniform to be true. However, I refrain from making any further comments until the vein is made accessible for sampling.

Observations made on that portion of the vein accessible indicated that the vein was narrowing into the caved area and decreasing in copper content, but back toward the stope, the vein was widening and increasing in copper content. Also, it appeared that the vein was narrowing toward the top of the stope, which would indicate that the vein was lenticular.

## ND-5379 and C-ND-7530

### PROPOSED PROGRAM

1. 175' Station and Shaft

Balantific self-solate to the state of the self-	an enter som enter enterentare viter an ter menerate under enter som inter	
	Timber Powder and incidentals Labor	\$2,800.00
350' Lev	<u>e1</u>	
	Reconditioning level Re-opening caved portions	3,200,00
Supplies		
	Hoisting buckets and dollys 1,000° of blower pipe Rail, pipe, etc.	1,000.00
Camp and	Change Room	500.00
Insuranc	<u>e</u>	300.00
Continge	ncies	700.00
		\$8,500.00
	Repayment of Loan	7,500.00

# Total . . . . . . . . . . . . . . 16,000.00

# COMMENTS OF SUPERVISING MNGINEER

If this loan is approved, there will have been spent \$16,000 to make this mine accessible for sampling. I can not make a recommendation on this property unless I can see and sample the vein. Four (4) samples were cut across that portion of the vein exposed, but one half of these samples were blanks in copper.

There are no other mines in this area that are working or have been working in the past. Possibly, this fact should not detract from evaluating the worth of this property, but it has been noted that there are few if any mines in the Bradshaw Granite.

> CHARLES A. RASOR Supervising Engineer

No. Ra. 214

# CHAS. A. DIEHL

Phoenix, Arizona, June 10 1943.

ARIZONA ASSAY OFFICE

Phone 3-4001

815 North First Street

### P. O. Box 1148

This Certifies That samples submitted for assay byme. C. A.R ASOR.

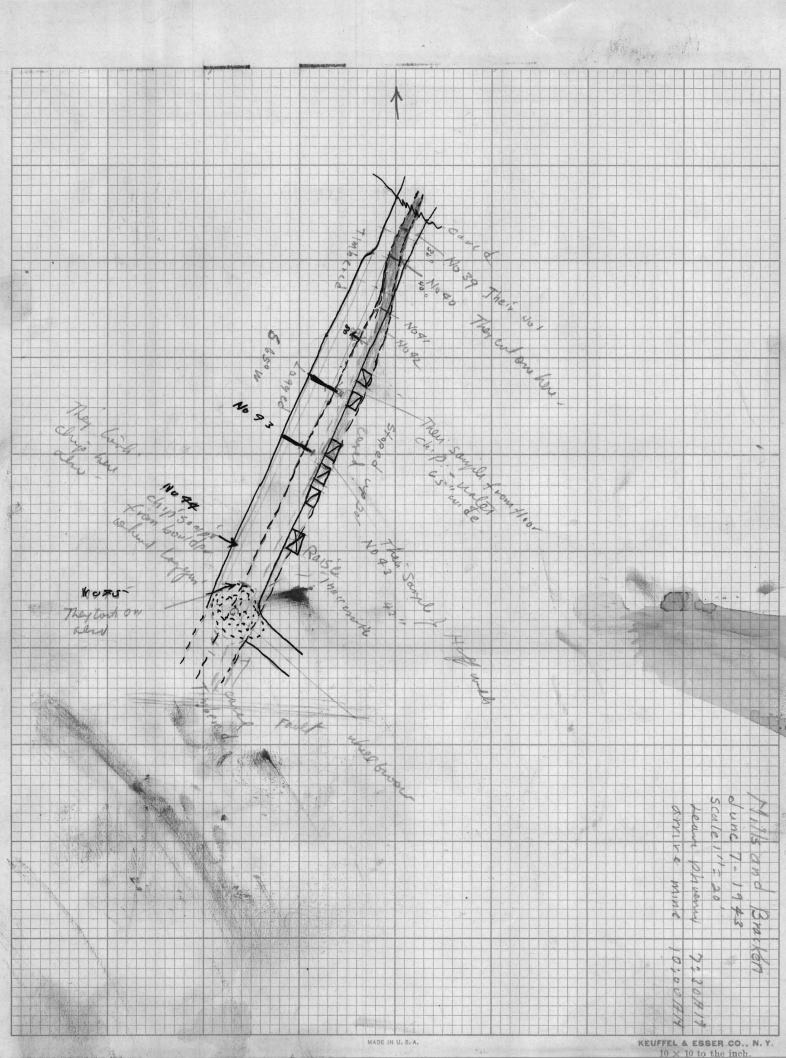
contain as follows per ton of 2000 lbs. Avoir.

					interest of the second	All Andreak in	a pr an and	and a star frank and		4		N. Constant	
MARKS	1	SIL	/ER	VALUE (0z.)	GO	LD	VAL	LUE (0z.)	TOTAL VALUE	p	PERCENTAGE	1.1.1	
MARRO		Ounces	Tenths		Ounces	Hundths			Of Gold and Silver	COP PER	S102	2. P.	REMARKS
No.39.	32 <sup>#</sup>	TRA	JE	1	TR/	CE				0,05			
No.40.	40 <sup>m</sup>	TRA	Æ		TR I	CE				0,10			
No.41.	36"	TR A	JE			02	\$	.70		6,52			
No.42.	60 <sup>m</sup>		5			02	\$	.70		15,12			
No.43.	36*	TRA	JE -			08	÷ 2	8.80		8.25			
No.44.	24 <sup>#</sup>	TR A	JE				1	1.05		7.85			
No.45.	24"		3			.02	\$	.70		7.89			
COMPO. (39-45)	Inc.										41.79		

Charges \$\_17.00

RACINSTATION

Assayer\_ARIZONA ASSAY OFFICE



Ag Cu AU No 43 36" .08 tr. 8.25 No 14 24" .03 tr. 7.85 7.89 No 45 24" ,02 .2 Timbered and Lagged Cared Au Ag Cu LN0 39 32" tr tr 0.05 . Muck Pile - No 40 40" tr tr 0.10 Chutes - No 41 36 " .02 tr. 6.52 - Raise to stope 30' up. No 12 60" .02 .3 15.12 Portion of 350 - Level To shaft.

Abe Lincoln Mine Docket ND-5379 Scale I"= 20' June 7, 1943 Chinks a. Rason.