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C O P Y

P. O. Box 3451
Phoenix, Arizona
Nov. 1, 1938

Mr. R. S. Hooper
Phoenix, Arizona

Dear Mr. Hooper:

The five Mica claims south of Buckeye, I hold under option and lease for \$20,000.00 purchase price from Mr. L. E. Shepard for a period of five years from November 10th, 1938. A royalty of fifty cents per ton applies on the purchase price and a minimum royalty of \$100.00 per month is guaranteed although if no shipments are made for an indefinite period and then shipments larger than enough to pay the guaranteed royalties are made, the over payment of royalties in months when less than 200 tons were taken from the property, may be deducted. No other payments are necessary during the five year period. No minimum work requirements are included although the contract states that work shall be carried on. Theoretically one man's work would hold as a minimum requirement although an average of at least two to three men would be required most of the time to work to advantage in most of the pits. Still in an initial or emergency period one man could maintain the options and mine considerable tonnages from the surface or in starting new pits. Mr. Shepard holds options on 8 other claims and I hold him under contract to place these claims in the above option and lease @ \$125.00 per claim or \$1000.00. This amount when paid shall be deducted from the \$20,000.00 purchase price and ore removed from any of these claims carry the same royalties as the others. This represents only the cost of doing the location work and incidental expense and has to be cash. This group alone was formerly optioned at \$30,000.00 but due to the depression was not carried out.

The minimum requirements during the 1st eight months of carrying the ground would be \$1800.00. For the first month of operation to open up additional ground while securing samples from a wide range of pits it is proposed to operate with 3 men involving a total expense of approximately \$400.00 including labor, supplies, and equipment. After that one man could maintain the minimum work requirements at a cost of about \$115.00 per month for labor and supplies. During the first 8 months this would represent a minimum cost of \$1200.00. Approximately \$1000.00 per month during the first 60 days would be required to carry out the plans for sampling, preparing and submitting samples in the various industries, chemical analyses, testing work, and metallurgical testing and design of plant.

From preliminary experiments it is conservatively estimated that a 25 ton per day modern plant could be installed for from 15 to 20 thousand. This of course would only be done

after orders were received to amply warrant it. Crude mine production might step up the minimum labor and equipment charges greatly during the testing period but in general would only be undertaken on a scale that would allow of the increased expenses being handled from the sales of materials unless they were so lucrative as to warrant a modification of these terms by all concerned.

Preliminary negotiations are under way with several very responsible parties for consideration of the exclusive handling and marketing of the lower grades of materials as well as a water floated high grade product. These vary from a percentage basis to a possible preliminary start of 150 tons of high grade material per month at a flat figure of \$50.00 per ton. This alone would mean approximately \$90,000.00 per year gross income and would amply warrant the erection of a 25 ton per day plant to handle additional increases. Such a plant operated to capacity at the same prices would mean \$450,000.00 per year and would probably more than cover all the requirements for a high grade treated product for some time to come.

In addition to this samples are being prepared for several very large contracts in several industries that in the main would require the crude mine materials or possibly ground or crushed ore but not water floated.

It is proposed to give a 50 per cent interest for \$5000.00 -- \$2500 cash and \$2500 in 30 days, and a minimum of \$20,000.00 for plant erection and operation after 60 days or when the contracts justified it unless justified sooner by orders and agreeable to all concerned to speed up this program. The \$20,000.00 would probably be made available over a period of 2 months or more or needed provided it was assured. The writer would retain the active management with an advisory board of three members, one representing each of the 50% interests and one chosen by these two mutually agreeable to both.

An Arizona Corporation suitable in size and structure would be formed on from 60 to 90 days or sooner if desirable after the market was thoroughly negotiated to determine approximately its earning power at least during its preliminary years of life. At the time of its formation all holders of interests would be named as incorporators and receive their pro-rata of stock after which the corporation would operate under its own charter and by-laws.

In case of failure to carry out the financing after one or more payments were made, the writer would reserve the right after a ten day interval of grace to finance with other parties, reserving the right to repay in cash such moneys advanced over a period of six months or deliver to them a like amount of the capital stock of a corporation to be formed by any additional financing necessary.

Yours very truly,

(Signed) C. L. Orem
Phone 3-4722
Box 3451 Phoenix

A PRELIMINARY DESCRIPTION AND REPORT
ON AN ARIZONA MICA PROPERTY

LOCATION:

The property is located about 4 miles south of Buckeye, Arizona, in the Buckeye Mining District, Maricopa County, Arizona. Fair mine roads connect the larger pits with the railroad and Buckeye 2 to 4 miles respectively, from the closest to the farthest pit.

Buckeye is a small town situated on East-West Highway 80 and the Southern Pacific Railroad, 35 miles west of Phoenix, Arizona.

PROPERTY:

The property consists of 5 unpatented lode mining claims. The claims are full size claims 1500 feet long and 600 feet wide and cover an area of approximately 100 acres. They are recorded in the office of the Maricopa County Recorder at Phoenix as:

<u>Name of Claim</u>	<u>Book No.</u>	<u>Page.</u>
White Angel	37	402
Red Cloud	33	174
Big Pit	40	409
Sericite	40	410
White Mica	40	411

GEOLOGY AND ORE DEPOSIT:

The property lies on the northern slope of a low range of mountains called the Buckeye Hills, just south of the Gila River. This area shows on the State Geological map as an area of granite and schist with many intruded igneous rocks.

Locally the area is made up of granite and many igneous dikes most of which have been highly altered and are schistose in character.

A series of parallel trending strong fissures, striking northeasterly and southwesterly, cut this area. In general they dip steeply to the north.

The area has been subjected to intense hydrothermal metamorphism and the fissure filling including large widths of wall rocks has been completely altered to fine flakes of muscovite mica called sericite. A little quartz shows in places, but in general the ores are comparatively pure mica, the quartz cropping separately.

The larger ore bodies occur in the form of lenses in the more intensely altered areas of the fissures and reach a maximum width of 30 feet or better of very pure sericite schist. Some of these croppings will probably prove to be several hundred feet long and are connected by lesser widths of ore. In general from 4 to 15 feet will be the more common widths of ore encountered in the lenses to be mined.

The sericitization grades gradually out into both walls of the fissures. The material is soft and due to differential weathering the outcrops are inconspicuous. Practically no work has been done on the geology of this area and a correct understanding of this type of mineralization together with intelligent prospecting may produce exceptional results in opening new pits.

The claims are not contiguous, but lay close together and cover about 7500 feet of the best surface exposures of these fissures.

The ore varies in color all the way from pure white and light grays and pinks in some of the openings to a fairly dark gray in others. The quality also varies grading out for some distances on either side of the fissure.

DEVELOPMENT AND MINING:

Development consists of several hundred feet of irregular surface openings, the more important part of which are seven or eight large pits from 8 to 50 feet deep, which show from 2 or 3 feet up to 20 feet or more of commercial grade material.

Many thousands of tons can be produced cheaply from comparatively shallow pits. Considering its softness, the ground stands well and necessitates very little timbering. Open stopes with stulls could be carried up or down, and allow the area to cave after being mined out. No compressors, drills or drill steel are required. A one and a quarter inch piece of pipe with saw teeth cut on one end can be driven in the material cutting out a core. A two, three or four foot hole can be put in by a miner with a single jack in 10, 15 or 20 minutes. This method is more satisfactory than using hand augers. Three laborers at \$2.00 to \$2.50 per day, have in the past produced as high as 15 tons per day from shallow pits and trucked it and put it aboard cars, using only hand methods, wheelbarrow and windlass.

HISTORY:

Mr. L. E. Shepard, of Buckeye, has excavated practically every pit in the district, during the past 18 years.

The material has been ground, bagged, and sold without treatment into the roofing industry and brought a price from \$14.50 to \$22.00 per ton on the West Coast.

USES:

Material of this class is of use only as a ground product. It is being used in greatly increasing quantities for fancy paints; lubricants; in the making and decoration of wall papers; rubber goods; molded mica; glass industry; roofing papers; steam pipe covering; and pipeline enamels; surfacing asphalt shingles; Christmas tree snow; annealing; concrete surfacing; plastic specialties, and many other uses.

MARKETS:

The 1936 markets showed prices for ground mica ranging from \$12.00 per ton for inferior grades to over \$100.00 per ton for the better classes of material.

The average price for dry ground mica during 1936 was \$21.97 per ton, and wet ground mica during the same period averaged \$55.46 per ton. 1937 was considered a better year, but averaged figures are not yet published by the Bureau of Mines.

West Coast prices are reported varying from \$24.00 per ton to \$35.00 per ton for dry ground material of a good grade.

From inquiries it would appear there are several sources seeking a substantial tonnage of good grade material at reasonable prices.

TREATMENT:

The usual coarse crystals of scrap muscovite mica requires from 4 to 8 hours to grind one ton in the wet wooden roller mill generally used and the cost is reported at from \$8.00 to \$12.00 per ton.

The bulk of the fine crystalline mica of this deposit upon gentle agitation in water, will pass a 60 mesh screen without grinding.

While considerable sections of the fissures are very pure mica and will show a very small percentage of impurities, practically a 100% pure product could be cheaply made by water floating the material. Several products could be made either crude, and dry or wet ground or water floated depending on the coloring.

A close examination of the ore exposures indicates a considerable tonnage of material that should prove satisfactory to market crude or dry ground.

With a cheaply constructed plant involving crushing and water agitation and floating much larger widths become available and could be put in the form of a very high class product.

While a good grade material could be sold into the industries at the present time, in order to secure a high class market, it is desirable to thoroughly test out the treatment and to negotiate the better class markets with a high class product accurately tested and of uniform specifications. Especially in the markets where fairly large tonnage contracts are necessary, this method should result in being able to secure the higher price market.

The crude 'run of mine' material could be placed aboard cars at a very good profit at from \$5.00 to \$8.00 per ton. The freight to the West Coast is \$4.60 per ton.

While a good margin of profit could be made from the lower quoted prices, the best contracts would be negotiated between buyer and seller, trade journal quotations being nominal it would appear, on a high class product in large quantities.

The mine equipment needed would be ordinary hoisting facilities, mine cars and tracks, and bin capacity, and would vary directly with the tonnage requirements.

Upon these ores a treatment plant for crushing, agitating and floating in water would be a simple plant. The material settles rapidly and could be decanted and dried in the sun on small tonnages as the material dries rapidly. On a large capacity plant drying machines would probably have to be installed.

A capital outlay of \$25,000.00 would be ample to bring the mine and mill production rate to 100 tons per day, a very large production on this class of material.

CONCLUSION:

From an examination of this property it is evident that a large tonnage is available of a good grade of material that can be cheaply mined and shipped or treated and shipped. The property lies close to the railroad and water, and is readily accessible.

It could enter the lower price fields with its products and show a very satisfactory profit, but the real opportunity to make an exceptional showing is by preparing for a uniform production of accurately automatically sampled material and negotiating choice markets with such a product.

With a known price range of nearly \$100.00 per ton in the different markets available and with a large available supply of high class material, the difference of even \$10.00 per ton would mean almost miraculous results.

Respectfully submitted,

(Signed) C. L. Orem, Registered
Mining Engineer and
Metallurgist.

Box 3451 - Phoenix

October 17, 1938.

Frank Wicks

FRANK R. WICKS
CONSULTING MINING AND INDUSTRIAL ENGINEER
LOS ANGELES

December 29, 1938

Mr. G. M. Colvocoresses
1102 Luhrs Tower
Phoenix, Arizona

*Re Buckeye Sericite
Sericite
Sericite mica*

Dear Colvo:-

It has been some time since I have had the pleasure of writing to you or seeing you.

Mr. Walter Schmidt has sent me a copy of a report by C.L. Orem covering the mica schist properties near Buckeye, and has asked me to write you direct as to what I thought could be done about it.

Have had some experience with this material. A concern I was formerly connected with purchased many carloads of the crude, which we ground and sold in the local market. At the time we had much trouble getting prompt shipments, as the producers had to haul across the river to the railroad, and would get shut off at every storm. Presume the road conditions have been improved by now.

The principal value in these Buckeye deposits, as I know them, is for the production of fine-ground mica-schist for the roofing manufacturers and some for the paint and rubber trades. I do not know of any of it having been sold as mica, or scrap mica as the trade knows it.

For the fine grinding job it is probably better to ship the crude to Los Angeles, and sell it as such to established grinding plants. No plant on the property is advised except for mining and sorting crude.

Are the owners of this property ready and able to produce? If so would like a sample of the crude and a price on cars in carlots. Or do they want to sell or lease, and if so, on what basis? How much equipment is on the ground, and what is needed to get into production in terms of installed cost? What are the present road conditions, and other operating conditions? What freight rate is now published from point of shipment to Los Angeles and to San Francisco?

The material must compete with mica-schist from

FRANK R. WICKS

G.M.C. 2.

12.29.38

Ogilby, Calif., and from a deposit in Northern Nevada.
Could probably line up a market for two or three carloads
of crude per month at the start, if the price is right,
or if we could produce ourselves at a competing price.

Yours very truly

A handwritten signature in cursive script, reading "Frank R. Wicks". The signature is written in dark ink and is positioned to the right of the typed name "Yours very truly".

Freight ^{*} 4.60 Buehler & Co.

C O P Y

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Phoenix, Arizona
Nov. 1, 1938

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Phoenix, Arizona

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