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PRINTED: 05/30/2002

## ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: OSBORN PROPERTY

**ALTERNATE NAMES:** 

WEST PROPERTY WEST 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** 

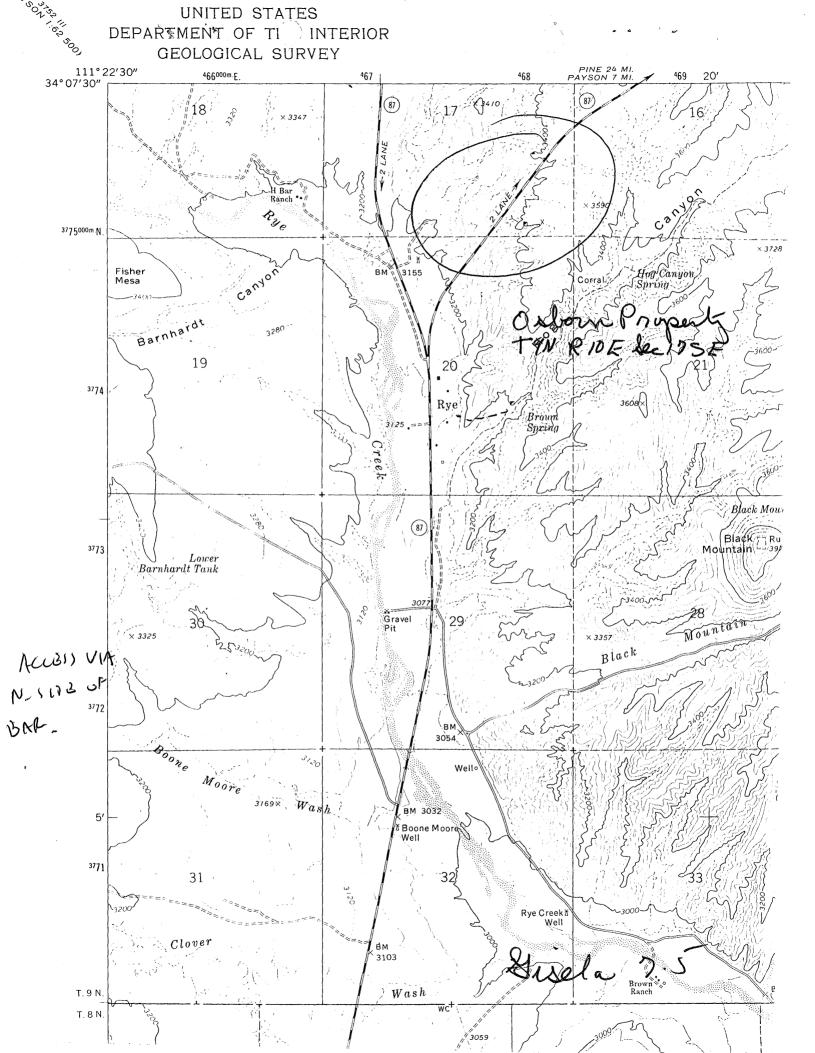
COMMODITY:

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.

WEST COLO SEE NOT 12 NO

## HOG CANYON PROPERTY

(Fact Sheet Summary)

## 1. LOCATION

- \* Located approximately 10 miles south of Payson, Arizona, and 1/2 mile east of the community of Rye.
- \* Situated in T9N, RIQE, 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 predominantly washes and ravines.

# 2. PROPERTY

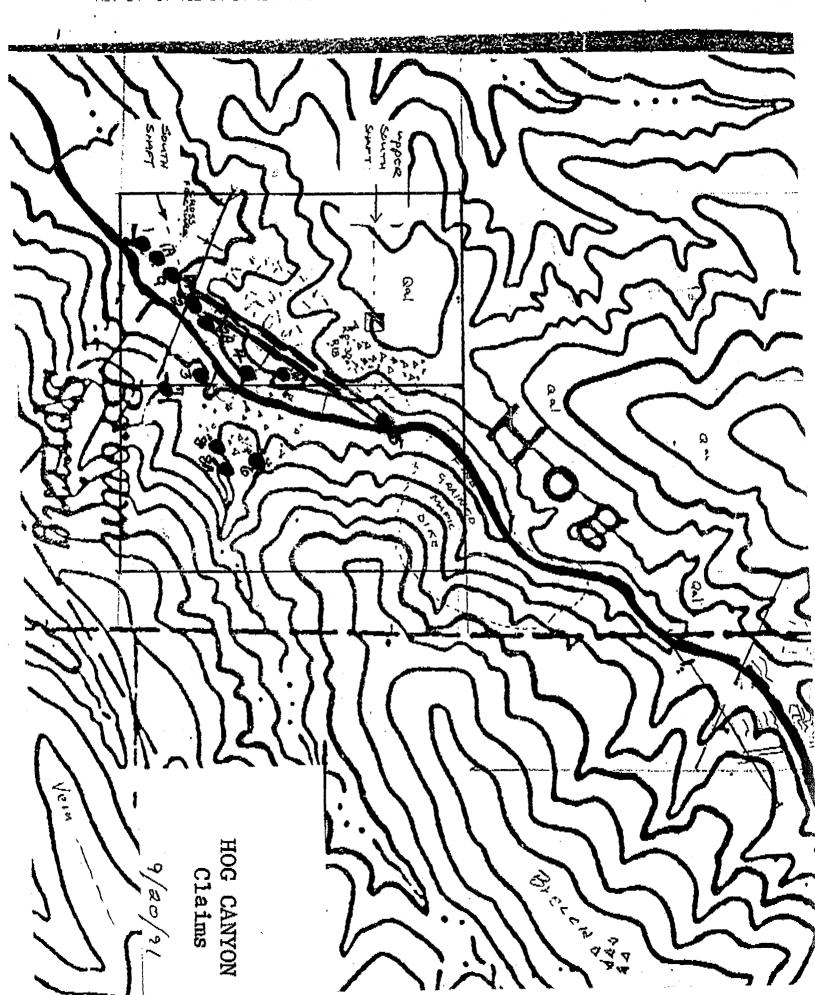
- \* Comprises TWO: Unpatented mining claims by location
- \* Workings include two past production shafts, one exploration shaft, one exploration adit, one production drift now caved; dozer cuts within the West Bros. working area, and scattered hand dug pits.
- \* Production history is minimal; a 1933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

- \* Mineralization and alteration, simply put, include quartz veining in the West Bros. shaft area, together with an illite-kaolinite alteration envelope everlying the silicified zone, extensive brocciation in the Hog 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 30' 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.
- \* 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 phenomena may be useful as a guide in future exploration programs.

AIMAM



### J. MILFORD SHINER

MINING AND METALLURGICAL ENGINEER

703 AUDITORIUM BUILDING

LOS ANGELES - CALIFORNIA

P. O. Box 56, Globe, Arizona,

October 16, 1933

Mr. C. E. Showalter, 980 D Street, San Bernardino, California.

Dear Sir:

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 all the assaying, I believe you can vouch for the accuracy of the contents of this report with 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 fail providing it is properly financed and not over capitalized.

Thanking you for this call, I remain

Very respectfully yours,

# INDEX

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# REPORT

ON THE

# WEST BROTHERS GOLD MINE

# GILA COUNTY, ARIZONA

J. MILFORD SHINER, E. M.,

- B Y -

SCHORER - 1933

LOCATION: This property is well located. It is only one-half mile east of Rye Creek store and service station, which is on a good state highway running between Phoeniz and Payson via Roosevelt Dam, or from Globe or Miami to Payson.

DISTRICT: The Green wining District is an old district but one very little and seldom heard of on account of its supposed long distance from a railroad. It is in the northwest corner of Gila County, Arizona. This district produced a large quantity of gold in the early days by the early day miners who had to spend onehalf their time fighting Indians and wild animals.

could not be better for all year mining and milling on account of its height above sea level. It never gets very hot in summer or very cold in winter. Mr. Brown, owner of the service station and store at Rye Creek, told me they have light snows in winter which never lay on the ground more than two hours.

The elevation above sea level is from thirty-four hundred to thirty-six hundred feet; an ideal elevation for the desert.

Water is developed for camp or domestic purposes on the north claim. A spring of water coming out of calcium conglomerate is developed and piped through about two thousand feet of one-inch pipe to the camp. This will supply water enough for a large camp. Water for a milling plant can be obtained from Hog Canyon, just east of this property, where water is available all the year around. This water supply has never been known to fail. At the

present time, right after one of the dryest summers 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 summit; 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 handles the mail for people of the district.

HISTORY: 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 Sixties who had three arastras on Hog Creek and would work 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 about thirty-two years 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

years they again acquired the said interest.

CRANSPORTATION: Up to a few years ago transportation was the one big problem, and right after the State Highway Department built the Payson Highway the depression hit the country. A trucking company from Phoenix operates a truck daily to Rye Creek and Payson, which solves freight handling as supplies would more likely come from Phoenix which is the largest city in the State. Fadium, a station on the Southern Pacific Railroad, is the nearest rail point - the distance being approximately eighty miles over a fine twenty foot State Highway. Trucks, loaded, make the trip from Globe to Payson in three and one-half hours. From Radium to this property the distance is fifteen miles shorter, so one could feel quite safe in estimating the time from railroad to the mine, with a loaded truck, at three hours - which, to my mind, solves the problem of transportation.

oak trees and small cedar, the ground being covered with cacti and ordinary desert growth. Timber can be secured in the near by forest northwesterly, near roads, for two dollars per one-thousand standing feet. Sawed lumber, for stulls and laging, can be bought at the saw mills near Payson for about twenty-five dollars per one-thousand board feet, at mills.

Power for compressor and milling plant would have to be generated on the ground. I would recommend semi-diesal engine for this purpose as they consume a cheap fuel oil of 27° ... which can be bought in Phoenix for five cents per gallon.

This fuel would not cost over eight cents per gallon laid down at the mine. A fifty Horse Power semi-diesel oil burning engine pulling full load would not consume over two barrels of oil per day, which figures as follows:

twenty-four hours - or approximately thirty cents per hour for hour fifty horse power, or, six cents per horse power/less wear and tare and interest on investment, which would add little to horse power hour cost.

RAIN FALL: The rain fall is about fourteen inches average per year which is enough to keep the country stocked up with underground water for all purposes.

The ore is strictly gold bearing or auriferous there being no indications of silver, lead, zinc or copper. The quartz is principally silica (SiO2) with iron (Fe) and hemitite (FeO). It would be classified as a silicious quartz, an ideal ore for modern cyanide plant from which a very high extraction could be expected.

EQUIPMENT: The only equipment on the property is a track and a one-thousand pound ore car. The track is about three hundred feet long from the dump through the tunnel.

DEVELOPMENT: Development consists of a tunnel two hundred and sixty-two feet in length (see maps) connecting with the shaft at forty-eight feet depth. The shaft is reported to be twenty-five feet deeper than the tunnel level. It is at this writing full of eroded and caved 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 feet deep. There are several shallow shafts and open cuts besides some short tunnels. This development work, like all prospects or mines in the making, was poorly laid out, however the shaft as is could be used to a good advantage and is well worth its cost as it opens up ore from surface to bottom averaging about twenty-four inches wide.

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VEIN SYSTEM: This is one of the most interesting vein systems the writer has ever examined. The shaft apparently is on the extreme west end of the formation although the vertical vein shows all the way down in the west side of the shaft to the bottom, in a trench dug fifteen feet west of the shaft it did not show at a depth of two feet. It is possible; however that a good tonnage of ore would be produced west of the shaft as the west end of the vein may strike in that direction. The vein system is early traceable on the surface for seven hundred feet and at one place is over forty feet wide. I sampled a circle of twenty-five feet diameter and the assay ran six dollars gold. This sample was taken on the east end of the voin system or surface mineralization. I believe the values found on the surface are made up from small high grade veinlets all running or striking toward one common center to the east. There is no sign of ore east of the big circle on the surface, and if it does run eastward it runs under a big hill which is covered with a sand-calcium-silica conglomerate on top and an andisite flow in Hog Canyon. / This vein system shows on the surface a continuous ore shoot of seven hundred

feet, which is something very hard to find to day or, in fact, is seldom found any time or place.

SAMPLING: Every sample from the property was carefully taken.

Not one was taken for high grade but all were taken for conservative mill head samples. I directed the digging of the trenches and personally took the samples. All samples were large weighing from fifteen to twenty-five pounds, broken down on a canvas, rolled and quartered down to desired size for assaying.

Each sample as taken was placed into a canvas sack and a label placed therein so they could be properly identified after reaching the laboratory. It would be no trouble to get picked specimens from this property that would run up to ten ounces gold, or two hundred dollars per ton gold.

After the samples reached the laboratory at ASSAYS: 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 safety. Every sample was broken down to one quarter inch on the laboratory bucking board and quartered down to about one-half pound, which was ground to pass through an eighty mesh screen. The sample was then put into a paper sack, properly labeled and placed in line. After all the samples were prepared in this manner No. 1 was poured onto an oil cloth, rolled and re-rolled to properly mix the pulp, then spread out and two samples taken for fire assays and poured into crucibles, and ten grammes weighed out of each sample and placed into container for metallurgical work. ash, borax glass, litharge, silica, silver and flour with a cover

of sodium chloride were the fluxes used. The pulp and fluxes were well mixed together and crucibles lined up and ready for the furnace. The completed assays or charges were run through the furnace in rotation, four samples at one time - two would be poured and the two in front would then be moved to the back of furnace and two new ones added. this manner sample and duplicate were poured at one time and another pair added, making an easy manner in keeping samples in sequence. After the slag had cooled enough it was dumped out of slag moulds and buttons pounded out of the bottom. squared and set on button receiver, which is numbered from one to sixteen consecutively. When received was filled they were put into hot bone ash cupels in the muffle and were cupelled down to a finish - the remaining button containing nothing but the silver added and the gold gathered from the assay or fusion. The small buttons were taken from the cupel, pounded with a small button hammer, to remove any remaining bone ash or impurities, and dropped into a porcelain annealing cup where fifty per cent strength nitric acid was added. It was then placed over a gas burner to heat the acid which in turn dissolved all the silver leaving nothing but the gold in the cup. The acid was then decantered off and the gold washed three times, then dried and weighed on a gold balance which is subject to one-fiftieth milligram error. The gold was figured at the rate of twenty dollars per fine ounce, and not thirty-one dollars, which is the present market price.

				Gold	@ {	\$20.0	O per C	unce
Sample	No.	1	Shaft dump	400 em 080	•	2.0	Ounces	\$40.00
	No.	2	Small dump			•5	11	10.00
	No.	-	West drift down 40 ishaft, 24 inches wi			•5	Ħ,	10.00 \
		4	Duplicate of No. 3					
	No.		East drift down 40 f shaft, 28 inches wi Duplicate of Mc. 5			•4	Ħ	8.00 🎋
		7	No. 2 Shaft dump Duplicate of No. 7	600 600 WA		.3	17	6.00
•		9 10	Station 3, 6 ft. Duplicate of No. 9	nga 460 (sta	-	.07	5 <b>u</b>	1.50
		11	Station 4, 4 ft. Duplicate of No. 11	40 676 696	-	•05	n	1.00
		13 14	Station 5, 15 ft. Duplicate of No. 13		-	.1	17	2.00
		15 16	Station 6, 10 ft. Duplicate of No. 15	eg '400 ato	•	•6	II	12.00
		17 18	Station 7, 25 ft. Duplicate of No. 17	gang CRAF sides	<b>(C)</b>	•3	<b>ti</b> .	6.00
		19 20	Trench No. 1 west, 5 Duplicate of No. 19		43	•07	5 <sup>11</sup>	1.50
			Trench No. 2 east, 4 Duplicate of No. 21	18 in.	- 1	.2	Я	4.00
	No.		Trench No 3 east, 18 Duplicate of No. 23	in.	-	Tr	•	Tr.
	No.		Trench No 4 east, 36 Duplicate of No. 25	in.		•3	11	6.00
	No.		Trench No 5 east, 24 Duplicate of No. 27	in.		•85	<b>17</b>	17.00
	No.		Face of open cut, 12 Duplicate of No. 29	2 in.	***	1.0	#	20.00
•	No.	31 32	Face west lower drift Duplicate of No. 31	<b>?t, 4</b> 8	1r	ı45		9.00

# Gold @ \$20.00 per Ounce

Sample No. 33 Ceiling west lower drift, 48 in. - - - - 2 Ounces \$4.00 No. 34 Duplicate of No. 33

Average value per ton - - \$\frac{1}{5}\frac{8.94}{8.94}\$

As far as I was able to learn the title to the three claims is vested in the two West brothers. There was a flaw in the chain of title but was cured by a recent re-location.

(See Geological plat in back). The goology of this GEOLOGY: property is not so complicated as in some districts. formation is of pre-cambrian age and the conglomerates are miocene or pliocene, while the andicite flow is of a still later date as this flow covers the eastern thin edges of the conglomerate and over the pre-cambrian, porphyry, diorite, and granodiorite. This great porphyry belt, which id traceable for over twelve miles, has a strike of east and west. The auriferous veins have the same general strike as the porphyry dikes and have this rock for handing and foot walls - besides it is the country rock. The auriferous veins lying wholly within the porphyry leads one to believe the porphyry was in a plastic condition when the sea waters receded and upon solidifying they pulled apart along the cleavage planes which caused a fissure that probably will go to great depth. It is reasonable to believe these gold veins will continue downward to great depth and will more than likely enrichen rather than loose values.

ORE BEPOSITION: It is my opinion the open deep seated empty fissures were the outlet of hot acid, metalic charged

thermal waters. These waters continued to flow through these channels for countless ages until the calcium, magnesium, silicon, iron and gold in small quantities crystalized on the walls completely sealing themselves off thereby causing these hot solutions under tremendous pressure, which was caused from heat generated by chemical action deep down in the magmas, to alter the porphyry in other places following the course of least resistance until this vein system was built as is. The cooling off of the earth's crust and the deposition of the mineral and metalic elements along with loosing its acids Agave it its altering power caused a cessation of the flow. From all visible signs the ores were caused by ascending solutions solely and not by descending waters, as there are no signs anywhere of ascending solutions meeting with descending solutions which would show a re-precipitation or a doubling of the values if not an added enrichment near the surface. I believe the last orifice of these hot thermal solutions was within the twenty-five foot circle which is shown on assay map attached.

TONNAGE AND VALUES: I cannot figure any tonnage of ore on or in this property as blocked out, however I can see an available supply of ore on the surface, in the dumps, and opened up by the shaft and drifts, and much more could easily be opened up by driving a drift east from the cross-cut tunnel. I cannot possibly figure any way that any engineer could more carefully sample this property to ascertain its mill head values than the sampling I made, which shows an average value, taking every assay into consideration, of eight dollars and ninety-four cents per ton. This I call a very high average and if further development work proves to open up more of the same kind of ore

RECOMMENDATIONS: (See longitudinal map). I recommend a drift east following the vein as far as it goes. One hundred feet east of the old shaft a raise to be run upward to the surface which would give a depth of fifty-five feet on the vein this raise to be timbered into a double compartment shaft with concrete collar. Then the installation of a small hoisting plant to hoist all ore and muck in future development. Through this shaft some ore for milling could be raised to the surface to mixed with the large tonnage of surface ores. After this work is under way I would start the erection of a small cyanide mill, or the first unit of twenty tons per twenty-four hours. This mill could be built for ten thousand dollars and, I figure, would soon pay for itself. The ten thousand dollars would include a fifty horse power oil burning engine and compressor. Before any of this work is done, if you are properly financed, I would build a suitable camp to accommodate at least twelve This could best be done by building a kitchen and dining room, and slooping headquarters divided into three small houses to accommodate at least six men each, a residence for the engineer or superistendent - this would complete the camp and could be built for twenty-five hundred dollars. While the building of the camp is under way I would drive the drift east as fast as possible - the men living in temporary quarters until camp is completed.

In the matter of the cyanide plant, or first unit, I would contract this job with some reliable parties, after the plant was designed by a competent engineer.

on the ores, which were an average of all ores taken 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 strong NaCy storage above mill 2,000 gallons weak NaCy storage above mill
- 12" X 18" or 24" Wheeling or Dodge type crusher set up to break to one-half inch primary to a
  - 6" X 8" 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.
- ton mill ore bin built of 6" X 8" studs,
  4" X 6" beams, 2" X 12" flooring 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' X 4' 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 flow by gravity to leaching tanks.
- 3 Steel leaching tanks of thirty tone capacity each, with false bottom in each so clear solutions can be drawn 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 agitate and airiate the solutions soon as one of these tanks have received a charge of slimes and solutions from twelve hours run, the flow is diverted to Pachuca tank No. 2 and No. 1 allowed to settle and decant.
- 10 Precipitation tanks or boxes about 10" X 12" X 14" cone bottom, with cock 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 - MINING AND MILLING: This ore can be mined for not to exceed one dollar per ton as a drag line 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 taken 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 mixed with ten tons of six dollar ore, the profits would be figured as follows:

12.

10 tons @ \$10.00 \$10.00 Mill loss \$10.00 Mining cost @ \$1.50 - 15.00 Milling cost @ \$2.00 - 20.00	\$100.00	
\$45.00	45.00	•
en e	\$ <b>5</b> 5.00	\$55.00
10 tons @ \$6.00 \$6.00	\$60.00	
Mine & Mill Cost 24.75	•	
\$30.75	30.75	
	\$29.25	\$29.25
Dung Odd de la grand Taran	· · · ·	\$84.25
Profit, per day Profit, per month	£; <b>5</b>	527.50

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

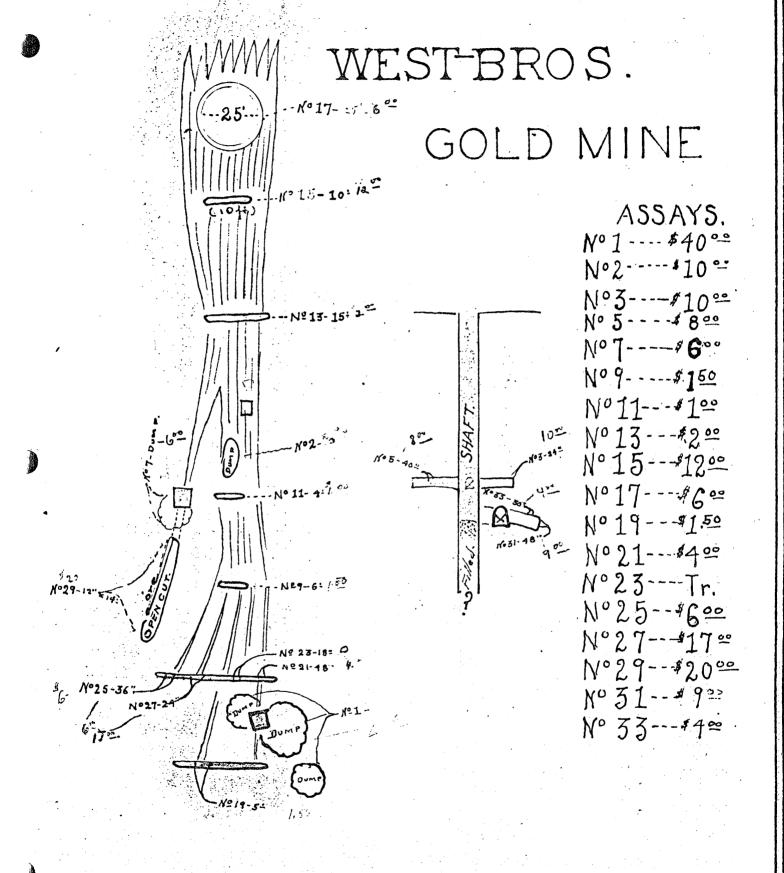
\$10,000 for development, camps, etc., 10,000 for milling plant 10,000 for overhead until on a paying basis.

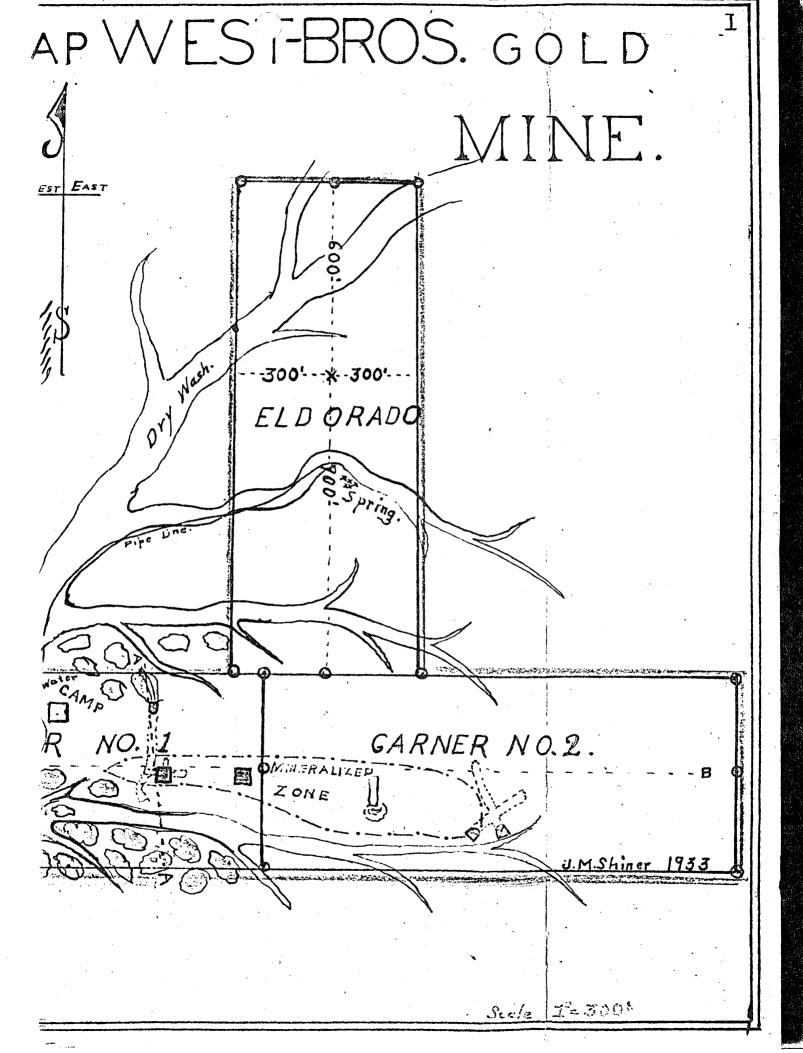
With cash as above set forth, and the work performed under a competent and experienced mining engineer, I cannot see just how a failure could be made. It is my opinion that many high grade lenses or pockets of ore will be encountered in the process of development. You will notice my figures on profits 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,

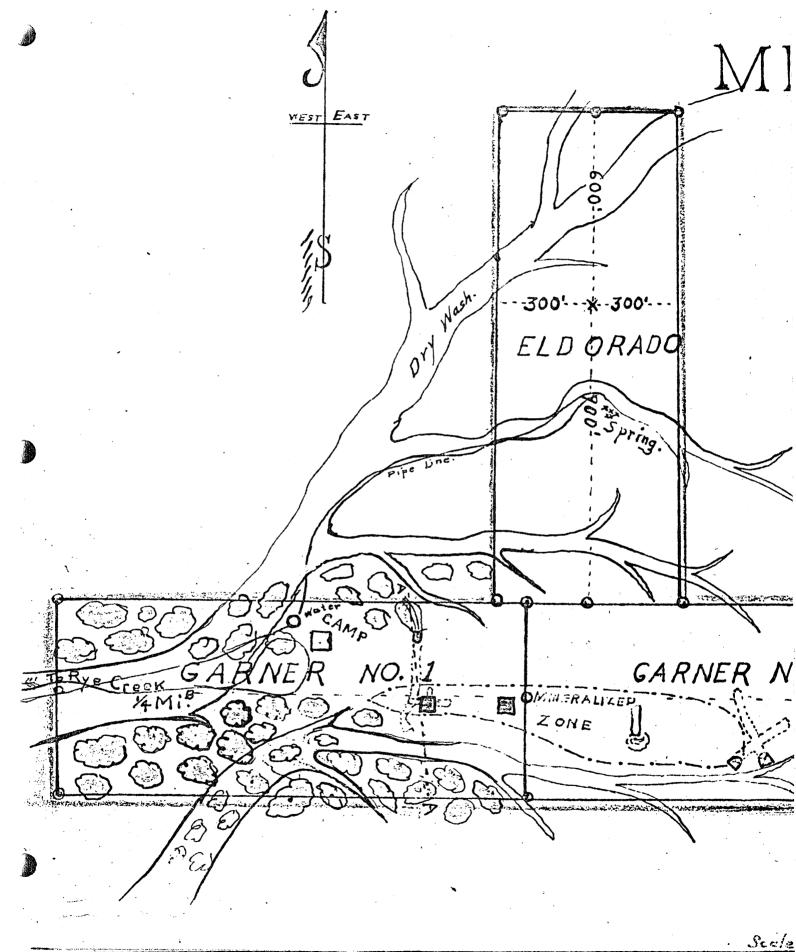
Mining and Metallurgical Engineer/

Globe, Arizona, October 15, 1933.





GLAIM MAP WEST-BROS. G



# GROUND PLAN TUNNEL.

tation.I

WEST BROS. GOLD MINE.

Scacion II

Stacion III

Sta III.

SURVEY. L From Sta 1. 181' S. 56°30' E. N. 2 From Sta. 2. 33' S. 43- E No 3 From Sta. 3. 24' S-12° 30' E No 4. From Sta 4. 23' S-78° 0' E No 5. MAGNETIC DEC. 16.30 E.