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R. BURTON ROSE, M.A.
Exploration Geologist
P.O. Box 583
San Jose, California

CLayburn 8-2698

BONANZA and BONANZA-CENTRAL MINES

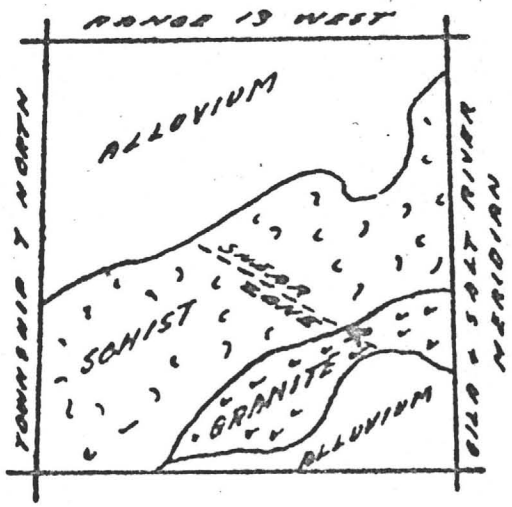
Ellsworth Mining District

Yuma County, Arizona

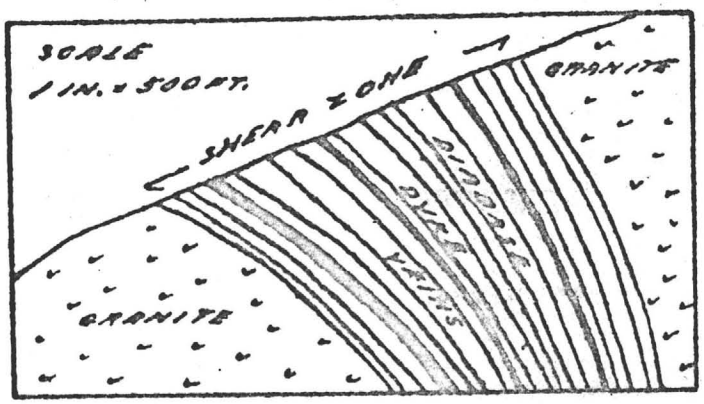
Report - Copper-gold Mine

1952

R. BURTON ROSE, M.A.
Mining Geologist
[redacted]
San Jose, California



R. BONANZA MINE
BONANZA-CENTRAL MINE
WINDEN, ARIZONA



STRUCTURE SECTION

R. BURTON ROSE, M.A.
Exploration Geologist
P.O. Box 593
San Jose, California

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BONANZA and BONANZA-CENTRAL MINES

Ellsworth Mining District

Yuma County, Arizona

This report is based on repeated brief examinations of the properties during the development work of the past several years, microscopic study of typical ore specimens, laboratory concentration testing, review of titles, assay and smelter shipping returns.

Names of properties: Two separate mining groups exist: the Bonanza Group consisting of the Bonanza Mine claims, and the contiguous Bonanza-Central set of claims.

Area: A total of 94 claims: The Bonanza Mine consists of 39 unpatented mining claims covering 720 acres. Adjoining this group and higher on the mountain range; the Bonanza-Central property comprises 57 unpatented mining claims. The surface area included in these claims covers the mineralized shear zone, approximately 1000 feet wide and three miles long, and adjacent side sections.

Location: These contiguous claims are all located in the Ellsworth Mining District in Northern Yuma County, 7 3/4 miles north of Wenden, Arizona, in Township 7 North, Range

13 West, Gila and 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 is owned by the Bonanza-Central Corporation, also a Arizona corporation.

Topography: Steep hillside region, varying in elevation from 2300 feet to 3600 feet. The mountain area is bordered by nearly level desert plains.

Climate: Year-round outdoor working conditions prevail: hot through the summer months and below the normal winter snows.

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

Production history: The original claims covering the copper-gold bearing vein outcrops were located by R. R. MacDonald, Sr., with mining operations starting about 1900. Operations continued through active mining or leasing by the family until stopped by World War II. All the ore produced and sorted thruout these four decades from the many shallow surface workings has been of shipping grade; being packed to the desert plain level on burros. These conditions limited shipment of ore to a "plus $50 per ton" value. Considerable cobbed ore of mill grade remains from these operations; lying over the ridge on the Bonanza-Central claims group. The present Bonanza shaft development is located on the original

Copper-Matte #1 claim; where active sinking and drifting have been in progress since 1948. Results to date have proven the copper-gold ore content and structural conditions to a depth of 640 feet below the hillside surface. Carload shipments have been made to the smelter on a test basis at times since May, 1951. These smelter shipments have shown the need for mill concentration in projected large volume mining of the multiple veins at depth.

Ore: Copper sulfide ores, partly oxidized, showing some secondary enrichment in the form of chalcocite replacement of the original chalcopyrite occur; accompanied by cuprite and malachite in the upper developed portions of the dyke-veins. Microscopic examinations of chalcopyrite specimens from a 300 foot depth, the 500 foot level, and the 640 foot deep shaft sump show the ore to be primary, partly oxidized; the upper portion of the main primary zone. The ore masses parallel, fill and replace the persistent diabase dykes; being closely related to the intense hydrothermal alteration. The average copper content is relatively high and is associated with gold in economic amounts; the latter varying from minor amounts to several ounces. This gold content is more widely found than the copper; indicating that it was deposited in part in the hydrothermal alteration stage which initiated the copper deposition. Rhodochrosite, a manganese carbonate, is found on the 500-600 foot levels. 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 hydrothermal alteration shearing and fracturing movement are less evident. The oxidized and partly leached zone at the surface, minor secondary enrichment (replacement), and the primary zone all overlay each other in both vertical and horizontal directions; indicating incomplete development of the near surface stages of oxidation and leaching. This is verified by the presence of primary chalcopyrite up into the oxidized and leached zone in spots while the oxidation extends to below the 600 foot level. This presence of primary type chalcopyrite and the hydrothermal alteration are most important indicators of continuation of the copper mineralization at depth. No large scale mining should be planned in the near surface oxidized and leached zone; that is, above the 400 foot level horizon.

Geology: Regional geology is that of a mountain range of Pre-Cambrian age schist and granite separating two alluvial filled desert basins. 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 in width from less than a foot to over twenty feet; all having the same strike or longitudinal axis. On the surface these dykes dip to the east at varying degrees as sketched diagrammatically on the front plate. 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 the subsequent copper-gold ore deposition. An intense stage of the hydrothermal alteration with progressive leaching of the diabase dykes and adjoining wall rocks preceded and extended into the deposition of the copper-gold ores.

The host rock in this 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, found consistently throughout the 1000 foot wide by three mile long shear zone, indicates again a deep seated direct source for the copper and gold mineralization as now exposed at the surface. This concept is further indicated by the close relationship of the copper ores as mined to date and the areas of most intense alteration. All these factors together signify 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 scattered secondary chalcocite enrichment with the hydrothermal alteration halos; rather than with the surface effect oxidation and leaching. Longitudinally, the full length of the mineralizing action is unknown since it does not terminate; but disappears under the desert surface as stated on both sides of the range. It should be noted that the best surface ore

has been found at places not immediately adjacent to the Bonanza shaft and vein development. Better ore shoots than the presently stoped drift section can be depended on.

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

1.) Bonanza shaft: Sunk to 250 feet before World War II., this shaft has been carried down to the 640 foot level in the past three years as financing permitted. Ore shows in the shaft or is cut by short drill holes from the 250 foot depth to the bottom where the oxidation is lessening rather rapidly. Nearly four hundred feet of drifting on the 520 foot level shows ore at all times. This also applies to the two hundred feet of drifting on the 600 foot level.

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

3.) Hollis shaft: 110 feet deep.

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

5.) Roy shaft #2: 50 feet deep.

6.) New Deal claim shaft: 100 feet deep.

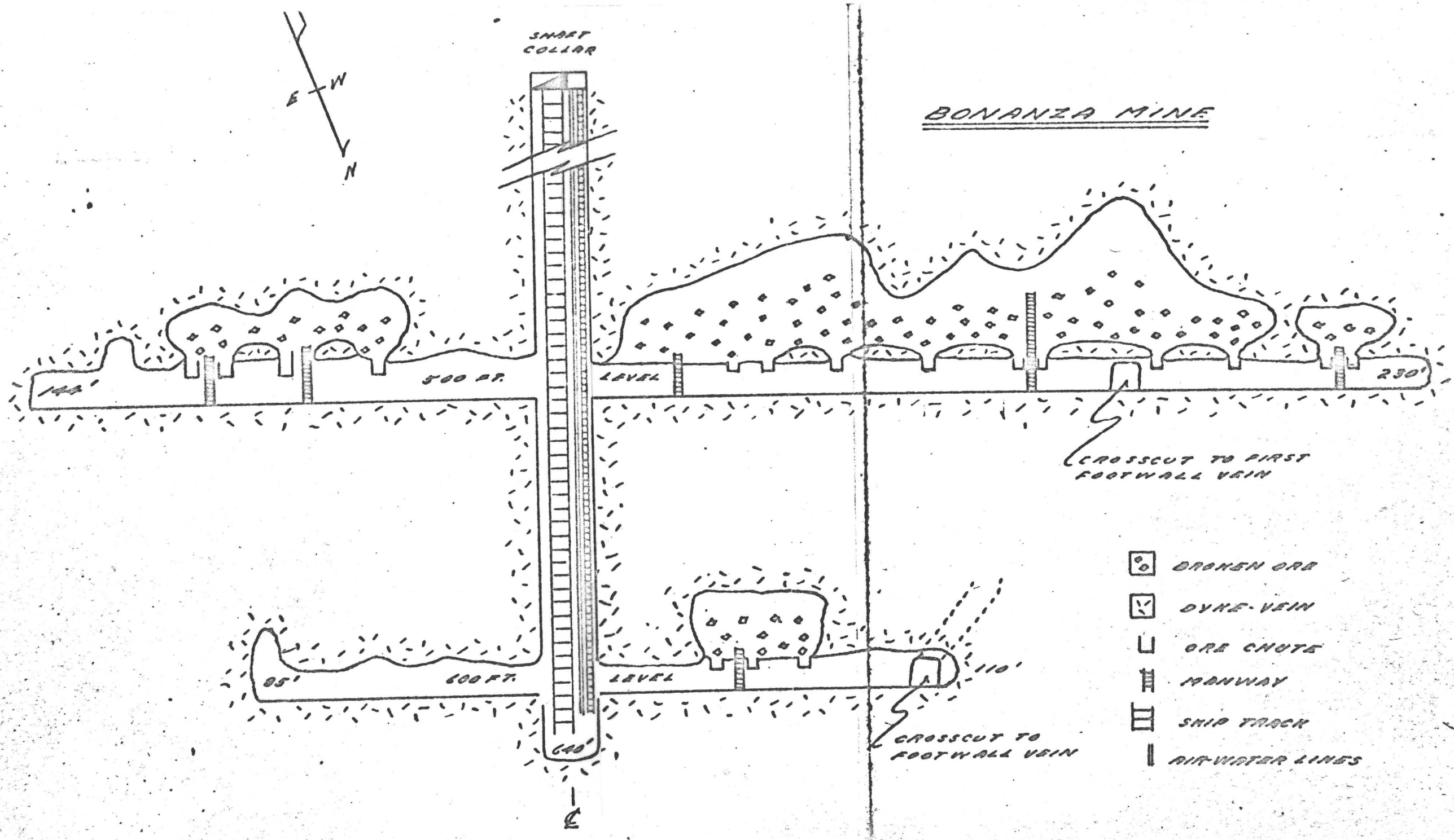
7.) Shaft on summit: 100 feet deep.

8.) Roy tunnel: 700 feet long.

9.) Lower tunnel summit: 175 feet long.

10.) Upper tunnel summit: 125 feet in length.

BONANZA MINE



SCALE 1 IN. = 30 FT.

Future development needed: Continued sinking to at least the one thousand foot level and the crosscutting of the 19 known paralleling dyke veins are the long range developments that are needed to give large volume production access to multiple drift and stope sections. Drifting towards the Bonanza-Central will develop limited deeper horizons due to the surface rise of over five hundred feet. Such a drift development should be along one of the higher grade copper content dyke veins and will give backs on the ridge of over a thousand feet if driven at or below the 500 foot Bonanza level. It should be noted that this would ultimately make available surface mill ore lying on the Bonanza-Central claims.

Water supply: While water is not available at the mine site; ample quantities seem a certainty at Vendenfrom two wells and could be piped if it proves undesirable to drill in the adjacent desert basin.

Power: Electricity is installed directly to the mine (1951) and a natural gas line with takeoff privilege passes within three miles of the mine. These two power source types assure adequate power as best suited to any particul r mining or metallurgical problem.

Equipment: Present equipment includes a 60 foot heavy timber headframe containing 225 ton ore bin capacity in three compartments; a 150 horsepower hoist (1000 ft. per min. hoisting speed) and three ton skip; a 700 cu. ft. capacity air compressor: a standby gas hoist; a portable air compressor;

power air blower; five building structures including a change room; and heavy duty electric power transformers. All the above are located at the Bonanza shaft collar, where a heavy duty gyratory crusher and crushing rolls have also been installed. Operating equipment includes an Elmco mechanical loader, blacksmithing equipment, ore cars, air drills and steel, dump truck, and a basic supplies warehouse. A loading ramp on the Santa Fe railroad (costs paid for by Bonanza Mining Corp.) is used for carload ore shipment loading. A pilot mill has been built from used equipment sources in Denver consisting of an ore bin with belt feed, a concentrating jig and two concentrating tables. Operation of this mill unit was entirely unsatisfactory: hence the tables should be eliminated, and have little value from a salvage viewpoint.

Mill tests: The pilot concentrating mill referred to above has demonstrated that gravitational concentration is not feasible due to the heavy siderite and rhodochrosite minerals present. Subsequent recent laboratory tests have confirmed this. Two series of preliminary flotation concentration tests have been run as part of this report analysis; being run in commercial laboratories. They show that flotation concentration works readily and with high efficiency.

A copy of the report from the Western Machinery Co. study is bound in this report together with assay results; since it gives all significant test flotation results: found entirely satisfactory. A copy of the report from the Denver

Equipment Company is attached to the accompanying letter of transmittal. Both studies recommend further detailed test work in order to plan a complete flow sheet and equipment choice details.

Two milling approaches are possible:

1.) A completely new flotation mill designed and built on the basis of further detailed flow sheet studies. A plant of this type, utilizing the present crushing equipment at the mine, would cost close to $1000 per ton/day capacity including proper buildings - based on a 100 ton capacity mill project. Specific attention would be paid to recovery of the manganese carbonate as part of such detailed testing and plant design. Overall cost would be amortized over a five year plus operational life; i.e. $20,000 per year.

2.) Revamping the present pilot mill setup to eliminate the concentrating tables and installation of a ball mill and a series of flotation cells: both considered on a used machinery basis. With quoted used equipment prices this type of installation changeover would cost approximately the same as the first year of amortized cost of a new mill; i.e. $20,000 - $25,000. Expected life would be one to two years, with appreciably more maintainance.

If adequate financing can be arranged; the new mill is recommended - coupled with sufficient further development of adjacent veins to assure a mixed ore feed. Deeper mining should provide an even cleaner sulfide ore for flotation concentration. Such a basic 100 ton/day capacity mill possibly

could be doubled by the use of specialized sink-float treatment immediately after the primary crusher stage. In this regard, the sink-float stage should produce three type products in order to minimize tailing marginal ore content losses - a concentrate, middlings, and tailings. The middlings would then be fed to the flotation plant.

Costs: Mining costs should approximate $4.00 per ton, trucking to Wenden $1.00 per ton, milling $7.00 per ton, overhead $1.00 to $2.00 per ton: a total of slightly under $10.00 per ton.

Ore values: Ore values can be expected to average approximately $20.00 per ton in copper-gold values. No fair estimate can be placed on the possible manganese content value at this time.

Freight facilities: Truck haul eight miles to railroad. Rail rate to Magma-Superior about $3.00 per ton; to Hayden about $4.00 per ton.

Living accomodations: Watchman living quarters at the mine. Ample worker housing facilities at Wenden.

Timber and vegetation: None on property or in vicinity.

Financial statements: Both companies are registered Arizona state corporations: with data on public file there and also registered with the SEC.

Titles: United States government location claims (94). All filing and assessment requirements are complied with.

Maps and reports: Registered Arizona state surveyor claims maps exist. No outside authorship mine reports are known.

SUMMARY

Ore reserves, based on the present development and

the strong geologic structure evident, are immense when considering the entire 1000 foot by three mile shear zone with its nineteen near parallel mineralized dyke veins. The importance of this geologic structure with its explored consistent mineralization cannot be over emphasized. Further sinking and crosscutting of the full facility of dyke veins is a prime necessity to large scale mining operations. Concentration of the mined ore before shipment to the smelter is necessary in order to realize the value of the contained copper-gold-manganese in net returns. A 100 ton mill can be fed for its full life from ore above the Bonanza 500 and 600 foot levels if desired. Concentration should be based on froth flotation for 95% or better copper recovery.

Respectfully submitted,

P. Burton Rose, M.E.
Mining Geologist

Dated: June 21, 1952

ADDENDA

ARIZONA TESTING LABORATORIES

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

For [illegible] Date July [illegible], 1951

Attention: [illegible]

Sample of Ore Received

Submitted by: Same

ASSAY CERTIFICATE

Gold figured at $ 35.00 per ounce. Silver figured at $ [illegible] per ounce

Lab. No	Identification	Gold		Silver		Percentages	
		Oz per Ton	Value	Oz per Ton	Value	[illegible]	
82365	#8	.036	[illegible]	[illegible]	[illegible]	[illegible]	

REGISTERED ASSAYER [illegible] CLAUDE E. McLEAN [illegible] ARIZONA, U.S.A.

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Charges: $ 2.50

[illegible] Claude E. McLean

ARIZONA TESTING LABORATORIES

PHONE 3-6272 · 833 E. VAN BUREN · P O BOX 1888 · PHOENIX

For Bonanza Mining Co.
Attention: E. M. C. Hilmer

Date July 3, 1951

Sample of

Received

Submitted by

ASSAY CERTIFICATE

Gold figured at $35.00 per ounce. Silver figured at $ .90 per ounce.

Lab No	Identification	Gold		Silver		Percentages	
		Oz. per Ton	Value	Oz. per Ton	Value	Copper	
82358	1 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.60	
82359	2 [illegible]	2.70	[illegible]	0.70	[illegible]	11.35	
82360	3 [illegible]	[illegible]	2.10	.20	0.18	0.65	
82361	[illegible]	0.02	0.70	.20	0.18	0.20	
82362	[illegible]	0.02	0.70	0.20	0.18	0.40	
82363	[illegible]	[illegible]	1.40	0.20	0.18	0.30	
82364	7 [illegible]	0.25	[illegible]	0.20	0.18	3.30	
82366	[illegible]	0.26	9.10	0.20	0.18	3.10	

CERTIFIED ASSAYER — CLAUDE S. McLEAN — DEC 31, 19[illegible] — ARIZONA, U.S.A.

Respectfully submitted,
ARIZONA TESTING LABORATORIES

Charges $ [illegible]

By [illegible]

R. BURTON ROSE, M.A.
Exploration Geologist
P.O. Box 583
San Jose, California

COPY

Clayburn # 2698

May 26, 1952

Re: Bonanza Mine - ore: copper
Flotation test and assays

As stated in a letter of the 24th, the three vials mailed to you in Phoenix were samples of a preliminary test of flotation concentration made on material from the Verdon mill - table concentrates. No assays were run, but the test appeared satisfactory from a weight reduction viewpoint.

A fifty pound sample was then furnished to Western Machinery Company, San Francisco, for a more representative flotation test. This material was ore from the 500 foot level of the Bonanza Mine. Assay results are included below in addition to the weight reduction percentages previously mailed:

		Weight	Gold	Copper
Wemco #943	Ore test sample	100%	1.24 oz. $47.40/ton	5.77%
942	Rougher tails	78.4	.04 oz. 1.40/ton	0.33%
940	Copper concentrates	16.5	6.59 oz. 230.65/ton	30.39%
941	Cleaner tails	5.1	.30 oz. 10.50/ton	4.19%

Flotation reagent .11 lb/ton Z-5. Frother .103 lb/ton Dow 250.

A copy of the assay return sheet is enclosed.

These tests indicate that concentration of the partly oxidized ores on the 500 foot level can be readily and profitably mined and concentrated to a "plus $200.00 per ton" smelter shipment basis. In this figure the gold content is considered to average much less than the above sample, a safer consideration.

Detailed flow sheet ore testing will require a 1/2 ton sample and tests at "WEMCO" or others approximating $400.00.

Very truly yours,

(s) R. Burton Rose

REPORT OF ASSAY

ABBOT A. HANKS, INC.

ASSAYERS. CHEMISTS. ENGINEERS
624 SACRAMENTO STREET
SAN FRANCISCO.

May 26, 1952

DEPOSITED BY R. Burton Rose, M.A. Geologist
Box 583
San Jose, California

SAMPLE OF ORE

Labty. No.	Mark	GOLD, per ton of 2,000 lbs.		SILVER, per ton of 2,000 lbs.		Percentages
		Troy Ounces	Value @ $35.00 oz.	Troy Ounces	Value @	
	BONANZA MINE				$	
42198	Sample No. 940	6.59	230.65			COPPER 32.32%
99	" " 941	.30	10.50			4.13
200	" " 942	.04	1.40			0.33
01	" " 943	1.24	43.40			5.77

bob

ABBOT A. HANKS, INC.

By [illegible]

WESTERN MACHINERY COMPANY

"Wemco Products"

...S AND WAREHOUSES
...ANCISCO, CALIFORNIA
...NGELES, CALIFORNIA
...AMENTO, CALIFORNIA
...LAKE CITY, UTAH
...ORAGE, WASHINGTON
HIBBING, MINNESOTA
DENVER, COLORADO
POCATELLO, IDAHO
PHOENIX, ARIZONA
CHICAGO, ILLINOIS
BARTOW, FLORIDA
NEW YORK, N. Y.

EXBROOK 2-4167
760-766 FOLSOM STREET
SAN FRANCISCO 7, CALIFORNIA

CABLE ADDRESS
"WEMACHY"

June 6, 1952

Mr. R. Burton Rose
Box 583
San Jose, California

Subject: Flotation Test on sample of Copper Ore from the Bonanza Mine, Weaden, Arizona.
Laboratory Project #L-316-1

Dear Mr. Rose:

The sample of copper ore, which you submitted personally May 21, 1952, was tested in our laboratory and found amenable to concentration by standard froth flotation.

One quarter of the sample, which had a total weight of about fifty pounds and a size range from 4 inches to 1 inch, was stage crushed to minus 10 mesh and riffled into 600 gram test charges. A test charge was ground in a laboratory ball mill and subjected to flotation in a Fagergren Laboratory Flotation Machine, in the manner and with results as shown on the attached test data sheet.

Ore, as represented by the sample submitted, would probably be amenable to Heavy Media Separation at a particle size of approximately 3/4 inch. Therefore, it is suggested that heavy liquid tests be included in any future program to determine the efficacy of Heavy Media for concentration ahead of flotation or for direct production of a shipping grade concentrate.

Unless a request is received to the contrary, the balance of this sample will be scheduled for discarding 6 months from the date of this report.

It was a pleasure to conduct this preliminary flotation test for you. We would be glad to have you call on us for any information or testing you may require on this sample or any future project.

Very truly yours,
WEMCO DIVISION
Western Machinery Company

J. V. Hill
Mineral Testing Engineer

JVH/pr
Encls.

Submitted in triplicate.

MINERAL TESTING LABORATORY
WESTERN MACHINERY COMPANY
Table No. 3 Test No. 3

Project No. [illegible]
Sample No. 1
Date May 22, 1952

Conditions and Reagents

Point of Addition	Conditions			Reagents Pounds Per Ton									
	Time Mins.	% Solids	pH	3-5	Dow 250								
Ball Mill	8	60											
Re Cond.	3	22		0.05	0.0[illegible]								
Re Float	6		8.2	0.06	0.027								
Cu Cond.	3												
Cu Float	3				0.027								

Remarks:

Metallurgical Results

Product	% Weight	Assays					% Distribution				
		Au oz/T	% Cu				Au	Cu			
Assay feed	—	1.24	5.77								
Calc feed	100.0	1.13	5.80				100.0	100.0			
Cu Cons	16.5	6.59	32.32				95.5	91.8			
Cu Cl Tail	5.1	0.30	4.19				1.3	3.7			
Re Tail	78.4	0.04	0.33				2.9	4.5			
Calc Re Cons	21.6	5.10	25.60				97.1	95.5			

Remarks: Rougher Tail Screen Analysis

Mesh	% Weight
+65	3.7
−65	96.3

DENVER EQUIPMENT COMPANY
ORE TESTING DIVISION
Denver, Colorado

June 6, 1952

Mr. R. Burton Rose
P.O. Box 503
San Jose, California

Reference: Order [illegible]-22939

Dear Mr. Rose:

We are pleased to submit the following report of the results of laboratory examinations of four samples of gold-copper ores.

SAMPLE IDENTIFICATION

We received on May 19, 1952 via prepaid railway express, receipt No. 6503, nine sacks of samples, gross weight 379 lbs. from Mr. R. Burton Rose. The shipment was made from Hackenburg, Arizona. Four of the sacks had outside tags marked "Bonanza No. 2, Bonanza No. 3, Bonanza No. 7 and Bonanza No. [illegible]. All had inside tags of identification as shown on the following data sheet No. 1.

OBJECT OF EXAMINATION

Preliminary examination was to be made on one of the nine (9) samples including assays for gold and copper content. Recommendations concerning the possibilities of concentration of the various samples to be tried.

SAMPLE PREPARATION

Each of the nine individual samples was crushed by means of jaw crusher and rolls in closed circuit with screen to all minus 10 mesh. An individual head sample for assay and a portion for examination were cut from each product by means of the Jones Sampler. All reject portions were retained for possible future testing.

RESULTS OF EXAMINATION

Each of the head samples was assayed and the pH and specific gravities determined as described and with results shown on Data Sheet No. 1.

Each sample was further examined by carefully panning on a veining plaque and determinations of the mineral character of the samples was made by means of the binocular microscope.

Confirming qualitative chemical tests were made when necessary.

All of the samples have similar characteristics that would influence concentratability and differ mainly in the amount of values shown. The closely panned concentrates all contain free gold generally in fine grains but in quantity to justify testing by the Denver Mineral Jig and amalgamation of the resulting jig concentrate to determine advisability of including this method to recover gold in bullion form.

The copper values in all the samples occur as mixed copper sulphides including chalcopyrite, bornite and covellite or chalcocite associated with lesser amounts of pyrite. These sulphides are associated with a mixed carbonate and siliceous gangue which is characterized by the presence in all the samples of considerable manganese carbonate with more or less lime carbonate and in some of the samples tests indicate the presence of manganese silicate. There is also present some manganese oxide which is observed as black grains scattered throughout the sand portion of the crushed ore.

The presence of these heavy minerals prevents the production of high grade sulphide concentrates by gravity methods. The panned concentrates from all the samples consisted of a mixture of copper sulphides with some pyrite and considerable magnetite and limonite. The concentrate produced from sample No. 3 "600 bottom of shaft" contained scattered grains of a copper mineral tentatively identified as native copper. No other oxidized copper minerals such as malachite, azurite or chrysocolla were observed in any of these samples.

REMARKS AND CONCLUSIONS

The results of this examination indicate that the samples submitted represent ore of sufficient value to justify a complete laboratory testing program and the character of the ore indicates that Denver "Sub-A" flotation will produce excellent grades of copper-gold concentrates with acceptable recovery. The use of the Denver Mineral Jig in the ball mill grinding circuit and amalgamation of the resulting concentrates should

be investigated.

The presence of manganese carbonate in commercial amounts should be investigated by subjecting the sulphide flotation tailing to soap flotation in the expectation that a manganese concentrate would be produced which upon calcining might be marketable.

The grade of such a concentrate would be affected by calcium carbonate which would probably be floated with the manganese and might cause a lower grade than desirable.

The above conclusions regarding flotation of the copper sulphides with much of the gold and subsequent flotation of a manganese carbonate concentrate by conditioned soap flotation are based upon an actual trial flotation test made on composite sample made up from samples 1 to 7 inclusive in proportion to weights of samples as received. The products from this test have not been assayed but examination of the test products indicate that acceptable results can be produced by this method of treatment.

We will look forward with much interest to the receipt of your comments and with the expectation that further testing of these ores will be ordered. A 100 pound representative sample should be required for these tests.

Yours very truly,

DENVER EQUIPMENT COMPANY

Clarence Thom

Clarence Thom, Director
Ore Testing Division

[illegible], Manager
Ore Testing Division

Two copies to customer

SUMMARY OF RESULTS

DENVER EQUIPMENT COMPANY — ORE TESTING DIVISION — DENVER, COLORADO

SAMPLE IDENTIFICATION Pine Hand Samples received May 19, 1952

REPORT NO. D-23039

Sample Description	Wet Weight Head	oz/ton ASSAYS Au	Cu	Pulp Water pH	Ore Sp.G
No. 1 - 500	7.0 lb.	0.03	3.96	7.5	3.05
No. 2 - 500	4.0 "	0.05	1.12	8.4	2.97
No. 3 - 500	20.0 "	0.06	1.72	8.2	2.91
No. 4 - 500	22.0 "	0.08	1.82	8.4	2.91
No. 5 - 600 Spiral	11.0 "	0.01	0.44	7.9	3.21
No. 6 - 600 Tape	15.0 "	0.1	10.1	7.9	3.32
No. 7 - 600 Vein	11.0 "	0.1	1.30	8.0	3.09
No. 8 - Table Comb.	13.0 "	0.23	3.93	7.8	3.24
No. 9 - Table Tail.	17.0 "	0.0	0.35	7.9	2.79
Total Wet Wt.	120 lbs.				

REMARKS The pH of pulp waters [illegible] to which a portion of the sample crushed to minus 10 mesh with an equal weight of tap water [illegible] a pH of 7.2 and measuring the pH of the resulting pulp. Quite live crushing conditions of the pulp waters from these samples did not indicate any water soluble salt content in amounts that would ordinarily be considered detrimental to the flotation process.

be investigated.

The presence of manganese carbonate in commercial amounts should be investigated by subjecting the sulphide flotation tailing to soap flotation in the expectation that a manganese concentrate would be produced which upon calcining might be marketable.

The grade of such a concentrate would be affected by calcium carbonate which would probably be floated with the manganese and might cause a lower grade than desirable.

The above conclusions regarding flotation of the copper sulphides with much of the gold and subsequent flotation of a manganese carbonate concentrate by conditioned soap flotation are based upon an actual trial flotation test made on composite sample made up from samples 1 to 7 inclusive in proportion to weights of samples as received. The products from this test have not been assayed but examination of the test products indicate that acceptable results can be produced by this method of treatment.

We will look forward with much interest to the receipt of your comments and with the expectation that further testing of these ores will be ordered. A 100 pound representative sample would be required for these tests.

Yours very truly,

DENVER EQUIPMENT COMPANY

Clarence Thom

Clarence Thom, Director
Ore Testing Division

Harry J. Eisler

Harry J. Eisler, Manager
Ore Testing Division

Two copies to customer

BONANZA MINING COMPANY WENDEN, ARIZONA

HERE IT IS, 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 o

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

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' commissions 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:

14 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 15 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

Russell Foxwell
613 Lennox Street
Baltimore, Maryland

Neil D. Haney
1008 East Fairmont Street
Phoenix, Arizona

Norman D. White
4702 North Central Avenue
Phoenix, Arizona

George H. Drum
Box 808
Yuma, Arizona

George K. Angius
P. O. Box 1801
Miami, Arizona
(Mr. Angius is a Director of the company)

Eugene W. Funk
717 East McKinley
Phoenix, Arizona

Eugene B. Hollingsworth
1318 East Granada Road
Phoenix, Arizona

John W. McLaughlin
Box 1007
Morenci, 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.

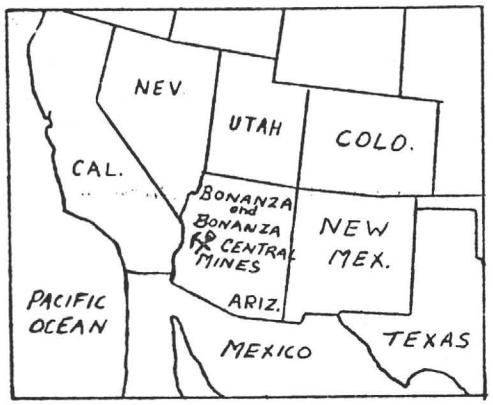
Mr. Rose has been active in field work in geology and geophysics on a consulting basis, throughout all of the Pacific West States and Mexico. He is widely known as a consulting mining geologist, and stands high in his profession.

BONANZA AND BONANZA-CENTRAL MINES

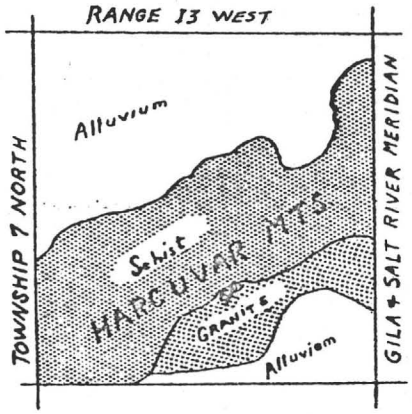
Yuma County, Arizona

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.

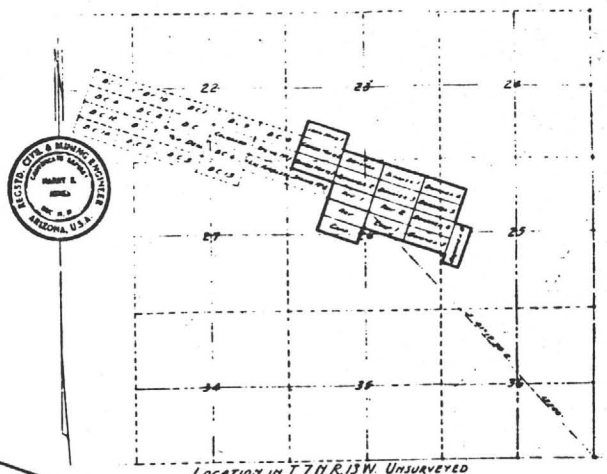
Water supply: Water is not available at the mine site, but ample quantities are obtainable for any size operation at not more than a seven mile distance and can be piped.

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

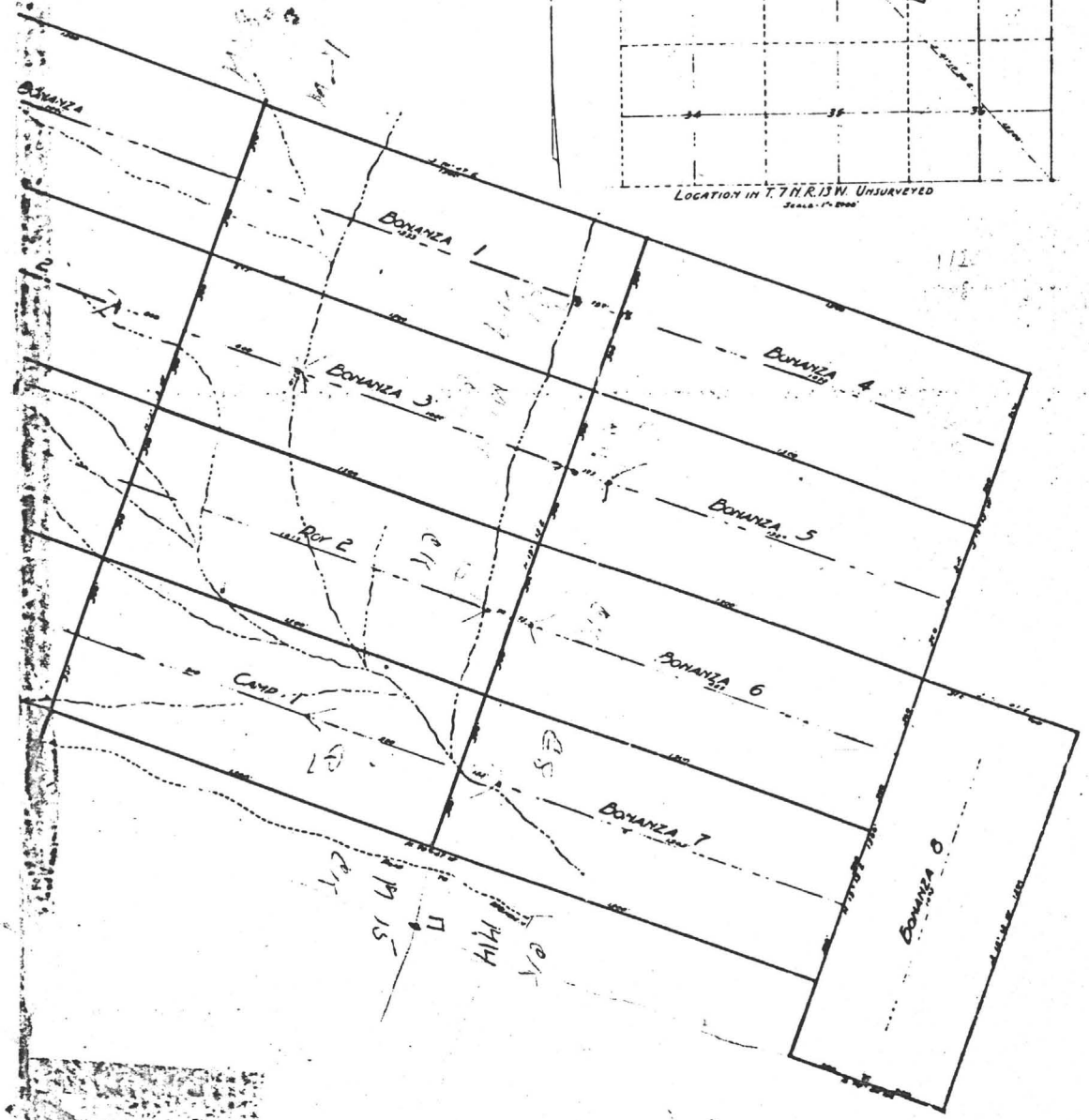
BONANZA MINING COMPANY

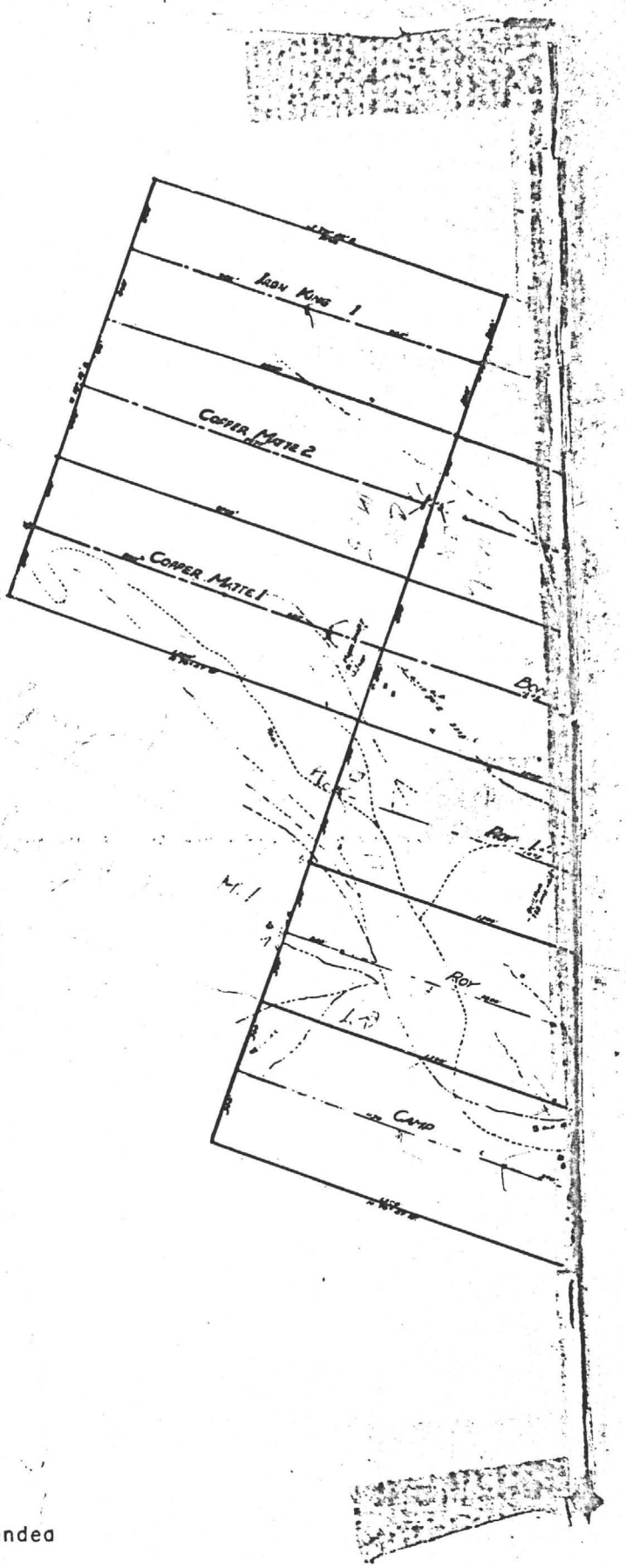
WENDEN, ARIZONA

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



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





Amended

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

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 scuth 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.

4 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 No!	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 accerding 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 crosscuts 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	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. B. Burdsall 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

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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

(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