DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 2021

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION LOAN

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	CODE 310 ~~Copper Br.~~	Date	8-29-51
To:	Mr. Lyon	Date	10-24-51
To:	REPORTS AND RECORDS	Date	OCT 25 1951
To:	FL KNOWLEDGED	Date	Oct 29-51
To:	Tom Lyon - [illegible]	Date	
To:	[illegible]	Date	
To:	JM	Date	11-29-51
To:	R & R	Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

aec
CONTROLLED DOCUMENT

DMA Form 2

DEFENSE MINERALS ADMINISTRATION
Status Change Notice

DMA Docket No. 2021

To: Reports and Records Branch

From: Copper Branch, Supply Division

Date: August 31, 1951

The following action has been taken this date on the above Controlled Document.

Forwarded to DMA Field Team IV (thru Mr. Lyon's office for signature)

Type of request changed to:

Denied ☐ Withdrawn ☐

Approved in amount of $

Other action, specify:

FILE COPY
SURNAME:

310

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

Always Power
by
J. E. Fleming

NOV 13 1951

Hon. Ernest W. McFarland
United States Senate
Washington 25, D. C.

Re: Docket No. DMA-2021

My dear Senator McFarland:

This is to acknowledge your letter of November 6, 1951 requesting information as to the action taken on the exploration loan of Bonanza Mining Company of Wenden, Arizona, DMA-2021.

On the basis of the evidence submitted with the company's application and the material and evidence made available by a field team investigation, it was felt that the geological possibilities were not such as to justify Government participation in an exploration project at this time. Accordingly, this application was regrettably denied on October 26, 1951.

An examination of the underground workings shows no mineable ore. Although there are many places underground where small high grade specimens can be obtained, it is doubtful if there is any place exposed where a blasted five foot round would produce ore with a grade of two per cent copper. A total of 435.3 tons of ore having an average grade of 1.85 percent copper and 0.18 ounce gold per ton has been shipped to smelters at Hayden and Superior, Arizona. It is estimated that this ore was hand sorted from approximately 2200 tons of material extracted from shaft sinking, drifts and stopes. As there is no record of other shipments, and as no ore is exposed in the dumps it is estimated that the grade of ore extracted from the mine workings was approximately 0.57% copper and 0.03% gold per ton. Ore of this grade could not provide the basis of a feasible mining operation under any present or any foreseeable future conditions.

There is no evidence to warrant the belief that additional work on the Bonanza dike would show material of better grade than has already been found.

An inspection of the surface showings of other dikes showed no outcrops, gossans or other evidence that warrants the belief that

exploration would discover ore. Considerable shallow surface work has been done on irregular limonite showings of small size without disclosing ore.

In the absence of detailed sample and assay maps of the mine and surface workings or other geological data, the above statements are accepted as representing the geological situation at the Bonanza and Government participation in further exploration is not felt to be justified.

Sincerely yours,

(signed) FRANK E. JOHNSON (fw)

Acting Administrator

RVWaugh:rw
11-9-51

S.J. 11-13

Copy to: Mr. Jack Collins

Administrator's Reading File
Deputy Administrator's Reading File
Executive Officer, DMA Field Team IV
Mr. Lyon
Copper Branch
DMA Docket

F-500

2021

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 11-8

REFERRED TO:

1. Code 310
2.
3.
4.

NOV 9 1951

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	..... Referring to .....
..... Conference	..... Reply for signature of .....
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	..... Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

REMARKS: .....

Check (X) before the items needing attention.

ROBERT E. ADAMS

Initials of sender.

GPO 16—63815-1

JZ

REPORTS AND RECORDS

ERNEST W. McFARLAND
ARIZONA

United States Senate
Office of the Majority Leader
Washington, D. C.

November 6, 1951

Acknowledged by F. V. Waters 11/9/51

Administrator
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Sir:

This is written in reference to the Bonanza Mining Company of Wendon, Arizona, DMA Docket No. 2021.

Mr. J. H. East, Jr., Regional Director, Region IV, has advised me that the final report of the examination of the Bonanza Mining Company property by the geologists and engineers was forwarded to you on October 15. It would be appreciated if you would advise me of the final action taken on this application for an exploratory mining loan.

With all good wishes, I am

Sincerely yours,

Ernest W McFarland

Ernest W. McFarland

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
NOV 7 1 59 PM '51

REPORTS AND RECORDS

ARLAND

United States Senate
Office of the Majority Leader
Washington, D. C.

November 6, 1951

Administrator
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Sir:

This is written in reference to the Bonanza Mining Company of Wendon, Arizona, DMA Docket No. 2021.

Mr. J. H. East, Jr., Regional Director, Region IV, has advised me that the final report of the examination of the Bonanza Mining Company property by the geologists and engineers was forwarded to you on October 15. It would be appreciated if you would advise me of the final action taken on this application for an exploratory mining loan.

With all good wishes, I am

Sincerely yours,

Ernest W. McFarland

Ernest W. McFarland

Answer 11-8

NOV 7 1951
WASHINGTON, D.C.
DEFENSE MINERALS ADMINISTRATION

FILE COPY
SURNAME:

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

Gowen
Parsons

OCT 26 1951

Bonanza Mining Company
Box 4336
Phoenix, Arizona

Re: DMA Docket 2021

Gentlemen:

Your application for exploration aid has been reviewed by the Defense Minerals Administration and we are sorry to inform you that it must be denied.

On the basis of the evidence submitted with your application and other material, data and evidence available to the Government, it is felt that the geological possibilities are not such as to justify Government participation in an exploration project at this time.

Specifically, the above conclusions are based on the following:

An examination of the underground workings shows no mineable ore. Although there are many places underground where small high grade specimens can be obtained, it is doubtful if there is any place exposed where a blasted 5 feet round would produce ore with a grade of 2 percent copper. A total of 435.3 tons of ore having an average grade of 1.85 percent copper and 0.18 ounce gold per ton has been shipped to smelters at Hayden and Superior, Arizona. It is estimated that this ore was hand sorted from approximately 2200 tons of material extracted from shaft sinking, drifts and stopes. As there is no record of other shipments, and as no ore is exposed in the dumps it is estimated that the grade of ore extracted from the mine workings was approximately 0.37% copper and 0.035% gold per ton. Ore of this grade could not provide the basis of a feasible mining operation under any present or any forseeable future conditions.

There is no evidence to warrant the belief that additional work on the Bonanza dike would show material of better grade than has already been found.

An inspection of the surface showings of other dikes showed no outcrops, gossans or other evidence that warrants the belief that exploration would discover ore. Considerable shallow surface work has been done on irregular limonite showings of small size without disclosing ore.

In the absence of detailed sample and assay maps of the mine and surface workings or other geological data, the above statements are accepted as representing the geological situation at the Bonanza and Government participation in further exploration is not felt to be justified.

Very truly yours,

SIGNED

Tom Lyon, Director
Supply Division

10/26

JBGowen:pk
10/23/51

Copy to: Administrator's Reading File
Field Team, Region IV
Mr. Gowen
Mr. Johnson 3619
Mr. Madaren--Mr. Nelson
Files-DMA Docket

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

a. E. C.

OCT 25 1951

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 25-1951
Defense Minerals Administration,
Production Expansion Division.

Memorandum

To: Administrative Management Division

From: Director, Supply Division

Subject: Application for Exploration aid of the Bonanza Mining Co., P. O. Box 4336, Phoenix, Arizona, DMA 2021, Commodity-Copper

Denial of this application is recommended by DMA Field Team Region IV for the following reasons:

1. An examination of the underground workings shows no mineable ore. Although there are many places where good copper mineral specimens can be taken from mineralized seams in the dyke, there is no face of ore exposed, and no place was found where a blasted round would produce a commercial grade of ore.

2. Of a total of approximately 5000 tons of vein-dyke material extracted from mine workings on the "vein", a total of 435.3 tons of ore having an average grade of 1.85% copper, and 0.18 ounce gold per ton has been sorted and shipped to smelters at Hayden and Superior, Arizona. The net smelter returns were $3.75 per ton.

An examination of the dump shows no visible copper ore. The estimated average grade of the 5000 tons of vein-dyke material extracted from the mine workings would be 0.37% recoverable copper and 0.035 ounce recoverable gold per ton which could not provide the basis of a feasible mining operation under any present or foreseeable future conditions.

3. An inspection of the surface showings of the Bonanza and other dikes showed no outcrops, gossans or other evidence that warrants the belief that exploration would discover ore. Considerable shallow surface work has been done on irregular limonite showings of small size without disclosing ore.

4. There is a question as to the method of financing the applicant's share.

A letter has been prepared to the applicant notifying him of this denial.

Transmitted herewith for your disposal is the entire file consisting of the following:

1 Form MF-100
4 Forms MF-103 with 5 answer sheets each
2 DMA Review of Application for Exploration Assistance
1 Field Team report on the Bonanza Mining Company
1 Prospectus of the Bonanza Mining Company
3 Reports on the Bonanza & Bonanza-Central Mines
2 Reports by J. E. Foran dated March 3, 1951
8 Magmer Copper Company smelter sheets
3 Assay certificates
3 American Smelting & Refining Company Smelter sheets
1 Page from the Spark Flame Newspaper
1 DMA Status Change Notice
1 Reprint from the Yuma Daily Sun with clipping attached
2 Letters to Roy R. MacDonald from R. E. Adams and Tom Lyon, Sept. 5, 1951
2 Form letters from T. Lyon to J. H.East, Sept. 5, 1951
1 Map of Bonanza Mine with assay values
5 Claim Maps.

Tom Lyon

Tom Lyon, Director
Supply Division

Attachment

FILE COPY
SURNAME:

Dr. F. - Docket
McCaugh
Boulter

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

OCT 25 1951

A. E. C.

Memorandum

To: Administrative Management Division

From: Director, Supply Division

Subject: Application for Exploration aid of the Bonanza Mining Co., P. O. Box 4336, Phoenix, Arizona, DMA 2021, Commodity-Copper

Denial of this application is recommended by DMA Field Team Region IV for the following reasons:

1. An examination of the underground workings shows no mineable ore. Although there are many places where good copper mineral specimens can be taken from mineralized seams in the dyke, there is no face of ore exposed, and no place was found where a blasted round would produce a commercial grade of ore.

2. Of a total of approximately 5000 tons of vein-dyke material extracted from mine workings on the "vein", a total of 435.3 tons of ore having an average grade of 1.85% copper, and 0.18 ounce gold per ton has been sorted and shipped to smelters at Hayden and Superior, Arizona. The net smelter returns were $3.75 per ton.

An examination of the dump shows no visible copper ore. The estimated average grade of the 5000 tons of vein-dyke material extracted from the mine workings would be 0.37% recoverable copper and 0.035 ounce recoverable gold per ton which could not provide the basis of a feasible mining operation under any present or foreseeable future conditions.

3. An inspection of the surface showings of the Bonanza and other dikes showed no outcrops, gossans or other evidence that warrants the belief that exploration would discover ore. Considerable shallow surface work has been done on irregular limonite showings of small size without disclosing ore.

4. There is a question as to the method of financing the applicant's share.

A letter has been prepared to the applicant notifying him of this denial.

Transmitted herewith for your disposal is the entire file consisting of the following:

1 Form MF-100
4 Forms MF-103 with 5 answer sheets each
2 DMA Review of Application for Exploration Assistance
1 Field Team report on the Bonanza Mining Company
1 Prospectus of the Bonanza Mining Company
3 Reports on the Bonanza & Bonanza-Central Mines
2 Reports by J. E. Foran dated March 3, 1951
8 Magmer Copper Company smelter sheets
3 Assay certificates
3 American Smelting & Refining Company Smelter sheets
1 Page from the Spark Flame Newspaper
1 DMA Status Change Notice
1 Reprint from the Yuma Daily Sun with clipping attached
2 Letters to Roy E. MacDonald from R. E. Adams and Tom Lyon, Sept. 5, 1951
2 Form letters from T. Lyon to J. H. East, Sept. 5, 1951
1 Map of Bonanza Mine with assay values
5 Claim Maps.

SIGNED

Tom Lyon, Director
Supply Division

N. S
R+R

Attachment

RVWaugh:JBGowen:pk
10/19/51

Copy to: Administrator's Reading File
Field Team, Region IV
Mr. Gowen
Mr. Johnson 3621
Mr. MacLaren
Files-DMA Docket

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

Memorandum

To: Administrative Management Division

From: Director, Supply Division

Subject: Application for Exploration aid of the Bonanza Mining Co., P. O. Box 4336, Phoenix, Arizona, DMA 2021, Commodity-Copper

Denial of this application is recommended by DMA Field Team Region IV for the following reasons:

1. An examination of the underground workings shows no mineable ore. Although there are many places where good copper mineral specimens can be taken from mineralized seams in the dyke, there is no face of ore exposed, and no place was found where a blasted round would produce a commercial grade of ore.

2. Of a total of approximately 5000 tons of vein-dyke material extracted from mine workings on the "vein", a total of 435.3 tons of ore having an average grade of 1.85% copper, and 0.18 ounce gold per ton has been sorted and shipped to smelters at Hayden and Superior, Arizona. The net smelter returns were $3.75 per ton. It is estimated that this ore was hand sorted from about 2200 tons extracted in more or less recent mine operations. An examination of the dump shows no visible copper ore. The estimated average grade of the ~~5000~~ 2200 tons of vein-dyke material extracted from the mine workings would be 0.37% recoverable copper and 0.035 ounce recoverable gold per ton which could not provide the basis of a feasible mining operation under any present or foreseeable future conditions.

3. An inspection of the surface showings of the Bonanza and other dikes showed no outcrops, gossans or other evidence that warrants the belief that exploration would discover ore. Considerable shallow surface work has been done on irregular limonite showings of small size without disclosing ore.

4. There is a question as to the method of financing the applicant's share.

A letter has been prepared to the applicant notifying him of this denial.

Transmitted herewith for your disposal is the entire file consisting of the following:

1 Form MF-100
4 Forms MF-103 with 5 answer sheets each
2 DMA Review of Application for Exploration Assistance
1 Field Team report on the Bonanza Mining Company
1 Prospectus of the Bonanza Mining Company
3 Reports on the Bonanza & Bonanza-Central Mines
2 Reports by J. B. Foran dated March 3, 1951
8 Magner Copper Company smelter sheets
3 Assay certificates
3 American Smelting & Refining Company Smelter sheets
1 Page from the Spark Plane Newspaper
1 DMA Status Change Notice
1 Reprint from the Yuma Daily Sun with clipping attached
2 Letters to Roy R. MacDonald from R. E. Adams and Tom Lyon, Sept. 5, 1951
2 Form letters from T. Lyon to J. H. East, Sept. 5, 1951
1 Map of Bonanza Mine with assay values
5 Claim Maps.

Tom Lyon, Director
Supply Division

Attachment

RVWaugh:JBGowen:pk
10/19/51

Copy to: Administrator's Reading File
Field Team, Region IV
Mr. Gowen
Mr. Johnson 3621
Mr. MacLaren
Files-DMA Docket

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

Oct 18 8 43 AM '51

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

WASHINGTON 25, D. C.

October 15, 1951

Memorandum

To: Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: Final Report, DMA Docket 2021, Bonanza Mining Company, applicant, Bonanza Copper Mine, Ellsworth Mining District, Arizona

Enclosed herewith are the original and two copies of the report on the subject docket.

We concur with the conclusions and recommendations of the examining team that the exploration loan of $387,563 be denied.

The brochure is enclosed.

Please refer to confidential letter by M. J. Elsing.

J. H. East, Jr.

for A. H. Koschmann

DMA New Cumberland
Mining Division
Region IV

October 15, 1958

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 4225, Bonanza Mining Company, applicant, Bonanza Copper Mine, Ellsworth Mining District, Arkansas

The application of the subject docket was for an exploration loan of $[illegible]. Proposed work was to be shaft sinking, crosscutting and drifting.

Examination by the field team of the shafts, drifts and stopes failed to show any minable reserves, although in places there are small irregular masses of high grade chalcopyrite.

The examining team recommends denial of the application, with which we concur.

Paul T. Allsman

Paul T. Allsman

Mining Division
Date Rec'd.
OCT 12 1951
BUREAU OF MINES
Denver, Colorado

October 9, 1951

Memorandum

To : Paul T. Allaman, Denver, Colorado

From : Chief, Arizona-New Mexico Br., Mining Div., Region IV

Subject : Final Report, DMA Docket 2021, Bonanza Copper Mine, Bonanza Mining Co. & Bonanza Central Mining Co., Ellsworth Mining District, Yuma County, Ariz.

Enclosed are original and 7 copies of the above report by Morris J. Elsing and William T. Griswold of the Bureau of Mines. No separate Geological report will be submitted by the Geological Survey.

This report has my approval.

Brochure is enclosed.

Walter R. Storms

CC: P. T. Allaman (7)
C. A. Anderson
DMA-2021
DF

WRStormsiele

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-2021, Bonanza Copper Mine

Bonanza Mining Co.

Bonanza Central Mining Co.

Ellsworth Mining District

Yuma County, Arizona

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

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

October 1951

als

BONANZA COPPER MINE
BONANZA MINING CO.
BONANZA CENTRAL MINING CO.
ELLSWORTH MINING DISTRICT
YUMA COUNTY, ARIZONA
DMA-2021

Engineering Report

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

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

October 1951

BONANZA COPPER MINE
BONANZA MINING CO.
BONANZA CENTRAL MINING CO.
ELLSWORTH MINING DISTRICT
YUMA COUNTY, ARIZONA
DMA-2021

CONTENTS

Engineering report	Page
Introduction	1
Acknowledgments	1
Location, topography and physical characteristics	2
History and production	2
Ownership and extent	3
Description of deposit	5
Mineable ore reserves	5
Present status	7
Project proposals with costs	9
Production plan	13
Proposed financing	14
Conclusions	14
Recommendations	15

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By M. J. Elsing[1] and W. T. Griswold[2]

The Coordinating Committee of the Defense Minerals Administration requested the Field Team, Region IV, to examine and report on the Bonanza mine of the Bonanza Mining Co., situated in the Ellsworth mining district, Yuma County, Ariz. Such an examination was made by M. J. Elsing and W. T. Griswold of the Bureau of Mines on September 24-26, 1951.

The development work done at the Bonanza mine has been in a diabase dike, approximately 5 feet wide. This dike and some 18 other parallel dikes have intruded a pre-Cambrian granite-schist complex. The Bonanza dike contains small patches, stringers, and veinlets of rather high-grade chalcopyrite. In places there are minor amounts of chalcocite and other secondary copper minerals. A total of 435.3 tons of ore has been shipped to the smelters at Hayden and Superior, Ariz. The average grade of these shipments was 1.85 percent copper and 0.18 ounce gold per ton. This ore was sorted from some 5,000 tons of material from shaft sinking operations, drifts, and stopes. The net smelter returns were $3.75 per ton.

There are scores of places underground where small high-grade specimens can be obtained. From an inspection of the shaft, drifts, and stopes it is doubtful if one 5-foot round would break ore of a grade of 2 percent copper. There is no evidence to warrant the

---

1/ Consulting Mining Engineer, U. S. Bureau of Mines, Arizona-New Mexico Branch, Mining Div., Region IV

2/ Mining Engineer, U. S. Bureau of Mines, Arizona-New Mexico Branch, Mining Div., Region IV

belief that additional work on the Bonanza dike would show material of a better grade than has already been found.

An inspection of the surface showings of other dikes showed no outcrops, gossans or other evidence that warrants the belief that exploration would discover ore. Considerable shallow surface work has been done on irregular limonitic showings of small size without disclosing ore.

The Bonanza Mining Co. was organized with a capital of 1,000,000 shares with a par value of $1.00 per share. R. R. MacDonald and his mother own 520,000 shares of the total stock. The company sold 20,000 shares at $1.00 and 115,000 shares at $2.50 per share. The sale of this stock, less a sales commission of 20 percent, should have netted the company $246,000. All except $6,800 of this sum has been expended. Because the sale of this stock was less than $300,000 the company does not come under the regulations of the Security and Exchange Commission. Apparently, rather than operate under the jurisdiction of the S.E.C. the applicant organized the Bonanza Central Mining Co. which owns ground adjoining the Bonanza mine. The capital of this latter company is 1,000,000 shares with a par value of $1.00 per share. MacDonald owns 520,000 shares of the new company. This company sold $168,000 worth of stock, spent $40,000, and has $128,000 in its treasury. The Bonanza Central Mining Co. is paying for the work now in progress at the Bonanza mine.

Briefly stated, the Bonanza has no ore and there is very little possibility of finding it. It looks very much as if the applicant

would get into difficulties with the law because of its methods of financing. It is believed that the Bonanza Mining Co. and the Bonanza Central Mining Co. are stock-selling promotions, and therefore it is recommended that their application for a loan of $416,425 be denied.

It is recommended also that denial be made as promptly as possible because it is believed that the presence at the property of engineers of the U. S. Bureau of Mines will be used in furthering the stock selling campaign. Prompt denial may deter this and thereby save other possible victims.

INTRODUCTION

The Coordinating Committee of the Defense Minerals Administration requested the Field Team, Region IV, to examine and report on the Bonanza mine of the Bonanza Mining Co., situated in the Ellsworth Mining District, Yuma County, Arizona. Such an examination was made by M. J. Elsing and W. T. Griswold of the Bureau of Mines on September 24-26, 1951.

R. R. MacDonald, president and general manager of the Bonanza Mining Co., originally applied to the Defense Mineral Administration for a production loan of $1,500,000. This application was given docket number DMA-780. Various conferences in Washington between MacDonald and Collins of the Bonanza Mining Co. and members of DMA resulted in changing the application from a development loan to an exploration loan for $416,425. The application for exploration is known as Docket DMA-2021.

ACKNOWLEDGMENT

Acknowledgments are due to R. R. MacDonald, president and general manager of the Bonanza Mining Co. and the Bonanza Central Mining Co. MacDonald accompanied the examiners over the property and gave all information asked for. Jack Collins, a stockholder, also acted as a guide. Edwin W. Mills, consulting engineer for the Bonanza Mining Co., was interviewed.

Considerable information was obtained from the amended prospectus of January 1, 1950 of the Bonanza Mining Co. This prospectus was used to assist in the sale of the company's stock.

LOCATION, TOPOGRAPHY AND PHYSICAL CHARACTERISTICS

The claims of the Bonanza Mining Co. and the Bonanza Central Mining Co. are located in the Ellsworth mining district, Yuma County, Ariz., in sections 22, 23, 26 and 27, T. 7 N., R. 13 W., Gila and Salt River Meridian. The combined properties include 94 unpatented mining claims, all of which have been recorded in the office of the County Recorder at Yuma, Ariz.

The mountain range in which the property is located rises abruptly from broad flat desert valleys. Most of the claims are located well up on the side of the mountain and extend over the crest. The topography is generally rough and is almost devoid of vegetation.

HISTORY AND PRODUCTION

The property was acquired about 1900 by R. R. MacDonald, Sr., father of the present R. R. MacDonald, who is now president of the Bonanza Mining Co. MacDonald claims that royalties from lease operations supported the MacDonald family for years. No records of the early production exist. A large part of the holdings of the company were inspected and there is no evidence on the surface or in underground workings that substantial amounts of ore have been produced. There are many shallow surface workings consisting of pits, trenches, small open cuts and one shallow shaft. If these workings did produce any ore it was in very minor amounts.

From May 5 to August 17, 1951 the Bonanza mine produced 435.3 tons of ore which was shipped to the Superior and Hayden smelters.

This ore was sorted from some 5,000 tons of material broken in the shaft, drifts, and stopes. The ore shipped contained 1.85 percent copper and 0.18 ounce gold per ton. The net smelter returns averaged $3.75 per ton. A breakdown of shipments is herewith shown.

Bonanza Mining Co.
Net Smelter Returns
May 5, 1951 to August 17, 1951

Date 1951	Dry Tons	Cu %	Au oz.	Ag oz.	Net Returns	Smelter
May 5	43.5	2.38	0.26	0.16	$ 317.44	A.S. & R.
May 19	40.5	1.53	.07	.10	-27.38	Magma
May 21	49.8	2.05	.26	.10	376.96	"
May 31	43.4	1.66	.19	.10	124.95	"
June 12	49.7	1.49	.14	.10	43.27	"
June 30	45.5	1.63	.12	.10	.02	A.S. & R.
July 12	55.5	1.75	.20	.10	217.68	Magma
July 17	36.4	1.87	.18	.40	138.15	"
July 28	35.7	2.28	.17	.30	189.79	"
Aug. 17	35.3	2.04	.26	.15	249.50	"
Totals	435.3	1.85	0.18	0.15	$1,630.38	

Net smelter returns, $3.75 per ton.
Smelting cost, approximately $5.50 per ton.
Freight rates were $2.60 per ton.

OWNERSHIP AND EXTENT

The Bonanza group of 39 claims is owned by the Bonanza Mining Co. The adjoining Bonanza Central group of 57 claims is owned by the Bonanza Central Mining Co. The companies have the same management and the same board of directors. The stockholders in each company are different. Each company has 1,000,000 shares of a par value of $1.00 per share. R. R. MacDonald and his mother own 520,000 shares of the stock of the Bonanza Mining Co., and MacDonald

owns 520,000 shares of the Bonanza Central Mining Co.

MacDonald advised that 20,000 shares of Bonanza Mining Co. stock had been sold at $1.00 per share, and 115,000 shares at $2.50 per share. The $2.50 stock netted the company $2.00 per share, $0.50 being allowed as commission and selling expense. The cost to the public of these shares was $307,500, selling expense was $61,500. The net amount received by the treasury was $246,000.

A total of $168,000 worth of stock of the Bonanza Central Mining Co. has been sold. The Bonanza Central has $128,000 in its treasury and the Bonanza Mining Co. has $6,800.

Work being done in the Bonanza mine is being paid for by the Bonanza Central Mining Co. MacDonald advised that as yet no agreement has been signed between the two companies. The sinking of the shaft and the drifting on the 600 level is charged to the Bonanza Central Mining Co. The nature of the proposed agreement is unknown. The Bonanza Mining Co. probably has sold all the stock that it is permitted to sell without coming under the regulations of the Security and Exchange Commission. It appears that rather than make an application for the sale of additional stock, which would have brought it under the jurisdiction of S.E.C., it has organized the Bonanza Central Mining Co. and sold its stock in order to continue work at the Bonanza mine.

The situation is extremely complicated. Present arrangements are unfair to those stockholders of the Bonanza Central Mining Co.

who do not hold a proportional interest in the Bonanza Mining Co. The legality of this arrangement is questionable.

DESCRIPTION OF DEPOSIT

The claims of the Bonanza Mining Co. and the Bonanza Central Mining Co. are located in a shear zone cutting pre-Cambrian schist and granite. In this shear zone there are said to be 19 or more parallel diabase dikes which vary from less than 1 foot to more than 20 feet in thickness. The Bonanza shaft has been sunk on one of these dikes. Near the surface the shaft dips at 45 degrees but at approximately 100 feet the shaft and dike have a dip of 70 to 80 degrees.

Ore occurs in stringers and veinlets, and in irregular small patches in the dike and on its contacts. Faulting and shearing have preceded and followed mineralization. The principal copper mineral is chalcopyrite. Small amounts of chalcocite, copper carbonates, and native copper were observed. In places these oxidized copper minerals are found below unoxidized chacopyrite. The bottom of the zone of oxidation has not been reached but unaltered masses of diabase containing chalcopyrite are indicative of what will occur below the zone of complete oxidation. The diabase dike in which the shaft has been sunk is approximately 5 feet wide.

MINEABLE ORE RESERVES

MacDonald stated that every inch of work in the Bonanza shaft was in ore.

A report dated August 5, 1951 and signed by Edwin W. Mills, mining engineer, and R. Burton Rose, mining geologist, states "ore reserves based on the present development and the geologic structure evidence, are immense throughout the strong 1,000-foot by 3-mile shear zone with its nineteen near parallel dyke-veins".

A report dated March 2, 1951 and written by J. F. Foran, mining engineer, also submitted by the applicant, states "in its present state of development, assured reserves are negligible - under 5,000 tons - and have not been considered in this report".

An inspection of the shaft, the drifts, and the stopes does not show any ore. High-grade, small irregular masses of chalcopyrite were observed. In places there were small amounts of secondary chalcocite and some oxidized copper minerals. High-grade specimens can be obtained but there is not one face of ore in any part of the mine. It is believed that in no part of the mine would it be possible to drill a 5-foot round of holes and obtain 2 percent copper ore. MacDonald stated that the shipment of 435.3 tons of ore averaging 1.85 percent copper and 0.18 ounce gold per ton came from the mine just as it was broken. MacDonald's statement cannot be accepted. It is believed that most, if not all, of this ore was carefully sorted. There are reasons for this conclusion. There is a belt conveyor running from the ore bins to the dump. Beside the conveyor there was a sorting platform with ore on it which is definite proof that sorting has been done. An inspection of the dump showed no piece of ore as large as a hen's

egg. A few pieces of ore too small to pick from the belt were found. The outside part of the dump was waste and showed every indication that all ore readily sortable had been removed. The ratio of concentration by sorting has to be somewhat of a guess. The present underground openings indicate that, at least, 5,000 tons have been removed and 435.3 tons have been recovered. This would indicate a ratio of approximately 10 tons to 1. If the ratio was even 2 or 3-to-1 the ore would not be of commercial grade. From evidence seen underground it is believed that a ratio of sorting would be perhaps 5 to 1, which indicates that a recoverable copper content of the material mined might be 0.37 percent copper and 0.035 ounce of gold. The amount of silver is negligible.

The conclusion drawn is that there are no mineable ore reserves.

PRESENT STATUS

The Bonanza Mining Co. is in a real dilemma. Its allotment of stock has been sold. Its treasury is almost empty. It has been promising its stockholders that profit would result from shipping. Having failed in this it now proposes to mill the ore. It has purchased a jaw crusher, a gyratory crusher, vibrating screen, trommel and 2 bandalari jigs. It proposes to crush the ore to one-quarter inch and pass it through the jigs. The mill is to be erected at Wenden and the ore will be hauled 8 miles from the mine to the millsite. The latest proposal is to make copper sulphate from the jig concentrates by a newly patented process, the use of which has been offered to the Bonanza Mining Co.

The mine has the following equipment:

1	Ottumwa hoist with 36-inch diameter drum driven by a 150 H.P. General Electric motor	$ 6,000
1	Standby 65 H.P. gas engine hoist	3,000
1	700-foot Ingersoll Rand Imperial Type 10 compressor (17 X 14 and 10 X 14 cylinders) driven by 100 H.P. motor	5,000
1	3 H.P. blower	400
2	Eimco loaders, 12B	5,000
5	Mine cars	1,000
1	Truck	1,000
1	C-P drifter	750
2	C-P jackhammers	500
2	Cocopaw hammers	1,500
1	GMC 2½-ton truck	2,500
750	Feet ventilating pipe	825
	Tools	500
		$27,975
	Salvage value after one year	22,312
	Cost to project	5,663

The above equipment is good and seems to be in good condition.

Exploration work at the Bonanza mine includes the following:

	Feet
Shaft ----------	600
500 Level drifts --	283
550 Level drifts --	60
600 Level drifts --	10

In addition to the above exploration, a diamond drill hole was drilled in 1949. This hole is located approximately 1,100 feet southeast of the Bonanza shaft. The hole is 745 feet deep and inclines at an angle of 65 degrees. It is reported that at a depth of 360 feet, 14 feet of ore averaging 4 percent copper was encountered. Great difficulty was had in obtaining core. A log of the hole and assay certificates were requested but these were not available. Without any substantiating evidence little credence should be given to these claims.

PROJECT PROPOSALS WITH COSTS

Exploration and Development

The applicant proposed to do the following work at the Bonanza shaft:

1. Sink shaft from the 600 level to the 750 level.

2. Drive a drift on the 600 level on the vein, 3,000 feet to the northwest. A total of 1,400 feet will be in Bonanza Mining Co. ground.

3. Drive a drift on the 600 level on the vein, 2,000 feet to the southeast, all in Bonanza Mining Co. ground.

4. Drive a crosscut on the 600 level near the shaft, southwest into the footwall of the Bonanza vein for a distance of 1,500 feet.

The applicant estimates the cost of this work as follows:

Shaft sinking, 150 feet at $200 per foot - - - -	$ 30,000
Drifting, 5,000 feet at $35 per foot - - - - - -	175,000
Crosscutting, 1,500 feet at $35 per foot - - - -	52,500
	$257,500

New Equipment and Facilities

The applicant believes the following equipment is necessary:

Assay equipment - - - - - - - - - - - - - -	$ 1,500
2 Mancha locomotives with one extra battery - - - - - - - - - - - - - - - - - -	11,000
Charger and panel - - - - - - - - - - - - - -	2,500
Electric cable, 1,100 ft. - - - - - - - - -	1,500
1 Blower -	1,200
3,000 feet vent tube - - - - - - - - - - - - -	7,000
	$24,700

The applicant proposes to build an assay office for $1,000, and living quarters for 40 men for $75,000. The hauling of water costs $25 per day and power costs $1,350 per month. The applicant agrees that the proposed work could be done in one year instead of two years as originally estimated. A summary of the entire cost of the project is as follows:

Direct costs of exploration - - - - -	$257,500
Assay office - - - - - - - - - - - - -	1,000
Dwellings - - - - - - - - - - - - - - -	75,000
Equipment purchases - - - - - - - - - -	24,700
Equipment rentals - - - - - - - - - - -	5,663
Utilities - - - - - - - - - - - - - - -	23,700
Total - - - - - - - - - -	$387,563

If the project offered sufficient possibilities to warrant the belief that exploration would open up commercial ore it could not be recommended on the basis of the proposed expenditures. Even if it were a good looking prospect the expenditure of $75,000 for housing could not be considered for one moment. There is no question that housing at Wenden, Salome, and Aguila is difficult. In spite of this it is believed that some men could be housed at those places. A bunk house probably could be built for 20 men for $7,500, preferably at Wenden. Its location there would probably be more satisfactory to the men and the building would have some value after the exploration program had been completed.

The project as planned could not use efficiently 2 Mancha locomotives on the 600 level, at least until the drifts were extended for 1,000 feet or more. Since the mine has only 5 mine cars, additional cars are much more important than 2 locomotives.

Transportation

There are no particular problems in connection with transportation. The mine is only 8 miles from Wenden and most of the distance is travelled over a good desert road. The last mile near the mine is the worst part of the road but there are no really bad grades.

Manpower

The proposed list of employees to be used in this project is given herewith together with their rate of pay:

Supervision:

1	Superintendent	$650 per month
1	Mine foreman	400 " "
1	Engineering consultant	250 " "
3	Shift bosses	13.50 per shift
1	Assayer-sampler	400 per month
1	Accountant and timekeeper	400 " "
1	Stenographer	300 " "

Total, 9 men at approximately $3,427.50 per month, or $381 each per month.

Labor:

3	Hoistmen	$1.65	per hour
1	Electrician	2.25	" "
2	Electrician helpers	1.65	" "
1	Master mechanic	2.25	" "
2	Helpers	1.65	" "
4	Surface trammers	1.65	" "
1	Truck driver	1.65	" "
27	Miners	1.65	" "
6	Mucking machine operators	1.65	" "
3	Motormen	1.65	" "
3	Switchmen	1.65	" "
3	Nippers	1.67	" "
56	Men at	$1.67	" "

The total manpower requirements are supervisionary personnel, 9 and labor, 56 men. There will be no difficulty in regard to obtaining supervisionary personnel. A total of 56 miners, surface men and other laborers are not available in the district. MacDonald advised that the proposed wage scale was a little higher than in most of the Arizona mining districts and because of this fact he thought men could be gotten from northern Arizona, California, and from the larger Arizona mines.

The proposed plan of operation is not feasible. Exploration on the 600 level and shaft sinking should not be attempted at the same time. When sinking operations are under way the skip should be available to the shaft crew at all times.

Without waste pockets or adequate room on the 600 station for car storage, efficient operations cannot be conducted. Shaft sinking could be completed in 35 to 40 days and after this was done, exploration on the 600 level would proceed with greater speed, less cost, and with much greater safety. Fewer men would be required and the housing problem would not be so serious.

Power

A power line has been built to the mine and cheap electric power is available. The applicant estimates that the cost of power will be approximately $1,350 per month.

Water

Water is a very serious problem. At present all water is hauled to the mine from a well in the valley. A well and pipe line to the mine would cost no less than $75,000, and perhaps double this amount.

PRODUCTION PLAN

The applicant proposes to produce 100 tons of ore per day. On the basis of past performances it is estimated that probably 20 tons of sorted ore would be obtained with a grade similar to that already produced, or 1.85 percent copper and 0.18 ounce gold per ton.

It is doubtful if the proposed method of milling would result in a recovery of more than 50 percent of the values. The whole program is so impossible that no attempt has been made to calculate the cost of producing copper.

PROPOSED FINANCING

The applicant expects to pay one-half of the total expenditures if the exploration loan is granted. The Bonanza Mining Co. can contribute very little as it has only $6,800 in the treasury. The Bonanza Central Mining Co. is depleting its treasury at the rate of perhaps $500 per day. A part of the matching funds will have to be raised by the sale of additional stock. The Bonanza Mining Co. cannot sell additional stock unless it is willing to operate under the regulations of S.E.C. Apparently it does not wish to do this. The only other course left is to sell additional Bonanza Central stock. If the whole program is completed as planned, less than 20 percent of the expenditures would be made on Bonanza Central ground. Obviously it is unfair to Bonanza Central shareholders to spend their company's money in the exploration of the Bonanza mine. It is proposed to sell 50,000 shares of Bonanza Central stock. It is very likely that stock selling agents of the company will take full advantage of the fact that engineers of the U. S. Bureau of Mines have examined the property with a view to granting a loan. The setup is perfect for a last drive to sell stock.

CONCLUSIONS

The conclusion that the Bonanza project is a stock selling scheme is indicated by the Amended Prospectus of January 1, 1950. This prospectus ranks with the early day promotional advertisements of wonder mines. A cross section of the property is shown. This

drawing contains many notations which by themselves are not untrue. Examples of these notations are as follows:

"Area to be Blocked Out"

"30 to 40 days of drift"

"500,000 cubic feet 50,000 tons"

"Present assays from Shaft Average $40.00 per ton"

"Undeveloped Area Approx. 1½ miles long - 1,000 ft. Wide"

By inference and deduction a layman could be completely mislead. From the data presented one can figure the possibility of 500,000,000 tons of $40 ore. The company's consulting mining engineer stated that the ore body eventually would be mined by steam shovels in a great open pit.

RECOMMENDATIONS

Because the Bonanza and the Bonanza Central have no ore and very little possibility of finding ore, and because the project is apparently a stock selling promotion, it is recommended that the loan be denied as promptly as possible.

The Bonanza Mining Co. and the Bonanza Central Mining Co. have more than 1,000 stockholders. Prompt denial may help prevent the sale of some of the 50,000 shares it is proposed to sell and thereby save additional victims.

YOU ARE CORDIALLY INVITED

TO ATTEND A BANQUET SPONSORED BY

THE BONANZA MINING COMPANY
AND
BONANZA CENTRAL MINING COMPANY

SATURDAY EVENING, OCTOBER 6, 1951

AT 8:00 O'CLOCK

POMPEIAN ROOM « HOTEL WESTWARD HO

$1.25

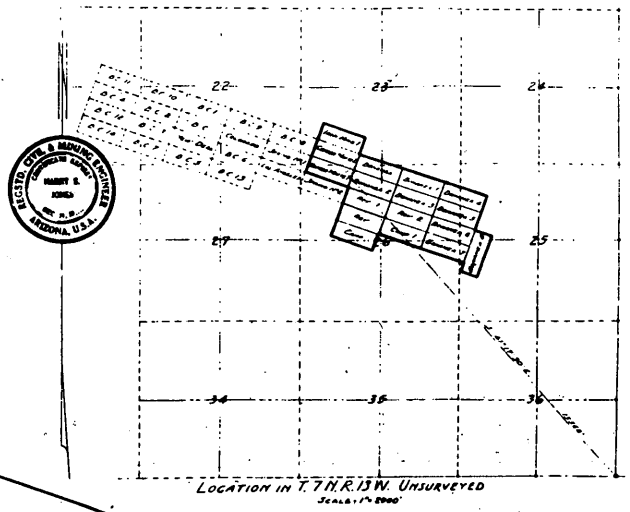
INFORMATIVE TALKS ARE SCHEDULED TO ACQUAINT THE STOCKHOLDERS WITH THE ACTIVITIES AND PLANS OF THE BONANZA MINING COMPANY AND BONANZA CENTRAL MINING COMPANY

FOR RESERVATIONS
TELEPHONE 4-0368, PHOENIX, OR WRITE P. O. BOX 4336, PHOENIX

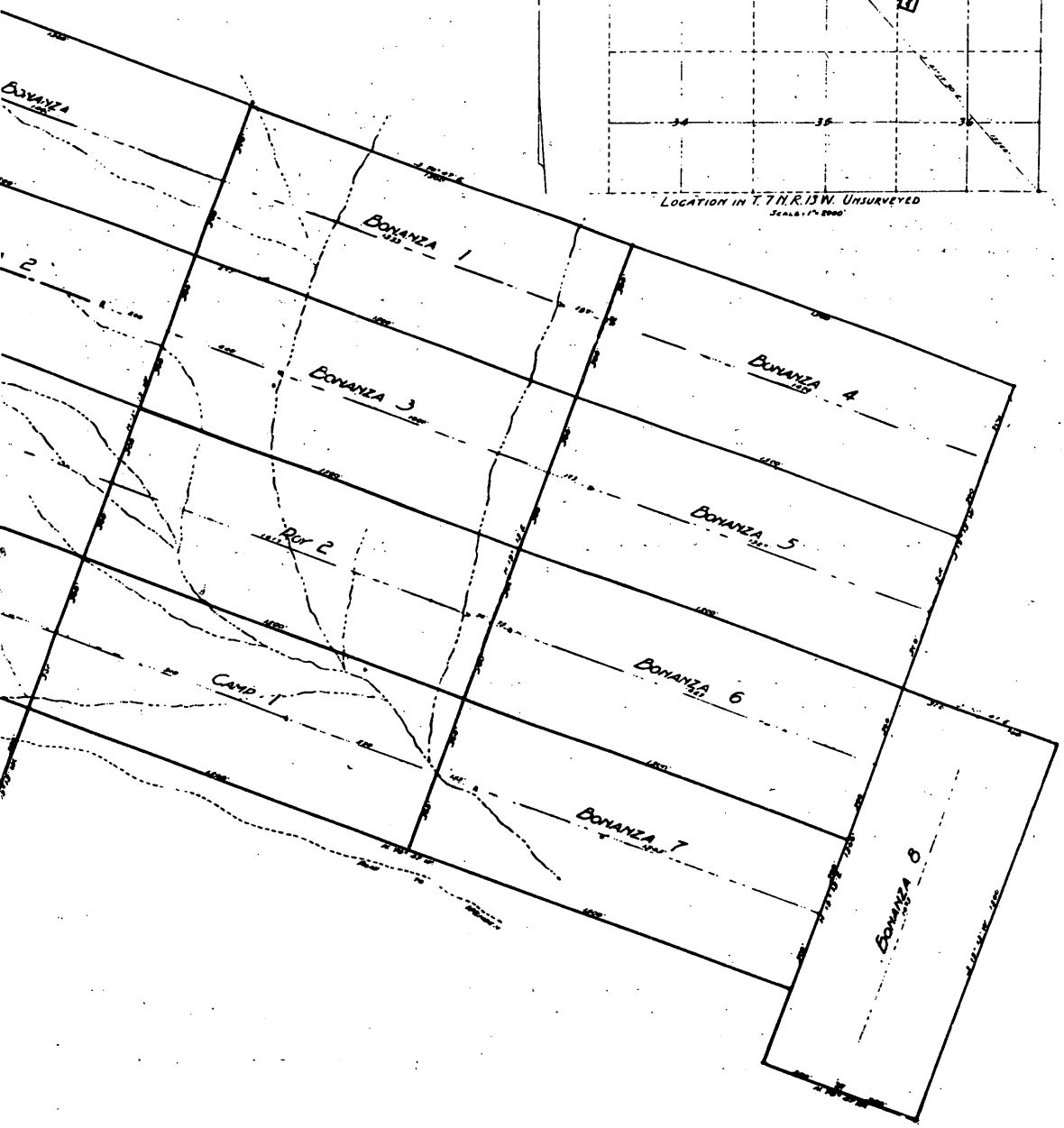
BONANZA MINING COMPANY

WENDEN, ARIZONA

AMENDED LOCATION STADIA SURVEY
OF THE
BONANZA GROUP
ELLSWORTH MINING DISTRICT,
YUMA COUNTY, ARIZONA
SURVEY Nº 43316 BY HARRY E. JONES
FOR
BONANZA MINING CO
WENDEN ARIZONA



LOCATION IN T. 7 N. R. 13 W. UNSURVEYED
SCALE: 1" = 2000'



AMENDED PROSPECTUS

BONANZA MINING COMPANY
(An Arizona Corporation)

105,000 Shares*
Common Capital Stock, full-paid and non-assessable
Par Value $1.00 Per Share

The Securities and Exchange Commission requires the following statement in any Prospectus in connection with an offering of this nature:

BECAUSE THESE SECURITIES ARE BELIEVED TO BE EXEMPT FROM REGISTRATION, THEY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION; BUT SUCH EXEMPTION, IF AVAILABLE, DOES NOT INDICATE THAT THE SECURITIES HAVE BEEN EITHER APPROVED OR DISAPPROVED BY THE COMMISSION OR THAT THE COMMISSION HAS CONSIDERED THE ACCURACY OR COMPLETENESS OF THE STATEMENTS IN THIS COMMUNICATION.

No dealer, salesman or any other person has been authorized to give any information or to make any representations other than those contained in this Prospectus, in connection with the offering contained in this Prospectus, and, if given or made, such information or representations must not be relied upon as having been authorized by the Company. This Prospectus does not constitute an offering or solicitation by the Company or its agents in any state in which the agent or underwriter is not qualified to act as a dealer or broker or in which such offering may not be lawfully made. Neither the delivery of the Prospectus, nor any sale made hereunder, shall under any circumstances create any implication that there has been no change in the affairs of the Company since the date of issue hereof.

	Price to Public	Under Writing Commissions	Expense of Advertising and Solicitation	Proceeds to Company
Per Share	$ 2.50	$ .375	$ .125	$ 2.00
Total	262,500.00	39,375.00	13,125.00	210,000.00

*10,775 shares heretofore sold.
Balance for sale - 94,225 Shares.

INDEX

Item	Page
Details of offer	2
History of company and properties	2-3
Purpose and distribution of proceeds of sale	4
Management and control of company	4-5
Dividend Rights	5
Outstanding options and contracts	5
Identification of properties	5-6
Summary	6
Names and addresses of agents	6-7
Exhibits:	
Report of R. Burton Rose, Mining Geologist	8-13
Report of Edwin Walter Mills, Mining Engineer	13-17
Supplement to Brief Mining Reports of May 20, and May 31, respectively, 1949	17-18
Statement of Receipts and Disbursements, June 1st to December 31st, 1949	19
Balance Sheet as of December 31, 1949	20
Survey Map - (Front Cover)	

Date of Issue of this Amended Prospectus: Jan. 1, 1950.

THE OFFER

BONANZA MINING COMPANY
(An Arizona Corporation)

Has heretofore offered for sale to the public in Arizona (and in such other states as it may hereafter become legally authorized and qualified to make this offer).

105,000 shares of its common capital stock
(full-paid and non-assessable)

at a selling price of $2.50 per share. (The company has an authorized capital of $1,000,000.00 divided into 1,000,000 shares of a par value of $1.00 per share. As of January 1, 1950, 551,745 shares have been issued). The offer is being made for the benefit of the issuer, Bonanza Mining Company. 94,225 shares remain unsold and available for purchase from the present offering of 105,000 shares.

HISTORY OF COMPANY AND PROPERTIES

Bonanza Mining Company was incorporated October 19, 1948 in the State of Arizona. The original incorporators were, principally, Roy R. MacDonald and his mother, Laura R. MacDonald, and a group of miners from the mining town of Superior, Arizona. The company was organized to acquire, develop and operate what is generally known as the Bonanza claims in northern Yuma County, Arizona, a group now consisting of Seventeen (17) unpatented mining claims in the Ellsworth Mining District about 7-3/4 miles northwest of Wenden.

These properties for many years had been owned and operated by R. R. MacDonald, Sr., (now deceased) and his wife, Laura R. MacDonald. Mr. MacDonald was the original discoverer and locator of what is now the Copper Matte 1 Claim, where the main shaft is located. Mining operations started about the year 1900 under the direction of R. R. MacDonald, Sr., and continued until 1941, mainly by lessees, with the ore mined being shipped to smelters at different periods, located at Swansea, Hayden, Superior, Miami, Jerome and Clarkdale, Arizona.

Upon the death of Mr. MacDonald, Sr., in 1945, his one-half (1/2) community interest in the mine passed by inheritance to his son, Roy R. MacDonald and his daughter, Elaine Spry. Roy R. MacDonald acquired the interest of his sister Elaine Spry by deed, the consideration being the transfer to her of his one-third (1/3) interest in the Yuma Copper Mine, located Twenty-seven (27) miles northwest of Salome, Arizona. Laura R. MacDonald, widow of the discoverer, on the death of her husband, under Arizona community property law, became vested with a one-half (1/2) interest in her own right. Thus, no actual cash was paid by either Roy R. MacDonald or his mother for their interests in the mine, the latter having acquired her interest by virtue of being the wife of the original discoverer and locator, and the former, a one-fourth (1/4) interest by descent and one-fourth (1/4) by exchange of other mining property.

All mining and shipping was suspended during the war period because the group of mining claims was located within the army bombing area known as Tract M-22 and also the Presidential Directive L-208. After the organization of Bonanza Mining Company (October 19, 1948), the claims were transferred to the company by the MacDonalds in return for 520,000 shares of its $1.00 par value common capital stock (260,000 shares to each). The fair value of the property was determined to be $520,000.00 by the Board of Directors, on October 22, 1948 (MacDonald not voting). The directors arrived at their valuation after they had investigated the extent of the property, its production history, geological condi-

tions, state of development, and they or their representatives had personally visited the mine and made numerous independent samplings of the ore bodies. Members of the Board at that time were: Roy R. MacDonald, John Valdin, Sherrill Rogers, Robert C. Burns and Reuel N. Pomeroy. All were miners of many years experience, except Pomeroy, who was the company's attorney.

$6,765.00 was raised through the sale and issuance to the original incorporators of 6,765 shares at par ($1.00 per share), during the first two months of the company's existence. These funds enabled the company to commence diamond drilling operations which were carried to a depth of 745 feet, at a cost of $4,449.50. The results of these drilling operations were such that the Board of Directors felt justified in raising sufficient funds from the sale of additional capital stock to finance the further development of the mine.

At the present time, Laura R. MacDonald owns 253,550 shares and Roy R. MacDonald 253,025 shares of the $1.00 par value common capital stock of the corporation. Their combined holdings represent approximately 92% of the total issued and outstanding capital stock of 551,745 shares.

To date of this Prospectus (January 1, 1950) 31,745 shares of stock are issued and outstanding, in addition to the 520,000 shares issued to the MacDonalds, as follows:

		Proceeds Received By Company
20,440 shares at $1.00 per share	-	$ 20,440.00
11,305 shares at $2.50 per share	-	28,262.50
		$ 48,702.50
Less commissions paid	-	2,713.50
		$ 45,989.00

Funds thus far raised from sale of stock to the public under the present offering aggregate, as of January 1, 1950, $26,937.50; net to the company, after deducting commissions and advertising expense of $3,855.26, was $23,082.24. See exhibit attached for statement of receipts and disbursements for the period June 1st to December 31st, 1949.

These additional funds have made it possible to sink the main shaft from the 300' level to a depth of approximately 375 feet, and to install at the collar of the shaft a 4,500 foot hoist and hoist house.

Representative assays of ore from the 250 foot level to the 300 foot level averaged, at that time (June, 1949) $40.00 per ton. This is high grade ore.

Representative samples taken from the 300 foot level to the present bottom (375 feet) average $58.75 per ton. The results obtained in this development substantiate the opinions of both Mr. Rose and Mr. Mills, the mining geologist and engineer, whose reports were given in May of 1949,

Mr. Rose stated:

> "The proving of ore at depth is the most important development phase. Sinking of the Bonanza shaft should be carried out as a first objective, supplemented by deep diamond drilling. Sinking a thousand feet on this type of deposit is more important than drifting many times that footage above the bottom level of the shaft."

Similar recommendations were advanced by Mr. Mills. Thus, it will be seen that the development work has been in accordance with the recommendations of eminent professional men, who have examined the properties.

PURPOSE AND DISTRIBUTION OF PROCEEDS OF SALES

Agents' commission of 15% will be paid on all stock sold. In this connection, some of the officers, directors and promoters who are acting as selling agents will be paid the same commission, namely 15%. The cost of selling and advertising, over and above agents' commissions, is estimated at and will not exceed 5% of the selling price. If all the stock offered for sale is sold it will net the company $210,000.00.

The purposes for which the net proceeds from the securities are to be used and the distribution thereof (as nearly as can be estimated at present) are as follows:

For administrative, clerical, accounting and legal expense		-	$ 10,000.00
For survey, claim and location work, and perfecting and maintaining title to mineral rights		-	3,000.00
For surface mining equipment and machinery		-	20,000.00
For a reduction works (floatation plant)		-	80,000.00
For general mining operations and development work (estimate only):			
Sinking shaft	- $ 44,500.00		
Timbering and cutting stations	- 5,000.00		
Driving raises	- 12,000.00		
Underground equipment and machinery	- 10,000.00		
Drifting, crosscutting and ore bins	- 25,500.00		97,000.00
Total - - - - - - -			$ 210,000.00

MANAGEMENT AND CONTROL

The officers and directors of the company are:

Roy R. MacDonald - President and Director
Wenden, Arizona

Dr. Robert C. Evans - Vice-President and Assistant Secretary and Treasurer
1622 East Catalina Drive - Phoenix, Arizona

Laura R. MacDonald - Secretary and Treasurer
Wenden, Arizona

Reuel N. Pomeroy, Director
222 Main Street
Superior, Arizona

John Valdin, Director
Hill Street
Superior, Arizona

Sherrill Rogers, Director
Superior, Arizona

George K. Angius, Director
Miami, Arizona

Roy R. MacDonald will be actively in management of the affairs of the corporation. Following is a brief resume of his business and mining experience:

> Has successfully operated various mining enterprises and properties in Arizona from time to time throughout his life, either as lessee, manager or owner. Mr. MacDonald operated the Golden Key Mine, at Congress, Arizona, as owner and operator; the Dora Mine at Octave, Arizona, under lease and option; the Golden Star Mine at Wenden, as operator; the Avalon Gold Mine at Wenden, as owner; Yuma Copper Mine, Vicksburg, Arizona, as partner; and the Bonanza Mine at Wenden, as operator.

DIVIDEND RIGHTS

The principal stockholders, Roy R. MacDonald and Laura R. MacDonald, as a gesture of good faith and as an added inducement to present stockholders and prospective investors in the capital stock of the company, to purchase the stock being offered for sale, have made a written, irrevocable assignment of all dividends which they or either of them may be entitled to receive over and above 52% of the total dividends at any time declared by the Board of Directors, for a period of seven years from June 9, 1949.

The dividends assigned to the stockholders from the MacDonald holdings would, of course, be due the stockholders in addition to the dividends on their own stock due them at such times as may be declared by the Board of Directors.

CONTRACTS AND OPTIONS FOR PURCHASE OF STOCK

The following option granted by the company is outstanding:

> An option granted by resolution of the Board of Directors October 29, 1948, to Dr. Thomas P. Walton, of Phoenix, Arizona, for the purchase of 20,000 shares of stock at $1.00 per share. This option has been exercised and stock transferred to Dr. Walton, to the extent of 10.685 shares, leaving a balance under the option of 9,315 shares. This option will expire May 29, 1950, The consideration for the option was the initial purchase by Dr. Walton, on the incorporation of the company, of 1,000 shares of its capital stock (par value $1.00) at $1.00 per share, and promotional services.

IDENTIFICATION OF PROPERTIES

The unpatented mining claims owned by Bonanza Mining Company are shown on a plat, copy of which appears on the cover, and are described as follows:

Iron King 1	Bonanza 3
Copper Matte 2	Roy 2
Copper Matte 1	Camp 1
Bonanza	Bonanza 4
Bonanza 2	Bonanza 5
Roy 1	Bonanza 6
Roy	Bonanza 7
Camp	Bonanza 8
Bonanza 1	

The remaining claims shown on the plat in dotted lines do not belong to Bonanza Mining Company but are either owned or held under lease and option by Roy R. MacDonald, and are referred to as the "Bonanza Central"

group of claims. The mining geologist report of R. Burton Rose and also the mining engineering report of E. W. Mills hereinafter set forth, are reports on the entire property owned by Bonanza Mining Company and the Bonanza Central Claims. These mining reports should, therefore, be read and considered with this fact in mind.

The diamond drill hole and the main shaft referred to in the reports are both located on the property of Bonanza Mining Company. Likewise, the assays were taken from ore samples on Bonanza Mining Company property.

SUMMARY

Bonanza Mining Company is a company organized and operated by mining men of experience who have faith in the future of the company's mine.

Because of the fact that it is a comparatively new corporation and has not yet shipped or mined its ore, no profit and loss statement is available. However, previous leasees and operators of the claims have operated the properties at a profit.

The directors and officers of the company believe, based on their own experience, and on the engineering data available, that Bonanza Mining Company is one of the best mining ventures in the State of Arizona. As indicated in the engineering reports attached to this Prospectus, the properties have been proven to contain deposits of commercial high grade ore, mostly copper, with gold content, and the geology of the country and formation and position of the ore veins point strongly to the probability that the ore now known to exist is but a small fraction of a very large deposit of high grade copper-gold ore which lies beneath the surface and which can be mined at a good profit.

NAMES AND ADDRESSES OF AGENTS

Purchasers in Arizona desiring to invest in the stock hereby offered may contact the following agents:

Lawrence Acosta
P. O. Box 1951
Phoenix, Arizona

Edwin Kittell
1937 East Portland Street
Phoenix, Arizona

Sandra W. McFate
1729 East Palm Lane
Phoenix, Arizona

Mrs. Elizabeth Foxwell
3137 West Jefferson Street
Phoenix, Arizona

Roy R. MacDonald
Wenden, Arizona
(Mr. MacDonald is President and Director of the company)

Robert C. Evans
1622 East Catalina Drive
Phoenix, Arizona
(Dr. Evans is Vice-President, Assistant Secretary and Treasurer of the company)

McKinley Wood
1033 North 28th Place
Phoenix, Arizona

George O. Barth
1801 East Thomas Road
Phoenix, Arizona

Reuel N. Pomeroy
222 Main Street
Superior, Arizona
(Mr. Pomeroy is a Director of the company)

Reid F. Ellsworth
1620 East Harvard Street
Phoenix, Arizona

John Valdin
Hill Street
Superior, Arizona
(Mr. Valdin is a Director of the company)

Sherrill Rogers
General Delivery
Superior, Arizona
(Mr. Rogers is a Director of the company)

Galen Curtis Mirick
1801 East Thomas Road
Phoenix, Arizona

George K. Angius
P. O. Box 18[illegible]
Miami, Arizona
(Mr. Angius is a Director of the company)

Russell Foxwell
613 Lennox Street
Baltimore, Maryland

Eugene W. Funk
717 East McKinley
Phoenix, Arizona

Neil D. Haney
1008 East Fairmont Street
Phoenix, Arizona

Eugene B. Hollingsworth
1318 East Granada Road
Phoenix, Arizona

Norman D. White
4702 North Central Avenue
Phoenix, Arizona

John W. McLaughlin
Box 1007
Morenci, Arizona

George H. Drum
Box 808
Yuma, Arizona

Charles B. Price
1801 E. Thomas Rd.
Phoenix, Arizona

Respectfully submitted,

BONANZA MINING COMPANY, an Arizona corporation

By Roy R. MacDonald
Its President

RESUME OF PROFESSIONAL TRAINING AND BACKGROUND OF
R. BURTON ROSE, M. A.
San Jose, California

Mr. Rose received his A. B. in Geology in 1936 from San Jose State after alternating schooling and working over an eight year period. This included one year of underground mining experience, mucking and drilling. In 1939 he received his Master's Degree in Geology from the University of California at Los Angeles.

Subsequently he conducted research development in electrical and radioactive phases of geophysics. Several technical papers have been published by Mr. Rose. One of his writings, "Radioactive Exploration" was presented first to the Colorado Mining Association, and later to the American Institute of Mining and Metallurgical Engineers.

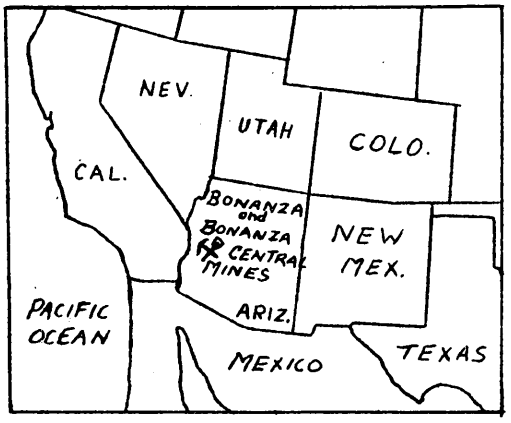
Mr. Rose has been active in field work in geology and geophysics on a consulting basis, throughout all of the Pacific West States and Mexico. He is widely known as a consulting mining geologist, and stands high in his profession.

BONANZA AND BONANZA-CENTRAL MINES

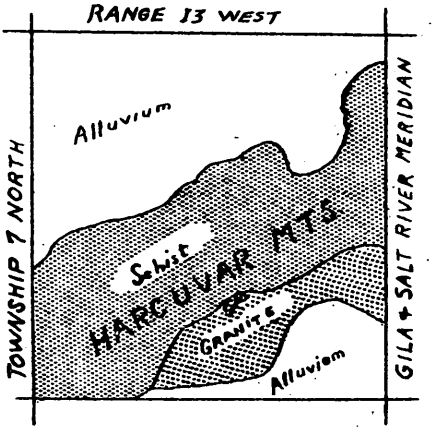
Yuma County, Arizona

A Resume Report

1949



INDEX MAP



REGIONAL GEOLOGY*

* From Arizona State Geologic Map

Bonanza and Bonanza Central Mines - Location

BONANZA AND BONANZA-CENTRAL MINES

Yuma County, Arizona

Name of Property: Contingent claims groups, including seventeen claims held by Bonanza Mining Corporation and nineteen claims in Bonanza-Central Mine group held by Roy R. MacDonald.

Kind of Mine: Copper ore deposit carrying gold content and minor silver values.

Location: Ellsworth Mining District, seven 3/4 miles northwest of Wenden, northern Yuma County, Arizona; in T.7N.R.13W. Gila and Salt River Meridian, being part of Sections 22, 23, 25, 26 and 27.

Area: 36 full mining claims, 720 acres, This area covers the major portion of the mineralized zone, approximating one thousand feet in width and three miles in length.

Topography: Steep hill slope region varying in elevation from 2300 feet to 3800 feet. Hills rise from level desert plain.

Climate: Year round outdoor working conditions, hot through the summer months.

Accessibility: Good dirt road to Wenden 7 3/4 miles distance, located on U. S. Highway 60 and shipping point on the Santa Fe Railroad.

Ore: Sulfide copper, ores, partly oxidized, showing secondary enrichment in the form of chalcocite replacement of the original chalcopyrite. These ore masses parallel and also replace the persistent diabase dykes throughout the claims; apparently in close relation to the intensity of hydrothermal alteration. The average copper content is relatively high, with an associated gold content ranging from minor amounts to over an ounce per ton. The vein material in general is highly oxidized, both on the surface and at the points of deepest exploration.

Assay values range between $38.00 and $118.00 with typical ore samples. A random ore shipment return from leasing operations in 1936 (Smelter lot 8691) showed a 6.77% copper, 0.17 oz. silver and 0.69 oz. gold for a 13.8435 ton lot. The following listed assays show the type of ore encountered in sinking operations this year at the Bonanza shaft:

Assay	Level	Silver oz.	Gold oz.	Copper %
526 Bo.	255	Trace	.02	5.03
532 Bo.	260	.2	.03	8.73
528 Bo.	262	Trace	.01	6.37
527 Bo.	267	.1	.02	10.06
540 Bo.	271	4.7	.02	7.14
533 Bo.	273	.2	.08	14.18
" Bo.	278	.1	.04	17.42

(All ore produced to date over the past fifty years of surface leasing operations has been of shipping grade value - packed out on burros to the desert road end.)

Geology: As shown on the accompanying plate, the regional geology is that of a mountain range of Pre-Cambrian age schist and granite separating two alluvial filled desert valleys. A major structural zone extends across this range in a North 70 degree West direction. This zone contains some nineteen or more near parallel diabase dykes with the same strike, or longitudinal axis. At the surface these dykes dip eastward at varying degrees. With depth they appear to converge and become nearly vertical. Dynamic metamorphic action on a regional scale produced this deep seated shear zone and provided the loci for the diabase dykes and subsequent copper ore replacement. Intense hydrothermal alteration and progressive leaching accompanied the deposition of the sulfide copper ores.

The host rock in this mineralized zone or belt is an altered true granite showing the effects of the metamorphic action and the hydrothermal alteration accompanied by some sericitization. The magnitude of these effects, consistently found throughout the 1000 foot by three mile zone, indicates a deep seated direct source for the copper mineralization now exposed at the surface. This concept is further indicated by the close relationship of the copper ores mined with the areas of most intense hydrothermal action.

These factors indicate that the copper content should be the same, or better with increased depth; rather than being limited to surface erosion and oxidation enrichment. This is confirmed by the close association of the chalcocite secondary enrichment of the primary chalcopyrite copper ore and the hydrothermal alteration halos. Also, the leaching of the diabase dykes seems to increase in depth associated with replacement by copper mineralization. Longitudinally, the extent of the mineralization is unknown since it does not terminate, but disappears under the desert surface on both sides of the range.

Development: Many shallow cuts, shafts and trenches show as a result of the extensive surface shipping of ore. Deeper development includes the following:

1.) Diamond drill hole (1949). This drill hole was run 745 feet deep on a 65° angle. 14 feet of 4% copper ore was cut at the 360 foot point.

2.) Bonanza shaft. Previously sunk to 250 feet, this shaft has been continued to the 325 foot level (1949) and turned to near vertical. Ore shows in the shaft or is cut by drill holes from the 250 foot level to the bottom.

3.) Mollina shaft 110 feet.

4.) Roy shaft 65 feet vertical - 70 foot crosscut.

5.) Rov #2 50 feet deep.

6.) New Deal claim shaft 100 feet.

7.) Shaft on summit 100 feet.

8.) Roy tunnel 300 feet long.

9.) Lower tunnel summit 175 feet.

10.) Upper tunnel summit 125 feet.

Required development: The proving of ore at depth is the most important development phase. Sinking of the Bonanza shaft should be carried out as a first objective, supplemented by deep diamond drilling. Sinking a thousand feet on this type of deposit is more important than drifting many times that footage above the bottom level of the shaft. At 500 feet, or better at the 1000 foot level if possible, the dyke system should be crosscut to determine the relative degrees of alteration in the individual dykes; together with copper content. This data should control drifting development plans.

The most logical development of the higher Bonanza-Central group can be done most effectively by drifting from the Bonanza shaft at depth on an ore bearing dyke and then raising to the surface at a point in ore. It should be noted that this would make a considerable amount of broken surface ore economic by elimination of the too costly pack operations now necessary.

Water supply: Water is not available at the mine site, but ample quantities are obtainable for any size operation at not more than a seven mile distance and can be piped.

Power: Electricity and a natural gas supply line are both located approximately three miles from the mine assuring adequate power as required.

BONANZA MINING COMPANY WENDEN, ARIZONA

HERE IT IS!

VIEW IT LIKE THIS

57 MINERS

Bottom of Shaft now

10 CUBIC FEET EQUALS 1 TON

PRESENT ASSAYS FROM SHAFT AVERAGE $40.00 PER TON

UNDEVELOPED AREA

APPROX. 1¼ MILES LO

UNDEVELOP

"THESE (GEOLOGICAL) FACTORS

indicate that the copper content should be the same, or better, with increased depth. x x x

Development at depth is fully warranted and has exceptional production possibilities."

—R. Burton Rose, M.A.
Mining Geologist
San Jose, Calif.
(May 20, 1949)

WE INVITE YOU to be on

YOU SHARE WITH US!

"THE RESULTS OF THE EXPLORATION work thus far indicate strongly the existence of a deep-seated large body of copper-gold ores of commercial value. x x x

"A mining venture of unusual merit and possibilities. Offers definitely the prospect of becoming a large producer of commercial copper-gold ores."

—Edwin Walter Mills
Consulting Mining Engineer
Wenden, Ariz.
(May 31, 1949)

ne of us WE KNOW *what we have*

Equipment: Present equipment is limited to a prospect type hoist, headframe and compressor connected for sinking operations at the Bonanza shaft. Associated blacksmith equipment is installed.

Mill tests: Past production of shipping grade smelter ore has shown it to be highly desirable and often subject to bonus payments.

Costs: Based on past production records the total mining, milling and smelter costs should not exceed $12 per ton.

Freight facilities: Truck haul eight miles to railroad. Railroad rate $2.20 per ton to Clarkdale smelter; $3.50 per ton to Hayden, Arizona. Both are copper smelters.

Living accommodations: None at mine. Ample quarters and meals at Wenden.

Timber and vegetation: None.

Financial statement: Registered Arizona corporations; data on file as required.

Titles: Government location claims (36). All filing and assessment requirements complied with.

Maps and reports: Claims maps in preparation by registered Arizona state surveyor. No previous mine reports known.

The above described combined mining property was visited last month and found to be a very promising type of copper deposit from the viewpoint of structural factors as outlined and the past production record under a single family ownership through the past fifty years. This record is particularly interesting in view of the many surface ore outcrops shipped and the meager development conducted throughout the whole period of ore shipping. Development at depth is fully warranted and has exceptional production potentialities.

Respectfully submitted,

R. Burton Rose, M.A.
Mining geologist

Dated: May 20, 1949

RESUME OF PROFESSIONAL BACKGROUND AND EXPERIENCE OF
EDWIN WALTER MILLS, REGISTERED MINING ENGINEER
Salome, Arizona

Mr. Mills is a graduate of Lawrence Scientific School, Harvard University, Cambridge, Massachusetts, class of 1902. After graduation he took a position with Oriental Consolidated Mining Company which operated mines in Korea. This firm held a concession in northern Korea of 500 square miles granted them by the Korean Government. Mr. Mills went to Korea where he served his apprenticeship and obtained valuable, practical mining experience. Eventually he became superintendent of one of the five camps on the concession, namely the Taracol Camp.

Subsequently he went to work at the Chiksan concession, fifty-four (54) miles south of Seoul as exploration superintendent. The Chiksan mine was operated by Americans living in Kobe, Japan. Mr. Mills worked there two years and helped develop the Sandgek.

In 1910, in the course of his business, he met Mr. Herbert Hoover and Mr. Lindon Bates, a very famous civil engineer who had contacted Mr. Mills on behalf of the Anglo Continental Mining Company of London, and retained him to examine properties in Northern Korea and Japan. Thereafter, he spent many years in Japan and China, mostly in Honshu and Kyushu.

Mr. Mills developed what is known as the Tulmichung in north central Korea which was on a concession of 240 square miles. He served as consulting engineer for the Warlord of Manchuria.

In 1946, after a nine-month stay in the United States, Mr. Mills joined the staff of Naval Attache at Peking. He then went to Vladivostok to make an examination of the famous lead-zinc mines worked by the Germans prior to the war at Tetyukhe, twenty-four (24) miles inland. Mr. Mills has served as exploration superintendent of the Suang Mining Company which had its offices in London. He has had forty-seven (47) years experience in mining. He has written papers for the London Mining Journal and for the Royal Asiatic Institute in London.

He is a fellow of the Royal Asiatic Society and has been a fellow of the Royal Geographical Society. He is a member of the American Institute of Mining Engineers.

At the present time, Mr. Mills is Vice Chairman of the Board of Governors of the Department of Mineral Resources of the State of Arizona and Chairman of the Ellsworth Council of the Arizona Small Mine Operators Association.

Edwin Walter Mills
Consulting Mining Engineer

BRIEF REPORT ON THE BONANZA AND BONANZA CENTRAL MINES

Yuma County, Arizona

GENERAL: The BONANZA MINE group comprises 17 contiguous mining claims and the BONANZA CENTRAL MINE group comprises 19 contiguous mining claims adjoining the BONANZA MINE group, making a combined total of 36 mining claims, with a total of 720 acres. This area covers the major portion of the mineralized zone which is approximately 1,000 feet in width and three miles in length.

These two groups of mining claims are located in northern Yuma County, in the Ellsworth Mining District, about 7-3/4 miles northwesterly from the Town of Wenden on U. S. Highway 60, in Township 7 North, Range 13 West, Gila and Salt River Base and Meridian.

GEOLOGY: The geology of this area is primarily Pre-Cambrian schist and granite which is traversed by a mineralized zone in a North 70° West direction. The host rock is a highly altered granite which extends throughout this mineralized zone. This zone contains at least 19 more or less parallel diabase dykes with approximately the same northwesterly strike of 70 degrees. In depth these diabase dykes are nearly vertical and would seem to indicate favorable ore deposition in depth, even better than shown in the surface workings.

ORE OCCURRENCE AND MINERALIZATION: Copper sulphide ores, showing considerable secondary enrichment in the form of chalcocite which has replaced the original chalcopyrite. The vein material is highly oxidized, both on the surface and in the deepest workings. These ore occurrences are parallel to and also replace the numerous diabase dykes which traverse these groups of mining claims.

The average copper-content is relatively high; gold is also associated with the copper, and the gold-content ranges from small amounts to over one ounce per ton of ore.

Typical ore samples have shown total assay values ranging from $38.00 to $118.00 per ton.

Of great importance has been the discovery of the occurrence of titanium in the diabase dykes. Preliminary analyses have shown a content of 0.1% to 1.0% of titanium, per ton. This will warrant thorough testing to determine whether or not this titanium content can be recovered as a profitable by-product. The outlook is favorable for doing so.

ASSAYS: During this year, 1949, ore samples were taken during the sinking of the BONANZA SHAFT which showed the following values:

Assay Nol	Shaft Depth	Silver Oz. per Ton	Gold	Copper Percent Per Ton
526 Bo.	255'	Trace	0.02	5.03
532 Bo.	260'	0.2	0.03	8.73
528 Bo.	262'	Trace	0.01	6.37
527 Bo.	267'	0.1	0.02	10.06
540 Bo.	271'	4.7	0.02	7.14
533 Bo.	273'	0.2	0.08	14.18
533 Bo.	278'	0.1	0.04	17.42

Inasmuch as all of the old mine records were destroyed by fire a number of years ago, it is not possible to give any detailed assays of the ore shipments made by the various leasers and the owner of these mining claims. However, there is a copy of an ore shipment made to the Miami Plant, International Smelting and Refining Company, dated Spt. 1, 1936, designated as Smelter Lot 8691, of 13.8435 dry tons of copper-gold ore which assayed, as follows: Copper 6.77%, Silver 0.17 oz. and Gold 0.69 oz., per ton.

ORE ESTIMATE: Although there are many shallow cuts, shafts and trenches that produced shipping ore in the early days, there was not sufficient development work done to make reasonably accurate estimates of Positive and Probable Ore Reserves. It may be stated, however, that with the further development work to be done in the sinking of the BONANZA SHAFT, with levels, crosscuts and drifts and raises, very favorable geological conditions exist that will certainly ensure the development of a very large tonnage of Positive and Probable Ores.

OPERATING COSTS: Operating costs will vary according to the plan of treatment, that is: Milling or smelting operations. Until a definite plan has been worked out by tests for an efficient milling flowsheet, no definite costs can be quoted at this time. Smelting costs may also vary according to trucking, freight and smelter charges

WATER AND POWER: There is no water available on the mining claims, but an ample supply can be obtained in the vicinity of Wenden, about seven miles distant, which can be piped to the desired place to be used.

Electric power and natural gas lines are both located within three miles of the mining claims, and adequate power can be obtained at very reasonable rates.

DEVELOPMENT WORK: Other than the many shafts, trenches, and shallow cuts, from which ore was mined and shipped in the early days, there are also the following deeper workings:

1. Diamond Drill Hole (1949), drilled to a depth of 745 feet at an angle of 65 degrees. (f 360 feet).

2. Bonanza Shaft: This shaft previously sunk to a depth of 250 feet, but to this date in 1949 the sinking has been continued to a depth of 325 feet. At this depth the shaft is nearly vertical. Ore shows in the shaft and has also been cut by drill holes from the 250' level to the shaft bottom.

3. Mollina Shaft: 110 feet in depth.

4. Roy Shaft: 65 feet vertical depth, and 70 feet cross-cut.

5. Roy Shaft #2: 50 feet in depth.

6. New Deal Claim Shaft: 100 feet in depth.

7. Summit Shaft: 100 feet in depth.

8. Roy Tunnel: 300 feet in length.

9. Summit Lower Tunnel: 175 feet in length.

10. Summit Upper Tunnel: 125 feet in length.

CONCLUSIONS: The results of the exploration work thus far indicate strongly the existence of a deep-seated large body of copper-gold ores of commercial value, within this well-mineralized zone approximately 1,000 feet in width, with a length of three miles.

It will not require much more work in the BONANZA SHAFT to get the necessary workings in such shape that copper ores can be mined for shipment to the smelter. Strong indications point to the definite development of a large tonnage of commercial ore also for mining and milling operations.

The climatic conditions are very favorable for year-round mining and milling operations.

The mining claims are readily accessible by a good dirt road, 7-3/4 miles long, connecting with U. S. Highway 60, and the Sante Fe railway, at Wenden.

Good transportation facilities are afforded by both U. S. Highway 60 and the Sante Fe Railway.

Sufficient electric and gas power, and water can be made available for all requirements.

The BONANZA and the BONANZA CENTRAL MINES are mining ventures of unusual merit and possibilities, and offer definitely the prospect of becoming large producers of commercial copper-gold ores.

Full and clear vision is necessary to properly evaluate all of the commercial advantages accruing to the credit of the BONANZA and BONANZA CENTRAL MINES AND THESE ARE PRIMARILY DUE to their favorable geological topographical and climatic setup.

RECOMMENDATIONS: The most important phase of development is the proving of ore in depth. Hence the necessity of sinking the BONANZA SHAFT to a depth of 1,000 feet, and cutting out a station on the 500-foot level, so that crosscuts can be run from this station to both the hangingwall and the footwall of the system of diabase dykes. Lay out plans for drifts and crosscuts on this 500-foot level to provide for the mining of copper-gold ores for shipment to the smelter, while the work of sinking the BONANZA SHAFT to a depth of 1,000 feet is progressing.

In due course have milling and metallurgical tests run for the purpose of working out a proper flow-sheet for the treatment of the ores mined. It would also be advisable to have thorough metallurgical tests made regarding the recovery of the titanium contained in the diabase dykes.

It is also well worthwhile to make plans for the construction of a good milling plant and reduction works, so that the copper-gold ores can be treated more economically than being shipped to a smelter for treatment, and thus saving considerable expense.

Respectfully submitted,

Salome, Arizona
May 31, 1949

(Signed) EDWIN WALTER MILLS
Edwin Walter Mills,
Consulting Mining Engineer

(Seal):
Registered Mining Engineer
Arizona, U. S. A.
Edwin W. Mills
Certificate expires: Dec. 31, 1949.

Supplement to Brief Mining Reports of May 20, and May 31, respectively, 1949.

Since our last mining reports of May 20, and May 31, respectively, 1949, the sinking of the BONANZA SHAFT has been continued to a depth of 401 feet, as of this date, March 21, 1950. The results have been most satisfactory inasmuch as the ore formation has consistently improved in values and in occurrence in depth, and there is no doubt that these values will be maintained to the 500-foot level. The copper-content of the ores consists mainly of chalcocite and chalcopyrite with small quantities of malachite and cuprite. The gold and silver values of the ore formations are of low-content, but they will add some value to increase the total copper-gold values of the ores.

Present indications point strongly to the continuation of the ores in depth together with good copper-gold values all the way down to the 500-foot level where it is planned to cut out a station and to drive cross-cuts to both the hanging- and foot-walls preparatory to the mining and stoping of ores on this 500-foot level to be shipped to the smelter for treatment.

The following assay results are of interest to everyone concerned in the development and operation of the BONANZA MINE.

Sample No.	Shaft Depth	Sample Width	Silver Oz. per ton	Gold Oz. per ton	Copper % Per Ton	Copper Value $ Per Ton	Total Value Per Ton
BG #1	385'	12"	2.6	0.13	16.12	59.57	$ 66.47
BG #2	385'	42"	0.9	0.02	10.38	38.33	39.90
BG #3	388'	48"	1.2	0.02	12.30	45.51	47.29
BG #4	401'	48"	0.2	0.04	15.57	57.50	58.90

The following excerpts from our reports show clearly that the contents of the same have been proven thus far to be correct and we have every reason to state that the next 100 feet of shaft sinking will show even better ore occurrences and values in gold and copper-contents: *

" The host rock in this mineralized zone is an altered true granite showing the effects of the metamorphic action and the hydrothermal alteration accompanied by some sericitization. The magnitude of these effects, consistently found throughout the 1,000 feet by three mile zone, indicates "a deep-seated direct source for the copper mineralization now

exposed at the surface. This concept is further indicated by the close relationship of the copper ores mined within the same areas of most intense hydrothermal action.

" These features indicate that the copper-content should be the same, or better, with increased depth; rather than being limited to surface erosion and oxidation enrichment. This is confirmed by the close association of the chalcocite secondary enrichment of the primary chalcopyrite copper ore and the hydrothermal alteration halos. Also the leaching of the diabase dykes seems to increase in depth associated with replacement by copper mineralization."

All of the foregoing items have been fully confirmed by the shaft sinking to date, and there is no doubt that the ore formations and values will keep on improving as the shaft is sunk to the 500-foot level, where a station will be cut out for mine workings and ore development on that level, in accordance with the following excerpt from the May 31, 1949 mining report:

" The most important phase of development is the proving of ore in depth. Hence the necessity of sinking the BONANZA SHAFT to a depth of 1,000 feet, and cutting out a station on the 500-foot level, so that crosscuts can be run from this station to both the hangingwall and the footwall of the system of diabase dykes. Lay out plans for drifts and crosscuts on the 500-foot level to provide for the mining of copper-gold ores for shipment to the smelter, while the work of sinking the BONANZA SHAFT to the depth of 1,000 feet is progressing.

Respectfully submitted,

Salome, Arizona
March 21, 1950.

Edwin Walter Mills
Consulting Mining Engineer

T. Burton Rose
Mining Geologist

BONANZA MINING COMPANY
WENDEN, ARIZONA

STATEMENT OF RECEIPTS AND DISBURSEMENTS — JUNE 1, to DECEMBER 31, 1949

Receipts:			
Sales of Stock (10,775 shares @$2.50 per share)			$26,937.50
Stock Subscribed But Unissued			200.00
Interest Received			10.00
Total Receipts			$27,147.50
Deduct:			
Commissions Paid for Sales of Stock		$2,553.50	
Expense of Advertising & Solicitation		1,301.79	$ 3,855.29
Net Proceeds to Company			$23,292.21
Disbursement of Net Proceeds:			
For Administrative, Clerical, Accounting and Legal Expenses		$2,261.93	
For Surface Mining Equipment & Machinery		4,150.79	
For General Mining Operations and Development Work -			
Sinking Shaft	$12,327.51		
Underground Equip. & Mach.	721.73		
Drifting, Crosscutting & Ore Bins	336.46		
Survey, Claim & Location Work	1,574.65	14,960.35	
Total Disbursement for Mining Operations		$21,373.07	
For Industrial Commission Deposit	$288.00		
For Payment of Loan	265.00		
For Advances to Officers & Employees	349.68		
Total Disbursed, Other Purposes		902.68	
TOTAL, ALL DISBURSEMENTS			$22,275.75
Excess, Receipts Over Disbursements			$ 1,016.46
Add - Cash on Hand or in Bank as of 5-31-49			3.65
*Cash on Hand and in Bank as of 12-31-49			$ 1,020.11

*Accounted for as follows:

Office Petty Cash Fund	$ 150.04
Cash on Deposit in Bank Accts.	870.07
Total	$1,020.11

BONANZA MINING COMPANY
WENDEN, ARIZONA

BALANCE SHEET — DECEMBER 31, 1949

A S S E T S

Cash on Hand and in Bank		$1,020.11
Accounts Receivable:		
Advances to Employees & Officers		644.43
Mine Equipment		6,835.79
Mineral Deposit (Acquired for Stock Issued at Par Value)		520,000.00
Deposit, State Industrial Commission		288.00
Development Costs:		
Salaries and Wages	$14,085.76	
Travel and Car Expenses	3,125.18	
Office Supplies & Expense	613.86	
Organization Expenses	540.77	
Mine Supplies & Expenses	4,301.47	
Equipment Rental	3,809.62	
Insurance	389.17	
Accounting	409.45	
Payroll Taxes	17.02	
Stamp Taxes	617.70	
Legal Fees	2,754.67	
Commissions - Stock Sales	2,713.50	
Advertising and Promotion	1,009.97	
Miscellaneous	8.75	
Mine Road	143.00	
Drilling Test Holes	4,449.50	
Survey & Claim Work	1,574.65	40,564.04
TOTAL ASSETS		$569,352.37

L I A B I L I T I E S & C A P I T A L

Liabilities:		
Loans Payable to Stockholder	$ 270.00	
Accrued Payroll Tax	.77	
Employees Income Tax Withheld	254.10	$ 524.87
Capital:		
Capital Stock (1,000,000 shares authorized at $1.00 par value)		
Issued and Outstanding at par	551,745.00	
Subscribed but not Issued	200.00	
	551,945.00	
Paid-In Surplus (Paid for Stock in Excess of Par Value)	16,882.50	568,827.50
TOTAL LIABILITIES AND CAPITAL		$569,352.37

TO WHOM IT MAY CONCERN:

The writer has recently returned from an inspection trip of the Bonanza Mining Company properties. Their development work is in the virtual state of a real mining boom. They are now sinking the main shaft in a solid body of high grade gold-copper ore at a depth of approximately 500'. This solid body appears from approximately the 460' level to the present shaft bottom. The prospects of developing a large high grade gold-copper ore body on the 500' level are excellent.

Edwin Walter Mills
Edwin Walter Mills
Consulting Mining Engineer

Salome, Arizona
September 8, 1950

TO WHOM IT MAY CONCERN:

Since the date of the last supplemental mining report of Messrs. Mills and Rose of March 21, 1950, contained in the amended prospectus of Bonanza Mining Company, the company has sunk the main shaft from the 401' level to beyond the 500' level. The last 40' of this sinking has been through a solid body of high grade gold copper ore. It is the opinion of the undersigned that the prospects of developing a large body of high grade gold copper ore at the 500' level by drifts and raises are excellent.

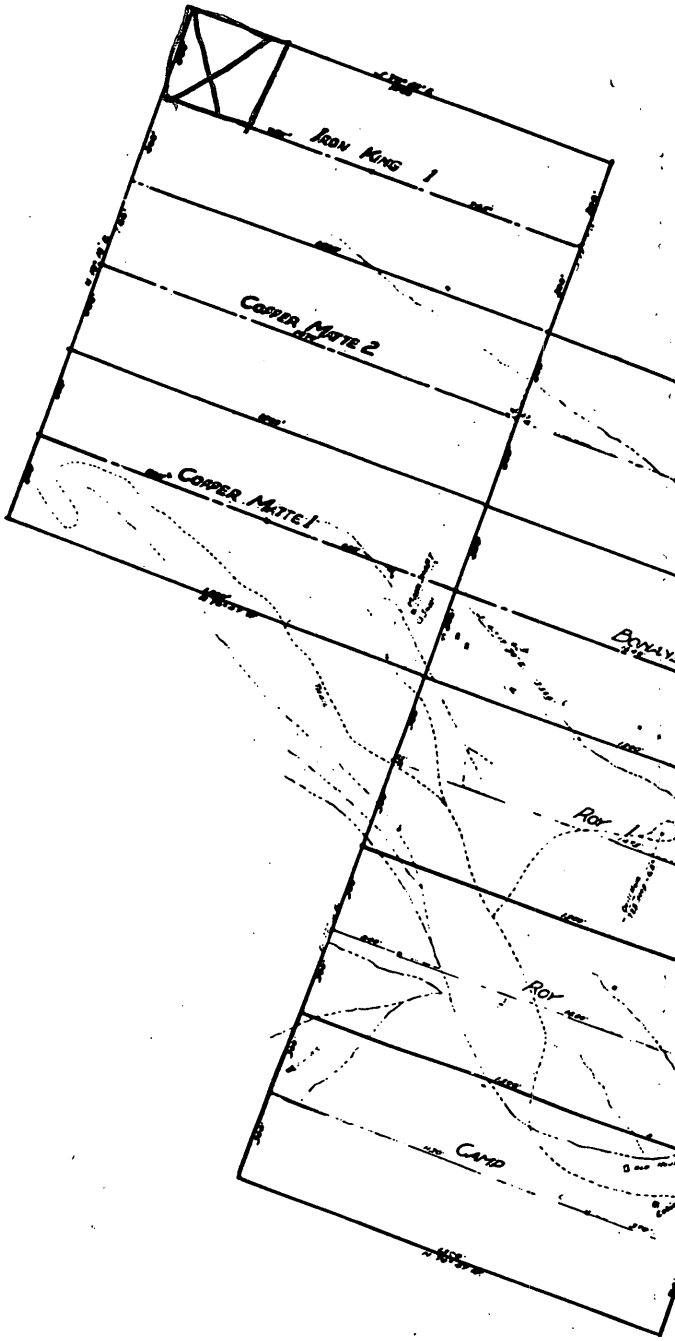
The company plans to ship its first ore to the smelter from its ore dump within a month, at which time I shall be happy to report to you the results of the return. Needless to say I fully expect these return to be most gratifying.

BONANZA MINING COMPANY, a corporation

BY: Roy R. MacDonald
President

MEMORANDA

830



FILE COPY
SURNAME:

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

Gowen
Bugbee
Moon
Lyon
Moon

G.E.C.

SEP 5 1951

Mr. Roy MacDonald
Bonanza Mining Company
P. O. Box 4336
Phoenix, Arizona

Re: Docket DMA-2021

Dear Mr. MacDonald:

This is to inform you that your application for exploration aid for the Bonanza Mining Company has been referred to the Field Team for further investigation. You will hear from Mr. J. A. Nast, Executive Officer, DMA Field Team Region IV, or one of his staff when they are ready to examine your property.

The examining engineers will require certain additional information concerning the detailed itemized cost of each item of your project. To expedite the investigation this information should be immediately available when they require it.

Very truly yours,

SIGNED

Tom Lyon, Director
Supply Division

JF 9-6

~~JWWaugh~~:rw
8-31-51

Copy to: Administrator's Reading File
Reports and Records Branch
Executive Officer, DMA Field Team II
Coordinating Committee
Mr. Gowen
Mr. MacLaren
Files - DMA Docket

Mr. Jack Collins
1328 W. Tamarack
Phoenix, Ariz

SEP 5 1951

Mr. Ray MacDonald
Bonanza Mining Company
P. O. Box 1336
Phoenix, Arizona

Re: Docket DMA-6021

Dear Mr. MacDonald:

This is to inform you that your application for exploration aid for the Bonanza Mining Company has been referred to the Field Team for further investigation. You will hear from Mr. J. A. Nash, Executive Officer, DMA Field Team Region IV, or one of his staff when they are ready to examine your property.

The examining engineers will require certain additional information concerning the detailed itemized cost of each item of your project. To expedite the investigation this information should be immediately available when they require it.

Very truly yours,

SIGNED

Wm Lyon, Director
Supply Division

J. B. Kennedy
J. B. Keough:rw
8-31-51

Copy to: Administrator's Reading File
Reports and Records Branch
Executive Officer, DMA Field Team IV
Coordinating Committee
Mr. Gowen
Mr. MacLaren
Files - DMA Docket

Mr. Jack Collins
1320 W. Tamarack
Phoenix, Arizona

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

Mr. J. H. East, Jr.,
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

SEP 5 1951

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. DMA-2021

Commodity Copper

Applicant Bonanza Mining Company, P. O. Box 4336, Phoenix, Arizona

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

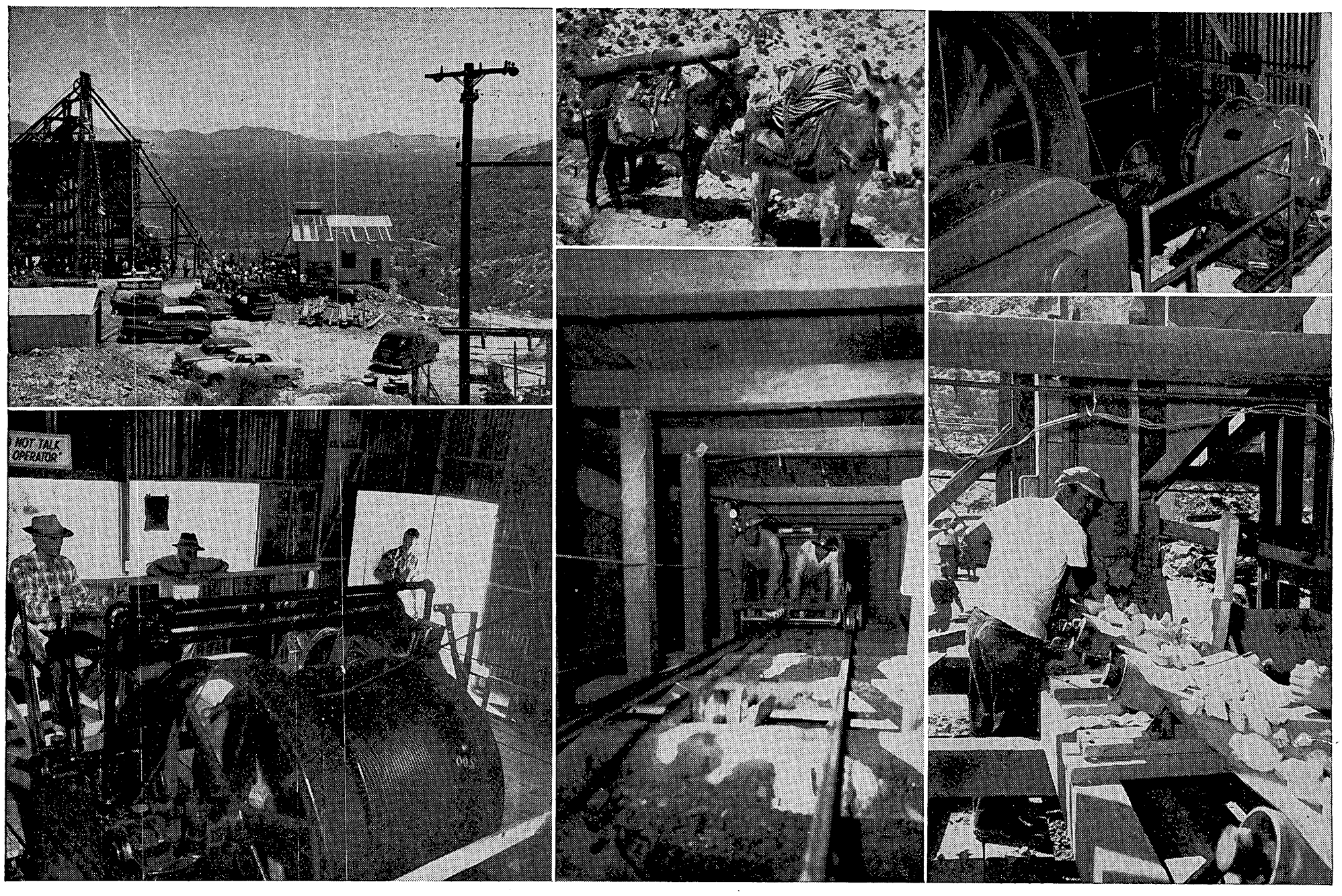
Very truly yours,

Chairman
Coordinating Committee

For Bureau of Mines

For Geological Survey

REDDY SPEEDS OPERATIONS—MAKES MODERN MINING EASIER



Down through the years mining has been extremely important to Arizona's economic structure. Electricity plays an increasingly important role in the development of our mineral wealth. Typical of the smaller mining operations which are taking advantage of Reddy Kilowatt power is the Bonanza Mine north of Wenden, Ariz., and pictured in the picture at the top left. In the early 1900's Burros (top center) packed equipment to the mine and ore down the mountain trails. At top right, electricity provides the power to operate the large compressor which, in turn, operates the pneumatic drills used in the mines. Lower left, a 150 H.P. motor provides the power to operate the hoist which hauls the ore out of the mine. Miners coming out of the "hole" (bottom center) are riding in a two and one-half ton ore "skip" which is operated by the hoist shown at the left. Lower right, a conveyor belt operated by an electric motor brings the ore out of the huge bin where it is sorted. (Photos by Payne)

Kilowatts Add Charm To Romance Of Mining

Fifty miles west of Wickenburg is the little community of Wenden, Arizona. Looking north from Wenden the Harcuvar Mountains rise out of the barren desert, dipping just enough in in the eastern section of the range to form Cunningham Pass. From Wenden a bright and shiny reflection can be seen about half way up the mountain and a little west of the pass. The reflection is from brand new buildings but the nearby burro pack trails are a good half-century old.

Reddy Kept Busy

Where miners once inched into the mountain's heart with pick and shovel and pulled their ore from the hole with a hand windlass, Reddy Kilowatt is now busy running the compressors for pneumatic drills and hauling the ore out of the mine two and one-half tons at a time. The Bonanza Mine, seven and one-half miles north of Wenden and one of the largest "small mines" to join Calapco lines, provides a typical example of how Reddy Kilowatt has electrified the mining industry in Arizona.

Reddy's power sends fresh air deep into the mine, providing miners with safe, clean air. Electric lights along the main shaft provide adequate illumination — increase safety. After the ore is brought out of the mine it is handled speedily by electrically driven conveyor belts.

Costs Cut in Half

As a miner Reddy does the job faster, more efficiently, and cheaper. A letter from Roy R. MacDonald, president of the Bonanza Mining Company, says this about comparative costs; ". . . for the operation of our 150 H.P. hoist, air compressor, conveyor belt, screen, air blower, and lights, a total of 275 H.P., our monthly bill for *electrical power is $604.*

"Our former hoisting plant operated by other fuels consisted of a 45 H.P. mine hoist, a 65 H.P. air compressor and a 10 H.P. blower, a total of 120 H.P. The cost of operation of this plant amounted to $1200 per month."

Expanding

The Bonanza mine, first staked as a claim in 1898, is stockholder owned and is presently expanding operations with the aid of electrical power. Lines were extended to serve the mine early this year. Copper is the chief output of the mine with gold and other metals amounting to between 40 and 50 per cent of the total ore value.

At present the ore is shipped to Hayden and to Magma at Superior for smelting. However, construction of a mill at Wenden is scheduled to begin early this fall.

Appliance Sales Near $6 Million

Electric and gas appliance dealers in the Valley of the Sun have reported a dollar volume of nearly $6,000,000 for the first six months of 1951, according to Jack Canady, secretary-manager of the Appliance Merchandisers Association.

Jack reported that in spite of credit restrictions like Regulation "W" and predicted appliance shortages, dealers reported that they had sold $5,978,715 worth of appliances during the first six months of 1951.

Since the first of January, A.M.A. figures show that approximately 3,500 television sets have been sold locally. This is 1,000 more than were sold during the comparable period in 1950. A.M.A. estimates that there are now 18,000 T.V. sets in service in the 105,000 homes in the Valley.

Fourth Floor Topics

By Luciene McKelvey

While perusing the new city directory recently, Mabel Spencer received quite a surprise when she discovered that she was listed as "Myrtle." Of course, the fact that the Spencers reside on Myrtle Street may be the reason the directory people became confused.

McKelvey

Juanita Fortenberry returned from her super-duper vacation all bright-eyed and ready to push her typewriter for another year. Michigan with its cool breezes must have been hard to leave for Phoenix in the summertime.

John Kimball and his family are looking forward to lots of black-eyed peas and ham hocks (as Phil Harris sez) while on their vacation in old Dixieland. The Kimballs plan to visit southwestern Louisiana and Mississippi, including Jackson, of course, during their sojourn.

The "Reddy Kilowatt Special" has been idle for several weeks while Frank Halloran has been vacationing. The Garage mileage reports should show a great increase for July, and Frank will undoubtedly be received with "open arms" on his return.

The "veeps" have all been staying close to home; even Mr. Sargent hasn't been "flitting" around lately—must be the hot weather.

Attended the commencement exercises of the Calapco public speaking class and had our lil pink ears opened when Jack McDonald's students gave forth so ably on "Valley Authorities." The graduates all did a wonderful job.

Seems to me, however, that more Calapco employees should attend extracurricular events of this type and give our fellow workers a little encouragement. By the way, for a good evening's entertainment, go out to the ball park and watch the IBEW softball team beat all of the other teams in the league. The boys are really going to town.

2nd floor Figures

CREDIT DEPARTMENT

By Naomi Jones

Connie Bentz left us last month to take up residence in Bookkeeping. Sorry to lose you, Connie—guess our loss is Bookkeeping's gain. We also have a new name and face in Wilda Meyers. Perhaps you recall Wilda's mother who was Ruth Meyers, in the Home Service Department. Happy to have you with us Wilda!

Jones

We're gonna have to watch Dione Baltzer with those Business Records files. She seems so eager to finish her work—or maybe she just likes the drawers out of the files At any rate she had to visit Sally 'cause one of those mean ole drawers came out farther than it was supposed to and sort of came in contact with Dione's head. Tch! Tch!

Pop Irvine is on vacation. We surely miss you, Pop, and hope you're having a nice time.

And speaking of vacations, Dorothy Ulseth spent a week in Rodeo, California, visiting her sister and brother-in-law, Mr. and Mrs. A. J. Overturf. Mrs. Overturf and son Mickie returned to our fair city with Dorothy.

Jack Mott spent his July 4 holiday in Los Angeles, visiting the Southern California Gas Company to study their Neighborhood Office plan.

For the past week or so, we've had a new business record clerk each day. The new office managers have been wandering through, trying to learn how the Credit Department operates. We hope we've been of some help to you fellows and that we've answered all your questions properly.

It was once said, "Everyone talks about the weather, but no one does anything about it." Now, we'd like to know from what source Lorraine Stanley gets her daily weather report. How about it, Lorraine, think it will rain? Hmmmm?

Litchfield Letter

By Bill Stanley

After seven and a half years in this division, Bill Willbern has transferred to the White Mountain Division as the new serviceman at Show Low. Bill moved July 5. The best of luck to you, Bill, on your new job and on your trout fishing.

Stanley

Blaine Learn is driving a brand new Chevvie pick-up.

Red Gehres was ready to take off for Big Lake for some good fishing, but we began having voltage trouble on some of the big pumps so he had to call it off.

We have a new face in our office now. Mrs. Helen Jarvis divides her time between the Buckeye and Litchfield offices. It's nice to have you with us, Helen.

We now have most of the new irrigation pumps connected out this way, and our lines and substations are loaded to capacity. We'll put out a lot of kilowatts during the next sixty days, supplying water to the bumper cotton crop.

The line crew of the Western Division has been putting in some mighty long days building new lines to the irrigation pumps and they have done a darn good job of it.

Minnie and Frank Bruesch motored to Flagstaff July 4. Minnie said the nights were o.k.

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

Not To Be Filled in by Applicant

Docket No. DMA 2021
Metal or Mineral
Date Received 8-29-51
Amount $ 416,425
Participation (Government %)

BONANZA MINING COMPANY

P. O. Box 4336
Phoenix
Arizona

Name and address of applicant

Date August 25, 1951

If you have already filed MF-100, give date filed ....., type of assistance requested Exploration,

DMA Docket Number (if available) ~~780~~ 2021

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. AUG 29 1 39 PM '51

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*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*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) 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 (*c*) 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.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

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.

Bonanza Mining Company
(Name of company)

By Roy R. MacDonald
(Signature of authorized official)

August 25, 1951
(Date)

President
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Bonanza Mining Company

1(a) The present Bonanza Mine, and including the Copper Matte No. 1, Bonanza No. 2, Bonanza No. 3, Bonanza No. 9, Bonanza No. 10, Bonanza No. 11, Bonanza Central No. 5, Bonanza Central No. 7, and the Los Angeles, Spring, Spring No. 1, Spring No. 2 and Colorado Grand, unpatented mining claims in sections 22, 23, 26, and 27, T.7N., R.13 W. Gila and Salt River Meridian (Unsurveyed) in the Ellsworth Mining District, Yuma County, Arizona, recorded in the County Recorder's Office at Yuma, Arizona.

(b) Applicant is owner of the property.

(c) The exploration work will be carried out within the Copper Matte, Bonanza and Bonanza Central Groups as listed under (a). The second group are older claims covering parts of the same area. These claims, the Los Angeles, Spring 1,2,3, and Colorado Grand were purchased, and the same ground was then covered by the first group.

The claims involved form the central portion of the Bonanza and Bonanza Central Groups comprising 94 unpatented claims covering 780 acres, all owned by applicant.

2(a) Copper, gold, silver, possibly zinc.

(b) See accompanying report.

3(a) Proposed exploration work.

(1) Sink the Bonanza shaft, situated on the Copper Matte No. 1 claim, additional 150 feet from the present depth of 600 feet to a depth of 750 feet. Total work 150 feet. This is to prospect vein and obtain possible water supply.

(2) On the 600 foot level, Bonanza shaft, drift on Bonanza vein (exposed in shaft and workings) 1400 feet northwesterly to N.W. end line of Copper Matte No. 1 claim, thence 1600 feet northwesterly through the Bonanza Central No. 5 claim and into the Bonanza Central No. 7 claim. Total work, 3000 feet drifting.

(3) On the 600 foot level, Bonanza shaft, drift southeasterly 1600 feet to S.E. end line Bonanza No. 2 claim, thence, 400 feet southeasterly into Bonanza No. 3 claim. Total 2000 feet drifting.

(4) On the 600 foot level, Bonanza shaft crosscut 1500 feet into footwall formations, through Copper Matte No. 1, Bonanza No. 9 and Bonanza No. 10 claims. Total 1500 feet crosscutting.

Summary of Costs

(1)	Shaft sinking: 150 feet at $200 per foot	$ 30,000
(2)	Drifting: 5000 feet at $35 per foot	175,000
(3)	Crosscutting: 1500 feet at $35 per foot	52,500
(4)	New buildings	76,000
(5)	Equipment purchases	24,200
(6)	Equipment rental	11,325 5663
(7)	Utilities	47,400 23700
	Total	~~$416,425~~ 29363
		387063

(b) Project will be started within 30 days of the date of signing of contract by the U. S. Government, and will be completed within ~~two~~ one year~~s~~ of such date.

4 Sketch map attached.

5 Existing buildings and facilities directly connected with project:

Change room	30'x 20'x 16'
Blacksmith shop	12'x 15'
Storehouse	15'x 20'
Switchroom	12'x 15'
Compressor house	22'x 35'
Hoist house	25'x 30'
Head frame	62' high
Ore bin	400 tons capacity

In addition there are the following installations:

Crushing plant with 12" x 36" jaw crusher
gyratory "
vibrating screen
trommel
2 bandalari jigs
conveyor belts
motors, etc.

6 Additional buildings and facilities to be installed:

Assay office	$1000
Living quarters for 40	$75000
Total	$76000

7(a) Equipment to be rented: none.

(b) Equipment to be purchased:

Assay equipment	$ 1500
2 Mancha locomotives with one extra battery	11000
Charger and panel	2500
Electric cable 1100'	1500
1 Blower	1200
3000 feet vent tube	7000
Total	$24700

(c) Equipment to be furnished by applicant:

18" wide 30" dia

1 150 HP hoist (GE)	purchase price	$6000
1 65 HP hoist	purchase price 900	3000
1 700 cfm compressor	purchase price	5000
1 blower	purchase price 3HP	400
750 feet vent pipe	purchase price	825
2 loaders	purchase price	5000
5 mine cars	purchase price	1000
1 truck	purchase price	1000
1 CP drifter	purchase price	750
2 CP jackhammers	purchase price	500
2 cocopaw hammers	purchase price	1500
1 GMC 2½ ton truck	purchase price	2500
Tools	purchase price	500
	Total	$27975
	Salvage value after 2 years	16650
	Cost to project	$11325

Ottumwa 36" wide 36" dia
Continental Red Seal
Imperial Type 16 100 W.H. motor
17x14 10x14
Eimco small 12B

8 Labor

3 hoistmen @	$1.65	per hour
1 electrician @	2.25	" "
2 electrician helpers @	1.65	" "
1 master mechanic @	2.25	" "
2 master helpers@	1.65	" "
4 surface trammers @	1.65	" "
1 truck driver @	1.65	" "
27 miners	1.65	" "
6 muching machine operators @	1.65	" "
3 motormen @	1.65	" "
3 switchmen @	1.65	" "
3 nippers @	1.65	" "

Power line & transformers

8 Labor (continued)

Supervision

3 shift bosses	$13.70 per day	increase
1 mine foreman	$400 per month	
1 accountant and time keeper	400	
1 stenographer	300	out
1 assayor-sampler	400	
engineering consultation	250	
1 superintendent	650	

65

9 Materials and supplies included in costs:

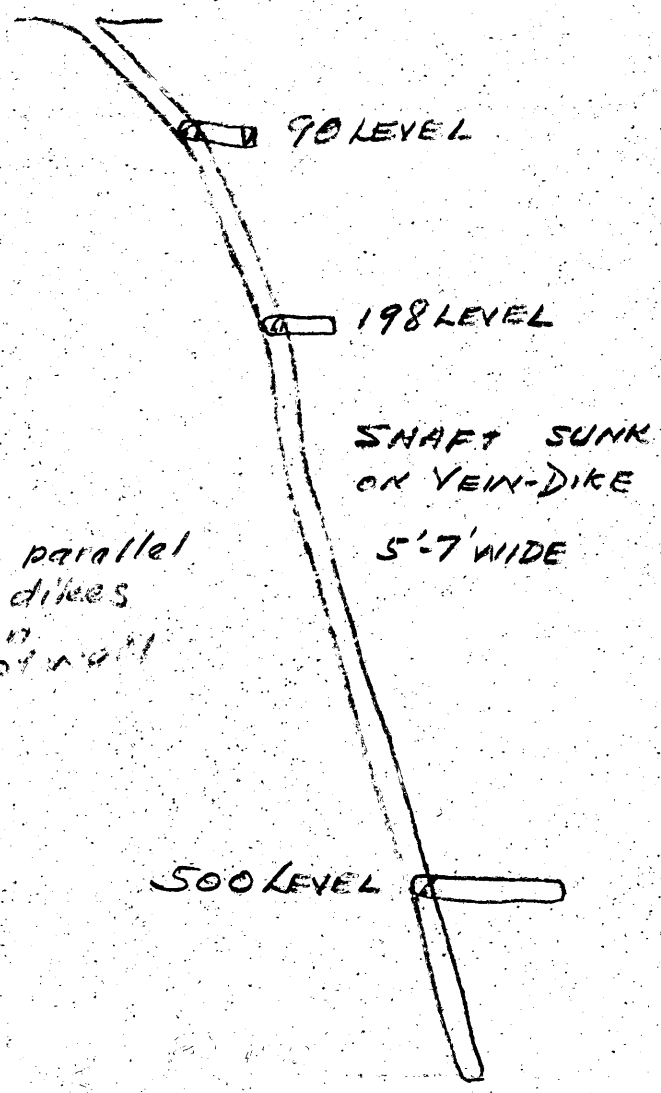
Utilities:

Water at $25 per day, ~~600~~ 300 days	$15000	7500
Power at $1350 per month, 24 mos.	32400	16200
Total	$47400	23700

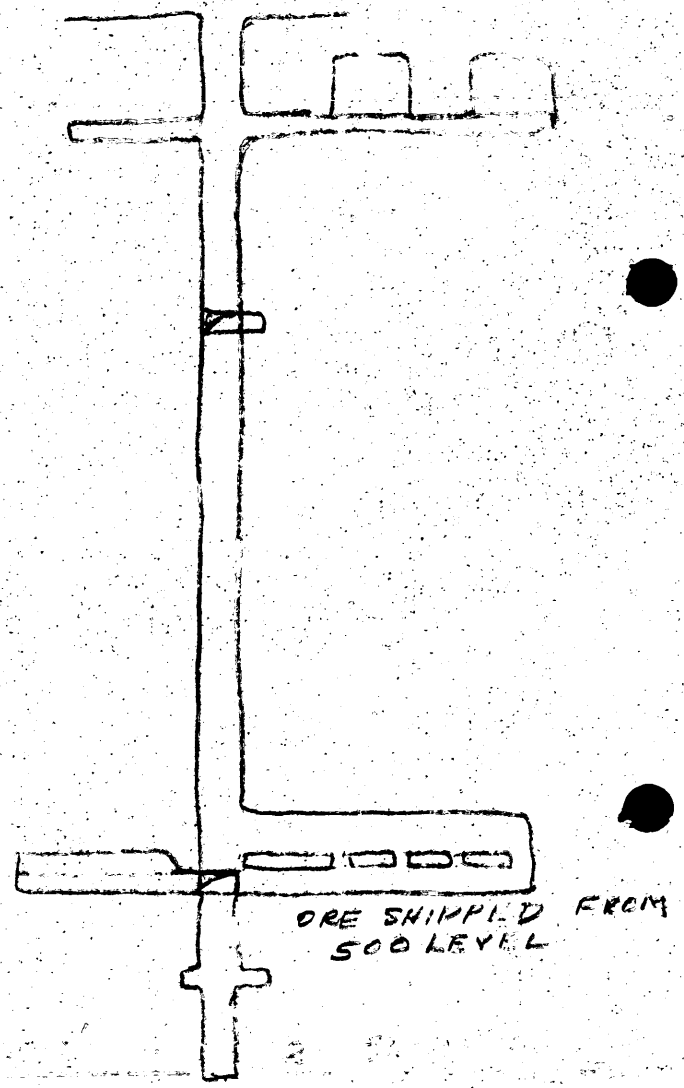
10(a) 50% of total cost or ~~$208,212.50~~ 193,531 50

(b) Yes.

CROSS SECTION THROUGH BONANZA SHAFT. 1"=100'



VERTICAL PROJECTION BONANZA SHAFT 1"= 100'



PROPOSED WORK

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

Not To Be Filled in by Applicant

Docket No. DMA 2021
Metal or Mineral
Date Received 8-29-51
Amount $ 416,425
Participation (Government %)

BONANZA MINING COMPANY
P. O. Box 4336
Phoenix
Arizona

Name and address of applicant

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
AUG 29 1 39 PM '51

Date August 25, 1951

If you have already filed MF-100, give date filed ....., type of assistance requested Exploration,

DMA Docket Number (if available) ~~780~~ 2021

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*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*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) 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 (*c*) 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.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

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.

Bonanza Mining Company
(Name of company)

By Roy R. MacDonald
(Signature of authorized official)

August 25, 1951
(Date)

President
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Bonanza Mining Company

1(a) The present Bonanza Mine, and including the Copper Matte No. 1, Bonanza No. 2, Bonanza No. 3, Bonanza No. 9, Bonanza No. 10, Bonanza No. 11, Bonanza Central No. 5, Bonanza Central No. 7, and the Los Angeles, Spring, Spring No. 1, Spring No. 2 and Colorado Grand, unpatented mining claims in sections 22, 23, 26, and 27, T.7N., R.13 W. Gila and Salt River Meridian (Unsurveyed) in the Ellsworth Mining District, Yuma County, Arizona, recorded in the County Recorder's Office at Yuma, Arizona.

(b) Applicant is owner of the property.

(c) The exploration work will be carried out within the Copper Matte, Bonanza and Bonanza Central Groups as listed under (a). The second group are older claims covering parts of the same area. These claims, the Los Angeles, Spring 1,2,3, and Colorado Grand were purchased, and the same ground was then covered by the first group.

The claims involved form the central portion of the Bonanza and Bonanza Central Groups comprising 9½ unpatented claims covering 780 acres, all owned by applicant.

2(a) Copper, gold, silver, possibly zinc.

(b) See accompanying report.

3(a) Proposed exploration work.

(1) Sink the Bonanza shaft, situated on the Copper Matte No. 1 claim, additional 150 feet from the present depth of 600 feet to a depth of 750 feet. Total work 150 feet. This is to prospect vein and obtain possible water supply.

(2) On the 600 foot level, Bonanza shaft, drift on Bonanza vein (exposed in shaft and workings) 1400 feet northwesterly to N.W. end line of Copper Matte No. 1 claim, thence 1600 feet northwesterly through the Bonanza Central No. 5 claim and into the Bonanza Central No. 7 claim. Total work, 3000 feet drifting.

(3) On the 600 feet level, Bonanza shaft, drift southeasterly 1600 feet to S.E. end line Bonanza No. 2 claim, thence, 400 feet southeasterly into Bonanza No. 3 claim. Total 2000 feet drifting.

(4) On the 600 feet level, Bonanza shaft crosscut 1500 feet into footwall formations, through Copper Matte No. 1, Bonanza No. 9 and Bonanza No. 10 claims. Total 1500 feet crosscutting.

Summary of Costs

(1)	Shaft sinking: 150 feet at $200 per feet	$ 30,000
(2)	Drifting: 5000 feet at $35 per feet	175,000
(3)	Crosscutting: 1500 feet at $35 per feet	52,500
(4)	New buildings	76,000
(5)	Equipment purchases	24,200
(6)	Equipment rental	11,325
(7)	Utilities	47,400
	Total	$414,425

(b) Project will be started within 30 days of the date of signing of contract by the U. S. Government, and will be completed within two years of such date.

4 Sketch map attached.

5 Existing buildings and facilities directly connected with project:

Change room	30'x 20'x 16'
Blacksmith shop	12'x 15'
Storehouse	15'x 20'
Switchroom	12'x 15'
Compressor house	22'x 33'
Hoist house	25'x 30'
Head frame	42' high
Ore bin	400 tons capacity

In addition there are the following installations:

Crushing plant with 12" x 36" jaw crusher
gyratory "
vibrating screen
trommel
2 bandelari jigs
conveyor belts
motors, etc.

6 Additional buildings and facilities to be installed:

Assay office	$1000
Living quarters for 40	$75000
Total	$76000

7(a) Equipment to be rented: none.

(b) Equipment to be purchased:

Assay equipment	$ 1500
2 Nanaha locomotives with one extra battery	11000
Charger and panel	2500
Electric cable 1100'	1500
1 Blower	1200
3000 feet vent tube	7000
Total	$24,700

(c) Equipment to be furnished by applicant:

1 150 HP hoist	purchase price	$6000
1 65 HP hoist	purchase price	3000
1 700 cfm compressor	purchase price	5000
1 blower	purchase price	400
750 feet vent pipe	purchase price	825
2 loaders	purchase price	5000
5 mine cars	purchase price	1000
1 truck	purchase price	1000
1 CP drifter	purchase price	750
2 CP jackhammers	purchase price	500
2 ccespan hammers	purchase price	1500
1 GMC 2½ ton truck	purchase price	2500
Tools	purchase price	500
	Total	$27,975
Salvage value after 2 years		16650
Cost to project		$11,325

8 Labor

3 hoistmen @	$1.65	per hour
1 electrician @	2.25	" "
2 electricians helpers @	1.65	" "
1 master mechanic @	2.25	" "
2 master helpers@	1.65	" "
4 surface trammers @	1.65	" "
1 truck driver @	1.65	" "
27 miners	1.65	" "
6 muching machine operators @	1.65	" "
3 motormen @	1.65	" "
3 switchmen @	1.65	" "
3 nippers @	1.65	" "

8 Labor (continued)

Supervision

3 shift bosses	$13.70 per day
1 mine foreman	$400 per month
1 accountant and time keeper	400
1 stenographer	300
1 assayer-sampler	400
engineering consultation	250
1 superintendent	650

9 Materials and supplies included in costs:

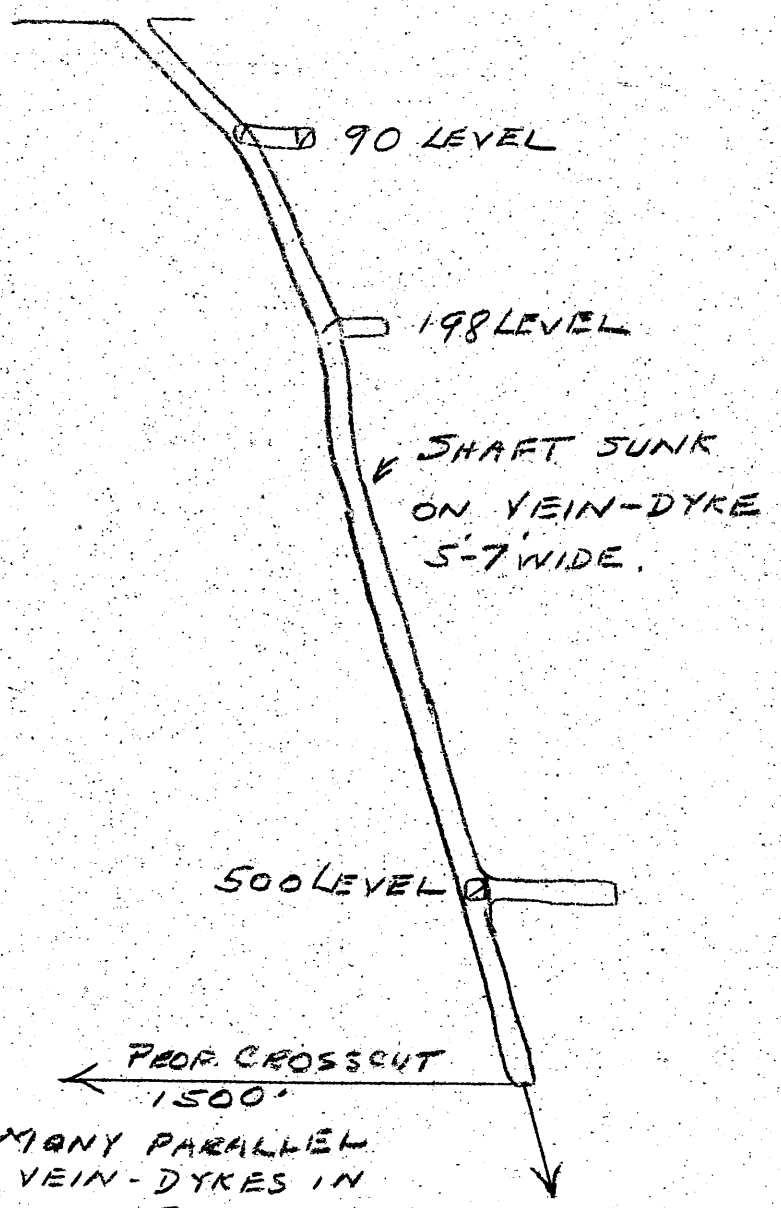
Utilities:

Water at $25 per day, 600 days	$15000
Power at $1350 per month, 24 mos.	32400
Total	$47400

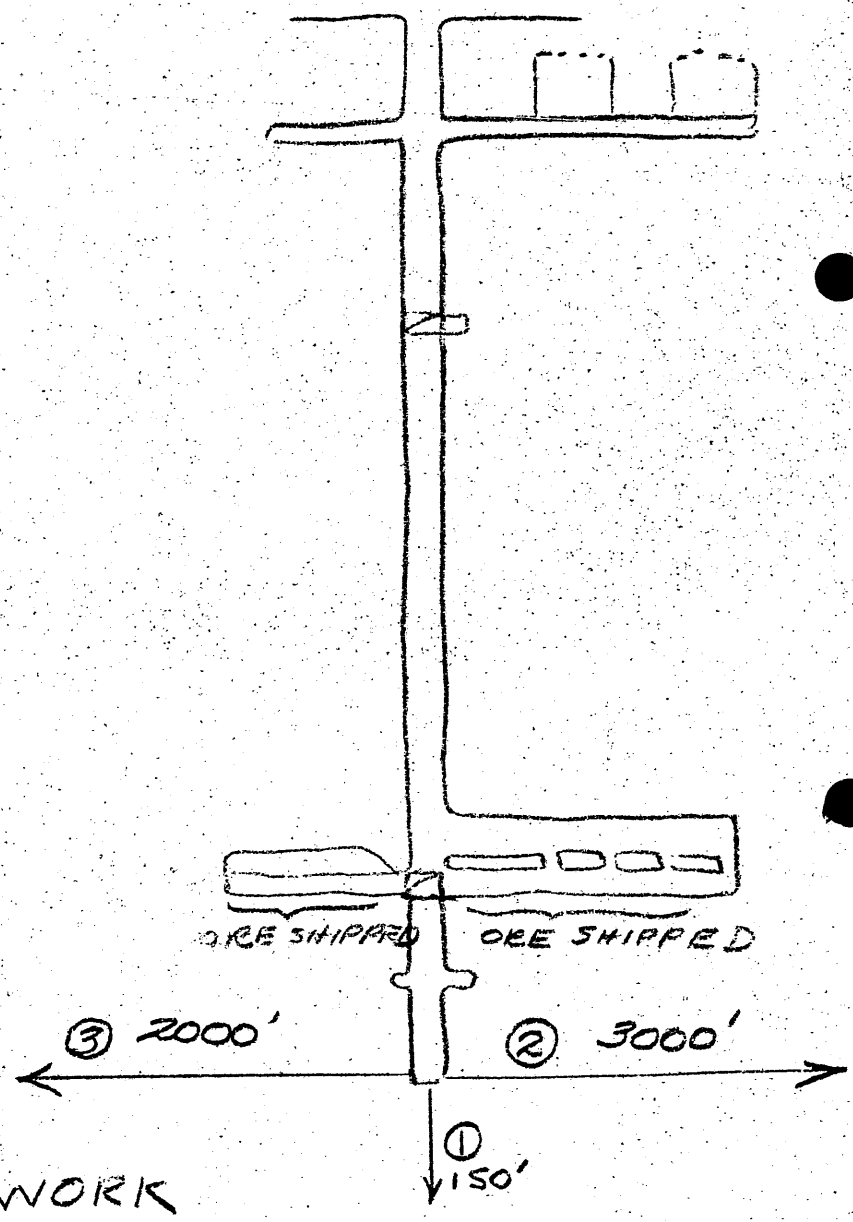
10(a) 30% of total cost or $208,212.50

(b) Yes.

CROSS SECTION THROUGH BONANZA SHAFT



VERTICAL PROJECTION BONANZA SHAFT 1" = 100'



PROPOSED WORK

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

Not To Be Filled in by Applicant

Docket No. DMA 2021
Metal or Mineral
Date Received 8-29-51
Amount $ 416,726
Participation (Government %)

Name and address of applicant

BONANZA MINING COMPANY

P. O. Box 4336
Phoenix
Arizona

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
AUG 29 1 39 PM '51

Date August 25, 1951

If you have already filed MF-100, give date filed ....., type of assistance requested Exploration,

DMA Docket Number (if available) ~~780~~ 2021

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*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*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) 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 (*c*) 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.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

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.

Bonanza Mining Company
(Name of company)

By Roy R. MacDonald
(Signature of authorized official)

August 25, 1951
(Date)

President
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Bonanza Mining Company

1(a) The present Bonanza Mine, and including the Copper Matte No. 1, Bonanza No. 2, Bonanza No. 3, Bonanza No. 9, Bonanza No. 10, Bonanza No. 11, Bonanza Central No. 3, Bonanza Central No. 7, and the Los Angeles, Spring, Spring No. 1, Spring No. 2 and Colorado Grand, unpatented mining claims in sections 22, 23, 26, and 27, T.7N., R.13 W. Gila and Salt River Meridian (Unsurveyed) in the Ellsworth Mining District, Yuma County, Arizona, recorded in the County Recorder's Office at Yuma, Arizona.

(b) Applicant is owner of the property.

(c) The exploration work will be carried out within the Copper Matte, Bonanza and Bonanza Central Groups as listed under (a). The second group are older claims covering parts of the same area. These claims, the Los Angeles, Spring 1,2,3, and Colorado Grand were purchased, and the same ground was then covered by the first group.

The claims involved form the central portion of the Bonanza and Bonanza Central Groups comprising 9½ unpatented claims covering 780 acres, all owned by applicant.

2(a) Copper, gold, silver, possibly zinc.

(b) See accompanying report.

3(a) Proposed exploration work.

(1) Sink the Bonanza shaft, situated on the Copper Matte No. 1 claim, additional 150 feet from the present depth of 600 feet to a depth of 750 feet. Total work 150 feet. This is to prospect vein and obtain possible water supply.

(2) On the 600 foot level, Bonanza shaft, drift on Bonanza vein (exposed in shaft and workings) 1400 feet northwesterly to N.W. end line of Copper Matte No. 1 claim, thence 1600 feet northwesterly through the Bonanza Central No. 3 claim and into the Bonanza Central No. 7 claim. Total work, 3000 feet drifting.

(3) On the 600 foot level, Bonanza shaft, drift southeasterly 1600 feet to S.E. end line Bonanza No. 2 claim, thence, 400 feet southeasterly into Bonanza No. 3 claim. Total 2000 feet drifting.

(4) On the 600 feet level, Bonanza shaft crosscut 1900 feet into footwall formations, through Copper Knobs No. 1, Bonanza No. 9 and Bonanza No. 10 claims. Total 1900 feet crosscutting.

Summary of Costs

(1)	Shaft sinking: 150 feet at $200 per foot	$ 30,000
(2)	Drifting: 5000 feet at $35 per foot	175,000
(3)	Crosscutting: 1900 feet at $35 per foot	66,500
(4)	New buildings	76,000
(5)	Equipment purchases	24,000
(6)	Equipment rental	11,325 } 5663 23/mon for 1 year
(7)	Utilities	17,000 }
	Total	~~[illegible]~~ 387063

(b) Project will be started within 30 days of the date of signing of contract by the U. S. Government, and will be completed within ~~two years~~ one year of such date.

4 Sketch map attached.

5 Existing buildings and facilities directly connected with project:

Change room	30'x 20'x 16'
Blacksmith shop	12'x 15'
Storehouse	15'x 20'
Switchroom	12'x 15'
Compressor house	22'x 35'
Hoist house	25'x 30'
Head frame	40' high
Ore bin	400 tons capacity

In addition there are the following installations:

Crushing plant with 12" x 36" jaw crusher
gyratory
vibrating screen
trommel
2 hendslari jigs
conveyor belts
motors, etc.

6 Additional buildings and facilities to be installed:

Assay office	$1000
Living quarters for 40	$75000
Total	$76000

7(a) Equipment to be rented: none.

(b) Equipment to be purchased:

Assay equipment	$ 1500
2 Eureka locomotives with one extra battery	11000
Charger and panel	2500
Electric cable 1100'	1500
1 Blower	1000
3000 feet vent tube	7000
Total	$24,700

(c) Equipment to be furnished by applicant:

1 150 HP hoist purchase price	$6000
1 65 HP hoist purchase price	3000
1 700 cfm compressor purchase price	3000
1 blower purchase price	400
750 feet vent pipe purchase price	825
2 loaders purchase price	5000
5 mine cars purchase price	1000
1 truck purchase price	1000
1 CP drifter purchase price	750
2 CP jackhammers purchase price	500
2 cocopaw hammers purchase price	1500
1 GMC 2½ ton truck purchase price	2500
Tools purchase price	500
Total	[illegible]
Salvage value after 2 years	[illegible]
Cost to project	$11,[illegible]

8 Labor

3 hoistman @	$1.65	per hour
1 electrician @	2.25	" "
2 electrician helpers @	1.65	" "
1 master mechanic @	2.25	" "
2 master helpers@	1.65	" "
4 surface trammers @	1.65	" "
1 truck driver @	1.65	" "
27 miners	1.65	" "
6 mucking machine operators @	1.65	" "
3 motormen @	1.65	" "
3 switchmen @	1.65	" "
3 nippers @	1.65	" "

8 Labor (continued)

Supervision

5 shift bosses	$13.70 per day
1 mine foreman	$400 per month
1 accountant and time keeper	400
1 stenographer	300
1 assayer-sampler	400
engineering consultation	250
1 superintendent	650

9 Materials and supplies included in costs:

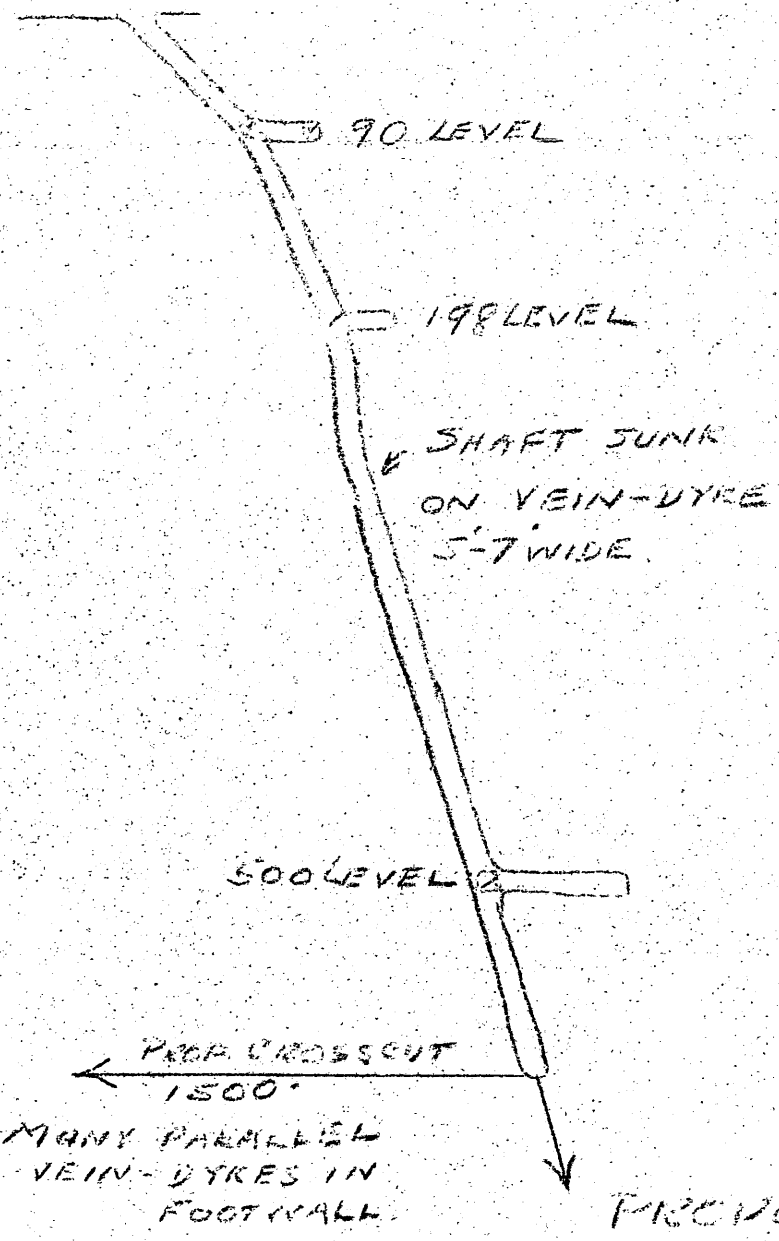
Utilities:

Water at $25 per day, 600 days	~~$15000~~	7500
Power at $1350 per month, 24 mos.	~~[illegible]~~	16200
Total	~~$47,700~~	23700

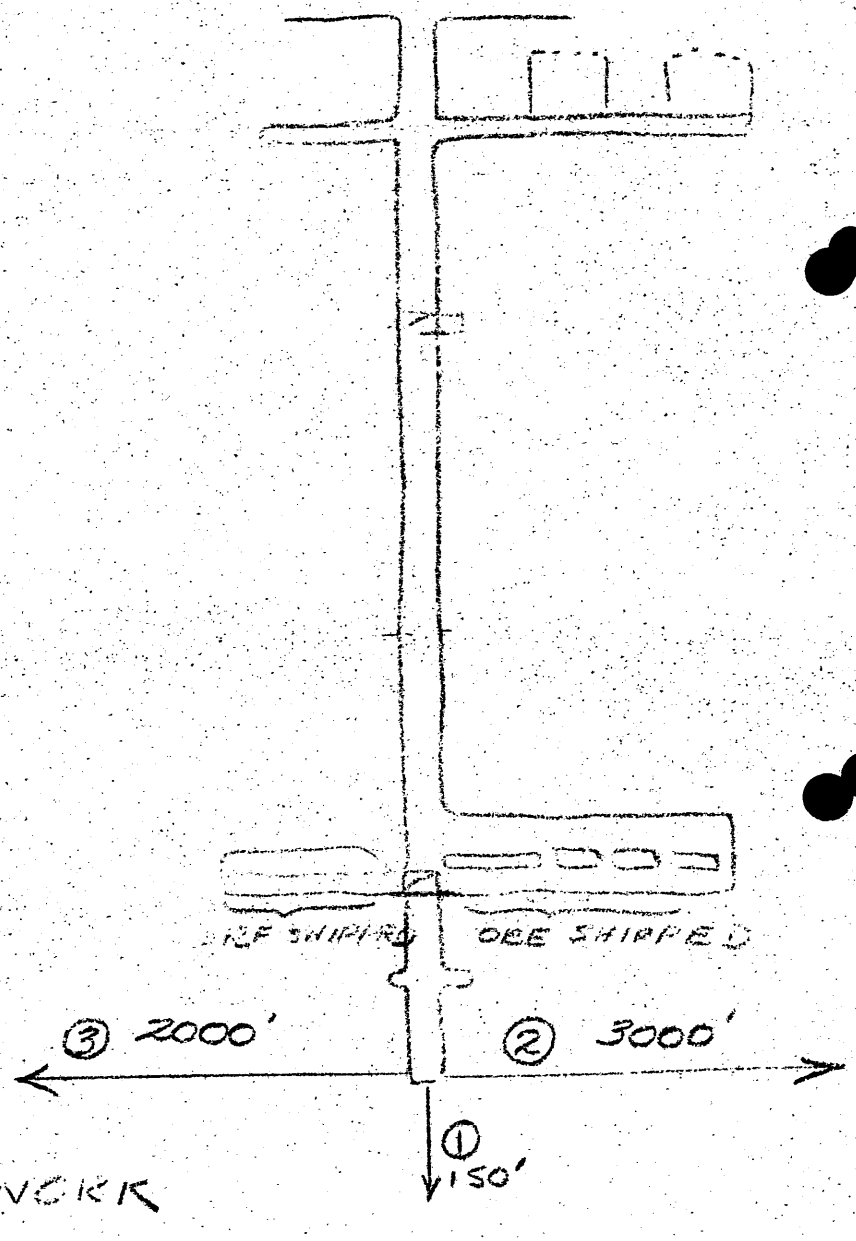
10(a) 50% of total cost or ~~$208,212.50~~

(b) Yes.

BONANZA SHAFT



VERTICAL PROJECTION
BONANZA SHAFT
1" = 100'



PROPOSED WORK

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. ~~780~~ 2021

Commodity Copper

Total Amount 387063

Govt. Participation 50%

1. Name and Address of Applicant Bonanza Mining Co. P.O. Box 4336, Phoenix, Arizona.

2. Location of Property Ellsworth Mining District, Yuma County, Arizona, 7 3/4 mi. north of Wenden.

3. Mineral or metal Copper 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 Appear to be good but should be checked by F.T., particularly justification of the proposed crosscuts and compare shaft sinking with diamond drilling for downward extension.

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? 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 Yes

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Must be hauled or piped.

e) Power (question 13)* available

Is a field check needed on any of these points? Yes - water

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes but entire supervision should be checked

Is a field check needed on this point? Yes

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? Yes 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? not sufficiently

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? Are excessive ~~for 2 year period~~

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A? Yes, with particular attention to necessity for each listed item of expense.

11. Exhibit B (question 23-d)*

a) Is it applicable? Yes

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

c) Is a field check needed? Yes. Are the specified items necessary such as living quarters for 40 men at $75000 for an exploration project.

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

a) Is it applicable? Yes

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed? Field team should check necessity suitability or adequacy of specified items of equipment also appraised valuation.

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

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed? Yes

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

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? Yes. Field Team should check relationship of costs and timing.

14. Exhibit E (question 23-c)*

a) Is it applicable? Not mentioned in application.

b) Sufficient data?

c) Reasonable?

d) Field check needed? Should be checked for housing.

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? This is presented as a project which might develop substantial ore reserves in a short time. It should be thoroughly checked as to feasibility and alternate projects, competence of management, and especially geological probabilities.

Reviewed by: J B Gowen
R W Stevens
C G Husson

Date 8/30/51

INT.-DUP. SEC., WASH., D.C. 99009

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. ~~780~~ 2021

Commodity Copper

Total Amount 387063

Govt. Participation 50%

1. Name and Address of Applicant Bonanza Mining Co. P.O. Box 4336, Phoenix, Arizona.

2. Location of Property Ellsworth Mining district, Yuma County, Arizona, 7 3/4 mi. north of Wenden.

3. Mineral or metal Copper 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 Appear to be good but should be checked by F.T., particularly justification of the proposed crosscut and compared shaft sinking with diamond drilling for downward extension.

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? 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 yes

b) Equipment and supplies yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Must be hauled or piped.

e) Power (question 13)* available

Is a field check needed on any of these points? yes - water

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes but entire supervision should be checked

Is a field check needed on this point? yes

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? yes 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? not sufficiently

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? Are excessive ~~for 2 year period~~

f) Should more information be requested from applicant?_____

g) Is a field examination necessary to complete Exhibit A? Yes, with particular attention to necessity for each listed item of expense.

11. Exhibit B (question 23-d)*

a) Is it applicable? Yes

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

c) Is a field check needed? Yes. Are the specified items necessary such as living quarters for 40 men at $75000 for an exploration project.

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

a) Is it applicable? Yes

b) Sufficient data?_____ If so, attach a draft.

c) Are rents and charges reasonable?_____

d) Is a field check needed? Field team should check necessity suitability or adequacy of specified items of equipment also appraised valuation.

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

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed? Yes

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

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? Yes. Field Team should check relationship of costs and timing.

14. Exhibit E (question 23-c)*

a) Is it applicable? Not mentioned in application.

b) Sufficient data?

c) Reasonable?

d) Field check needed? Should be checked for housing.

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? This is presented as a project which might develop substantial ore reserves in a short time. It should be thoroughly checked as to feasibility and alternate projects, competence of management, and especially geological probabilities.

Reviewed by: J. R. Gowen
R. W. Lewis
C. H. Johnson

Date

INT.-DUP. SEC., WASH., D.C. 99009

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

Not To Be Filled in by Applicant

Docket No. DMA 2021
Metal or Mineral
Date Received 8-29-51
Amount $ 416,422.
Participation (Government %)

BONANZA MINING COMPANY

P. O. Box 4336
Phoenix
Arizona

Name and address of applicant

Date August 25, 1951

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C. AUG 29 1 39 PM '51

If you have already filed MF-100, give date filed ....., type of assistance requested Exploration,

DMA Docket Number (if available) ~~280~~ 2021

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*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*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) 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 (*c*) 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.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

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.

Bonanza Mining Company
(Name of company)

By Roy R. MacDonald
(Signature of authorized official)

August 25, 1951
(Date)

President
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Bonanza Mining Company

1(a) The present Bonanza Mine, and including the Copper Matte No. 1, Bonanza No. 2, Bonanza No. 3, Bonanza No. 9, Bonanza No. 10, Bonanza No. 11, Bonanza Central No. 5, Bonanza Central No. 7, and the Los Angeles, Spring, Spring No. 1, Spring No. 2 and Colorado Grand, unpatented mining claims in sections 22, 23, 26, and 27, T.7N., R.13 W. Gila and Salt River Meridian (Unsurveyed) in the Ellsworth Mining District, Yuma County, Arizona, recorded in the County Recorder's Office at Yuma, Arizona.

(b) Applicant is owner of the property.

(c) The exploration work will be carried out within the Copper Matte, Bonanza and Bonanza Central Groups as listed under (a). The second group are older claims covering parts of the same area. These claims, the Los Angeles, Spring 1,2,3, and Colorado Grand were purchased, and the same ground was then covered by the first group.

The claims involved form the central portion of the Bonanza and Bonanza Central Groups comprising 9½ unpatented claims covering 789 acres, all owned by applicant.

2(a) Copper, gold, silver, possibly zinc.

(b) See accompanying report.

3(a) Proposed exploration work.

(1) Sink the Bonanza shaft, situated on the Copper Matte No. 1 claim, additional 150 feet from the present depth of 600 feet to a depth of 750 feet. Total work 150 feet. This is to prospect vein and obtain possible water supply.

(2) On the 600 foot level, Bonanza shaft, drift on Bonanza vein (exposed in shaft and workings) 1400 feet northwesterly to E.W. end line of Copper Matte No. 1 claim, thence 1600 feet northwesterly through the Bonanza Central No. 5 claim and into the Bonanza Central No. 7 claim. Total work, 3000 feet drifting.

(3) On the 600 foot level, Bonanza shaft, drift southeasterly 1600 feet to S.E. end line Bonanza No. 2 claim, thence, 400 feet southeasterly into Bonanza No. 3 claim. Total 2000 feet drifting.

(4) On the 600 feet level, Bonanza shaft crosscut 1500 feet into footwall formations, through Copper Mattie No. 1, Bonanza No. 9 and Bonanza No. 10 claims. Total 1500 feet crosscutting.

Summary of Costs

(1)	Shaft sinking: 150 feet at $200 per foot	$ 30,000
(2)	Drifting: 5000 feet at $35 per foot	175,000
(3)	Crosscutting: 1500 feet at $35 per foot	52,500
(4)	New buildings	76,000
(5)	Equipment purchases	24,800
(6)	Equipment rental	11,325
(7)	Utilities	47,400
	Total	$416,125

(b) Project will be started within 30 days of the date of signing of contract by the U. S. Government, and will be completed within two years of such date.

4 Sketch map attached.

5 Existing buildings and facilities directly connected with project:

Change room	50'x 20'x 16'
Blacksmith shop	12'x 15'
Storehouse	15'x 20'
Switchroom	12'x 15'
Compressor house	22'x 35'
Hoist house	25'x 30'
Head frame	62' high
Ore bin	400 tons capacity

In addition there are the following installations:

Crushing plant with 12" x 36" jaw crusher
gyratory "
vibrating screen
trommel
2 handslari jigs
conveyor belts
motors, etc.

6 Additional buildings and facilities to be installed:

Assay office	$1000
Living quarters for 40	$75000
Total	$76000

7(a) Equipment to be rented: none.

(b) Equipment to be purchased:

Assay equipment	$ 1500
2 Nunnan locomotives with one extra battery	11000
Charger and panel	2500
Electric cable 1100'	1500
1 Blower	1200
3000 feet vent tube	7500
Total	$[illegible]

(c) Equipment to be furnished by applicant:

1 150 HP hoist	purchase price	$4000
1 65 HP hoist	purchase price	3000
1 700 cfm compressor	purchase price	3000
1 blower	purchase price	400
750 feet vent pipe	purchase price	825
2 loaders	purchase price	3000
5 mine cars	purchase price	1000
1 truck	purchase price	1000
1 CP drifter	purchase price	750
2 CP jackhammers	purchase price	500
2 sinker hammers	purchase price	1500
1 GMC 2½ ton truck	purchase price	2500
Tools	purchase price	[illegible]
	Total	$[illegible]
Salvage value after 2 years		[illegible]
Cost to project		$[illegible]

8 Labor

3 hoistmen @	$1.65	per hour
1 electrician @	2.25	" "
2 electrician helpers @	1.65	" "
1 master mechanic @	2.25	" "
2 master helpers	1.65	" "
4 surface trammers @	1.65	" "
1 truck driver @	1.65	" "
27 miners	1.65	" "
6 mucking machine operators @	1.65	" "
3 motormen @	1.65	" "
3 switchmen @	1.65	" "
3 nippers @	1.65	" "

8 Labor (continued)

Supervision

1 shift bosses	$15.70 per day
1 mine foreman	[illegible] per month
1 accountant and time keeper	[illegible]
1 stenographer	[illegible]
1 manager-employer	[illegible]
engineering consultation	[illegible]
1 superintendent	[illegible]

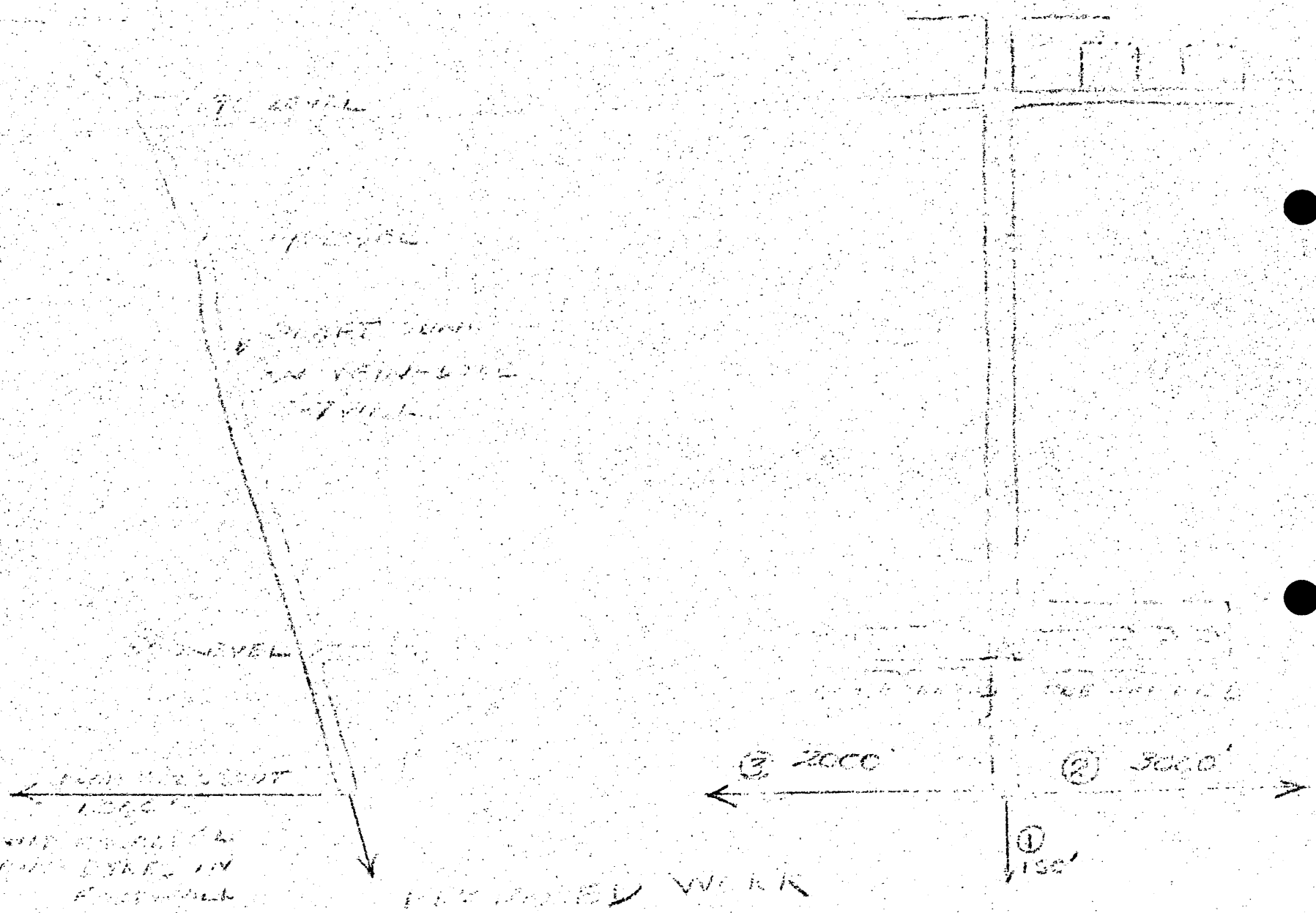
9 Materials and supplies included in costs:

Utilities:

Water at [illegible] per day, 400 days	$1000
Power at $1370 per month, 24 mos.	[illegible]
Total	[illegible]

10(a) 50% of total cost or $208,212.50

(b) Yes.


③ 2000'
② 3000'
① 150'

ARIZONA TESTING LABORATORIES

PHONE 3-6272 ~~823 E. VAN BUREN~~ 817 W. Madison P. O. BOX 1888 · PHOENIX

Chemists . . . Engineers

For Bonanza Mining Company
Attention: Mr. M. G. Milner

Date July 9, 1951

Sample of Ore

Received:

Submitted by: Same

ASSAY CERTIFICATE

Gold figured at $ 35.00 per ounce.

Silver figured at $ 0.90 per ounce.

Lab. No.	Identification	Gold		Silver		Percentages	
		Oz. per Ton	Value	Oz. per Ton	Value	Copper	
82865	#8	3.96	138.60	0.80	0.72	12.20	

REGISTERED ASSAYER
CERTIFICATE EXPIRES
CLAUDE E. McLEAN
DEC. 31, 19[illegible]
ARIZONA, U.S.A.

Respectfully submitted,
ARIZONA TESTING LABORATORIES

Claude E. McLean

Charges: $ 2.50

TRinity 4791

FORM 18

ASSAY REPORT

SMITH-EMERY COMPANY

ASSAYERS AND METALLURGICAL ENGINEERS
920 SANTEE STREET
LOS ANGELES

AFFILIATE
JOHN HERMAN

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS, AUTHORIZATION FOR PUBLICATION OF OUR REPORTS, CONCLUSIONS, OR, EXTRACTS FROM OR REGARDING THEM IS RESERVED PENDING OUR WRITTEN APPROVAL AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES.

Sample Ore

Received 9-29-50

Submitted by Edwin W. Mills,
P.O. Box 637
Salome, Arizona

Gold, @ $35.00 *per oz.*
Silver, @ $ *per oz.*

Date October 3, 1950

NUMBER	MARK	PER TON OF 2000 LBS. GOLD OUNCES	GOLD VALUE	SILVER OUNCES	SILVER VALUE	COPPER PER CENT	LEAD PER CENT	ZINC PER CENT
327280		1.20	$42.00			10.85%		

Purchased

Respectfully submitted,

Smith-Emery Co.
ASSAYERS AND METALLURGISTS

EOS

ARIZONA TESTING LABORATORIES

PHONE 3-6272 ~~823 E. VAN BUREN~~ 817 W. Madison P. O. BOX 1888 · PHOENIX

Chemists . . . Engineers

For Bonanza Mining Co.
Attention: Mr. M. G. Milmer

Date July 9, 1951

Sample of Ore

Received:

Submitted by: Same

ASSAY CERTIFICATE

Gold figured at $35.00 per ounce.

Silver figured at $ 0.90 per ounce.

Lab. No.	Identification	Gold		Silver		Percentages	
		Oz. per Ton	Value	Oz. per Ton	Value	Copper	
82858	1	0.08	2.80	0.40	0.36	2.60	
82859	2	2.00	70.00	0.80	0.72	11.35	
82860	3	0.06	2.10	0.20	0.18	0.65	
82861	4	0.02	0.70	0.20	0.18	0.20	
82862	5	0.02	0.70	0.20	0.18	0.40	
82863	6	0.04	1.40	0.20	0.18	0.04	
82864	7	0.24	8.40	0.20	0.18	3.30	
82866	9	0.26	9.10	0.20	0.18	3.10	

REGISTERED ASSAYER
CERTIFICATE EXPIRES
CLAUDE E. McLEAN
DEC. 31, 19[illegible]
ARIZONA, U.S.A.

Respectfully submitted,
ARIZONA TESTING LABORATORIES

Claude E. McLean

Cus. 20.00

FORM 2A—20M—3-50—MCGREW PRINTERY

AMERICAN SMELTING AND REFINING COMPANY
HAYDEN PLANT

Shipper Bonanza Mining Co. Hayden, Arizona, June 30, 1951 19

Address Box 103, Wenden, Arizona Smelter Lot 255

Shipping Point Wenden, Arizona Class Crude Shipper's Lot 2

CAR Number	CAR Initial	Bonanza Mine Gross	Tare	Net	H_2O	Dry Weight	N. Y. QUOTATIONS
83193	AT	142780	45320	97460	6.7	90930	Settlement Date 6-23-51
							Bill Lading Date 6-20-51
							Silver
							Less
							Net
							Copper .24075
							Less .03
							Net .21075
			Tons	48.7300		45.4650	

PAYMENT FOR METALS — VALUE

Elements	Assay Per Ton of 2000 Lbs.		Deducted	Net Assay	Equiv. in Lbs.	% Paid For	Net Paid For		Rate	Amount per Ton	Total Amount
Gold		Oz.						Oz.			
Silver	.12	Oz.		.12		100	.12	Oz.	32.31025	3 88	
Copper	.10	%	.5				NO PAY	Lbs.			
	1.63	%	.4	1.23	24.60	95	23.37	Lbs.	.21075	4 93	
							Total Payment of Metals				

CHARGES AND CREDITS — Debits — Credits

BASE CHARGE: F.O.B. Hayden for Metal Payments, not exceeding $ 15.00 per ton — 3 98

..... % of $ ..... excess over $ ..... per ton - - - - -

B.T.T. on 23.37 # @ .00033 — 01

Analysis			Deduction		Net					
Insoluble		%					%	@	cts.	
Silica	59.2	%					%	@	cts.	
Alumina	46.0	%					%	@	cts.	
Zinc	12.4	%	4.6		7.80		%	@ .25	cts.	1 95
Sulphur		%					%	@	cts.	
Iron		%					%	@	cts.	
Lime	13.0	%					%	@	cts.	
	5.1	%					%			
							Total Deductions			
							Net Value Per Ton			

VOUCHERED JUL 2 1951 Date

Debits — Credits

Total Value on Dry Tons @ Per Ton Value F.O.T. .48

Less Freight on 45.4650 Wet Tons @ 2.87 Per Ton

48.7300 2.60 — 126 70

" " tax — 3 80

Balance Due Shipper

Made by Checked Correct Approved Smelter

														Net
								Tons		45.7000			43.4605	

PAYMENT FOR METALS

Elements	Assay Per Ton of 2000 Lbs.		Deducted	Net Assay	Equiv. in Lbs.	% Paid For	Net Paid For		Rate	Amount per Ton		Total Amount	
Gold	.26	Oz.		.26		100	.26	Oz.	32.31825	8	40		
Silver	.16	Oz.	.5	-				Oz.					
Copper	2.38	%	.4	1.98	39.60	95	37.62	Lbs.	.21075	7	93		
		%						Lbs.					
							Total Payment of Metals						

VALUE

CHARGES AND CREDITS

	Debits		Credits			
					16	33
BASE CHARGE: F.O.B. Hayden for Metal Payments, not exceeding $ 15.00 per ton	4	50				
10 % of $ 1.33 excess over $ 15.00 per ton - - - - -		13				
B.T.T. on 37.62 # @ .00033		01				

Analysis			Deduction		Net						
Insoluble	54.5	%					%	@	cts.		
Silica	43.4	%					%	@	cts.		
Alumina	10.6	%	4.34		6.26		%	@ .25	cts.	1	57
Zinc		%					%	@	cts.		
Sulphur	2.3	%					%	@	cts.		
Iron	13.6	%					%	@	cts.		
Lime	3.7	%					%	@	cts.		
		%					%				
							Total Deductions			6	21
							Net Value Per Ton			10	12

Value P.W.T. 6.14

			Debits		Credits	
Total Value on 43.4605	Dry Tons @ 10.12	Per Ton			439	82
Less Freight on 45.7000	Wet Tons @ 2.60	Per Ton	118	82		
" " tax			3	56		
		Balance Due Shipper	317	44		

EQ Checked HJ Correct Approved B M H

PAID MAY 5 1951

FM 8A—20M—8-46—HCGREW PRINTERY

AMERICAN SMELTING AND REFINING COMPANY
HAYDEN PLANT

Shipper: Bananza Mining Co. Hayden, Arizona, May 5, 1951, 19

Address: Box 103, Wenden, Arizona Smelter Lot: 154

Shipping Point: Wenden, Arizona Class: Crude Shipper's Lot: 1

CAR Number	CAR Initial	Bananza Mining Co. WEIGHT IN POUNDS Gross	Tare	Net	H_2O	Dry Weight	N. Y. QUOTATIONS
172653	AT	138100	46700	91400	4.9	86921	Settlement Date 5-1-51
							Bill Lading Date 4-27-51
							Silver
							Less
							Net
							Copper .24075
							Less .03
							Net .21075
			Tons	45.7000		43.4605	

PAYMENT FOR METALS / **VALUE**

Elements	Assay Per Ton of 2000 Lbs.		Deducted	Net Assay	Equiv. in Lbs.	% Paid For	Net Paid For		Rate	Amount per Ton	Total Amount
Gold	.26	Oz.		.26		100	.26	Oz.	32.31825	8 40	
Silver	.16	Oz.	.5	-				Oz.			
Copper	2.32	%	.4	1.92	39.60	95	37.62	Lbs.	.21075	7 93	
		%						Lbs.			
							Total Payment of Metals				16 33

CHARGES AND CREDITS

	Debits	Credits
BASE CHARGE: F.O.B. Hayden for Metal Payments, not exceeding $15.00 per ton		
10 % of $1.33 excess over $15.00 per ton - - - - -	4 50	
P.F.T. on 37.62 .00039	13	
	32	
	MAY 8	

Analysis			Deduction		Net						Debits	Credits
Insoluble		%					%	@		cts.		
Silica	56.5	%					%	@		cts.		
Alumina	43.4	%					%	@		cts.		
Zinc	10.6	%	4.34		6.26		%	@	.25	cts.	1 57	
Sulphur		%					%	@		cts.		
Iron	2.3	%					%	@		cts.		
Lime	13.6	%					%	@		cts.		
	3.1	%					%					
							Total Deductions					6 21
							Net Value Per Ton					10 12

			Debits	Credits
Total Value on	Dry Tons @	Per Ton Value F.P.T. 6.14		
Less Freight on 43.4605	Wet Tons @ 10.12	Per Ton		439 82
45.7000	2.60		119 02	
" " tax			3 56	
		Balance Due Shipper		317 44

Made by Checked Correct Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 49

Smelter Lot 175 DATE May 21, 1951

Shipper Lot M-3

BOUGHT OF Bonanza Mining Company Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR		WET WEIGHT			Moisture	DRY WEIGHT
Initial	Number	Gross	Tare	Net	%	
ATSF	70207	150700	45900	104800 (52.400)	4.9	99665 (49.8325)

N. Y. QUOTATIONS

Date May 15, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of #35.00

Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 2.05	Pct.	41.00 lbs. per ton, less 8#-33.00 lbs. at .2145 Per lb.		7.0785
Silver 0.10	Oz.	oz. per ton, less oz. at Per oz.		
Gold 0.26	Oz.	.26 oz. per ton, oz. at 32.20 Per oz.		8.3720
Iron 12.6	Pct.	units at Per Unit.		
Lime 2.9	"	units at Per Unit.		
Alumina 10.1	"	.1 units at .25 Per Unit.	.025	
Silica 42.2	"	units at Per Unit.		
Sulphur 1.9	"	units at Per Unit.		
Manganese	"	units at Per Unit.		
Arsenic	"	units at Per Unit.		
Antimony	"	units at Per Unit.		
Bismuth	"	units at Per Unit.		
Insoluble	"	units at Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.025	15.4505
		Net Value Per Ton		10.4255

Mdl.

Total Value of 49.8325 Dry Tons at $ 10.4255		519.53
Less Freight 52.4 Tons at $ 2.60 From Wenden, Ariz.	136.24	
Avg. Value 9.8710 per ton. Tax	4.09	
Less Switching		
Less Sampling		
Less Additional Treatment Charge 10% of metal paid for in excess of $15.00 per ton, Excess is .04505 x 49.8325	2.24	
TOTALS	142.57	519.53
Amount Due Shipper—Voucher No.		376.96

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 50

Smelter Lot 188 DATE May 31, 1951

Shipper Lot M-4

BOUGHT OF Bonanza Mining Co. Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR		WET WEIGHT			Moisture	DRY WEIGHT
Initial	Number	Gross	Tare	Net	%	
AT&SF	70225	140760	46900	93860 (46.9300)	7.5	86821 (43.4105)

N. Y. QUOTATIONS

Date May 26, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00

Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 1.66 Pct.		33.20 lbs. per ton, less 8#-25.20 lbs. at .2145 Per lb.		5.4054
Silver 0.10 Oz.		oz. per ton, less oz. at Per oz.		
Gold 0.19 Oz.		.19 oz. per ton, oz. at 32.20 Per oz.		6.1180
Iron 11.0 Pct.		units at Per Unit.		
Lime 4.0 "		units at Per Unit.		
Alumina 12.8 "		3 units at .25 Per Unit. Debit	.75	
Silica 43.4 "		units at Per Unit.		
Sulphur 1.7 "		units at Per Unit.		
Manganese "		units at Per Unit.		
Arsenic "		units at Per Unit.		
Antimony "		units at Per Unit.		
Bismuth "		units at Per Unit.		
Insoluble "		units at Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.75	11.5234
		Net Value Per Ton		5.7734

Total Value of 43.4105 Dry Tons at $ 5.7734		250.63
Less Freight 46.93 Tons at $ 2.60 From Wenden, Ariz.	122.02	
Avg. Value 5.3405 per ton. Tax	3.66	
Less Switching		
Less Sampling		
Less Additional Treatment Charge		
TOTALS	125.68	250.63
Amount Due Shipper—Voucher No.		124.95

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 53

Smelter Lot 201 DATE June 12, 1951

Shipper Lot M-5

BOUGHT OF Bonanza Mining Co. Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR		WET WEIGHT			Moisture	DRY WEIGHT
Initial	Number	Gross	Tare	Net	%	
ATSF	173832	152720	48360	104360	4.8	99351
				(52.18)		(49.6755)

N. Y. QUOTATIONS

Date June 2, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00

Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 1.49	Pct.	29.8 lbs. per ton, less 8#-21.80 lbs. at .2145 Per lb.		4.6761
Silver 0.10	Oz.	oz. per ton, less oz. at Per oz.		
Gold 0.14	Oz.	.14 oz. per ton, oz. at 32.20 Per oz.		4.5080
Iron 12.0	Pct.	units at Per Unit.		
Lime 3.9	"	units at Per Unit.		
Alumina 11.8	"	2 units at .25 Per Unit. Debit	.50	
Silica 43.8	"	units at Per Unit.		
Sulphur 1.7	"	units at Per Unit.		
Manganese	"	units at Per Unit.		
Arsenic	"	units at Per Unit.		
Antimony	"	units at Per Unit.		
Bismuth	"	units at Per Unit.		
Insoluble	"	units at Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.50	9.1841
		Net Value Per Ton		3.6841

Total Value of 49.6755 Dry Tons at $ 3.6841		183.01
Less Freight 52.18 Tons at $ 2.60 From Wenden, Ariz.	135.67	
Avg. Value per ton $3.5073 Tax	4.07	
Less Switching		
Less Sampling		
Less Additional Treatment Charge		
TOTALS	139.74	183.01
Amount Due Shipper—Voucher No.		43.27

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 66

Smelter Lot 242 DATE July 12, 1951

Shipper Lot M-9

BOUGHT OF Bonanza Mining Co. Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR		WET WEIGHT			Moisture	DRY WEIGHT
Initial	Number	Gross	Tare	Net	%	
AT&SF	173678	162620	46340	116280 (58.1400)	4.6	110931 (55.4655)

N. Y. QUOTATIONS

Date July 5, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00 Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 1.75 Pct.		35.00 lbs. per ton, less 8#- 27.0 lbs. at .2145 Per lb.		5.7915
Silver 0.10 Oz.		oz. per ton, less oz. at Per oz.		
Gold 0.20 Oz.		.20 oz. per ton, oz. at 32.20 Per oz.		6.4400
Iron 12.0 Pct.		units at Per Unit.		
Lime 4.3 "		units at Per Unit.		
Alumina 11.6 "		2 units at .25 Per Unit. debit	.50	
Silica 43.8 "		units at Per Unit.		
Sulphur 1.6 "		units at Per Unit. 1/3 South		
Manganese "		units at Per Unit.		
Arsenic "		units at Per Unit.		
Antimony "		units at Per Unit. 2/3 South		
Bismuth "		units at Per Unit.		
Insoluble "		units at Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.50	12.2315
		Net Value Per Ton		6.7315

Total Value of 55.4655 Dry Tons at $ 6.7315		373.37
Less Freight 58.1400 Tons at $ 2.60 From Wenden, Ariz	151.16	
Avg. Value $6.42 per ton Tax	4.53	
Less Switching		
Less Sampling		
Less Additional Treatment Charge		
TOTALS	155.69	373.37
Amount Due Shipper—Voucher No.		217.68

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 68

Smelter Lot 245 DATE July 17, 1951

Shipper Lot M-10

BOUGHT OF Bonanza Mines, Inc., Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR Initial	CAR Number	WET WEIGHT Gross	WET WEIGHT Tare	WET WEIGHT Net	Moisture %	DRY WEIGHT
ATSF	82933	121500	45180	76320 (38.1600)	4.6	72809 (36.4045)

N. Y. QUOTATIONS

Date July 7, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00 Gold (per oz.) 32.20

ASSAY and ANALYSIS			PAYMENTS PER TON	DEBITS	CREDITS
Copper	1.87	Pct.	37.40 lbs. per ton, less 8#- 29.40 lbs. at .2145 Per lb.		6.3063
Silver	0.40	Oz.	oz. per ton, less oz. at Per oz.		
Gold	0.18	Oz.	.18 oz. per ton, oz. at 32.20 Per oz.		5.7960
Iron	12.4	Pct.	units at Per Unit.		
Lime	4.4	"	units at Per Unit.		
Alumina	12.2	"	2 units at .25 Per Unit. Debit	.50	
Silica	42.8	"	units at Per Unit.		
Sulphur	1.3	"	units at Per Unit.		
Manganese		"	units at Per Unit.		
Arsenic		"	units at Per Unit.		
Antimony		"	units at Per Unit.		
Bismuth		"	units at Per Unit.		
Insoluble		"	units at Per Unit.		
			Treatment Charge	5.00	
			TOTALS	5.50	12.1023
			Net Value Per Ton		6.6023

Total Value of 36.4045 Dry Tons at $ 6.6023		240.35
Less Freight 38.1600 Tons at $ 2.60 From Wenden, Ariz.	99.22	
Avg. Value 6.30 per ton Tax	2.98	
Less Switching		
Less Sampling		
Less Additional Treatment Charge		
TOTALS	102.20	240.35
Amount Due Shipper—Voucher No.		138.15

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 76

Smelter Lot 257 DATE July 28, 1951

Shipper Lot M-13

BOUGHT OF Bonanza Mines, Inc., Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR		WET WEIGHT			Moisture	DRY WEIGHT
Initial	Number	Gross	Tare	Net	%	
ATSF	171382	119940	47400	72540 (36.2700)	1.6	71379 (35.6895)

N. Y. QUOTATIONS

Date July 14, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00 Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 2.28 Pct.		45.6 lbs. per ton, less 8#- 37.60 lbs. at .2145 Per lb.		8.0652
Silver 0.30 Oz.		oz. per ton, less oz. at Per oz.		
Gold 0.17 Oz.		.17 oz. per ton, oz. at 32.20 Per oz.		5.4740
Iron 12.6 Pct.		units at Per Unit.		
Lime 4.0 "		units at Per Unit.		
Alumina 11.6 "		2 units at .25 Per Unit. debit	.50	
Silica 43.8 "		units at Per Unit.		
Sulphur 1.7 "		units at Per Unit.		
Manganese "		units at Per Unit.		
Arsenic "		units at Per Unit.		
Antimony "		units at Per Unit.		
Bismuth "		units at Per Unit.		
Insoluble "		units at Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.50	13.5392
		Net Value Per Ton		8.0392

Total Value of 35.6895 Dry Tons at $ 8.0392			286.92
Less Freight 36.2700 Tons at $ 2.60 From Wenden, Ariz		94.30	
Tax		2.83	
Less Switching			
Less Sampling			
Less Additional Treatment Charge			
TOTALS		97.13	286.92
Amount Due Shipper—Voucher No. 70460			189.79

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 89

Smelter Lot 299 DATE August 17, 1951

Shipper Lot M-21

BOUGHT OF Bonanza Mining Co., W Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR Initial	CAR Number	WET WEIGHT Gross	WET WEIGHT Tare	WET WEIGHT Net	Moisture %	DRY WEIGHT
ATSF	172589	121500	47840	73660 (36.8300)	4.2	70566 (35.2830)

N. Y. QUOTATIONS

Date August 13, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00 Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 2.04 Pct.		40.8 lbs. per ton, less 8#-32.80 lbs. at .2145 Per lb.		7.0356
Silver 0.15 Oz.		... oz. per ton, less ... oz. at ... Per oz.		
Gold 0.26 Oz.		.26 oz. per ton, ... oz. at 32.20 Per oz.		8.3720
Iron 12.2 Pct.		... units at ... Per Unit.		
Lime 4.0 "		... units at ... Per Unit.		
Alumina 11.8 "		2 units at .25 Per Unit. Debit	.50	
Silica 42.4 "		... units at ... Per Unit.		
Sulphur 2.4 "		... units at ... Per Unit.		
Manganese "		... units at ... Per Unit.		
Arsenic "		... units at ... Per Unit.		
Antimony "		... units at ... Per Unit.		
Bismuth "		... units at ... Per Unit.		
Insoluble "		... units at ... Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.50	15.4076
		Net Value Per Ton		9.9076

Total Value of 35.2830 Dry Tons at $ 9.9076		349.57
Less Freight 36.8300 Tons at $ 2.60 From Wenden, Ariz.	95.76	
Trans. Tax	2.87	
Less Switching		
Less Sampling		
Less Additional Treatment Charge 10% of excess over $15.00 per ton.		
Excess is .4076 - 35.2830 X 0.04076	1.44	
TOTALS	100.07	349.57
Amount Due Shipper—Voucher No. 71850		249.50

Made by jph Checked Approved

MAGMA COPPER COMPANY

SUPERIOR, ARIZONA

Settlement No. 47

Smelter Lot 171 DATE May 19, 1951

Shipper Lot M-2

BOUGHT OF Bonanza Mining Company Classification Crude Ore

ADDRESS Wenden, Ariz.

BOWER CO., PHOENIX

CAR		WET WEIGHT			Moisture	DRY WEIGHT
Initial	Number	Gross	Tare	Net	%	
ATSF	171466	131740	47760	83980 (41.990)	3.6	80957 (40.4785)

N. Y. QUOTATIONS

Date May 12, 1951

Copper (per lb.) .24200

Less .0275

Silver (per oz.)

92% of $35.00 Gold (per oz.) 32.20

ASSAY and ANALYSIS		PAYMENTS PER TON	DEBITS	CREDITS
Copper 1.53	Pct.	30.6 lbs. per ton, less 8#-22.60 lbs. at .2145 Per lb.		4.8477
Silver 0.10	Oz.	oz. per ton, less oz. at Per oz.		
Gold 0.07	Oz.	.07 oz. per ton, oz. at 32.20 Per oz.		2.2540
Iron 12.2	Pct.	units at Per Unit.		
Lime 2.3	"	units at Per Unit.		
Alumina 7.6	"	units at Per Unit.		
Silica 46.2	"	units at Per Unit.		
Sulphur 1.8	"	units at Per Unit.		
Manganese	"	units at Per Unit.		
Arsenic	"	units at Per Unit.		
Antimony	"	units at Per Unit.		
Bismuth	"	units at Per Unit.		
Insoluble	"	units at Per Unit.		
		Treatment Charge	5.00	
		TOTALS	5.00	7.1017
		Net Value Per Ton		2.1017

Total Value of 40.4785 Dry Tons at $ 2.1017		85.07
Less Freight 41.990 Tons at $ 2.60 From Wenden, Ariz.	109.17	
Avg. Value per ton 2.03 Tax	3.28	
Less Switching		
Less Sampling		
Less Additional Treatment Charge		
TOTALS	112.45	85.07
Amount Due ~~Shipper~~ Magma Copper Co. —Voucher No. XXXXX	27.38	

Made by jph Checked Approved

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. 2021

Date received

BONANZA MINING COMPANY

P. O. Box 4336
Phoenix, Arizona

Name and address of applicant

Date

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*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.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(*a*) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

(Name of company)

By Roy R. MacDonald
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

Mr. Roy R. MacDonald
Bonanza Mining Company
P. O. Box 4336
Phoenix, Arizona

Subject: DMA-2021
Re: Exploration Loan
Bonanza Mine

My dear Mr. MacDonald:

This will acknowledge receipt of your application dated August 25, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMA-2021 and referred to the Copper Branch.

Kindly refer to DMA-2021 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams

Robert E. Adams, Chief
Reports and Records Unit

SEP 5 1951

Mr. Ray MacDonald
Bonanza Mining Company
P. O. Box [illegible]
Phoenix, Arizona

re: Docket DMA-6721

Dear Mr. MacDonald:

This is to inform you that your application for exploration aid for the Bonanza Mining Company has been referred to the Field Team for further investigation. You will hear from Mr. J. A. Nash, Executive Officer, DMA Field Team Region IV, or one of his staff when they are ready to examine your property.

The examining engineers will require certain additional information concerning the detailed itemized cost of each item of your project. To expedite the investigation this information should be immediately available when they require it.

Very truly yours,

SIGNED

Tom Lyon, Director
Supply Division

[illegible]
[illegible]:rw
8-31-51

Copy to: Administrator's Reading File
Reports and Records Branch
Executive Officer, DMA Field Team II
Coordinating Committee
Mr. Gowen
Mr. Maclaren
Files - DMA Docket

Copy to: Mr. Jack Collins
1320 W. Tamarack
Phoenix, Arizona

DEFENSE MINERALS ADMINISTRATION
310 WASHINGTON, D.C.
OCT 18 8 43 AM '51

Pls

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

SEP 5 1951

Mr. J. H. East, Jr.,
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

wtd 9-14-51

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. DMA-2021

Commodity Copper

Applicant Bonanza Mining Company, P. O. Box 4336, Phoenix, Arizona

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Tom Lyon
Chairman
Coordinating Committee

Lowell B. Moon
For Bureau of Mines

Olof R. Ross
For Geological Survey

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

Mr. J. H. East, Jr.,
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. DMA-2021

Commodity Copper

Applicant Bonanza Mining Company, P. O. Box 4336, Phoenix, Arizona

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Chairman
Coordinating Committee

For Bureau of Mines

For Geological Survey

R. BURTON ROSE, M. A.
Mining Geologist
P. O. Box 583
SAN JOSE, CALIFORNIA

BONANZA and BONANZA-CENTRAL MINES

Yuma County, Arizona

This report is based on progressive examination of the properties during present development through the past two years, microscopic study of typical ore specimens, and review of title, assay and smelter shipping return data.

Names of Properties: Two separate mining groups: The Bonanza Group, consisting of the Bonanza Mine; and the adjoining Bonanza-Central property.

Area: A total of 94 claims. The Bonanza Mine consists of 39 unpatented mining claims covering 780 acres. The Bonanza-Central property comprises 57 unpatented mining claims. The surface area included in these claims covers the mineralized zone, approximately 1000 feet wide and three miles long.

Location: These contiguous claims are located in the Ellsworth Mining District, northern Yuma County, 7 3/4 miles north of Wenden, Arizona; in Township 7 North, Range 13 West, Gila & Salt River Meridian; being part of Sections 22, 23, 25, 26, and 27.

Titles: The Bonanza Group is owned by the Bonanza Mining Corporation, a Arizona corporation. The Bonanza-Central

group are owned by Roy MacDonald, or held under lease and option by him; being in the process of transfer to the Bonanza-Central Corporation.

Topography: Steep hill slope region, varying in elevation from 2300 feet to 3800 feet. Hills are bordered by nearly level desert plain.

Climate: Year round outdoor working conditions; hot through the summer months and below the winter snow line elevation.

Accessibility: Good graded dirt road to Wenden, a distance of 7 3/4 miles, located on U. S. Highway 60 and a shipping point on the Santa Fe Railroad.

Production History: Original claims covering the copper-gold bearing outcrops were located by R. R. MacDonald, Sr.; with mining operations beginning about 1900 and continuing under active mining or leasing by the family until stopped by World War II. All ore produced during these four decades from the many shallow surface workings has been of shipping grade, packed to the desert plain level on burros. These conditions limited the ore shipped to a plus $50 per ton value. Considerable cobbed ore of mill grade remains from the old operations over the ridge on the Bonanza-Central claims group. The present Bonanza shaft is located on the original Copper-Matte #1 claim; where active sinking development has been in progress since 1948. Results to date have proven the ore content and structural conditions to a depth of 600 feet below the surface. Carload shipments are being made to the smelter on steadily increasing tonnage

basis, beginning in May, 1951.

Ore: Copper sulfide ores, partly oxidized, showing secondary enrichment in the form of chalcocite replacement of the original chalcopyrite; accompanied by cuprite and malachite, in the upper portions of the dyke-veins. Microscopic examination of chalcopyrite specimens from the 500 foot level and upper levels show it to be primary, partly oxidized; the upper portion of the main primary zone. The ore masses parallel and replace the persistent diabase dykes in close relation to the intense hydrothermal alteration. Average copper content is relatively high and is associated with gold content in economic amounts, varying from minor amounts to several ounces. This gold content is more widely disseminated than the copper, indicating that it was deposited in part in the hydrothermal alteration stage which initiated the copper deposition. The vein material is highly oxidized from the surface downward at the main Bonanza shaft. This oxidation is less intense in the upper Bonanza-Central group on the ridge where post mineralization shearing and fracturing are less evident. The leached zone at the surface, the zone of secondary enrichment (replacement) and the primary zone all overlay each other in both vertical and horizontal directions; indicating incomplete development of the near surface oxidation and leaching stages. This is verified by the presence of primary chalcopyrite up into the leached zone in spots and the oxidation extending to below

the 500 foot level. The presence of the primary type chalcopyrite and the hydrothermal alteration are most important indicators of continuation of the copper content mineralization at depth. No large scale mining is planned in the near surface leached zone.

Geology: The regional geology is that of a mountain range of Pre-Cambrian age schist and granite separating two alluvial filled desert valley plains. A major shear zone structure extends across this range in a North 70 degree West direction. This shear zone contains some nineteen or more near parallel diabase dykes, varying from less than a foot in width to over twenty feet, having the same strike, or longitudinal axis. On the surface these dykes dip to the east at varying degrees. With depth they appear to converge and dip more nearly vertical. Dynamic metamorphic action on a regional scale produced this deep seated shear zone and provided the loci for the diabase dyke intrusion and the following hydrothermal alteration, with subsequent copper ore deposition. Intense hydrothermal action and progressive leaching preceded and accompanied the deposition of the sulfide copper-gold ores.

The host rock in this mineralized mineralized belt or shear zone is an altered true granite showing the effects of the dynamic metamorphic action and the hydrothermal alteration accompanied by some sericitization. The overall magnitude of these effects, consistently found throughout

the 1000 foot wide by three mile long shear zone, indicates a deep seated direct source for the copper and gold mineralization now exposed at the surface. This concept is further indicated by the close relationship of the copper ores mined to date and the areas of most intense alteration, resulting from hydrothermal action. All these factors indicate that the copper content of the dyke-veins should be the same or better with increased depth. Additional confirmation is found in the close association of the secondary chalcocite enrichment and the hydrothermal alteration halos, rather than with the surface oxidation and leaching. Also, the leaching of the diabase dykes seems to increase with depth associated with the copper mineralization. Longitudinally, the full length of the mineralizing action is unknown since it does not terminate, but disappears under the desert surface on both sides of the range.

Development: Many shallow surface cuts, shafts and trenches show as a result of the extensive surface shipping of ore. Specific deeper development includes the following:

1.) Bonanza shaft. Sunk to 250 feet before World War II., this shaft has been continued down to the 600 foot level in the past two years. Ore shows in the shaft or is cut by short drill holes from the 250 foot level to the bottom, where the copper sulfide is heavy. Three hundred feet of drifting on the 520 foot level shows ore at all times.

Development cont.

2.) Diamond drill hole (1949). This drill hole was run 745 feet on a 65% angle. Fourteen feet of copper ore of 4% content was cut at the 360 foot point. This ore zone is in the footwall area of the Bonanza shaft well to the west of the present sinking activity.

3.) Mollina shaft 110 feet deep.

4.) Roy shaft 65 feet vertical, with 70 foot crosscut.

5.) Roy shaft #2 50 feet deep.

6.) New Deal claim shaft 100 feet deep.

7.) Shaft on summit 100 feet deep.

8.) Roy tunnel 300 feet long.

9.) Lower tunnel summit 175 feet.

10.) Upper tunnel summit 125 feet.

Future development: Continued sinking to at least the one thousand foot level and crosscutting of the 18 known paralleling dyke-veins are the long range development that is needed to give production access to multiple drift and stope sections. The most logical development of the higher Bonanza-Central group can be done effectively by drifting from the Bonanza shaft at depth on an ore bearing dyke vein and raising to the surface at a point in ore. It should be noted that this would also make available a considerable tonnage of broken ore on the surface, through elimination of too costly pack operations.

Water supply: While water is not available at the mine site;

ample quantities are available from two wells situated not over seven miles distant and such water can be piped when needed for augmented mining or milling requirements.

Power: Electricity is installed directly to the mine (1951) and a natural gas line with takeoff privileges passes within three miles of the mine, assuring adequate power as best suited to a particular mining or metallurgical problem.

Equipment: Present equipment includes a 60 foot heavy timber headframe containing 225 ton ore bin capacity in four sections, a 150 horsepower hoist (1000 ft. per min. hoisting speed) and three ton skip, a 700 foot (cu. ft.) capacity air compressor, auxiliary portable air compressor and standby hoist, power air blower, five building structures including a change room, and heavy duty electric power line transformer units. A loading ramp on the Santa Fe railroad, costs paid by Bonanza Mining Corp., is used for carload ore shipment loading. Operating equipment includes two Eimco mechanical loaders, blacksmithing equipment, underground cars, air drills and steel, dump truck, and a basic supplies warehouse.

Mill tests: Production of shipping grade smelter ore has shown it to be highly desirable and readily accepted.

Costs: Based on past production records and present mining costs; total mining, milling, shipping and smelter treatment cost should not exceed $15-17 per ton.

Freight facilities: Truck haul eight miles to railroad. Rail

rate to Magma-Superior $2.60 per ton; to Hayden $3.50 per ton.

Living accomodations: Watchman living quarters at mine. Ample quarters and meals at Wenden.

Timber and vegetation: None.

Financial statements: Registered Arizona corporations: data on public file.

Titles: U. S. Government location claims (94). All filing and assessment requirements complied with.

Maps and reports: Claims maps made part of this report. No previous mine reports published.

Ore reserves, based on the present development and the geologic structure evident, are immense throughout the strong 1000 foot by 3 mile shear zone with its nineteen near parallel dyke-veins. The importance of the strong geologic structural conditions and consistent mineralization cannot be overemphasized. Concentration of the mined ores before shipment to the smelter is a necessity in order to realize the maximum returns from the copper and gold content.

REGISTERED MINING ENGINEER
CERTIFICATE EXPIRES
EDWIN W. MILLS
DEC. 31, 1951
ARIZONA, U.S.A.

Respectfully submitted,

Edwin W. Mills

Edwin W. Mills, Mining Engineer

R. Burton Rose

R. Burton Rose, Mining Geologist

Dated: August 5, 1951.

R. BURTON ROSE, M. A.
Mining Geologist
P. O. Box 583
SAN JOSE, CALIFORNIA

BONANZA and BONANZA-CENTRAL MINES

Yuma County, Arizona

This report is based on progressive examination of the properties during present development through the past two years, microscopic study of typical ore specimens, and review of title, assay and smelter shipping return data.

Names of Properties: Two separate mining groups: The Bonanza Group, consisting of the Bonanza Mine; and the adjoining Bonanza-Central property.

Area: A total of 94 claims. The Bonanza Mine consists of 39 unpatented mining claims covering 780 acres. The Bonanza-Central property comprises 57 unpatented mining claims. The surface area included in these claims covers the mineralized zone, approximately 1000 feet wide and three miles long.

Location: These contiguous claims are located in the Ellsworth Mining District, northern Yuma County, 7 3/4 miles north of Wenden, Arizona; in Township 7 North, Range 13 West, Gila & Salt River Meridian; being part of Sections 22, 23, 25, 26, and 27.

Titles: The Bonanza Group is owned by the Bonanza Mining Corporation, a Arizona corporation. The Bonanza-Central

group are owned by Roy MacDonald, or held under lease and option by him; being in the process of transfer to the Bonanza-Central Corporation.

Topography: Steep hill slope region, varying in elevation from 2300 feet to 3800 feet. Hills are bordered by nearly level desert plain.

Climate: Year round outdoor working conditions; hot through the summer months and below the winter snow line elevation.

Accessibility: Good graded dirt road to Wenden, a distance of 7 3/4 miles, located on U. S. Highway 60 and a shipping point on the Santa Fe Railroad.

Production History: Original claims covering the copper-gold bearing outcrops were located by R. R. MacDonald, Sr.; with mining operations beginning about 1900 and continuing under active mining or leasing by the family until stopped by World War II. All ore produced during these four decades from the many shallow surface workings has been of shipping grade, packed to the desert plain level on burros. These conditions limited the ore shipped to a plus $50 per ton value. Considerable cobbed ore of mill grade remains from the old operations over the ridge on the Bonanza-Central claims group. The present Bonanza shaft is located on the original Copper-Matte #1 claim; where active sinking development has been in progress since 1948. Results to date have proven the ore content and structural conditions to a depth of 600 feet below the surface. Carload shipments are being made to the smelter on steadily increasing tonnage

basis, beginning in May, 1951.

Ore: Copper sulfide ores, partly oxidized, showing secondary enrichment in the form of chalcocite replacement of the original chalcopyrite; accompanied by cuprite and malachite, in the upper portions of the dyke-veins. Microscopic examination of chalcopyrite specimens from the 500 foot level and upper levels show it to be primary, partly oxidized; the upper portion of the main primary zone. The ore masses parallel and replace the persistent diabase dykes in close relation to the intense hydrothermal alteration. Average copper content is relatively high and is associated with gold content in economic amounts, varying from minor amounts to several ounces. This gold content is more widely disseminated than the copper, indicating that it was deposited in part in the hydrothermal alteration stage which initiated the copper deposition. The vein material is highly oxidized from the surface downward at the main Bonanza shaft. This oxidation is less intense in the upper Bonanza-Central group on the ridge where post mineralization shearing and fracturing are less evident. The leached zone at the surface, the zone of secondary enrichment (replacement) and the primary zone all overlay each other in both vertical and horizontal directions; indicating incomplete development of the near surface oxidation and leaching stages. This is verified by the presence of primary chalcopyrite up into the leached zone in spots and the oxidation extending to below

the 500 foot level. The presence of the primary type chalcopyrite and the hydrothermal alteration are most important indicators of continuation of the copper content mineralization at depth. No large scale mining is planned in the near surface leached zone.

Geology: The regional geology is that of a mountain range of Pre-Cambrian age schist and granite separating two alluvial filled desert valley plains. A major shear zone structure extends across this range in a North 70 degree West direction. This shear zone contains some nineteen or more near parallel diabase dykes, varying from less than a foot in width to over twenty feet, having the same strike, or longitudinal axis. On the surface these dykes dip to the east at varying degrees. With depth they appear to converge and dip more nearly vertical. Dynamic metamorphic action on a regional scale produced this deep seated shear zone and provided the loci for the diabase dyke intrusion and the following hydrothermal alteration, with subsequent copper ore deposition. Intense hydrothermal action and progressive leaching preceded and accompanied the deposition of the sulfide copper-gold ores.

The host rock in this mineralized mineralized belt or shear zone is an altered true granite showing the effects of the dynamic metamorphic action and the hydrothermal alteration accompanied by some sericitization. The overall magnitude of these effects, consistently found throughout

the 1000 foot wide by three mile long shear zone, indicates a deep seated direct source for the copper and gold mineralization now exposed at the surface. This concept is further indicated by the close relationship of the copper ores mined to date and the areas of most intense alteration, resulting from hydrothermal action. All these factors indicate that the copper content of the dyke-veins should be the same or better with increased depth. Additional confirmation is found in the close association of the secondary chalcocite enrichment and the hydrothermal alteration halos, rather than with the surface oxidation and leaching. Also, the leaching of the diabase dykes seems to increase with depth associated with the copper mineralization. Longitudinally, the full length of the mineralizing action is unknown since it does not terminate, but disappears under the desert surface on both sides of the range.

Development: Many shallow surface cuts, shafts and trenches show as a result of the extensive surface shipping of ore. Specific deeper development includes the following:

1.) Bonanza shaft. Sunk to 250 feet before World War II., this shaft has been continued down to the 600 foot level in the past two years. Ore shows in the shaft or is cut by short drill holes from the 250 foot level to the bottom, where the copper sulfide is heavy. Three hundred feet of drifting on the 520 foot level shows ore at all times.

Development cont.

2.) Diamond drill hole (1949). This drill hole was run 745 feet on a 65% angle. Fourteen feet of copper ore of 4% content was cut at the 360 foot point. This ore zone is in the footwall area of the Bonanza shaft well to the west of the present sinking activity.

3.) Mollina shaft 110 feet deep.

4.) Roy shaft 65 feet vertical, with 70 foot crosscut.

5.) Roy shaft #2 50 feet deep.

6.) New Deal claim shaft 100 feet deep.

7.) Shaft on summit 100 feet deep.

8.) Roy tunnel 300 feet long.

9.) Lower tunnel summit 175 feet.

10.) Upper tunnel summit 125 feet.

Future development: Continued sinking to at least the one thousand foot level and crosscutting of the 18 known paralleling dyke-veins are the long range development that is needed to give production access to multiple drift and stope sections. The most logical development of the higher Bonanza-Central group can be done effectively by drifting from the Bonanza shaft at depth on an ore bearing dyke vein and raising to the surface at a point in ore. It should be noted that this would also make available a considerable tonnage of broken ore on the surface, through elimination of too costly pack operations.

Water supply: While water is not available at the mine site;

ample quantities are available from two wells situated not over seven miles distant and such water can be piped when needed for augmented mining or milling requirements.

Power: Electricity is installed directly to the mine (1951) and a natural gas line with takeoff privileges passes within three miles of the mine, assuring adequate power as best suited to a particular mining or metallurgical problem.

Equipment: Present equipment includes a 60 foot heavy timber headframe containing 225 ton ore bin capacity in four sections, a 150 horsepower hoist (1000 ft. per min. hoisting speed) and three ton skip, a 700 foot (cu. ft.) capacity air compressor, auxiliary portable air compressor and standby hoist, power air blower, five building structures including a change room, and heavy duty electric power line transformer units. A loading ramp on the Santa Fe railroad, costs paid by Bonanza Mining Corp., is used for carload ore shipment loading. Operating equipment includes two Eimco mechanical loaders, blacksmithing equipment, underground cars, air drills and steel, dump truck, and a basic supplies warehouse.

Mill tests: Production of shipping grade smelter ore has shown it to be highly desirable and readily accepted.

Costs: Based on past production records and present mining costs; total mining, milling, shipping and smelter treatment cost should not exceed $15-17 per ton.

Freight facilities: Truck haul eight miles to railroad. Rail

rate to Magma-Superior $2.60 per ton; to Hayden $3.50 per ton.

Living accomodations: Watchman living quarters at mine. Ample quarters and meals at Wenden.

Timber and vegetation: None.

Financial statements: Registered Arizona corporations: data on public file.

Titles: U. S. Government location claims (94). All filing and assessment requirements complied with.

Maps and reports: Claims maps made part of this report. No previous mine reports published.

Ore reserves, based on the present development and the geologic structure evident, are immense throughout the strong 1000 foot by 3 mile shear zone with its nineteen near parallel dyke-veins. The importance of the strong geologic structural conditions and consistent mineralization cannot be overemphasized. Concentration of the mined ores before shipment to the smelter is a necessity in order to realize the maximum returns from the copper and gold content.

REGISTERED MINING ENGINEER
CERTIFICATE EXPIRES
EDWIN W. MILLS
DEC. 31, 1951
ARIZONA, U.S.A.

Respectfully submitted,

Edwin W. Mills

Edwin W. Mills, Mining Engineer

R. Burton Rose

R. Burton Rose, Mining Geologist

Dated: August 5, 1951.

R. BURTON ROSE, M. A.
Mining Geologist
P. O. Box 583
SAN JOSE, CALIFORNIA

BONANZA and BONANZA-CENTRAL MINES

Yuma County, Arizona

This report is based on progressive examination of the properties during present development through the past two years, microscopic study of typical ore specimens, and review of title, assay and smelter shipping return data.

Names of Properties: Two separate mining groups: The Bonanza Group, consisting of the Bonanza Mine; and the adjoining Bonanza-Central property.

Area: A total of 94 claims. The Bonanza Mine consists of 39 unpatented mining claims covering 780 acres. The Bonanza-Central property comprises 57 unpatented mining claims. The surface area included in these claims covers the mineralized zone, approximately 1000 feet wide and three miles long.

Location: These contiguous claims are located in the Ellsworth Mining District, northern Yuma County, 7 3/4 miles north of Wenden, Arizona; in Township 7 North, Range 13 West, Gila & Salt River Meridian; being part of Sections 22, 23, 25, 26, and 27.

Titles: The Bonanza Group is owned by the Bonanza Mining Corporation, a Arizona corporation. The Bonanza-Central

group are owned by Roy MacDonald, or held under lease and option by him; being in the process of transfer to the Bonanza-Central Corporation.

Topography: Steep hill slope region, varying in elevation from 2300 feet to 3800 feet. Hills are bordered by nearly level desert plain.

Climate: Year round outdoor working conditions; hot through the summer months and below the winter snow line elevation.

Accessibility: Good graded dirt road to Wenden, a distance of 7 3/4 miles, located on U. S. Highway 60 and a shipping point on the Santa Fe Railroad.

Production History: Original claims covering the copper-gold bearing outcrops were located by R. R. MacDonald, Sr.; with mining operations beginning about 1900 and continuing under active mining or leasing by the family until stopped by World War II. All ore produced during these four decades from the many shallow surface workings has been of shipping grade, packed to the desert plain level on burros. These conditions limited the ore shipped to a plus $50 per ton value. Considerable cobbed ore of mill grade remains from the old operations over the ridge on the Bonanza-Central claims group. The present Bonanza shaft is located on the original Copper-Matte #1 claim; where active sinking development has been in progress since 1948. Results to date have proven the ore content and structural conditions to a depth of 600 feet below the surface. Carload shipments are being made to the smelter on steadily increasing tonnage

basis, beginning in May, 1951.

Ore: Copper sulfide ores, partly oxidized, showing secondary enrichment in the form of chalcocite replacement of the original chalcopyrite; accompanied by cuprite and malachite, in the upper portions of the dyke-veins. Microscopic examination of chalcopyrite specimens from the 500 foot level and upper levels show it to be primary, partly oxidized; the upper portion of the main primary zone. The ore masses parallel and replace the persistent diabase dykes in close relation to the intense hydrothermal alteration. Average copper content is relatively high and is associated with gold content in economic amounts, varying from minor amounts to several ounces. This gold content is more widely disseminated than the copper, indicating that it was deposited in part in the hydrothermal alteration stage which initiated the copper deposition. The vein material is highly oxidized from the surface downward at the main Bonanza shaft. This oxidation is less intense in the upper Bonanza-Central group on the ridge where post mineralization shearing and fracturing are less evident. The leached zone at the surface, the zone of secondary enrichment (replacement) and the primary zone all overlay each other in both vertical and horizontal directions; indicating incomplete development of the near surface oxidation and leaching stages. This is verified by the presence of primary chalcopyrite up into the leached zone in spots and the oxidation extending to below

the 300 foot level. The presence of the primary type chalcopyrite and the hydrothermal alteration are most important indicators of continuation of the copper content mineralization at depth. No large scale mining is planned in the near surface leached zone.

Geology: The regional geology is that of a mountain range of Pre-Cambrian age schist and granite separating two alluvial filled desert valley plains. A major shear zone structure extends across this range in a North 70 degree West direction. This shear zone contains some nineteen or more near parallel diabase dykes, varying from less than a foot in width to over twenty feet, having the same strike, or longitudinal axis. On the surface these dykes dip to the east at varying degrees. With depth they appear to converge and dip more nearly vertical. Dynamic metamorphic action on a regional scale produced this deep seated shear zone and provided the loci for t he diabase dyke intrusion and the following hydrothermal alteration, with subsequent copper ore deposition. Intense hydrothermal action and progressive leaching preceded and accompanied the deposition of the sulfide copper-gold ores.

The host rock in this mineralized mineralized belt or shear zone is an altered true granite showing the effects of the dynamic metamorphic action and the hydrothermal alteration accompanied by some sericitization. The overall magnitude of these effects, consistently found throughout

the 1000 foot wide by three mile long shear zone, indicates a deep seated direct source for the copper and gold mineralization now exposed at the surface. This concept is further indicated by the close relationship of the copper ores mined to date and the areas of most intense alteration, resulting from hydrothermal action. All these factors indicate that the copper content of the dyke-veins should be the same or better with increased depth. Additional confirmation is found in the close association of the secondary chalcocite enrichment and the hydrothermal alteration halos, rather than with the surface oxidation and leaching. Also, the leaching of the diabase dykes seems to increase with depth associated with the copper mineralization. Longitudinally, the full length of the mineralizing action is unknown since it does not terminate, but disappears under the desert surface on both sides of the range.

<u>Development</u>: Many shallow surface cuts, shafts and trenches show as a result of the extensive surface shipping of ore. Specific deeper development includes the following:

1.) Bonanza shaft. Sunk to 250 feet before World War II., this shaft has been continued down to the 600 foot level in the past two years. Ore shows in the shaft or is cut by short drill holes from the 250 foot level to the bottom, where the copper sulfide is heavy. Three hundred feet of drifting on the 520 foot level shows ore at all times.

Development cont.

2.) Diamond drill hole (1949). This drill hole was run 745 feet on a 65% angle. Fourteen feet of copper ore of 4% content was cut at the 360 foot point. This ore zone is in the footwall area of the Bonanza shaft well to the west of the present sinking activity.

3.) Mollina shaft 110 feet deep.

4.) Roy shaft 65 feet vertical, with 70 foot crosscut.

5.) Roy shaft #2 50 feet deep.

6.) New Deal claim shaft 100 feet deep.

7.) Shaft on summit 100 feet deep.

8.) Roy tunnel 300 feet long.

9.) Lower tunnel summit 175 feet.

10.) Upper tunnel summit 125 feet.

Future development: Continued sinking to at least the one thousand foot level and crosscutting of the 15 known paralleling dyke-veins are the long range development that is needed to give production access to multiple drift and stope sections. The most logical development of the higher Bonanza-Central group can be done effectively by drifting from the Bonanza shaft at depth on an ore bearing dyke vein and raising to the surface at a point in ore. It should be noted that this would also make available a considerable tonnage of broken ore on the surface, through elimination of too costly pack operations.

Water supply: While water is not available at the mine site;

ample quantities are available from two wells situated not over seven miles distant and such water can be piped when needed for augmented mining or milling requirements.

Power: Electricity is installed directly to the mine (1951) and a natural gas line with takeoff privileges passes within three miles of the mine, assuring adequate power as best suited to a particular mining or metallurgical problem.

Equipment: Present equipment includes a 60 foot heavy timber headframe containing 225 ton ore bin capacity in four sections, a 150 horsepower hoist (1000 ft. per min. hoisting speed) and three ton skip, a 700 foot (cu. ft.) capacity air compressor, auxiliary portable air compressor and standby hoist, power air blower, five building structures including a change room, and heavy duty electric power line transformer units. A loading ramp on the Santa Fe railroad, costs paid by Bonanza Mining Corp., is used for carload ore shipment loading. Operating equipment includes two Eimco mechanical loaders, blacksmithing equipment, underground cars, air drills and steel, dump truck, and a basic supplies warehouse.

Mill tests: Production of shipping grade smelter ore has shown it to be highly desirable and readily accepted.

Costs: Based on past production records and present mining costs; total mining, milling, shipping and smelter treatment cost should not exceed $15-17 per ton.

Freight facilities: Truck haul eight miles to railroad. Rail

rate to Magma-Superior $2.60 per ton; to Hayden $3.50 per ton.

Living accomodations: Watchman living quarters at mine. Ample quarters and meals at Wenden.

Timber and vegetation: None.

Financial statements: Registered Arizona corporations: data on public file.

Titles: U. S. Government location claims (94). All filing and assessment requirements complied with.

Maps and reports: Claims maps made part of this report. No previous mine reports published.

Ore reserves, based on the present development and the geologic structure evident, are immense throughout the strong 1000 foot by 3 mile shear zone with its nineteen near parallel dyke-veins. The importance of the strong geologic structural conditions and consistent mineralization cannot be overemphasized. Concentration of the mined ores before shipment to the smelter is a necessity in order to realize the maximum returns from the copper and gold content.

Respectfully submitted,

REGISTERED MINING ENGINEER
CERTIFICATE EXPIRES
EDWIN W. MILLS
DEC. 31, 1951
ARIZONA, U.S.A.

Edwin W. Mills

Edwin W. Mills, Mining Engineer

R. Burton Rose

R. Burton Rose, Mining Geologist

Dated: August 5, 1951.

DMA 780

Phoenix, Arizona
March 3, 1951

Roy R. MacDonald
Box 103
Wenden, Arizona

Dear Sir:

In accordance with your request I herewith present a report on your property, The Bonanza Group of mining claims in the Ellsworth Mining District, Northern Yuma County, Arizona:

Location:

The Bonanza and Bonanza Central Mine groups totaling 94 claims - 1880 ares - are located in the Ellsworth Mining District, North Yuma County, Arizona, about 7-3/4 miles northwest of Wenden, in Township 7 North, Range 13 West, Gila & Salt River Base & Meridian.

Ownership:

The Bonanza group, consisting of 39 unpatented claims, belongs to the Bonanza Mining Corporation, while the other 57 claims are held under lease or owned outright by Roy R. McDonald.

Topography:

Rough steep hillsides and dry washes, typical of an arid climate in mountainous country.

Accessibility;

The U. S. Highway 60-70 and the Santa Fe Railroad pass Wenden, the shipping point. A 7-3/4 mile dirt road, which is now in good serviceable condition, connects Wenden with the mine.

History:

R. R. MacDonald, Sr. discovered and located the gold-copper property now known as Copper Matte #1, on which the Bonanza shaft is located Subsequently, the other claims were added. Operations commenced about 1900 and were carried on continuously by the family and by lessees until the start of World War II. The work was all carried out by hand methods and the ore transported several miles on burros to a wagon road on the flat. From this point it was hauled, by wagon in the early days, to Congress Junction 50 miles distant from the mines. In later years, it was taken by wagon or

trucks to Wenden and shipped from there to the smelters by the Santa Fe Railroad. The ore had to be of exceptional grade to stand such transport costs, therefore only the best ore shoots were mineable and the product shipped was sorted to a $50 minimum. The discarded material on the dumps would today make good mill feed, especially that on the Bonanza Central property, just over the summit from the Copper Matte #1, where the shearing is not as severe as on the east side and the sulfides are more conspicuous in the upper workings. No shipments have been made since 1941. The Bonanza Mines Corp. was organized on October 19, 1948 and the equipping and development of the property since then has been under the direct supervision of Roy MacDonald, General Manager and President of the company.

Geology:

The Harcuvar Mountains, in which the mineral deposit is located, consist of pre-Cambrian Schist invaded by a biotite-granite, outcropping on the eastern side. The granite body appears as a low, gently curving dome, the upper edge disappearing under the schist about 100 feet to the west of the Bonanza shaft. The contact, where exposed, showed no indications of metamorphic action or high temperature. A prominent shear zone over 1000 feet in width and dipping about 65° to 70° to the north, cuts the granite and the schist in a N 70° W direction for the full width of the mountain exposure, approximating 3 miles.
This shear zone is traversed by a series of 19 diabase dikes, striking N 70° W with the shear and dipping northeasterly with it. The dikes are from a few inches up to 20 feet or more in width, and the ore deposition occurs in association with them. These dykes preceded the ore; in fact they made the structure which the ore solutions followed, and they are, in places, intensely altered and mineralized. The granite is in part, decidedly gniessic, especially down toward the valley alluviam cover on the east side. Indications are that the mineral solutions originated in this magma.

Ore Occurrence:

Copper sulfides, altered generally to Cuprite, malachite, and chrysocolla in the oxide zone, and to chalcocite in the secondary sulfide zone, carrying some values in gold and silver, make up the bulk of the economic ores developed to date. When development is a little further advanced in the property there will probably be three main zones:

The oxidized zone (200 feet)

The secondary sulfide zone (300 feet)

The primary zone (depth)

On the Bonanza group the upper portions of the veins are almost completely leached out, small amounts only of Chrysocolla and malachite

remaining. This zone of oxidation was amenable to operation only by hand sorting the product up to the shipping grade. Over on the Bonanza Central claims the oxidized zone, in the vicinity where mined, was not nearly as soft and intensely sheared as on the east side of the summit, therefore the stopes are still open and accessible for inspection. These stopes carried some sulfide ore in commercial quantity to within a few feet of the surface, but it usually required grading to make a shipping product. It is evident that the same granite dome exposed on the east slope of the mountains extends on under the Bonanza Central properties at no great depth. If this is true, the veins in that district are in the invaded rocks and will have greater vertical extent than those on the Bonanza side.

The secondary sulfide zone was encountered in the shaft on the Copper Matte at about 250 feet in depth, and still persists on the 500 level. The typical sulfide of this zone is chalcocite, but some cuprite and malachite occur as well as the primary chalsopyrite and bornite. This zone should conform roughly with the surface, being somewhat over 250 feet below the surface on the summit and less than 250' down near the valley level. The secondary sulfides should provide the richest ores of the deposit, and they should occur in all veins showing evidence of leached copper on the surface.

The primary zone should come in at the water level where the free oxygen is stopped from downward progress. Sampling and a specimen taken in the Bonanza shaft at 10 feet below the 500 level showed no chalcocite, cuprite, malachite, or azurite, but did show good bornite and chalcopyrite and assayed as follows:

Assays

Bonanza shaft	Location Level	Au .02	Cu%	Remarks
#1	510'	.48	2.7	Sample - 4 ft width; both sides of dike.
#2	510'	.40	1.1	Sample - 2 ft. width of the slightly altered diabase dike in center of rein

This gives $30 as the value of the vein section and $20 for the dike. The average grade of ore mined would be $26.66 and, if this is the primary zone, it looks very good for future development at depth. The high gold value in both the dike and the filled part of the vein is of particular interest since it is so much better than in the same vein in the upper levels. The mine workings are at present inaccessable below the 160 level due to some straightening up in the shaft required for the installation of the 3-ton skips to be put into service in the near future. One sample taken in the face of an open cut near the summit on Copper Matte #1 and four taken on the 110 level are of interest only in emphasizing the lean nature of the oxidized zone.

Assays

Sample	Location	Au .02	Cu%	Total Value	Remarks
#11	110' W heading 170' length	.12	3.10	$19.70	Sample taken as in past for hand cobbing
#12	110' E heading 95' length	.08	2.06	12.89	Same as above
#13	open cut at summit	.01	.20	1.38	Open cut 15' wide 40' E. of Summit on CM#1 Highly altered; a gold prospect.
#14	Sample at muck pile W. Face 110	Tr.	.20	0.49	Branch vein in back of drift, on 110 W near face
#15	Same as #11 but taken across vein	.03	.36	3.56	Sample taken across 3½ vein at 15' intervals over 170' length of drift.

Since the open cut as well as the hanging wall vein on the 100 level are in the oxidized zone, the average product as it would be mined would be too low grade to be profitably worked in so small an ore body. The samples #1 and #5 of the W. heading illustrate the spread in valued when sampling for a possible cobbing ore and sampling for a straight milling product. The #1 sample would have to go probably $50.00 to make a possible cobbing type of ore in the old days. #5 shows the same vein to be too low grade in the oxide zone for metallurgical treatment, even at current high prices of the metals.

From a geological viewpoint the property has fine future possibilities in spite of the meager amount of development showing. For instance, wherever sulfides have been encountered, the ore has always been of shipping grade. Costly exploration through the deeply leached zone of the sheared vein structure on the Bonanza group, has prevented the discovery, until recently, of the important underlying sulfide zone. The leached zones of the many parallel veins on the property, duplicate that of the prominent vein now opened up to the 550 foot level. A diamond drill hole extending down to 724 feet, driven normal to the veins, cut 14 feet of sulfide ore at 340 feet depth, which averaged 4% Cu and .15 ox. Au per ton. This was in an area far in the footwall of the shaft workings and on another vein. The high gold values make a wonderful hedge against a future drop in the price of copper. The 19 veins in the 1000 foot shear zone have indications of important tonnage in the secondary sulfide zone, and untold possibilities in the primary zone.

Working Program Planned:

A 60 foot headframe is in process of erection today, the shaft is undergoing alterations to accommodate the new 3-ton ships to be used, 200 ton bins are going into place under the ship dump in the headframe; a new 150 HP hoist capable of 1000 feet per min. hoisting spped, and a new 700 cu. ft. compressor are all expected to be installed by the first of April. The power line from Wenden to the mine has been completed. In fact, everything but water, and this is still a problem. There is no water available closer than Wenden.

A new Eimco mucking machine is now at the shaft ready to go into the mine when drifting is resumed. But drifting may not start upon resumption of operations as the management prefers to sink on down to the 600 level and do the drifting and cross-cutting on that horizon instead of the 500 as previously planned. This will delay ore shipments by about six weeks, but should add considerably to capacity operations in the future.

After the shaft is down to the 600, drifting on the 400, 500 and 600 will start immediately, with all speed ahead on the 600 where the mucking machine will be used. Present plans do not consider moving the machine from level to level during or between shifts. Consequently hand mucking will slow up the work on the upper levels. Slushers could be installed at low cost. Ventilation and operating raises are required if stoping is to proceed along conventional lines, and some cross-cutting should be inaugurated at an early date in order to have a look at the hanging and footwall veins at depth. The compressor may prove to be a bottleneck as it will not handle more than 4 drifters and the mucking machine. With activities all centered within a few minutes of the headworks, around the clock operations are in the picture. But due to collar to collar changes, ventilation after blasting, etc., two shifts might prove much more economical. Taking all of these things into consideration it may be several months before production will exceed 100 tons of shipping ore per day.

Operating Costs:

Past production costs have no bearing whatsoever on the operating costs to be achieved in the near future at the mine. The ore is soft, easily broken by few holes and with a minimum of powder, but the hanging wall, on a 60° slope, is weak in places and will require either timber support or fill, if more than 50% of the ore is to be recovered. This is an item that will not come up for several months since the total production will at first come from development. Compressor capacity will be a limiting factor before stoping operations begin. 3 tons per man shift for total operation at $12.00 per day wage scale would amount to $4.00 per ton on labor.

Supplies, power, water, drill steel, sharpening, drill upkeep, etc., will vary with tonnage produced. The following is an estimated cost based on mining in similar mines in the western states:

Basis 100 tons on 2 shifts

Item	Cost per ton	
Labor	$ 4.00	With smelter deductions at 3¢ per lb. on copper and $2.50 per oz. on gold, a $20 mine grade would be about a break-even figure.
Supplies	2.00	
Power	.50	
Trucking	.20	
Ore haulage to Wenden	.90	
Freight to Hayden	4.75	
Treatment	3.50	
Indirect operating	1.00	
Insurance, safety, taxes, legal fees, etc.	1.00	
	$17.85	

These costs would be substantially lower on stoping operations on a 200 ton basis. Such costs indicate the necessity of a mill located at the mine.

Assured Ore Reserves:

In itspresent state of development, assured reserves are negligible - under 5,000 tons - and have not been considered in this report.

Operating Profits:

When operations reach a 100 ton per day basis, and figuring on a $30.00 ore, profits should be $25,000 per month or $300,000 per year. It is possible that in the near future the Government may pay a bonus of 5¢ per lb. on all copper over and above previous regular production, or in case of a new producer on total production. This would apply to Bonanza.

Recommendations:

It is the writer's opinion that the mine should get into production as quickly as possible on the 500 level, since the better copper grade at the shaft seems to be above this horizon. Shaft sinking under a bulkhead could be carried out contemporaneously with 500 level development. Probably by the time the shaft reaches the 600 level so many additional data will be available that future development plans may be definitely altered.

Until milling facilities are available, the ore must be shipped to some one of the smelters in Arizona. It will have to have a total value of at least $20 per ton as mined to pay out. This is a tremendous handicap to any new property trying to get into a self-supporting condition, and it will test the management to carry such an assignment along until the ore reserves justify a concentrating plant. To accomplish this it is evident that additional capital in excell of funds now available will be required. Taking a long shot view of operations and assuming that the property will make a mine, the following are some of the major items to be considered:

1 - Equipment, underground	$ 150,000
2 - New shaft, 1000 ft. depth	150,000
3 - Head frame, hoist, etc.	100,000
4 - Development 10,000 feet	250,000
5 - Concentrating plant	500,000
6 - Housing 50 @ $4,000	200,000
7 - Accessory buildings	75,000
8 - Water development	75,000
9 - Contingencies	100,000
	$1,600,000

These funds would be acceptable over a period of several years in accordance with the progress of the operations.

Yours very truly,

J. F. Foran, E. M.

Phoenix, Arizona
March 2, 1951

Phoenix, Arizona
March 3, 1951

Roy R. MacDonald
Box 103
Wenden, Arizona

Dear Sir:

In accordance with your request I herewith present a report on your property, The Bonanza Group of mining claims in the Ellsworth Mining District, Northern Yuma County, Arizona:

Location:

The Bonanza and Bonanza Central Mine groups totaling 94 claims - 1880 acres - are located in the Ellsworth Mining District, North Yuma County, Arizona, about 7-3/4 miles northwest of Wenden, in Township 7 North, Range 13 West, Gila & Salt River Base & Meridian.

Ownership:

The Bonanza group, consisting of 39 unpatented claims, belongs to the Bonanza Mining Corporation, while the other 57 claims are held under lease or owned outright by Roy R. McDonald.

Topography:

Rough steep hillsides and dry washes, typical of an arid climate in mountainous country.

Accessibility:

The U. S. Highway 60-70 and the Santa Fe Railroad pass Wenden, the shipping point. A 7-3/4 mile dirt road, which is now in good serviceable condition, connects Wenden with the mine.

History:

R. R. MacDonald, Sr. discovered and located the gold-copper property now known as Copper Matte #1, on which the Bonanza shaft is located Subsequently, the other claims were added. Operations commenced about 1900 and were carried on continuously by the family and by lessees until the start of World War II. The work was all carried out by hand methods and the ore transported several miles on burros to a wagon road on the flat. From this point it was hauled, by wagon in the early days, to Congress Junction 50 miles distant from the mines. In later years, it was taken by wagon or

trucks to Wenden and shipped from there to the smelters by the Santa Fe Railroad. The ore had to be of exceptional grade to stand such transport costs, therefore only the best ore shoots were mineable and the product shipped was sorted to a $50 minimum. The discarded material on the dumps would today make good mill feed, especially that on the Bonanza Central property, just over the summit from the Copper Matte #1, where the shearing is not as severe as on the east side and the sulfides are more conspicuous in the upper workings. No shipments have been made since 1941. The Bonanza Mines Corp. was organized on October 19, 1948 and the equipping and development of the property since then has been under the direct supervision of Roy MacDonald, General Manager and President of the company.

Geology:

The Harquvar Mountains, in which the mineral deposit is located, consist of pre-Cambrian Schist invaded by a biotite-granite, outcropping on the eastern side. The granite body appears as a low, gently curving dome, the upper edge disappearing under the schist about 100 feet to the west of the Bonanza shaft. The contact, where exposed, showed no indications of metamorphic action or high temperature. A prominent shear zone over 1000 feet in width and dipping about 65° to 70° to the north, cuts the granite and the schist in a N 70° W direction for the full width of the mountain exposure, approximating 3 miles.
This shear zone is traversed by a series of 19 diabase dikes, striking N 70° W with the shear and dipping northeasterly with it. The dikes are from a few inches up to 20 feet or more in width, and the ore deposition occurs in association with them. These dykes preceded the ore; in fact they made the structure which the ore solutions followed, and they are, in places, intensely altered and mineralized. The granite is in part, decidedly gnieissic, especially down toward the valley alluvium cover on the east side. Indications are that the mineral solutions originated in this magma.

Ore Occurrence:

Copper sulfides, altered generally to Cuprite, malachite, and chrysocolla in the oxide zone, and to chalcocite in the secondary sulfide zone, carrying some values in gold and silver, make up the bulk of the economic ores developed to date. When development is a little further advanced in the property there will probably be three main zones:

The oxidized zone (200 feet)

The secondary sulfide zone (300 feet)

The primary zone (depth)

On the Bonanza group the upper portions of the veins are almost completely leached out, small amounts only of Chrysocolla and malachite

remaining. This zone of oxidation was amenable to operation only by hand sorting the product up to the shipping grade. Over on the Bonanza Central claims the oxidized zone, in the vicinity where mined, was not nearly as soft and intensely sheared as on the east side of the summit, therefore the stopes are still open and accessible for inspection. These stopes carried some sulfide ore in commercial quantity to within a few feet of the surface, but it usually required grading to make a shipping product. It is evident that the same granite dome exposed on the east slope of the mountains extends on under the Bonanza Central properties at no great depth. If this is true, the veins in that district are in the invaded rocks and will have greater vertical extent than those on the Bonanza side.

The secondary sulfide zone was encountered in the shaft on the Copper Matte at about 250 feet in depth, and still persists on the 500 level. The typical sulfide of this zone is chalcocite, but some cuprite and malachite occur as well as the primary chalcopyrite and bornite. This zone should conform roughly with the surface, being somewhat over 250 feet below the surface on the summit and less than 250' down near the valley level. The secondary sulfides should provide the richest ores of the deposit, and they should occur in all veins showing evidence of leached copper on the surface.

The primary zone should come in at the water level where the free oxygen is stopped from downward progress. Sampling and a specimen taken in the Bonanza shaft at 10 feet below the 500 level showed no chalcocite, cuprite, malachite, or azurite, but did show good bornite and chalcopyrite and assayed as follows:

Assays

Bonanza shaft	Location Level	Au .02	Cu%	Remarks
#1	510'	.48	2.7	Sample - 4 ft width; both sides of dike.
#2	510'	.40	1.1	Sample - 2 ft. width of the slightly altered diabase dike in center of vein

This gives $30 as the value of the vein section and $20 for the dike. The average grade of ore mined would be $26.66 and, if this is the primary zone, it looks very good for future development at depth. The high gold value in both the dike and the filled part of the vein is of particular interest since it is so much better than in the same vein in the upper levels. The mine workings are at present inaccessable below the 160 level due to some straightening up in the shaft required for the installation of the 3-ton skips to be put into service in the near future. One sample taken in the face of an open cut near the summit on Copper Matte #1 and four taken on the 110 level are of interest only in emphasising the lean nature of the oxidized zone.

Assays

Sample	Location	Au .02	Cu%	Total Value	Remarks
#11	110' W heading 170' length	.12	3.10	$19.70	Sample taken as in past for hand cobbing
#12	110' E heading 95' length	.08	2.06	12.89	Same as above
#13	open cut at summit	.01	.20	1.38	Open cut 15' wide 40' E. of Summit on CM#1 Highly altered; a gold prospect.
#14	Sample at muck pile W. Face 110	Tr.	.20	0.49	Branch vein in back of drift, on 110 W near face
#15	Same as #11 but taken across vein	.03	.36	3.56	Sample taken across 3½ vein at 15' intervals over 170' length of drift.

Since the open cut as well as the hanging wall vein on the 100 level are in the oxidized zone, the average product as it would be mined would be too low grade to be profitably worked in so small an ore body. The samples #1 and #5 of the W. heading illustrate the spread in valued when sampling for a possible cobbing ore and sampling for a straight milling product. The #1 sample would have to go probably $50.00 to make a possible cobbing type of ore in the old days. #5 shows the same vein to be too low grade in the oxide zone for metalelurgical treatment, even at current high prices of the metals.

From a geological viewpoint the property has fine future possibilities in spite of the meager amount of development showing. For instance, wherever sulfides have been encountered, the ore has always been of shipping grade. Costly exploration through the deeply leached zone of the sheared vein structure on the Bonanza group, has prevented the discovery, until recently, of the important underlying sulfide zone. The leached zones of the many parallel veins on the property, duplicate that of the prominent vein now opened up to the 550 foot level. A diamond drill hole extending down to 724 feet, driven normal to the veins, cut 14 feet of sulfide ore at 340 feet depth, which averaged 4% Cu and .15 ox. Au per ton. This was in an area far in the footwall of the shaft workings and on another vein. The high gold values make a wonderful hedge against a future drop in the price of copper. The 19 veins in the 1000 foot shear zone have indications of important tonnage in the secondary sulfide zone, and untold possibilities in the primary zone.

Working Program Planned:

A 60 foot headframe is in process of erection today, the shaft is undergoing alterations to accommodate the new 3-ton skips to be used, 200 ton bins are going into place under the skip dump in the headframe; a new 150 HP hoist capable of 1000 feet per min. hoisting spped, and a new 700 cu. ft. compressor are all expected to be installed by the first of April. The power line from Wenden to the mine has been completed. In fact, everything but water, and this is still a problem. There is no water available closer than Wenden.

A new Eimco mucking machine is now at the shaft ready to go into the mine when drifting is resumed. But drifting may not start upon resumption of operations as the management prefers to sink on down to the 600 level and do the drifting and cross-cutting on that horizon instead of the 500 as previously planned. This will delay ore shipments by about six weeks, but should add considerably to capacity operations in the future.

After the shaft is down to the 600, drifting on the 400, 500 and 600 will start immediately, with all speed ahead on the 600 where the mucking machine will be used. Present plans do not consider moving the machine from level to level during or between shifts. Consequently hand mucking will slow up the work on the upper levels. Slushers could be installed at low cost. Ventilation and operating raises are required if steping is to proceed along conventional lines, and some cross-cutting should be inaugurated at an early date in order to have a look at the hanging and footwall veins at depth. The compressor may prove to be a bottleneck as it will not handle more than 4 drifters and the mucking machine. With activities all centered within a few minutes of the headworks, around the clock operations are in the picture. But due to collar to collar changes, ventilation after blasting, etc., two shifts might prove much more economical. Taking all of these things into consideration it may be several months before production will exceed 100 tons of shipping ore per day.

Operating Costs:

Past production costs have no bearing whatsoever on the operating costs to be achieved in the near future at the mine. The ore is soft, easily broken by few holes and with a minimum of powder, but the hanging wall, on a 60° slope, is weak in places and will require either timber support or fill, if more than 50% of the ore is to be recovered. This is an item that will not come up for several months since the total production will at first come from development. Compressor capacity will be a limiting factor before stoping operations begin. 3 tons per man shift for total operation at $12.00 per day wage scale would amount to $4.00 per ton on labor.

Supplies, power, water, drill steel, sharpening, drill upkeep, etc., will vary with tonnage produced. The following is an estimated cost based on mining in similar mines in the western states:

Basis 100 tons on 2 shifts

Item	Cost per ton	
Labor	$ 4.00	With smelter deductions at 3¢ per lb. on copper and $2.50 per oz. on gold, a $20 mine grade would be about a break-even figure.
Supplies	2.00	
Power	.50	
Trucking	.20	
Ore haulage to Wenden	.90	
Freight to Hayden	4.75	
Treatment	3.50	
Indirect operating	1.00	
Insurance, safety, taxes, legal fees, etc.	1.00	
	$17.85	

These costs would be substantially lower on stoping operations on a 200 ton basis. Such costs indicate the necessity of a mill located at the mine.

Assured Ore Reserves:

In its present state of development, assured reserves are negligible - under 5,000 tons - and have not been considered in this report.

Operating Profits:

When operations reach a 100 ton per day basis, and figuring on a $30.00 ore, profits should be $25,000 per month or $300,000 per year. It is possible that in the near future the Government may pay a bonus of 5¢ per lb. on all copper over and above previous regular production, or in case of a new producer on total production. This would apply to Bonanza.

Recommendations:

It is the writer's opinion that the mine should get into production as quickly as possible on the 500 level, since the better copper grade at the shaft seems to be above this horizon. Shaft sinking under a bulkhead could be carried out contemporaneously with 500 level development. Probably by the time the shaft reaches the 600 level so many additional data will be available that future development plans may be definitely altered.

Until milling facilities are available, the ore must be shipped to some one of the smelters in Arizona. It will have to have a total value of at least $20 per ton as mined to pay out. This is a tremendous handicap to any new property trying to get into a self-supporting condition, and it will test the management to carry such an assignment along until the ore reserves justify a concentrating plant. To accomplish this it is evident that additional capital in excess of funds now available will be required. Taking a long shot view of operations and assuming that the property will make a mine, the following are some of the major items to be considered:

1 - Equipment, underground	$ 150,000
2 - New shaft, 1000 ft. depth	150,000
3 - Head frame, hoist, etc.	100,000
4 - Development 10,000 feet	250,000
5 - Concentrating plant	500,000
6 - Housing 50 @ $4,000	200,000
7 - Accessory buildings	75,000
8 - Water development	75,000
9 - Contingencies	100,000
	$1,600,000

These funds would be acceptable over a period of several years in accordance with the progress of the operations.

Yours very truly,

J. F. Foran, E. M.

Phoenix, Arizona
March 2, 1951

(Reprinted from the July 26, 1951, Issue of the Yuma Daily Sun)

THE YUMA DAILY SUN

AND THE YUMA ARIZONA SENTINEL

Northern Yuma County Mine Promises Rich Payoff

Bonanza Mine Producing Copper, Gold

A 50-year-old copper and gold mine in northern Yuma county has sprung into life this summer and plans are underway for making it one of the biggest mines in Arizona.

The mine is the Bonanza, located in the Ellsworth mining district about eight miles northwest of Wenden. The Bonanza consists of 17 unpatented mining claims.

The Bonanza celebrated its biggest accomplishment to date on June 17, when it observed "Calapco Day." The occasion was to announce the completion of a power line erected by the Central Arizona Light and Power Company from its main power line at Wenden to the Bonanza Mine, and also to announce the beginning of ore production and the shipping of copper and gold ores to smelters at Magma and Hayden, Arizona.

Bringing electricity to the site meant that large quantities of the high-grade copper and gold ores could be brought to the surface and shipped to the smelters.

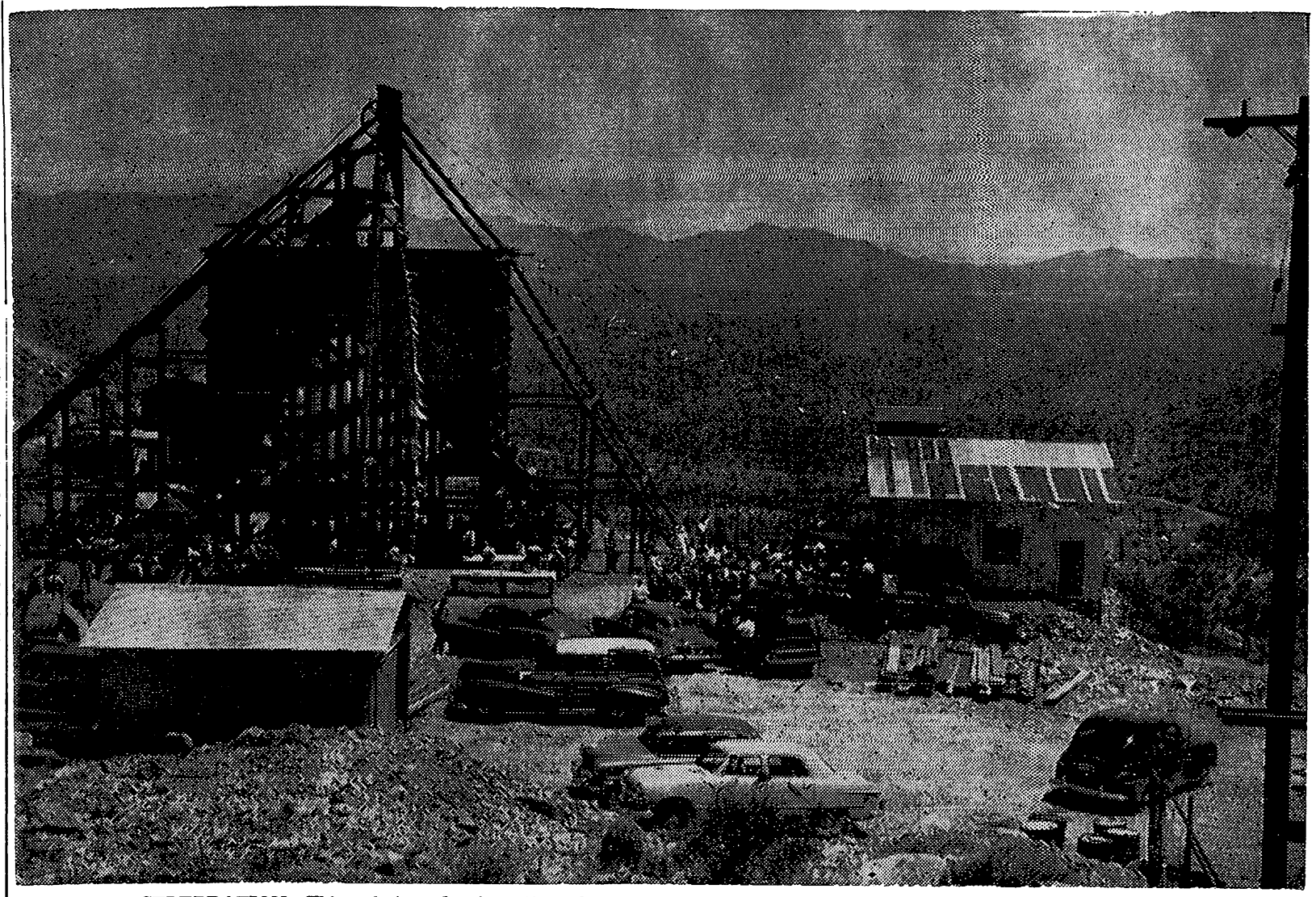
On the Bonanza site today stands a huge gallows frame with 400 tons of ore bins. With the 150-horsepower electric hoist now in operation, the mine has a capacity of 1400 tons a day.

The shaft is now at a depth of 600 feet, and ore is being extracted from 500 and 600-foot levels.

Although ore is now being shipped to Magma and Hayden, the company plans to move a ball mill from Swansea, Ariz., within 90 days and thus do its own milling on the site. Eventually, they hope to have their own smelter.

At present, ore is trucked to Wenden, where it is loaded into rail cars on the Santa Fe line.

Ore now is assaying as high as $200 a ton, company officials report.



DAY OF CELEBRATION—This photo, showing the aboveground equipment of the Bonanza mine northwest of Wenden, was taken on the day that was set aside to celebrate the completion of a power line to the mine. At left is the gallows frame with its huge ore gins, with a freshly-loaded truck visible at left. The shaft enters the side of the mountain at an angle, out of sight at the left side of the picture. At right is the hoist house and in foreground, the warehouse.

The present Bonanza Mining company was incorporated in Arizona on October 19, 1948, but mining operations date back to 1900, when the Bonanza claims were purchased by R. R. MacDonald, Sr., of Prescott. In those days, the only settlement near the property was an Indian village. All ore was transported down the mountainside by burro pack train, loaded into wagons and hauled to Congress, 60 miles away. Water cost as much as $50 a barrel.

During the 50 intervening years, the claims were worked by hand by leasors and by Mr. MacDonald, who died in 1945.

His widow, Mrs. Laura R. MacDonald, and his son, Roy R. MacDonald, now own a controlling interest of 523,000 of the one million shares. Of the remaining shares, 105,000 have been sold at $2.50 each.

When the Bonanza company was incorporated in 1948, a number of mining men from Superior, Ariz., were prominent in the company. They put up the money to diamond-drill and prove the property at the time of its incorporation.

Company officials believe that they are just beginning to tap a huge mineral deposit approximately 1¼ miles long and a thousand feet wide. Workers are now in the process of blocking out an area five feet thick, 500 feet long and 200 feet deep, comprising about 50,000 tons, but no more than a fraction of the total deposit believed available.

BE SURE TO READ ALL OF THIS AD

Because these secu[illegible]s are believed to be exempt from [illegible]istration, they have no[illegible] been registered with the securities and exchange commission; but such exemption, if available, does not indicate that the securities have been either approved or disapproved by the commission or that the commission has considered the accuracy or completeness of the statements in this communication.

Bonanza Mining Company, an Arizona Corporation, announces the availability for purchase of 105,000 shares of its $1.00 par value non-assessable common capital stock at $2.50 per share. The offer is made on behalf of the company. Commissions to agents: 15% of selling price; Sales and advertising expenses; 5% of selling price; Net to company per share, $2.00; Aggregate selling price, $262,500.00; Aggregate selling expense, $52,500.00; Net to company, $210,000.00.

The purposes for which the net proceeds are to be used:

For administrative, clerical, accounting and legal expense		$10,000
For surface mining equipment and machinery		20,000
For a reduction works (floatation plant)		90,000
For General Mining operations and development work (estimate only)		
Sinking shaft	37,500	
Timbering and cutting stations	5,000	
Driving raises	12,000	
Underground equipment and machinery	10,000	
Drifting, crosscutting and ore bins	25.000	90,000
		$210,000

The "Bonanza" mine is one of the older, bigger mines that in the "early days" ran with the best of them.

This is a high-grade Boronite (Peacock) Copper-Gold Mine and was discovered by R. R. MacDonald, Sr., in 1900. MacDonald worked it only as his needs required. On the death of the elder MacDonald, Roy R. MacDonald, the son, inspired by his knowledge of and faith in this mine, sought and obtained the opinions of eminent geologists and engineers on the physical possibilities of development. An exploratory proving hole was diamond drilled and the geologists and engineers in open-faced opinions have advised and recommended — further development — and that's what we are going to do!

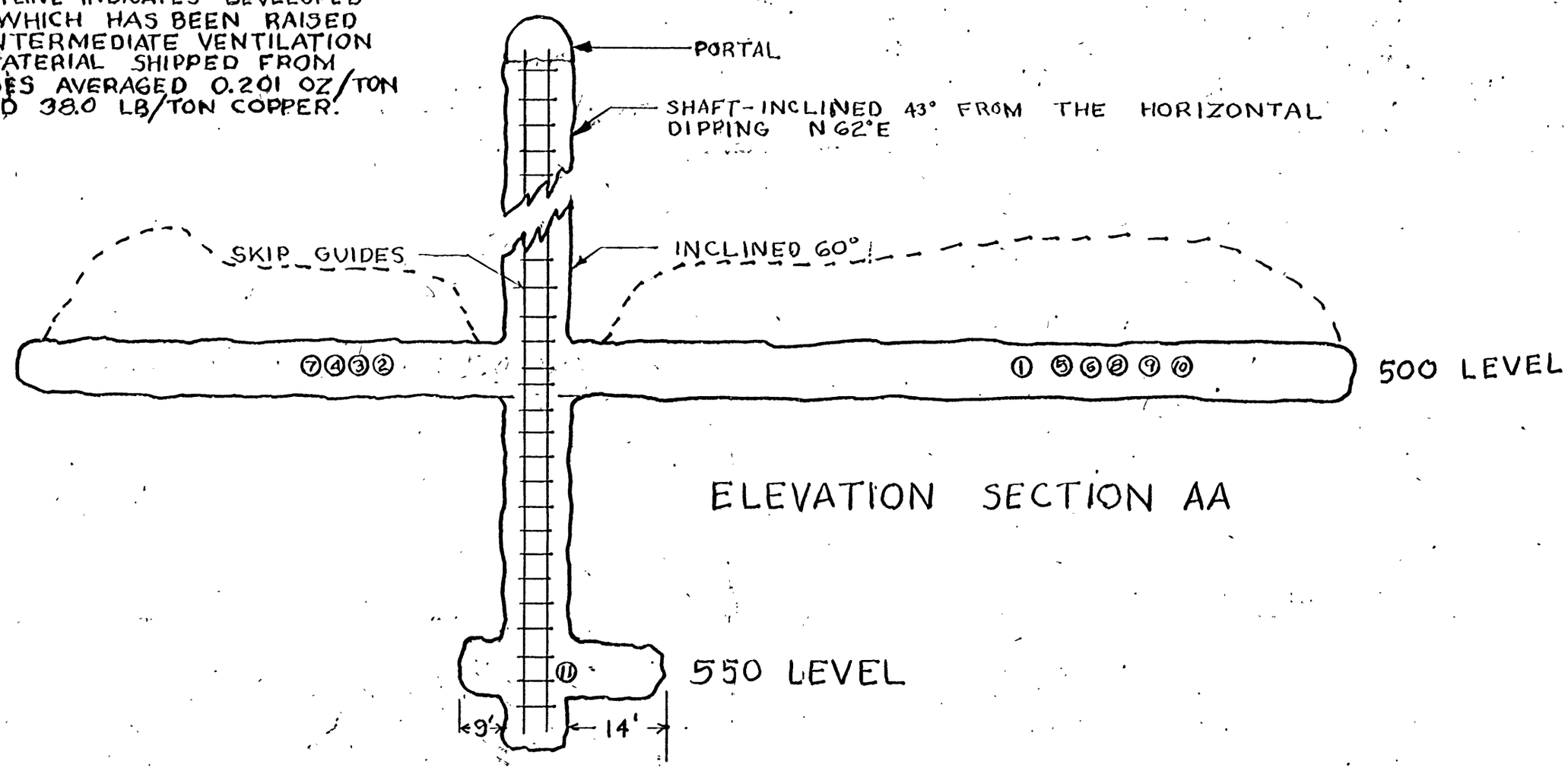
You are strongly urged to investigate this mine without obligation to buy. The "Bonanza" we believe, is destined to be one of the largest operations in Arizona. The mine is located near Cunningham Pass, North of Wenden, Arizona. The company was organized by miners and others who have faith in the mine's immediate future.

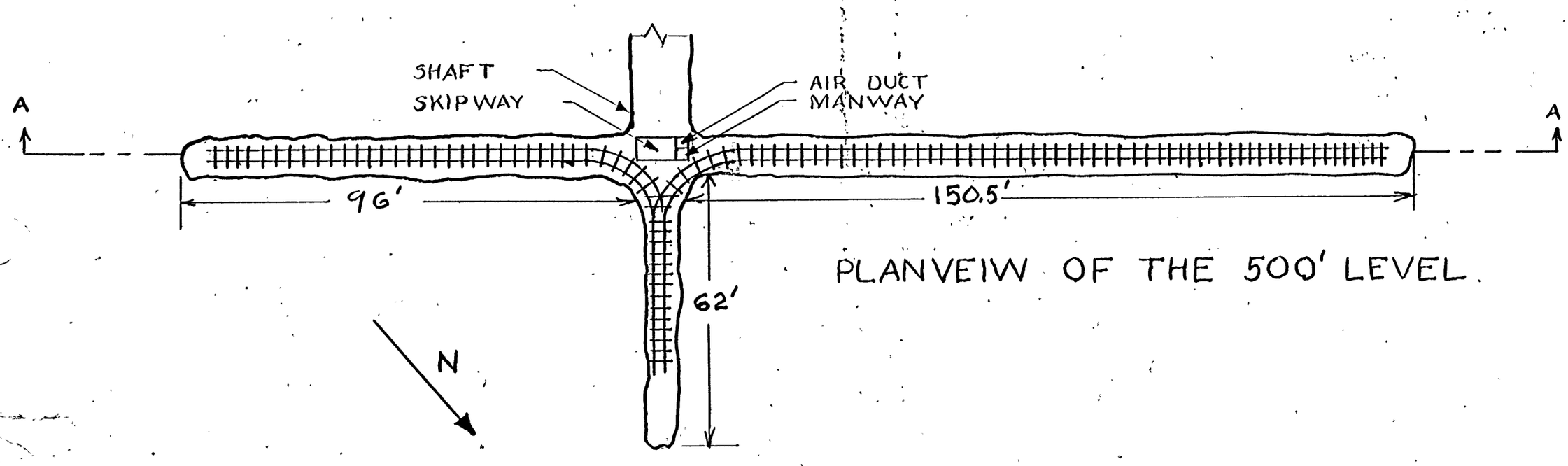
Please obtain a permit from office before visiting the mine. DON'T WISH YOU HAD—BUT—DO IT NOW... INVESTIGATE—Then BUY.

Drop a card or letter to Old Pueblo, P. O. Box 5422, Tucson, and ask for our Prospectus, which gives a detailed report. Phone 5-3233.

Household help to live in

DOTTED OUTLINE INDICATES DEVELOPED STOPING WHICH HAS BEEN RAISED TO AN INTERMEDIATE VENTILATION DRIFT. MATERIAL SHIPPED FROM BOTH SIDES AVERAGED 0.201 OZ/TON GOLD AND 38.0 LB/TON COPPER.





MAP OF BONANZA MINE
WITH ASSAY VALUES

WENDEN, ARIZONA

8/15/51

SCALE: 1" = 25 FEET

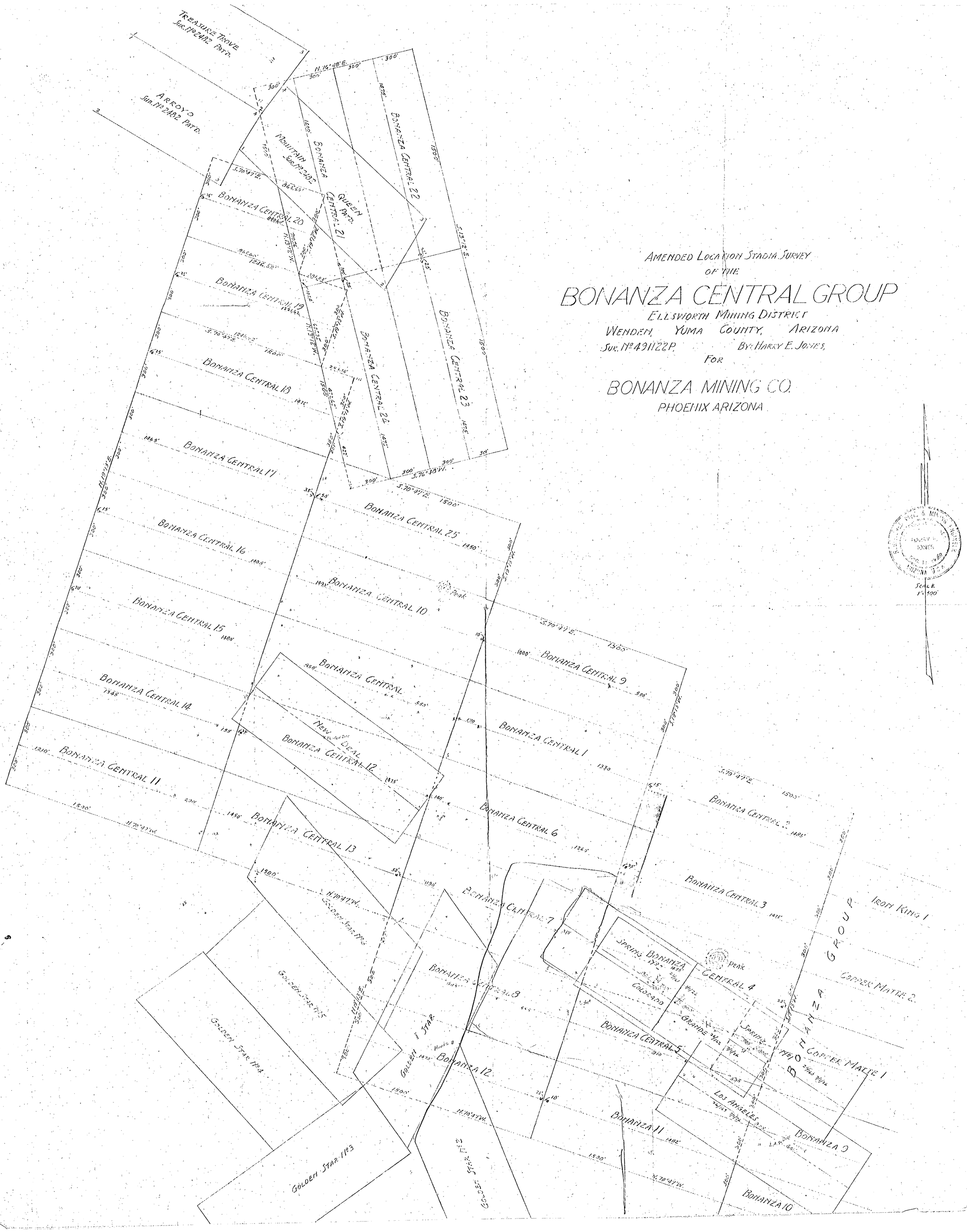
ASSAY AND SAMPLE DATA
SUPPLIED BY R. R. MACDONALD

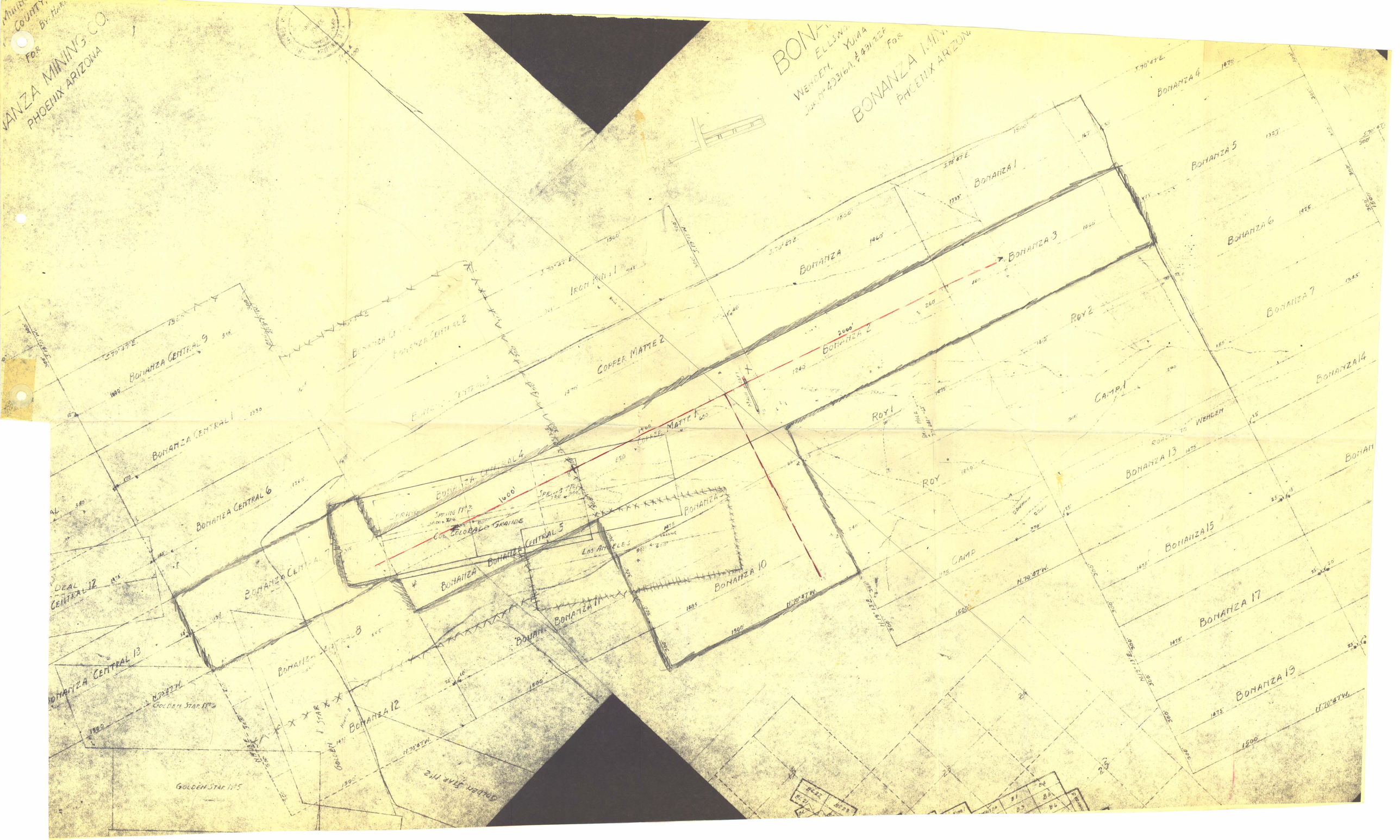
ASSAY DATA

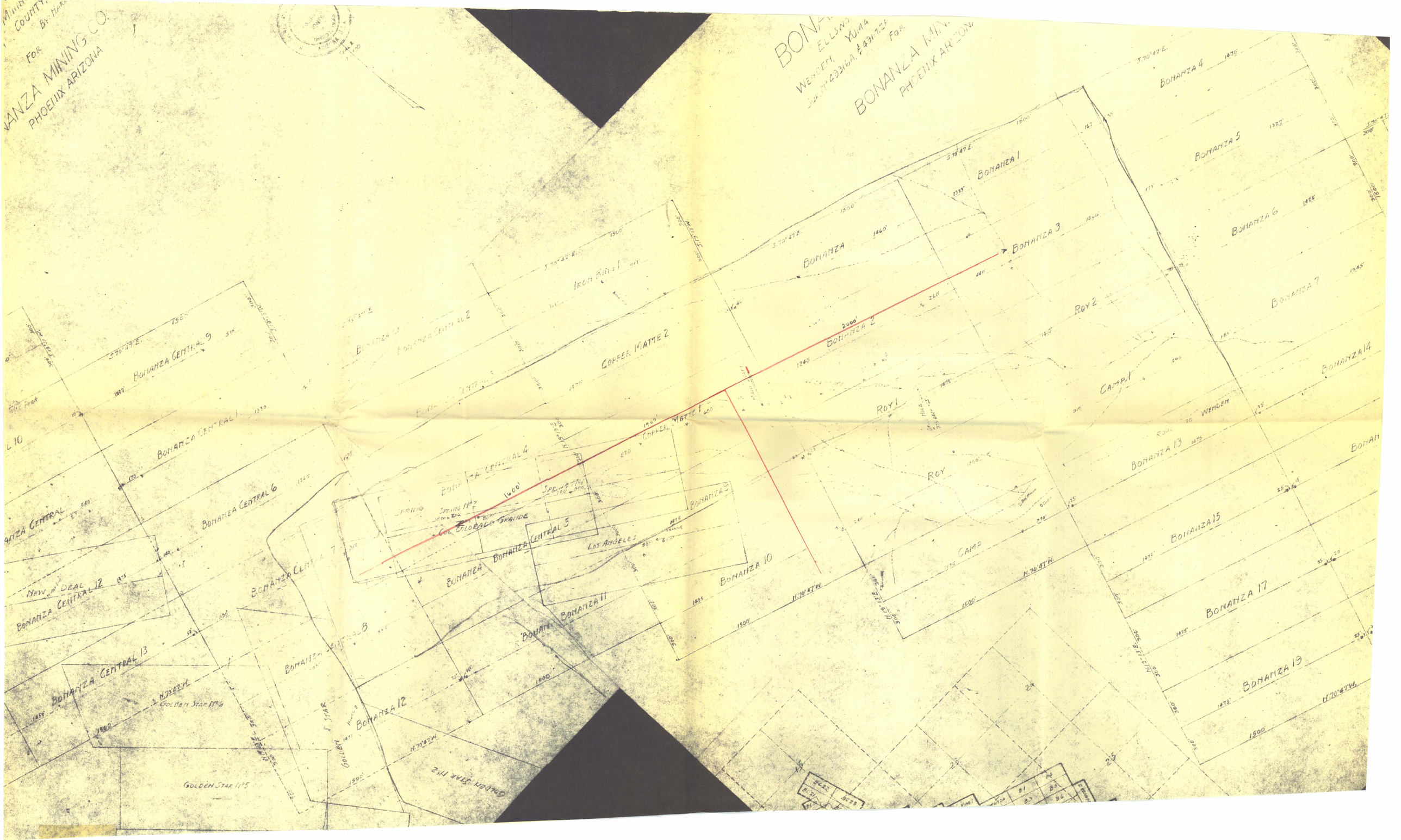
	SAMPLE NO.	VALUES $ GOLD	$ SILVER	% CU	REMARKS
1	83177	0.35	0.18	0.10	N. DRIFT, Full width, sulfide
2	83178	5.60	0.72	4.70	S Drift Sulphide
3	82859	70.00	0.72	11.35	S. Drift, Hi. Gr. Sulfide
4	82860	2.10	0.18	0.65	S Drift, oxide waste
5	82861	0.70	0.18	0.20	N Drift, waste,
6	82863	1.40	0.18	0.04	N. Drift, waste
7	82864	8.40	0.18	3.30	S. Drift, 6 ft. width
8	82866	9.10	0.18	3.10	N. Drift, face 6 ft. Width
9	82865	138.60	0.72	12.20	N. Drift, Hi. Grade
10	—	39.35	—	7.71	N Drift, 3 ft. wide
11	—	9.45		2.50	Shaft, 550 level, 7 ft width

ORE TAKEN OUT IN DEVELOPEMENT WORK SHOWED AN AVERAGE ASSAY OF 0.184 OZ/TON GOLD AND 37.5 #/TON OF COPPER

Samples are from muck pile.


AMENDED LOCATION STADIA SURVEY
OF THE
BONANZA CENTRAL GROUP
ELLSWORTH MINING DISTRICT
WENDEN, YUMA COUNTY, ARIZONA
SUR. No 491122P. BY: HARRY E. JONES,
FOR
BONANZA MINING CO.
PHOENIX ARIZONA
SCALE 1" = 300'
TREASURE TROVE SUR. No 2482 PAT'D.
ARROYO SUR. No 2482 PAT'D.
MOUNTAIN SUR. No 2482
BONANZA QUEEN CENTRAL PAT'D.
BONANZA CENTRAL 22
BONANZA CENTRAL 23
BONANZA CENTRAL 24
BONANZA CENTRAL 25
BONANZA CENTRAL 20
BONANZA CENTRAL 19
BONANZA CENTRAL 18
BONANZA CENTRAL 17
BONANZA CENTRAL 16
BONANZA CENTRAL 15
BONANZA CENTRAL 14
BONANZA CENTRAL 11
BONANZA CENTRAL 10
BONANZA CENTRAL
NEW DEAL
BONANZA CENTRAL 12
BONANZA CENTRAL 13
BONANZA CENTRAL 9
BONANZA CENTRAL 1
BONANZA CENTRAL 6
BONANZA CENTRAL 2
BONANZA CENTRAL 3
BONANZA CENTRAL 7
BONANZA CENTRAL 8
BONANZA CENTRAL 5
BONANZA CENTRAL 4
BONANZA 12
BONANZA 11
BONANZA 9
BONANZA 10
GOLDEN STAR No 2
GOLDEN STAR No 3
GOLDEN STAR No 4
GOLDEN STAR
GOODES STAR No 2
SPRING
COLORADO
GRANDE
LOS ANGELES
IRON KING 1
COPPER MATTE 2
COPPER MATTE 1
BONANZA GROUP
PEAK


BONANZA MINING CO.
PHOENIX ARIZONA
BONANZA MINING CO.
PHOENIX ARIZONA
BONANZA 1
BONANZA 2
BONANZA 3
BONANZA 4
BONANZA 5
BONANZA 6
BONANZA 7
BONANZA 8
BONANZA 10
BONANZA 11
BONANZA 12
BONANZA 13
BONANZA 14
BONANZA 15
BONANZA 17
BONANZA 19
BONANZA CENTRAL 1
BONANZA CENTRAL 2
BONANZA CENTRAL 3
BONANZA CENTRAL 4
BONANZA CENTRAL 6
BONANZA CENTRAL 9
BONANZA CENTRAL 12
BONANZA CENTRAL 13
COPPER MATTE 1
COPPER MATTE 2
IRON MTN. 1
ROY 1
ROY 2
CAMP 1
CAMP
COLORADO GRANDE
LOS ANGELES
GOLDEN STAR No 2
GOLDEN STAR No 5
ROAD TO WENDEN
N 70°47' W.
S 70°47' E.


BONANZA MINING CO.
PHOENIX ARIZONA
BONANZA MINING CO.
PHOENIX ARIZONA
BONANZA CENTRAL 9
BONANZA CENTRAL 1
BONANZA CENTRAL 6
BONANZA CENTRAL 7
BONANZA CENTRAL 12
BONANZA CENTRAL 13
BONANZA CENTRAL 2
BONANZA CENTRAL 4
BONANZA CENTRAL 5
BONANZA 1
BONANZA 2
BONANZA 3
BONANZA 4
BONANZA 5
BONANZA 6
BONANZA 7
BONANZA 8
BONANZA 10
BONANZA 11
BONANZA 12
BONANZA 13
BONANZA 14
BONANZA 15
BONANZA 17
BONANZA 19
IRON KING 1
COFFEE MATTE 2
COFFEE MATTE 1
ROY 1
ROY 2
ROY
CAMP 1
CAMP
COLORADO GRANDE
LOS ANGELES
GOLDEN STAR 1
GOLDEN STAR 2
GOLDEN STAR 3
GOLDEN STAR 5
NEW DEAL
WENDEN
S 70°47' E
N 70°47' W
1500'
2000'

AMENDED LOCATION STADIA SURVEY
OF THE

BONANZA GROUP

ELLSWORTH MINING DISTRICT
WENDEN, YUMA COUNTY, ARIZONA
SUR. Nº 49316A. & 49112ZP BY: HARRY E. JONES,
FOR

BONANZA MINING CO.

PHOENIX ARIZONA

REGISTERED CIVIL & MINING ENGINEER
CERTIFICATE EXPIRES
HARRY E. JONES
DEC. 31, 1959
ARIZONA, U.S.A.

SCALE
1" = 300'