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DEFENSE MINERALS ADMINISTRATION
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700
FILE COPY
SURNAME:

Schmidt

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

APR 8 1952

Hon. Carl Hayden
Senate Office Building
Washington 25, D. C.

Re: Docket No. DMA-1965 (Copper)
Reliance Copper Mine
Maricopa County, Arizona

Dear Senator Hayden:

This refers to your letter of April 2 concerning the application of Mr. Jack Rowley Fedrick in the above captioned case, which was denied.

This application and all the reports and correspondence have again been carefully reviewed as a result of your letter to ascertain whether any injustice had been done in this matter.

We can find no reason for going counter to the recommendations of the field men of the Bureau of Mines and the U. S. Geological Survey. Several engineers and geologists have made independent examinations. There is a marked agreement in their findings and there can be little doubt as to the validity of their conclusions.

It is of interest to note the attitude of these engineers as expressed in the closing paragraph of one of them. "The Government's role in the exploration of marginal projects, which show some small chance of success, is recognized. This project does not fall into that category and therefore, it is recommended that this application be denied."

In the light of all the available information, we regret that we are unable to modify the findings of the Field Team.

Mr. Fedrick's letter dated March 31, 1952, and report of Arthur Houle, Mining Engineer, dated November 17, 1927, are returned herewith.

FSSchmidt/gla 4-4-52
cc to: Adm. Reading File
Docket
Messrs. Johnson Rm. 3621 C. O. Mittendorf
Nelson Rm. 4216 GS
Ellis
Schmidt
Field Team, Reg.IV(2)

Enclosures 2

Sincerely yours,

C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration

F.S. 4-8-52

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United States Senate

COMMITTEE ON APPROPRIATIONS

April 2, 1952

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

I enclose a letter addressed to me on March 31 by Mr. Jack R. Fedrick of Los Angeles, California, with regard to an exploration loan application filed by him and rejected.

I shall be glad to have your advice concerning this case in order that I may reply to Mr. Fedrick.

Yours very sincerely,

Carl Hayden
U.S.S.

P. S. Please address reply to me; sending me original and one copy. Kindly return enclosures.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 3 - 1952

COPY

Jack R. Fedrick
938 South Orange Grove Ave.
Los Angeles, California

March 31, 1952

Honorable Carl Hayden
Senator from Arizona
Senate Office Building
Washington, D.C.

Dear Senator:

As a Grandson of Dora Rowley of Gila Bend, Arizona, whom you knew in her lifetime, I am appealing to you on behalf of a copper property which I own, near Gila Bend, Arizona.

I have applied for an exploration loan from the Defense Minerals Exploration Administration for $7500.00, and have been turned down. I feel the DMEA's rejection of my application was unjustified.

Senator, enclosed is a copy of a report made by Arthur Houle to Mike Curley, General Manager of New Cornelia, Ajo. Without my going into lengthy detail as to the history and merits now, this report will give you the story.

I have a complete file of reports and correspondence by eminent men with whom you are familiar, who tried to obtain the property for their companies, but because, namely, the Rowley mine was owned by a stock jobbing company and the adjoining claims, the San Carlos Company owned by my Grandmother, no deal could be consummated because of excessive demands by each group. I have recently acquired both properties and they are clear of all bond and stockholders.

The men interested and who made offers or favorable reports are: -

Robert Tally - General Manager of United Verde
William B. Gohring - Head of RFC of Arizona, and Engineer for United Verde
C.W. Botsford - Mining Engineer of United Verde Extension and Tucson
George Kingdom - General Manager of United Verde Extension
Mr. Douglas - Owner of United Verde Extension
Mike Curley - General Manager, New Cornelia, Ajo.
Arthur Houle - Mining Engineer of Tucson and New Cornelia

Rush Sill - Consulting Mining Engineer of Los Angeles

George Kislingbury - Mining Engineer of Los Angeles

Mr. Stockder - Engineer with American Smelting & Refining Co.

Robert Elgin - Engineer of Mines, Silver City, New Mexico.

Senator, I am sure I have a property of real merit, which could contribute materially to the wealth of the Nation and Arizona in this time of national emergency.

The cursory examination by the DMEA of the surface the mine being under water, was too superficial to determine and appraise its potential.

The great men of the Arizona mining world I have named had the opportunity to investigate the property thoroughly, and they were convinced that it had the potential to make it a great producer.

I would be most eager to come to Washington, D.C. at your convenience, or send you the entire reports, so you could more fully judge for yourself as to the merit of the property.

Thank you Senator, for any interest or help you may deem advisable.

Respectfully yours,

/s/ Jack Rowley Fedrick
JACK ROWLEY FEDRICK

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Air Mail

MAR 1 3 1952

Mr. J. H. East, Jr.
Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: DMA Docket 1965 (Copper)
Rowley Mine
Maricopa County, Arizona

Dear Mr. East:

This will acknowledge receipt of your letter dated February 29, 1952 with which you enclosed one copy of the final report on the subject application and a copy of the denial letter sent to the applicant.

In addition to the two copies of a report required for the files of the Defense Minerals Exploration Administration, one copy each of all reports is required for the files of the Bureau of Mines and the Geological Survey. Will you, therefore, forward three additional copies of the above-referenced report to the Washington Office.

It is desired that the original and three copies of all future field reports be forwarded to the Washington Office.

Sincerely yours,

(signed) FRANK E. JOHNSON E.L. 3/13/52

Frank E. Johnson
Chairman, Operating Committee (JHB)

APPROVED:

J. H. Hedges (JHB)
For Bureau of Mines

T. P. Thayer (JHB)
For Geological Survey

FEJohnson/hb

Copy to: Adm. Reading File (JHB)
✓Docket
Operating Committee
Mr. Ellis
Mr. Thayer, Rm. 5216 GSA
Mr. Hedges, Rm. 4604
Frank E. Johnson

Sa.

3/10/52 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

February 29, 1952

BH

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1965, Rowley or Reliance Mine, Painted Rock Mining District, Maripopa County, Arizona (denial of exploration assistance)

Enclosed please find the original and one copy of DMA Form 3b, a copy of the Final Report, and a copy of the denial letter sent to the applicant. These pertain to Jack Rowley Eedrick's application for exploration assistance at his Rowley Mine, Painted Rock Mining District, Maricopa County, Arizona.

J. H. East, Jr.

J. H. East, Jr.

A. H. Koschmann

A. H. Koschmann

Enclosures

MAR 7 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 7 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

February 29, 1952

Mr. Jack Rowley Fedrick
938 South Orange Grove Ave.
Los Angeles 36, California

Dear Mr. Fedrick:

Your application for Government assistance in exploration work at your Rowley Mine, Painted Rock Mining District, Maricopa County, Arizona, has been received by the Defense Minerals Exploration Administration. An examination has been made.

After a careful study of your application and geologic data gained from the examination of the property concerned, it is determined that the probability of making a significant discovery of copper ore is not sufficiently promising to justify Government assistance. Therefore, your application for Government assistance is denied.

We wish to thank you for bringing this property to our attention.

Very truly yours,

J. H. East, Jr.
J. H. East, Jr.
Field Team, Region IV

cc: Administrator, DMEA,
Washington

A. H. Koschmann
A. H. Koschmann
Field Team, Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

22½ New Customhouse
Denver 2, Colorado

February 29, 1952

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1965, Rowley or Reliance Mine, Painted Rock Mining District, Maricopa County, Arizona (denial of exploration assistance)

Enclosed please find the original and one copy of DMA Form 3b, a copy of the Final Report, and a copy of the denial letter sent to the applicant. These pertain to Jack Rowley Endrick's application for exploration assistance at his Rowley Mine, Painted Rock Mining District, Maricopa County, Arizona.

J. H. East, Jr.

A. H. Koschmann

Enclosures

cc: WRStorms w/copy of final report
CAAnderson w/copy of final report
AHKoschmann w/copy of final report
Mining Div. w/copy of final report
DMA Final Report

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 24 1952

Mining Division
Region IV

February 27, 1952

Memorandum

To: DMA Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMA Project 1055, Rocky or Hickman Mine, Pulaski Rock Mining District, Maricopa County, Arizona

Enclosed herein are the original and 1 copies of the section on Summary, Conclusions, and Recommendations by the Geological Survey and the Bureau of Mines. Also enclosed are the original and 1 copies of the Engineering Report by the Bureau of Mines. These have reference to the application submitted by Jack Rocky Pulaski for exploration assistance on the Rocky Mine, Pulaski Rock District, Maricopa County, Arizona, estimated to cost $15,000.

We concur with the recommendations of the mining engineer that the application be denied.

W. H. King
W. H. King

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

MAR 25 1952

Reviewed by
DMEA OPERATING COMMITTEE
3-28-52
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

200 New Customhouse
Denver 2, Colorado

February 1, 1952

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1965, Rowley Mine (J. H. Fedrick), Maricopa County, Arizona (Copper-Lead-Molybdenum)

Enclosed are the original and 7 copies of the geologic report by J. A. MacKallor of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

January 24, 1952

Memorandum

To : Wm. H. King, Denver, Colorado

From : Chief, Arizona-New Mexico Branch

Subject : Final Report, DMA Docket 1965X, Fredrick's Fowley or Reliance Copper Mine, Painted Rock District, Maricopa County, Ariz.

Enclosed are original and 7 copies of the section on Summary, Conclusions and Recommendations by M. J. Elsing and W. T. Griswold of the Bureau of Mines, and J. A. MacKallor of the Geological Survey, and the section on Engineering by Elsing and Griswold. A section on Geology will be submitted by the Survey.

This report has my approval.

Brochure is enclosed.

Walter F. Storms

CC: W. H. King (7)
C. A. Anderson
DMA 1965X
DF

WFStorms:als

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P.O.Box 4126, University Station
Tucson, Arizona

January 28, 1952

Memorandum

To: A. H. Koschmann, Denver, Colorado

From: A. F. Shride, Tucson, Arizona

Subject: Geologic Report, DMA 1965, Fowley Mine (J. E. Fedrick), Maricopa County, Arizona (Copper-Lead-Molybdenum)

Enclosed are the original and 7 copies of the above report by J. A. MacKallor of the Geological Survey.

This report and the recommendation that an exploration loan be denied for lack of geologic potentiality of discovering ore have my approval.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-1965X, Fedrick's Bowley or Reliance Copper Mine

Painted Rock District, Maricopa County, Ariz.

M. J. Elsing, Consulting Mining Engineer
U. S. Bureau of Mines

W. T. Griswold, Mining Engineer
U. S. Bureau of Mines

Jules A. MacKaller, Geologist
U. S. Geological Survey

January 1952

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

M. J. Elsing[1], W. T. Griswold[2], and Jules A. MacKaller[3]

The Acting Administrator of the Defense Mineral Exploration Administration requested the DMEA Field Team, Region IV, to make an examination and report on the feasibility of a loan for the exploration of the Rowley or Reliance mine, in the Painted Rock District, Maricopa County, Ariz. M. J. Elsing and W. T. Griswold examined the property Jan. 8 and 9, 1952, accompanied by Jules A. MacKaller of the Geological Survey. Jack Rowley Fadrick, the applicant, accompanied the examiners to the property on the first of their 2-day visit.

The applicant wishes to drill 3 diamond drill holes to explore the extension of the Rowley vein at additional depth. He originally estimated that the 3 holes would total 3,000 feet and would cost $5.00 per foot for a total of $15,000. He is prepared to pay one-half of this cost if such a project is approved by the Defense Minerals Exploration Administration. Since the applicant made his estimate of the cost of drilling, the contractor advanced his price to $7.00 per foot. The examiners estimate that supervision, travel expense of supervisor, assaying, and indirect costs will add $1.50 per foot of hole making a total cost of $8.50 per foot.

1/ M. J. Elsing, Consulting Mining Engineer, U. S. Bureau of Mines, Arizona-New Mexico Branch
2/ W. T. Griswold, Mining Engineer, U. S. Bureau of Mines, Arizona-New Mexico Branch
3/ Jules A. MacKaller, U. S. Geological Survey

The examiners also believe that the vein is steeper than calculated and that the depth of holes should be estimated at 1,100 feet instead of 1,000 feet. Therefore, the total cost of drilling will be considerably more than originally estimated by the applicant.

The mine is approximately 27 miles west and north of Gila Bend from which it is easily accessible. Half the distance is over good to fair graveled roads with no appreciable grade.

The Rowley vein is in andesite and is traceable for some 4,000 feet in length. Both walls of the vein are andesite. The dip is 50 degrees to the east. It is a fissure vein. Approximately 800 feet of the fissure shows mineralization on the surface. The balance is barren. Mineralization consists of 2 parts. A hanging wall vein consists of barite which contains small amounts of cerussite and wulfenite with an occasional piece of galena an inch or two in diameter. The footwall part of the vein consists of iron-stained, silicified andesite varying from quartz to jasper. The footwall vein contains streaks, stringers, and masses of chrysocolla. There is also some disseminated malachite, and occasionally a rather high-grade piece of malachite can be found. Chalcocite is reported but none was observed. The footwall copper vein was reported to be 10 feet wide but it was the opinion of the examiners that it would not average more than 5 feet as indicated by the work on the 125-foot level which is 370 feet long.

The hanging wall barite vein is 40 feet wide in places. In general the lead and molybdenum mineralization is near the contact with the copper vein. There is no evidence that lead and molybdenum will be of economic importance as the MoO_3 content is less than 1 percent, with lead values erratic, and average values low.

The deposit has been developed by a main inclined shaft 265 feet deep, an inclined shaft 125 feet deep, and a vertical shaft 163 feet deep. Water stands in the main inclined shaft just below the 125-foot level. This level is easily accessible by climbing down the shaft.

The mine is reported to have produced 1 small car of 15 percent copper ore. Judging from what was seen in the shaft and on the 125-foot level, this is surprising although not impossible. The high-grade ore shipped was probably sorted from some 8,000 to 10,000 tons of vein-matter broken and hoisted in development work.

At one time the company operated a small mill comprising two tables and a Frue vanner. Wulfenite in barite was treated in the mill and it is reported that about 30 tons of concentrates averaging 18.26 percent MoO_3 were shipped. The tailing dump presently contains some 2,000 tons.

Assay maps of the mine show that the copper vein on the 125-foot level averages less than 1 percent copper and less than 1 ounce silver. The barite vein assays less than 1 percent MoO_3.

The first important development work was done in 1909 by the Fowley Copper Mines Co. In 1922 the company got into financial difficulties and was succeeded by the Reliance Mining Co. This company did

not last long and the property was taken over by the bond holders. After having spent some $200,000 or $300,000 it was decided to join with the San Carlos Mining Co., which owned some 20 unpatented mining claims surrounding the Rowley, in an attempt to sell or option both properties.

In 1923 the properties were optioned to W. C. Rice of Superior and Boston Mining Co. The engineer, C. W. Botsford, recommended the diamond drilling of 5 or 6 holes from 400 to 800 feet deep. Two of these holes are known to have been drilled and there is surface evidence that three additional holes were drilled. The option finally was dropped. Between 1926 and 1929 three of the large copper companies showed some interest in doing exploration work at the Rowley. These companies were the United Verde Copper Co., the New Cornelia Copper Co., and the United Verde Extension Mining Co. The owners of the Rowley and San Carlos properties could not make mutually satisfactory agreements with any of these companies for the exploration of their properties. With the exception of assessment work on the San Carlos no work has been done on either of these properties since 1923.

The report made for New Cornelia by Arthur Houle, Nov. 17, 1927, is available. He recommended that three 1,000-foot holes be drilled to explore the vein in depth. He thought there were sufficient indications to warrant the belief that a small high-grade secondarily-enriched copper ore body, 10 feet wide and 650 feet long, would be found.

The main consideration of the examiners was to study the evidence in the shaft, on the 125-foot level, and on the dumps, which might have a bearing on whether secondary enrichment could be expected at greater depth.

Because of the lack of iron gossans, vugs, cavities, and other evidence which indicates the leaching of a primary copper deposit, the examiners are of the unanimous opinion that secondary enrichment will not exist at greater depth. They believe that the chrysocolla and malachite occur in more or less uniform amounts down the shaft from the surface to the 125-foot level and that the grade of the material is approximately the grade of the primary ore. They believe that the original copper content of the vein has been oxidized in place. They believe that the oxidized portion of the vein averages less than 1 percent copper and that the primary ore will average less than 1 percent copper and that there will be no zone of secondary enrichment between the oxide and sulfide zones.

The examiners think that the evidence to warrant this opinion is very definite and certain, and it is for this reason that they recommend that a loan for any further exploration of this property be denied.

ROWLEY MINE
(J. R. FRIERICK)
MARICOPA COUNTY, ARIZONA

DMA 1965

COPPER-LEAD-MOLYBDENUM

Geology

By Jules A. MacKallor
Geologist, U. S. Geological Survey

ROWLEY MINE
(J. R. FERRICK)
MARICOPA COUNTY, ARIZONA

DMA 1965

COPPER-LEAD-MOLYBDENUM

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INTRODUCTION AND ACKNOWLEDGMENTS

On January 8-9, 1952, Morris J. Elzing and William T. Griswold, U. S. Bureau of Mines, and Julus A. MacKallor, U. S. Geological Survey, examined the Rowley or Reliance Mine, subject of Docket DMA 1965, to determine whether or not the property warranted exploration for copper, molybdenum, and lead.

The owner, Jack R. Fedrick, accompanied the examining team and was most helpful.

GENERAL GEOLOGIC SETTING

The Rowley claims, about twenty-five miles west of Gila Bend, Maricopa County, Arizona, are located on the western edge of the Painted Rock Mountains. These mountains consist of a series of nearly flat-lying Tertiary flows that are completely surrounded by Quaternary alluvium.

The Painted Rock Mountains are typical of the many small ranges of southwestern Arizona. Most of the mountains in this region consist of Tertiary or Quaternary flows, but a few are of pre-Cambrian schist and granite of various ages. Exclusive of Tertiary and Quaternary conglomerates and alluvium, only a few small, isolated patches of sedimentary rocks crop out in southwestern Arizona.

The rock exposed by the mine workings and the outcrops around the mine are andesite.

The Rowley Mine is the only mine or prospect in or near the Painted Rock Mountains.

DESCRIPTION OF THE DEPOSIT

The workings of the Rowley Mine have explored the upper part of a mineralized shoot of the Rowley vein that strikes N. 30° W. and dips 50° E. "Shoot," as used in this report and in the application, represents a great thickening of the vein, not a richer portion of the vein. It is estimated that the shoot has a strike length of 650 feet. The shoot includes both barite and quartz veins as described below. There are no other shoots along the strike of the vein.

A vein comprised of barite, quartz, malachite, and chrysocolla crop out along a strike length of 800 feet in the vicinity of the main shaft. The Rowley vein at the San Carlos shaft, about 1500 feet south of the mine, consists of two feet of barite. About one thousand feet northwest of the mine and along the projected strike of the vein, the writer saw a strong fracture, barren of minerals, that appeared to be a continuation of the structure along which the vein occurs.

The main shaft is located on the footwall of a twenty foot wide outcrop of vein material and follows the dip of the vein. The exposures in the shaft and on the 125 foot level show that the shoot consists of two distinct types of veins: one characterized by quartz, the other by barite. The former contains small amounts of copper, the latter small amounts of lead. A sharp contact separates the quartz and barite portions of the shoot. In the remainder of this report, the quartz portion of the shoot is called the quartz vein; the barite portion is called the barite vein. These veins strike N. 30° W and dip 50° E.

The quartz vein maintains a fairly uniform width of about five feet and lies against the footwall of the shoot. The footwall

contains no gouge or breccia. Quartz and a minor amount of jasper comprise most of the vein material.

The quartz vein evidently contained little pyrite or other iron-bearing minerals. A small amount of specularite occurs in the vein. Some of the quartz is rust-colored, caused by small amounts of hematite and limonite, both as inclusions and stains. Most of the iron probably came from the andesite as the andesite has weathered to a rusty color in many places. After scrutinizing for some time, the writer found two or three isolated pseudomorphs of pyrite.

The quartz vein is massive; nowhere is it brecciated or greatly fractured. There is no gossan, leached zone, or hemmrock of limonite in or near the quartz vein.

Several persistent, concordant bands of malachite and chrysocolla, 1" to 2½" thick, lie within the quartz vein. A few widely-spaced, tight fractures cut the quartz vein and extend a few feet into the footwall of andesite. Where these fractures intersect the bands of copper oxides, narrow stringers of the oxides extend along the fractures toward and into the andesite for a maximum distance of three feet. The copper oxides in the bands and stringers were the only copper minerals seen in the Hawley mine. However, Houle[1/] reported that the shoot locally contained small pockets of high-grade oxide copper ore. He also reported finding a very small amount of chalcocite.

The barite vein occupies the hanging wall side of the shoot and varies from about fifteen to about thirty feet in thickness. The

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1/ Houle, Arthur, Private Report dated November 17, 1927.

footwall of the barite vein has a sharp, regular contact with the quartz vein. The hanging wall of the barite vein is very irregular, thereby accounting for the variable thickness of the vein. A four inch thickness of gouge separates the barite from a three to four foot zone of fractured and slightly brecciated andesite. That part of the barite vein within ten feet of the hanging wall contains some inclusions of andesite. The barite usually occurs as masses of stringers parallel to the strike of the vein. However, in many cases the stringers are contorted and even bend through an arc of 180°.

Galena is associated with the barite. The writer saw only one small pod, about 5 inches in diameter, of galena. Heale[2] reports that pods of galena were mined. Anglesite and cerussite are probably present but were not observed. A small amount of calcite is present in the barite vein.

Molybdenum-bearing minerals are present in both the quartz and the barite veins near their contact. Molybdite forms a thin, partial coating on the sides of the main shaft from the surface to a depth of fifty feet. At a greater depth, small stringers of minute wulfenite crystals are present in the shaft. Some of the stringers cut through the narrow bands of malachite and chrysocolla. On the 125 foot level of the mine, wulfenite occurs in patches and stringers of minute crystals and in nests of large crystals along small fractures. A specimen containing a few crystals of vanadinite in association with wulfenite was found on the dump.

The workings below the 125-foot level were flooded. According

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2/ Heale, Arthur, op. cit.

to Gehring[3], the quartz vein is about the same, but the barite vein appears to be slightly narrower in the 260-foot level than in the higher levels.

According to Houle[4], records of two diamond drill holes 260 and 375 feet east of the main shaft showed that the sheet was intersected at a depth of approximately 260 and 340 feet below the elevation of the shaft collar. These figures indicate that the dip of the sheet decreases below the deepest mine workings. (The numbers designating the levels are the inclines, not the vertical distances below the collar of the main shaft.) The examining team saw field evidence that three additional holes were drilled about 600 feet east of the main shaft, but there is no record of these holes.

3/ Gehring, W. B., Private Report dated May 17, 1923.

4/ Houle, Arthur, op. cit.

PRODUCTION AND GRADE

The reader is referred to the engineering report for a description of the mine workings. The total production during the entire operation of the mine consisted of one carload (an estimated thirty tons) of 15% copper and thirty tons of wulfenite concentrates that assayed 18.26% MoO_3.

Assays Quoted from Houle[5]

No.	Location or Description	Width	Au	Ag	Cu	Pb	MoO_3
1.	Face N.Drift,100' level, main shaft	4.5'	Tr.	0.85 oz. /ton	0.85		
2.	15' S. of sample 1	?	Tr.	0.86	0.75		
3.	Selected sample of rich kidney	?			15.		
4.	Powder magazine	15'	Tr.	0.98	0.95		
5.	N.stope of Jobe shaft	?	Tr.	0.78	0.11	0.88	0.57
6.	S.stope of Jobe shaft	?	Tr.	0.82	0.10	4.50	1.02
7.	Jobe shaft,just above water level in barite zone	8'	Tr.	0.62	0.07	2.69	0.35
8.	45' N.of Jobe shaft on 125' level,in barite zone	?	Tr.	1.76		7.80	1.28

The writer believes that the first four samples were taken in the quartz vein and the last four were taken in the barite vein.

From the assays, the production record, and examination of the mine, it is evident that the oxidized part of the quartz vein averages slightly less than one percent copper, a trace of gold, and less than one oz. of silver per ton. The high-grade pods are not abundant enough to be mined separately.

5/ Houle, Arthur, op. cit.

The writer believes that samples 6, 7, and 8 were taken across high grade pods of galena in the barite vein and do not represent the average grade. However, it is possible that the barite vein contains a few percent of lead in the form of cerussite and anglesite, but these minerals were not seen.

The most optimistic interpretation of the assays is that the barite vein will average between three and four percent lead. More likely the barite vein contains less than one percent lead. A considerable portion of the lead is in the mineral wulfenite and would not be recovered. The small amounts of gold, silver, and molybdenum are of no economic importance.

GEOLOGIC POSSIBILITIES

The oxidized portions of the barite and the quartz veins are too low grade to be exploited. The only possibility of developing any ore from the Rowley mine is for the shoot to get richer at depth.

There is no reason to expect the primary mineralization to change grade at any depth that would be reached by drilling. The geology of the area does not suggest a favorable target such as the intersection of a fault or a favorable bed with the shoot.

There is no possibility of an enriched secondary zone of copper. The almost complete lack of limonite, pyrite, fractures, and leached cavities indicates that there was not much migration of copper or other metals from the oxidized portion of the shoot to a reducing zone. In the absence of sulfuric acid, the primary copper sulfides oxidized in place to malachite and chrysocolla.

ORE RESERVES

The Rawley Mine contains no measured, indicated, or inferred ore of either shipping or milling grade.

CONCLUSIONS AND RECOMMENDATION

There is only one mineralized shoot at the Rawley Mine and it is of limited size. The shoot contains a five foot thick quartz vein that averages less than one percent copper, less than one ounce of silver per ton, and only a trace of gold. The barite portion of the shoot contains less than one percent lead and less than one percent MoO_3.

The almost complete lack of limonite, pyrite, fractures, and leached cavities precludes the possibility of an enriched sulfide zone. There is nothing to suggest that the amount of primary mineralization will get richer at depth.

The Rawley Mine has no ore reserves and there is practically no chance of finding any. It is strongly recommended that the application of Jack R. Fedrick (DMA 1965) be denied.

DMA-1965X, FREDRICK'S ROWBEY OR RELIANCE COPPER MINE
PAINTED ROCK DISTRICT, MARICOPA COUNTY, ARIZ.

Engineering Report

By M. J. Elsing, Consulting Mining Engineer
U. S. Bureau of Mines

W. T. Griswold, Mining Engineer
U. S. Bureau of Mines

January 1952

DMA-1965X, FREDRICK'S POWLEY OR RELIANCE COPPER MINE
PAINTED ROCK DISTRICT, MARICOPA COUNTY, ARIZ.

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INTRODUCTION

The Acting Administrator of the Defense Minerals Exploration Administration requested the DMEA Field Team, Region IV, to make an examination and report on the feasibility of a loan for the exploration of the Fowley or Reliance mine, in the Painted Rock mining district, Maricopa County, Ariz. The request was dated Washington, Dec. 3, 1951. M. J. Elsing and W. T. Griswold examined the property Jan. 8 and 9, 1952, accompanied by Jules A. MacKaller of the Geological Survey. The examiners met the applicant, Jack Rowley Fedrick, at Gila Bend and he accompanied them to the mine. The next day the examiners revisited the property without Fedrick. The project is known as Docket No. DMA-1965X, Copper-Lead-Molybdenum.

ACKNOWLEDGMENTS

Acknowledgment is due to Jack Rowley Fedrick, the applicant, for accompanying the examiners to the property and providing them with as much information as was available to him.

Valuable information was obtained from reports by C. W. Botsford, W. B. Gehring, and particularly Arthur Houle. All of these men were mining engineers of high standing.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The property is located in the Painted Rock district, Maricopa County, Ariz. The mine can be readily found by following the road directions herewith given:

From Gila Bend go west on Highway 80, 13.8 miles from a sign marked

City Limits to a sign marked Dedora Ranch. Than go north from Highway 80 on a north-south section line road for 5.9 miles. At that point a left hand or westerly branch road is followed for 5.5 miles. At that point a turn to the right or east is made on to a little travelled mine road which is followed for 1.5 miles to the Rowley shaft.

The property is located in some low rolling hills immediately west of a sharp range of mountains. Practically all parts of the property can be reached by roads with moderate grades. The area is typical Arizona desert except that within 2 miles there is a narrow strip of irrigated and cultivated land along the Gila River. The collar of the Rowley shaft is only 200 or 300 feet above the river.

The Rowley (Reliance) and the San Carlos properties are in sections 24 and 25, Township 4 South, Range 8 West (See fig. 1).

HISTORY AND PRODUCTION

The Rowley Copper Mines Co. was incorporated in 1909 for the purpose of exploring the possibilities of the Rowley vein on the Jack Rowley group. In 1922, there was a reorganization and the original company was succeeded by the Reliance Mining Co. From that time the property was often called the Reliance mine, but for the purposes of this report the mine will be referred to by its original name, The Rowley. The Reliance Mining Co. got into financial difficulties and was finally taken over by the bond holders. Jack Rowley Fedrick, the applicant, stated that the Rowley mine now belongs to him, he having

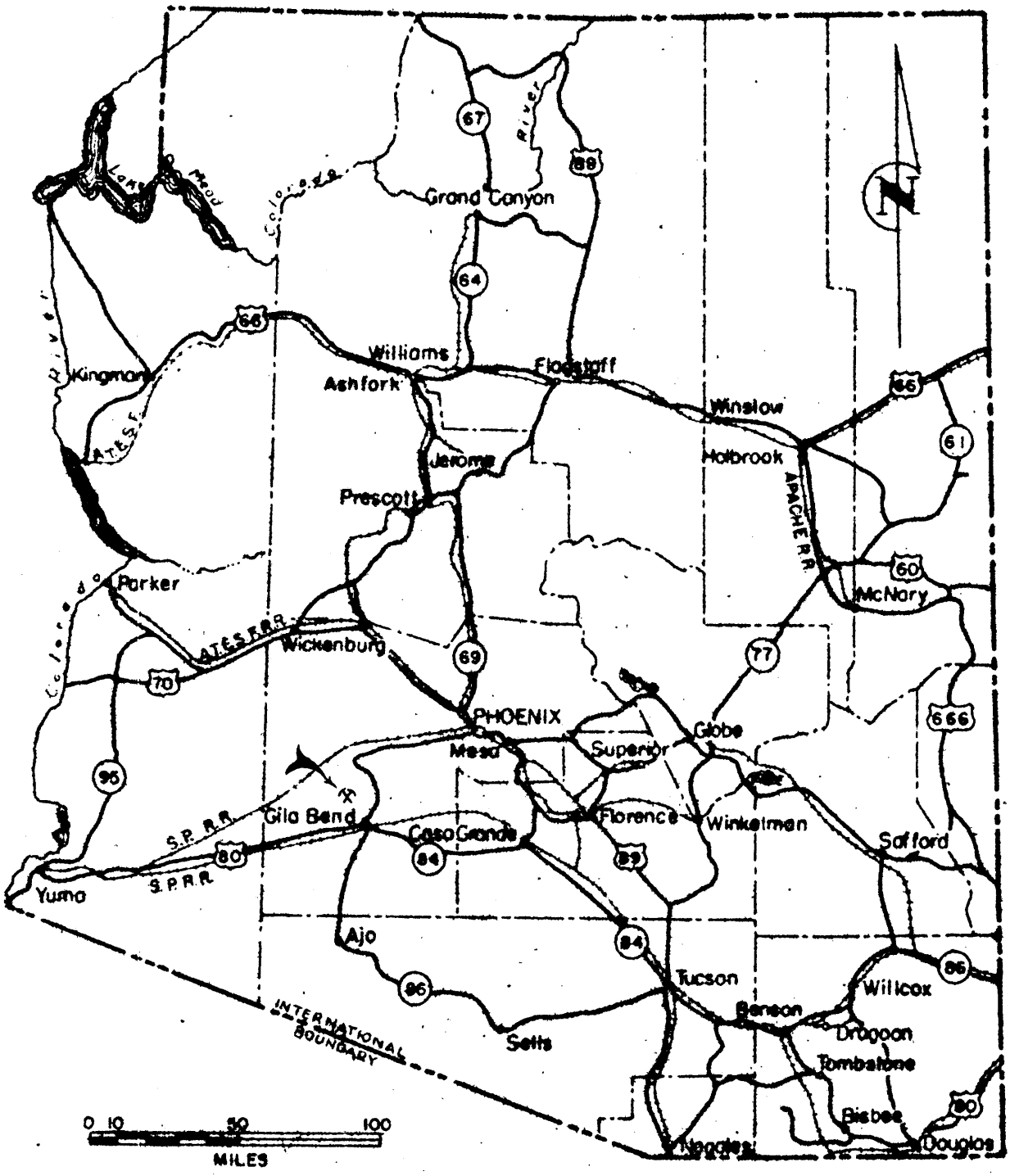

Fig. I LOCATION MAP, ROWLEY MINE
Maricopa County, Ariz.

DMA 1965

inherited it from his grandmother. He also stated that the adjoining San Carlos property is owned by his uncle and that he has a power of attorney giving him the authority to make disposition of the property as he sees fit.

The Rowley Copper Mines Co., the Reliance Mining Co. and the bond holders probably spent several hundred thousand dollars in exploration work and in erecting a small concentrator to recover wulfenite. The San Carlos Co. spent a considerable, although lesser amount in the exploration of their property. By 1923, the owners of the stock and the bonds of these companies decided to sell or option their properties.

The first party that they were able to interest was Wm. C. Rice of the Superior and Boston Mining Co. G.W. Botsford, a very reliable consulting engineer for Inspiration Consolidated Copper Co. made a report on the Rowley for Rice and recommended the the extension of the vein be explored at greater depth by vertical diamond drill holes. That report was dated May 1, 1923 and recommended 5 or 6 holes from 400 to 800 feet deep.

A letter, dated Oct. 8, 1923, from Botsford to Rice indicated that hole No. 1 was drilled to a depth of 525 feet and did not encounter ore. Botsford stated that a fault had cut off the ore and that he was changing the position of Hole No. 2. There are no additional data by Botsford on the drill results or how many of the holes that he recommended actually were drilled.

On May 17, 1923, W. B. Gehring wrote a very glowing report on the mine for Rice. This was after he had unwatered the mine and before Rotaford did the diamond drilling.

In May 1926, Charles Rowley wrote Robt. E. Tally, general manager of the United Verde Copper Co., to see if that company was interested in acquiring the Rowley mine. Tally wrote Gehring asking him to examine the mine. On Nov. 17, 1926, Tally wrote Rowley that the United Verde would be glad to make arrangements for the development of the Rowley and San Carlos properties. The United Verde proposed that a 55 percent interest in each property be deeded to it for an unspecified amount of development. The company was to have a 3-year option on the remaining 45 percent at a price of $100,000 for the Rowley and $100,000 for the San Carlos. The records do not show why the negtiations were suspended.

In October 1927, Rowley tried to interest the New Cornelia Copper Co. in the Rowley and San Carlos mines. On Nov. 17, 1927, Arthur Hoole examined the property at the request of Mike Curley, manager of the New Cornelia. Curley continued negotiations with Rowley until April 23, 1928 when he wrote Rowley that the terms agreeable to New Cornelia were so much lower than those asked for by the Rowley and San Carlos owners that there was no possibility of arriving at terms which would be mutually satisfactory so negotiations were suspended.

In June 1929, negotiations were started with George Kingdon, general manager of the United Verde Extension Mining Co. These

negotiations were brief. The files only show letters to Kingdon and none of his replies. It is reported that the United Verde Extension was willing to spend a substantial sum in development. A new company was to be formed of which the San Carlos and Rowley interests would each receive 10 percent of the stock. It is reported that negotiations fell through because the Rowley interest wanted 20 percent instead of 10 percent of the stock.

Houle states that the total production of the Rowley has been one small car of 15 percent copper ore and about 30 tons of wulfenite concentrates averaging 18.26 percent MoO_3.

OWNERSHIP AND EXTENT

The applicant, Fedrick, advised that he had inherited the Rowley group, comprising 6 patented mining claims, from his grandmother. These include the Daisy-Cornelia, Jack Rowley, Jack Rowley Nos. 1, 2, 3 and 4, and a millsite. The applicant stated that his uncle owned the San Carlos property, including 20 unpatented claims adjoining the Rowley property on the north, east and south; that the assessment work had been done on these claims in August 1951; and that he held a power of attorney granted him by his uncle.

DESCRIPTION OF THE DEPOSIT

The Painted Rock mining district is composed of a series of bedded andesite flows. The Rowley vein is a fissure vein with andesite walls. The fault in which the Rowley vein occurs can be traced for some 4,000 feet but only about 800 feet of this distance is mineralized. All of

this section is on the Jack Rowley claim. The dip of the vein at the Rowley shaft is 50 degrees to the east. At the San Carlos shaft, where the fissure is barren, the dip is 37 degrees. The strike of the vein is N. 37° W.

At the Rowley, the hanging wall part of the vein consists of barite containing small spotted amounts of galena, cerussite, and wulfenite. The footwall part of the vein is iron stained silica replacing andesite, and varying from quartz to jasper. The most common copper mineral is chrysocolla. The shaft follows the copper streak from the surface to the present water level which is just below the 125-foot level. The streak is 2 to 5 feet wide, and besides containing chrysocolla, shows some spotted malachite. Occasionally a rather high-grade specimen can be found. It is reported that chalocsite also is present but none was observed.

The maximum thickness of the footwall copper vein is approximately 15 feet while that of the hanging wall barite vein is 35 to 40 feet. The 125-foot level follows the vein for 370 feet but there are no crosscuts at either end of the level to indicate the width of the vein. In general the drift follows the so-called copper vein. Houle stated that the average width of the copper vein was 10 feet, but this width seems excessive. The shaft follows the copper vein. At no place in the shaft from the surface to the 125-foot level did the chrysocolla section of the vein extend beyond the shaft timbers on the hanging or footwall sides of the shaft. The average width is nearer 5 feet than 10 feet.

Houle took a number of samples which were accepted by the examiners without question. His conclusion was that the copper vein on the 125-foot level averaged less than 1 percent copper and less than 1 ounce silver, and that the barite vein averaged less than 1.0 percent MoO_3.

Houle stated "iron gossan and iron ores are conspicuous by their absence. ———The original sulphide mineralization was probably copper in the form of finely disseminated chalcopyrite. Pyrite or iron sulphide was not abundant and that accounts for the absence of iron outcrops and heavy iron oxides in the vein matter".

The examiners also were impressed with the lack of gossan material or vugs which might have contained pyrite or chalcopyrite. Chrysocolla with a little malachite starts at surface and extends to the 125-foot level, and is reported to continue to a depth of 265 feet. Evidence is lacking that a zone of secondary enrichment will be found with additional depth. The presence of chrysocolla and malachite in the upper part of the vein is definite evidence that leaching was incomplete. Houle admits that sulphide mineralization was small. The examiners agree with this and go one step further by stating that the evidence of sulphide mineralization is so small that the chrysocolla and malachite probably account for all of the copper that ever occurred in the vein. In other words, that oxidation of copper was in place and that no zone of secondary enrichment can be expected.

MINEABLE ORE RESERVES

The Fowley mine has no mineable ore reserves. Houle's sampling of the 125-foot level shows that the copper vein averages less than 1 percent copper and 1 ounce of silver, and that the barite vein averages less than 1 percent MoO_3. It is reported that the main inclined shaft followed the vein to a depth of 265 feet on the dip and showed no change in values or in character of the vein to that depth.

It is reported that one small car of copper ore was shipped with an average grade of 15 percent copper. There is one small stope in the Jobes inclined shaft, now inaccessible. This stope is reported to have produced wulfenite ore. It is roughly estimated that some 10,000 tons of material has been taken from the copper-bearing vein in the course of driving the various workings. The copper ore shipped was hand-sorted from this material.

The wulfenite concentrates came from perhaps 2,000 tons of material that was milled. A rough estimate of the tailing dump indicates that approximately this tonnage was treated. After more than 30 years exposure to erosion by water and wind, it is difficult to make accurate estimates of the tailings dump, particularly when such small tonnages are involved. It is safe to say that none of the material treated was ore in the sense that any profit resulted from its treatment. Molybdenum in the form of MoO_3 is less valuable today than during the First World War when this material was treated.

PRESENT STATUS

Prospect and Development

The exact footage of development work is unknown. The Bowley mine has 3 shafts. Inclined shaft No. 1 is 265 feet deep and was driven at an angle of 50 degrees. The Jobes inclined shaft is about 200 feet deep. The vertical shaft cut the vein at a depth of 200 feet.

The amount of drifting is unknown. It may be that as much as 1,850 feet of work has been driven. The 125-level, the only level not under water, follows the vein for 370 feet. The main shaft and the Jobes shaft are both in the vein. Some stoping was reported in the Jobes shaft. From several thousand tons of vein material, one small car of copper ore, averaging 15 percent, was shipped to a local smelter, and 30 tons of wulfenite concentrates, containing 18.26 percent of MoO_3, were shipped to a buyer in California. The concentrator comprised 2 tables and a Frue vanner. There is no record of the tonnage treated. From the amount of tailing in the dump it appears that at least 2,000 tons must have been milled. There is no building or equipment of any kind at the property.

The amount of diamond drilling is unknown. It has been noted that in 1923 Rotsford recommended to Rice to drill 5 or 6 diamond drill holes. Reports available to the examiners show that holes No. 1 and No. 2 were drilled. These holes are vertical and are located 375 and 300 feet, respectively, east of the outcrop of the vein. The

applicant showed the examining engineers the location of holes known to him. The next day the examiners did some checking and found that the holes shown by the applicant were not holes Nos. 1 and 2 but represented additional holes that had been drilled on the property of which there was no record. It is most likely that these holes are Nos. 3, 4, and 5 of the 5 or 6 holes that Botsford recommended to Fice to drill. They are roughly in a line 600 feet east of the outcrop of the vein. The holes recommended by Houle are in a line approximately 300 feet east of these holes (See fig. 2).

The examiners found hole No. 1 and the approximate position of hole No. 2. The exact position of this latter hole was obliterated because of the need for leveling the ground for nearby mine structures.

PROJECT PROPOSALS WITH COSTS

The applicant wishes to drill the 3 holes recommended by Houle in his report dated Nov. 17, 1927. These holes are located in the southeast corner of the Daisy Cornelia claim and are in a line parallel to the side line and a few feet away from it. The most southerly of these holes is approximately 240 feet from the southeast corner of the claim. The next is 200 feet further north, and the third hole is 420 feet north of the first mentioned hole. Houle estimated that these holes would cut the vein at a depth of 1,000 feet. He stated the vein has a dip of 45 degrees, whereas the actual dip of the vein is nearer 50 degrees. On the basis of a 50-degree dip it would require a hole approximately 1,100 feet deep to cut the vein from the applicant's proposed drill sites.

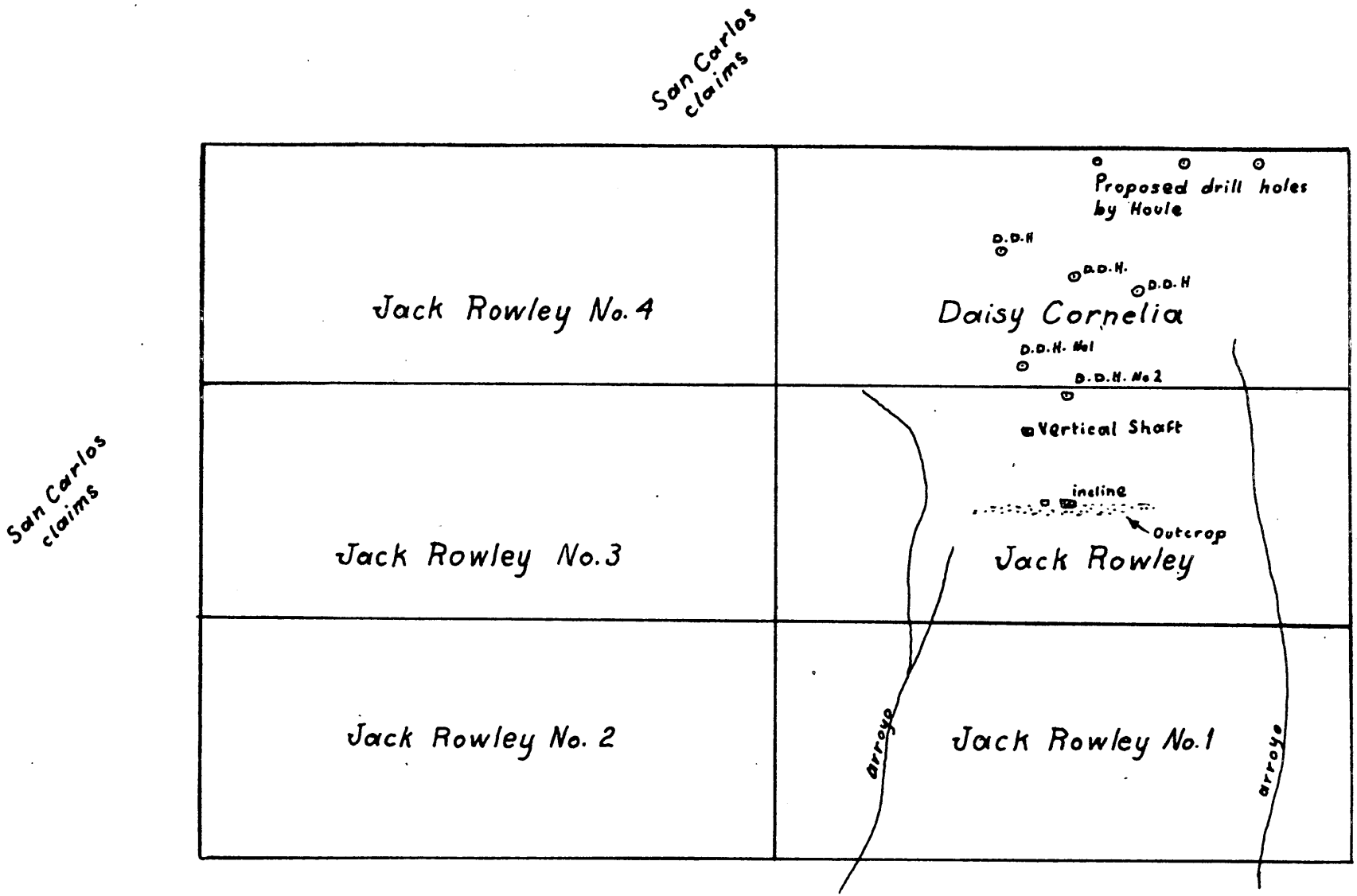

Fig. 2 JACK ROWLEY GROUP

scae 1" = 400'

Some months ago the Continental Diamond Drilling Co. estimated the cost of drilling at $5.00 per foot. The company at that time advised the applicant that after the first of the year the price per foot would be increased. It is probable that the new price will be $7.00 per foot. It is believed that the applicant will have to have an engineer at the property during most of the drilling campaign and particularly when drilling was being done in or near the vein.

There is a shortage of diamond drill operators. The current general practice has been to drill on day shift only. Drillers under these conditions usually wish to work 10 to 12 hours. On this basis they should average 25 feet per day, and two 1,100-foot holes should be drilled in 3 months. If drilling could be done on 2 shifts the time required would probably be reduced to 2 months. There would be no appreciable saving in the cost of drilling if drilling was done on 2 shifts because an engineer would be required on each shift. The only saving would be that the night shift engineer would not receive as high a salary as the day shift man.

In addition to a contract price of $7.00 per foot it is believed that supervision, transportation for supervisor, assaying, cementing hole, casing, etc., would cost $1.50 per foot, making the cost $8.50 per foot of hole drilled. Two holes would cost $18,700; three holes would cost $28,050.

The applicant stated he was not prepared to spend more than $7,500.

This means that only one 1,100-foot hole could be drilled at a cost of $9,350, half of which (or $4,675) would be for the account of the applicant.

CONCLUSIONS

The following is a list of Houle's conclusions with the opinion of the examiners relative to each:

1. "The ore deposit on this property will be one pipe or lense as indicated by the outcrop on the Jack Fowley claim. There are no indications that more than one ore body occurs along this fissure vein."

The examiners agree with this conclusion.

2. "The size of the ore shoot will be roughly 10 feet by 650 feet in cross section."

The examiners do not agree that the evidence as seen on the 125-foot level warrants the belief that the copper mineralization is 10 feet wide. They think the width is nearer 5 feet. Development on the 125-foot level shows weak copper mineralization for 370 feet in length. To increase this to 650 feet because of weak surface showings is optimistic. On the basis of Houle's estimate the possible tonnage is 500 tons per vertical foot of development. For a mine over 1,000 feet deep such a tonnage is exceptionally small.

3. "The ores of secondary enrichment can be expected at greater depth."

The examiners believe that the evidence on the 125-foot level is

contrary to such a deduction. They believe that it is very evident that the copper content of the vein has been oxidized in place. They believe that the present copper content of the vein represents what can be expected in the vein when the primary zone is reached. There will be no appreciable zone of secondary enrichment between the oxide and primary zones. Neither Houle nor the examiners were able to inspect the shaft below the 125-foot level where the water stands. The shaft is reported to be 265 feet deep and the copper content of the section below the 125-feet level is reported approximately the same as that above this level.

4. "Gold and silver values within the ore zone do not appear to be important."

The examiners agree with this conclusions.

5. "The leaching and oxidation indicates ore values will be concentrated into a small rich body of copper ore at greater depth."

As discussed under Conclusion 3 the examiners do not believe that there will be any appreciable amount of enrichment. From an inspection of the openings and the sampling records, they believe that the oxidized zone of the vein will run less than 1 percent copper, that the sulphide zone will run less than 1 percent, and that there will be no secondary zone of enrichment between these zones.

There was not the slightest question among the examiners as to the meaning of the indications on the 125-foot level. They believe that the evidence does not warrant the belief that a small rich ore body of secondarily enriched copper will be found in depth. They

think that the evidence indicates that there will be no zone of secondary enrichment and that the primary ore will be too low-grade to be of interest.

The 125-foot level is open and the mine is easily entered. It is not difficult to check the evidence which has lead to these conclusions.

RECOMMENDATIONS

It is true that the proposed expenditure is comparatively small and in view of the interest that the United Verde, the New Cornelia, and the United Verde Extension took in the property, it might seem that the drilling is warranted.

The examiners have studied the evidence and they believe that there is no possibility of opening up a body of high-grade secondarily enriched ore. They believe that a line of 3 holes was drilled only 300 feet from the line of holes proposed by Moule. No information regarding these holes is available. They may have encountered low-grade oxidized ore or they may have encountered low-grade primary sulphide ore. It is a certainty that they did not find ore which was sufficiently encouraging to warrant further exploration. The project died in 1923 after the completion of the diamond drilling campaign and no one has been sufficiently interested to do additional work since that time. The Government's role in the exploration of marginal projects, which show some small chance of success, is recognized. This project does notfall into that category and therefore, it is recommended that this application be denied.

Mining Division
Region IV

February 29, 1952

Memorandum

To: DMA Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 1965, Rowley or Reliance Mine, Painted Rock Mining District, Maricopa County, Arizona

Enclosed herein are the original and 7 copies of the section on Summary, Conclusions, and Recommendations by the Geological Survey and the Bureau of Mines. Also enclosed are the original and 7 copies of the Engineering Report by the Bureau of Mines. These have reference to the application submitted by Jack Rowley Fedrick for exploration assistance at the Rowley Mine, Painted Rock District, Maricopa County, Arizona, estimated to cost $15,000.

We concur with the recommendations of the examining engineer that the application be denied.

W. H. King
W. H. King

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 7 1952

Reviewed by
DMEA OPERATING COMMITTEE
3-28-52
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

200 New Customhouse
Denver 2, Colorado

February 1, 1952

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1965, Rowley Mine (J. R. Fedrick), Maricopa County, Arizona (Copper-Lead-Molybdenum)

Enclosed are the original and 7 copies of the geologic report by J. A. MacKallor of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

January 24, 1952

Memorandum

To : Wm. H. King, Denver, Colorado

From : Chief, Arizona-New Mexico Branch

Subject : Final Report, DMA Docket 1965X, Fedrick's Fowley or Reliance Copper Mine, Painted Rock District, Maricopa County, Ariz.

Enclosed are original and 7 copies of the section on Summary, Conclusions and Recommendations by M. J. Elsing and W. T. Griswold of the Bureau of Mines, and J. A. MacKallor of the Geological Survey, and the section on Engineering by Elsing and Griswold. A section on Geology will be submitted by the Survey.

This report has my approval.

Brochure is enclosed.

Walter F. Storms

CC: W. H. King (7)
C. A. Anderson
DMA 1965X
DF

WFStorms:als

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

January 28, 1952

Memorandum

To: A. H. Koschmann, Denver, Colorado

From: A. F. Shride, Tucson, Arizona

Subject: Geologic Report, DMA 1965, Rowley Mine (J. R. Fedrick), Maricopa County, Arizona (Copper-Lead-Molybdenum)

Enclosed are the original and 7 copies of the above report by J. A. MacKaller of the Geological Survey.

This report and the recommendation that an exploration loan be denied for lack of geologic potentiality of discovering ore have my approval.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-1965X, Fedrick's Rowley or Reliance Copper Mine

Painted Rock District, Maricopa County, Ariz.

M. J. Elsing, Consulting Mining Engineer
U. S. Bureau of Mines

W. T. Griswold, Mining Engineer
U. S. Bureau of Mines

Jules A. MacKallor, Geologist
U. S. Geological Survey

January 1952

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

M. J. Elsing[1], W. T. Griswold[2], and Jules A. MacKallor[3]

The Acting Administrator of the Defense Mineral Exploration Administration requested the DMEA Field Team, Region IV, to make an examination and report on the feasibility of a loan for the exploration of the Rowley or Reliance mine, in the Painted Rock District, Maricopa County, Ariz. M. J. Elsing and W. T. Griswold examined the property Jan. 8 and 9, 1952, accompanied by Jules A. MacKallor of the Geological Survey. Jack Rowley Fedrick, the applicant, accompanied the examiners to the property on the first of their 2-day visit.

The applicant wishes to drill 3 diamond drill holes to explore the extension of the Rowley vein at additional depth. He originally estimated that the 3 holes would total 3,000 feet and would cost $5.00 per foot for a total of $15,000. He is prepared to pay one-half of this cost if such a project is approved by the Defense Minerals Exploration Administration. Since the applicant made his estimate of the cost of drilling, the contractor advanced his price to $7.00 per foot. The examiners estimate that supervision, travel expense of supervisor, assaying, and indirect costs will add $1.50 per foot of hole making a total cost of $8.50 per foot.

1/ M. J. Elsing, Consulting Mining Engineer, U. S. Bureau of Mines, Arizona-New Mexico Branch
2/ W. T. Griswold, Mining Engineer, U. S. Bureau of Mines, Arizona-New Mexico Branch
3/ Jules A. MacKallor, U. S. Geological Survey

The examiners also believe that the vein is steeper than calculated and that the depth of holes should be estimated at 1,100 feet instead of 1,000 feet. Therefore, the total cost of drilling will be considerably more than originally estimated by the applicant.

The mine is approximately 27 miles west and north of Gila Bend from which it is easily accessible. Half the distance is over good to fair graveled roads with no appreciable grade.

The Rowley vein is in andesite and is traceable for some 4,000 feet in length. Both walls of the vein are andesite. The dip is 50 degrees to the east. It is a fissure vein. Approximately 800 feet of the fissure shows mineralization on the surface. The balance is barren. Mineralization consists of 2 parts. A hanging wall vein consists of barite which contains small amounts of cerussite and wulfenite with an occasional piece of galena an inch or two in diameter. The footwall part of the vein consists of iron-stained, silicified andesite varying from quartz to jasper. The footwall vein contains streaks, stringers, and masses of chrysocolla. There is also some disseminated malachite, and occasionally a rather high-grade piece of malachite can be found. Chalcocite is reported but none was observed. The footwall copper vein was reported to be 10 feet wide but it was the opinion of the examiners that it would not average more than 5 feet as indicated by the work on the 125-foot level which is 370 feet long.

The hanging wall barite vein is 40 feet wide in places. In general the lead and molybdenum mineralization is near the contact with the copper vein. There is no evidence that lead and molybdenum will be of economic importance as the MoO_3 content is less than 1 percent, with lead values erratic, and average values low.

The deposit has been developed by a main inclined shaft 265 feet deep, an inclined shaft 125 feet deep, and a vertical shaft 163 feet deep. Water stands in the main inclined shaft just below the 125-foot level. This level is easily accessible by climbing down the shaft.

The mine is reported to have produced 1 small car of 15 percent copper ore. Judging from what was seen in the shaft and on the 125-foot level, this is surprising although not impossible. The high-grade ore shipped was probably sorted from some 8,000 to 10,000 tons of vein-matter broken and hoisted in development work.

At one time the company operated a small mill comprising two tables and a Frue vanner. Wulfenite in barite was treated in the mill and it is reported that about 30 tons of concentrates averaging 18.26 percent MoO_3 were shipped. The tailing dump presently contains some 2,000 tons.

Assay maps of the mine show that the copper vein on the 125-foot level averages less than 1 percent copper and less than 1 ounce silver. The barite vein assays less than 1 percent MoO_3.

The first important development work was done in 1909 by the Rowley Copper Mines Co. In 1922 the company got into financial difficulties and was succeeded by the Reliance Mining Co. This company did

not last long and the property was taken over by the bond holders. After having spent some $200,000 or $300,000 it was decided to join with the San Carlos Mining Co., which owned some 20 unpatented mining claims surrounding the Rowley, in an attempt to sell or option both properties.

In 1923 the properties were optioned to W. G. Rice of Superior and Boston Mining Co. The engineer, C. W. Botsford, recommended the diamond drilling of 5 or 6 holes from 400 to 800 feet deep. Two of these holes are known to have been drilled and there is surface evidence that three additional holes were drilled. The option finally was dropped. Between 1926 and 1929 three of the large copper companies showed some interest in doing exploration work at the Rowley. These companies were the United Verde Copper Co., the New Cornelia Copper Co., and the United Verde Extension Mining Co. The owners of the Rowley and San Carlos properties could not make mutually satisfactory agreements with any of these companies for the exploration of their properties. With the exception of assessment work on the San Carlos no work has been done on either of these properties since 1923.

The report made for New Cornelia by Arthur Houle, Nov. 17, 1927, is available. He recommended that three 1,000-foot holes be drilled to explore the vein in depth. He thought there were sufficient indications to warrant the belief that a small high-grade secondarily-enriched copper ore body, 10 feet wide and 650 feet long, would be found.

The main consideration of the examiners was to study the evidence in the shaft, on the 125-foot level, and on the dumps, which might have a bearing on whether secondary enrichment could be expected at greater depth.

Because of the lack of iron gossans, vugs, cavities, and other evidence which indicates the leaching of a primary copper deposit, the examiners are of the unanimous opinion that secondary enrichment will not exist at greater depth. They believe that the chrysocolla and malachite occur in more or less uniform amounts down the shaft from the surface to the 125-foot level and that the grade of the material is approximately the grade of the primary ore. They believe that the original copper content of the vein has been oxidized in place. They believe that the oxidized portion of the vein averages less than 1 percent copper and that the primary ore will average less than 1 percent copper and that there will be no zone of secondary enrichment between the oxide and sulfide zones.

The examiners think that the evidence to warrant this opinion is very definite and certain, and it is for this reason that they recommend that a loan for any further exploration of this property be denied.

ROWLEY MINE
(J. R. FEDRICK)
MARICOPA COUNTY, ARIZONA

DMA 1965

COPPER-LEAD-MOLYBDENUM

Geology

By Jules A. MacKallor
Geologist, U. S. Geological Survey

ROWLEY MINE
(J. R. FEDRICK)
MARICOPA COUNTY, ARIZONA

DMA 1965

COPPER-LEAD-MOLYBDENUM

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INTRODUCTION AND ACKNOWLEDGMENTS

On January 8-9, 1952, Morris J. Elsing and William T. Griswold, U. S. Bureau of Mines, and Jules A. MacKallor, U. S. Geological Survey, examined the Rowley or Reliance Mine, subject of Docket DMA 1965, to determine whether or not the property warranted exploration for copper, molybdenum, and lead.

The owner, Jack R. Fedrick, accompanied the examining team and was most helpful.

GENERAL GEOLOGIC SETTING

The Rowley claims, about twenty-five miles west of Gila Bend, Maricopa County, Arizona, are located on the western edge of the Painted Rock Mountains. These mountains consist of a series of nearly flat-lying Tertiary flows that are completely surrounded by Quaternary alluvium.

The Painted Rock Mountains are typical of the many small ranges of southwestern Arizona. Most of the mountains in this region consist of Tertiary or Quaternary flows, but a few are of pre-Cambrian schist and granite of various ages. Exclusive of Tertiary and Quaternary conglomerates and alluvium, only a few small, isolated patches of sedimentary rocks crop out in southwestern Arizona.

The rock exposed by the mine workings and the outcrops around the mine are andesite.

The Rowley Mine is the only mine or prospect in or near the Painted Rock Mountains.

DESCRIPTION OF THE DEPOSIT

The workings of the Rowley Mine have explored the upper part of a mineralized shoot of the Rowley vein that strikes N. 30° W. and dips 50° E. "Shoot," as used in this report and in the application, represents a great thickening of the vein, not a richer portion of the vein. It is estimated that the shoot has a strike length of 650 feet. The shoot includes both barite and quartz veins as described below. There are no other shoots along the strike of the vein.

A vein comprised of barite, quartz, malachite, and chrysocolla crop out along a strike length of 800 feet in the vicinity of the main shaft. The Rowley vein at the San Carlos shaft, about 1500 feet south of the mine, consists of two feet of barite. About one thousand feet northwest of the mine and along the projected strike of the vein, the writer saw a strong fracture, barren of minerals, that appeared to be a continuation of the structure along which the vein occurs.

The main shaft is located on the footwall of a twenty foot wide outcrop of vein material and follows the dip of the vein. The exposures in the shaft and on the 125 foot level show that the shoot consists of two distinct types of veins: one characterized by quartz, the other by barite. The former contains small amounts of copper, the latter small amounts of lead. A sharp contact separates the quartz and barite portions of the shoot. In the remainder of this report, the quartz portion of the shoot is called the quartz vein; the barite portion is called the barite vein. These veins strike N. 30° W and dip 50° E.

The quartz vein maintains a fairly uniform width of about five feet and lies against the footwall of the shoot. The footwall

contains no gouge or breccia. Quartz and a minor amount of jasper comprise most of the vein material.

The quartz vein evidently contained little pyrite or other iron-bearing minerals. A small amount of specularite occurs in the vein. Some of the quartz is rust-colored, caused by small amounts of hematite and limonite, both as inclusions and stains. Most of the iron probably came from the andesite as the andesite has weathered to a rusty color in many places. After searching for some time, the writer found two or three isolated pseudomorphs of pyrite.

The quartz vein is massive; nowhere is it brecciated or greatly fractured. There is no gossan, leached zone, or boxwork of limonite in or near the quartz vein.

Several persistent, concordant bands of malachite and chrysocolla, 1" to 2½" thick, lie within the quartz vein. A few widely-spaced, tight fractures cut the quartz vein and extend a few feet into the footwall of andesite. Where these fractures intersect the bands of copper oxides, narrow stringers of the oxides extend along the fractures toward and into the andesite for a maximum distance of three feet. The copper oxides in the bands and stringers were the only copper minerals seen in the Rowley mine. However, Houle[1/] reported that the shoot locally contained small pockets of high-grade oxide copper ore. He also reported finding a very small amount of chalcocite.

The barite vein occupies the hanging wall side of the shoot and varies from about fifteen to about thirty feet in thickness. The

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1/ Houle, Arthur, Private Report dated November 17, 1927.

footwall of the barite vein has a sharp, regular contact with the quartz vein. The hanging wall of the barite vein is very irregular, thereby accounting for the variable thickness of the vein. A four inch thickness of gouge separates the barite from a three to four foot zone of fractured and slightly brecciated andesite. That part of the barite vein within ten feet of the hanging wall contains some inclusions of andesite. The barite usually occurs as masses of stringers parallel to the strike of the vein. However, in many cases the stringers are contorted and even bend through an arc of 180°.

Galena is associated with the barite. The writer saw only one small pod, about 5 inches in diameter, of galena. Houle[2/] reports that pods of galena were mined. Anglesite and cerussite are probably present but were not observed. A small amount of calcite is present in the barite vein.

Molybdenum-bearing minerals are present in both the quartz and the barite veins near their contact. Molybdite forms a thin, partial coating on the sides of the main shaft from the surface to a depth of fifty feet. At a greater depth, small stringers of minute wulfenite crystals are present in the shaft. Some of the stringers cut through the narrow bands of malachite and chrysocolla. On the 125 foot level of the mine, wulfenite occurs in patches and stringers of minute crystals and in nests of large crystals along small fractures. A specimen containing a few crystals of vanadinite in association with wulfenite was found on the dump.

The workings below the 125-foot level were flooded. According

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2/ Houle, Arthur, op. cit.

to Gohring[3], the quartz vein is about the same, but the barite vein appears to be slightly narrower in the 260-foot level than in the higher levels.

According to Houle[4], records of two diamond drill holes 260 and 375 feet east of the main shaft showed that the shoot was intersected at a depth of approximately 260 and 340 feet below the elevation of the shaft collar. These figures indicate that the dip of the shoot decreases below the deepest mine workings. (The numbers designating the levels are the incline, not the vertical distances below the collar of the main shaft.) The examining team saw field evidence that three additional holes were drilled about 600 feet east of the main shaft, but there is no record of these holes.

3/ Gohring, W. B., Private Report dated May 17, 1923.

4/ Houle, Arthur, op. cit.

PRODUCTION AND GRADE

The reader is referred to the engineering report for a description of the mine workings. The total production during the entire operation of the mine consisted of one carload (an estimated thirty tons) of 15% copper and thirty tons of wulfenite concentrates that assayed 18.26% MoO_3.

Assays Quoted from Houle[5/]

No.	Location or Description	Width	Au	Ag	Cu	Pb	MoO_3
1.	Face N.Drift,100' level, main shaft	4.5'	Tr.	0.85 oz. /ton	0.85		
2.	15' S. of sample 1	?	Tr.	0.86	0.75		
3.	Selected sample of rich kidney	?			15.		
4.	Powder magazine	15'	Tr.	0.98	0.95		
5.	N.stope of Jobe shaft	?	Tr.	0.78	0.11	0.88	0.57
6.	S.stope of Jobe shaft	?	Tr.	0.82	0.10	4.50	1.01
7.	Jobe shaft,just above water level in barite zone	8'	Tr.	0.62	0.07	2.69	0.35
8.	45' N.of Jobe shaft on 125' level,in barite zone	?	Tr.	1.76		7.80	1.28

The writer believes that the first four samples were taken in the quartz vein and the last four were taken in the barite vein.

From the assays, the production record, and examination of the mine, it is evident that the oxidized part of the quartz vein averages slightly less than one percent copper, a trace of gold, and less than one oz. of silver per ton. The high-grade pods are not abundant enough to be mined separately.

5/ Houle, Arthur, op. cit.

The writer believes that samples 6, 7, and 8 were taken across high grade pods of galena in the barite vein and do not represent the average grade. However, it is possible that the barite vein contains a few percent of lead in the form of cerussite and anglesite, but these minerals were not seen.

The most optimistic interpretation of the assays is that the barite vein will average between three and four percent lead. More likely the barite vein contains less than one percent lead. A considerable portion of the lead is in the mineral wulfenite and would not be recovered. The small amounts of gold, silver, and molybdenum are of no economic importance.

GEOLOGIC POSSIBILITIES

The oxidized portions of the barite and the quartz veins are too low grade to be exploited. The only possibility of developing any ore from the Rowley mine is for the shoot to get richer at depth.

There is no reason to expect the primary mineralization to change grade at any depth that would be reached by drilling. The geology of the area does not suggest a favorable target such as the intersection of a fault or a favorable bed with the shoot.

There is no possibility of an enriched secondary zone of copper. The almost complete lack of limonite, pyrite, fractures, and leached cavities indicates that there was not much migration of copper or other metals from the oxidized portion of the shoot to a reducing zone. In the absence of sulfuric acid, the primary copper sulfides oxidized in place to malachite and chrysocolla.

ORE RESERVES

The Rowley Mine contains no measured, indicated, or inferred ore of either shipping or milling grade.

CONCLUSIONS AND RECOMMENDATION

There is only one mineralized shoot at the Rowley Mine and it is of limited size. The shoot contains a five foot thick quartz vein that averages less than one percent copper, less than one ounce of silver per ton, and only a trace of gold. The barite portion of the shoot contains less than one percent lead and less than one percent MoO_3.

The almost complete lack of limonite, pyrite, fractures, and leached cavities preclude the possibility of an enriched sulfide zone. There is nothing to suggest that the amount of primary mineralization will get richer at depth.

The Rowley Mine has no ore reserves and there is practically no chance of finding any. It is strongly recommended that the application of Jack R. Fedrick (DMA 1965) be denied.

DMA-1965X, FEDRICK'S ROWLEY OR RELIANCE COPPER MINE
PAINTED ROCK DISTRICT, MARICOPA COUNTY, ARIZ.

Engineering Report

By M. J. Elsing, Consulting Mining Engineer
U. S. Bureau of Mines

W. T. Griswold, Mining Engineer
U. S. Bureau of Mines

January 1952

DMA-1965X, FEDRICK'S ROWLEY OR RELIANCE COPPER MINE
PAINTED ROCK DISTRICT, MARICOPA COUNTY, ARIZ.

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INTRODUCTION

The Acting Administrator of the Defense Minerals Exploration Administration requested the DMEA Field Team, Region IV, to make an examination and report on the feasibility of a loan for the exploration of the Rowley or Reliance mine, in the Painted Rock mining district, Maricopa County, Ariz. The request was dated Washington, Dec. 3, 1951. M. J. Elsing and W. T. Griswold examined the property Jan. 8 and 9, 1952, accompanied by Jules A. MacKallor of the Geological Survey. The examiners met the applicant, Jack Rowley Fedrick, at Gila Bend and he accompanied them to the mine. The next day the examiners revisited the property without Fedrick. The project is known as Docket No. DMA-1965X, Copper-Lead-Molybdenum.

ACKNOWLEDGMENTS

Acknowledgment is due to Jack Rowley Fedrick, the applicant, for accompanying the examiners to the property and providing them with as much information as was available to him.

Valuable information was obtained from reports by C. W. Botsford, W. B. Gohring, and particularly Arthur Houle. All of these men were mining engineers of high standing.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The property is located in the Painted Rock district, Maricopa County, Ariz. The mine can be readily found by following the road directions herewith given:

From Gila Bend go west on Highway 80, 13.8 miles from a sign marked

City Limits to a sign marked Dedora Ranch. Then go north from Highway 80 on a north-south section line road for 5.9 miles. At that point a left hand or westerly branch road is followed for 5.5 miles. At that point a turn to the right or east is made on to a little travelled mine road which is followed for 1.5 miles to the Rowley shaft.

The property is located in some low rolling hills immediately west of a sharp range of mountains. Practically all parts of the property can be reached by roads with moderate grades. The area is typical Arizona desert except that within 2 miles there is a narrow strip of irrigated and cultivated land along the Gila River. The collar of the Rowley shaft is only 200 or 300 feet above the river.

The Rowley (Reliance) and the San Carlos properties are in sections 24 and 25, Township 4 South, Range 8 West (See fig. 1).

HISTORY AND PRODUCTION

The Rowley Copper Mines Co. was incorporated in 1909 for the purpose of exploring the possibilities of the Rowley vein on the Jack Rowley group. In 1922, there was a reorganization and the original company was succeeded by the Reliance Mining Co. From that time the property was often called the Reliance mine, but for the purposes of this report the mine will be referred to by its original name, The Rowley. The Reliance Mining Co. got into financial difficulties and was finally taken over by the bond holders. Jack Rowley Fedrick, the applicant, stated that the Rowley mine now belongs to him, he having

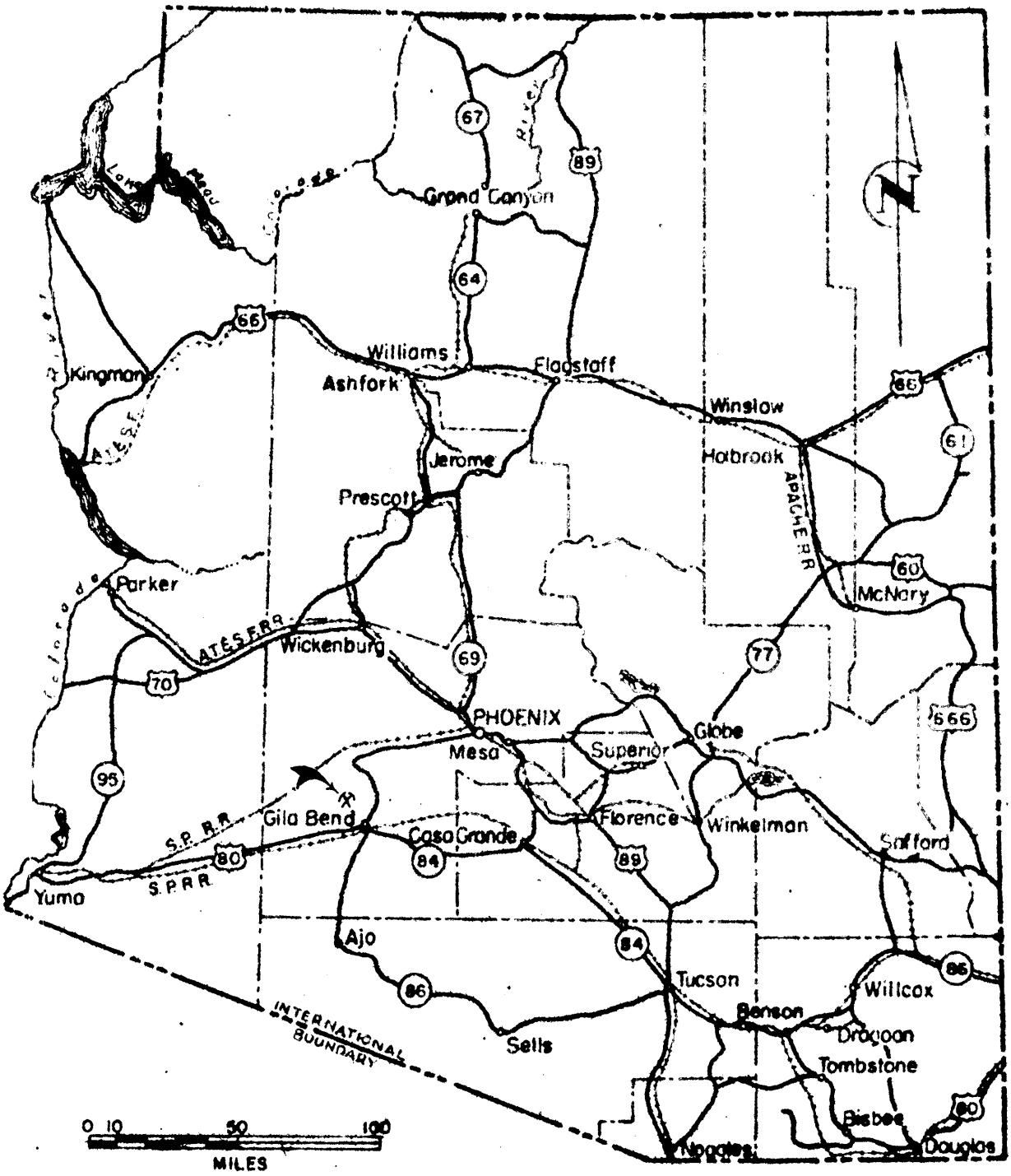

Fig. I LOCATION MAP, ROWLEY MINE
Maricopa County, Ariz.

DMA 1965

inherited it from his grandmother. He also stated that the adjoining San Carlos property is owned by his uncle and that he has a power of attorney giving him the authority to make disposition of the property as he sees fit.

The Rowley Copper Mines Co., the Reliance Mining Co. and the bond holders probably spent several hundred thousand dollars in exploration work and in erecting a small concentrator to recover wulfenite. The San Carlos Co. spent a considerable, although lesser amount in the exploration of their property. By 1923, the owners of the stock and the bonds of these companies decided to sell or option their properties.

The first party that they were able to interest was Wm. G. Rice of the Superior and Boston Mining Co. C.W. Botsford, a very reliable examining engineer for Inspiration Consolidated Copper Co. made a report on the Rowley for Rice and recommended the the extension of the vein be explored at greater depth by vertical diamond drill holes. That report was dated May 1, 1923 and recommended 5 or 6 holes from 400 to 800 feet deep.

A letter, dated Oct. 8, 1923, from Botsford to Rice indicated that hole No. 1 was drilled to a depth of 525 feet and did not encounter ore. Botsford stated that a fault had cut off the ore and that he was changing the position of Hole No. 2. There are no additional data by Botsford on the drill results or how many of the holes that he recommended actually were drilled.

On May 17, 1923, W. B. Gohring wrote a very glowing report on the mine for Rice. This was after he had unwatered the mine and before Botsford did the diamond drilling.

In May 1926, Charles Rowley wrote Robt. E. Tally, general manager of the United Verde Copper Co., to see if that company was interested in acquiring the Rowley mine. Tally wrote Gohring asking him to examine the mine. On Nov. 17, 1926, Tally wrote Rowley that the United Verde would be glad to make arrangements for the development of the Rowley and San Carlos properties. The United Verde proposed that a 55 percent interest in each property be deeded to it for an unspecified amount of development. The company was to have a 3-year option on the remaining 45 percent at a price of $100,000 for the Rowley and $100,000 for the San Carlos. The records do not show why the negtiations were suspended.

In October 1927, Rowley tried to interest the New Cornelia Copper Co. in the Rowley and San Carlos mines. On Nov. 17, 1927, Arthur Houle examined the property at the request of Mike Curley, manager of the New Cornelia. Curley continued negotiations with Rowley until April 23, 1928 when he wrote Rowley that the terms agreeable to New Cornelia were so much lower than those asked for by the Rowley and San Carlos owners that there was no possibility of arriving at terms which would be mutually satisfactory so negotiations were suspended.

In June 1929, negotiations were started with George Kingdon, general manager of the United Verde Extension Mining Co. These

negotiations were brief. The files only show letters to Kingdon and none of his replies. It is reported that the United Verde Extension was willing to spend a substantial sum in development. A new company was to be formed of which the San Carlos and Rowley interests would each receive 10 percent of the stock. It is reported that negotiations fell through because the Rowley interest wanted 20 percent instead of 10 percent of the stock.

Houle states that the total production of the Rowley has been one small car of 15 percent copper ore and about 30 tons of wulfenite concentrates averaging 18.26 percent MoO_3.

OWNERSHIP AND EXTENT

The applicant, Fedrick, advised that he had inherited the Rowley group, comprising 6 patented mining claims, from his grandmother. These include the Daisy-Cornelia, Jack Rowley, Jack Rowley Nos. 1, 2, 3 and 4, and a millsite. The applicant stated that his uncle owned the San Carlos property, including 20 unpatented claims adjoining the Rowley property on the north, east and south; that the assessment work had been done on these claims in August 1951; and that he held a power of attorney granted him by his uncle.

DESCRIPTION OF THE DEPOSIT

The Painted Rock mining district is composed of a series of bedded andesite flows. The Rowley vein is a fissure vein with andesite walls. The fault in which the Rowley vein occurs can be traced for some 4,000 feet but only about 800 feet of this distance is mineralized. All of

this section is on the Jack Rowley claim. The dip of the vein at the Rowley shaft is 50 degrees to the east. At the San Carlos shaft, where the fissure is barren, the dip is 37 degrees. The strike of the vein is N. 37° W.

At the Rowley, the hanging wall part of the vein consists of barite containing small spotted amounts of galena, cerussite, and wulfenite. The footwall part of the vein is iron stained silica replacing andesite, and varying from quartz to jasper. The most common copper mineral is chrysocolla. The shaft follows the copper streak from the surface to the present water level which is just below the 125-foot level. The streak is 2 to 5 feet wide, and besides containing chrysocolla, shows some spotted malachite. Occasionally a rather high-grade specimen can be found. It is reported that chalcocite also is present but none was observed.

The maximum thickness of the footwall copper vein is approximately 15 feet while that of the hanging wall barite vein is 35 to 40 feet. The 125-foot level follows the vein for 370 feet but there are no crosscuts at either end of the level to indicate the width of the vein. In general the drift follows the so-called copper vein. Houle stated that the average width of the copper vein was 10 feet, but this width seems excessive. The shaft follows the copper vein. At no place in the shaft from the surface to the 125-foot level did the chrysocolla section of the vein extend beyond the shaft timbers on the hanging or footwall sides of the shaft. The average width is nearer 5 feet than 10 feet.

Houle took a number of samples which were accepted by the examiners without question. His conclusion was that the copper vein on the 125-foot level averaged less than 1 percent copper and less than 1 ounce silver, and that the barite vein averaged less than 1.0 percent MoO_3.

Houle stated "iron gossan and iron ores are conspicuous by their absence. ------The original sulphide mineralization was probably copper in the form of finely disseminated chalcopyrite. Pyrite or iron sulphide was not abundant and that accounts for the absence of iron outcrops and heavy iron oxides in the vein matter".

The examiners also were impressed with the lack of gossan material or vugs which might have contained pyrite or chalcopyrite. Chrysocolla with a little malachite starts at surface and extends to the 125-foot level, and is reported to continue to a depth of 265 feet. Evidence is lacking that a zone of secondary enrichment will be found with additional depth. The presence of chrysocolla and malachite in the upper part of the vein is definite evidence that leaching was incomplete. Houle admits that sulphide mineralization was small. The examiners agree with this and go one step further by stating that the evidence of sulphide mineralization is so small that the chrysocolla and malachite probably account for all of the copper that ever occurred in the vein. In other words, that oxidation of copper was in place and that no zone of secondary enrichment can be expected.

MINEABLE ORE RESERVES

The Rowley mine has no mineable ore reserves. Houle's sampling of the 125-foot level shows that the copper vein averages less than 1 percent copper and 1 ounce of silver, and that the barite vein averages less than 1 percent MoO_3. It is reported that the main inclined shaft followed the vein to a depth of 265 feet on the dip and showed no change in values or in character of the vein to that depth.

It is reported that one small car of copper ore was shipped with an average grade of 15 percent copper. There is one small stope in the Jobes inclined shaft, now inaccessible. This stope is reported to have produced wulfenite ore. It is roughly estimated that some 10,000 tons of material has been taken from the copper-bearing vein in the course of driving the various workings. The copper ore shipped was hand-sorted from this material.

The wulfenite concentrates came from perhaps 2,000 tons of material that was milled. A rough estimate of the tailing dump indicates that approximately this tonnage was treated. After more than 30 years exposure to erosion by water and wind, it is difficult to make accurate estimates of the tailings dump, particularly when such small tonnages are involved. It is safe to say that none of the material treated was ore in the sense that any profit resulted from its treatment. Molybdenum in the form of MoO_3 is less valuable today than during the First World War when this material was treated.

PRESENT STATUS

Prospect and Development

The exact footage of development work is unknown. The Rowley mine has 3 shafts. Inclined shaft No. 1 is 265 feet deep and was driven at an angle of 50 degrees. The Jobes inclined shaft is about 200 feet deep. The vertical shaft cut the vein at a depth of 200 feet.

The amount of drifting is unknown. It may be that as much as 1,850 feet of work has been driven. The 125-level, the only level not under water, follows the vein for 370 feet. The main shaft and the Jobes shaft are both in the vein. Some stoping was reported in the Jobes shaft. From several thousand tons of vein material, one small car of copper ore, averaging 15 percent, was shipped to a local smelter, and 30 tons of wulfenite concentrates, containing 18.26 percent of MoO_3, were shipped to a buyer in California. The concentrator comprised 2 tables and a Frue vanner. There is no record of the tonnage treated. From the amount of tailing in the dump it appears that at least 2,000 tons must have been milled. There is no building or equipment of any kind at the property.

The amount of diamond drilling is unknown. It has been noted that in 1923 Botsford recommended to Rice to drill 5 or 6 diamond drill holes. Reports available to the examiners show that holes No. 1 and No. 2 were drilled. These holes are vertical and are located 375 and 300 feet, respectively, east of the outcrop of the vein. The

applicant showed the examining engineers the location of holes known to him. The next day the examiners did some checking and found that the holes shown by the applicant were not holes Nos. 1 and 2 but represented additional holes that had been drilled on the property of which there was no record. It is most likely that these holes are Nos. 3, 4, and 5 of the 5 or 6 holes that Botsford recommended to Rice to drill. They are roughly in a line 600 feet east of the outcrop of the vein. The holes recommended by Houle are in a line approximately 300 feet east of these holes (See fig. 2).

The examiners found hole No. 1 and the approximate position of hole No. 2. The exact position of this latter hole was obliterated because of the need for leveling the ground for nearby mine structures.

PROJECT PROPOSALS WITH COSTS

The applicant wishes to drill the 3 holes recommended by Houle in his report dated Nov. 17, 1927. These holes are located in the southeast corner of the Daisy Cornelia claim and are in a line parallel to the side line and a few feet away from it. The most southerly of these holes is approximately 240 feet from the southeast corner of the claim. The next is 200 feet further north, and the third hole is 420 feet north of the firstmentioned hole. Houle estimated that these holes would cut the vein at a depth of 1,000 feet. He stated the vein has a dip of 45 degrees, whereas the actual dip of the vein is nearer 50 degrees. On the basis of a 50-degree dip it would require a hole approximately 1,100 feet deep to cut the vein from the applicant's proposed drill sites.

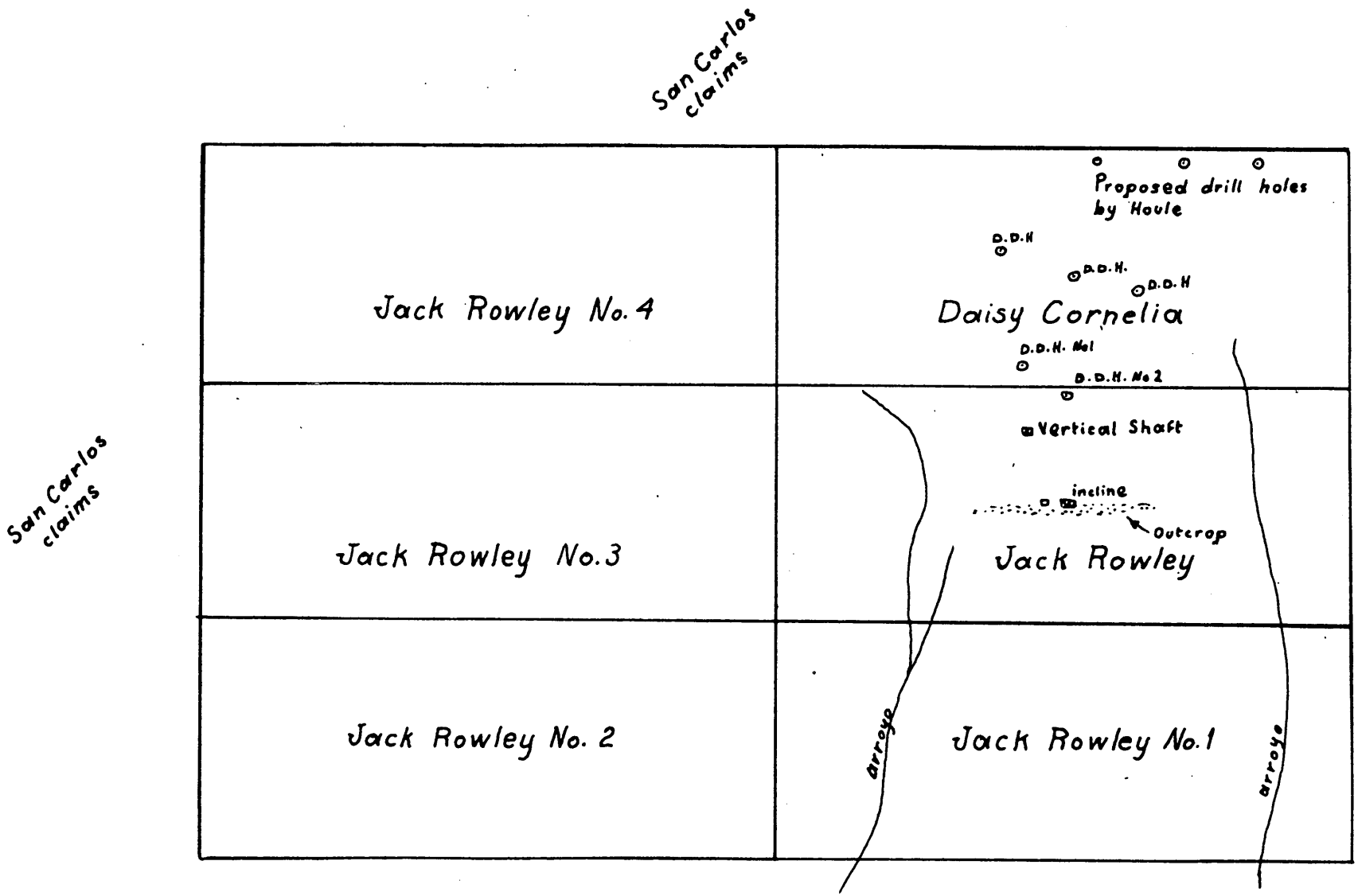

Fig. 2 JACK ROWLEY GROUP

scae 1" = 400'

Some months ago the Continental Diamond Drilling Co. estimated the cost of drilling at $5.00 per foot. The company at that time advised the applicant that after the first of the year the price per foot would be increased. It is probable that the new price will be $7.00 per foot. It is believed that the applicant will have to have an engineer at the property during most of the drilling campaign and particularly when drilling was being done in or near the vein.

There is a shortage of diamond drill operators. The current general practice has been to drill on day shift only. Drillers under these conditions usually wish to work 10 to 12 hours. On this basis they should average 25 feet per day, and two 1,100-foot holes should be drilled in 3 months. If drilling could be done on 2 shifts the time required would probably be reduced to 2 months. There would be no appreciable saving in the cost of drilling if drilling was done on 2 shifts because an engineer would be required on each shift. The only saving would be that the night shift engineer would not receive as high a salary as the day shift man.

In addition to a contract price of $7.00 per foot it is believed that supervision, transportation for supervisor, assaying, cementing hole, casing, etc., would cost $1.50 per foot, making the cost $8.50 per foot of hole drilled. Two holes would cost $18,700; three holes would cost $28,050.

The applicant stated he was not prepared to spend more than $7,500.

This means that only one 1,100-foot hole could be drilled at a cost of $9,350, half of which (or $4,675) would be for the account of the applicant.

CONCLUSIONS

The following is a list of Houle's conclusions with the opinion of the examiners relative to each:

1. "The ore deposit on this property will be one pipe or lense as indicated by the outcrop on the Jack Rowley claim. There are no indications that more than one ore body occurs along this fissure vein."

The examiners agree with this conclusion.

2. "The size of the ore shoot will be roughly 10 feet by 650 feet in cross section."

The examiners do not agree that the evidence as seen on the 125-foot level warrants the belief that the copper mineralization is 10 feet wide. They think the width is nearer 5 feet. Development on the 125-foot level shows weak copper mineralization for 370 feet in length. To increase this to 650 feet because of weak surface showings is optimistic. On the basis of Houle's estimate the possible tonnage is 500 tons per vertical foot of development. For a mine over 1,000 feet deep such a tonnage is exceptionally small.

3. "The ores of secondary enrichment can be expected at greater depth."

The examiners believe that the evidence on the 125-foot level is

contrary to such a deduction. They believe that it is very evident that the copper content of the vein has been oxidized in place. They believe that the present copper content of the vein represents what can be expected in the vein when the primary zone is reached. There will be no appreciable zone of secondary enrichment between the oxide and primary zones. Neither Houle nor the examiners were able to inspect the shaft below the 125-foot level where the water stands. The shaft is reported to be 265 feet deep and the copper content of the section below the 125-foot level is reported approximately the same as that above this level.

4. "Gold and silver values within the ore zone do not appear to be important."

The examiners agree with this conclusions.

5. "The leaching and oxidation indicates ore values will be concentrated into a small rich body of copper ore at greater depth."

As discussed under Conclusion 3 the examiners do not believe that there will be any appreciable amount of enrichment. From an inspection of the openings and the sampling records, they believe that the oxidized zone of the vein will run less than 1 percent copper, that the sulphide zone will run less than 1 percent, and that there will be no secondary zone of enrichment between these zones.

There was not the slightest question among the examiners as to the meaning of the indications on the 125-foot level. They believe that the evidence does not warrant the belief that a small rich ore body of secondarily enriched copper will be found in depth. They

think that the evidence indicates that there will be no zone of secondary enrichment and that the primary ore will be too low-grade to be of interest.

The 125-foot level is open and the mine is easily entered. It is not difficult to check the evidence which has lead to these conclusions.

RECOMMENDATIONS

It is true that the proposed expenditure is comparatively small and in view of the interest that the United Verde, the New Cornelia, and the United Verde Extension took in the property, it might seem that the drilling is warranted.

The examiners have studied the evidence and they believe that there is no possibility of opening up a body of high-grade secondarily enriched ore. They believe that a line of 3 holes was drilled only 300 feet from the line of holes proposed by Houle. No information regarding these holes is available. They may have encountered low-grade oxidized ore or they may have encountered low-grade primary sulphide ore. It is a certainty that they did not find ore which was sufficiently encouraging to warrant further exploration. The project died in 1923 after the completion of the diamond drilling campaign and no one has been sufficiently interested to do additional work since that time. The Government's role in the exploration of marginal projects, which show some small chance of success, is recognized. This project does notfall into that category and therefore, it is recommended that this application be denied.

DMA 1965 x Cu Pb Mo

Request by Act admin of DMA Reg IV to make exam. dated 12/12/51

M. J. Flaherty Com. M & B Bm.
W. J. Grisinold M & B Bm. exam 1/8 + 1/9/52
Jules A Mackallor USGS.

Report of Mackallor.

J H Sam } Field Team Reg IV
A. H Koschmann }
N H King acting chief Min Div Reg IV

Walter R Storm Chief Airs - N. Mex Branch.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

FILE COPY
SURNAME:

AIR MAIL

Mr. J. H. East, Jr.
Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Bldg.
Denver 2, Colorado

Re: Docket No. DMA-1965, Copper-Lead-Molybdenum
Jack Rowley ~~Fedrick~~ FREDERICK
938 South Orange Grove Ave.
Los Angeles 36, California

Dear Mr. East:

This is your authority to make a field examination of captioned Applicant's property in the Painted Rock District, Maricopa County, Arizona. We are enclosing one copy of the application and supporting exhibits. However, we can find only one copy each of the various exhibits therefore kindly return them to this office with the Field Team report when completed.

As you will note, Applicant proposes to let a contract for drilling three 1,000 foot holes at a cost of five dollars ($5.00) per foot. It is not clear however, whether Applicant has to furnish 1,000 ft. of "A" drill rods and 500 ft. of AX casing in addition to the contract price. A bid on the drilling ~~contract~~ should be obtained.

Another point to consider is whether there is a rake to the orebody and if so does the placement of the proposed drilling take the rake into consideration. It appears to us the location chosen for doing this drilling is too far from the present workings. Four or five holes might be drilled closer to Holes 1 & 2 for the same money, since they would be shorter, and thus afford a better picture of this deposit at depth.

If the adjoining claims immediately to the south belong to the Applicant, it is our opinion that these claims might benefit, should an important discovery be made, and therefore should be included in the project. Please check on this point.

Sincerely yours,

C. O. Mittendorf

ACTING Administrator
Defense Minerals Exploration
Administration

Enclosures

EWEllis/jem
11-26-51

12/3

APPROVED:
(signed) FRANK E. JOHNSON

Chairman, Operating Committee

cc to: Adm. Reading File
Reports & Records
Docket
Mr. Johnson, C. H.
Mr. McKnight, E. T.
Mr. Ellis

Member, Bureau of Mines

Member, Geological Survey

DMA-1965

Jack R. Fedrick — Nov. 14-1951
938 So. Orange Grove Ave.
Los Angeles Calif.

The Rowley Mine (Copper) Owned by Applic.
Arizona

$12,000 - 50-50

Date of Applic. - Aug. ?

Vincent A. Pepper (Called Pepper Nov. 26)
with Welch Mott & Morgan
EX 4600
Ericson Bldg.
710 - 14th St. N.W.

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

SEP 27 1951

Mr. Jack R. Fedrick
938 S. Orange Grove Avenue
Los Angeles, California

Re: DMA Docket 1965

Dear Mr. Fedrick:

This is to acknowledge your letter of September 25, 1951 requesting information as to the status of your application for a loan.

We wish to inform you that your application is being processed at present with due consideration for possible Government assistance. Since there are various persons and offices who review each application and also because of the shortage of personnel, there is a delay in informing applicants of the progress of their applications.

Very truly yours,

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

RVWaugh:pk
9/26/51

Copy to: Administrator's Reading File
Executive Officer, Region IV
Copper Branch
Files-DMA Docket

DEFENSE MI[illegible]
ADMINISTRATION
WASHINGTON, D. C.

SEP 25 1 38 PM '51

Jack Rowley Fedrick
938 S. Orange Grove Ave
Los Angeles, Calif.
25 Sept. 1951

The Defense Minerals Administration,
Department of the Interior,
Washington 25, DC.
attn: Copper Division:

Dear Sirs:

In reference to my application for an exploration loan, DMA 1965, has there been the time or opportunity to consider it?

If I may be of any service whatsoever, please let me know

Respectfully yours,
Jack R. Fedrick

6/5/51

Defense Minerals Administration 8-23-51

Review of Application for Exploration Assistance

Docket No. 1965

Commodity Copper - lead - molybdenum

Total Amount $15,000

Govt. Participation $7,500

1. Name and Address of Applicant Jack Rowley Fedrick
938 South Orange Grove Ave., Los Angeles 36, Calif.

2. Location of Property Painted Rock Dist., Maricopa County, Ariz.
25 miles from Gila Bend, Arizona

3. Mineral or metal Copper - Molyb. Is it listed in Section 9 of MO-5? yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination ✓

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? yes - owner
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? —

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? _____

b) MF-202 _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower don't know

b) Equipment and supplies don't know
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* yes

d) Water (question 13)* yes

e) Power (question 13)* yes

Is a field check needed on any of these points? yes - manpower & equipment

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* don't know - but it appears that applicant will have a Mining Engineer - Ray Dimmick as advisor

Is a field check needed on this point? Yes - ascertain Dimmick's position with respect to this project

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

Is this part a worthwhile exploration project? —

d) Are the cost estimates detailed? yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? yes If so, attach a draft.

e) Are the cost estimates reasonable? yes

f) Should more information be requested from applicant? Yes

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23-d)*

a) Is it applicable? No

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? if f & g not applicable, "e" - don't know

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? don't know

d) Is a field check needed? Yes - find out what may have to be done or brought before drilling starts

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? —

b) Is the schedule adequate for the work proposed? don't know

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? ?

e) Is a field check needed? No

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data?

c) Reasonable?

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? 1) check geologic feasability 2) have applicant get complete bid from drilling company & see what applicant may have to supply himself before company will start drilling & check to see if any costs will be incurred by the applicant during the drilling operation 3) Any other pertinant information

Are there possibilities for an enriched sulphide copper zone?

Reviewed by: Richard (W) Lewis
J B Lower

Date Aug. 23, 1951

97692

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. 1965

Commodity Copper - lead - molybdenum

Total Amount $15,000

Govt. Participation $7,500

1. Name and Address of Applicant Jack Rudolph Rudolph

128 South Orange Grove Ave., Los Angeles 36, Calif

2. Location of Property Painted Rock Dist., Maricopa County, Ariz

25 miles from Gila Bend, Arizona

3. Mineral or metal Copper - Molyb. Is it listed in Section 9 of MO-5? yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination ✓

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? yes - owner (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? —

Does the lease have sufficient time to run to cover a future productive period? —

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? _____

b) MF-202 _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Don't know

b) Equipment and supplies Don't know
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* yes

d) Water (question 13)* yes

e) Power (question 13)* yes

Is a field check needed on any of these points? yes - more [illegible] equipment

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Don't know but it appears that applicant will have [illegible] Engineer - Ra Dunnuck [illegible] advice

Is a field check needed on this point? Yes - [illegible] Dunnuck [illegible] with respect to this project

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

Is this part a worthwhile exploration project? —

d) Are the cost estimates detailed? yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? yes If so, attach a draft.

e) Are the cost estimates reasonable? yes

f) Should more information be requested from applicant? No

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23-d)*

a) Is it applicable? No

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? f & g not applicable; "e". don't know

b) Sufficient data? NO If so, attach a draft.

c) Are rents and charges reasonable? don't know

d) Is a field check needed? Yes find out what may have to be done or bought before drilling starts

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? —

b) Is the schedule adequate for the work proposed? don't know

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? ?

e) Is a field check needed? No

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data?

c) Reasonable?

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? 1) Check geologic feasibility
2) Have applicant get complete oil gas drilling company to see what applicant may have to supply himself before company will start drilling, I check to see if any oil will be removed by the applicant during the drilling operation
3) Any other pertinent information

Reviewed by: Richard W. Lewis

Date Aug 23, 1971

97692

DMA #1965

Exhibit A

Proposed Project

"To bore 3 diamond drill holes ..... near the east side line of the Daisy Cornelia claim on the south side of claim" These holes are to be sunk to a depth of 1000'.

Costs

3 holes 1000' deep @ $5.00/ft $15,000.00

DMA # 1965

Exhibit A

Proposed Project

"To bore 3 diamond drill holes ..... near the east side line of the Daisy Cornelia claim on the south side of claim" These holes are to be sunk to a depth of 1000'.

Costs

3 holes 1000' deep @ $5.00/ft $15,000.00

DMA # 1965

Exhibit A

Proposed Project

"To bore 3 diamond drill holes ..... near the east side line of the Daisy Cornelia claim on the south side of claim" These holes are to be sunk to a depth of 1000'.

Costs

3 holes 1000' deep @ $5.00/ft $15,000.00

A report by C. Swan of the USBM based on 1 day visit 11/13/42 concludes that the deposit has been sufficiently explored to discourage further exploration. He did not have access to all the data presented by Applicant

DMA 1965

Pertinent facts:

1. Strong vein, hangingwall 40' brecciated andesite with barite and small amount of galena and wulfenite, footwall 15' silicified andesite with stringers and seams veinlets and kidneys of oxidized copper minerals.

Vein said to be oxidized and leached at deepest point explored.

Pertinent questions:

Is vein leached of copper minerals? Has copper migrated? If so exploration to primary zone is justified!

JMG

DMA - 1965

Rowley Cu - Mo property

It does not seem to me that the property is described sufficiently. I do not find a map showing proposed work.

Unless it is assumed the Hoole 1927 report is presented as the proposal of the Applicant.

Question - is a 1% Cu + 10 oz Ag + X% MoO_3, worth exploring? I guess it is, but maybe better discuss this question

where market the ore,
or would it be hoped to
develop enough tonnage to
build a mill, or is it
hoped to find a rich
body of copper ore
well below the water
level?

Mike -

I'd like to discuss with you whether or not to refer this to F.T. I think probably should, but there are a number of reasons against this project, and maybe it should be denied for lack of promise.

"MINERAL EXPLORATION • TEST BORINGS • BLOWOUT HOLE DRILLING"

CONTINENTAL DRILLING COMPANY

DIAMOND DRILLING CONTRACTORS
1142 PACIFIC MUTUAL BUILDING
523 WEST SIXTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE VANDIKE 9055

R. F. THIES
MANAGER

July 17, 1951

Mr. John Frederick
938 South Orange Grove Ave.
Los Angeles 36, California

Dear Mr. Frederick:

After checking the drilling conditions on the Rawley Claims in Arizona we find that it will cost you $5.00 per foot to drill three 1,000 feet holes.

Yours very truly,
CONTINENTAL DRILLING CO.

RF Thies

RFT/ee

R. F. Thies, Manager

RAWLEY CLAIMS IN ARIZONA

Material required to do this work outside of what we can furnish there:

1,000 ft. of "A" Drill Rods

500 ft. of AX Casing

Mr. Jack Rowley Frederick
938 South Grove Avenue
Los Angeles 36, California

Subject: Rowley Mine
Re: Exploration Loan

My dear Mr. Frederick:

This will acknowledge receipt of your application dated August 15, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMA- 1965 and referred to the Copper Branch.

Kindly refer to DMA- 1965 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams

Robert E. Adams, Chief
Reports and Records Unit

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1965

Date received 8-15-51

Participation

Jack Rowley Fedrick
938 South Orange Grove Avenue
Los Angeles 36,
California

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 15 1951

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application 6 August 1951

Estimated cost $15,000

Mineral or metal Copper; lead ; molybdenum

Percentage of Government participation 50% - $7500

Location of mine Painted Rock District, Maricopa County, Arizona.
25 miles from Gila Bend, Arizona

Date of filing MF-100

DMA Docket Number, if available 1965

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

---------- By ----------
(Name of company) (Signature of authorized official)

---------- ----------
(Date) (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Jack Rowley Fedrick

1. Individual

2.& 3. --------

4. Applicant - Stanford University graduate; practical miner.
Ray Dimmick - Mining Engineer; General Manager Arizona mines; General Manager Apache Powder Co.

5. Owner

6. None

7. & 8. -------

9. $7,500; yes.

10. Both areas are the same. Patented mining claims: Da ley Corn ella, Jack Rowley, Jack Rowley No. 1, Jack Rowley No. 2, Jack Rowley No. 3, Jack Rowley No. 4, and a Jack Rowley Willaite, all being in Sections 24 and 25, Township 4 South Range 8 East in the Painted Rock District in Maricopa County, Arizona.

11. Rowley or Reliance Mines.

12. This is fully presented in the report by Arthur Houle, included in these reports.

13. Artesian wells; Gila River. The drill is to be run by gasoline. However, there is a power line close.

14. None.

15. This is contained in the reports. Ajo is only 75 miles away.

16. This information is all contained in the reports.

17. & 18. ------

19. None

20. Copper; lead-wolfenite; molybdenum.

21. Sink three diamond drill holes to a depth of 1000 ft., as recommended. Estimated time would be two months.

22. Included in the reports.

23. Cost would be $5 per foot, or $5000 per hole; total of three holes would be $15,000, as shown in the letter from the Continental Drilling Co.

24. Estimated time is two months.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1965

Date received 8-14-51

Participation

Jack Rowley Fedrick
938 South Orange Grove Avenue
Los Angeles 36,
California

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 15 1951

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application 6 August 1951

Estimated cost $15,000

Mineral or metal Copper; lead; molybdenum

Percentage of Government participation 50% - $7500

Location of mine Painted Rock District, Maricopa County, Arizona.
25 miles from Gila Bend, Arizona

Date of filing MF-100

DMA Docket Number, if available 1965

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted and the expenditure of funds which may be charged as costs of the project must be limited to that area of work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

---------- By ----------
(Name of company) (Signature of authorized official)

---------- ----------
(Date) (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Jack Rowley Fedrick

1. Individual.

2.& 3. --------

4. Applicant - Stanford University graduate; practical miner.
Ray Dimmick - Mining Engineer; General Manager Arizona mines; General Manager Apache Powder Co.

5. Owner

6. None

7. & 8. -------

9. $7,500; yes.

10. Both areas are the same. Patented mining claims: Daisy Cornelia, Jack Rowley, Jack Rowley No. 1, Jack Rowley No. 2, Jack Rowley No. 3, Jack Rowley No. 4, and a Jack Rowley Millsite, all being in Sections 24 and 25, Township 4 South Range 8 West in the Painted Rock District in Maricopa County, Arizona.

11. Rowley or Reliance Mines.

12. This is fully presented in the report by Arthur Houle, included in these reports.

13. Artesian wells; Gila River. The drill is to be run by gasoline. However, there is a power line close.

14. None.

15. This is contained in the reports. Ajo is only 75 miles away.

16. This information is all contained in the reports.

17. & 18. ------

19. None

20. Copper; lead-wulfenite; molybdenum.

21. Sink three diamond drill holes to a depth of 1000 ft., as recommended. Estimated time would be two months.

22. Included in the reports.

23. Cost would be $5 per foot, or $5000 per hole; total of three holes would be $15,000, as shown in the letter from the Continental Drilling Co.

24. Estimated time is two months.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMA 1965

Date received 8-15-51

Participation

Jack Rowley Fedrick
938 South Orange Grove Avenue
Los Angeles 36,
California

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 15 1951
Date

Name and address of applicant

FILL IN THIS BLOCK

Date of application 6 August 1951

Estimated cost $15,000

Mineral or metal Copper; lead ; molybdenum

Percentage of Government participation 50% - $7500

Location of mine Painted Rock District, Maricopa County, Arizona.
25 miles from Gila Bend, Arizona.

Date of filing MF-100

DMA Docket Number, if available 1965

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
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24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

---------- (Name of company) By ---------- (Signature of authorized official)

---------- (Date) ---------- (Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

1. Individual.

2.& 3. --------

4. Applicant - Stanford University graduate; practical miner.
Ray Dimmick - Mining Engineer; General Manager Arizona mines;
General Manager Apache Powder Co.

5. Owner

6. None

7. & 8. --------

9. $7,500; yes.

10. Both areas are the same. Patented mining claims: Da isy Corn elia, Jack Rowley, Jack Rowley No. 1, Jack Rowley No. 2, Jack Rowley No. 3, Jack Rowley No. 4, and a Jack Rowley Millsite, all being in Sections 24 and 25, Township 4 South Range 8 West in the Painted Rock District in Maricopa County, Arizona.

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22. Included in the reports.

23. Cost would be $5 per foot, or $5000 per hole; total of three holes would be $15,000, as shown in the letter from the Continental Drilling Co.

24. Estimated time is two months.

Concrete Products & Building Materials

Division of

The Elgin Corporation

104 North Texas Street
Silver City, New Mexico
April 5, 1949

Mr. R. L. Dimmick
Apache Powder Company
Title Guarantee Building
Los Angeles 13, California

Dear Rae:

Enclosed please find the reports and the data concerning the Rowley Mine near Gila, Arizona.

Although the data you sent me is extremely interesting and indicated that the property justifies exploration, our friend Mr. Hershman informs me from New York that financial interests at this time are extremely reluctant to undertake any new ventures. It appears, therefore, that I will be unable to take any action regarding the Rowley Group of claims at present. I will keep the property in mind, however, and if the opportunity presents itself at a later date to take any action, I will contact you again.

Thanking you for this and other favors.

Yours very truly,

Robert A. Elgin

R.A. Elgin

RAE:e

ROBERT A. ELGIN
ENGINEER OF MINES

104 North Texas Street
Silver City, New Mexico
December 13, 1948

Mr. R. L. Dimmick
411 West Fifth St.
Los Angeles, California

Dear Ray:

My apoligies for the delay in acknowledging receipt of the Rowley Mine reports. I am so seldom in my office that I have difficulty in keeping up with my correspondence.

The report by Arthur Houle was of particular interest. The reports by Edwin Walters certainly illustrate the type of reporting that gave mining promotions their bad name.

Mr. Hershman read the reports carefully and is now in New York where he will discuss the Rowley and other properties with his associates and clients. You met him at El Paso, and it is through him that I felt we might get some action on the property.

It will take a little time to get any action, Ray, so if you see anyone in the meantime who might be interested, I will return the reports for their consideration. If Mr. Hershman is successful in getting the group of associates together that he has in mind, I think it quite probable they will take some definite action regarding the Rowley.

Has Jack Fedrick indicated what type of deal he would consider on the property? I am sure it would have to be one involving no cash payments during an exploration period. Do you know Fedrick personally, Ray?

I will try to keep you informed of the progress being made on the property. In the meantime, kindest regards and best wishes for the holiday season.

Sincerely,

Bob Elgin

ROBERT A. ELGIN
ENGINEER OF MINES

104 North Texas Street
Silver City, New Mexico
Nov. [illegible], 1[illegible]

Mr. [illegible] Dinwick
411 West Fifth St.
Los Angeles 13, California

Dear Bob:

It was [illegible] a pleasure to see you [illegible] at the A.I.M.E. meeting at El Paso, and have a chance to gather news about our mutual friends.

I am looking forward to receiving the reports on the copper property here you mentioned. There is a good chance that I can do something with it if the present owner is of a more reasonable disposition than his father.

I would like very much to have Dave's address at Phoenix as I would like to write to him.

With kindest regards.

Sincerely,

Bob Elgin

608 East 5th Street,
Los Angeles, Calif.,
June 25, 1929.

Mr. Tracy D. MacGregor,
1465 Brush Street,
Detroit, Michigan.

My dear Mr. MacGregor:

As you know, Miss Sparks and I have been trying for a long time to get a large mining company to take over the Reliance and San Carlos mining properties on a stock basis. The properties have been put up to several large companies, and of these, three to my knowledge have been interested; two of them making a cash offer only, which we did not accept. The third one, the United Verde Extension Mining Company of Jerome, Arizona, which is now interested, has offered a stock interest, and to my mind, a very liberal one. They offer you 10% of the stock in a company to be formed for your property, and we are asking the same amount for the San Carlos property.

Yesterday I talked with Miss Sparks over the telephone and she said your letter had just been received in which you feel that 15% is about the minimum the bond holders should obtain for the Reliance property.

I will grant that 10% does not seem to be a very large proportion, but when this interest is in a fine mine, backed by a company with unlimited financial means and the finest mining ability and integrity, it may be much more valuable than a much greater interest in the same mine with a company having limited means and mediocre ability.

It happens that the Reliance and San Carlos properties are so located that, apparently, no large company will take one without the other; at least, without some of the claims of the other. Such a company will not spend a great amount of money proving up the territory there, unless it has all the promising adjoining acreage.

Mr. Kingdon, the General Manager of the United Verde Extension Mining Company, says they expect to spend at least one quarter of a million dollars proving a mine is really there. When this is proved, then a very large amount will have to be expended to make the mine a producer.

As you know, it is very hard to get a large mining company interested in a property which is idle and has had such an unfortunate career as the Reliance. But, we now have this company ready to go ahead with an immediate examination of the properties, which I believe is to determine more where to start development than anything else, just as soon as the option from the Reliance is received. They already have an option from the San Carlos.

Surely, we should take advantage of this good fortune and not risk delay, which may have very disastrous results. Any day a property may be presented to them which might demand all of their attention and cause them to pass up our properties.

From my conversations with Miss Sparks, I am confident she is willing to accept the 10% interest, if you, who are the largest bondholder, will give your approval.

I am writing to you with the sanction of Miss Sparks, and am forwarding her a carbon copy of this letter.

Trusting you will see the feasibility of accepting the 10% stock interest and with very kind regards, I remain

Most sincerely yours,

666 East 5th Street,
Los Angeles, Calif.,
June 18, 1929.

Mr. George Kingdon, General Manager,
United Verde Extension Mining Co.,
Jerome, Arizona.

My dear Mr. Kingdon:

In accordance with our conversation of June 5th and your letter of June 15th, we herewith offer you a 90 days option, beginning today, upon the property of the San Carlos Copper Mines Co., consisting of 27 unpatented lode mining claims, situate and locate in the Painted Rock Mining District, Maricopa County, Arizona, for the following purposes:

1. To examine said property and determine within that time whether or not you desire to enter into a working agreement with the owners, or acquire the same from them.

2. If, within that time, you desire to acquire the property, we, as owners, agree that you may do so upon the following terms:

You to form a corporation to take over both the Reliance and San Carlos properties; all of the said San Carlos property will be deeded to this corporation, title clear, for a stock consideration of 10% in the above corporation.

3. Upon your exercising your option, we will enter into such agreement regarding the development of the property as we shall then mutually agree.

Trusting the above is satisfactory and thanking you, we are

Yours very truly,

San Carlos Copper Mines Co.

By Pres.

608 East 5th Street,
Los Angeles, Calif.,
June 18, 1929.

Mr. George Kingdon, General Manager,
United Verde Extension Mining Co.,
Jerome, Arizona.

My dear Mr. Kingdon:

Yesterday, after receiving your letter of June 15th, I called up Major Pickrell's secretary, Miss Dolan, and she turned me over to Mr. H. M. Coffin, Secretary of the Bank who handles the Major's affairs in his absence. I later went to see him, when he read me the letter you wrote to the Major and suggested that I have Miss Sparks come in to sign for the papers you referred to.

I arranged for Miss Sparks to meet him yesterday afternoon, and we three discussed the situation, he reading your letter again to us. He said the papers received were the options which Miss Sparks and I had submitted to you, and therefore probably should be kept for the Major's files. He suggested that we at once send options to you as requested.

Later yesterday I talked with Miss Sparks about accepting 10% of the stock for the Reliance property, and she says she has already telegraphed Mr. McGregor in Detroit, the main bond holder of the Reliance, asking him if he will accept that amount. As yet, she has not heard from him, but I believe they will accept the 10% stock interest.

Regarding the 10% we ask, as I understand it and as Miss Sparks also sees it, you will form a corporation which will take over both properties, the Reliance and the San Carlos, giving for them a combined interest of 20% of the stock of this corporation. We are asking for one half of this amount, or 10% of the stock; the other one half or 10% going to the Reliance people. This is in line with the idea outlined by Mr. Douglas and it seems to be perfectly fair to all concerned.

Miss Sparks says she will let me know as soon as she hears from Mr. McGregor, and I will then immediately see that you are notified. She should hear any time now.

I wish to thank you for your courtesy and the interest you have taken in this matter and assure you that I will do all that I possibly can to help successfully complete the deals.

With very kind regards, I remain

Most sincerely yours,

608 East 5th Street,
Los Angeles, Calif.,
January 21, 1928.

Mr. M. Curley, General Manager,
New Cornelia Copper Company,
Ajo, Arizona.

My dear Mr. Curley:

In reply to your letter of the 17th instant, as I explained to you over the telephone Thursday the 19th, we do not wish any cash consideration for our property. We much prefer to take a chance on the success of the proposition, by obtaining a minority stock interest in the company you would form after you had determined, by diamond drilling, that there was justification for extensive development.

The San Carlos Copper Mines Co. is incorporated under the laws of Arizona with a capitalization of $2,500,000.00, divided into 2,500,000 shares of a par value of $1.00 each. A large majority of the authorized issued stock belongs to my Mother, I having power of attorney for it, so that a deal can be consummated without delay.

I am more than willing to go to Arizona at any time, to discuss the matter with you, or if you could come to Los Angeles, I am sure that you, Miss Sparks and I could immediately come to a satisfactory agreement, so that you could at once start operations.

Trusting the above is satisfactory and thanking you, I am

Yours very truly,

Charles A. Rowley

MICHAEL CURLEY
MANAGER

W. L. DUMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA January 17 - 1928.

Mr. Chas. A. Rowley
608 East 5th Street,
Los Angeles, California.

Dear Mr. Rowley.-

I thank you very much for your letter of the 14th instant, attaching print taken from the note book of Mr. George Kislingbury on his examination of the Rowley property.

Yours very truly,

M. Curley

Manager

MICHAEL CURLEY
MANAGER

W. L. DUMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA January 17 - 1928.

Mr. Charles A. Rowley, President,
San Carlos Copper Mines Co.,
608 East 5th Street,
Los Angeles, California.

Dear Mr. Rowley.-

I have your letters of the 10th instant and have noted the contents carefully.

It is not our intention if we should secure an option on your property to form a new company to develop it. I would expect the exploratory work would be taken care of by this company. I know that you have a realization that diamond drilling is but preliminary work and if any ore should be found, it would take a long time to sink a shaft to develop it and we should, therefore, have a long time lease with definite terms as to payment for your property.

After considering this will you please let me hear from you.

Yours very truly,

Manager

608 East 5th Street,
Los Angeles, Calif.,
January 14, 1928.

Mr. M. Curley, General Manager,
New Cornelia Copper Company,
Ajo, Arizona.

My dear Mr. Curley:

I am herewith enclosing a print, which may be of interest, it being taken from Mr. George Kislingbury's note book, he allowing my Mother to have a plate made of the notes.

Mr. Kislingbury, who died last July, was a mining engineer with offices for many years in the Wilcox Building here. He examined the mine, the now Reliance property, in 1908, the inclined shaft then being down about 60 feet, and was very enthusiastic over it. He then made my Mother a very attractive offer for the property, but the deal was not consummated, Mother selling it instead to the parties who formed the Howley Copper Mines Co.

Mr. Kislingbury has told me, that had his people got the mine, it would have been a producer many years ago.

Regarding the piece of ore which I sent you, it is that which I spoke to you about in Los Angeles recently, it having been picked from the drift, at water level, in the Reliance property, by Mr. Houle.

If there is anything I can do to assist in bringing the deal to a satisfactory consummation, I shall be only too glad to do it. I will be glad to go to Arizona, anytime, to consult with you, if you wish, at, of course, my own expense.

Thanking you for what you have done and with kind regards, I am

Yours very truly,

MICHAEL CURLEY
MANAGER

W. L. DuMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA October 23 - 1927.

Mr. Charles A. Rowley,
608 East 5th Street,
Los Angeles, California.

Dear Mr. Rowley.-

I have arranged to have an examination made of the Rowley property.

Please advise what day you will be at the property, so that our man can meet you there.

Yours very truly,

M. Curley/K.
Manager.

dictated but not read.

MICHAEL CURLEY
MANAGER

W. L. DeMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA October 20 - 1927.

Mr. Charles A. Rowley,
608 East 5th Street,
Los Angeles, California.

Dear Mr. Rowley.-

I have written the geologist whom I had in mind to examine the Rowley the property and on reply from him will advise you, so that you may be on the ground when he is ready to make this examination.

With kind regards, I am,

Yours very truly,

Manager.

MICHAEL CURLEY
MANAGER

W. L. DUMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA April 23 - 1928.

Mr. C. A. Rowley,
608 East 5th Street,
Los Angeles, California.

Dear Mr. Rowley.-

I am in receipt of your letter of the 12th instant, with comments on my letter to you relative to your terms and the terms of Miss Sparks for the Reliance Copper Company for the option of developing your ground and the payments to be made.

This matter was taken up with my people and the terms under which they state they would take an option on the property were so very much lowerthangiven by you, that I do not feel that I should go any further in trying to negotiate for an option to develop your property.

I again wish to thank you for your courteous consideration in this.

With kind regards.

Very truly yours,

Manager.

608 East 5th Street,
Los Angeles, Calif.,
April 12, 1928.

Mr. M. Curley, General Manager,
New Cornelia Copper Company,
Ajo, Arizona.

My dear Mr. Curley:

I have your letter of the 10th instant, and note what you say regarding the terms: namely, that the length of the option was satisfactory, but the price consideration was too excessive. This applying to both propositions, that of Miss Sparks, and mine. Miss Sparks read to me the letter she received from you.

Mr. Curley, inasmuch as both Miss Sparks and I have submitted propositions to you, which have not been acceptable, would you please advise me the cash terms that would interest your people for each proposition, and I will immediately submit same to Miss Sparks and see what can be done.

This seems to be the quickest way to get the deal under way. Of course, if you could come to Los Angeles, it would greatly facilitate matters.

Trusting to hear from you at your earliest convenience and thanking you for what you have done in the matter, I am

Yours very truly,

C.A.Rowley

MICHAEL CURLEY
MANAGER

W. L. DUMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA April 10 - 1928.

Mr. C. A. Rowley,
608 East 5th Street,
Los Angeles, California.

My dear Mr. Rowley.-

When you called over Long Distance telephone yesterday the directors of this company were holding a meeting and I did not have a chance to talk to you.

I have heard from Miss Sparks and she has given me the terms under which they would option the property for a cash consideration. The time of the option was of sufficient length, but my people would not be interested in the property at the price mentioned.

This decision would also apply to the proposition made in your letter of the 3rd ultimo.

I wish to thank you for your kind consideration to Mr. Houle and myself in this matter.

Very truly yours,

MANAGER.

MICHAEL CURLEY
MANAGER

W. L. DuMOULIN
GENERAL SUPERINTENDENT

G. H. PURCELL
CHIEF CLERK

NEW CORNELIA COPPER COMPANY

AJO, ARIZONA March 30 - 1928.

Mr. C. A. Rowley,
608 East 5th Street,
Los Angeles, California.

Dear Mr. Rowley.-

I have your letter of the 27th instant.

As soon as I receive a definite reply from Miss Sparks,

I shall be able to write you definitely.

Yours very truly,

Manager

608 East 5th Street,
Los Angeles, Calif.,
March 27, 1928.

Mr. M. Curley, General Manager,
New Cornelia Copper Company,
Ajo, Arizona.

My dear Mr. Curley:

I have not received an answer from you with reference to my letter of March 3rd, but suppose you are waiting to receive the one from Miss Sparks before answering it.

Miss Sparks received a letter from the main bondholder, and he was rather disposed not to sell outright, although he did not positively say he would not. He wanted a reply from Miss Sparks as to how she felt about it. She has answered his letter, advising that the property be sold to you, providing proper terms can be had. I believe you should have her answer within probably a week.

I am mighty sorry that there has been such a long delay on our part, but it seems that it was unavoidable.

We are very anxious for you to start operations down there, for all of us have great faith in the outcome of the property, with your company developing it.

Assuring you that I am doing and am ready at any time to do, all in my power to assist matters in any way possible, and thanking you, I am

Yours very truly,

608 East 5th Street,
Los Angeles, Calif.,
March 7, 1928.

Mr. M. Curley, General Manager,
New Cornelia Copper Company,
Ajo, Arizona.

My dear Mr. Curley:

Miss Sparks received your letter relative to a cash consideration for the property, but felt it advisable to consult some of the bond holders before she made her reply to you.

She has written them, and as soon as she receives answers, which will probably be the latter part of this week, she will then communicate at once with you.

I feel that she will be able to make you a cash proposition, and in which case, I hope we will be able to consummate the deal soon. If it will expedite matters, I will be very glad to go to Ajo, or if you could come to Los Angeles, I believe we could get the deal closed without delay.

Thanking you for what you have done in the matter, I am

Yours very truly,

C.A.Rowley

608 East 5th Street,
Los Angeles, Calif.,
March 3, 1928.

Mr. M. Curley, General Manager,
New Cornelia Copper Company,
Ajo, Arizona.

My dear Mr. Curley:

We have your letter of February 24th, stating that your company will be interested in our property, only on the basis of a long time option and a cash price, if the option is exercised.

As you know, we have great faith in the ultimate success of the property, and would much prefer to have you organize a company on it, and pay us in stock only. However, even though you do not intend to form a company on the property at the present time, is it not possible that you may do so later?

With this in mind, cannot we give you a long time option on the property, and a cash consideration, with the proviso, that should you, at any time, form a company on the property and offer the stock for sale, you will let us have the privilege of subscribing for an amount of stock equivalent to the total purchase price of our property, or any part of it, at the lowest inside price that it is offered to any one and before it is offered to the public? This to be in effect, should the company be formed either before or after the total cash payments are made by you for our property. If you will allow us to do this, we would then be able to share in the success of the property.

We therefore offer to you the four claims, known as Isadora, Charles A, Hilltop, and Gold Hill for a total cash consideration of One Hundred Thousand ($100,000.00) Dollars, with the option to run for three years. Your company to make a payment within six months from the signing of the contract of $5000.00, and every six months thereafter of $10,000.00 until the completion of the option, when the balance shall be paid. Of course, should you form a company on the property before the termination of the option, and we purchase stock in it, as above stated, the amount of our stock purchase to be deducted from the final payment due us.

Trusting this is satisfactory and thanking you, we are

Yours very truly,

San Carlos Copper Mines Co.

Pres.

608 East 5th Street,
Los Angeles, Calif.,
November 26th., 1926.

Mr. Robert F. Tally, General Manager,
United Verde Copper Company,
715 Lorraine Blvd.,
Los Angeles, Calif.

My dear Mr. Tally:

Referring to our discussion of November 24th, regarding terms for the San Carlos property, consisting of 27 mining claims, we herewith submit the following:

We to deed your company a 55% interest in our property for the expenditure of an amount to be agreed upon, on either the Reliance or the San Carlos property, as you prefer.

If a larger expenditure than the above is needed to further develop either or both properties and to make the combined two properties a self sustaining producer, we will again deed to your company an additional 15% of our property, making your interest in the San Carlos property 70% and ours 30%.

This 30% interest in the San Carlos property we are to retain, permanently, regardless of any further additional expenditures.

We understand, of course, that if the Reliance and the San Carlos properties are consolidated into one group, our interest in this combined unit will then become one half of what it is in the San Carlos group alone. Our 45% interest becoming a 22½% interest and our 30% permanent interest in the San Carlos property would then become a 15% permanent interest in the consolidated group.

Trusting the above is satisfactory and thanking you very much, we are

Yours very truly,

San Carlos Copper Mines Company.

President.

UNITED VERDE COPPER COMPANY

CLARKDALE, ARIZONA.

November 17, 1926.

Mr. Chas. A. Rowley,
608 E. Fifth St.,
Los Angeles, Calif.

Dear Mr. Rowley:

Referring to our discussion of November 15, regarding the development of the San Carlos and Reliance properties, we will be glad to make arrangements for the development of these properties on the bases that a 55% interest in each property be deeded to us in view of our financing the development program, and that we be given a three-year option on the remaining 45% of the stock, as follows: $100,000 for the San Carlos and $100,000 for the Reliance stock.

At this time I cannot advise the amount that we would care to expend on the development of these claims, except to say that we will convince ourselves whether the properties have any real merit or not.

If these terms are satisfactory, please advise, and our attorneys will submit the necessary options.

Yours very truly,

Robt. C. Tally

General Manager.

cc WVDeC
Miss Carrie L Sparks

COPY

UNITED VERDE COPPER COMPANY

CLARKDALE, ARIZONA,

November 17, 1926.

Miss Carrie L. Sparks,
1905 Los Robles,
San Marino,
South Pasadena, Calif.

Dear Madam:

I enclose herewith copy of letter to Mr. Rowley, regarding the San Carlos and Reliance properties.

If you are interested in the terms as stated in this letter, I will be glad to arrange for an option and the subsequent development of your property.

Yours very truly,

Robt. C. Tally.

General Manager.

cc WVDeC
Chas A Rowley ✓

W. B. GOHRING
PHOENIX, ARIZONA

May 29, 1926

Mr. R. E. Tally,

Jerome, Arizona.

Dear Bob:

I think I can save you the expense of a preliminary examination of the Rowley, as I had the mine unwatered in 1923 and looked it over. Mr. Botsford, of the Inspiration Company, a short time before, also made a brief inspection of the property and wrote a report. This was in behalf of W. G. Rice, who controlled the Superior and Boston formerly, and who, in 1923, was trying to finance the Reliance Mining Company, which is the Rowley mine.

I am enclosing both Mr. Botsford's and my own report. Please return Mr. Botsford's report at your leisure; I have an extra copy of my own.

I am very much surprised at the report by Sill and Sill, that you sent me. It is absolutely inaccurate, as there is no mineable ore tonnage developed in this mine, as he states. There are little hatfuls of galena here and there on one side of the vein, and I suppose it would be possible for them to ship from this a carload of ore taken from all over the workings, but that would be the limit. The copper bearing side of the vein is a red oxidized leached formation, showing quite a general stain of copper here and there, but I dont believe one could mine any ore. The vein is, however, a very impressive looking affair, and should make ore at greater depth. If it does, it should make a big mine, as it is a very wide vein.

A little over a year ago Bill Rice wrote me that he was still attempting to do something on his Reliance Company. I assume it is with Rice that Mrs. Rowley plans to deal when she speaks of going east to buy the bonds. I will write Mr. Rice to-day and find out the present status of his connection with the mine, and my suggestion is that meanwhile you stall Mrs. Rowley off.

By the way, Rice put a diamond drill on the surface to explore the vein at depth, and the results were negative as he said the vein was faulted. I will try to get this drill information from him also.

With kindest regards,

Yours very truly,

W. B. Gohring

Enclosures

W. B. GOHRING
PHOENIX, ARIZONA

August 18, 1926

Mr. Charles Rowley,
608 East Fifth Street,
Los Angeles, California.

Dear Mr. Rowley:

Owing to the fact that Mr. Tally's duties have kept him in the east, and in Butte, throughout the summer, and also to the fact that he will not be here for two months yet, it is almost useless for me to attempt to take up the mining deal with him until later. I know he is interested, but I can not get any action until he gets these other matters off his mind.

I do not want to tie you up, but I thought it best that you should know exactly why you have heard nothing from us. Later on, if the property is still available, we will get Mr. Tally's attention, and I will take it up with him.

With kindest regards,

Yours very truly,

W. B. Gohring

W. B. GOHRING
PHOENIX, ARIZONA

July 7, 1926

Mr. Charles Rowley,
608 East 5th Street,
Los Angeles, California.

My dear Mr. Rowley:

I have your letter of June 26th, with map.

It is going to be impossible to make much progress in this matter for a week or so, owing to the pressure of other matters, but Mr. Tally and I will go into it thoroughly some time this month, and will advise you later.

Yours very truly,

W. B. Gohring

608 East 5th Street,
Los Angeles, Calif.,
July 6th., 1926.

United Verde Copper Co.,
Jerome, Arizona.

Gentlemen: Attention Mr. L. R. Sunderland.

I have your letter of July 2nd, and am very glad that you have examined the data on the Rowley and San Carlos mines.

Regarding the water in the mines, the shaft on the San Carlos mine has been sunk to water level, about 230 feet on the incline, but has not been sunk below it.

Water was encountered in the Rowley mine at about 145 feet in the incline shaft, but the shaft was sunk about 100 feet below water level.

In the Rowley mine, there have been driven several hundred feet of drifts, along the ledge, and also cross cuts and stopes.

In the drifts and cross cuts at water level, the vein shows up to every advantage, and the stopes show the magnitude of the vein. At this level, there is a cross cut that connects the drift with the vertical shaft.

Below water level, the vein increases in width and carries greater values. Mr. C. J. Price, who examined the mine, and whose report you now have, was at the bottom of the incline shaft. I was with him at the time of his examination, and he stated in his report that the mine had every possibility of making a big producer. In fact, he compared it favorably with the United Verde, which, of course, seems too enthusiastic a comparison.

The reason the incline shaft was not continued down, was, as I understand it, due to inadequate machinery, improper management, and lack of sufficient funds to properly equip the mine and proceed along scientific lines. The idea being to ship ore, make the mine pay from the start, in order to sell more stock.

There was sunk another incline shaft about 100 feet north east of the original incline shaft. From this shaft a large quantity of molybdenum ore was taken out. A mill to concentrate it was erected, but as Mr. Rush Sill says, it was exactly the opposite type of mill than the one suited for such ore.

The vertical shaft has been sunk to about 250 feet. At about 190 feet from the surface, a large quantity of high grade lead ore was encountered, it being shipped to the smelter. At this level, a cross cut was driven for several feet. It shows up very clearly the vein construction, and was seen by both Mr. Gohring and Mr. Botsford of the Inspiration Consolidated.

We would like very much to have you make an examination of the property, for I believe there is enough showing above water level to give you an accurate idea of the possibilities of the mine. Mr. Rush Sill, who examined the mine and whose report you have, did not see below the water level, and was very much impressed with the showing.

Many mining engineers have examined the mine, among them being Mr. Gohring, Mr. Botsford, Mr. Beckwith, Mr. Stockder formerly with the American Smelting & Refining Co., Mr. Rush Sill and Mr. George Kislingbury of Los Angeles, and they have all pronounced that it has the making of a fine producer.

From what I can learn and have seen, it seems to be a very fine mine awaiting scientific development by some company with money and mining ability, and I feel certain that if your company will take over the property, that it would soon become one of the big producers of Arizona.

If you decide to examine it, and think that I can be of any service, I will be very glad to meet you in Gila Bend and take you to the property, and assist in every way possible.

If you wish, my Mother, who knows the mine thoroughly, will be glad to meet you in Jerome, at any time, and carefully explain all details to you.

I am anxious to have you examine the mine, for I feel certain if you do, that you will like it, and it seems that now is the opportune time to take over the properties.

Trusting you will decide to examine it and awaiting to hear from you at your convenience, I am

Very respectfully yours,

Charles Rowley.

UNITED VERDE COPPER COMPANY
JEROME, ARIZONA

July 2nd. 1926

Mr. Charles Rowley,
608 East 5th. Street,
Los Angeles,
California.

Dear Sir:-

Your letter of June 26th. 1926, to Mr. De Camp Was refered to me for reply.

I have gone over the reports, maps and assays of the Rowley and San Carlos Mine most thoroughly and find the very interesting.

From your letter and the reports I get the idea that the mines are under water from the 230 level down, I would like to have more definite data on this point because if the mines are not sufficiently open it would not pay us to make an inspection.

In your answer will you kindly state at what point the water stands at the present time.

I am
Very truly yours.

L. R. Sunderland.
Field Engineer.

Carbon copy

608 East 5th Street,
Los Angeles, Calif.,
June 26th., 1926.

United Verde Copper Co.,
Jerome, Arizona.

Gentlemen: Attention Mr. DeCamp.

I reached Los Angeles June 23rd, and have had blue prints made of the groups of claims, and herewith enclose one. I also enclose the report by Mr. Rush Sill, which I spoke to you about. With a view of determining the value of the San Carlos property, Mr. Sill also examined the "Jack Rowley" mine, and was very enthusiastic in his remarks regarding it.

As I suggested to you in Phoenix, I believed that the bondholders of the Reliance Mining Company would be willing to make a satisfactory deal with you, and from what Mr. Gohring writes, the bondholders have turned over their interests to Mr. W. G. Rice to handle for them, and that he is in a position to make a very satisfactory proposition with you. I am sure that agreeable terms can be arranged with him.

My Mother, who entirely controlls the San Carlos property, is ready to go to Arizona to arrange terms with you, at any time.

Regarding the Obsidian claims, which are shown on the blue print, they were taken up about five years ago, by the then Rowley Copper Mines Co., with the idea in view, as I understand it, of having more claims than the original six patented ones, when a reorganization of the company was made. The Reliance Mining Co. was later formed, taking over the stock and property of the Rowley Copper Mines Co.

The large four compartment incline shaft is in the center of the "Jack Rowley" claim, and all of the shafts and underground workings are on this claim.

The main shaft of the San Carlos group is located in the center of the San Carlos claim, which adjoins the "Jack Rowley" claim on the south east. This is an incline shaft, down 230 feet, to water level.

If there is any further way in which I can be of assistance, please let me know and I shall be very glad to do all that I can.

Thanking you for what you have done and trusting that all will work out satisfactorily and awaiting to hear from you at your convenience,

I remain
Very respectfully yours,

608 East 5th Street,
Los Angeles, Calif.,
June 26th., 1926.

Mr. W. B. Gohring,
419 Heard Bldg.,
Phoenix, Arizona.

My dear Mr. Gohring:

Mother received your letter of June 18th, relative to the Rowley and San Carlos mines, and was very glad to hear from you. She did not answer it, as she was waiting for me to return from Arizona, which I did on the 23rd.

You suggest that it would be best for your company to make a separate deal with her on the San Carlos group and then make a deal, yourselves, with the bondholders of the Rowley group.

This is very satisfactory to her, and she is ready at any time, to go to Arizona to arrange matters with your company.

We were very glad to learn that Mr. Rice was in a position to handle the interests of the bondholders of the Reliance Co, and I am sure that satisfactory terms can be had with Mr. Rice.

I am herewith enclosing a blue print of the groups of claims, which shows them quite well.

Regarding the Obsidian claims, they were taken up about five years ago, by the then Rowley Copper Mines Co, with the idea in view, as I understand it, of having more claims than the original six patented ones, when a reorganization of the company was made. The Reliance Mining Co. was later formed, taking over the stock and property of the Rowley Copper Mines Co.

The large four compartment incline shaft is in the center of the "Jack Rowley" claim, and all of the shafts and underground workings are on this claim.

The main shaft of the San Carlos group is located in the center of the San Carlos claim, which adjoins the "Jack Rowley" claim on the south. This is an incline shaft, down 230 feet, to water level.

I had a talk with Mr. DeCamp in Phoenix on Saturday June 19th, and told him about the mines and gave him some reports, maps, etc. He said he would see you the next morning.

I am today sending him a blue print like the enclosed one and a report, made by Sill and Sill, on the San Carlos property. This report speaks very highly of the "Jack Rowley" mine.

If there is any further way in which I can be of assistance, please let me know and I shall be very glad to do all that I can.

Thanking you for what you have done and trusting all will work out satisfactorily, I remain

Very respectfully yours,

Charles Rowley.

UNITED VERDE COPPER COMPANY

JEROME, ARIZONA

May 25, 1926.

COPY

Mr. W. B. Gohring,
419 Heard Bldg.,
Phoenix, Arizona.

Dear Bill:

I enclose herewith letter and reports from Mr. J. C. Rowley referring to the Rowley and San Carlos mines.

It is possible that you are already familiar with these properties, but if not, I would appreciate it if you would arrange for an early examination, advising Mrs. Rowley of your plans.

You will note she requests that her inquiry and the investigation, if made, be kept strictly confidential, and I would like to have you return the reports to her when they have served your purpose.

Yours very truly,

Robt C. Tally

cc Mrs. J. C. Rowley,
608 East 5th St.,
Los Angeles, Calif.

UNITED VERDE COPPER COMPANY
JEROME, ARIZONA

May 25, 1926.

Mrs. J. C. Rowley,
608 East 5th St.,
Los Angeles, Calif.

Dear Madam:

I have referred your letter of May 23rd with reports on the San Carlos and Rowley mines to Mr. W. B. Gohring of Phoenix, Arizona, with the request that he make an investigation of the properties at his early convenience, advising you in advance.

I have also requested that he treat the matter as strictly confidential.

Yours very truly,
R. H. C. Tully
General Manager.

W A Blair Jr
2205 Adams St
So Cal

RUSH T. SILL
ENGINEER OF MINES
HARLEY A. SILL
METALLURGICAL ENGINEER

ORE TESTING PLANT
1602 COSMO STREET
HOLLYWOOD, CALIFORNIA

SILL AND SILL

CONSULTING MINING ENGINEERS
702 HOLLINGSWORTH BUILDING
LOS ANGELES

January
13
1919

Mr. Chas. A. Rowley,
c/o D. A. Brooks, Hotel Astor,
New York City, New York.

My dear Rowley:

We sent you our report of the San Carlos Claims Saturday, by registered mail. We tried to cover in detail the conditions at the San Carlos Shaft, as you realize very little work has been done upon which to judge San Carlos, particularly with 30 feet of water in the bottom of the shaft. We have handled this upon the basis of surface conditions as compared to the Rowley, which we consider is a fair way of getting at it.

The Rowley, by the way, has opened up a wonderful body of ore and if the mine was in the hands of mining people it would be a big dividend payer, but the present management knows absolutely nothing about the equiping or the working of the property. The mill is the worst contraption I have ever seen for handling ore. They are grinding this very friable wulfenite ore in a Huntington Mill and concentrating it on two concentrating tables and a vanner and their losses must be very high.

In the vertical shaft they have installed a Cornish Pump, a second compresser and an oil engine. You seldom ever hear of an up-to-date mine installing a Cornish Pump. They were out of style some fifty years ago. This installation is only partly complete. While I was there both patches blew off the boilers and the manager made a trip to Prescott for repaired parts, leaving the mine entirely closed.

It is a crime that as good a mine as this should be handled by such careless management.

I have told your Mother that I believe something could be done to correct this management and put the mine upon a paying basis. Your Mother was very nervous about turning over the San Carlos Claims. It was upon her suggestion that I wired you to consult with my friend in New York as he would know of a brokerage house and would pass upon the details of the deal you are contemplating. Wall Street is a bad place for the average Western man to try to do business. They are crafty and do not always do business along the lines they say they will and they do not say what they mean or mean what they say. Another way to successfully protect yourself is to have a good attorney look after your business.

I believe, as we stated in our report, that there is a possibility of opening up an ore body on the San Carlos Claims, if sufficient money is raised for the equipment and development, and the development carried out along some definite line.

We hope that our report will be of assistance to you in the raising of money for the develoment of the San Carlos Claims. We will be glad to know of any progress you make in the forming of a company and any other details that you care to give us. If we can be of any assistance to you in the development of these properties we will be glad to do so.

With best wishes for your success,

we are

Yours very truly,

Dill and Dill

CONSULTING MINING ENGINEERS.

RTS-LB

RUSH T. SILL
ENGINEER OF MINES
HARLEY A. SILL
METALLURGICAL ENGINEER

ORE TESTING PLANT
1602 COSMO STREET
HOLLYWOOD, CALIFORNIA

SILL AND SILL
CONSULTING MINING ENGINEERS
702 HOLLINGSWORTH BUILDING
LOS ANGELES

(5)

May
21
19 19

Mr. Charles W. Rowley,
10 Wall Street,
New York City.

My dear Rowley :

Your letter, and Mr. J. H. Moreland's report came yesterday, and we have gone over it carefully. Mr. Moreland is evidently friendly to the management, as he takes great pains in commending them upon the equipment, and operation of the property. There are, however, criticisms to be made of some of his statements.

In the first place, poor judgment has been used in selecting the equipment, and in the development of the property. The boilers are junk, and are not to be classified as power producing machines. The mill was evidently built for cheapness, rather than efficiency, and the 500 foot shaft is too small for a working shaft, and for handling any considerable amount of water. The Jack-Head pump was in use many years ago, but there are now more efficient and economical systems for handling water.

While not knowing Mr. Moreland, I would judge from his report that he has operated in the shallow lead-zinc fields, of our middle western states, where some of the things he referrs to may be considered good practice, but are not applicable to conditions in the deep western mining districts.

The mine should be developed to depth, where no doubt good ore bodies will be found. There is no question that to develop this ore body, a vertical shaft put down to a depth of 500 feet, or perhaps less, will encounter the sulphide zone, as the water level stands at the lowest level in the present inclined shaft.

Mr. Moreland lays great stress upon the fact that the company is out of debt, yet he makes no mention of what has been spent uselessly and foolishly in the equipment and development of the property. My understanding is, that they spent several hundred thousand dollars in the development and equipment of this property, and yet the work they have done represents only a fraction of this expenditure.

The Rowley is a good mine, and with the right sort of mining ability applied to the operations, the property should have been on a dividend paying basis long ago. It is my idea, having looked over the property, and studied conditions, that the management of this property has always been very poor. Any one of a hundred operating mining companies in Arizona, could duplicate the work done on the Rowley, in from one, to one and a half years, and at a fraction of what the cost has been to the Rowley Company.

Mr. Moreland and the management may be able to hoodwink the stockholders with his report, but not a mining man who has seen the property, as the report is a weak and lame affair, and many of his statements would not be substantiated by mining men.

It has been some months since I have been on the property, and some of the details are rather hazy in my mind, so to go into details would be more or less guess work, and as you know, I spent only a short time, and took no samples whatsoever.

I am not sure that I would have sunk a vertical shaft at the point at which they started to work. The vein is fairly steep, and one of the inclines could have been retimbered and put in shape for further development, and a number of levels run off to develop the vein, particularly to the North, as the wulfenite vein has a strong dip to the North.

The mill is a rattle trap, as I remember they used a Huntington mill to crush their ore. The Huntington mill is known as a slimer and was designed to produce slimes-just the thing you do not want, in the concentration of a friable ore like wulfenite.

A better head-frame and more convenient means of handling ore on the surface would be an advantage. I would connect the 200 H P Nordberg to a generator and use electrical power around the mine for driving the compressors, hoists, and centrifugal pumps for handling the water. I should do away with their tractor, and install a truck with a trailer which would handle all the freight they are now handling at a fraction of what it cost them to operate their tractor.

Confidentially, the management is about the poorest I have ever come in contact with. There was no organization, and the superintendent has absolutely no knowledge of mining. I believe that you are justified in representing this matter to the stockholders, and get a change of management. The Rowley has the makings of a good mine, and I would suggest that you make an effort to put your mine under good management, and I think that you will immediately begin to see results.

With kindest personal regards, I am

Yours very truly,

Gill and Gill

CONSULTING MINING ENGINEERS.

RTS-LB

This is the story of a Mine - A property which as every requisite of becoming a great producer.

Contained is a history of the property in correspondence and reports that I have been able to obtain. They show why, due to corruption, poor management, lack of mining know-how, and the impossibility of two owners agreeing, no results were obtained.

By way of clarification, the six patented claims known as the Rowley Mines, were owned and controlled by a group of mining promoters. The S an Carlos properties, 29 unpatented claims, were owned by my Grandmother, and Uncle, Mr. Rowley.

I now own both properties, and they are free of all bond and stock holders.

Even with the impossible situation as it existed, the following men tried to obtain the properties for their companies.

1. Mr. Robert E. Tally	General Manager	United Verde
2. Mr. Michael Curley	General Manager	Ajo (New Cornelia)
3. Mr. George Kingdom	General Manger	United Verde Extension
4. Mr. Douglas	Owner	United Verde Extension

The following Engineers and Geologists have recommended the properties.

1. William B. Goring	-	Chief Engineer and Geologist for United Verde Head of the RFC for Arizona
2. C.W. Botsford	-	Consulting Engineer for United Verde
3. Arthur Houle	-	Consulting Engineer and Geologist for Ajo (New Cornelia)
4. George Kislingbury	-	Consulting Engineer for US Smelting and Refinery Tuson Mining Engineer
5. Sill & Sill	-	Los Angeles Mining Engin eers and Geologists
6. Edwin W alters	-	Geologist for State of Missouri
7. Robert A. Elgin	-	Engineer of Mines - Silver City, New Mexico

Let me emphasize, that these men were on the property, and examined it when it was operating; they were in a position to go underground and see it's potential. It is after completely familiarizing themselves with it's physical aspects, that they made their reports. They were men of the highest caliber and reputation.

I would like to add, that in February of 1943, Mr. T.L. Chapman made a cursory examination of the surface, but because there was no ore blocked out, he did not recommend money for development.

Gentlemen, I am sure after reading these reports you will understand the circumstances that prevented this property from becoming a great producer. It is only now that the two properties are combined under my sole ownership, and free of all legal entanglements.

If there are any doubts or questions that may arise in your minds, I would only be too happy to come to Washington D.C., at your convenience.

Thank you for your consideration.

Very truly yours,

Jack Rowley Fedrick

Jack Rowley Fedrick

The following correspondence shows the attempt of Mr. Curley, General Manager of Ajo, to obtain the property, but due to excessive demands on the Rowley group, he was forced to turn it down.

The following correspondence is between Mr. Ray Dimmick, the Mining Engineer who will be responsible for the drilling, and Mr. Robert Elgin, Engineer of Mines, Silver City, New Mexico.

The following correspondence between my Uncle, Mr. Rowley, and Sill & Sill Consulting Engineers of Los Angeles, clearly indicates the reasons why the Mine never became a producer.

The following correspondence is all I could find on the attempt of Mr. George Kingdom, General Manager of United Verde Extension to obtain the properties. As you can see, the San Carlos group had alread signed their interests over to United Verde Extension, but the attempt of the Rowley Mine people to get 15% for their interest, caused the deal to fall through.

The following correspondence shows the attempt of Mr. Talley, General Manager of United Verde to obtain the property, but due to the asking of an unreasonable price by both owners of the Rowley and San Carlos groups, he turned it down.