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Preliminary Examination of  
The Inez and Seagull Mining  
Claims, Silver District, Yuma County

ABSTRACT

The mining claims held by Mr. N. W. Clayton and Mr. W. Sager located in the Silver District of Southern Yuma County were visited and a thorough surface examination was made of these properties. Results of this surface examination indicate that (1) a copper sulfide ore body may exist below the surface and (2) that initial small scale leaching of surface copper oxides may be feasible. Approximately seventy (70) pounds of surface rock exhibiting typical copper oxide mineralization was sampled. This 70 lb. sample assayed: gold - 0.04 oz./ton; silver - 2.3 oz./ton; copper 3.54%. This material is being retained for further ore testing. The results of these tests will be the subject of a separate report.



Noah Clayton  
PO Box 253  
Wellton Ariz

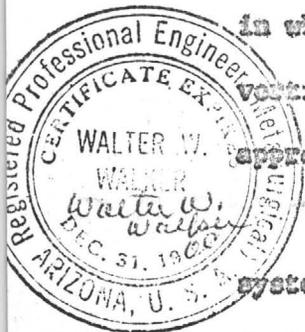
Introduction: In August, 1960, the writer, in the company of Mr. N. W. Clayton, examined a group of mining claims lying on State and Federal lands, in Sections 35 and 36, T4S, R23W of the Gila and Salt River Meridian. The claims lie in the Southern Trigo Mountains within a mile of the Colorado River, and most easily accessible at present by boat from Fisher's Landing on Martinez Lake, a distance of about 12 miles. The surface of the two State claims and part of the Federal claims was inspected on foot. No examination was made of the subsurface workings.

Topography: The topography of this part of the Trigo Mountains is quite rugged, consisting of narrow, rocky ridges alternating with steep-sided, narrow, canyons which empty southwards into the Colorado River. The area is very dry with sparse vegetation.

Geology and Mineralization: The prevailing rocks in this area are severely distorted gray quartz - sericite schists which according to Wilson <sup>1</sup> are of probable sedimentary origin. Severe folding and faulting was noted. Two systems of faults were observed. The premineralization fault system in which veins were formed strikes approximately N 70° E and dips nearly vertically. This system is cut by a post mineralization fault system at approximately 90° to the premineralization system.

The relatively more recent origin of the post mineralization system is attested to by the fact that the narrow canyons follow these faults, and cut the veins.

The veins consist predominantly of quartz intermingled in places with white calcite. Copper mineralization tends to follow the footwall of the quartz veins, and consists of thin disseminated stringers of chrysocolla and malachite. Examination of the copper mineralization near the surface of the various old workings indicated that the copper veins widened with depth and that the amount of chrysocolla decreased with a corresponding

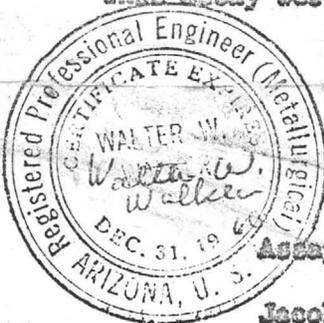


increase in cuprite and other oxides. No evidence of sulfides was noted at the surface. Chloritization of the footwall was noted in many places. The mineralized area extended for over a mile in an easterly direction and it varied in width from about 300 yards to one-half mile. Many of the outcrops and all the old workings in this area exhibit copper mineralization as described above.

Sampling and Assay: Approximately twenty pounds of mineralized rock was sampled from various outcrops, mine dumps and exposed veins on the eastern portion of the mineralized area. The remainder of the seventy pound lot was sampled from the hill above the tunnel. According to Mr. Clayton, present plans call for open pit or cut mining of this hill.

This rock was crushed and cut according to the flowsheet given in Figure 1. A wet assay for copper was made on the sample. Results of this assay were verified by a separate assay by an independent assayer:

Assay Results



	<u>Copper</u> %	<u>Gold</u> oz./ Ton	<u>Silver</u> oz./ Ton
Assay by Writer:	3.50	*	*
Jacobs Assay Office:	3.54	0.04	2.3

\*Assay Not Taken.

Evaluation of Property:

Cautionary Note: The author of this report is a Registered Professional Metallurgical Engineer and as such claims proficiency only in the science of Metallurgy. All other data (i.e. the geological and mining engineering aspects) should only be regarded as estimates by an educated layman. For this reason further examination by a qualified professional mining engineer is strongly recommended.

With the above reservation in mind the following evaluation of this property is offered:

(1) Possibility of the Existence of a Sulfide Ore Body: The wide extent of copper mineralization and indicated enrichment with depth suggest that a large sulfide ore body may exist at some depth below the surface. According to Wilson<sup>2</sup> chalcophrite was probably present in all of the copper bearing deposits of the region prior to their oxidation. Hence a sulfide deposit may exist below the oxidized zone in these claims. Test drilling of these claims is therefore strongly recommended to determine if such a deposit exists.

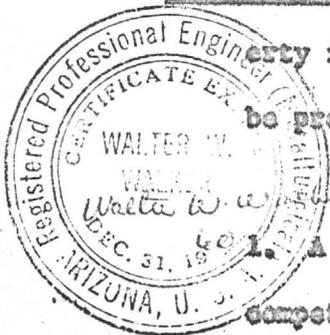
(2) Treatment of Surface Oxides: Enough oxides are present on the surface to warrant establishment of a small scale treatment plant, providing further metallurgical testing shows that such treatment is feasible. No recommendation can be made as to establishment of a large scale treatment plant without further subsurface exploration to determine the extent of the ore body.

Conclusions and Recommendations: A cursory, surface examination of this property indicates that a copper deposit of feasible economic importance may be present.

Further development is recommended along the following lines:

1. A thorough surface and subsurface examination should be made by a competent professional mining engineer.
2. Test drilling should be done to determine if a sulfide deposit is present at depth and to prove the nature and extent of the oxide mineralization.
3. If further ore-testing of the sample procured during my examination of the property indicates that the copper minerals are amenable to treatment:

a) A more thorough sampling of the hill above the tunnel is recommended.



b) A larger lot should be procured for pilot plant testing prior to design of a treatment plant.

**BIBLIOGRAPHY**

1. "The Mineral Resources of Southern Yuma County", by E. D. Wilson.  
Arizona Bureau of Mines Publication #34.
2. Ibid. Ref. 1.



EXHIBIT "B"

	<u>NAME OF CLAIM</u>	<u>DOCKET</u>	<u>PAGE</u>
1			
2			
3	Iron Mountain No. 1	432	730
4	Iron Mountain No. 2	337	731
5	Iron Dike No. 1	337	732
6	Iron Dike No. 2	337	733
7	Princess No. 1	432	750
8	Princess No. 2	432	748
9	Princess No. 3	432	747
10	Princess No. 4	432	749
11	Lucky Dan No. 1	432	751
12	Lucky Dan No. 2	432	756
13	Lucky Dan No. 3	432	755
14	Lucky Dan No. 4	432	754
15	Lucky Dan No. 5	432	753
16	Lucky Dan No. 6	432	752
17	Ballard No. 1	438	420
18	Ballard No. 2	438	421
19	Ballard No. 3	438	422
20	Ballard No. 4	438	423
21	Ballard No. 5	438	424
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BENTON & CASE  
 ATTORNEYS AT LAW  
 213 SECOND AVENUE  
 YUMA, ARIZONA 85364

EXHIBIT "C"

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Prospecting Permit No. 9319, covering the state land  
described as follows:

The West one-half of the Northwest one-half;  
Less M-1171, Section 36, Township 4 South,  
Range 23W, containing 46.95 acres

to be substituted in lieu of this particular exhibit.

BENTON & CASE  
ATTORNEYS AT LAW  
213 SECOND AVENUE  
YUMA, ARIZONA 85364

Access: The mine was reached by means of a boat from Martinez Landing, 12 miles W or upstream. From this point it is 1/2 to 3/4 miles north into the center of the claims. It is about a mile and one-half west of the River View mine. It can be reached by 3 miles of trail in a SW direction from the Dives. The property borders the Red Cloud, Pacific, Silver Gance and Papago, these mines lying N and E of the property.

The region is composed of rugged, steep-sided, serrated ridges, alternating with weaving canyons that are several hundred feet deep and drain southward or south westward to the Colorado River. The prevailing rocks are gray quartz-sericite schists alternating with some more basic schist bands. Eldred Wilson considers these to be of sedimentary origin. They generally strike N, dip at various angles, and display several systems of faults. A few aplitic dikes cut the schists. The principal veins strike about N 70° E and dip 45° NW up to vertical. The veins generally average from 1 foot to 3 feet wide but locally may swell to widths of 20 feet or more (no such widths were observed on the Segar claims). Some veins in the area persist for up to a mile of length, but the shoots, so far found, tend to be pockety and tend to be localized in the vicinity of places where fissures intersect the main faults at small angles.

Vein fillings consist of manganiferous to ferruginous white calcite along with brecciated country rock or gouge or very cellular, crystalline white quartz. Locally a few narrow streaks of copper stained rock are seen. On the Segar claims the copper is impregnated in streaks or zones that range up to 6-8 feet wide. In these zones the schist is almost uniformly copper stained (mostly chrysocolla) out from fault hanging walls. There seen in a 75 foot adit and a few other places there was a narrow hanging wall streak which ranged from 2 to 6 inches wide, and was higher grade than the impregnated bordering material. The veins are said to carry good gold and silver in places. The samples taken by Segar were not run for lead and no evidence of lead minerals was seen. However at the Riverview mine to the E occasional small shipments of silver-lead ore were made and these were high grade. A small lot of concentrates ran 60 percent lead, 8.7 percent zinc, 28 oz. silver and 0.08 oz. gold per ton (Arizona Bureau Mines Bull. 134 (1933) p. 71). A shaft several hundred feet NE of the adit contained considerable gold-bearing material that also carries some silver and several percent copper. The dump was sampled by Segar and Davis, a consultant from Salt Lake City. Farther east is a 200 foot shaft that was sunk many years ago. This followed a white or pink quartz vein downward. It is reported to have yielded some good gold values. Samples were taken from the near surface, on a 100 foot grid and these ran 0.6 up to 2 percent copper. The composite sample ran around 1 percent. These were obtained by digging small shallow pits. In some of the mineralized area surface copper showings are meager, but the copper stain or copper values show up from a few inches to a foot below the surface. According to Segar the schist in such places, shows no green copper staining, but still runs 0.6 or more in copper, possibly as oxides (melanconite or cuprite). The most pronounced alteration is sericitization near the veins and silicification as impregnations and narrow quartz veins or bunches in much of the rock. Chloritization was less prominent,

generally, but locally is stronger in the more basic bands in the schist. In the deepest canyons a very fine-grained, light brown rock underlies the schist. This appeared to be an aplite dike that has locally at least, domed the schist. North of the area observed, granitic rocks are present and these mostly appear to be fault bordered irregular shaped blocks. In addition to the larger faults, considerable jointing and intimate shearing has occurred. The schist is twisted and locally folded. No granite was seen in the claims although it probably may underlie the schist in part of the area. N-NE of the mine andesite flows & tuffs are mapped.

Considerable drilling would be necessary to determine if the schist will run enough to have value between the fault zones or "veins," since the rock surfaces often are severely whipped out. The ridges could best be tested by flat angle holes from the canyons that are generally transverse to the veins, or many fractures. Some copper staining was also seen in the aplite. The Geronimo and Red Cloud north of Segar, are on a N 15° W zone that dips 45 to 60 degrees E. The vein separates andesitic rocks on the east from granite on the west. No andesite was seen in the Segar area but a large mountain to the NE appeared to be andesite. This has a somewhat greenish cast that may be due to chloritization. The principal veins, carrying lead and silver, trend NW-SE, whereas the copper-gold veins of the Segar generally trend NE-SW, possibly representing two generations of metallization. The rough topography and difficult haul to Blaisdell would mean considerable cost and only good grade ore could be shipped. The ore in the area is said to run up to 75-80 percent silica.

# DAVIS & DAVIS

C O N S U L T I N G G E O L O G I S T S

LELAND J. DAVIS  
OFFICE ELGIN 5-0493  
HOME HUNTER 5-1863  
2532 LAMBOURNE AVE.  
SALT LAKE CITY, UTAH

H. CLYDE DAVIS  
TUCSON OFFICE MA 3-0371  
HOME MA 3-8814

1000 NORTH MOUNTAIN  
TUCSON, ARIZONA  
September 15, 1961

Mr. Noah Clayton  
P. O. Box 253  
Welton, Arizona

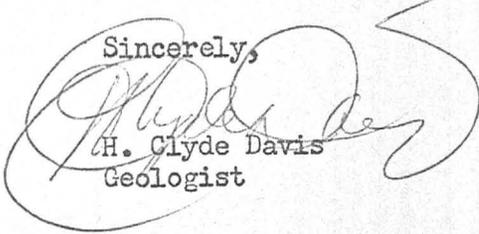
Dear Noah:

It has been sometime since I have been able to go through my file to find the assays of the samples you had taken from the copper property North of Yuma. The sampling looks good and they are as follows:

<u>Sample No.</u>	<u>Description</u>	<u>Cu %</u>
1	200 ft. cross cut below rope saddle	1.23
2	250 ft. half way up tunnel mountain	.60
3	450 ft. cross base of tunnel mountain	.32
4	200 ft. in rope saddle	1.03
5	450 ft. across top of tunnel mountain	.62

I hope this will be of some value to you.

Sincerely,

  
H. Clyde Davis  
Geologist

HCD:jfm

# DAVIS & DAVIS

C O N S U L T I N G                      G E O L O G I S T S

H. CLYDE DAVIS  
TUCSON OFFICE MA 3-0371  
HOME MA 3-8814

1000 NORTH MOUNTAIN  
TUCSON, ARIZONA  
February 7, 1962

Mr. Noah Clayton  
2501 West Missouri  
Phoenix, Arizona

Dear Mr. Clayton:

You asked that I write a geological report of your mining property located in the silver mining district approximately 20 miles North of Yuma, which adjoins the Colorado River on the Arizona side.

#### LOCATION AND DESCRIPTION

Your property consists of 6 mining claims which are in Sections 35 and 36 of township 4 South, range 23 West, Gila and Salt River Meridian. The two claims on the State land are known as the Seagull and the Inez, located along the West line of section 36. The four Federal claims join the State land claims in section 35. These claims are located in the Trigo Mountains in Arizona. We gained access to the claims by motor boat on the Colorado River going 12 miles up stream and landing on the Arizona side. *(From Fisher Landing)*

#### GEOLOGY

These claims are located in tertiary volcanics, probably andacite. Very limited alteration was noted on the property. Major structures running east and west and northeast and southwest cut the claims. Mineralization was noted along these major breaks.

#### MINERALOGY

The area of the claims has very little alteration in the andacite. The copper minerals which were noted were carbonites or azurite and malachite. Copper oxide was also noted.

#### SAMPLING

Six samples were cut over the various areas on the 6 claims. These claims ran as follows:

<u>Sample No.</u>	<u>Area Description</u>	<u>Copper %</u>
1	-200 ft. cross cut below rope saddle	1.23
2	-250 ft. half way up tunnel mountain	.60
3	-450 ft. cross base of tunnel mountain	.32
4	-200 ft. in rope saddle	1.03
5	-450 ft. across top of tunnel mountain	.62
6		

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# DAVIS & DAVIS

C O N S U L T I N G G E O L O G I S T S

H. CLYDE DAVIS  
TUCSON OFFICE MA 3-0371  
HOME MA 3-8814

1000 NORTH MOUNTAIN  
TUCSON, ARIZONA

Mr. Noah Clayton  
February 7, 1962  
Page 2

## CONCLUSIONS AND RECOMMENDATIONS

I recommend this property as a possible copper potential if drilling can prove economic sulphites. From the surface and the samples taken, it indicates copper present in the major areas of the claims; however, the copper is all oxide and it would be necessary to have sulphites containing a commercial deposit.

In the further development of this property, I would recommend the following steps:

1. Detailed surface sampling.
2. A detailed geological mapping to determine all the major structures on the claims.
3. A reconnaissance drilling program to determine each sulphide.

After these three steps have been completed, a re-evaluation should be made to determine if the property has economic value.

Sincerely,

  
H. Clyde Davis  
Geologist

jfm

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 Bureau of Land Management  
 Land Status Legend  
 for  
 Range and Forestry Maps

Applications under the Public Land Laws are not shown on maps - see Land Office Records for official information

<u>Description of Land Status</u>	<u>Alphabetical Symbol</u>
-----------------------------------	----------------------------

Vacant Public Domain - administered by the Bureau of Land Management-----	V
Stock Driveway-----	SD
State Land-----	S
Allowed Homestead Entry-----	HE
Allowed Desert Land Entry-----	DLE
Small Tract Classification-----	ST
Indian Trust Allotment-----	IA
Patented Land-----	P
Exterior Boundary of patented Mineral Claims Shown-----	P
Railroad Land-----	R
Air Navigation Site Withdrawal-----	AN
War Department Withdrawal-----	W
National Monument Withdrawal-----	NMW

Note: Livestock grazing is administered by the Bureau of Land Management on the withdrawn and reserved lands listed below:

Reservoir Site Withdrawal-----	RSW
Reservoir Declaratory Statement-----	RDS
Public Water Reserve-----	PWR
	G
State Withdrawal (New Mexico only)-----	SW
	G
Resettlement Purchase (L.U.Land)-----	RA
Reclamation Withdrawal - after Taylor Grazing Act, June 28, 1934-----	RW
Power Site Withdrawal, Power Project-----	PS

Note: All or part of grazing fees collected go to withdrawal agency listed below.

	G
Reclamation Withdrawal (before Taylor Grazing Act, June 28, 1934)-----	RW
	G
Indian Ceded Land-----	IC
San Carlos Indian Irrigation Project Withdrawal-----	IPW

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

STANDARD MAP SYMBOLS FOR LAND RECORDS AND STATUS USE

BOUNDARIES AND MONUMENTS

Withdrawals	
Patents	
Leases	
Limits of surveyed land, (hatching on unsurveyed side)	
Triangulation station	
U S Mineral or location monument	

WORKS AND STRUCTURES

Railroad of any kind station	
Railroad fenced 1 side	
2 sides	
Telephone line	
Telegraph line	
Power trans. line	
Fence (barbed wire or other)	
Highways hard surfaced	
graveled	
improved dirt	
County road	
Road for wagons only	
Fenced highways	
Fenced County road	
Trail	
Established livestock route	
Cattle guard	
Bridge	
Ferry	
Ford	
Dam	

Airplane landing field	
Airway light beacon	
Settlement (towns and cities)	
Buildings in general	
Ranch house	
House (abandoned)	
B.L.M. Office	
B.L.M. Warehouse	
Granary or storage dump	
School	
Church	
Store	
Gas station	
Cemetery	
Historic ruins	
Prehistoric ruins	
Cliff dwelling	
Indian House, Hogan	
Mine or Quarry	
Mine prospect X	
Mine shaft	
Oil or Gas active	
inactive	
Sheep herder monument	
Dipping Vat	
Corral	
Fire lookout primary	
secondary	
Fire warden headquarters	
Fire tool cache	
Radio station	
Cultivated land	

WATER

River and island	
Stream	
Stream flow with flow in certain season	
Dry wash	
Sand wash	
Lake and island	
Marsh or swamp	
Intermittent or dry Lake bed	
Salt Lake	
Intermittent dry lake	
Spring	
Spring (improved)	
Seep	
Water well	
with trough	
with storage and trough	
housed well	
artesian well	
Windmill	
Storage tank	
trough	
Water pumping plant	
Pond or pot hole etc	
Reservoir	
Stock pond or earthen tank	
Designed to be permanent water	
Water storage underground bulkhead	
Pipe line or conduit	
Flume	
Canal or Ditch	
Dike	





STATE LAND corrected 1-1-1955  
 NOTE: STATE LAND OWNERSHIP TAKEN  
 FROM ARIZONA STATE LAND STATUS MAPS

LAND STATUS corrected the first week of each month.  
 For more detailed and official information the Land  
 Office Records in the State Office of the U.S. Bureau  
 of Land Management are available for inspection by  
 the public from 10:00 A.M. to 3:00 P.M. Monday  
 thru Friday.

COPIES OF MAPS AVAILABLE FOR \$1.00 EACH  
 FROM U.S. BUREAU OF LAND MANAGEMENT,  
 3022 FEDERAL BUILDING, PHOENIX 25, ARIZONA

Note: Checks or Money Orders should be made  
 payable to the U.S. Bureau of Land Management.

T.5S. 1955 UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 ARIZONA AREA II  
 YUMA COUNTY  
 ARIZONA

