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PRINTED: 02/01/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: MESSICK PLACER

ALTERNATE NAMES:
ORO SICO PLACER

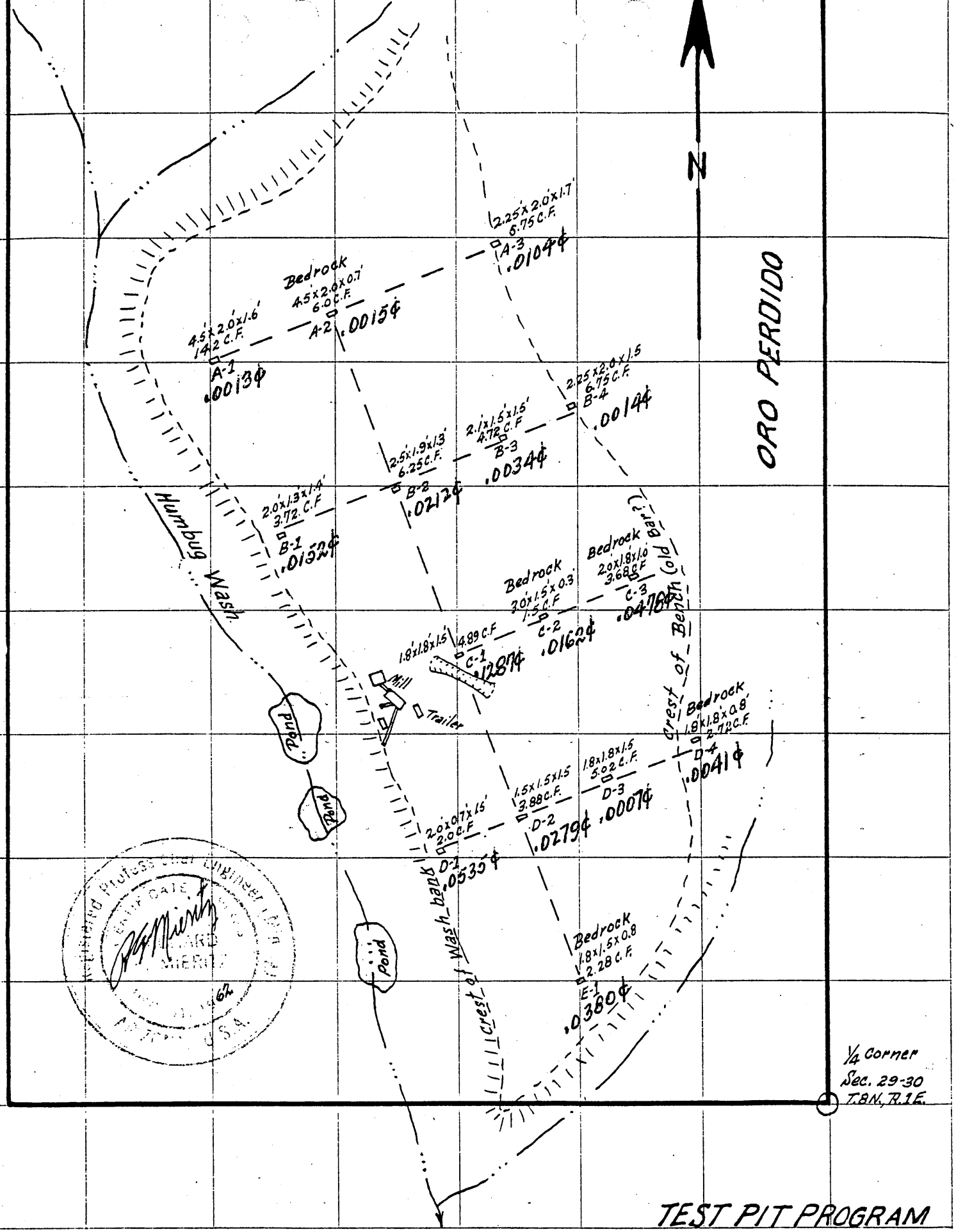
YAVAPAI COUNTY MILS NUMBER: 930

LOCATION: TOWNSHIP 8 N RANGE 1 E SECTION 30 QUARTER NE
LATITUDE: N 34DEG 00MIN 50SEC LONGITUDE: W 112DEG 17MIN 38SEC
TOPO MAP NAME: COLUMBIA - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:
GOLD PLACER

BIBLIOGRAPHY:
USGS COLUMBIA QUAD
ADMMR MESSICK PLACER FILE
CLAIMS EXTEND INTO SEC 19 AND 31



TEST PIT PROGRAM

MINE Orosico LOCATION Yavapai County, Ariz. LEVEL Surface

~~GEOLOGY~~ BY R.E. Mieritz SURVEY SCALE 1" = 100 ft. DATE May 4, 1962

Messick Claims Yavapai County

RRB WR 9/25/81: George Lottridge, Vista Mining, called concerning Pay Day Placer Claims (turned out to be the Messick Claims, Sec. 19 & 30 and 31 T8N R1E). He reports that he has put $1000.00 down on them and is considering purchase for $29,000.

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"WORLD COVERAGE"
R. E. MIERITZ, REG'D. ENG., PRINCIPAL EXECUTIVE
[redacted]
526 W. ROOSEVELT PHOENIX, ARIZONA
Phone [redacted]
AL 2-8396

PETROLEUM GEOLOGY
MINERAL GEOLOGY
MINING
EXAMINATIONS
EXPLORATION

May 6, 1962

Dr. William C. Lund, Pres.
Orosico Corporation
1807 East 4th Street
Long Beach, California.

Gentlemen:

At your request I completed an examination of your Corporations gold placer claims, Yavapai County, Arizona on May 3rd and 4th. The personal field examination was conducted to gain information and facts on which to base an appraisal and evaluation of the property and the operation.

After due consideration of the geological and operational evidence observed and the historical facts provided the writer, the following conclusions are submitted:

(1)- The basic probelm of concern is the value of the "heads" or the ore to be mined and milled.

(2)- The secondary problem being the quantity of "ore" availabe for milling and concentration and,

(3)- To solve the above problems, limited exploration must be done.

RECOMMENDATIONS

Just prior to the completion of the examination the writer suggested and discussed a limited exploration sampling program with Dr. Lund, Etal.

The suggested program requires hand excavated test pits (15) so located on the erosional bench adjoining the Humbug wash to test an area approximately 300 feet wide and 700 feet long on the Oro Perdido claim.

The suggested program and procedure as well as cost of same were verbally approved by Dr. Lund, etal. Arrangements were thusly made and the program will be executed as rapidly as possible. Results of the program will provide sufficient evidence to form further conclusions pretaining to the future of the project.

PROPERTY and LOCATION

Nine placer claims of twenty acres each and legal subdivision comprise the property. The claims are not

contiguous, there being five separate groups of one to three claims in each group. (See Claim Map). This information was supplied by Mr. Sears, foreman in charge of the project.

The placer claims cover a portion of the Humbug Wash and are located in Sections 19, 30 and 31 of T. 8 N., R. 1 E., Yavapai County, Arizona.

Travel to the property can be made in passenger car by traveling north on U. S. Highway 69 from Phoenix to a point 4.0 miles north of New River, (a filling station and small community), thence left or west 13 miles to the property.

GEOLOGY and MINERALIZATION

The Humbug Wash is the present drainage in the area and travels from north to south and is currently cutting its trough through a firmly cemented conglomerate or gravel. It is highly possible this conglomerate could be "gold" mineralized, however, mining of same would require blasting and would therefor be an uneconomic operation unless the values warranted such expense.

Resting on top of the conglomerate is the present alluvium, where the slope of the terrain has permitted it to remain, usually as relatively flat "benches" or terraces. It is from this aluvium the previous isolated samples indicated high placer gold values to be present. This material is the present "feed" to the mill, but the past several weeks operation has produced very little gold values. This perhaps, can be explained by the existance of a condition suspected by the writer.

History-wise, in Arizona placers, the usual value of gold placers range from 50¢ to $1.00 per cubic yard of gravel. This is currently the value of material being treated by the mill. This material is being mined from a depth in excess of two feet below the surface and therefor, could represent the "usual" value of Arizona placers. The present erosion of these gently sloping benches has created an "in place" enrichment, perhaps in blanket form, from the surface to a depth of six inches, more or less. In other words, as the surface was gently eroded, the gold being much heavier, was not transported horizontally to any great extent and thus remained behind. For each vertical foot of material removed allowed the gold content to be increased as time passed. Thus, this thin "skin" could be increased from the usual 50¢ to $1.00 value to a $10.00, $20.00 and even $50.00 value.

THE OPERATION

Mining-wise, feed for the mill is obtained by

a random method of mining of the aluvium making up the "bench" so indicated on the Test Pit Program Map. This procedure is prompted by the fact that it is not known where the values lie and ofcourse, such procedure prevents economical costs.

Mill-wise, the general system appears to be satisfactory and should collect the placer gold from the feed at an anticipated 90-95% recovery, however, the operation of the system needs improvement. These improvements can be accomplished by (1) more efficient use of the water and (2) a better sluice box arrangement for the "trapping" of the gold values.

The amount of water and the water currents used are of extreme importance. In the case of your operation, too much water is being used and injected into the trommel as well as into the sluice box. Approximately 60% of the water injected into the trommel overflows at the bottom of the spiral conveyor (enclosed spiral classifier) and carries with it, I am sure, fine gold values and magnetite when present. In addition this unit is set at too great an inclined angle, thus requiring extraneous water to be added at the discharge end and into the sluice box while water from the trommel is being over flowed to waste or return to the pond. The excess amount of water results in much turbulence and currents, thus keeping many fines in suspension and wasted. Therefor, more regulation on use and amount of water is suggested.

The second suggested improvement concerns the use or construction of the "sluice" box. The use of the honeycomb "trap" is successful only until the combs become full---full of quartz grains, small pieces of rock and magnetite. When full, there then is no more sluice box--thus not effective. Larger honeycomb and deeper depth is not the answer. Corduroy or small right triangular riffles should accomplish a better "trap" for the gold particles. The exact height is that which will collect the large gold particles and permit the larger rounded quartz and rock pieces (1/16th or larger) to "ride" over to waste. Pilot testing of various heights is necessary.

EXPLORATION PROGRAM

Execution of conclusion (3) is necessary to determine the merit of the "bench" placer and the results of this limited exploration program will or will not justify additional exploration of the benches at depth.

The outlined exploration program (see Test Pit Program Map) consists of 15 strategically located test pits, 4½ feet in length, 2 feet wide and 1½ feet deep; 13.5 cubic feet or one half yard. These pits will be hand dug and all excavated material saved including all boulders, etc. The

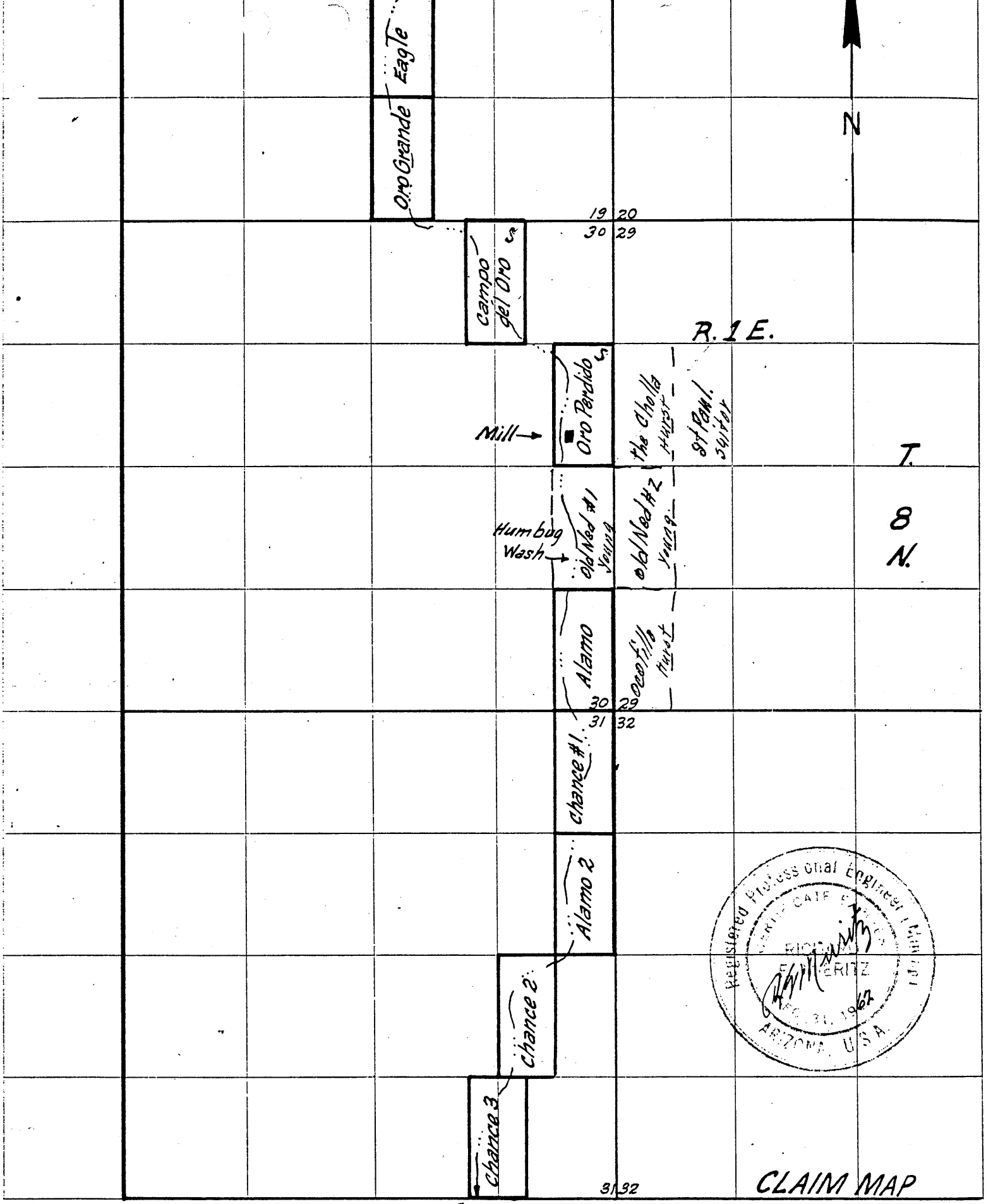
entire sample will be weighed. All material 2" or larger (except clay balls) will be hand discarded. The balance of the material shall be wet screened through a ¼ inch screen (break up clay balls), the oversize discarded, the undersize saved and further reduced by panning. Panning shall continue until just the black magnetite sand remains. The concentrate will be dried and put into bottles and properly marked as decided during our discussion. A gold assay of the concentrate will be made by a local Phoenix assayer.

Drying of the concentrate will be done as air drying, preferrably in the trailer in pie tins. No gold values shall be removed from the concentrate, during or after panning or drying. A soft camel hair brush should be used when cleaning and transferring the concentrate from the drying pan to the storage bottle or from the panning pan to the drying pan.

This exploration program, sample preparation and assaying shall be completed approximately May 16th, after which the writer can study the results and prepare an addendum. The addendum will present the results of the exploration program and will advise what course must be followed to guide the future of Orosico. The addendum should be in your hands by May 21, 1962.

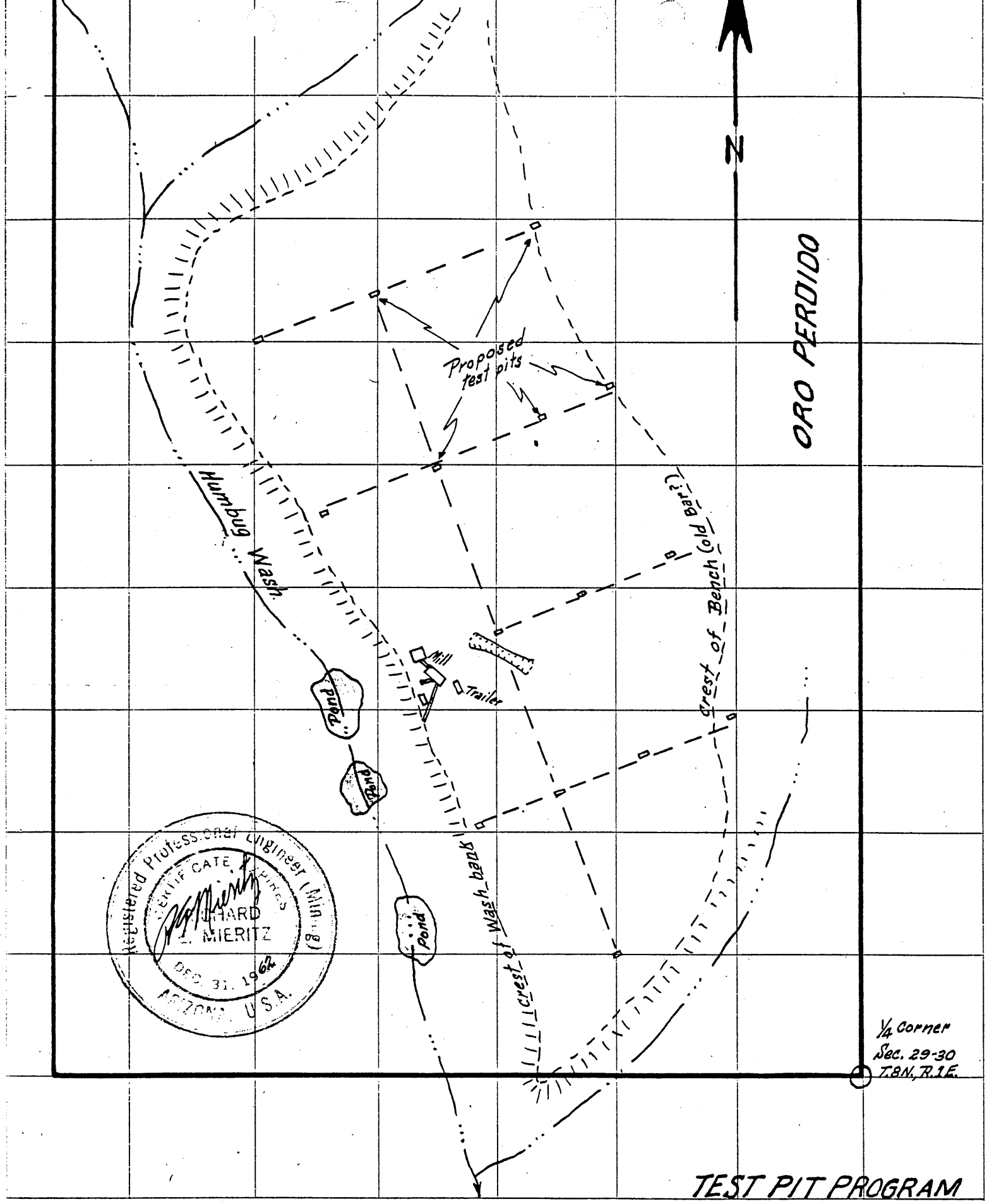
Respectfully submitted,

R. E. Mieritz, P. E.
Consulting Mining Engineer
Phoenix, Arizona



MINE Orosico LOCATION Yavapai County, Ariz LEVEL Surface

~~GEOLOGY~~ BY R.E. Mieritz SURVEY SCALE 4" = 1 mile DATE May 4, 1962



TEST PIT PROGRAM

MINE Orosico LOCATION Yavapai County, Ariz. LEVEL Surface.

~~GEOLOGY~~ BY R.E. Mieritz SURVEY SCALE 1" = 100 ft. DATE May 4, 1962

ADDENDUM

This addendum covers the method and results of a limited emploration program which was recommended by the writer as a means to indicate the volume and value per volume unit with respect to gold placer material located on one of the "benches" within the boundaries of the Oro Perdido Placer claim of your property in Yavapai County, Arizona.

After approval was given to proceed with the recommended exploration program, 15 test pits were strategically located on the bench to sufficiently test the bench in a general way. Depth-wise, these pits would penetrate 18 inches of material unless bedrock was encountered at a shallower depth. Initially, pit dimensions were stipulated at 2 feet wide, 4½ feet long and 1½ feet deep or a total volume of 13.5 cubic feet, ½ cubic yard.

After 4 days of work with two men, only 2 samples had been completely processed, the slowness being due to the volume dug and the clay content in the samples. Thus some revisions were necessary to speed up the program. Pit dimensions were reduced to 2 feet wide, 2¼ feet long and 1½ feet deep unless bedrock encountered at a shallower depth. The method of clay disintergration was also modified.

SAMPLE PREPARATION

All material removed from the test pit was placed upon a canvas and weighed. Boulders, 2 inches and larger were hand sorted from the material and discarded after being surface cleaned. Material was then screened using a ¼ inch screen and all clay in the oversize was salvaged. Solvent and water was added to the clay to break it up. The undersize was further screened using a 1/8 inch screen and the oversize clay particles added to the clay solution previously mentioned. After the clay had disintegrated, the undersize 1/8 inch mesh material was combined with the clay solution and all run through the inclined concentrator. The concentrate obtained, principally magnetite, was hand panned down to approximately ¼ pound. Sample was air dryed and properly tagged. When dry, magnetite was removed with magnet, leaving approximately 20 to 30 grams of sand concentrate.

All gold in the concentrate was recovered by the Arizona Assay Office of Phoenix by the fire method. Amount of gold recovered was weighed in milligrams, 1/1000th of a gram, and the value calculated back to a volume unit, viz, cubic yard of boulders, gravel, sand and clay.

Test pits were measured accurately to determine the cubic volume excavated. The material removed was weighed such that an average weight per cubic volume could

be determined. Tabulated facts of each test pit is listed below.

Pit #	Dimensions-feet L.	W.	D.	Cubic Feet	Weight Pounds	Weight/ Cu. Ft.	Mgms Gold	Value* Cents
A-1	4.5	2.0	1.6	14.2	1641.5	115.4	0.64	$ .0013
A-2	4.5	2.0	0.7	6.0	716.0	118.7	0.29	.0015
A-3	2.25	2.0	1.5	6.75	769.5	114.0	2.32	.0104
B-1	2.0	1.3	1.4	3.72	437.6	117.6	1.88	.0152
B-2	2.5	1.9	1.3	6.25	724.0	115.9	4.37	.0212
B-3	2.1	1.5	1.5	4.72	542.8	115.0	0.52	.0034
B-4	2.25	2.0	1.5	6.75	766.2	113.5	0.32	.0014
C-1	1.8	1.8	1.46	4.89	569.2	116.4	20.73	.1287
C-2	3.0	1.5	0.3	1.50	172.9	115.3	0.80	.0162
C-3	2.0	1.8	1.0	3.68	416.6	113.2	5.79	.0478
D-1	2.0	0.7	1.5	2.00	231.2	115.6	3.52	.0535
D-2	1.5	1.5	1.5	3.88	396.2	117.2	3.56	.0279
D-3	1.8	1.8	1.5	5.02	586.5	116.8	0.11	.0007
D-4	1.8	1.8	0.8	2.72	318.0	117.0	0.37	.0041
E-1	1.8	1.5	0.8	2.28	264.5	116.0	2.85	.0380
						Average		.0248
				Average		115.8		

* Value per cubic yard of material represented by the sample taken.

Some of the above information is shown on the accompanying map in order to correlate the results and provide data for conclusions drawn.

The weight per cubic factofactor varied from a minimum of 113.2 pounds to a maximum of 118.7 pounds, or a spread of 5.5 pounds per cubic foot. A total percent of variance being 4.7% or 2.5% above the average of 115.8 #s/CF. for the maximum and 2.2% below the average for the minimum. Thus, the material sampled is relatively uniform weightlumeweight wise. The sample volume taken varied from 50% of a cubic yard to 5.5% of a cubic yard.

One-third of the the samples taken found bedrock at a foot depth or less. Eleven of the samples taken were from area which were not previously scrapped or had surface material removed by the bulldozer--in otthe words--virgin ground or placer material. The five pits which encountered bedrock are part of those not touched by previous scrapping or dozer work, therefor, these samples are extremely important because of their vigginity and lying close to bedrock where gold concentrations would occur if present.

Not to overlook anything, a composite of the magnetite from the panned samples was prepared and assayed. This sample assayed 1.40 ounces gold per ton or $49.00. Thus, gold values are mechanically tied in with the magnetite which would require amalgamation for extraction and recovery.

Calculating this value back to a cubic yard of material, we find that the average percent of magnetite in aluvium and gravels approximate 2% or plus or minus 65 pounds per cubic yard. Thirty yards should produce a ton of concentrate which would contain $49.00 in gold, at 95% recovery, $46.50 in gold. One cubic yard therefor contains $1.55 in recoverable gold values.

The area sampled approximates 500 feet by 250 feet and assume an average five foot depth, (generous), there is 5,400 cubic yards of material available or an in place value of $8,370.00, Treasury Department would pay $7,635.00. At 100 cubic yards per day, a 3 month period would be required to mine the reserve. Operating costs would approximate $2,000 per month, therefor, a $530.00 per month or $21.00 per day profit is indicated.

CONCLUSIONS

A review of the data on the map plainly indicates that dollar-wise values of the material range from one mill to 13¢ free gold per cubic yard. Thus, there is no free gold bearing material available on this bench that is within an economic realm of production.

Gold, however, is present in the magnetite concentrate but as shown, the economics do not prove a profitable operation.

Although not tested, the writer believes the benches to the south will also prove valueless as to free gold mineralization. Therefor, no further efforts should be expended in the direction of the benches.

An ore reserve of this bench indicates 5,400 cubic yards of material with an "in place" value of $8,370. Recovery and operational costs indicate a marginal profit of $1,600.00 (before taxes), etc, for a 3 month period.

RECOMMENDATIONS

In as much as an option to buy the property is in force, there remains one additional source of mineralization but this too must be tested before any milling operation proceeds.

This possible mineralization lies in the channel of the Humbug Wash itself. To test this material in several of the claims would require drilling (large hole) or hand dug test pits down to bedrock which would require timbering. Such work would approximate a $10,000 expenditure for either method.

Unfortunately, the writer believes that the tested material would not exceed $1.50 average per cubic yard, thus, again, an unprofitable operation unless sufficient capacity equipment were used to produce a thousand cubic yards per day. Were this possible, the volume available must then be equated against the cost of equipment, plus operating cost, plus the recommended exploration cost, plus the previous expenditures in order to arrive at a figure of profit.

Results of such an exploration program would determine the course to follow.

Respectfully submitted,

Richard E. Mieritz, P. E.
Consulting Mining Engineer
Phoenix, Arizona

May 28, 1962

Shop No. 4947
File No. 1310 JI

Date 24 MAY 1962

CHAS. A. DIEHL
(Registered)

Arizona Assay Office

Phone ALpine 3-4001

815 North First Street
Phoenix, Arizona
P. O. Box 1148

VALUES
Latest Quotation

1 oz. Gold
1 oz. Silver
1 lb. Copper
1 lb. Lead
1 lb. Zinc

THIS CERTIFIES
Samples submitted for assay contain as follows:

MR.RICHARD E. MIERITZ
5614 N.7th Street
Phoenix Arizona

1mg = .001125 ¢

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs.
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE	REMARKS
A - 1				0.64	Mg.Au.			.00072	
A - 2				0.29	Mg.Au.			.00033	
A - 3				2.32	Mg.Au.			.0026	
B - 1				1.88	Mg.Au.			.0021	
B - 2				4.37	Mg.Au.			.0049	
B - 3				0.52	Mg.Au.			.00059	
B - 4				0.32	Mg.Au.			.00036	
C - 1				20.73	Mg.Au.			.0233	
C - 2				0.80	Mg.Au.			.0009	
C - 3				5.79	Mg.Au.			.00651	
D - 1				3.52	Mg.Au.			.00396	
D - 2				3.56	Mg.Au.			.00401	
D - 3				0.11	Mg.Au.			.00124	
D - 4				0.37	Mg.Au.			.00416	
E - 1				2.85	Mg.Au.			.00321	

Charges $ 37.50

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DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Messick Claims

Mine	Oro Sico Placer	Date	10-19-62
District	Humbug District, Yavapai County	Engineer	Lewis A. Smith

Subject: Interview with Richard Mieritz, Consultant.

Property: 9 unpatented placer claims.

Location: Sec's. 19, 30, 31, T.8N., R.1E.

Owner: Oro Sico Mining Co., Dr. W. C. Lund, et al., 1801 4th St., Long Beach, California. Arthur Robart, West Dunlap Rd., Glendale, Arizona is the local agent.

Mineral: Gold (placer)

Work: Approximately $125,000 is reported to have been spent to strip, build roads, erect a gravity mill, and for equipment, to date. The equipment includes an R.D. 8 bulldozer, a 2-yard front loader, and the mill. The mill consists of an ore bin (and grizzly), screens, a small ball mill, and riffles. The ball mill is used as a trommel to break up the clay, in the gravels, which appears to contain the bulk of the gold and magnetite. The gravel contains pebbles which range up to over 1 foot in diameter. The gold is intimately associated with the magnetite, which, when concentrated, assays $35.00 to $50.00 per ton. This gold affiliation with the magnetite poses a regrinding problem since the gold is rather fine-grained. It is believed that grinding to 200-mesh may be needed to free the gold. A magnetic separator could increase the magnetite recovery.

The gravels (pit run) are reported to carry about 12 to 20 cents in gold per yard. If this grade is true, the operation, except on a large scale, would be sub-marginal at best.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: Messick Claims Date: June 7, 1962

District: Humbug (Silver Mountain) Dist., Yavapai Co Engineer: Lewis A. Smith

Subject: Interview with Richard Mieritz, Consulting Engineer, 5-22-62

Location: S19, 30-31, T 8 N, R 1 E.

Property: 9 Claims (placer).

Owner: William Messick, 4402 N. Black Canyon, Phoenix 17, Arizona.

Optioneer: Orosico, Inc., 1807 E 4th St., Long Beach 4, Calif.
c/o Dr. Wm. C. Lund, Secretary-Treasurer.

Work: Numerous pits and bulldozer cuts, $20,000 was spent, so far, with little return in gold.

Geology: The placer ore consists of:

(1) Old, very consolidated, gravels.
(2) Erosion surface.
(3) Later, poorly consolidated, gravels.

The gravels, now being worked, cover an area 150 feet wide and 300, or more, feet in length. The depth ranges from a few inches to 4 feet and the material is reported to run less than 50 cents per yard. So far 2 ounces of gold have been recovered from several pits, (15 over a length of 150 feet and width of 100 feet.) This recovery, if complete, would indicate very low grade values, possibly under 20 cents per yard.

Underlying the late terrace gravels is an older well-consolidated gravel which has not been tested so far. This follows old channels which are somewhat transverse, in some cases, to the recent drainage pattern. The bed rock under this older gravel (conglomerate) is probably schist.

Mieritz sampled the gravels down to bedrock at intervals of 75 to 100 feet, on a rough grid. He has not yet finished cleaning the concentrates so as to determine grade.

A letter was directed to Dr. Wm. C. Lund to obtain data on Mr. Messick, the owner.