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12/13/89

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: FOUNTAIN HEAD

ALTERNATE NAMES:
BEVIS GROUP

MOHAVE COUNTY MILS NUMBER: 85E

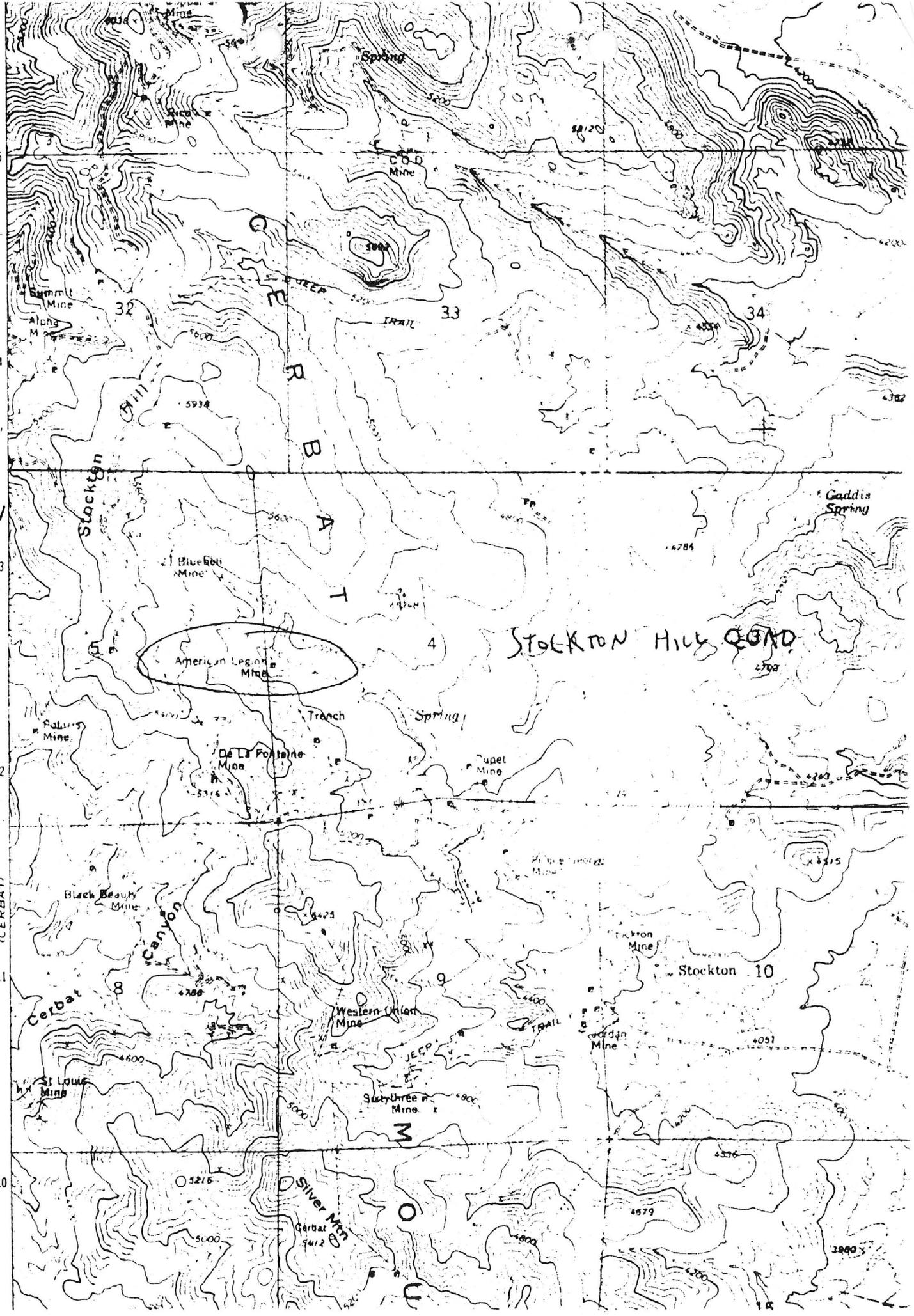
LOCATION: TOWNSHIP 22 N RANGE 17 W SECTION 4 QUARTER SE
LATITUDE: N 35DEG 19MIN 20SEC LONGITUDE: W 114DEG 06MIN 37SEC
TOPO MAP NAME: STOCKTON HILL - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
COPPER
LEAD
ZINC
SILVER
GOLD LODE

BIBLIOGRAPHY:
ADMMR FOUNTAIN HEAD FILE
ADMMR MOHAVE CARD FILE
~~Neale's~~ NEALE'S MINES HANDBOOK, VOL XVII, P 345; 1926

1915
1914
20'
T 23 N
T 22 N
R17W
1913
1912
3/5 SW (CERBAT)
1911
1910



NAME: **BANNER MINE**

COUNTY: MOHAVE

T 22N R 17W SEC. 9 N. Center

WALLAPA
DISTRICT: **CERBAT**

Elev 4900

SECTION HILL

Mineralization: A. Ag Pb Zn Cu 8' etc

Geology: Qtz - go in fault fissures

Type Operation: 430'

Production: ^{1901 - 1945}
350,000 ^{1901 - 1945} 500,000 / 1,697,000 lbs. 79, 382 ^{1901 - 1945} 21,603 ^{1901 - 1945} Co. 2,195,998 ^{1901 - 1945} Pb, 39,978 ^{1901 - 1945} Cu

References: A₂ W. 2/1920 ^{Mines Handbook 1918, p 363}
USGS Bull 397 ² MOHAVE CO MINE p15 USGS 346 - clipping file
claims midnight, Golden Eagle, Roving Dick, Dick, Banner
Sunset Sunnyside, Hoyd George, Ida, Uindicator

Mohave County Card File

Mohave Custon Mill Project

USGS 340 p. 68

Arizona Mining Journal August, 1920, p. 13

ABM Bul. 140, p. 95

USGS Bul. 978-E, p. 147

Weed, W. Mines Handbook, Vol XIII, p. 363

Stockton Hills Mine file

ABM Bul. 125, P. 87-88

AEC Preliminary Recon. Report #172-285, p. 90

Evaluation of Mineral Resources of the Hualapai Indians, Vol 1, 1964,
p. 319-322

MILS Sheet sequence number 0040150352 and 0040150495

Neal, W., Mines Handbook, Vol XVII, 1926, p. 345

Geo. Report - Az. Mining Assoc. "Comments of the BLM Upper Sonoran EIS"

Mr. HAMILTON. How long since your property shut down?

Mr. DIMMICK. About six months ago.

Mr. HAMILTON. Is it contemplated that you will reopen in any near period?

Mr. DIMMICK. Well, that is uncertain. My personal view of the situation is that the majority of the operating companies that have been approached toward financing the construction of a mill do not care to enter the State of Arizona.

Mr. HAMILTON. Will the closing down of the Tom Reed and the United Eastern make it more difficult for operations of the Katherine mine, because of the labor shortage or anything of that kind, or will it affect the operations of the Katherine?

Mr. DIMMICK. It naturally will have more or less of an effect on the general welfare of the county, and that naturally will affect any individual property.

Mr. HAMILTON. Are the wages paid out there the same as in the other mines in the district?

Mr. DIMMICK. The same as in the Oatman district.

Mr. HAMILTON. What power do you use out there?

Mr. DIMMICK. We develop our own power by semi-Diesel engines.

Mr. HAMILTON. How does the cost of that power compare with the cost of power at the nearest hydroelectric power line, Mr. Dimmick?

Mr. DIMMICK. Well, it would not compare with hydroelectric, but it compares more favorably than the steam generation. Take into consideration the Frisco line to base my figures on, because they were in operation a good deal longer than the Katherine. During the pre-war period we were able to generate horsepower for \$4.66 a month, as I remember it. At the Katherine during the period of 1921 and 1922 and part of 1923, with the same type engine, we were able to develop a horsepower there for a fraction over \$6 per month per horsepower. The semi-Diesel engine in an isolated district seems to be the only solution of the power question. It is only a question of the number of units to be installed as to the liability of a shutdown, as an engine like that runs into money. It is the number of units, constant units, which makes the initial cost higher. Constant power can be generated with them cheaper than by steam. I have a set of figures given to me by Allis-Chalmers & Co., given to me for the installation of a mill, in which they guarantee a kilowatt for a cent and nine-tenths (1.9 cents) at the switchboard. Taking depreciation, taxes, and depletion of the plant into consideration, over a period of four and one-half years, placed the cost of power at 2.155 cents per kilowatt.

Mr. HAMILTON. What are your haulage costs here?

Mr. DIMMICK. \$8 a ton.

Mr. HAMILTON. Over how great a distance?

Mr. DIMMICK. Thirty-eight miles.

Mr. HAMILTON. How does that haulage compare with yours, Mr. Maxcy?

Mr. MAXCY. Ours is \$8 a ton.

Mr. HAMILTON. What is the distance?

Mr. MAXCY. Forty-one miles.

Mr. DIMMICK. We pay upon merchandise \$9 a ton; oil, \$8 a ton. Of course, we had steady hauling like at a producing property that could be materially reduced, Mr. Hamilton.

Mr. HAMILTON. That is by contract?

Mr. DIMMICK. Yes, sir; by contract.

Mr. HAMILTON. Are there any other properties operating in your district at the present time?

Mr. DIMMICK. Yes, sir.

Mr. HAMILTON. What are they?

Mr. DIMMICK. The Illinois-Katherine is operating quite a force of men. Mr. Phelps has been doing a little prospecting. Those are the only two operating companies in there right now.

Mr. HAMILTON. Are there any other points that you want to bring out at this time?

Mr. DIMMICK. No. The only point that really can be brought out is the comparative difference in the cost of development between this State, or this section, and Colorado or some points in Nevada. I find in our workings in Cripple Creek we are able to do the same type of development for \$11.40 a foot as against \$17 to \$20 a foot here. That is the actual cost—

Mr. HAMILTON. In general, what is that difference attributable to, Mr. Dimmick?

Mr. DIMMICK. That difference is attributable to practically three things. There is very little difference in labor. There is a tremendous difference in power

and a difference in the taxation—that is, which includes insurance and taxes. That is a very peculiar coincidence. We are insured in the same company in Colorado as we are here, and we pay \$8.96 here and \$4.25 up there. Our total underground costs in Cripple Creek, mining at a greater depth than here, nothing less than 1,500 feet, outside of administration expenses, runs \$9.75 a foot, and with the overhead it makes it \$11.40 a foot, which includes a split-check system of leasing, in which the company supplies the materials for the leasers and they perform the labor, and we split the check on the proceeds. That makes the cost \$11.40. And under four or five thousand feet of development here I think the lowest cost we had was \$16.85 and the highest \$20, running over a period from 1920 to 1923.

Mr. HAMILTON. What is the reason for closing down operations now? Is it the fact it is not possible to finance your milling operations?

Mr. DIMMICK. Yes, sir.

Mr. HAMILTON. In general, what is the grade of ore that will be milled?

Mr. DIMMICK. It runs around \$11. The vein in itself, as Mr. Phelps stated, contains an enrichment along both walls of the vein, varying in width from 5 to 24 or 25 feet, not in the narrower widths of commercial, but there is an intermediate area of low-grade material that varies considerable in its value that under present conditions could not be considered as ore.

Mr. HAMILTON. Have you made any estimates as to what that type of ore could be milled for, or what profit there might be in that sort of ore?

Mr. DIMMICK. Well, the only basis of figures is taking the United Eastern and the Tom Reed into consideration, what their costs have been, and I imagine ours would be somewhere near it; estimated around \$7.

Mr. HAMILTON. Are there any other points that you wish to bring out, Mr. Dimmick?

Mr. DIMMICK. Not that I know of.

Mr. HAMILTON. All right. Thank you very much. Mr. Foster, have you anything to add for the record?

Mr. FOSTER. No, sir; I don't believe that I have a thing, Mr. Hamilton.

Mr. HAMILTON. Have you had any difficulties in your mining experience?

Mr. FOSTER. No, sir; I never did.

Mr. HAMILTON. Mr. Wishon, will you take the stand, please?

STATEMENT OF MR. W. W. WISHON, PRESIDENT WISHON EXPLORATION CO., KINGMAN, ARIZ.

Mr. HAMILTON. Will you state your name and connections, please.

Mr. WISHON. W. W. Wishon; president of the Wishon Exploration Co.

Mr. HAMILTON. Where have you been carrying on your exploration work mostly, Mr. Wishon?

Mr. WISHON. In this county. We have been over it pretty thoroughly in the past two years, and prior to that, having lived close here in Nevada, I came in here occasionally for the last eight years.

Mr. HAMILTON. What do you find to be the chief obstacles in the development of this district, Mr. Wishon?

Mr. WISHON. Well, the oxidized bodies have already been taken out pretty well and the cleaner sulphides from nearer the surface likewise, so that in the base ores we have chiefly lead and zinc, which have to be separated by concentration, and the zinc—it is almost impossible at present to ship any of that.

Mr. HAMILTON. Have there been any attempts made for the separation of the lead and zinc ores?

Mr. WISHON. Not lately. There will probably be a plant in the near future by Mr. Campbell on the Fountain Head here. He is developing a very fine body.

Mr. HAMILTON. Fountain Head mine?

Mr. WISHON. The Fountain Head mine; yes, sir.

Mr. HAMILTON. Where is that located?

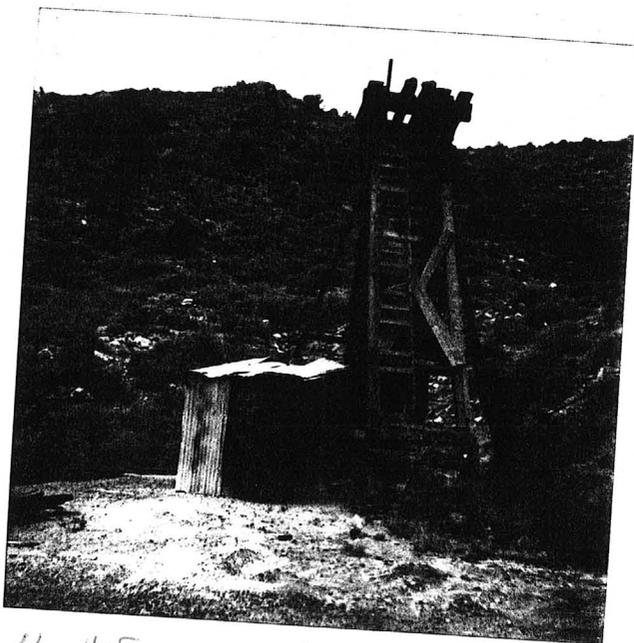
Mr. WISHON. In the Cerbat Range. Then in the southern portion of the county there are some wonderful prospects for galena and lead and some copper, the high price of lead having made them attractive to capital; and also the working of the Signal Mines Co. by Mr. Maxcy has made us look to that region. I believe that portion of the county would have been developed had they had transportation some time ago. The distance of the transportation—40 to 60 miles—makes quite a difference, trucking from the railway point.

AMERICAN LEGION, Mohave Co

View lookoing west.



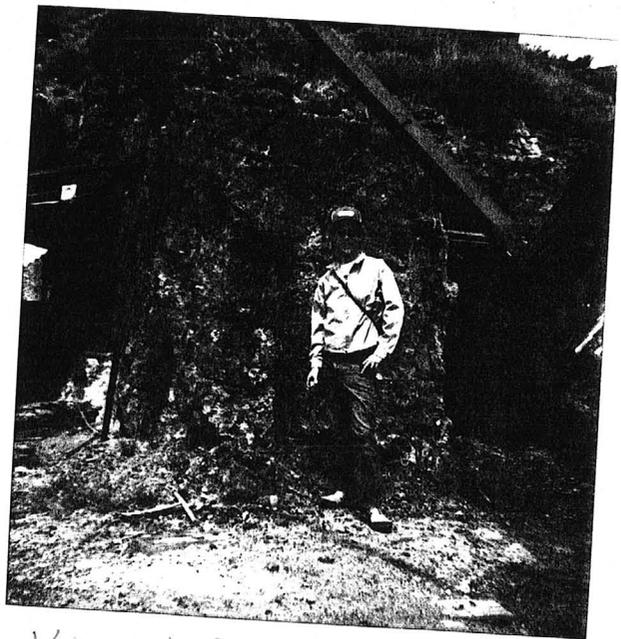
A-50-29



Head Frame at American Legion

A-50-30

4/16/84



Vein at American Legion A-50-31

4/16/84

FOUNTAIN HEAD AND BANNER MINING PROPERTY

MOHAVE COUNTY

NJN WR 10/6/85: It was reported that Harrison Mining is sinking a decline at the Fountain Head and Banner Mining Property (f) Mohave County.

NJN WR 1/31/86: William Vanderwall (c) visited and reported that Harrison Mining (c) produced about 6 tons of concentrates at the refurbished Summit or Cerbat Mill (Golden Gem mine and mill - file, Mohave County) from ore mined at the Fountain Head Mine (f) Mohave County. Their operation is gone now with only a watchman remaining at the mill.

KAP WR 10/3/86: Bob Hamilton, P O Box 231, Room 4001, Los Angeles, Calif. 90053 requested information on the Fountain Head Mine, Mohave County. He is the mining engineer for the Internal Revenue Service and is involved in the investigation surrounding the investments and write offs pertaining to the most recent operations at the property.

R/14

FOUNTAIN HEAD & BANNER GROUPS

MOHAVE COUNTY

Sam Barbee, metallurgist and assayer for Cerbat Mining Company, discussed the operation of the mill at the Golden Gem Mine. Also, he reported that 27 men are employed in total at the mill and the several mines under control of the company, (the Golden Gem, Flores, Summitt and the recently acquired Banner Group (Tigress) operated many years ago by U.S. Smelting.

May 16, 1962 - Visited the Golden Gem mill of Cerbat Mining and Milling Co. the mill is operating one shift per day (20-25 TPD) on ore from the Golden Gem mine and the Tigress claim (Banner group).

Travis P. Lane - Weekly Report - 5/19/62

NJN WR 10/22/82: From the Bureau of Geology and Mineral Technology the following production data on the Fountain Head Mine, Mohave County was obtained. Reed Manufacturing and individuals, Bowen, Hogue and Robinson were active there during 1937-1953 with the bulk of the production coming during 1937-8 and 1951-53. Total tonnage was 2,560 tons from which 32,900 lb Cu, 15,870 oz. Ag, 870 oz Au, 61,180 lb. Pb and 111,350 lb Zn was recovered. Also reported was production by Bevis Divide Mining Company during 1926-27 for the Fountain, Goodwill and Silver claims. Total tonnage was 9,900 tons which contained 63,980 lb. Cu, 37,200 oz Ag, 1,820 oz Au, 428,500 lb. Pb and 1,725,000 lb. Zn.

NJN WR 3/15/85: Ed Huskinson (c) reported that the Equitable Corp (c) is active again at the Cerbat Canyon area. They are re-opening the American Legion Mine (c) Mohave County (Fountain Head and Banner Group (f) have graded the road west over the Cerbats to the Cerbat Mill and are planning to start once more to rehabilitate the Cerbat Mill (Golden Gem Mine and Mill (f).

NJN WR 6/21/85: Information received from Mrs. Bob Hughes of Equitable Corp. (c) has a Mr. Earl Harrison of Harrison Mining, Box 3091, Kingman, Arizona 86402, phone 753-9117 operating the flotation mill in Cerbat Canyon (Golden Gem Mine and Mill - file) Mohave County and supplying it with ore from the Fountain Head and Banner Mining Property (f) MOhave County.

PRODUCTION LIST

Obtained from the Bureau of Geology & Mineral Technology

Fountain Head Mine

Reed Manufacturing and individuals, Bowen, Hogue and Robinson were active there during 1937-1953 with the bulk of the production coming during 1937-38 and 1951-53.

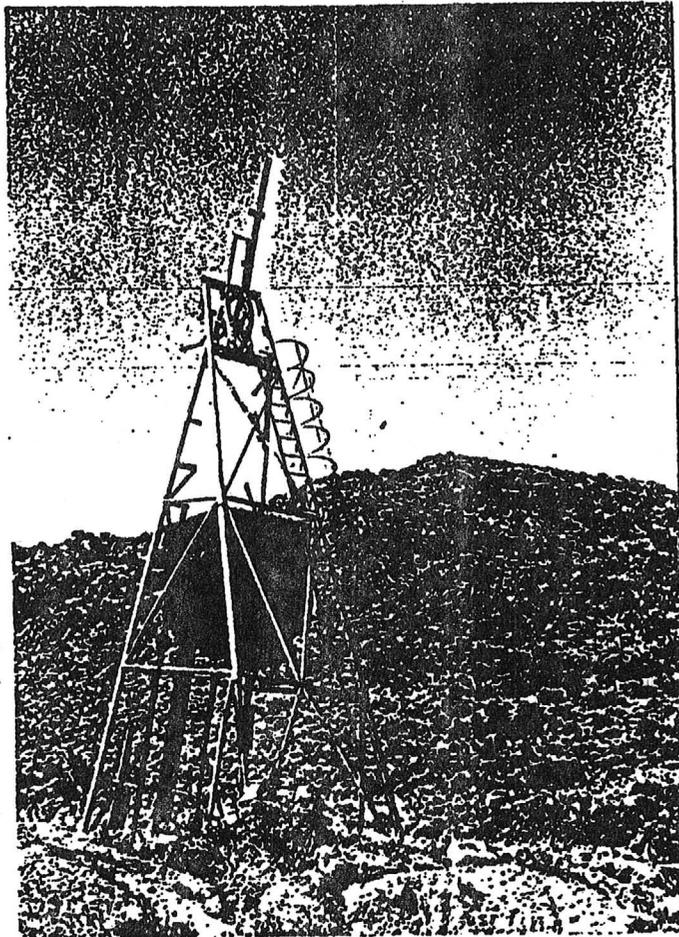
Total tonnage - 2,560 tons.

Cu	32,9000 lb
Ag	15,870 oz
Au	870 oz
Pb	61,180 lb
Zn	111,350 lb

Also reported was production by Bevis Divide Mining Company during 1926-27 for the Fountain, Goodwill and Silver claims.

Total tonnage - 9,900 tons

Cu	63,980 lb
Ag	37,200 oz
Au	1,820 oz
Pb	428,500 lb
Zn	1,725,00 lb



WESTERN ARIZONA MILLING AND MINING
2204 E. CALLE ALAMO
KINGMAN, AZ. 86401
520-692-1247

Mine history, reports, and discription
of the Black Hawk Group of mines
Wallapai Mining District
Kingman, Arizona

(IN PART)

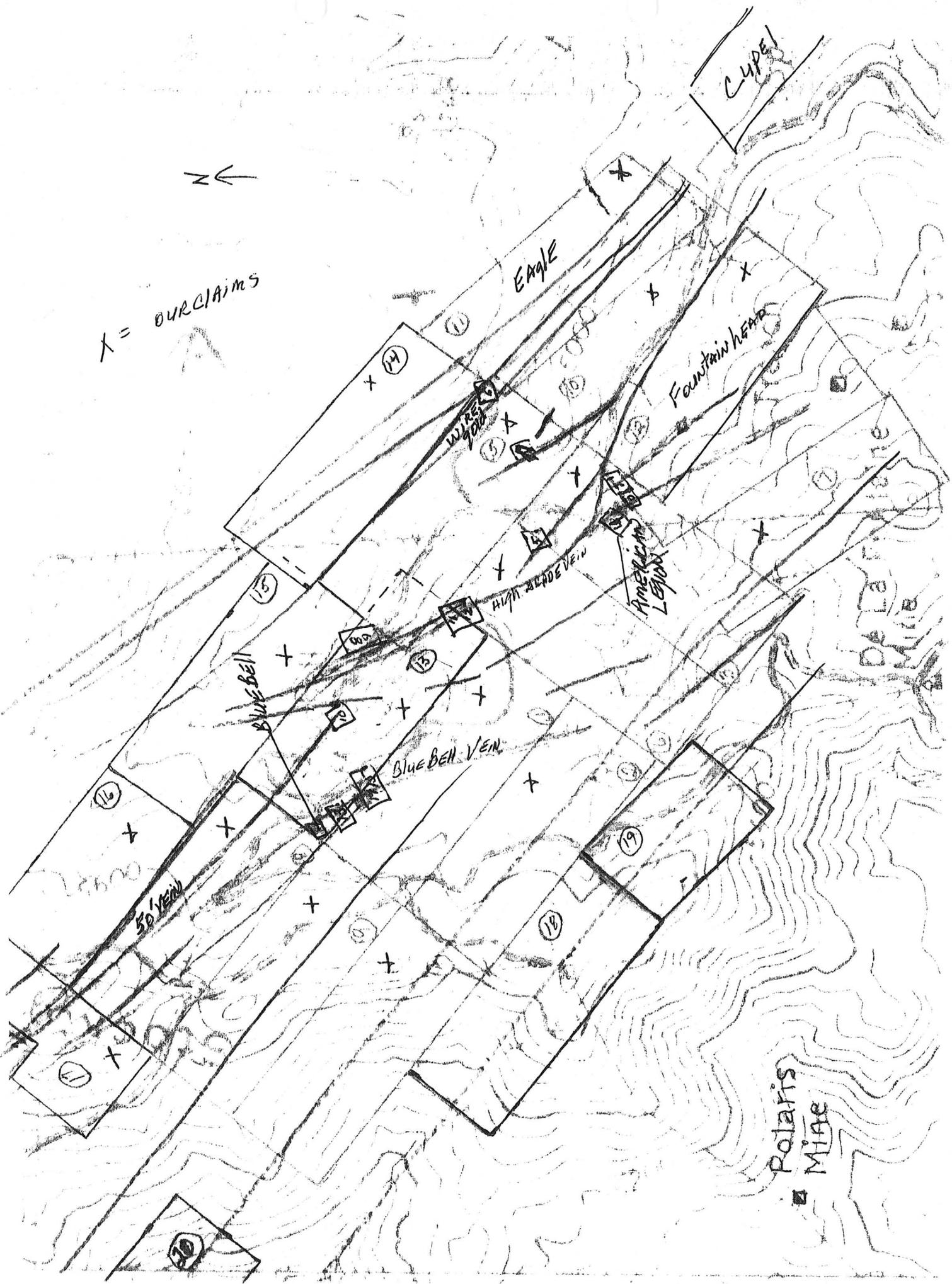
JIM SHELAGO

(WORK IN PROGRESS)

LATE 1990'S



x = OUR CLAIMS



NW.

Bluebell Mine

VEIN JUNCTION Section in the plane of the vein
View looking from NW to SE.

Orebody
faulted
off

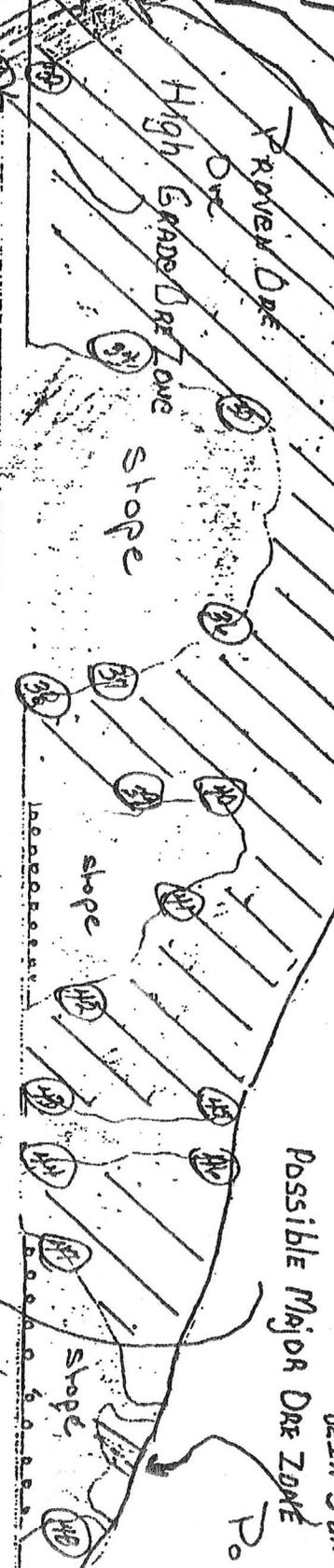
Proven Ore

High Grade Ore Zone

Possible Major Ore Zone

VEIN JUNCTION

Pos



96

slope

slope

slope

slope

Proven Ore

Ore

Good ore in back

50' WIRE

Possible Ore

#2 Sump

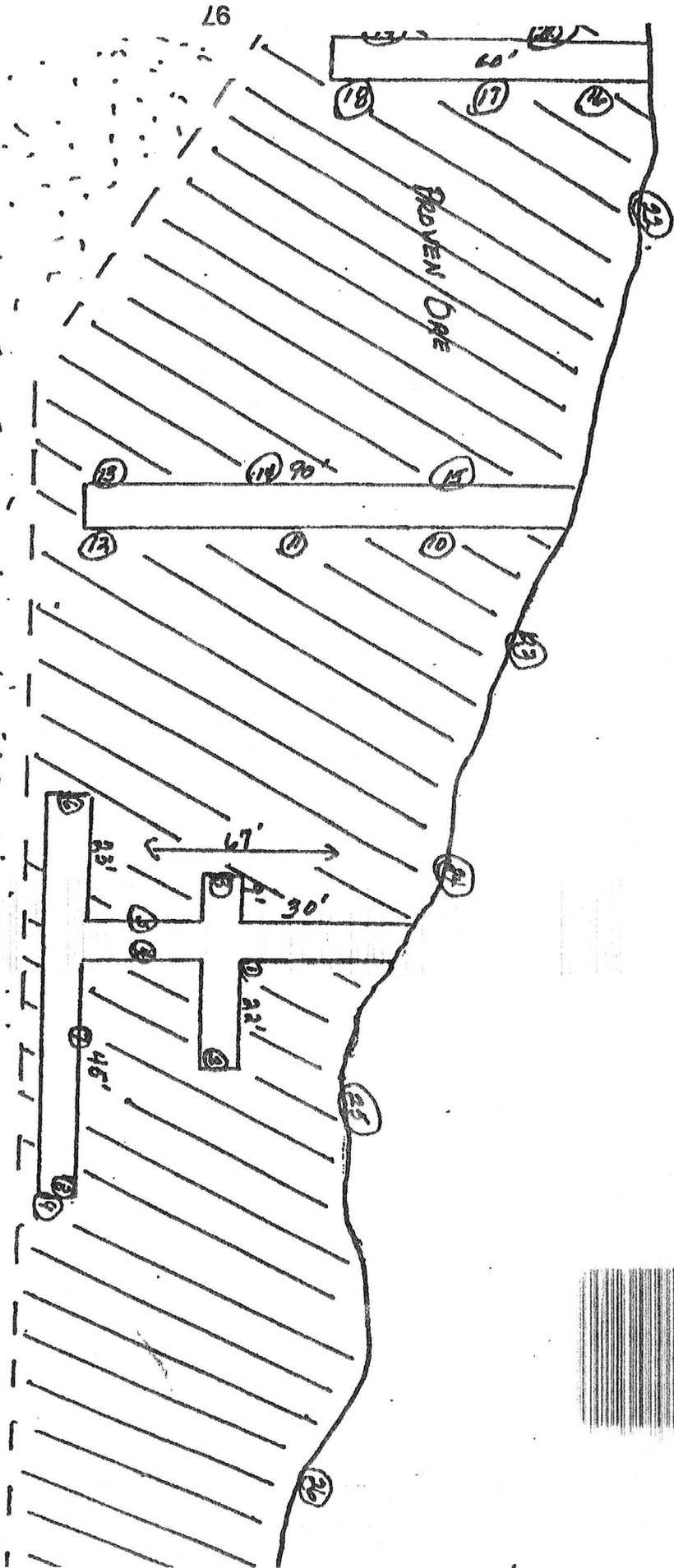
#2

1995
Control/Assessment



Figure A.

ON IN THE PLANE OF THE VEIN
30'



labile ORE

Figures 1

1996

Control/Assay Map
James Sheingo

of joint venture proposition at a later date.

Colony Claims

Mr. Al Beard, an old timer and successful silver miner here in Kingman, has offered us the 8 Colony claims, which cover the Prince George-Cupel vein group farther to the southeast. The claim block includes the portal so obvious to the southwest as one begins the 4 x 4 ascent of Stockton Hill. The property boasts a 1,600' adit, much of which is backfilled and flooded - to evaluate the property properly, we would have to drain and refurbish the mine just to cut samples. I suggest we keep this one on the back burner and approach Al later if or when we need more properties.

Bluebell Mine Group

Al also owns the American Legion (more properly the Silver Legion he says) and Bluebell mines, and assorted claims between the Fountain Head (MS No. 1942) and the Wallapai Queen (MS No. 3041) in the NE 1/4 of Sec. 5 and the west 1/2 of Sec. 4, see patent map (Figure #3). These properties lie about 1/4 mile NE of the De La Fontaine mine (see land position map submitted with August report for mine location). I toured this ground with Mr. Beard and was excited by what I saw, particularly in the Bluebell Mine.

Bluebell Mine

As can be seen from figure 4, there is considerable ore blocked out to the southeast of the #2 winze between the haulage level and the 100' level. Mr. Beard mined out the large stope NW of the #2 winze in the late 1950's. He was holding down a day job in Kingman at the time, and would come out to the Bluebell by himself to work for a few hours each evening

and during the weekends. The tenor of his ore ranged from 8 Oz. to 20 oz., averaging right at 10 oz. of silver per ton. He shipped 50 ton railroad carloads at irregular intervals, and quit mining because "...the polecats (vandals) were stealin' me blind!". He lost compressors, jacklegs, powder, ore cars, all sorts of equipment to the vandals. We spent a few hours in the Bluebell, and these are my observations:

1. The Bluebell vein is an 18" to 24" shear zone in granitic gneiss. The portal lies at an elevation of 5,440', and the vein (and hence, portal) strikes N 45°W (315°), with a steep dip to the northwest (80°+).
2. There is ore blocked out between the haulage level and the 100' level.
3. The equipment in the mine is in excellent condition - the track sheave wheel, skip, dumper, air-water lines, all are in good shape and could be used immediately.
4. George Stanke, who leased the mine after Al Beard, drove the adit back another 150' or so beyond the #2 winze, passed through a fault, and lost the vein; consequently, there are numerous cross-cuts, bends, and meanderings where he attempted to get back over to the vein. His northernmost cross-cut, which heads northeast, would probably have hit the vein, but he stopped about 50' or 60' short.
5. The mine is dry and in good condition throughout. Ventilation is excellent, even the sump at the bottom of the 100' #2 winze is dry. We did kill a rattlesnake some 25' or 30' in from the portal.

Because there is an obvious ore body blocked out here, I would unhesitatingly recommend the Bluebell property. Unfortunately, Mr. Beard has a lease-option agreement (\$20,000.00 down, with an undisclosed monthly payment) with the Big Ranch Land and Cattle Company of Salt Lake City.

American Legion Mine

This agreement also includes the American Legion mine. The large headframe erected over the 400' shaft is very visible from the ridgecrest road between the De La Fontaine and the Alpha-Summit cutoff.

Mr. Beard worked in this mine and showed me where the last skip of ore from the 410' level was dumped. I took a grab sample of this material, and feel sure that it will carry substantial lead and silver (Chemex No. 10944 D).

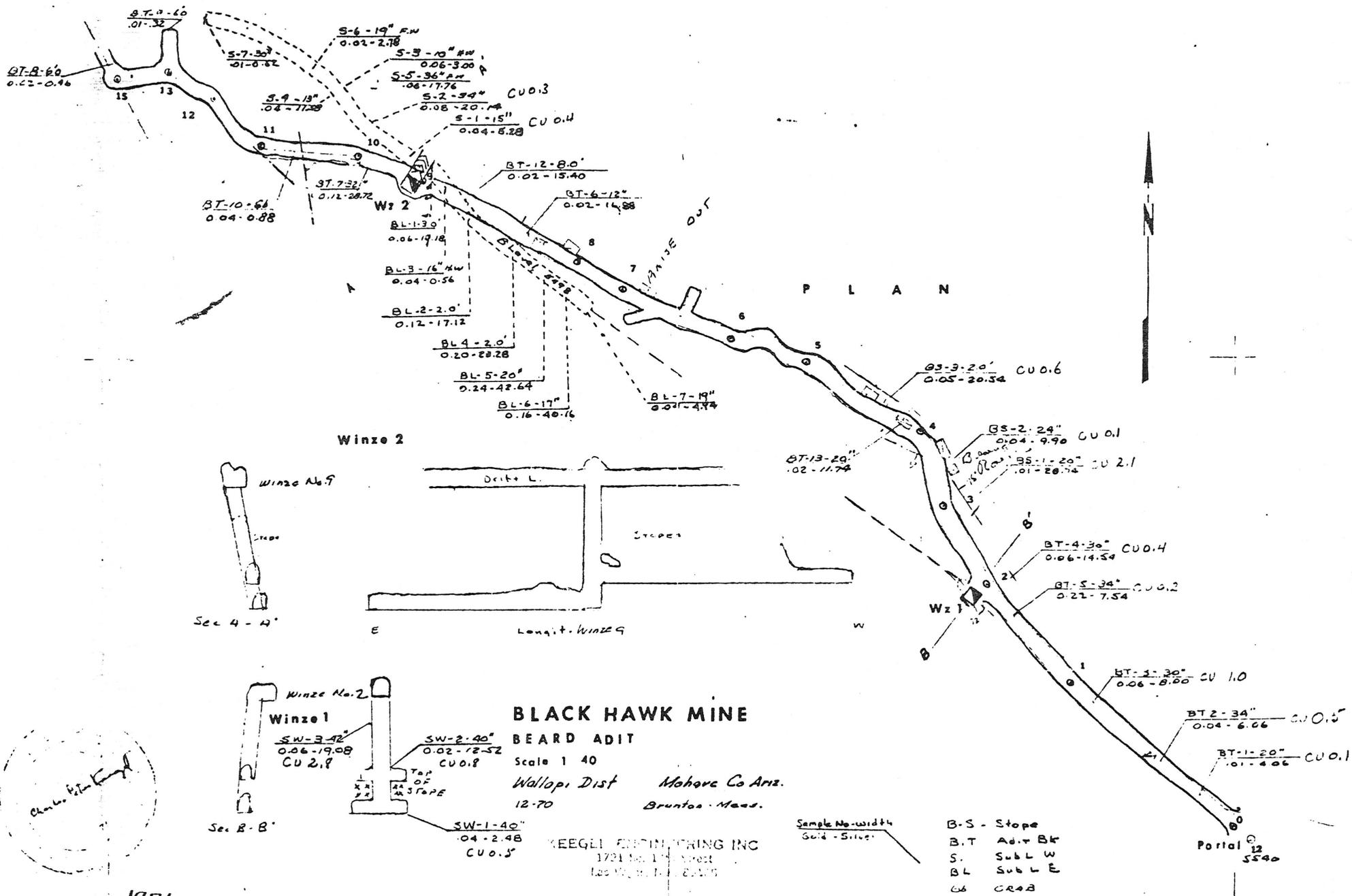
Golden Wonder wire gold

There are some intriguing gold occurrences in the Cerbat Mountains, and one of the most interesting pockets was encountered on the Golden Wonder claim just east of the American Legion. Here George Stanke took \$35,000.00 in gold from a "...breccia shear zone within 15 feet of the surface. It was all wire gold that he shipped to the smelter at Tooele, Utah, where they stole at least half of it." (Beard, 1984, personal communication). This has been substantiated by Messrs. Jack Owens and Bill Savory, independently of each other. Stanke used the money from this one carload of ore to buy the motel he runs today. A second, similar occurrence nearby has not yet been exploited, and according to Mr. Beard, one "...can pan wire gold out of the dirt at the grass roots.". I plan to examine this area sometime in mid-October, looking for characteristics that could be used to recognize possible similar occurrences on GAMIN ground.

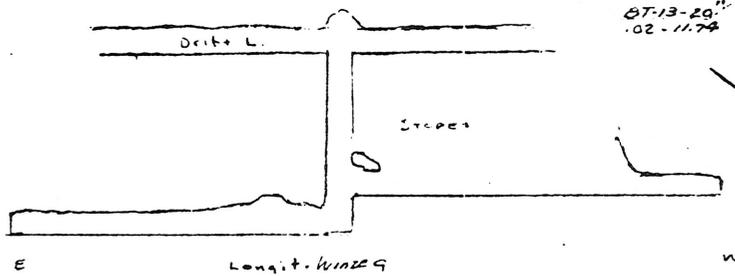
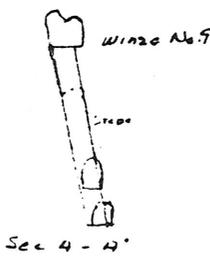
Jack Owens Group

De La Fontaine (MS No. 1456)

The main stopes in the De La Fontaine were mined by Mr. Jack Owens of Kingman. Jack took only the ore in the oxide zone, which consisted of

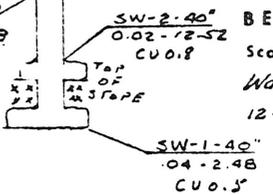
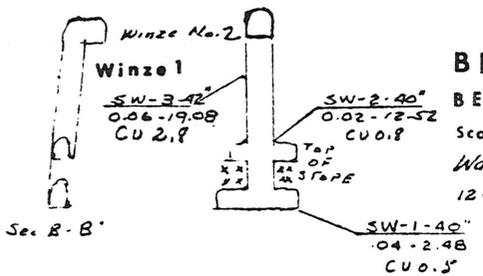


Winze 2



**BLACK HAWK MINE
BEARD ADIT**

Scale 1 40
Walapai Dist Mohave Co Ariz.
12-70
Brunton - Mass.



KEEGL ENGINEERING INC
1731 W. 1st Street
Las Vegas, Nev. 89103

Sample No-width
Said - Stope

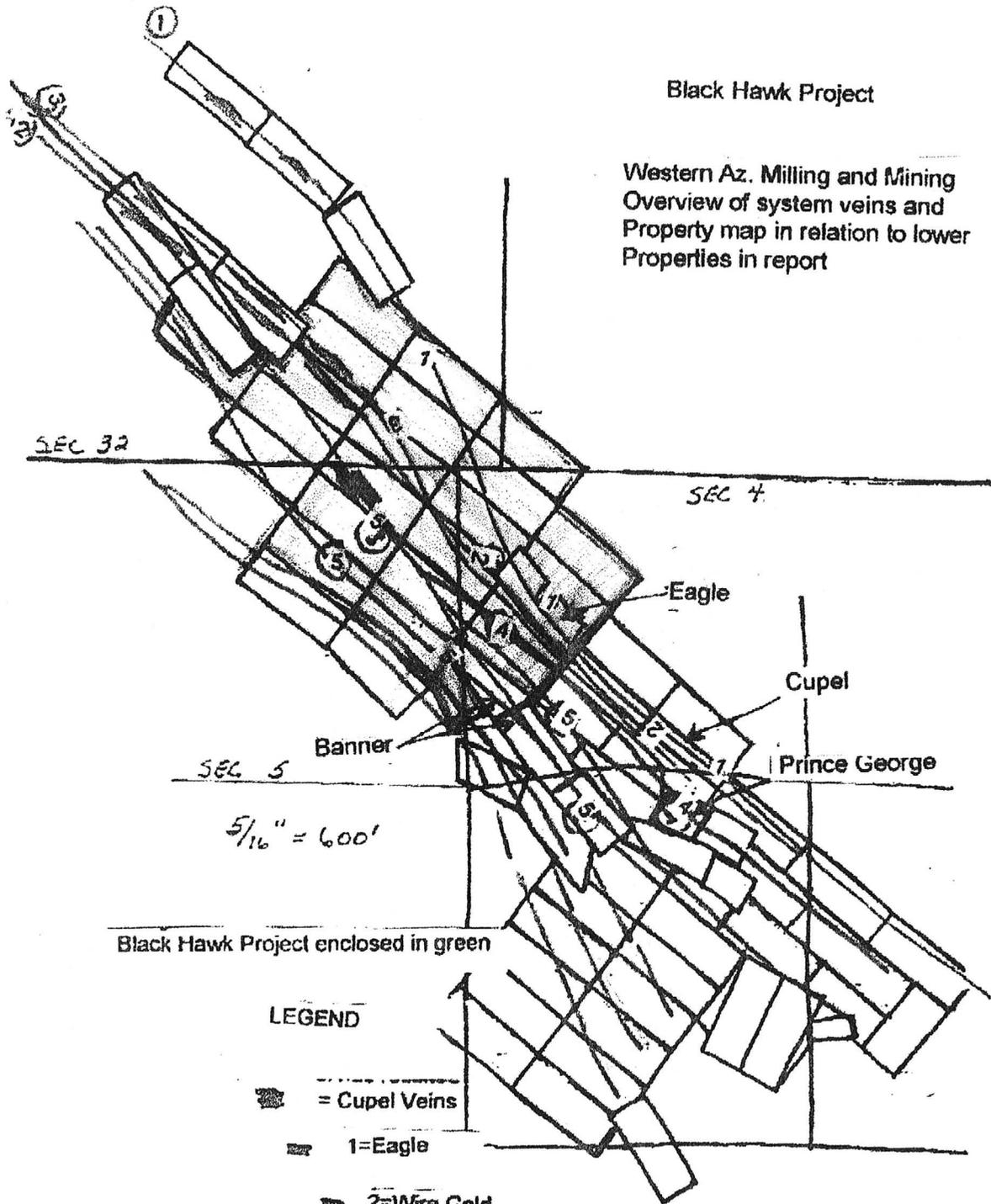
- B-S - Stope
- B-T Adit Bk
- S Sub L W
- BL Sub L E
- CB Cross

Portal 12
5540

1971

Black Hawk Project

Western Az. Milling and Mining
Overview of system veins and
Property map in relation to lower
Properties in report

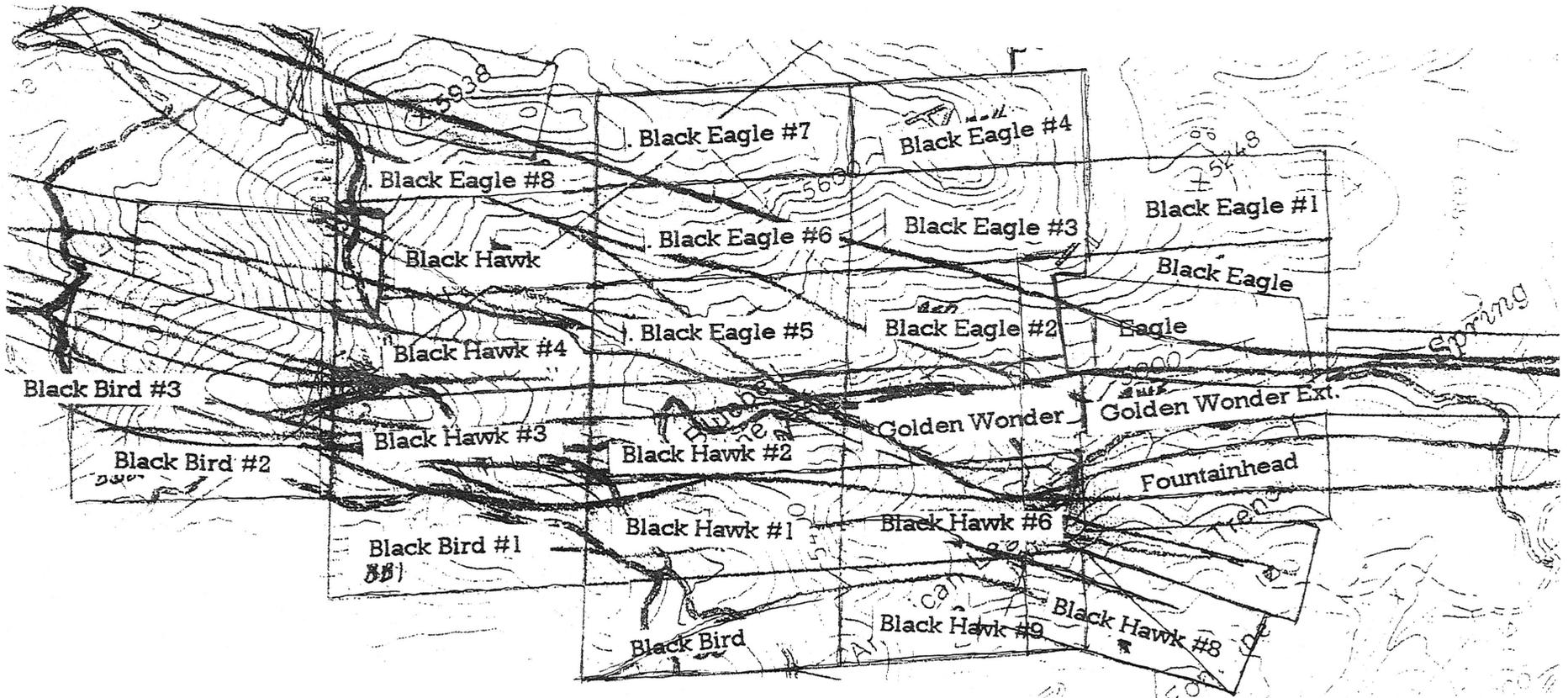


Black Hawk Project enclosed in green

LEGEND

- = Cupel Veins
- 1=Eagle
- 2=Wire Gold
- = Banner and Prince George
- 4= Prince George
- 5=Banner

Property Map of
Western Az. Milling and Mining



DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Banner Mine* *Stratton Hill Mines (file)* Date Sept. 12, 1962
District Cerbat Dist., Mohave Co. Engineer Lewis A. Smith
Subject: Interviews and Visit to Golden Gem Mine and Mill. (9-6-62) With
 "Red" Williams.

Location: The Banner Mine lies 2 miles east of the Golden Gem Mine (The Golden Gem is in S-7 T. 22 N., R. 17 W.) (The Banner would then be approximately in S-9.)

Owner: Cerbat M. & M. Co., of Kingman.

Work: The mine is opened by a 1600 foot adit drift which reaches a depth of 250 feet below the surface. A total of 2500 feet of underground working had been completed by 1910. Later a winze, 60 feet deep, was sunk at a point 600 feet from the portal of the 1600-foot adit drift. The Cerbat M. & M. Co. is now sampling the several Banner Dumps and treating the samples in the Golden Gem Mill. These sample lots are reported to run 6 oz. in silver per ton and 2-3 percent of lead.

The Banner Mine geology was described in U.S.G.S. Bull. 397, pp. 109-110, as follows:

The country rock is iron-gray to light gray, fine-grained gneiss, in which the gneissic foliations trend N. 30° E. and dip N-NW toward the vein on the footwall side. The rock is stained red from limonite derived from pyrite. The main fissure vein strikes N. 40 degrees W. and dips 80 degrees NE. The gangue is mainly reddish-brown, stained quartz, at the surface, and it averages 7-8 feet wide, but the ore width ranges from 1-3 feet. The ore band favors the footwall, generally. A foot or more of highly altered gangue follows the hanging wall side. The ore is roughly banded and contains galena with some sphalerite, pyrite and chalcopryite. Gold sometimes runs up to several ounces and silver is present as sulphides or native silver. Zinc content increases with depth.

*Banner (Zigzag Quarry)
Sept. 12 - 1962 -*

TYRO (F)

GOLDEN GEM (F)

FOUNTAIN HEAD (F)

Mine & Milling Accounting Services, Inc.

P.O. Box 2633
Laughlin, Nevada 89029
(702) 382-7556

November 22, 1989

Mr. Nyal J. Niemuth
4227 North 11th St.
Phoenix, AZ 85014

Re: Purchase of Gold at \$250 per Troy Ounce-999 Fine.

Dear Mr. Niemuth:

This office is the accounting and gold delivery agent for the General Partners of **INDEPENDENT METALS**, a Limited Partnership that is offering 4,000 troy ounces of its gold at \$250 per ounce and a 1/100th participating interest in an ore block of the Fountain Head Mine.

You expressed your interest in purchasing gold by your answer to an ad placed in the Wall Street Journal some months ago by our principals. We trust you are still interested in gold as part of your investment portfolio, and you agree with the expert financial planners who recommend that 5% to 15% of your assets should be in gold.

At this writing, our principals have poured their first dore bar of precious metals (gold, silver and platinum) from their operation of their Cerbat Mill, and they are mining gold at the Tyro Gold Mine. It is their plan to commence milling and refining gold at their Tyro Gold Mill facility in early January, 1990.

Approximately one-half of the above ounces of gold has been subscribed. Subscriptions will be accepted by this office on a first come, first serve basis for the Partnership.

We would be pleased to send you a Summary of the Offering for your further information and consideration. A representative will call you in a few days inquiring of your interest. If you are not available by telephone, and you are interested, please call us at the above telephone number, and we will mail you a copy of the aforesaid Summary of the Offering.

Our principals project a \$66,000 return on a \$10,000 investment over a three (3) year term without considering the tax benefits that may ensue to you.

The mines and mills are open for inspection, and both are located within 100 miles from Las Vegas, NV. You are invited to make a personal inspection of their mine and mill facilities.

Sincerely,

MINE & MILLING ACCOUNTING SERVICES, INC.

By David Jones
David Jones Controller

DJ/r

From "The Wallapai Project" by Mountain States Resource Development, Inc.
 Complete report in Tennessee-Schuykill file.

Ore minerals are principally cerargyrite (silver), native gold, galena (lead) sphalerite (zinc), and chalcopyrite (copper). Some arsenopyrite occurs along with cerrusite and oxidized base metal minerals. One can consider this to be a typical "Rocky Mountain Lead, Zinc, Copper Ore."

In March 1977 Messers Dale and Rudy reported on their efforts to justify a custom mill for the small miners of Mohave County. They were funded by a government grant and did their work in conjunction with a number of governmental agencies. In the northern part of the district they report 256,700 tons of dump and tailing ore grading .018 to .103 oz/T gold, .66 to 6.63 oz/t silver, .03 to .16% copper, .13 to 1.79% lead and .50 to 3.56% zinc. They considered this to be proven ore.

It is interesting to note that this is only the northern part of the district and only includes materials that were easily accessible. Items like the buried table and jig tails at the Tennessee were not included.

H. Mason Coggin, a well known and respected mining engineer, evaluated the Copper Age group of claims in April, 1980. He measured many ore occurrences and interpreted a number of undeveloped one in the Copper Age group has a potential of 4.730 million tons averaging \$200/ton.

In the Hidden Treasure section of the property Mr. Coggin estimates .5 million tons of ore grading \$200/ton or better.

The Arizona Bureau of Mines lists the following known reserves in the Wallapai Mining District:

<u>Mine</u>	<u>Tons</u>	<u>% Cu</u>	<u>% Pb</u>	<u>% Zn</u>	<u>oz/T Au</u>	<u>oz/T Ag</u>
Banner	3841	.5	22.6	11.9	.21	7.4
	5000	.5	22.6	11.9	.21	7.4
Summit	25,000	.58	4.3	6.3	.066 -	4.5
	25,000	.58	4.3	6.3	.066	4.5
Golconda	40,000	.5	.5	14.0	.20	4.0
	40,000	.5	.5	14.0	.20	4.0
Fountain Head	1,250	.61	.65	16.4	.2	3.5
	3,750	.61	.65	16.4	.2	3.5
Detroit	1600	2.31	1.0	5.5	.01	7.2
	1600	2.31	1.0	5.5	.01	7.2
Wrigley	56,000	.1	9.0	.1	.1	.2
Tennessee	29,503	.1	4.1	8.2	.01	.2
	50,000	.1	4.1	8.2	.01	.2

Mr. Eldon Lee

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Tennessee	100,000	.1	4.1	8.2	.01	.2
New Moon	11,000	.1	5.0	8.0	.05	7.5
	9,900	.1	5.0	8.0	.05	7.5
	10,000	.1	5.0	8.0	.05	7.5
Minnesota	900	.6	5.0	4.0	.01	.2
Lone Jack	2000	.19	5.51	4.66	.035	3.47
Copper Age	7,000	.1	3.6	7.3	.06	2.0
	7,000	.1	3.6	7.3	.06	2.0
Champion	570	.1	8.0	15.6	.26	10.0
	6,000	.1	8.0	15.6	.26	10.0
	6,000	.1	8.0	15.6	.26	10.0

While the above represent substantial exploration and are very conservative, especially since this is what their taxes are based upon, it is not fully conclusive. Mining costs, metallurgical techniques and markets must be developed. However these do show the substantial amounts of ore left in the mines.

Howard H. Heilman examined the Golconda Mine in great detail. He measured the reserves in numerous structures and defined those reserves as follows:

Virginia	350,000 tons
Tub	400,000
Little Jimmie	150,000
Peach Triangle	350,000
Golconda	300,000
Prosperity	80,000
Primrose	80,000
Blackfoot	90,000
	<u>1,800,000</u>

Mr. Heilman values these ores as follows:

Zinc	16%
Lead	.5%
Copper	.5%
Gold & Silver	\$120.00/T*

* Bases on \$300/oz gold and \$6.00/oz silver.

The whole emphasis that comes from the Golconda reports is that the mine was shut down when the fire occurred and once stopped was not restarted. The stopes that were in production are in approximately the same situation as when the mine closed.

Tonnages as indicated above were confirmed by H. G. Humes and The American Metal Company. Grades in their estimates ran higher in lead and copper and slightly lower in zinc.

Mr. Eldon Lee
9 Jun 82
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Dump samples on the Golconda were taken and measurements of tonnage were made. The measured tonnages are as follows:

Chats	15,000 tons
Lower Blackfoot	3,000
Middle Blackfoot	7,000
Upper Blackfoot	500
Prosperity	8,000
Tub	3,000
Silver	7,000
Tails	20,000
Golconda	30,000
	<u>93,500</u>

Of the dump ore, approximately 6,000 tons of it will not meet \$65/T gross metal value criteria leaving some 87,500 tons.

Samples taken by CEC have confirmed some of the grades quoted. The ongoing program of sampling each dump by complete trenching and then metallurgical testing the sampled material will accurately prove not only the tonnage and assay of each dump, but will also define what can be recovered from these dumps.

Metallurgically the ores in the Wallapai District are best treated by flotation. Recoveries as follows can be expected on ores that are freshly mined:

Lead and Silver	90-95%
Copper and Gold	85-90%
Zinc	75-85%

Ores that have been oxidized by weathering (e.g. dump ores) are also best treated by flotation unless the weathering is severe. One might expect a 5% reduction in recovery, but otherwise the treatment should be unaffected.

Gravity separation means can also be used on the Wallapai ores. Recoveries are lower, but oxidation has no effect. Some cases of highly oxidized ores yield higher recoveries than flotation, but these are not very important in the district.

Ores with high sulfides should never be treated by leaching techniques. This is a waste of time, money and resources.

The most important item in determining the best method of treatment is metallurgical testing. Ores, even ores from similar mines, must be tested and the parameters for optimum treatment established. A few dollars spent on professional metallurgical testing will save hundreds of thousands in the final analysis.

Summarizing one can state that dump ores and tailings in the district that will meet a \$65/T gross metal value are substantial. If the reports issued by competent personnel quoted herein are correct the tonnage is in excess of 300,000 tons. While CEC is

Reed & Reed
Kingman, Arizona.
P.O.Box 1246,

August 2, 1952.

Mr. F. T. Johnson,
P.O.Box 143,
Oracle, Arizona.

Dear Mr. Johnson:-

Re the Banner and Fountain Head Mining Property being operated by my brother and I, this will give you some idea of the conditions and if further interested, you will no doubt want to see the mine, etc.

My brother is away most of the time outside the country and I have power of attorney to operate the mine and handle all our business. We have been since March of 1951 re-opening the old workings and doing a little development work. We have shipped eight carloads of ore from various locations in the mine and are shipping another now. These give us a fair idea along with our sampling and what we can see of what to expect from the mine.

Our plan has been to eventually get a small concentrator going because shipping the ore direct gives too much money away to the railroad, etc., but we have limited finances and can only go about so fast. For this reason it is discouraging at times, and we would be willing to sell if we got the right price.

We have a ten year lease with a fifteen year extension on the main part of the property (Fountain Head) and a two year lease on the rest. This two year lease is from U.S. Smelting and they will be easy to get a renewal from as needed. We control all the openings to their ground that are any good to us.

The royalties slide from 5% upward, but generally $7\frac{1}{2}$ to 10% cover the shipments. If milling yourself, most of it would be 5 or $7\frac{1}{2}$ %. It may be that if you were really interested that I could deliver the Fountain Head outright so that you could own it for the right price and you might like this better.

The property was worked quite a little down to the 200 foot level (our bottom level) in 1926 for gold-silver and base metals and then was re-opened about 1938-39. This last time they shipped mostly surface ore carrying high gold to the smelters. About 40 carloads carrying around 0.70 oz. gold and a little silver and lead were shipped along with 12 tons from a surface hole that brought about \$30,000.00. The 1926 work produced quite a few thousand tons from the Fountain Head Vein from three ore-shoots whose total length is about 600 feet out of an overall ~~of~~ length of drift of about 1000 feet. This ore averaged 30 inches wide or more and according to H.C. Wilmot, Dec. 30, 1926, report, 6200 tons were stoped that year and he gives average tonnage for the three ore-shoots of about 15,000 tons per 100 feet of depth with grade at about 0.255 oz. gold, 4.3 oz. silver, 1.5% lead, 0.7% copper, and 14.0% zinc.

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So far our work has stood up reasonably well as compared to what Wilmot said. We are sinking a winze in the center ore-shoot on the fountain Head Vein. We have a gov't 50-50 matching loan on this for a total of \$ 20,000. to be used to sink 100 feet plus sump and do a little over 200 feet of drifting.

In connection with this loan, the gov't took nine samples over a length of 200 feet and average 30 inch width. The weighted average for these was 0.20 gold, 3.5 oz. silver, 0.65% lead, 0.61% copper, and 16.4% zinc.

We shipped two cars (our lots 3 & 4) from just above the 200 level floor in the area where the above samples were cut. These cars made 112.9 dry tons averaging 0.206 oz. gold, 3.74 oz. silver, 0.63% copper, 1.27% lead, and 14.95% zinc.

We are down about 17 feet below the 200, sinking on this ore-shoot now and haven't returns on many samples yet. At the start at floor level, we had a sample that went 0.36 oz. gold, 3.4 oz. silver, 0.70% copper and 10.6% zinc. Didn't run for lead. There was a little dilution in this. At about eight feet, we started grabbing from the cars on muck that was broken out about five feet wide. The first sample went 0.24 oz. gold, 4.2 oz. silver, 0.28% copper, and 8.1% zinc. No lead assay. At present, the ore looks better in the bottom and we have six assays out being run from muck and from cuts in the vein. There was a lean looking place at the start, but evidently the gold and silver stayed with us.

This shoot 200 feet by 30 inches should make 5000 tons approximately per 100 feet of depth. It appears to be lengthening with depth in some ways.

About 200 feet North-West is the North or "C" shoot. This needs a little work from the 200 level to get up to a block which extends from about 70 feet above the 200 level upwards for 100 feet to a level where we mined part of lots 6, 7, and 8. The balance of these shipments was from marginal ore at the South-West end of this shoot on the 200 where we were probing around trying to get to the bottom of this block. So these lots of ore should be lower than average for this shoot, but give some idea at least. They add up to 163.43 dry tons. Average grade is 0.057 oz. gold, 3.76 oz. silver, 0.56% copper, 0.98% lead, and 16.02% zinc. This shoot is about 100 feet long and about 30 inches wide. I think the gold will average out quite a little higher than the above when you get in the center of the shoot.

South-East from our center or "B" shoot where we are sinking, is the "A" shoot which is reached through the Fountain Head Adit Cross-Cut on the 100 level. This appears to be about 300 feet long, but we haven't opened it up on the 200 level. On the 100 at the South-east end of the shoot, above the adit, we mined a carload that had 50.127 dry tons that ran 0.0775 oz. gold, 3.0 oz. silver, 0.30% copper, 8.01% lead, and 7.41% zinc. This was narrow ore left above by the old Timers. Below this on the 165 level, they mined wider ore and I crawled in and saw some chutes, but only sample I could cut was at the station cross-cut where I got 33 inches that ran 0.07 oz. gold, 6.80 oz. silver, 3.2% lead, and 13.50% zinc. No copper assay. Drifting from the 200 level appears about into this shoot.

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Evidently, Wilmot saw all these shoots when they were actively being mined and milled. He thought the gold was increasing with depth as was copper and zinc. Thought maybe silver and lead decreasing. Of course this wasn't considering the oxidised gold enrichment at surface.

On the Banner Vein which is cross-cut by this same 100 level adit cross-cut, there is a shoot of ore about 90 feet long that runs more to lead. It carries the other metals, too, of course. In places this has milling ore about five feet wide, but average on the 100 might be three or four depending on economics. It has been mined above the 100, but can be drifted under from our 200 level. Recently I've had two sub-lesers here who sank fifteen feet and took out a little ore which we are now shipping. They think this may run about ten percent each lead and zinc and say roughly 0.08 oz. gold and 3. Or 4. oz. silver. They have three months to go on their lease, but I can deal with them if you wanted to take over. This area is caved on the 100 except right at the cross-cut, so can't see much. Above in the stope (filled stope), you can see some ore, averaging about two feet that my three samples ran about 0.05 oz. gold, 9.0 Oz. silver, 5.0% lead, and 10.7% zinc. Possibly this shoot is getting wider going down. There are other possible places to get ore along our 200 level drift on the Banner Vein, but none of them are good for shipping. We shipped car number two from there, sampling two spots. It was 46.75 dry tons and ran 0.13 Oz. gold, 2.45 oz. silver, 0.25% copper, 2.15% lead, and 12.25% zinc. This 200 level on the Banner is about 350 feet long and has a couple of hundred feet to go to be right to raise up under the cross-cut. Except for the 90 foot stope above the 100 cross-cut, it is all pretty much unmined. Some payable spots for a mill can probably be found in this area.

I've always figured that the 15,000 tons per 100 feet of depth plus the Banner Vein ore would work out when the mine was fully opened. At say 20,000 tons total and say 25 tons per day, this would give say 800 days to develop and work out 100 feet of depth, or between two and three years. With a mill that would treat 25 tons in a shift, costs would be reasonable, say \$5.00 per ton. (milling).

Two miles of power line would put power at the mine and with the 8 gallons a minute we pump, you could mill that tonnage. Other water is available close by to increase if needed. Or you could haul 14 miles to Kingman and mill there on the railroad and get outside ore, too. We pay \$2.15 plus tax to haul, but \$1.50 should do it, if steady hauling. Properly milled, our ore should net at the railroad around \$25.00 per ton of crude ore. By milling, you'd get pay on copper and lead which we sometimes miss in crude ore.

Although our ore is narrow, the walls are good and mining should not be too high when you get say 25 tons or more per shift. A lot of the old stoping was half open stope, half shrinkage. Stopes are still mostly open except where they got careless around faulted areas. Vein dips 60 degrees to vertical in different places, so always steep enough for gravity ore handling. Mine elev. about 4800 feet. It appears that our ore mills very nicely from the pay we get. I'll have results soon on some gravity tests. I'll enclose a rough sketch-map of the mine. Let me know if you want more information, maps, etc., or better come up and see it. I think you'll like it.

Sincerely
George F. Reed

ARIZONA BUTTE MINES CO.

District: Stockton Hill
Location: Stockton Hill; about 15 miles by wagon road northwest of Kingman, Arizona. Elevation of 4200 feet.
Owners: Arizona Butte Mines Co., incorporated under laws of Arizona, Capital stock 2,000,000 shares, one dollar per. Of this 1,375,000 shares are issued and outstanding, balance in treasury. Officers: H. K. Crowther, President and General Manager, Kingman, Arizona.
Date visited: September 1 and 2, 1919.

NOTES:

35 Claims located along what is known as the Prince George vein, striking N. 40° W. and dipping to the N. E. 30°.

G E O L O G Y

Veins are fissures of movement, occurring in a Pre-Cambrian complex consisting of Gneiss, Gneissoid Granite and Schist cut by numerous acid and basic dikes of per-mineral age. The main vein at one point may be in a fine grained Gneiss, and at other points in the Gneiss but with parallel bands of pegmatite on either wall. The walls are badly sheared and crushed, necessitating heavy timbering or filling. The usual method is to mine out the ore and fill with barren vein filling or wall rock.

H I S T O R Y

In the early eighties the various claims shown on the attached maps as the Banner, Prince George and De La Fontaine are credited with a production of a million ounces of silver, taken largely from the rich surface ores.

During 1917 the properties were consolidated under present management, \$100,000.00 raised from sale of stock, the greater portion of which was expended in the construction of a mill and in opening some of the old workings - entirely by hand methods of mining. A leaching system was adopted and approximately 90 cars of ore and concentrates were shipped during 1919.

The following is an average of the above shipments, though there was no means at hand of identifying concentrate from crude ore shipments:

<u>Tons</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>
2024	.35 oz.	15.1 oz.	27.5 %

At the present time the Company has two sets of leasers working in the upper levels and contemplates the reconstruction of the mill, which has been idle for nearly a year. They are also preparing to drive a tunnel, already in 600 feet, a distance of 11,000 feet to tap their main workings at a maximum depth of one thousand feet. The tunnel will be on the vein. They are also equipping with air in order to increase number of leasers, and under the splitcheck system will supply everything, charging for air, steel, sharpening, hauling and milling.

D E V E L O P M E N T

Development consists of several thousand feet of tunnels as well as some drifting from the intersection shaft as shown on the accompanying blue print. The infillable tunnel is open for the greater portion of its length, and it is from this tunnel and the winze shown that the present production is being made.

Blue print of elevation shows various blocks of ground and tonnage and grade of ore contained. There is no reason to doubt this estimate, and in fact deep development should produce much larger tonnage. Widths of ore vary from a few inches up to 3 feet. The owners have no exact knowledge of these orebodies except from previous shipments around their borders, and there are no assay maps at hand.

Concentrator; using jigs and tables, has a capacity of 100 tons per day, although it will be several months before this tonnage is attained. It is their intention to use this mill as custom mill for leasers on split-check system; also, to buy some outside ore and a sampler will be installed for this purpose.

A 75 H. P. Fairbanks Morse type engine has been installed at mouth of deep tunnel; also, a 19 x 12 single stage Ingersoll-Rand Compressor, belt driven from the gas engine. This equipment appears inadequate for a long tunnel. The power line of the Desert Light and Power Company crosses the portal of the tunnel, but for some reason the operators think they can operate more cheaply on their own water.

A similar plant is being installed at the upper workings of the mine with a view of supplying air for the leasers. Jackhammers

MILLING RESULTS - 349 TON LOT

	Weight Pounds	Tons	Oz. Gold	Oz. Ag.	% Cu.	% Lead	% Zinc	% Sil.	% Iron	% Lime	% Sulph.
Crude Ore	1,898,195	849	.324	4.97	.29	15.67	10.4	55.5	5.2	1.	9.7
Lead Concentrates	311,440	155	.277	10.51	.20	63.07	6.2	8.1	3.05	0.9	15.1
Lead Concentrates	108,026	54	2.58	17.91	.49	51.1	12.2	3.3	3.5	0.9	20.4
Zinc Concentrates	260,000	130	.356	6.53	.95	4.22	42.3	15.	6.9		
Tailings			.055	1.35	.13	.42	3.6	90.9	1.15		
Percent Recovery			83.	81.8	--	92.0	80.2	--	41.5		

4.04 Tons Crude Ore - - - - 1 Ton Lead Concentrates
 6.53 " " " - - - - 1 " Zinc "

AVERAGE ASSAYS FROM SAMPLES MADE

	Feet	Oz. Gold	Oz. Silver	% Lead	% Zinc	Total Value
Inner Shaft, 36 Assays	1.59	.235	5.4	20.8	14.6	\$36.92 per ton
Inner Shaft, 165 Ft. Level, 37 Assays	1.5	.21	9.0	27.2	13.0	43.25 " "
Inner Shaft, 330 Ft. Level, N., 21 Assays	1.3	.35	4.3	15.0	13.2	34.00 " "
Inner Shaft, 330 Ft. Level, S., 35 Assays	1.29	.21	5.4	15.0	13.1	31.79 " "
Inner Shaft, 430 Ft. Level, N., 3 Assays	.8	.31	3.0	7.9	7.6	21.31 " "
Inner Shaft, 430 Ft. Level, S., 13 Assays	1.7	.30	5.0	11.1	12.7	30.71 " "

Based on (Gold, \$19., Silver 50¢ Oz.)
 (Lead 4¢ Zinc 5¢ Lb.) Net from Smelters

Assuming double stepping width: approx grade = 2 1/2 to 3 - 13% Silica, 8% - 6% Zn

will be used both at the tunnel and by leasers, and are entirely adequate for the character of ground encountered along the vein; and in fact, in stoping operations due to heavy ground and soft ore, I doubt the wisdom of using machines, since handwork is quite efficient and would save a great admixture of waste.

C O N C L U S I O N

Estimate of 25,000 tons of grade of ore as follows:
Au \$4.00, Ag 5 oz., Pb 15%, and Zn 10% is probably reasonable.

In the event that the Company continues operations as planned and reconstructs the mill, the property can produce approximately four to five cars monthly of crude ore and concentrates of approximately the following composition: Au .8 oz., Ag 12.3 oz., Pb 50%, Zn 7%.

The veins are narrow, or at least the ore is narrow, varying as mined by leasers from six inches to two feet - costs will be high.

Mining Cost	\$7.00 Per ton
Milling "	2.50 " "
Haul ratio Stol	1.00 " "
Freight 5 to 1	.90 " "
Total	11.40

Crude ore, where mined, will cost \$15.00 to Humboldt, due to haul.

Total cost, including treatment on mill concentrates will be for

Milling ore	\$12.60 Per ton
Shipping "	25.40 " "

Margin of profit for leasers and Company will be small, although Company will get some benefit from shipments of zinc, which they do not propose to pay for at the mill.

As a producer of lead the Company should be able within five months to produce five cars monthly of 15 to 30 per cent lead ore, either as concentrates or coarse ore, but can hardly be depended on for any great amount of coarse ore, and their maximum shipments of such ore will probably not exceed two cars per month varying from 20 to 40% lead.

W. V. DeCamp

Kingman Ariz, June 8th 1919

Messrs. Consolidated Arizona Smelting Co,
Humboldt, Arizona

Gentlemen:

The Arizona Butte Group requires a special automobile to reach it, for which reason I did not visit the property, but have made a number of enquiries. I find from Mr. McGinley, an engineer who has been in the district some 4 years, that possibly two cars a week are now being shipped from the property by leasees. Mr. Crowthers the manager is now in the East, to finance the driving of a 2000 ft. tunnel to strike the ore bodies at depth. The property has been a shipper of some note in the past, and the belief is that it will again be a shipper.

I might remark that throughout the Chloride district as a whole, an impoverished zone seems to obtain near or immediately below the oxidized zone. This zone of impoverishment may persist for a hundred feet or thereabouts, when the unaltered sulphides are again encountered, often of a grade high enough to ship, at other places being but a milling ore. The conditions seem to prevent the shipping of an ore below \$25.00 per ton, the smelter and freight rates being such as but a small margin is left even with such grade.

Referring again to the Arizona Butte, a mill of 50 to 75 tons capacity is now erected on the ground, but little if any concentrate has been produced. I understand the mill was built without an immediate supply of ore being available.

Respectfully submitted,

A. Burnett.

DISTRICT: Stockton Hill, Mojave County.

PROPERTY: Arizona Butte

LOCATION: Some 15 miles northerly from Kingman
*See Claim Map. D-2-37-
D-2-38*

OPERATORS: Now being operated by a number of lessees.
Several properties have been consolidated and a tunnel to open up deeper ones is being planned for. Mr. H. Crowther, Genl. Mgr. now in New York in connection with financing of this tunnel.

Did not visit the property, but it is reputed as being most promising, and there is a likelihood of it' becoming a lead silver producer of some prominence.

A. Burnett.
June 14, 1919

ARIZONA BUTTE MINES CO.

District: Stockton Hill

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The following is an average of the above shipments, though there was no means at hand of identifying concentrate from crude ore shipments:

<u>Tons</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>
2624	.35 oz.	15.1 oz.	27.5 %

At the present time the Company has two sets of leasers working in the upper levels and contemplates the reconstruction of the mill, which has been idle for nearly a year. They are also preparing to drive a tunnel, already in 600 feet, a distance of 11,000 feet to tap their main workings at a maximum depth of one thousand feet. The tunnel will be on the vein. They are also equipping with air in order to increase number of leasers, and under the splitcheck system will supply everything, charging for air, steel, sharpening, hauling and milling.

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Blue print of elevation shows various blocks of ground and tonnage and grade of ore contained. There is no reason to doubt this estimate, and in fact deep development should produce much larger tonnage. Widths of ore vary from a few inches up to 3 feet. The owners have no exact knowledge of these orebodies except from previous shipments around their borders, and there are no assay maps at hand.

Concentrator; using jigs and tables, has a capacity of 180 tons per day, although it will be several months before this tonnage is attained. It is their intention to use this mill as custom mill for leasers on split-check system; also, to buy some outside ore and a sampler will be installed for this purpose.

A 75 H. P. Fairbanks Morse type engine has been installed at mouth of deep tunnel; also, a 18 x 12 single stage Ingersoll-Rand Compressor, belt driven from the gas engine. This equipment appears inadequate for a long tunnel. The power line of the Desert Light and Power Company crosses the portal of the tunnel, but for some reason the operators think they can operate more cheaply on their own power.

A similar plant is being installed at the upper workings of the mine with a view of supplying air for the leasers. Jackhammers

will be used both at the tunnel and by leasers, and are entirely adequate for the character of ground encountered along the vein; and in fact, in stoping operations due to heavy ground and soft ore, I doubt the wisdom of using machines, since handwork is quite efficient and would save a great admixture of waste.

C O N C L U S I O N

Estimate of 25,000 tons of grade of ore as follows:
Au \$4.00, Ag 5 oz., Pb 15%, and Zn 10% is probably reasonable.

In the event that the Company continues operations as planned and reconstructs the mill, the property can produce approximately four to five cars monthly of crude ore and concentrates of approximately the following composition: Au .8 oz., Ag 12.3 oz., Pb 50%, Zn 7%.

The veins are narrow, or at least the ore is narrow, varying as mined by leasers from six inches to two feet - costs will be high.

Mining Cost	\$7.00	Per ton
Milling "	2.50	" "
Haul ratio Stol	1.00	" "
Freight 5 to 1	.90	" "
Total	11.40	

Crude ore, where mined, will cost \$15.00 to Humboldt, due to haul.

Total cost, including treatment on mill concentrates will be for

Milling ore	\$12.60	Per ton
Shipping "	25.40	" "

Margin of profit for leasers and Company will be small, although Company will get some benefit from shipments of zinc, which they do not propose to pay for at the mill.

As a producer of lead the Company should be able within five months to produce five cars monthly of 15 to 50 per cent lead ore, either as concentrates or coarse ore, but can hardly be depended on for any great amount of coarse ore, and their maximum shipments of such ore will probably not exceed two cars per month varying from 22 to 40% lead.

W. V. DeCamp

Kingman Ariz, June 8th 1919

Messrs. Consolidated Arizona Smelting Co,
Humboldt, Arizona

Gentlemen:

The Arizona Butte Group requires a special automobile to reach it, for which reason I did not visit the property, but have made a number of enquiries. I find from Mr. McGinley, an engineer who has been in the district some 4 years, that possibly two cars a week are now being shipped from the property by leasees. Mr. Crowthers the manager is now in the East, to finance the driving of a 2000 ft. tunnel to strike the ore bodies at depth. The property has been a shipper of some note in the past, and the belief is that it will again be a shipper.

I might remark that throughout the Chloride district as a whole, an impoverished zone seems to obtain near or immediately below the oxidized zone. This zone of impoverishment may persist for a hundred feet or thereabouts, when the unaltered sulphides are again encountered, often of a grade high enough to ship, at other places being but a milling ore. The conditions seem to prevent the shipping of an ore below \$25.00 per ton, the smelter and freight rates being such as but a small margin is left even with such grade.

Referring again to the Arizona Butte, a mill of 50 to 75 tons capacity is now erected on the ground, but little if any concentrate has been produced. I understand the mill was built without an immediate supply of ore being available.

Respectfully submitted,

A. Burnett.

MILLING RESULTS - 349 TON LOT

	Weight Pounds	Tons	Oz. Gold	Oz. Ag.	% Cu.	% Lead	% Zinc	% Sil.	% Iron	% Lime	% Sulph.
Crude Ore	1,698,195	849	.324	4.97	.29	15.87	10.4	55.5	5.2	1.	9.7
Lead Concentrates	311,440	155	.277	10.51	.20	63.07	6.2	8.1	3.05	0.9	15.1
Lead Concentrates	108,026	54	2.58	17.91	.49	51.1	12.2	3.3	6.5	0.9	20.4
Zinc Concentrates	260,000	130	.356	6.53	.95	4.22	42.3	15.	6.9		
Tailings			.055	1.35	.13	.42	3.6	90.9	1.15		
Percent Recovery			83.	81.8	--	98.0	80.8	--	41.5		

4.04 Tons Crude Ore - - - - 1 Ton Lead Concentrates
 6.53 " " " - - - - 1 " Zinc "

AVERAGE ASSAYS FROM SAMPLES MAPS

	Feet	Oz. Gold	Oz. Silver	% Lead	% Zinc	Total Value
Inner Shaft, 36 Assays	1.59	.235	5.4	20.8	14.6	\$36.92 per ton
Inner Shaft, 165 Ft. Level, 37 Assays	1.5	.21	9.0	27.2	13.0	43.25 " "
Inner Shaft, 330 Ft. Level, N., 21 Assays	1.3	.35	4.3	15.0	13.2	34.00 " "
Inner Shaft, 330 Ft. Level, S., 35 Assays	1.29	.21	5.4	15.0	13.1	31.79 " "
Inner Shaft, 430 Ft. Level, N., 3 Assays	.8	.31	3.0	7.9	7.6	21.31 " "
Inner Shaft, 430 Ft. Level, S., 13 Assays	1.7	.30	5.0	11.1	12.7	30.71 " "

Based on (Gold, \$19., Silver 50¢ Oz.)
 (Lead 4¢ Zinc 5¢ Lb.) Net from Smelters

Assuming double staking width: approx grade = 2 1/2 to 3' - 13, 3.5%, 8% - 6%

May 27, 1957

✓
BANNER-FOUNTAINHEAD PROPERTIES MOHAVE CO.

Geo. F. Reed says leases have been given
up on these properties. As per letter
dated Oct. 10, 1957.

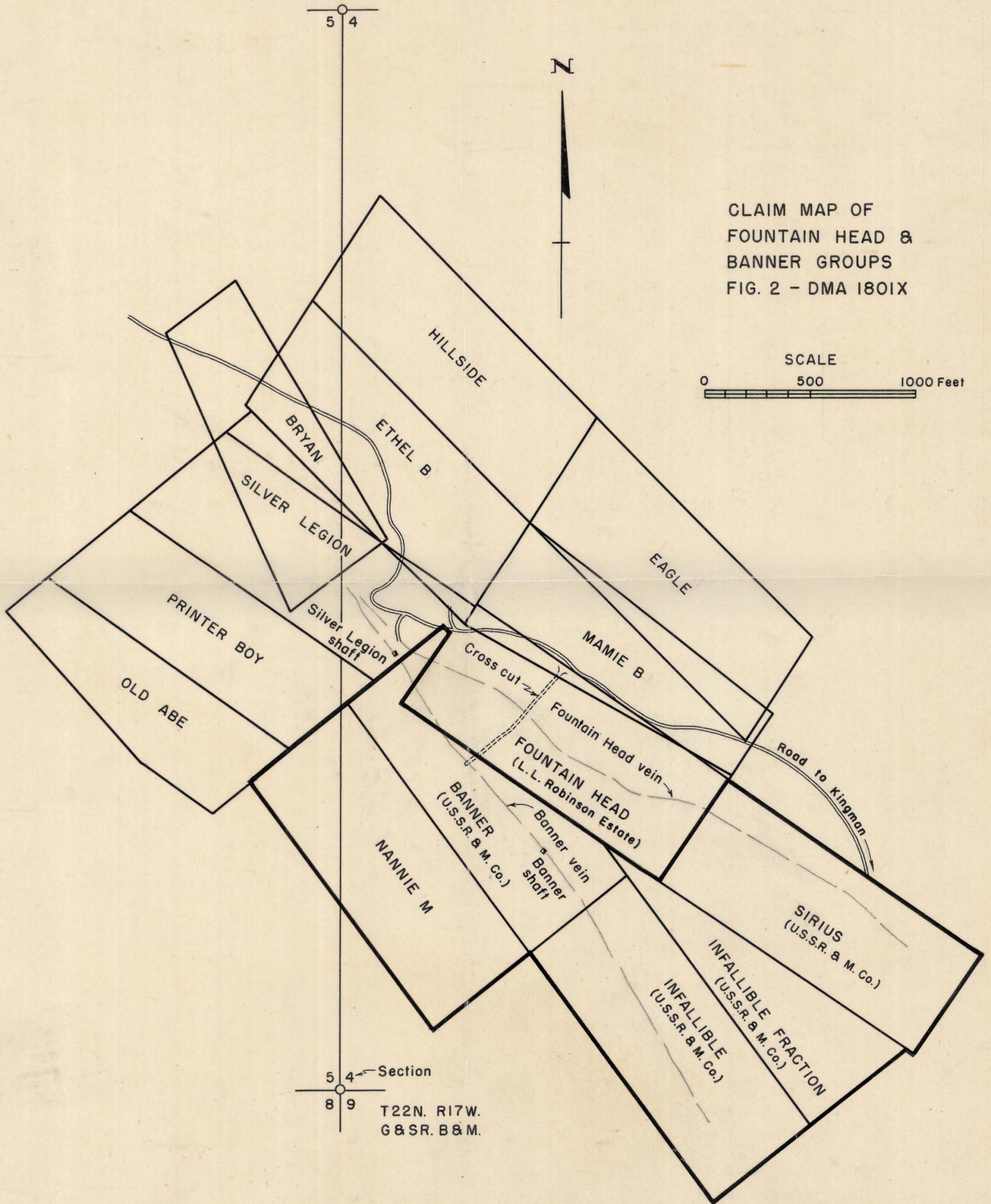
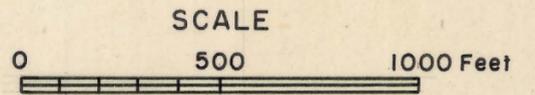
This property idle.

See: Ariz. Mng. Journal 3/1919, p. 33

Kingman Mining Project, Claim map 2, Under-
ground map 4 p & s

MARK GEMMILL

CLAIM MAP OF
FOUNTAIN HEAD &
BANNER GROUPS
FIG. 2 - DMA 1801X



Trim

FOUNTAIN HEAD VEIN
 ASSAY RESULTS OF SAMPLES TAKEN BY DMEA FIELD EXAMINERS

SAMPLE NUMBER	WIDTH INCHES	OUNCES GOLD	OUNCES SILVER	PERCENT LEAD	PERCENT ZINC
1	30	0.09	3.9	0.2	11.1
2	32	0.07	4.6	0.3	17.6
3	24	0.18	3.2	0.1	14.5
4	24	0.19	1.7	0.1	7.4
5	24	0.28	3.6	0.2	21.2
6	36	0.29	2.9	0.2	17.3
7	33	0.16	3.0	4.0	17.7
8	38	0.42	5.4	0.3	21.8
9	24	0.06	2.0	0.2	16.2

COMPOSITE OF ABOVE SAMPLES - 0.61 PERCENT COPPER
 9 SAMPLES WEIGHTED AVERAGE; 2.5 FEET - 0.20 OUNCES GOLD;
 3.5 OUNCES SILVER; 0.65 PERCENT LEAD; 16.4 PERCENT ZINC
 AND 0.61 PERCENT COPPER.

LEGEND

SHIPMENTS FROM FOUNTAIN HEAD & BANNER VEINS

LOT	SETTLEMENT DATE	DRY WT. TONS	OZ / TON Au.	OZ / TON Ag.	% Cu.	% Pb.	% Zn.
1	7/3/51	50.127	0.0775	3.00	0.30	8.25	7.41
* 2	12/4/51	46.754	0.13	2.45	0.25	2.15	12.25
3	1/4/52	56.259	0.2475	3.35	0.58	1.05	15.85
4	1/14/52	56.657	0.165	4.13	0.68	1.50	14.05
5	2/29/52	55.301	0.1875	2.60	0.40	0.30	13.15
6	4/8/52	54.178	0.0475	2.35	0.44	0.75	15.00
7	4/28/52	51.999	0.065	5.23	0.78	1.15	18.48
8	6/2/52	57.252	0.06	3.70	0.45	1.05	14.58
* 9-A	8/27/52	28.908	0.2525	4.90	0.53	7.80	10.30
* 9-B	8/27/52	26.987	0.11	2.15	0.30	0.70	8.00
10	1/3-F.H. 100' LEVEL	55.658	0.165	5.95	0.69	6.30	14.08
10	2/3-BANNER 100' LEVEL						
11	NO RETURNS AVAILABLE						

* BANNER VEIN

- ORIGINAL CONTRACT PROPOSAL
- ▨ WORK COMPLETED UNDER CONTRACT IDM-E 315
- REVISED PROPOSAL 3/23/53 NOT ALLOWED

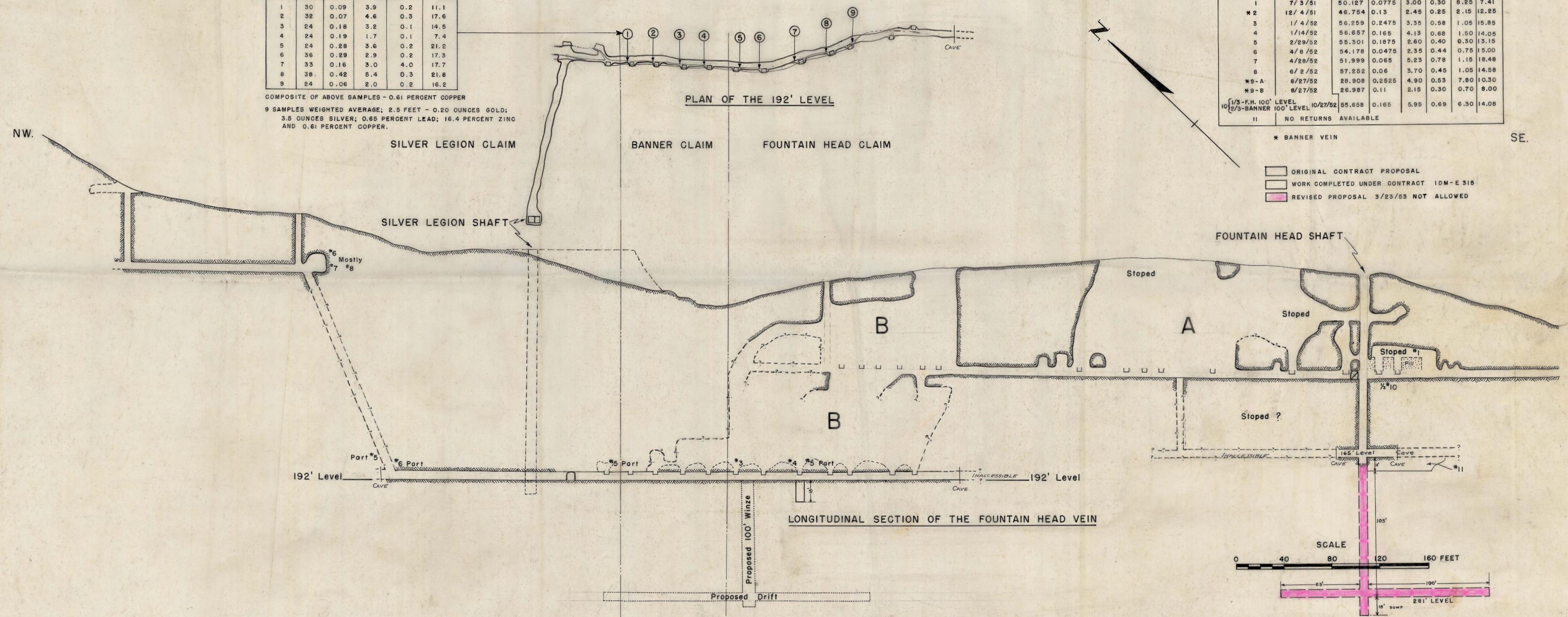


Fig. 3- Longitudinal Section of Fountain Head Vein and Plan of 192 Ft. Level — DMA 180IX