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Arizona Department of Mines and Mineral Resources Mining Collection

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10/21/87

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: GOLD RIDGE MINE

ALTERNATE NAMES:
CASEY
JUNIPER
HUNTSMAN

COCHISE COUNTY MILS NUMBER: 80

LOCATION: TOWNSHIP 14 S RANGE 27 E SECTION 21 QUARTER --
LATITUDE: N 32DEG 11MIN 44SEC LONGITUDE: W 109DEG 35MIN 24SEC
TOPO MAP NAME: DOS CABEZAS - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD	LODE
LEAD	WULFENITE
SILVER	
COPPER	OXIDE

BIBLIOGRAPHY:

KEITH, S.B., AZBM BULL. 187, P. 61
ADMMR GOLD RIDGE FILE
AZBM BULL. 180, P. 161-163
MINES HANDBOOK, 1926
AZBM BULL. 137, P. 119
AZ MNG JRNL, 9/19 P 25; 1/20 P 33; 2/20 P 35;
5/20 P 29; 1/22 P 16
ADMMR PHELPS DODGE RPT ON ASSAYS & DRILLING

DOS CABEZAS GOLD RIDGE MINING COMPANY

COCHISE COUNTY
DOS CABEZAS DISTRIC
T14S R27E Sec 20, 2

See: ABM Bull. 180, p. 161, 163

See: Arizona Mining Journal Issues of
Sept. 1919 p. 25. Jan 1920 p. 33
Feb/ 1920 p. 35. May 1920 p. 29
Jan. 15, 1922 p. 16

See: ~~Eagle-Picher "G" Confidential files~~ now in this file

Mines Handbook 1926

ABM Bul. 187, p. 61

ABM Bul. 137, p. 119

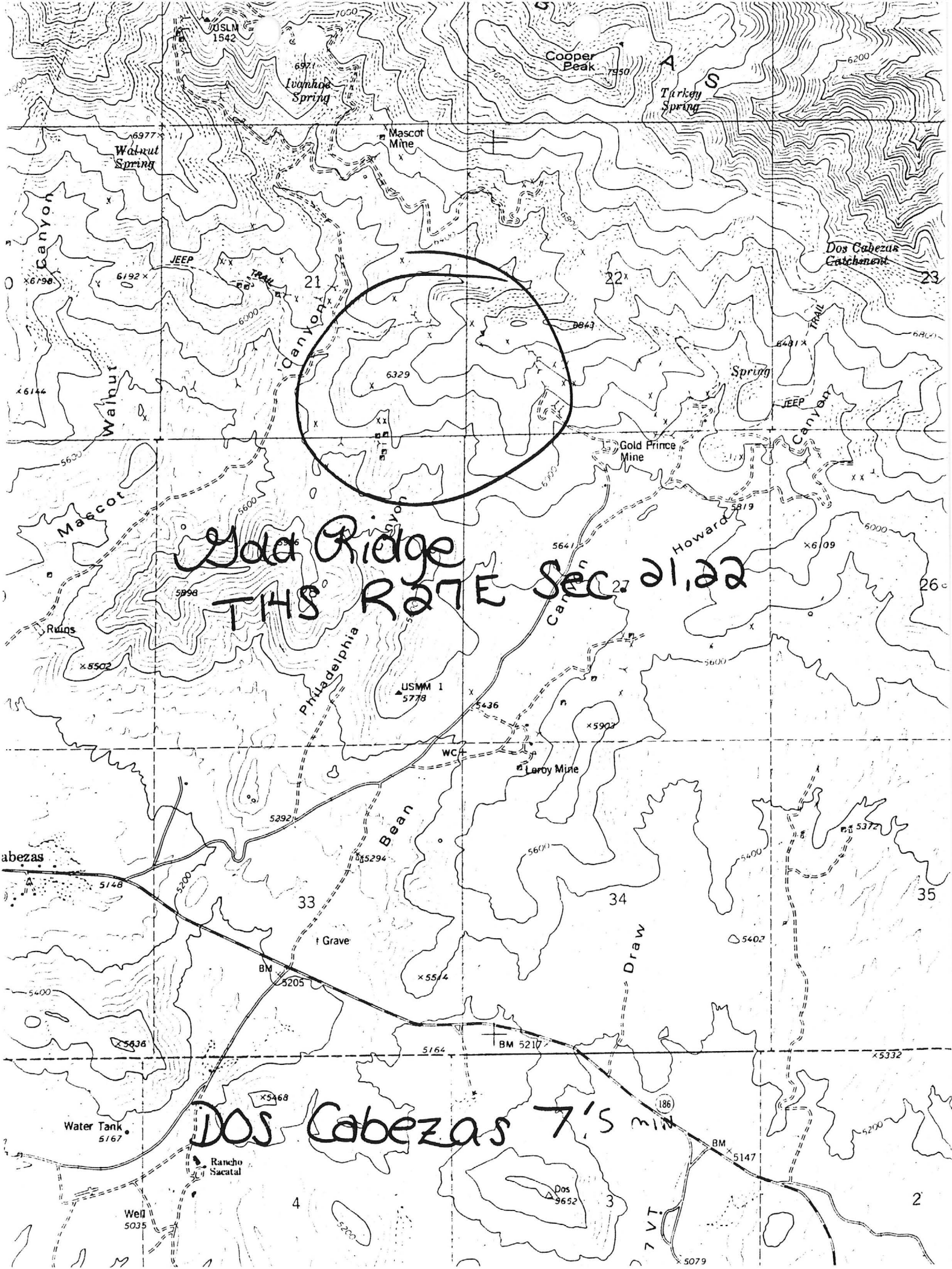
MILS Sheet sequence number 0040030145

Cochise County MILS Index #80

AKA: Casey, Juniper, Huntsman

See: Map I-1310-B p. 51; Mineral Deposit Map of the Silver City 1^{o} x 2^{o} Quad., NM & AZ

Dos Cabezas 7' Quad (included in file)


USLM 1542
Ivanhoe Spring
Cooper Peak 7950
Turkey Spring
Mascot Mine
Walnut Spring
Walnut Canyon
JEEP TRAIL
Dos Cabezas Catchment
Gold Prince Mine
Howard Canyon
Mascot Canyon
Yoda Ridge
T14S R27E Sec. 21, 22
Ruins
Philadelphia Canyon
USMM 1 5778
WC
Leroy Mine
Bean Draw
Grave
BM 5205
BM 5210
Water Tank 5167
Rancho Sacatal
Well 5035
Dos 5652
BM 5147
Dos Cabezas 7.5 min
21
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26
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33
34
35
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26 December 1939

Mrs. Alice Huntsman,
P. O. Box 1386,
Dutton, Arizona.

My dear Mrs. Huntsman:

Mr. Miles M. Carpenter has advise me of your desire to have the copy of the report on the Gold Ridge Mine returned to you.

This report is being copies for our files, and within a few days, the copy you sent in with your report will be returned to you.

I am sorry for the delay, but in the rush of work, it has been impossible to get it copied until now.

With best wishes, I am

Yours very truly,

J. S. Coupal
Director

jrf

18 January 1940

Mrs. Alice Huntsman,
P. O. Box 1386,
Tucson, Arizona.

Dear Mrs. Huntsman:

I am returning herewith copy of report of Mr. James E. Talmage and copy of smelter returns on the Gold Ridge Mine, which you sent to us with Mine Owners Report to be filed.

I am also enclosing a copy of the Mine Owners Report filed in this office.

I am sorry for the delay in copying these papers, and trust that you will pardon the delay.

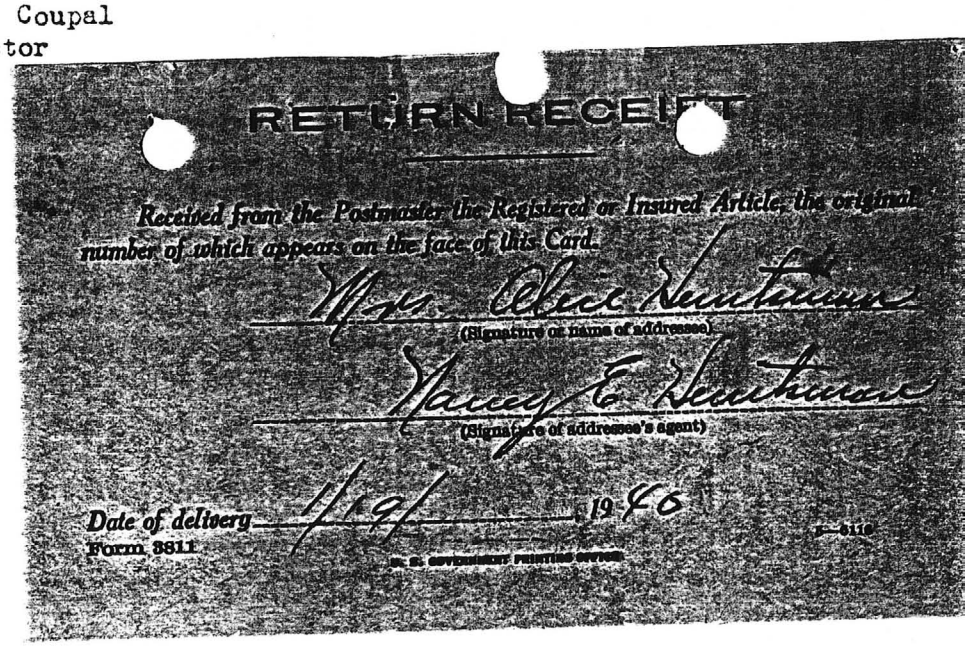
With best wishes, I am

Yours very truly,

J. S. Coupal
Director

JSC-jrf
encls.

REG. MAIL


RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article the original number of which appears on the face of this Card.

Mrs. Alice Huntsman
(Signature or name of addressee)

Nancy E. Huntsman
(Signature of addressee's agent)

Date of delivery 1/19/ 1940

Form 3811

GOLD RIDGE COCHISE COUNTY

MG WR 8/16/85: Visited the Gold Ridge mine (Cochise Co). The dirt road into this property has been improved recetly by the Phelps Dodge Corp.

CJH WR 11/28/86: Visotr: Don Anderson, Consultant, Green Valley, Az (c). Don reported that the following addresses and phone numbers need changing in our files: Annette Mowinckle (c) and the lessee of her Gold Prince, Gold Ridge and Dives properties in the Dos Cabezas district, Cochise Co, Queenstake Resources Ltd (c).

MG WR 2/7/87: Mr. Terry Antoniuk (c) of Toronto was in to review the Gold Prince (file) Cochise County. He reports that his company (Rayrock Yellowknife Resources Inc.) has been asked by Queenstake Resources to participate in the exploration and development of the Gold Prince mine. (The property package apparently also includes the First Chance, Gold Ridge and Dives areas; all in files of Cochise County.) Mr. Antoniuk expressed the hope that enough tonnage could be developed to supply a 200 to 400 tpd mill on the property.

Gold Prince (f)
Gold Ridge (f)
Davis (f)

QUEE STAKE RESOURCE LTD.

NEWS RELEASE

RECEIVED
SEP 1 1 1989

News Release 89-1

August 31, 1989

12g Exemption # 82-565

OPTION AGREEMENT SIGNED ON THE DOS CABEZAS PROPERTY

ARGUS PROJECT REVERTS TO QUEENSTAKE

Dos Cabezas Project, Willcox, Arizona

Queenstake Resources Ltd. is pleased to announce that an option to earn a 50% interest in the Dos Cabezas property has been granted to PBX Resources Ltd. (VSE:PBX) of Vancouver. Under the terms of the agreement PBX is required to spend U.S. $1.5 million on exploration and development over a three year period and will become vested with a 25% interest once U.S. $750,000 has been spent. Queenstake will remain the operator of the project.

The Dos Cabezas property, located near the town of Willcox in south eastern Arizona, consists of 59 patented and unpatented claims with 70 acres of deeded surface land encompassing the principal former producing mines of the Dos Cabezas District. Queenstake's work to date has defined a mineral inventory of 106,000 tons grading 0.37 ounces of gold per ton in the Gold Prince Mine. Queenstake is carrying out development work to ship up to 1,000+ tons per month of gold-bearing silica flux to the Phelps Dodge Hidalgo Smelter in Playas, New Mexico. Revenue from these shipments is used to partially fund on-going mine development and exploration.

The objective of the exploration and development program to be funded by PBX is to increase proven reserves, work toward a production rate of 200-300 tons per day and carry out a feasibility study to determine whether bulk shipping of ore should continue or if an on-site milling facility is justified. Currently, Queenstake receives credit for 85% of the gold from smelter shipments due to the high quality of the silica.

The aforementioned agreements are subject to the approval of the Boards of both companies.

Argus Project, Ridgecrest, California

The Argus property, which was being developed under an option agreement with Childs International Inc., an Australian real estate and financial concern, has reverted to Queenstake with Childs International retaining a 10% post payout net profits interest capped at U.S. $550,000. Childs International spent in excess of U.S. $500,000 over the past two years pursuant to the option agreement, however they have advised Queenstake that they are unprepared to fund their ongoing obligations. The Argus is currently estimated to contain 1.2 million tons of drill proven reserves grading 0.054 ounces of gold per ton and .8 million tons of drill inferred reserves grading 0.035 ounces of gold per ton on the Davenport vein structure.

TSE SYMBOL: QTR

9th Floor
850 West Hastings Street
Vancouver, B.C. V6C 1E1
Telephone: (604) 684-1218
Facsimile: (604) 684-9959

plant was commissioned and commenced operation during the year, markedly improving the gold recovery.

In total 247,000 cubic yards of gravel at a grade of 0.012 ounces of gold per cubic yard were mined and processed resulting in the production of 2,984 fine ounces of gold.

The 1989 mine plan of nine upstream cuts will produce approximately 300,000 cubic yards of gravel for an increase over 1988 production.

Black Hills Creek, Yukon
The Black Hills Creek operation processed 154,500 cubic yards of gravel grading 0.011 ounces per cubic yard. The trommel/sluice recovery plant operated between April and October producing 1,735 fine ounces of gold.

In 1989 an infill drilling program consisting of 110 drill holes will be carried out on the McCrimmon reserve to further define and augment current estimates of 330,000 cubic yards of gravel of 0.019 ounces per cubic yard.

Gold Prince (A), Gold Mogul (f)

HARDROCK EXPLORATION AND DEVELOPMENT PROJECTS

Dos Cabezas Mine, Arizona
In early 1988 the number 4 and 5A levels of the Gold Prince Mine were rehabilitated, surface facilities constructed and services installed. A 4,870 foot underground diamond drilling program, completed in December 1988, tested the reserves below the 5A level and demonstrated that mineralization is geologically complex and further exploration is required to establish proven reserves.

Metallurgical testwork completed by Bateman Metallurgical Laboratories has shown that a combined gravity-flotation circuit on the Gold Prince ore yields a 97.8% recovery.

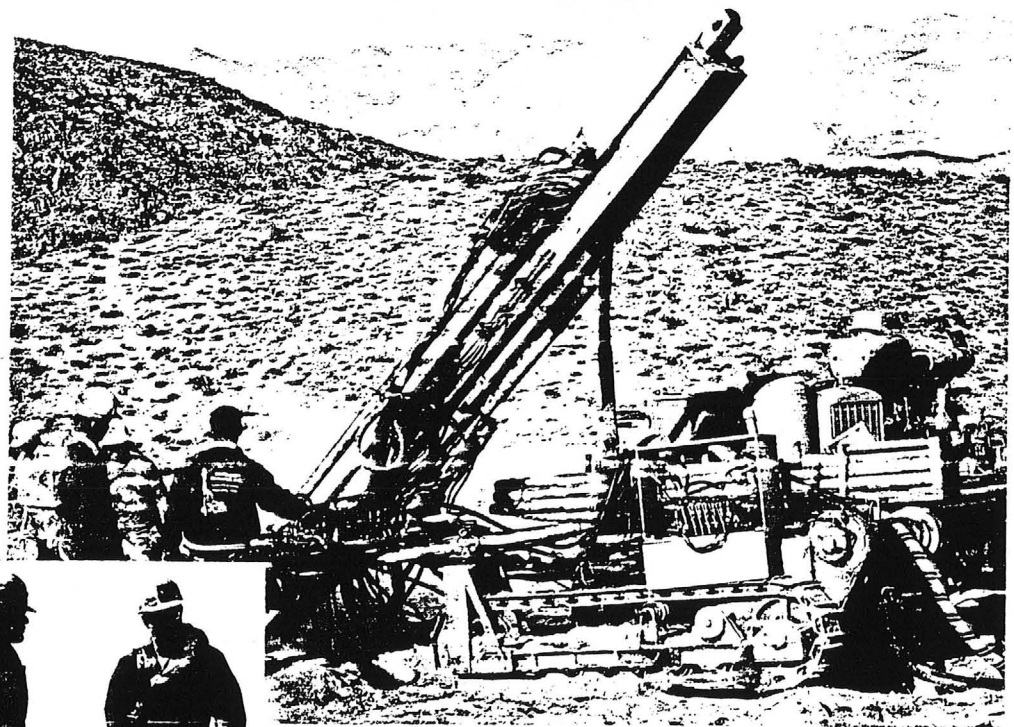
In early December 1988 a test shipment of 500 tons, grading 0.338 ounces per ton gold, was shipped as silica flux to the Phelps Dodge smelter in Playas, New Mexico. It is currently planned to ship 500 tons of gold bearing silica flux per month until June 1989 when there will be three working stopes developed. At that time production will increase to 1,000 tons per month. The cash flow provided by this operation will fund the exploration effort to prove up reserves both at depth and along strike of the Gold Prince vein system and in the adjacent Gold Ridge and Arizona Klondike mines.

Argus Project, California
Project exploration in 1988 consisted of 8,225 feet of reverse circulation drilling, backhoe trenching and mapping to evaluate the Davenport vein system for bulk tonnage gold mineralization. Reserves in all categories at the Davenport deposit are now estimated to exceed 1,200,000 tons at a grade of 0.054 ounces of gold per ton. There is potential for an additional 600,000 tons of lower grade in the Hermosa area.

Metallurgical column leaching test work on bulk samples of Davenport ore yielded recoveries of 85.7% in 44 days on minus ½ inch crushed ore. Preliminary engineering studies included ore reserve definition, mine design and cost estimation. Environmental baseline studies were carried out to evaluate vegetation, wildlife and reclamation requirements.

Dos Cabezas, Arizona. Miner Bill Eddins slabbing down loose rock after recent blast in No. 9 stope, 80 feet above the 5A level. The vein is dipping at 60°, and in this location has a true width of 6 feet and an average grade of 0.35 ounces gold per ton.

Argus-Davenport Property, California. Track mounted reverse circulation machine drilling on the Davenport fissure-vein zone. During 1988, 31 holes were completed totalling 8,225 feet.



Queenstake Chairman, Richard C. Atkinson (r), and consultant geologist, Eric Ostensoe, during the Northwest Mine Tour. Investment analysts visited Golden Sitka's Chichagof property and Queenstake's Pine Creek placer gold property.

Buckskin National, Nevada. Hand specimen of silicified breccia ore from the Bell vein — a classic example of a bonanza grade epithermal vein system. This specimen has a grade of 2 to 3 ounces gold per ton and 20 to 30 ounces silver per ton.

Queenstake Resources Ltd. Annual Report 1988

From: QUEENSTAKE RES 3rd ¼ REPORT 1988

GOLD PRINCE ⊕
GOLD RIDGE ⊕

TO OUR SHAREHOLDERS:

Highlights of the Third Quarter

- 1988 production projected at 13,800 ounces gold — a record!
- Cash position at September 30 of $1.96 million, a 16% increase over previous year.
- Dividend of 2½¢ declared November 18, 1988 and payable January 6, 1989.
- First shipment of gold bearing silica flux from Dos Cabezas.
- Buckskin National Mine project back on track — legal dispute settled.

FINANCIAL

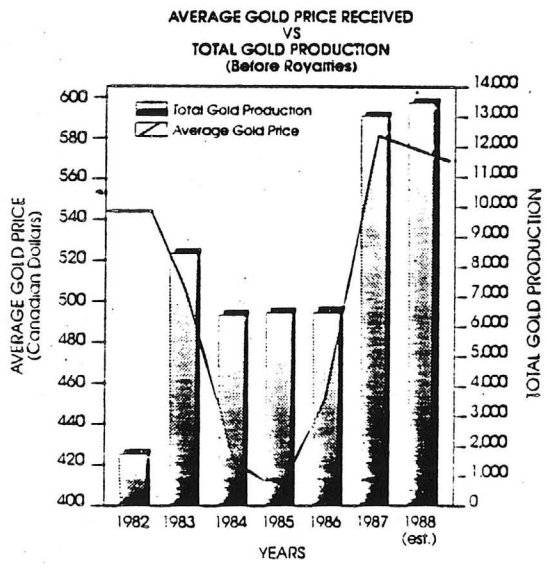
Gold sales for the nine month period to September 30, 1988 were 11,555 fine ounces, with a further 980 ounces added to inventory, for a total of 12,535 fine ounces produced. This is 29% above the 9,683 fine ounces of gold produced during the comparable period last year.

The Company realized an average gold price of US $460 per ounce as a result of successful hedging operations covering 39% of sales to September 30, a premium of US $23 per ounce over the average world gold price. Revenue for the nine month period was $6.3 million, an increase of 49% over last year. Direct operating costs per fine ounce produced increased by only 1%. Consequently, cash flow from operations for the nine month period of $1.3 million exceeded last year's comparable figure by 45%.

The most significant use of funds in the third quarter was an expenditure of $228,000 on the surface and underground exploration programs at Dos Cabezas, Arizona, as well as $285,829 expended on placer exploration programs in the Atlin and Cariboo districts of British Columbia.

General and administrative costs have increased over last year, due to growth in the size and activities of the Company, coupled with a more active investor relations program.

A dividend payment of 2½ per share has been declared payable on and after January 6, 1989 to shareholders of record on December 15, 1988 provided that in lieu of cash, shareholders of record holding 1,001 or more shares will be paid a stock dividend of fully paid and non-assessable shares of the capital of the Company based on the average closing price of shares of the Company on The Toronto Stock Exchange for the 5 trading days preceding December 15, 1988 (the "Issue Price") and further provided that fractions of shares will be rounded up or down, as the case may be, to the nearest whole number.



OPERATIONS FROM PLACER MINING DIVISION

Gold production from the 1988 placer mining season is projected to be a total of 13,800 fine troy ounces. This is a second consecutive record production year. Distribution of production was 43% from the Pine Creek Mine, B.C., 23% from the Moyie River Mine, B.C. and 34% from the two mines in the Klondike region, Yukon.

An early April, 1988 start to the processing of the winter ore stockpile at the Moyie River Property, located in south-eastern British Columbia, resulted in much earlier cash flow from operations than experienced in previous years. This continuous winter mining operation at Moyie will provide an ore stockpile which will generate revenue by May, 1989 and, combined with additional mining equipment on site, is projected to increase 1989 Moyie production by one-third. The Pine Creek operation, located in northern British Columbia, will also be starting the 1989 season with a large amount of pre-stripping completed and an ore stockpile.

Queenstake carried out exploration programs, including 3,000 feet of drilling on its operating mines and on six properties in the Yukon and British Columbia in 1988. An active placer exploration and acquistion program will be continued in 1989 to expand gold reserves.

HARDROCK EXPLORATION/DEVELOPMENT PROJECTS

Dos Cabezas Project, Cochise County, Arizona

(100% Queenstake)

Material derived from the underground exploration program has been shipped as gold bearing silica flux to Phelps Dodge's Hidalgo Smelter at Playa, New Mexico, 120 miles from the Dos Cabezas property. The initial shipment of approximately 500 tons at 0.37 ounces gold per ton was made the first week of November. Silica flux, with precious metal value, is in high demand by the local copper smelters. In excess of 83% of the gold value in the flux will be received, thereby, generating immediate cash flow from this project for ongoing exploration and development, without incurring the cost and delays of environmental permitting or construction of a mill facility.

Drilling is ongoing on the 5A Level, with 4,200 feet drilled in 15 holes to date. Additional drilling is underway from the 4 Level in order to evaluate a target believed to contain in excess of 100,000 tons of reserves above the previously worked stopes to the west of the present workings on the 5A Level.

Surface mapping and sampling is proceeding in preparation for a surface diamond drilling program on the upper Gold Prince vein system and the adjacent Gold Ridge and Arizona Klondike mines, scheduled for early 1989. A surface trench sample from the Arizona Klondike claims averaged 0.27 ounces per ton gold over 30 feet of length in a highly oxidized shear zone within Cretaceous carbonates and clastic sediments. This zone has a strike length of over 1,750 feet and represents one of the prime exploration targets on the property.

As exploration continues at Dos Cabezas a better understanding of the complex geology and ore deposition is being achieved, resulting in a more efficient drill program and mine development.

Argus Project, Inyo County, NE of Randsburg, California

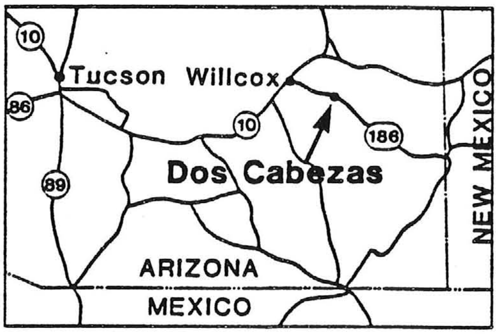
(40% Queenstake, 60% Childs International)

As a result of the 1988 exploration/drilling program, reserves in the Davenport area are now estimated to exceed 1,200,000 tons at 0.054 ounces per ton gold. The potential for an additional 600,000 tons in another zone at 0.03 ounces per ton gold to a depth of 200 feet will be evaluated in 1989.

Engineering studies including open pit modelling, mine plant design, equipment sizing, and capital/operating cost are ongoing to generate input for a prefeasibility study. Environmental baseline studies have been completed and it is believed that there will not be any adverse environmental aspects with the proposed mine plan.

Dives (f), ...ld Mine (f), Gold Prince f Cochise Co.

Dos Cabezas, Arizona

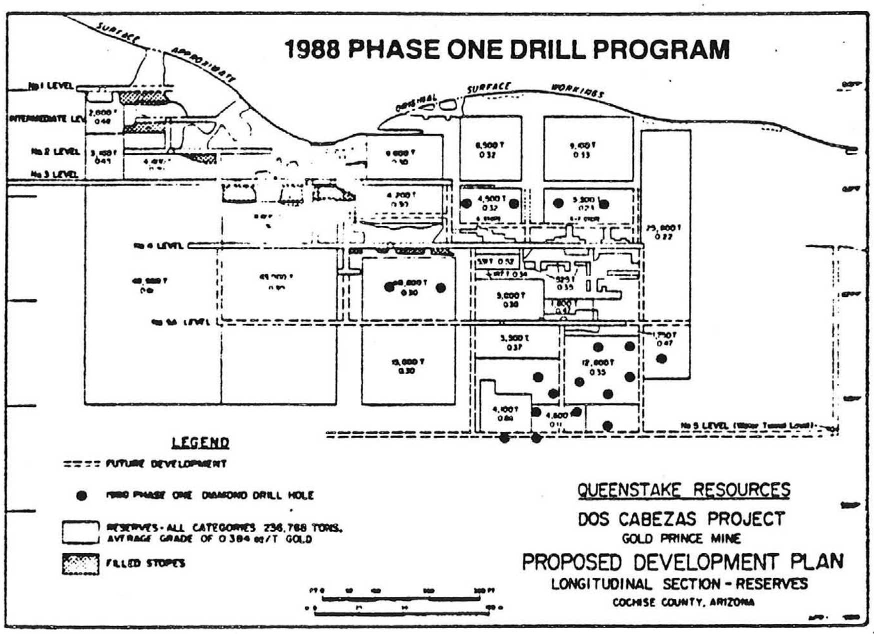


In 1987, Queenstake conducted an intensive underground sampling program at the Gold Prince Mine, aggregating over 600 samples. All principal structures were sampled at 5 or 10 foot centers. Following the sampling program, underground rehabilitation, construction of surface facilities, installation of services and mining equipment acquisition were completed.

A 6,000 foot underground diamond drilling program is planned at the mine to evaluate the extensions of ore reserves defined in Queenstake's 1987-1988 mapping and sampling program and by 9,000 feet of previous diamond drilling done by Phelps Dodge Corporation between 1983 and 1986. A series of three en echelon gold bearing quartz-sulfide veins will be tested in the program, with the goal of bringing the reserves to the drill indicated category. A feasibility study will then be undertaken to evaluate the deposit and define a mining development plan.

Drilling will be conducted by a contractor using a new underground drill recently purchased by Queenstake. The drilling will be done from both existing underground drill stations on the 5A Level and from new stations being constructed on the 5A and 4 Levels of the mine. The vein system will be tested along nearly 1000 feet of strike length and 500 feet of vertical extent.

Preliminary flotation and cyanidation test work conducted by Bateman Metallurgical Laboratories in Sparks, Nevada has been completed, with satisfactory gold recoveries using a combination gravity-flotation-cyanidation circuit. Additional testing is planned to further define grinding and selective flotation variables for the ores. Column leach cyanide testing is planned on near surface stockwork-hosted oxide ores which may be amenable to open pit heap leach technology.



Mine equipment purchases from former operator Phelps Dodge Corporation helped to speed the project to completion at substantial savings over projected equipment costs.

ARIZONA DEPT. OF MINES & MINERAL RESOURCES
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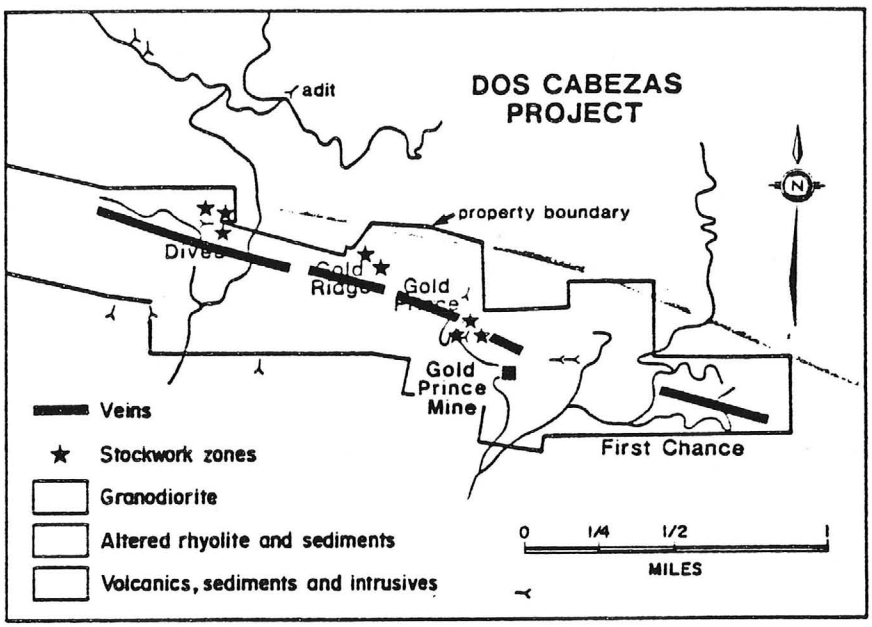
View from the Gold Prince Mine, Dos Cabezas, looking past the home of Kay and Lewis Stickradt (head of mine security) to the flats.

Additional claim locations made by Queenstake have almost doubled the project area, including both lode and mill site locations.



The mine rehabilitation program was directed by Mine Manager, Al Voirin, with Project Geologist, Tim Pearson.

Al Voirin, Dos Cabezas mine manager *(l)* and Tim Pearson, project geologist *(r)*, inspecting Dos Cabezas structure.

Dave Hembree, Queenstake's U.S. manager of exploration, examining underground workings in the Gold Prince Mine, Dos Cabezas project. In 1988, a 6,000 foot underground drilling program is planned to define reserves for a production decision.

ARIZONA DEPT. OF MINES & MINERAL RESOU
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TUCSON, ARIZONA 85701

MINERAL RESERVES

The Company is continuing its strategy of reserve acquisitions and extension of existing reserves through intensive exploration programs. Reserves and reserves per share have increased steadily as a result of this strategy.

Based on net issued capital at December 31, 1986 of 6.1 million shares, the Company's per share interest in drill indicated reserves of various commodities is as follows:

Gold	.04 oz/share
Silver	.32 oz/share
Tungsten	.77 stu (15 lbs)/share
Gypsum	1.1 tonnes/share

MINERAL PROPERTIES:

Gold Prince
Cochise Co

DOS CABEZAS, ARIZONA

Queenstake has recently acquired a 100% leasehold interest in the Dos Cabezas mine properties (twenty contiguous patented mining claims (322 acres) and eleven unpatented lode claims) which contain the principle former producing gold mines (Gold Prince, Gold Ridge and Dives) of the Dos Cabezas mine district of southeastern Arizona. The Gold Prince was reopened by Phelps Dodge Corporation and from 1984 to March of 1986 produced 14,238 tons of ore at 0.313 ounces per ton gold.

Exploration conducted by Phelps Dodge, including 9,006 feet of diamond core drilling in forty-two holes and extensive, detailed production sampling, has defined about 45,000 tons of reserves grading in the order of 0.40 oz. per ton gold within the area of the rehabilitated mine workings. Sampling and production data supplied by the owners for areas undeveloped by Phelps Dodge indicate additional ore potential to the west of the Phelps Dodge work and in the upper levels of the mine.

In addition to the vein hosted reserves at the Dos Cabezas property, there are wide zones of disseminated and veinlet hosted gold mineralization along the vein system which may provide bulk tonnage ore deposits. An oxidized ore body of this type would be amenable to open-pit mining and cyanide leaching technology. The shear zone which contains this mineralization is over two miles long and from 100 to 500 feet wide. Several wide zones of consistent gold mineralization were intercepted in the Phelps Dodge drilling, confirming the potential for this ore target.

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Queenstake Mineral Reserves*

GOLD
VARIOUS PROPERTIES
246,000 troy ounces
74,000 ounces: placer properties
172,000 ounces: hardrock properties

SILVER
QUARTZ HILL and
GOLD KING PROPERTIES
2 million troy ounces

GYPSUM
DONNOR RIVER DEPOSIT
7 million tonnes

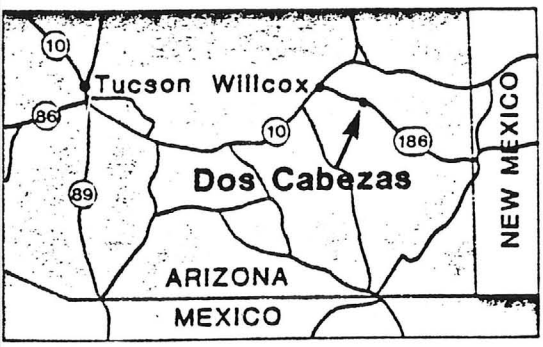
TUNGSTEN
MAR DEPOSIT
4.8 million stu
(96 million lbs)

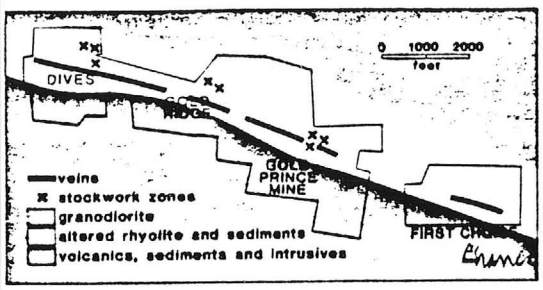
*** These figures include mineralization in all reserve categories. Exploitation of the reserves is dependent on development of detailed mining plans and market prices for the commodities.**

Typical Chichagof ore shoot structure is evident here in the Big Croppings vein, including five foot width and ribbony quartz veining.

The Dos Cabezas mine properties contain both developed and exploratory ore potential of excellent grade and extent. There are a number of mineralized zones along the Gold Prince vein system which may be quickly explored and developed using the recently rehabilitated mine workings with most services still intact. A surface and underground sampling and mapping program is planned for early 1987, to be followed by surface and underground diamond drilling, concentrating upon expanding known reserves and evaluation of the vein stockworks bulk tonnage potential.

The Dos Cabezas mine project is of particular importance to the hardrock exploration program, since it not only has an ore reserve partially developed for mining but also has excellent exploration potential for both high grade vein hosted mineralization and bulk tonnage stockworks and disseminated gold deposits suitable for open pit or bulk tonnage underground mining methods. The mine is unique because it can be placed into production as a silica flux-gold mine within six months and at a very low capital cost compared with a typical hardrock mine of similar size.





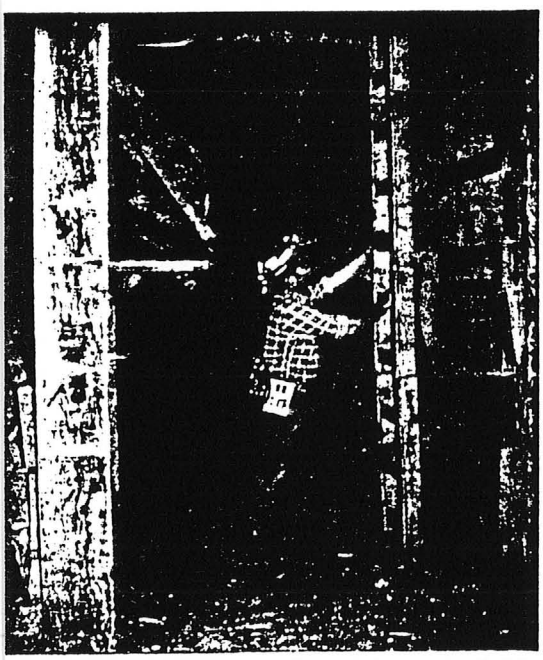
ARGUS GOLD PROPERTY, CALIFORNIA

Queenstake has signed an agreement with Childs International Inc., the American subsidiary of an Australian mining group headed by Barrie Childs of Sydney, New South Wales in which Childs International can earn a 60% interest in Queenstake's Argus gold mines project near Bakersfield, California by spending $1 million U.S. in exploration, development and production capital on the Argus property by 1989.

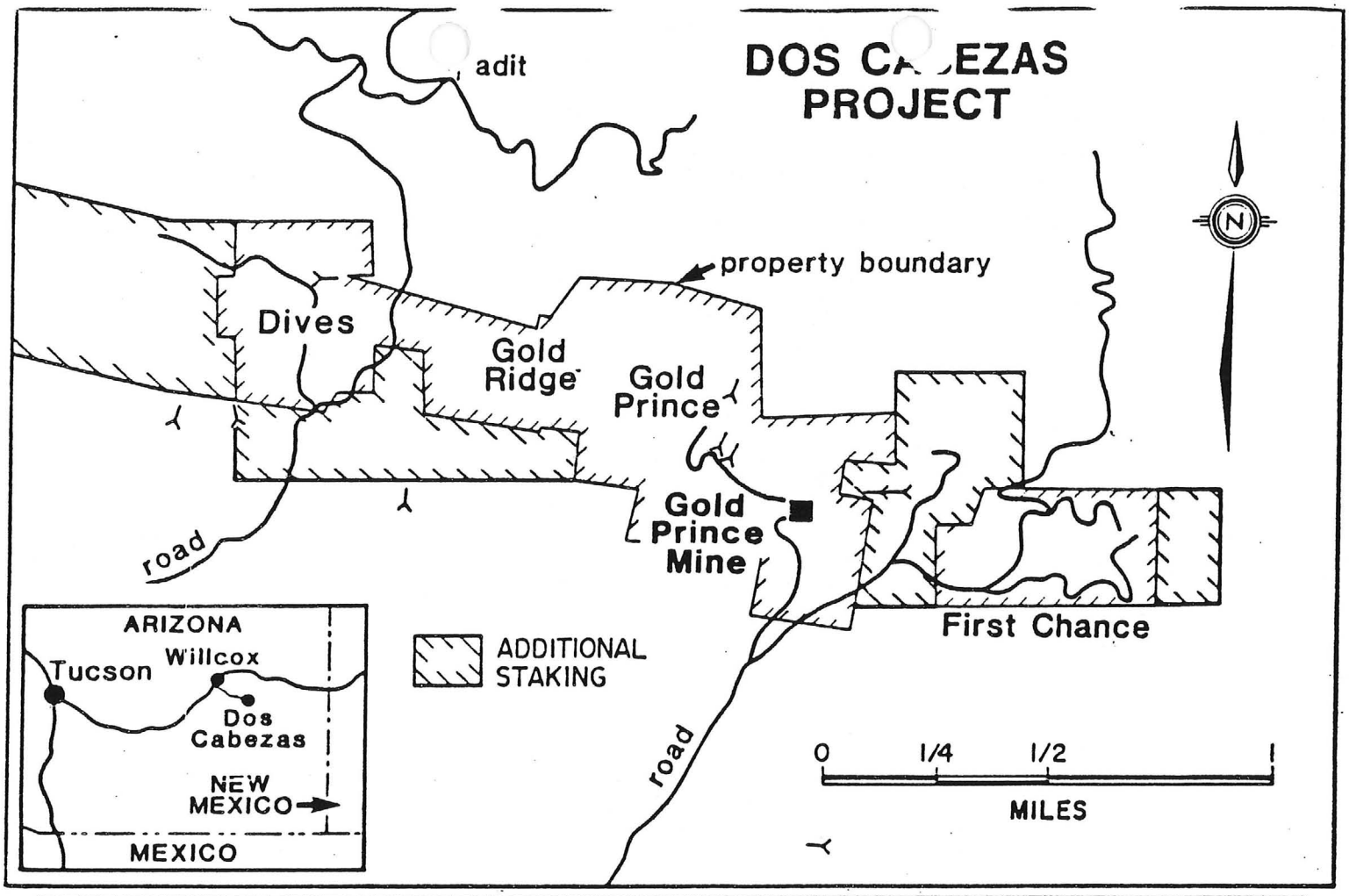
The Company has recently completed a review of the Davenport and Arondo Mines on the Argus property. On the Davenport vein, the drill indicated reserves total 423,000 tons grading 0.053 ounces of gold per ton. Potential tonnage in the Davenport (at a 300-foot deep pit limit) is two million tons.

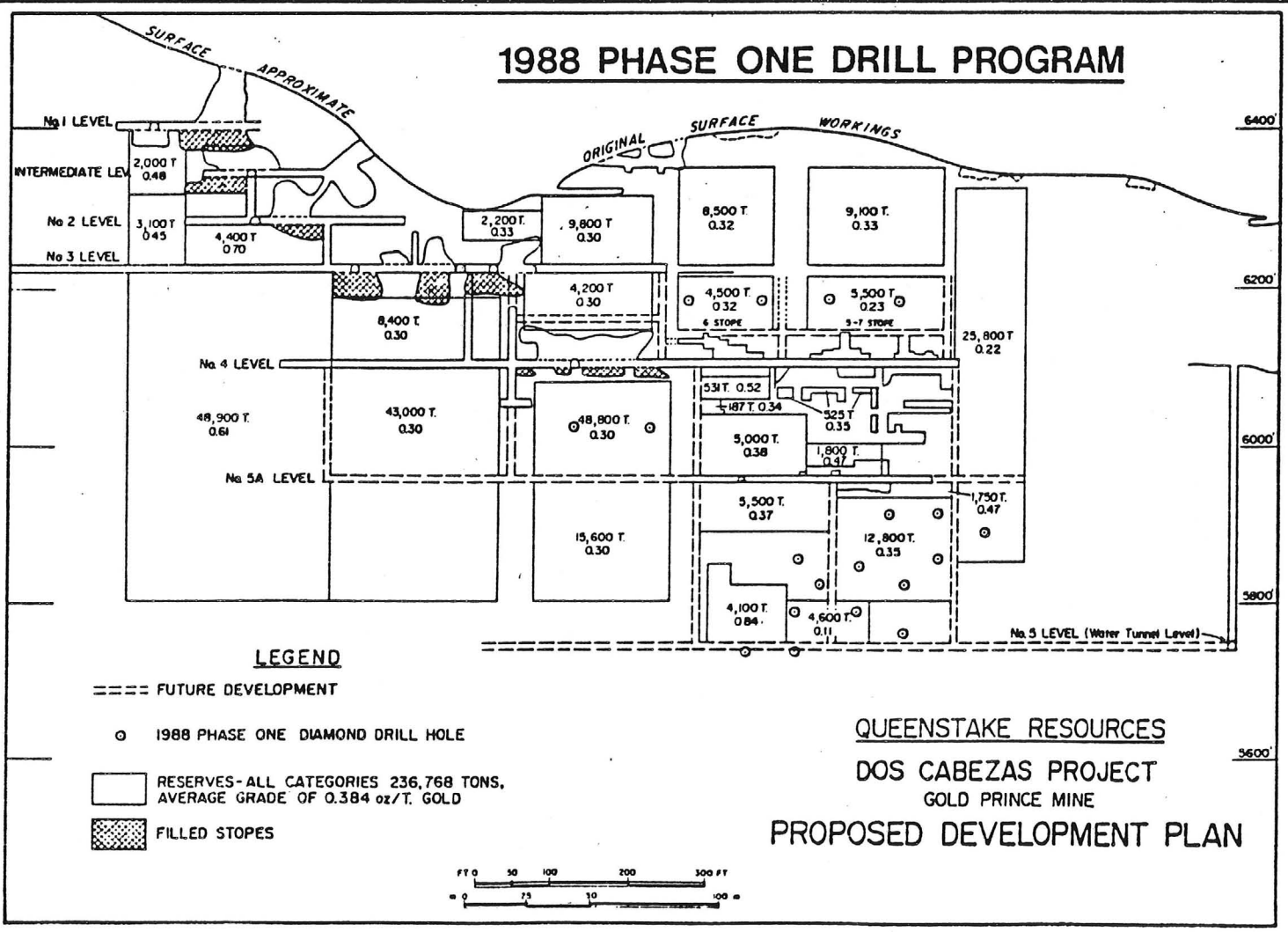
The conceptual mine plan is for open-pit mining and heap-leaching (using carbon-in-column gold recovery from pregnant solutions).

Subject to completion of certain agreements with landowners, a 1987 drilling program is planned for the Davenport property.



Phelps Dodge left the Dos Cabezas - Gold Prince Mine workings in good condition, allowing for a very quick production start.


DOS CABEZAS
PROJECT
adit
property boundary
Dives
Gold
Ridge
Gold
Prince
Gold
Prince
Mine
First Chance
road
road
ARIZONA
Willcox
Tucson
Dos
Cabezas
NEW
MEXICO
MEXICO
ADDITIONAL
STAKING
0
1/4
1/2
MILES
N


1988 PHASE ONE DRILL PROGRAM
SURFACE
APPROXIMATE
ORIGINAL
SURFACE
WORKINGS
No 1 LEVEL
INTERMEDIATE LEV
No 2 LEVEL
No 3 LEVEL
No 4 LEVEL
No 5A LEVEL
No 5 LEVEL (Water Tunnel Level)
2,000 T 0.48
3,100 T 0.45
4,400 T 0.70
2,200 T. 0.33
9,800 T 0.30
8,500 T. 0.32
9,100 T. 0.33
4,200 T 0.30
4,500 T. 0.32
6 STOPE
5,500 T. 0.23
5-7 STOPE
8,400 T. 0.30
25,800 T 0.22
531 T. 0.52
187 T. 0.34
525 T 0.35
48,900 T. 0.61
43,000 T. 0.30
48,800 T. 0.30
5,000 T. 0.38
1,800 T. 0.47
5,500 T. 0.37
1,750 T. 0.47
15,600 T. 0.30
12,800 T. 0.35
4,100 T. 0.84
4,600 T. 0.11
6400'
6200'
6000'
5800'
5600'
LEGEND
FUTURE DEVELOPMENT
1988 PHASE ONE DIAMOND DRILL HOLE
RESERVES-ALL CATEGORIES 236,768 TONS,
AVERAGE GRADE OF 0.384 oz/T. GOLD
FILLED STOPES
FT 0 50 100 200 300 FT
= 0 75 50 100 =
QUEENSTAKE RESOURCES
DOS CABEZAS PROJECT
GOLD PRINCE MINE
PROPOSED DEVELOPMENT PLAN

QUEENSTAKE RESOURCES LTD.

Gold Prince
Cochise Co

NEWS RELEASE

Release #88-5

April 7, 1988

DOS CABEZAS PROGRESS REPORT

Initial mine rehabilitation and equipment acquisition for 1988 exploration has been completed in the Gold Prince Mine at Queenstake Resources' Dos Cabezas project in southeastern Arizona. A 6,000 foot underground diamond drilling program is now commencing to evaluate the extensions of reserves defined in Queenstake's 1987-1988 mapping and sampling program and by 9,000 feet of previous diamond drilling done by Phelps Dodge Corporation between 1983 and 1986. A series of three en echelon gold bearing quartz-sulfide veins will be tested in the program, with the goal of bringing the reserves to the drill indicated category.

The drilling will be done from the 5A and 4 Levels of the mine, testing the vein system along nearly 1,000 feet of strike length and 500 feet of vertical extent. The principle drilling target is below the 5A level and above the Water Tunnel level of the mine where present proven and probable reserves are 47,138 tons at 0.366 OPT gold. Also to be evaluated will be the area on the No. 1 vein above the 4 level with probable and possible reserves of 27, 614 tons at 0.33 OPT gold, with additional unknown potential on the No. 2 and No. 3 veins. A series of diamond drill holes is also planned to test the veins under the 4 Level, to the west of the 5A workings within favorable host rock units and below old underhand stopes which Queenstake mapped and sampled in late 1987 with very favorable results. This area of the mine may be rapidly developed from existing workings.

Preliminary flotation and cyanidation test work conducted by Bateman Metallurgical Laboratories in Sparks, Nevada have been completed, with a 75.1% gold recovery using a combination gravity-flotation-cyanidation circuit.

Additional testing is planned to further define grinding and selective flotation variables for the ores. Column leach cyanide testing is planned on near surface stockworks-hosted oxide ores which may be amenable to open pit heap leach technology.

Additional claim locations made by Queenstake have doubled the original project area, including both lode and mill site locations. Results for the drilling program are expected by mid June.

-30-

Gordon C. Gutrath
President

ARIZONA DEPT. OF MINES & MINERAL RESOURCES
STATE OFFICE BUILDING
416 W. CONGRESS, ROOM 161
TUCSON, ARIZONA 85701

For further information contact Don Sharp, Vice President

9th Floor, 850 West Hastings Street, Vancouver, B.C. V6C 1E1
Telephone (604) 684-1218 Telex 04-508875 FAX (604) 684-9959

Trading Symbol
TSE- QTR

Gold Prince
Cochise Co

QUEENSTAKE RESOURCES LTD.
THIRD QUARTER REPORT - 1987

On behalf of the board of directors, I am pleased to present the Company's unaudited September 30, 1987 financial statements and a report on operations to November, 1987.

HIGHLIGHTS

- **Placer Gold Production and Revenue Increase**

The 1987 placer mining season finished with higher than average grade and production rates, yielding record production of 13,150 fine troy ounces of gold, compared to 6,375 ounces from the same period in 1986. Gold production from start-up in June through August 9, 1987, (the reporting cut-off for Queenstake's Second Quarter Report) totalled 4,452 ounces. Gold production for the balance of the season from August 10th to late October was an additional 8,698 ounces.

The 1987 production increase is principally due to the acquisition of the Pine Creek, Atlin, B.C. placer gold property and mining equipment in May, 1987.

- **Chichagof Gold Mines Funding-Golden Sitka Resources Inc.**

The public issue of 2 million common shares of Golden Sitka Resources Inc. (VSE: GSZ) at $1.50 per share was completed in early October, shortly before the sharp stock market drop in mid-October.

Queenstake's one third joint venture interest in the Chichagof Gold Mines project has now been transferred into a 25.8% shareholding in Golden Sitka, providing funds to bring the project through production feasibility. Mine crews and equipment are now at the site, and exploration/development work will continue this winter on both the Chichagof and Hirst-Chichagof Mines.

- **Dos Cabezas Reserve Evaluation**

Queenstake's mining engineering consultants and mine crews are now completing reserve calculations and planning a program of mine development as well as obtaining metallurgical test data on the Dos Cabezas ore. Depending on the consultant's report and recommendations, the Dos Cabezas project is expected to be advanced to feasibility in early 1988.

- **Argus Drilling Under Way**

A 5,000 foot reverse circulation drilling program is now under way on the Davenport vein on the Argus property. Also, a 3,000 lb. metallurgical sample from the vein has been shipped to Bateman Metallurgical for column cyanide leach testing.

- **Other Projects**

In addition to the foregoing projects, exploration programs are continuing on a number of other properties including:

Buckskin National Mines, Nevada
Riverside Pass Property, California
Quartz Hill Property, Montana
Mar Gold Property, Yukon
O'Connor River Gypsum Deposit, B.C.
Various B.C. and Yukon Placers

MANAGEMENT REVIEW

In the aftermath of the October 19, 1987 stock market shocks, the market value of Queenstake's shares has declined sharply even though the Company's revenues, cash flow, earnings, working capital and cash positions have all improved.

ARIZONA DEPT. OF MINES & MINERAL RESOURCES
STATE OFFICE BUILDING
416 W. CONGRESS, ROOM 161
TUCSON, ARIZONA 85701

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Gold Ridge T 14S R27E (former name 'Old Casey Gold Mine') Date Feb. 15, 1956

District Dos Cabezas Dist., Cochise Co. Engineer Axel L. Johnson

Subject: Present Status.

Location 1 1/2 miles from Dos Cabezas.

Number of Claims 9 unpatentee claims

Owner John E. Mowinckle, Milam Bldg., San Antonio, Texas.

Operator Not in operation.

Principal Minerals Gold, Silver, Lead.

Remarks This property was purchased from the former owners by Mr. Mowinckle some time ago.

GOLD RIDGE

Au, Ag, Pb

Cochise 2 - 2 T 14 S, R 27 E

Alice & Nancy Huntsman, Box 1386, Tucson '39

(Returned. Records searched, no address on file. 8/5/46)

Huntsman, Alice and Nancy
~~P. O. Box 1386~~
~~Tucson~~, Arizona
unclaimed 8-46

6-1-39

See MG-6 - Re Owners Mine Report - GOLD RIDGE, Cochise Co.

Dec.19,1939

MG-6

GOLD - 9 claims unpatented; good road from railroad, 17 miles to mine; 5,000' of workings, tunnels,drifts and crosscuts, raises and winzes; values in gold, silver and lead; recent shipments by leasers showed $12 ore; water available; for sale or lease, reasonable terms for lease or sale; Dos Cabezas Mining District, Cochise County

MG-6 OR OER

MG-6 ✓

GOLD-SILVER-LEAD - 9 lode claims unpatented; good road graded from Willcox; 2 tunnels, upper about 1,500', entry crosscut 400'; drifts on vein 700',crosscuts from drifts 300'; lower tunnel 900', entry 500',drifts 200', crosscuts 200', air shaft connects with upper tunnel and surface; water in shaft at 125' produces sufficient; for sale or lease, terms; Dos Cabezas District, Cochise County

MG-6 OR

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

Owners ~~FIELD ENGINEER'S~~ REPORT

Date June 1, 1939.

Mine Gold Ridge

Engineer

District Dos Cabezas, Cochise Co.

Location

Former name Old Casey Gold Mine

Owner Alice and Nancy Huntsman

Address P O Box 1386, Tucson, Ariz.

Operator None

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Gold, Silver, Lead.

Men Employed

Production Rate Intermitten. Not operated systematically

Mill: Type & Cap.

Power: Amt. & Type None.

Operations: Present Idle.

Operations Planned Desire finance assessment work and make sale or lease for large scale development and operation.

Number Claims, Title, etc. Nine (9) unpatented lode claims. Titles extend back to 1914. Names of Claims: Juno, North June, East Juno, Juno No 1, Gold Ridge No 1, Gold Ridge No 2, Dividend No 1 and Lucky Strike No 2. Gold Ridge.

Description: Topog. & Geog. Covers crest and on both sides of Gold Ridge, a sizeable hill in the south-west end of Dos Cabezas mountains. Hill is steep and without roads to upper workings. Road was built to lower workings, badly washed out at present.

Property about 1½ miles from town of Dos Cabezas, and joins the Elwell Springs and Midnight patented claims.

Mine Workings: Amt. & Condition

At least 5,000 feet of tunnel, drift, cross-cut, shaft, raise and winze. In fairly good condition. Principal workings two tunnels. Upper tunnel has about 1500 feet of workings, entry cross-cut 400 ft, drifts on vein 700 ft cro ss-cuts from drifts 300 ft.
Lower tunnel has about 900 ft of workings, entry 500 ft, drifts 200 ft Cross-cuts 200 ft. Air shaft connects with upper tunnel and surface.

(over)

Geology & Mineralization Igneous rocks on south and north end of property with limestone between. A mineralized zone some hundreds of feet in width and several miles in length cuts thru the country, and the Gold Ridge property is nearthe center of this feature. The vein system within the mineralized zone is marked by prominent quartz outcrops with which the metals of value occur. Sulphide minerals appear in the lower workings.

Ore: Positive & Probable, Ore Dumps, Tailings

No ore estimates available. Summary of shipments made by leasers to the A S & R Smelter, 1933 to 1935, covering 658 tons returning $8,305.74 attached. Dumps are believed to contain ore of value.

Mine, Mill Equipment & Flow Sheet None.

Road Conditions, Route Good. Reached over graded road from Willcox

Water Supply Shaft sunk 125 ft below level of lower tunnel produces a plentiful supply.

Brief History Property located in 1914 by T. W. Smith, a relocation of the Old Casey Gold mine. About 1916 transferred to Dos Cabezas Gold Ridge Mining Corp. A. J. Welty G. M. in charge of operations. Most of development was done by this orgaization. A small amalgamating mill was erected and operated for a short time. Bought in at Sheriff's sale by J. H. Huntsman for about $45,000 advanced the corporation, sale was in 1922. Now owned by widow and daughter.

Special Problems, Reports Filed

Report dated April 12, 1918 addressed to Dos Cabezas Gold Ridge Mining Corporation, Tucson, Arizona by Sterling B. Talmage, and

Remarks Report dated April 13, 1918 addressed to the President and Board of Directors, Dos Cabezas Gold Ridge Mining Corporation, Tucson, Arizona, by James E. Talmage.

Blue Print of part of Claims showing a conflict, by Emmet R. Marx. (1935)

If property for sale: Price, terms and address to negotiate. Property is for sale or lease. Owners are financially unable to maintain property, let alone develop and operate same. Would consider any kind of reasonable deal.

Alice Huntsman

Signed Nancy E. Huntsman

Use additional sheets if necessary. Separate sheets on each problem.

ASSESSMENT WORK PERFORMED ON GOLD RIDGE CLAIMS

1922	L.M. Banks	$ 1000.00
1923	L.M. Banks	900.00
1924	L.M. Banks	900.00
1924	C.W. & J.W. Dorsey	5.00
1925	C.W. & J.W. Dorsey	900.00
1926	C.W. & J.W. Dorsey	900.00
1927	William Kemp	900.00
1928	William Kemp	900.00
1929	C.W. & J.W. Dorsey	900.00
1930	Tom Bean	900.00
1931	Nate McCutchan	900.00
1932	C.W. & J.W. Dorsey	900.00
1933	C.W. & J.W. Dorsey	900.00
		$10,905.00

Gold Ridge Claims are situated in the Dos Cabezos Mining District, and of record in Cochise County, State of Arizona, as follows:

JUNO	book	52	Records	of Mines	Page	272
N.JUNO	"	52	"	"	"	275
E. JUNO	"	52	"	"	"	276
JUNO #1	"	52	"	"	"	277
GOLDRIDGE		53	"	"	"	234
GOLDRIDGE #1	Book	53	Records	of Mines	Page	235
GOLDRIDGE #2	"	53	"	"	"	236
DIVIDEND NO. 1		58	"	"	"	146
LUCKY STRIKE #2		57	"	"	"	56

GOLD RIDGE MINE AT DOS CABEZAS

ARIZONA

Shipments made by Alice Huntsman

Lot No.	Wet Weight Tons	Assay Au Oz.	Assay Ag Oz.	Net To Shipper
GR 1-(Date received	31	.92	1.5	$ 371.58
GR 2 (at Smelter -	10	.80	.7	90.49
GR 3 (7-14-33	10	.50	.5	33.04
GR 4	5	.72	.7	34.89
GR 5	7	.49	.5	18.87
GR 6	8	.52	.6	25.67
GR 7	8	1.45	2.1	175.13
GR 8	3	.88	1.0	20.35
GR 9	8	.46	.5	39.62
GR 10	7	.92	.7	126.55
GR 11	37	.54	.7	327.00
GR 12	11	.45	.9	64.66
GR 13	2	1.58	1.4	60.64
GR 14	39	.45	.8	260.39
GR 15- Oct. 30, 1933	18	.84	.9	307.85
GR 16	8	.76	.8	119.30
GR 17	13	.87	1.3	255.41
GR 18	12	1.02	.6	289.99
GR 19	36	.31	.5	191.07
GR 20	7	.72	.9	114.89
GR 21	12	1.11	1.0	310.78
GR 22	20	.53	.8	219.21
GR 23	5	1.87	1.6	255.81
GR 24	57	.31	.4	312.62
GR 25	27	.65	.6	382.62
GR 26	14	.67	.8	210.61
GR 27	18	.80	.7	359.98
GR 28	12	.72	1.3	203.99
GR 29	14	.52	.9	155.74
GR 30	6	.63	.6	69.84
GR 31	16	.35	-	99.37
GR 32	9	.46	.6	79.32
GR 33	7	1.02	1.0	188.14
GR 34	11	.50	-	117.75
GR 35	14	.54	.9	159.73
GR 36 - May 18, 1934	9	.43	.6	71.13
GR 37	11	.52	.8	112.14
GR 38	9.2	.88	1.0	189.48
GR 39	18.26	.895	.9	392.28
GR 40	9.7	.678	.9	145.00
GR 41	15.4	.275	.5	55.41
GR 42	10.1	.65	.9	147.54
GR 43 - Aug. 13, 1934	6.7	.90	.7	141.94
GR 44	11.7	1.25	.7	373.59
New Contract - November 2, 1934				
A-1-February 11,1935	24.8	.86	.9	519.40
B-2 " " "	10.5	.42	.7	105.43
	658.36			$8,305.74

1917

REPORT ON PROPERTY OF

DOS CABEZAS GOLD RIDGE MINING CORPORATION.

PROPERTY:

The property consists of seven full mining claims and one fractional claim, known as GOLD RIDGE, GOLD RIDGE no. 1, GOLD RIDGE no. 2, JUNO No. 1, EAST JUNO, WEST JUNO, AND NORTH JUNO.

TITLE:

I made no effort to investigate the title but was assured by the vice president of the Corporation that the title was perfet.

LOCATION:

The property is located 16 miles from Wilcox, Ariz. and 2 miles from the terminus of the Mascot & Western Railroad and joins the Mascot Mining property on the south.

TOPOGRAPHY:

The Topography of the property consists of several low hills and a long high ridge with a deep canyon cutting the property at the base of the ridge, the ridge rising some 500 feet above the bed of the canyon.

GEOLOGY:

The geology of the property is very simple, the country rock being granite and schist, but with a large quartzite dyke and numerous quartz veins.

MINERALIZATION:

The entire property is highly mineralized, all the quartz and quartzite carrying values in gold and silver.

WATER & MILL SITE:

There is a natural mill site on the property and plenty of water for all mining and milling purposes.

DEVELOPMENT:

There has been about 1200 feet of work done on the property, consisting of shafts, tunnels, drifts, and winzes, and the principal ore vein cuts the long ridge near the center in and easterly and westerly direction. Near the west end of this ridge there is a tunnel 700 feet in length cutting the vein at a depth of 400 feet below the outcrop, showing the vein to be 4 feet in width at this point, near the east end of the property on the Henry Clay claim owned by a Mr. Bain there is a tunnel cutting the vein at the same depth and shows the vein to be 34 feet and 4 inches in width at that point, which Practically blocks a vein of ore varying in width from 4 feet to 34 feet for a distance of 1750 feet across the property with an average depth of 400 feet. This vein carries values from $12.00 to $150.00 per ton and will average better than $30.00 per ton, and as the vein widens and increases in value from the surface to the 400 foot level it is reasonable to expect both increased values and tonnage at a greater depth.

There are 7 other small veins on the property running into the main vein from the North-east,, North and North-west, varying in width from a few inches to 5 feet and carrying values from $50.00 to $500.00 per ton, Considerable work has been done opening up these small veins. Out of a large number of samples taken from the property the lowest assay was $12.24 and the highest $1912.44.

VALUE:

I estimate there to be 750,000 tons of ore blocked out that can be mined and placed on the dump without hoisting a pound that has a gross value of $22,500,000.00.

COST OF MINING:

The cost of mining will be about the same as it is in other camps of Arizona.

DOS CABEZAS - GOLD RIDGE

Property controlled by Mrs. J. H. Huntsman, of Tucson, at Dos Cabezas and worked under contract.

Produced between July 27, 1933, and June 5, 1934, (smelter returns had those dates) 577.6 tons of ore for which the smelter paid, net $6,784.78.

The ores averaged (weighted) 0.637 ounces of gold per ton. It also contained from 0.4 to 2.1 ounces of silver per ton.
The richest shipment contained 6.163 tons which contained 1.87 ounces of gold and 1.6 ounces of silver per ton.

The poorest shipment contained 60.3905 tons which contained 0.31 ounces of gold and 0.6 of an ounce of silver per ton.

A few of the shipments contained a little copper, the largest proportion reported by the smelter being 0.4 per cent in a 13.6235 ton shipment.

The average amount paid by the smelter per ton was, net, $11.75.

ASSAY CERTIFICATES,
(ARIZONA BUREAU OF MINES, UNIVERSITY OF ARIZONA)

Mrs. Alice Huntsman, Tucson, Az

Feb. 26, 1936

Sample No.	Owner's Mark on	Gold Ozs./Ton	Value/Ton	Silver Ozs./Ton
3273	Pedro Lopez	0.48	$16.80	0.7
	D. Martinez	0.47	$16.45	0.6
	C. Valencia	0.68	$23.80	0.7
Costs: $3.00				
13305	Dolores Martinez	1.73	$60.55	March 18, 1936 1.51
Costs: $1.00				
13327	P. Lopez	0.65	$22.75	March 20, 1936 0.85
13346	Ignacio & P. Lopez	0.60	$21.00	April 1, 1936 0.58
13306	Pyritic ore Lopez-picked sample	2.24	$78.40	March 18, 1936 2.16
13148	El Paso Smelter Pulp (Carabeo)	0.58	$20.30	Dec. 9, 1936 1.08

ROBT. E. HEINMAN, Assayer.

C O P Y 2-8-40
(Courtesy Mrs. Alice Huntsman)

RECOMMENDATIONS:

I recommend that a tunnel be driven from a point near the North-west corner of the West Juno Claim in a southerly direction to where it will intersect the main vein of ore near the West end of the West Juno Claim, by driving your tunnel from this point you will cut the vein about 550 feet below the outcrop and will drain the water from your works above the point. I would then crosscut the vein and run a raise to the surface, also sink from that point 100 feet below the point where you intersect the vein and you will encounter large bodies of high grade copper which will be a large asset to your already wonderful ore body.

Respectfully submitted this 16th day of March, 1917.

A. J. Welty,
Mgr. Southland Copper Co.

C O P Y 2-6-40
(Courtesy Mrs. Alice Huntsman).

April 12, 1918.

Dos Cabezas Gold Ridge Mining Corporation
Tucson, Arizona.

Gentlemen:

Pursuant to your request I have made an examination of certain mining property belonging to you located in the Dos Cabezas Mining District, Cochise County, Arizona, and respectfully submit herewith the report of my findings.

My work was begun February 21, and completed March 5, 1918, and comprised a detailed geologic examination of the entire group, surface and underground.

The property examined is known locally as the Casey group, and consists of ten claims known by the names Dividend #2, Dividend, Gold Ridge #2, North Juno, Juno #1, Juno #2, East Juno, Gold Ridge, Gold Ridge #1, and Lucky Strike. The Lucky Strike claim is the most southerly one of the group, and runs in a general north and south direction; all the other claims run approximately east and west.

TOPOGRAPHY

The ten claims making up this group cover the crest and portion of both sides of a hill known as Gold Ridge, including most of the two branches of the fork at the west end of the ridge, and the gully embraced in the fork; the group also includes the greater part of the gulch immediately north of Gold Ridge and a portion of the low hills on the north side of the gulch; the most southerly part of the group, known as the Lucky Strike claim, lies in a shallow valley sloping away from the hill forming the south fork of Gold Ridge; this is the lowest portion of the property.

GENERAL GEOLOGY

The general geologic relations shown on your ground are quite evident, and the features are prominent and well marked. A coarse grained light-colored igneous rock is found in the southern part of the group; this formation extends far beyond your lines to the south. The greater part of your ground embraces a limestone formation, which while showing some local variation, is essentially continuous for about two thousand feet north and south, and extends beyond both boundaries of the property east and west. In the extreme northerly part of the group occurs a fine-grained medium-dark colored igneous rock, quite unlike the large granitic body to the south. Along the southern boundary of the limestone is a projecting dark-colored siliceous outcrop, and approximately parallel with this outcrop, three or four hundred feet to the north is a prominent quarts vein, or vein system, which extends, with minor variations throughout and beyond your property. This vein system was the site of practically all the mining operations on the property at the time of my examination. It is evident that the formation containing this quarts system, and, to a lesser degree, some other parts of the property, have been subjected to the influnces of mineralizing solutions, which solutions, almost certainly, were associated with the intrusion of the body of the igneous rock to the south.

The Igneous Rocks.

The igneous rocks, as stated, are to two kinds, - a coarse-grained light-colored rock of granitic texture to the south, and a finer-grained darker-colored igneous body to the north. As far as your ground is concerned, the granitic rock is by far the more important of the two, as it appears to have been the source or seat

of the mineralizing agents that have been at work in your ground; this is an intrusive body which has been exposed by erosion, and is what is known as an acidic rock, or a rock carrying an excess of silica, which, when crystallized, forms quartz. The occurrence of a hard quartz and association minerals near the contact, is quite in keeping with the character of the general formation.

The finer-grained darker-colored rock to the north appears to be a surface flow rather than an intrusive body, and does not show at its contact with the limestone any such effects as are found at the contact to the south. This northerly ock is of a more basic type than that to the south and not such a favorable type for mineral deposits. It is quite possible that the northerly mass might effect some mineralization at points nearer the main stock, but, as far as your property is concerned, it is of minor importance.

The Sedimentary Rocks.

The sediments which make up the most extensive formation on this group of claims, consist, for the most part, of limestones, which in some places have suffered considerable alteration and irregular deformation. The most prominent feature of the sedimentary rocks is the blue limestone capping forming the crest of Gold Ridge; this has been less altered than the other sediments; it outcrops as a blocky bluish ridge, showing up prominently in contrast with the brownish slaty limestones on either side. At each end of the ridge a local fault has thrown this formation about three hundred feet northerly. This blue limestone can be observed running across the country for miles; the portion lying in your property, between the two local faults, is fairly continuous, except for some local fractures. In its course across the country this formation maintains practically a straight line, the outcrop not migrating perceptibly with the topography.

The slaty rock showing extensively on the surface of your ground is an alteration phase of the limestone, as is proved by the fact that the two tunnels, which are in limestone so solid that practically no timbering is required, show at their mouths and on the surface over their courses, this slaty material. The furficial differences between this slaty lime and the ridge material may be accounted for by the same minor difference in composition or structure whivh rendered the one less resistant to weathering than the other; but for all practical purposes, the two formations may be considered as continuous.

Contact Relations

The dark-colored rock outcropping along the southern boundary of your limestone formatic has been affected by contact metamorphism, the rock immediately in contact with the granitic body having been altered and impregnated with siliceous material derived from the igneous rock. This outcrop goes across the country in a nearly straight line, so far as the general course is concerned; locally, this outcrop is somewhat displaced by minor faulting, and the actual boundary line of the igneous rock is complicated and irregular. No space or fracture marks the contact; on the contrary, the rocks on each side of the actual line of cont ct are firmly united. This dark-colored outcrop does not show, within the boundaries of your property, evidence of mineralization.

THE VEIN SYSTEM

Some three to four hundred feet north of the outcrop marking the contact, and showing a general parallelism thereto within the boundaries of your property, lies a prominent quartz vein, or system of veins, which can be seen following the same general course across the country, extending beyond yourqend boundaries in both directions. This is a typical fissure vein, almost vertical, and, with some locat interruption and variation is practically continuous for two or three miles. The outcrop occurs prominently at many places on your property and the main underground workings are on this vein system. On the hill to the west of your property, on the Ewell Springs claim, this outcrop

shows strongly as a single vein; in the bottom of the gulch below, this vein pinches out almost entirely, but up the hill to the east it shows again, and outcrops strongly at the point where it crosses the west end line of your Juno claim. Still further east the vein splits up; your lower tunnel shows three well-marked divisions; these probably join again further east, as indicated by the single outcrop on the surface.

This vein is evidently the main channel of mineralizations occurring in this section. It is of a later date than the dark formation marking the contact, as indicated by the fact that the faults in this contact dike do not cut the vein. The chief material of which this vein is composed is quartz, which has been deposited as a fissure filling; and along with the quartz were deposited various metal-bearing minerals.

The walls of this vein show where exposed underground a layer of gouge known locally as "Black Caliche"; this gouge is typical of fault planes, and its presence in quantity indicates that the fissure is the result of considerable movement, and consequently likely to be of comparatively great extent; no strictly local fissure would show gouge. The gouge is of very fine texture, and almost impervious to water; it acts, to some extent at least, as a retainer of the underground water within the vein.

The walls of the veins are in many cases quite even and regular for many feet. The vein itself may show at depth local variations, such as pinching and swelling, or splits, similar to those shown at and near the surface, but it shows every evidence of being essentially continuous and extensive; there appears to be no reason why it should not continue to depth, although it may undergo local variations, which cannot be foreseen, and which are of comparatively little importance.

Mineralization.

This vein has been acted upon by mineralizing solutions carrying gold, silver, copper lead and iron. The outcrop has been extensively prospected for gold, and I was informed that several rich pockets or shoots had been mined from near the surface. I was also informed that you had in hand complete information relative to this prospecting and I did not consider it within the province of a geological examination to duplicate this valuation work. The existence of shoots of gold ore in this vein is entirely consistent with all the geologic facts observed on the property.

The lead and copper content of the vein as a whole cannot be estimated with any degree of accuracy at this stage of development; lead and copper sulphides occur in this vein as far as shown in the present workings increasing with depth. The deposition of the sulphides appears to be similar to that described for the gold at the surface workings in pockets or shoots, which shoots are increasing in size and richness as the deeper portions of the vein are opened up. None of the sulphide deposits observed by me were of sufficient size to be classed as "ore bodies", although it was evident from the quantity of sulphides present that these shoots were rich enough to yield a profit if they were of sufficient extent.

There is evidence that in some portions of the vein the values have been leached out to a certain extent by descending water; these values are not to be considered as lost, but probably have been redeposited somewhere below. The indications are that any secondary deposits encountered will be in shoots associated with the sulphides and confined to the vein. The presence of large secondary ore bodies of the impregnation type, extending in the limestone outside the fissure is not indicated in this formation.

In regions where secondary enrichment occurs, it is necessary to know the habit of the district in order to draw any accurate conclusions in this regard. The zone of secondary enrichment is generally found somewhere near the lower limit of the circulating ground water.

At the time of my visit to your property, the workings in the lower tunnel were near the upper limit of the water-table; the space between the upper and lower limits varies greatly in different districts, ranging from a few feet to a few hundred feet; and as there is not a shaft, or even a well, anywhere near your property which goes to a greater depth than your lower tunnel, we know practically nothing regarding the habit of the water-table in your district. Any "estimate" made under such circumstances could be nothing more than a hazardous guess.

Minor Mineral Exposures.

In addition to the main quartz vein, some other mineral croppings of comparatively slight importance are found on your property. The action of the mineralizing solutions in this section has been widespread, so that some little mineral staining is likely to occur almost anywhere on the property. The Lucky Strike claim on the south shows a fracture in the granite in which some mineral deposition has occurred; and on the Dividend claims to the north are small fissures showing copper-staining on the surface. While these indications point to the presence of mineral, they are so slight, in comparison with the main quartz vein as to warrant no further attention or prospecting at least in your present stage of development.

White these claims are comparatively unimportant from the standpoint or probably ore, I do not believe they should be abandoned. The Dividend claims might possibly contain some ore which would show a real or assumed connection with the main vein lower down; and while the idea of your chief vein apexing in the Dividend ground is utterly at variance with the facts, many expensive lawsuits may have been hung on a more slender thread than this and it is prudent to forestall any such complications.

The Lucky Strike claim should be retained, as it furnishes an excellent site for a deeper tunnel to the main vein, should development warrant it.

WORKINGS.

Old Gophering.

In many places along your main vein are abandoned shallow pits and tunnels which were made in the process of taking out some of the residual gold at and near the surface. These "gopher" workings have prospected the outcrop of the vein to a considerable degree, but are not to be considered as "workings" in your present plan of development.

Upper Tunnel Workings.

The Upper Tunnel is driven from a point just below the northwest corner of the June claim, going in to the hill almost due south for nearly 400 feet. About 250 feet in, a drift runs to the east, following a branch of the vein for 300 feet; the drift then runs out of the vein to the north, apparently follows a false wall; the course of the vein to the south of the drift is made plain by a caving of the roof at the point where the drift and the vein separate. From this point the drift runs about 400 feet further east, in a shattered limestone showing frequent quartz stringers with occasional oxide staining, and patchy sulphides. At the time of my visit a crosscut was being driven south from the end of the drift, a purely exploratory piece of work, to prove whether or not the branch of the vein continued strongly to this point. At the time I left the district the cross-cut was not in far enough to prove anything definitely.

At the junction of the tunnel and the cross-cut, a raise goes to the surface on the

vein; and 50 feet up is a small stope about 400 feet long on the vein. This raise h s been continued downward in a shaft connecting with the lower tunnel for ventilating purposes.

Some 60 feet south of the raise, another branch of the vein is cut. This is 15 feet wide, and practically parallel with the branch followed by the drift. The dip is steep but irregular.

Lower Tunnel Workings.

In the lower tunnel are th most recent workings run on the property, consisting of the main tunnel running from a point near the center of the North Juno claim 490 feet to the air shaft; a drift approximately parallel with the general course of the vein, running easterly nearly 200 feet; and two cross-cuts on each side of the drift, cutting the branches of the vein, totaling about 200 feet up to the time of my visit.

The vein at this level is split into two well-defined divisions to the north of the drift and one, not so well defined and quite irregular, to the south. The two branches north of the drift, as far as exposed, show general parallelism and a general continuity; one widens as the other narrows; the sum of their widths, as far as exposed, remains approximately constant, at 15 or 16 feet. The quartz encountered south of th shaft is very irregular, but certainly part of the same vein system.

The lower tunnel workings, while not exposing any ore in paying quantity do show evidence of possibilities in the vein lower down.

Maps.

The maps attached hereto were made for the sole purpose of illustrating this report; a survey of engineering accuracy was not within the province of this examination. The under-ground plans are accurate within the scale of the map. The surface map shows the general relation of the various geologic features to each other, but may not be accurate with respect to the claim lines; the reason is that I was unable to procure any reliable information as to the relation of the claims in your group to each other. Each of your claims appears to be properly described and recorded but the exact relations between the lines of the various claims I was unable to secure. Consequently, the claim lines are sketched in on the surface map, and are to be considered as representing general relations only.

CONCLUSIONS AND RECOMMENDATIONS.

To summarize briefly:

Your property shows evidence of extensive mineralization.

Your main quartz vein is a typical fissure filling, favorable for the deposition and concentration of valuable metals.

Yours present workings are all above the zone at which your best values may be expected.

The indications are that your sulphide ores will increase with depth.

There is no indications of any serious interruption or dislocation of your vein; except for local variations, your vein at depth may be reasonably expected to show

essential continuity. I recommend:

(1) Following out your present plan of sinking, to explore the vein at depth. Sinking in the vein would give the most information; sinking in the limestone would certainly be less expensive.

(2) The making of an accurate survey of all your surface boundaries, to connect them up in their relation to each other; following this, some readjustment of claim lines or amending o locations may be found desirable. This survey should be made as soon as possible, in order to forestall possible embarassing complications.

Signed in triplicate, and respectfully submitted.

Sterling B. Talmage.

I certicy this to be an exact and true copy of the report as made by Sterling B. Talmage April 12, 1918.

Helen Walls.

C O P Y 2-6-40
(Courtesy of Mrs. Alice Huntsman).

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April 13, 1918

The President and Board of Directors
Dos Cabezas Gold Ridge Mining Corporation
Tucson, Arizona.

Gentlemen:

At th instance of Mr. H.C. Kimball of your company I have inspected the mining claims described to me as your property, adjacent to the East Fork of Mascot Gulch, Dos Cabezas Mining District, Cochise County, Arizona, and in accordance with the subsequent request of your manager, Mr. A.J. Welty, agreed to and confirmed by Mr. H.C. Kimball, I hereby report to yourselves direct.

My examination was begun on the morning of Marhh 18tj last, and was continued each day without interruption to the evening of March 22nd. I was guided as to the territory constituting the property, the boundary lines of the several claims and other matters pertaining to location by Messrs. Kimball and Welty, together or separately; but in the actual examination I was mostly alone. The gentlemen named extended to me every courtesy and facility, but in no way participated in the work of investigation.

I had with me copies of field sketch maps and notations made by Mr. Sterling B. Talmage in the course of his examination o the Ground February 21st to March 5th, and found such maps to be correct within the intended limits of delineation. Since the completion of my examination, Mr. Sterling B. Talmage and I have consulted freely and in detail respecting our individual observations, inferences and findings in all essential features of which we are substantially agreed; add in view of these facts I consider it unnecessary to repeat herein the data respecting topography, description of workings, etc., set forth in his report to which this statement is appended.

The outstanding facts of importance relating to the geological structure of the ground under consideration as a prospective producer of valuable ores on a commercial scale are these:

1. The ground is extensively fissured, and the fissures have been filled with quartz by deposition from solutions that have come from the deep.

2. The quartz fillings contain in disseminated form some free gold, and certain metal bearing minerals, principally the sulphides of iron, lead and copper, appearing as pyrite, marcasite, chalcopyrite and galenite. The proportion of these minerals increases with the depth, as revealed in the upper tunnel and lower tunnel respectively.

3. The veins are of the type distinctively known as Great Fissure Veins and are therefore practically independent of the country rock as to continuity with respect to both course and depth.

4. These quartz filled and metal bearing veins constitute a unified system, comprising fissures which in places are approximately parallel, while in others they run together, divide and intersect.

5. The most prominent vein of this system appears as a bold dyke of milky quartz

on the Ewell Springs claim, which adjoins your property on the west; and this vein after practically pinching out in the bed of the gulch, reappears to the east of the gulch, crosses the west and lines of the Juno claim, and holds its course to and across the east and lines of the East Juno claim.

These fundamental facts warrant the following inferences:

(a) The well-defined character of the fissure fillings as Great Fissure Veins justified expectations that they are continuous with depth. This general deduction is not meant to imply that any individual vein of thesystem may not vary in width or thickness as it descends, nor that the fissure fillings, which appear as separate veins on the surface, or as already revealed in existing excavations, may not run together. Indeed, both these contingences are to be expected.

(b) The unmistakable outcrop of veins within your lines, established the veins hold their course across and beyond the respective end lines, establishes the apex, and afford substantial basis for claim to extralateral rights should the dip of the vein or veins thus apexing within your boundaries carry your working operations beyond the side lines. This inference rests on the assumption that the lines as defined to me, and as indicated by such corner posts as were found, are correctly described and have been in accordance with legal requirements.

(c) The fact that all the quartz filled fissures constitute a single vein system indicates the improbability of any considerable enrichment at the junction or intersection of the veins. Where two systems or mineralized veins exist within a given area, there distinct systems or series of veins being of different ages and deriving thei metalliferous contents from different sources, the points of intersection are doubly mineralized; but as indicated, such conditions have not been observed upon the property examined.

(d) The observed increase of sulphides with depth beneath the surface, with the occurrence of free gold in the superficial parts, associated of the several veins, indicates a progressive removal of the bass minerals by the circulating ground water; and as the principal channels of these circulating waters appear to be the vein fissures, some redeposition is to be expected at or near the lower level of the ground water. In my opinion, however, the occurrence of extensive ore bodies resulting from this process of redepositions or "secondary enrichment" is not indicated.

(e) So far as observed, the metalliferous minerals are confined to the fissure filling or veins proper, and to not extend in to the country rock through replacement, or otherwise, except on a strictly local scale. The occurrence of ore in commercial quantities outside the bounding walls of the fissures, while possible at depths beyond the range of present exploration, is by no means assured.

I respectfully submit the following comments, suggestions and conclusions:

(1) The vein matter outcropping above the level of the tunnel workings, specimens of which show free gold, is suited to milling and amalgamation treatment. The advisability of undertaking the mining and treatment of this "free milling" material rests entirely on the cost of such operations compared with the yield. I have no personal knowledge as to the assay values of any ores in your ground. I am informed by both Manager A.J. Welty and Mr. H.C. Kimball that extensive sampling of the veins has been effected, and that assay returns demonstrate the commercial value of the ores. If the samples taken actually represent the vein matter in its entirety and the assay returns thereon are reliable you are able to determine whether or not the working of the deposits can be made commercial profitable. If the samples.

submitted to assay were taken from selected parts o the veins, and do not fairly represent the material to be removed and treated in practical mining operations, the returns would be unreliable as an index to the commercial value of the deposits. Inasmuch as the sampling of the veins for assay was specifically not requested of me, and this in view of the statement referred to above--that ample data as to the value of the vein contents had been already procured, I, of course, assume no degree of responsibility in the matter.

(2) Continuation of your lower tunnel, by which the revealed veins would be further explored on their course or strike offers no certainty of development either larger or richer ore accumulations that have been already revealed. There is the possibility of encountering ore shoots, or zones of more abundant mineralizations within the vein, but no positive indications of such occurrences appear. If by sampling and assay the veins no being worked in the tunnel are shown to be sufficiently rich to yield a profit, mining on this level is evidently feasible; if otherwise, the tunnel work already done and any extensions thereof must be regarded solely as prospecting.

(3) In view of the evident increase of valuable sulphides as the veins descend, deep mining offers the most encouraging course. As the Lower Tunnel occupies the lowest available site, greater depth can be reached only by shaft mining. Th added cost of sinking the shaft and of the subsequent hoisting of ore over the cost of extraction through tunnels must be given due consideration in your plans for extension of work.

(4) In my judgment your property presents encouraging possibilities of development through the exploitation of the vein syste m at depth. Very considerable expenditures will be required before commercial ore is reached at depth; and the only safe basis for the undertaking is that of persistent and patient exploitations. You alone can determine whether or not your resources warrant the prosecution of the work.

(5) In view of my boservations through a period of long experience, I venture to suggest for your consideration the danger of over confidence in the expectation of early and rich production; the need of skillful and conservative direction and management; and the always ominous effect of inflated stock valuation.

Signed in triplicate, and respectfully submitted, this 13th day of April, 1918.

I certify this to be a true and exact copy of the original report as made by Dr. James E. Talmage, April 13, 1918.

Helen Walls.

C O P Y 2-6-40
(Courtesy of Mrs. Alice Huntsman).

April 13, 1918

The President and Board of Directors,
Dos Cabezas Gold Ridge Mining Corporation,
Tucson, Arizona.

Gentlemen:

At the instance of Mr. H. C. Kimball of your company I have inspected the mining claims described to me as your property, adjacent to the East Fork of the Mascot Gulch, Dos Cabezas Mining District, Cochise County, Arizona; and, in accordance with the subsequent request of your Manager, Mr. A. J. Welty, agreed to and confirmed by Mr. H. C. Kimball, I hereby report to yourselves direct.

My examination was begun on the morning of March 18th last, and was continued each day without interruption to the evening of March 22nd. I was guided as to the territory constituting the property, the boundary lines of several claims, and other matters pertaining to location by Messrs. Kimball and Welty, together or separately; but in the actual examination I was mostly alone. The gentlemen named extended to me every courtesy and facility, but in no way participated in the work of investigation.

I had with me copies of field sketch maps and notations made by Mr. Sterling B. Talmage in the course of his examination of the ground February 21st to March 5th, and found said maps to be correct within the intended limits of delineation. Since the completion of my examination, Mr. Sterling B. Talmage and I have consulted freely and in detail respecting our individual observations, inferences and findings, in all essential features of which we are substantially agreed; and in view of these facts I consider it unnecessary to repeat herein the data respecting topography, description of workings, etc., set forth in his report, to which this statement is appended.

The outstanding facts, of importance relating to the geological structure of the ground under consideration as a prospective producer of valuable ores on a commercial scale are these:

1. The ground is extensively fissured, and the fissures have been filled with quartz by deposition from solutions that have come from the deep.

2. The quartz fillings contain in disseminated form some free gold and certain metal-bearing minerals, principally the sulphides or Iron, Lead, and Copper, appearing as Pyrite, Marcasite, Chalcopyrite and Galenite. The proportion of these minerals increases with the depth, as revealed in the Upper Tunnel and Lower Tunnel respectively.

3. The veins are of the type distinctively known as Great Fissure Veins and are therefore practically independent of the country rock as to continuity with respect to both course and depth.

4. These quartz-filled and metal-bearing veins constitute a unified system, comprising fissures which in places are approximately parallel, while in others they run together, divide and intersect.

5. The most prominent vein of this system appears as a bold dyke of milky quartz on the Ewell Springs claim, which adjoins your property on the west; and this vein, after practically pinching out in the bed of the gulch, re-appears to the east of the gulch, crosses the west and line of the June claim, and holds its course to and across the east and line of the East June claim.

6. These fundamental facts warrant the following inferences:

(a) The well-defined character of the fissure fillings as Great Fissure Veins justifies expectation that they are continuous with depth. This general deduction is not meant to imply that any individual vein of the system may not vary in width or thickness as it descends, nor that the fissure fillings, which appear as separate veins on the surface, or as already revealed in existing excavations, may not run together. Indeed, both these contingences are to be expected.

(b) The unmistable outcrop of veins within your lines and the fact that the veins held their course across and beyond the respective end lines establish the apex, and afford substantial basis for claim to extralateral rights should the dip of the vein or vein thus apexing within your boundaries carry your working operations beyond the side lines. This inference rests on the assumption that the lines as defined to me, and as indicated by such corner posts as were found, are correctly described and have been laid in accordance with legal requirements.

(c) The fact that all the quartz-filled fissures constitute a single vein system indicates the improbability of any considerable enrichment at the junction or intersection of the veins. Where two systems of mineralized veins exist within a given area, these distinct systems of series of veins being of different ages and deriving their metalliferous contents from different sources, the areas of intersection are doubly mineralized; but, as indicated, such conditions have not been observed upon the property examined.

(d) The observed increase of sulphides with depth beneath the surface, associated with the occurrence of free gold in the superficial parts of the several veins, indicates a progressive removal of the base minerals by the circulating ground water; and as the principal channels of these circulating waters appear to be the vein fissures, some redeposition is to be expected at or near the lower level of the ground water. In my opinion, however, the occurrence of extensive ore bodies resulting from this process of redeposition of "secondary enrichment" is not indicated.

(e) So far as observed, the metalliferous minerals are confined to the fissure fillings or veins proper, and do not extend into the country rock through replacement, or otherwise, except on a strictly local scale. The occurrence of ore in commercial quantities outside the bounding walls of the fissures, while possible at depths beyond the range of present exploration, is by no means assured.

I respectfully submit the following comments, suggestions and conclusions:

(1) The vein matter outcropping above the level of the tunnel workings, specimens of which show free gold, is suited to milling and amalgamation treatment. The advisability of undertaking the mining and treatment of this

"free-milling" material rests entirely on the costs of such operations compared with the yield. I have no personal knowledge as the assay values of any ores in your ground. I am informed by both Manager A. J. Welty and Mr. H. C. Kimball that extensive sampling of the veins has been effected, and that assay returns demonstrate the commercial value of the ores. If the samples taken represent the vein matter in its entirety, and the assay returns thereon are reliable, you are able to determine whether or not the working of the deposits can be made commercially profitable. If the samples submitted to assay were taken from selected parts of the veins, and do not fairly represent the material to be removed and treated in practical mining operations, the returns would be unreliable as an index to the commercial value of the deposit . Inasmuch as the sampling of the veins for assay was specifically not requested of me, and this in view of the statement referred to above, that ample data as to the value of the vein contents had been already procured, I, of course, assume no degree of responsibility in the matter.

(2) Continuation of your Lower Tunnel, by which the veins revealed therein would be further explored on their course or strike offers no certainty of developing either larger or richer ore accumulations than have been already revealed. There is the possibility of encountering ore shoots, or zones of more abundant mineralization within the vein, but no positive indications of such occurrences appear. If by sampling and assay the veins now being worked in the tunnel are shown to be sufficiently rich to yield a profit, mining on this level is evidently feasible; if otherwise, the tunnel work already done and any extension thereof must be regarded solely as prospecting.

(3) In view of the evident increase of valuable sulphides as the veins descend, deep mining offers the most encouraging course. As the Lower Tunnel occupies the lowest available site, greater depth can be reached only by shaft mining. The added cost of sinking the shaft and of the subsequent hoisting of ore over the cost of extraction through tunnels must be given due consideration in your plans for extension of work.

(4) In my judgment your property presents encouraging possibilities of development through the exploitation of the vein system at depth. Very considerable expenditures will be required before the commercial ore is reached at depth; and the only safe basis for the undertaking is that of persistent and patient exploitation. You alone can determine whether or not your resources warrant the prosecution of the work.

(5) In view of my observations through a period of long experiences, I venture to suggest for your consideration the danger of over confidence in the expectation of early and rich production; the need of skillful and conservative direction and management; and the always ominous effect of inflated stock valuation.

Signed in triplicate, and respectfully submitted, this 13th day of April, 1918.

(Signed) James E. Talmage

I certify this to be an exact and true copy of the original report as made by James E. Talmage April 13, 1918.

(Signed) Helen Walls.

I hereby certify the foregoing to be a true copy of the copy of report made by Sterling B. Talmage and James E. Talmage, made on April 12th and April 13th, 1918, respectively, as certified to by Helen Walls.

Dated this 2nd day of May, 1918.

Ruby F. Frohmann

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1920

NOTES ON THE
GOLD RIDGE MINING PROPERTY,
COCHISE COUNTY
DOS CABEZAS, ARIZONA.

These notes are supplementary to the report made by Mr. Talmage of Salt Lake City, Utah, and embody observations made by the writer since November, 1920.

The ground contained in this property was one of the earliest locations of the district. It was first owned by a Mr. Casey, deceased, and known as the Casey Gold. Authenticated reports from old residents state that a number of high-grade pockets and bodies of ore were mined at or near the surface. The gold was recovered in arrastres or treated in an old stamp mill formerly operated in Dos Cabezas. Exact data as to the amount and value of this material is lacking but from an old friend of Mr. Casey I have it that a considerable amount milled $80.00 per ton in the inefficient mill mentioned. Outside of the unknown loss in milling this is probably most of the contained gold as the ore near the surface is free-milling.

The property is bounded by the Gold Prince mine on the east, the Mascot Copper Company, on the north, and the Twin Peaks (formerly the Dives) on the west. One claim, the Ewell Springs, patented in the 80's, lies between the Gold Ridge and the Twin Peaks. There is a conflict on the western edge where a claim owned by the Mascot over-laps the old last management, the exact ownership of this strip of ground is not clear, part and part of the two tunnels. Due to the confusion caused by the but steps are being taken to clear title to it. The immediately adjacent # property on the east, the Gold Prince, previously known as the Bain property is similar to the Gold Ridge in many respects and has undergone more underground development than any other on the "big ledge system". It, too, has had a similar history to that of the Gold Ridge. Rich pockets near the surface were mined by Bain and it was later sold to a company and managed by the same man, a Mr. Welty, who had previously managed the Gold Ridge. Considerable development by tunnels on the Gold Prince ground has disclosed veins carrying auriferous pyrite of good size and extent. Due to the secrecy attending these operations, the actual value of the ore is not known. It is known, however, that the returns from concentrates made on tables, without previous classification or sufficient grinding, were above $100.00 a ton. And the tailings from these runs pan heavily in pyrite and show some free gold. No amalgamation was used in this mill. The writer has visited these workings, but has not sampled them.

The Twin Peaks, on the west, when operated by the Dives Company, made a mill run on a large stock pile. The tonnage is not known but the average of a large number of samples taken by Rush Sill, of Los Angeles, consulting engineer for Mr. Baldwin who is the dominant factor in the reorganized Twin Peaks Co., gave a value over $40.00 per ton. This property is now being unwatered and sampled preparatory to a development campaign. The present superintendent, Mr. George Parshell, informed the writer recently that the sampling done up to that time indicates the existence of a large tonnage of low-grade suitable for milling.

The brief mention of the adjoining properties is made for the purpose of pointing out certain similarities of structure between the three properties and its bearing on future development work of the Gold Ridge.

Now clear - Quit Claim Deed from Central Copper Company.

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as stated by Talmage, the main quartz vein system is traceable for several miles in a line sometimes displaced for short distances by cross-faults. To the south of the main vein system lies the large body of granitic porphyry. This material sometimes forms one wall of the vein, but on the Gold Ridge there is a separating body of the tilted slates and metamorphosed limestones between the granitic porphyry and the vein. The strike and cleavage of these beds make an acute angle with the vein system. Closely following these beds and intersecting the vein system at about the same angle there is a light, yellowish rock, locally known as rhyolite porphyry. On the Gold Ridge ground there are three main bodies of this material, roughly parallel, that intersect the "big ledge system". Quartz veins, stringers, and siliceous impregnations of the bedded slates and metamorphosed limestones accompany these so-called dikes. At their intersection with the "big ledge system" there is considerable silicification of the surrounding rock. Mineralization with auriferous pyrite is present in th slates as well as in the dikes themselves. Mr. Prout, manager of the Mascot Copper Company, stated that one of these dikes cut underground in their mine gave a value of $10.00 across the entire width of several feet. There is considerable surface gophering on these dikes and they alone, or their intersections with the "big ledge system" were the source of the high-grade of the early days. As far as can be determined none of this richer ore came from the main vein on either the Gold Ridgd or the Gold Prince.

The "big ledge vein system" is a white quartz, sometimes forming a large, prominent vein or dike, sometimes split into a number of smaller converging veins, and in some places pinching out for short distances. These veins form large, bold outcrops on the surface, reminding one of the Oatman outcrops. Such an outcrop, probably 50' in width, occurs on the eastern part of the Gold Ridge ground. Going west from this, all surface signs of the quartz disappear, but reappear on the western end-line next to the Ewell Springs patented claim. As noted by Talmage, this in turn pinches out completely in the gulch to the west and then reappears to form a large, prominent outcrop for the next claim length. On the Twin Peaks ground, still farther to the west, there is a large outcrop, over 100' in width together with one or more smaller quartz veins that converge into the main system either with depth, laterally, or both. Practically all the work of the Twin Peaks Mine thus far is confined to one of these smaller veins parallel to the larger mass. As far as known the larger body has not been cut in depth.

Development in what is known as the "upper tunnel" of the Gold Ridge directly below that part which shows no surface outcrop, is partly along a small quartz vein and partly along a silicification of the slates along the fault plane. In the lower tunnel, immediately below this same portion of the system, there is an extensive system of large and small quartz veins as mentioned by Talmage. Farther to the east in this tunnel, different cross-cuts expose the vein. In the most easterly one there is exposed a quartz vein having a width of 32'. Sampling by Norman D. Lindsley and myself gave results as follows:

Sample #1. Hanging wall side. 16' length. Au- 0.05 oz. Ag. 2.4 oz.

Sample #2 Foot wall side. 16' " Au, 0.71 Ag. 0.4

The material contained in this sample was white quartz with a few scattered crystals of galena, pyrite, and chalcopyrite. These metallic minerals were so scarce that the rock could easily be called "bull quartz"; and the writer believes that it is due to this bull-quartz appearance that so little work has been done on the main vein system, tho, as shown here, it is mineralized.

Other samples taken by us in the lower tunnel on the same vein and some of the other branches gave the following results. Th distance of the sample cuts are not available and the results are merely given as evidence of the grade. These widths were all less than given in the above samples.

	Au. - 0.09 oz.	Ag. - 4.8 ozs.	
	Au. - 0.13	Ag. - 2.9	Assaying by A.L. Pellegrin,
A	Au. - 0.15	Ag. - 1.3	Tucson, Arizona.
	Au. - 0.18	Ag. - 1.8	
	Au. - 0.02	Ag. - 1.2	

No sampling was done by us in the upper tunnel, or elsewhere on the property except two small streaks in the surface workings on the dike lines, results as follows.

Au . - 5.65 oz	Ag. - 2.28 oz.
Au. - 0.81	Ag. - 0.6

Part of the assessment work for the year ending July 1st, 1922, was done in another still higher tunnel called the Juno tunnel. There is no showing of the quartz ledge in this tunnel along the fault but the slates are silicified and iron stained. One sample of such material taken from this tunnel gave:

Au . - 0.21 oz Ag. - 0.5 oz.

Assessment work for the year ending July 1st, 1923, was done in this tunnel in driving along the vein fault and in a cross-cut starting from it to run under some of the old surface workings. The same silicified slates were encountered not only along the fault line, but in the crosscut as well. One dike was cut in the crosscut, part of which was altered and iron-stained, but the fresh material contained some pyrite. Panning of both the dike material (oxidized) and the mineralized slates resulted in a few small colors and some pyrite. No sampling was done this year.

The old shaft has been sunk to a point about 100' below the level of the lower tunnel and from that point a crosscut driven to the vein. No reliable information is available from former management as to width and grade, and pumping will be necessary before access can be had to it.

Men who worked in the mine at that time have told me that the vein was wide but they did not know the grade.

At one point in the upper tunnel, a cross-cut extends toward the old surface workings, but has been filled with waste, no nothing is known of the ground encountered.

Operations by the previous management and the former owners were entirely devoted to finding rich ore; in fact, the history of all properties along this vein system has been the same in this respect. Tho it is less than mile from the terminal of the Mascot & Western Ry., broad-gauge, and water is apparently plentiful, no attention has been paid to the possibilities of treating lower grade material on a large scale with modern processes. As far as noted there is nothing contained in the ore or in its physical characteristics that would prevent cyanidation. The presence of the black "caliche", spoken of by Talmage, on the wall of the quartz system is reported to interfere with amalgamation, but, even if plates were used in such a mill, it would be only in a limited way as the ore will not be amenable to amalgamation in depth.

A peculiar conditions seems to exis along this system, in that, at several points it has been noted that where the vein is widest the values improve and in the narrow parts the grade is lower. I have been informed that this condition exists on both the Gold Prince and the Twin Peaks. Mining offers no unusual difficulties apart from the lack of a supply of timber, common to all Arizona mines. Due to cross-fracturing observed in the quartz, breaking should be accomplished cheaply on a large scale. What stoping has been done in most places along the system has been left untimbered as the walls stand fairly well.

The above remarks apply mainly to the quartz vein system. The Gold Prince property to the east has the same quartz vein running across its ground, but, tho it has been cut at one or two places, no attention was paid to it. The ore mined and treated was obtained from quartz veins running with the dikes. Development on four levels and stoping between some of them is in a zone to the north of the quartz system. The value of the quartz in the big quartz ledge on this property is not known but it has the same appearance as that on the other properties. The ore mined from the other veins was a pyritic quartz containing gold. These veins were followed almost into Gold Ridge ground before work was stopped. The eastern part of the Gold Ridge property is almost identical geologically, with that of the Gold Prince.

Thus three sets of ore conditions exist. Ore in the Twin Peaks was mined in a side, parallel vein of the "big ledge system". Ore in the Gold Prince was from veins with the dikes. And in the lower tunnel of the Gold Ridge, commercial values are exposed in the big ledge itself.

Another point noticed by the writer and corroborated by others is that all the old richer workings are at points where these dikes intersect the vein system and the surface ore was found in the dike line or in the big ledge system at that point. There is no underground development on these dike systems in the Gold Ridge, recent assessment tunnels excepted, and judging from the results obtained on the Gold Prince, such work offers possibilities. Then, too, what work has been done on the lower tunnel along the big ledge system has yet reached but one of these intersections, and that one is not property exposed. Continuation of the lower tunnel to the east will prospect the ground with a minimum of expense.

Due to the silicification and pyritization of the slates at and near the fault and with the dikes, comprehensive sampling is needed to prove the tenor of this material and if the results from such a sampling confirm what random sampling and panning predict, then large tonnages would be available not only along the big ledge system, but also at the intersections and running out along the dikes from them. These statements are based upon a mill grade of $4.00 - $5.00.

In conclusion, attention is called to the fact that this property has ore, partially developed, in the "big ledge system". It has good surface showings along the dike systems that have not beenprospected, adjoins the Gold Prince and is almost identical in surface indications. These possibilities taken in connection with the location and natural features accessory to large-scale operation make it worh a thorough investigation.

L.M. Banks.

C O P Y 2-8-40
(Courtesy Mrs. Alice Huntsman).

The Dos Cabezas Gold Ridge Mine is situated in the Dos Cabezas Mining district in Cochise County, Arizona, 90 miles from Tucson, 16 miles from Wilcox and two miles from the Mascot and Western Rail road, and consists of the following claims:

Juno	Book	52,	Records	of	Mines,	page 272
N. June	"	52	"	"	"	" 276
E. Juno	"	52	"	"	"	" 276
Juno #1	"	52	"	"	"	" 277
Goldridge	"	53	"	"	"	" 234
Goldridge #1	"	53	"	"	"	" 235
Goldridge #2	"	53	"	"	"	" 236
Dividend #1	"	58	"	"	"	" 146
Lucky Strike #2	"	57	"	"	"	" 56

It adjoins the Mascot Mining property on the south.

The Dos Cabezas Gold Mine is owned by Mr. J.H. Huntsman of Tucson, who has invested between eighty and one hundred thousand dollars in the property.

The development consists of tunnels, drifts, upraises and winze, making in all, openings of more than 2000 feet.

Several unusually large veins of quartz, one in particular of the width of 32'. This vein is unusually strong and of live quartz, pronounced a "True Fissure" and has more than 400 feet of quartz above the tunnel. The walls are solid and will stand without timber as far as it has yet been mined.

There are several other strong veins cut in this property, but the greatest depth yet obtained is by the tunnel above mentioned giving a depth of more than 400 feet from the floor of the drift to the very prominent large and strong croppings.

Various miners and engineers have sampled and inspected this property and particularly an engineer, named A. J. Welty, who during the development was manager for Mr. Huntsman and one item of his report is as follows:

> "I estimate there to be 750,000 tons of ore blocked out, that can be mined and placed upon the dump without hoisting one pound, that has a gross valuation of $22,500,000.00".
>
> Respectfully submitted,
> A. J. Welty.

These estimates the writer and Mr. J. H. Huntsman deny. While they admit that the tonnage may be correct, they insist that the values are grossly exaggerated.

While the report of Mr. Welty is everything the owner could desire as $22,000,000 in value should satisfy the most mercenary, and it being so unusual for an owner or promoter to discredit a favorable report, we feel called upon to make an explanation.

Mr. Huntsman has been in poor health for the past eight years and his good wife must bear the burden of their business affairs the best she can.

Mrs. Huntsman finds it necessary to dispose of the property and to that end is desirous of turning it over to someone who can provide the money necessary to properly equip the mine. She presumes that some good reliable promoter would be most apt to take the matter up and would probably find it necessary to sell stock to obtain the money and to enable the promoter to do so she intends to fully inform him of the facts as she would object to her property becoming an instrument by which funds would be obtained, except in a most proper manner, and with woman's intuition she felt that the Welty report concerning

values in sight was an exaggeration and desiring to obtain a truthful statement of facts Mrs. Huntsman proceeded properly. She consulted with Mr. G.M. Butler, Dean and Director of the School of Mines of the University of Arizona, requesting that gentleman's advise and direction which resulted in obtaining the services of Mr. L.M. Banks who is second to none as a mining and metallurgical authority and of the highest standing in Arizona, the entire West and Old Mexico.

We hereby attach a copy of Mr. Butler's letters to Mrs. Huntsman, also a copy of Mr. Banks' findings obtained from assays of samples taken by himself.

The vast difference between the statements of Welty and Banks should be of great importance as well as unusual information to any one who engages in the promotion of this property.

Dec.16,1920.

Mrs. J. H. Huntsman,
East Speedway and Pint St.,

My dear Mrs. Huntsman:

In accordance with the promise that I made to you this morning, I give below an outline of the training and experience of Mr. Leon M. Banks.

Mr. Banks spent four years at the Colorado School of Mines, graduating therefrom in 1911 with the degree of Engineer of Mines. He was in many classes under me during that time, and I became very well acquainted with him. Each summer vacation during the time he was a student he spent in practical mining work and after his junior year he served during the vacation as assayer for the Thistledown Mining and Milling Company at Ouray, Colorado.

From 1911 to 1913 he was foreman for the Arizona Copper Co. at Morenci, during 1913 was shift boss for the same company, and from 1913 to '16 was mine inspector of all the company's mines of the Arizona Copper Company at Clifton and Morenci. During 1916 he did some leasing at Chloride, Arizona, but later accepted the superintendency of the Atlas Mine at Ouray, Colorado where he had complete charge of all the mine operations. During 1917 he leased from the Arizona Copper Co. at Metcalf, Arizona, shipping copper ore on a royalty basis, and then entered the army. After the end of the war, he spent part of 1919 at the Royal School of Mines in London, England, where he did some advanced work on Geology.

From 1919 to very recently he has been again leasing at Metcalf, and shipping copper ore on a royalty basis.

I have talked with a number of mine officials who know Mr. Banks and his work very well, and they have uniformly praised his integrity, ability, and industry. I know of comparatively few men who possess the same degree of theoretical knowledge and practical experience, and who also show the business ability necessary to make a success of mining operations. I have known Mr. Banks long and intimately, and should trust him under any and all conditions. I have never heard anyone who knew him speak anything but very highly of his ability and character, and I believe that he can be trusted implicitly.

Very sincerely,
G.M. Butler,
Dean and Director.

Mr. Banks states in his report:

Sample #1.	Hanging wall side,	18' length.-	Au,- $1.00		Ag.- $1.68	
			0.05 oz		2,4 oz.	
Sample #2	Foot wall side,	16' "	Au. $14.20		Ag. $0.28	
			.71		0,4	

The material contained in this sample was white quartz with a few scattered crystals of galena, pyrite, and chalcopyrite. These metallic minerals were so scarce that the rock could easily be called "bull quartz"; and the writer believes that it is due to this bull quartz appearance that so little work has been done on the main vein system, tho, as shown here, it is mineralized.

Other samples taken by us in the lower tunnel on the same vein and some of the other branches gave the following results: The distance of the sample cuts are not available and the results are merely given as evidence of the grade. These widths were all less than given in the above samples.

Au. - $1.80 Ag. - 4.8 oz.
0.09 oz $5.36

Au. $2.60 Ag. - $2.03
0.13 oz. 2.9 oz.

Au. - $3.00 Ag. - $ .91
0.15 1.5
0.8 oz.

Au. - Au - $3.60 Ag. - $ .56 Assaying by
0.18 Ag.- $ .84 A.L. Bellegrin,
1.2 oz. Tucson, Arizona.

Au. Au - $ .40
0.02

No sampling was done by us in the upper tunnel or elsewhere on the property except two small streaks i the surface workings on the dike lines, results as follows:

Au - $113.00 Ag. $1.59
5.65 oz 2.28 oz.

Au - $16.20 Ag. $0.42
0.81 oz; 0.6 oz.

Part of the assessment work for the year ending July 1st, 1922, was done in another still higher tunnel called the Juno tunnel. There is no showing of the quartz ledge in this tunnel along the fault but the slates are silicified and iron stained. One sample of such material taken from this tunnel gave:

Au - 0.21 oz. Ag. - 0.5 oz.

(Signed) L.M. Banks.

(The Homestake Mine carried less than $4.00 per ton and has paid forty-five millions in dividends.)

Other engineers of high standing were employed to make examinations covering the formation and geology of the property. Prominent among them is Dr. James E. Talmage of Salt Lake City, a noted mining engineer and authority.

All these men agree that a vast quantity of gold-bearing ore exists in the Gold Ridge property, But sampleng was exacted from Mr. Banks, a practical mine and mill operator as well as a noted engineer.

The exploration and development work, while very extensive has been done thoroughly although but a little more than 400 feet in depth from the surface and while a very large tonnage of ore is developed, it is probable that not more than 100,000 tons would be advisable to mill and we believe that good pay quantities can be extracted from the present ore exposed. We believe that the same mistake in development has been made in this property that is so often made in mining; that is, a failure to go sufficiently to the deep, where as a rule, below the water level, the sulphides and greater

P3 of 5

values than the surface affords are apt to be found. For that reason anyone who undertakes and is given the opportunity to work this property must satisfy the owner that they will sink a proper shaft at least 200 feet in depth below the present lowest workings, and do the necessary crosscutting to pierce the veins that go to that depth or lower.

It is almost a certainty that this great strong vein, 32 feet wide and cut by the present tunnel, will go to great depths in this property and will probably grow wider as it goes to the deep, as will several other veins already cut in the Gold Ridge Mining property.

To properly handle this property in what we believe to be the correct method and in order to serve the best interests of the investors, a good and modern mill of 100 tons or more daily capacity must be built, with which to work the ores extracted from the present exposed ore bodies.

All of the present exposed ores do not carry aufficient values to pay; making it necessary to mine and treat only the best portions thereof; and to do so with proper profit a modern mill and serial tram must be constructed, which will cost approximately $40,000.00.

To that end we recommend the following machinery, also an aerial tram approximately 3/4 of a mile in length, sell-loading and self-sumping at an approximate cost of $10,000, as recommended by the Tucson Engineering and Machinery Company.

Tucson, Arizona, October 6, 1925.

125 H.P. High Grade Venn-Severin Diesel Oil Engines, will cost around $8,000.00 each at factory.

Cost for 10 hours operation.
Fuel Oil figured at 5 cents per gallon.

Cost for fuel for various kinds of power:

Fuel Oil at 5 cents per gallon, ...	$ 4.30
Electric Power at 5 cents per K.W.	45.00
Coal at $6.00 per ton, ...	28.00
Gasoline at 25 cents per gallon, ...	30.00

2 - Giant Rod Mills, price, F.O.B. Nogales,	$2,300.00 each
	$4,600.00

2 - Universal All Steel Crushers, with a combined capacity of 100 tons to 1/4 inch size, ...	$2,334.70

The above equipment will crush the ores and mill them to any desired mesh leaving the product available for any treatment desired, such as amalgamation, flotation, or any other treatment that may be most suitable for the ores, including cyaniding.

We recommend the oil flotation method of concentration, putting 100 tons into 15. This should be investigated by sending not less than two tons of the ore to the builders for a test run before ordering thd machinery.

The flotation machinery will cost approximately $3,000.00 installed.

This mine may be purchased for $100,000.00 and allowing $40,000.00 for mill and tramway and $50,000.00 for developing more extensively, makes a total of $190,000.00 for which sum this property will be made available to a proper, reputable promoter.

As we apprehend that the promoter will find it necessary to obtain the funds by the sale of stock, we will demand that the corporation, if any, b made in Arizona and the stocks be placed in "escrow" with the title from Mr. Huntsman, all to be delivered to

the promoter and corporation, when the funds for which to pay for the mine and improvements are paid into the bank. Thereby assuring the purchasers of stock and the seller of the mine that the proper payments, a clear title to the mine and the improvements, have been made available to the stock owners.

Mr. and Mrs. Huntsman have no knowledge of stock transactions and will in no way engage in the sale of stock but will insist that no exaggerated statements or publications shall be used to assist in the sale of stock, believing as they do that the property is large enough and valuable enough to warrant the sale of securities in the necessary amounts, by statements of facts, justified by the present values in sight.

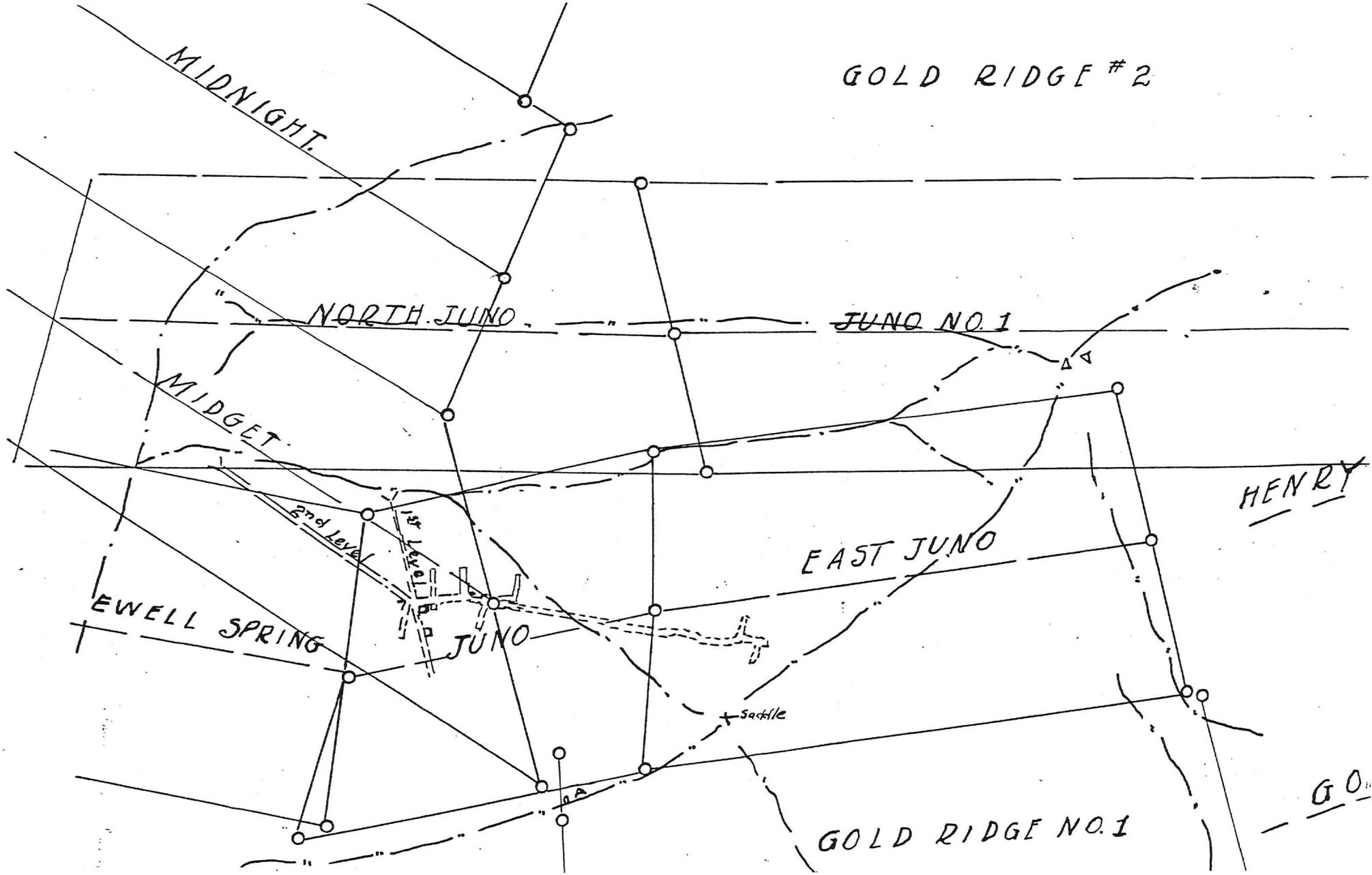
Ample time will be given the promoter under proper donditions, and we believe that a good promoter who desires to promote an honest successful corporation and who will make proper examination of this property. before starting, will find in this, an opportunity for unusually large profits to himself and those who join him in properly equipping and working this property.

We do not believe that $22,500,000.00 in values are in sight, but by sinking and developing, we do believe that even far greater values may be obtained.

Mr. Henry M. Ryan has taken over the work of selecting a desirable promoter, who by calling on Mr. and Mrs. J.H. Huntsman at Tucson,Arizona, will receive every reasonable assistance necessary to examine the property, and ample time and conditions to carry out the project.

Henry M. Ryan.

C O P Y 2-7-40
(Courtesy of Mrs. Alice Huntsman)


GOLD RIDGE #2
MIDNIGHT
NORTH JUNO
JUNO NO. 1
MIDGET
HENRY
2nd Level
1st Level
EAST JUNO
EWELL SPRING
JUNO
Saddle
GOLD RIDGE NO. 1

ORE SHIPMENTS

From the "Huntsman" group of claims, Dos Cabezos District, made since we sampled the property in November, 1933. This is Mexican labor, all hand work, burro transportation, and intermittent operation. A.S.& R. returns on gold only computed at $35.00 (silver .8 to 2.0 oz. and lead ignored), to show the average gold values.

Date	Lot	Dry St.	Au.	Per ton	Total	Leaser	Location
11/7/33	1302	37.191	.45	$ 15.78	$ 549.43	Cariveo	37
11/14	1338	17.533	.84	29.40	515.44	Sequeros	35 A
11/14	1341	7.957	.75	26.25	208.84	Prieto	37
12-14	1505	13.0085	.868	30.38	394.80	Cariveo	37
1/4/34	1658	35.2875	.31	10.85	382.55	Cariveo	37
1/17/34	42	7.2125	.72	25.20	181.65	Moreno	East of 35
1/17	43	11.494	1.11	38.85	446.25	Miranda	West of 34
1/17	44	19.1295	.53	18.55	354.86	Cariveo	37
3/6	269	5.163	1.87	65.45	337.72	Cariveo	37
3/6	270	55.3905	.31	10.85	600.98	Cariveo	37
3/17	346	26.020	.645	22.57	586.95	Sequeros	35 A
3/17	347	14.plus	.71	24.85	347.90	Miranda	West of 34
3/17	348	18.plus	.92	32.20	579.60	Martinez	35
5/1 to 7		126.plus	.52	18.20	2293.20	All (Clean-up shipment by Kirc	
5/28	763	11.96	.723	25.20	301.39	Martinez	35
5/28	764	5.69	.63	22.05	125.46	Arteago	35
5/28	765	14.31	.52	18.20	260.44	Sequeros	35A
6/4	805	8.71	.455	15.92	138.66	Cariveo	37
6/4	806	7.47	1.02	35.70	266.67	Cariveo	37
6/4	807	16.14	.35	12.25	197.71	Cariveo	37
6/5	857	11.46	.496	17.36	198.94	West of 38	
6/5	858	10.51	.52	18.20	191.28	Moreno	East of 35
6/6	860	9.007	.43	16.05	144.56	I. Lopez	Between 31-32
6/6	861	13.72	.54	18.90	259.30	S. Lopez	West of 34
8/20	1436	9.02	.88	30.80	277.81	Martinez	35
8/20	14.37	9.68	.678	23.73	229.70	P. Lopez	West of 38
8/20	1438	18.26	.895	31.32	571.90	Cariveo	37
8/24	1463	10.22	.65	22.75	232.50	Moreno. Cut east of Huntsman s	
8/24	1464	11.86	1.25	43.75	518.87	Cariveo	37
8/24	1466	15.53	.275	9.62	149.47	Miranda	Between 34 - 35
8/24	1465	6.81	.90	31.50	214.51	I. Lopez	35 C
		585.26			$12,505.29		

This copies and handed to me by Major Howard who held a lease and option on the property for several months with a $2,500.00 down payment on the Wilcox Bank, later cancelled at my request and cash released to buyer. I believe this to be the Dorsey-Kirby shipments.

COPY OF AMERICAN LTING & REFINING SMELTER RETU. FROM THE

GOLD RIDGE MINE AT DOS CABESOS.

Shipments made by Alice Huntsman

Lot No.	Wet Wt/Tons	Assay Au Oz	Assay Ag Oz.	Net To Shipper
GR 1-(Date received at Smelter 7/14/33	31	.92	1.5	$ 371.58
GR 2	10	.80	.7	90.49
Gr 3	10	.50	.5	33.04
GR 4	5	.72	.7	34.89
GR 5	7	.49	.5	18.87
GR 6	8	.52	.6	25.67
GR 7	8	1.45	2.1	175.13
GR 8	3	.88	1.0	20.35
GR 9	8	.46	.5	29.62
GR 10	7	.92	.7	126.55
GR 11	37	.54	.7	327.00
GR 12	11	.45	.9	64.66
GR 13	2	1.58	1.4	60.64
GR 14	39	.45	.8	260.39
GR 15 -Oct.30,1933	18	.84	.9	307.85
GR 16	8	.76	.8	119.30
GR 17	13	.87	1.3	255.41
GR 18	12	1.02	.6	289.99
GR 19	36	.31	.5	191.07
GR 20	7	.72	.9	114.89
GR 21	12	1.11	1.0	310.78
GR 22	20	.53	.8	219.21
GR 23	5	1.81	1.6	255.81
GR 24	57	.31	.4	312.62
GR 25	27	.65	.6	382.62
GR 26	14	.67	.8	210.61
GR 27	18	.80	.7	359.98
GR 28	12	.72	1.3	203.99
GR 29	14	.52	.9	155.74
GR 30	6	.63	.6	69.84
GR 31	16	.35	-	99.37
GR 32	9	.46	.6	79.32
GR 33	7	1.02	1.0	188.14
GR 34	11	.50	-	117.75
GR 35	14	.54	.9	159.73
GR 36-May 18,1934	9	.43	.6	71.13
GR 37	11	.52	.8	112.14
GR 38	9.2	.88	1.0	189.48
GR 39	18.26	.895	.9	392.28
GR 40	9.7	.678	.9	145.00
GR 41	15.4	.275	.5	55.41
GR 42	10.1	.65	.9	147.54
GR 43-Aug.13,1934	6.7	.90	.7	141.94
GR 44	11.7	1.25	.7	373.59
New Contract - November 2, 1934				
A-1 Feb.11, 1935	24.8	.86	.9	519.40
B-2 " " "	10.5	.42	.7	105.43
	658.36			$8,305.74

1920

NOTES ON THE
GOLD RIDGE MINING PROPERTY,
COCHISE COUNTY
DOS CABEZAS, ARIZONA.

These notes are supplementary to the report made by Mr. Talmage of Salt Lake City, Utah, and embody observations made by the writer since November, 1920.

The ground contained in this property was one of the earliest locations of the district. It was first owned by a Mr. Casey, deceased, and known as the Casey Gold. Authenticated reports from old residents state that a number of high-grade pockets and bodies of ore were mined at or near the surface. The gold was recovered in arrastres or treated in an old stamp mill formerly operated in Dos Cabezas. Exact data as to the amount and value of this material is lacking but from an old friend of Mr. Casey I have it that a considerable amount milled $80.00 per ton in the inefficient mill mentioned. Outside of the unknown loss in milling this is probably most of the contained gold as the ore near the surface is free-milling.

The property is bounded by the Gold Prince mine on the east, the Mascot Copper Company, on the north, and the Twin Peaks (formerly the Dives) on the west. One claim, the Ewell Springs, patented in the 80's, lies between the Gold Ridge and the Twin Peaks. There is a conflict on the western edge where a claim owned by the Mascot over-laps the old last management, the exact ownership of this strip of ground is not clear, but steps are being taken to clear title to it. The immediately adjacent # property on the east, the Gold Prince, previously known as the Bain property is similar to the Gold Ridge in many respects and has undergone more underground development than any other on the "big ledge system". It, too, has had a similar history to that of the Gold Ridge. Rich pockets near the surface were mined by Bain and it was later sold to a company and managed by the same man, a Mr. Welty, who had previously managed the Gold Ridge. Considerable development by tunnels on the Gold Prince ground has disclosed veins carrying auriferous pyrite of good size and extent. Due to the secrecy attending these operations, the actual value of the ore is not known. It is known, however, that the returns from concentrates made on tables, without previous classification or sufficient grinding. were above $100.00 a ton. And the tailings from these runs pan heavily in pyrite and show some free gold. No amalgamation was used in this mill. The writer has visited these workings, but has not sampled them.

The Twin Peaks, on the west, when operated by the Dives Company, made a mill run on a large stock pile. The tonnage is not known but the average of a large number of samples taken by Rush Sill, of Los Angeles, consulting engineer for Mr. Baldwin who is the dominant factor in the reorganized Twin Peaks Co., gave a value over $40.00 per ton. This property is now being unwatered and sampled preparatory to a development campaign. The present superintendent, Mr. George Parshell, informed the writer recently that the sampling done up to that time indicates the existence of a large tonnage of low-grade suitable for milling.

The brief mention of the adjoining properties is made for the purpose of pointing out certain similarities of structure between the three properties and its bearing on future development work of the Gold Ridge.

Now clear - Quit Claim Deed from Central Copper Company.

1920 P 1 of 4

as stated by Talmage, the main quartz vein system is traceable for several miles in a line sometimes displaced for short distances by cross-faults. To the south of the main vein system lies the large body of granitic porphyry. This material sometimes forms one wall of the vein, but on the Gold Ridge there is a separating body of the tilted slates and metamorphosed limestones between the granitic porphyry and the vein. The strike and cleavage of these beds make an acute angle with the vein system. Closely following these beds and intersecting the vein system at about the same angle there is a light, yellowish rock, locally known as rhyolite porphyry. On the Gold Ridge ground there are three main bodies of this material, roughly parallel, that intersect the "big ledge system". Quartz veins, stringers, and siliceous impregnations of the bedded slates and metamorphosed limestones accompany these so-called dikes. At their intersection with the "big ledge system" there is considerable silicification of the surrounding rock. Mineralization with auriferous pyrite is present in th slates as well as in the dikes themselves. Mr. Prout, manager of the Mascot Copper Company, stated that one of these dikes cut underground in their mine gave a value of $10.00 across the entire width of several feet. There is considerable surface gophering on these dikes and they alone, or their intersections with the "big ledge system" were the source of the high-grade of the early days. As far as can be determined none of this richer ore came from the main vein on either the Gold Ridgd or the Gold Prince.

The "big ledge vein system" is a white quartz, sometimes forming a large, prominent vein or dike, sometimes split into a number of smaller converging veins, and in some places pinching out for short distances. These veins form large, bold outcrops on the surface, reminding one of the Oatman outcrops. Such an outcrop, probably 50' in width, occurs on the eastern part of the Gold Ridge ground. Going west from this, all surface signs of the quartz disappear, but reappear on the western end-line next to the Ewell Springs patented claim. As noted by Talmage, this in turn pinches out completely in the gulch to the west and then reappears to form a large, prominent outcrop for the next claim length. On the Twin Peaks ground, still farther to the west, there is a large outcrop, over 100' in width together with one or more smaller quartz veins that converge into the main system either with depth, laterally, or both. Practically all the work of the Twin Peaks Mine thus far is confined to one of these smaller veins parallel to the larger mass. As far as known the larger body has not been cut in depth.

Development in what is known as the "upper tunnel" of the Gold Ridge directly below that part which shows no surface outcrop, is partly along a small quartz vein and partly along a silicification of the slates along the fault plane. In the lower tunnel, immediately below this same portion of the system, there is an extensive system of large and small quartz veins as mentioned by Talmage. Farther to the east in this tunnel, different cross-cuts expose the vein. In the most easterly one there is exposed a quartz vein having a width of 32'. Sampling by Norman D. Lindsley and myself gave results as follows:

Sample #1. Hanging wall side. 16' length. Au- 0.05 oz. Ag. 2.4 oz.

Sample #2 Foot wall side. 16' " Au. 0.71 Ag. 0.4

The material contained in this sample was white quartz with a few scattered crystals of galena, pyrite, and chalcopyrite. These metallic minerals were so scarce that the rock could easily be called "bull quartz"; and the writer believes that it is due to this bull-quartz appearance that so little work has been done on the main vein system, tho, as shown here, it is mineralized.

Other samples taken by us in the lower tunnel on the same vein and some of the other branches gave the following results. Th distance of the sample cuts are not available and the results are merely given as evidence of the grade. These widths were all less than given in the above samples.

	Au. - 0.09 oz.	Ag. - 4.8 ozs.	
	Au. - 0.13	Ag. - 2.9	Assaying by A.L. Pellegrin,
A	Au. - 0.15	Ag. - 1.3	Tucson, Arizona.
	Au. - 0.18	Ag. - 1.8	
	Au. - 0.02	Ag. - 1.2	

No sampling was done by us in the upper tunnel, or elsewhere on the property except two small streaks in the surface workings on the dike lines, results as follows.

Au . - 5.65 oz	Ag. - 2.28 oz.
Au. - 0.81	Ag. - 0.6

Part of the assessment work for the year ending July 1st, 1922, was done in another still higher tunnel called the Juno tunnel. There is no showing of the quartz ledge in this tunnel along the fault but the slates are silicified and iron stained. One sample of such material taken from this tunnel gave;

Au . - 0.21 oz Ag. - 0.5 oz.

Assessment work for the year ending July 1st, 1923, was done in this tunnel in driving along the vein fault and in a cross-cut starting from it to run under some of the old surface workings. The same silicified slates were encountered not only along the fault line, but in the crosscut as well. One dike was cut in the crosscut, part of which was altered and iron-stained, but the fresh material contained some pyrite. Panning of both the dike material (oxidized) and the mineralized slates resulted in a few small colors and some pyrite. No sampling was done this year.

The old shaft has been sunk to a point about 100' below the level of the lower tunnel and from that point a crosscut driven to the vein. No reliable information is available from former management as to width and grade, and pumping will be necessary before access can be had to it.

Men who worked in the mine at that time have told me that the vein was wide but they did not know the grade.

At one point in the upper tunnel, a cross-cut extends toward the old surface workings, but has been filled with waste, no nothing is known of the ground encountered.

Operations by the previous management and the former owners were entirely devoted to finding rich ore; in fact, the history of all properties along this vein system has been the same in this respect. Tho it is less than mile from the terminal of the Mascot & Western Ry., broad-gauge, and water is apparently plentiful, no attention has been paid to the possibilities of treating lower grade material on a large scale with modern processes. As far as noted there is nothing contained in the ore or in its physical characteristics that would prevent cyanidation. The presence of the black "caliche", spoken of by Talmage, on the wall of the quartz system is reported to interfere with amalgamation, but, even if plates were used in such a mill, it would be only in a limited way as the ore will not be amenable to amalgamation in depth.

A peculiar condition seems to exis along this system, in that, at several points it has been noted that where the vein is widest the values improve and in the narrow parts the grade is lower. I have been informed that this condition exists on both the Gold Prince and the Twin Peaks. Mining offers no unusual difficulties apart from the lack of a supply of timber, common to all Arizona mines. Due to cross-fracturing observed in the quartz, breaking should be accomplished cheaply on a large scale. What stoping has been done in most places along the system has been left untimbered as the walls stand fairly well.

The above remarks apply mainly to the quartz vein system. The Gold Prince property to the east has the same quartz vein running across its ground, but, tho it has been cut at one or two places, no attention was paid to it. The ore mined and treated was obtained from quartz veins running with the dikes. Development on four levels and stoping between some of them is in a zone to the north of the quartz system. The value of the quartz in the big quartz ledge on this property is not known but it has the same appearance as that on the other properties. The ore mined from the other veins was a pyritic quartz containing gold. These veins were followed almost into Gold Ridge ground before work was stopped. The eastern part of the Gold Ridge property is almost identical geologically, with that of the Gold Prince.

Thus three sets of ore conditions exist. Ore in the Twin Peaks was mined in a side, parallel vein of the "big ledge system". Ore in the Gold Prince was from veins with the dikes. And in the lower tunnel of the Gold Ridge, commercial values are exposed in the big ledge itself.

Another point noticed by the writer and corroborated by others is that all the old richer workings are at points where these dikes intersect the vein system and the surface ore was found in the dike line or in the big ledge system at that point. There is no underground development on these dike systems in the Gold Ridge, recent assessment tunnels excepted, and judging from the results obtained on the Gold Prince, such work offers possibilities. Then, too, what work has been done on the lower tunnel along the big ledge system has yet reached but one of these intersections, and that one is not property exposed. Continuation of the lower tunnel to the east will prospect the ground with a minimum of expense.

Due to the silicification and pyritization of the slates at and near the fault and with the dikes, comprehensive sampling is needed to prove the tenor of this material and if the results from such a sampling confirm what random sampling and panning predict, then large tonnages would be available not only along the big ledge system, but also at the intersections and running out along the dikes from them. These statements are based upon a mill grade of $4.00 - $5.00.

In conclusion, attention is called to the fact that this property has ore, partially developed, in the "big ledge system". It has good surface showings along the dike systems that have not beenprospected, adjoins the Gold Prince and is almost identical in surface indications. These possibilities taken in connection with the location and natural features accessory to large-scale operation make it worh a thorough investigation.

L.M. Banks.

C O P Y 2-8-40
(Courtesy Mrs. Alice Huntsman).

The Dos Cabezas Gold Ridge Mine is situated in the Dos Cabezas Mining district in Cochise County, Arizona, 90 miles from Tucson, 16 miles from Wilcox and two miles from the Mascot and Western Rail road, and consists of the following claims:

Juno	Book	52,	Records	of	Mines,	page	272
N. June	"	52	"	"	"	"	276
E. Juno	"	52	"	"	"	"	276
Juno #1	"	52	"	"	"	"	277
Goldridge	"	53	"	"	"	"	234
Goldridge #1	"	53	"	"	"	"	235
Goldridge #2	"	53	"	"	"	"	236
Dividend #1	"	58	"	"	"	"	146
Lucky Strike #2	"	57	"	"	"	"	56

It adjoins the Mascot Mining property on the south.

The Dos Cabezas Gold Mine is owned by Mr. J.H. Huntsman of Tucson, who has invested between eighty and one hundred thousand dollars in the property.

The development consists of tunnels, drifts, upraises and winze, making in all, openings of more than 2000 feet.

Several unusually large veins of quartz, one in particular of the width of 32'. This vein is unusually strong and of live quartz, pronounced a "True Fissure" and has more than 400 feet of quartz above the tunnel. The walls are solid and will stand without timber as far as it has yet been mined.

There are several other strong veins cut in this property, but the greatest depth yet obtained is by the tunnel above mentioned giving a depth of more than 400 feet from the floor of the drift to the very prominent large and strong croppings.

Various miners and engineers have sampled and inspected this property and particularly an engineer, named A. J. Welty, who during the development was manager for Mr. Huntsman and one item of his report is as follows:

> "I estimate there to be 750,000 tons of ore blocked out, that can be mined and placed upon the dump without hoisting one pound, that has a gross valuation of $22,500,000.00".
>
> Respectfully submitted,
> A. J. Welty.

These estimates the writer and Mr. J. H. Huntsman deny. While they admit that the tonnage may be correct, they insist that the values are grossly exaggerated.

While the report of Mr. Welty is everything the owner could desire as $22,000,000 in value should satisfy the most mercenary, and it being so unusual for an owner or promoter to discredit a favorable report, we feel called upon to make an explanation.

Mr. Huntsman has been in poor health for the past eight years and his good wife must bear the burden of their business affairs the best she can.

Mrs. Huntsman finds it necessary to dispose of the property and to that end is desirous of turning it over to someone who can provide the money necessary to properly equip the mine. She presumes that some good reliable promoter would be most apt to take the matter up and would probably find it necessary to sell stock to obtain the money and to enable the promoter to do so she intends to fully inform him of the facts as she would object to her property becoming an instrument by which funds would be obtained, except in a most proper manner, and with woman's intuition she felt that the Welty report concerning

values in sight was an exaggeration and desiring to obtain a truthful statement of facts Mrs. Huntsman proceeded properly. She consulted with Mr. G.M. Butler, Dean and Director of the School of Mines of the University of Arizona, requesting that gentleman's advise and direction which resulted in obtaining the services of Mr. L.M. Banks who is second to none as a mining and metallurgical authority and of the highest standing in Arizona, the entire West and Old Mexico.

We hereby attach a copy of Mr. Butler's letters to Mrs. Huntsman, also a copy of Mr. Banks' findings obtained from assays of samples taken by himself.

The vast difference between the statements of Welty and Banks should be of great importance as well as unusual information to any one who engages in the promotion of this property.

Dec.16,1920.

Mrs. J. H. Huntsman,
East Speedway and Pint St.,

My dear Mrs. Huntsman:

In accordance with the promise that I made to you this morning, I give below an outline of the training and experience of Mr. Leon M. Banks.

Mr. Banks spent four years at the Colorado School of Mines, graduating therefrom in 1911 with the degree of Engineer of Mines. He was in many classes under me during that time, and I became very well acquainted with him. Each summer vacation during the time he was a student he spent in practical mining work and after his junior year he served during the vacation as assayer for the Thistledown Mining and Milling Company at Ouray, Colorado.

From 1911 to 1913 he was foreman for the Arizona Copper Co. at Morenci, during 1913 was shift boss for the same company, and from 1913 to '16 was mine inspector of all the company's mines of the Arizona Copper Company at Clifton and Morenci. During 1916 he did some leasing at Chloride, Arizona, but later accepted the superintendency of the Atlas Mine at Ouray, Colorado where he had complete charge of all the mine operations. During 1917 he leased from the Arizona Copper Co, at Metcalf, Arizona, shipping copper ore on a royalty basis, and then entered the army. After the end of the war, he spent part of 1919 at the Royal School of Mines in London, England, where he did some advanced work on Geology.

From 1919 to very recently he has been again leasing at Metcalf, and shipping copper ore on a royalty basis.

I have talked with a number of mine officials who know Mr. Banks and his work very well, and they have uniformly praised his integrity, ability, and industry. I know of comparatively few men who possess the same degree of theoretical knowledge and practical experience, and who also show the business ability necessary to make a success of mining operations. I have known Mr. Banks long and intimately, and should trust him under any and all conditions. I have never heard anyone who knew him speak anything but very highly of his ability and character, and I believe that he can be trusted implicitly.

Very sincerely,
G.M. Butler,
Dean and Director.

Mr. Banks states in his report:

Sample #1.	Hanging wall side.	18' length.-	Au,-	$1.00 0.05 oz	Ag.-	$1.68 2.4 oz.
Sample #2	Foot wall side.	16' "	Au.	$14.20 .71	Ag.	$0.28 0.4

The material contained in this sample was white quartz with a few scattered crystals of galena, pyrite, and chalcopyrite. These metallic minerals were so scarce that the rock could easily be called "bull quartz"; and the writer believes that it is due to this bull quartz appearance that so little work has been done on the main vein system, tho, as shown here, it is mineralized.

Other samples taken by us in the lower tunnel on the same vein and some of the other branches gave the following results: The distance of the sample cuts are not available and the results are merely given as evidence of the grade. These widths were all less than given in the above samples.

Au. - $1.80	Ag. - 4.8 oz.	
0.09 oz	$5.36	
Au. $2.60	Ag. - $2.03	
0.13 oz.	2.9 oz.	
Au. - $3.00	Ag. - $ .91	
0.15	1.3	
	0.8 oz.	
Au. - Au - $3.60	Ag. - $ .56	Assaying by
0.18	Ag. - $ .84	A.L. Bellegrin,
	1.2 oz.	Tucson, Arizona.
Au. Au - $ .40		
0.02		

No sampling was done by us in the upper tunnel or elsewhere on the property except two small streaks i the surface workings on the dike lines, results as follows:

Au - $113.00	Ag. $1.59
5.65 oz	2.28 oz.
Au - $16.20	Ag. $0.42
0.81 oz;	0.6 oz.

Part of the assessment work for the year ending July 1st, 1922, was done in another still higher tunnel called the Juno tunnel. There is no showing of the quartz ledge in this tunnel along the fault but the slates are silicified and iron stained. One sample of such material taken from this tunnel gave:

Au - 0.21 oz. Ag. - 0.5 oz.

(Signed) L.M. Banks.

(The Homestake Mine carried less than $4.00 per ton and has paid forty-five millions in dividends.)

Other engineers of high standing were employed to make examinations covering the formation and geology of the property. Prominent among them is Dr. James E. Talmage of Salt Lake City, a noted mining engineer and authority.

All these men agree that a vast quantity of gold-bearing ore exists in the Gold Ridge property, But sampleng was exacted from Mr. Banks, a practical mine and mill operator as well as a noted enqineer.

The exploration and development work, while very extensive has been done thoroughly although but a little more than 400 feet in depth from the surface and while a very large tonnage of ore is developed, it is probable that not more than 100,000 tons would be advisable to mill and we believe that good pay quantities can be extracted from the present ore exposed. We believe that the same mistake in development has been made in this property that is so often made in mining; that is, a failure to go sufficiently to the deep, where as a rule, below the water level, the sulphides and greater

values than the surface affords are apt to be found. For that reason anyone who undertakes and is given the opportunity to work this property must satisfy the owner that they will sink a proper shaft at least 200 feet in depth below the present lowest workings, and do the necessary crosscutting to pierce the veins that go to that depth or lower.

It is almost a certainty that this great strong vein, 32 feet wide and cut by the present tunnel, will go to great depths in this property and will probably grow wider as it goes to the deep, as will several other veins already cut in the Gold Ridge Mining property.

To properly handle this property in what we believe to be the correct method and in order to serve the best interests of the investors, a good and modern mill of 100 tons or more daily capacity must be built, with which to work the ores extracted from the present exposed ore bodies.

All of the present exposed ores do not carry sufficient values to pay; making it necessary to mine and treat only the best portions thereof; and to do so with proper profit a modern mill and serial tram must be constructed, which will cost approximately $40,000.00.

To that end we recommend the following machinery, also an aerial tram approximately 3/4 of a mile in length, sell-loading and self-sumping at an approximate cost of $10,000, as recommended by the Tucson Engineering and Machinery Company.

Tucson, Arizona, October 6, 1925.

125 H.P. High Grade Venn-Severin Diesel Oil Engines, will cost around $8,000.00 each at factory.

Cost for 10 hours operation.
Fuel Oil figured at 5 cents per gallon.

Cost for fuel for various kinds of power:

Fuel Oil at 5 cents per gallon, ...	$ 4.30
Electric Power at 5 cents per K.W.	45.00
Coal at $6.00 per ton, ...	28.00
Gasoline at 25 cents per gallon, ...	30.00

2 - Giant Rod Mills, price, F.O.B. Nogales,	$2,300.00 each
	$4,600.00

2 - Universal All Steel Crushers, with a combined capacity of 100 tons to 1/4 inch size, ...	$2,334.70

The above equipment will crush the ores and mill them to any desired mesh leaving the product available for any treatment desired, such as amalgamation, flotation, or any other treatment that may be most suitable for the ores, including cyaniding.

We recommend the oil flotation method of concentration, putting 100 tons into 15. This should be investigated by sending not less than two tons of the ore to the builders for a test run before ordering thd machinery.

The flotation machinery will cost approximately $3,000.00 installed.

This mine may be purchased for $100,000.00 and allowing $40,000.00 for mill and tramway and $50,000.00 for developing more extensively, makes a total of $190,000.00 for which sum this property will be made available to a proper, reputable promoter.

As we apprehend that the promoter will find it necessary to obtain the funds by the sale of stock, we will demand that the corporation, if any, b· made in Arizona and the stocks be placed in "escrow" with the title from Mr. Huntsman, all to be delivered to

the promoter and corporation, when the funds for which to pay for the mine and improvements are paid into the bank. Thereby assuring the purchasers of stock and the seller of the mine that the proper payments, a clear title to the mine and the improvements, have been made available to the stock owners.

Mr. and Mrs. Huntsman have no knowledge of stock transactions and will in no way engage in the sale of stock but will insist that no exaggerated statements or publications shall be used to assist in the sale of stock, believing as they do that the property is large enough and valuable enough to warrant the sale of securities in the necessary amounts by statements of facts, justified by the present values in sight.

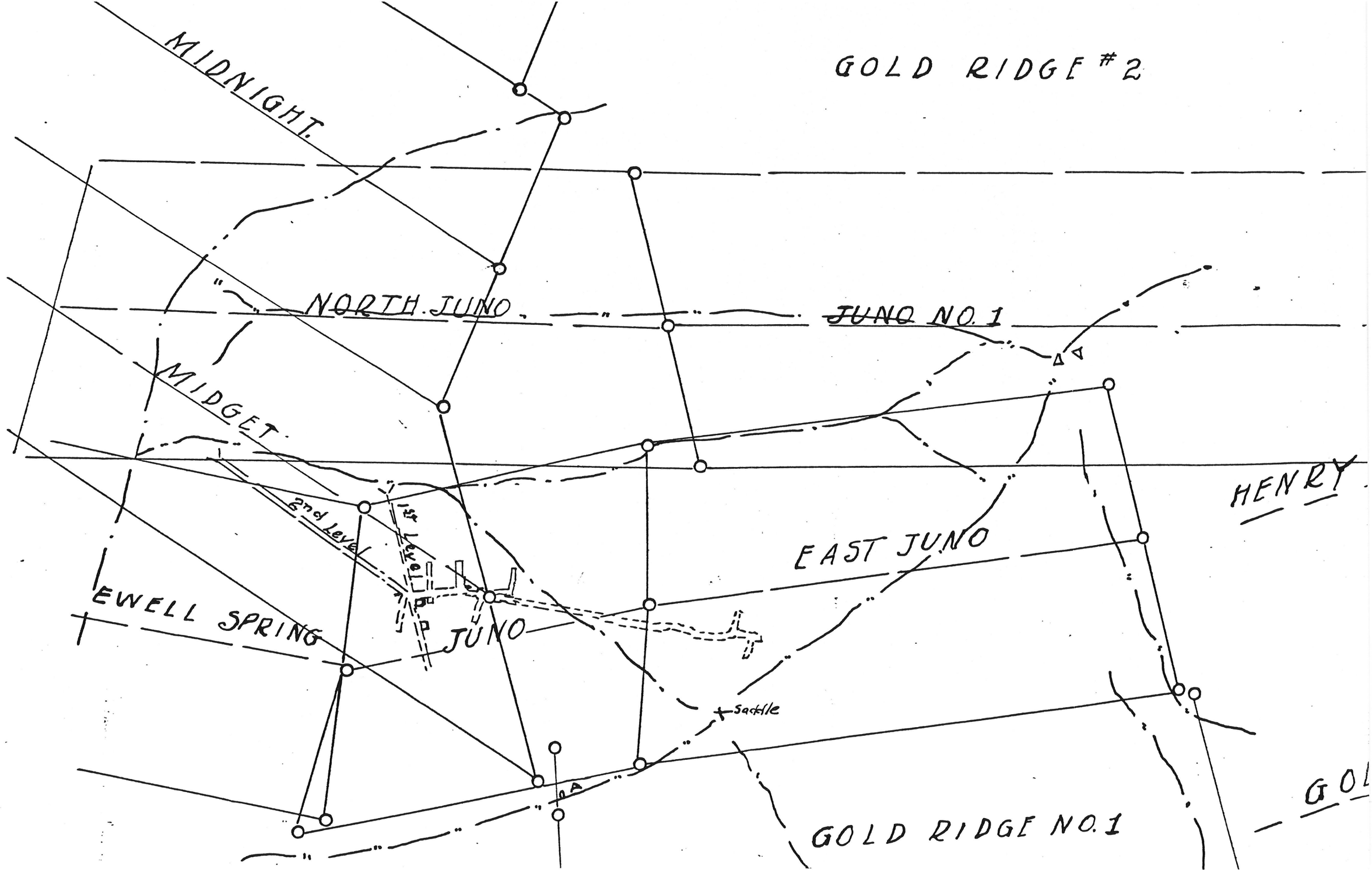
Ample time will be given the promoter under proper donditions, and we believe that a good promoter who desires to promote an honest successful corporation and who will make proper examination of this property. before starting, will find in this, an opportunity for unusually large profits to himself and those who join him in properly equipping and working this property.

We do not believe that $22,500,000.00 in values are in sight, but by sinking and developing, we do believe that even far greater values may be obtained.

Mr. Henry M. Ryan has taken over the work of selecting a desirable promoter, who by calling on Mr. and Mrs. J.H. Huntsman at Tucson,Arizona, will receive every reasonable assistance necessary to examine the property, and ample time and conditions to carry out the project.

Henry M. Ryan.

C O P Y 2-7-40
(Courtesy of Mrs. Alice Huntsman)


GOLD RIDGE #2
MIDNIGHT
NORTH JUNO
JUNO NO. 1
MIDGET
HENRY
2nd Level
1st Level
EAST JUNO
EWELL SPRING
JUNO
Saddle
GOLD RIDGE NO. 1

DOS CABEZAS - GOLD RIDGE

Property controlled by Mrs. J. H. Huntsman, of Tucson, at Dos Cabezas and worked under contract.

Produced between July 27, 1933, and June 5, 1934, (smelter returns had those dates 577.6 tons of ore for which the smelter paid, net $6,784.78.

The ores averaged (weighted) 0.637 ounces of gold per ton. It also contained from 0.4 to 2.1 ounces of silver per ton.
The richest shipment contained 6.163 tons which contained 1.87 ounces of gold and 1.6 ounces of silver per ton.

The poorest shipment contained 66.3905 tons which contained 0.31 ounces of gold and 0.6 of an ounce of silver per ton.

A few of the shipments contained a little copper, the largest proportion reported by the smelter being 0.31 per cent in a 13.6235 ton shipment.

The average amount paid by the smelter per ton was, net, $11.75.

ASSAY CERTIFICATES,
(ARIZONA BUREAU OF MINES, UNIVERSITY OF ARIZONA)

Mrs. Alice Huntsman, Tucson, Az

Feb. 26, 1936

Sample No.	Owner's Mark on	Gold Ozs./Ton	Value/Ton	Silver Ozs./Ton
3273	Pedro Lopez	0.48	$16.80	0.7
	D. Martinez	0.47	$16.45	0.6
	C. Valencia	0.68	$23.80	0.7
Costs: $3.00				
13305	Dolores Martinez	1.73	$60.55	March 18, 1936 1.51
Costs: $1.00				
13327	P. Lopez	0.65	$22.75	March 20, 1936 0.85
13346	Ignacio & P. Lopez	0.60	$21.00	April 1, 1936 0.58
13306	Pyritic ore Lopez-picked sample	2.24	$78.40	March 12, 1936 2.16
13148	El Paso Smelter Pulp (Carabeo)	0.58	$20.30	Dec. 9, 1936 1.08

ROBT. E. HEINMAN, Assayer.

C O P Y 2-8-40
(Courtesy Mrs. Alice Huntsman)

1917

REPORT ON PROPERTY OF

DOS CABEZAS GOLD RIDGE MINING CORPORATION.

PROPERTY:

The property consists of seven full mining claims and one fractional claim, known as GOLD RIDGE, GOLD RIDGE no. 1, GOLD RIDGE no. 2, JUNO No. 1, EAST JUNO, WEST JUNO, AND NORTH JUNO.

TITLE:

I made no effort to investigate the title but was assured by the vice president of the Corporation that the title was perfet.

LOCATION:

The property is located 16 miles from Wilcox, Ariz. and 2 miles from the terminus of the Mascot & Western Railroad and joins the Mascot Mining property on the south.

TOPOGRAPHY:

The Topography of the property consists of several low hills and a long high ridge with a deep canyon cutting the property at the base of the ridge, the ridge rising some 500 feet above the bed of the canyon.

GEOLOGY:

The geology of the property is very simple, the country rock being granite and schist, but with a large quartzite dyke and numerous quartz veins.

MINERALIZATION:

The entire property is highly mineralized, all the quartz and quartzite carrying values in gold and silver.

WATER & MILL SITE:

There is a natural mill site on the property and plenty of water for all mining and milling purposes.

DEVELOPMENT:

There has been about 1200 feet of work done on the property, consisting of shafts, tunnels, drifts, and winzes, and the principal ore vein cuts the long ridge near the center in and easterly and westerly direction. Near the west end of this ridge there is a tunnel 700 feet in length cutting the vein at a depth of 400 feet below the outcrop, showing the vein to be 4 feet in width at this point, near the east end of the property on the Henry Clay claim owned by a Mr. Bain there is a tunnel cutting the vein at the same depth and shows the vein to be 34 feet and 4 inches in width at that point, which Practically blocks a vein of ore varying in width from 4 feet to 34 feet for a distance of 1750 feet across the property with an average depth of 400 feet. This vein carries values from $12.00 to $150.00 per ton and will average better than $30.00 per ton, and as the vein widens and increases in value from the surface to the 400 foot level it is reasonable to expect both increased values and tonnage at a greater depth.

There are 7 other small veins on the property running into the main vein from the North-east,, North and North-west, varying in width from a few inches to 5 feet and carrying values from $50.00 to $500.00 per ton, Considerable work has been done opening up these small veins. Out of a large number of samples taken from the property the lowest assay was $12.24 and the highest $1912.44.

VALUE:

I estimate there to be 750,000 tons of ore blocked out that can be mined and placed on the dump without hoisting a pound that has a gross value of $22,500,000.00.

COST OF MINING:

The cost of mining will be about the same as it is in other camps of Arizona.