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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: COPPER LEDGE 1-10

ALTERNATE NAMES:

MARICOPA COUNTY MILS NUMBER: 607

LOCATION: TOWNSHIP 7 N RANGE 6 E SECTION 15 QUARTER W2
LATITUDE: N 33DEG 55MIN 18SEC LONGITUDE: W 111DEG 43MIN 57SEC
TOPO MAP NAME: HORSESHOE DAM - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
COPPER
SILVER
GOLD LODE

BIBLIOGRAPHY:
USGS HORSESHOE DAM QUAD
ADMMR COPPER LEDGE 1-10 FILE

REFERENCES

MILS Sheet sequence number 0040130231

MINE AND PROSPECT FIELD VISIT DATA SUMMARY

Sheet 1 of 2

COMMODITIES Copper

MILS ID No. 607

Date 12/29/83

ENGINEER Nyal J. Niemuth

INFORMATION FROM: Nyal J. Niemuth

PROPERTY SUMMARY

I. MINE NAME Copper Ledge OTHER POSSIBLE NAMES
Copper Ledge #1-10 (file) INCLUDING ANY CLAIM NAMES NOTED
Unsurveyed

II. LOCATION: T 7N R 6E SEC(S) 15 W $\frac{1}{2}$ MINE DISTRICT Cave Creek
 ELEV. 2400 COUNTY Maricopa TOPO QUAD. Horseshoe Dam 7 $\frac{1}{2}$
 DIRECTIONS As on topo. Road not recently improved. 4 wheel drive recommended
for access.

MAP ATTACHED yes

III. OWNERSHIP: NAME Tonto National Forest Lands PHONE _____
 ADDRESS: _____
 COMPANY NAME IF ANY: _____
 PERTINENT PEOPLE _____

IV. PROPERTY AND HOLDINGS: None

V. PAST PRODUCTION - NOTED, KNOWN, PROBABLE, UNKNOWN, NONE None likely unless
small amount of vein material was hand cobbled and shipped.

VI. CURRENT STATUS: Inactive

VII. WORKINGS: Western most drift and prospect visited. Drift portal is caved. Upper
prospect now consists of 150' long cat cut.

VIII. GEOLOGY AND MINERALOGY: DEPOSIT TYPE: Quartz veins
 LENGTH: + 200' Discontinuous WIDTH: Less than 1 ft. VEIN STRIKE N45W DIP 80-85° NE
 HOST ROCK: Diorite porphyry to diorite gneiss in vein area, general area is pink
~~ECONOMIC MINERALS:~~ granite and grey schist cut by diabase sills and dikes.
 ECONOMIC MINERALS: Malachite and chalcocite
 COMMENTS: Copper minerals occur in fractures. Amounts seen were less than 5%.
Country rock somewhat bleached and altered at veins with abundant limonite present.
Vein trends with joint pattern.

IX. EQUIPMENT ON SIGHT: One steel tank 4' diameter x 20' long converted for use
as an ore ^{chute} ~~shaft~~ below the west adit level.

End



Silver Systems Inc.

A 1382

2114 W. DESERT COVE PHOENIX, ARIZONA 85029
602-861-2138

Name Az. Mineral Resources Control # _____ Date 1-26-84

Address _____

City _____ State _____ Zip _____

Type of Material: ASSAY MELT BOTH OTHER

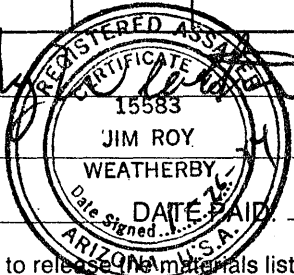
Assay For: Ag Au Pt Pd Other _____

Date Due: _____ Date Complete: _____

GRAB SAMPLE OF VEIN
HANGING WALL, AND FOOT
WALL MATERIAL

Sample	RESULTS		Pt	Pd	Other	Other
	Ag Au g/ton	Ag Au g/ton				
Copper hedge	Tr.	.23				
Blue Mtn.	Nil	Nil				
Falkwen						
Blue hole	.012	Nil				
Oxbow	.008	Tr.				

Assayer Jim Roy



Remarks: _____

TOTAL AMOUNT DUE: \$ _____

I hereby certify that I have the authorization to release the materials listed above for assay and/or melting. I further certify that I hold true and lawful title to all materials listed above and have met all state and federal requirements concerning these.

RELEASED BY: _____

RECEIVED BY: _____

BY NJN 12/29/83

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

FILED
MAR 15 1963

Mine COPPER LEDGE, 1-10, Storm CLOUD, 1-9,
COPPER REEF, 1-3. Date 2-15-63
District CAVE CREEK DIST., MARICOPA COUNTY Engineer LEWIS A. SMITH
Subject: REPORT SUBMITTED BY RAY LUPER 2-15-63

Property: 22 unpatented claims.

Location: S 15-16, T. 7 N., R. 6 E.

Owners: Claude R. Luper, 5408 S. 5th Street, Phoenix.
James D. Dennis, 9436 S. 7th Ave., Phoenix

Lessee: Fred L. Cherry, Apache Junction.
This is a lease that calls for 7 percent royalty (on gross) with ultimated price of \$350,000, royalties to apply on purchase price.

Work: Work is mainly in a series of cuts and location pits. One 32 foot shaft on No.1 vein reached sulphides (somewhat oxidized) at 8 feet.

Geology: The area consists of precambrian granite capped by schist bands, intruded by diorite, andesite and diabase as sills and dikes. One high hill, nearby is capped by metamorphosed limestone. 4 veins cross the claims. These generally strike NW - SE and the maximum exposure (vein No.4) is 350 feet. They vary from $3\frac{1}{2}$ to $6\frac{1}{2}$ feet wide. According to Luper, No.2 vein follows close to or along the contact between granite and andesite. No.3 vein is mainly in schist. Five assays indicate that the veins range from 1.3 to 9 percent copper, several ounces silver and \$2 to \$7 in gold. The samples were taken over widths of 3.7 to 9 feet. The maximum ^{sample} assays assayed 12.3 percent ^{and the minimum} copper, 8.41 ounces silver and \$7.35 in gold per ton. The minimum samples showed 1.3 percent copper, 0.3 ounces silver, and a little gold per ton. The veins' trends, as exposed, as well as the dip, indicate possible inter-sections.

COPPER LEDGE 1-10 (P)
MARICOPA

GEOLOGIC EXAMINATION
REPORT
of
COPPER LEDGE CLAIMS
in
CAVE CREEK MINING DISTRICT
Maricopa County, Arizona

by

R. E. Mieritz
Mining Consultant
Phoenix, Arizona

&

Harry E. Puttuck
Consulting Geologist
Phoenix, Arizona

July, 26, 1957

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APPENDIX

Plate 1--Index Map of Central Arizona.

Plate 2-- Sketch Geologic Map of Copper Ledge
Group of Claims.

Conclusions:

This report has been prepared as a matter of record and the following conclusions are based on a personal examination:

1. At present, the property can be classed as merely a prospect having four narrow veins (3 to 4 feet wide in places) of which only two have been explored for a maximum depth of thirty feet,
2. mineralization occurs along two types of veins, one being a copper oxide and sulfide impregnated quartz vein and the other, having the same minerals, is a contact vein between a coarse grained granite and a aphanitic andesite,
3. the property appears to have good possibilities due to the high grade of copper ore near the surface and the strength of the structures housing mineralization,
4. if the grade and width (average 2 to 3 feet) of number 1 vein persists for a reasonable depth and a strike of 100 to 200 feet, a few thousand tons of 5% of better copper ore may be realized from this one structure,

Location and Accessibility:

The Copper Ledge Claims, comprising three contiguous unpatented lode mining claims are located in T 7N, R6E, Sections 15 and 16 approximately three and a half miles south of the Yavapai-Maricopa county line and two miles west of the Verde river.

Access to the property is via the paved Phoenix-Cave Creek road for a distance of about forty miles. Six miles east of Cave Creek a sixteen mile dirt road leading to Horseshoe Dam passes within two miles of the claims. From this dirt road a jeep trail leads to within three quarters of a mile from the property.

History:

Since no road or pack trail leads to the prospect from the end of the Jeep trail, it is assumed no ore had been shipped from the property to date. The condition of the dumps and the present workings indicates this work was completed many years ago. The present locators have completed all location work on the property prescribed by federal and state laws.

All three claims were located on April 14, 1957 and recorded in the Maricopa County recorders office

on April 15, 1957 in the name of Harry E. Puttuck of Phoenix, Arizona. Present ownership of the claims is divided equally between four parties as follows:

1. Mr. Richard E. Mieritz, Phoenix, Arizona
2. Mr. Harry E. Puttuck, Phoenix, Arizona
3. Mr. Stanley Kalaf, Phoenix, Arizona
4. Mr. George Hayes, Phoenix, Arizona

General Geology:

Geology of the area in which the property is located is that of Pre-Cambrian coarse grained granite intruded by a much later Tertiary intrusives in the form of andesite, and diorite or diabase dikes and sills. No major faulting or thrusting is evident in the area.

Local Geology:

The Copper Ledge claims are underlain by a Pre-Cambrian granite which is intruded by two dikes of Tertiary age. One dike is a very fine grained andesite while the second is a very porphyritic diorite or diabase. Mineralization on the property is evidenced in four veins referred to as Copper Ledge veins number 1 through 4 and indicated on plate 2.

Vein #1 is a north-south striking near vertical quartz-copper bearing vein traceable on the surface

for about two hundred feet. The rock unit housing the entire vein on the surface is the diorite of diabase dike. Malachite, azurite, chalcopyrite, bornite and chalcocite or covellite are the copper minerals observed in the quartz fissure. These same minerals have impregnated the host rock walls as much as 2 feet in places. Samples taken from this vein zone are as follows:

Sample Number	Location	Assay
1	Two foot channel from 15 feet below surface in main pit.	6.5% Cu.
2	Four foot chip from host rock adjacent to vein 15 feet below surface in main pit.	1.7% Cu.
3	Two foot channel from 20 feet below surface in main pit.	4.7% Cu.

Vein #2 strikes north 45° east and dips 73° east and is traceable for only thirty to forty feet on the surface. This vein is also in the diorite or diabase dike. Except for two very shallow pits no development work has been done on this vein. It varies in width along the surface from a few inches to over a foot. Only one sample assaying 1.17% Cu. had been taken from this vein about one foot below the surface in a small pit located near the east center of Copper Ledge #1 claim. Copper and gauge minerals are the same as those observed in vein #1.

Copper Ledge Claim #3:

Vein #3 is a contact type mineralization between the granite-andesite contact. The vein strikes east-west and dips very steeply to the south. Width of this vein varies from six inches to two feet where it is exposed for fifteen feet in a trench along its strike. An adit driven along the right side of the vein and cross-cutting it twenty five feet from the portal revealed only minor copper mineralization indicating the ore along this vein may be somewhat speratic. Assay results of three samples taken are as follows:

Sample Number	Location	Assay
4	Grab sample of ore pile (about two Tons).	11.95 % Cu.
5	1.5 foot channel from vein in back of portal	4.7% Cu.
6	two foot channel from right side of vein at portal of adit. (Taken to check mineralization beyoud footwall)	0.31% Cu.

Copper Ledge Claim #4:

Vein #4 outcrops in the northwest corner of Copper Ledge #4 claim and is traceable on the surface for over a hundred feet. Todate this vein has not been explored or sampled. It is a somewhat strong north-east striking vein, highly stained with iron oxides.

Ore Reserves:

Ore broken and available for shipping from #1 vein is estimated at approximately forty tons of 5.0% to 6.0% copper. Estimated ore in place in #1 vein is sixty tons of probably 5.0% copper. This estimate is based on the limited development of the vein and has been calculated by assuming that the vein extends six feet beyond the present north and south faces exposed in the pit with a depth of 30 feet and a vein width of 2 feet. Strength of the surface exposure indicates the vein may assume a considerable strike length in each direction from the present faces in the pit. Geologic conditions indicate the vein could assume considerable depth. If the strike length and depth assumptions hold true, there is an excellent chance of inferring several thousand tons of copper ore of an assumed similar grade - 5% to 6%.

Production Costs:

The ore contains considerable silica (59.2%SiO₂) and is readily acceptable by the near by smelters at Superior, and Hayden. The following is an estimated production cost:

Value of ore (5% Cu. & 59.2 SiO ₂) (@90%)	---	\$26.10/ton
Less cost of Production	-----	\$13.90 to \$18.90/ton
Estimated Income from Ore	-----	<u>\$12.20 to \$ 7.20/ton</u>

Value of the ore based on 29 cent copper at an average of 5.0% copper at 90% payment is \$26.10/ton.

Mining-----\$ 7.50/ton

Shipping---Rail-\$ 2.40/ton
Truck-\$ 4.00/ton \$ 6.40/ton
Total-----\$13.90/ton

Smelting \$0.00 to \$ 5.00/ton
Total cost of Production \$13.90 to \$18.90/ton

Potential wise the property has possibilities which should be explored by underground development and surface drilling to determine the continuity along the strike and depth of the veins within the boundries of the claims.

Respectfully submitted,

R. E. Mieritz
R. E. Mieritz P. E.
Mining Consultant
Phoenix, Arizona

Harry E. Puttuck
Harry E. Puttuck Reg.
Consulting Geologist
Phoenix, Arizona



APPENDIX

Development Plans:

The four owners of the property have agreed to sell 60% of their holdings for the sum of \$5000.00. A cash payment of \$2500.00 is requested which will be used for rehabilitation and initial development.

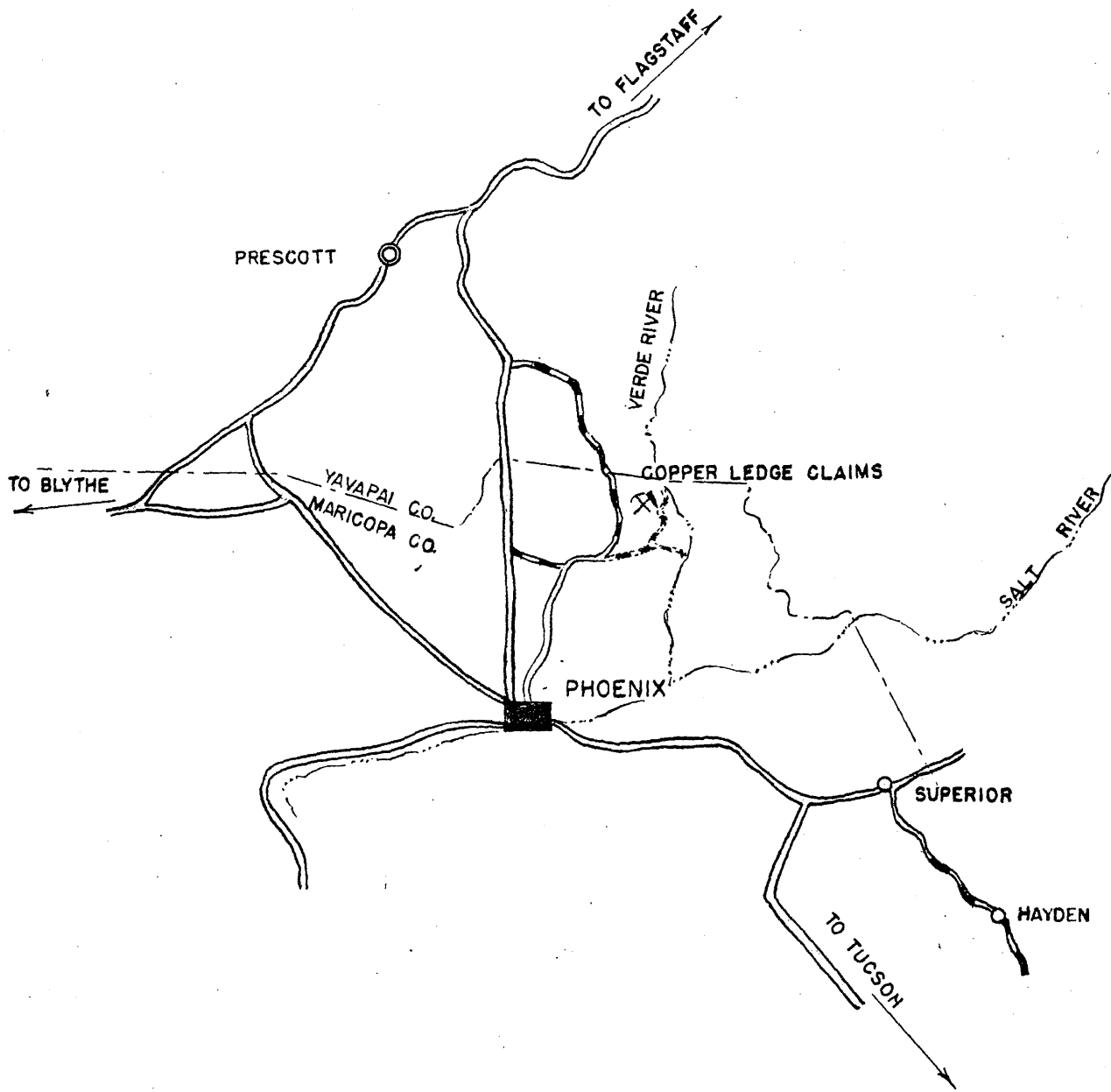
The first profits derived from the property will be used to refund to the original investors the \$2500.00 invested for initial development. After this has been accomplished, the four original owners will be paid the sum of \$5000.00 from profits derived from the property for the 60% sold to the original investors. This \$5000.00 will be paid in small enough payments that it will not hinder the financial structure of the organization

After the purchase price has been paid, then profits will be divided among the investors and original owners according to percent of interest held in the property. Such payments will be made only as the operation can stand.

The following is an itemized list of expenditures anticipated for the initial development of the property:

1. Road rehabilitation & construction -	\$650.00
2. Construction of ore bin -----	\$100.00
3. Rehabilitation of mine workings ----	\$300.00
4. Equipment and supplies for one months operation-----	\$500.00
Total	<u>\$1550.00</u>

The remaining \$850.00 will be used for the production of ore from #1 vein.



INDEX MAP
OF
CENTRAL ARIZONA

SCALE: 1" = 27 MI.

JULY 1957

R.E.M. & H.E.P.

PLATE I

COPPER LEDGE NO 1






* 1 Vein 1 1/2 to 3' Wide
* 2 Vein 1' Wide
30' Pit
Adit

COPPER LEDGE NO 3

* 4 Vein 2' Wide

* 3 Vein 1 1/2' Wide
Adit

COPPER LEDGE NO 4

-  ALLUVIUM
-  TERTIARY DIORITE
-  TERTIARY ANDESITE (?)
-  PRE-CAMBRIAN GRANITE
-  MINERALIZATION

COPPER LEDGE CLAIMS
GEOLOGIC SKETCH
MAP

MARICOPA COUNTY, ARIZONA

SCALE: 1" = 500'

JULY 1957

R. E. M. & H. E. P.