



## **CONTACT INFORMATION**

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12/13/90

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SPRINGOLD MINE

ALTERNATE NAMES:

MOHAVE COUNTY MILS NUMBER: 791

LOCATION: TOWNSHIP 21 N RANGE 20 W SECTION 18 QUARTER S2  
LATITUDE: N 35DEG 11MIN 54SEC LONGITUDE: W 114DEG 27MIN 30SEC  
TOPO MAP NAME: UNION PASS - 7.5 MIN

CURRENT STATUS: UNKNOWN

COMMODITY:

GOLD  
MILL

BIBLIOGRAPHY:

ADMMR SPRINGOLD MINE FILE



Springold file

PH

PHILLIP J. BRACKEN  
President  
Chief Executive Officer



1800 South Industrial Road, Suite 1758  
Las Vegas, Nevada 89102  
(702) 382-7510

March 18, 1982



Mr. Dick Beard  
Department of Mineral Resources  
Fairgrounds  
Phoenix, Arizona 85007

Dear Mr. Beard:

It was a pleasure to converse with you today, March 18, concerning the completion of our two hundred Ton per day gravity flotation mill located near Bullhead City, Arizona.

I invite you to visit our plant any time.

I would appreciate, should you have any miners contact you regarding milling facilities, your having them get in touch with us at the above address and telephone number.

I might also mention that we have professional trucking and a lab on the milling site available.

Sincerely,

*Phillip J. Bracken*

Phillip J. Bracken  
President  
Chief Executive Officer

PJB/sj

Springgold File

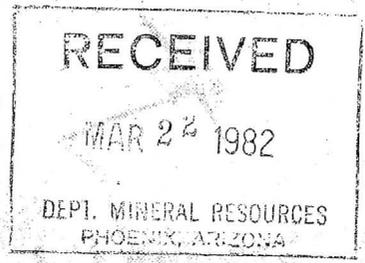
*PH*



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Sincerely,

*Phillip J. Bracken*

Phillip J. Bracken  
 President  
 Chief Executive Officer

PJB/sj

SPRINGOLD GROUP LODE CLAIMS

MOHAVE COUNTY

NJN WR 10/9/81: On Saturday and Sunday in the company of and at the expense of Don Riedel, 3823 S. Atchinson Way, Aurora, CO 80014, a consulting geologist, I visited the Katherine and Oatman Mining Districts in Mohave County.

Saw evidence (signs and excellent road) of a new operation- Springold's in the area of the Sheep Trail Mine E $\frac{1}{2}$  Sec. 7, T21N R20W, but time and growing darkness precluded visiting it.

---

RRB WR 10/23/81: Virginia Barson of Springold Mining and Milling, Inc., 1800 South Industrial, Suite 1758, Las Vegas, Nev. 89102 (702) 382-7510 called to report that they are about ready to start up a custom mill on the Springold Group Lode Claims about 10 miles NE of Bullhead City. The grand opening was to have been October 24, but their power plant blew up forcing a delay. President is Phillip J. Bracken, Mill superintendent is Jim Cooper who can be contacted by radio from the Las Vegas office. At first they will be able to mill 200 TPD which will be increased to 500 TPD when they install a larger ball mill. Later in the week the Chairman of the Board, Dr. Richard Jennings of San Francisco called to invite the Department to their grand opening on November 14. He reports that they will be mining a vein that is on a gentle incline to the west and north by open cut that will provide feed for about one year. They also have other claims in the area and will take custom ore. He also reports that they are bringing in commercial power.

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NJN WR 9/10/82: Provided information to Howard Gardner with the Internal Revenue Service in San Francisco from the Springold file, Mohave County. Mr Gardner reported that many precious metal tax shelters are receiving close scrutiny of claimed deductions such as mine development costs.

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NJN WR 1/4/83: Ed Councelman reported that Springold Mining and Milling, Mohave County has gone belly-up and is in receivership.

---

NJN WR 8/26/83: Bill Vanderwall reported that Springold Mining and Milling is dead. The flotation Springold Mill and yard which was located near the Sheep Trail Mine has been removed. The company's Las Vegas office has also been closed.

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R17

RRB WR 10/23/81: Virginia Barnson of Springold Mining and Milling, Inc., 1800 South Industrial, Suite 1758, Las Vegas, Nev. 89102 (702) 382-7510 called to report that they are about ready to start up a custom mill on the Springold Group Lode Claims about 10 miles NE of Bullhead City. The grand opening was to have been October 24, but their power plant blew up forcing a delay. President is Phillip J. Bracken, Mill Superintendent is Jim Cooper who can be contacted by radio from the Las Vegas office. At first they will be able to mill 200 TPD which will be increased to 500 TPD when they install a larger ball mill. Later in the week the Chairman of the Board, Dr. Richard Jennings of San Francisco called to invite the Department to their grand opening on November 14. He reports that they will be mining a vein that is on a gentle incline to the west and north by open cut that will provide feed for about one year. They also have other claims in the area and will take custom ore. He also reports that they are bringing in commercial power.

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KAP WR 10/23/81: A visit was made to the Springold Mill, Union Pass District, Mohave County. The custom floatation mill will be included on the active mine list. A separate report will be written.

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RRB WR 3/19/82: Bill Bracken of Springold Mill called to report that they are in need of ore. James R. Cooper is a Vice President, and mill manager.

---

MG WR 3/26/82: Mr. Dave Rabb reports he has heard that Spring Gold Mining and Milling, Inc. expects to treat ore from the Arabian, Sheeptrail, and Tyro mines of Mohave County. The company is looking for \$50,000 additional financing. Houston Oil and Minerals was mentioned in some capacity.

---

CJH WR 7/30/82: Meeting: Luncheon with Joe B. Davis, General Manager and Ramon P. Shannon, Engineer, Cimetta Engineering and Construction, P.O. Box 36446, Tucson, AZ 85740, Tel: 297-7231. Cimetta is getting together a proposition for a Mr. Robert Kerr, a Las Vegas lawyer and his associates who own the Spring Gold mill which is located between Katherine and the Arabian Mine in Mohave County east of Bullhead City. The Spring Gold mill needs precious metal bearing feed that does not require extensive crushing. Cimetta is contemplating the possibility of utilizing the Katherine mill tailing as potential feed. Allowed Cimetta to copy our Katherine mine file.

---

SPRINGOLD MILL

MOHAVE COUNTY

Ramon Shannon, mining engineer with Cimeta Engineering, Tucson, called seeking size and grade data for the tailings at the Katherine Mine, Mohave county. As our file has size and tonage estimates, but little on grade, I advised he carefully sample the tailings. Apparently Springold, Mohave County, is his client and he is looking for something to run thru their mill in the Katherine District.

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RRB WR 10/15/82: Visited the Springold Mill. No one was there but the receptionist who indicated they were having legal problems that should be settled within a month. She also said that several small miners were waiting for them to start milling their ore.

---

NJN WR 4/1/83: Ed Counselman of Topeka, Kansas reported that Springold Mining and Milling, Mohave County has gone belly-up and is in receivership.

---

NJN WR 8/26/83: Bill Vanderwall reported that Springold Mining and Milling is dead. The flotation Springold Mill and yard, which was located near the Sheep Trail Mine has been removed. The company's Las Vegas office has also been closed.

---

Springs Gold (A)

R-1003 CL

COMPLETE AND MAIL TO:

STATE MINE INSPECTOR

FOR OFFICE USE ONLY

STATE MINE INSPECTOR  
1616 WEST ADAMS, SUITE 411  
PHOENIX, ARIZONA 85007-2627

AUG 0 31989

START-UP NUMBER 94344188  
STATE NUMBER 081167  
DEPUTY NUMBER Howm  
NEW  MOVE

### NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with the Arizona Revised Statute, we are submitting this written notice to the Arizona State Mine Inspector of our intent to start , stop , move  an operation.

Please check the appropriate boxes: Contractor , Owner , Operator , Open Pit Mine ,  
Underground Mine , Mill , Quarry , Aggregate Plant , Hot Plant , Batch Plant ,  
Smelter , Leach Plant .

If this is a move, please show last location: \_\_\_\_\_

If you have not operated a previously in Arizona, please check here:  If you want the Education and Training Division to assist with your mine safety training, please check here:

If this operation will use Cyanide for leaching, please check here:

COMPANY NAME: CBH LIMITED PARTNERSHIP

DIVISION: \_\_\_\_\_

MINE OR PLANT NAME: GOLD SPRING TELEPHONE: 453-2651

CHIEF OFFICER: HOWARD SADLIER

COMPANY ADDRESS: 325 LONDON BRIDGE RD. #61

CITY: LAKE HAVASU CITY STATE: AZ ZIP CODE: 86403

MINE OR PLANT LOCATION: (Include county and nearest town, as well as directions for locating property by vehicle: T 21N R 20W sec 18 & 19  
SECT. 18 & 19 TOWNSHIP 21 N RANGE 20 W)

MOHAVE COUNTY EAST HWY 68 TURN LEFT BETWEEN THE 6 & 7 MILE MARKER  
ON KATHERYN LAUNDING RD. 2 MILES TO CBH SIGN. TURN RIGHT

TYPE OF OPERATION: GOLD MILL PRINCIPAL PRODUCT: GOLD

STARTING DATE: 7-13-89 CLOSING DATE: U.K.

PERSON COMPLETING NOTICE: HOWARD SADLIER TITLE: PARTNER



SPRING GOLD mill (A)  
SPRING GOLD (near 6003 CHINA) RCB  
MBS

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Rose Mofford, Governor  
Randolph Wood, Director

## NOTICE OF INTENT TO ISSUE A GROUNDWATER QUALITY PROTECTION PERMIT(S)

Pursuant to Arizona Administrative Code, Title 9, Chapter 20, Article 2, the Director of the Arizona Department of Environmental Quality intends to issue a Groundwater Quality Protection Permit(s) to the following applicant(s), subject to certain special and general conditions.

MILES 4 RD →

Public Notice No. 3-89AZGW

On or about  
February 13, 1989

Gold Spring Mine

Emery E. Lampman

CBH Ltd Partnership

375 London Bridge Road, #61

Lake Havasu City, Arizona 86403

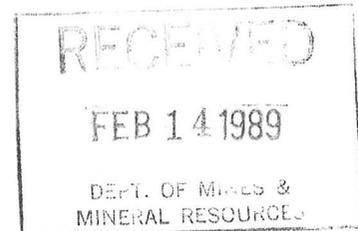
Groundwater Quality Protection Permit No. G-0057-08

The Gold Spring Mine is located seven (7) miles from Bullhead City, east on highway 68, Mohave County, Arizona. The permittee will operate a hydrometallurgical precious metal recovery system using a closed circuit vat leaching process. The permit contains provisions to prevent discharge of pollutants to land surface or subsurface, including berms, lined ponds and leak detection/collection systems and monitoring of pond tailings prior to final disposal.

The permit and related material are available for public review Monday through Friday, 8:00 a.m. to 5:00 p.m. at Arizona Department of Environmental Quality, Water Permits Unit, 2005 North Central Avenue, Phoenix, Arizona 85004.

Persons may submit comments or request a public hearing on the proposed action, in writing, to ADEQ at the above address within thirty (30) days from the date of this notice. Public hearing request must include the reason for such request.

THIS IS THE FORMER SPRING GOLD SITE - NJN



The Department of Environmental Quality is An Equal Opportunity Affirmative Action Employer

MELEP JOHN 302

Central Palm Plaza Building

2005 North Central Avenue

Phoenix, Arizona 85004

MINE VISIT TO SPRINGOLD MILL

June 4, 1982

Nyal J. Niemuth

A visit was made to the Springold Mill (file), Mohave County. A local address for the mill office is P.O. Box 1592, Bullhead City, Arizona 86430. Jim Cooper is no longer mill superintendent. He has been replaced by J. R. Trout, an ex-coal processing engineer from Ohio. The information here was provided by him.

The mill has run for 36 hours on dump material from the Sheep Trail Mine. The mill is temporarily shutdown for changes in the circuit. Additional water supply is being developed by putting a well in the Arabian Mine shaft. Electrical power is still being supplied by a diesel generator set. Commercial power should be connected within three weeks.

Surplus mill equipment is still for sale, items available include a screw classifier, 5x8 double deck screen, rod mill, various D.C. motors, two jaw crushers and various bins and tanks. Also being offered is a trucking service. They can do short haul with their own trucks. For long haul they have a contract arrangement.

Margaret "Maggie" Gerring, an Arizona registered assayer, formerly with Mindy is now the assayer for Springold. When their lab is totally set up, Springold will do custom fire assaying.

**DEPARTMENT OF MINERAL RESOURCES**

**STATE OF ARIZONA  
FIELD ENGINEERS REPORT**

Mine Springold Mill

Date October 22, 1981

District Katherine, Mohave County

Engineer Ken A. Phillips, Nyal Niemuth

Subject:

In the company of Nyal Niemuth and Frank W. Russell a visit was made to the Springold Mill near the Sheep Trail Mine. The mill is planned to start up at 200 tpd and be expanded to 500 tpd with future additions of front end equipment.

The mill is owned and operated by:

Springold Mining and Milling Inc.  
1800 W. Industrial Suite 1758  
Las Vegas, Nevada 89102  
Phone (702) 382-7510  
Phillip J. Bracken - President

The mill superintendent is Jim Cooper. The mill is in radio contact with the Las Vegas office.

The present plan is to treat custom ores from the Midnight mine in the Oatman area. The Midnight ore will be crushed before being delivered to Springold.

Mill equipment consists of a 14" x 24" jaw crusher and 30" rolls along with screen; all part of a portable gravel plant which will produce minus 1/2" fine ore to fine ore storage. (Midnight crushed ore will be delivered to the fine ore storage location.)

Fine ore will be loaded to a hopper which feeds a 6' x 6' Marcy ball mill in circuit with a cyclone classifier. Cyclone oversize will be treated in a Denver mineral jig before being returned to the ball mill. Cyclone undersize is to be fed to conditioners and flotation cells. Flotation uses 6 Wimco 66" cells for roughers, 2 Gallego 60" cells are used as cleaners and one is used as a recleaner. Concentrates are dewatered in leaf filters. The circuit as established can process gold-silver-copper, gold-silver-lead or molybdenum ores. An assay laboratory and laboratory flotation testing is planned. Continuous samplers are planned for installation before and custom ores others than Midnight are accepted. Power is obtained from the local utility. Water is obtained from wells and the mine on the property.

A charge has not yet been established, but a fee of \$38-40.00 per ton is being considered.

Original plans had been to open pit a vein deposit on the property and feed the mill. The mine is now on the "back burner" while the mill is being completed to treat custom ores in hope of obtaining a cash flow.

Springold has some excess equipment for sale: used screens; a Cat D-8, a Cat 988 loader and a Poclain HC-300 backhoe.

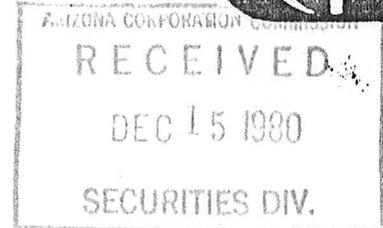


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### INTRODUCTION

PARTICIPATION IN MINING VENTURES IS NOT FOR EVERYONE. ONLY PERSONS OF SUBSTANTIAL INCOME OR FINANCIAL WORTH ARE INVITED TO PARTICIPATE. THIS BROCHURE IS BEING DELIVERED TO YOU UPON YOUR ASSURANCE THAT YOU ARE A SOPHISTICATED INVESTOR, KNOWLEDGEABLE AS TO INVESTMENT RISKS AND ABLE TO AFFORD PARTICIPATION IN VENTURES OF HIGH POTENTIAL RETURN. ~ TOTAL LOSS

## SECTION I

### 1. WHY GOLD?

From earliest times gold has been used world-wide as a medium of exchange, having ideal qualities of scarcity, durability, convenience, divisibility, and consistent quality. Nature has limited the amount of gold that can be mined and refined each year and gold cannot be counterfeited.

Gold remains stable in the tempestuous seas of fiscal irresponsibility. Notwithstanding U.S. Governmental red ink spending, governmental policies of debasing its own currency, and governmental efforts to demonetize gold, this noble metal has retained its value through the years. At the turn of the century an ounce of gold worth twenty paper dollars would buy a fine suit of clothes. Today, the same ounce of gold will still buy a fine suit of clothes, while twenty paper dollars would hardly serve as a deposit to put the suit on hold.

Gold is coveted world-wide and its possessor can purchase whatever he needs in any land. There are daily advances or retreats in the quoted "price" of gold, but the long-range trend is inexorably up. Most economists of authority predict continuing inflation of prices in terms of currency, and a consequent increase in the "price" of gold. Many economists, including Howard J. Ruff, predict that in the short term, gold will fluctuate ~~between perhaps~~ \$850 an ounce, and possibly below \$500 an ounce, but to expect within two years gold to be priced between \$1,500 and \$2,000 per ounce. (See "Ruff Times", July 1, 1980 ed.)

*who he*

Granted that gold is a wise and desirable commodity to own, what is the best form of gold to own and the best method of acquisition? The purchase in prior years of gold bullion, gold medallions, and gold coins such as the Kruggerand have been wise investments as the "price" of gold has increased. Today, participation in the development of a proven gold mine can be even more remunerative and have tax advantages as well.

Instead of buying gold at retail prices, one can acquire gold at a fraction of market value and pay for it with tax dollars, paying no taxes on the profit until the gold is exchanged for currency. Even then one may enjoy a 15% depletion allowance, according to present law.

*to individual  
or men  
co's*

After nearly forty years of minimal activity, gold and silver exploration, mine development and milling are enjoying a boom in the western United States reminiscent of the gold rush of the last century.

WHY GOLD? (continued)

Gold and silver mines were closed by government edict in 1942 as unessential to the war effort. Post-war labor costs, the artificial pegged "price" of gold, and environmental regulations, prevented any substantial mining efforts until gold was allowed to seek its proper level of value. Today, old mines with a record of production are being re-opened, developed to accommodate advanced machinery and improved chemical techniques, and are being placed back into production. New gold discoveries are being made as well. Ore that was uneconomic to mine and process with gold at \$35.00 per ounce is extremely profitable to mine and process with modern methods and prices hovering at \$600.00 per ounce.

*Nothing  
Producing*

2. WHY SPRINGOLD?

Mojave County, Arizona, has produced millions of ounces of gold in past years. Most of the gold produced has been from mines lying along a prominent fault on the slopes of the Black Mountains just east of the Colorado River. The fault lies in a general North-South line. Along this fault are such famous gold mines as the OATMAN (where Fischer-Watt Mining Company is currently spending millions of dollars in exploration and development), the ROADSIDE, the ARABIAN, the TYRO, and the KATHERINE. The SPRINGOLD properties are also on this fault and lie between the TYRO, currently being developed for production, and the ARABIAN. Geological reports indicate that all of these mines lie along the same major vein. The SPRINGOLD has the special distinction of lying at the hub of several veins of gold-bearing ore deposits which extend out like the spokes of a wheel. The hub is in a natural "sink" where gold was trapped against a porphyry dike or subterranean granite wall. Ore samples taken along these veins and from a shaft sunk at the hub have produced assays that substantiate the theory that the SPRINGOLD is among the richest of them all. (See SECTION II for Geological Reports and Assays).

*No develop  
spent on  
exp.  
only  
\$100,000  
3:2  
unrecoverable*

*all should  
be down*

*radical  
statement  
not accepted  
geological theory*

Many surface assays along the veins at the SPRINGOLD average in excess of .3 ounces of gold per ton of ore, with strong indications that richer ore lies beneath. Assays in the thirty-two foot shaft become richer with depth, running from .87 near the surface to 2.16 at the bottom.

*what  
indications*

*fabulously hi*

To put these assays into perspective, consider a large operating mine in Northern Nevada presently in profitable production. This mine has a crusher capacity of 6,000 tons per day and produces some 3,000 ounces of gold per month. The ore being milled, however, averages only .035 ounces of gold per ton - approximately one-tenth as rich as the surface assays at the SPRINGOLD!

*Round  
mt*

*and  
comparable*

*when mining U.S. open pit*

WHY SPRINGOLD? (continued)

*which one*

*How accurate at  
reserve figures  
can we see  
map, -  
drill  
logs*

Another mine located on one of the veins radiating from the SPRINGOLD hub is now in the process of development toward production status. The assays at that mine are in the .10 range, roughly one-third that of the SPRINGOLD. Mining engineers' estimates of the quantity of gold-bearing ore at the SPRINGOLD are in excess of four million tons, with a probability of ten million tons at a conservative average, overall, of .25 ounces of gold per ton. 500,000 tons of gold-bearing ore have already been exposed with assays averaging .37 ounces per ton.

To further enhance its desirability as a gold mining and milling location, SPRINGOLD is situated with easy access to a county road and a major highway. Three-phase power is available less than one-fourth of a mile from the planned mill site. There is a natural year-around spring on the property insuring, with the addition of a 300 ft. well, an adequate supply of water needed for mill operation.

3. THE BOTTOM LINE

ASSUMPTIONS

- A. Since the price of gold in terms of U.S. currency fluctuates, three different prices are used in the examples on page four:
  - Column 1. The price as of this writing. \$ 630/oz
  - Column 2. The price that experts predict gold will reach within two years. \$ 950/oz
  - Column 3. The price to which gold would have to decline in order for you to break even on your participation. \$ 218/oz
- B. The participant is paying a minimum of 50% of the top dollars of his income to the Federal government in income taxes.
- C. The examples are predicated on a \$10,000 cash participation, leveraged with a \$30,000.00 note at 8% simple interest due in three years, for a total of \$40,000.00 total participation. (Two units).

PROJECTIONS AND TAX ASPECTS

The Westminster Corporation, sponsor of the SPRINGOLD mine, will allocate to each participant a tract of ore from which he shall be permitted to extract and have milled and refined, five ounces of .999 gold for each \$1,000.00 of participation.

*will they guarantee*

*need cash for development*

Minimum participation is \$5,000.00 of cash amount which may, if desired, be leveraged to \$20,000.00 with a \$15,000.00 note, bearing 8% simple interest, due and payable on January 15, 1984, with no penalty for pre-payment. For example:

*will notes be paid to obtain cash?*

A \$5,000.00 cash participation, unleveraged, would entitle the participant to 25 ounces of .999 gold.

A \$5,000.00 cash participation, leveraged with \$15,000.00 in full recourse notes, would entitle the participant to 25 ounces of .999 gold deliverable in chronological order as produced, and an additional 75 ounces of gold as produced and the note is paid, for a total of 100 ounces of gold.

Participation in amounts greater than \$5,000.00 of cash amount is allowed in increments of \$2,500.00 (1/2 unit).

Each participant will receive a sequence number in which his ore will be mined and milled. Notwithstanding the amount of participation no exceptions will be made. For example, the participant whose contracts are postmarked next after ten other participants will be assigned No. 11 and his gold will be made available to him after the first ten participants and before the twelfth participant.

*stamps*

EXAMPLE

For \$10,000 of cash and \$30,000 in notes, due in three years, the participant is entitled to 200 ounces of .999 gold.

	<u>1</u>	<u>2</u>	<u>3</u>
Market Value of Gold	\$630/oz.	\$950/oz.	\$218/oz.
Market Value of 200 oz.	\$126,000	\$190,000	\$43,600
Less Interest on \$30,000 3 years at 8% simple interest.	<u>7,200</u>	<u>7,200</u>	<u>7,200</u>
Gross Profit	\$118,800	\$182,800	\$36,400
Less Cost of Participation (Cash and Notes)	<u>\$ 40,000</u>	<u>\$ 40,000</u>	<u>\$40,000</u>
Net Profit	\$ 78,800	\$142,800	(\$ 3,600)
Plus Tax Savings on interest paid (50% bracket)	<u>3,600</u>	<u>3,600</u>	<u>3,600</u>
Total Benefit	\$ 82,400	\$146,400	-0-

*only if proceeds of \$40,000, 10% income*

## ADDITIONAL BENEFITS

To encourage the development of mineral resources in the United States and provide for much needed jobs and impetus to the regional and national economy, the Congress has wisely allowed as a deduction in computing taxable income all expenditures paid or incurred during the taxable year for the development of a mine or other natural deposit (other than an oil or gas well) after the existence of minerals in commercially marketable quantities has been disclosed. See Internal Revenue Code Sections 616 and 617.

1. Thus, the money which would otherwise be paid in taxes for the current taxable year not only provides for the cash participation, but provides an equal amount for other uses - e.g. a 50% taxpayer who commits \$40,000.00 (\$10,000.00 cash and \$30,000.00 in full recourse notes) can deduct \$40,000.00 from his taxable income, saving \$20,000.00 in current tax liability for the principal purpose of encouraging U.S. mineral resources development. *W?*
2. The total benefit is taxable only when the gold is exchanged for currency (sold), at which time a 15% depletion allowance is available. See Internal Revenue Code, Section 451, Section 611 et seq.).
3. Since distribution of the gold represented by the cash amount of participation is scheduled to commence during 1981 for all participants, should changed circumstances not permit one from meeting his note due in three years, he could liquidate the gold in the initial distribution for enough cash to meet his note (assuming gold market value is at least \$600 per ounce) and thus be entitled to receive the subsequent gold distributions. *has it started*

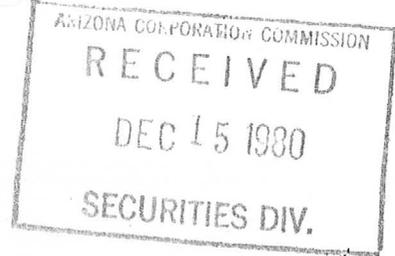
### EXAMPLE

Suppose a participant subscribes for the minimum of one unit - \$5,000.00 cash and a note due three years hence for \$15,000.00. During 1981 he receives the minimum return of his cash participation (5 ounces of gold per \$1,000.00 or 25 ounces of gold). If gold has a market value of \$600.00 per ounce, a sale of his initial gold receipt would yield  $25 \times 600$  or \$15,000.00 - enough to pay his \$15,000.00 note (except for interest) which, in turn, would entitle him to an additional 75 ounces of gold.

4. While Federal Income Taxes have received the major emphasis, it should not be forgotten that most states also levy income taxes and deductions that apply to Federal Taxes usually also apply to state taxes.
5. The normal business expenses incurred by a participant in the conduct of his mining venture just as in the conduct of any other business enterprise, are deductible. *} So who when*

ADDITIONAL BENEFITS - (continued)

6. Costs of visits by participants to inspect their mine properties are tax deductible. Such visits are encouraged. Westminister Corporation, with appropriate prior notice, will provide transportation from Las Vegas to the SPRINGOLD, a tour of the mine, and return to Las Vegas. The SPRINGOLD is about a two hour drive from Las Vegas.



SECTION II

I. Geological Report and Assays

of

the SPRINGOLD mining properties, located in the Union Pass Mining District, Mohave County, Arizona.

Range 20W, Township 21N

1. Location and Access
2. Property Documentation
3. Climate
4. Geology
5. Assays
6. Conclusion

1. LOCATION AND ACCESS

*county records*

The SPRINGOLD mining property consists of seven contiguous claims, totaling 140 acres, which have been completely surveyed and staked. A check with the survey records of Mohave County, Kingman, Arizona, and the survey records of the Bureau of Land Management in Phoenix, Arizona shows that all pertinent claims have been properly surveyed and recorded.

Topographically, the SPRINGOLD claims are situated on the Colorado River area of Lake Mead Recreation Area, approximately 28 miles due West of Kingman, Arizona and 7 miles Northeast of Bullhead City, Arizona. Access to the SPRINGOLD is not difficult and may be negotiated in a passenger automobile.

2. Property Documentation

A records search at the Mohave County Court House in Kingman, Arizona, shows that all recordation necessary to establish ownership of the mining claims in accordance with Federal Mining Regulations of 1872 and 1971 (Title 43, S 3830, S 3840, and S 3850) are in order. Recordation has also been made in compliance with pertinent State of Arizona statutes.

*cannot do all of this at county court house*

### 3. Climate

During the short winter months the temperatures can drop to a low of 20 degrees Fahrenheit. During summer months temperatures can rise to a high of 120 degrees Fahrenheit. The long spring and fall seasons are exceptionally mild and conducive to ideal working conditions.

### 4. Geology

The West Central portion of Mohave County contains the highest gold producing districts of the County. The gold deposits are of epithermal and mesothermal types with the epithermal type prevailing in the Oatman and Union Pass Districts.

The gold found in this area is characteristically fine grained and, except in extremely rich pockets, not normally visible to the naked eye. Micro gold exists not only in the calcified quartz veins, but in the area between veins as well. The gold is often alloyed with silver, with the ratio of gold to silver at the SPRINGOLD being approximately 1 to 3. The ores themselves are complex due to extensive mineralization. Spectrum analysis indicates as many as 15 different basic minerals in the area, including copper, lead, and zinc. Ore density, indicative of the mineralization, is about 12 cubic feet per ton.

The SPRINGOLD claims lie in an area of gentle rolling hills surrounding a widely dispersed syncline or downward fold of rock strata, indicating a minor alluvial disturbance during the Tertiary Era. A porphyry dike, or hanging wall, on the West of the syncline, trapped the minerals in their molten state and prevented their normal gravity flow toward the Colorado River and the lower elevations to the West.

The area containing the SPRINGOLD claims has, through the years, accumulated a thin overburden covering much of the rock. This overburden varies from a low of zero up to six feet in some places. Removal of some of the overburden has been accomplished with a bulldozer revealing a number of veins of gold-bearing ore, radiating outward from a single hub. The veins appear to be of the lens variety, narrow at the surface but broadening with depth, reaching a maximum thickness at some as yet undetermined point, then narrowing again as they go deeper. The full extent of the ore body will probably require years to determine, but it appears to be extensive.

Exposed by bulldozer at this time are approximately five hundred thousand tons of minable ore within four feet of the surface. Assays along the exposed veins average approximately one-third ounce of gold per ton of ore.

(8)

$$\begin{array}{r} 16,700 \text{ g} \\ 3 \overline{) 500,000} \end{array} \text{ } \approx \text{ } \frac{1}{3}$$

10,000 g

*of Jackal  
Saw  
Barrels  
found*

*how  
determined*

## 5. Assays

Commencing in December, 1979, and continuing since that time, many dozens of assays have been performed on ore samples taken along the veins as they have been exposed. No extensive core drilling has yet been done, so most of the ore samples have been taken within four feet of the surface. Deeper pits, ranging up to ten feet deep, have been dug in a few places and ore samples taken. One shaft has been sunk to a depth of thirty-two feet and sampled.

The surface ore samples assayed ranged from a low of .05 ounces of gold per ton to a high of .81 ounces per ton, with an average of .3+ ounces of gold per ton.

The ore samples in the pits and in the shaft yielded higher assays than at the surface, generally increasing in richness with depth. Assays on ore samples taken from the shaft varied from .39 to 2.16 ounces of gold per ton.

Attached are a few of the assay reports submitted by Kinchem Labs of Monument, Colorado\*, and Arizona Testing Laboratories of Phoenix, Arizona. Large ore samples from a wide variety of areas and depths are being gathered, crushed, and mixed. These samples are being sent to several different testing laboratories to determine as accurately as possible the overall yield of the ore exposed.

*How going to recover?*

\*Mr. Clifton Kincaid, Chief Metallurgical Chemist of Kinchem Labs, has since joined SPRINGOLD Mining & Milling, Inc. as Chief Engineer, Production.

*Get second opinion*

*how*

6. Conclusion

The SPRINGOLD mining claims are located, from a geological viewpoint, more favorably than any of the mines in the area that have been profitably mined in the past and that are being re-opened. Enough ore has already been exposed and sampled to assure the SPRINGOLD to be a commercially feasible and profitable mining operation. The full extent of the ore body contained within the SPRINGOLD claims is not known at present, but it is obviously extensive. Further removal of overburden, drilling for core samples, and assays will be required before the horizontal and vertical boundaries of the ore body can be established. Such an expensive exploratory effort is not recommended, however, as a prerequisite to commencement of development toward gold production. Further exposure and ore delineation will occur naturally and testing will be continuous during the development and mining process.

*what is the*

CLIFTON L. KINCAID

(303) 481-3322

# KINCHEM LABS™

CHEMICAL AND PHYSICAL ANALYSES

P. O. Box 720

MONUMENT, COLORADO 80132

## CERTIFICATE OF ANALYSIS

TO Angel Garnica

SAMPLE OF Springgold RECEIVED 3 April 1980

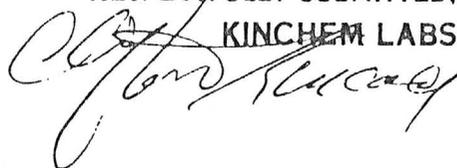
MARKED #1, #2, #3, #4

### RESULTS

Au- Shaft #1- .39 oz. per ton  
#2- .66 oz. per ton  
#3- .73 oz. per ton  
#4- 2.16 oz. per ton

RESPECTFULLY SUBMITTED,

KINCHEM LABS



# KINCHEM LABS™

CHEMICAL AND PHYSICAL ANALYSES

P. O. Box 720

MONUMENT, COLORADO 80132

## CERTIFICATE OF ANALYSIS

TO Angel Garnica  
\_\_\_\_\_  
\_\_\_\_\_

SAMPLE OF Springgold RECEIVED 16 May 1980

MARKED #5, #6, #7, #8, #9, #10

### RESULTS

- #5- 25' east of shaft- Au- .81 oz. per ton
- #6- 50' east of shaft- Au- .09 oz. per ton
- #7- 60' east of shaft- Au- .08 oz. per ton
- #8- 75' So. of shaft- Au- .12 oz. per ton
- #9- 20' west of shaft- Au- .33 oz. per ton
- #10- 40' west of shaft- Au- .28 oz. per ton

RESPECTFULLY SUBMITTED,  
KINCHEM LABS



**KINCHEM LABS™**

CHEMICAL AND PHYSICAL ANALYSES

P. O. Box 720

MONUMENT, COLORADO 80132

**CERTIFICATE OF ANALYSIS**

TO Angel Garnica  
\_\_\_\_\_  
\_\_\_\_\_

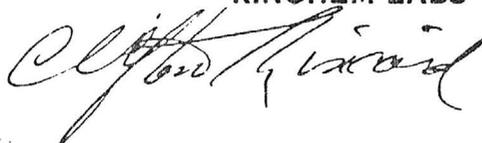
SAMPLE OF Springgold RECEIVED 28 May 1980

MARKED #11, #12, #13

**RESULTS**

- #11- 200' NW of shaft- Au- .17 oz. per ton
- #12- Hill on road to shaft- Au- .34 oz. per ton
- #13- Bottom of hill to shaft- Au- .40 oz. per ton

**RESPECTFULLY SUBMITTED,  
KINCHEM LABS**



HENRY GRANVILLE WRAY  
Senior Vice President  
Westminister Corporation  
3198 Camel Back Drive  
Las Vegas, Nevada 89109  
(702) 733-5860

*Check Registration*

Personal Data

Present Age: 52  
Date of Birth: January 14, 1928  
Place of Birth: Birmingham, Alabama  
Marital Status: Married  
Children: Four  
Grandchildren: Ten

Education

High School: North Hollywood High School  
College: Pierce Jr. College, Woodland Hills, California; Valley Jr. College, Van Nuys, California; University of Southern California, Los Angeles, California.

Professional

Registered professional engineer in the states of Arizona, California, Florida and Nevada.  
Licensed Real Estate Person, State of California.  
President of M. E. Engineering, a California corporation; consulting mechanical/electrical firm.  
President of Oaktree Development Company, a real estate investment and development company.  
Past Chairman of The Southern California Ashrae Committee - Title 90-75 on energy conservation.

References

Daniel A. Munns Jr. (Architect)  
1026 Briar Cliff, Monrovia, California 91016  
Telephone: (213) 359-4711  
Ray Binder (Insurance Agent)  
25488 Via Dalia, Valencia, California 91355  
Telephone: (805) 259-9337  
Ralph Boshes (General Contractor)  
13900 Panay Way, Apt. #R-114  
Marina Del Rey, California 90291

ARIZONA CORPORATION COMMISSION  
RECEIVED  
DEC 15 1980  
SECURITIES DIV.

SECTION III

QUESTIONS AND ANSWERS

- Q. The SPRINGOLD Mining Venture is very exciting. Should I take a second mortgage on my home in order to participate in it?
- A. Absolutely not! While surveys and assays lead us to believe the SPRINGOLD will provide handsome rewards to participants, only those who can afford the inherent risks are invited to participate.
- Q. Are the finances of Westminister to be audited by an independent CPA firm?
- A. Yes. A Las Vegas Accountant has been retained to conduct the book-keeping functions and quarterly statements of Westminister accounts. A Las Vegas C.P.A. firm will perform an annual audit on the financial statements of Westminister, Inc.
- Q. Will I, as a participant, be kept informed as to the progress at the SPRINGOLD Mine?
- A. Yes. Regular quarterly progress reports, supplemented by special bulletins will keep all participants well informed as to mine development progress. } *any yet*
- Q. What is the present status of development of the SPRINGOLD claims?
- A. As of this time, mid-August, 1980, months of work have gone into the SPRINGOLD. This work, however, has been primarily exploration, assays, surveys and planning rather than development per se. Major development preparatory to placing the SPRINGOLD into production is awaiting the financing necessary to see the project through. Commencement of significant development work is planned for early October, 1980.
- Q. When is gold production expected to commence?
- A. A small pilot plant with a daily capacity of 50 tons of ore is expected to be operational by late October producing small quantities of gold. The purpose of the pilot plant is to establish procedures, test for the best flocculent for maximum gold extraction for the type of ore, etc. Meanwhile, mine development will be underway and the major crusher assembly and mill components will be in the process of acquisition. Major plant construction is not anticipated before December and substantial gold production not until Oct., 1981.

*Flocculation?*

Q. When may I reasonably expect to receive the gold for the cash portion of my participation?

A. According to the planned schedule, substantial production - initially around 250 ounces per week - should be achieved by Oct., 1981. This production will be distributed to participants in order of participation.

Q. What mining company is available to do the development work on the SPRINGOLD claims?

A. SPRINGOLD Mining and Milling Company of Nevada is under contract with Westminister Corporation to develop and place the property into production and will contract with each participant to develop the participant's mining tract.

Q. Who is SPRINGOLD Mining and Milling Company?

A. SPRINGOLD Mining and Milling Company, Inc. is a Nevada based corporation with a staff of extremely well-qualified and experienced personnel. Additional information is available upon request.

Q. How about the payment of insurance premiums, real estate taxes, power bills, property assessments and the like - do I have to pay a share of the costs?

A. No. The compensation structure for the mining company includes an allowance for these costs. There are no charges to the participant.

Q. How is the mining company compensated?

A. The mining company has agreed to develop and mine the respective tracts of participants and to be compensated by being permitted to extract and retain 60 ounces of gold for each 100 ounces of gold delivered to the participants. (37 1/2% of gold produced). In other words, the mining company must deliver gold to the participants in order to be paid for its services.

Q. What if I desire to sell my gold, how is this accomplished, and are there any fees connected with the sale?

A. Westminister, Inc., as your agent, will assist you to arrange for the sale of your gold with a brokerage firm, if that is your desire, for no fee. Brokerage firms, however, usually charge a fee of 2% for their services.

Q. If I should elect to have my gold stored for me or shipped to me, what fees must I pay?

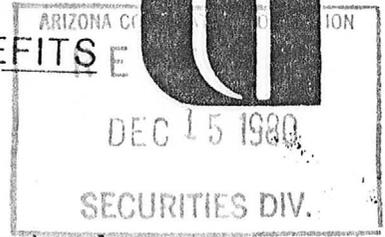
A. Westminister, Inc., will assist you to arrange for the bonded and insured storage of your gold bullion, or the insured shipment of your gold at no cost to you other than the cost of such storage, insurance and/or shipment.

*own company -  
is individual  
responsible for  
mining cost  
} obtain*

*160/60*

Westminister Inc

THE NEW GOLD RUSH HAS TAX BENEFITS



During the past thirteen years the U.S. dollar has lost 60% of its purchasing power! Future prospects? Worse. Inflation is not only continuing, but accelerating worldwide. That is hardly news. The real news is what canny investors are doing to offset this debasement of currency - buying gold!

As this is written a single troy ounce of gold "costs" \$630 U.S. dollars. A year from now an ounce of gold may cost \$1,000 or even \$2,000.

520

Buying gold at retail prices with after-tax dollars is probably a wise investment. Many investors around the globe are doing just that. But there is a better way - convert dollars that you would otherwise pay out in taxes into gold bullion. The SPRINGOLD brochure explains how.

Mohave County, Arizona, has produced millions of ounces of gold in past years. Most of the gold produced has been extracted from a prominent fault along the Black Mountains just east of the Colorado river. Along this fault old mines are being reopened and extensive exploration is revealing new gold deposits. Gold that was not profitable to mine at \$35 an ounce is now highly profitable to mine at present prices. The SPRINGOLD properties are located on this fault in the Katherine mining district at the juncture of several veins of gold-bearing ore. Geologists' reports and numerous assays show a rich and extensive ore body, testing as much as ten times higher than other mines now in profitable commercial gold production.

none successful

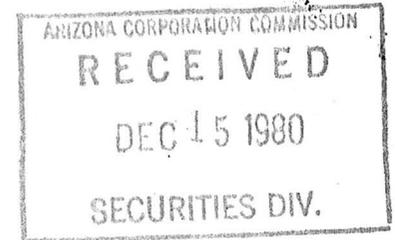
on this vein or other? states?

In order to develop the SPRINGOLD to production status, a limited number of qualified persons are invited to participate in the development and mining of the property and enjoy the tax benefits and financial advantages of such participation.

Mining ventures, however, are not for everyone. Only persons of substantial income or financial worth, knowledgeable as to investments and able to benefit from the tax savings are being offered our brochure. If you qualify, please mail the enclosed postage paid card requesting a brochure or phone our sales office collect.

1 (702) 733-5860

TRADE TAX DOLLARS FOR GOLD BULLION



GOLD BONUS--NOVEMBER ONLY

5 Oz. of Gold per Unit

(\$3,000 at \$600/Oz.) *SW*

Early participation in development of this mining property has benefits to the participants and to the mine owners.

Mining machinery and skilled labor are in great and growing demand. Costs are rising. In order to provide an incentive for early participation, a bonus of 5 oz. of gold per unit is being offered for applications postmarked on or before November 30, 1980.

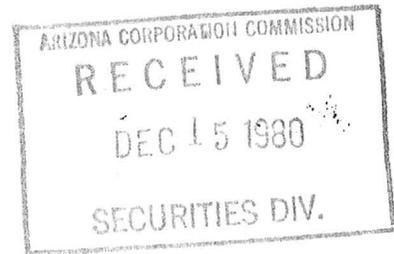
(One "Unit" is \$5,000 of cash subscription which may be leveraged up to \$20,000 by the use of a \$15,000 full recourse note).

One unit entitles the participant to 5 oz. of gold for each \$1,000 of participation or 100 oz. of gold for a development commitment of \$20,000.

During November an additional 5 oz. of gold will be added for a total of 105 oz. of gold per unit.

Gold distribution will be in order of participation.

*Chyle form - attorney  
702-382-6333*



SECTION IV  
CONTRACT INSTRUCTIONS

Four contracts are attached:

CONTRACT NO. 1 APPOINTMENT OF AGENT AND AUTHORIZATION TO NEGOTIATE

This is an agency contract between you, the sublessee-miner, and WESTMINISTER, INC., hereafter referred to as "sublessee" and "WESTCO" respectively.

CONTRACT NO. 2 is a PROMISSORY NOTE TO WESTMINISTER, INC.

If you, the sublessee, wish to leverage your participation in the SPRINGOLD Mining Venture, you may, in addition to the cash amount remitted, execute a full-recourse note, bearing 8% simple annual interest, for three times the cash amount, due and payable on January 15, 1984 to WESTCO.

CONTRACT NO. 3 is a MINERAL CLAIM LEASE WITH SPRINGOLD, INC.

To participate in the SPRINGOLD Mining Venture, you, the sublessee, must execute a mineral claim lease with SPRINGOLD, INC, entitling you, as sublessee, to extract, or have extracted for you, an agreed-upon number of ounces of gold from an assigned tract in the SPRINGOLD properties.

*any  
guarantees  
it is  
there*

CONTRACT NO. 4 is a MINING CONTRACT WITH SPRINGOLD MINING AND MILLING CO., INC.

The mining contract between you, the sublessee, and SPRINGOLD Mining and Milling, Inc., the mining company, authorizes the mining company to develop and mine your assigned tract and to produce, refine, and to deliver the agreed-upon number of ounces of gold to a collection point adjacent to the mining property.

*what it  
is  
guaranteed  
is*

To execute the attached contracts, proceed as follows:

1. From the table below, select the line that represents your desired degree of participation.

Units	Cash	+	Notes	=	Tax Write Off	Net Oz. of Gold-Cash Only	Net Oz. of Gold-Cash & Notes
1	\$ 5,000	+	\$15,000	=	\$20,000	25 oz.	100 oz.
1½	7,500	+	22,500	=	30,000	37.5	150
2	10,000	+	30,000	=	40,000	50	200
2½	12,500	+	37,500	=	50,000	62.5	250
3	15,000	+	45,000	=	60,000	75	300
3½	17,500	+	52,500	=	70,000	87.5	350
4	20,000	+	60,000	=	80,000	100	400
4½	22,500	+	67,500	=	90,000	112.5	450
5	25,000	+	75,000	=	100,000	125	500

2. Fill out the APPOINTMENT OF AGENT AND AUTHORIZATION TO NEGOTIATE Agreement, leaving blank the Tract No. (to be assigned), but filling in the number of ounces of gold to be received and the total amount of your participation, cash and notes.
3. Fill out the PROMISSORY NOTE, if participation is to be leveraged, with the note amount only. Date and sign note.
4. Fill out the MINERAL CLAIM LEASE, leaving blank the Tract No., but inserting the number of ounces, given in the table above, representing your amount of participation.
5. Date and sign the MINING CONTRACT with SPRINGOLD MINING AND MILLING, INC.
6. Insert your check and the applicable contracts in the postage-paid addressed envelope enclosed in your brochure, and mail to WESTMINISTER, INC.
7. Copies of all documents will be returned to you for your files.

APPOINTMENT OF AGENT AND AUTHORIZATION TO NEGOTIATE

TO: WESTMINISTER, INC.  
3198 Camelback Drive  
Las Vegas, Nevada 89109

FOR VALUE RECEIVED, receipt of which is hereby acknowledged, the undersigned hereby appoints WESTMINISTER, INC. agent to negotiate for gold recovery rights and to engage a mine operator to develop the leased mine property of the undersigned under the following circumstances:

1. Obtain a mineral sublease permitting developing and mining on Tract \_\_\_\_\_ for \_\_\_\_\_ ounces of gold.
2. Arrange for an independent mining company to initially develop the subject mine property ready for mining the gold-bearing ore and to contract with said independent mining company to thereafter mine, mill, and refine the amount of gold provided in the Mineral Claim Lease, and deliver my cash and/or notes for development work for my leased mine property to contract mining company in the sum of \$ \_\_\_\_\_ (cash and notes).
3. Obtain my share of gold bullion produced from the independent mining company as produced and remit same to me in kind or cash as I direct, once you advise me of gold production.
4. Endorse and cash checks made out to the undersigned received from the proceeds of a loan or the sale of gold ordered by the undersigned to satisfy and comply with the terms of my Mineral Claim Lease, notes or loans.
5. Return my check if you cannot comply with or arrange the above conditions.

Accepted this \_\_\_\_\_ day of \_\_\_\_\_, 1980

WESTMINISTER, INC.

BY: \_\_\_\_\_  
Its President

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print above name

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City, State, Zip

Tele: (     ) \_\_\_\_\_

PROMISSORY NOTE

The undersigned, for value received, receipt of which is hereby acknowledged, promises to pay to the order of WESTMINISTER, INC. the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) together with annual interest at eight per cent (8%) on January 15, 1984 at 3198 Camelback Drive, Las Vegas, Nevada 89109, or at such other place as may be designated by Payee.

All payments shall be applied to the payment of interest first, and the balance, if any, shall be applied to the reduction of principal. No penalty shall be assessed in the event of pre-payment by maker.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 1980/

\_\_\_\_\_  
Name of Maker

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip

## MINERAL CLAIM LEASE

SUBLESSOR AND SUBLESSEE agree as follows:

1. Leased Premises. Sublessor, in consideration of the covenants and agreements hereinafter expressed, and mutuality hereof, hereby demises, leases and lets unto Sublessee for the purpose hereinafter set forth, the real estate described and hereinafter called Leased Premises, to-wit: Tract No. \_\_\_\_\_, a portion of the SPRINGOLD Claims in the Katherine Mining District, Mohave County, Arizona.
2. Leasing Clause. For One Dollar and other valuable consideration, receipt of which is hereby acknowledged, Sublessor hereby demises, leases, and lets unto Sublessee for the purpose of extracting therefrom \_\_\_\_\_ ounces of gold in Tract No. \_\_\_\_\_. All other minerals remain the property of the Sublessor.
3. Right to Merchantable Gold. Sublessee shall have unrestricted right to enter upon surface of said leased premises and develop all ore-producing soil and rock to produce the gold above described and to conduct his mining operation with due regard to the mining activities of other sublessees utilizing good mining methods, and for such purposes shall have the right to free ingress and egress to and from said leased Premises with such persons and tools necessary for the purpose of testing for gold at any time. Sublessee's right to develop said premises commences as soon as it is practicable following the date of execution of this Lease.
4. General Duties and Rights.
  - (a) All operations shall comply with all local, state, and federal laws that are or will be applicable to the subject matter of this Lease.
  - (b) Except as may be otherwise provided herein, Sublessee has a right-of-way into, over, under, across and upon said Leased Premises.

General Duties and Rights (continued)

*Permit from State Health Dept*

- (c) Sublessee has the right (to extent of the Sublessor's power to grant the same) to change, increase, diminish or destroy both surface and underground waters, whether percolating waters or subterranean streams; and to discharge upon said lands waters found herein, and to construct, maintain and operate such drains and drainage ways as may be necessary or convenient to the operation, production and marketing of gold. A copy of Sublessor's lease is on file with the County Recorder of Mohave County, Kingman, Arizona.
- (d) It is especially provided and agreed that Sublessee shall have the right to construct, maintain and operate roads, tipplles, buildings, tanks, pipelines, picking tables, telephone lines, power lines, washing and other machinery, tools, necessary or convenient to the operations, production, and marketing of gold.
- (e) Sublessee has the right to use, free of charge, so much of the water from springs, rivers, percolating waters or subterranean streams found upon premises as maybe necessary or convenient to operations hereunder.
5. Term of Sublease. The Sublessor agrees to have and to hold the leased premises unto the Sublessee for a term of ten (10) years or until sublessee receives or extracts \_\_\_\_\_ ounces of .999 fine gold. Sublessee will be allowed possession of the leased premises on the date of execution of this lease. This lease shall terminate upon Sublessee receiving or extracting \_\_\_\_\_ ounces of .999 fine gold, net after payment of all royalties, mining, milling or other related expenses.
6. Royalties. Sublessor shall be liable for and shall pay all royalties due to any landowner for mining royalties.
7. Inspection of Premises. Sublessee shall permit the Sublessor, or its authorized representatives, to enter upon the leased premises for the purpose of determining whether the provisions of this lease are being observed by the Sublessee.
8. Payment of Taxes. Sublessee shall pay, or cause to be paid his share of all personal income taxes. Sublessor shall pay all property taxes.
9. Sublessor's Right to Terminate Lease. In the event of the breach of any covenants in this sublease on the part of Sublessee or for discontinuance or abandonment of operations under the terms and conditions of this sublease by the Sublessee, and if such default or breach shall continue after ten (10) days notice in writing specifying the nature of such default or breach, then the Sublessor may at its option terminate this sublease and thereupon enter and take possession of said demised premises without process of law.

General Duties and Rights (continued)

10. Non-Waiver Clause. The failure of either the Sublessor or the Sublessee to exercise any of their respective rights hereunder upon the non-performance of the other party of any condition, covenant or promise herein contained, shall not be construed as a waiver thereof.
11. Definitions. Wherever in this Agreement and Lease the word "Sublessor" or the word "Sublessee" or "Miner" appear, they shall be taken respectively to include heirs, executors, successors and assigns, in whole or in part, wherever the context so requires or admits of such interpretation.

IN WITNESS WHEREOF, the parties have set their hands and seals this

\_\_\_\_\_ day of \_\_\_\_\_, 1980.

SUBLESSOR:

SPRINGOLD, INC.

By: \_\_\_\_\_

Its \_\_\_\_\_

SUBLESSEE:

Name: \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

( ) \_\_\_\_\_

Telephone

MINING CONTRACT

THIS AGREEMENT made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 1980, by and between SPRINGOLD MINING and MILLING, INC., a corporation organized and existing under the laws of the State of Nevada, hereafter referred to as "Mining Co." and the undersigned owner of a divided interest in certain gold deposits and the mining rights and privileges appurtenant thereto, hereafter referred to as "Sublessee".

W I T N E S S E T H:

WHEREAS, the Sublessee desires to develop mineral resources located in the State of Arizona by mining the gold contained in, on and underlying his leased mine property (hereafter referred to as the "Property") covered by his Sublease; and

WHEREAS, the Sublessee desires certain development work to be performed on its Property; and

WHEREAS, the Mining Co. has expended time, effort, and money to acquire experience and knowledge with respect to mining development and desires to furnish its mining services to perform the development work directed by Sublessee in connection with the removal of gold from the Property; and

WHEREAS, it is not the purpose or intention of this Agreement to create a joint venture, mining partnership, commercial partnership or other partnership relation between the parties, and nothing herein shall create or be construed to create such a joint venture or partnership; and

WHEREAS, it is not the purpose or intention of this Agreement to create an economic interest in the Property, nor in the gold in place, in the Mining Co., but to develop and mine the subject Property;

NOW THEREFORE, in consideration of the mutual covenants and promises herein contained, it is agreed by and between the parties:

I. RIGHTS AND DUTIES OF THE MINING CO.

1. The Mining Co. is aware of the fact that there are other Sublessees who own leases of gold adjacent to or near Sublessee's Property; it will mine all gold for respective Sublessees with whom it has contracted as fairly as possible and in this regard Mining Co., accepts the appointment as Agent for Sublessee.

The Mining Co. will undertake development of all such leased premises (for which it has contracted) in accordance with paragraph 4(a) below, including but not limited to the development of power and water for the property, removal of overburden, road construction and initial site preparation.

Rights and Duties of the Mining Co. (continued)

2. Sublessee exclusively authorizes the Mining Co., to mine and remove the gold contained in the Property during the term of this Agreement. The Mining Co. shall have full, complete and exclusive right and authority to mine, develop, and work the Property and the gold in and underlying the Property and process for market such gold, by any method or machinery now or hereafter employed, subject to and as set forth in the Lease of Sublessee.
3. (a) The Mining Co., shall apply for and obtain all necessary permits, approvals, and authorizations to conduct mining operations in, on and underneath the Property and shall provide all mining maps required. All costs incurred in connection with such permits and authorizations and maps shall be paid for and borne by the Mining Co.  
  
(b) The Mining Co. shall be responsible for the control, charge, and supervision of all exploration, development, construction, mining, extracting, handling, and other operations conducted in connection with the gold ("Mining Operations"), either furnishing its own employees or contracting with third parties for the performance of all or a portion of such work.  
  
(c) The Mining Co., shall perform all Mining Operations in compliance with all applicable Federal, State, and local laws, rules and regulations, and in such a manner as to insure that the Lease is not breached, forfeited, or terminated. The Mining Co. shall have full authority to establish policies with regard to all activities relating to all Mining Operations including but not limited to all activities concerning industry associations, governmental relations and proposed legislation and in regard to compliance with existing legislation, labor practices, and similar activities.  
  
(d) The Mining Co. shall use its best efforts and due diligence to mine gold pursuant to the terms of Sublessee's Lease.  
  
(e) The Mining Co. shall mine and remove the gold in the Property so as to recover the greatest recoverable percentage of gold in place, consistent with economic and practical methods and inherent mining conditions.  
  
(f) The Mining Co. shall keep and maintain the Property and all workings in a safe condition at all times.

Mining Contract (continued)

4. (a) The Mining Co. acknowledges receipt of an advance of \$ \_\_\_\_\_ to be applied to mine development work only, and to account for such work to Sublessee when completed.

(b) All costs and expenses accruing or resulting from the mining, and removal of the mineable and merchantable gold contained in the Property and the transportation of such gold to a collection or storage point adjacent to the Property shall be borne by the Mining Co.

(c) The Mining Co. shall have the right, after delivery of the Sublessee's gold as specified above, to extract and retain as its compensation for services additional gold amounting to 60 ounces for each 100 ounces delivered to Sublessee (37 1/2 per cent of total gold produced).

II. RIGHTS AND DUTIES OF SUBLESSEE

1. The ownership of Sublessee's gold mined or produced from the Property shall be retained by the Sublessee. All contracts for the sale of the gold shall be entered into by the Sublessee or his Agent and the Purchaser.
2. Sublessee and his duly authorized agents shall have the right during normal business hours to inspect the Mining Operations (assuming the risk of danger incident to such visits) and the books, records, and invoices of the Mining Co. regarding the mining of the Property.
3. Sublessee shall pay, or cause to be paid, his share of all personal income taxes. The Mining Co., shall be liable or obligated for any taxes or assessments levied against the gold in or underlying the Property or the production therefrom.
4. It is understood and agreed that Sublessee will be entitled to a depletion allowance and that the Mining Co., will, in no way share, or make any claims for deduction for depletion on its income tax returns or any other document.

### III. LIABILITY AND INDEMNITY

1. (a) The Mining Co., assumes all liability for all losses, damages, injuries, and deaths (including losses or damage to property) on the Property or under its control or in the proximity of the Property or under its control or in the proximity of the Property, including injuries, deaths, and/or damage to the Mining Co.'s employees or to any workman, servant, agent of Mining Co. or subcontractor of Mining Co. Mining Co. agrees to indemnify and hold harmless the Sublessee against all claims, demand, suits, actions, causes of action, judgments, or decrees in connection with such loss, damage, injury, and/or death whether caused in whole or part by any act or omissions or negligence of the Mining Co. or otherwise. The foregoing indemnity shall also include any and all attorneys' fees and litigation expenses incurred by the Sublessee in connection therewith.

(b) The Mining Co. shall maintain full coverage under any applicable statutory Workmen's Compensation or Employer's Liability Laws. The Mining Co. shall also carry fire and extended coverage insurance covering property damage losses and comprehensive general liability insurance, including comprehensive automobile liability insurance, and insurance for errors and omissions, with limits of not less than \$1,000,000. The Mining Co., shall provide evidence that such policies are in effect.

2. Mining Co., acknowledges that it will have sole and exclusive operation and control of the mining activities and operations on the Property on a day-to-day basis. Accordingly, Mining Co. specifically agrees that for all purposes which might give rise to any liability as between the parties (but for no other purpose), the Mining Co. shall be deemed to be the "Operator" of the mine as the term is defined in the various applicable laws, statutes, rules and regulations of all governmental bodies having jurisdiction.
3. In no event shall Sublessee be personally responsible for the payments or the performance of the Mining Co., and in the event of any default by the Mining Co., no deficiency or other personal judgment will be requested or entered against Sublessee with respect to the obligations contained herein.

### IV. CONTRACT LIMITATIONS

#### 1. LIMITATION OF AUTHORITY

The authority of the Mining co. to act on behalf of Sublessee shall extend no further than is stated in this agreement.

CONTRACT LIMITATIONS (continued)

2. FORCE MAJEURE SHALL EXCUSE PERFORMANCE OF BOTH PARTIES

Each party shall be excused from performance and responsibility under this contract while and to the extent that such party is unable to perform by reason of any cause beyond reasonable control of that party. Causes beyond the reasonable control of a party shall include, but shall not be restricted to force majeure (fire, flood, earthquakes, labor disputes, shortage of raw materials or supplies which are not caused by or unreasonably contributed to by either party). Further, any law, ordinance, or any act of governmental or military authority which prevents or prohibits the carrying on of mining operations, or the inability to obtain equipment, power, or fuel, or failure of carriers to transport or furnish facilities for transportation shall constitute causes beyond the reasonable control of a party. ore?

V. CHANGE, MODIFICATION, OR TERMINATION

(a) This agreement can be changed or modified only by a writing signed by both parties. Either of the parties hereto may terminate this Agreement at any time, with or without cause, by giving to the other party thirty (30) days notice in writing by certified mail, return receipt requested.

(b) If this Agreement is terminated and Mining Co. by itself, or with any affiliated entity, has control over any facilities including, but not limited to, tipples, crushers, or railroad sidings, or any rights of egress or ingress to or from the Property, Sublessee will have the opportunity to use, and to have access to, such facilities or rights so long as Sublessee pays a competitive price therefor, no greater than standard rates for the area, and Mining Co. and any affiliated entity shall be entitled to make a reasonable profit therefrom.

VI. CHANGE OF ADDRESS

All notices, orders, reports or other correspondence required or made necessary by the terms of this Agreement shall be in writing and shall be considered as having been given to each party if mailed by certified mail, return receipt requested, postage prepaid, to the respective addresses as follows:

CHANGE OF ADDRESS (continued)

- (a) The Mining Co.  
SPRINGOLD Mining and Milling, Inc.  
4535 West Sahara Avenue - 105  
Suite #16B  
Las Vegas, Nevada 89102
- (b) Sublessee's Agent  
The Westminister Co., Inc.  
3198 Camelback Drive  
Las Vegas, Nevada 89109

VII. DEFINITIONS

Wherever in this Agreement the words Mining Co. or Sublessee appear, the provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

VIII. ASSIGNMENT/DELEGATION

No right or interest in this contract shall be assigned by either party without the written consent of the other party, and no delegation of any obligation owed, or of the performance of any obligation by either party, shall be made without the written consent of the other party. Any attempted assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

IX. MERGER AND INTEGRATION

This written Agreement represents the entire Agreement between the parties and no terms, conditions, covenants, representations, or provisions not contained herein shall be given effect.

X. CONTRACT REMEDIES

1. Any action for breach of contract must be commenced within two (2) years after the cause of action has accrued.
2. In any dispute as to the terms of this Agreement, the prevailing party shall be entitled to attorney's fees.

CONTRACT REMEDIES (continued)

- XI. The parties to this Agreement hereby declare that they have received the advice of legal counsel or have consciously chosen not to seek such counsel and fully understand the terms and conditions of this Agreement.

SPRINGOLD MINING AND MILLING, INC.  
(Mining Co.)

SUBLESSEE

By: \_\_\_\_\_

\_\_\_\_\_  
Name

Its: \_\_\_\_\_

\_\_\_\_\_  
Print Name

COMPLETE AND MAIL TO:

STATE MINE INSPECTOR

K

FOR OFFICE USE ONLY

START-UP NUMBER 74335229

STATE NUMBER 10157400

MSHA NUMBER \_\_\_\_\_

STATE MINE INSPECTOR  
1624 WEST ADAMS, ROOM 208  
PHOENIX, ARIZONA 85007-2606

NOV 23 1987

SPRING GOLD (F)

Dave

### NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with the Arizona Revised Statute Section 27-303, we are submitting this written notice to the Arizona State Mine Inspector of our intent to start \_\_\_\_\_ stop \_\_\_\_\_ move X (Please check one) a mining operation.

If this is a move, please show last location: SHEEP TRAIL MINE (FORMER) (DSH OPERATIONS) (NOW AS)  
If you have not operated a mine previously in Arizona, please check here: \_\_\_\_\_ If you want the Education and Training Division to assist with your mine safety training, please check here: \_\_\_\_\_  
If this operation will use Cyanide for leaching, please check here: \_\_\_\_\_

COMPANY NAME: GOLD SPRINGS MINE - SPRING GOLD MILL SITES.

DIVISION: TENNESSEE GOLD CO. A NAVAJA CORP.

MINE OR PLANT NAME: GOLD SPRINGS MINE + MILL TELEPHONE: 602-565-4324

CHIEF OFFICER: DON R. ADAMS

COMPANY ADDRESS: P.O. BOX 4324

CITY: KINGMAN STATE: AZ ZIP CODE: 86402

MINE OR PLANT LOCATION: (Include county and nearest town, as well as directions for locating property by vehicle: MOHAVE County - Bullhead City -

NORTH ~~END~~ OF Hwy-68 ON OLD CATHERINE Rd. 1/2 mile DIRT ROAD  
MILE POST 7 THEN RIGHT ON OLD KINGMAN Rd FORMERLY KNOWN AS  
SPRING GOLD MILL SITE.

TYPE OF OPERATION: GRAVITY WET TYPE PRINCIPAL PRODUCT: GOLD + SILVER

STARTING DATE: Jan 1-88 CLOSING DATE: NOT KNOWN DURATION: HOPEFUL

PERSON COMPLETING NOTICE: DON R. ADAMS TITLE: LESSEE OF CLAIMS + MILL SITES

DATE NOTICE MAILED TO STATE MINE INSPECTOR: NOV 19-1987

# Atlas Chemical Testing Laboratories, Inc.

2765 SO. HIGHLAND DR., SUITE 204 • (702) 735-6171 • LAS VEGAS, NEVADA 89102

September 10, 1980

CHEMICAL  
PHYSICAL  
FORENSIC

member of  
AMERICAN SOCIETY FOR  
TESTING MATERIALS

LABORATORY NO : CA-1187

SAMPLE: Ore

MARKED: #2, #5, & #9

DATE RECEIVED: 9/8/80

SUBMITTED BY: Spring Gold Mining & Milling Inc.  
604 Huntington St.  
Las Vegas, Nevada 89107

## REPORT OF DETERMINATION

### FIRE ASSAY ANALYSIS

<u>SAMPLE DESIGNATION</u>	<u>RESULTS-Troy Oz./Ton</u>	
	<u>Gold</u>	<u>Silver</u>
#2	-0.57-	-0.34-
#5	-0.02-	-0.62-
#9	-0.25-	-0.19-

Respectfully submitted,

ATLAS CHEMICAL TESTING LABORATORIES, INC.



Robert L. Summers  
Chemist

# Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For Mr. Joe Garnica  
D-51, Davis Dam  
Bullhead City, AZ. 86430

Date December 10, 1979

## ASSAY CERTIFICATE

LAB NO.	IDENTIFICATION	OZ. PER TON		PERCENTAGES			
		GOLD	SILVER	COPPER			
3287	Springold Test #2	68.					

Respectfully submitted,

ARIZONA TESTING LABORATORIES



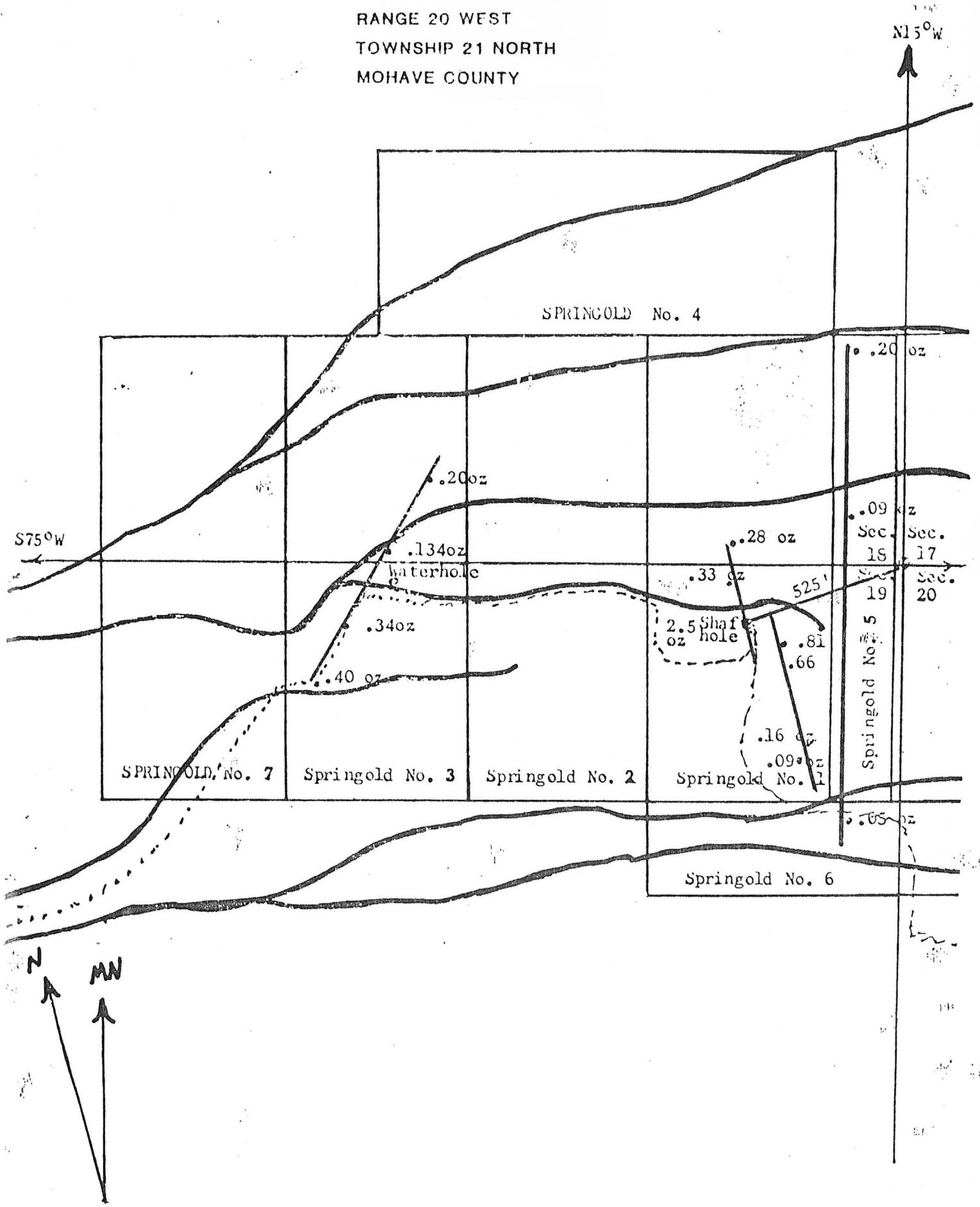
Claude E. McLean, Jr.







SPRINGOLD GROUP CLAIMS  
 RANGE 20 WEST  
 TOWNSHIP 21 NORTH  
 MOHAVE COUNTY



## II. RESUMES AND REFERENCES

HERBERT E. "Van" BENHAM  
President  
Westminister Corporation  
3198 Camel Back Drive  
Las Vegas, Nevada 89109  
(702) 733-5860

### Personal Data

Present Age: 62  
Date of Birth: October 20, 1917  
Height: 5' 11"  
Weight: 150 pounds  
Health: Good  
Marital Status: Married  
Dependents: Three  
Citizenship: United States  
Place of Birth: Esther, Missouri  
Languages: Fluent Spanish; Some knowledge of German.

### Education:

High School: Flat River, Missouri  
Salutatorian, Class 1935  
Military: United States Naval Academy,  
Annapolis, Maryland, with honor:  
B.S.E.E. - 1939.  
Special: Various Courses at University of  
Miami, University of San Marcos,  
Lima, Peru. Airline training  
programs 1941-1969.

School Activities: Varsity Boxing Team, United States  
Naval Academy; Editor, Naval Academy  
"Log", German Language Club.

### Professional:

Electrical Engineer - United States Naval Academy  
at Annapolis

President of the Benham Corporation; airline  
services firm d.b.a. NAV, Inc.

President of the VAN LAN Corporation, a real  
estate development and investment company.

As President of Westminister, Inc., Mr. Benham will oversee the financial and administrative aspects of placing the Springold claims into profitable production.

Mr. Benham has had a stellar career during the past thirty-five years in commercial aviation and in business management. He has served as Director of Flight Training and Chief Navigator for Pan American and Hawaiian airlines and is internationally recognized as an authority on aerial navigation. He is the author of a standard textbook on the subject adopted by several universities and airlines, holds patents on the U.S. gyro-stabilized sextant and copyrights on airline flight planning curves systems. He has also served as an agency manager for Prudential and Midland Mutual Insurance Companies, as chief executive officer of the Benham Corporation, and NAV, Inc. and as President of Van-Lan Corporation. He has been active in the Republican party, serving as Chairman of the 17th District (Honolulu, Hawaii), and is highly regarded for his many intellectual accomplishments as well as his proven management capabilities. He pursues leisure avocations in linguistics (Spanish and German) and golf.

References:

General Robert Maguire (U.S.A.F. (Ret.))  
1604 Ihiloa Loop  
Honolulu, Hawaii 96815  
Telephone: (808) 373-3761

Capt. Richard Barcheski (President - Air  
628 Kuana Street Ambulance Service)  
Honolulu, Hawaii 96815  
Telephone: (808) 737-3762

Herbert Weit (Attorney)  
3701 Wilshire Blvd., Ste. 700  
Los Angeles, Calif. 90010  
Telephone: (213) 385-0069

JACK GRAHAM CRAIG  
Assistant Manager, Marketing  
Westminister Corporation  
3198 Camel Back Drive  
Las Vegas, Nevada 89109  
(702) 733-5860

Personal Data

Present Age: 50  
Date of Birth: April 20, 1930  
Place of Birth: Knoxville, Tennessee  
Marital Status: Married

Education

High School: Jackson High, Miami, Florida  
College: Orange County Community College  
Santa Ana, California  
Technical: Aerial Navigation, United States  
Marine Corp. Flight Training Aca-  
demy, Long Beach, California.  
Military: United States Marine Corps., Air  
Wing 1952-1957.

History

Captain Craig has been involved in commercial aviation from 1957 until April 1980. Before being medically retired from American Airlines, he was assigned to the Flight Training Academy in Fort Worth, Texas. His position prior to retirement was Supervisor of Flight Training for American Airlines - Boeing 727.

Captain Craig is a substantial investor in both gold and silver mining enterprises, including the SPRINGGOLD Mine. Through research and visits to various mining sites, he has acquired valuable knowledge of both the financial and technical aspects of precious metals mining.

References

Captain Walter Estridge  
Director of Flight Training  
American Airlines Plaza  
Fort Worth, Texas

Mr. Derry Fulks, President  
Meadowbrook National Bank  
Fort Worth, Texas

EDWARD J. SHEA, JR.  
Secretary-Treasurer  
Westminister Corporation  
3198 Camel Back Drive  
Las Vegas, Nevada 89109  
(702) 733-5860

Personal Data: Present Age: 53  
Date of Birth: July 16, 1927  
Place of Birth: New York City, New York  
Marital Status: Single  
Resident: State of Nevada since 1958

Education: High School: Christopher Columbus, Bronx,  
New York City.  
College: Iona College, New Rochelle,  
New York.  
Special: Marketing Courses, CCNY, N.Y.C.  
Travelers Insurance Co., Courses  
in insurance, sales and marketing.  
3M - Marketing courses.  
Toastmasters International  
Hilton Corp. - Management & market-  
ing.  
Summa Corp. - Management & marketing

Military United States Navy - Radar 2/c - 1944 through 1946.  
Honorable Discharge.

History Involved in sales, marketing and management since 1950.  
1. New York City Insurance Sales  
2. Reno, Nevada - 3M Sales and Marketing  
3. Las Vegas  
a. Assistant Manager, Las Vegas Convention Bureau.  
b. Vice President - Sales and Marketing; Grayline,  
Avis.  
c. Director of Sales & Marketing, Flamingo Hilton  
d. Director of Sales & Marketing, Las Vegas Hilton  
e. Director of Casino Marketing, Desert Inn Hotel  
(Summa Corp.)  
f. Director of Casino Marketing, Frontier Hotel  
(Summa Corp.)

History: Continued:

g. Presently Director of Casino  
Marketing at The Treasury Hotel.

References:

Harry Reid,  
Attorney

Chairman, Nevada Gaming Commission.  
Past - Lt. Governor, State of Nevada.  
Known for 20 years.  
Business Telephone: (702) 384-6383

Berlyn Miller  
Owner, Acme  
Electric

Past - President, Chamber of Commerce.  
Member of the Board of Directors of  
the First National Bank.  
Member of The Travel and Tourism  
Industry Advisory Council to the  
United States Senate Committee on  
Commerce, Science, and Transportation.  
Known for 20 years.  
Business Telephone: (702) 876-1117

Bill Singleton  
Attorney

Past - President, of Nevada Bar  
Association  
Known for 20 years.

Tom Wiesner,  
Real Estate  
Developer

Past - Chairman, Clark County  
Commission  
Business Telephone: (702) 384-2044  
Known for 15 years.

References:  
Personal &  
Business

Phil Arce,  
President  
Frontier Hotel

Known for 20 years.  
Business Telephone: (702) 734-0110

SPRING GOLD MINE (H)  
SPRING GOLD MINE (H) *RMB*

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Rose Mofford, Governor  
Randolph Wood, Director

## NOTICE OF INTENT TO ISSUE A GROUNDWATER QUALITY PROTECTION PERMIT(S)

Pursuant to Arizona Administrative Code, Title 9, Chapter 20, Article 2, the Director of the Arizona Department of Environmental Quality intends to issue a Groundwater Quality Protection Permit(s) to the following applicant(s), subject to certain special and general conditions.

*MAR 16 1989* →

Public Notice No. 3-89AZGW

On or about  
February 13, 1989

Gold Spring Mine

Emery E. Lampman

CBH Ltd Partnership

375 London Bridge Road, #61

Lake Havasu City, Arizona 86403

Groundwater Quality Protection Permit No. G-0057-08

The Gold Spring Mine is located seven (7) miles from Bullhead City, east on highway 68, Mohave County, Arizona. The permittee will operate a hydrometallurgical precious metal recovery system using a closed circuit vat leaching process. The permit contains provisions to prevent discharge of pollutants to land surface or subsurface, including berms, lined ponds and leak detection/collection systems and monitoring of pond tailings prior to final disposal.

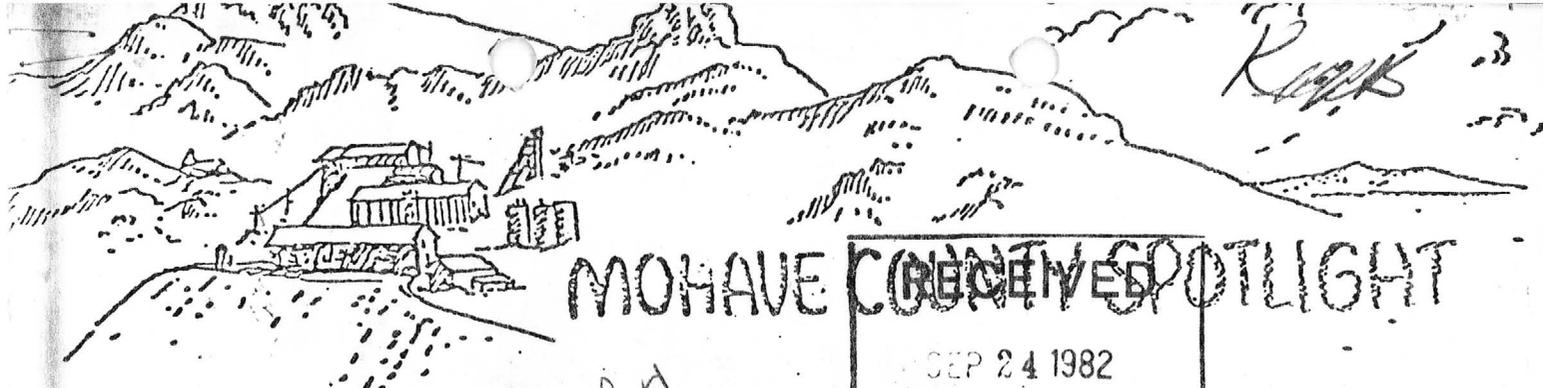
The permit and related material are available for public review Monday through Friday, 8:00 a.m. to 5:00 p.m. at Arizona Department of Environmental Quality, Water Permits Unit, 2005 North Central Avenue, Phoenix, Arizona 85004.

Persons may submit comments or request a public hearing on the proposed action, in writing, to ADEQ at the above address within thirty (30) days from the date of this notice. Public hearing request must include the reason for such request.

*THIS IS THE FORMER SPRING GOLD SITE - NJN*

RECEIVED  
FEB 14 1989  
DEPT. OF MINES &  
MINERAL RESOURCES

*The Department of Environmental Quality is An Equal Opportunity Affirmative Action Employer*



*Kingman*

# MOHAVE COUNTY SPOTLIGHT

SEP 24 1982

DEPT. MINERAL RESOURCES  
PHOENIX, ARIZONA

Vol. VI

October 1982

No. 9

Published by Mohave County Historian, P.O. Box 390, Kingman, Az. 86402



*John Jeff*

**MELVIN H. JONES**  
Mining Geologist

*MS*  
*John*

24 August 1980.

RECONNAISSANCE GEOLOGICAL EVALUATION, SPRINGOLD GROUP LODE CLAIMS, BLACK MOUNTAIN, about 6 miles NE of Bullhead City, Mohave County, Az.

In compliance with the instructions of Mr. James M. Campbell, Jr. 120 W. Kent Ave., Wauconda, Ill., 60084, the undersigned (accompanied by Mr. Campbell), made a reconnaissance geological evaluation of the Springold, Inc., mining claims, on August 18, 1980. This property, consisting of 10 lode mining claims (and a millsite) are located in Sections 18, 19, and 20, T-21-N, R-20-W, SR&G B&M. (see enclosed Map A). While this study is not intended to go into the ownership and title of the claims, some information was learned. Springold, Inc., has a lease on the property, which is owned by Mr. Joe Angel Garnica (and associates). Mr. Garnica is also President of Springold, and Mr. Cliff Kincaid is General Manager. Both reside in Bullhead City.

At the site of the old Roadside mine (nearby) Springold has an assay office and a small pilot mill. Mr. Kincaid, who is also a metallurgical Chemist, does some of the testing shown on the enclosed maps (Incl. B). The maps show some high results in gold values.

*Herbert Benham Pres.*

GEOLOGY.

The Black Mountains are a thick sequence of volcanic rocks, generally considered as Tertiary resting upon old PreCambrian strata. In the nearby Oatman District, (which has been extensively studied in the past), the lower portion of the volcanics is comprised of latite, andesite, and siliceous flows, that are termed the Gold Road volcanics, and this is thought to be in the Katherine District (where the Springold claims are), by the writer. Some rhyolitic flows and tuffs lie unconformably on some of the Pre-Cambrian. At places a monzonitic stock is Laramide (which simultaneously brought in the gold). The Rhyolite sequence is Tertiary. One of the interesting facts is that in the Oatman and Katherine Districts, it was finally recognized that gold can be in Calcite rocks. This was a 'first' for the entire world. To put it simply, gold is found in this region in siliceous veins and ore bodies, that at times, also contain calcitic intrusions. The old 'Katherine District' map shows the Springold to be near extensive rhyolite flows and tuffs.

DISCUSSION.

Mr. Kincaid informed the writer that a fifty ton a day portable mill will soon be brought onto the mining property. He intends to recover the gold concentrates by shaker tabling and floatation. The undersigned sees no objections to this system, provided the values are present to justify the expense of the cost of the equipment and operation.

In Mr. Kincaid's opinion, there is sufficient Au ore blocked out to start milling. He states they will drill for additional water, and that an extensive watertable is only 100-200 feet below the surface. Some new road work was apparent on the claims, especially near the ore outcrops. A mistake has been that the road bulldozer should have been used to open up ore veins, or outcrops, in numerous locations to facilitate accurate sampling. In many places the contacts on the sides

of auriferous rock were obscured, so the width of the vein could not be ascertained. Some small exploration shafts were present; one is 35 feet in depth. A metal headframe is there awaiting erection.

#### SAMPLING AND RESULTS.

Samples of potential ore was taken as outlined below. Except where otherwise stated, these samples were channel cut chip samples across the entire vein (or outcrop): See assay report, Incl. D.

No.	Location (see Incl.C)	Width	Oz. per ton Au.
1.	Claim #3 Start of vein(Strike N8 deg.E.Dip Vert.	7 ft	Trace.
2.	Claim #3 150 ft NE sample #1.	7 ft	Trace.
3.	Claim #1 Exploration pit, 150 ft SE M. shaft.	7 ft	0.03
4.	Claim #1 Main shaft, 35 ft down.	7 ft.	0.11
5.	Claim #1 Grab sample, main shaft dump.		0.15

#### CONCLUSIONS.

The samples taken above show very poor results. On a small operation, the best of the samples would result in negative financial returns, considering expensive machinery, transportation, high wages, and amortizing financial outlay. It is suggested the the above results not be considered for shutting down current development work, immediately. This for the reason that it is within the realm of possibility that the assayer might have made a mistake, or that other samples taken from near areas (over a longer period of time) could be much higher. However, a registered Mining Engineer, or registered Geologist, should be retained to do competent resampling, with extreme care. This should be the key to future quitting, or continuing. Also it might be well to take a mill sample, to a competent processing plant, to determine gold values.

The matter of having sufficient reserves of economic ore is extremely important, and this should also be accomplished before purchasing Mill equipage, mining machinery, and leaching paraphernalia. Many operations have failed, even with the high price of gold, because proper initial studies were not made. Examining the map of sampling prepared by Springold, it is noted that distances of veins appearing as outcrops are not given (except in 1 case). Assuming there are 2000 ft. of 7 ft. wide veins, that have a depth of 100 ft; this would be about 120,000 short tons (enough to start a small mine). These figures are given only as an example. I mention only 100 ft. depth, as this is what the old Roadside (nearby) mined to. The reputation of the area, is that high values do not go to great depth. The Springold main shaft is apparently the location of an intercepting loci. There is a good possibility good ore in the vicinity.

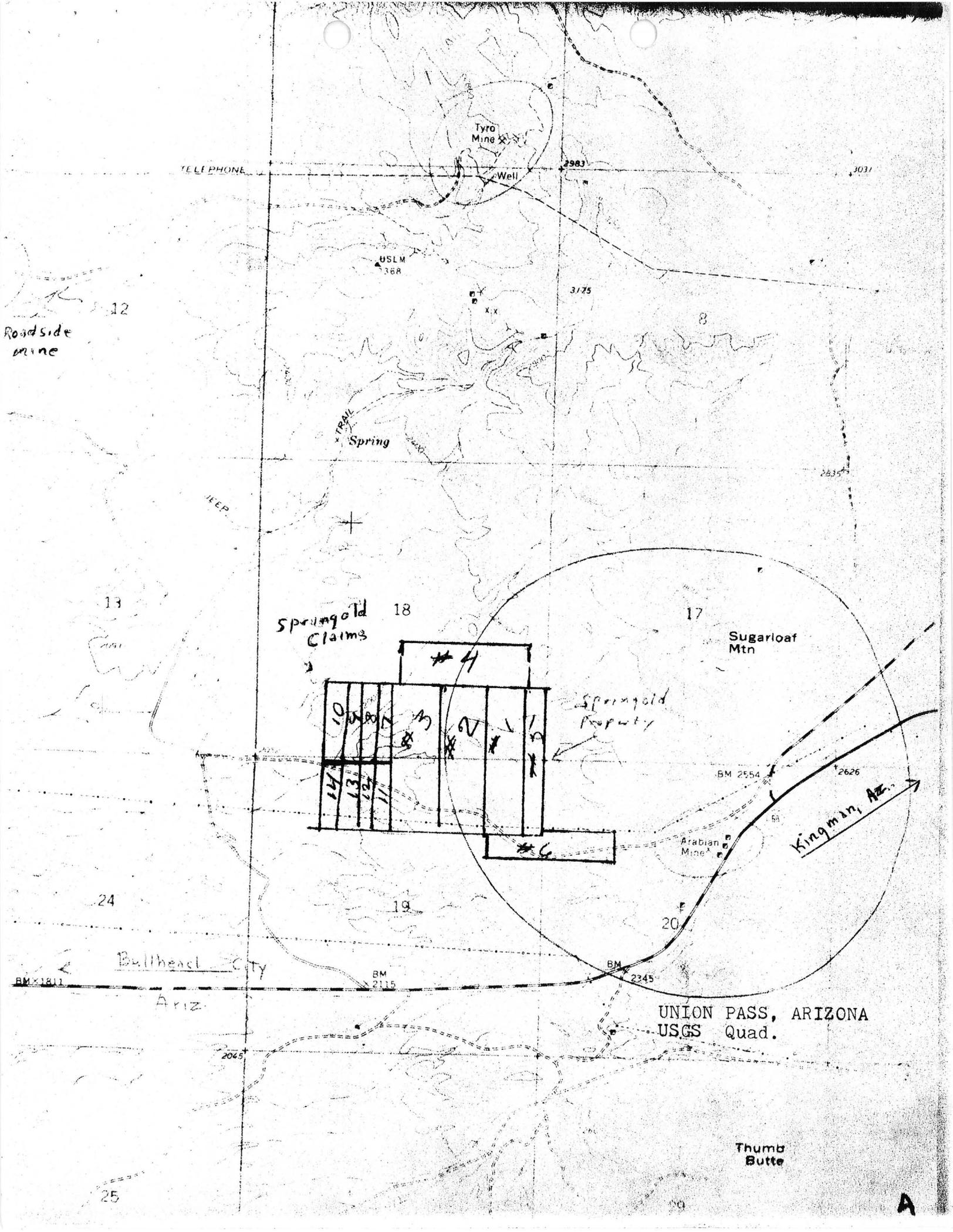
I found it strange that no one talked about the large gold processing plant at Nipton, California. The word is that this old time large mill is being started up again. It is not too far from Bullhead City, and perhaps, gold concentrates could be hauled to Nipton, with considerable savings.

#### RECOMENDATION.

Commence an extensive and competent sampling program, to determine if the mining claims can be worked at an adequate profit. Also reserve ore should be correctly ascertained.

1601 Sandhill Rd., Sp 36  
Las Vegas, Nev., 89104.  
or: Box 1196,  
Wickenburg, Az. 85358.

MELVIN H JONES  
Mining Geologist.



TELEPHONE

3031

2983

Tyro Mine

Well

USLM 368

3175

12

Roadside mine

TRAIL Spring

JEOP

2835

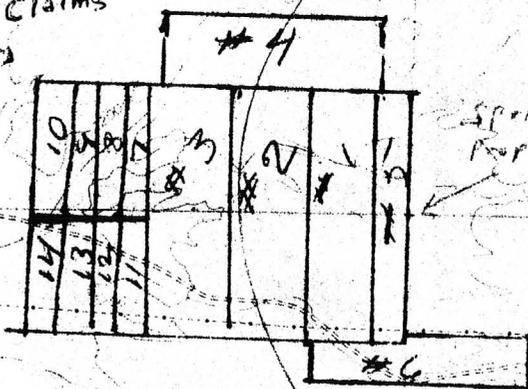
13

Springold Claims

18

17

Sugarloaf Mtn



Springold Property

BM 2554

2626

Arabian Mine

Kingman, Az.

24

19

20

Bullhead City

BM 2111

BM 2115

BM 2345

Ariz.

UNION PASS, ARIZONA USGS Quad.

2065

Thumb Butte

25

A

NOTES FROM I. G. 6901  
U.S. Bureau of Mines -Sep. 1936

GOLD MINING AND MILLING IN THE BLACK MOUNTAINS, WESTERN MOHAVE  
COUNTY, AZ.

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The veins occur within fissures along which faulting has occurred. These veins are distributed widely, but the most productive are in the Northeastern half of the Oatman District. The larger veins are essentially stringer lodes of complex structure. Many of the veins are lenticular. A strong vein may pinch down to nothing, or a stringer may thicken to a considerable width in a short distance. Some of the veins attain a maximum width of 90 feet; ore shoots up to 50 feet wide have been mined. Some of the outcrops, as that of the Gold Road vein, are prominent, but others are inconspicuous.

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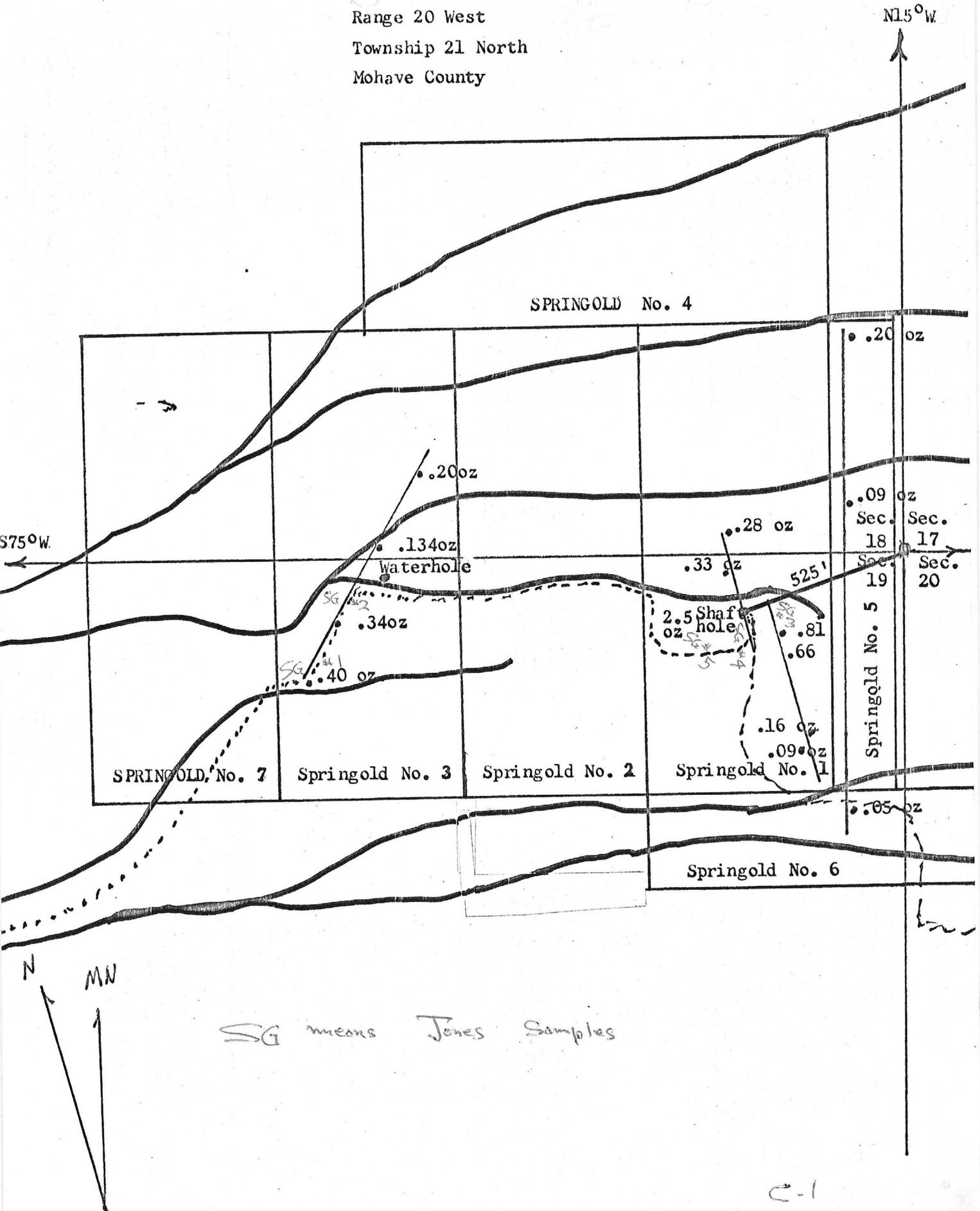
The wall rocks and vein material on the whole stand well, which permits relatively <sup>low</sup> mining costs. (saves on timbering).

SPRINGOLD GROUP CLAIMS

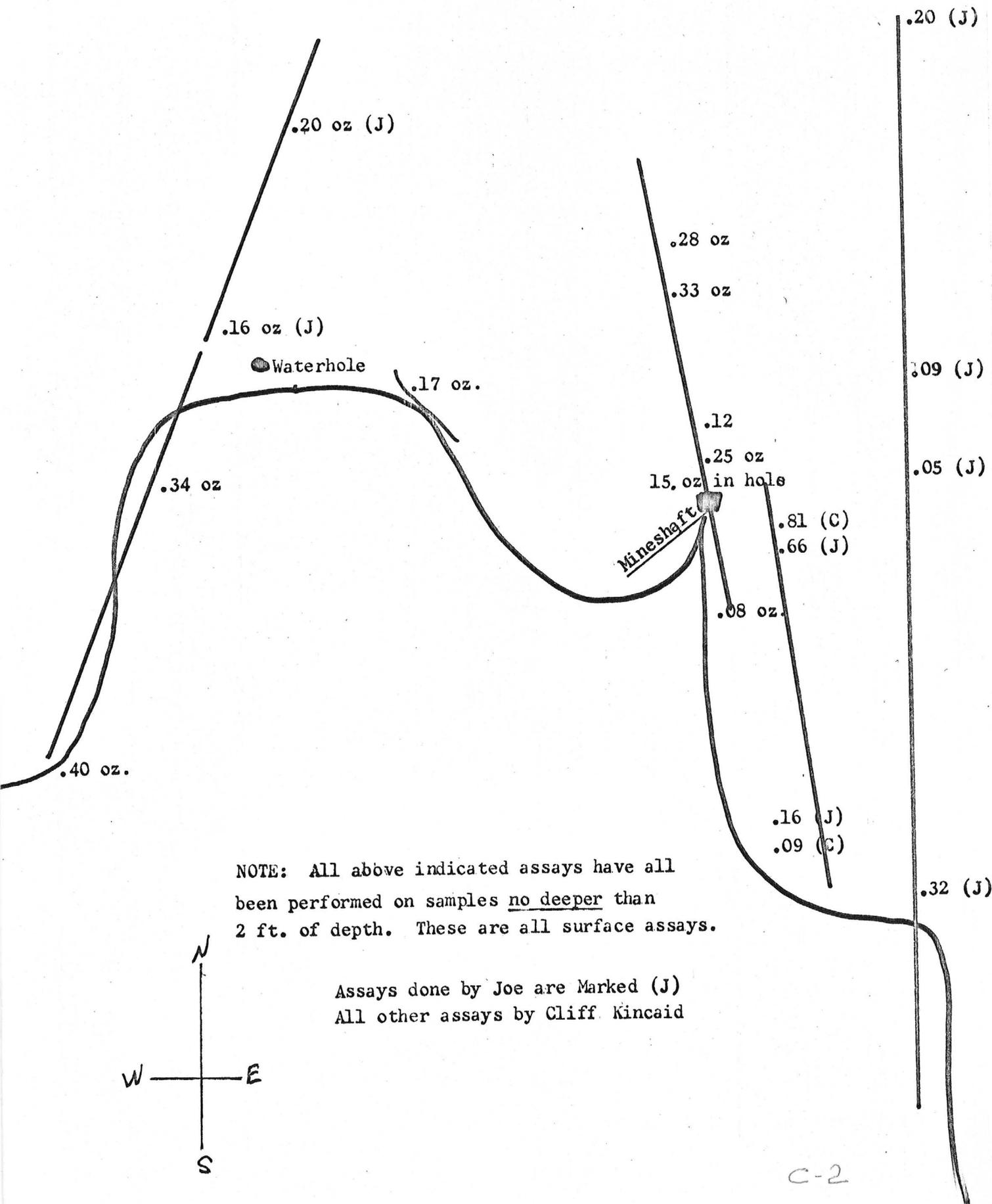
Range 20 West

Township 21 North

Mohave County

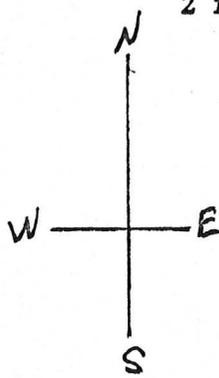


June 1980



NOTE: All above indicated assays have all been performed on samples no deeper than 2 ft. of depth. These are all surface assays.

Assays done by Joe are Marked (J)  
All other assays by Cliff Kincaid



# Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For **Mr. Melvin H. Jones**  
**Post Office Box 1196**  
**Wickenburg, Arizona 85358**

Date **August 22, 1980**

## ASSAY CERTIFICATE

LAB NO.	IDENTIFICATION	OZ. PER TON		PERCENTAGES			
		GOLD	SILVER	COPPER			
7377	<del>DK1</del>	Trace					
	<del>DV2</del>	Trace					
	<del>DV3</del>	0.01					
	SG1	Trace					
	SG2	Trace					
	SG3	0.03					
	SG4	0.11					
	SG5	0.15					
	<del>Tyrol</del>	0.02					

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E McLean, Jr.*

Claude E. McLean, Jr.



*[Handwritten mark]*

**MELVIN H. JONES**

*Mining Geologist*

24 August 1980.

RECONNAISSANCE GEOLOGICAL EVALUATION, SPRINGOLD GROUP LODE CLAIMS,  
BLACK MOUNTAIN, about 6 miles NE of Bullhead City, Mohave County, Az.

In compliance with the instructions of Mr. James M. Campbell, Jr. 120 W. Kent Ave., Wauconda, Ill., 60084, the undersigned (accompanied by Mr. Campbell), made a reconnaissance geological evaluation of the Springold, Inc., mining claims, on August 18, 1980. This property, consisting of 10 lode mining claims (and a millsite) are located in Sections 18, 19, and 20, T-21-N, R-20-W, SR&G B&M. (see enclosed Map A). While this study is not intended to go into the ownership and title of the claims, some information was learned. Springold, Inc., has a lease on the property, which is owned by Mr. Joe Angel Garnica (and associates). Mr. Garnica is also President of Springold, and Mr. Cliff Kincaid is General Manager. Both reside in Bullhead City.

At the site of the old Roadside mine (nearby) Springold has an assay office and a small pilot mill. Mr. Kincaid, who is also a metallurgical Chemist, does some of the testing shown on the enclosed maps (Incl. B). The maps show some high results in gold values.

GEOLOGY.

The Black Mountains are a thick sequence of volcanic rocks, generally considered as Tertiary resting upon old PreCambrian strata. In the nearby Oatman District, (which has been extensively studied in the past), the lower portion of the volcanics is comprised of latite, andesite, and siliceous flows, that are termed the Gold Road volcanics, and this is thought to be in the Katherine District (where the Springold claims are), by the writer. Some rhyolitic flows and tuffs lie unconformably on some of the Pre-Cambrian. At places a monzonitic stock is Laramide (which simultaneously brought in the gold). The Rhyolite sequence is Tertiary. One of the interesting facts is that in the Oatman and Katherine Districts, it was finally recognized that gold can be in Calcite rocks. This was a 'first' for the entire world. To put it simply, gold is found in this region in siliceous veins and ore bodies, that at times, also contain calcitic intrusions. The old 'Katherine District' map shows the Springold to be near extensive rhyolite flows and tuffs.

DISCUSSION.

Mr. Kincaid informed the writer that a fifty ton a day portable mill will soon be brought onto the mining property. He intends to recover the gold concentrates by shaker tabling and floatation. The undersigned sees no objections to this system, provided the values are present to justify the expense of the cost of the equipment and operation.

In Mr. Kincaid's opinion, there is sufficient Au ore blocked out to start milling. He states they will drill for additional water, and that an extensive watertable is only 100-200 feet below the surface. Some new road work was apparent on the claims, especially near the ore outcrops. A mistake has been that the road bulldozer should have been used to open up ore veins, or outcrops, in numerous locations to facilitate accurate sampling. In many places the contacts on the sides

of auriferous rock were obscured, so the width of the vein could not be ascertained. Some small exploration shafts were present; one is 35 feet in depth. A metal headframe is there awaiting erection.

#### SAMPLING AND RESULTS.

Samples of potential ore was taken as outlined below. Except where otherwise stated, these samples were channel cut chip samples across the entire vein (or outcrop): See assay report, Incl. D.

<u>No.</u>	<u>Location</u> (see Incl.C)	<u>Width</u>	<u>Oz. per ton Au.</u>
1.	Claim #3 Start of vein(Strike N8 deg.E.Dip Vert.	7 ft	Trace.
2.	Claim #3 150 ft NE sample #1.	7 ft	Trace.
3.	Claim #1 Exploration pit, 150 ft SE M. shaft.	7 ft	0.03
4.	Claim #1 Main shaft, 35 ft down.	7 ft.	0.11
5.	Claim #1 Grab sample, main shaft dump.		0.15

#### CONCLUSIONS.

The samples taken above show very poor results. On a small operation, the best of the samples would result in negative financial returns, considering expensive machinery, transportation, high wages, and amortizing financial outlay. It is suggested the the above results not be considered for shutting down current development work, immediately. This for the reason that it is within the realm of possibility that the assayer might have made a mistake, or that other samples taken from near areas (over a longer period of time) could be much higher. However, a registered Mining Engineer, or registered Geologist, should be retained to do competent resampling, with extreme care. This should be the key to future quitting, or continuing. Also it might be well to take a mill sample, to a competent processing plant, to determine gold values.

The matter of having sufficient reserves of economic ore is extremely important, and this should also be accomplished before purchasing Mill equipage, mining machinery, and leaching paraphernalia. Many operations have failed, even with the high price of gold, because proper initial studies were not made. Examining the map of sampling prepared by Springold, it is noted that distances of veins appearing as outcrops are not given (except in 1 case). Assuming there are 2000 ft. of 7 ft. wide veins, that have a depth of 100 ft; this would be about 120,000 short tons (enough to start a small mine). These figures are given only as an example. I mention only 100 ft. depth, as this is what the old Roadside (nearby) mined to. The reputation of the area, is that high values do not go to great depth. The Springold main shaft is apparently the location of an intercepting loci. There is a good possibility good ore in the vicinity.

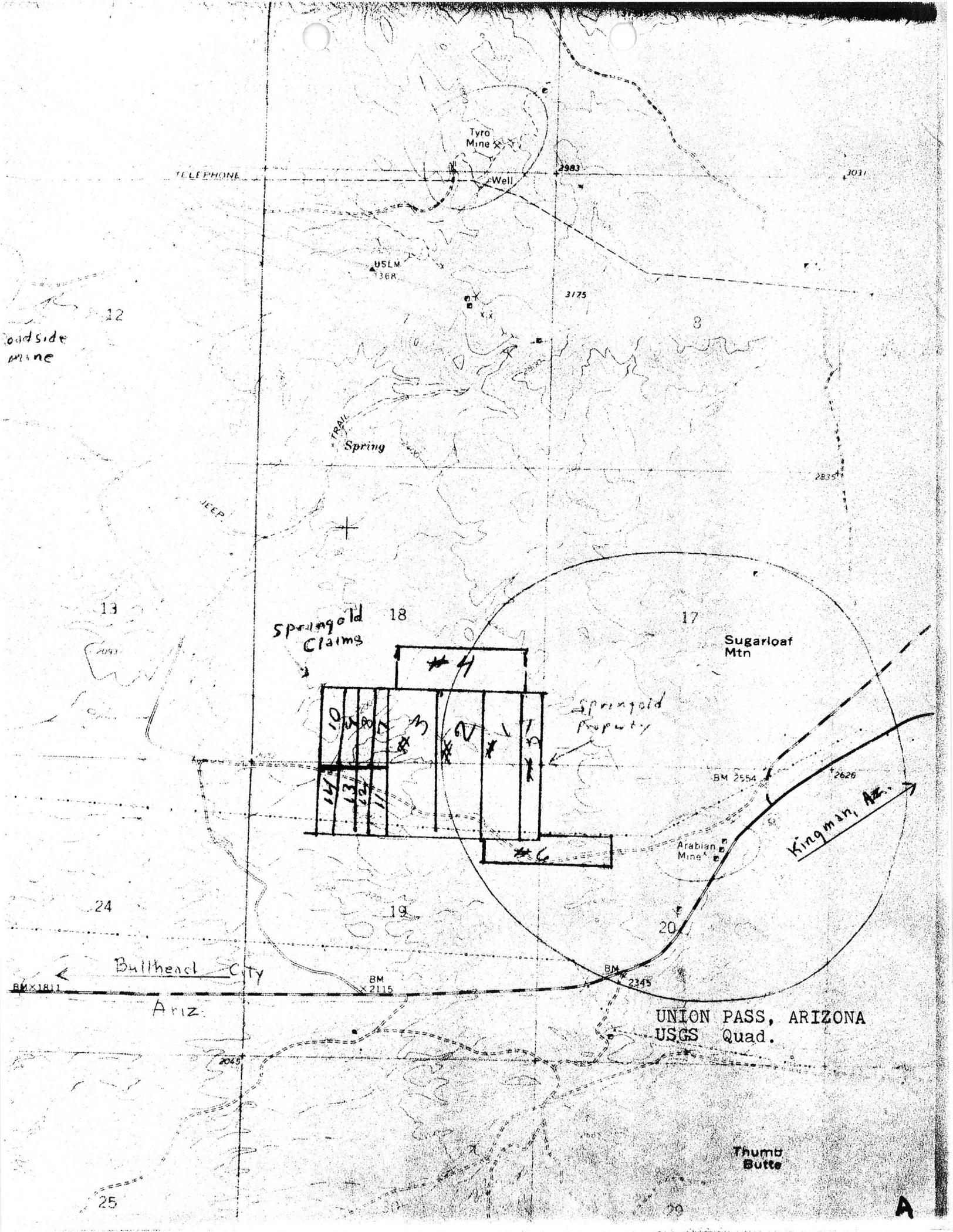
I found it strange that no one talked about the large gold processing plant at Nipton, California. The word is that this old time large mill is being started up again. It is not too far from Bullhead City, and perhaps, gold concentrates could be hauled to Nipton, with considerable savings.

#### RECOMENDATION.

Commence an extensive and competent sampling program, to determine if the mining claims can be worked at an adequate profit. Also reserve ore should be correctly ascertained.

1601 Sandhill Rd., Sp 36  
Las Vegas, Nev., 89104.  
or: Box 1196,  
Wickenburg, Az. 85358.

MELVIN H JONES  
Mining Geologist.



TELEPHONE

Tyro Mine

Well

USLM  
36R

3175

3031

12

Outside mine

TRAIL  
Spring

8

JEEP

2835

13

Springold Claims

18

17

Sugarloaf Mtn



Springold Property

BM 2554

2626

Arabian Mine

Kingman, Ariz.

24

19

20

Bullhead City

BM 2115

BM 2345

Ariz.

UNION PASS, ARIZONA  
USGS Quad.

2045

Thumb Butte

25

A

NOTES FROM I. C. 6901  
U. S. Bureau of Mines - Sep. 1936

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SPRINGOLD GROUP CLAIMS

Range 20 West

Township 21 North

Mohave County

N15°W

S75°W

SPRINGOLD No. 4

.20 oz

.20oz

.134oz  
Waterhole

.28 oz

.09 oz

Sec. 18

Sec. 17

.33 oz

Sec. 19

Sec. 20

.34oz

2.5 Shaft  
oz hole

525'

SG 1  
.40 oz

SG 81  
.66

Springold No. 5

SPRINGOLD, No. 7

Springold No. 3

Springold No. 2

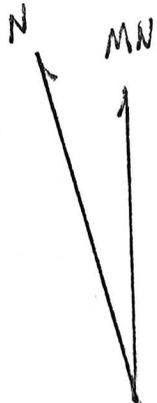
Springold No. 1

.16 oz

.09 oz

.05 oz

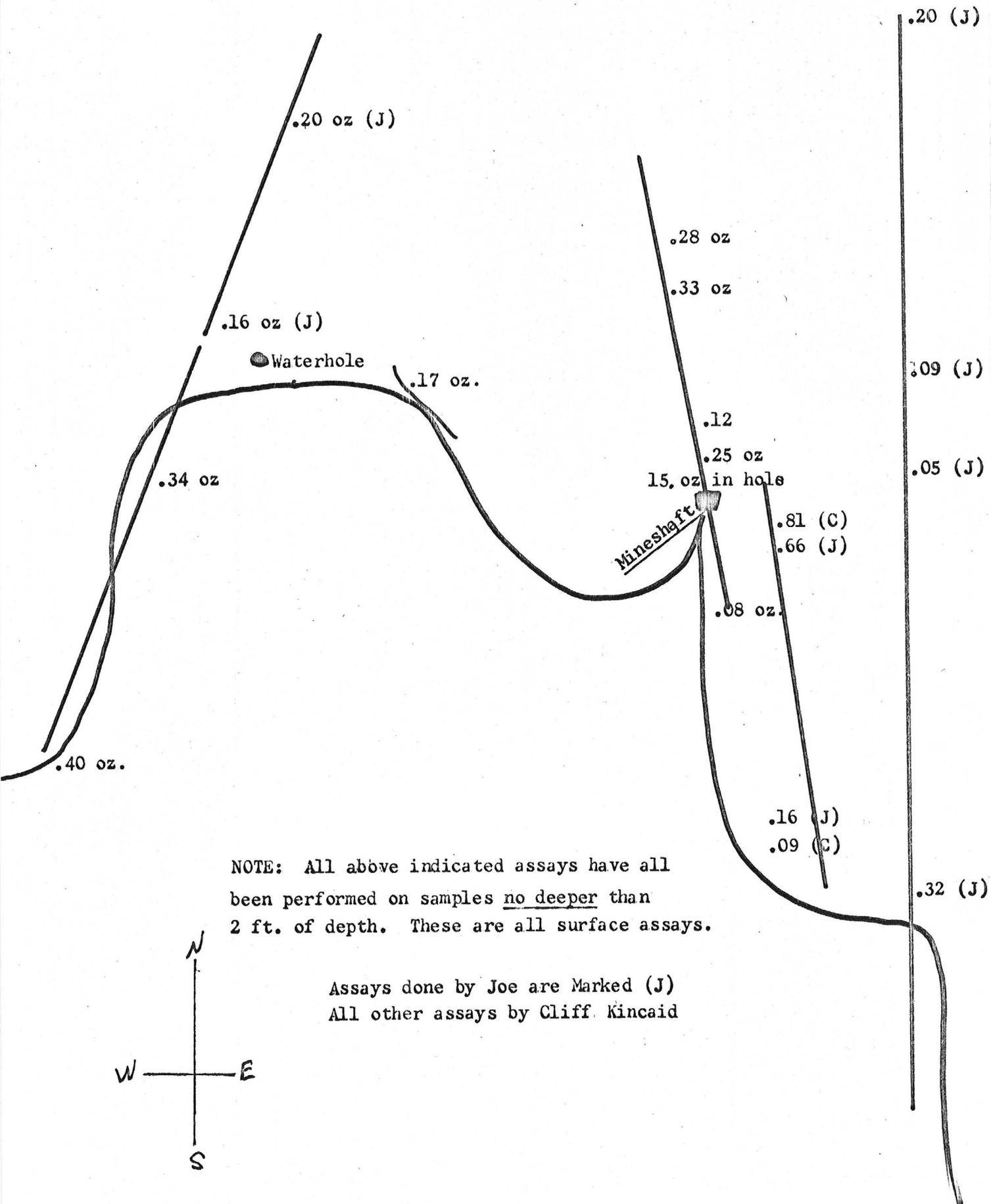
Springold No. 6



SG means Jones samples

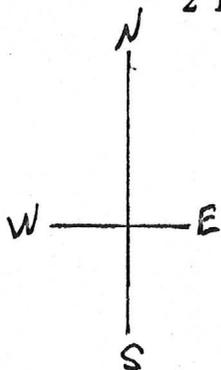
SPRINGGOLD GROUP CLAIMS

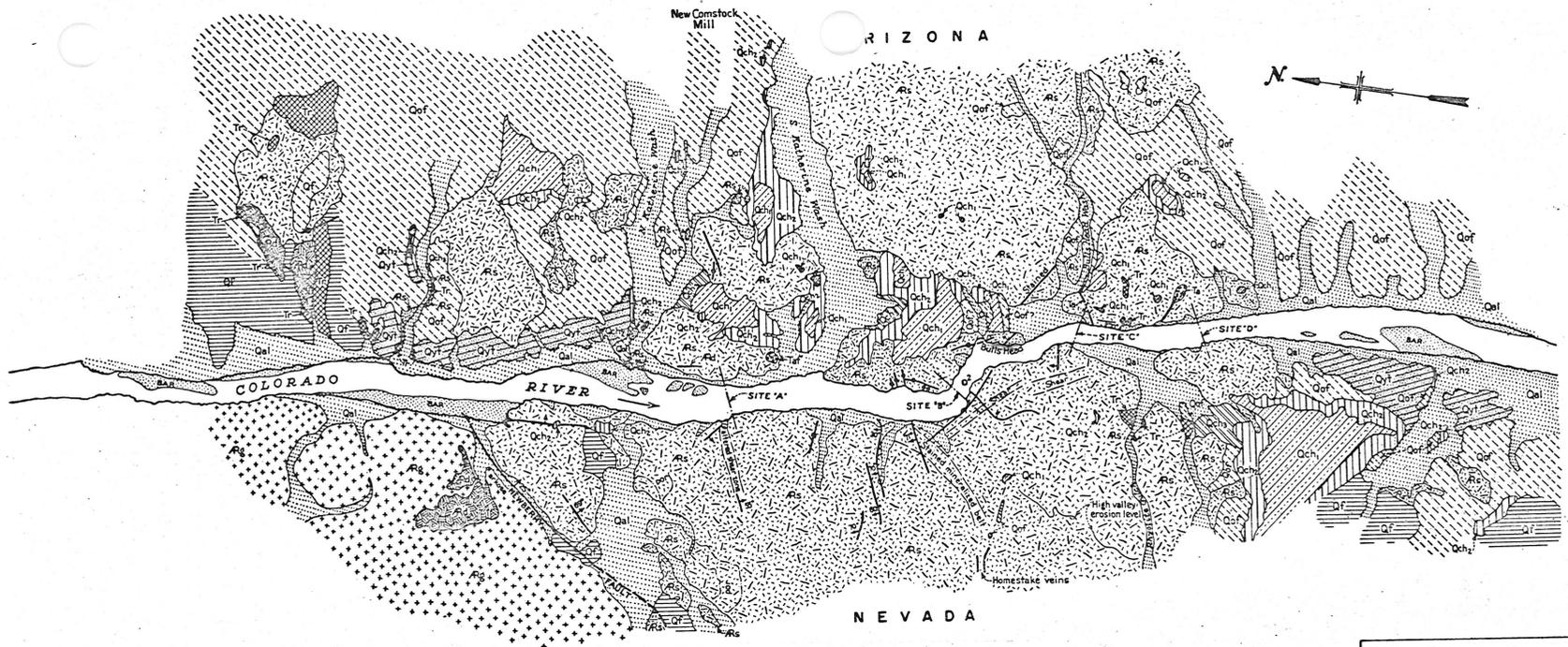
June 1980



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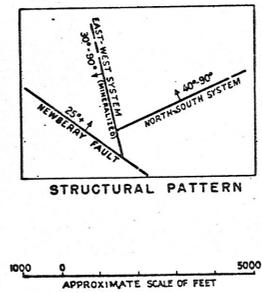
**EXPLANATION**

- QUATERNARY**
- Recent**
- Qel Alluvium  
Unconsolidated deposits by water including gravel and silt in bars and flood plain of river and granular material in washes of principal lateral drainways.
  - Qyt Terrace gravel  
Mostly rounded cobbly deposits chiefly less than 50 feet above stream and laid down by rejuvenated Colorado River in cycle when present canyon was cut.
  - Qf Fans (recent)  
Deposits, many still in process of formation, of rock waste from mountains. Lithologically distinguished from older fanglomerate by light cast of unweathered debris and unconsolidated state.
- Pleistocene**
- CHEMENEUVIS FORMATION (Qch)**
- Qch<sup>u</sup> Upper gravel  
A terrace gravel consisting of nearly equal amounts of fine sand and rounded cobbles deposited by Colorado River at end of cycle of aggradation when basins were being refilled.
  - Qch<sup>s</sup> Silt  
Silt, some clayey silt with thin lenses, and concretions of sandstone dropped by river during basin aggradation in stage characterized by small transporting ability. Near Needles, California, lacustral beds are found.
  - Qch<sup>l</sup> Lower cobbles  
Coarse bouldery material including numerous angular blocks from nearby sources mingled with large rounded river cobbles. Near Parker, Arizona, this member is largely composed of rounded boulders.
  - Qch<sup>c</sup> Fanglomerate  
Cemented angular debris laid down in fans formed prior to period of aggradation by rivers; thus, it underlies the Chemeneuvis formation. It is being actively eroded and is distinguished from younger fans both by cementation and weathered appearance. Probably in part Temple Bar formation.

**IGNEOUS ROCKS**

- TERTIARY**
- Miocene?**
- Andesite  
Sparsely represented locally by scattered dikes near southern end of Pyramid Canyon; by a remnant of a flow (Taf) east of the entrance to the gorge and abundantly along the flanks of mountains bordering the river.
  - Rhyolite  
Locally restricted to intrusive bodies apparently feeders of formerly higher flows that have been eroded. Large bodies northeast of the entrance to Pyramid Canyon are rhyolite porphyry. This rock is the source of mineralizing solutions.
- PRE-CAMBRIAN**
- Granite  
Coarse grained granite of the Dead Mts. west of the river reaches the gorge at the entrance to Pyramid Canyon. It invaded older granite, gneiss and gabbro on a large scale and along parallel dikes on the east flanks of Dead Mts. Possibly younger in age than pre-Cambrian, is cut in turn by various dikes including diorite, rhyolite porphyry, aplite and perhaps alaskite.
  - Gabbro  
Clearly a component of early bedrock but appearing both as diabase dikes in gneiss and roof pendants in granite. The gabbro northeast of Pyramid Canyon forms a large body cutting gneiss and is itself intruded by rhyolite porphyry.
  - Granite Gneiss  
The oldest rock in the area occurs in Black Mts. east of the river and comprises a low transverse barrier cut by the Colorado River in forming Pyramid Canyon. Everywhere, conspicuous phenocrysts of orthoclase are seen, some 2 1/2 inches long. Gneissoid structure is poorly developed or practically absent in places where the rock resembles a granite porphyry.

- Contact
- Fault
- Dip and strike
- Proposed drill holes
- Boundaries of shear zone
- Outline of lithologic facies
- Quartz vein



**COLORADO RIVER-ARIZONA-NEVADA**  
**BULLS HEAD DAMSITES-PYRAMID CANYON**  
**GEOLOGICAL RECONNAISSANCE**  
**F. A. NICKELL. DECEMBER, 1938**

Figure 2. Geologic map of area around Davis Dam. Drawing No. 351-D-2.



the county seat, traverse the mountains through low passes. U. S. Highway 66 in northern Arizona crosses the Black Mountains at Sitgreaves Pass; the distance from Kingman to Oatman by this road is 29 miles. The road from Kingman to the Katherine Mine crosses the range at Union Pass; the distance between the two points is approximately 35 miles. Still farther north, several other roads cross these mountains. The position of these camps relative to Kingman is shown on the index map, Fig. 1.

Kingman is the nearest shipping point on the Atchison, Topeka, and Santa Fe Railway, and power for the Oatman District is generated there. To the southwest of Oatman is Topock, a station at the bridge across the Colorado River, and about eighteen miles to the northwest of Topock is Needles, a division point on the railway.

In the early days of Oatman, a narrow-gauge railroad extended from the Vivian and Leland mines to Fort Mohave on the Colorado River. At that time, a ferry was operating at Ft. Mohave, and supplies for the mines were brought in from Needles, California.

Numerous short roads lead from the main highways to the individual groups of claims, but many of them are now impassable. One of these roads leads off of the main highway about midway between Oatman and the Gold Road Mine and follows Silver Creek to the mines in the northwestern part of the Oatman District. A branch from the Silver Creek Road turns north and connects with the Union Pass Road just north of Thumb Butte.

#### CLIMATE

The region is characterized by an arid climate, with high temperatures prevailing during the summer months, and a relative low humidity. Cloudy days are rare and even in the winter a sunny day may be quite warm. Extremes of temperature are shown in Table 1<sup>4</sup> for Ft. Mohave, about fourteen miles to the west of Oatman, and for Kingman 29 miles to the east. The extremes of temperature do not picture accurately the climatic conditions, and for that reason the mean monthly temperatures are also given. The average monthly rainfalls at Ft. Mohave and Kingman are also given. No records are available for Oatman, but the temperature can be expected to be somewhat lower than at Ft. Mohave and higher than at Kingman. A diurnal change in temperature of 50° to 60°F. has frequently been recorded, and a

<sup>4</sup> S. A. H. V., The Climate of Arizona: Bull. No. 130, Agricultural Experiment Station, University of Arizona, 1930.

TABLE I

TEMPERATURE RANGE AND RAINFALL AT FT. MOHAVE—ELEVATION 604 FEET												
Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total rainfall, inches
Extreme max.	81	92	98	105	117	124	120	117	104	90	81	
Extreme min.	18	24	24	30	37	52	61	42	35	24	3	
Mean temp.	51.6	56.5	63.1	70.9	79.1	84.5	92.8	84.8	72.6	60.4	53.2	
Rainfall in ins.	0.63	0.96	0.47	0.26	0.11	0.22	0.73	0.12	0.28	0.47	0.91	Total 5.21
Ft. Mohave temperature record period of 13 years. Rainfall 44 years												
TEMPERATURE RANGE AND RAINFALL AT KINGMAN—ELEVATION 3326 FEET												
Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total rainfall inches
Extreme max.	78	81	88	102	106	110	117	107	99	89	77	
Extreme min.	8	11	16	20	30	35	43	31	27	13	11	
Mean temp.	43.8	47.8	50.4	58.5	65.2	73.5	80.5	73.7	62.5	53.3	43.4	
Rainfall in ins.	1.39	1.46	1.24	0.67	0.39	0.18	1.41	0.89	0.74	0.75	1.26	11.50
Kingman temperature record period 25 years. Rainfall 25 years												

## MINES OF THE UNION PASS DISTRICT

KATHERINE MINE<sup>130</sup>

The Katherine mine is 2 miles east of the Colorado River, in Sec. 5, T. 21 N., R. 20 W.

This deposit was discovered in 1900. The New Comstock Mining Company developed the mine to the 300-foot level and, in 1903, leased the property to the North American Exploration Company which mined out the richer parts of the vein above the 300 level and closed in 1904. The Katherine Gold Mining Company sank a new shaft, built a 150-ton cyanide mill, and operated from 1925 until late 1929. Lessees made a small production from ore and old tailings during 1930 and 1931. The mine has been closed since 1930.

## APPROXIMATE PRODUCTION OF KATHERINE MINE, 1925-1931.

(Data compiled by J. B. Tenney)

1925 .....	\$ 200,000
1926 .....	400,000
1927 .....	300,000
1928 .....	150,000
1929 .....	25,000
1930 .....	9,400
1931 .....	2,600
Total.....	\$1,087,000

Of this total value, about 85 per cent was in gold and 15 per cent in silver.

In 1933, the Katherine mill and the rights to the water of the Katherine mine were purchased by E. F. Niemann and associates who later formed the Gold Standard Mines Corporation. Early in 1934, this Company was employing about forty men. The mill, which has a capacity of 300 tons, was treating about 60 tons per day. Most of this ore was from the Roadside and Arabian mines (see pages 105-106), and part was customs ore.

The Katherine mine is on a small knob of granite, about 150 feet across, that rises slightly above the general level of the surrounding gravel-floored plain. The collar of the shaft is 990 feet above sea level, or 450 feet above the Colorado River, and the water table is at approximately the 350-foot level.

The vein strikes N. 62° E. and dips about vertically. It is a stringer lode that has a width of more than 60 feet at the surface but narrows underground. This lode has been opened by a 900-foot shaft and for a length of 1,700 feet. Lausen described the vein as follows: "Vein filling at the Katherine mine usually consisted of a series of closely spaced stringers in the granite. At

<sup>130</sup> Largely abstracted from Lausen, Carl, Geology and ore deposits of the Oatman and Katherine districts, Arizona: Univ. of Ariz., Ariz. Bureau of Mines Bull. 131, 1931.

some places, however, the vein filling was solid quartz and calcite up to 10 or more feet wide. Much of the vein filling consisted of quartz, but here and there calcite was abundant. Various stages of quartz deposition are represented at this mine, but the first and second are the most abundant . . . An intergrowth of quartz and adularia also occurred here and formed some of the important ore shoots. It was very similar in appearance to that occurring at Oatman. Sometimes the adularia was rather coarse grained, and the associated quartz was of a deep greenish yellow color. Platy quartz, white in color, with a well-developed laminated structure, also occurred in the Katherine vein. Some of the smaller stringers frequently showed a fine banding and were usually frozen to the somewhat silicified granite walls.

"At the west end of the 200-foot level, some rich silver ore was mined, and, on the 900-foot level, a small stringer, from 2 to 6 inches wide, assayed 65 ounces in silver and 10 ounces in gold. Copper stain was abundant in this rich stringer, associated with chalcocite."

Near the vein, the granite is kaolinized, iron-stained, and locally silicified.

The vein has been cut by numerous faults that have been interpreted as low-angle thrusts from the southwest.<sup>181</sup> The maximum offsetting of an ore body in the plane of the vein is 60 feet. Later movements on the vein have cut the thrust planes.

Many details on mining, milling, and costs are given in the article by Dimmick and Ireland.

#### ROADSIDE MINE

The Roadside mine, as shown on Figure 6, is 4 miles east of the Gold Standard mill.

During 1915-1916, the present shaft was sunk to the 100-foot level, and some drifting was done. Further exploration was carried on in 1921. In 1932, E. Ross Householder leased the mine. Later in the same year, E. F. Niemann and associates, who subsequently formed the Gold Standard Mines Corporation, obtained control of the property. Up to January, 1934, this company had done about 1,000 feet of development work on the 100 level and mined ore that, treated in the Gold Standard mill (see page 103), yielded about 890 ounces of gold and 1,734 ounces of silver.

Here, a fan-shaped block of rhyolite, some 32 feet wide at its narrowest or southern margin, is in fault contact with granitic gneiss on the east and west. The Roadside lode strikes northward, dips 33° to 38° W., and occurs within a fault zone in the rhyolite. The ore shoot, as exposed underground is from 20 to 35 feet wide and 75 feet long on the strike. It consists of irregular stringers and bunches of quartz and calcite in shattered, silici-

<sup>181</sup> Dimmick, R. L., and Ireland, E., Mining and milling at the Katherine mine: Eng. and Min. Jour., vol. 123, pp. 716-20, 1927.

fied rhyolite. The gold occurs mainly in greenish-yellow quartz and also in streaks of chocolate-brown iron oxide. According to E. F. Niemann,<sup>132</sup> the ore shoot, where explored between the 100-foot level and the surface, averages from 0.25 to 0.30 ounces of gold to the ton.

#### ARABIAN MINE

The Arabian mine is in Sec. 20, T. 21 N., R. 20 W., about 3½ miles southeast of the Roadside property.

Intermittent work, which resulted in a small production, has been carried on at this property since before 1917. In late 1933 and in 1934, E. F. Niemann and associates worked the mine and milled several thousand tons of the ore in their Gold Standard plant. The 1933 production amounted to about 593 ounces of gold and 1,156 ounces of silver.

Lausen says: "At this mine, a rhyolite-porphry dike intrudes granite, and, along the hanging wall of this dike, the rhyolite tuffs have been faulted against the dike. The vein occurs in the dike, close to the fault, and it strikes northeastward while the dip is 82° to the southeast.

"A mineralized zone, 30 feet wide and consisting of a number of quartz stringers, occurs in the rhyolite dike and, to a certain extent, in the granite footwall. The individual veinlets of this zone vary in width from a fraction of an inch up to 12 inches or more. The veinlets are chiefly quartz, but, in some places, consist of coarse-grained, gray calcite. A comb structure is common in the smaller stringers where the quartz crystals are large. The central portion may be vuggy, and the vugs often contain manganese dioxide; occasionally, however, the central part of the veinlet is filled with calcite. Near the hanging wall portion of the lode, a small stringer of fluorite was found. Near the portal of the tunnel is some waxy, yellow quartz, a part of which had replaced calcite. No adularia was found in this quartz, but the best values occur in this portion of the lode."

This mineralized zone forms an outcrop 100 feet high by more than 100 wide and more than 500 feet long. Preliminary sampling by Mr. Niemann indicates that much of it may carry more than 0.10 ounces of gold to the ton. Early in 1934, it was being mined by open cut methods and sent to the Gold Standard mill.

Near the northern end of the property, a vein about six feet in maximum width strikes northward, dips 33° E., and is separated from the big lode by faulting. This vein contains an ore shoot that, early in 1934, was being mined for a length of a few tens of feet between the 80-foot level and the surface. According to Mr. Niemann, this shoot averages about 0.50 ounces of gold and from 3 to 10 ounces of silver to the ton.

<sup>132</sup> Oral communication.

## TYRO MINE

The Tyro mine is in Sec. 6, T. 21 N., R. 20 W., and 6.1 miles by road east of the Gold Standard mill.

During 1915 and 1916, the Tyro shaft was sunk to a depth of 500 feet, and some drifting was done on the 200-foot level. Some ore was produced from small pockets near the surface. During 1933-1934, W. E. Whalley and C. F. Weeks, lessees, built a road from the mine to the Katherine highway and began production from surface cuts on the vein.

Here, coarse-grained gneissic granite, cut by numerous narrow dikes of rhyolite-porphry, forms rugged topography. The vein strikes northeastward, dips 85° SE., and forms a stringer lode with a prominent outcrop some 1,800 feet long by 20 to 35 feet wide. The stringers, according to Lausen, consist mainly of granular white quartz with platy calcite and, in places, glassy, yellowish quartz of probably the second stage of deposition. He states that the vein was not found in the deeper workings of the mine.

## SHEEPTRAIL-BOULEVARD MINE

The Sheeptrail-Boulevard mine is in Sec. 7, T. 21 N., R. 20 W., about 7 miles east of the Colorado River.

This deposit, according to Schrader,<sup>183</sup> was discovered in 1865. It was acquired by the New Comstock Mining Company which treated about 2,000 tons of the ore in a 20-stamp mill at the river. The Arizona-Pyramid Gold Mining Company acquired control of the property in 1904 and milled considerable ore. The total production is estimated at 15,000 tons.

Here, granite and rhyolite form a group of low hills. Lausen<sup>184</sup> describes the deposit as follows: "The vein occurs near the contact of granite with a dike of rhyolite-porphry which forms the hanging wall at the west end of the mine. Small stringers occur both in the granite and in the dike, but most of the ore mined appears to have come from the rhyolite. The vein strikes northwest, dips south, and takes a curved course, trending more nearly east-west towards the northwestern end. At the west end, it is cut by a northeast fault. A number of minor faults which trend northeast cut the vein, but, in each case, the offset is small.

Mineralization consists of a number of small stringers of quartz over a width of from 3 to 7 feet. This quartz is not everywhere ore, and only certain portions of the vein stained with iron oxides were mined. Much of the quartz is fine grained, and some of it shows a platy structure.

"The mine was developed to a depth of 450 feet by an inclined shaft, and considerable drifting was done from this shaft. At the surface, numerous tunnels have been driven into the vein.

<sup>183</sup> U. S. Geol. Survey Bull. 397, pp. 204-205.

<sup>184</sup> Work cited, p. 120.

The water table occurs 40 feet below the collar of the shaft, and no ore was mined below the 350-foot level."

#### FRISCO MINE<sup>135</sup>

The Frisco Mine is in the eastern part of the area shown on Figure 6, about 9 miles east of the Colorado River.

This deposit, which was located about 1900, made an estimated production of 44,000 tons of ore prior to 1916. In 1932, according to E. Ross Householder,<sup>136</sup> it yielded a considerable tonnage of ore that was treated in the Katherine mill.

Here, granite, capped by rhyolite, forms a low hill. The principal vein strikes N. 55° E., dips 12° SE., and occurs as a stringer lode in the rhyolite at the granite contact. Its maximum width is 18 feet. Several faults, generally of small displacement, cut the vein. The quartz of these stringers is banded, vuggy, and chalcedonic in texture and creamy white to light brown in color. Most of the ore mined came from the heavily iron-stained lower portion of the vein. Some of the underlying iron-stained granite contained ore.

In the granite flat southeast of the hill is a lode that strikes northeastward, dips 65° NW., and is 59 feet in maximum width. As explored by a 300-foot shaft, with drifts on the 200 level, it was not of commercial grade.

#### BLACK DYKE GROUP<sup>137</sup>

"The Black Dyke group of claims is 3 miles to the east of the Katherine Mine. This large vein is composed principally of calcite, cut by a great number of small stringers of quartz. The vein takes a curved course, trending northwest, and with a length of one-half mile. About midway between the ends it swells to a width of 150 feet . . . The dark color is confined to a thin film at the surface, usually termed 'desert varnish.' The vein appears to occur in a shattered rhyolite which may have been replaced to a certain extent by both the calcite and quartz.

"This vein is said to have been thoroughly sampled and found to average \$3 per ton, but the highest assay obtained by the writer was \$2.40. A small inclined shaft has been put down at the west end, and numerous small tunnels have been run beneath the outcrop."

#### PYRAMID MINE<sup>138</sup>

"The Pyramid Mine is probably the oldest location in the district. It is situated near the Colorado River in some low hills of granite. The vein, which consists of a large number of small stringers in reddish granite, strikes N. 65° E. and the dip is ver-

<sup>135</sup> Largely abstracted from Lausen, work cited, pp. 121-22.

<sup>136</sup> Oral communication.

<sup>137</sup> Quoted from Lausen, work cited, p. 119.

<sup>138</sup> Quoted from Lausen, work cited, p. 118.

in thin section, is found to be composed almost entirely of calcite, secondary quartz, and chlorite. The secondary quartz was most probably formed by the decomposition of the silicates, but, to some extent, it may also represent silica introduced by the mineralizing solutions.

Changes produced in the Gold Road latite are quite similar to the alteration in the andesite. Some of the latite at the Gold Road and Gold Ore mines is impregnated with disseminated pyrite, and such rock is also bleached to a light gray color.

The rhyolite flows in the Oatman District are not traversed by veins, and the small stringers of chalcedony and calcite have produced only slight changes in the rock. In the Katherine District, however, the changes in the rhyolite flows are more pronounced. Calcite is only a minor constituent of the alteration products, and the rock has been changed very largely to an aggregate of kaolin and secondary quartz. Only specimens from near the surface could be obtained, and they were invariably stained with iron oxides. Silicification appears to have been the most important result of the alteration.

Attention was directed to the altered condition of the Moss porphyry when describing that rock. This intense alteration appears to be associated closely with the deposition of pyrite in the rock. At the Moss Mine, there is very little pyrite; consequently, this intensely altered condition is absent. Fragments of the porphyry enclosed in the vein have been silicified, but, in addition, small amounts of kaolin, calcite, and chlorite have also formed.

A surprising feature of the alteration of the wall rocks is the general absence of sericite. Sericite is often found in such rocks as a result of mineralization, and signifies the addition of potash from the solutions. In this case, however, the solutions may have abstracted potash from the wall rock. No analyses are available to establish this point.

#### ORE SHOOTS

The distribution of ore shoots along the Tom Reed vein, which are shown in elevation on Plate IV, indicates a concentration of ore bodies at certain points. For example, the three most important ore bodies, the United Eastern, the Tip Top, and the Ben Harrison, were all localized within 2,000 feet along this fracture. South of the Ben Harrison ore body, the Tom Reed fracture is barren for over 2,000 feet of its length, and some portions of the fracture are entirely devoid of vein-filling. Underground exploration work, however, shows the fracture to be continuous,

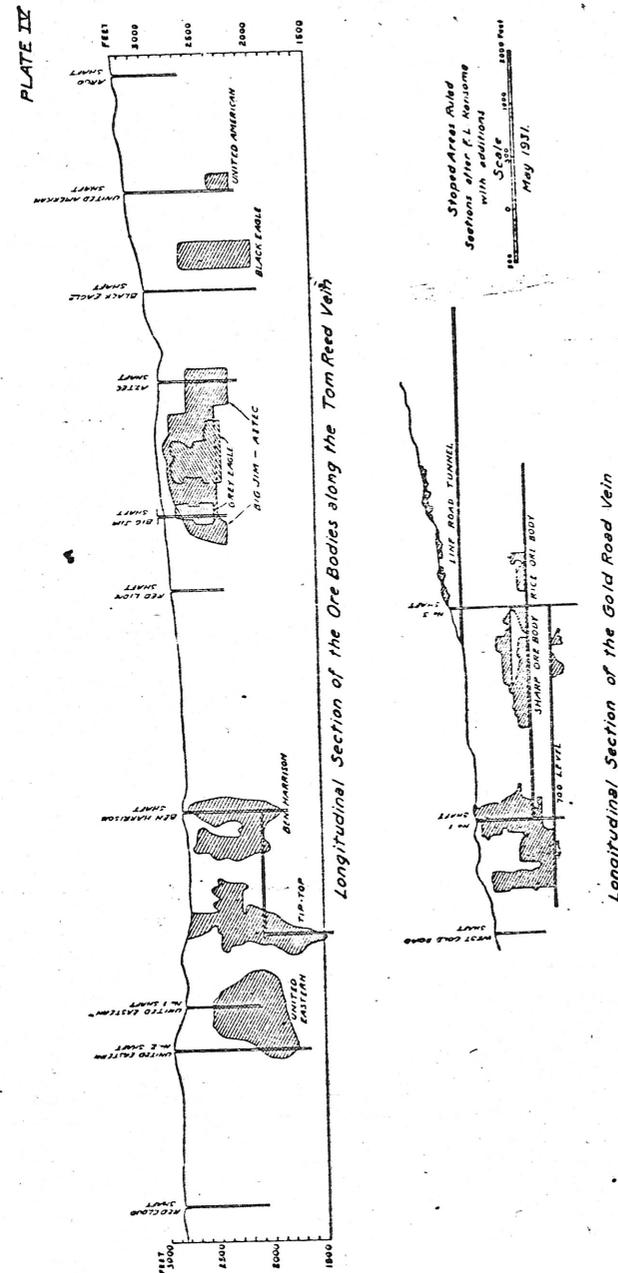


Plate IV.—Location of ore shoots on the Tom Reed vein and the Gold Road vein.

TABLE II.—GOLD AND SILVER PRODUCTION OF THE SAN FRANCISCO DISTRICT, ARIZONA

(200-ton Mill)

COMPILED BY J. B. TENNEY

Year	TOM REED MINE		UNITED EASTERN		GOLD ROAD		TOTAL PRODUCTION <sup>a</sup>			
	Tons Ore	Bullion Value	Tons Ore	Bullion Value	Tons Ore	Bullion Value	Total Tons Ore Treated	Total Gold in dollars	Total Silver in ounces	Total Value in dollars
1897 to 1907					1904 to 1907 incl.	\$ 2,250,000				\$2,522,000
1908						739,400	72,757	266,254	6,522	269,711
1909		\$1,037,911					18,106	300,036	7,118	303,737
1910						676,600	89,284	1,103,221	26,254	1,117,398
1911	43,924	835,048				665,783	110,699	1,458,639	33,831	1,476,571
1912	55,663	1,154,559			109,070	676,515	174,319	1,794,847	41,456	1,820,342
1913	48,111	1,141,907			103,629	843,991	159,948			1,818,522
1914	46,995	1,002,407			107,846	651,761	160,469			1,846,398
1915	29,916	661,871	Discovered		96,273		132,579			1,499,033
1916	46,170	486,678	Developed				95,245	892,681	23,812	908,349
1917	81,884	620,179	84,548	\$1,827,670			167,258	2,310,270	57,353	2,357,529
1918	88,525	794,383	92,339	2,072,359	Mine closed		182,824	2,772,991	70,432	2,843,423
1919	89,537	679,986	97,325	1,970,509			184,490	2,556,197	71,833	2,636,650
1920	93,970	705,657	102,926	2,233,819			197,629	2,830,731	92,806	2,931,890
1921	69,832b	377,992	97,413	1,910,054	Mine		179,013			2,388,050
1922	43,072	463,118	117,687	1,643,909	reopened		169,240			2,138,546
1923	42,814	538,366	104,800	2,085,075	31,109		186,686	2,796,830	68,551	2,853,042
1924	14,586	181,936	Closed June	1,000,000 <sup>†</sup>	Closed.Oct.		96,788	1,617,196	39,097	1,643,391
1925	35,448	494,829	Dump ore treated	60,000 <sup>†</sup>			46,638			568,131
1926	21,261	283,595					89,391			647,172
1927	17,259	161,461					102,979			530,866
1928	7,672	118,275					43,300			296,926
Total	876,639	\$11,740,158	697,038	\$14,726,895	447,927	\$ 6,504,050	2,659,642			\$35,417,926

ARIZONA BUREAU OF MINES

Includes production from small mines.  
From 1921 to 1928 includes ore from lessees.

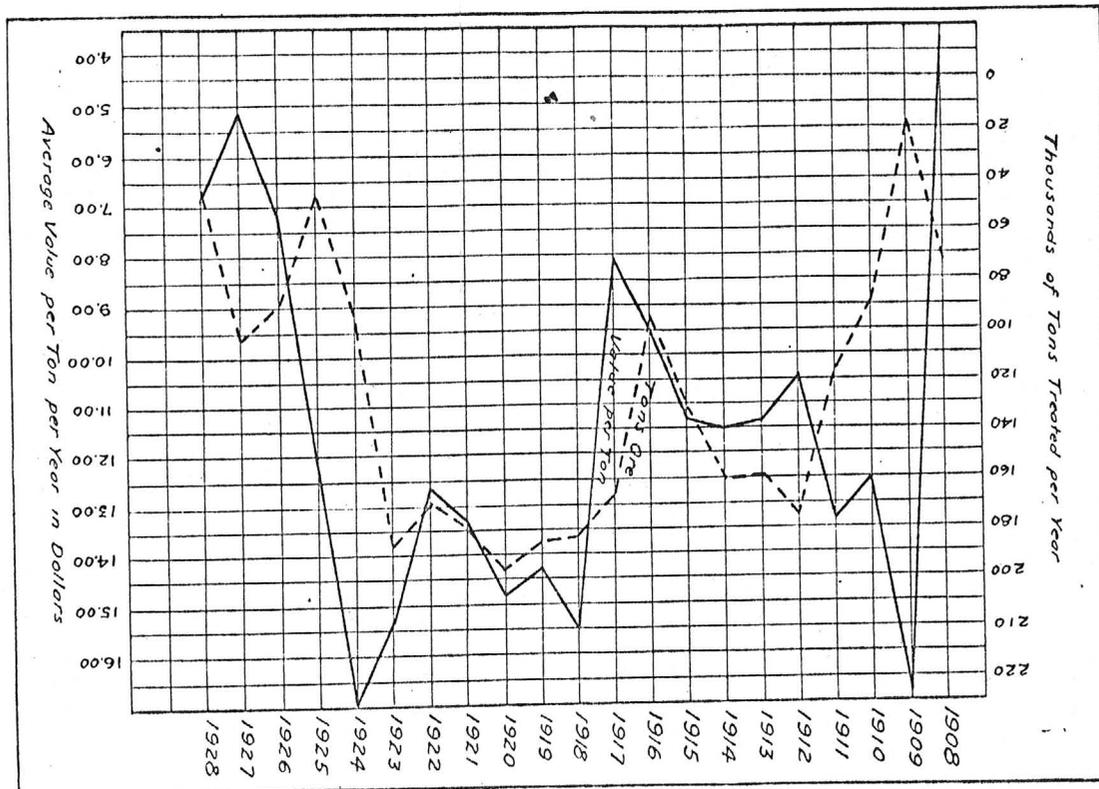


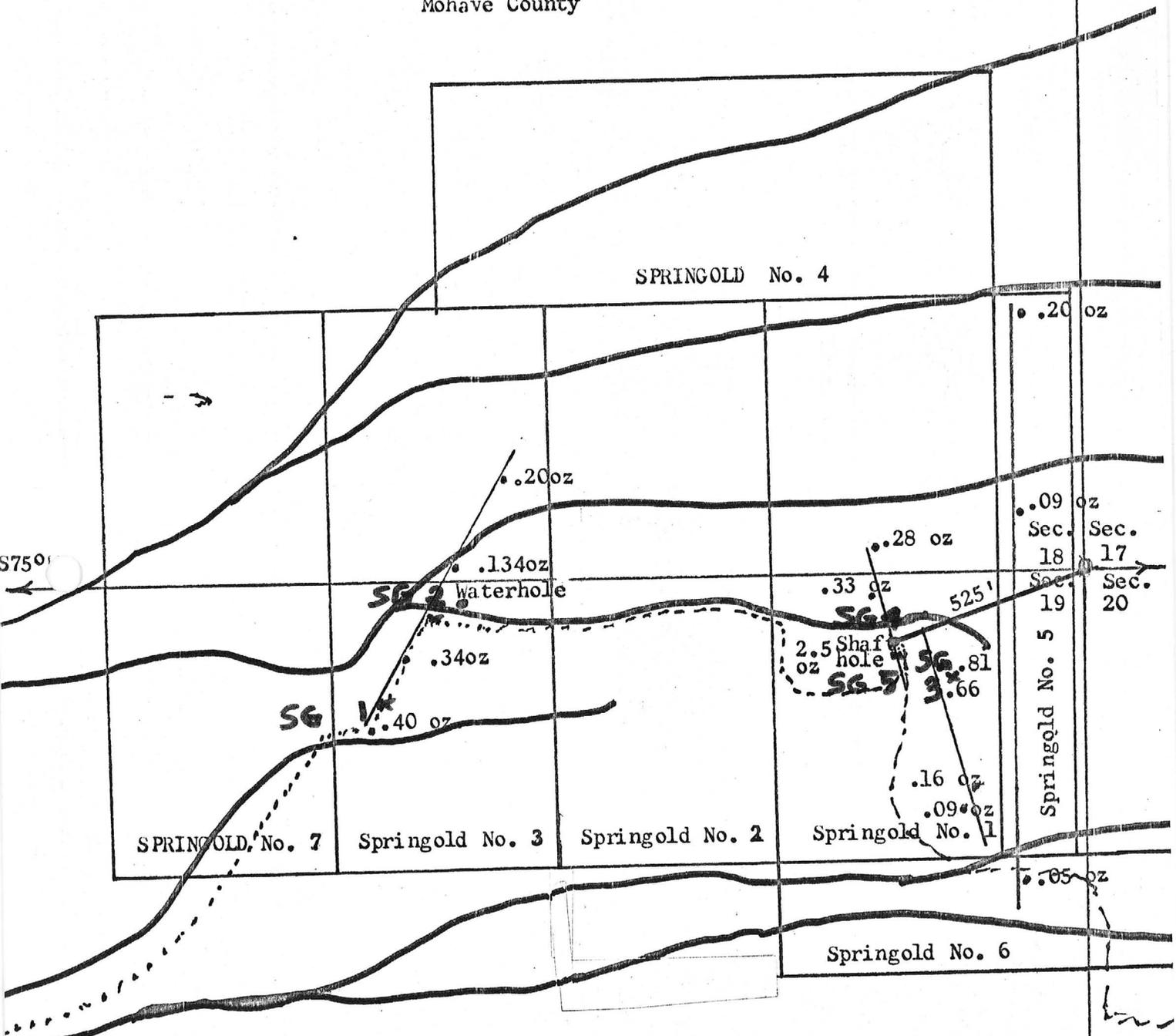
Fig. 2.—Chart showing the relation between tons of ore mined and the value per ton for the years 1908-1928 inclusive.

duction from the United Eastern began in January, 1917, and continued until June, 1924, when the mine was closed. Ore mined at the Big Jim by lessees in 1926 is included in the production of the Tom Reed as the ore was treated at that company's plant.

THE OATMAN AND KATHERINE DISTRICTS

RINGOLD GROUP CLAIMS  
 Range 20 West  
 Township 21 North  
 Mohave County

N15°W

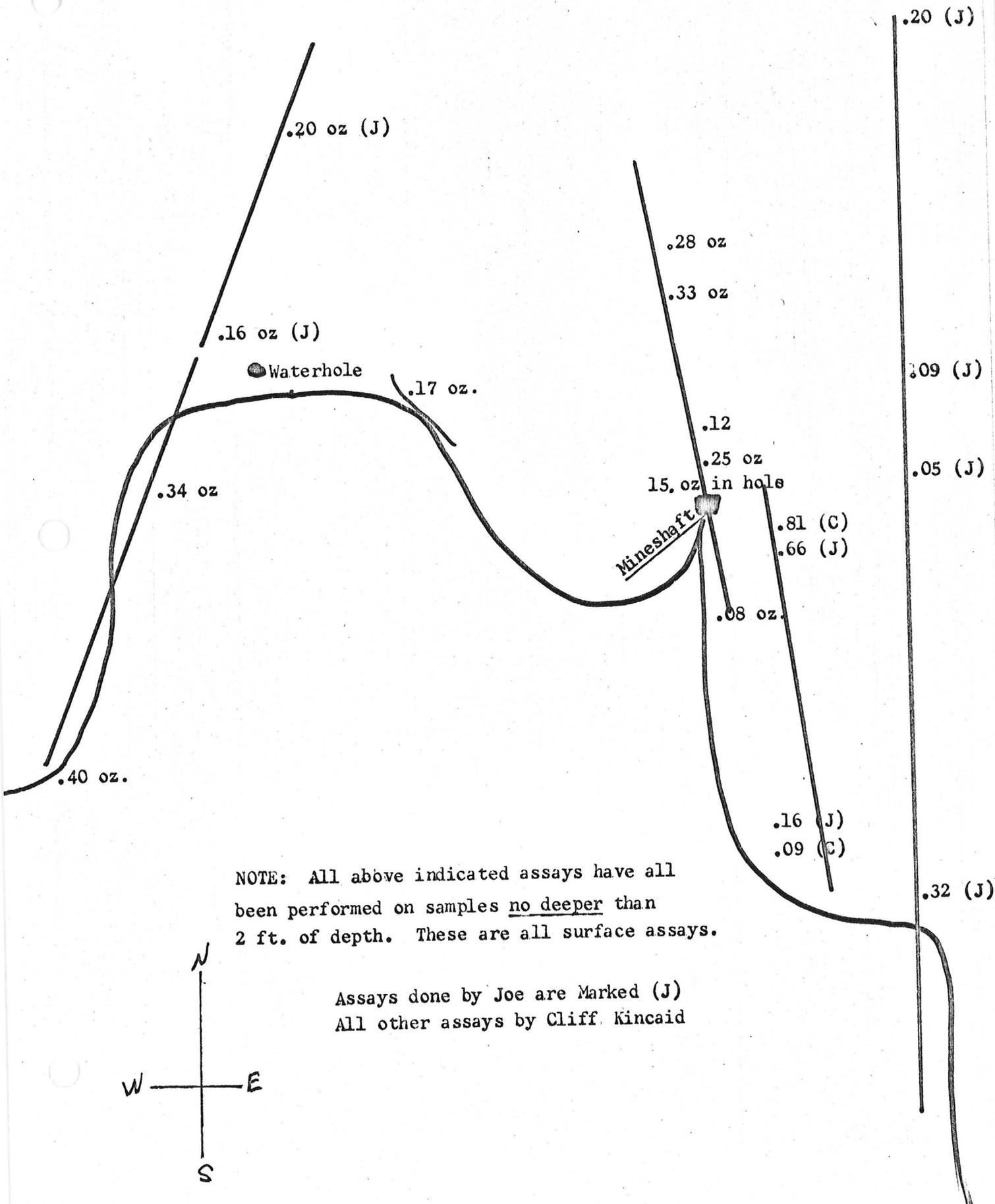


SG means Jones samples



SP. GOLD GROUP CLAIMS

June 1980



NOTE: All above indicated assays have all been performed on samples no deeper than 2 ft. of depth. These are all surface assays.

Assays done by Joe are Marked (J)  
All other assays by Cliff Kincaid

