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## ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: OSBORN PROPERTY
ALTERNATE NAMES:
WEST PROPERTYWEST GOLD
GILA COUNTY MILS NUMBER: ..... 433
LOCATION: TOWNSHIP 9 N RANGE 10 E SECTION 17 QUARTER SE LATITUDE: N 34DEG 07MIN 02SEC LONGITUDE: W 111DEG 20MIN 46SEC TOPO MAP NAME: GISELA - 7.5 MIN
CURRENT STATUS: PAST PRODUCER
COMMODITY:
GOLD
SILVER
FLUORINE FLUORSPAR
BIBLIOGRAPHY:
ADMMR OSBORN PROPERTY FILE
ELEVATORSKI E A AZ FLUORSPAR 1971 P 17 ADMMR
PUB
ADMMR GRANT G0254012 MINERALS AVAIL SYSTEM AZ
FLUORSPAR 1979 (NO FLUORSPAR NOTED)
AZBM MINERAL MAP SHEETS


NJN WR 2/13/87: Don Jenkins, Gold River Exploration (c) brought in reports and maps which were used to start a file on the Osborn Property, Gila County. The Property was already listed in Gila MILS.

$$
\begin{aligned}
& \text { West }+\frac{\operatorname{cosen}^{2} \cos }{200} \\
& \text { 1) in } 2 \cdot \lambda \\
& \text { ans in se nat } \\
& \text { F ((TSNT (CMCN) action flour proof }
\end{aligned}
$$

(Fact Sheet Summary)

## 1. LOCATION

* Located approximately 10 miles south of Payson, Arizona, and $1 \% 2$ mile ast of the community of Rye.
* Situated in T9N, RlQE, sections $16,17,20$, and 21
* Access is excellent via U.S. Highway 87 and a short segment of unpaved road.
* Much of the Property is covered with Quaternary gravels and a scattering of light brush; thus, exposures of mineralization and basement rocks are confined to predomiriantly washes and ravines.

2. PROPERTY

* Comprises TwD: Unpatented mining claims by location
* Workings include two past production shafts; one exploration shafit, one exploration adit, one production drift now caved; dozer cuts within the West Bros. working area, and scattered hand dug pits.
* Production history is minimal; a 1933 report by a J.M. Shiner, E.M., clearly indicates that production from the West Bros. area was significant, consisting of selectivaly mined hi-grade gold ore.


## 3. GEOLOGIC SETTING

* A PreCambrian volcanic pile, predominantly andesite, hosts the mineralized areas. A younger intrusive stock lies adjacent and east of the Property, resulting in complex structural geology in the Hog Canyon area and in proximity. to the contact zone.
* The volcanic host is markedly affected by intense structural activity, including low-angle faulting, associated brecciation, shearing, and intense alteration. A large mafic dike cuts the volcanic host in the Hog Canyon area with apparent brecciation on either side of the dike; the dike is several hundred feet wid申
* Mineralization and altnralina, simply put, include quartz. veining in the lust Bros. shaft area, together with an flite-
 extensive brocciation in Che log Canyon area, including both chalcedonic and tectonic breccia. The tectonic breccia has been cemented with calcite and silica. Mineralization of significance includes wide chalcedonic ribs that parallel Hog Canyon on the north side of the wash. These ribs are roughly 20' to 301 thick and in places are sheared and brecciated. East of the Hog Canyon wash lies chacedonic breccia and a jasperoid quartz which is fractured and filled with secondary silica and limonite.
* Scattered throughout the property within the many washes are partial exposures of the illite-kaolinite alteration zones. Ac
* Most previous mining activity has occurred in the quartz veins, and in Hog Canyon at structural intersections.
* At the Hog Canyon shaft a flat-lying silicified shear zone is intersected by a near-vertical quartz-filled fault zone, and at nearly right angles. It is apparent that the better gold values were found at this intersection. Such structural phonomen may be useful as a guide in future exploration programs.



# J. MILFORD SHINER <br> MINING AND METALLURGICAL ENGINEER <br> 703 AUDITORIUM BUILDING <br> LOS ANGELES - CALIFORNIA <br> P. O. Box 56, Globe, Arizona, 

October 26, 1933

Mr. C. E. Showalter. 980 D Street:
San Bornardino, California.
Dear Sing
Following is my report on West Brothers' Gold Mine. I believe you will find it quite complete from most every angle. As you accompanied me on the trip to the property and worked with me on 0.1 the assaying. I believe you can vouch for the accuracy of the contents of this report $w i t h$ authority.

I do not hesitate to state, without fear or favor, that this gold prospect is one of the best I have ever examined. Under competent management it could not Pail providing it is properly financed and not over capitalized.

Thanking you for this call, I remain
Very respectfully yours,


SUBJECTS
PAGES
ASSAYS
8-9-10
AVERAGE VALUES
11

COSTS - MIMING \& MILIIHG $\ldots \ldots \ldots 15-16$

DISTRICT $-\ldots-\ldots \ldots \ldots \ldots$





LOCATION Q $2-\ldots \ldots$
LETMER OF TRANSMITTAL $\because$ ©: $\ldots \ldots \ldots \ldots \ldots 2$
 MAPS
Claim Plat - - -
Ground Assay
II

Longidudinal section "BB" $\ldots \ldots$ III
Cross Section "AA". -.... IV
Geological Section . . . - V
Ground Plan Tunnel - . - - VI
Geographical Section - - - VII
MILIING PLANT - . . . . . . . . . . . . . . . . 14 - 15
ORES
ORE DEPOSITION $-\ldots \ldots \ldots \ldots$
6

POST OFFICE $\ldots \ldots \ldots 4$

RECOMMENDATIONS $\quad \ldots \ldots \ldots 13-\ldots \ldots$
RAILROAD $\ldots-\ldots \ldots 5$
RAINPALL $\ldots \ldots \ldots \ldots \ldots$
ROADS $\quad \ldots \ldots \ldots \ldots$
SAMPIINGS $\ldots \ldots \ldots 8$
TRANSPORTATION $\ldots \ldots \ldots 5$
TIUBER - - - - m - m - - - - m - - - - 5
TONNAGE \& VALUES $\ldots \ldots \ldots 12$



STMMARY $\quad \ldots \ldots \ldots \ldots 16-\ldots \ldots 17$

#  <br> ON ME 

#  

## GIIA COQBYY, ARIZOMA

-     -         - BX $-\cdots$
J. MILFORD SHINER, E. Hog

$$
\frac{\text { OCTORER - } 1933}{\int / L^{2}}
$$ mile east of fige Creet store and service station, which is on a good state hifhway running betweon Phoonit and Payson via Roosevelt Dam, or Pron Globe or Riani to Payson.

 district but one very ifttie and seldon heard of on account of its supposod lons distance from a railroad. It is in the northe west corner of Gila County, Anizona, 'fhis district produced a largo quantity of gold in the early days by the oarly day minors who hae to spond onshalf tiolr time ifighting Indians and vild antrals.

ULIMATE: The climatic conditions of this proporty or district could not bo botter for all yoar mining and miling on account of its height acovo sea levol. It nover gets vory hot in sumer or very cold in vinter. $1 r$. Brown omer of the gervice station and store at Fyo Creel, told me thoy have licht snows in wintor which never lay on the ground more than two hours.
\&LEVATIO: The elevation above sea level is from thirty-four hundred to thirty-3ix hundred foot; an ideal elevation for the desert.

ATER: Water is developed for camp or domestic purvoses on the north claim. A spring of water coming out of calcium conglomerste is developed and piped through about two thousand feet of one-inch pipe to tho camp. Inis will supply wator enough for a large camp. Water for a milliag plant can be obtalned from fog Canyon, just east of this proporty, where water is available all the jear around dils wator sujoly has never been known to fail. At the
present time, right after one of the dryest sumers this district has ever known, there is an abundance of water./ A well could be dug along the side of the running creek in Hog Canyon and a small two and one-half horse power pumping plant installed connected to fifteen hundred feet of one and one half inch pipe line which would lift the water two hundred feet and over the sumit; at this point a one inch pipe line could carry it by gravity to the mill site one hundred and eighty feet fall, one thousand feet west. This would deliver at least three thousand gallons of water per hour to the head tanks which should have a capacity of at least ten thousand gallons. This amount of water taken from Hog Canyon would never be missed by the cattle men.

- POST OFFICE: The store at Rye Creek handes the mail for
people of the district.

HISTORX: To work out the history of this property would require much more time than it would be worth. An "old timer" In the district told me that a man once owned this property in the early Slxties who had three arastras on Hog Creek and would worls two days out of each week gophering out the high grade surface stringers and packing the ore down to his camp, and then put in the balance of his time arastraing the ore and fighting off the Indians. He was reported to always have plenty of gold and was considered a wealthy man. He sold the property to a second party and retired. The second party operated for a few years and sold to West Brothers abopt thirty-two jears ago. The West Brothers have owned it since that time doing the assessment work and slowly developing it. They at one time sold a one half interest to an inexperienced mining man and in a few
yoars they again acquired the said intercst.

ARSEPOATAMIO: Up to a fom years ago transportation mas the one bis problow, and right aftor tho Stato Migimay Dopartment built the payson lighway the dopression hit tho country. A trucking compang from phoonix oporates a truck daily to kyo Crook and Payson, which solves freldht harditng as supplies vould more Inkely como from Phoenix wheli is the largest city in tho State. Vadium, a station on the Southern pacific iailroad. is the nearest rail point - the distance being aproximately oighty milea over a fine twenty foot State fichway. Trucks, loadod, wake the trip from Globe to Payson in three and onemalf hours. From fadium to this property the distance is flpteen miles shortor, so ono could foel quito safo in estimating the time from railroad to the mine, with a loaded trucis, at three hours - whicin, to my mind, solves the problem of transportation.

ITABER: The only timber on the property are a few oak trees and small cedar, the ground beinis covered with cacti and ordinary desert grontin. gimber can be secured in the near by forest northwosterly, noar roads, for two dollars per onethousand standing feot. sawed lumber, for stulls and laging. can bo bought at the sow mills neap payson for about twentyiqve dollars per one-thousand board feot, at mils.
$\qquad$ There is no oloctrife power lino noar. Power for compressor and milling plant would have to be gonm erated on the ground. I would recomend semi dieani engine for this purpose as they consime a cheap fuel ofl of $27^{\circ}-$ which can bo bought in Phoonir for ifvo cents per gallon.

This fuel woild not cost over elizht centa per gallon lald dom Qt the mine. A flify horse Power semiodiozal oil burning encino pullins full load would not consume over two barpels of oll per day, which fisures as follows:

twenty -four hours - or approxinately thirty cents per hour for fifty horso power, or, six conts por horso powor/less wear and tare and interest on investrent, which would add ifttlo to horse powor hour cost.

RATM FALL:
The rain fall is about fourteen inches avorage por yoar which is onough to keep the country stocked up with underground water for all purposes.

JRES:
The ore is strictly gold bearing or auriferous there being no indications of alfver, lead, zinc or coppor. The quartz is principally silica ( 5102 ) uith iron ( FO ) and hemitito (Foo). It prould be classifiod as a silicious quaritz, an ideal ore for modern cyanide plant from which a very high oxtraction could be expected.

EQUSPETI: The only equipment on the property is a track and a one-thousand pound ore cars. The track 23 about throe hundred feet long from the dump through the tunnel.

DEVELOPKETM: Development consists of a tannel two hundred and sisty-tho feet in length (see maps) connecting with the shaft at forty-ight feet depth. The shaft is reported to be twenty ofive Peot deoper than the tunnel lavel. It is at this writing full of eroded and cavod rock from above as the timbers
rotted away and let all the loose top surface material down the shaft. This would make the shaft seventy-three foet deep. There are several shallow shafts and open cuts besides some short tunnels. This developnent vork, 1 ilie all prospects or mines in the making, was poorly lafd out, homever the shaft as is could bo usod to a good advantage and is well worth its cost as it opens up ore frou surface to bottom averaging about twenty-four inches wido.

VEIT SYSTEM: This is one of the most interosting vein systems the witer has ever examinod. the ohaft apparently is on the extreme west end of the formation although the vertical vein shows all the way down in the mest side of the shaft to tho bottom, in a trench dug fifteon foot west of the shaft it did not show at a depth of tro foot. It is possible, however that a good tomace of ore would bo produced west of the shaft as the west end of the voin may strike in that direction. The vein systom is easily tracoable on the surface for seven hundred feot and at one place is over forty feet wide. I sampled a circle of twenty-ifve feot diameter and the assay ran 3ir dollers gold. This sample was taken on the east enc of the voin systea or surface mineralization. I believe the values found on the surfaco are made up from small high grade veinlets all runing or striling toward one comon center to the eqst. There is no sign of ore east of the big circle on the surface, and if it doos run oastward it runs under a big bill which is covered with a sand-calcium-silica conglomerate on top and an andisito $110 \%$ in Hog Canyon. this vein aystem shows on the surisce a continuous ore shoot of seven hundred
feet, which is somothing very hard to find to day or, in fact, is seldom found any time or placo.

SAMPLIM: Every sample from the properts was carefully taken. Not one was taken for high grado but all vere takon for conservative mill head aomplos. I directed the dieging of the trenches and personally took tho samples. All samples wero large weighing from fiftoen to twenty ofisve pounds, broken down on a canvas, rollod and quarterod dom to desired asize for assaying. Each sample as taken vas placed into a canvas sack and a labol placed therein so they could be properly identifled after reaching the laboratory. It would be no trouble to get plcked specimens from this property that would mun up to ton ounces gold, or two hundred dollars per ton gold.

ASCAYS: Aftor the samplos rosched the laboratory at Radium, Arizona, they were logged and listed according to the following assay sheets numbered from 1 to 34. Samples Nos. 1 and 2 were run without duplicates, but all others were run in duplicate to add a factor of safoty. Every sample mas broken dom to one quartor inch on the laboratory bucking board and quartered down to about one-half pound, which was ground to pass through an eighty mosh screon. The sample vas then put into a papor sack, properiy labolod and placed in line. After all the samples were prepared in this mamer Ho. 1 was poured onto an oll cloth, rolled and regrolled to properly mix tho pulp, then spread out and two samples taken for fire assays and poured into crucibles, and ten grames weighed out of each sample and placed into containor for metallurgical york. Soda ash, borax glass, IItharge, s111ca, silver and flour with a cover
of sodiun chloride wore the flures used. the pulp and fluxes were well mixed tofothor and crucibles lined up and ready for the fumace. The completod assegs or charges wore run through the furnace in rotation, four amples at one time - two would bo poured and the two in front would thon bo moved to the back of fumace and two nom onos addod. In this manor samplo and duplicato wore poured at ono timo and another pais added, baking an oass maner in keoping samples In sequonce. After the slaz had coolod onough it was dumpod out of slaz moulds and buttons pounded out of the bottome squared and set on button receiver, which is numbered from one to slxteen consecutively. Whon recelvor was fillod thoy were put into hot bone ash cupels in the muflo and were cupelled down to a finioh - the remaining bitton containing nothing but the silver added and tho goid gathered from tho assay or fusion. The small buttons wose taken from the cupel, pounded with a samil button hamer, to remove any remaining bons ash or impuifilios, and dropped into a porcelain amnaling cup where iffty per cent strongth nitric acid was addod. It mas thon placed over a gas burner to heat the acid which in turn dissolvod all the silver leaving nothing but the gold in tho cup. The acid was then decantered off and the gold mashod threo times, thon dried and meighod on a cold balance which is subjoct to one ofiftieth millitran emror. The Eold was sigurod at the rato of twent dollars por fine ounce, and not thirity one dollass, which is the present mariset price.
No. 2 Small durap $\quad . \quad .5 \quad n \quad 10.00 \geqslant$ 人

No. $3 \begin{gathered}\text { West drift down } 40 \text { ft. in } \\ \text { shaft, } 24 \text { inches wide }-.5 \quad n \quad 10.00 i^{2}\end{gathered}$
No. 4 Duplicate of Mo. 3
No. 5 East drift down 40 ft . in shaft, 28 inches wide - - . 4 " 8.00

No. 6 Duplicate of he. 5
$\begin{array}{lllll}\text { No. } 7 & \text { No. } 2 \text { Shaft dump } \\ \text { No. } 8 & \text { Duplicate of No. } 7 & \cdots & 0.00\end{array}$
No. 9 Station 3, 6 ft . ———. . 07 n $^{\prime \prime} 1.50$
No. 10 Duplicate of Mo. 9
No. 11 Station 4, 4 ft. - . - . . 05 n 1.00
No. 12 Duplicate of No. 11
No. 13 Station 5, 15 it. $\ldots$. . . 1 n 2.00
No. 14 Duplicate of Mo. 13
No. 15 Station 6, 10 ft . $\cdots$. . . 6 " 12.00
No. 16 Duplicate of No. 15
No. 17 Station 7, 25 ft . $-\ldots .0$ a 6.00
No. 18 Duplicate of No. 17
No. 19 Trench No. 1 west, 5 ft - . 075 " 1.50
No. 20 Duplicate of No. 18
No. 21 Trench No. 2 east, 48 in. - . 2 n 4.00
No. 22 Duplicate of No. 21
No. 23 Trench No 3 east, 18 in. - Tr. Tr.
No. 24 Duplicate of No. 23
No. 25 Trench No 4 east, 36 in. - . 3 " 6.00
No. 26 Duplicate of No. 25
No. 27 Trench Ho 5 east, 24 in. - . 85 " 17.00
No. 28 Duplicate of No. 27
No. 89 Face of open cut, 12 in. - 1.0 \# 20.00
No. 30 Duplicate of No. 29
No. 31 Face west lover drift, 48 in. 45 "
9.00

No. 32 Duplicate of No. 31

Sample No. 33 Ceiling west Lowar
drift, $48 \mathrm{in} n_{0} \ldots . .$. Ounces $_{64.00}$
No. 34 Duplicate of 770 , 33
Average value por ton ... $\overline{0.34}$
PTMS: As Par as I was aulo to loarn the title to the tincee claims is vested in the two West brothers. There was a flaw in the chasn of title but mas cured by a recent re-location.

QEDONY: (Seo Geoloctcal platin back). The goology of this property is not so complicated as in some disiricts. The hard formation is of pre-cambrian ago and the conclomerates aro miocene or plioceno, while the andicito flow is of a still lator date as this flow covers the castern thin odges of the conglomerato and oror the prewambrian, porphyry, diorito, and Eranodiorite. This great porbhyry belt, which i $\delta$ tracoable for over twelve miles, has a strike of east and west. The auriferous veins have the same general striko as the porphyry dillos and havo this rock for hanging and foot walls - bosides it is the country rock. The aupiforous voins lying wholily within the porphyry leads one to belleve the porphyry was in a plastic condition whon the sea vaters receded and upon solldifying they pullod apart along the cleavago planes which caused a fissure that probably will go to great depth. It is reasonable to bellove these gold veins will continue downward to great dopth and will more than likely onrichon rather than loose values.

ORE EEPOSITION: It is my opinion the open deep seatod ompty fissures were the outlet of hot acid, metalle charged
thermal waters．Theso waters continuod to flow through theso channols for countloss agos until tho calciun，magnosium， silicon，fron and gold in small quantities crystalized on the walls corapletoly sealing themselves off thereby causing tiese hot solutions under trestendous pressume，which was caused from hoat generatod by chemsead action doop down in the eagmas，to alter the porphyzy in other places pollowing the course of leest resist－ ance until this vein syotom was built as 1s．The cooling off of the earth＇s crust and the deposition of the mineral and wetalic olements along with loosing its acidsasave it its altering powor caused a cossation of the flow．Fror all visible sicns the orea mere caused by ascendiag solutions sololy and not by dee sconding wators，ea there are no signs anywhore of ascending solutions moeting $⿴ 囗 十 ⺝ 丶 t^{\prime}$ descending solutions which would show a se－precipitation or a doubilns of the values if not an added enrichment near the surpace．I belleve tho last orffice of theso hot tharmal solutions was within the twentyofive foot circle which is shown on assay wap attached．

TONAGE AHD VALUES：I canmot figure ardy tonnage of ore on or in this progery as blocked out，however I can see an avall－ able supply of ore on the surface．In tho dumps，and openod up by tho shaft and difitts，and much more could oasily bo opened up by ariving a drift east from tho crossocut tunnele I camot possibly ficure any way that any onginoer could more carefully samplo this property to ascertaln its mill hoad values than the ampling I aado，which shows an avorago valuo，taking overy assag into consideration，of oicht dollars and ninety cour cents por tono This I call a very high average and 19 further development worls proves to open up more of the bame kind of ore
this property would bo one of groat valuo without a doubt.

RECOSTWDATSORS: (See Longitudinal map). I recomeond a drift east following the vain as far as $4 t$ goos. one hundred feot east of the old shaft a ralso to be run uprard to tho surPace which rould givo a dopth of flfty -ive foot on the vein this raise to be timbered into a double compartment shaft uith conciote collar. Then the installation of a amall hoietine plant to hoist all ore and muck in futuro devolopmont. enrough this shaft some ore for milling could bo raisod to the burface to mixed with the large tonnge of surface ones. After this work is under may I would atart the erection of a small cyanide dils or the firgt unit of twenty tons per twenty four hours. This mill could bo bullt for ton thousand dollars and. I figure, mould soon pay for itsolf. The tea thousand dollars would ine clude a Pifty horse porrer ofl burning ongino and cormpessor. Before ang of this mowit dinde. if gou are properiy financed. I would build a suitable camp to acoomnodate at leest twolve men. This could best be done by builaing a lsitchen and dining room, and slooping headquarters divided into three small housea to accommodato at least six men each, a pesidence for the ongineer or superthendent - this mould completo the camp and could be built Sor twenty oflve hundred dollars. While the build Ing of tho carp is under way $I$ would difve tho drift east as fast as possitio the men living in tomporary quarters until camp 2s complotod.

In the mattor of the cyande plant, or fisest undt, I Fould contract this job with some roliable parties, after tho plant was dosigned by a competent ongineer.
on the ores, which were an average of all ores tahen as samples, I would build a plant along the lines of the following flow sheet, Viz:
10,000 gallons water storage at head
4,000 gallone stiong NaCy storage above mill
2,000 gallons weak TaCJ storage above mill
$12^{\prime \prime} \mathrm{X} 18^{\prime \prime}$ or $24^{\prime \prime}$ Wheeling or Dodge type crusher set up to break to one ehalf inch primary to a
$6^{\text {II }} \times 8^{\text {II }}$ as secondary crusher to crush all feed to onefourth inch. By-pass ... grizzley from primary crusher to ore bin - these crushers to be set one above the other so ore could be handled into mill bin by gravity.

50 ton mill ore bin built of $6^{\prime \prime}$ X $8^{\prime \prime}$ studs, $4^{\prime \prime} \times 6^{\text {II }}$ beams, $2^{\text {II }} \times 12^{\text {It }}$ ilooring and siding covered inside with twelve gauge sheet steel. sloping bottom so ore would run out onto ore feeder by gravity to

1 - Disc ore feeder under gate in ore bin, to feed ore into
$1-4^{\prime} X 4^{\prime}$ standard type ball mill loaded with twothousand pounds assorted size chrome steel grinding balls. Ore to be ground in NaCy solution, over flow to

1-12' Aiken type, spiral classifier to elevate fine sands up to feed

1 - Large concentrating table from which sands ilow by gravity to leaching tanks.

3 - Steel leaching tanks of thirty tona capacity each, with false bottom in each so clear solutions can be dram off from bottom by gravity.

2-8' X 18' - 14 gauge steel Pachuca type settlers for slimes. These tanks have straight sides for twelve feet then six foot cone connected to two inch centrifugal pump to agitato and airiate the solutions - soon as one of these tanks have received a charge of slimes and solutions from twelve hours run, the flom is diverted to Pachuca tank No. 2 and Ho. 1 allowed to settle and decant.

10 - Precipitation tanks or boxes about $10^{\prime \prime} \times 12^{17}$ X $14^{11}$ cone bottom, with cofk in bottom to assist in clean up. These boxes set up five in a row to
receive the flow of AuNaCy solutions and catch the Au and allow weak NaCy solution to flow down into sump tank for further use. There should be at least two sump tanks twenty-five hundred gallons each.

COSTS - MINITG AYD MIIITIG:
This ore can be mined for not to exceed one dollar per ton as a dras lino could feed the mill six dollar ore for many months. The following crew would comprise the mill crew for one unit per day:


A total cost of fifty dollars and fifty cents per day to handle twenty tons of six dollar ore. All ores teken out during development and what is not on the dumps could be hoisted and run in along with the six dollar ore.


The above figures are for the six dollar ore only. In case ten tons per day of ten dollar ore is mized with ten tons of six dollar ore, the profits would be figured as follows:


SUMAREY: I would advise anyone contemplating the purchase of this property to have cash on hand of not less than thirty thousand dollars -

$$
\begin{aligned}
& \$ 10,000 \text { for development, camps, etc.s } \\
& 10,000 \text { for milline plant } \\
& 10,000 \text { for overhesd until on a paying basis. }
\end{aligned}
$$

Fith cash as above set forth, and the work performed under a competent and experienced mining engineer, I cannot see just how a fallure could be made. It is my opinion that many high grade lenses or pockets of ore will be encountered in the process of development. You vill notice my figures on profits are based on six dollar ore instead of the average of eight dollars and ninety-four cents. The higher the mill heads the more profit will be made from mill operation. Unless you are properly financed I would not advise anyone to consider purchasing this property.

Respectfully submitted,
Mefing and
dening and Metallurgical Engineerf

Globe, Arizona, October 15. 1933.


AP WESI-BROS. GOLD


# GLAIM MAP WES F-BROS. G 




